1977 CAR SHOP MANUAL

Vol. 4 Body

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Ford Parts and Service Division
Training and Publications Department

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GROUP 40

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foreword...

This 1977 Car Shop Manual has been prepared to provide information covering normal service repairs and maintenance for 1977 Ford Passenger Cars manufactured in the United States and Canada. It is divided into five volumes, each covering a specific major area:

Volume 1 — Chassis
Volume 2 — Engine
Volume 3 — Electrical
Volume 4 — Body
Volume 5 — Maintenance and Lubrication.

Information in each volume is divided into Groups covering a general system. The table of contents on the cover of each volume indicates the Group title, number, and volume in which each Group is located.

For 1977, the basic part number for components covered in the Group is also included in parenthesis after the Group number.

Example: Cooling System (General System Covered in Group) Group 27 (Group Number) (8000) (Basic Part Number for Cooling System Components)

Some components covered within a Group do not have the same basic part number. In these cases, more than one basic part number will appear on the Group index.

Example: Gasoline Engines (General System Covered in Group) Group 21 (6000 (Basic Part Number for Gasoline Engine Components) & 9000) (Intake and Exhaust Manifold Basic Part Number Only)

For easy reference, information in each Group has been divided into smaller units or Parts. There is one Part for each component in the system, as well as a General Service Part in some Groups to cover procedures common to several components within the Group. In general, each Part contains the Description, Operation, Diagnosis and Testing, Removal and Installation and Disassembly and Assembly procedures for the component covered in the Part. Diagnosis Charts are also included in some Parts to help you systematically locate and correct problems encountered. In most cases, specifications are included at the end of each Part.

To aid in locating specific items in this manual, the index at the front of each volume provides an alphabetical listing, with page number, for all Parts in the volume. The tab locator on the right side of this index will help you find the first page of each Group.

On the first page of each Group there is an index listing the Part title and Part number for each component covered within the Group. The first page of each Part contains an index to locate service operations covered in that Part. This Group-Part breakdown is also indicated in the page number located at the top of each page.

Example: 11-02-21 = (Group) 11 — (Part) 02 — (Page) 21

Metric conversion tables have been included at the back of each volume to aid in converting specifications in this manual to the metric equivalent.

The descriptions and specifications in this manual were in effect at the time this manual was approved for printing. Ford Motor Company reserves the right to discontinue models at any time, or change specifications or design without notice and without incurring obligation.

Ford Parts and Service Division
Training and Publications Department

IDENTIFICATION CODES

GROUP 40

Car Identification Codes

PART 40-01

GENERAL DESCRIPTION

OFFICIAL VEHICLE IDENTIFICATION NUMBER

The official Vehicle Identification Number (VIN) (Fig. 1) for title and registration purposes is stamped on a metal tab that is fastened to the instrument panel close to the windshield on the driver's side of the car and is visible from outside.

VEHICLE CERTIFICATION LABEL

The Vehicle Certification Label (V.C Label) (Fig. 1) is attached to the rear face of the left front door on all 4-door models and Mustangs and Cougars, and to the left door lock pillar on all other 2-door models. The upper half of the label contains the name of manufacturer, month and year of manufacture, Gross Vehicle Weight Rating (GVWR), Gross Axle Weight Rating (GAWR), and the certification statement.

The V.C. label also contains the Vehicle Identification Number. This number is also used for warranty identification of the vehicle. The first number indicates the model year. The letter following the model year number indicates the manufacturing assembly plant. The next two numbers designate the Body Serial Code followed by a letter expressing the Engine Code.

The last six digits of the Vehicle Identification Number indicate the Consecutive Unit Number of each unit built at each assembly plant. The Consecutive Unit Numbers begin as follows:

100,001—Ford, LTD II, Ranchero, Mustang, Thunderbird, Granada, Maverick, and Pinto.

500,001—Mercury, Cougar, Comet, Monarch and Mercury Bobcat.

800,001—Lincoln Continental and Continental Mark V.

The remaining information on the V.C. Label consists of the following vehicle identification codes:

The BODY code is two numerals and a letter identifying the body style.

The COL (color) code is a number and letter code indicating the exterior paint color code and vinyl roof type and color (if equipped).

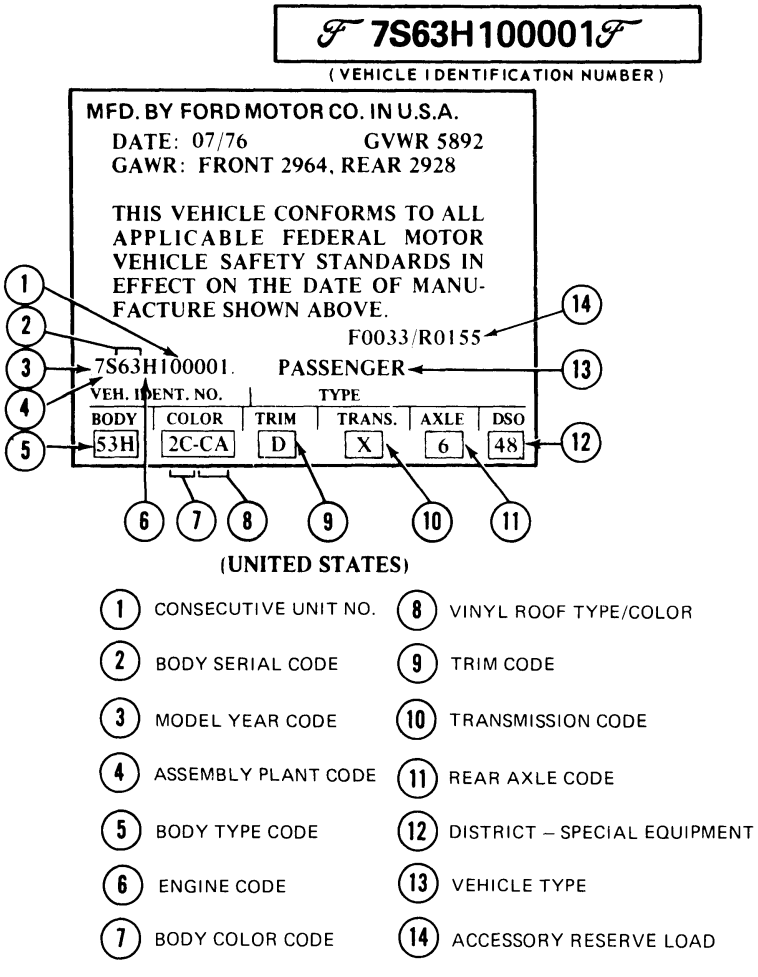
The TRIM code consists of a two-letter or a letter-number combination designating the interior trim.

The AXLE code is a number or letter indicating the rear axle ratio and standard or locking type axles.

The TRNS. code is a number or letter indicating the type of transmission.

The DSO code, consisting of two numbers, designates the district in which the car was ordered and may appear in conjunction with a Domestic Special Order or Foreign Special Order number when applicable. Ford of Canada DSO codes consist of a letter and number.

The following charts provide the various codes and their respective identification:



(UNITED STATES)

1. CONSECUTIVE UNIT NO.
2. BODY SERIAL CODE
3. MODEL YEAR CODE
4. ASSEMBLY PLANT CODE
5. BODY TYPE CODE
6. ENGINE CODE
7. BODY COLOR CODE
8. VINYL ROOF TYPE/COLOR
9. TRIM CODE
10. TRANSMISSION CODE
11. REAR AXLE CODE
12. DISTRICT – SPECIAL EQUIPMENT
13. VEHICLE TYPE
14. ACCESSORY RESERVE LOAD

MFD. BY FORD MOTOR CO. IN U.S.A.

DATE: 07/76 GVWR 5892
GAWR: FRONT 2964 REAR 2928

THIS VEHICLE MANUFACTURED FOR EXPORT ONLY ON DATE SHOWN ABOVE.

7S63H100002 PASSENGER

VEH. IDENT. NO.	TYPE				
BODY	COLOR	TRIM	TRANS.	AXLE	DSO
53H	1C-CA	D	X	6	90

(EXPORT)

MFD. BY FORD MOTOR CO.
OF CANADA LTD.

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE

VEH. IDENT. NO.	TYPE				
BODY	COLOR	TRIM	TRANS.	AXLE	DSO

MADE IN CANADA

(CANADA)



Y1410-J

FIG. 1 Vehicle Identification and Certification Labels

SPECIFICATION CODES

1977 IDENTIFICATION CODES

ASSEMBLY PLANT CODES

Code Letter	District
A	Atlanta
B	Oakville (Canada)
E	Mahwah
F	Dearborn
G	Chicago
H	Lorain
J	Los Angeles
K	Kansas City
P	Twin Cities
R	San Jose
S	Allen Park (Pilot)
T	Metuchen
U	Louisville
W	Wayne
X	St. Thomas
Y	Wixom
Z	St. Louis

ENGINE CODES

Codes	No. of Cyls.	Displacement
A	8	460-4V
C	8	460-4V (Police)
F	8	302-2V
H	8	351-2V
L	6	250-1V
	8	400-4V
S	8	400-2V
T	6	200-1V
Y	4	139-2V (2.3L)
Z	6	169-2V (2.8L)

TRANSMISSION CODES

Codes	Type
	MANUAL
1	3 Speed
6	4 Speed @
7	4 Speed (b)
	AUTOMATIC
V	XP (C-3)
W	XP (C-4)'
X	FMX]
U	XPL (C-6)
Z	XPL (Special)

DISTRICT CODES LINCOLN-MERCURY

Code	District
00	Special
11	Boston
15	New York
16	Philadelphia
17	Washington
21	Atlanta
22	Dallas
23	Jacksonville
26	Memphis
31	Buffalo
32	Cincinnati
33	Cleveland
34	Detroit
41	Chicago
42	St. Louis
46	Twin Cities
51	Denver
52	Los Angeles
53	Oakland
54	Seattle
84	Home Off. Reserve
90's	Export

FORD OF CANADA

Mercury Code	Region	Ford Code
A1	Central	B1
A2	Eastern	B2
A3	Atlantic	B3
A4	Midwestern	B4
A6	Western	B6
A7	Pacific	B7
12	Export	12

REAR AXLE RATIO CODES

Conventional Lock		Ratio
B		2.47
1	J	2.50
8		2.73
2		2.75
3		2.79
6	Ø	3.00
4		3.18
7		3.40

DISTRICT CODES FORD

Code	District
00	Special
11	Boston
12	Buffalo
13	New York
14	Pittsburgh
15	Newark
16	Philadelphia
17	Washington
21	Atlanta
22	Charlotte
23	Memphis
24	Jacksonville
25	Richmond
26	New Orleans
28	Louisville
41	Chicago
42	Cleveland
43	Milwaukee
45	Lansing
46	Indianapolis
47	Cincinnati
48	Detroit
52	Dallas
53	Kansas City
54	Omaha
55	St. Louis
56	Davenport
57	Houston
58	Twin Cities
71	Los Angeles
72	San Jose
73	Salt Lake City
74	Seattle
75	Phoenix
76	Denver
83	Government
84	Home Off. Reserve
85	American Red Cross
86	Recreational Veh. Pool
87	Body Company
89	Transportation Services
90's	Export

EXTERIOR PAINT COLOR CODES

Code	Ref.#	Color
1C	1724	Black
1G	5299	Silver Met.
1N	5476	Dove Gray
1P	5523	Med. Gray Met.(Tie Tone only)
1Q	5527	Med. Silver Met.
2M	3413	Dark Red
2R	5440	Brt. Red
2U	5455	Lipstick Red
3G	5094	Brt. Dk. Blue Met.
3U	5467	Lt. Blue
31	5499	Midnight Blue
34	5041	Med. Blue
46	5328	Dk. Jade Met.
47	5404	Lt. Green
4V	5233	Dk. Yellow Green Met.
5Q	5477	Dk. Brown Met.
6E	5080	Brt. Yellow
6P	5406	Cream
6U	5441	Lt. Tan
7Q	5479	Lt. Aqua Mt. .
7S	5489	Dk. Emerald Met.
8G	5466	Vista Orange
8H	5470	Tan
8K	5486	Brt. Saddle Met.
8N	5496	Dk. Cordovan Met.
8P	5471	Lt. Cordovan
8Y	5494	Champagne Met.
83	5524	Chamois
84	5525	Dk. Cordovan
9D	5418	White
		(RPO) UNIQUE COLORS (NON POLISH) "D"
2Y	5492	Rose Met.
3V	5480	Brt. Blue Met.
6V	5298	Tan Met.
	5460	Med. Gold Met.
7H	5482	Brt. Aqua Met.
7L	5483	Lt. Jade Met.
7T	5490	Med. Emerald Met.
8J	5484	Med. Tan Met.
8W	5491	Chamois Met.
		(RPO) DIAMOND BRIGHT (POLISH) "W"
2S	5444	Dk. Red Met.
2G	5070	Med. Red Met.
32	5511	Med. Blue Met.
8V	5495	Med. Ember Met.
8Z	5510	Med. Nectarine Met.
1R	5512	Lt. Silver Met.
		(RPO) DIAMOND FLARE (POLISH) "G"
1J	5411	Silver Met.
1L	5472	Black Met.
2T	5462	Rose Met.
6Y	5461	Brt. Yellow Gold Met.
7B	5463	Crystal Jade Met.

BODY SERIAL AND STYLE CODES

Vehicle	Body Serial Code	Body Style Code	Body Type	Model
PINTO	10	62B	2-Dr. Sedan	Base
	11	64B	3-Dr. Sedan	Base
	12	73B	Wagon	Base
BOBCAT	20	64H	3-Dr. Sedan	U. S. A. & Canada
	22	73H	Wagon	U. S. A. & Canada
	23	62B	2-Dr. Sedan	Canada Only
	24	64B	3-Dr. Sedan	Canada Only
	25	73B	Wagon	Canada Only
MUSTANG II	02	60F	2-Dr. Notchback	Base
	03	69F	3-Dr. Hatchback	Base
	04	60H	2-Dr. Notchback	Ghia
	05	69R	3-Dr. Hatchback	Mach 1
MAVERICK	91	62A	2-Dr. Sedan	Base
	92	54A	4-Dr. Sedan	Base
COMET	30	54B	4-Dr. Sedan	Base
	31	62B	2-Dr. Sedan	Base
GRANADA	81	54H	4-Dr. Sedan	Base
	82	66H	2-Dr. Sedan	Base
	83	54K	4-Dr. Sedan	Ghia
	84	66K	2-Dr. Sedan	Ghia
MONARCH	34	54H	4-Dr. Sedan	Base
	35	66H	2-Dr. Sedan	Base
	37	54K	4-Dr. Sedan	Ghia
	38	66K	2-Dr. Sedan	Ghia
	84	54M	4-Dr. Sedan	Lincoln 5700
LTD II	25	65B	2-Dr. Hardtop	LTD II S
	27	53B	4-Dr. Pillar Hardtop	LTD II S
	30	65D	2-Dr. Hardtop	LTD II
	31	53D	4-Dr. Pillar Hardtop	LTD II
	32	65K	2-Dr. Hardtop	LTD II
	33	53K	4-Dr. Pillar Hardtop	Brougham
	40	71B	LTD II S	Wagon
	42	71D	LTD II	Wagon
	43	71K	LTD II Squire	Wagon
	47	97D	500	LTD II
	48	97R	GT	Ranchero
	49	97K	Squire	
COUGAR	90	53D	4-Dr. Pillar Hardtop	Cougar
	91	65D	2-Dr. Hardtop	Cougar
	92	71D	Cougar	Wagon
	93	65L	2-Dr. Hardtop	CougarXR VII
	94	53K	4-Dr. Pillar Hardtop	Cougar Brougham
	95	65K	2-Dr. Hardtop	Cougar Brougham
	96	71K	Cougar Villager	Wagon
THUNDERBIRD	87	60H	2-Dr. Pillar Hardtop	Base
FORD	52	60D	2-Dr. Pillar Hardtop	Custom 500
	53	53D*	4-Dr. Pillar Hardtop	Custom 500
	62	60H	2-Dr. Pillar Hardtop	LTD
	63	53H	4-Dr. Pillar Hardtop	LTD
	64	53L	4-Dr. Pillar Hardtop	LTD Landau
	65	60L	2-Dr. Pillar Hardtop	LTD Landau
	72	71D*	Custom 500 Ranch	Wagon
	74	71H	LTD**	Wagon
MERCURY	50	53H	4-Dr. Pillar Hardtop	Marquis (FLD)
	52	65H	2-Dr. Hardtop	Canada Only
	60	53L	4-Dr. Pillar Hardtop	Grand Marquis
	61	65L	2-Dr. Hardtop	Grand Marquis
	62	53K	4-Dr. Pillar Hardtop	Marquis Brougham
	63	53H	4-Dr. Pillar Hardtop	Marquis
	64	65K	2-Dr. Hardtop	Marquis Brougham
	66	65H	2-Dr. Hardtop	Marquis
	76	71K	Marquis***	Wagon
MARK V	89	65D	2-Dr. Hardtop	Base
LINCOLN	81	60B	2-Dr. Pillar Hardtop	Base
	82	53B	4-Dr. Pillar Hardtop	Base

*Released and scheduled for Canada and for fleet only in U. S. A. – **Also Squire Option – ***Also Colony Park and Decor Option.

VINYL ROOF TYPE/COLOR CODE

(FIRST LETTER OF CODE = TYPE OF ROOF)

Code	Vinyl Type	Code	Vinyl Type
B	Cross Hatch Full 2-Door	Q	Cayman Full
C	Cross Hatch Halo Style 4-Door	R	Cross Hatch (1/2)
		T	Valino Coach
G	Odense Full	U	Cayman (1/2)
H	Odense (3/4)	V	Valino Full
J	Cayman Coach	W	Lugano Full
N	Odense (1/2)	X	Lugano (1/2)
P	Cross Hatch (3/4)	Y	Valino (1/2)

Example Code: GA
Odense Full — Black

(SECOND LETTER OF CODE = COLOR OF ROOF)

Code	Vinyl Color	Code	Vinyl Color
A	Black	Q	Emerald Dk.
B	Blue	R	Jade Dk.
C	Ember	S	Med. Blue
D	Red	T	Brown
H	Rose	U	Chamois
J	Taupe	V	Cream
L	Aqua	W	White
M	Lt. Jade	Y	Gold
N	Red, Lipstick		
P	Silver		

CY1615-D1

INTERIOR TRIM CODES

Code	Trim Scheme
PINTO	
Colton/Corinth. Vinyl (H/B Bucket)	
AA	Black
AB	Blue
AD	Red
AG	Green
AT	Chamois
Alpine B/Cloth & Corinth. Vinyl (L/B Bucket)	
DB	Blue
DD	Red
DG	Green
DT	Chamois
Kirsten B/Cloth & Corinth. Vinyl (H/B Bucket)	
GA	Black
GB	Blue
GD	Red
GG	Green
GT	Chamois
Ruffino/Corinth. Vinyl (L/B Bucket)	
HA	Black
HB	Blue
HD	Red
HG	Green
HT	Chamois
Colton/Corinth. Vinyl (H/B Bucket)	
JA	Black
JB	Blue
JD	Red
JG	Green
JT	Chamois
Alpine B/Cloth & Corinth. Vinyl (L/B Bucket)	
KB	Blue
KD	Red
KG	Green
KT	Chamois
Kirsten B/Cloth & Corinth. Vinyl (H/B Bucket)	
LA	Black
LB	Blue
LD	Red
LG	Green
LT	Chamois
Ruffino/Corinth. Vinyl (L/B Bucket)	
MA	Black
MB	Blue
MD	Red
MG	Green
MT	Chamois
Carerra/Corinth. Vinyl (H/B Bucket)	
NT	Chamois
BOBCAT	
Colton/Corinth. Vinyl (H/B Bucket)	
AA	Black
AB	Blue
AD	Red
AG	Green
AT	Chamois
Alpine B/Cloth & Corinth. Vinyl (L/B Bucket)	
DB	Blue
DD	Red
DG	Green
DT	Chamois
Kirsten B/Cloth & Corinth. Vinyl (H/B Bucket)	
GA	Black
GB	Blue
GD	Red
GG	Green
GT	Chamois
Ruffino/Corinth. Vinyl (L/B Bucket)	
HA	Black
HB	Blue
HD	Red
HG	Green
HT	Chamois
Colton/Corinth. Vinyl (L/B Bucket)	
JA	Black
JB	Blue
JD	Red
JG	Green
JT	Chamois
Alpine B/Cloth & Corinth. Vinyl (L/B Bucket)	
KB	Blue
KD	Red
KG	Green
KT	Chamois
Kirsten B/Cloth & Corinth. Vinyl (H/B Bucket)	
LA	Black
LB	Blue
LD	Red
LG	Green
LT	Chamois
Ruffino/Corinth. Vinyl (L/B Bucket)	
MA	Black
MB	Blue
MD	Red
MG	Green
MT	Chamois
MUSTANG	
Corinth. Vinyl (L/B Bucket)	
AA	Black
AD	Red
AK	Aqua
AN	W/Red
AT	Chamois
AV	Cream
AW	W/Black
A2	W/Chamois
A5	W/Emerald
A7	W/Aqua
A8	W/Gold
Corinth. Vinyl (L/B Bucket)	
BA	Black
BD	Red
BK	Aqua
BN	W/Red
BT	Chamois
BV	Cream
BW	W/Black
B2	W/Chamois
B5	W/Emerald
B7	W/Aqua
B8	W/Gold
Media B/Cloth & Corinth. Vinyl (L/B Bucket)	
CK	Aqua
CT	Chamois
CV	Gold/Cream
Corinth. Vinyl (L/B Bucket)	
DT	Chamois
Sterling B/Cloth & Corinth. Vinyl (L/B Bucket)	
ED	Red
EK	Aqua
EV	Gold/Cream
E5	W/Emerald
Corinth. Vinyl (L/B Bucket)	
GA	Black
GD	Red
GN	W/Red
GW	W/Black
G5	W/Emerald
Corinth. Vinyl (L/B Bucket)	
HA	Black
HD	Red
HN	W/Red
HW	W/Black
H5	W/Emerald
Sterling B/Cloth & Corinth. Vinyl (L/B Bucket)	
KD	Red
K5	W/Emerald
Corinth. Vinyl (L/B Bucket)	
LT	Chamois
Sterling B/Cloth & Corinth. Vinyl (L/B Bucket)	
QD	Red
QK	Aqua
Sterling B/Cloth & Corinth. Vinyl (L/B Bucket)	
RD	Red
RK	Aqua
Corinth. Vinyl (L/B Bucket)	
SA	Black
SD	Red
SK	Aqua
SN	W/Red
ST	Chamois
SW	W/Black
S2	W/Chamois
S5	W/Emerald
S7	W/Aqua
S8	W/Gold
Corinth. Vinyl (L/B Bucket)	
TA	Black
TD	Red
TK	Aqua
TN	W/Red
TT	Chamois
TW	W/Black
T2	W/Chamois
T5	W/Emerald
T7	W/Aqua
T8	W/Gold

INTERIOR TRIM CODES – Continued

Code	Trim Scheme
	Media B/Cloth & Corinth. Vinyl (L/B Bucket)
UK	Aqua
UT	Chamois
UV	Gold/Cream
	Sterling B/Cloth & Corinth. Vinyl (L/B Bucket)
VD	Red
VK	Aqua
VV	Gold/Cream
V5	W/Emerald
V7	W/Aqua
	Corinth. Vinyl (L/B Bucket)
WA	Black
WD	Red
WN	W/Red
WW	W/Black
W5	W/Emerald
	Corinth. Vinyl (L/B Bucket)
YA	Black
YD	Red
YN	W/Red
YW	W/Black
Y5	W/Emerald
	Sterling B/Cloth & Corinth. Vinyl (L/B Bucket)
ZD	Red
	MAVERICK
	Random Stripe B/Cloth & Corinth. Vinyl (L/B Bench)
BA	Black
BB	Blue
BD	Red
BG	Green
BU	Tan
	Tooled/Corinth. Vinyl (L/B Bench)
HA	Black
HB	Blue
HD	Red
HG	Green
HU	Tan
	Corinth. Vinyl (L/B Bucket)
PA	Black
PB	Blue
PD	Red
PU	Tan
	Alpine B/Cloth & Corinth. Vinyl (L/B Bucket)
QB	Blue
QG	Green
QU	Tan
	Corinth. Vinyl (L/B Bucket)
SA	Black
SB	Blue
SD	Red
SU	Tan
	Alpine B/Cloth & Corinth. Vinyl (L/B Bucket)
TB	Blue
TG	Green
TU	Tan
	Barletta B/Cloth & Corinth. Vinyl (L/B Bench)
UA	Black
UB	Blue
UG	Green
UU	Tan
	Corinth. Vinyl (L/B Bench)
VA	Black
VB	Blue
VD	Red
VG	Green
VU	Tan
	Sterling B/Cloth & Corinth. Vinyl (L/B Bucket)
WU	Tan
	COMET
	Random Stripe B/Cloth & Corinth. Vinyl (L/B Bench)
BA	Black
BB	Blue
BD	Red
BG	Green
BU	Tan
	Tooled/Corinth. Vinyl (L/B Bench)
HA	Black
HB	Blue
HD	Red
HG	Green
HU	Tan
	Barletta B/Cloth & Corinth. Vinyl (L/B Bench)
JA	Black
JB	Blue
JG	Green
JU	Tan
	Corinth. Vinyl (L/B Bench)
KA	Black
KB	Blue
KD	Red
KG	Green
KU	Tan
	Corinth. Vinyl (L/B Bucket)
LA	Black
LB	Blue
LD	Red
LU	Tan
	Corinth. Vinyl (L/B Bucket)
PB	Blue
PU	Tan
	Alpine B/Cloth & Corinth. Vinyl (L/B Bucket)
QB	Blue
QG	Green
QU	Tan
	Alpine B/Cloth & Corinth. Vinyl (L/B Bucket)
RB	Blue
RG	Green
RU	Tan
	Corinth. Vinyl (L/B Bucket)
SA	Black
SB	Blue
SD	Red
SU	Tan
	Alpine B/Cloth & Corinth. Vinyl (L/B Bucket)
TB	Blue
TG	Green
TU	Tan
	GRANADA
	Corinth. Vinyl (L/B Bucket)
AB	Blue
AD	Red
AR	Jade
AS	Gray
AU	Tan
AV	Cream
	Kasman B/Cloth & Corinth. Vinyl (L/B Flight Bench)
BB	Blue
BD	Red
BR	Jade
BS	Gray
BU	Tan
	Corinth. Vinyl (L/B Bucket)
CB	Blue
CD	Red
CR	Jade
CS	Gray
CU	Tan
CV	Cream
	Corinth. Vinyl (L/B Flight Bench)
DV	Cream
	Corinth. Vinyl (L/B Flight Bench)
EB	Blue
ED	Red
ER	Jade
ES	Gray
EU	Tan
EV	Cream
	Natural Grain Leather (L/B Bucket)
FB	Blue
FD	Red
FR	Jade
FS	Gray
FU	Tan
FV	Cream
	Corinth. Vinyl (L/B Flight Bench)
GB	Blue
GD	Red
GR	Jade
GS	Gray
GU	Tan
GV	Cream
	Westminster B/Cloth & Corinth. Vinyl (L/B Flight Bench)
HB	Blue
HD	Red
HR	Jade
HU	Tan
	Corinth. Vinyl (L/B Bench)
JB	Blue
JD	Red

INTERIOR TRIM CODES – Continued

Code	Trim Scheme
JR	Jade
JU	Tan
JV	Cream
	Natural Grain Leather (L/B Bucket)
MD	Red
MM	Lt/Dk Jade
MS	Gray
MU	Tan
	Chainmail Vinyl (L/B Bucket)
PD	Red
PU	Tan
	Touraine B/Cloth & Corinth. Vinyl (L/B Flight Bench)
QD	Red
QR	Jade
QS	Gray
QU	Tan
	Natural Grain Leather (L/B Flight Bench)
RD	Red
RM	Lt/Dk Jade
RS	Gray
RU	Tan
	MONARCH
	Corinth. Vinyl (L/B Bucket)
AB	Blue
AD	Red
AR	Jade
AS	Gray
AU	Tan
AV	Cream
	Kasman B/Cloth & Corinth. Vinyl (L/B Flight Bench)
BB	Blue
BD	Red
BR	Jade
BS	Gray
BU	Tan
	Corinth. Vinyl (L/B Bucket)
CB	Blue
CD	Red
CR	Jade
CS	Gray
CU	Tan
CV	Cream
	Corinth. Vinyl (L/B Flight Bench)
EB	Blue
ED	Red
ER	Jade
ES	Gray
EU	Tan
EV	Cream
	Natural Grain Leather (L/B Bucket)
FB	Blue
FD	Red
FR	Jade
FS	Gray
FU	Tan
FV	Cream
	Corinth. Vinyl (L/B Flight Bench)
GB	Blue
GD	Red
GR	Jade
GS	Gray
GU	Tan
GV	Cream
	Westminster B/Cloth & Corinth. Vinyl (L/B Flight Bench)
HB	Blue
HD	Red
HR	Jade
HU	Tan
	Corinth. Vinyl (L/B Bench)
JB	Blue
JD	Red
JR	Jade
JU	Tan
JV	Cream
	Chainmail Vinyl (L/B Bucket)
PD	Red
PU	Tan
	Dorchester B/Cloth & Corinth. Vinyl (L/B Flight Bench)
SB	Blue
SF	Cordovan
SS	Gray
ST	Chamois
	Natural Grain Leather (L/B Flight Bench)
TB	Blue
TF	Cordovan
TQ	W/Blue
TS	Gray
TT	Chamois
T2	W/Chamois
T6	W/Cordovan
	Natural Grain Leather (L/B Bucket)
UB	Blue
UF	Cordovan
UQ	W/Blue
US	Gray
UT	Chamois
U2	W/Chamois
U6	W/Cordovan
	Wilshire B/Cloth & Corinth. Vinyl (L/B Flight Bench)
VB	Blue
VF	Cordovan
VS	Gray
VT	Chamois
	THUNDERBIRD
	Wilshire B/Cloth & Corinth. Vinyl (L/B Bench)
AB	Blue
AD	Red
AR	Jade
AS	Gray
AT	Chamois
AZ	Saddle
	Kiwi/Corinth. Vinyl (L/B Bench)
BB	Blue
BD	Red
BR	Jade
BS	Gray
BT	Chamois
BZ	Saddle
	Lamar Vinyl (L/B Bucket)
CB	Blue
CD	Red
CL	W/Lip Red
CN	W/Red
CQ	W/Blue
CR	Jade
CS	Gray
CT	Chamois
CZ	Saddle
C2	W/Chamois
C5	W/Jade
C9	W/Saddle
	Ardmore B/Cloth & Corinth. Vinyl (L/B Split Bench)
DB	Blue
DD	Red
DR	Jade
DS	Gray
DT	Chamois
DZ	Saddle
	Mateao/Corinth. Vinyl (L/B Split Bench)
EB	Blue
ED	Red
EL	W/Lip Red
EN	W/Red
EQ	W/Blue
ER	Jade
ES	Gray
ET	Chamois
EZ	Saddle
E2	W/Chamois
E3	Sadle/Whte
E5	W/Jade
E9	W/Saddle
	Natural Grain Leather & Mateao Vinyl (L/B Split Bench)
FB	Blue
FD	Red
FL	W/Lip Red
FN	W/Red
FQ	W/Blue
FR	Jade
FS	Gray
FT	Chamois
FZ	Saddle
D2	W/Chamois
F3	Sadle/Whte
F5	W/Jade
F9	W/Saddle
	Lamar Vinyl (L/B Bucket)
GB	Blue
GD	Red
GL	W/Lip Red
GN	W/Red
GQ	W/Blue
GR	Jade
GS	Gray
GT	Chamois
GZ	Saddle
G2	W/Charmois
G3	Sadle/Whte
G5	W/Jade
G9	W/Saddle
	Newberry B/Cloth & Corinth. Vinyl (L/B Bucket)
HB	Blue
HD	Red
HR	Jade
HS	Gray

CY1419-H2

INTERIOR TRIM CODES – Continued

Code	Trim Scheme
HT	Chamois
HZ	Saddle
Newberry B/Cloth & Corinth. Vinyl (L/B Bucket)	
JB	Blue
JD	Red
JR	Jade
JS	Gray
JT	Chamois
JZ	Saddle
Mateao/Corinth. Vinyl (L/B Bucket)	
PS	Gray/Red
Mateao/Corinth. Vinyl (L/B Split Bench)	
QS	Gray/Red
Media Velour B/Cloth (L/B Split Bench)	
RB	Blue
RD	Red
RR	Jade
RS	Gray
RT	Chamois
Natural Grain Leather (L/B Split Bench)	
SB	Blue
SD	Red
SR	Jade
SS	Gray
ST	Chamois
LTD	
Kirsten B/Cloth & Corinth. Vinyl (L/B Bench)	
AB	Blue
AD	Red
AR	Jade
AT	Chamois
Colton/Corinth. Vinyl (L/B Bench)	
BB	Blue
BD	Red
BR	Jade
BT	Chamois
Porto B/Cloth & Corinth. Vinyl (L/B Bench)	
CB	Blue
CD	Red
CR	Jade
CS	Gray
CT	Chamois
CZ	Saddle
Kiwi/Corinth. Vinyl (L/B Bench)	
DB	Blue
DD	Red
DR	Jade
DS	Gray
DT	Chamois
DZ	Saddle
Doral B/Cloth & Corinth. Vinyl (L/B Split Bench)	
EB	Blue
ED	Red
ER	Jade
ES	Gray
ET	Chamois
EZ	Saddle
Mateao/Corinth. Vinyl (L/B Split Bench)	
FB	Blue
FD	Red
FR	Jade
FS	Gray
FT	Chamois
FZ	Saddle
F3	Sadle/White
Lamar Vinyl (L/B Bucket)	
GB	Blue
GD	Red
GR	Jade
GS	Gray
GT	Chamois
GZ	Saddle
G3	Sadle/White
Lamar Vinyl (L/B Bucket)	
HB	Blue
HD	Red
HR	Jade
HS	Gray
HT	Chamois
HZ	Saddle
H3	Sadle/White
Ardmore B/Cloth & Corinth. Vinyl (L/B Flight Bench)	
JB	Blue
JD	Red
JR	Jade
JS	Gray
JT	Chamois
JZ	Saddle
Mateao/Corinth. Vinyl (L/B Flight Bench)	
KB	Blue
KD	Red
KR	Jade
KS	Gray
KT	Chamois
KZ	Saddle
Ardmore B/Cloth & Corinth. Vinyl (L/B Flight Bench)	
LB	Blue
LD	Red
LR	Jade
LS	Gray
LT	Chamois
LZ	Saddle
Mateao/Corinth. Vinyl (L/B Flight Bench)	
MB	Blue
MD	Red
MR	Jade
MS	Gray
MT	Chamois
MZ	Saddle
Mateao/Corinth. Vinyl (L/B Split Bench)	
PV	Cream/Blue
COUGAR	
Ashton B/Cloth & Corinth. Vinyl (L/B Flight Bench)	
AB	Blue
AD	Red
AR	Jade
AS	Gray
AT	Chamois
AZ	Saddle
Mateao/Corinth. Vinyl (L/B Flight Bench)	
BB	Blue
BD	Red
BL	W/Lip Red
BN	W/Red
BQ	W/Blue
BR	Jade
BS	Gray
BT	Chamois
BZ	Saddle
B2	W/Chamois
B5	W/Jade
B9	W/Saddle
Newberry B/Cloth & Corinth. Vinyl (L/B Split Bench)	
CB	Blue
CD	Red
CR	Jade
CS	Gray
CT	Chamois
CZ	Saddle
Mateao/Corinth. Vinyl (L/B Split Bench)	
DB	Blue
DD	Red
DL	W/Lip Red
DN	W/Red
DQ	W/Blue
DR	Jade
DS	Gray
DT	Chamois
DZ	Saddle
D2	W/Chamois
D3	Sadle/White
D5	W/Jade
D9	W/Saddle
Natural Grain Leather (L/B Split Bench)	
EB	Blue
ED	Red
EL	W/Lip Red
EN	W/Red
EQ	W/Blue
ER	Jade
ES	Gray
ET	Chamois
EZ	Saddle
E2	W/Chamois
E3	Sadle/White
E5	W/Jade
E9	W/Saddle
Lamar Vinyl (L/B Bucket)	
FB	Blue
FD	Red
FL	W/Lip Red
FN	W/Red
FQ	W/Blue
FR	Jade
FS	Gray
FT	Chamois
FZ	Saddle
F2	W/Chamois
F3	Sadle/White
F5	W/Jade
F9	W/Saddle

INTERIOR TRIM CODES – Continued

Code	Trim Scheme
	Newberry B/Cloth & Corinth. Vinyl (L/B Bucket)
GB	Blue
GD	Red
GR	Jade
GS	Gray
GT	Chamois
GZ	Saddle
	Newberry B/Cloth & Corinth. Vinyl (L/B Split Bench)
HB	Blue
HD	Red
HR	Jade
HS	Gray
HT	Chamois
HZ	Saddle
	Mateao/Corinth. Vinyl (L/B Split Bench)
JB	Blue
JD	Red
JL	W/Lip Red
JN	W/Red
JQ	W/Blue
JR	Jade
JS	Gray
JT	Chamois
JZ	Saddle
J2	W/Chamois
J5	W/Jade
J9	W/Saddle
	Natural Grain Leather (L/B Split Bench)
KB	Blue
KD	Red
KL	W/Lip Red
KN	W/Red
KQ	W/Blue
KR	Jade
KS	Gray
KT	Chamois
KZ	Saddle
K2	W/Chamois
K5	W/Jade
K9	W/Saddle
	Newberry B/Cloth & Corinth. Vinyl (L/B Bucket)
LB	Blue
LD	Red
LR	Jade
LS	Gray
LT	Chamois
LZ	Saddle

Code	Trim Scheme
	Lamar Vinyl (L/B Bucket)
MB	Blue
MD	Red
ML	W/Lip Red
MN	W/Red
MQ	W/Blue
MR	Jade
MS	Gray
MT	Chamois
MZ	Saddle
M2	W/Chamois
M5	W/Jade
M9	W/Saddle
	Newberry B/Cloth & Corinth. Vinyl (L/B Flight Bench)
N2	W/Chamois
	Newberry B/Cloth & Corinth. Vinyl (L/B Bucket)
P2	W/Chamois
	Newberry B/Cloth & Corinth. Vinyl (L/B Split Bench)
QT	Chamois
	Porto B/Cloth & Corinth. Vinyl (L/B Bench)
RB	Blue
RD	Red
RR	Jade
RS	Gray
RT	Chamois
RZ	Saddle
	Kiwi/Corinth. Vinyl (L/B Bench)
SB	Blue
SD	Red
SR	Jade
SS	Gray
ST	Chamois
SZ	Saddle
	Ardmore B Cloth & Corinth. Vinyl (L/B Flight Bench)
TB	Blue
TD	Red
TR	Jade
TS	Gray
TT	Chamois
TZ	Saddle
	Mateao/Corinth. Vinyl (L/B Flight Bench)
UB	Blue
UD	Red

Code	Trim Scheme
UR	Jade
US	Gray
UT	Chamois
UZ	Saddle
	Doral B/Cloth & Corinth. Vinyl (L/B Split Bench)
VB	Blue
VD	Red
VR	Jade
VS	Gray
VT	Chamois
VZ	Saddle
	Mateao/Corinth. Vinyl (L/B Split Bench)
WB	Blue
WD	Red
WR	Jade
WS	Gray
WT	Chamois
WZ	Saddle
W3	Sadle/Whte
	Lamar Vinyl (L/B Bucket)
YB	Blue
YD	Red
YR	Jade
YS	Gray
YT	Chamois
YZ	Saddle
Y3	Sadle/Whte
	Lamar Vinyl (L/B Bucket
ZB	Blue
ZD	Red
ZR	Jade
ZS	Gray
ZT	Chamois
ZZ	Saddle
Z3	Sadle/Whte
	FORD
	Barletta B/Cloth & Corinth. Vinyl (L/B Bench)
AB	Blue
AD	Red
AZ	Saddle
	Ruffino/Corinth. Vinyl (L/B Bench)
BB	Blue
BD	Red
BR	Jade
BZ	Saddle

Code	Trim Scheme
	Logan B/Cloth & Corinth. Vinyl (LB Bench)
CB	Blue
CD	Red
CR	Jade
CY	Gold
CZ	Saddle
	Redondo B/Cloth & Corinth. Vinyl (L/B Bench)
DB	Blue
DD	Red
DR	Jade
DS	Gray
DY	Gold
DZ	Saddle
	Ruffino Corinth. Vinyl (L/B Bench)
EB	Blue
ED	Red
ER	Jade
ES	Gray
EY	Gold
EZ	Saddle
	Ardmore B/Cloth & Corinth. Vinyl (L/B Split Bench)
FB	Blue
FD	Red
FR	Jade
FS	Gray
FY	Gold
FZ	Saddle
	Ruffino/Corinth. Vinyl (L/B Split Bench)
GB	Blue
GD	Red
GR	Jade
GS	Gray
GY	Gold
GZ	Saddle
	Ardmore B/Cloth & Corinth. Vinyl (L/B Flight Bench)
HB	Blue
HD	Red
HR	Jade
HS	Gray
HY	Gold
HZ	Saddle
	Ruffino/Corinth. Vinyl (L/B Split Bench)
JB	Blue
JD	Red
JR	Jade

INTERIOR TRIM CODES – Continued

Code	Trim Scheme
JS	Gray
JY	Gold
JZ	Saddle
Ardmore B/Cloth & Corinth. Vinyl (L/B Split Bench)	
KB	Blue
KD	Red
KR	Jade
KS	Gray
KY	Gold
KZ	Saddle
Dynasty Polyknit & Corinth. Vinyl (L/B Split Bench)	
NB	Blue
ND	Red
NR	Jade
NU	Saddle/Tan
Kasman B/Cloth & Corinth. Vinyl (L/B Split Bench)	
PB	Blue
PD	Red
PR	Jade
PS	Gray
PY	Gold
PZ	Saddle
Valino Vinyl (L/B Split Bench)	
QB	Blue
QD	Red
QR	Jade
QS	Gray
QV	Gold/Cream
QZ	Saddle
Q3	Sadle/Whte
Valino Vinyl (L/B Split Bench)	
RV	Cream/Blue
Ruffino/Corinth. Vinyl (L/B Split Bench)	
SB	Blue
SD	Red
SR	Jade
SY	Gold
SZ	Saddle
Dynasty Polyknit & Corinth. Vinyl (L/B Bench)	
UB	Blue
UD	Red
UR	Jade
UU	Saddle/Tan
Natural Grain Leather (L/B Split Bench)	
YB	Blue
YD	Red
YR	Jade
YS	Gray
YV	Gold/Cream
YZ	Saddle
Y3	Sadle/Whte

MERCURY

Code	Trim Scheme
Natural Grain Leather (L/B Split Bench)	
FB	Blue
FD	Red
FR	Jade
FS	Gray
FV	Gold/Cream
FZ	Saddle
F3	Sadle/Whte
Redondo B/Cloth & Corinth. Vinyl (L/B Bench)	
GB	Blue
GD	Red
GR	Jade
GS	Gray
GY	Gold
GZ	Saddle
Ruffino/Corinth. Vinyl (L/B Bench)	
HB	Blue
HD	Red
HR	Jade
HY	Gold
HZ	Saddle
Touraine B/Cloth & Natural Grain Leather (L/B Split Bench)	
JB	Blue
JD	Red
JR	Jade
JS	Gray
JY	Gold
JZ	Saddle
Ruffino/Corinth. Vinyl (L/B Bench)	
KB	Blue
KD	Red
KR	Jade
KS	Gray
JY	Gold
KZ	Saddle
Ardmore B/Cloth & Corinth. Vinyl (L/B Bench)	
LB	Blue
LD	Red
LR	Jade
LZ	Saddle
Wilshire B/Cloth & Corinth. Vinyl (L/B Split Bench)	
MB	Blue
MD	Red
MR	Jade
MS	Gray
MY	Gold
MZ	Saddle
Kasman B/Cloth (L/B Split Bench)	
NS	Gray
Wilshire B/Cloth & Corinth. Vinyl (L/B Flight Bench)	
RB	Blue
RD	Red
RR	Jade
RY	Gold
RZ	Saddle
Valino/Corinth. Vinyl (L/B Flight Bench)	
SB	Blue
SD	Red
SR	Jade
SV	Gold/Cream
SZ	Saddle
Valino/Corinth. Vinyl (L/B Split Bench)	
VB	Blue
VD	Red
VR	Jade
VS	Gray
VV	Gold/Cream
VZ	Saddle

MARK V

Code	Trim Scheme
Venezia B/Cloth & Corinth. Vinyl (L/B Split Bench)	
AA	Black
AB	Blue
AD	Red
AF	Cordovan
AR	Jade
AT	Chamois
AY	Gold
Natural Grain Leather & Mateao Vinyl (L/B Split Bench)	
BA	Black
BB	Blue
BD	Red
BF	Cordovan
BN	W/Red
BQ	W/Blue
BR	Jade
BT	Chamois
BW	W/Black
BY	Gold
B2	W/Chamois
B5	W/Jade
B6	W/Cordovan
B8	W/Gold
Romano/Media Velour B/Cloth (L/B Split Bench)	
CF	Cordovan
CY	Gold
Natural Grain Leather & Mateao Vinyl (L/B Split Bench)	
DF	Cordovan
DH	Red/Rose
DR	Jade/Lt
DS	Gray
DT	Chamois
DV	Gold/Cream
Natural Grain Leather (L/B Split Bench)	
EB	Blue
Kasman B/Cloth & Corinth. Vinyl (L/B Split Bench)	
FS	Gray
Majestic B/Cloth & Corinth. Vinyl (L/B Split Bench)	
GB	Blue
GD	Red
GR	Jade
Natural Grain Leather (L/B Split Bench)	
JS	Gray

LINCOLN

Code	Trim Scheme
Kasman B/Cloth & Corinth. Vinyl (L/B Bench)	
BB	Blue
BD	Red
BF	Cordovan
BR	Jade

INTERIOR TRIM CODES – Continued

Code	Trim Scheme
BT	Chamois
BY	Gold
	Natural Grain Leather & Mateao Vinyl (L/B Bench)
DA	Black
DB	Blue
DD	Red
DF	Cordovan
DN	W/Red
DQ	W/Blue
DR	Jade
DT	Chamois
DW	W/Black
DY	Gold
D2	W/Chamois
D5	W/Jade
D6	W/Cordovan
D8	W/Gold
	Natural Grain Leather &Mateao Vinyl (L/B Split Bench)
EA	Black
EB	Blue
ED	Red
EF	Cordovan
EN	W/Red
EQ	W/Blue
ER	Jade
ET	Chamois
EW	W/Black
EY	Gold
E2	W/Chamois
E5	W/Jade
E6	W/Cordovan
E8	W/Gold
	Kasman B/Cloth & Corinth. Vinyl (L/B Split Bench)
FB	Blue
FD	Red
FF	Cordovan
FR	Jade
FT	Chamois
FY	Gold
	Natural Grain Leather & Mateao Vinyl (L/B Bench)
HA	Black
HB	Blue
HD	Red
HF	Cordovan
HR	Jade
HT	Chamois
HY	Gold
	Media Velour B/Cloth (L/B Split Bench)
JA	Black
JB	Blue
JD	Red
JF	Cordovan
JR	Jade
JS	Gray
JT	Chamois
JY	Gold
	Natural Grain Leather & Mateao Vinyl (L/B Split Bench)
KA	Black
KB	Blue
KD	Red
KF	Cordovan
KN	W/Red
KQ	W/Blue
KR	Jade
KS	Gray
KT	Chamois
KW	W/Black
KY	Gold
K2	W/Chamois
K5	W/Jade
K6	W/Cordovan
K8	W/Gold
	Natural Grain Leather & Mateao Vinyl (L/B Bench)
LF	Cordo/Whte
	Natural Grain Leather & Mateao Vinyl (L/B Split Bench)
MF	Cordo/Whte
	Natural Grain Leather
NV	Cream/Cordo
	Westminster B/Cloth & Corinth. Vinyl (L/B Bench)
PB	Blue
PD	Red
PF	Cordovan
	Mateao Vinyl (L/B Bench)
QB	Blue
QD	Red
QF	Cordovan

SEATS

GROUP 41 (70000)

PART TITLE	PART NO.	PART TITLE	PART NO.
Conventional Rear Seats	41-14	Reclining Seat Back	41-30
Fold Down Rear Seats	41-20	Seat Back Latch – Automatic	41-28
Head Restraints	41-40	Seat Back Latch – Manual	41-25
Lumbar Power Seat	41-35	Seat and Shoulder Belts	41-50
Power Seat – 4-Way	41-07	Seat Tracks – Manual	41-01
Power Seat – 6-Way	41-08	Seat Trim	41-60

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Seat Tracks -- Manual

PART 41-01

SUBJECT	PAGE	SUBJECT	PAGE
DESCRIPTION AND OPERATION	01-1	REMOVAL AND INSTALLATION	01-5
ADJUSTMENTS	01-1		

CR2009-A

DESCRIPTION AND OPERATION

SEAT TRACKS—MANUAL

On the Ford and Mercury the driver's seat release handle is located at the lower left side of the seat cushion, and the passenger seat release handle (Bucket and Split Bench), is located at the lower right side of the seat cushion. On all other car lines with manual seat tracks, the seat release handle is located at the front (Bucket and Split-Bench). Tripping the seat release handle will allow forward or rearward movement of the seat assembly.

ADJUSTMENTS

TIE ROD

The tie rod adjustments are made individually for each pair of tracks and affects (only) the track farthest away from the seat release handle. All seat tracks do not have tie rods for adjustment. See Figs. 1 through 8. If the latch retaining the track fails to release (on tie rod equipped vehicles), turn the adjusting turnbuckle **clockwise,** just enough to shorten the tie rod travel and release the track latch (Figs. 1 through 8). If the latch fails to secure the seat travel, turn the adjusting turnbuckle **counterclockwise** to allow the latch to fully engage the locking position.

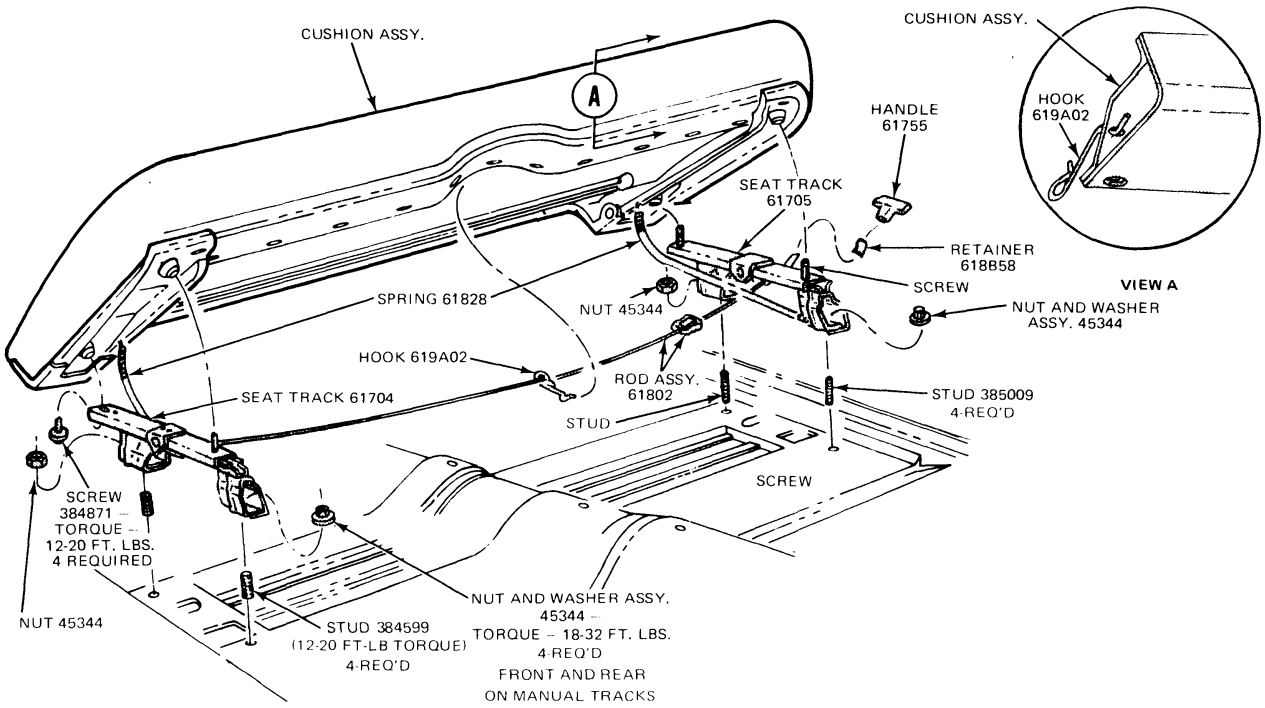


FIG. 1 Manual Seat Track Installation—Full Bench Seat—Ford and Mercury

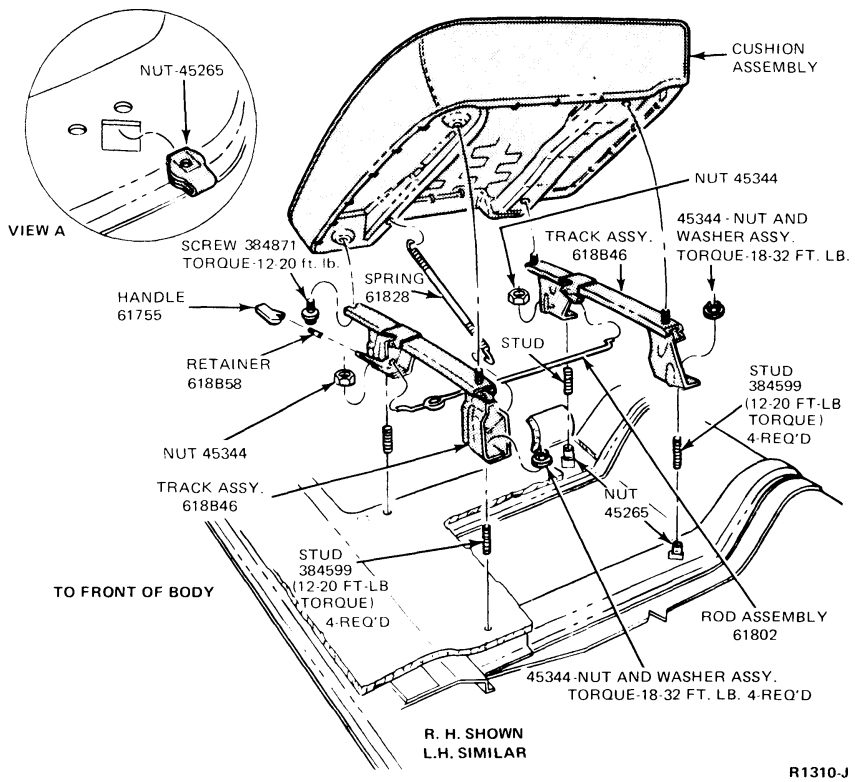


FIG. 2 Manual Seat Track Installation – Split Bench Seat – Ford and Mercury

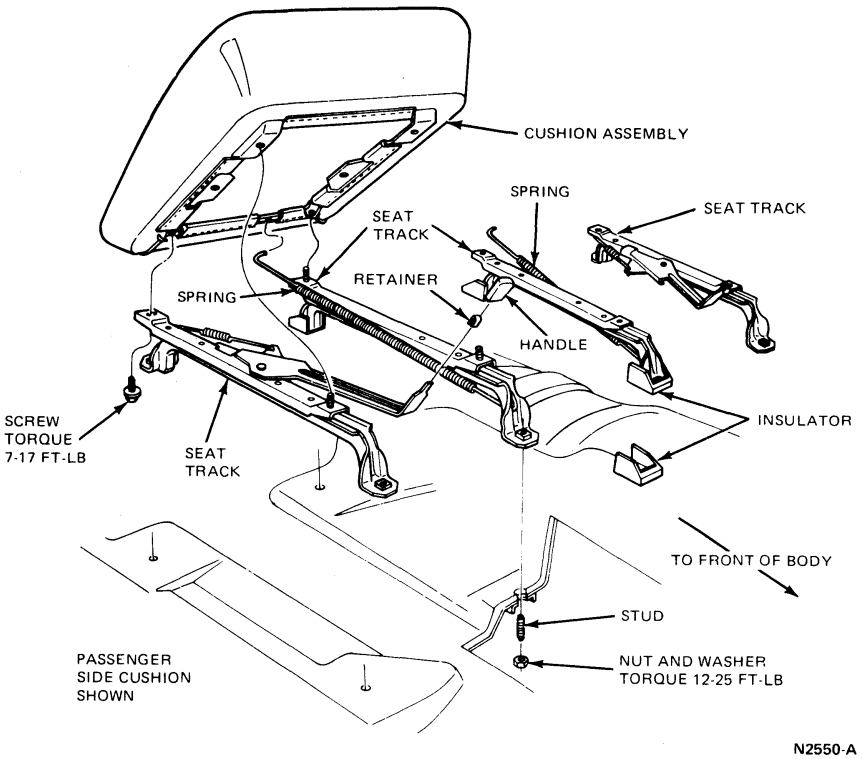


FIG. 3 Manual Seat Track Installation—Bucket Seat—Pinto and Bobcat

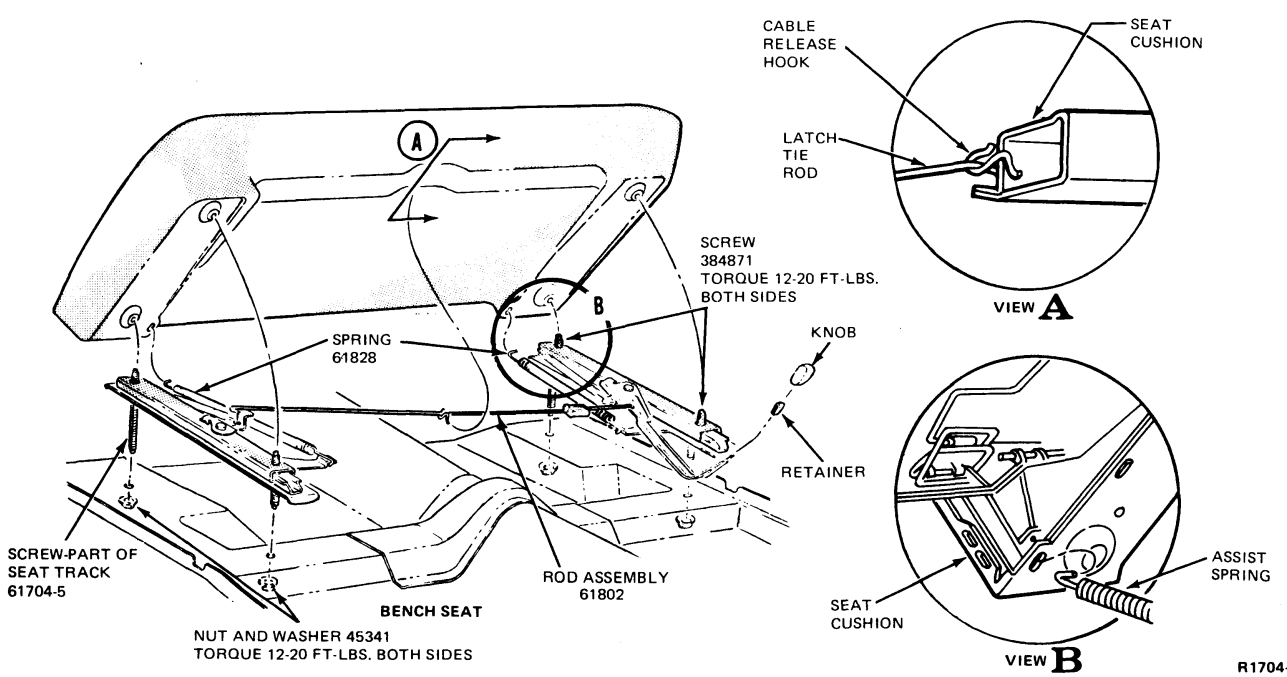


FIG. 4 Manual Seat Track Installation—Bench Seat—Maverick, Comet, Granada and Monarch

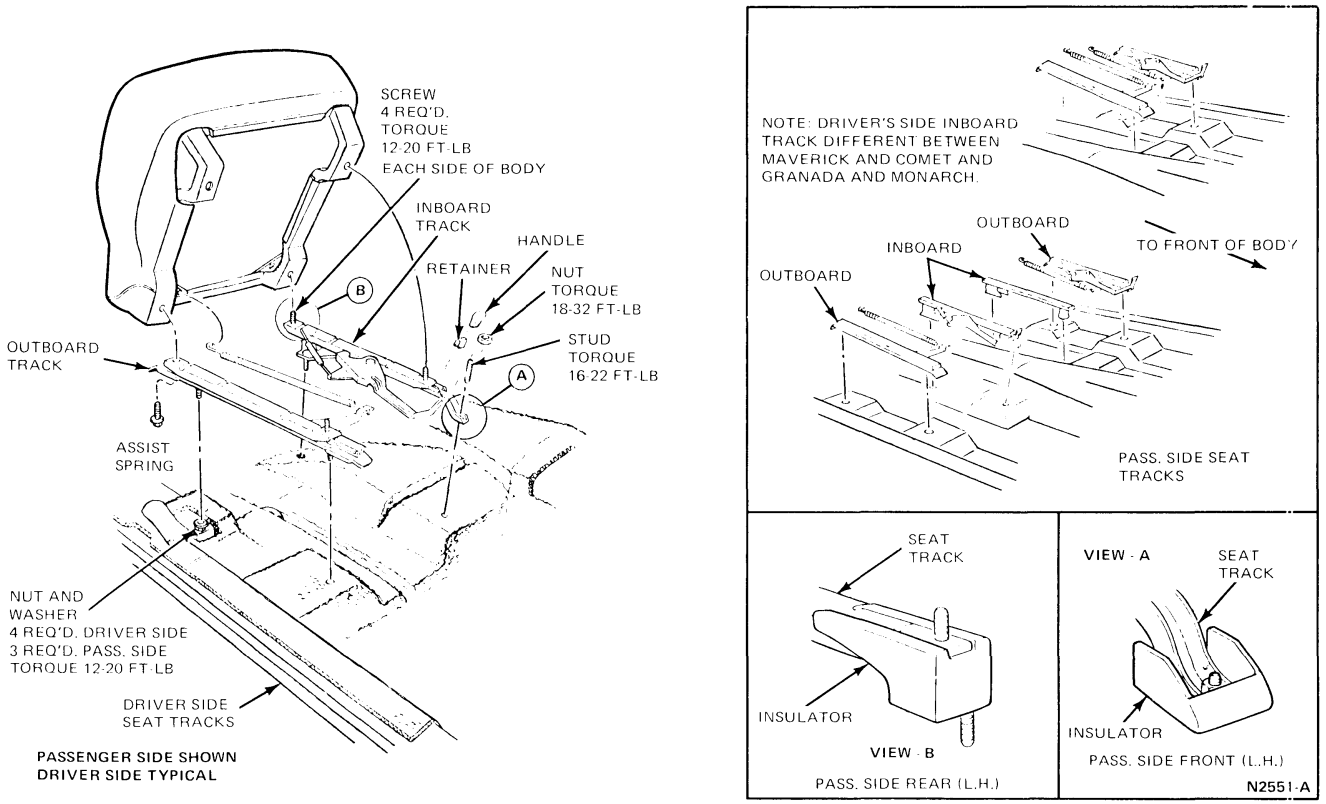


FIG. 5 Manual Seat Track Installation—Bucket Seat—Granada, Monarch, Maverick and Comet

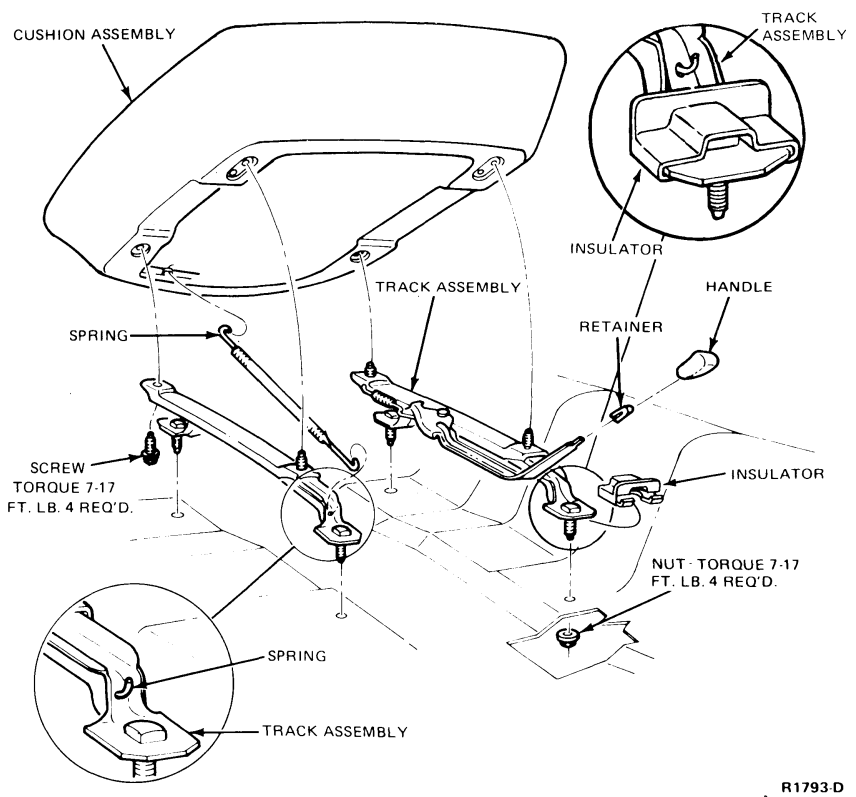


FIG. 6 Manual Seat Track Installation—Bucket Seat—Mustang

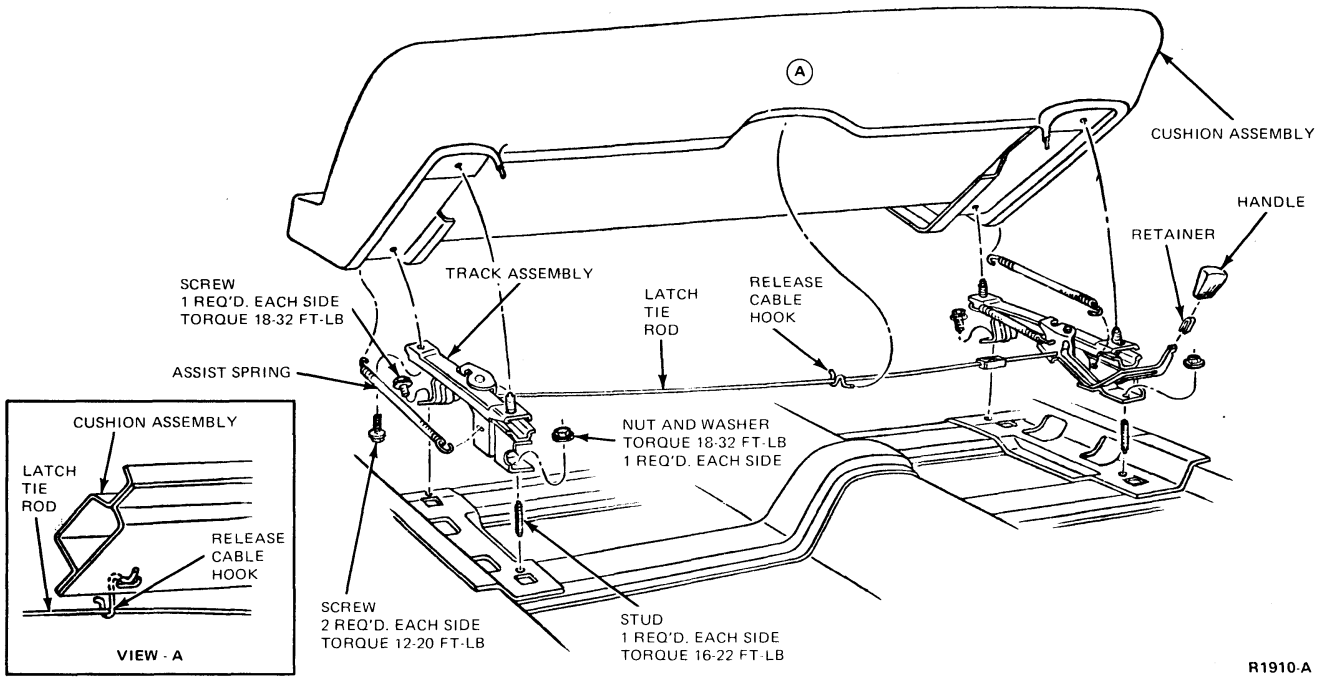


FIG. 7 Manual Seat Track Installation—Bench Seat—LTD II, Thunderbird and Cougar

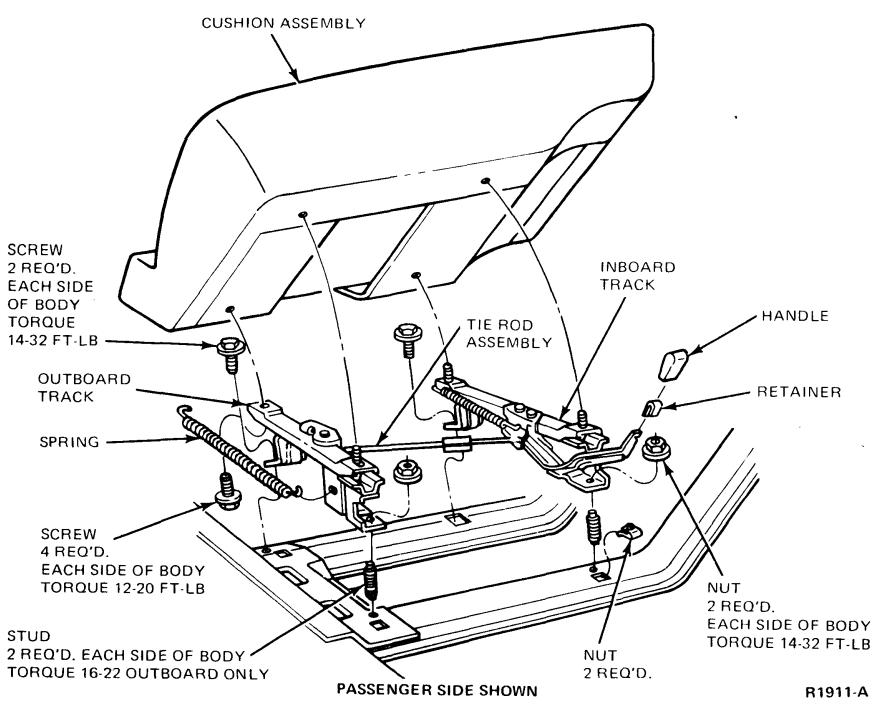


FIG. 8 Manual Seat Track Installation—Split Bench and Bucket on LTD II, and Cougar—Split Bench on Thunderbird

REMOVAL AND INSTALLATION

Removal

Manual seat tracks are retained to the floor pan by studs with nuts and washers, or screws (washer head type). The nuts and/or screws retaining the seat tracks are removed from inside and/or underneath the vehicle (Figs. 1 through 8).

1. Remove the seat track retaining screws and/or nuts and washers from inside or underneath the vehicle. Then, lift the seat and seat track assembly from the vehicle.
2. Place the seat and seat track assemblies on a clean working area

and disconnect the adjusting springs (Figs. 1 through 8).

3. Remove the seat track-to-seat cushion attaching screws and remove the seat cushion from the tracks.
4. Disconnect the latch tie rod from the seat tracks.
5. If the seat tracks are being replaced, transfer the retracting springs, spacers, anti-squeak, seat side shields and adjusting lever knob to the new track assembly.

Installation

1. Mount the seat tracks with the side shield supports (if so equipped) to the seat cushion, and connect the tie rod to the two tracks as they are being positioned.
2. Install the seat track-to-seat cushion retaining screws and tighten to specifications shown in appropriate figures (Figs. 1 through 8).
3. Connect the adjusting springs between the seat tracks and seat cushion.
4. Place the seat assembly into the vehicle and insure proper alignment.
5. Then, install the screws and/or nuts and washer assemblies and tighten to specification shown in appropriate figures (Figs. 1 through 8).

Power Seat--4-Way

PART 41-07

SUBJECT	PAGE	SUBJECT	PAGE
DESCRIPTION AND OPERATION	07-1	REMOVAL AND INSTALLATION	07-2
TESTING	07-1	DISASSEMBLY AND ASSEMBLY	07-2

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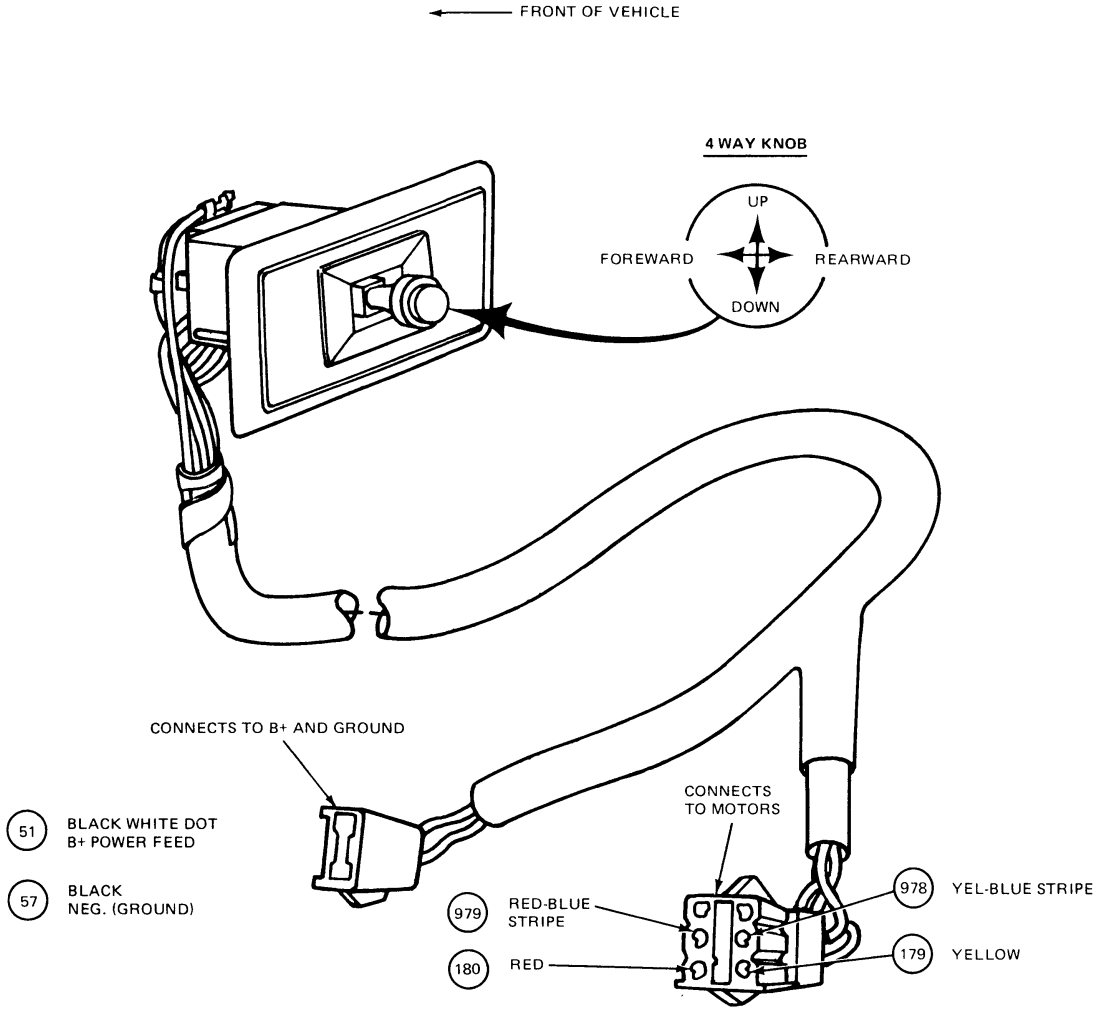
DESCRIPTION AND OPERATION

The 4-way power seat mechanism provides fore and aft movement of the driver's (bucket or flight bench) seat, as well as up and down movement of the front edge of the seat, resulting in a tilting action. The seat is driven by an electric dual motor through two gear boxes and two flexible drive cables to provide the desired movement. A control switch, located on the driver's side in the left lower seat side shield, directs current to the motor.

TESTING

Disconnect motor leads from circuit. Connect ground and positive lead wires from the battery to the motor. Motor should operate in one direction. Reverse leads at the motor connector. Motor should run in the reverse direction.

If the motor does not operate the seat tracks, inspect the tracks for possible binds and gear transmission lock-up. Also, inspect the tracks and drive mechanism for foreign material that may cause binding.



CONNECT ONE SIDE OF OHMMETER OR TEST LIGHT TO CIRCUIT #51		CONNECT ONE SIDE OF OHMMETER OR TEST LIGHT TO CIRCUIT #57	
SWITCH POSITION	CONTINUITY BETWEEN TERMINALS	SWITCH POSITION	CONTINUITY BETWEEN TERMINALS
NEUTRAL	51 AND NONE	NEUTRAL	57 AND 179-180-978-979
UP	51 AND 978	UP	57 AND 179-180-979
DOWN	51 AND 979	DOWN	57 AND 179-180-978
FOREWARD	51 AND 180	FOREWARD	57 AND 179-978-979
REARWARD	51 AND 179	REARWARD	57 AND 180-978-979

R1967-A

FIG. 1 Power Seat Switch Tests—Granada and Monarch

REMOVAL AND INSTALLATION

Removal

1. Using the control switch, raise the seat and position it to the rearmost position.
2. Remove the seat track rear attaching screws (Fig. 2).
3. Remove the outboard seat track front attaching screw and the inboard seat track attaching nuts.
4. Disconnect the feed and switch wiring connectors and remove the driver's seat assembly from the vehicle and place on a clean work surface.

Installation

1. Position the seat in the vehicle and connect feed and switch wiring.
2. Install the front and rear attaching screws and nut and washer and tighten to specifications shown in Fig. 2 and connect the seat sensor switch.
3. Using the control switch, test the operation of the seat in all positions.

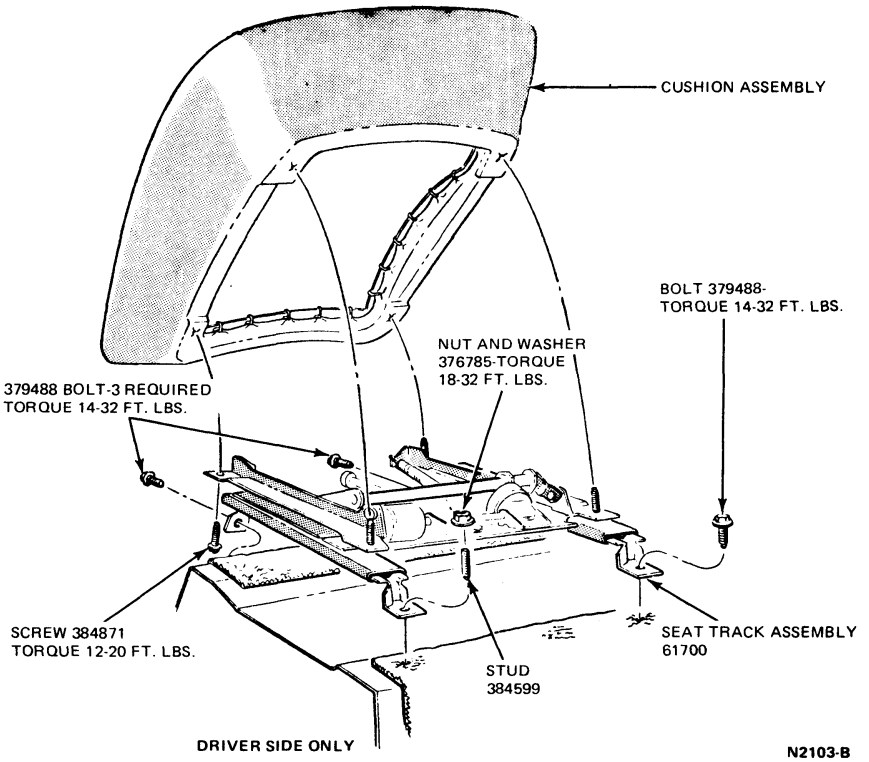


FIG. 2 Seat and Track Installation 4-Way Power

DISASSEMBLY AND ASSEMBLY

Disassembly

1. Remove the four seat cushion attaching screws at each corner of the upper track and remove the track assembly from the seat assembly (Fig. 2).
2. Remove the two front seat track motor mounting bracket attaching screws from the bottom side of the track assembly and remove the motor and bracket, then remove the two motor assembly attaching nuts and remove the mounting bracket from the motor.
3. Remove the horizontal cable, vertical cable and tube from the drive assemblies.
4. Remove the front seat track assist spring, then remove the two horizontal front seat track drive assembly attaching screws.
5. Remove (grind or drill) the two front seat regulator horizontal nut support assembly attaching rivets and remove the support assembly and horizontal drive assembly. See Fig. 3.
6. Remove the horizontal drive assembly attaching roll pin and remove the front seat regulator horizontal support from the drive assembly.
7. Remove the vertical drive assembly stop nut roll pin and remove the nut from the drive screw.
8. Remove the vertical drive assembly roll pin at the attaching bracket and remove the vertical drive assembly by unscrewing the drive screw out of the vertical nut.
9. Remove the front seat upper track assembly from the front seat lower track assembly by sliding the upper track forward until the tracks disengage.
10. Remove the four seat track slides from the lower track assembly.

Assembly

1. Assemble the four seat track slides to the lower track, then slide the upper track into position (Fig. 3).
2. Install the vertical drive assembly, roll pin and stop nut.
3. Install the front seat regulator support on the drive assembly. Install the roll pin.
4. Install the regulator horizontal nut support, using two rivets.
5. Install the front seat track drive assembly with two attaching screws. Then, install the assist spring.
6. Install the vertical cable and tube and the horizontal cable.
7. Install the mounting bracket on the motor, then install on the track assembly.
8. Install the seat cushion on the track assembly and tighten to specifications shown in Fig. 2.
9. Install the seat and track assembly in the vehicle as described in Disassembly and Assembly.
10. Check seat operation.

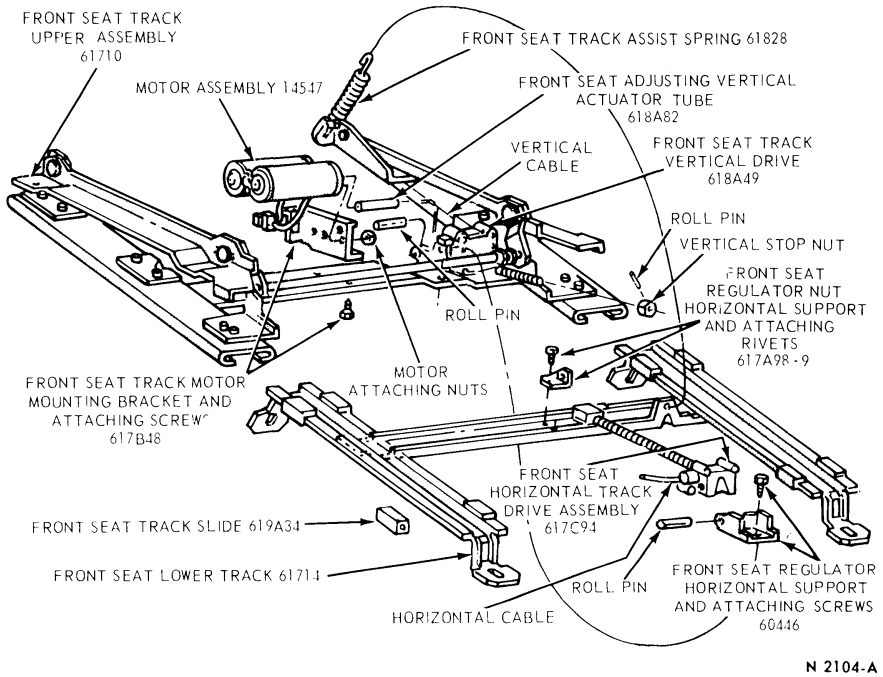


FIG. 3 Exploded Seat Track Assembly Four-Way

Power Seat -- 6-Way

PART 41-08

SUBJECT	PAGE
DESCRIPTION AND OPERATION	08-1
TESTING	08-2
DIAGNOSIS	08-3
REMOVAL AND INSTALLATION	
Motor and Drive Cables	08-7
Right or Left Track	08-7
REMOVAL AND INSTALLATION (Cont'd.)	
Seat Track	08-7
MAJOR REPAIR OPERATIONS	
Lincoln Continental Seat Track (Bench Seat)	08-7
Six Way Power Seat – Full Bench	08-10
Six Way Power Seat – Split Bench	08-9

CR2011-A

DESCRIPTION AND OPERATION

The 6-way power seat (Figs. 1 and 2) provides horizontal, vertical and vertical tilt adjustments. It consists of a reversible three armature motor (TRI-MOTOR), a switch and housing assembly, vertical gear drives and horizontal rack and pinion drives.

The mechanical portion of the seat track in the horizontal drive consists of a rack and pinion on each track. The pinion housing and motor is attached to the movable section of the track. When the switch is actuated, the front armature is energized and the horizontal drive units are activated. The seat is then propelled forward or rearward by the pinion gears traveling in a rack in each lower track section.

In the vertical drive, worm gear mechanisms are utilized. The drive units are located in the front and rear of the left hand track (standard bench). When the switch is actuated, the center and rear armatures are energized simultaneously and the vertical drive units are activated. The seat is then propelled up or down by the worm gears.

When the tilt switch is actuated, the center armature drives the front vertical worm gear and moves the seat to the

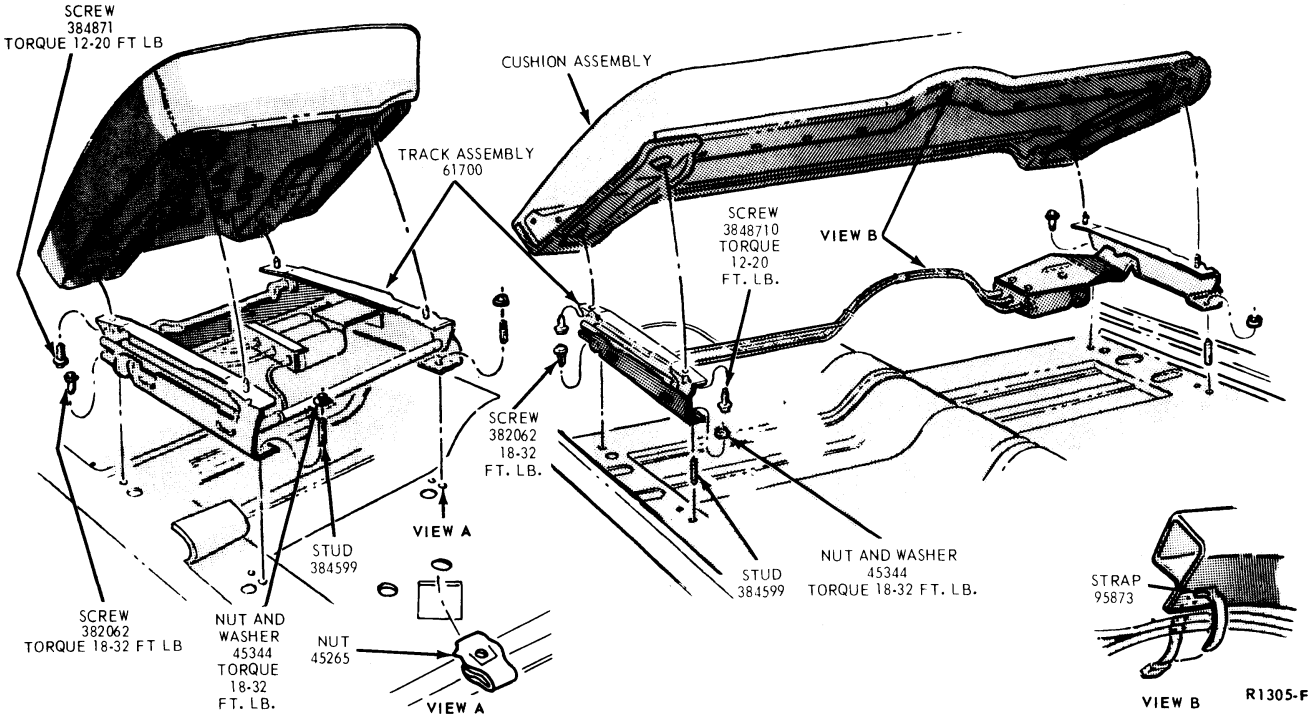


FIG. 1 Six-Way Power Seat Tracks Bench and Split Bench Ford, Mercury and Meteor

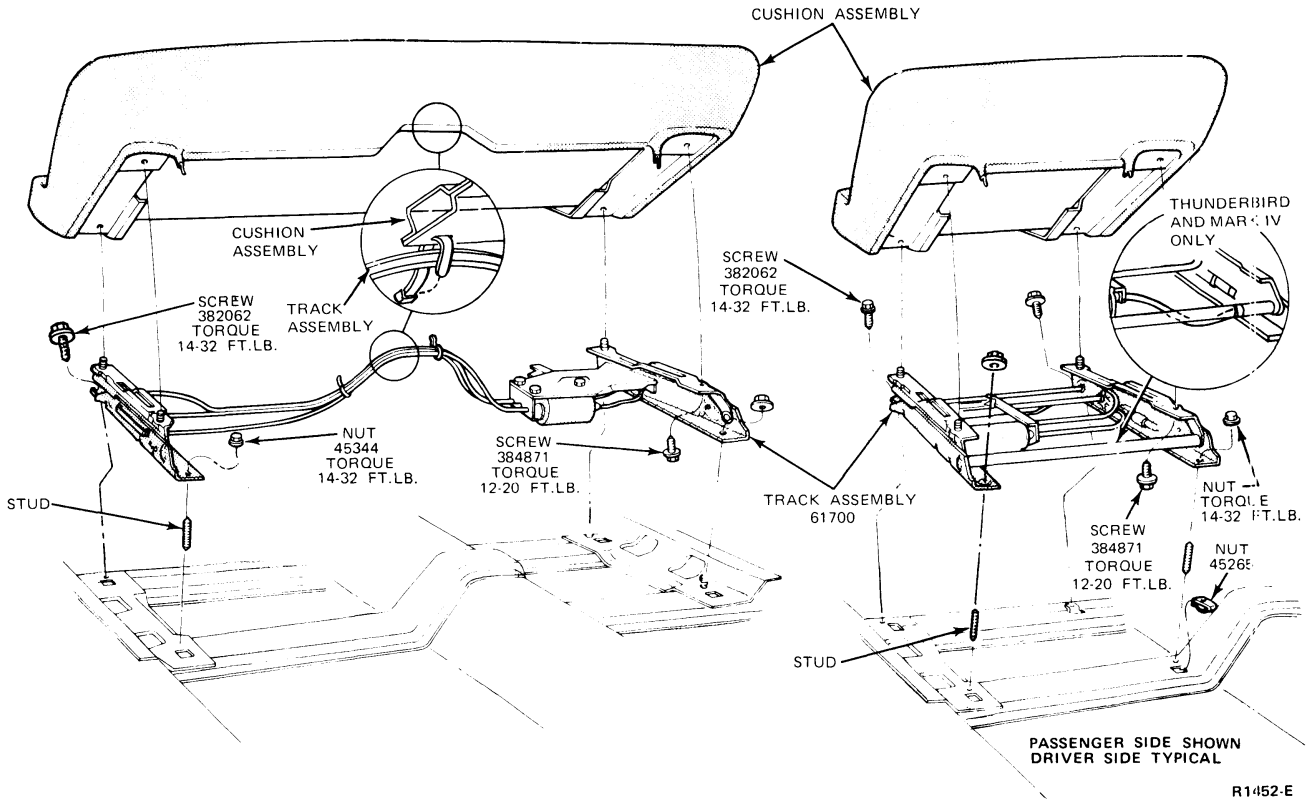


FIG. 2 Six-Way Power Seat Tracks Bench and Split Bench—LTD II, Cougar, Thunderbird and Continental Mark V

desired position. When the rear tilt switch is actuated, the rear armature drives the rear vertical worm gear and moves the seat to the desired position.

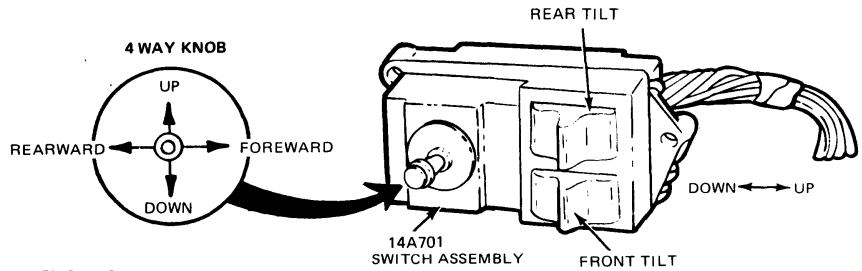
The power seat circuit is protected either by a 20 or 30 amp circuit breaker. The circuit breaker is mounted on the starter solenoid (Ford, Mercury, Thunderbird, LTD II and Cougar) and, in the fuse panel (Lincoln Continental and Continental Mark V).

Both the horizontal and vertical drive units are servicable individually. The motor assembly which contains three armatures is serviced only as an assembly. The flexible shafts are serviced individually and can be removed by removing the securing corbin clamps.

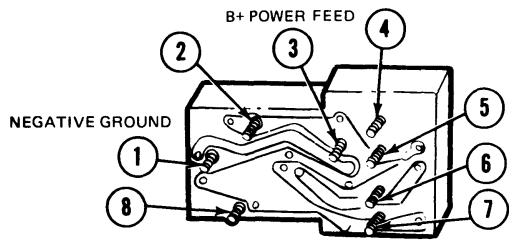
The switch and housing assembly is serviceable separately.

TESTING

The power seat switch tests are shown in Figs. 3 and 4.



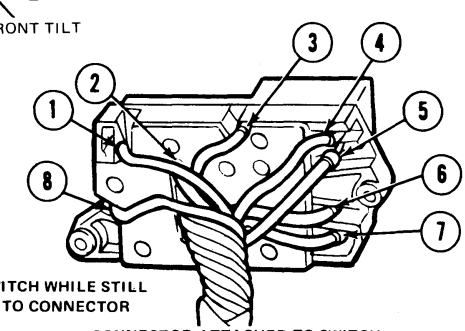
TO TEST WHEN SEPARATED FROM CONNECTOR, USING SELF-POWERED TEST LIGHT OR OHMMETER



SWITCH TERMINALS

SWITCH POSITIONS

4-WAY KNOB	REAR TILT	FRONT TILT	CONTINUITY
NEUT.	NEUT.	NEUT.	1-2-4-5-6-7-8- (# 3 ISOLATED)
FOREWARD	NEUT.	NEUT.	2-3, 1-4-5-6-7-8
REARWARD	NEUT.	NEUT.	3-8, 1-2-4-5-6-7
UP	NEUT.	NEUT.	3-4-6, 1-2-5-7-8-
DOWN	NEUT.	NEUT.	3-5-7, 1-2-4-6-8
NEUT.	UP	NEUT.	3-6, 1-2-4-5-7-8
NEUT.	DOWN	NEUT.	3-7, 1-2-4-5-6-8
NEUT.	NEUT.	UP	3-4, 1-2-5-6-7-8
NEUT.	NEUT.	DOWN	3-5, 1-2-4-6-7-8



TO TEST SWITCH WHILE STILL ATTACHED TO CONNECTOR

CONNECTOR ATTACHED TO SWITCH

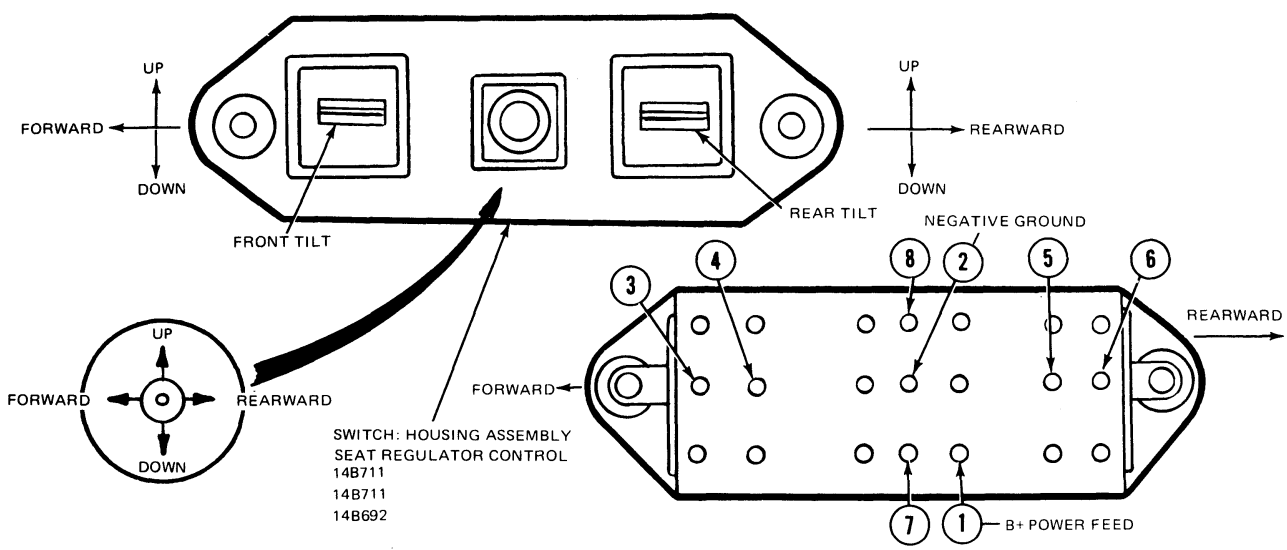
SWITCH POSITIONS

4-WAY KNOB	REAR TILT	FRONT TILT	POWER ①	GROUND ①
NEUT.	NEUT.	NEUT.	3 ONLY	1-2-4-5-6-7
FOREWARD	NEUT.	NEUT.	2-3	1-4-5-6-7-8
REARWARD	NEUT.	NEUT.	3-8	1-2-4-5-6-7
UP	NEUT.	NEUT.	3-4-6	1-2-5-7-8
DOWN	NEUT.	NEUT.	3-5-7	1-2-4-6-8
NEUT.	UP	NEUT.	3-6	1-2-4-5-7-8
NEUT.	DOWN	NEUT.	3-7	1-2-4-5-6-8
NEUT.	NEUT.	UP	3-4	1-2-5-6-7-8
NEUT.	NEUT.	DOWN	3-5	1-2-4-6-7-8

①TERMINAL NO. 1 IS ALWAYS GROUNDED AND TERMINAL NO. 3 IS ALWAYS HOT.

N2469-D

FIG. 3 Power Seat Switch Tests—Armrest Mounted Switch—Lincoln Continental and Continental Mark V



SWITCH POSITION

4-WAY KNOB	REAR TILT	FRONT TILT	CONTINUITY
NEUT. (DEAD)	NEUT. (DEAD)	NEUT. (DEAD)	2-3-4-5-6-7-8, 1 ISOLATED
FORWARD	NEUT. (DEAD)	NEUT. (DEAD)	1-7, 2-3-4-5-6-8
REARWARD	NEUT. (DEAD)	NEUT. (DEAD)	1-8, 2-3-4-5-6-7
UP	NEUT. (DEAD)	NEUT. (DEAD)	1-4-6, 2-3-5-7-8
DOWN	NEUT. (DEAD)	NEUT. (DEAD)	1-3-5, 2-4-6-7-8
NEUT. (DEAD)	UP	NEUT. (DEAD)	1-6, 2-3-4-5-7-8
NEUT. (DEAD)	DOWN	NEUT. (DEAD)	1-5, 2-3-4-6-7-8
NEUT. (DEAD)	NEUT. (DEAD)	UP	1-4, 2-3-5-6-7-8
NEUT. (DEAD)	NEUT. (DEAD)	DOWN	1-3, 2-4-5-6-7-8

TEST SWITCH WITH SELF POWERED TEST LIGHT OR OHMMETER WHEN SWITCH IS DISCONNECTED FROM WIRING

N2490-B

FIG. 4 Power Seat Switch Tests—Seat Mounted Switch—Ford, Mercury, Thunderbird, LTD II and Cougar

DIAGNOSIS

Consult the following diagnosis charts for problems encountered in the power seat system.

PROBLEM	POSSIBLE CAUSE	CORRECTION
1. Inoperative – All Modes.	A. Circuit Breaker Open.	Wait 90 seconds and try again.
	B. Circuit Breaker Damaged.	Check circuit breaker (Test for 12 volts each terminal). Replace if defective. Check circuit for short between circuit breaker and switch. Repair if necessary.
	C. Terminal Connector (Motor to Harness) pulled apart (under seat).	Reconnect.
	D. Switch Damaged.	Replace switch.
	Test: As shown in Figure No. 1 (Part 41-07).	
	Granada, Monarch – Figure No. 2.	
	Lincoln, Mark V, Thunderbird – Figure No's. 3 and 4. Ford, Mercury, LTD II, Cougar.	
	E. Ineffective Ground.	Check and repair if required.
	F. Motor Damaged.	Replace motor.
	Test: Disconnect motor leads from circuit. Connect ground and positive lead wires from the battery to the motor. Motor should operate in one direction. Reverse leads at the motor connector. Motor should run in the reverse direction. If the motor does not operate the seat tracks, inspect the tracks for possible binds and/or gear transmission lock-up condition. Also, inspect the tracks and drive mechanism for foreign material that may cause binding.	

PROBLEM	POSSIBLE CAUSE	CORRECTION
2. Inoperative – One Mode, Either Direction.	A. Switch worn or damaged.	Same as above No. 1D.
	B. Terminal connector (motor to switch) pulled apart.	Reconnect.
	C. Motor worn or damaged.	Same as above No. 1F.
	D. Cable disengaged from motor or transmission. NOTE: Before engaging cables, insure RH & LH bench seat tracks are synchronized with each other.	Engage cable – install spring clamps. Check cable for square formed ends – replace if frayed or distorted. Check for proper cable length as specified in parts information source. Check motor and transmission cable entry holes for square opening.
	E. Transmission worn or damaged.	Replace transmission.
	F. Insufficient length.	Replace cable with proper length specified in parts information source.
3. Noisy Cable.	A. Insufficient cable length.	Replace cable with proper length specified in parts information source.
	B. Disengaged from transmission or motor drive hole.	Check for proper engagement and presence of spring clamps. Engage cables and install spring clamps if required.
	C. Frayed cable ends.	Replace cable.
	D. Broken cable.	Remove broken cable ends from the tube and replace cable.
	E. Lack of lubrication.	Remove cable from the tube and apply Polyethylene Grease Part No. D0AZ-19584 A or equivalent, to the cable and assemble.
4. Horizontal Chucking.	A. Horizontal movement over 1/32".	Replace transmission if pinion gear permits carriage to move over 1/8" fore and aft. Replace mounting base if movement occurs without pinion gear moving.
	B. Out of round pinion gear.	Replace transmission.
	C. Missing slide.	Install slide (4) required each side.
5. Binding.	A. Loose transmission attaching nuts.	Tighten transmission attaching nuts (2) required, (Torque 7-12 ft-lbs).

PROBLEM	POSSIBLE CAUSE	CORRECTION
6. Seat Cushing Rocking.	A. Loose cushion attaching screws.	Tighten the (4) cushion to track attaching screws (Torque 12-20 ft-lbs).
7. Seat Looseness.	A. Loose track to floor attaching nuts.	Tighten the (4) track to floor attaching nuts (Torque 14-32 ft-lbs).
	B. Floor carpet or deadener interference.	Check floor mounting surface for any obstruction and remove if required
8. Upper and Lower Track Looseness (Vertical Chucking).	A. Missing spring (clock type).	Install spring.
	B. Missing slide.	Install slide (4) required each side.
9. Inoperative Vertical Mode.	A. Missing pinion gear retaining pin.	Engage pinion gear. Replace pin through attaching hole in pinion gear shaft.
	B. Transmission worn or damaged.	Replace transmission.
	C. Broken cable	Replace cable.
10. Inoperative Horizontal Mode.	A. Missing horizontal assist spring.	Install spring.
	B. Broken horizontal assist spring.	Replace spring.
	C. Disconnected horizontal assist spring.	Connect spring.
	D. Transmission worn or damaged.	Replace transmission.
	E. Cable worn or damaged.	Replace cable.
11. Lateral Chucking.	A. Missing slide.	Install slide (4) required each side.
12. Binding or Slow Operation.	A. Floor attaching screws torqued with tracks positioned tight against rear or front stops.	Loosen floor attaching nuts. Cycle tracks – position tracks away from stops – tighten attaching nuts (Torque 14-32 ft-lbs).
	B. Broken rear assist spring (vertical or horizontal).	Replace spring.
	C. Low charge battery.	Check for proper state of charge – at least 1.200 specific gravity. Charge as specified in Car Shop Manual.

REMOVAL AND INSTALLATION

SEAT TRACK

Removal

1. Remove the nuts and washers and/or bolts retaining the seat track assembly to the floor pan (Figs. 1 and 2).
2. Lift the seat up enough to disconnect the seat motor wires. Then, remove the two bolts attaching the seat belts-to-floor and disconnect the multiple connector. Remove the seat and track assembly from the vehicle.
3. Place the seat upside down on a clean bench.
4. Remove the shield(s) from the outboard side of the seat cushion (if so equipped).
5. Remove two bolts attaching each track to the seat frame and remove the track assembly from the seat.

Installation

1. Position the track assembly to the seat cushion. With a Thunderbird or Continental Mark V track, install the side shield support(s) between the track and cushion (if so equipped).
2. Install the four track-to-cushion attaching screws and washers and tighten to specification shown Figs. 1 and 2. To be sure that the two tracks are mounted in parallel, move the J-nut at the right front corner so that the distance between the tracks at the front equals that at the rear. Measurement should be made between the track base channels.
3. Install the side shield(s) to the seat cushion (if so equipped).
4. Connect the seat control to the track assembly at the connectors.
5. Position the seat and track assembly in the vehicle and connect the seat motor wires at the connector and the seat sensor switch wires. Install the two bolts attaching the seat belts to the floor and connect the multiple connector.
6. Install the seat track-to-floor pan retaining nuts and/or bolts and tighten to specification shown in Figs. 1 and 2.

RIGHT OR LEFT TRACK

Removal

1. Remove nuts and washers and/or bolts retaining the seat track to the floor pan (Figs. 1 and 2).
2. Lift the seat up enough to disconnect the seat motor wires. Then, remove the two bolts attaching the seat belts to floor. Remove the seat and track assembly from the vehicle.
3. Remove the right and left cushion side shields from the seat cushion (if so equipped).
4. Remove the retaining clamps and disconnect the drive cables from the seat tracks.
5. If the motor mounting bracket is attached to the track being replaced, remove the bracket-to-track screws and remove the bracket, motor and drive cables as an assembly. If the motor mounting bracket is not attached to the track being replaced, remove the three motor-to-mounting bracket screws and remove the motor and drive cables as an assembly.

Installation

1. Position the side shield support(s) (if so equipped) and then the replacement track to the seat frame. Install the attaching bolts and washers and tighten to specification shown in Figs. 1 and 2.
2. If the motor mounting bracket was attached to the track that was replaced, position the bracket, motor and drive cable assembly to the track and install the two bracket-to-track screws; otherwise, position the motor and drive cables and install the three motor-to-bracket screws.
3. Connect the drive cables to the tracks and install the retaining clamps.
4. Install the right and left cushion side shields (if so equipped).
5. Position the seat and track assembly into the vehicle and connect the motor. Install the two bolts attaching the seat belts to the floor and connect the multiple connector.
6. Install the four seat track-to-floor pan retaining nuts and washers and tighten to specification shown in Figs. 1 and 2.
7. Check the operation of the seat.

MOTOR AND DRIVE CABLES

Removal

1. Remove nuts and washers retaining the seat track to the floor pan (Figs. 1 and 2).
2. Lift the seat and disconnect the seat motor. Remove the two bolts attaching the seat belts to floor and disconnect the multiple connector. Then, remove the seat and seat track from the vehicle.
3. Remove three motor assembly to mounting bracket attaching bolts.
4. Remove the clamps retaining the drive cables to the seat tracks. Then, open the wire retaining straps and remove the motor assembly and cables from the seat track assembly.
5. Remove the cable retaining brackets and remove the drive cables from the motor assembly.

Installation

1. Position the cables and retaining brackets to the motor and install the retaining screws.
2. Position the cables to the seat tracks and the motor to the mounting bracket.
3. Install the three motor-to-mounting bracket attaching bolts.
4. Install the clamps retaining the drive cables to the seat tracks.
5. Insert the motor wire in the wire straps and connect the wire at the connector.
6. Position the seat and track in the vehicle and connect the seat motor. Install the two bolts attaching the seat belts to the floor and connect the multiple connector.
7. Install the seat track-to-floor pan retaining nuts and washers and tighten to specification shown in Figs. 1 and 2.
8. Check the operation of the seat.

MAJOR REPAIR OPERATIONS

LINCOLN CONTINENTAL BENCH SEAT TRACK

To replace any component of a seat track, remove the track as outlined under Removal and Installation and disassemble the track as required to replace the damaged component.

On each power seat assembly, each track uses a vertical assist spring. The motor and mounting bracket is bolted to the left seat track. The Lincoln Continental left seat track is the primary seat track. The right seat track is the secondary seat track (Fig. 5).

Two vertical drive units (front and rear) and one horizontal drive unit are located in both the primary (left) and secondary (right) tracks (Fig. 6).

Disassembly

1. Remove the motor bracket mounting bolts (3) from the motor mount bracket to motor (Fig. 6).
2. Disconnect the cable housing hose clamps (3) and remove the terminal block connector from the terminal block bracket (Fig. 6).
3. When disassembling an inoperative seat track, it is helpful to position the track upper channel in the full up position. If the channel is not in the up position, insert the square end of the drive cable into one of the vertical drive couplings, and manually turn

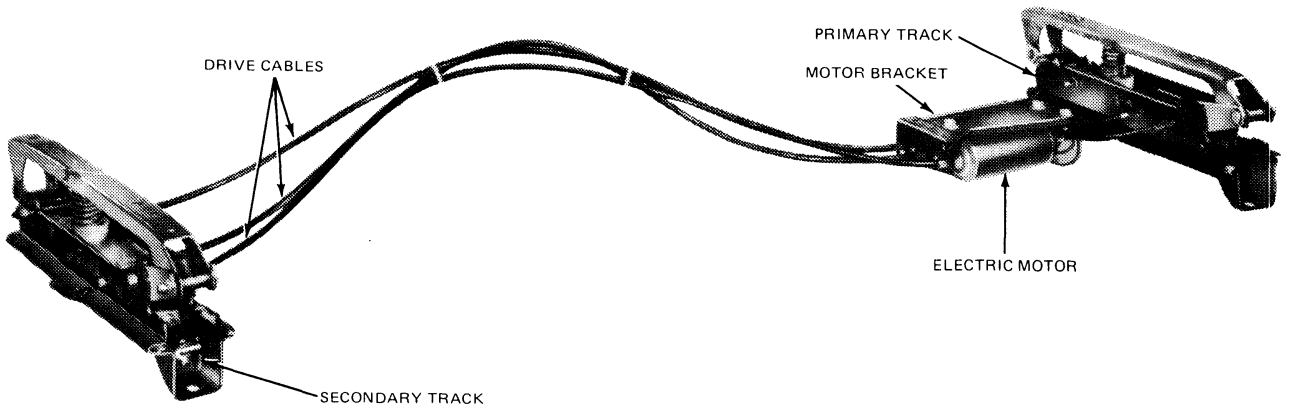


FIG. 5 Six Way Bench Power Seat Assembly—Lincoln Continental, Bench Seat

the vertical drive to the full up position (Fig. 8). Once the vertical drive is run against the stop, it is necessary to back it off 1/4 turn. This is done to provide working clearance. If the vertical drive is inoperative, insert the drive cable into the drive coupling and turn it to the full forward position. Again, back off from the full stop position 1/4 turn.

4. When taking apart the primary (left) track, hold the upper front channel against the vertical assist spring while removing the front clevis pin (Fig. 7). **CAUTION: Release the upper channel carefully so that the upper channel will not spring open quickly. The upper channel is under spring tension.** Remove the assist spring and cup (Fig. 9).

   The secondary (right) track upper channel is removed in the same manner as described above.

5. Remove the roll pin from the rear end of the two side rails. Also remove the front and rear pivot bolts and nuts (Fig. 9).

When disassembling the primary (left) track, remove the through bolts (2) and nuts (2) that retain the horizontal drive and motor mount bracket to the side rails. Remove the motor mounting bracket. Lift the drive carriage and drive assembly out of the base channel.

When disassembling the secondary (right) track, remove the through bolts (2) and nuts (2) from the side rails. Lift the horizontal drive carriage out of the base channel. If the horizontal drive is inoperative replace it.

If the front vertical drive is inoperative remove the front bell crank assembly by unscrewing the front bell crank from the screw. If the rear vertical drive is inoperative, remove the roll pin and rotate the rear bell crank off the drive screw. Replace the defective vertical drive.

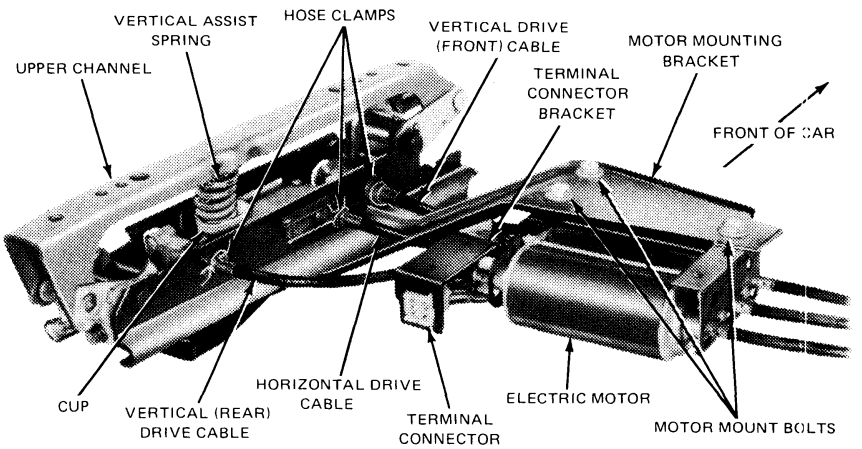


FIG. 6 Primary Seat Track Components, Bench Seat

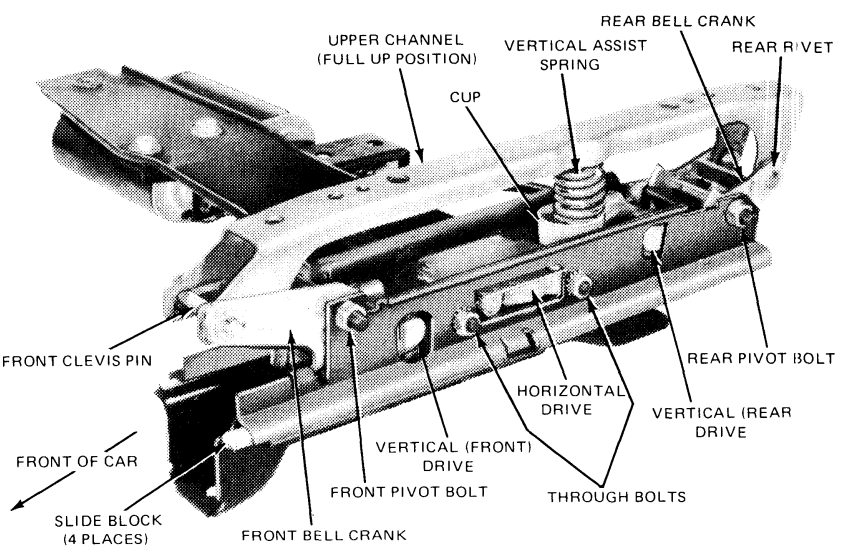


FIG. 7 Primary Seat Track Components—Lincoln Continental, Bench

Assembly

1. Install the rear bell crank to the vertical drive by turning it onto the threaded drive screw. If either of the vertical drives are being replaced, mount the new drive to the carriage

by installing the roll pin into the correct roll pin hole.
2. Properly position the four horizontal slide blocks on the base channel as shown (Fig. 10).
3. Install the horizontal drive to the drive carriage.
4. Install the drive carriage by positioning the pinion retainer block (Fig. 10), in the full forward position before engaging the pinion with the horizontal rack. Make sure the pinion is retained by the retainer block.
5. Install the through bolts (2) that hold the motor bracket (primary track), the horizontal drive and slide rails (2) together (Fig. 7).
6. Align the vertical drive (front and rear) bell crank bolt holes manually, by turning the vertical drive(s) input coupling(s) (Fig. 8). Secure the motor bracket bolts evenly. Manually turn the vertical drive to the stop position in the full up mode.
7. Install the roll pin at the rear end of the side rails (2).
8. With the primary (left) track, install the vertical assist spring and cup in the drive carriage. The boss on the cup should enter the hole in the bottom of the carriage. Install the wear plates, one on each side of the front upper channel. Force the upper channel down, against the spring and secure the forward end to the front bell crank (Fig. 9).
9. Connect the drive cables (3) to the drives (3). Secure the hose clamps. Connect the terminal block to the terminal block bracket. Secure the motor to motor mount bracket with the attaching bolts (3) (Fig. 6).

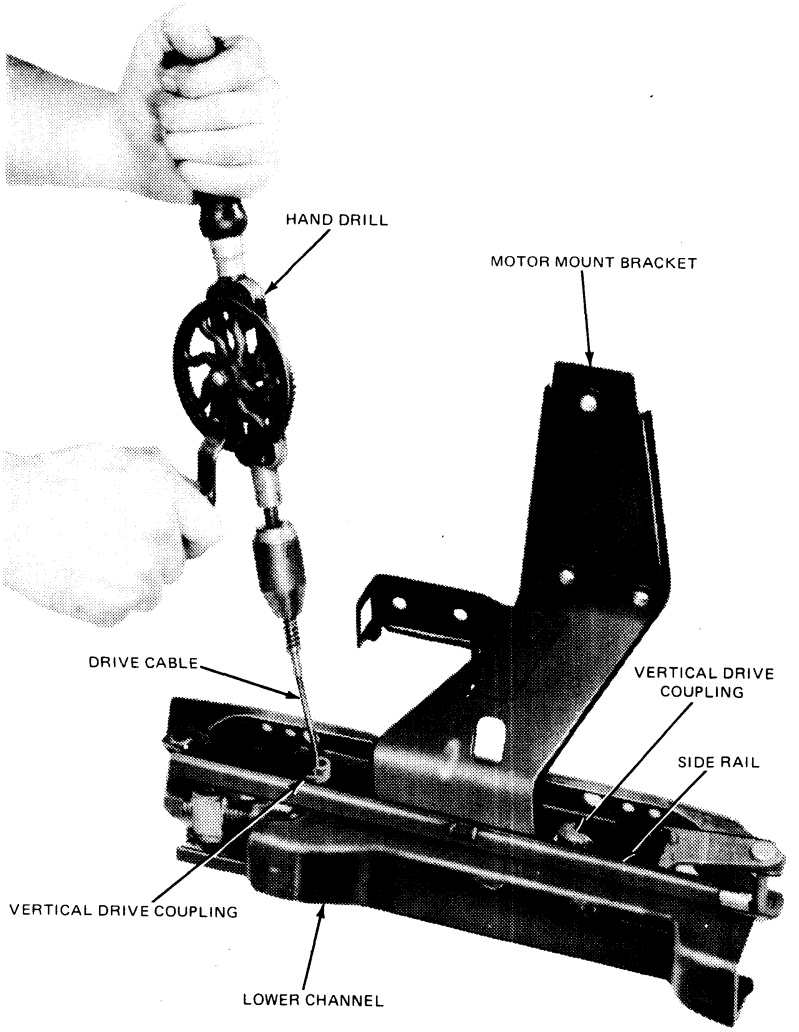


FIG. 8 Positioning the Upper Channel in the Full Up Position

SIX WAY POWER SEAT—SPLIT BENCH

Disassembly

1. Remove the motor mount bracket mounting bolts from the motor mount bracket to motor. Disconnect the hose clamps (3) from the drive input shafts (Fig. 11).
2. Manually position the seat track in the full up, and mid-horizontal position. To do this, insert the square end of a drive cable in one of the vertical drives and manually turn the drive unit until it is in the full up position. Using the horizontal drive unit, insert the cable drive and manually turn it to the mid-horizontal position.
3. Remove the front and rear clock springs using vise grips (Fig. 12).
4. Remove the cotter pins from the pivot pins on the secondary track (Fig. 13).
5. Remove the retaining rings from the horizontal pinions (primary and secondary tracks).
6. Remove the base and carriage from the secondary track by driving the pinion gear through the carriage rack (Fig. 14).
7. Remove the bolts (2) and nuts (2) on the primary track that retain the drive assembly to the carriage (Fig. 11).
8. Move the horizontal pinion rack gear manually (using the procedure in Step 2), to gain access to the retaining hair pins, holding the vertical clevis pins.
9. Replace the inoperative drive assembly.

Assembly

1. Position the drive assembly, inserting the horizontal pinion into the pinion cage (Fig. 14).
2. Install the drive assembly retaining nuts and hair pins into the front and rear vertical drives (2).
3. Manually position the front and rear vertical drives in the full up position. Also manually position the horizontal drive to the extreme forward position.
4. Using vise grips, pre-load the front and rear clock springs and install the springs on the spring studs (Fig. 12).
5. Assemble the secondary track by inserting the horizontal pinion gear in the extreme forward position in the pinion cage. Be sure that the front and rear torsion bar holes are aligned with the pivot pins, on the secondary carriage. Also properly seat the pinion gear bushing in the carriage (Fig. 12).
6. Install the cotter pins (2) and snap rings (2) on the horizontal pinions.
7. Install the motor mounting bracket and connect the drive cables (3) to the drive unit (3) assembly.

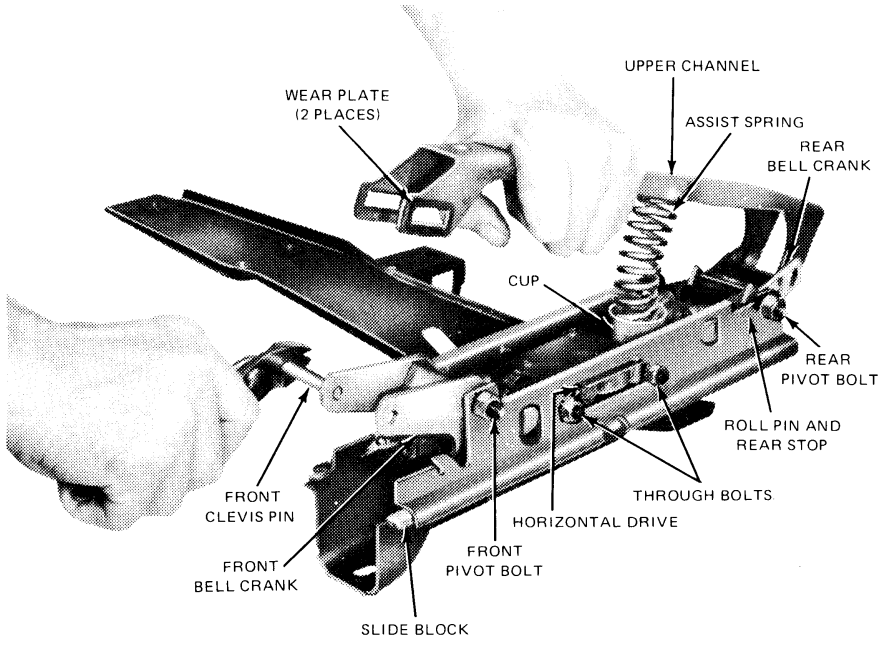


FIG. 9 Removing the Upper Channel—Lincoln Continental, Bench Seat

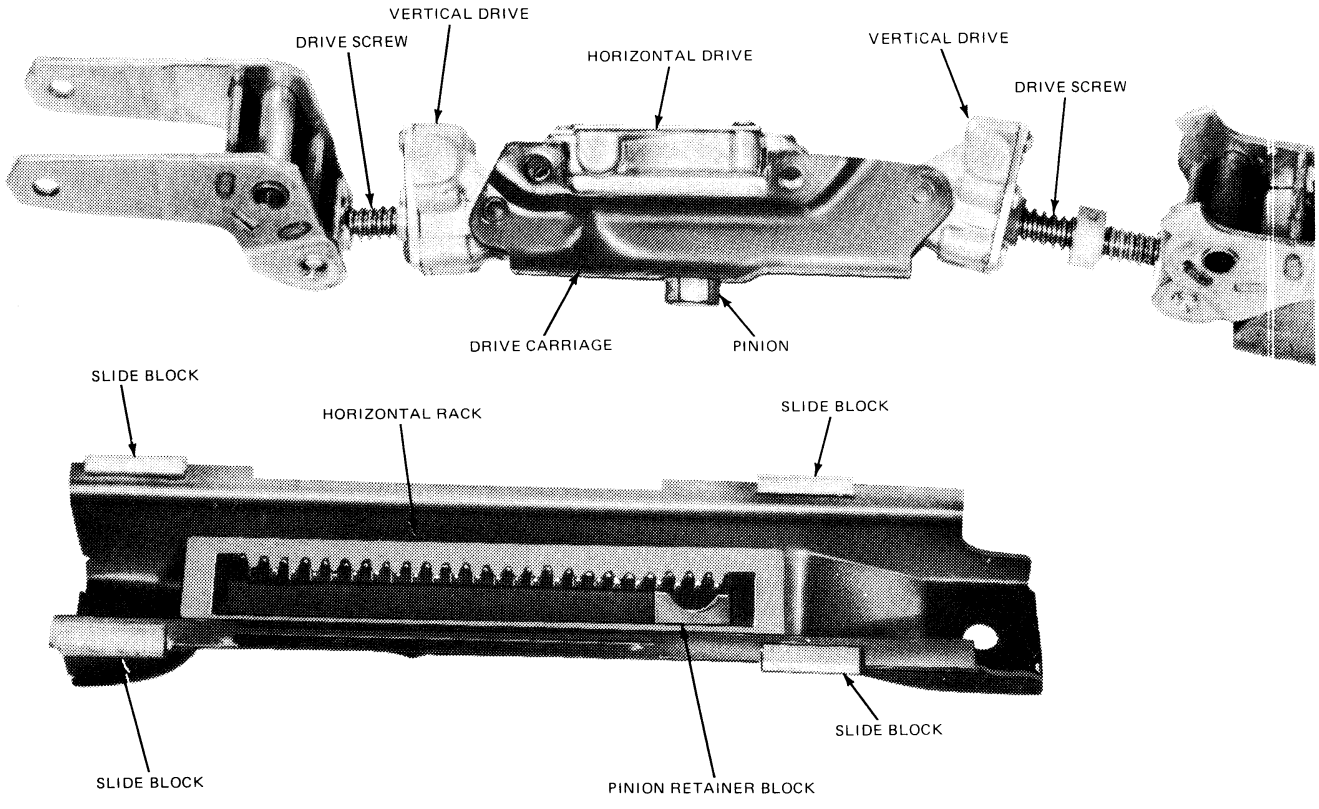


FIG. 10 Pinion, Horizontal Rack and Pinion Retainer Block—Lincoln Continental, Bench Seat

SIX WAY POWER SEAT—FULL BENCH

The six way power seat full bench seat tracks (Fig. 15) are serviced in the same way as the split bench primary seat track. The difference is that the bench seat adjusters are both primary tracks. The right primary track has a horizontal assist spring that helps the right track in moving forward. Refer to Split Bench Major Repair Operations for servicing the full bench seat tracks.

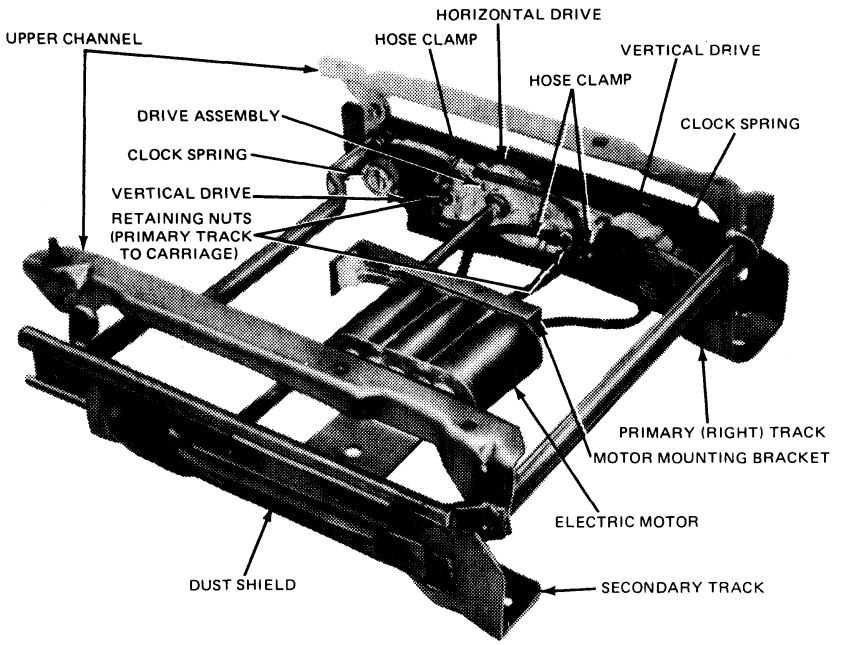


FIG. 11 Six Way Power Seat Track Assembly—Split Bench Full Up and Mid-Horizontal Position Shown

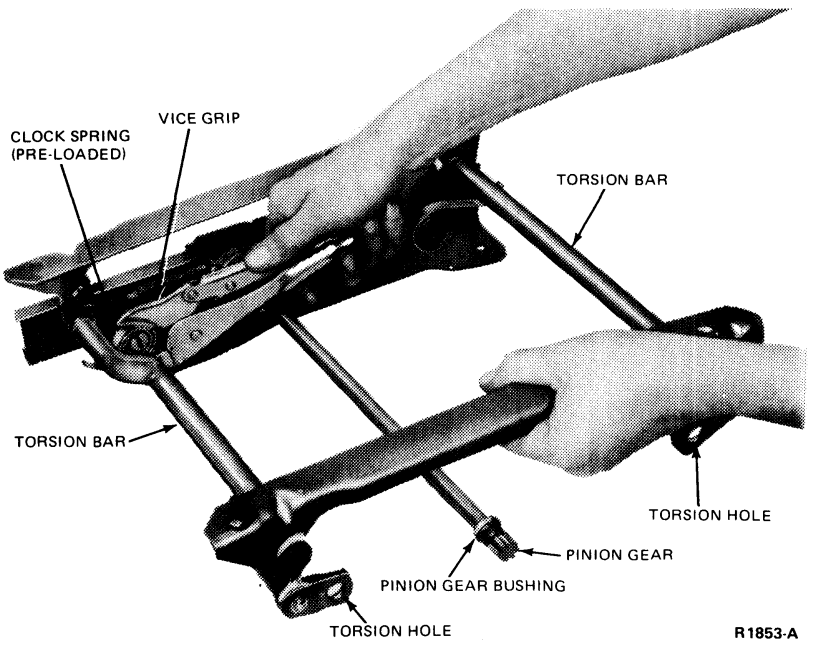
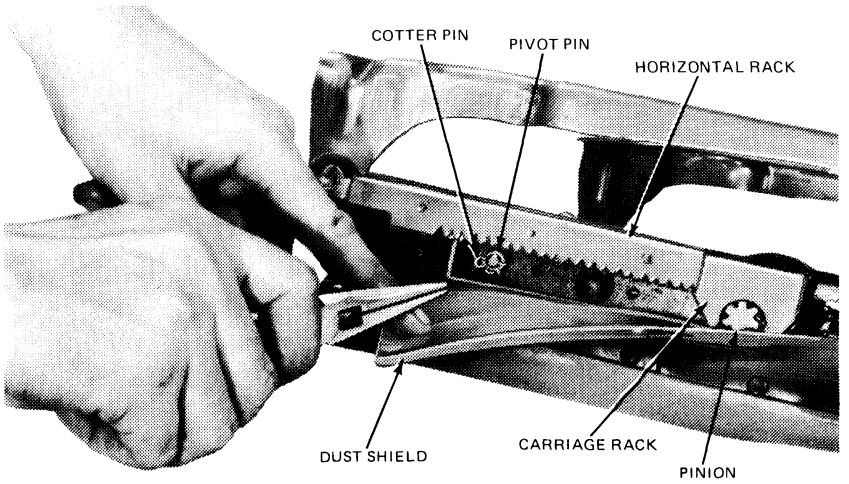
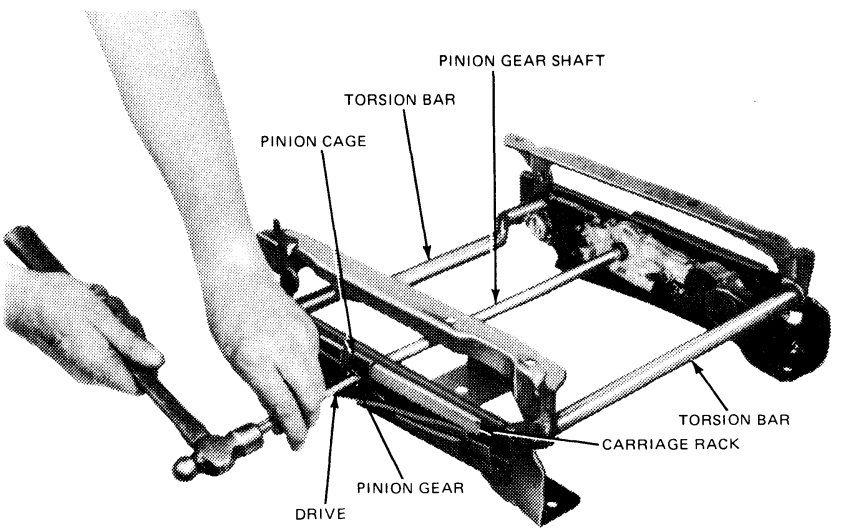


FIG. 12 Removing the Clock Springs



R1854-A

FIG. 13 Removing the Cotter Pins from the Pivot Pins



R1855-A

FIG. 14 Driving the Pinion Gear Through the Carriage Rack

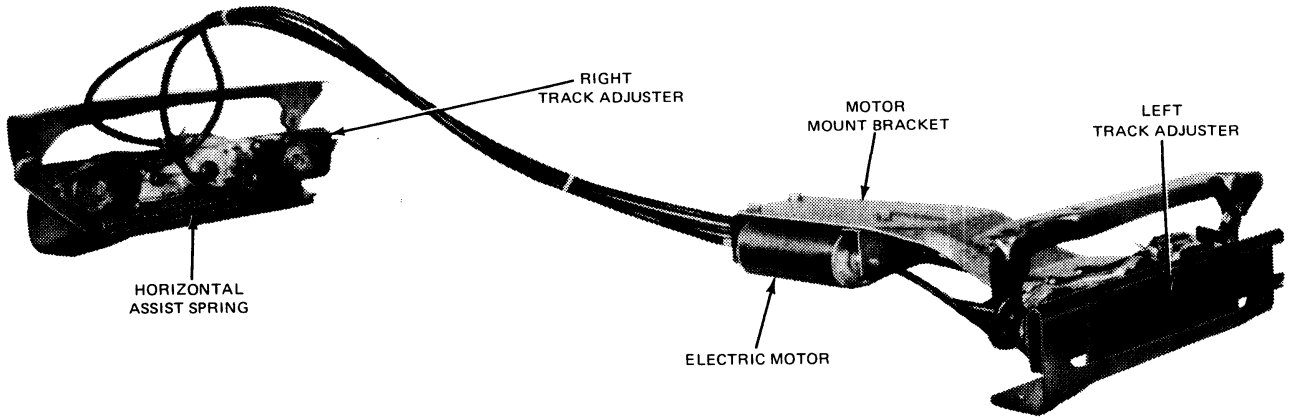


FIG. 15 Six Way Power Seat Assembly—Full Bench—Ford, Mercury, LTD II, Cougar and Thunderbird

Conventional Rear Seats

PART 41-14

REMOVAL AND INSTALLATION

All Models Except Pinto, Bobcat and Mustang

Removal

1. Apply knee pressure to the lower portion of the rear seat cushion; then push rearward to disengage the seat cushion from the retainer brackets (Fig. 1).
2. Remove one of the rear quarter arm rests (if so equipped), to remove the seat back assembly.
3. Remove the seat back lower retaining screws (Fig. 2).
4. Grasp the seat back assembly at the bottom and lift up to disengage the hanger wire from the retainer brackets.
5. Remove the seat back assembly from the vehicle.

Installation

1. Position the seat back assembly into the vehicle so that the hanger wire is engaged with the retaining brackets (Fig. 2).
2. Install the seat back lower retaining screws and tighten securely.
3. Position the seat cushion assembly into the vehicle.
4. Apply knee pressure to the lower portion of the seat cushion assembly and push rearward and down to lock the seat cushion into position (Fig. 1).
5. Install the rear quarter arm rest (if removed).
6. Check rear seat cushion to be certain it is secured into its floor retainer.

Pinto, Bobcat and Mustang

Removal

1. Remove the two lower retaining screws securing the rear seat cushion (Fig. 3) and remove the seat cushion from the vehicle.
2. Remove the two lower retaining screws securing the rear seat back.
3. Then, grasp the seat back assembly at the bottom and lift up to disengage it from the retainers (Fig. 3).
4. Remove the rear seat back assembly from the vehicle.

Installation

1. Position the rear seat assembly to all four retainers and install the two lower retaining screws. Tighten securely.
2. Position the rear seat cushion into the vehicle and install the two lower retaining screws. Tighten securely.

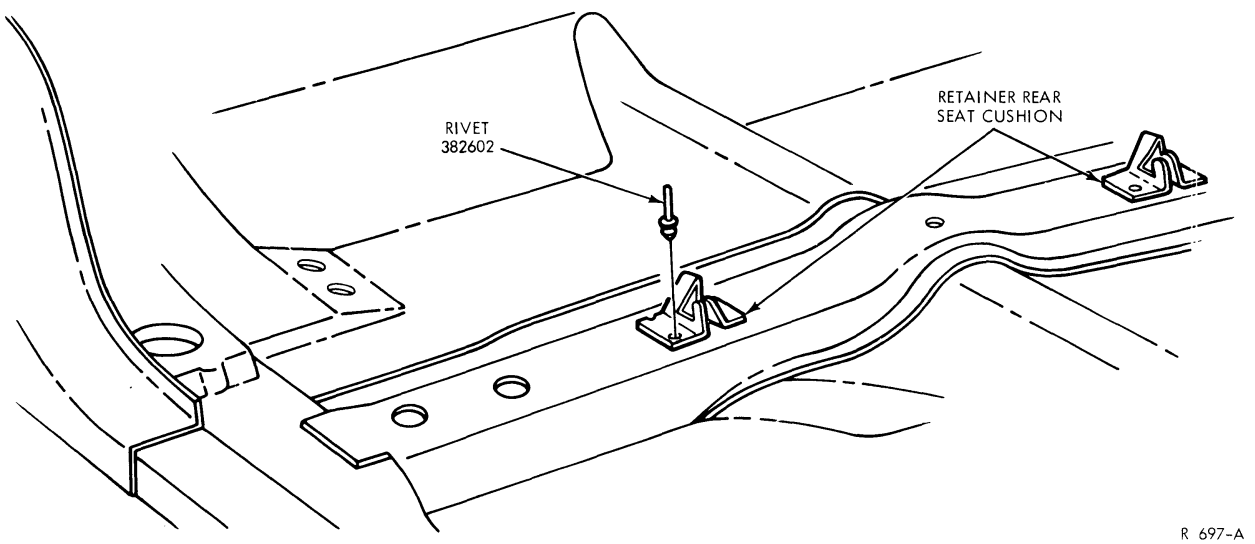


FIG. 1 Rear Seat Cushion Retainer—Ford and Mercury. Lincoln Continental, Mark V, LTD II, Thunderbird and Cougar have welded retainer. Others typical.

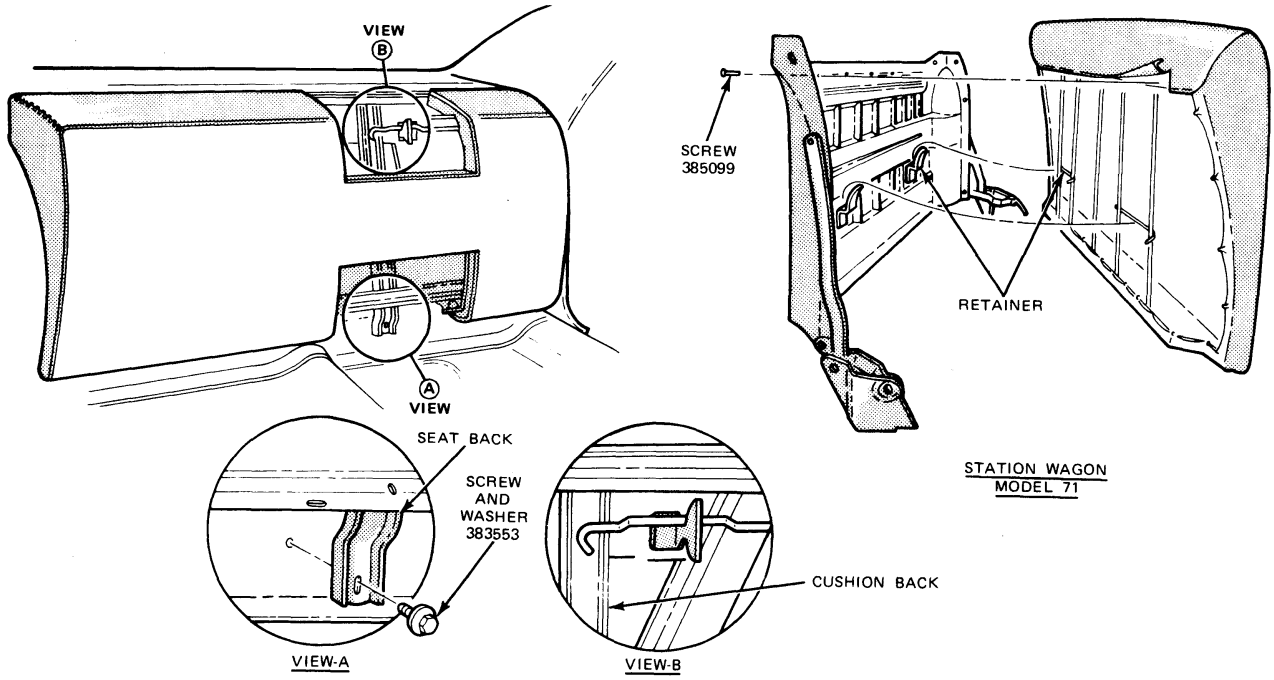


FIG. 2 Rear Seat Back Installation—Typical

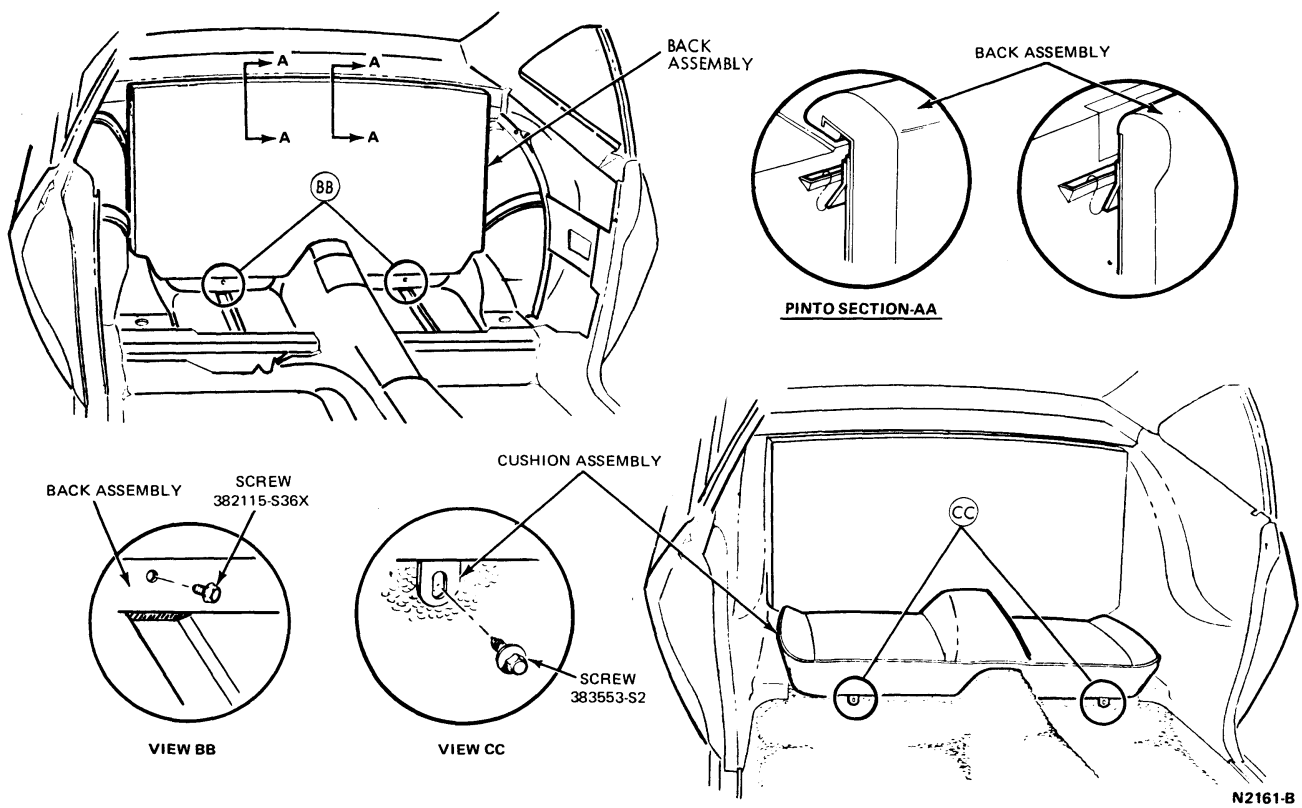


FIG. 3 Rear Seat Back and Cushion Installation—Granada, Monarch, Mustang, Pinto and Bobcat

Fold Down Rear Seats

PART 41-20

SUBJECT	PAGE	SUBJECT	PAGE
ADJUSTMENTS		ADJUSTMENTS (Cont'd.)	
Auxiliary Seat Back Latch	20-1	Second Seat Back Latch Striker	20-1
Panel Extension Rear Seat Back Floor	20-1	Stowage Compartment Door Latch	20-1
Rear Seat and Auxiliary Floor	20-1	REMOVAL AND INSTALLATION	20-1

CR2013-A

ADJUSTMENTS

REAR SEAT AND AUXILIARY FLOOR

Pinto, Bobcat and Mustang

Vertical adjustment for the seat back latch striker can be made by loosening the four attaching nuts, and moving the striker plate up and down to obtain proper engagement to the seat back latch (Fig. 1).

Lateral adjustment of the seat back latch can be made by removing the rear seat back, loosening the 2 latch attaching screws and moving the latch inboard or outboard as required to properly engage the latch striker.

Ford, Mercury, LTD II and Cougar—(Typical)

There are four adjustment locations on all station wagon models for the folding second seat and rear auxiliary floor seats. See Figs. 2 through 4.

PANEL EXTENSION REAR SEAT BACK FLOOR

Should the rear seat back extension panel become difficult to fold in a locking position, loosen the two attaching bolts on each side of the seat. Move the panel extension fore or aft to obtain proper locking position.

SECOND SEAT BACK-LATCH-STRIKER

The striker adjustment to the second rear seat stop assembly is made by turning the striker in or out to obtain the desired locking clearance. Install shims (not more than 4), and tighten to 20 ft-lbs. See Fig. 2.

The Ford and Mercury adjustment is located on the right side of the back seat. The LTD II and Cougar is located on the left side of the back seat.

AUXILIARY SEAT BACK-LATCH

The release handle and latch assembly located on each side of the auxiliary seat back has an up and down adjustment. (See Figs. 3 and 4.)

Loosen the two screws directly behind the seat back latch assembly to obtain the desired locking clearance. Install shims if required and tighten to specification.

STOWAGE COMPARTMENT DOOR-LATCH

To adjust the latch assembly, loosen the two screws holding the lock assembly, and raise or lower the lock to obtain desired position. Add shims if required and tighten the attaching screws. See Fig. 4.

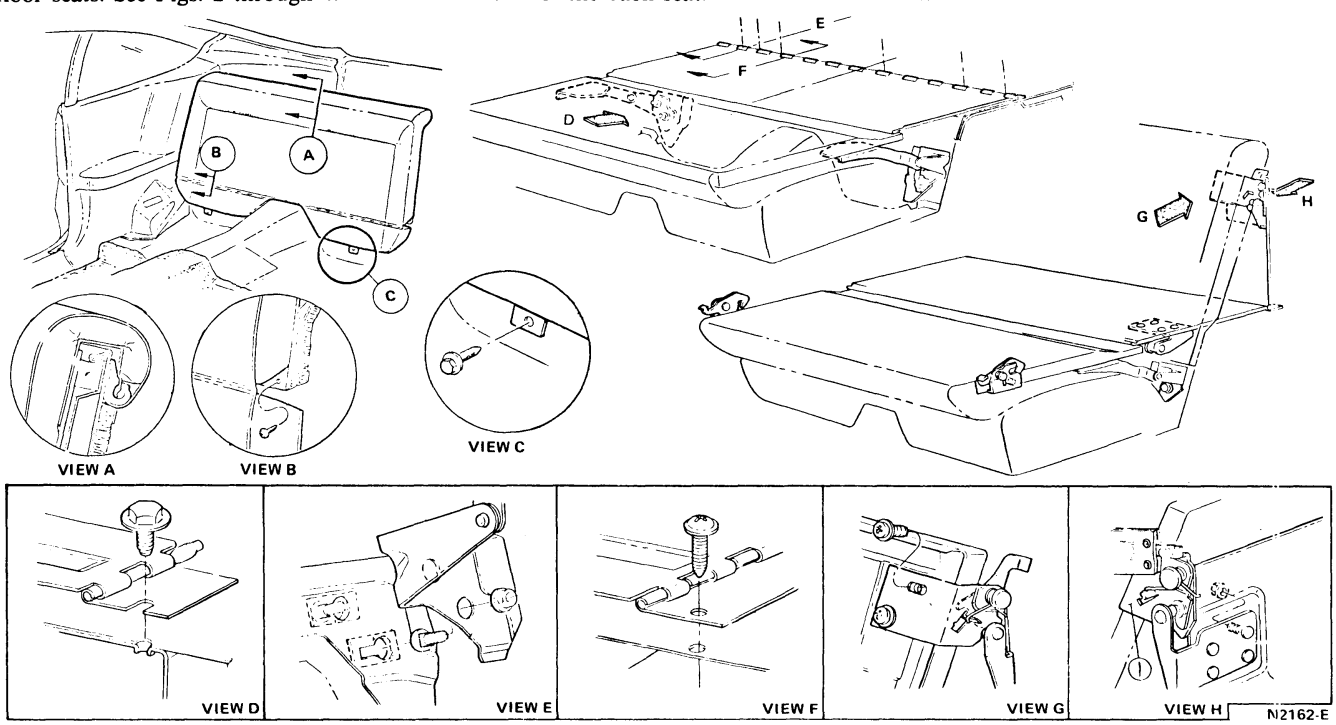


FIG. 1 Fold-Down Rear Seat Back Installation — Mustang Shown — Pinto and Bobcat Similar

REMOVAL AND INSTALLATION

Refer to the illustrations shown in Figs. 1 through 6 and Fig. 2 in Part 41-14.

Removal

1. Remove the two lower retaining screws securing the rear seat back to the floor.
2. On the Mustang, Bobcat and Pinto, rotate the bottom kidney pads up and remove the two screws retaining the upper back to the folding floor.
3. Lift up and disengage the upper clips of the rear back from the top of the folding floor.

Installation

1. Center the seat back on the folding floor and push down, engaging the upper channel of the back to the top of the folding floor.
2. On the Mustang, Bobcat and Pinto, rotate kidney pads up and install 2 screws retaining the upper seat back to the folding floor.
3. Install two screws engaging the kidney pads to the floor pan.
4. Position the rear seat cushion into the vehicle and install the two lower retaining screws.

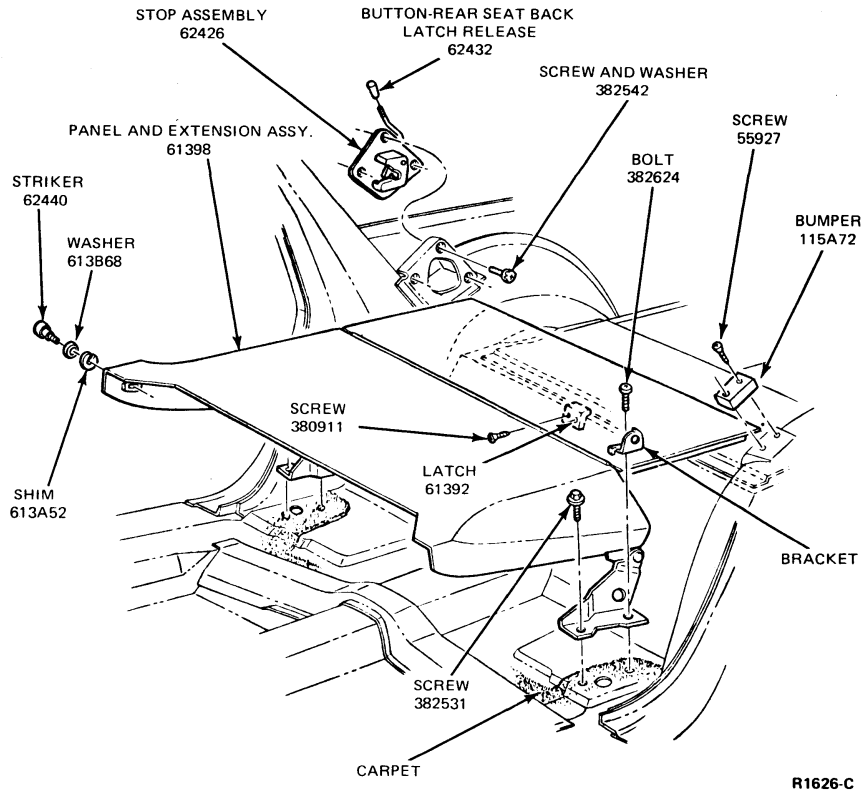


FIG. 2 Rear Seat Back Floor Extension Panel Ford, Mercury, LTD II and Cougar

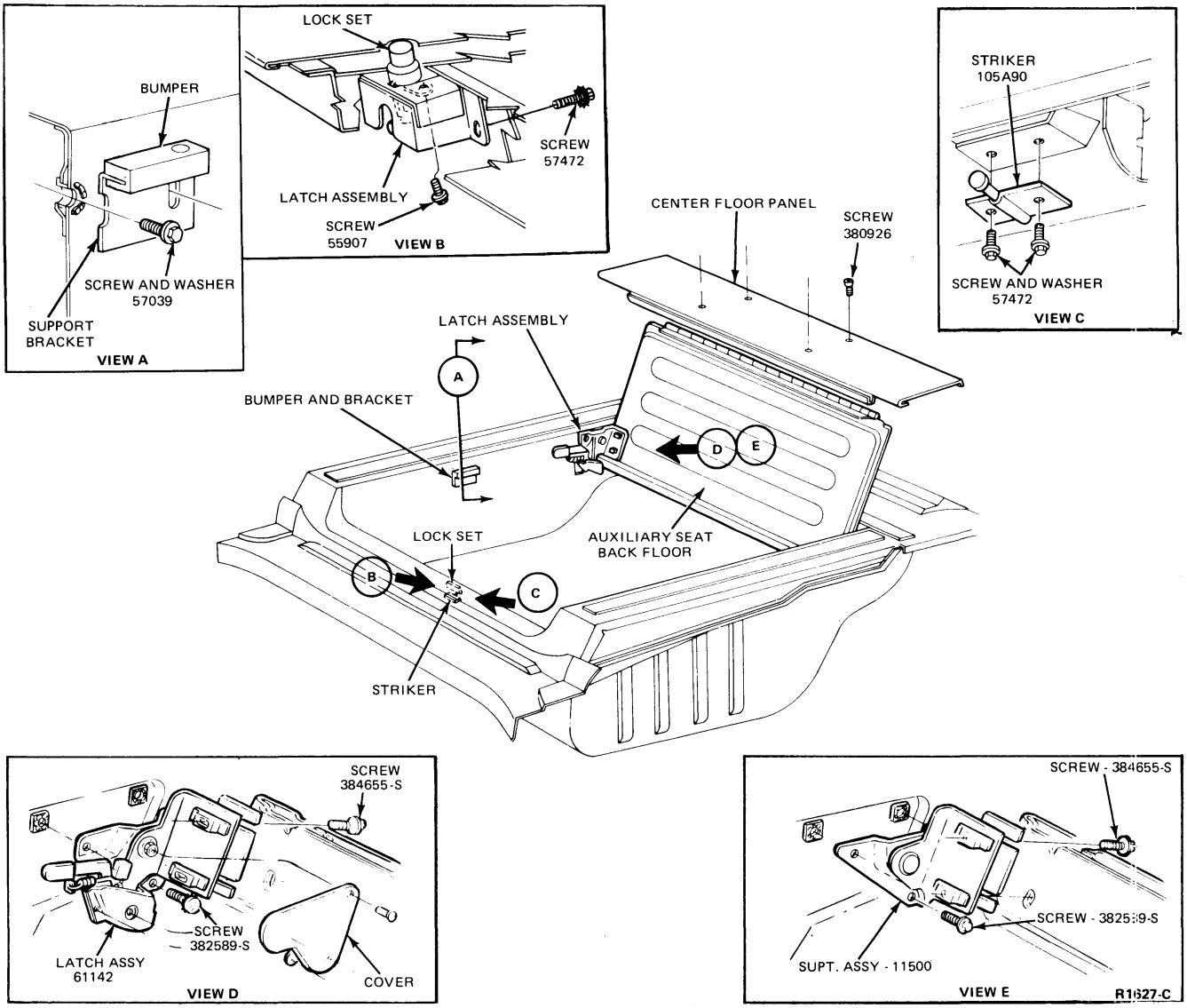


FIG. 3 Folding Floor Rear Facing 3rd Seat LTD II and Cougar

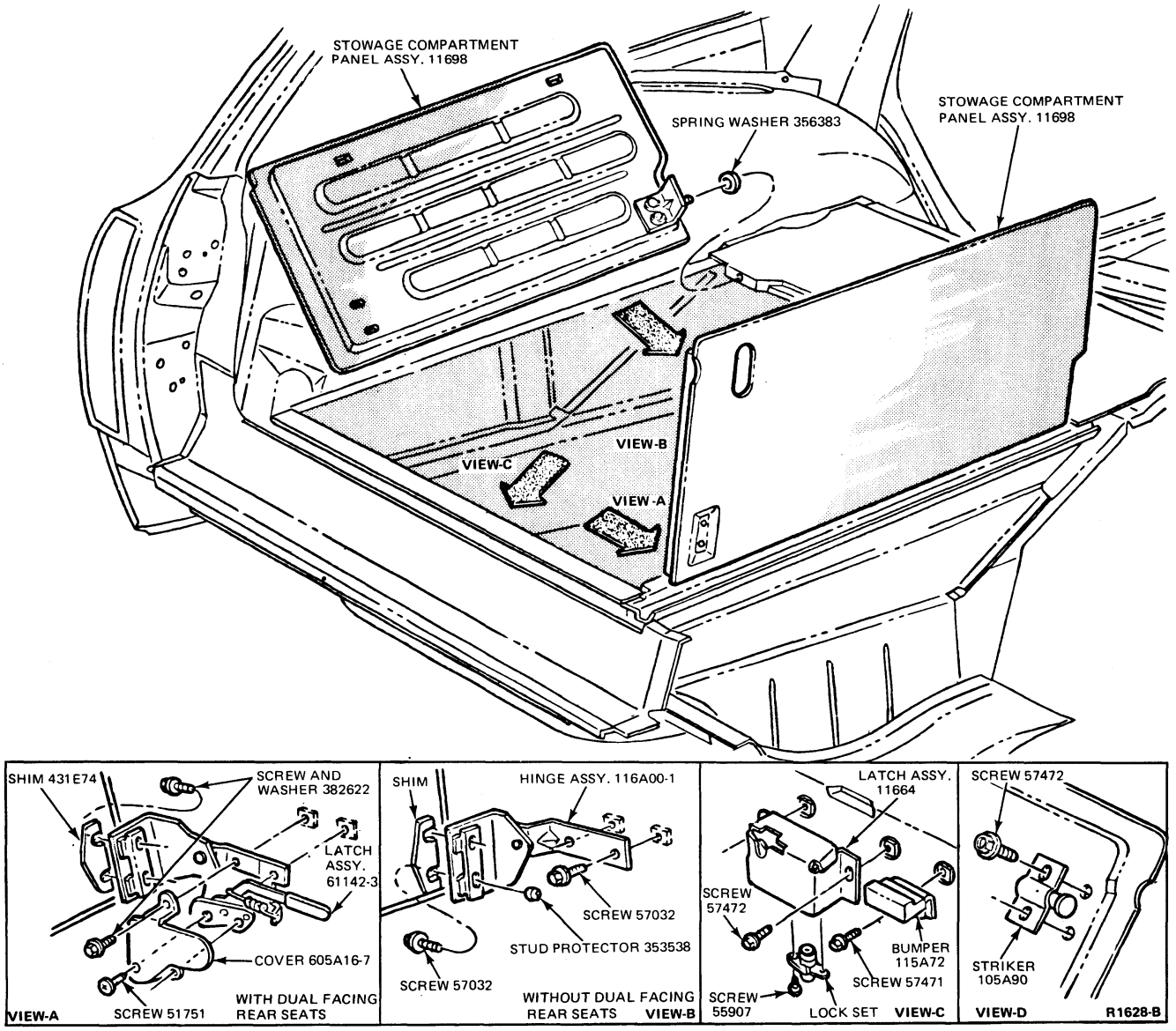


FIG. 4 Rear Seat Auxiliary Floor Ford—Mercury

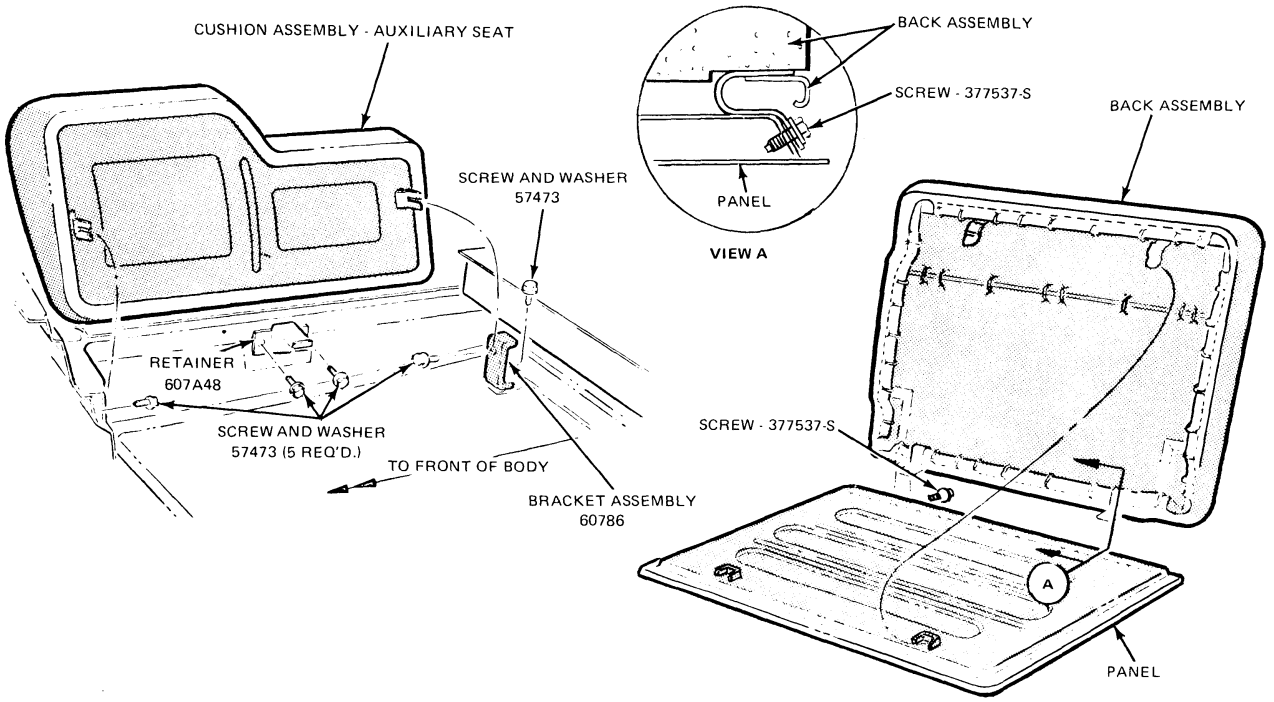


FIG. 5 Auxiliary Seat Cushion and Back Installation—Ford and Mercury

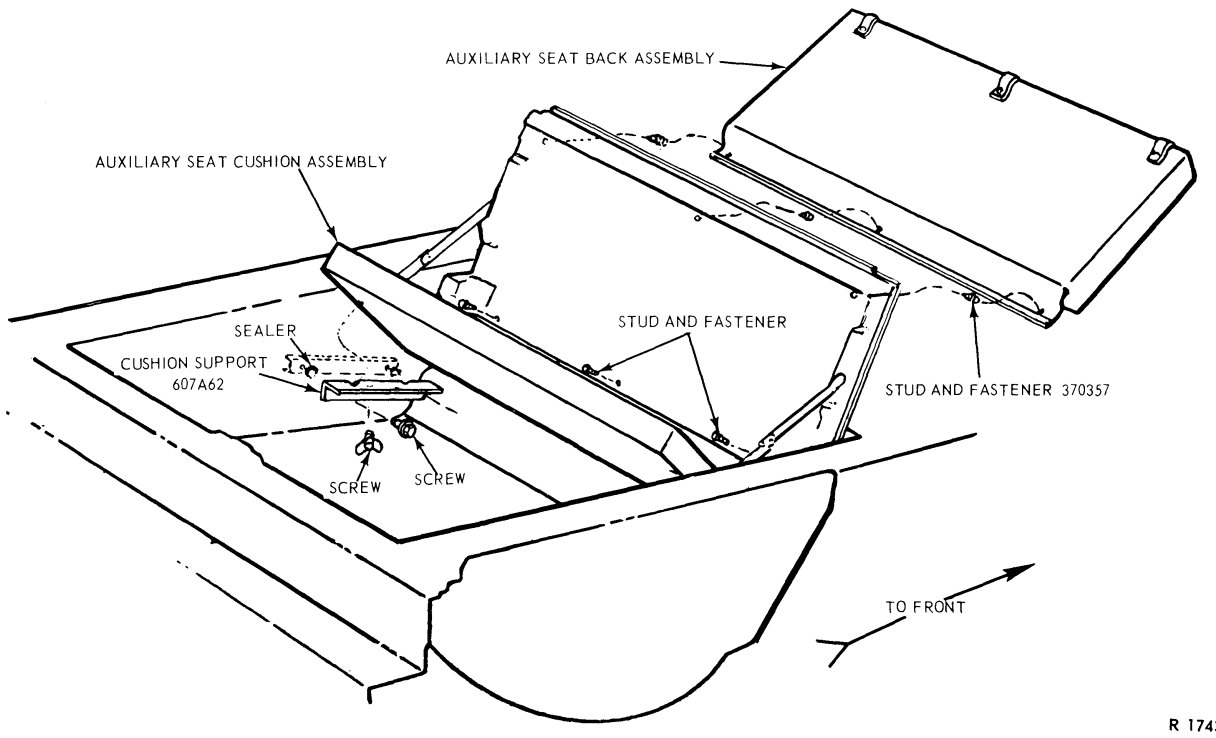


FIG. 6 Auxiliary Seat-to-Body LTD II and Cougar

Seat Back Latch--Manual

PART 41-25

DESCRIPTION AND OPERATION

CR2014-A

All folding seats have a latch designed to hold the seat back in the normal position. For rear seat passenger entry and exit, a latch handle is located on the left side of all bucket and split bench seats (drivers side), and on the right side of all bucket and split bench seats, (passenger side). See Figs. 1 through 3.

If the seat back will not latch in position or the latch mechanism will not unlock, remove the seat trim as required to inspect the latch mechanism. Then, replace any damaged parts to put the latch system in proper working order. See Figs. 1 through 3.

Check the front seat back latches (two door models only) for smooth operation. The latch should not stick or bind. Also check to be sure that the latch restrains the seat back from moving forward.

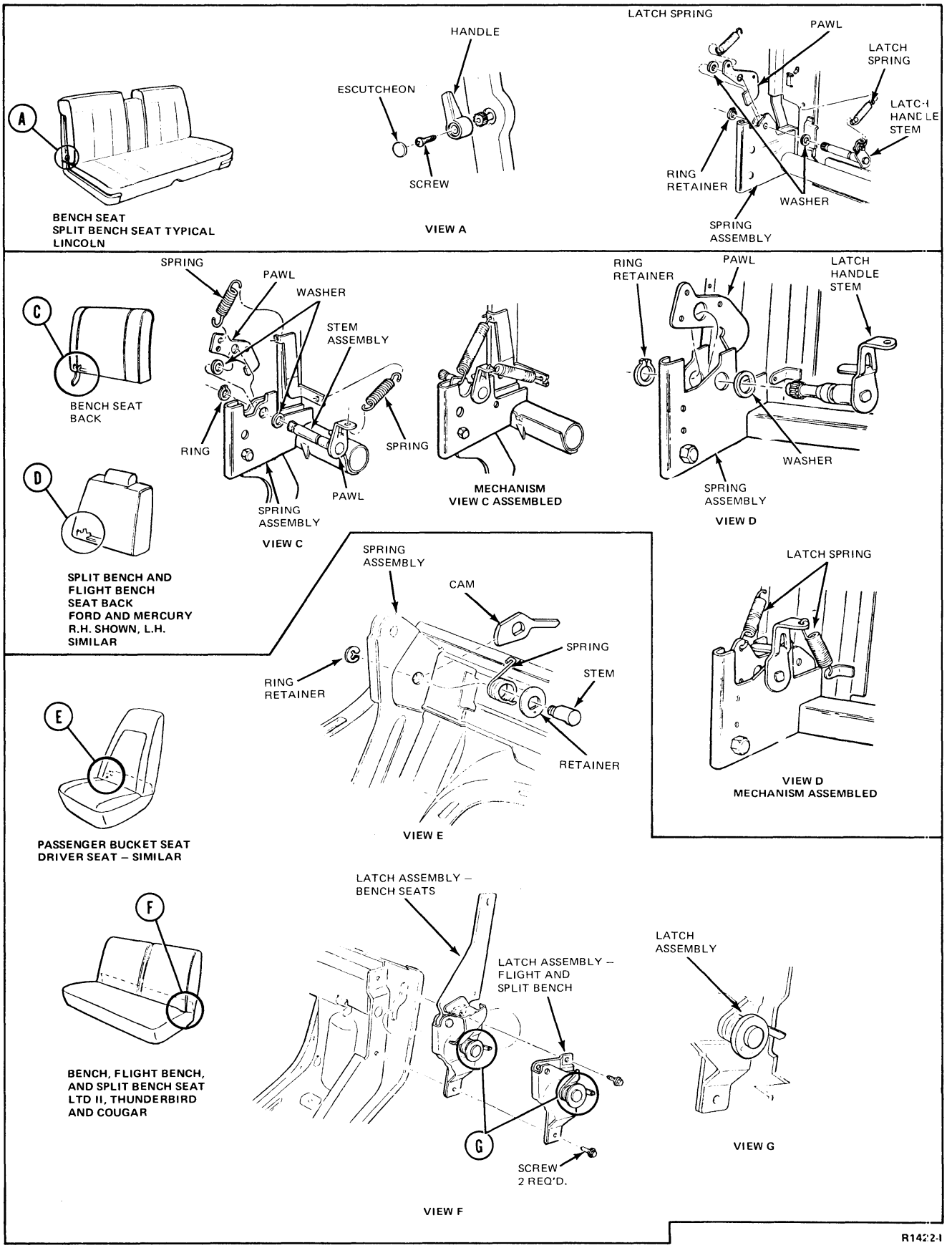


FIG. 1 Front Seat Back Latching Mechanism Typical Left and Right Side

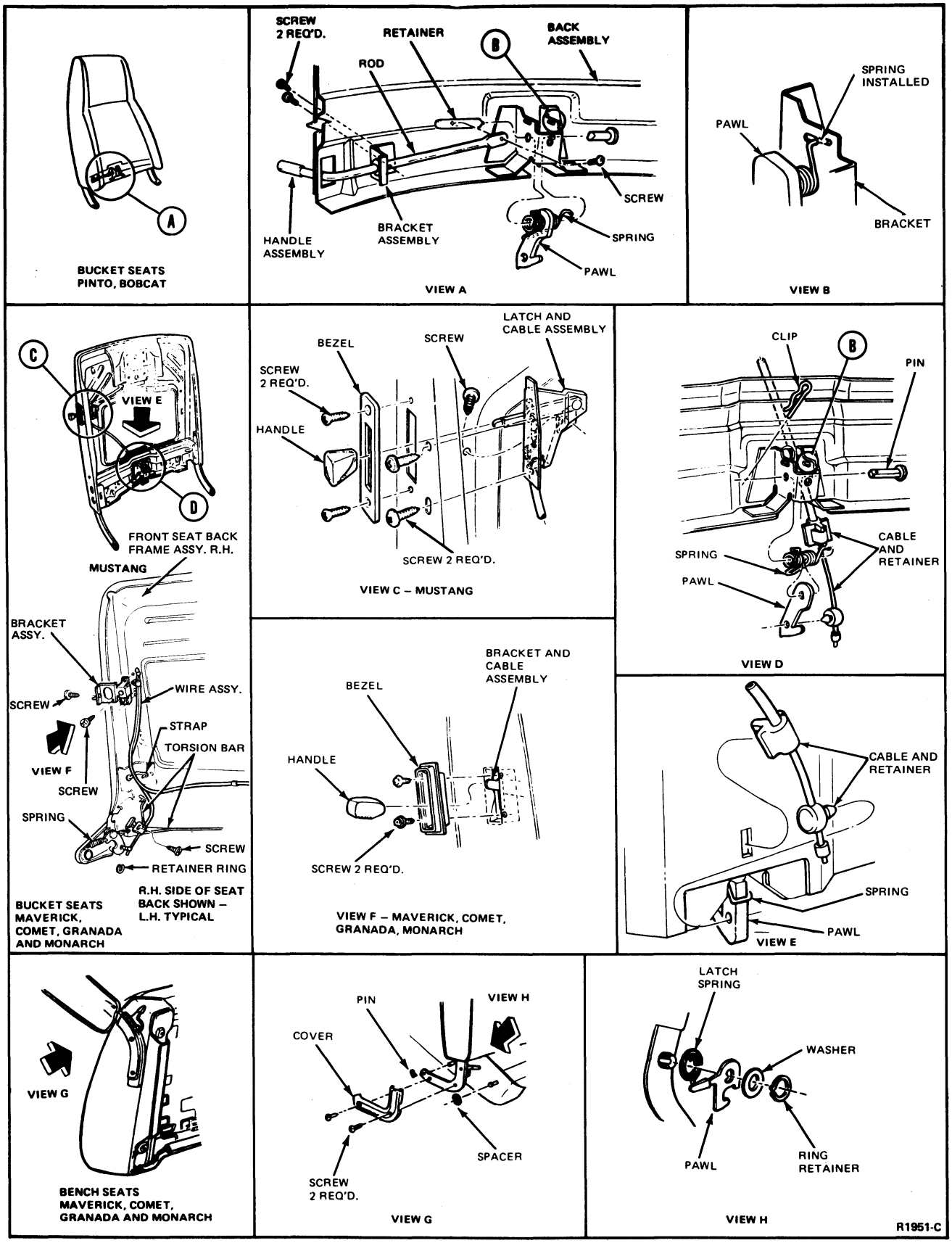
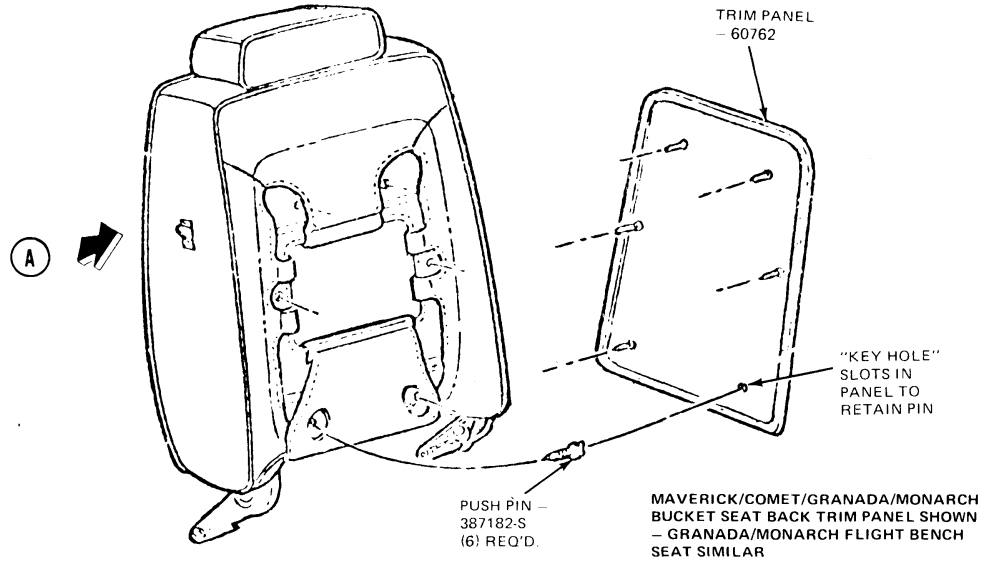
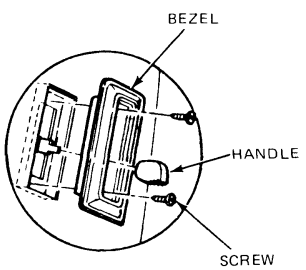


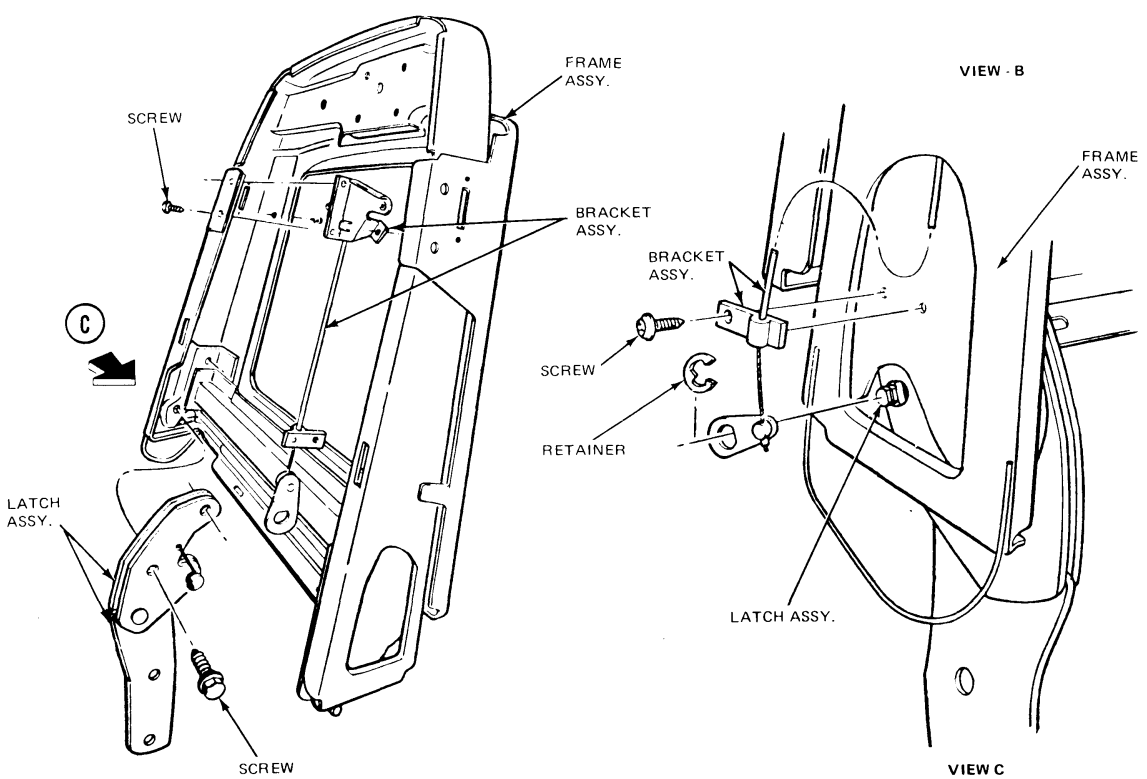
FIG. 2 Front Seat Back Latching Mechanism Typical Left and Right Side



MAVERICK/COMET/GRANADA/MONARCH BUCKET SEAT BACK TRIM PANEL SHOWN – GRANADA/MONARCH FLIGHT BENCH SEAT SIMILAR



VIEW - A



N2770-B

FIG. 3 Front Seat Back Latching Mechanism—Granada and Monarch Flight Bench

Seat Back Latch -- Automatic

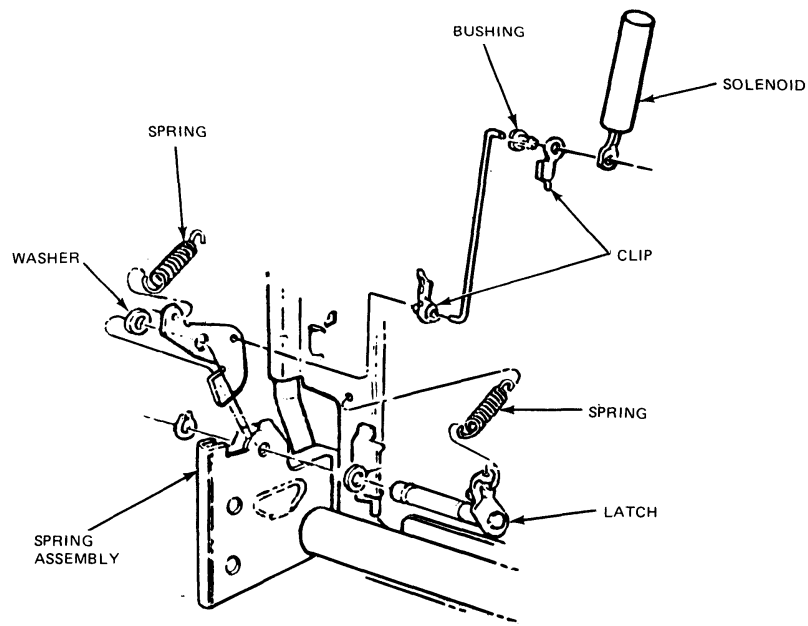
PART 41-28

SUBJECT	PAGE	SUBJECT	PAGE
DESCRIPTION AND OPERATION	28-1	REMOVAL AND INSTALLATION	
		Relay	28-4
TESTING		Solenoid	28-4
Relay Test	28-4	Wiring Routes	28-4
Solenoid Test	28-4		

CR2015-A

DESCRIPTION AND OPERATION

Both front seat back latches automatically release when either front door is opened. In each front door hinge pillar there is a switch connected to battery power. Opening the door closes the switch and sends power to energize a relay switch. When the relay switch is closed, it sends power to two solenoids, one mounted on each seat back (Figs. 1 through 4). The actuating rod of the solenoid is connected to the latch pawl. When the solenoid is energized it operates the pawl to release the latch. If the electric system does not function, the latch can be released manually by moving the seat back release handle. If the seat back fails to release automatically when the door is opened, remove the seat back trim cover and/or carpet far enough to inspect and test latch mechanism. See Figs. 1, 2 and 3. **NOTE: After performing any work on the seat back latches, check for smooth operation of the latches. The latch should not stick or bind. Check that the latch does restrain the seat back from moving forward. Be sure that the latches function both automatically and manually.**



R1940-B

FIG. 1 Seat Back Latch—Automatic—Lincoln Continental 2-Door Models

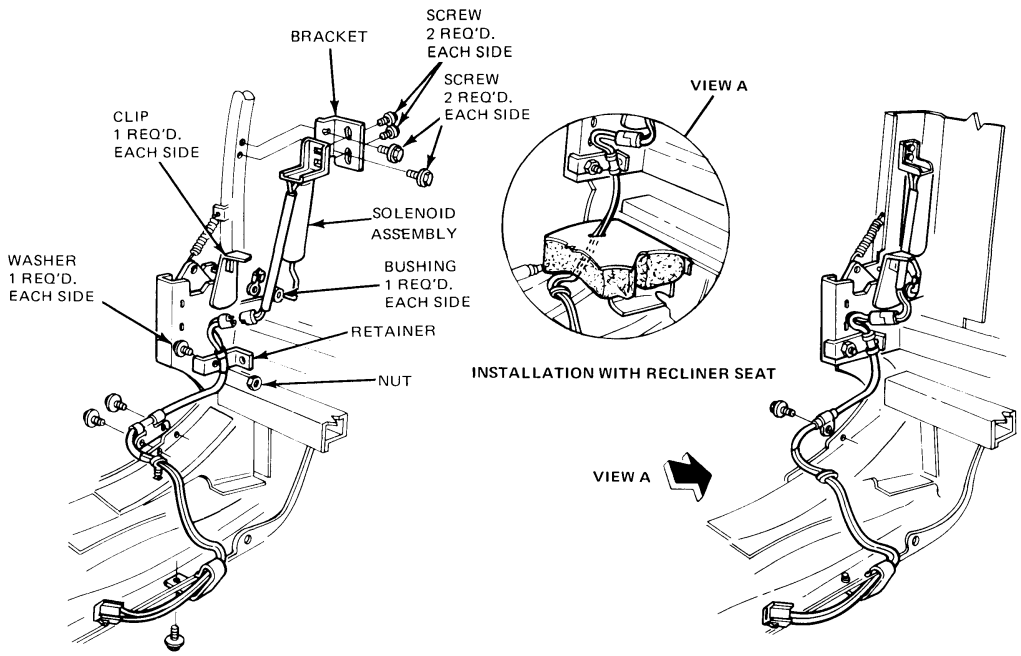
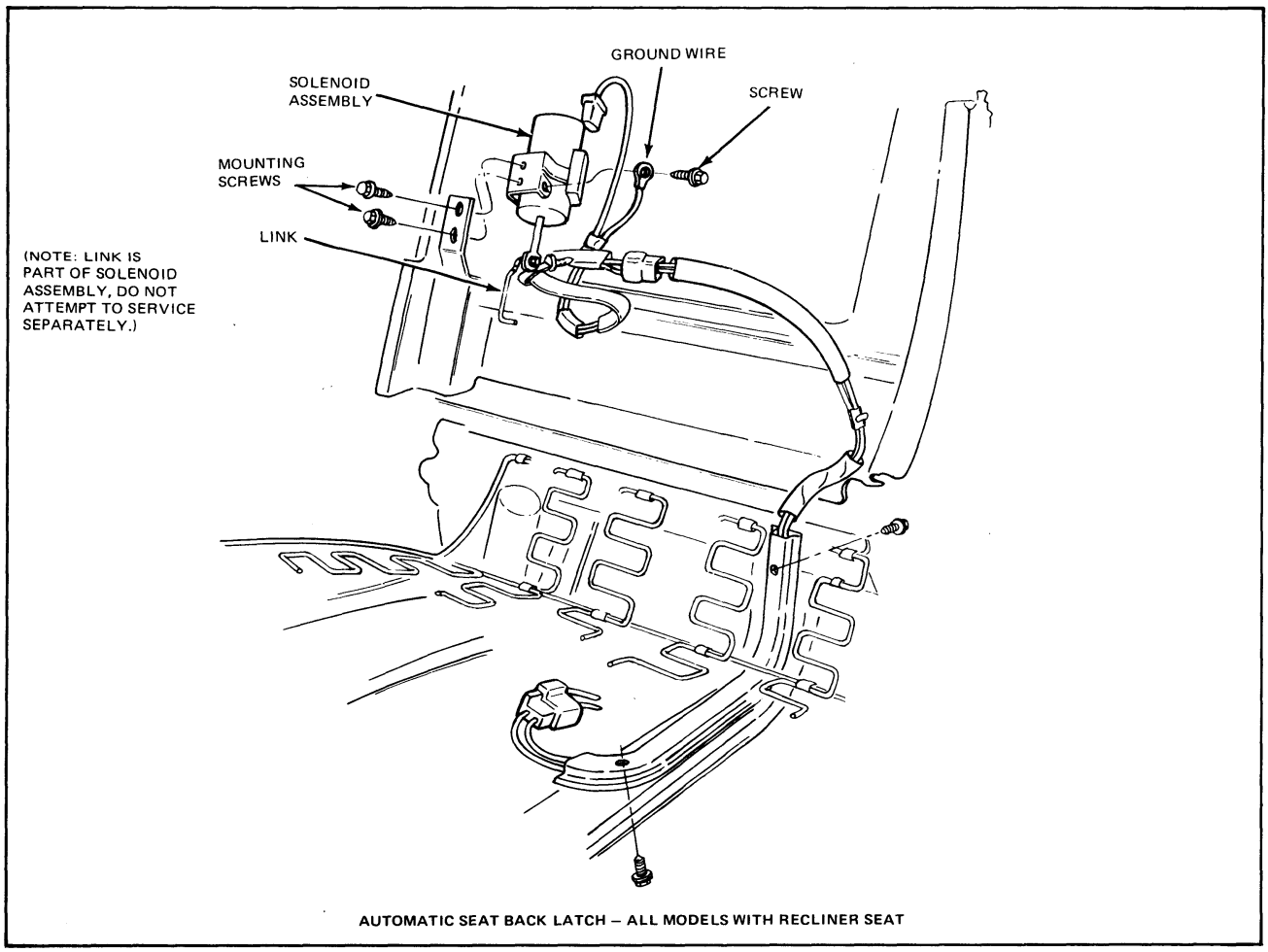


FIG. 2 Seat Back Latch—Automatic—Ford and Mercury 2-Door Models



AUTOMATIC SEAT BACK LATCH – ALL MODELS WITH RECLINER SEAT

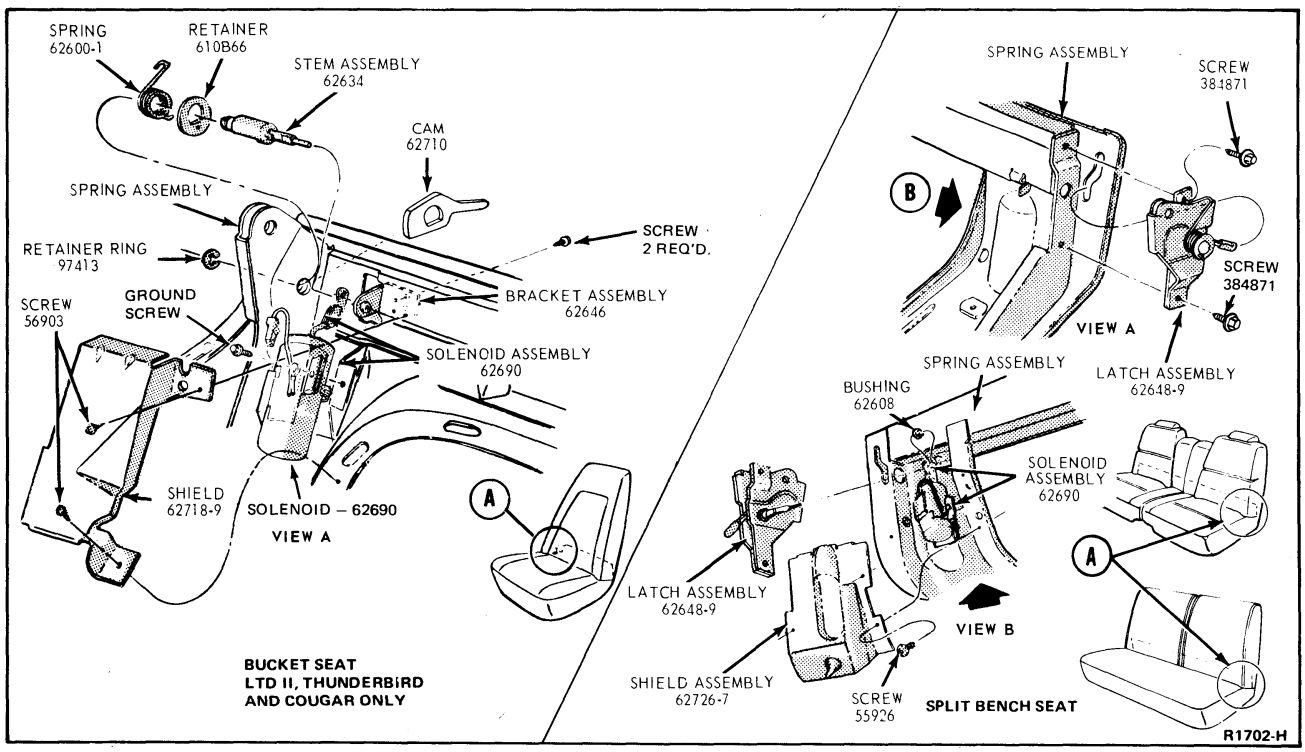


FIG. 3 Seat Back Latch—Automatic—LTD II, Cougar, Thunderbird, Continental Mark V

TESTING

SOLENOID TEST

Remove the solenoid and connect battery power to the connector terminal and ground the case of the solenoid assembly to the negative side of the battery. If the solenoid plunger does not move quickly, replace the solenoid.

NOTE: Solenoid must be held in normal position for this test.

RELAY TEST

See Removal and Installation for relay locations. Disconnect the relay connector, noting the color of the three wires at each terminal, and remove the relay. Connect battery power to the relay (positive post to the pink-white stripe wire terminal and negative post to the relay case). Connect a self powered test light between the other two relay terminals. If the test light does not light, replace the relay.

REMOVAL AND INSTALLATION

RELAY

The relay is mounted in various locations according to car line as follows: Lincoln Continental, on the front floor pan assembly under the passenger's seat; Thunderbird in left hand cowl side; Continental Mark V, on the brake pedal support bracket to the right of the fuse panel; Ford and Mercury on the front part of the floor near the No. 1 crossmember; and LTD II and Cougar inside the left-hand cowl side panel assembly. The 1976 Granada and Monarch is mounted at the right side of the instrument panel (Fig. 4).

Disconnect the battery negative post. Disengage the 3-way hardshell connector from the relay. Remove the mounting screws and remove the relay.

When installing the relay, be sure to engage the 3-way hardshell connector to the relay.

SOLENOID

Ford, Mercury, Lincoln Continental, and Continental Mark V. Also Recliner Seal on LTD II, Cougar, Thunderbird and Continental Mark V.

Remove the seat back trim cover far enough for access (Figs. 1, 2 and 3). Disconnect the wires at the connector plug. Remove the clip that connects the solenoid plunger to the latch pawl, and remove the solenoid mounting screws (Figs. 1, 2 and 3). Remove the solenoid from the seat assembly and, at the same time, disengage the plunger rod from the latch pawl.

LTD II, Cougar, Thunderbird and Continental Mark V (Without Recliner)

Cut the hog rings from the carpet to gain access to the solenoid assembly. Remove the three shield retaining screws and disconnect the wires at the connector plug. Remove the two solenoid assembly retaining screws (Fig. 3). Then, loosen the two back pivot bracket assembly screws and slide the latch assembly out far enough to remove the solenoid and link from the latch stem. To install, reverse the procedures.

Granada and Monarch

For Removal and Installation procedure, refer to Fig. 4.

WIRING ROUTES

Refer to Figs. 5 and 6 for correct wiring routes.

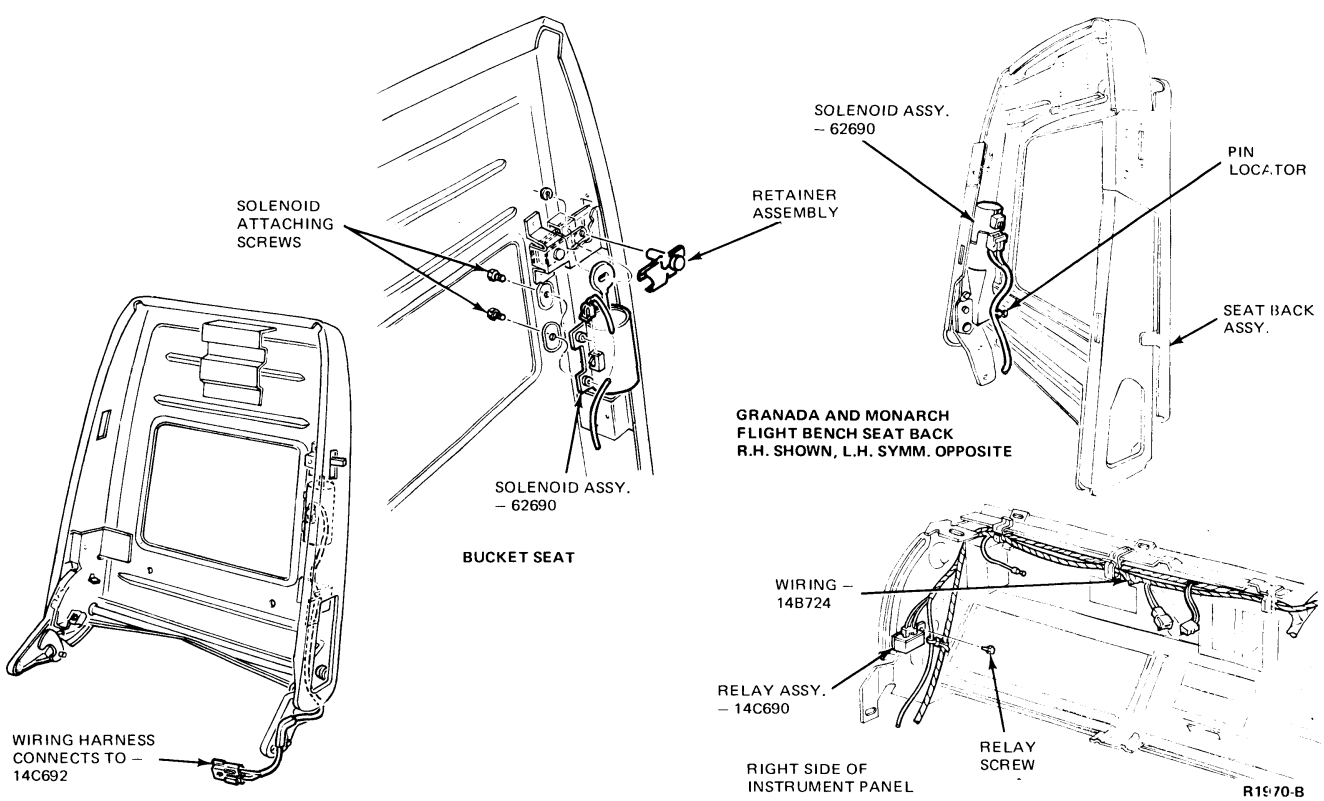
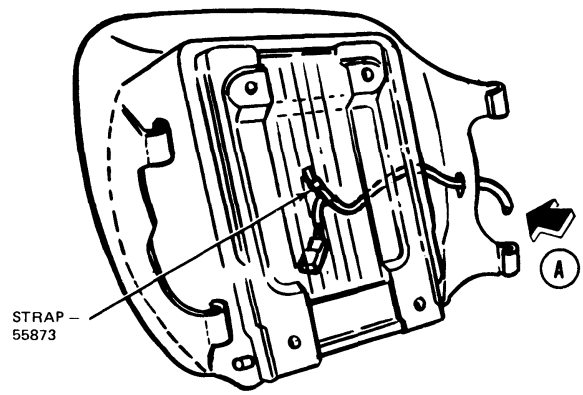
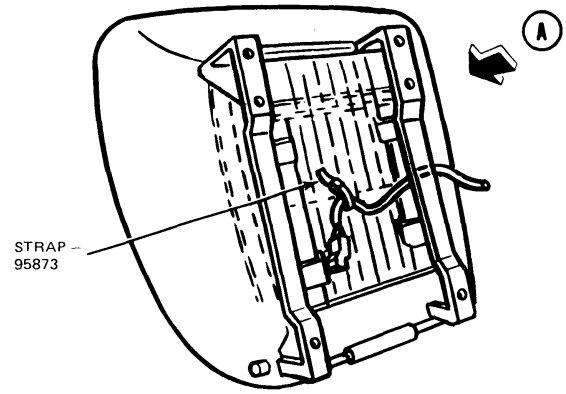


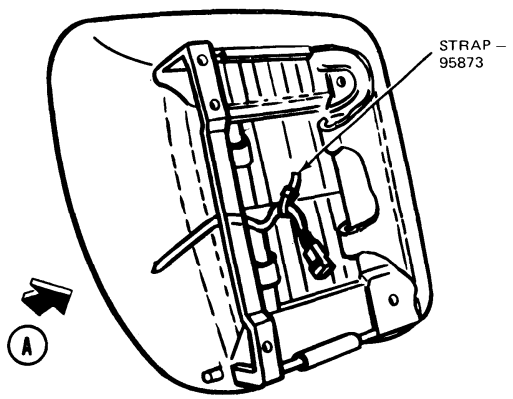
FIG. 4 Seat Back Latch Automatic—Granada and Monarch



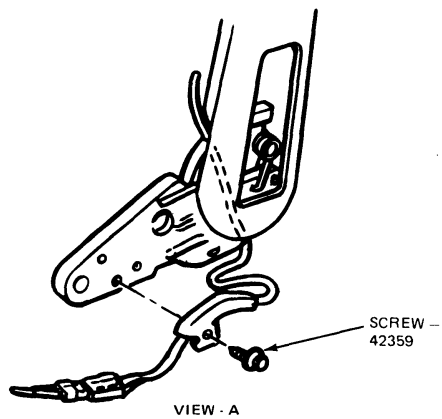
ROUTING OF 14C692 WIRING ASSY.
(L.H.) WITH POWER SEAT OPTION



ROUTING OF 14C692 WIRING ASSY.
(L.H.) MANUAL



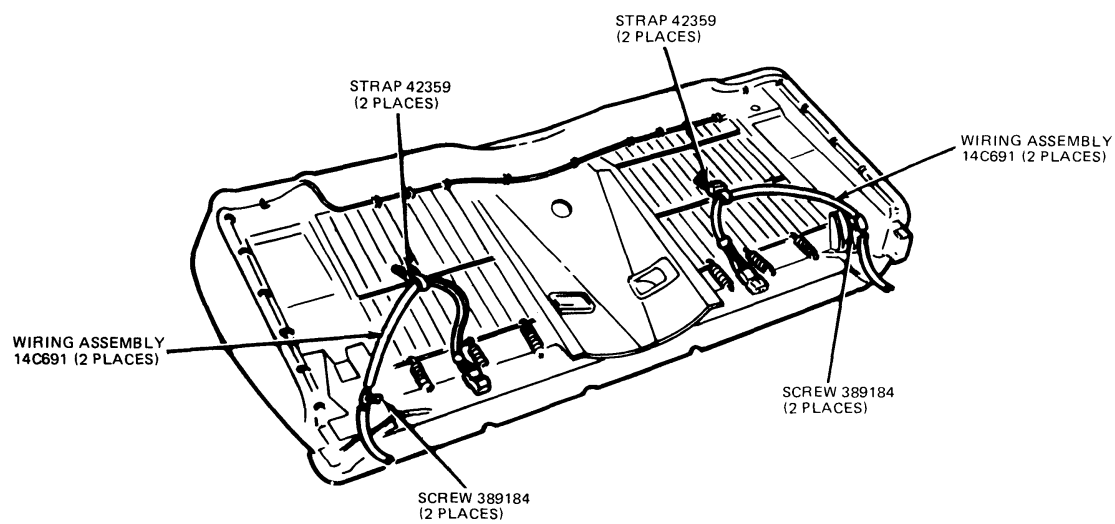
ROUTING OF 14C692 WIRING ASSY. (R.H.)



INSTALLATION OF WIRING RETAINER
L.H. SHOWN, R.H. SYMM. OPPOSITE

N2858-A

FIG. 5 Automatic Seat Back Latch (Bucket Seats)



N2859-A

FIG. 6 Automatic Seat Back Latch (Bench Seats)

Reclining Seat Back

PART 41-30

DESCRIPTION AND OPERATION

The mechanical reclining seat back is available on all vehicles except Pinto, Bobcat and Mustang.

The reclining seat is adjusted by a latch handle on the seat cushion right side of the passenger seat (inboard side of both seats—backs on the Granada, Monarch, Maverick and Comet bucket seat cars). To recline the seat, turn the handle and push the seat back to the desired position and release the handle. Spring action will return the seat to normal position when the handle is released at the seat back. See Figs. 1 through 4.

If the reclining seat will not fold down or return to its normal position, it will be necessary to remove the seat cushion or back trim cover, carpet and/or seat back trim panel far enough to inspect the recliner mechanism. Then replace any damaged parts to put the recliner system in proper working order (Figs. 1 through 4).

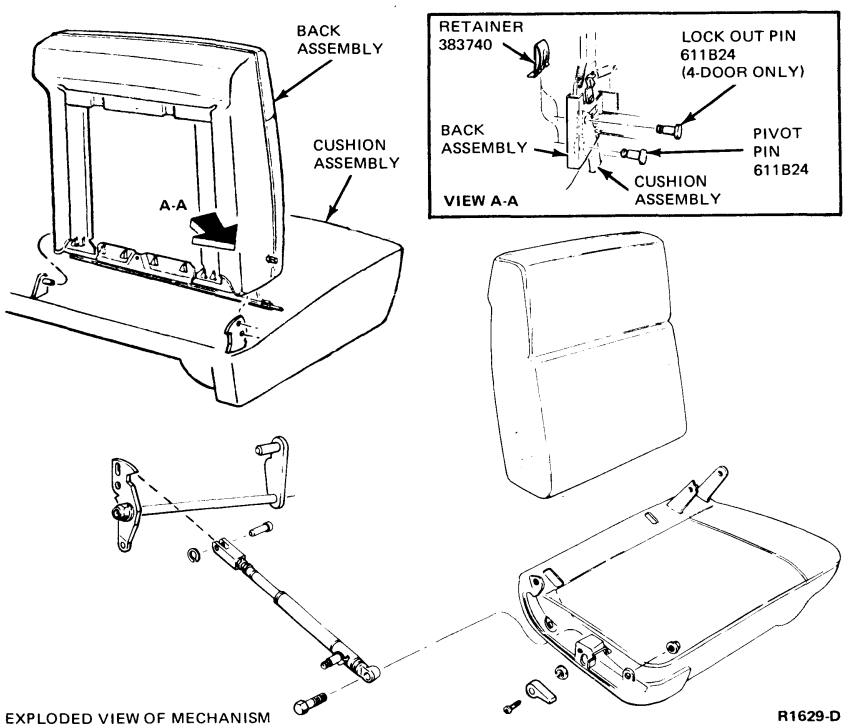


FIG. 1 Reclining Seat Back Installation—Lincoln Continental

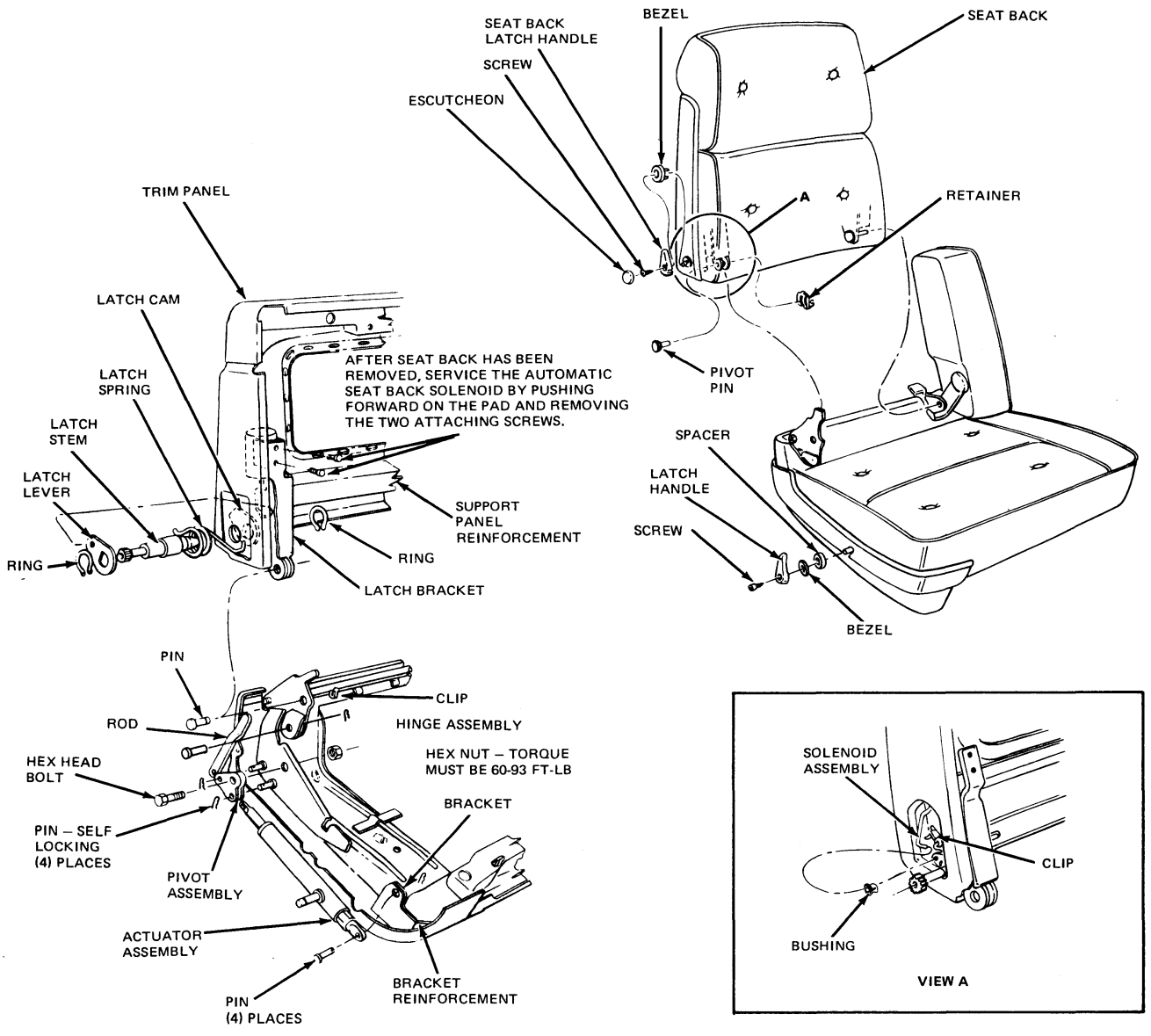


FIG. 2 Reclining Seat Latch and Mechanisms—Thunderbird and Continental Mark V Shown—Typical for Cougar and LTD II

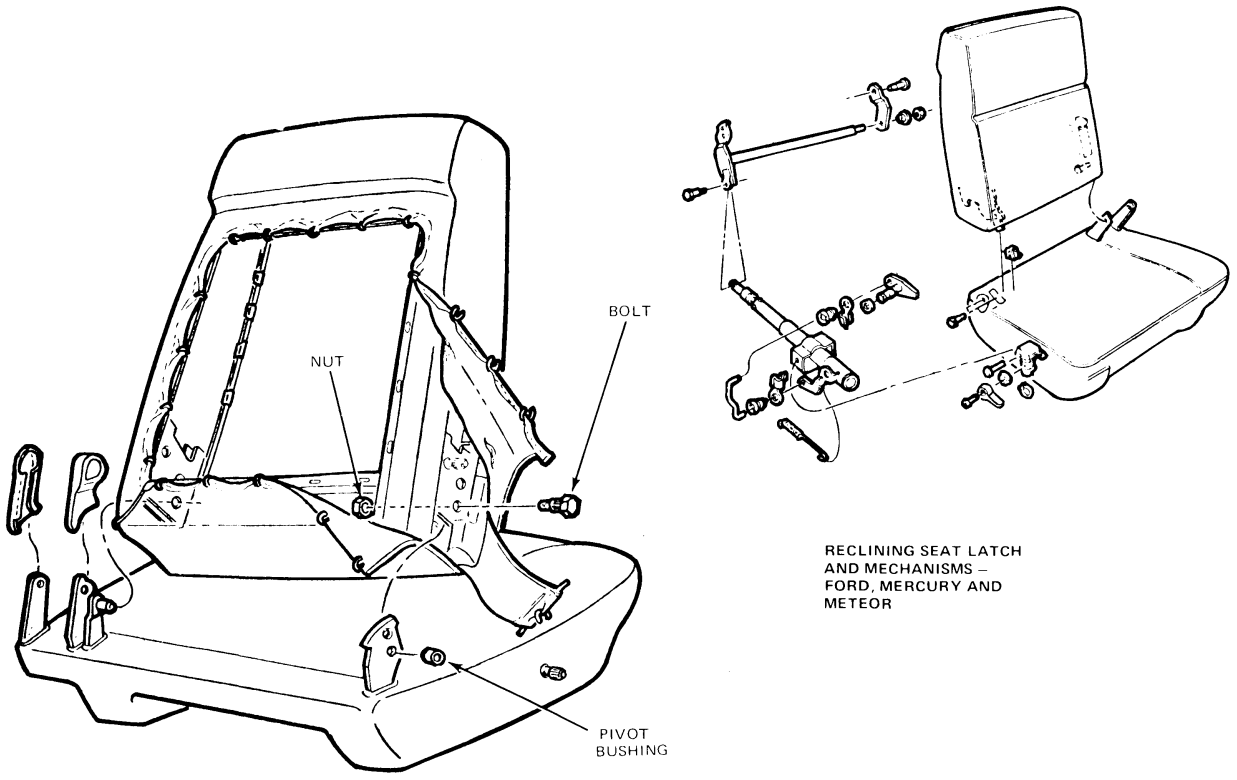


FIG. 3 Reclining Seat Latch and Mechanisms—Ford and Mercury

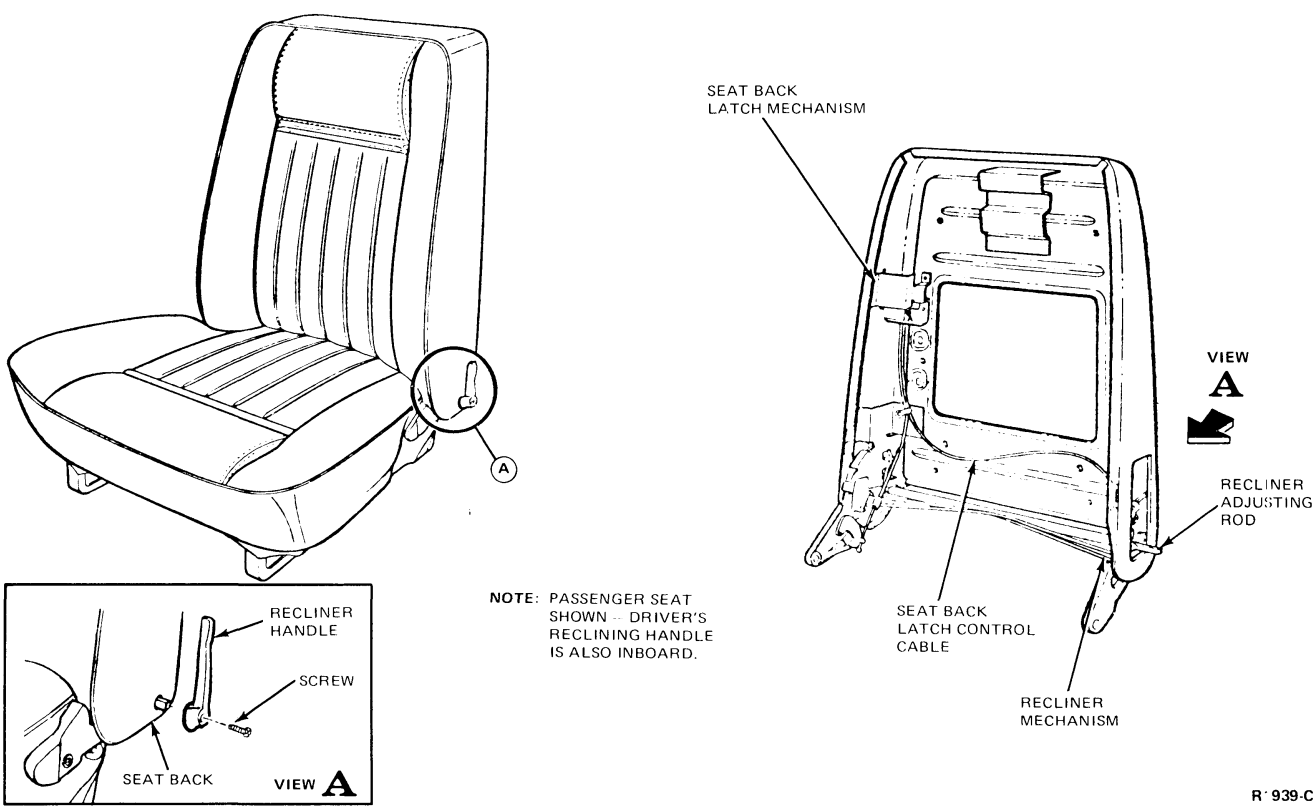


FIG. 4 Reclining Seat and Mechanisms—Granada and Monarch Shown—Maverick and Comet Similar

Lumbar Power Seat

PART 41-35

SUBJECT	PAGE
DESCRIPTION AND OPERATION	35-1
REMOVAL AND INSTALLATION	35-1
TESTING	
Seat Motor	35-4
TESTING (Cont'd.)	
Seat Switch	35-4
Wiring Checks	35-4

CR2017-A

DESCRIPTION AND OPERATION

LUMBAR POWER SEAT

The lumbar power seat provides adjustable control of the contour of the driver's seat. It enables the driver to select the amount of support he desires for the lumbar region of his back (Fig. 1).

It consists of a reversible motor driven directly off of the battery, a driver controlled switch for reversing the motor's direction of rotation and a mechanical drive train from the motor output shaft to a metal plate which is driven forward and backward to effect the change in seat contour. The drive train consists of a flexible drive cable, a gearbox with a worm shaft output and a lever between the worm shaft and seat plate (Fig. 2).

When the lumbar power seat control switch is pressed to the forward (OUT) position, the motor drives the contour plate toward the forward maximum support position. When this switch is pressed to the rear (IN) position the motor drives the contour plate toward the back minimum support position. When the switch is released the contour plate remains in the position selected by the driver. The range of plate travel is 1.9 inches. The lumbar power seat adjuster mechanism is installed into the seat back assembly as a complete assembly.

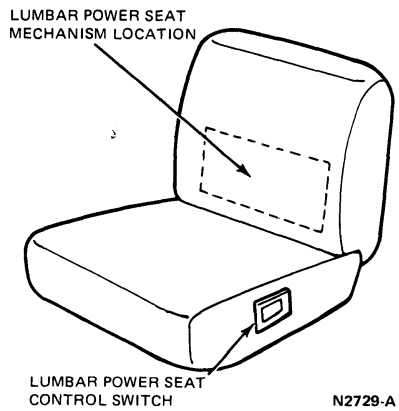


FIG. 1 Lumbar Power Seat

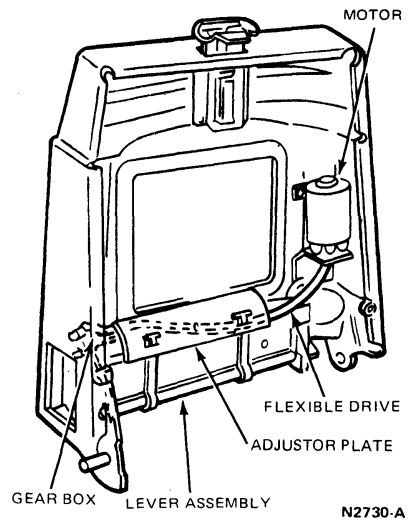


FIG. 2 Lumbar Power Seat Mechanism

REMOVAL AND INSTALLATION

Removal

1. Disconnect the seat back control wiring assembly connector sleeve from the body main wiring assembly. Use Fig. 3 as a guide.
2. Remove the driver's seat and track assembly from the vehicle and place on a clean work surface. Refer to Group 41 for removal procedure of the complete seat and track assembly.
3. Use a putty knife or a similar tool to pry loose the four retaining clips which secure the front seat back rear panel assembly to the back assembly of the front seat on those vehicles equipped with the optional Midas trim (Fig. 4).
4. Remove the front seat back shield assembly four retaining screws and separate the shield from the seat back (Fig. 4).
5. Disconnect the front seat back control wiring assembly at the motor connector and wiring locator retainer (Fig. 3).
6. Tilt the seat back assembly forward and disengage the outboard retainer and pivot pin (Fig. 3).
7. Disengage the inboard pivot pin from the center pivot hole and remove the seat back assembly from the cushion and place on a clean work surface.
8. Disengage the front seat back cover plastic retainers and four hog rings and pull back the cover sufficiently to gain access to the adjustor assembly attaching screws (Fig. 4).
9. Remove the five attaching screws which secure the adjustor assembly to the front seat back pad (Fig. 5).
10. Slide the front seat back pad adjuster assembly downwards so that it slides out the bottom of the seat back between the seat back pad and frame.
11. Cut and remove the three plastic ties holding the motor wiring and motor drive cable together.
12. Remove the lower two motor mounting screws and separate the motor and bracket assembly (Fig. 6).
13. Unsnap the motor wiring connector from the retainer and remove the motor and bracket assembly.
14. Remove the two shaft support bracket attaching bolts and separate the bracket from the support assembly and the shaft assembly (Fig. 6).
15. Remove the shaft assembly and spacer from the drive levers and the support assembly.
16. Remove the two plate attaching retainers, pins, and springs and

disengage the plate from the shaft assembly (Fig. 6).
17. Remove the two gear assembly attaching bolts and nuts and cable retainer (Fig. 6).
18. Disengage and remove the cable assembly from the gear assembly (Fig. 6).
19. Remove the gear assembly and the drive assembly.
20. Remove the front seat back latch handle attaching screw and remove the handle (Fig. 3).
21. Remove the four front seat cushion side shield assembly attaching screws (Fig. 3).
22. Remove the two front seat back switch bezel attaching nuts and remove the side shield and bezel from the cushion (Fig. 3).
23. Disconnect the control switch assembly from the seat back control wiring assembly and remove the switch (Fig. 3).
24. Turn the front seat cushion upside down and remove the two wiring shield attaching screws and remove the seat back control wiring assembly

Installation

1. Turn the front seat cushion upside down and insert the seat back control wiring assembly. Fasten in place with the two wiring shield attaching screws (Fig. 3). Return seat cushion to upright position.
2. Connect the control switch assembly to the seat back control wiring assembly (Fig. 3).
3. Insert the front seat back switch bezel in the front seat cushion side shield assembly and push threaded studs on the bezel through the control switch assembly. Install the attaching nuts and tighten (Fig. 3).
4. Position the front seat cushion side shield assembly to align the shield screw holes with those in the seat cushion (Fig. 3). Install and tighten the four front seat cushion side shield assembly attaching screws.
5. Insert the front seat back latch handle through the shield onto the seat cushion latch and attach with screw (Fig. 3).
6. Connect the flexible drive cable to the gear assembly using the cable retainer and mount the gear assembly to the support assembly with attaching bolts.
7. Install the two plate attaching retainers, pins, and springs to attach the plate to the shaft assembly.

   NOTE: A No. 8-32 x 1-1/2 inch pan head screw can be used as a service replacement for the pin and a No. 8-32 hex nut and washer can be used for the retainer.
8. Install the shaft assembly through the drive assembly, the spacer and into the support assembly. Insert the other end of the shaft assembly into the shaft support bracket and mount the shaft support bracket to the support assembly (Fig. 6).

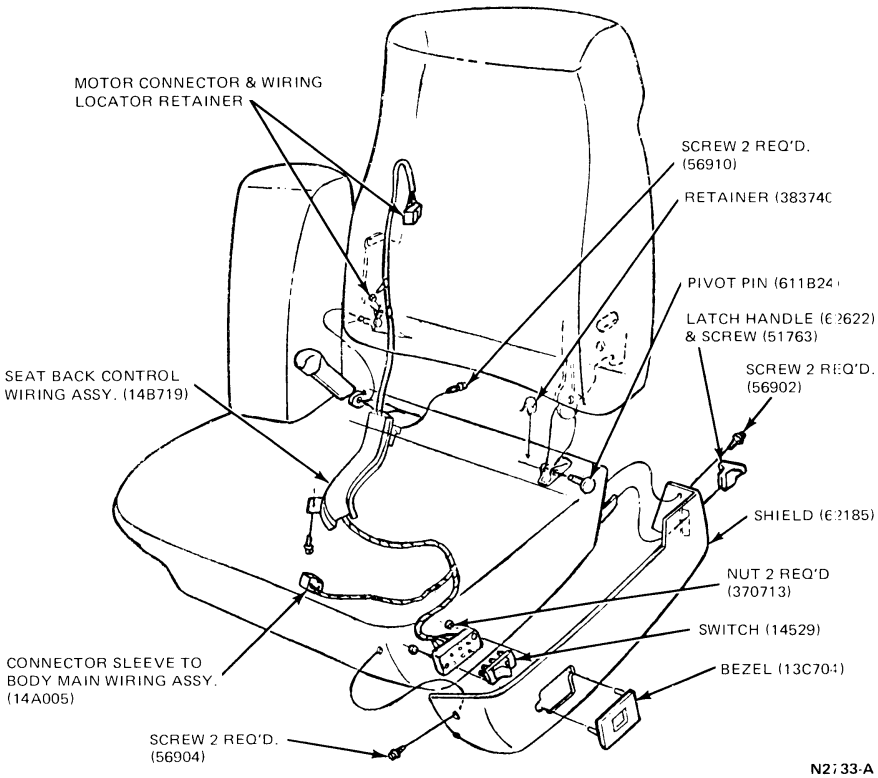


FIG. 3 Lumbar Power Seat Wiring—Driver's Side

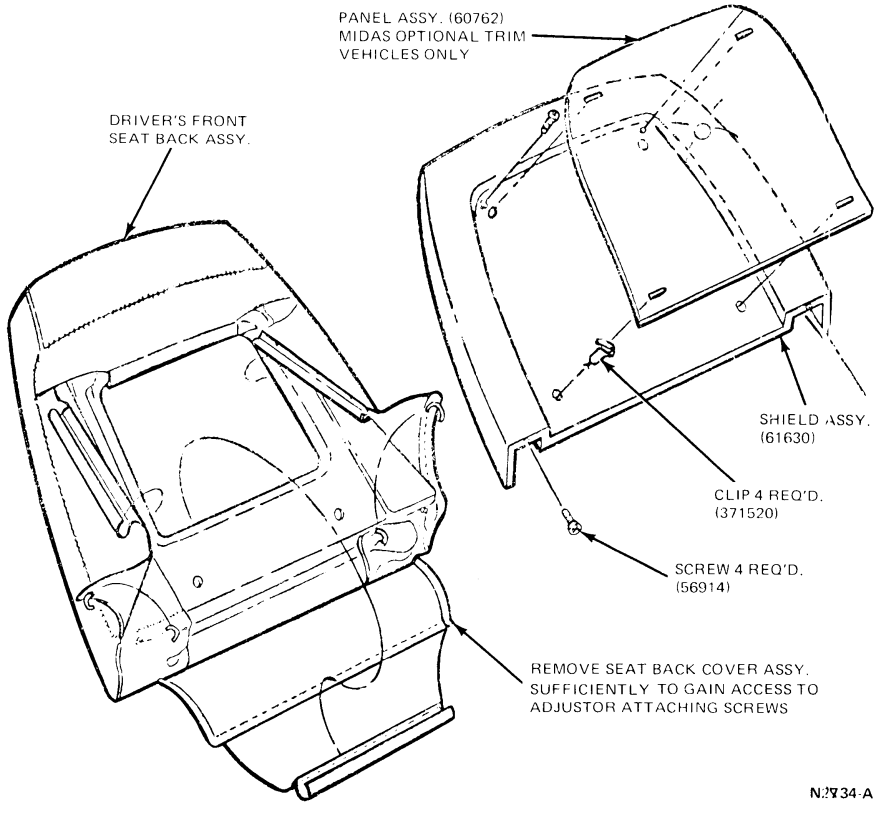


FIG. 4 Driver's Side Front Seat Back Panel Assembly

9. Mount the motor and bracket assembly to the support assembly using the mounting screws.
10. Snap the motor wiring connector into the retainer on the motor and bracket assembly.
11. Use tape or adjustable straps to bundle the drive cable and wiring harness together (Fig. 6).
12. Slide the assembled front seat back pad adjuster assembly up into position between the seat back pad and frame and secure it to the front seat back pad using the five attaching screws (Fig. 5).
13. Insert the front seat back cover plastic retainers and hog rings to replace the plastic back cover.
14. Mate the seat back assembly to the cushion by inserting the inboard pivot pin in the pivot holes of the back assembly and cushion pivot brackets.
15. Tilt the seat back assembly forward and insert the outboard retainer and pivot pin (Fig. 3).
16. Connect the front seat back control wiring assembly at the motor connector and wiring locator retainer (Fig. 3).
17. Install the front seat back shield assembly on the seat back using the four retaining screws (Fig. 4).
18. Secure the front seat back rear panel assembly to the back assembly of the front seat on those vehicles equipped with the optional Midas trim, using the four retaining clips (Fig. 4).
19. Install the driver's seat and track assembly in the vehicle. Refer to Group 41 for installation procedure of the complete seat and track assembly.
20. Connect the seat back control wiring assembly connector sleeve from the body main wiring assembly (Fig. 3).

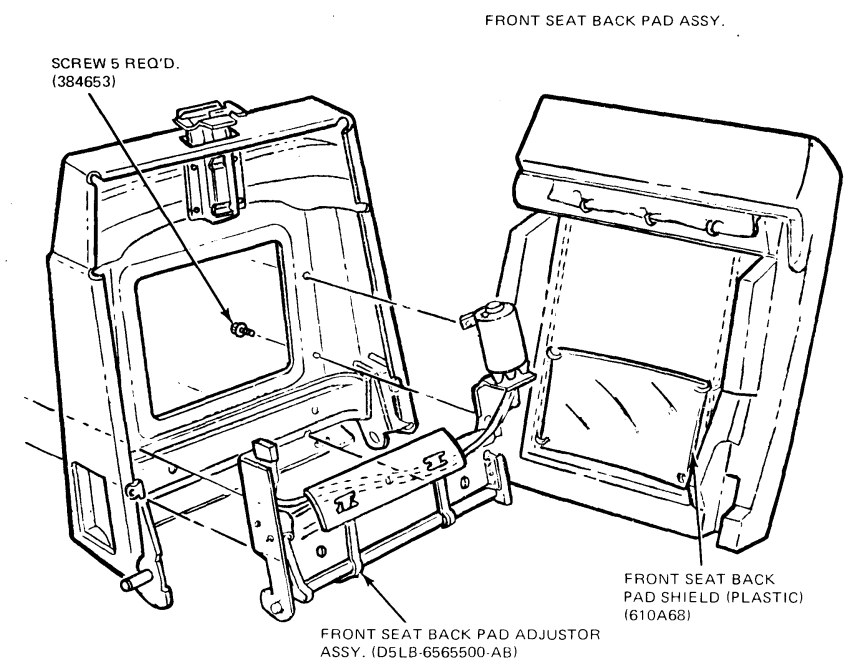


FIG. 5 Driver's Side Front Seat Back Internal Assemblies

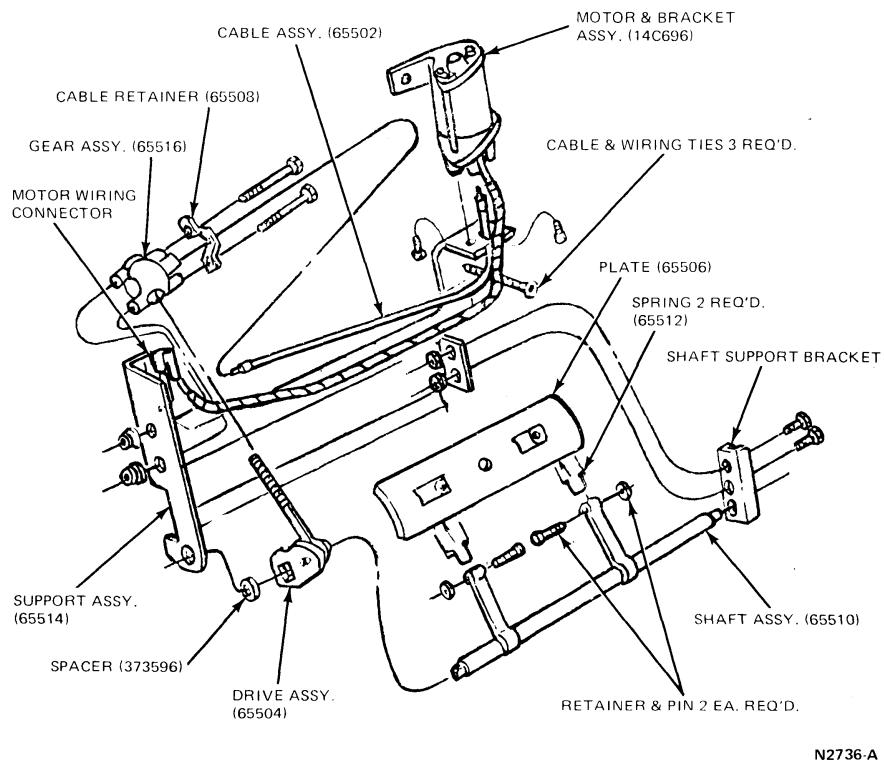


FIG. 6 Driver's Side Front Seat Back Pad Adjuster Assembly

TESTING

MOTOR TEST

To test the current draw of the lumbar power seat adjuster assembly motor, remove the adjuster assembly from the front seat back assembly using the procedure provided under Removal and Installation and remove the motor from the adjuster assembly as instructed in this procedure.

Test Procedure

1. Connect an external power source (Power Pac or a fully charged battery) to the motor with an ammeter in series as shown in Fig. 7.
2. Observe the current draw. It should not exceed specifications and should not fluctuate. Reversal of the motor wire connections will reverse the direction of motor rotation. If current draw exceeds the specified value check for binding of the motor shaft and replace the motor if the binding is not correctible.

SEAT SWITCH TEST

Testing of the lumbar power seat adjuster switch should be performed with the switch removed from the vehicle. Use a self-powered test light or an ohmmeter.

Test Procedure

1. With the switch in the neutral position, there should be continuity between terminals 1 and 3, 2 and 5, and 4 and 6 (Fig. 8).
2. With the switch toggle pushed downward, there should be continuity between terminals 2, 4 and 5, and 1 and 3. Terminal 6 should be disconnected from every other terminal.
3. With the toggle switch pushed upward, there should be continuity between terminals 2, 3 and 5, and 4 and 6. Terminal 1 should be disconnected from any other terminal.
4. If the switch does not test correctly, replace the switch.

WIRING CHECKS

Refer to the wiring diagram in Fig. 9 when performing continuity checks between the battery and switch and between the switch and motor.

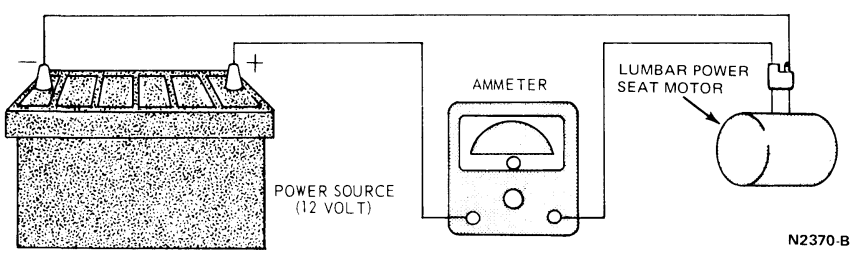
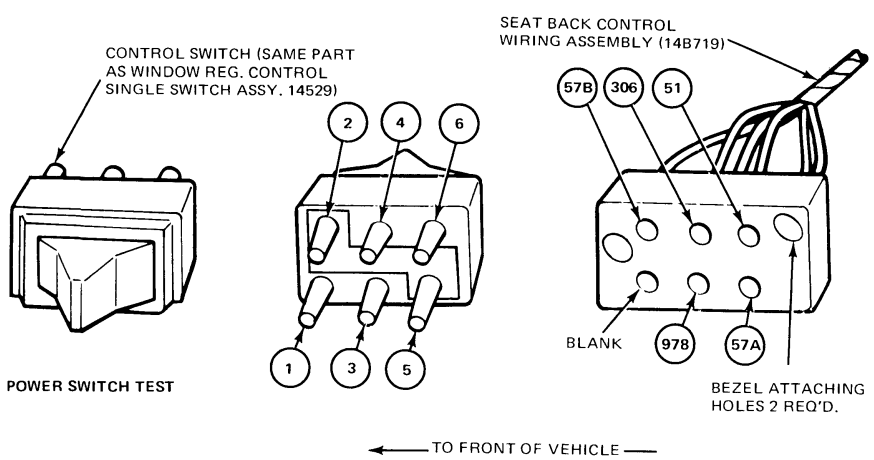


FIG. 7 Adjuster Motor Current Draw Test



① GROUND OR HOT FEED
② POWER FEED
③ MOTOR TERMINAL – FORWARD MOVEMENT
④ MOTOR TERMINAL – REARWARD MOVEMENT
⑤ BLANK (BUSS BAR TO PIN NO. 2)
⑥ GROUND OR HOT FEED

N2731-B

FIG. 8 Switch Pin Locations

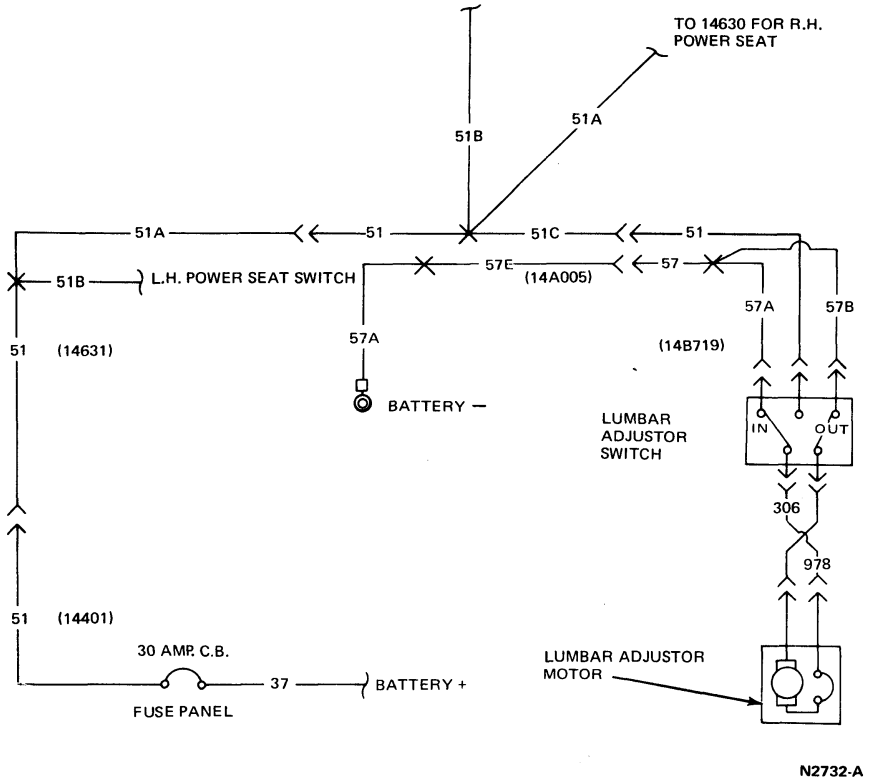


FIG. 9 Wiring Diagram

Head Restraints

PART 41-40

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Head Restraints	40-2
REMOVAL AND INSTALLATION (Cont'd.)	
Mounting Bracket and Catch Assembly	40-2

CR2018-A

DESCRIPTION AND OPERATION

All vehicles (except high back bucket seats) are equipped with a single post-design head restraint.

The head restraint has a single post with notch, to engage a spring-loaded catch in the mounting bracket. The mounting bracket retains the post and guide sleeve, as shown in Fig. 1. The mounting is a part of the seat back assembly. A shoulder strap loop attaches to the head restraint on Ford, Mercury, and Mark V 2-door models.

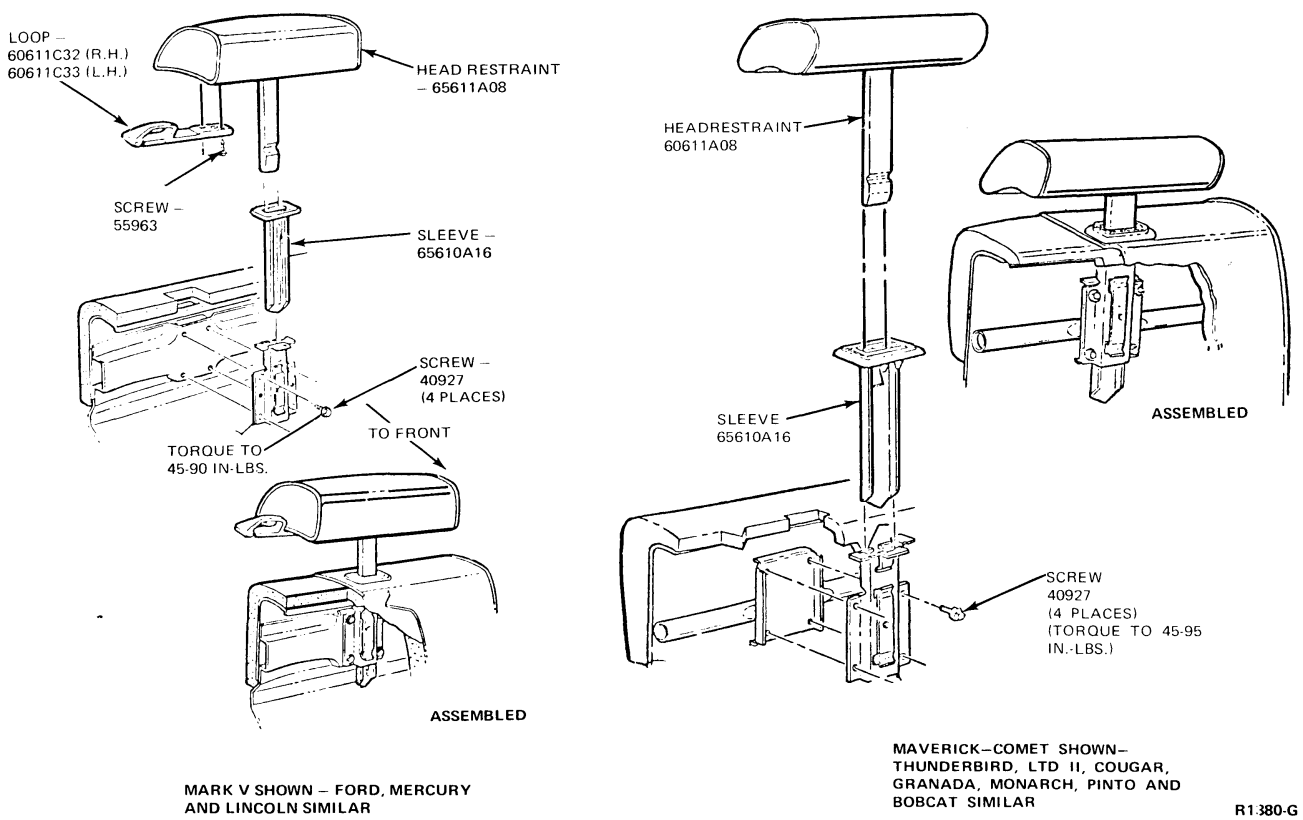


FIG. 1 Front Seat Headrest Installation—Typical

REMOVAL AND INSTALLATION

HEAD RESTRAINT

Removal

The head restraint is removed by pulling the head restraint post upward and out of the guide sleeve and mounting bracket.

If the mounting bracket spring clip will not disengage from the detent on the head restraint post to allow removal (Fig. 1), insert a 12-inch length of thin flat stock into the sleeve at the front side of the post and push the spring clip out of the detent while withdrawing the head restraint.

The guide sleeve is removed by pulling the sleeve out of the mounting bracket after first removing the head restraint. Occasionally, it may be necessary to trip the locking tab on the guide sleeve in order to remove it from the bracket (Fig. 1). Insert a short piece of wire having a hooked end into the sleeve, hook onto the locking tab and pull it inward. On cars equipped with the flight or split bench seat, it may be necessary to remove the front seat back trim panel to release the head restraint.

Installation

The head restraint is installed by inserting the post into the sleeve in the seat back. It can be adjusted by applying hand pressure, either upward or downward, to the center area of the head restraint assembly. The head restraint must operate smoothly throughout its full range of travel and must remain in any fixed position.

MOUNTING BRACKET AND CATCH ASSEMBLY

Remove the head restraint and post assembly from the sleeve and remove the sleeve. Remove the seat back trim cover for access, and remove the screws that retain the mounting bracket to the mounting in the seat back.

Seat and Shoulder Belts

PART 41-50

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Operation	50-2
REMOVAL AND INSTALLATION	
Front Seat Belt Retractor and Harness Assembly	50-3
Rear Seat Belt Retractor Assembly	50-12
MAJOR REPAIR OPERATIONS	
Cleaning	50-13
Seat and Shoulder Belts	50-12
Seat and Shoulder Harness Belt With Damaged Anchor Plate Threads	50-12
Seat Belt With No Anchor Plate Thread Damage	50-12

CR2019-A

GENERAL INFORMATION

Two distinct front outboard seat belt systems are being installed in 1977. One system, used in previous years, is the **three point system.** A new system is also used and it is called the **continuous loop system.**

The three point system has a fixed tongue on the front outboard lap/shoulder belt and two retractors. The continuous loop system has a movable tongue on the front outboard lap/shoulder belt and only one retractor.

The seat belts and shoulder belts are factory installed in their proper locations. If the seat belts or shoulder belts are removed for any reason, they should be installed as shown in Figs. 3 through 16. Sealer should be placed around all seat belt anchor bolt holes in the floor pan. Tighten the anchor bolts to the specification shown at the end of this Part.

Belt assemblies must be installed in matched sets as received and **must not be interchanged between vehicle models.**

If a component portion (buckle portion, retractor portion, etc.) of a **seat belt or shoulder belt assembly is nonfunctional or damaged, the entire assembly (buckle, tongue and shoulder harness portions) must be replaced.** The replacement assembly must be installed as a matched set and the identification labels on all portions must bear exactly the same code, date of manufacture and manufacturer's name. Under no circumstances are seat belt or shoulder belt components to be replaced as individual components.

DESCRIPTION AND OPERATION

DESCRIPTION

Both systems incorporate a buzzer and light warnings. The seat belt warning light illuminates for about eight seconds after the ignition switch is turned on—regardless of seat belt usage. The seat belt warning buzzer is grounded by a switch in the left lap retractor, on the three point system and by a switch in the left inboard buckle on the continuous loop system. The seat belt warning buzzer will sound for approximately eight seconds unless the driver's belt is used.

When the occupant restraint system for front outboard passengers is a 3-point system, the outboard lap belt and shoulder harness are sewn together at the tongue. To secure the belts, the tongue is inserted into the buckle.

On the three point system, the webbing for the lap belt extends from a belt retractor that automatically locks when the belt is being worn. This lock prevents the belt from being pulled out further, but allows the belt to retract, and thus maintains a snug fit around the user for optimum safety. This lap belt retractor is located **on** or **in** the rocker panel (depending on car line and model).

With the continuous loop system, the outboard lap/shoulder belt uses a common sliding tongue. To secure, insert the tongue into the inboard buckle.

The webbing for the lap belt is anchored to the side of the sill without a retractor.

On both systems, the shoulder harness webbing has the other end fixed in a retractor, which is located in or on the rocker, in the "B" pillar post or in the quarter panel (depending on car line and model). The Mustang, Pinto, Bobcat, Thunderbird, Ford, Lincoln, Granada and Monarch (2-doors) shoulder harness retractor is located in the quarter panel. The Mark V shoulder belt retractor is located in the headlining above the opera window. This webbing

then passes through a guide above and behind the occupant's shoulder which directs the webbing at the proper downward angle over the occupant's shoulder and chest, and attaches to the lap belt connector. **The shoulder harness retractor is designed to let the webbing freely move in or out at all times, except during vehicle deceleration, when it is automatically locked by a mechanically actuated inertia sensor** (Fig. 1).

The inboard belt with the buckle passes through the seat on bench seat installations and directly to a fixed anchorage on the floor on bucket seat installations. Attaching the tongue and buckle secures the occupant with both lower and upper restraints. This attachment of the tongue and buckle can be accomplished by a single continuous movement.

The 2-point system (lap belts only) continues for the front seat center position and all rear seat positions.

OPERATION

To fasten the front lap shoulder belts after entering the car on the three point system, adjust the front seat to obtain the best position for your driving comfort and visibility. Then, use the following sequence for fastening belts.

1. Pull the lap-shoulder belt from the retractor in one continuous motion, so shoulder portion of belt crosses your shoulder and chest and insert the belt tongue into the proper buckle. If the pulling motion is interrupted while extending the belt, it may be necessary to return the lap belt to the stowed, or fully retracted positon, in order to release the stop mechanism in the lap portion of the belt.
2. Adjust lap portion of seat belt snugly **around the hips** —not the waist, by allowing any excess belt to return into the retractor.
3. The shoulder restraint portion of the belt adjusts automatically to a snug position. The inertia reel attached to the shoulder belt allows freedom of movement, locking tightly only on hard braking or impacts of approximately 5 mph or more. The reel cannot be made to "lock up" by jerking on the webbing.

Front Center Lap Belt

The center seat belts do not have retractors. To lengthen the belt, tip the tongue.

To fasten the belt, insert the tongue into the open end of the buckle until you hear a snap. Shorten the belt, if necessary, by pulling on the loose end of the webbing. The belt should be snug across **the hips; never across the waist.**

Webbing Cannot Be Pulled From Lap Belt Retractor

Ford, Mercury, Lincoln Continental — All Models Cougar, Thunderbird, Continental Mark V, and LTD II (2-Door Models)

1. Pull webbing from the shoulder harness retractor, allowing the lap belt to retract fully into the retractor. Pull webbing from the lap belt retractor.
2. If OK, withdraw lap belt webbing and buckle up while sitting in seat. Repeat five times to insure proper operation. If not OK, replace the seat belt assembly.
3. If the webbing does not come loose from lap belt retractor, unsnap retractor cover door and disengage locking bar from the ratchet gear (Fig. 2). (Use a small common screwdriver which has no burrs or sharp edges.) Hold the locking bar down and pull the webbing from the retractor. Inspect the webbing for foreign material and/or twist and remove. Allow webbing to retract into the retractor. Withdraw lap belt webbing and buckle up while sitting in seat. Repeat five times to insure proper operation. If not OK, replace the seat belt assembly.

LTD II and Cougar—(4 Door Models)

1. Pull webbing from the shoulder harness retractor, allowing lap belt to retract fully into the retractor. Pull webbing from the lap belt retractor.
2. If OK, withdraw lap belt webbing and buckle up while sitting in seat. Repeat five times to insure proper operation. If not OK, replace the seat belt assembly.
3. If the webbing does not come loose from lap belt retractor, remove center pillar trim cover and seat belt

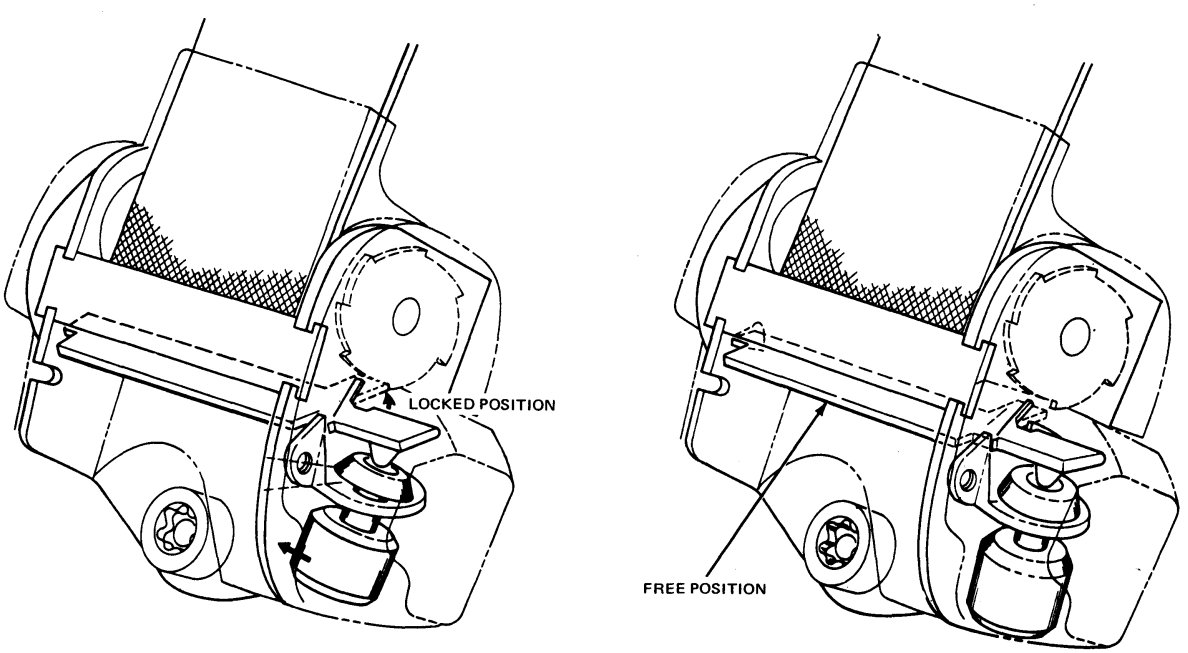


FIG. 1 Shoulder Harness Retractor

retractor. Pull the retractor cover away from retractor frame at the area of the attaching bolt hole and disengage locking bar from the ratchet gear. (Use a small common screwdriver which has no burrs or sharp edges.) Hold the locking bar down and pull the webbing from the retractor. Inspect the webbing for foreign material or twisting. Remove foreign material or roping/twisting. Allow webbing to retract back into retractor. Cycle retractor five times, if not OK, replace the seat belt assembly.

4. If OK, reinstall in vehicle. Withdraw lap belt webbing and buckle up while sitting in seat. Repeat five times to insure proper operation. If not OK, replace the seat belt assembly.

Thunderbird, Maverick and Comet—All Models

1. Pull webbing from the shoulder harness retractor, allowing lap belt to retract fully back into the retractor. Pull webbing from the lap belt retractor.
2. If OK, withdraw lap belt webbing and buckle up while sitting in seat. Repeat five times to insure proper operation. If not OK, replace the seat belt assembly.
3. If the webbing does not come loose from the lap belt retractor, visually check the webbing inside the snout (look down the snout opening) for foreign material or twisting. Remove roping by untwisting belt. Remove foreign material with tweezer or any appropriate tool that does not have burrs or sharp edges that would damage the webbing. Allow webbing to retract back into retractor. Withdraw lap belt webbing and buckle up while in seat. Repeat five times to insure proper operation.
4. If not OK, tighten the webbing on the spool in the retractor, by trying to pull the webbing from the retractor. (Use both hands to pull webbing.) Allow webbing to retract by pushing the webbing into the retractor. Withdraw webbing and inspect for foreign material or twisting. Remove foreign material or roping/twisting. Withdraw lap belt and buckle up while in seat. Repeat five times to insure proper operation. If not OK, replace the seat belt assembly.

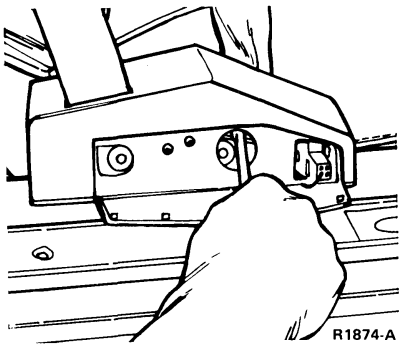


FIG. 2 Disengaging Seat Belt Retractor Locking Bar

Lap Belt Retractor Does Not Lock

Lap Belt Retractor Does Not Lock Ford, Mercury, Lincoln Continental — All Models Cougar, Thunderbird, Continental Mark V and LTD II (2-Door Models)

1. Withdraw a minimum of 18 inches of webbing from lap belt retractor and check for lock-up. (Retractor must lock-up after 18 inches of webbing withdrawal.) Return 2 inches into retractor and pull out.
2. Unsnap retractor cover door and check locking bar spring. Pull webbing from the lap belt retractor and check for broken spring on locking bar by moving locking bar away from ratchet gear. (Use a small common screwdriver which has no burrs or sharp edges.) Spring should force locking bar back into engagement with ratchet gear (Fig. 2).
3. If not OK, replace the seat belt assembly. If OK, check locking bar for foreign material. Remove foreign material. Withdraw lap belt webbing and buckle up while sitting in seat. Repeat five times, to insure proper operation. If not OK, replace the seat belt assembly.

LTD II and Cougar (4-Door Models)

1. Withdraw a minimum of 18 inches of webbing from lap belt retractor and check for lock-up. (Retractor must lock-up after 18 inches of webbing withdrawal.) Return 2 inches into retractor and pull out.
2. Remove center pillar trim cover and seat belt retractor. Pull the retractor cover away from retractor frame at the area of attaching bolt hole and check for broken spring on locking bar, by moving locking bar away from ratchet gear. (Use a small common screwdriver which has no burrs or sharp edges). Spring should force locking bar back into engagement with ratchet gear (Fig. 2).
3. If not OK, replace seat belt assembly. If OK, check locking bar for foreign material. Remove foreign material. Withdraw lap belt webbing and allow to retract. Repeat five times to insure proper operation. If not OK, replace seat belt assembly. If OK, install in vehicle and withdraw lap belt and buckle up while sitting in seat. Repeat five times to insure proper operation. If not OK, replace seat belt assembly.

REMOVAL AND INSTALLATION

FRONT SEAT BELT RETRACTOR AND HARNESS ASSEMBLY

2-Door Mercury, Cougar, LTD II and Thunderbird

NOTE: Figs. 3 and 4 show the front seat belt, shoulder harness, inboard and outboard locations. Tool T70P-2100B (or equivalent) should be used for Removal and Installation. Refer to Group 45 for trim removal.

1. Fold back the 9 inch sling "boot" cover (portion covering the roof rail anchor bolt) and remove the anchor bolt.
2. Unlatch the inboard attachment boot cover and remove the anchor bolt attaching the front inboard belt and buckle assembly.
3. Remove the belt and buckle assembly by pulling the attaching anchor plate through the seat grommet.
4. Flip over the cover on the dual retractor boot (mounted on top of the sill).
5. Disconnect the electrical connector located at the front of the dual retractor boot on the driver's side.
6. Remove the two (2) anchor bolts attaching the dual retractor assembly and remove the retractor assembly.

Installation

To assemble, reverse the preceding steps. Torque all bolts to 22-32 ft-lbs. Cycle system several times to assure proper retractor operation.

2-Door Ranchero (Standard System)

1. Unlatch shoulder strap boot and remove roof rail anchor bolt attaching the shoulder belt (Fig. 4).
2. Unlatch the inboard attachment boot cover and remove the anchor bolt

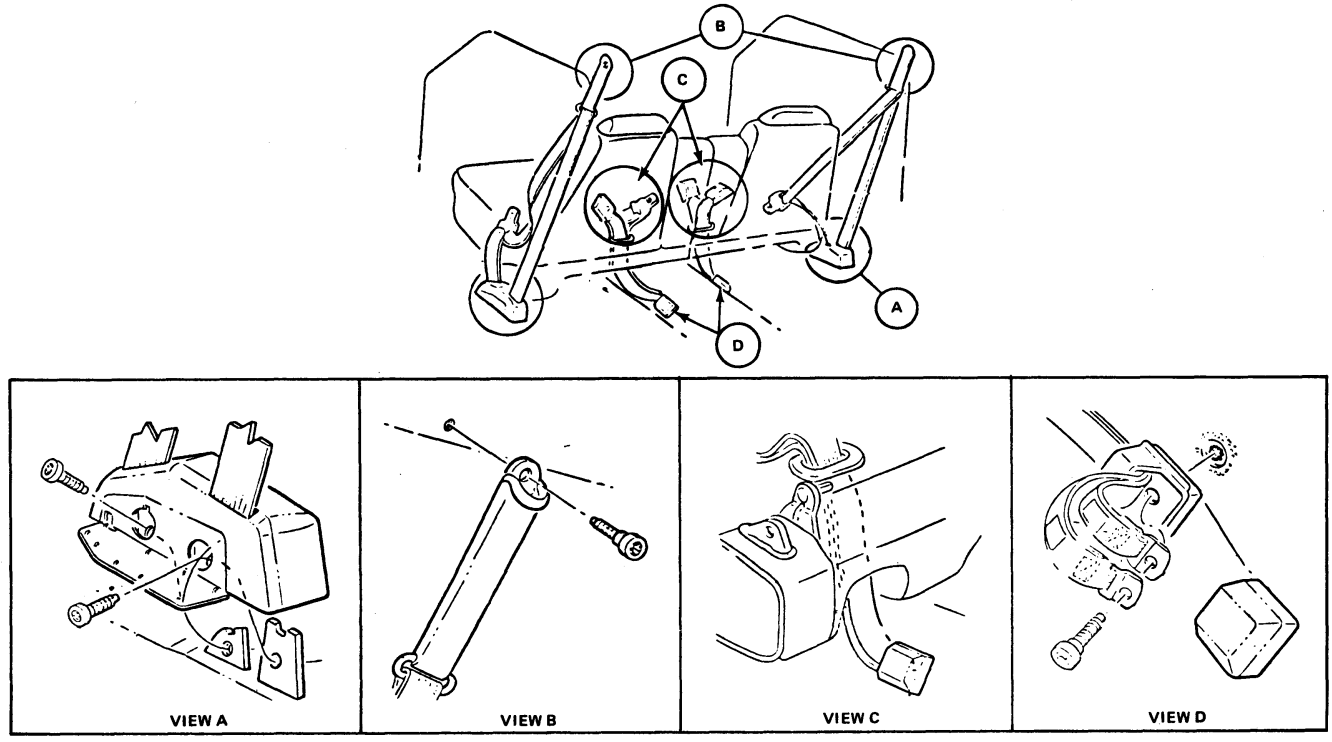


FIG. 3 Front Seat Belt Installation—Mercury, Thunderbird, and LTD II

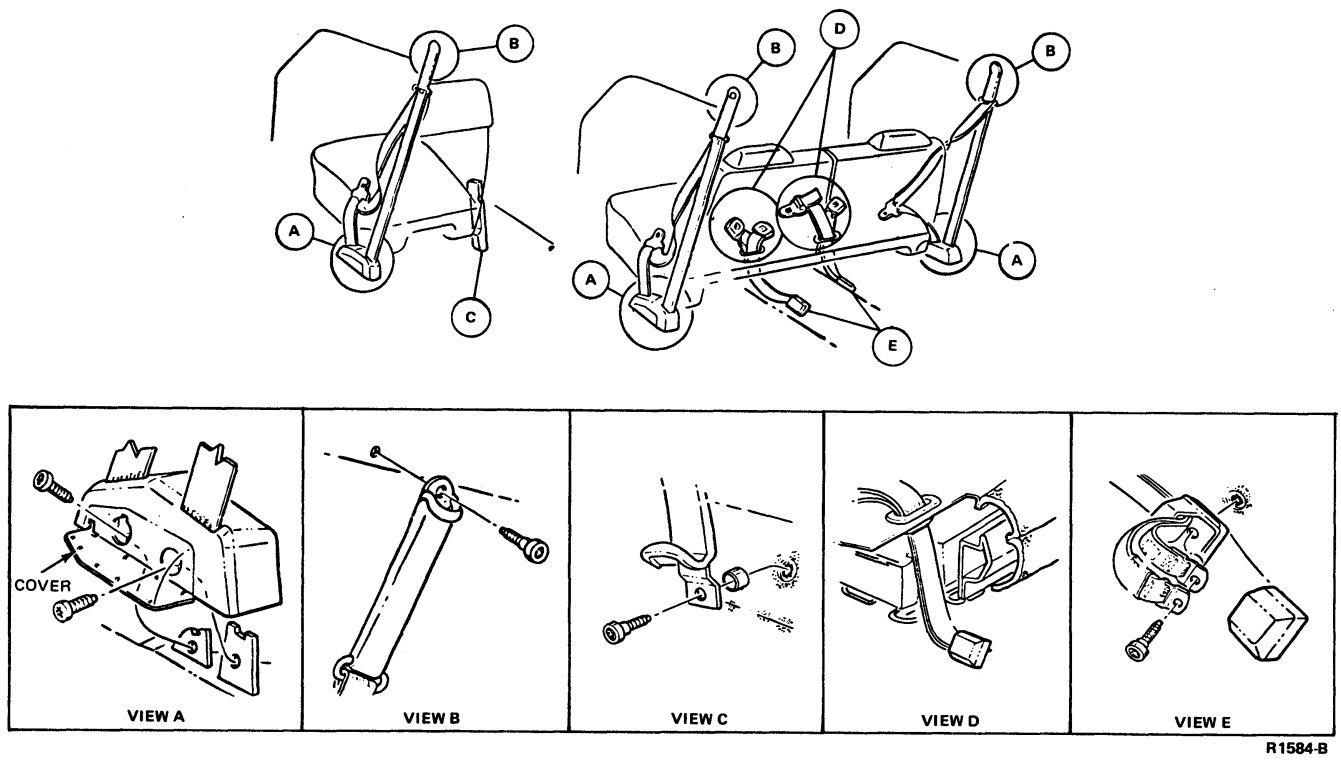


FIG. 4 Front Seat Belt Installation—2-Door LTD II and Ranchero

attaching the front inboard belt and buckle assembly.
3. Remove the belt and buckle assembly by pulling attaching anchor plate through the seat grommet.
4. Flip open the cover on the dual retractor boot (mounted on top of the sill).
5. Disconnect the electrical connector located at the front of the driver's side retractor boot.
6. Remove the two (2) anchor bolts attaching the dual retractor assembly and remove the retractor assembly.

Installation

To assemble, reverse the preceding steps. Torque all attaching bolts to 22-32 ft-lbs. Cycle system several times to assure proper operation of the retractor.

Maverick and Comet (2-Door Models)

Removal

1. Remove the bolt attaching the shoulder harness sling at the roof rail (Fig. 5).
2. Remove the front seat assembly. See Part 41-01.
3. Remove the bolt from the front inboard belt.
4. Remove retractor cover-to-quarter trim panel screw.
5. Remove the scuff plate.
6. Unsnap three covers in the retractor assembly and remove the retractor assembly (three (3) bolts).

Installation

To assemble, reverse the preceding steps. Torque all attaching bolts to 22-32 ft-lbs. Cycle system several times to assure proper operation of the retractor.

4-Door Maverick and Comet

1. Remove the bolt attaching shoulder harness "D" ring on "B" pillar (Fig. 6).
2. Remove the front seat assembly, see Part 41-01.
3. Remove the scuff plate.
4. Remove "B" pillar trim covers.
5. Remove shoulder harness retractor.
6. Remove the bolt from the front inboard belt.
7. Unsnap the cover in the retractor assembly and remove the retractor assembly (two (2) bolts).

Installation

To assemble, reverse the preceding steps. Torque all attaching bolts to 22-32 ft-lbs. Cycle system several times to assure proper operation of the retractor.

4-Door Ford, Mercury, and Lincoln Continental

Removal

1. Unsnap the cover on upper "D" ring attachment and remove the attaching bolt (Fig. 7).
2. Remove upper and lower "B" pillar trim panels.
3. Remove the bolt from the upper retractor and remove the retractor from the pillar.
4. Unsnap the driver's side front cover from the retractor on top of sill and disconnect electrical connector.
5. Unsnap the other cover on the retractor assembly, remove the attaching bolt and remove the retractor assembly.
6. With the seat in full forward position, remove the center anchor cover by spreading sides and lifting off cover.
7. Remove bolt attaching buckle ends.

Installation

To assemble, reverse the preceding steps. Torque all attaching bolts to 22-32 ft-lbs. Cycle system several times to assure proper operation of retractors.

4-Door LTD II and Cougar

1. Unsnap the cover on upper "D" ring attachment and remove the attaching bolt (Fig. 8).
2. Remove upper and lower "B" pillar trim panels.
3. Disconnect driver's side electrical connector from the lower retractor.

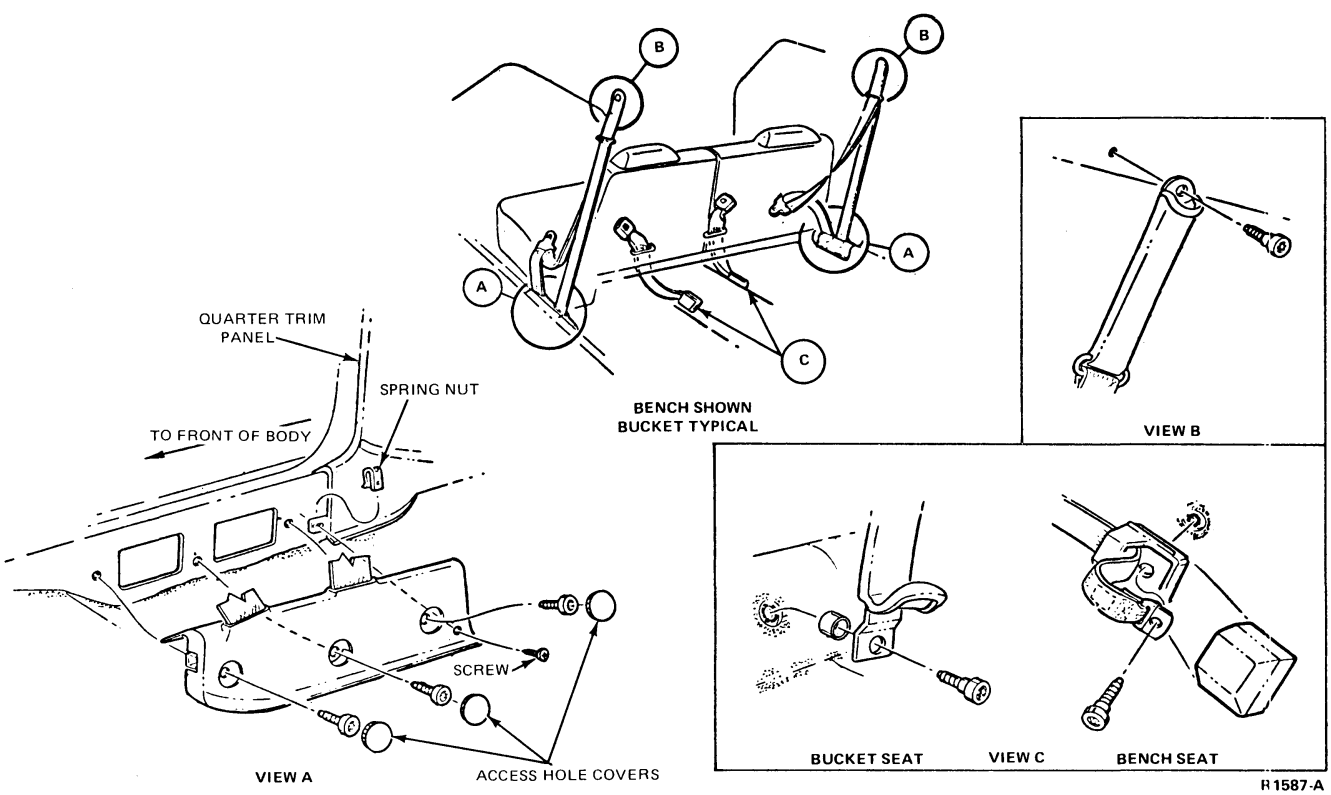


FIG. 5 Front Seat Belt Assemblies—2-Door Maverick and Comet

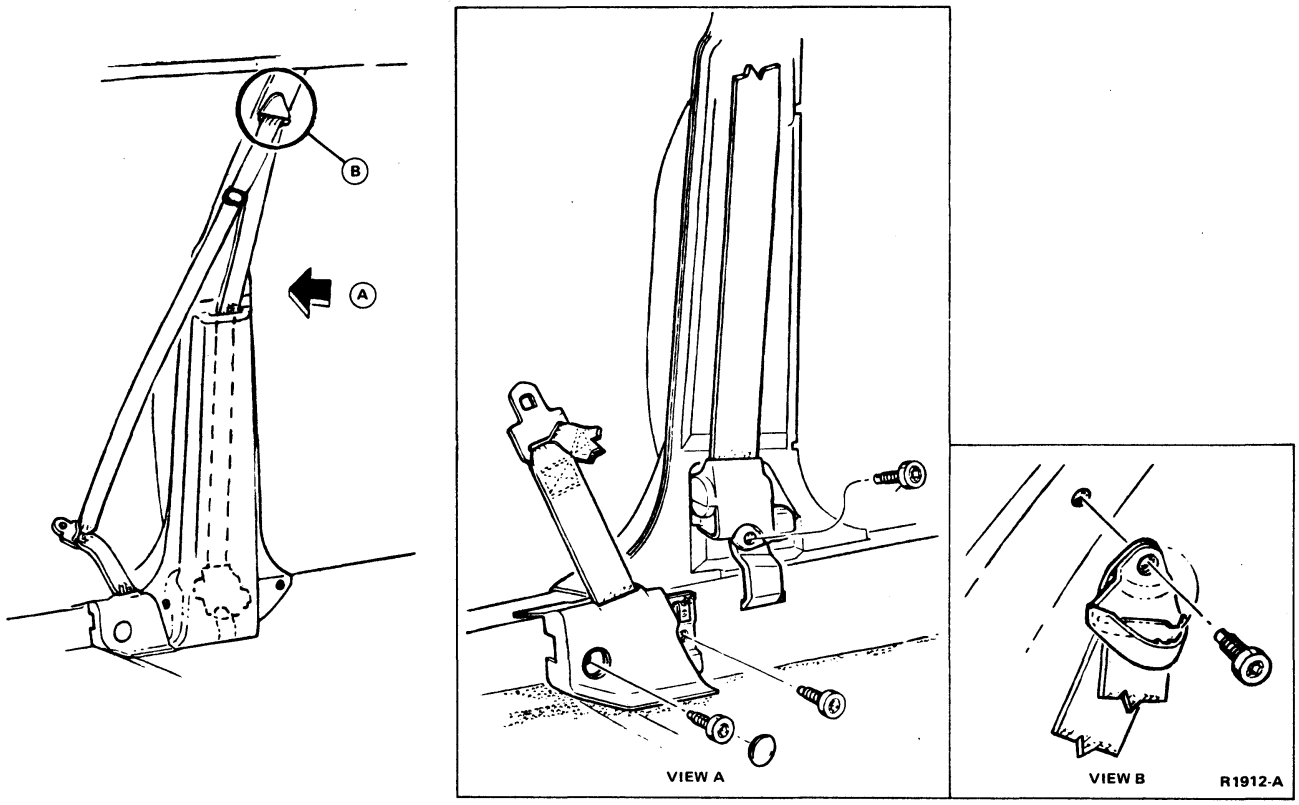


FIG. 6 Front Seat Belt Assembly—4-Door Maverick and Comet

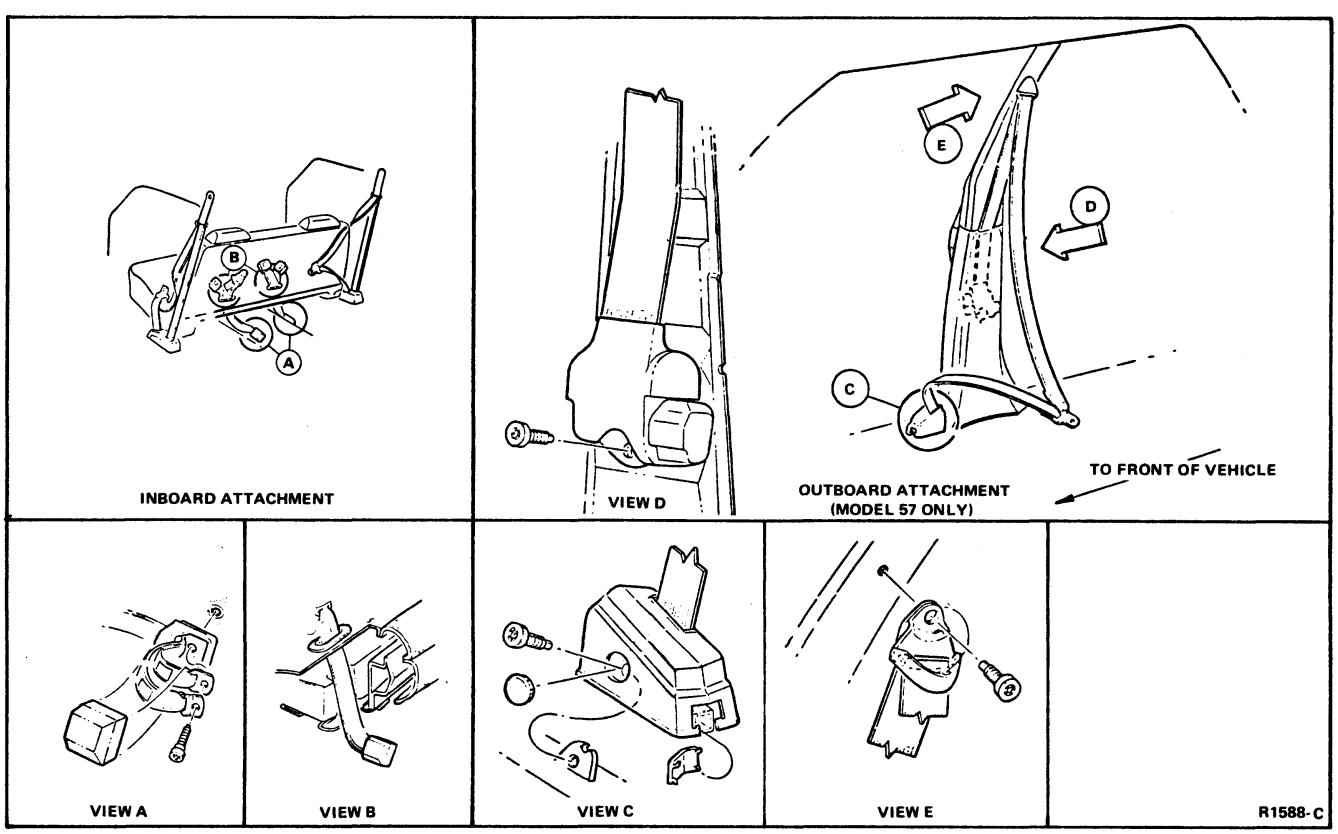


FIG. 7 Front Seat Belt Assemblies—4-Door Ford, Mercury and Lincoln Continental

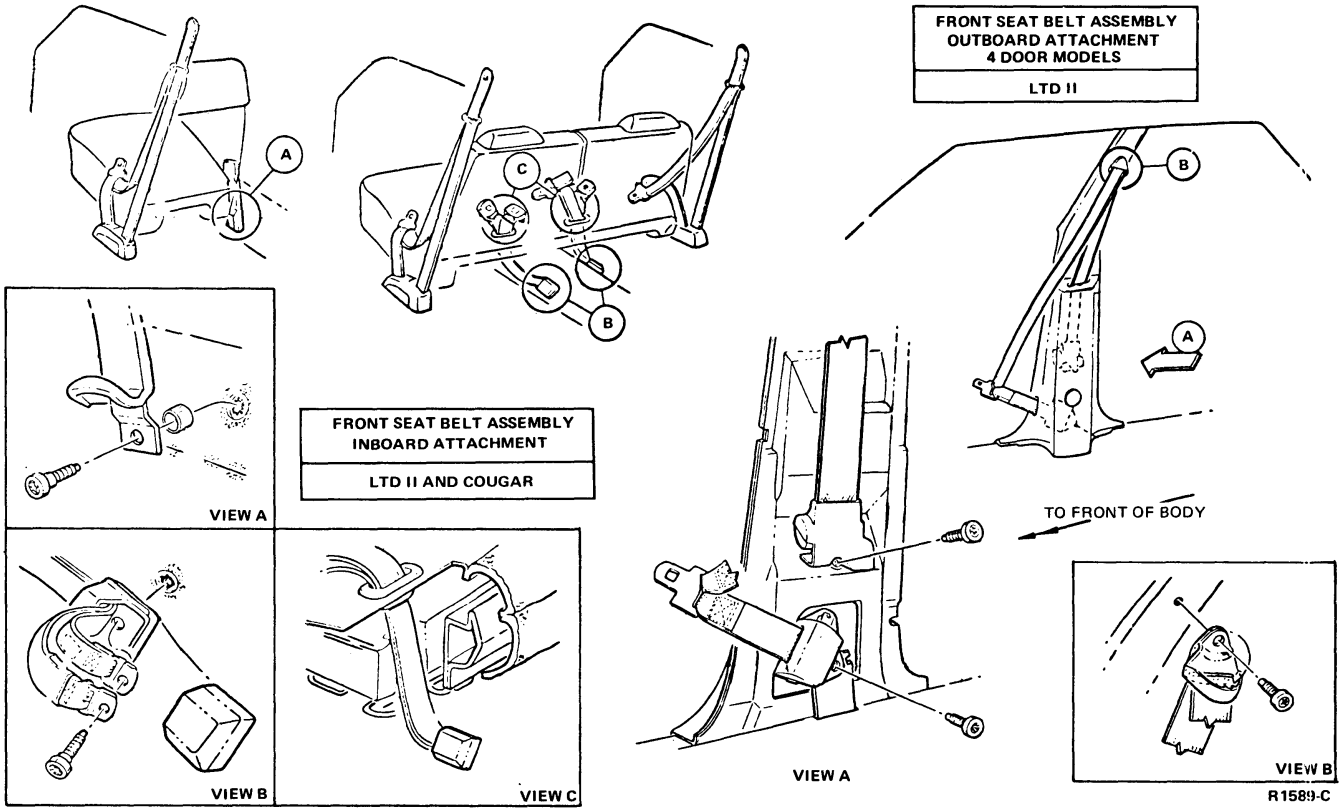


FIG. 8 Front Seat Belt Assemblies—LTD II and Cougar

4. Remove the bolt from the upper retractor and remove the retractor from pillar.
5. Remove the bolt from the lower retractor and remove the retractor assembly.
6. With seat in full forward position, remove center anchor cover by spreading sides and lifting off cover.
7. Remove the bolt attaching the buckle ends.
8. Pull the buckle through the seat assembly.

Installation

To assemble, reverse the preceding steps. Torque all attaching bolts to 22-32 ft-lbs. Cycle system several times to assure proper operation of retractors.

Pinto/Bobcat and Mustang (All Models) Granada/Monarch (Two-Door Models)

Removal

1. Remove the outboard front seat belt-to-sill attaching bolt and rubber washer (Fig. 9, View AA).
2. Unsnap the Guide Cover at the upper attachment and remove the Seat Belt Guide attaching bolt. (Fig. 9, View BB).
3. Remove the rear seat cushion and back (refer to Part 41-14 and 41-20).
4. For Pinto, Bobcat and Mustang, remove the quarter trim panel. On Mustang Ghia and Granada/Monarch remove the roof side rear trim panel before the quarter trim panel. (Refer to Part 45-03.) (Fig. 9, Views CC—1, 2, 3, 4 and 5.)
5. Disengage the front seat belt opening bezel from the opening in the quarter trim panel for the standard Mustang, Pinto and Bobcat. Remove the belt from the exit slit in the bezel and panel. For Mustang Ghia and Granada/Monarch models, disengage the belt from the exit slit in the roof side rear trim panel.
6. Remove the quarter panel mounted retractor attaching bolt and remove the outboard front seat belt assembly from the vehicle. (Fig. 9, Views DD—1, 2, and 3.)

   NOTE: Pinto and Bobcat station wagons outboard front seat belt sill attaching end, boot, guide, tongue and stop must be threaded through the inside quarter panel from the top after removing the retractor.
7. RH Inboard Front Seat Belt and Buckle removal procedure is: With the seat in the forward position to provide access, lift or slide the lower end of the buckle end boot, remove the front seat belt and buckle assembly attaching bolt and remove the assembly from the vehicle. (Fig. 9, Views EE—1 and 2.)
8. LH Inboard Front Seat Belt and Buckle Assembly: With the seat forward, disconnect the seat belt warning buzzer wiring connector at the lower end of the LH buckle end boot, lift or slide (as applicable) the lower end, remove the attaching bolt and remove the assembly from the vehicle.

Installation

To re-assemble, reverse the preceding steps. Torque all attaching bolts to 22-32 ft-lbs and cycle the system several times to assure proper operation of the retractor.

Granada/Monarch Four-Door Models—Front

Removal

1. Remove the outboard front seat belt-to-floor attaching bolt (Fig. 10, View AA).
2. Unsnap the "D" Ring Guide Cover at the upper attachment and remove the belt guide attaching bolt (Fig. 10, View BB).
3. Remove the Center Pillar trim (Refer to Part 45-03) and disengage the belt from the exit slot in the center body pillar inside finish panel (Fig. 10, View CC).
4. Remove the center pillar mounted retractor attaching bolt and remove the outboard front seat belt assembly from the vehicle (Fig. 10, View DD).
5. RH Inboard Front Seat Belt and Buckle Assembly: With the seat forward, lift the lower end of the boot

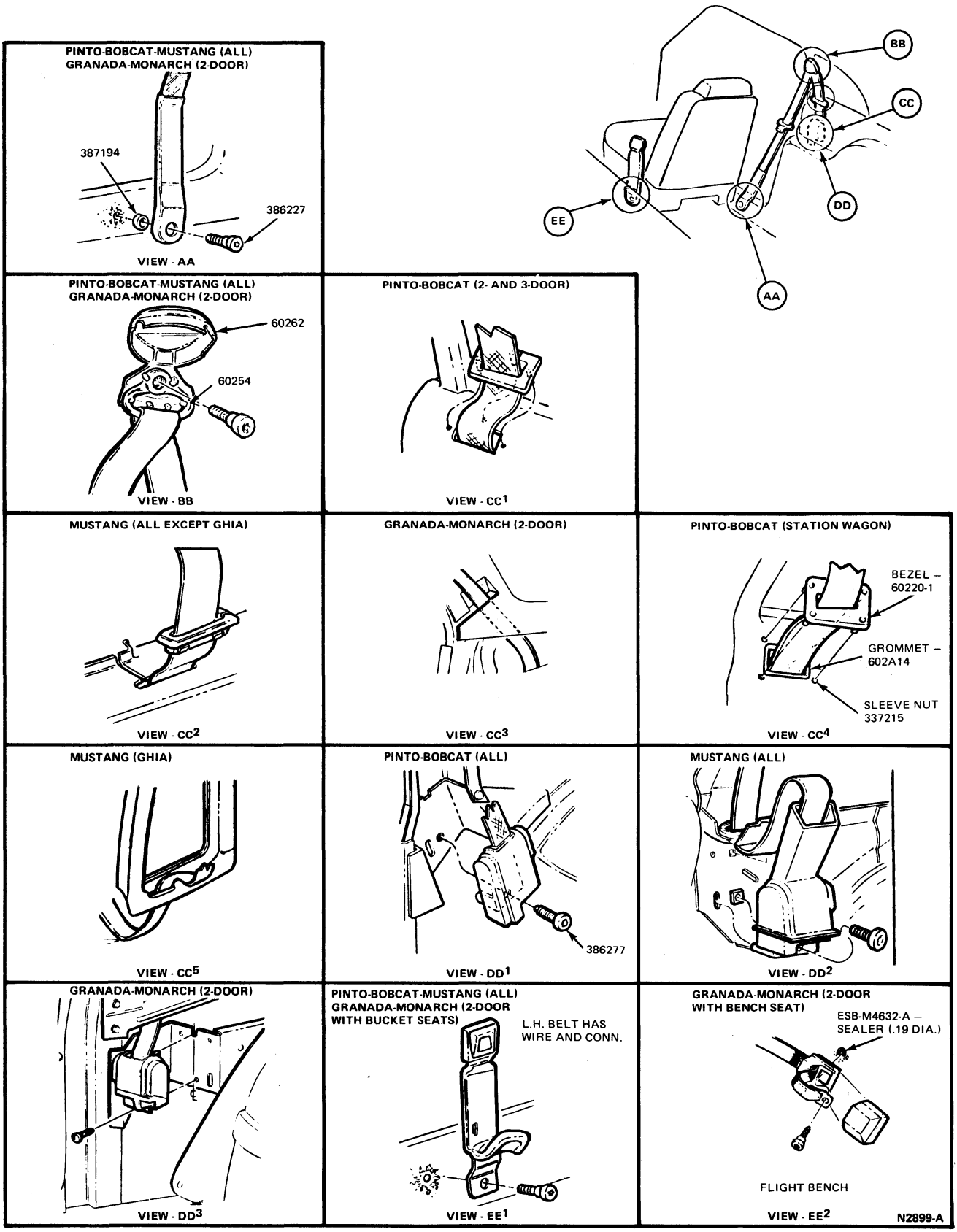


FIG. 9 Front Outboard Seat Belts—Pinto, Bobcat and Mustang (All Models); Monarch and Granada (2 Doors)

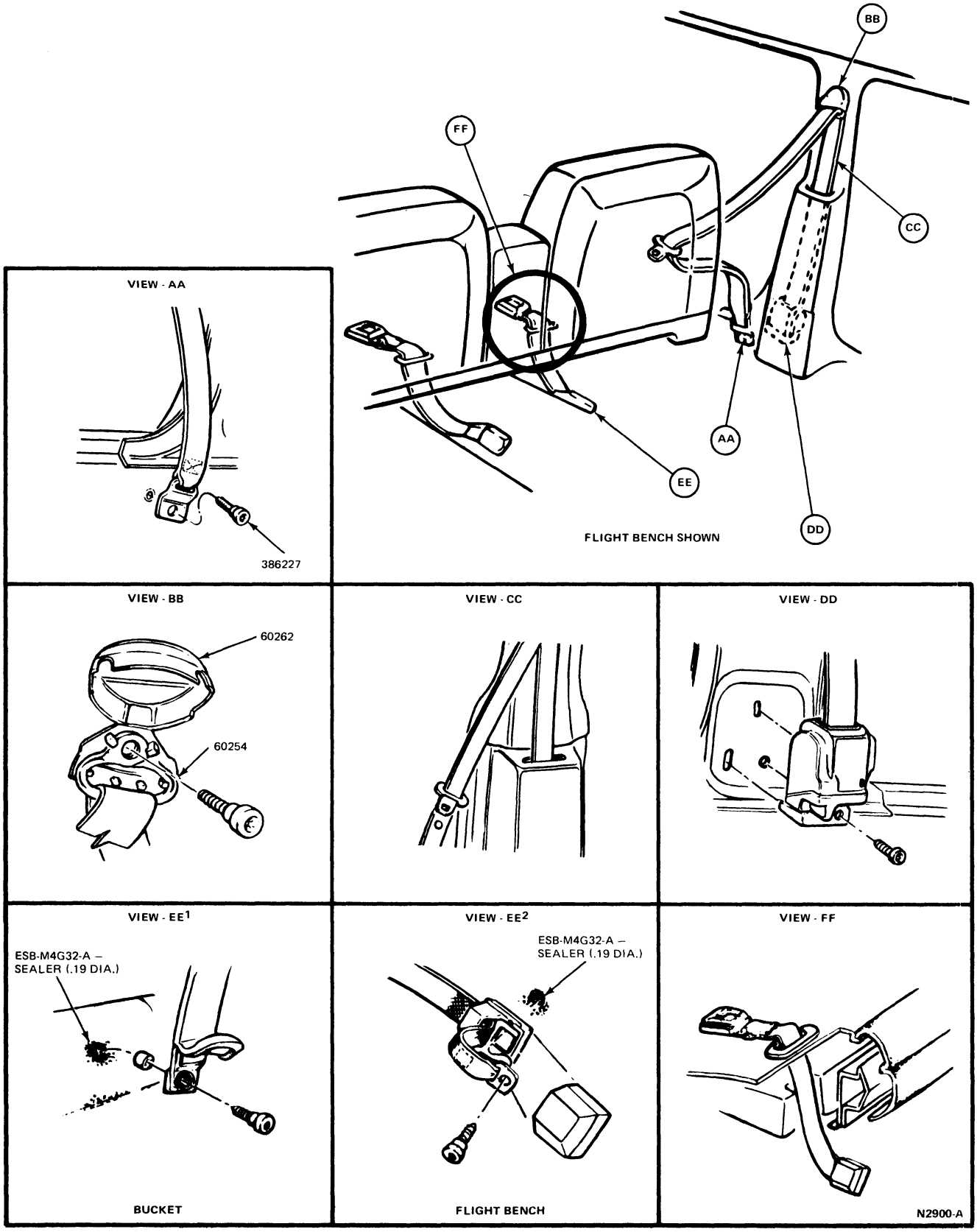


FIG. 10 Front Outboard Seat Belts—Granada and Monarch (Four Doors)

and remove the front seat belt and buckle assembly attaching bolt. Remove assembly from vehicle (Fig. 10, View EE—1 and 2).

6. LH Inboard Front Seat Belt and Buckle Assembly: With the seat forward, disconnect the seat belt warning wiring connector at the lower end of the boot. Remove the attaching bolt. Remove the assembly from the vehicle.

Installation

To assemble, reverse the preceding steps. Torque all attaching bolts to 22-32 ft-lbs. Cycle the system several times to assure proper operation of the retractor.

Mark V

NOTE: Fig. 11 Views A, B, C show the Front Seat Belt and Shoulder Belt Inboard and Outboard Locations. Tool T70P2100B should be used for Removal and Installation. Refer to Group 45 for Trim Removal.

Removal

1. Remove the shoulder belt retractor cover attaching screws (2).
2. Remove the shoulder belt retractor attaching screws (2). Lower Assy. to rear floor (Fig. 11).
3. Unsnap "footman's loop".
4. Remove the plug from the front of the lap belt retractor cover. (Driver's side only.)
5. Disconnect the driver's side seat belt electrical connector from left lap belt retractor.
6. Remove the plug from the side of the lap belt retractor.
7. Remove the one bolt from the lap belt retractor assembly and remove the retractor assembly.
8. With the seat in the full forward position, remove the center anchor cover by spreading the sides and lifting off the cover.
9. Remove the bolt attaching the buckle ends.
10. Pull the buckle ends through the seat assembly.

Installation

To assemble, reverse the preceding steps. Torque all attaching bolts to 22-32 ft.-lbs. and cycle the system several times to insure proper operation of the retractor.

2-Door Ford and Lincoln Continental

1. Unsnap the cover on upper "D" ring attachment and remove the attaching bolt (Figs. 12 and 13).
2. Remove quarter trim panels, Part 43-05.
3. Lincoln Continental Only—Remove the four (4) screws retaining the seat belt guide.
4. Remove the bolt from the "B" pillar retractor and remove the retractor from the pillar.
5. Unsnap the driver's side front cover from the retractor on top of sill and disconnect electrical connector.
6. Unsnap the other cover on the retractor assembly, remove the attaching bolt and remove the retractor assembly.
7. Remove the seat belt loop retainer from seat assembly.
8. With the seat in full forward position, remove the center anchor cover by spreading sides and lifting off cover.
9. Remove bolt attaching buckle ends.
10. Pull buckle through seat assembly.
11. Thread the center belt through the seat cushion bezel and insert.
12. Position the center belt assembly, install the attaching bolt, tighten to specification and install the center anchor cover.
13. Install the lower retractor (one (1) bolt) and tighten to specification.
14. Connect the driver's side electrical connector to the retractor assembly and install the access covers.
15. Install the "B" pillar retractor assembly and tighten to specification.
16. Lincoln Continental Only—Install the seat belt guide with four (4) retaining screws.
17. Install quarter trim panels.

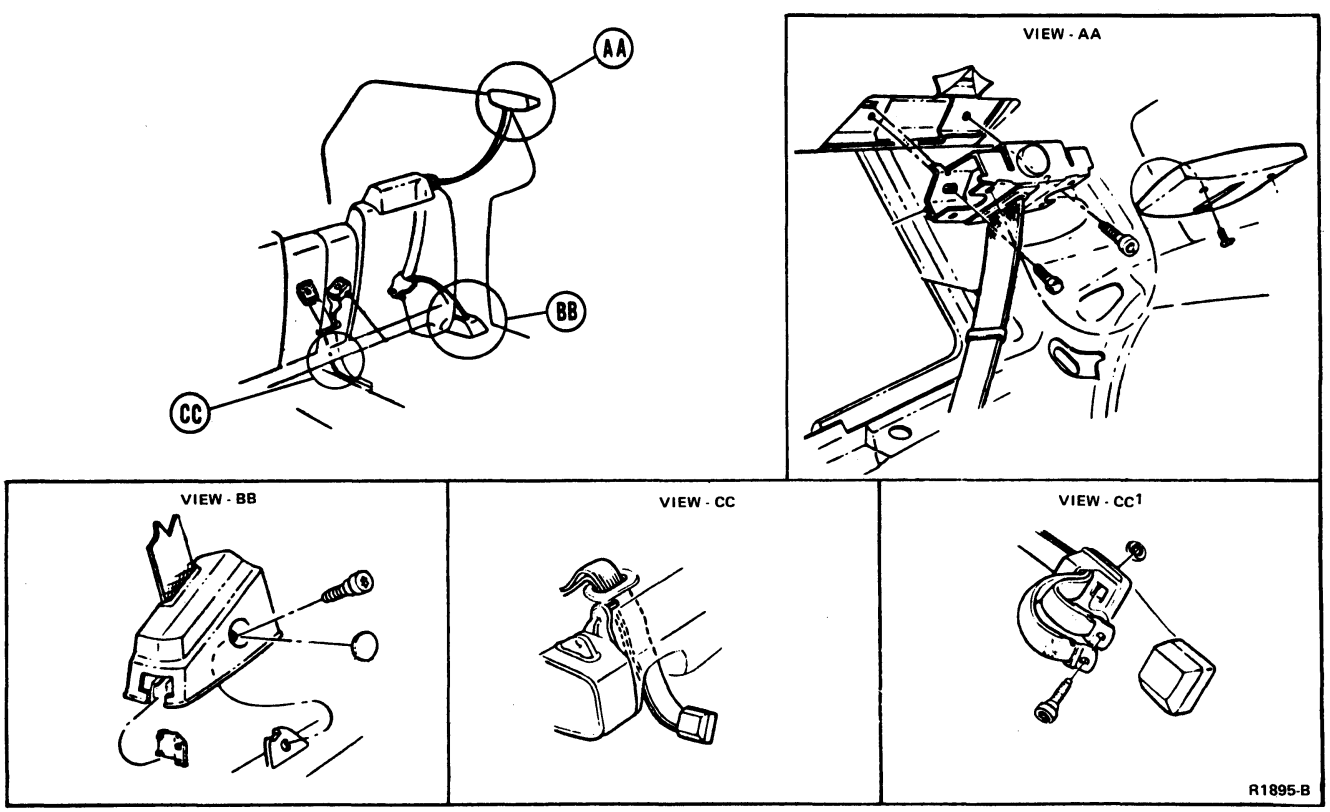


FIG. 11 Seat Belt Assembly Mark V

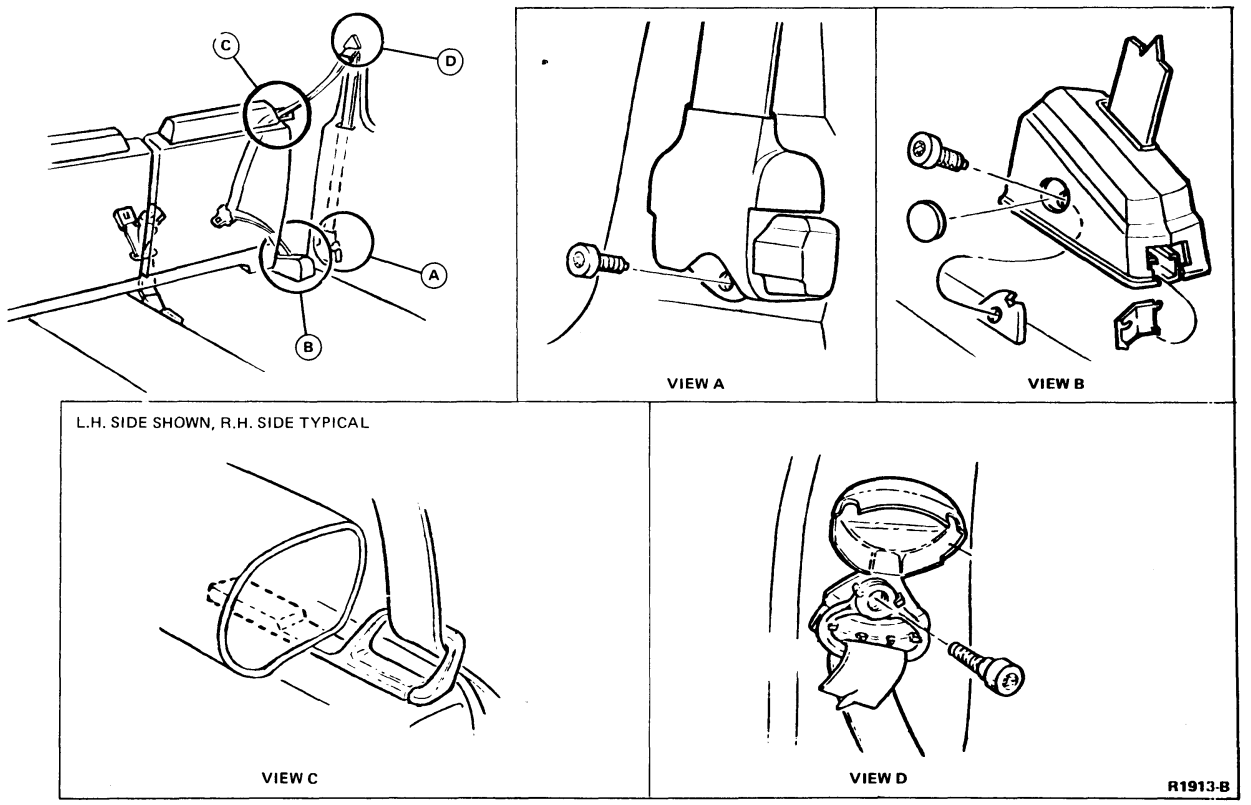


FIG. 12 Front Seat Belt Assemblies—2-Door Ford

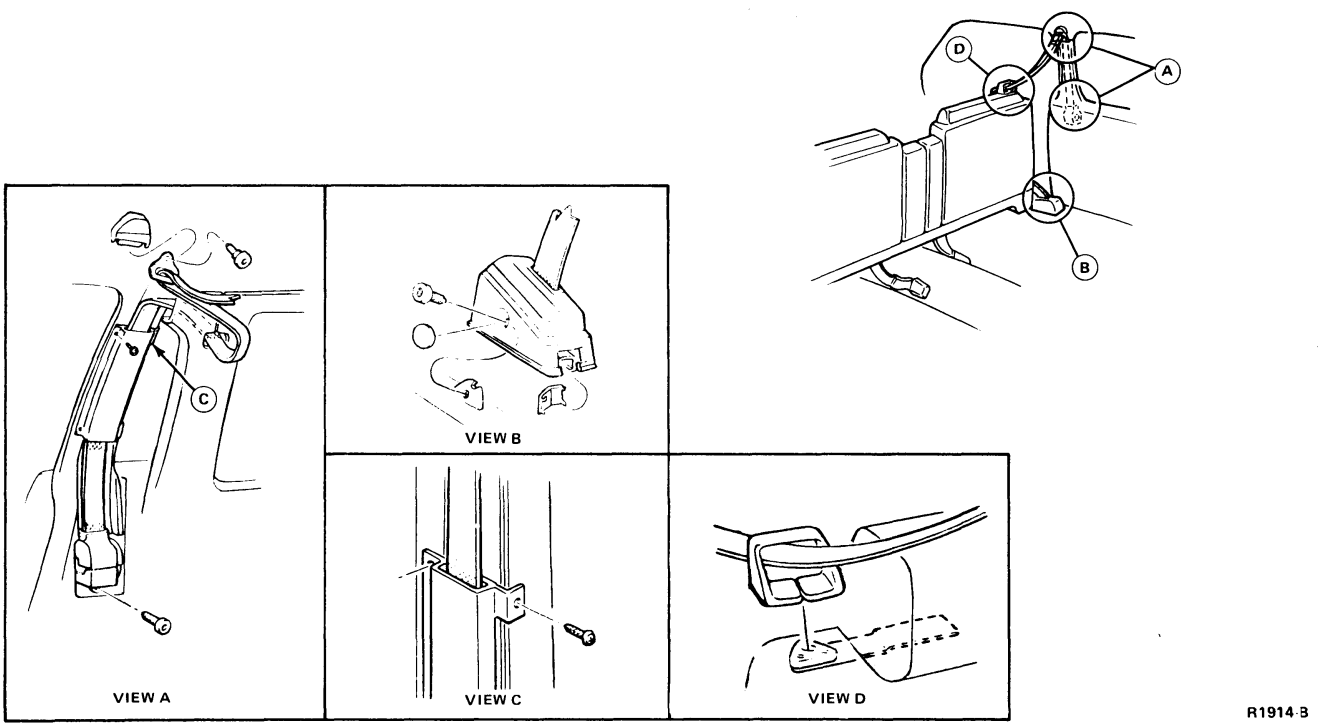


FIG. 13 Front Seat Belt Assemblies—Lincoln Continental

18. Install the shoulder harness and bolt to the "B" pillar and "D" ring attachment and tighten to specification. Make sure there is no twist in the webbing.
19. Install seat belt loop retainer to top of seat assembly.

REAR SEAT BELT RETRACTOR ASSEMBLY

2-Door Maverick, Comet, Pinto, Bobcat and Mustang

1. Remove the left scuff plate assembly.
2. Remove the front seat assembly as outlined in Part 41-01.
3. Remove the retractor cover-to-quarter trim panel (one (1) screw).
4. Remove the driver's side access hole covers on the retractor assembly, disconnect the electrical connector. Remove the retractor assembly (three (3) bolts).
5. Remove the rear seat cushion and back assembly as shown in Part 41-14 or Part 41-20 (whichever is applicable).
6. Remove the seat belt bezel from the quarter trim panel (Fig. 14).
7. Remove the quarter trim panel. See Part 45-03.
8. Remove the retractor assembly (one (1) bolt).
9. Position the retractor assembly, install the retaining bolt and tighten to specification.
10. Position the quarter trim panel, insert buckle end through the quarter trim panel hole and install the bezel to retain the buckle end. Then, secure the quarter panel.
11. Install the rear seat back and cushion assembly.
12. Install the retractor assembly (three (3) bolts) and tighten to specification. Connect the wire to the driver's side retractor and install the access hole covers.
13. Install the pillar-to-quarter trim panel cover (one (1) screw).
14. Install the scuff plate.

4-Door Maverick and Comet

1. Remove the rear seat cushion and back assembly as outlined in Part 41-14.
2. Remove the quarter trim panel seat belt bezel.
3. Remove the sill panel scuff plate.
4. Remove the quarter trim panel (Part 45-03) and remove the retractor assembly (one (1) bolt, Fig. 15).
5. Position the retractor assembly, install the attaching bolt and tighten to specification.
6. Place the quarter trim panel into position, insert the tongue end through the quarter trim panel hole and install the bezel to retain the buckle end.
7. Install the quarter trim panel and scuff plate.
8. Install the rear back and cushion assembly.

All Except Maverick and Comet (2-Door Models) Pinto, Bobcat and Mustang

To remove the rear seat belt retractor and/or seat belt assembly it will be necessary to remove the rear seat cushion and back assembly (Fig. 16). Refer to Part 41-14. Then, remove the seat belt and/or retractor bolt and remove the assembly.

Remember, torque the attaching bolts to specification when reinstalling.

Granada, Monarch

1. Remove the rear seat cushion and back assembly as outlined in Part 41-14.
2. Position the retractor assembly, install the attaching bolts and tighten to specification. The anchor tabs have to be positioned according to general specifications.

MAJOR REPAIR OPERATIONS

SEAT AND SHOULDER BELTS

The seat belts and shoulder belts are factory installed in their proper locations. If the belts are removed for any reason, they should be installed as shown in Figs. 3 through 16. Sealer should be placed around all seat belt anchor bolt holes in the floor pan. Tighten the anchor bolts to specification, shown at the end of this Part.

SEAT BELT WITH NO ANCHOR PLATE THREAD DAMAGE

1. Remove the damaged bolt for the anchor reinforcement and discard.
2. Install a new bolt with the same part number as indicated at the end of this Part and tighten to specification.

SEAT AND SHOULDER HARNESS BELT WITH DAMAGED ANCHOR PLATE THREADS

1. Remove the broken or stripped bolt and discard.
2. Drill out the internal threads in the seat belt anchor plate with a 27/64 inch drill. (Shoulder belt 13/32 inch drill.)
3. Re-thread the anchor plate with a 1/2-13 tap (seat belt).

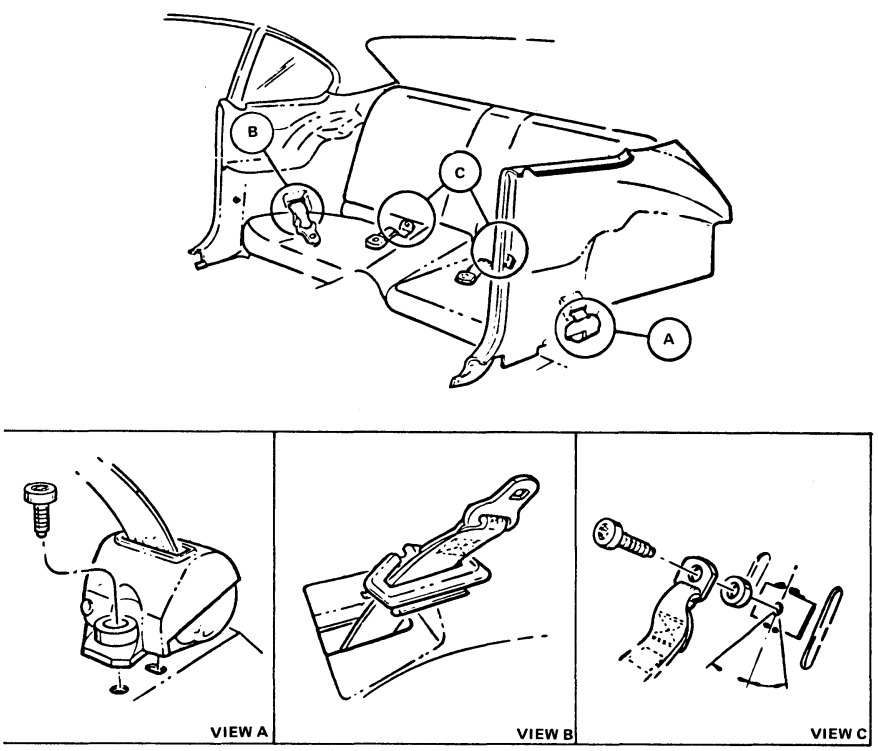


FIG. 14 Rear Seat Belt Assemblies—Maverick and Comet 2 Door—Mustang, Pinto and Bobcat

4. Blow out the chips.
5. Install the attachment parts in the sequence shown in Figs. 3 through 19, whichever is applicable. Tighten the replacement bolt to specification, as shown at the end of this Part. Original parts are to be replaced with the repair parts indicated in the seat belt parts replacement charts at the end of this Part. Unless specified in the chart, use original parts.
6. When repairing a multiple belt and attachment, install nut (382599-5100) to the bolt in the tunnel area from the underside of the floor pan. Tighten to specification, shown at the end of this Part.

CLEANING

Seat and Shoulder Belt Webbing

Clean the belt webbing with any mild soap solution recommended for cleaning upholstery or carpets; follow instructions provided with soap. **Do not bleach or re-dye the webbing because it may weaken it.**

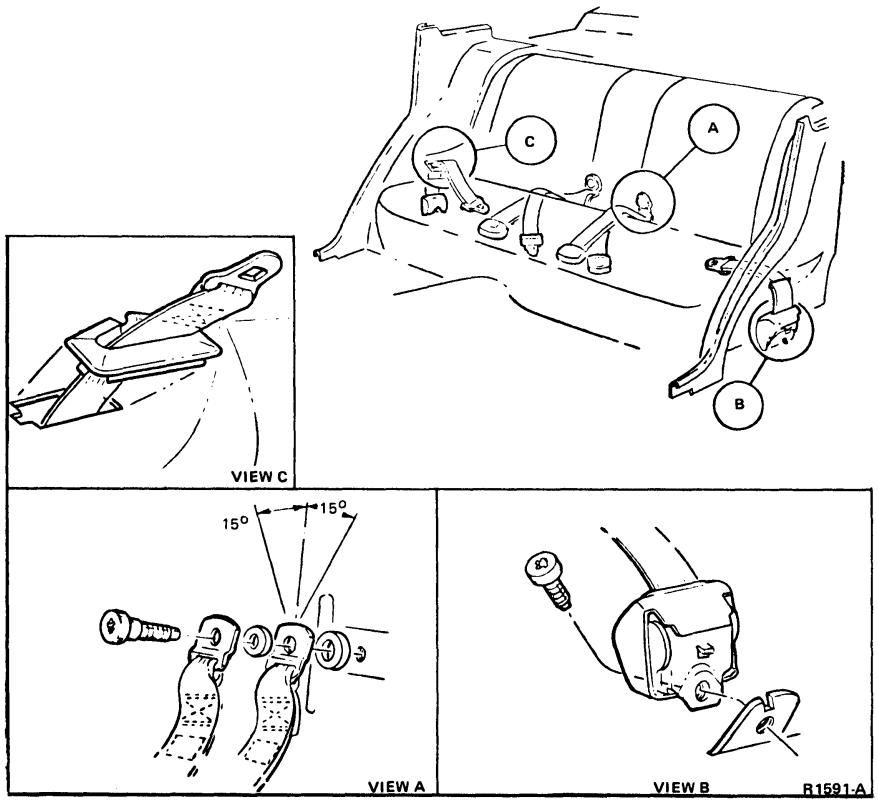
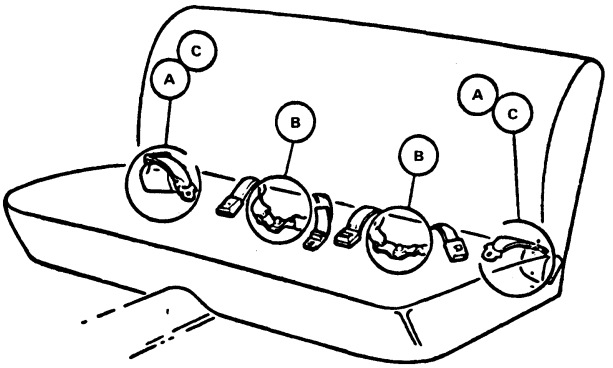
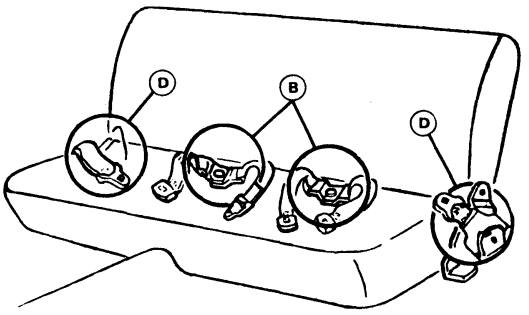


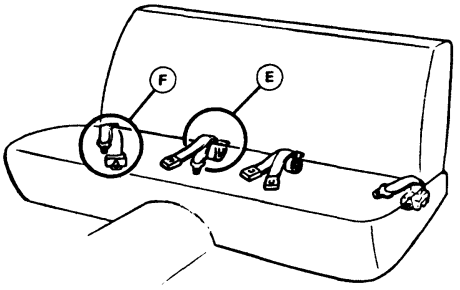
FIG. 15 Rear Seat Belt Assemblies—Maverick and Comet—4-Door



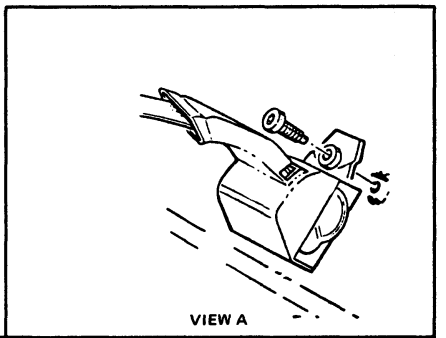
ALL SEDANS AND HARDTOPS
EXCEPT GRANADA AND MONARCH



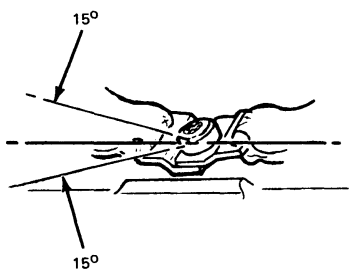
ALL STATION WAGONS

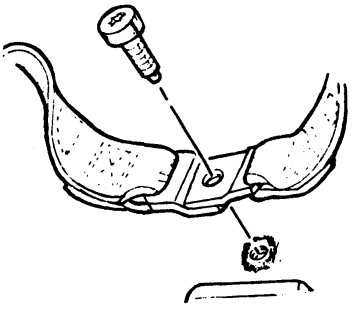


GRANADA AND MONARCH

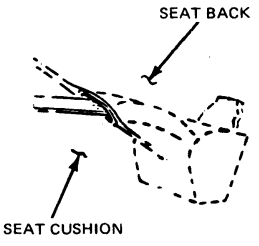


VIEW A

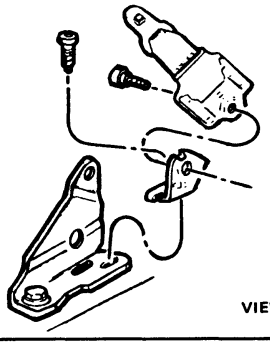




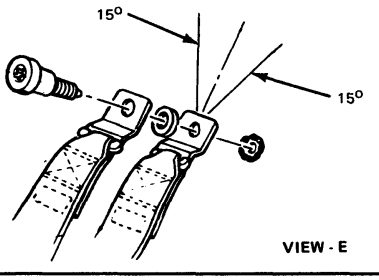
VIEW B



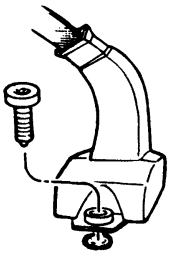
VIEW C



VIEW D



VIEW - E



VIEW - F

R1592-B

FIG. 16 Rear Seat Belt Assemblies—Typical—Except Maverick, Comet, Mustang, Pinto and Bobcat

SPECIFICATIONS

PARTS REPLACEMENT CHART – SEAT AND SHOULDER BELT WITH DAMAGED WELD NUT ANCHOR PLATE THREADS

ORIGINAL PARTS – SEAT BELT			REPLACEMENT PARTS – SEAT BELT		
Part No.	①Code Letter	Part Name	Part No.	①Code Letter	Part Name
386273-S100	IA	Bolt – 7/16-20 x 1.38 Pan Head Tapping	383531-S36	X	Bolt – 1/2-13 x 1.38 Pan Locking
386274-S100	IB	Bolt – 7/16-20 x 1.75 Pan Head Tapping (.50 Shoulder)	383753-S36	Y	Bolt - 1/2-13 x 1.75 Pan Locking (.50 Shoulder)
D2AB-65612A16-AA	–	Spacer – Serrated 1/2 x .30	382553-S100	–	Washer 9/16 Flat To Be Used With Repair of 386274-S100 Bolt Only When Required
382629-S100	–	Washer – .463/.443 I.D. Plate (1.80 Dia. .190 Thick)	382522-S100	–	Washer – 1/2 Flat (1.30 Dia. .190 Thick)
382583-S100	–	Washer – 1/2 Serrated (.18 Thick)	382533-S100	–	Washer – 1/2 Flat (.25 Thick)
3862702-S100	IF	Bolt – 7/16-20 x .88 Pan Head Tapping	383437-S36	W	Bolt – 1/2 x 13 Pan Locking
386276-S100	IL	Bolt – 7/16-20 x 1.75 Pan Shoulder Tapping (.75 Shoulder)	383754-S36	Z	Bolt – 1/2-13 x 2.25 Pan Locking (.88 Shoulder)
386277-S100	IK	Bolt – 7/16-20 x 1.38 Pan Shoulder Tapping (.50 Shoulder)	385709-S36	T	Bolt – 1/2-13 x 1.38 Pan Head Shoulder Locking
ORIGINAL PARTS – SHOULDER BELT			**REPLACEMENT PARTS – SHOULDER BELT**		
Part No.	**①Code Letter**	**Part Name**	**Part No.**	**①Code Letter**	**Part Name**
386278-S100	ID	Bolt – 3/8-16 x 1.50 Pan Head Tapping	386274-S100	IC	Bolt – 7.16-20 x 1.75 Pan Head Tapping

① Identification letter on top of bolt head or face of spacer.

Note: Bolt torque must be maintained at 20-30 ft-lbs. Replacement parts – 22-32 ft-lbs.

CR1112-H

Seat Trim

PART 41-60

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REMOVAL AND INSTALLATION	
Back Cover – Bench Type Front Seat	60-2
Back Cover – Bucket and/or Split Bench Front Seat	60-1
Back Cover – Rear Seat	60-2
Center Arm Rest – Front Seat	60-2
REMOVAL AND INSTALLATION (Cont'd.)	
Center Arm Rest Cover – Front Seat	60-2
Center Arm Rest Cover – Rear Seat	60-2
Cushion Cover – Bench Type Front Seat	60-2
Cushion Cover – Bucket and Split Bench Front Seat	60-1
Cushion Cover – Rear Seat	60-2
High Back Cover – Bucket Seat	60-2

CR2020-A

GENERAL INFORMATION

The following seat trim removal and installation procedures generally apply to all car lines.

If some of the steps do not apply to the particular vehicle being serviced, proceed to the next step and review the appropriate illustrations shown. Unless otherwise noted, the illustrations shown in this section are **typical of all bucket, bench and split bench (front seat assemblies), arm rests (front and rear), and rear seat cushion and back assemblies.**

See appropriate Figs. 1 through 21.

Seat trim replacement requires removal and installation of seat components such as seat tracks, seat assemblies and head restraints. Refer to the applicable shop manual parts in Group 41 for these procedures.

REMOVAL AND INSTALLATION

CUSHION COVER—BUCKET AND SPLIT BENCH FRONT SEAT

1. Remove the seat and track assembly from the vehicle. Refer to Group 41.
2. Remove the seat back latch handle assembly.
3. Remove the seat cushion shield(s) attaching screws, and separate the shield(s) from the cushion.
4. Remove the arm rest-to-seat attaching covers and remove the retaining bolts.
5. Remove the seat back-to-seat cushion retainers and pins and remove the seat back from the seat cushion.
6. Remove the seat track-to-seat cushion screws and washers and remove the seat track assemblies.
7. Cut the hog rings retaining the cushion cover.
8. Remove the cover from the seat cushion assembly and transfer the tiedown and bolster wires to their listings in the new cover assembly.

   On units equipped with laterally pleated and plain trim bucket (Pinto) cushion covers, apply trim cement (Part No. 19C525 or equivalent) between the cover and the pad. This will prevent wrinkling and buckling of covers when installed in service.
9. Position the cover over the pad and spring assembly and fold the cover into position to install the hog rings and/or plastic retainer(s) to the seat cushion assembly. Then stretch the cover and smooth out any wrinkles at the same time the hog rings are being installed.
10. Position the seat track assemblies to the seat cushion and install the attaching screws and washers. Tighten to specification shown in the appropriate Figs. (Group 41).
11. Assemble the seat back and arm rest to the cushion assembly.
12. Install the seat cushion shield(s) and seat back latch handle assembly.
13. Position the seat and track assembly in the vehicle and install the seat track-to-floor attaching bolts. Tighten to specification shown in the appropriate Figs. (Group 41).

BACK COVER-BUCKET AND/OR SPLIT BENCH FRONT SEAT

1. Tilt the seat back forward, remove the seat back pivot covers and remove the

bolts and/or pins and retainers from the seat back assembly pivot arm.
2. Remove the seat back latch handle and escutcheon.
3. Remove the seat back assembly (lift outboard side and pull seat back out of inboard pin socket), and place on clean bench.
4. Remove the seat back trim robe panel, moulding and shields (retained by trim clips and/or tabs and screws) from the seat back (if so equipped).
5. Cut the hog rings and/or disengage the plastic retainers from the seat back frame assembly flange and remove the cover.
6. Transfer all bolster tie-down wires to their listings in the new cover assembly.
7. Install the cover assembly.
8. Install the hog rings that retain the cover or attach the plastic retainers to the frame assembly flange.
9. Install the seat back trim panel, shield and mouldings to the seat back assembly.
10. Install the seat back latch handle and escutcheon.
11. Position the seat back assembly to the seat cushion and install the retaining bolts, pins and retainers and the pivot covers.
12. Check the seat back latch operation to be sure that the seat back assembly holds in the locked position.

HIGH BACK COVER-BUCKET SEAT

To replace the Pinto/Bobcat high back cover (bucket seat), follow the procedures outlined for Back Cover Bucket and Split Bench in this Section and refer to the illustrations shown. The removal and installation procedures are typical.

CUSHION COVER-BENCH TYPE FRONT SEAT

Remove the seat and track assembly from the vehicle as outlined in the applicable seat section (Group 41). Remove the seat back from the cushion. To replace the cushion cover, follow the cushion cover removal and installation procedures under Rear Seat Cushion and Front Seat Arm Rest Removal and Installation in this Section. The procedures are typical.

BACK COVER-BENCH TYPE FRONT SEAT

Remove the seat and track assembly from the vehicle as outlined in the applicable seat section (Group 41). Remove the seat back from the cushion. To replace the seat back cover, follow the Seat Back Cover Removal and Installation procedures in this Section. The procedures are typical.

CENTER ARM REST-FRONT SEAT

The front seat center arm rest on the Lincoln Continental requires removal of the hog rings retaining the arm rest cover to the seat cushion assembly. Cut the hog rings from underneath the front seat cushion assembly. Then, lift the flap and remove the screw retaining the arm rest assembly to the seat cushion. Remove the arm rest assembly.

On the LTD II, Cougar, Thunderbird and Continental Mark V, remove the arm rest shield(s) to gain access to the bolts attaching the arm rest to the seat cushion assembly. Then, remove the two attaching bolts and remove the arm rest assembly.

On the Ford and Mercury, remove the hog ring(s) retaining the flap assembly to gain access to the retaining nuts. Remove the four nuts retaining the back and strainer assembly to the seat back frame assembly and remove the arm rest.

CENTER ARM REST COVER-FRONT SEAT

Disengage the hog rings and the cover from the retainers (staples) on Lincoln Continental. Then, remove the arm rest cover.

The arm rest cover on the LTD II, Granada, Monarch, Cougar, Ford, Mercury, Thunderbird and Continental Mark V, is retained with a zipper. Unzip the zipper and remove the arm rest cover assembly.

CUSHION COVER-REAR SEAT

1. Remove the rear seat cushion from the vehicle. See Group 41.
2. Disengage the button assemblies from their respective retainers and remove the buttons. **The retainers will be damaged upon removal and should be discarded.**
3. Cut the hog rings from the cushion cover and/or disengage the plastic retainers from the seat cushion flange and remove the cover.
4. Transfer all bolster tie-down wires to their respective listings in the new cover assembly.
5. Position the cover over the cushion assembly. Secure the plastic retainers to the seat flange assembly (if so equipped).
6. Install the necessary hog rings, buttons and (new) retainers and install the cushion assembly into the vehicle.

BACK COVER-REAR SEAT

1. Remove the rear seat cushion and rear seat back assembly from the vehicle, and remove the center arm rest (if so equipped) from the rear seat back as outlined in the removal procedure under Center Arm Rest Cover-Rear Seat.
2. Disengage the button assemblies from their respective retainers on the rear side of the seat back and remove the buttons.
3. With the front side down on a bench, cut the hog rings that retain the cover to the spring assembly and/or disengage the plastic retainers from the seat cushion flange assembly.
4. Remove the cover from the seat back assembly.
5. Transfer all bolster tie-down wires to their respective listings in the new cover assembly.
6. Position the cover over the cushion assembly.

   Position the plastic retainer(s) over the spring flange assembly.
7. Install the necessary hog rings, buttons and (new) retainers and install the rear arm rest to the seat back assembly (if so equipped).
8. Install the seat back and seat cushion into the vehicle.

CENTER ARM REST COVER-REAR SEAT

1. Remove the rear seat cushion and rear seat back assembly from the vehicle as outlined in Group 41.
2. Cut the retaining hog rings and remove the rear cover from the arm rest opening in the seat back.
3. Cut the hog rings that attach the arm rest flap to the rear seat back.
4. Remove the four bolts that attach the arm rest link and vertical strainer assembly to the rear seat back and remove the arm rest assembly.
5. Remove the flap-to-arm rest staples, the cover-to-arm rest staples and slip the cover off the pad and base assembly.
6. Slip the new cover over the pad and base assembly and install the arm rest staples and hog rings.
7. Assemble the center arm rest to the rear seat back and install the four vertical strainer-to-seat back attaching screws.
8. Fasten the arm rest flap to the rear seat back with hog rings.
9. Install the rear seat back assembly and the rear seat cushion in the vehicle.

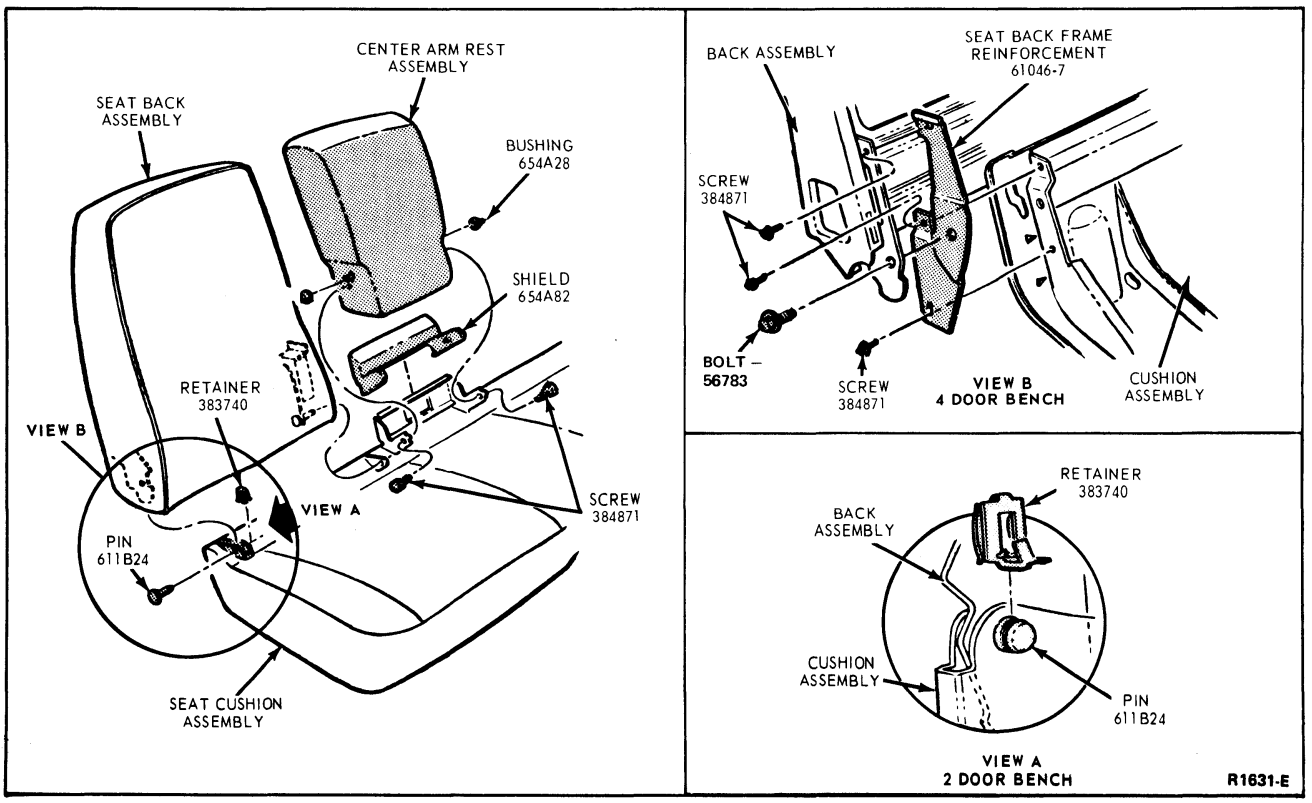


FIG. 1 Front Seat Back and Center Arm Rest 2-and 4-Door Flight Bench—LTD II and Cougar

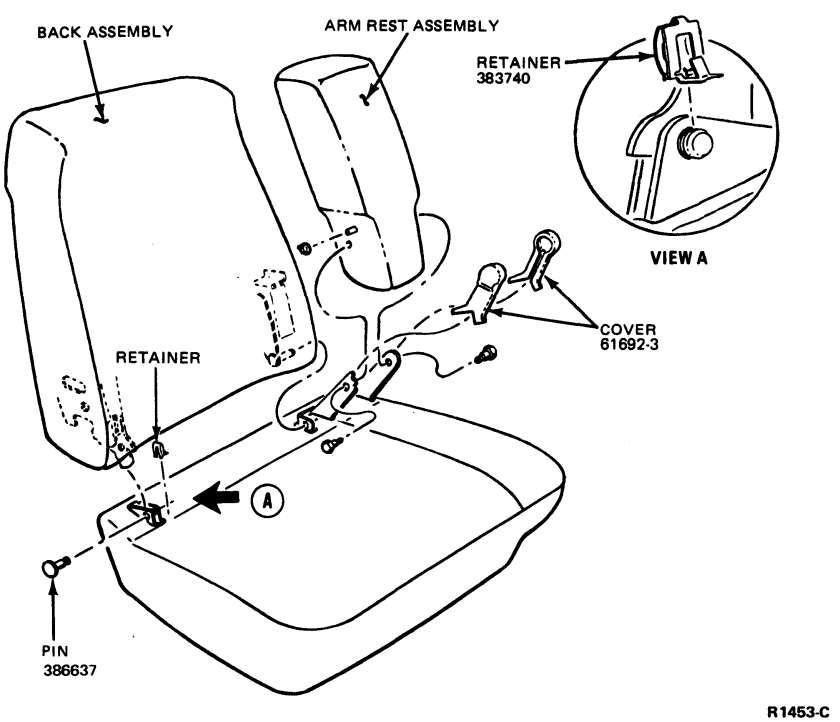


FIG. 2 Front Seat Back and Center Arm Rest Split Bench—Thunderbird, Continental Mark V, LTD II and Cougar

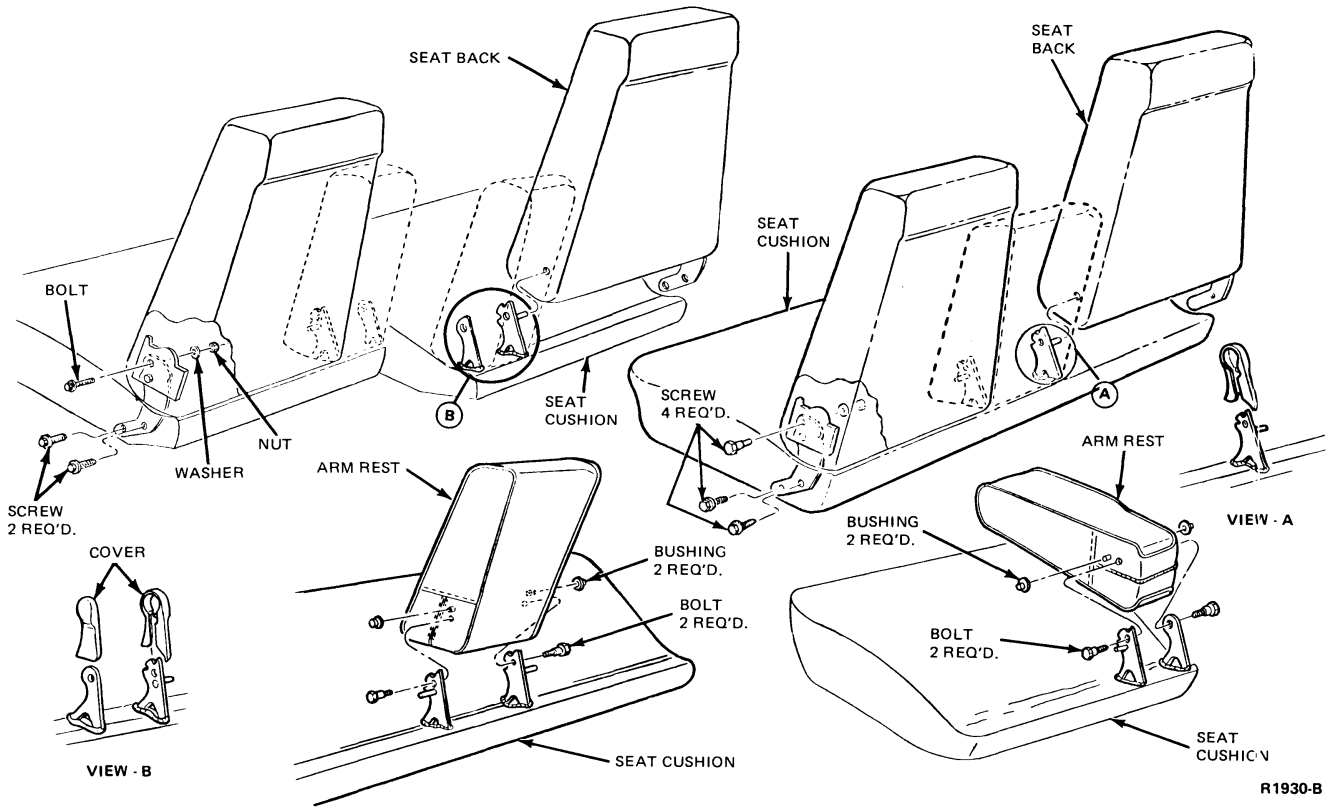


FIG. 3 Front Seat Back and Center Arm Rest—Flight-Bench and Split-Bench—Ford and Mercury

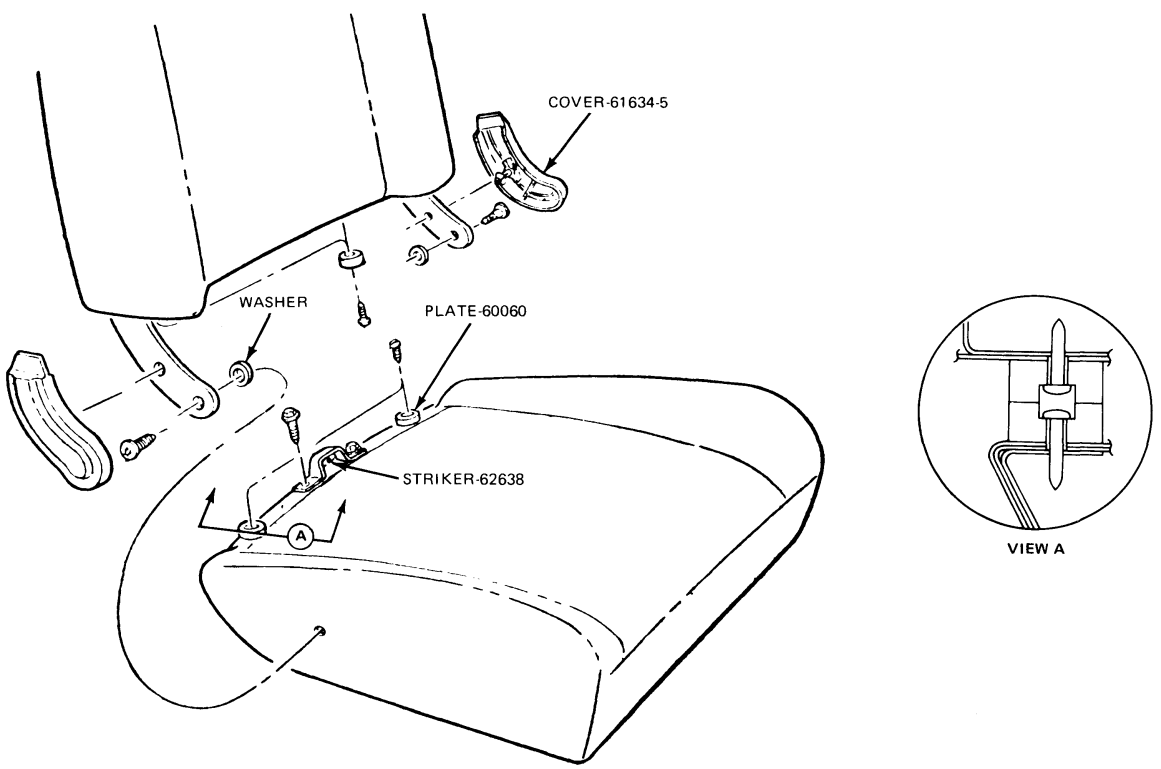


FIG. 4 Front Seat Back and Cushion Assembly—Pinto, Bobcat and Mustang

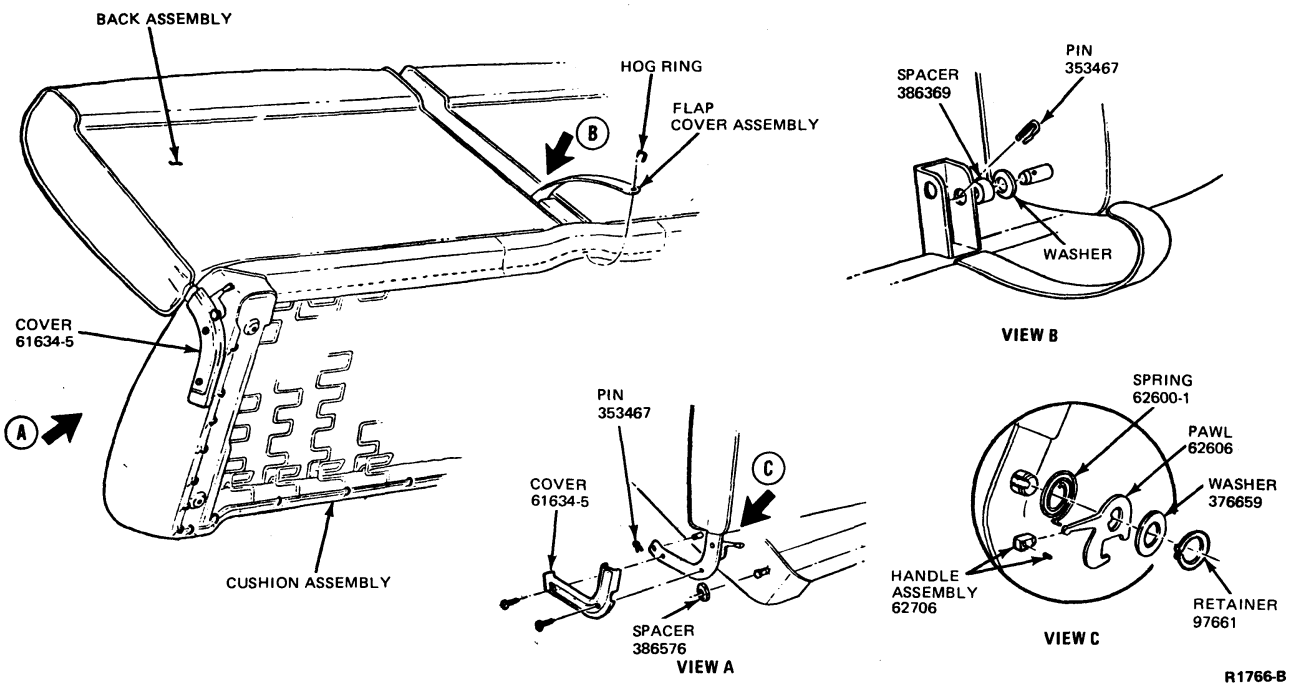


FIG. 5 Front Seat Back-to-Cushion and Latching Mechanism—2-Door Bench—Maverick and Comet

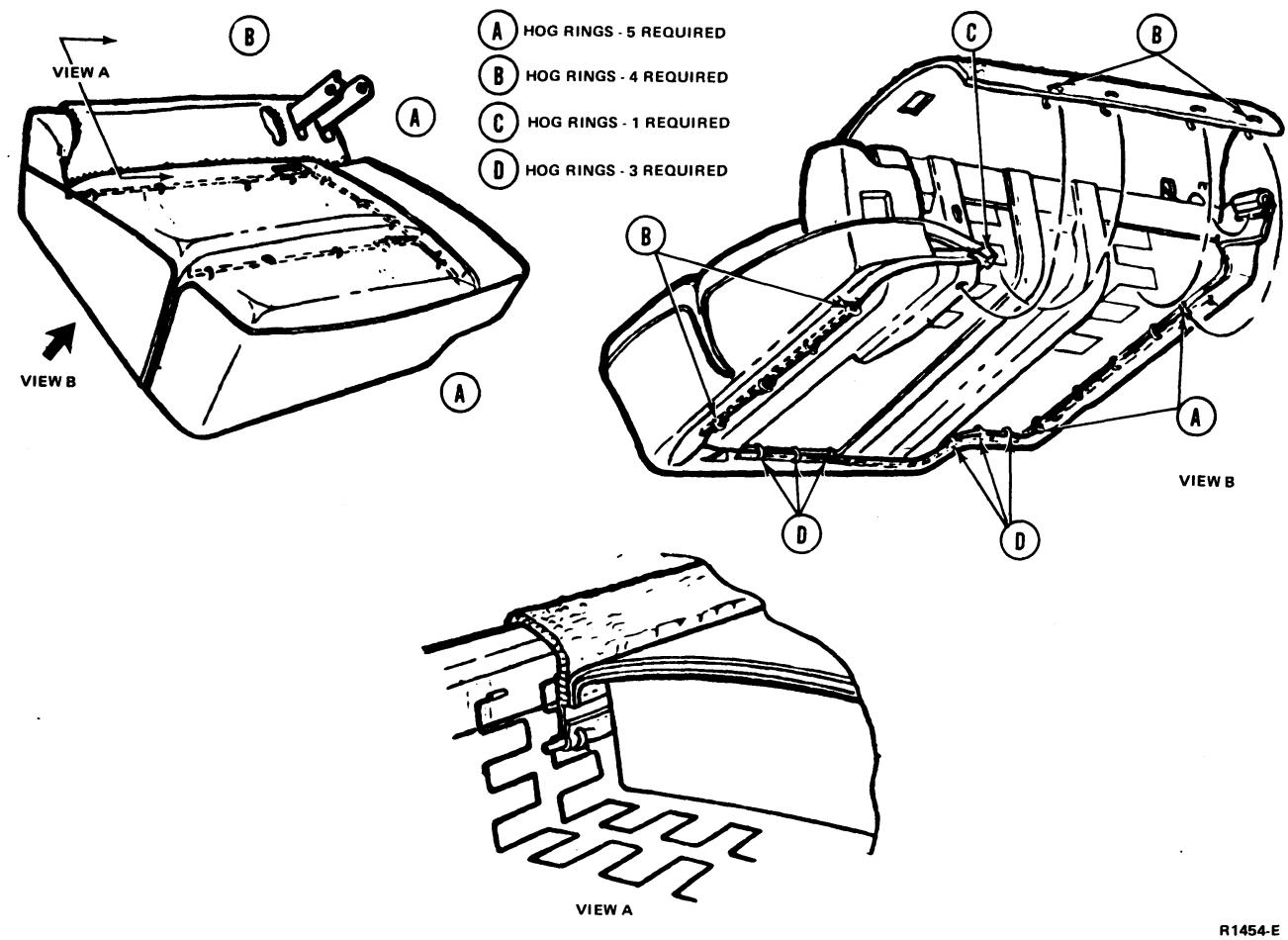


FIG. 6 Front Seat Cushion Cover Installation—Split Bench—Thunderbird and Continental Mark V Shown—Typical

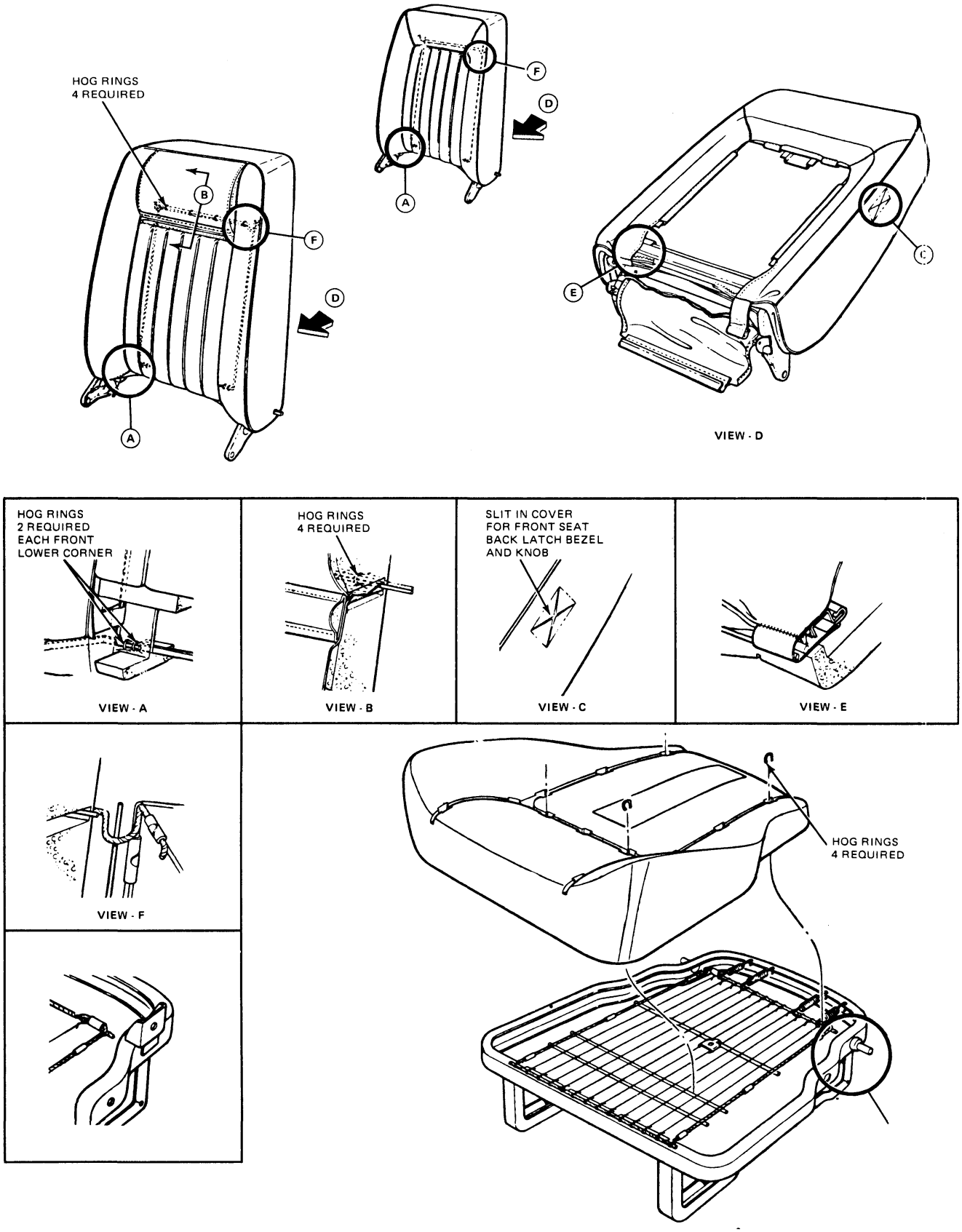


FIG. 7 Front Bucket Seat Cushion and Seat Back Installation—Maverick, Comet, Granada and Monarch—Typical

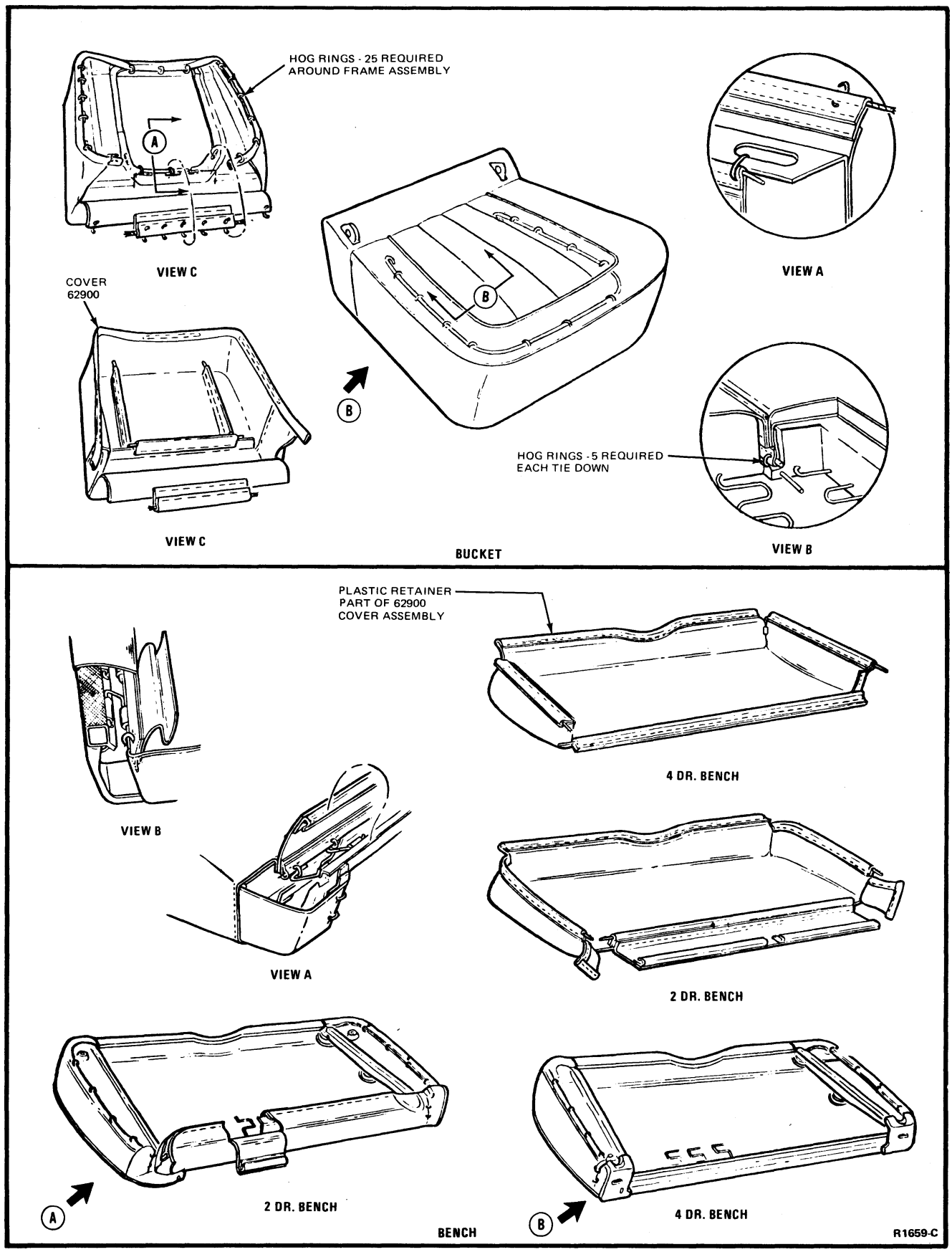


FIG. 8. Front Seat Cushion Cover Installation—Bucket and Bench Seat—LTD II, Thunderbird and Cougar—Typical

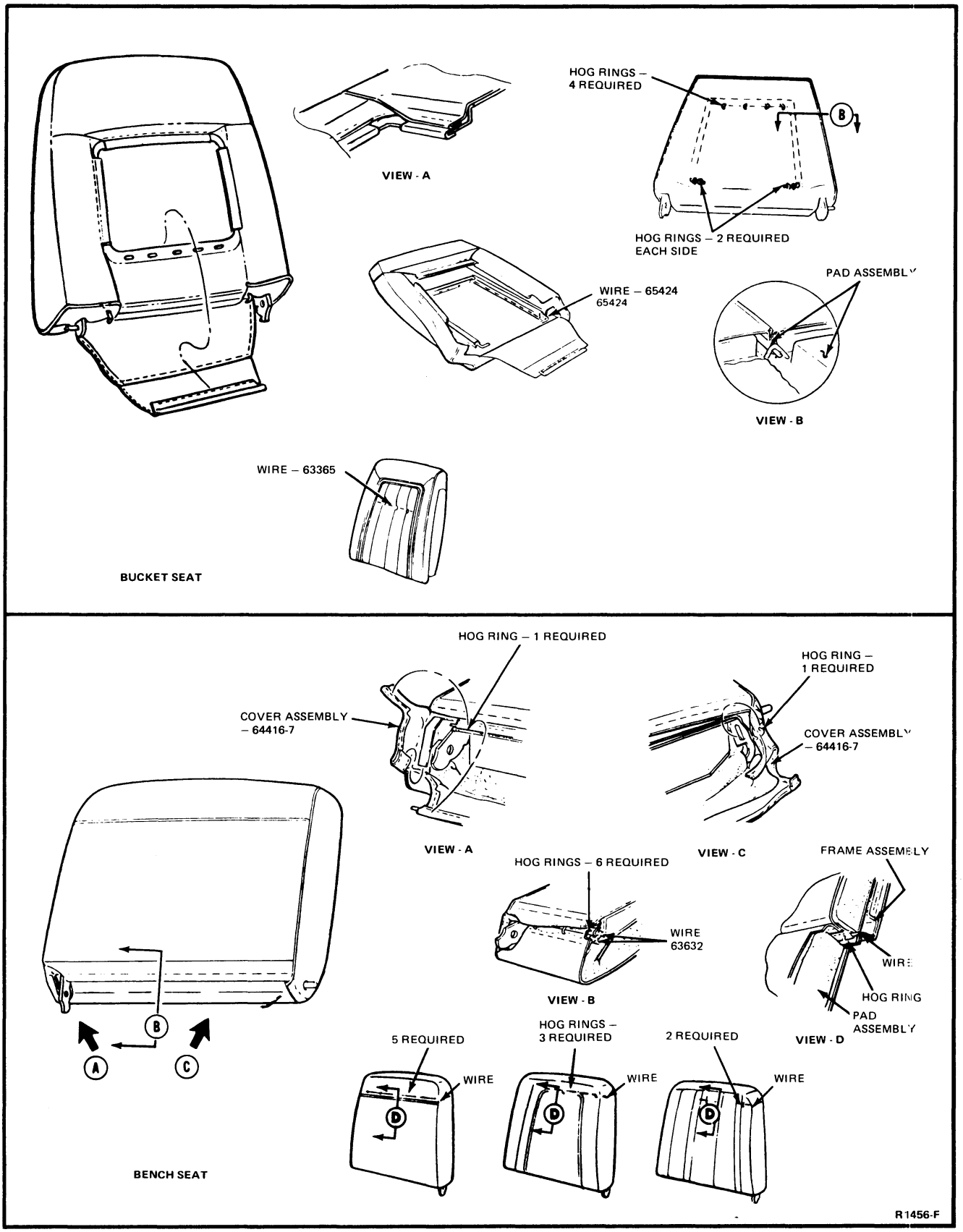


FIG. 9 Front Seat Back Cover Installation—Bench and Bucket—LTD II, Thunderbird and Cougar

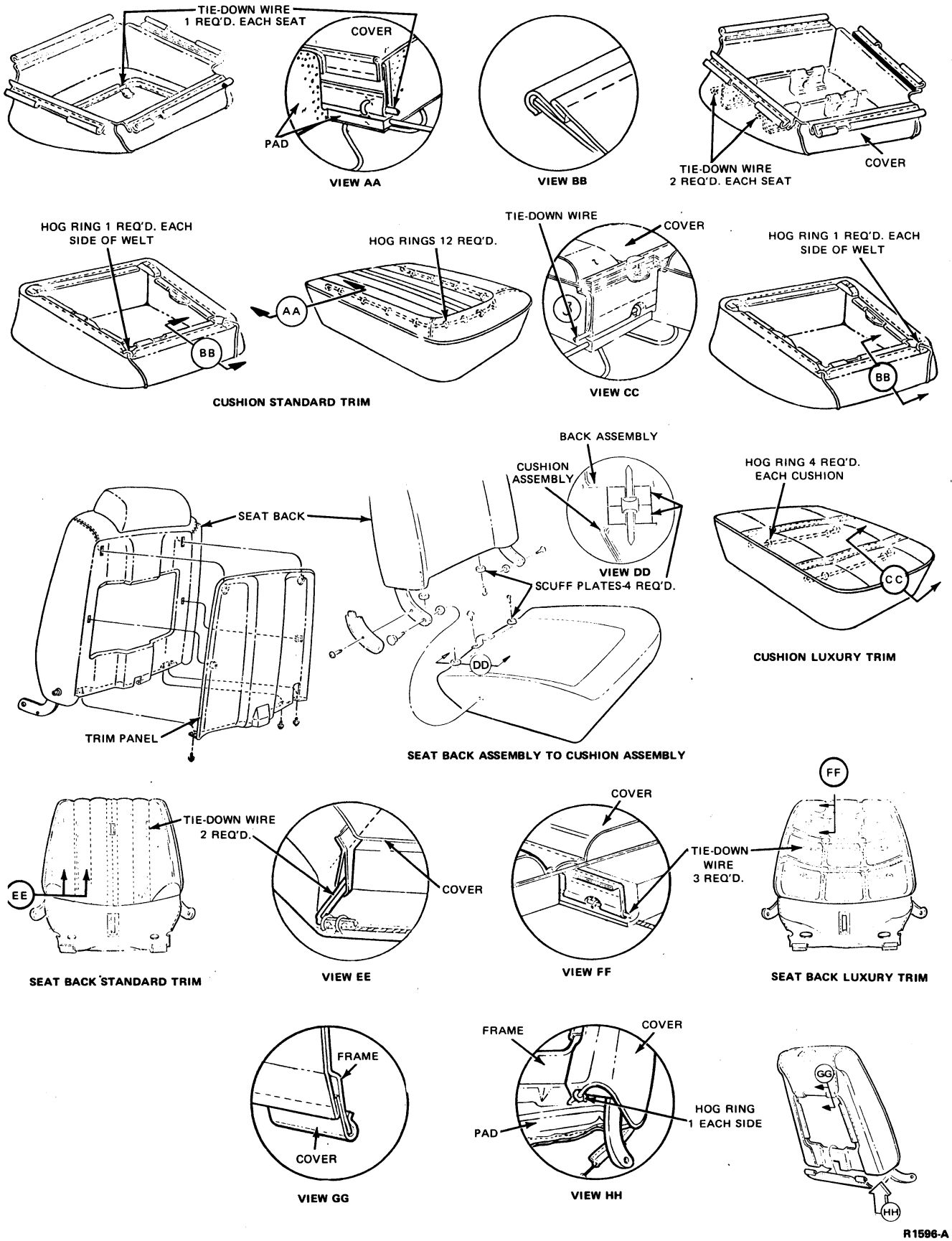


FIG. 10 Front Seat Assembly—Mustang, Bobcat and Pinto

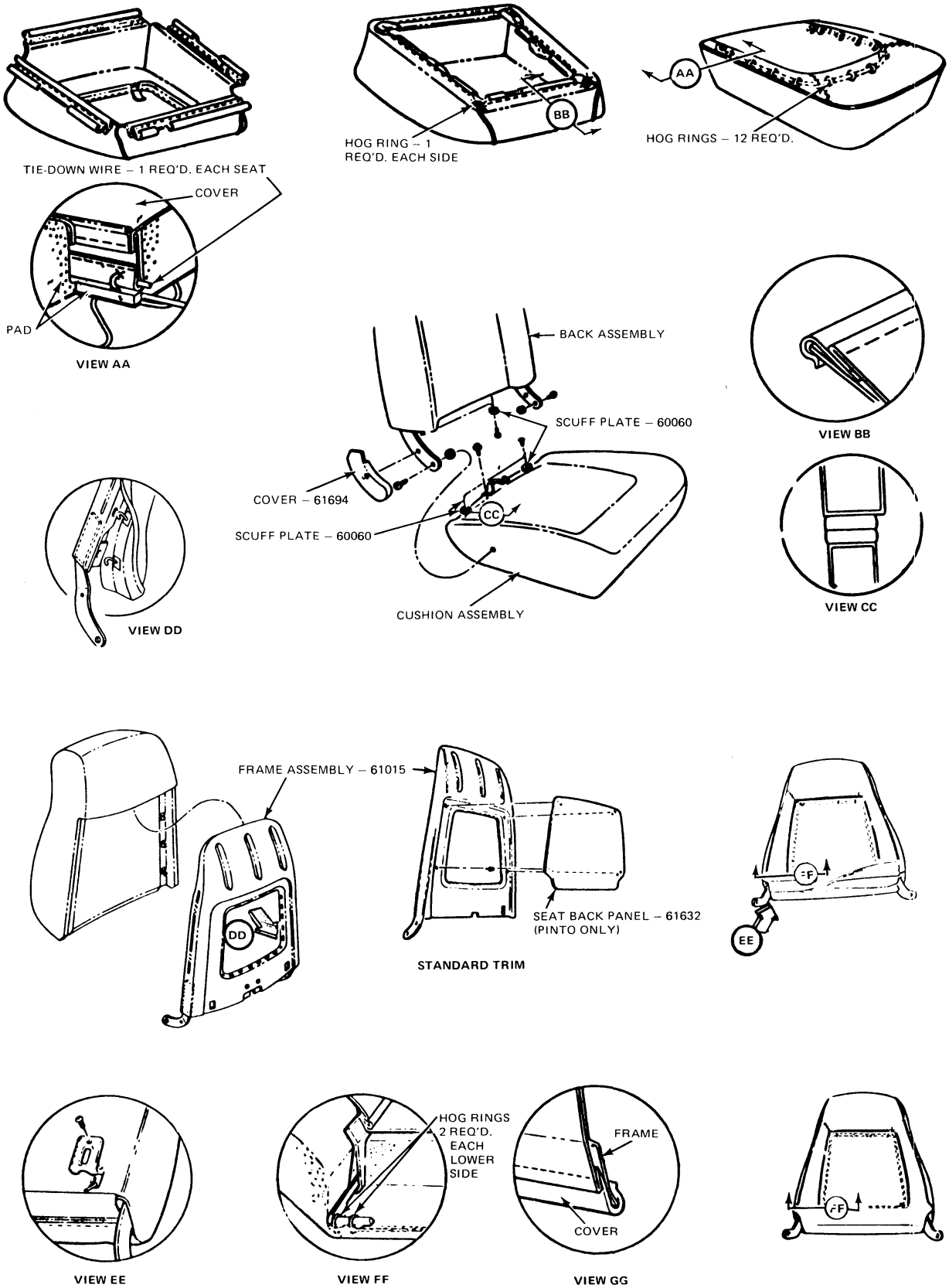


FIG. 11 Front Seat Assembly—Pinto and Bobcat

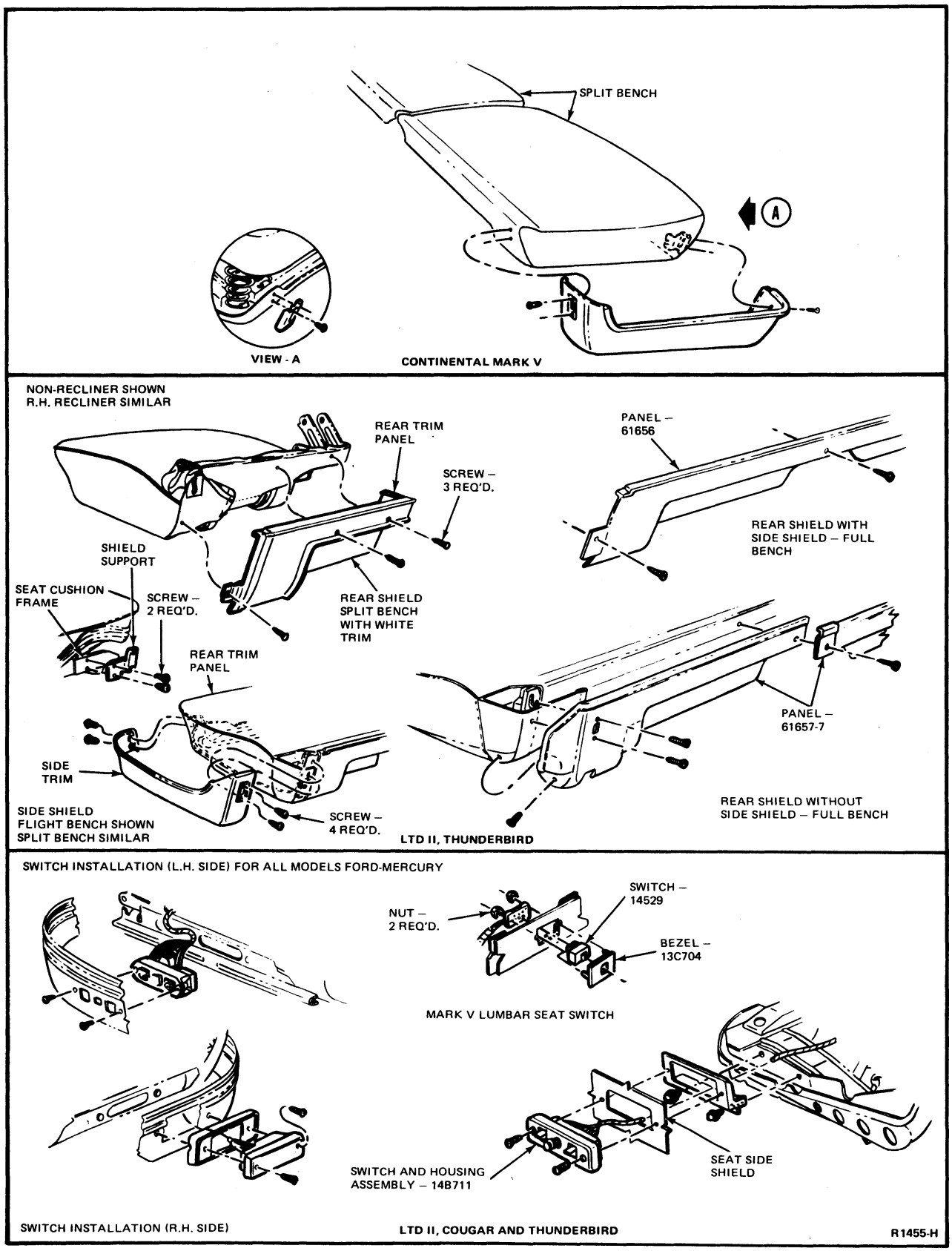


FIG. 12 Seat Shields—LTD II, Cougar, Ford, Mercury, Thunderbird and Continental Mark V

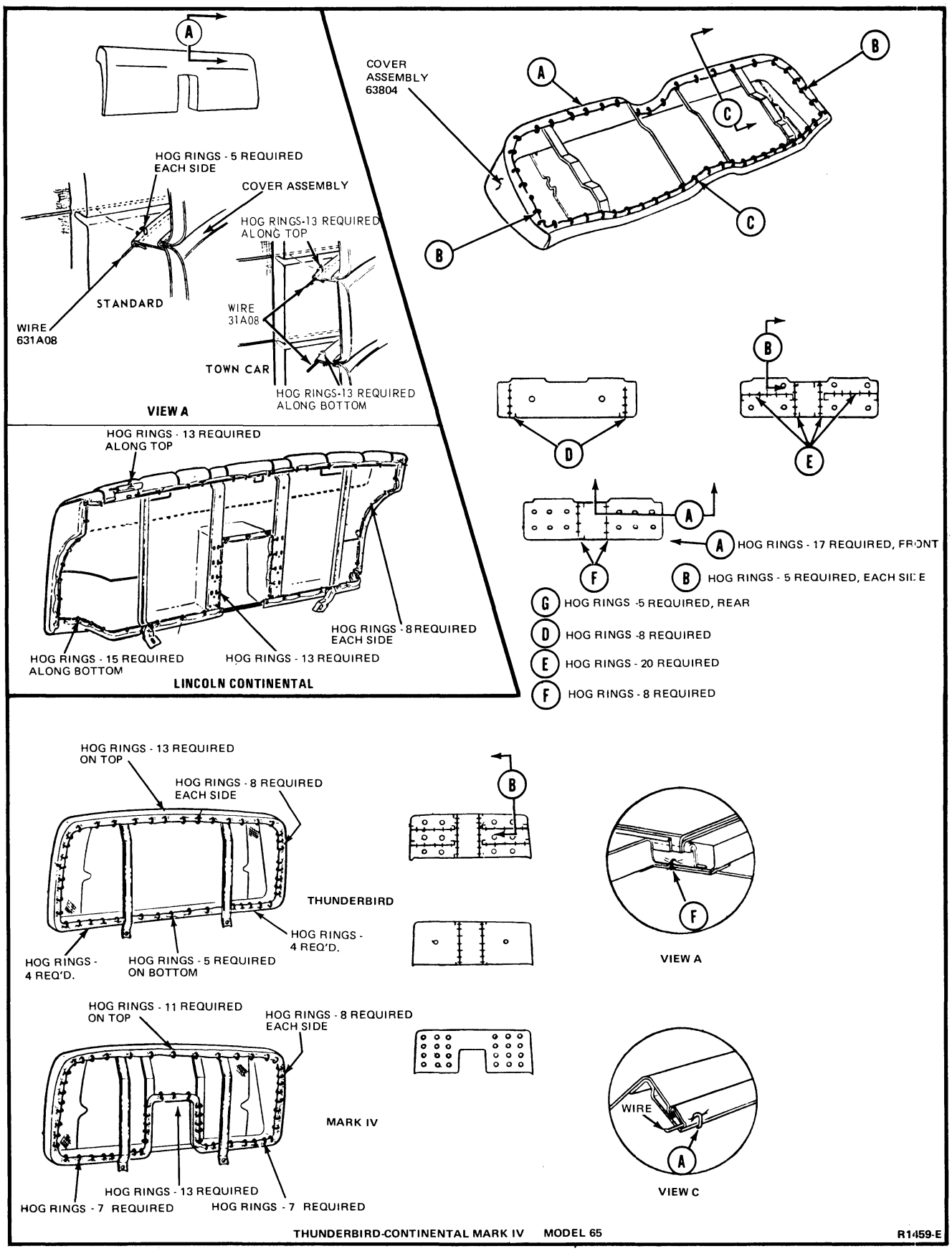


FIG. 13 Rear Seat Cover Installation—Lincoln Continental—Typical

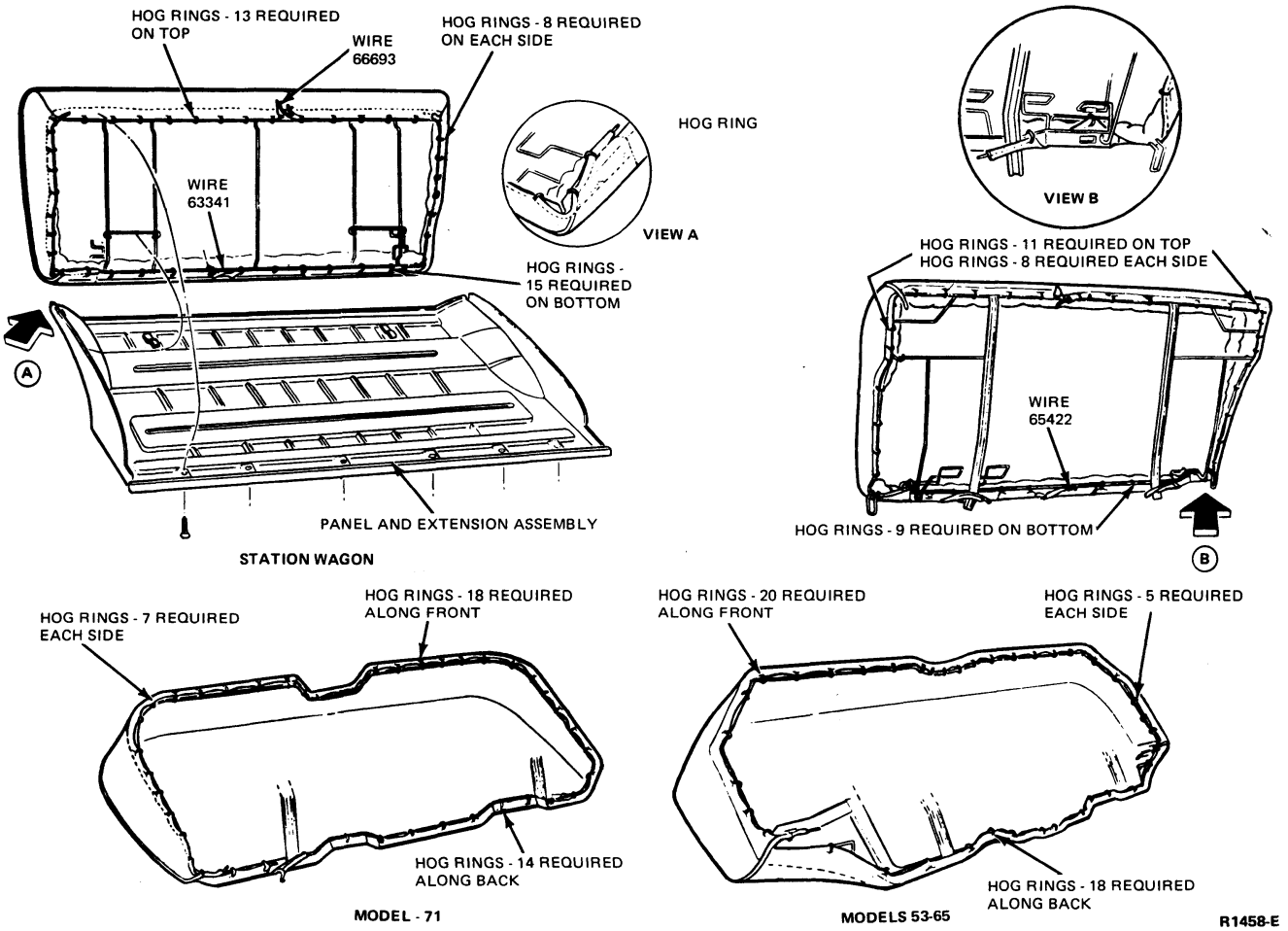


FIG. 14 Rear Seat Cover Installation—LTD II, Cougar, Thunderbird Shown—Others Typical

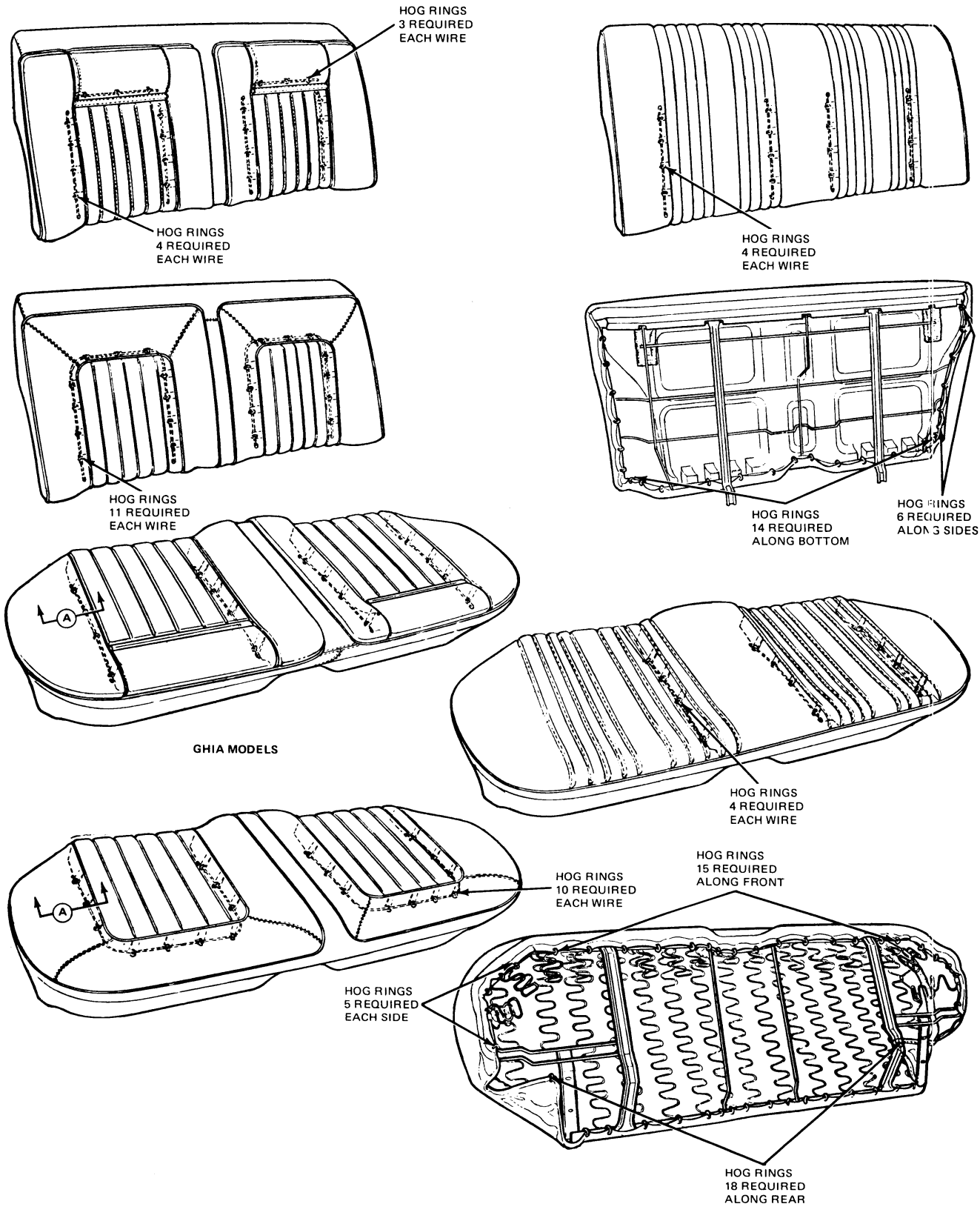


FIG. 15 Rear Seat Cushion and Seat Back Cover Installation—Granada and Monarch

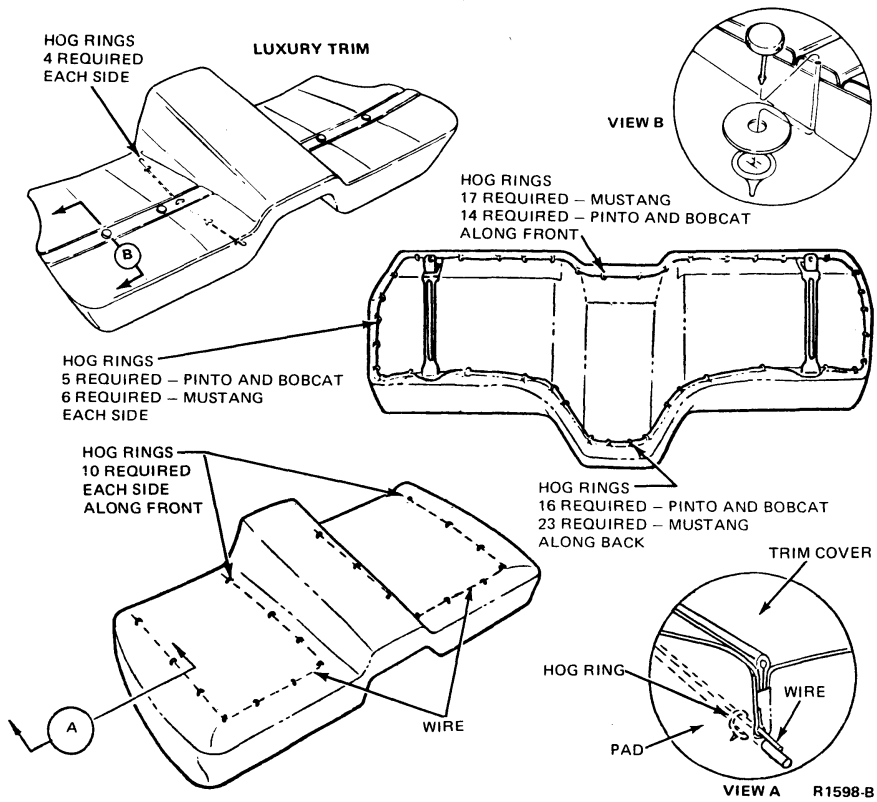


FIG. 16 Rear Seat Cushion Cover Installation—Mustang, Bobcat and Pinto—Typical

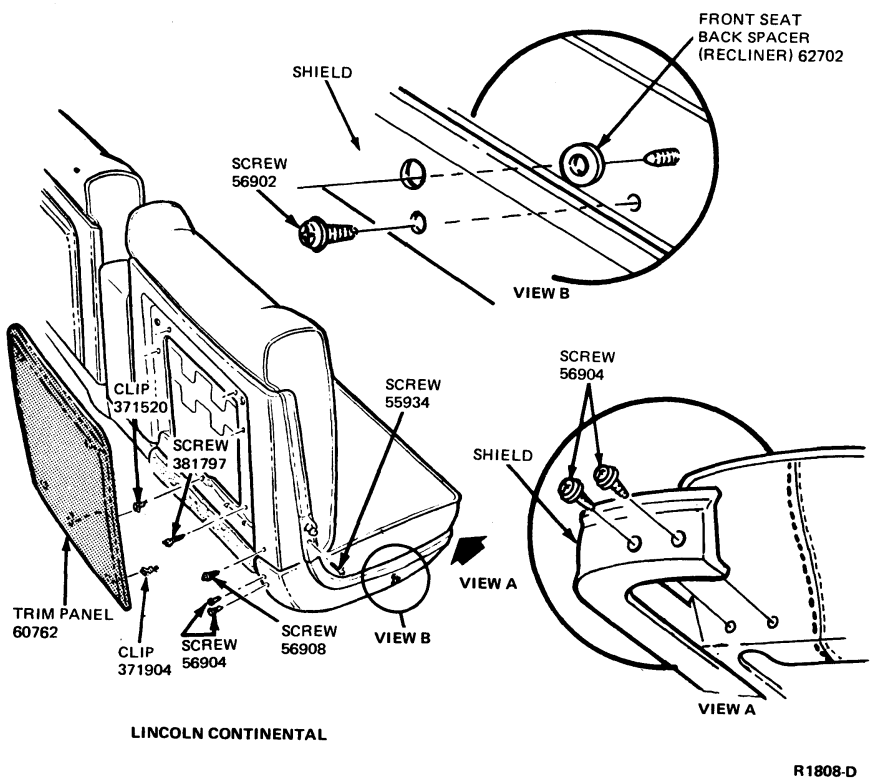


FIG. 17 Front Seat Back—Trim Panel Installation—Typical

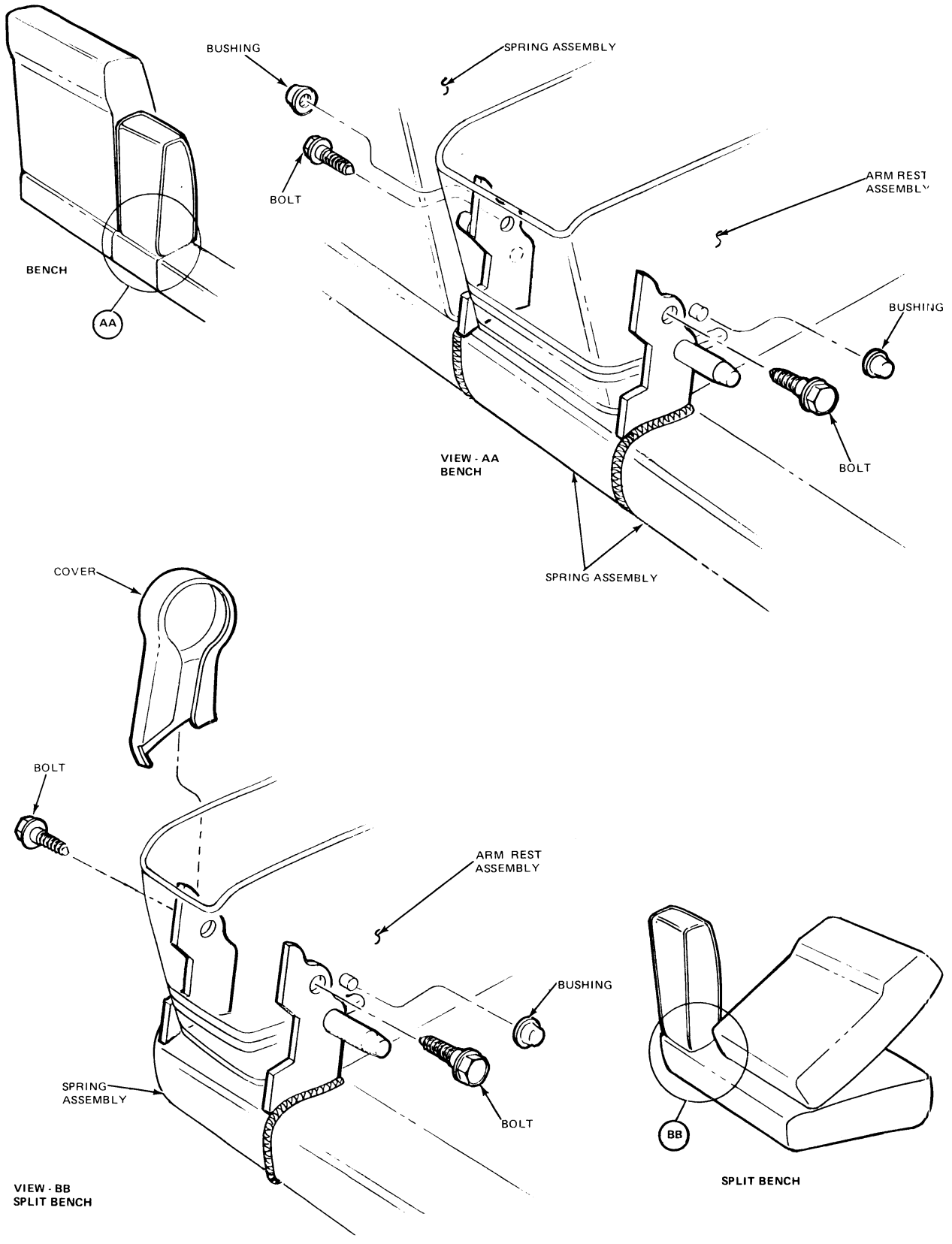


FIG. 18 Front Seat Arm Rest Installation—Lincoln Continental

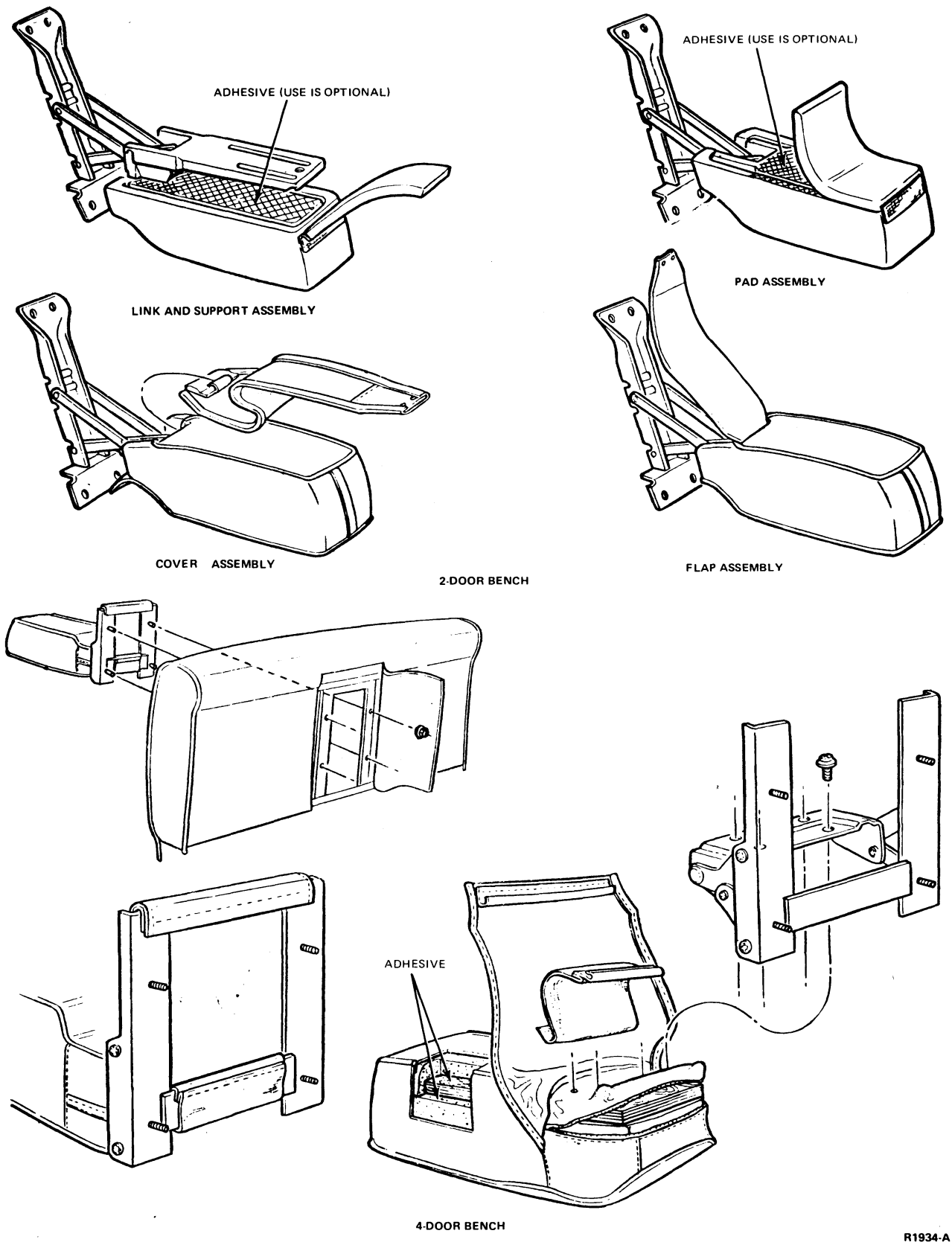


FIG. 19 Front Seat Center Arm Rest Installation—Ford and Mercury

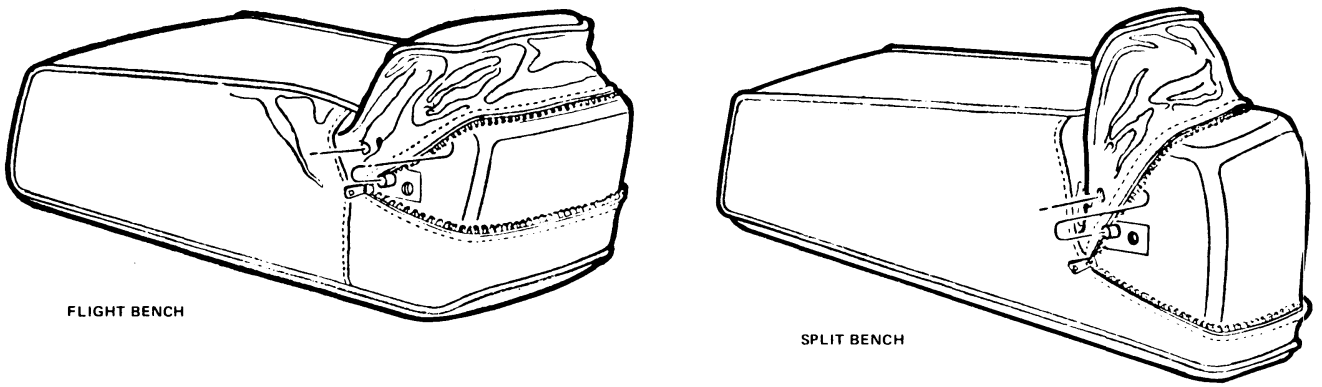


FIG. 20 Front Seat Center Arm Rest Cover Installation – LTD II, Cougar, Lincoln, Ford, Thunderbird and Continental Mark V

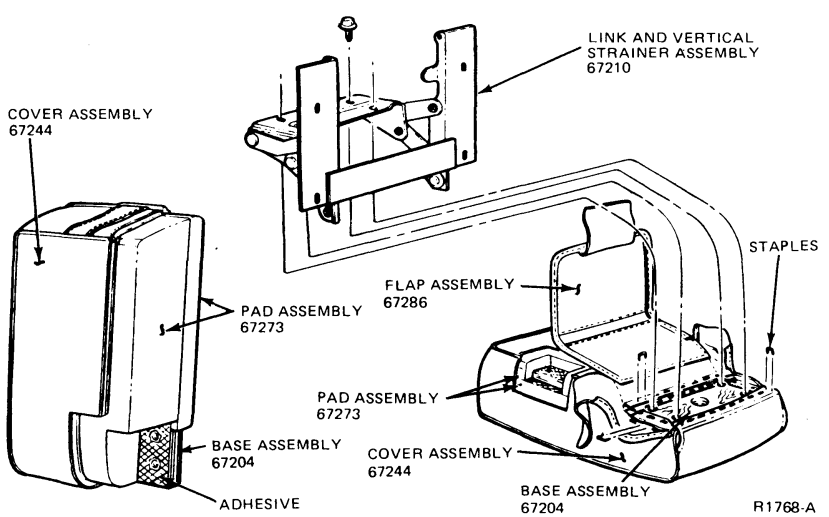


FIG. 21 Rear Seat Center Arm Rest Installation—Lincoln Continental Shown—Typical

WINDOW GLASS AND MECHANISMS

GROUP 42 (70000)

PART TITLE	PART NO.
Dual U-Run Front Door Window Mechanism	42-03
Dual U-Run Rear Door Window Mechanism	42-21
Guide and Run Sliding Quarter Window Mechanism	42-34
Mini-Vent Window Mechanism	42-08
Pivot Type Quarter Window	42-33
Single Guide Quarter Window Mechanism	42-35
Single Tubular Run Front Door Window Mechanism	42-07
Single Tubular Run Rear Door Window Mechanism	42-24
Stationary Quarter Window Glass	42-38
Tailgate Window Glass and Mechanism – Dual Action Gate	42-41
Window Glass and Mechanisms General Service	42-01

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Window Glass and Mechanisms General Service

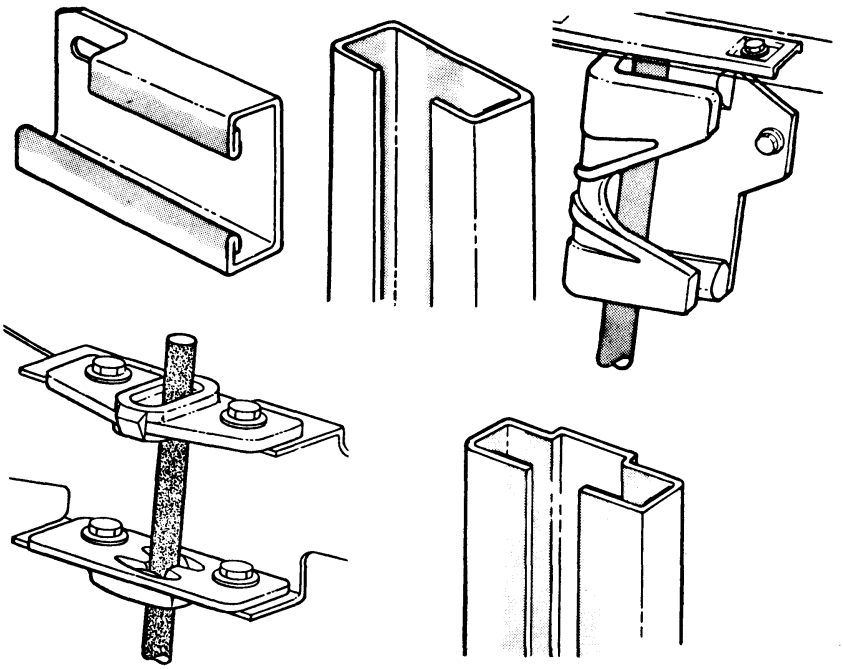
PART 42-01

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Power Window Motor Test	01-2
Power Window Switch Tests	01-2
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Power Window Relay	01-3
Power Window Switch	01-4
Power Window Switch Connector Wire	01-4

CR2021-A

GENERAL INFORMATION

The door window mechanism should be well lubricated to provide ease of operation. The window glass mechanism should be lubricated whenever the glass channel or window regulator is removed or excessive effort is required to operate the windows. To lubricate a door window mechanism, apply an even coating of Polyethylene grease (19584) or equivalent to the window regulator rollers, shafts and the entire length of the roller guides as illustrated by the shaded areas in Fig.1.



APPLY AN EVEN COATING OF POLYETHYLENE GREASE C4AZ-19584-A TO ALL WINDOW REGULATOR ROLLERS, SHAFTS AND THE ENTIRE LENGTH OF ROLLER GUIDES AS ILLUSTRATED BY THE SHADED AREAS

N1607-D

FIG. 1 Window Mechanism Lubrication Points

TESTING

POWER WINDOW MOTOR TEST—PERMANENT MAGNET TYPE

To test the current draw of a power window motor, remove the motor and drive assembly from the vehicle. Refer to the specific part of Group 42 for the removal procedure.

Test Procedure

1. Connect an external power source (power-pac or a fully charged battery) to the motor with an ammeter in series as shown in Fig. 2.
2. Operate the motor and observe the current draw. The current draw for the no-load test should not exceed specification (at end of this part) and should not fluctuate. Reversal of the motor wire connections will reverse the direction of motor rotation. Replace the motor if the current draw exceeds specification.

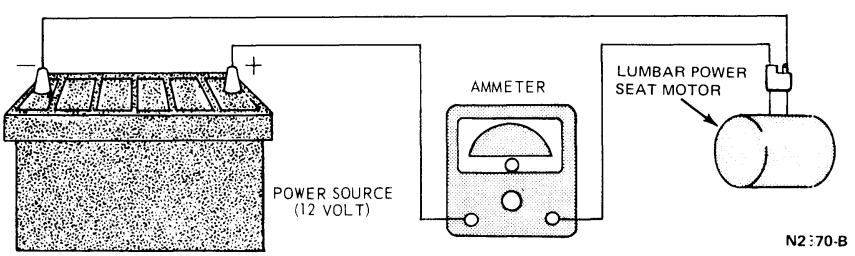


FIG. 2 Power Window Motor Current Draw Test—Permanent Magnet Motor

POWER WINDOW SWITCH TESTS

Master Switch—With Quarter Windows

Testing of the power window master switch should be performed with the switch removed from the vehicle. Use a self-powered test light or an ohmmeter.

Test Procedure

1. Clip one test lead probe on pin No. 3 (Fig. 3) which is grounded.
2. With all switches in the neutral position, pins No. 4 through 11 should have continuity to pin No. 3.
3. Push any one or all four window switches forward (toward front of car when in installed position). All odd numbered pins of the switch(es) pushed forward should loose continuity to pin No. 3.
4. Push any or all four window switches rearward (toward rear of car when in installed position). All even numbered pins (4 through 11) of the switch(es) pushed rearward should loose continuity to pin No. 3.
5. Remove the test lead from pin No. 3 and connect it to pin No. 2 (hot feed pin). With all switches in the neutral position, only pin No. 1 should have continuity to pin No. 2.
6. Push any one or all four switches forward and hold in that position. All odd numbered pins of switches pushed forward should have continuity to pin No. 2.
7. Pull any one or all four switches rearward and hold in that position.

All even numbered pins of switches pulled rearward should have continuity to pin No. 2.

8. If any one switch does not test as stated, replace the complete switch assembly.

Single Switch—All Models With Power Windows

The Thunderbird, LTD II and Cougar 2-door models use two of the single switches as a master switch instead of the multiple master switch. They should be tested in the same way as the standard single switch.

Test Procedure

1. Use a self-powered test light or an ohmmeter, to test the power window switch.
2. With the switch in the neutral position, there should be continuity between terminals 1 and 3, 2 and 5, and 4 and 6. (Fig. 4).
3. With the switch toggle pushed downward, there should be continuity between terminals 2, 4 and 5, and 1 and 3. Terminal 6 should be disconnected from any other terminal.
4. With the toggle switch pushed upward, there should be continuity between terminals 2, 3 and 5, and 4 and 6. Terminal 1 should be disconnected from any other terminal.
5. If the switch does not test as stated, replace the switch.

Master Switch—Without Quarter Windows

The quarter window switches were deleted from the rear seat area and from the left front multiple switch and housing—Lincoln Continental, Thunderbird, Continental Mark V and Mercury. Refer to Fig. 7 for test procedures.

The Granada and Monarch door switches are shown in Fig. 8 and the test procedures are shown in Figs. 3 and 4.

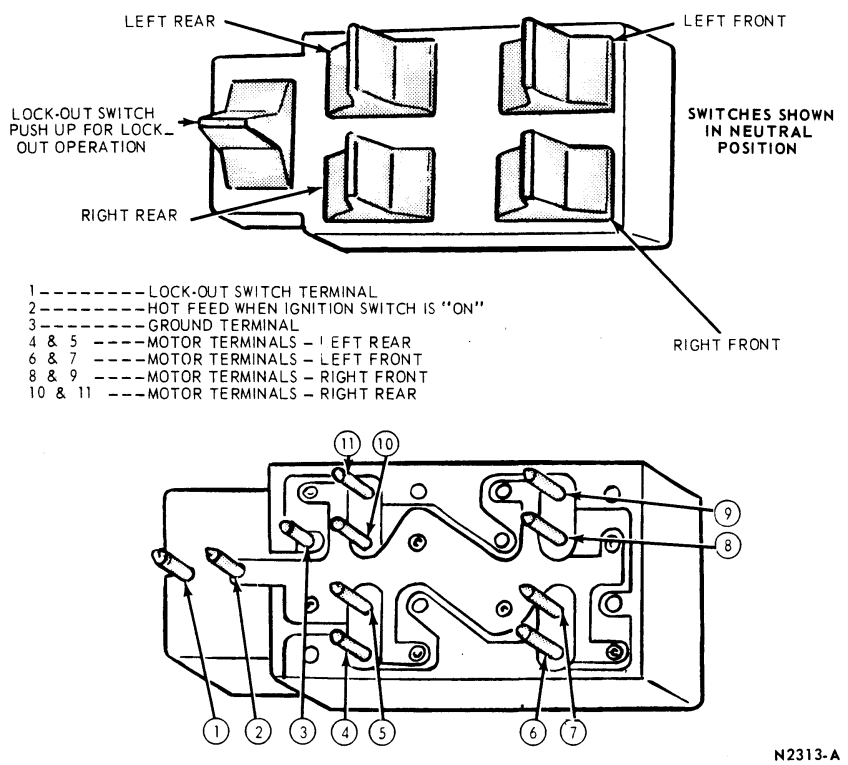


FIG. 3 Power Window Master Switch Pin Connections and Locations—4 Door Models—Lincoln, Ford, Mercury, LTD II, Cougar, Granada and Monarch

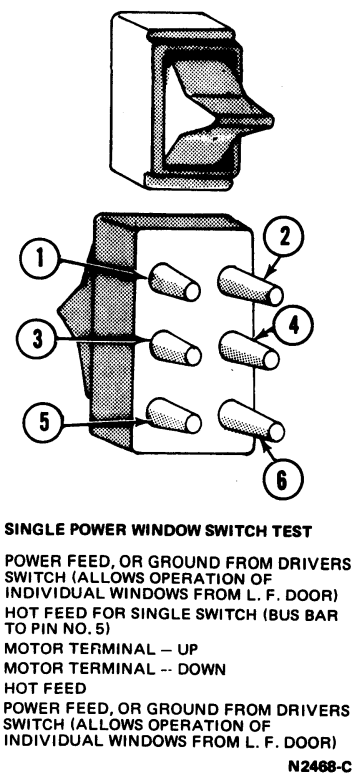


FIG. 4 Power Window Single Switch Pin Locations—All Models

REMOVAL AND INSTALLATION

POWER WINDOW RELAY

Thunderbird, LTD II and Cougar

Removal

1. Disconnect the ground cable from the battery.
2. Remove one screw attaching the relay to the left-hand cowl, behind the trim panel.
3. Disconnect the wires from the relay and remove the relay.

Installation

1. Connect the wires to the relay.
2. Position the relay to the L.H. cowl on LTD II and Cougar and install the one attaching screw.
3. Connect the battery ground cable, and check the operation of the power window.

Granada and Monarch

1. Disconnect the battery ground cable and locate the relay on the R.H. end panel.
2. Disconnect the connector from the relay and remove the retaining screw. Remove the relay.

3. Install the relay to the R.H. end panel and connect the multiple connector.
4. Connect the battery ground cable.

Ford and Mercury

1. Disconnect the battery ground cable and locate the relay at the #1 crossmember, under the driver's seat.
2. Disconnect the connector from the relay and remove the retaining screws. Remove the relay.
3. Install the relay to the No. 1 crossmember and connect the multiple connector.
4. Connect the battery ground cable.

Lincoln Continental

1. Locate the relay on the headlamp switch cover.
2. Disconnect the multiple connector and remove the relay retaining screws. Remove the relay.
3. Install the relay on the head lamp switch cover and connect the multiple connector.

POWER WINDOW SWITCH

Ford, Mercury, Lincoln Continental and Continental Mark V

1. Remove the screw from the front end of the bezel and lift the bezel and switch away from the arm rest (Fig. 5).
2. Remove the bezel and nut from the mirror remote control (left front door only).
3. Remove two nuts (screws for Mark V and Lincoln) from the bezel studs and separate the switch(es) from the bezel.
4. Pull the switch from the switch connector.
5. Position the switch to the connector and press together firmly.
6. Position the switch(es) to the bezel and install the two retaining (screws for Mark V and Lincoln) nuts.
7. Install the bezel and nut on the outside mirror remote control.
8. Position the switch and bezel to the arm rest and install the retaining screw.

LTD II, Thunderbird, Granada, Monarch and Cougar

1. Remove the switch bezel retaining screw from the bottom side of the switch. Then, pivot the lower edge of the bezel out and up to remove the bezel.
2. The switch is held in place by the electrical contact pins. To remove the switch, carefully pry the switch from the connector with a small screwdriver.
3. Position the switch to the connector and press firmly into place.
4. Install the bezel on the switch and install the bezel retaining screw.
5. Inspect the rubber water seal and replace if damaged. Then install the water seal on the switch housing.
6. Install the switch in the vehicle.

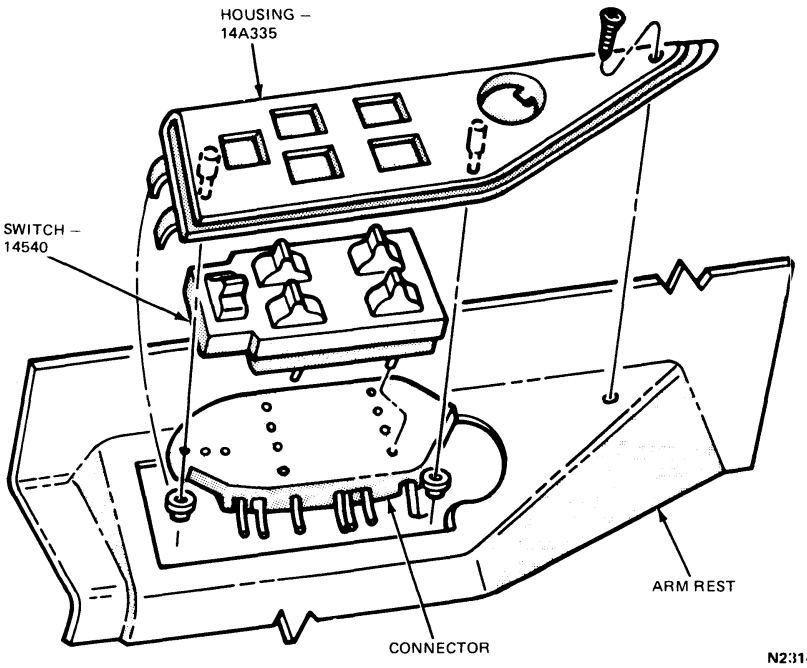


FIG. 5 Typical Arm Rest Mounted Power Window Switch Installation—1977 Ford and Mercury

POWER WINDOW SWITCH CONNECTOR WIRE REMOVAL

If replacement of the switch connector or a wire leading to the connector is necessary, the wire(s) can be removed from the connector without disassembling the connector.

To remove a wire from the connector, insert a needle-like tool in the edge of the pin hole (Fig. 6), and bend the terminal in. Then, pull the wire and terminal from the connector. To install the terminal in the connector, open the termina and insert it into the wire hole.

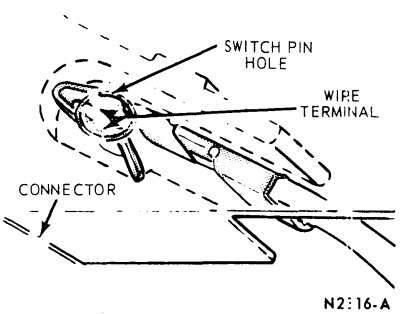
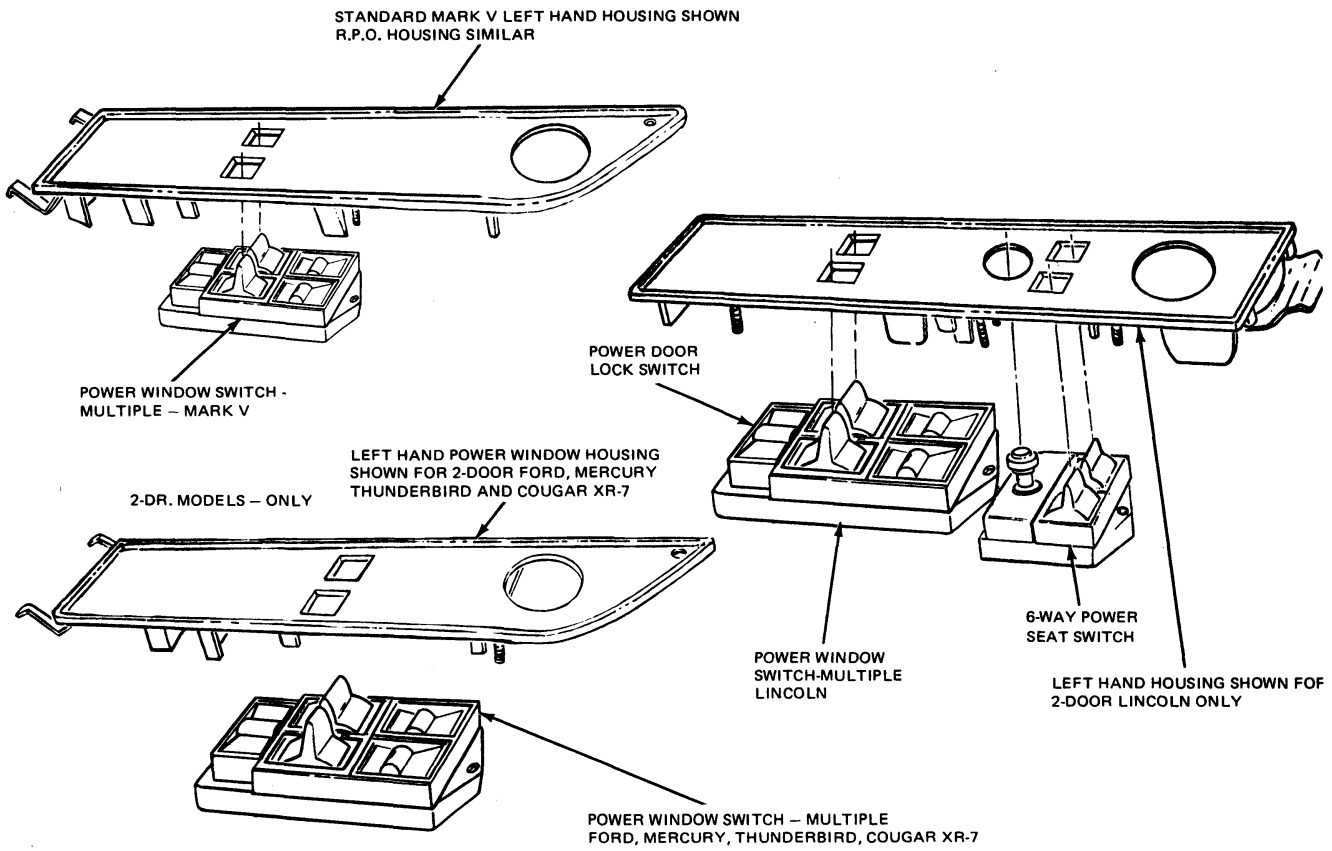
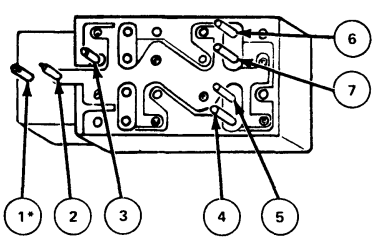


FIG. 6 Power Window Switch Connector Wire Terminal Removal



MULTIPLE POWER WINDOW SWITCH TEST – THUNDERBIRD AND LINCOLN CONTINENTAL



CONNECT ONE SIDE OF AN OHMMETER OR TEST LIGHT TO TERMINAL #2 (BATTERY TERMINAL)

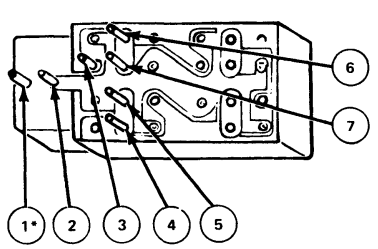
WINDOW SWITCH POSITION	CONTINUITY BETWEEN TERMINALS
NEUTRAL	#2 ONLY
BOTH SWITCHES FORWARD	#2 & 5-7
BOTH SWITCHES REARWARD	#2 & 4-6

CONNECT ONE SIDE OF AN OHMMETER OR TEST LIGHT TO TERMINAL #3 (GROUND TERMINAL)

WINDOW SWITCH POSITION	CONTINUITY BETWEEN TERMINALS
NEUTRAL	#3 & 4-5-6-7
BOTH SWITCHES FORWARD	#3 & 4-6
BOTH SWITCHES REARWARD	#3 & 5-7

*THE LOCKOUT SWITCH WILL HAVE CONTINUITY BETWEEN TERMINALS #1 AND #2 WHEN THE SWITCH IS IN THE CENTER POSITIONS.

MULTIPLE POWER WINDOW SWITCH TEST – FORD AND MERCURY



CONNECT ONE SIDE OF AN OHMMETER OR TEST LIGHT TO TERMINAL #2 (BATTERY TERMINAL)

WINDOW SWITCH POSITION	CONTINUITY BETWEEN TERMINALS
NEUTRAL	#2 ONLY
BOTH SWITCHES FORWARD	#2 & 5-7
BOTH SWITCHES REARWARD	#2 & 4-6

CONNECT ONE SIDE OF AN OHMMETER OR TEST LIGHT TO TERMINAL #3 (GROUND TERMINAL)

WINDOW SWITCH POSITION	CONTINUITY BETWEEN TERMINALS
NEUTRAL	#3 & 4-5-6-7
BOTH SWITCHES FORWARD	#3 & 4-6
BOTH SWITCHES REARWARD	#3 & 5-7

*TERMINAL #1 REMAINS IN THE MULTIPLE SWITCH ASSEMBLY BUT IS NOT ELECTRICALLY CONNECTED (DO NOT TEST FOR CONTINUITY).

R1968-B

FIG. 7 Power Window Master Switch Pin Connections and Locations Thunderbird, Lincoln Continental, Continental Mark V, Ford, Mercury and Cougar XR7

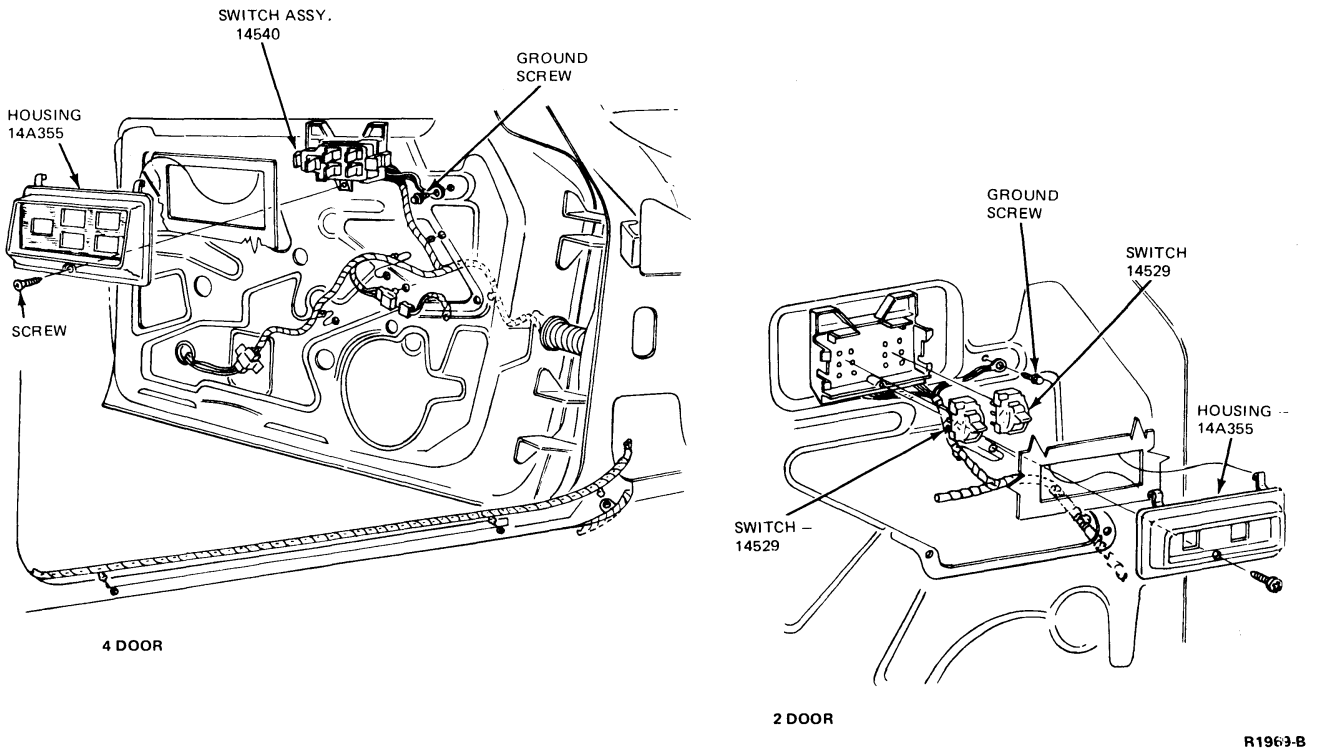


FIG. 8 Power Window Master Switch—LTD II, Cougar, Granada and Monarch

SPECIFICATIONS

WINDOW MOTOR CURRENT DRAW

No Load	5 amperes or less at 12.8 volts

CN2433-A

Dual U-Run Front Door Window Mechanism

PART 42-03

SUBJECT	PAGE
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REMOVAL AND INSTALLATION	
Belt Weatherstrip	03-4
REMOVAL AND INSTALLATION (Cont'd.)	
Glass	03-2
Glass Run	03-4
Window Regulator	03-2

CR2022-A

ADJUSTMENTS

Maverick and Comet

To obtain proper alignment of the glass runs to the door frame, raise the glass to the up position. Loosen the front and rear run lower retaining screws (Items A and B, Fig. 1). Lower the glass until the top edge of the glass is approximately 4 inches above the belt line. Then, tighten the run retainer attaching screws (Items A and B) to specification. Cycle the window up and down to assure a good window fit. Then, tighten the run retaining screws.

Pinto and Bobcat

To obtain proper alignment of the glass to the door glass runs and the door frame follow the adjustments in the order given.

1. Cycle the window to the full up position.
2. Remove the door trim panel and watershield.
3. Loosen the upper and lower guide attaching screws (Item A1 & A2).
4. Loosen the glass run adjusting screw (Item B).
5. Position the glass firmly into the upper rear corner and rear edge of the door window frame run. Hold glass in this position and tighten the lower guide attaching screw and then the upper guide attaching screw (Item A1 & A2).
6. Assure that the glass is in the outboard position within the glass run and tighten the bracket assembly glass run adjusting screw (Item B).
7. Lower the door glass so the top edge of glass is flush with the door belt opening. Position the door window upper front stop assembly Item "C" to the quadrant and tighten securely.

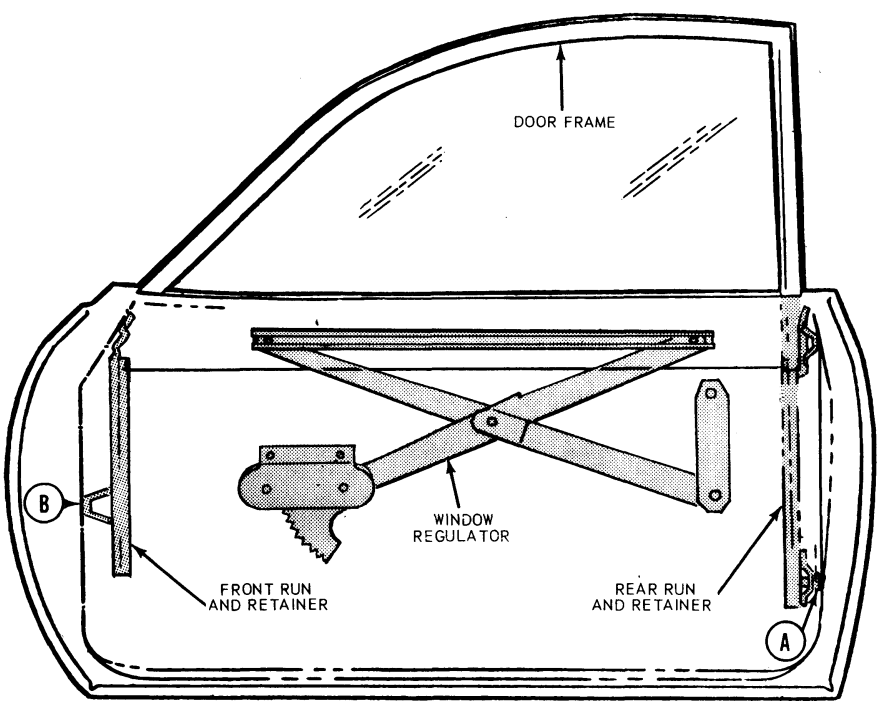


FIG. 1 Front Door Window Mechanism Adjustment—Maverick and Comet

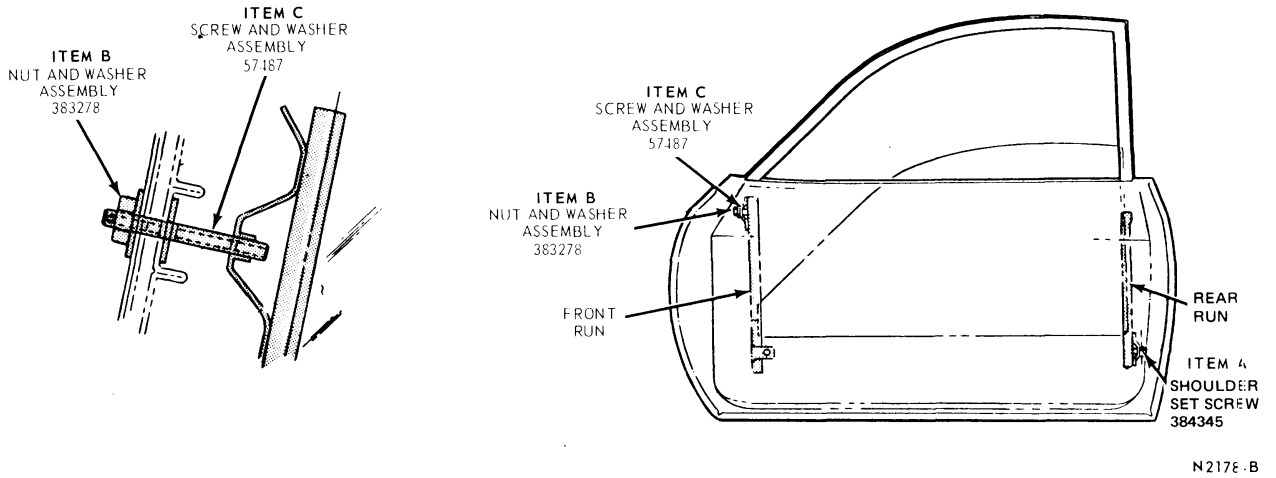


FIG. 2 Front Door Window Mechanism Adjustment—Pinto and Bobcat

Note: It is not necessary to remove the stop assembly (21742) when installing glass or door window regulator.

8. Cycle the glass and check for binds. If no binds are found install the watershield and door trim panel.

REMOVAL AND INSTALLATION

GLASS

Maverick and Comet

Removal

1. Remove the trim panel and watershield from the door.
2. Lower the glass until the glass retainers (Figs. 3 and 4) are visible at the access holes in the door inner panel.
3. Remove the front and rear glass retainers by pushing the center pin from the retainer with a small drift punch (Figs. 3 and 4). Support the glass and pry the retainer from the drive arm bracket and glass by inserting a screwdriver behind the glass retainer flange.
4. Remove the front run lower attaching screw.
5. Remove the rear run lower attaching screw.
6. Tip the front end of the glass downward and lift the glass out of the door from the outside.

Installation

1. Insert the glass into the door front end first. Then, tip the glass into the normal position.
2. Position the drive arm bracket to the glass and push the glass rear retainer into the hole. Then, install the glass retainer pin by pushing it into the retainer hole until the end of the pin is flush with the retainer flange (Figs. 3 and 4).
3. Install the glass front retainer using the same method as the rear retainer.
4. With the glass positioned in the front and rear runs, install the front run retainer and rear run retainer lower attaching screws.
5. Adjust the window mechanism as outlined in the Adjustment Section.
6. Install the watershield and door trim panel.

Pinto and Bobcat

Removal

1. Remove the trim panel and watershield from the door.
2. Lower the glass until the bracket rivets to the glass are visible at the access hole in the door inner panel.
3. Remove the center pins of the two rivets attaching the door glass to the glass bracket with a drift punch. Then remove the rivets by drilling the head from the rivet with a 1/4 inch drill.

   DO NOT ATTEMPT TO PRY THE RIVETS OUT AS DAMAGE TO THE GLASS AND GLASS BRACKET COULD RESULT.
4. Push the (2) rivets from the glass and glass bracket and lift the glass up and out of the door.

Installation

1. Install the Spacer (263A82) and Retainer Assy. (234A46) into the two 1/2 inch dia. holes in the Door Glass (21410-1) and install the glass through the door belt opening (Install glass front end first).
2. Position the glass to the door glass bracket and install (2) 1/4"-20 x 1" bolts 384925-S36 & (2) 1/4"-20 nut and washer assemblies (45334-S2) to attach the glass to glass bracket. Tighten to 6-11 ft-lb torque.
3. Install the watershield and door trim panel.

WINDOW REGULATOR

Maverick and Comet

Removal

1. Remove the door trim panel and watershield.
2. Support the glass and remove the screw attaching the window regulator equalizer arm to the door inner panel (Fig. 3). On Pinto and Bobcat models, remove two equalizer arm bracket retaining nuts, and remove the bracket (Fig. 4).
3. Remove four window regulator attaching screws on Maverick and Comet.
4. Disengage the window regulator from the glass channel bracket, and remove the regulator through the lower access hole.

Installation

1. Place the regulator in the door, and engage the regulator arm rollers in the glass channel bracket.
2. Position the window regulator to the door inner panel and install the attaching screws. On Pinto and Bobcat, use 1/4-20 x 1/2 inch screw and washer assemblies to attach the regulator to the inner panel.
3. Position the regulator equalizer arm to the door inner panel and install the attaching screw.

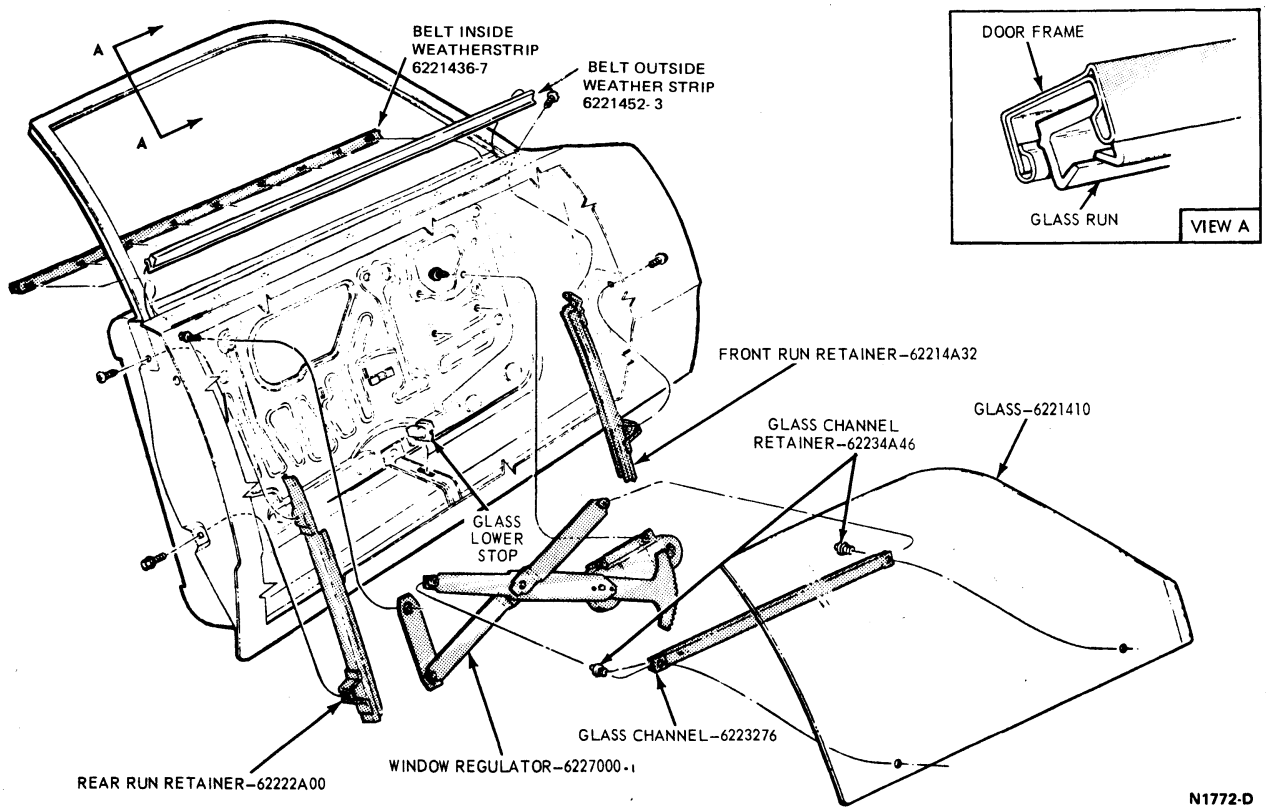


FIG. 3 Front Door Window Mechanism—Maverick and Comet

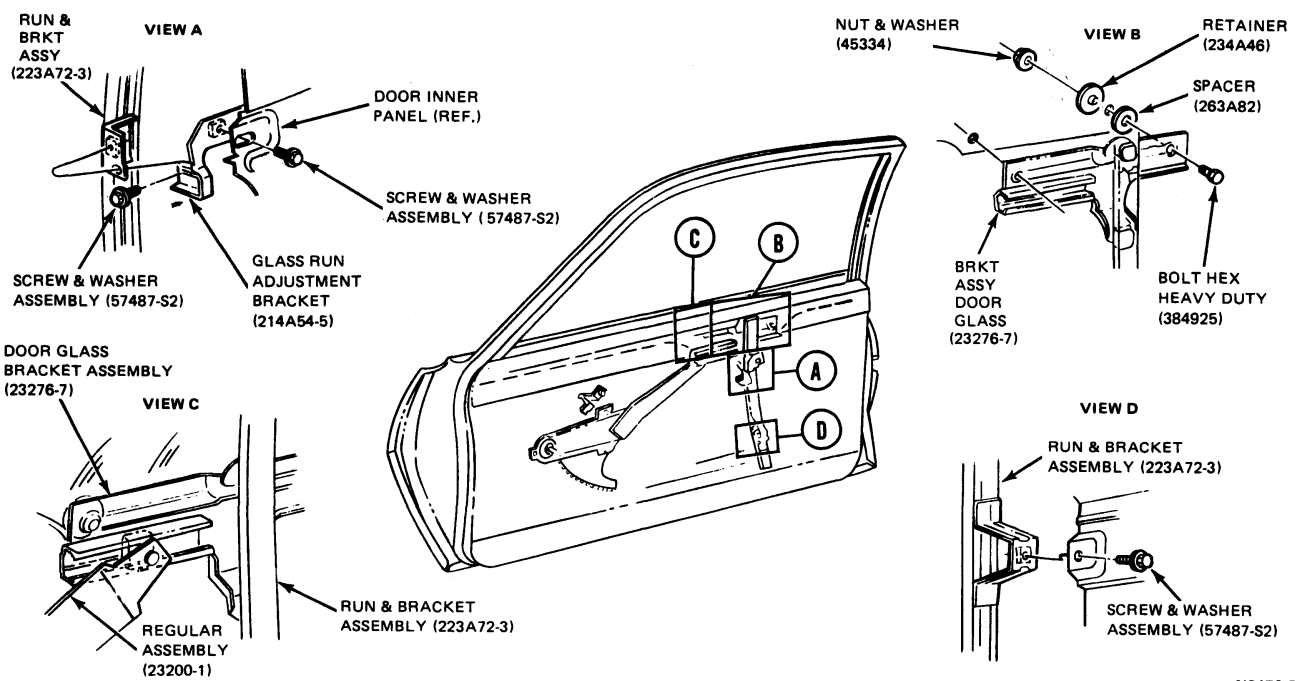


FIG. 4 Front Door Window Mechanism—Pinto and Bobcat

4. Install the watershield and door trim panel.

Pinto and Bobcat

Removal

1. Remove the door trim panel and watershield and support the glass in the up position.
2. Remove the center pin from the (3) regulator attaching rivets with a drift punch. Then, drill the head from each rivet using a 1/4 inch drill and remove the rivet.
3. Disengage the regulator arm from the glass bracket, and remove the regulator from the door.

Installation

1. Position the regulator in the door and insert the roller into the glass bracket channel.
2. Position the regulator to the inner panel and install (3) 1/4"-20 x 1/2" screw and washer assemblies (Part 57487-S2) to attach the regulator to the inner panel. Tighten the screws securely with (3) 1/4"-20 nut and washer assemblies (45334-S2).
3. Check the operation of the window mechanism and install the watershield and door trim panel.

GLASS RUN

Maverick and Comet

1. Remove the window glass from the door.
2. Pull the glass run from the front run retainer and door glass frame. Then, pull the run from the rear run retainer (Fig. 5).
3. Position the glass run to the run recess at the rear corner of the glass frame. Insert the glass run into the recess and into the front and rear retainers.
4. Install the window glass in the door and adjust as outlined in the Adjustment Section.

Pinto and Bobcat

Removal

1. Remove the door trim panel and watershield.
2. Support the glass in the up position.
3. Remove the (2) rivets attaching the glass to the glass bracket. Remove the center pin from the rivet with a drift punch. Then drill the head from each rivet using a 1/4 inch drill and remove the rivet.
4. Remove the (2) screw and washer assemblies attaching the glass run to the inner panel. Tilt the upper portion of the run rearward to disengage the window bracket from the regulator arm roller.
5. Remove the run and bracket assembly and the glass bracket from the door access hole.

Installation

1. Assemble the glass bracket, and the glass run adjusting bracket on the run and bracket assy. and lubricate the run and roller/guides with a thin coating of Polyethylene Grease (C4AZ-19558-A). Assure that all the rollers and guides are evenly coated with Polyethylene Grease prior to installing.
2. Install the run and bracket assembly, glass bracket and glass run adjusting bracket through the access hole in the door inner panel and position the glass bracket guide on the regulator arm roller.
3. Loose assemble the run and bracket assembly upper and lower attaching screws to the door inner panel.
4. Remove the glass support and install the glass to the glass bracket using (2) 1/4"-20 x 1" Bolt Hex Head (384925-S36).
5. Tighten upper and lower run and bracket assembly screws.
6. Adjust the glass as outlined in the adjustment section of this procedure.
7. Install watershield and door trim panel.

BELT WEATHERSTRIP

1. Lower the window.
2. Pry the weatherstrip retainers out of the retainer holes in the glass opening flange (Fig. 6), and remove the weatherstrip. Use care not to chip the paint at the glass opening flange.
3. To install, position the weatherstrip to the door and push the retainers firmly into the holes.

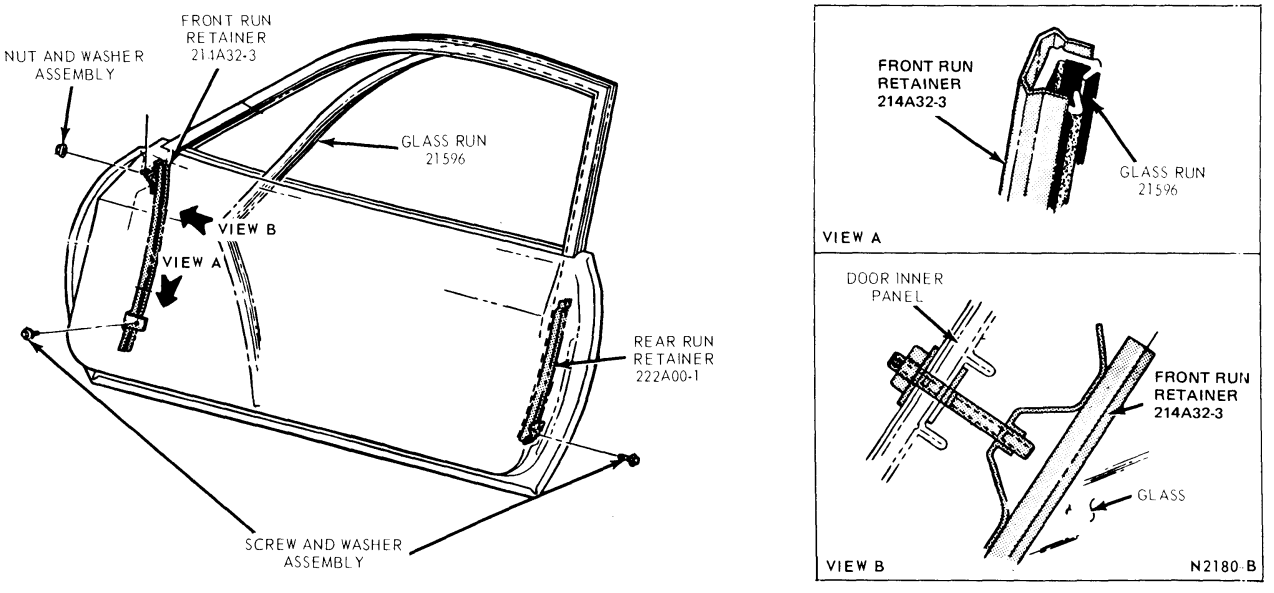


FIG. 5 Door Glass Run—Typical

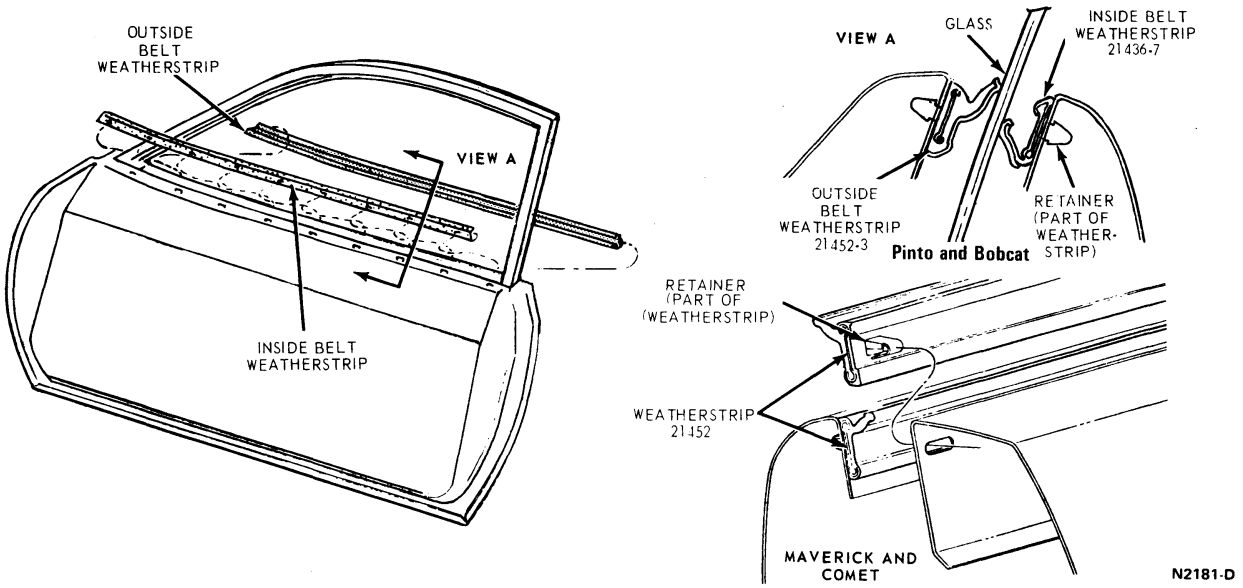


FIG. 6 Door Belt Weatherstrip

SPECIFICATIONS

DUAL U-RUN FRONT DOOR WINDOW MECHANISM TORQUE SPECIFICATIONS

Description	Torque	
	Maverick, Comet	Pinto, Bobcat
Glass Run Retainer Attaching Screws	6-11 ft-lbs	6-11 ft-lbs
Window Regulator Attaching Screws – 2-Door	6-11 ft-lbs	6-11 ft-lbs with 1/4 x 20 x 1/2 Inch Screw
4-Door	3-7 ft-lbs	–
Equalizer Arm to Door Inner Panel	6-11 ft-lbs	6-11 ft-lbs

CN2434-B

Single Tubular Run Front Door Window Mechanism

PART 42-07

SUBJECT	PAGE
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Run	07-2
Window Drive	07-2
Window Motor	07-2
Window Regulator	07-2
SPECIFICATIONS	07-4

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ADJUSTMENTS

ALL MODELS EXCEPT GRANADA AND MONARCH

Separate adjustment steps are given for each adjustment so that a partial glass adjustment can be performed. If a complete glass adjustment is required, follow the adjustments in the order given. All window mechanism adjustments must be performed with the door trim panel and watershield removed. After the adjustment(s) are completed, install the watershield and trim panel.

Glass Position—Fore and Aft

It is necessary to reposition the glass in the opening if the glass has been removed or if extreme door hinge adjustments are performed. To reposition the glass, remove the trim panel and watershield. Then, loosen the upper attaching screw and upper guide (Item A, Fig. 1), and reposition the glass. Position the upper guide and tighten the upper run attaching screw after glass is moved to desired position.

Stabilizer Adjustment

The stabilizers are used to support the glass at the belt line. The trim panel must be removed to adjust the stabilizers. Then, with the glass in the up position, push the front stabilizer firmly against the glass surface and tighten the attaching screw (Item B, Fig. 1). Repeat the procedure for the rear stabilizer.

Glass In-Out

The in-out adjustment is used to obtain a good seal with the weatherstrip at the top edge of the glass. This adjustment is made by repositioning the guides with respect to the glass bracket. To adjust the in-out of the glass, loosen the two lower guide attaching screws (Items C, Fig. 1), and move the top edge of the glass inward or outward as required to obtain a good seal with the weatherstrip; then, tighten the lower guide attaching screws. **On the right door, tighten the lower guide rear screw first and then tighten the front screw.** After the guide attaching screws have been tightened, again check the glass-to-weatherstrip fit for a good seal. Readjust the in and out tilt of the glass if a good air tight seal is not achieved.

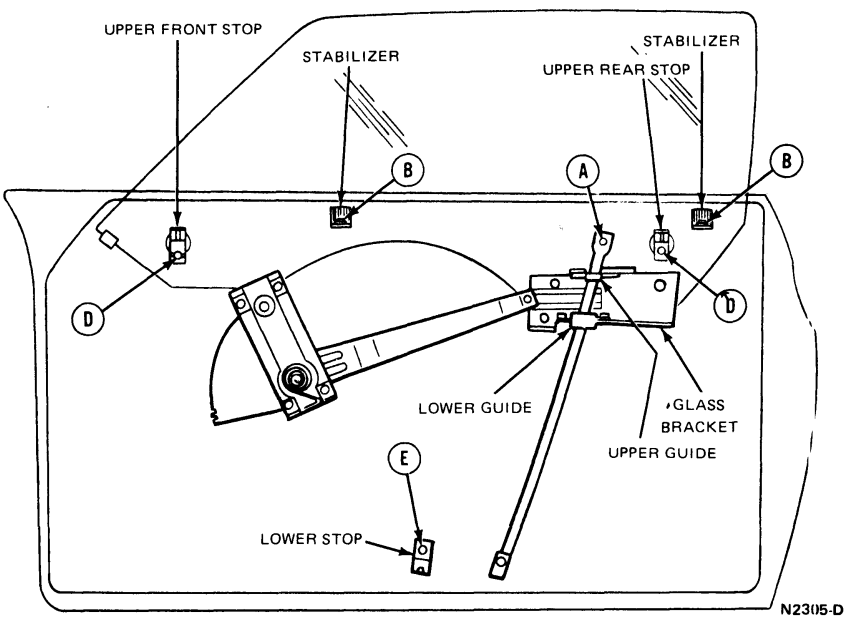


FIG. 1 Single Tubular Run Front Door Window Mechanism Adjustment—All Except Granada and Monarch

Upper Stop Adjustment

The upper stop adjustments are used to limit the up travel of the glass to maintain a constant glass height when the glass is raised to the full closed position. The door trim panel must be removed to adjust the up stops. To adjust the stops, raise the window to the up position. Check to be sure that there is no interference when the door is opened. Then, position the up stop brackets down against the glass stops, and tighten the stop bracket attaching screw (Item D, Fig. 1). Use this procedure for both the front and rear upper stops.

Lower Stop Adjustment

The lower stop is used to control the depth the glass can be lowered into the door. To adjust the lower stop, remove the door trim panel. Loosen the lower stop retaining screw (Item E, Fig. 1), and lower the glass until the top edge is flush to 1/4 inch above the outer panel. Then, lift the stop against the glass bracket and tighten the retaining screw.

Granada and Monarch (Fig. 2 and 3)

1. Loosen attaching hardware until upper and lower guide and rear

retainer lower attachments are loose.
2. Raise glass with window regulator into glass run. If necessary, position glass manually forward and rearward to obtain a proper sealed glass edge.
3. Tighten tube nut (top) to 6-11 ft-lbs torque.
4. Tighten lower tube attaching bolt to inner panel. Tighten lower guide bolts (2).
5. Lower window half way and tighten lock side retainer attachment (2-door models only).

REMOVAL AND INSTALLATION

GLASS

Removal

1. Remove the door trim panel and watershield.
2. Remove one screw attaching each glass stabilizer to the inner panel, and remove the stabilizers (Fig. 4).
3. Remove the upper front and rear stop brackets from the door inner panel (Fig. 4).
4. Remove the center pin from the rivets attaching the glass bracket to the glass (Figs. 2, 3 and 4) with a drift punch. Then, remove the rivets by drilling the head from the rivet with a 1/4 inch drill. **Do not attempt to pry the rivets out as damage to the window mechanism could result.**
5. Push the rivets from the glass and glass bracket. Move the glass forward in the door until the rear upper stop is aligned with the access notch in the inner panel at the belt line. Lift the rear of the glass up and out of the door. Then, move the glass rearward until the front upper stop is aligned with the access hole, and remove the glass.
6. Remove the rivets from the upper stops following the procedure given in steps 4 and 5 for rivet removal. Then, remove the stops from the glass.

Installation

1. Position the upper stops to the glass and install each stop on the glass with a 1/4-20 x 1 inch hex bolt and a 1/4-20 nut and washer assembly. Tighten the nut to 6-11 ft-lb torque.
2. Insert the glass into the door using the access notch for clearance of the upper stops.
3. Position the glass to the glass bracket and install three 1/4-20 x 1 inch bolts and three 1/4-20 nuts to attach the glass to the glass bracket. Tighten the nut to 6-11 ft-lb torque.
4. Install the upper front and rear stop brackets (Fig. 4).
5. Install the glass stabilizers and adjust the glass, stabilizers and upper stops as outlined in the Adjustment Section.
6. Install the watershield and door trim panel.

WINDOW REGULATOR

Removal

1. Remove the door trim panel and watershield and support glass in up position.
2. If equipped with electric windows (except Ford, Mercury, Meteor, Thunderbird, Lincoln Continental and Continental Mark V), remove the center pin from the motor bracket-to-inner panel attaching rivet with a drift punch. Then, drill the head from the rivet with a 1/4 inch drill and remove the rivet. Disconnect the motor wires at the connector.
3. Remove the center pin from the regulator attaching rivets with a drift punch. Then, drill the head from the regulator attaching rivets with a 1/4 inch drill.
4. Disengage the regulator arm from the glass bracket, and remove the regulator from the door.
5. If equipped with electric windows, mount the regulator assembly in a vise. Drill a 5/16 inch hole through the regulator sector gear and the regulator plate. Install a 1/4 inch bolt and nut in the hole to prevent the sector gear from moving when the motor and drive assembly is removed. Remove the motor assembly from the regulator and install it on a new regulator.

Installation

1. Lubricate the window mechanism as outlined in Part 42-01.
2. Install nut and retainer assemblies on the regulator mounting plate and motor support bracket at the rivet attaching holes.
3. Position the regulator in the door and insert the roller into the glass bracket channel.
4. Position the regulator to the inner panel and install 1/4-20 x 1/2 inch screw and washer assemblies to attach the regulator to the inner panel. Tighten the screws securely.
5. If equipped with electric windows, install a 1/4-20 x 1/2 inch screw and washer assembly to attach the motor bracket to the inner panel (except Ford, Mercury, Thunderbird, Lincoln Continental and Continental Mark V). Connect the motor wires at the connector.
6. Check the operation of the window mechanism, and install the watershield and door trim panel.

WINDOW MOTOR AND/OR DRIVE

Removal

1. Remove the trim panel and watershield.
2. Remove any door mounted radio speakers, (if so equipped).
3. All models except Ford, Mercury, Thunderbird, Lincoln Continental and Continental Mark V have holes punched in the door panel for motor and drive removal. On models without access holes, use the dimples located on the inner door panel to drill three 3/4 inch holes in the door for access to the motor and drive attaching screws.

   The holes should be drilled with the glass in the UP position. The hole saw pilot drill should be as short as possible, about 1/4 inch beyond the saw.
4. Disconnect the motor wires at the multiple connector.
5. Working through the 3/4 inch holes, remove the three motor and drive-to-regulator attaching screws. Then, remove the motor and drive from the door.

Installation

1. Position the motor and drive to the regulator and install the three screws **just snug-not tight.**
2. Connect the motor wires at the connector and cycle the glass to assure gear engagement. After the gears are engaged, tighten the three motor and drive attaching screws.
3. Install body tape over the drilled hole on Ford, Mercury, Thunderbird, Continental Mark V and Lincoln Continental models.
4. Install the radio speaker (if so equipped and removed).
5. Check the window operation. Then, install the watershield and trim panel.

GUIDES AND/OR RUN

Removal

1. Remove the door trim panel and watershield.
2. Support the glass in the UP position.
3. Remove the two attaching screws from the upper and lower guides.
4. Remove the glass run upper and lower attaching screw (Figs. 2, 3 and 4), and remove the run and guides from the door.
5. Remove the guides from the top end of the run.

Installation

1. Install the guides on the run and lubricate the run as shown in Part 42-01.

2. Position the run and guides into the door, and install the run upper and lower attaching screws (Figs. 2, 3 and 4).
3. Position the guides to the glass bracket and install the attaching screws.
4. Remove the glass support and adjust the window mechanism as outlined in the Adjustment Section of this Part.
5. Install the watershield and door trim panel.

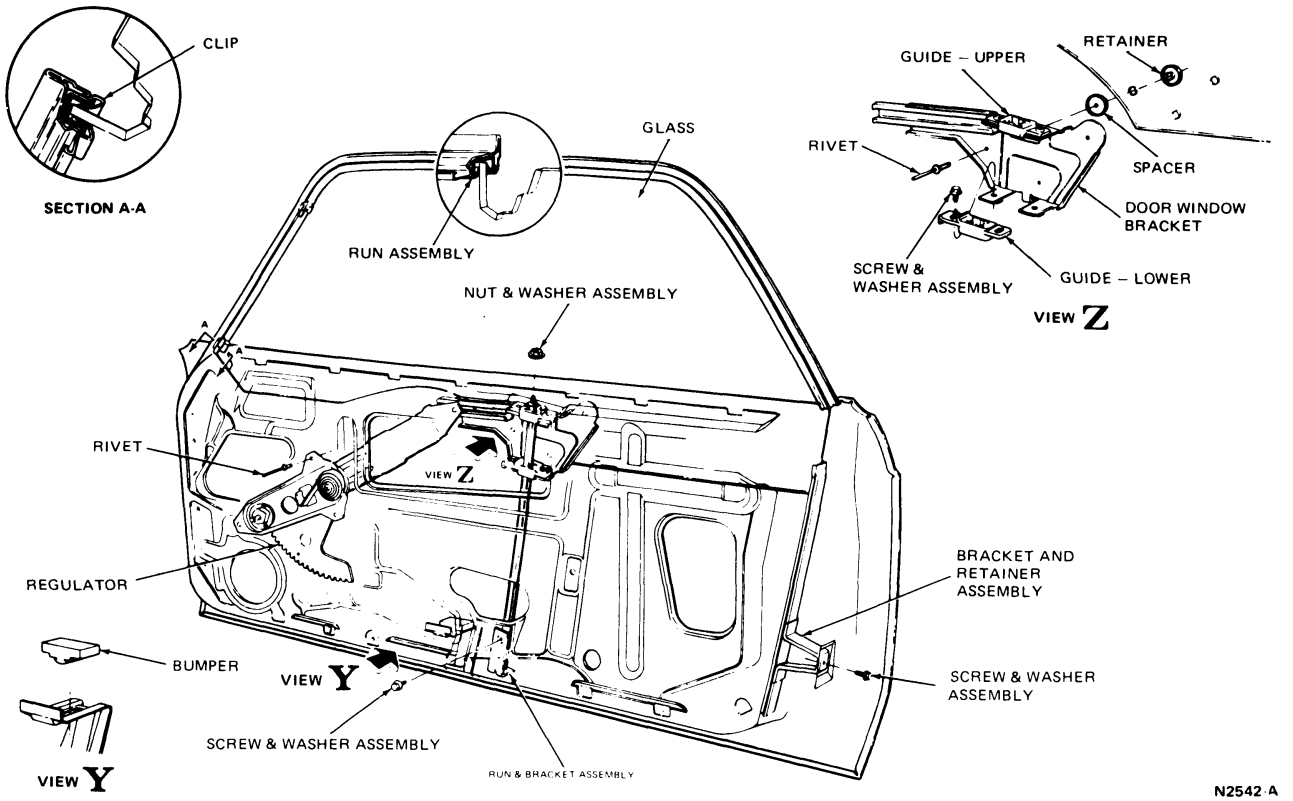


FIG. 2 Adjustment Points—Granada and Monarch Door (2-Door Models)

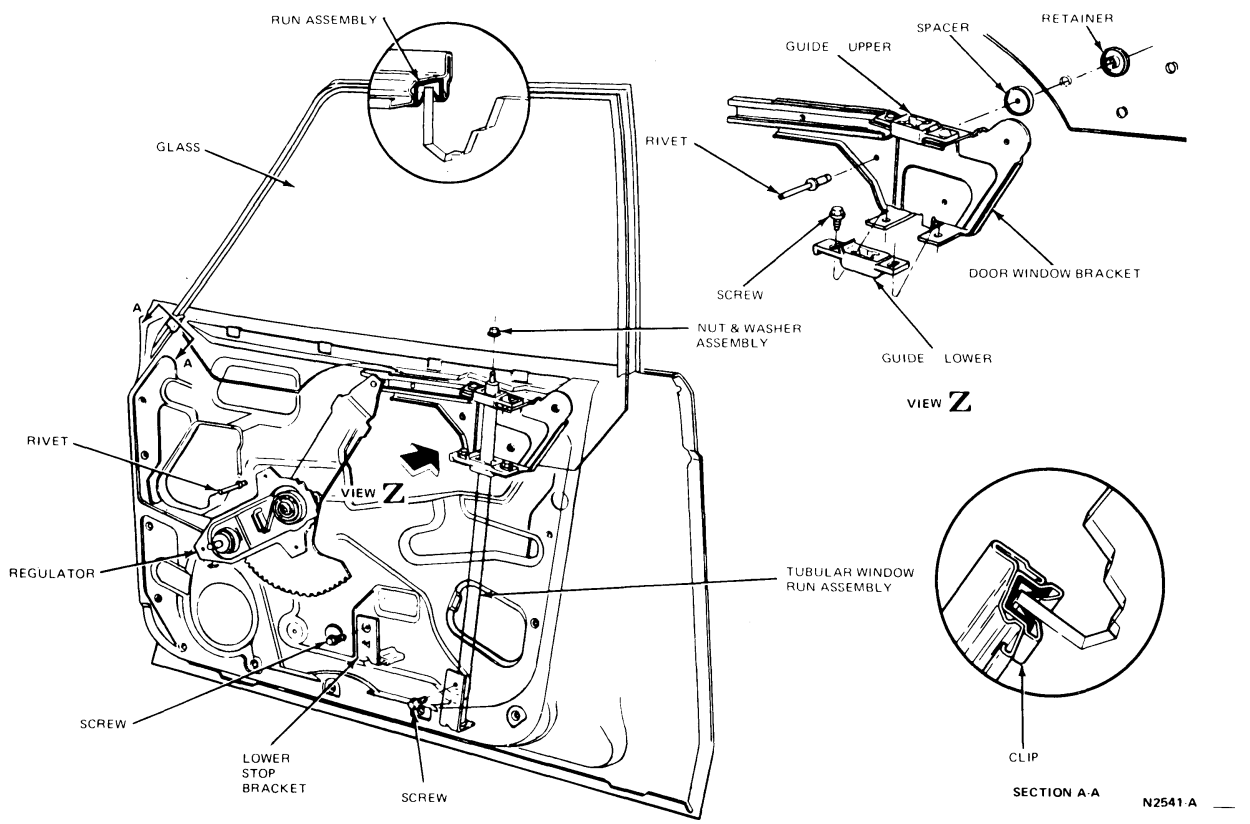


FIG. 3 Adjustment Points—Granada and Monarch Front Door (4-Door Models)

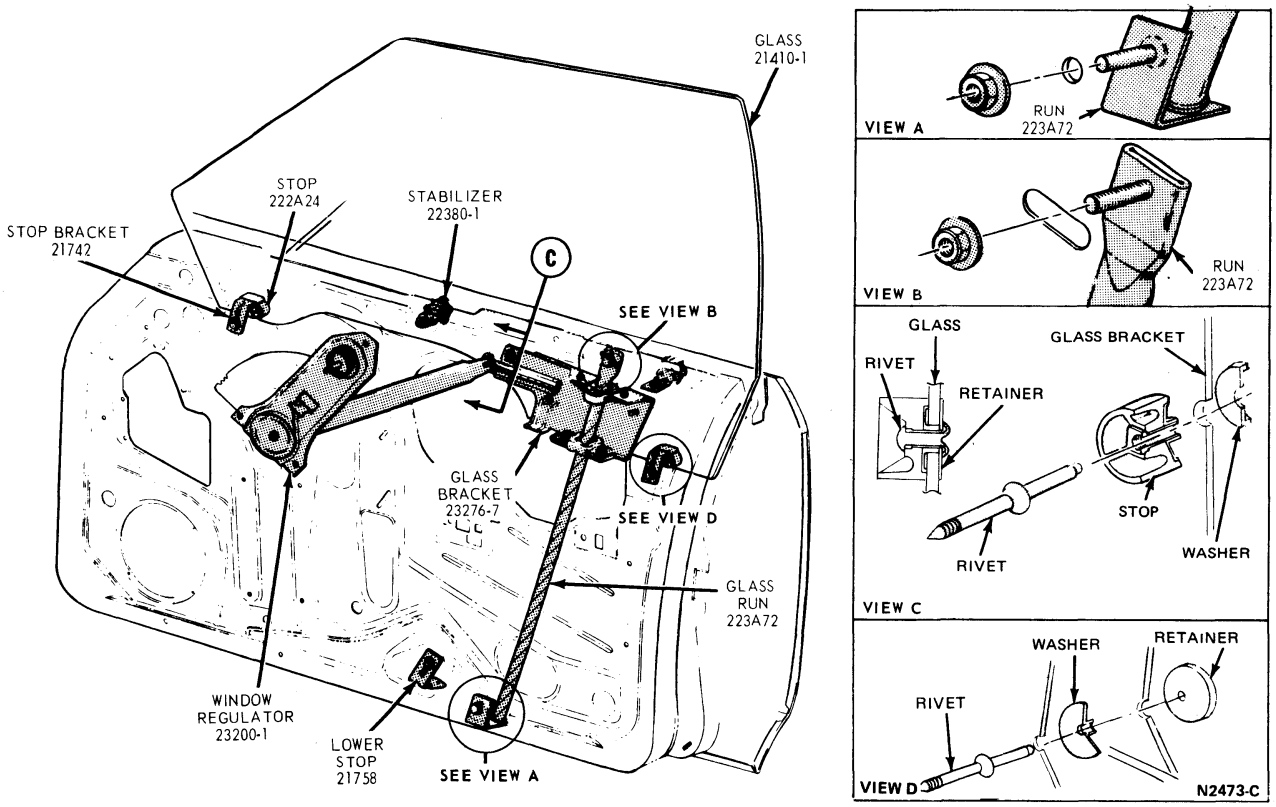


FIG. 4 Typical Front Door Window Mechanism

SPECIFICATIONS

SINGLE TUBULAR RUN FRONT DOOR WINDOW MECHANISM TORQUE SPECIFICATIONS

Description	Torque
Glass Stop Attaching Screw	6-11 ft-lbs
Run Attaching Screws	6-11 ft-lbs
Stabilizer Attaching Screws	6-11 ft-lbs
Upper Stop Bracket	6-11 ft-lbs
Regulator-to-Inner Panel	6-11 ft-lbs
Guide-to-Glass Bracket	6-11 ft-lbs

CN2437-B

Power Mini-Vent Window

PART 42-08

SUBJECT	PAGE
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DESCRIPTION

Thunderbird and Continental Mark V mini-vent systems operate in the same manner as the Lincoln Continental; however, the internal control mechanisms are quite different. The adjustments for the door glass are similar; however, the adjustment for the mini-vent window assembly is entirely different.

The mini-vent front door window electric mechanism has a single tubular run with a slidedown vent glass. One switch controls the operation of both the vent and main side glass. When the window switch is moved to the lower position, the vent lowers into the door first. When the vent is completely down, the main glass lowers into the door. The glass and vent operates in reverse (glass and then vent) when raising the window The vent or main glass may be stopped in any position between open and closed.

NOTE: To ensure proper Mini-Vent Window operation, remember to apply the special mini-vent lubricant to all areas shown in Fig. 19.

ADJUSTMENTS

LINCOLN CONTINENTAL ONLY— MAIN GLASS ADJUSTMENT (REFER TO FIGS. 1 THROUGH 4)

The main glass of the system shifts slightly as the vent reaches the end of its cycle. Therefore, if you check the door window adjustments with the vent window down, you will find that they change after the vent window is raised. **Always make sure that the vent window is fully raised when checking any adjustment.**

Fore and Aft Adjustment

Both fore and aft and equalizer adjustments are used in combination to get a good fit of the door glass along the A-post (parallel to weatherstrip retainer) and the top of the door glass. It is important that any fore and aft adjustment of the run is accompanied by an upper guide tilt adjustment to maintain a good fit to the A-post. **Do not try to adjust the glass parallel to the B-pillar.**

When re-adjusting the system, with the tilt or fore and aft, the rear up-stop should be loosened and the last component secured.

To adjust the glass forward or rearward, loosen the glass run upper attaching screw (Fig. 1), and the rear up-stop. Then, position the glass forward or rearward as required, and tighten the glass run upper attaching screw. To tilt the glass forward or rearward, loosen the screws attaching the upper guides to the guide plate (Fig. 1). Then, rock or tilt the glass forward or rearward as necessary, and tighten the attaching screws. Adjust the rear up-stop if no other adjustments are to be performed.

Glass In-Out Tilt

The in-out tilt adjustment is used to obtain a good seal against the weatherstrip along the top edge of the glass. This adjustment can be made by loosening the screws attaching the lower plastic guide to the guide plate bracket (Fig. 1). Then, move the glass top edge in or out to obtain a good seal with the roof rail weatherstrip, and tighten the guide attaching screws. The rear up-stop should be loose during this adjustment.

Up Adjustment

With the main glass in the full UP position, cycle the vent glass until the vent window cap is raised above the door belt line. Loosen the regulator arm roller attachment and both up-stops. Manually lift the door glass bracket assembly until the top edge of the door glass seats into the weatherstrip sufficiently to obtain a good seal, especially at the upper rear corner of the glass. Tighten all attachments to 6-11 ft-lbs torque. **If the UP position of the glass must be re-adjusted, both door glass stops must be loose and the up or down adjustment made with the regulator arm roller only.**

Upper Stop Adjustment

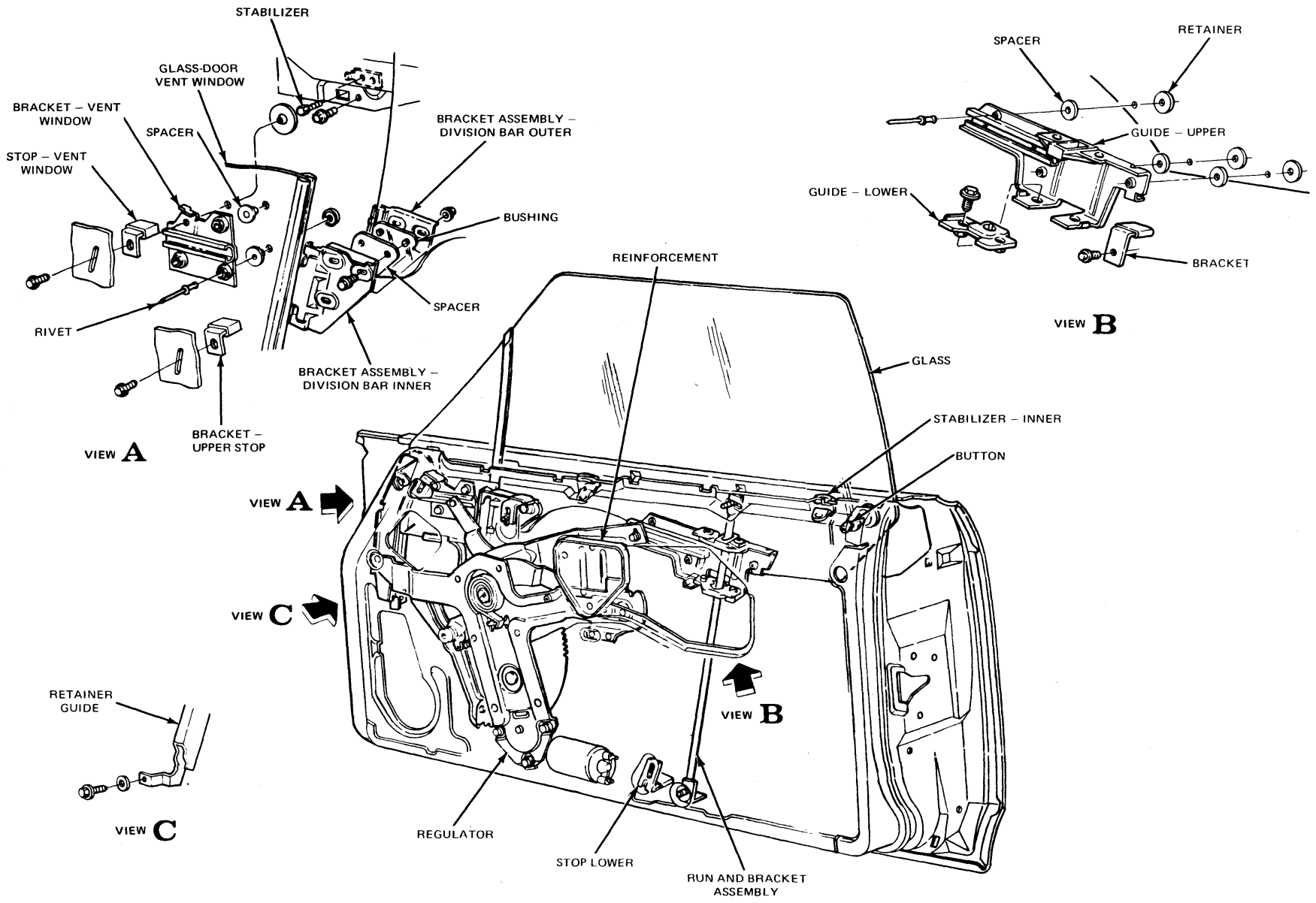
Raise the glass to the UP position, checking to be sure that the top edge of the glass contacts the weatherstrip sufficiently to provide a good seal. Then, position the upper front stop bracket down against the glass stop and tighten the attaching screw. Position the upper rear stop down against the glass bracket and tighten the attaching screw.

Stabilizer Adjustment

The stabilizers are used to support the glass at the door belt line. To adjust, raise the glass to the full UP position. Loosen the stabilizer attaching screw and rotate the stabilizer against the glass. Tighten the stabilizer attaching screws.

Down Stop Adjustment

The down stop should be adjusted so that the main glass is between flush and



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FIG. 1 Mini-Vent Window System Lincoln Continental 4-Door Shown—2-Door Typical

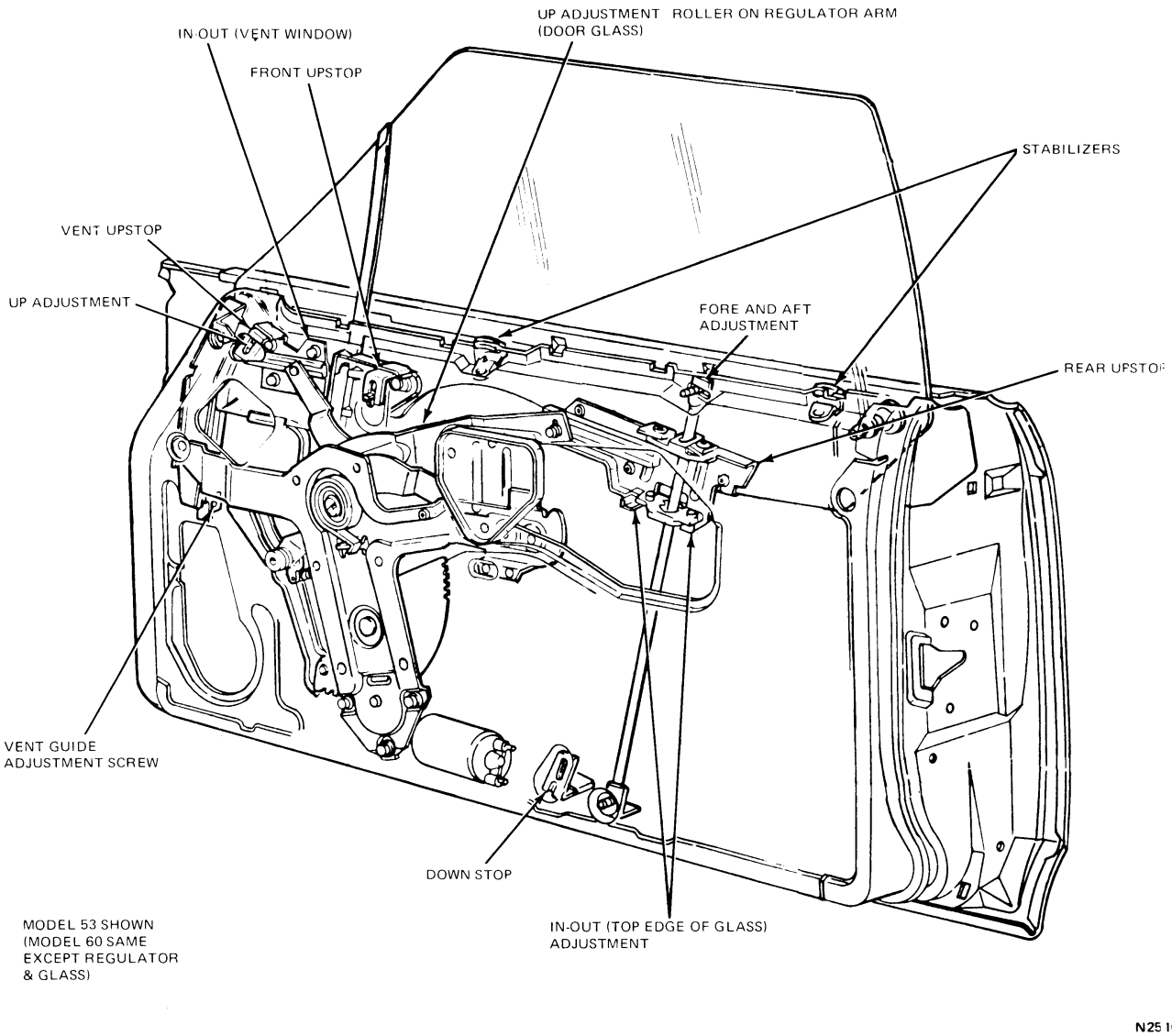


FIG. 2 Door Glass Adjustments—Lincoln Continental

1/4 inch above the belt weatherstrip with the window in the full DOWN position.

Front Door Vent Window Guide Adjustment

The front guide is held in position by a retainer attached to the door hinge pillar by a screw. To adjust the front guide, loosen the screw and lower the door window and vent glasses. The front guide locates itself in the adjustment slot. Before tightening the retainer screw check the vent glass for proper installation into the front guide.

VENT GLASS ADJUSTMENT

There are two basic vent window adjustments; an in-out adjustment and an up-stop adjustment.

In-Out Adjustment

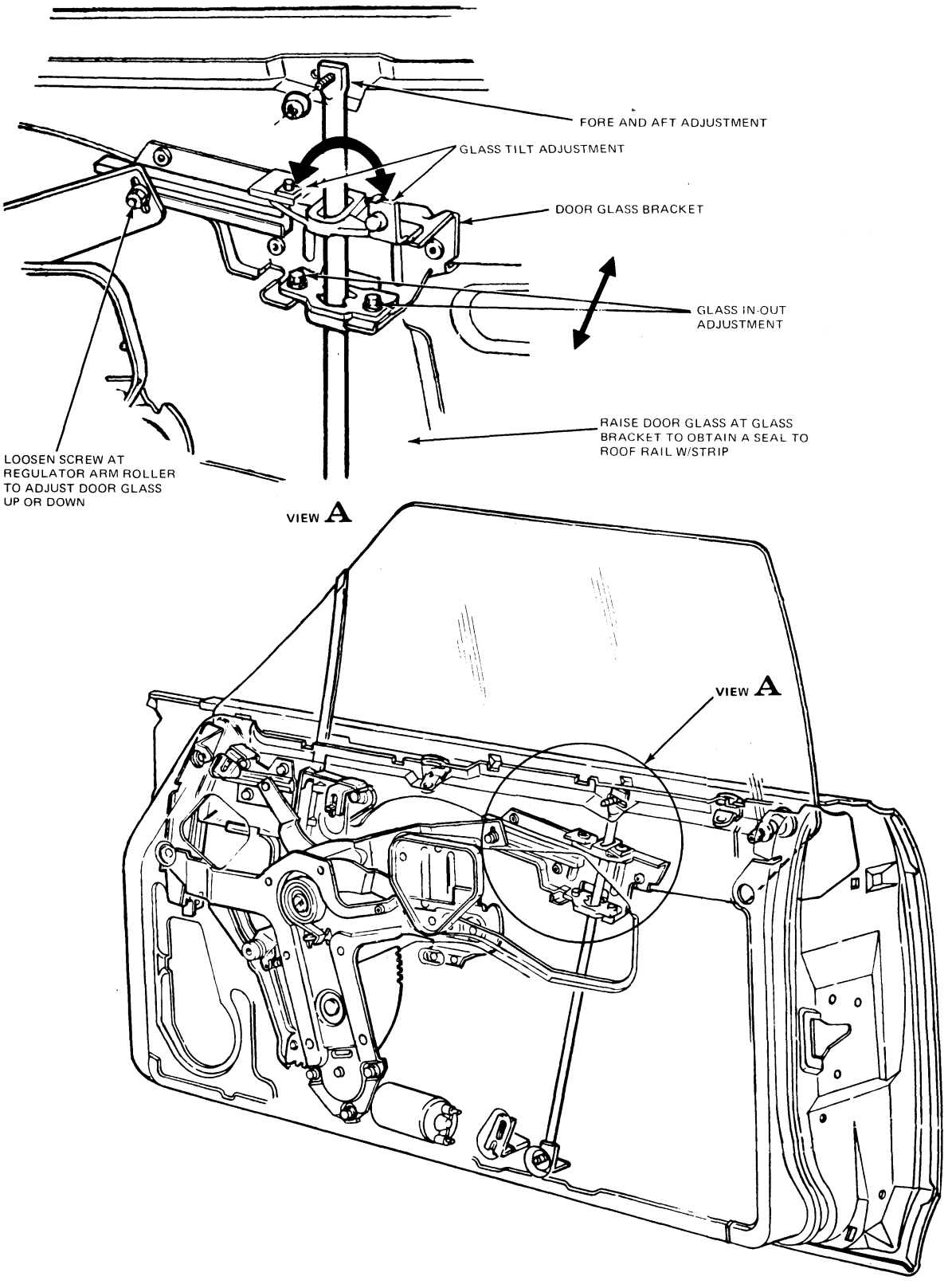
To adjust the vent window in or out at the belt line, first remove the weatherstrip end cap from the front edge of the door. With the weatherstrip end cap removed, insert a 7/16 inch open end wrench through the access opening in the door and adjust the acorn-head adjusting bolt as necessary. Turning the adjusting bolt in or out will move the mini-vent in and out. The vent assembly should be adjusted so that a parallel dimension is obtained between the door outside belt and the vent glass assembly. However, in some instances, it may be necessary to position the vent glass inboard to secure a good seal to the A-post.

This is the only adjustment that can be performed on a mini-vent window system without removing the trim panel. If the vent is adjusted inboard with the acorn bolt, make sure that the vent glass raises full UP when cycled. If the vent does not go full UP, remove the trim panel and adjust the vent up-stop.

Up-Stop Adjustment

The vent up-stop can be adjusted up or down through an access hole in the door inner panel. The up-stop should be adjusted so that the vent glass is flush with the leading top edge of the door glass. The division bar cap will extend slightly above the two pieces of glass when they are flush.

Re-check the in-out adjustment after adjusting the up-stop. If a main glass re-adjustment is performed, the vent up-



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FIG. 3 Door Glass Adjustments—Lincoln Continental

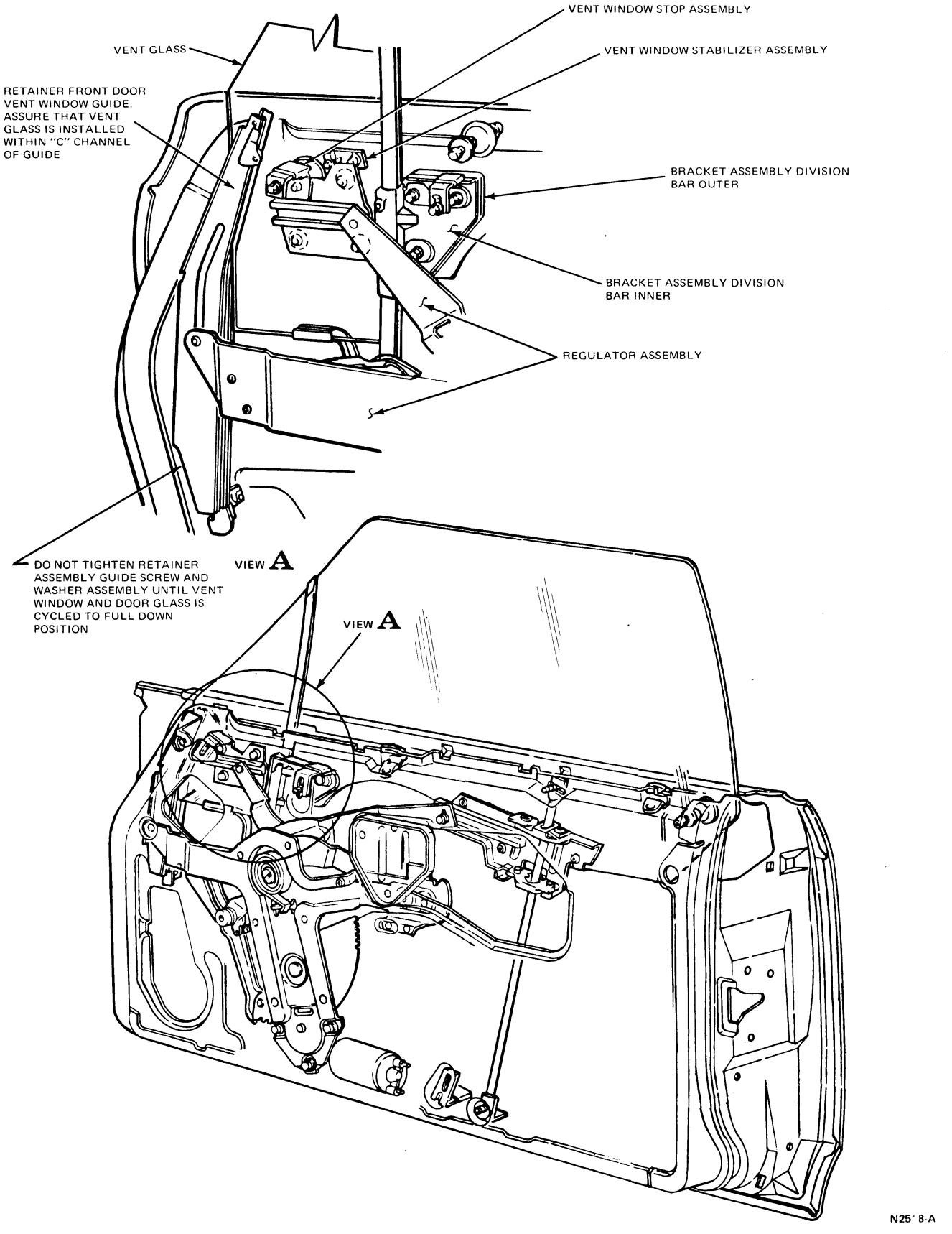


FIG. 4 Mini-Vent Glass Adjustment—Lincoln Continental

stop may have to be re-positioned to maintain flushness to the main glass.

THUNDERBIRD AND CONTINENTAL MARK V MAIN AND VENT GLASS ASSEMBLY ADJUSTMENTS (REFER TO FIGS. 5 THRU 8)

The door trim panel and watershield must be removed prior to any adjustment.

Fore and Aft Adjustment

The fore and aft adjustment of the entire door glass and mini-vent assembly can be made by loosening the front vent channel attachment and the 3 bolts in the glass bracket (Fig. 6). Then, position the glass fore or aft as required.

It will also be necessary to adjust the equalizer assembly to obtain a proper glass-to-weatherstrip relationship.

NOTE: If sluggish or binding window operation develops, loosen the front vent channel upper attachment lock nut and cycle the system. The vent channel may not be properly set with the tube upper channel.

Equalizer Adjustment

This adjustment pertains to the relationship of the glass-to-weatherstrip at the roof rail and the windshield "A" post.

If the glass system is "tilted" in the opening, where the forward or rearward ends of the glass are low to its respective weatherstrip, the system can be rotated in the opening by loosening the upper plastic guide attachments on the main glass brackets, and rocking the glass on the tubular run (Fig. 7).

Flipper Arm Adjustment

An adjustable "flipper arm" at the end of the main glass drive arm is provided to establish the full up position of the main glass assembly.

If you find, after you have adjusted the equalizer, that you are unable to get the top edge of the glass into the weatherstrip, check the "up-stops" to make sure they are not improperly positioned. Next, loosen the (2) bolts retaining the flipper arm to the drive arm, and adjust the flipper arm upward to obtain the needed height (Fig. 7).

CAUTION: This is a very critical adjustment. Improper adjustment could cause sluggish or slow operation of the entire system. Allow from 1/8" to 3/16" of slot opening above the bolt washer for proper set (see Fig. 7).

In-Out Adjustment

Make the "in-out" adjustment by loosening the screws attaching the lower plastic guide to the guide plate bracket and moving the window assembly in or out at the roof rail weatherstrip. The glass should be off the stops to make this adjustment (Fig. 8).

Stabilizer Adjustment

There are two stabilizers on the main glass assembly (Fig. 8). One stabilizer is mounted forward of the tube and one rearward.

Raise the window to the full-up position, loosen the retaining bolt on the stabilizer and slide in or out to a finger tight fit to the glass.

MINI-VENT ADJUSTMENTS

Refer to Figs. 9 thru 12

There are three adjustments for the mini-vent assembly; an up-stop, in-out and a vent full-up adjustment.

Also, it's important that the lower mini-vent channel blade attachment be properly positioned in the fork retainer.

Vent-Up-Stop-Adjustment

1. To obtain a parallel fit of the leading edge of the mini-vent glass to the main glass assembly, loosen the vent up-stop attachment and position up or down as required (Fig. 9).

In-Out Adjustment

1. To adjust the in-out relationship of the mini-vent glass to the main glass assembly, loosen the mini-vent channel upper adjustable attachment lock nut (Fig. 10).
2. Using a 9/32" Allen wrench, turn the adjustable screw right (inboard) or left (outboard) to obtain a parallel relationship of the mini-vent glass to the main glass assembly.

NOTE: It's a good idea to sight down the glass assemblies from the rear of the door, to make sure that the mini-vent and main glass assemblies are parallel.

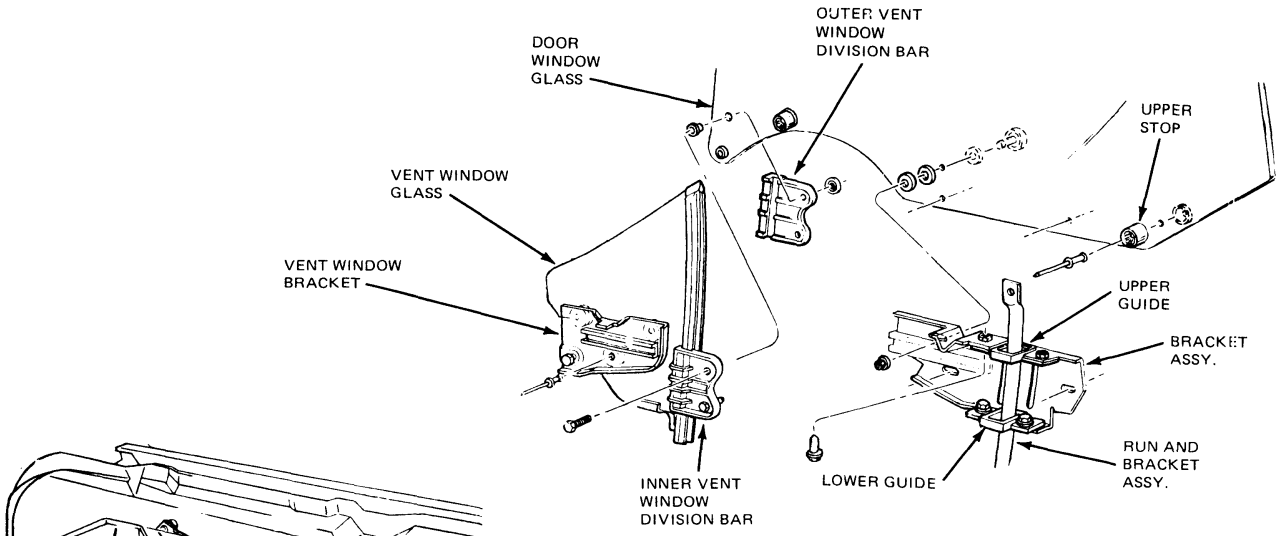
This will prevent improper inboard/outboard channel adjustment that can cause the mini-vent to be out of line with the main glass assembly. This condition may bind the vent brackets and result in a mini-vent that will lower, but not raise.

Vent Full-Up Position Adjustment

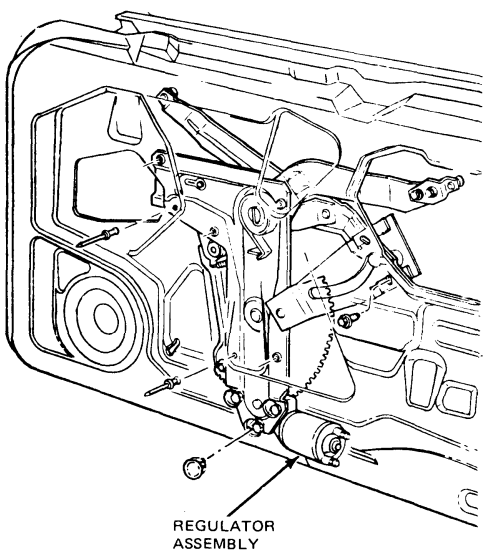
1. Loosen the two bolts retaining the vent arm cam plate on the regulator assembly and position the moveable cam plate to the lowest side of the attaching slots on the door inner panel (Fig. 11).
2. If you are unable to get the mini-vent assembly raised to the full-up position by adjusting the stops and the cam plate, you may have to elongate the lower adjustment slot in the door inner panel at the regulator cam plate attachment.

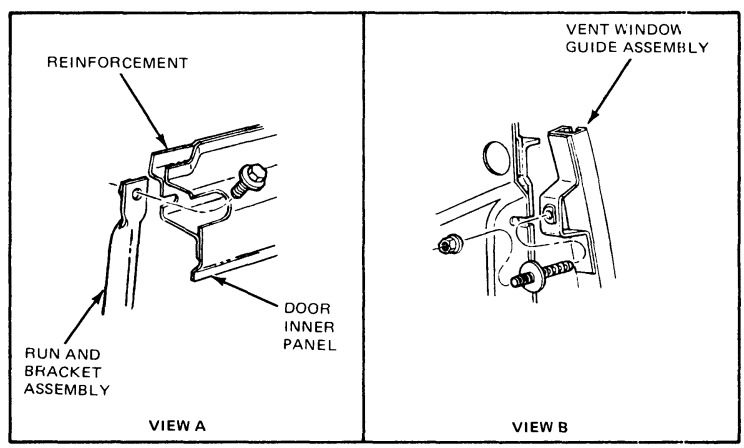
Channel Blade Attachment Position

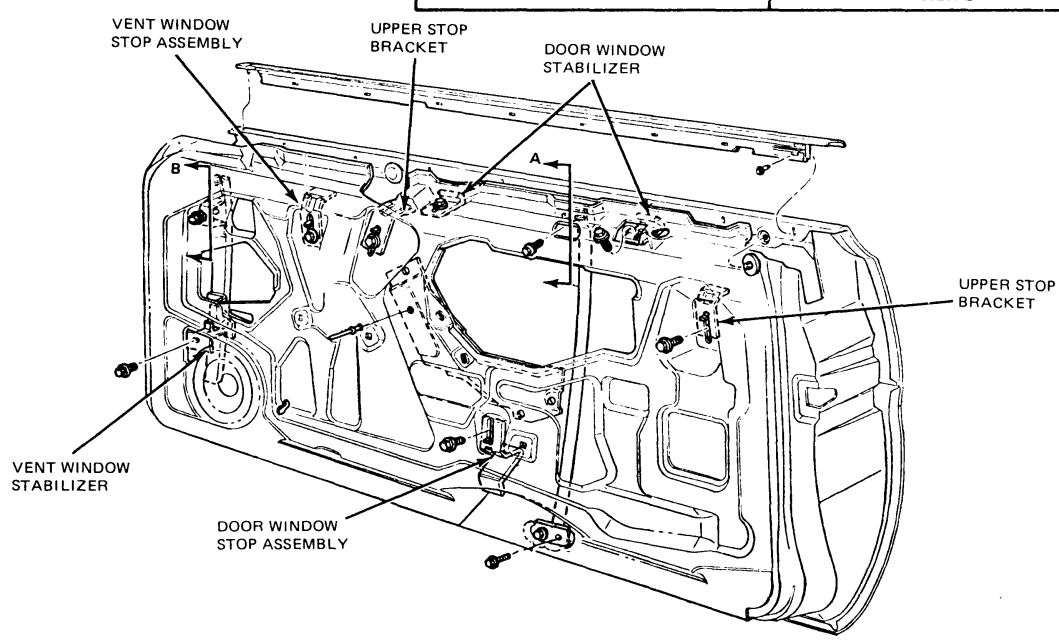
The lower mini-vent channel blade attachment **must** be properly positioned between the two fork rubber prongs. The prongs are designed with a specified clearance between them, to allow the lower channel to "float" during window operation (Fig. 12). If not properly positioned, the mini-vent may bind-up, causing it to lower but not raise.



GLASS – BRACKETS – GUIDES AND STOPS







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FIG. 5 Mini-Vent Window System—Thunderbird and Continental Mark V

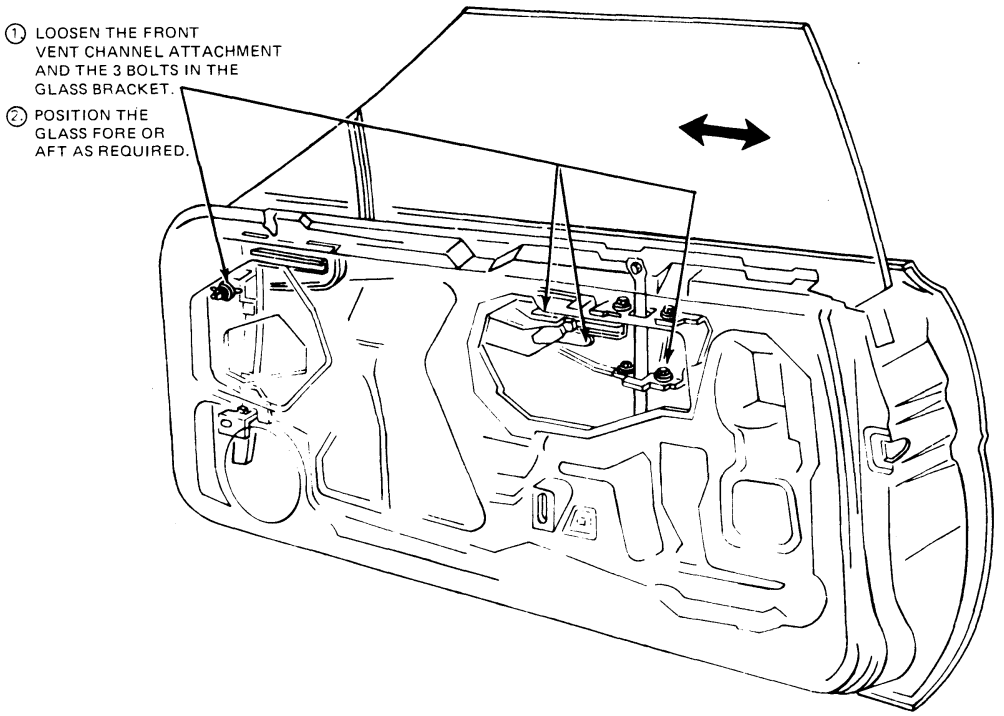


FIG. 6 Main and Vent Glass Fore-Aft Adjustment—Thunderbird and Continental Mark V

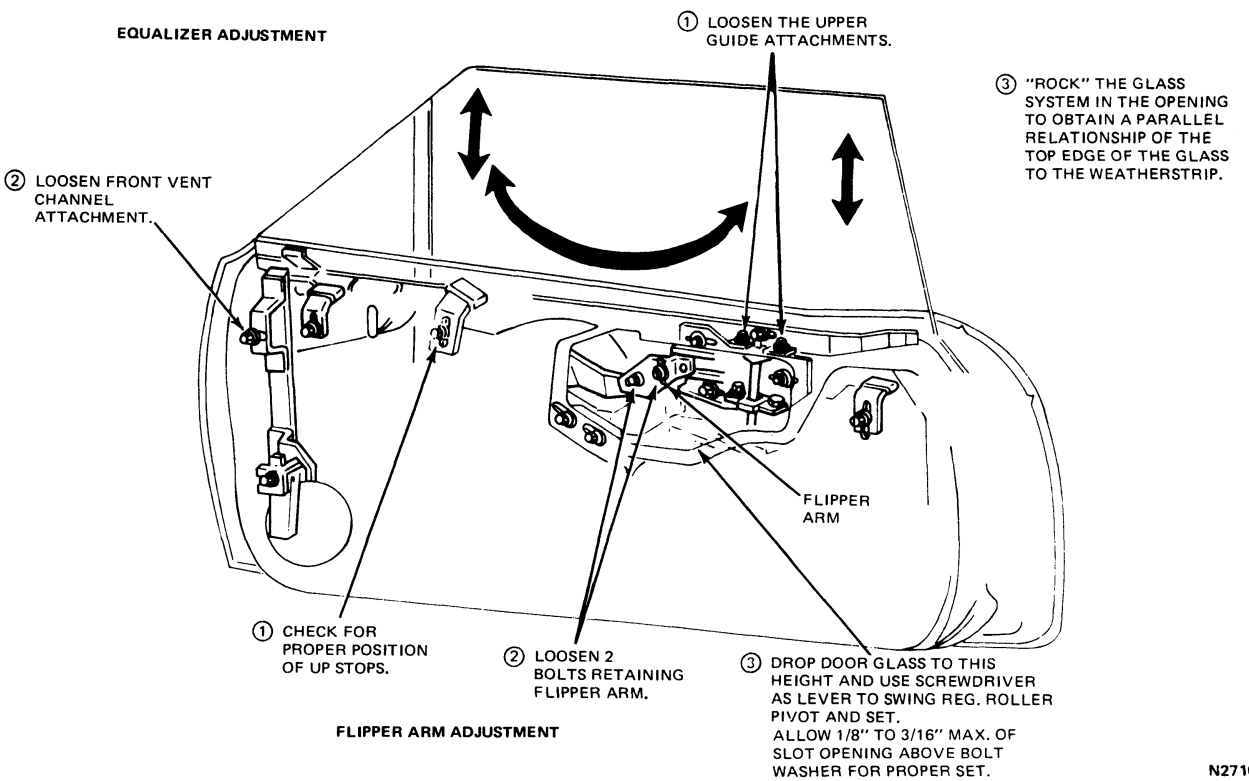


FIG. 7 Main and Vent Glass—Equalizer Adjustment and Flipper Arm Adjustment—Thunderbird and Continental Mark V

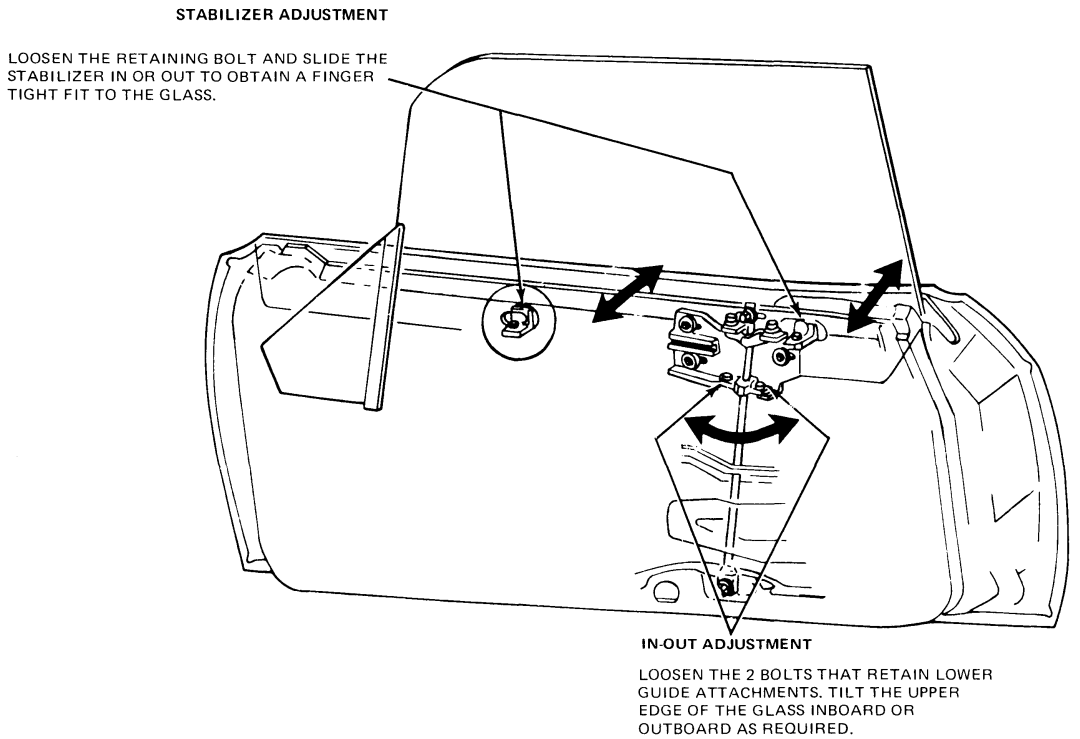


FIG. 8 Main and Vent Glass Stabilizer Adjustment and In-Out Adjustment—Thunderbird and Continental Mark V

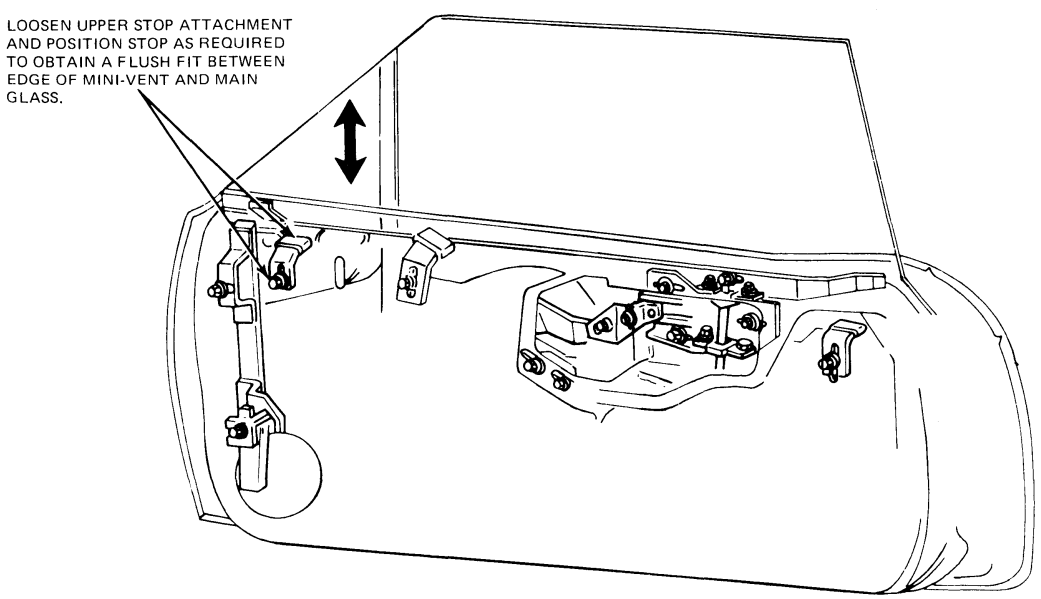


FIG. 9 Mini-Vent Up Stop Adjustment—Thunderbird and Continental Mark V

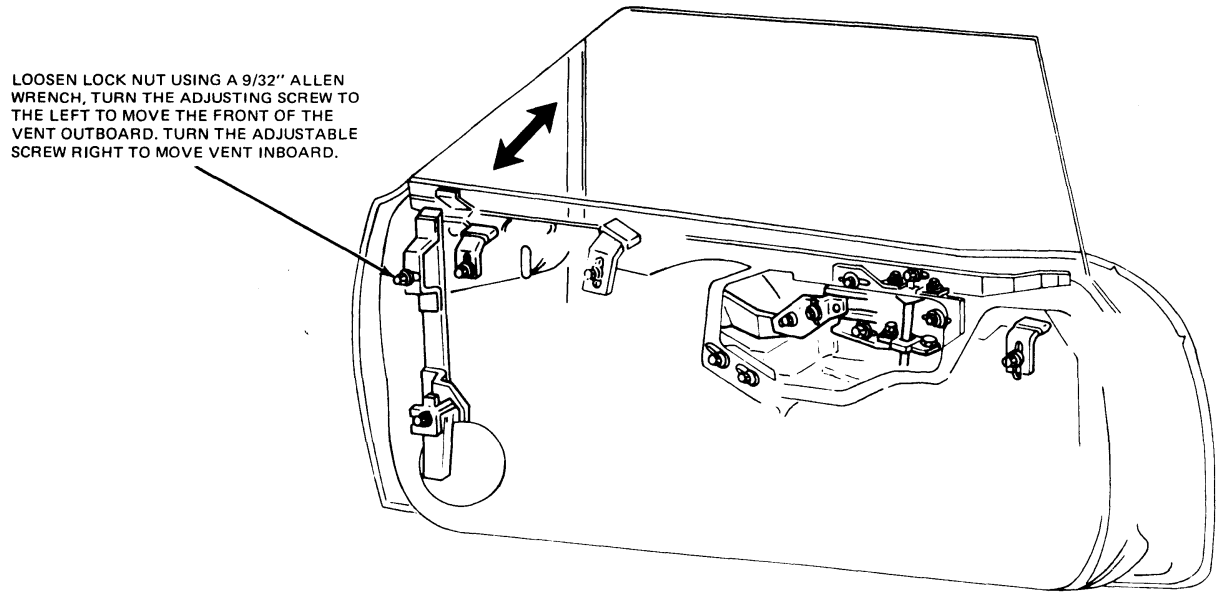


FIG. 10 Mini-Vent In-Out Adjustment—Thunderbird and Continental Mark V

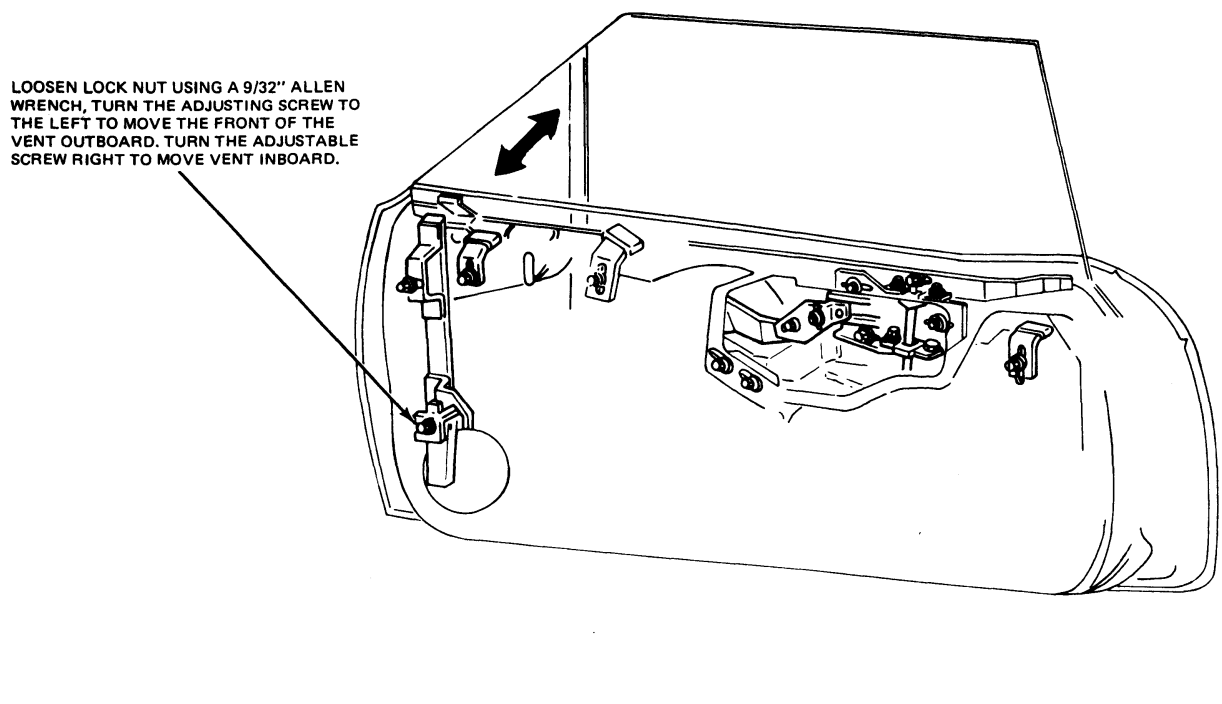


FIG. 11 Mini-Vent Full Up Position Adjustment—Thunderbird and Continental Mark V

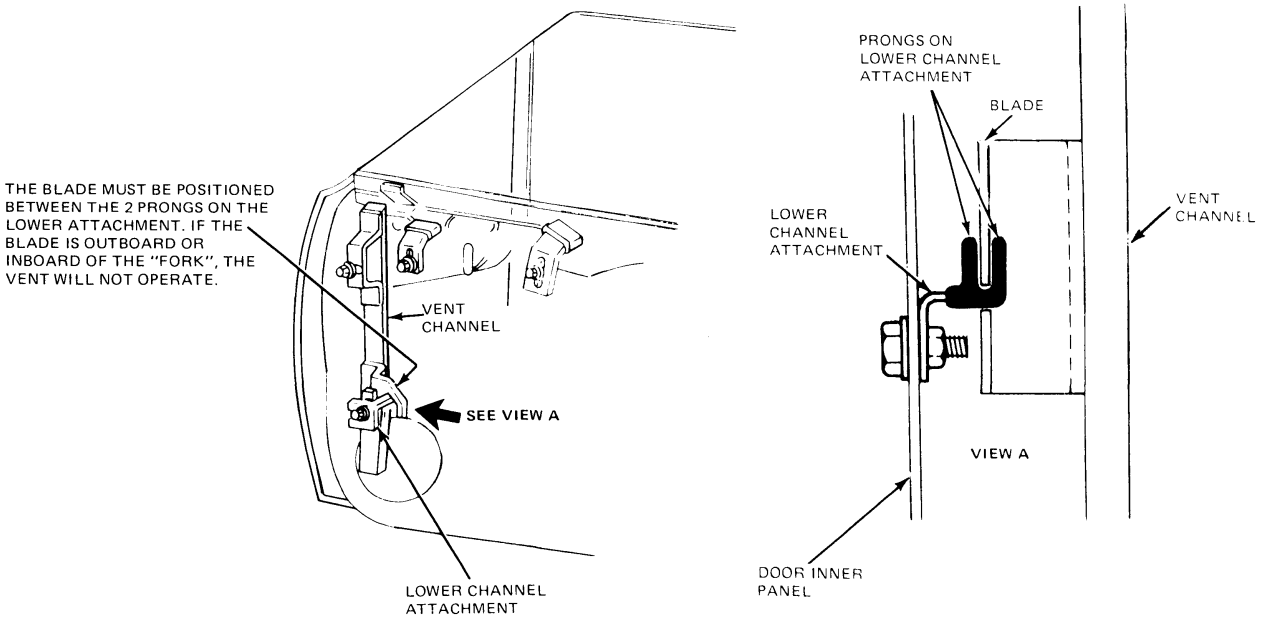


FIG. 12 Mini-Vent Channel Blade Attachment

REMOVAL AND INSTALLATION

DOOR AND VENT GLASS ASSEMBLY

The door and vent glass are to be removed from the vehicle as a single unit. Refer to Figs. 1, 13 and 14.

Removal

1. Remove the door trim panel and watershield.
2. Remove the screws attaching the weatherstrip end-caps at the rear and front end of the door.
3. Remove the door outside belt moulding. (Loosen the door glass down-stops to gain access to the screw attachments).
4. Loosen the stabilizer attaching screws and remove the stabilizers.
5. Remove the front and rear upper stop brackets.
6. Cycle the vent to the full down position and remove the vent roller from the vent guide. Also lower the door glass sufficiently to remove its attaching rivets from the bracket (approximately 3 inches).
7. Remove the three (3) door glass-to-glass bracket retaining rivets. When removing the rivets, first knock out the center pin or mandrel of the rivet with a drift punch or similar tool.

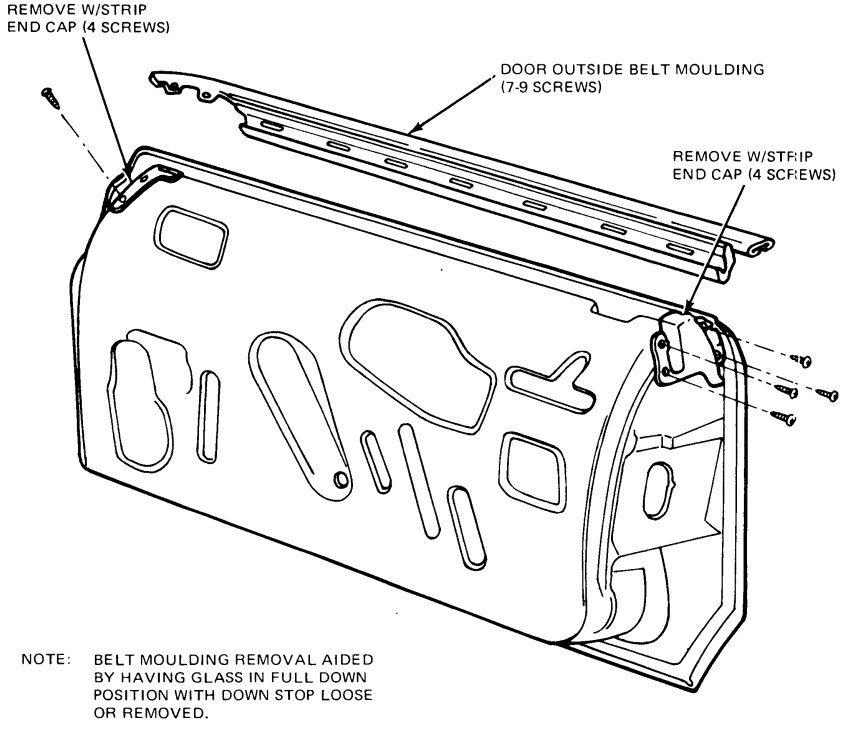


FIG. 13 Door and Vent Glass Removal

Then, drill out the remainder of the rivet using a 1/4 inch drill. DO NOT ATTEMPT TO BREAK OR PRY OUT THE RIVET, AS THIS WILL BREAK THE GLASS.

8. Rotate and lift the door glass and vent up and out at the rear of the door, as an assembly.

Installation

Refer to Figs. 15 and 16.

The vent and door glass are pre-assembled and installed as a unit, as shown in Fig. 15. Sliding efforts must also be checked prior to installation, as shown in Fig. 16.

1. Lower the vent glass prior to loading, so that the vent cap is 3 to 4 inches above the vent brackets. Be sure that the vent glass is positioned within the front window guide retainer assembly and that the vent roller is in the C-channel of the vent window bracket.
2. Feed the regulator roller into the glass bracket C-channel and assemble the door glass to the regulator glass bracket using three (3) 1/4-20 x 1 inch bolts, nuts and washers to replace the original rivets. Drop the regulator arm approximately one to two inches for clearance, and use one bolt as a drift to assure proper glass position when installing the other two bolts to the glass. Run the glass to the full UP position to complete installation. Torque the bolts to 6-11 ft-lbs.
3. Install the door outside moulding.
4. Install the front and rear up-stop brackets.
5. Install the two stabilizers (leave loose until the glass adjustment is made).
6. Install the weatherstrip front and rear end-caps.
7. Adjust the system following the procedures under Adjustment.
8. Install the watershield and the door trim panel.

WINDOW REGULATOR

Removal

Refer to Figs. 1, 17 and 18.

1. Remove the glass and vent from the door, as outlined in this Section.
2. Remove the door glass run upper and lower attaching screws, and remove the run, glass bracket and guides from the door. **Do not loosen the upper and lower guides on the bracket.**
3. Disconnect the regulator motor wires at the connector.
4. Using a drift punch, remove the center pin from the four (4) rivets attaching the door and regulator reinforcement and the nine (9) rivets attaching the regulator and motor support to the door inner panel.

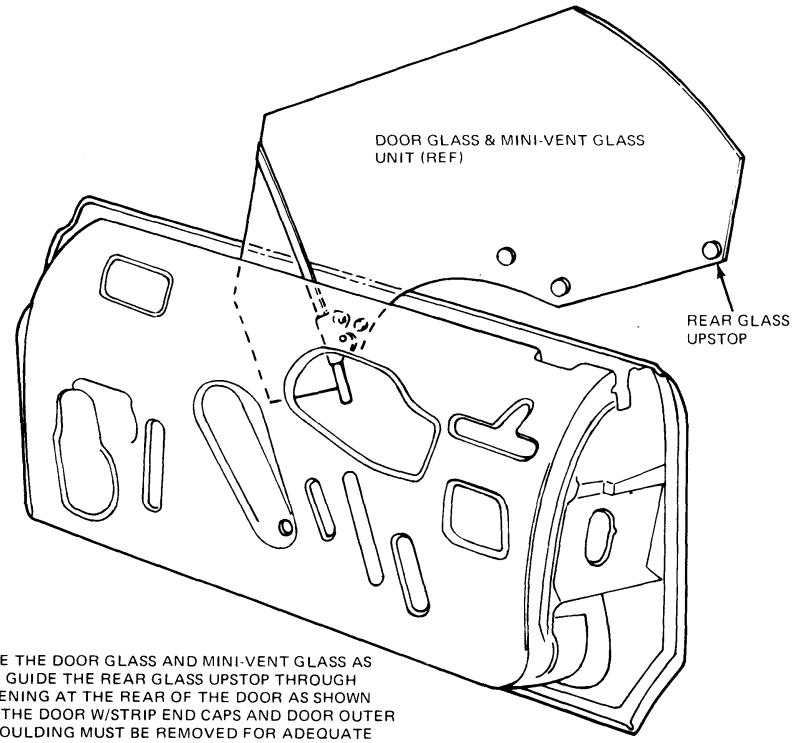


FIG. 14 Removing Door and Mini-Vent Glass

5. Finish removing the thirteen (13) rivets with a 1/4 inch drill.
6. Remove the reinforcement plate from the door inner panel.
7. Remove the regulator from the door through the upper rear opening, motor end first.
8. Remove the rivets and drillings from inside the door.
9. Mount the regulator in a vise. Drill a 5/16 inch diameter hole through the regulator sector gear and the regulator plate. Install a 1/4 inch bolt and nut in the hole to prevent the sector gear from moving when the motor and drive are removed. Remove the motor and drive assembly.

Installation

1. Position the regulator arm as shown in Fig. 17 and insert the regulator into the large access hole in the door upside down, gradually turning the regulator to the upright position as it is installed.
2. Install five (5) 1/4-20 x 1/2 inch screw and washer assemblies into the five holes across the top of regulator and through the door inner panel. Install the matching nuts and washers, but do not tighten.
3. Connect the regulator motor wires and cycle the regulator quadrant gear as required, to install the remaining four (4) 1/4-20 x 1/2 inch screw and washer assemblies. Tighten all nine (9) attaching screws to 6-11 ft-lbs torque.

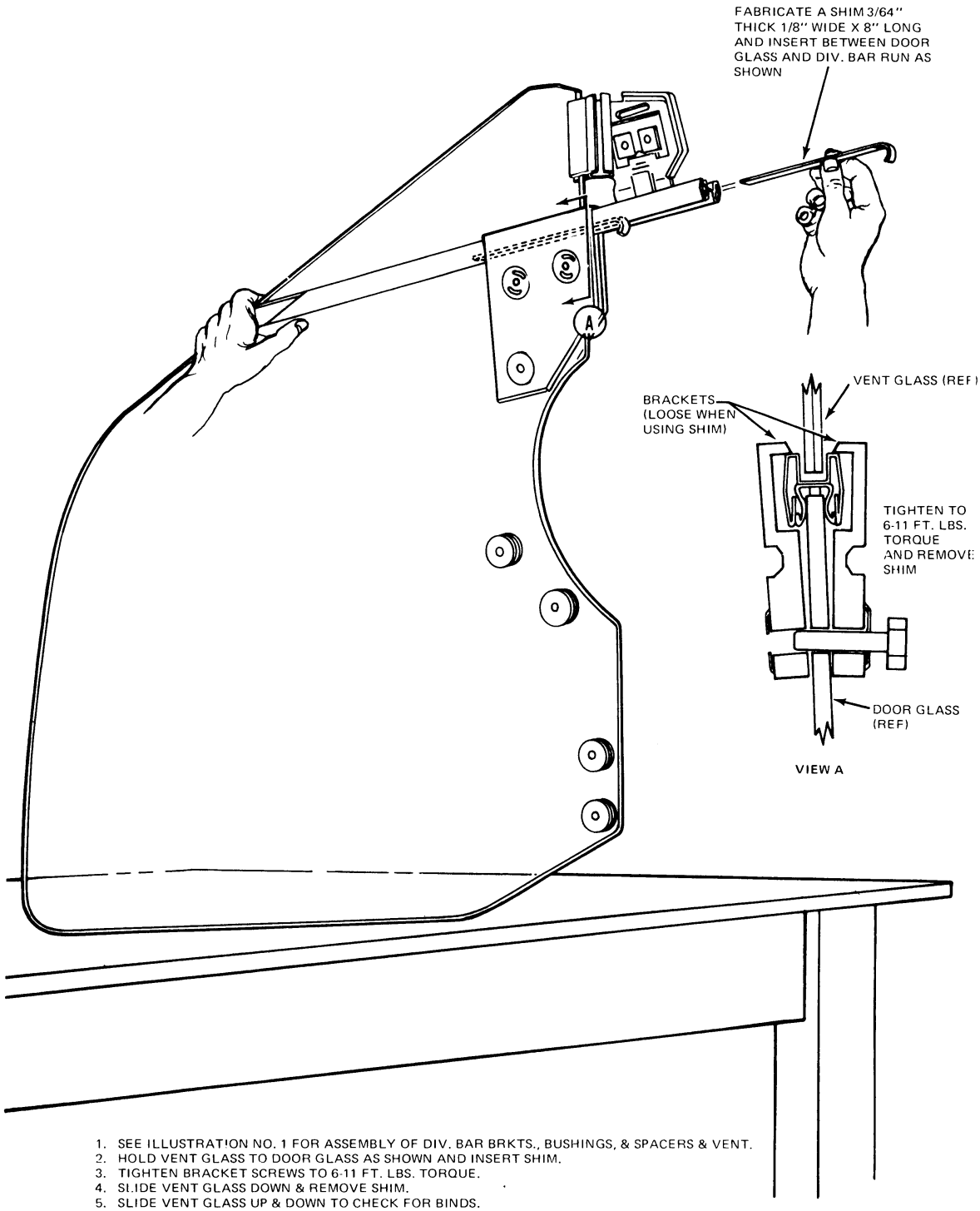
All nine screw and washer assemblies must be installed with the head of the screw on the regulator and motor support panel side of the door panel. This will prevent the screw thread from interferring with links, gears, etc.

4. Install the door and window regulator reinforcement using four (4) 1/4-20 x 5/8 inch screw and washer assemblies for retention.
5. Install the run, glass bracket and guides in the door.
6. Install the glass and vent assembly into the door.
7. Adjust the window mechanism as outlined in the Adjustment section of this Part.

VENT WINDOW GUIDE

Removal

1. Remove the vent glass and door glass from the door as an assembly.
2. Using a punch and 1/4 inch drill, remove the rivet attaching the guide to the door panel.
3. Remove the guide adjusting screw located on the hinge face of the door.
4. Remove the guide.



1. SEE ILLUSTRATION NO. 1 FOR ASSEMBLY OF DIV. BAR BRKTS., BUSHINGS, & SPACERS & VENT.
2. HOLD VENT GLASS TO DOOR GLASS AS SHOWN AND INSERT SHIM.
3. TIGHTEN BRACKET SCREWS TO 6-11 FT. LBS. TORQUE.
4. SLIDE VENT GLASS DOWN & REMOVE SHIM.
5. SLIDE VENT GLASS UP & DOWN TO CHECK FOR BINDS.
6. LUBRICATE DIV. BAR AND BRACKETS WITH MINI-VENT LUBE (D3AZ-19553-A).

N2521-B

FIG. 15 Pre-Assembling Door and Mini-Vent Glass

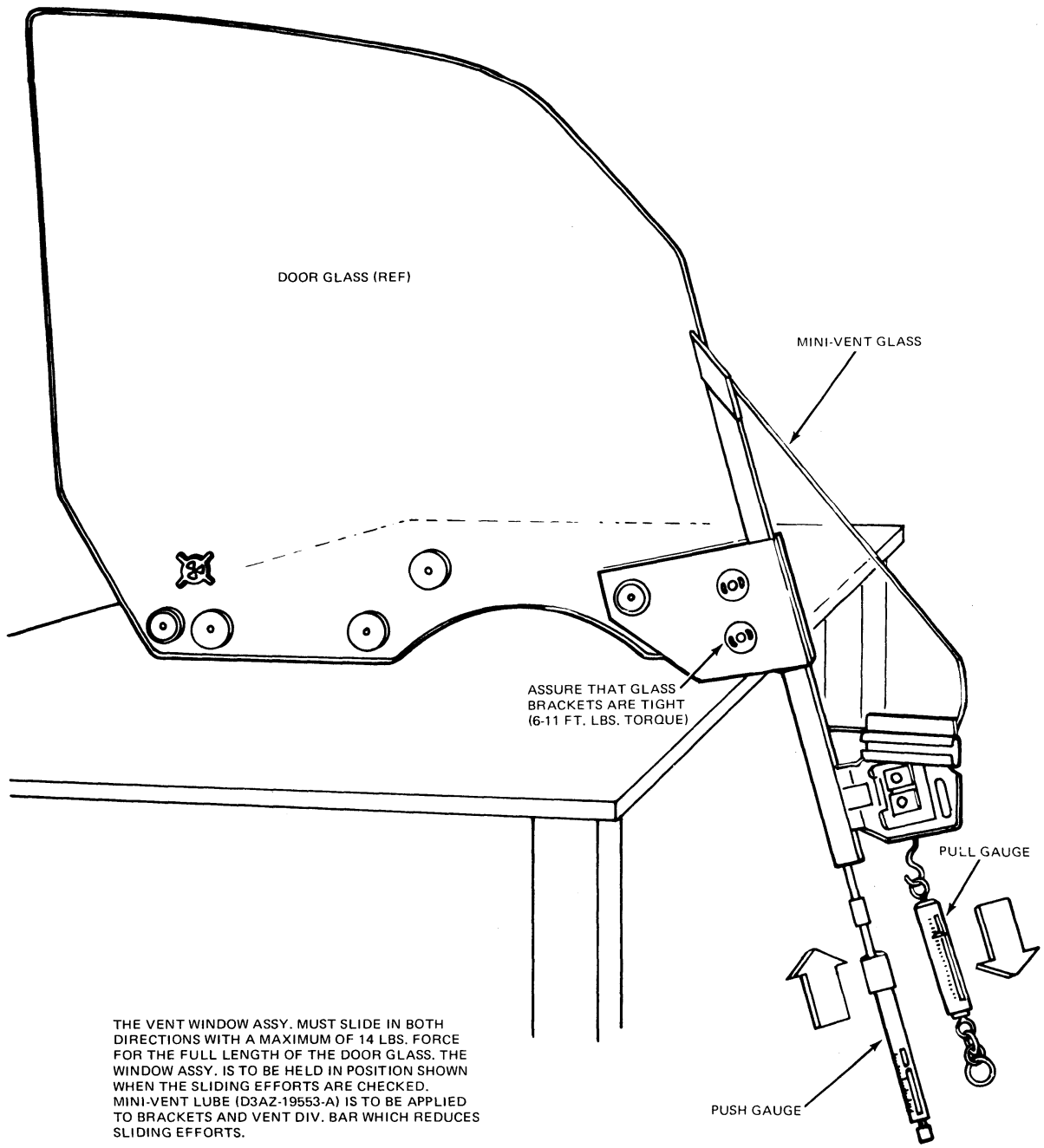
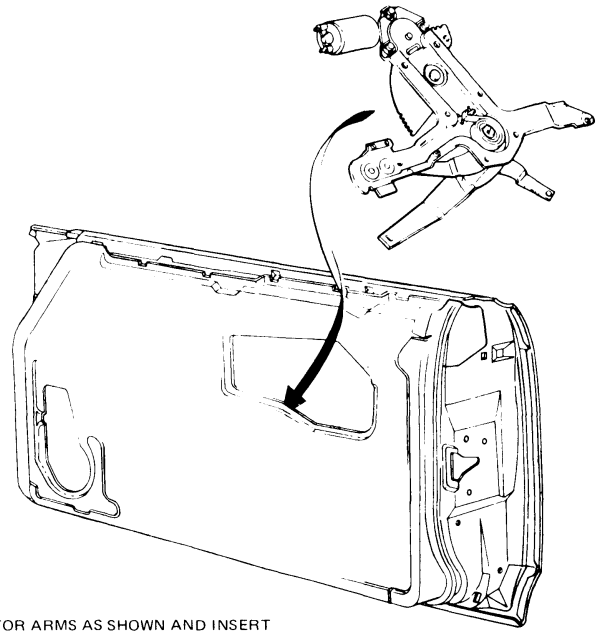


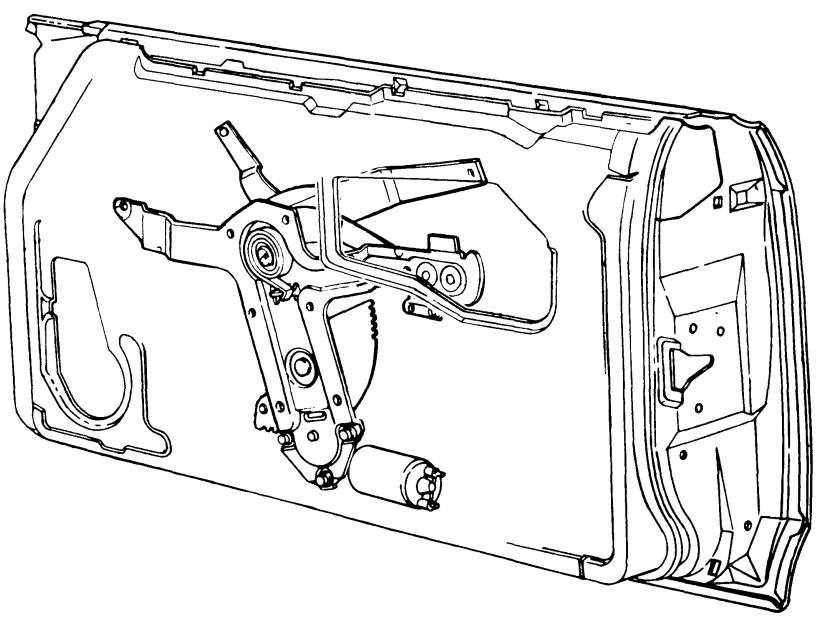
FIG. 16 Checking Sliding Efforts—Mini-Vent



POSITION THE REGULATOR ARMS AS SHOWN AND INSERT THE REGULATOR THROUGH THE ACCESS HOLE IN THE DOOR INNER PANEL UPSIDE DOWN AND GRADUALLY TURN TO UPRIGHT POSITION DURING INSTALLATION

N2523-A

FIG. 17 Inserting Window Regulator Into Door—Lincoln



POSITION REGULATOR ARMS TO INNER PANEL AS SHOWN AND INSTALL (9) SCREW & WASHER ASSEMBLIES (PART 57487-S2) TO ATTACH THE REGULATOR TO THE DOOR INNER PANEL. NOTE: ALL (9) SCREW AND WASHER ASSEMBLIES MUST BE INSTALLED WITH THE HEAD OF THE SCREW ON THE REGULATOR AND MOTOR SUPPORT PANEL SIDE OF THE DOOR INNER PANEL.

N2524-A

FIG. 18 Installing Window Regulator—Lincoln

Installation

1. Position the vent window guide in the door and attach to the inner panel using a 1/4-20 x 1/2 inch screw and washer assembly and a matching nut and washer.
2. Install the vent guide adjusting screw into the hinge face of the door. Do not tighten this screw until the glass installation is complete and the entire glass system is cycled to the down position.
3. Install the vent and door glass assembly and adjust the system.

DOOR WINDOW RUN AND/OR GUIDE

Removal

1. Remove the door trim panel and watershield.
2. Remove the three (3) glass-to-glass bracket retaining rivets.
3. Support the glass and remove the run upper and lower attaching screws.
4. Disengage the glass from the glass bracket and remove the run, glass bracket and guide from the door as an assembly.
5. Remove the run from the guides, and the guide from the glass bracket.

Installation

1. Assemble the glass bracket,guide and glass run.
2. Position the glass run in the door and install the two attaching screws after feeding the regulator roller into the glass bracket C-channel.
3. Position the glass-to-glass bracket and assemble with three (3) 1/4-20 x 1 inch bolts and matching nuts and washers. The regulator arm can be moved to gain access to the attaching points. Tighten the nuts to Specification.
4. Adjust the run and guide as outlined in the Adjustment Section of this Part.
5. Install the watershield and the door trim panel.

DRIVE AND/OR MOTOR

Removal

1. Remove the door trim panel and watershield.
2. Drill a 3/4 inch diameter hole at the dimple located near the bottom edge of the door opposite the window motor drive. **The hole saw pilot should be as short as possible, about 1/4 inch beyond the saw.**
3. Disconnect the motor wires at the connector.
4. Working through the two existing holes and the drilled hole, remove the three (3) motor and drive-to-regulator attaching screws. Separate the motor and drive from the regulator and remove the motor and drive from the door.

Installation

1. Position the motor and drive in the door and to the regulator. Install the three attaching screws just snug, not tight.
2. Connect the motor wires at the connector and cylce the glass to be sure of gear engagement. When the gears are engaged, tighten the three motor and drive attaching screws.
3. Install the watershield and the door trim panel.

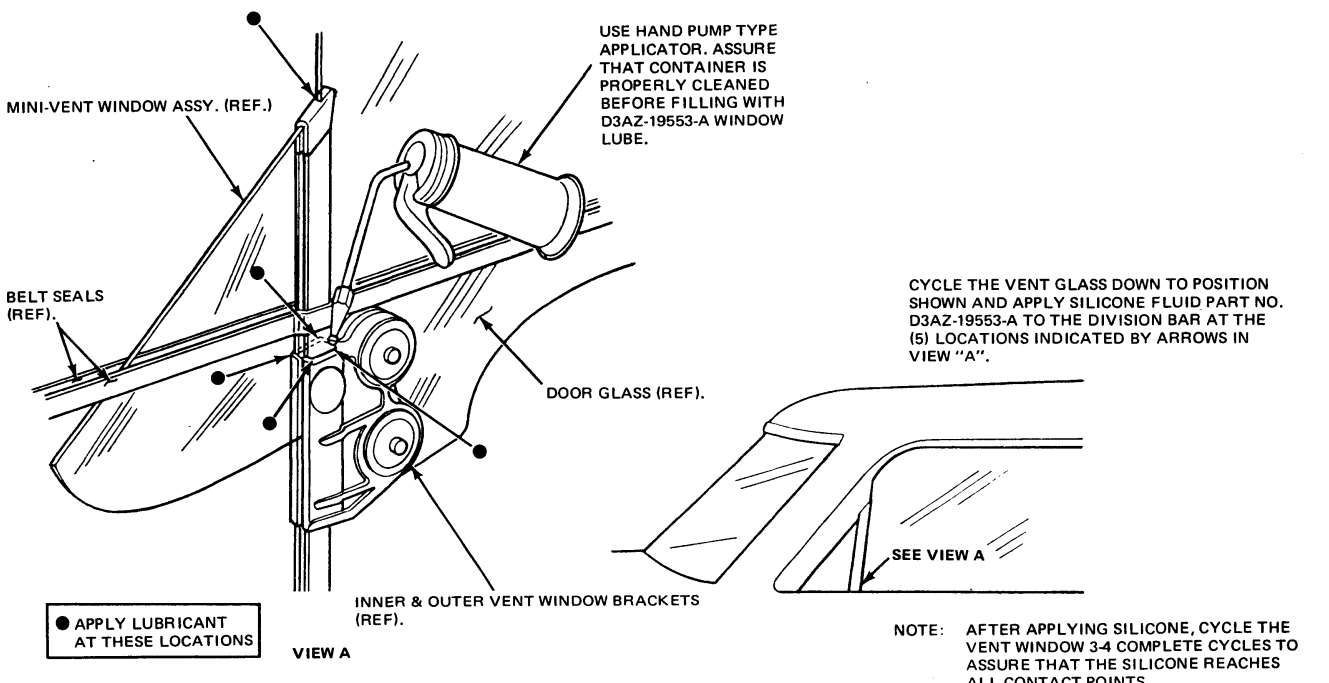


FIG. 19 Mini-Vent Window Lubrication

SPECIFICATIONS

Description	Torque	Description	Torque
Glass Stop Attaching Screw ①	6-11 ft-lb	Motor Bracket-to-Motor	13-32 in-lb
Run Attaching Screws	6-11 ft-lb	Motor Bracket and/or Regulator to-Inner Panel ①	6-11 ft-lb
Stabilizer Attaching Screws	6-11 ft-lb	Guide-to-Glass Bracket	6-11 ft-lb
Regulator Arm Roller Attachment	6-11 ft-lb		
Upper Stop Bracket	6-11 ft-lb	Glass-to-Glass Bracket ①	6-11 ft-lb

①Riveted in Production

CN 2474-A

Dual U-Run Rear Door Window Mechanism

PART 42-21

SUBJECT	PAGE
ADJUSTMENTS	21-1
REMOVAL AND INSTALLATION	
Glass	21-1
Glass Run	21-2
REMOVAL AND INSTALLATION (Cont'd.)	
Regulator	21-2
SPECIFICATIONS	21-3

CR2025-A

ADJUSTMENTS

1. Remove the door trim panel and watershield.
2. Loosen the window mechanism adjusting screws (Items A, B, C, and D, Fig. 1).
3. Raise the glass to the UP position. Then, tighten the front run retainer attaching screw (Item A) and the equalizer arm attaching screw (Item B) to specification.
4. Lower the glass until the top edge is approximately 4 inches above the belt line. Then, tighten the front run retainer lower attaching screw (Item C) to specification.
5. Position the rear run retainer and division bar firmly against the glass, and tighten the attaching screw (Item D) to specification.
6. Check the window mechanism operation. Then, install the watershield and door trim panel.

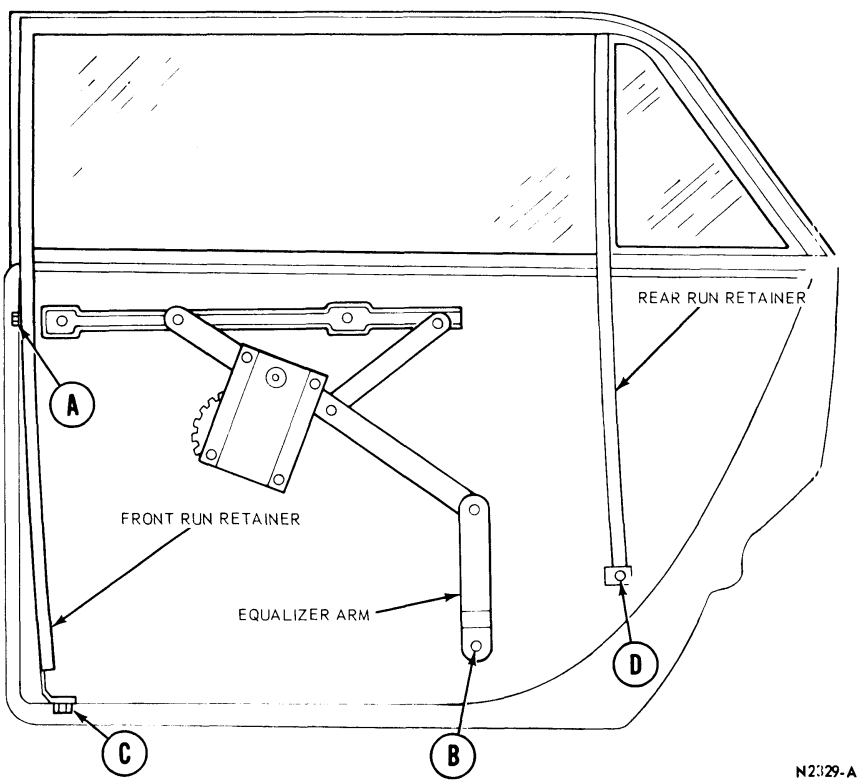


FIG. 1 Rear Door Window Mechanism Adjustment—Maverick and Comet

REMOVAL AND INSTALLATION

GLASS

Removal

1. Remove the door trim panel and watershield.
2. Remove the front run retainer upper and lower attaching screws (Fig. 2). Then, pull the retainer from the run and lay the retainer in the bottom of the door.
3. Remove the rear run retainer lower attaching screw.
4. Lower the glass and remove the rear run retainer and division bar upper attaching screw (Fig. 2).
5. Loosen the rear run retainer and division bar from the stationary glass weatherstrip.
6. Remove the stationary glass from the door.
7. Remove the rear run retainer and division bar from the door.
8. Remove the glass front and rear retainers by pushing the center pin from the retainer with a small drift punch (Fig. 3). Support the glass and pry the retainer from the drive arm bracket and glass by inserting a screwdriver behind the glass retainer flange.

Installation

1. Position the glass in the door and to the regulator arm bracket. Install the two bracket-to-glass retainers (Fig. 3). Then, insert the center pin into each retainer until it is flush with the retainer flange.
2. Lower the glass and insert the rear run retainer and division bar in the door.
3. Apply silicone lubricant (D3AZ-19553-A) or equivalent to the

stationary glass weatherstrip. Install the glass and weatherstrip in the door. Then, move the run retainer and division bar into position and install the upper attaching screw.
4. Install the front run retainer.
5. Install the front and rear runs in the retainers.
6. Install the rear run retainer lower attaching screw. Then, adjust the window mechanism as outlined in the Adjustment Section.
7. Install the watershield and door trim panel.

REGULATOR

Removal

1. Remove the door trim panel and watershield.
2. Remove the front and rear glass retainers by pushing the center pin from the retainer with a small drift punch (Fig. 3). Support the glass and pry the retainer from the drive arm bracket and glass by inserting a screwdriver behind the glass retainer flange.
3. Remove the screw attaching the regulator equalizer arm to the door inner panel.
4. Remove four regulator attaching screws, and remove the regulator from the door.

Installation

1. Position the regulator to the door inner panel and install the attaching screws.
2. Position the equalizer arm to the door inner panel and install the attaching screw.
3. Position the regulator arm bracket to the regulator arm and the glass. Push the glass rear retainer into the hole. Then, install the glass retainer pin by pushing it into the retainer hole until the end of the pin is flush with the retainer flange (Fig.3). Install the front retainer the same way.
4. Adjust the window mechanism as outlined in the Adjustment Section.
5. Install the watershield and door trim panel.

GLASS RUN

Removal

1. Remove the trim panel and watershield from the door.
2. Remove the front run retainer attaching screws (Fig. 2), and remove the run from the retainer.
3. Remove the rear run retainer lower attaching screw (Fig. 2).

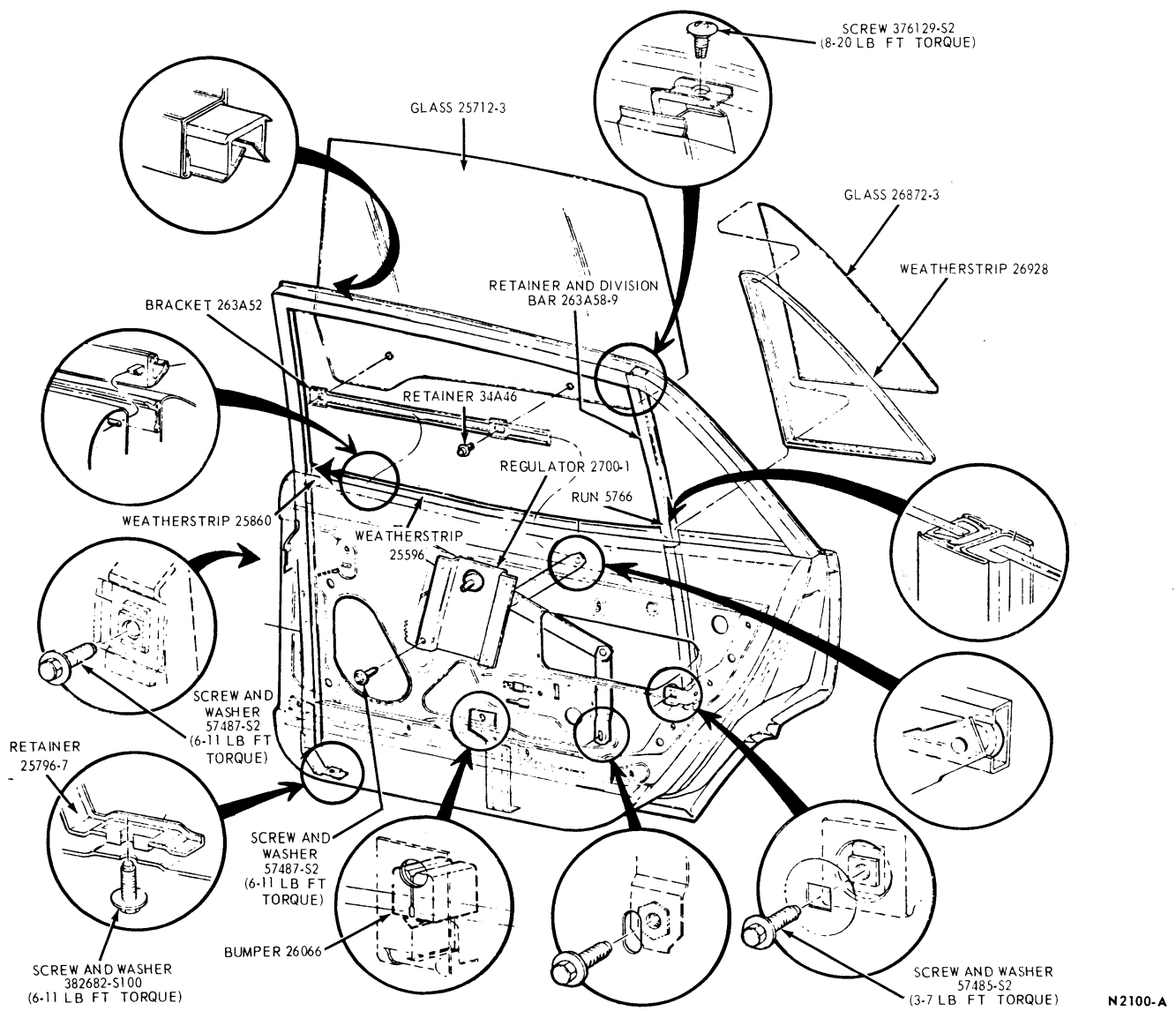


FIG. 2 Rear Door Window Mechanism—Maverick and Comet

4. Lower the glass and remove the rear run retainer and division bar upper attaching screw.
5. Loosen the stationary glass from the division bar, and remove the glass from the door.
6. Pull the glass run from the door.

Installation

1. Position the glass run to the door and press firmly into the door frame.
2. Apply silicon lubricant to the stationary glass weatherstrip, and install the glass and weatherstrip in the door.
3. Move the rear run retainer and division bar into position and install the upper attaching screw (Fig. 2).
4. Press the run firmly into the rear run retainer.
5. Install the front run retainer and insert the run into the retainer.
6. Install the rear run retainer lower attaching screw.
7. Adjust the window mechanism as outlined in the Adjustment Section.
8. Install the watershield and door trim panel.

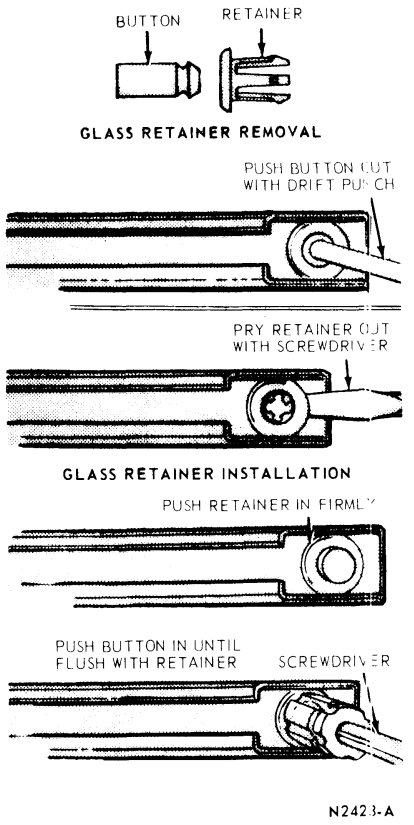


FIG. 3 Glass Retainer Removal and Installation

SPECIFICATIONS

DUAL U-RUN REAR DOOR WINDOW MECHANISM TORQUE SPECIFICATIONS

Description	Torque
Rear Run Lower	3-7 ft-lb
Rear Run Upper	6-11 ft-lb
Front Run	6-11 ft-lb
Equalizer Arm	8-20 in-lb
Window Regulator	6-11 ft-lb

CN2443-B

Single Tubular Run Rear Door Window Mechanism

PART 42-24

SUBJECT	PAGE
ADJUSTMENTS	24-1
REMOVAL AND INSTALLATION	
Glass	24-2
Guides	24-2
Regulator	24-2
REMOVAL AND INSTALLATION (Cont'd.)	
Run	24-2
Window Drive	24-2
Window Motor	24-2
SPECIFICATIONS	24-6

ADJUSTMENTS

CR2026-A

Thunderbird, LTD II, Cougar, Ford, Mercury, and Lincoln Continental

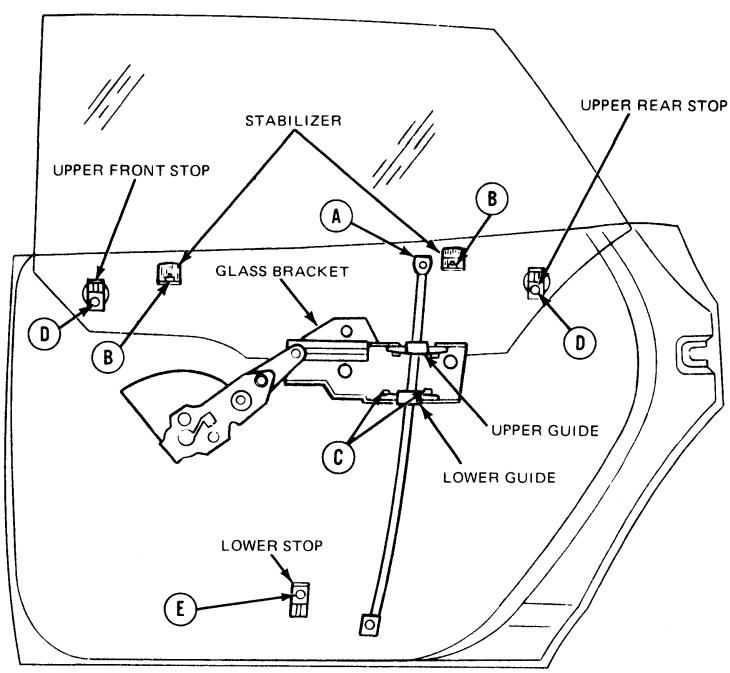
Separate adjustment steps are given for each adjustment so that a partial glass adjustment can be performed. If a complete glass adjustment is required, follow the adjustments in the order given. All window mechanism adjustments must be performed with the door trim panel and watershield removed. After the adjustment(s) are completed, install the watershield and trim panel.

Glass Position—Fore and Aft

It is necessary to reposition the glass in the opening if the glass has been removed or if extreme door hinge adjustments are performed. To reposition the glass, loosen the run upper attaching screw (Item A, Fig. 1), and reposition the glass. Tighten the screw after glass is moved to desired position.

Stabilizer Adjustment

The stabilizers are used to support the glass at the belt line. The trim panel must be removed to adjust the stabilizers. Then, with the glass in the UP position, push the front stabilizer firmly against the glass surface and tighten the attaching screw (Item B, Fig. 1). Repeat the procedure for the rear stabilizer.



N2319-D

FIG. 1 Single Tubular Run Rear Door Window Mechanism Adjustment

Glass In-Out

The in-out adjustment is used to obtain a good seal with the weatherstrip at the top edge of the glass. This adjustment is made by repositioning the lower guide with respect to the glass bracket. To adjust the in-out of the glass, loosen the two guide lower attaching screws (Item C, Fig. 1), and move the top edge of the glass inward or outward as required to obtain a good seal with the weatherstrip. Then, tighten the guide attaching screws to 6-11 ft-lbs torque.

Upper Stop Adjustment

The upper stop adjustment is used to limit the up travel of the glass to maintain a constant glass height when the glass is raised to the full closed position. The door trim panel must be removed to adjust the up stops. To adjust the stops, raise the window to the UP position. Check to be sure that there is no interference when the door is opened. Then, position the up stop brackets down against the glass stops, and tighten the stop bracket attaching screw (Item D, Fig. 1). Use this procedure for both the front and rear upper stops.

Lower Stop Adjustment

The lower stop is used to control the depth the glass can be lowered into the door. To adjust the lower stop, remove the door trim panel. Loosen the lower stop retaining screw (Item E, Fig. 1), and lower the glass until the top edge is flush to 1/4 inch above the outer panel. Then, lift the stop against the glass bracket and tighten the retaining screw.

GRANADA AND MONARCH

1. Secure upper and lower division bar attachment after it is positioned as far rearward as possible (Fig. 2).
2. Run glass into frame to the full **UP** position.
3. Secure nut and washer assembly at top of run assembly. Torque to 6-11 ft-lbs.

4. Secure nut and washer assembly at bottom of run assembly. Torque to 6-11 ft-lbs.
5. Run glass down and up to check for binding.
6. If binding occurs, loosen bottom attachment of tube, run glass to 1 inch from **UP** position. Adjust bottom attachment inboard or outboard (in opposite direction of binds) to remove binds. Secure all attachments.

REMOVAL AND INSTALLATION

GLASS

Removal

1. Remove the door trim panel and watershield.
2. Remove the upstops from the door inner panel.
3. Support the glass and remove the glass-to-glass bracket attaching rivets. Remove the center pin from the rivets with a drift punch. Drill the head from each rivet with a 1/4 inch drill. Remove the rivets and glass-to-glass bracket. (See Figs. 2, 3, 4 and 5.)
4. Loosen the front and rear stabilizer attaching screws, and move the stabilizers away from the glass. (Figs. 3, 4 and 5.)
5. Remove the glass support and remove the glass from the door.

Installation

1. Position the glass in the door, and position the glass bracket to the glass. Install 1/4-20x1 inch hex head bolts and 1/4-20 hex nuts to attach the glass bracket to the glass. Tighten the bolts and nuts to specification. (See specifications at end of this Part.)
2. Install the upper front and rear stops on the inner panel with attaching bolts with 1/4-20x1 inch hex head bolts and 1/4-20 hex nuts. Tighten the bolts and nuts to specification.
3. Adjust the glass to fit the opening and adjust the stabilizers as outlined in the Adjustment Section.
4. Install the watershield and trim panel on the door.

WINDOW REGULATOR

Removal

1. Remove the door trim panel and watershield and support the glass in the UP position.
2. If equipped with electric windows (except Ford, Mercury, Thunderbird, Lincoln Continental and Continental Mark V), remove the center pin from the motor bracket to inner panel attaching rivet with a drift punch. Then drill the head from the rivet with a 1/4 inch drill and remove the rivet. Disconnect the motor wires at the connector.
3. Remove the center pin from the regulator attaching rivets with a drift punch. Then drill the head from the regulator attaching rivets with a 1/4 inch drill.
4. Disengage the regulator arm from the glass bracket, and remove the regulator from the door.
5. If equipped with power windows, mount the regulator assembly in a vise. Drill a 5/16 inch hole through the regulator sector gear and the regulator plate. Install a 1/4 inch bolt and nut in the hole to prevent the sector gear from moving when the motor and drive assembly is removed. Remove the motor and drive from the regulator. Install the motor and drive on a new regulator.

Installation

1. Lubricate the window mechanism as outlined in Part 42-01.
2. Install nut and retainer assemblies on the regulator mounting plate and motor support bracket at the rivet attaching holes.
3. Position the window regulator into the door and insert the regulator arm roller into the glass bracket channel.
4. Position the regulator to the inner panel, and install 1/4-20x1/2 inch screw and washer assemblies to attach the regulator to the inner panel. Tighten the screws securely.
5. If equipped with electric windows, install a 1/4-20x1/2 inch screw and washer assembly to attach the motor bracket to the inner panel (except Ford, Mercury, Thunderbird, Lincoln Continental and Continental Mark V). Connect the motor wires at the connector.
6. Check the operation of the window mechanism. Then, install the watershield and trim panel on the door.

WINDOW MOTOR AND/OR DRIVE

Removal

1. Remove the trim panel and watershield.
2. Disconnect the motor wires at the multiple connector.
3. All models except Ford, Mercury, Thunderbird, Lincoln Continental and Continental Mark V have holes punched in the door panel for motor and drive removal. On models without access holes, use the dimples located on the inner door panel to drill three 3/4 inch holes in the door for access to the motor and drive attaching screws. The holes should be drilled with the glass in the **UP** position. The hole saw pilot drill should be as short as possible, about 1/4 inch beyond the saw.
4. Working through the 3/4 inch holes, remove the three motor and drive-to-regulator attaching screws. Remove the motor and drive from the door.

Installation

1. Position the motor and drive to the regulator and install the three screws **just snug—not tight.**
2. Connect the motor wires at the connector and cycle the glass to assure gear engagement. After the gears are engaged, tighten the three motor and drive attaching screws.
3. Check the window operation and install body tape over the drilled hole (Ford, Mercury, Thunderbird, Lincoln Continental and Continental Mark V). Then, install the watershield and trim panel.

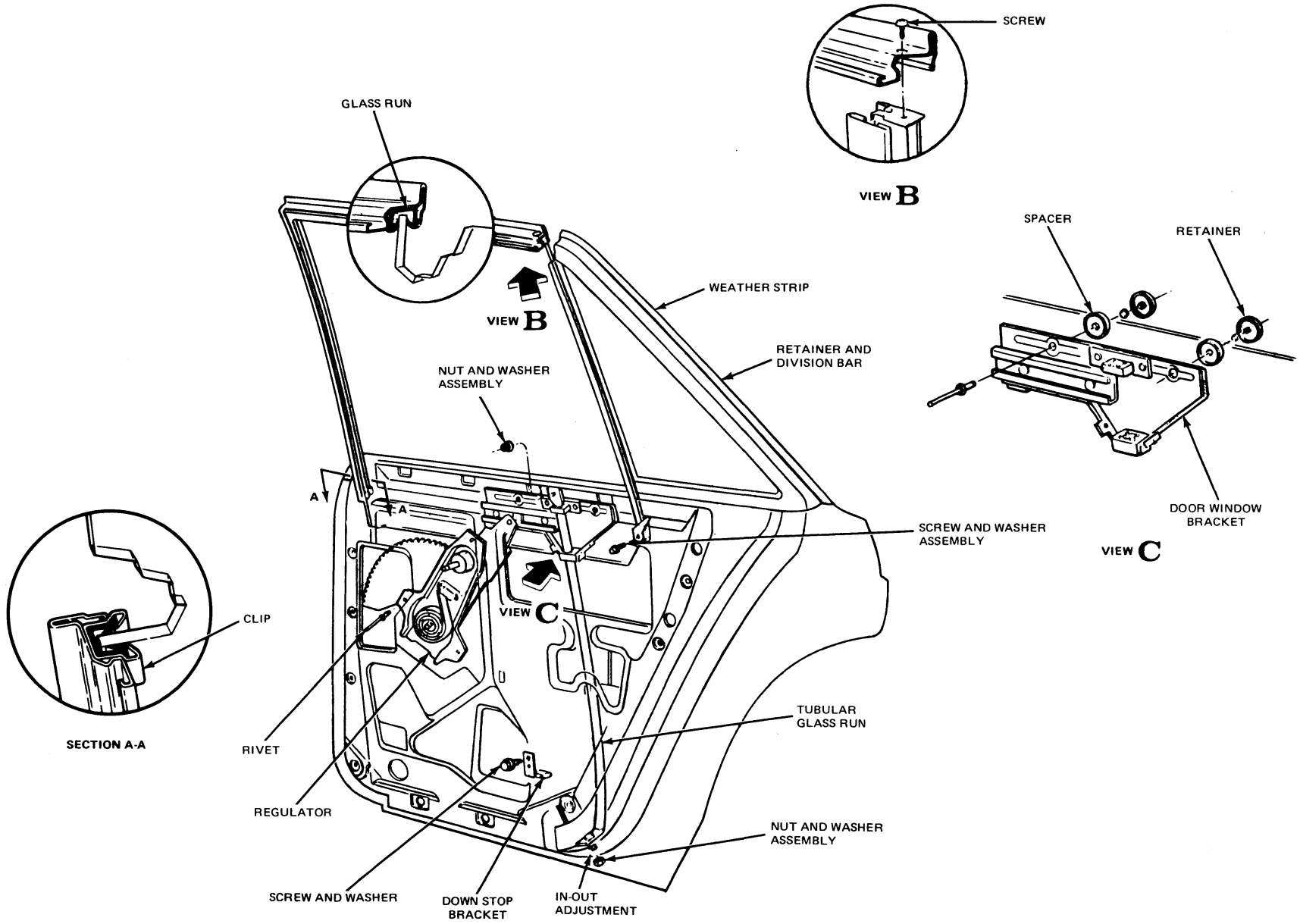
RUN AND/OR GUIDES

Removal

1. Remove the trim panel and watershield from the door.
2. Support the glass and remove four screws attaching the upper and lower guides to the glass bracket (Figs. 2, 3, 4 and 5).
3. Remove the run upper and lower attaching screws, and remove the run and guides from the door.
4. Remove the guides from the run (Figs. 2, 3, 4 and 5).

Installation

1. Assemble the guides on the run making sure they are in the correct order (Figs. 2, 3, 4 and 5).
2. Position the run in the door and the guides to the glass bracket.
3. Install the run upper and lower attaching screws, and the guide attaching screws.
4. Adjust the run and guides as outlined in the Adjustment Section.
5. Install the watershield and door trim panel.



N2514-B

FIG. 2 Adjustment Points—Granada and Monarch Rear Door

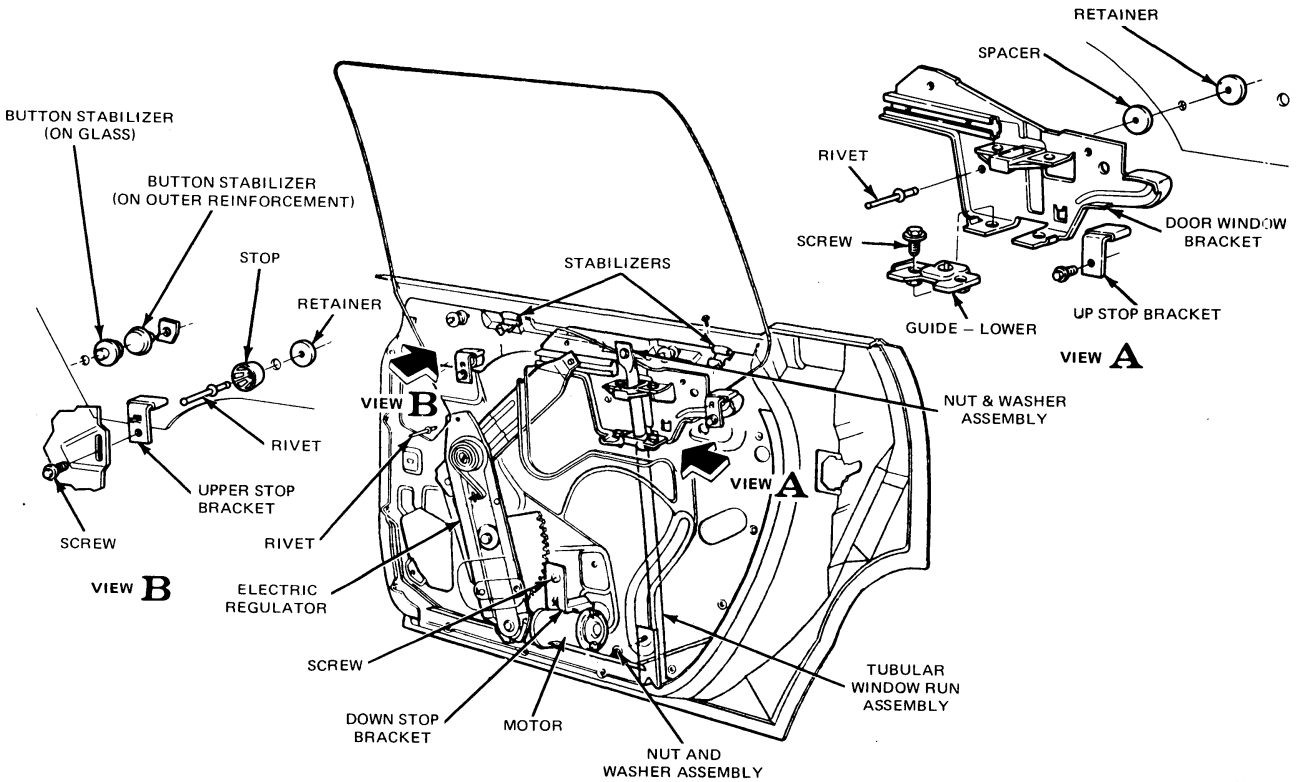


FIG. 3 Rear Door Window Mechanism—Lincoln

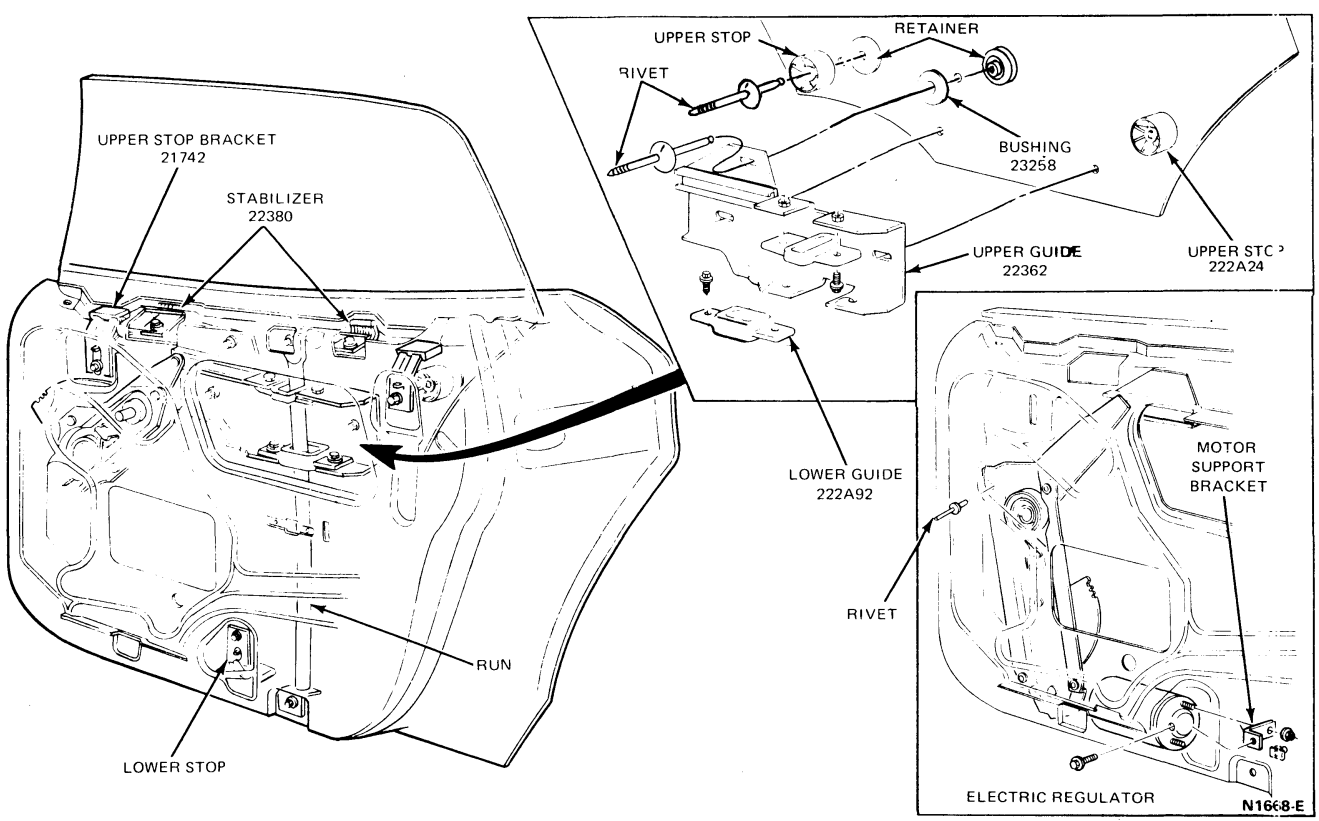
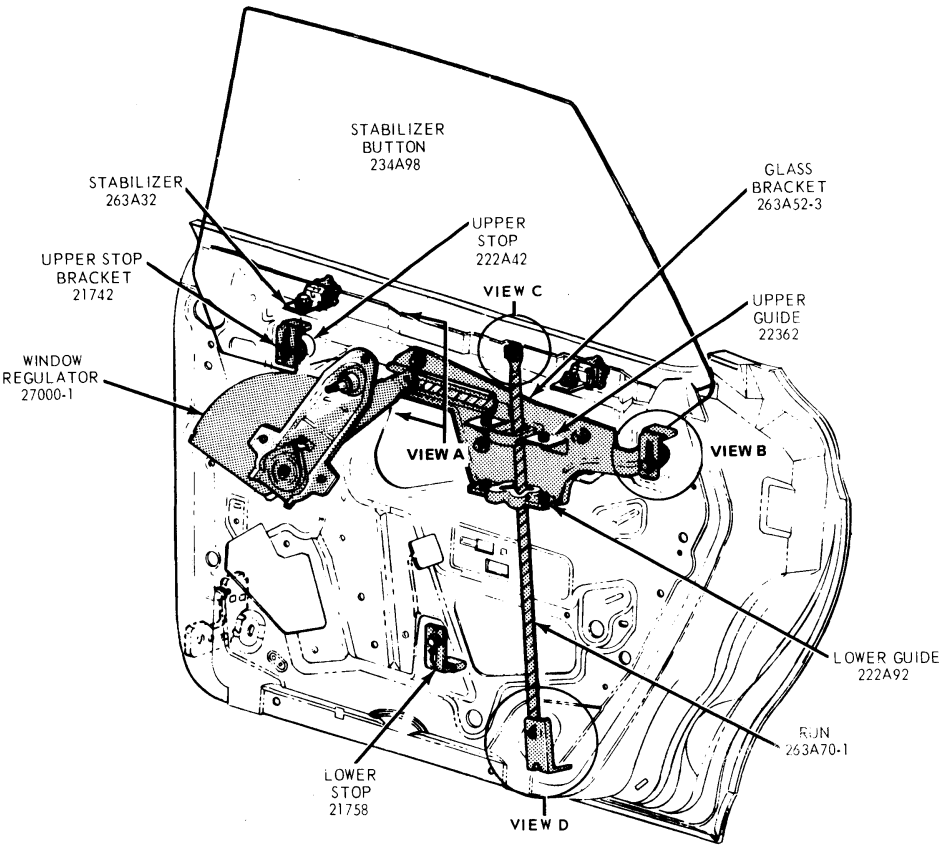


FIG. 4 Rear Door Window Mechanism—Thunderbird, LTD II and Cougar



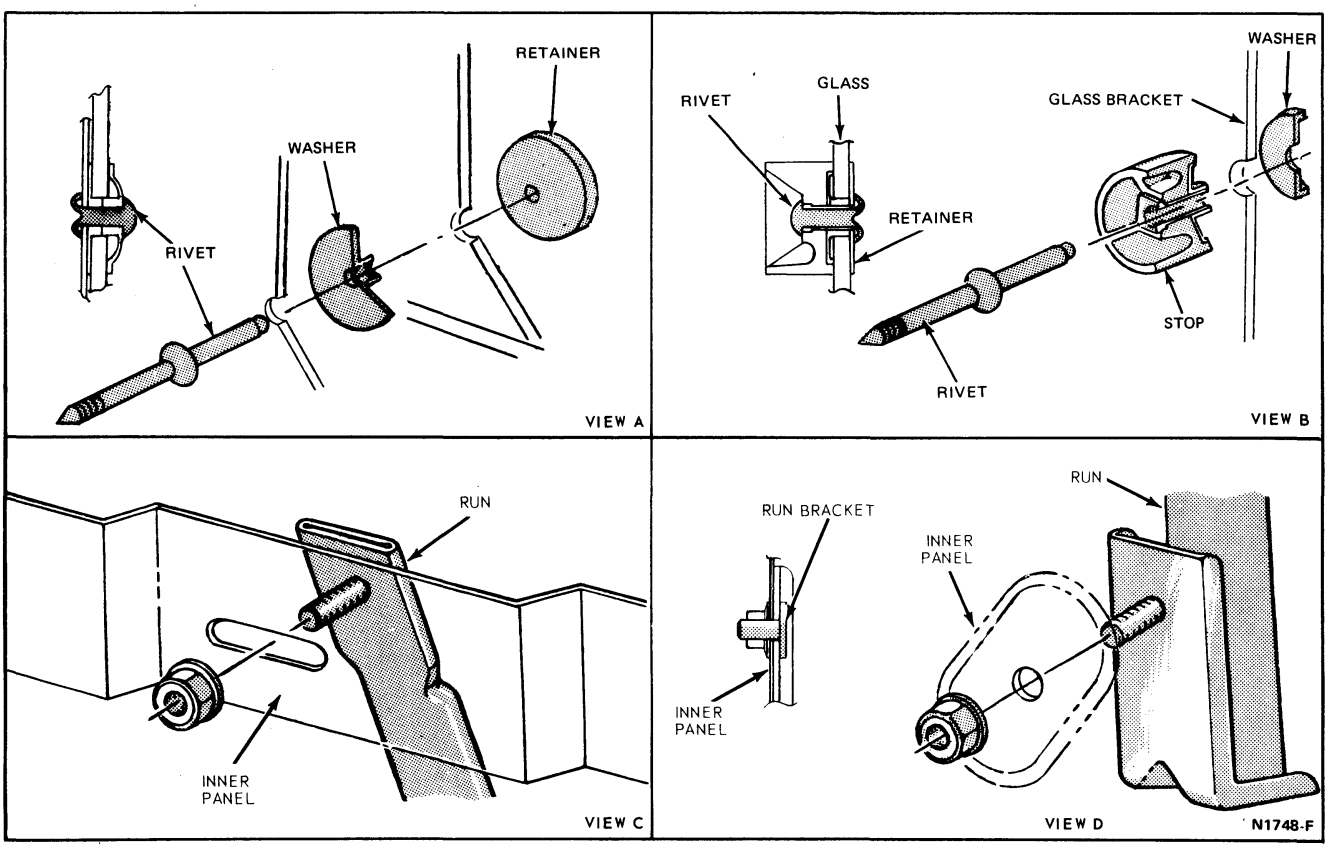


FIG. 5 Rear Door Window Mechanism—Ford and Mercury

SPECIFICATIONS

SINGLE TUBULAR RUN REAR DOOR WINDOW MECHANISM TORQUE SPECIFICATIONS

Description	Torque
Glass Stop Attaching Screw ①	6-11 ft-lb
Run Attaching Screws	6-11 ft-lb
Stabilizer Attaching Screws	6-11 ft-lb
Upper Stop Bracket	6-11 ft-lb
Motor Bracket-to-Motor	13-32 in-lb
Motor Bracket and/or Regulator-to-Inner Panel ①	6-11 ft-lb
Guide-to-Glass Bracket	6-11 ft-lb
Glass-to-Glass Bracket ①	6-11 ft-lb

① Rivets are used in production.

CN2445-B

Pivot Type Quarter Window

PART 42-33

SUBJECT	PAGE
REMOVAL AND INSTALLATION	
Glass	33-1
Hinge	33-3
Latch	33-3
REMOVAL AND INSTALLATION (Cont'd.)	
Quarter Window Assembly	33-3
Weatherstrip	33-3

CR2027-A

REMOVAL AND INSTALLATION

Refer to Part 43-01 for fixed Quarter Windows.

GLASS

Maverick and Comet

Removal

1. Pry off the latch bracket cover (Fig. 1).
2. Remove the latch bracket retaining screws.
3. Peel back the weatherstrip to gain access to the window hinge retaining screws (Fig. 1). Remove the retaining screws and remove the glass from the vehicle.
4. Push the pin attaching the latch to the latch retainer (Fig. 1) with a drift punch.
5. Remove the retainer nut from the latch retainer, and remove the retainer and bushings from the glass.

Installation

1. Install the latch on the glass.
2. Position the window glass in the window opening and install the glass hinge retaining screws.
3. Install the latch bracket retaining screws.
4. Install the latch bracket cover.

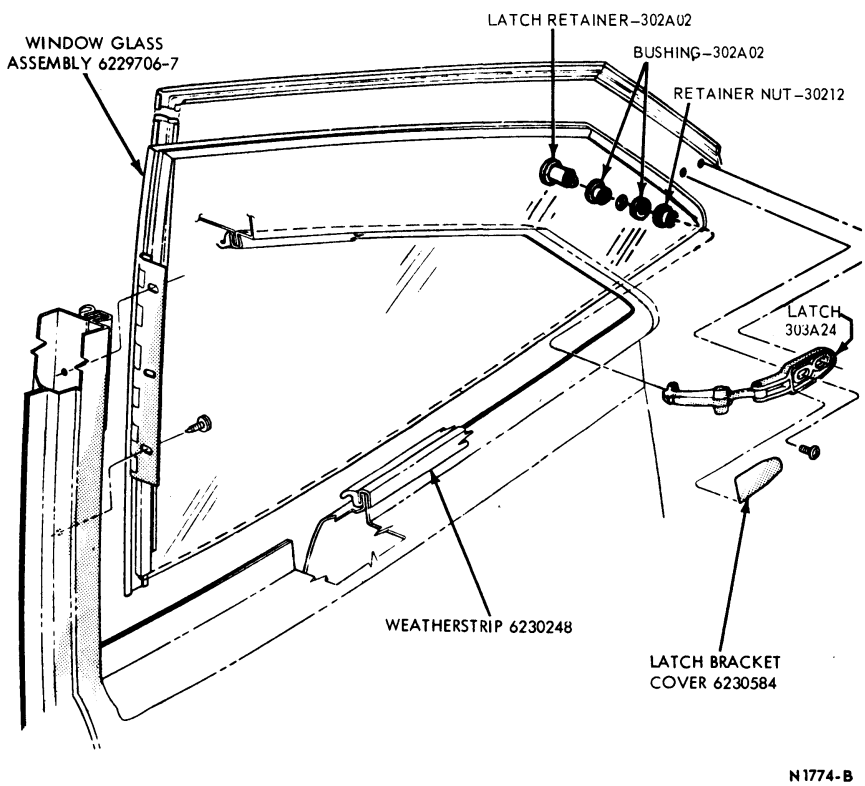


FIG. 1 Quarter Window Installation—Maverick and Comet

Pinto and Bobcat (Except Wagon)

Removal

1. Remove the latch trim cover (Fig. 2).
2. Remove two screws attaching the latch to the roof side.
3. With an assistant, press on each side of the hinge, and pull the hinge from the body. Repeat this procedure for the other hinge.
4. Push the hinge pin from each hinge with a small diameter rod inserted through the hole in the bottom of the hinge. Then, remove the hinges from the glass frame.
5. Remove pin from the latch bolt and latch. Remove the latch from the bolt.
6. Remove the latch bolt and nut from the glass.

Installation

1. Install the latch bolt and nut on the glass.
2. Position latch to the latch bolt and install the pin.
3. Position the hinges to the glass and install the hinge pins. The large hole in the hinge must be on top when installed.
4. Position the glass and hinges to the body. Press the hinges firmly into place.
5. Position the latch to the roof side rail and install the two attaching screws.
6. Install the latch trim cover.

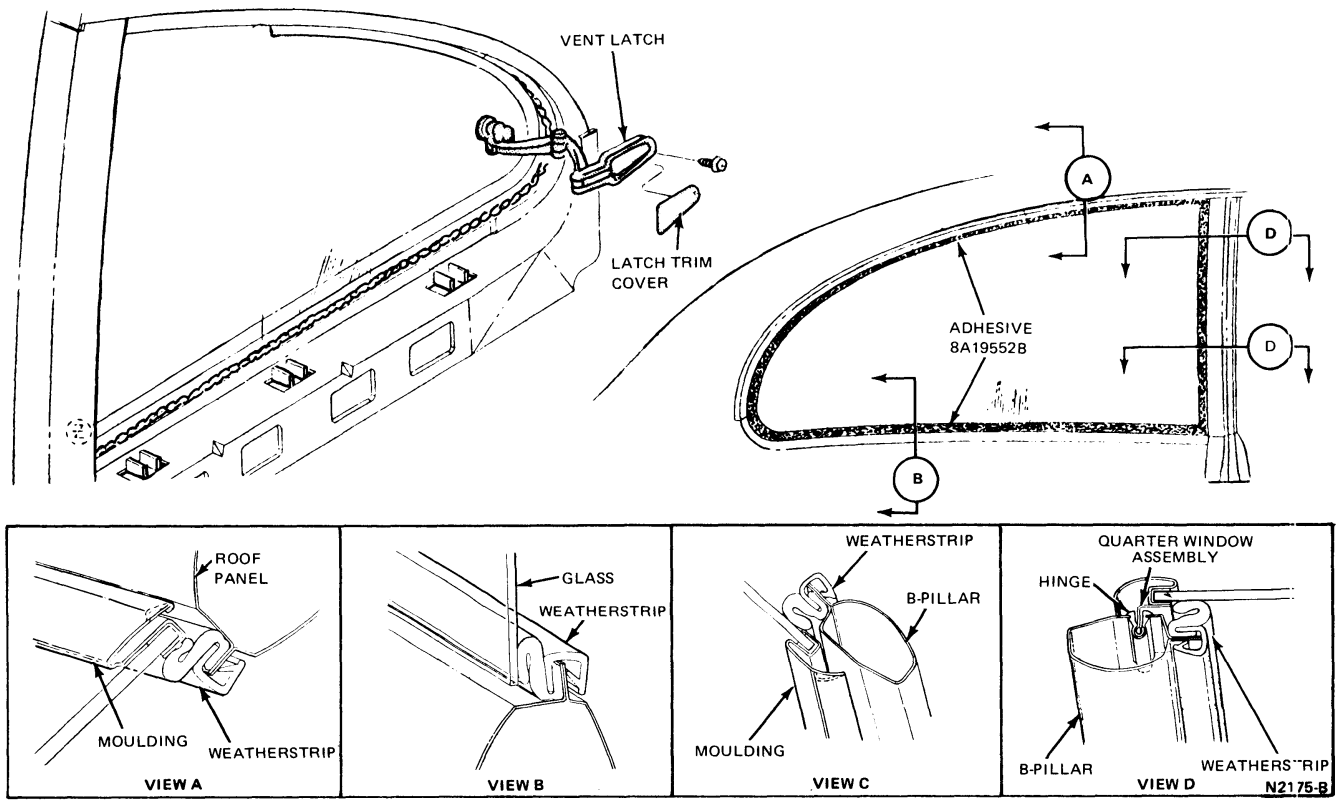


FIG. 2 Quarter Vent Window—Pinto and Bobcat (Except Wagon)

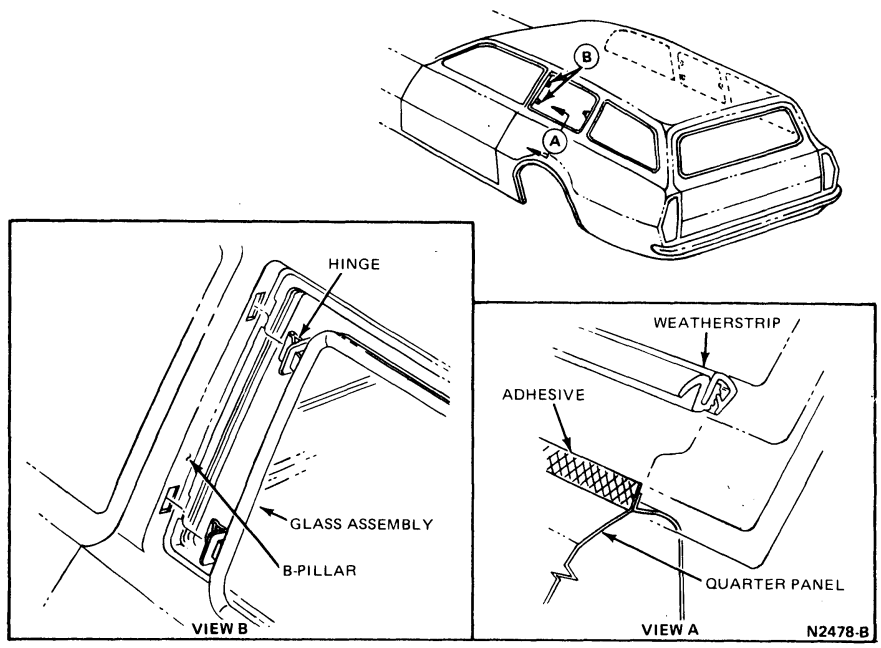


FIG. 3 Pinto and Bobcat Station Wagon Quarter Window

Pinto and Bobcat Wagon

Removal

1. Mark the position of the latch on the body. Then, remove three screws attaching the latch to the body (Fig. 3).
2. With an assistant, depress each side of the hinge, and pull the hinge from the body. Repeat this procedure for the other hinge.
3. Push the hinge pin from each hinge with a small diameter rod inserted through the hole in the bottom of the hinge. Then, remove the hinges from the glass frame.
4. Remove the latch from the glass.

Installation

1. Install the latch on the glass.
2. Position the hinges to the glass and install the hinge pins. The large hole in the hinge must be on the top when installed.
3. Position the hinges to the body and press them firmly into place.
4. Position the latch to the body in the exact same location as it was before being removed. Failure to properly position the latch could result in glass failure.
5. Install the three latch attaching screws.

WEATHERSTRIP

Maverick, Comet, Pinto and Bobcat

1. Remove the vent window assembly.
2. Pull the weatherstrip from the vent window opening.
3. Clean all adhesive from the quarter window opening flange.
4. Apply a bead of adhesive (19552) to the entire window opening on the outside of the window opening flange.
5. Apply a soap solution to the inner side of the window opening flange.
6. Install the weatherstrip in the window opening making sure the weatherstrip is seated over the flange.
7. Install the vent window assembly and clean all excess adhesive and soap solution from the window opening area.

HINGE

Maverick and Comet

Removal

1. Pry off the latch bracket cover (Fig. 1).

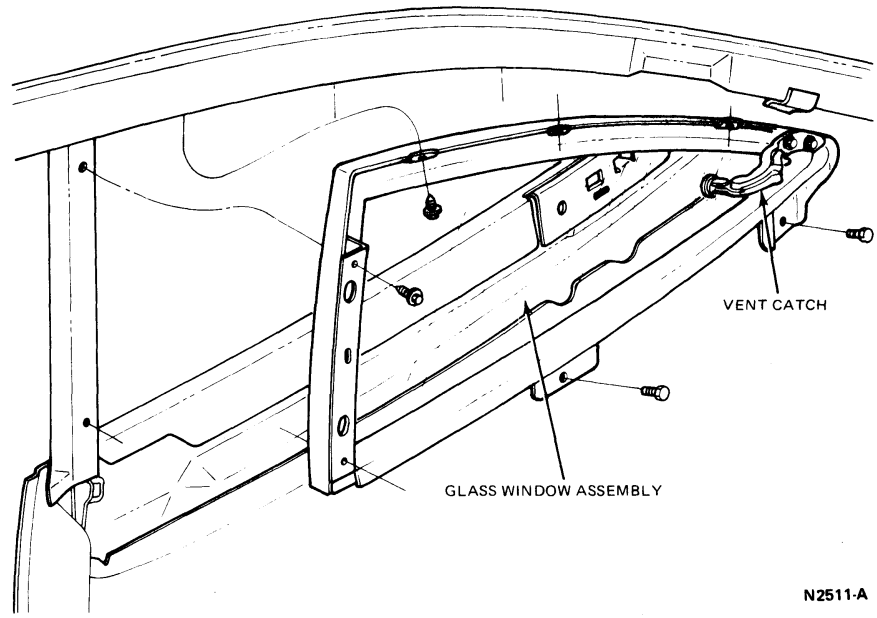


FIG. 4 Quarter Window—Mustang 3-Door Model

2. Remove the two latch bracket retaining screws.
3. Peel back the weatherstrip to gain access to the window hinge attaching screws (Fig. 1). Remove the hinge attaching screws and remove the glass and hinge from the vehicle.
4. Remove the moulding and hinge assembly from the glass.

Installation

1. Install the moulding and hinge assembly on the glass.
2. Position the glass in the opening and install the hinge attaching screws.
3. Position the latch to the body and install the two attaching screws.
4. Install the cover on the latch bracket.

LATCH

1. Remove the latch trim cover (Fig. 1 and 2).
2. Remove two screws attaching the latch to the roof side.
3. Remove the pin from the latch retainer and latch at the glass. Then, remove the latch from the retainer.
4. Position the latch to the retainer and install the pin.
5. Position the latch to the roof side, and install the two attaching screws.
6. Install the latch trim cover.

QUARTER WINDOW ASSEMBLY

Mustang

The Mustang 3-Door Model quarter window is replaced as a window assembly (Fig. 4).

Removal

1. Remove the window upper retaining screws (3).
2. Remove the window front retaining screws (3).
3. Remove the window lower retaining bolts (2).
4. Remove the quarter window assembly.

Installation

1. Position the quarter window assembly and install the window lower retaining screws (2) hand tight.
2. Install the window front retaining screws (3).
3. Install the window upper retaining screws (3).
4. Position the quarter window, making certain that it is properly seated.
5. Tighten the screws and torque the window lower retaining bolts (2) to 6-11 ft-lbs.

Guide and Run Sliding Quarter Window Mechanism

PART 42-34

SUBJECT	PAGE	SUBJECT	PAGE
ADJUSTMENTS	34-1	REMOVAL AND INSTALLATION (Cont'd.)	
		Guide	34-3
REMOVAL AND INSTALLATION		Regulator	34-2
Glass	34-2	Run	34-3

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ADJUSTMENTS

Separate adjustment steps are given for each adjustment so that a partial glass adjustment can be performed. If a complete glass adjustment is required, follow the adjustments in the order given. All adjustments should be made after the door glass is properly adjusted and must be performed with the trim panel and watershield removed. After the adjustment(s) are completed, check the glass for air and water leaks and readjust if necessary. Then, install the watershield and quarter trim panel.

Weatherstrip lubricant or water can be used to inspect for proper sealing of glass against a weatherstrip. When the weatherstrip is wet, the area that contacts the glass will be dark black. Any area not contacting the glass will be a dull grey. Always check the glass for good sealing against the weatherstrip after adjusting the window mechanism.

Glass Position—Up and Down

The glass up and down adjustment is used to obtain a good seal with the roof weatherstrip on sliding glass mechanisms. To adjust, move the glass to the closed position. Loosen the guide front and rear attaching screws (Item A, Fig. 1). Move the glass up or down, as necessary, to position the top edge of the glass into the weatherstrip pocket. The glass front edge at the weatherstrip should be parallel to the door glass rear edge when properly positioned. Then, tighten the guide attaching screws.

Glass Stop Adjustments

The glass stop adjustment is used to limit the forward travel of the glass to maintain a constant position to the door glass when the quarter glass is closed. To adjust, loosen the stops attaching screws (Items B and C, Fig. 1). Move the quarter glass to the door glass to obtain a good seal position at the weatherstrip. With the glass in position, move the upper front stop rearward against the glass and tighten the attaching screw (Item B). Move the lower front stop rearward against the glass and tighten the attaching screw (Item C). Cycle the glass and check to be sure the stops are properly adjusted so that binding does not exist between the door and quarter glass when the door is opened and closed.

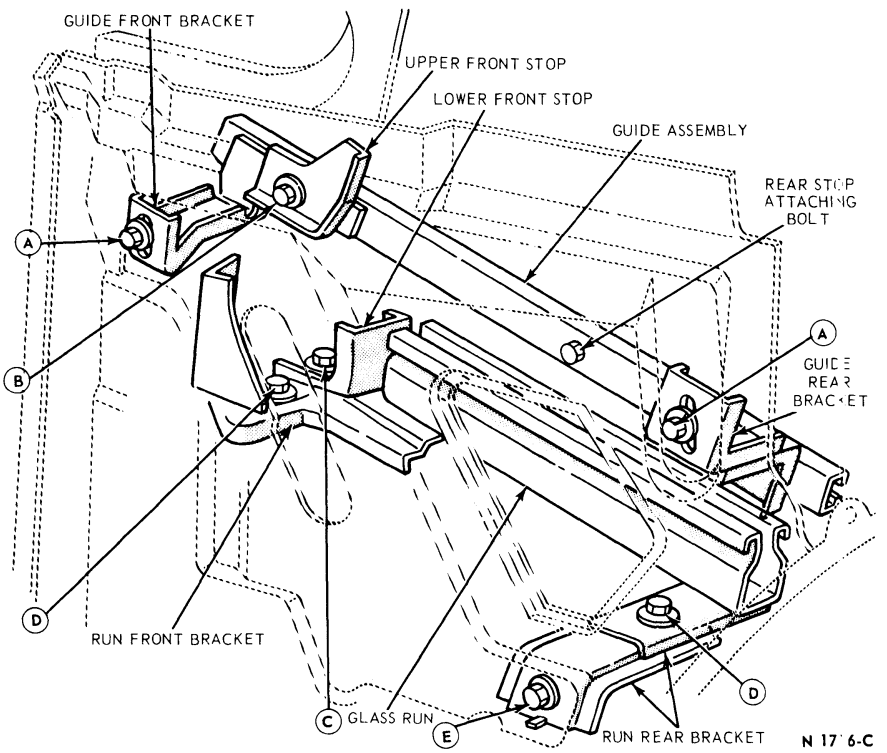


FIG. 1 Quarter Window Mechanism Adjustment—Typical

Glass In-Out Position

The in-out adjustment is used to match the quarter glass to the contour of the door glass, and obtain a good seal at the glass weatherstrip. To adjust, loosen the glass run front and rear bracket attaching screws (Items D and E, Fig. 1). Move the lower edge of the quarter glass in or out as necessary for proper alignment with the door glass. Then, tighten the run attaching screws (Items D and E).

REMOVAL AND INSTALLATION

GLASS

Removal

1. Remove the pressure relief valve from the quarter lock pillar.
2. Remove four screws attaching the dust seal to the quarter pillar at the belt line, and remove the seal.
3. Remove the quarter trim panel and watershield.
4. Remove two screws attaching the glass run and brackets to the inner panel (Fig. 2).
5. Remove two screws attaching the guide and brackets to the inner panel, and remove the rear stop from the guide (Fig. 2).
6. Remove two nuts retaining the drive arm bracket to the glass. Then, lower the glass and slide the guide off the glass rollers and remove the guide through the pressure relief valve opening in the quarter lock pillar. It may be necessary to jiggle the guide for removal.
7. Remove the glass from the quarter.

Installation

1. Transfer the glass hardware to the new glass.
2. Position the glass in the quarter.
3. Lubricate the guide as outlined in Part 42-01.
4. Install the guide in the quarter through the pressure relief valve opening in the quarter lock pillar. Insert the glass rollers into the guide and install the guide bracket to inner panel rear attaching screw (Fig. 2). Be sure the glass bracket rollers are properly inserted into the guide.
5. Position the drive arm bracket to the window regulator and the glass bracket studs. Then, install the retaining nuts.
6. Install the guide front bracket-to-inner panel attaching screw (Fig. 2). Install the rear stop on the guide in the location shown in Fig. 2. **This stop must be installed in the specified location.**
7. Position the glass run and brackets to the glass and inner panel, and install the two attaching screws snug.
8. Adjust the quarter glass as outlined in the Adjustment Section.
9. Install the watershield and quarter trim panel.
10. Install the quarter pillar dust seal and the pressure relief valve.

REGULATOR

Removal

1. Remove the quarter trim panel and watershield.
2. Remove the center pin from the four rivets attaching the regulator to the inner panel with a drift punch. Then, drill out the rivets with a 1/4 inch drill.
3. Disconnect the regulator motor wires at the connector if equipped with power windows.
4. Disengage the window regulator arm from the drive arm bracket, and remove the regulator from the quarter.
5. If equipped with power windows, remove the motor and drive assembly from the regulator.

Installation

1. Install the motor and drive assembly on the window regulator. Install four nut and retainer assemblies on the regulator mounting plate at the attaching holes.
2. Position the window regulator to the drive arm bracket and the inner panel.
3. Install four screw and washer assemblies to attach the window regulator to the inner panel. Tighten the bolts securely.
4. Connect the window regulator motor wires at the harness connector, if equipped with power windows.

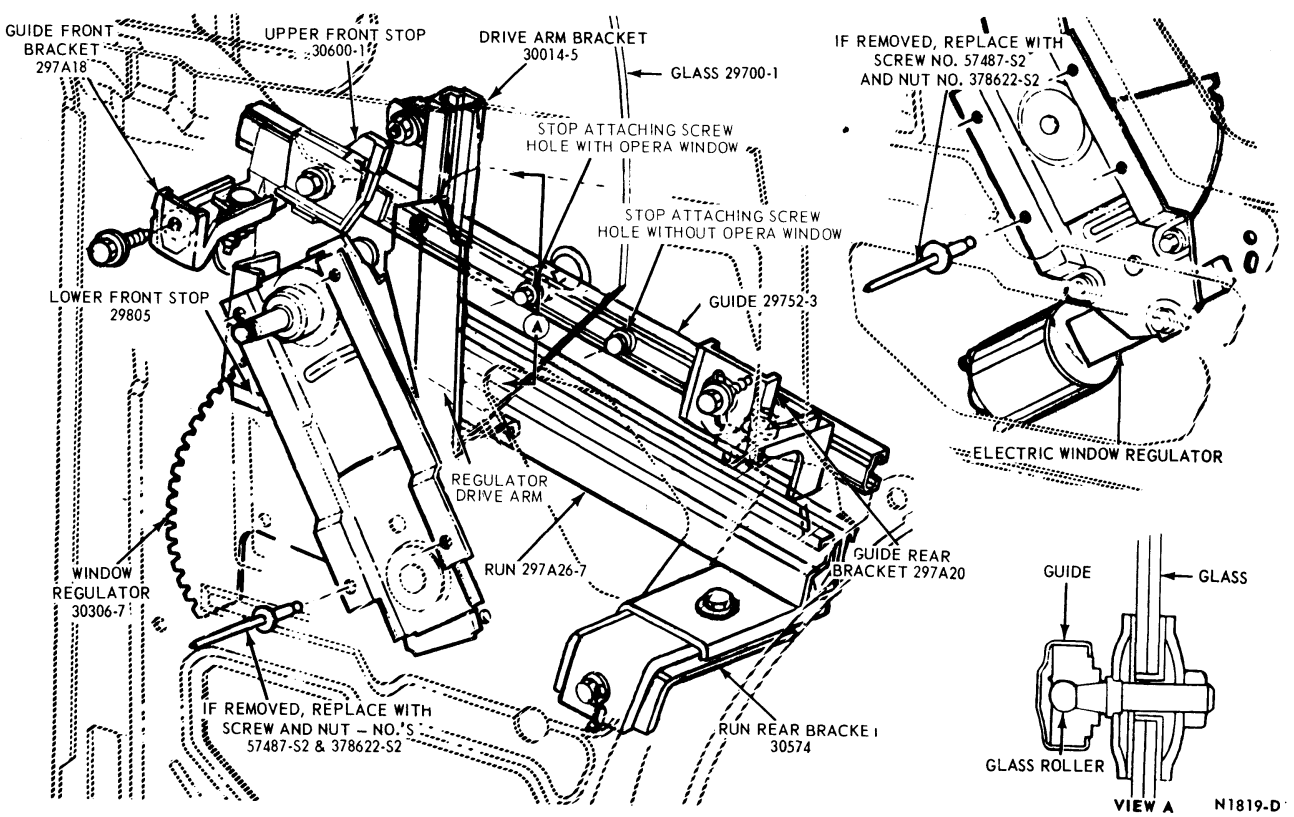


FIG. 2 Quarter Window Mechanism—Thunderbird and Continental Mark V

5. Check the window for proper operation. Then, install the watershield and quarter trim panel.

GUIDE

Removal

1. Remove the pressure relief valve from the quarter lock pillar.
2. Remove four screws attaching the dust seal to the quarter lock pillar at the belt line, and remove the seal.
3. Remove the quarter trim panel and watershield.
4. Remove two screws attaching the guide and brackets to the inner panel (Fig. 2).
5. Remove the rear stop from the guide (Fig. 2).
6. Remove two nuts retaining the drive arm bracket to the glass (Fig. 2). Then, lift the glass up and out of the run. Lower the glass and slide the guide off the glass rollers and remove the guide through the pressure relief valve opening. It may be necessary to jiggle the guide for removal.
7. Remove the brackets, stop, and bumper from the guide.

Installation

1. Assemble the brackets, stop, and bumper to the guide (Fig. 2).
2. Lubricate the guide as outlined in Part 42-01.
3. Insert the guide into the quarter through the pressure relief valve opening. Insert the glass rollers into the guide and position the guide to the quarter inner panel.
4. Position the drive arm bracket to the glass, and install the two retaining nuts.
5. Install the two screws attaching the guide bracket to the inner panel.
6. Install the rear stop on the guide in the location shown in Fig. 2. **This stop must be installed in the specified location.**
7. Adjust the guide and upper front stop as outlined in the Adjustment Section.
8. Install the watershield, quarter trim panel, quarter pillar dust seal, and the pressure relief valve.

RUN

Removal

1. Remove the quarter trim panel and watershield.
2. Remove the glass run front bracket and rear bracket-to-inner panel attaching screws, and remove the run (Fig. 2).
3. Remove the brackets from the run.

Installation

1. Position the front and rear brackets to the glass run, and install the attaching screws.
2. Position the run to the inner panel and the bottom edge of the glass.
3. Install the glass run brackets to-inner panel attaching screws.
4. Adjust the glass run as required.
5. Install the watershield and quarter trim panel.

Single Guide Quarter Window Mechanism

PART 42-35

SUBJECT	PAGE
ADJUSTMENTS	35-1
REMOVAL AND INSTALLATION	
Glass	35-2
Guide	35-2
REMOVAL AND INSTALLATION (Cont'd.)	
Motor and/or Drive	35-3
Regulator	35-2
Weatherstrip	35-3

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ADJUSTMENTS

BELT IN-OUT ADJUSTMENT

To adjust, loosen the guide to inner panel upper two attaching screws (Fig. 1). Move the glass inboard or outboard as necessary to align with the door glass at the belt line. Then, tighten the guide two upper attaching screws.

GLASS TILT ADJUSTMENT

To adjust, loosen the quarter window guide lower bracket-to-inner panel attaching screw (Fig. 1). Then, tilt the glass, to obtain a parallel fit between the quarter glass and the door glass, and tighten the guide lower bracket-to-inner panel attaching screw.

GLASS IN-OUT TILT ADJUSTMENT

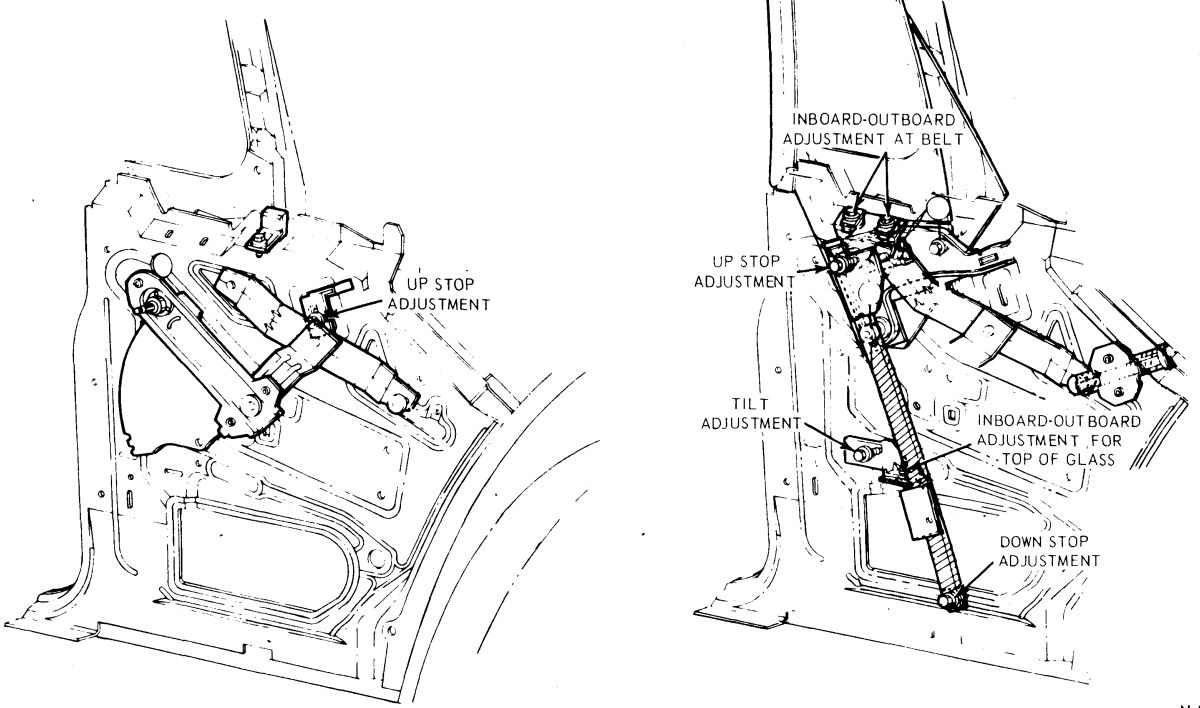
To adjust the in-out tilt of the top of the glass, loosen the guide-to-lower bracket attaching screw (Fig. 1). Move the lower end of the guide inboard or outboard as necessary to align the top edge of the quarter glass with the door glass. Then, tighten the glide-to-lower bracket attaching screw.

UP-STOP ADJUSTMENT

Loosen the two up-stop screws (Fig. 1), and raise the glass until a good seal is obtained between the quarter glass and the door glass and roof rail weatherstrip. Position the front up-stop firmly against the glass bracket and tighten the attaching screw.

DOWN-STOP ADJUSTMENT

Loosen the down stop attaching screw (Fig. 1). Lower the glass until the top edge is flush with the bottom of the glass opening. Then, position the down-stop up against the glass roller and tighten the stop attaching screw.



N 2467-A

FIG. 1 Quarter Window Mechanism Adjustment—Mercury

REMOVAL AND INSTALLATION

GLASS AND/OR GUIDE

Removal

1. Remove the quarter trim panel and watershield.
2. Remove the front and rear upper stops (Fig. 2).
3. Mark the location of the three guide attaching screws (Fig. 2), and remove the three screws.
4. Disengage the regulator arm roller from the glass bracket channel, and lift the glass and bracket up and out of the quarter.
5. To remove the guide, tilt the top of the guide rearward and remove the guide through the quarter lower opening.
6. If the glass is to be replaced, remove the weatherstrip and glass bracket from the glass.

Installation

1. Install the glass bracket on the glass as shown in Fig. 2. Tighten the roller retaining nuts to 40-80 in-lb. torque.
2. Install the weatherstrip on the front edge of the glass.
3. Install the guide in the quarter, if it was removed.
4. Insert the glass into the quarter engaging the glass bracket rollers into the guide.
5. Insert the regulator arm roller into the glass bracket channel, and install the three guide attaching screws.
6. Align the guide to the position marked during disassembly and tighten the guide attaching screws.
7. Install the front and rear upper stops, and adjust them as outlined in the adjustment section.
8. Install the watershield and quarter trim panel.

REGULATOR

Removal

1. Remove the quarter trim panel and watershield.
2. Mark the location of the three guide attaching screws (Fig. 2), and remove the screws.
3. Disconnect the regulator motor leads at the connector if equipped with electric windows.
4. Remove the center pin from the regulator attaching rivets with a center punch. Support the glass and drill the rivets out with a 1/4 inch drill.
5. Disengage the regulator arms from the glass bracket channel and the equalizer bracket, and remove the regulator from the quarter.
6. If equipped with electric windows, mount the regulator assembly in a vise. Drill a 5/16 inch hole through the sector gear and the regulator plate. Install a 1/4 inch bolt and nut through the hole to prevent the sector gear from moving when the motor and drive assembly is removed. Remove the three motor and drive attaching screws, and remove the motor and drive from the regulator. Install the motor and drive on the new regulator.

Installation

1. Install nut and retainer assemblies on the regulator mounting plate at the rivet attaching holes.
2. Position the window regulator into the quarter and engage the regulator arm rollers into the equalizer bracket and the glass bracket channel.
3. Position the regulator to the inner panel and install 1/4-20 x 1/2 inch screw and washer assemblies to attach the regulator to the inner panel
4. Connect the regulator motor leads at the connector, if equipped with electric windows.
5. Position the guide to the inner panel and install the three attaching screws. Align the guide to the position marked during disassembly and tighten the three attaching screws.

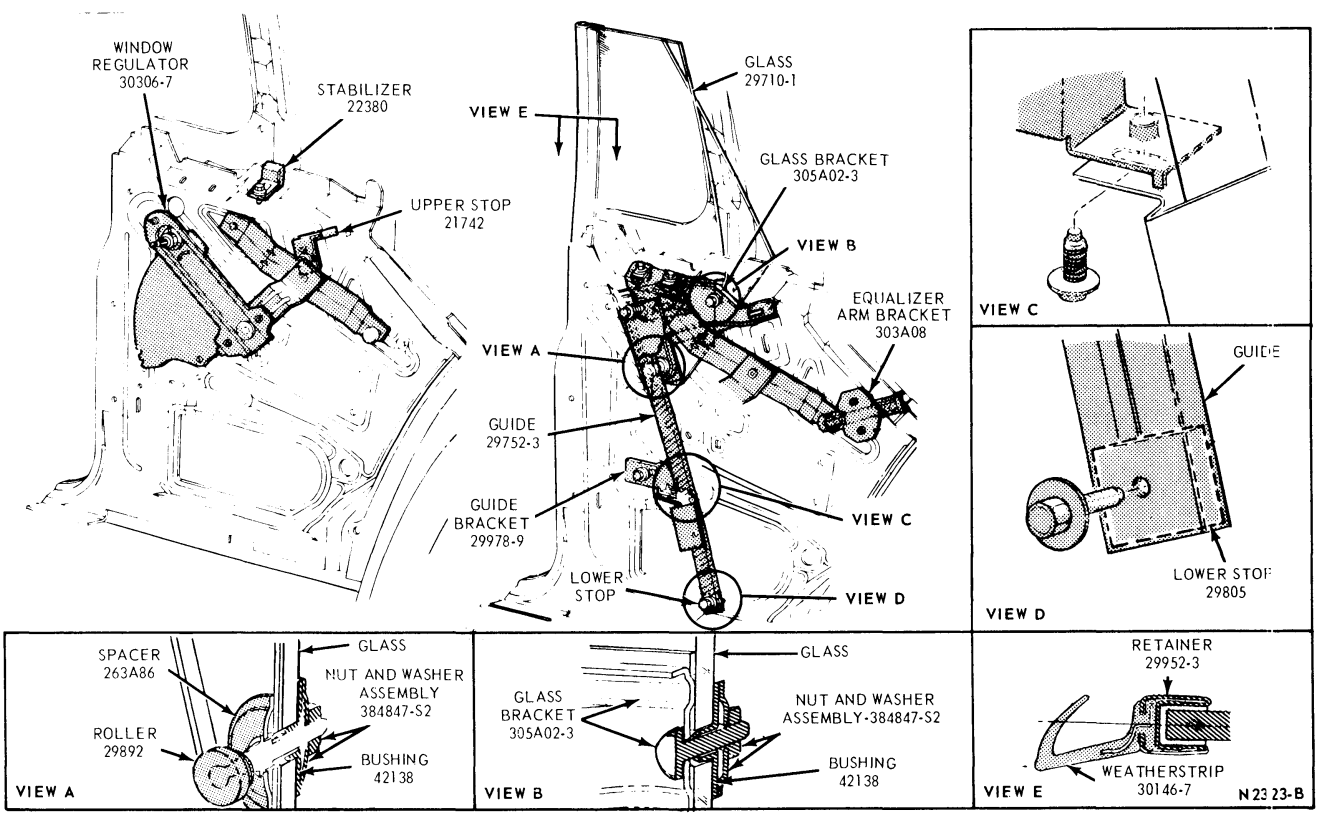


FIG. 2 Quarter Window Mechanism—Mercury

6. Check the window operation and install the watershield and quarter trim panel.

MOTOR AND/OR DRIVE

Removal

1. Remove the quarter trim panel and watershield.
2. Locate two drill dimples in the quarter inner panel.
3. Raise the glass to the UP position and drill two 3/4 inch holes in the inner panel with a hole saw. The hole saw pilot drill should be as short as possible, about 1/4 inch beyond the saw.
4. Disconnect the motor lead wires at the connector.
5. Remove three motor and drive attaching screws and remove the motor and drive from the regulator.

Installation

1. Position the motor and drive to the regulator and install the three screws **just snug—not tight.**
2. Connect the motor wires at the connector and cycle the glass to assure gear engagement. Then, tighten the three motor and drive attaching screws.
3. Install body tape over the two 3/4 inch drilled holes.
4. Install the watershield and quarter trim panel.

QUARTER WINDOW WEATHERSTRIP

The weatherstrip is held on the glass by the retainer. To replace the weatherstrip, slide it up and out of the retainer. Lubricate the new weatherstrip before sliding it into the retainer.

Stationary Quarter Window

PART 42-38

SUBJECT	PAGE	SUBJECT	PAGE
ADJUSTMENTS		REMOVAL AND INSTALLATION	
Continental Mark V	38-2	Mercury Model 65	38-3
Thunderbird, LTD II and Cougar	38-1	Thunderbird and Continental Mark V	38-3

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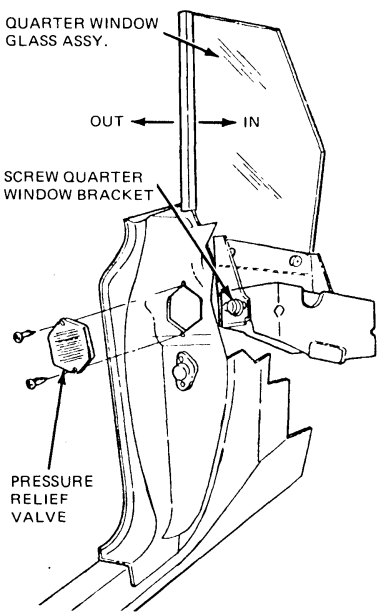
ADJUSTMENTS

Thunderbird, LTD II and Cougar

Minor inboard/outboard adjustment of the stationary quarter window-to-door glass can be done by removing the pressure relief valve from the lock pillar, to gain access to the quarter window glass bracket retaining screw. Loosening the glass bracket retaining screw allows inboard/outboard movement of the front edge of the quarter glass, so that a proper seal at the door glass is obtained (Fig. 1).

GLASS IN-OUT ADJUSTMENT

To adjust, loosen the two screws attaching the guide assembly to the quarter inner panel. Move the glass inboard or outboard as necessary, to align with the door glass at the belt. Then, tighten the guide attaching screws.



① REMOVE PRESSURE RELIEF VALVE (2 SCREWS)
② LOOSEN QUARTER WINDOW BRACKET RETAINING SCREW
③ ADJUST QUARTER WINDOW GLASS ASSY. INBOARD/OUTBOARD AS REQUIRED

N2554-A

FIG. 1 Stationary Quarter Window Glass Adjustment Procedure—Thunderbird, LTD II and Cougar

GLASS FORE-AFT TILT ADJUSTMENT

To adjust, loosen the quarter window guide lower bracket-to-inner panel attaching screw. Then, tilt the glass as required to obtain a parallel fit between the quarter glass and the door glass. Tighten the lower bracket attaching screw.

GLASS IN-OUT TILT ADJUSTMENT

To adjust the in-out tilt of the top of the glass, loosen the guide-to-lower bracket attaching screw and move the lower end of the guide inboard or outboard as necessary, to align the top edge of the quarter glass with the door glass. Then, tighten the guide-to-lower bracket attaching screw.

GLASS UP-DOWN ADJUSTMENT

Loosen the front and rear up-stop screws and hex flanged nut and raise the glass until a good seal is obtained between the quarter glass, door glass and the roof rail weatherstrip. Tighten the hex flanged nut and then, position the front and rear up-stops firmly against the glass bracket and tighten the attaching screws.

GLASS IN-OUT AND FORE-AFT ADJUSTMENTS

1. To adjust, loosen the two screw and washers attaching the bracket to the inner panel at the belt line.
2. Loosen the screw and washer attaching the bottom of the bracket to the support assembly.
3. Make the necessary fore-aft and in-out adjustments assuring that the door and quarter glass is at a parallel fit with approximately 2 3/16" to 1/4" margin.

4. Tighten the three screws and washers to 6-11 ft-lbs torque.

GLASS FORE-AFT TILT ADJUSTMENT

1. To adjust, loosen the three screws and washers attaching the bracket to the glass.
2. Make the necessary fore-aft tilt adjustment, assuring that the door and quarter glass is at a parallel fit with approximately a 3/16" to 1/4" margin.
3. Tighten the three screws and washers to 6-11 ft-lbs torque.

GLASS UP-DOWN ADJUSTMENT

1. To adjust, loosen the three nuts attaching the glass to the bracket.
2. Raise or lower the quarter glass to obtain a proper seal between the glass and the roof rail weatherstrip, by adjusting the nut securing the glass retainer-to-tab on the quarter glass bracket.
3. Tighten the three nuts to 6-11 ft-lbs torque.

Continental Mark V

While the following adjustments can be made separately to correct specific conditions, complete adjustment is performed in the following sequence. All adjustments must be performed after the door glass is properly adjusted and with the trim panel, watershield and sound insulator removed.

GLASS UP-DOWN AND FORE-AFT TILT ADJUSTMENTS

1. Loosen the two screw and washer assemblies attaching the quarter window glass bracket upper support assembly to the quarter inner panel (Fig. 2).
2. Loosen the one screw and washer assembly attaching the quarter window glass bracket lower support assembly to the quarter inner panel.
3. Manually, raise or lower the quarter window to obtain a seal condition into the pocket of the roof rail weatherstrip.
4. Make sure that the door and quarter glass is at a parallel fit with approximately 3/16" to 1/4" margin.
5. Tighten the three screw and washer assemblies to 6-11 ft-lbs torque.

GLASS FORE-AFT AND IN-OUT TILT ADJUSTMENTS

1. Loosen the two screw and washer assemblies attaching the quarter window glass bracket upper support assembly to the quarter inner panel (Fig. 2).
2. Loosen the one screw and washer assembly attaching the quarter window glass bracket assembly to the quarter window glass bracket lower support assembly.
3. Make the necessary fore-aft and in-out tilt adjustments assuring that the door and quarter glass is at a parallel fit with approximately a 3/16" to 1/4" margin.
4. Tighten the three attaching screw and washer assemblies to 6-11 ft-lbs torque.

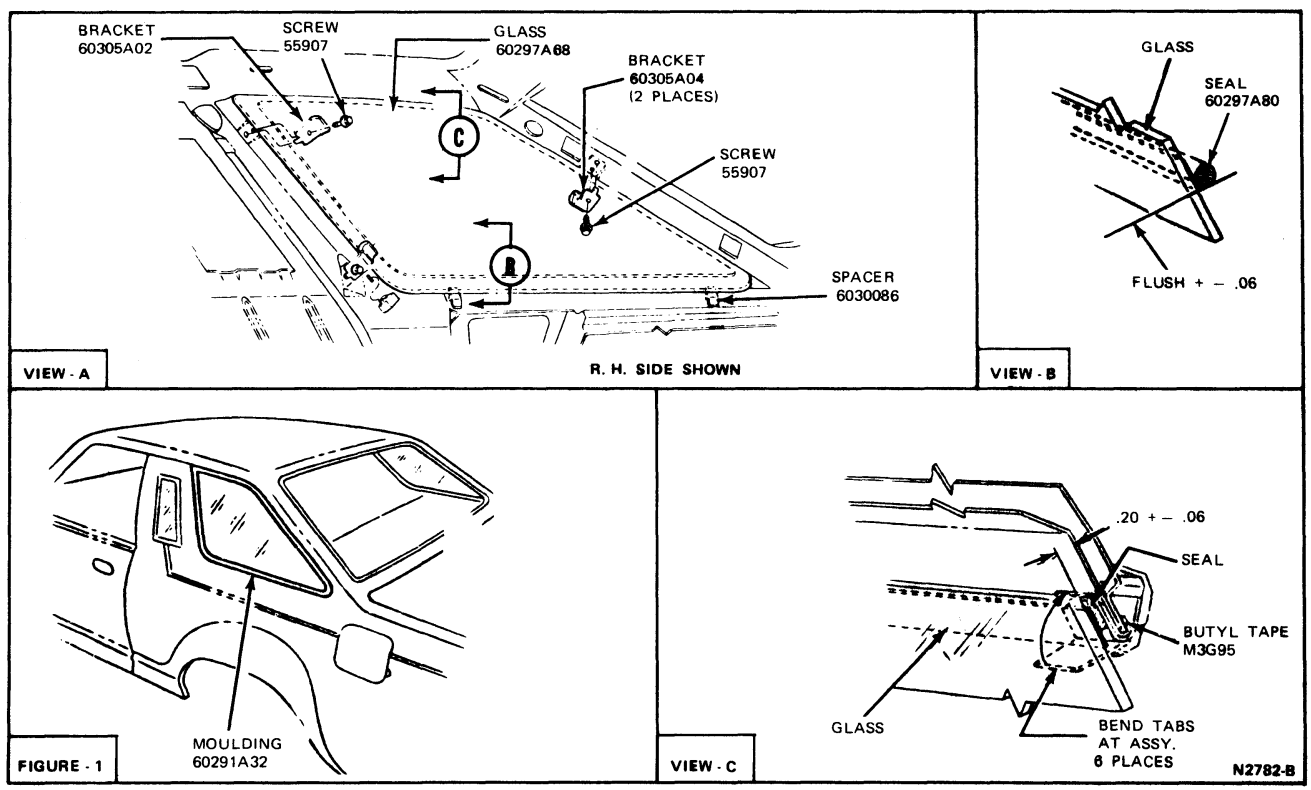


FIG. 2 Stationary Quarter Window Installation—Thunderbird

REMOVAL AND INSTALLATION

QUARTER WINDOW ASSEMBLY

Mercury Model 65

Removal

1. Remove the rear seat cushion, quarter arm rest, roof side inner rear moulding, quarter trim panel and watershield.
2. Remove the two screws and washers attaching the bracket to the inner panel at the belt line.
3. Remove the three nuts and washers attaching the bracket to the glass.
4. Using caution so the quarter glass and bracket do not fall, remove the remaining screw and washer attaching the support assembly to the quarter inner panel.
5. Separate the glass from the bracket and remove the glass between the inner and outer quarter panels at the belt line.
6. Remove the bracket and support assembly through the access hole in the inner panel.
7. Then, remove the weatherstrip and glass-to-bracket attachments from the glass.

Installation

1. Install the mounting tape, retainer and weatherstrip on the front edge of the glass.
2. Install one bolt, washer, bushing and teenut into each of the three holes in the glass and tighten 6-11 ft-lbs torque.
3. Install one spring nut to the support assembly.
4. Install two spring nuts at the two holes in the top flange of the bracket.
5. Attach the support assembly to the bracket with one screw and washer.
6. Then, install the bracket and support assembly through the access hole in the quarter inner panel and assemble the lower support attachment to the inner panel with one screw and washer (loosely).
7. Install the window assembly between the inner and outer quarter panels (at the belt line) and insert the three studs on the window assembly into the bracket slots.
8. Insert the threaded end of the retainer through the hole in the tab on the glass bracket and engage the hole in the retainer on to the lower stud of the three hole pattern of the glass.
9. Assemble the retainer loosely, with the two nuts and washers.
10. Assemble the upper two attachments of the bracket to the inner panel (at the belt line) with two screws and washers (loosely).
11. Refer to the Adjustment Procedures and adjust the window as required.
12. Install the water shield, quarter trim panel, roof side inner moulding, arm rest and rear seat cushion assembly.

Thunderbird And Continental Mark V

Removal

1. Remove the rear seat cushion assembly, quarter arm rest, quarter trim panel (upper and lower), watershield, sound insulator, roof side inner mouldings (front and rear), shoulder strap (at roof rail) and the roof side rear trim panel.
2. Remove the four screws attaching the quarter lock pillar-to-window frame seal assembly to the quarter lock pillar (Fig. 2).
3. Remove the one screw attaching the bottom end of the quarter glass at belt inside weatherstrip assembly to the quarter panel assembly.
4. Remove the tapping screws (6-Thunderbird, 7-Continental Mark V) attaching the rear roof quarter window housing and the glass at belt inside weatherstrip assembly.
5. Remove the two screw and washer assemblies attaching the quarter window glass bracket assembly to the quarter window glass bracket upper support assembly (Fig. 2).
6. Remove one screw and washer assembly attaching the quarter window glass bracket assembly to the quarter window glass bracket lower support assembly and carefully lower the window assembly to rest at the bottom of the quarter panel.
7. Remove the five screws attaching the quarter window outside moulding assembly to the quarter panel (Fig. 3).
8. Remove the window bracket assembly through the opening between the inner and outer quarter panels at the belt line.
9. Remove the one screw and washer assembly attaching the quarter window glass bracket assembly to the bracket assembly retainer (Fig. 2).
10. With the window assembly on a work bench, use a drift punch and remove the center pin from the two rivets attaching the glass to the bracket assembly. Then, remove the rivets by drilling them out with a 1/4" drill (Fig. 2).

Installation

1. Assemble and attach the quarter window glass to the bracket assembly with one spacer, one retainer assembly, one 1/4"-20 x 1" hex head bolt and 1/4"-20 nut and washer assembly. Tighten to 6-11 ft-lbs torque.
2. Assemble the quarter window glass bracket assembly to the bracket assembly retainer with one screw and washer assembly and tighten to 6-11 ft-lbs torque.
3. Insert the quarter window assembly into the opening between the inner and outer quarter panels and carefully lower it to rest at the bottom of the quarter panel.
4. Attach the quarter window outside moulding assembly to the quarter panel with five screws.
5. Raise the window to the installed position and loosely assemble the lower attachment of the quarter window glass bracket assembly to the quarter window glass bracket lower support assembly with one screw and washer assembly (Fig. 2).
6. Loosely assemble the two upper attachments of the quarter window glass bracket assembly to the quarter glass bracket upper support assembly with two screw and washer assemblies.
7. Refer to the Adjustment Procedures (this Part) and adjust the window as required.
8. Install the rear roof quarter window housing and the quarter window glass at belt inside weatherstrip assembly (attached to housing) with tapping screws (6 Thunderbird and 7 Continental Mark V).
9. Install the quarter lock pillar-to-window frame seal assembly to the quarter lock pillar with four screws (Fig. 3).
10. Install the watershield, sound insulator, roof side rear trim panel, shoulder strap (at roof rail), quarter trim panels (upper and lower), roof side inner mouldings (front and rear), quarter arm rest and rear seat cushion assembly.

Other Models

See Figs. 4 through 7 for installation on other models.

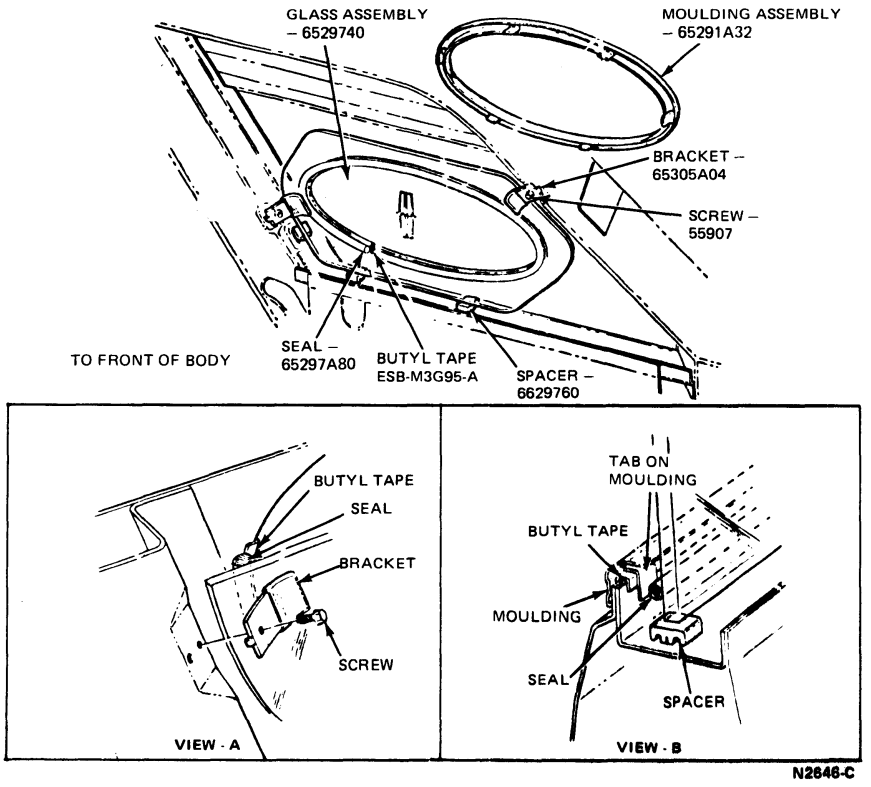


FIG. 3 Quarter Window Housing And Moulding Assembly Installation—Thunderbird And Continental Mark V

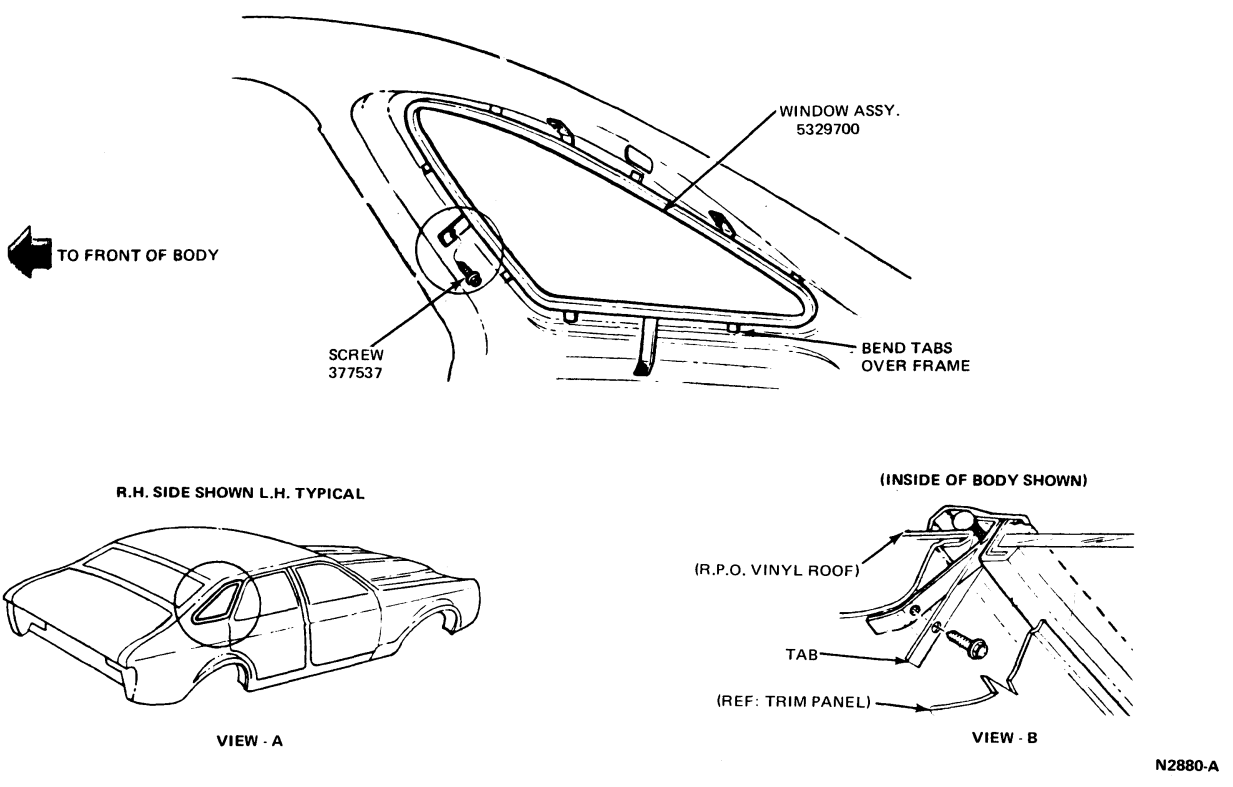


FIG. 4 Quarter Window (RPO)—LTD II and Cougar

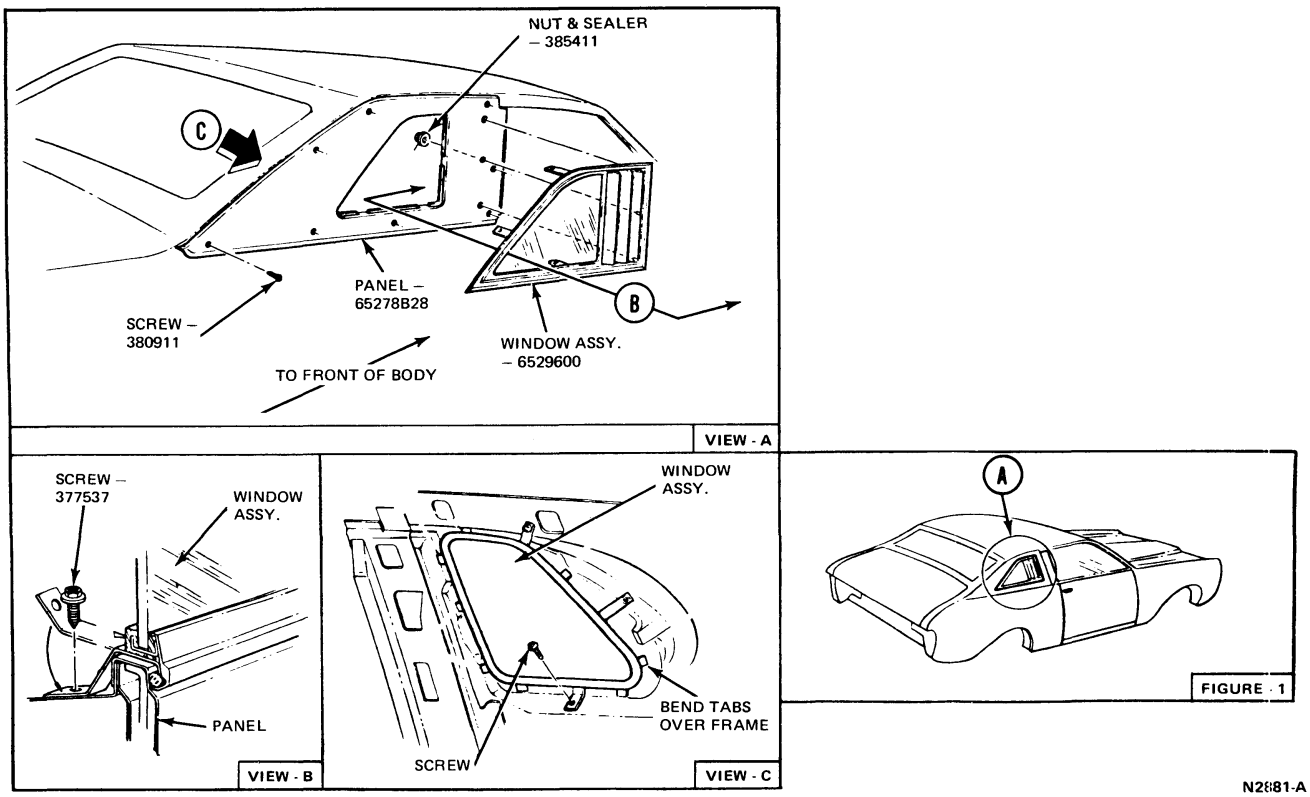


FIG. 5 Quarter Window (Model 65L)—Cougar

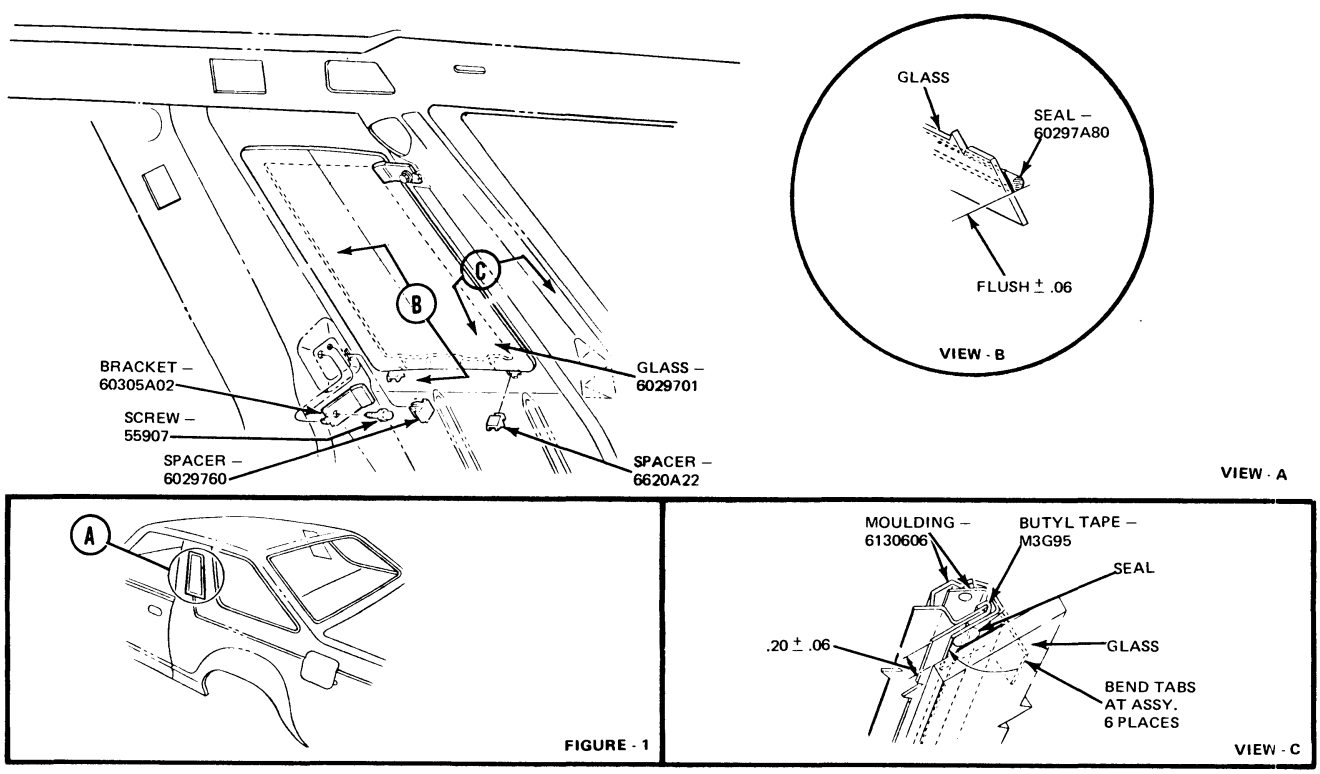


FIG. 6 Opera Window—Thunderbird

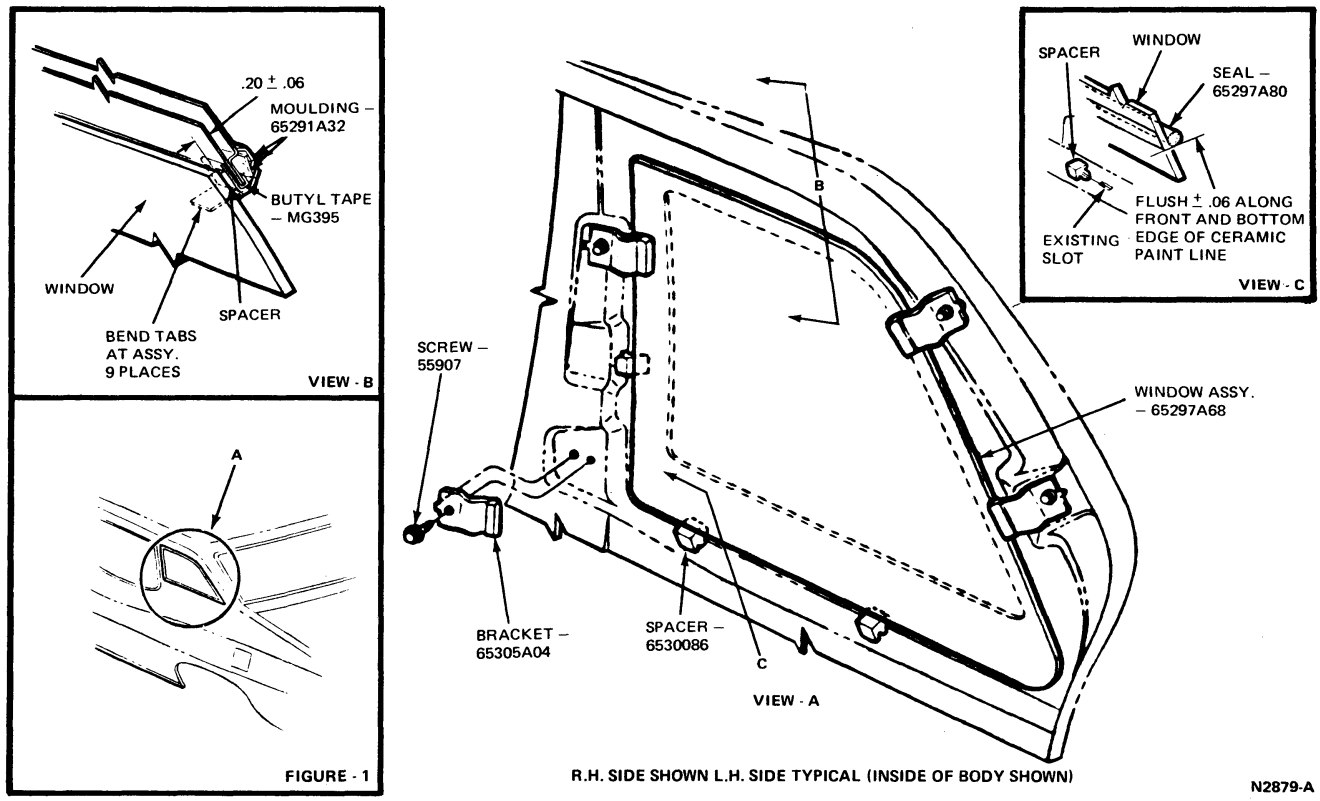


FIG. 7 Quarter Window—LTD II and Cougar

Tailgate Window Glass and Mechanism -- Dual Action Gate

PART 42-41

SUBJECT	PAGE
ADJUSTMENTS	41-1
REMOVAL AND INSTALLATION	
Glass	41-3
Guide	41-3
REMOVAL AND INSTALLATION (Cont'd.)	
Motor and/or Drive	41-5
Regulator	41-3
Run	41-4

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ADJUSTMENTS

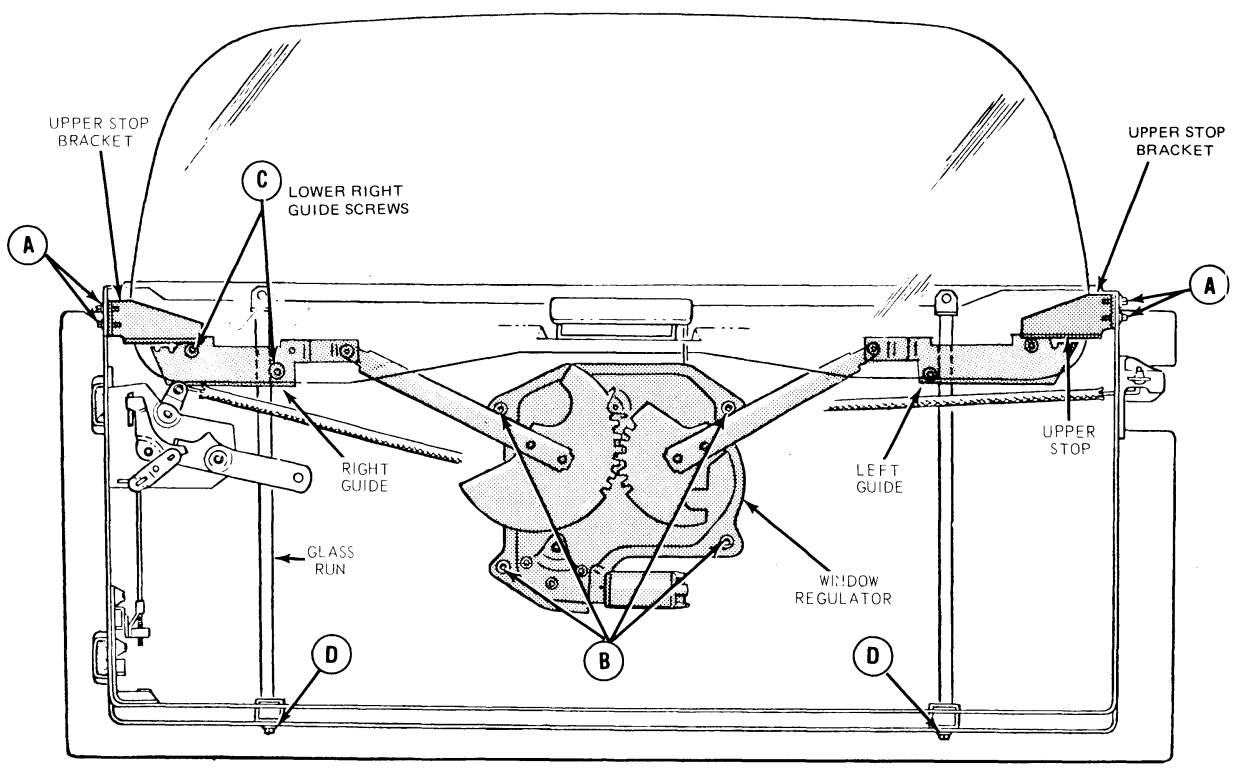
TAILGATE WINDOW ADJUSTMENT

Ford and Mercury

Separate adjustment steps are given for each adjustment so that a partial glass adjustment can be performed. If a complete glass adjustment is required, follow the adjustments in the order given. All window mechanism adjustments except the in-out tilt of the top edge of the glass must be performed with the trim panel removed. The in-out tilt adjustment can be performed without removing the trim panel. After the adjustment(s) are completed, operate the window up and down to see if the mechanism is free of binds which cause hard operating efforts for manual windows or sluggish operation for electric windows. If binding is found to exist, repeat the adjustment(s). Install the tailgate trim panel (if removed) after the adjustments are completed.

Glass Position—Full-Up

The tailgate glass should be properly positioned within the glass opening to assure a good seal around the glass with the weatherstrip. The top edge of the glass should also be parallel to the top of the glass opening when the glass is closed. To adjust, loosen each upper stop bracket attaching screw (Item A, Fig. 1), and again check the glass fit. If the glass fit is not as specified, loosen the four window regulator attaching bolts (Item B, Fig. 1). Move the glass until the top edge of the glass is parallel to the glass opening, and tighten the regulator attaching bolts. After the glass has been positioned in the opening, move the



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FIG. 1 Tailgate Window Mechanism Adjustment—Ford and Mercury

upper stop brackets down firmly against the stops and tighten the attaching screws.

Glass Position—Side-to-Side

The tailgate glass can be positioned from side-to-side to obtain a good seal overlap with the side weatherstrips. To adjust, loosen the two lower right guide-to-glass attaching screws (Item C, Fig. 1). Then, move the glass from side-to-side as necessary to obtain a good glass overlap with the weatherstrip on each side of the glass. Tighten the guide attaching screws after the glass has been moved to the desired position.

Glass Tilt—In and Out

The top edge of the tailgate glass can be tilted in or out to obtain a good seal against the weatherstrip. To adjust, loosen the glass run lower attaching screws (Item D, Fig. 1). Then, move the run lower ends forward or rearward as necessary to move the glass top edge against the weatherstrip to obtain a good seal. Tighten the run lower attaching screws after a good seal is obtained.

LTD II, Thunderbird and Cougar

Separate adjustment steps are given for each adjustment so that a partial glass adjustment can be performed. If a complete glass adjustment is required, follow the adjustments in the order given. All window mechanism adjustments must be performed with the tailgate trim panel removed. After the adjustment(s) are completed, operate the window up and down to see if the mechanism is free of binds which cause hard operating efforts for manual windows or sluggish operation for electric windows. If binding is found to exist, repeat the adjustment(s). After adjustment, install the tailgate trim panel.

Glass Position—Full-Up

It is necessary to reposition the glass top edge in the opening if the glass or regulator has been removed or if extreme tailgate hinge adjustments are performed. To reposition the glass, loosen the four window regulator attaching screws (Item C, Fig. 2) and the upper stop bracket attaching screws (Item D). Adjust the glass for a parallel fit to the roof and a good seal along the roof weatherstrip by repositioning the window regulator. Then, tighten the four regulator attaching screws. Position the window upper stop brackets firmly down against the stops, and tighten the attaching screws (Item D).

Glass Position—Side-to-Side

It is necessary to reposition the glass from side-to-side in the opening if the glass has been removed or if extreme tailgate hinge adjustments are performed. To adjust the glass from side-to-side, loosen the glass-to-glass bracket attaching screws (Item A, Fig. 2). Move the glass sideways to obtain a good overlap seal with the weatherstrip on each side. Then, tighten the glass-to-glass bracket attaching screws (Item A).

Stabilizer Adjustment

The stabilizers are used to support the glass at the belt line. Loosen the stabilizer attaching screw (Item E, Fig. 2), and push the stabilizer firmly against the glass surface. Then, tighten the attaching screw. Repeat the procedure for the other stabilizer.

Glass In-Out Tilt

The in-out tilt adjustment is used to obtain a good seal against the weatherstrip at the top edge of the glass. To adjust the in-out tilt, loosen the guide attaching screws (Item B, Fig. 2). **Move the top edge of the glass inward or outward, as required, to obtain an air and water tight seal against the weatherstrip. Then, tighten the guide attaching screws (Item B).**

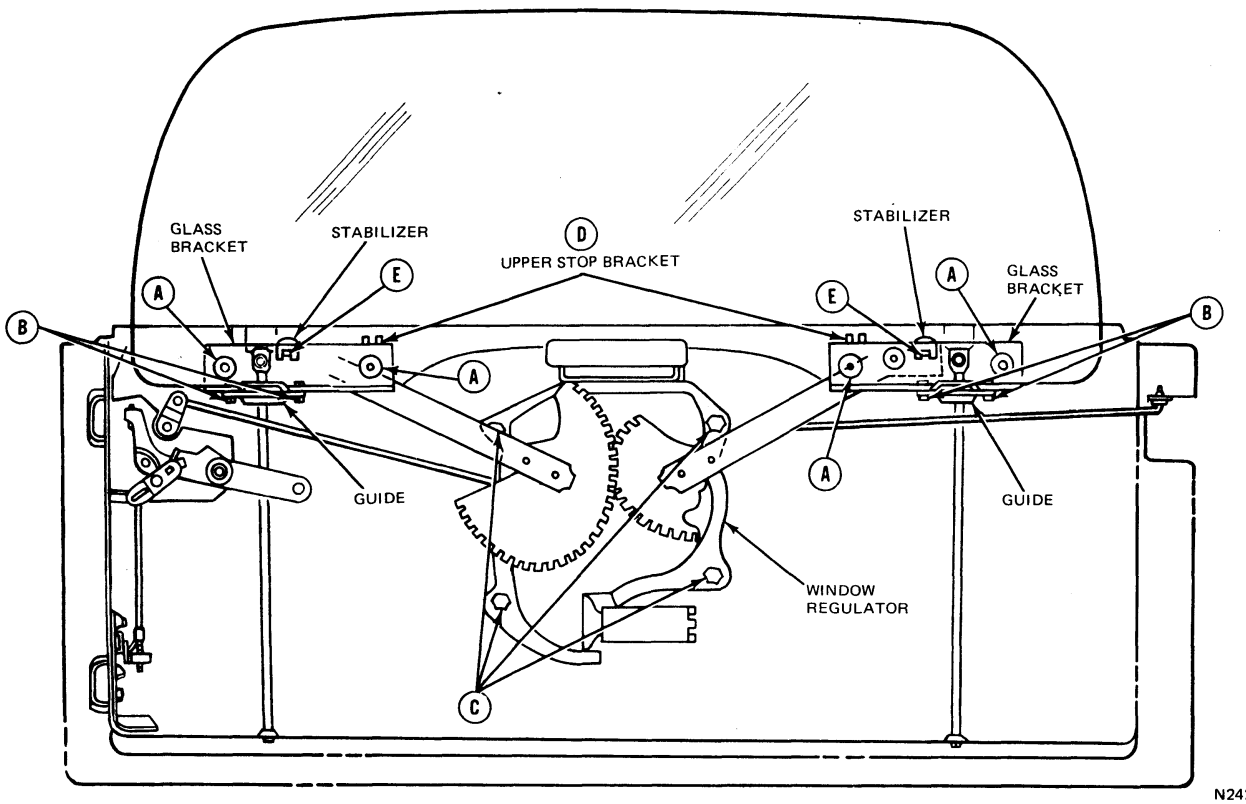


FIG. 2 Tailgate Window Mechanism Adjustment—LTD II, Thunderbird and Cougar

REMOVAL AND INSTALLATION

TAILGATE GLASS

Thunderbird, LTD II and Cougar

Removal

1. Remove 23 tailgate trim panel attaching screws and remove the trim panel.
2. Remove the tailgate inner panel access cover.
3. Lower the tailgate to the down position and partially raise the glass.
4. Remove two screws attaching each side of the glass to the glass bracket (Fig. 3), and remove the bushings and stops.
5. Slide the glass from the tailgate

Installation

1. Position the glass into the tailgate and to the glass brackets. Be sure the spacers are placed between the glass and the glass bracket (Fig. 3).
2. Install the bushings, stops and glass-to-glass bracket attaching screws (Fig. 3). Tighten the glass attaching screws to specification.
3. Adjust the glass from side-to-side.
4. Install the tailgate inner panel access cover and tailgate trim panel.

Ford and Mercury

Removal

1. Remove the tailgate inside cover and watershield.
2. Remove the tailgate inner panel lower access cover.
3. Lower the tailgate to the DOWN position, and raise the glass until the glass brackets are accessible.
4. Remove the center pin from the glass-to-glass bracket rivets with a drift punch. Then, drill the heads from the rivets with a 1/4 inch drill, and remove the rivets.
5. Disconnect the wires from the rear window defroster terminals, if so equipped.
6. Slide the glass from the tailgate.

Installation

1. Position the glass into the tailgate and to the glass brackets. Be sure the spacers are placed between the glass and the glass bracket (Fig. 4).
2. Install 1/4-20 x 1 inch hex head bolts and 1/4-20 hex head nuts to attach the glass bracket to the glass. Tighten the bolts and nuts to specification.
3. Adjust the glass as outlined in ADJUSTMENTS in this part.
4. Connect the wires to the rear window defroster terminals, if so equipped.
5. Install the tailgate inner panel lower access cover, and the watershield and tailgate inside cover.

REGULATOR

LTD II, Thunderbird and Cougar

Removal

1. Remove the glass from the tailgate.

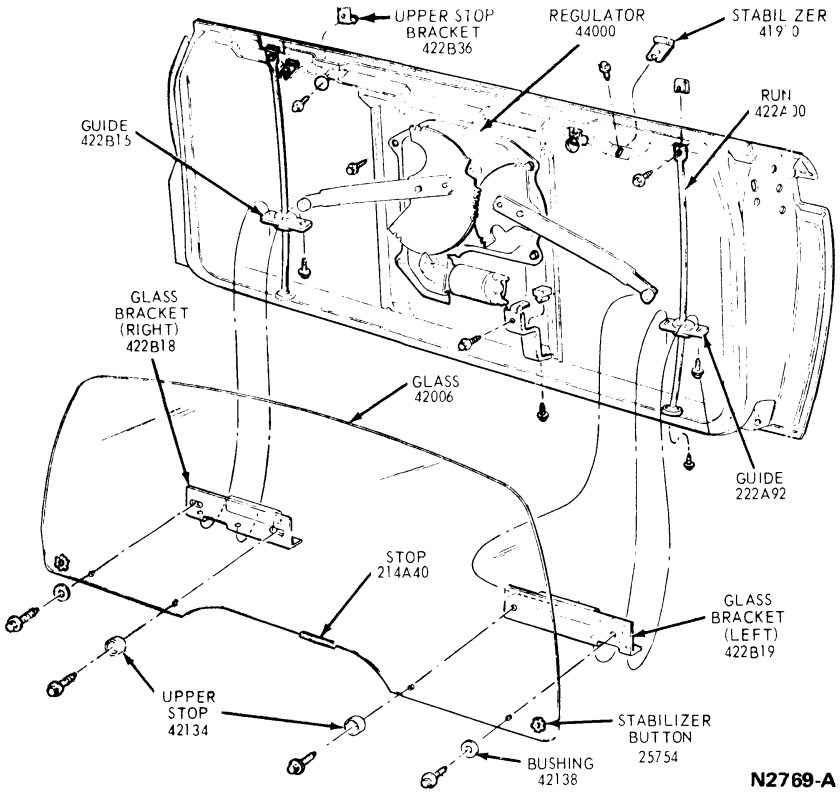


FIG. 3 Tailgate Window Mechanism—Thunderbird, LTD II, and Cougar

2. If equipped with an electric window regulator, disconnect the motor wires at the connector.
3. Remove four regulator attaching screws and disengage the regulator from the mounting brackets. Slide the regulator to one side to disengage the regulator arm rollers from the glass brackets, and remove the regulator through the access hole.

Installation

1. Position the regulator into the tailgate and engage the rollers in the glass bracket channels.
2. Position the regulator to the mounting surface and engage the crank (if so equipped) with the window regulator.
3. Install the window regulator attaching screws.
4. Connect the motor wires, if equipped with an electric tailgate window.
5. Install the glass in the tailgate and adjust the glass full-up and side-to-side positions.

Ford and Mercury

Removal

1. Remove the tailgate glass.
2. Remove the glass brackets from the regulator arm rollers.
3. Disconnect the motor wires at the connector.
4. Remove four regulator attaching screws and remove the regulator from the tailgate (Fig. 4).
5. Drill a 5/16 inch hole through the regulator sector gear and regulator plate. Install a 1/4 inch bolt and nut through the hole to prevent the sector gear from moving when the motor and drive assembly is removed from the regulator. Remove the motor assembly from the regulator.

Installation

1. Position the regulator in the tailgate and install the attaching screws.
2. Connect the regulator motor wires at the connector.
3. Install the tailgate glass.

GLASS RUN AND/OR GUIDE

LTD II, Thunderbird and Cougar

Removal

1. Remove 23 tailgate inside trim panel attaching screws and remove the trim panel.
2. Remove the tailgate inner panel access cover.
3. Lower the tailgate to the down position and partially raise the glass.
4. Remove two screws attaching each side of the glass to the glass bracket (Fig. 3), and remove the bushings and stops.

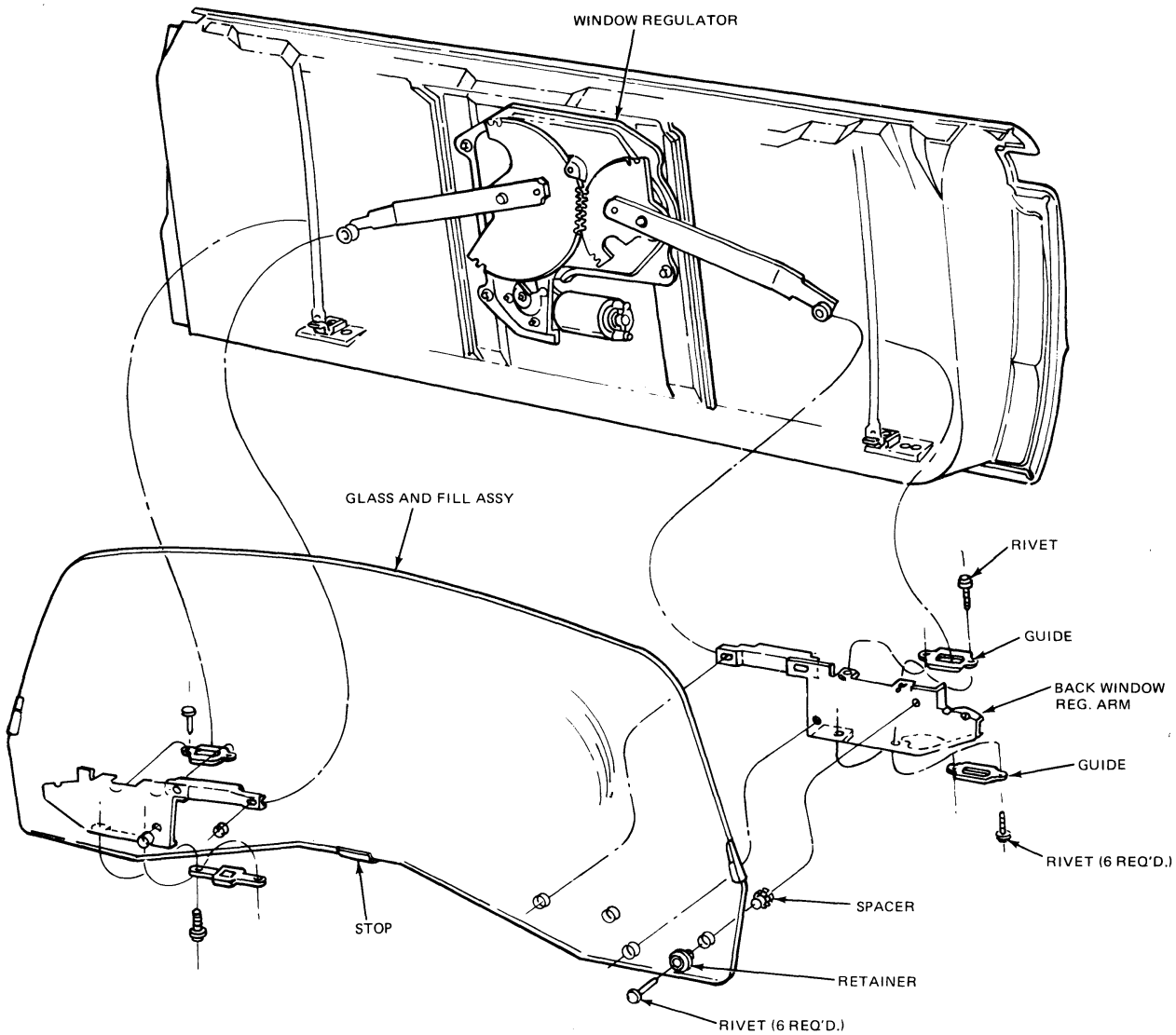


FIG. 4 Tailgate Window Mechanism—Ford and Mercury

5. Remove the two stabilizer buttons from the glass lower corners (Fig. 3). Then, slide the glass out of the tailgate.
6. Remove the glass run upper and lower attaching screws (Fig. 3), and remove the run and guide from the tailgate.
7. Remove the guide and glass bracket from the run.
8. Remove the glass bracket from the guide.

Installation

1. Install the glass bracket on the guide and the guide on the run (Fig. 3).
2. Position the run, guide and glass bracket in the tailgate and engage the glass bracket with the regulator arm.
3. Install the two guide attaching screws.
4. Position the glass in the tailgate and to the glass brackets.
5. Install two screws, stop, and bushing attaching each side of the glass to the brackets (Fig. 3).
6. Install the two stabilizer buttons (Fig. 3).
7. Adjust the tailgate glass as outlined in the Adjustment Section.
8. Install the inner panel access cover, and the tailgate inside trim panel.

GLASS RUN

Ford and Mercury

Removal

1. Remove the tailgate inside cover and watershield.
2. Remove the glass from the tailgate as outlined in this part.
3. Remove the outside belt moulding and weatherstrip from the tailgate.
4. Remove the run upper and lower attaching screws and remove the run and glass bracket from the tailgate (Fig. 4).
5. Remove the glass bracket and guides from the run.
6. To remove the guides, remove two screws attaching each guide to the glass bracket.

Installation

1. Install the guides on the glass bracket if they were removed. Be sure to note that the lower right guide is different from the other guides (Fig. 4).
2. Install the glass bracket and guides on the run, and install the run in the door.
3. Install the weatherstrip and outside belt moulding.
4. Install the tailgate glass as outlined in this part.
5. Install the tailgate watershield and inside cover.

WINDOW MOTOR AND/OR DRIVE

Removal

1. Remove the tailgate inner panel and watershield.
2. Disconnect the motor wires at the connector.
3. Working through the access hole(s), remove the three motor and drive-to-regulator attaching screws. Remove the motor and drive from the tailgate.

Installation

1. Position the motor and drive to the window regulator, and install the three screws **just snug—not tight.**
2. Connect the motor wires at the connector and cycle the glass to assure gear engagement. After the gears are engaged, tighten the three motor and drive attaching screws.
3. Check the window operation. Then, install the watershield and tailgate inner panel.

STATIONARY WINDOW GLASS

GROUP 43 (70000)

PART TITLE	PART NO.	PART TITLE	PART NO.
Stationary Glass – Butyl Type Seal	43-11	Stationary Glass – Weatherstrip Type Seal	43-01

CR2004-A

Stationary Glass -- Weatherstrip Type Seal

PART 43-01

SUBJECT	PAGE	SUBJECT	PAGE
REMOVAL AND INSTALLATION		REMOVAL AND INSTALLATION (Cont'd.)	
Back Window Mouldings	01-1	Quarter Window Mouldings	01-1
Back Window – Weatherstrip Type Seal	01-6	Stationary Quarter Window Glass	01-6
Opera Window	01-9	Windshield Mouldings	01-1
		Windshield – Weatherstrip Type Seal	01-1

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REMOVAL AND INSTALLATION

Before removing the exterior mouldings, it should be determined by the types of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access.

If a weld stud is distorted or broken off, it can be replaced with a screw (379560-S101) or pop rivet as shown in Fig. 23.

WINDSHIELD MOULDINGS

The windshield mouldings for the Maverick, Comet, Pinto and Bobcat are shown in Figs. 2 and 3. The mouldings are retained with retainers set in the glass opening and should be released from the retainers with the tool shown in Fig. 1.

BACK WINDOW MOULDINGS

The back window mouldings are shown in Figs. 4 through 11. If the mouldings are retained with retainers set in the glass opening, the moulding should be released with the tool shown in Fig. 1.

QUARTER WINDOW MOULDINGS

The stationary quarter window mouldings on the Pinto and Bobcat are retained within the weatherstrip (Fig. 12). Refer to Quarter Window and Glass Removal and Installation procedures (this Section).

The mouldings for Mustang are shown in Figs. 15 and 16. Granada and Monarch are shown in Figs. 17 and 18. LTD II and Cougar mouldings are shown in Figs. 19 and 20.

WINDSHIELD WEATHERSTRIP TYPE SEAL

Removal

PVC tape is to be used on the pinch weld flange (Pinto and Bobcat), in place of sealer.

1. Remove the windshield wiper blades and arms.
2. Remove the side and top mouldings using Tool T64P-42006 or equivalent (Fig. 1).
3. Using Tool T64P-42006 or equivalent (Fig. 1), remove the windshield lower moulding. Start at the center, then

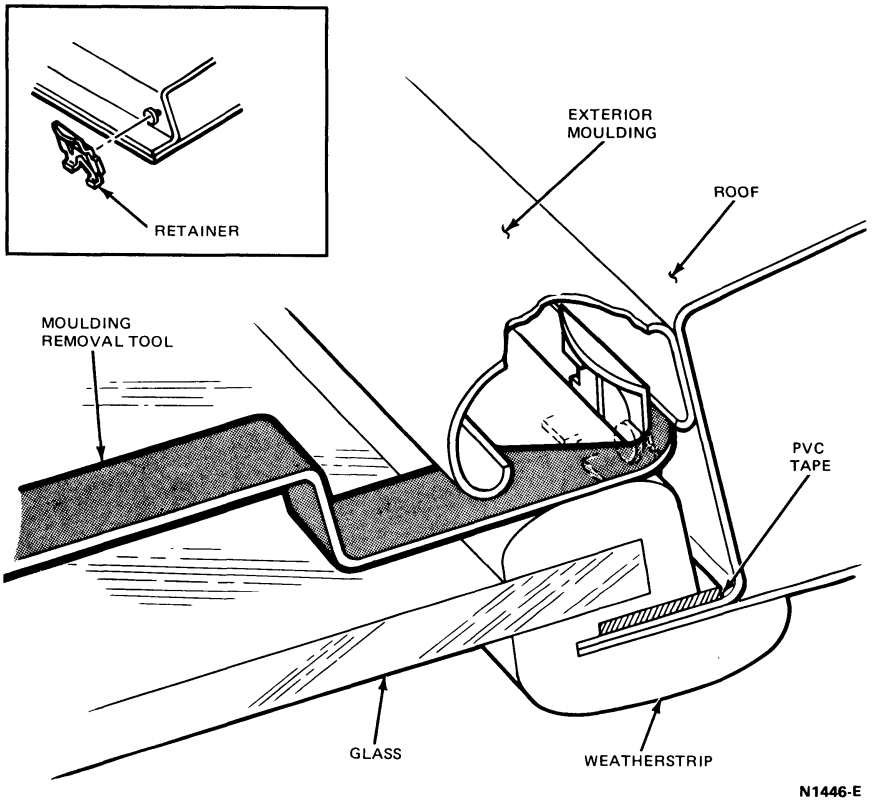


FIG. 1 Windshield or Back Window Moulding—Removal Tool

work outboard and remove each side of the two-piece moulding.

4. From inside the vehicle, push the windshield glass from the body opening.
5. Remove the weatherstrip from the glass or body opening.

Installation

1. Clean all sealer (butyl or PVC tape) from the body opening. Check all moulding retainers and replace any that are loosened or damaged.
2. Apply butyl tape (.06 inch x 1.00 inch x 59.00 inch) along cowl top for Maverick and Comet only.
3. Apply sheet metal primer to the body glass opening flange (Maverick and Comet). Apply PVC tape to the body glass opening flange (Pinto and Bobcat).
4. Position the weatherstrip on the window glass.
5. Insert a draw cord in the pinch weld opening of the weatherstrip all around the weatherstrip (Figs. 13 and 14) and overlap the cord about 18 inches at the lower center of the glass. Tape the ends of the cord to the glass.
6. Position the window glass to the body opening.

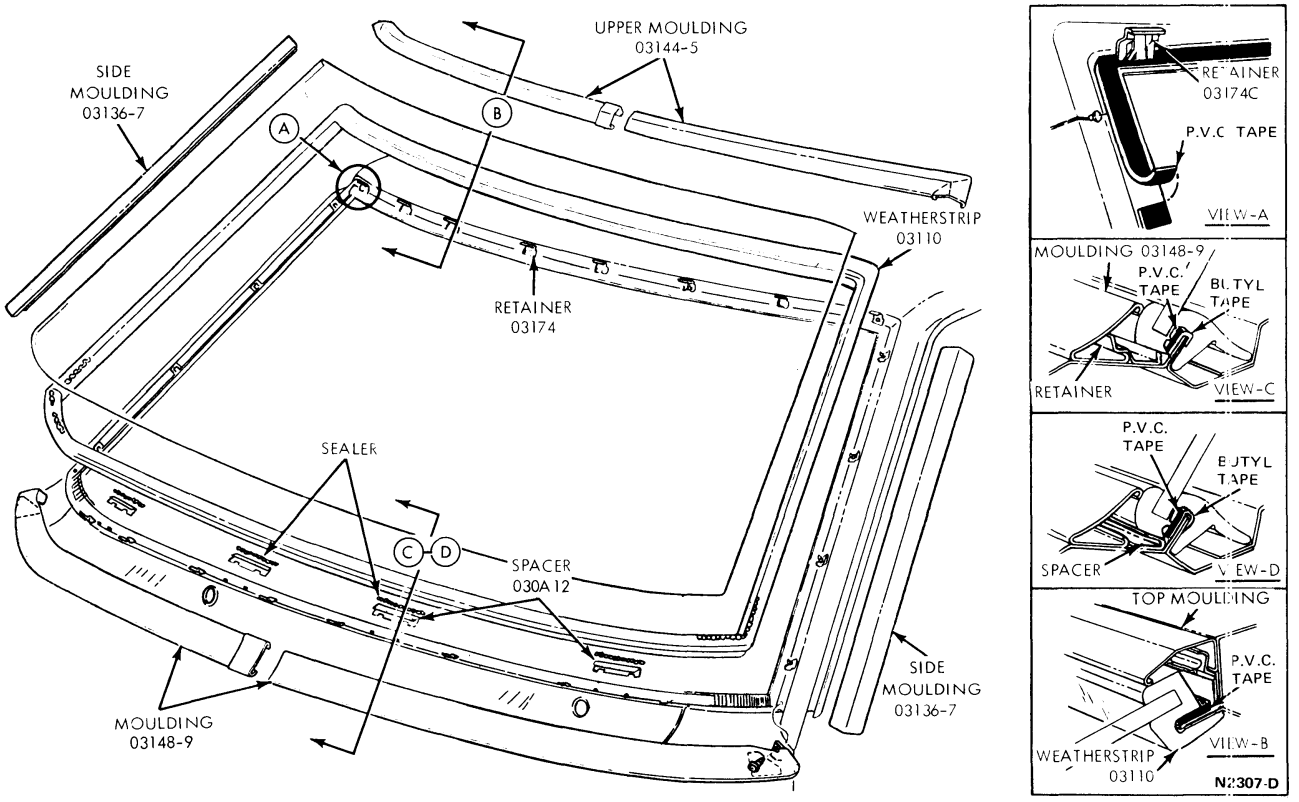
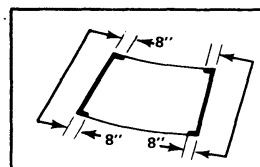
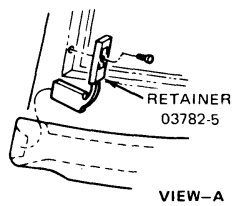


FIG. 2 Windshield and Exterior Moulding Installation—Maverick and Comet

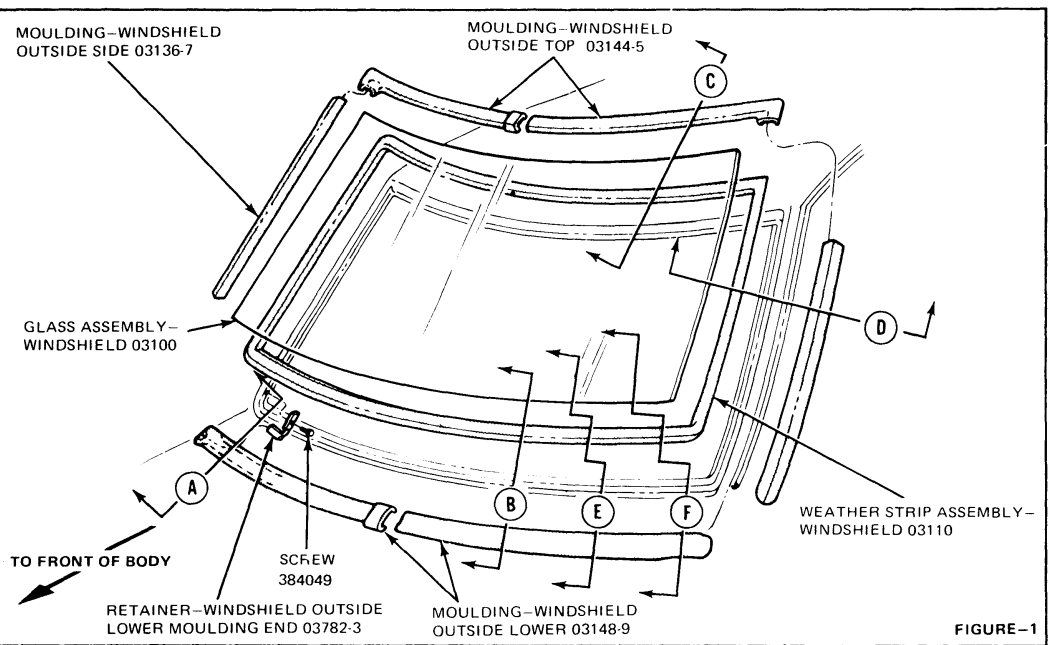


SEALER–USING A THIN NOZZLE GUN, APPLY AS SHOWN IN VIEW "F" BETWEEN GLASS AND WEATHER STRIP TO DIMENSIONS SHOWN IN FIGURE 2.

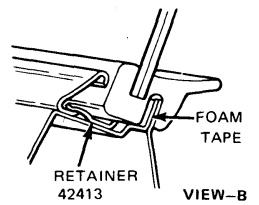
FIGURE–2



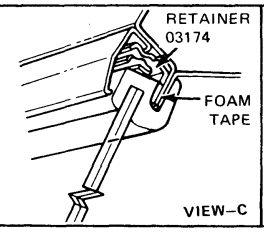
VIEW–A



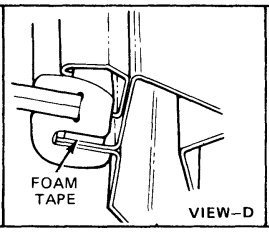
FIGURE–1



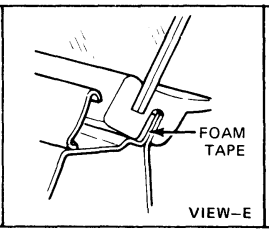
VIEW–B



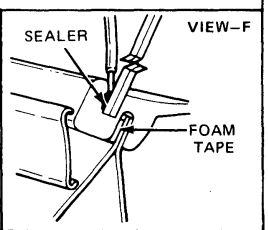
VIEW–C



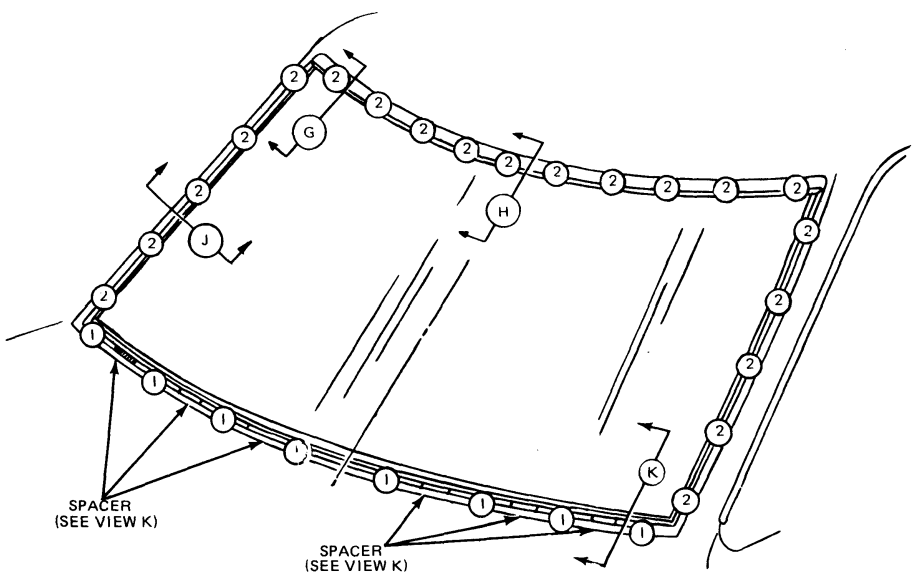
VIEW–D

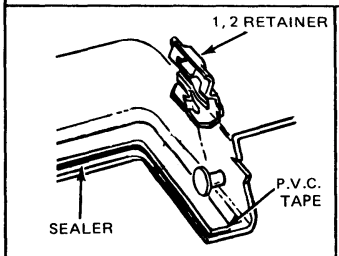


VIEW–E

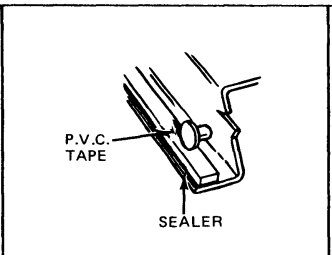


VIEW–F

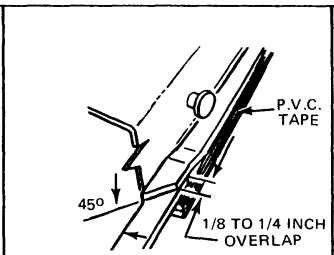




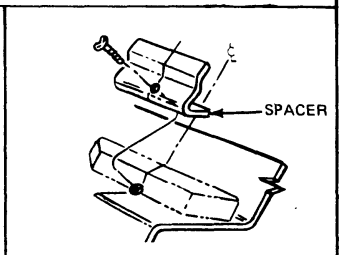
VIEW G



VIEW H



VIEW J



VIEW K N2165-E

FIG. 3 Windshield and Exterior Moulding Installation—Pinto and Bobcat

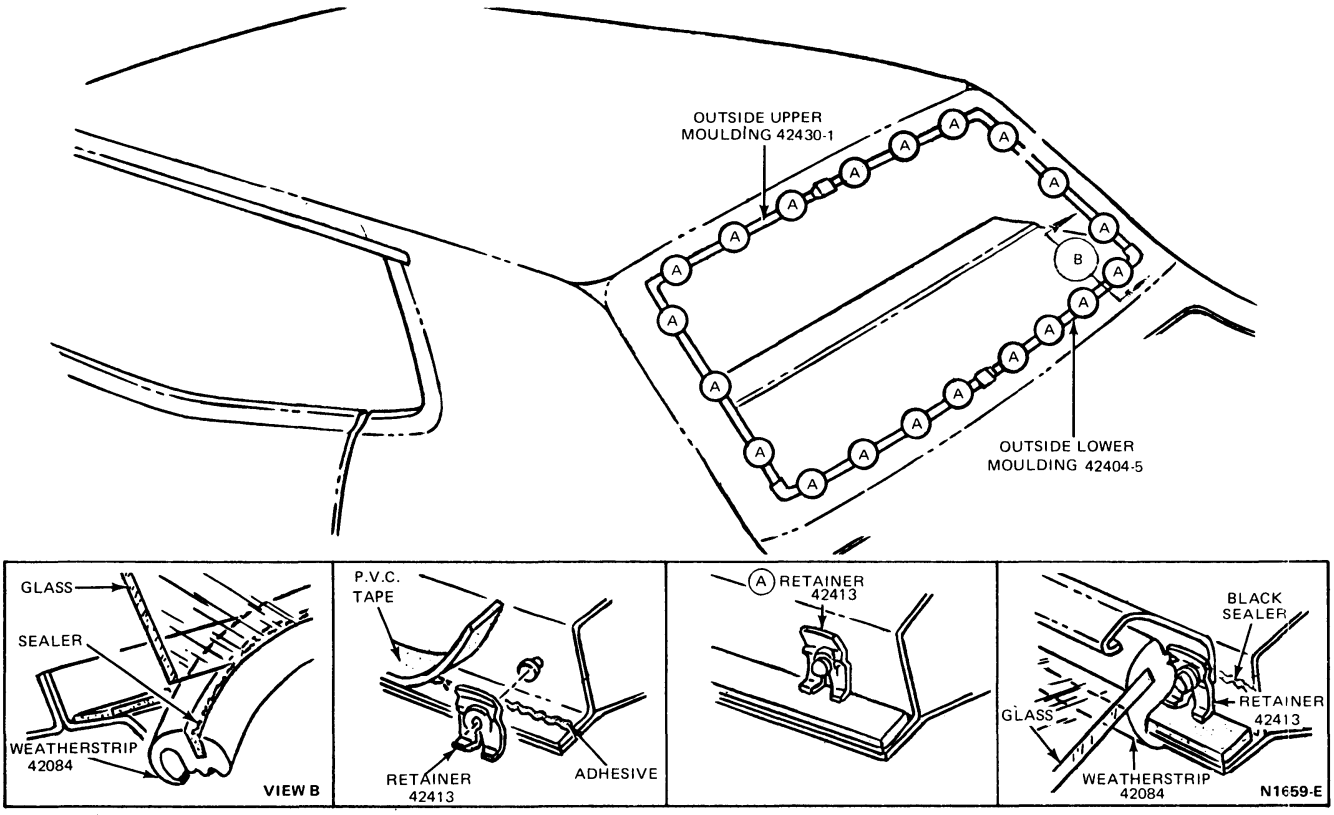


FIG. 4 Back Window and Exterior Mouldings – LTD II and Cougar XR7

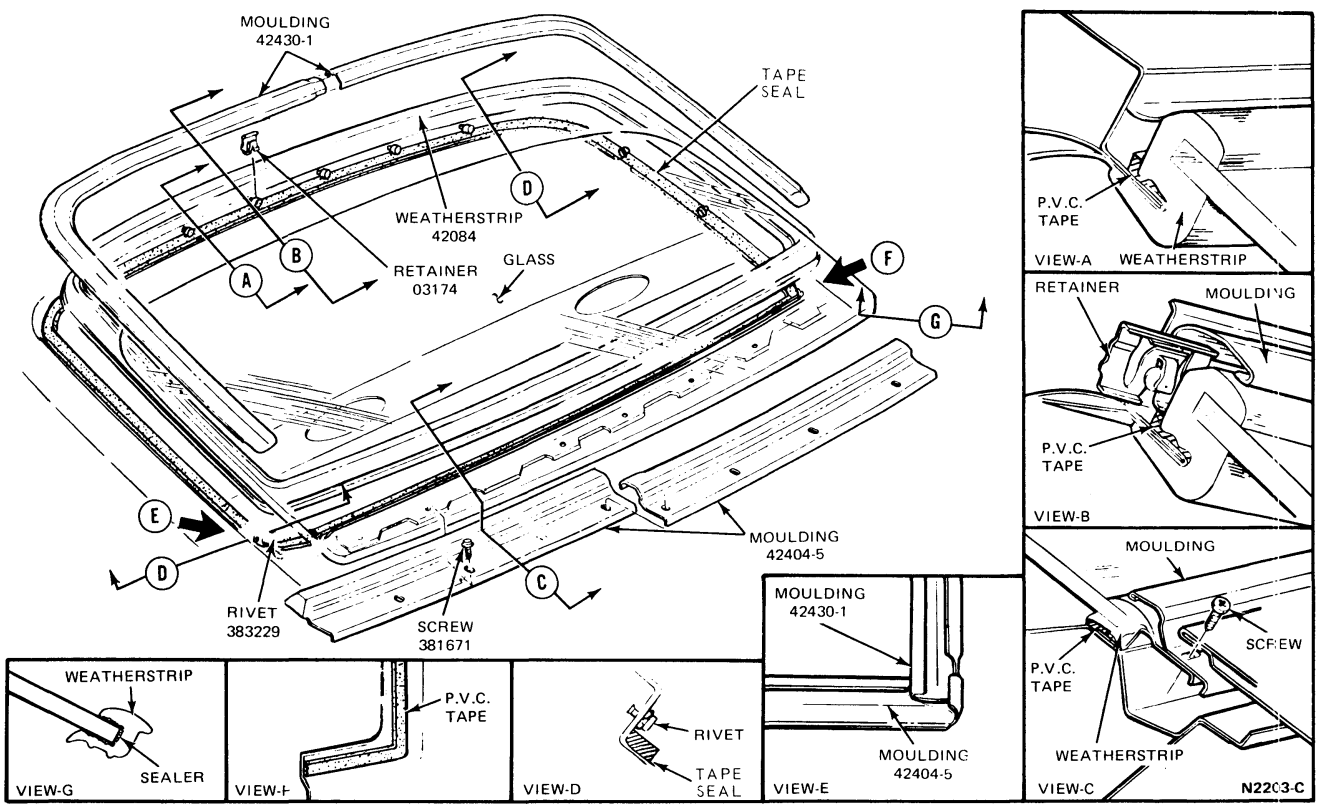


FIG. 5 Back Window and Exterior Mouldings—Maverick and Comet 2-Door Shown—Typical 4-Door

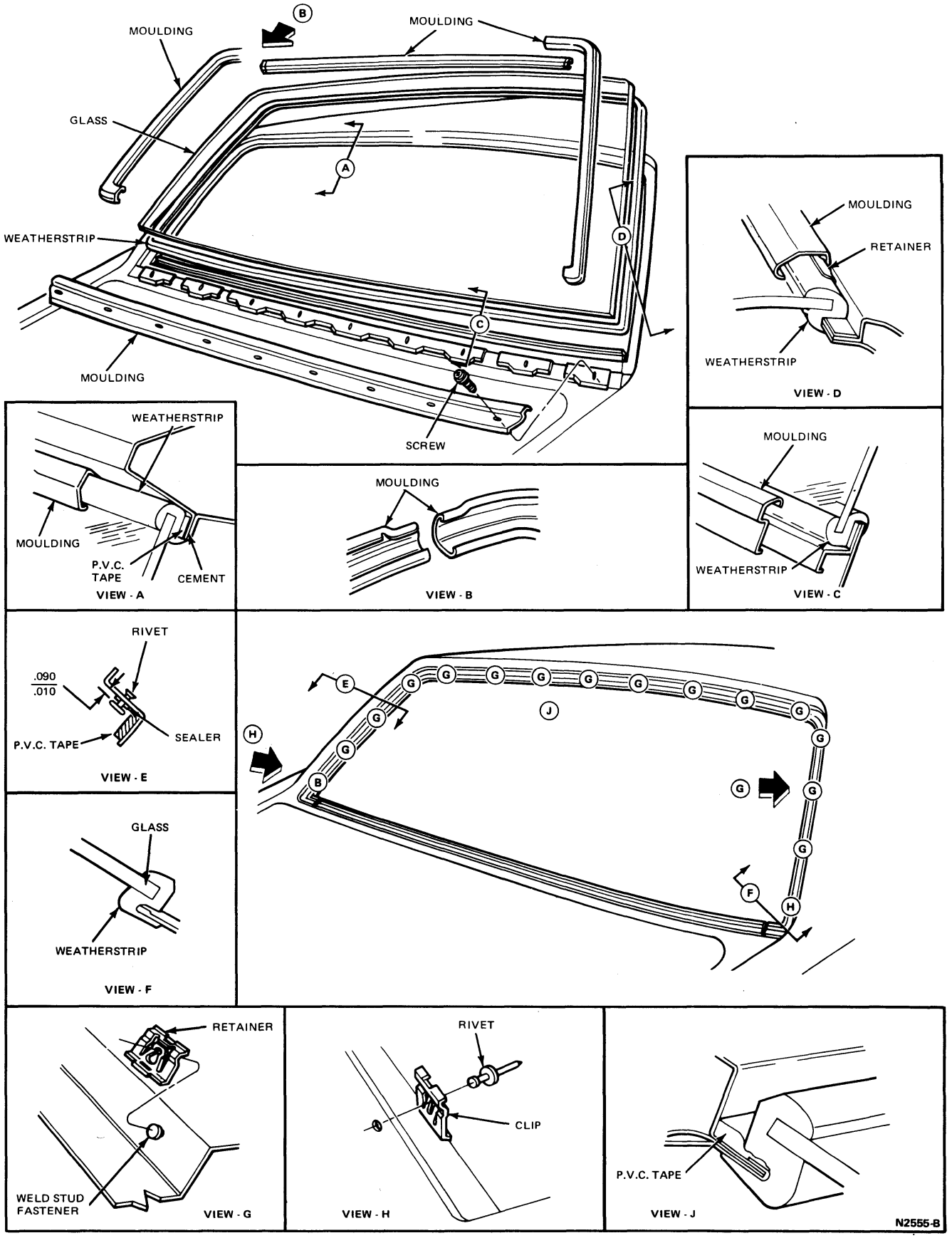


FIG. 6 Back Window and Exterior Moulding—Granada and Monarch 2-Door Shown—Typical 4-Door

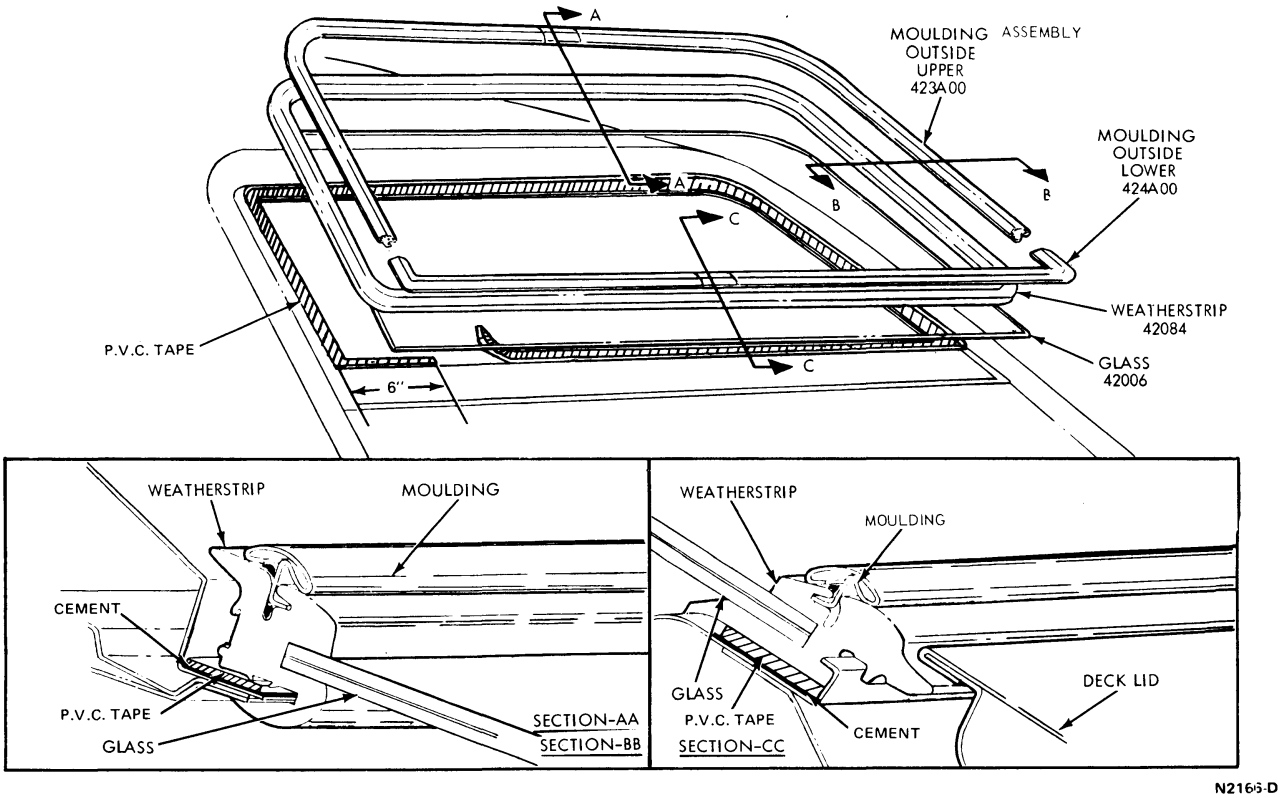


FIG. 7 Back Window and Exterior Mouldings—Pinto and Bobcat 2-Door

7. With an assistant applying hand pressure from the outside, pull the draw cord to pull the lip of the weatherstrip over the body opening flange. Draw the weatherstrip lip over the lower flange, each side flange, and then over the upper flange.
8. Install the windshield outside mouldings as shown in Figs. 2 and 3.
9. Install the wiper blades and arms (Group 35) and test for water leaks.

BACK WINDOW-WEATHERSTRIP TYPE SEAL

Removal

1. Remove the window outside mouldings (Figs. 4 through 11).
2. Remove the window interior garnish mouldings, (if so equipped).
3. With an assistant, push the glass and weatherstrip from the window opening.
4. Clean all sealer from the glass and/or weatherstrip if either is to be re-used.
5. Clean all tape seal from the glass opening flange.

Installation—All Models Except Pinto and Bobcat 3-Door and Station Wagon

1. Check all moulding retainers. Replace or repair damaged retainers to insure moulding retention. Replace any missing or damaged weld studs with a screw.
2. Apply tape seal to the pinch weld flange of body opening.
3. Position the weatherstrip on the glass.
4. Insert a draw cord in the pinch weld opening of the weatherstrip all around the weatherstrip (Figs. 13 and 14), and overlap the cord about 18 inches at the lower center of the glass. Tape the ends of the cord to the inside of the glass.
5. Position the window glass to the body window opening.
6. With an assistant applying hand pressure from the outside, pull the draw cord to pull the lip of the weatherstrip over the window opening flange. Draw the weatherstrip lip over the lower flange, each side flange and then over the upper flange.
7. Install the window outside mouldings.
8. Install the window interior garnish mouldings.
9. Test for water leaks. Apply sealer in the glass groove of the weatherstrip, if necessary.

Pinto and Bobcat 3-Door and Station Wagon

1. Remove the moulding and clean the weatherstrip area. Then, using a hand tool (screwdriver, chisel, etc.), insert an approximately 1/8 inch diameter drawcord into the moulding cavity of the weatherstrip. Start the cord at the lower center edge of the weatherstrip and continue pushing the cord around the entire perimeter (Fig 9). Leave a minimum of 10 inches of cord trailing at each end after completion.
2. Apply a soap solution around the entire moulding retaining lip on the weatherstrip.
3. Assemble the right and left hand sections of the mouldings to the weatherstrip by progressively positioning the retaining lip of the moulding under the raised weatherstrip retaining lip. Adjust the moulding as required to assure full engagement of the retaining lip.
4. Starting at the bottom of the glass, pull the drawcord outboard over the top of the moulding. Then, apply hand pressure to the moulding as the cord is being slowly pulled from the weatherstrip.
5. Visually check for full engagement of the moulding to the weatherstrip and repair any loose areas with a hand tool.
6. Remove all excess soap solution from the weatherstrip assembly.

STATIONARY QUARTER WINDOW GLASS

Pinto and Bobcat

Removal

1. Pry the weatherstrip inboard lip from the forward edge of the glass; then push the glass and weatherstrip from the glass opening.

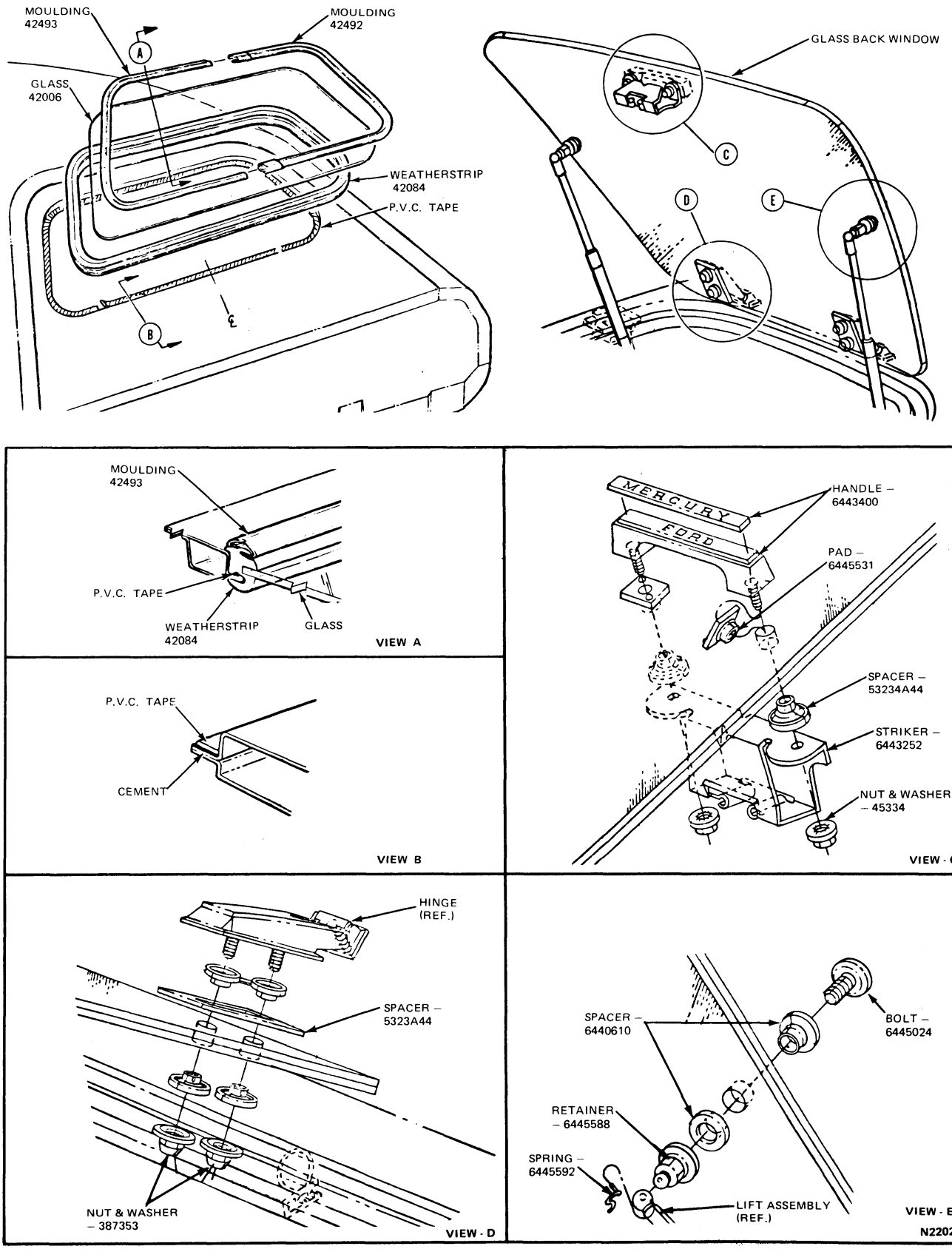


FIG. 8 Back Window and Exterior Mouldings—Pinto and Bobcat 3-Door

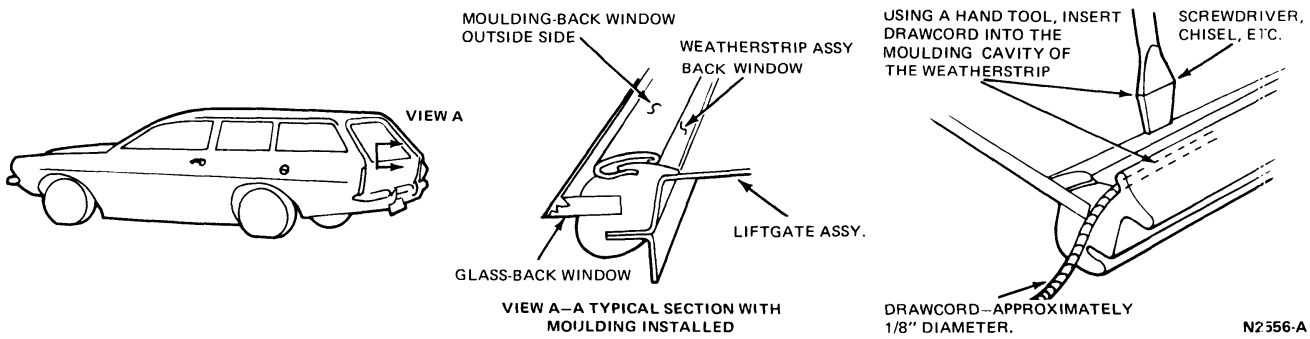


FIG. 9 Back Window Outside Moulding Installation—Pinto and Bobcat—3-Door and Station Wagon

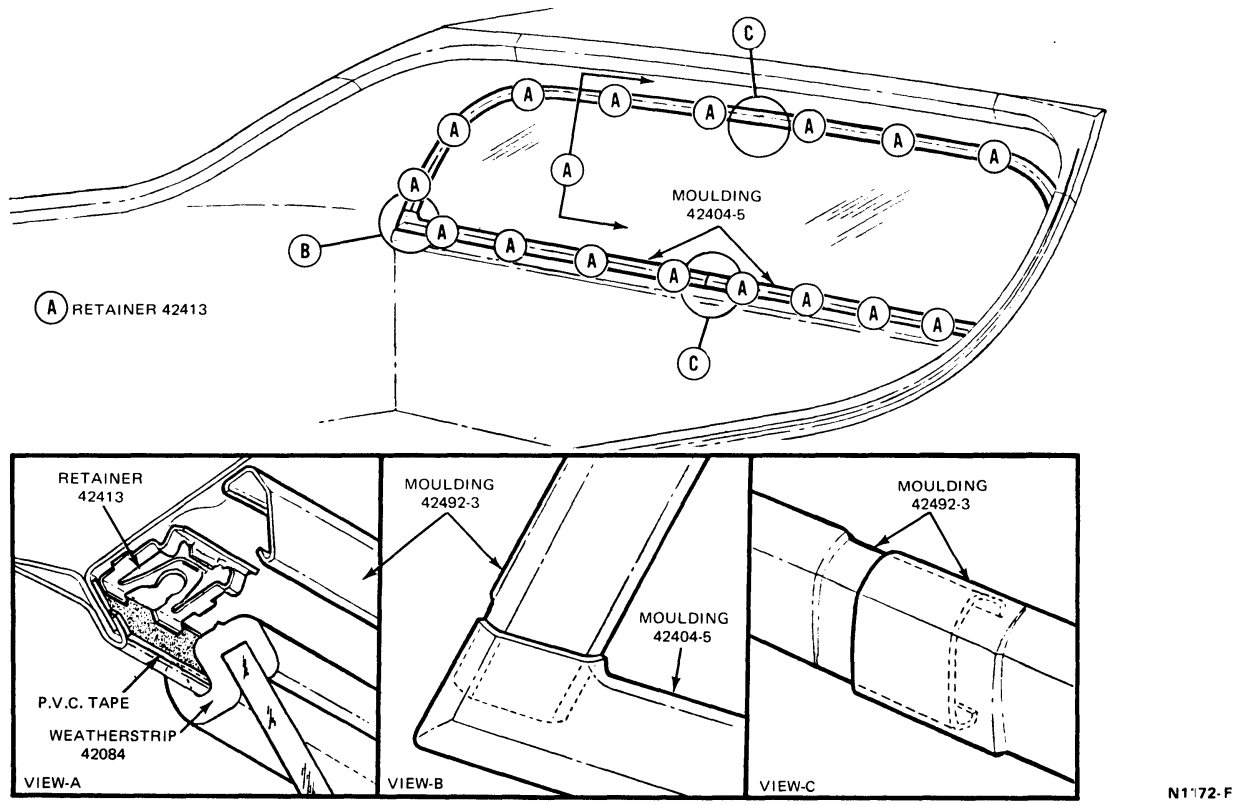


FIG. 10 Back Window and Exterior Mouldings – LTD II Ranchero

2. Remove the upper moulding from the weatherstrip and remove the weatherstrip from the glass.

Installation

1. Clean any sealer or broken glass from the weatherstrip.
2. Apply PVC tape to the glass opening flange. Then, install the weatherstrip on the glass and install the moulding in the weatherstrip groove. (Fig. 12).
3. Insert a draw cord in the pinch weld opening of the weatherstrip all around the weatherstrip and overlap the cord about 18 inches at the lower center of the glass. Tape the ends of the cord to the glass.
4. Position the quarter glass to the body opening, then apply hand pressure from the outside and pull the draw cord to pull the weatherstrip over the body opening flange.

Mustang, Granada and Monarch

1. Remove the interior garnish mouldings (Group 45).
2. Remove the screws attaching the quarter window assembly to the rear quarter (Figs. 15, 16, 17 and 18), and remove the assembly from the opening.
3. Position the glass to the opening, and install the attaching screws.
4. Install the interior garnish mouldings (Group 45).

Mark V, Thunderbird, LTD II and Cougar

Removal

1. Remove the inside garnish moulding and quarter trim panel (Group 45).
2. Remove two bolts attaching the glass bracket extension (Figs. 19 and 20) to the quarter inner panel.
3. Loosen the glass bracket-to-extension bolts, and remove the glass, bracket and extension from the vehicle.
4. Place the glass on a bench and remove the extension from the glass bracket.
5. Remove the center pin from the glass bracket-to-glass rivets with a drift punch. Then, drill the head from the rivets with a 1/4-inch drill, and remove the rivets.

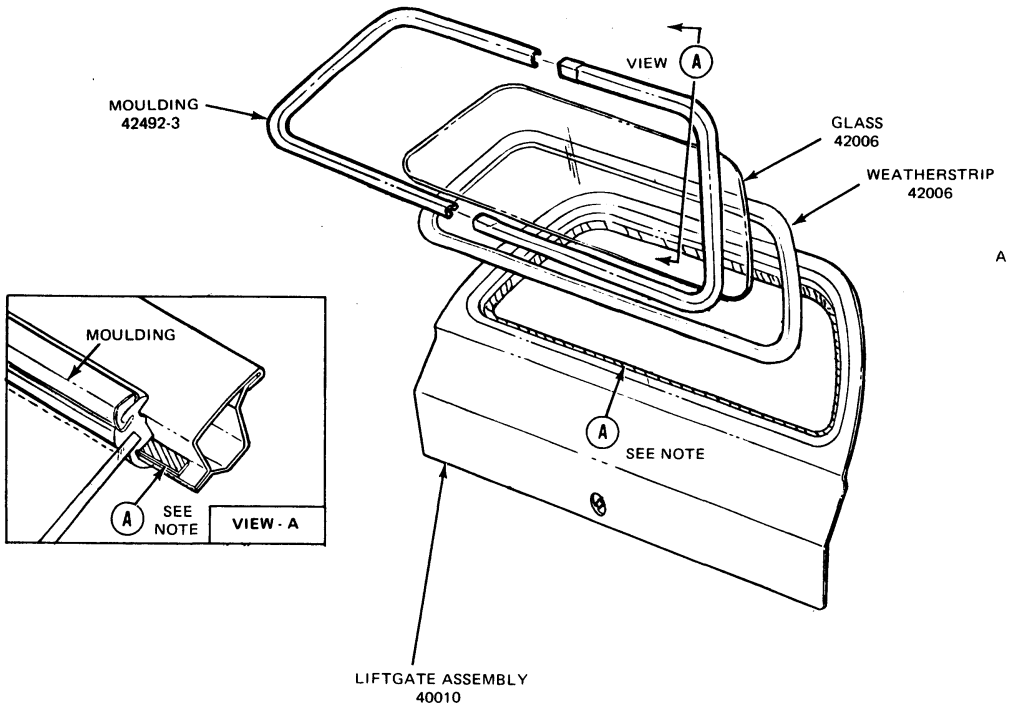


FIG. 11 Back Window and Exterior Mouldings—Pinto and Bobcat Station Wagon

6. Separate the glass bracket, spacers and retainers from the glass.
7. Remove the front weatherstrip and retainer from the glass.

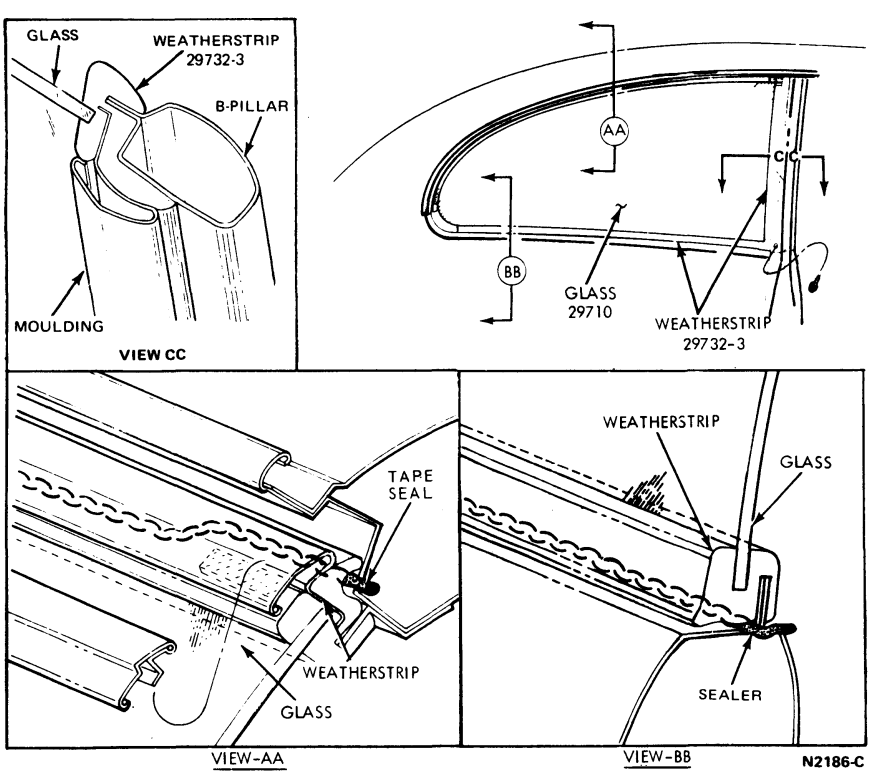


FIG. 12 Quarter Window and Mouldings Pinto and Bobcat

Installation

1. Install the front weatherstrip and retainer on the glass using butyl. Use 1 3/4 inch wide tape, approximately 0.06 inch thick.
2. Position the retainers and spacers to the glass and snap them together (Figs. 19 and 20).
3. Position the glass bracket to the glass and install 1/4-20 x 1 inch hex head bolts and 1/4-20 hex nuts to attach the bracket to the glass. Tighten the nuts to 6-11 ft-lb. torque.
4. Position the extension to the glass bracket and install the attaching bolts finger tight.
5. Position the glass and bracket assembly in the quarter and install two bolts to attach the assembly to the inner panel. Tighten the bolts to 3-7 ft-lb. torque.
6. Position the glass snugly against the weatherstrip to obtain a good seal between the glass and weatherstrip. Then, tighten the glass bracket-to-extension attaching bolts to 3-7 ft-lb. torque.
7. Install the quarter trim panel and interior garnish moulding.

OPERA WINDOW

Removal

1. From inside the vehicle, remove the interior garnish mouldings to gain

access to the quarter pillar trim panels.
2. Remove the rear seat cushion and back assembly (Group 41).
3. Remove the quarter lower and upper trim panel to gain access to the opera window attaching screws (Figs. 17 and 18).
4. Remove the screws and opera window assembly.

Installation

1. Clean all sealer and foam tape from the body opening and the weatherstrip.
2. Apply foam tape to the flat surface of the weatherstrip.
3. Position the window to the body opening and install the attaching screws.
4. Install the upper and lower trim panel, garnish mouldings and seat back and cushion assembly.

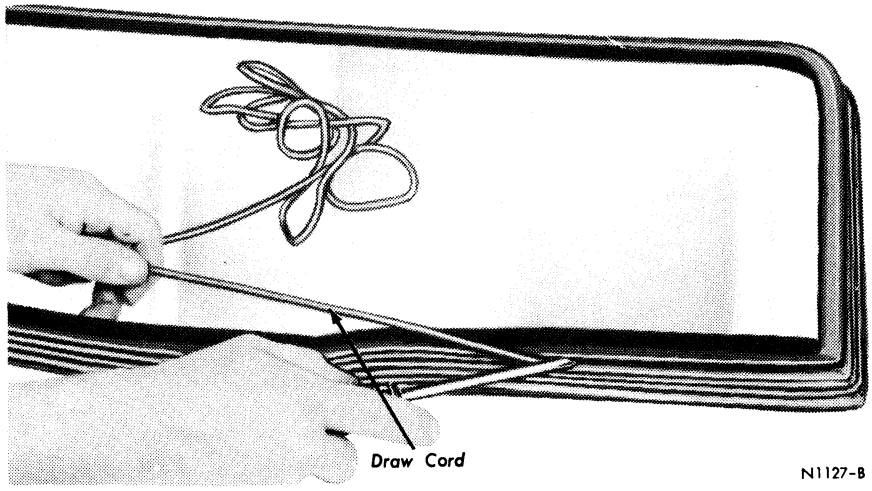


FIG. 13 Draw Cord Installation—Typical

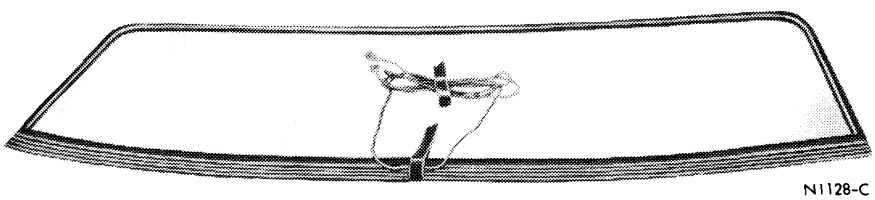


FIG. 14 Draw Cord Installation—Typical

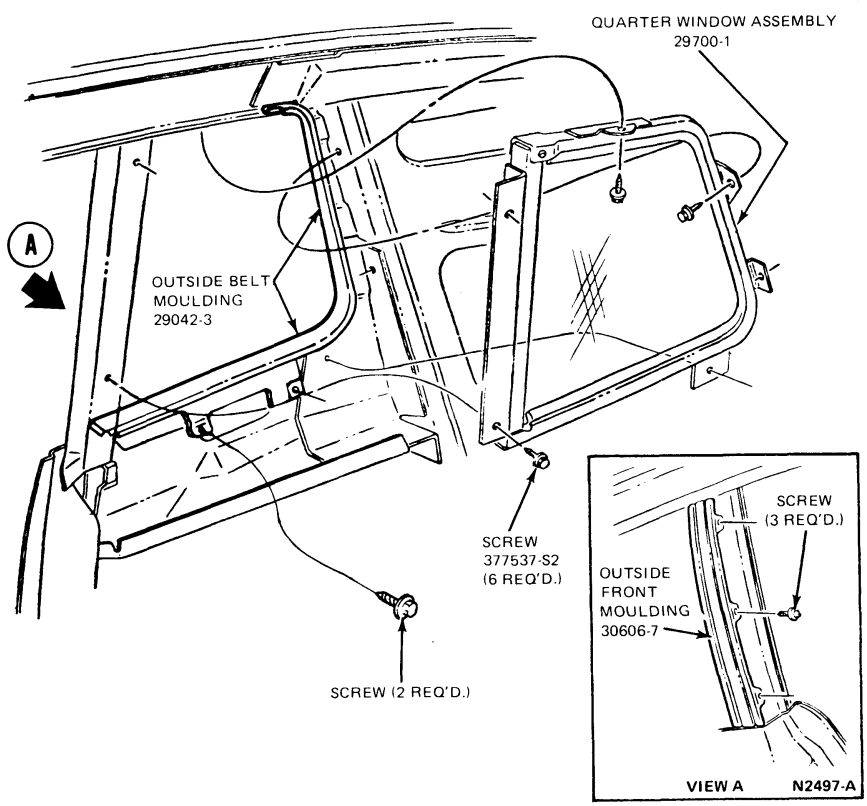


FIG. 15 Quarter Window Installation—Mustang 2-Door

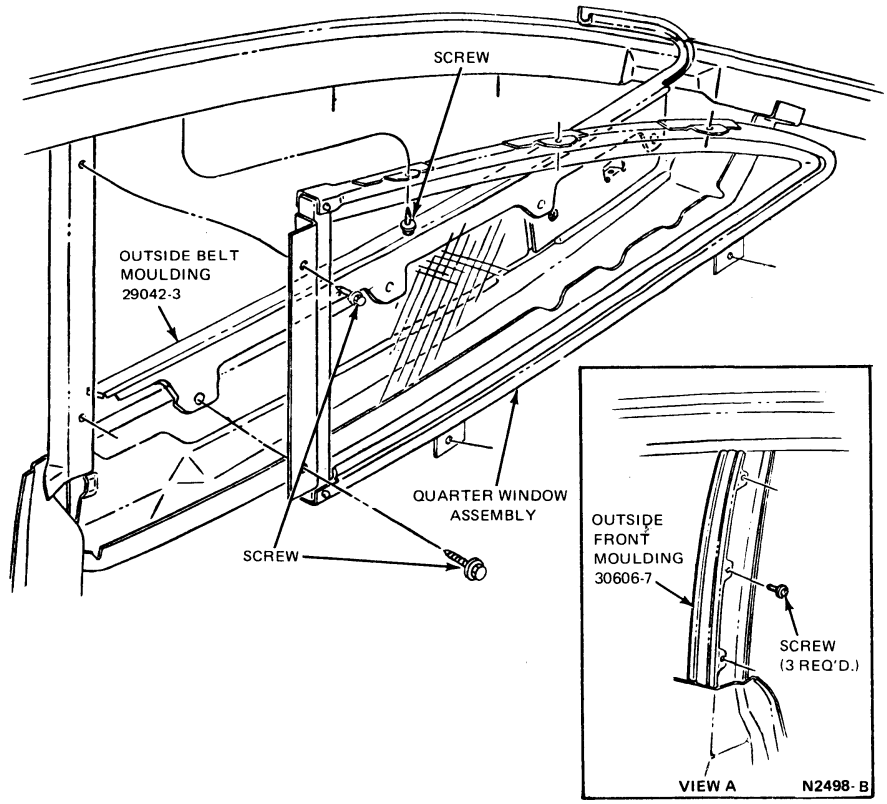


FIG. 16 Quarter Window Installation—Mustang 3-Door

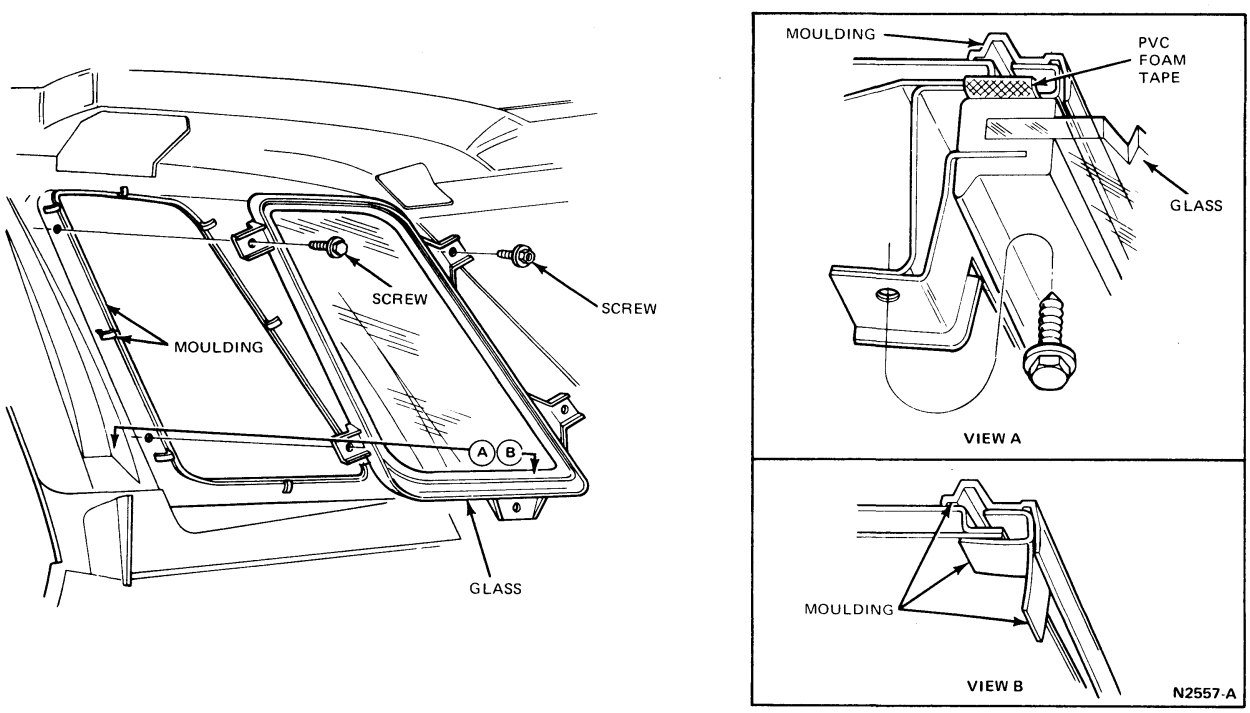


FIG. 17 Stationary Quarter Window—Granada and Monarch-2-Door

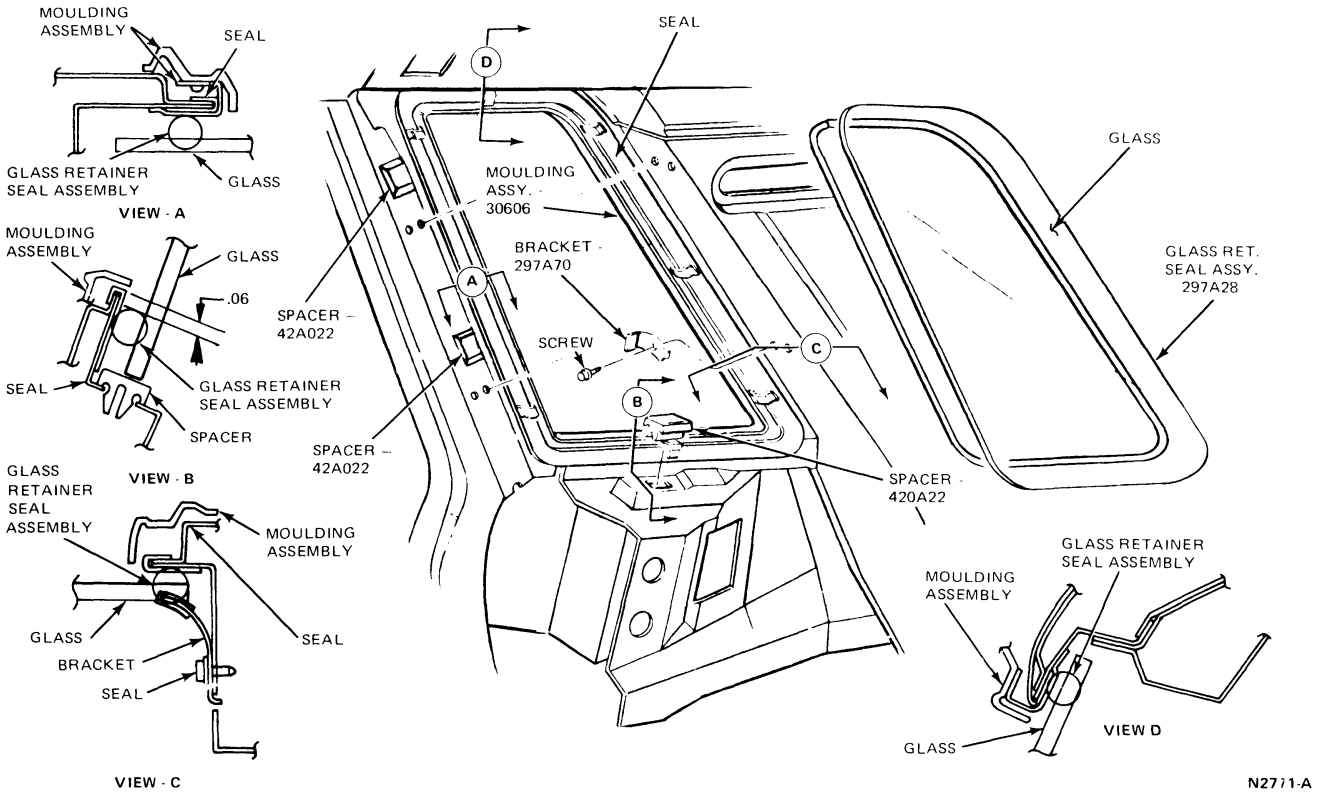


FIG. 18 Stationary Quarter Window—Granada and Monarch 2-Door

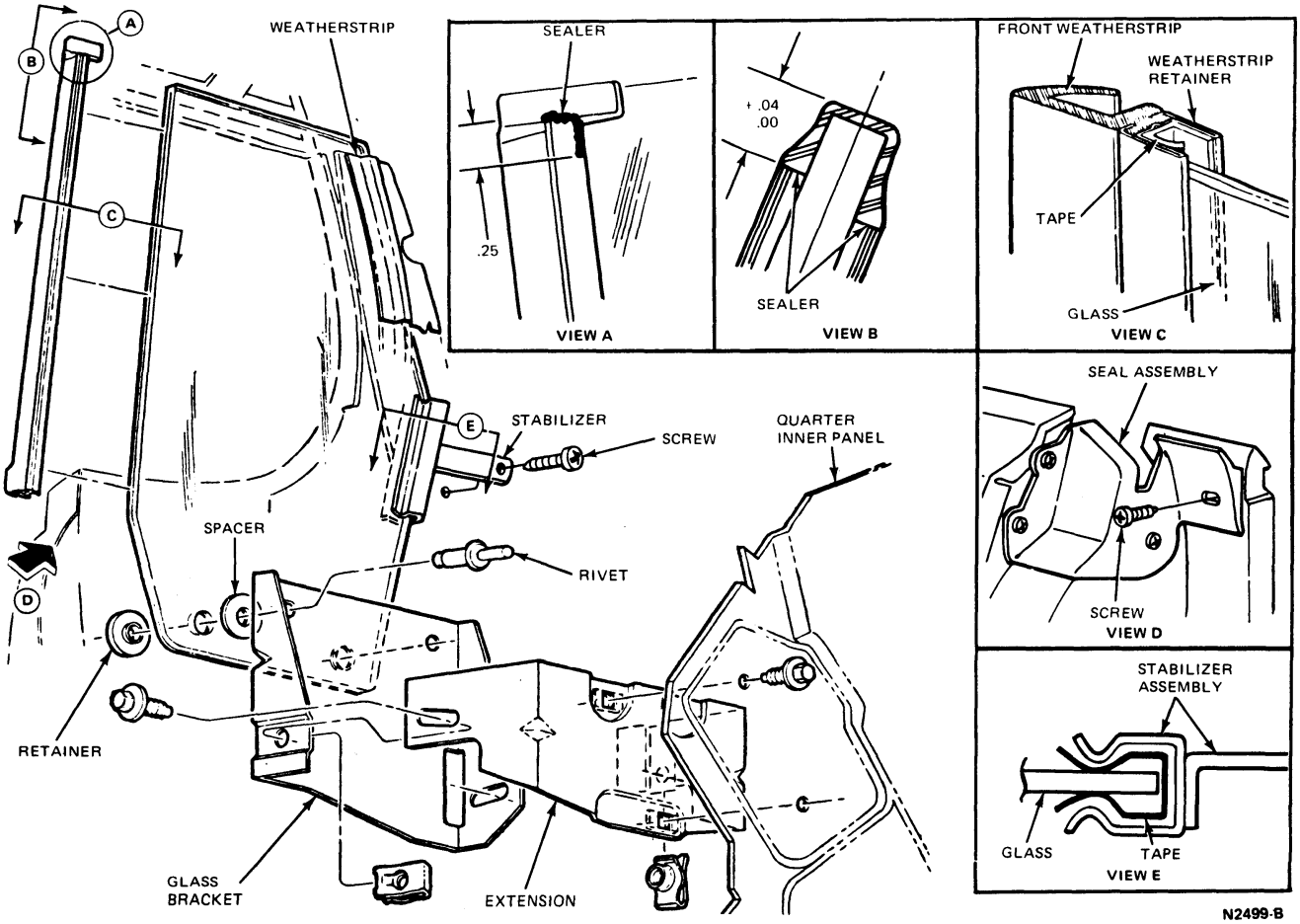


FIG. 19 Stationary Quarter Window—LTD II and Cougar

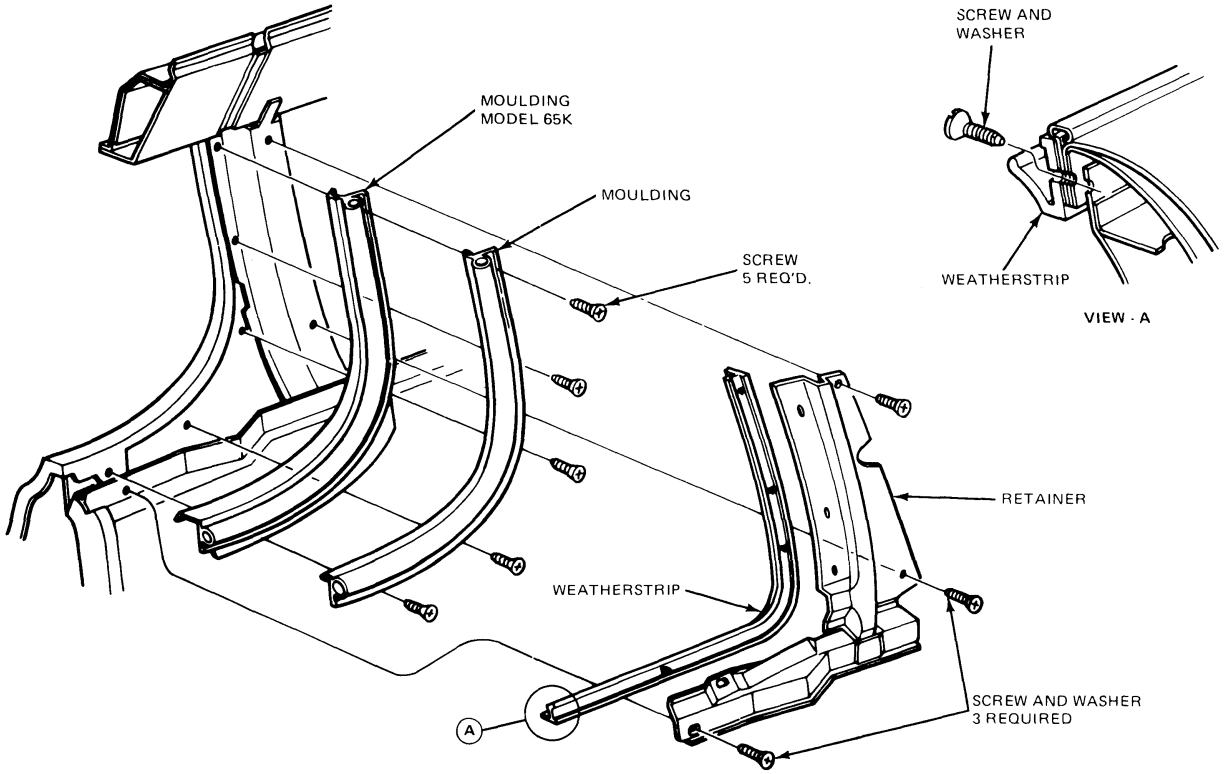


FIG. 20 Quarter Window Housing Extension—LTD II and Cougar

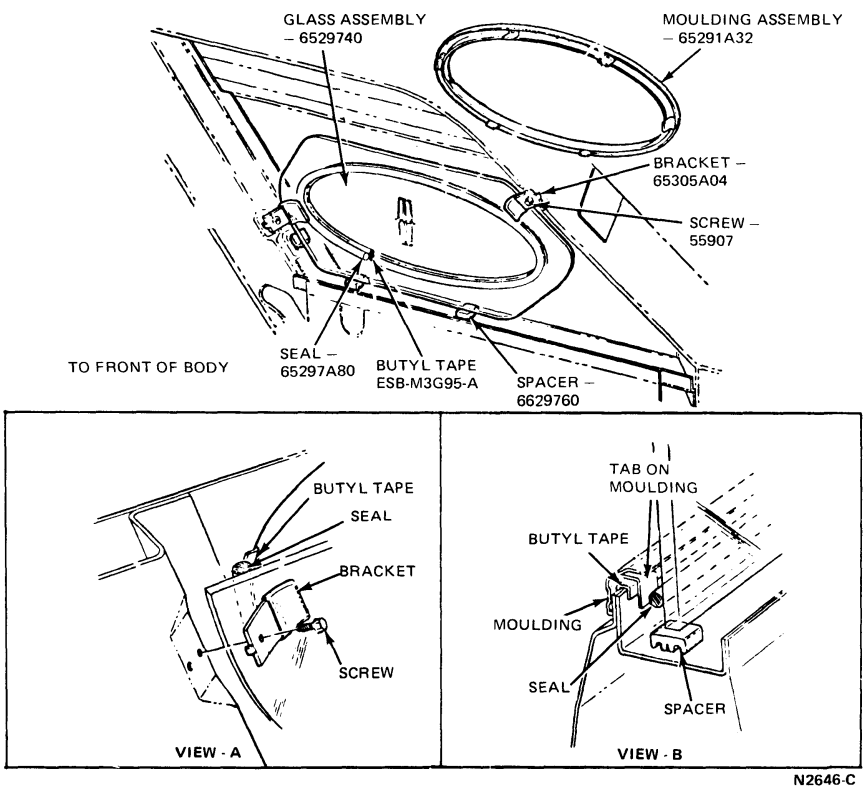
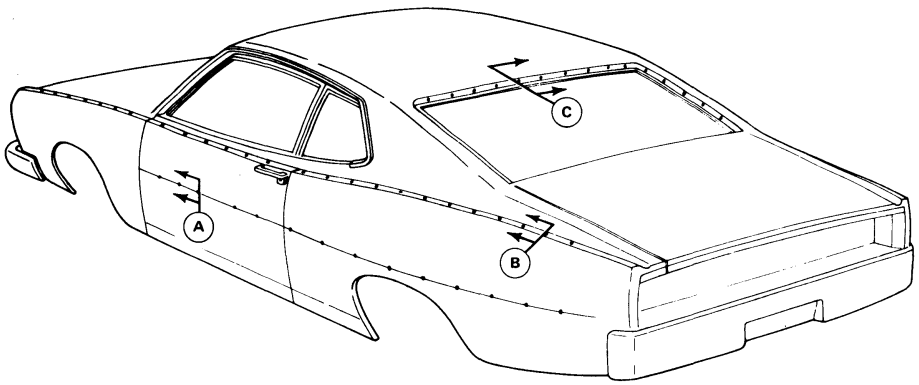


FIG. 21 Opera Window Installation—Continental Mark V—Thunderbird, LTD II, Cougar and Lincoln Continental Similar



NOTE: WHEN BODY ORNAMENTATION WELD STUDS ARE DAMAGED OR MISSING, A BLIND RIVET, ITEM 1, IS TO BE INSTALLED TO THE DIMENSIONS SHOWN IN APPROPRIATE VIEW.

PROVIDE (.129-.125) INCH DIAMETER HOLE TO RECEIVE BLIND RIVET, ITEM 1.

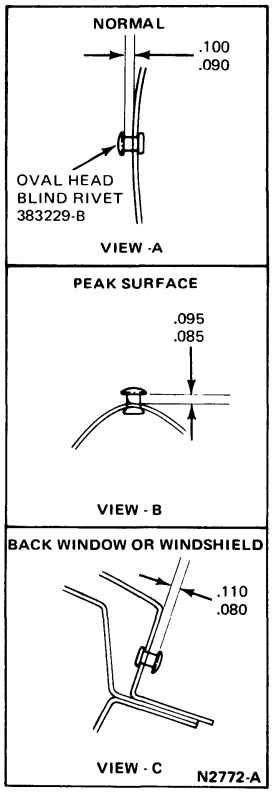


FIG. 22 Typical Body Weld Stud Installation

Stationary Glass -- Butyl Type Seals

PART 43-11

SUBJECT	PAGE
REMOVAL AND INSTALLATION	
Glass	11-1
Back Window Mouldings	11-1
REMOVAL AND INSTALLATION (Cont'd.)	
Quarter Window Mouldings	11-1
Windshield Mouldings	11-1

CR2033-A

REMOVAL AND INSTALLATION

Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access.

If a weld stud is distorted or broken off, it should be replaced with a screw (379560-S101). Also, refer to Fig. 23 in Part 43-01.

WINDSHIELD MOULDINGS

The windshield mouldings for the various models are shown in Figs. 1 through 6. If the mouldings are retained with retainers set in the glass opening, the moulding should be released from the retainers with the tool shown in Fig. 1, Part 43-01.

BACK WINDOW MOULDINGS (EXCEPT FRENCHED)

The back window mouldings are shown in Figs. 7 through 17. If the mouldings are retained with retainers set in the glass opening, the moulding should be released with the tool shown in Fig. 1, Part 43-01.

FRENCHED BACK WINDOW MOULDINGS

The Special Order "frenched" back window option with the half padded vinyl roof cover, extends over and tucks under the back window mouldings. A "frenched" back window appears to be recessed down into the roof cover, with no back window mouldings visible.

Removal

1. Using a sharp knife or razor blade, remove the bead of silastic rubber adhesive from between the roof cover and the back window glass.

   NOTE: When cutting the seal, hold the knife blade cutting edge against the glass to avoid the possibility of cutting the roof cover (Fig. 8).
2. Using a hooked tool fabricated from a discarded Bowden control wire or equivalent, (Fig. 8), carefully pull the roof cover out from between the glass and the covered back window moulding.

   NOTE: For added clearance, pry up the covered moulding with a wood wedge or a putty knife blade. Do not use heat to soften the vinyl.
3. Carefully peel the roof cover back at least one inch from the moulding. This is a critical phase of the repair as the vinyl cover and the padding can be seriously damaged unless the cover and the padding is carefully cut away from the moulding and the roof panel. Usually the padding will stick to the cover as it is pulled up and back from the moulding. A blunted putty knife can be used to push the pad away or a sharp knife can be used to cut the pad away from the moulding and roof panel.
4. Secure the peeled back cover and padding with tape as shown in Fig. 8, to about one inch beyond the mouldings around the entire back window.

   NOTE: The cover and pad are shown peeled back more than necessary for illustration purposes.
5. Remove the back window mouldings using tool shown in Part 43-01, Fig. 1.

Installation

1. Install the back window mouldings.
2. Using Vinyl Top Adhesive (D4AZ-19C525-A) (or equivalent) with the instructions shown in part 46-20, install the peeled back portion of the roof cover. The vinyl roof cover wrinkles can be carefully pulled out and the material pushed back into position under the mouldings using the reworked putty knife and the wedge (Fig. 8).

   NOTE: Do not use heat in an attempt to eliminate wrinkles.
3. Reseal the glass-to-roof cover gap with a thin bead of Dow Corning Clear Silastic Adhesive or equivalent. This adhesive can be tooled before it starts to "skin over" so that it will not show under normal inspection.

QUARTER WINDOW MOULDINGS

Cougar, LTD II, Ford and Mercury Station Wagon Only— For all other models, refer to Part 43-01.

The quarter window mouldings (Figs. 13 and 14), are retained with retainers set in the glass opening and should be released with the tool shown in Fig. 1, Part 43-01.

GLASS BUTYL TYPE SEAL

There are two procedures applicable to the installation of glass with butyl type seal.

Procedure No. 1 should be used with butyl kit (03863) packaged with 5/16" diameter butyl (round type). DO NOT use this kit if adhesion of existing butyl-to-pinch weld flange is unreliable, as indicated by a surface which is not smooth and free of excessive skips, bumps and contamination.

Procedure No. 2 should be used with butyl kit (03863) packaged with "I" beam type butyl, where complete

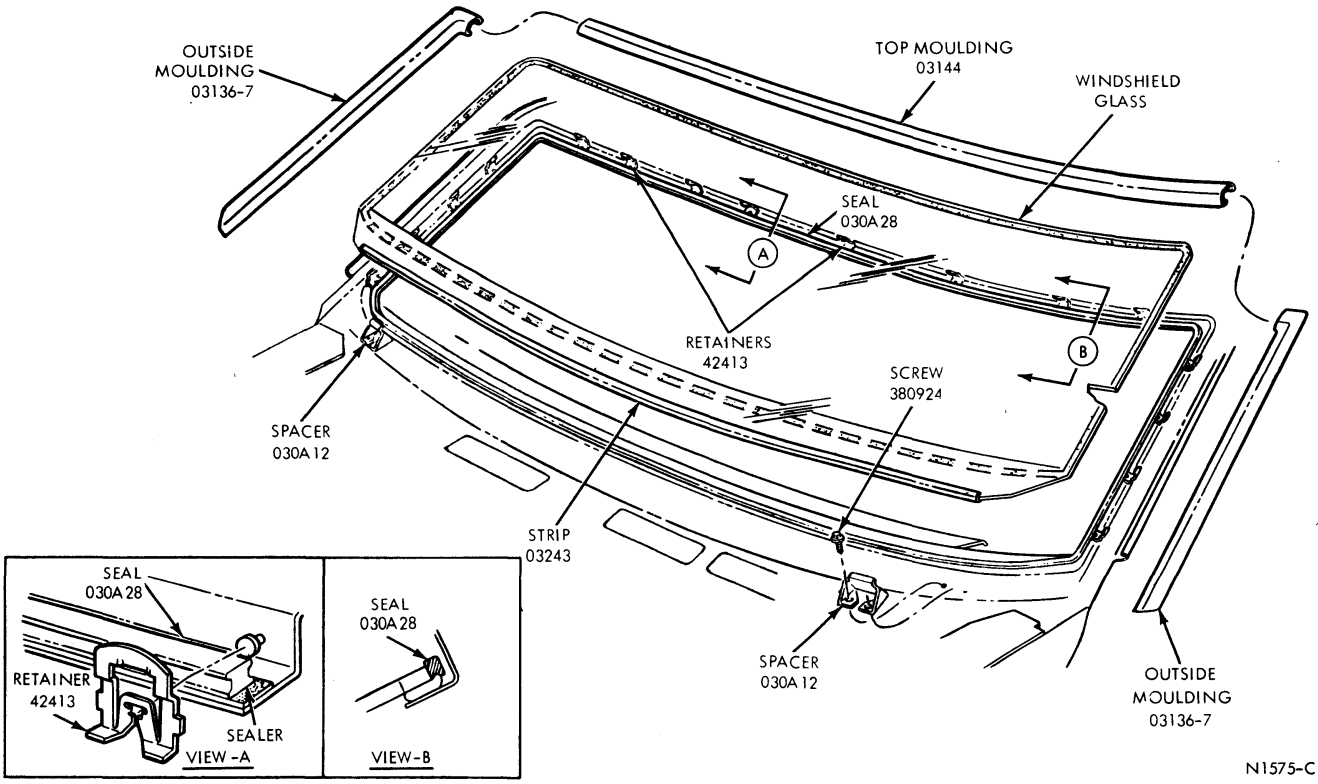


FIG. 1 Windshield and Exterior Moulding Installation Ford and Mercury—Typical

replacement of existing butyl is necessary.

Removal (Procedure No. 1)

Engine must be off on vehicles equipped with high voltage output type heated glass.

1. Remove the windshield wiper arms and blades if the windshield is being replaced (Figs. 1 through 6).
2. Remove the window mouldings (Figs. 7 through 14).
3. On the heated back window, it will be necessary to disconnect the window wires at the connectors on both sides of the window before proceeding with the glass removal.
4. With an electric knife Tool No. T70B-42006-A or equivalent (Figs. 15, 16 and 18), insert the blade under the edge of the glass. Cut the butyl seal as close to the inside surface of the glass as possible. To cut the butyl at the lower corners of the glass, move the handle of the tool as close to the corner as possible. Then, rotate the blade downward to cut the corner butyl seal and remove the glass from the vehicle using the glass holding tool (Figs. 15, 16 and 18).

Installation

1. Temporarily position the replacement glass in the windshield opening using spacers to prevent glass-to-metal contact. Adjust glass side to side to the best glass-to-"A" pillar weld flange overlap position and adjust lower spacers, if necessary, for proper positioning at the top. A minimum of 3/16" butyl tape-to-glass contact is required around the periphery to assure proper retention and adequate seal. Mark this location with a crayon on the outside surface of the glass and a corresponding point of the glass opening. Remove the glass and clean the inside surface and edge thoroughly.
2. Starting at the side of the glass opposite the original butyl splice, place the 5/16" diameter butyl furnished in the kit on top of and in a position that assures the 3/16" minimum contact with the glass on the existing butyl remaining on the pinch flange. NOTE: Do not allow the new butyl to overhang the edge of the existing butyl and do not stretch the butyl or bridge the corners of the window opening.
3. Carefully splice the two loose ends of the new butyl.
4. Apply the primer (furnished in the kit) around the perimeter of the cleaned inside surface and the edge of the glass in the area that will contact the butyl seal (Fig. 17). Allow the primer to dry one minute before installing the glass.
5. Place the glass in the opening, aligning the crayon marks.
6. Firmly press the glass against the butyl with hand pressure or weights. Recheck to assure that the 3/16" contact between glass and butyl is achieved. A dull spot indicates an area where the butyl is not contacting the glass surface. Additional pressure will seal such areas.
7. From outside the vehicle, apply C9AZ-19554-B Auto Glass Liquid Sealer (or equivalent) around the entire edge of the glass.
8. Remove any excess primer from the inside surface of the glass with a razor blade and wipe the glass with a clean cloth dampened in naphtha.
9. When the liquid sealer has "skinned-over" (approximately ten minutes), water test the installation. If necessary, repair any leaks with additional liquid sealer.
10. Install the mouldings and wiper arms and blades.
11. On the heated back window, it will be necessary to apply a piece of tape to the pinch weld flange under the wires. Then, connect the wires and install the garnish and exterior mouldings.
12. When cleaning the heated back window, use only liquid window cleaning solvent. Do not use steel wool or abrasive powders, as damage to the grid wires will result.
13. Clean the glass and surrounding area.

(Text continued on 43-11-11.)

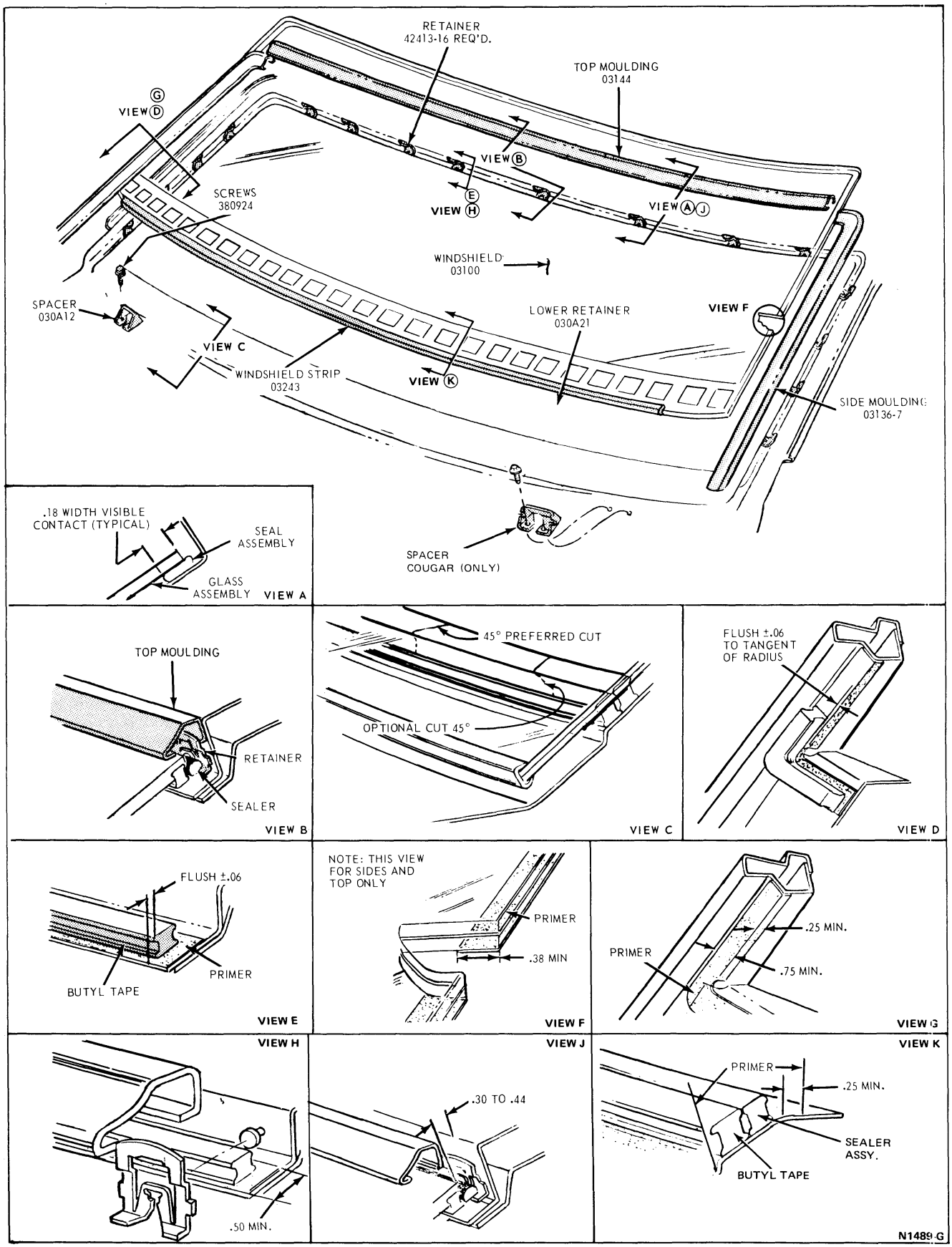
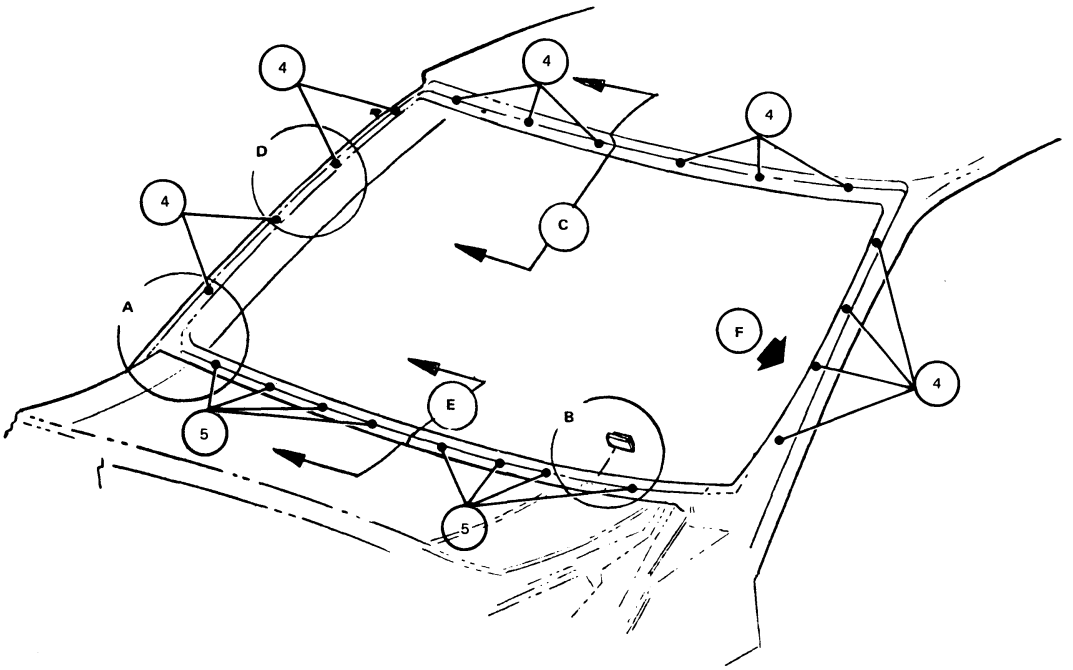


FIG. 2 Windshield and Exterior Moulding Installation—LTD II and Cougar



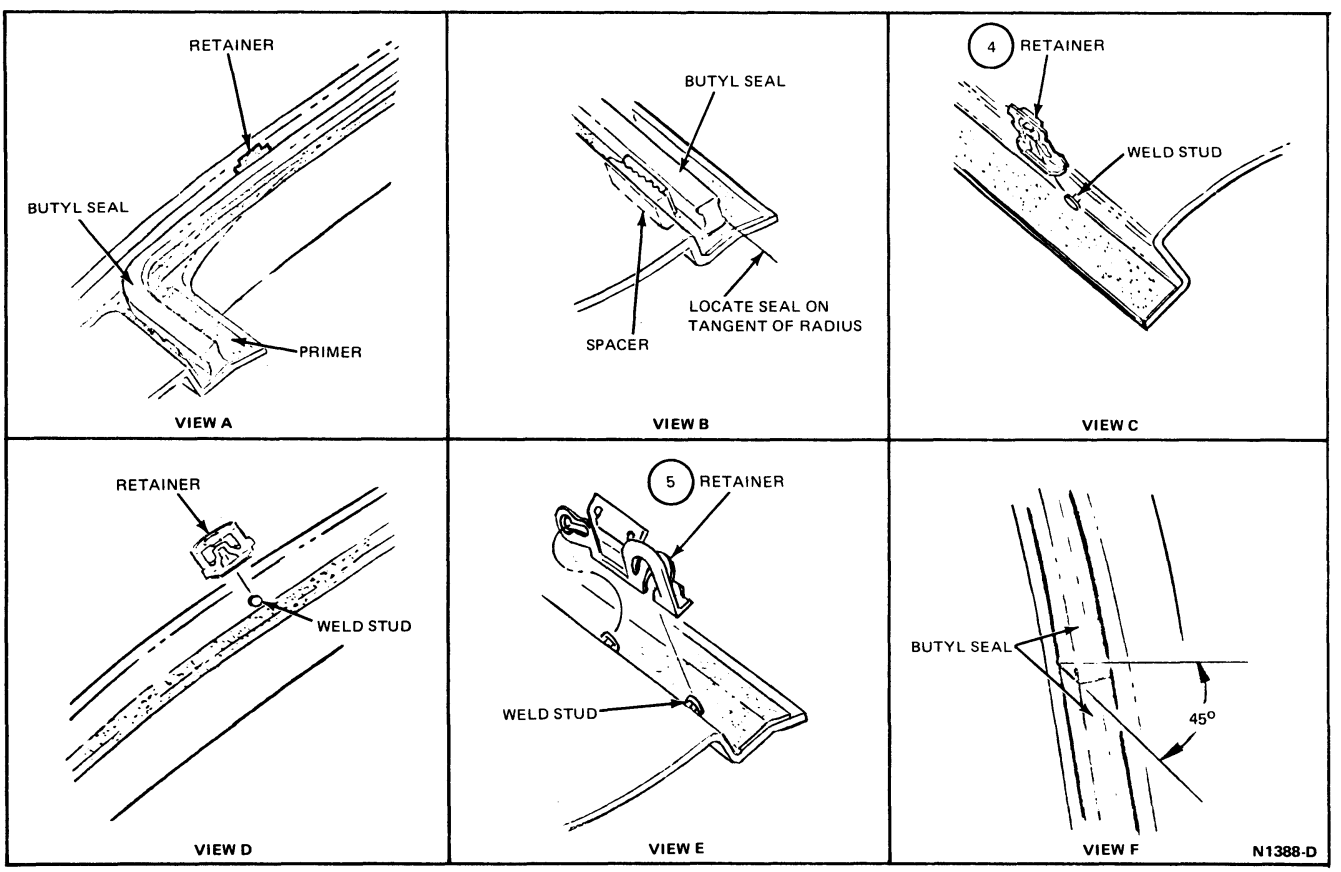


FIG. 3 Windshield and Exterior Moulding Installation—Mustang

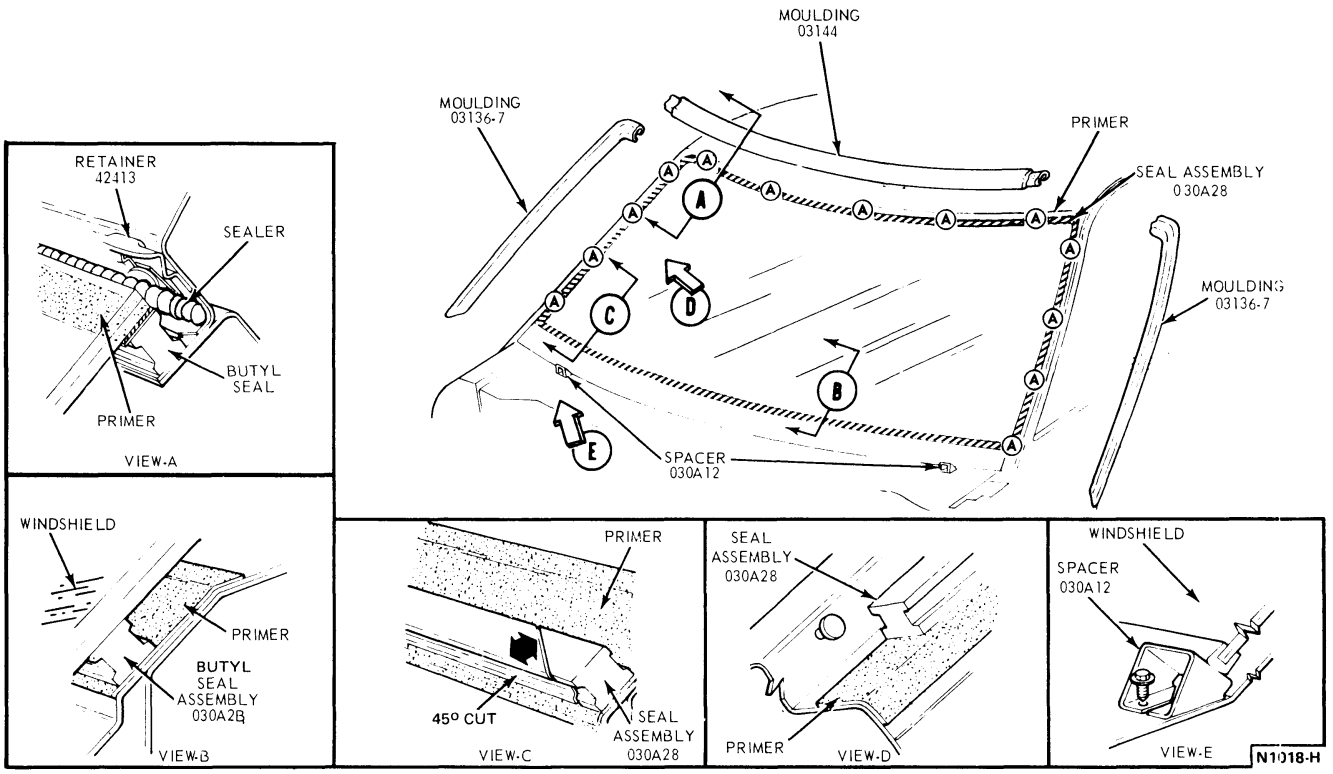


FIG. 4 Windshield and Exterior Moulding Installation—Thunderbird and Continental Mark V

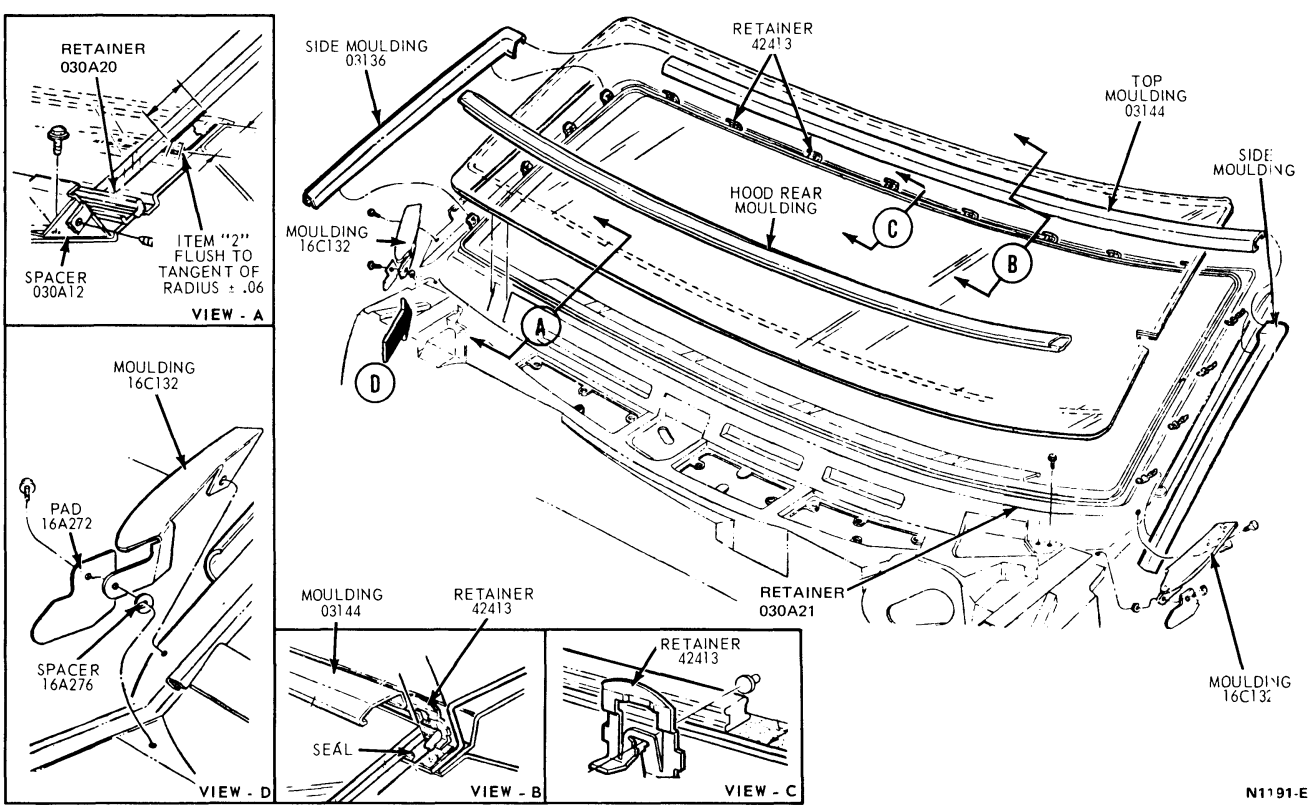


FIG. 5 Windshield and Exterior Moulding Installation—Lincoln Continental

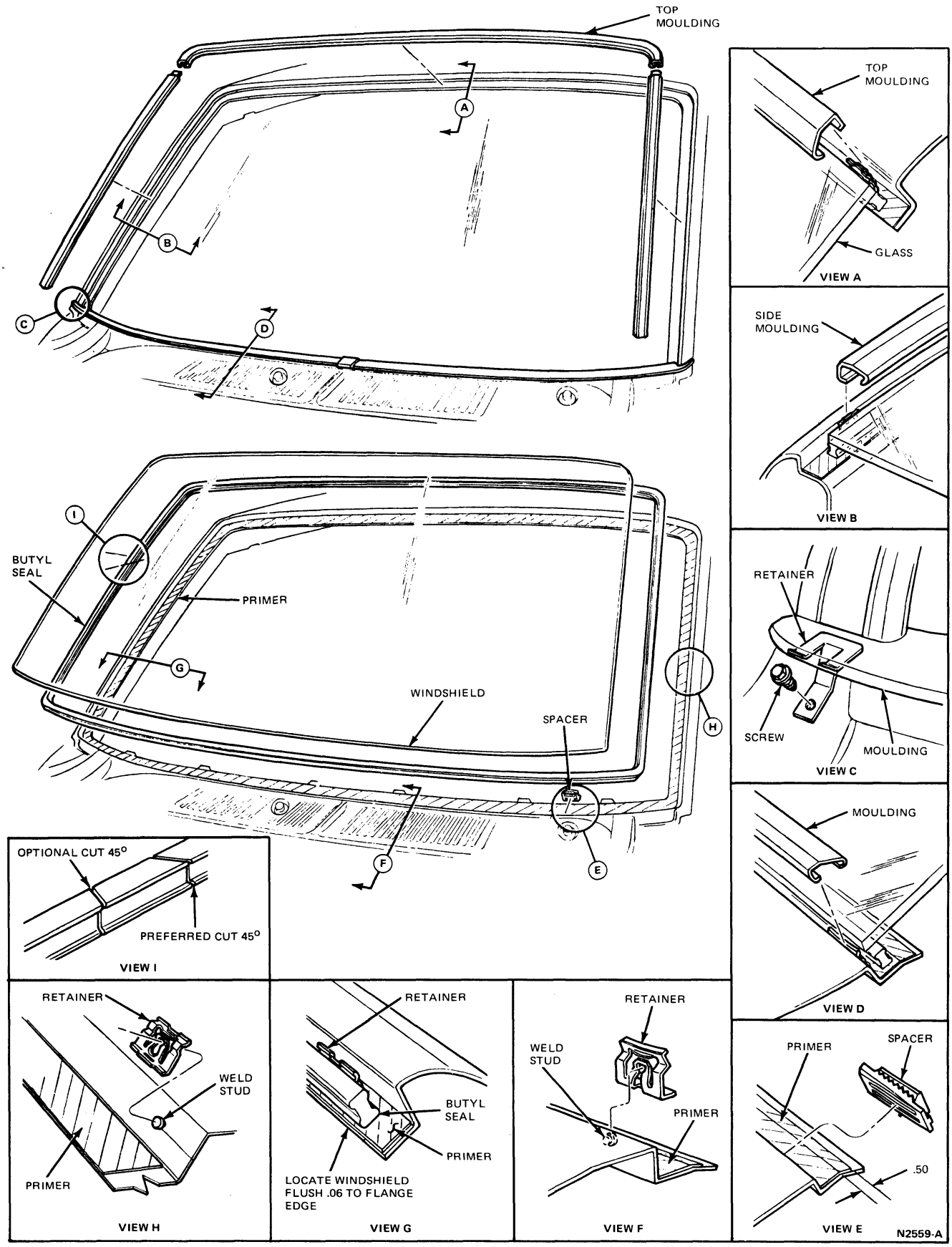


FIG. 6 Windshield and Exterior Moulding Installation – Granada and Monarch

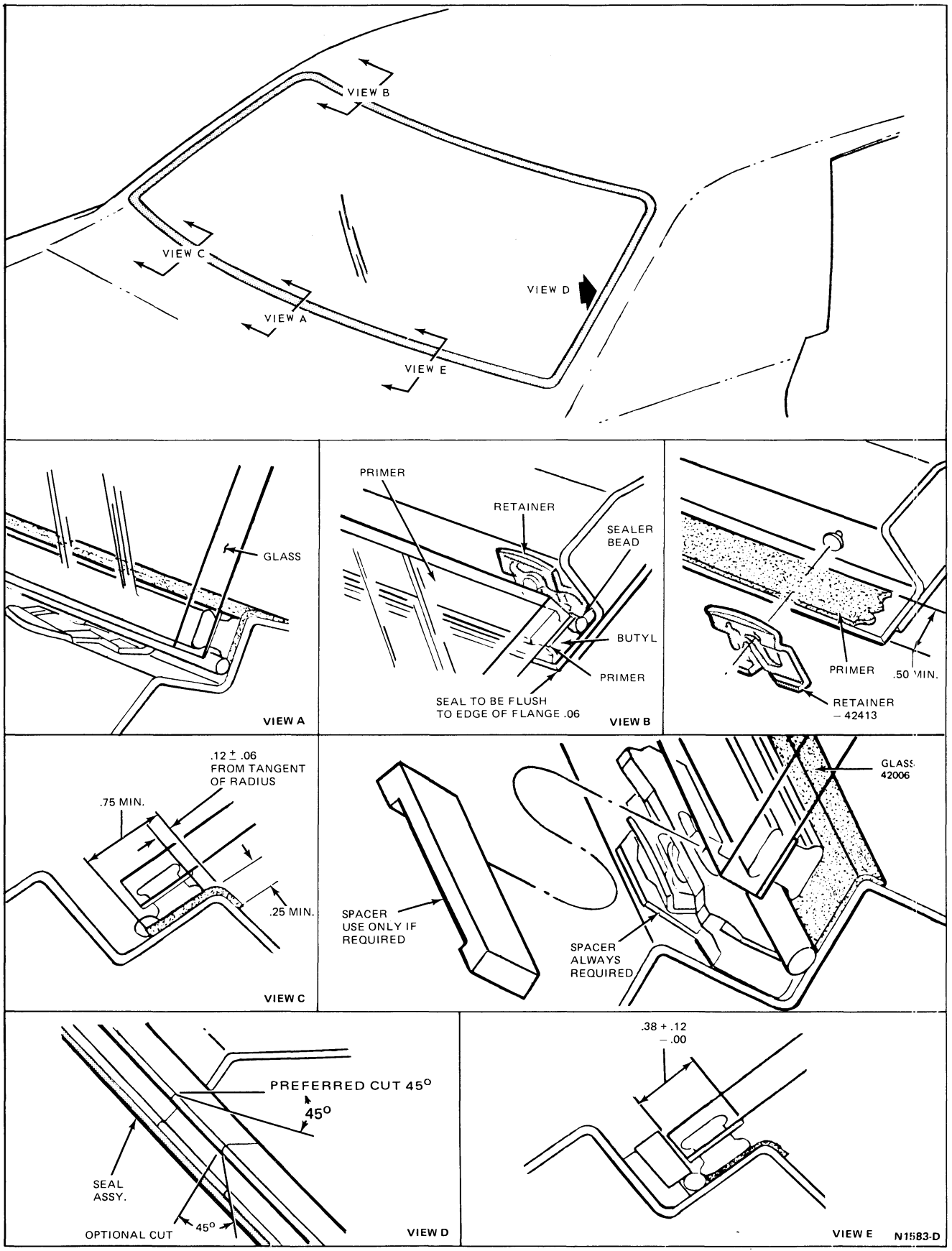


FIG. 7 Back Window and Exterior Moulding Installation—Ford and Mercury Except Station Wagon—Typical

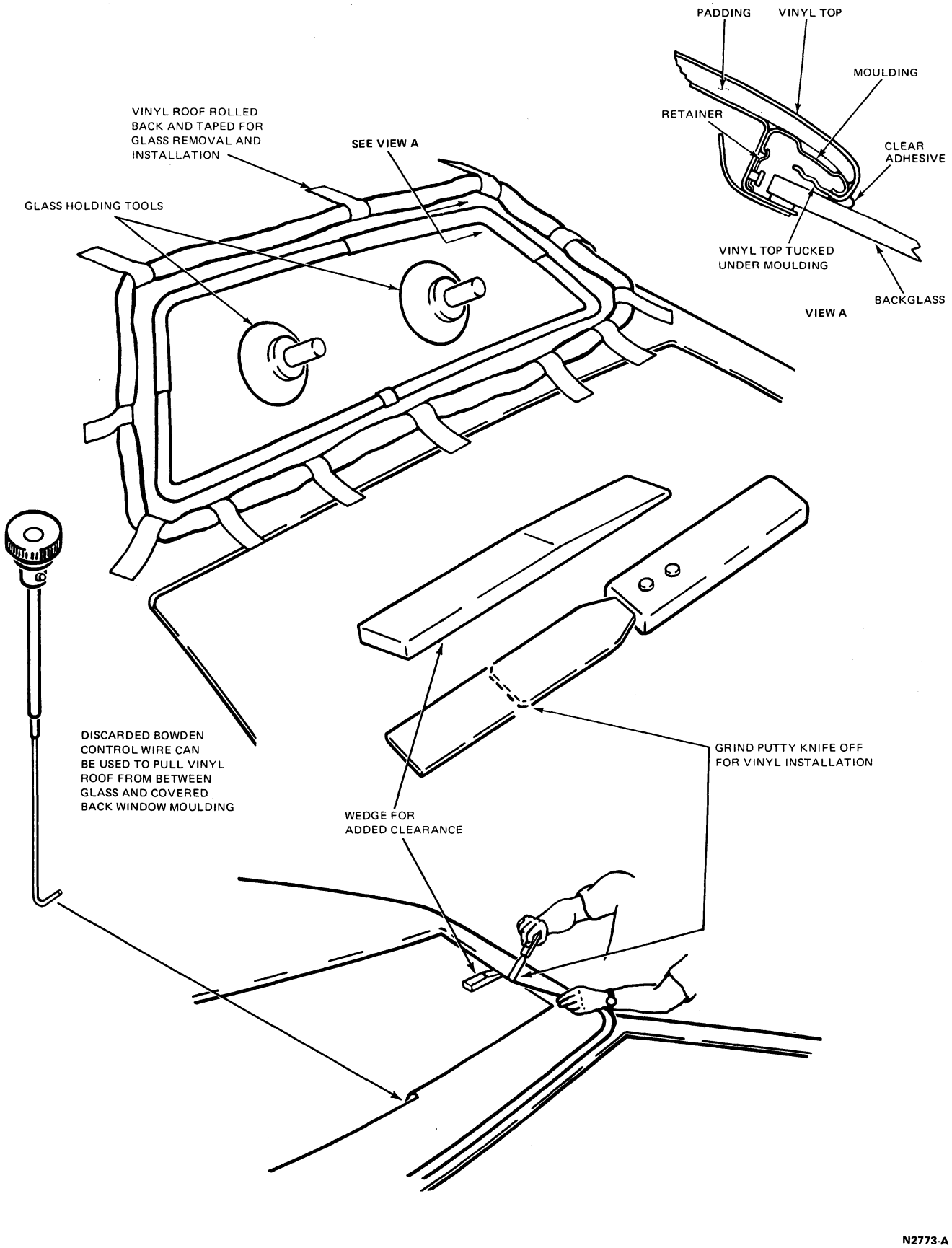


FIG. 8 Frenched Back Window Moulding Installation—Mark V and Lincoln

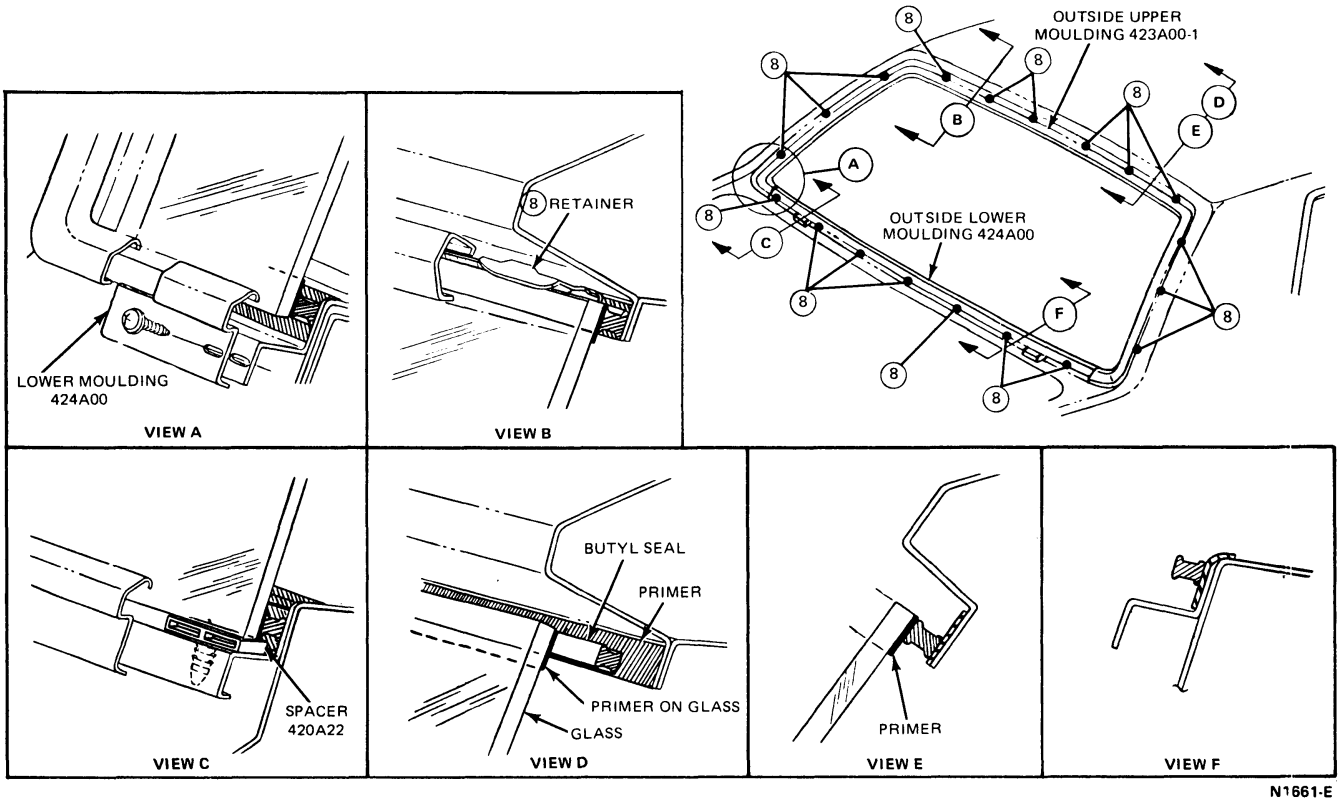


FIG. 9 Back Window Exterior Mouldings—Mustang 2-Door

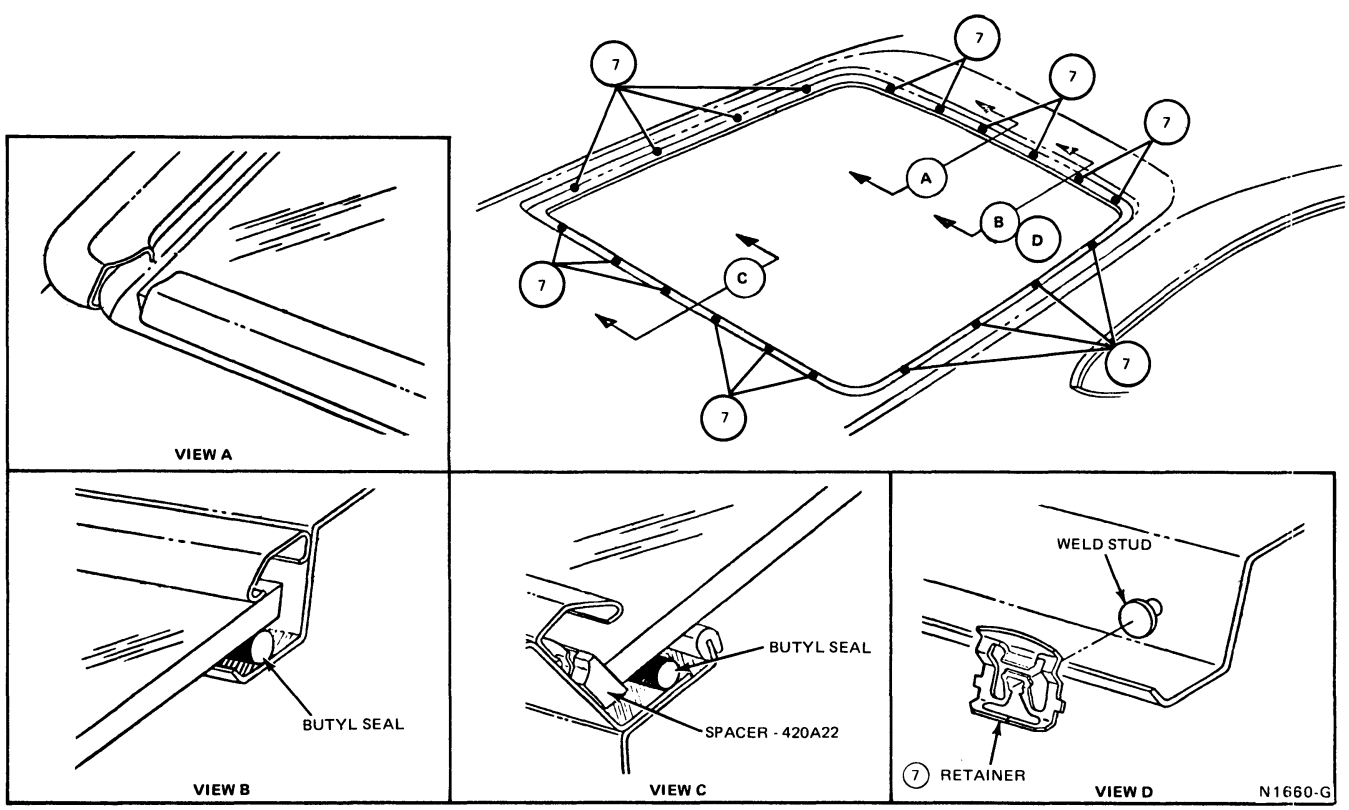
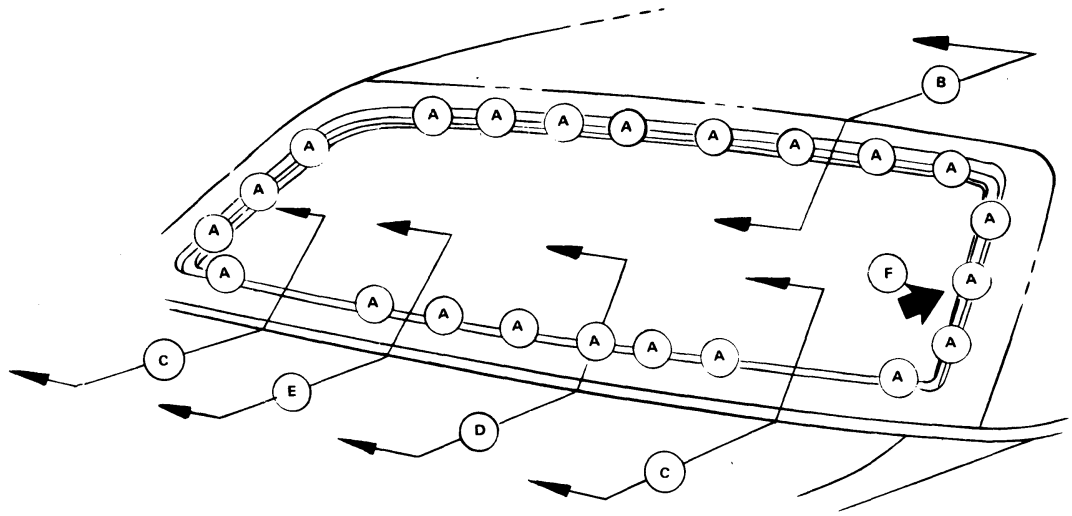
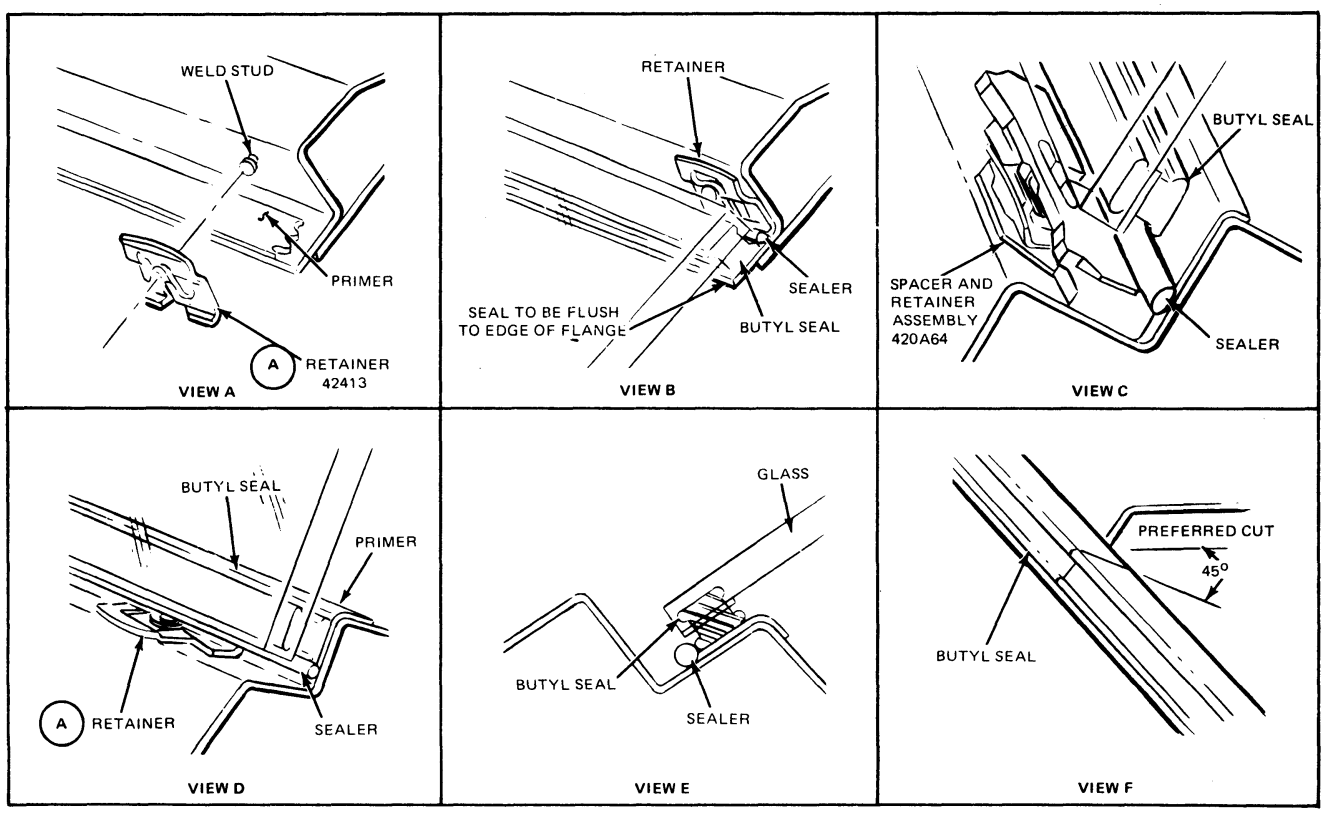


FIG. 10 Back Window Exterior Mouldings—Mustang 3-Door





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FIG. 11 Back Window Exterior Mouldings—Thunderbird and Continental Mark V

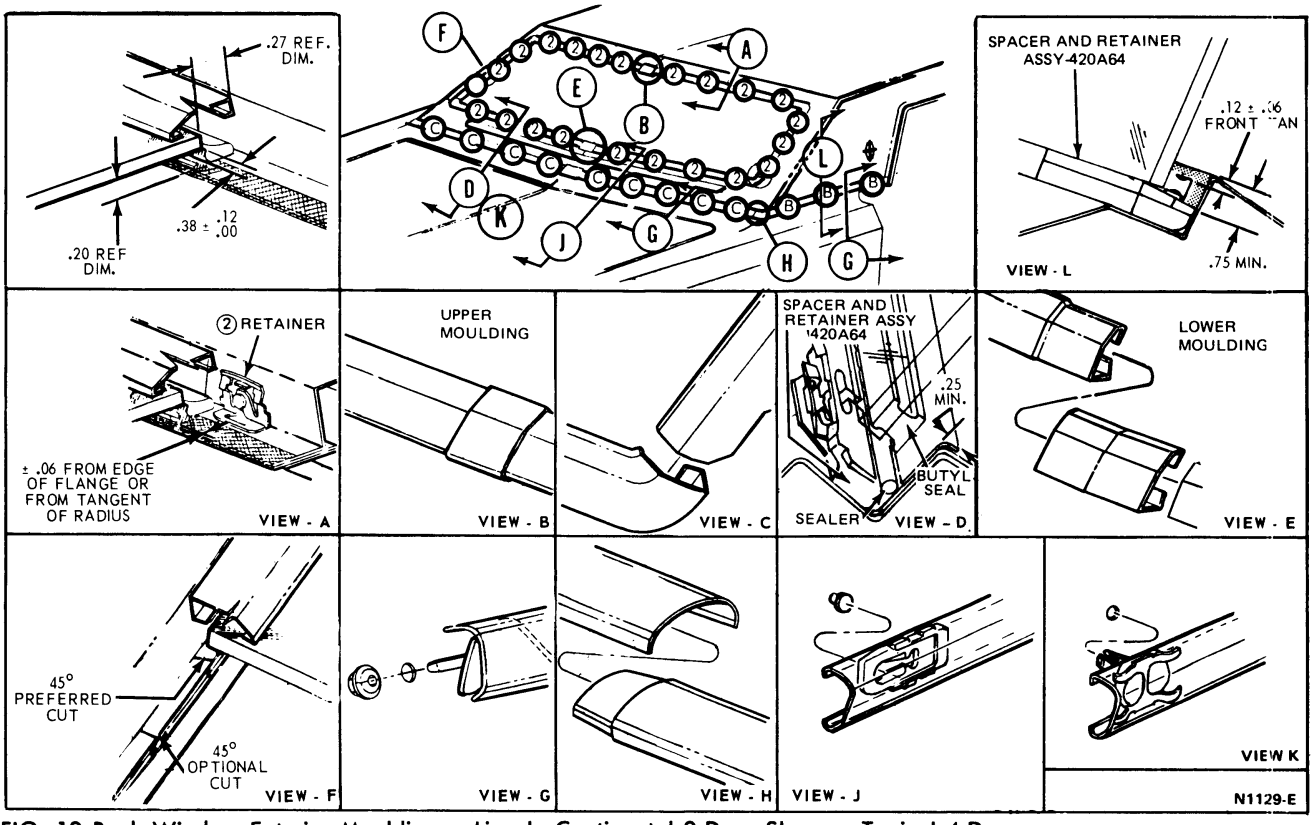


FIG. 12 Back Window Exterior Mouldings—Lincoln Continental 2-Door Shown—Typical 4-Door

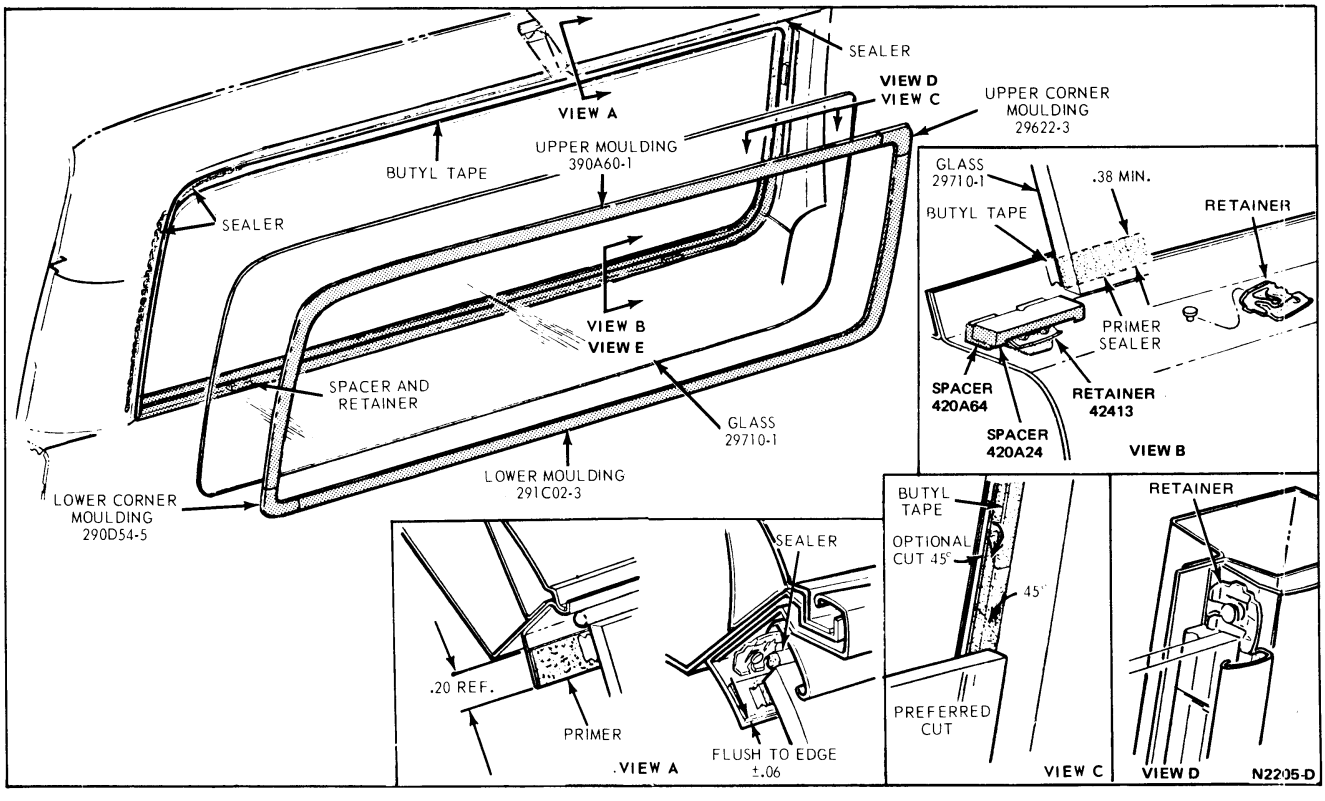
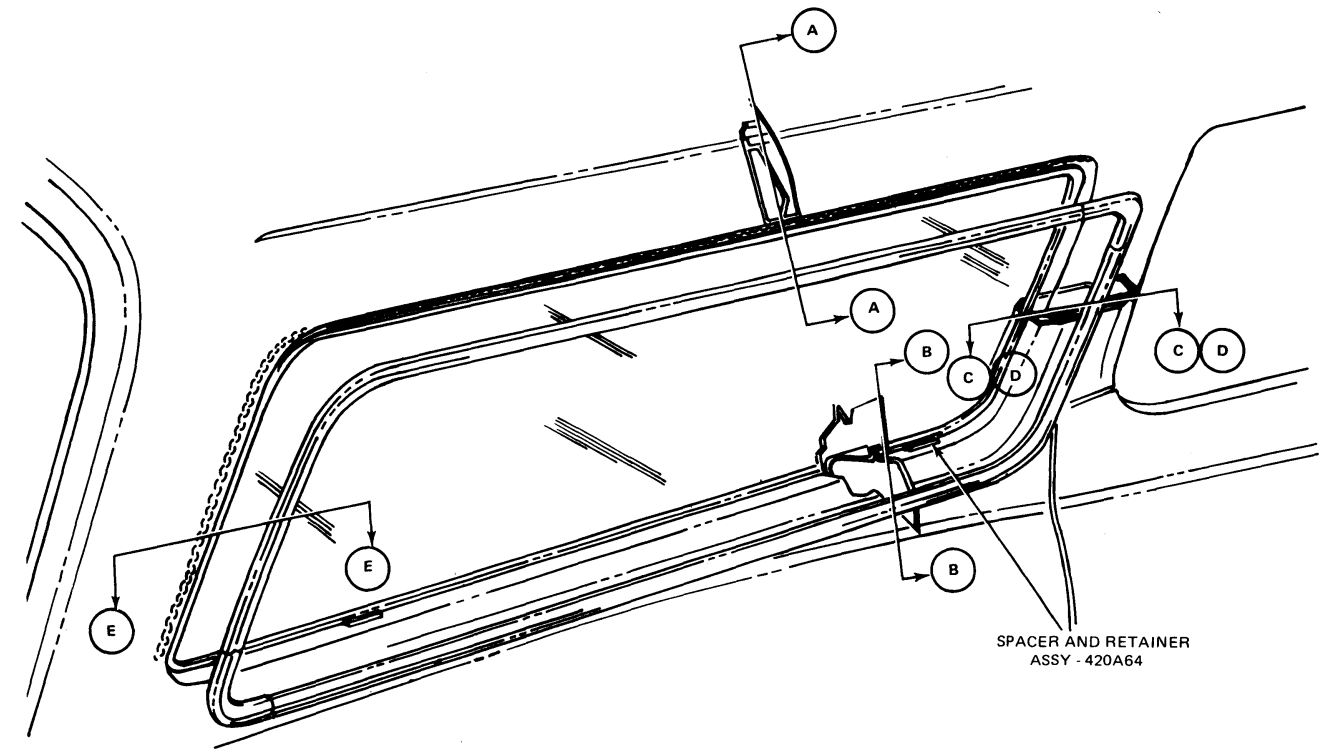


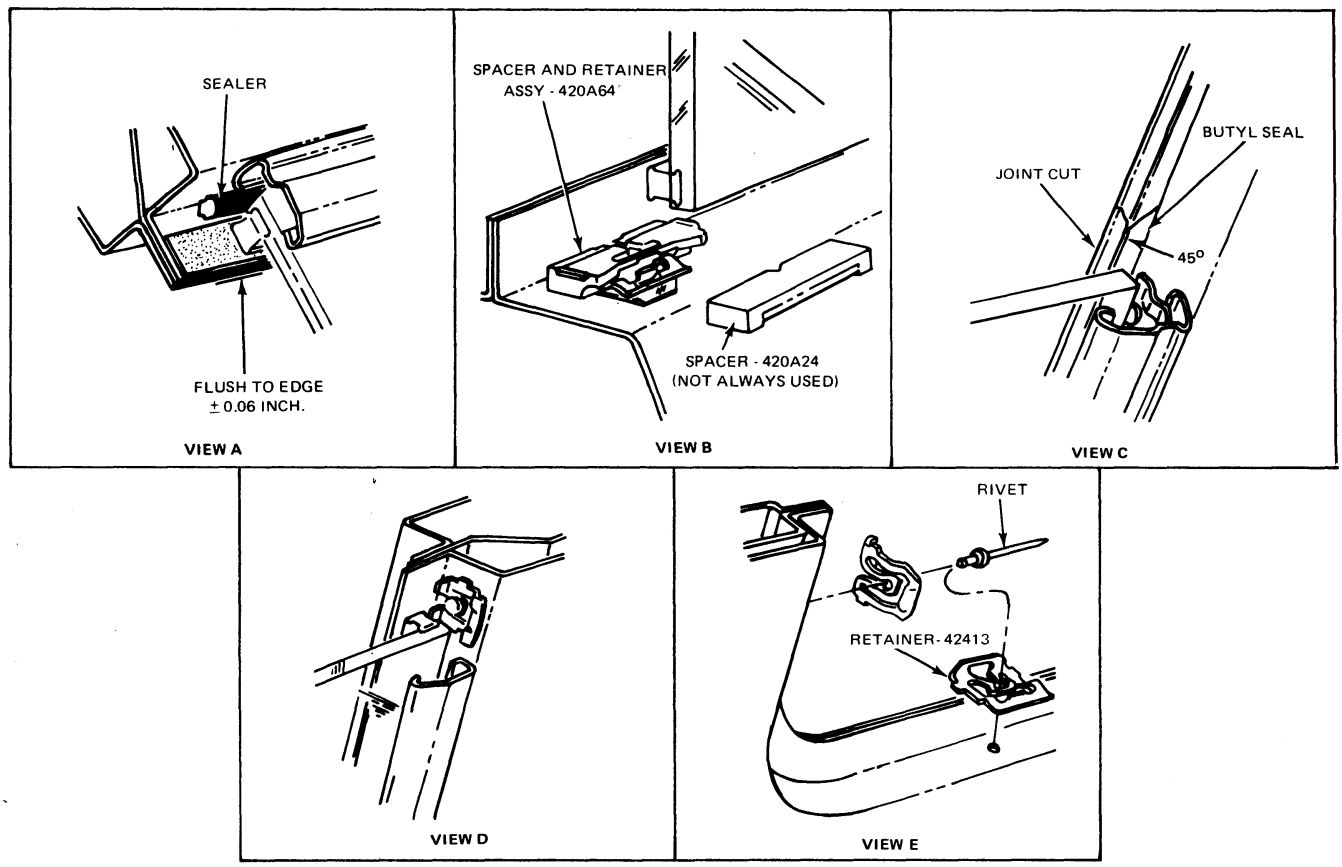
FIG. 13 Quarter Window Moulding Installation—Ford and Mercury Station Wagon

Removal (Procedure No. 2)

Engine must be off on vehicles equipped with high voltage output type heated glass.

1. Remove the windshield wiper arms and blades if the windshield is being replaced.
2. Remove the window mouldings.
3. On the heated back window it will be necessary to disconnect the window wires at the connectors on both sides of the window before proceeding with the glass removal.





N2459-A

FIG. 14 Quarter Window and Moulding Installation—LTD II Station Wagon

4. With a electric knife (special Tool T70B-42006-A or equivalent), insert the blade under the edge of the glass. Cut the butyl seal as close to the inside surface of the glass as possible. To cut the butyl at the lower corners of the windshield, move the handle of the tool as close to the corner as possible. Then, rotate the blade downward to cut the corner butyl seal and remove glass from the vehicle using the glass holding tool (Figs. 15, 16 and 18).

Installation

1. Clean all remaining butyl from the pinch weld flange and wipe the sheet metal with naphtha or equivalent solvent to provide a clean surface for the replacement butyl.
2. Inspect flange carefully for sheet metal deficiencies, and the sealing surface of the pinch weld flange for chipped or missing paint and repair as necessary.
3. Temporarily position the replacement glass in the windshield opening using spacers to prevent glass-to-metal contact. Adjust glass side to side to the best glass-to-"A" pillar weld flange overlap position and adjust lower spacers, if necessary, for proper positioning at the top. A minimum of 3/16" butyl tape-to-glass contact is required around the periphery to assure proper retention and adequate seal. Mark this location with a crayon on the outside surface of the glass and a corresponding point of the glass opening. Remove the glass and clean the inside surface and edge thoroughly.
4. Starting at the midpoint on one "A" pillar, place the butyl tape flush to 1/16" inboard of the pinch weld flange edge around the periphery of the opening and along the raised area of the cowl top panel provided for the seal. NOTE: Do not allow the butyl to bridge corners of the window opening and do not stretch the butyl.
5. Cut the butyl at the required length on a 45 degree angle and carefully splice the two loose ends.
6. Apply the primer (furnished in the kit) around the perimeter of the cleaned inside surface and the edge of the glass in the area that will contact the butyl seal (Fig. 17).
7. Allow the primer to dry one minute before installing the glass.
8. Place the glass in the opening, aligning the crayon marks.
9. Firmly press the glass against the butyl with hand pressure or weights. Recheck to assure that 3/16 inch contact between glass and butyl is achieved. A dull spot indicates an area where the butyl is not contacting the glass surface. Additional pressure will seal such areas.
10. From outside the vehicle, apply C9AZ-19554-B Auto Glass Liquid Sealer (or equivalent) around the entire edge of the glass.
11. Remove any excess primer from the inside surface of the glass with a razor blade and wipe the glass with a clean cloth dampened in naphtha.

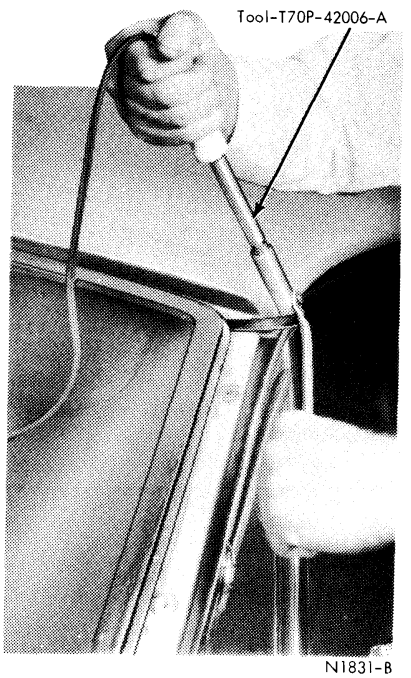


FIG. 15 Removing Butyl Type Seal

12. When the liquid butyl has "skinned over" (approximately ten minutes), water test the installation. If necessary, repair any leaks with additional liquid sealer.
13. Install the mouldings and wiper arms and blades.
14. On the heated back window, it will be necessary to apply a piece of tape to the pinch weld flange under the wires. Then, connect the wires and install the garnish and exterior moldings.
15. When cleaning the heated back window, use only liquid window cleaning solvent. Do not use steel wool or abrasive powders, as damage to the grid wires will result.
16. Clean the glass and surrounding area.

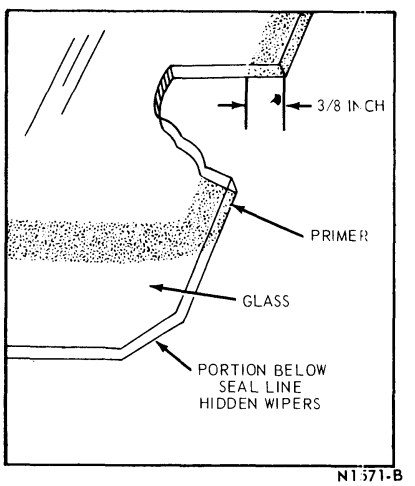


FIG. 17 Primer Installation

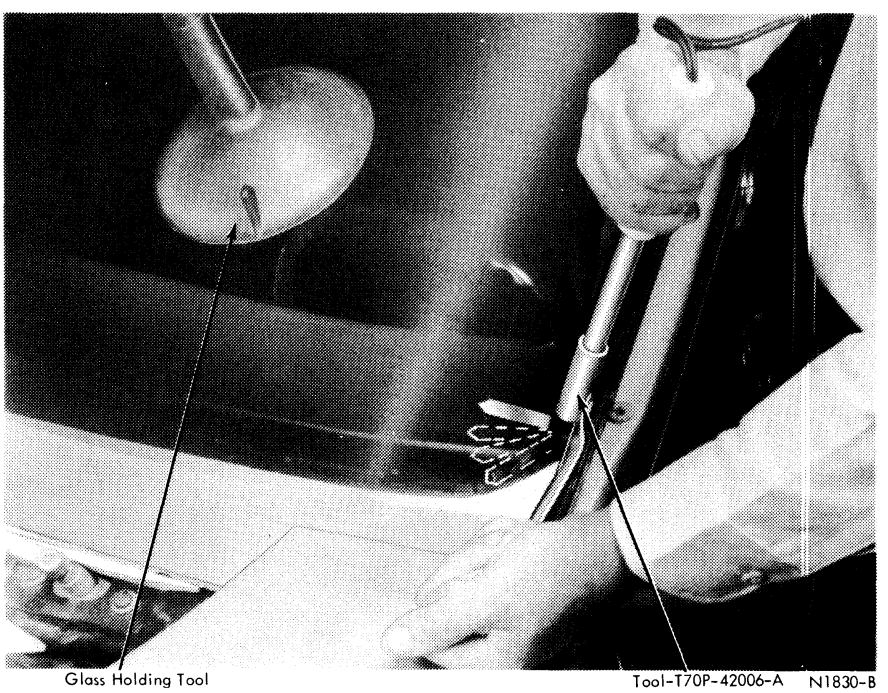


FIG. 16 Cutting Corner Seal

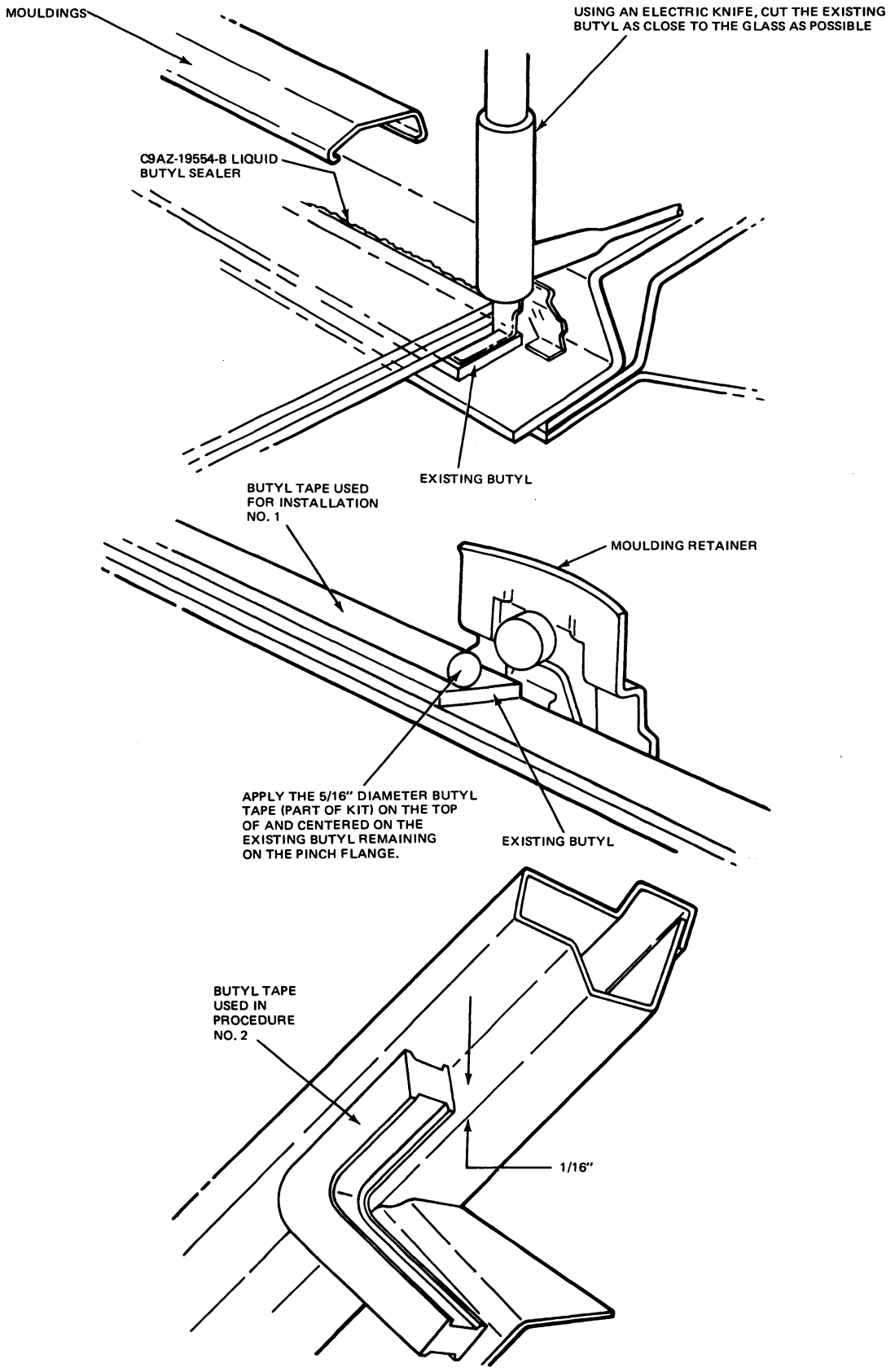


FIG. 18 Butyl Type Seal Installation

DOORS,HOOD,LUGGAGE COMPARTMENT DOOR AND TAILGATE

GROUP 44 (16000 & 70000)

PART TITLE	PART NO.
Door, Hinge, Weatherstrip, Latch and Lock	44-06
Door, Hood, Luggage Compartment Door and Tailgate – General Service	44-01
Hood, Hinge and Latch	44-21
Luggage Compartment Door, Hinge, Latch, Lock and Weatherstrip	44-41
Power Door Locks	44-16
Tailgate, Hinge, Latch and Lock – Dual Action Gate	44-76
Tailgate, Hinge, Latch and Lock – Single Action Gate	44-61

CR2005-A

General Service

PART 44-01

CR2034-A

GENERAL INFORMATION

DOOR AND ROOFRAIL WEATHERSTRIP LUBRICANT

Silicone Lubricant COAZ-19553-A (Jelly) and COAZ-19533-C (Spray) (or Equivalent)

This lubricant is to be used on the door and window weatherstrips. It is recommended that silicon lubricant be applied to the weatherstrips at every regular lubrication period and/or, whenever necessary. Its use makes the doors easier to close, avoids weatherstrip squeaks, retards excess weatherstrip wear from chafing between the door glass upper frame and the weatherstrip. Also, it helps to retain door window alignment by reducing friction between the glass frame and the rubber weatherstrip.

DOOR, HOOD, LUGGAGE COMPARTMENT AND TAILGATE HINGES-LUBRICANT

Polyethylene Grease C4AZ-19584-B (or Equivalent)

The lubricant is used to lubricate door hood, luggage compartment and tailgate hinges. Apply an even coat to all movable hinge surfaces when a binding condition occurs.

CYLINDER LOCK LUBRICANT

Lock Lubricant B4A19587-A (or Equivalent)

This lubricant is used to eliminate sticking or binding of all key lock cylinders.

Door, Hinge, Weatherstrip, Latch and Lock

PART 44-06

SUBJECT	PAGE
ADJUSTMENTS	
Door Alignment	06-1
Door Latch Striker	06-1
REMOVAL AND INSTALLATION	
Door Hinge	06-3
Door Latch Remote Control – Front or Rear	06-7
Door Lock Cylinder	06-15
REMOVAL AND INSTALLATION (Cont'd.)	
Door Outside Handle	06-15
Doors	06-3
Front and Rear Door Weatherstrip	06-1
Front Door Latch	06-3
Rear Door Latch	06-7
Rear Door Latch Bellcrank	06-11
Roof Side Rail and Door Weatherstrip	06-1

CR2035-A

ADJUSTMENTS

DOOR ALIGNMENT

The door hinges provide sufficient adjustment to correct most door misalignment conditions. The holes of the hinge and/or the hinge attaching points are enlarged or elongated to provide for hinge and door alignment (Figs. 1 and 2).

The lubrication points on the door hinges are shown in (Figs. 1 and 2). **Do not cover up a poor door alignment with a latch striker adjustment.**

Side Doors

1. See Figs. 1 and 2, to determine which hinge bolts must be loosened to move the door in the desired direction.
2. Loosen the hinge bolts just enough to permit movement of the door with a padded pry bar.
3. Move the door the distance estimated to be necessary. Tighten the hinge bolts and check the door fit, to be sure there is no bind or interference with the adjacent panel.
4. Repeat the operation until the desired fit is obtained, and check the striker plate alignment for proper door closing.
5. On all hardtop models, the door and quarter glass must be checked to assure proper alignment to the roof rail and vertical weatherstrips. See Group 42.

DOOR LATCH STRIKER

The striker pin can be adjusted laterally and vertically as well as fore and aft. The latch striker should not be adjusted to correct door sag.

The latch striker should be shimmed to get the clearance shown in Fig. 3 between the striker and the latch. To check this clearance, clean the latch jaws and the striker area. Apply a thin layer of dark grease to the striker. As the door is closed and opened, a measureable pattern will result on the latch striker.

Move the striker assembly in or out to provide a flush fit at the door and pillar or quarter panel. Use Tool T70P-2100-A to loosen and tighten the latch striker.

REMOVAL AND INSTALLATION

ROOF SIDE RAIL AND DOOR WEATHERSTRIPS

The roof side rail and door weatherstrip installations are shown in Figs. 6 through 15. Apply adhesive (Part Number 19552) or equivalent, where required to retain the weatherstrip to the door or retainer.

FRONT AND REAR DOOR WEATHERSTRIP

All Models Except Pinto, Bobcat, Maverick, Comet and Lincoln Continental

Removal

1. Remove the door weatherstrip front and rear molded details attaching screws (Fig. 4).
2. Pry the door trim panel up and pull the molded belt detail flap out from under the door trim panel, tearing it away from the retaining pin. Do this at both the front and rear sections and remove the weatherstrip from the door.

Installation

1. Prior to installation of the replacement weatherstrip, remove the retaining pins from the molded detail flaps of the new weatherstrip assembly (Fig. 5).
2. Slide the "flap" of both front and rear molded belt details of the new weatherstrip assembly under the door trim panel. Proceed to complete weatherstip installation, using adhesive where required (Part No. 19552) (or equivalent). Fully insert all weatherstrip retaining pins.

Pinto, Bobcat, Maverick and Comet

Removal

1. Pull weatherstrip away from door panel by breaking loose from adhesive.
2. Clean off all the old adhesive.

Installation

1. Apply adhesive to door panel.
2. Position new weatherstrip and press against door until secure. Fully insert all weatherstrip retaining pins.

Lincoln Continental

Removal

1. Remove the retaining screws (8 front-door, 7 rear-door) and remove the weatherstrip.

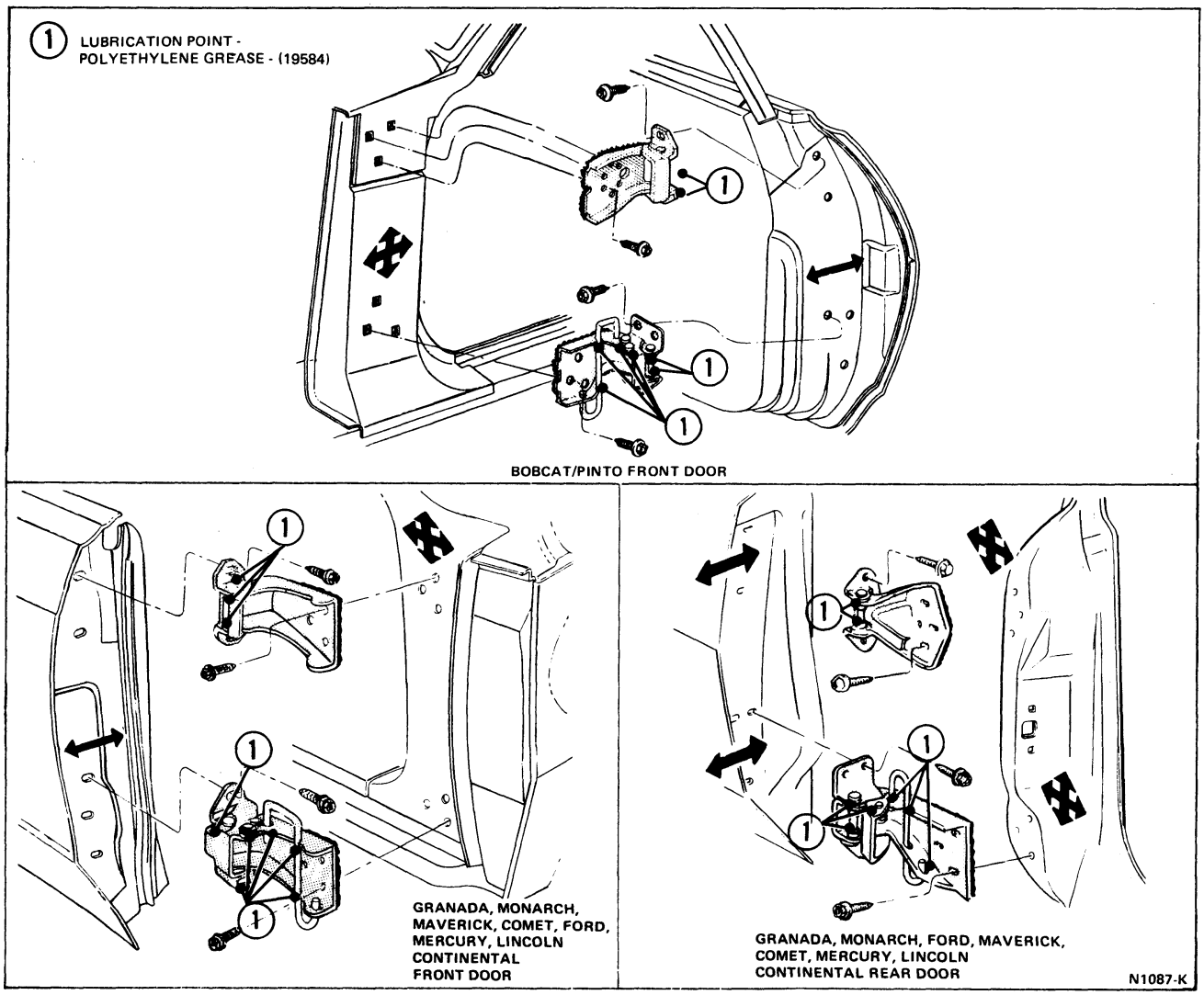


FIG. 1 Side Door Hinge Adjustments—All Models Except LTD II, Cougar, Thunderbird and Continental Mark V

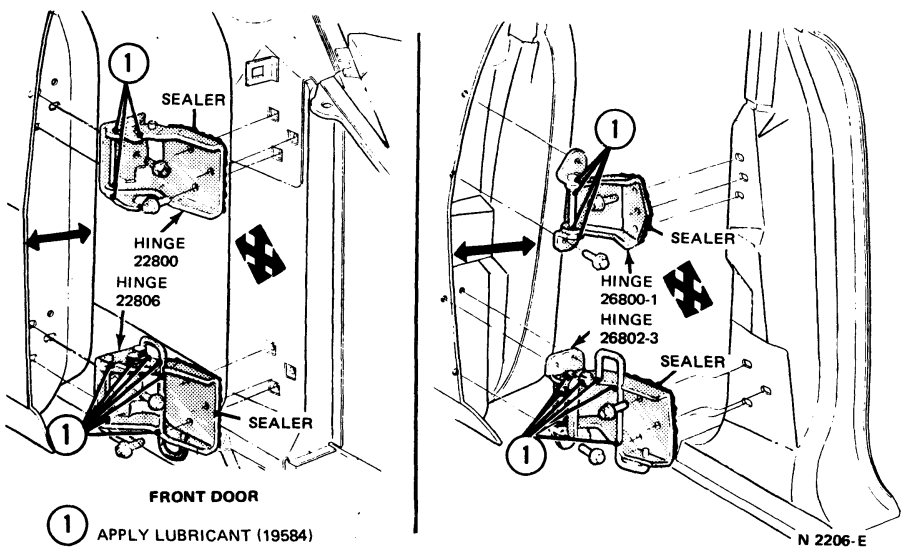


FIG. 2 Side Door Hinge Adjustments—LTD II, Cougar, Thunderbird and Continental Mark V

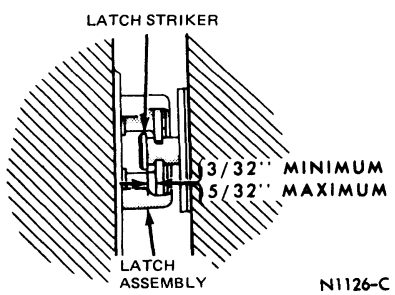


FIG. 3 Door Latch Striker Adjustment—Maverick and Comet Shown

Installation

1. Position the weatherstrip to the door flange.
2. Install the retaining screws.

DOORS

Removal

1. Remove the trim panel, the watershield, and all usable outside mouldings and clips (if the door is to be replaced).
2. Remove the wiring harness, actuator and radio speaker from the door (if so equipped).
3. Remove all usable window and door latch components from the door (if the door is to be replaced).
4. Support the door.
5. Remove the hinge attaching bolts from the door and remove the door.
6. Remove the weatherstrip from the door.

Installation

1. Drill holes as necessary for attaching the outside moulding. Install the door weatherstrips in proper position.
2. Position the door to the hinges and partially tighten the bolts. Then, align the door and tighten the bolts securely.
3. Install the wiring harness, actuator and radio speaker in the door, if so equipped.
4. Install the latch mechanism, the window mechanism, glass, and the glass weatherstripping. Adjust the window mechanism as outlined in Group 42 and striker adjustment in this Section.
5. Install the exterior trim, garnish mouldings, watershield, and interior trim.

DOOR HINGE

All Models

1. Support the door.
2. Mark the location of the hinge on the door and body.
3. Remove the hinge-to-body attaching bolts.
4. Remove the hinge-to-door attaching bolts and remove the hinge.
5. Position the hinge to the door and body, and install the attaching bolts.
6. Adjust the door and hinges and remove the support.

FRONT DOOR LATCH

Removal

1. Remove the trim panel and watershield from the door.
2. Ford, Mercury (4-door sedan and wagon) and Maverick, Comet, Pinto and Bobcat; mark the location of the rear run lower retaining bolt. Then, remove the bolt.

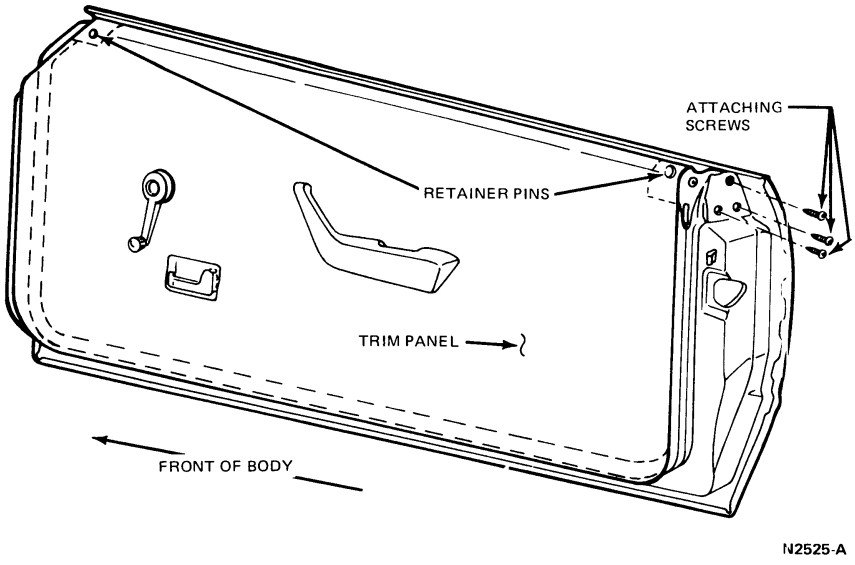


FIG. 4 Removing Door Weatherstrip—Trim Panel in Place (Typical)

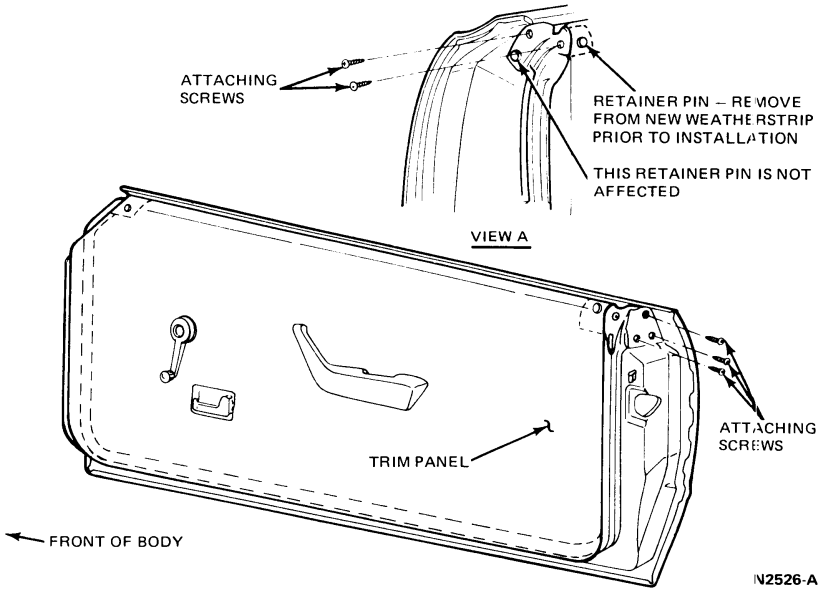


FIG. 5 Installing Door Weatherstrip—Trim Panel in Place (Typical)

3. Check all rod connections against the appropriate illustration (Figs. 16 thru 24). Correct any misconnected or loose connections and check operation before replacing parts.
4. Disconnect the rods from the latch. All can be removed on the Maverick and Comet, but on the other vehicles, the remote link and the latch to lock cylinder rod cannot be removed because of the rod's end configuration.
5. Remove the lock cylinder rod from the lock cylinder lever.
6. Remove the remote control as outlined in the next section.
7. Remove the latch assembly attaching screws; disconnect the door indicator switch wire (if so equipped) and remove the latch from the door.
8. Remove the remote link, the latch to lock cylinder rods, and the door indicator switch from the latch where applicable.

Installation

1. Position the door indicator switch to the latch and install the attaching screw. Adjust the switch.
2. Install new rod retaining clips and grommets in the new latch assembly, using the removed latch as a guide.
3. Install the remote link and the latch to lock cylinder rod. (All car lines except Maverick and Comet, Fig. 24.)
4. Position the latch in the door and connect the wire to the door indicator

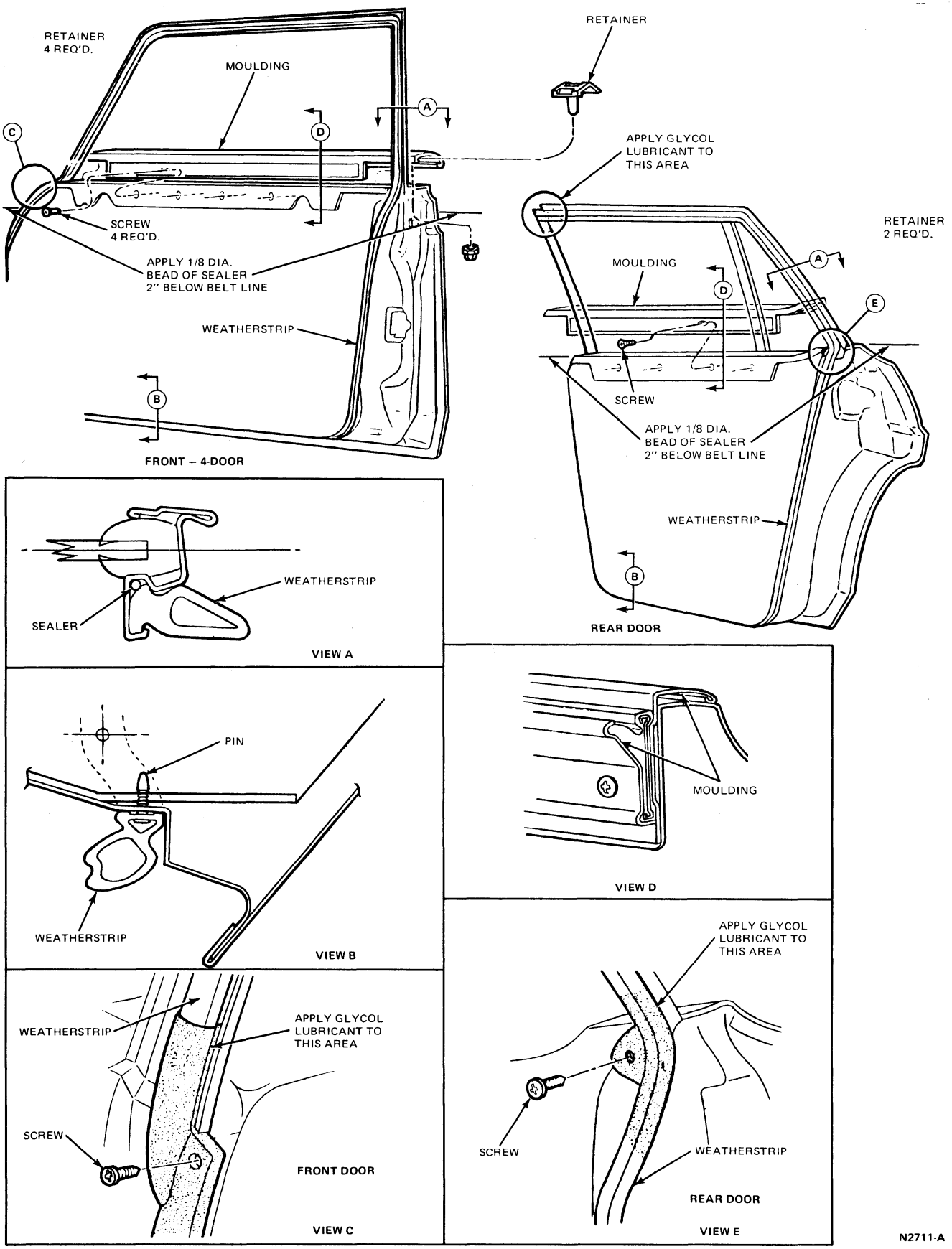


FIG. 6 Retainer and Weatherstrip Installation—Granada and Monarch—4-Door Shown—2-Door Similar

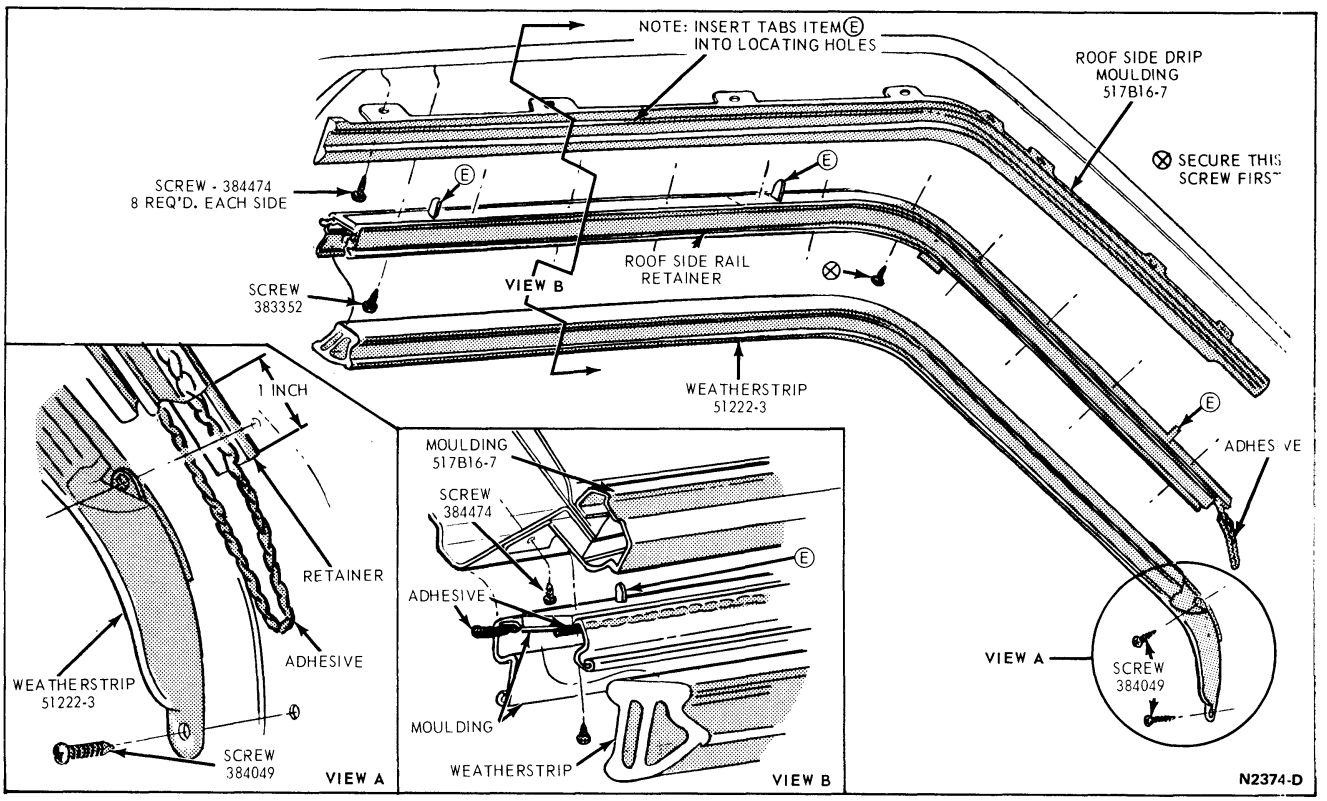


FIG. 7 Roof Rail Weatherstrip Installation—Continental Mark V

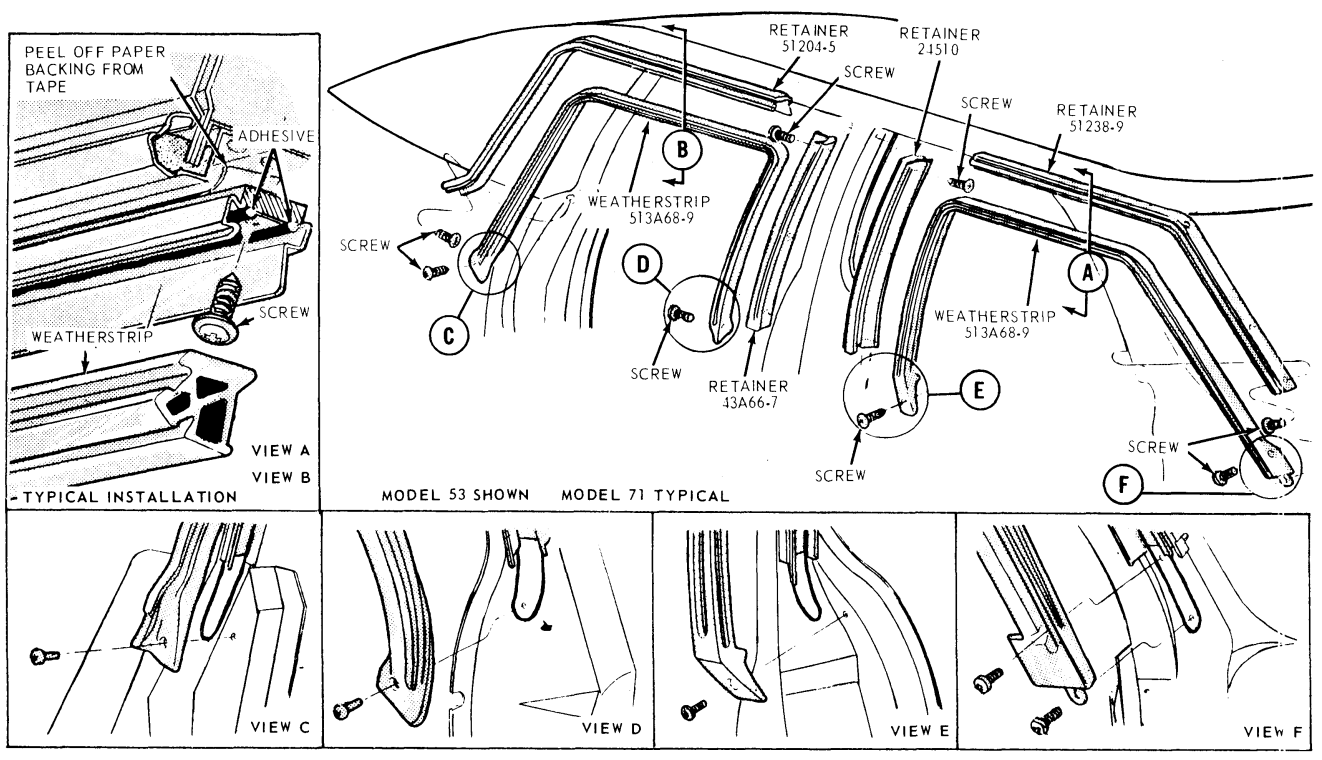


FIG. 8 Retainer and Weatherstrip Installation—LTD II, Cougar, Thunderbird 4 Door Shown—Station Wagon Similar

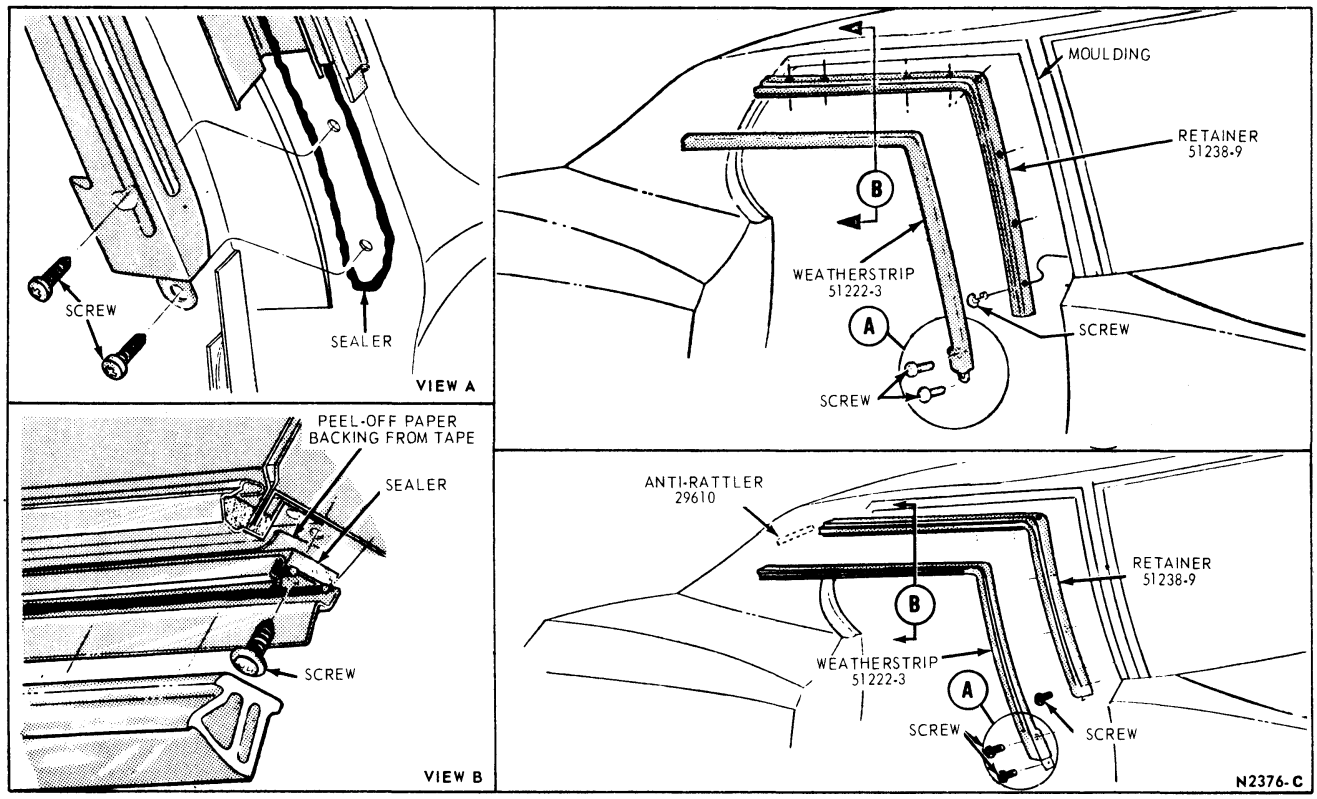


FIG. 9 Roof Rail Weatherstrip Installation – LTD II, Cougar and Thunderbird – Two Door

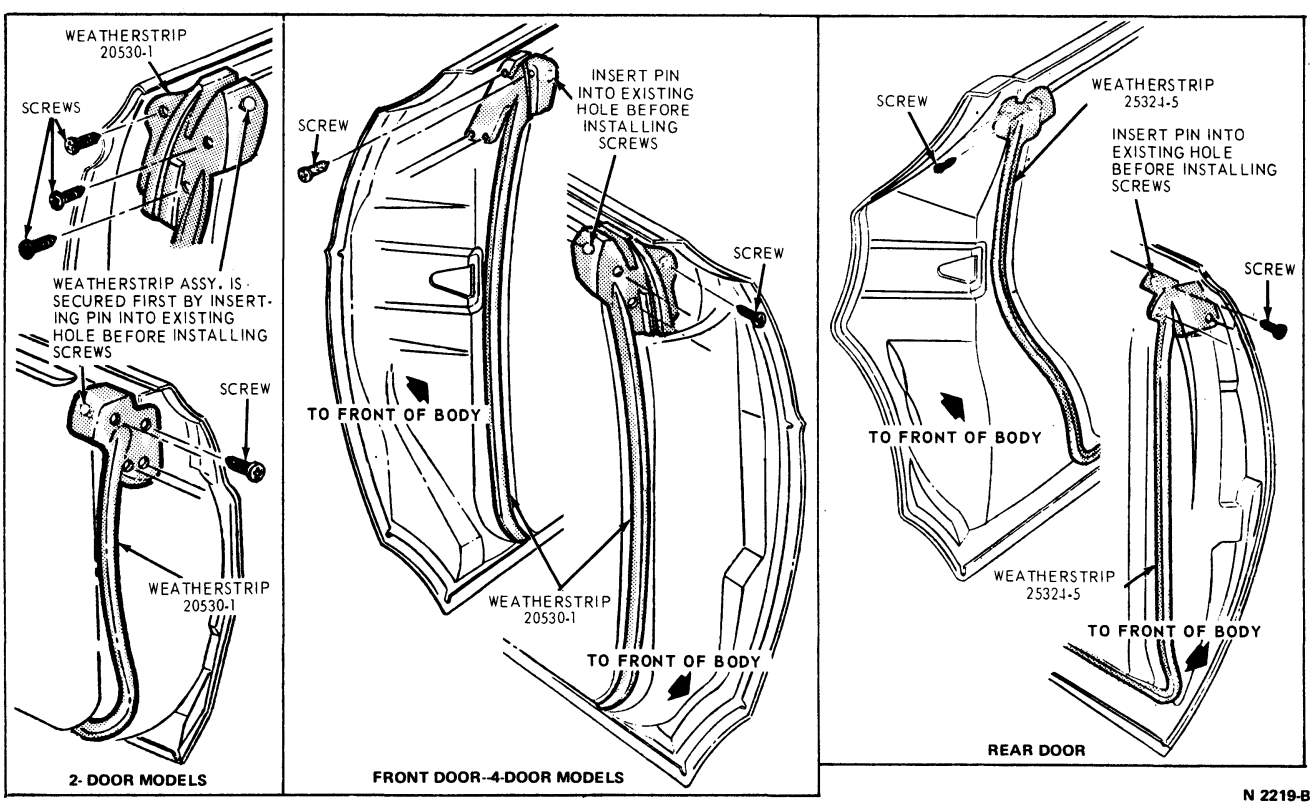


FIG. 10 Front and Rear Door Weatherstrips—LTD II, Thunderbird and Cougar

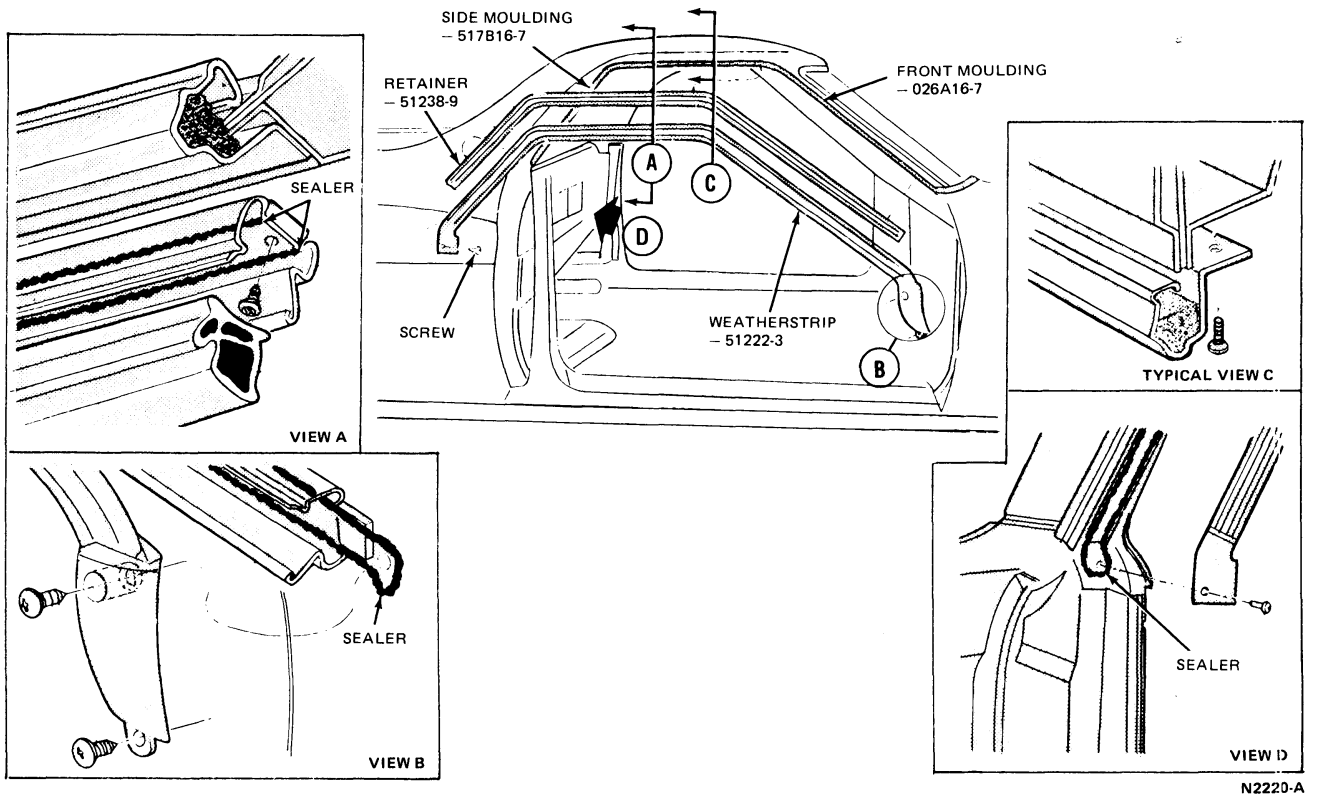


FIG. 11 Roof Side Rail Weatherstrip Installation—Ranchero

switch. Then, install the latch attaching screws.
5. Reinstall the door latch remote control as outlined in the next section.
6. Connect the latch to lock cylinder rod to the lock cylinder lever (all vehicles except Maverick/Comet).
7. Connect the rods to the latch that were disconnected for removal and check the latch operation.
8. Install the rear run lower attaching bolt (if removed). Locate the bolt in the original position and tighten the bolt.
9. Install the watershield and trim panel on the door.

DOOR LATCH REMOTE CONTROL—FRONT OR REAR

All models except Maverick, Comet, Mustang, Pinto or Bobcat

Removal

1. Remove the door trim panel and watershield.
2. Remove the attaching screw or poprivets (see appropriate Figs. 16 thru 24) and disengage the attaching tab.
3. Rotate the remote control clockwise on the right-hand door and counterclockwise on the left-hand door, while moving it forward to disconnect the remote control from the remote control rod and the door.

Installation

1. Install a new rod end bushing to the remote control if the remote control is to be replaced.
2. Position the remote control to the door inner panel with the remote control rod started into the remote control bushing. Rotate the remote control a quarter turn onto the remote rod (counterclockwise on the right-hand and clockwise on the left-hand door).
3. Engage the tab on the remote control into the slot on the inner panel and install the attaching screw or poprivets.
4. Check the remote control and latch operation.
5. Install the watershield and door trim panel.

Maverick, Comet, Pinto, Bobcat and Mustang

Removal

1. Remove the door trim panel and watershield.
2. Disconnect the retainer from the link at the remote control (Maverick or Comet—see Fig. 18 and 19).
3. Remove the three (3) screws or nuts attaching the remote control to the door inner panel and remove the remote control. The Mustang, Pinto and Bobcat remote control must be rotated off the remote rod to remove, similar to Step 3 above.

Installation

1. Install a new bushing or retainer into the new remote control, if the remote control is to be replaced.
2. Rotate the remote arm onto the link to engage the two parts for Mustang, Pinto and Bobcat only.
3. Position the remote control to the door inner panel and install the three attaching screws or nuts (Figs. 18 and 19).
4. Connect the link to the remote control and secure with the retainer (Maverick and Comet).
5. Check the remote control and latch operation.
6. Install the watershield and door trim panel.

REAR DOOR LATCH

Removal

1. Remove the trim panel and watershield from the door.
2. Disconnect the door latch actuating rod from the latch assembly—all car lines. Also disconnect the remote control and bellcrank link assemblies from the Maverick and Comet doors (Fig. 22).
3. Remove the rear door latch bellcrank as outlined below for all car lines except Maverick and Comet.
4. Remove the door latch remote control as outlined previously for all car lines except Maverick and Comet.

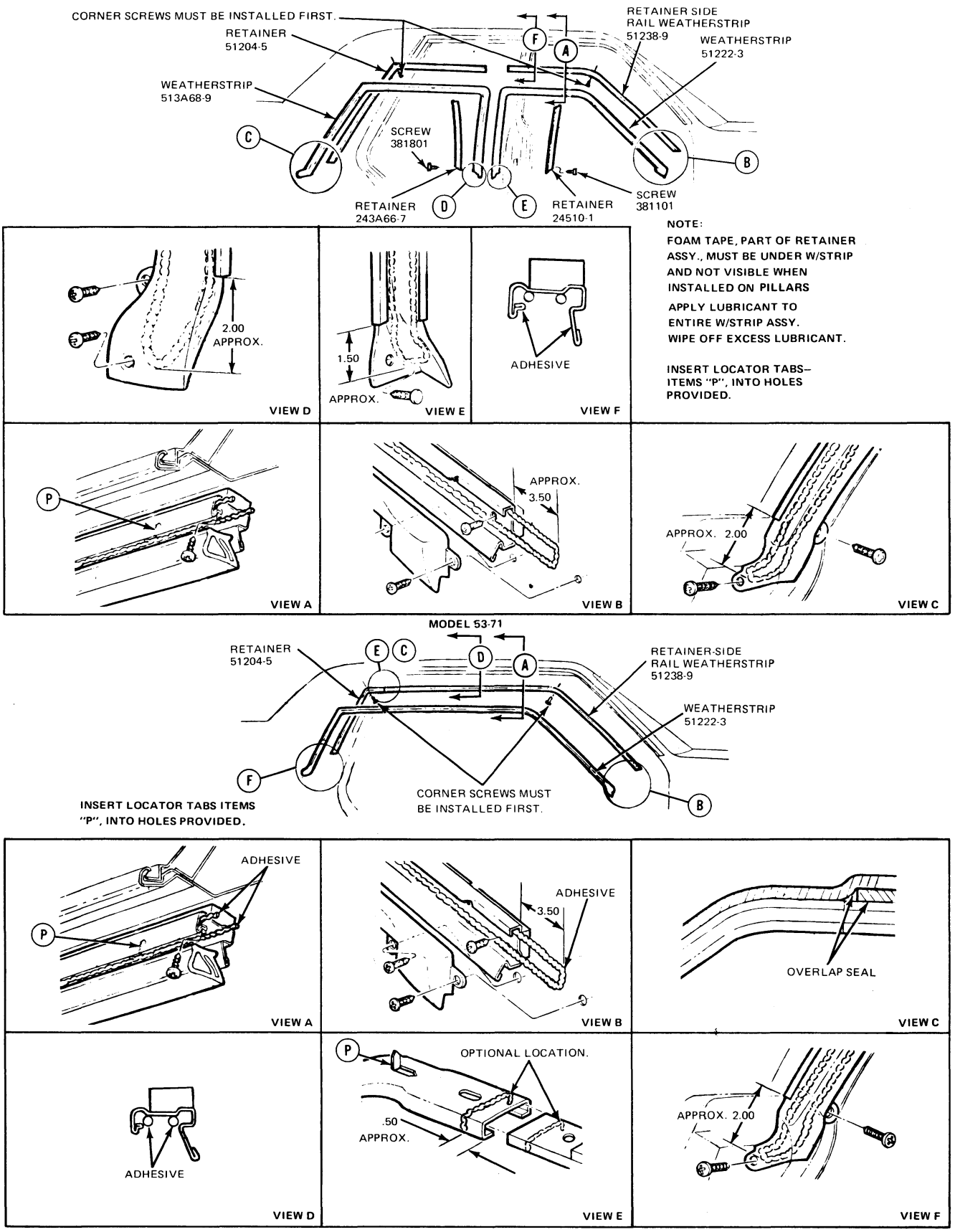


FIG. 12 Roof Rail Weatherstrip Installation—Ford and Mercury Similar

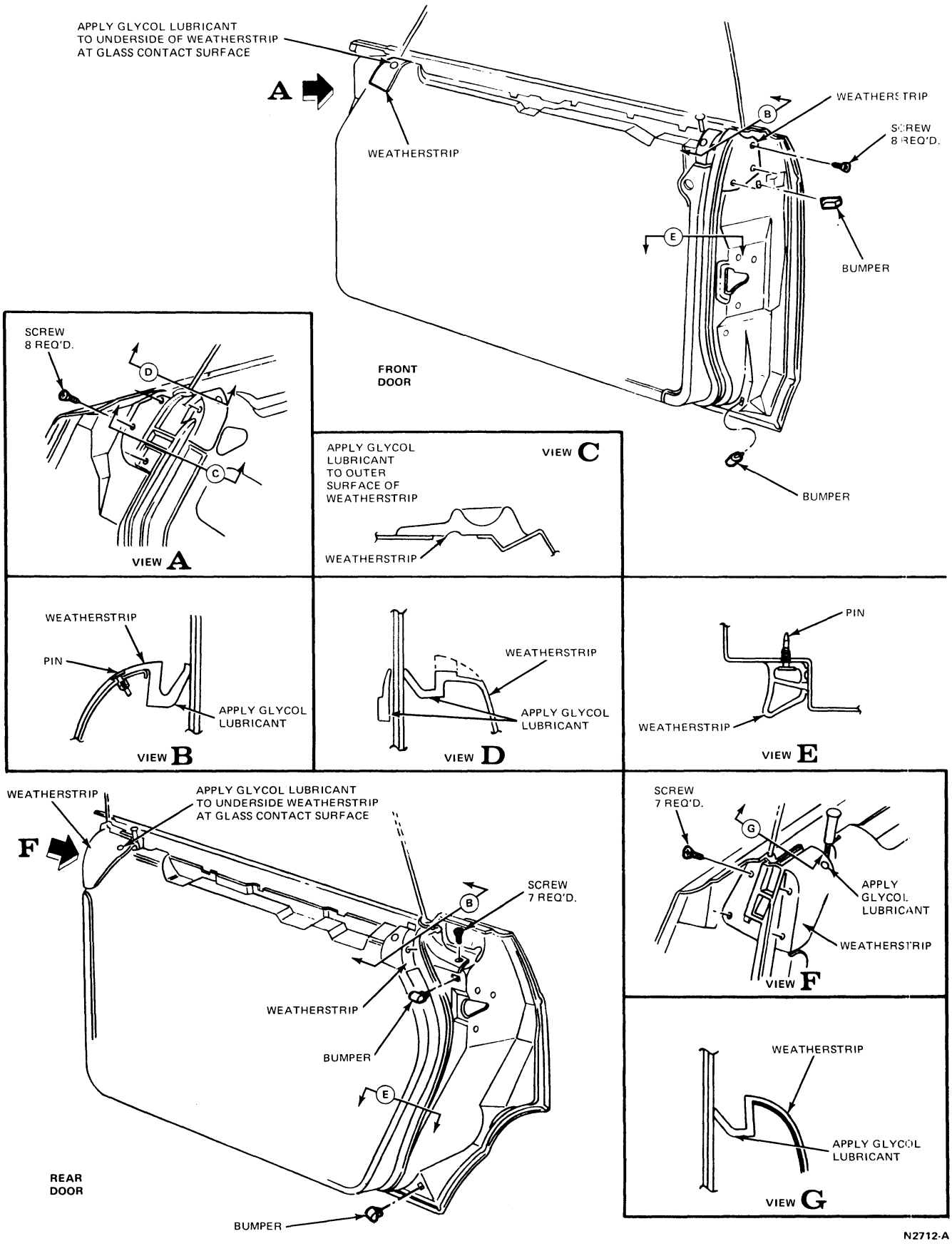


FIG. 13 Door Weatherstrip Installation—Lincoln Continental-4-Door Shown, 2-Door Similar

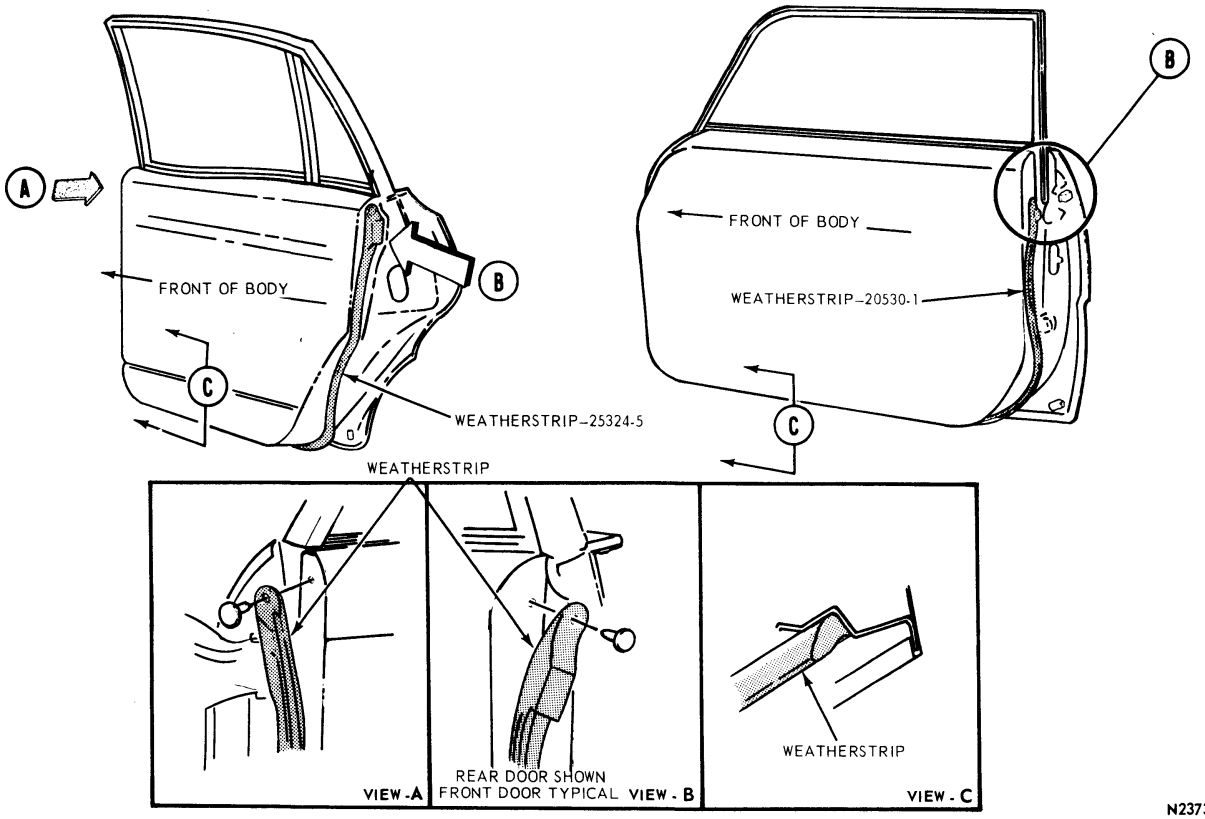


FIG. 14 Door Weatherstrips—Maverick, Comet Shown—Pinto and Bobcat Typical

5. Remove the three latch assembly attaching screws, disconnect the wire from the door indicator switch (if so equipped), and remove the latch assembly from the door.
6. Remove the door indicator switch from the latch assembly (if so equipped), and remove the two link assemblies from the latch on all car lines except Maverick and Comet.

Installation

1. Install new clips and grommets in the new latch assembly, using the removed latch as a guide.
2. Install the door indicator switch on the latch assembly and adjust as outlined under adjustments.
3. Install the two link assemblies into the lower lever grommets as shown in Fig. 22 (all car lines except Maverick and Comet).
4. Place the latch assembly to the door and connect the wire to the door indicator switch.
5. Position the latch assembly to the door and install the three (3) attaching screws (Fig. 22).
6. Connect the door latch actuating rod to the latch assembly (all car lines) and connect the two link assemblies on Maverick and Comet.

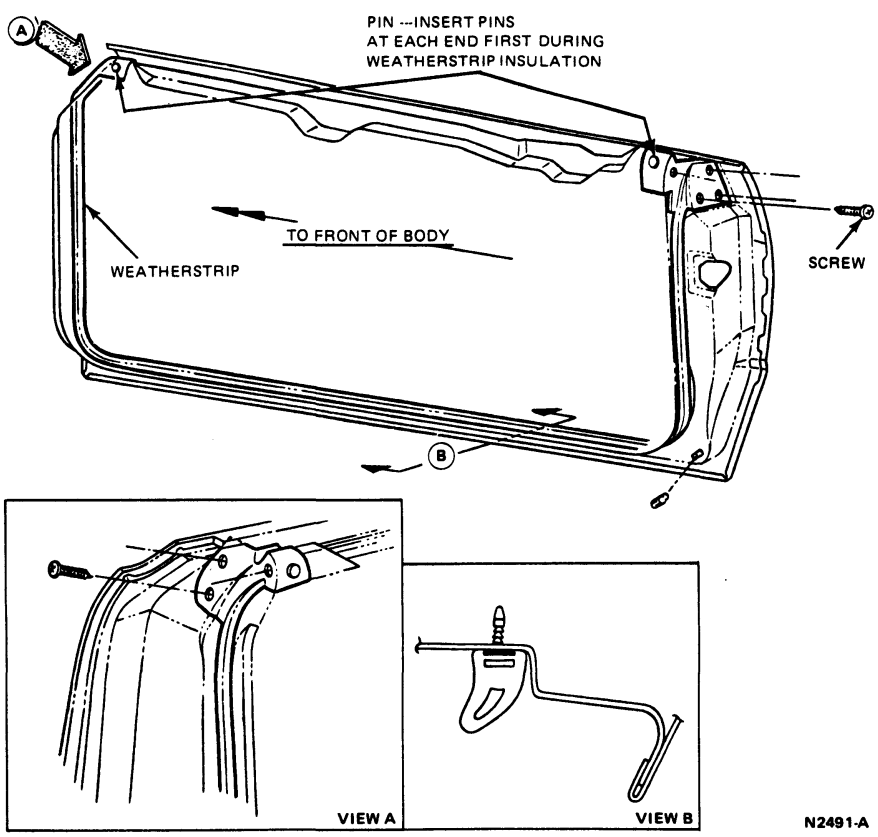


FIG. 15 Door Weatherstrips—Mustang

7. Reinstall the door latch bellcrank and remote control as outlined under each respective heading.
8. Check the operation of the latch assembly.
9. Install the watershield and trim panel on the door.

REAR DOOR LATCH BELLCRANK

Removal

1. Remove the lock control knob from the push button rod.
2. Remove the trim panel and watershield from the door.
3. Remove the screw attaching the bellcrank to the door inner panel. Disconnect the bellcrank from the lock control link by unclipping the retainer (Maverick/Comet) or rotating it of off the double 90 degree bend on the other car lines (Fig. 22).
4. Remove the push button rod from the bellcrank.

Installation

1. Install new rod retaining clips or grommets in the new bellcrank if the bellcrank is to be replaced.
2. Assemble the push button rod to the bellcrank.
3. Assemble the bellcrank to the lock control link by clipping the retainer (Maverick/Comet) or rotating the bellcrank onto the link on other car lines.
4. Position the bellcrank to the door inner panel with the push button rod

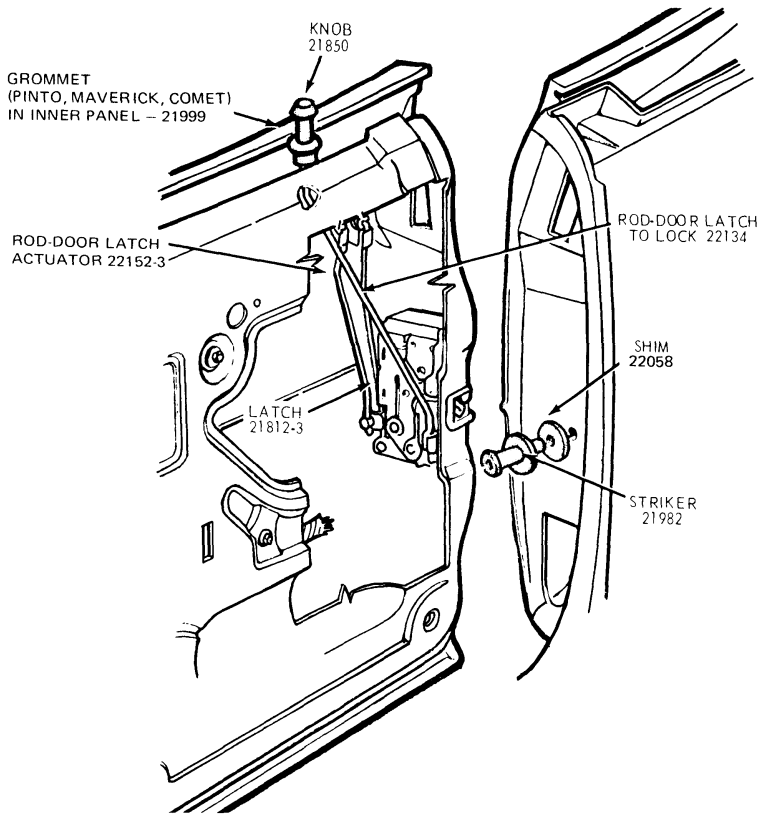


FIG. 16 Door Latch and Striker Installation—Similar

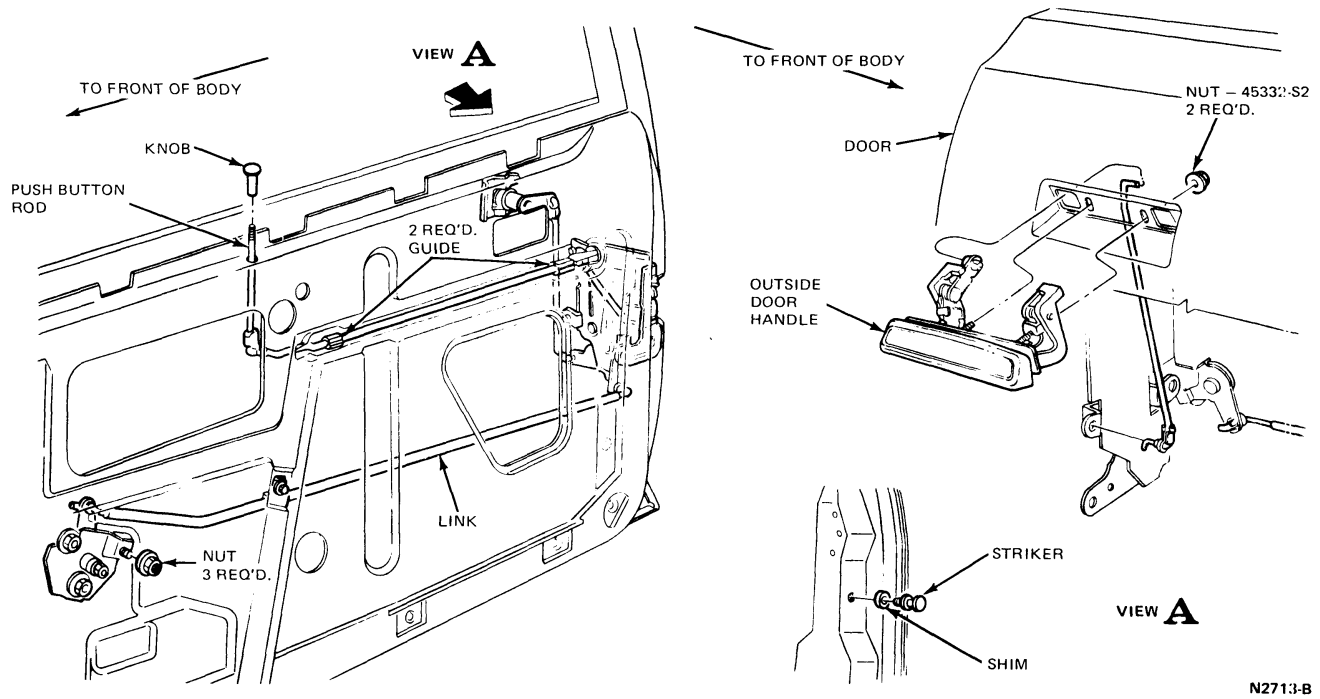


FIG. 17 Front Door Latch Mechanism – Granada and Monarch – 2-Door Shown, 4-Door Similar

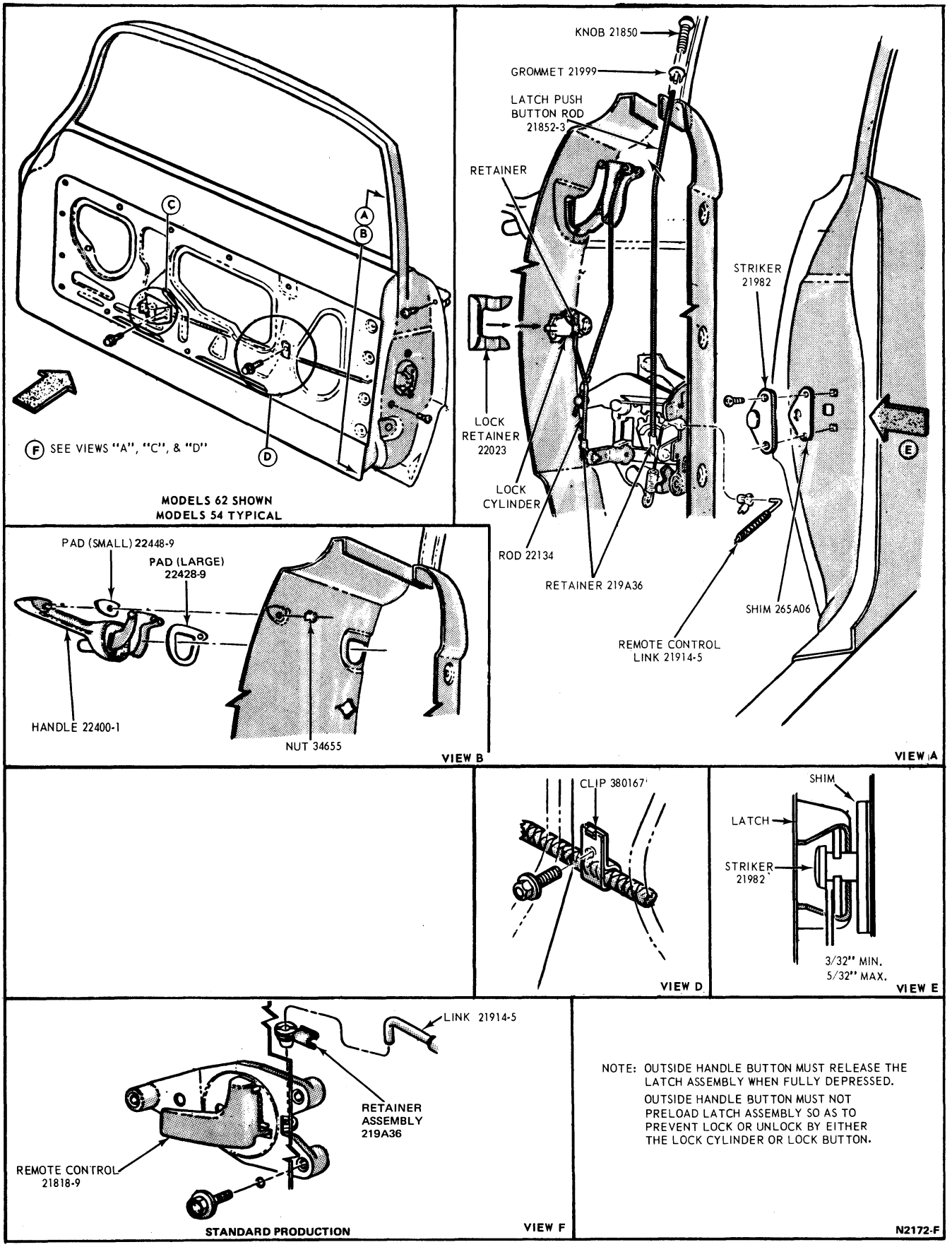


FIG. 18 Front Door Latch and Striker Installation—Maverick and Comet

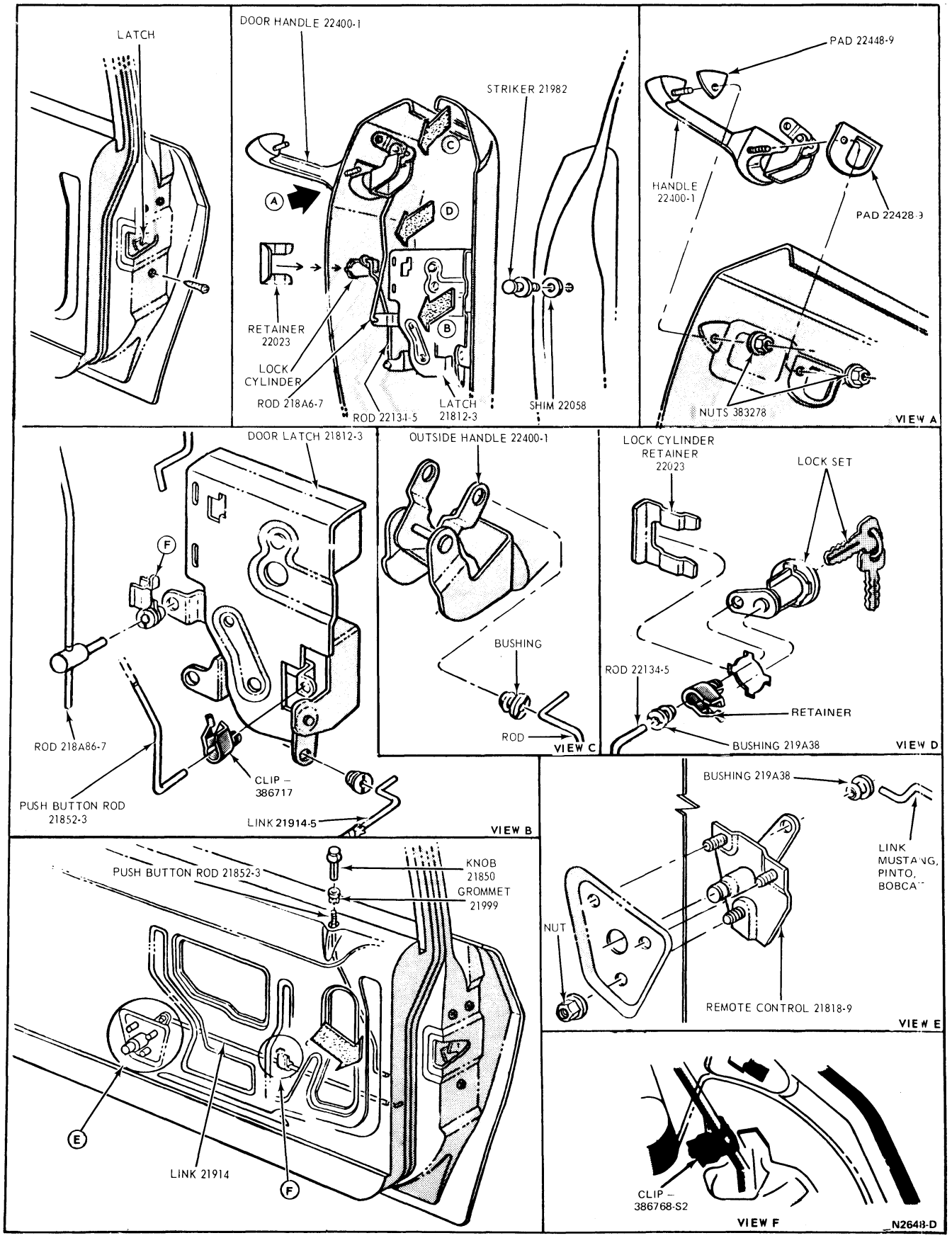


FIG. 19 Door Latch and Striker Installation—Pinto and Bobcat

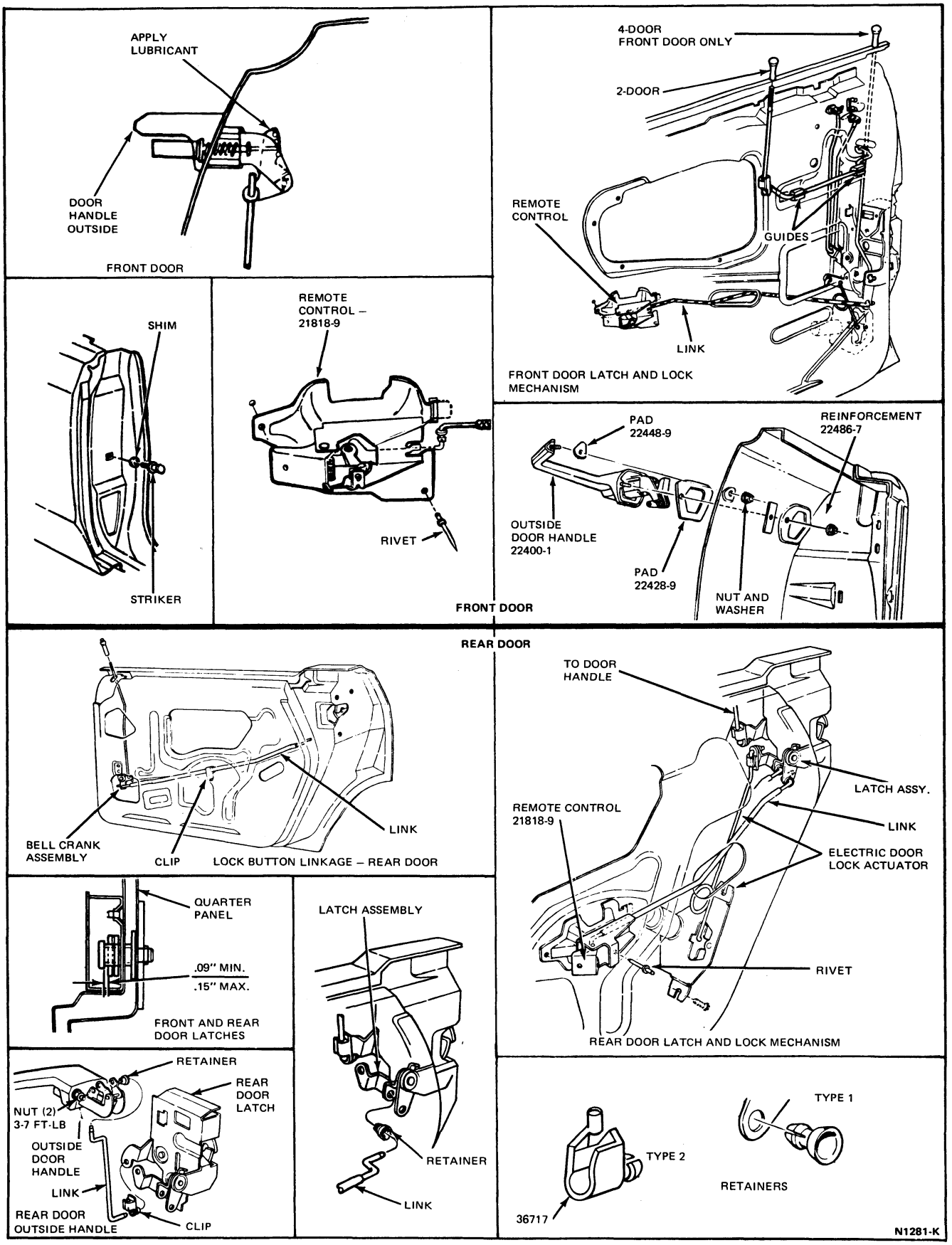


FIG. 20 Door Handle and Latch Installation—Lincoln Continental

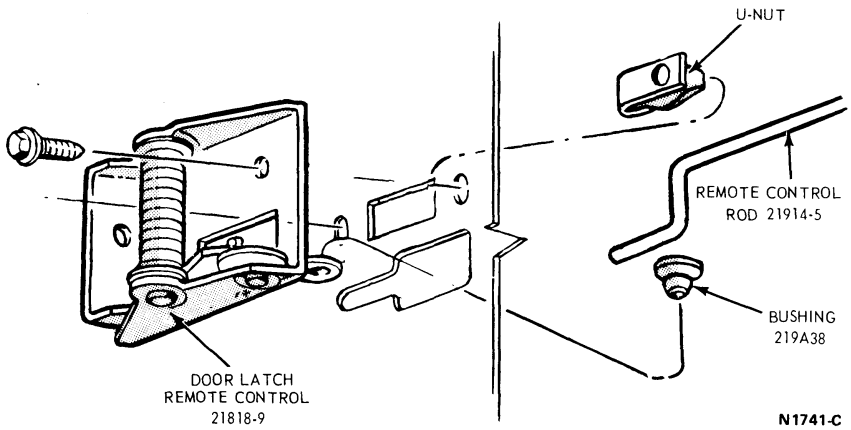


FIG. 21 Door Latch Remote Control—Typical

inserted through the hole at the belt line. Then, install the bellcrank attaching screw.
5. Check the operation of the bellcrank and associated linkage.
6. Install the watershield and trim panel on the door.

DOOR LOCK CYLINDER

The key code is stamped on the door lock cylinder in the driver side door to assist in replacing lost keys.

When a lock cylinder is replaced, both door lock cylinders and ignition lock cylinder should be replaced in a set. This will avoid carrying an extra key which will fit only one lock.

1. Remove trim panel and position the watershield away from the access holes.
2. Disconnect the lock control-to-door lock cylinder rod at the lock cylinder arm (Figs. 16 through 24).
3. Remove the door lock cylinder retainer and remove the lock cylinder from the door.
4. Transfer the lock cylinder arm to the new lock cylinder and replace the rod retainer if it shows any wear or warpage.
5. Position the lock cylinder in the door and install the lock cylinder retainer.
6. Connect the lock control-to-door lock cylinder rod at the lock cylinder and secure the retainer.
7. Carefully position the watershield to the inner panel and install the trim panel.

DOOR OUTSIDE HANDLE

Lincoln Continental, Maverick, Comet, Pinto and Bobcat

Removal

1. Remove the trim panel and watershield from the door panel.
2. Disconnect the latch actuating rod from the latch.
3. Remove the nuts and washers retaining the handle to the door.
4. Remove the handle, pads and latch actuating rod from the door.
5. Remove the actuating rod, push button and springs from the handle (Figs. 18, 19 and 20).

Installation

1. Install the spring, push button, a new clip and the rod on the new handle.
2. Position the handle and pads to the door and install the retaining screw and/or nuts.
3. Adjust the latch actuating rod and check for proper operation (Maverick, Comet and Pinto only).
4. Install the watershield and trim panel on the door.

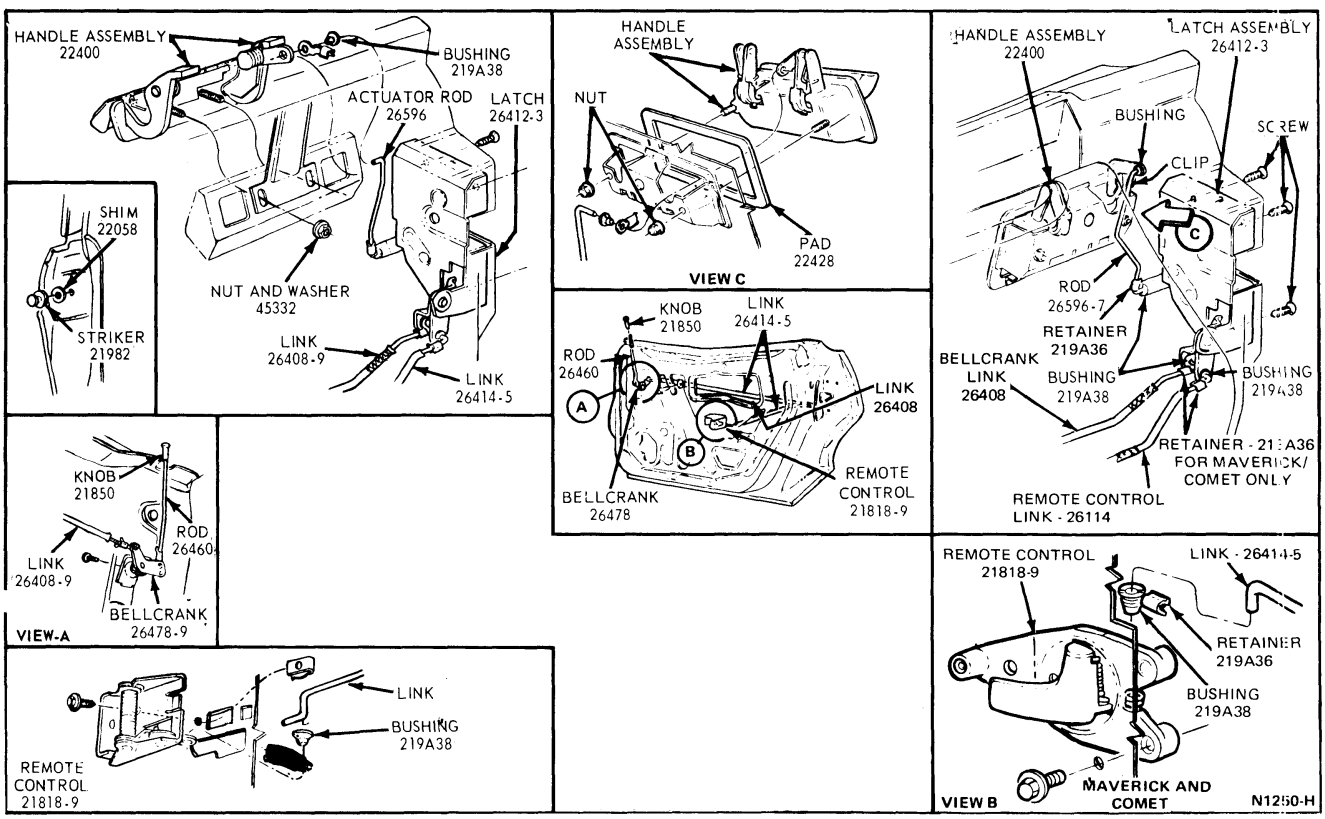


FIG. 22 Rear Door Outside Handle and Latch Mechanism—Typical

All Except Lincoln Continental, Maverick, Comet, Pinto and Bobcat

Removal

1. Remove the door trim panel and watershield.
2. Disconnect the door latch actuator rod from the latch (Figs. 22 and 23).
3. Remove two (2) nuts retaining the handle to the door. Remove the handle and rod from the door.

Installation

1. Transfer the actuator rod to the new handle using a new bushing, if the handle is to be replaced.
2. Insert the handle and rod into the door and install the two (2) retaining nuts.
3. Connect the door latch actuator rod to the door latch (Fig. 22).
4. Check the operation of the door outside handle and the door latch.
5. Install the watershield and door trim panel.

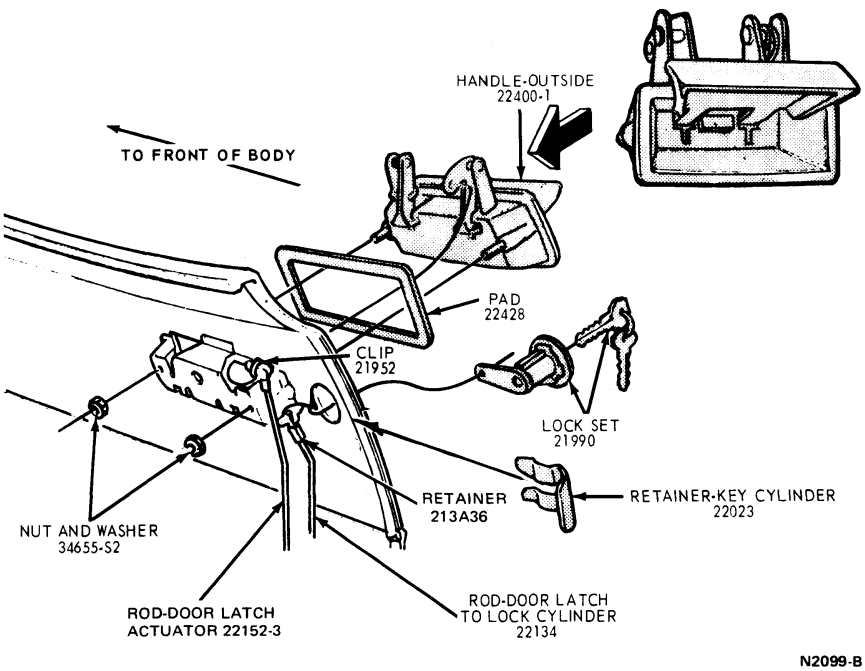


FIG. 23 Door Handle and Lock Cylinder Installation—Mark V

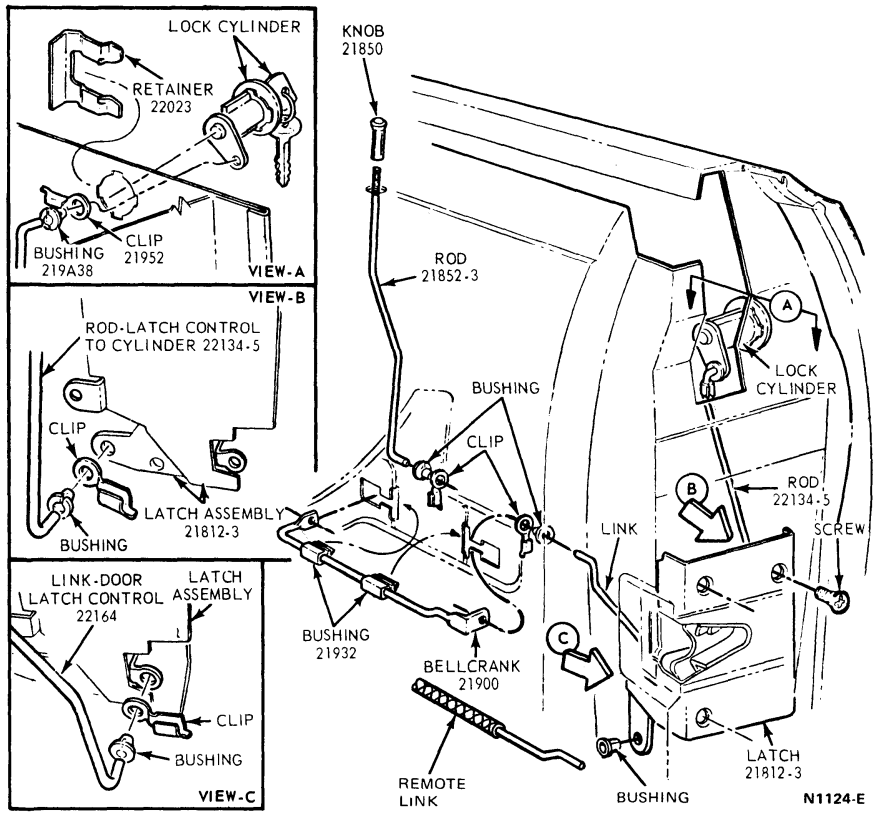


FIG. 24 Door Latch Installation—Typical

Power Door Locks

PART 44-16

SUBJECT	PAGE
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Relay	16-2
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REMOVAL AND INSTALLATION	
Electric Door Lock Actuator	16-2
Lock Control Switch	16-2
Tailgate Lock Actuator	16-2

CR2036-A

DESCRIPTION AND OPERATION

The power door lock control system uses electric switches controlled by the front door lock push buttons (LTD II, Cougar, Granada and Monarch), and rocker type switches located in the arm rests on Ford, Mercury, Lincoln Continental, Continental Mark V, Thunderbird and Cougar XR7 with door lock push button switches. Relays direct the current to the door lock motors to lock or unlock the doors.

To lock the doors on the LTD II, Cougar, Granada and Monarch, **push down** firmly on either front door lock push buttons and close the door(s). On the Ford and Mercury push the **rocker type switch (forward)** to lock the door(s). The Lincoln Continental and Continental Mark V require pushing the **rocker type switch (inboard)** to lock the door(s). To **unlock** the doors from inside the vehicle; **lift** the push button(s) upward beyond the normal travel **(LTD II, Cougar, Granada and Monarch.** On the Ford, Mercury, Thunderbird and Cougar XR7, push the control switch **(rearward)**, and, on the Lincoln Continental and Continental Mark V, push the control switch **(outboard).**

The key will not lock or unlock all doors from outside the vehicle. The key inserted into the door lock can only be used to lock or unlock each individual door.

TESTING

MOTOR

Apply 12 volts to one terminal of the motor's (actuator) connector and ground the other terminal (Fig. 1). The motor (actuator) gear should finish its travel in less than one (1) second.

Using an ammeter; the motor current draw (stall test), should not exceed 6 amps. Reverse the power and ground leads to the connector and re-test.

SWITCH

LTD II, Granada, Monarch and Cougar

Using a self-powered test light, there should be **no continuity** between any terminals with the switch in its normal position.

Continuity should exist between terminals A and B with the switch held in one position and between terminals B and C with the switch held in the other position (Fig. 1).

Ford, Mercury, Lincoln Continental, Thunderbird, Cougar XR7 and Continental Mark V.

Procedures for testing the power door lock switch is the same as for the single power window switch. Refer to Group 42.

RELAY

LTD II, Cougar, Granada and Monarch

Remove both connectors to perform the relay tests. The relay is located on the brake pedal support.

Verify that terminal 1 on the relay is grounded. If terminal 1 on the relay is not grounded, check the relay case to ground bolts for tightness. If the relay case to ground bolts is tight, replace the relay. If not, tighten and re-test.

Apply power to terminals 2 and 4 on each relay, and connect a 12 volt test light between terminals 1 and 2, and ground **(no longer than two minutes).** The test light should light. If the operative test light does not light, replace the relay.

Refer to the Wiring and Vacuum Diagrams manual, Form 365-229, for electrical schematic wiring diagrams and the locations of the wiring harnesses.

Ford, Mercury, Lincoln Continental, Thunderbird, Cougar XR7 and Continental Mark V

There is no relay test for the two-door models. Power is supplied directly to the door lock motor through the switch located in the arm rest.

On four door vehicles and station wagon models, the relay is mounted on right hand side on Ford and Mercury and on the brake pedal support on LTD II and Cougar and the LTD II and Cougar relay test procedures apply.

REMOVAL AND INSTALLATION

ELECTRIC DOOR LOCK ACTUATOR MOTOR

To remove the door lock actuator motor (Fig. 1), remove the door trim panel and watershield. Then, disconnect the actuator motor link from the door latch. Remove the screws or pop rivets attaching the actuator motor to the door and disconnect the wiring at the connector. Remove the actuator motor.

To install the door lock actuator motor, connect the wiring at the connectors and install the door lock actuator motor in the door with screws and/or pop rivets. Connect the actuator motor link to the door latch. Then, install the watershield and door trim panel.

DOOR LOCK CONTROL SWITCH

LTD II, Cougar, Granada and Monarch

The power door switch is an integral part of the door lock push button rod. To replace the switch, remove the door trim panel and watershield (Group 45). The switch must be detached from the door latch and/or bellcrank before disconnecting or connecting the wiring connector. (See Fig. 1.)

Disengage the push button rod from the latch. To disengage the wiring connector from the switch, apply pressure under the tab with a small screwdriver (Fig. 1). Then, pry the locking tab up from the flange of the connector and pull them apart.

To reassemble the wiring connector to the switch, press firmly together until the tab locks behind the flange. Install the switch to the door latch and/or bellcrank. **Inspect the switch installation to ensure that no binds to sheet metal or tight wires exist.**

Install the watershield and trim panel to the door.

Ford, Mercury, Lincoln Continental, Thunderbird, Cougar XR7 and Continental Mark V

To remove the control switch, remove the control panel from the arm rest. Release the connector attaching nuts and remove the switch from the control panel. See Part 42-01.

TAILGATE LOCK ACTUATOR

Ford, Mercury, LTD II and Cougar—Station Wagons

Remove the tailgate trim panel and watershield. Then, remove the two screws or rivets retaining the lock actuator to the tailgate inner panel (Fig. 2). Disconnect the lock actuator rod from the latch, disconnect the wiring connector and remove the actuator.

To install the tailgate lock actuator, connect the wiring connector to the actuator and then lock actuator rod to the latch. Assemble it to the tailgate inner panel and install watershield and trim panel.

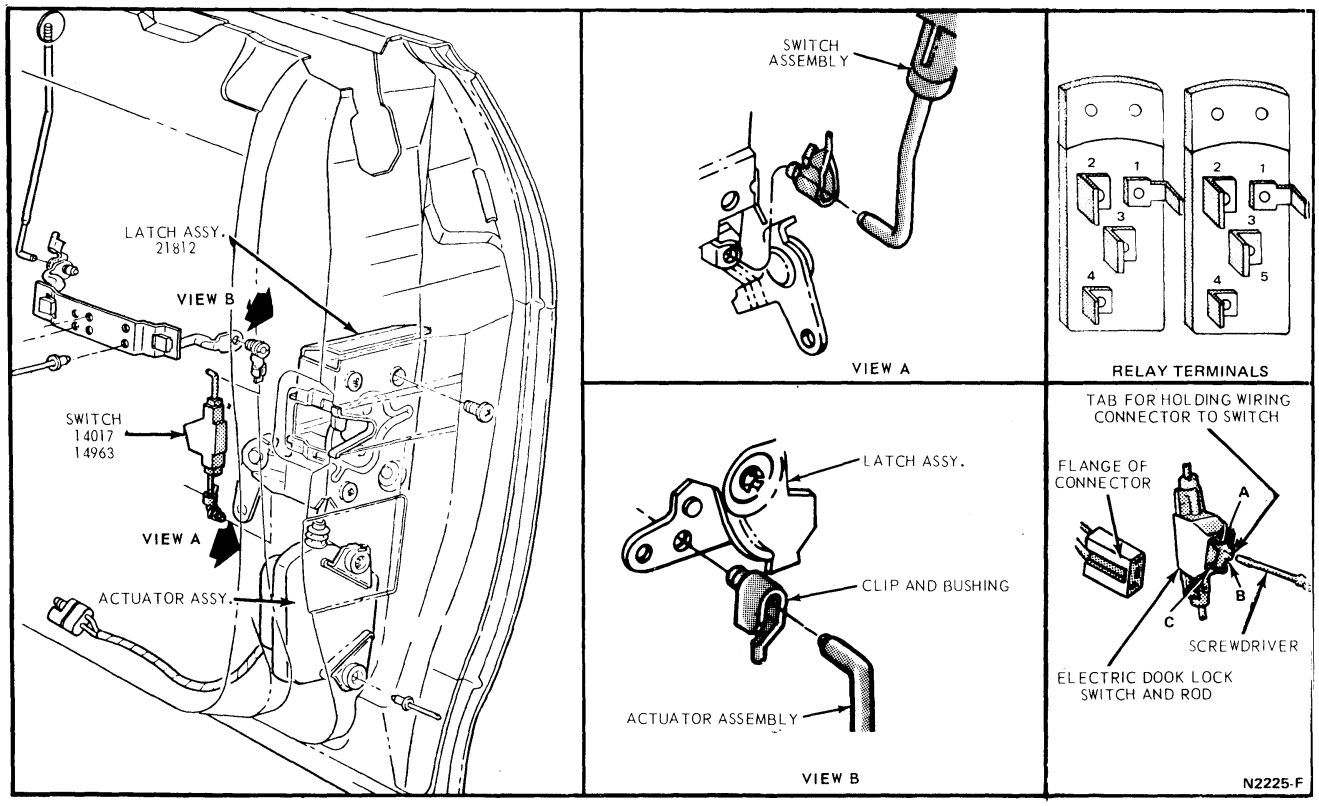


FIG. 1 Power Door Lock Actuator, Switch and Relay—LTD II, Granada, Monarch and Cougar

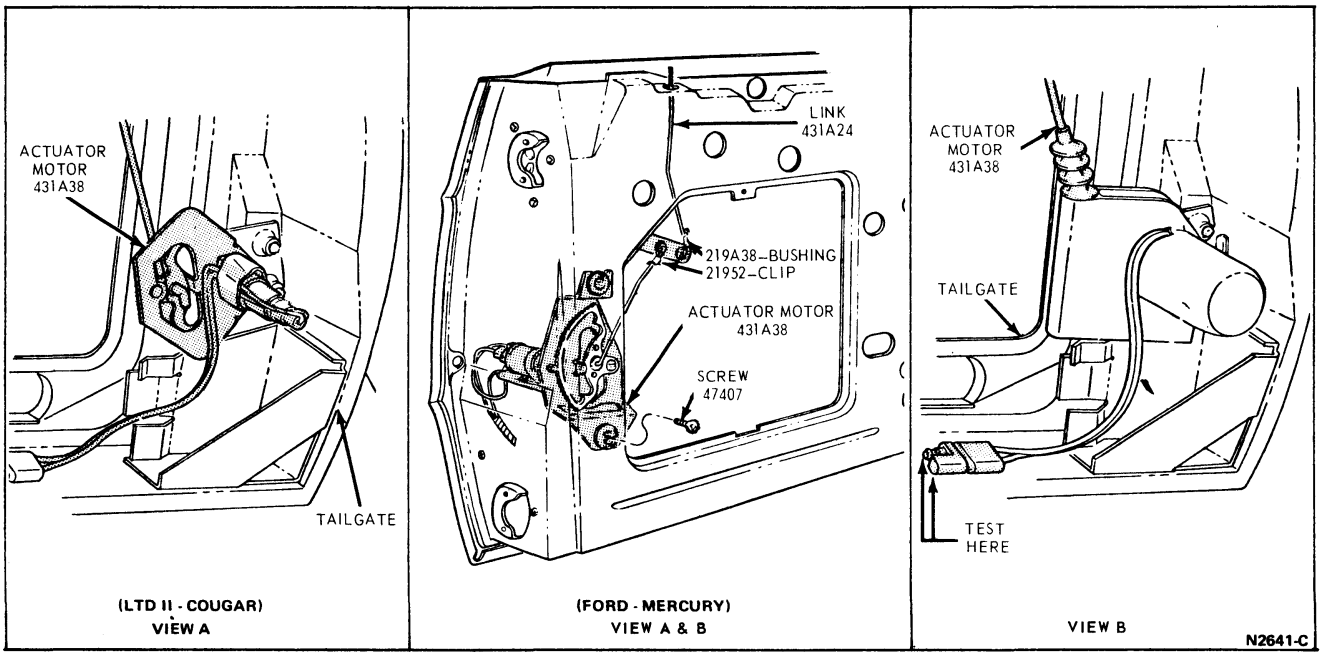


FIG. 2 Tailgate Actuator Motor Assembly—Typical

Hood, Hinge and Latch

PART 44-21

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Hood Catch – Auxiliary	21-2
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Hood	21-9
REMOVAL AND INSTALLATION (Cont'd.)	
Hood Hinge	21-9
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Hood Support Rod	21-9
Hood Latch Control Cable	21-9

CR2037-A

ADJUSTMENTS

HOOD ALIGNMENT

Thunderbird, Mercury, LTD II and Cougar

The hood can be adjusted fore and aft and side to side by loosening the hood-to-hinge attaching screws, and repositioning the hood. To raise or lower the hood, loosen the hinge-to-fender reinforcement attaching screws, and raise or lower the hinge as necessary (Figs. 1 and 2). To ensure that the rear corners of the hood are pulled down snugly against the rear hood bumpers, it may be necessary to rotate the hinge around the three attaching bolts.

Maverick and Comet

The hood is provided with fore and aft, vertical, and side-to-side adjustments (Fig. 3). These directions refer to the position of the hood when it is fully lowered. The elongated bolt slots in the hinge and hood provide the side-to-side and fore and aft adjustments. The elongated slots at the fender apron provide for up and down adjustments.

Hood bumpers, located on the top left and the top right surface of the radiator support, can be adjusted up and down to provide a level surface alignment of the hood panel with the front fenders. To insure that the rear corners of the hood are pulled down snugly against the rear hood bumpers, it may be necessary to rotate the hinge around the three attaching bolts. Adjust the bumpers on each side of the radiator support to eliminate any looseness of the hood when latched.

Pinto, Bobcat, Mustang, Granada and Monarch

The hood can be adjusted fore and aft and from side-to-side by loosening the two hood-to-hinge attaching bolts at both hinges (Fig. 4). Then, reposition the hood as required and tighten the hood-to-hinge attaching bolts.

To raise or lower the rear of the hood, loosen the hinge to body attaching bolts. Raise or lower the hinge as necessary to obtain a flush condition of the top of the hood with the surrounding panels. Then, tighten the hinge-to-body attaching bolts.

Lincoln Continental and Continental Mark V

The hood can be adjusted fore and aft and side-to-side by loosening the hood-to-hinge attaching bolts and repositioning the hood. To raise or lower the hood, loosen the hinge-to-fender reinforcement attaching bolts and raise or lower the hinge as necessary. Then, tighten the attaching bolts (Figs. 5 and 6).

To ensure that the rear corners of the hood are pulled down snugly against the rear hood bumpers, it may be necessary to rotate the hinge around the three attaching bolts.

HOOD LATCH ADJUSTMENT

Maverick and Comet

1. Loosen the hood latch reinforcement attaching screws (Fig. 7) until they are just loose enough to move the latch and reinforcement.
2. Move the reinforcement from side-to-side to align the latch with the hood latch hook.
3. When the latch is aligned from side-to-side for engagement with the hood latch hook, tighten the reinforcement attaching screws.
4. Loosen the lock nuts on the two hood bumpers and lower the bumpers.
5. Loosen the two hood latch attaching screws until they are just loose enough to move the latch.
6. Move the hood latch up or down as necessary to obtain a flush fit between the hood and the top of the fenders when an upward pressure is applied to the front of the hood. Then, tighten the hood latch attaching screws.
7. Raise the two hood bumpers to eliminate any looseness at the front of the hood when closed. Then, tighten the hood bumper lock nuts.
8. Open and close the hood several times to check the operation.

All, Except Maverick and Comet

Before adjusting the hood latch mechanism, make certain that the hood is properly aligned. The hood latch can be moved from side-to-side to align it with the opening in the hood inner panel and up-and-down to obtain a flush fit with the front fenders.

1. Loosen the hood latch attaching bolts until they are just loose enough to move the latch (Figs. 8 through 13).
2. Move the latch from side-to-side to align it with the opening in the hood inner panel.

3. Loosen the lock nuts on the two hood bumpers and lower the bumpers.
4. Move the hood latch up or down as required to obtain a flush fit between the top of the hood and fenders when an upward pressure is applied to the front of the hood. Then, tighten the hood latch attaching screws.
5. Raise the two hood bumpers to eliminate any looseness at the front of the hood when closed. Then, tighten the hood bumper lock nuts.
6. Open and close the hood several times to check the operation.

AUXILIARY HOOD CATCH

To check the engagement of the auxiliary hood catch, release the hood latch to the pop open position and pull up on the hood assembly. The catch should prevent the hood from opening.

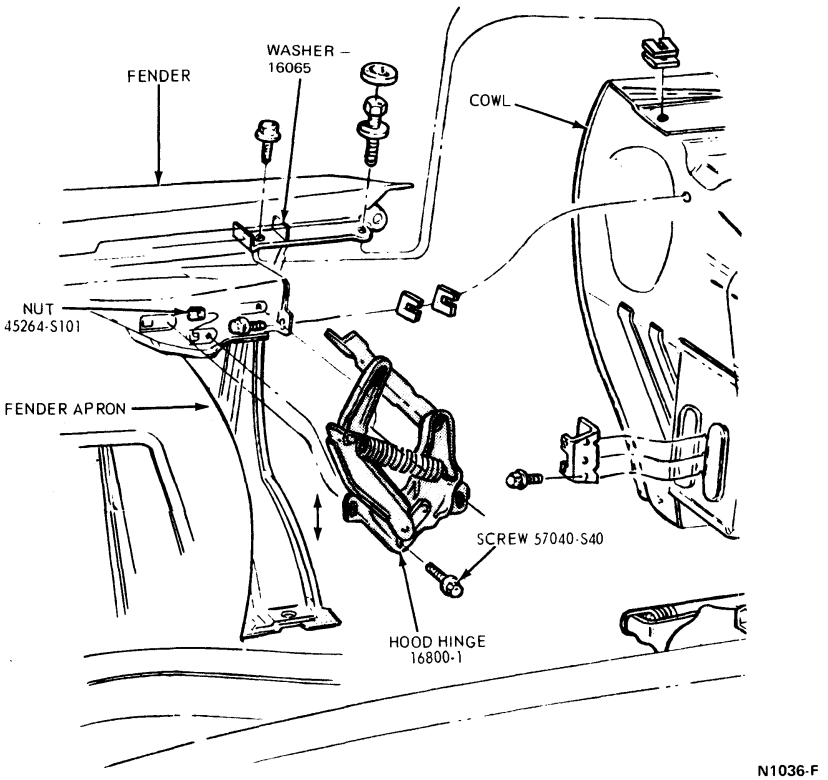


FIG. 1 Hood Hinge Installation—Ford and Mercury

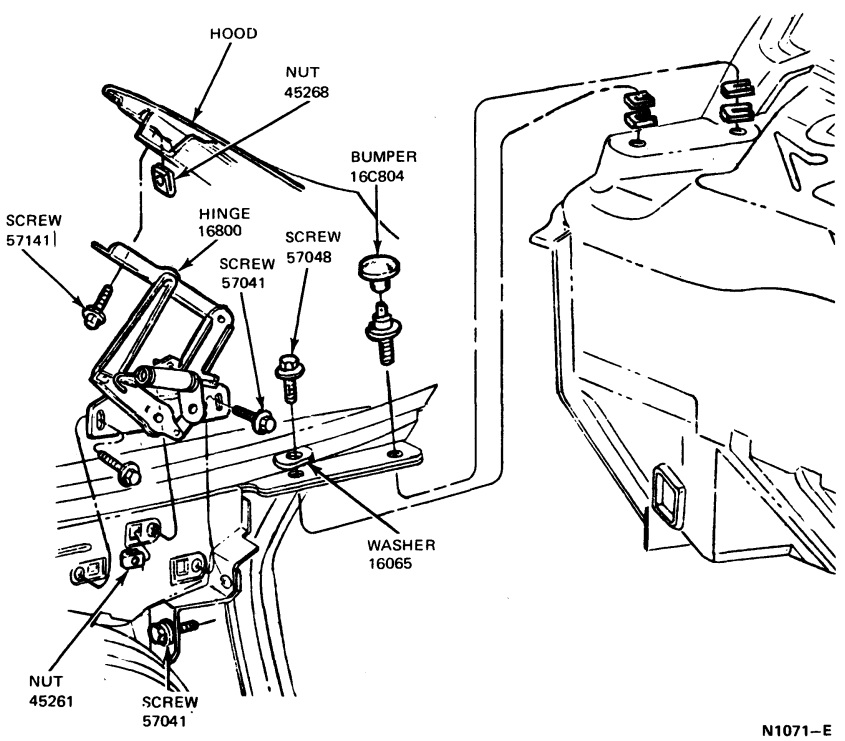


FIG. 2 Hood Hinge Installation—LTD II, Thunderbird and Cougar

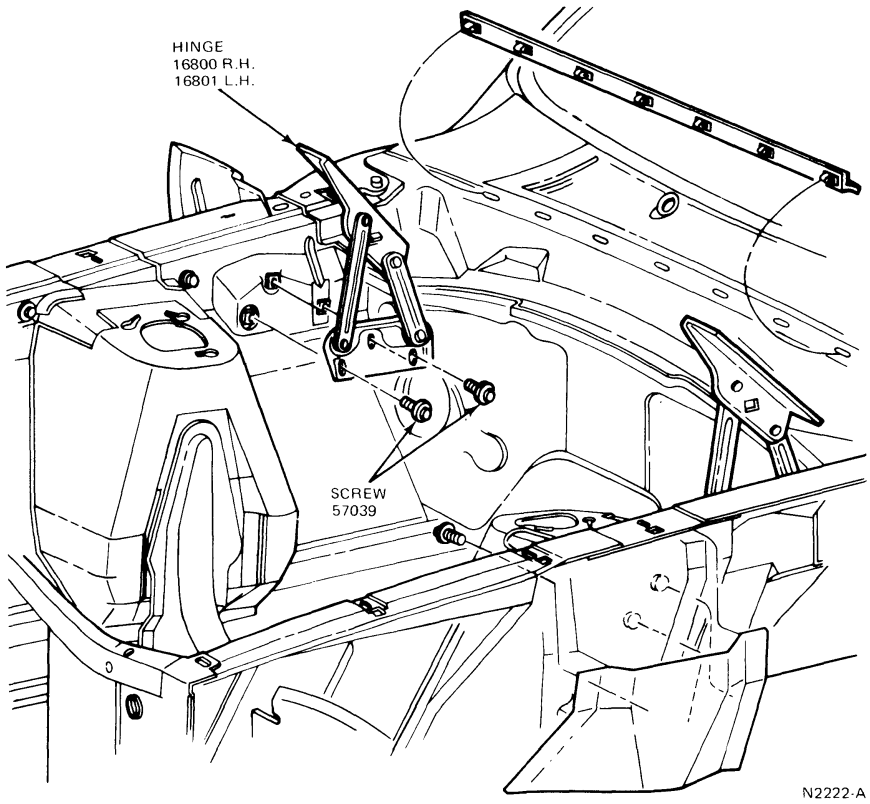


FIG. 3 Hood Hinge Installation—Maverick and Comet

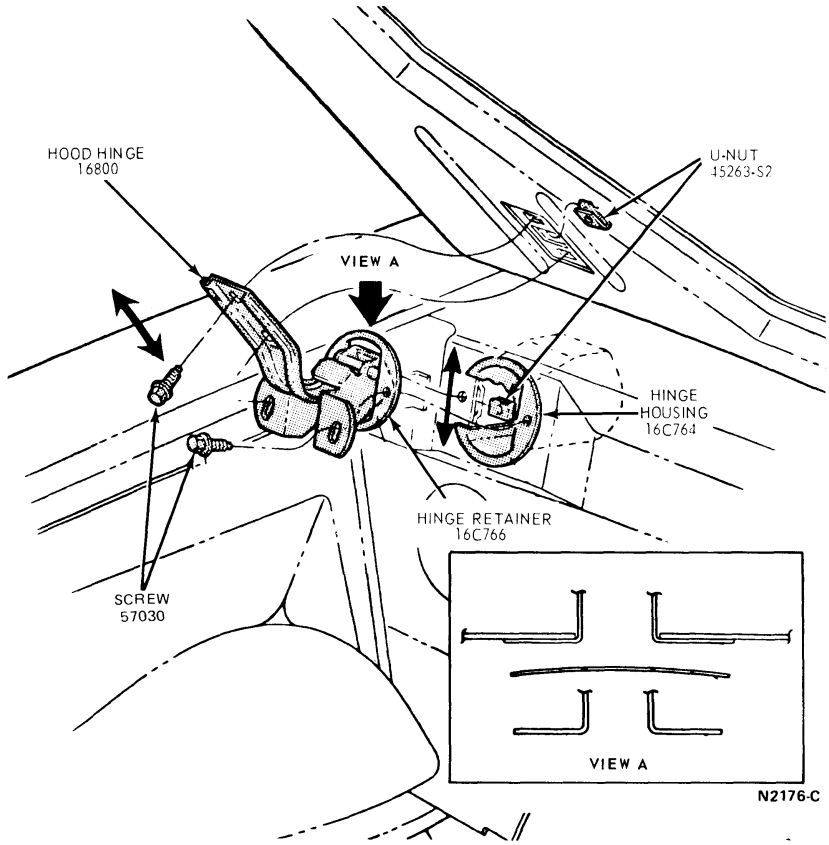


FIG. 4 Hood Hinge Installation and Adjustment—Pinto, Bobcat, Mustang, Granada and Monarch

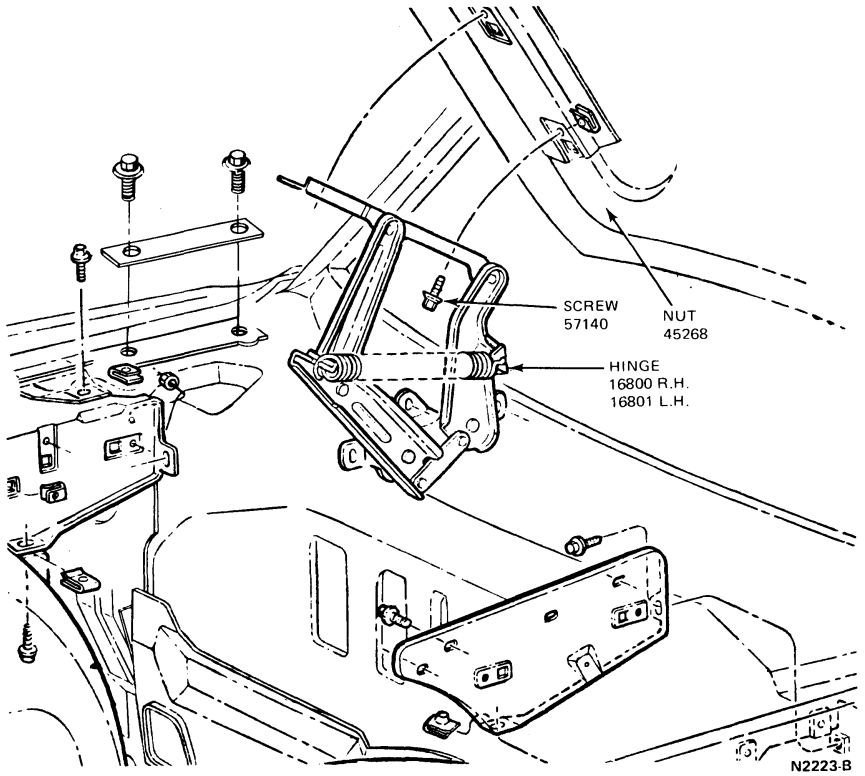


FIG. 5 Hood Hinge Installation—Lincoln Continental

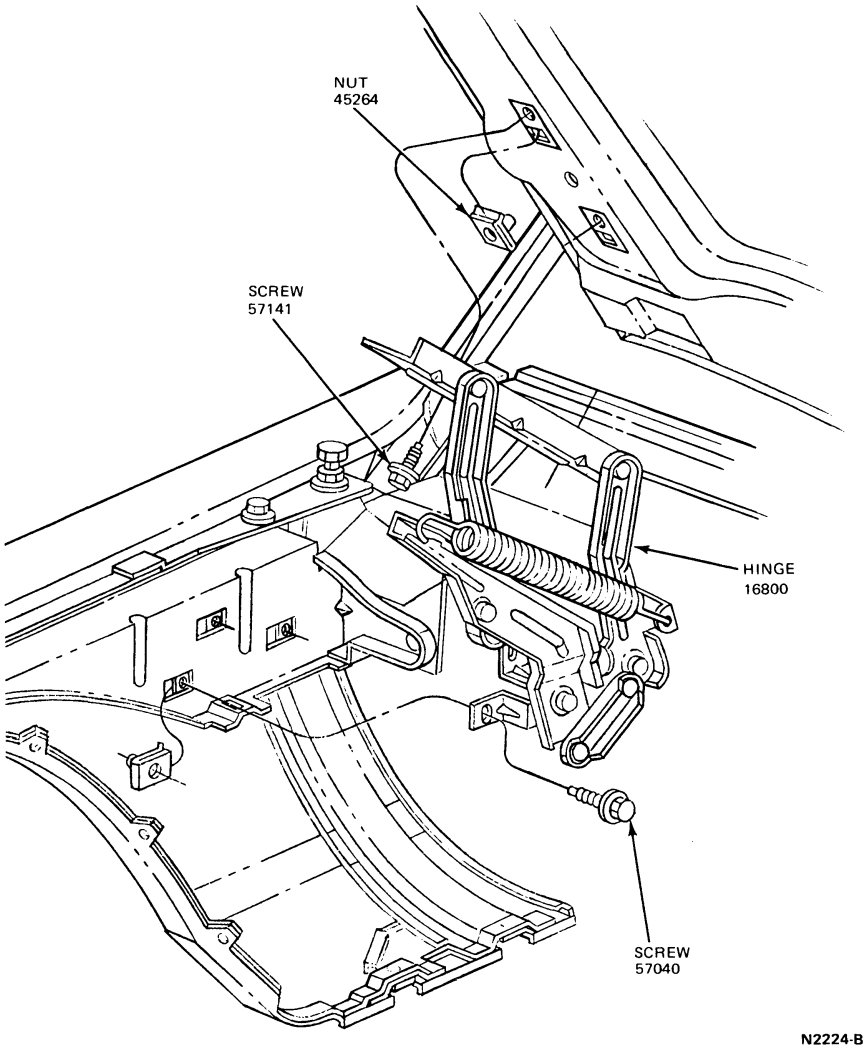


FIG. 6 Hood Hinge Installation—Continental Mark V

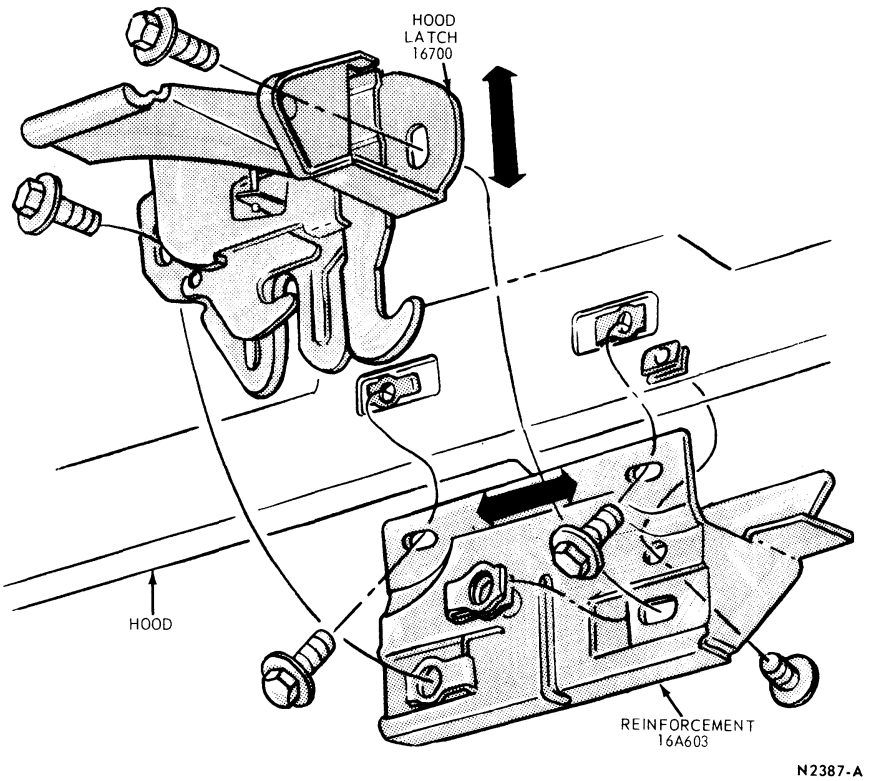


FIG. 7 Hood Latch—Maverick and Comet

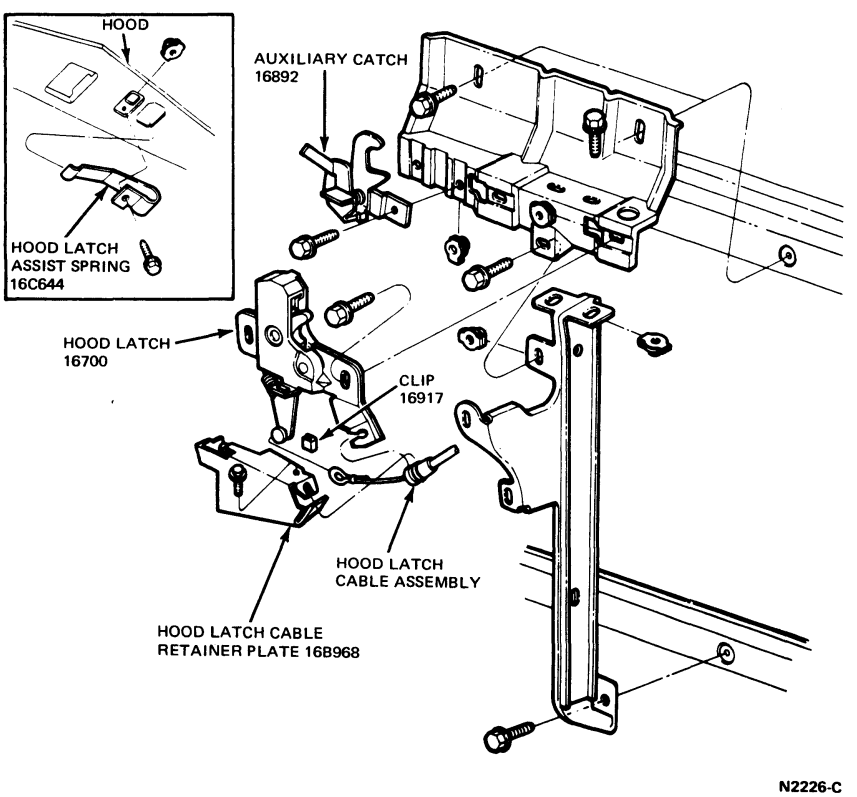


FIG. 8 Hood Latch Installation—Pinto, Bobcat and Mustang

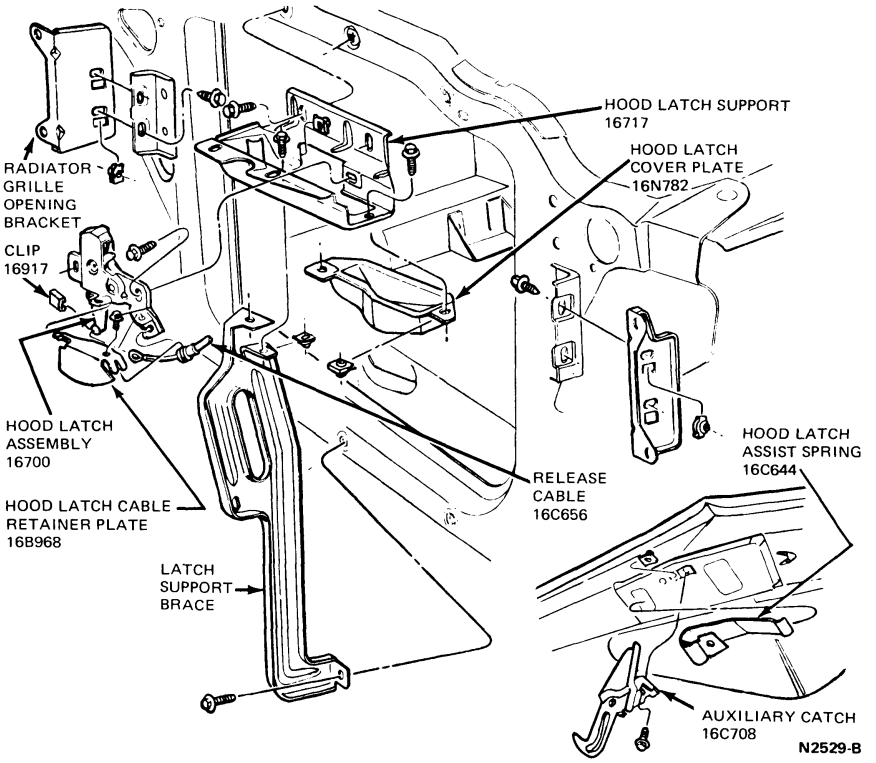


FIG. 9 Hood Latch, Auxiliary Catch and Cable Installation—Granada and Monarch.

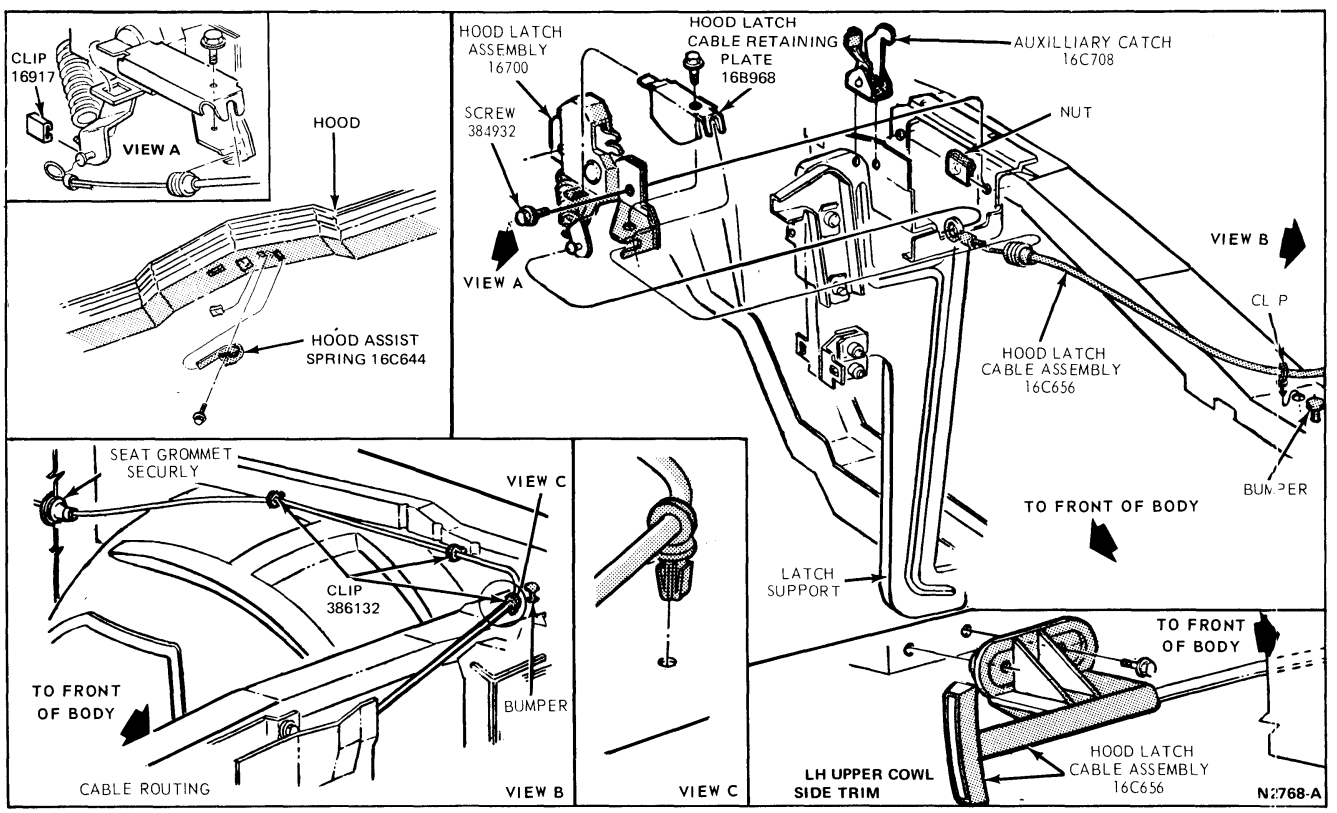


FIG. 10 Hood Latch, Auxiliary Catch and Cable Installation—LTD II, Thunderbird and Cougar

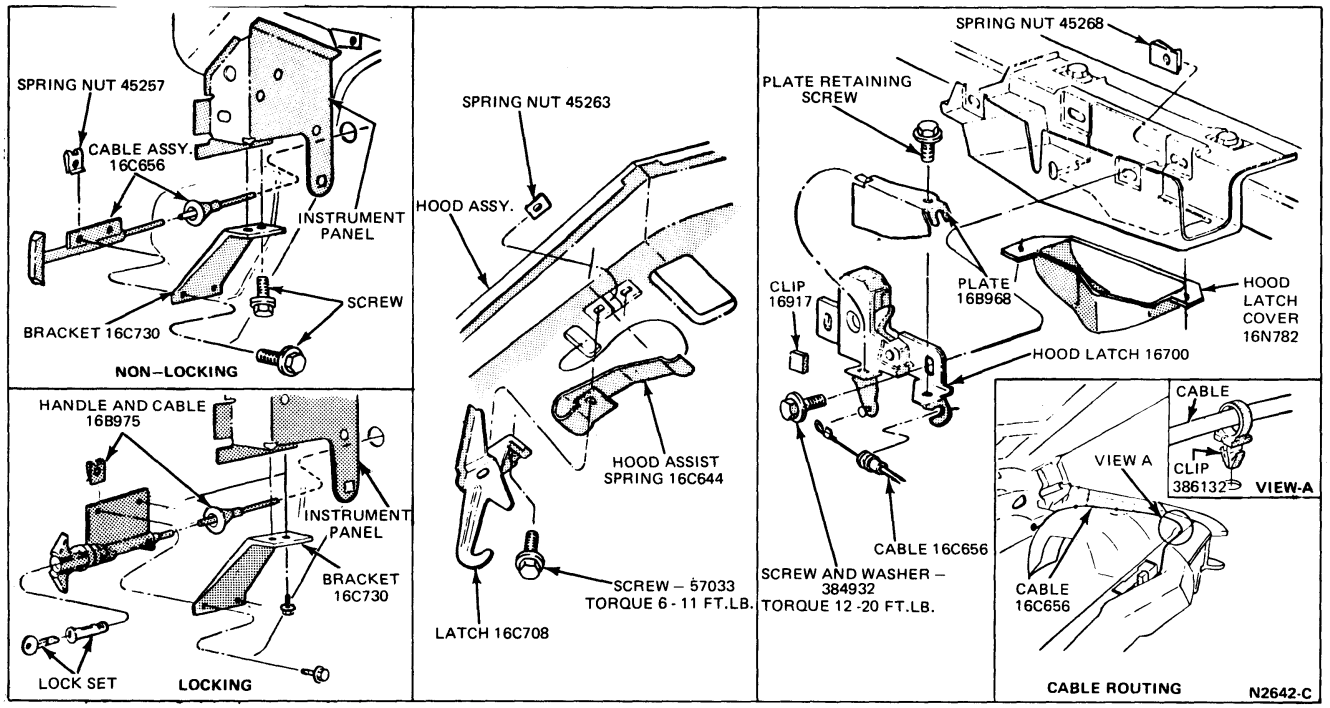


FIG. 11 Hood Latch, Auxiliary Catch and Cable Installation—Ford and Mercury

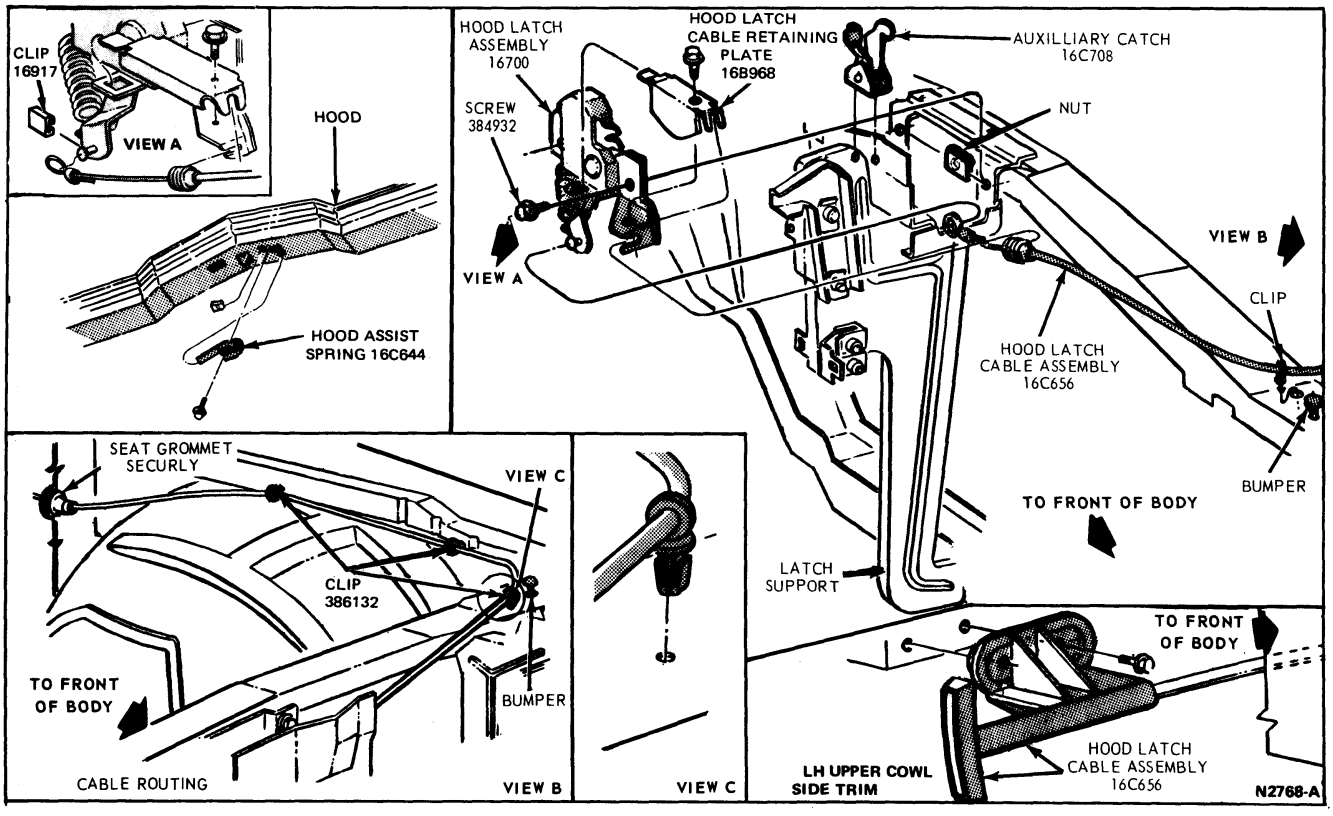


FIG. 12 Hood Latch, Auxiliary Catch and Cable Installation—Continental Mark V

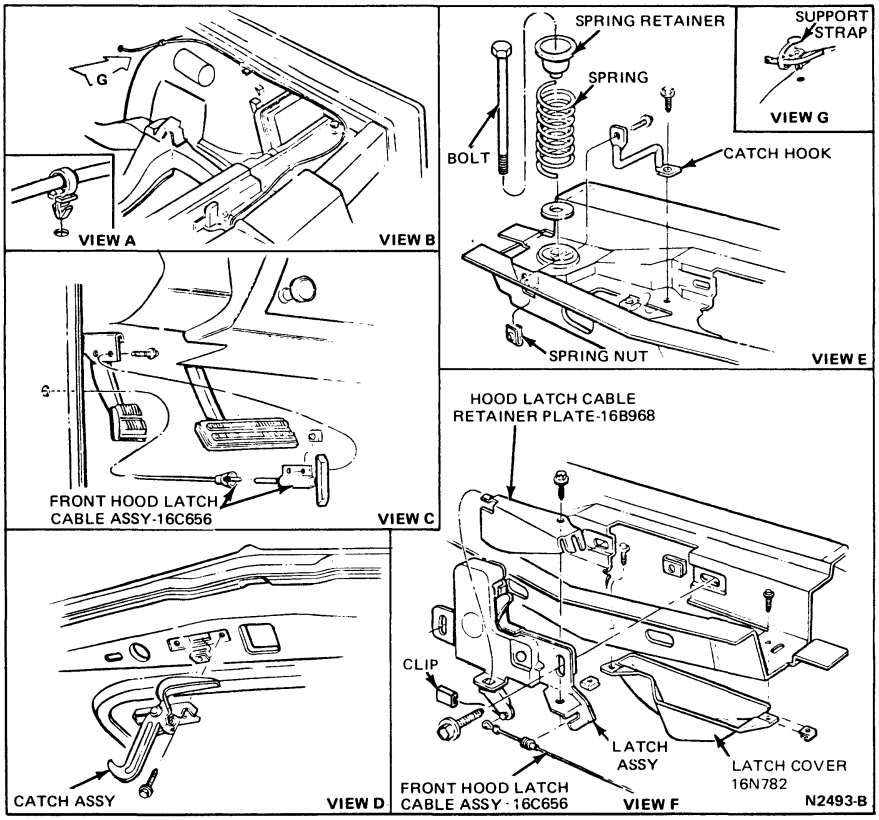


FIG. 13 Hood Latch, Auxiliary Catch and Cable Installation—Lincoln Continental

REMOVAL AND INSTALLATION

HOOD LATCH CONTROL CABLE

All Except Maverick and Comet

Removal

1. From inside the vehicle, open the hood.
2. Remove the hood latch cable retainer plate (one screw), and the cable clip (Figs. 10 through 14).
3. Disengage the cable and ferrule away from the hood latch assembly (Figs. 10 through 14).
4. Remove the cable retaining clips.
5. From inside the vehicle, remove the cable mounting bracket attaching screws and carefully pull the hood latch cable assembly through the retaining wall.

Installation

1. Position the cable assembly through the retaining wall, seat the grommet securely, and install the cable mounting bracket attaching screws.
2. Route the cable as shown in Figs. 10 through 14, and retain in position with new clips.
3. Install the cable and ferrule to the hood latch assembly.
4. Install the cable clip and the hood latch cable retainer plate (one screw).
5. Check the hood latch cable release operation before closing the hood.

HOOD

Removal

1. Open the hood and support the hood in the open position. Mark the hood hinge locations on the hood.
2. Protect the body with covers to prevent damage to the paint.
3. Remove the two bolts attaching each hinge to the hood, taking care not to let the hood slip when the bolts are removed.
4. Remove the hood from the vehicle.

Installation

1. Position the hood to the hood hinges and install the attaching bolts. Remove the body covers.
2. Adjust the hood for an even fit between the fenders and for a flush fit with the front of the fenders.
3. Adjust the hood for a flush fit with the top of the cowl and fenders.
4. Adjust the hood latch, if necessary.

HOOD HINGE

Removal

1. Open the hood and cover the fenders and cowl top panel.
2. Prop the hood in the open position and remove two hood hinge-to-hood attaching screws, and remove the hood.
3. Remove the hinge-to-fender reinforcement attaching screws and remove the hinge.

Installation

1. Position the hinge to the fender reinforcement and install the three attaching screws snug.
2. Position the hinge to the hood and install the two attaching screws.
3. Adjust the hood.

HOOD SUPPORT ROD

Mustang, Maverick, Comet, Pinto, Bobcat, Granada and Monarch

Removal

1. Open the hood and temporarily support the hood in the open position with something other than the support rod.
2. Remove the support from its stowed position on top of the radiator support.
3. Unsnap the hood support rod retainer from the support rod and pull the rod out of the hole in the retainer (Fig. 15).

Installation

1. Insert the end of the support rod into the hood support rod retainer and snap the retainer over the support rod (Fig. 15).
2. Place the support rod in its stowed position, remove the temporary hood support and close the hood.

HOOD LATCH

Removal

1. Open the hood and remove the hood latch cable retainer plate (vehicles so equipped) and cable clip (Figs. 10 through 14).
2. Disengage the cable and ferrule away from the hood latch assembly (vehicles so equipped).
3. Remove the latch attaching screws and remove the latch assembly.

Installation

1. Position the latch assembly to the vehicle and install the two attaching screws.
2. Position the hood latch control cable and ferrule to the latch assembly and install the cable clip.
3. Install the hood latch retainer plate.
4. Adjust the latch assembly.

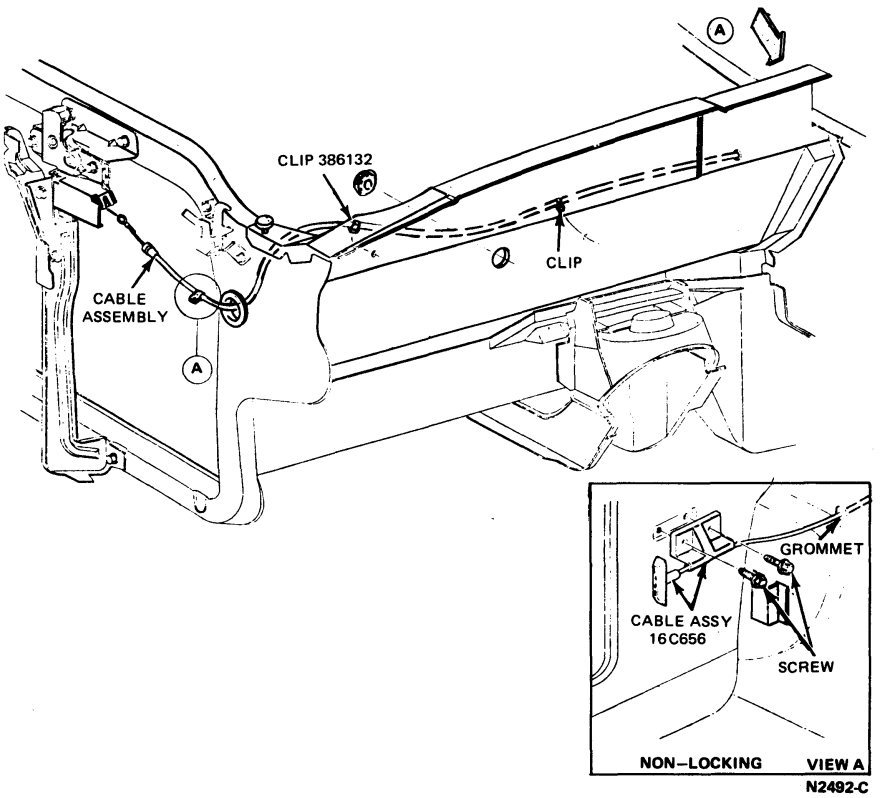


FIG. 14 Hood Latch Cable Installation—Mustang, Granada, Monarch, Pinto and Bobcat

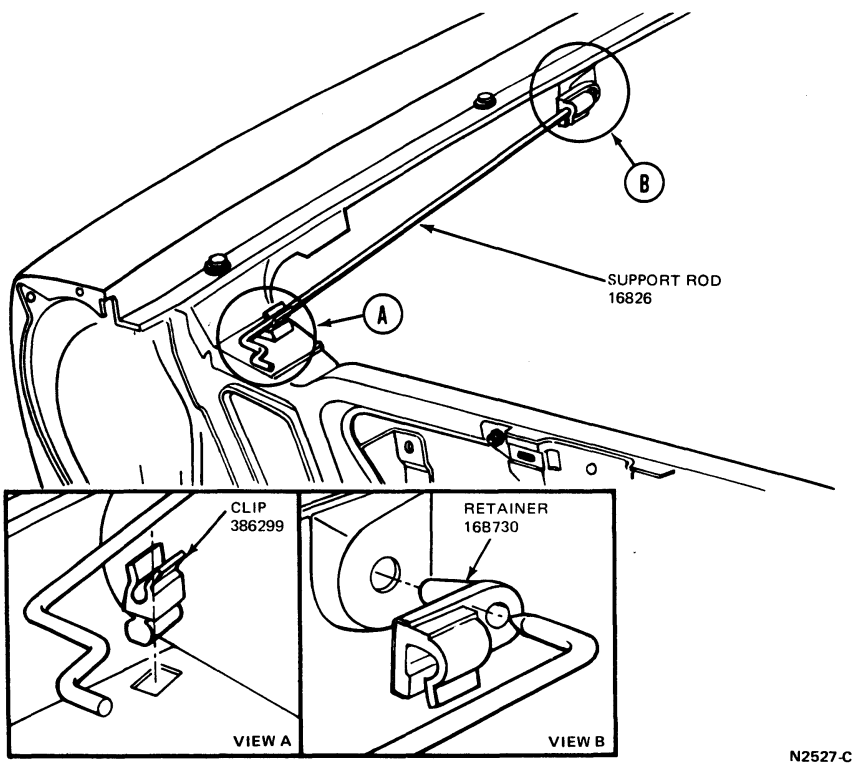


FIG. 15 Hood Support Rod-Mustang—Others Similar

Luggage Compartment Door, Hinge, Latch, Lock and Weatherstrip

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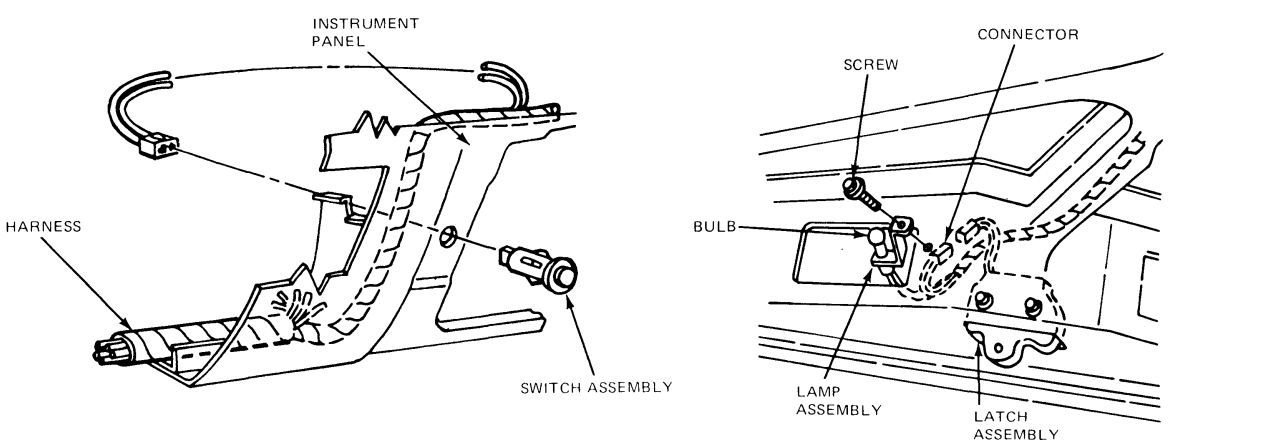
CR2038-A

DESCRIPTION

ELECTRIC LUGGAGE COMPARTMENT RELEASE

Ford, Mercury, Lincoln Continental, Thunderbird and Continental Mark V

A switch mounted in the glove box actuates a solenoid which is an integral part of the luggage compartment latch assembly (Fig. 1).



INSTALLATION WITH R.P.O. ELECT. LUGG. COMPT. DOOR LOCK THUNDERBIRD AND MARK V

MARK V INSTALLATION

N1728-F

FIG. 1 Luggage Compartment Electric Lock

GENERAL INFORMATION

LUBRICANT

Apply lubricant (Part 19584 or equivalent) to all areas shown in Fig. 2 when required.

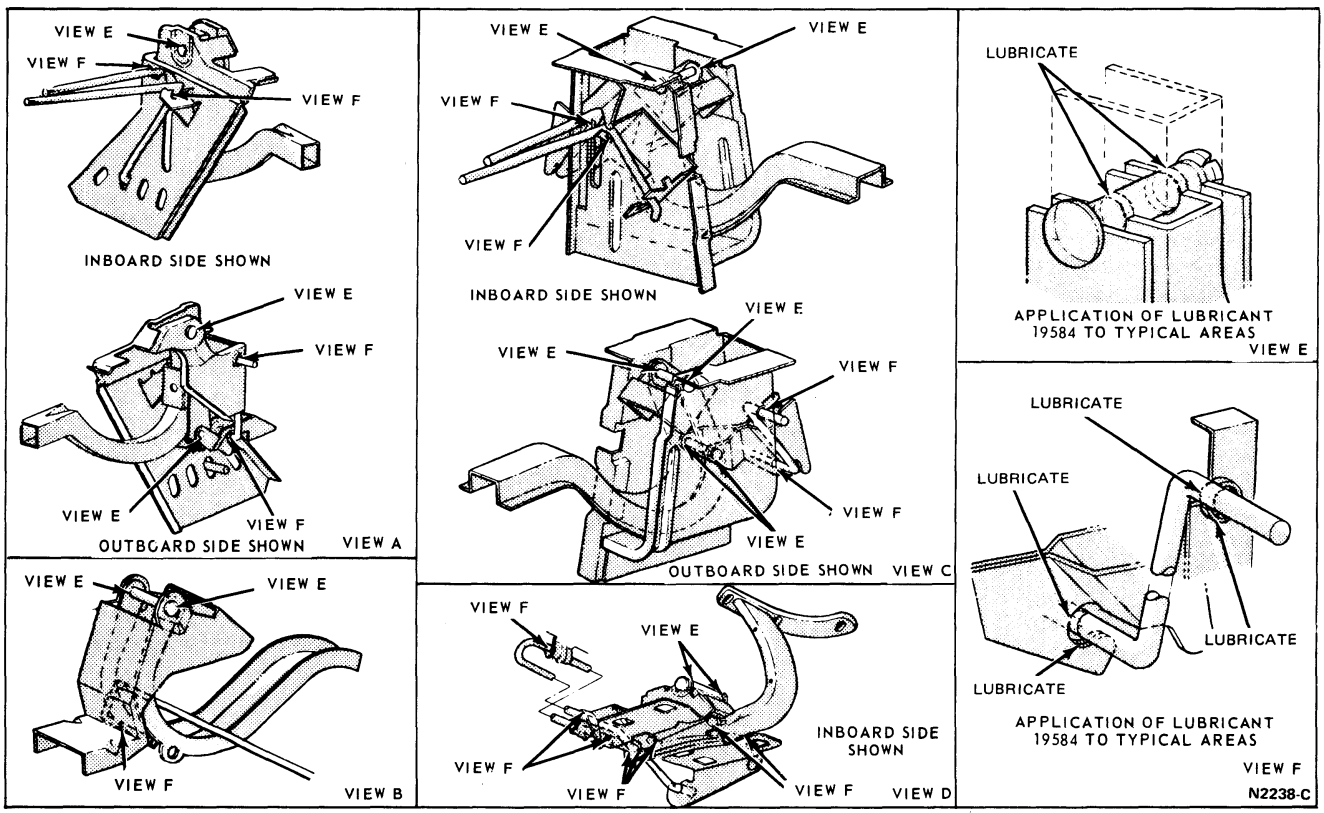


FIG. 2 Hinge Lubrication Areas—Typical

ADJUSTMENTS

LUGGAGE COMPARTMENT DOOR

The luggage compartment door, (third door and/or deck lid), can be shifted fore and aft on all models and from side to side on Pinto and Bobcat by loosening the hinge to door attaching screws. The up and down adjustment is made by loosening the hinge-to-door attaching screws and raising or lowering the door and/or adding or removing shims (Fig. 3 through 6).

The luggage compartment door should be adjusted for an even and parallel fit with the door opening. The door should also be adjusted up and down for a flush fit with the surrounding panels. Care should be taken not to distort or mar the luggage compartment door or surrounding body panels.

Pinto and Bobcat Station Wagon Only

If the liftgate door ajar warning switch is replaced, all adjustments to the liftgate and latch must be made **before** installing the switch.

DOOR HINGE TORSION BAR

All Except Pinto and Bobcat Model 64 and 73 and Mustang Model 69

1. Open the luggage compartment door and note the pop-up distance of the door. The door should have adequate finger clearance.
2. If the door does not have adequate finger clearance, the torsion bars tension should be increased. See appropriate Figs. 3 through 13.
3. If the door pops open with more force than is desired, the torsion bar tension can be decreased. Use care when adjusting the torsion bar as it is under tension and could spring out of control if not handled properly.
4. Support the door in the full open position before adjusting the torsion bar.
5. To adjust the torsion bar, grip the bar with a pipe wrench (typical) (Fig. 3). Then, move the torsion bar end to another position (notch) to increase or decrease the tension.
6. Adjust one torsion bar and check the adjustment before adjusting the other torsion bar.
7. After torsion bar adjustment, the difference of the position of the torsion bar ends, between the right and left side, must not be more than one slot.

3rd Door Pinto, Bobcat and Mustang

To adjust the hinge, pull down the weatherstrip across the entire top edge of the door opening. Carefully loosen and pull down the headlining to expose the access holes to the hinge nuts (Figs. 11 and 12). Adjust the hinges as necessary. Apply trim cement to the sheet metal flange, install headlining and smooth out

any wrinkles. Apply rubber cement to the upper surface of the flange and reinstall the weatherstrip.

Pinto and Bobcat Station Wagon

Open the luggage compartment and support the door in the open position. Remove the liftgate hinge cover panel (ten screws). Using vise grips, remove the torsion bar (Fig. 13).

LUGGAGE COMPARTMENT DOOR LATCH

Door Mounted Latch Adjustment

The striker plate can be adjusted up and down and the latch can be adjusted from side-to-side. Before adjusting the deck lid latch make sure that the deck lid is properly aligned. To adjust the latch, loosen the attaching screws, move the latch as required to enter the striker without deflecting the deck lid sideways, and tighten the attaching screws. Move the striker plate up or down as necessary to provide proper deck lid seal between the deck lid and the lower back panel.

Pinto and Bobcat Station Wagon Liftgate

A two-position (secondary and primary) door latch system is incorporated into the liftgate of Pinto and Bobcat Station Wagon models. This latch cycle consists of a first or secondary position which latches the liftgate but is not intended to seal the door to the liftgate weatherstrip. The second or primary latch position is designed to hold the door firmly into the weatherstrip section to preclude water leaks and/or wind noise. To assure that the **primary** latch has been activated when the liftgate is fully closed, adjust the liftgate latch striker plate as required to establish a firm door-to-weatherstrip seal in that position.

Back Panel Mounted Latch Adjustment

The luggage compartment door latch can be moved up and down in elongated holes to obtain a snug fit between the door and the weatherstrip. The latch striker can be shifted from side to side to obtain alignment with the striker.

The latch can be adjusted by loosening the attaching screws just enough to move the latch. Then, reposition the latch up or down, as required, to obtain a water tight fit between the luggage compartment door and the weatherstrip, and tighten the attaching screws. After the latch is adjusted, reposition the latch striker for proper engagement and alignment with the latch.

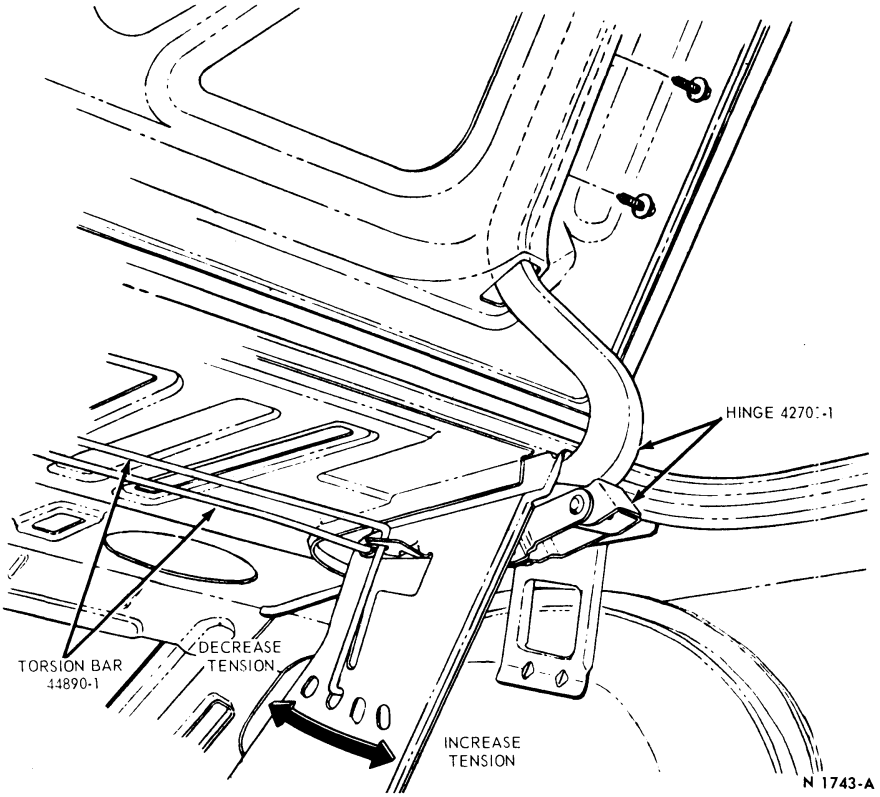


FIG. 3 Luggage Compartment Door Hinge and Torsion Bar—Ford and Mercury

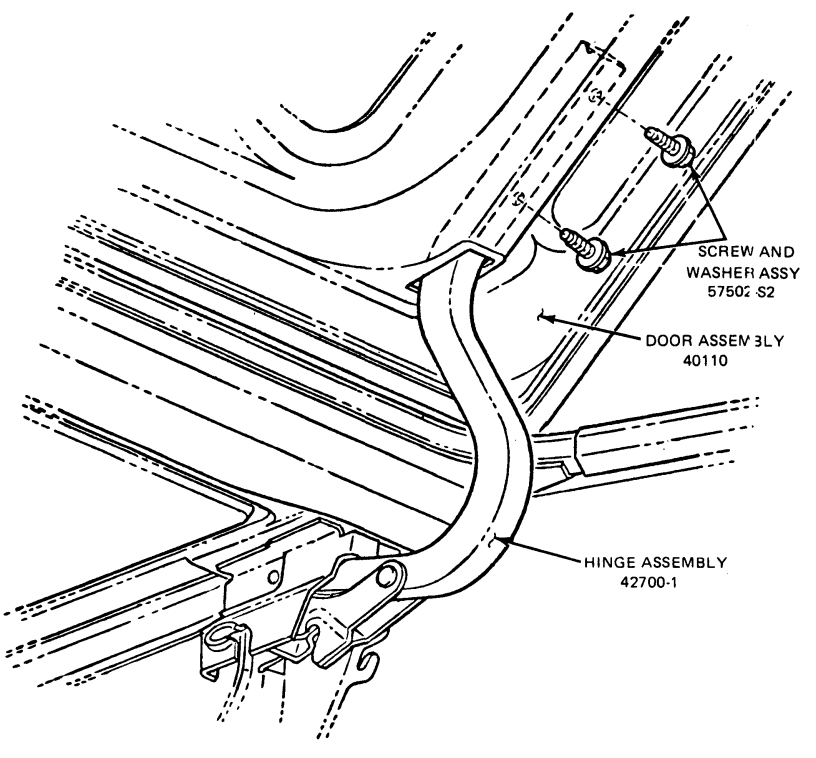


FIG. 4 Luggage Compartment Door Hinge—LTD II, Cougar and Thunderbird

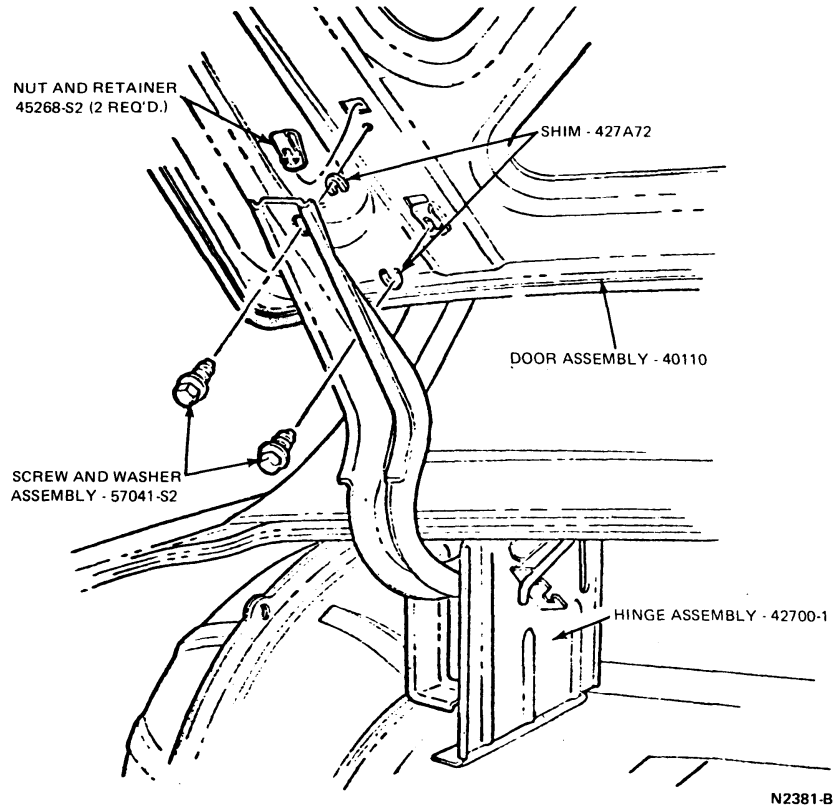


FIG. 5 Luggage Compartment Door Hinge-Lincoln Continental

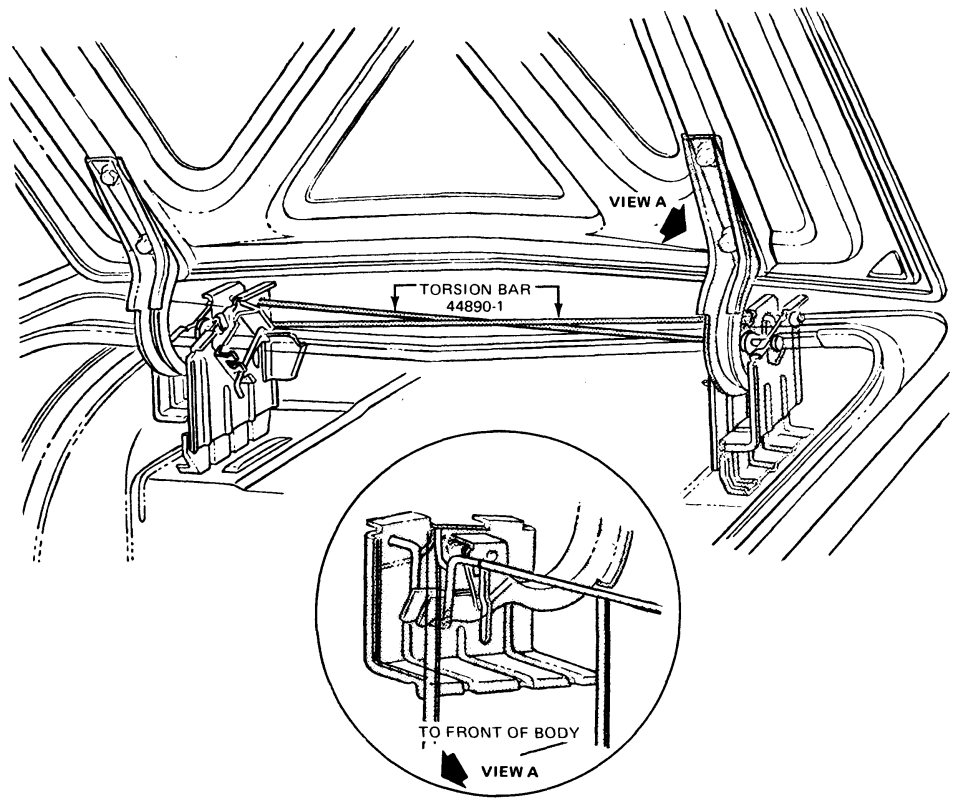


FIG. 6 Luggage Compartment Door Hinge and Torsion Bar—Lincoln Continental

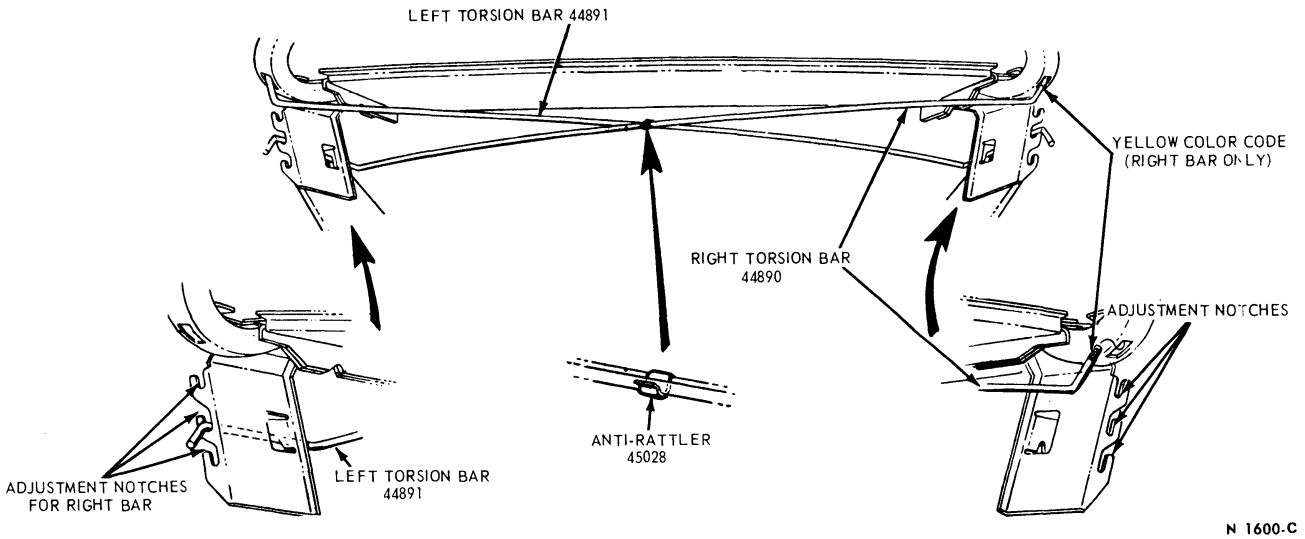


FIG. 7 Torsion Bar Adjustment-Typical-Maverick and Comet

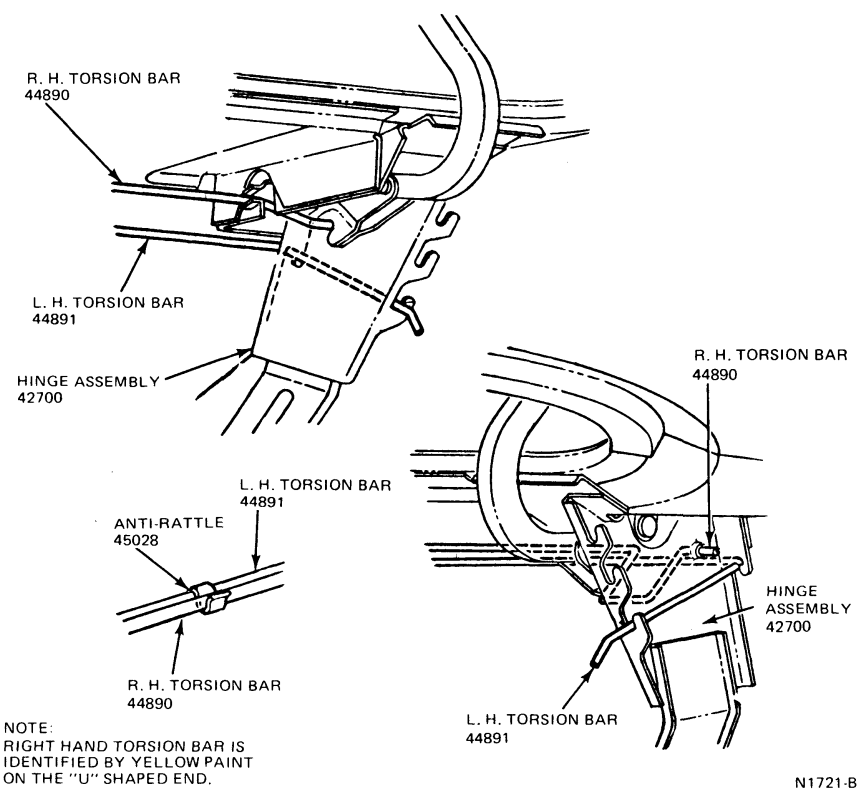


FIG. 8 Torsion Bar Adjustment—LTD II, Thunderbird and Cougar Shown—Continental Mark V and Lincoln Similar

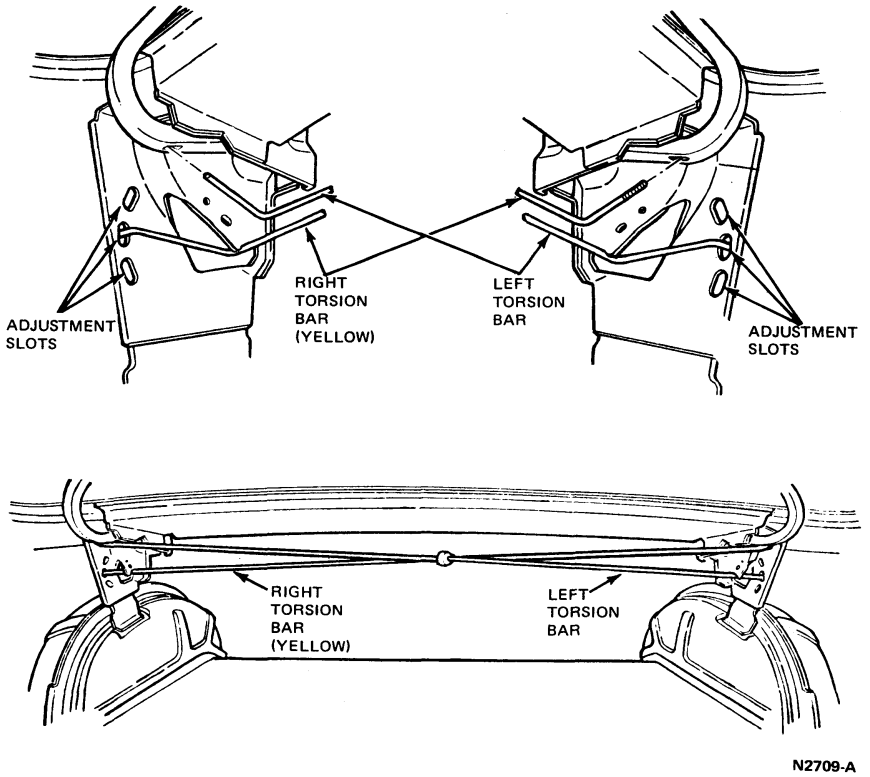


FIG. 9 Torsion Bar Adjustment—Granada and Monarch

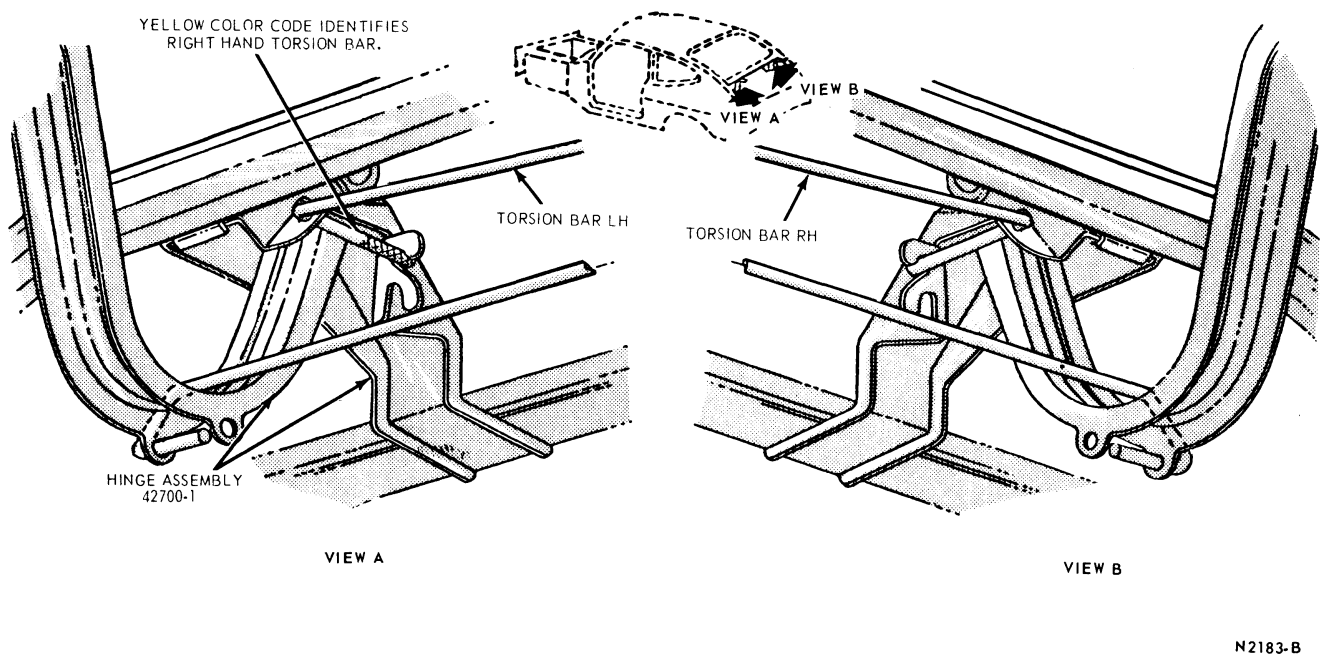


FIG. 10 Torsion Bar Adjustment—Pinto and Bobcat 2-Door

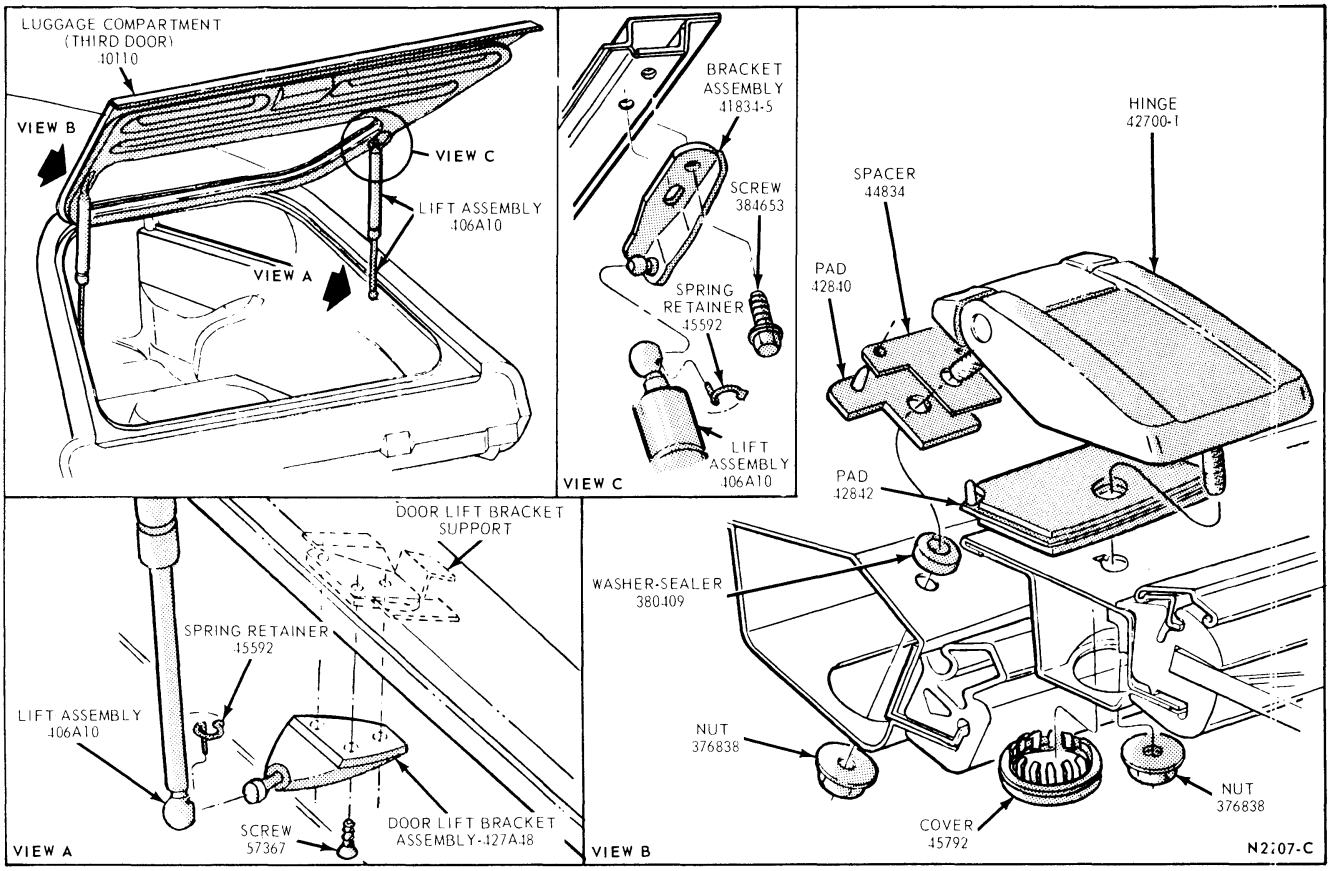


FIG. 11 Luggage Compartment Door, Hinge and Lift Assembly-Pinto and Bobcat 3-Door

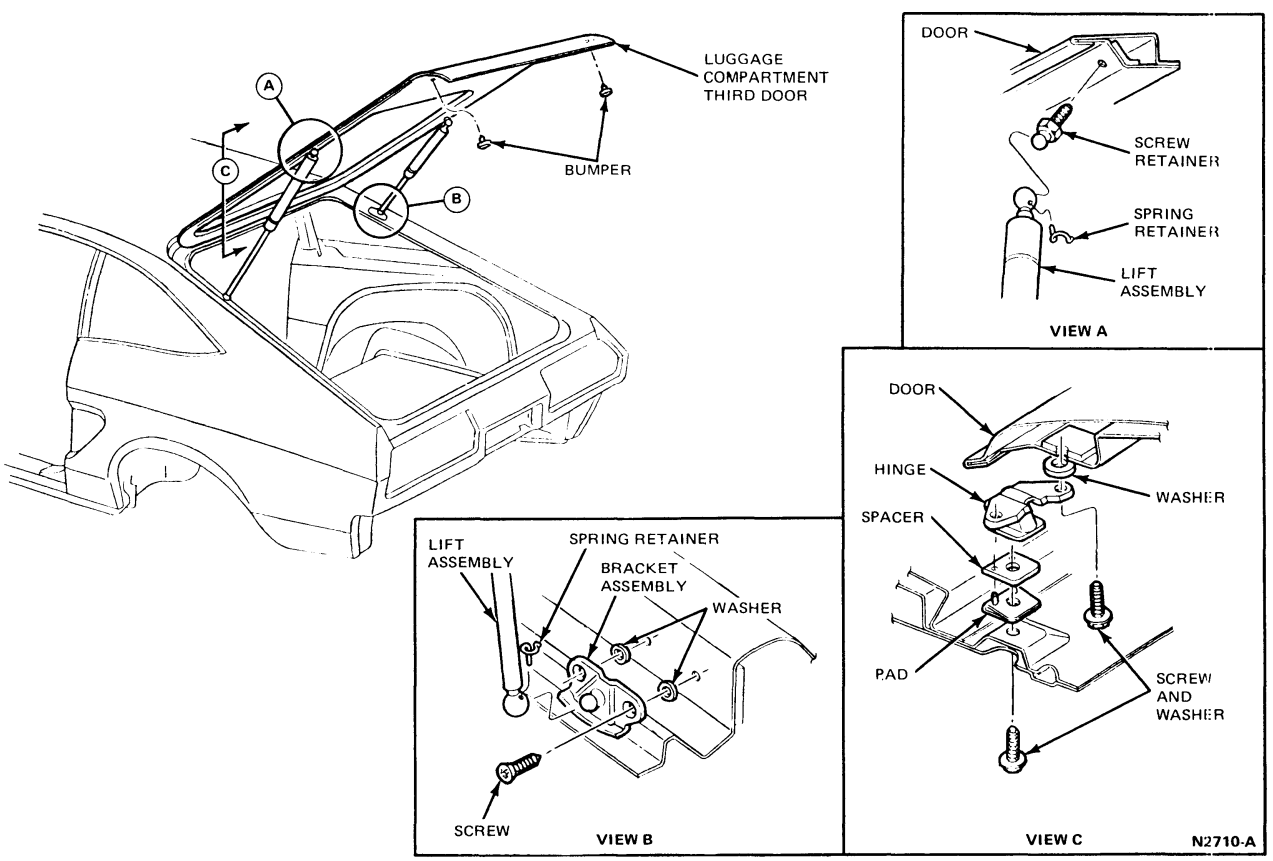


FIG. 12 Luggage Compartment Door, Hinge and Lift Assembly—Mustang 3-Door

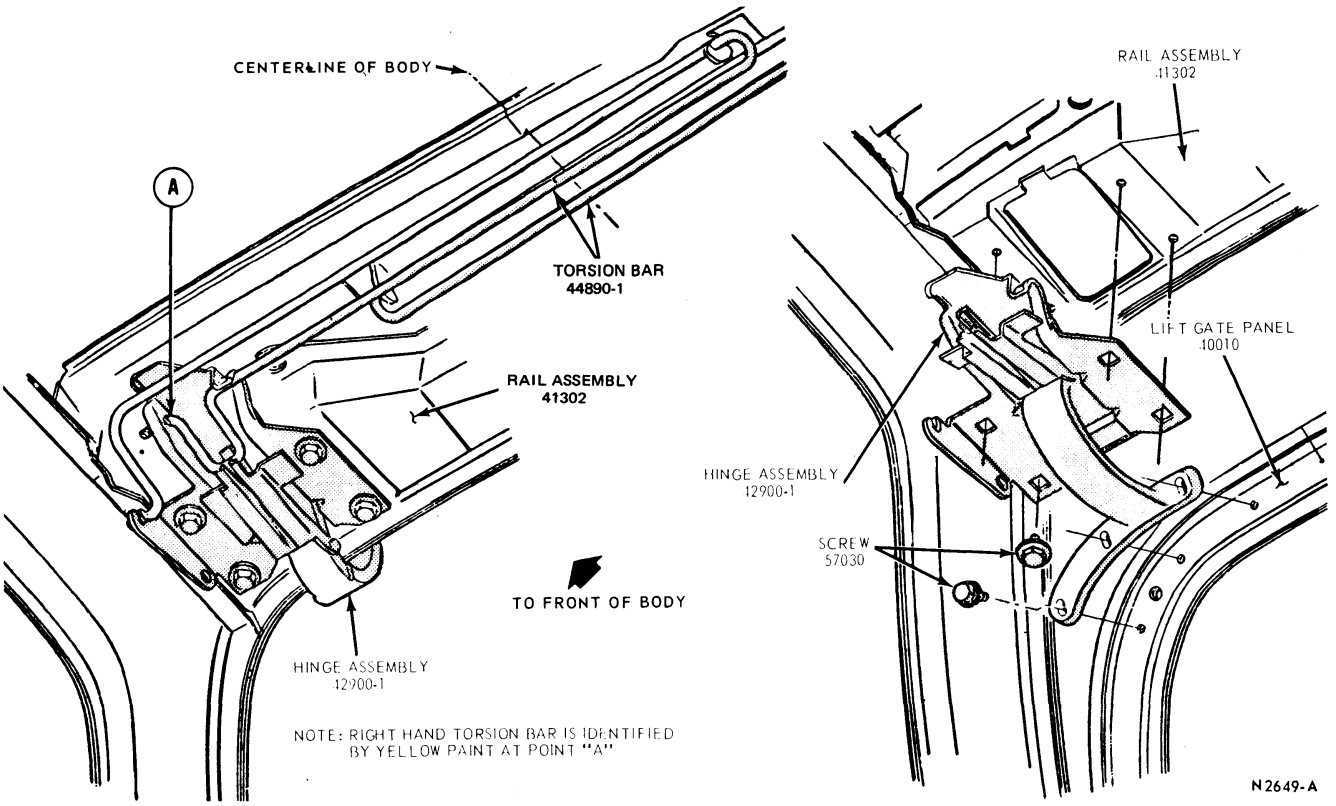


FIG. 13 Hinge and Torsion Bar Installation-Pinto and Bobcat—Station Wagon

REMOVAL AND INSTALLATION

LUGGAGE COMPARTMENT DOOR WEATHERSTRIP

Removal

1. Remove the weatherstrip from the door opening.
2. Remove all old cement and rubber from the weatherstrip mounting surface (Fig. 14).

Installation

1. Apply a 1/4 inch bead of rubber cement 19552 (or equivalent) in the bottom of the weatherstrip trough except in the drainage depressions. (See Fig. 14 Note.)
2. Position the new weatherstrip in the trough as shown in Fig. 14. Cut the new weatherstrip approximately 1 to 2 inches longer than required and butt together without adhesive.
3. Apply a 3/32 inch bead of rubber

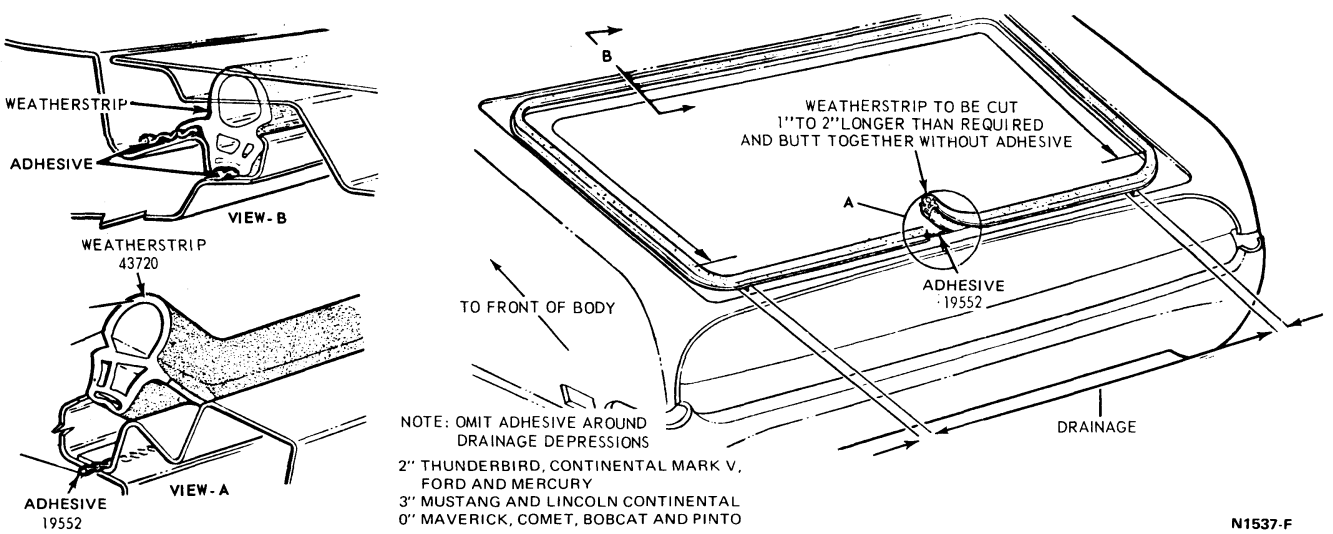


FIG. 14 Luggage Compartment Weatherstrip Installation-Typical All Models

cement 19552 under the outboard lip of the weatherstrip between points shown in Fig. 14.

LUGGAGE COMPARTMENT LIFT ASSEMBLY—PINTO, BOBCAT AND MUSTANG—3-DOOR RUNABOUT

Refer to Figs. 11 and 12 for Removal and Installation procedures (Luggage Compartment Lift Assembly).

LUGGAGE COMPARTMENT LATCH AND LOCK

1. Open the luggage compartment door.
2. Remove the lock cylinder retainer screw and/or rivet. Remove the retainer, and remove the lock cylinder (Figs. 15 through 24).
3. Remove the latch attaching screws. Disconnect the electric latch wire (if so equipped), and remove the latch.
4. Connect the electric latch wire (if so equipped). Position the latch to the luggage compartment door, and install the attaching screws snug.
5. Adjust the latch as outlined under Adjustments.

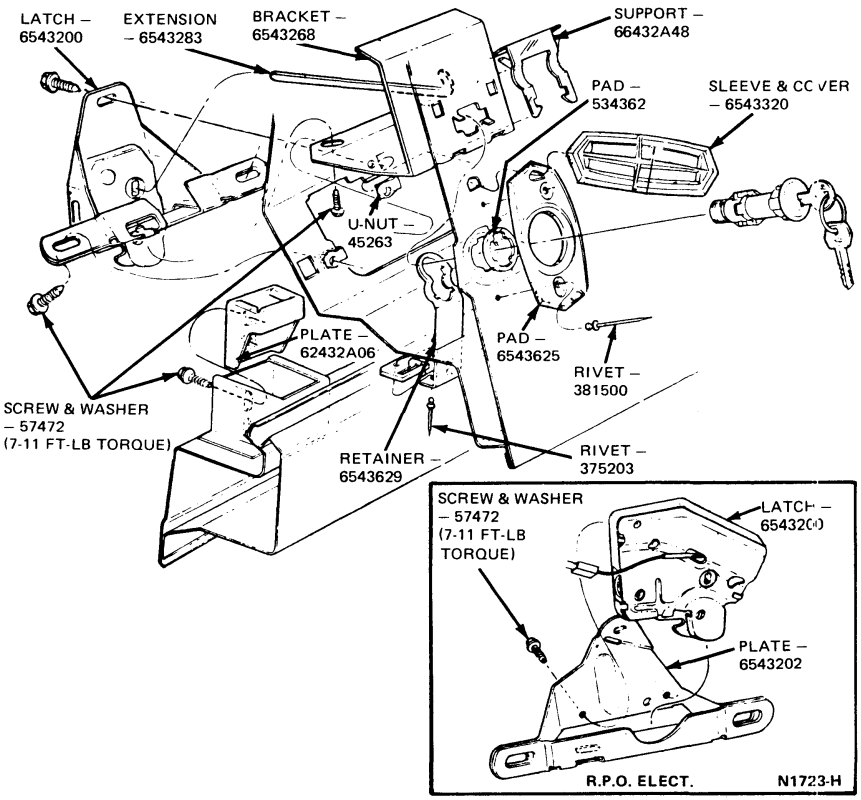


FIG. 15 Luggage Compartment Latch and Lock Continental Mark V

GLOVE COMPARTMENT LOCK AND KNOB

All Models Except Pinto and Bobcat

Removal and Installation

1. Fabricate a tool from a discarded Bowden cable or equivalent wire stock, by forming a 1/4 inch hook (Fig. 25) if Tool T71P-19703-C (or equivalent) is not readily available.
2. Unlock the glove compartment door.
3. Insert the fabricated tool and/or Tool T71P-19703-C (or equivalent) through the key slot with the hook turned towards the center of the car (Fig. 25).
4. Feel and engage the spring clip retainer with the tool and then pull the glove compartment knob from the lock assembly.
5. Remove the lock assembly screws and remove the lock assembly.
6. Install the new lock assembly and retaining screws (snug).
7. Push the knob on the lock assembly.
8. Adjust the lock assembly as required and tighten the retaining screws.

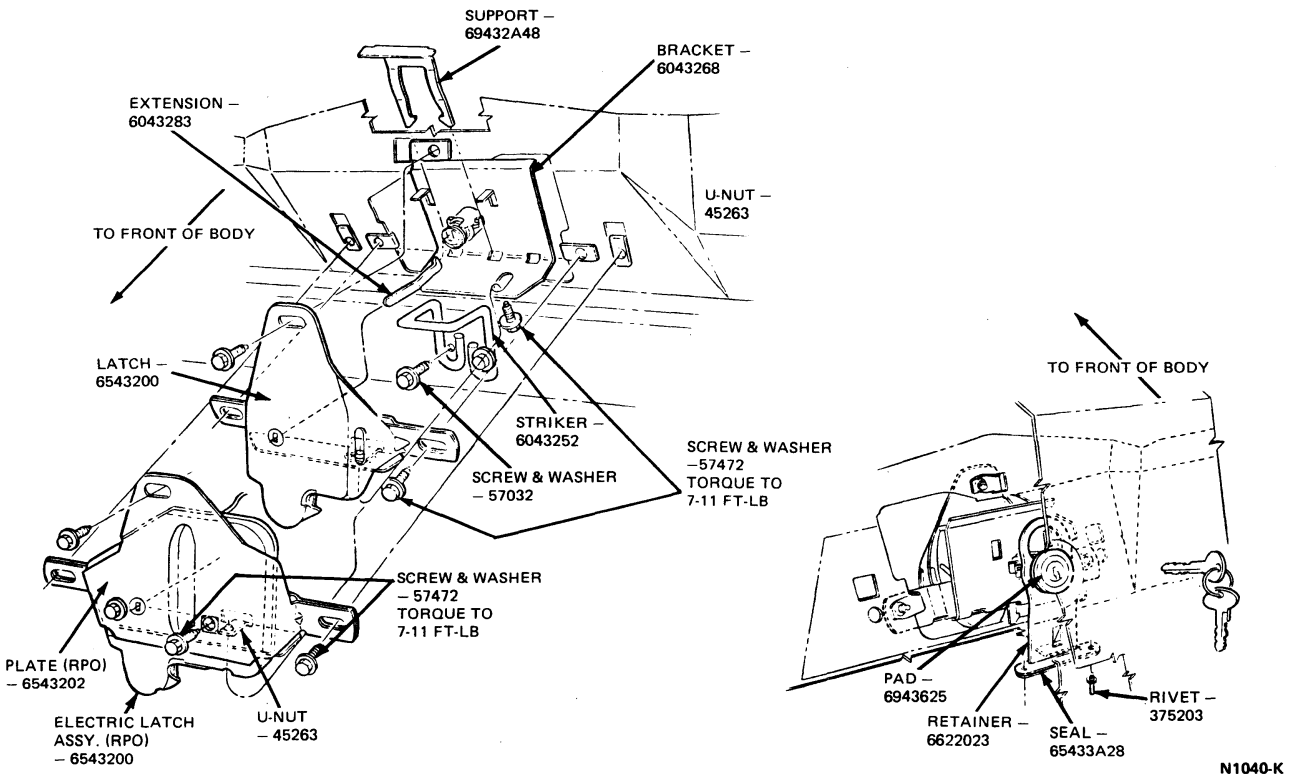


FIG. 16 Luggage Compartment Latch and Lock-Thunderbird

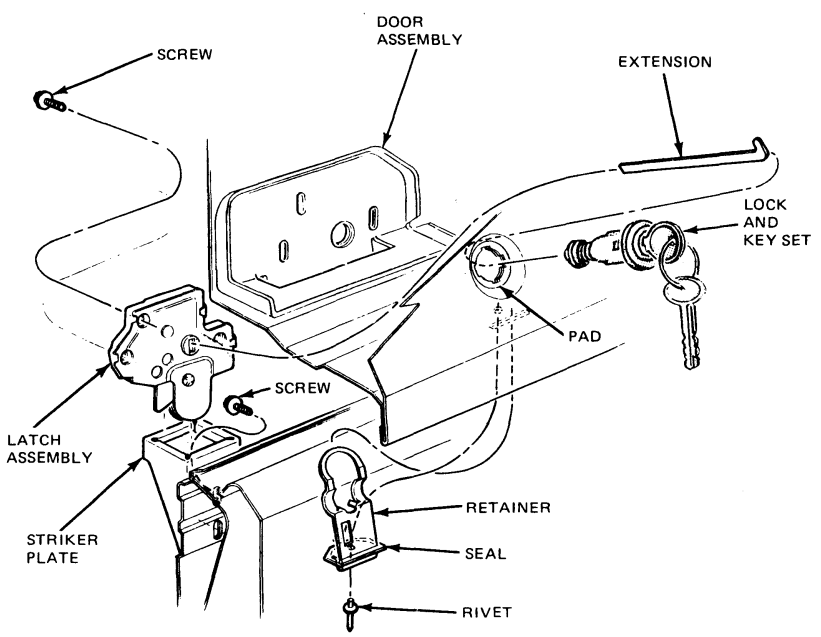


FIG. 17 Luggage Compartment Latch and Lock—Mercury

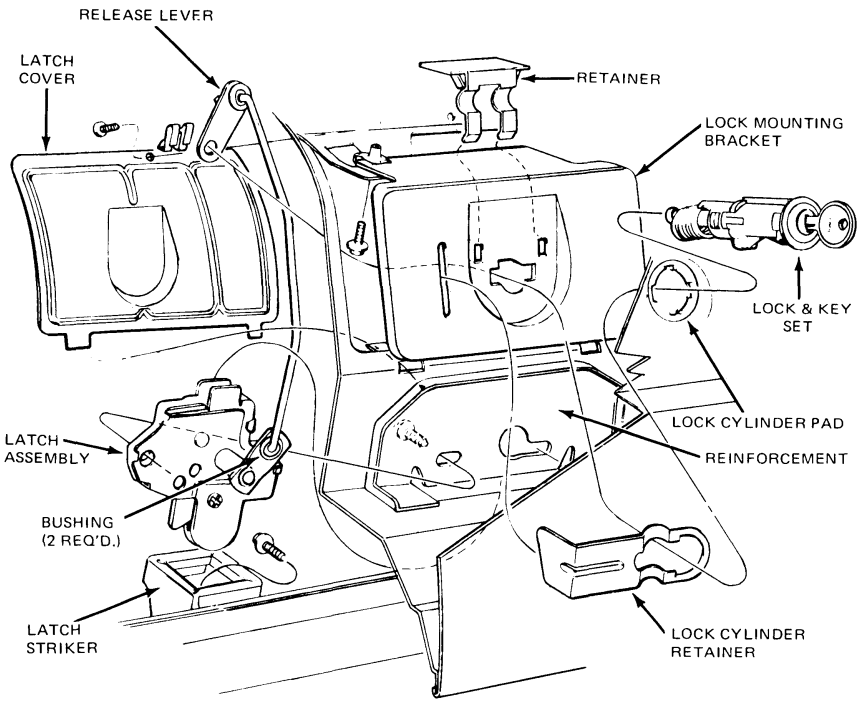


FIG. 18 Luggage Compartment Latch and Lock—Ford

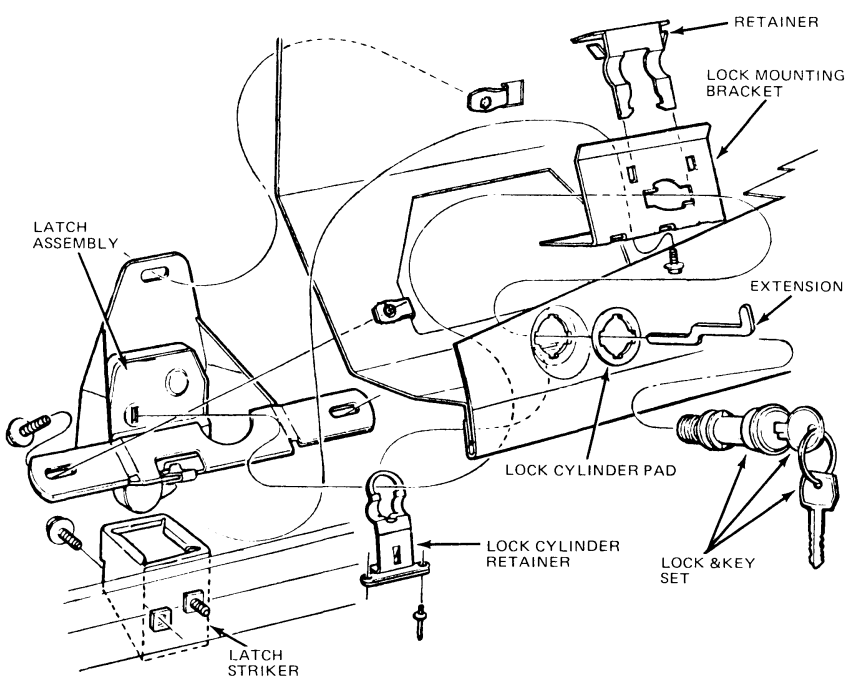


FIG. 19 Luggage Compartment Latch and Lock—Granada and Monarch

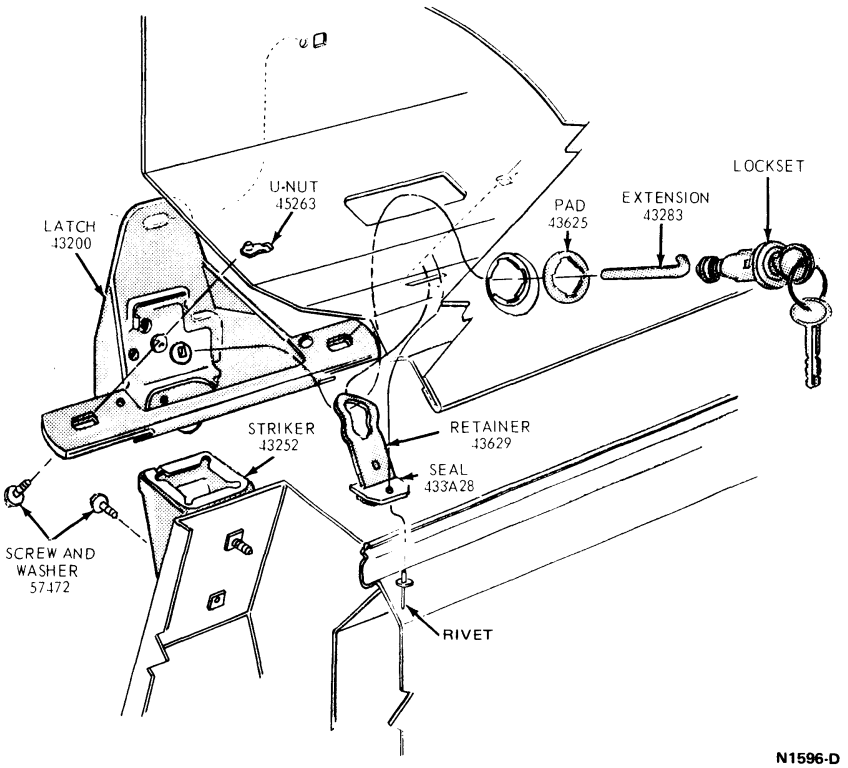


FIG. 20 Luggage Compartment Latch and Lock—LTD II and Cougar

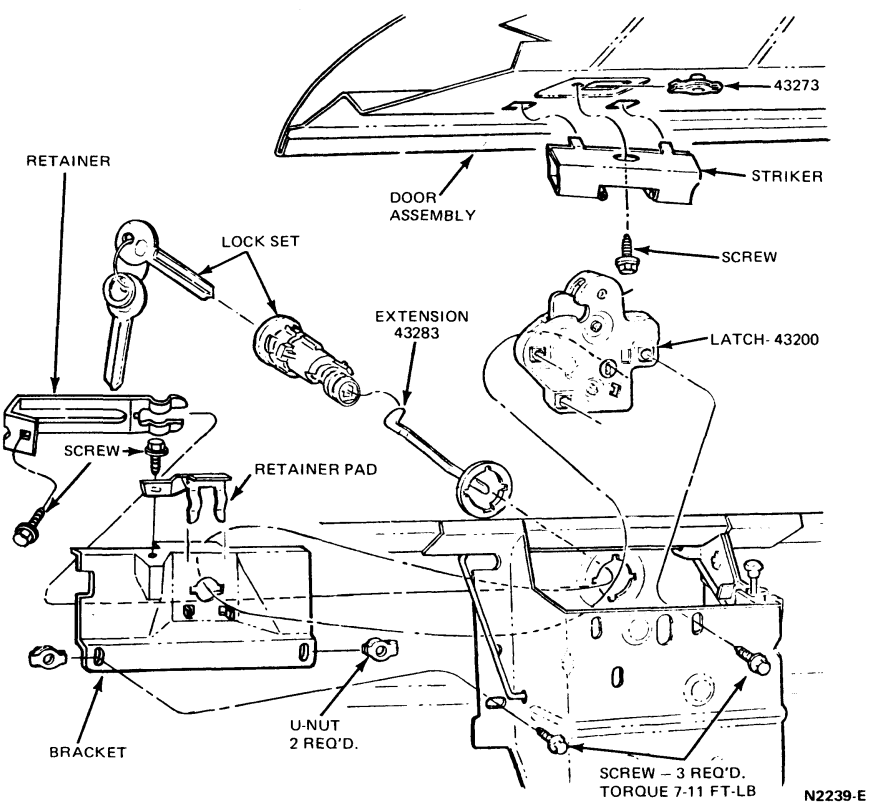


FIG. 21 Luggage Compartment Latch and Lock—Mustang

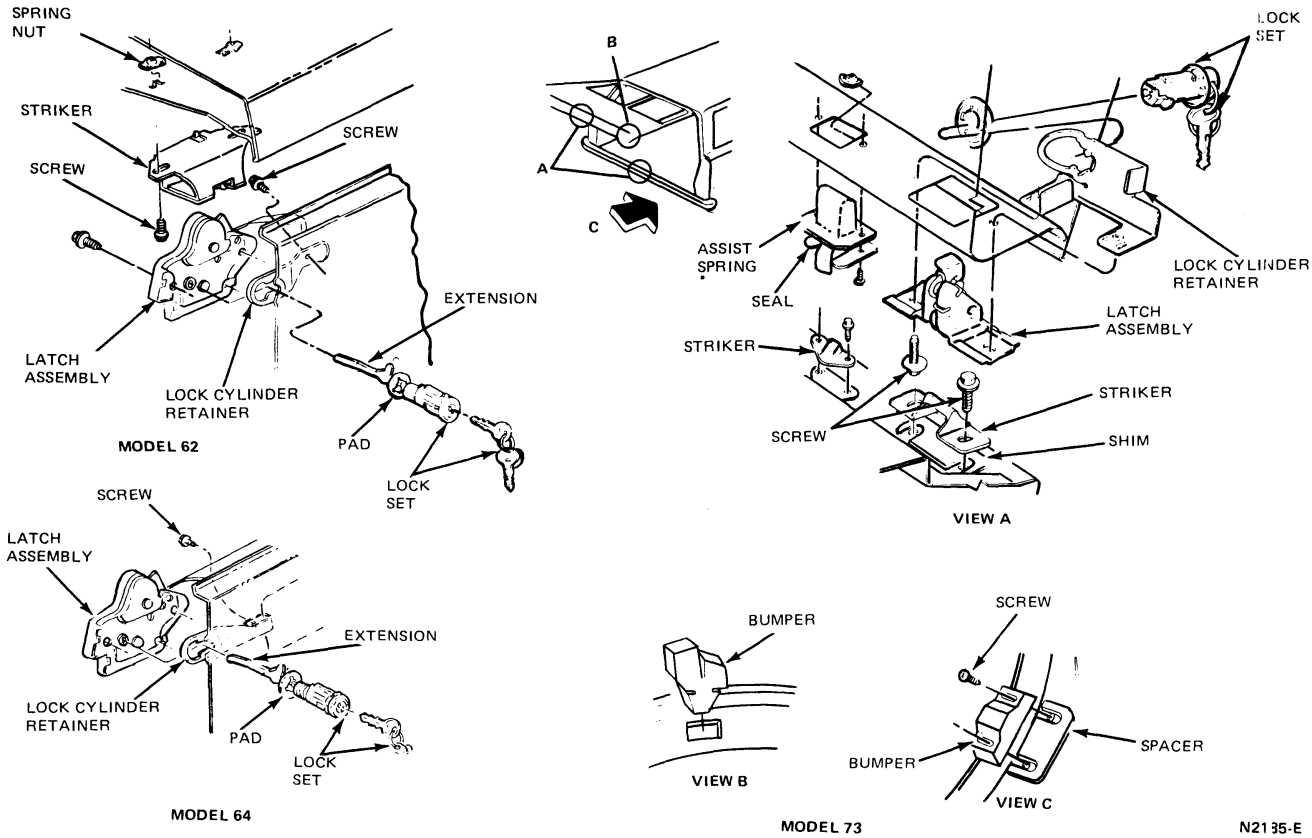


FIG. 22 Luggage Compartment Latch and Lock—Pinto and Bobcat

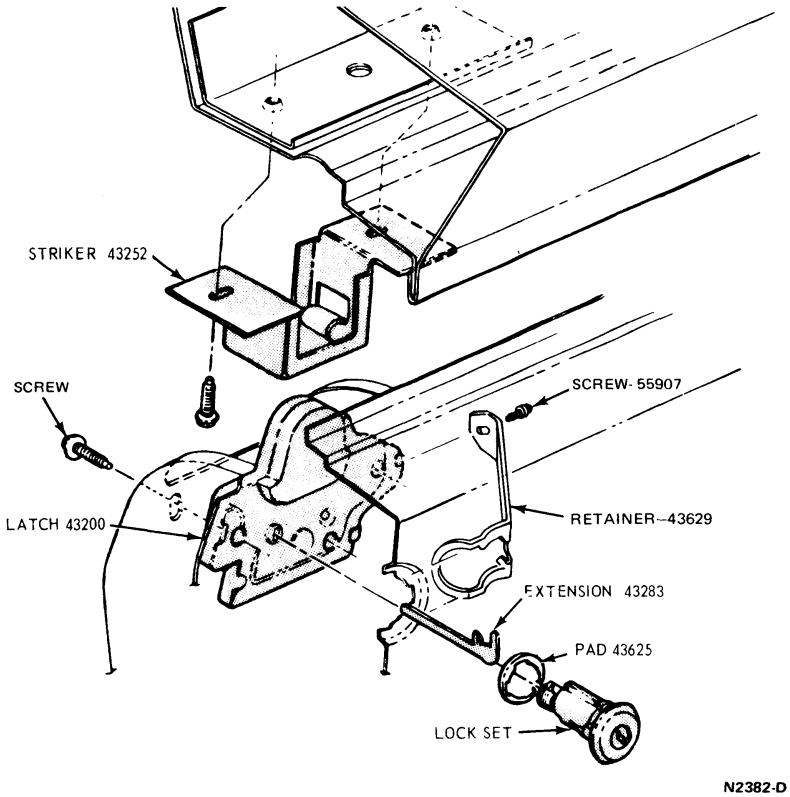


FIG. 23 Luggage Compartment Latch and Lock Maverick and Comet

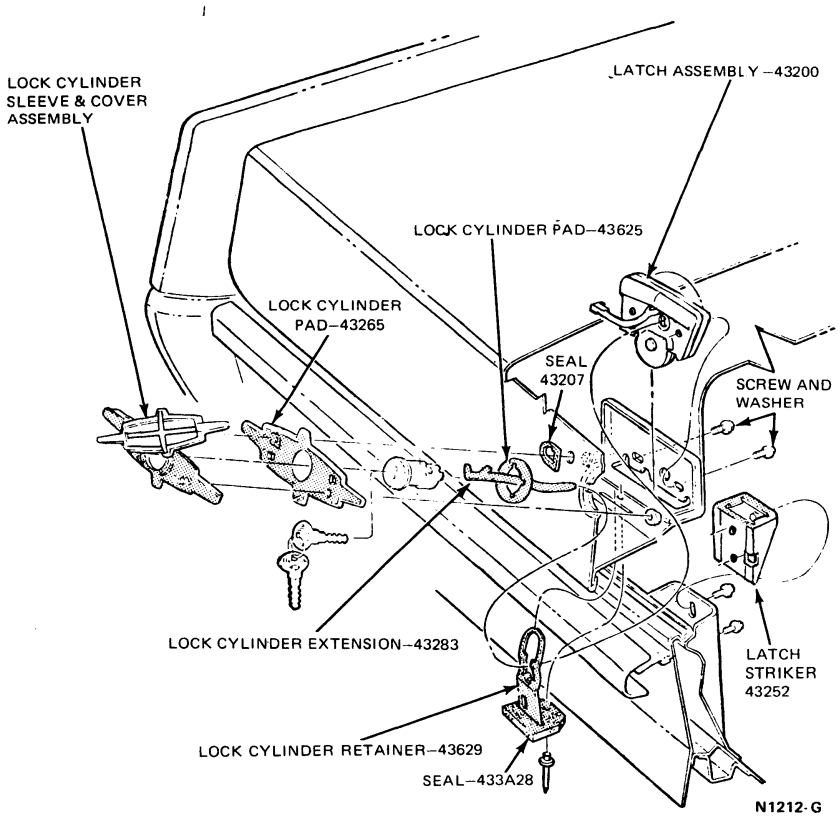


FIG. 24 Luggage Compartment Latch and Lock Lincoln Continental

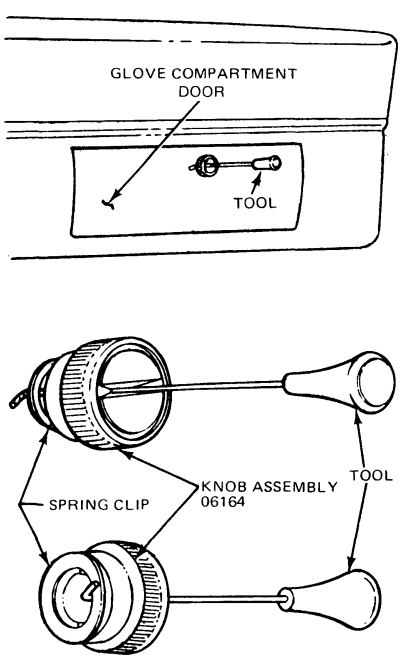


FIG. 25 Glove Compartment Lock Knob Removal

Tailgate Hinge, Latch and Lock -- Single Action Gate

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REMOVAL AND INSTALLATION (Cont'd.)	
Hinge – Right Side	61-1
Latch	61-1

ADJUSTMENTS

CR2039-A

TAILGATE HINGE

(Ranchero Only)

The tailgate can be adjusted fore and aft and up or down at the hinge-to-body mounting bolts.

To adjust the tailgate from side to side in the tailgate opening, remove the trim panel, loosen the hinge-to-tailgate bolts and shift the tailgate, as required.

REMOVAL AND INSTALLATION

TAILGATE HINGE—RIGHT SIDE

Removal

1. Open the tailgate and mark the hinge location on the tailgate and body.
2. Remove the tailgate trim panel, watershield and access cover.
3. Support the tailgate with a suitable prop.
4. Remove three hinge-to-body attaching bolts (Fig. 1).
5. Remove three hinge-to-tailgate retaining nuts and remove the hinge.

Installation

1. Position the hinge to the tailgate and body and install the three hinge-to-tailgate retaining nuts.
2. Install the three hinge-to-body attaching bolts.
3. Align the tailgate and tighten the hinge retaining nuts and attaching bolts.
4. Install the access cover, watershield and trim panel on the tailgate.

TAILGATE HINGE—LEFT SIDE

Removal

1. Open the tailgate and mark the hinge location on the tailgate and body.
2. Remove the tailgate trim panel, watershield and access cover.
3. Retain the torsion bar in the tension position with a deep socket and an extension.
4. Remove the torsion bar retainer bracket attaching screws. Then, release the torsion bar tension and remove the bracket and retainer (Fig. 1).
5. Support the tailgate with a suitable prop.
6. Remove three hinge-to-body attaching bolts and disconnect one end of the cable assembly (Fig. 1).
7. Remove three hinge-to-tailgate retaining nuts and remove the hinge.

Installation

1. Position the hinge to the tailgate and install the three hinge-to-tailgate retaining nuts.
2. Install the three hinge-to-body attaching bolts and three retaining nuts.
3. Align the tailgate and tighten the hinge retaining nuts and attaching bolts.
4. Apply tension to the torsion bar and install the torsion bar bracket and retainer.
5. Install the access cover, watershield, and trim panel on the tailgate.

TAILGATE LATCH

Removal

1. Open the tailgate and remove the tailgate trim panel.
2. Disconnect the latch release link from the latch (Fig. 1).
3. Remove three latch attaching screws and remove the latch.

Installation

1. Position the latch in the tailgate and install the three attaching screws.
2. Connect the latch release link to the latch and snap the link retainer onto the link.
3. Install the tailgate trim panel.

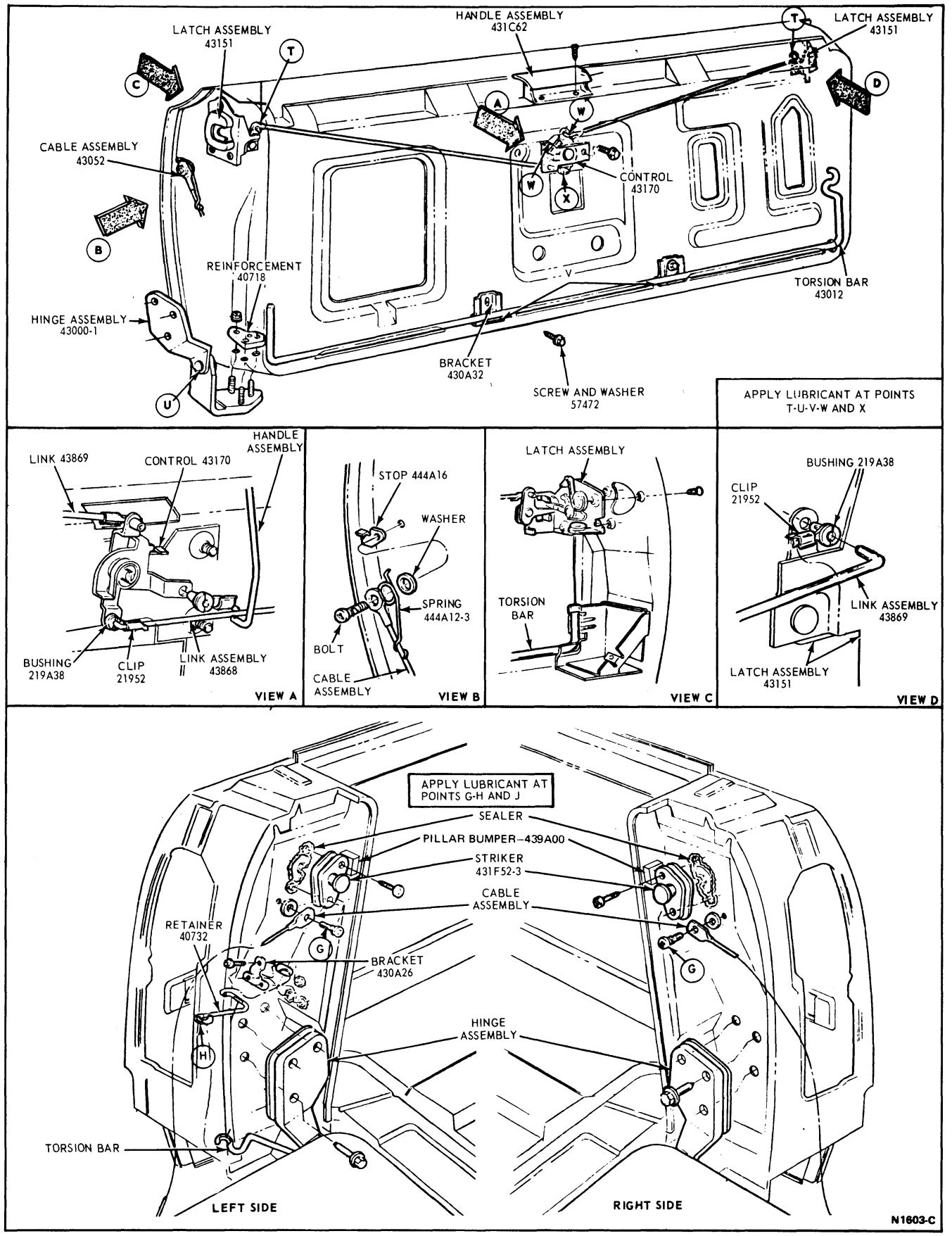


FIG. 1 Tailgate Latch Mechanism—Single-Action Gate

Tailgate, Hinge, Latch, Lock and Weatherstrip -- Dual Action Gate

PART 44-76

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Tailgate Striker	76-1
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Upper Latch-To-Lower Latch Link Adjustment	76-1
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Tailgate Outside Handle	76-5
Tailgate Upper Latch	76-4
Tailgate Window Limit Switch	76-4
Tailgate Window Switch	76-4
Torsion Bar	76-4
Upper Hinge	76-4

CR2020-A

ADJUSTMENTS

UPPER LATCH-TO-LOWER LATCH LINK ADJUSTMENT

Ford, Mercury, LTD II and Cougar

Place tailgate latches in the closed (latched) position (Figs. 1 and 2). Disconnect the upper latch-to-lower latch link from the lower latch tailgate latch operating lever against the stop. Then, adjust the upper latch-to-lower latch link to engage with the lower latch with no load on the link.

To check the adjustment, the upper latch must not close when the lower latch is in the OPEN position. The upper and lower latches must open at the same time when the outside handle is operated.

UPPER HINGE AND LATCH RELEASE LINK ADJUSTMENT

Loosen the latch release control attaching screws (Figs. 1 and 2), and close the upper latch. Position the latch release handle against the rubber stops. Then, move the latch release control down and rotate the control clockwise (bottom toward the latch) until slack is removed from the links. Then, tighten the latch release control attaching screws.

Adjustment Check

1. The electric window regulator must not operate when the latch release control is in the released position.
2. The manual window crank must free wheel and not operate the window regulator when the upper latch is locked by the key or the inside latch push button.
3. The inside release handle must not operate when the window is down and the upper latch is locked by either the key or the inside push button.

TAILGATE STRIKER

Fore and aft and up and down adjustment of the strikers is accomplished by means of square holes in the pillar, backed by floating tapping plates. Lateral adjustment is accomplished by adding or removing shims (Fig. 3).

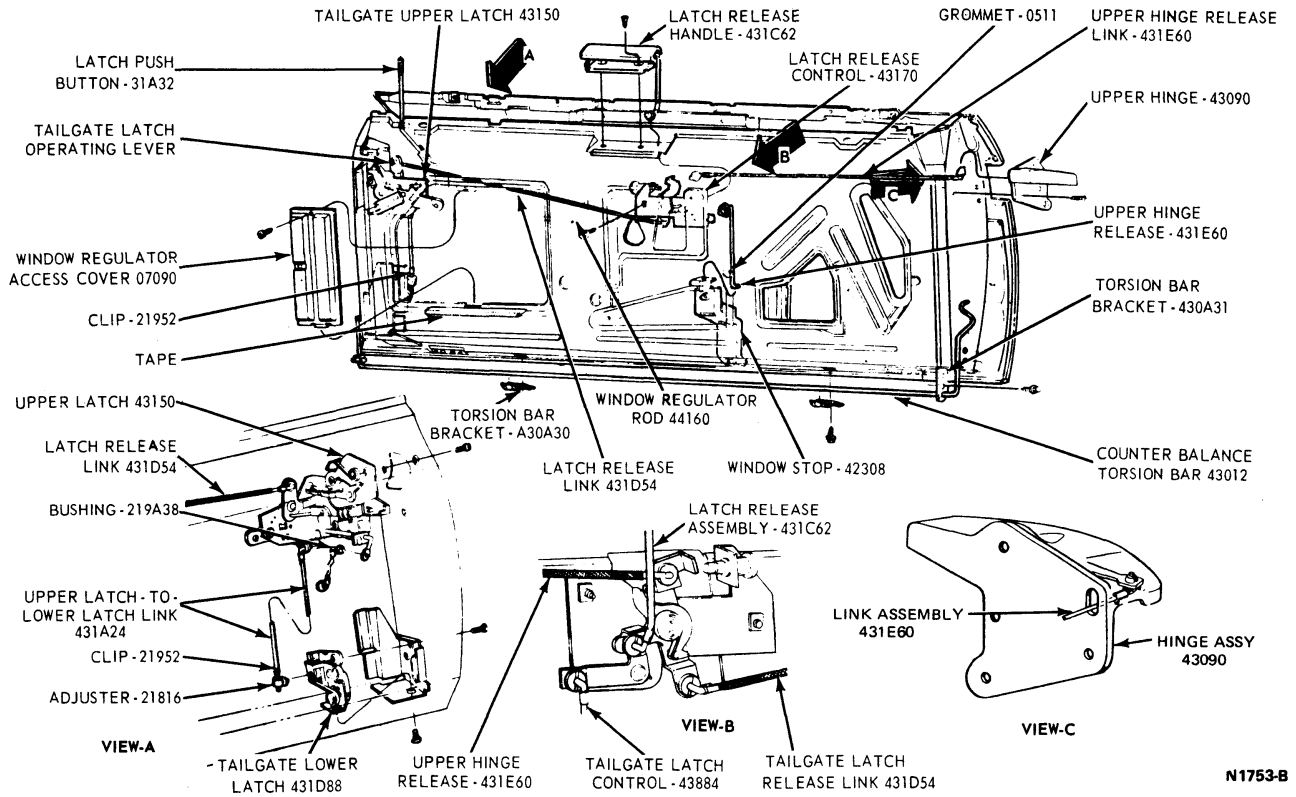


FIG. 1 Tailgate Latch Mechanism—Ford and Mercury

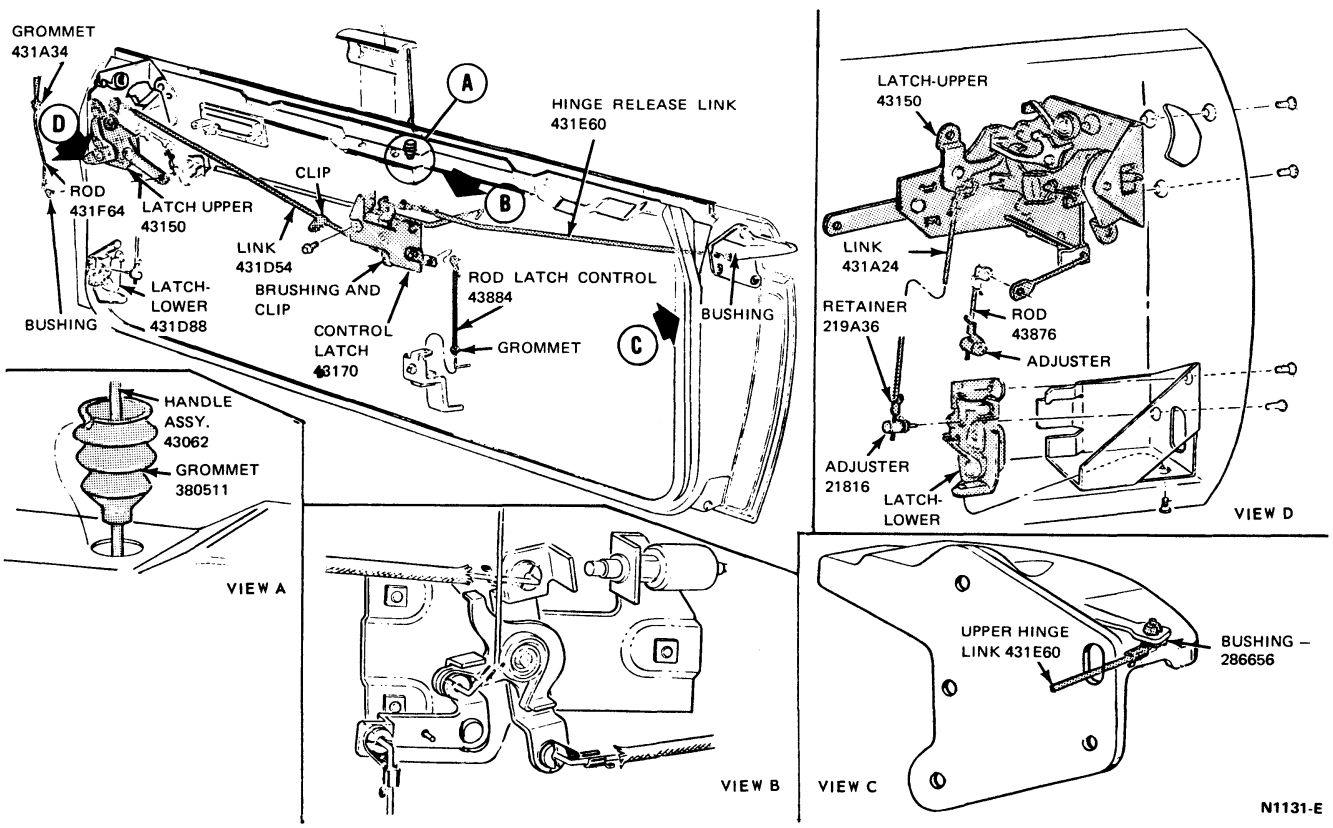


FIG. 2 Tailgate Latch Mechanism—LTD II and Cougar

REMOVAL AND INSTALLATION

LOWER HINGE

Ford, Mercury, LTD II and Cougar

Removal

1. Open the tailgate as a drop gate and place a support under the tailgate.
2. Remove the tailgate inside cover and watershield.
3. Remove the wire clip from the hinge.
4. Move the tailgate glass to the up position.
5. Mark the location of the hinge and remove four nuts retaining the hinge to the tailgate.
6. Remove four hinge-to-body attaching bolts (Fig. 4).
7. Remove the torsion bar retainer bracket and remove the hinge. **Use caution when working with the torsion bar as the bar is under tension when installed.**

Installation

1. Position the hinge to the body and tailgate, and install the retaining nuts and attaching bolts.
2. Position the torsion bar and retainer to the body with a pipe wrench and install the retainer bracket attaching screws.
3. Install the wire clip on the hinge.
4. Adjust the tailgate and tighten the attaching bolts and retaining screws.

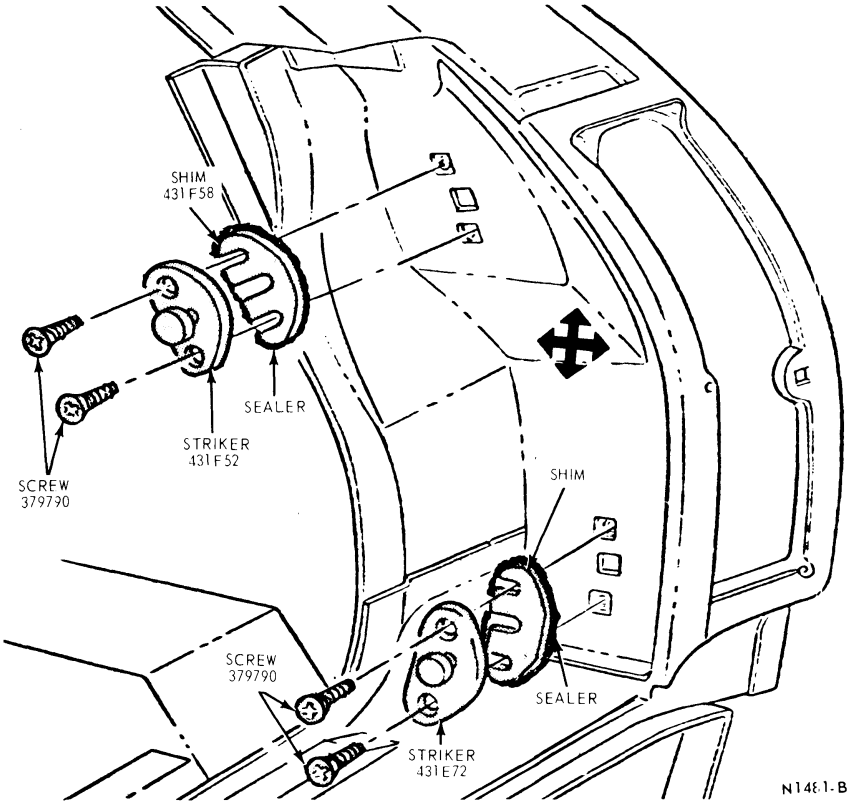


FIG. 3 Tailgate Striker Adjustment—Typical

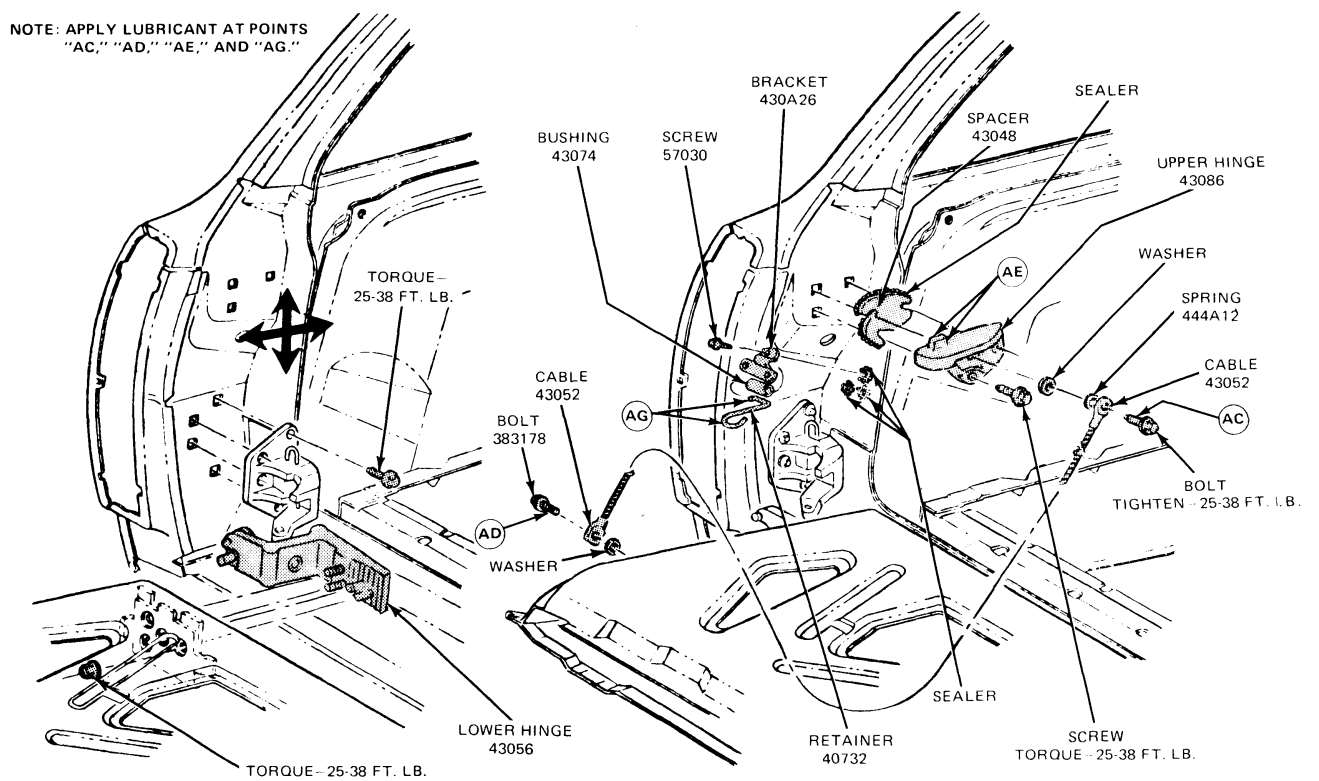


FIG. 4 Tailgate Hinges — Ford and Mercury Shown — LTD II and Cougar Similar

5. Install the watershield and tailgate inside cover.

UPPER HINGE

Ford, Mercury, LTD II and Cougar

Removal

1. Remove the tailgate inside cover and watershield from the tailgate.
2. Disconnect the upper hinge link from the hinge (Fig. 4).
3. Remove three screws attaching the upper hinge to the tailgate and remove the hinge.
4. Remove the link clip and bushing from the hinge.

Installation

1. Install the link clip and bushing on the hinge.
2. Position the hinge to the tailgate and install the three attaching screws.
3. Connect the upper hinge link to the hinge.
4. Install the watershield and inside cover on the tailgate.

TORSION BAR

Ford and Mercury

Removal

1. Open the tailgate as a door and remove two brackets retaining the torsion bar to the bottom of the tailgate (Fig. 1).
2. Remove the two torsion bar bracket retaining screws from the left end of the tailgate (Fig. 1).
3. Remove the torsion bar from the tailgate, and remove the bracket from the torsion bar.

Installation

1. Position the bracket on the torsion bar.
2. Position the torsion bar to the tailgate.
3. Install the two bracket retaining screws.
4. Install the two brackets retaining the torsion bar to the bottom of the tailgate.

LTD II and Cougar

Removal

1. Open the tailgate as a door and remove the trim panel, watershield and access hole cover.
2. Remove the torsion bar retainer bracket on the body pillar, and the screws and washers from the two retaining brackets (Fig. 1) in the tailgate.
3. Remove the torsion bar from the tailgate.

Installation

1. Position the torsion bar into the tailgate.
2. Install the two brackets and retaining screws in the tailgate.
3. Install the torsion bar retainer bracket on the body pillar.
4. Install the access hole cover and watershield.
5. Install the trim panel.

TAILGATE UPPER LATCH

Ford, Mercury, LTD II and Cougar

Removal

1. Remove the tailgate inside cover and watershield.
2. Disconnect the four links from the latch (Figs. 1 and 2).
3. Disconnect the two links with double 90 degree ends from the clips on the other end of the link.
4. Remove the tailgate outside handle.
5. Remove three latch attaching screws and remove the latch.
6. Transfer the rod clips to the new latch.

Installation

1. Position the latch in the tailgate and install the three attaching screws.
2. Install the tailgate outside handle.
3. Connect the rods to the latch.
4. Install the watershield and inside cover on the tailgate.

TAILGATE LOWER LATCH

Removal

1. Remove the interior trim panel and access cover from the tailgate.
2. Disconnect the latch actuator link from the lower latch (Figs. 1 and 2).
3. Remove three lower latch attaching screws and remove the lower latch from the tailgate.

Installation

1. Install a new retainer clip in the lower latch.
2. Position the lower latch to the tailgate and install the three attaching screws.
3. Adjust and connect the latch actuator link to the lower latch.
4. Adjust the lower latch striker, if necessary.
5. Install the access cover and trim panel on the tailgate.

TAILGATE WINDOW LIMIT SWITCH

Ford, Mercury, LTD II and Cougar

Removal

1. Remove the tailgate inside cover and watershield.
2. Remove the wiring connector from the limit switch.
3. Remove the rubber boot from the switch plunger and unscrew the limit switch from the mounting bracket.

Installation

1. Assemble the limit switch to the bracket (mounting) finger tight.
2. Install the rubber boot over the switch plunger and threaded portion of switch shell.
3. Connect wiring connector to switch.
4. Install the watershield and inside cover on the tailgate.

TAILGATE WINDOW SWITCH

Ford and Mercury

Removal

1. Remove the tailgate inside cover and watershield.
2. Disconnect the tailgate latch rod from the switch (Fig. 5).
3. Remove the lock set retainer (Fig. 5).
4. Disconnect the switch wires and remove the wire clips. Then, remove the switch and wire assembly from the tailgate.

Installation

1. Position the switch and wire assembly in the tailgate. Connect the wires and install the wire clips.
2. Position the switch to the lock cylinder and install a new retainer and clip (Fig. 5).

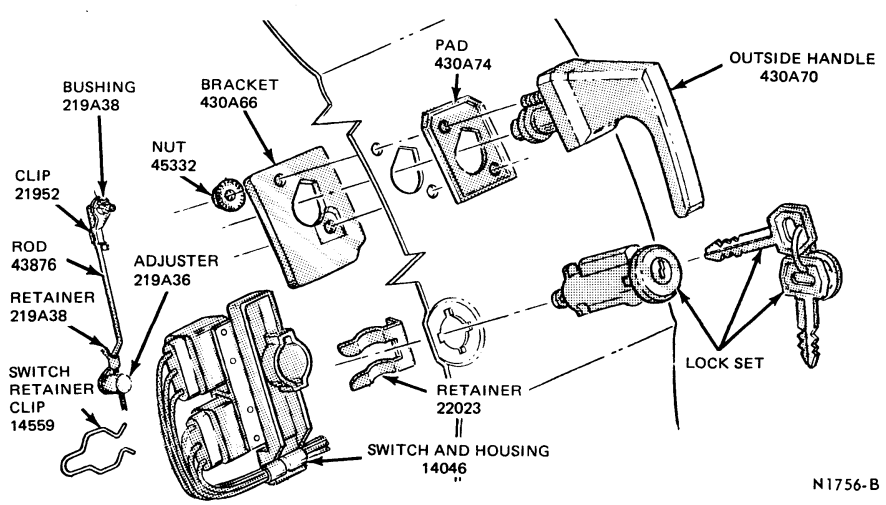


FIG. 5 Tailgate Window Switch—Ford and Mercury

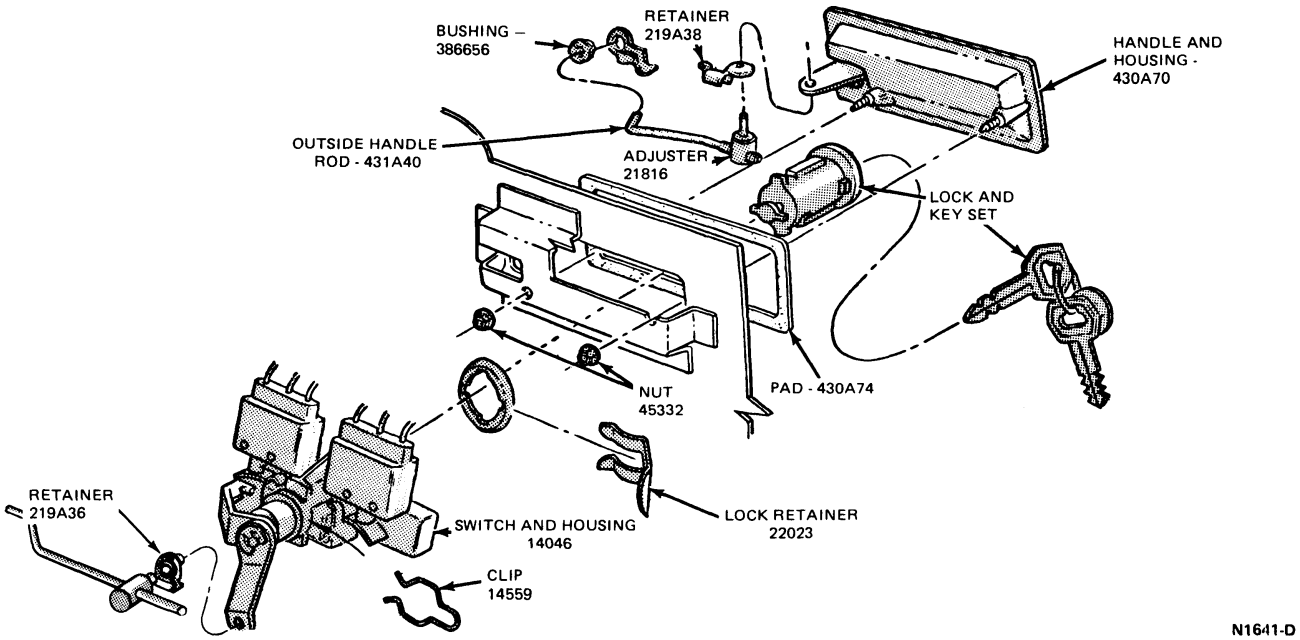


FIG. 6 Tailgate Window Switch—LTD II and Cougar

3. Connect the tailgate latch rod to the switch.
4. Install the watershield and inside cover on the tailgate.

LTD II and Cougar

Removal

1. Remove the tailgate inside trim panel.
2. Remove the access hole cover.
3. Disconnect the rod at the bellcrank (Fig. 6).
4. Remove the clip and remove the switch assembly from the lock cylinder assembly (Fig. 6).
5. Disconnect the multiple connectors and remove the switch and wire assembly.

Installation

1. Route the wires and connect them to the connectors. Then, position the switch to the lock cylinder assembly (Fig. 6).
2. Install the clip to the switch and lock cylinder assembly.
3. Connect the rod to the bellcrank.
4. Check the window operation.
5. Install the access hole cover.
6. Install the inside trim panel.

TAILGATE OUTSIDE HANDLE

Ford and Mercury

1. Remove the inside tailgate trim panel.
2. Remove the access hole cover.
3. Disconnect the rod, handle retaining nuts and remove the handle (Fig. 7).

LTD II and Cougar

1. Remove the tailgate inside trim panel.
2. Remove the access hole cover.
3. Disconnect the outside handle rod retainer from the handle assembly (Fig. 6).

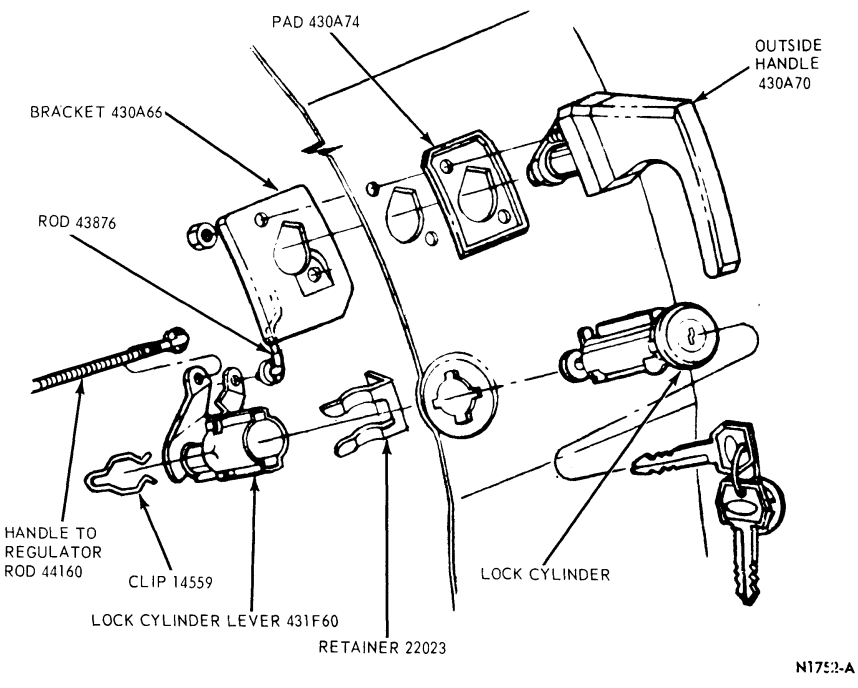


FIG. 7 Tailgate Outside Handle and Lock Cylinder—Ford and Mercury

4. Remove the retaining nuts and washers and remove the handle assembly.

Tailgate Lock Cylinder

Removal

1. Remove the tailgate inside trim panel.
2. Remove the access hole cover.
3. Disconnect the rods from the lock cylinder lever (Figs. 5, 6, 7 and 8).
4. Remove the lock cylinder clip and remove the lock cylinder from the tailgate.

Installation

1. Insert the lock cylinder into the tailgate and lever, and install the lock cylinder retaining clip (Figs. 5, 6, 7 and 8).

2. Connect the rods to the lock cylinder lever.
3. Install the tailgate inside access hole cover and trim panel.

TAILGATE MANUAL WINDOW HANDLE

LTD II and Cougar

1. Remove the tailgate inside trim panel and access hole cover.
2. Roll the window up to the closed position.
3. Disconnect the regulator handle release rod and clip assembly.
4. Remove the regulator handle retaining nuts (Fig. 9) and remove the handle.

TAILGATE LATCH RELEASE CONTROL

Removal

1. Remove the interior trim panel from the tailgate.
2. Raise the glass part way out of the tailgate.
3. Disconnect the rods from the latch release control (Figs. 1 and 2).
4. Remove three latch release control attaching screws, and remove the control from the tailgate.

Installation

1. Position the latch release control to the tailgate and install the three attaching screws snug.
2. Connect the rods to the latch release control.
3. Lower the glass and adjust the latch release control and tighten the attaching screws.
4. Install the trim panel on the tailgate.

WEATHERSTRIPS

All weatherstrips should be trimmed to obtain a good butt joint.

The tailgate weatherstrip is shown in Figs. 10 and 11. Apply adhesive (19552 or equivalent) where required for weatherstrip retention. On Ford and Mercury models, before removing the weatherstrip, remove any trim panels necessary to assure proper seating of new weatherstrip. Start the weatherstrip installation on the left side of the tailgate opening as shown in Fig. 10.

On LTD II and Cougar models, before removing the weatherstrip, remove the four retaining screws and any trim panels necessary to assure proper seating of the new weatherstrip (Fig. 11).

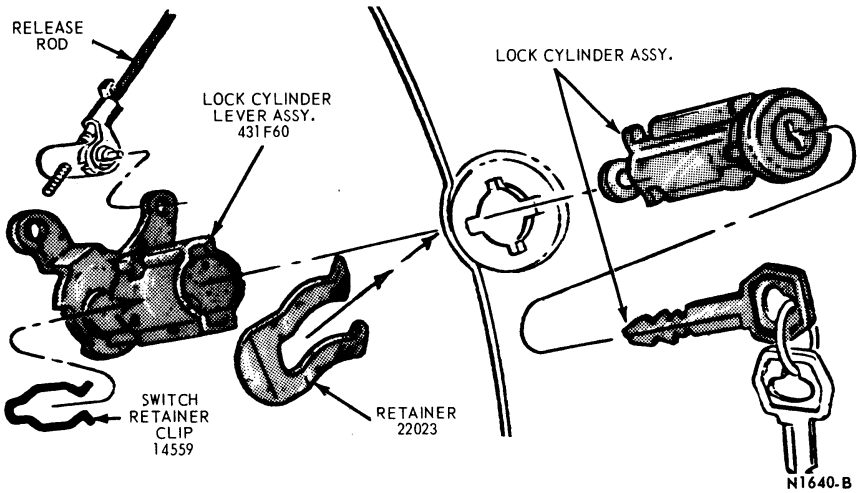


FIG. 8 Tailgate Lock Cylinder—LTD II and Cougar

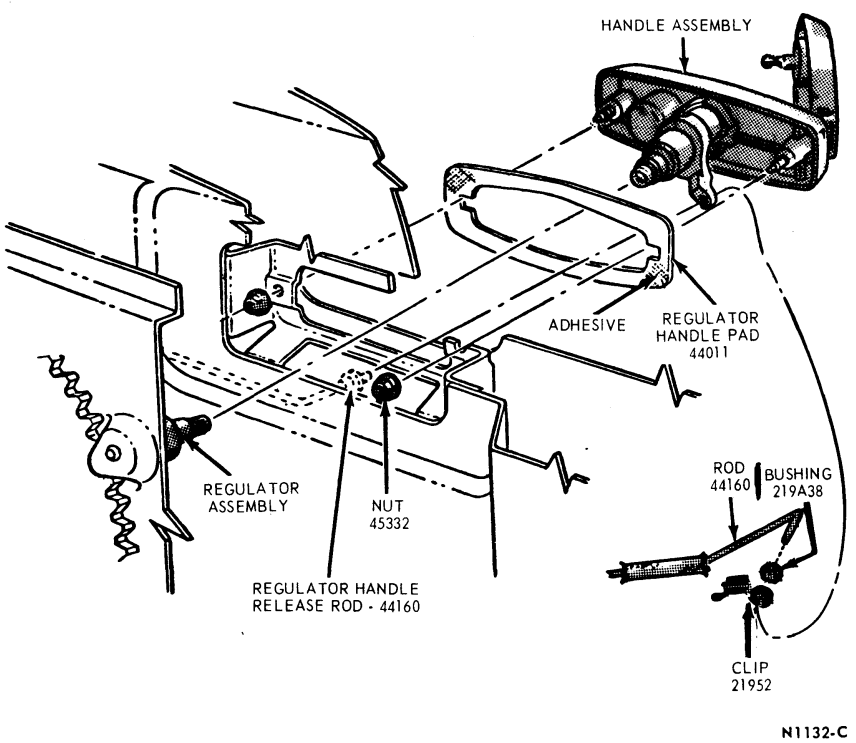


FIG. 9 Tailgate Manual Window Regulator Handle Installation—LTD II and Cougar

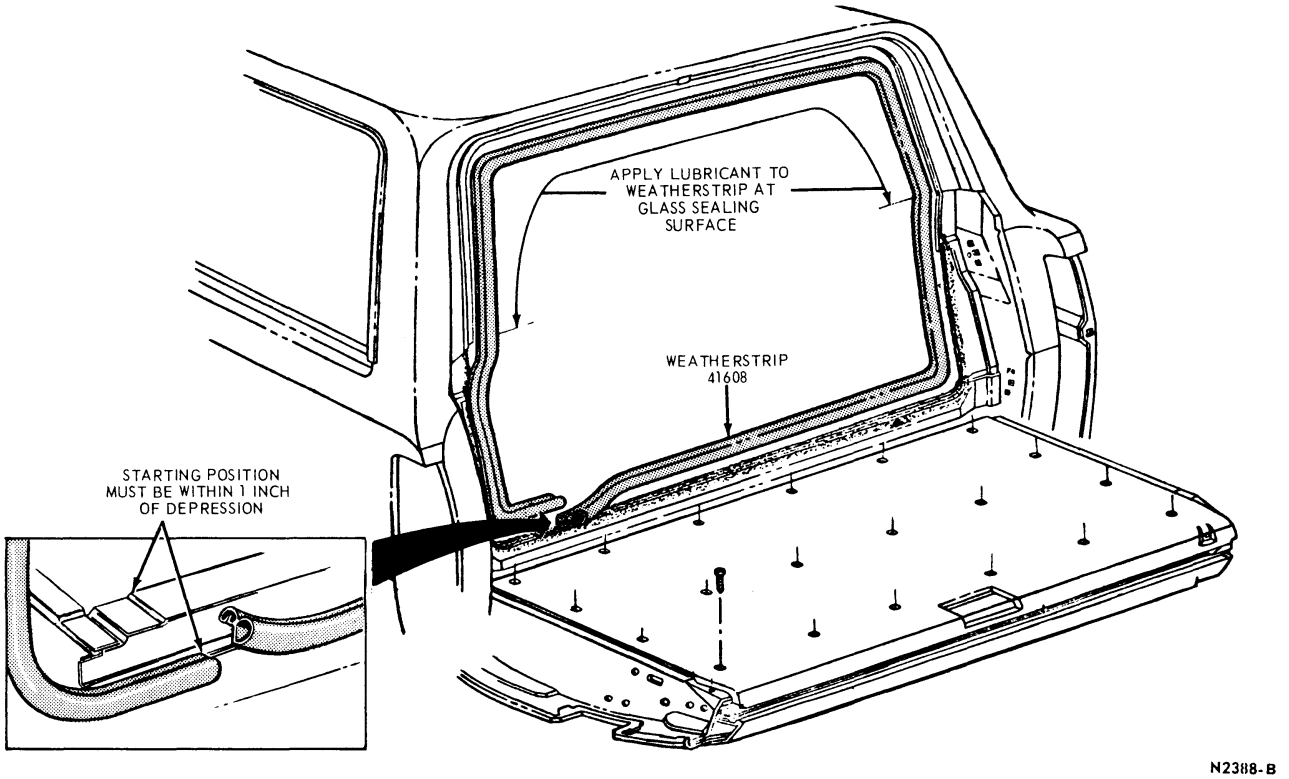


FIG. 10 Tailgate Weatherstrip and Inside Cover Assembly—Ford and Mercury

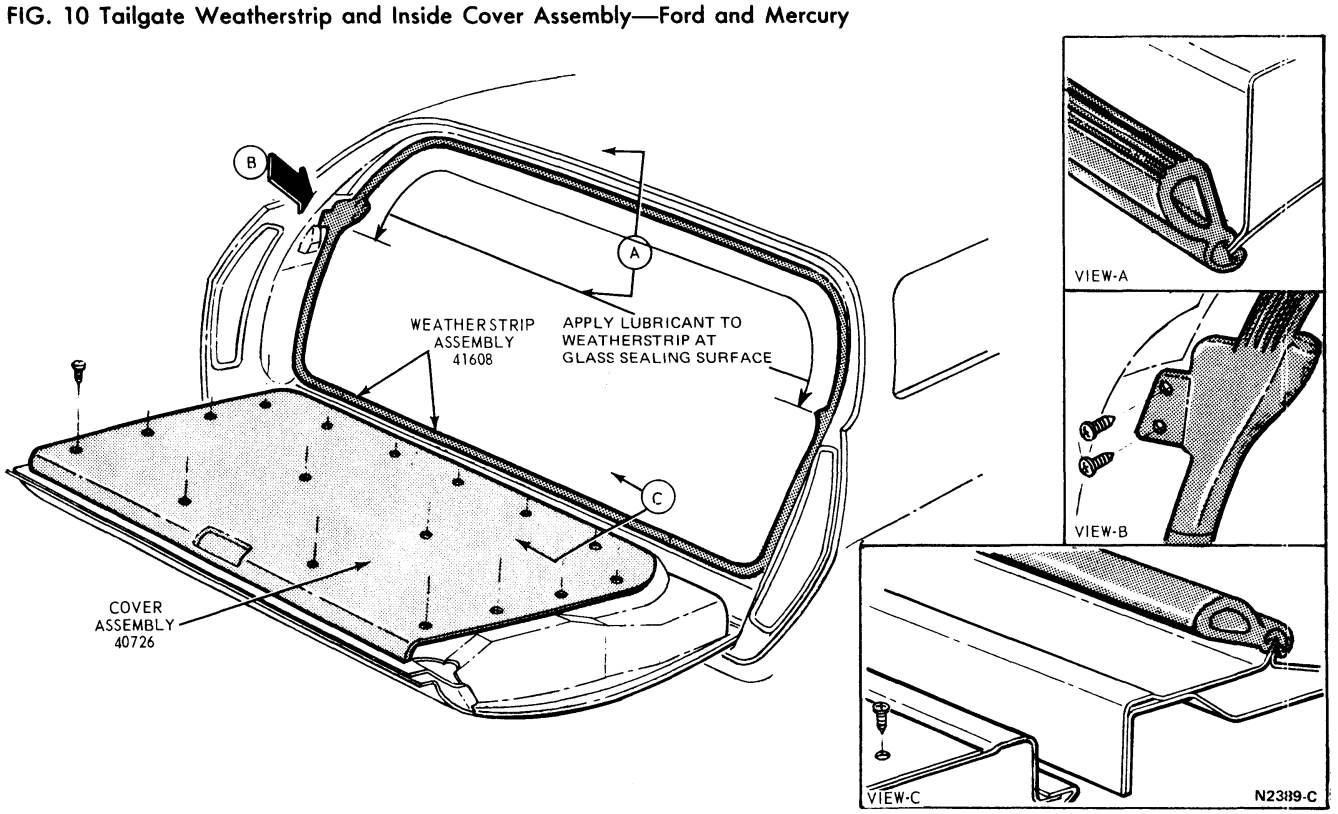


FIG. 11 Tailgate Weatherstrip and Inside Cover Assembly—LTD II and Cougar

INTERIOR TRIM

GROUP 45 (70000)

PART TITLE	PART NO.	PART TITLE	PART NO.
Carpets and Floor Mats	45-26	Instrument Panel Pad	45-61
Door and Quarter Trim Panels	45-03	Interior Mouldings	45-16
Floor Console	45-31	Rear Package Tray	45-21
Headlining	45-41		

CR2006-A

Interior Trim

PART 45-03

SUBJECT	PAGE	SUBJECT	PAGE
REMOVAL AND INSTALLATION		Door Trim Panels	03-1
Center Pillar and Quarter Trim Panels	03-11	Quarter Trim Panels	03-7

CR2042-A

REMOVAL AND INSTALLATION

DOOR TRIM PANELS

The following door and quarter trim panel removal and installation procedures generally apply to all car lines. **If some of the steps do not apply to the particular vehicle being serviced, proceed to the next step.** See Figs. 1 through 9.

1. Remove the door lock pushbutton control knob and garnish moulding.
2. Remove the window regulator handle retaining screw access cover (if so equipped) and remove the screw and regulator handle.
3. Remove the door latch handle retaining screw access cover (if so equipped) and remove the screw(s) from the door latch handle.
4. Remove the screws from the armrest door pull cup area (if so equipped).
5. Remove the retaining screws from the armrest assembly, disconnect switch wiring (if so equipped) and remove the armrest.
6. Remove the mirror remote control bezel nut.
7. Remove the door trim panel retaining screws.

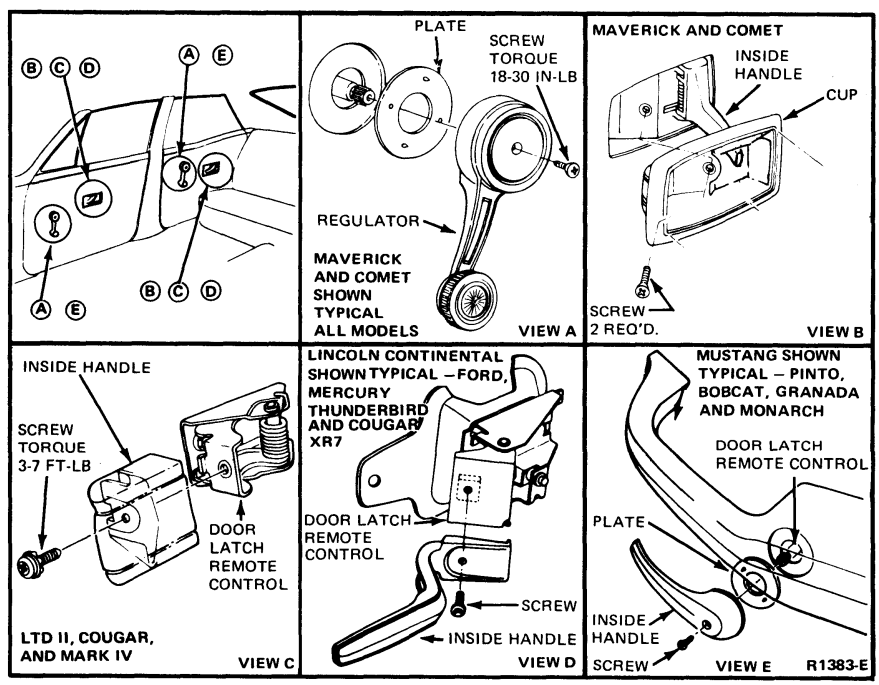


FIG. 1 Typical Door and Window Regulator Handle Installation

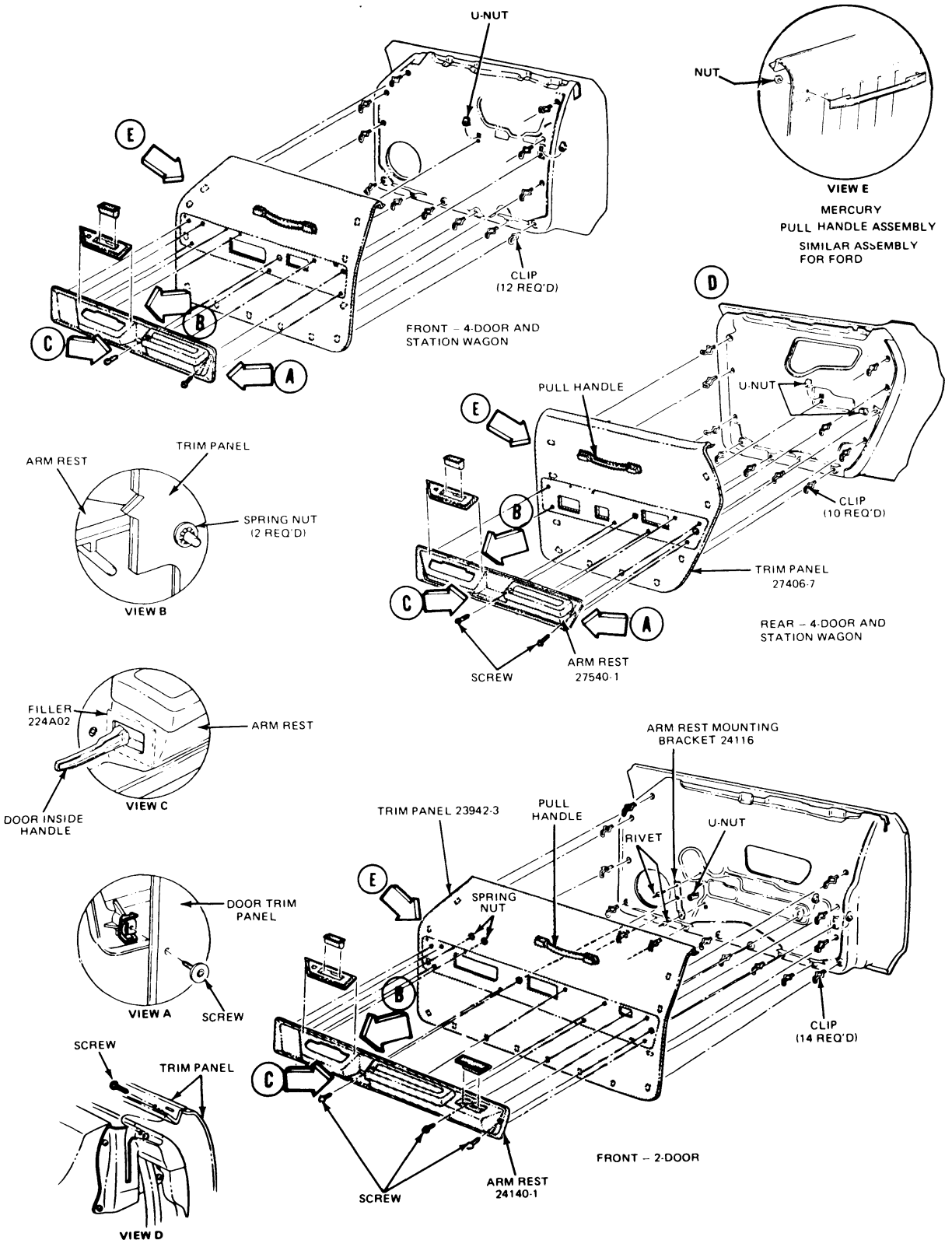


FIG. 2 Ford and Mercury – Trim Panel Installations

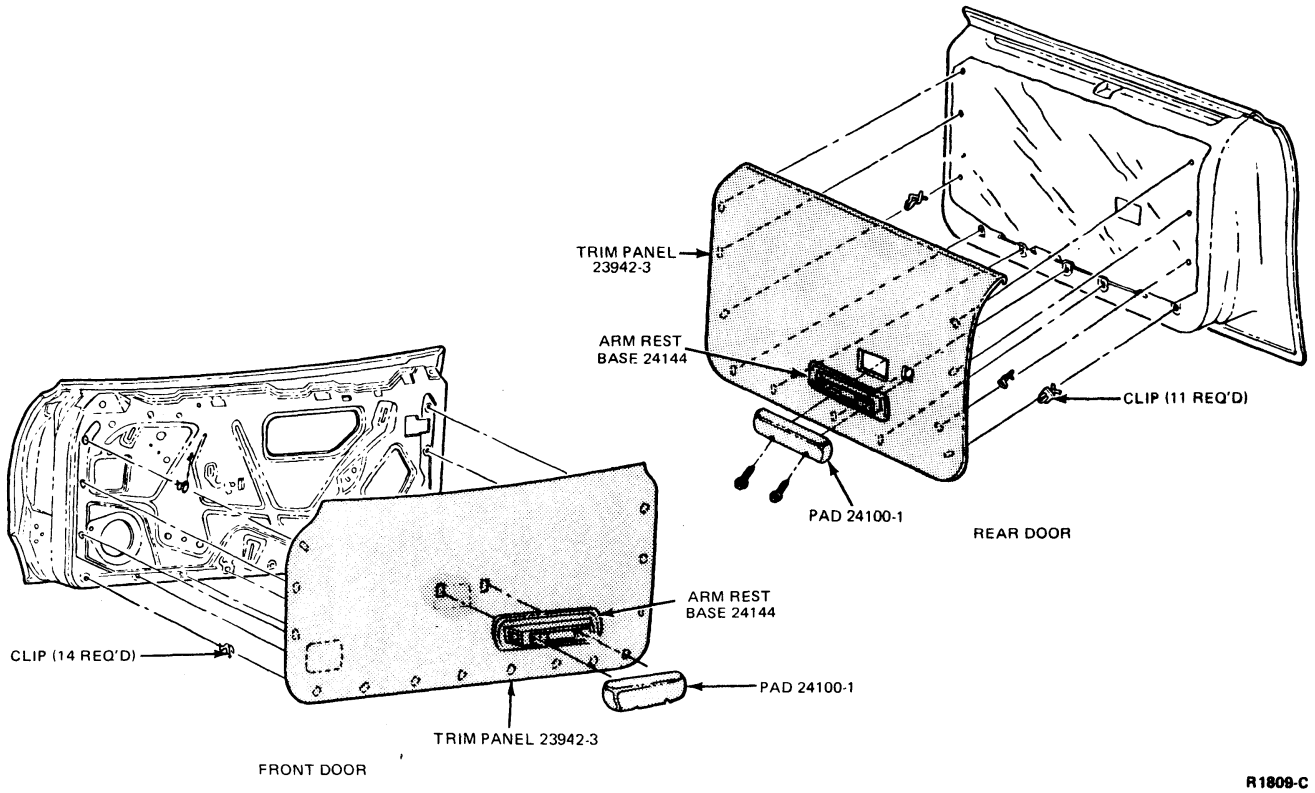


FIG. 3 Door Trim Panel Installation—Thunderbird, LTD II and Cougar

8. With a putty knife or similar tool, pry the trim panel retaining clips from the door inner panel and disengage the panel.
9. Disconnect all wiring (if so equipped) and remove the trim panel.
10. If the trim panel and/or the arm rest is to be replaced, transfer the pull handle pop rivets and/or retaining screws, retaining clips, finish panel, trim mouldings, etc., to the new assembly. If the watershield has been removed, be sure to position it correctly in place before installing the trim panel. Be sure that the armrest retaining clips are properly positioned on the door inner panel. If they have been dislodged, they must be reinstalled before installing the watershield.
11. Position the trim panel to the door inner panel and connect the wiring (if so equipped) and route the mirror control cable through the hole.
12. Push the trim panel and retaining clips into the inner door panel holes and install the retaining screws.
13. Install the remote control mirror bezel nut.
14. Position the armrest to the trim panel, connect the wiring (if so equipped) and install the retaining screws.

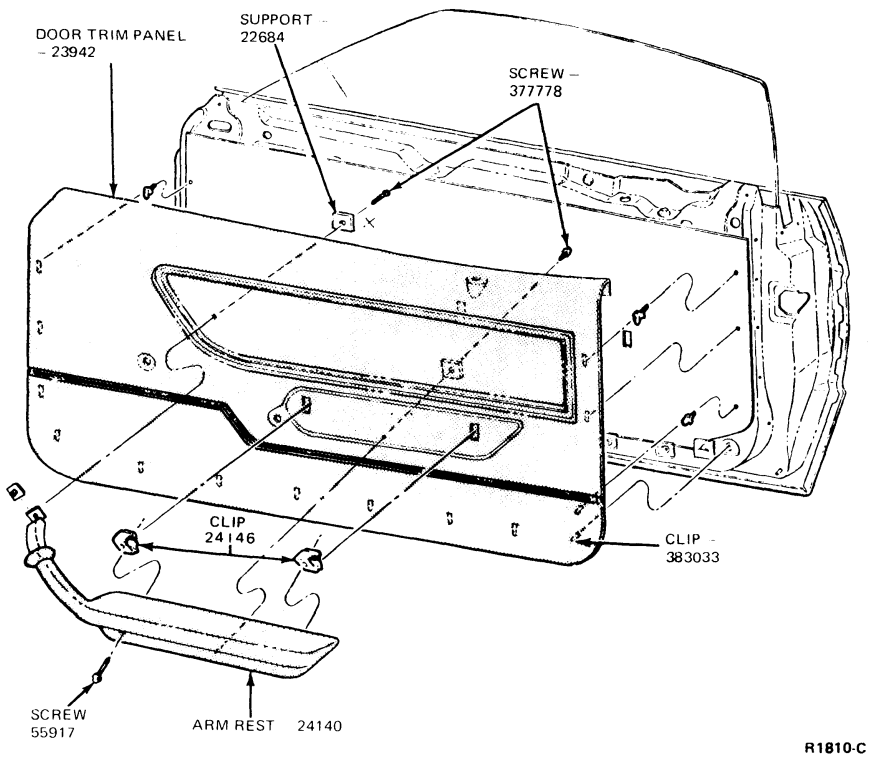


FIG. 4 Door Trim Panel Installation (Luxury Trim)—Mustang

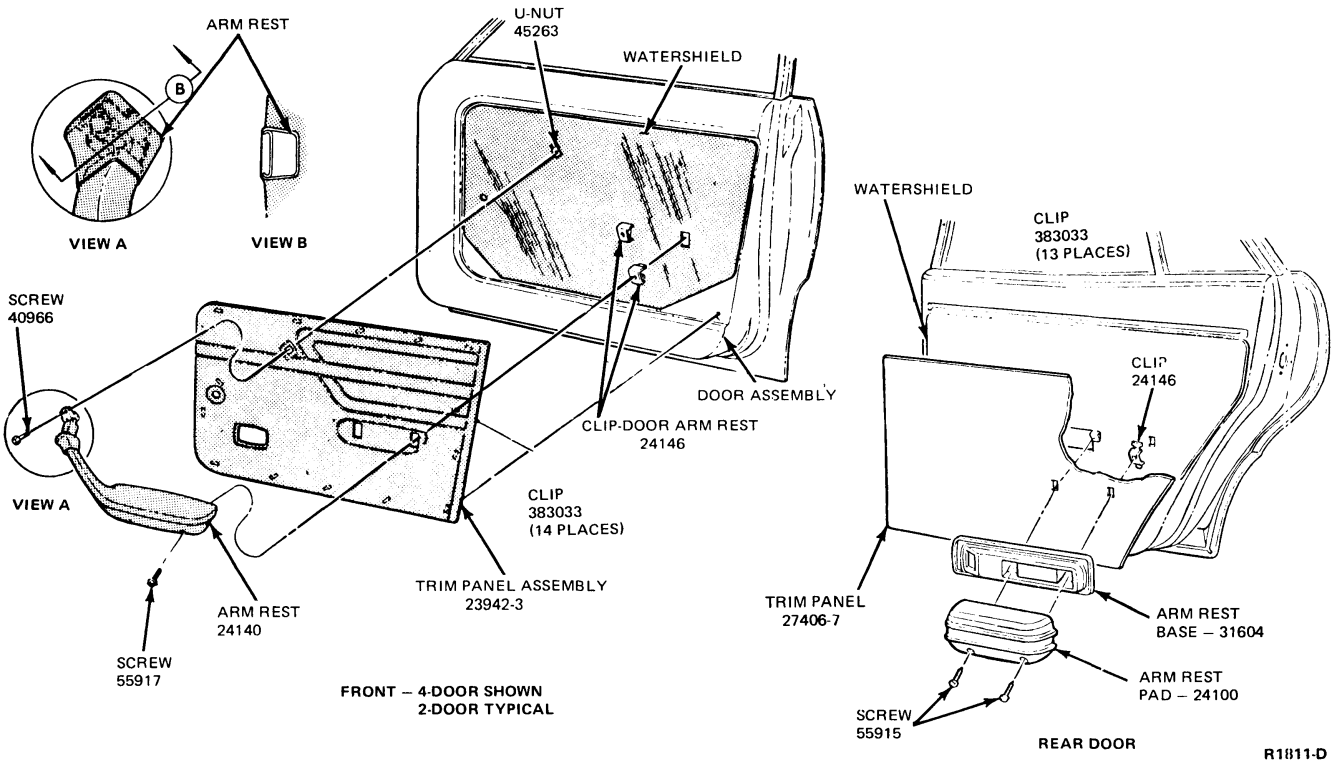


FIG. 5 Door Trim Panel Installation—Maverick and Comet

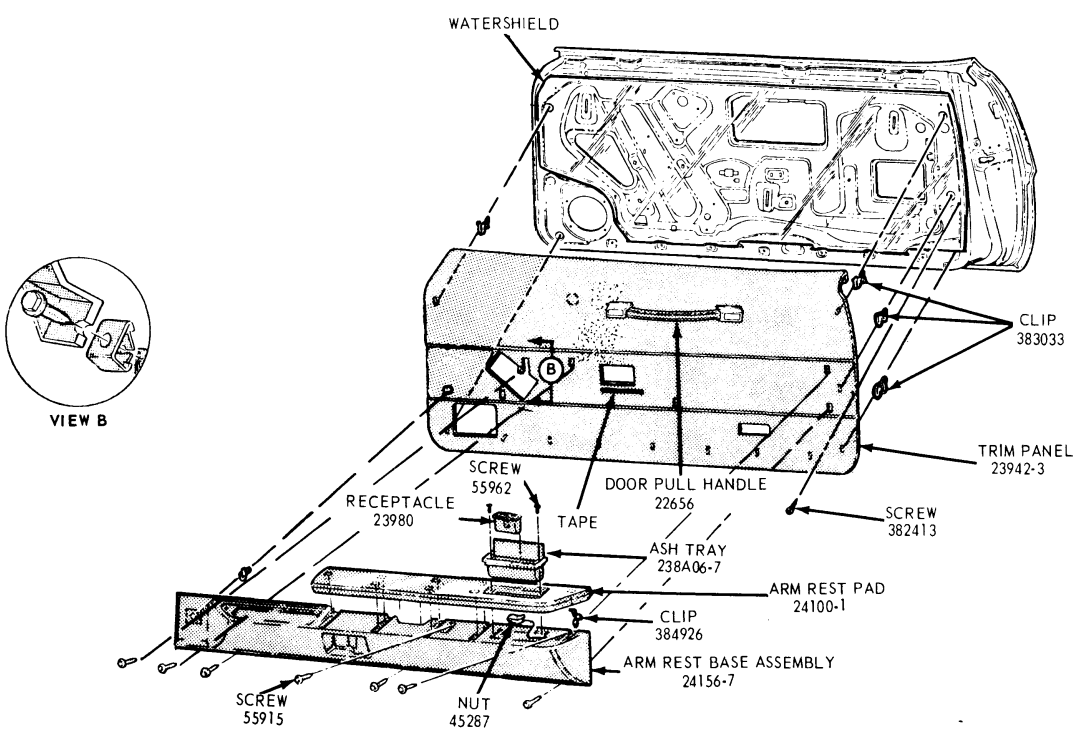


FIG. 6 Door Trim Panel Installation—Thunderbird and Continental Mark V

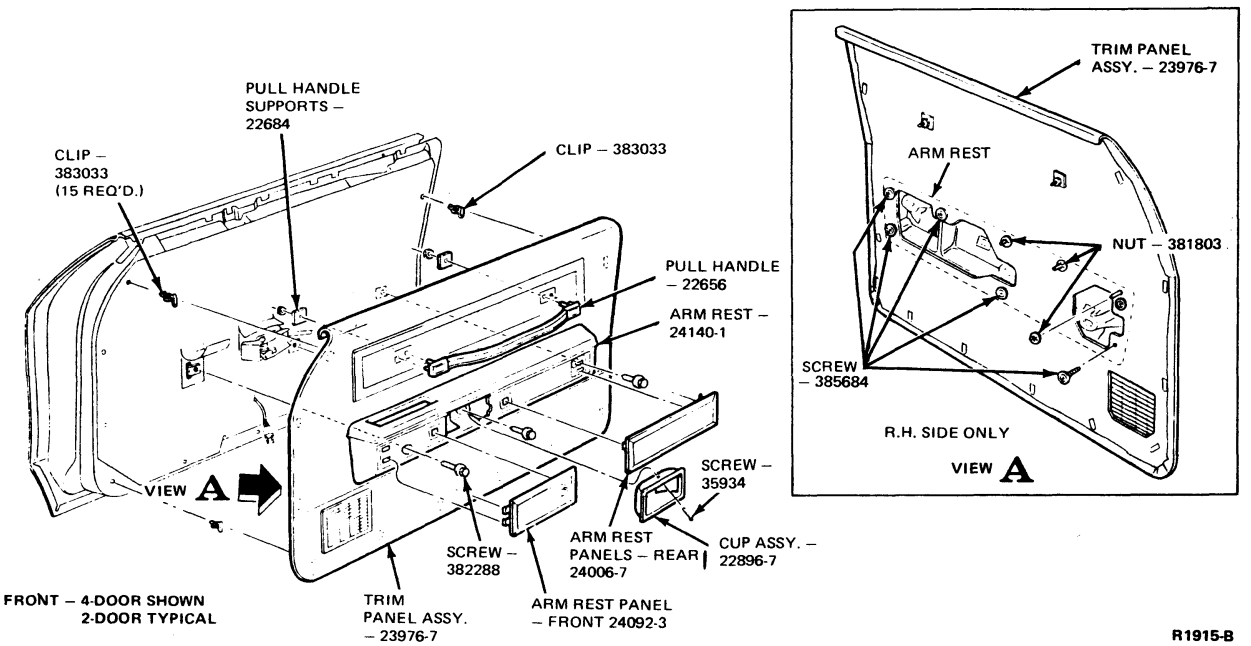


FIG. 7 Door Trim Panel Installation—Lincoln Continental

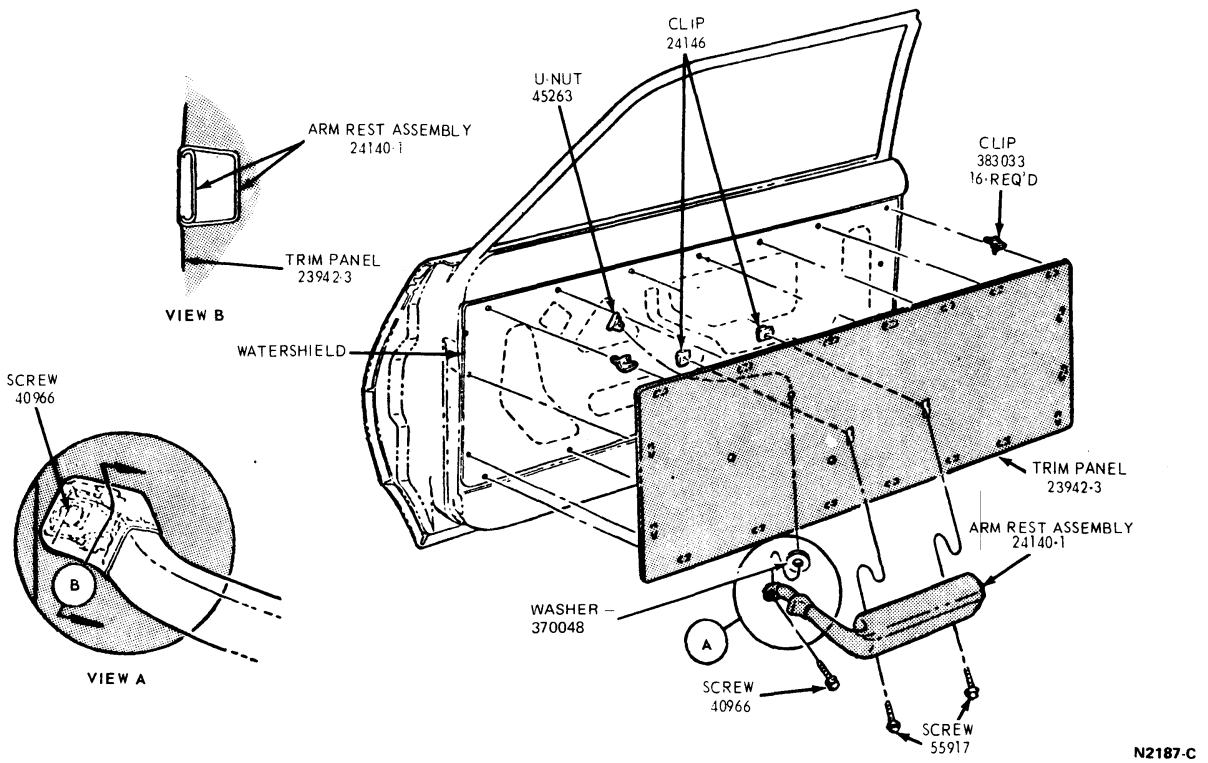


FIG. 8 Door Trim Panel Installation—Pinto and Bobcat

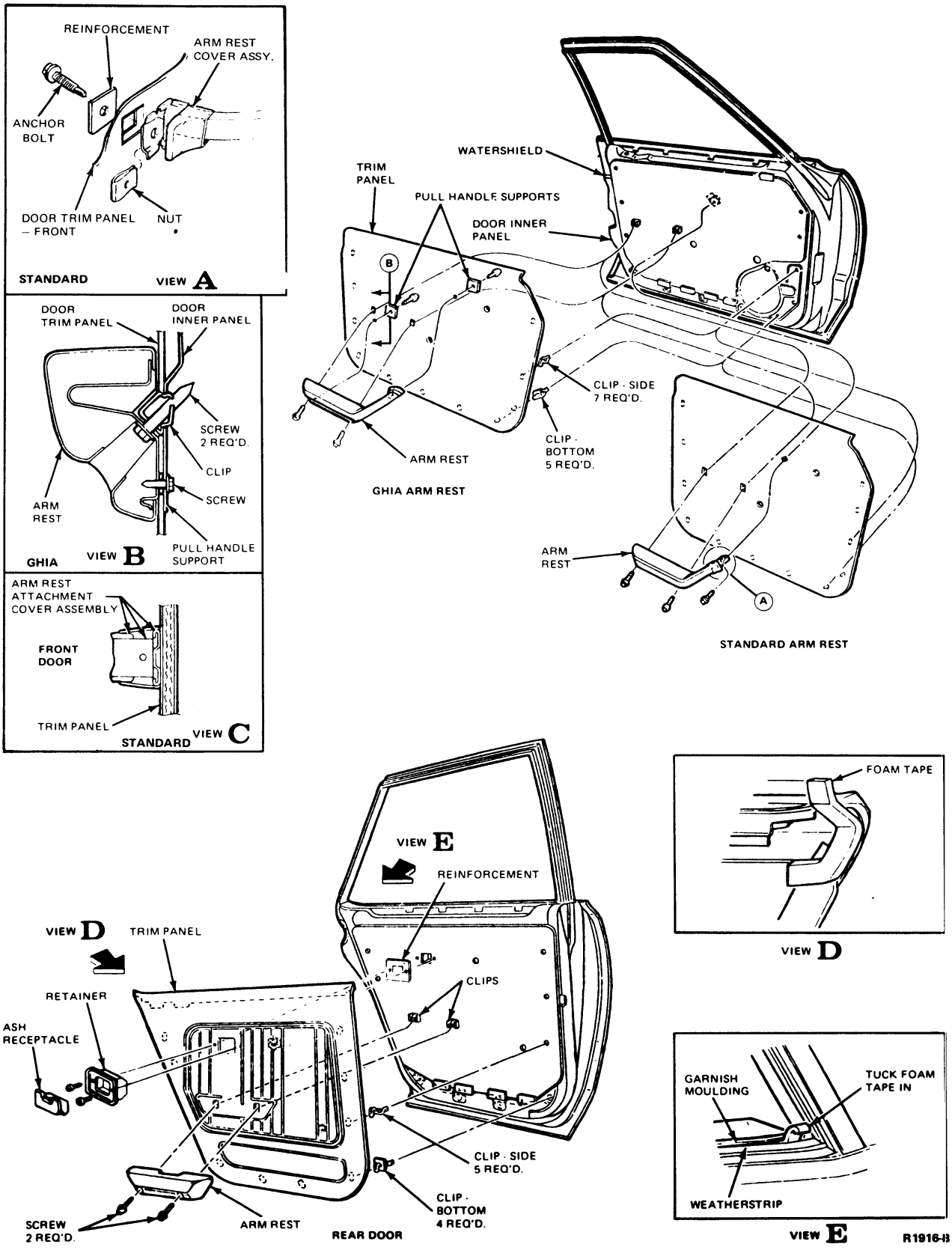


FIG. 9 Door Trim Panel Installation—Granada and Monarch

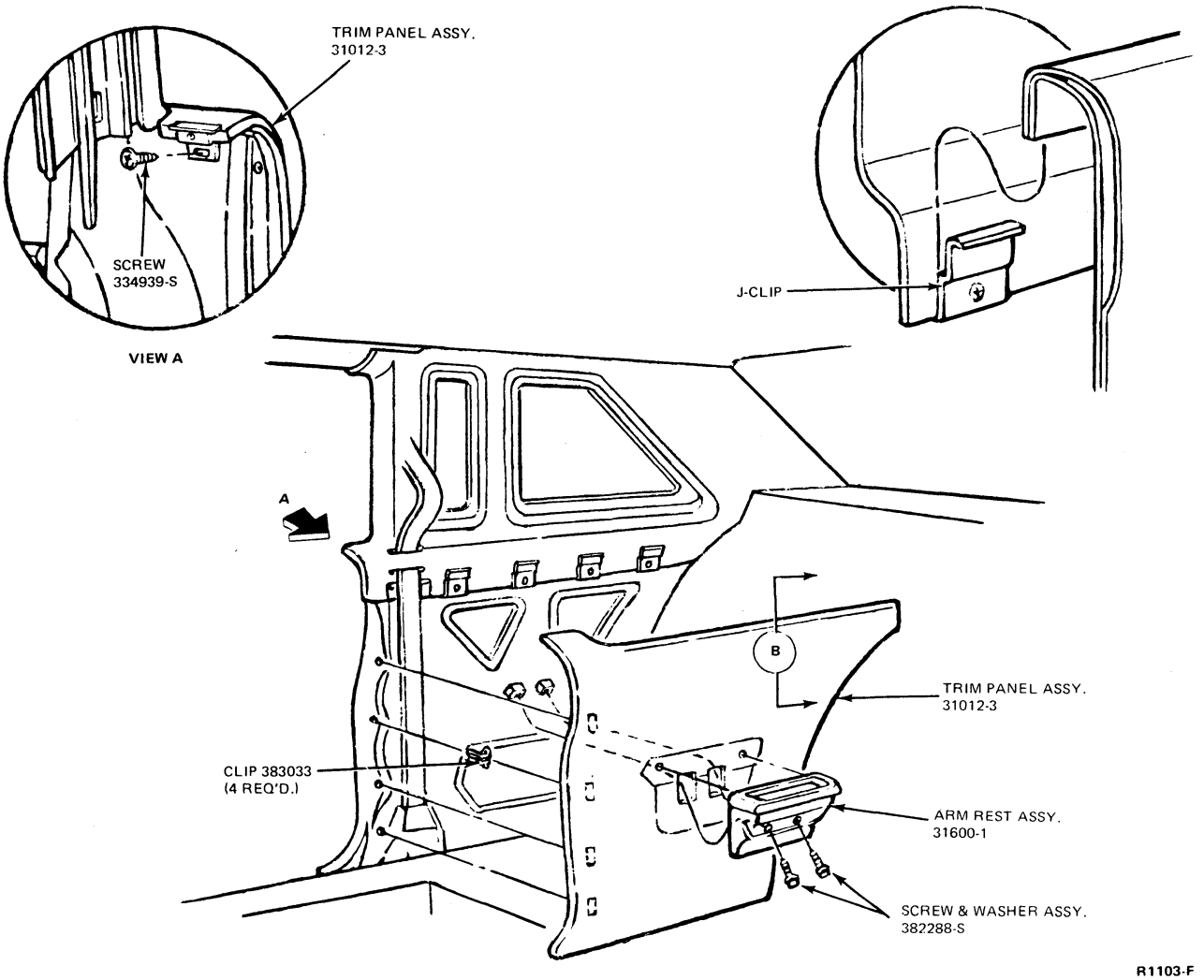


FIG. 10 Quarter Trim Panel Installation – Ford and Mercury

15. Install the armrest finish panel (if so equipped).
16. Position the door latch and window regulator handles and install the retaining screw(s).
17. Clean old cement from the handle access covers with naphtha. Use a 1 3/4 x 3/8 inch tape such as 3M No. Y9122 and cement the cover(s) back in place.
18. Install the garnish moulding and door lock pushbutton control knob.

QUARTER TRIM PANEL—TWO-DOOR MODELS

Ford, Mercury, LTD II and Cougar

Removal

Basically, all quarter trim panels, except Ford and Mercury, are retained in the same manner. In view of this, one removal and installation procedure will cover all models. The top of the Ford and Mercury quarter trim panel is retained by four (4) "J" clips which are retained by

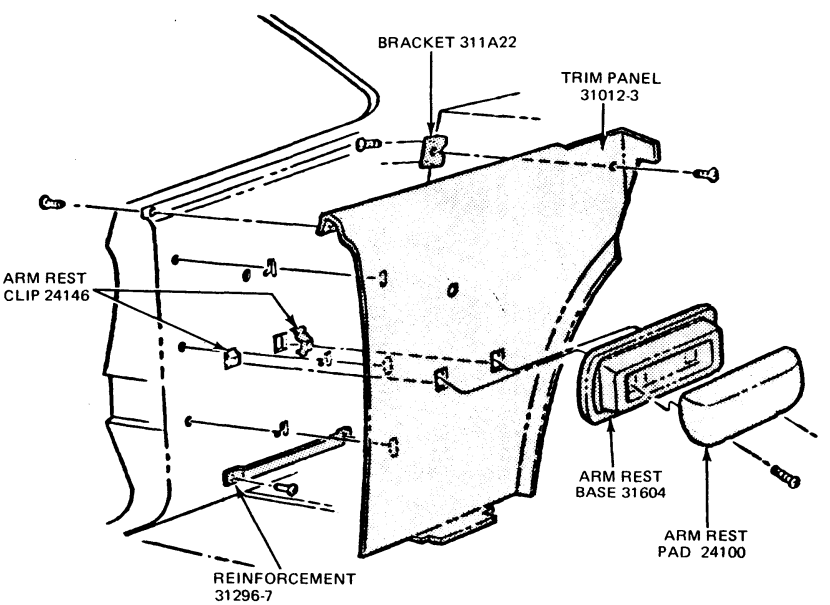


FIG. 11 Quarter Trim Panel Installation—Thunderbird and Cougar

four (4) screws which retain the roof side trim panel.

1. Remove the rear seat cushion and back assemblies. See Group 41.
2. Remove the window regulator handle, if so equipped.

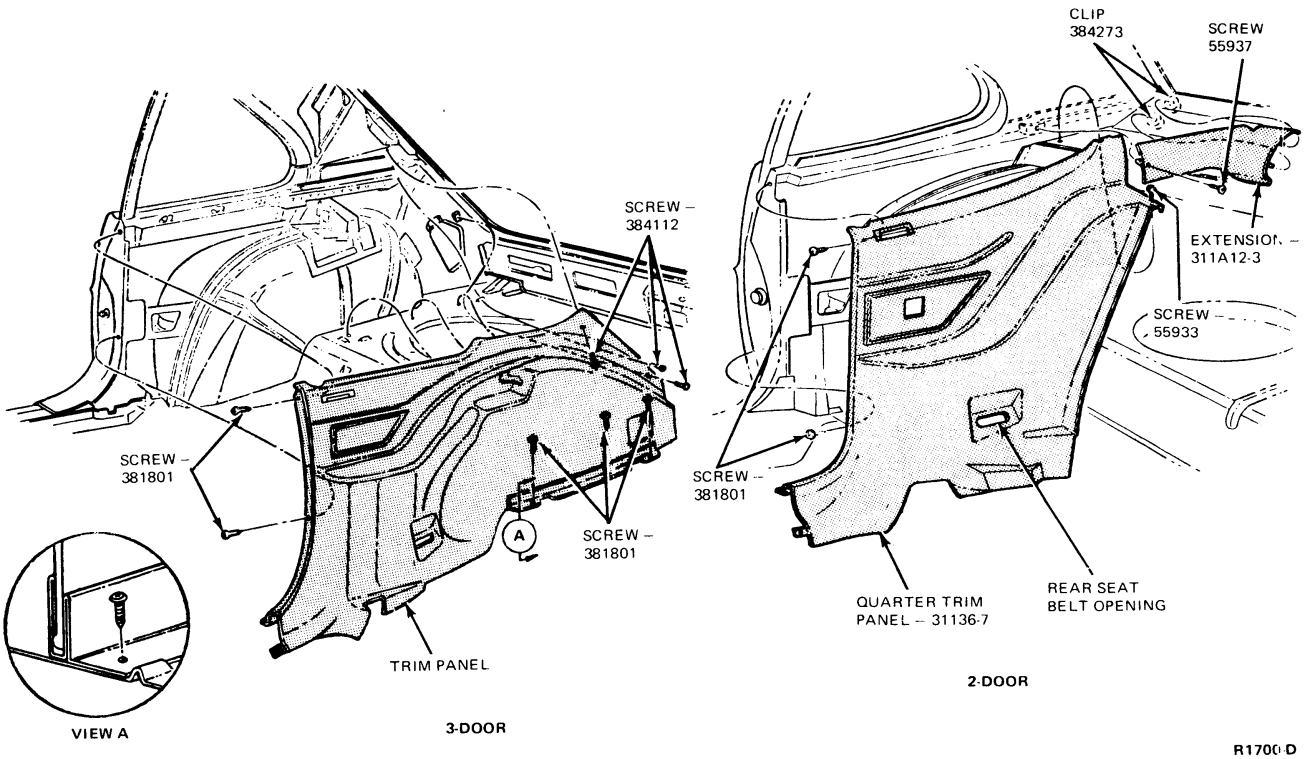


FIG. 12 Quarter Trim Panel Installation—Pinto and Bobcat—Except Station Wagon

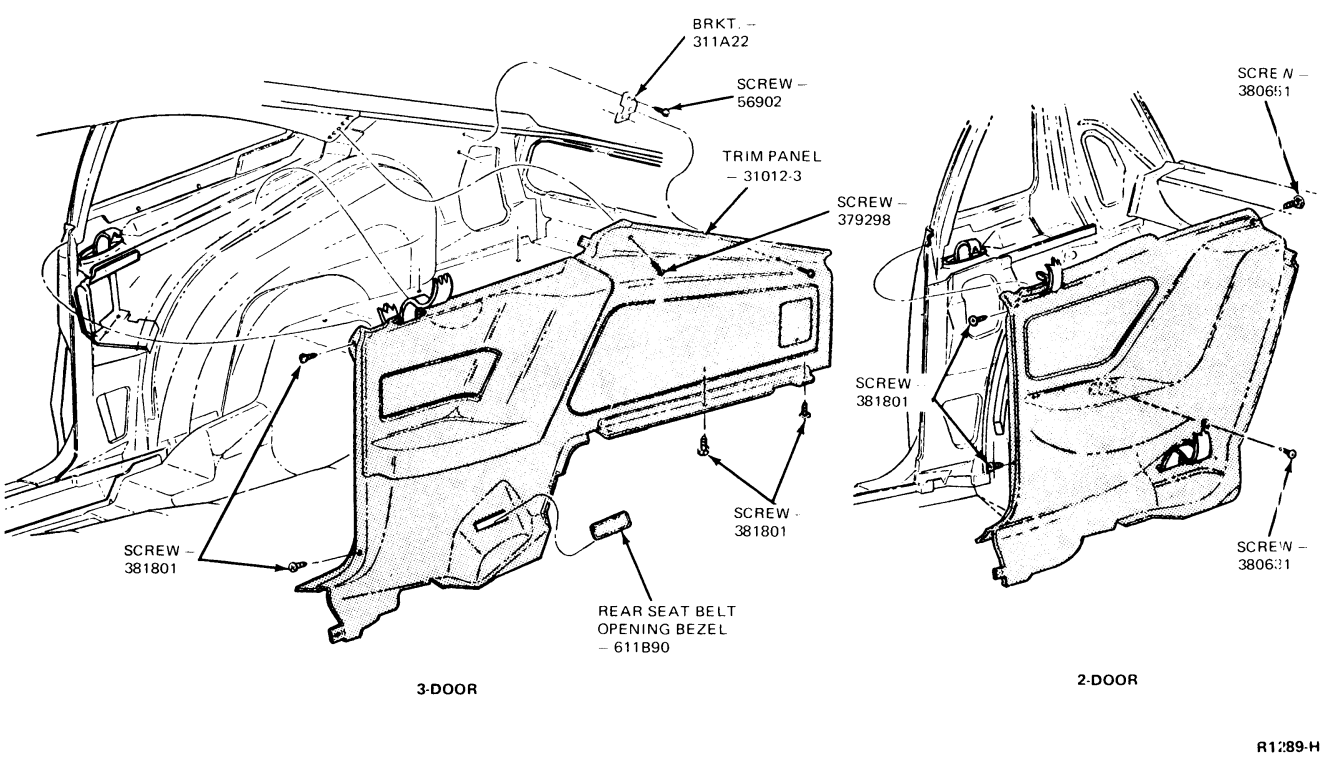


FIG. 13 Quarter Trim Panel Installation—Mustang

3. Remove any screws retaining the trim panel to the inner panel, armrest retaining screws, garnish moulding retaining screws and the door sill step plate rear screw.
4. Then, unclip the trim panel retaining clips and pull the trim panel from the quarter panel (Figs. 10 and 11). Disconnect the power window switch wires (if so equipped) from the switch.

Installation

1. Position the trim panel to the quarter panel and connect the power window wires, if so equipped. Then, snap the retaining clips in the holes.

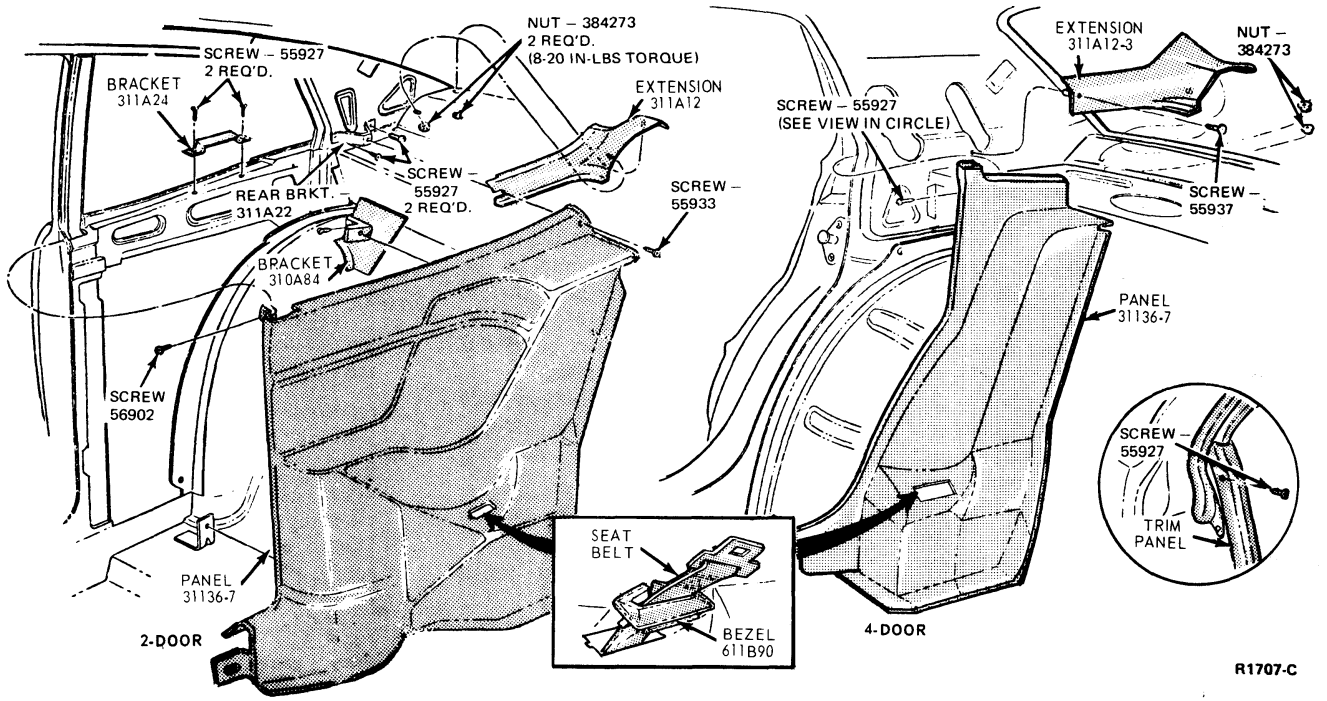


FIG. 14 Quarter Trim Panel Installation—Maverick and Comet

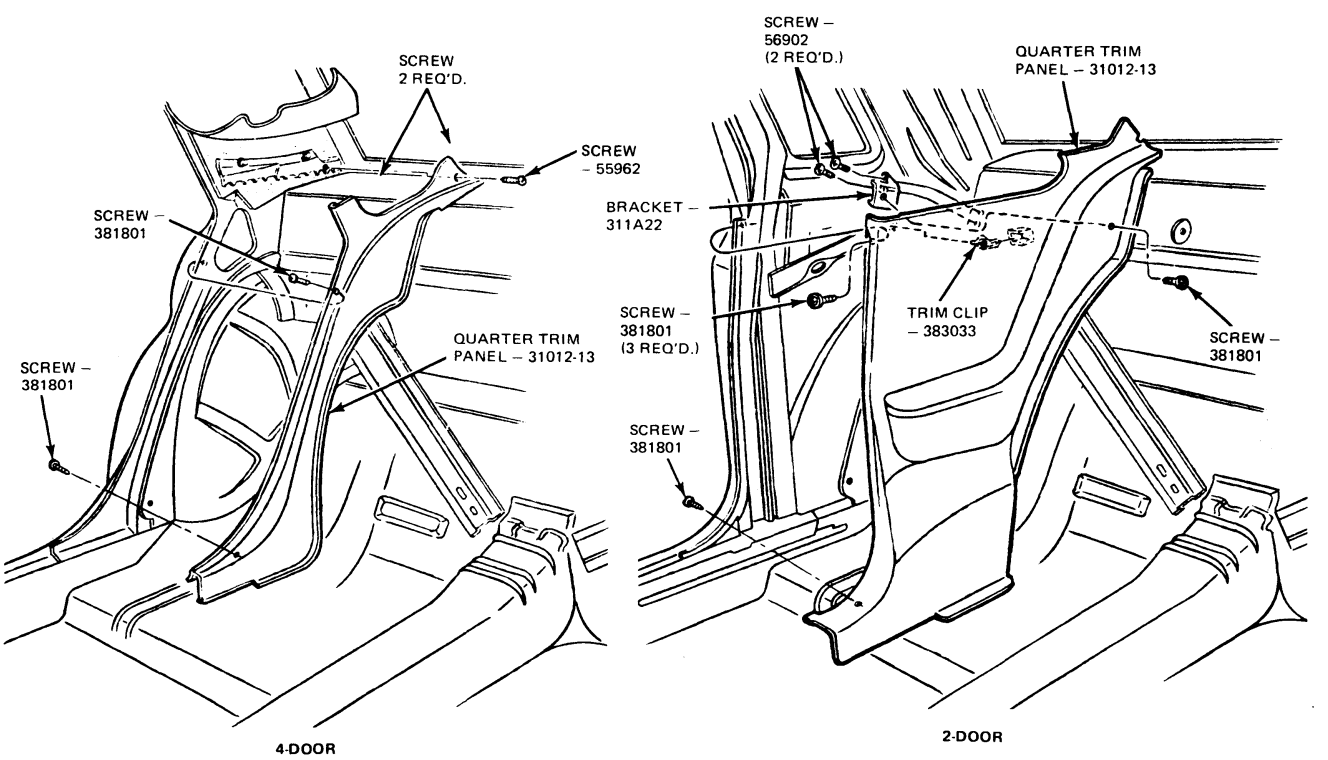


FIG. 15 Quarter Trim Panel Installation—Granada and Monarch

2. Install the trim panel attaching screw(s).
3. Install the armrest and window regulator handle, if so equipped.
4. Install the rear seat cushion and back assemblies.

Granada, Monarch, Maverick, Comet, Mustang, Bobcat and Pinto—Except Station Wagon

Removal

1. Open the luggage compartment door and lower the rear seat on 3-Door Models. On 2-Door Models, remove the rear seat cushion and seat back (Group 41).
2. Remove the door sill scuff plate.
3. Remove the seat belt retractors from the door sill (Group 41).
4. Remove the trim panel attaching screws (Figs. 12, 13, 14 and 15).
5. Push the trim panel forward and away from the installed position. Remove the bezel from the rear seat belt opening in the trim panel, and remove the belt from the opening. On Mustang, unsnap shoulder belt lower bezel and slide belt out through upper bezel opening. Then, remove the trim panel.

Installation

1. Position the trim panel in the vehicle. Insert the rear seat belt through the opening and install the bezel. Slide the shoulder belt into the opening and install the bezels on Mustang Models.
2. Position the trim panel to the quarter and install the attaching screws.
3. Install the seat belt retractors in the door sill, and install the door sill scuff plate.
4. Install the rear seat back and seat cushion on 2-Door Models.

Thunderbird and Continental Mark V

Removal

1. Remove the rear seat cushion and back assembly (Group 41).
2. Pry up on the armrest assembly (Fig. 16) and disengage it from the retaining clips (five).
3. Remove the lower quarter trim panel retaining screws and the retaining screw at the rear of the step plate.
4. Remove the lower quarter trim panel.

Installation

1. Position the quarter trim panel to the quarter panel and connect the power window wires. Then, snap in the retainers and clips together with the attaching screws.
2. Position the roof side trim panel and retain with clips and screws.
3. Push armrest assembly firmly in place until retained by five retaining clips.
4. Install rear seat cushion and back assembly.

Lincoln Continental

Removal

1. Carefully pry off the armrest finish panel (Fig. 17).
2. Remove the three screws attaching the armrest and remove the armrest.
3. Remove the seat cushion and back assemblies (not shown on illustrations).
4. Remove the necessary interior backlite garnish mouldings (not shown on illustration).
5. Remove one screw securing the coat hook and remove coat hook.
6. Remove one screw behind the shoulder belt at the roof rail.
7. Pry loose the quarter trim finish panel starting at the rear.

CAUTION: When the finish panel attaching clips have been extracted from the quarter trim panel, be sure to pull the panel directly rearward first and then inboard in order not to break the clips at the front of the panel. The finish panel is not designed to pivot around the front clips.

8. Remove three screws securing the lower quarter trim panel and remove the panel.
9. Remove three screws along the belt line securing the quarter trim panel and pry loose the one clip located at the front of the trim panel. Disconnect the courtesy lamp wiring and then, remove the trim panel.

NOTE: Take all necessary precautions to protect the quarter trim panel from damage or dirt.

Installation

1. Position the quarter trim panel to the quarter panel and connect the courtesy lamp wiring. Retain with clips and screws.
2. Install coat hook and retain with screw.
3. Install interior backlite garnish moulding.
4. Install seat cushion and seat back.
5. Install armrest and retain with three screws.
6. Install armrest finish panel.

ROOF SIDE TRIM PANELS

Removal

1. Remove rear seat cushion and seat back.
2. Remove quarter trim panel and related parts (moulding, arm rest, trim and retaining screws).

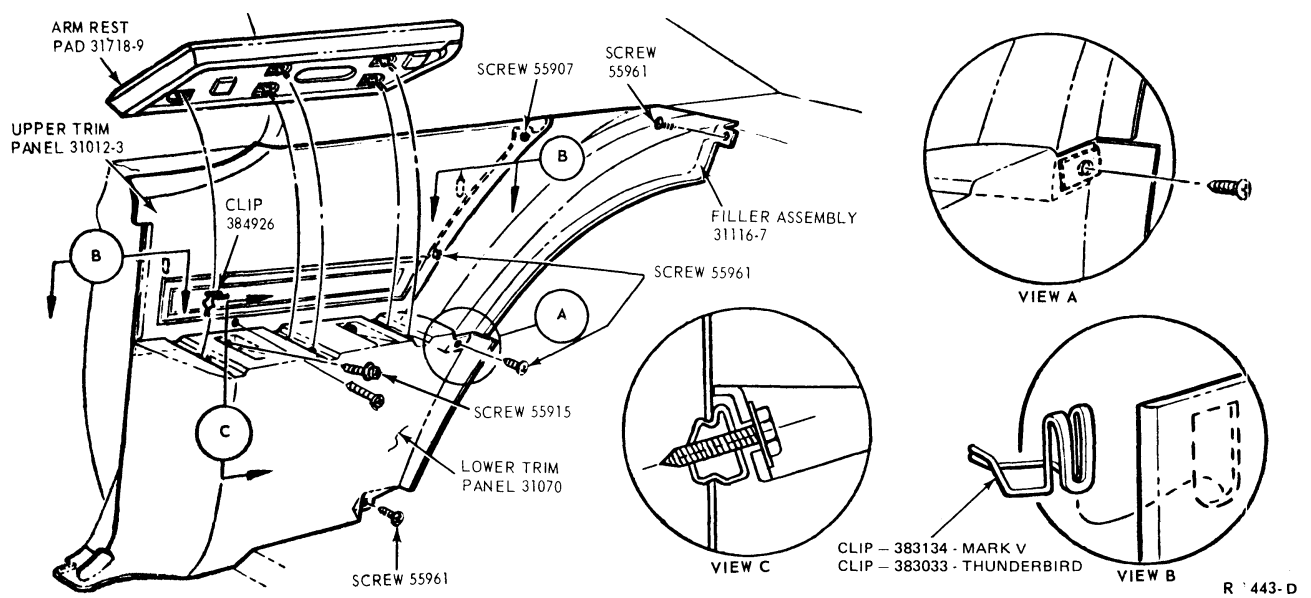


FIG. 16 Quarter Trim Panel and Armrest Installation—Continental Mark V

3. **Ford 2-Door only** —Remove four (4) "J" clips and screws, plus screw at seat belt opening and coat hook screw (Fig. 18).
   Thunderbird and Continental Mark V only —Remove screw retaining seat belt opening cover (Fig. 18).
   Granada and Monarch 2-Door only —Remove screw at seat belt opening (Fig. 18).
4. Pull roof side trim panel away from body until released by retaining clips.
5. **Granada and Monarch 2-Door only** —Disconnect seat belt and slip through opening in roof side trim panel. Move trim panel upwards and remove.
   Ford 2-Door, Thunderbird and Continental Mark V only – Slip seat belt through opening in roof side trim panel, then remove panel, after disconnecting courtesy lamp wiring.

Installation

1. **Ford 2-Door, Thunderbird and Continental Mark V only** – Slip seat belt through opening in roof side trim panel. Connect courtesy lamp wiring harness.
   Granada and Monarch 2-Door only —Slip seat belt through opening, then connect seat belt assembly to anchor.
2. Position roof side trim panel and push inward until retained by clips.
3. **Ford 2-Door only** —Install four "J" clips and retaining screws, plus screw at seat belt opening and coat hook.
   Thunderbird and Continental Mark V only – Install seat belt opening cover and retaining screw.
   Granada and Monarch 2-Door only —Install screw at seat belt opening.
4. Install quarter trim panel and related parts.
5. Install rear seat cushion and seat back.

CENTER PILLAR AND QUARTER TRIM PANELS—FOUR DOOR MODELS

Before removing the center pillar post trim panel, it may be necessary to remove the shoulder belt upper pivot and the upper garnish moulding (if so equipped). Then, remove the retaining screws, slide the shoulder belt out through the slot, and remove the center pillar trim panel.

Before removing the rear quarter trim panel assembly, remove the rear seat cushion and back assembly (Group 41). Remove the retaining screw(s), unthread the seat belt and bezel from the trim panel, and remove the trim panel (Fig. 19).

QUARTER TRIM PANEL—STATION WAGON

Removal

1. Remove the rear door sill scuff plate.
2. On Pinto and Bobcat, remove the seat belt retractors from the door sill.
3. Fold the rear seat to the cargo (down) position.
4. Remove the quarter window lower moulding, if so equipped.
5. Remove the trim panel attaching screws (Figs. 20 and 21).
6. Remove the trim panel from the installed position. On Pinto and Bobcat, remove the bezel and seat belt from the trim panel.
7. Remove the trim panel from the vehicle.

Installation

1. Position the trim panel in the vehicle and insert the seat belt through the trim panel on Pinto and Bobcat models. Install the seat belt bezel.
2. Install the trim panel attaching screws (Figs. 20 and 21).
3. Install the quarter window mouldings, if so equipped.
4. On Pinto and Bobcat, install the seat belt retractors in the door sill.
5. Install the rear door sill scuff plate.

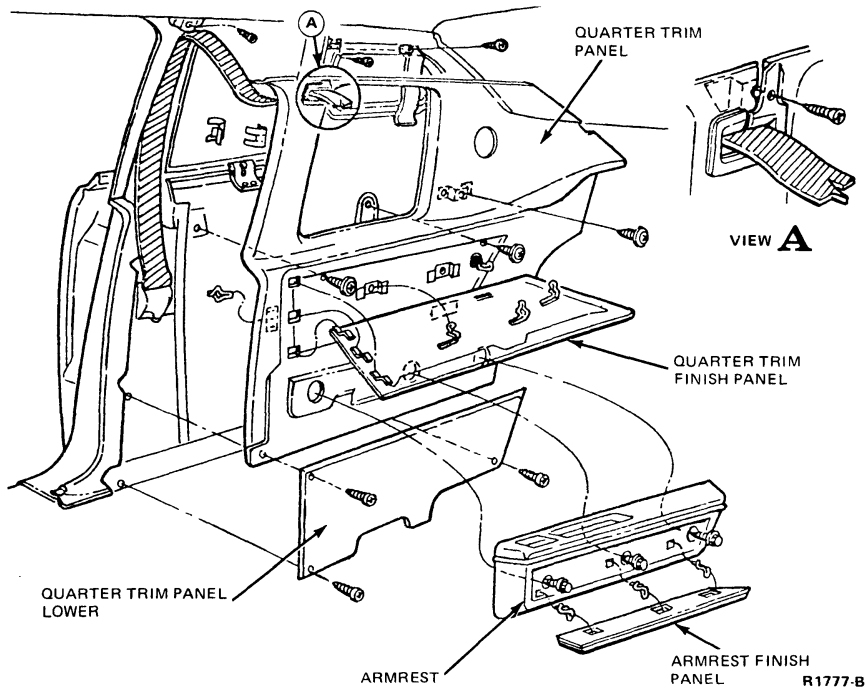


FIG. 17 Quarter Trim Panel Installation—Lincoln Continental 2-Door

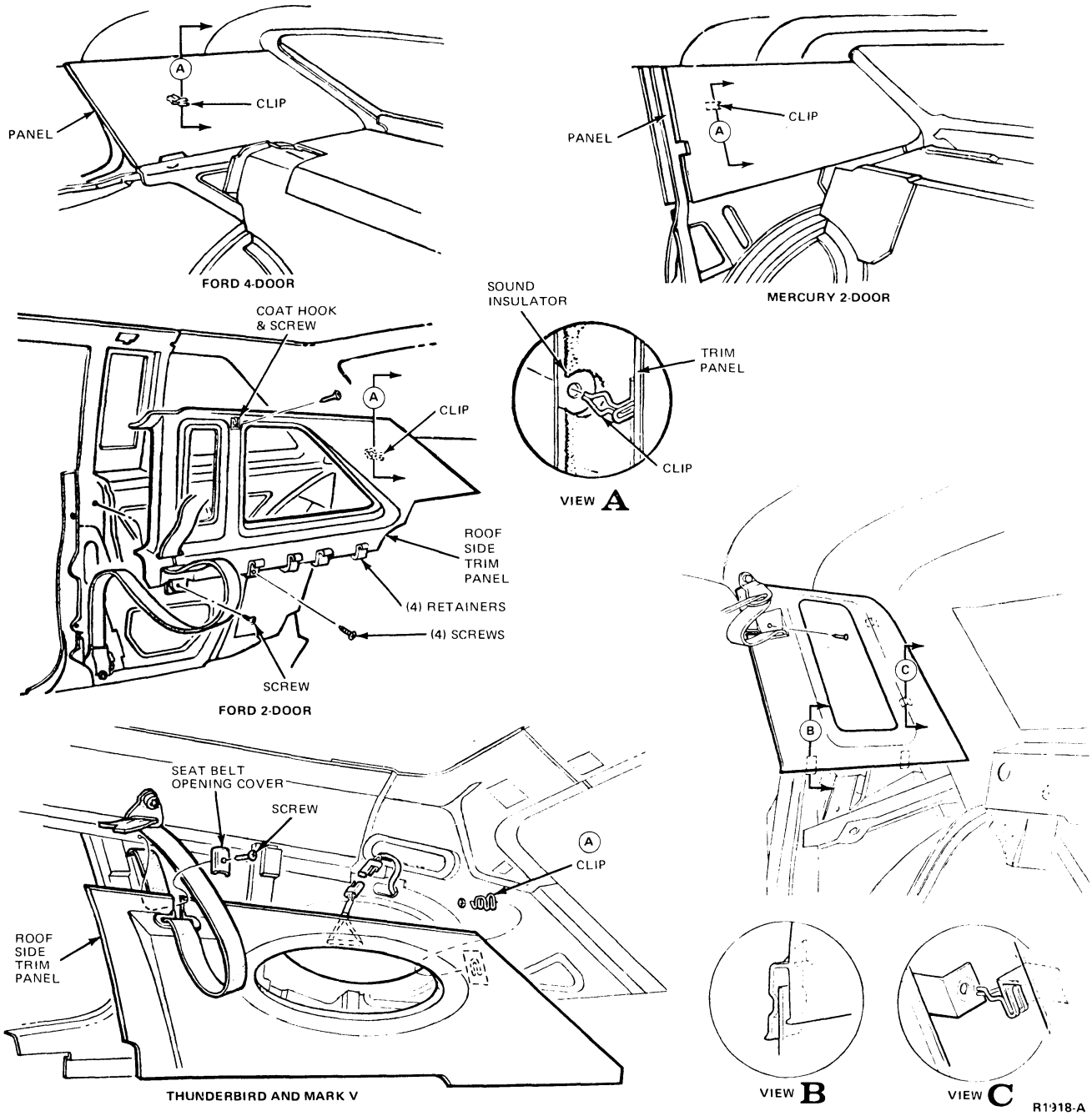


FIG. 18 Roof Side Trim Panels—Typical

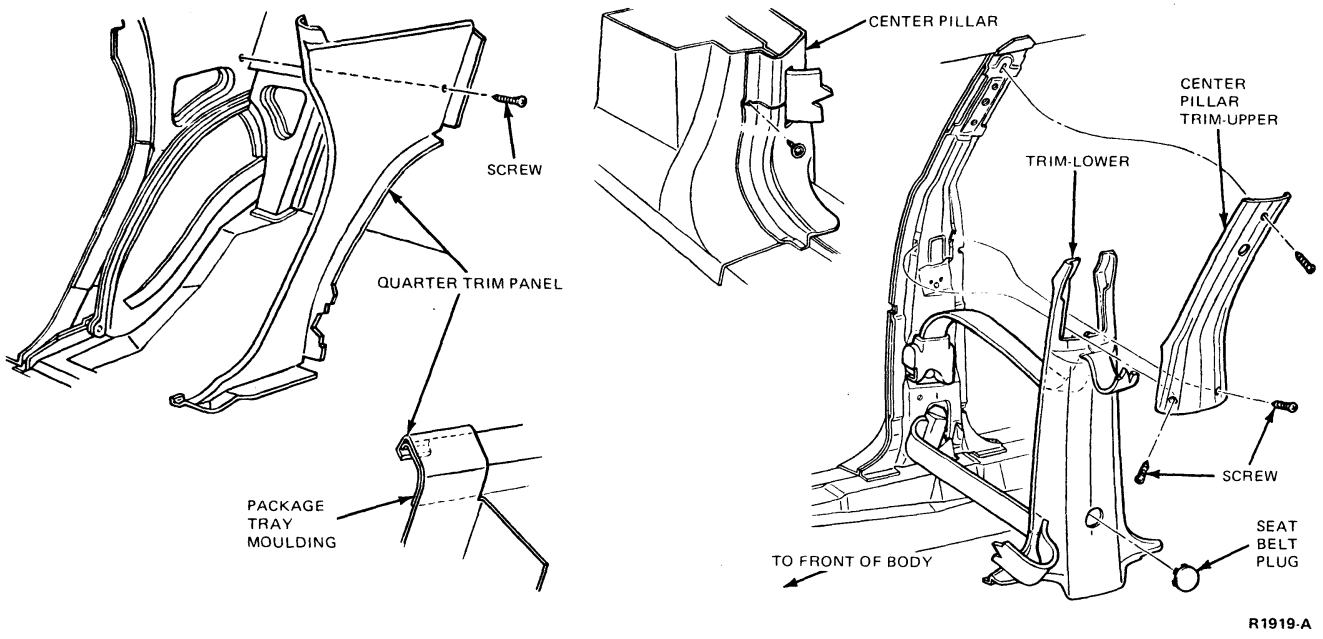


FIG. 19 Typical Center Pillar and Quarter Trim Panel

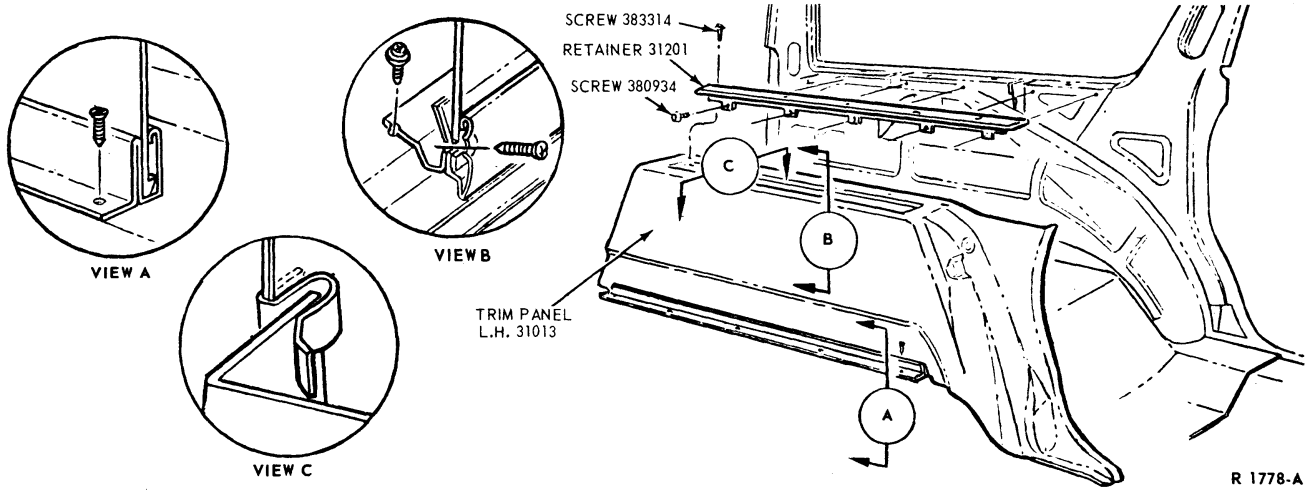


FIG. 20 Typical Station Wagon Quarter Trim Panel—LTD II and Cougar

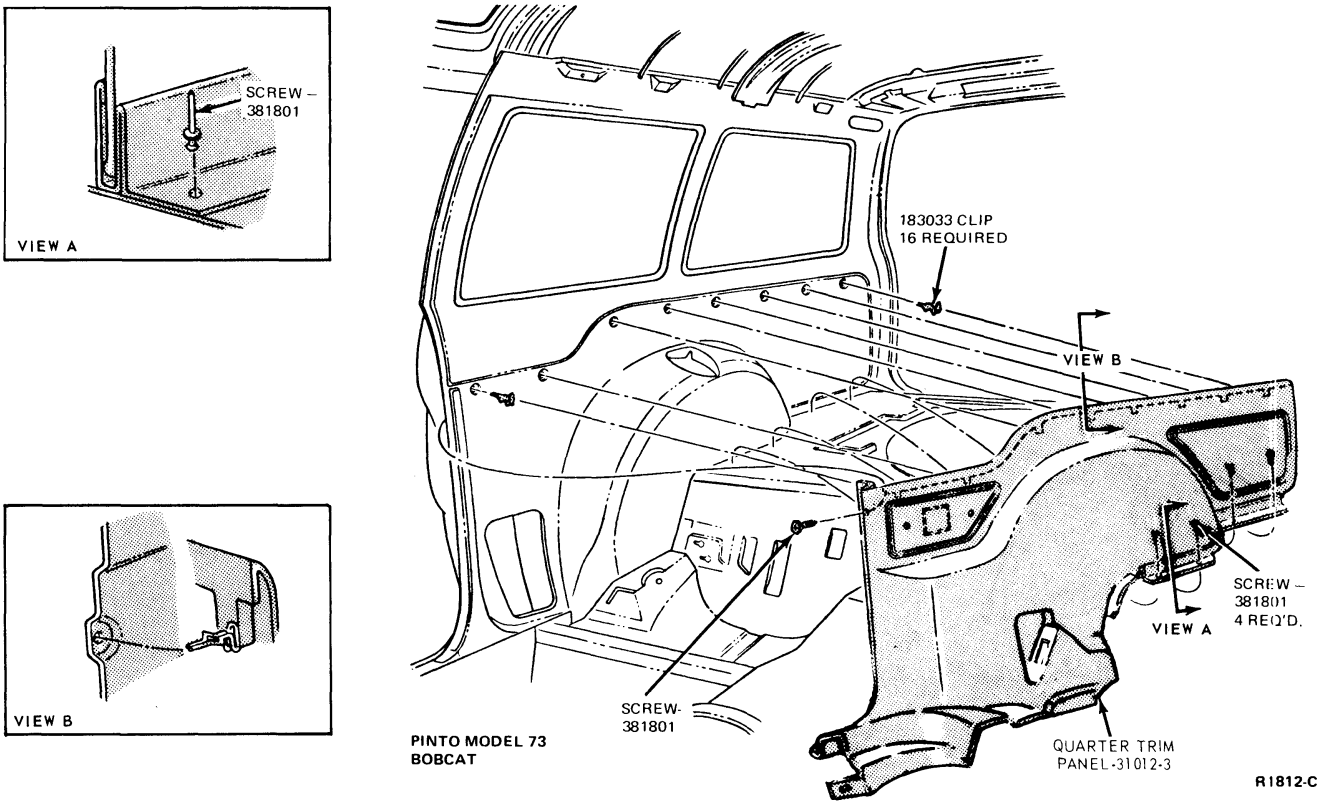


FIG. 21 Quarter Trim Panel Installation—Pinto and Bobcat Station Wagon

Mouldings

PART 45-16

CR2043-A

GENERAL INFORMATION

The installation of interior mouldings are shown in Figs. 1 through 4. In most instances, one moulding overlaps another moulding. If this condition is found, it will be necessary to loosen or remove the overlapping moulding before removal of the desired moulding.

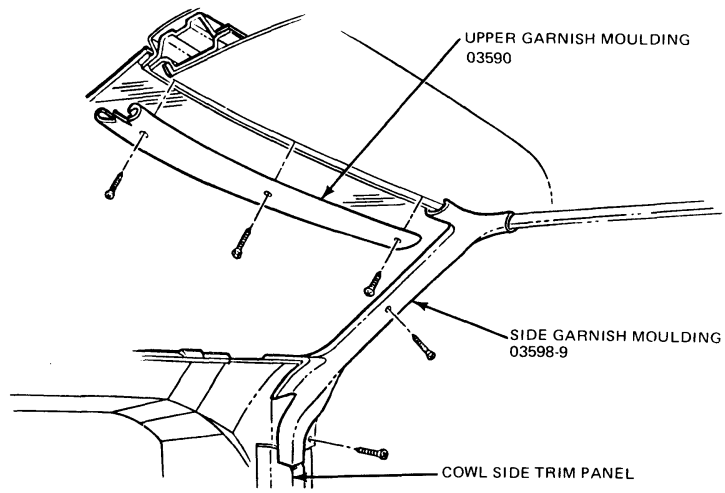


FIG. 1 Typical Windshield Garnish Moulding Installation—Continental Mark V

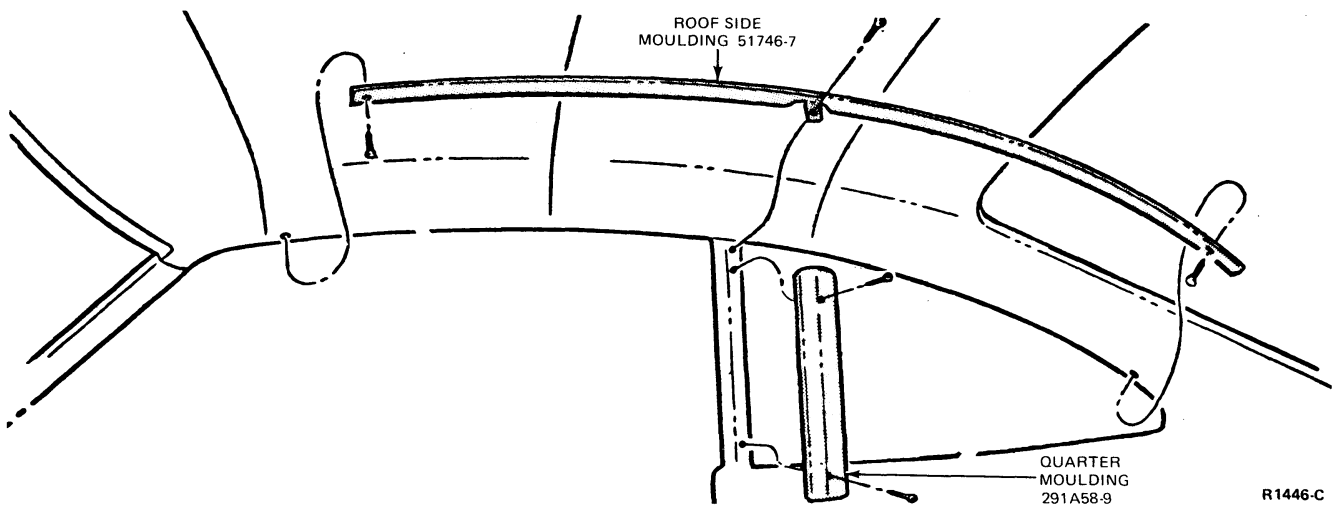


FIG. 2 Typical Roof Side Interior Moulding Installation—Mustang

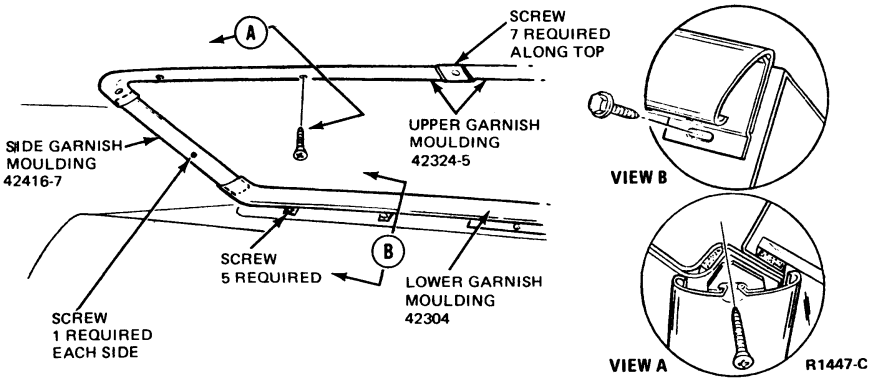


FIG. 3 Typical Back Window Garnish Moulding Installation – Continental Mark V

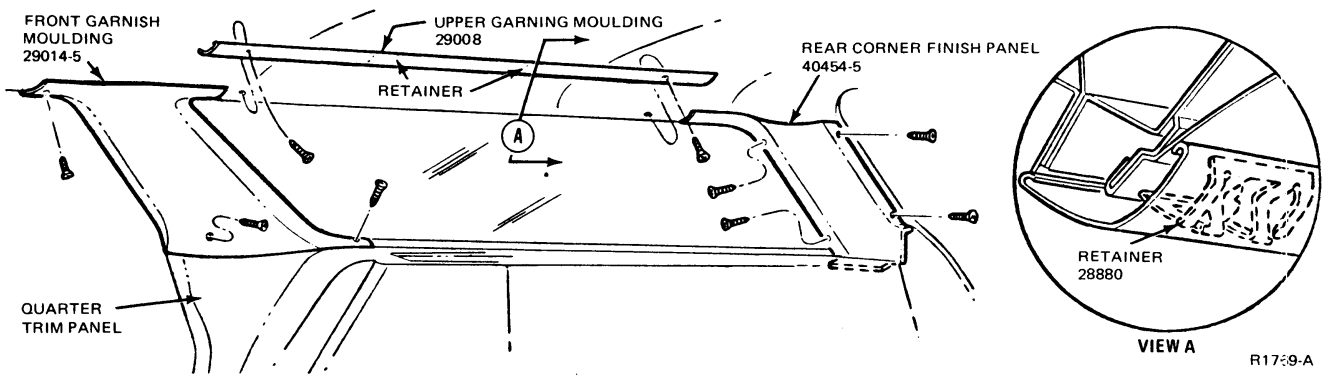


FIG. 4 Typical Quarter Window Mouldings – Model 71 – LTD II Shown

Rear Package Tray

PART 45-21

REMOVAL AND INSTALLATION

PACKAGE TRAY-TRIM PANEL

Removal of the rear seat cushion and rear seat back assembly is necessary on all models for replacement of the package tray trim panel. See Group 41 for rear seat cushion and seat back removal and installation procedures. On some models it will be necessary to remove the quarter trim panel extension assemblies. See Figs. 1 through 6.

1. Remove the back window mouldings and defogger and speaker grille (if so equipped).
2. Remove the trim panel retaining screws.
3. Pull the trim panel forward and slightly upward and remove it from the package tray.
4. If a new trim panel is being replaced, transfer the defogger and radio speaker grille to the new panel if required.
5. Position the trim panel to the package tray and install the retaining screws at the back panel.
6. Install the back window garnish mouldings (if so equipped).
7. Install the quarter trim panel extension assemblies (if so equipped).
8. Install the defogger and radio speaker grille retaining nuts (if so equipped).
9. Install the rear seat back and cushion assembly.

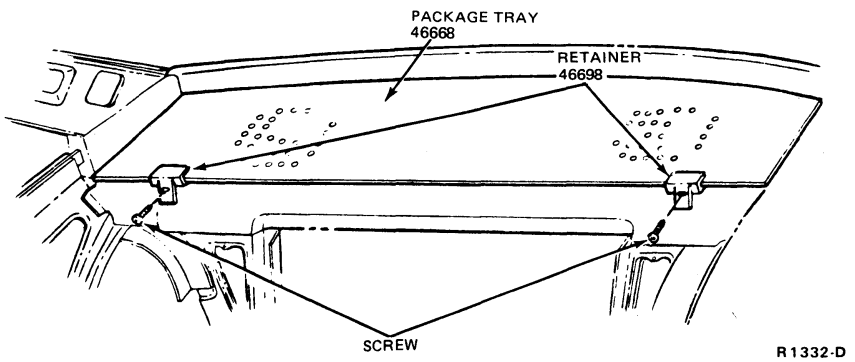


FIG. 1 Package Tray Trim Panel—Continental Mark V

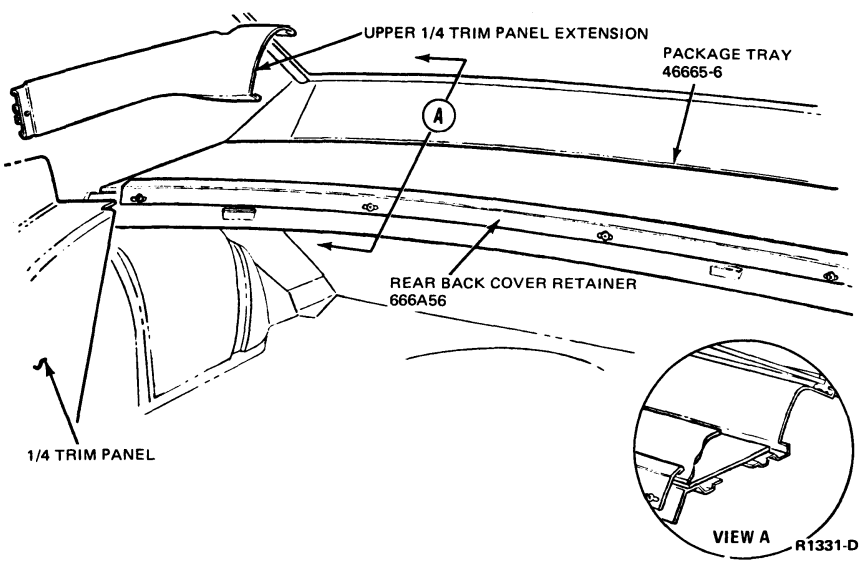


FIG. 2 Package Tray Trim Panel—Pinto and Bobcat

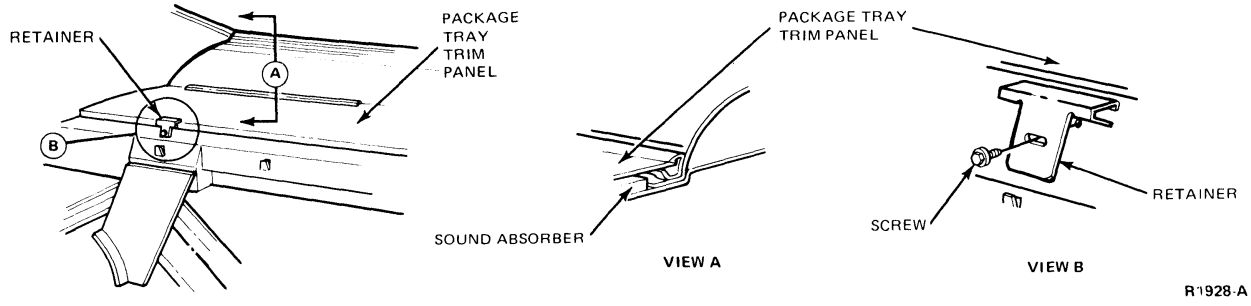


FIG. 3 Package Tray Trim Panel—Maverick and Comet

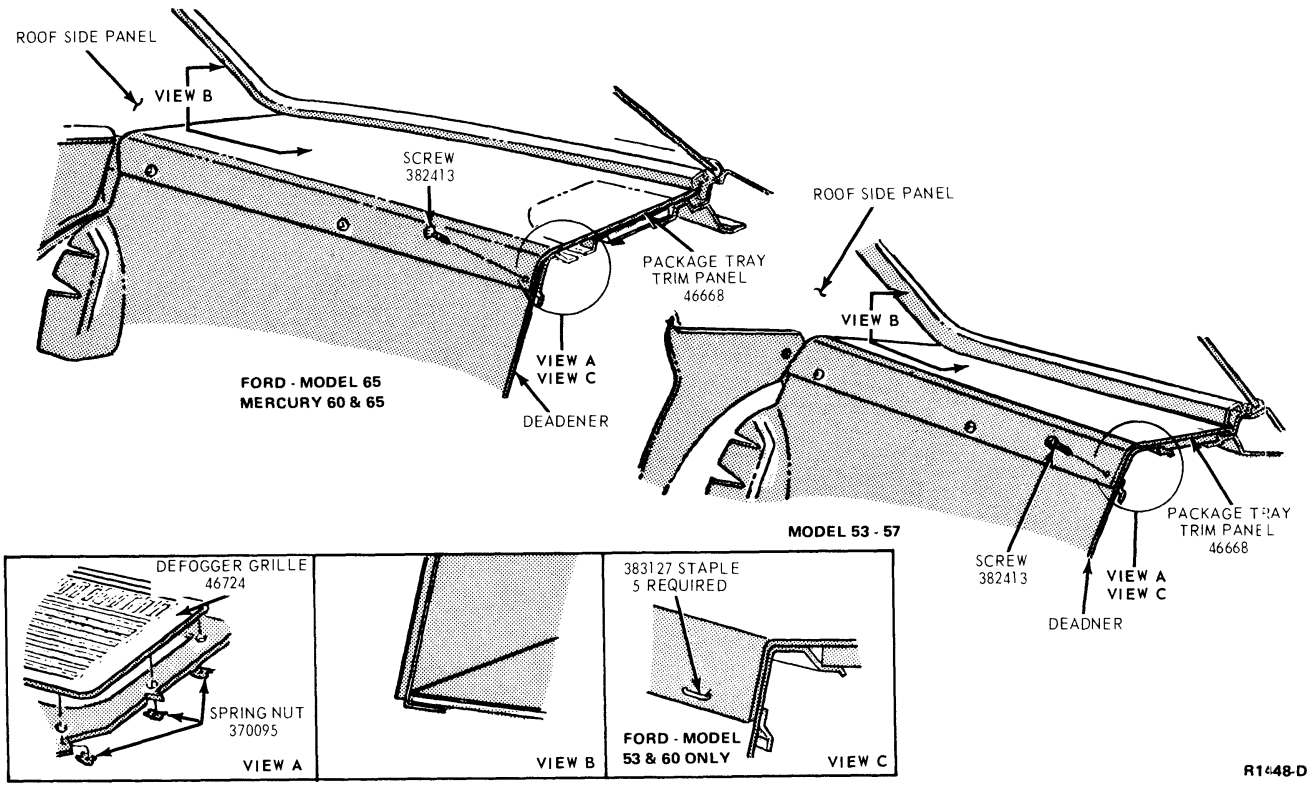


FIG. 4 Package Tray Trim Panel—Ford and Mercury

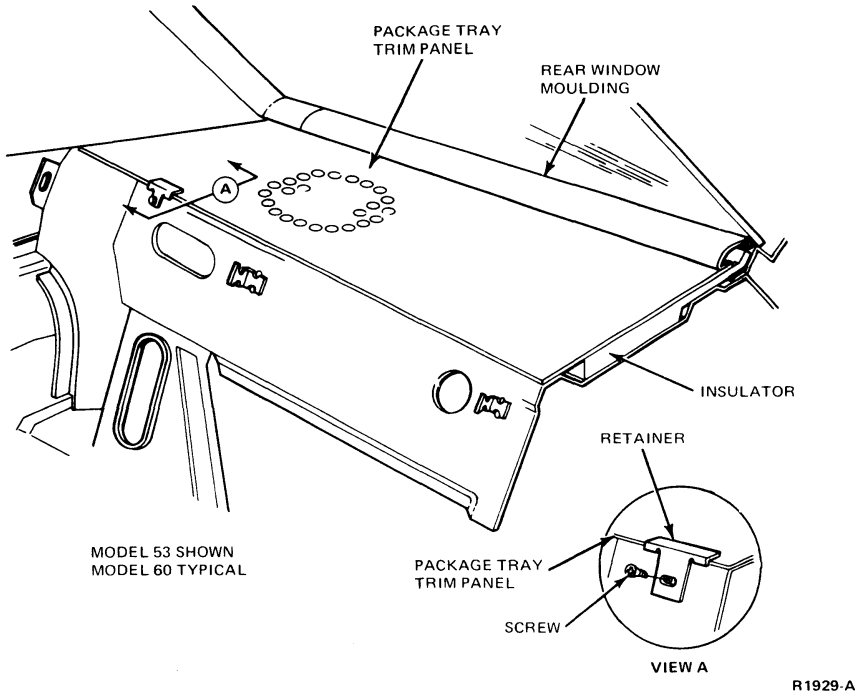


FIG. 5 Package Tray Trim Panel—Lincoln Continental

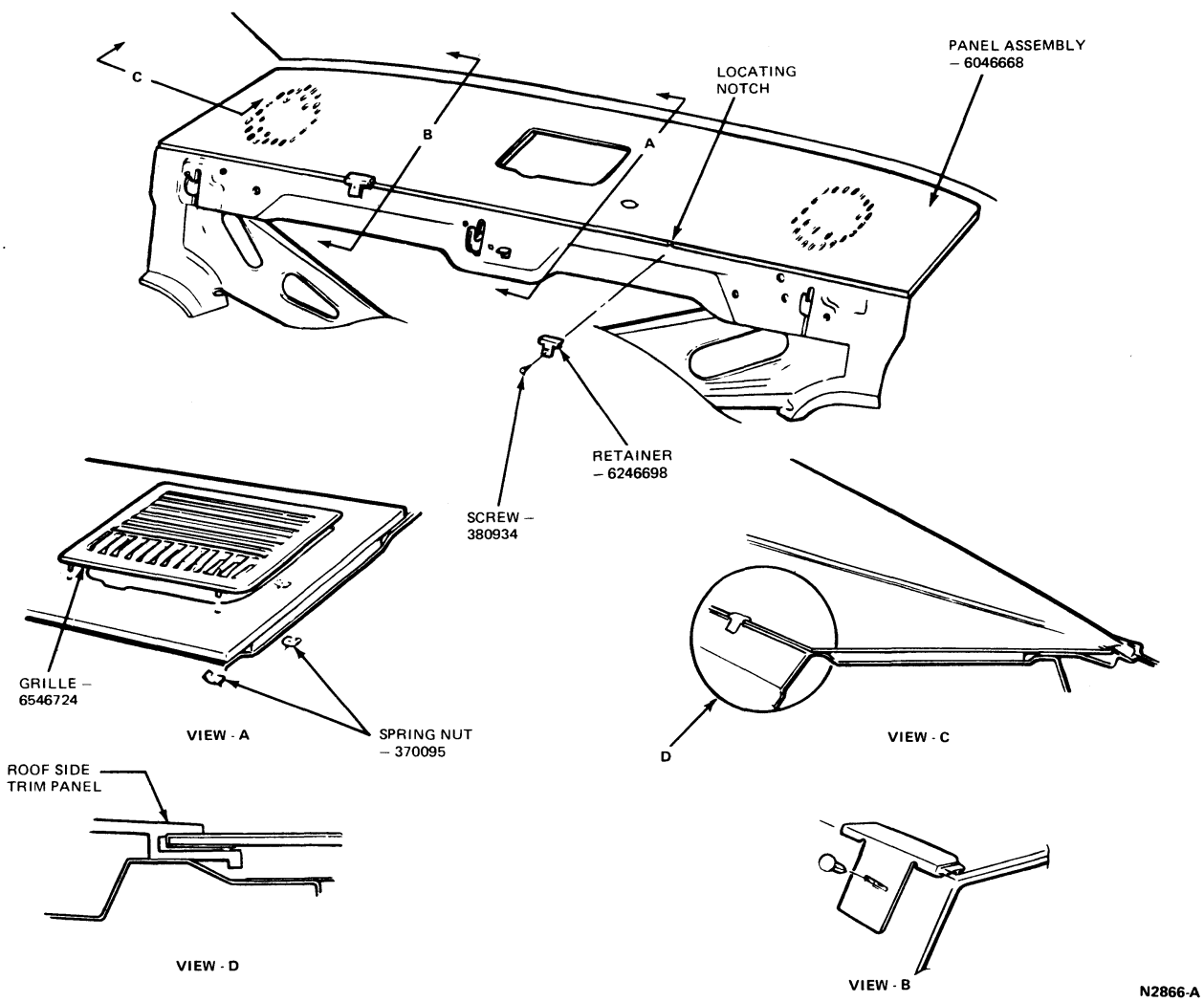


FIG. 6 Package Tray—LTD II, Cougar and Thunderbird

Carpets and Floor Mats

PART 45-26

REMOVAL AND INSTALLATION

FRONT

On vehicles equipped with a floor-shift transmission, remove the console (see Part 45-31) or shift quadrant.

Remove the front seat(s) and seat tracks, plus the seat belts and outboard retractors. (Refer to Part 41-01 through 41-20 for Seat Track Removal and Part 41-50 for Seat Belt Removal.)

On some models, it is necessary to remove the "B" pillar and cowl trim panels, plus retaining screws. Remove the right and left door sill scuff plates and all carpet retaining screws (Fig. 1). Remove the carpet from the vehicle.

REAR

On Lincoln Continental models, remove the front seat and seat tracks. On all other models, remove only the seat track-to-floor pan retaining nuts and tilt the front seat forward.

Remove the right and left door sill scuff plates, "B" pillar, and quarter trim panels, and seat belts. On Cougar models also remove the rear carpet retainers from each side of the vehicle.

On Lincoln Continental models, remove the four (4) screws at the back edge of the carpet and remove the rear carpet. On all other models, remove the rear seat cushion, position the front seat forward, and remove the rear carpet.

FRONT AND REAR (ONE-PIECE)

On vehicles equipped with a floor-shift transmission, remove the console (see Part 45-31), shift quadrant or shifter bezel. On Pinto, Bobcat and Mustang models, it is also necessary to remove the parking brake bezels and shakebrace.

Remove the front seat(s) and seat tracks, rear seat cushion, seat belts and outboard retractors, cowl trim panels, "B" pillar trim panels, quarter trim panels and door sill scuff plates. Remove all carpet retaining screws and remove the carpet from the vehicle.

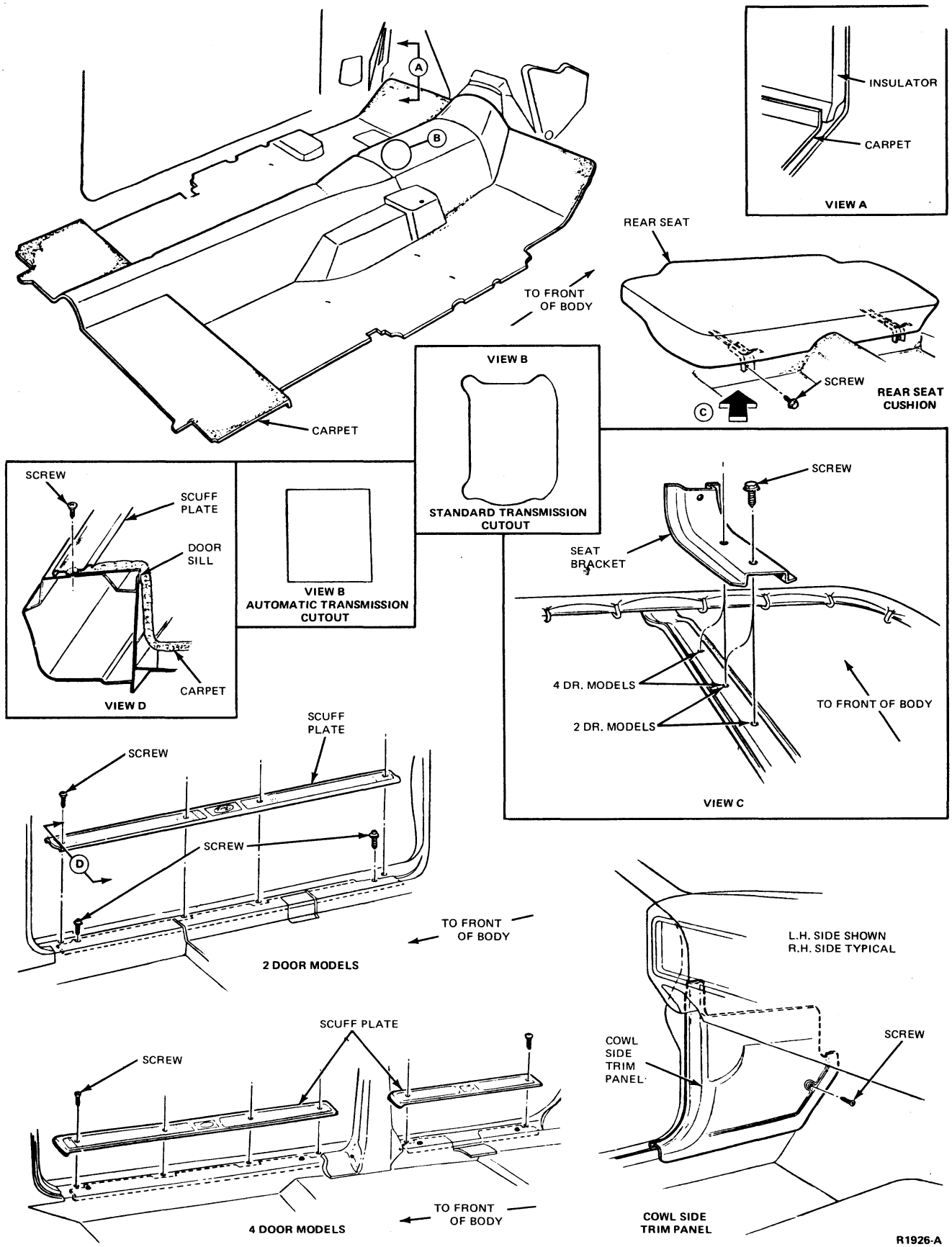


FIG. 1 One-Piece Carpet Installation—Granada and Monarch—2-Door Shown—Other Models Similar

Floor Console

PART 45-31

REMOVAL AND INSTALLATION

Removal

Open the console glove box door and remove the retaining screws from the bottom of the glove box and the top finish panels (except the gear shift opening panel of Mustang models Fig. 3). From the console assembly, disconnect all wire connections and remove the console assembly from Cougar XR7, LTD II, Thunderbird, Granada, Monarch and Mustang models (Figs. 1, 3 and 4). On Pinto and Bobcat models (Fig. 2) remove the attaching screws and remove the console. On the Granada and Monarch also remove the screws from the forward stowage area (Fig. 4).

Installation

Connect all wires, position the console and install all the retaining screws at the bottom of the glove box (forward stowage area on Granada and Monarch) and the top finish panel.

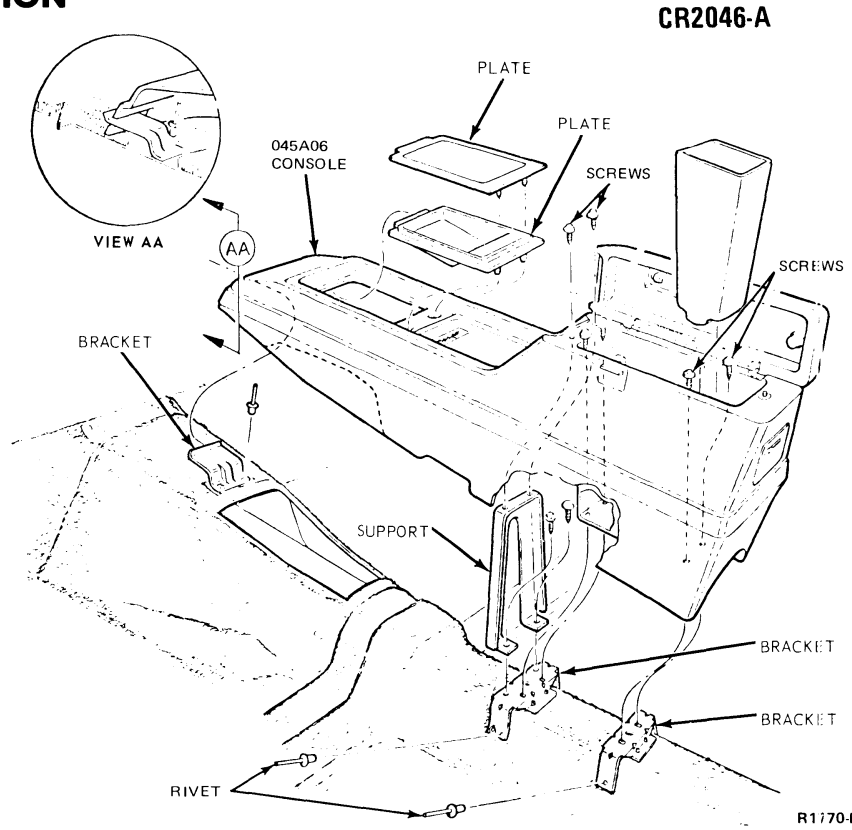


FIG. 1 Floor Console Installation—Cougar XR7, LTD II and Thunderbird

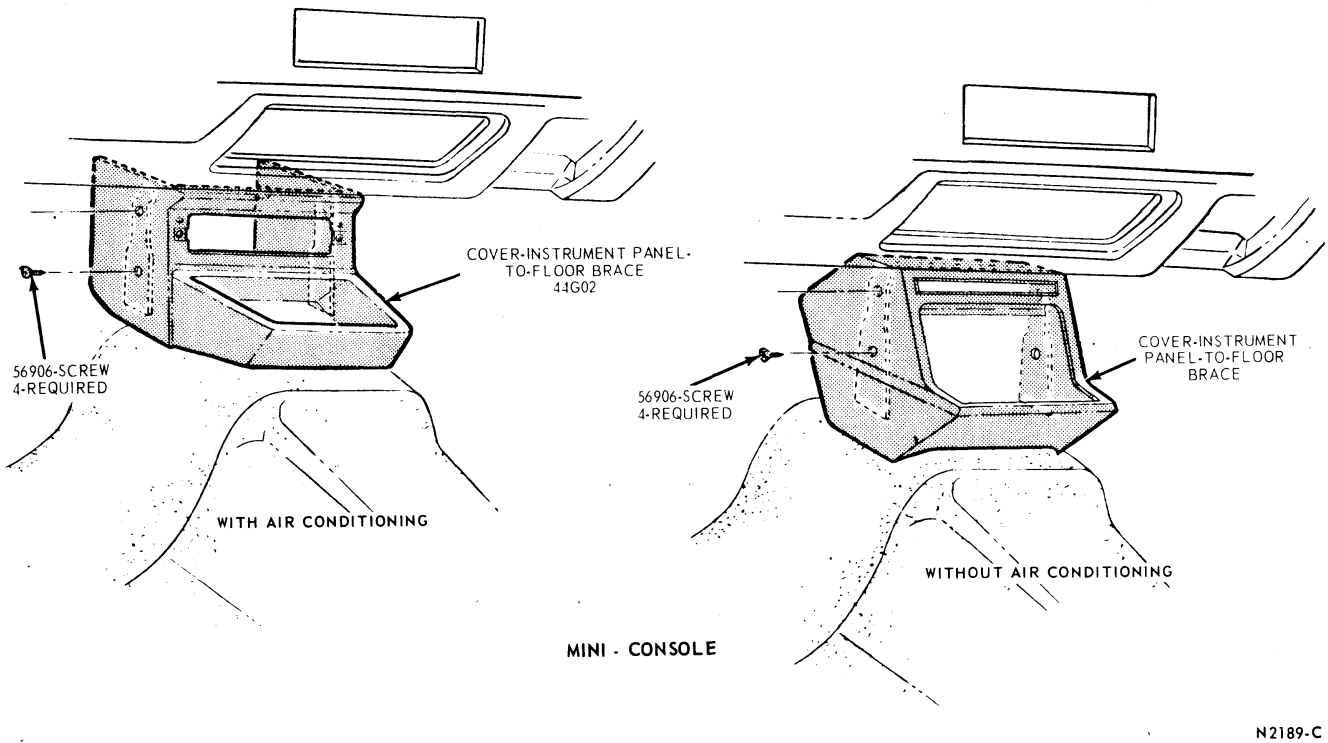


FIG. 2 Floor Console (Mini) Installation—Pinto and Bobcat

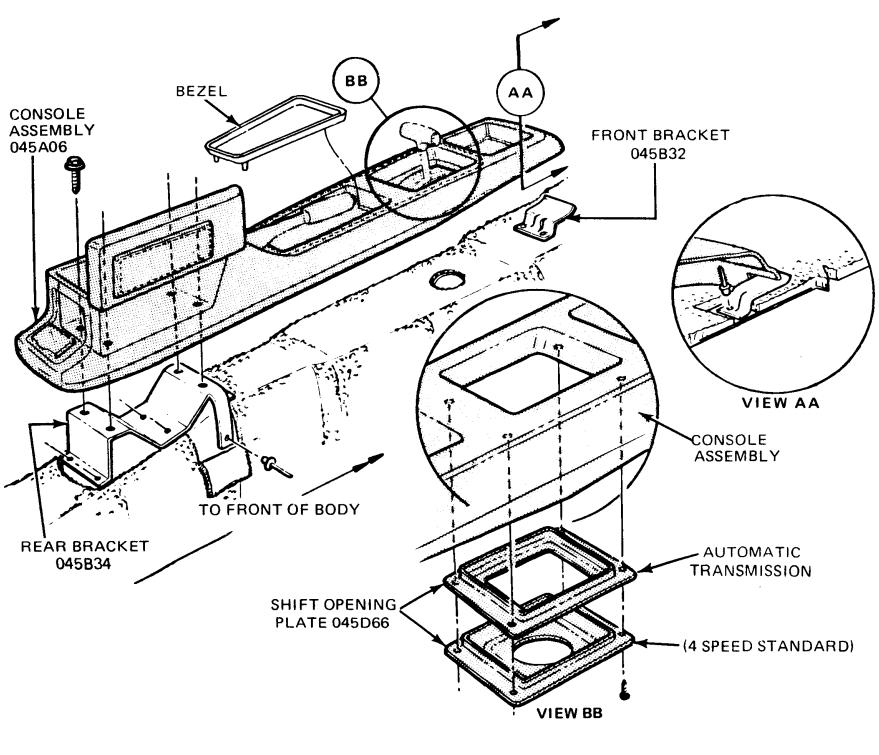


FIG. 3 Floor Console Installation—Mustang

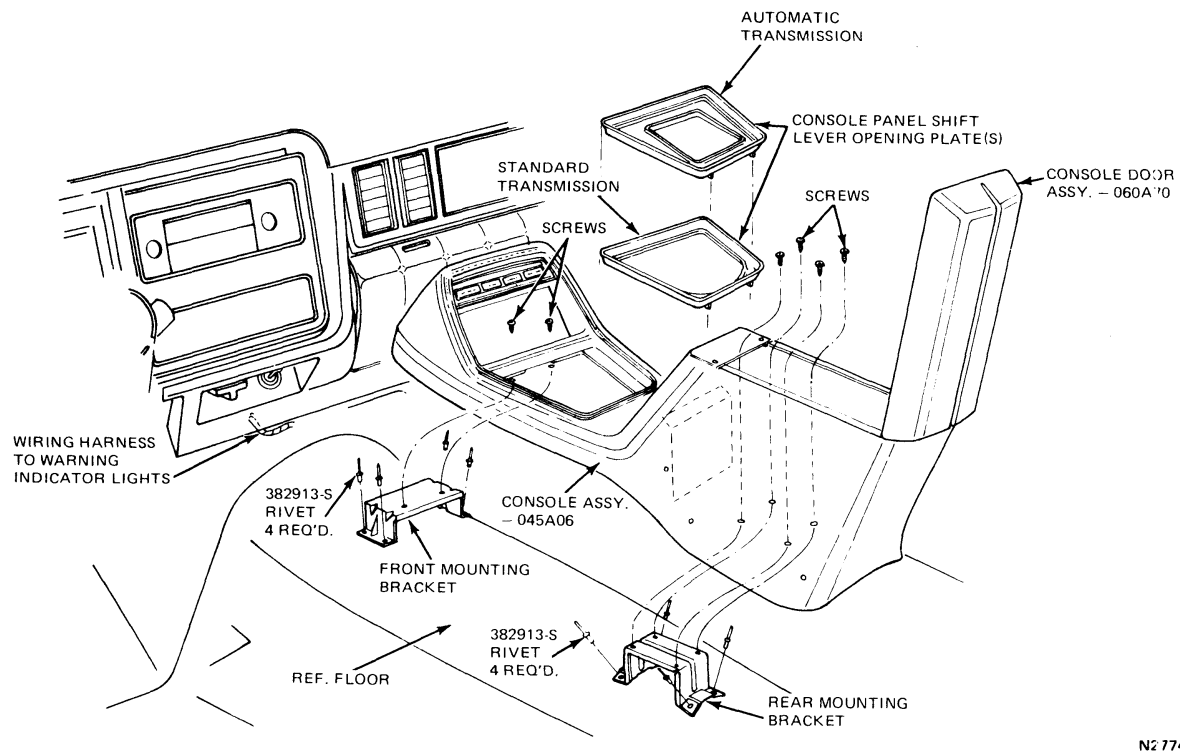


FIG. 4 Floor Console Installation—Granada and Monarch

Headlining

PART 45-41

SUBJECT	PAGE
ADJUSTMENTS	
Sun Visor	41-1
REMOVAL AND INSTALLATION	41-1

CR2047-A

ADJUSTMENTS

SUN VISOR—WITHOUT LIGHT

Occasionally a sun visor will not stay in engagement with the retaining clip at the center of the windshield. This could be caused by the rod at the end of the visor being too far in or out. Outboard edge of rubber tip should be flush with center clip (outer walls). Work the visor in or out for proper engagement. If the rod length is OK, the rubber tip on the end may be worn.

SUN VISOR—WITH LIGHT

If the visor will not stay engaged in the retaining clip at the center of the windshield, loosen the visor retaining screw (near the elbow) and shift the visor sideways into proper position.

Tighten the visor retaining screw snug enough to hold the visor in the "up" position, but loose enough to allow the visor to be rotated up and down on the pivot shaft.

REMOVAL AND INSTALLATION

HEADLINING

Sedans and Hardtops—Except Thunderbird and Continental Mark V

The following headlining removal and installation procedures generally apply to all models. If some of the steps do not apply to the particular model being serviced, proceed to the next step.

The Maverick, Comet, Pinto and Bobcat require windshield and back window glass removal for headlining installation. See Group 43. Refer to the appropriate Figs. 1 through 29.

Removal

1. Remove the sun visor and bracket assemblies.
2. Remove the windshield upper garnish moulding. Remove the upper screw from the two windshield side garnish mouldings and position the mouldings away from the windshield A pillar.
3. Remove the shoulder belt assemblies, shoulder belt retainers and coat hooks.
4. Remove the roof side and center garnish mouldings. On all 4-door sedans, first remove the center cap from the junction of the front and rear side mouldings at the center pillar. On some 4-doors, there is also a joint cover at the rear quarter. On 2-door hardtops, there is one joint cover at the rear quarter.
5. Remove the rear seat cushion and back assembly (Group 41).
6. Remove the right and left quarter trim panels (Group 45).
7. Remove the roof side rear trim covers (right and left).
8. Remove the back window garnish mouldings and remove the package tray (Group 45).
9. Unhook the headlining from the tabs.
10. Remove the dome light and upper rear quarter lights. Pry off lens and remove the attaching screws.
11. Remove the staples that fasten the headlining to the roof side retainer assemblies.
12. Pull the headlining loose from all cemented areas.
13. Unhook the right and left retainers from the headlining rear support rod, disengage all support rods from the holes in the left and right roof rails, and remove the headlining from the vehicle.

Installation

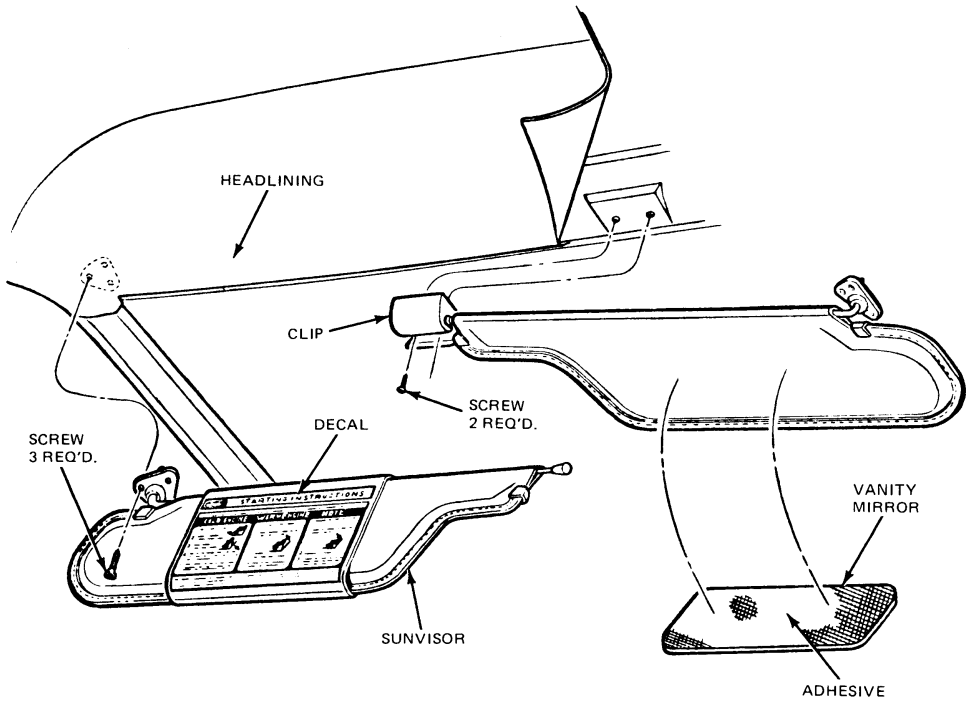
1. Unpackage the new headlining and lay it out on a flat surface.
2. Trim the listings (or "pockets") on the new headlining to the approximate length of those on the old one. Remove the support rods from the old headlining and install them in the same relative rod listings of the new headlining.

   Roof headlining support rods are color coded at each end. When ordering new rods, be sure to note the color at each end of the rod.
3. Position the headlining in the vehicle. To maintain the most driver headroom and wrinkle-free headlining, insert the support rods into the **upper holes in the highest possible hole in the right hand side without having support rod "snake" across unit.**
4. Hook the rear retainers to the rear support rod.
5. Staple the headlining to the retainer assemblies.
6. Cement the headlining in place and trim the excess material.
7. Install the roof side rear trim covers, the package tray, the rear window garnish mouldings and quarter trim panels and lights.
8. Cut a hole in the headlining material for the dome light and install the lens and bezel.
9. Install all the garnish mouldings shoulder belt assemblies, retainers, coat hooks and sun visors.

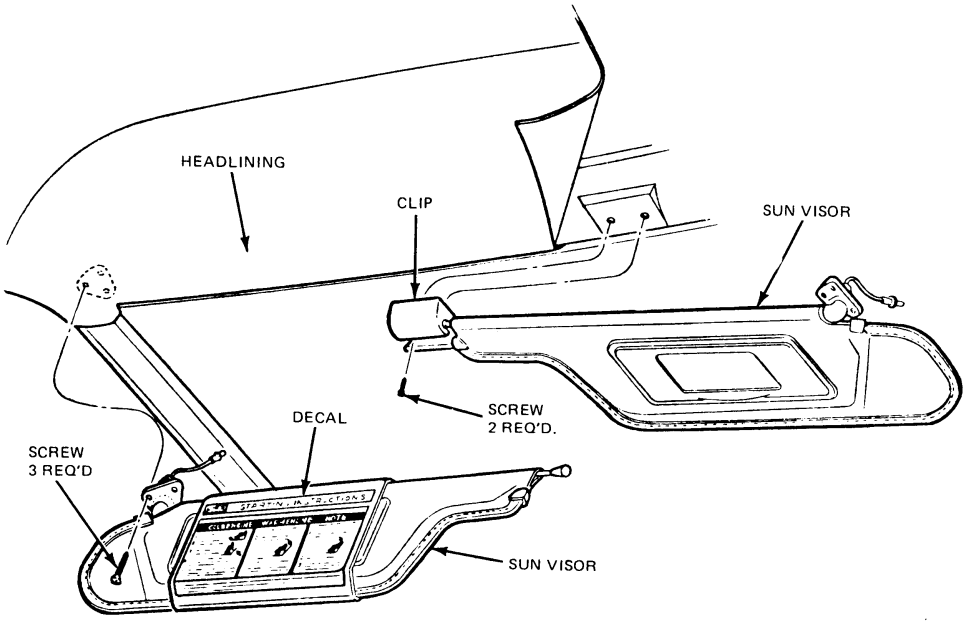
Maverick, Comet, Pinto and Bobcat

Removal

1. Remove the right and left windshield wiper arm assemblies.
2. Remove the windshield and mouldings by using the procedures outlined in Group 43.
3. Remove the weatherstrip from the glass opening.



WITH VISOR VANITY MIRROR



WITH LIGHTED VANITY MIRROR

FIG. 1 Sun Visors—Lincoln Continental Shown—Typical

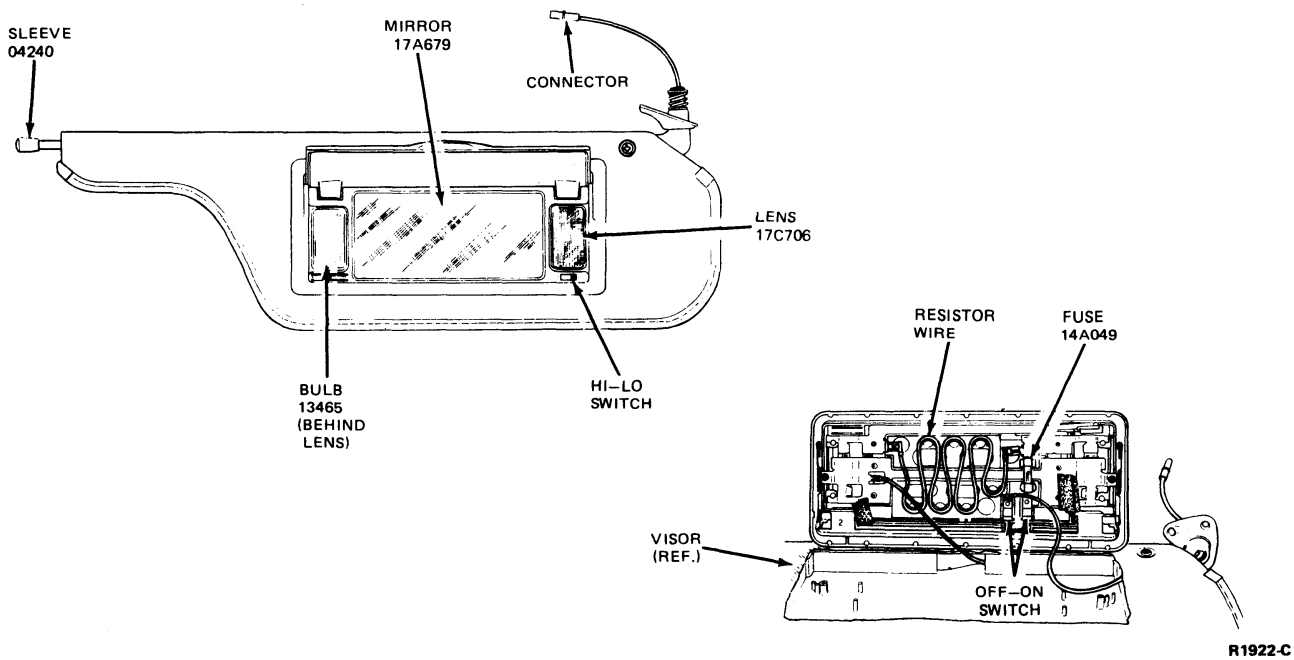


FIG. 2 Lighted Visor Vanity Components—R.H. Shown (L.H. Similar)

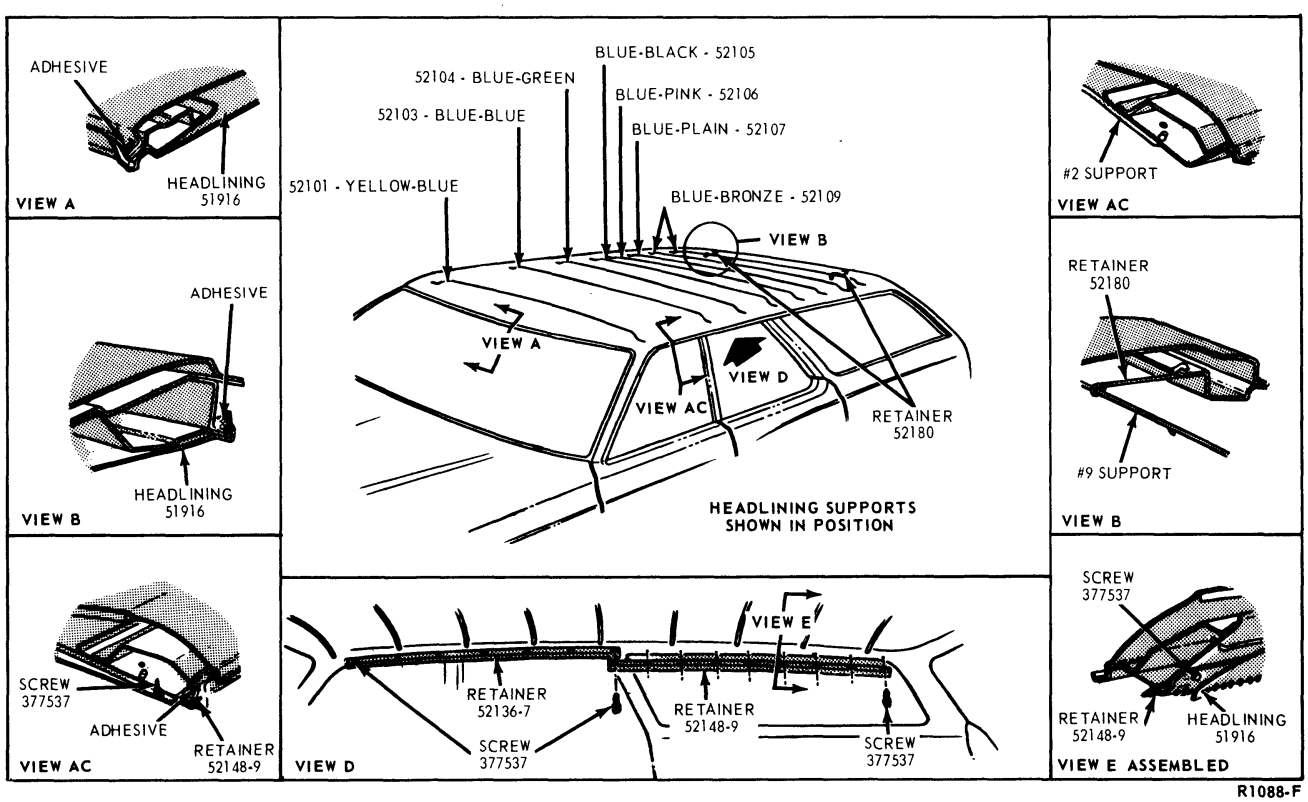


FIG. 3 Station Wagon Headlining Installation—Ford and Mercury

4. Remove the rear window glass from the opening by using the procedures outlined in Group 43.
5. Remove the right and the left shoulder belt fasteners, 1 bolt on each side.
6. Remove the right and left shoulder belt retainer hooks which are fastened with 1 screw on each side. Then, remove the right and left coat hooks which are retained with 1 screw on each side.
7. Remove the rear seat cushion and back assembly (Group 41).
8. Remove the quarter trim panels (Group 45).
9. Open the trunk lid and remove the 2 nuts retaining the right and left upper quarter trim panels.
10. From the interior of the vehicle, remove the one remaining screw on each side and remove the quarter trim mouldings.
11. Remove the right and left sun visors.

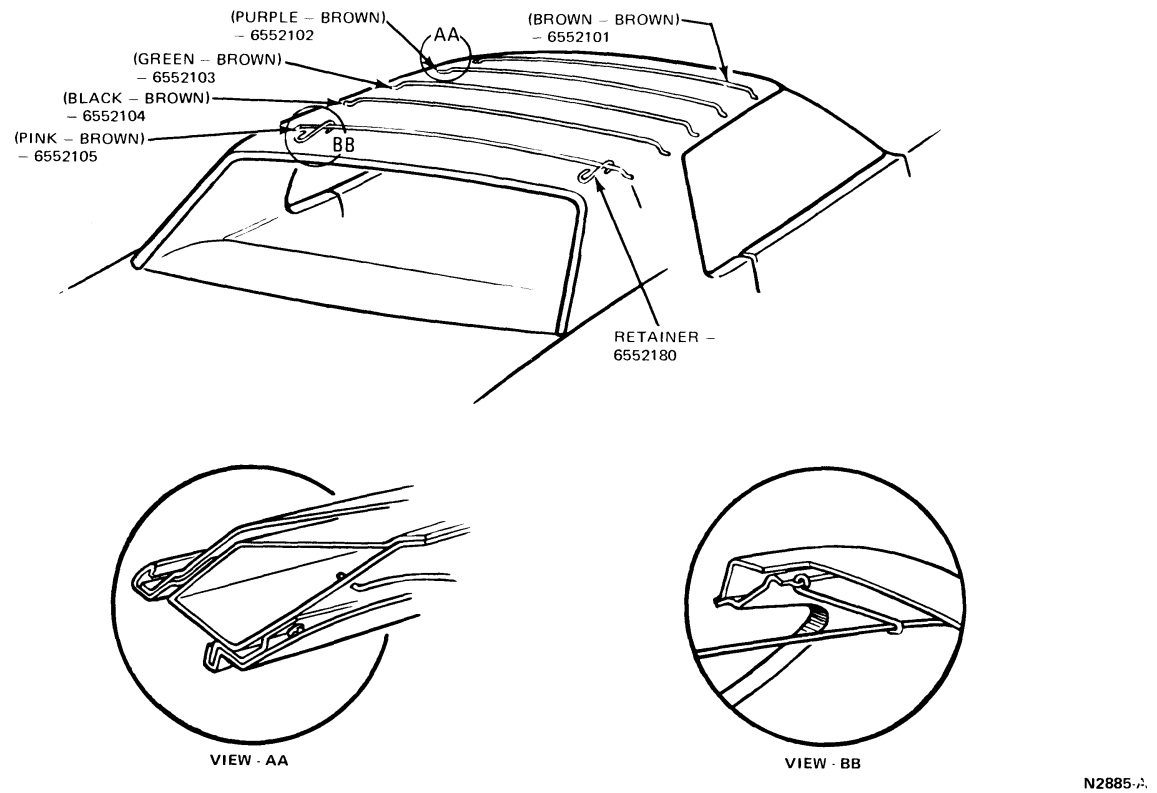


FIG. 4 Headlining Supports—Ford and Mercury 2-Door Models

12. Remove the head cap mouldings at the top of the A pillar posts, right and left side (pry off carefully).
13. Remove the visor bracket and dome light assembly.
14. Remove the right and left B pillar cap mouldings (pry off carefully).
15. Cut headliner parallel to the door opening and pull the right and left strip from the retainer.
16. Loosen the headliner from the retaining tabs at the blind quarter areas and pull the glued areas loose.
17. Disconnect the bows and remove the headliner from the car.

Installation

1. Unpackage the new headlining and lay it out on a flat surface. Mark and trim the new headlining using the old one as a pattern.
2. Trim the listings (or "pockets") on the new headlining to the approximate length of those on the old one. Remove the support rods from the old headlining and install them in the same relative rod listings of the new headlining.

   Roof headlining support rods are color coded at each end. When ordering new rods, be sure to note the color at each end of the rod.
3. Position the headliner in the vehicle and connect the bows.
4. Starting at the rear window area, apply trim cement and align the rear bow to the vertical position.
5. Working from the center to the outboard side, stretch and cement headlining to the back window opening flange.
6. Apply cement to the windshield opening flange. Align the bows and pull the headlining forward and cement into position at the windshield opening.
7. Working from front to rear, stretch and cement headlining to the quarter and retainer areas. Insert headlining into roof rail retainer with a putty knife.
8. Fasten the headlining to the retaining tabs at the blind quarters and cement the corner areas. Trim excess material where necessary.
9. Trim all excess material, leaving approximately 1/2 inch to wrap into the glass opening pinchweld areas (1 1/2-inch Pinto and Bobcat Model 73).
10. Apply cement and wrap pinchweld areas.
11. Snap on the 2 cap mouldings at the A pillar post area.
12. Snap on the 2 cap mouldings at the B pillar post area.
13. Connect the wire to the dome light and install the visor bracket and dome light assembly.
14. Install the visor assemblies.
15. Install the package tray mouldings by attaching two nuts from the rear for each moulding and 1 screw on each side from the interior of the vehicle.
16. Position the quarter trim panels, push rearward to secure at the door opening and install the retaining screws.
17. Place the rear seat back assembly into position. Install the 2 retaining bolts and tighten securely.
18. Place the rear seat cushion into position. Install the 2 retaining bolts (if so equipped) and tighten securely.
19. Install the right and left coat hooks.
20. Install the right and left seat and shoulder belt retaining hooks.
21. Install the right and left shoulder belts.
22. Install the back window using the draw cord method described in Group 43.
23. Apply sealer to the outside perimeter of the back window.
24. Install the windshield using the draw cord method described in Group 43.
25. Apply sealer to the outside perimeter of the windshield.
26. Install the windshield mouldings.
27. Install the windshield wiper arms and blades.
28. Clean all excess sealer from the windshield and back window areas.

Station Wagons

Removal

1. Remove the right and left sun visor and bracket assemblies.

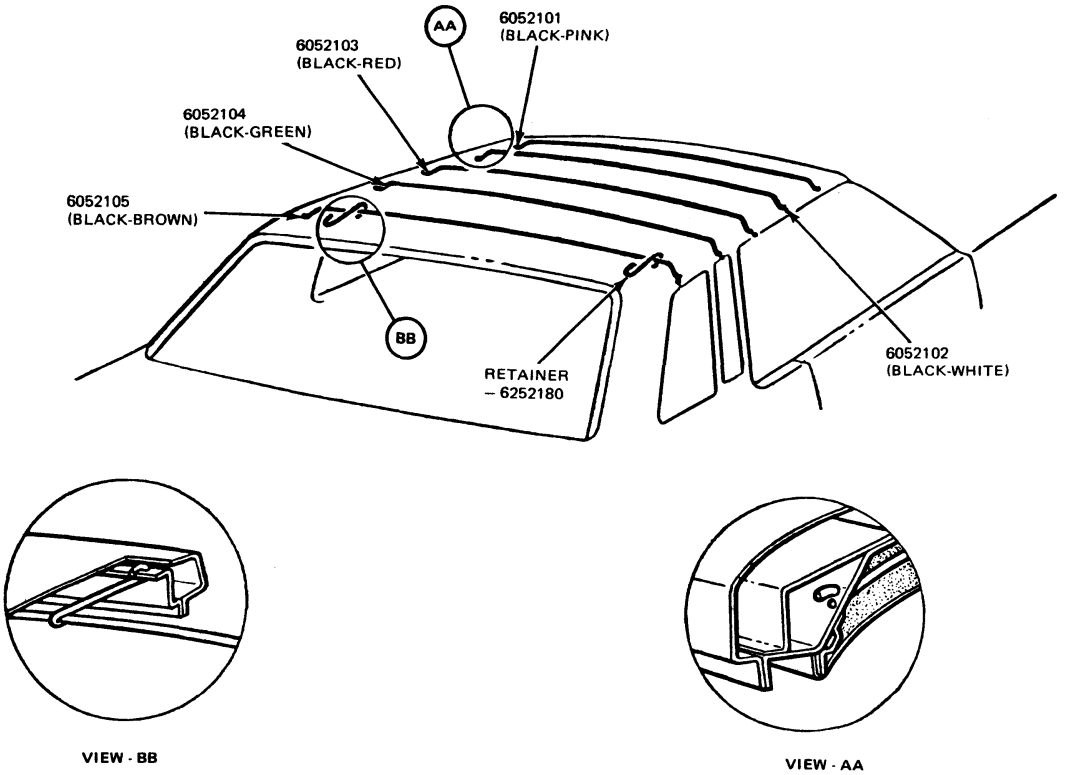


FIG. 5 Headlining Supports—Ford and Mercury with Opera Windows

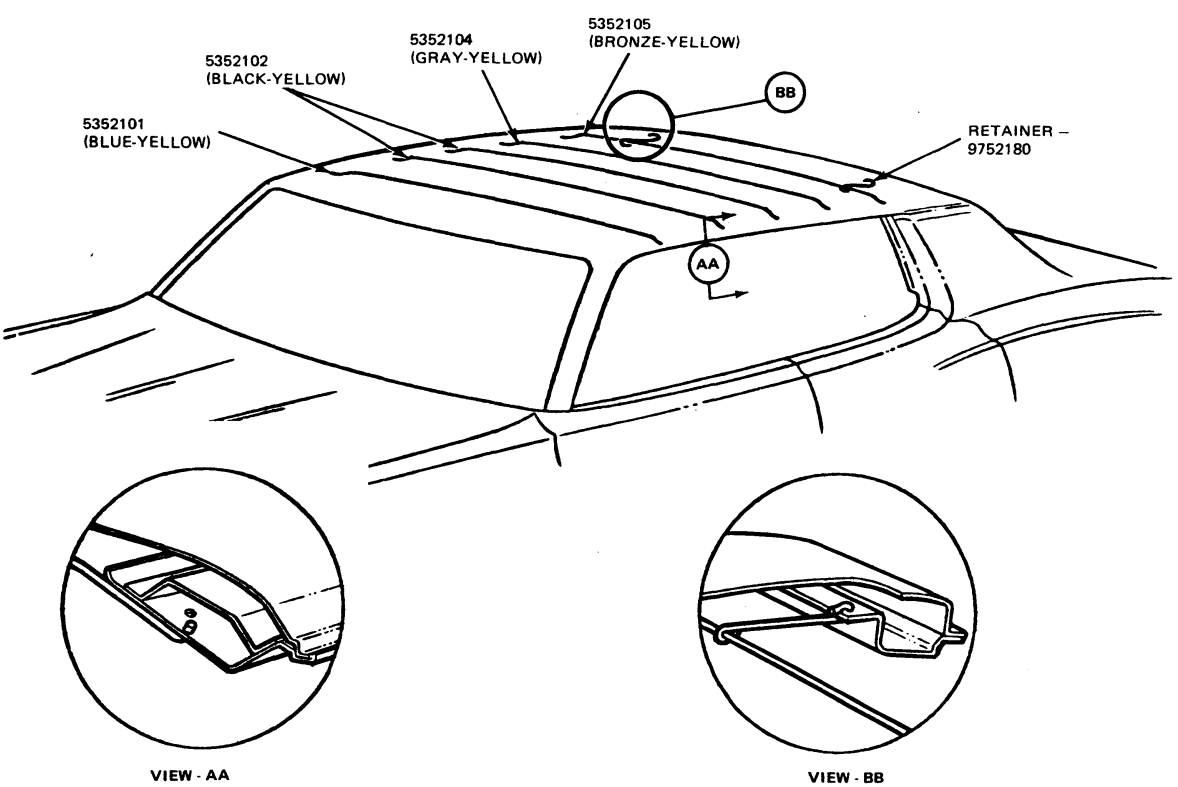


FIG. 6 Headlining Supports—Ford and Mercury 4-Door Models

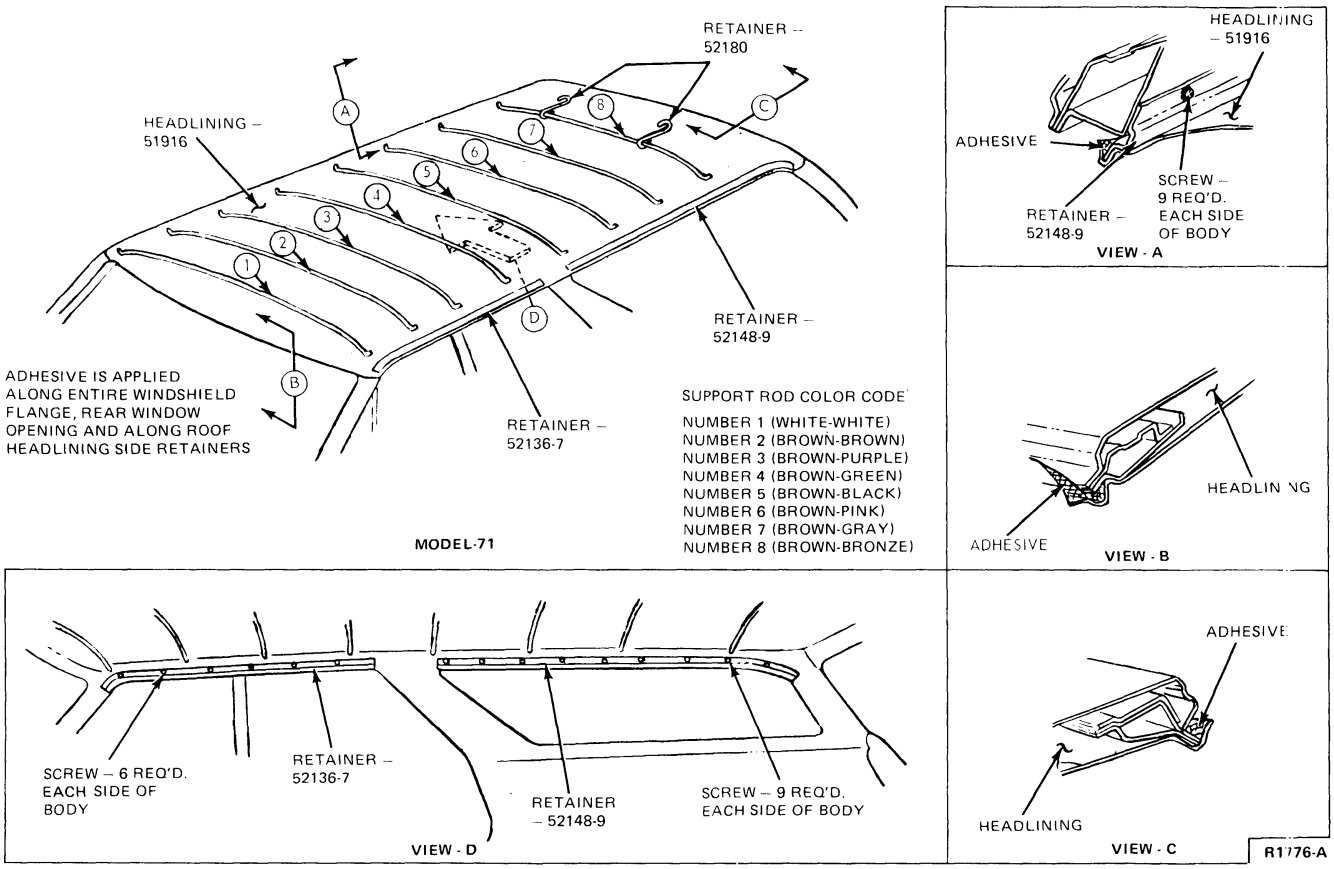


FIG. 7 Station Wagon Headlining Installation—LTD II

2. Remove the windshield upper garnish moulding.
3. Remove the screws retaining the upper ends of the A post mouldings and position the mouldings away from the upper end of the A post.
4. Remove the right and left roof side rear moulding caps (one screw each).
5. Remove the right and left quarter window front garnish mouldings.
6. Pull off the front and rear (extruded plastic) roof side mouldings at both the left and right sides of the roof.
7. Remove the right and left shoulder belt assemblies (one bolt each).
8. Remove the right and left tacking strips.
9. Remove the front dome light bezel and lens.
10. Remove the right and left upper garnish mouldings.
11. Remove the back window upper garnish mouldings.
12. Remove the right and left upper rear corner finish mouldings.
13. Remove the rear dome light lens (two screws).
14. Remove the weatherstrip and/or lift gate hinge cover from the flange at the top of the tailgate opening for access to the area to which the headliner is cemented.
15. Remove the staples that fasten the headlining to the retainer assemblies.
16. Unhook the headlining from the tabs.
17. Cut the headlining under the quarter window weatherstrips.
18. Pull the headlining loose from the cemented area over the windshield.
19. Pull the headlining loose at the tailgate flange.
20. Unhook the support rod rear retainers from the rear headlining support rod, disengage all support rods from the holes in the right and left roof rails, and remove the headlining from the vehicle.

Installation

1. Unpackage the new headlining and lay it out on a flat surface.
2. Trim the listings on the new headlining to the approximate length of those on the old one. Remove the support rods from the old headlining and install them in the same relative rod listings of the new headlining.

   Roof headlining support rods are color coded at each end. When ordering new rods, be sure to note the color at each end of the rod. The color codes are indicated in the Car Parts Master Catalogue.
3. Hook the rear retainers to the rear support rod.
4. Secure the headlining to the retainer assemblies above each door opening.
5. Apply cement to the quarter window areas, tuck the material under the weatherstrip, and trim the excess.
6. Hook the headlining to the tabs.
7. Cement the headlining to the area along the flange at the tailgate opening and install the weatherstrip to the rear flange.
8. Cut a hole in the headlining material and install the rear dome light lens (two screws).
9. Install the right and left upper rear corner finish mouldings.
10. Install the back window upper garnish moulding.
11. Install the right and left quarter upper garnish mouldings.
12. Cut a hole in the material and install the front dome light bezel and lens.
13. Install the right and left shoulder belt assemblies (one bolt each).
14. Install the four extruded plastic roof side mouldings (front and rear on right and left sides).
15. Install the right and left quarter window front garnish mouldings.
16. Install the right and left roof side rear moulding caps.
17. Reposition the upper ends of the A post mouldings and install the retaining screws.
18. Install the windshield upper garnish moulding.

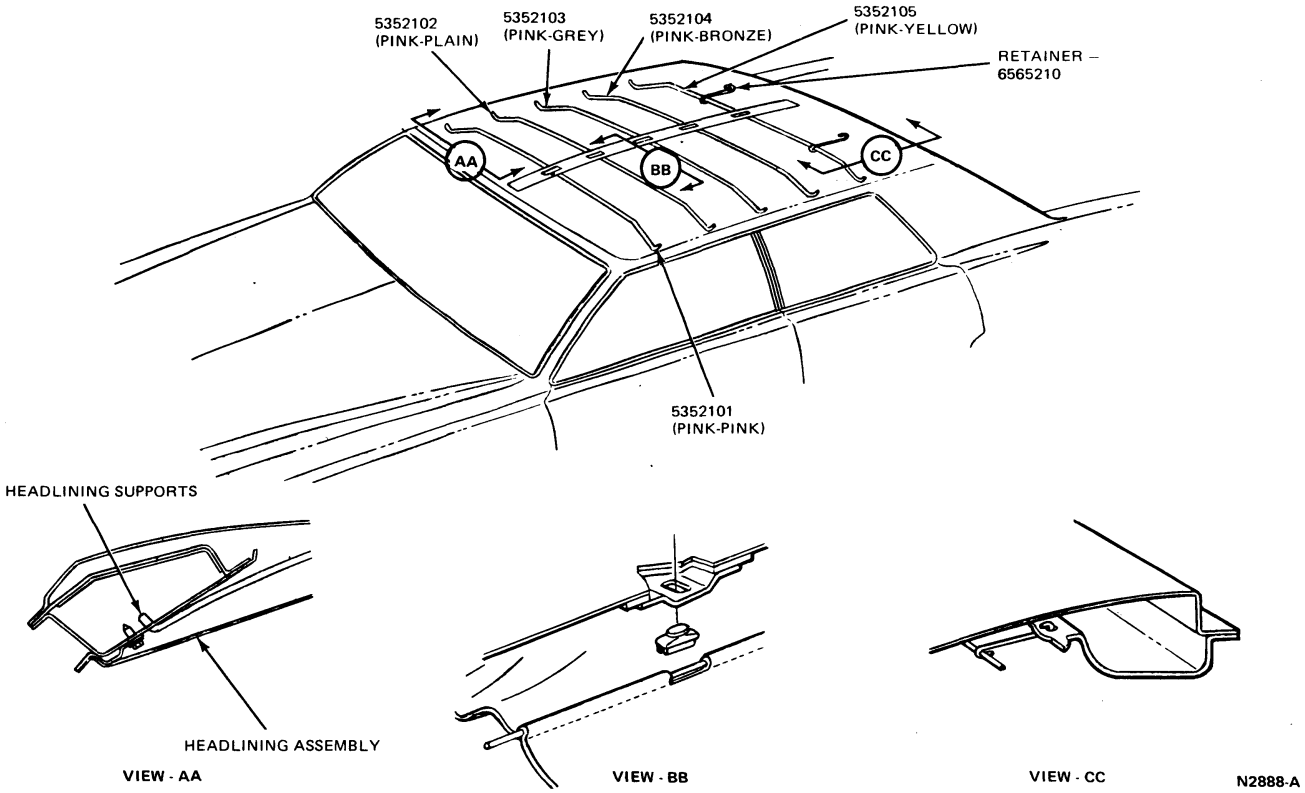


FIG. 8 Headlining Supports – LTD II and Cougar 4-Door Models

19. Install the right and left visor and bracket assemblies.

Thunderbird and Continental Mark V

Removal

1. Remove the sun visor and bracket assemblies.
2. Remove the windshield upper garnish mouldings. Remove the upper screw from the two windshield side garnish mouldings and position the mouldings away from the windshield A pillars.
3. Remove the shoulder belt assemblies, retainers, coat hooks and side mouldings.
4. Remove the rear seat cushion and back assemblies (Group 41) and remove the package tray and back window garnish mouldings.
5. Remove the rear roof side trim cover retaining screws (unsnap retainers) and disconnect the courtesy lights.
6. Remove the upper halves of both rear quarter trim panels (Group 45).
7. Pull the headlining from the tacking strips (Fig. 5). Pull the headlining away from all cemented areas.
8. Unhook the headlining supports from their retaining clips in the roof side inner rails, and remove the headlining assembly from the vehicle (Fig. 5). **Mark the holes from which the supports are removed so that the same holes are used during installation.**

Installation

1. Unpackage the new headlining and lay it out on a flat surface.
2. Remove the supports from the old headlining and install them in the same relative support listings of the new headlining. **Roof headlining supports are color coded at each end. When ordering new supports, be sure to note the color at each end of the support.**
3. Position the headlining to the roof panel.
4. Apply adhesive to the areas shown in Fig. 5 and staple the headlining to the retainers.
5. Install the upper halves of both rear quarter trim panels.
6. Place the roof side trim covers into position and connect the courtesy lights. Install the retaining clips.
7. Install the package tray and rear seat cushion and back assemblies.
8. Install the back window garnish mouldings.
9. Install the side mouldings, shoulder belt, retainers and coat hooks.
10. Install the windshield garnish mouldings (upper) and install the sun visors.
11. Install the A pillar post mouldings.

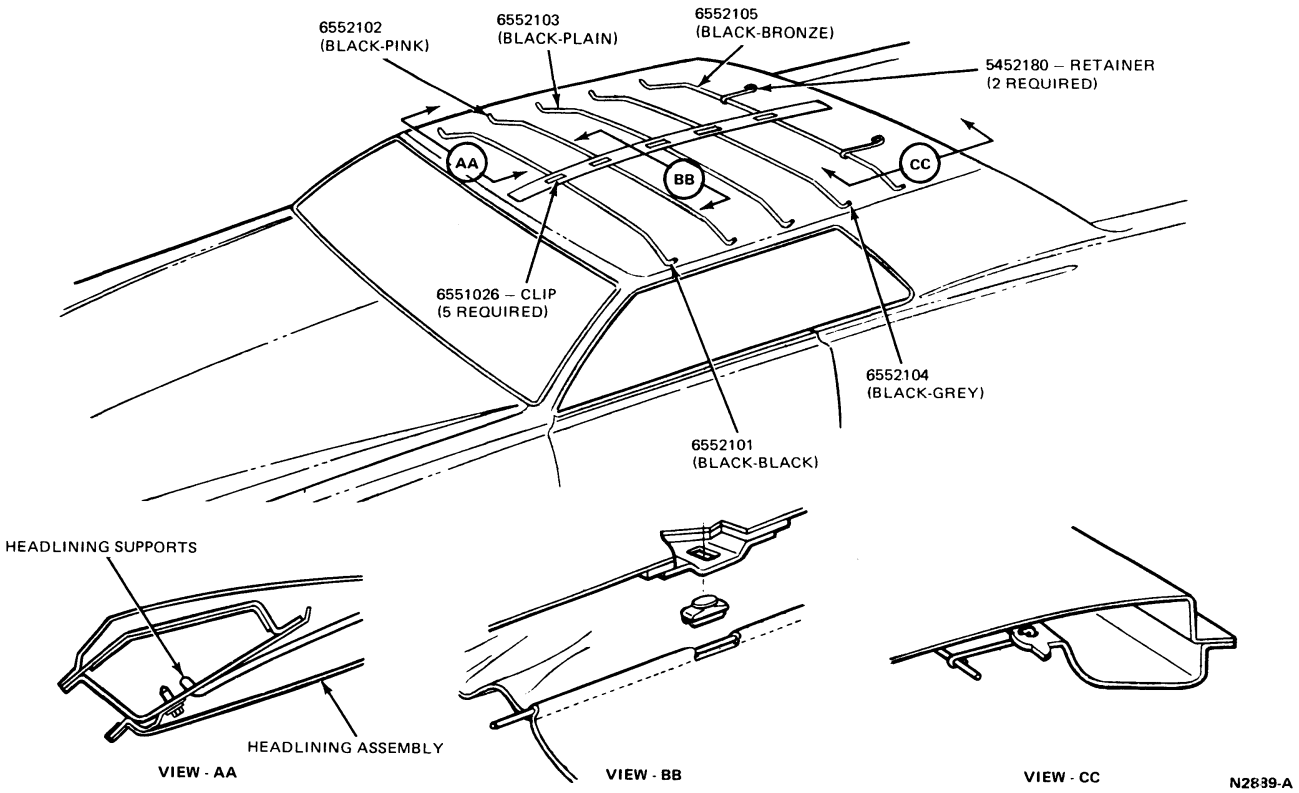


FIG. 9 Headlining Supports—LTD II and Cougar 2 Door Models

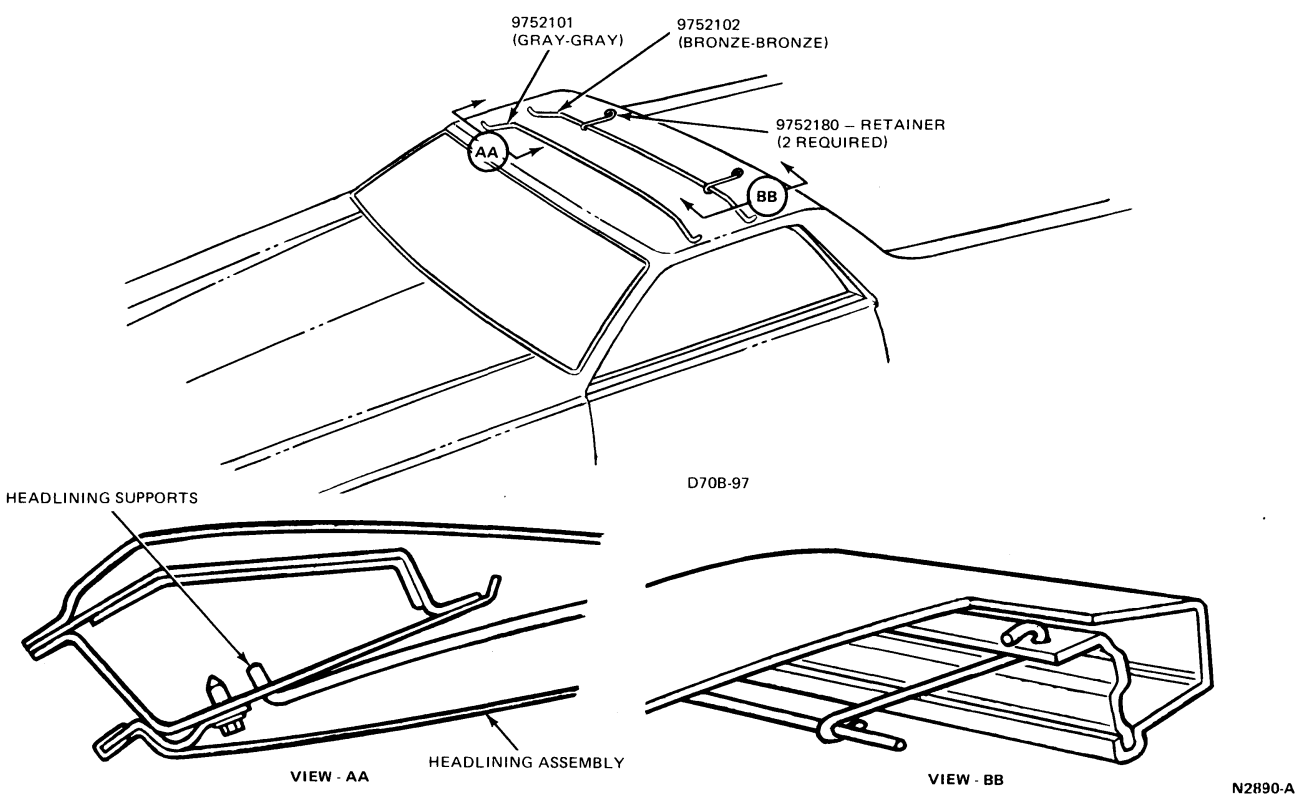


FIG. 10 Headlining Supports – LTD II and Ranchero

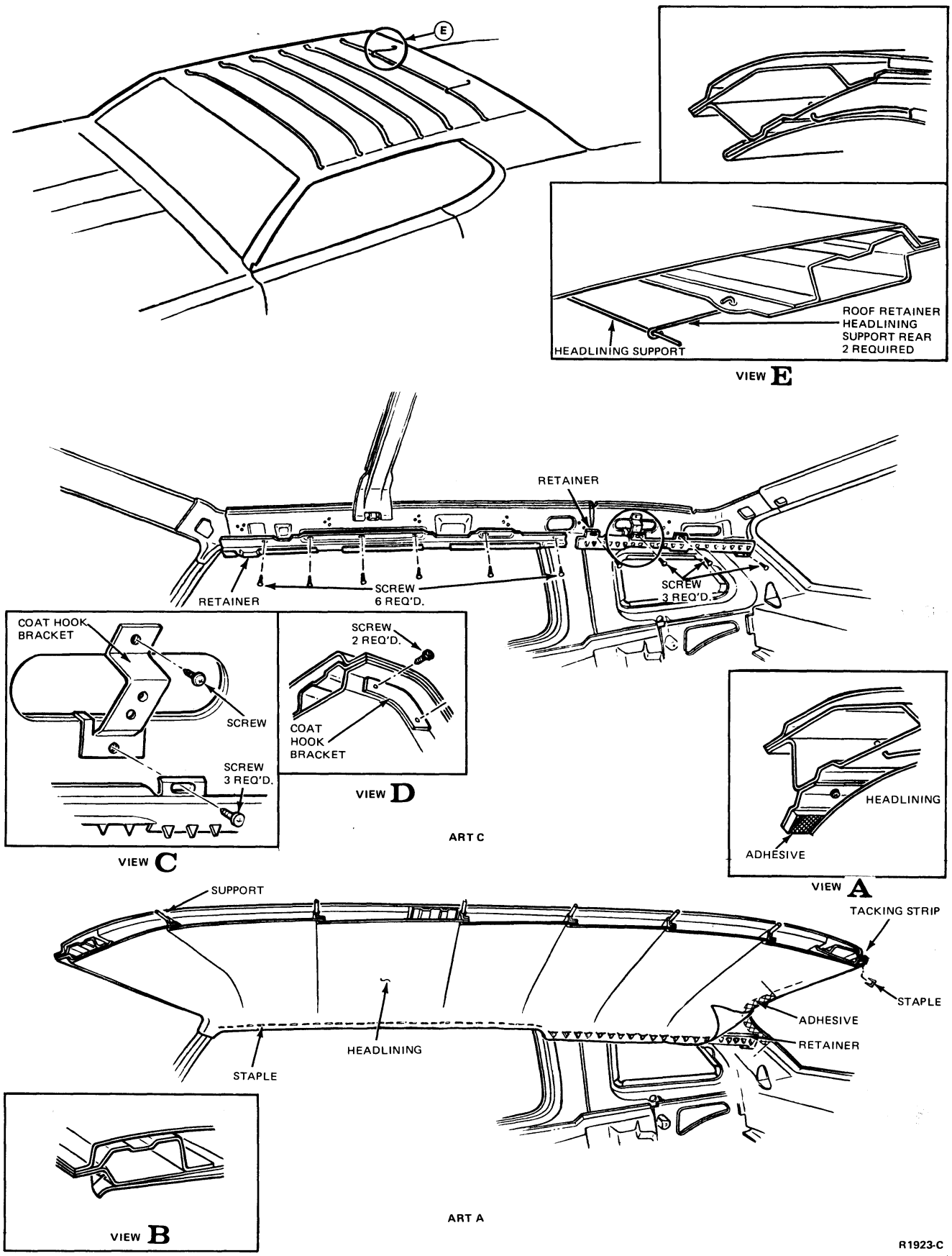


FIG. 11 Headlining Installation—Thunderbird and Continental Mark V

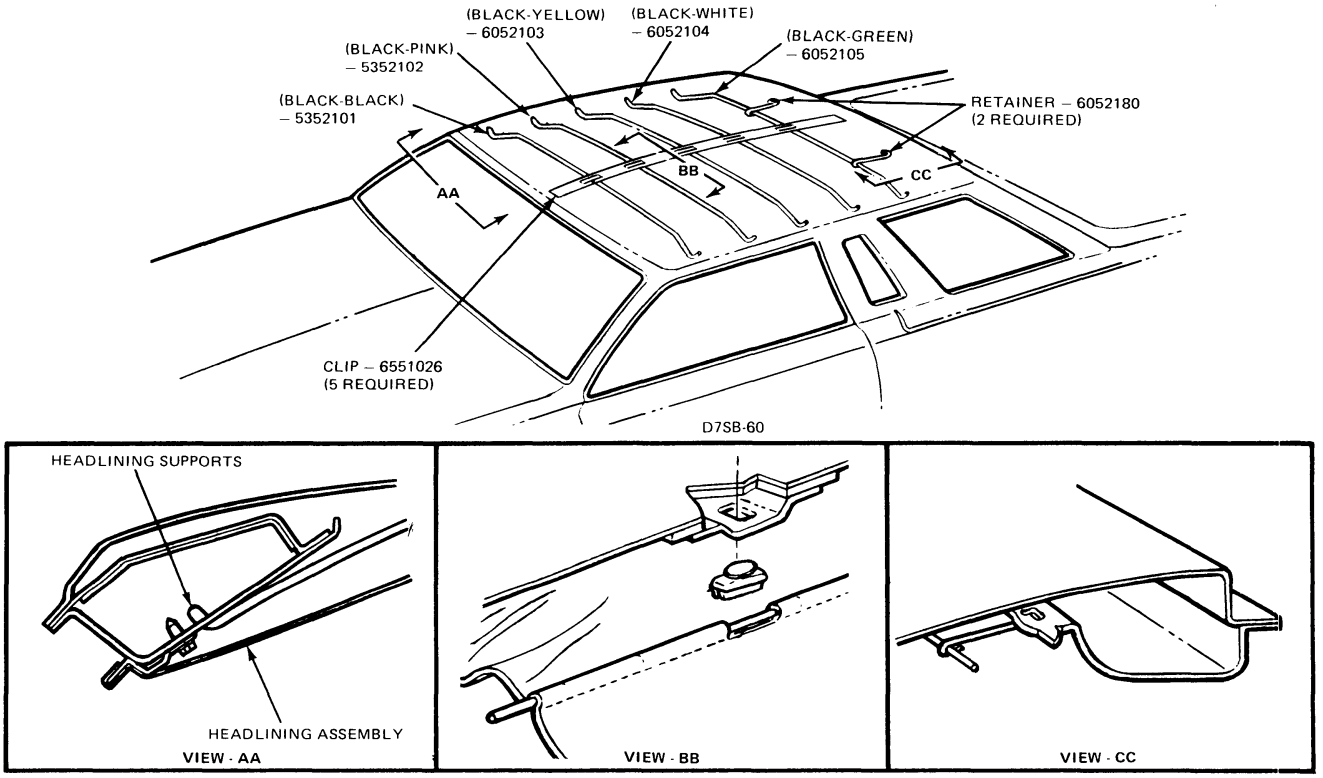


FIG. 12 Headlining Supports—Thunderbird

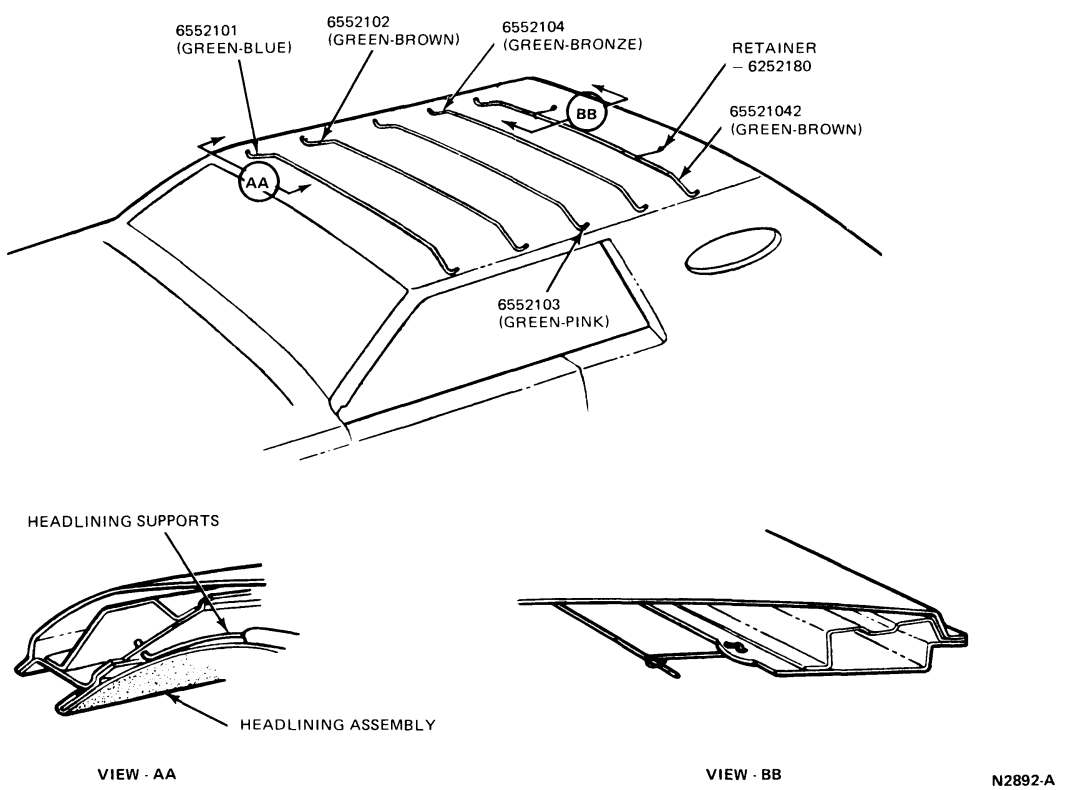


FIG. 13 Headlining Supports—Mark V

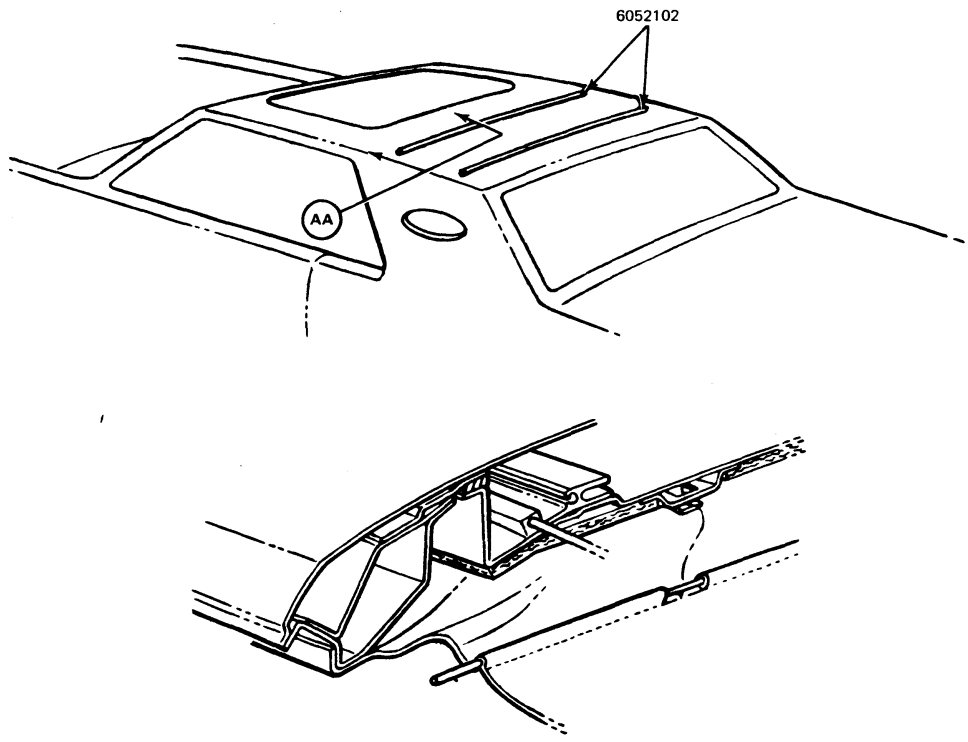
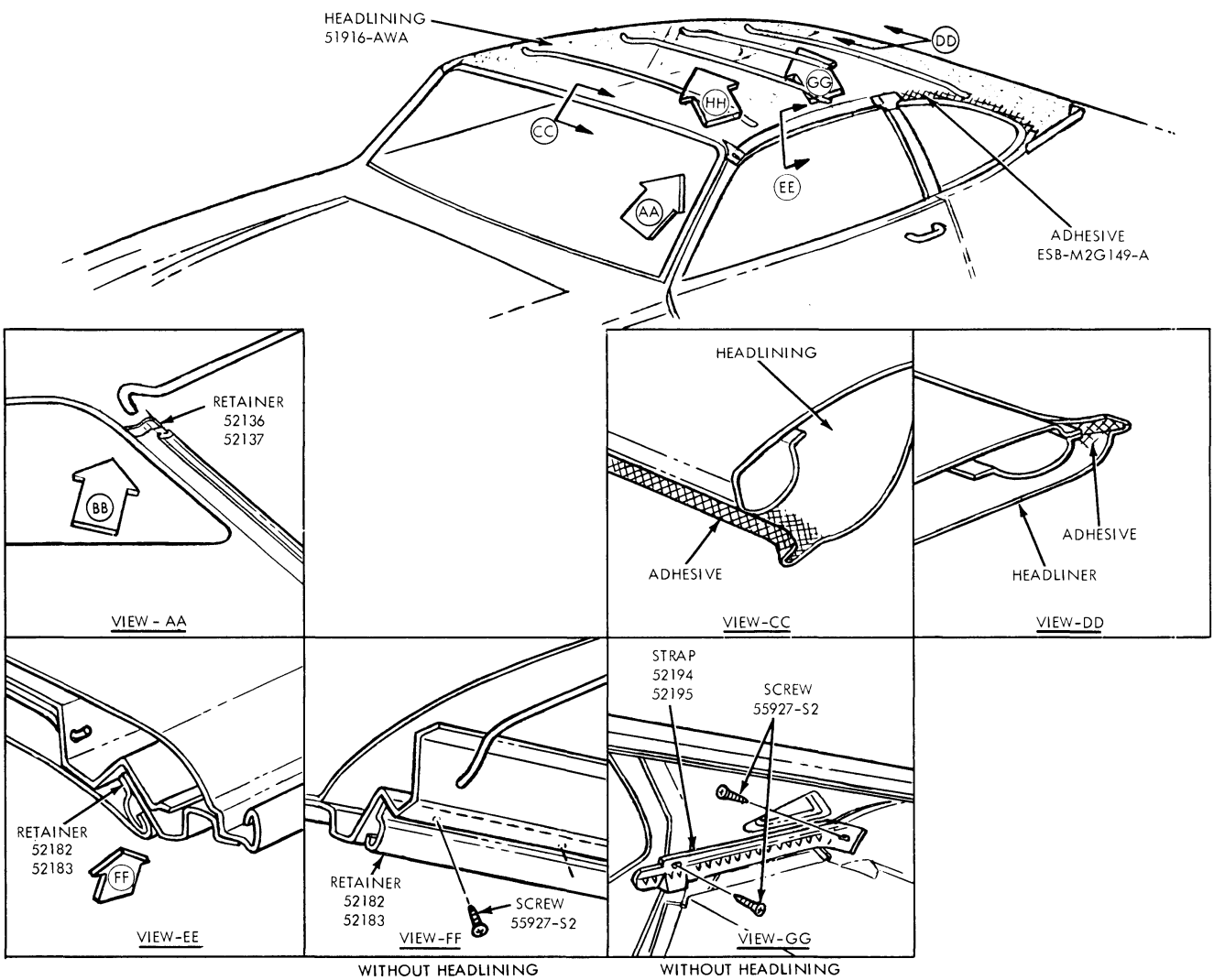


FIG. 14 Headlining Supports—Mark V with Sun Roof



N2190-B

FIG. 15 Headlining Retainers—Pinto and Bobcat 2-Door Sedan Shown—3-Door Typical

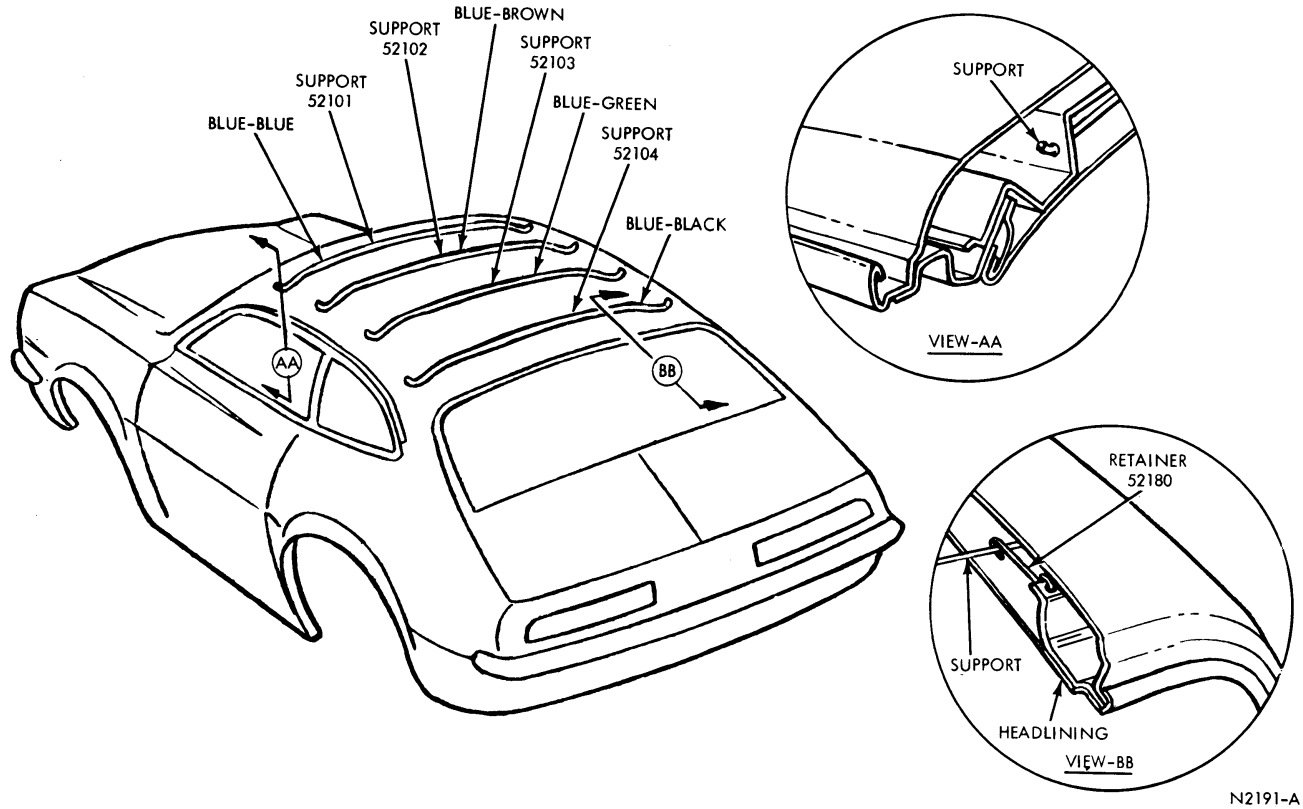


FIG. 16 Headlining Retainers—Pinto and Bobcat 2-Door Shown—3-Door Similar

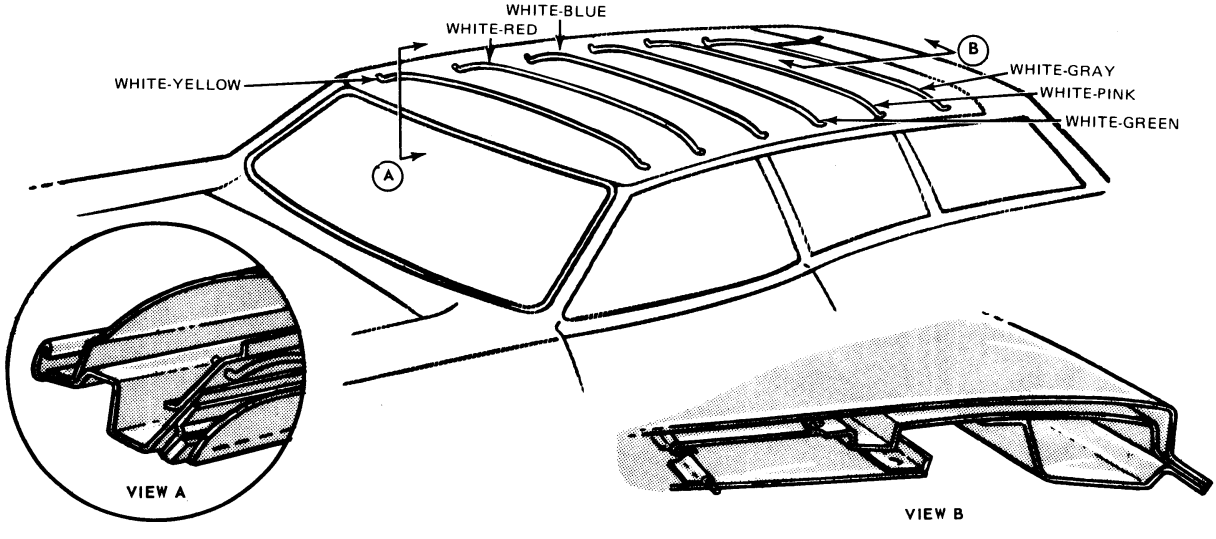


FIG. 17 Headlining Supports—Pinto and Bobcat Station Wagon

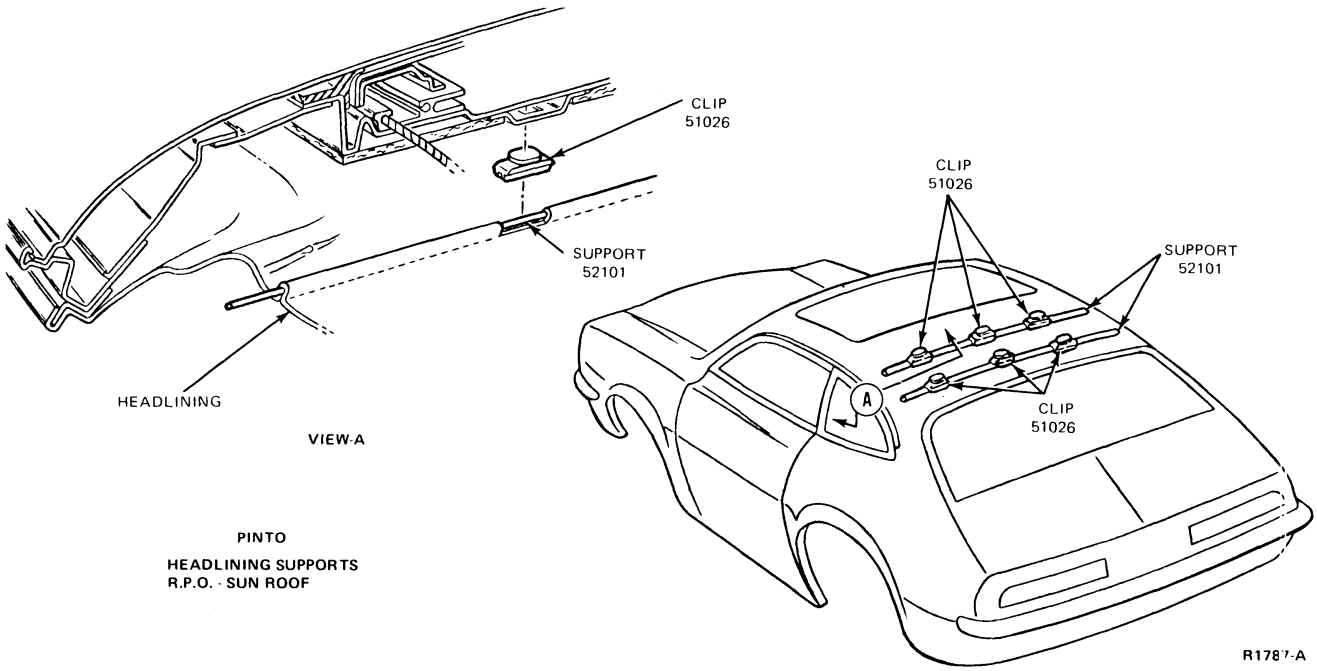


FIG. 18 Headlining Supports—Pinto and Bobcat With R.P.O. Sun Roof

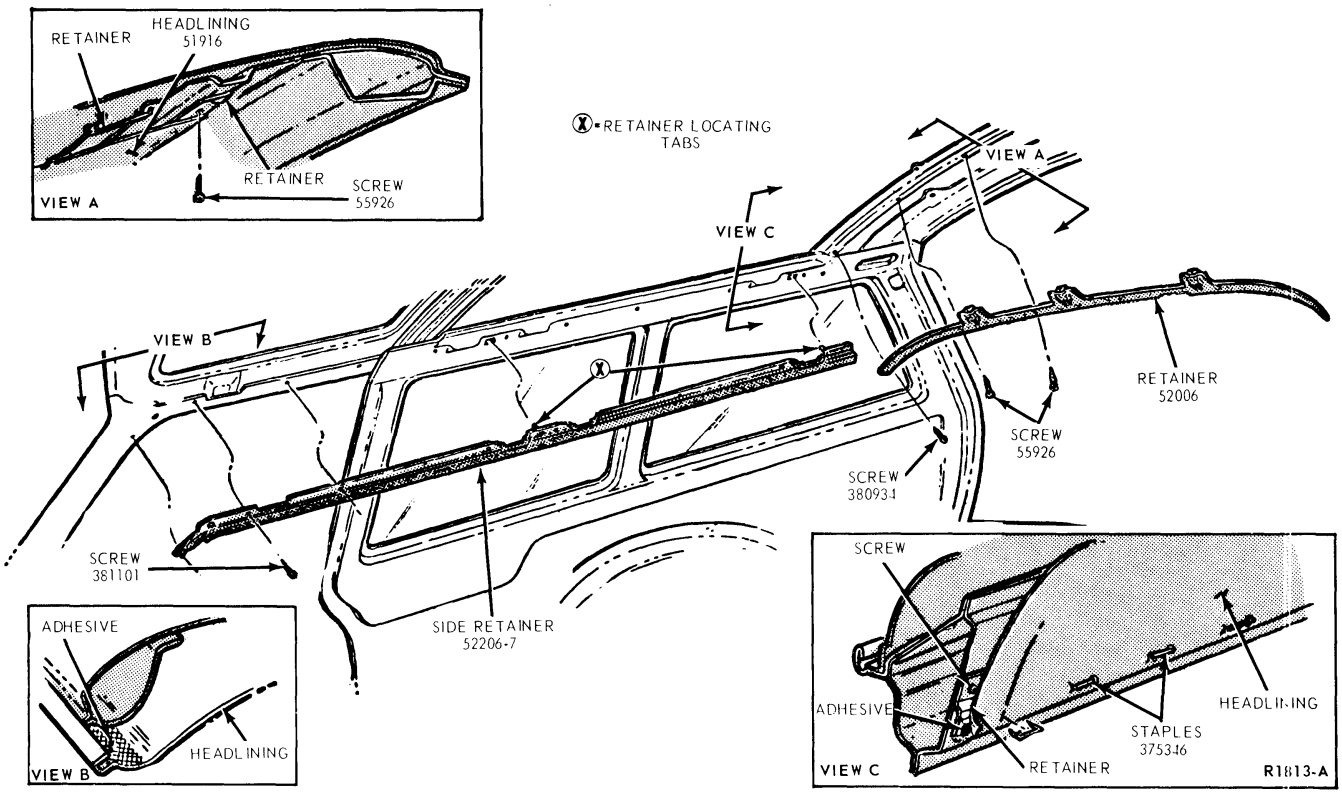


FIG. 19 Headlining Installation—Pinto and Bobcat Station Wagon

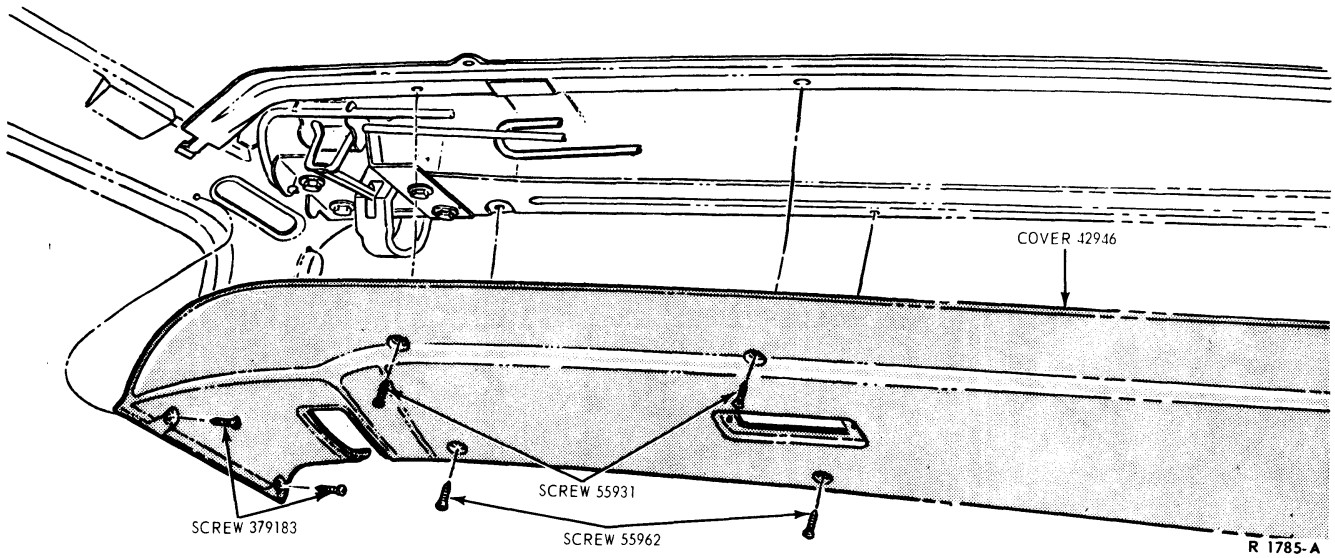


FIG. 20 Liftgate Hinge Cover—Pinto and Bobcat—Station Wagon

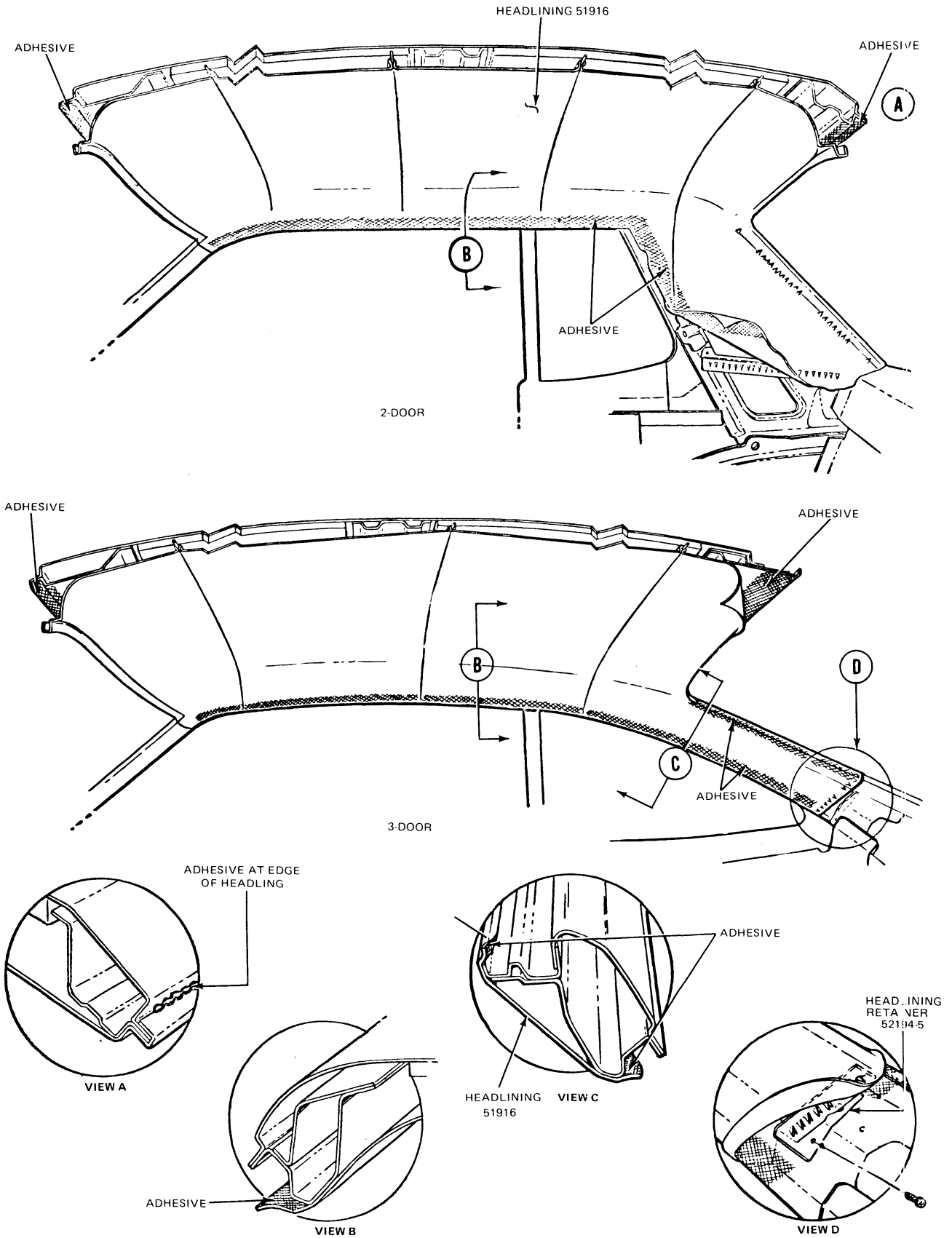


FIG. 21 Headlining Installation—Mustang

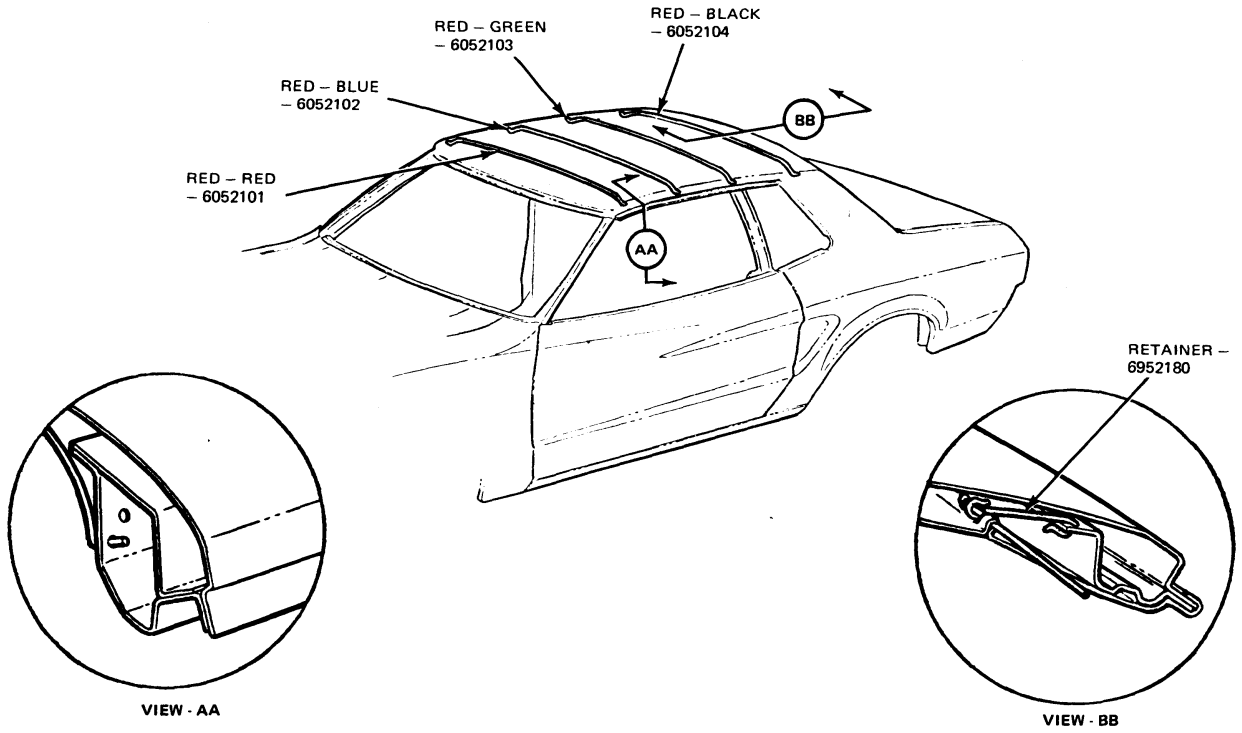


FIG. 22 Headlining Supports—Mustang

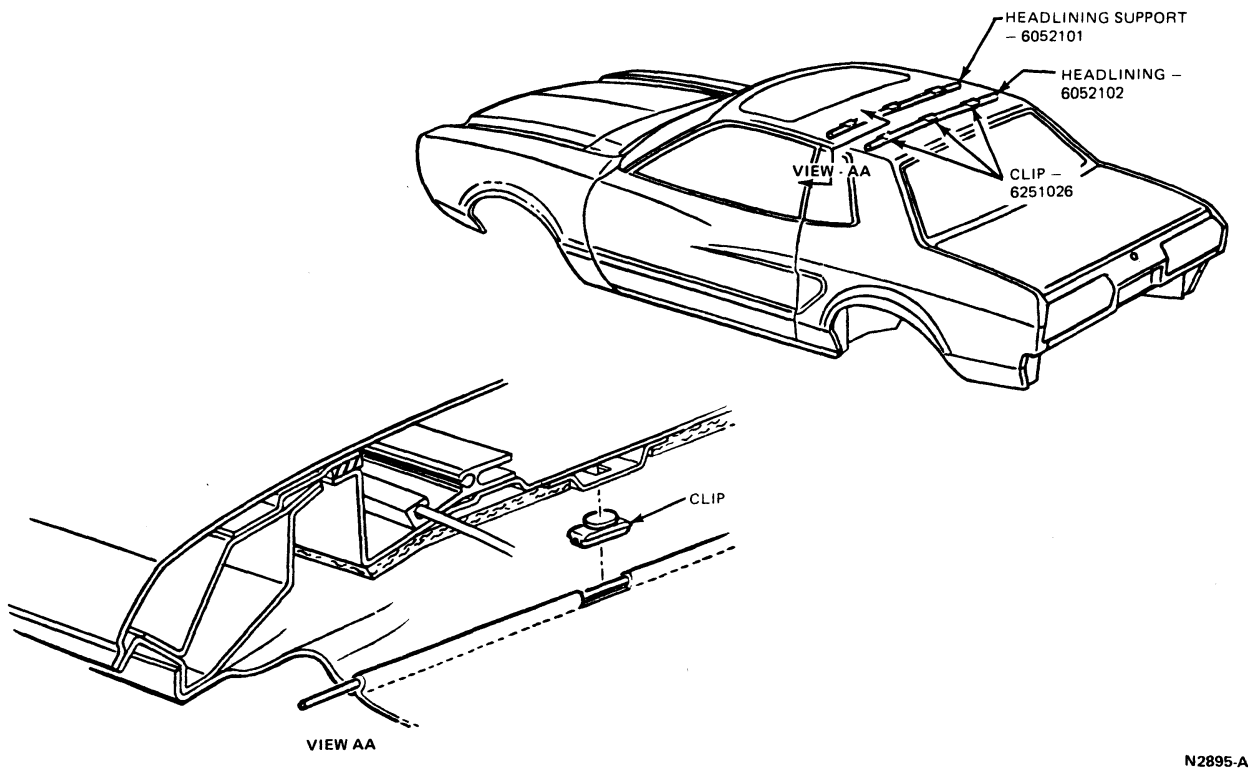


FIG. 23 Headlining Supports—Mustang with Sun Roof

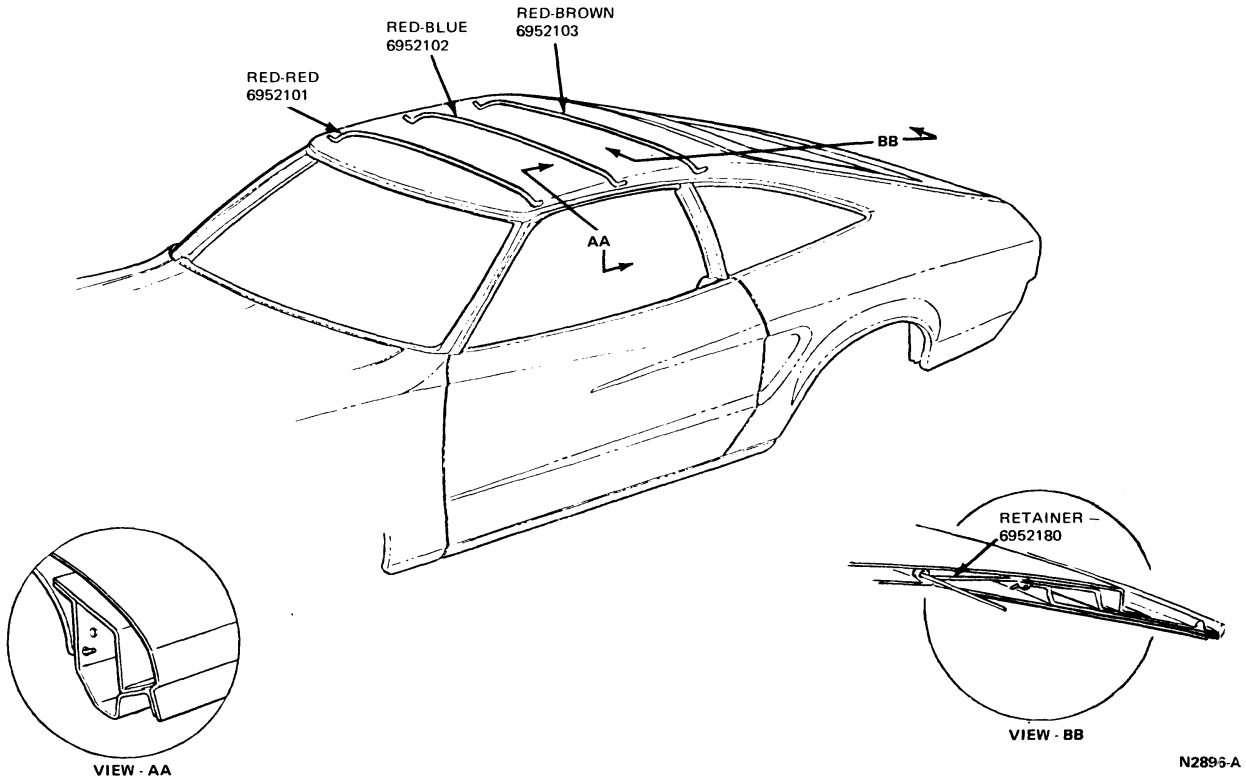


FIG. 24 Headlining Supports—Mustang 3-Door

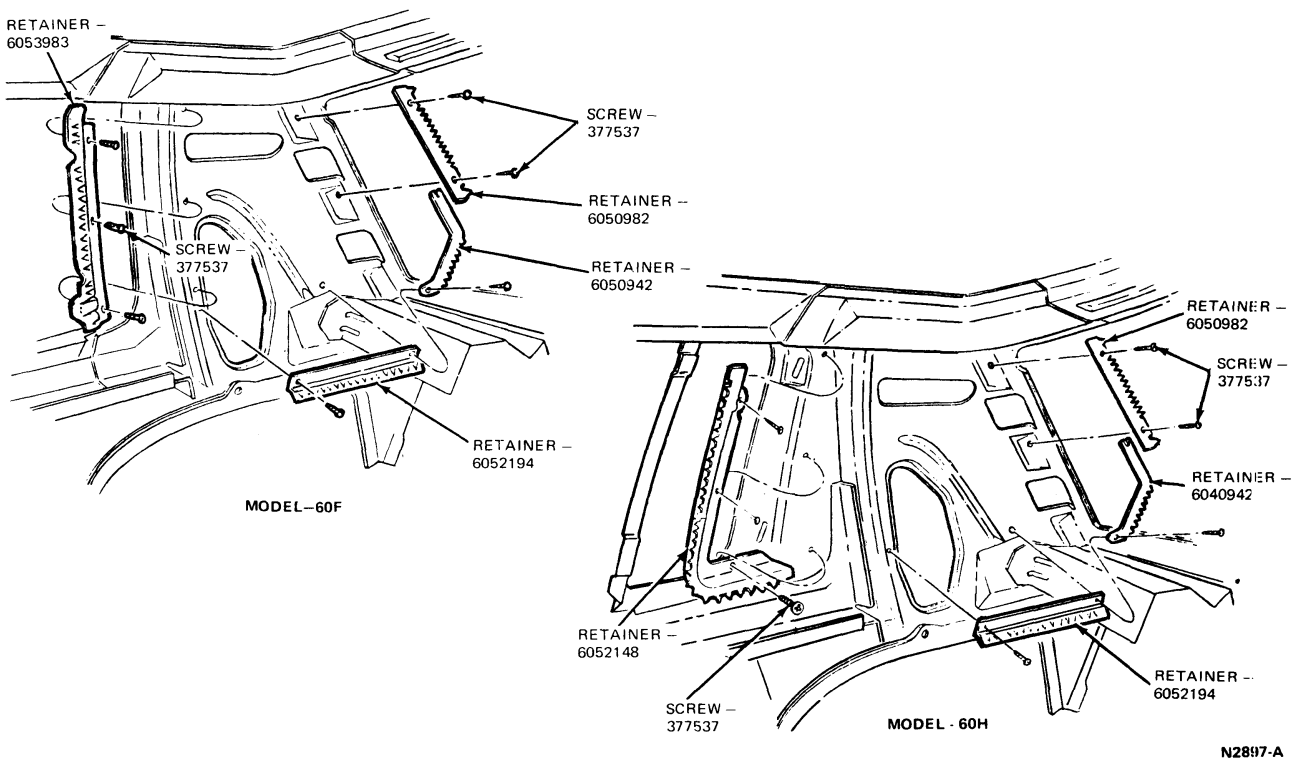


FIG. 25 Headlining Retainers—Mustang

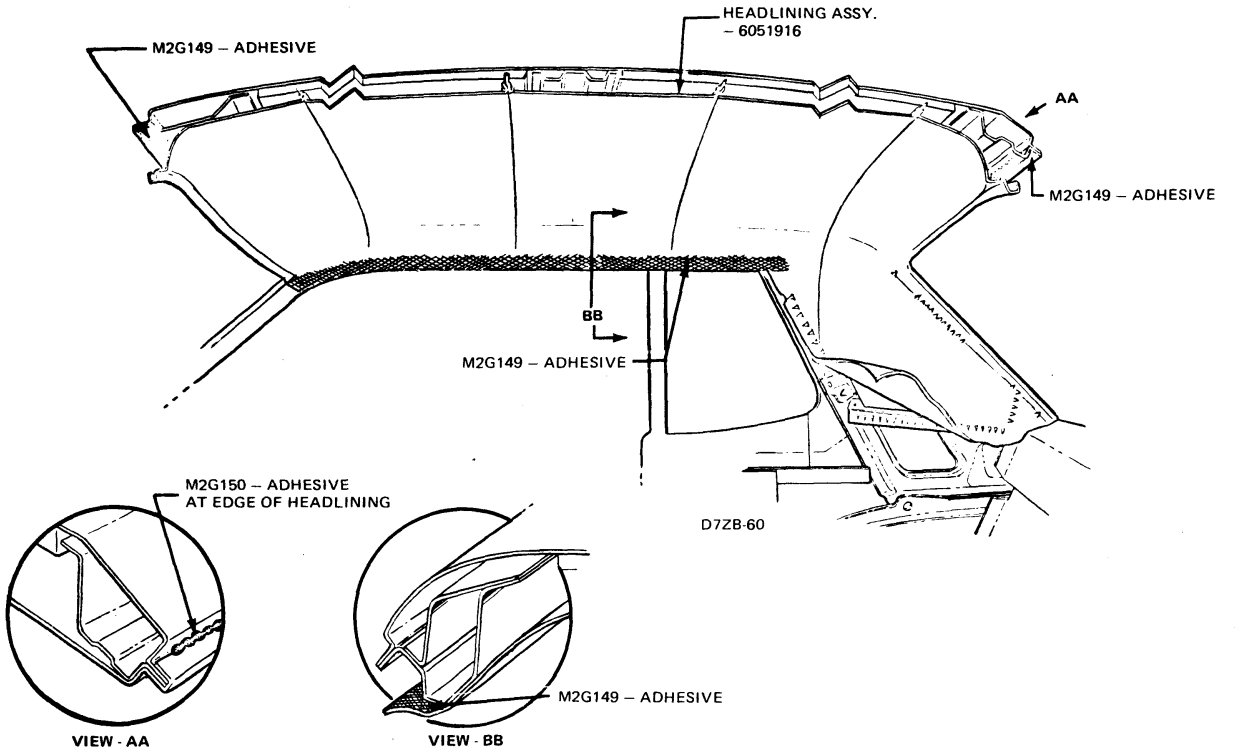


FIG. 26 Roof Headlining—Mustang

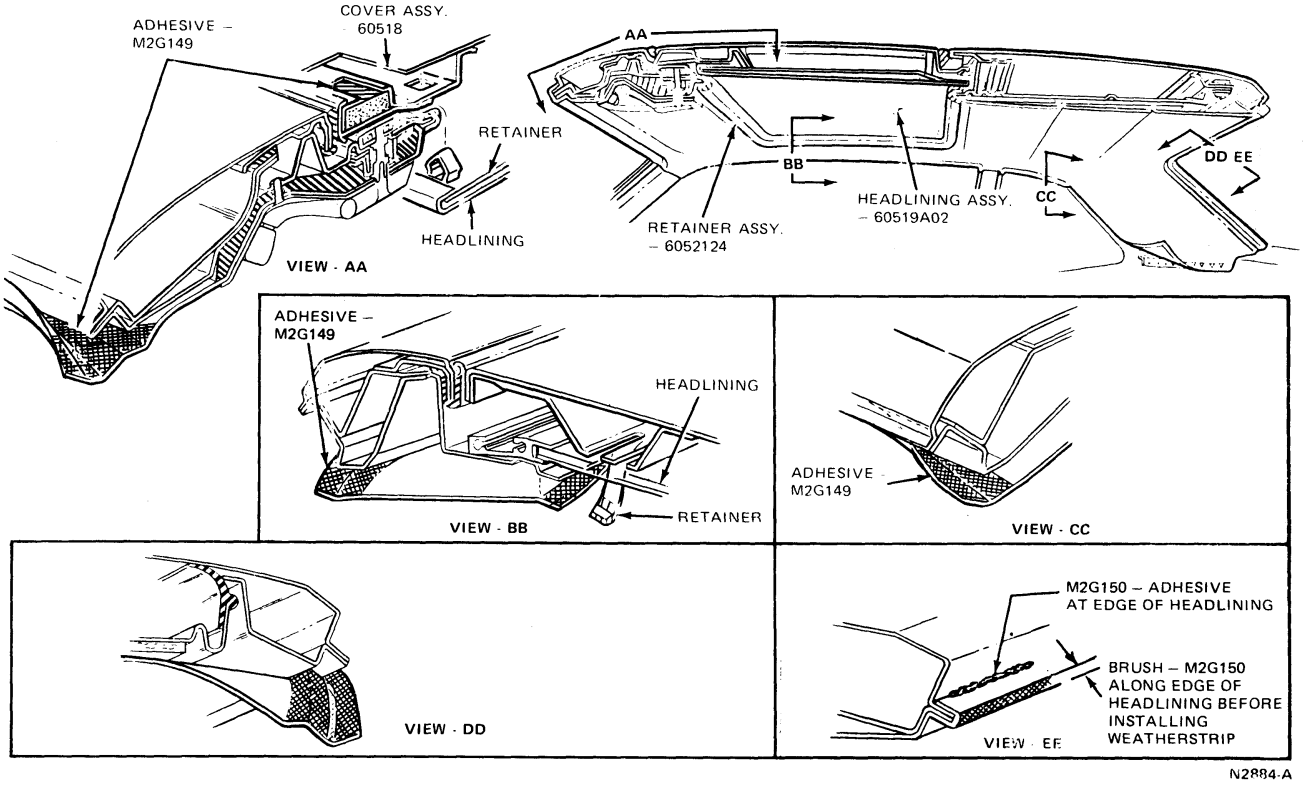


FIG. 27 Roof Headlining—Mustang with Sun Roof

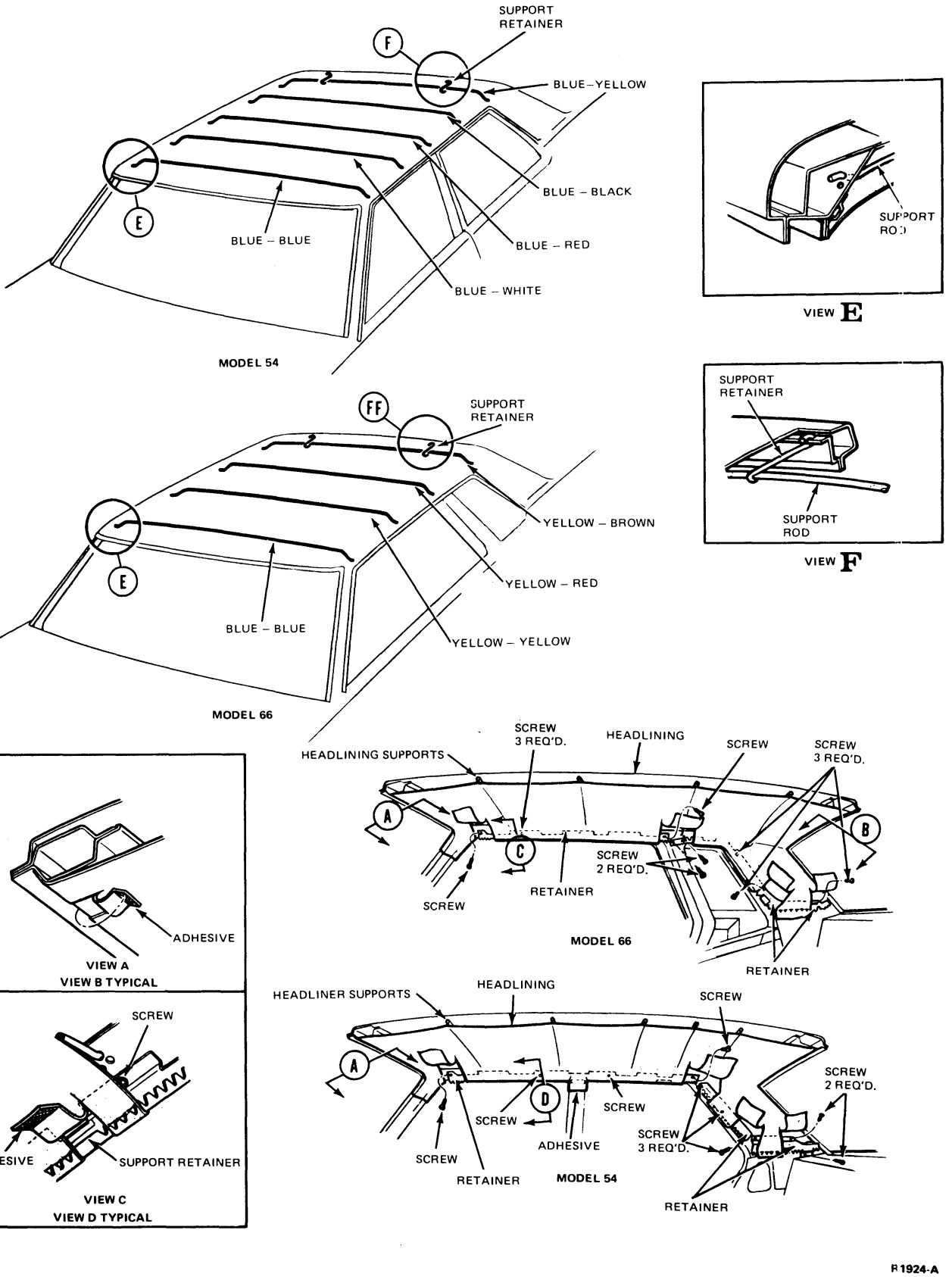


FIG. 28 Headlining Installation—Granada and Monarch

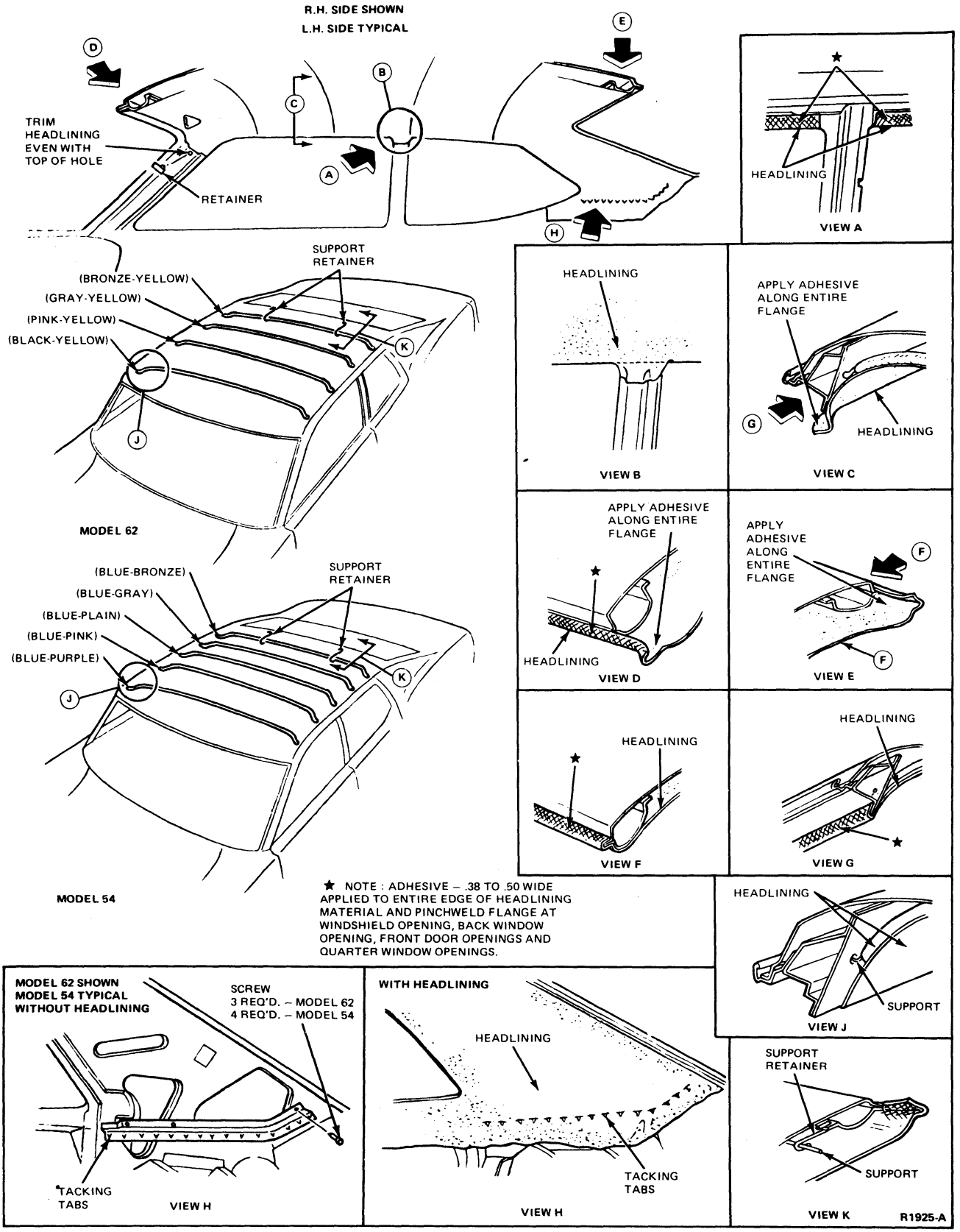


FIG. 29 Headlining Installation—Maverick and Comet

Instrument Panel Pad

PART 45-61

REMOVAL AND INSTALLATION

Ford

1. Remove one screw on each side of the defroster nozzle opening (Fig. 1).
2. Remove three screws on the ledge above the glove box door.
3. Remove four screws around the instrument cluster opening and remove the instrument panel pad and upper finish panel assembly.
4. If the pad is to be replaced, remove the six retaining nuts and separate the pad from the upper finish panel (Fig. 1).
5. Position the instrument panel pad and finish panel. Then, install the nine attaching screws.

Mercury

1. Remove one screw on each side of the defroster nozzle opening (Fig. 2).
2. Remove four screws going up into the pad (entire length of pad).
3. Remove one screw at each end of pad (inboard side) and remove the instrument panel pad and upper finish panel assembly.
4. If the pad is to be replaced, remove the retaining nuts and separate the pad from the upper finish panel.
5. Position the instrument panel pad and finish panel. Then, install the eight attaching screws.

Maverick and Comet

Removal

1. If vehicle is equipped with air conditioning, remove A/C grille that is retained by two (2) screws.
2. Disconnect speedometer cable at cluster.
3. Remove two (2) cluster retaining screws. Position cluster outward. Disconnect multiple connector and bulb. Remove cluster assembly.
4. Pull off the heater and air conditioning control knobs. Then, carefully pry off the control bezel. Remove three (3) control retaining

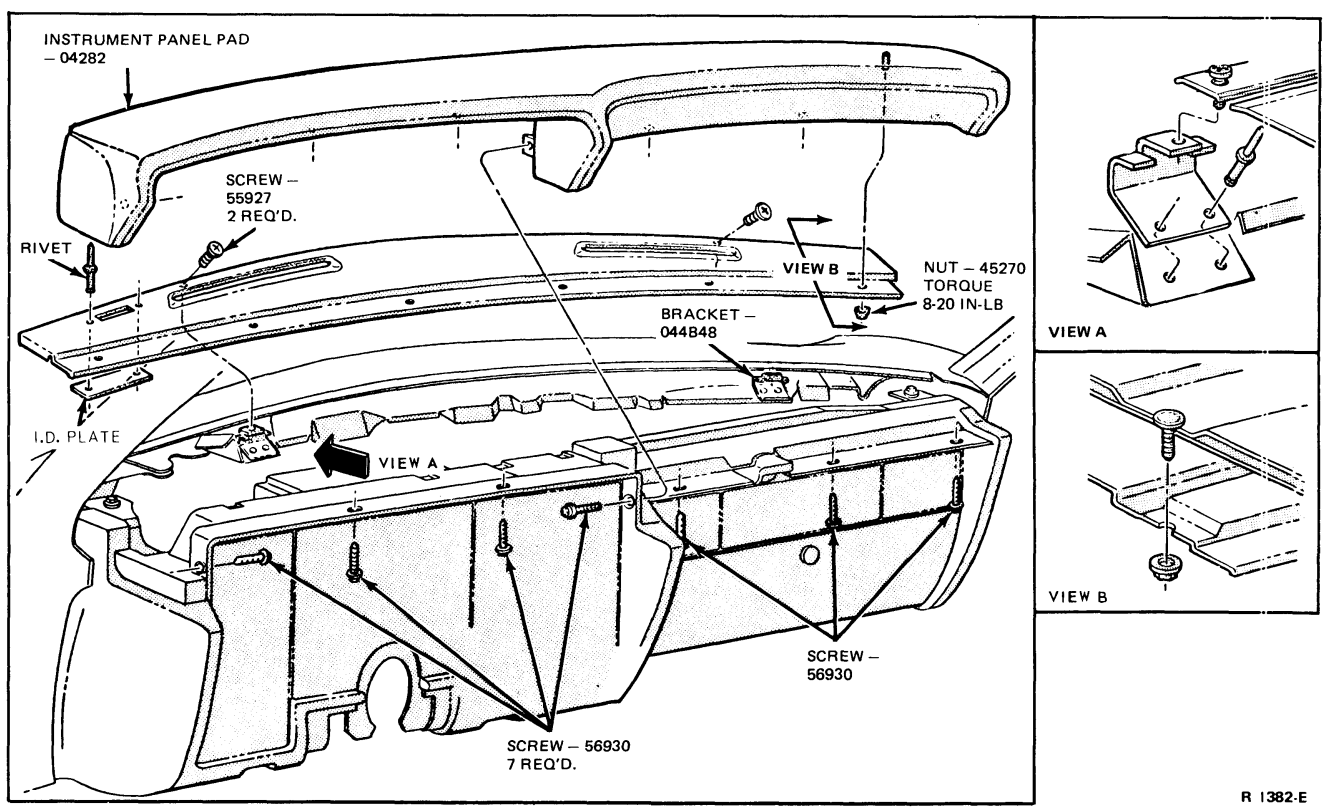


FIG. 1 Instrument Panel Pad—Ford

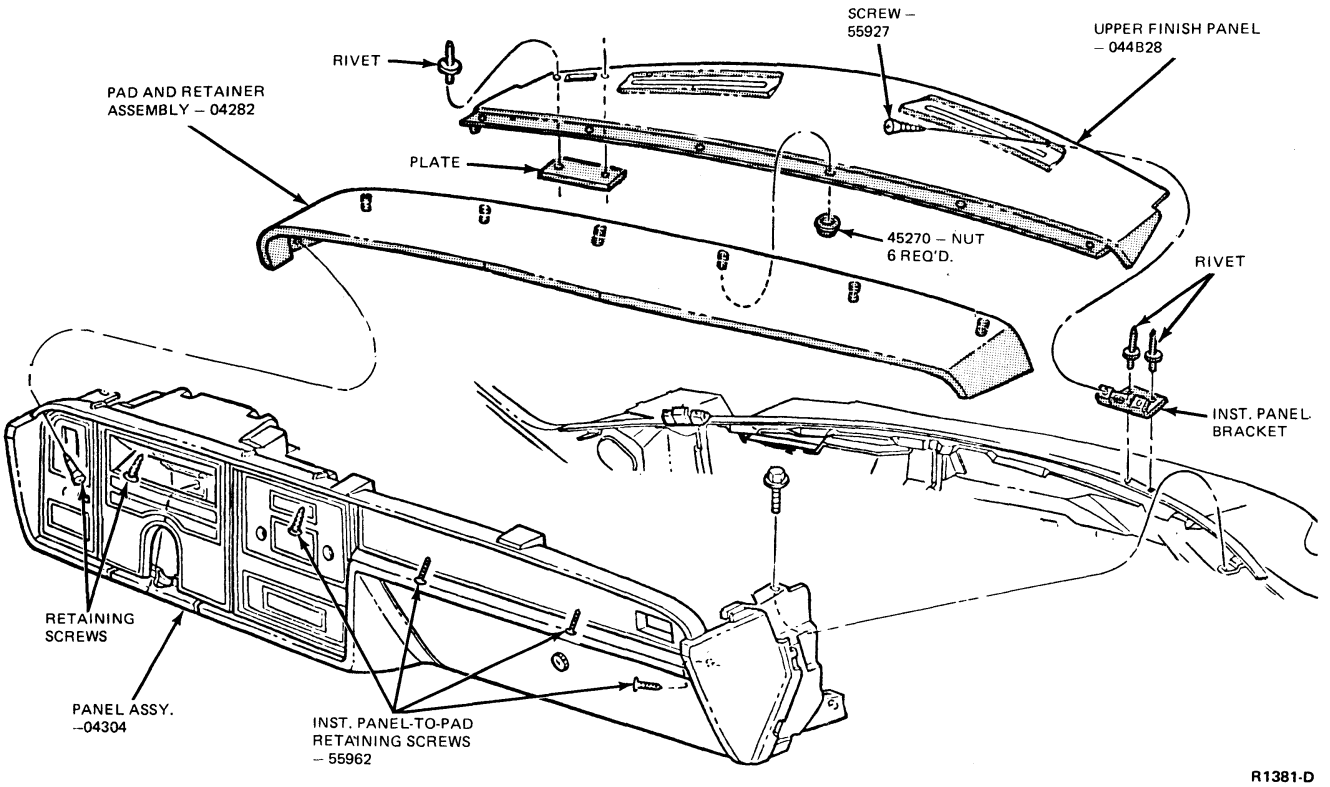


FIG. 2 Instrument Panel Pad—Mercury

screws and position the assembly rearward.

5. Remove headlight switch stem and bezel (Group 32) and position switch rearward.
6. Remove seven (7) screws that retain glove box and lower vent control (Fig. 3).
7. Remove two (2) screws and position inner lock module away.
8. Remove nine (9) nuts that retain the instrument panel pad to the instrument panel and remove the pad.

Installation

1. Position new instrument panel pad in place and install nine (9) nuts and two (2) screws.
2. Position inner lock module and install two (2) retaining screws.
3. Install glove box and lower vent control with seven (7) screws.
4. Position headlight switch and install bezel and stem.
5. Position heater and air conditioning control and install three (3) screws, bezel and knobs.
6. Position cluster assembly, connect multiple connector and bulb, then install two (2) retaining screws.
7. Connect speedometer cable.
8. If equipped with air conditioning, install A/C grille with two (2) retaining screws.

Thunderbird, LTD II, Ranchero and Cougar

Removal

1. Remove two screws from around the instrument cluster opening, one screw above steering column, and two screws from above the glove box door.
2. Remove one screw from the top right surface of the instrument panel upper finish panel.
3. Remove the instrument panel pad by pulling rearward and then up to disengage clips from the cowl top flange.
4. If the pad is to be replaced, remove five retaining nuts and separate the pad from the upper finish panel (Fig. 4).

Installation

1. When installing an instrument panel pad and finish panel assembly, replace any spring clips that were distorted or damaged during pad removal.
2. Position the pad and finish panel in the vehicle and engage the S-clips on the finish panel with the cowl top flange.
3. Push the instrument panel pad and finish panel forward and install the five pad retaining screws and one finish panel attaching screw (Fig. 4).

Continental Mark V

Removal

1. Disconnect the ground cable from the battery.
2. Remove one screw from the left end and three screws from the right end of the instrument panel (Fig. 5).
3. Remove four screws from under the lower right side of the instrument panel pad above the glove compartment opening.
4. Remove three retaining screws (Continental Mark V) or two retaining screws above the instrument cluster. These screws also retain the access cover over the cluster.
5. Remove the instrument panel cluster finish panel as outlined in Part 33-50.
6. Remove the instrument panel pad and retainer assembly and the upper finish panel from the instrument panel by tilting upward and pulling rearward.
7. If the pad is to be replaced, remove six retaining nuts and separate the pad from the upper finish panel. Remove three screws attaching the right finish panel to the upper flange. Then, tilt down and pull rearward.

Installation

1. When installing an instrument panel pad and retainer assembly and an upper finish panel, replace the spring clips at the three outside positions on the windshield edge of the upper finish panel.
2. Position the instrument panel pad and retainer and upper finish panel in the vehicle. Engage the spring clips on the

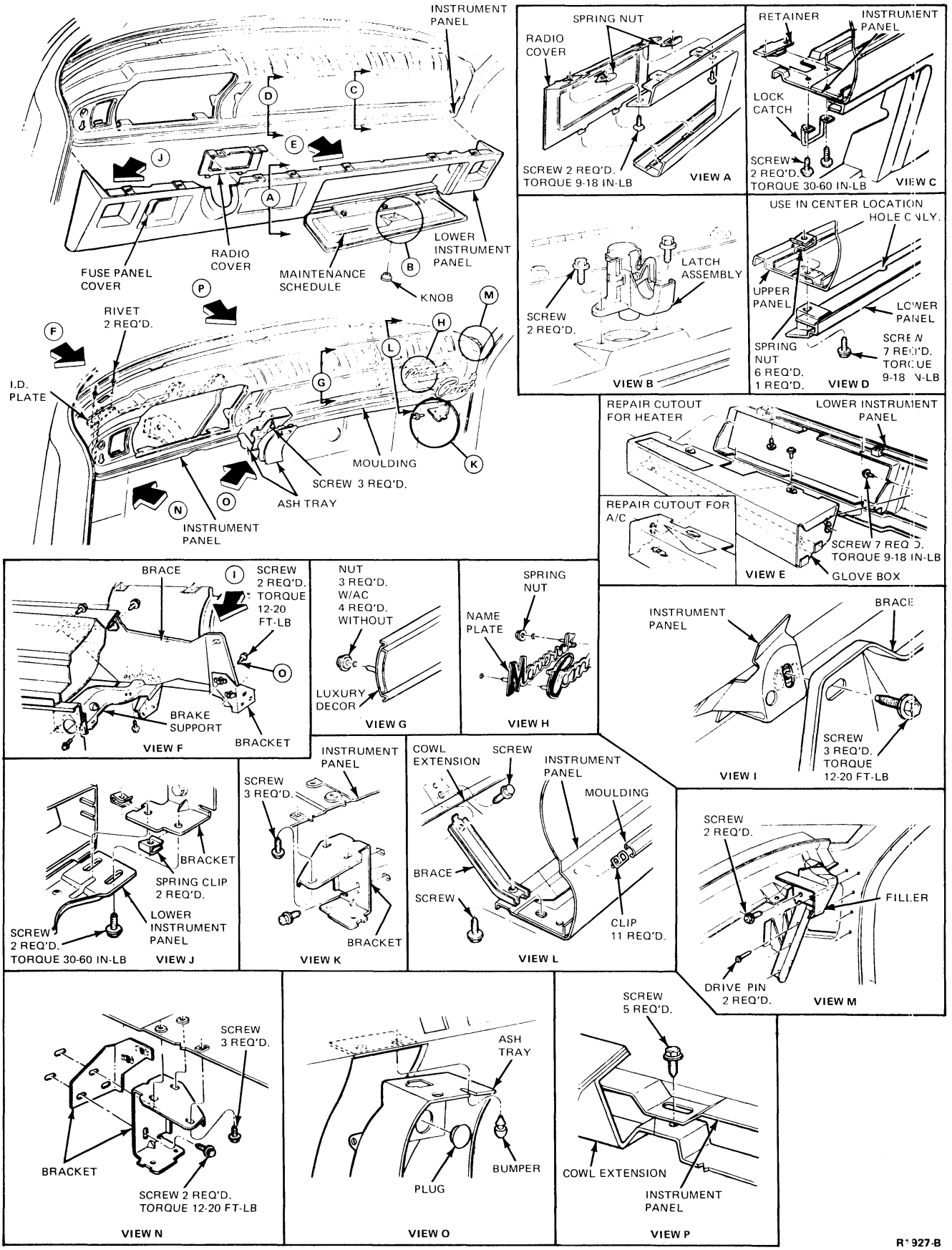


FIG. 3 Instrument Panel Pad—Maverick and Comet

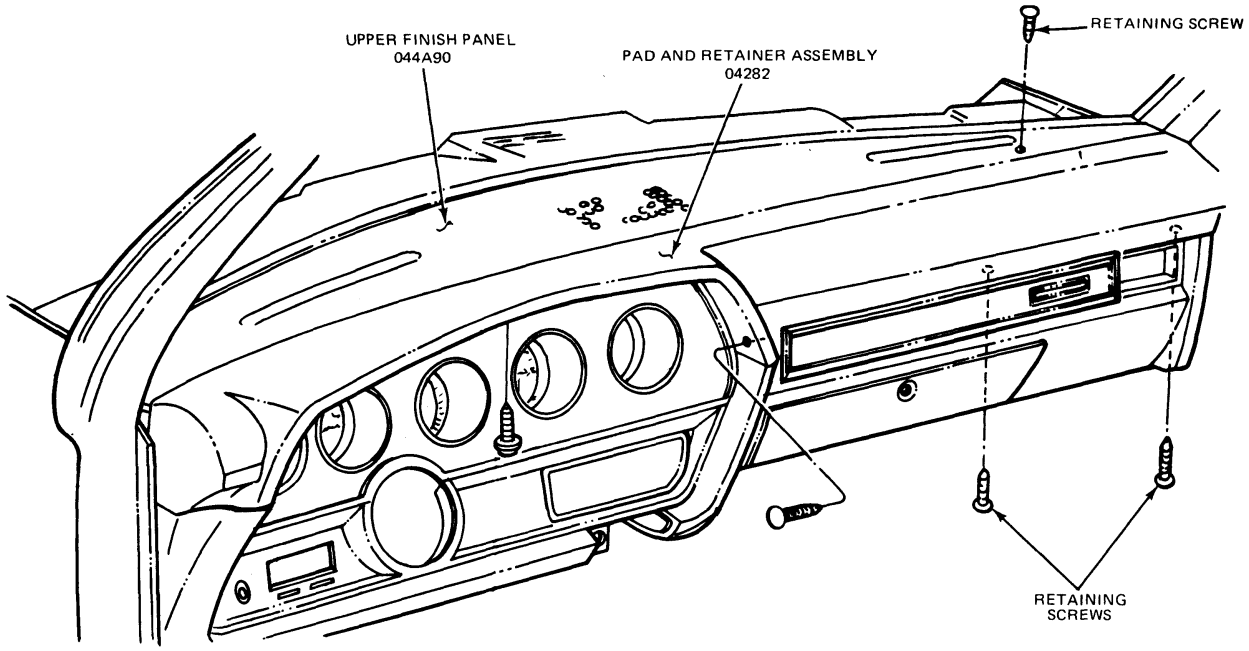


FIG. 4 Instrument Panel Pad – Thunderbird, LTD II, Ranchero and Cougar

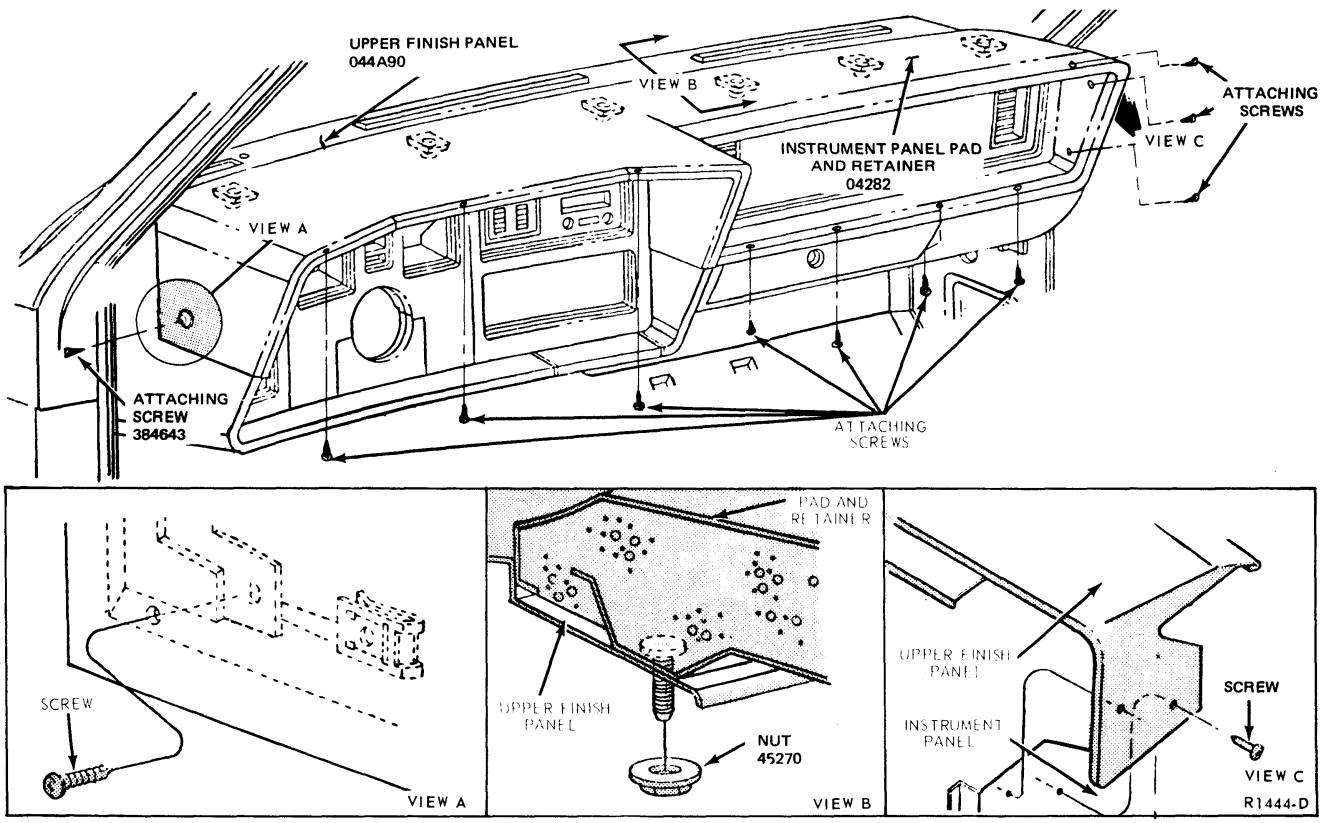


FIG. 5 Instrument Panel Pad—Continental Mark V

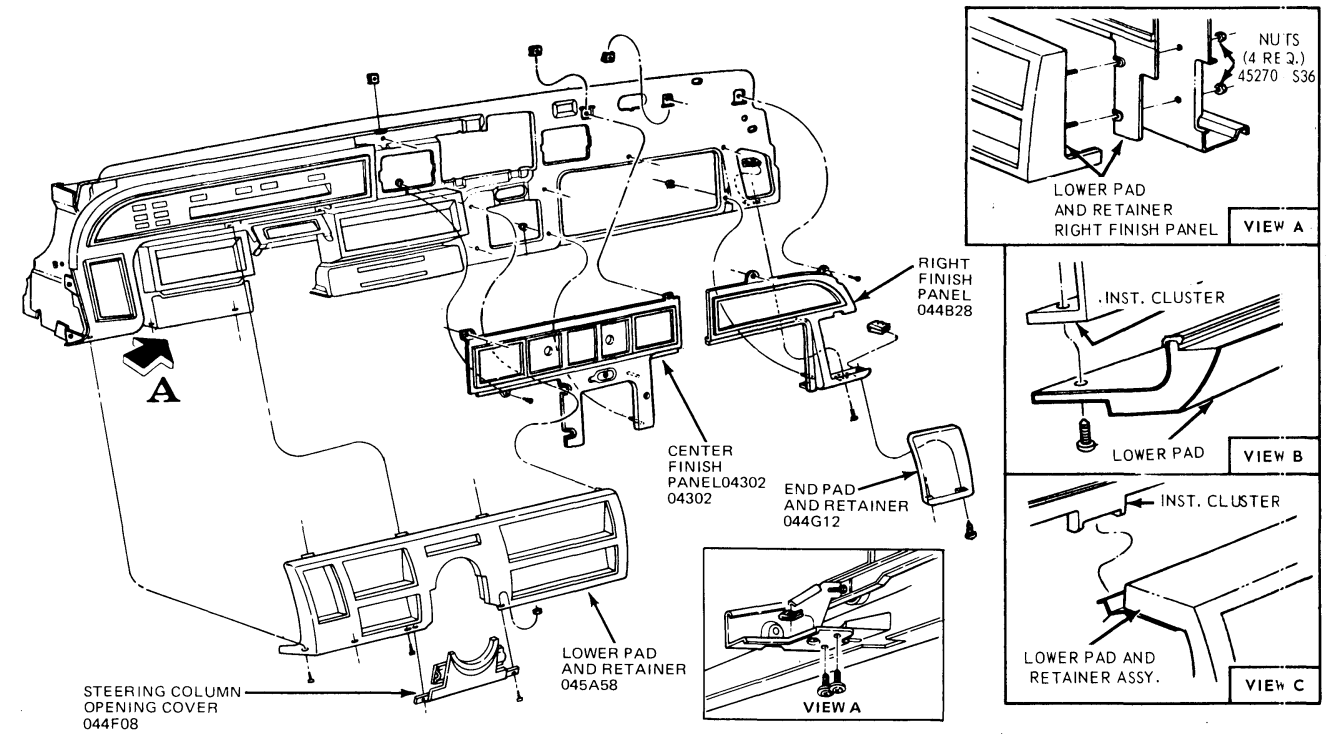
upper finish panel with the cowl panel upper tabs.

3. Install the instrument panel pad retaining screws.
4. Install the instrument panel cluster opening finish panel as outlined in Part 33-50. Then, connect the ground cable to the battery and check the operation of the instruments and controls.

Lincoln Continental—Upper Pad

Removal

1. At the left and right ends, an end finish panel is retained by screws to the upper pad assembly and the instrument panel. Remove the screws at each end and remove the end finish panels (Fig. 6).
2. The map light body assembly (switch plate) contains not only the map light and switch, but also the control switches for a number of optional accessories such as speed control, rear



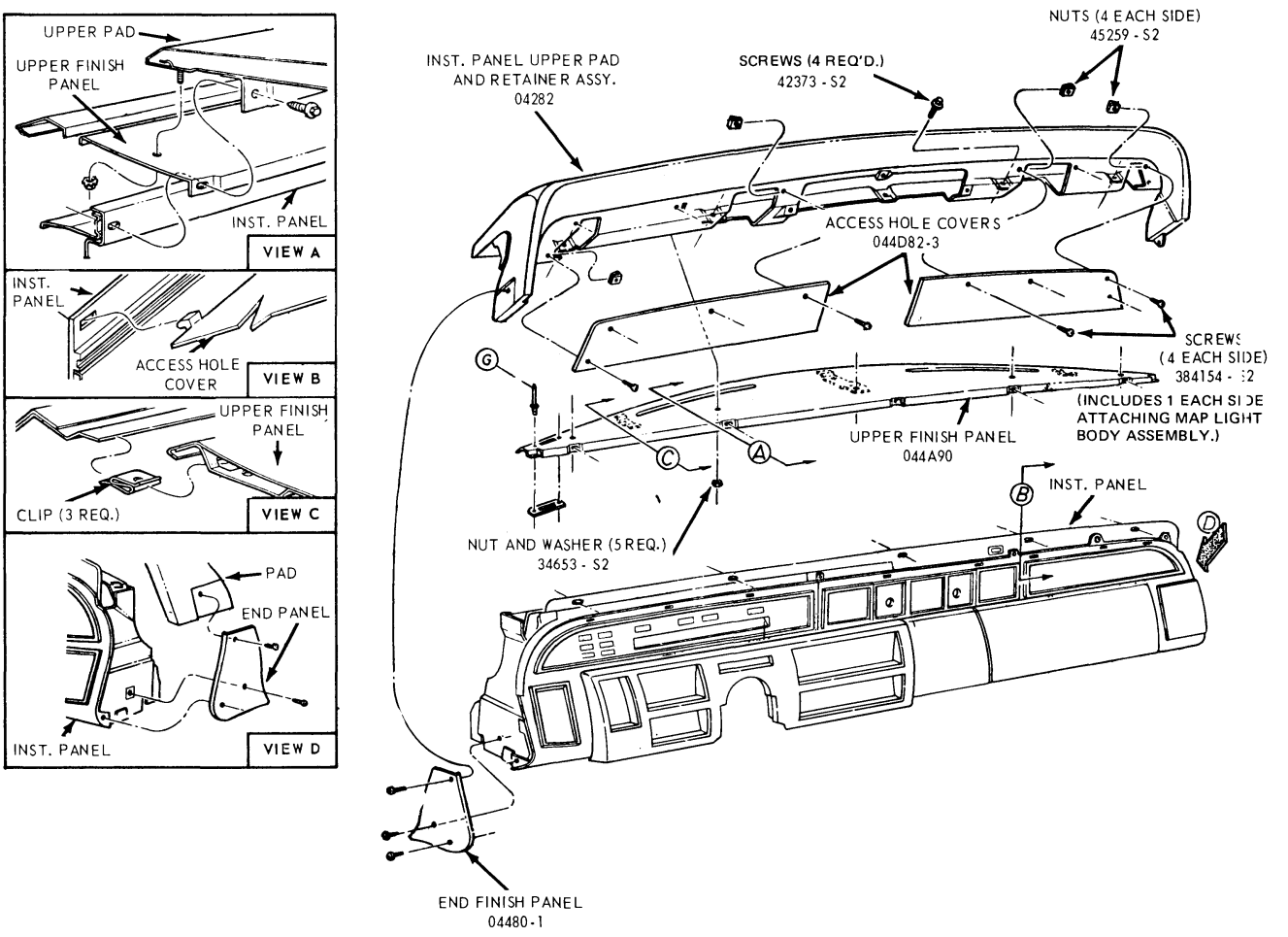


FIG. 6 Instrument Panel Pad—Lincoln Continental

radio speaker or fader control, heated backlite or defogger etc. Remove the switch plate from the instrument panel access hole covers (three retaining screws) and disconnect all electrical and vacuum hose connections.

3. Remove the instrument panel left and right access hole covers from the upper pad assembly (three screws each, Fig. 6).
4. The instrument panel upper pad assembly and the upper finish panel (Fig. 6) can now be removed as one assembly. Remove the (four) screws that retain the pad and finish panel to the instrument panel across the front. Pull the entire assembly out forcing the three clips free and remove the assembly from the vehicle.

Installation

1. If the pad and retainer assembly is being replaced, lift up the insulation where necessary for access, remove the (five) pad-to-upper finish panel screws (Fig. 6), and transfer the upper finish panel from the old, to the new pad. Install the (five) nuts and glue the insulation to the upper finish panel. Transfer the (nine) Tinnerman nuts to the new pad assembly.
2. Install (three) new clips on the upper finish panel. Position the upper finish panel and pad assembly to the instrument panel making sure that the (three) clips engage the cowl top inner panel (Fig. 6). Secure the assembly to the instrument panel with the (four) retaining screws.
3. Install the left and right access hole covers (three screws each).
4. Connect all the electrical and vacuum hose connections to the map light body (switch plate), position the plate to the access hole covers and install the (three) retaining screws.
5. Install the (two) end finish panels to the upper pad assembly and the instrument panel (three screws each side, Fig. 6).

Lincoln Continental Lower Pad

Removal

Remove the steering column opening cover from the instrument panel (two screws). From behind the panel, remove the (two) nuts that retain the right end of the lower pad to the instrument panel (Fig. 6). Remove the five pad-to-instrument cluster screws along the bottom edge. Remove left hand end finish panel (three screws). Swing the pad assembly out so as to disengage the two tabs at the top from the grooves at the top of the cluster and remove the pad assembly.

Installation

If the lower pad assembly is being replaced, transfer the two spring nuts to the new pad.

Position the pad so that the tabs on the upper edge engage the grooves at the top of the cluster and install the retaining screws and nuts. Install the finish panel (three screws).

Position the steering column opening cover to the instrument panel and install the retaining screws.

Monarch and Granada

Removal and Installation

The Granada and Monarch instrument panel is shown in Fig. 7. Remove one screw from each defroster opening and six screws from along the lower edge of the pad. Then, pull the pad and upper finish panel rearward and away from the instrument panel.

To install, position the pad and upper finish panel on the instrument panel and attach with eight screws.

Mustang

The Mustang instrument panel pad is shown in Fig. 8. Remove one screw from each defroster opening and five screws from along the lower edge of the pad (Fig. 8). Then, pull the pad and finish panel rearward and away from the instrument panel.

To install, position the pad and finish panel to the instrument panel, and install the seven attaching screws (Fig. 8).

Pinto and Bobcat

Removal

1. Disconnect the battery negative ground cable.
2. Disconnect the speedometer cable by pressing on the flat surface of the plastic connector (quick connect) and pulling the cable away from the speedometer head.
3. Remove the (2) retaining screws at the top of the cluster and remove the cluster from the instrument panel (Group 33).
4. Remove the (2) screws securing the glove compartment door and remove the door.
5. Remove the right and left air register assemblies (Snap-out).
6. Remove the right and left air register ducts from the plenum (secured with 1 clip on each side).
7. Remove (6) nuts retaining the upper edge of the instrument panel pad. These are reached from under the dash panel area (Fig. 9).
8. Remove 4 screws retaining the front lower edge of the instrument panel pad.
9. Remove the instrument panel pad from the vehicle.

Installation

1. Position the instrument panel pad to the instrument panel.
2. Install the (6) nuts and (4) screws loosely to facilitate alignment of all holes without binding.
3. Tighten all fasteners securely.
4. Install the right and left air register ducts to the plenum by sliding into position.
5. Install the right and left air register assemblies and secure with (1) clip on each side.
6. Install the glove compartment door (2 screws) and adjust if necessary.
7. Position the cluster assembly, connect the multiple connector and secure with (2) screws.
8. Connect the speedometer cable by pushing and locking the quick connect.
9. Connect the negative ground cable to the battery.

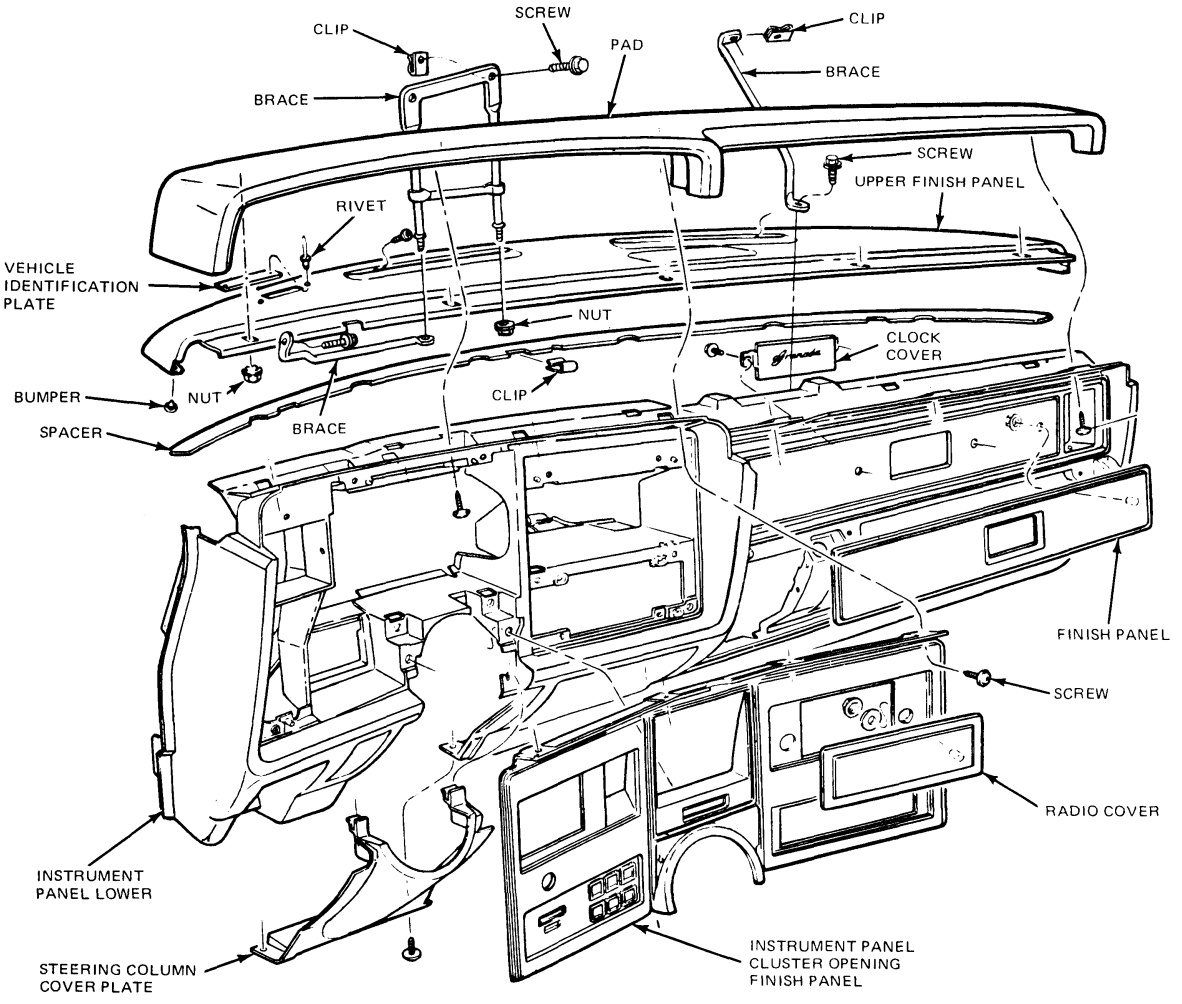


FIG. 7 Instrument Panel Pad—Monarch and Granada

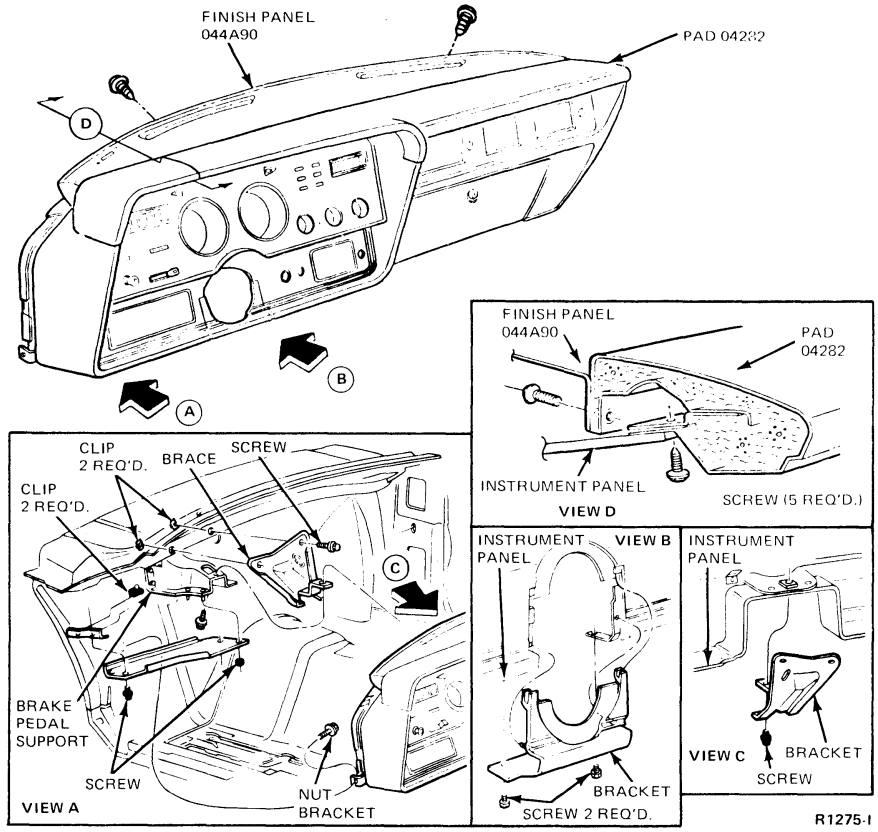


FIG. 8 Mustang Instrument Panel Pad

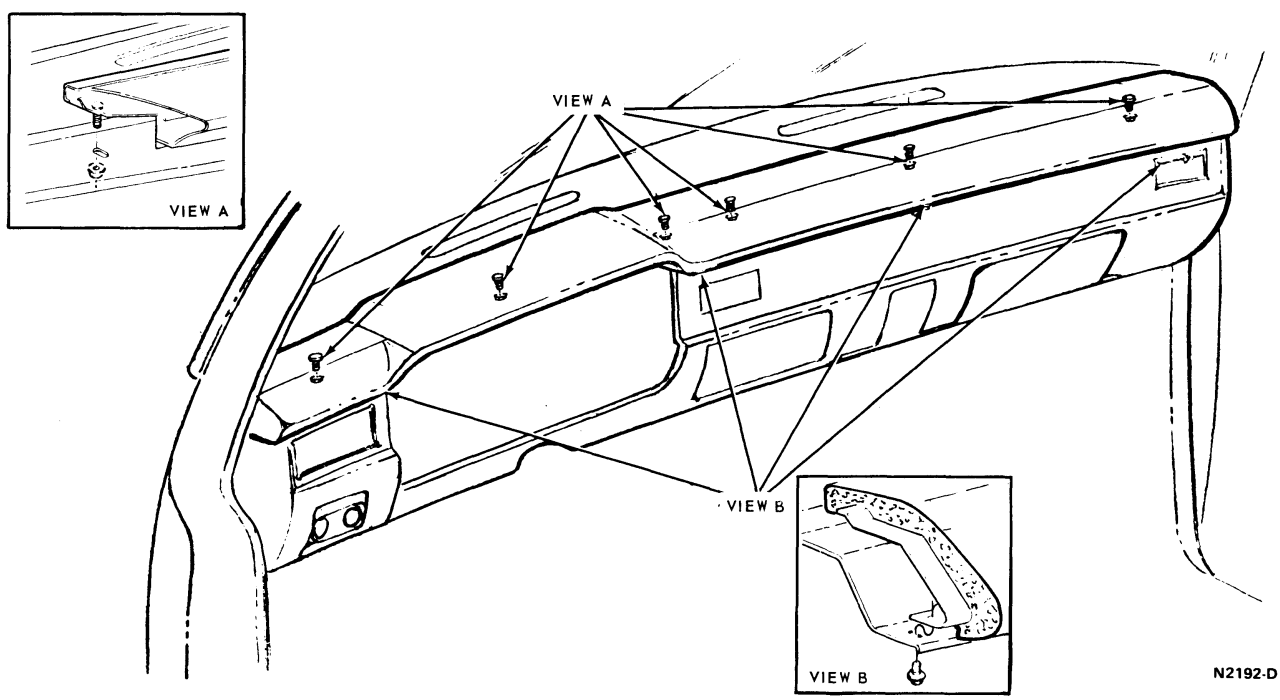


FIG. 9 Instrument Panel Pad—Pinto and Bobcat

TOPS AND EXTERIOR FINISHES

GROUP 46 (70000)

PART TITLE	PART NO.	PART TITLE	PART NO.
Top and Exterior Finish General Service	46-01	Removable Sun Roof	46-12
Electric Moon Roof	46-05	Roof Outside Cover	46-20
Manual Sun Roof Panel	46-11	Wood Grain Transfer	46-30

CR2007-A

GENERAL INFORMATION

For detailed information on paint repair, refer to the handbook entitled Spot Repairing Original Enamel finishes with Acrylic lacquer, Form FD-7953-Q.

CLEANING

Paint

The outside finish should be washed frequently. Never wipe the painted surface with a dry cloth. Dusting the finish when it is dry tends to rub the dust and dirt into the baked enamel, and leaves a sandpaper effect on the surface. To keep the finish bright and attractive and eliminate the necessity of using polish, wash the car whenever it has accumulated a moderate amount of dirt and road salt.

Wood Grain Transfers

Never wipe the panels or trim rails with a dry cloth. This method of cleaning tends to rub dust particles into the finished surface and leave fine scratches. Flush off all loose dirt and other elements, and wipe the body panels and rails with a sponge and plenty of cold water. If desired, a mild soap may be used. Rinse thoroughly with clear water and wipe dry.

Glass

The glass should be cleaned with Ford Glass Cleaner (C8AZ-19C507-A) or equivalent, using a clean, soft, lint-free cloth. Follow the directions shown on the container.

Electric Moon Roof

PART 46-05

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CR2852-A

DESCRIPTION AND OPERATION

ELECTRIC OPERATION

The sliding moon roof panel moves on guide rails and is actuated by a reversible electric motor.

When the control switch is moved to open, the sliding roof panel moves from the closed position into a storage space between the headlining and stationary roof panel. This exposes an opening over the front passenger seating area.

When the control is moved to close the panel, the sliding panel travels from the storage position. Near the end of the forward travel, the rear portion of the sliding panel moves upward on two ramps and the rear link rotates to position the panel into the roof opening.

MANUAL OPERATION

To close the sliding panel manually (in case of electrical power failure), remove the drive cover by pulling downward. Then remove the screw which is visible when the cover is removed using the handcrank provided in the glove compartment.

To close the sliding panel, insert the screwdriver end of the crank handle into the auxiliary socket dirve. Turn the crank handle clockwise to close the roof.

After performing these operations, remove the crank handle, install the screw and the drive cover.

REMOVAL AND INSTALLATION

HALO MOULDING

To perform most adjustments or repairs on a moon roof, it is necessary to remove the halo moulding. **NOTE: If the vehicle has been sitting in the cold (less than 70°F), let the vehicle warm up prior to performing repairs. The plastic halo moulding is very brittle when cold and may crack if the moulding is deflected.**

To remove the halo moulding:

1. Cycle shade to most-rearward position.
2. Cycle the sliding panel about halfway open.
3. Remove the screws on the forward surface of the halo moulding (5 screws for Lincoln and Mark V, 3 screws for other models). (See Fig. 1).
4. For Lincoln and Mark V vehicles, lower the front edge of the halo moulding, cycle the sliding panel to fully closed position and remove the halo moulding by loosening the 2 screws retaining one rear slide, moving the slide inboard and unsnapping it from the track. Then turn the halo moulding sideways and down as shown in Fig. 2.
5. For all other car lines, cycle the moon roof to a nearly closed position and pull the forward center of the halo moulding downward so the

horizontal tabs at the front of the halo moulding are removed from the track mechanism as shown in Fig. 3.

NOTE: Place a clean rolled-up shop towel in the front horizontal tabs, to prevent the sharp corners from tearing the headliner when the sliding panel is cycled. Cycle the moon roof to the fully closed and raised position. Slide halo moulding forward. Pull the rearward center section so the horizontal track slide surface is removed from the track assembly. Slide the halo moulding forward and remove from the vehicle.

Reverse the procedure for installation.

SHADE REMOVAL

For Lincoln and Mark V models the halo moulding must be removed first. With the sliding panel in rearmost position pull the shade full forward and then bow the shade upward at the center and lift the shade out of the tracks (See Fig. 4). For all other models, first remove the halo moulding and sliding panel. Then from outside the vehicle, push the sun shade in the center as shown in Fig. 5. Slide the shade forward and upward out of the vehicle.

Reverse the procedure for installation.

GLASS AND METAL SLIDING PANEL

Refer to the halo moulding or metal trim panel removal procedure and remove the halo moulding. Then:

1. Detach the sliding panel from both left and right front slide assemblies. (2 screws each side). (See Fig. 6, View A).

Lincoln and Mark V

2. Release the rear slide tension springs by rotating them to the inboard position.
3. Detach the sliding panel from the two rear slide assemblies by removing the two retaining screws and removing the mounting bracket to panel retainers from the tabs in the panel. (See Fig. 6, View B).

All Other Models

2. Grasp rear sliding panel retainer pins and slide pins inboard to disengage from the pivot bracket. Rotate pins away from the pivot brackets as shown in Fig. 7.
3. From outside the vehicle, remove the sliding panel.
4. Reverse procedure for installation.

NOTE: If the sliding panel is to be replaced transfer the front guide shoes from the removed panel. The rear weatherstrip assembly on Lincoln and

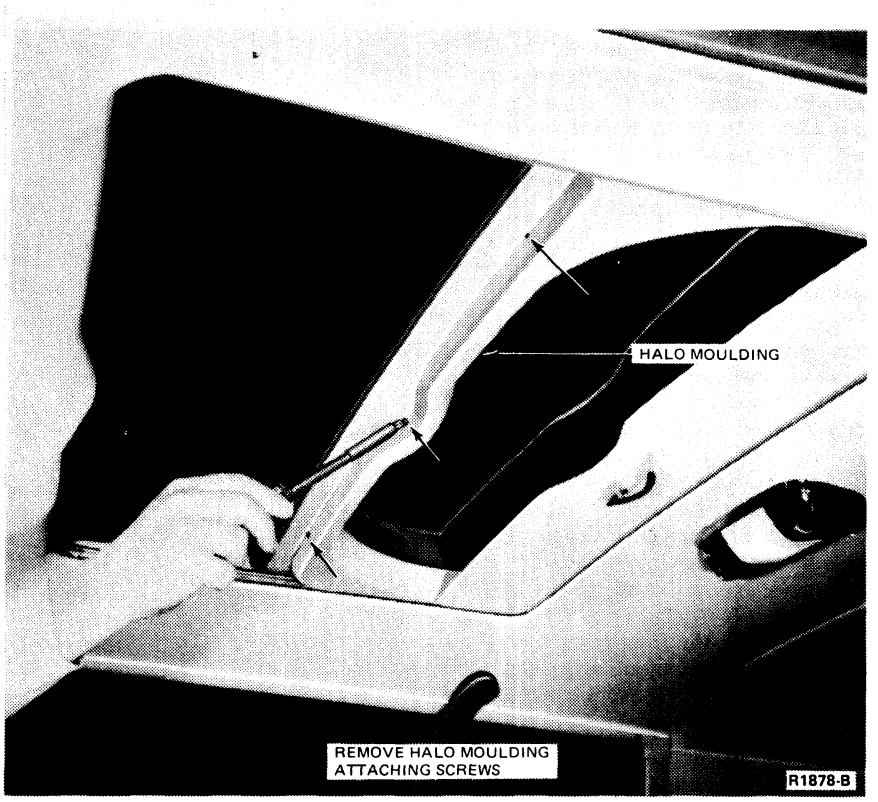


FIG. 1 Halo Moulding Removal

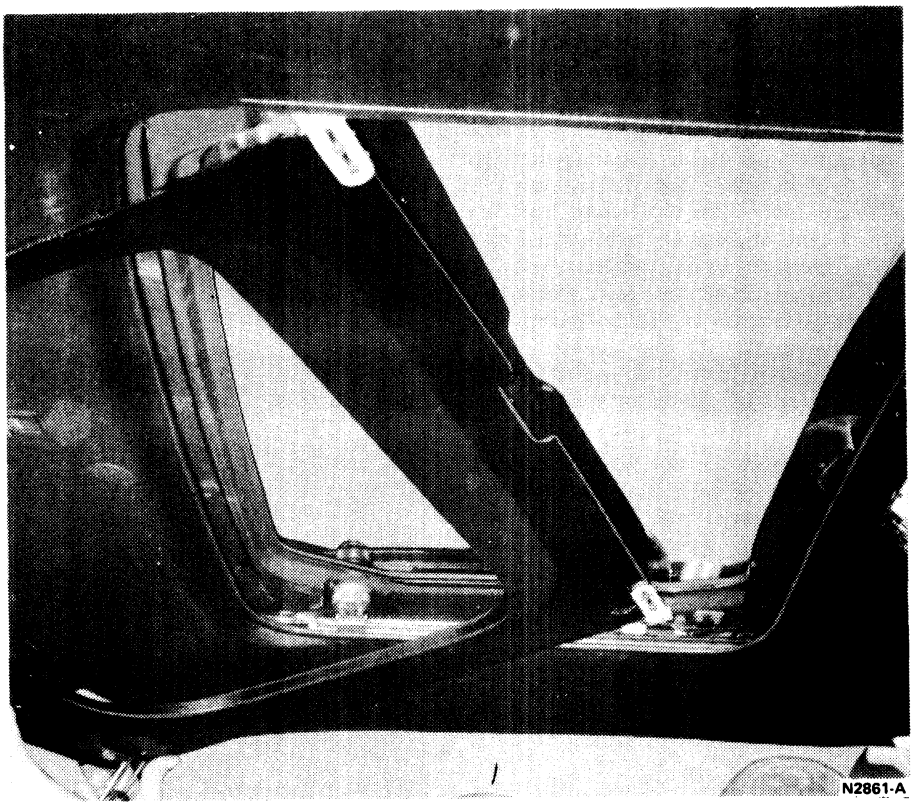


FIG. 2 Halo Moulding Removal

Mark V can also be transferred to the new panel. All other models should have a new felt seal (of the appropriate color) installed on the rear sliding panel. Use trim cement to attach the felt seal to the rear of the panel. Install the seal so the thick bulbous section is flush to the top surface of the sliding panel.

CABLE ASSEMBLY

Lincoln and Mark V

To remove a cable assembly the halo moulding and sliding panel must first be removed. Remove the front cable cover and the side track retainers. Remove the cable retainer at the drive gear (2 screws) and lift and slide the cable assembly forward out of the track. (See Fig. 8). Reverse the procedure for installation. For initial alignment of new cables, insert them in the tracks, install the side cable retainers and pull the cables as far forward as they will go. (Fig. 9). Then lay the cables into the front track, insert in the teeth of the drive gear and install the cable retainer and the front cable cover.

All Other Car Lines

To remove a cable assembly first remove the halo moulding and sliding panel. Then remove cable drive housing cover plate, remove track extension and corner cover housing. Remove cable retaining clip, and lift cable from drive housing. Slide the cable forward to remove from side track assembly. It may also be necessary to remove the track retaining screws and lift the track so the cable will slide out the front of the track.

Drive Gear

If the motor runs but the sliding panel does not operate, drive clutch slippage should be suspected. To tighten the clutch, remove the drive cover from the headlining and tighten the cap screw with the emergency crank handle.

To remove the drive gear, remove the front cable cover and cable retainer and remove the "C" clip that retains the gear to the motor shaft. Slide the drive gear upward and off the motor shaft.

Track

To remove the side track assemblies the front track cover and cable retainer must be removed first. Remove the side track retaining screws, raise the front edge of the track and slide the track forward to disengage the track rail guide pin from the housing (See Figs. 10 and 11).

FELT SEAL (FRONT)

All Models Except Lincoln and Mark V

To replace the front felt seal, remove the halo moulding and sliding panel (See Removal and Installation).

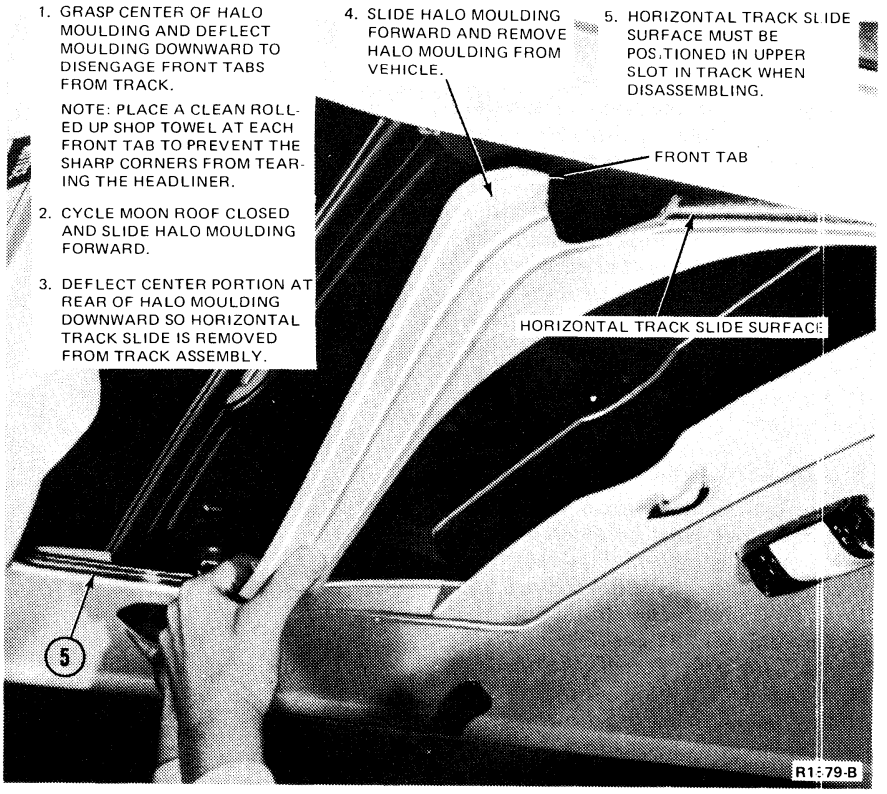


FIG. 3 Halo Moulding Removal

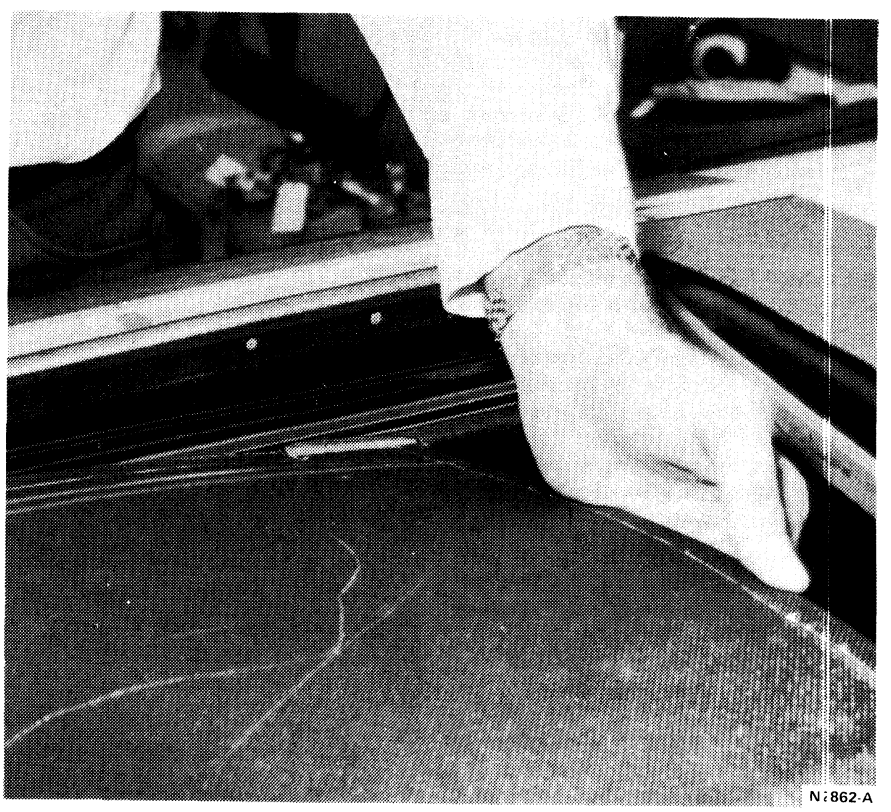


FIG. 4 Sun Shade Removal

Remove the old seal and clean the seal mounting surface with suitable solvent or Spot Remover (Part No. B7A-19521-A). If the felt seal ends were not securely glued at the rear roof opening radius, inspect the area very closely to determine if silicone sealer is evident on the felt seal mounting surface and carefully remove. Do not remove from the corner where the module is mounted to the roof panel. If removed, this can result in water leaks.

Apply masking tape on the roof panel, around the opening as shown in Fig. 12, View B. Apply weatherstrip adhesive Part No. COAZ-19552-A or 3M adhesive Part No. 1099, on the seal mounting surface and the backside of the felt seal.

Remove masking tape from the roof panel. Starting in the rear corner, position the felt seal 3/4 inch to 1 inch behind opening. Carefully position the felt seal into the opening so that it is flush to the roof panel surface. Use extra pressure in the front corner(s) so that the seal will not "pull" or "short cut" at the corners. Trim off excess seal material at the other rear corner, so that 3/4 inch to 1 inch of the seal is positioned rear of the opening.

Install the sliding panel and halo moulding. Then, cycle to assure that the sliding panel functions normally. If the sliding panel appears to bind against the new seal assembly, apply silicone lubricant spray Part No. COAZ-19553-C or equivalent on the new seal to facilitate "break-in".

BODY OPENING WEATHERSTRIP

Lincoln and Mark V

It is not necessary to remove the halo moulding or sliding panel to service the front weatherstrip on these vehicles. To replace, drill out the weatherstrip attaching rivets with a 1/8 inch dia. drill and install new weatherstrip with 1/8 inch aluminum blind rivets by aligning rear edge of weatherstrip with the notch in the roof downstanding flange.

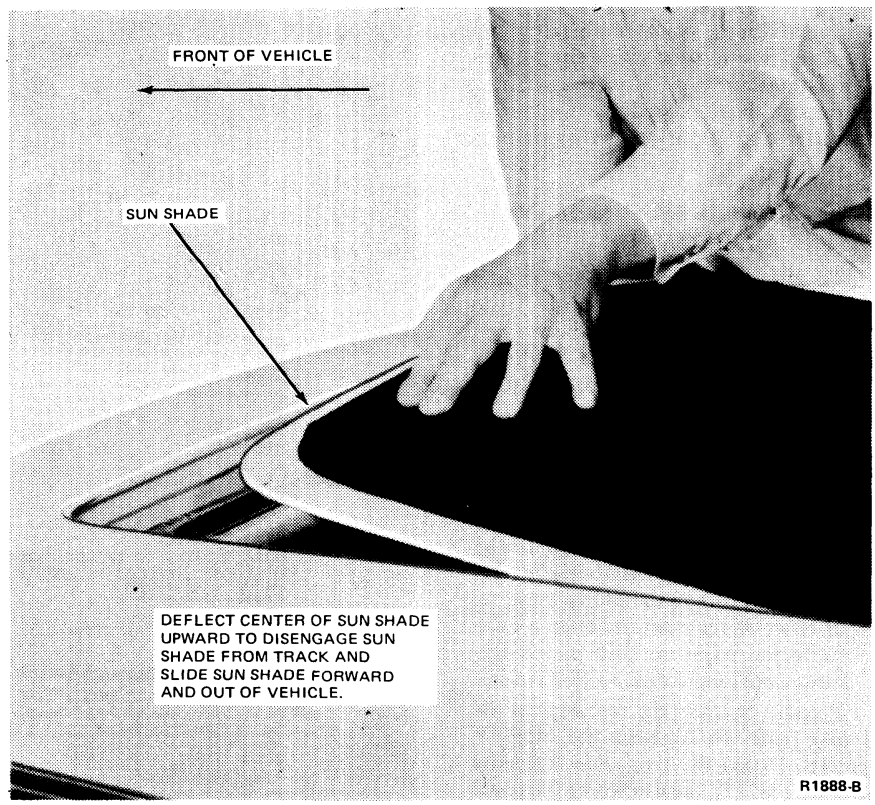


FIG. 5 Shade Removal

REAR SEAL

All Models Except Lincoln and Mark V

To replace the rear felt seal, remove the halo moulding and sliding panel. See Removal and Installation.

Place the removed sliding panel on a clean work bench. Remove the old seal from the rear of the sliding panel (Fig. 12, View A). Then, apply weatherstrip adhesive Part No. COAZ-19552-A or 3M adhesive Part No. 1099 on the seal mounting surface. Also, apply adhesive to the backside of the felt seal. Remove the masking tape from the sliding panel and install the seal so that the thick bulbous section is flush to the surface of the sliding panel.

Install the sliding panel and halo moulding. Then, cycle to assure that the sliding panel functions normally and does not bind or interfere with the front felt seal.

Lincoln and Mark V

The rear seal on these vehicles is an integral part of the rear weatherstrip assembly. It is attached to the sliding panel with 12 screws.

ADJUSTMENTS

ROOF PARALLEL ALIGNMENT

CAUTION: Do not activate the control switch while the cover or cables are removed from the track, as this can cause cable damage.

It is not necessary to remove the halo moulding to perform parallel alignment adjustment on the sliding panel.

1. Open the sliding panel approximately 1/4 inch to 1/2 inch.
2. Sight down the opening to determine the parallel relationship of the forward edge of the sliding panel with the forward edge of the opening in the roof panel and note the variation, see Fig. 8.
3. Open the sliding panel approximately 8 inches to gain access to the cable/drive gear mechanism.
4. Remove the front track cover and cable cover to gain access to the drive gear. (See Fig. 13).
5. Pry metal retaining clip off the cable drive gear mechanism if so equipped.
6. Remove one of the cables from the track as shown in Fig. 10.
7. Slide one side of the sliding panel assembly slightly fore or aft as required to obtain a parallel alignment.
8. Insert the cable into the track. If the unit utilizes a cable clip as shown in Fig. 14 be sure that it is properly oriented, and install the cover.

NOTE: The front and rear flanges on the clip are not the same width. The narrow side of the clip must be positioned toward the front of the vehicle, and firmly seated into the notches in the track assembly. If the clip is improperly positioned in the track, the flanges will not go into the grooves in the track and will result in extensive damage to the cables. See Fig. 14, View A.

9. Cycle the sliding panel to approximately 1/4 inch from the closed position and check the parallel relationship.
10. Repeat above procedure, if required, until a parallel relationship is obtained.

SLIDING PANEL FLUSHNESS OR HEIGHT ADJUSTMENT

To obtain a flush fit of the sliding panel to the roof panel, remove halo moulding to gain access to adjusters and refer to Fig. 15 for correct flushness specifications and the procedures outlined below:

1. To raise or lower the rear edge of the sliding panel on all vehicles except Lincoln and Mark V, loosen the rear retainer pin attaching nut (Fig. 15). The pin assembly is located in the slotted lifter bracket (See Fig. 16, View A). Position the sliding panel up or down as required to obtain a flush fit to the adjacent roof panel. Re-torque pin retainer nut to 20-23 in-lbs.

To raise or lower the rear edge of the sliding panel on Lincoln and Mark V vehicles, loosen the rear slide adjusting nut (See Fig. 17), raise or lower the panel to achieve correct alignment, and tighten the adjusting nut (24-36 in-lbs).

2. To raise or lower the forward edge of the sliding panel, loosen the forward track shoe retaining screws. Refer to Fig. 18. Rotate the adjuster (clockwise lowers panel, counterclockwise raises panel) as required to obtain a flush fit to adjacent roof panel. Re-torque the track shoe attaching screws to 18-23 in-lbs.

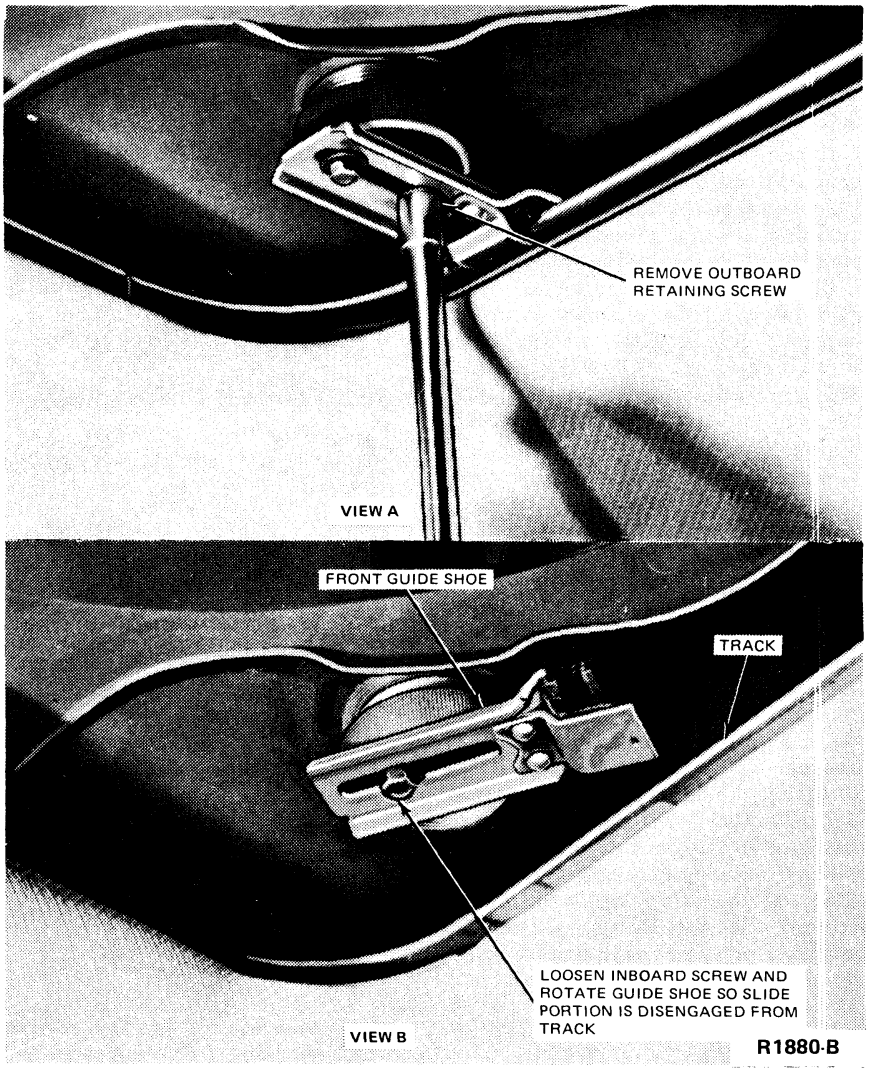


FIG. 6 Sliding Roof Panel Removal

BINDING DURING PANEL MOVEMENT

All Car Lines Except Mark V and Lincoln

Sliding panel binding can be caused by unparallel alignment of sliding panel causing the sliding panel to cock in the opening (Fig. 19) or binding of the pivot pins which does not allow the sliding panel to raise at rear corners when cycled to full closed position (Fig. 20).

To diagnose binding:

1. Cycle the roof open about 1/4 inch and sight down the opening to assure that the sliding panel is parallel to the opening. Refer to parallel alignment to correct.
2. The pivot pins, which are attached to the lifter brackets may be too tight in the pivot brackets. This causes the system to function normally through all cycles except the lift cycle. At that point in the cycle, the pivot pins must freely rotate in the pivot bracket. Binding pivot pins can cause the pivot pins to "walk" out of the pivot bracket when the system is cycled numerous times. (Refer to Fig. 19.) If the condition is caused by binding pivot pins, remove the pins from the brackets and ream with a 13/64 inch drill. Apply silicone lube on the pivot pin and reinstall. Cycle system to assure that the panel is fully raising. Adjust the panel, if required, to obtain a flush fit to the roof panel. (Refer to Fig. 21.)

Lincoln and Mark V

Diagnose binding the same as previously describe. If the panel fails to raise fully at the rear when closed, make the following adjustments:

Move the sliding panel as far forward as it will go. Check rear lifting links to determine whether or not they have reached full vertical position. If one or both links do not attain vertical position, disengage the cable from the drive gear, manually lift the panel and rotate the links to vertical. Then re-engage the cable and re-assemble.

RATCHETING NOISE FROM CABLE AND DRIVE ASSEMBLY

If the cable-drive mechanism emits a ratcheting noise when sliding panel is fully opened or closed, the drive gear may be overriding one of the cables due to insufficient cable to gear engagement.

Remove the center track cable drive assembly cover plate and cable retainer clip. Examine gear to cable engagement. Pull cables and examine for wear. If the cables do not exhibit excessive wear, reinstall cables and position the retainer clip. Install a .030" shim between the track wall and retainer clip to provide additional gear to cable engagement on the side that exhibits clearance. Refer to Fig. 22.

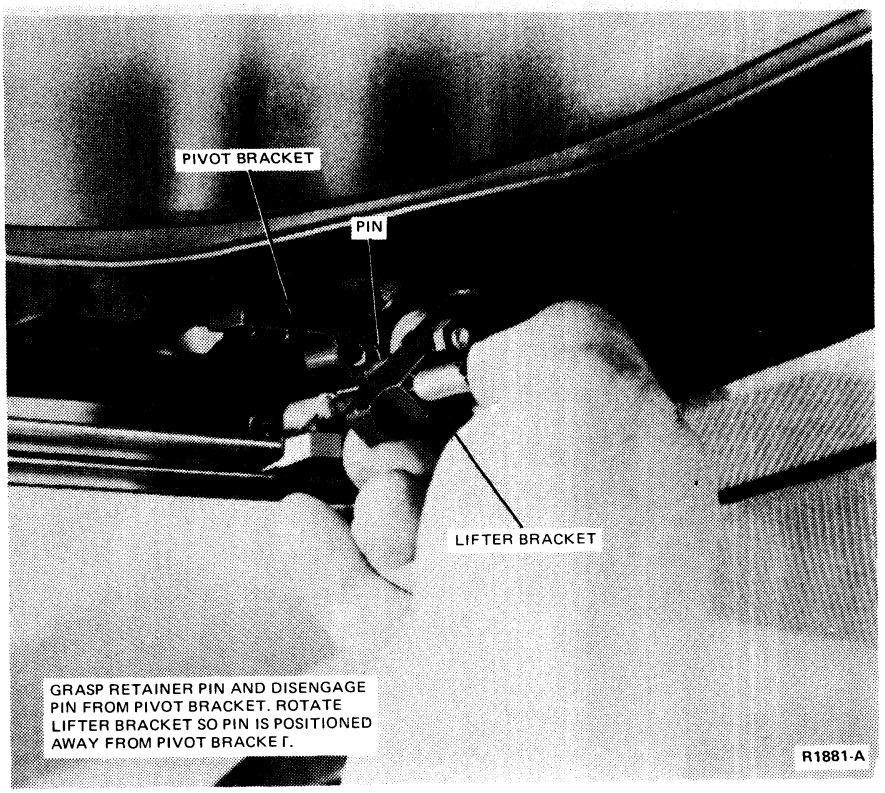


FIG. 7 Sliding Roof Panel Removal

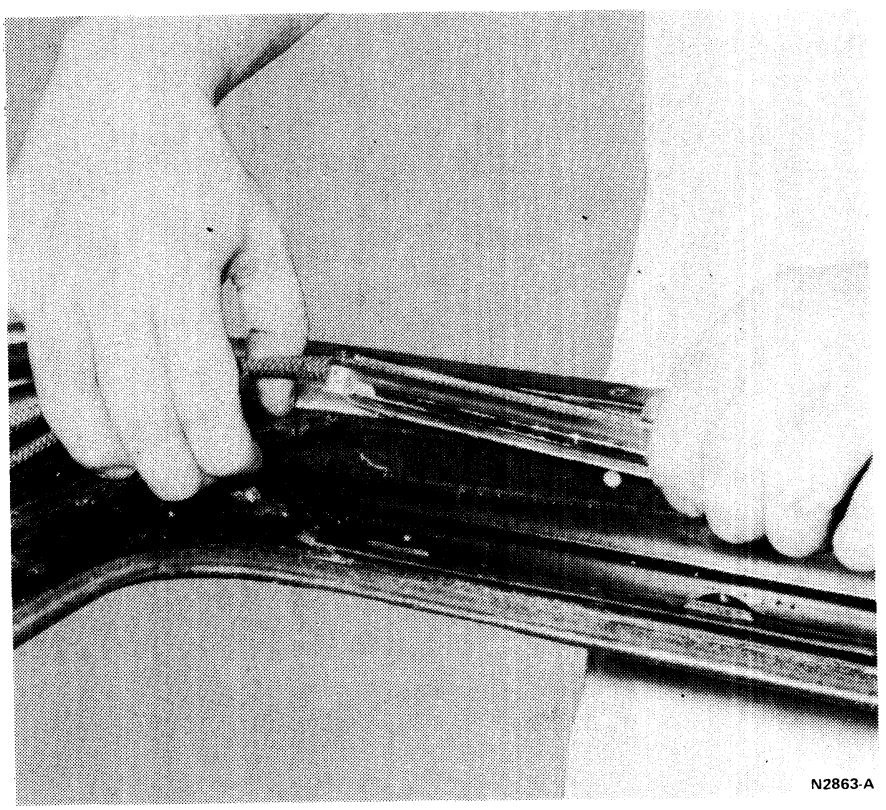


FIG. 8 Cable Removal

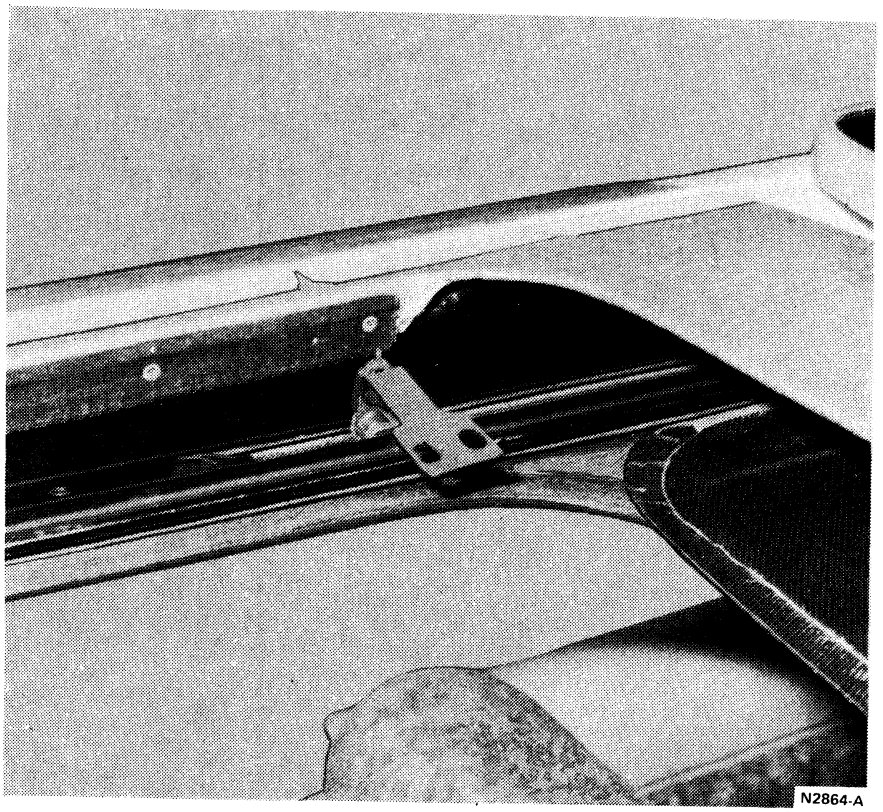


FIG. 9 Initial Cable Alignment

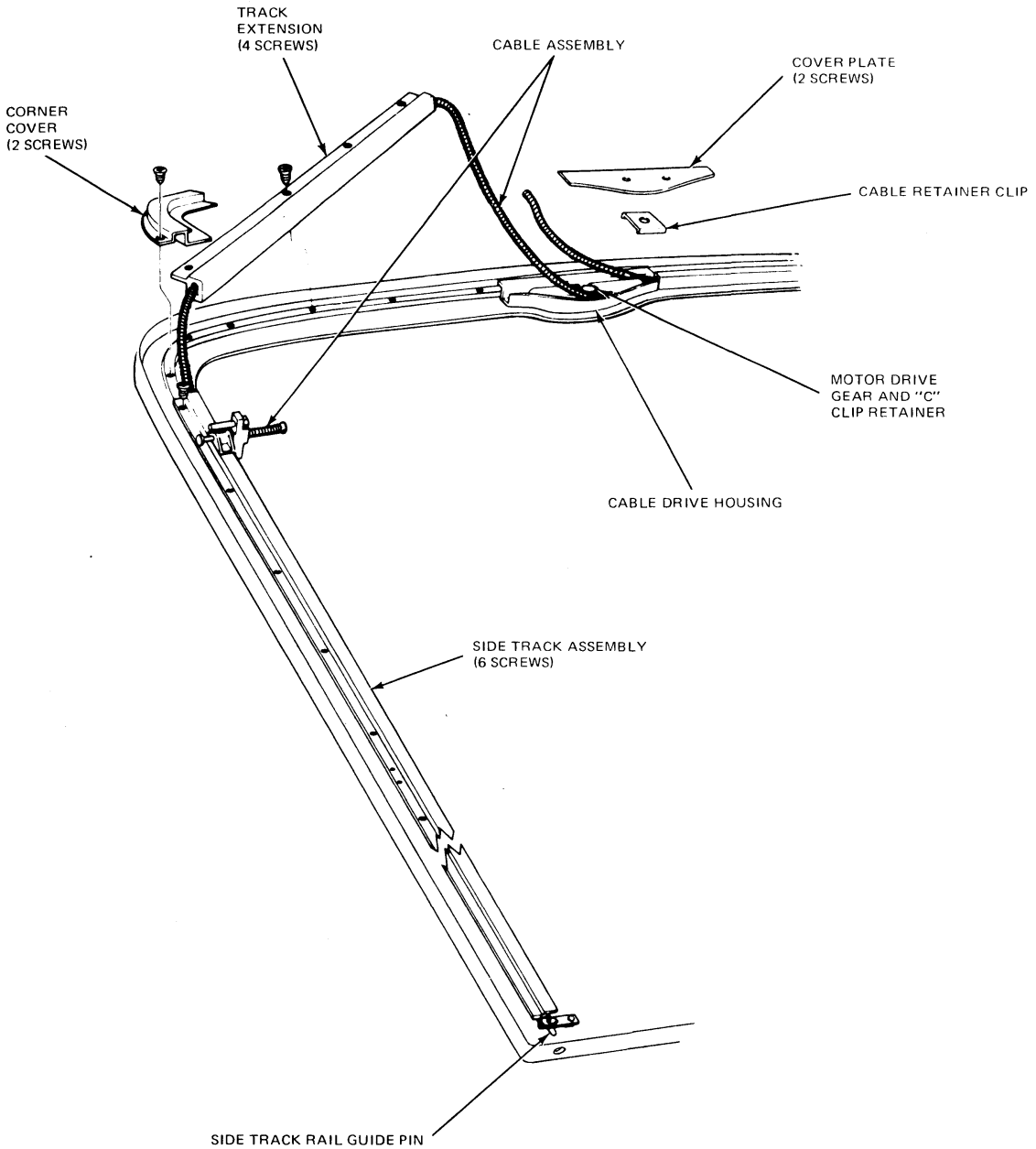


FIG. 10 Cable, Drive Gear and Track Removal—All Except Lincoln and Mark V

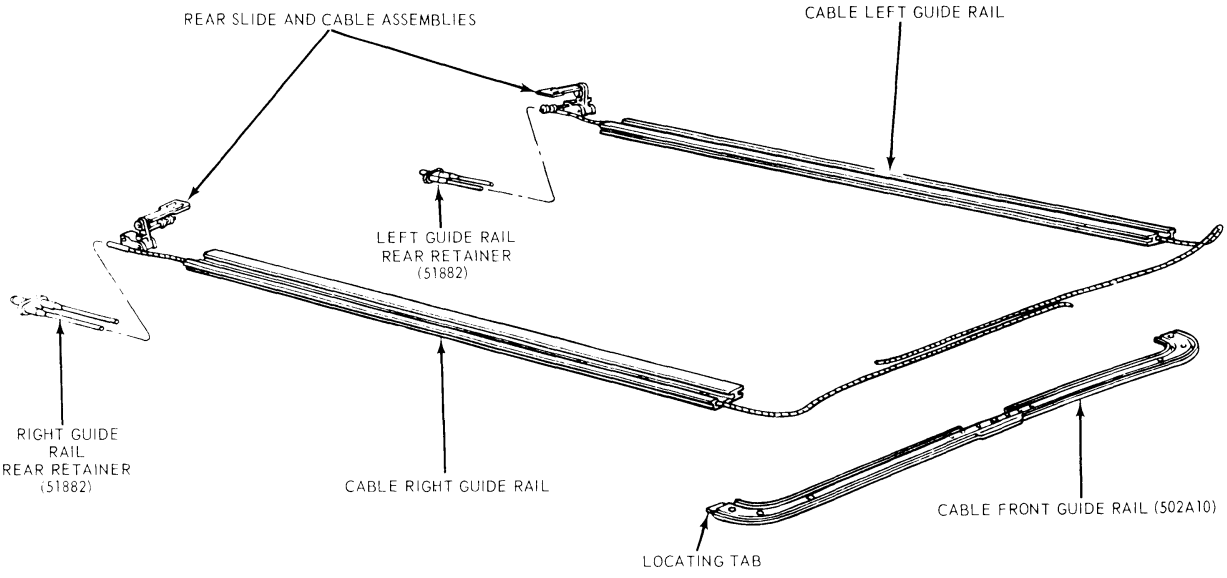


FIG. 11 Cable and Guide Rail System—Lincoln and Mark V

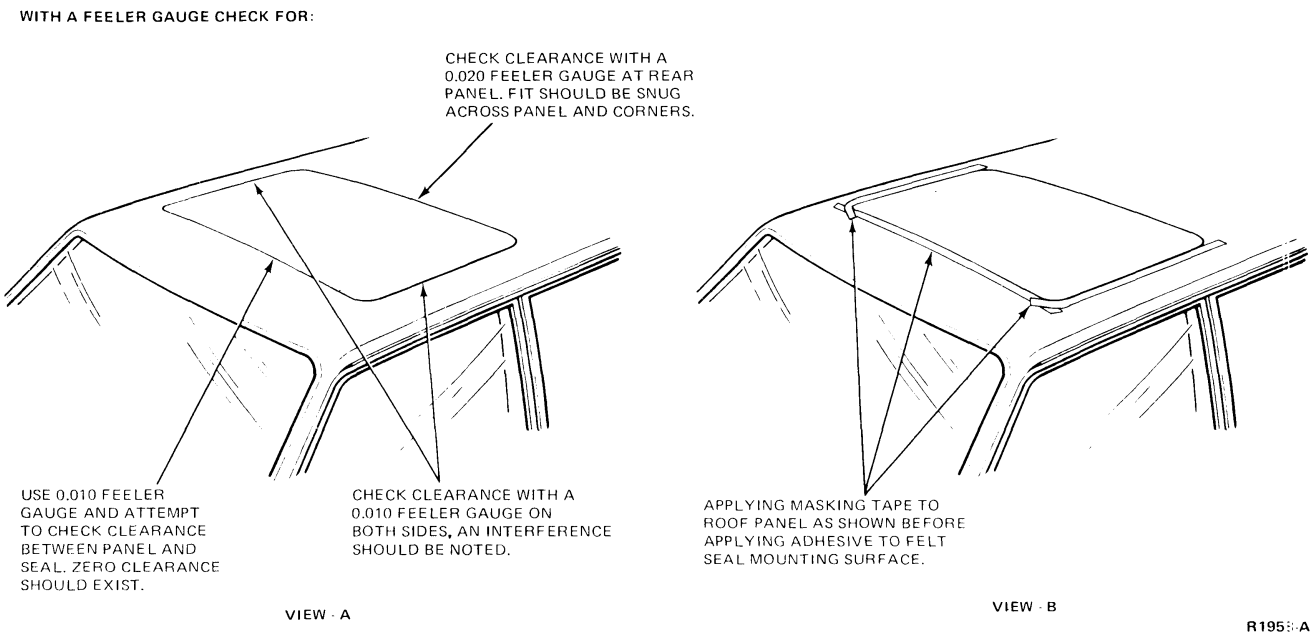


FIG. 12 Panel Checking Procedures

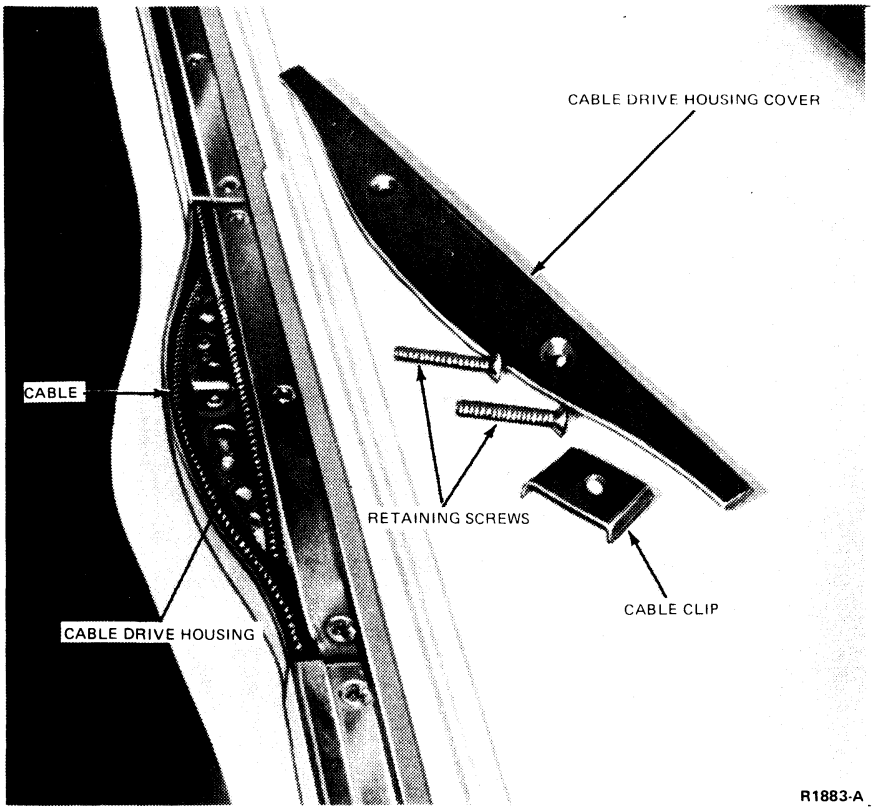


FIG. 13 Cable Cover Removal

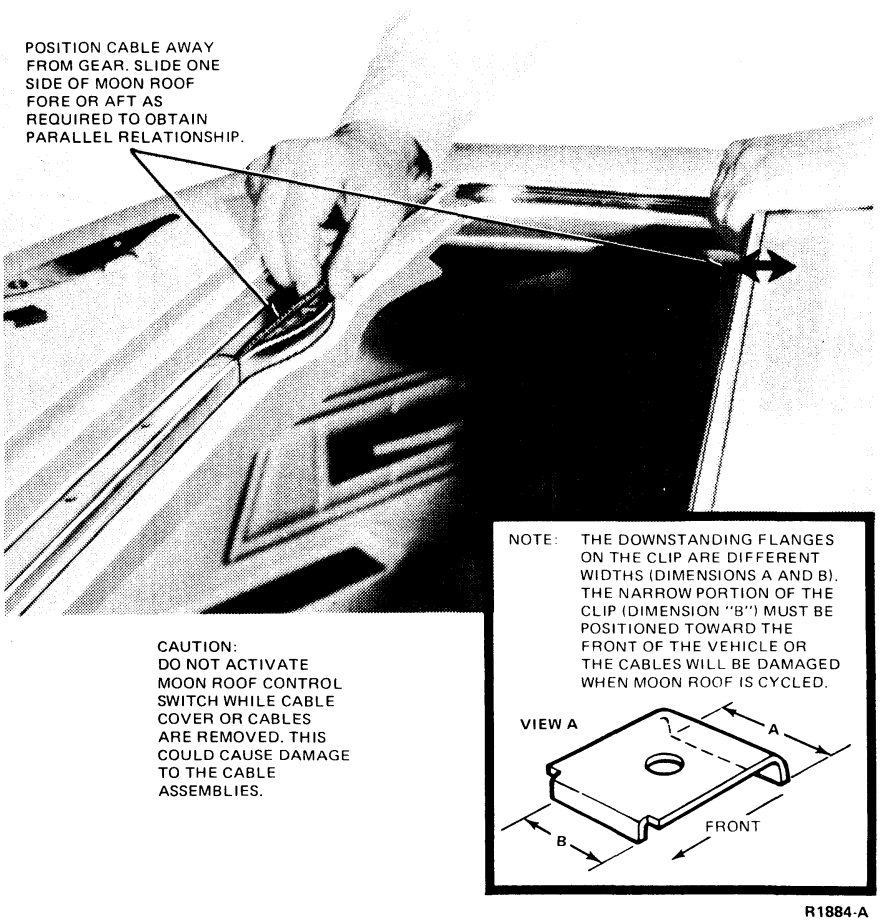


FIG. 14 Cable Clip Position

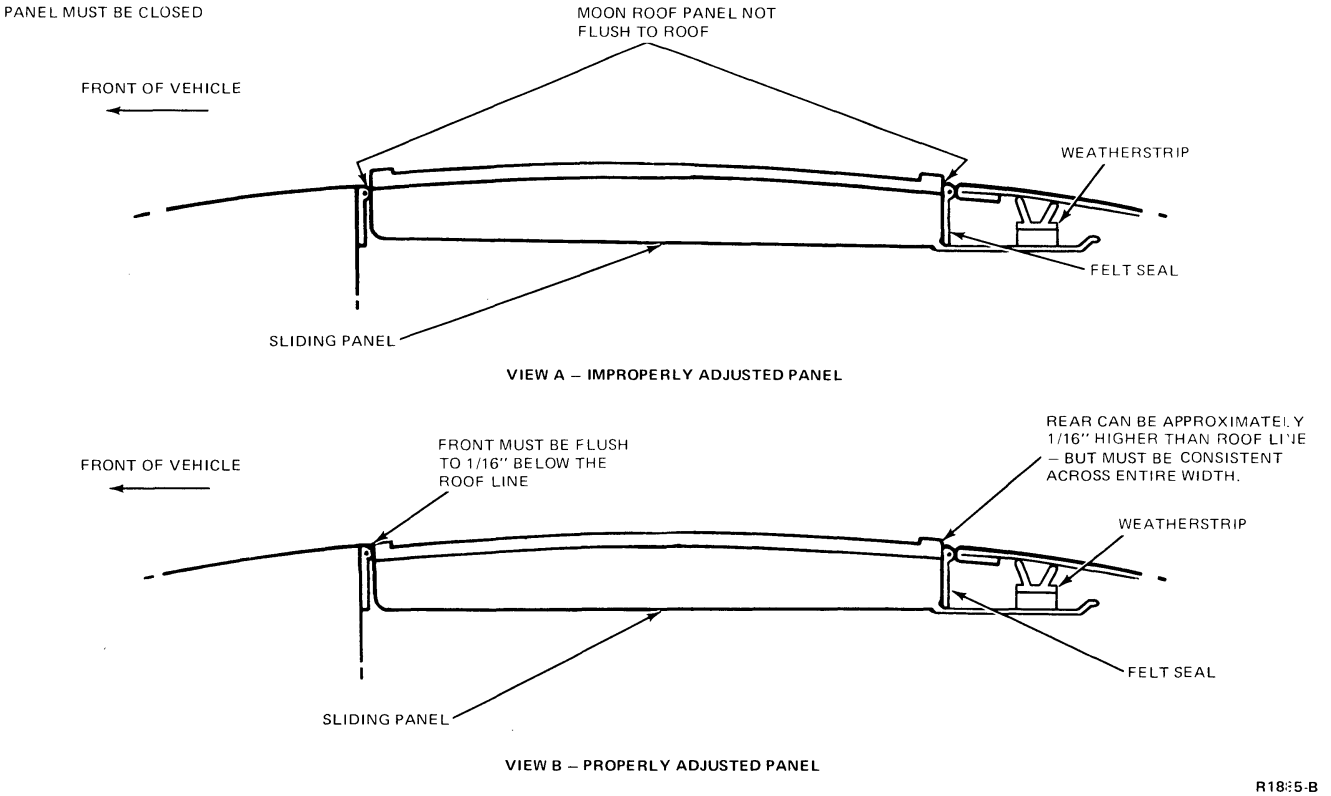


FIG. 15 Correct Sliding Panel Flushness Setting

1. LOOSEN PIN RETAINING NUT.
2. POSITION SLIDING PANEL UP OR DOWN AS REQUIRED TO OBTAIN PROPER FLUSHNESS SETTING.
3. TORQUE RETAINING NUT TO 20-23 INCH LBS.

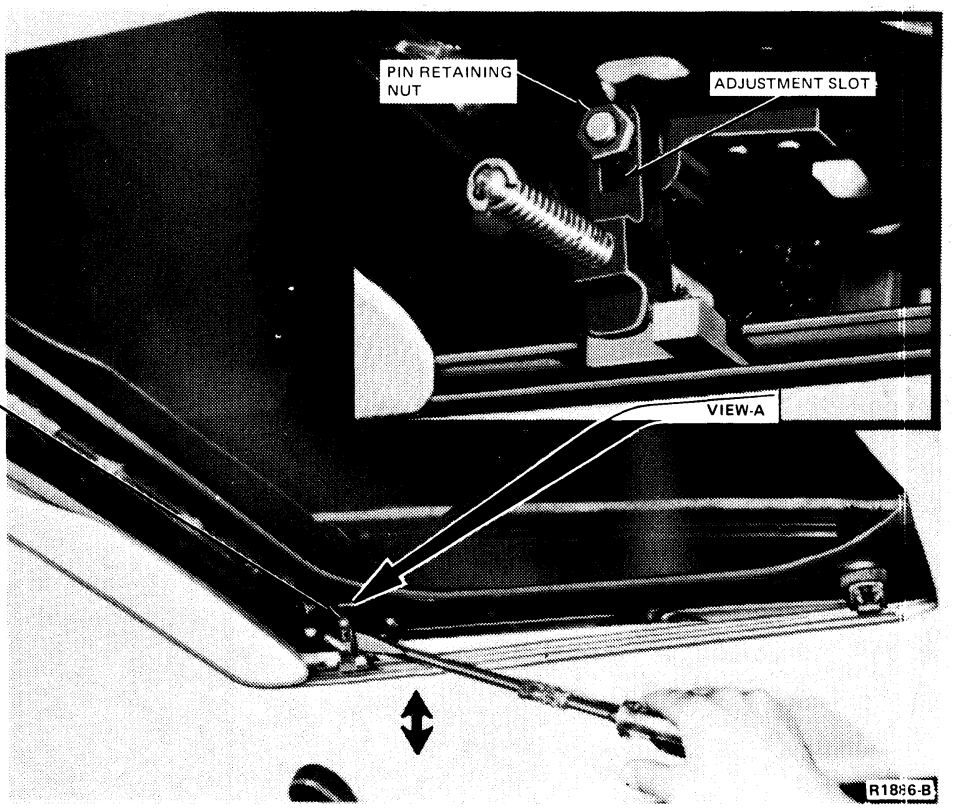


FIG. 16 Rear Sliding Flushness Adjustment

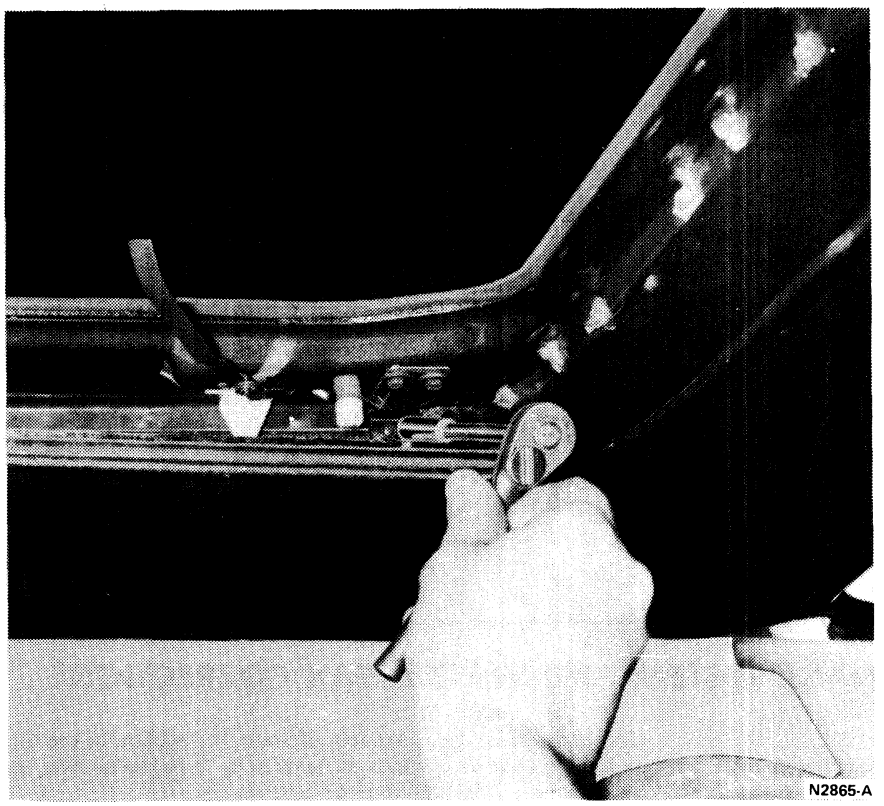


FIG. 17 Rear Roof Panel Adjustment

1. LOOSEN ATTACHING SCREWS.
2. ROTATE ADJUSTOR NUT TO RAISE OR LOWER MOON ROOF TO OBTAIN PROPER FLUSHNESS SETTING.
3. TORQUE ATTACHING SCREWS TO 18-23 INCH LBS.

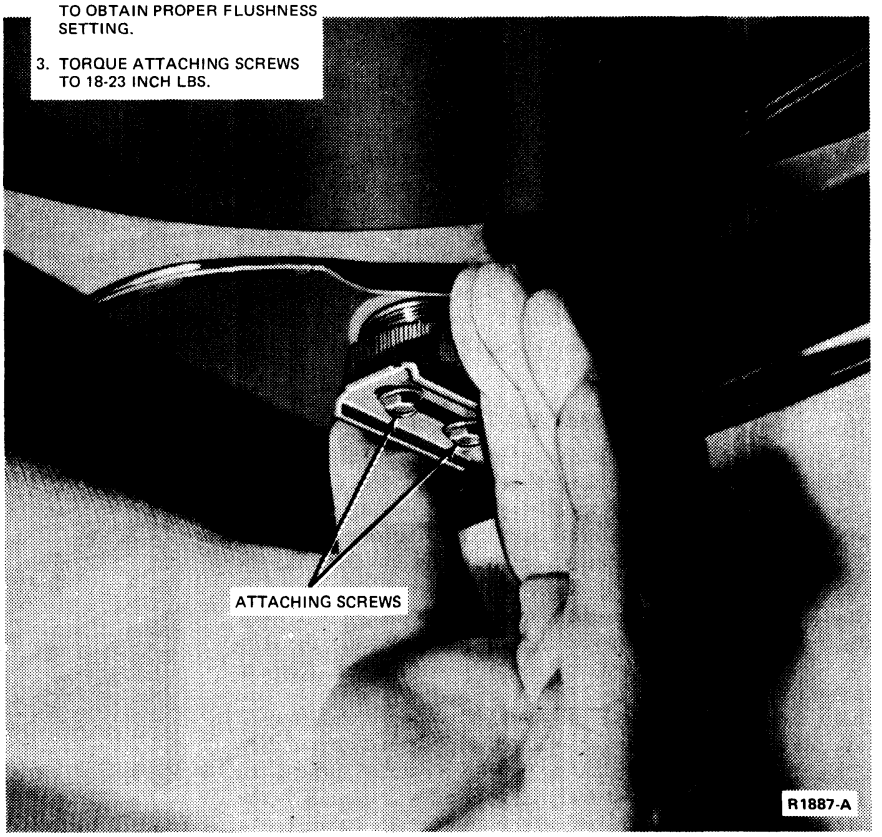


FIG. 18 Front Sliding Panel Flushness Adjustment

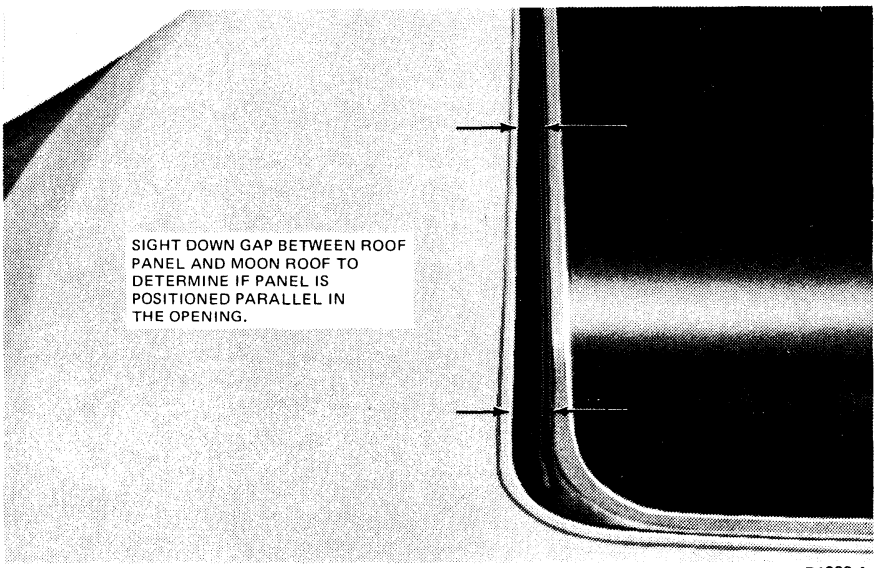


FIG. 19 Sliding Roof Panel Parallel Adjustment

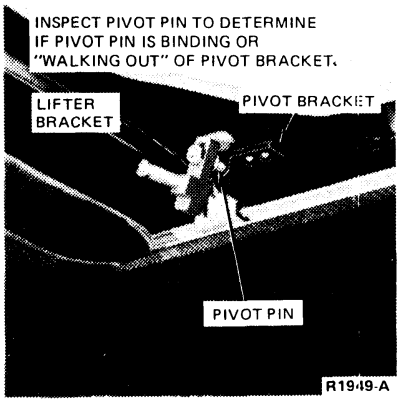


FIG. 20 Inspection for Binding Pivot Pin

WATER DRAINAGE SYSTEM AND WATER LEAK CORRECTIONS

DRAIN HOSES

The roof panel module contains the track assemblies, cable and drive mechanisms, and a drain trough that encircles the sliding panel. Attached to the module are four (4) drain hoses. One drain hose is attached at each corner of the module. The two front drain hoses are routed down the windshield pillars and into the cowl sides existing at rocker panel drain darts—ends of hose are **not** reusable. The two rear drain hoses are routed down the rear pillars over the rear wheel house and into the rear quarters. Refer to Fig. 23.

NOTE: Prior to performing any repairs, first verify that the drainage system is not plugged or restricted. Use a pint size container and pour water into the drain trough. Look at the rear of the vehicle to ensure that the water drains from the rear quarter panels or rocker panels.

If the water flow is restricted, use compressed air to "blow-out" any material in the drain hose system. Test by pouring water slowly into the system again.

After assuring that the drainage system is not restricted, verify that gaps do not exist around the edge of the panel. If a gap exists, the gap must be brought to specification before any further action is taken (Fig. 24).

With the clearances within specification, remove the halo moulding. Close the panel and have an assistant spray water on the sliding panel while you're on the inside visually inspecting the panel area to see if an excessive amount of water is entering the drain trough. A large volume of water indicates that an excessive clearance exists between the sliding panel and the felt seals. See shimming the felt seal, this section.

SLIDING PANELS

The sliding panel has a controlled water leak at the roof panel felt seals. Clearances between the felt seal at the front of the panel are "zero". Using a .010" feeler gauge, an interference should be noted at the sides of the panel. .020" maximum clearance should be noted between the rear of the sliding panel felt seal and the roof panel opening. **If these tolerances are not maintained, water will overflow the drain troughs and enter the module, running down into the passenger compartment when the vehicle is stopped abruptly.** Refer to Fig. 24, View A.

SHIMMING THE FELT SEAL

If the vehicle is equipped with a full vinyl roof, remove the felt seal in the "gapped" area, peel up the vinyl roof material and install shim material as required on the sheet metal to fill the void. Re-cement the vinyl over the shim material, and re-attach the felt seal. If the gap is at the rear of the opening, the shim is installed at the front felt seal. Refer to Fig. 25.

If the vehicle is equipped with the 1/2 vinyl roof and the roof panel surrounding the sliding panel is a painted surface, the best material to use for shimming is the felt seal in the appropriate color. Use a pair of tin snips and trim off the bulbous section at the top of the seal and install between the existing seal and the

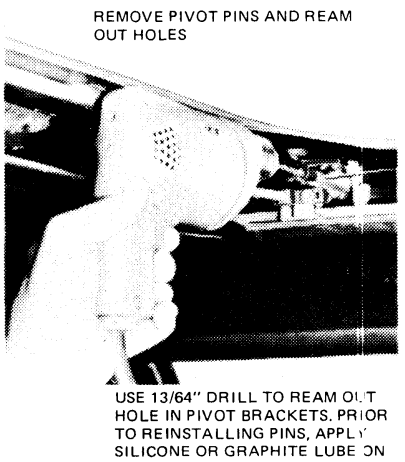


FIG. 21 Reaming Pivot Bracket for Pivot Pin

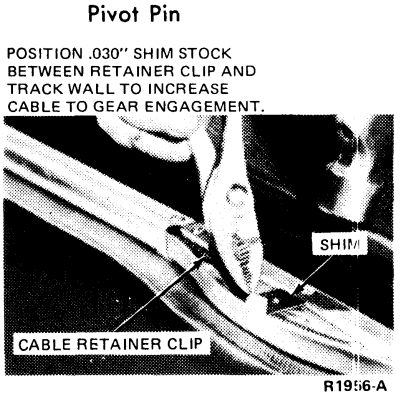


FIG. 22 Increasing Cable-To-Gear Engagement

downstanding flange, across the front of the opening (Fig. 26). If the gapping condition exists at the rear corners, it may be necessary to add shim behind the seal, in the corners and at the rear of the sliding panel.

RUBBER SEAL (WEATHERSTRIP)

Water collecting in the module area may be caused by the rubber seal at the rear of the sliding panel. The rubber seal must be positioned at the rear edge of the panel so that a water channel is provided to drain any water that bypasses the felt seal to the side drain troughs.

On models with foam rubber spacer mounted under the rubber seal, inspect for proper mating and that no gap exists. Water flowing through the gap will cause water to accumulate in the rear of the module (Fig. 27).

If the water leak is at the foam spacer, apply a bead of clear silicone sealer or liquid butyl sealer along the surface of the panel where the filler strip is attached as shown in Fig. 28.

WET HEADLINER—SIDES

Water may drip from the headliner above the door or quarter window because.

1. Module is not sealed to underside of roof panel at the rear of the opening. Apply caulking cord in joint between roof panel and module as shown in Fig. 29.
2. Weld burn exists in the drain trough area. Use paintable plastic sealer and touch up with appropriate color. Refer to Fig. 30.
3. Drain tube(s) disconnected from module. Apply trim cement on metal drain tube nipple, and insert drain hose (Fig. 18).

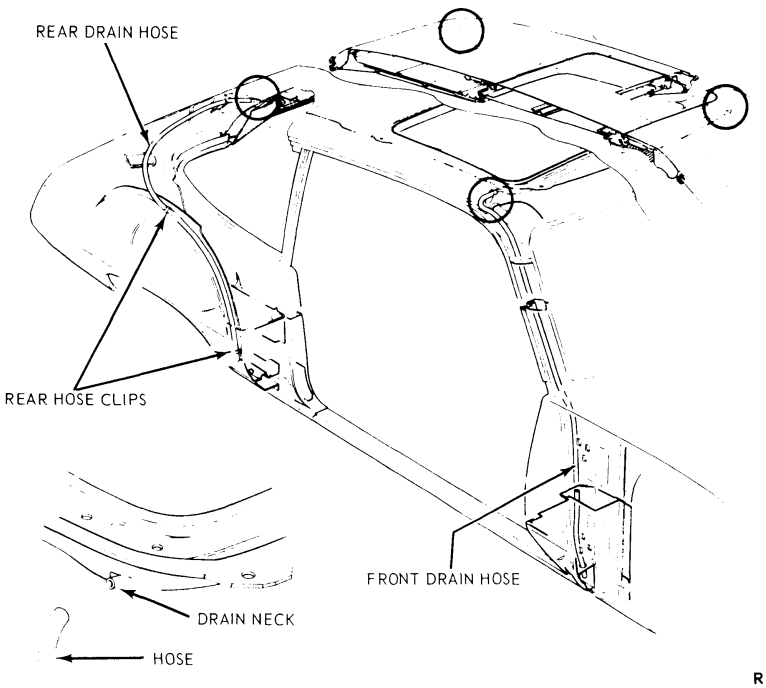


FIG. 23 Water Drainage System

OVERCROWNED REAR ROOF PANEL

If the roof panel is overcrowned to the contour of the sliding panel (at rear of sliding panel), this can cause wind noise or water leak conditions.

Remove sliding panel from vehicle and apply hand pressure on center of roof panel to flatten the contour (Fig. 31).

UNDERCROWNED FRONT ROOF PANEL

A glass panel scratch can be caused by the front of the roof panel being slightly undercrowned.

Open the sliding panel assembly slightly and compare the contour of roof panel and glass panel. If the roof panel appears flattened in the center, and the glass scuffs are on the underside of the roof panel, remove the sliding panel from

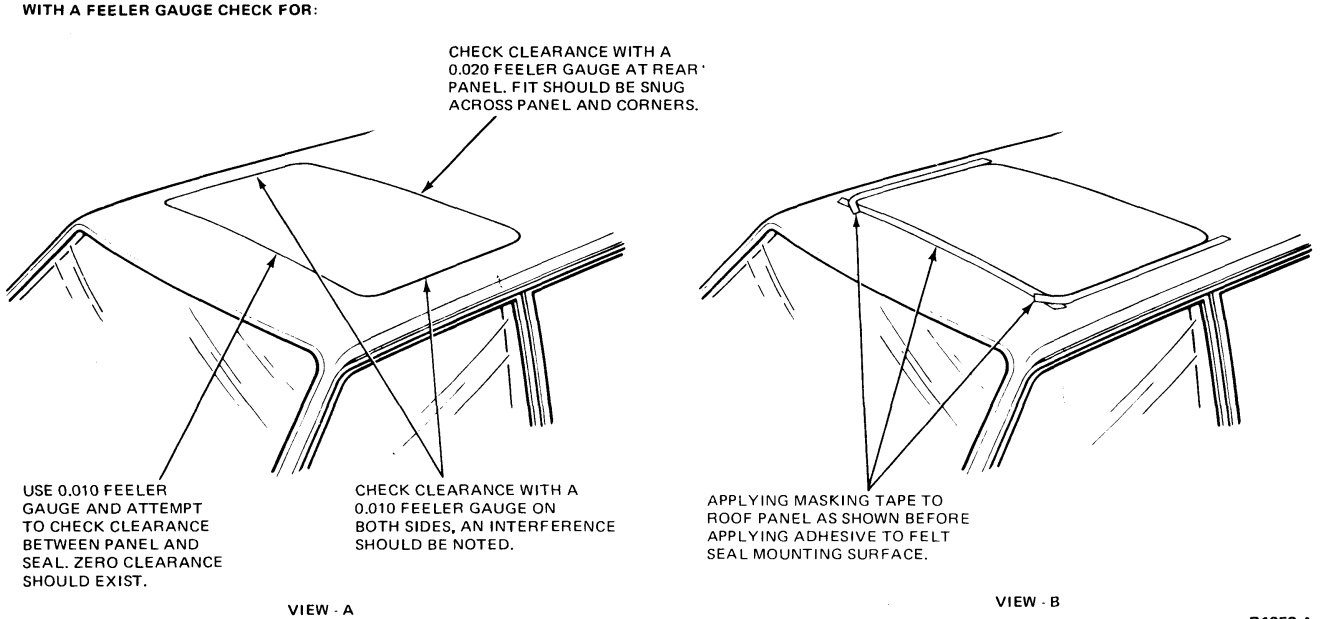


FIG. 24 Panel Checking Procedures

the vehicle and re-arch the roof panel by using your feet and pushing up on underside of roof panel to increase the roof panel arch.

WATER LEAK AT GLASS MOULDING

A water leak occurring in the area of the halo moulding is usually caused by an inadequate seal between the glass and the metal frame. To correct a leak between the metal frame and the glass, remove the sliding panel from the vehicle. Use a clear silicone sealer—3M Part No. 8551 auto glass sealer (procure from local glass repair shop) and apply a bead around the edge of the metal frame as shown in Fig. 32.

CAUTION: DO NOT ATTEMPT TO PRY THE METAL FRAME UPWARD TO APPLY THE SEALER, AS THIS CAN RESULT IN GLASS BREAKAGE.

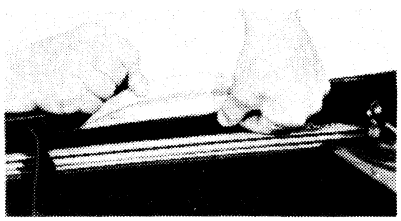
ROOF ELECTRICAL CONNECTIONS

The electrical connections, locations and circuit schematic are shown in Figs. 33, 34, 35 and 36.

The parts component chart is shown in Fig. 32.

NOTE: PROCURE DOUBLE BACK FOAM TAPE LOCALLY IN VARIOUS THICKNESSES.

A. IF AN EXCESSIVE CLEARANCE IS NOTED, AND THE VEHICLE IS EQUIPPED WITH A VINYL ROOF, REMOVE FELT SEAL IN THE AREA TO BE SHIMMED. CAREFULLY PEEL THE VINYL MATERIAL AND INSTALL NECESSARY SHIM ON DOWNSTANDING FLANGE. RE-INSTALL VINYL ROOF COVER OVER SHIM AND RE-CEMENT FELT SEAL IN POSITION.



B. IF THE EXCESSIVE CLEARANCE IS NOTED AT THE REAR OF THE PANEL, PLACE THE SHIM AT THE FRONT.

R1959-A

FIG. 25 Shimming Felt Seal-Full Vinyl Roof

REMOVE EXISTING SEAL AND POSITION TRIMMED FELT SEAL SHIM ONTO THE DOWNSTANDING FLANGE, RE-CEMENT EXISTING SEAL IN POSITION.

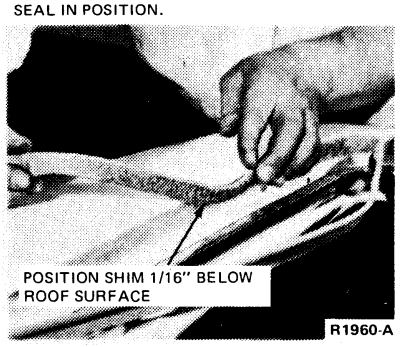
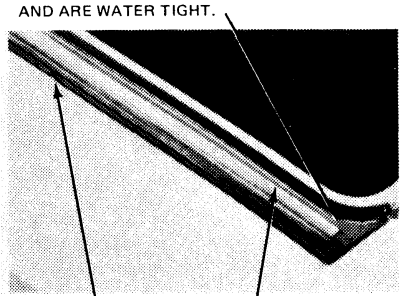


FIG. 26 Shimming Felt Seal-1/2 Vinyl Roof

INSPECT PLASTIC PLUGS AT EACH END OF THE PANEL TO INSURE THAT THE PLUGS ARE POSITIONED AND ARE WATER TIGHT.

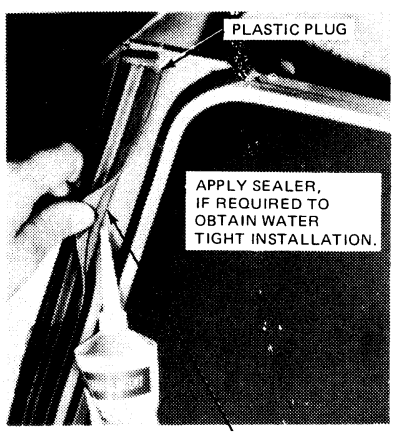


REMOVE SLIDING PANEL FROM VEHICLE AND INSPECT JOINT AT FOAM SPACER.

INSPECT WEATHERSTRIP TO ENSURE THAT IT IS PROPERLY POSITIONED AT REAR OF PANEL AND THAT A 1/4" TO 3/8" CHANNEL IS PROVIDED TO CATCH ANY WATER THAT MAY BY-PASS FELT SEAL.

R1961-A

FIG. 27 Rubber Seal (Weatherstrip) Inspection



APPLY BEAD OF CLEAR SILICONE SEALER ALONG FOAM SPACER. ALLOW SEALER TO SET-UP AND CHECK FOAM SPACER JOINT TO ENSURE THAT A WATER TIGHT SEAL IS OBTAINED.

R1962-A

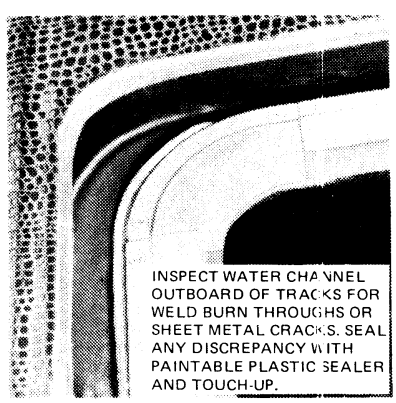
FIG. 28 Applying Sealer to Foam Spacer



APPLY BEAD OF CAULKING CORD ALONG JOINT IF THE WATER IS LEAKING FROM GARNISH MOULDINGS ABOVE SIDE WINDOWS.

R1963-A

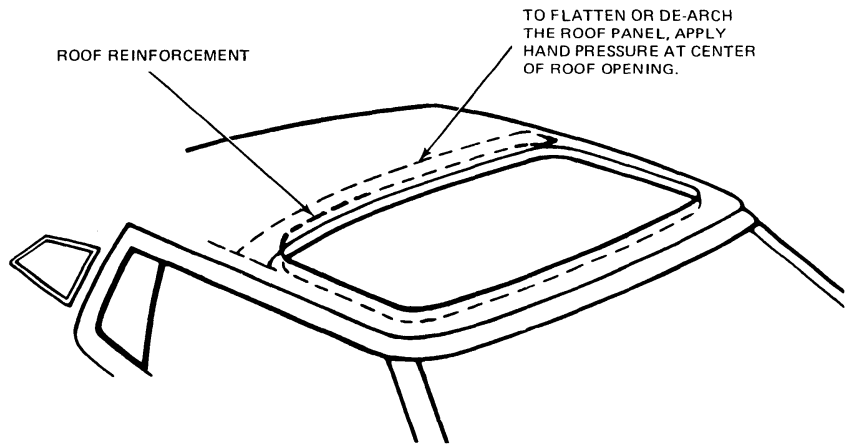
FIG. 29 Sealing Module-To-Roof Panel



INSPECT WATER CHANNEL OUTBOARD OF TRACKS FOR WELD BURN THROUGHS OR SHEET METAL CRACKS. SEAL ANY DISCREPANCY WITH PAINTABLE PLASTIC SEALER AND TOUCH-UP.

R1964-A

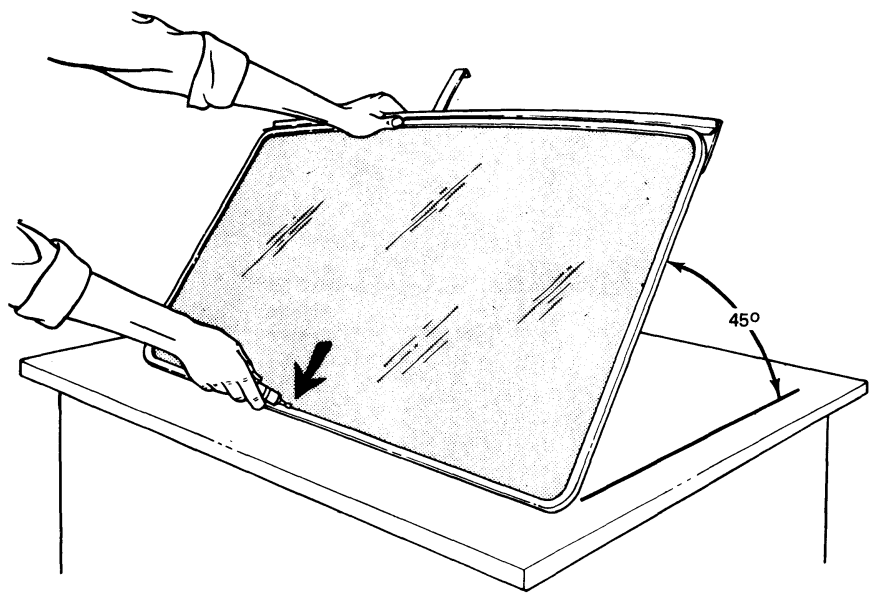
FIG. 30 Inspecting Drain Trough Area



REMOVE THE SLIDING PANEL AND SUN SHADE TO PERFORM THIS OPERATION.

R1965-A

FIG. 31 Overcrowned Roof Panel



PLACE PANEL AT A 45° ANGLE FROM THE HORIZONTAL SURFACE OF WORK BENCH AND SEAL MOULDING BY APPLYING CLEAR SILICONE SEALER, PART 3M NO. 8551 CLEAR AUTO GLASS SEALER, OR EQUIVALENT BETWEEN MOULDING AND GLASS. REPEAT THIS PROCEDURE FOR ALL REMAINING SIDES.

R1889-A

FIG. 32 Applying Sealer-Glass-To-Frame

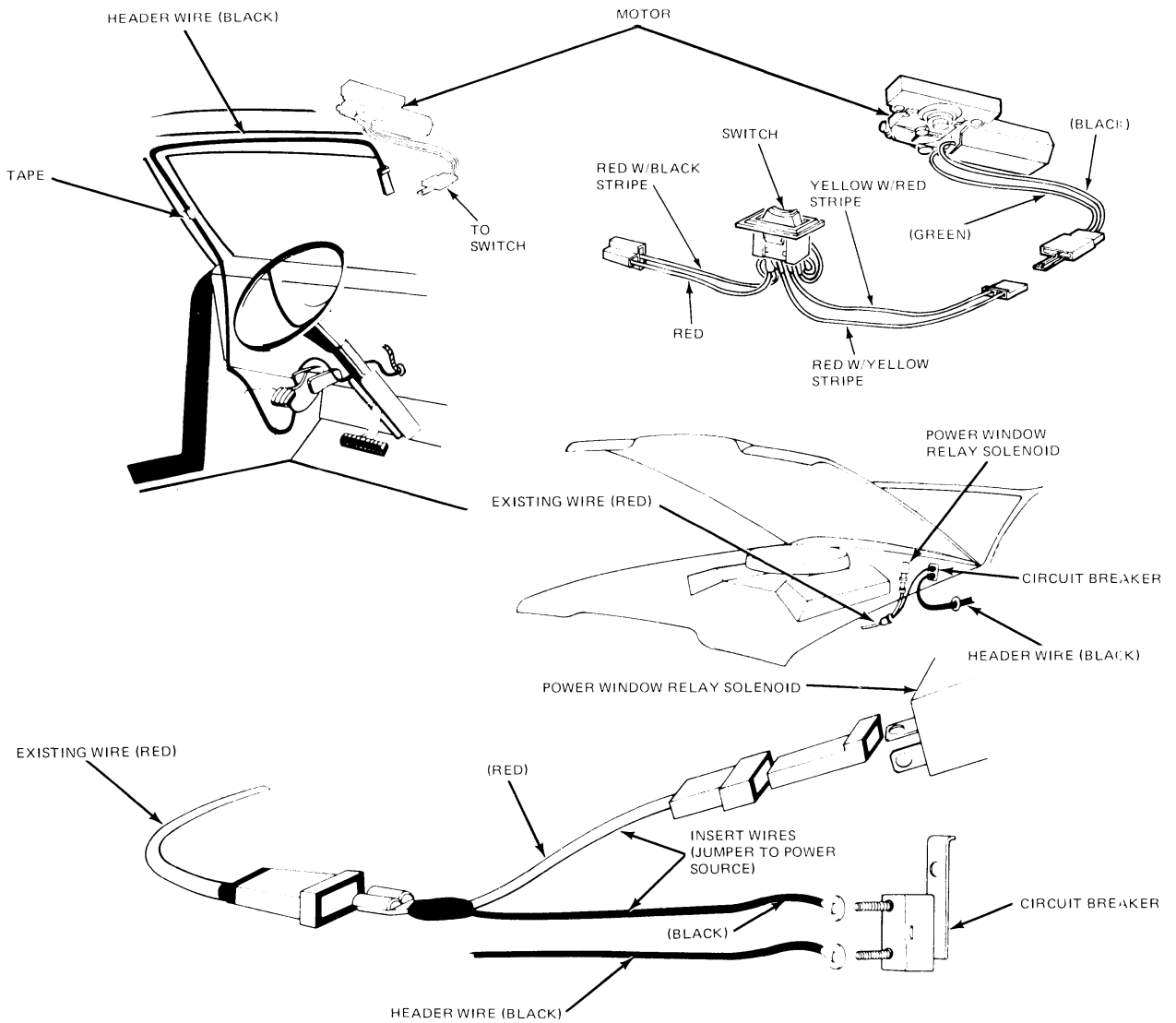


FIG. 33 Wiring System Components – Thunderbird and Continental Mark V

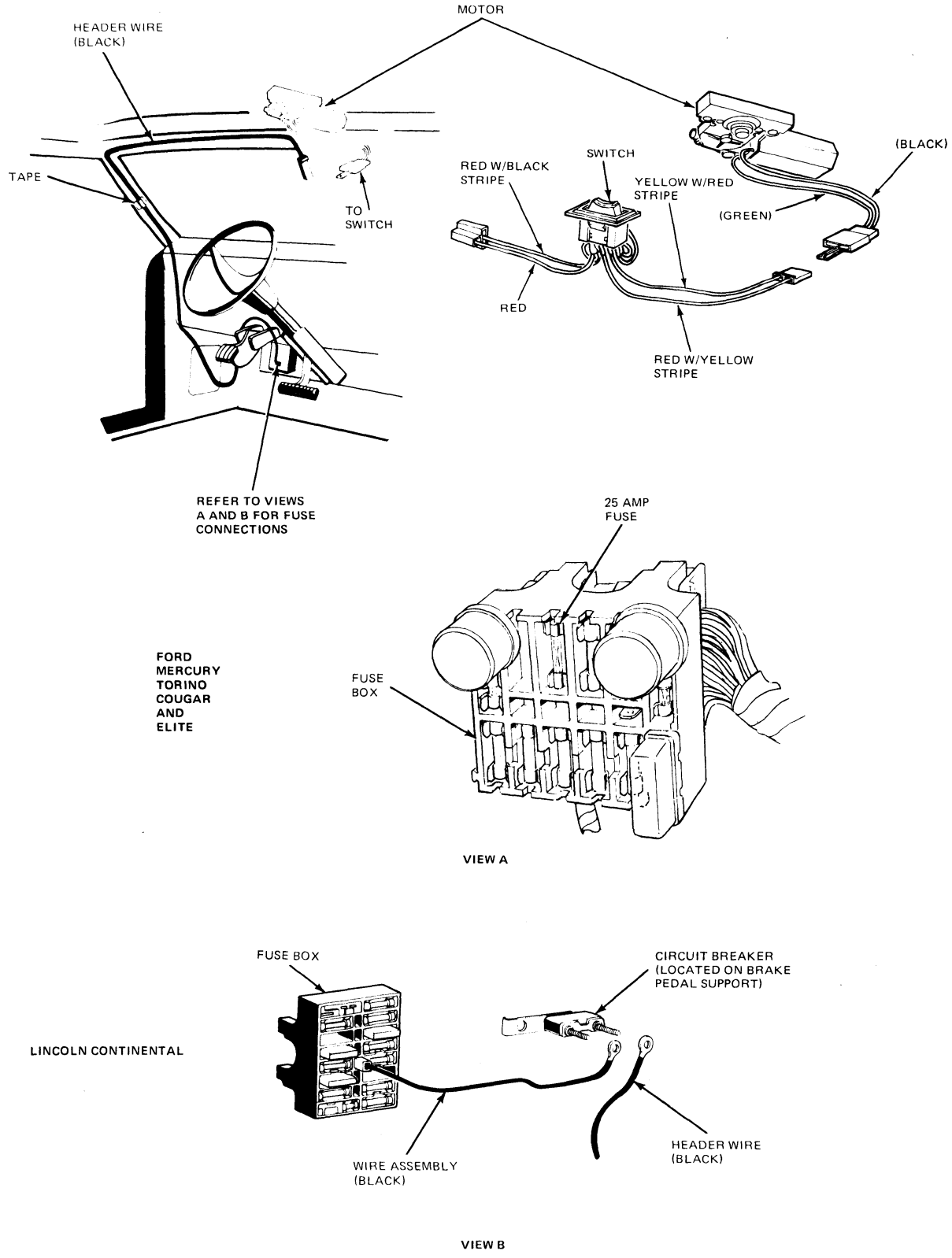
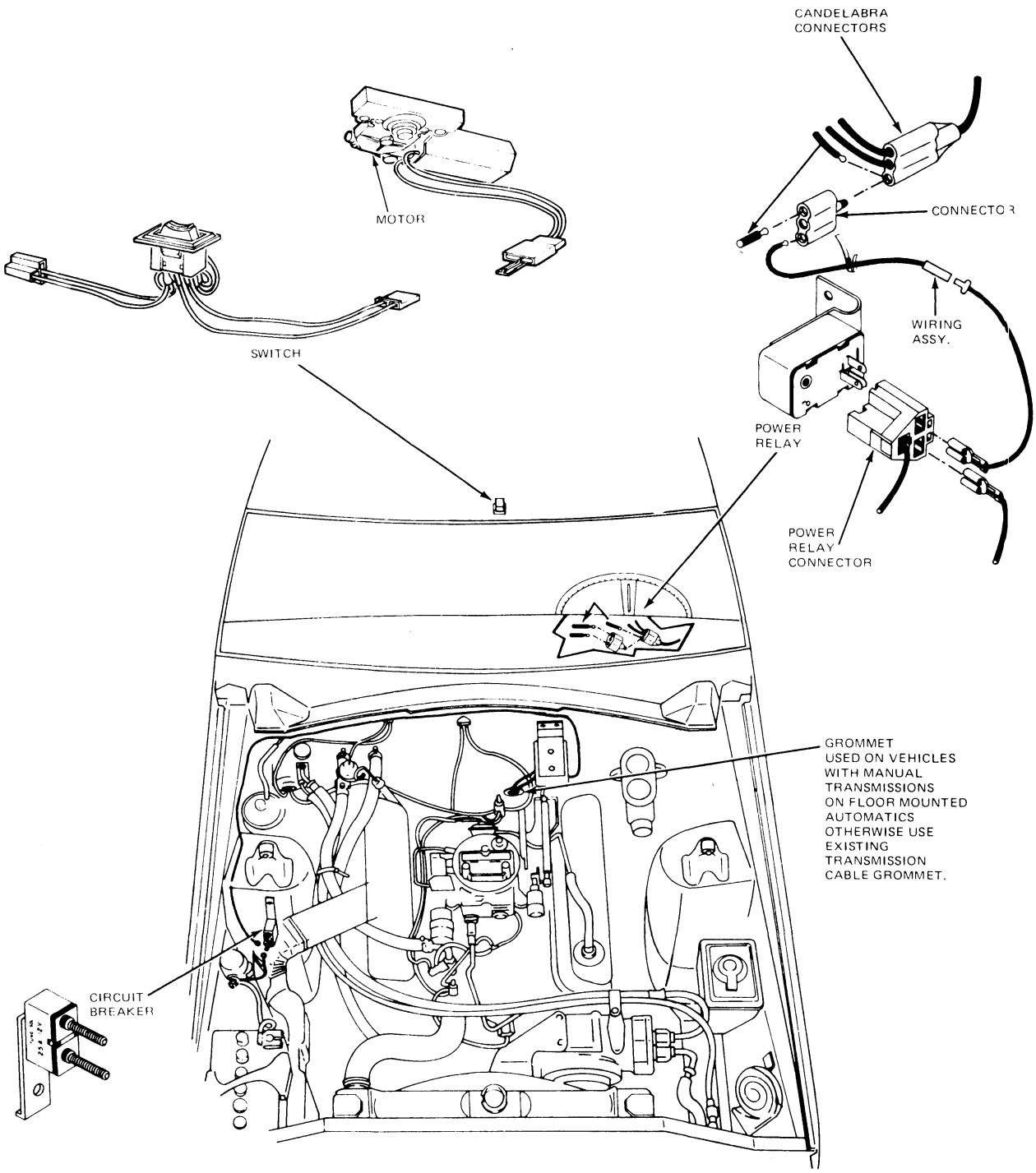
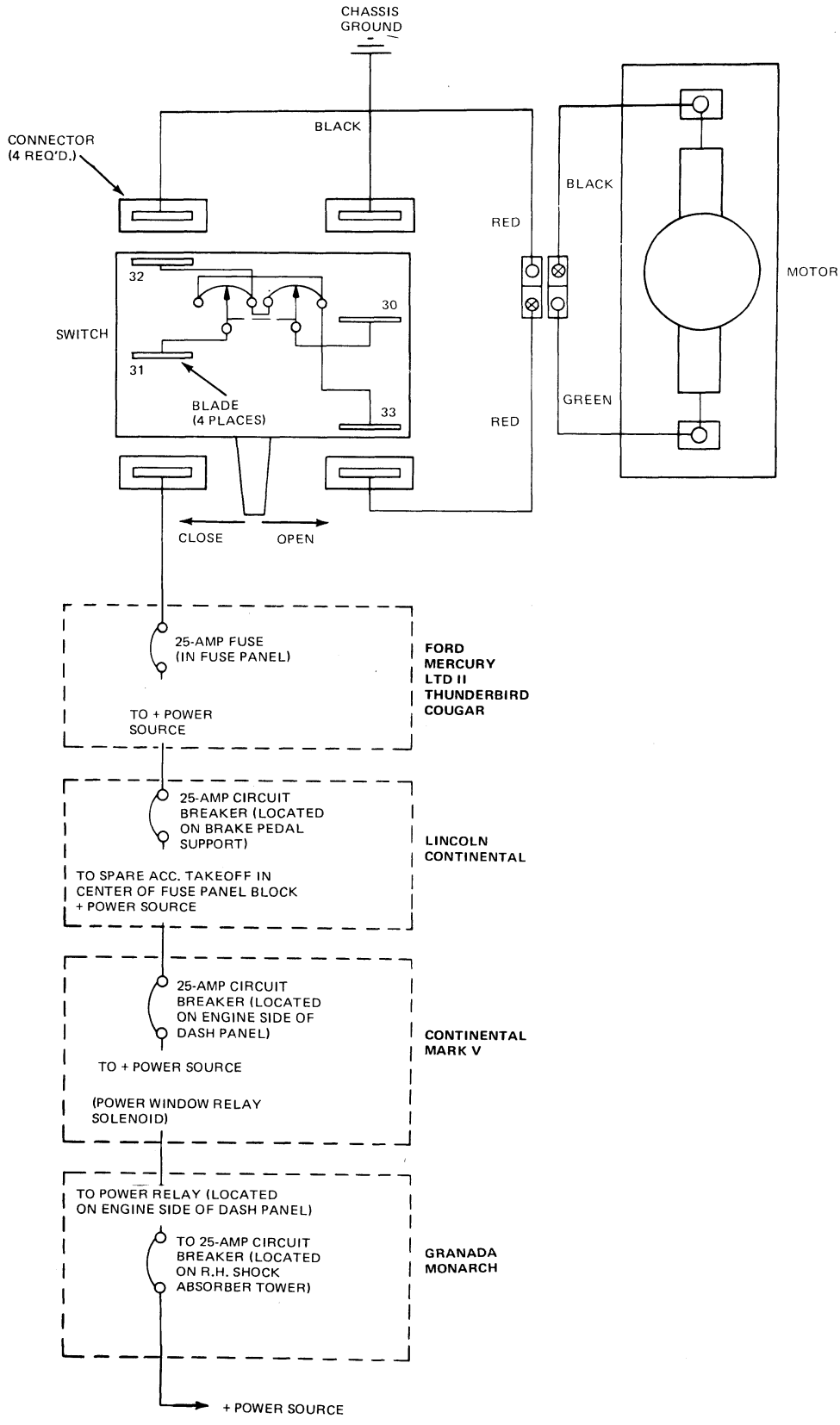


FIG. 34 Wiring System Components—Thunderbird, Ford, Mercury, LTD II, Cougar and Lincoln Continental



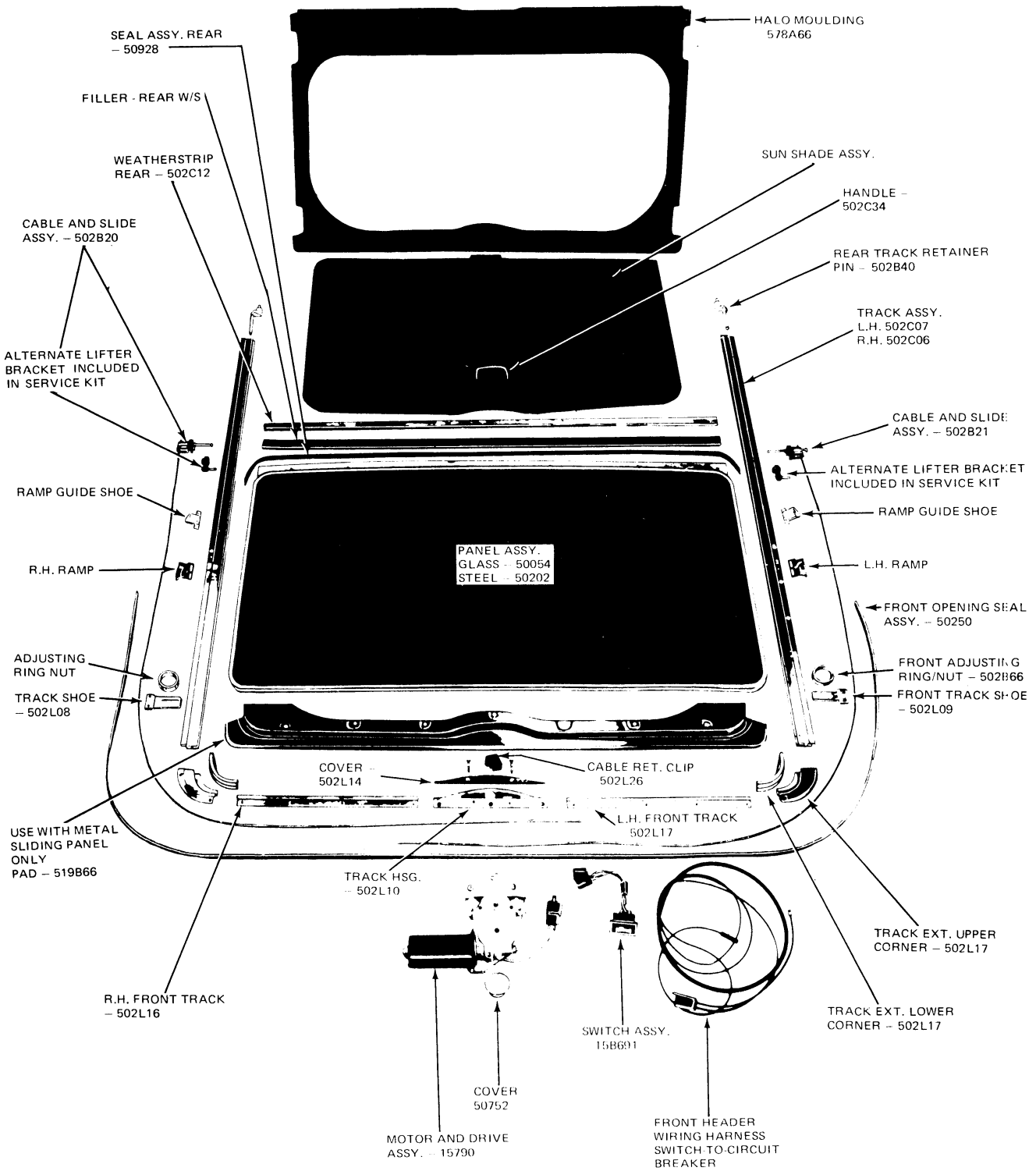
F 1943-B

FIG. 35 Wiring System Components—Monarch and Granada



R1946-B

FIG. 36 Circuit Schematic—Electric Roof



R1894-B

FIG. 37 Moon Roof—Exploded View Parts Component Chart

Manual Sun Roof

PART 46-11

SUBJECT	PAGE
DESCRIPTION AND OPERATION	11-1
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Roof Sliding Panel Rear Edge – Up or Down	11-2
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Rear Slide Tension Spring	11-5
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Roof Sliding Panel Front Seal	11-6

DESCRIPTION AND OPERATION

CR2853-A

The manual sun roof panel slides on guide rails. It is operated by a crank. The crank is splined to a shaft and pinion (Fig. 6) that drives two flexible cables. Each cable is attached to a slide that moves on the guide rails. The left and right rear slides are attached by mounting brackets to the rear of the sliding panel. (Figs. 5 and 8). Front guides attached to the front of the sliding panel and slide on the left and right guide rails, respectively (Fig. 4).

To operate the sliding panel, pull the handle from its stowed position and turn handle counterclockwise to open; turn clockwise to close.

ADJUSTMENTS

Before making any adjustments, remove the trim (inner) panel from the sliding panel for access. Open the sliding panel about five inches. Disengage the trim panel from the sliding panel by pulling the seven trim clips loose (Fig. 3). Slide the trim panel rear-ward for stowage. Crank the sliding panel to close (Fig. 4).

ROOF SLIDING PANEL ALIGNMENT FOR FLUSH FIT

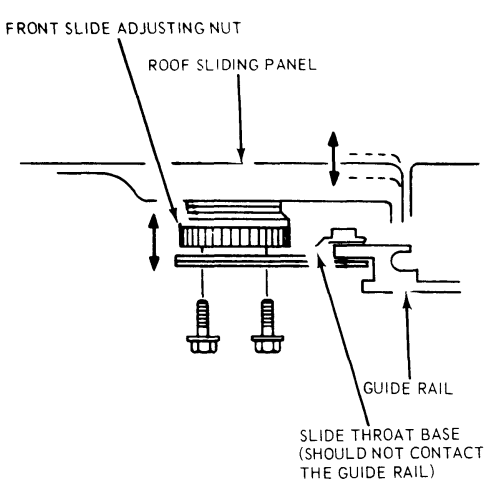
Sliding Panel Front Edge-Up or Down for Pinto and Bobcat

Both sides may be adjusted, as necessary.

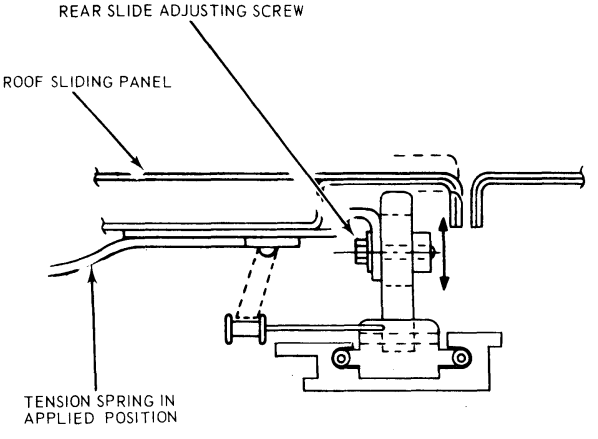
Loosen the two screws that attach the front slide assembly to the knurled adjusting nut at the front of the panel (Figs. 1 and 4). Turn the adjusting nut clockwise to lower; counterclockwise to raise. When tightening the two attaching screws, be sure that the front slide assembly is perpendicular to the guide rail and that the base of the slide throat does not contact the guide rail (Fig. 1).

Sliding Panel Front Edge—Up Or Down For Mustang

To adjust the Mustang roof sliding panel loosen the two screws that attach



FRONT SLIDE ASSEMBLY – PINTO AND BOBCAT ONLY



REAR SLIDE ASSEMBLY – PINTO BOBCAT AND MUSTANG

FIG. 1 Roof Sliding Panel Adjustments

R1532-C

the front slide assembly to the double bossed tapping plate. Move the tapping plate rearward to lower the front of the panel, or forward to raise the panel (on the Mustang equipped with glass panel, add shims to raise panel). When the front edge of the panel is flush, tighten the attaching screws into the tapping plate. Be sure the front slide assembly is perpendicular to the guide rail, and that the base of the slide throat does not contact the guide rail (Fig. 2).

NOTE: The blue slide assembly is for the driver's side and the white slide assembly is used on the passenger side.

ROOF SLIDING PANEL REAR EDGE—UP OR DOWN

Both sides may be adjusted, as necessary.

Loosen the rear slide adjusting screw (Figs. 1 and 4), and raise or lower the sliding panel until flush with the stationary roof panel. Tighten the adjusting screw to hold the correct position.

FORE AND AFT, SIDE-TO-SIDE ALIGNMENT OF PANEL IN ROOF OPENING

This adjustment is automatically achieved when the sliding panel is attached and adjusted in the full closed position. See Removal and Installation.

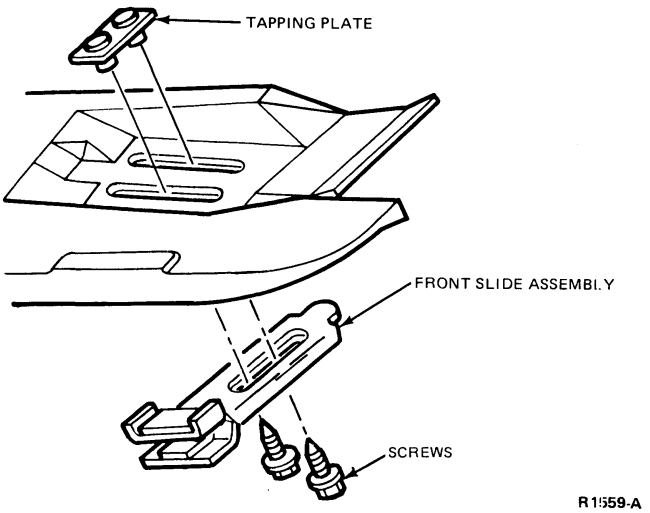


FIG. 2 Front Slide Assembly—Mustang Only

CABLE ALIGNMENT

Cable misalignment can cause the sliding panel to jam on one side. To correct, remove the sliding panel, crank handle, escutcheon, and drive assembly as shown in Fig. 6.

Make sure that both cables are in the front guide rail channels and through the front retainer, as shown in Fig. 7. Then, push each rear slide forward until it is seated firmly against the cable side cover stops. Install the drive assembly, escutcheon and crank handle and sliding panel.

REMOVAL AND INSTALLATION

ROOF AND SLIDING PANEL

1. Open the sliding panel five inches (Fig. 3).
2. Disengage the trim (inner) panel from the sliding (outer) panel by pulling the seven trim clips loose (Fig. 3).
3. Slide the trim panel to rear for stowage, and crank the sliding panel closed (Fig. 4).
4. Release the rear slide tension springs (left and right) by rotating them to the inboard position (Fig. 4).
5. Detach the sliding panel from both left and right front slide assemblies (2 screws each side, Fig. 4).
6. Detach the sliding panel from the two rear slide assemblies by removing each slide mounting bracket retainer from the tabs in the panel (2 screws, Figs. 4 and 5).
7. Pull the sliding panel forward and out of the roof panel opening.
8. Before installing the sliding panel, be sure that the crank handle is rotated clockwise as far as it will go. Set the sliding panel in the roof panel opening and attach it to the four slide assemblies (right and left, front and rear), as shown in Figs. 4 and 5. Rotate the tension springs outboard

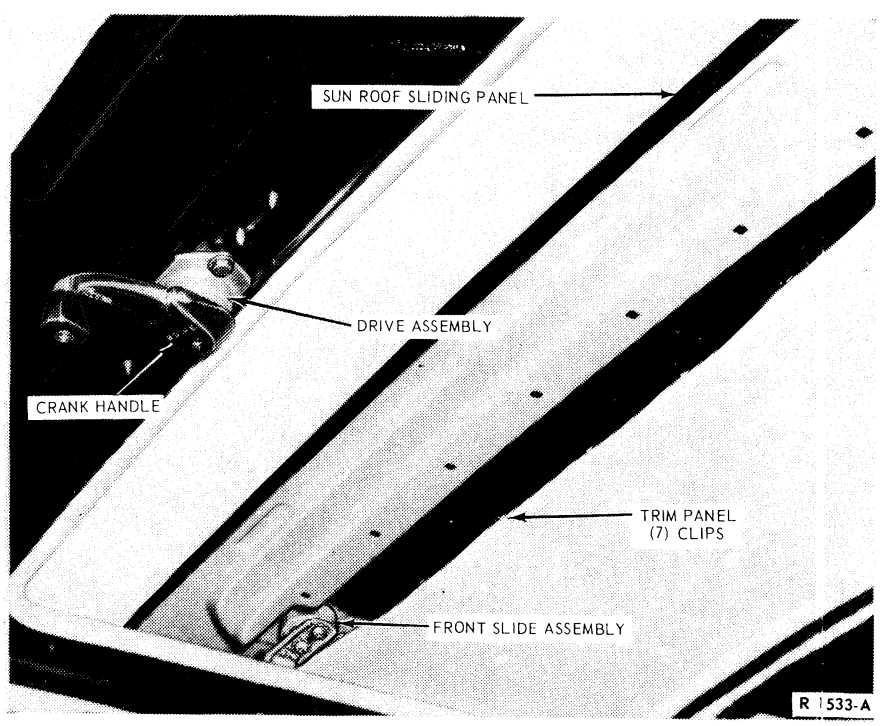


FIG. 3 Trim Panel-To-Sliding Panel Attachment

and lock them into applied position.

9. Crank the sliding panel open about five inches, pull the trim panel forward, and engage it to the sliding panel at the seven trim clips (Fig. 2).

CRANK HANDLE AND DRIVE ASSEMBLY

1. Remove the crank handle from the drive assembly and the escutcheon from the housing, as shown in Fig. 6.
2. Remove the drive assembly (two screws).

GUIDE RAIL, SLIDE AND CABLE SYSTEM

Removal

1. Remove the roof sliding panel and the crank handle and drive assembly.
2. Remove the cable front cover (8 screws), the two cable side covers (3 screws each), and the cable front retainer (Fig. 7).
3. Remove the two retaining screws at the center of the cable front guide rail (Fig. 7), slide the locating tabs at the left and right ends of the front guide rail from the left and right guide rails, respectively, and remove the front guide rail (Fig. 8).

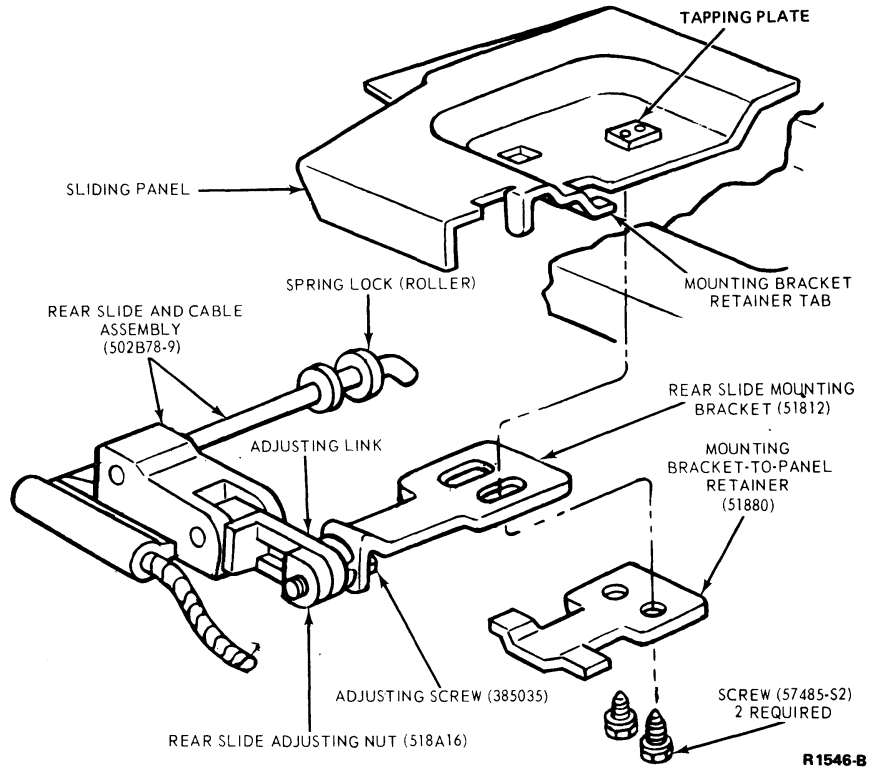


FIG. 5 Sliding Panel-To-Rear Slide Attachment—Pinto, Bobcat and Mustang

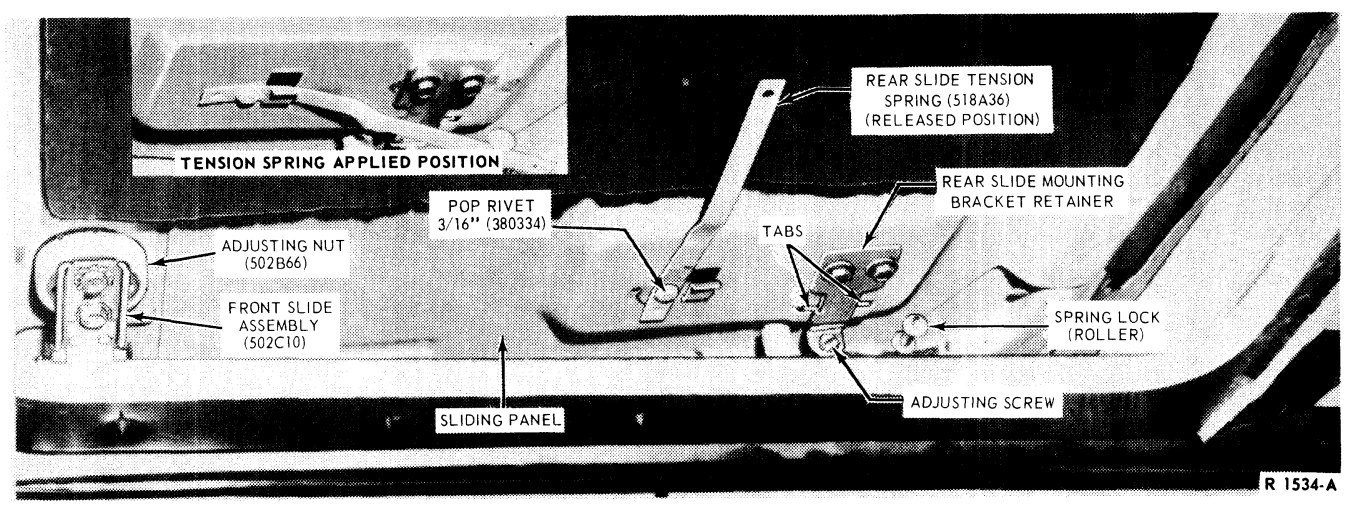


FIG. 4 Roof Sliding Panel Assembly (Right Side Shown)

4. Slide the cable left and right guide rails from their respective rear retainers and lift them out of the panel housing (Fig. 8). The guide rails will contain the rear slide and cable assemblies.
5. Remove the sliding panel trim piece from its stowed position in the roof panel.
6. Remove the rear slide and cable assemblies from the guide rails, by sliding them forward and out (Fig. 8).

Installation

1. Insert the rear slide and cable assemblies into the guide rails. The plastic rollers on each rear slide assembly should be inboard, so that the right and left slides will be installed in the right and left guide rails, respectively (Fig. 8).
2. Install the left and right guide rails in the panel housing, sliding them onto their respective rear retainer (Fig. 8). Be sure that the guide rail rear retainers are engaged in their brackets at the rear of the housing assembly, inside the roof.
3. Install the front guide rail in the housing, so that the locating tabs on each end engage the right and left guide rails (Fig. 8). Then install the two retaining screws near the center of the front guide rail (Fig. 7).
4. Install the two cable side covers (3 screws each, Fig. 7), and pull both rear slide assemblies forward against the stops of the cable side covers.
5. Thread the right cable into the outboard channel of the left guide rail and the left cable into the inboard channel of the right guide rail (Fig. 8).
6. Seat the cable into the front guide rail and install the cable front retainer on top of the cables in the center of the front guide rail (Figs. 7 and 8).

7. Lubricate the top of each cable at the front guide rail with ESB-M1C93A (Ford Part No. 19584 or equivalent) polyethylene grease. Wipe the excess grease into the guide rail channels.
8. Make sure that the cable rear slides are still positioned against the stops of the cable side covers, and then install the cable front cover (9 screws, Fig. 7).
9. Install the drive assembly, the escutcheon and the crank handle, as shown in Fig. 6. Make sure that the rear slides are still positioned at the stops of the cable side covers.
10. Cycle the cables and rear slides to make sure that the cable and guide rail system functions without binding.
11. Install the trim panel by sliding it into the guide rails from the front. Then, slide the trim panel to the extreme rear position.
12. With the rear slide assemblies against the stops of the side covers and the slide adjusting links in the vertical position, place the roof sliding panel into the roof opening.
13. Attach the sliding panel to the left and right rear slide assemblies. To make this attachment, position each slide mounting bracket over the tapping plate holes and between the retainer tabs in the sliding panel. Then slide the mounting bracket retainer into the tabs against the bracket and secure with two retaining screws (Figs. 4 and 5).
14. On Pinto and Bobcat only, turn the sliding panel front adjusting nut counterclockwise to the mid-position on each front slide adjusting stud

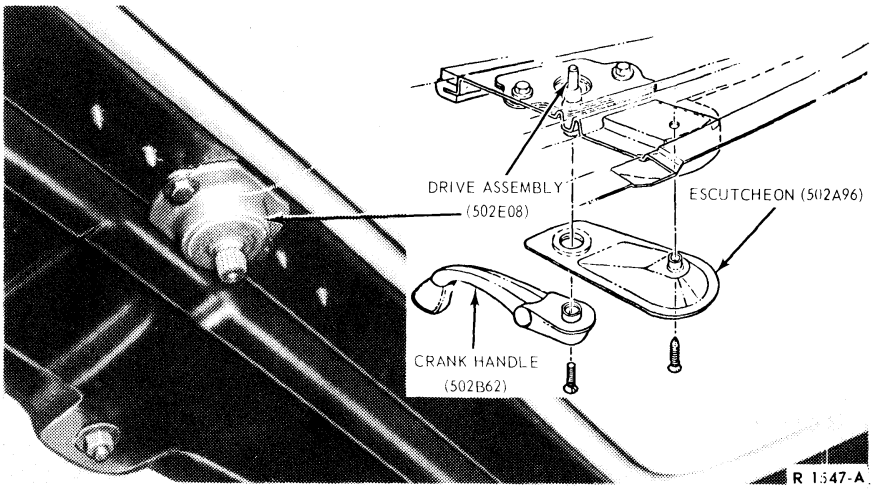


FIG. 6 Crank Handle and Drive Assembly

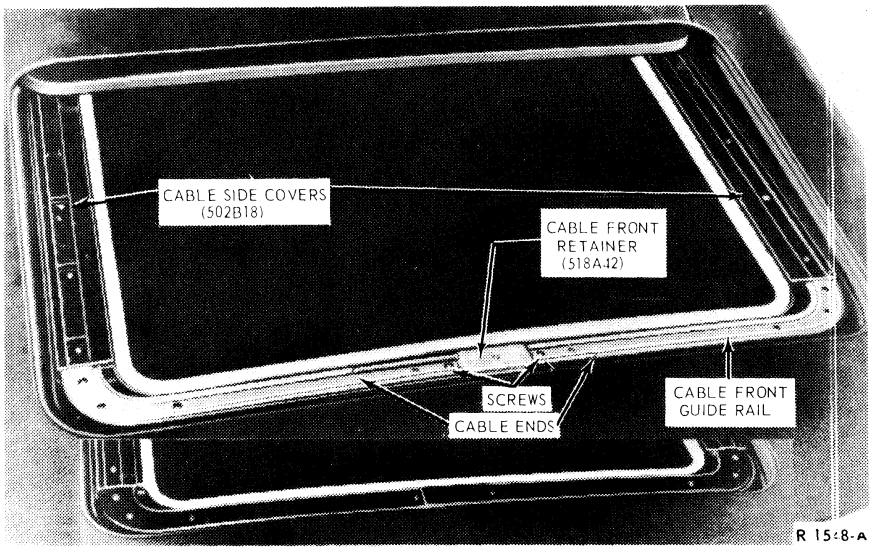


FIG. 7 Cables and Guide Rails Installed

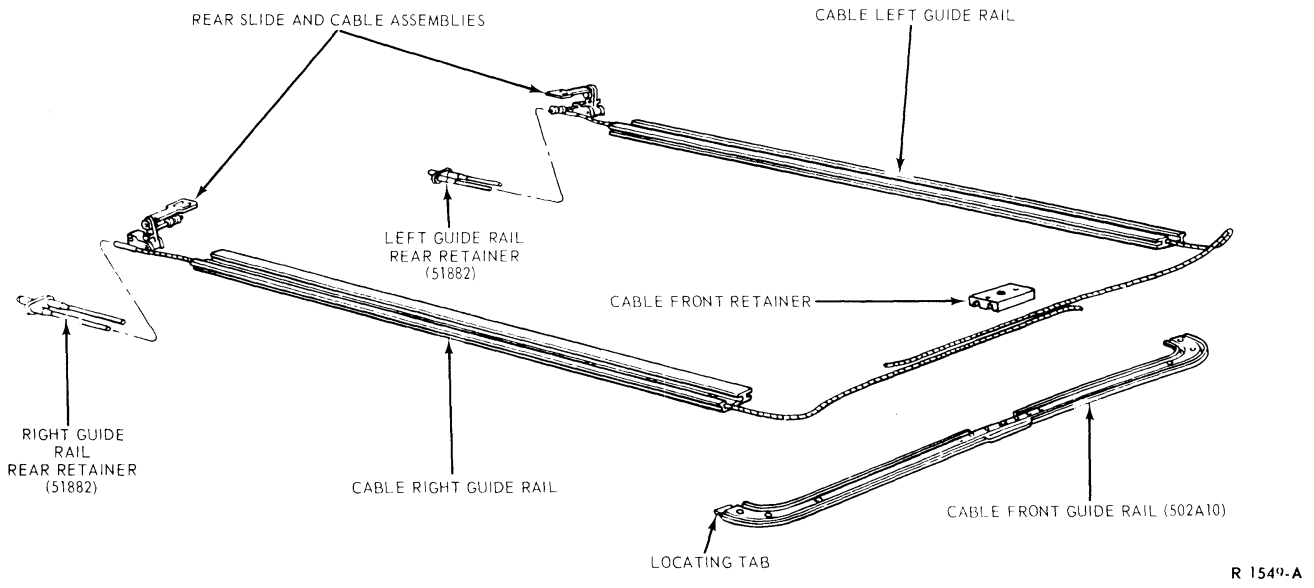
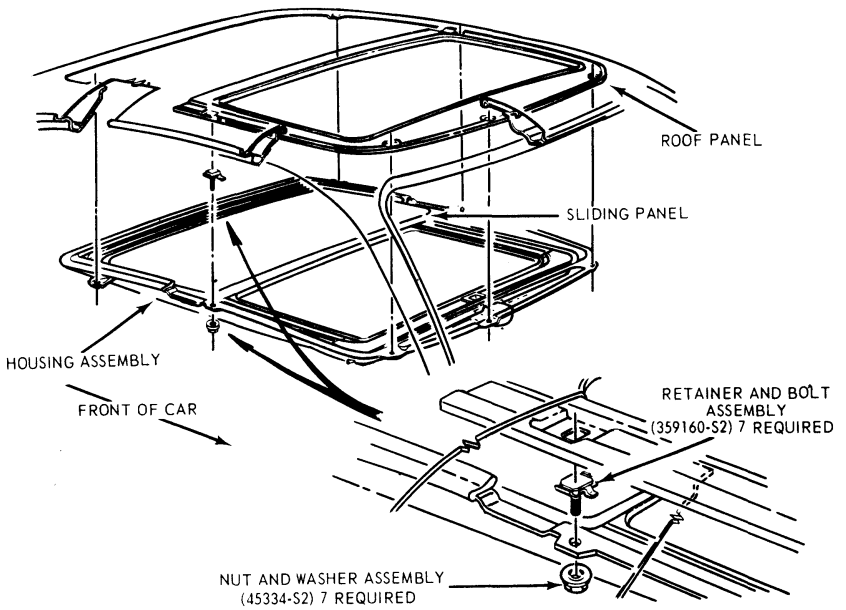


FIG. 8 Guide Rail and Cable System

(Fig. 1). For Mustang, position the front guides midway on the adjusting ramp (Fig. 2).

15. Engage the left and right front slides to the left and right guide rails, respectively, and attach each slide to its adjusting nut on the sliding panel (2 screws each, Figs. 1 and 4). The slide assembly should be perpendicular to the guide rail. To avoid binding, be sure that the base of the slide throat does not contact the guide rail (Fig. 1). **Do not jamb the slide to the guide rail.**
16. Raise or lower the sliding panel to proper alignment with the roof, as outlined in the Adjustment Section.
17. Lock each rear slide tension spring in applied position, by rotating it outboard and engaging it in the plastic roller (Fig. 4).
18. Crank the roof sliding panel open about five inches, pull the trim panel forward, and engage it to the sliding panel at the seven trim clips (Fig. 2).
19. Crank the sliding panel to the closed position, and check the crank handle alignment within the escutcheon cup (Fig. 6). Realign the handle on the drive shaft, if necessary.



R 1550-A

FIG. 9 Sliding Panel-To-Roof Panel Attaching Points

REAR SLIDE AND CABLE ASSEMBLY

1. Remove the roof sliding panel from the roof panel, as outlined under Roof Sliding Panel, steps 1 through 7.
2. Remove the crank handle and drive assembly.
3. Remove the guide rail(s), as outlined under Guide Rail, Slide and Cable System, steps 2 through 6.
4. Install the rear slide to the guide rail and the guide rail to the housing, as outlined under Installation, steps 1 through 19.

FRONT SLIDE

1. Remove the trim panel from the roof sliding panel, as described under Roof Sliding Panel, steps 1 through 3.
2. Remove the front slide assembly from the adjusting nut or adjusting ramp, at the front end of the sliding panel (2 screws, Fig. 4).
3. When installing the slide, engage it to the guide rail and attach it to the adjusting nut or adjusting ramp, on the sliding panel. The slide assembly should be perpendicular to the guide rail. To avoid binding, be sure that the base of the slide throat does not contact the guide rail (Fig. 1). **Do not jam the slide to the guide rail.**

REAR SLIDE TENSION SPRING

1. Remove the trim panel and slide it to the rear (stowed) position, as outlined under **Roof Sliding Panel**, steps 1 through 3.
2. Using a 3/16-inch drill, remove the rivet that retains the spring to the roof sliding panel (Fig. 4).
3. Install a new spring washer and spring with a pop rivet.

SLIDING PANEL HOUSING ASSEMBLY

1. Crank the roof sliding panel to the half open position.
2. Remove the crank handle and escutcheon assembly (Fig. 6).
3. Remove the headlining retainer and the headlining, as outlined in Part 45-41.
4. Disconnect the four drain hoses (Fig. 10).
5. Remove the (7) nuts (for Pinto and Bobcat, (6) nuts for Mustang)that retain the housing assembly to the roof panel, and lower the housing from the roof (Fig. 9). **The housing should be held in position, while the retaining nuts are being removed.**
6. When installing the housing assembly, tighten the retaining nuts to a torque of 3 to 7 ft-lbs.

DRAIN HOSES

To replace front drain hose, the headlining assembly must be lowered at the windshield header area for access. Disconnect the hose from the roof front drain neck (Fig. 10). Remove the cowl side trim panel for access to the lower end of the hose. Attach the replacement hose to the lower end of the existing hose. Pull the new hose into place from below, as the existing hose is pulled out at the top.

To replace a rear drain hose, pull the headlining down from the affected corner of the roof panel for access. Then disconnect the hose from the roof rear drain neck (Fig. 10). Remove the quarter trim panel for access to the lower end of the hose. Attach the replacement hose to the lower end of the existing hose, and remove the retaining clips. The new hose can then be pulled into place from below, as the existing hose is pulled out at the top. Secure the new hose with the retaining clips before installing the quarter panel.

During regular maintenance, check the drain hole at each of the four corners of the roof, to see if it is free of foreign material. Any hole that is plugged may be cleaned out with a flexible hose of smaller diameter, or with air pressure.

ROOF SLIDING PANEL REAR SEAL

1. Remove the roof sliding panel from the roof, as outlined in this Section.
2. Remove the rear seal from the rear vertical flange of the panel, as shown in Fig. 11.
3. Remove the weatherstrip from the rear horizontal flange of the panel, as shown in Fig. 11.

ROOF SLIDING PANEL FRONT SEAL

1. Remove the sliding panel housing assembly, as outlined in this Section.
2. Drill out the blind rivets from the seal and remove the seal assembly (Fig. 12).
3. Install the new seal assembly to the roof panel reinforcement flange. Trim the seal to the proper length at the notches in the flange of the roof reinforcement.
4. Pierce rivet holes in the seal assembly. Use the existing holes in the roof flange as guides.
5. Secure the seal, using seven 1/8-inch blind rivets.
6. Install the sliding panel housing assembly back in the roof, as outlined in this Section.

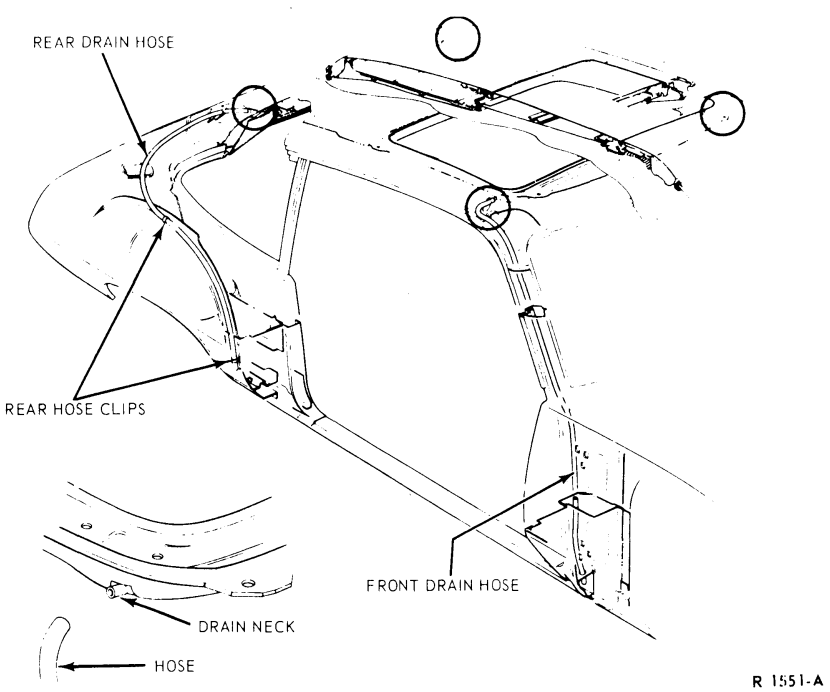


FIG. 10 Roof Drainage System

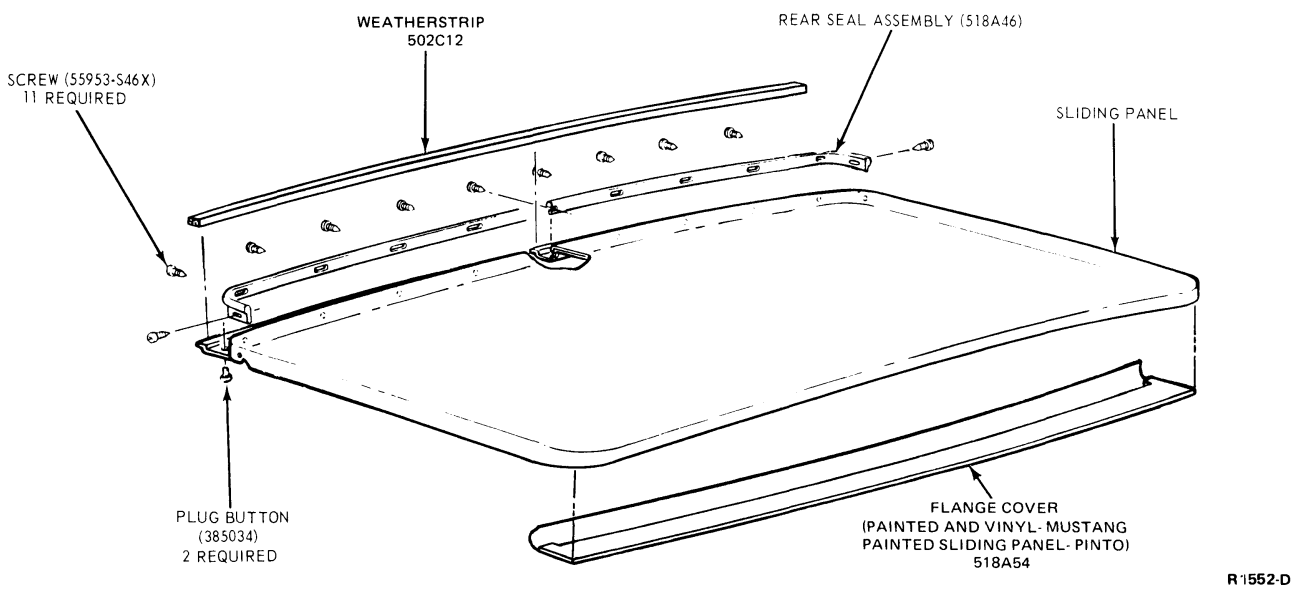


FIG. 11 Rear Seal Replacement

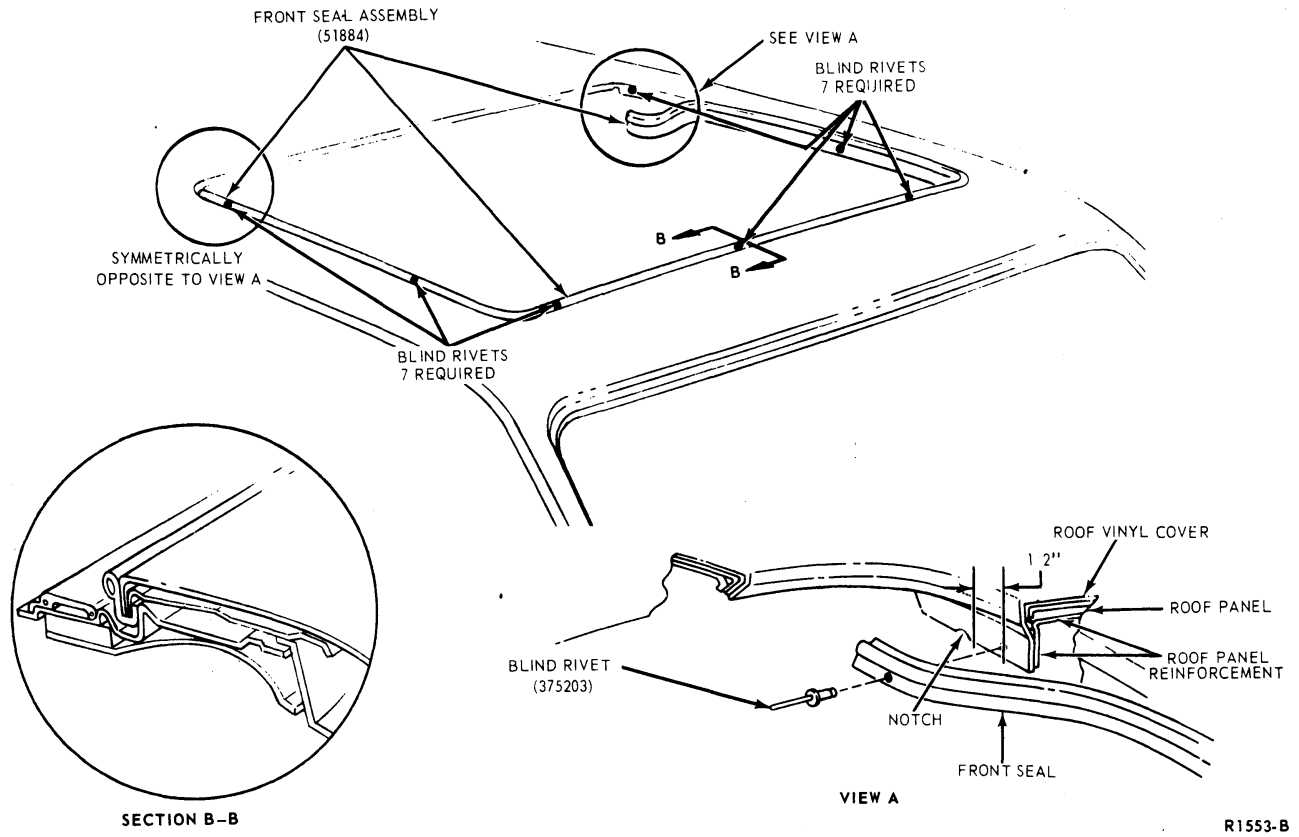


FIG. 12 Front Seal and Vinyl Cover Installation

Manual Sun Roof -- Removable

PART 46-12

REMOVABLE SUN ROOF OPERATION

The optional removable sun roof is operated as follows: To open to vent position, move the release lever as far forward and upward as it will go. To close, move the lever to its full rearward position (Fig. 1).

PANEL REMOVAL

To remove the glass panel, move the release lever to mid-position. Then squeeze the attaching links together to disengage the latching mechanism from the roof panel. From outside the vehicle, raise the rear edge of the glass and remove it by lifting upward and rearward (Fig. 2).

PANEL STOWAGE

Whenever the glass panel is removed, it should be stored in the stowage bag provided (Fig. 3). The glass panel and sunshade should never be stored anywhere else in the vehicle. The stowage bag consists of two compartments that can safely accommodate the removable glass and sun shade.

The stowage bag on 2-door models rests against the rear seat back at the bottom edge and clips to the drain trough beneath the weatherstrip at the top edge. On 3-door models it is strapped to the rear floor on the passenger side of the vehicle.

PANEL INSTALLATION

To install the glass panel, align the two hinges at the front of the glass with the hinge sockets in the roof panel (Fig. 4). Hinges should be fully seated in their sockets before the rear edge of the panel is lowered. From inside the vehicle, squeeze the connecting links together and insert them in their respective sockets. Glass can then be locked in position by actuating the release lever.

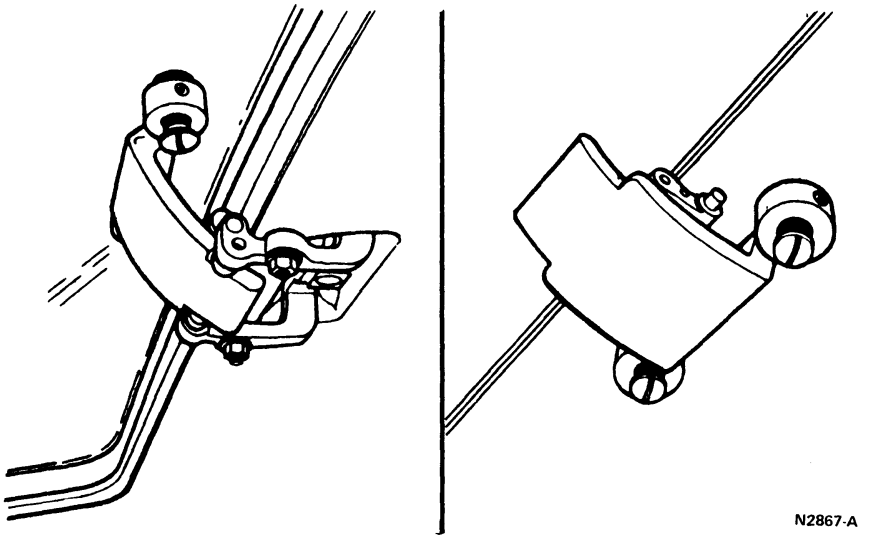


FIG. 1 Removable Sun Roof Operation

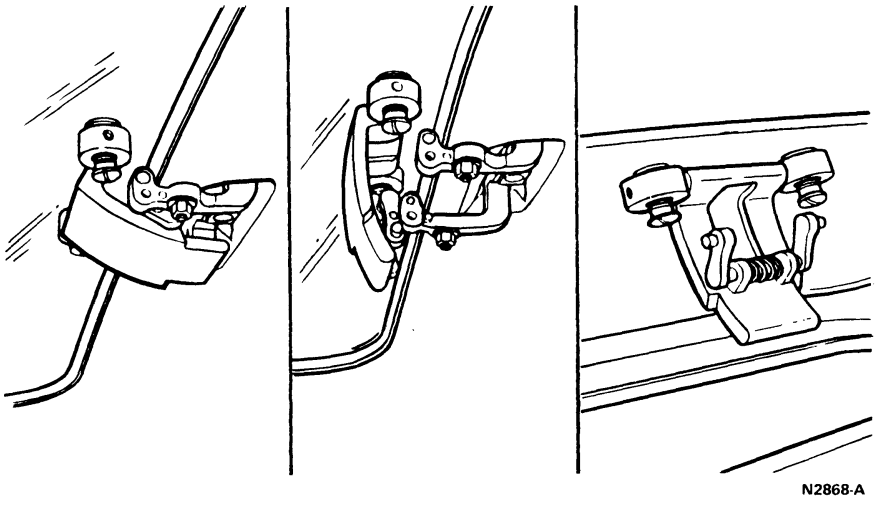


FIG. 2 Panel Removal

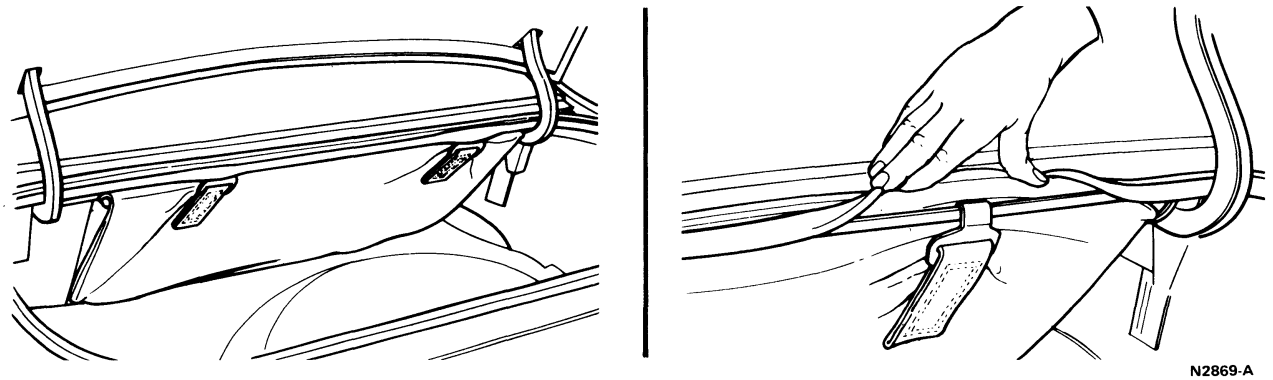


FIG. 3 Panel Stowage

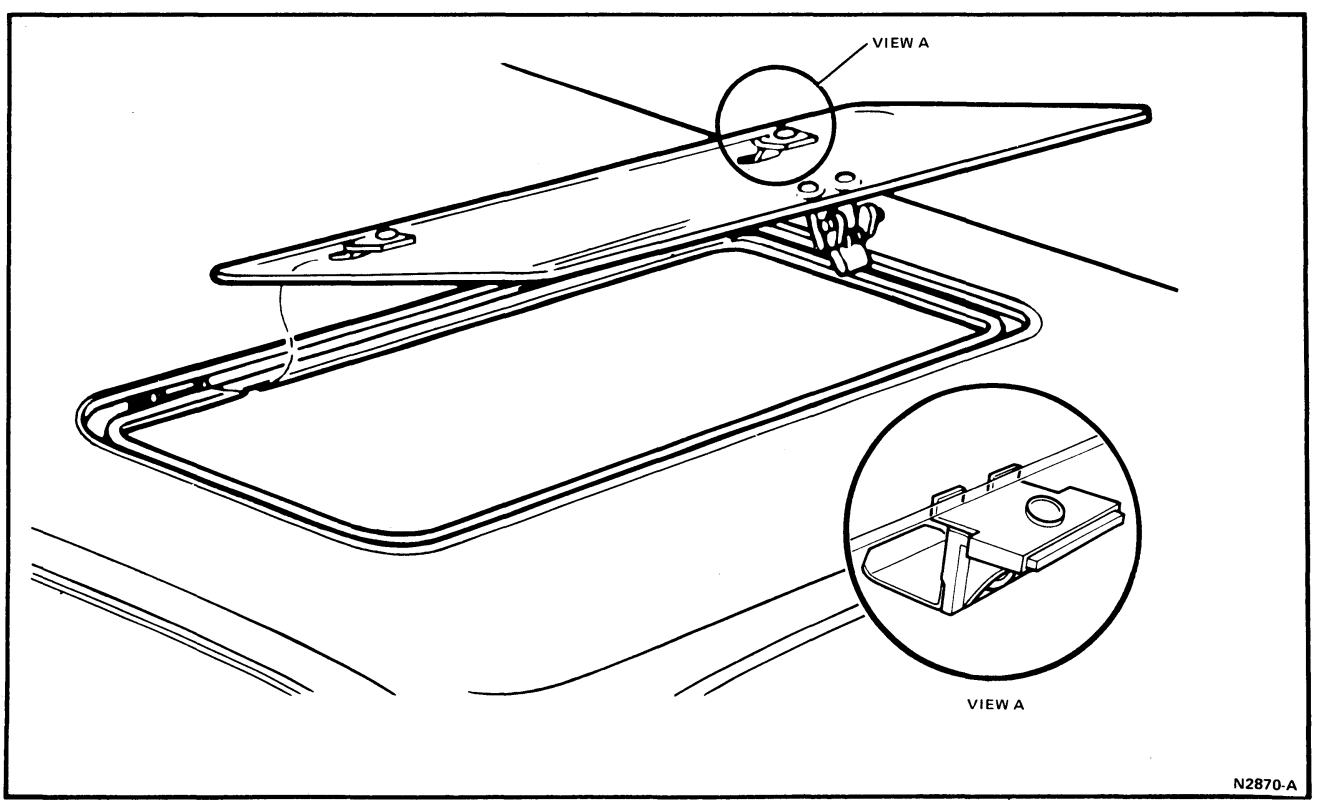


FIG. 4 Panel Installation

REPAIR PROCEDURES

GLASS REPLACEMENT

Remove the hinge brackets from the broken glass by removing the attaching screws at the center of each bracket. Loosen the Allen Set Screws on the latch mechanism and unscrew the two attaching bolts to separate from the broken glass. Be sure to transfer all sleeves and washers to the new installation (See Fig. 5).

Recommended attaching torque is 36-54 in-lbs.

ADJUSTMENT

After the glass panel is installed in the vehicle the latching mechanism can be adjusted to obtain optimum fit. Adjustment is accomplished by moving the latch sleeves up or down and locking them in place with the set screws.

The portion of the latch that is attached to the roof panel can be adjusted fore and aft by loosening the two 1/4-20 bolts and repositioning the bracket.

WEATHERSTRIP REPLACEMENT

If weatherstripping is removed or replaced it should be secured as follows:

Body opening seal: remove attaching pop-rivets and install new seal with pop-rivets drill-at-assembly.

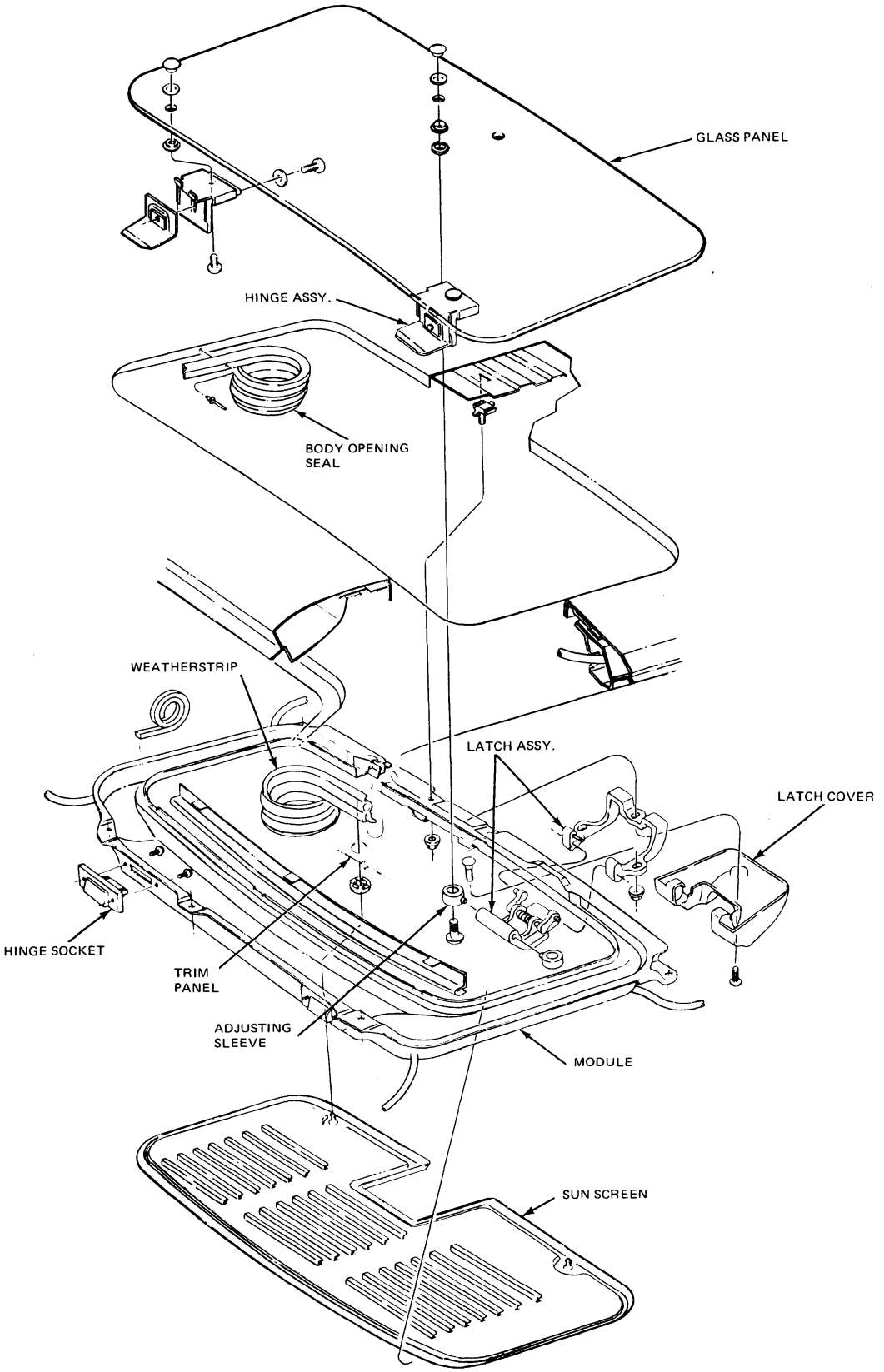

GLASS PANEL
HINGE ASSY.
BODY OPENING SEAL
WEATHERSTRIP
LATCH ASSY.
LATCH COVER
HINGE SOCKET
TRIM PANEL
ADJUSTING SLEEVE
MODULE
SUN SCREEN
N2871-A

FIG. 5 Glass

Weatherstrip roof opening: pull off and reinstall new part by pushing on (no adhesive required).

HINGE SOCKET REPLACEMENT

In order to replace the front hinge sockets, it is necessary to locally lower the headlining for access. Parts can then be removed and replaced in the normal manner (2 attaching screws).

Roof Outside Cover

PART 46-20

SUBJECT	PAGE	SUBJECT	PAGE
REMOVAL AND INSTALLATION		MAJOR REPAIR	
Roof Outside Cover – Non-Ensolite Pad	20-1	All Vinyl Roof Material Except Levant Type Pattern	20-9
Roof Outside Cover – W/Ensolite Pad	20-1	General Repair Information	20-7
		Levant Type Pattern Only	20-7

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REMOVAL AND INSTALLATION

ROOF OUTSIDE COVER—NON-ENSOLITE PAD

If some of the following steps do not apply to the particular model being serviced, proceed to the next step.

Removal

1. Unpack the new cover and spread it out to remove the wrinkles.
2. Cover the fenders, seats and rear deck.
3. Remove the rear seat cushion and seat back.
4. On models with roof side ornaments, remove the blind quarter interior trim panel for access to the ornament retaining nuts. Remove the ornaments. For trim panel removal see Group 45.
5. Remove the weatherstrips (Group 44) and the exterior mouldings around the windshield and rear window (Group 43). In some cases, part of the interior garnish moulding may have to be removed for access to weatherstrip retaining screw(s). Also remove the exterior trim moulding from the opera window, if so equipped.
6. Remove the drip rail mouldings and weatherstrips (Groups 44 and 47).
7. Remove the side and rear belt mouldings (Group 47).
8. Remove screws that retain the cover at front and rear window openings (one at each seam).
9. Remove the cover from the roof.
10. Clean all mouldings and retainers. Clean excess sealer from around the windshield and back window.

Installation

1. With Thunderbird and Continental Mark V only—if the roof side front or rear pads are torn or damaged, pull off the old pad and clean the sheet metal area with a wire brush. Apply adhesive (19C525 or equivalent) to the roof sheet metal and the underside of a new pad(s). Position the pad(s) to the top sheet metal as shown in Fig. 2.
2. Measure and mark the center of the new cover fabric.
3. Measure and mark the center of the vehicle roof.
4. Apply adhesive to the underside of the new roof cover assembly between the center mark and one of the outboard seams. **Do not apply adhesive to those parts of the assembly which cover the roof sides and the area around the door, windshield and back window openings.**
5. Apply adhesive to the corresponding half of the roof. **Do not apply adhesive to the roof sides and the sheet metal area around the door, windshield, and the back window openings.**
6. Position the cover to the roof, and align the center marks. Then, cement the cover to the roof. Stretch out all wrinkles.
7. Apply adhesive to the remaining half of the roof and cover as described in Steps 4 and 5. Position the cover to the roof as described in Step 6, and stretch out all wrinkles.
8. Apply adhesive to the body and underside of the cover in the area below the back window. Position the cover and remove any wrinkles.
9. Apply adhesive to the roof sides and door openings and to the underside of the cover. Make angle cuts at the corners as necessary. Then, stretch the cover and cement in place.
10. Trim the roof cover at the windshield and back window openings. Leave 1/2 inch of material at the openings for cover attachment in the window opening recess.
11. Apply adhesive to the back window opening and the underside of the roof cover. Make angle cuts as necessary at the corners and cement the material in the back window opening recess. Trim the cover around the moulding retainer weld studs.
12. Apply adhesive to the windshield opening and the underside of the roof cover. Make angle cuts as necessary at the corners and cement the material in the windshield opening recess. Trim the cover around the moulding retainer weld studs.
13. At each roof rear quarter, locate and punch two holes for the roof side ornament on models so equipped. Install each side ornament with the studs entering the punched holes; then, from inside the vehicle, install the retaining nuts on the studs. Apply sealer around the nuts.
14. Re-install all interior trim panels, garnish mouldings, weatherstrips and exterior mouldings that were removed before cover replacement.

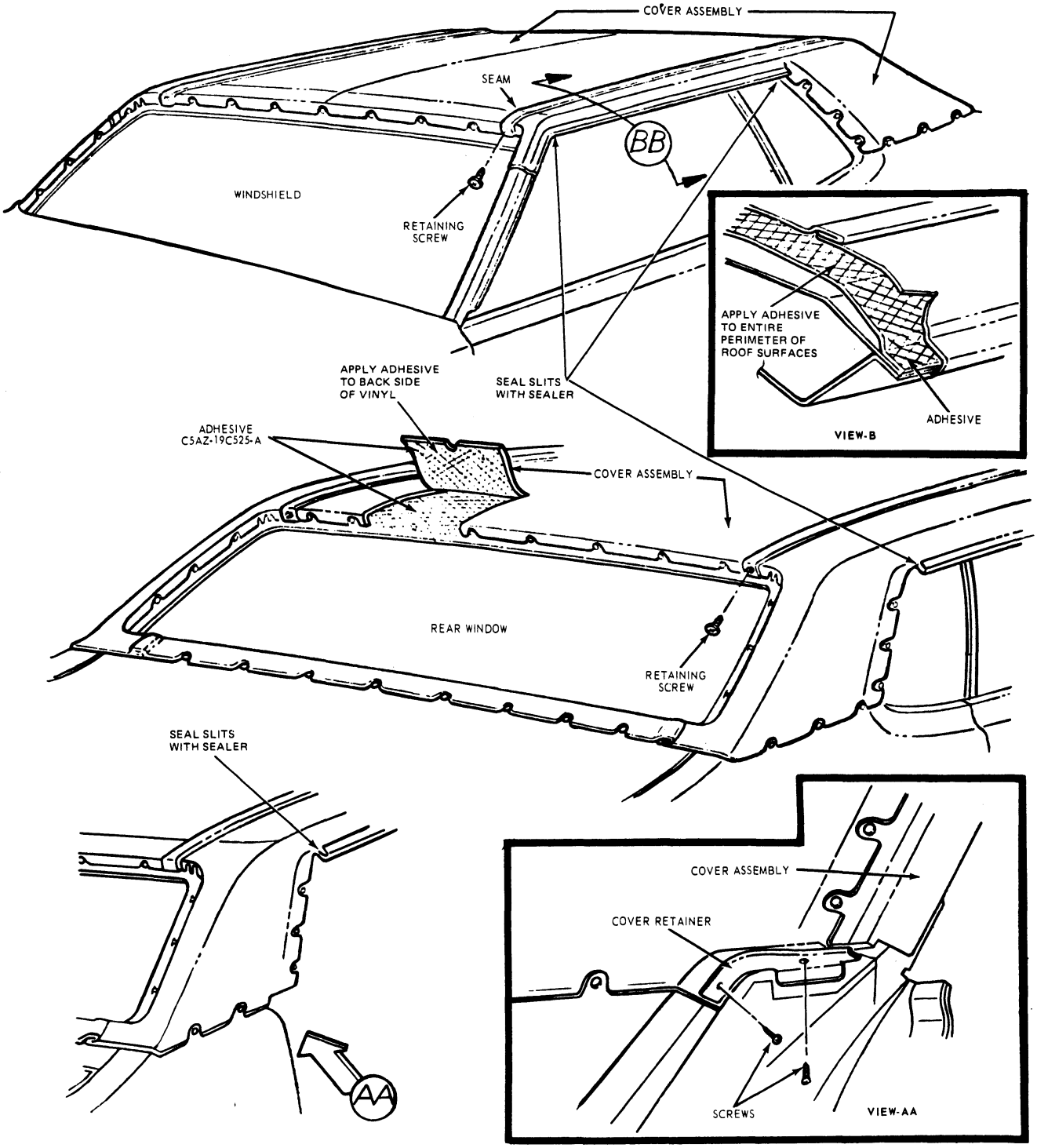


FIG. 1 Roof Outside Cover Installation—LTD II, Cougar and Thunderbird

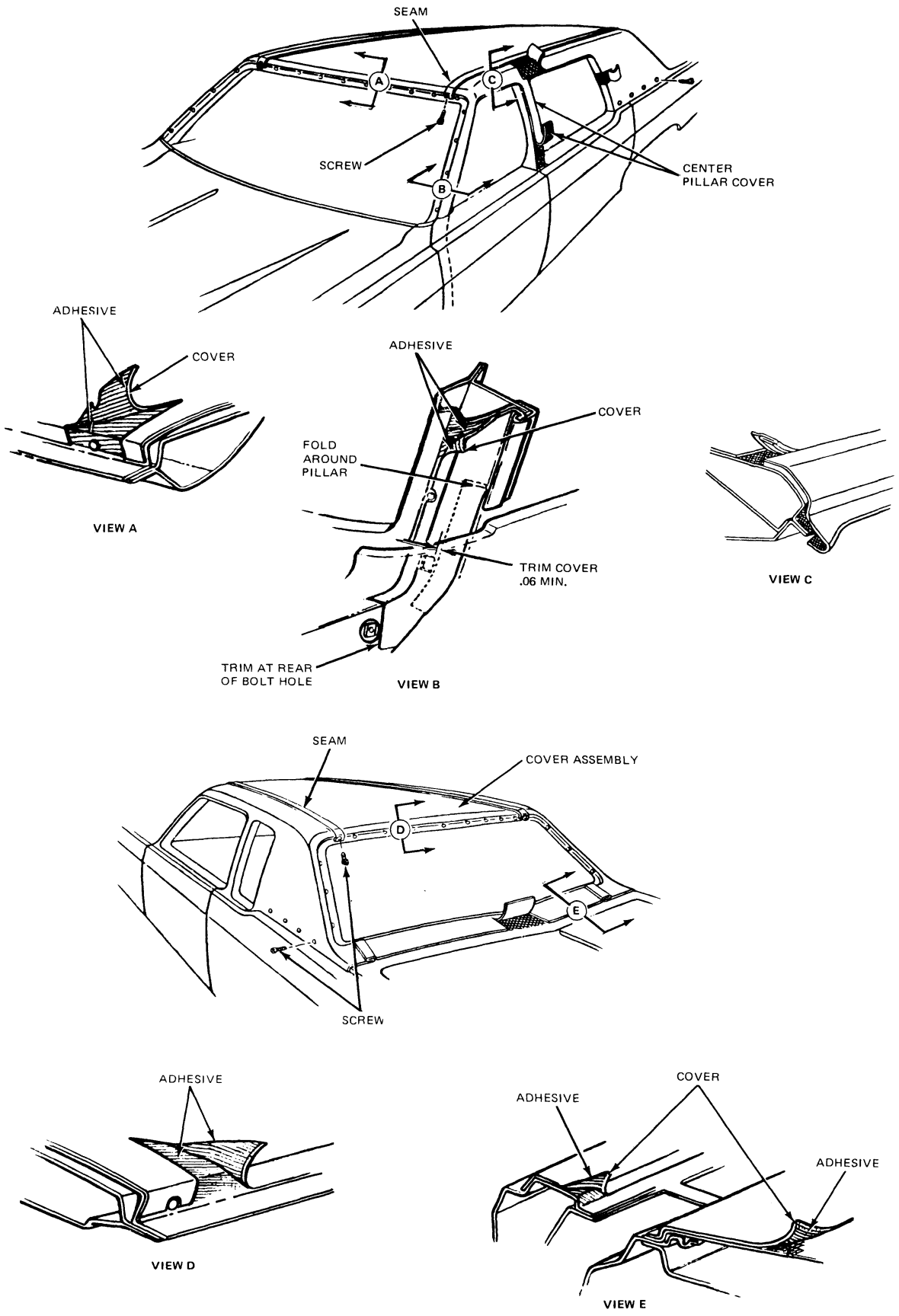


FIG. 2 Roof Outside Cover Installation—Lincoln Continental

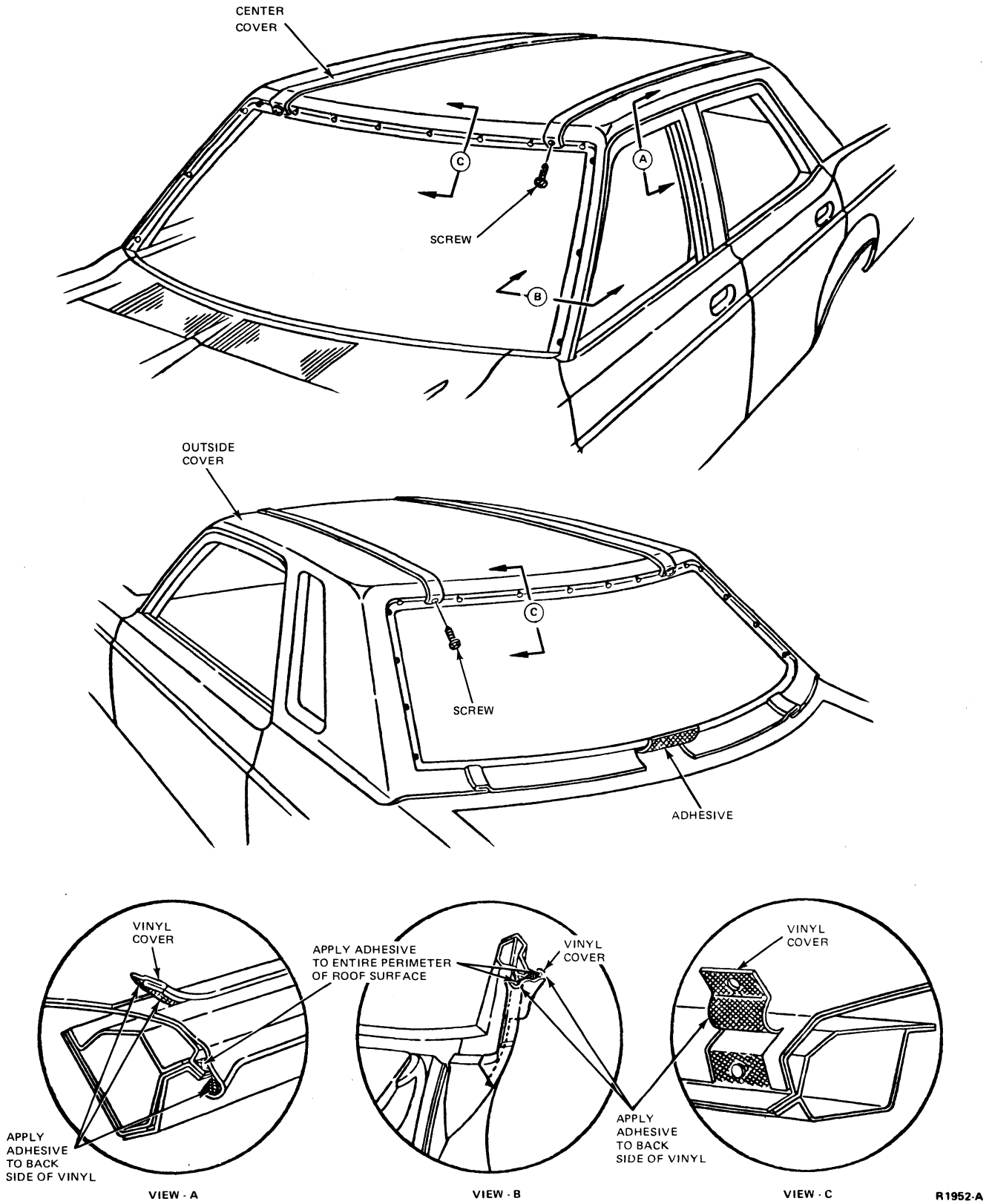


FIG. 3 Roof Outside Cover Installation—Granada and Monarch

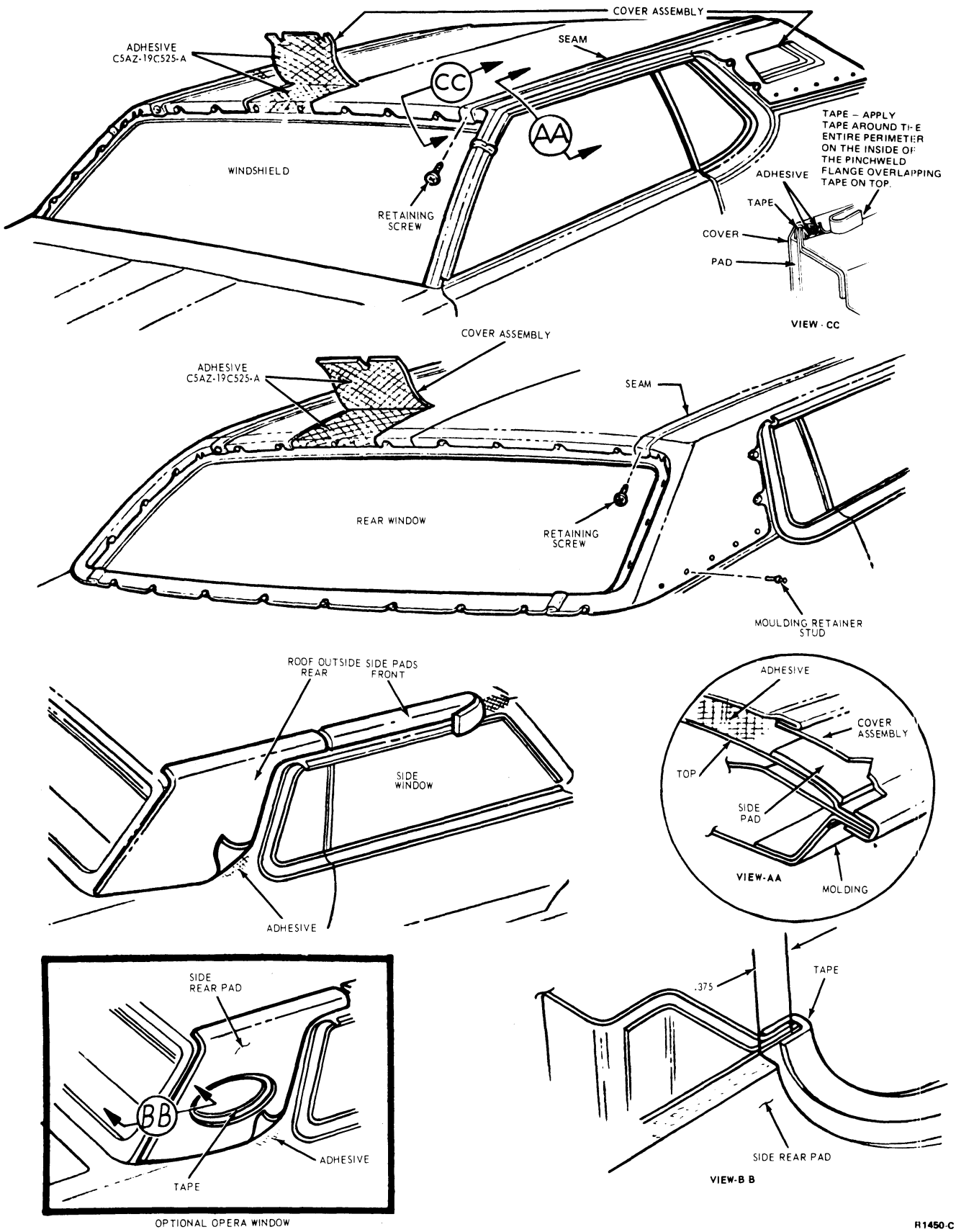
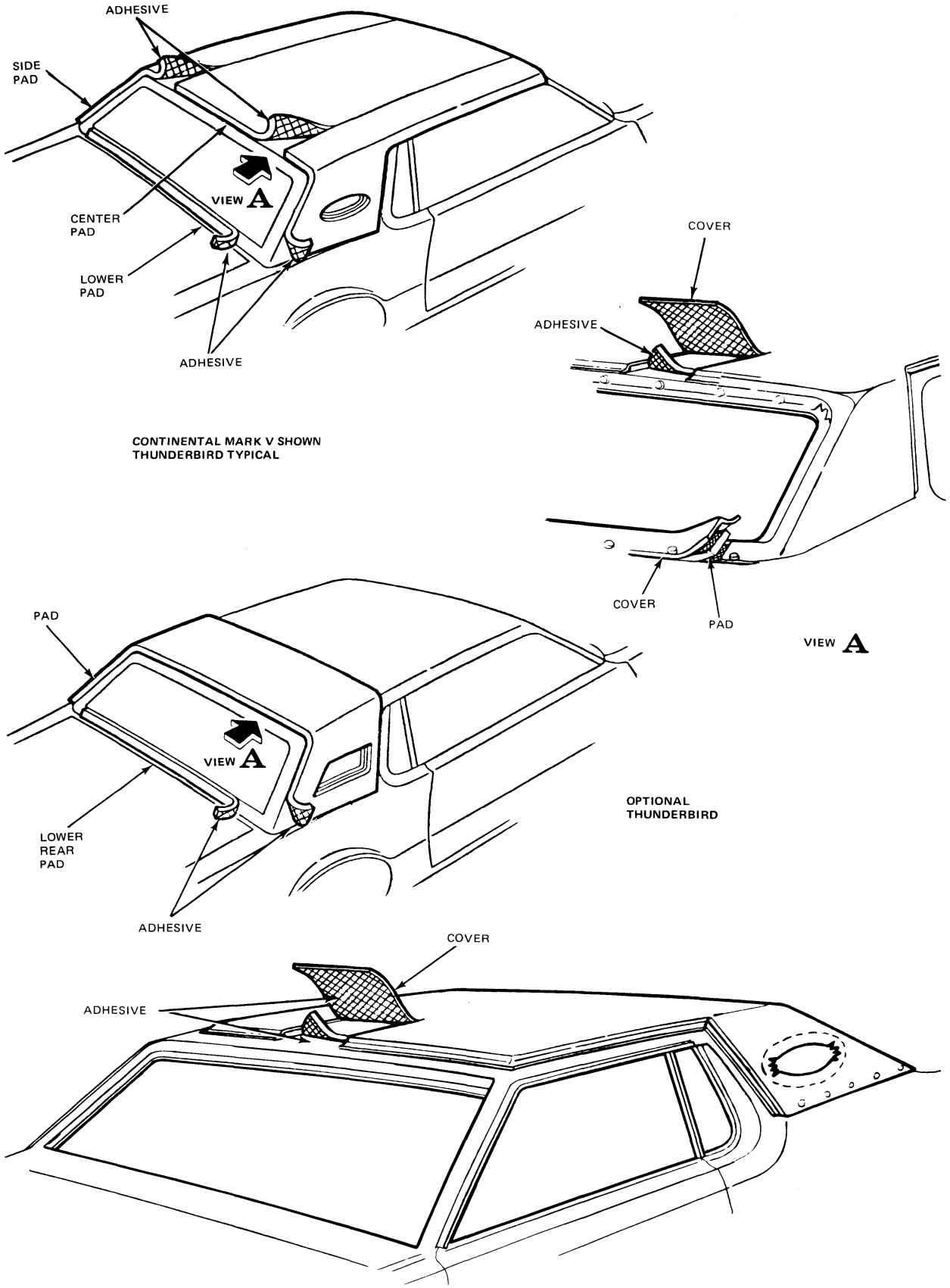


FIG. 4 Roof Outside Cover Installation—(Non-Ensolite Pad)—Thunderbird



R1942-A

FIG. 5 Roof Outside Cover Installation—(Ensolite Pad)—Standard Continental Mark V, Optional Thunderbird, Typical Mustang

NOTE: Any exterior mouldings using positive bolt-on fasteners must be installed prior to installation of interior trim parts.

15. Clean the glass, mouldings, top and surrounding area.

ROOF OUTSIDE COVER—W/ ENSOLITE PAD

Continental Mark V Described—Thunderbird and Mustang Similiar

Removal

1. Unpack new cover and new pad, spread out to remove the wrinkles.
2. Cover the hood, fenders, rear deck and seats with protective covers.
3. Remove rear seat cushion and seat back assemblies (Group 41).
4. Remove upper and lower 1/4 trim panels right and left (Group 45).
5. Remove opera windows and outside opera window mouldings.
6. Remove 1/4 window housing right and left, to gain access to T-Bolt nuts that retain the outer belt moulding.
7. Remove windshield garnish moulding and sun visors including sun visor brackets.
8. Remove staples and pull headliner down on both sides and across front at windshield.
9. Remove T-Bolts nuts retaining the halo mouldings along both sides, across front of roof and across lower roof panel at rear. Lower rear roof panel T-Bolt nuts can be reached from inside trunk.
10. Remove all roof cover retaining mouldings and rear window outside mouldings and clips (Group 43).
11. Mark all seam and hole locations. This will aid in lining up new cover.
12. Remove all screws and clips retaining cover to roof.
13. Remove the cover from roof.
14. Remove rubber backing from roof and scrape off all excess backing.
15. Repair areas damaged by scraping.
16. Grind excess cement and padding from roof area prior to priming.
17. Mask area for priming and wipe with solvent.
18. Prime entire top (1st) coat.
19. Prime entire top (2nd) coat.
20. Scuff sand, blow and wipe roof area clean.

Installation

1. Position all mouldings in place to line up pad for proper alignment of cover to mouldings.

   NOTE: It is very important that the mouldings be installed around the backlite and beltline to properly position the Ensolite pad before any cutting is done. If the pad is not properly positioned to the mouldings, the cover will have a gap at the mouldings (Fig. 5).
2. Tape all mouldings to prevent spraying glue on them.
3. Spray glue to roof and pads and install to roof. Trim excess pad
4. Remove tape from mouldings and remove mouldings.
5. Remove backing from pad.
6. Cut opening in pad for opera windows.
7. Position cover on top and inspect for proper fit.
8. Position and mark cover and roof area for proper alignment.
9. Spray glue to pad and cover and install cover to pad. Loosely install halo mouldings and mark and trim excess cover.
10. Cut opening in cover for opera windows, trim and install outer retainers.
11. Cut holes in cover at weld studs and punch holes for retaining screws and install screws.
12. Install retainers and clips and install mouldings.
13. Apply clear silicone sealer in backlite opening.
14. Install rear window garnish mouldings.
15. Install halo mouldings.
16. Install all interior trim and staple headliner.
17. Remove all tape and paper.
18. Clean interior and exterior.

MAJOR REPAIR

GENERAL REPAIR INFORMATION

Several materials are used as vinyl roofs. Of these the **Levant** material requires a separate repair procedure. The **Levant** type material can be identified by the grain pattern which is shown in Fig. 8. If the texture is different than shown in Fig. 8, use the repair procedure for all except **Levant** type.

Repairs on White Vinyl

Although repairs can be performed on white vinyl tops, the repair is more difficult with white (particularly when repairing a cut or scuff on the vinyl surface). However, with certain precautions the repair can be made to an acceptable level.

It is important that the vinyl surface is thoroughly cleaned before the repair is made and also that excessive heat be avoided to prevent possible charring of the vinyl. The recommended cleaning procedure and temperatures are outlined under Repair Procedures.

LEVANT TYPE PATTERN ONLY

A repair kit is now available to repair gouged, cut or torn Levant Type Pattern only Vinyl Roofs. The repairs are permanent and difficult to detect. The repaired area has the same strength, grain and color of the original roof material. **Levant Type Pattern Grain is shown in Fig. 8.**

Color sprays provided in this kit are pure liquid vinyl and absorb into the original roof material. The repair kit includes six colors of sprays to match vinyl tops (Black, White, Dark Blue, Dark Green, Dark Brown and Light Beige).

A complete vinyl top repair kit, Part No. VR-1, includes the following: (Fig. 6)

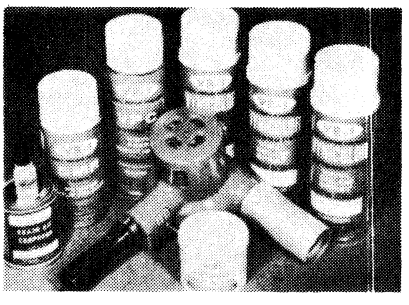
Model 750-HDA electric heat gun, heavy duty industrial grade 750°F.
Pure liquid vinyl aerosol colors, six basic top color sprays.
Special formula heat curable vinyl patching compound.
Vinyl prep-conditioner.
Applicator trowel tools.
Scalpel knife.
Grain - die compound.
Silicone mold release.
Practice vinyl samples.

The kit, Part No. VR-1, can be obtained from a local automotive parts supply jobber or direct from:

Detroit Autobody Equipment Company
100 Park Street
Troy, Michigan 48064

Kit Part No. VR-1-LHG, which does not include the electric heat gun, can also be obtained.

A model HG-501 heat gun is also suitable for repairs on Levant type vinyl



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FIG. 6 Vinyl Top Repair Kit—VR-1

roof material. Do not use any heat gun of lesser capacity.

General Information

Applying patching compound is a multiple layer procedure with alternate filling and curing.

On flat or horizontal roof areas, use a moist sponge (not wet) to cool the repair area between heat cycles to prevent the patching compound from setting up too fast. Cooling is also accomplished by operating the heat gun on the COLD position.

On sloped or vertical roof areas, keep the work area warm so the patch compound will partially set up as it is applied to the joint to prevent running and tear-drop effects.

Sand down high spots with 200 grit open coat paper, then regrain and respray, or cut out undesirable area and repeat repair procedure.

If repair is too low, refill, recure, regrain and spray color.

Keep patching compound away from the heat gun air stream to prevent hardening in the jar. Store compound in a cool place.

Practice Procedure

Use sample vinyl swatches in kit for practice. Cut a hole or slit in the sample and glue it to a piece of sheet metal with trim cement. After trim cement dries, make practice repairs in the flat position. Follow by making practice repairs in the vertical position.

Instructions On Use Of Heat Gun

1. Gun is hottest when using shortest possible heavy duty extension cord. Beware of drop light cords and long extension cords with small wires where the line of voltage drop can seriously reduce heat output of the gun.
2. Gun is hottest when adjustable air intake louvers are closed. Regraining procedures require maximum temperature - use closed louvers with nozzle distance 1 inch from work.
3. Curing each layer of Vinyl Patching Compound is normally done at 1 inch nozzle distance. Adapt louver opening to suit rate of cure desired.
4. Move gun nozzle in circular motion over repair area (whether curing or regraining) to get best temperature distribution at the vinyl surface.
5. Before turning gun OFF, flip switch from hot to cold for a few seconds to cool the heater element.
6. Do not drop gun - the ceramic heater element may fracture.

Vinyl Roof Repair Procedure

1. Make a grain die by following the Vinyl Grain Pattern Die procedure which is given in this Part. This die will be used later to regrain the repaired area.
2. If damaged area is small (Fig. 7), use scalpel knife to cut out loose vinyl material back to where vinyl material is securely bonded to roof. Cut out all fibrous strands. Cut to obtain a clean edge condition as shown in Fig. 8.

   If damaged area is larger, cement loose material back into place with trim cement and allow to dry. Cut out at least 1/16 inch of material on both sides of the tear line in which to place the vinyl patching compound.
3. Clean the area to be repaired with vinyl prep conditioner by spraying the conditioner **onto a clean cloth** and wiping the area (Fig. 9). **Do not spray the prep conditioner directly onto the repair area.**
4. Apply patching compound with applicator trowel tool as follows (Refer to Figs. 10 and 11):

   Apply the first layer in small quantities to the metal-vinyl edge joint to make a root fillet as shown in Fig. 11. Before curing, wipe off any excess patch compound above the joint with a clean dry cloth.

   Hold the heat gun approximately 1 inch away from the repair and move the gun in a circular motion. Curing takes about 20 seconds and is complete when the compound turns from white to translucent. Press down on the roof material around the joint with fingers during heat-cure cycles to keep area flat.

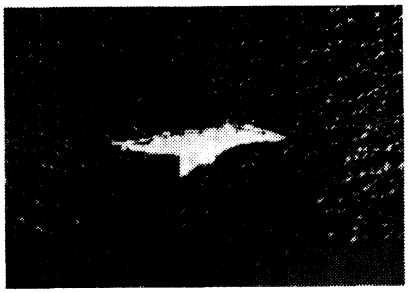
   Repeat the procedure of applying patching compound and heat curing - always in thin layers. (Refer to Figs. 12 and 13.) Usually three layers are adequate to complete the job but larger holes may require four to five layers.

   After heat curing the next-to-last layer, the joint cross-section will appear as shown in Fig. 12 and be warm. Apply patching compound to obtain a slight build-up above the vinyl surface as shown in Fig. 13.



R 1600-A

FIG. 7 Typical Vinyl Roof Damage



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FIG. 8 Vinyl Roof Damage After Trimming



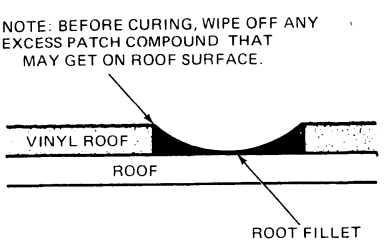
R 1602-A

FIG. 9 Cleaning Damaged Area



R 1603-A

FIG. 10 Applying Patching Compound



R 1604-A

FIG. 11 Patching Compound—First Layer

Wait until this last application turns to a gel-like consistency (about 10 seconds). **DO NOT CURE WITH HEAT GUN AT THIS STAGE.** Then, draw the side edge of the trowel tool over the face of the patch area to strike off the excess build-up to get a level surface (Fig. 14). Also, remove any excess compound that may smear on the vinyl roof material adjacent to the patch area otherwise it will cure to the roof material and cause unwanted build-up on the surrounding area. Joint is now ready for the final heat cure and regraining procedure.

5. Cure this last leveled layer by heating the patched area for about 30 seconds at 1 inch nozzle distance (always moving the gun nozzle in a circular motion) until the immediate surrounding vinyl develops a shiny glazed appearance. Have grain pattern die ready in the other hand.
6. Remove heat and immediately press grain pattern die with force (Fig. 15). Hold die on repair for at least 10 seconds to obtain a good impression.
7. Cool the repaired area with a moist sponge or **cold** air blast from the gun.
8. Spray vinyl prep conditioner on a clean cloth and lightly dab the area. **Do not rub.**
9. After the repair area has cooled, color spray with a back and forth sweep to fog in the vinyl roof color.

Vinyl Grain Pattern Die

A graining die can be made to duplicate any print desired. It is made by taking an impression from the vinyl material in an area adjacent to the repair or from a piece of scrap having the same grain.

1. Clean the vinyl material from which the print will be made with any suitable mild vinyl cleaner.
2. Dry the material.
3. Spray a 6 x 8 inch area with Silicone Mold Release.
4. On a glass surface, place about two tablespoons of Grain Die Compound and add seven drops of Fast Set Liquid Hardener to the compound (Fig. 16). Mix thoroughly with a stick or spatula.
5. Scrape the mixture onto the vinyl material that has been sprayed with mold release and level out on a 4 x 6 inch area.
6. Cut an 6 x 8 inch piece of vinyl material of the same grain pattern, and place it over the compound. Place the grain side up, fabric side down. Refer to Fig. 17.
7. Place a flat board (such as 1/2 inch plywood) on top of the vinyl material and place a weight on the board.
8. Allow to dry for 20 minutes.
9. Peel off the completed vinyl grain pattern die and trim edges with scissors.
10. Spray the die face with Mold Release to provide a non-adhering silicone coated surface. The die can be used repeatedly to repair identical patterns. Die should be at room temperature when making grain on repair area.

ALL VINYL ROOF MATERIAL EXCEPT LEVANT TYPE PATTERN

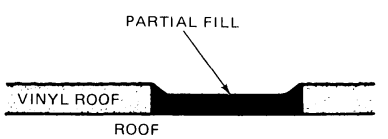
Tools and Material

The following are the recommended tools and material required to perform the various types of repairs on all vinyl roof material except the LEVANT type.

Before ordering from the sources listed, it is suggested that local jobbing shops or radio equipment outlets be contacted for availability of these items.

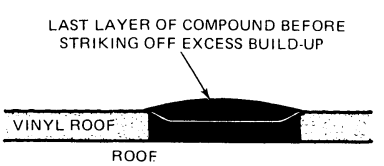
Tools

1. Heat Gun—Model HG-501... Source: Electric Tool & Service Co., 6188 12th St., Detroit, Michigan 48208.
2. Soldering Iron consisting of (1 each): No. 6100—Imperial Unger Handle... No. 6102—Imperial Unger Standard 2-wire cord... No. 6202— Imperial Unger 25-Watt heating cartridge... No. 6372—Imperial Unger Tip... Source: Radio Specialties Co., 12775 Lyndon Ave., Detroit, Michigan 48227.



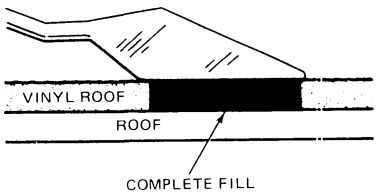
R 1605-A

FIG. 12 Patching Compound—Intermediate Layer(s)



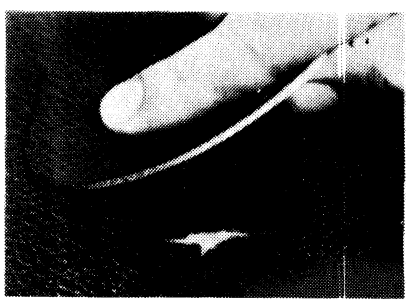
R 1606-A

FIG. 13 Patching Compound—Last Layer



R 1607-A

FIG. 14 Leveling Surface



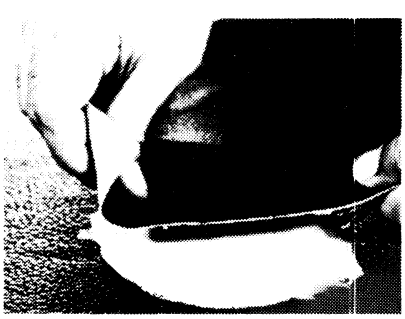
R 1608-A

FIG. 15 Applying Grain Pattern Die



R 1609-A

FIG. 16 Mixing Grain Die Compound



R 1610-A

FIG. 17 Place Vinyl Material Over Die Compound Mixture

3. Transformer Model No. 10B Superior Variable... Bud Metal Box Model No. C-1606... Source: Radio Specialties Co., 12775 Lyndon Ave., Detroit, Michigan 48227.
4. Hypodermic Syringe 2-1/2 cc with a No. BD-18 needle (Plastipakz)... Source: Any medical supply company.

Materials

1. Rubber Cement Pick-Up (DRAFCO)... Source: Procure locally or Drafting Materials Inc., 4851 Woodward Ave., Detroit, Michigan 48201.
2. Abrasive Cellulose Sponge No. 7010 (Scotchbrite Brand 3M) (Surfa Scuff Sponge)... Source: Procure locally.
3. Vinyl Top Cleaner—Part No. 19526 (or equivalent)... Source: Facing Parts Depot.
4. Vinyl Top Adhesive Part No. 19C525 (or equivalent)... Source: Master Parts Depot.
5. Vinyl Paint—Spray Can net wt. 5 Oz. Avd. (or equivalent):

   Color Part Number
   Black VR-1724-S
   White VR-1525-S
   Blue VR-1903-S
   Gold VR-1915-S
   Parchment VR-1631-A
   Brown VR-2045-S
   Dulling Agent VR-95F17-S
   Class drop ship. **The above colors are packaged in quantities of (6). When ordering always select any combination of (6) colors by Part Number.**

Types of Repair

The following are the various types of items that can be repaired:

Bubbles

A separation between the vinyl cover and metal surface due to trapped air (Fig. 18).

Scuffs and Abrasions

Surface damage caused by rubbing action (Fig. 19).

Major Cuts

A cut which has penetrated through both the vinyl surface and cloth backing (Fig. 20).

Wrinkles

A crease or small fold on the surface of the material. This condition is usually evident outboard of the bonded seam (Fig. 21).

Minor Cuts

A surface cut which has not penetrated the cloth backing (Fig. 22).

Looseness

Vinyl material that has not been drawn tight over a sharp bend in the sheet metal such as around the backlite or over padded material used on certain models and body styles (Fig. 23).

Separated Bonded Seam

Seams in which the two pieces of material have a gap between the sections (Fig. 24).

Adhesive Smears

These are smears of the type that normal cleaning will not remove such as trim cement, drip rail sealer, or the adhesive which is used for vinyl roof installation.

These are typical of the kind of items that are repairable. However, there are certain considerations regarding the type of repairs to be performed (e.g., whether repair is to be performed during pre-delivery, color of vinyl roof involved, location of defect, etc.).

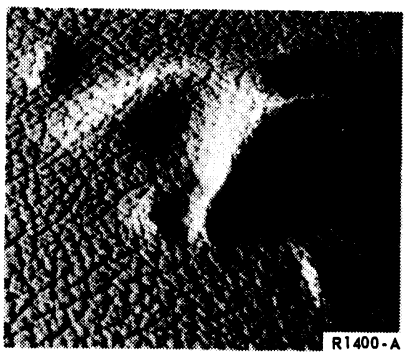


FIG. 18 Air Bubble



FIG. 19 Scuffs or Abrasions

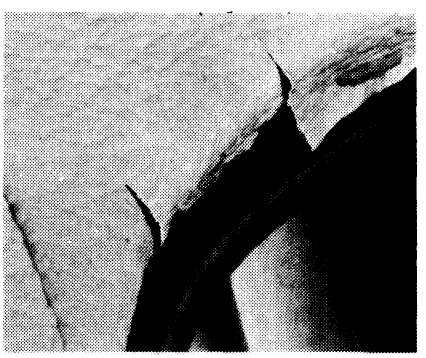


FIG. 20 Major Cuts

Repair Procedures

Before proceeding with any repairs thoroughly clean the vinyl roof with cleaner, Part No. 19526 (or equivalent). Use a scrub brush to remove all dirt imbedded in the graining. Repeat the cleaning operation as often as required, particularly on white vinyl tops.

Scuffs or Abrasions

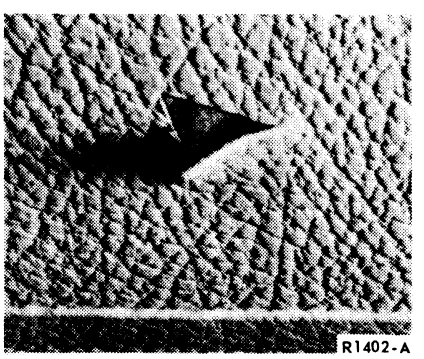
Connect the soldering iron and set the transformer heat range to No. 7 position (approximately 225°F).

Clean the soldering iron tip thoroughly with the abrasive pad. This must be done frequently while performing the repair to avoid vinyl build-up on the tip.

Lightly slide the soldering tip over the scuff mark several times using short overlapping strokes until the frayed vinyl has fused to the surface.

The vinyl surface may have been removed by the scuff exposing the cloth backing. If this is encountered, it will be necessary to fill in with vinyl as shown in Fig. 25. This is typical where vinyl must be added and is accomplished by





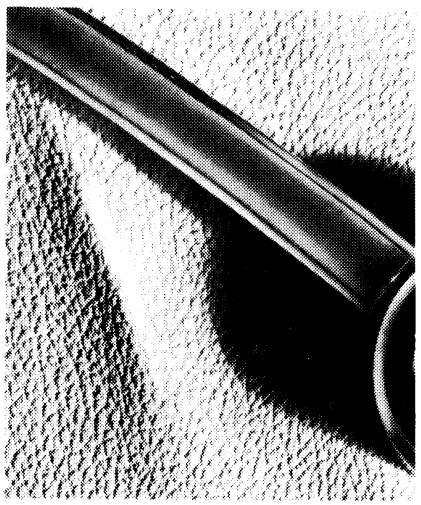


FIG. 21 Wrinkles

stripping a small quantity of vinyl off a piece of scrap material with the hot tip of the solder gun as shown in Fig. 25. Carefully fill in as required using short overlapping strokes. **(Several stripping operations may be required to adequately fill the scuffed area.)** The graining effect in the vinyl can be restored by carefully etching the grain pattern into the vinyl with the sharp edge of the soldering tip. The gloss or shiny surface created by the repair can be removed with the dulling agent or by spraying the area with liquid vinyl as shown in Fig. 26. Several color coats may be required. The last coat should be a fog coat to minimize gloss.

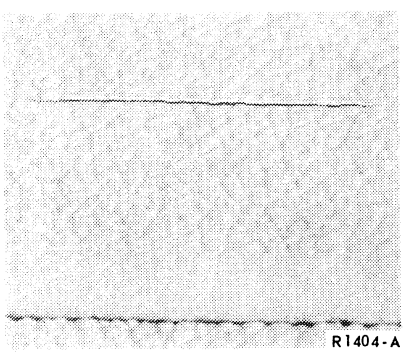


FIG. 22 Minor Surface Cut

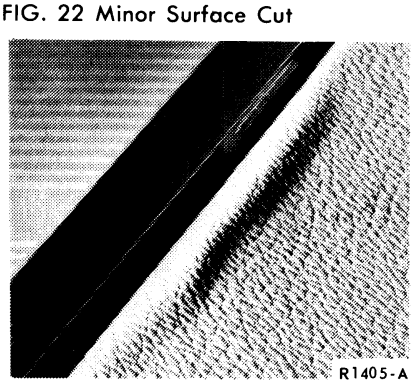


FIG. 23 Looseness



This repair can be applied to scuffs or abrasions in most areas of the vinyl top.

Minor Surface Cuts

Connect the soldering gun and set the transformer heat range to No. 7 position (approximately 225°F).

Clean the soldering iron tip thoroughly with the abrasive pad. This must be done frequently during the repair to avoid vinyl build-up on the tip. Lightly slide the soldering tip across the cut surface using very short strokes (1/4 inch or less) until the cut is covered with vinyl. Again go over the cut lengthwise with the soldering tip to smooth out the surface. The graining effect can be restored by carefully etching the grain pattern into

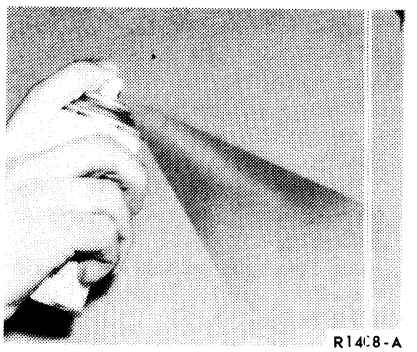


FIG. 26 Spraying Repaired Area

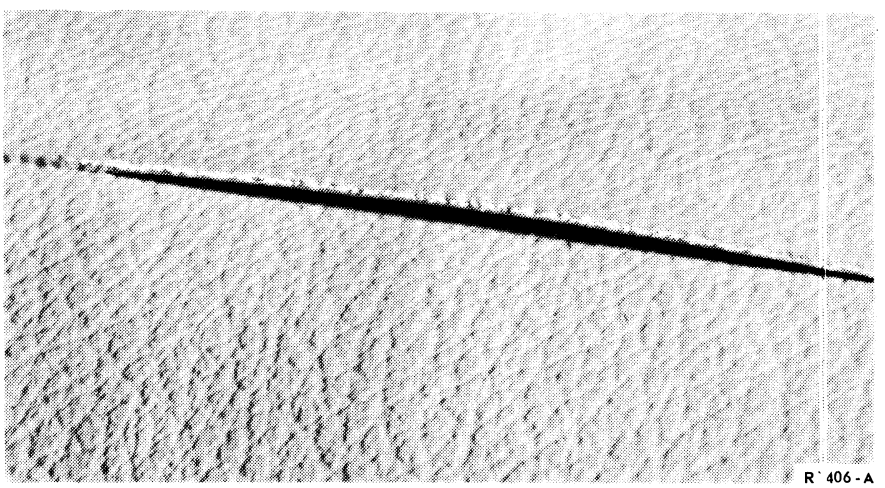
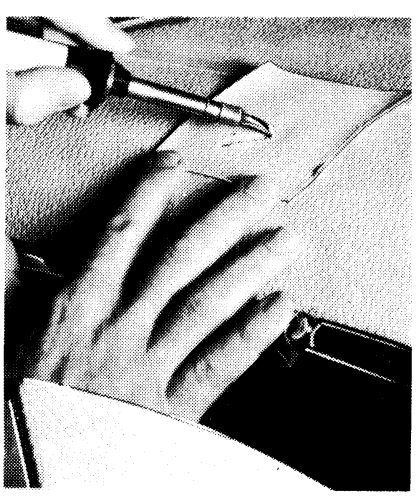


FIG. 24 Bonded Seam Separation



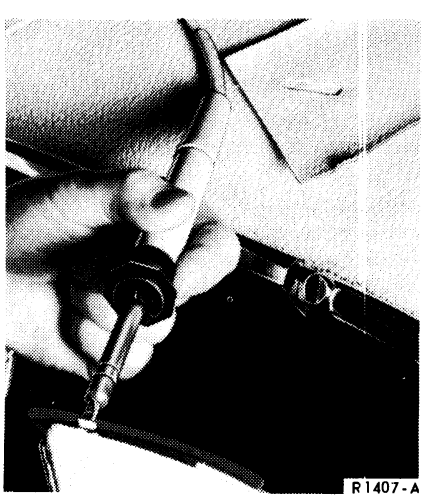


FIG. 25 Stripping and Filling Scuffed Area With Vinyl

the vinyl with the sharp edge of the soldering tip.

If required, the gloss or shine on the vinyl surface created by the repair can be removed with the dulling agent and then spraying the area with liquid vinyl as shown in Fig. 26. Several color coats of liquid vinyl may be required. The last coat should be a fog coat to minimize gloss.

Major Cuts

Connect the soldering iron and set the transformer heat range to No. 7 position (approximately 225°F).

Clean the soldering iron tip with the abrasive pad. This must be done frequently during the repair to avoid vinyl build-up on the tip. If damage is over an inch long, apply a light coat of adhesive as shown in Fig. 27. (It is not necessary to use cement if the cut is over a padded area.)

Start at the center of the cut and lightly slide the soldering tip across the cut surface, as shown in Fig. 28, using very short strokes (1/4 inch or less) until the cut is covered with vinyl.

Again go over the cut lengthwise with the soldering tip to smooth out the surface.

The graining can be restored by carefully etching the grain pattern into the vinyl with the sharp edge of the soldering tip.

If required the gloss or shine created by the repair can be removed with the dulling agent or by spraying the area with liquid vinyl as shown in Fig. 26. Several coats may be required. The last coat should be a fog coat to minimize gloss.

Bubbles

Generally, an air bubble is caused by trapped air and can be corrected by expelling the air with a hypodermic needle as shown in Fig. 29. It will be necessary to activate the adhesive under the vinyl after the air has been expelled by applying heat with the heat gun until the vinyl surface is hot to the touch (see Fig. 30). Then, work the material down with the fingers as shown in Fig. 29. **To avoid overheating and possible damage to the vinyl, hold the heat gun about 10 to 12 inches from the surface and constantly move the gun in a circular motion. In some cases where a good bond cannot be obtained, insert a small amount of** adhesive, Part No. 19C525 or equivalent, under the vinyl material with a syringe as shown in Fig. 29.

Wrinkles

Do not confuse a wrinkle with a bubble. Usually a wrinkle has small radial folds with an excessive amount of slack material which cannot be displaced without rearranging the material. The following repair procedure, for example, describes the correction of a wrinkle at the front corner.

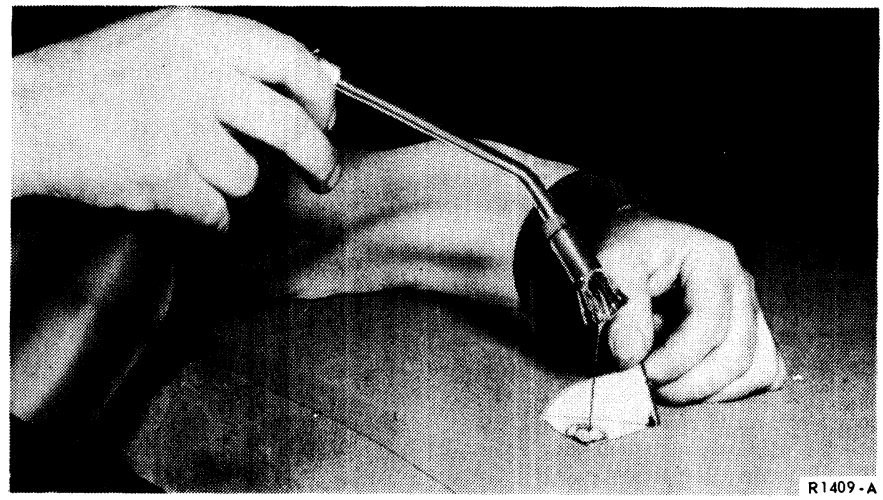


FIG. 27 Application of Adhesive

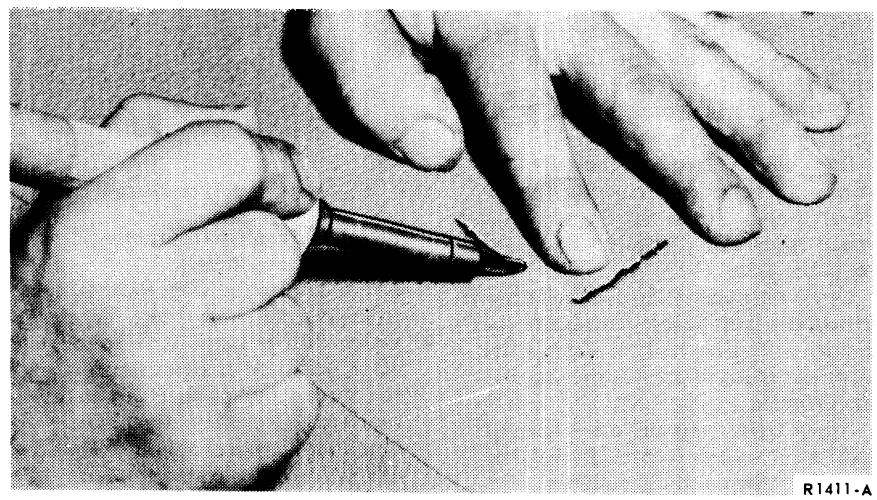


FIG. 28 Fusing Cut with Soldering Iron

Partially or completely remove any mouldings or ornamentation in the immediate area of the wrinkle.

Pull the vinyl material free from the roof panel up to the bonded seam and along the side drip rail for approximately 10 inches.

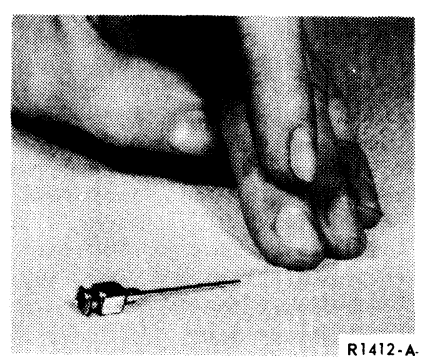


FIG. 29 Expelling Air With Hypodermic Needle

Clean the surface thoroughly of the old adhesive. Apply a thin film of adhesive to both the vinyl material and

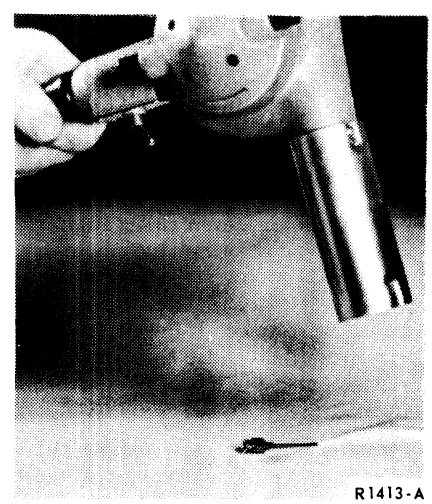


FIG. 30 Applying Heat With Heat Gun

along the drip rail. Allow the adhesive to air dry for several seconds.

Grasp the material firmly, then draw the material taut until all wrinkles are removed as shown in Fig. 31. Fold the material under the drip rail flange.

Secure the front edge of the material with as many drive nails as needed to prevent the material from creeping. Apply sealer under the drive nail to prevent possible water leak.

Install the mouldings and weatherstrips.

Looseness

Loose vinyl roof material usually occurs at padded areas of the vinyl roof which is used only in certain body styles. The following is a typical repair of loose material at the blind quarter area and generally applies to other areas such as around the backlite opening.

Partially or completely remove mouldings or ornamentation in the immediate area to be repaired.

Carefully peel the edge of the material free from the sheet metal.

Clean the metal surface thoroughly of the old adhesive. Apply a thin film of adhesive to both the vinyl and metal surface. Allow the adhesive to air dry for several seconds.

Grasp the material firmly, then draw the material taut. Secure the edge of the material with drive nails or sheet metal screws as needed to prevent the material from creeping.

Apply sealer over the drive nails or sheet metal screws to prevent possible water leaks. Install the mouldings.

Gap Between Vinyl Top and Moulding

In some instances, vinyl top material that is to short to be concealed under the roof moulding can be corrected by adjusting the moulding or stretching the material. If it is necessary to stretch the material, pop rivets must be used to prevent the vinyl from returning to its original position. Should there be an insufficient amount of material to allow the use of pop rivets, the complete vinyl top cover must be replaced. To determine whether there is a sufficient amount of material, perform the following procedure:

1. If applicable, loosen the moulding retainers and reposition the moulding sufficiently to cover the edge of the vinyl roof material. Re-torque the moulding retainers. **If the edge of the vinyl material cannot be covered by repositioning the moulding, proceed to Step 2.**
2. Partially or completely remove the moulding(s) or ornamentation in the area in which the vinyl roof is too short or gaps to the moulding(s). Refer to Group 47 for removal and installation of exterior mouldings and/or ornamentation.
3. Carefully peel the vinyl material free from the roof panel 4 to 6 inches.
4. Using Silicone and Wax Remover (D160-3721-A or equivalent) clean the sheet metal surface thoroughly, removing all of the old adhesive.
5. Apply a thin film of adhesive (D4AZ-19C525-A or equivalent) to both the vinyl material and the sheet metal surface and allow the adhesive to air dry for several seconds.
6. With a heat gun, apply heat to the vinyl, then grasp the material firmly and stretch the material so it can be installed beneath the moulding(s).

CAUTION: To avoid overheating the vinyl, hold the heat gun about 12 inches from the surface and constantly move the gun in a circular motion.

NOTE: If after stretching the material, it is evident that pop-rivets can not be hidden by the mouldings, the vinyl roof cover will have to be replaced. However, if it is determined that the pop-rivets can be used, proceed to Step 7.

7. Drill a sufficient number of 9/64 inch diameter holes in the edge of the vinyl to assure that it can be adequately secured to the roof panel with 381500-S (1/8 x 3/8) pop-rivets.
8. Install the necessary pop-rivets and reinstall the moulding(s) or ornamentation removed in Step 1.

Separated Bonded Seam

Connect the soldering iron and set the transformer heat range to No. 7 position (approximately 225°F).

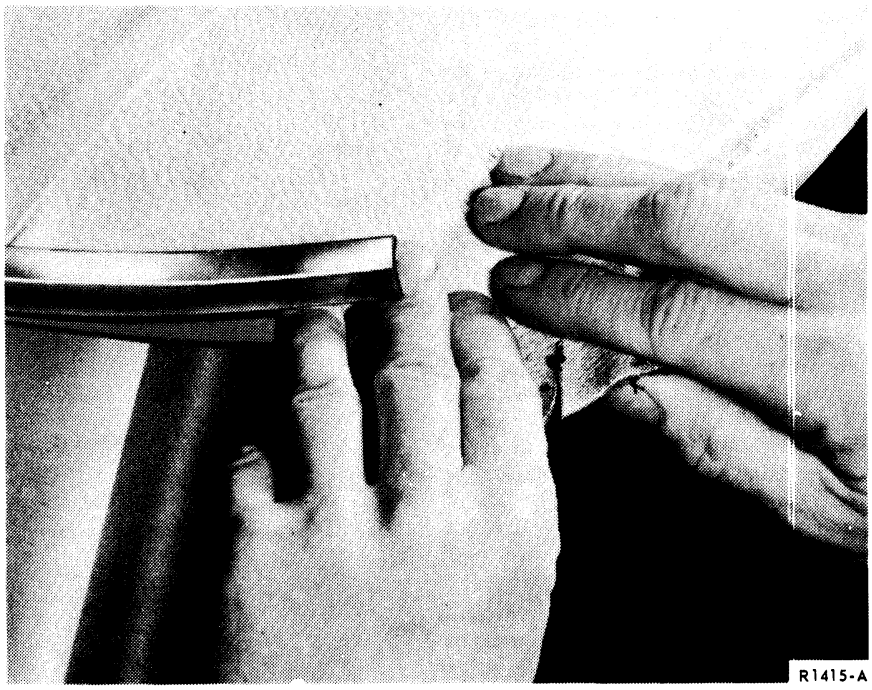


FIG. 31 Correcting Wrinkles at Front Corner

Clean the soldering iron tip thoroughly with the abrasive pad. This must be done frequently while performing the repair to avoid vinyl build-up on the tip. Start at one end of the separated seam and insert the tip of the soldering iron between the bonded seam as shown in Fig. 32. Note the position of the curved tip. Slowly move the tip along the underside of the seam following immediately with the fingers to press the seam together.

Reverse the soldering iron tip as shown in Fig. 33 and again slowly move the tip along the edge of the seam.

This completes the repair and, if performed correctly, should not require paint touch-up. If, however, the vinyl surface outboard of the seam has a glossy or shiny appearance created by the repair, the area can be restored to its original satin finish with a dulling agent

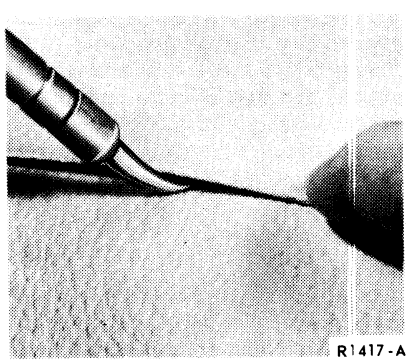
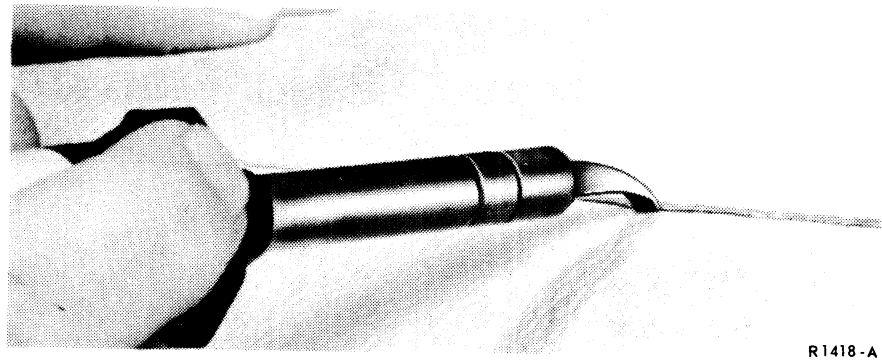


FIG. 32 Applying Heat to Underside of Bonded Seam

or by applying liquid vinyl as shown in Fig. 26. Several coats may be required. The last coat should be a fog coat to minimize gloss.

Adhesive Smears

Adhesive smears can be removed in most cases, provided this is done immediately and the adhesive is not allowed to age on the vinyl roof. Therefore, it is imperative that the clean-up is performed as soon as possible. Fresh sealer smears can be removed by rubbing the smear off with a rubber cement pick-up block such as the type described in the list of materials.



R1418-A

FIG. 33 Applying Heat to Edge of Bonded Seam

Wood Grain Transfer

PART 46-30

CR2856 A

DESCRIPTION

MODEL APPLICATION

Low Gloss Type

The low-gloss type is used on all Squire Station Wagons.

High Gloss Type (KUX)

The high-gloss type (KUX) is used on the Pinto Squire Station Wagon tailgate only. The following chart identifies wood grain usage at the Assembly Plants (Fig. 1).

Assembly Plant	Code	Wood Grain Transfer Type
Metuchen	T	high gloss KUX type
San Jose	R	low gloss 3M type
St. Thomas	X	low gloss 3M type

R1936-A

FIG. 1 Wood Grain Transfer Usage

REMOVAL AND INSTALLATION

PRESSURE SENSITIVE WOOD GRAIN TRANSFER REPAIR

Low Gloss Type (3M)

It is not necessary to replace the vinyl wood grain transfer because of blisters, air bubbles, chips or scratches.

To repair blisters or air bubbles, pierce the air bubble or blister with a pin. Work the trapped air out of bubble and press the transfer firmly against the sheet metal. It may be necessary to preheat the metal slightly, to soften the adhesive.

For chips or scratches, use touchup paint to repair the damaged areas. The available paints are shown in Fig. 2. Refer to the master parts catalog for part numbers.

Color
Highlight Color (Dark Brown)
Solid Background Color (Light Brown)
Black

CR1488-C

FIG. 2 Wood-Grain Transfer Repair Paints

High Gloss Type (KUX)

Repair procedures are the same as low gloss type, except for repair in areas of hem flange, fuel filler and door depression.

If the wood-grain transfer lifts off the sheet metal, check the recessed surface for pin holes. If holes are evident, exhaust the trapped air through the holes, ensure the transfer is adhering to the sheet metal and then patch the holes with a small scrap of transfer to create the necessary vacuum to hold the transfer in the depression.

If the transfer has lifted off the sheet metal and holes are not evident, cut a slit approximately 1/4 inch long in the transfer near the edge of the depression (not in the depression or the vacuum will be lost) to exhaust the air and adhere the transfer to the sheet metal.

PRESSURE SENSITIVE WOOD-GRAIN TRANSFER REPLACEMENT

Low Gloss Type

Removal

1. Remove the wood-grain plastic trim rail(s) or mouldings.
2. Clean the surface to be sure it is free of dirt, oil, wax and/or other foreign material. Use a clean rag, paper towel or sponge wet with Silicone and Wax Remover (DL 60-3721-A or equivalent). **Be sure the flanges, corners and any depressions are clean to assure maximum transfer adhesion.**
3. Repair the panel by metal finishing, if required.

Installation

1. If the original grained transfer has been damaged (scratched or cut) or partially removed during metal finishing, the damaged area should be sanded smooth and the original transfer film feather-edged with 320-grit or finer sandpaper.
2. Apply Lacquer Spot Putty (19B542 or equivalent) to the damaged area with a squeegee or flexible glazing knife to build up the surface to the level of the original film. This should be done only on a small area. If the damaged area is large, apply primer with a spray gun to build up the surface to the level of the original film.
3. Allow the primer or spot putty to dry thoroughly. Then, sand the primer and the entire grained panel with 320 grit or finer sandpaper. Repeat step 5 if necessary.
4. If the repair is being made to a door, trim the existing transfer film from the leading and trailing edges of the panel. Sand the edges of the panel and the inner surface of the flanges. Use the same procedure for the trailing edge of the fender and the leading edge of the quarter panel.
5. Prepare a wetting solution by mixing one ounce Liquid Car Wash (19B521 or equivalent) in a pail of warm water.
6. Cut the repair transfer to the desired size, using care to align the wood grain with the surrounding panels.
7. Place the transfer face down on a clean bench or other suitable flat surface and pull the paper backing off the transfer film. **Be careful not to stretch or tear the transfer film.**
8. Apply the wetting solution liberally to the tacky side of the transfer and to the panel being repaired with a rag or sponge. **It is extremely important that the vehicle panel surface, the transfer film and the wetting solution all be at a moderate temperature (at least 65 degrees F.) when performing this repair.** Live steam, hot water or an

electrically heated air blower may be used to warm the panel. It may also be used to soften the repair transfer film to make it conform to the vehicle panel and to aid in bending the transfer around the panel edges.

9. Position the transfer film on the panel. The presence of the wetting solution will help to prevent the pressure sensitive adhesive from sticking to the panel. This permits moving the transfer film to align the simulated caulk lines or wood grain pattern with the adjacent panels.

10. Smooth the transfer film on the panel with a rag or sponge wet with the wetting solution to remove large air pockets.

11. Squeegee the transfer film on the panel, working from the high point of a contour line on the panel. This will remove the wetting solution from between the transfer film and the panel and allow the adhesive on the film to stick to the panel. Remove any air or water bubbles as necessary by pricking them with a pin, and squeegee.

12. Wrap the transfer film around the edges of the door and quarter panels and the trailing edge of the front fender (as applicable). Apply heat to the edges and press the transfer film firmly against the flange, and squeegee.

13. Wipe the surface dry with a clean soft cloth and install the grained plastic trim rails or mouldings.

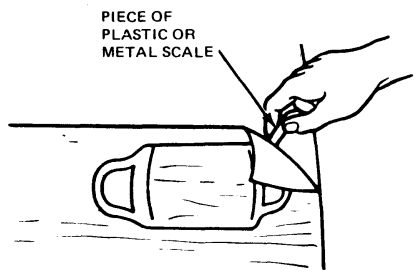
High Gloss Type (KUX)

Removal

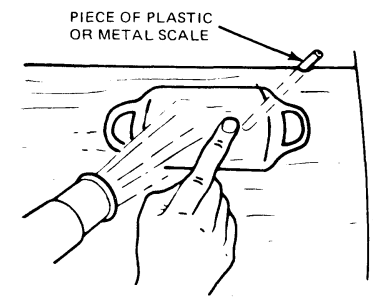
Use same procedure as for low-gloss woodgrain type.

Installation

Use the same procedure as for low-gloss type woodgrain, except in areas of hem flange, fuel filler and door depression. It is **imperative** that sufficient heat (approximately 200°F.) be used in these areas to prevent transfer from lifting off the sheet metal. This can be accomplished with a Master Appliance Corp. Heat Gun (Model HG501) or equivalent. To install transfer in door depression, follow steps in Fig. 3.



1. INSURE THE DEPRESSION IS FREE OF MOISTURE.
2. HEAT SHEET METAL IN DOOR DEPRESSION AREA TO APPROXIMATELY 200°F, AND APPLY TRANSFER IN NORMAL MANNER.
3. WITH A PIECE OF PLASTIC OR METAL SCALE IN PLACE AS SHOWN TO ALLOW THE TRAPPED AIR TO ESCAPE, SO A VACUUM IS CREATED TO HOLD TRANSFER FIRMLY IN DEPRESSION (DO NOT PUNCH HOLES IN TRANSFER). SQUEEGEE THE TRANSFER FILM INTO PLACE AROUND THE HANDLE.



4. PRESS THE FILM SECURELY INTO THE SHALLOW DEPRESSIONS.
5. USING HOT AIR TO MAKE THE FILM PLIABLE, CAREFULLY PRESS THE FILM INTO THE DEEP DEPRESSION-EXHAUSTING THE TRAPPED AIR TOWARD THE PIECE OF PLASTIC, WITH THE AIR EXHAUSTED, REMOVE THE PLASTIC TOOL AND SMOOTH THE FILM.

R1937-A

FIG. 3 High Gloss Woodgrain Transfer Installation

BODY SHELL, EXTERIOR TRIM, FRAME AND UNDERBODY

GROUP 47 (70000)

PART TITLE	PART NO.
Body Shell, Exterior Trim, Frame and Underbody General Service	47-01
Continental Mark V	47-03
Ford and Mercury	47-05
LTD II, Cougar and LTD II Ranchero	47-06
Lincoln Continental	47-02
Maverick and Comet	47-08
Monarch and Granada	47-11
Mustang	47-10
Pinto and Bobcat	47-09
Thunderbird	47-04

CR2008-A

Body Shell, Exterior Trim, Frame And Underbody General Service

PART 47-01

SUBJECT	PAGE
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Body Side Protection Mouldings (Pressure Sensitive Tape Type)	01-1
General Hoisting Instructions	01-2
Types of Body Sealer	01-1
DIAGNOSIS AND TESTING	01-4
ADJUSTMENTS	
Body Alignment	01-4
ADJUSTMENTS (Cont'd.)	
Frame Alignment	01-4
Frame Repairs	01-4
Unitized Body Alignment	01-4
CLEANING AND INSPECTION	
Body Maintenance	01-5
Floor Pan Plugs and Grommets	01-5
Rattle Elimination	01-5
Trim	01-5

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GENERAL INFORMATION

BODY SIDE PROTECTION MOULDINGS (PRESSURE SENSITIVE TAPE TYPE)

To install the optional body side moulding (Tedlar or Urethane), wipe the area surface with naphtha or a suitable cleaning solvent to remove all foreign material. Then, remove protective paper from pressure sensitive tape on the mouldings. Position moulding and press firmly to assure adhesion.

TYPES OF BODY SEALER

Caulking Cord 19560

This sealer has a plastic base with an asbestos filler and is commonly known as permagum. It is used on spotweld holes,

around moulding clips, or between two surfaces not properly sealed by a gasket. Apply with a putty knife.

Trim Cement 19C525

This cement is recommended for body panel plastic watershield and on some soft trim installations and also other vinyl and rubber trim.

Rubber Cement 19552

This quick-drying, strong adhesive material is designed to hold weather stripping on doors, bodies, deck lids, cowl ventilators and the surrounding metal. Windows and windshields which are set in rubber can be sealed effectively against leakage by flowing cement into the affected areas.

Clean all grease, dirt, and old sealer from the surfaces to be cemented and apply a medium coat of cement to both surfaces, allow it to dry until tacky, and press both surfaces firmly together.

Silicon Lubricant 199532 JELLY and SPRAY

This lubricant is to be used on the door and mini-vent window weatherstrips. It is recommended that silicone lubricant be applied to the weatherstrips at every lubrication period. Its use makes the doors easier to close, avoids weatherstrip squeaks, retards weatherstrip wear from chafing between the door glass upper frame and the weatherstrip, and helps to retain door window alignment by reducing friction between the glass frame and rubber weatherstrip.

GENERAL HOISTING INSTRUCTIONS

Damage to suspension, exhaust and steering linkage components may occur if care is not exercised when positioning the hoist adapters of 2-post hoists. Place the adapters under the front suspension lower arms. **Do not allow the adapters to contact the steering linkage.**

On the Lincoln Continental, Continental Mark V, Thunderbird, Elite and Cougar, rear suspension lower arms prevent positioning of fork lifts outboard of the suspension lower arms. Place fork lifts under the axle housing inboard of the suspension arm brackets.

Do not position hoist pads under Number 3 crossmember.

Refer to the Owner's Manual when using the jack supplied with the vehicle.

Maverick, Comet, Granada, Monarch, Pinto, Bobcat and Mustang II

The unitized body-frame construction requires special precautions and procedures when the vehicle is jacked up or hoisted. In some cases, special hoist adapters must be used as recommended by hoist manufacturers.

Drive-On Type Hoist

To prevent damage to the underbody, do not drive the vehicle onto the drive-on type hoist without first checking for possible interference between the upright flanges of the hoist rails and the underbody. Should there be interference, the hoist flanges should be modified as necessary or the approach ramps built up to provide the needed clearance.

Rail Type—Free Wheeling Hoist

Front

The front adapters or hoist plates must be carefully positioned in contact with the lower suspension arms to assure safe, accurate lifting.

Rear

The hoist adapters must be positioned to avoid damage to the shock absorbers when the vehicle is raised. The hoist rails should be raised slowly and the position of the adapters checked.

Fork Lift—Twin Post Hoist

Front

To assure safe hoisting, the front post adapters must be positioned carefully to contact the center of the lower suspension arms (Figs. 1 and 2).

Rear

To prevent damage to the shock absorbers, the rear forks must contact the axle at points not farther out board than one inch from the circumference welds near the differential housing. Carefully raise the rear post and check the position of the fork (Figs. 1 and 2).

Floor Jack—Pinto, Bobcat and Mustang

When using a floor jack, the vehicle may be raised at several locations. The front of the car may be lifted by positioning the jack under the center of the number two crossmember. The front, as well as either side of the rear end, may be lifted by positioning the floor jack under the rocker flange at the contact points used for the jack supplied with the vehicle. To lift both sides of the rear at once, position the floor jack under the differential housing.

Floor Jack—Other Models

When a stationary floor jack or a roll jack is to be used, there are several specific recommended points of contact. Either side of the vehicle may be raised at the front by jack contact at the lower arm strut connection. Either side of the front end of the vehicle may also be raised by jack pressure on the front crossmember, or on the crossmember to which the stabilizer is connected. **Do not attempt to use jack pressure on either front or rear Maverick, Comet, Granada, Monarch, Pinto, Bobcat or Mustang bumpers.**

On Continental Mark V and Thunderbird, position jacks under the rear axle housing between the suspension arm brackets and the differential housing. Do not place jacks under the suspension arm brackets. To unload ball joint front suspensions, position jack as shown in Fig. 3.

Frame Contact Hoist

On frame contact hoists, adapters are necessary to lift the vehicle. The adapters must be centered at four contact points as shown in Fig. 4. All four contact points must contact the adapters.

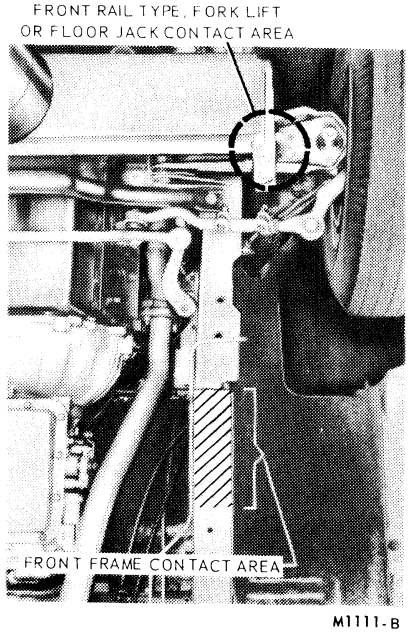


FIG. 1 Front Hoist Contact Areas

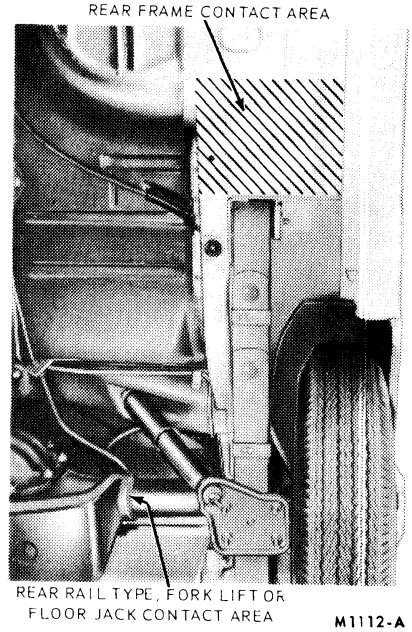
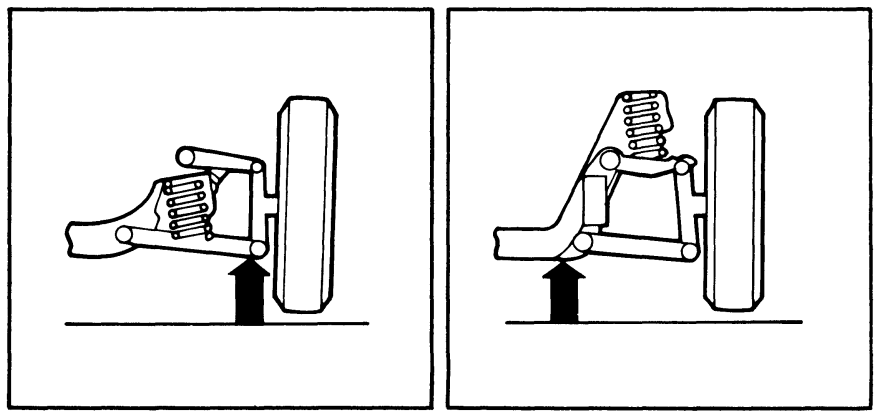


FIG. 2 Rear Hoist Contact Areas

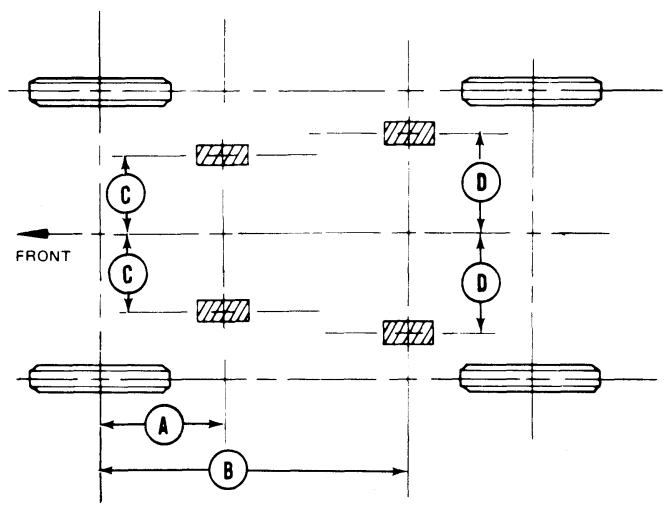
NOTE: Exercise care when hoisting vehicles equipped with catalytic converter(s). On vehicles so equipped, assure necessary clearance between hoist and exhaust system components before energizing hoist.



FORD/MERCURY
LTD II/COUGAR
CONTINENTAL MARK V
THUNDERBIRD
LINCOLN CONTINENTAL
PINTO/BOBCAT/MUSTANG

MAVERICK/COMET
GRANADA/MONARCH

FIG. 3 Front Suspension Lift Points for Ball Joint Unloading



Dimension (Inches)	Car Line										
	Comet	Cougar LTD II	Continental Mark V	Ford	Lincoln Continental	Maverick	Mercury	Mustang	Pinto Bobcat	Thunderbird	Granada Monarch
A	21.3	22.0	24.9	21.5	21.7	21.3	21.5	17.5	17.5	22.0	21.5
B	75.8 ① 82.7 ②	83.4 ① 87.4 ②	102.9	97.5	103.7	75.8 ① 82.7 ②	100.5	75.0	75.0	83.4	83.5
C	20.0	25.0	25.0	23.0	23.5	20.0	23.0	12.0	12.0	25.0	26.4
D	22.0	27.5	26.0	25.0	27.0	22.0	25.0	24.0	24.0	27.5	26.4

① 2 Door. ② 4 Door.

Y1511-D

FIG. 4 Frame Contact Lift Points

DIAGNOSIS AND TESTING

Sealer locations should be considered when checking for dust or water leaks. The forward motion of the vehicle causes any unsealed small opening in the lower section of the body to permit air to be drawn into the body. Dust will follow any path taken by the air from the point of entry into the passenger and luggage compartments. Opening the ventilator air ducts will equalize these pressures. Dust accumulates in the rocker panel, and may eventually work its way to the kick-up or the rear body pillar, and follow the contour of the wheelhouse into the luggage compartment.

To eliminate dust leakage, determine the exact point at which the dust enters.

The point of entry is often deceptive, in that the dust may enter at one point, then follow the passages formed by interior trim to another point.

Under certain conditions, water can enter the body at any point where dust can enter. Any consideration of water leakage must take into account all points covered under dust leaks.

To determine the exact location of a dust leak, it may be necessary to remove the following trim from the vehicle:

1. Cowl trim panel.
2. Quarter trim panel.
3. Rear seat back and seat cushion.
4. Luggage compartment floor mats, spare wheel, and side trim panel.
5. Center pillar trim on 4-door models.
6. Scuff plates.

After removing the trim, the location of most leaks will be readily evident. The entrance of dust is usually indicated by a pointed shaft of dust or silt. Seal these leaks, and road test the vehicle on a dusty road to make sure that all leaks are sealed.

After the road tests, check for indications of a dust pattern around the door openings, cowl panel, lower part of the quarter panel, and in the luggage compartment.

Sometimes leaks can be located by putting bright lights under the vehicle, with the above components removed, and checking the interior of the body joints and weld lines. The light will show through where leaks exist.

ADJUSTMENTS

UNITIZED BODY ALIGNMENT

Servicing the unitized body should present no unusual difficulties or necessitate additional equipment, other than required for conventional frame and body repair. The application of heat and the use of heavy duty jacks must be carefully controlled because of the difference in the gauge of the metal in the sub-frame of a unitized body and the stress points developed in a single welded unit construction. It is possible to pull damaged areas back into alignment with the use of light-weight jacks and hydraulic equipment, without heating the metal.

Rough-out badly damaged areas before taking measurements for squaring up a body. If necessary, remove the glass from the damaged area to prevent breakage. In severe cases, reinforcement brackets and other inner construction may have to be removed or cut to permit restoration of the outer shell and pillars, without excessive strain on the parts. Straighten, install, and secure all such parts in place, before attempting to align the body.

In cases of severe or sharp bends, it may be necessary to use heat. Any attempt to cold-straighten a severely bent bracket may cause ruptures of the welds and may also cause cracks in the bent part. Never heat the area more than a dull red.

Checking Underbody for Misalignment

The dimensions of the underbody must be restored in the repair of major body damage, to provide correct front and rear wheel geometry. The underbody dimensions are given in each Part of this Group for the respective models. All the dimensions are detailed to the center line of existing holes in the underbody assembly. Once the frame and suspension members are aligned, the balance of the repair can be performed.

BODY ALIGNMENT

When checking alignment of a badly damaged body, be sure that all necessary frame corrections have been made before attempting to align the body.

Rough out badly damaged areas before taking measurements for squaring up a body. Remove the glass to prevent breakage. In severe cases, reinforcement brackets and other inner construction may have to be removed or cut to permit restoration of the outer shell and pillars without excessive strain on the parts. Straighten, install and secure all parts in place before attempting to align the body.

In cases of severe or sharp bends, it may be necessary to use heat. Any attempt to cold-straighten a severely bent bracket may cause ruptures of the welds (if any) and may also cause cracks in the bent part. Never heat the area more than enough to give a dull red.

Checking Body for Misalignment

To align or square up a body, take two opposite diagonal measurements between the front, center, or rear pillars. Take the measurements between reference points, such as crease lines or weld joints which are diagonally opposite each other, on the two pillars being measured. Since all measurements should be made from the bare metal, remove all interior trim from the checking points.

Do not attempt to correct any serious misalignment with one jacking operation. This is particularly true if other sections of the body also require aligning. Align each section proportionately, until the proper dimensions are obtained. If frame alignment is questionable, refer to the frame dimensions given in each Part of this Group for the respective models.

FRAME ALIGNMENT

Frame misalignment can affect front wheel alignment, body alignment and the operation of the chassis parts. Window glass cracks, door and window opening troubles, and air or water leaks at the doors are often caused by improperly tightened body bolts or frame misalignment.

Before checking frame alignment, inspect all frame members for cracks, twists, or bends. Check all welded connections for cracks. Inspect the bolts and body support brackets for looseness. Make any necessary repairs or replacements.

FRAME REPAIRS

To prevent internal stresses in the metal, frame straightening should be limited to parts which are not severely bent. If heat is needed to straighten a frame member, keep the temperature below 1200 degrees F. Excessive heat may weaken the metal in the frame members and cause permanent damage.

Electric welding equipment should be used for all frame welding and **heat should be kept to a minimum area** so that

the hardness of the metal will not be affected.

When a reinforcement is to be welded to a frame side member, run the welds lengthwise along the side of the reinforcement.

If a damaged frame member is to be replaced, use the same method of attachment as on the original frame member. New bolts, required for replacement of parts, should be of the same specifications as the original bolts.

CLEANING AND INSPECTION

FLOOR PAN PLUGS AND GROMMETS

Many plugs and grommets are used in the floor pan and dash panel. The floor-pan plugs seal the various access holes. If any plugs are missing or improperly installed, a dust or water leak may result. This also applies to the grommets used on the dash panel. When dust or water leaks are evident, these plugs and grommets should be checked for proper installation.

RATTLE ELIMINATION

Most rattles are caused by a loose bolt or screw. Foreign objects such as nuts, bolts, or small pieces of body deadener in the door wells, pillars and quarter panels, are often the source of rattles. Door wells can be checked by carefully striking the underside of the door with a rubber mallet. The impact made by the mallet will indicate if loose objects are in the doorwell.

All bolts and screws should be tightened periodically. In the event that tightening the bolts and screws, located on such assemblies as the doors, hood, and deck lid does not eliminate the rattles, the trouble is probably caused by misalignment. If this is the case, follow the adjustment and alignment procedures for these assemblies.

Rattles and squeaks are sometimes caused by weatherstripping and antisqueak material that has slipped out of position. Apply additional cement or other adhesive, and install the material in the proper location, to eliminate this condition.

TRIM

The bright metal parts of the vehicle require no special care. Periodic cleaning will preserve the beauty and life of these finishes. Wash with clear water, or if the parts are very dirty use multi-purpose cleaner (19523 or equivalent). Using a clean soft cloth or a sponge and water, rinse and wipe the parts dry. Chrome Cleaner may be used sparingly to remove rust or salt corrosion from chrome plated parts. Do not scour aluminum or chrome finished parts with steel wool or polish them with products containing abrasives. A custom silicone polish (19530 or equivalent) will provide excellent protection for all bright metal parts.

BODY MAINTENANCE

Regular body maintenance preserves the vehicle's appearance during the life of the vehicle. The following steps are suggested as a guide for regular body maintenance.

1. Vacuum the interior thoroughly and wash the vehicle.
2. Check all openings for water leaks, and seal where necessary.
3. Cement all loose weatherstrips which are still usable.
4. Replace all door and deck lid weatherstrips which are unfit for service.
5. Apply silicone lubricant to the weatherstripping.
6. Replace all cracked, fogged, or chipped glass.
7. Align the hood, doors, and deck lid if necessary.
8. Inspect the windshield wiper blades and replace them if necessary.
9. Tighten the sill plate and garnish moulding screws.
10. Clean the seats, door trim panels, and headlining.
11. Touch up or paint chipped or scratched areas.
12. Drain holes located on the underside of each rocker panel, quarter panel, and door, should be cleared periodically.

Lincoln Continental

PART 47-02

SUBJECT	PAGE	SUBJECT	PAGE
REMOVAL AND INSTALLATION		REMOVAL AND INSTALLATION (Cont'd.)	
Exterior Mouldings	02-1	Hidden Attachments	02-1
Frame Dimensions	02-1	Radiator Grille	02-1
Front Bumper	02-1	Rear Bumper	02-1

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REMOVAL AND INSTALLATION

RADIATOR GRILLE

The radiator grille is attached to the front of the vehicle with 8 nuts which can be removed from the front of the grille (Fig. 1).

FRONT BUMPER

Removal

1. Remove three (3) bolts attaching each isolator to the bumper reinforcement and, with an assistant, remove the bumper and reinforcement from the vehicle. Before removing the reinforcement-to-bumper attaching bolts, the license plate bracket must be removed first. Remove cooling slot grille.
2. Remove the reinforcement- to-bumper attaching bolts, and separate the reinforcement from the bumper (Fig. 2). Then, remove the stone deflector.
3. Remove the bumper guards and pads from the bumper. NOTE: The bumper pad attaching tabs may be destroyed upon removal, if so equipped. Damage will be avoided by squeezing the retaining tabs with pliers until tabs can be pushed through holes in bumper.
4. Remove the license plate mounting bracket from the bumper.
5. If the reinforcement is to be replaced, transfer the bumper opening grille and stone deflector to the new reinforcement.

Installation

1. Install the bumper guards and pads on the bumper.
2. Position the reinforcement to the bumper and install the attaching bolts. Install the cooling slot grille, stone deflector and licence plate mounting bracket.
3. Position the bumper and spacers to the isolators and install the attaching bolts.
4. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 4. Then, adjust the bumper for body clearance at the centerline of the parking lamp so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 4. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.

REAR BUMPER

Removal

1. Remove three (3) bolts attaching each isolator to the bumper reinforcement and, with an assistant, remove the bumper and reinforcement from the vehicle. Remove the opening shield and licence plate mounting bracket. Remove the push-on rub strips.

   NOTE: The bumper pad attaching tabs may be destroyed upon removal, if so equipped. Damage will be avoided by squeezing the retaining tabs with pliers until tabs can be pushed through holes in bumpers.
2. Remove the reinforcement- to-bumper attaching bolts (Fig. 3), and separate the reinforcement from the bumper.
3. If the bumper is to be replaced, transfer the bumper guards and pads to the new bumper (Fig. 3).
4. If the reinforcement is to be replaced, transfer the stone deflector supports and license plate lamp assembly to the new reinforcement (Fig. 3).

Installation

1. Position the reinforcement to the bumper and install the attaching bolts. Tighten the bolts to 25-35 ft-lbs torque. Install opening shield and license plate mounting bracket. Install push-on rub strips.
2. Position the bumper and reinforcement to the isolator and install the attaching bolts.
3. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 4. Then, adjust the bumper for body clearance at the centerline of the tail lamp so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 4. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.

EXTERIOR MOULDINGS

Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access (Figs. 5 and 6). If a weld stud is distorted or broken off, it should be replaced with an oval head blind rivet (Part No. 383229-S).

HIDDEN ATTACHMENTS

Refer to Fig. 7 for hidden positive attachments placement.

FRAME DIMENSIONS

The Lincoln Continental frame dimensions are shown in Fig. 8. The frame checking and repair procedures are given in Part 47-01.

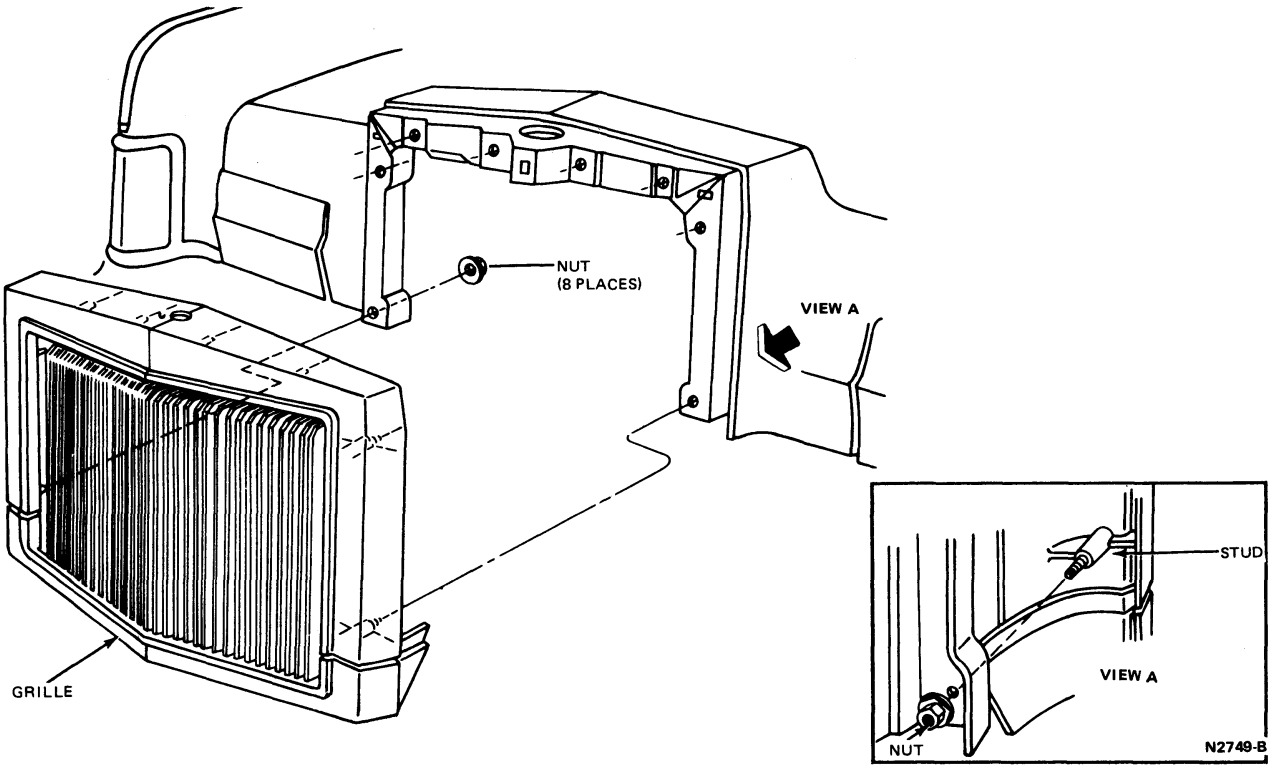


FIG. 1 Grille Installation—Lincoln Continental

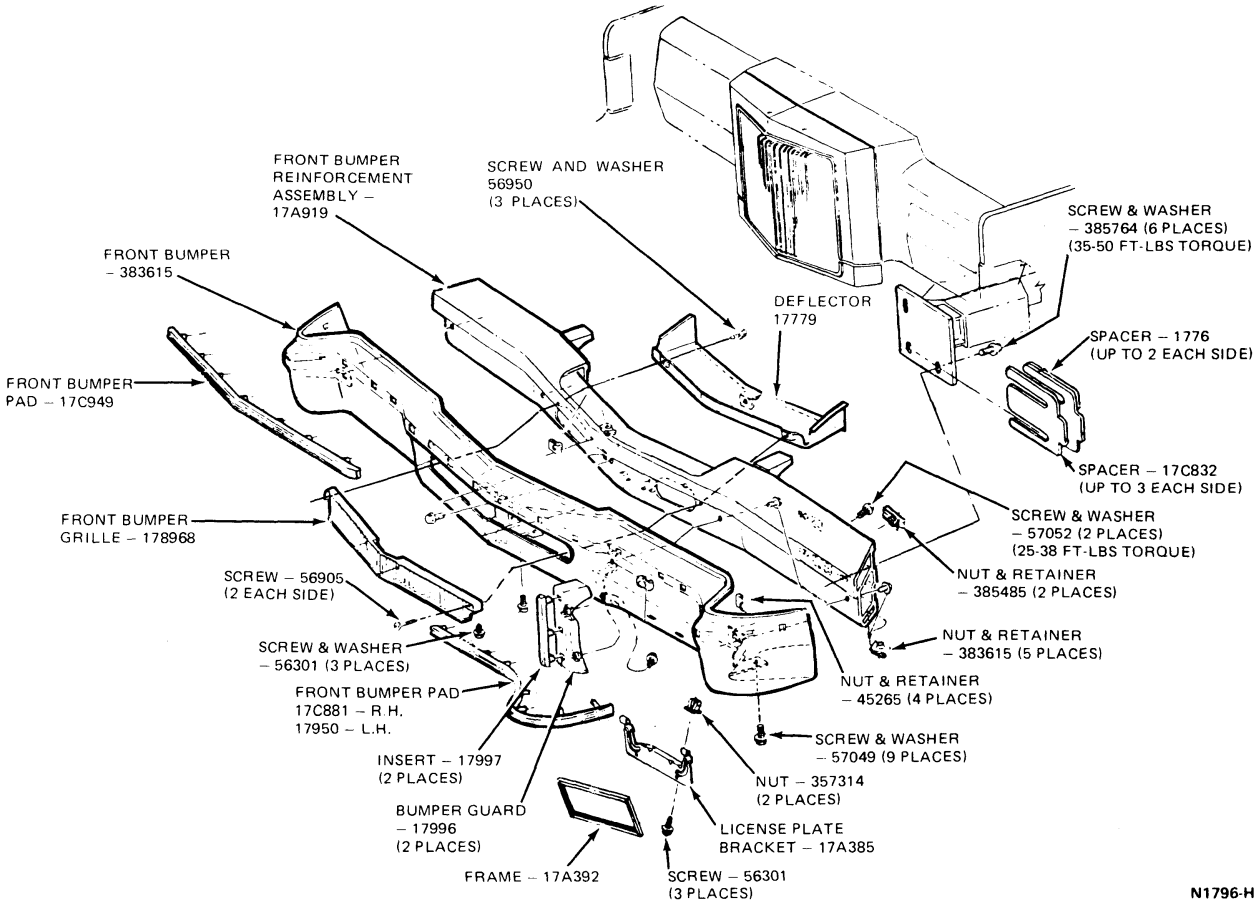


FIG. 2 Front Bumper Installation—Lincoln Continental

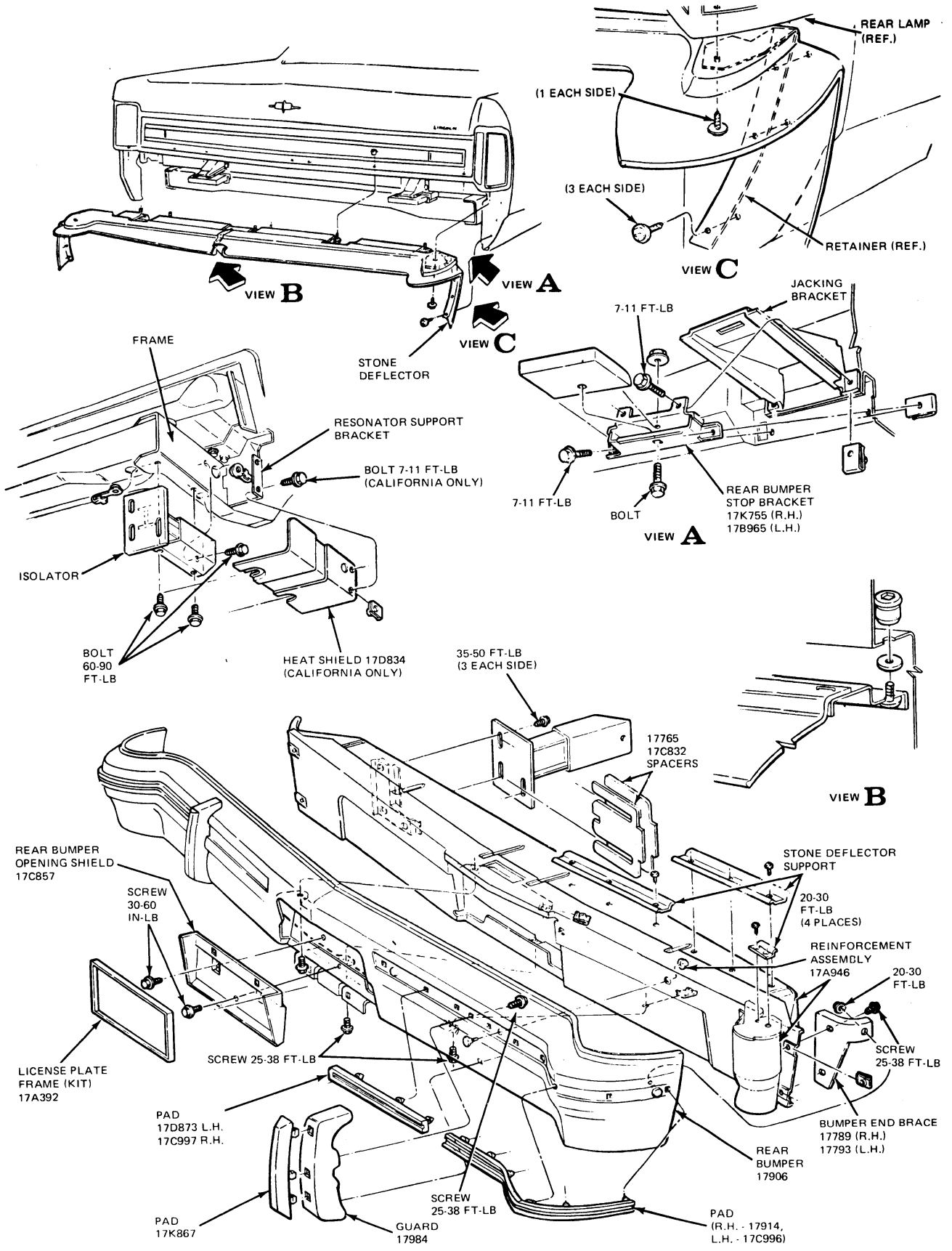


FIG. 3 Rear Bumper Installation—Lincoln Continental

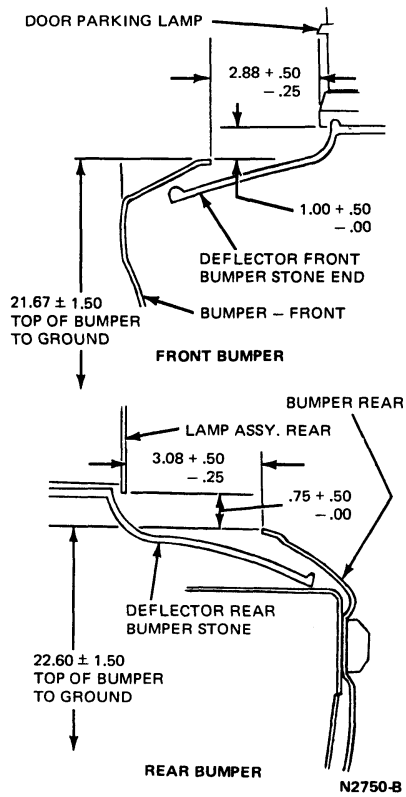


FIG. 4 Bumper Adjustment Specifications—Lincoln Continental

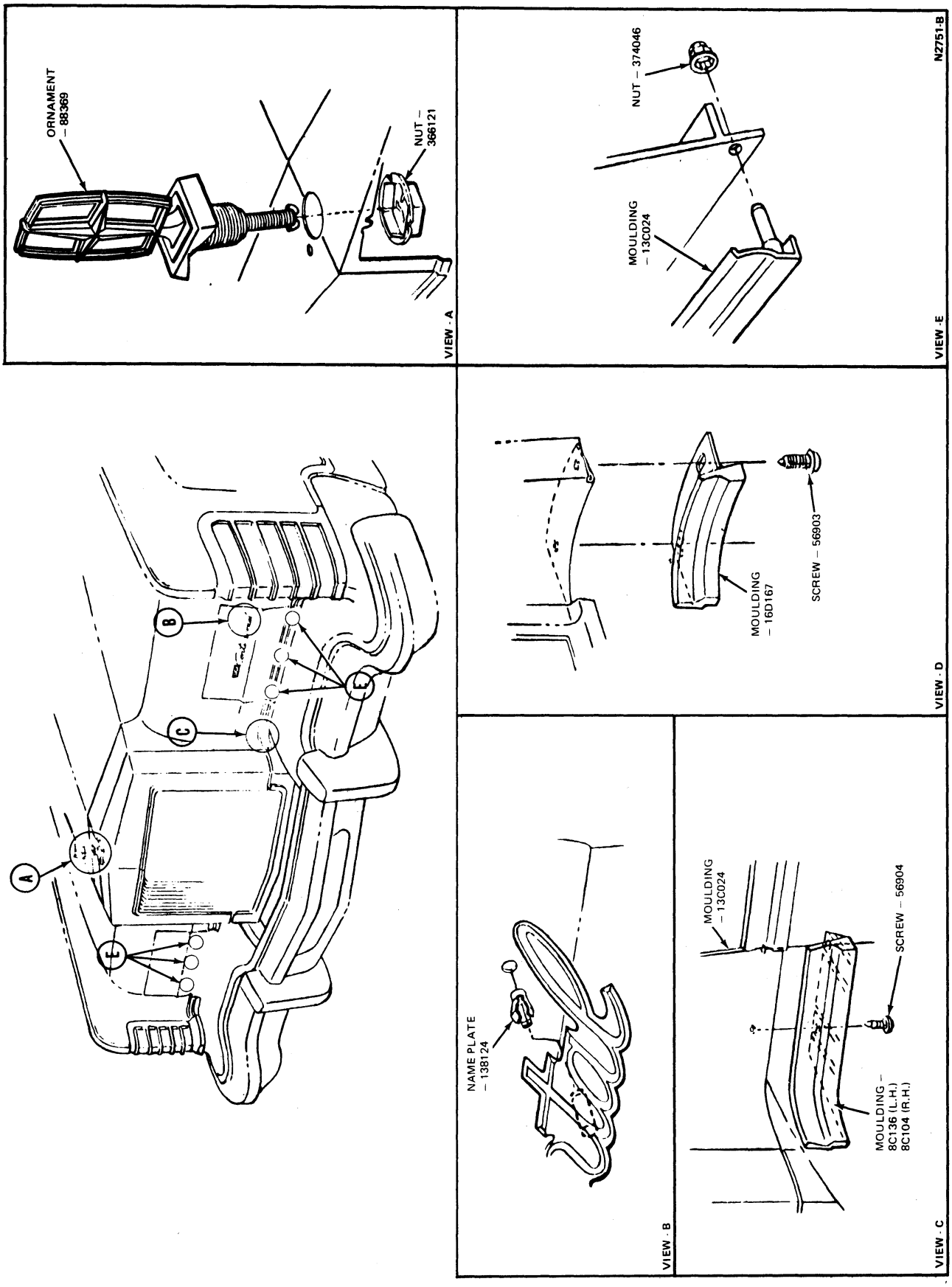


FIG. 5 Lincoln Continental—Front and Rear Moulding and Ornamentation

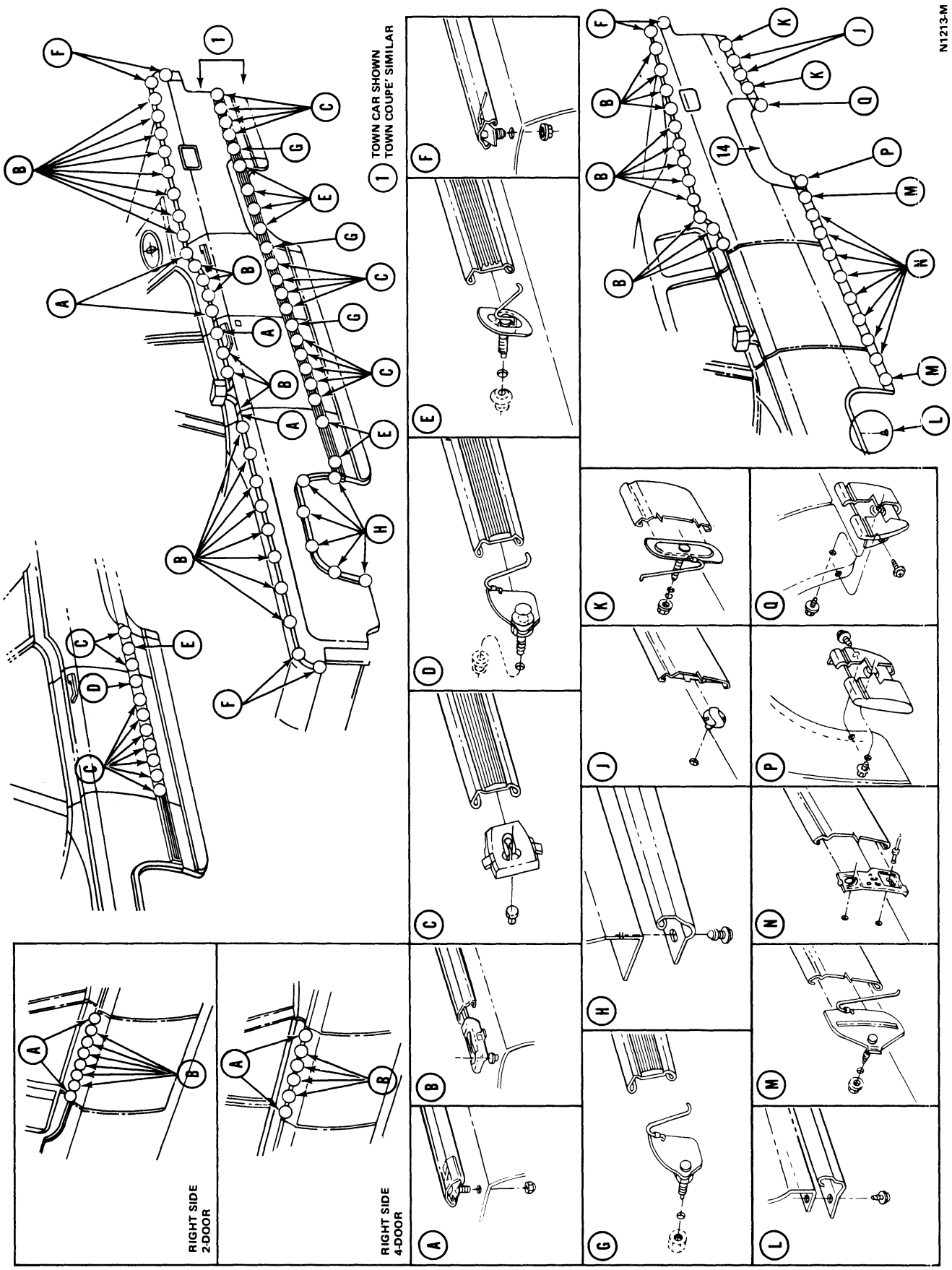


FIG. 6 Exterior Side Moulding Installation—Lincoln Continental

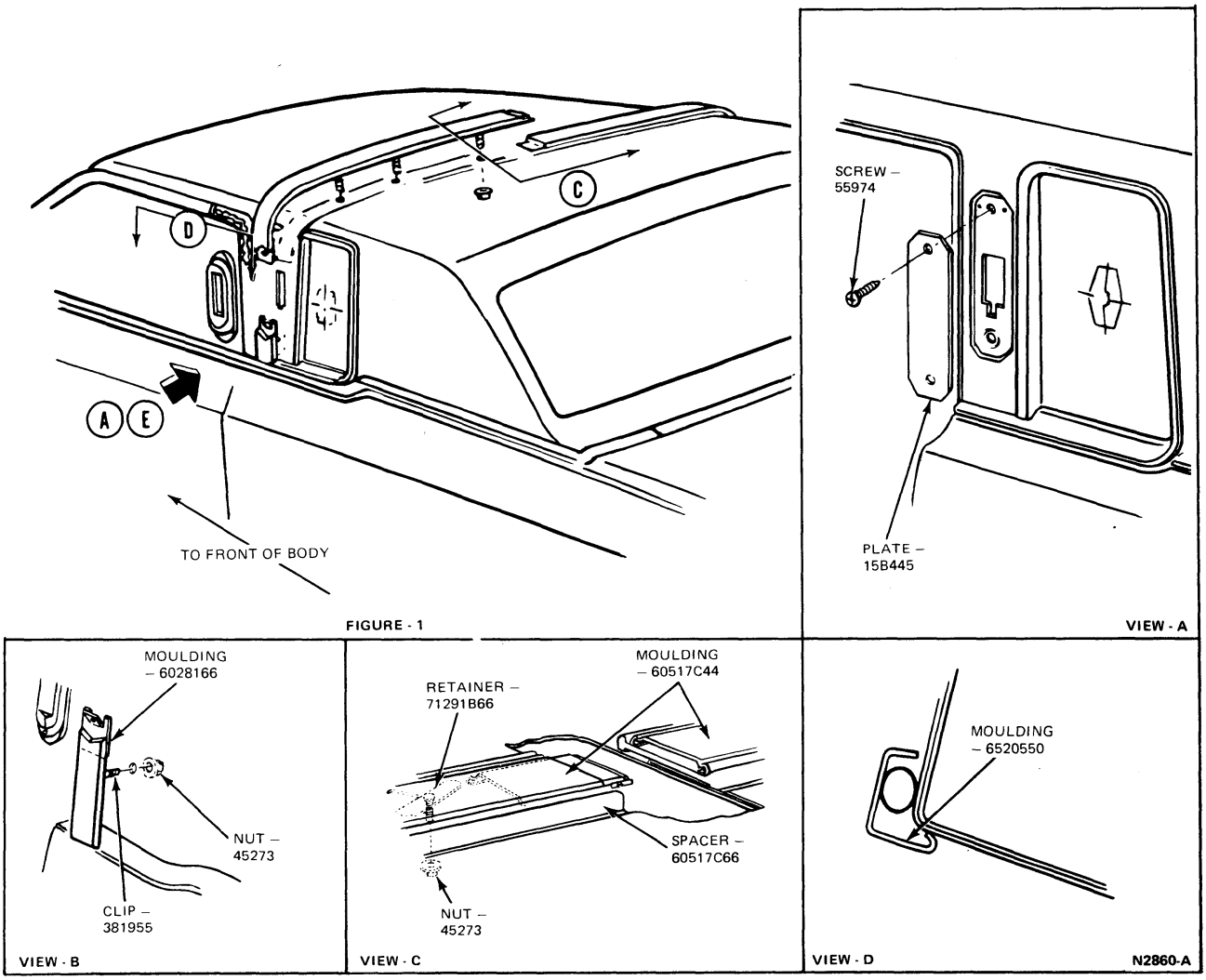
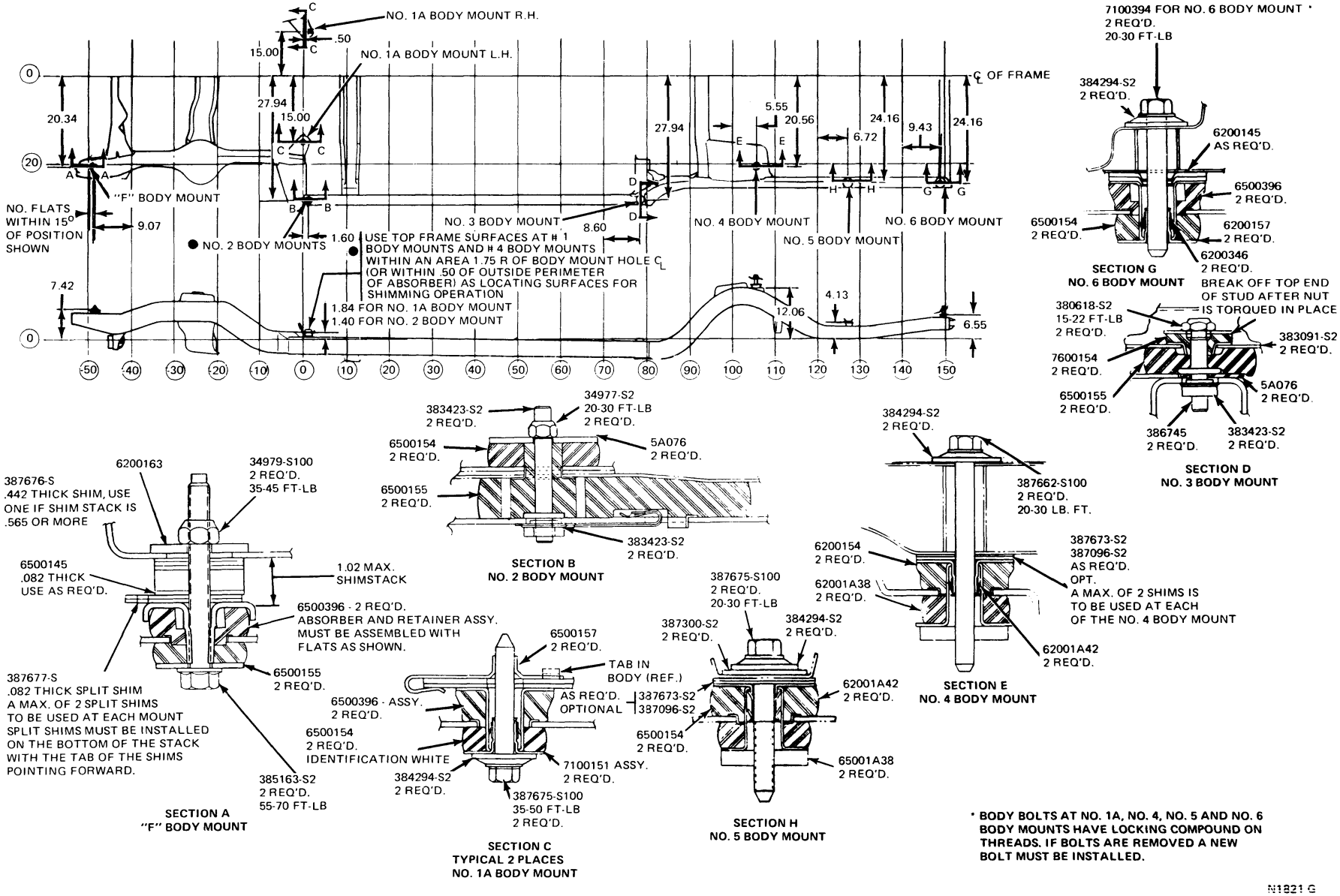


FIG. 7 Hidden Attachments

FRAME AND BODY MOUNTS
1977 LINCOLN CONTINENTAL



* BODY BOLTS AT NO. 1A, NO. 4, NO. 5 AND NO. 6 BODY MOUNTS HAVE LOCKING COMPOUND ON THREADS. IF BOLTS ARE REMOVED A NEW BOLT MUST BE INSTALLED.

N1821 G

FIG. 8 Frame Dimensions—Lincoln Continental

Continental Mark V

PART 47-03

SUBJECT	PAGE
REMOVAL AND INSTALLATION	
Exterior Mouldings	03-2
Frame Dimensions	03-3
Front Bumper	03-2
REMOVAL AND INSTALLATION (Cont'd.)	
Radiator Grille	03-1
Rear Bumper	03-2

REMOVAL AND INSTALLATION

RADIATOR GRILLE

Removal

1. Remove 13 radiator upper shield attaching screws and remove the shield.
2. Remove two nuts retaining each side of the grille to the grille opening lower panel (Fig. 1).
3. Remove two bolts attaching each side of the grille to the grille outer support panels (Fig. 1).
4. Remove one bolt attaching the top center of the grille to the hood latch support, and remove the grille.

Installation

1. Transfer the grille ornaments seals bracket and clips to a new grille if the grille is to be replaced.
2. Position the grille assembly to the grille opening. Install the four retaining nuts and five attaching screws finger tight.

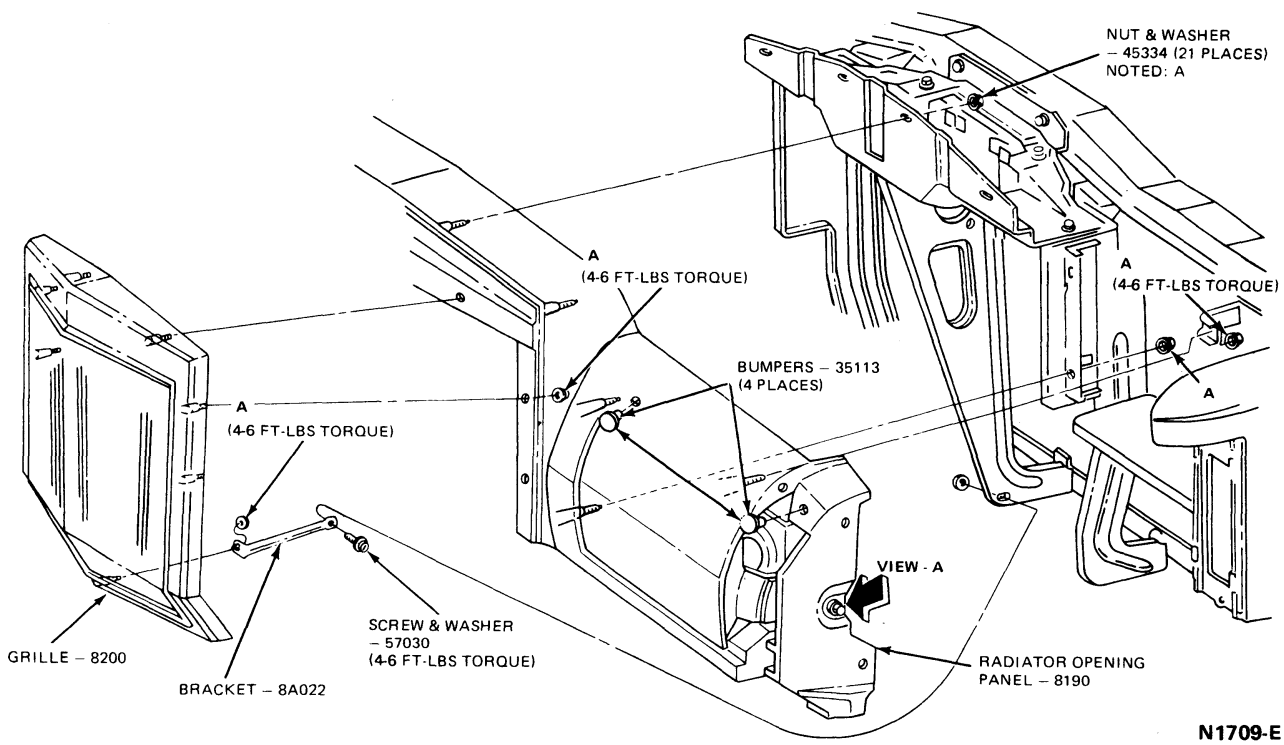


FIG. 1 Grille Installation—Continental Mark V

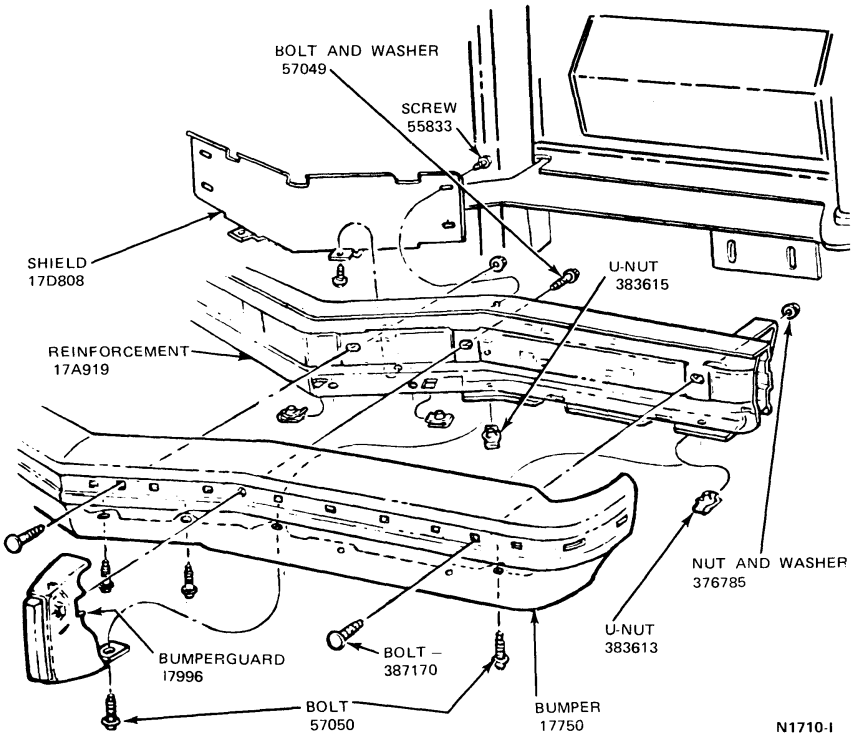


FIG. 2 Front Bumper Installation—Continental Mark V

3. Align the grille with the hood, grille opening lower panel and the bumper. Then, tighten the retaining nuts and attaching bolts securely.
4. Install the radiator upper shield.

FRONT BUMPER

Removal

1. Remove six bolts (three on each side) attaching the isolator to the reinforcement assembly (Fig. 2). Remove the bumper and reinforcement assembly from the vehicle.
2. Remove the reinforcement assembly, bumper guards and license bracket pads (twelve bolts, seven nuts and two screws) from the bumper.

NOTE: The bumper pad attaching tabs may be destroyed upon removal, if so equipped. Damage will be avoided by squeezing the retaining tabs with pliers until tabs can be pushed through holes in bumper. Remove the stone deflectors.

Installation

1. Position the reinforcement to the bumper and install the attaching bolts. Tighten the bolts to 25-38 ft-lbs torque. Install opening shield and license plate mounting bracket. Install pads to bumper assembly (Fig. 2). Install bumper guards to bumper and tighten attaching bolts 25-38 ft-lbs. torque.
2. Position the bumper and reinforcement to the isolator and install the attaching bolts.
3. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 4. Then, adjust the bumper for body clearance at the centerline of the parking lamp so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 4 (zero clearance at sight shield). Tighten the isolator-to-reinforcement bolts to 35-50 ft-lbs torque.

REAR BUMPER

Removal

1. Remove three bolts attaching each isolator to the reinforcement and, with an assistant, remove the bumper and reinforcement from the vehicle.
2. Remove the reinforcement- to-bumper attaching bolts, and separate the reinforcement from the bumper (Fig. 3).
3. If the bumper is to be replaced, transfer the bumper guards and the pads to the new bumper (Fig. 3).

NOTE: The bumper pad attaching tabs may be destroyed upon removal, if so equipped. Damage will be avoided by squeezing the retaining tabs with pliers until tabs can be pushed through holes in bumper.

Installation

1. Position the reinforcement to the bumper, and install the attaching bolts (Fig. 3). Install the bumper guards to the bumper. Tighten the bolts to 25-38 ft-lbs torque.
2. Position the bumper and reinforcement to the isolator with the shim(s) between the isolator and reinforcement (Fig. 3). Install the three attaching bolts at each isolator.
3. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 4. Then, adjust the bumper for body clearance at the centerline of the tail lamp so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 4. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.

EXTERIOR MOULDINGS

NOTE: Determine position of positive fasteners to preclude possible damages.

Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage

compartment trim panel must first be removed to provide access (Figs. 5, 6 and 7). If a weld stud is distorted or broken off, it should be replaced with an oval head blind rivet (Part No. 383229-S).

FRAME DIMENSIONS

The Continental Mark V frame dimensions are shown in Fig. 8. The frame checking and repair procedures are given in Part 47-01.

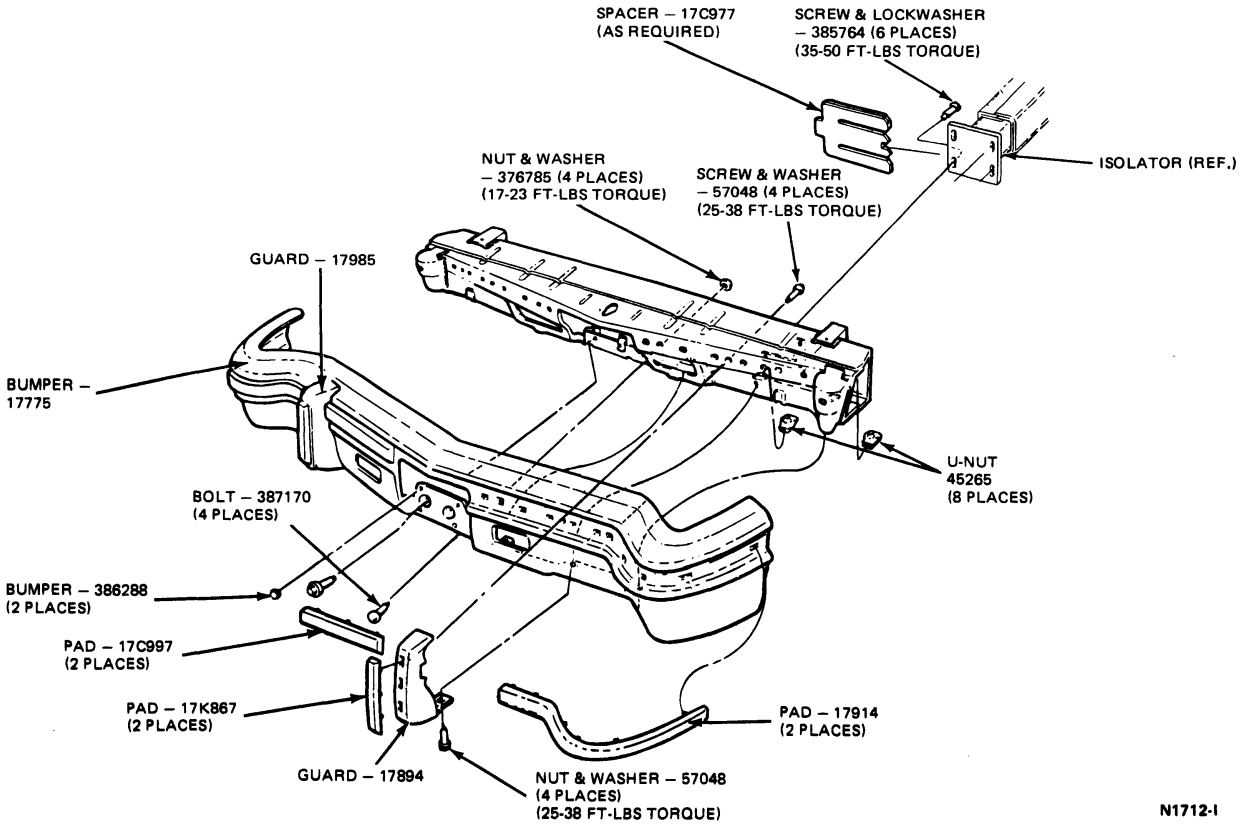


FIG. 3 Rear Bumper Installation—Continental Mark V

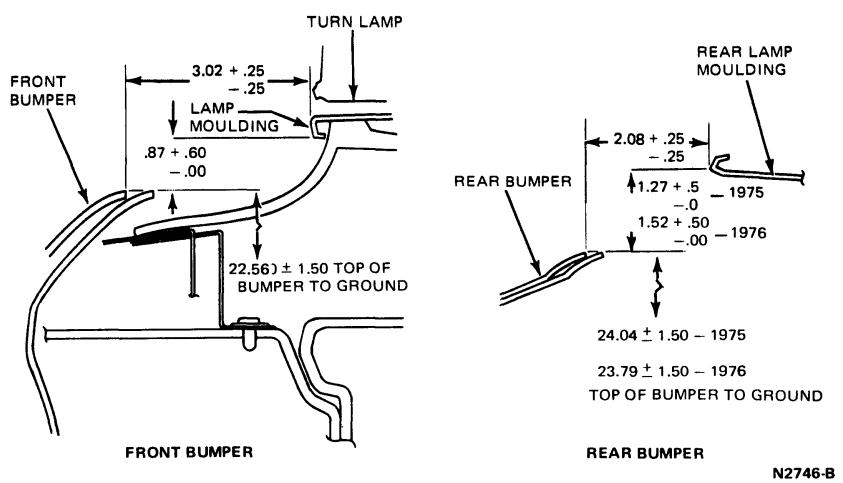


FIG. 4 Bumper Adjustment Specifications—Continental Mark V

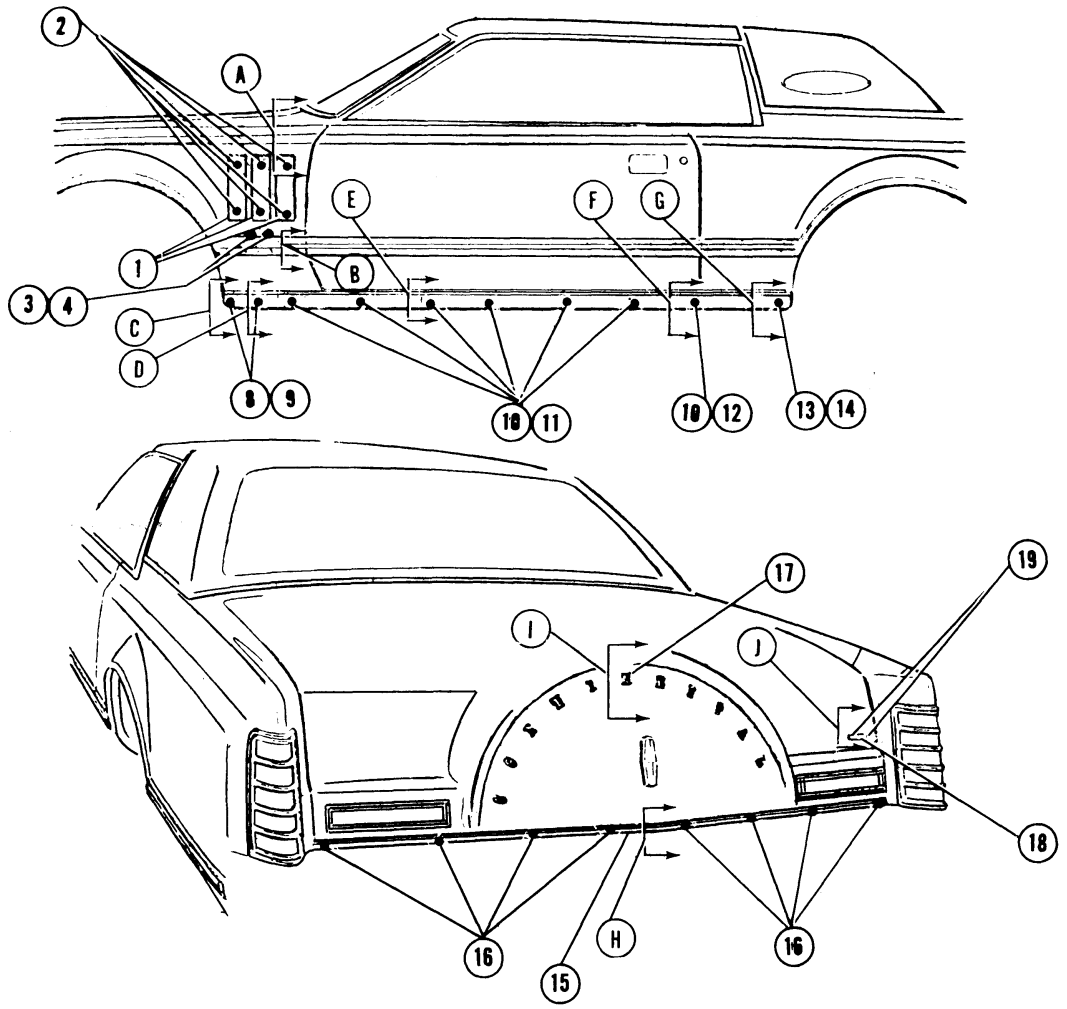
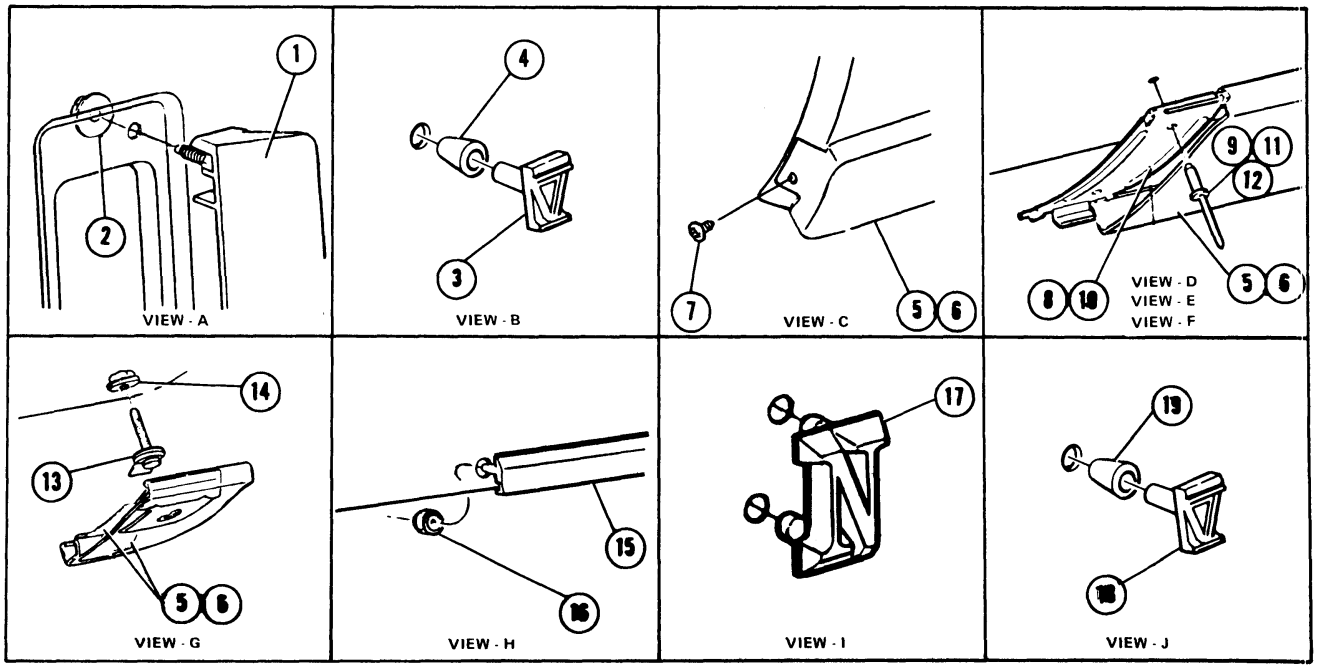


FIGURE 1



N1714-G

FIG. 5 Exterior Side and Rear Moulding Installation—Continental Mark V

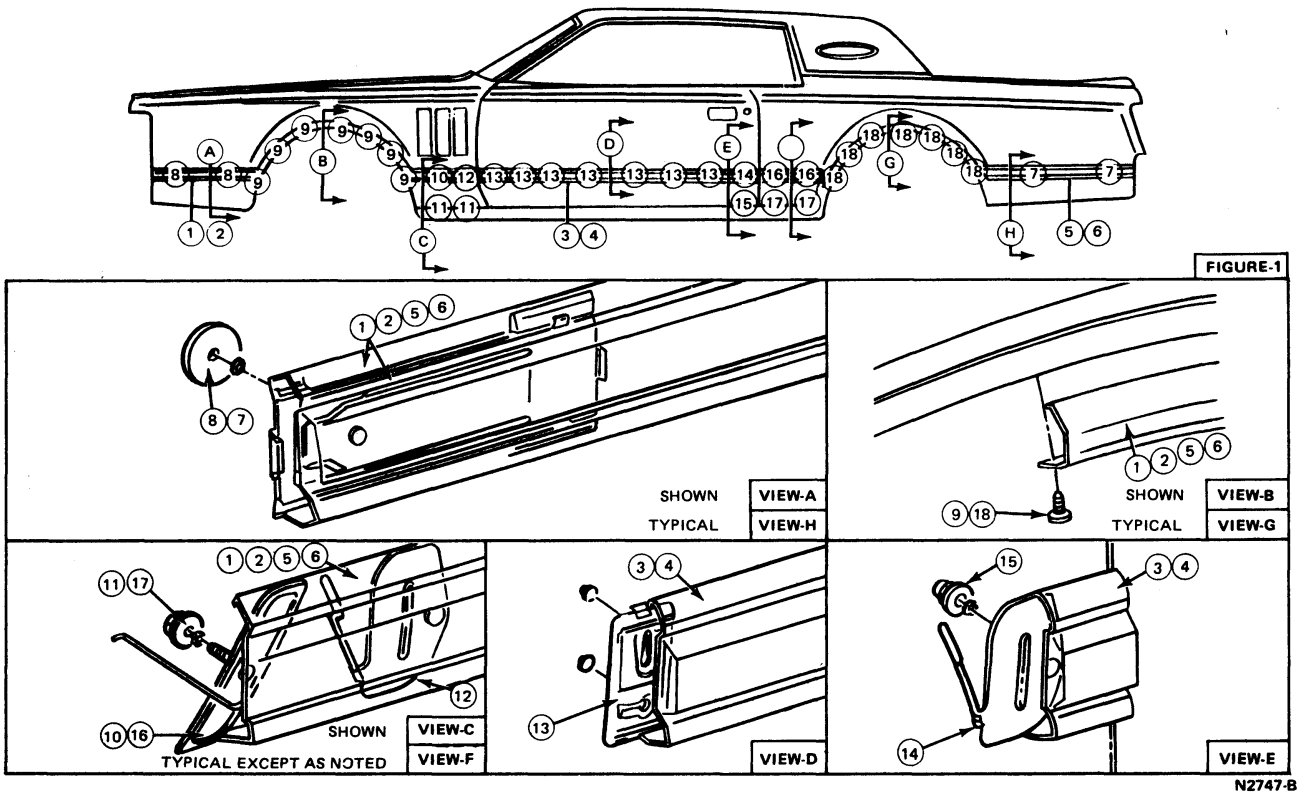


FIG. 6 Exterior Side Moulding Installation—Continental Mark V

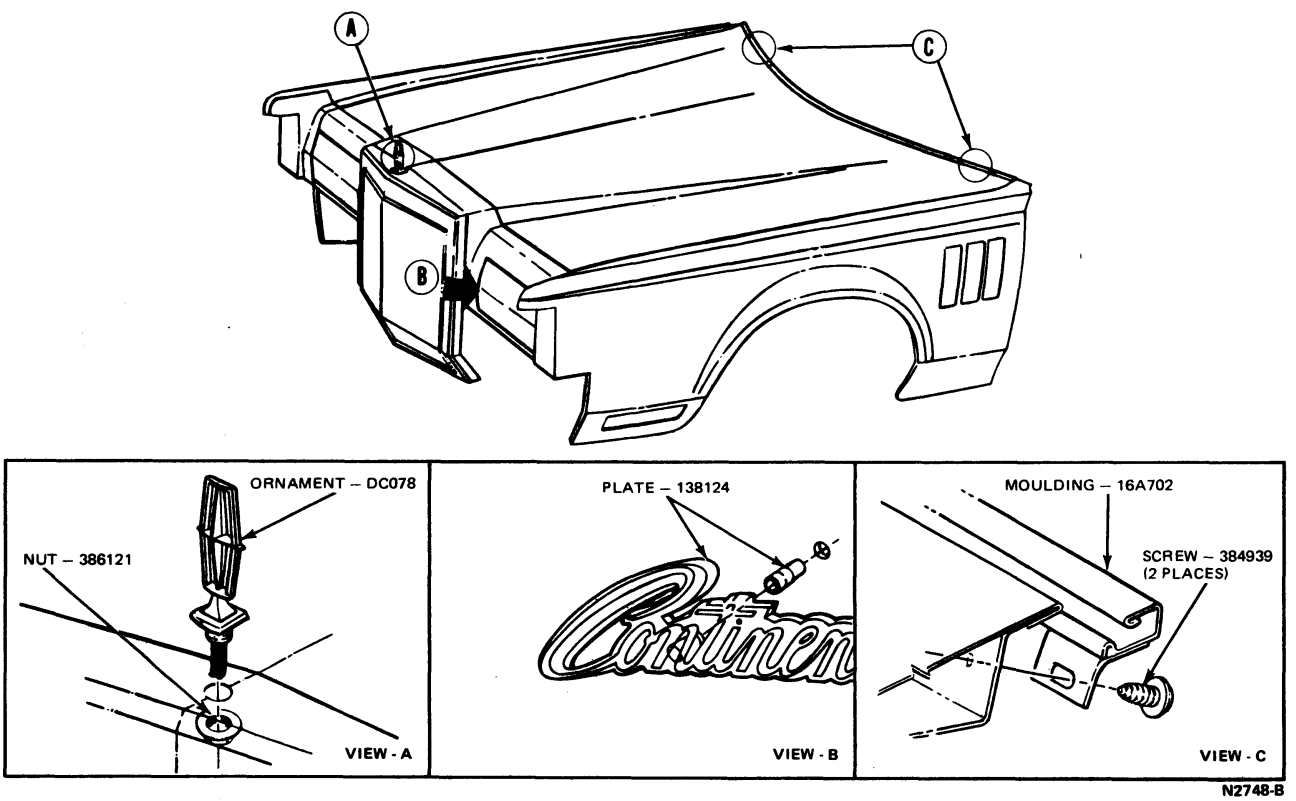


FIG. 7 Front Ornamentation—Continental Mark V

FRAME AND BODY MOUNTS

1977 MARK V

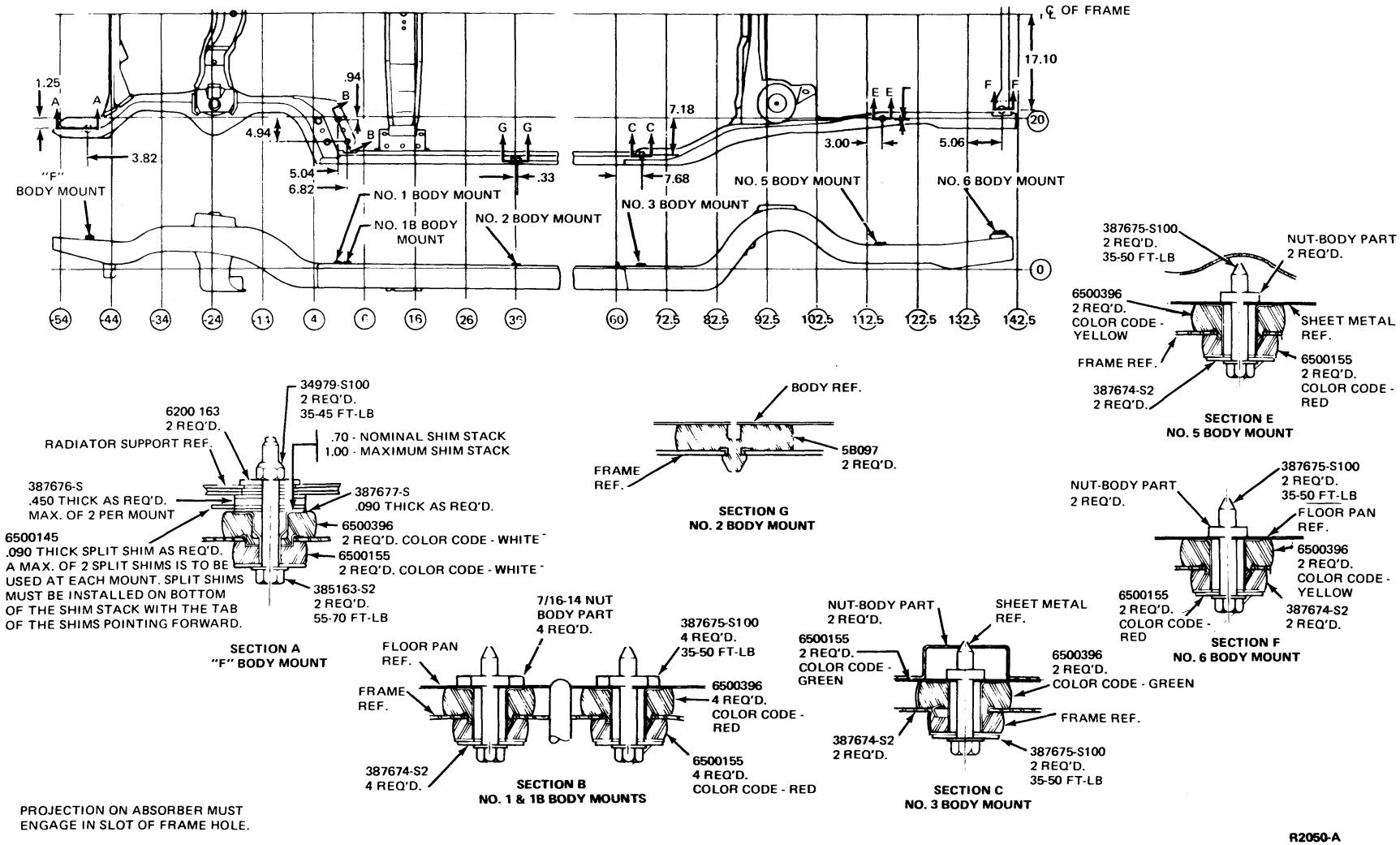


FIG. 8 Frame Dimensions—Continental Mark V

Thunderbird

PART 47-04

SUBJECT	PAGE
REMOVAL AND INSTALLATION	
Exterior Mouldings	04-2
Frame Dimensions	04-2
Front Bumper	04-1
Radiator Grille	04-1
Rear Bumper	04-2

CN4029-A

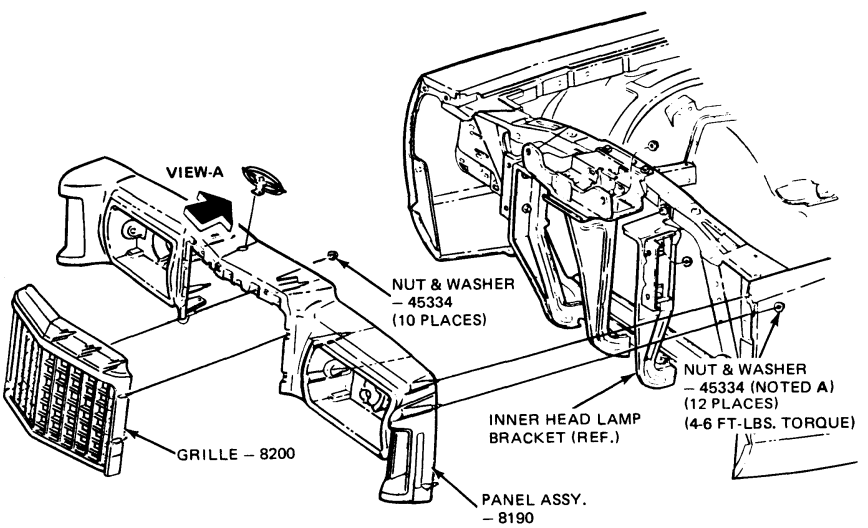
REMOVAL AND INSTALLATION

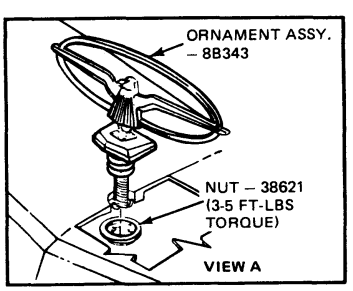
REMOVAL OF GRILLE ASSEMBLY

To remove the radiator grille assembly, remove the ten nut and conical washer assemblies from the back side of the grille opening panel. Pull the radiator grille assembly forward until all locating pins and studs are clear of the grille opening panel.

REMOVAL OF RADIATOR GRILLE FROM ASSEMBLY

1. Remove the two spring legs from the notches on the bottom of the grille. Remove the two screws at the hinges and lift up and forward.
2. To remove the spring from the surrounding moulding, remove the three screws and rectangular washer.





N1791-F

FIG. 1 Radiator Grille—Thunderbird

INSTALLATION

1. Place spring in the notches on the moulding. Bend on legs face rearward.
2. Attach screw and rectangular washer at the center bars.
3. Attach the two outboard screws and rectangular washer.
4. Set the grille into the moulding. Attach hinge and secure with two screws.
5. Snap spring leg into notches.

INSTALLATION OF ASSEMBLY

1. Place grille to front face of the Align grille assembly utilizing the locating pins.
2. Secure grille assembly with ten nut and conical washer assemblies.

FRONT BUMPER

1. Remove the bumper from the vehicle (six bolts) and remove the bumper and bumper guard- to-reinforcement attachments (five bolts and four nuts Fig. 2).
2. Remove the pad assemblies. NOTE: The bumper pad attaching tabs may be destroyed upon removal, if so equipped. Damage will be avoided by squeezing the retaining tabs with pliers until tabs can be pushed through holes in bumper.
3. Transfer the license plate and bracket assembly to the new bumper if the bumper is to be replaced.
4. Install the pad assemblies.

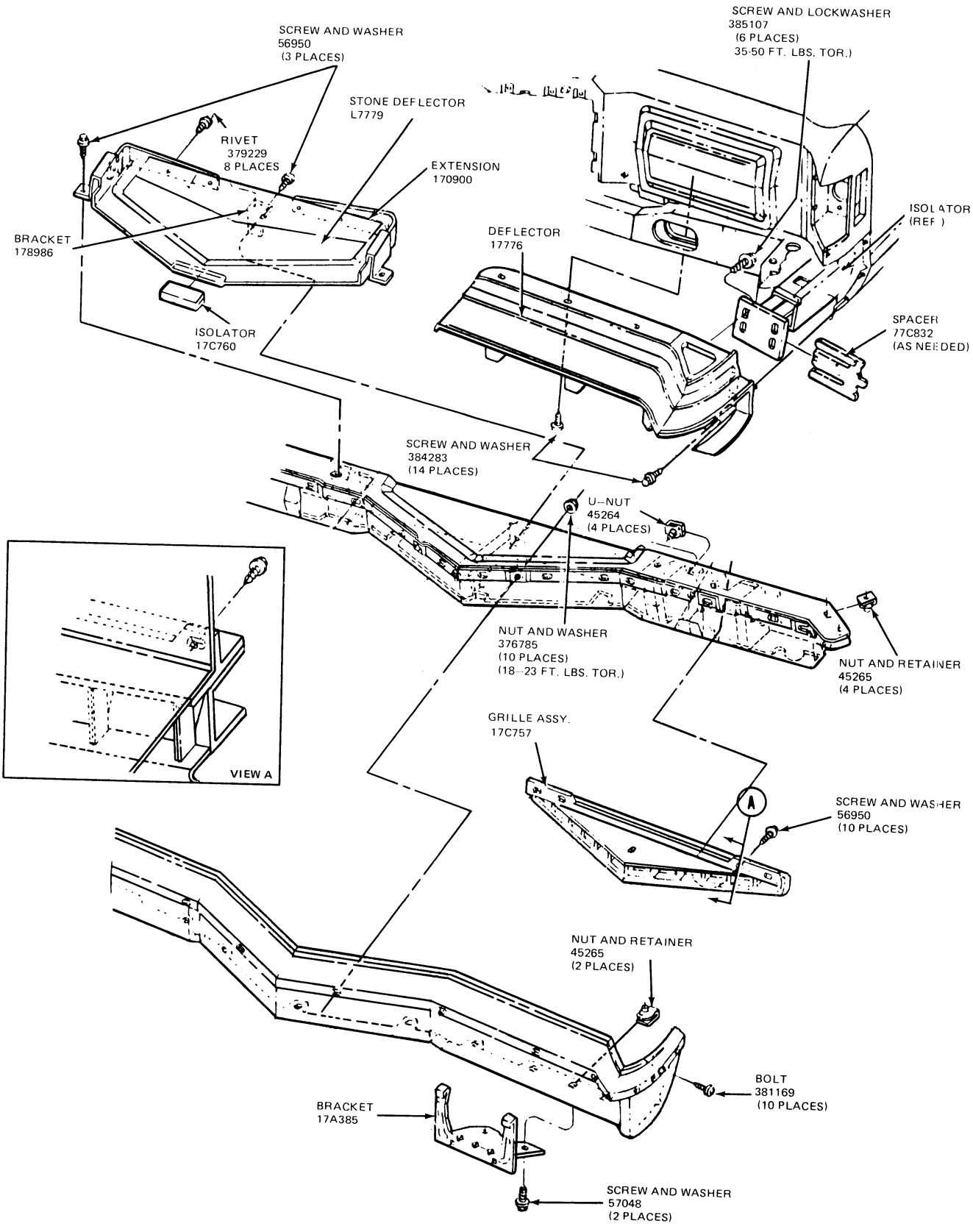


FIG. 2 Front Bumper—Thunderbird

N1790-G

5. Position the bumper assembly to the vehicle and install the attaching bolts snug (Fig. 2).
6. Adjust the bumper height so that the distance from the top edge to the ground meets the specification in Fig. 3. Then, adjust the bumper for body clearance at the centerline of the parking lamp so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 3. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.

REAR BUMPER

1. Disconnect the license light wire from under the vehicle.
2. With an assistant, remove three bolts attaching the reinforcement to each isolator, and remove the bumper and reinforcement from the vehicle (Fig. 4).
3. Remove the reinforcement- to-bumper attaching bolts, and separate the reinforcement from the bumper.
4. If the bumper is to be replaced, transfer the bumper guards, pads and license plate bracket to the new bumper. NOTE: The bumper pad attaching tabs may be destroyed upon removal, if so equipped. Damage will be avoided by squeezing the retaining tabs with pliers until tabs can be pushed through holes in bumper.
5. Assemble the reinforcement to the bumper and install the attaching bolts.
6. Position the bumper and reinforcement to the isolators and install the attaching bolts.
7. Adjust the bumper height so that the distance from the top edge to the ground meets the specification in Fig. 3. Then, adjust the bumper for body clearance at the centerline of the tail lamp so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 3. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.
8. Connect the license light under the vehicle.

EXTERIOR MOULDINGS

Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access (Figs. 5, 6 and 7). If a weld stud is distorted or broken off, it should be replaced with an oval head blind rivet (Part No. 383229-S).

FRAME DIMENSIONS

The Thunderbird frame dimensions are shown in Fig. 8. The frame checking and repair procedures are given in Part 47-01.

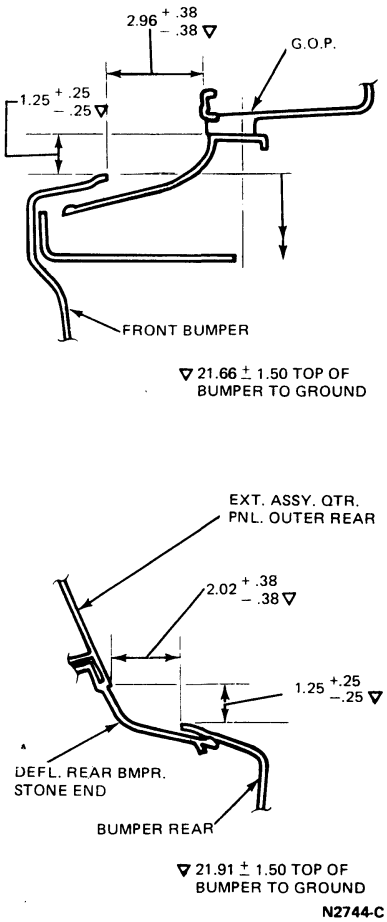


FIG. 3 Bumper Adjustment Specifications—Thunderbird

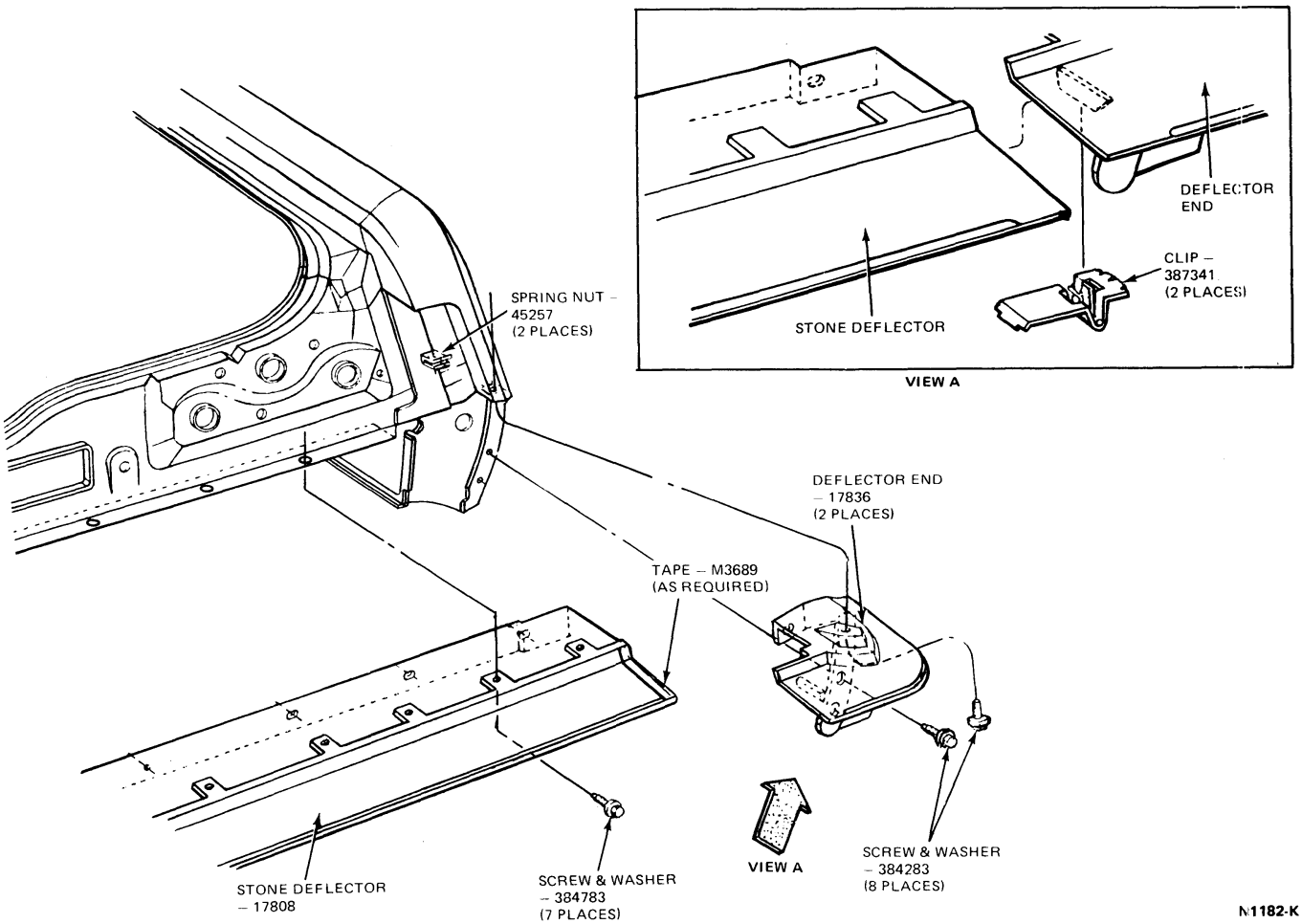


FIG. 4 Rear Bumper Reinforcement Installation—Thunderbird

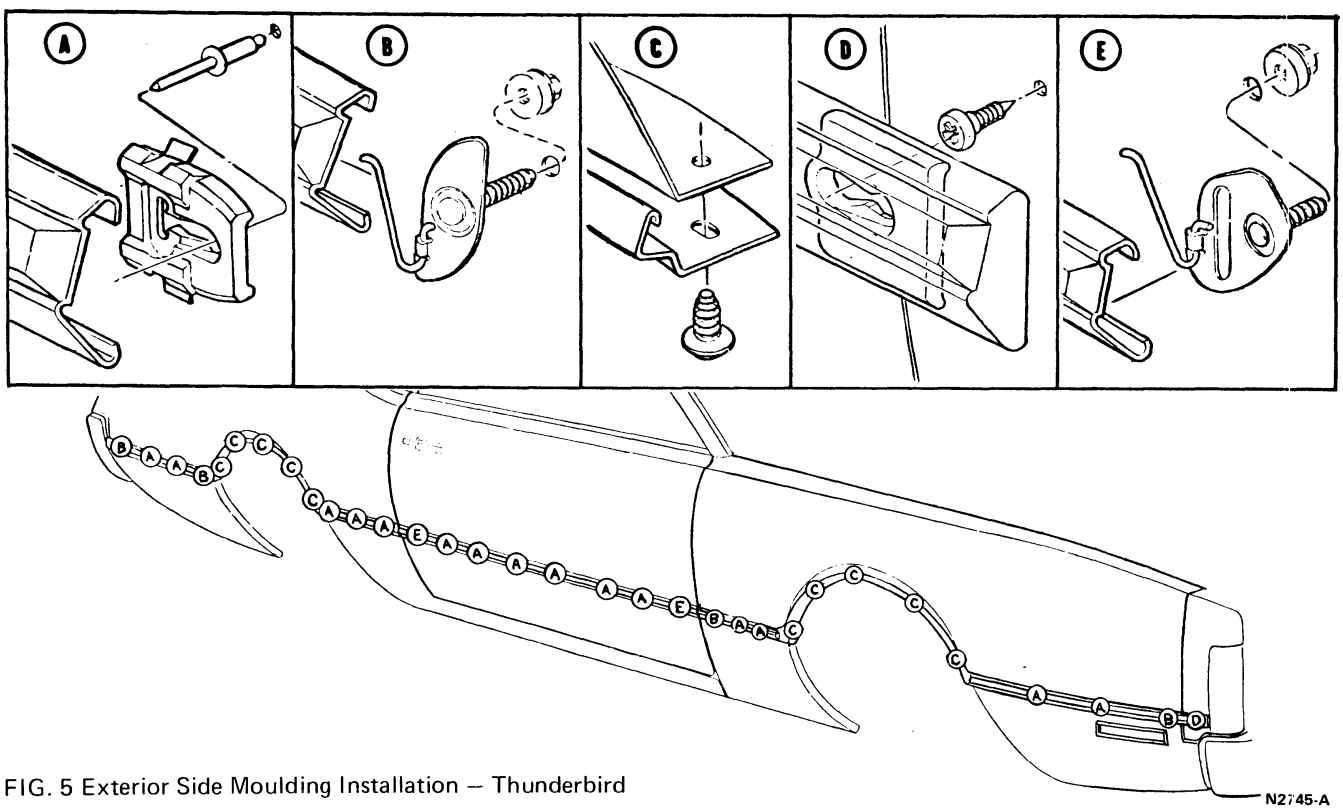
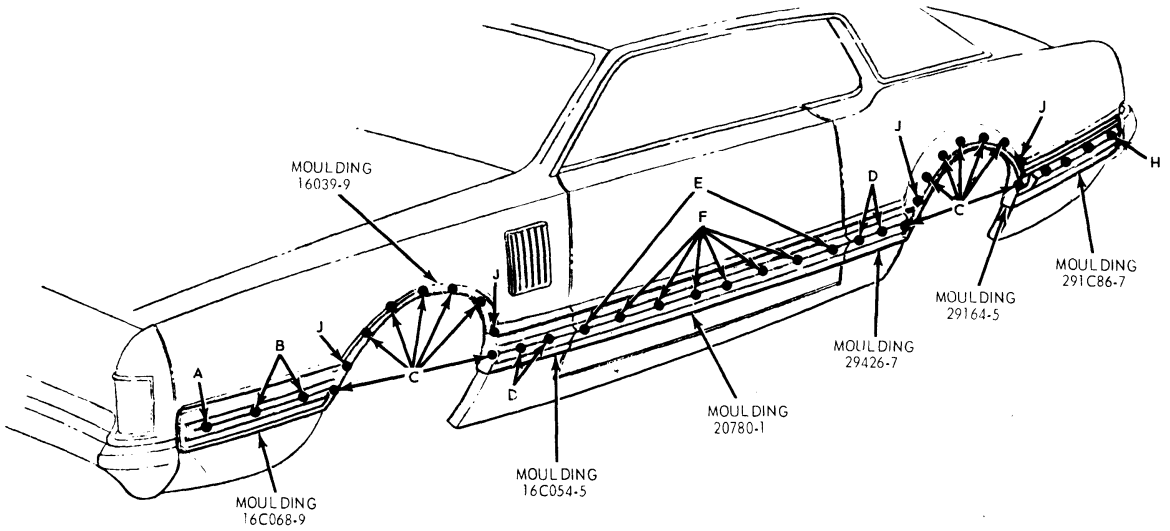
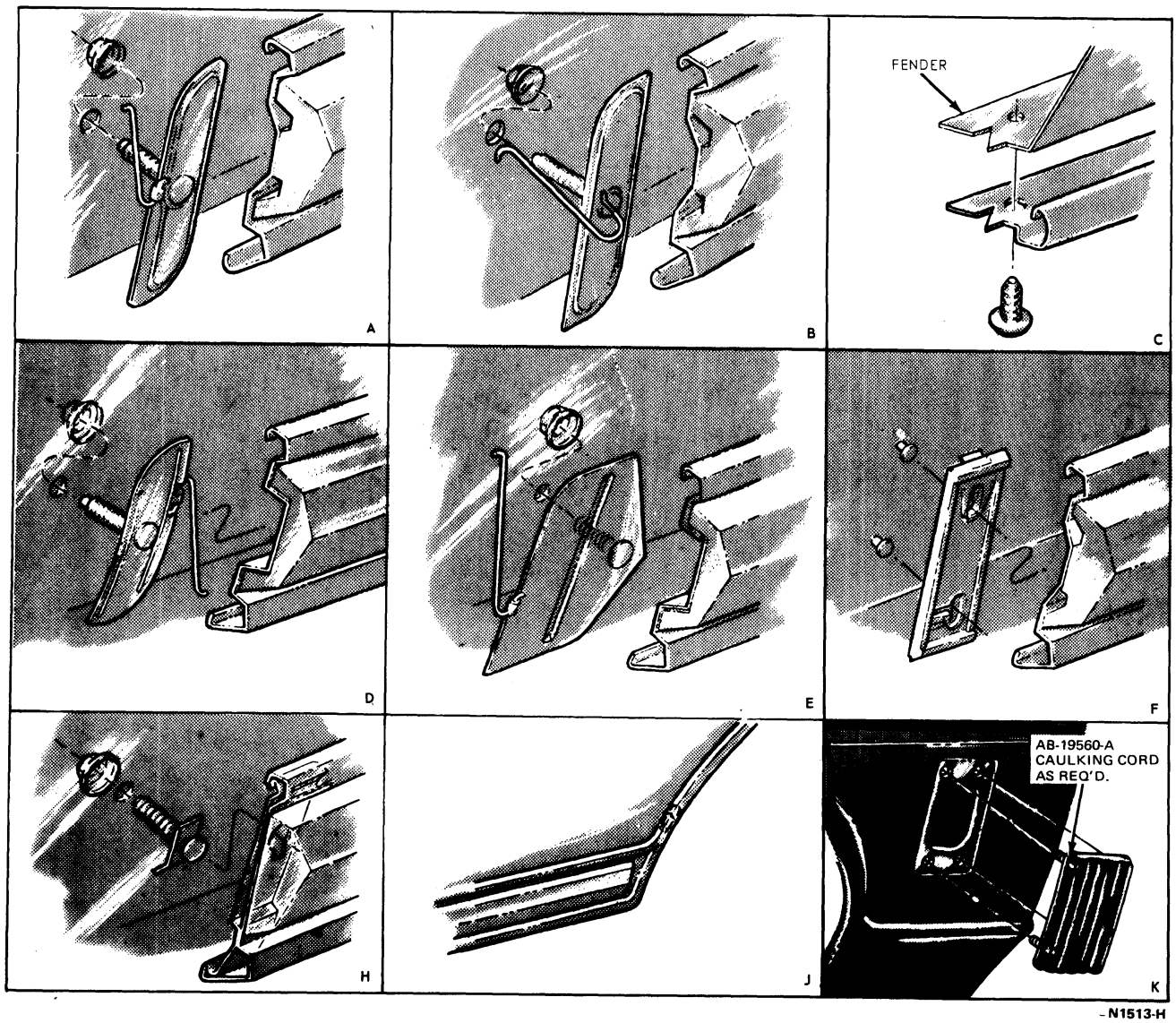


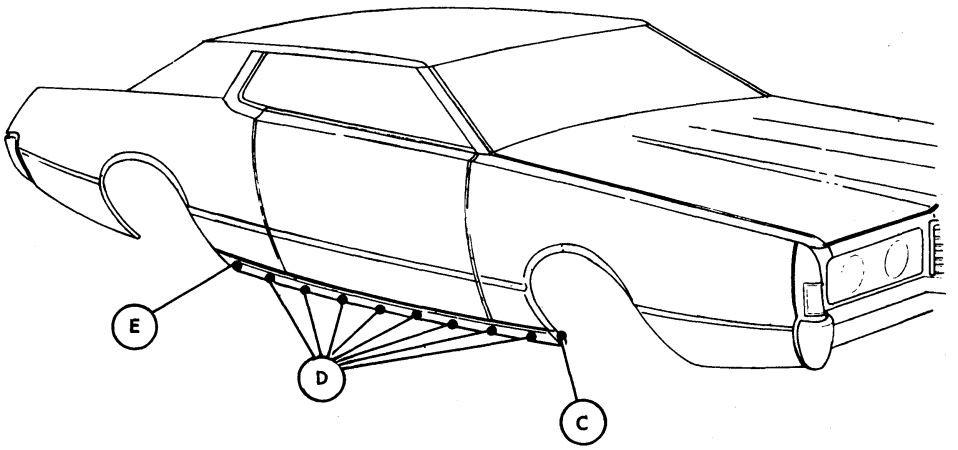
FIG. 5 Exterior Side Moulding Installation – Thunderbird

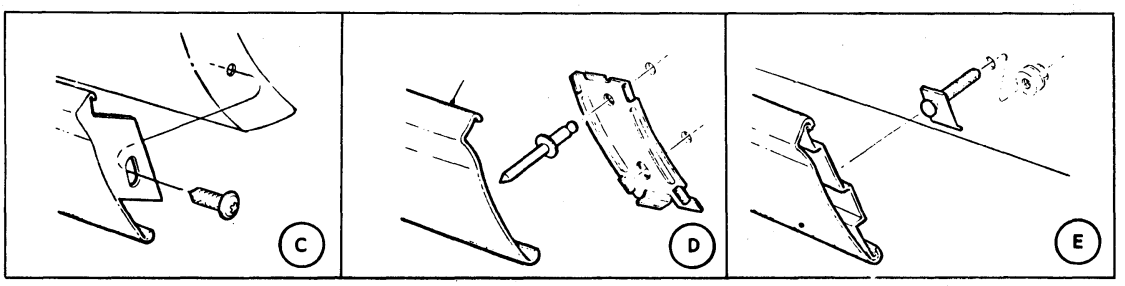




N1513-H

FIG. 6 Optional Exterior Side Moulding Installation – Thunderbird





N2394-C

FIG. 7 Optional Exterior Side Moulding Installation — Thunderbird

FRAME AND BODY MOUNTS

1977 THUNDERBIRD

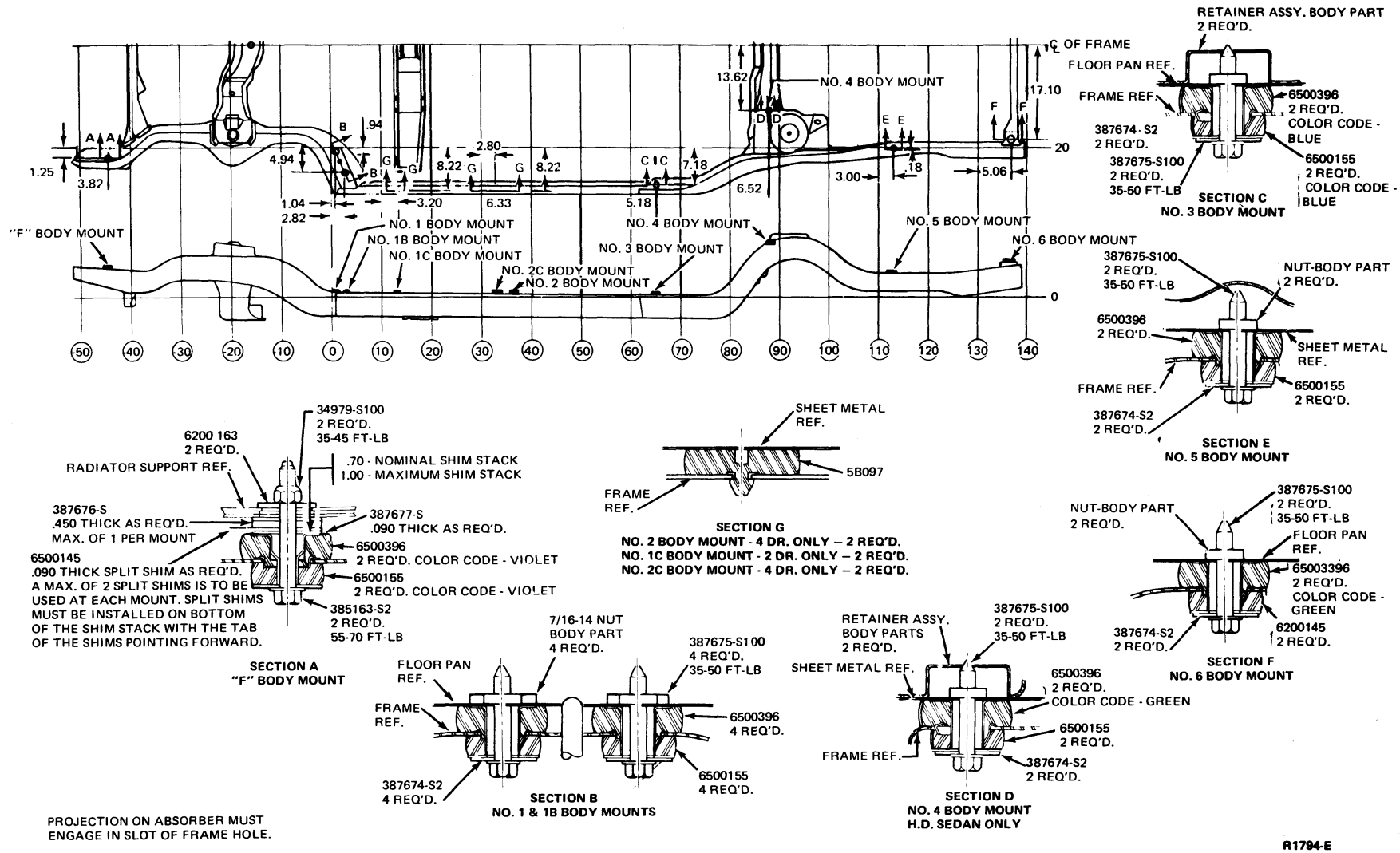


FIG. 9 Frame Dimensions—Thunderbird

Ford and Mercury

PART 47-05

SUBJECT	PAGE
REMOVAL AND INSTALLATION	
Exterior Mouldings	05-7
Frame Dimensions	05-2
Radiator Grille	05-1
REMOVAL AND INSTALLATION (Cont'd.)	
Rear Bumper, Sedan	05-4
Rear Bumper, Station Wagon	05-7

CN2877-A

REMOVAL AND INSTALLATION

RADIATOR GRILLE

Ford High and Low Series Center Grille

The radiator grille is attached to the front of the vehicle with six screws which can be removed from the front of the grille (Figs. 1 and 2). To install, simply reverse the procedure.

RADIATOR GRILLE

Mercury High Series

Center Grille

1. Remove seven radiator center grille attaching screws (Fig. 3), and remove the center grille from the vehicle.
2. Position the center grille to the vehicle, and install the seven attaching screws.

Headlamp Moulding Assembly (Mercury Only)

Removal

1. Open headlamp door and remove six self-threading nuts that secure the moulding to the door.
2. Close the door and remove the moulding assembly.

Installation

1. Position the moulding on the headlamp door.
2. Open the door and install six self-threading nuts securing the moulding to the door.

Headlamp Door Ornament

Removal

1. Open the headlamp door and remove the two self-threading nuts that secure the ornament to the door.
2. Close the door and remove ornament.

Installation

1. Position ornament on headlamp.
2. Open door and install the two self-threading nuts that secure the ornament to the door.

Ford Low Series Headlight Doors

1. Remove two (2) upper bright screws and lift door out of lower attaching access notches in grille open panel (Fig. 2).
2. Position lower headlight door tabs into notches in grille opening panel, rotate door upward and rearward to flush fit and install attaching bright screws.

FRONT BUMPER

Ford

Removal

1. Remove six bolts (three on each side), attaching the reinforcement to the isolator (Fig. 5).
2. Remove the bumper assembly from the vehicle. Remember to replace the spacers between reinforcement and mounting plate (if so equipped).
3. Remove the bumper guards (two nuts).
4. Remove the reinforcement- to-bumper (thirteen bolts and six nuts).
5. Remove the license plate and bracket assembly. **NOTE: The bumper pad attaching tabs may be destroyed upon removal, if so equipped.** Damage may be avoided by squeezing the retaining tabs with pliers until tabs can be pushed through holes in bumper.

Installation

1. Install the license plate and bracket. Install three new bumper pads, if so equipped.
2. Install the reinforcement assembly to the bumper (Fig. 4). Torque nuts to 17-23 ft-lbs.
3. Install the bumper guards. Install 3 new bumper pads, if so equipped.
4. Position the bumper assembly to the vehicle and install the attaching bolts snug.
5. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 6. Then, adjust the bumper for body clearance at the centerline of the parking lamp so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 6. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.

Mercury

Removal

1. Remove six isolator-to-bumper reinforcement bolts and remove the bumper assembly (Fig. 5).
2. Remove the pad assemblies from the bumper (if so equipped).
3. Remove the bumper guards.
4. Remove the license plate and bracket and remove the reinforcement from the bumper (Fig. 5).

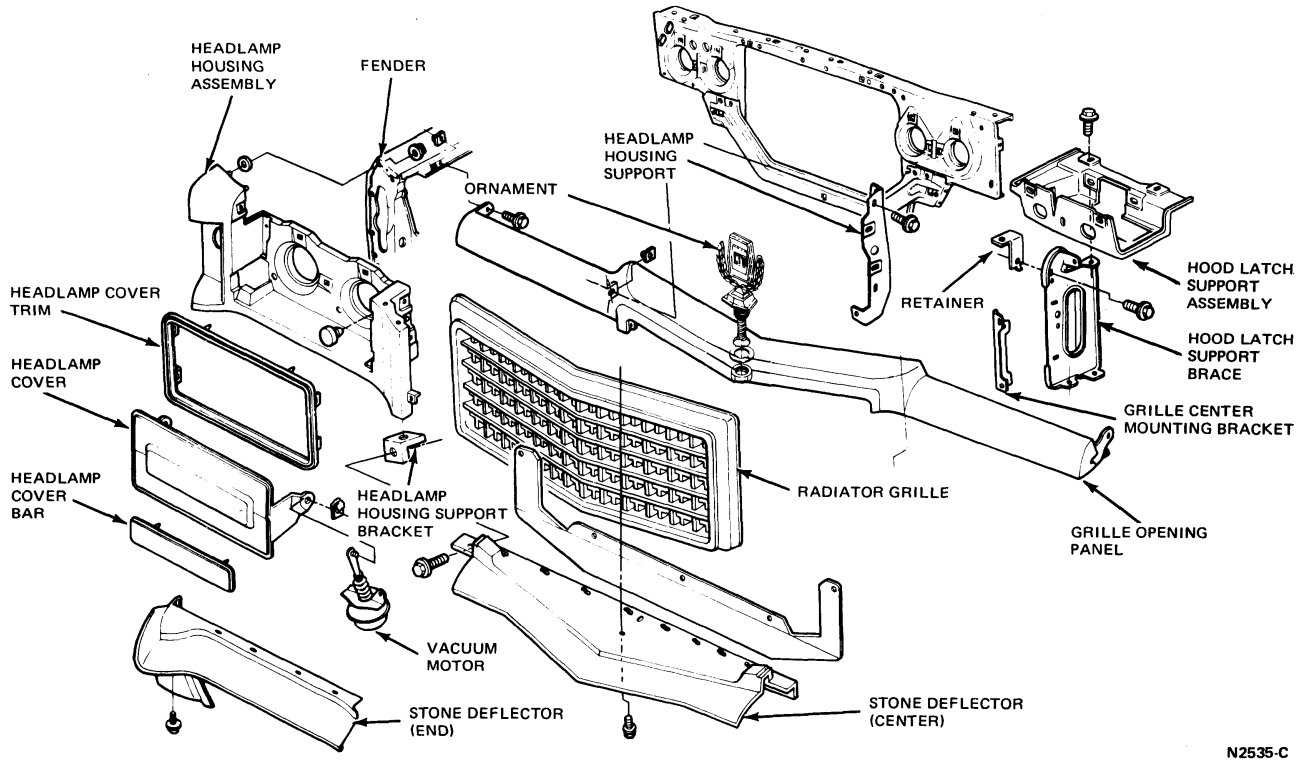


FIG. 1 Radiator Grille Installation – Ford High Series

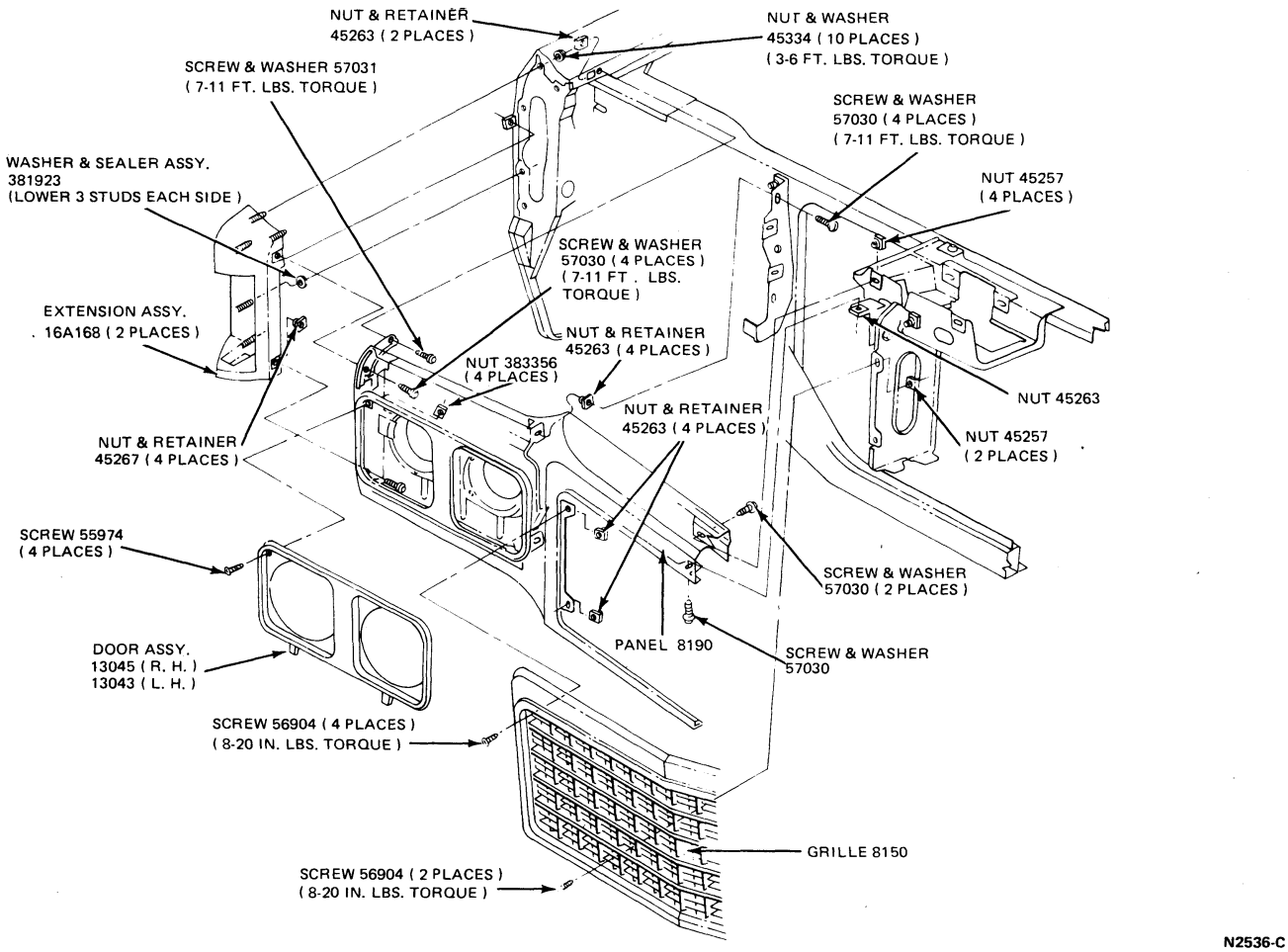


FIG. 2 Radiator Grille Installation—Ford Low Series

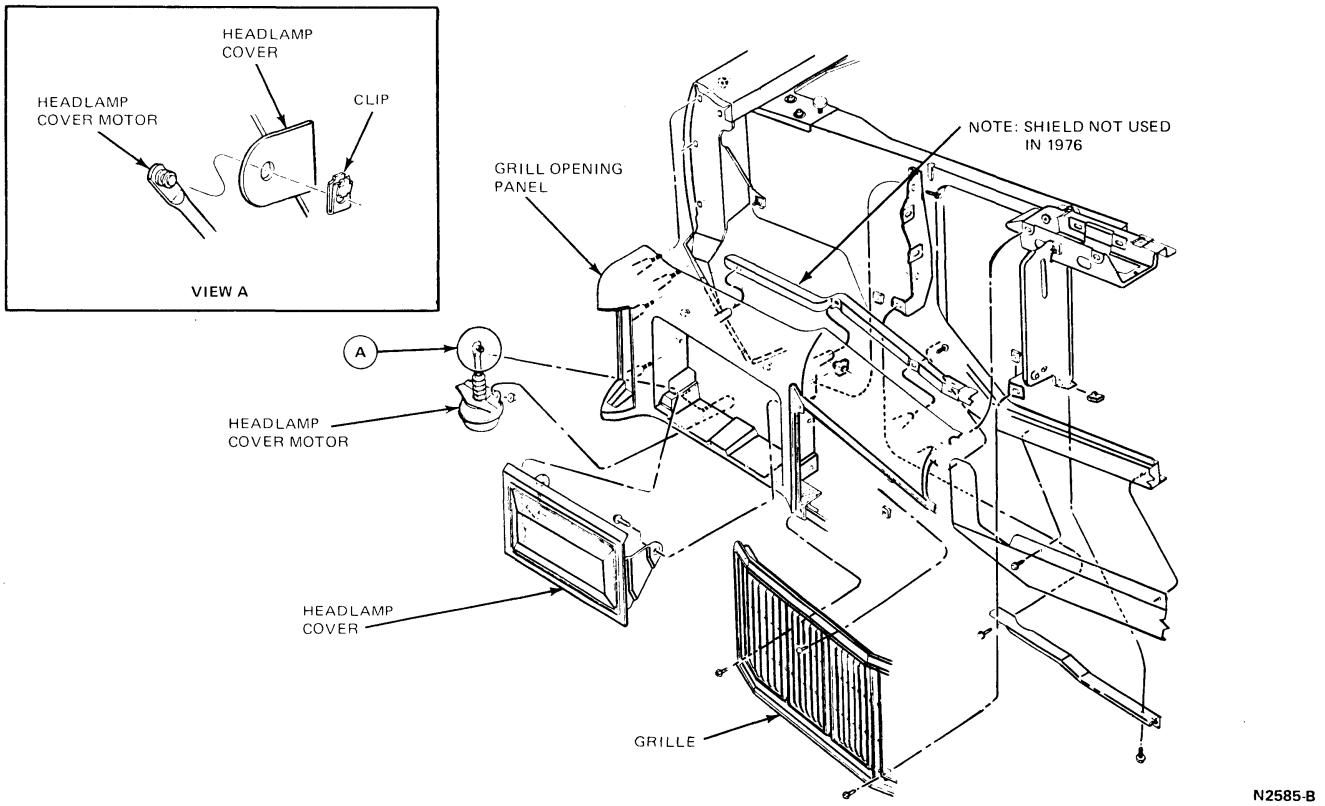


FIG. 3 Radiator Grille Installation—Mercury High Series

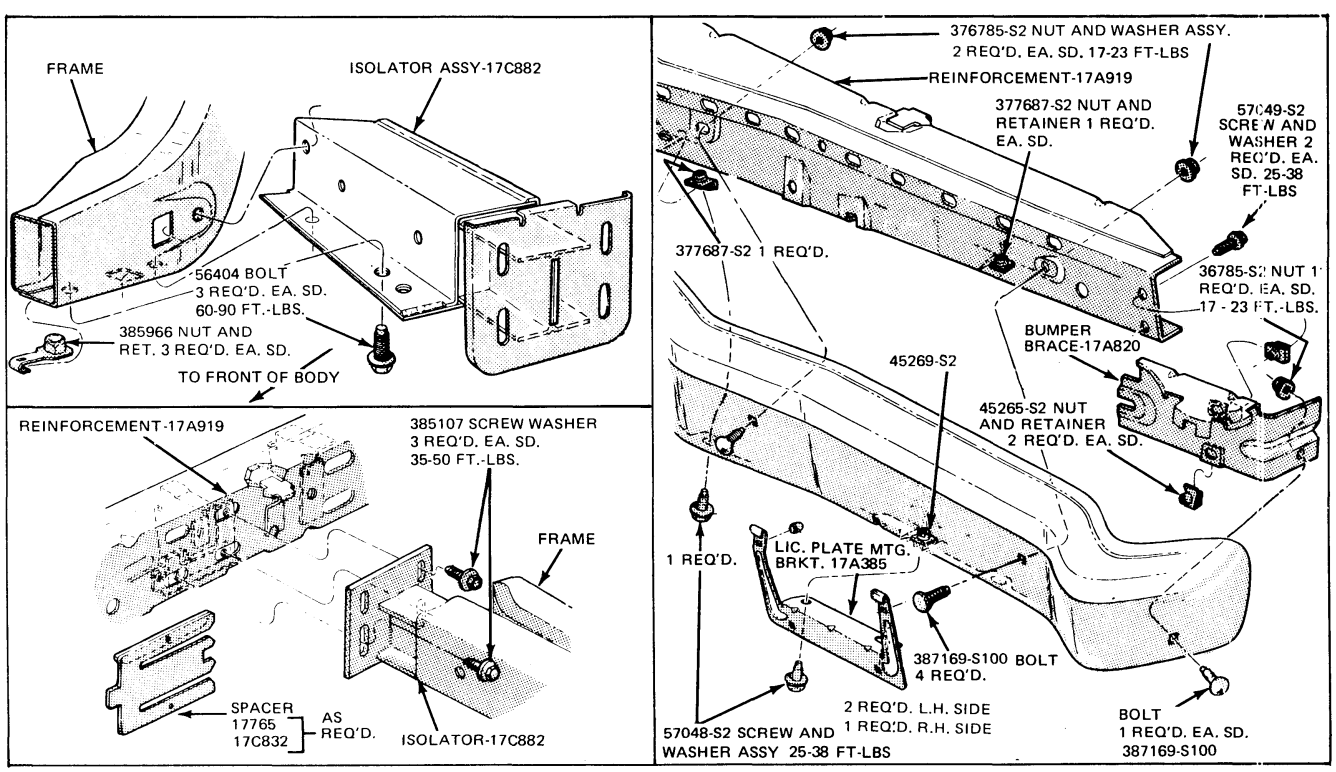
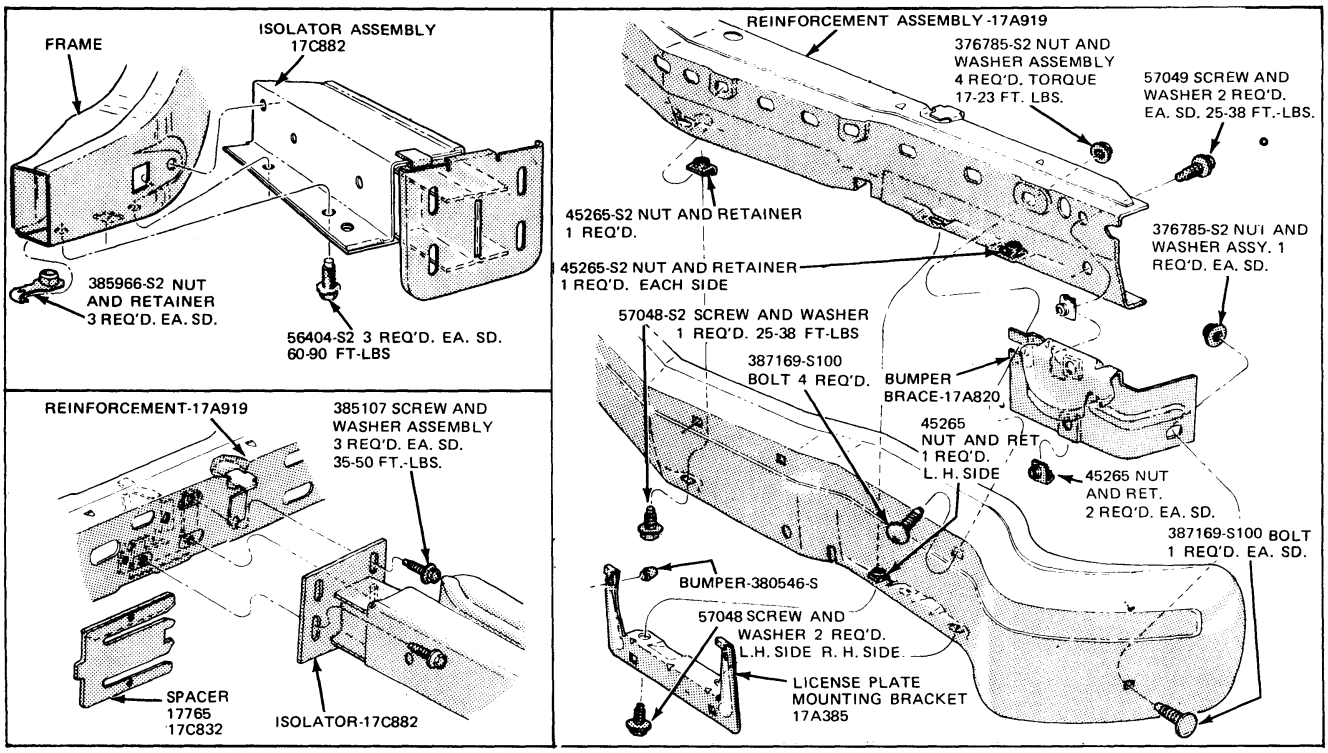


FIG. 4 Front Bumper Installation—Ford



N1751-H

FIG. 5 Front Bumper Installation—Mercury

Installation

Remember to replace the spacers between the bumper reinforcement and isolator mounting face (if so equipped).

1. Install the reinforcement, license plate and bracket to the bumper assembly (Fig. 5).
2. Install the bumper guards.
3. Install the pad assemblies to the bumper (if so equipped).
4. Position the bumper assembly to the isolators and install the attaching bolts snug.
5. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 6. Then, adjust the bumper for body clearance at the centerline of the parking lamp so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 6. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.

REAR BUMPER

Ford Except Station Wagon

Removal

1. Open the luggage compartment and disconnect the license light wire at the connector.
2. Remove three bolts (each side) attaching the reinforcement to the isolator and remove the bumper assembly (Fig. 7).
3. Remove ten bolts and four nuts and remove the reinforcement assembly (Fig. 7).
4. Remove the bumper guards.

   NOTE: The bumper pads attaching tabs will be destroyed upon removal.
5. Transfer the license plate and bracket assembly to a new bumper if the bumper is to be replaced.

Installation

1. Install the three new pads and bumper guards (four bolts) to the bumper, if so equipped.
2. Install the reinforcement to the bumper assembly (ten bolts and four nuts).
3. Position the bumper assembly to the isolators and install the attaching bolts snug (Fig. 7). Replace spacers reinforcement-to-isolator (if so equipped).
4. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 6. Then, adjust the bumper for body clearance at the centerline of the tail lamp, so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 6. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.
5. Connect the license light wire to the connector.

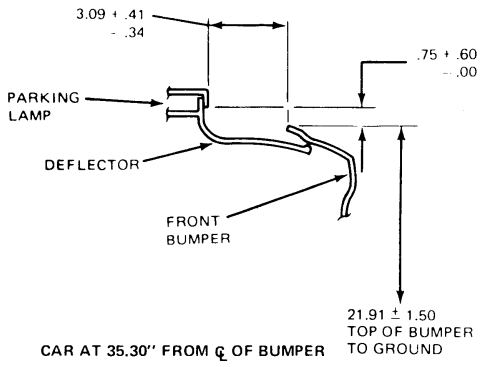
Mercury Except Station Wagon

Removal

1. Disconnect the license light wire from the connector and push the wire and grommet through the lower panel.
2. Remove three bolts (each side) attaching the reinforcement to the isolator and remove the bumper assembly (Fig. 8).
3. Remove the license plate and bracket assembly.
4. Remove six bumper to reinforcement bolts.
5. Remove the three pad assemblies, if so equipped.
6. Remove the bumper guards (four bolts) and separate the bumper assembly from the reinforcement.

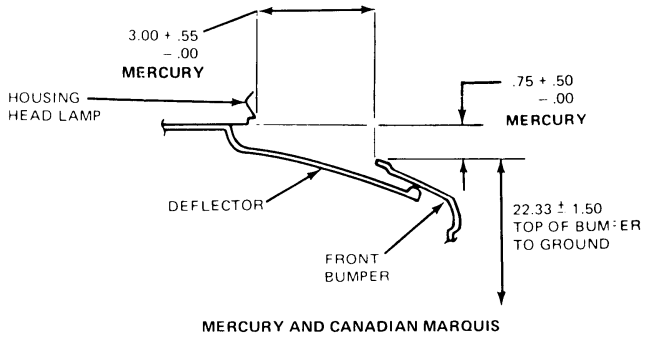
Installation

1. Install the pads and bumper guards to the bumper. Install the retaining nuts to the reinforcement. Assemble the bumper to the reinforcement with the attaching bolts.
2. Install the license plate bracket and license plate to the bumper.
3. Position the bumper assembly to the vehicle and install the isolator- to-reinforcement bolts snug. Replace spacers between reinforcement and isolator face plate (if so equipped).
4. Adjust the bumper height so that the distance from the top edge to the



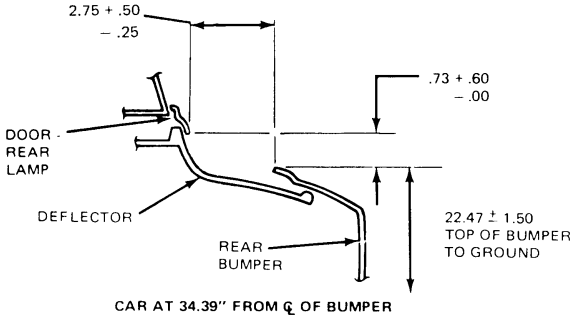
CAR AT 35.30" FROM ℄ OF BUMPER

FORD



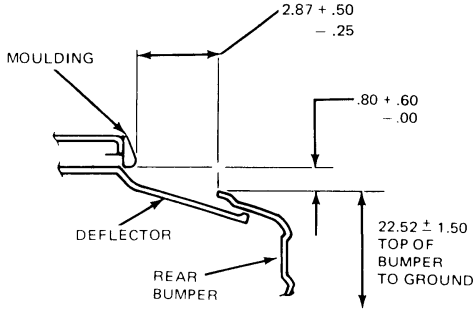
MERCURY AND CANADIAN MARQUIS

FRONT BUMPER

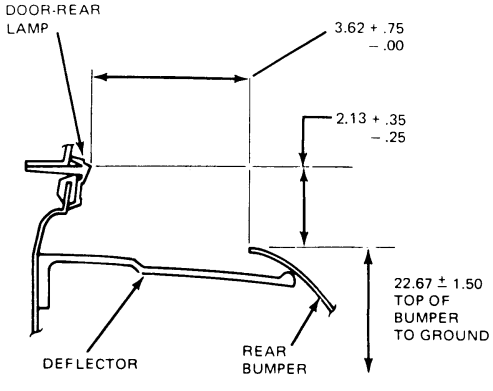


CAR AT 34.39" FROM ℄ OF BUMPER

FORD

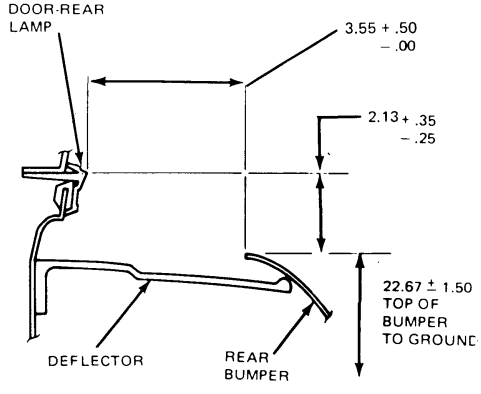


MERCURY CAR AT 35.84" FROM ℄ OF BUMPER



STATION WAGON AT 35.00" FROM ℄ OF BUMPER

FORD



STATION WAGON AT 35.00" FROM ℄ OF BUMPER

MERCURY

REAR BUMPER

N2586-C

FIG. 6 Bumper Adjustment Specifications—Ford, Mercury

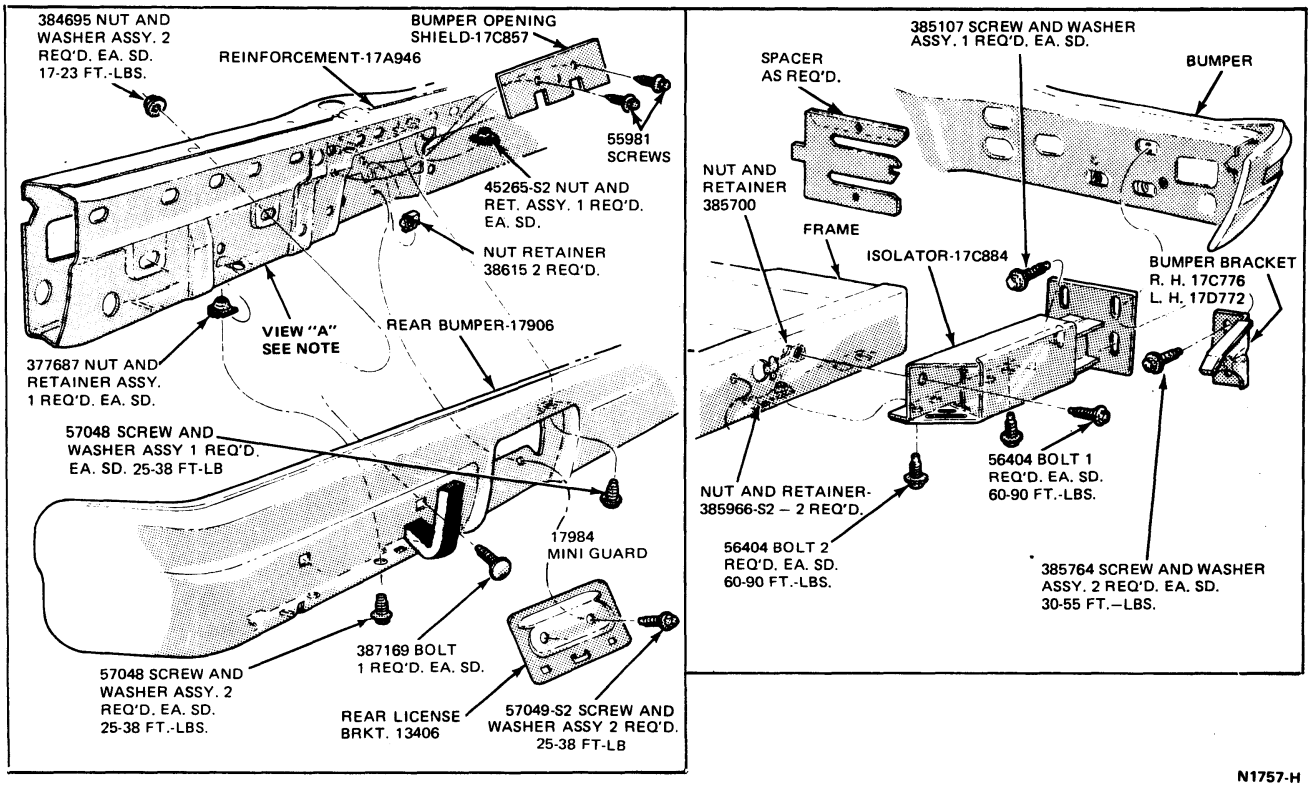


FIG. 7 Rear Bumper Installation—Ford Except Station Wagon

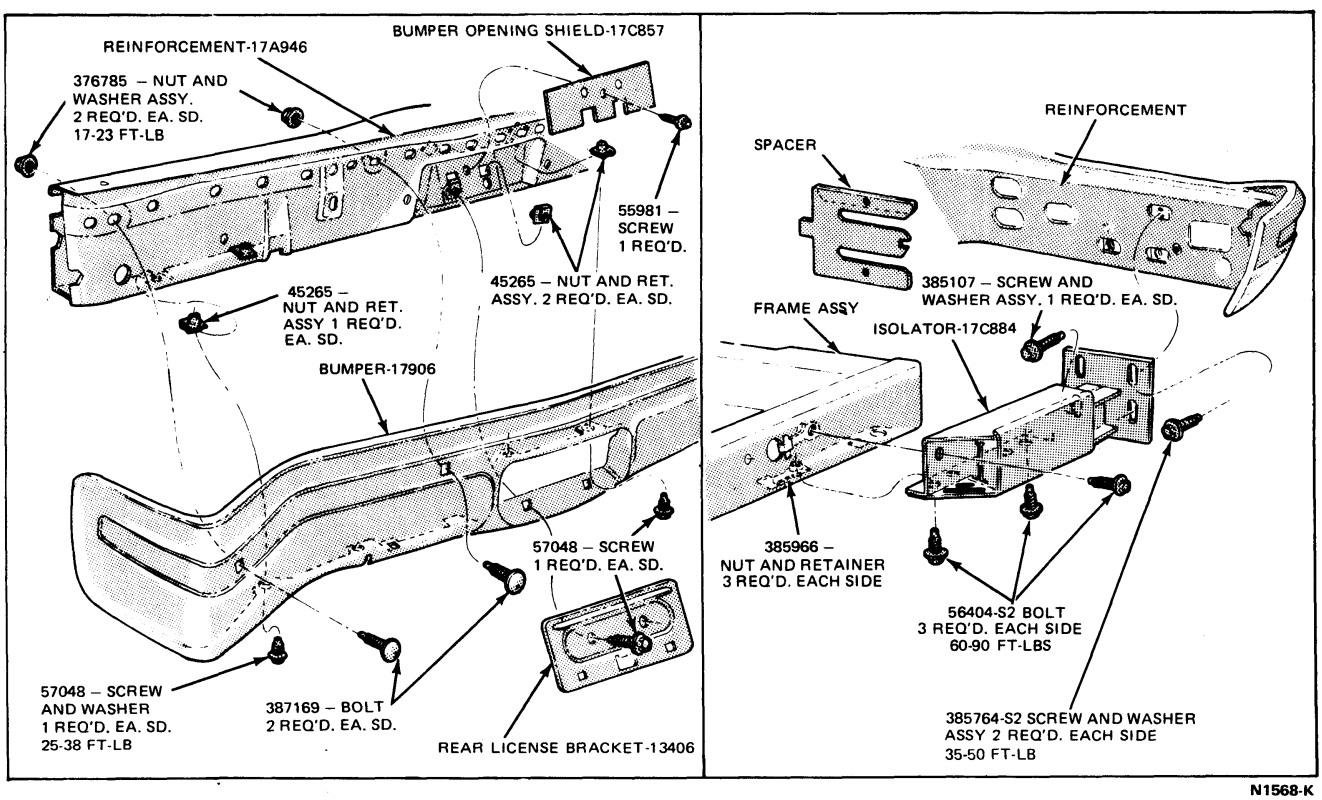


FIG. 8 Rear Bumper Installation—Mercury Except Station Wagon

ground meets the specifications in Fig. 6. Then, adjust the bumper for body clearance at the centerline of the tail lamp, so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 6. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.

5. Position the license plate wire through the lower panel, seat the grommet and connect the wire to the connector.

Ford and Mercury Station Wagon

Removal

1. Open the tailgate, disconnect the license lights at the connectors and push the grommets and wires through the lower panel and remove the license lights.
2. Remove the license plate from the bumper.
3. Remove three bolts attaching the bumper assembly to the isolators, and remove the bumper (Fig. 9).
4. Remove nine bolts and four nuts, bumper-to-reinforcement (Fig. 9).
5. Remove the bumper guards. **NOTE: The bumper pads attaching tabs will be destroyed upon removal.**
6. Transfer the bumper bolts and retainers and license bracket to a new bumper if the bumper is to be replaced.

Installation

1. Install four new pads and the bumper guards to the bumper if so equipped.
2. Position the reinforcement to the bumper and install the attaching bolts and nuts (Fig. 9).
3. Position the bumper assembly to the vehicle and install the isolator- to-reinforcement bolts snug. Replace the spacers between reinforcement and isolator face plate (if so equipped).
4. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 6. Then, adjust the bumper for body clearance at the centerline of the tail lamp, so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 6. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.
5. Install the license lights, position the wires through the lower panel, seat the grommets and connect the wires to the connectors.

EXTERIOR MOULDINGS

Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access (Figs. 10 through 18). If a weld stud is distorted or broken off, it should be replaced with an oval head blind rivet (Part No. 383229-S).

FRAME DIMENSIONS

The Ford and Mercury sedan and station wagon frame dimensions are shown in Figs. 19 and 20. The frame checking and repair procedures are given in Part 47-01.

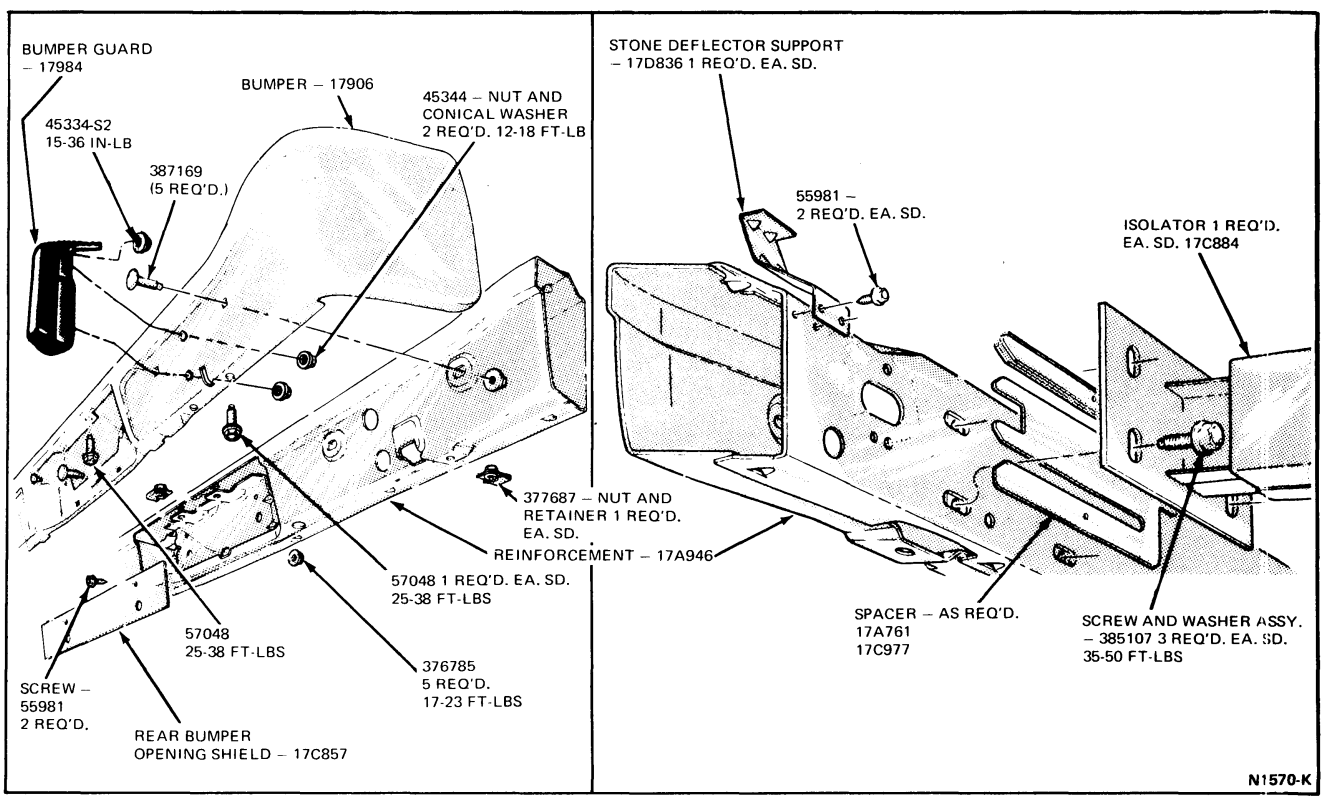


FIG. 9 Rear Bumper Installation—Ford and Mercury Station Wagon

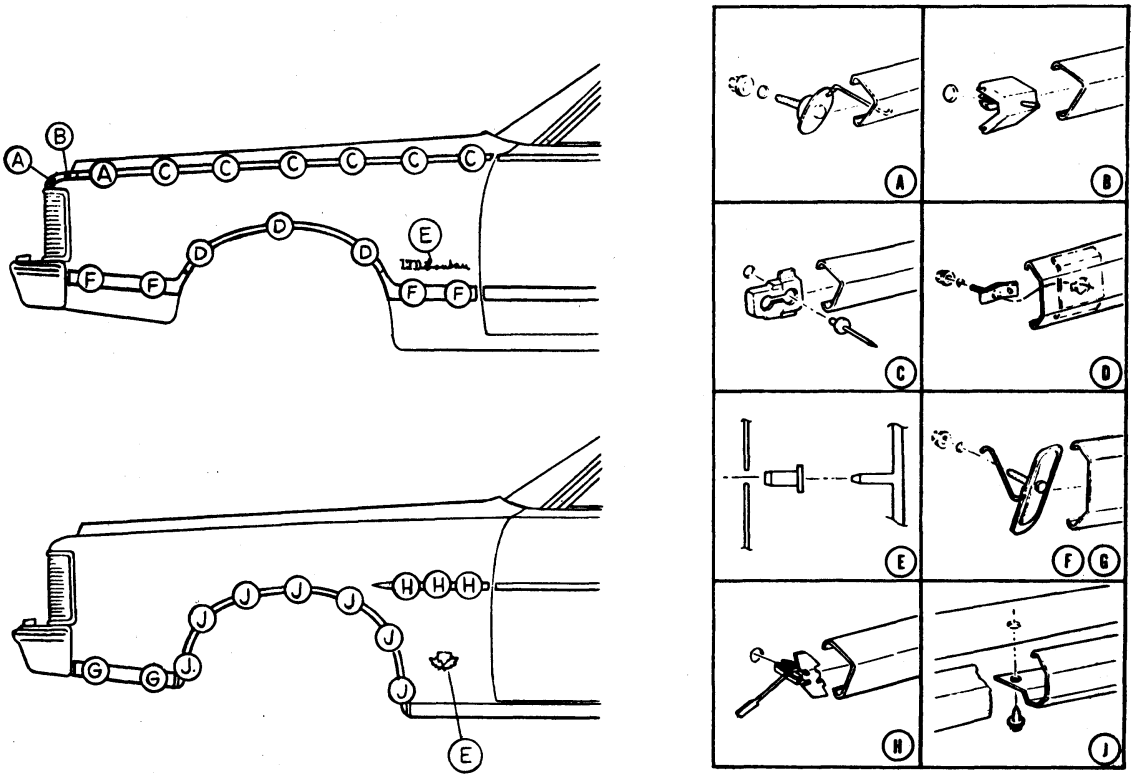
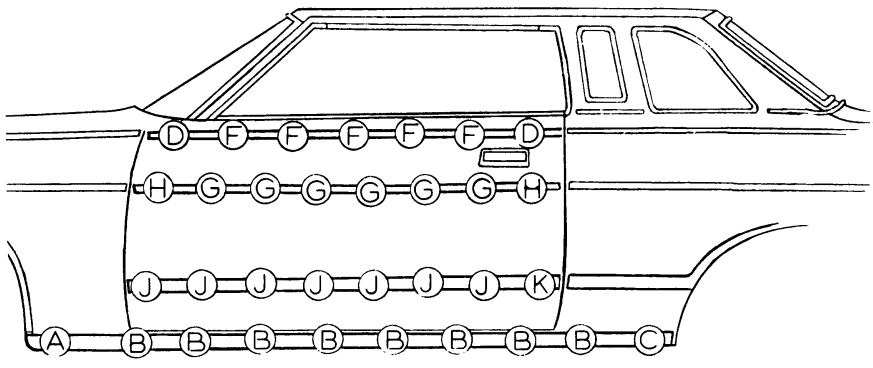
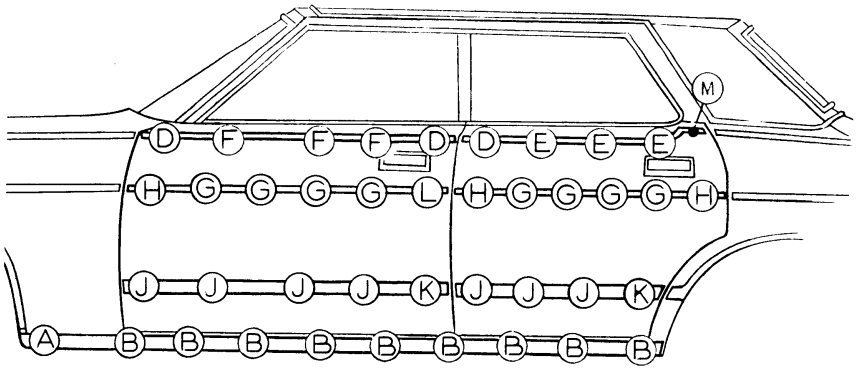


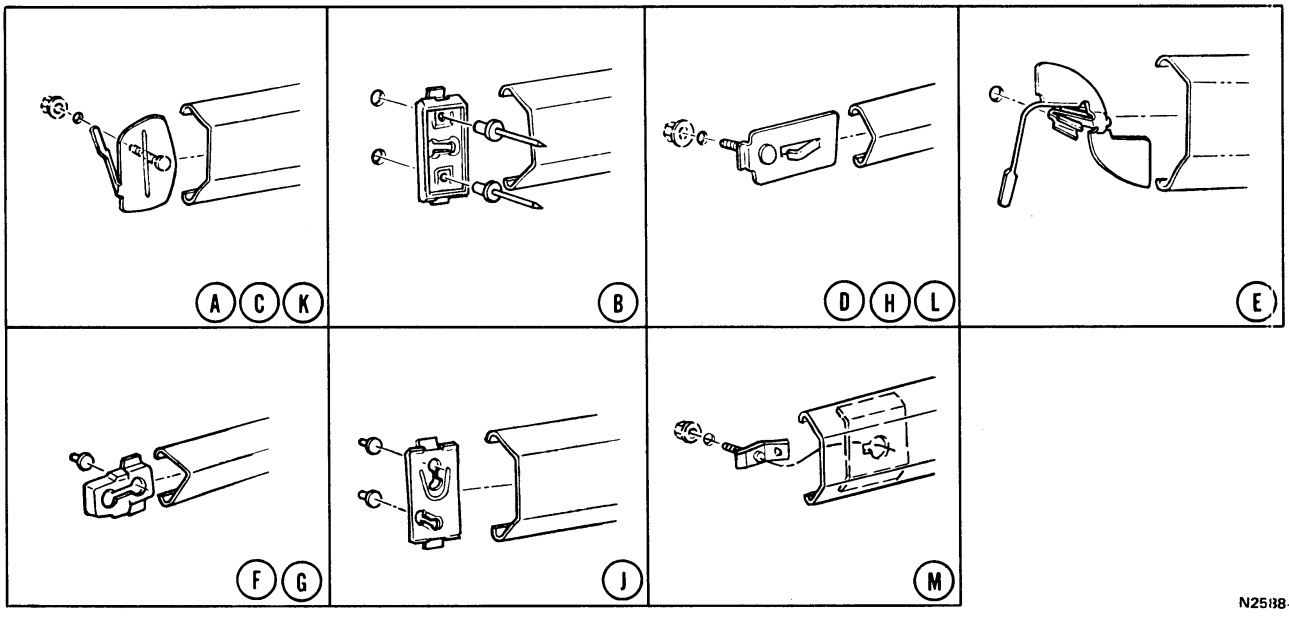
FIG. 10 Exterior Side Moulding Installation—Ford



2-DOOR



4-DOOR AND STATION WAGON



N2588-A

FIG. 11 Exterior Side Moulding Installation—Ford

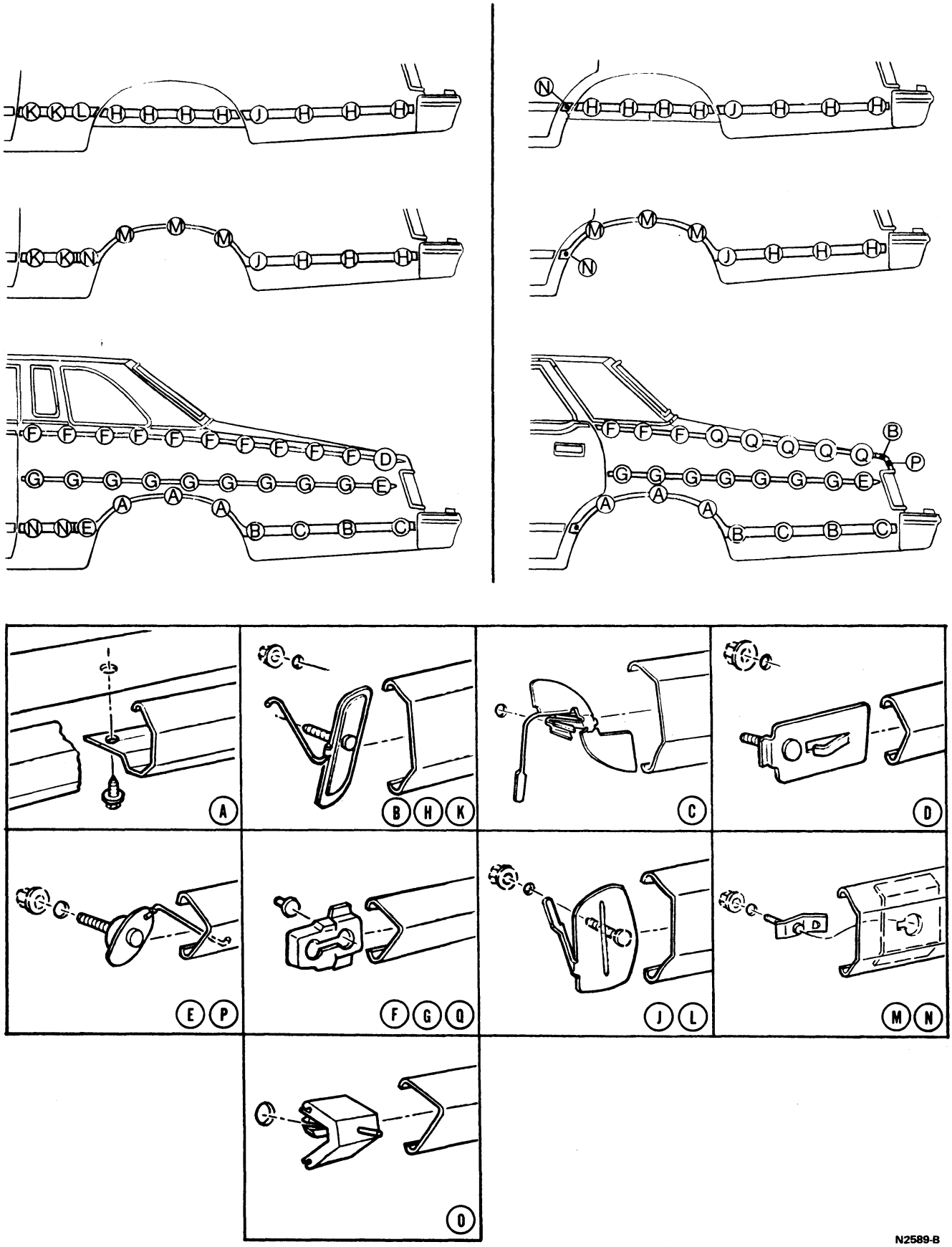
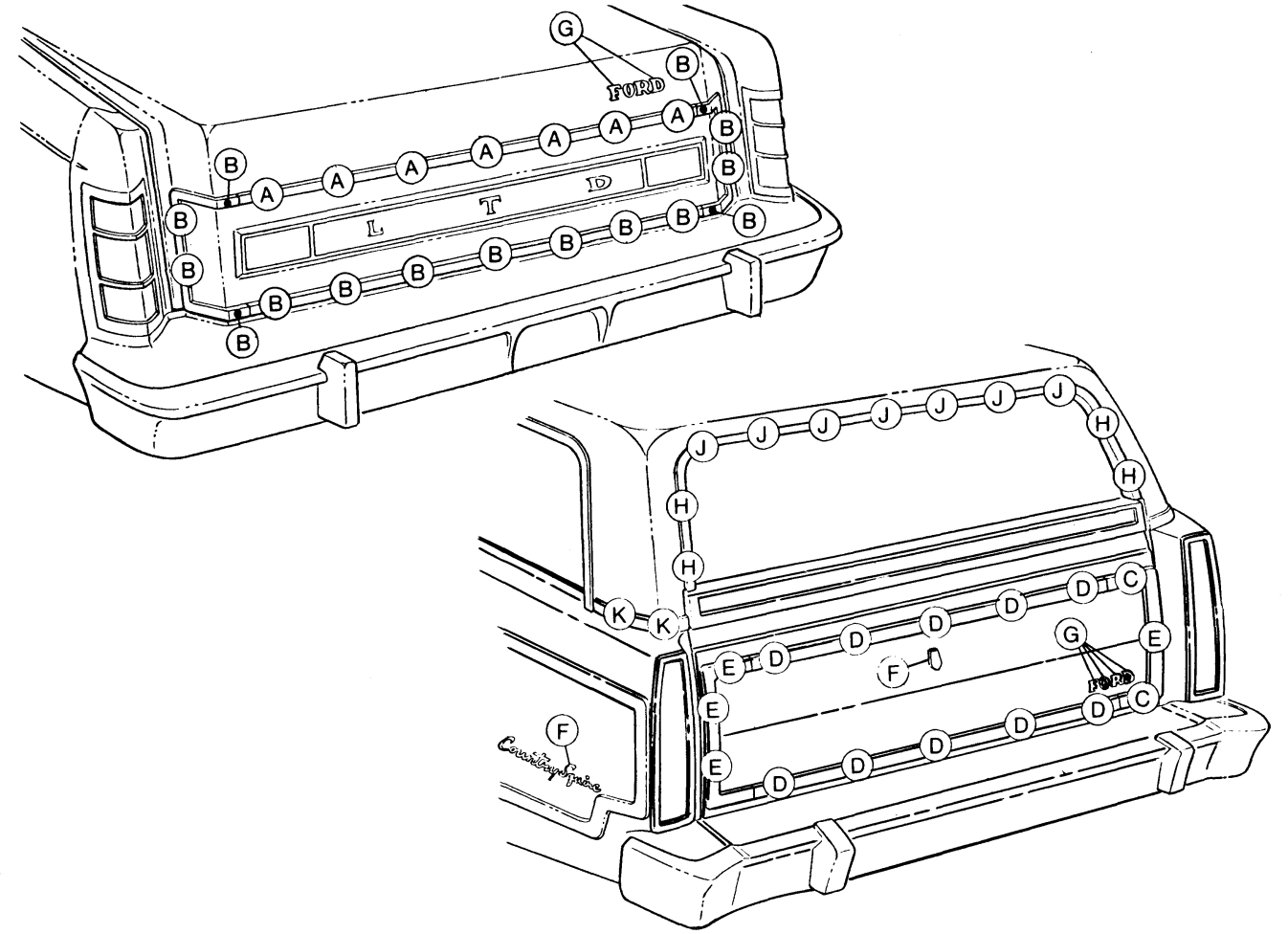


FIG. 12 Exterior Moulding Installation—Ford



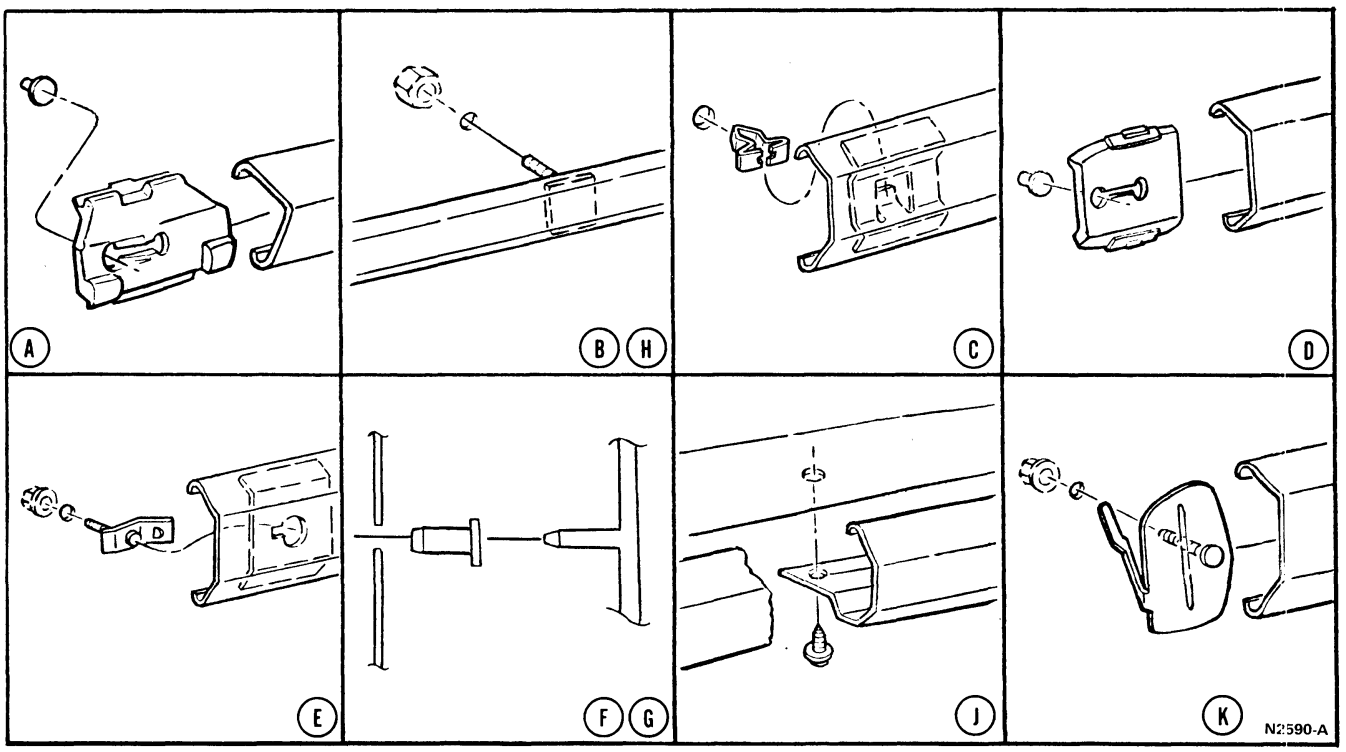
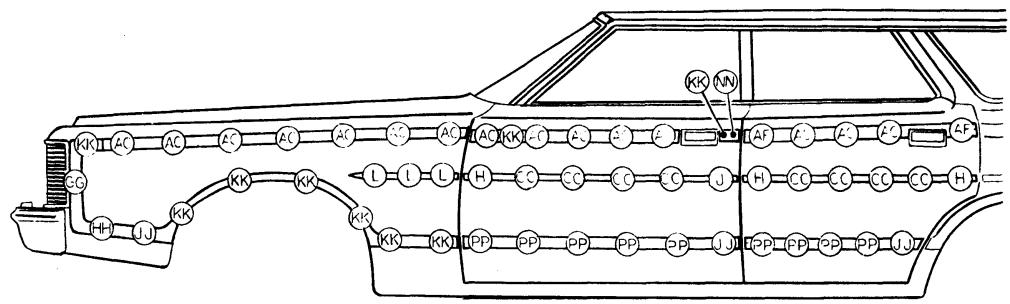
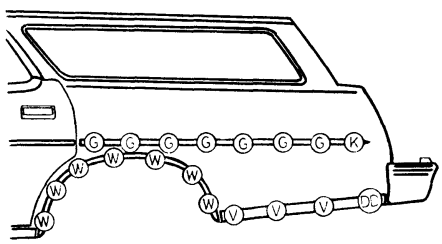


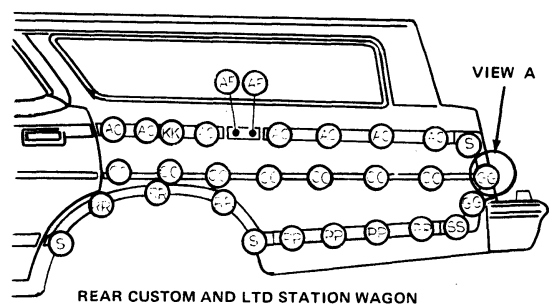
FIG. 13 Rear Moulding Installation—Ford



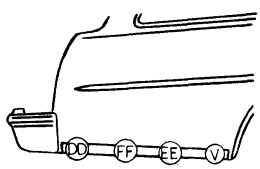
FRONT STATION WAGON-TYPICAL



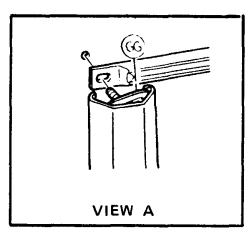
REAR SQUIRE STATION WAGON
LEFT HAND SIDE SHOWN



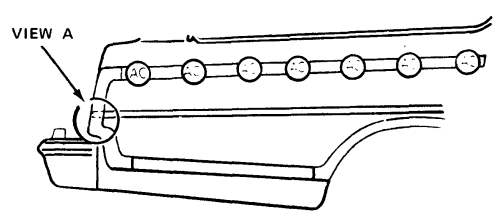
REAR CUSTOM AND LTD STATION WAGON
LEFT HAND SIDE SHOWN



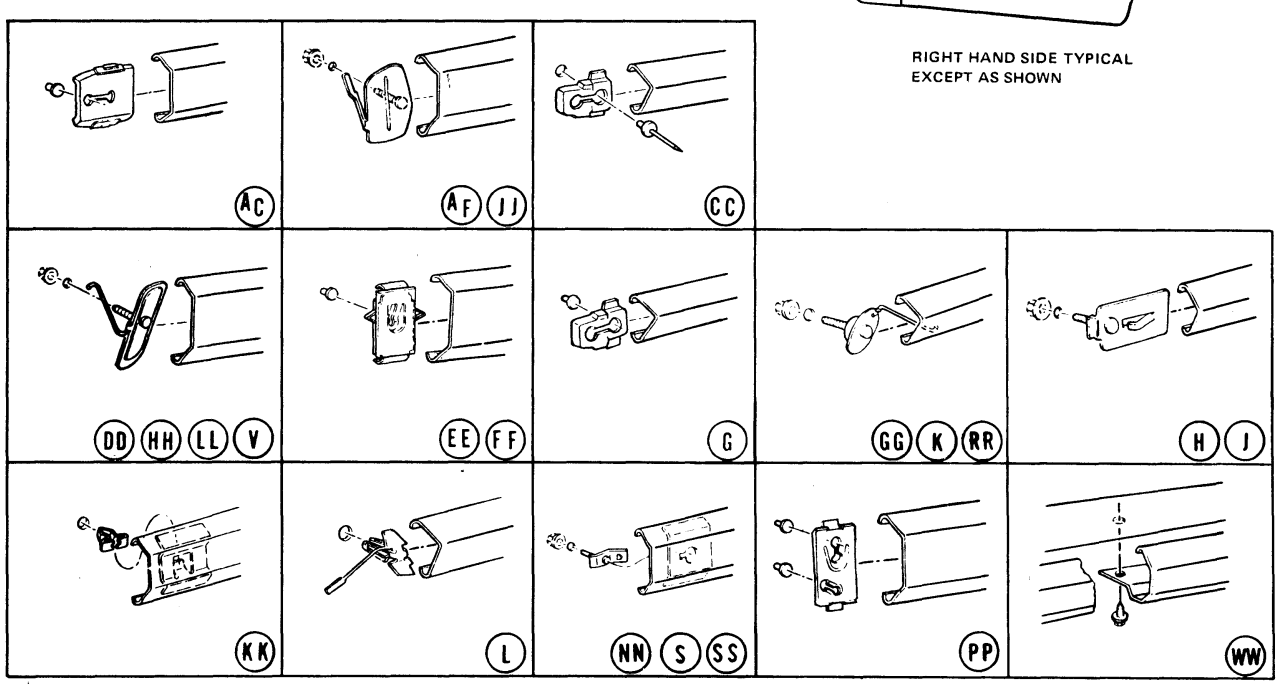
RIGHT HAND SIDE
TYPICAL EXCEPT AS
SHOWN



VIEW A



RIGHT HAND SIDE TYPICAL
EXCEPT AS SHOWN



N2502 B

FIG. 14 Exterior Side Mouldings—Ford Station Wagon

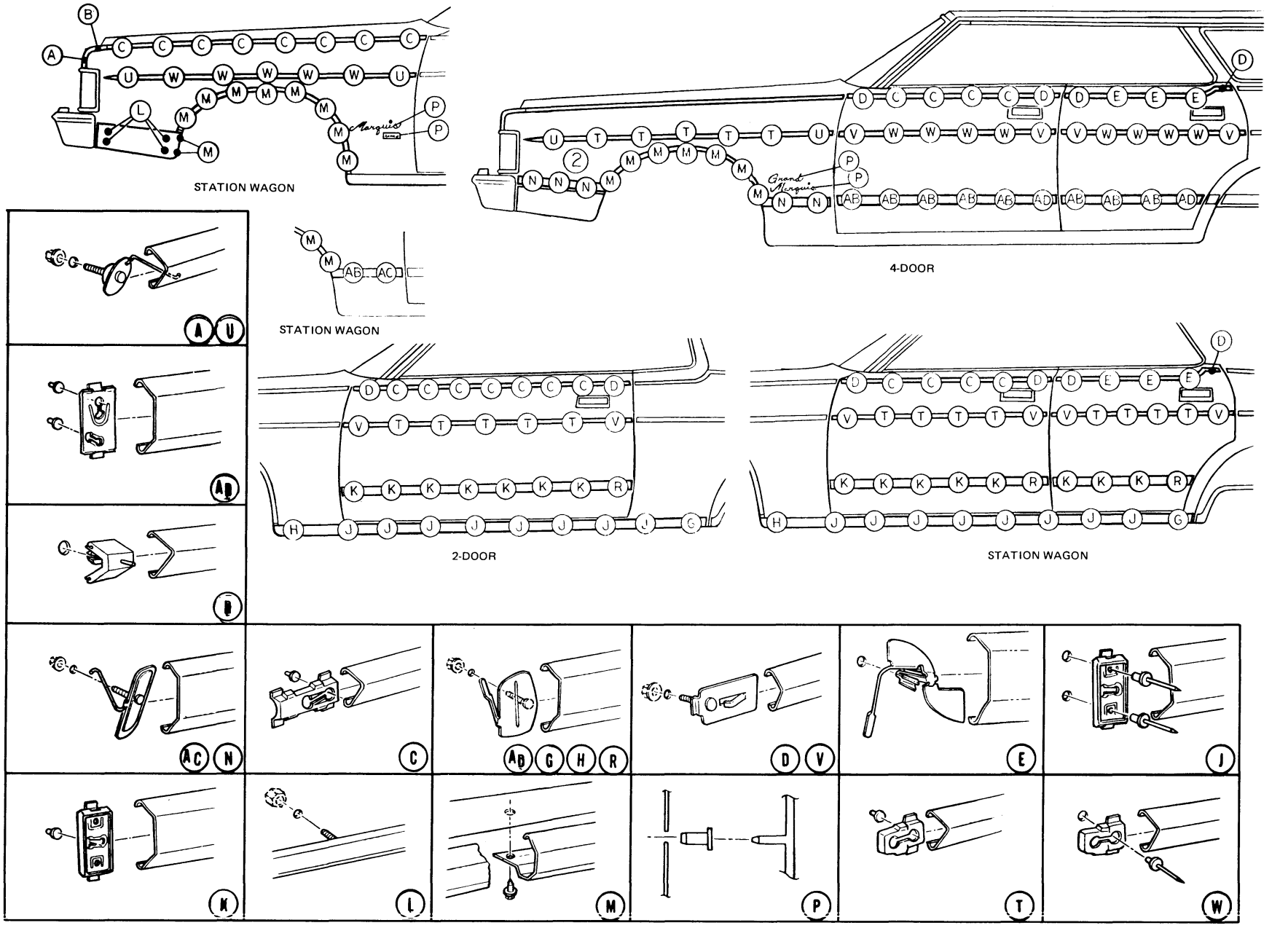


FIG. 15 Exterior Side Moulding Installation—Mercury

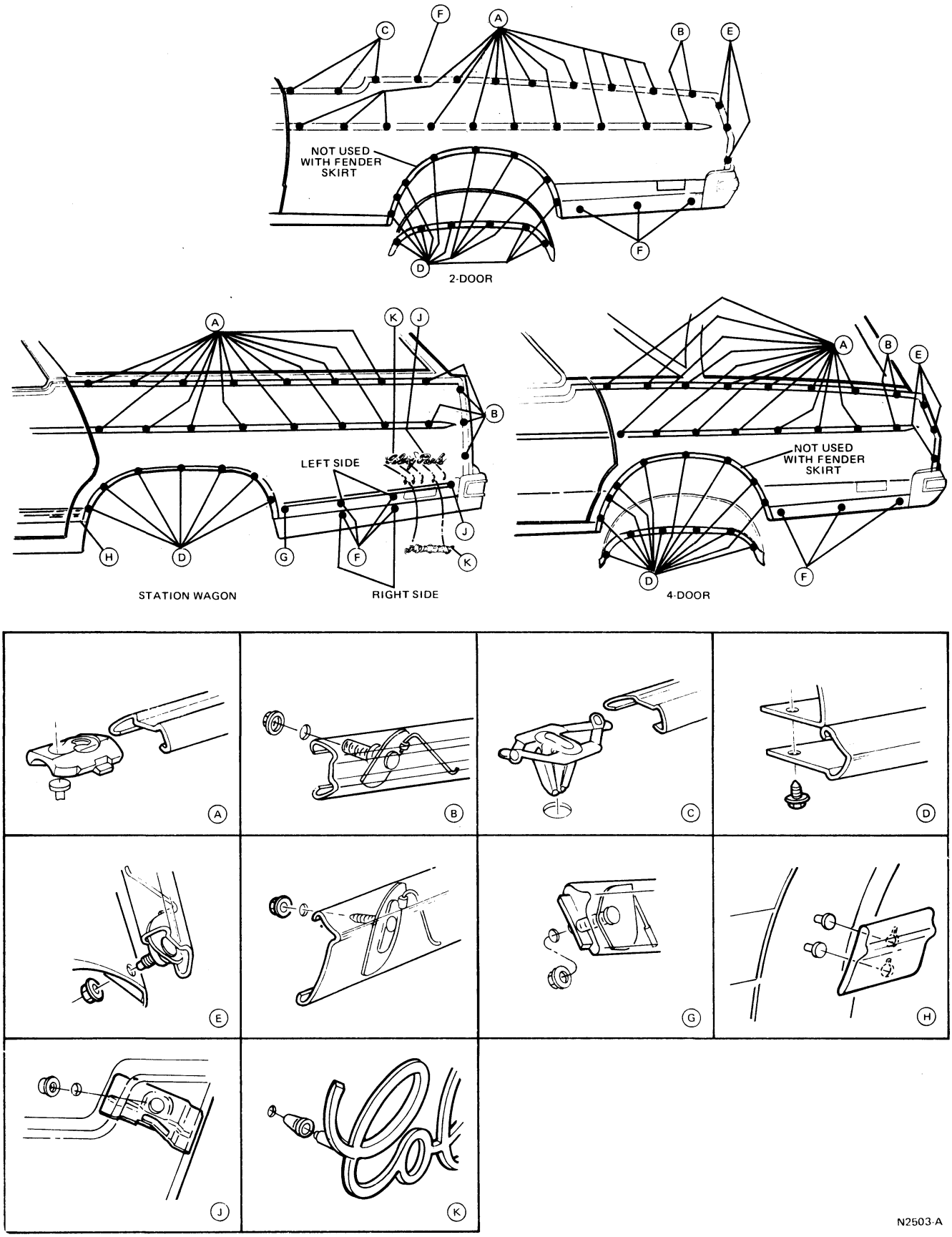


FIG. 16 Exterior Rear Side Moulding Installation—Mercury

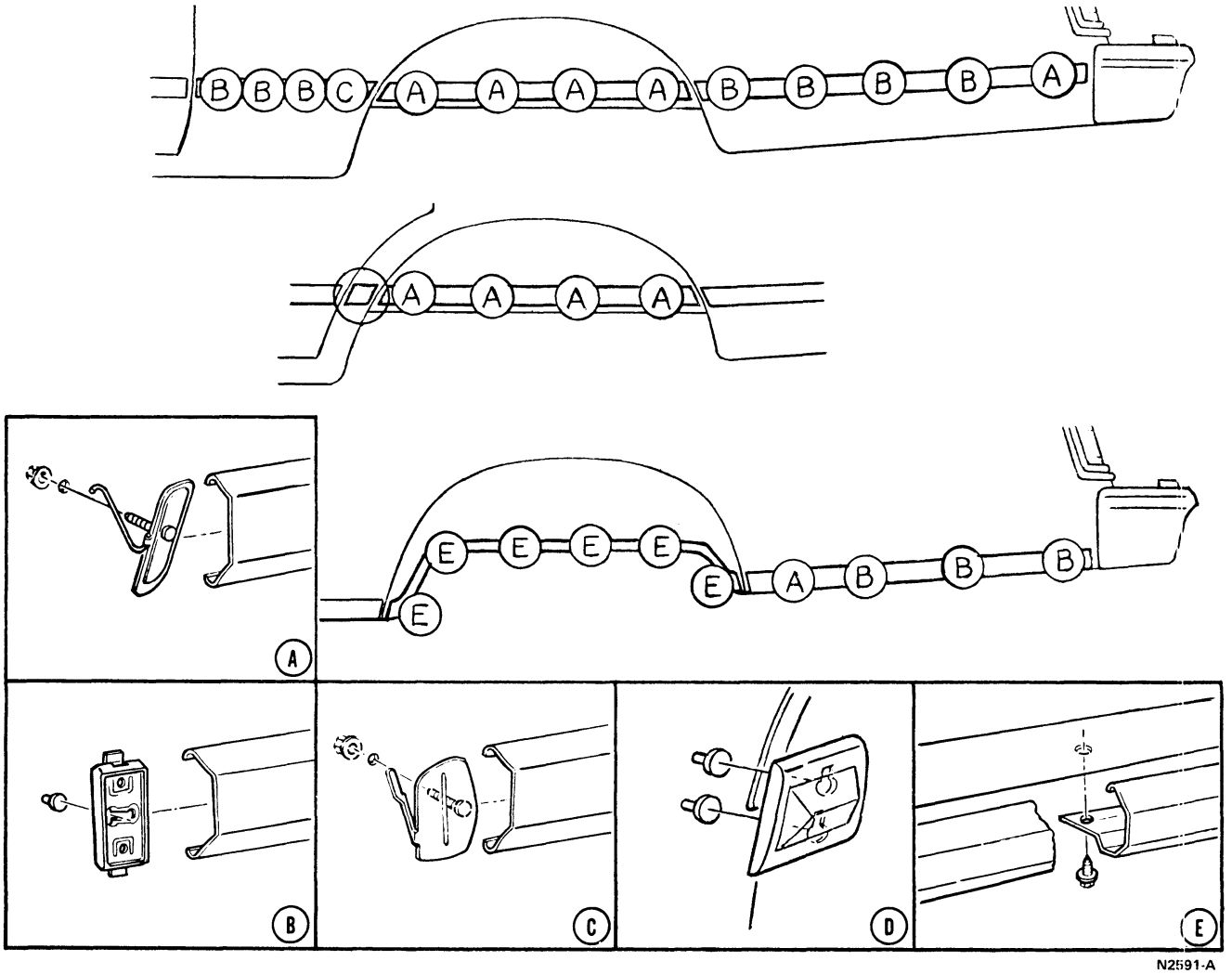
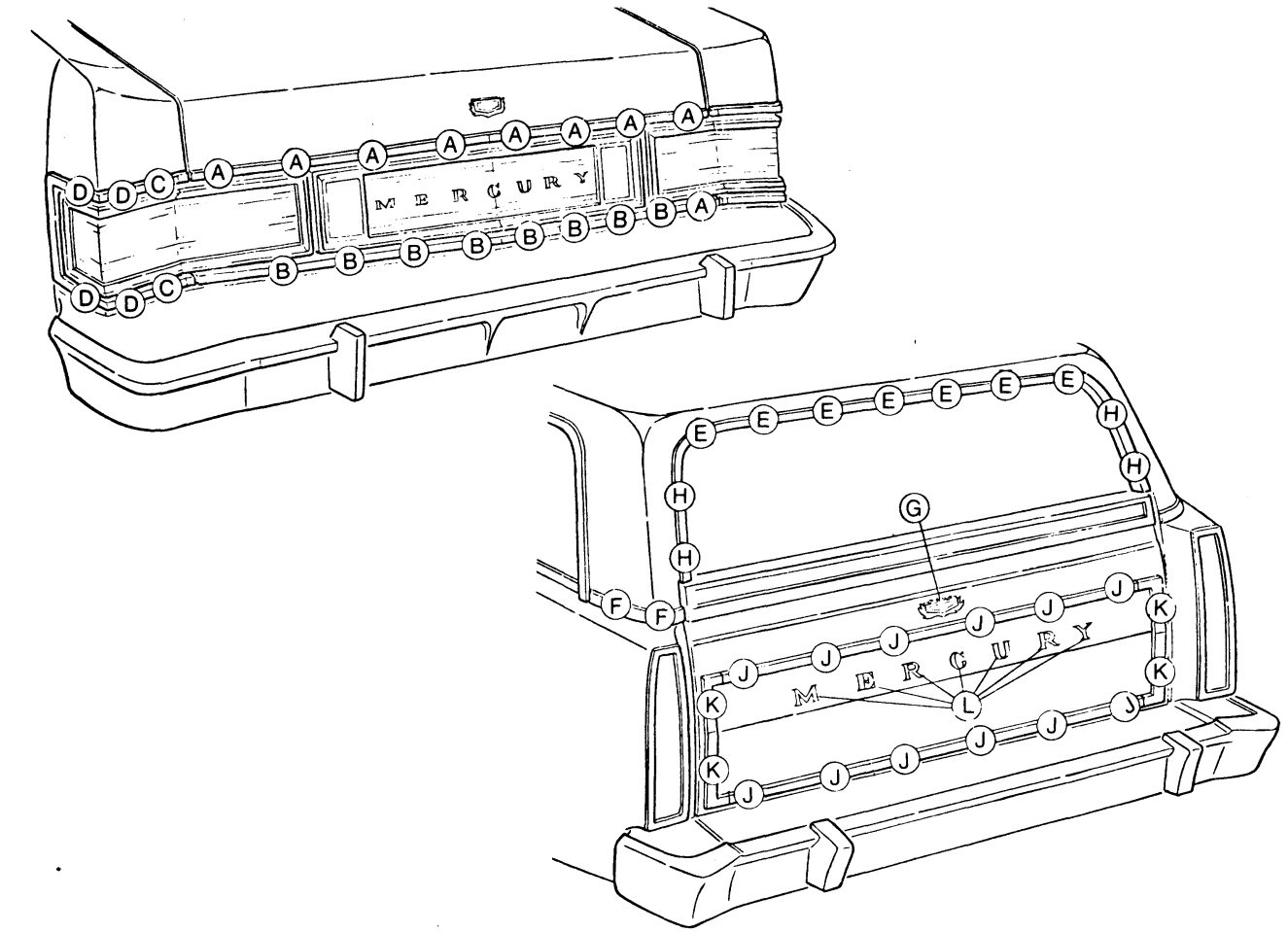


FIG. 17 Optional Exterior Side Moulding Installation—Mercury (with Fender Skirts)



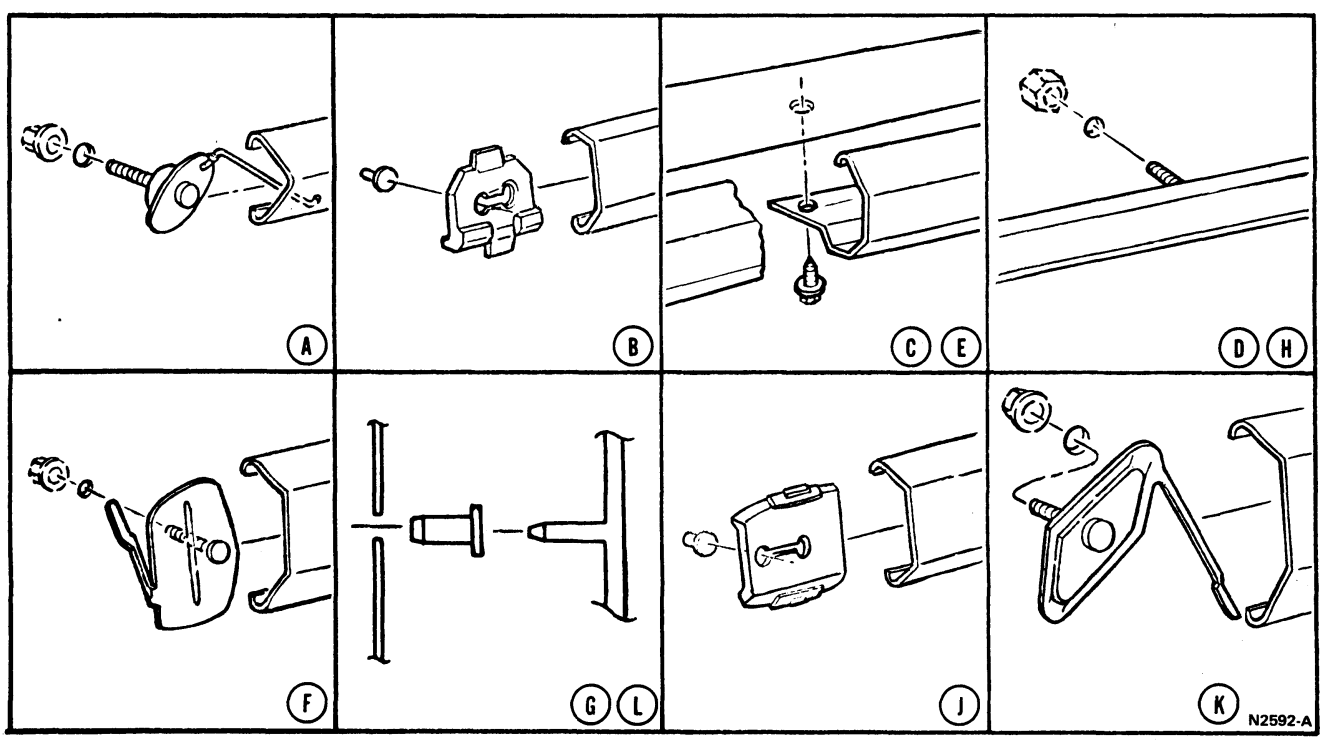
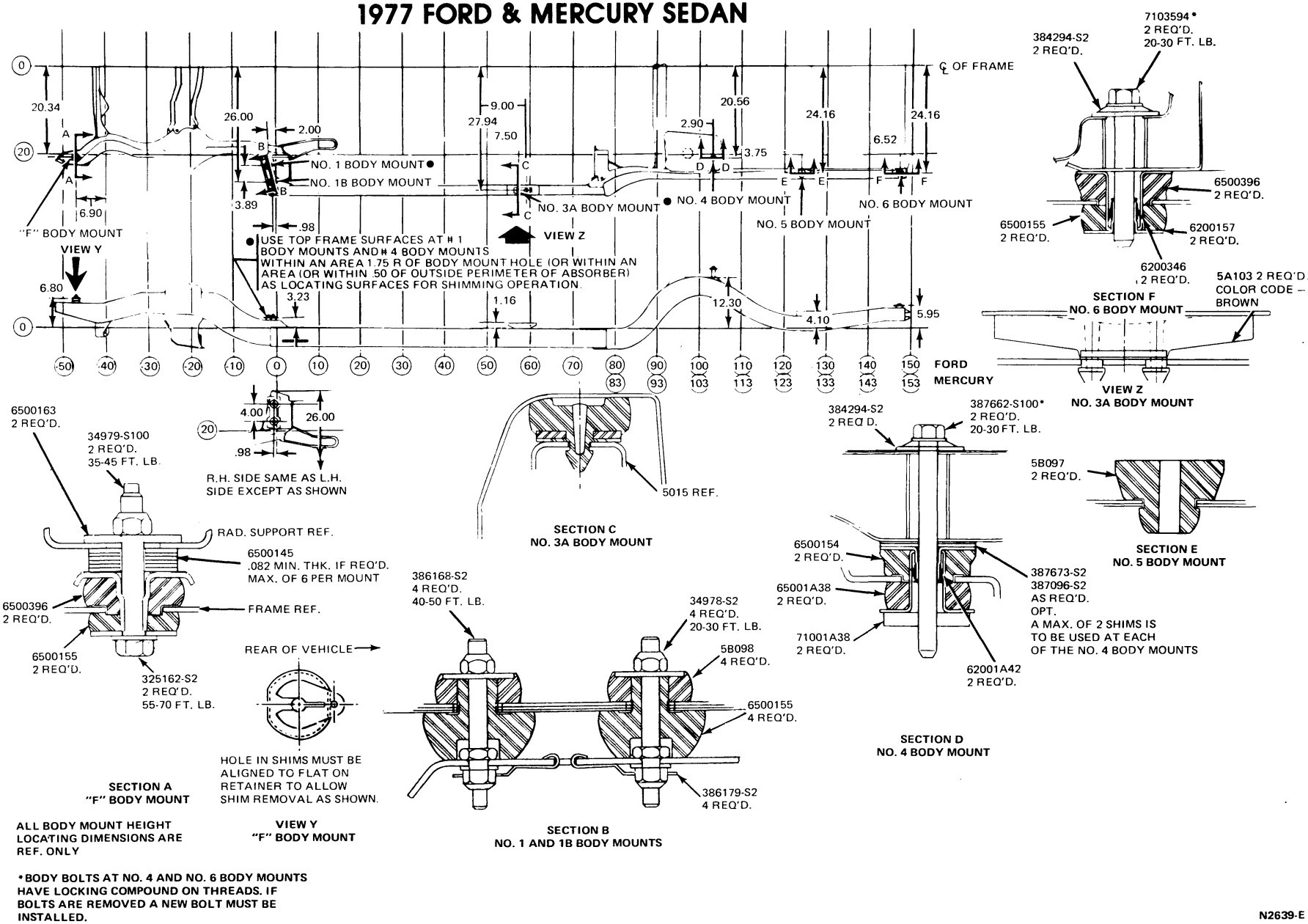


FIG. 18 Exterior Rear Ornamentation—Mercury

FRAME AND BODY MOUNTS
1977 FORD & MERCURY SEDAN



ALL BODY MOUNT HEIGHT LOCATING DIMENSIONS ARE REF. ONLY

*BODY BOLTS AT NO. 4 AND NO. 6 BODY MOUNTS HAVE LOCKING COMPOUND ON THREADS. IF BOLTS ARE REMOVED A NEW BOLT MUST BE INSTALLED.

N2639-E

FIG. 19 Frame Dimensions – Ford and Mercury – Sedan

FRAME AND BODY MOUNTS

1977 FORD & MERCURY STATION WAGON

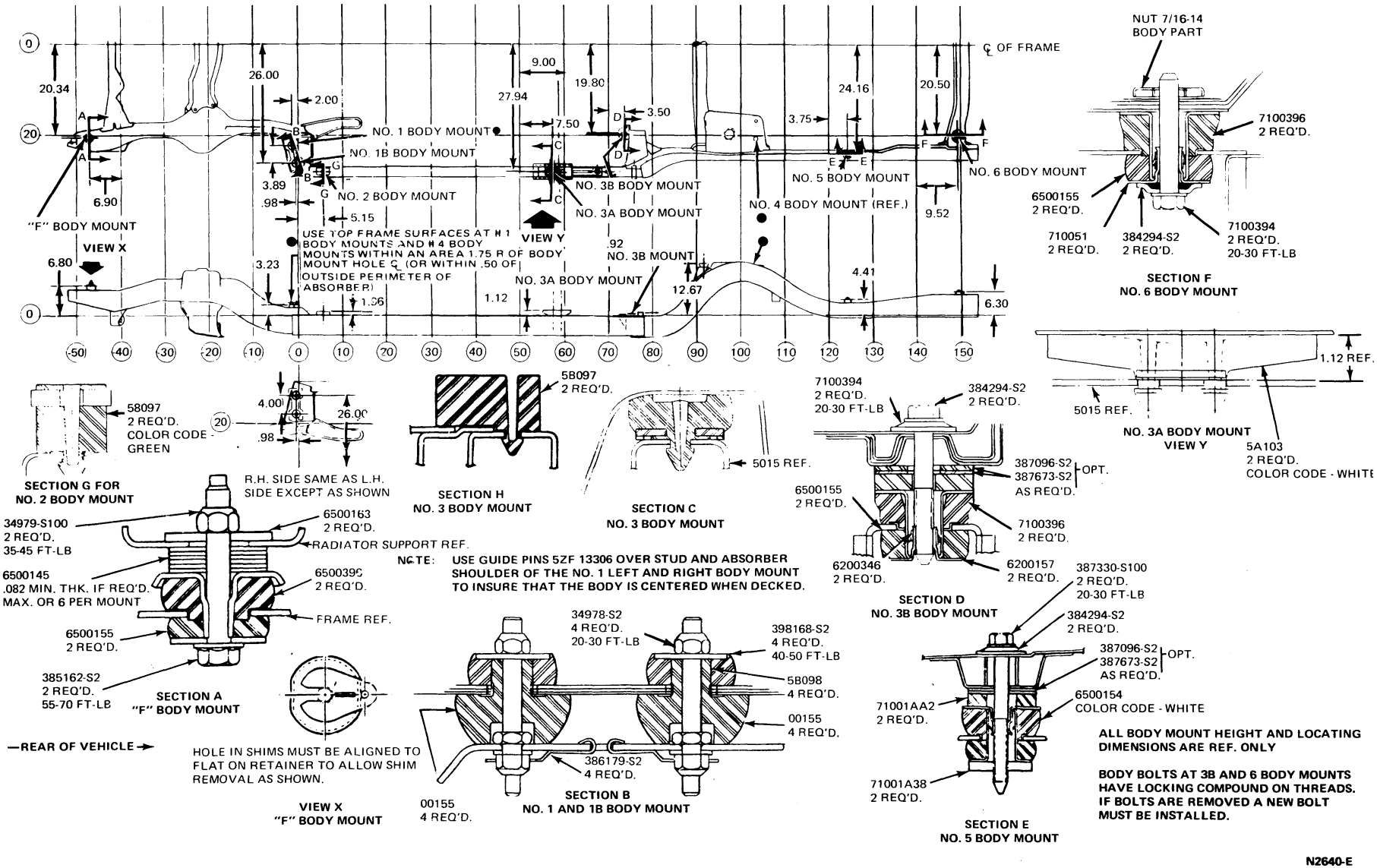


FIG. 20 Frame Dimensions — Ford and Mercury — Station Wagon

LTD II, Cougar and LTD II Ranchero

PART 47-06

SUBJECT	PAGE
REMOVAL AND INSTALLATION	
Exterior Mouldings	06-3
Frame Dimensions	06-6
Front Bumper	06-1
Radiator Grille	06-1
REMOVAL AND INSTALLATION (Cont'd.)	
Rear Bumper, Ranchero	06-2
Rear Bumper, Sedan and Wagon	06-1
Underbody Dimensions	06-6

CN4028-A

REMOVAL AND INSTALLATION

RADIATOR GRILLE

LTD II and LTD II Ranchero

Removal

1. Remove screws attaching each headlight door, lean forward to disengage from locating pins and lift away from the grille panels (Fig. 1).
2. Remove seven grille retaining nuts and one screw, and remove the grille assembly (Fig. 1).

Installation

1. If the grille is to be replaced, transfer the parking lights and emblem to the new grille.
2. Position the grille assembly to the vehicle and install the seven grille retaining nuts and screws.
3. Install the parking light socket assemblies to the parking lights.
4. Place the headlight housing on locating tabs and install the two attaching screws to retain each moulding.

Cougar

Removal

1. To remove grille, open the hood and detach the six nut and washer assemblies that attach it to the grille opening panel (Fig. 2).
2. To remove headlamp doors, unscrew the eight attaching screws and lift from grille opening panel (Fig. 2).
3. To remove grille opening panel, open hood and detach the 12 nut and washer assemblies (Fig. 2). Lift the panel away. The panel may be removed with the headlamp doors and grille attached.

Installation

1. Locate studs on grille opening panel with appropriate holes and 'set' into place. Attach nut and washer assemblies and torque to 4 to 6 ft-lbs.
2. Install headlamp doors with eight screws each.
3. Locate studs on grille with appropriate holes in grille opening panel. 'Set' studs into place and install nut and washer assemblies with 4-6 ft-lbs torque.

Hood Ornament

See Fig. 3 for installation procedure for LTD II and Cougar (all models).

FRONT BUMPER

LTD II and Cougar

Removal

1. Remove three bolts attaching the bumper reinforcement to each isolator, and remove the bumper assembly from the vehicle (Fig. 4).
2. Remove three screws attaching the stone deflector to the reinforcement, and remove the stone deflector.
3. Remove the stone deflector insulator(s) (Figs. 5 and 6).
4. Remove the reinforcement, end braces and license plate mounting bracket from the bumper.
5. Remove the bumper guards (4 bolts), and the pads from the bumper.

NOTE: The bumper pad attaching tabs may be destroyed upon removal, if so equipped. Damage will be avoided by squeezing the retaining tabs with pliers until tabs can be pushed through holes in bumper.

Installation

1. Install the bumper guards on the bumper.
2. Position the pads to the bumper and push firmly at each attachment until seated.
3. Install the reinforcement, end braces and license plate mounting bracket on the bumper. Tighten bolts and nuts to specified torque.
4. Install the front stone deflector insulator(s) (Figs. 5 and 6).
5. Install the stone deflector on the reinforcement.
6. Position the bumper assembly and shims to the isolators, and install the attaching bolts.
7. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Figs. 7 and 8. Then, adjust the bumper for body clearance so that the vertical and horizontal body to bumper dimensions meet the specifications in Figs. 7 and 8. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.
8. Lift up on the end deflector(s) and install two-way tape. Then press down on the end deflector(s) to achieve a flush fit.

REAR BUMPER

All Models Except Ranchero

1. Disconnect the license light wires at the connector. Push the grommet out

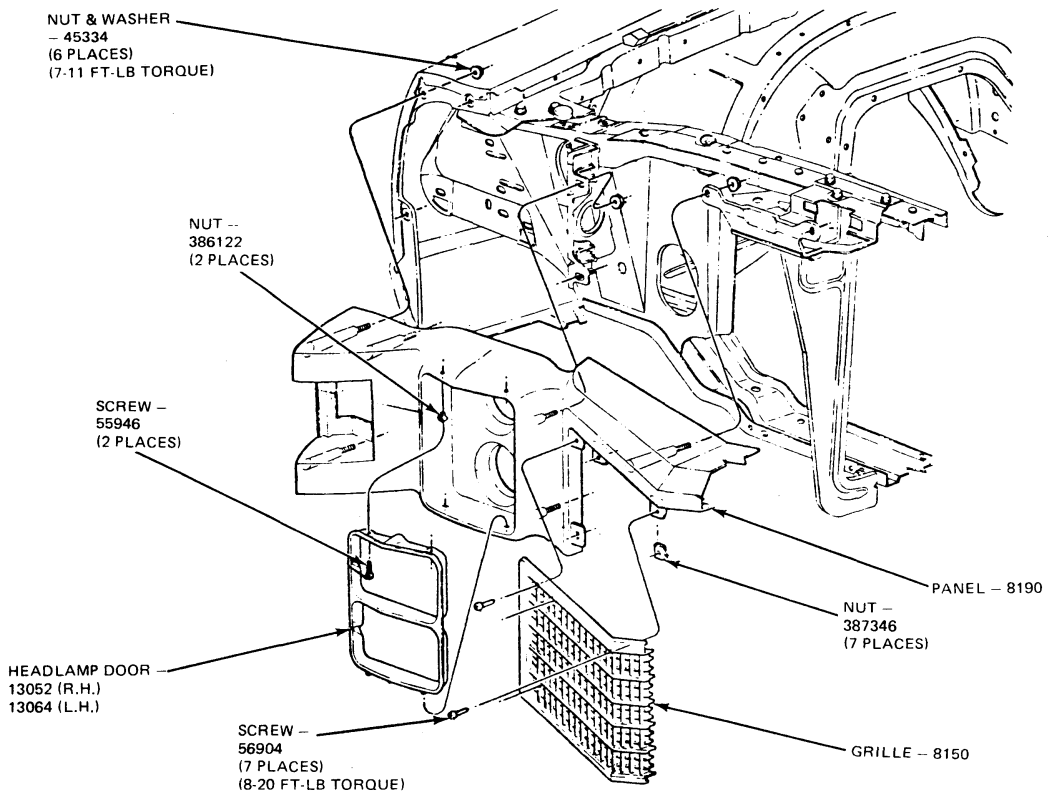


FIG. 1 Radiator Grille—LTD II and LTD II Ranchero

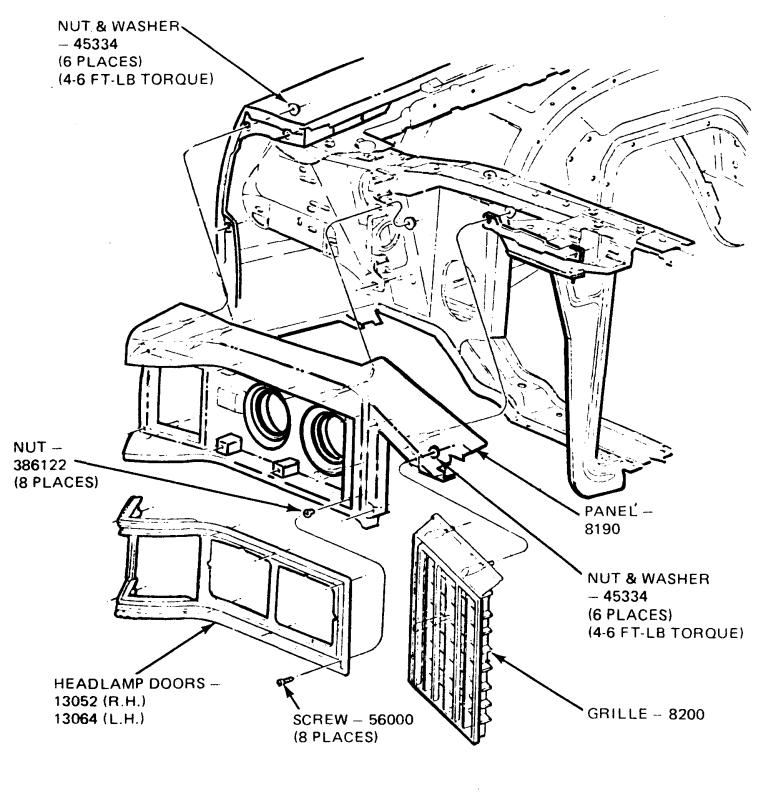


FIG. 2 Radiator Grille—Cougar

of the lower back panel on sedan models.

2. Remove the reinforcement, end brackets and license bracket (Sedan only) from bumper (Figs. 9 and 10).

NOTE: The bumper pad attaching tabs may be destroyed upon removal if so equipped. Damage will be avoided by squeezing the retaining tabs with pliers until tabs can be pushed through holes in bumper.

3. If the bumper is to be replaced, transfer the bumper guards, pads and license plate light to the new bumper.
4. Install the reinforcement, end brackets and license bracket (Sedan only) on the bumper.
5. Position the bumper assembly and spacers to the isolators, and install the attaching bolts.
6. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Figs. 7 and 8. Then, adjust the bumper for body clearance at the centerline of the tail lamp so that the vertical and horizontal body to bumper dimensions meet the specifications in Figs. 7 and 8. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.

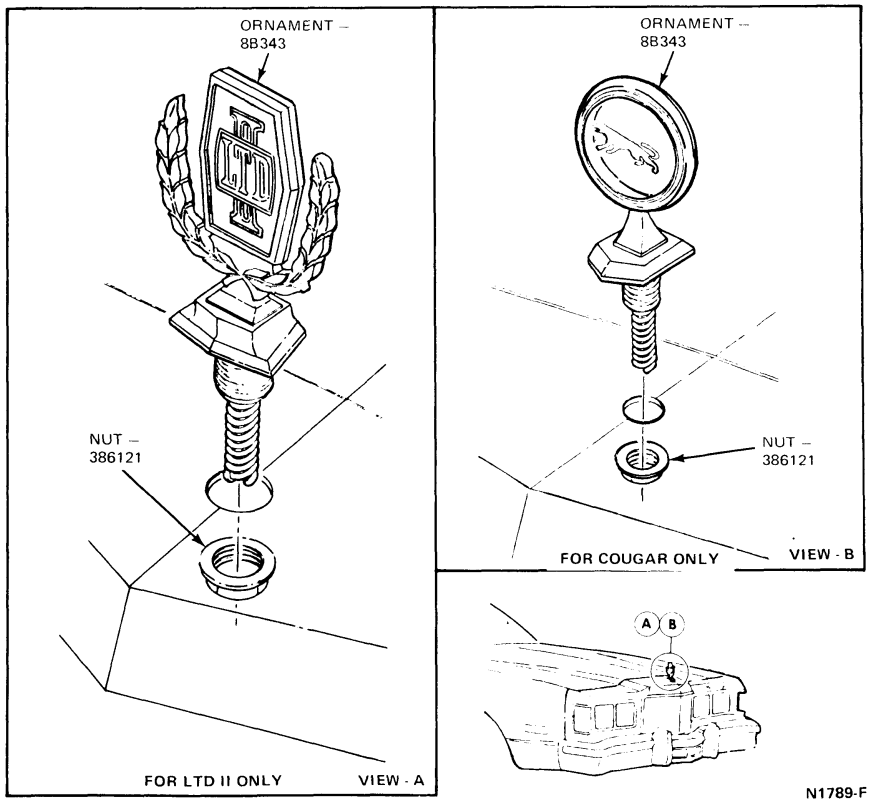


FIG. 3 Ornament Assemblies—Cougar and LTD II (all models)

7. Connect the license light wire. Seat the wire grommet in the lower back panel on sedan models.

Ranchero

1. Disconnect the license plate light at the connectors and remove the light from the bumper.
2. Remove the bolts attaching the bumper arms to the frame rails and remove the bumper (Fig. 11).
3. If the bumper is to be replaced, transfer all parts to the new bumper.
4. To install, position the bumper assembly to the vehicle frame and install the attaching bolts finger tight.
5. Adjust the bumper for a good appearance and tighten the attaching bolts to specification (Fig. 11).
6. Install the license plate light, and connect the wire at the connector.

EXTERIOR MOULDINGS

Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access (Fig. 12). If a weld stud is distorted or broken off, it should be replaced with an oval head blind rivet (Part No. 383229-S). Refer to General Information (Part 47-01) for installation of Pressure Sensitive Tape Type (Bodyside Protection Mouldings).

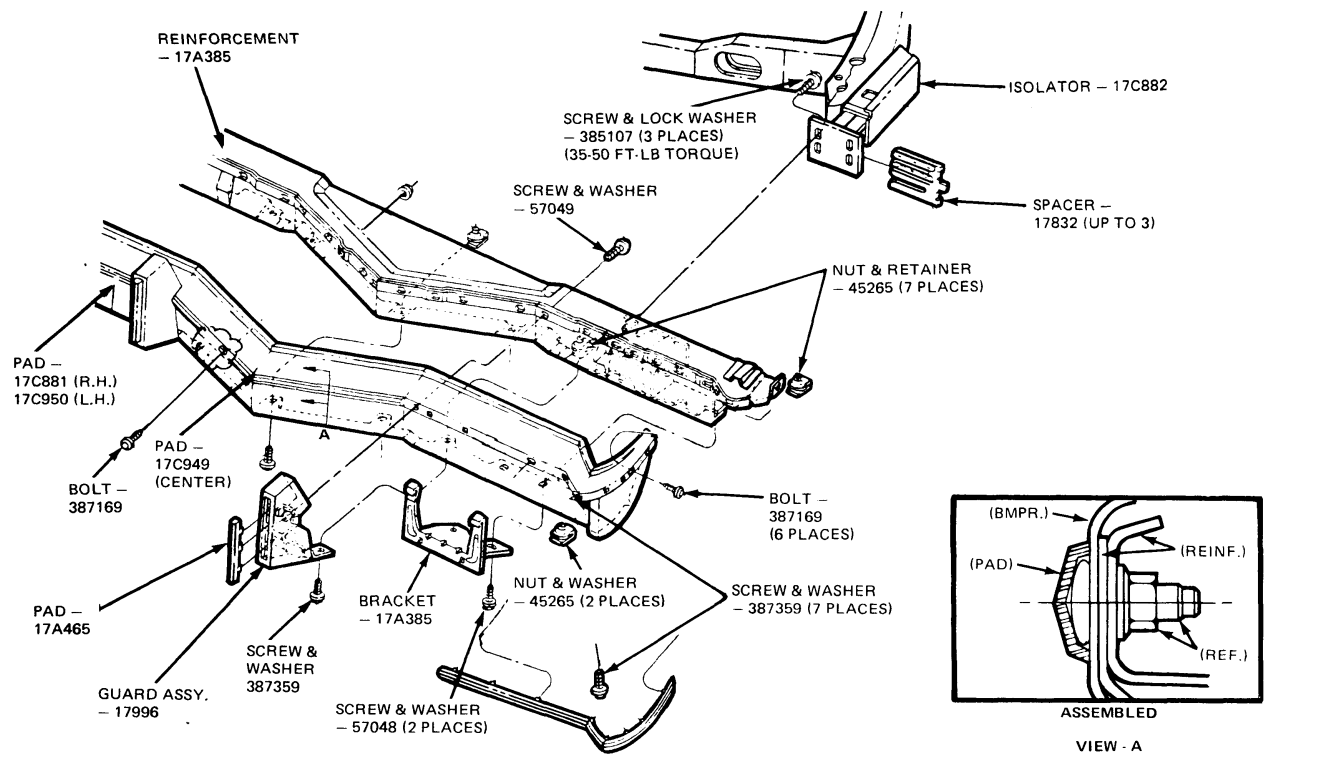


FIG. 4 Front Bumper—LTD II and Cougar

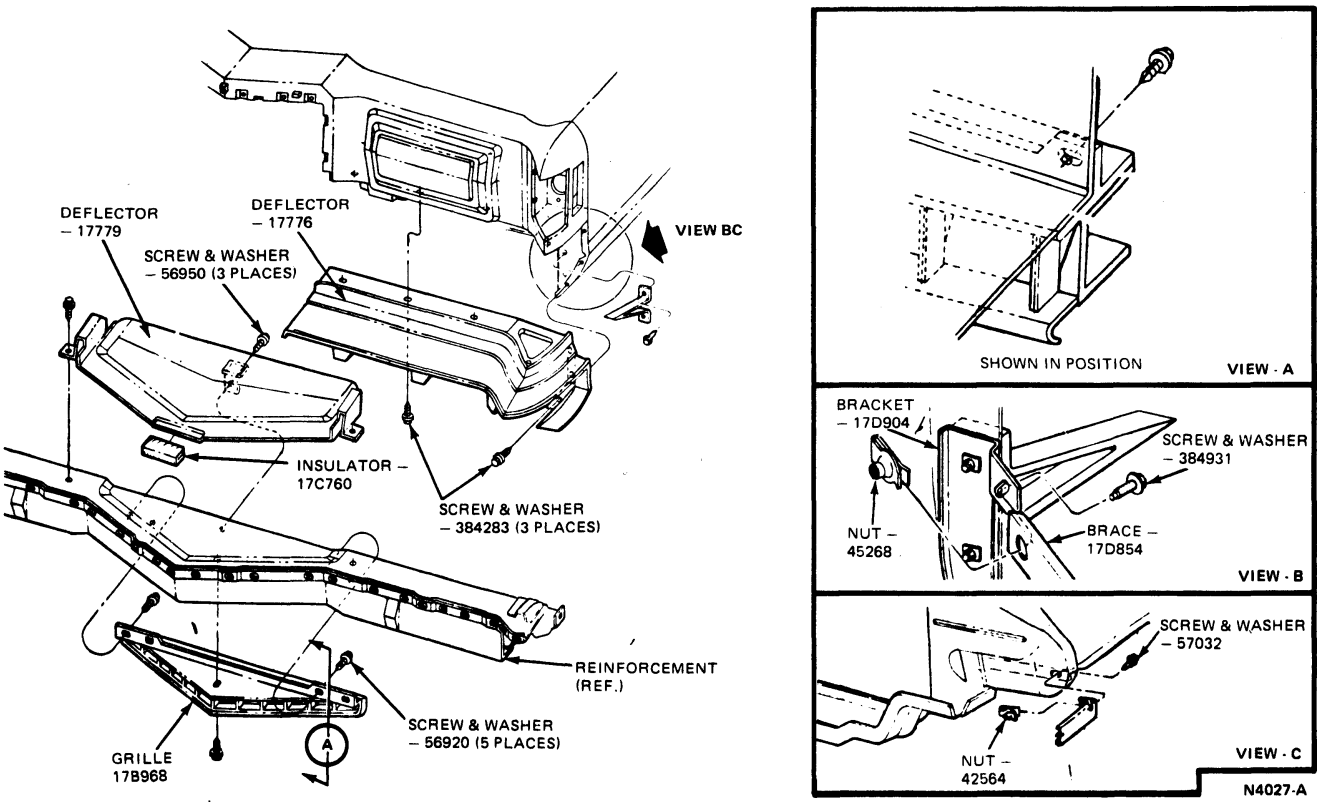


FIG. 5 Front Stone Reflector—Cougar

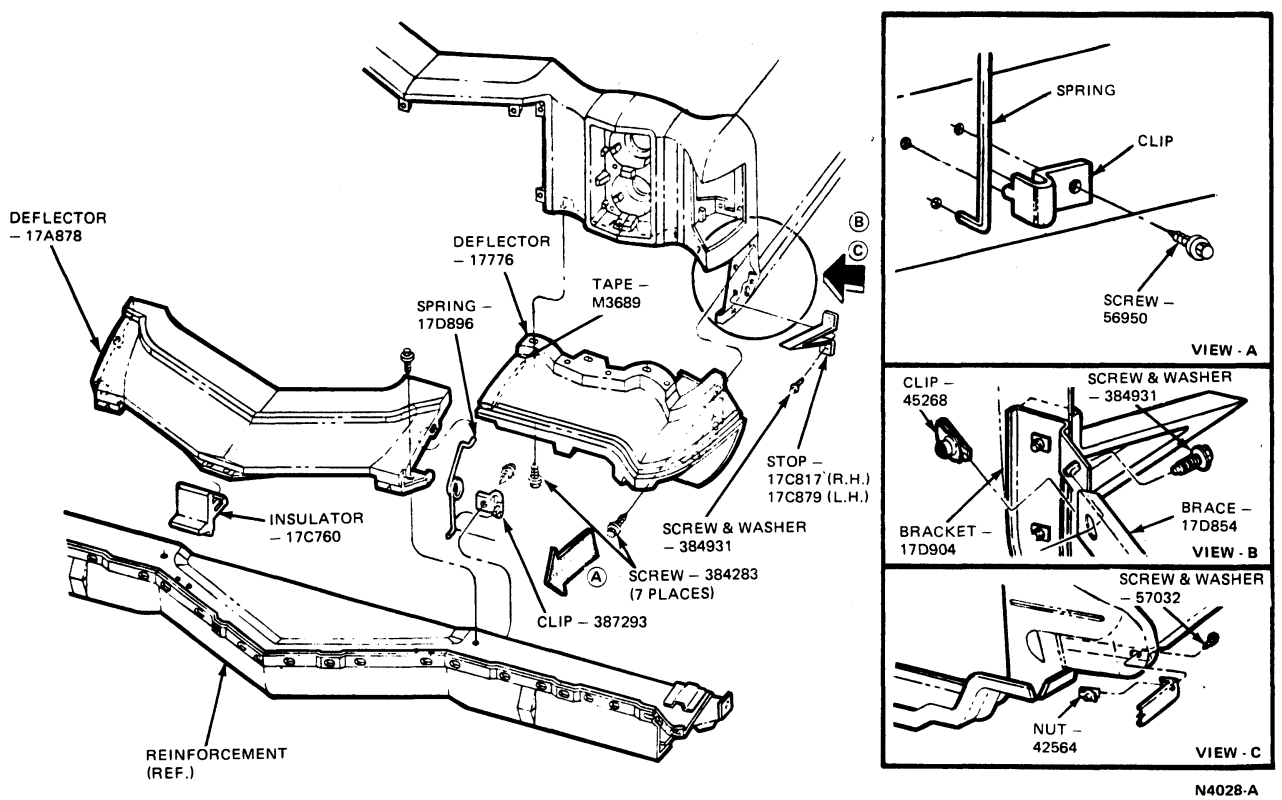


FIG. 6 Front Stone Reflector—LTD II

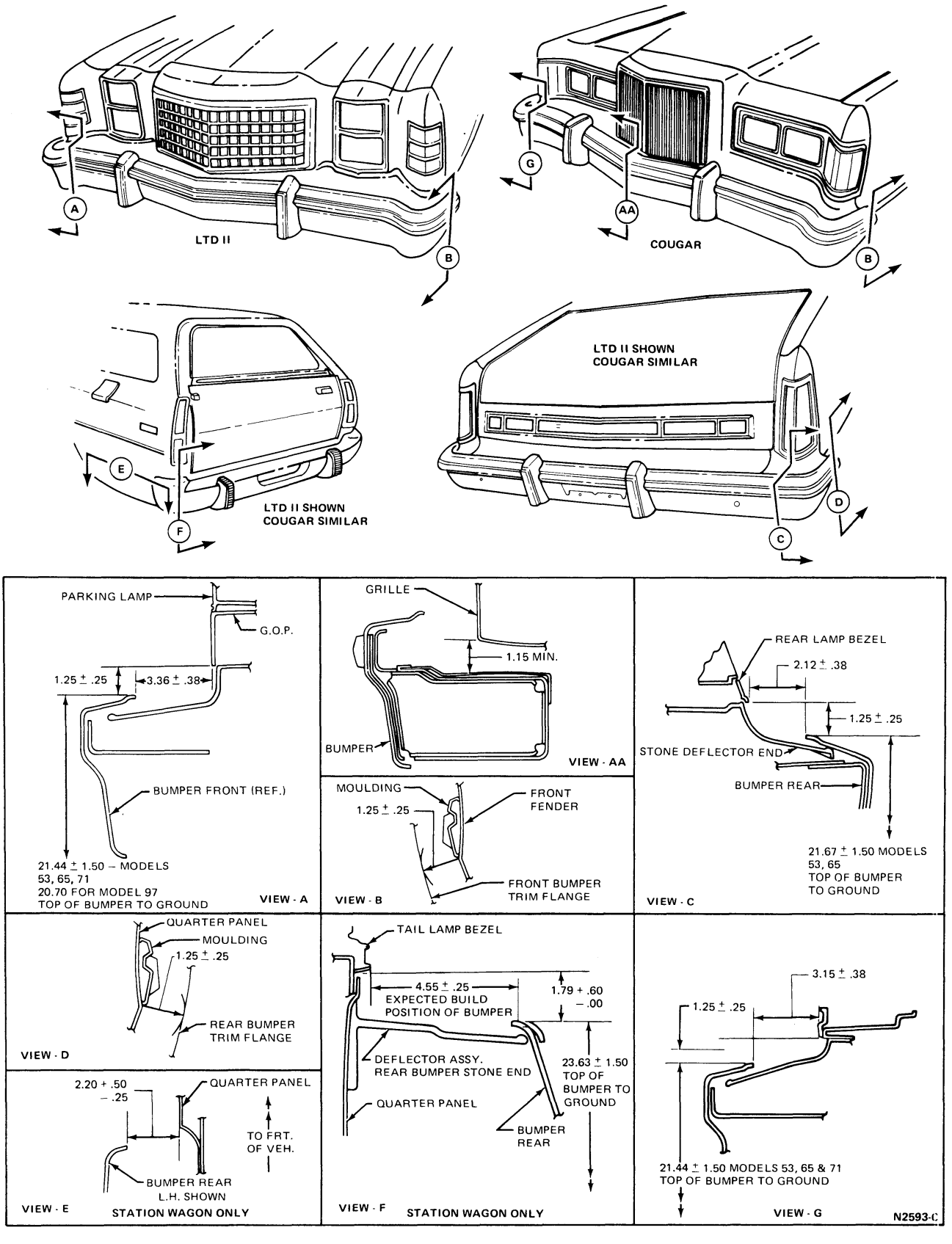


FIG. 7 Front Bumper Adjustment Specifications – LTD II and Cougar

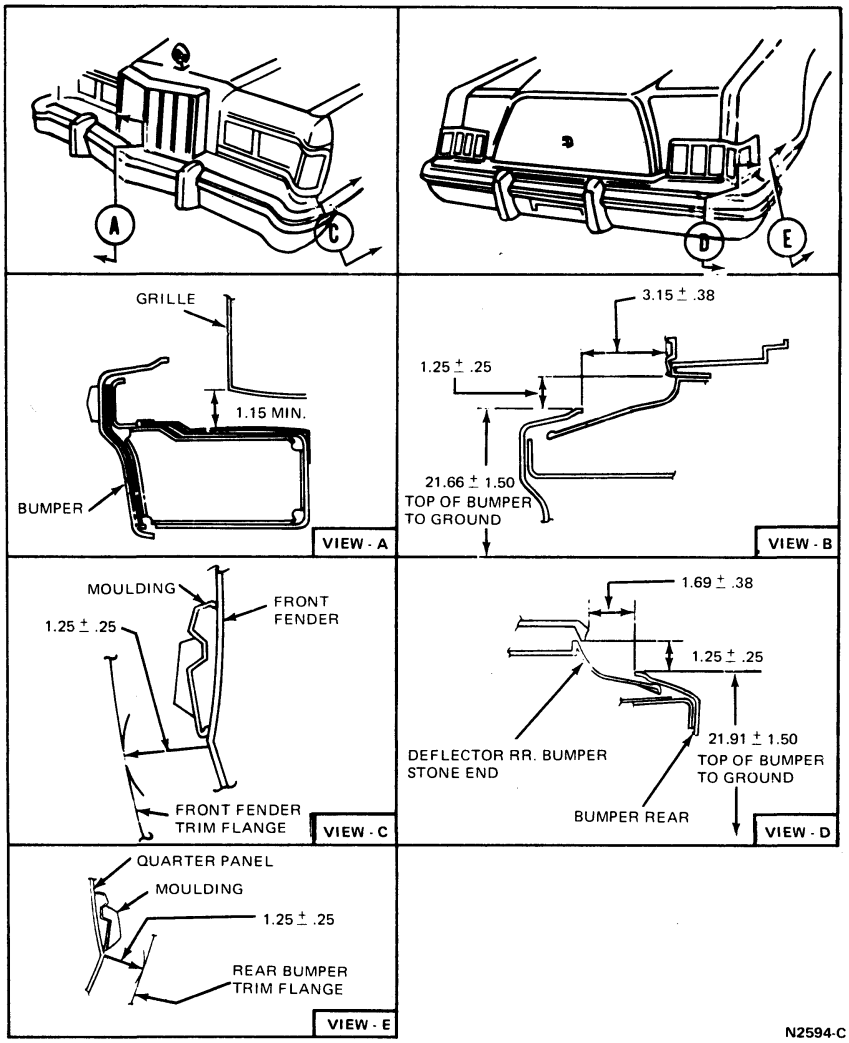


FIG. 8 Rear Bumper Adjustment Specifications—Cougar XR7

FRAME DIMENSIONS

The Cougar and Ranchero frame dimensions are shown in Figs. 25 and 26. The underbody checking and repair procedures are given in Part 47-01.

UNDERBODY DIMENSIONS

The Cougar and Ranchero underbody dimensions are shown in Figs. 25 and 26. The underbody checking and repair procedures are given in Part 47-01.

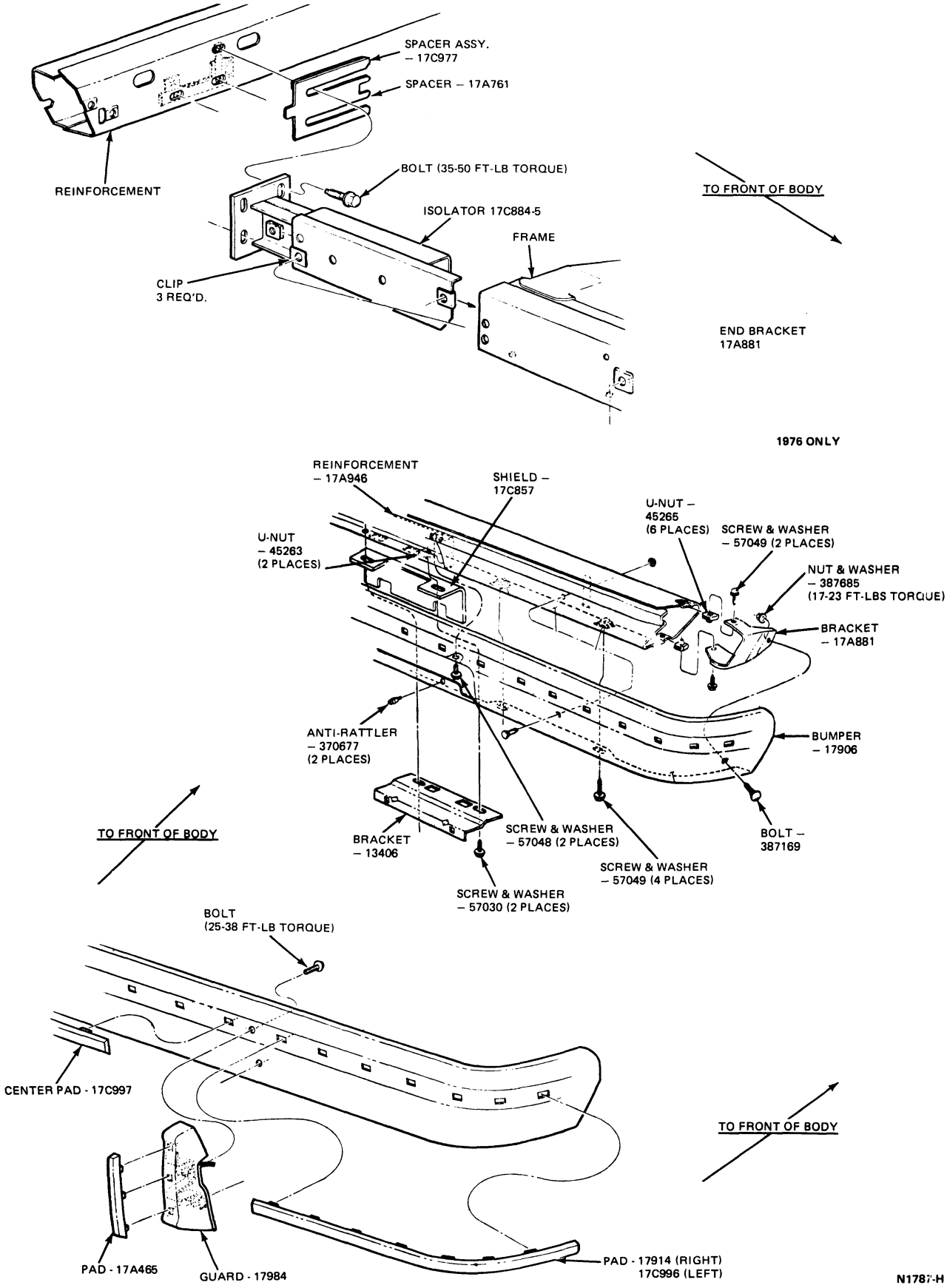


FIG. 9 Rear Bumper Installation—All Models Except Station Wagon and Ranchero

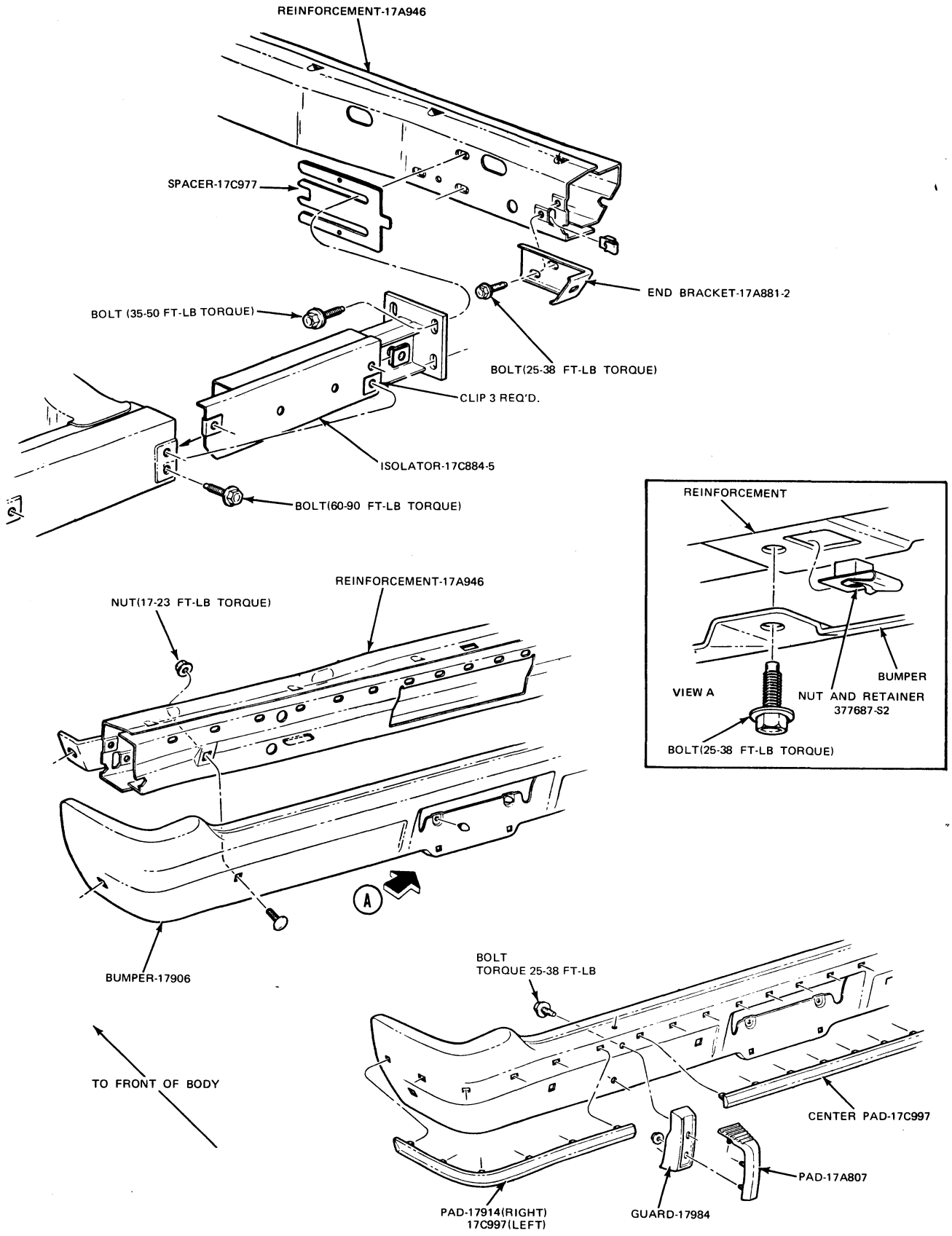


FIG. 10 Rear Bumper Installation—Station Wagon

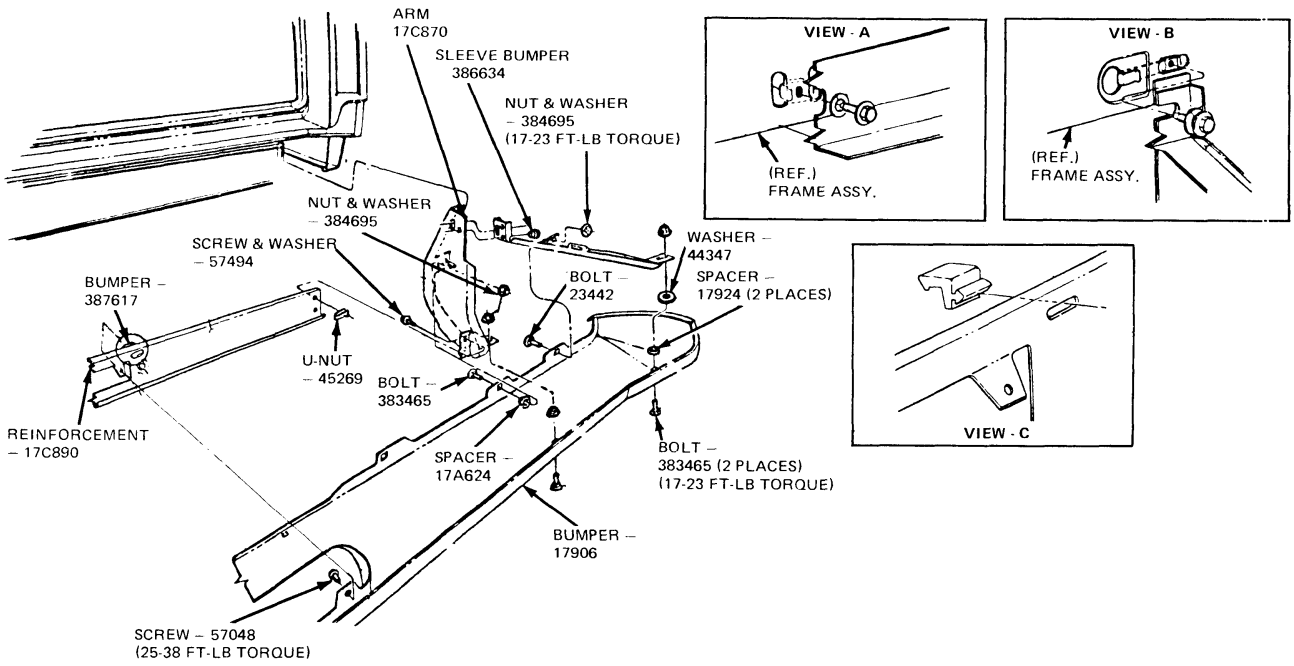


FIG. 11 Rear Bumper—Ranchero

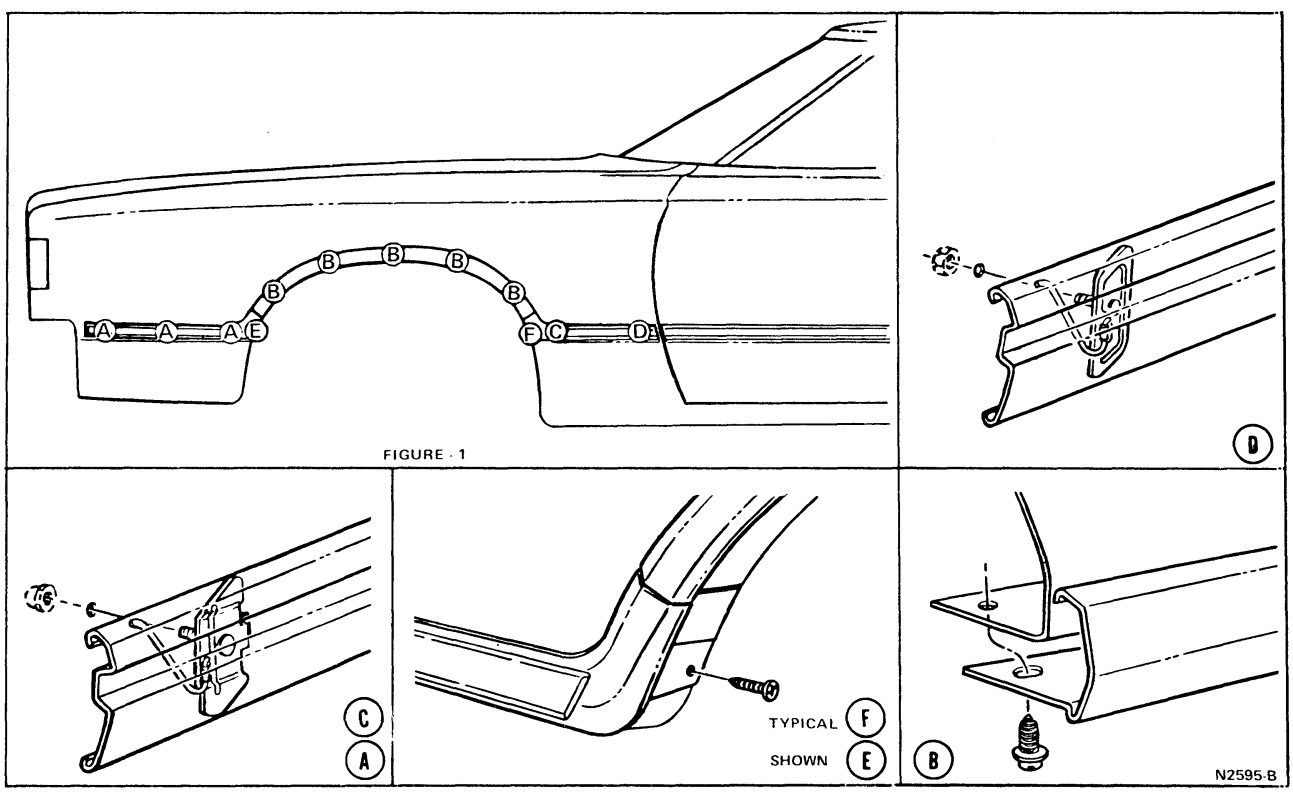
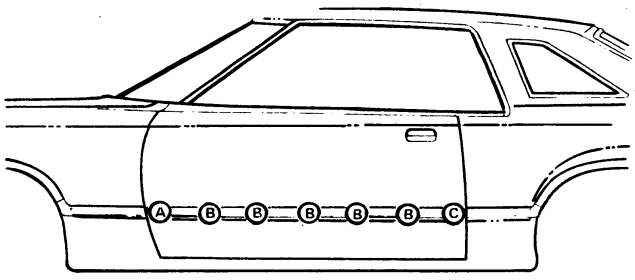


FIG. 12 Exterior Side Moulding Installation – LTD II



MODEL 65

FIGURE - 1

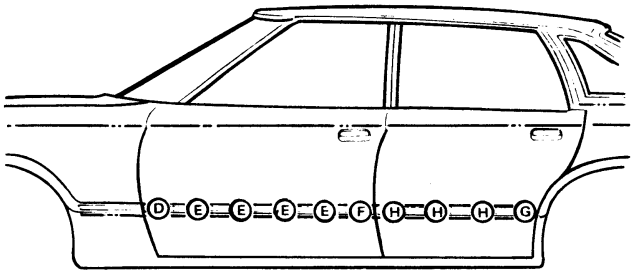
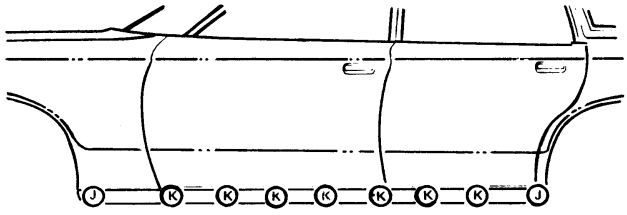
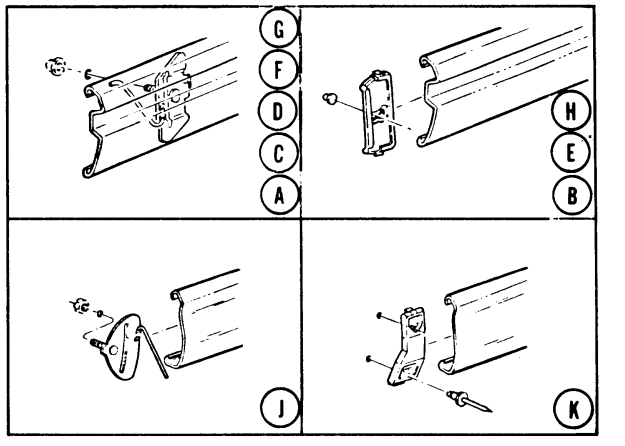


FIGURE - 2



MODEL 53-71 (MODEL 65 – SIMILAR) FIGURE - 3



N2596-B

FIG. 13 Exterior Side Moulding Installation – LTD II

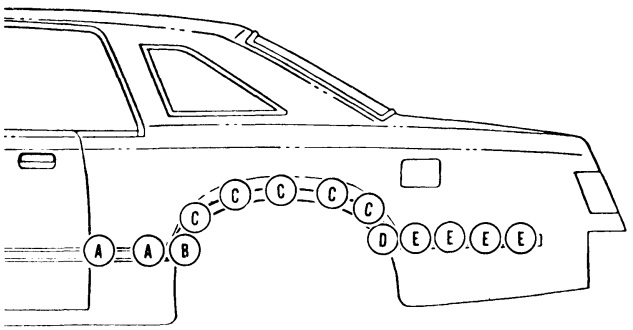


FIGURE - 1
MODEL 65

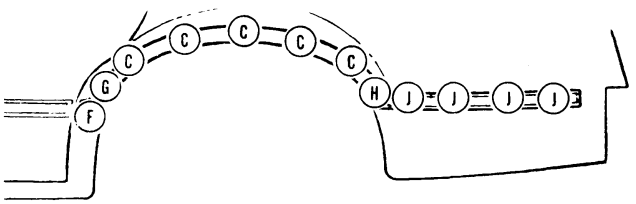


FIGURE - 2
MODEL 53 SHOWN
MODEL 71 TYPICAL

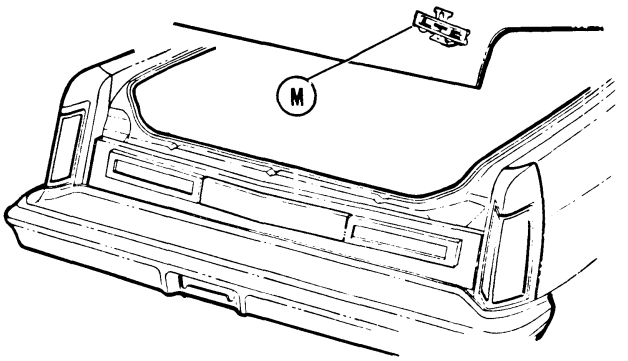


FIGURE - 3
MODEL 53D-K AND 65D-K ONLY

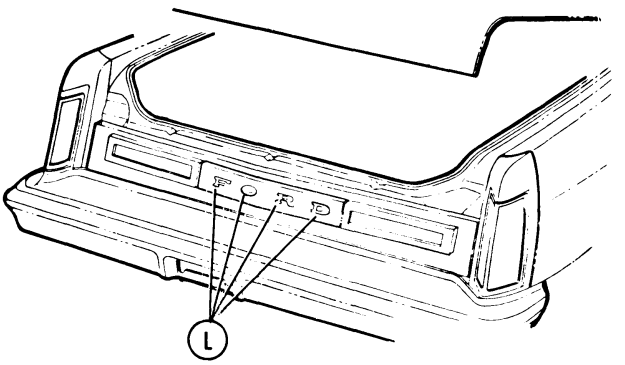
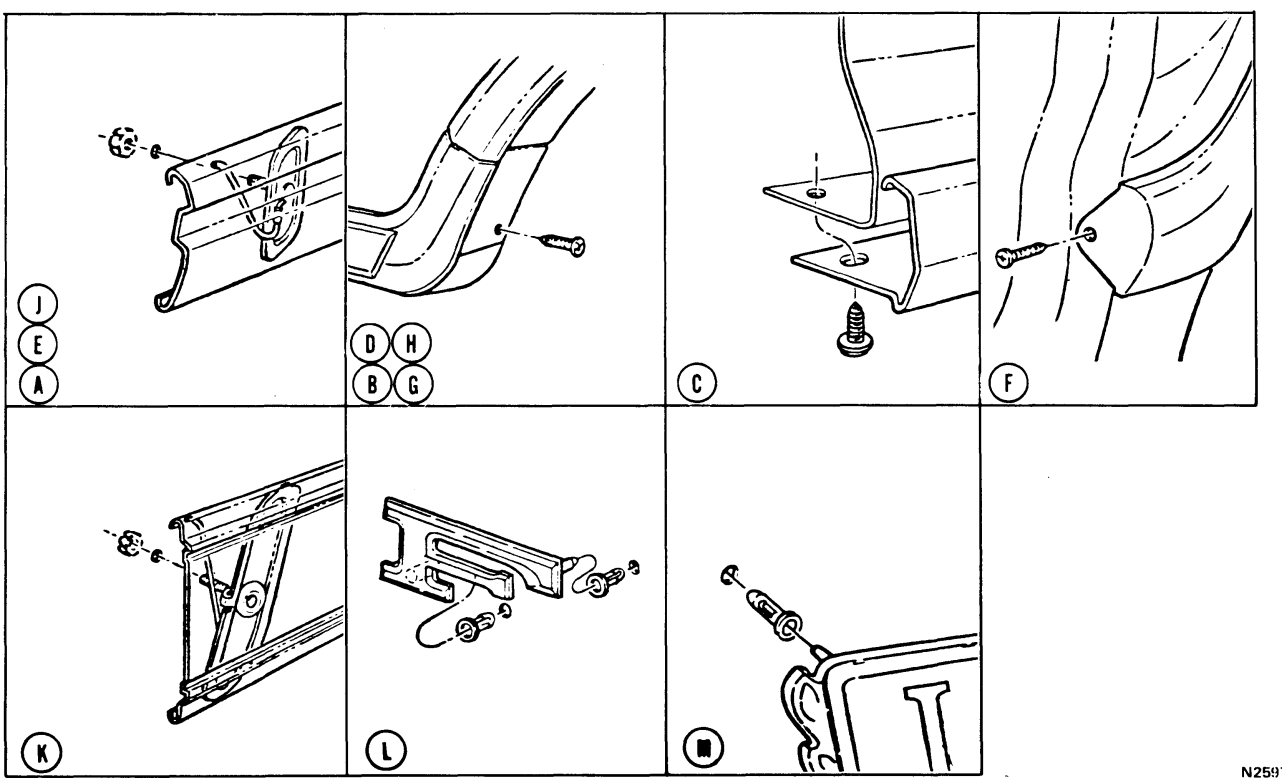


FIGURE -4
MODEL 53B AND 65B ONLY



N2597-B

FIG. 14 Exterior Moulding – LTD II

RANCHERO AND STATION WAGON

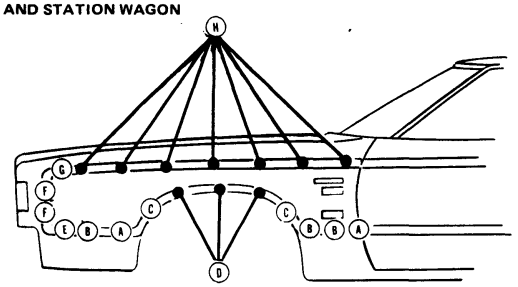
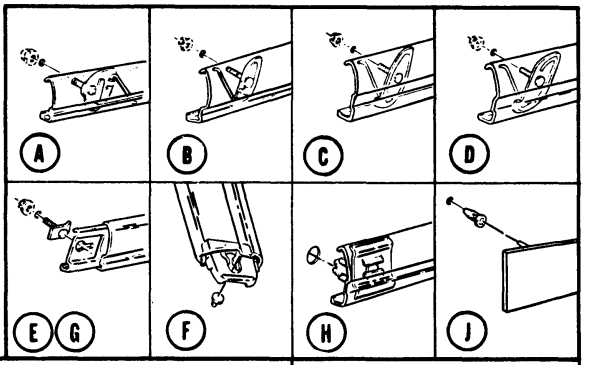


FIGURE 1



STATION WAGON

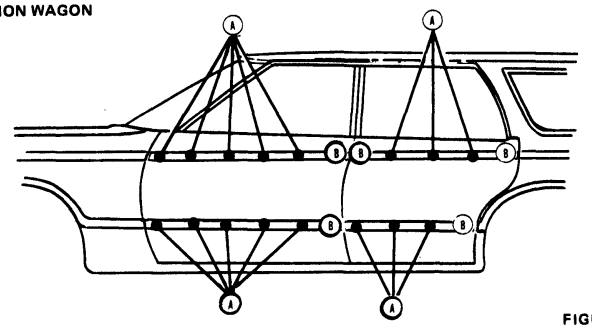
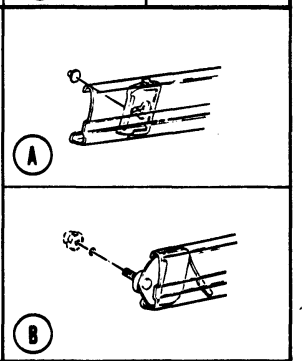


FIGURE 2



STATION WAGON

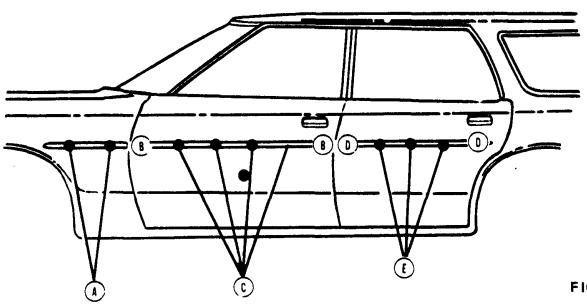
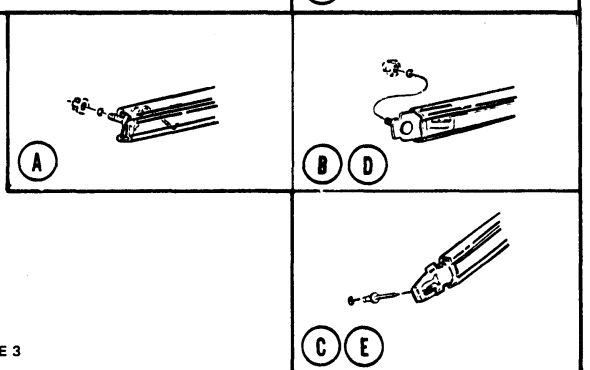


FIGURE 3



STATION WAGON

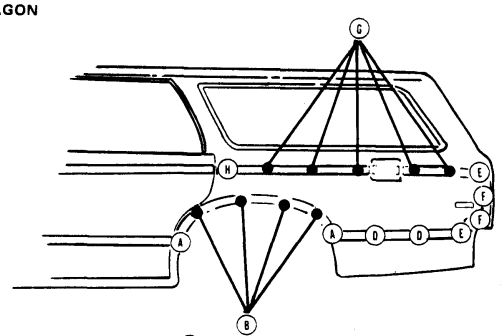
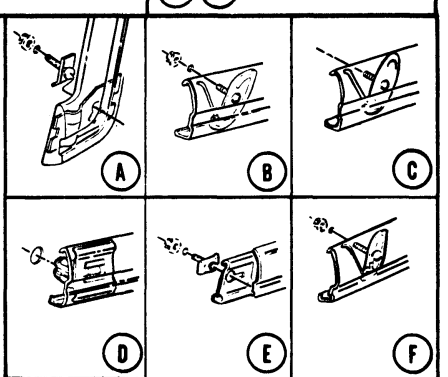


FIGURE 4



STATION WAGON

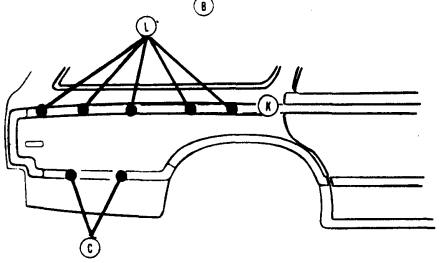
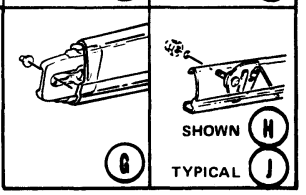


FIGURE 5



N2598-C

FIG. 15 Side Moulding Installation – LTD II

RANCHERO

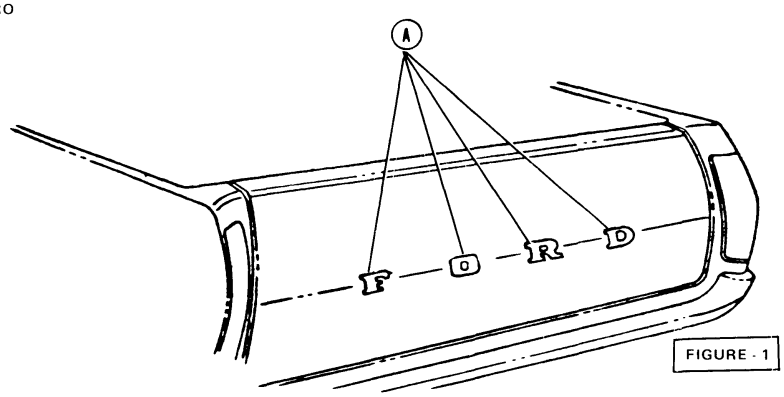
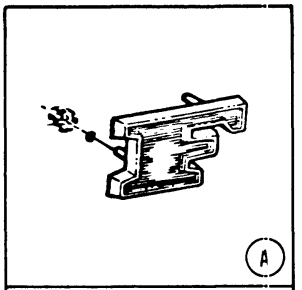
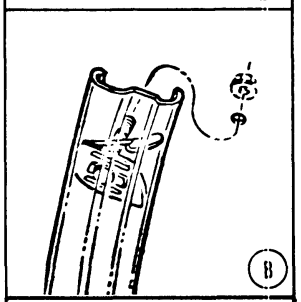


FIGURE - 1

MODEL 97D & 97R ONLY





RANCHERO

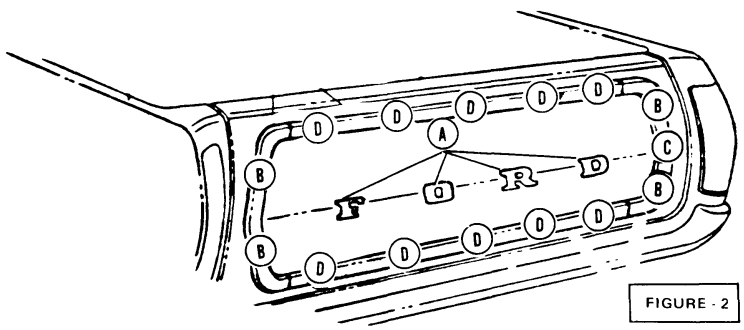
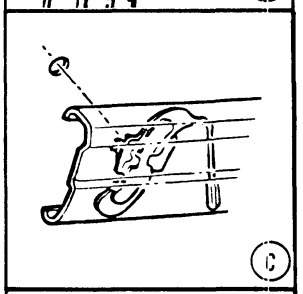
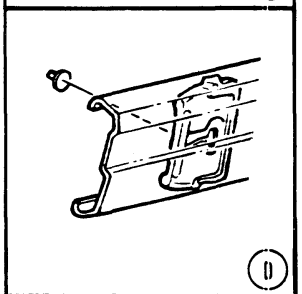


FIGURE - 2

MODEL 97K ONLY





STATION WAGON

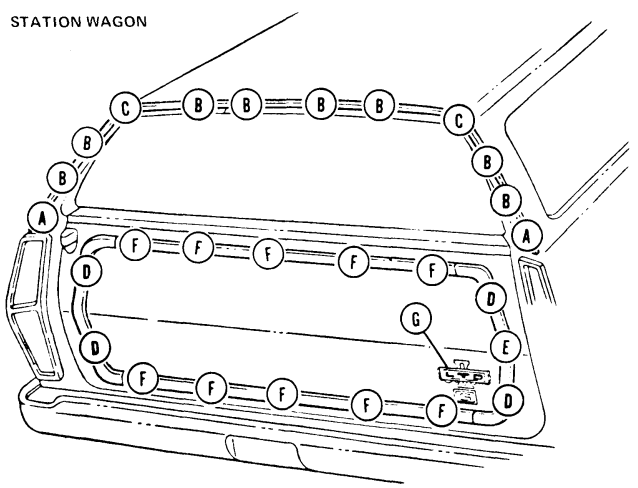


FIGURE - 3

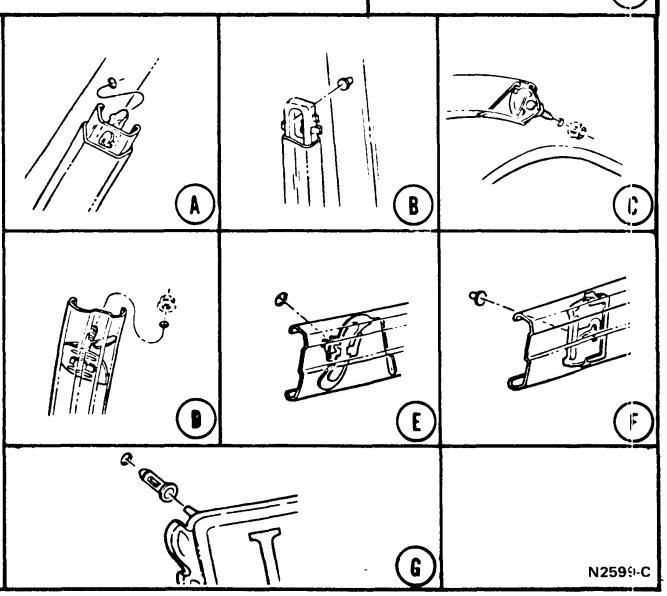


FIG. 16 Rear Exterior Moulding Installation and Ornamentation – LTD II

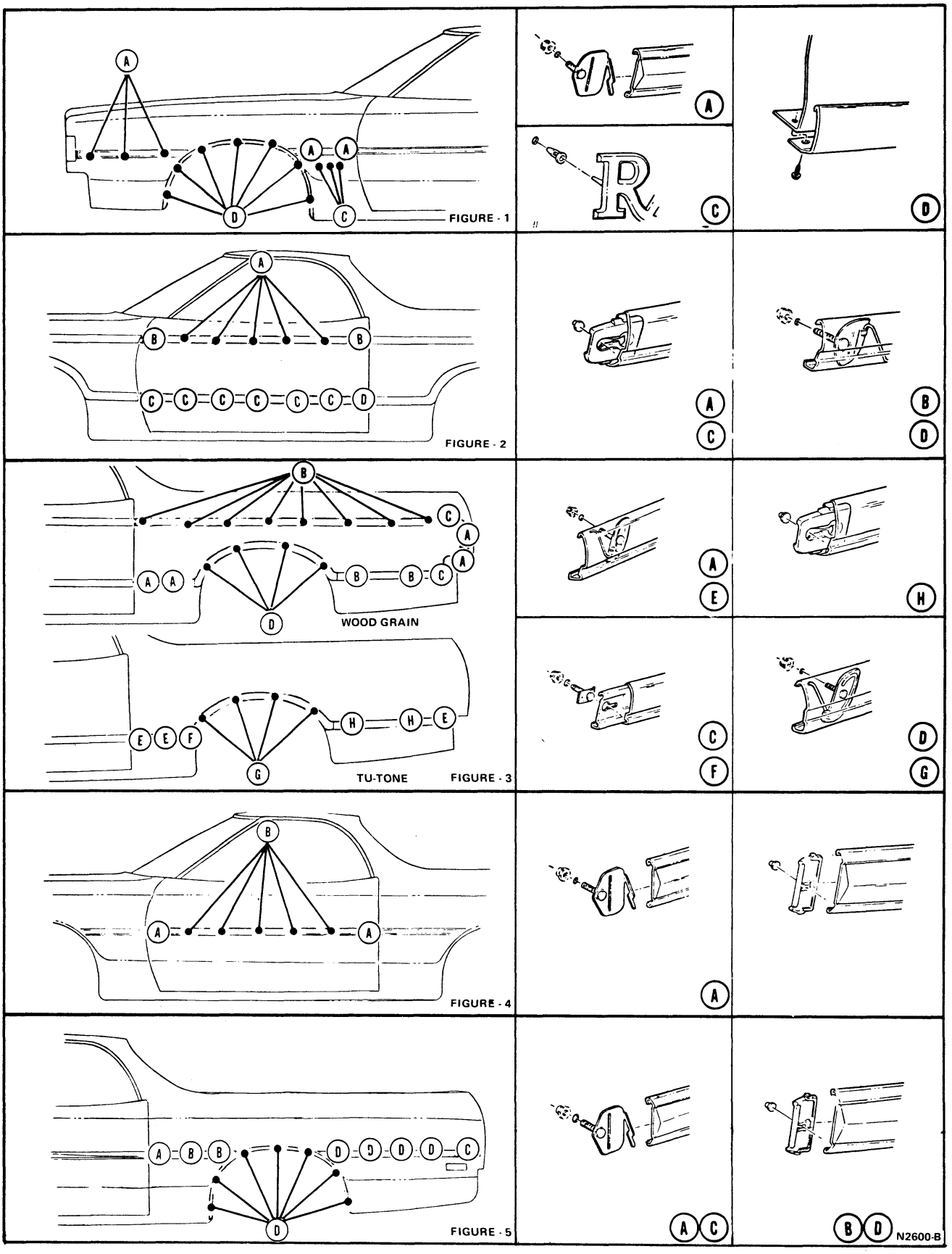
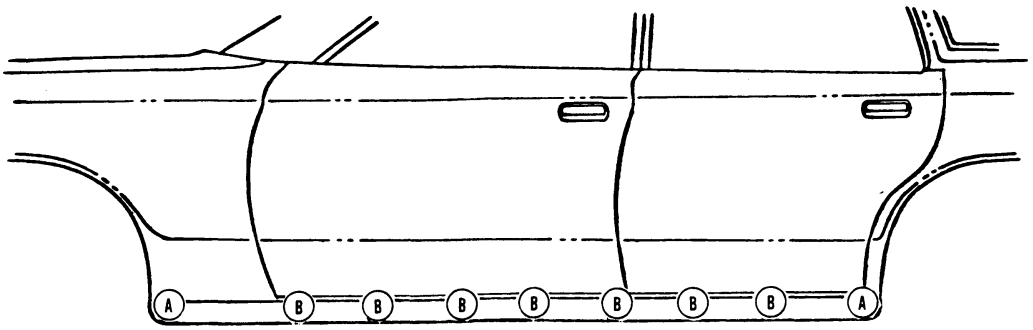
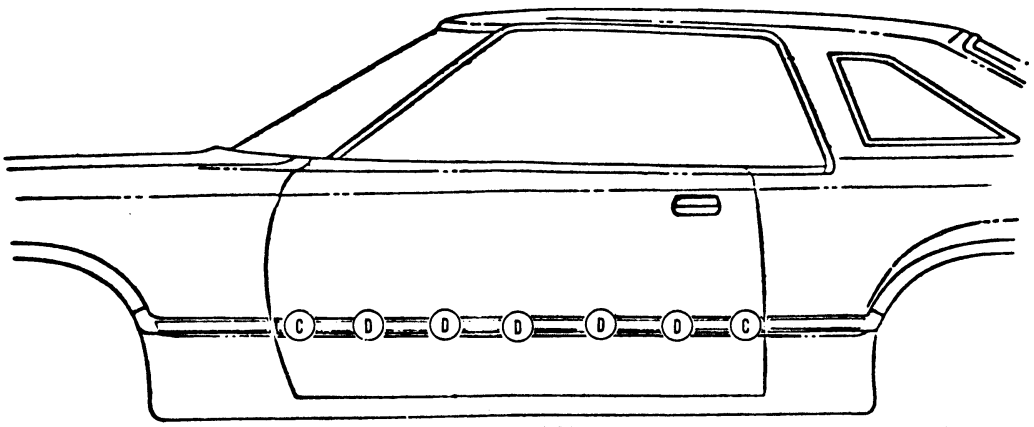


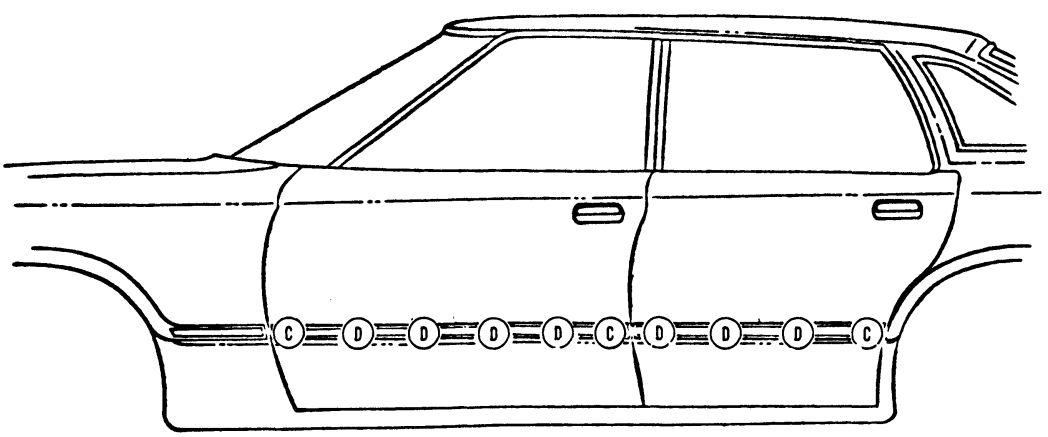
FIG. 17 Exterior Moulding Installation – LTD II and Ranchero



MODEL 53-71, MODEL 65 SIMILAR FIGURE - 1



MODEL 65 FIGURE - 2



MODEL 53 FIGURE -3

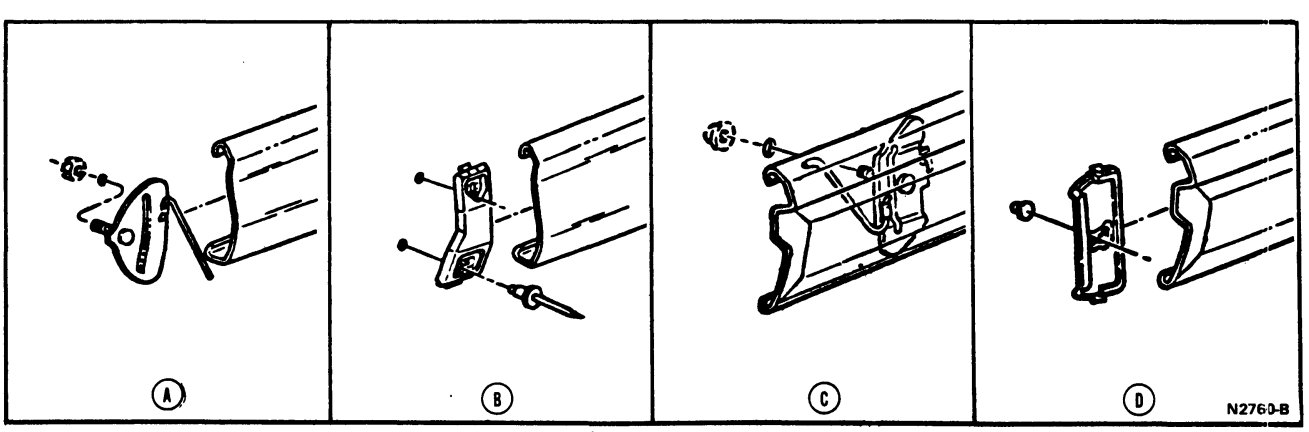


FIG. 18 Exterior Side Moulding Installation – Cougar

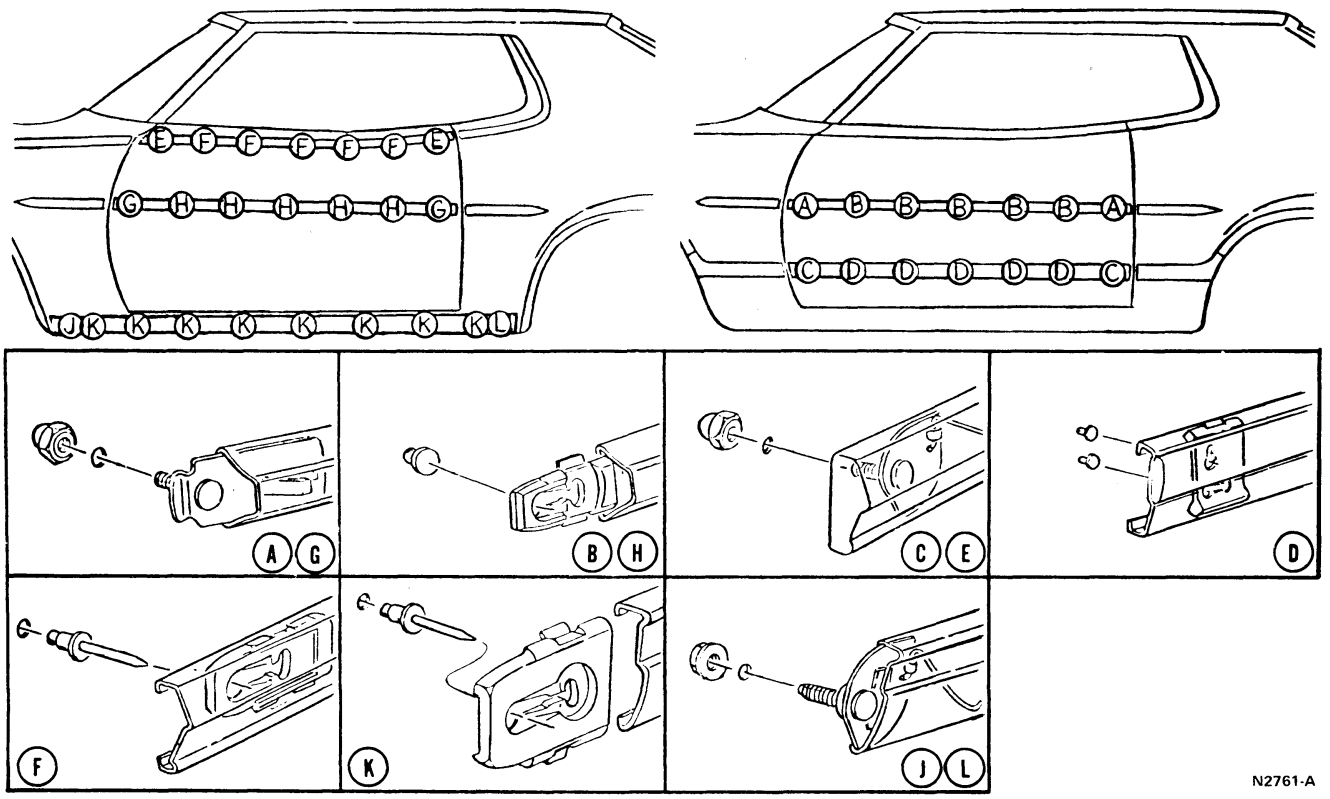


FIG. 19 Exterior Side Moulding Installation – Cougar

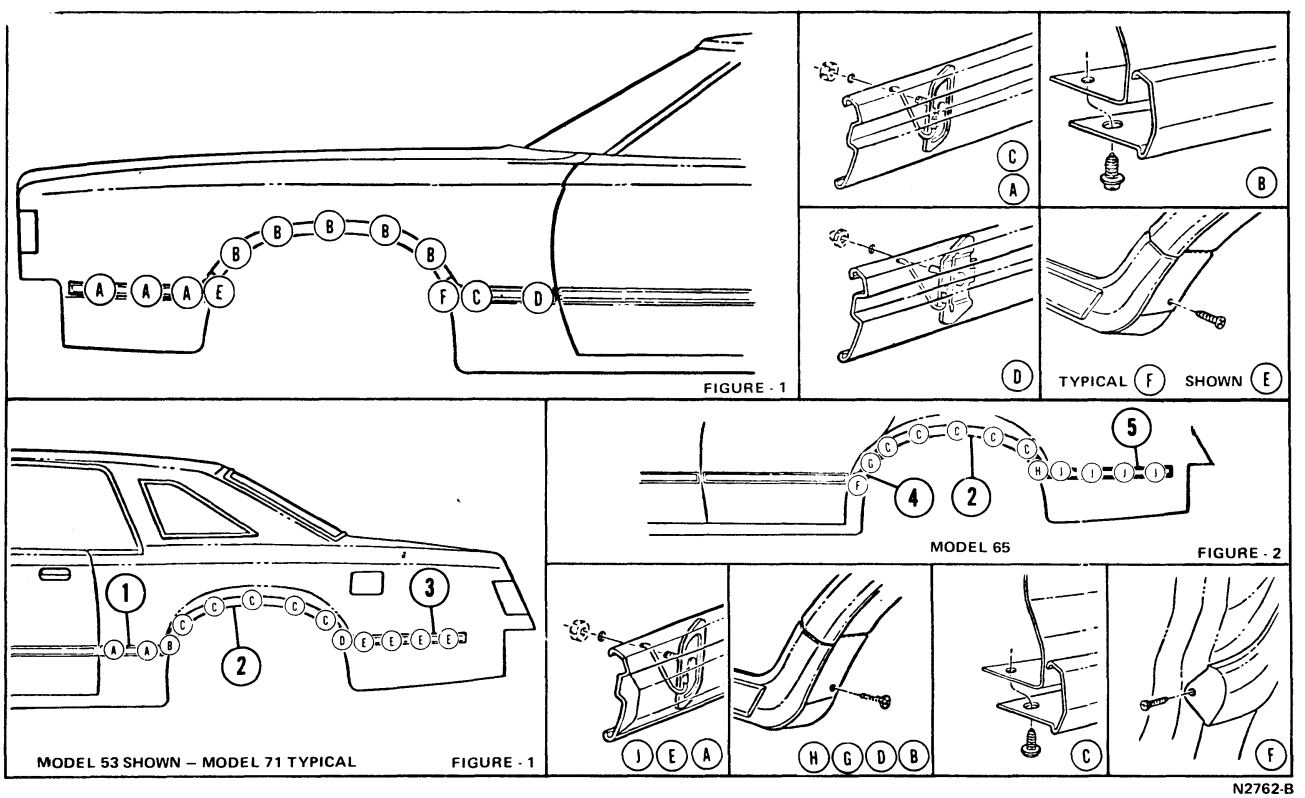


FIG. 20 Exterior Side Moulding Installation – Cougar

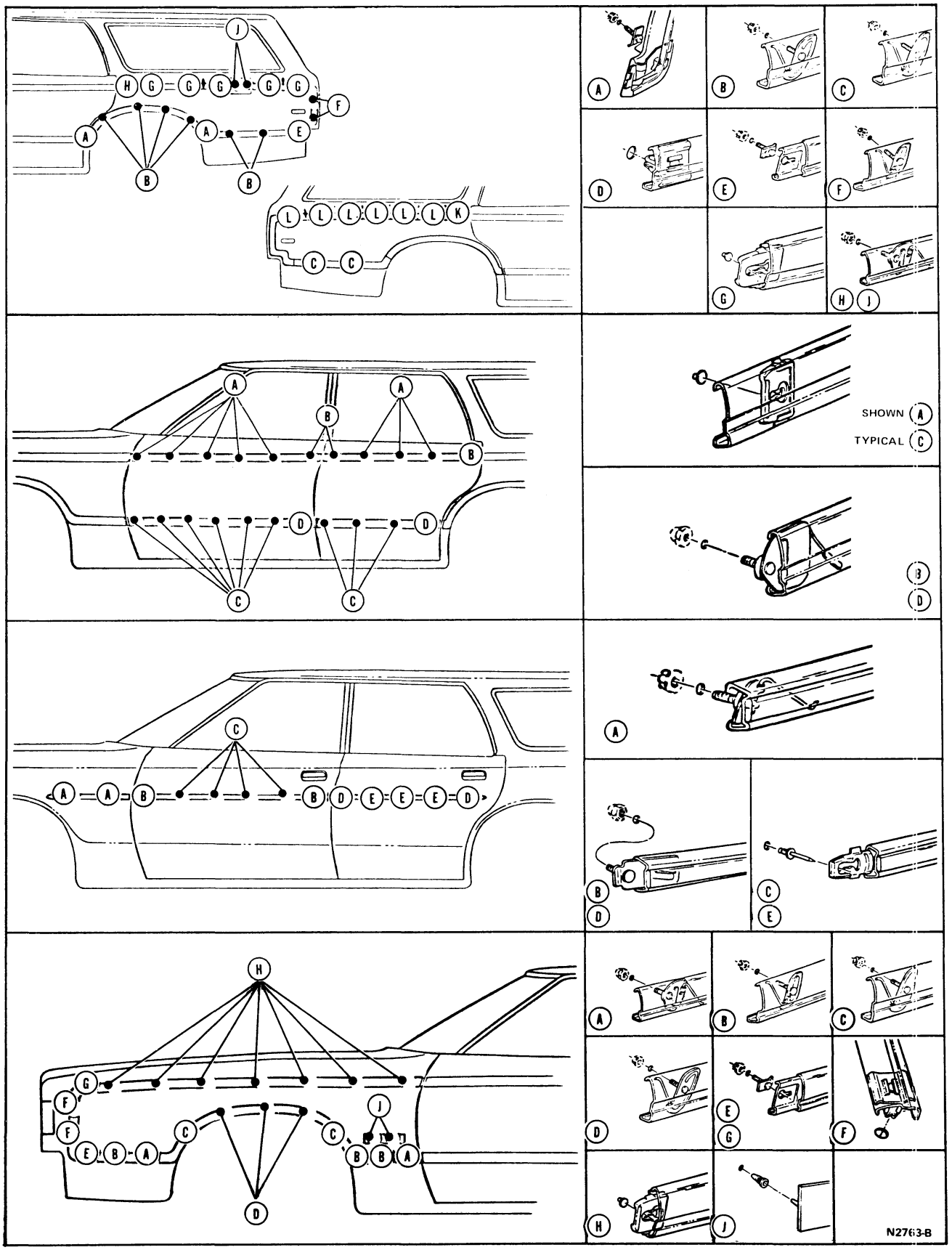


FIG. 21 Exterior Side Moulding Installation – Cougar Station Wagon

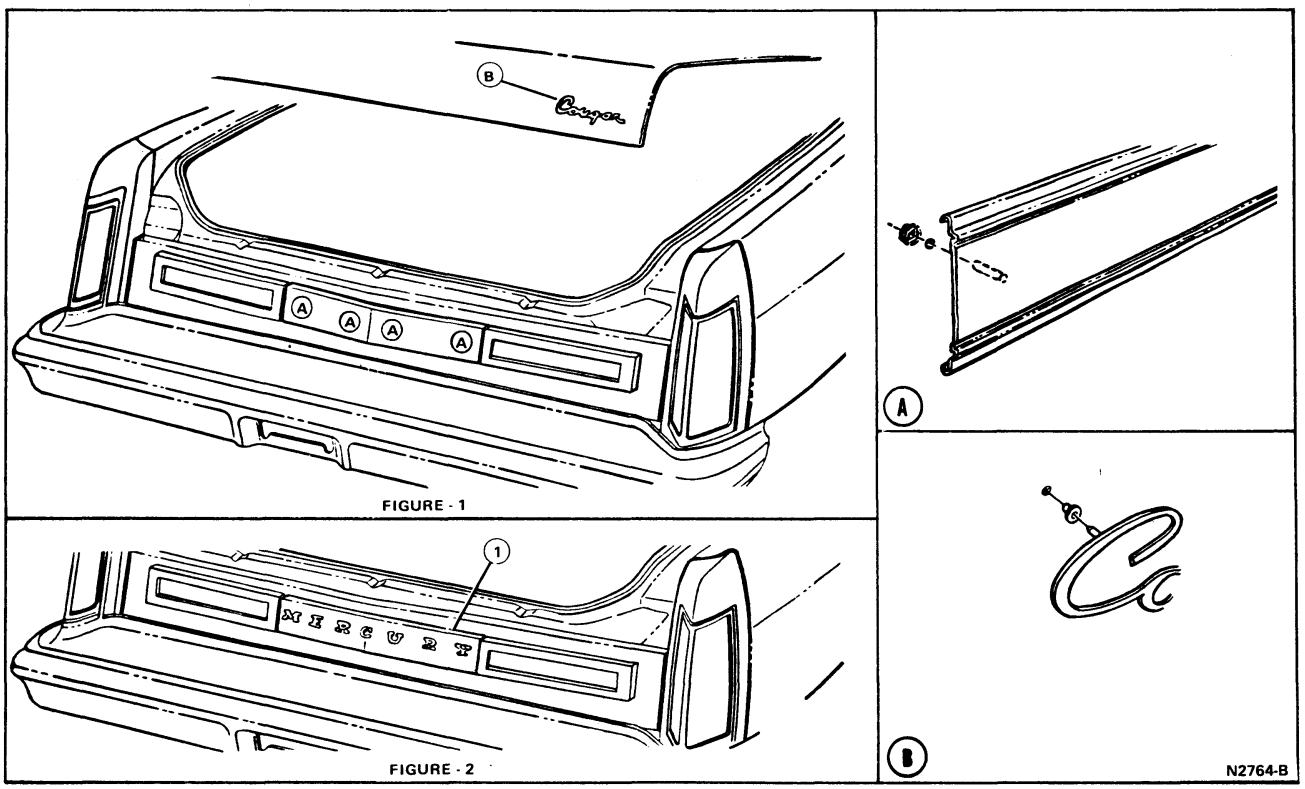


FIG. 22 Exterior Side Moulding Installation – Cougar Station Wagon

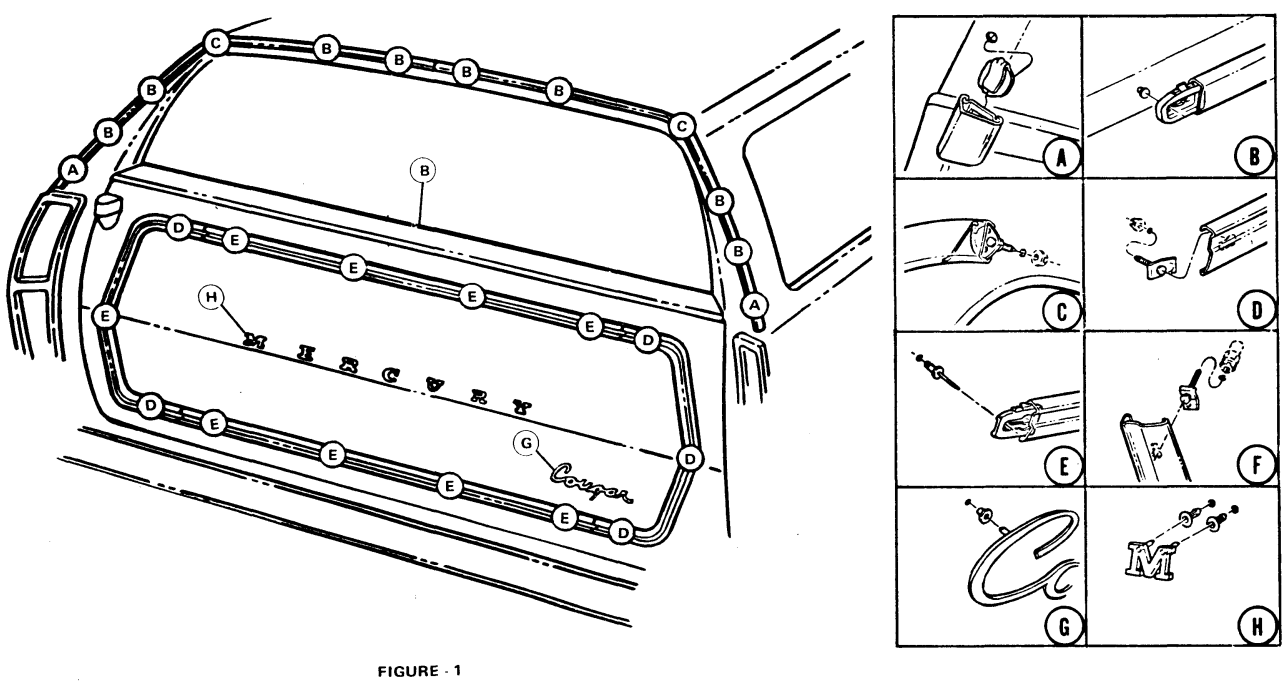


FIG. 23 Exterior Rear Moulding Installation – Cougar Squire Station Wagon

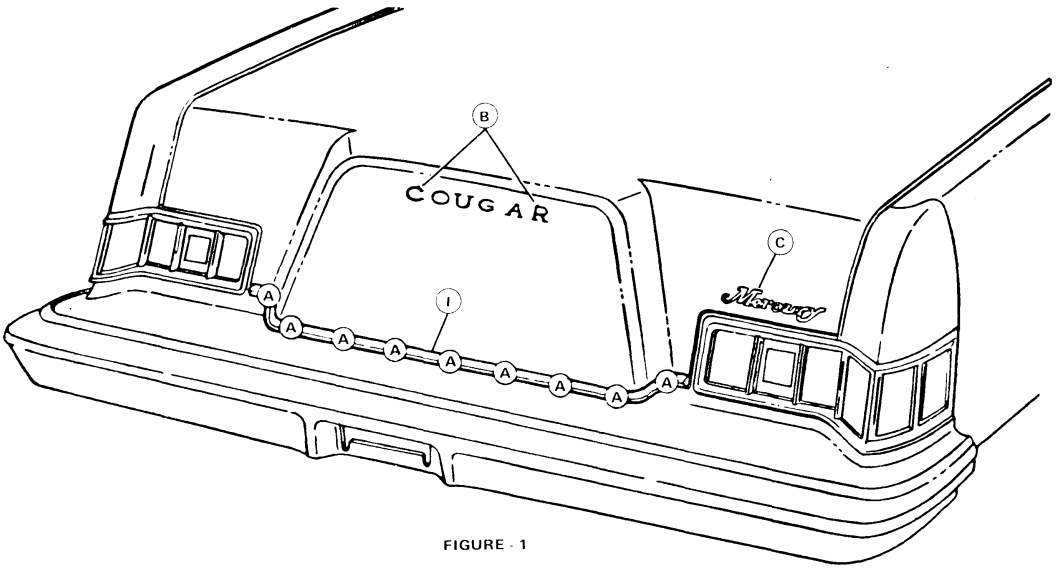
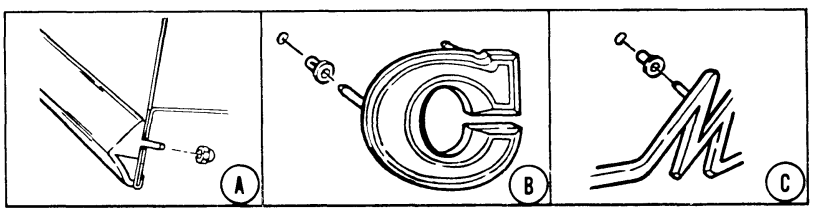


FIGURE - 1



N2766-B

FIG. 24 Rear Exterior Moulding Installation – Cougar XR7

FRAME AND BODY MOUNTS

1977 LTD II, COUGAR & 2 DOOR & 4 DOOR

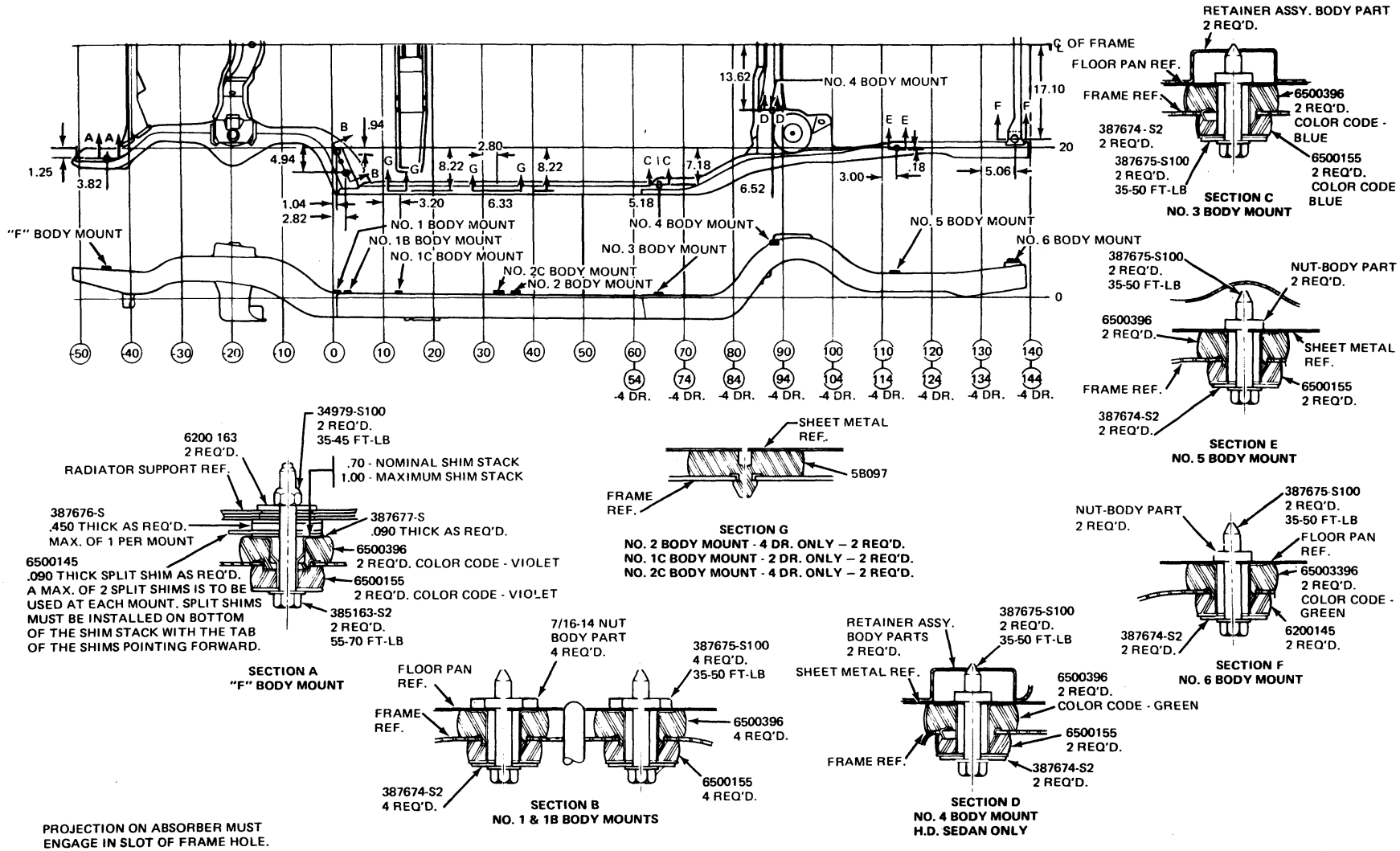
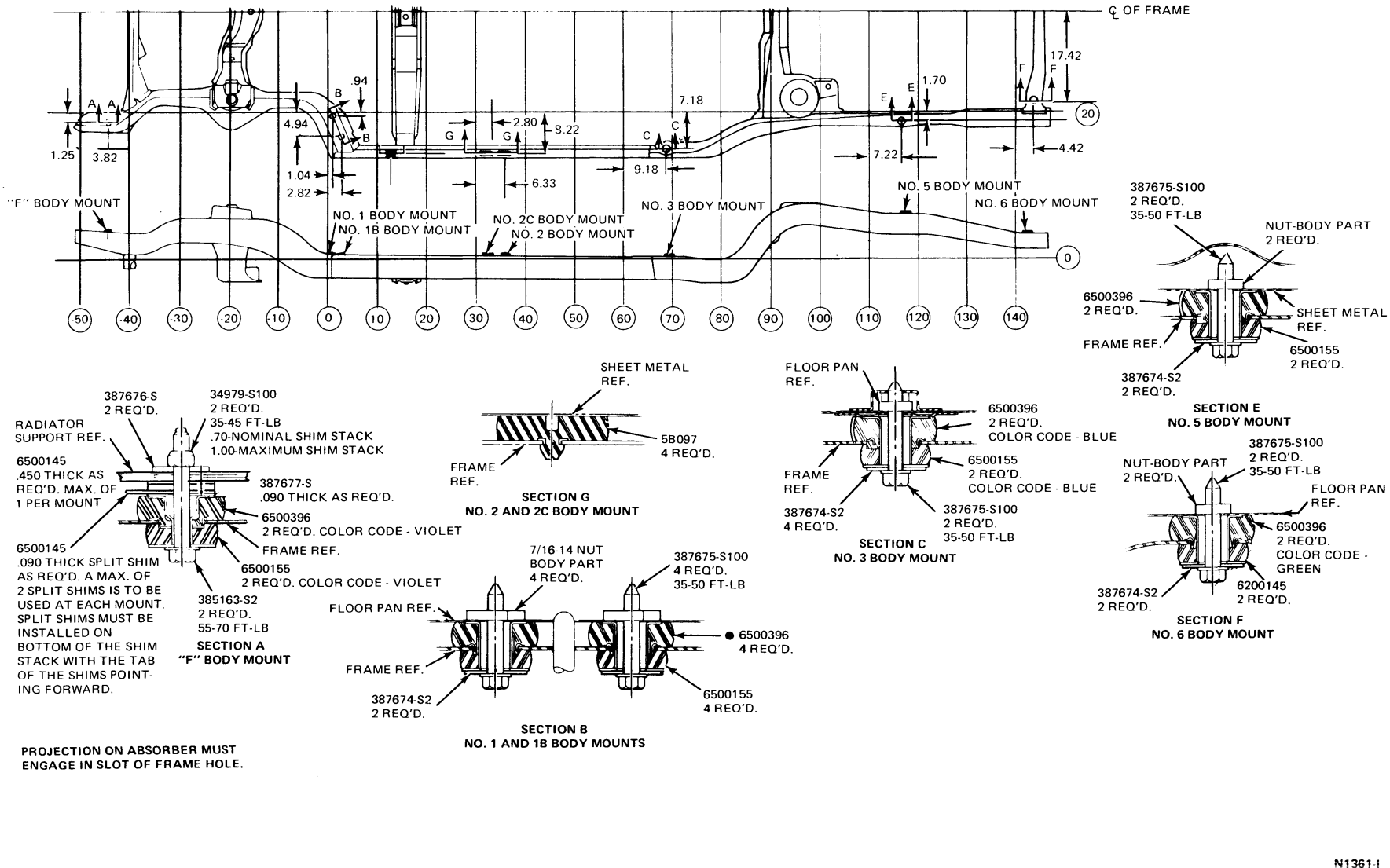


FIG. 25 Frame Dimensions – Sedan – LTD II and Cougar

FRAME AND BODY MOUNTS
1977 LTD II & COUGAR STATION WAGON



N1361-I

FIG. 26 Frame Dimensions – Torino and Cougar Station Wagon and Ranchero

Maverick and Comet

PART 47-08

SUBJECT	PAGE
REMOVAL AND INSTALLATION	
Exterior Mouldings	08-2
Front Bumper	08-2
Radiator Grille	08-1
REMOVAL AND INSTALLATION (Cont'd.)	
Rear Bumper	08-2
Underbody Dimensions	08-2

CN2874-A

REMOVAL AND INSTALLATION

RADIATOR GRILLE

Maverick and Comet

Removal

1. Comet—Open the hood and remove the two retaining screws in the center of the grille and one snap rivet at each end of the grille (Fig. 1).
2. Maverick—Open the hood and remove two screws at the top center of the grille, and one screw behind the grille at the center (Fig. 1). Remove the snap rivet at each upper corner of the grille.
3. Disconnect the parking light wires at the multiple connectors. Remove the two metal screws attaching the parking light ground wires at the

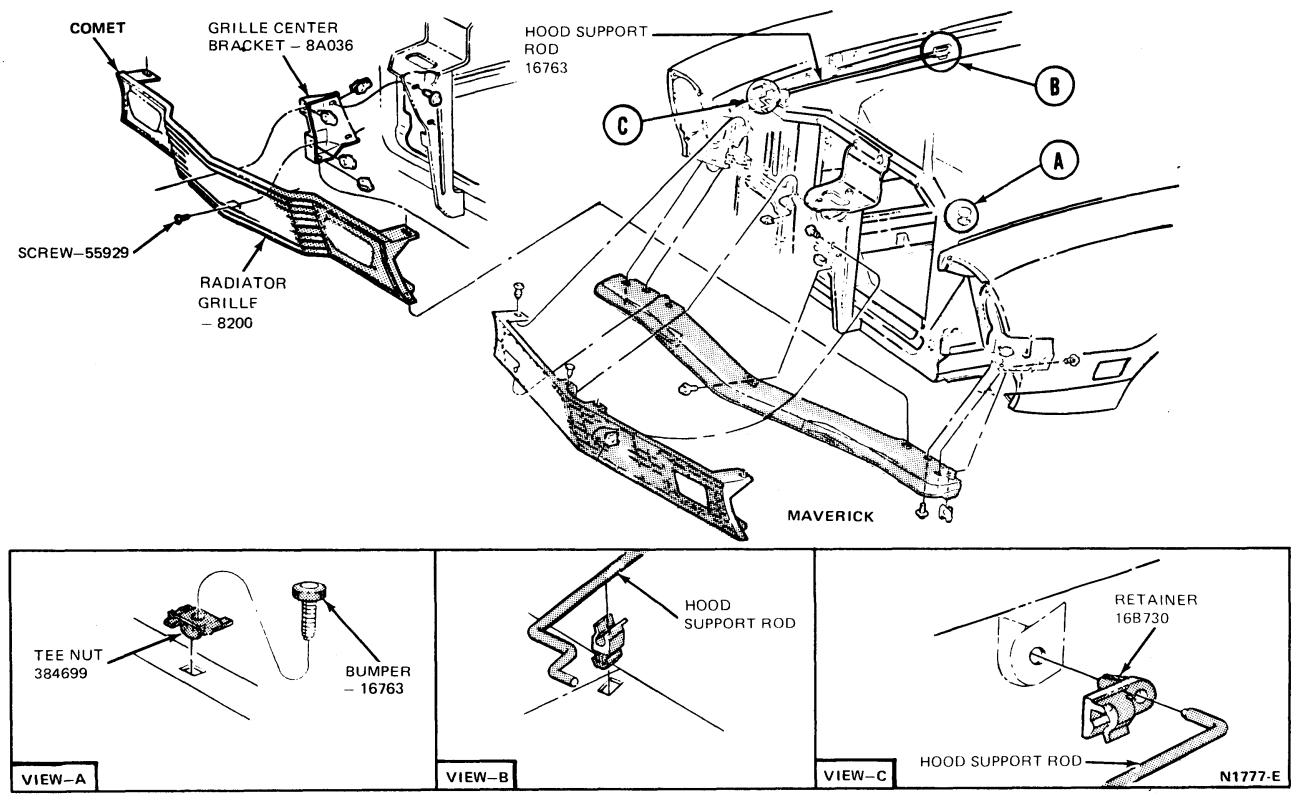


FIG. 1 Radiator Grille—Maverick Shown—Comet Similar

radiator support. Remove the parking light bracket attaching screws, and remove the grille and parking lights.
4. Remove the parking lights and grille mounting brackets from the grille.
5. Center bar: spread snap-on fingers and remove.

Installation

1. If a new grille is being installed, transfer the lower locating pin grommets to the new grille.
2. Position the parking lights and grille mounting brackets to the grille. Install the two retaining nuts for each parking light and support.
3. Position the grille assembly to the vehicle. Be sure the lower locating pins are inserted into the stone deflector's grommets.
4. Connect the parking light wire connectors and install the two screws attaching the parking light ground wires to the radiator support.
5. Install the two center grille support retaining screws (Comet) or three screws (Maverick), and the grille end to mounting bracket's snap rivets.

FRONT BUMPER

Maverick and Comet

Removal

1. Raise the front of the vehicle.
2. Remove six bolts attaching the bumper assembly to the isolators and remove the bumper (Fig. 2).
3. Remove the license plate and bracket assembly.
4. Remove the screws attaching the stone deflector to the reinforcement. (Comet Only).
5. Remove the reinforcement assembly from the bumper.

Installation

1. If a new bumper is installed, transfer the bumper guards (Fig. 2). Attach the license plate retaining nuts to the bumper.
2. Position the reinforcement to the bumper and install the attaching bolts and nuts.
3. Position the stone deflector to the reinforcement and install the attaching screws. (Comet Only).
4. Install the license plate and bracket assembly.
5. Position the bumper assembly to the vehicle and install the attaching bolts snug.
6. Adjust the bumper height so that the distance from the top edge of the ground meets the specifications in Fig. 4. Then, adjust the bumper for body clearance so that the vertical and horizontal body to bumper dimensions meet specifications in Fig. 4. Tighten the isolator- to-reinforcement attaching bolts to 35-50 ft-lbs torque. Tighten absorber to underbody mounting bolts to 90-120 ft-lbs torque.

REAR BUMPER

Maverick and Comet

Removal

1. Disconnect the license plate lamp wiring at the socket behind the reinforcement.
2. Remove four bolts attaching the reinforcement to the isolators, and remove the bumper assembly.
3. Remove the license bracket from the bumper. Remove two screws retaining the license plate light to the bumper and remove the light.
4. Remove the nuts and bolts attaching the reinforcment to the bumper, and separate the reinforcement and bumper guards (if so equipped) from the bumper (Fig. 3).

Installation

1. Position the reinforcement and bumper guards (if so equipped) to the bumper, and install the bolts and nuts. Tighten nuts to specification given in Fig. 3.
2. Install the license bracket on bumper, and tighten bolts to specification (Fig. 3). Position the license plate light to the bumper and install the two attaching screws.
3. Position bumper assembly to the isolator and install the attaching bolts.
4. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 4. Then adjust the bumper for body clearance at the centerline of the tail lamp so that the vertical dimension meets the specifications in Fig. 4. Tighten the isolator-to-reinforcement bolts to 35-50 ft-lbs torque.
5. Reconnect the license plate lamp wiring at the socket behind reinforcement.

EXTERIOR MOULDINGS

Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access (Figs. 5 through 11). If a weld stud is distorted or broken off, it should be replaced with an oval head blind rivet (Part No. 383229-S). Refer to General Information (Part 47-01) for installation of Pressure Sensitive Tape Type (Body Side Protection Mouldings).

UNDERBODY DIMENSIONS

The Maverick and Comet underbody dimensions are shown in Fig. 14. The underbody checking and repair procedures are given in Part 47-01.

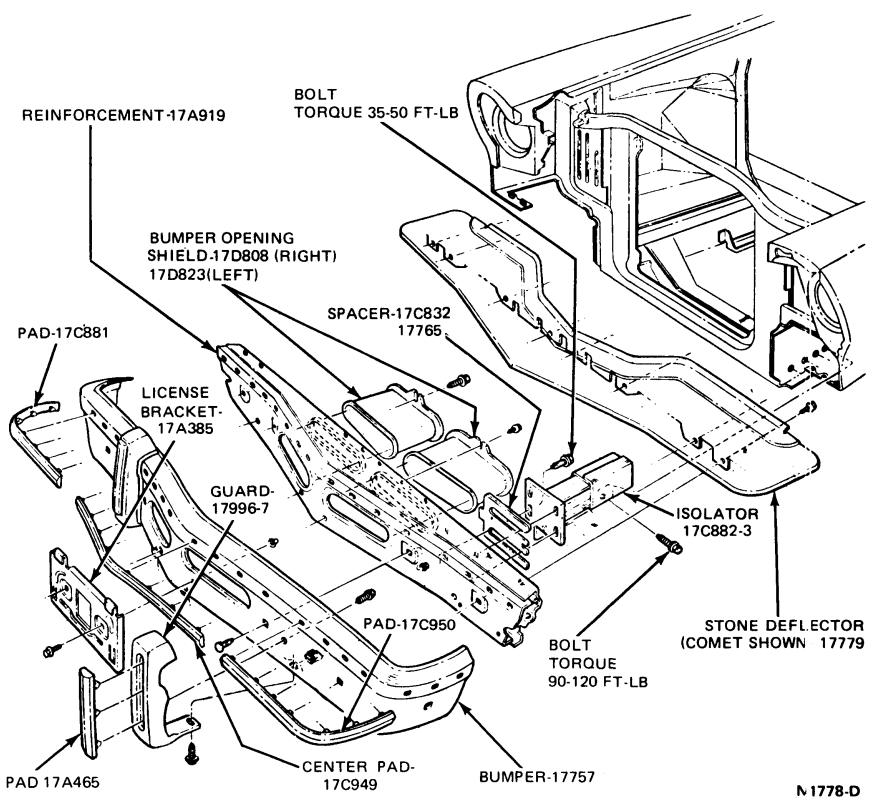


FIG. 2 Front Bumper Installation—Maverick and Comet

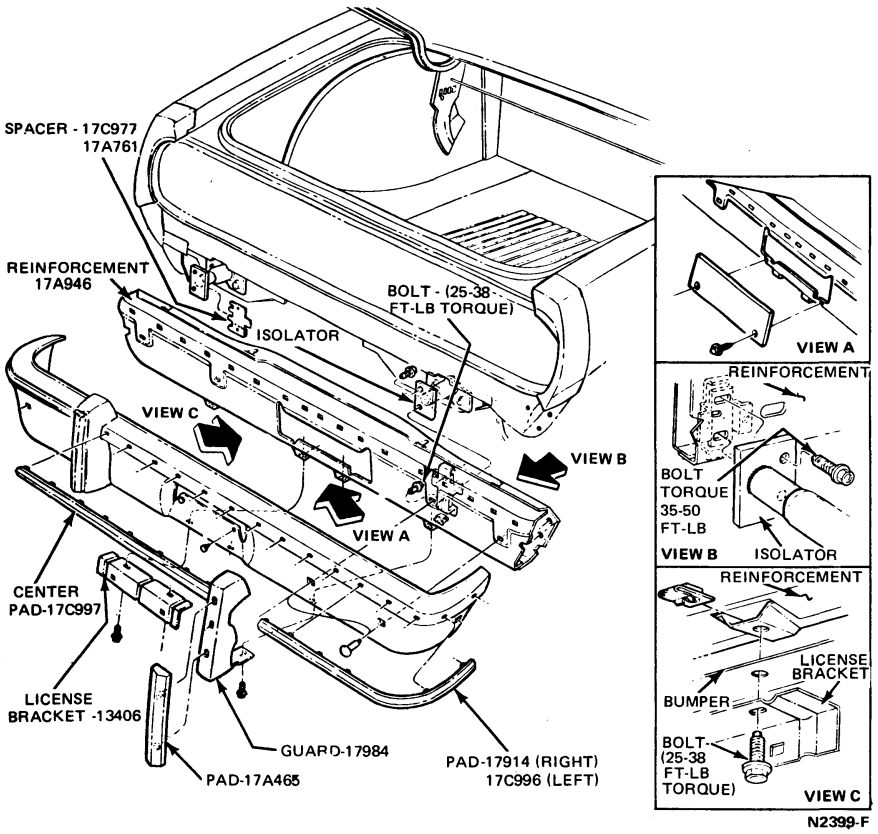


FIG. 3 Rear Bumper Installation—Maverick and Comet

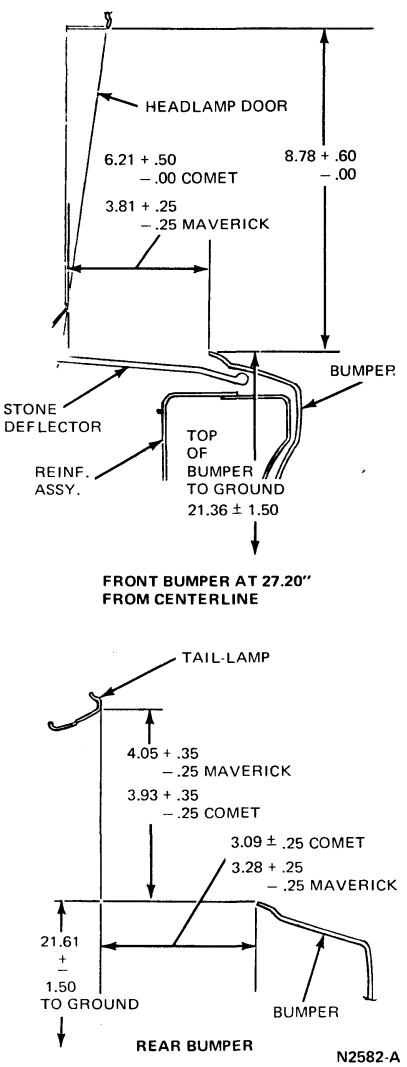
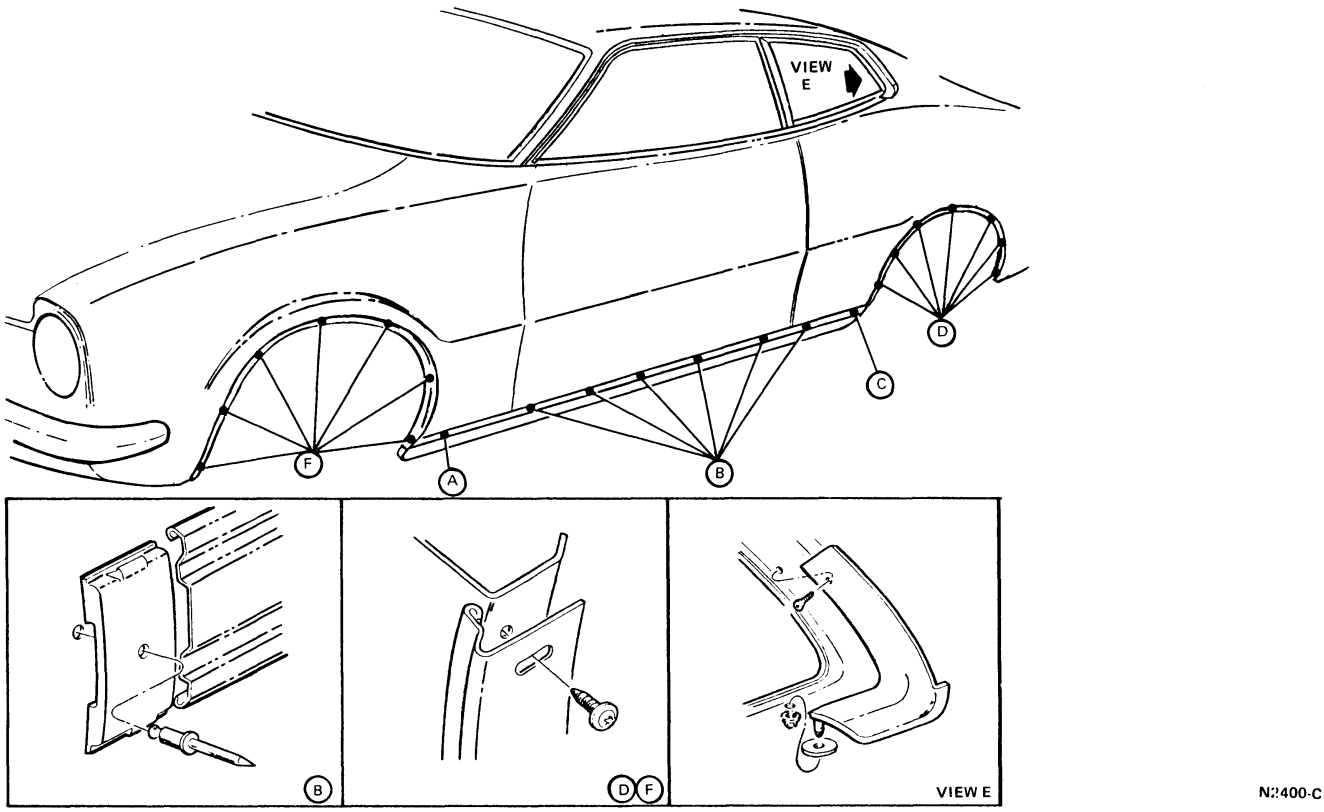
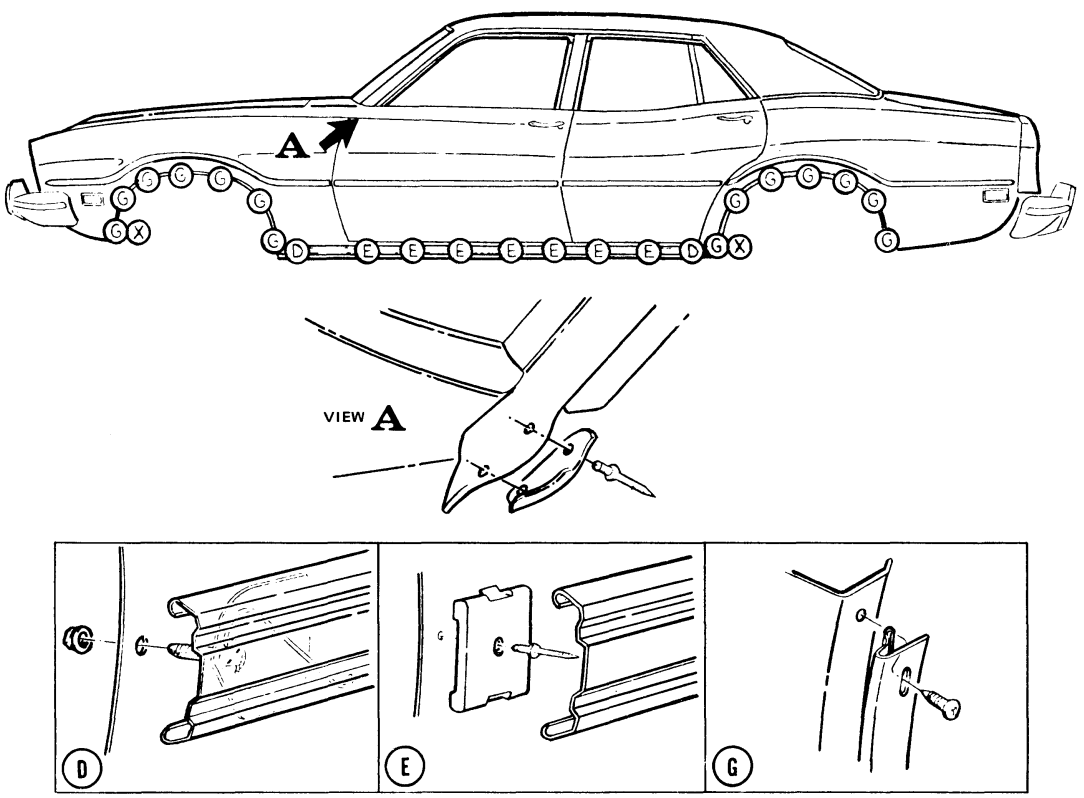


FIG. 4 Bumper Adjustment Specifications—Maverick and Comet



N2400-C

FIG. 5 Exterior Side Mouldings—Maverick—2-Door Model



N2759-C

FIG. 6 Exterior Side Moulding Installation—Maverick—4-Door Model

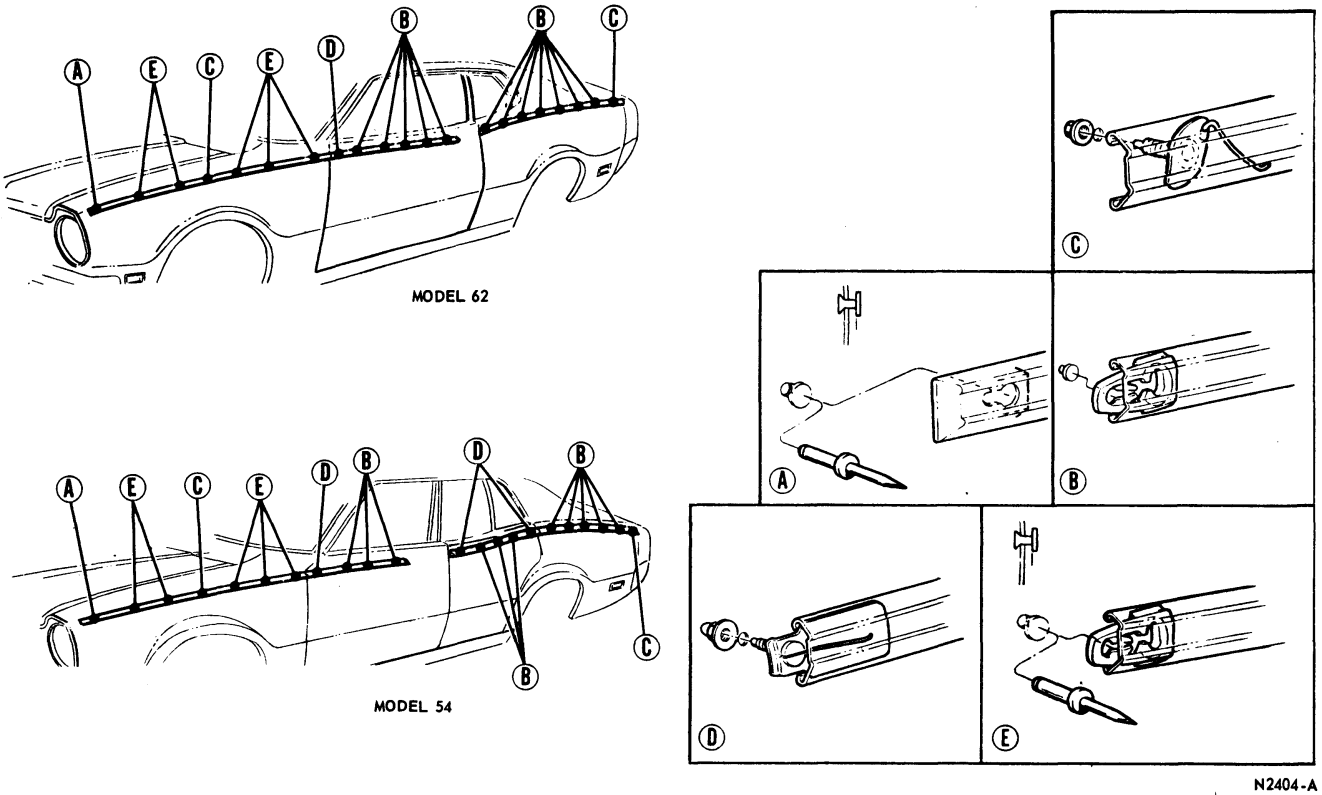
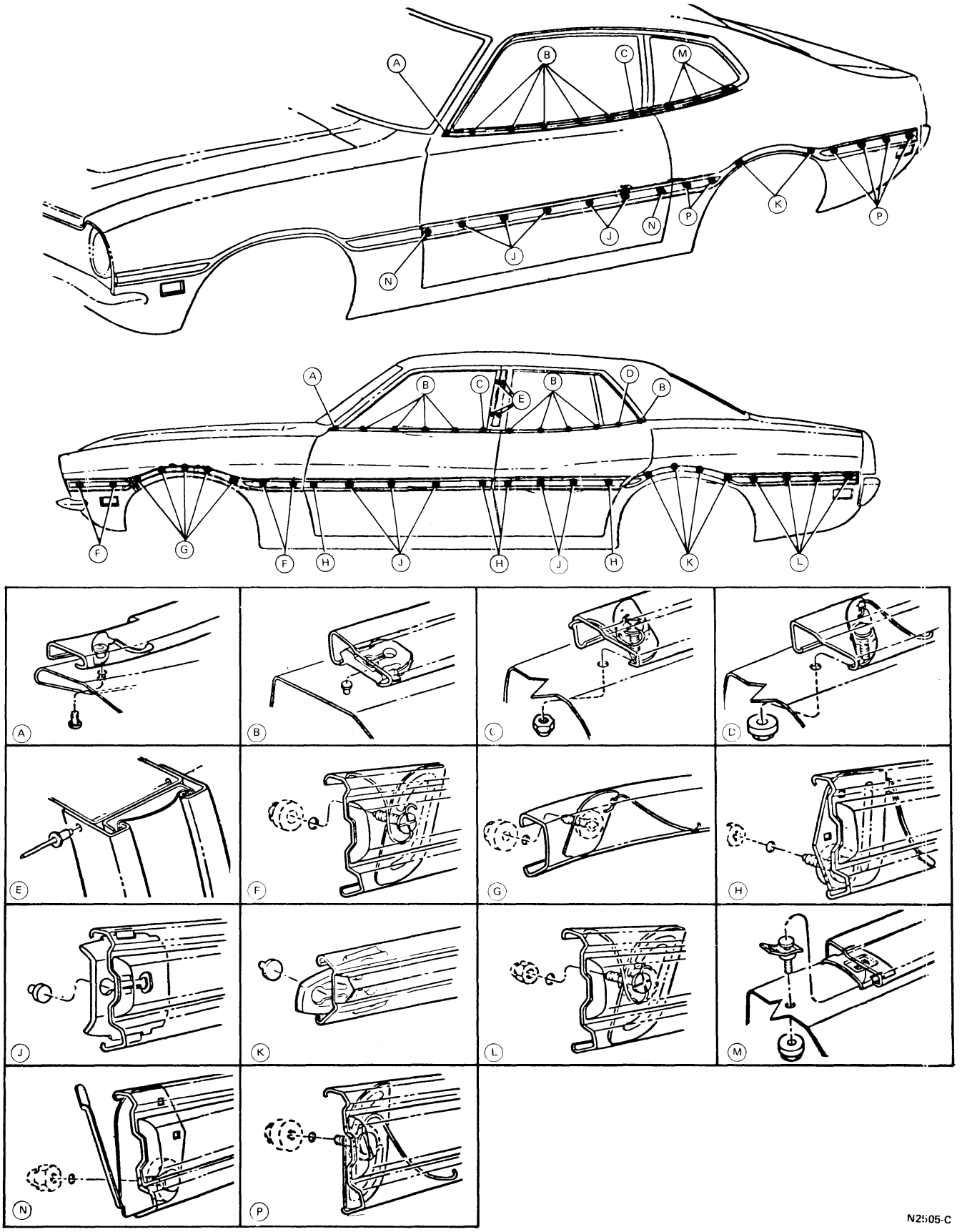


FIG. 7 Exterior Side Mouldings—Comet



N2505-C

FIG. 8 Optional Exterior Side Mouldings—Maverick and Comet

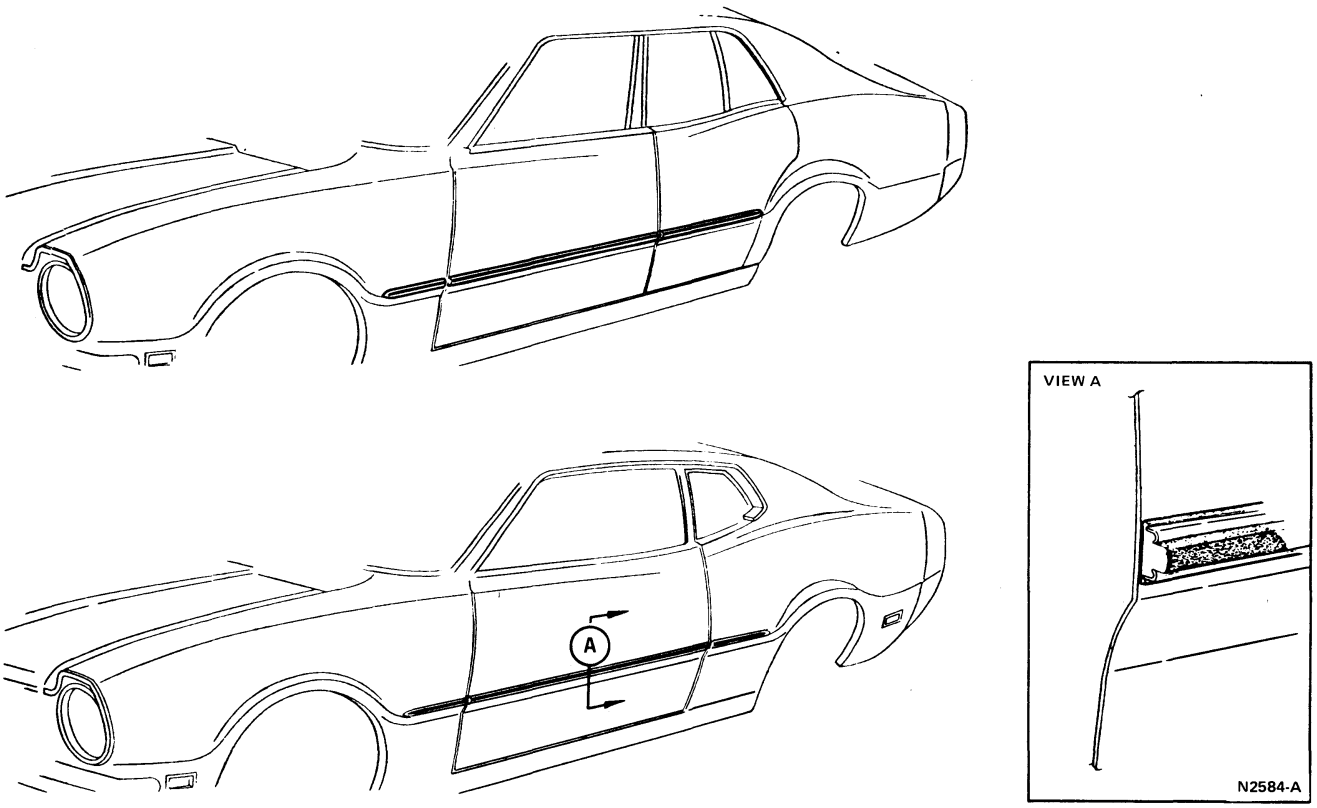
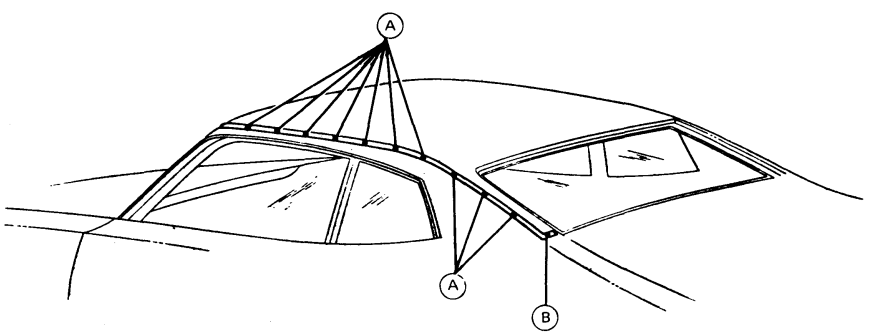


FIG. 9 Optional Exterior Side Mouldings—Pressure Sensitive Tape Installation—Maverick and Comet



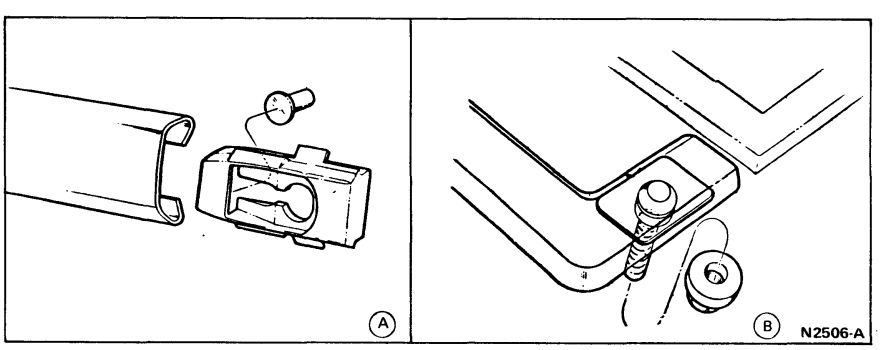


FIG. 10 Optional Roof Side Mouldings—Maverick and Comet—2-Door Model

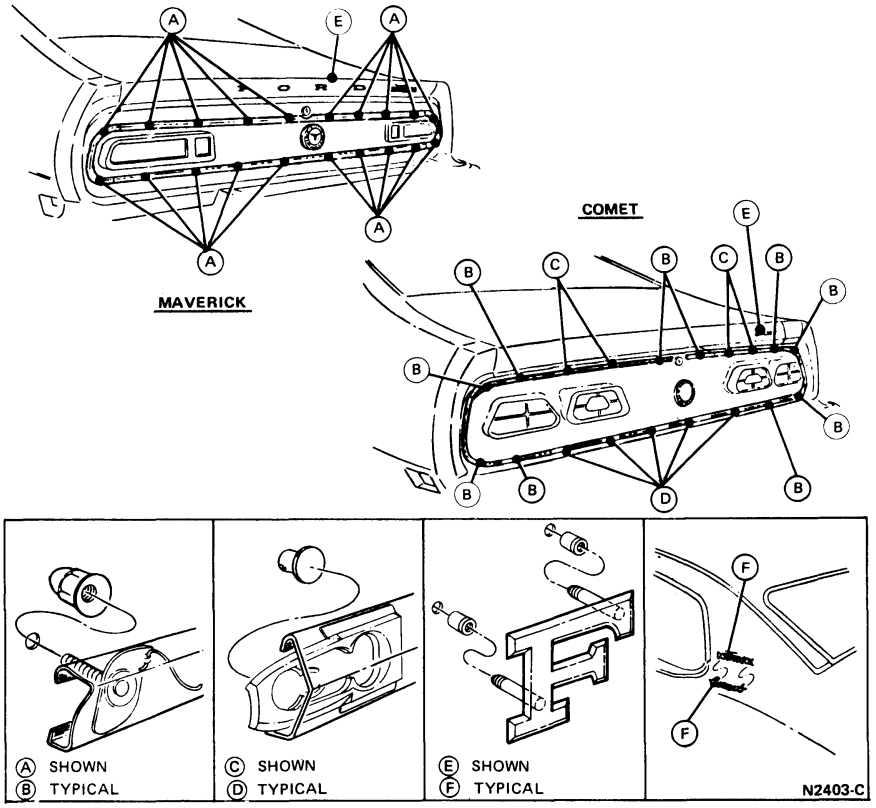


FIG. 11 Exterior Rear Mouldings—Maverick and Comet

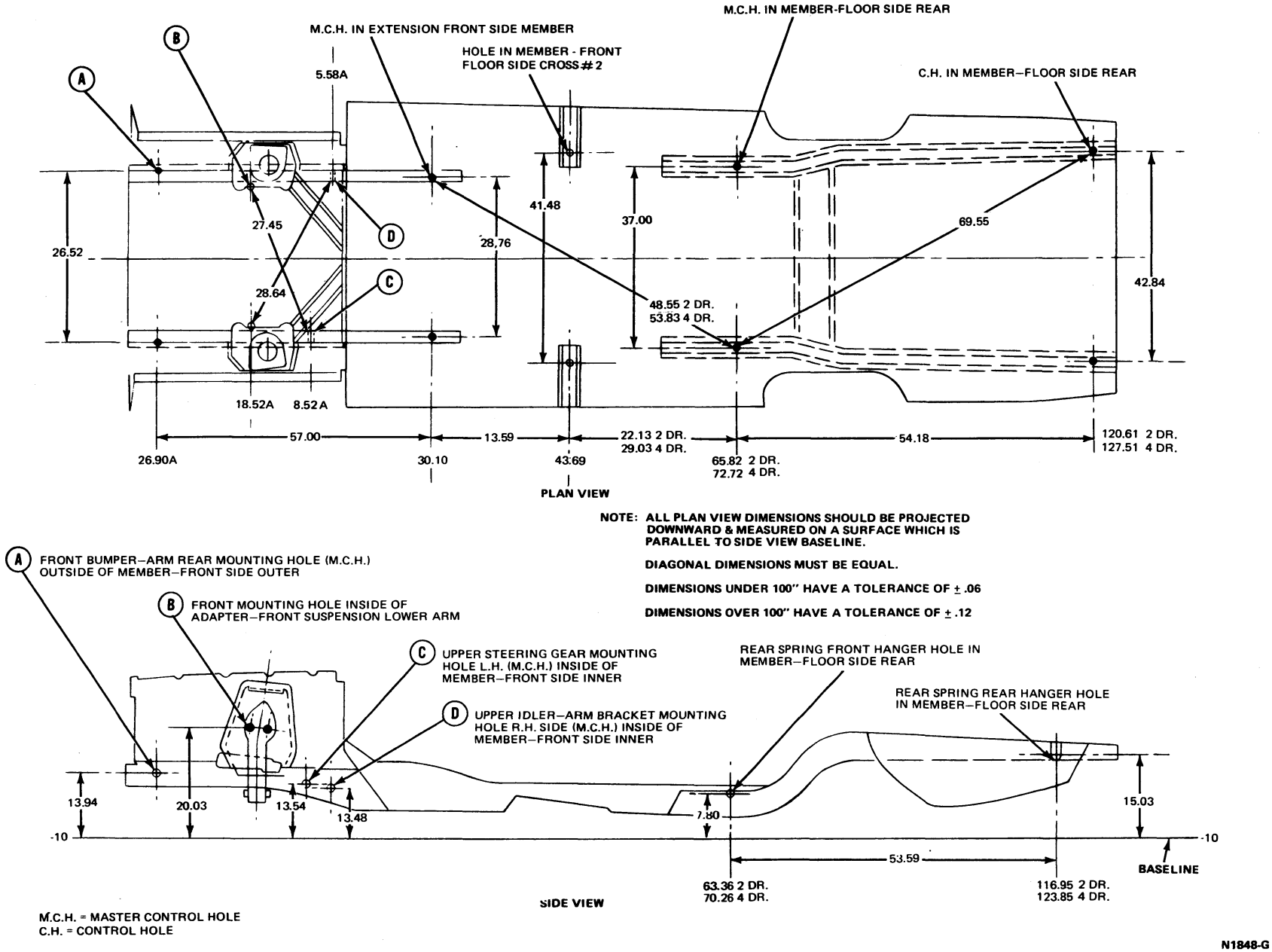


FIG. 12 Underbody Dimensions—Maverick and Comet

Pinto and Bobcat

PART 47-09

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Underbody Dimensions	09-3

CN2876-A

REMOVAL AND INSTALLATION

RADIATOR GRILLE

Pinto

Removal

1. Open the hood and remove the two parking lamp bulb and socket assemblies from the parking lamps by rotating the bulb sockets counterclockwise and pulling them out of the lamp assembly.
2. Remove six grille attaching screws (Fig. 1), and remove the grille.
3. If the grille is to be replaced, remove two screws attaching each parking lamp to the grille and install them on the replacement grille.
4. Replace any damaged clip nuts or retainers.

Installation

1. Position the grille to the vehicle and install the six attaching screws loosely.
2. Align the grille for a good appearance and tighten the six attaching screws.
3. Position the parking lamp bulb and socket assemblies in the parking lamps, and rotate the socket clockwise to lock into place in the parking lamp.
4. Check the operation of the parking lamps and turn signals.

Bobcat

Removal

1. Open the hood and remove one screw from the top of the grille, which attaches to the radiator grille mounting bracket (Fig. 2).
2. Remove one attaching screw that attaches to the hood latch support bracket, located at the bottom center of the grille.
3. Remove four attaching screws, two on each side of the grille, that attach to the parking lamp housing, and remove grille from car.

Installation

1. Position grille in vehicle and install four screws, two on each side, loosely.
2. Install lower attaching screw and upper attaching screw, loosely.
3. Adjust grille to obtain a 0.532-inch uniform gap between the sight shield and grille, and a similar uniform gap between the hood moulding and the top of the grille, then, tighten the upper and lower attaching screws.

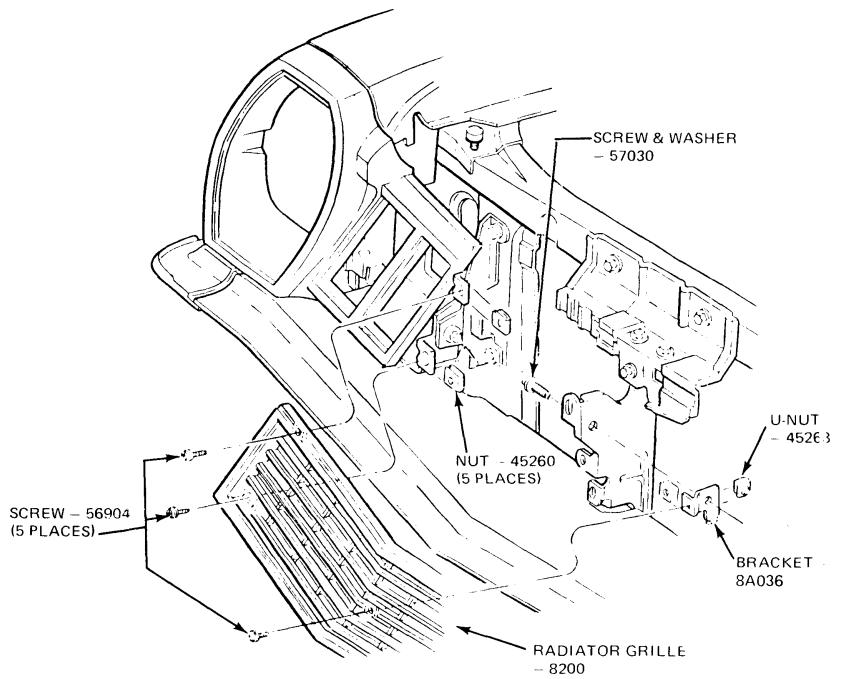


FIG. 1 Radiator Grille—Pinto

4. Tighten the four screws, two on each side of the grille.

FRONT BUMPER

Removal

1. Remove the isolator-to-reinforcement bolts and screws and remove the bumper assembly from the vehicle (Fig. 3).

Installation

1. Transfer the bumper guards, pads and license plate bracket to a new bumper if the bumper is being replaced (Fig. 3).
2. To install, position the bumper assembly to the isolators and install the attaching bolts and retaining nuts snug.
3. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 5. Then, adjust the bumper for body clearance so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 5. Tighten the isolator-to-bumper bolts to 35-50 ft-lbs torque.

REAR BUMPER

Removal

1. Remove two license light attaching screws and disconnect license plate lamp wiring from socket behind bumper.
2. Remove two bolts attaching each isolator to the bumper reinforcement and remove the bumper assembly (Fig. 4).
3. If the bumper is to be replaced, transfer the bumper guards, pads and license bracket to the new bumper.
4. Inspect the isolators for fluid leakage. If leakage is found, replace the isolator(s).

Installation

1. Install the license plate lamp assembly.
2. Position the bumper assembly to the isolators and install the attaching bolts.
3. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 5. Then, adjust the bumper for body clearance so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 5. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.
4. Connect the license lamp to the body wiring.

EXTERIOR MOULDINGS

Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access (Figs. 6 through 15). If a weld stud is distorted or broken off, it should be replaced with an oval head blind rivet (Part No. 383229-S).

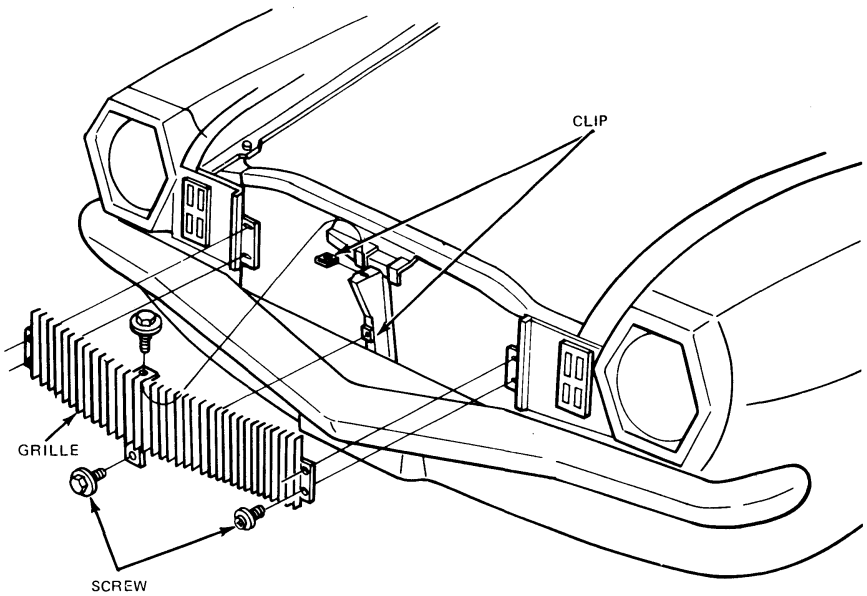


FIG. 2 Radiator Grille—Bobcat

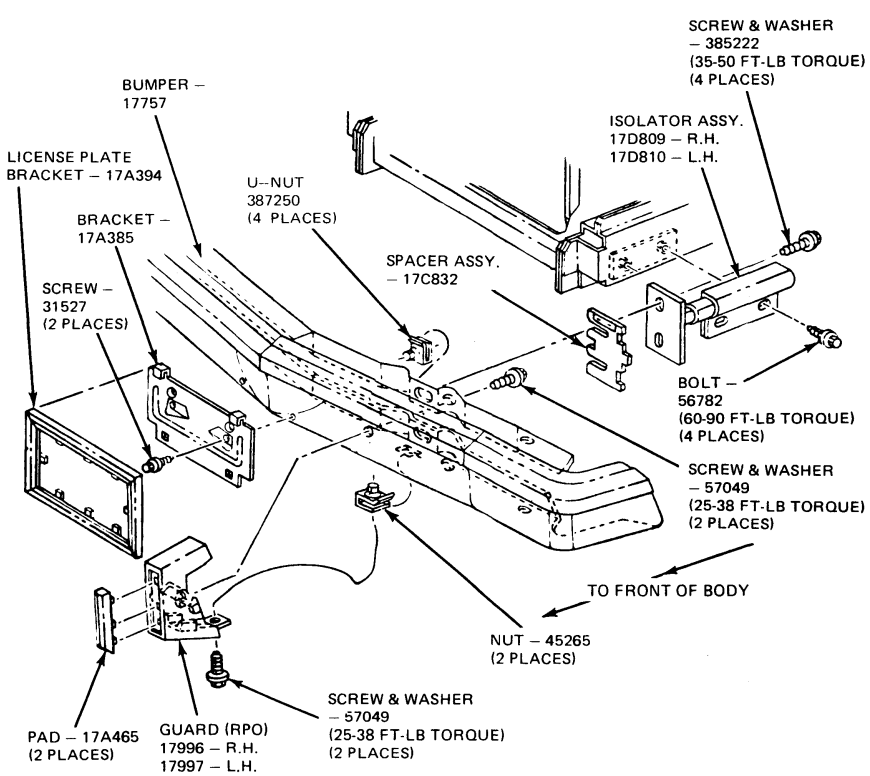
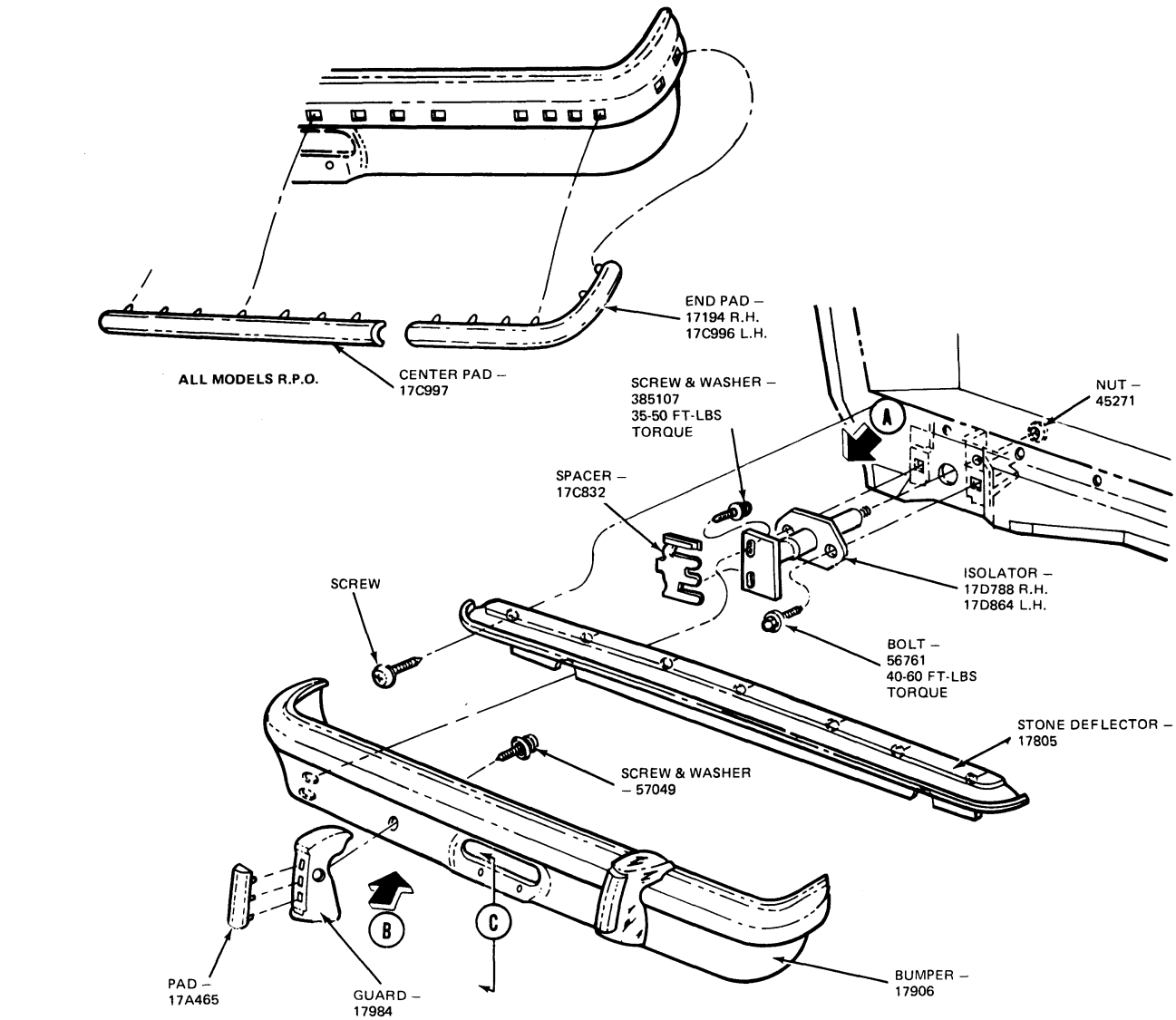
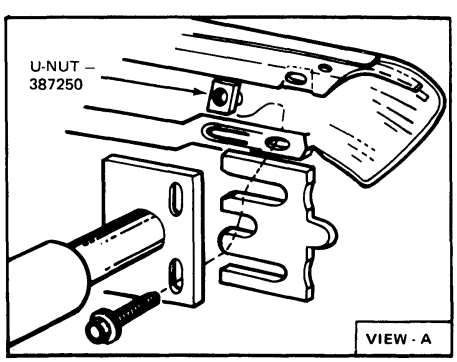
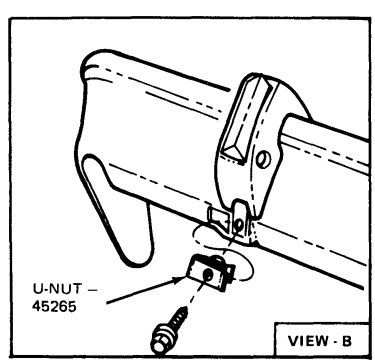


FIG. 3 Front Bumper Installation – Pinto and Bobcat







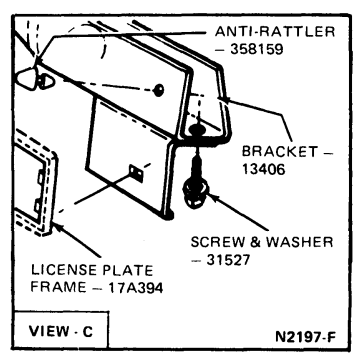


FIG. 4 Rear Bumper Installation—Pinto and Bobcat

UNDERBODY DIMENSIONS

The Pinto and Bobcat underbody dimensions are shown in Figs. 16 and 17. The underbody checking and repair procedures are given in Part 47-01.

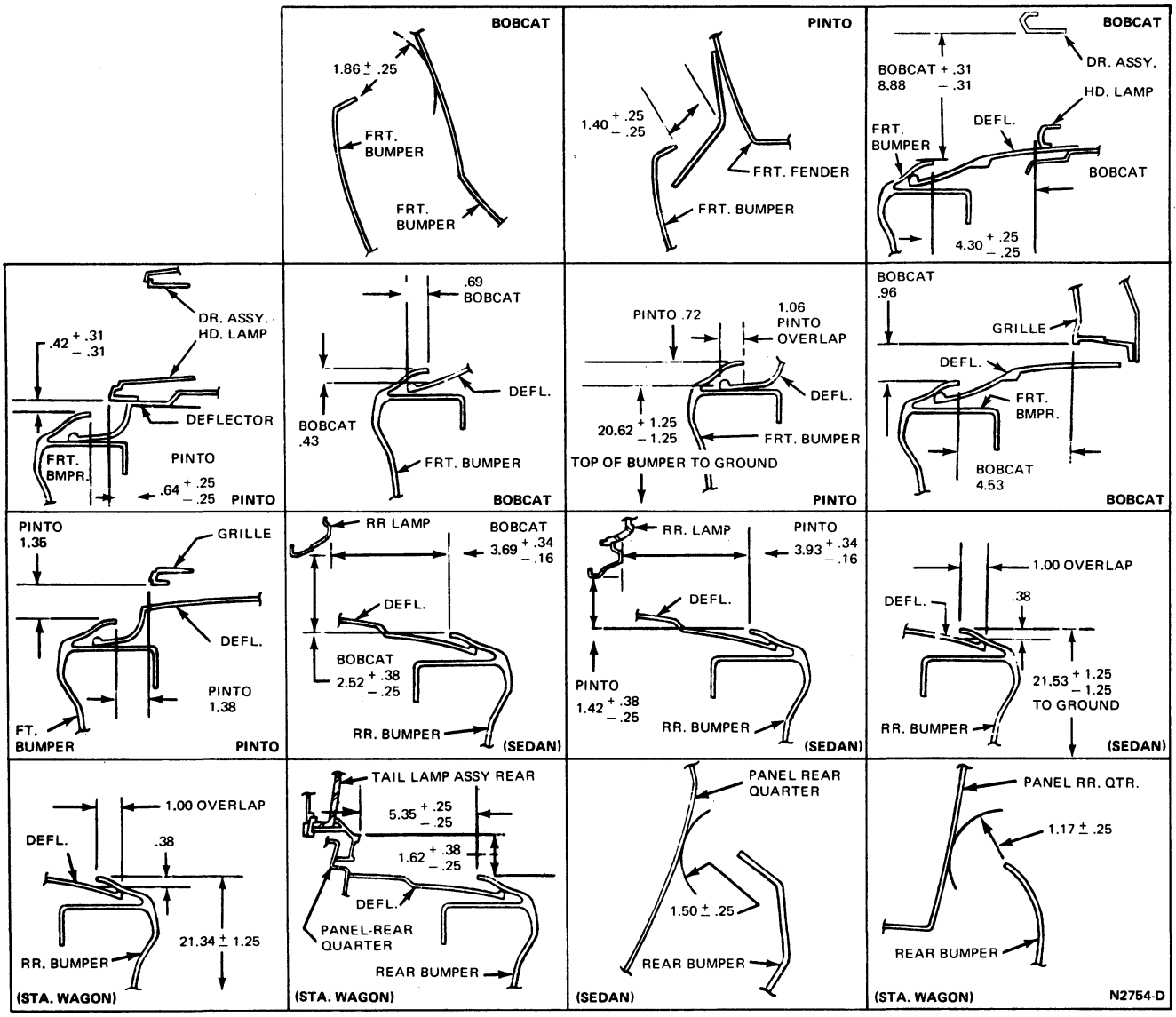


FIG. 5 Bumper Adjustment Specifications—Pinto and Bobcat

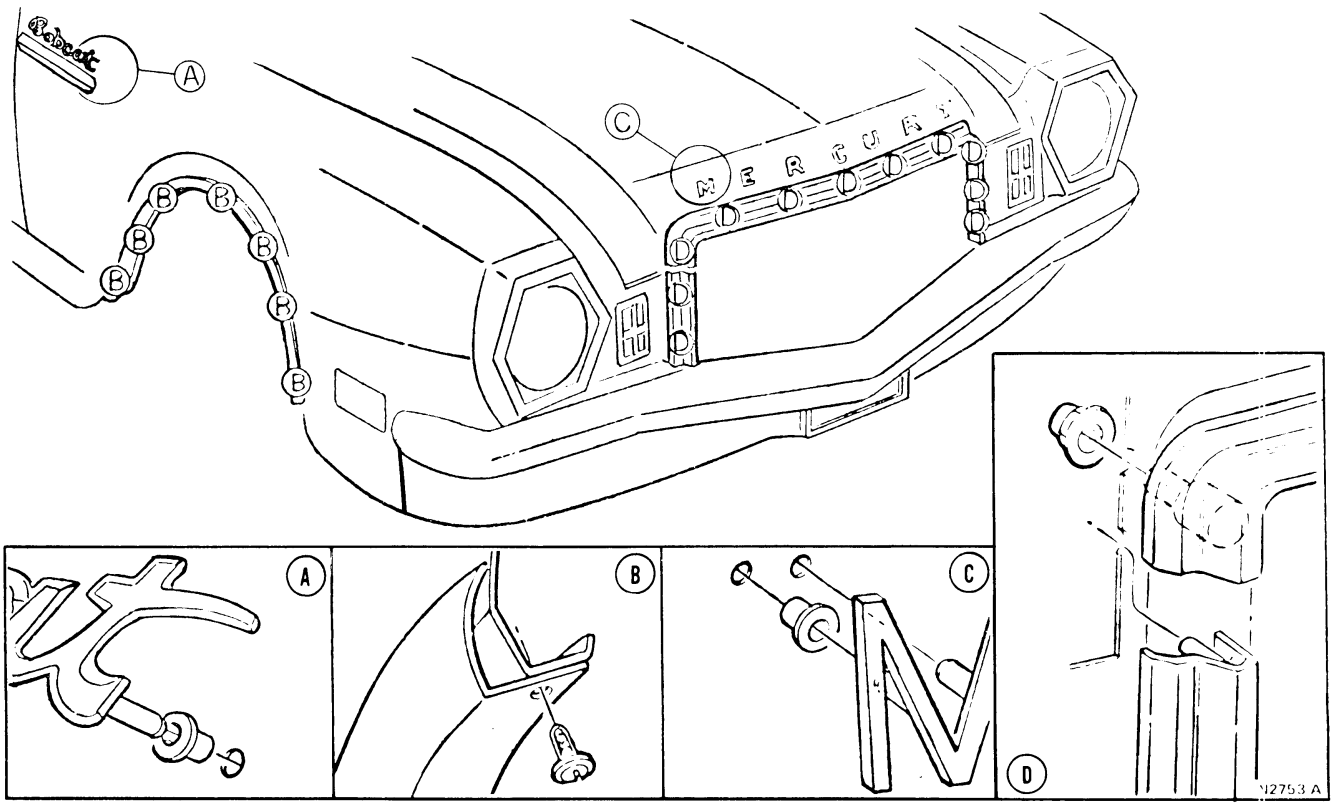


FIG. 6 Front Fender and Hood Exterior Moulding Installation—Bobcat

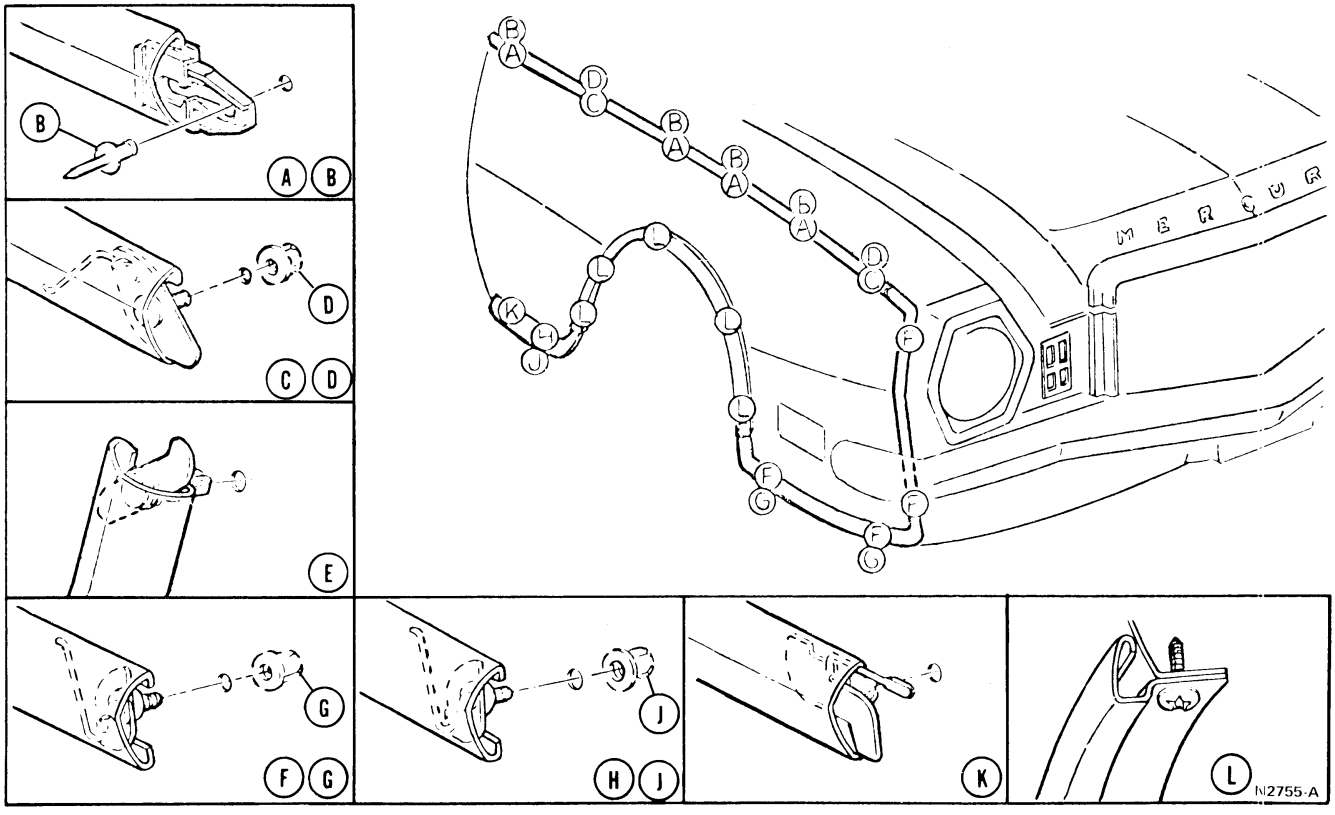


FIG. 7 Front Fender Exterior Moulding Installation—Bobcat Station Wagon

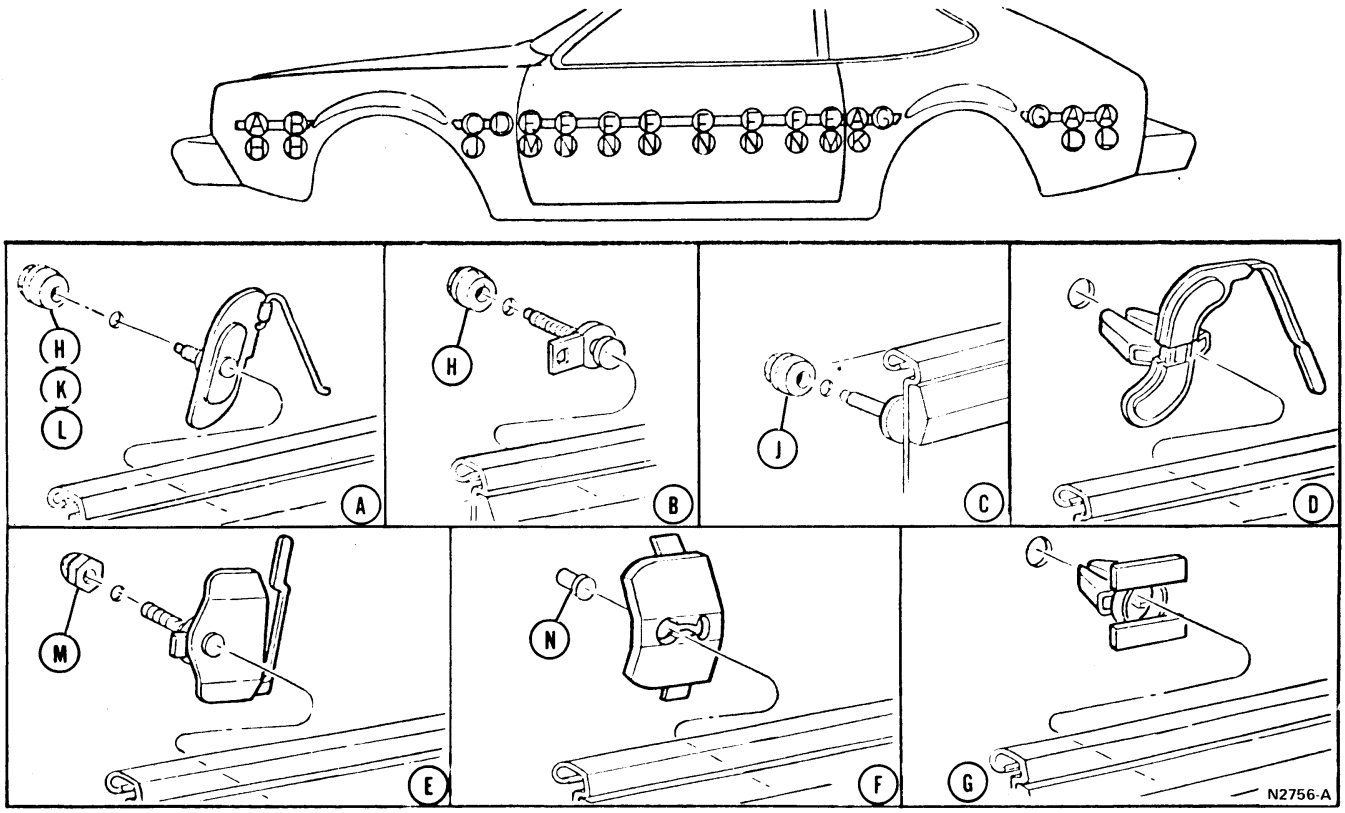


FIG. 8 Optional Vinyl Insert Exterior Side Moulding Installation—Pinto and Bobcat

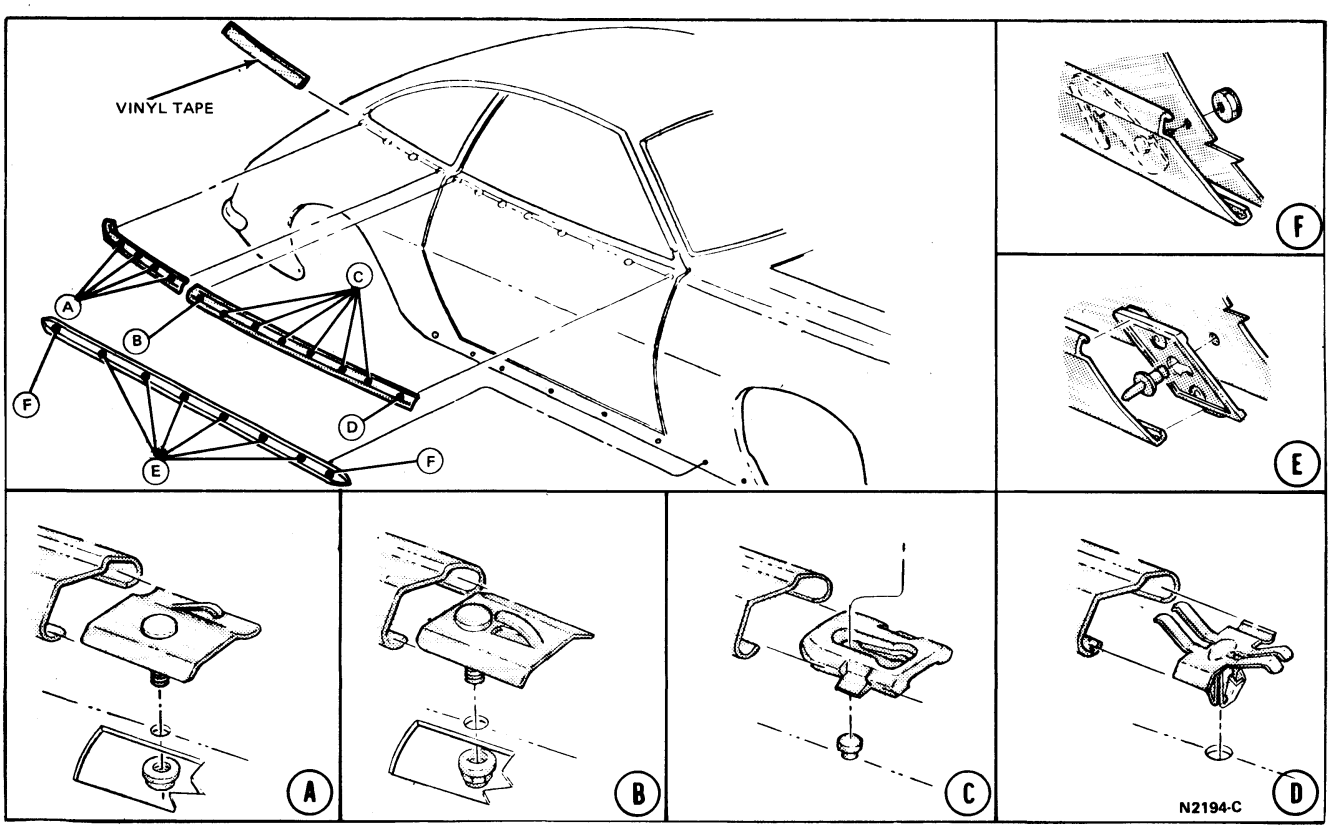


FIG. 9 Optional Body Side Exterior Moulding Installation—Pinto and Bobcat Sedan

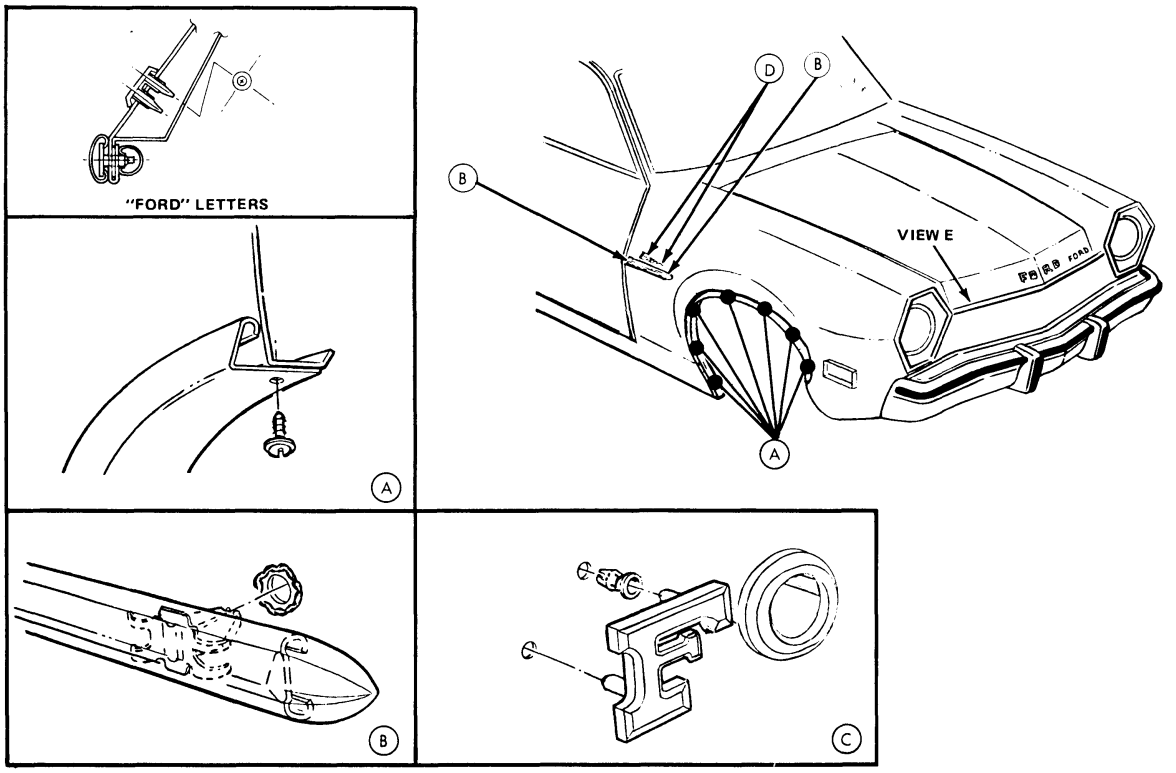


FIG. 10 Front Fender and Hood Exterior Moulding Installation—Pinto

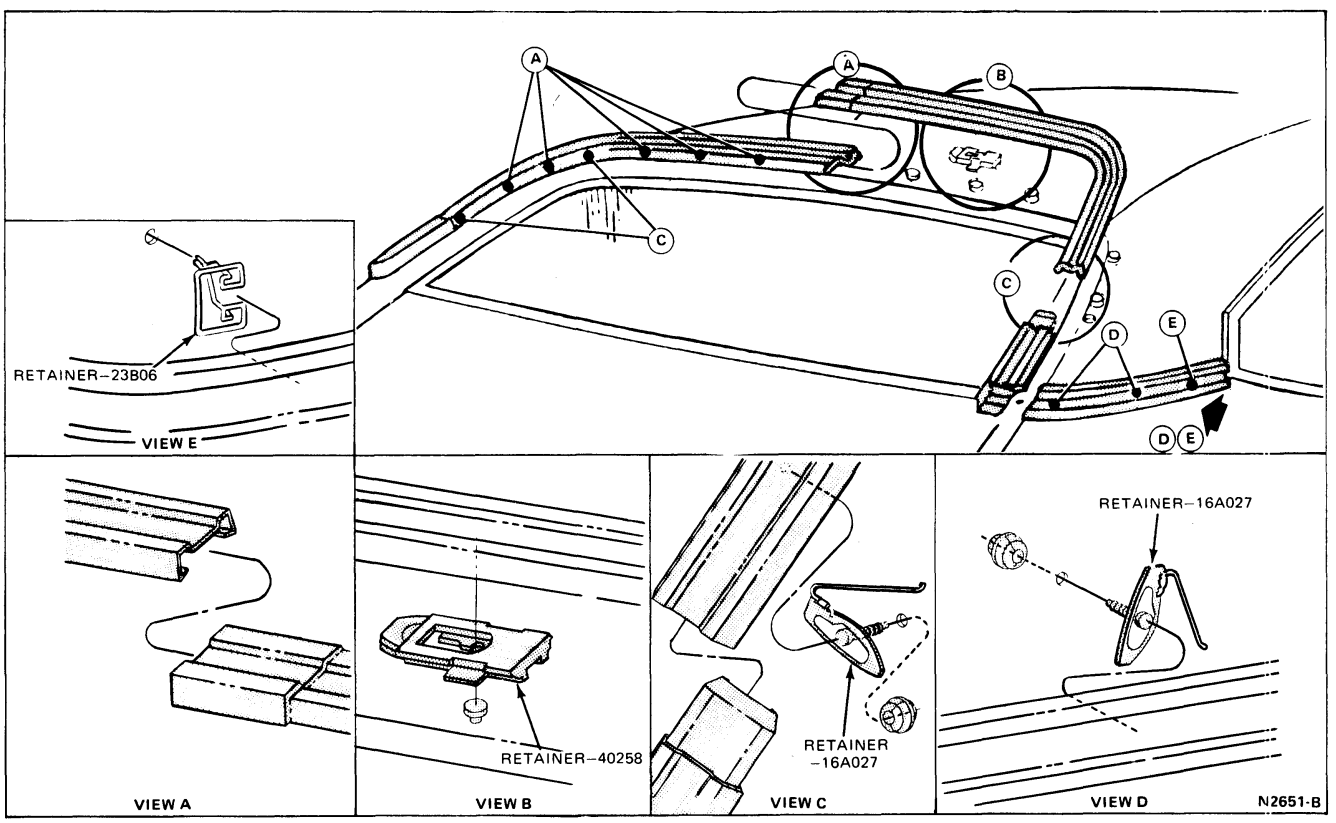


FIG. 11 Roof-Outside Rear Exterior Moulding Installation

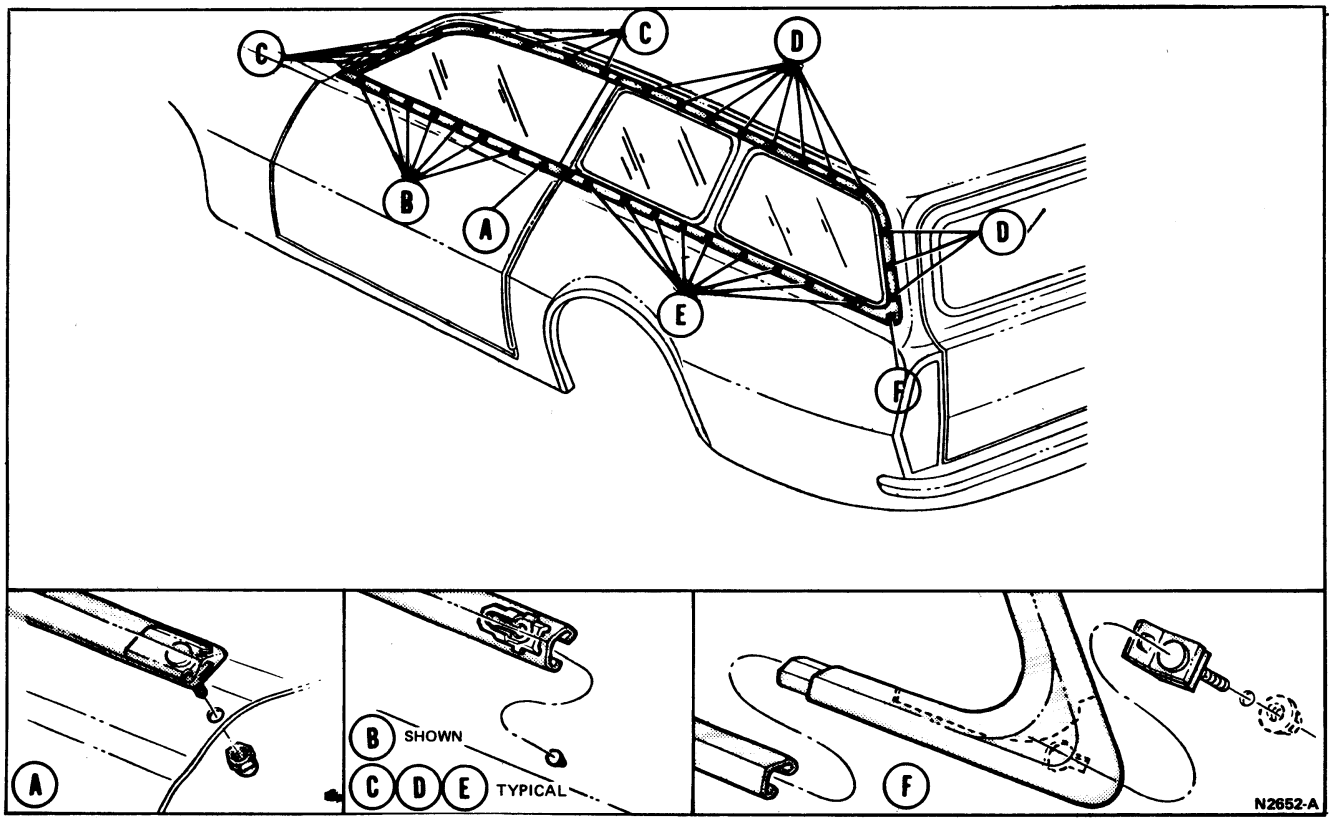


FIG. 12 Belt-Door Window and Quarter Exterior Moulding Installation—Pinto and Bobcat Station Wagon

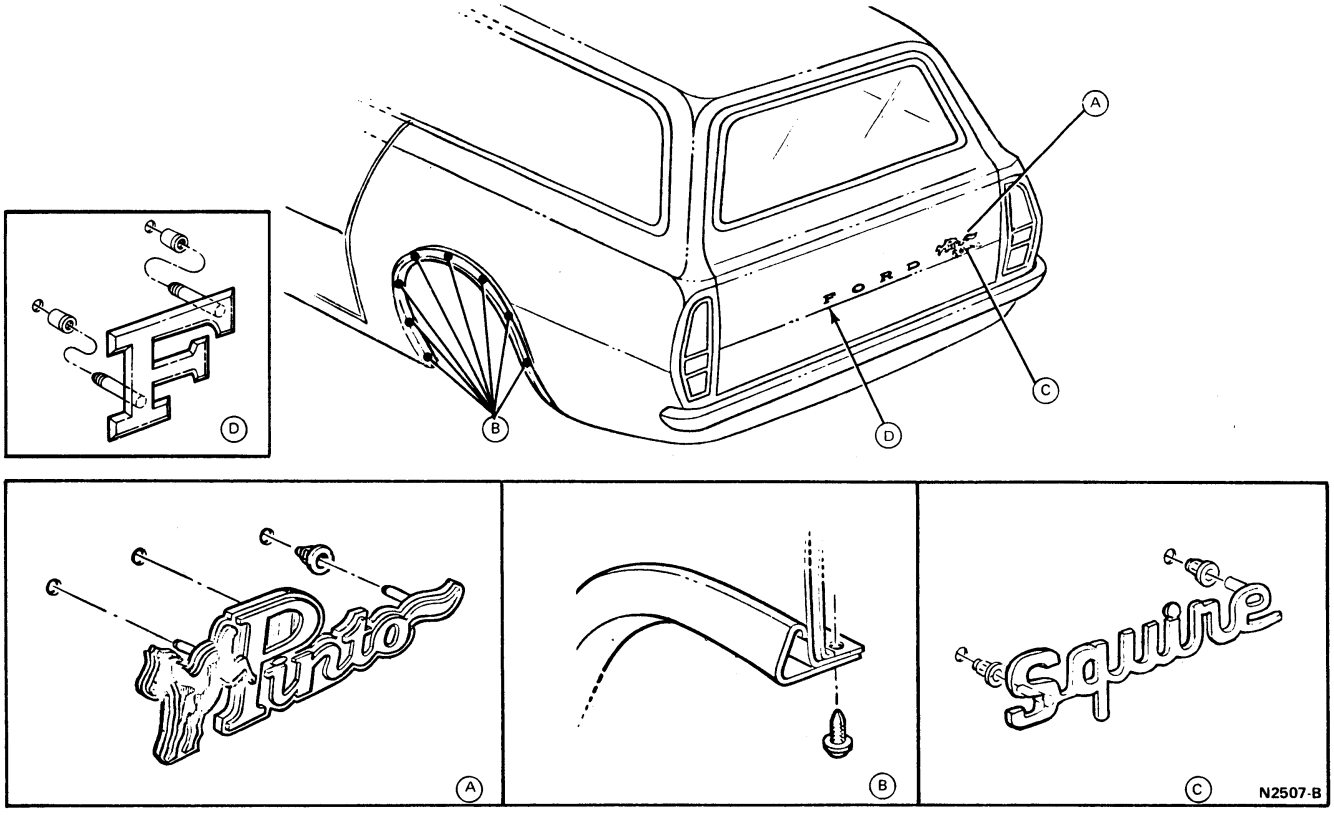


FIG. 13 Body Quarter and Rear Exterior Moulding Installation—Pinto Station Wagon

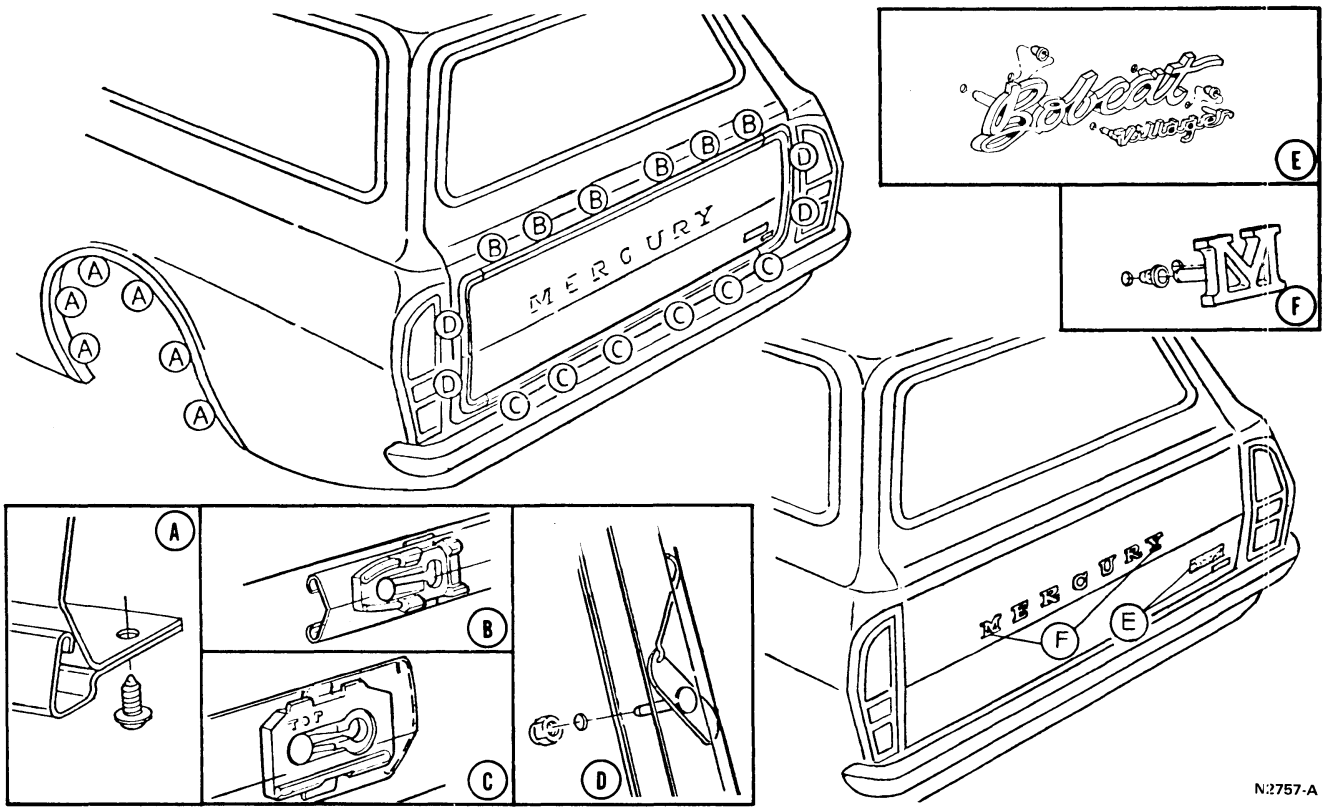


FIG. 14 Body Quarter and Rear Extension Moulding Installation—Bobcat Station Wagon

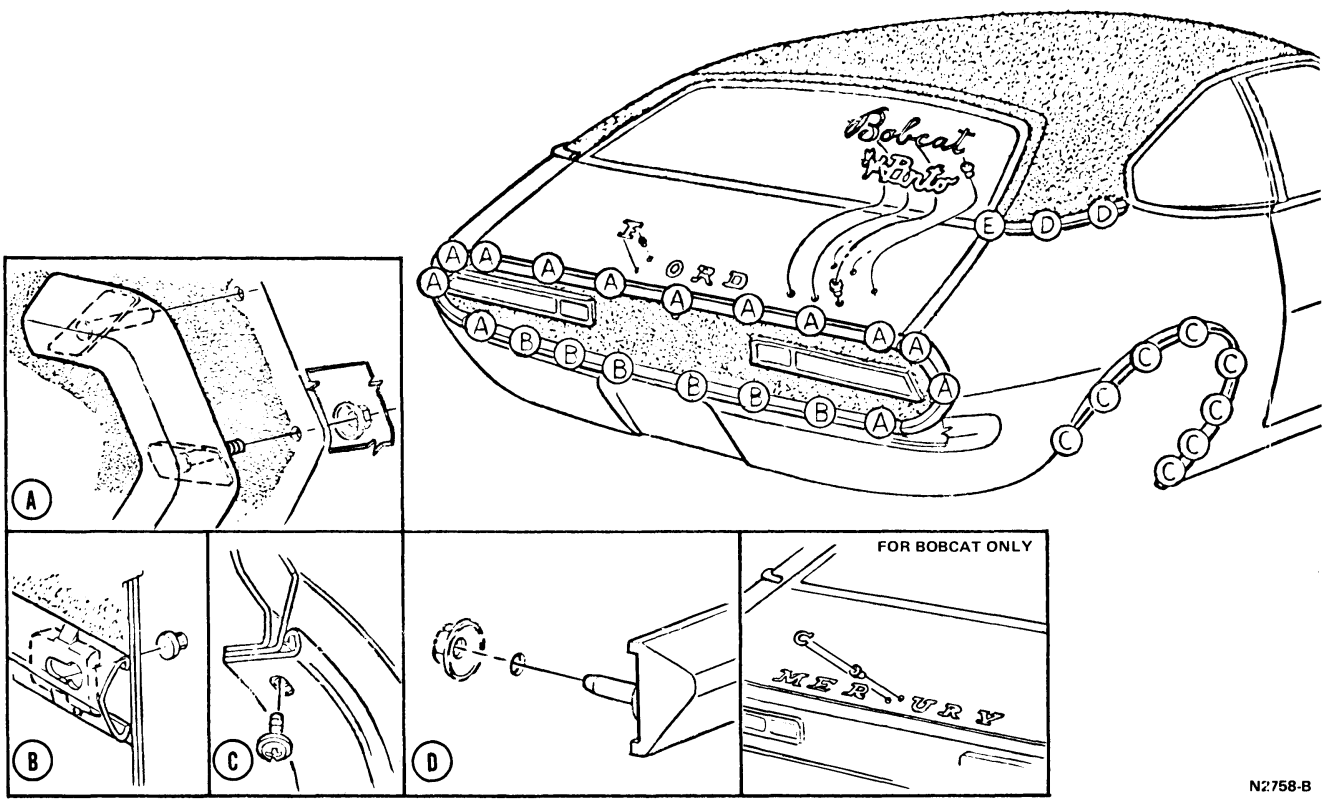


FIG. 15 Rear Exterior Moulding Installation—Pinto and Bobcat

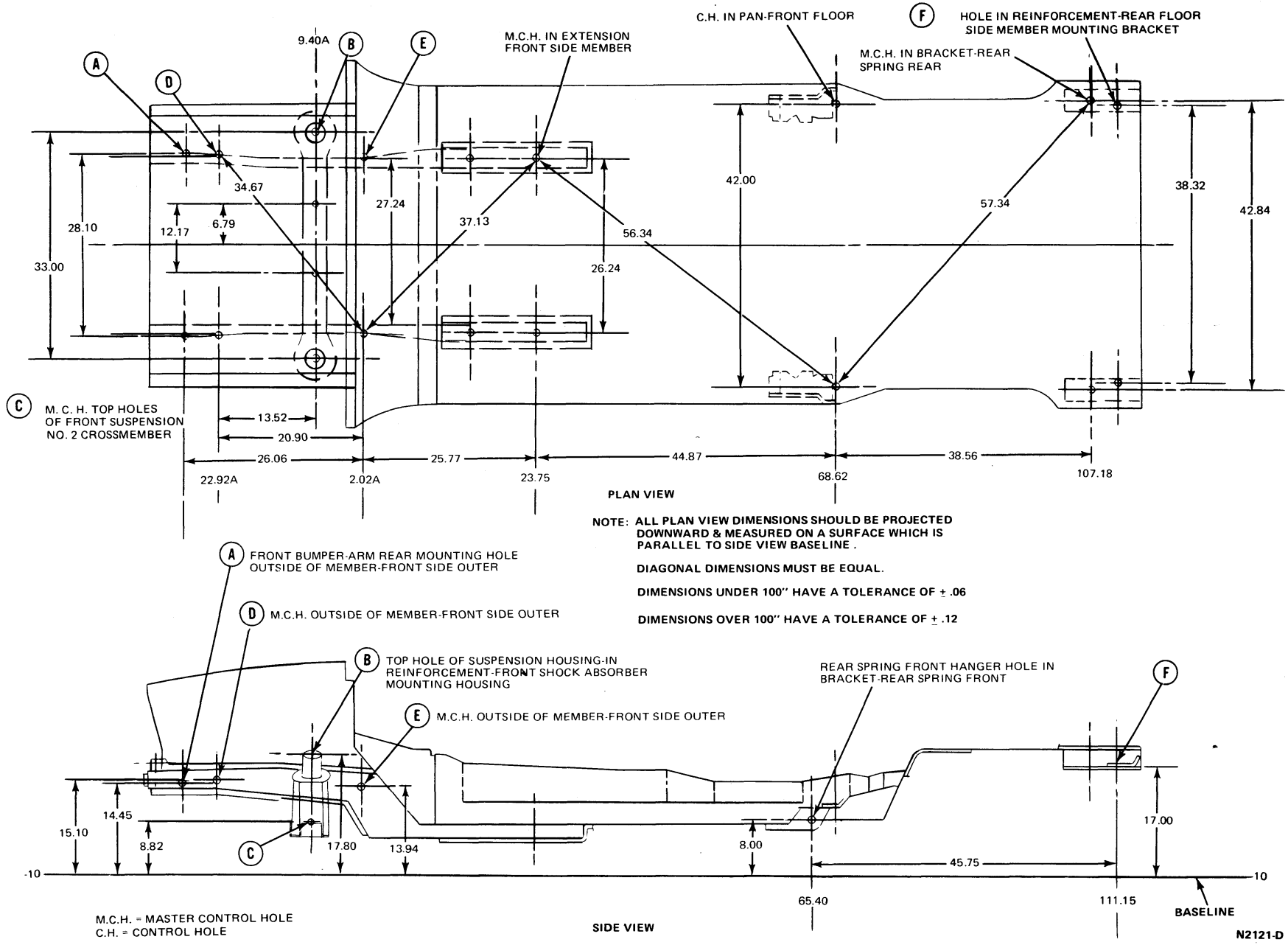


FIG. 16 Underbody Dimensions—Sedan—Pinto and Bobcat

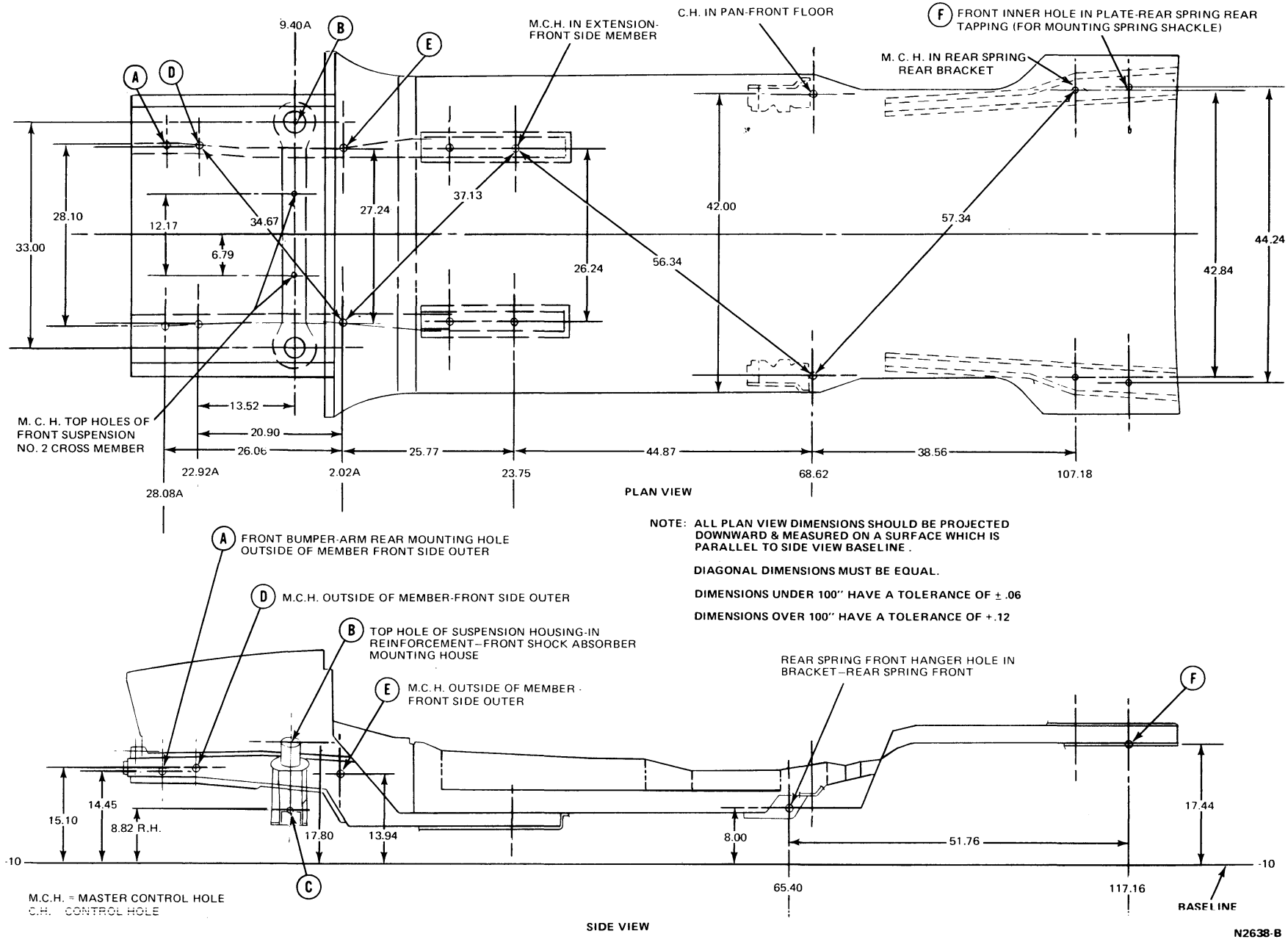


FIG. 17 Underbody Dimensions—Station Wagons—Pinto and Bobcat

Mustang

PART 47-10

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CN2878-A

REMOVAL AND INSTALLATION

RADIATOR GRILLE

Removal

1. Open the hood and remove the two parking light bulb and socket assemblies from the parking lights by rotating the bulb sockets counterclockwise and pulling them out of the light body.
2. Remove seven grille attaching screws (Fig. 1), and remove the grille.

Installation

1. If the grille is to be replaced, transfer the parking light bodies to the new grille (2 screws each).
2. Position the grille to the grille opening panel and install the seven attaching screws.
3. Position the bulb sockets to the parking lights, and rotate the bulb socket clockwise to lock it into place.

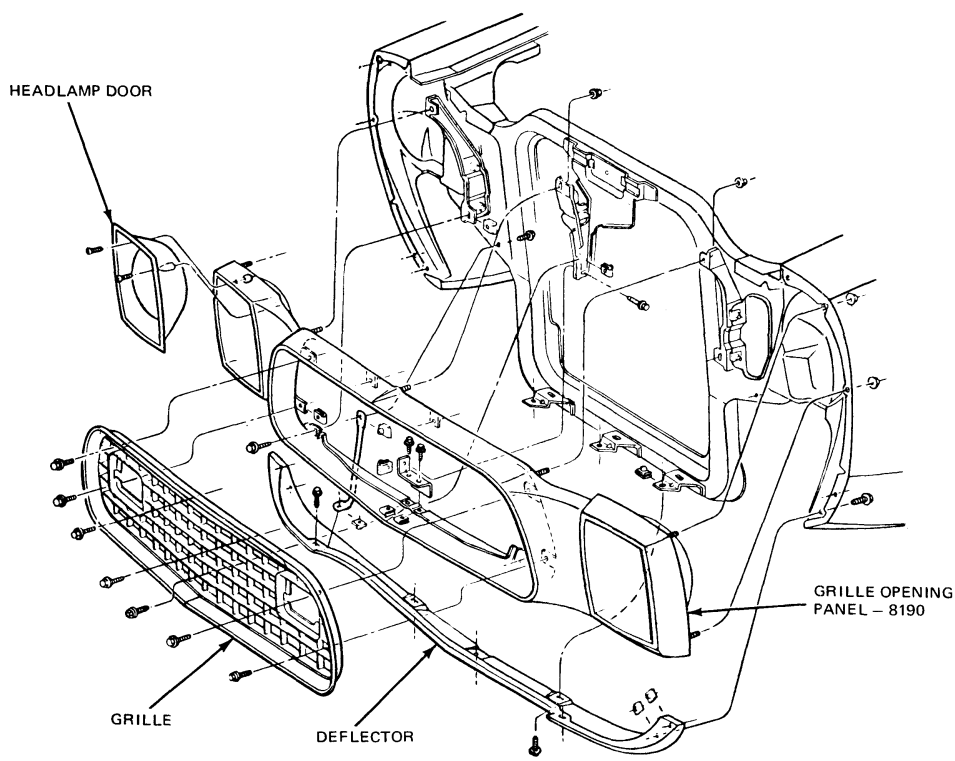
BUMPER—FRONT AND REAR

Removal

1. Remove four bolts attaching the bumper assembly reinforcement to the isolators and remove the bumper from the vehicle.
2. Remove the reinforcement retaining nuts and bolts (Figs. 2 and 3), and separate the reinforcement from the bumper.

Installation

1. If the bumper is to be replaced, transfer the bumper guards and moulding (if so equipped) to the new bumper.
2. Inspect the isolators for fluid leakage. If leakage is found, replace the isolator (Figs. 2 and 3).
3. Position the reinforcement to the bumper and install the retaining nuts and bolts. Tighten the bolts to specification (Figs. 2 and 3).
4. Position the bumper assembly to the isolator and install the attaching bolts.
5. Adjust the bumper height so that the distance from the top edge to ground meets the specifications in Fig. 4. Then, adjust the bumper for body clearance so that the horizontal body



N1792-E

FIG. 1 Radiator Grille Installation—Mustang

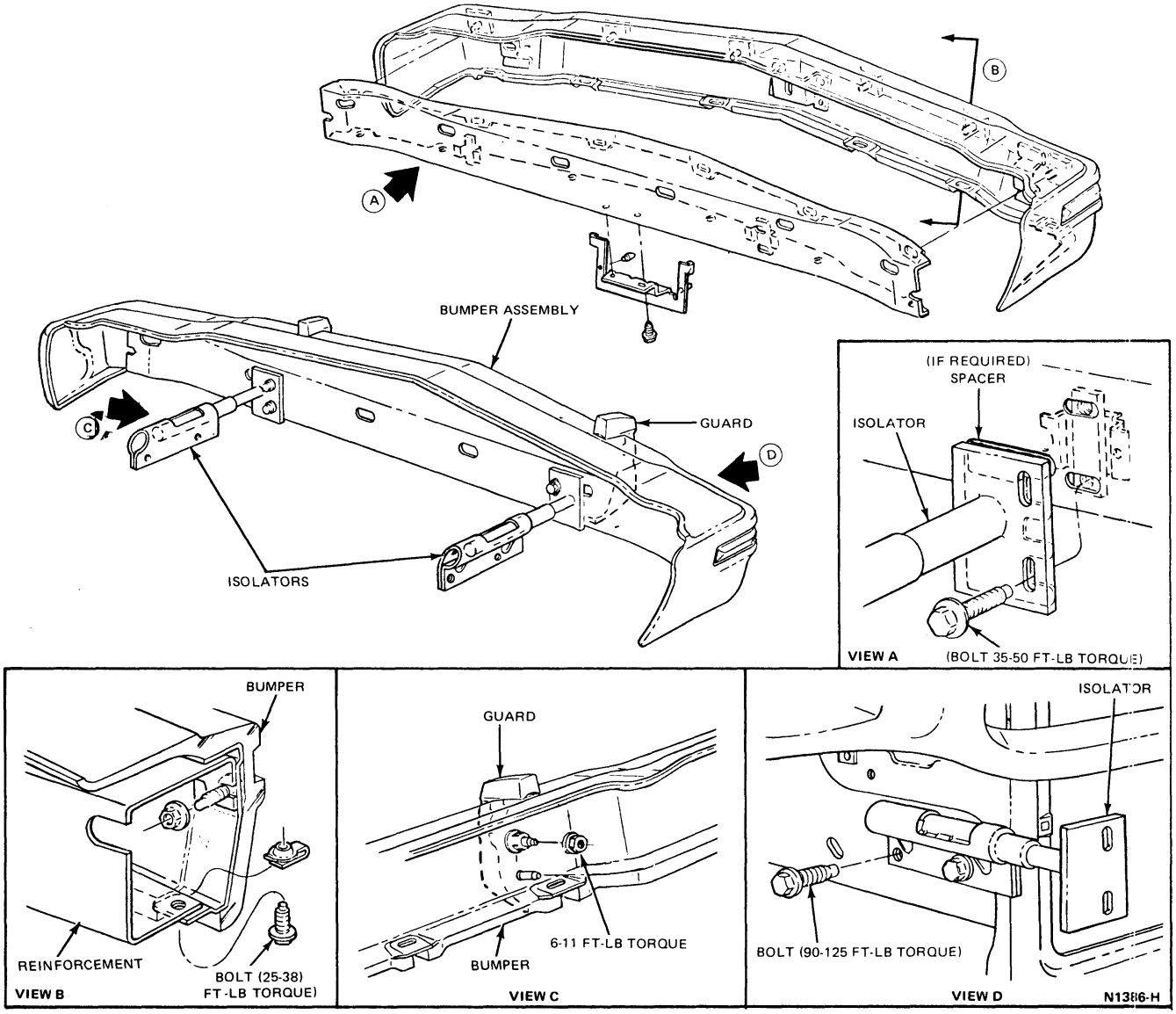


FIG. 2 Front Bumper Installation—Mustang

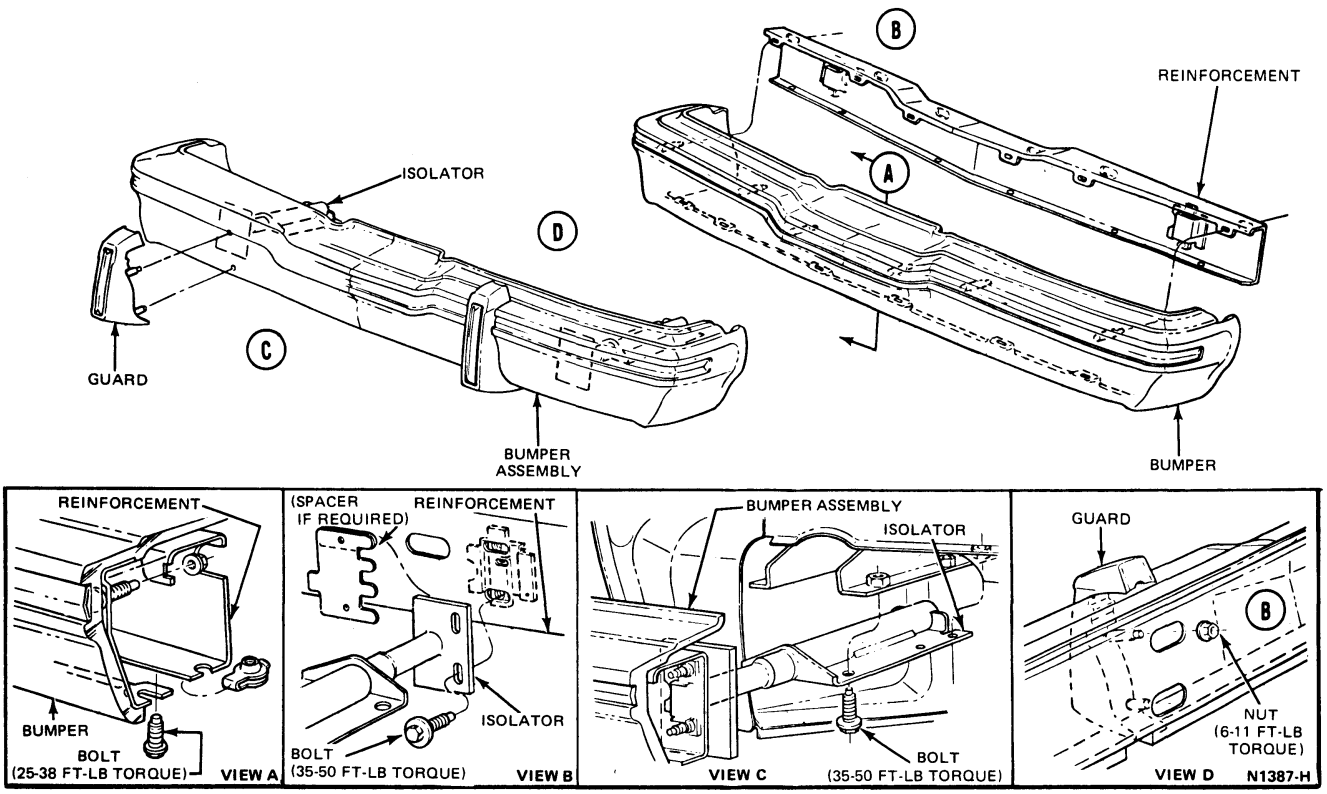


FIG. 3 Rear Bumper Installation—Mustang

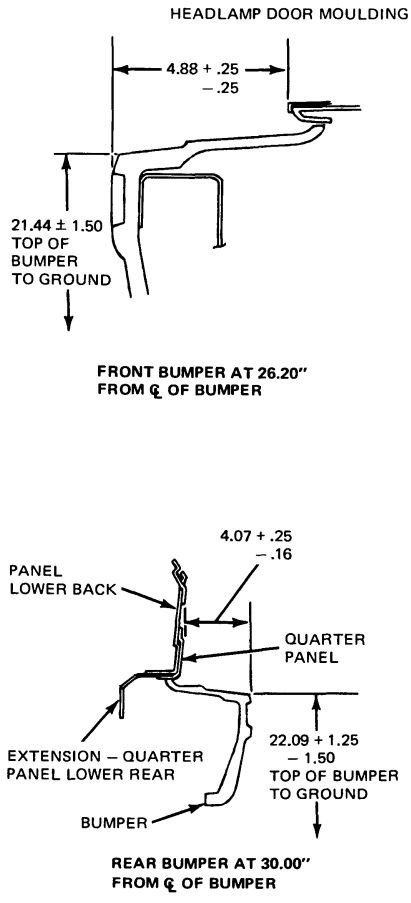


FIG. 4 Bumper Adjustment Specifications—Mustang

to bumper dimensions meet the specifications in Fig. 4. Tighten the isolator-to-reinforcement bolts to 35-50 ft-lbs torque.

Bumper Guard Rub Strips

Do not remove the bumper guard(s) to replace the bumper guard rub strip(s). Refer to Steps 1 and 2 (Fig. 5) for removal procedures.

Installation

1. Partially insert new spring clips (if needed) into holes in guards.
2. Engage "Tee Bars" on back of rub strip into the head of the clips.
3. Drive the rub strip down with a sharp blow of a **soft-face** mallet over the top clip, and then the bottom clip.

Front and Rear Bumper Rub Strips

Removal

1. Remove the bumper assembly from the isolators.
2. Place the bumper assembly on a clean work bench to protect the painted surface while removing the rub strips.
3. Remove the bumper guards (if so equipped).
4. From the back side, remove two nuts (one at each end) attaching the end rub strip sections.
5. Using a hammer, drive the metal spring clips outward. **Do this only on the rub strip to be replaced.**
6. From the front of the bumper, use a screwdriver to pry off the damaged rub strip. **Protect the surface with masking tape before using the screwdriver so as not to damage the surface of the bumper.**

Installation

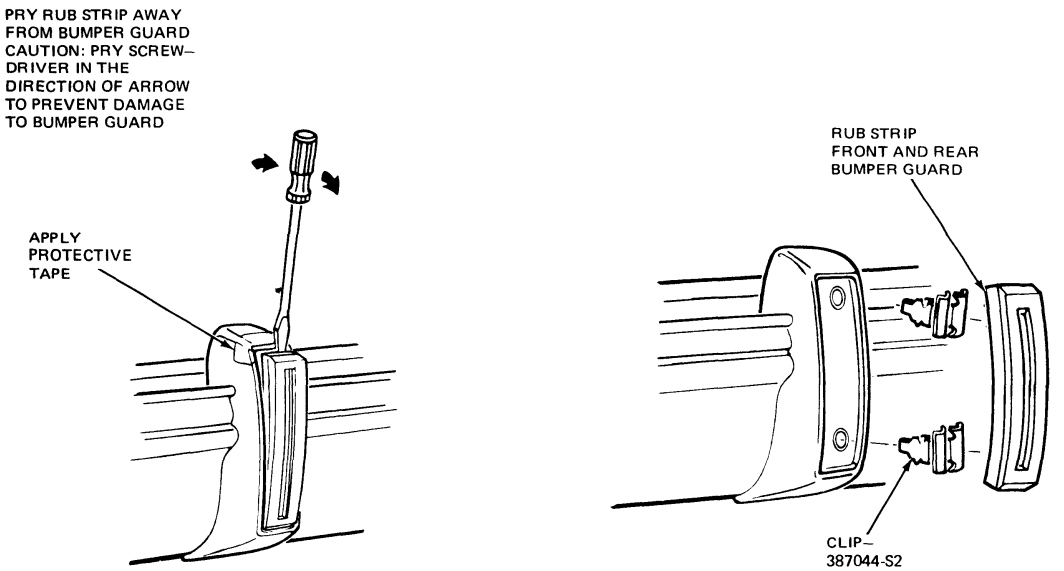
1. Insert spring clips in holes in bumper. If 386787 clips are used, insert the long tip to full depth using a light mallet. If 387044 clips are used, insert by hand and only to the depth of the barbs.
2. Insert retainer(s) at end of rub strip, placing threaded end(s) in hole(s) in bumper, while inserting rub strip into pocket in end of bumper.
3. Engage the "Tee Bars" on back of rub strip(s) into the heads of the spring clips.
4. Drive the rub strip(s) down with a sharp blow of a **soft-face** mallet over each spring clip.
5. Install the end retaining nuts.
6. Install the bumper guards (if so equipped) and tighten the retaining nuts 6-11 ft-lbs torque.
7. Install the reinforcement to the bumper if it was removed and tighten the retaining bolts and nuts to specification (Figs. 2 and 3).
8. Install the bumper to the isolator, adjust the bumper height (Fig. 4) and tighten isolator-to-reinforcement bolts 35-50 ft-lbs torque.

EXTERIOR MOULDINGS

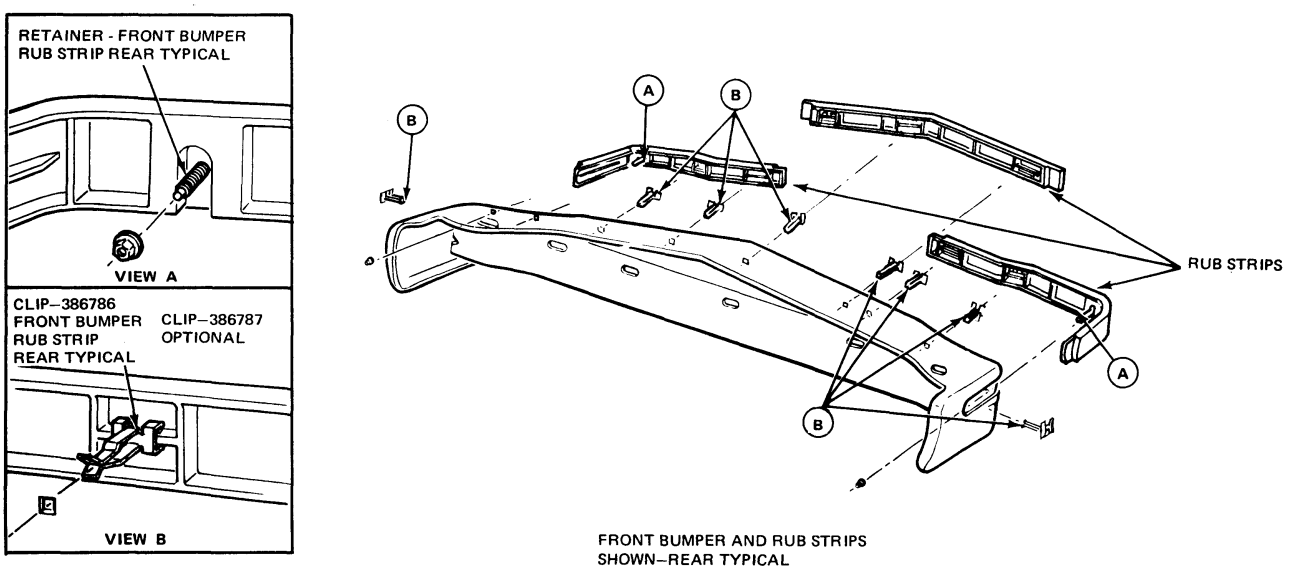
Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access (Figs. 6 through 9). If a weld stud is distorted or broken off, it should be replaced with an oval head blind rivet (383229-S). Refer to General Information (Part 47-01) for installation of Pressure Sensitive Tape Type (Body Side Protection Mouldings).

UNDERBODY DIMENSIONS

The Mustang under body dimensions are shown in Fig. 10. The under body checking dimensions are given in Part 47-01.



BUMPER GUARD RUB STRIP REMOVAL



FRONT BUMPER AND RUB STRIPS SHOWN-REAR TYPICAL

N2775-B

FIG. 5 Front Bumper Rub Strips Removal—Rear Similar

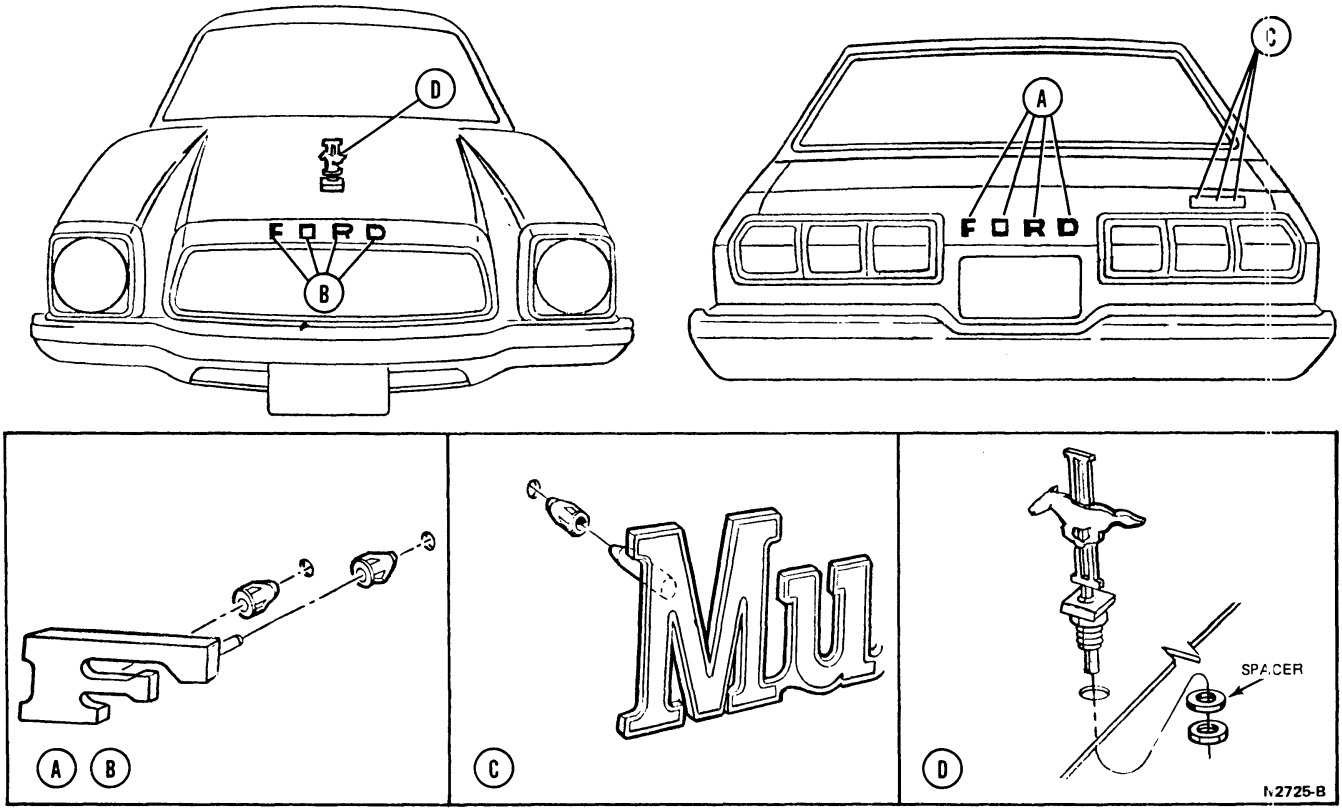


FIG. 6 Front and Rear Moulding Installation—Mustang

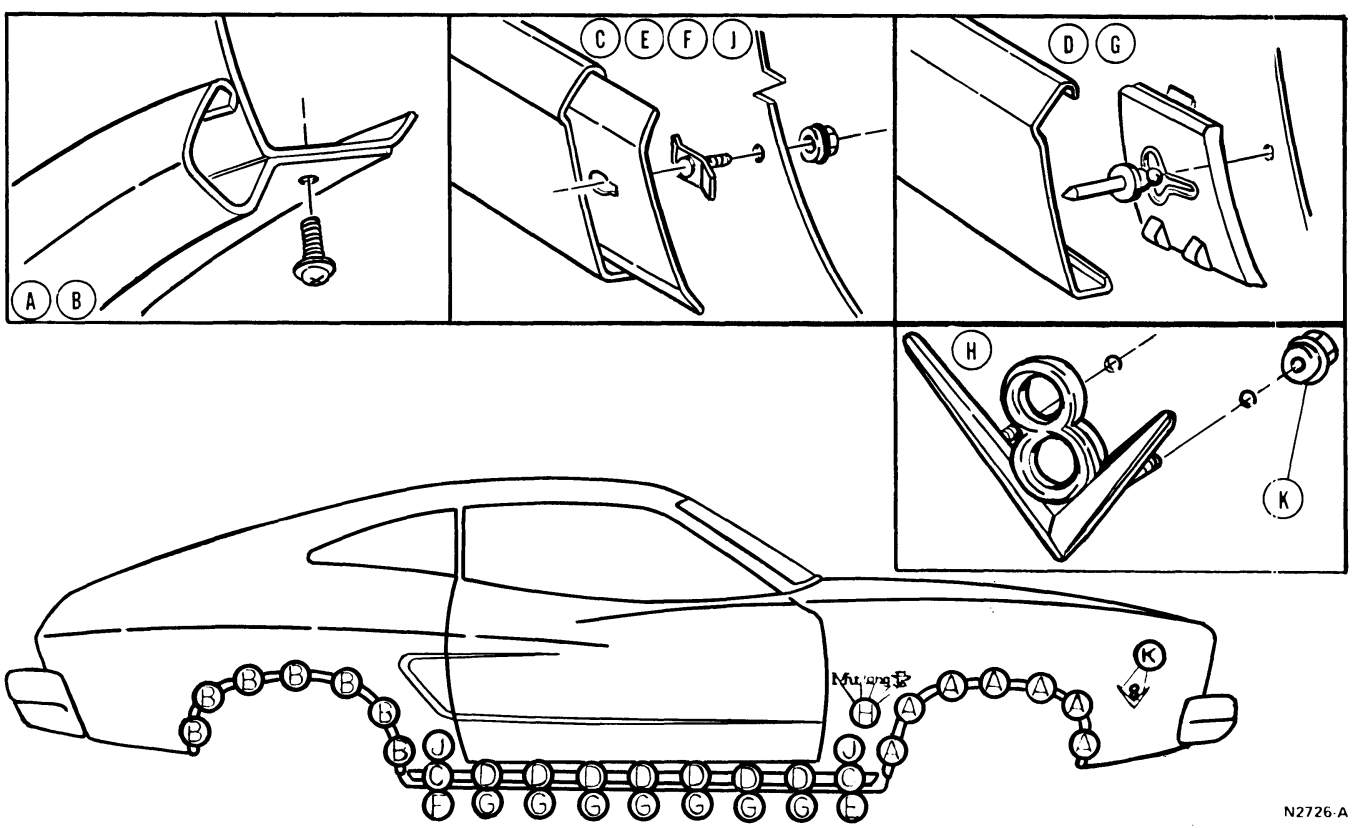


FIG. 7 Exterior Side Moulding Installation—Mustang

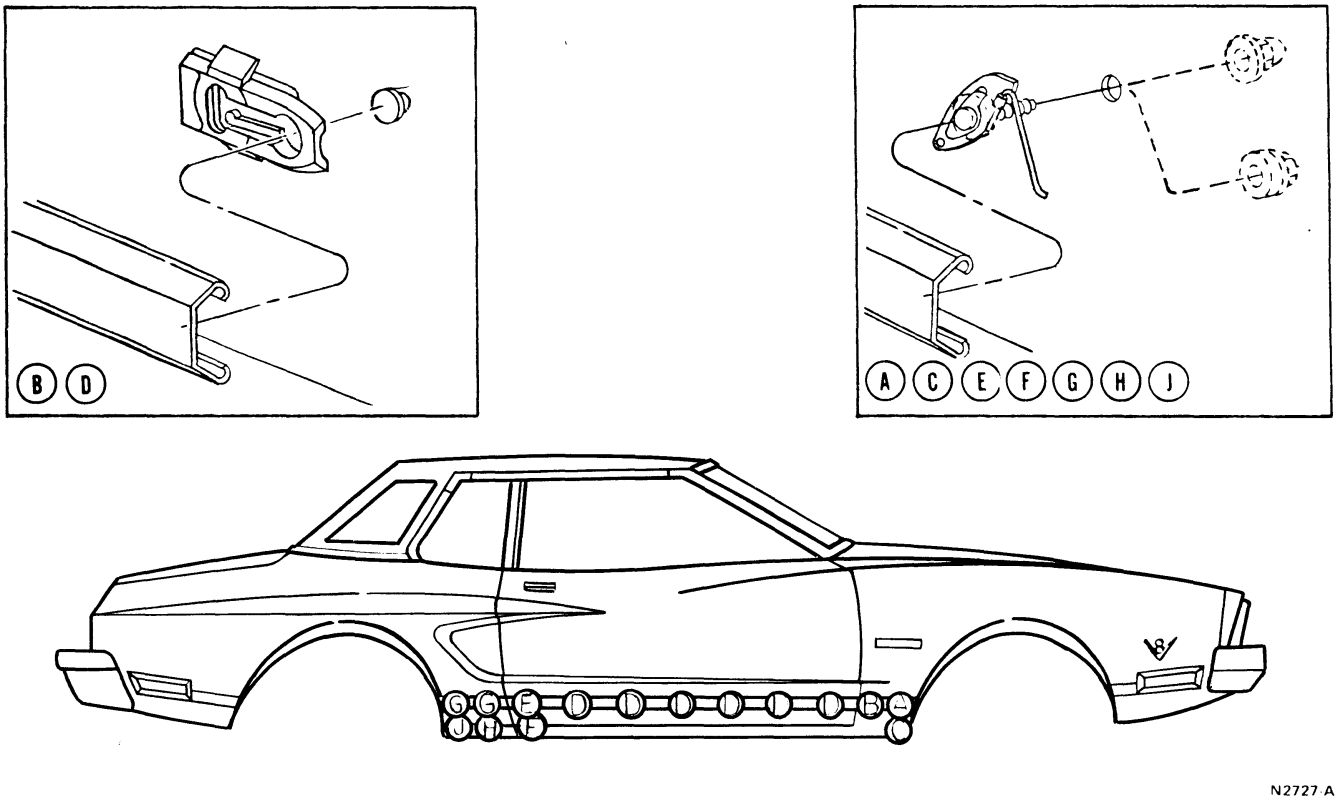


FIG. 8 Exterior Side Moulding Installation—Mustang

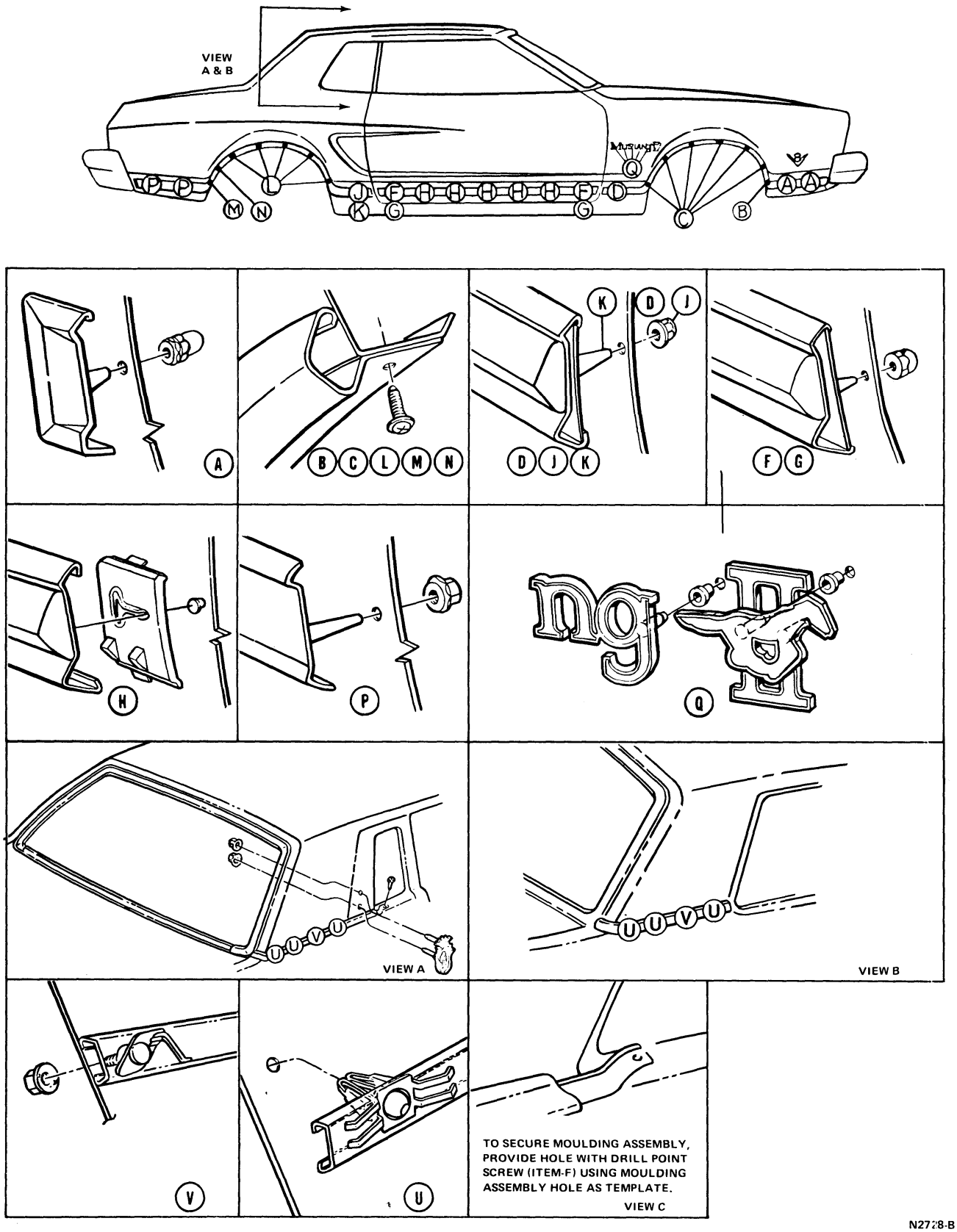


FIG. 9 Exterior Side Moulding Installation—Mustang

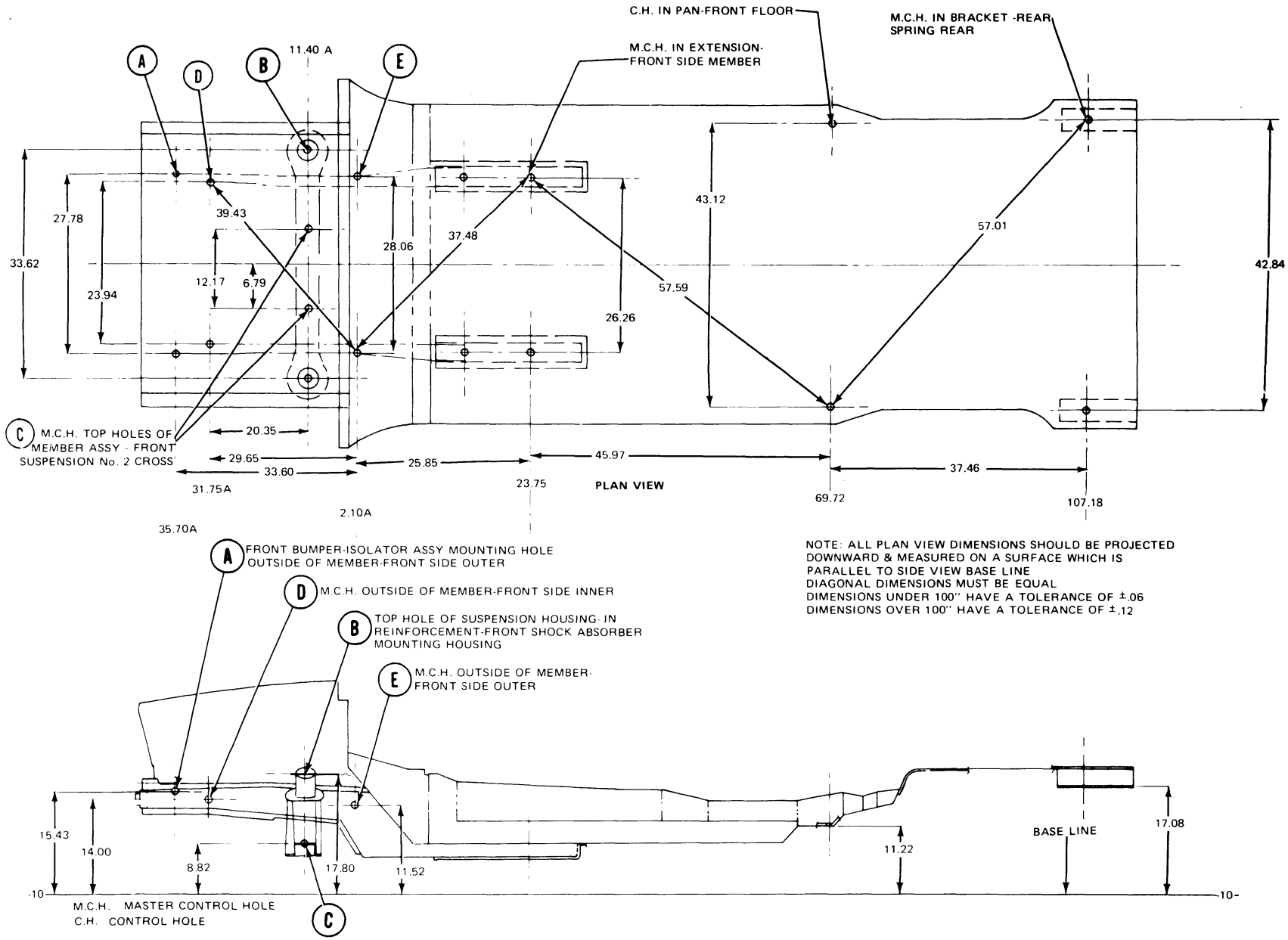


FIG. 10 Underbody Dimensions—Mustang

N2508-B

Monarch and Granada

PART 47-11

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Radiator Grille	11-1
Rear Bumper	11-1
Underbody Dimensions	11-2

CN2883-A

REMOVAL AND INSTALLATION

RADIATOR GRILLE

Granada

Removal

1. Remove radiator grille assembly outer upper and outer lower attachments.
2. Open hood and remove the four self-threading nuts that hold the radiator grille assembly to the radiator grille opening panel. (Fig. 1).
3. Remove the radiator grille assembly.
4. Remove the seven self-threading nuts that retain the plastic grille texture to die cast grille surround moulding.

Installation

1. Position the grille texture to the radiator grille surround moulding by securing locating pin on the moulding, in the sized hole in the grille and install the seven self-threading nuts.
2. Install the radiator grille assembly to the radiator grille opening panel and secure with four self threading nuts and four screws and "J" nuts.

Monarch

Removal

1. Remove attachments to the radiator grille.
2. Remove the radiator grille.

Installation

1. Position the radiator grille to the radiator grille opening panel and make the center upper attachment.
2. Make upper inboard attachments.
3. Install the lower center attachment.

FRONT BUMPER

Removal

1. Remove three (3) bolts attaching each isolator to the bumper reinforcement and, with an assistant, remove the bumper and reinforcement from the vehicle.
2. Remove the reinforcement- to-bumper and end bracket to bumper attaching bolts and separate the reinforcement from the bumper and end bracket (Fig. 3).
3. Remove the bumper guards and pads from the bumper.
4. Remove the license plate mounting bracket from the bumper.
5. If the reinforcement is to be replaced, remove the sight shield attaching bolts and remove the top sight shield and cooling ducts from the reinforcement.

Installation

1. Install the bumper guards and pads on the bumper. Install the license plate bracket.
2. Position the cooling ducts and sight shields to the reinforcement and install attaching bolts.
3. Position bumper end brace between bumper and reinforcement and install bumper attaching bolts.
4. Install the bumper center stone deflector to reinforcement.
5. Position the bumper and spacers to the isolators and install the attaching bolts.
6. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 5. Then, adjust the bumper for body clearance at the centerline of the parking lamp so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 5. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.
7. Lift up the end sight shields. Apply 2-way tape to the center shield, remove top protective backing and press down firmly on end shield to obtain a flush fit.

REAR BUMPER

Removal

1. Disconnect the license plate lamp wire from the underbody harness.
2. Remove two bolts attaching the reinforcement to each isolator, and remove the bumper assembly.
3. Remove the license bracket from the bumper. Remove two screws retaining license plate light to the reinforcement and remove the light.
4. Remove the nuts and bolts attaching the reinforcement to the bumper, and separate the reinforcement and bumper guards (if so equipped) from the bumper (Fig. 4).

Installation

1. Position the reinforcement and bumper guards (if equipped), to the bumper and install the bolts and nuts. Tighten nuts to specification given in Fig. 4.

   NOTE: Reinstallation of the end brackets is optional. If the end brackets are not installed and the bumper has holes provided for

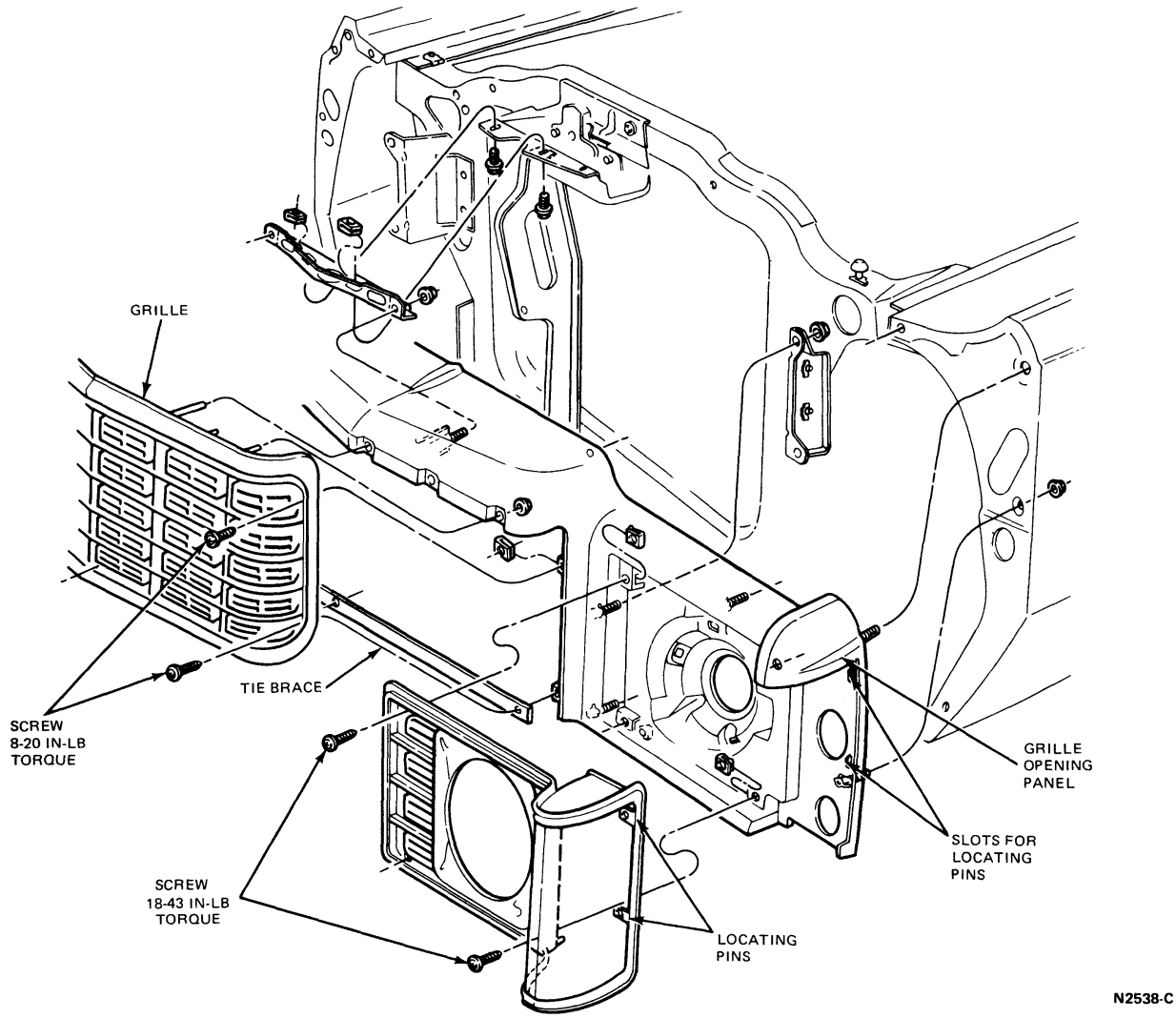


FIG. 1 Grille Installation—Granada

attaching the brackets, install the bolts and nuts into the holes.

2. Install the license bracket on bumper, and tighten bolts to specification (Fig. 4). Install the license light to the reinforcement (two screws). Route the wire through the hole in the back of the reinforcement.
3. Position bumper assembly to the isolator and install the attaching bolts.
4. Adjust the bumper height so that the distance from the top edge to the ground meets the specifications in Fig. 5. Then, adjust the bumper for body clearance so that the vertical and horizontal body to bumper dimensions meet the specifications in Fig. 5. Tighten the isolator- to-reinforcement bolts to 35-50 ft-lbs torque.

EXTERIOR MOULDINGS

Before removing the exterior mouldings, it should be determined by the type of retainer used whether a respective door, quarter or luggage compartment trim panel must first be removed to provide access (Figs. 6 thru 9). If a weld stud is distorted or broken off, it should be replaced with an oval head blind rivet (Part No. 383229-S). Refer to General Information (Part 47-01) for installation of Pressure Sensitive Tape Type (Body Side Protection Mouldings).

UNDERBODY DIMENSIONS

The Granada and Monarch underbody dimensions are shown in Fig. 10. The underbody checking and repair procedures are given in Part 47-01.

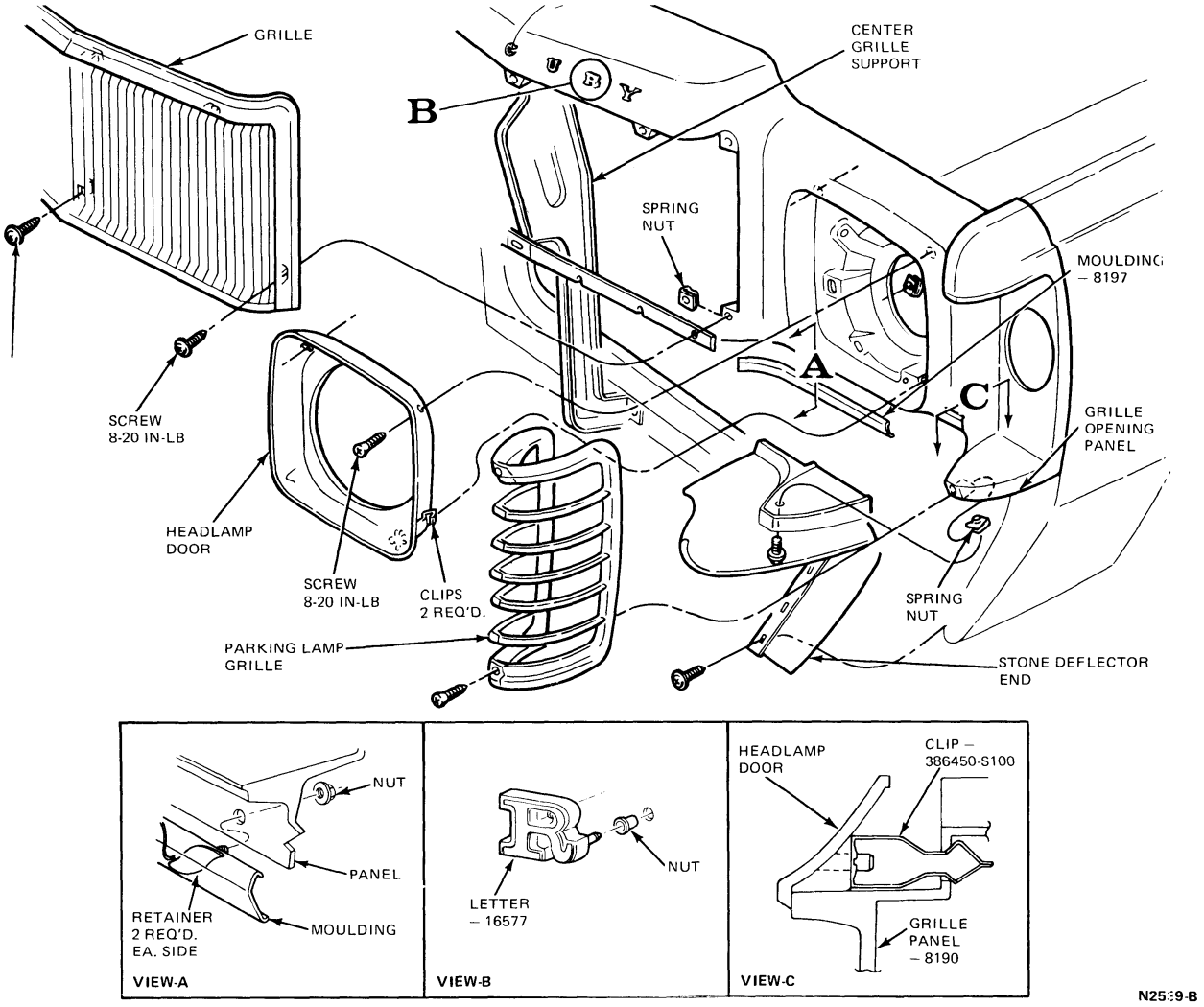


FIG. 2 Grille Installation—Monarch

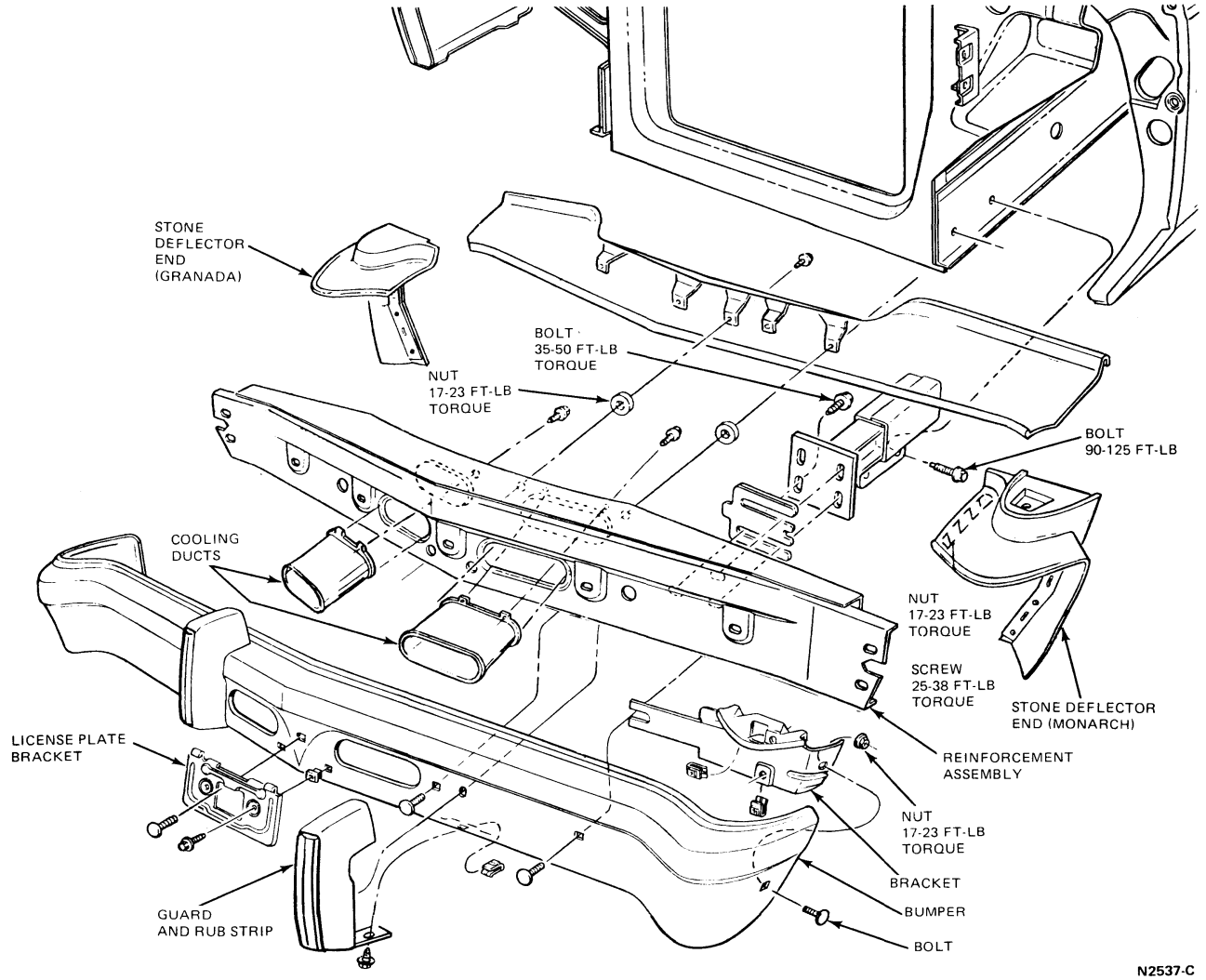


FIG. 3 Front Bumper Installation—Granada and Monarch

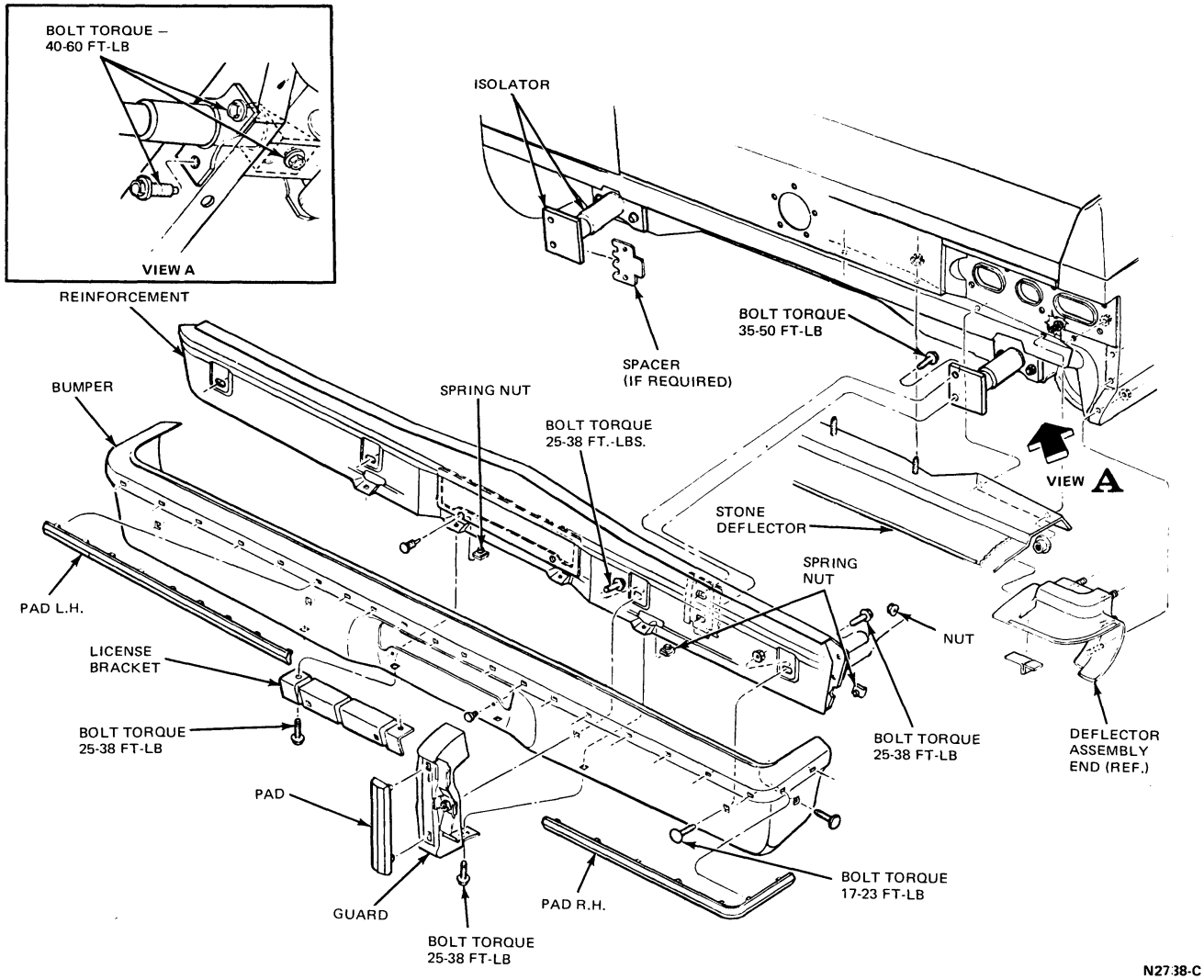


FIG. 4 Rear Bumper Installation—Granada and Monarch

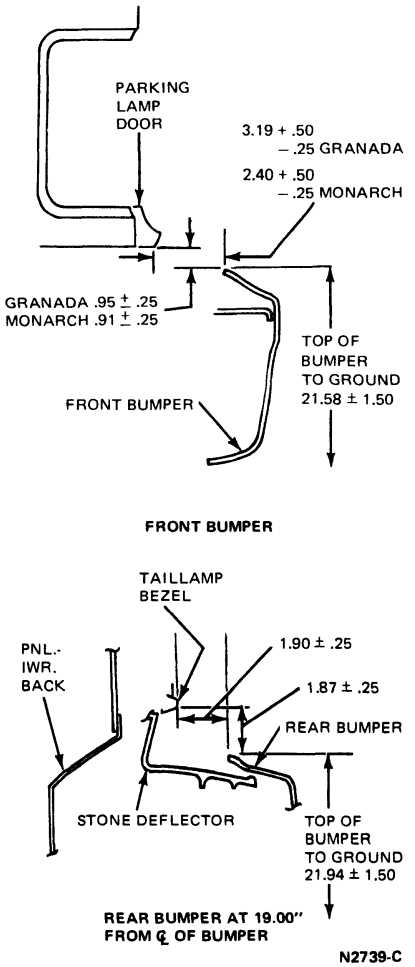


FIG. 5 Bumper Adjustment Specifications—Granada and Monarch

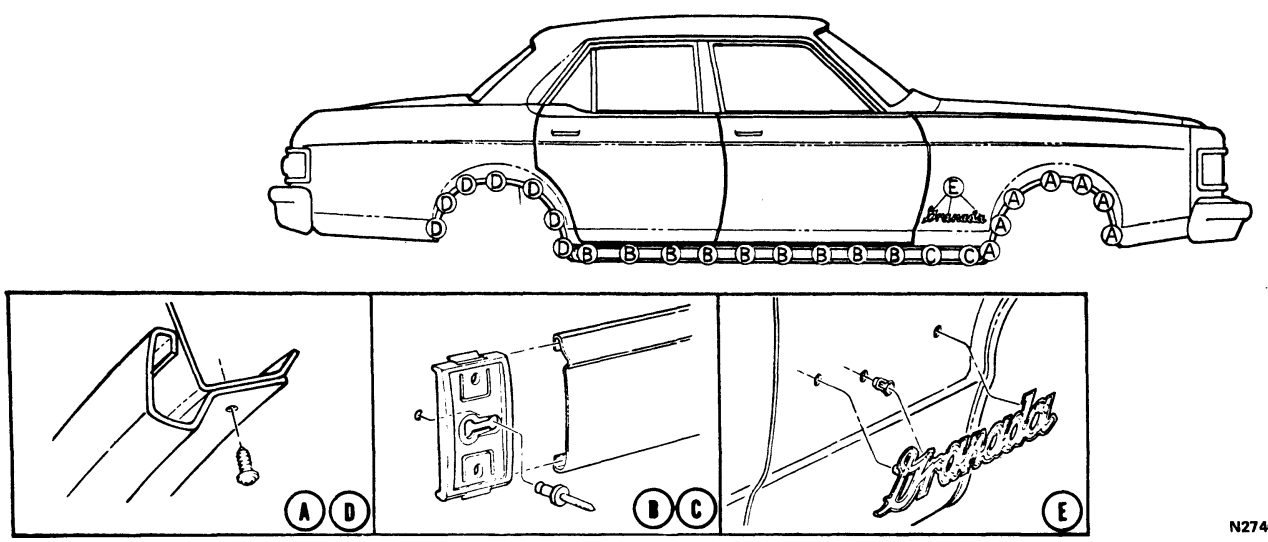


FIG. 6 Exterior Side Moulding Installation—Granada Shown—Monarch Typical

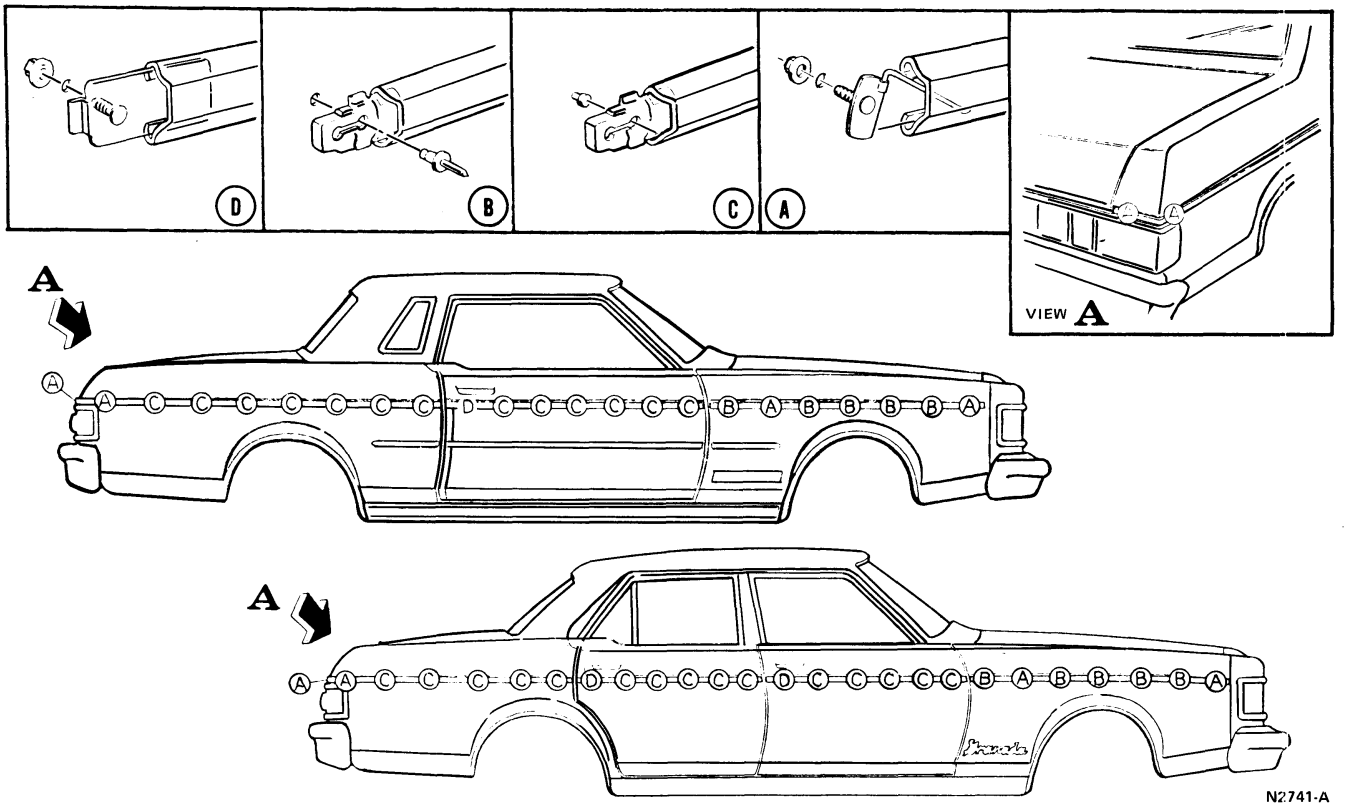


FIG. 7 Exterior Side Moulding Installation—Granada Shown—Monarch Typical

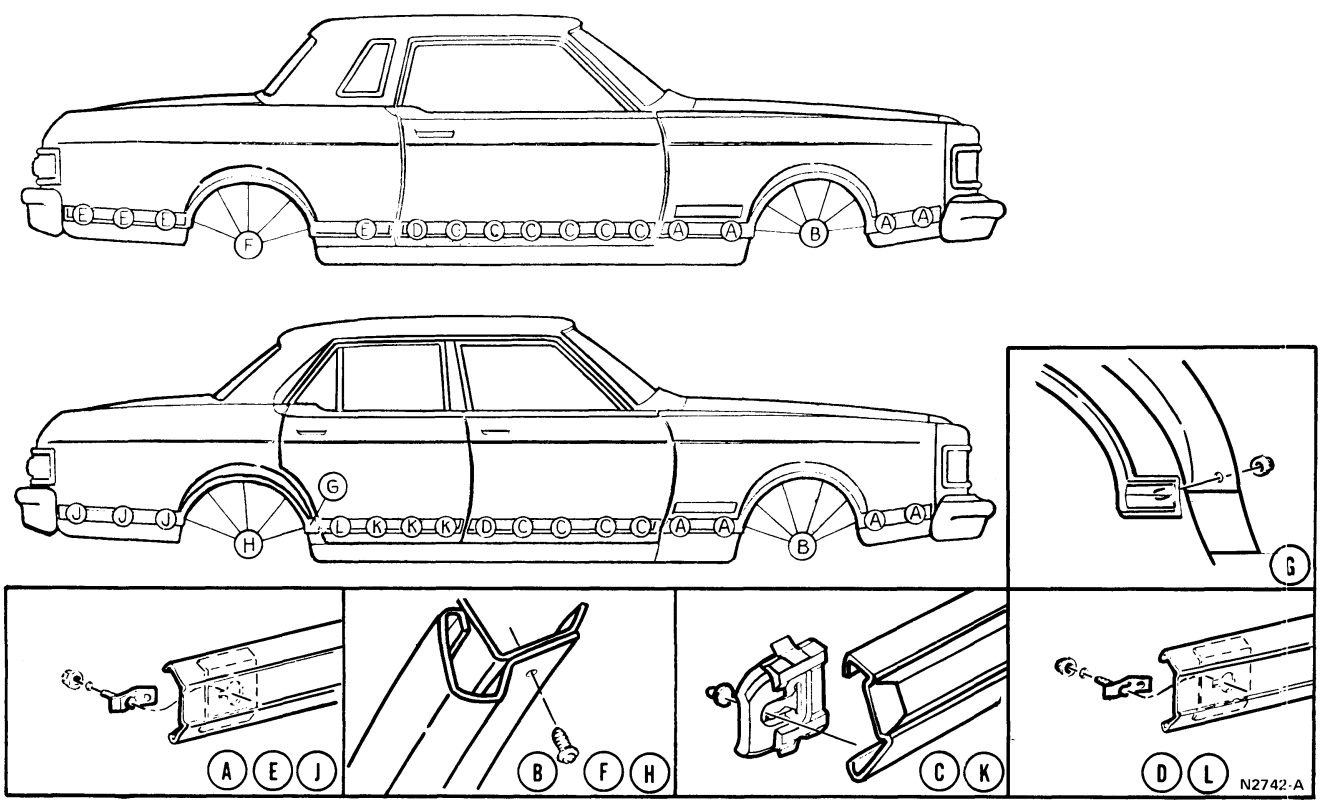


FIG. 8 Exterior Side Moulding Installation—Granada Shown—Monarch Typical

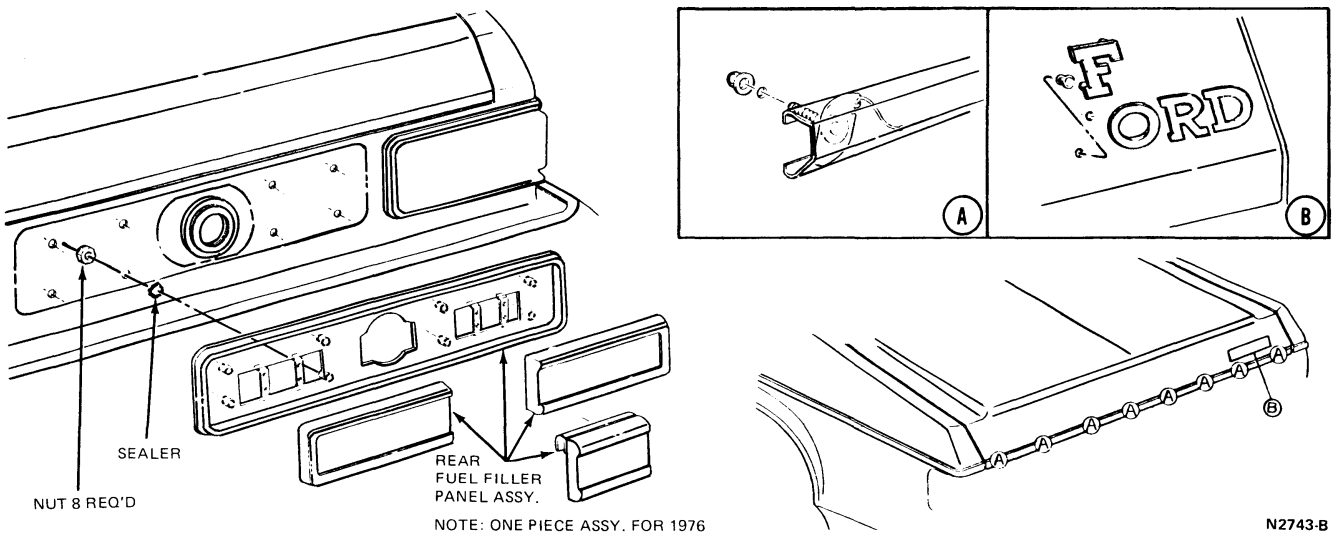


FIG. 9 Rear Exterior Moulding Installation—Granada Shown—Monarch Typical

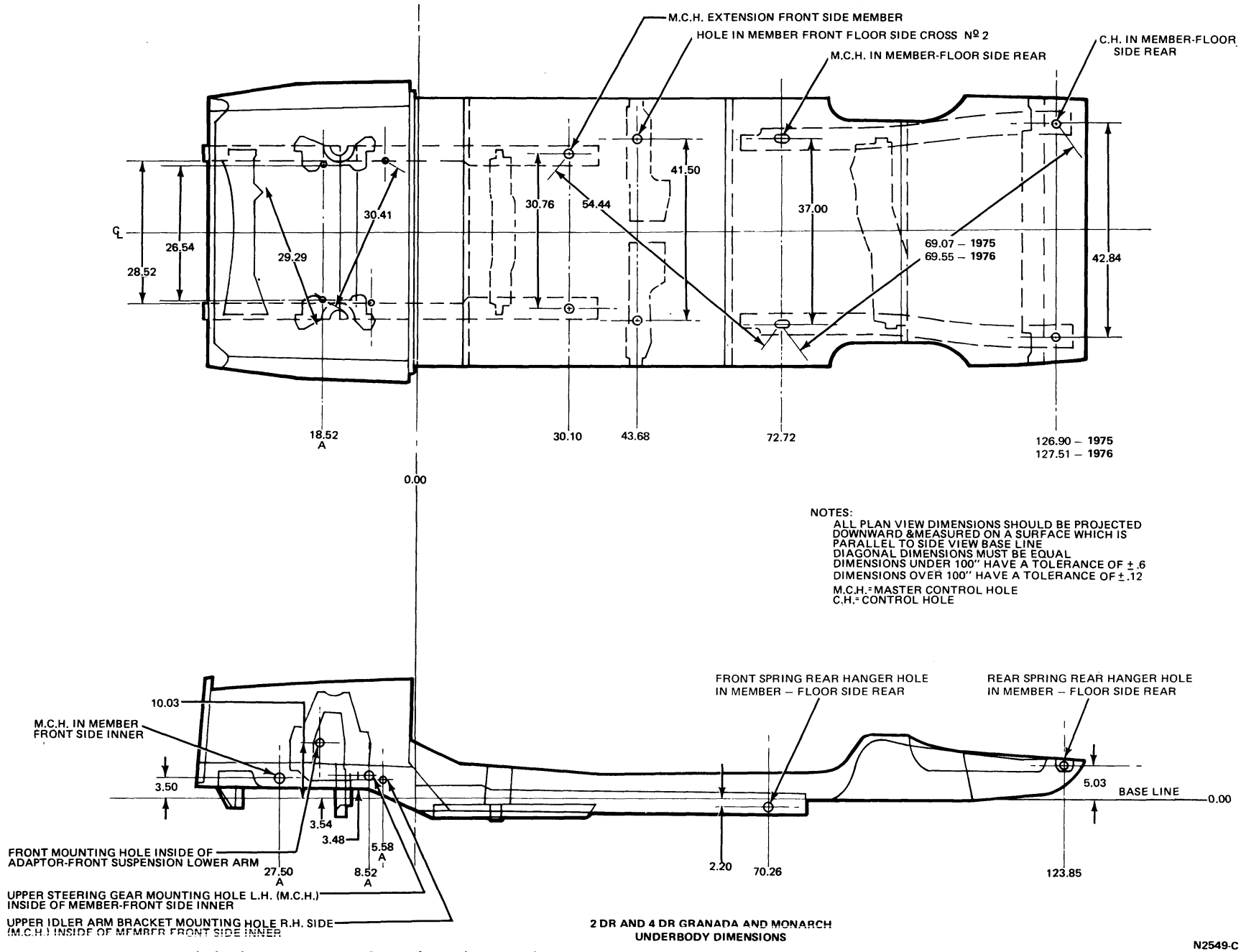


FIG. 10 Underbody Dimensions—Granada and Monarch

DECIMAL AND METRIC EQUIVALENTS

Fractions	Decimal In.	Metric MM.	Fractions	Decimal In.	Metric MM.
1/64	.015625	.39688	33/64	.515625	13.09687
1/32	.03125	.79375	17/32	.53125	13.49375
3/64	.046875	1.19062	35/64	.546875	13.89062
1/16	.0625	1.58750	9/16	.5625	14.28750
5/64	.078125	1.98437	36/64	.578125	14.68437
3/32	.09375	2.38125	19/32	.59375	15.08125
7/64	.109375	2.77812	39/64	.609375	15.47812
1/8	.125	3.1750	5/8	.625	15.87500
9/64	.140625	3.57187	41/64	.640625	16.27187
5/32	.15625	3.96875	21/32	.65625	16.66875
11/64	.171875	4.36562	43/64	.671875	17.06562
3/16	.1875	4.76250	11/16	.6875	17.46250
13/64	.203125	5.15937	45/64	.703125	17.85937
7/32	.21875	5.55625	23/32	.71875	18.25625
15/64	.234375	5.95312	47/64	.734375	18.65312
1/4	.250	6.35000	3/4	.750	19.05000
17/64	.265625	6.74687	49/64	.765625	19.44687
9/32	.28125	7.14375	25/32	.78125	19.84375
19/64	.296875	7.54062	51/64	.796875	20.24062
5/16	.3125	7.93750	13/16	.8125	20.63750
21/64	.328125	8.33437	53/64	.828125	21.03437
11/32	.34375	8.73125	27/32	.84375	21.43125
23/64	.359375	9.12812	55/64	.859375	21.82812
3/8	.375	9.52500	7/8	.875	22.22500
25/64	.390625	9.92187	57/64	.890625	22.62187
13/32	.40625	10.31875	29/32	.90625	23.01875
27/64	.421875	10.71562	59/64	.921875	23.41562
7/16	.4375	11.11250	15/16	.9375	23.81250
29/64	.453125	11.50937	61/64	.953125	24.20937
15/32	.46875	11.90625	31/32	.96875	24.60625
31/64	.484375	12.30312	63/64	.984375	25.00312
1/2	.500	12.70000	1	1.00	25.40000

METRIC–ENGLISH CONVERSION TABLE

Multiply	by	to get equivalent number of:
	LENGTH	
Inch	25.4	millimetres (mm)
Foot	0.304 8	metres (m)
Yard	0.914 4	metres
Mile	1.609	kilometres (km)
	AREA	
Inch^2	645.2	millimetres^2 (mm^2)
	6.45	centimetres^2 (cm^2)
Foot^2	0.092 9	metres^2 (m^2)
Yard^2	0.836 1	metres^2
	VOLUME	
Inch^3	16 387.	mm^3
	16.387	cm^3
	0.016 4	litres (l)
Quart	0.946 4	litres
Gallon	3.785 4	litres
Yard^3	0.764 6	metres^3 (m^3)
	MASS	
Pound	0.453 6	kilograms (kg)
Ton	907.18	kilograms (kg)
Ton	0.907	tonne (t)
	FORCE	
Kilogram	9.807	newtons (N)
Ounce	0.278 0	newtons
Pound	4.448	newtons
	TEMPERATURE	
Degree Fahrenheit	(†^{o}F-32)÷ 1.8	degree Celsius

Multiply	by	to get equivalent number of:
	ACCELERATION	
Foot/sec^2	0.304 8	metre/sec^2 (m/s^2)
Inch/sec^2	0.025 4	metre/sec^2
	TORQUE	
Pound-inch	0.112 98	newton-metres (N-m)
Pound-foot	1.355 8	newton-metres
	POWER	
Horsepower	0.746	kilowatts (kW)
	PRESSURE OR STRESS	
Inches of water	0.249 1	kilopascals (kPa)
Pounds/sq. in.	6.895	kilopascals
	ENERGY OR WORK	
BTU	1 055.	joules (J)
Foot-pound	1.355 8	joules
Kilowatt-hour	3 600 000. or 3.6 x 10^6	joules (J = one W's)
	LIGHT	
Foot candle	1.076 4	lumens/metre^2 (lm/m^2)
	FUEL PERFORMANCE	
Miles/gal	0.425 1	kilometres/litre (km/l)
Gal/mile	2.352 7	litres/kilometre (l/km)
	VELOCITY	
Miles/hour	1.609 3	kilometres/hr. (km/h)

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