

Doors

Specifications

Fastener Tightening Specifications

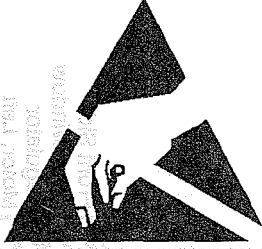
Application	Specification	
	Metric	English
Door Control Module Screw	3 N·m	27 lb in
Door Hinge to Hinge Door Bolt	30 N·m	22 lb ft
Door Hinge to Hinge Pillar Bolt	30 N·m	22 lb ft
Door Lock Screw	10 N·m	89 lb in
Door Lock Striker Screw	24 N·m	18 lb ft
Door Speaker Assembly Screw	2.5 N·m	22 lb in
Inside Handle Bezel Screw	1.4 N·m	12 lb in
Inside Handle Screw	5 N·m	44 lb in
Mirror Nut	10 N·m	89 lb in
Outside Door Handle Bolt	10 N·m	89 lb in
Seat Belt Guide Nut	40 N·m	30 lb ft
Side Door Armrest Bolt	4.5 N·m	40 lb in
Window Regulator Channel Stud Nut	10 N·m	89 lb in
Window Regulator Motor Nut	10 N·m	89 lb in
Window Regulator Window Clamp Nut	10 N·m	89 lb in

GM SPO Group Numbers

Application	GM SPO Group Number
Door	10.351
Door Inside Handle	10.512
Door Inside Handle Bezel	10.515
Door Lock	10.470
Door Locking Rod	10.563
Door Lower Hinge	10.454
Door Outside Handle	10.527
Door Striker	10.569
Door Trim Panel	14.685
Door Upper Hinge	10.450
Door Weather-strip	10.694
Door Window	10.681
Door Window Sealing Strip	10.710
Door Window Regulator	10.783

Schematic and Routing Diagrams

Power Door Systems Schematic Icons

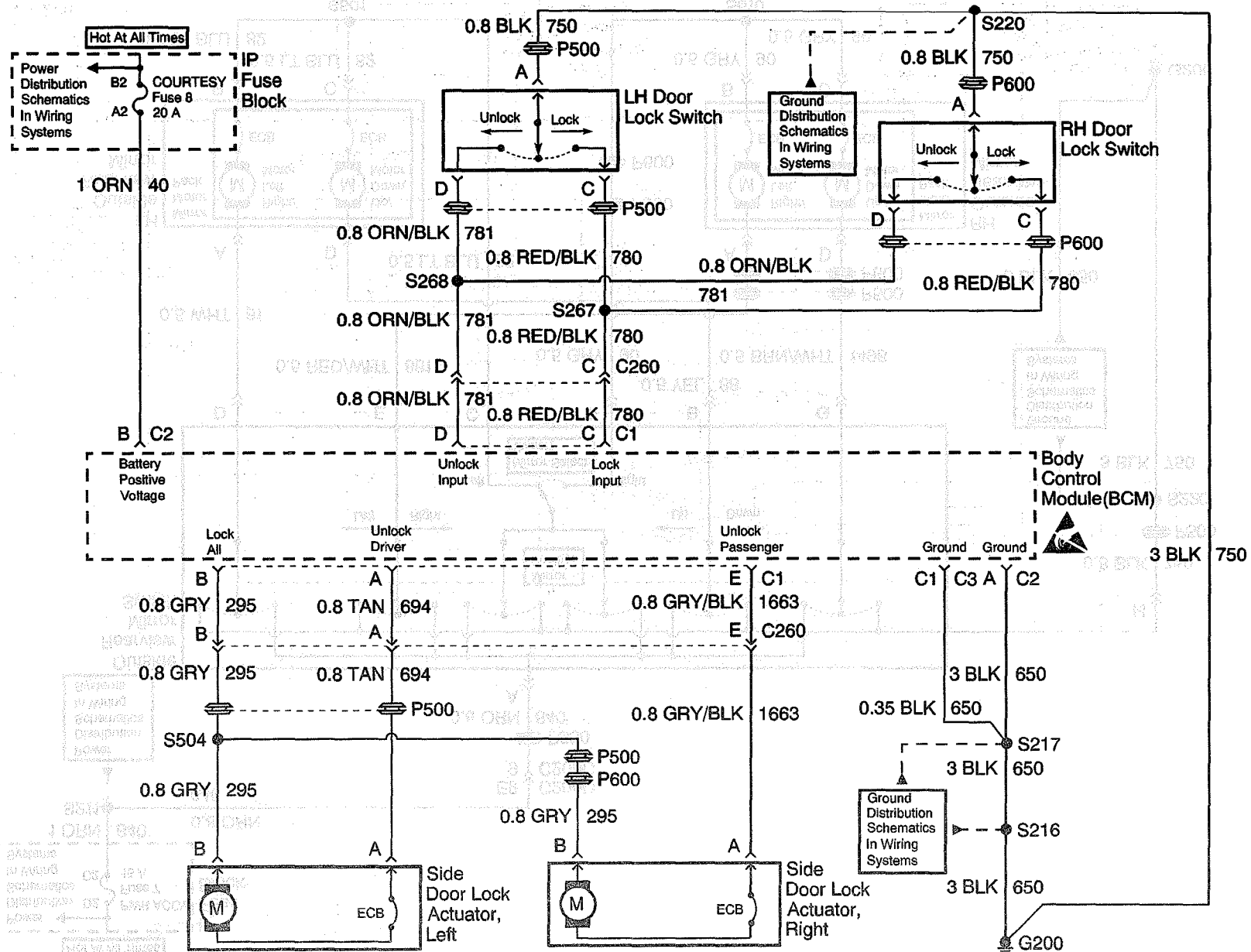
Icon	Icon Definition
	Refer to <i>ESD Notice</i> in Caution and Notices.

19384

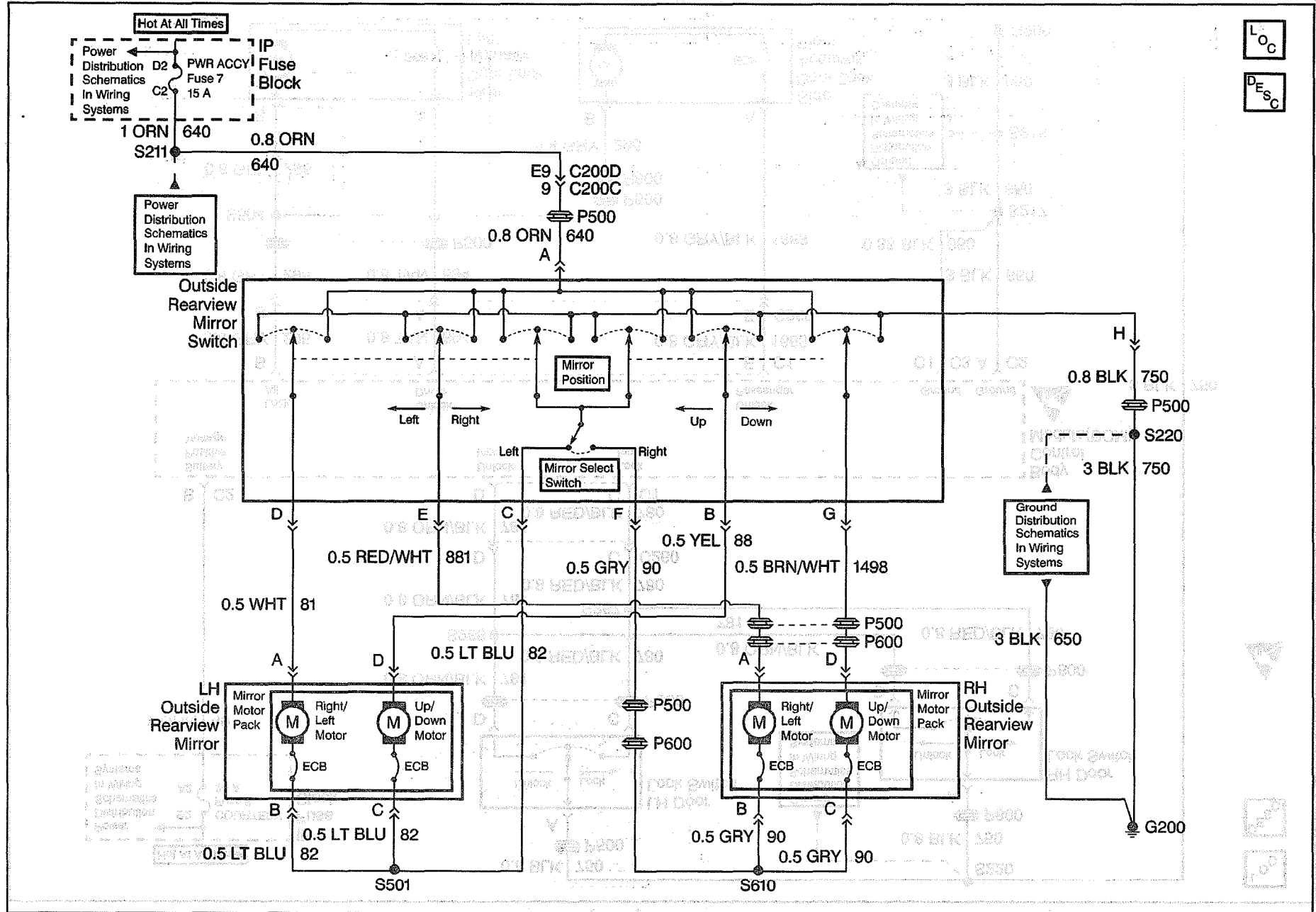
8-880 Doors



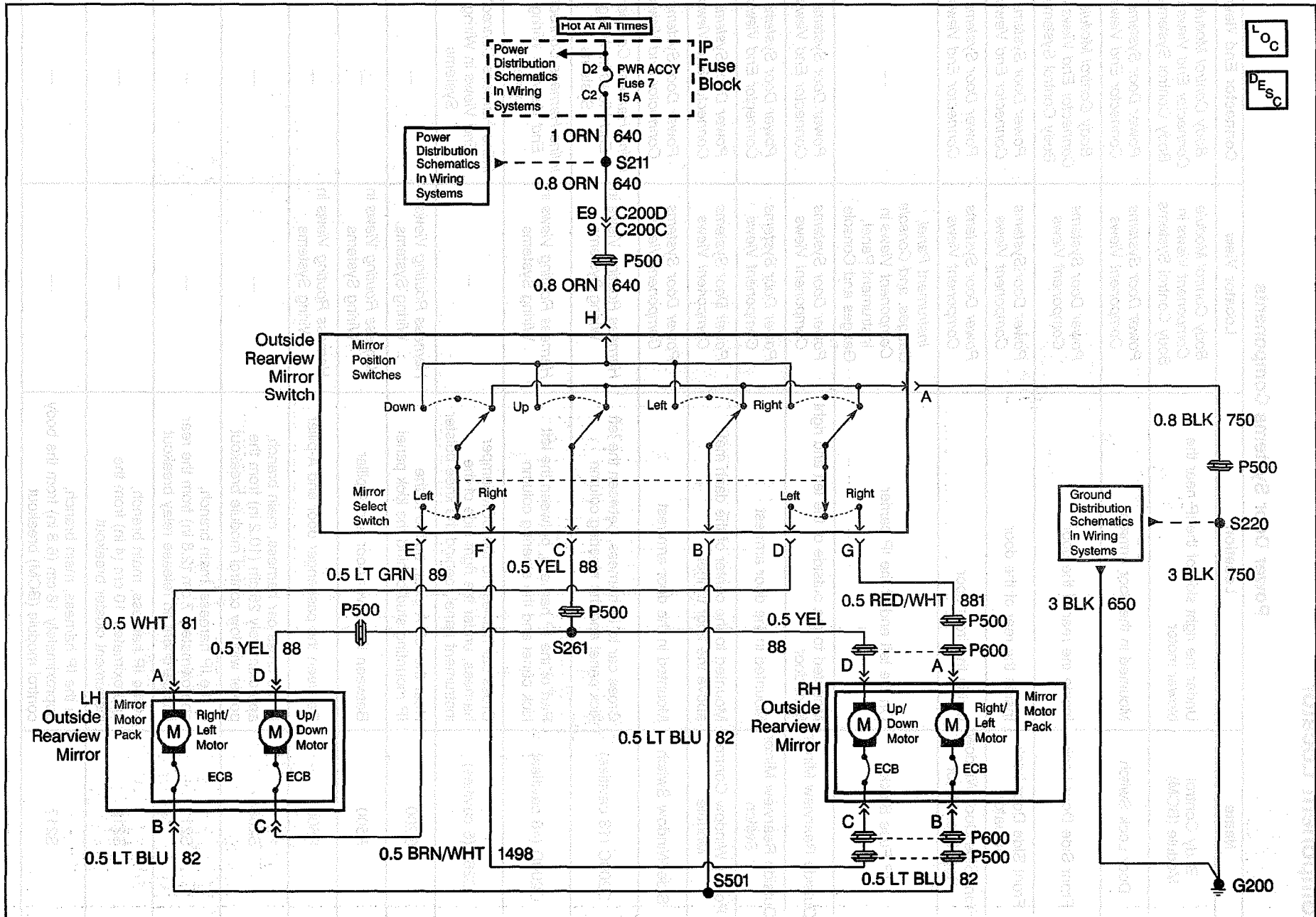
Door Lock/Indicator Schematics (Body Control Module and Door Lock Switches)



Outside Mirror Schematics (Chevrolet) (Outside Rearview Mirror Switch and Mirrors)



Outside Mirror Schematics (Pontiac) (Outside Rearview Mirror Switch and Mirrors)



Component Locator

Power Door Systems Components

Name	Location	Locator View	Connector End View
Body Control Module (BCM)	Under the right side of the IP near the blower motor	Body Control Module Component Views in Body Control Systems	Body Control Module Connector End Views in Body Control Systems
Door Lock Switch	Mounted in the door armrest	Power Door Systems Component Views	Power Door Systems Connector End Views
Front Side Door Lock	Inside the rear of the door	Power Door Systems Component Views	Body Control Module Connector End Views in Body Control Systems
Front Side Door Lock Actuator	Inside the rear of the door	Power Door Systems Component Views	Power Door Systems Connector End Views
Front Side Door Window Regulator Motor	Inside the front door	Power Door Systems Component Views	Power Door Systems Connector End Views
IP Fuse Block	On the left end of the IP carrier	Instrument Panel, Gauges, and Console Component Views in Instrument Panel, Gauges and Console	—
Outside Rearview Mirror	Mounted to the outside of the left and right front door	Power Door Systems Component Views	Power Door Systems Connector End Views
Outside Rearview Mirror Switch	Mounted in the door armrest	Power Door Systems Component Views	Power Door Systems Connector End Views
Power Window Control Module	Mounted to the center of the dash mat, above the floor tunnel	Power Door Systems Component Views	Power Door Systems Connector End Views
Side Window Switch	Mounted in the door arm rest	Power Door Systems Component Views	Power Door Systems Connector End Views
C200C (13 cavities)	Cross car to IP harness, between the left kick panel and the steering column	Harness Routing Views in Wiring Systems	Inline Harness Connector End Views in Wiring Systems
C200D (48 cavities)	Part of the IP harness, between the left kick panel and the steering column	Harness Routing Views in Wiring Systems	Inline Harness Connector End Views in Wiring Systems
C260 (6 cavities)	Cross car harness to the BCM jumper harness, under the right side of the instrument panel, behind the knee bolster	—	Inline Harness Connector End Views in Wiring Systems
G200	Near the left A-pillar, bolted to the IP mounting stud behind the kick panel	Harness Routing Views in Wiring Systems	—
P500	Between the driver door and A-pillar	Harness Routing Views in Wiring Systems	—
P600	Between the passenger door and A-pillar	Harness Routing Views in Wiring Systems	—
S208	In the cross car harness, main branch, approximately 26 cm (10.2 in) from the power window control module breakout	—	—
S211	In the IP harness, main branch, approximately 7 cm (2.8 in) from the rear compartment lid release relay breakout	—	—
S216	In the IP harness, main branch, approximately 10 cm (4 in) from the instrument cluster breakout	—	—
S217	In the IP harness, main branch, approximately 18 cm (6.8 in) from the body control module (BCM) breakout	—	—

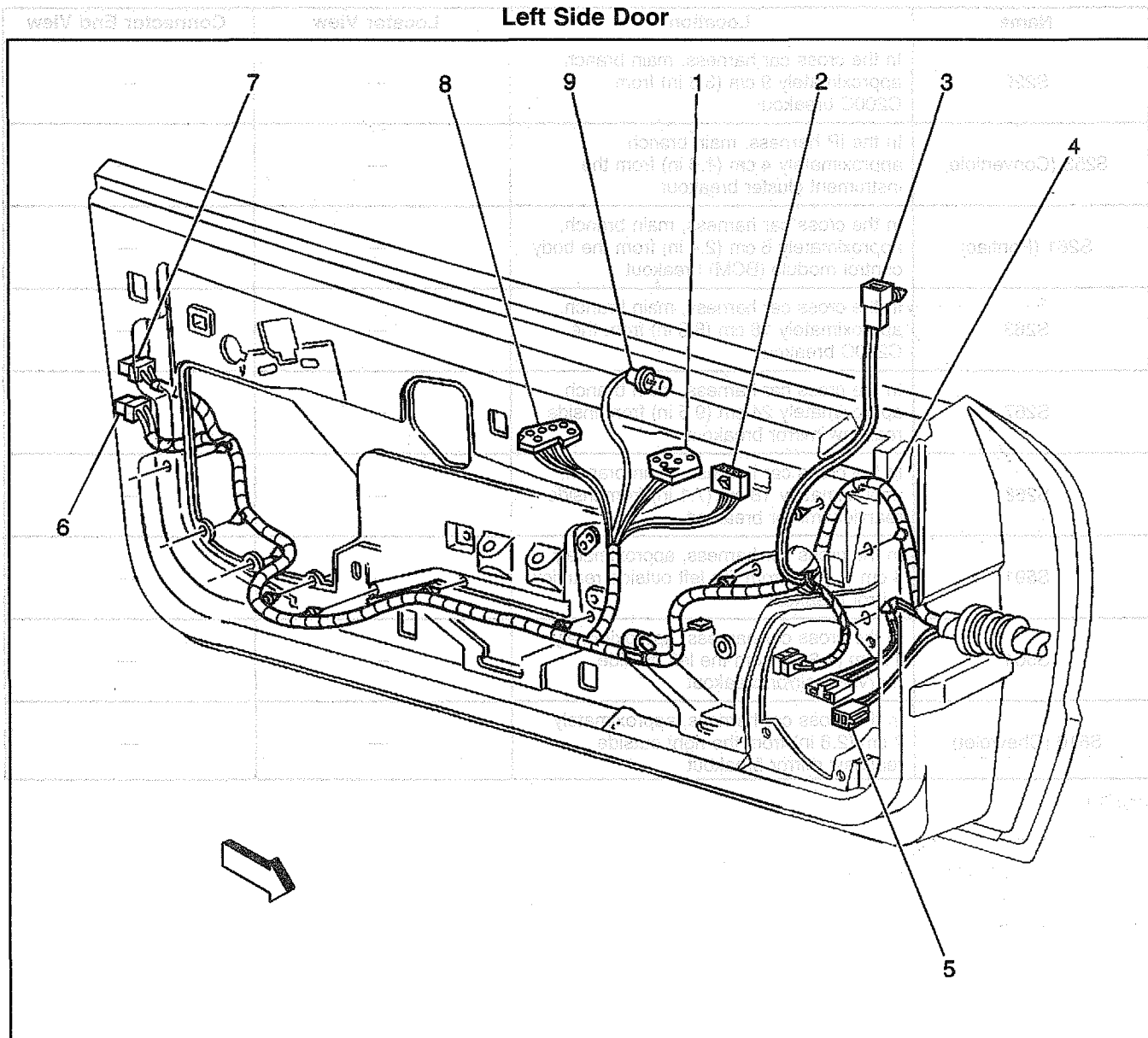
Power Door Systems Components (cont'd)

Name	Location	Locator View	Connector End View
S220	In the cross car harness, main branch, approximately 9 cm (3.5 in) from C200C breakout	—	—
S253 (Convertible)	In the IP harness, main branch, approximately 4 cm (1.6 in) from the instrument cluster breakout	—	—
S261 (Pontiac)	In the cross car harness, main branch, approximately 6 cm (2.4 in) from the body control module (BCM) breakout	—	—
S263	In the cross car harness, main branch, approximately 16 cm (6.3 in) from the C200C breakout	—	—
S267	In the cross car harness, main branch, approximately 24 cm (9.5 in) from inside rearview mirror breakout	—	—
S268	In the cross car harness, main branch, approximately 18 cm (7.1 in) from inside rearview mirror breakout	—	—
S501	In the cross car harness, approximately 4 cm (1.6 in) from the left outside rearview mirror breakout	—	—
S504	In the cross car harness, approximately 11 cm (4.3 in) from the left outside rearview mirror breakout	—	—
S610 (Chevrolet)	In the cross car harness, approximately 7 cm (2.8 in) from the right outside rearview mirror breakout	—	—

Legend

- (1) Door Lock Switch Connector
- (2) Outside Rearview Mirror Glass Switch
- (3) Connector
- (4) Cross Car Harness
- (5) Front Side Door Window Regulator Motor
- (6) Front Side Door Lock Actuator Connector
- (7) Front Side Door Lock Connector
- (8) Side Window Switch Connector
- (9) Door Illumination Lamp

Power Door Systems Component Views

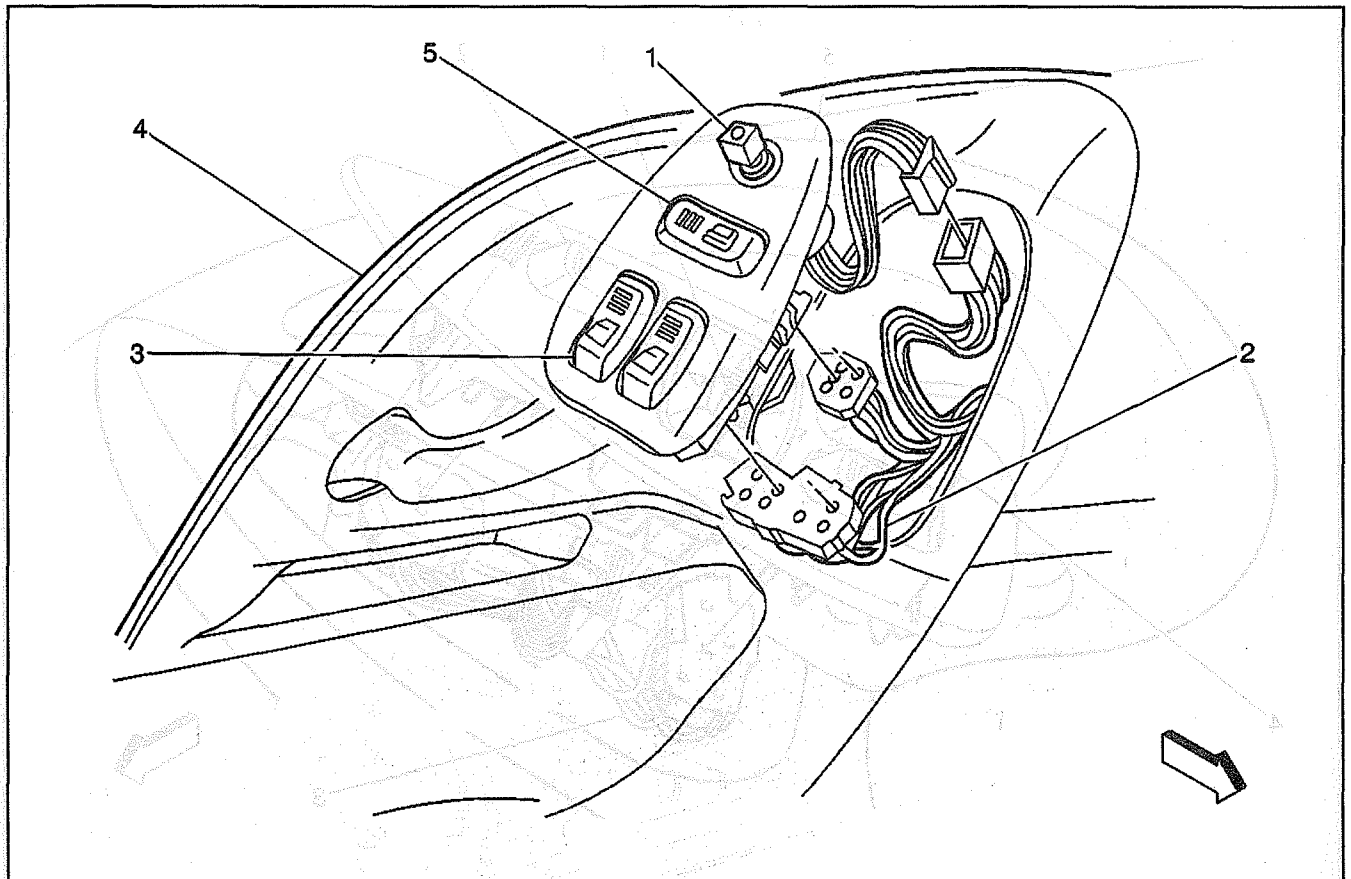


374151

Legend

- | | |
|--|---|
| (1) Door Lock Switch Connector | (6) Front Side Door Lock Actuator Connector |
| (2) Outside Rearview Mirror Select Switch Connector | (7) Front Side Door Lock Connector |
| (3) Outside Rearview Mirror Connector | (8) Side Window Switch Connector |
| (4) Cross Car Harness | (9) Door Illumination Lamp |
| (5) Front Side Door Window Regulator Motor Connector | |

Left Door Armrest (Chevrolet)



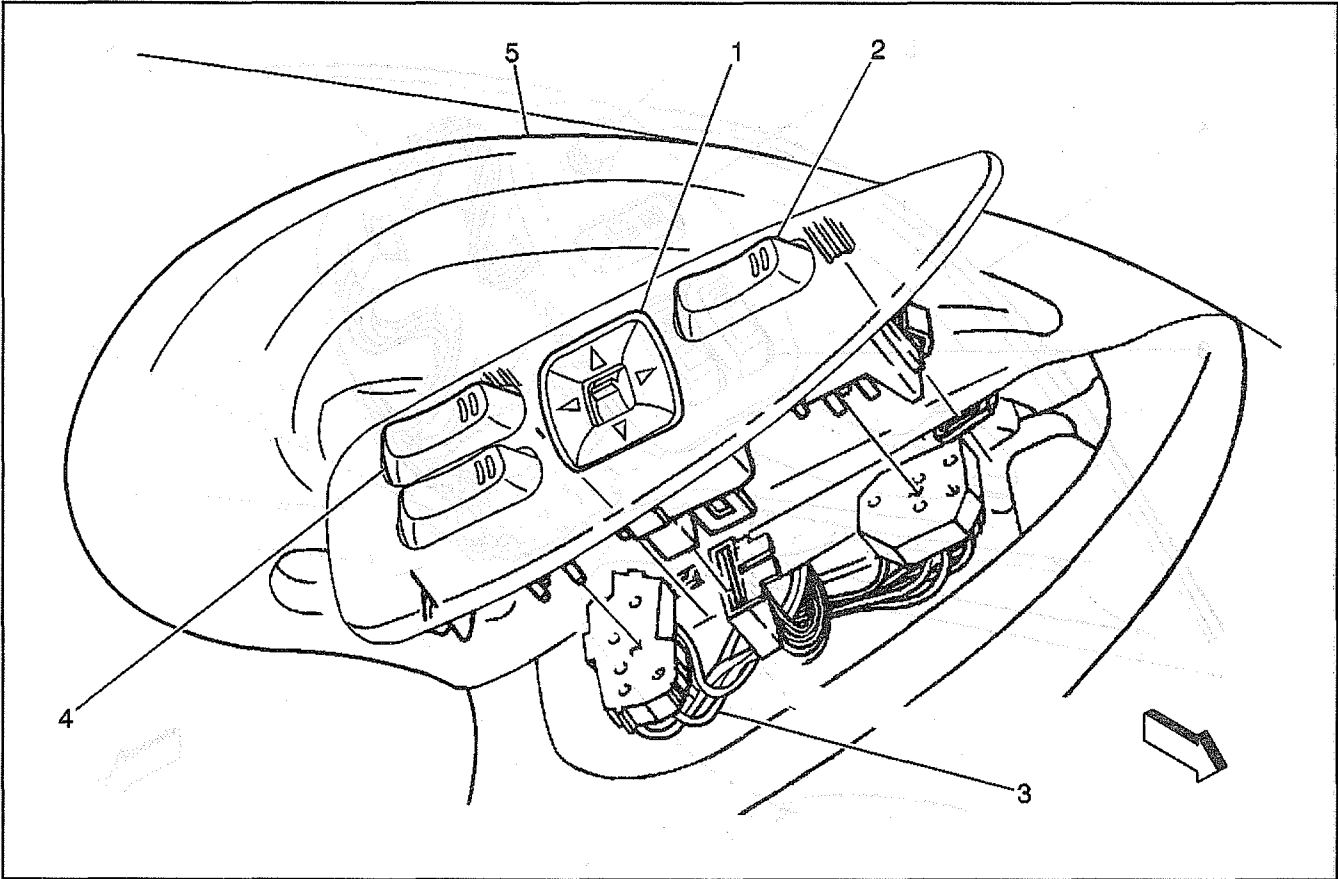
374161

Legend

- (1) Outside Rearview Mirror Switch
- (2) Cross Car Harness
- (3) Side Window Switch

- (4) Door Trim Panel
- (5) Door Lock Switch

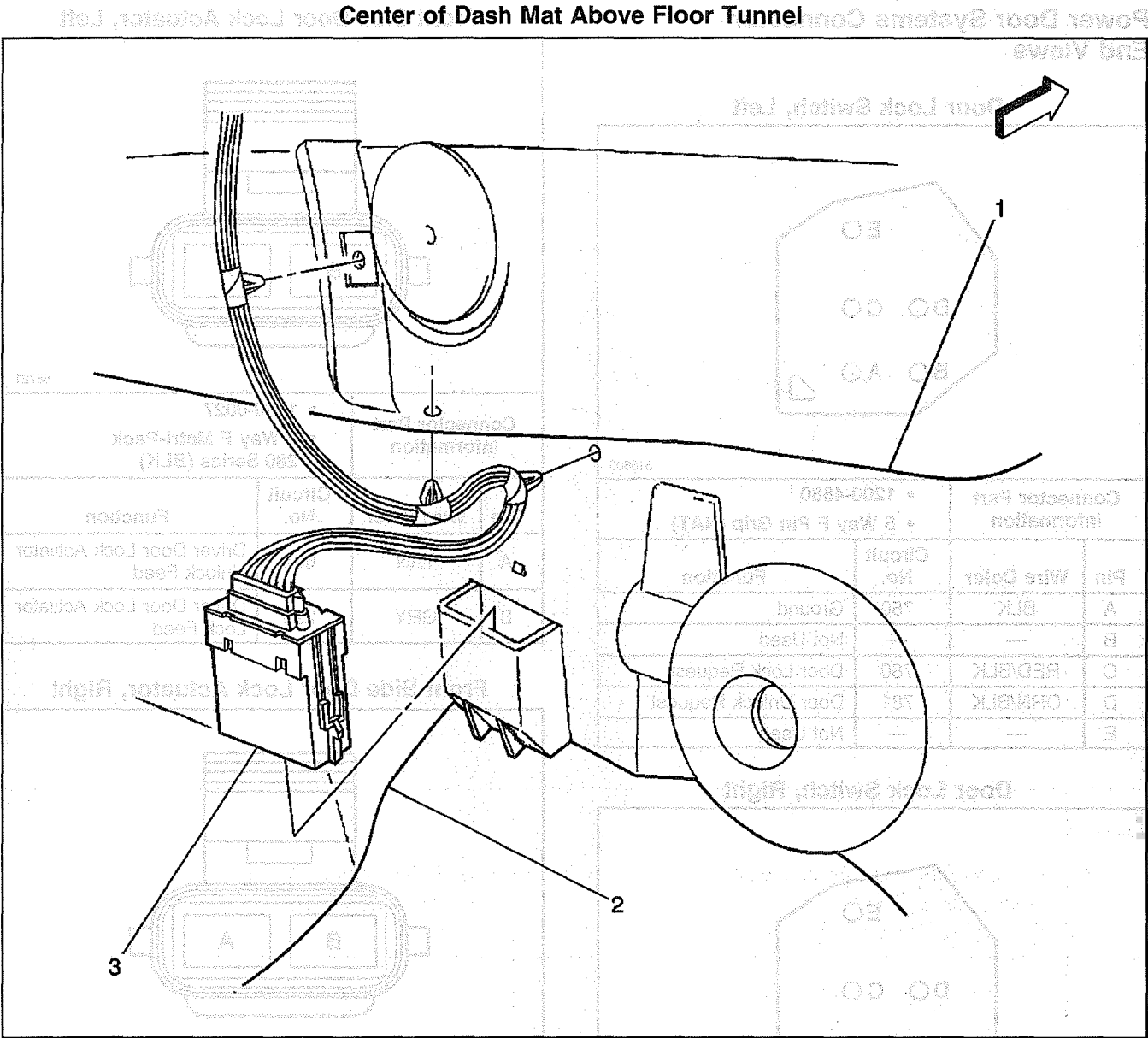
Left Door Armrest (Pontiac)



374162

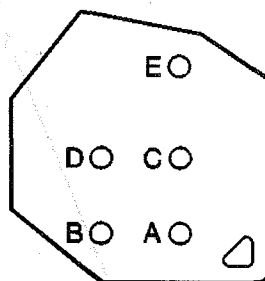
Legend

- | | |
|------------------------------------|------------------------|
| (1) Outside Rearview Mirror Switch | (4) Side Window Switch |
| (2) Door Lock Switch | (5) Door Trim Panel |
| (3) Cross Car Harness | |



Power Door Systems Connector Front Side Door Lock Actuator, Left End Views

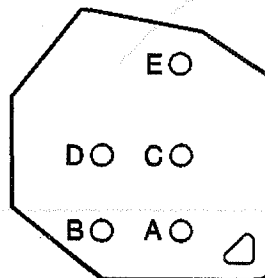
Door Lock Switch, Left



516600

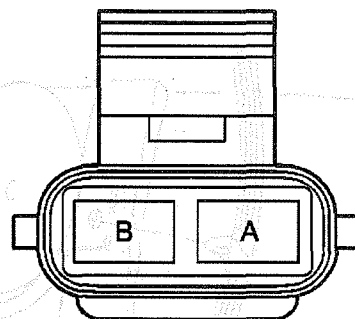
Connector Part Information		• 1200-4680 • 5 Way F Pin Grip (NAT)	
Pin	Wire Color	Circuit No.	Function
A	BLK	750	Ground
B	—	—	Not Used
C	RED/BLK	780	Door Lock Request
D	ORN/BLK	781	Door Unlock Request
E	—	—	Not Used

Door Lock Switch, Right



516600

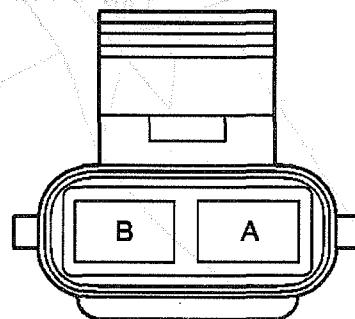
Connector Part Information		• 1200-4680 • 5 Way F Pin Grip (NAT)	
Pin	Wire Color	Circuit No.	Function
A	BLK	750	Ground
B	—	—	Not Used
C	RED/BLK	780	Door Lock Request
D	ORN/BLK	781	Door Unlock Request
E	—	—	Not Used



68721

Connector Part Information		• 1530-0027 • 2 Way F Metri-Pack 280 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	TAN	694	Driver Door Lock Actuator Unlock Feed
B	GRY	295	Driver Door Lock Actuator Lock Feed

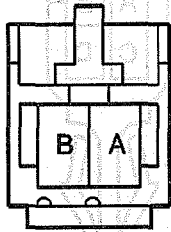
Front Side Door Lock Actuator, Right



68721

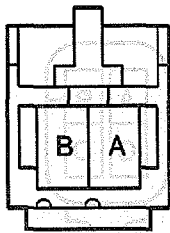
Connector Part Information		• 1530-0027 • 2 Way F Metri-Pack 280 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	GRY/BLK	1663	Passenger Door Lock Actuator Unlock Feed
B	GRY	295	Passenger Door Lock Actuator Lock Feed

Front Side Door Window Regulator Motor, Left



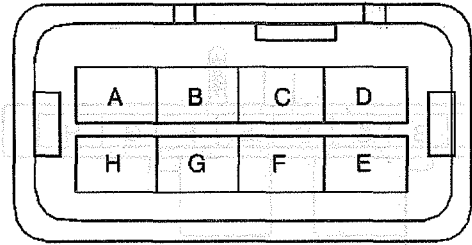
Connector Part Information		• 1200-4140 • 2 Way F PAC/ON 1 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	BRN	165	Left Front Window Down Motor Feed
B	DK BLU	164	Left front Window Up Motor Feed

Front Side Door Window Regulator Motor, Right



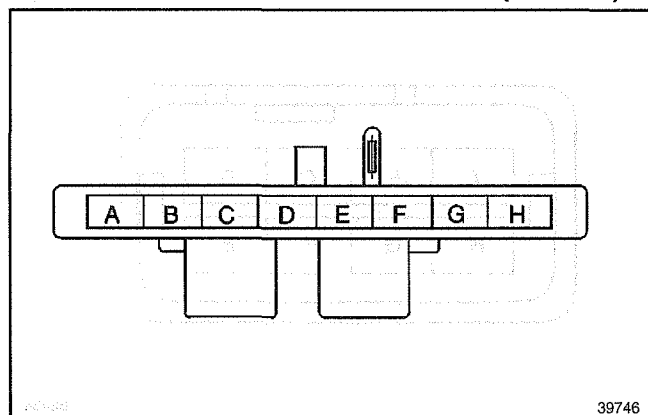
Connector Part Information		• 1200-4140 • 2 Way F PAC/ON 1 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	DK BLU	666	Right Window Motor Up Feed
B	BRN	667	Right Window Motor Down Feed

Outside Rearview Mirror Switch (Chevrolet)



Connector Part Information		• 1204-5688 • 8 Way M Metri-Pack 150 Series (NAT)	
Pin	Wire Color	Circuit No.	Function
A	ORN	640	Fused Battery Feed
B	YEL	88	Left Outside Mirror Up/Down Motor Feed
C	LT BLU	82	Left Outside Mirror Motor Feed
D	WHT	81	Left Outside Mirror Right/Left Motor Feed
E	RED/WHT	881	Right Outside Mirror Right/Left Motor Feed
F	GRY	90	Right Outside Mirror Motor Feed
G	BRN/WHT	1498	Right Outside Mirror Up/Down Motor Feed
H	BLK	750	Ground

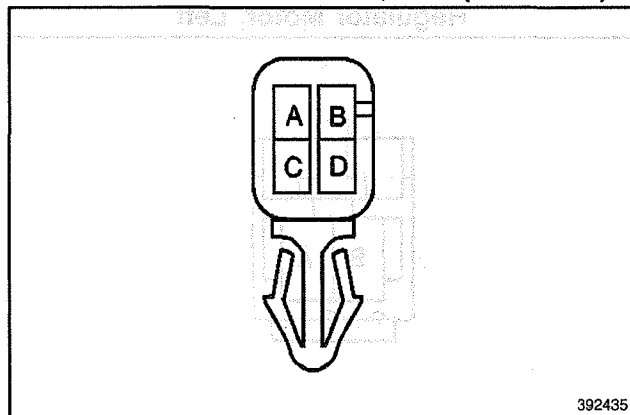
Outside Rearview Mirror Switch (Pontiac)



39746

Connector Part Information		• 1206-4862 • 8 Way F Metri-Pack 150 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	BLK	750	Ground
B	LT BLU	82	Outside Mirror Right/Left Motor Feed
C	YEL	88	Outside Mirror Up/Down Motor Feed
D	WHT	81	Left Outside Mirror Right/Left Motor Feed
E	LT GRN	89	Left Outside Mirror Up/Down Motor Feed
F	BRN/WHT	1498	Right Outside Mirror Up/Down Motor Feed
G	RED/WHT	881	Right Outside Mirror Right/Left Motor Feed
H	ORN	640	Fused Battery Feed

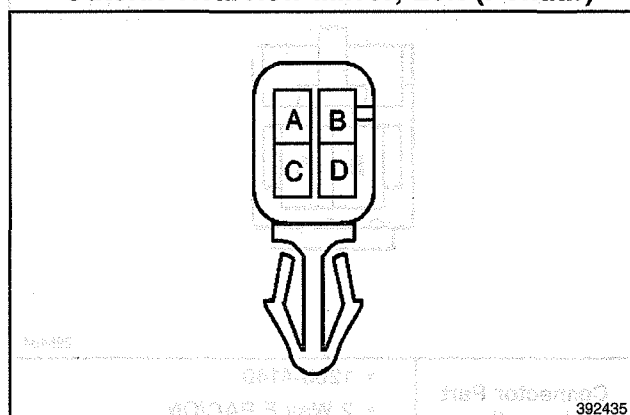
Outside Rearview Mirror, Left (Chevrolet)



392435

Connector Part Information		• 1206-6498 • 4 Way M Metri-Pack 150 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	WHT	81	Left Outside Mirror Right/Left Motor Feed
B	LT BLU	82	Left Outside Mirror Right/Left Motor Feed
C	LT BLU	82	Left Outside Mirror Up/Down Motor Feed
D	YEL	88	Left Outside Mirror Up/Down Motor Feed

Outside Rearview Mirror, Left (Pontiac)



392435

Connector Part Information		• 1206-6498 • 4 Way M Metri-Pack 150 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	WHT	81	Left Outside Mirror Right/Left Motor Feed
B	LT BLU	82	Left Outside Mirror Right/Left Motor Feed
C	LT GRN	89	Left Outside Mirror Up/Down Motor Feed
D	YEL	88	Left Outside Mirror Up/Down Motor Feed

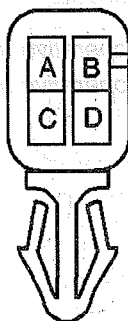
Outside Rearview Mirror, Right (Chevrolet)



392435

Connector Part Information		• 1206-6498 • 4 Way M Metri-Pack 150 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	RED/WHT	881	Right Outside Mirror Right/Left Motor Feed
B	GRY	90	Right Outside Mirror Right/Left Motor Feed
C	GRY	90	Right Outside Mirror Up/Down Motor Feed
D	BRN/WHT	1498	Right Outside Mirror Up/Down Motor Feed

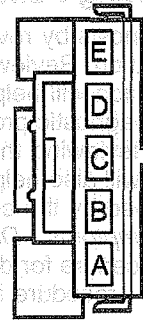
Outside Rearview Mirror, Right (Pontiac)



392435

Connector Part Information		• 1206-6498 • 4 Way M Metri-Pack 150 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	RED/WHT	881	Right Outside Mirror Right/Left Motor Feed
B	LT BLU	82	Right Outside Mirror Right/Left Motor Feed
C	BRN/WHT	1498	Right Outside Mirror Up/Down Motor Feed
D	YEL	88	Right Outside Mirror Up/Down Motor Feed

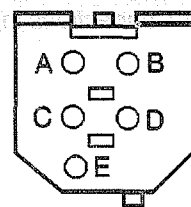
Power Window Control Module



392430

Connector Part Information		• 1201-5356 • 5 Way F Metri-Pack 480 Series (BLK)	
Pin	Wire Color	Circuit No.	Function
A	DK BLU	164	Left Front Window Up Input
B	—	—	Not Used
C	BRN	341	Fused RAP Feed
D	BRN	165	Left Front Window Down Motor Feed
E	GRY	1136	Left Front Window Down Input

Side Window Switch, Right



392408

Connector Part Information		• 1203-3945 • 5 Way F Pin Grip (BLK)	
Pin	Wire Color	Circuit No.	Function
A	BRN	341	Fused RAP Feed
B	LT BLU	166	Right Window Motor Feed
C	BRN	667	Right Window Motor Feed
D	DK BLU	666	Right Window Motor Feed
E	TAN	167	Right Window Motor Feed

Diagnostic Information and Procedures

A Diagnostic Starting Point - Doors

Begin the system diagnosis by reviewing the system Description and Operation. Reviewing the Description and Operation information will help you determine the correct symptom diagnostic procedure when a malfunction exists. Reviewing the Description and Operation information will also help you determine if the condition described by the customer is normal operation. Refer to *Symptoms - Doors* in order to identify the correct procedure for diagnosing the system and where the procedure is located.

Symptoms - Doors

Important: Review the system description in order to familiarize yourself with the system functions. Refer to one of the following descriptions:

- *Power Windows Circuit Description*
- *Power Door Locks Circuit Description*
- *Outside Mirrors Circuit Description*

Visual/Physical Inspection

- Inspect for aftermarket devices which could affect the operation of the Doors System. Refer to *Checking Aftermarket Accessories* in Wiring Systems.
- Inspect the easily accessible or visible system components for obvious damage or conditions which could cause the symptom.

Intermittent

Faulty electrical connections or wiring may be the cause of intermittent conditions. Refer to *Testing for Intermittent and Poor Connections* in Wiring Systems.

Vehicle	Year	Make	Model	Engine	Transmission	Drive	Configuration	Notes
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991

Symptom List

Refer to a symptom diagnostic procedure from the following list in order to diagnose the symptom:

- *Power Door Locks Inoperative - All Doors and Switches*
- *Power Door Locks - Lock Inop, Unlock Operates*
- *Power Door Locks - Unlock Inop, Lock Operates*
- *Power Door Locks Switch Lock Function Inoperative - One*
- *Power Door Locks Switch Unlock Function Inop - One*
- *Power Mirrors Inoperative*
- *Power Mirrors Inoperative - One (Chevrolet)*
- *Power Mirrors Inoperative - One (Pontiac)*
- *Power Mirrors Inoperative in Left/Right Direction - One (Chevrolet)*
- *Power Mirrors Inoperative in Left/Right Direction - One (Pontiac)*
- *Power Mirrors Inoperative in Up/Down Direction - One (Chevrolet)*
- *Power Mirrors Inoperative in Up/Down Direction - One (Pontiac)*
- *Power Windows Inoperative - All*
- *Power Window Inoperative - LF*
- *Power Window Inoperative - RF from LF Switch*
- *Power Window Inoperative - RF*
- *Power Windows Inoperative - Express Down Function*
- *Power Windows Inoperative from LF Switch*
- *Power Windows Inoperative from RF Switch*

Vehicle	Year	Make	Model	Engine	Transmission	Drive	Configuration	Notes
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991
1990-1991	1990-1991	Chrysler	1990-1991	1.6L	4-Speed	4-Door	4-Door	1990-1991

Power Door Locks Inoperative - All Doors and Switches

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition to the RUN position. 2. Attempt to operate the driver door lock switch. 3. Attempt to operate the passenger door lock switch. Do both door lock switches operate normally?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	Connect a test lamp between the battery voltage circuit of the body control module (BCM) at the BCM connector and ground. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 4	Go to Step 7
4	1. Disconnect the left door lock switch connector. 2. Connect a test lamp between the ground circuit of the left door lock switch at the left door lock switch connector and the battery voltage circuit of the BCM at the BCM connector. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 5
5	Repair the open in the ground circuit of the door lock switches. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 12	—
6	1. Reconnect the left door lock switch connector. 2. Connect a test lamp between the BCM connector C1 terminal B and ground. Refer to <i>Circuit Testing</i> in Wiring Systems. 3. While observing the test lamp, move the left door lock switch to the lock position. Does the test lamp illuminate?	—	Go to Step 8	Go to Step 9
7	Repair the open in the battery voltage circuit of the body control module (BCM). Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 12	—
8	Repair the open in circuit 295 between the BCM and S504. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 12	—
9	Test for and repair a poor connection at the battery voltage terminal of the BCM connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 12	Go to Step 10
10	Test for and repair a poor connection at the BCM connector C1 terminal B. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 12	Go to Step 11
11	Replace the BCM. Refer to <i>Body Control Module Replacement</i> in Body Control System. Did you complete the replacement?	—	Go to Step 12	—
12	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Door Locks - Lock Inop, Unlock Operates

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition to the RUN position. 2. Attempt to operate the lock function on both doors. 3. Attempt to operate the unlock function on both doors. 4. Verify that the lock function does not operate properly but the unlock function does operate properly. Does both the lock function and the unlock function work properly on both doors?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Connect a DMM between the body control module (BCM) connector C1 terminal C and ground. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. While observing the DMM, move either door lock switch to the lock position. Is there continuity?	—	Go to Step 4	Go to Step 6
4	Test for and repair a poor connection at the BCM connector C1 terminal C. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 7	Go to Step 5
5	Important: Perform the set up procedure for the body control module. Replace the BCM. Refer to <i>Body Control Module Replacement</i> in Body Control System. Did you complete the replacement?	—	Go to Step 7	—
6	Repair the open in circuit 780 between the BCM and S267. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 7	—
7	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Door Locks - Unlock Inop, Lock Operates

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition to the RUN position. 2. Attempt to operate the lock function on both doors. 3. Attempt to operate the unlock function on both doors. Do both the lock function and the unlock function work properly on both doors?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Connect a DMM between the body control module (BCM) connector C1 terminal D and ground. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. While observing the DMM, move either door lock switch to the unlock position. Is there continuity?	—	Go to Step 4	Go to Step 6
4	Test for and repair a poor connection at the BCM connector C1 terminal D. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 7	Go to Step 5
5	Replace the BCM. Refer to <i>Body Control Module Replacement</i> in Body Control System. Did you complete the replacement?	—	Go to Step 7	—
6	Repair the open in circuit 781 between the BCM and S268. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 7	—
7	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Door Locks Switch Lock Function Inoperative - One

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition to the RUN position. 2. Attempt to operate the lock function on both doors. Does the lock function work properly on both doors?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Connect a DMM between the inoperative door lock switch connector terminal C and ground. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. While observing the DMM, move the inoperative door lock switch to the lock position. Is there continuity?	—	Go to Step 4	Go to Step 6
4	Repair the open in circuit 780 between the inoperative door lock switch and S267. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 7	—
5	Test for and repair a poor connection at the inoperative door lock switch. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 7	Go to Step 6
6	Replace the door lock switch. Refer to <i>Power Door Lock Switch Replacement (Chevrolet)</i> or <i>Power Door Lock Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 7	—
7	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Door Locks Switch Unlock Function Inop - One

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition to the RUN position. 2. Attempt to operate the unlock function on both doors. 3. Verify that the unlock function does not operate properly on one of the doors. Does the unlock function operate normally on both doors?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Connect a DMM between the inoperative door lock switch connector terminal D and ground. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. While observing the DMM, move the inoperative door lock switch to the unlock position. Is there continuity?	—	Go to Step 4	Go to Step 5
4	Repair the open in circuit 781 between the inoperative door lock switch and S268. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 7	—
5	Test for and repair a poor connection at the inoperative door lock switch. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 7	Go to Step 6
6	Replace the door lock switch. Refer to <i>Power Door Lock Switch Replacement (Chevrolet)</i> or <i>Power Door Lock Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 7	—
7	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Mirrors Inoperative

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	Attempt to adjust the outside power mirrors. Do the outside power mirrors adjust properly?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	Connect a test lamp between the battery voltage terminal of the outside rearview mirror switch connector and ground. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 5	Go to Step 4
4	Repair an open or a poor connection in the battery voltage circuit of the outside rearview mirror switch. Refer to <i>Wiring Repairs</i> or <i>Connector Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 9	Go to Step 7
5	Connect a test lamp between the battery voltage terminal of the outside rearview mirror switch connector and the ground terminal of the outside rearview mirror switch connector. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 8
6	Test for and repair a poor connection at the outside rearview mirror switch connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 9	Go to Step 7
7	Replace the switch. Refer to <i>Power Mirror Switch Replacement (Chevrolet)</i> or <i>Power Mirror Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 9	Go to Step 7
8	Repair an open in the ground circuit of the outside rearview mirror switch. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 9	Go to Step 7
9	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Mirrors Inoperative - One (Chevrolet)

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Attempt to adjust the outside rearview mirrors. 2. Verify that one of the mirrors does not operate properly. Do the outside power mirrors adjust properly?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Use the mirror select switch to select the inoperative mirror. 2. If the left mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal B and terminal C. Refer to <i>Circuit Testing</i> in Wiring Systems. 3. If the right mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal G and terminal F. Refer to <i>Circuit Testing</i> in Wiring Systems. 4. While observing the test lamp, press the mirror position switch to the up position. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 4
4	Test for and repair a poor connection at the outside rearview mirror switch connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 10	Go to Step 5
5	Replace the outside rearview mirror switch. Refer to <i>Power Mirror Switch Replacement (Chevrolet)</i> . Did you complete the replacement?	—	Go to Step 10	—
6	1. Connect a test lamp between the outside rearview mirror connector terminal D and terminal C. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. Press the mirror position switch to the up position while observing the test lamp. Does the test lamp illuminate?	—	Go to Step 7	Go to Step 9
7	Test for and repair a poor connection at the outside rearview mirror connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 10	Go to Step 8
8	Replace the mirror motor pack within the power mirror. Refer to <i>Mirror Replacement</i> . Did you complete the replacement?	—	Go to Step 10	—
9	1. If the left mirror is inoperative, repair the open in circuit 82 between mirror switch connector terminal C and S501. Refer to <i>Wiring Repairs</i> in Wiring Systems. 2. If the right mirror is inoperative, repair the open in circuit 90 between mirror switch connector terminal F and S610. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 10	—
10	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Mirrors Inoperative - One (Pontiac)

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	Attempt to adjust the outside power mirrors. Do both outside power mirrors adjust normally?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Use the mirror select switch to select the inoperative mirror. 2. If the left mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal C and terminal E. Refer to <i>Circuit Testing</i> in Wiring Systems. 3. If the right mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal C and terminal F. Refer to <i>Circuit Testing</i> in Wiring Systems. 4. While observing the test lamp, press the mirror position switch to the up position. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 4
4	Test for and repair a poor connection at the outside rearview mirror switch connector. Refer to <i>Testing for Intermittent and Poor Connections and Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 5
5	Replace the outside rearview mirror switch. Refer to <i>Power Mirror Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 11	—
6	1. Connect a test lamp between the outside rearview mirror connector terminal D and terminal C. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. Press the mirror position switch to the up position while observing the test lamp. Does the test lamp illuminate?	—	Go to Step 7	Go to Step 9
7	Test for and repair a poor connection at the outside rearview mirror connector. Refer to <i>Testing for Intermittent and Poor Connections and Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 8
8	Replace the mirror motor pack within the power mirror. Refer to <i>Mirror Replacement</i> . Did you complete the replacement?	—	Go to Step 11	—
9	1. If the left mirror is inoperative, test for and repair an open in circuit 89 between the mirror switch connector terminal E and the mirror connector terminal C. Refer to <i>Circuit Testing and Wiring Repairs</i> in Wiring Systems. 2. If the right mirror is inoperative, test for and repair an open in circuit 1498 between the mirror switch connector terminal F and the mirror connector terminal C. Refer to <i>Circuit Testing and Wiring Repairs</i> in Wiring Systems. Did you find and repair an open?	—	Go to Step 11	Go to Step 10
10	Repair the open in circuit 88 between mirror connector terminal D and S261. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 11	—
11	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Mirrors Inoperative in Left/Right Direction - One (Chevrolet)

Step	Action	Value(s)	Yes	No
1	Did you verify the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	Attempt to adjust the outside power mirrors in the left or the right direction. Do both outside power mirrors adjust normally in the left/right direction?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Use the mirror select switch to select the inoperative mirror. 2. If the left mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal D and terminal C. Refer to <i>Circuit Testing</i> in Wiring Systems. 3. If the right mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal E and terminal F. Refer to <i>Circuit Testing</i> in Wiring Systems. 4. While observing the test lamp, press the mirror position switch to the left position. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 4
4	Test for and repair a poor connection at the outside rearview mirror switch connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 5
5	Replace the outside rearview mirror switch. Refer to <i>Power Mirror Switch Replacement (Chevrolet)</i> . Did you complete the replacement?	—	Go to Step 11	—
6	1. Connect a test lamp between the outside rearview mirror connector terminal B and terminal A. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. Press the mirror position switch to the left position while observing the test lamp. Does the test lamp illuminate?	—	Go to Step 7	Go to Step 9
7	Test for and repair a poor connection at the outside rearview mirror connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 8
8	Replace the mirror motor pack within the power mirror. Refer to <i>Mirror Replacement</i> . Did you complete the replacement?	—	Go to Step 11	—
9	1. If the left mirror is inoperative, test for and repair an open in circuit 81 between the mirror switch connector terminal D and the mirror connector terminal A. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. 2. If the right mirror is inoperative test for an open in circuit 881 between the mirror switch connector terminal E and the mirror connector terminal A. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. Did you find and repair an open?	—	Go to Step 11	Go to Step 10
10	1. If the left mirror is inoperative, repair the open in circuit 82 between S501 and the mirror connector terminal B. Refer to <i>Wiring Repairs</i> in Wiring Systems. 2. If the right mirror is inoperative, repair the open in circuit 90 between S610 and the mirror connector terminal B. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 11	—
11	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Mirrors Inoperative in Left/Right Direction - One (Pontiac)

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	Attempt to adjust the outside rearview mirrors in the left or the right direction. Do both outside power mirrors adjust normally in the left/right direction?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Use the mirror select switch to select the inoperative mirror. 2. If the left mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal D and terminal B. Refer to <i>Circuit Testing</i> in Wiring Systems. 3. If the right mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal G and terminal B. Refer to <i>Circuit Testing</i> in Wiring Systems. 4. While observing the test lamp, press the mirror position switch to the left position. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 4
4	Test for and repair a poor connection at the outside rearview mirror switch connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 5
5	Replace the outside rearview mirror switch. Refer to <i>Power Mirror Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 11	—
6	1. Connect a test lamp between the outside rearview mirror connector terminal A and terminal B. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. Press the mirror position switch to the left position while observing the test lamp. Does the test lamp illuminate?	—	Go to Step 7	Go to Step 9
7	Test for and repair a poor connection at the outside rearview mirror connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 8
8	Replace the mirror motor pack within the power mirror. Refer to <i>Mirror Replacement</i> . Did you complete the replacement?	—	Go to Step 11	—
9	1. If the left mirror is inoperative, test for and repair an open in circuit 81 between the mirror switch connector terminal D and the mirror connector terminal A. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. 2. If the right mirror is inoperative, test for and repair an open in circuit 881 between the mirror switch connector terminal G and the mirror connector terminal A. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. Did you find and repair an open?	—	Go to Step 11	Go to Step 10
10	Repair the open in circuit 82 between S501 and the mirror connector terminal B. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 11	—
11	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Mirrors Inoperative in Up/Down Direction - One (Chevrolet)

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	Attempt to adjust the outside power mirrors in the up or the down direction. Do both outside power mirrors adjust normally in the up/down direction?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Set the mirror select switch to the left or right position as needed. 2. If the left mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal B and terminal C. Refer to <i>Circuit Testing</i> in Wiring Systems. 3. If the right mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal G and terminal F. Refer to <i>Circuit Testing</i> in Wiring Systems. 4. While observing the test lamp, press the mirror position switch to the up position. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 4
4	Test for and repair a poor connection at the outside rearview mirror switch connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 5
5	Replace the outside rearview mirror switch. Refer to <i>Power Mirror Switch Replacement (Chevrolet)</i> . Did you complete the replacement?	—	Go to Step 11	Go to Step 6
6	1. Connect a test lamp between the outside rearview mirror connector terminal D and terminal C. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. Press the mirror position switch to the up position while observing the test lamp. Does the test lamp illuminate?	—	Go to Step 7	Go to Step 9
7	Test for and repair a poor connection at the outside rearview mirror connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 8
8	Replace the mirror motor pack within the power mirror. Refer to <i>Mirror Replacement</i> . Did you complete the replacement?	—	Go to Step 11	Go to Step 9
9	1. If the left mirror is inoperative, test for an open in circuit 88 between the mirror switch terminal B and the mirror connector terminal D. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. 2. If the right mirror is inoperative, test for an open in circuit 1498 between the mirror switch terminal G and the mirror connector terminal D. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. Did you find and repair an open?	—	Go to Step 11	Go to Step 10
10	1. If the left mirror is inoperative, repair the open in circuit 88 between S501 and the mirror connector terminal C. Refer to <i>Wiring Repairs</i> in Wiring Systems. 2. If the right mirror is inoperative, repair the open in circuit 90 between S610 and the mirror connector terminal B. Did you complete the repair?	—	Go to Step 11	Go to Step 11
11	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Mirrors Inoperative in Up/Down Direction - One (Pontiac)

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	Attempt to adjust the outside power mirrors in the up or the down direction. Do both outside power mirrors adjust normally in the up/down direction?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Use the mirror select switch to select the inoperative mirror. 2. If the left mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal C and terminal E. Refer to <i>Circuit Testing</i> in Wiring Systems. 3. If the right mirror is inoperative, connect a test lamp between the outside rearview mirror switch connector terminal C and terminal F. Refer to <i>Circuit Testing</i> in Wiring Systems. 4. While observing the test lamp, press the mirror position switch to the up position. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 4
4	Test for and repair a poor connection at the outside rearview mirror switch connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 5
5	Replace the outside rearview mirror switch. Refer to <i>Power Mirror Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 11	—
6	1. Connect a test lamp between the outside rearview mirror connector terminal D and terminal C. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. Press the mirror position switch to the up position while observing the test lamp. Does the test lamp illuminate?	—	Go to Step 7	Go to Step 9
7	Test for and repair a poor connection at the outside rearview mirror connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 8
8	Replace the mirror motor pack within the power mirror. Refer to <i>Mirror Replacement</i> . Did you complete the replacement?	—	Go to Step 11	—
9	1. If the left mirror is inoperative, test for and repair an open in circuit 88 between the mirror connector terminal D and S261. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. 2. If the right mirror is inoperative, test for and repair an open in circuit 88 between the mirror connector terminal D and S261. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. Did you find and repair an open?	—	Go to Step 11	Go to Step 10
10	1. If the left mirror is inoperative, repair the open in circuit 89 between the mirror connector terminal C and the mirror switch terminal E. Refer to <i>Wiring Repairs</i> in Wiring Systems. 2. If the right mirror is inoperative, repair the open in circuit 1498 between the mirror connector terminal C and the mirror switch connector terminal F. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 11	—
11	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Windows Inoperative - All

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition to the RUN position. 2. Attempt to operate both power windows. Do the power windows operate normally?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	Did you test for BCM diagnostic trouble codes?	—	Go to Step 4	Go to Diagnostic Trouble Code (DTC) Displaying
4	1. Turn the ignition switch to the RUN position. 2. Connect a test lamp between the ignition voltage terminal of the left side window switch connector and ground. Does the test lamp illuminate?	—	Go to Step 7	Go to Step 5
5	Test for and repair a poor connection at C200 terminal E11. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 6
6	Repair the open in the ignition voltage circuit of the left side window switch connector. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 11	—
7	Connect a test lamp between the ignition voltage terminal of the left side window switch connector and the ground terminal of the left side window switch connector. Refer to <i>Circuit Testing</i> in Wiring Systems. Does the test lamp illuminate?	—	Go to Step 8	Go to Step 10
8	Test for and repair a poor connection at the left side window switch connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 11	Go to Step 9
9	Replace the left side window switch. Refer to <i>Power Window Switch Replacement (Pontiac)</i> or <i>Power Window Switch Replacement (Chevrolet)</i> . Did you complete the replacement?	—	Go to Step 11	—
10	Repair the open in the ground circuit of the left side window switch. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 11	—
11	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Window Inoperative - LF

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition switch to the RUN position. 2. Attempt to operate both power windows. Do both power windows operate normally?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Connect a test lamp between terminal D and terminal E of the left window switch connector. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. Press the left window up switch and then press the left window down switch. Does the test lamp illuminate in both cases?	—	Go to Step 6	Go to Step 4
4	Test for and repair a poor connection at the left power window switch connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 17	Go to Step 5
5	Replace the left power window switch. Refer to <i>Power Window Switch Replacement (Chevrolet)</i> or <i>Power Window Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 17	—
6	1. Connect a test lamp between the power window control module connector terminal A and terminal E. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. Press the left window up switch and then press the left window down switch. Does the test lamp illuminate in both cases?	—	Go to Step 9	Go to Step 7
7	Test for and repair an open in circuit 1136 between the left side window switch terminal E and the power window control module terminal E. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. Did you find and repair an open?	—	Go to Step 17	Go to Step 8
8	Repair the open in circuit 164 between the left side window switch terminal D and the power window control module terminal A. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 17	—
9	1. Connect a test lamp between the power window control module connector terminal A and terminal D. 2. Press the left window up switch and then press the left window down switch. Does the test lamp illuminate in both cases?	—	Go to Step 12	Go to Step 10
10	Test for and repair a poor connection at the power window control module. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 17	Go to Step 11
11	Replace the power window control module. Did you complete the replacement?	—	Go to Step 17	—
12	1. Disconnect the left front side door window motor connector. 2. Connect a test lamp between terminal A and terminal B of the left front side door window motor connector. 3. Press the left window up switch and then press the left window down switch. Does the test lamp illuminate in both cases?	—	Go to Step 13	Go to Step 15

Power Window Inoperative - LF (cont'd)

Step	Action	Value(s)	Yes	No
13	Test for and repair a poor connection at the left front side door window regulator motor. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 17	Go to Step 14
14	Replace the left side door window regulator motor. Refer to <i>Window Regulator Motor Replacement - Door</i> . Did you complete the replacement?	—	Go to Step 17	—
15	Test for and repair an open in circuit 165 between power window control module terminal D and left front side door window motor terminal A. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. Did you find and repair an open?	—	Go to Step 17	Go to Step 16
16	Repair the open in circuit 164 between the left front side door window motor and S263. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 17	—
17	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Window Inoperative - RF from LF Switch

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition to the RUN position. 2. Attempt to operate both power windows from the left side window switch. Do both power windows operate normally from the left side window switch?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	Test for and repair a poor connection at the left side window switch connector. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 5	Go to Step 4
4	Replace the left side window switch. Refer to <i>Power Window Switch Replacement (Chevrolet)</i> or <i>Power Window Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 5	—
5	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Window Inoperative - RF

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition to the RUN position. 2. Attempt to operate both power windows. Does the passenger power window operate normally from the right side window switch?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Connect a test lamp between the left side window switch connector terminal B and terminal C. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. While observing the test lamp and using the left side window switch, press the right window switch up and then press the right window switch down. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 4
4	Test for and repair a poor connection at the left side window switch. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 17	Go to Step 5
5	Replace the left side window switch. Refer to <i>Power Window Switch Replacement (Chevrolet)</i> or <i>Power Window Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 17	—
6	1. Connect a test lamp between the right side window switch connector terminal B and terminal E. Refer to <i>Circuit Testing</i> in Wiring Systems. 2. While observing the test lamp and using the left side window switch, press the right window switch up and then press the right window switch down. Does the test lamp illuminate in both cases?	—	Go to Step 9	Go to Step 7
7	Test for and repair an open in circuit 166 between the left side window switch and the right side window switch. Refer to <i>Circuit Testing</i> and <i>Wiring Repairs</i> in Wiring Systems. Did you find and repair an open?	—	Go to Step 17	Go to Step 8
8	Repair the open in circuit 167 between the left side window switch and the right side window switch. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 17	—
9	1. Connect a test lamp between the right side window switch connector terminal C and terminal D. 2. While observing the test lamp, press the right side window switch up and then press the right side window switch down. Does the test lamp illuminate in both cases?	—	Go to Step 12	Go to Step 10
10	Test for and repair a poor connection at the right power window switch. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 17	Go to Step 11
11	Replace the right power window switch. Refer to <i>Power Window Switch Replacement (Chevrolet)</i> or <i>Power Window Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 17	—
12	1. Connect a test lamp between the right front side door window motor connector terminal A and terminal B. 2. While observing the test lamp, press the right side window switch up and then press the right side window switch down. Does the test lamp illuminate in both cases?	—	Go to Step 13	Go to Step 15

Power Window Inoperative - RF (cont'd)

Step	Action	Value(s)	Yes	No
13	Test for and repair a poor connection at the right front side door window motor. Refer to <i>Testing for Intermittent and Poor Connections and Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 17	Go to Step 14
14	Replace the right front side door window motor. Refer to <i>Window Regulator Motor Replacement - Door</i> . Did you complete the replacement?	—	Go to Step 17	—
15	Test for and repair an open in circuit 666 between the right side window switch and the right front side door window motor. Refer to <i>Circuit Testing and Wiring Repairs</i> in Wiring Systems. Did you find and repair an open?	—	Go to Step 17	Go to Step 16
16	Repair the open in circuit 666 between the right side window switch and the right front side door window motor. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 17	—
17	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Windows Inoperative - Express Down Function

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition to the RUN position. 2. Attempt to operate the power window express down function. Does the express down function operate normally?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Disconnect the power window control module connector. 2. Connect a test lamp between the power window control module connector terminal A and terminal C. 3. Turn the ignition switch to RUN. Does the test lamp illuminate?	—	Go to Step 6	Go to Step 4
4	Test for and repair an open in circuit 164 between the power window control module terminal A and splice S263. Refer to <i>Circuit Testing and Wiring Repairs</i> in Wiring Systems. Did you find and repair an open?	—	Go to Step 8	Go to Step 5
5	Repair the open in circuit 341 between the power window control module and splice S208. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 8	—
6	Test for and repair a poor connection at the power window control module. Refer to <i>Testing for Intermittent and Poor Connections and Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 8	Go to Step 7
7	Replace the power window control module. Did you complete the replacement?	—	Go to Step 8	—
8	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Windows Inoperative from LF Switch

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition to the RUN position. 2. Attempt to operate both power windows from the left side window switch. Do both windows operate normally from the left side window switch?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Disconnect the left side window switch connector. 2. Turn the ignition switch to RUN. 3. Connect a test lamp between the left side window switch connector terminal F and ground. Does the test lamp illuminate?	—	Go to Step 5	Go to Step 4
4	Repair the open in circuit 341 between S208 and the left side window switch terminal F. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 7	—
5	Test for and repair a poor connection at the left side window switch terminal F. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 7	Go to Step 6
6	Replace the left side window switch. Refer to <i>Power Window Switch Replacement (Chevrolet)</i> or <i>Power Window Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 7	—
7	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

Power Windows Inoperative from RF Switch

Step	Action	Value(s)	Yes	No
1	Did you review the system operation and perform the necessary inspections?	—	Go to Step 2	Go to Symptoms - Doors
2	1. Turn the ignition to the RUN position. 2. Attempt to operate the passenger power window from the right side window switch. 3. Verify that the power window does not work from the right side window switch. Does the passenger power window operate normally from the right side window switch?	—	Go to Testing for Intermittent and Poor Connections in Wiring Systems	Go to Step 3
3	1. Disconnect the right side window switch connector. 2. Connect a test lamp between the right side window switch connector terminal A and ground. 3. Turn the ignition switch to RUN. Does the test lamp illuminate?	—	Go to Step 5	Go to Step 4
4	Repair the open in circuit 341 between the right side window switch and S208. Refer to <i>Wiring Repairs</i> in Wiring Systems. Did you complete the repair?	—	Go to Step 7	—
5	Test for and repair a poor connection at the right side window switch terminal A. Refer to <i>Testing for Intermittent and Poor Connections</i> and <i>Connector Repairs</i> in Wiring Systems. Did you find and repair a poor connection?	—	Go to Step 7	Go to Step 6
6	Replace the right side window switch. Refer to <i>Power Window Switch Replacement (Chevrolet)</i> or <i>Power Window Switch Replacement (Pontiac)</i> . Did you complete the replacement?	—	Go to Step 7	—
7	Operate the system in order to verify the repair. Did you correct the condition?	—	System OK	Go to Step 3

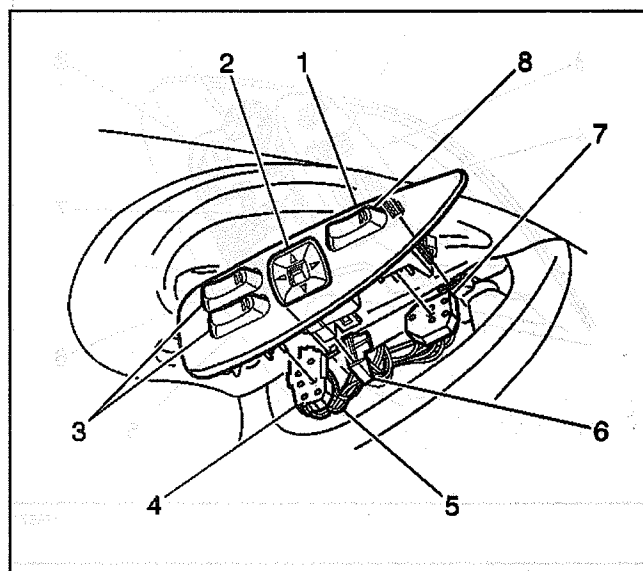
Repair Instructions

Power Window Switch Replacement (Pontiac)

Removal Procedure

Important: Protect the trim panel with a rag when prying up the switch to prevent marring the trim panel.

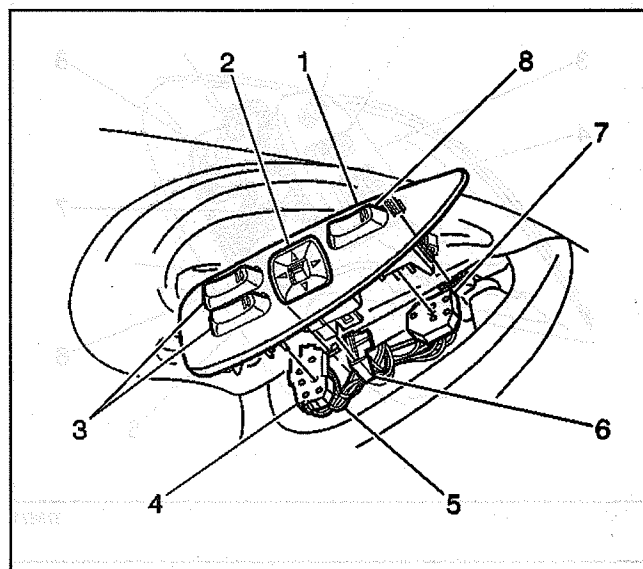
1. Pry up the rear of the drivers side switch, the front edge of the passenger side switch.
2. Slide the driver side switch rearward, the passenger side switch forward, out of the door trim panel.
3. Disconnect the power window switch electrical connector (4).
4. Remove the power window switches (3) from the panel.



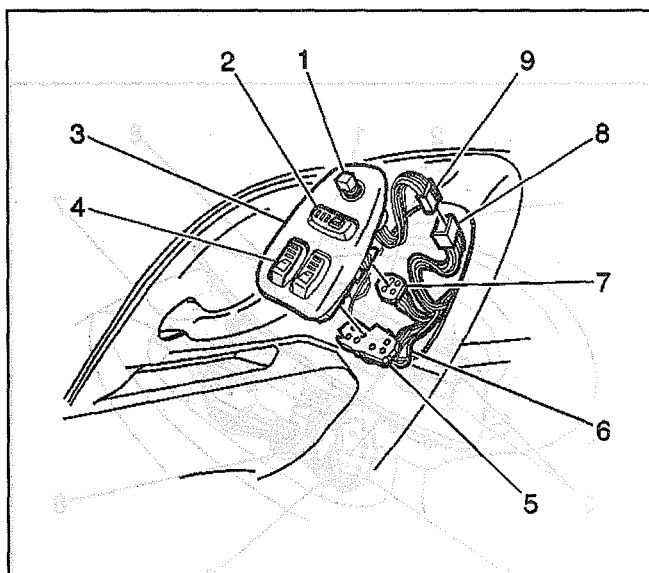
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Installation Procedure

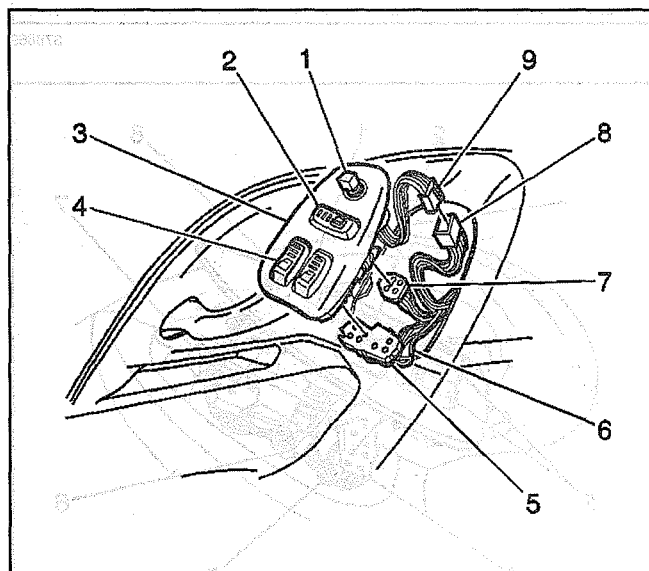
1. Install the power window switches (3) to the panel.
2. Connect the power window switch electrical connector (4).
3. Insert the front edge of the driver side switch, the rear edge of the passenger side switch, into the door trim panel.
4. Press the rear edge of the driver side switch, the front edge of the passenger side switch, into the trim panel to secure.



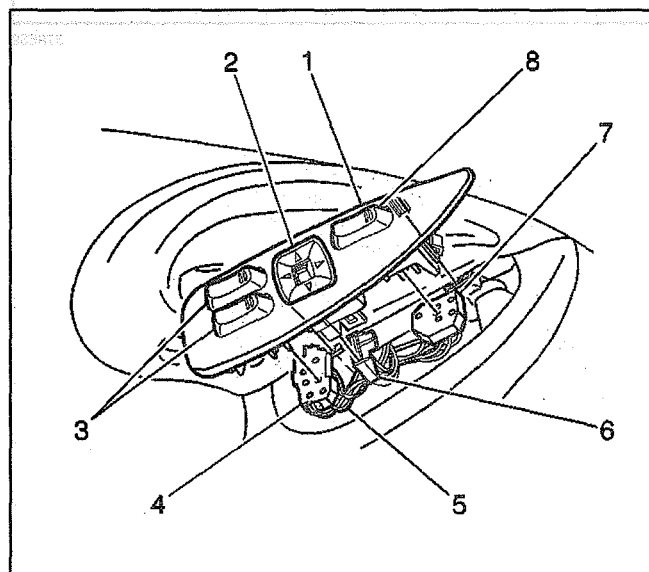
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Power Window Switch Replacement (Chevrolet)

Removal Procedure

Important: Protect the trim panel with a rag when prying up the switch to prevent marring the trim panel.

1. Pry up the rear edge of the drivers side switch, the front edge of the passenger side switch.
2. Slide the drivers side switch rearward, the passenger side switch forward, out of the door trim panel.
3. Disconnect the electrical connector (5) from the window switches (4).
4. Remove the power window switch (4) from panel.

Installation Procedure

1. Insert switch assembly into panel.
2. Install the power window switch (4) to the panel.
3. Connect the electrical connector (5) to the switches (4).
4. Insert the front edge of the drivers side switch, the rear edge of the passenger side switch, into the door trim panel.
5. Press the rear edge of the drivers side switch, the front edge of the passenger side switch, into the trim panel to secure.

Power Door Lock Switch Replacement (Pontiac)

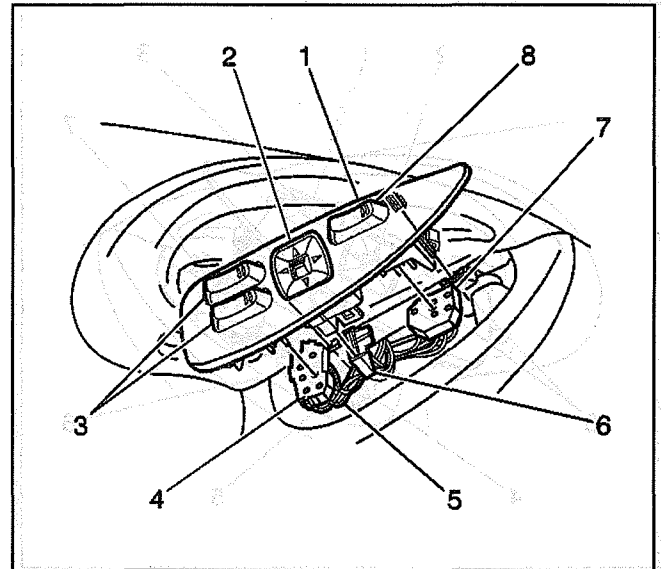
Removal Procedure

Important: Protect the trim panel with a rag when prying up the switch to prevent marring the trim panel.

1. Pry up the rear edge of the driver side switch, or the front edge of the passenger side switch.
2. Slide the driver side switch rearward, or the passenger side switch forward out of the door trim panel.
3. Disconnect the power door lock electrical connector (7).
4. Remove the power door lock switch (8) from the panel.

Installation Procedure

1. Install the power door lock switch (8) to the panel.
2. Connect the power door lock switch electrical connector (7).
3. Insert the front edge of the driver side switch, the rear edge of the passenger side switch into the door trim panel.
4. Press the rear edge of the driver side switch, the front edge of the passenger side switch, into the trim panel to secure.



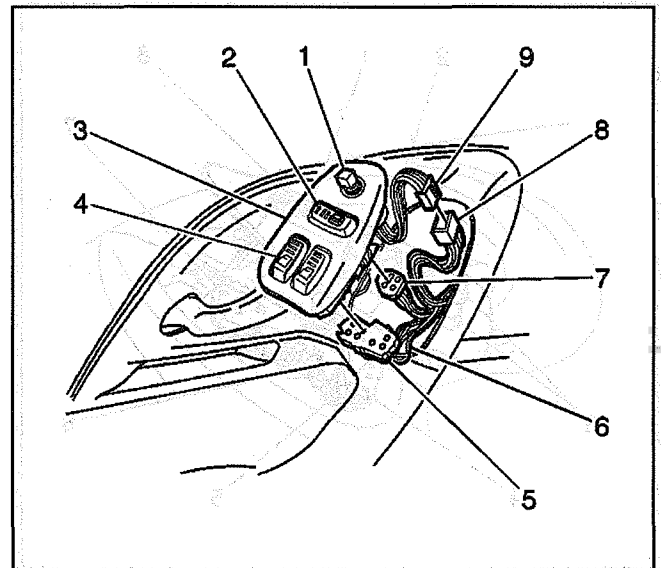
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Power Door Lock Switch Replacement (Chevrolet)**Removal Procedure**

Important: Protect the trim panel with a rag when prying up the switch to prevent marring the trim panel.

1. Pry up the rear edge of the drivers side switch, or the front edge of the passenger side switch.
2. Slide the drivers side switch rearward, or the passenger side switch forward, out of the door trim panel.
3. Disconnect the electrical connector (7) from the power door switch (2).
4. Remove the power lock switch (2) from the panel.

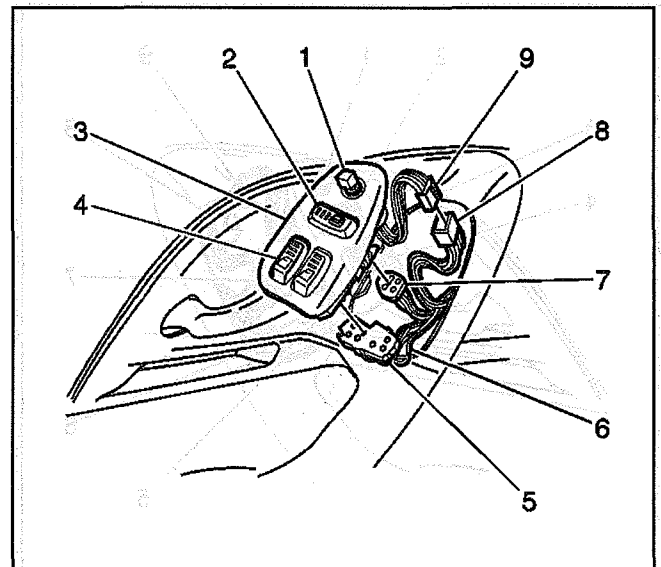


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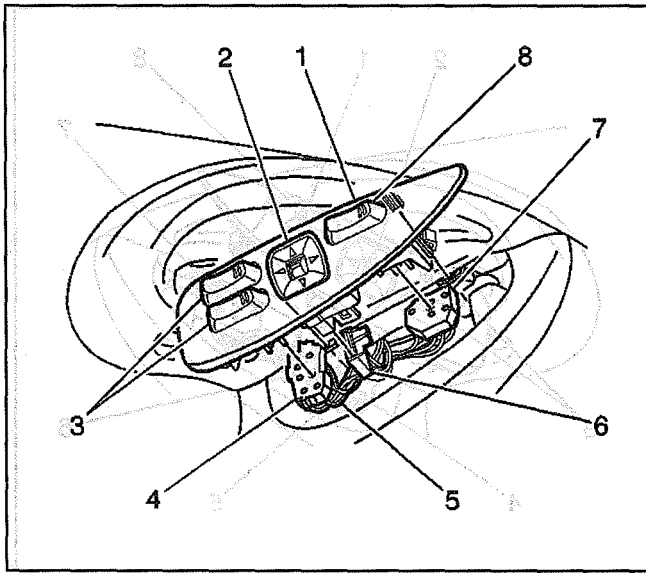
Installation Procedure

1. Install the power lock switch (2) to the panel.
2. Connect the electrical connector (7) to the power door switch (2).
3. Insert the front edge of the drivers side switch, the rear edge of the passenger side switch, into the door trim panel.
4. Press the rear edge of the drivers side switch, the front edge of the passenger side switch, into the trim panel to secure.



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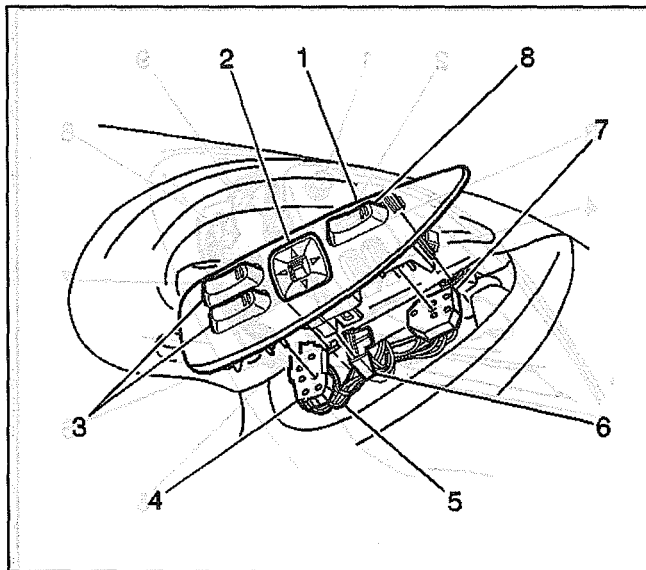
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Power Mirror Switch Replacement (Pontiac)

Removal Procedure

Important: Protect the trim panel with a rag when prying up the switch to prevent marring the trim panel.

1. Pry up the rear edge of the drivers side switch, the front edge of the passenger side switch.
2. Slide the drivers side switch rearward, the passenger side switch forward, out of the door trim panel.
3. Disconnect the electrical connector (6) from the mirror switch (2).
4. Remove mirror switch (2) from panel.

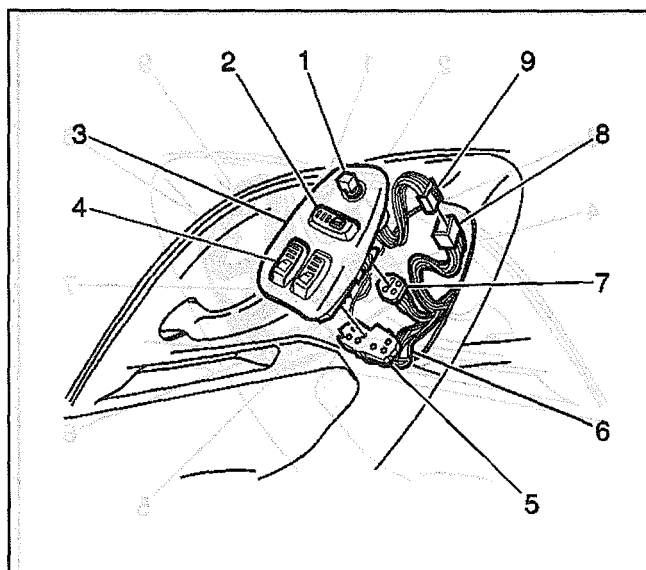


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Installation Procedure

1. Insert switch assembly into panel.
2. Install the mirror switch (2) to the panel.
3. Connect the electrical connector (6) to the mirror switch (2).
4. Insert the front edge of the drivers side switch, the rear edge of the passenger side switch, into the door trim panel.
5. Press the rear edge of the drivers side switch, the front edge of the passenger side switch, into the trim panel to secure.



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Power Mirror Switch Replacement (Chevrolet)

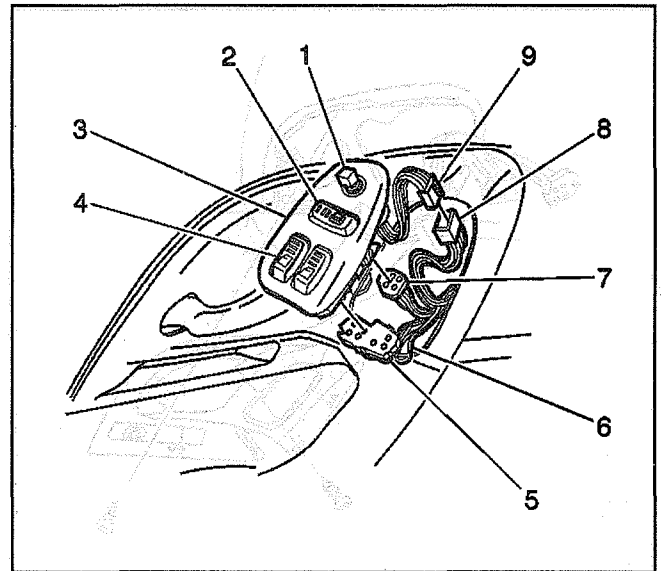
Removal Procedure

Important: Protect the trim panel with a rag when prying up the switch to prevent marring the trim panel.

1. Pry up the rear edge of the drivers side switch, the front edge of the passenger side switch.
2. Slide the drivers side switch rearward, the passenger side switch forward, out of the door trim panel.
3. Disconnect the electrical connector (9) from the mirror switch (1).
4. Remove the power mirror switch (1) from panel.

Installation Procedure

1. Install the power mirror switch (1) to the panel.
2. Connect the electrical connector (9) to the mirror switch (1).
3. Insert the front edge of the drivers side switch, the rear edge of the passenger side switch, into the door trim panel.
4. Press the rear edge of the drivers side switch, the front edge of the passenger side switch, into the trim panel to secure.

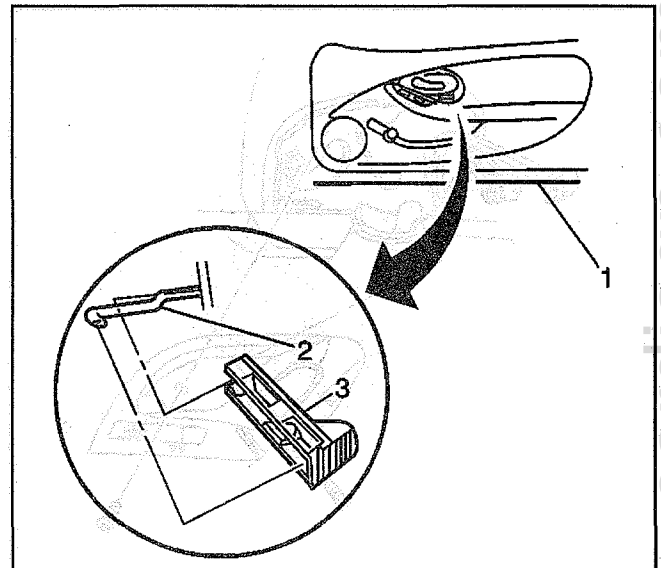


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Handle Bezel Replacement - Inside**Removal Procedure**

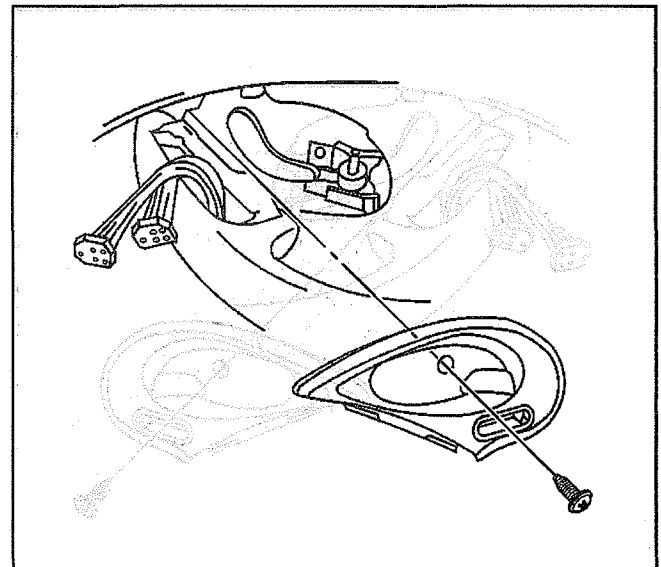
1. Remove the lock rod knob (3) from the lock rod (2).
2. Pull the door inside handle open to access the bezel screws.



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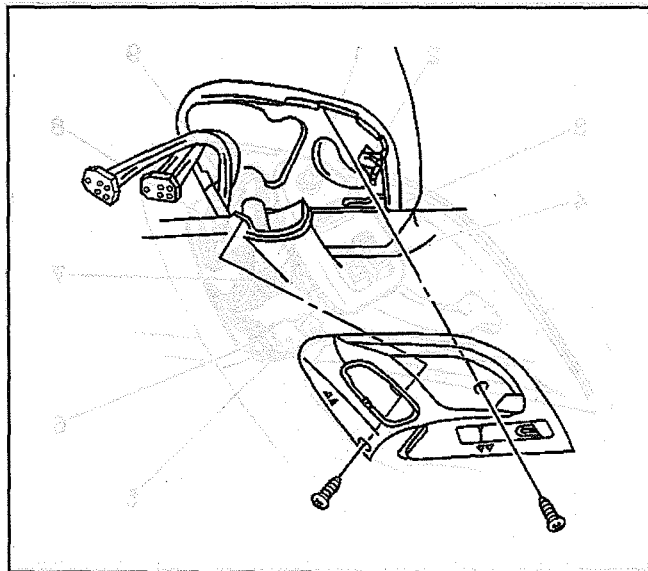
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3. On Pontiac, remove the inside handle bezel screw.



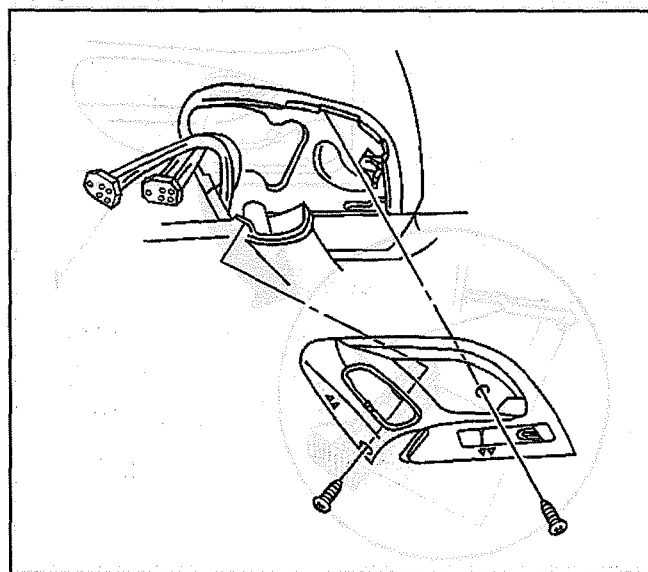
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4. On Chevrolet, remove the switch plate panel.
5. On Chevrolet, remove the inside handle bezel screws.
6. Unsnap the bezel from the door trim panel.
7. Disconnect the light bulb from the rear of the bezel.
8. Remove the inside door handle bezel from the vehicle.



378674

Installation Procedure

1. Install the inside door handle bezel to the vehicle.
2. Connect the light bulb to the rear of the bezel.
3. Snap the bezel to the door trim panel.

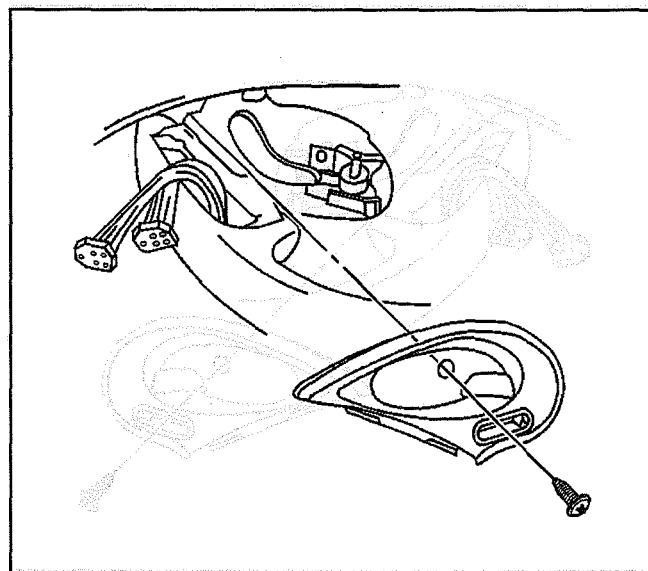
Notice: Refer to *Fastener Notice* in Cautions and Notices.

4. On Chevrolet, install the inside handle bezel screws.

Tighten

Tighten the inside handle bezel screws to 1.4 N·m (12 lb in).

5. On Chevrolet, install the switch plate panel.



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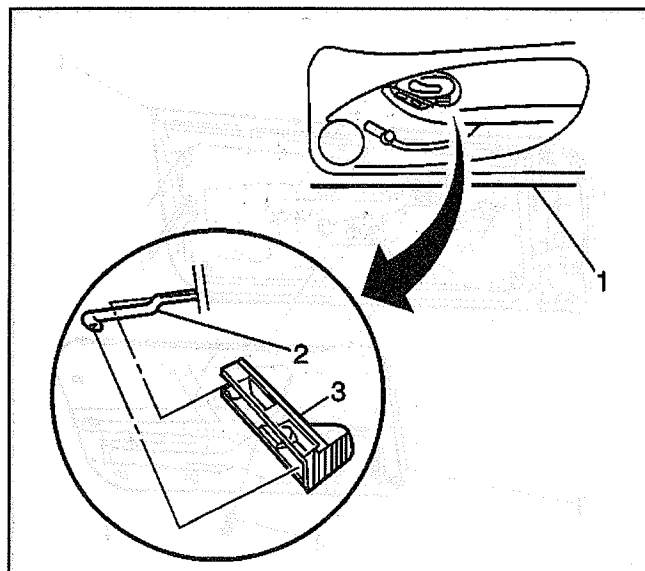
6. On Pontiac, install the inside door handle bezel screw.

Tighten

Tighten the inside handle bezel screws to 1.4 N·m (12 lb in).

7. Install the lock rod knob (3), perform the following:

- 7.1. Pull the lock rod (2) forward in pocket or inside the bezel.
- 7.2. Align the lock rod knob (3) over the lock rod (2).
- 7.3. Insert rearward end of lock rod knob (3) through the hole inside the bezel.
- 7.4. Pull the knob (3) rearward until the end of the rod (2) slides into the depression end of the knob (3).
- 7.5. Apply pressure to snap knob (3) over lock rod (2).



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Trim Panel Replacement - Door

Removal Procedure

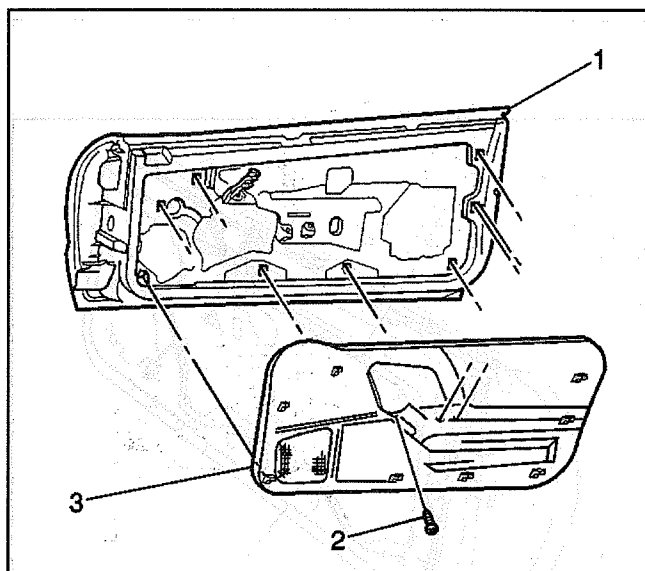
Tools Required

J 38778 Door Trim Pad and Garnish Clip Remover

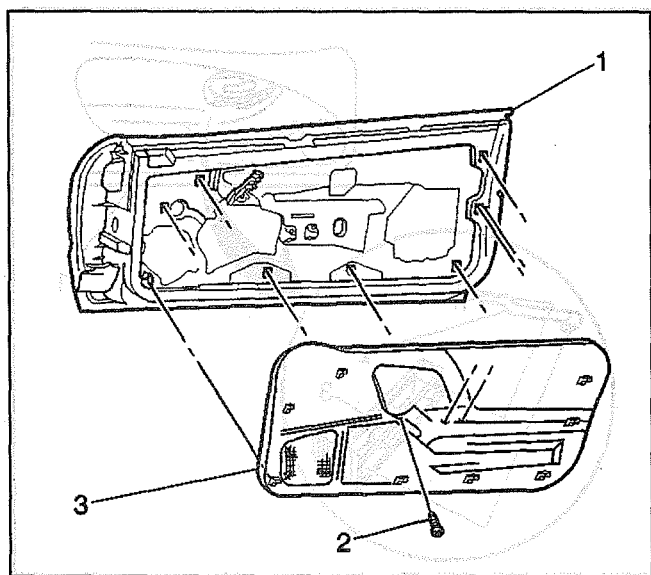
1. Remove the accessory switch panel.
2. Remove the inside handle bezel. Refer to *Handle Bezel Replacement - Inside*.
3. Remove the window regulator handle and spacer, if equipped.
4. Remove the outside rearview mirror bezel. Refer to *Mirror Replacement*.
5. Remove the side door armrest bolts (2).

Important: To avoid breaking the trim panel fasteners be sure to insert the *J 38778* between the male fastener which is attached to the door trim panel and the female retainer which is in the door. Do not insert the *J 38778* between the female retainer and the door.

6. Remove the front side door trim from the door inner panel.
7. Pull the side door trim up from the door, making sure the hooks release from the holes in the door inner.
8. Disconnect the door speaker electrical connectors.
9. Remove the courtesy lamp socket from the door trim.



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Installation Procedure

1. Install the courtesy lamp socket to the door trim.
2. Connect the door speaker electrical connectors.
3. Pull the side door trim up from the door, making sure the hooks release from the holes in the door inner.
4. Install the front side door trim to the door inner panel.

Notice: Refer to *Fastener Notice* in Cautions and Notices.

5. Install the side door armrest bolts (2).

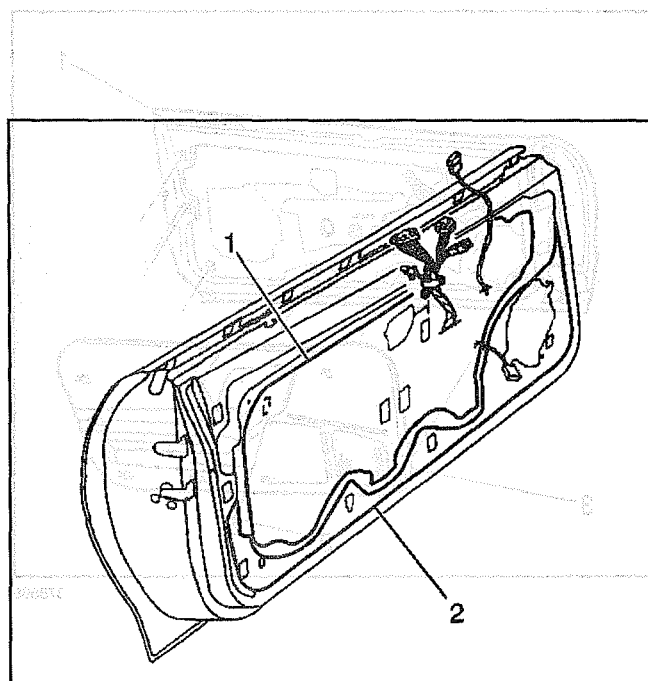
Tighten

Tighten the side door armrest bolts to 4.5 N·m (40 lb in).

6. Install the outside rearview mirror bezel. Refer to *Mirror Replacement*.
7. Install the window regulator handle and spacer, if equipped.
8. Install the inside handle bezel. Refer to *Handle Bezel Replacement - Inside*.
9. Install the accessory switch panel.

Water Deflector Replacement - Door**Removal Procedure**

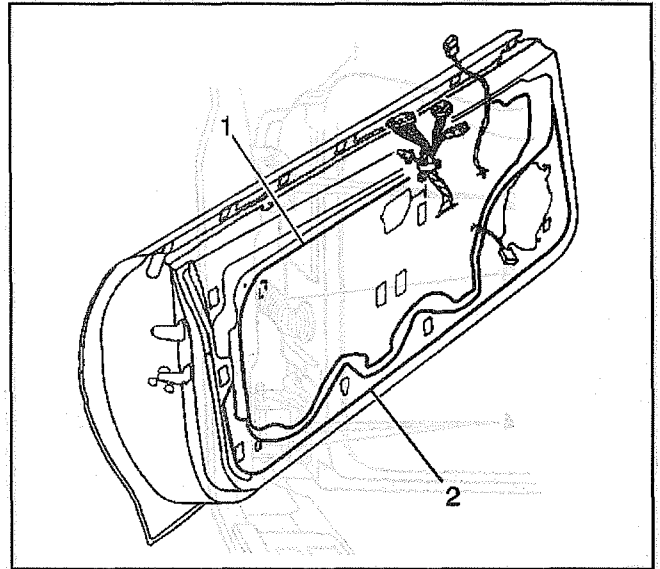
1. Remove the door trim panel. Refer to *Trim Panel Replacement - Door*.
2. Peel the water deflector (2) from the door inner panel.



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Installation Procedure

1. Peel the backing paper from the adhesive on the new deflector.
2. Position the deflector over the large opening in the door.
3. Beginning at the bottom of the water deflector (2) press firmly to secure the adhesive (1).
4. Install the door trim panel. Refer to *Trim Panel Replacement - Door*.

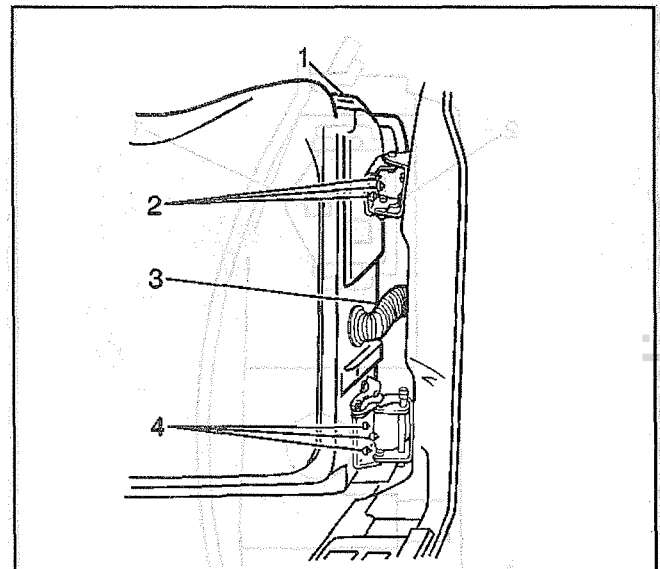


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Door Replacement**Removal Procedure**

1. Remove front side door trim. Refer to *Trim Panel Replacement - Door*.
2. Remove water deflector. Refer to *Water Deflector Replacement - Door*.
3. Remove electrical connectors from all components in door.
4. Remove wiring harness grommet (3) from door (1).
5. Remove crosscar and front side door wiring harness from door.
6. Remove door spring.
7. Support door in preparation for door removal.
8. Remove upper (2) and lower hinge nuts (4).
9. Remove door from vehicle.



378873

Installation Procedure

1. Install door to upper and lower hinges.

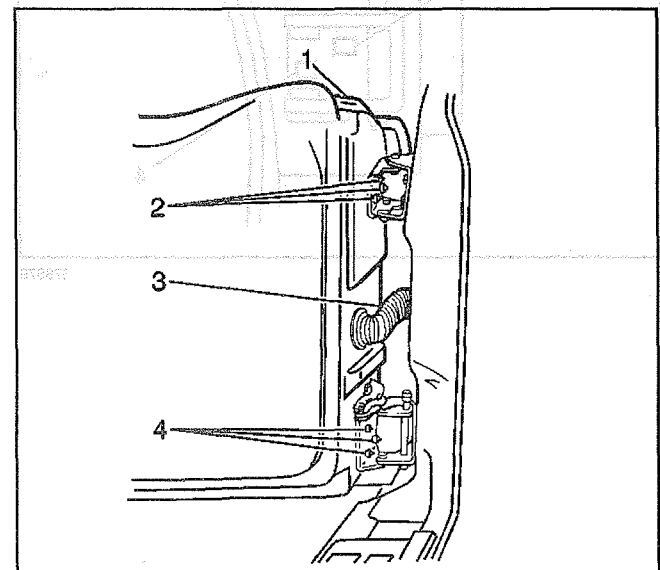
Notice: Refer to *Fastener Notice* in Cautions and Notices.

2. Install upper (2) and lower hinge nuts (4).

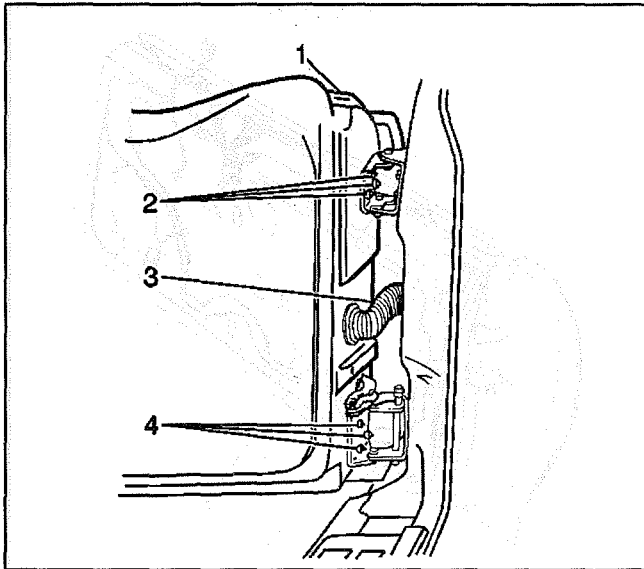
Tighten

Tighten the nuts to 50 N·m (37 lb ft).

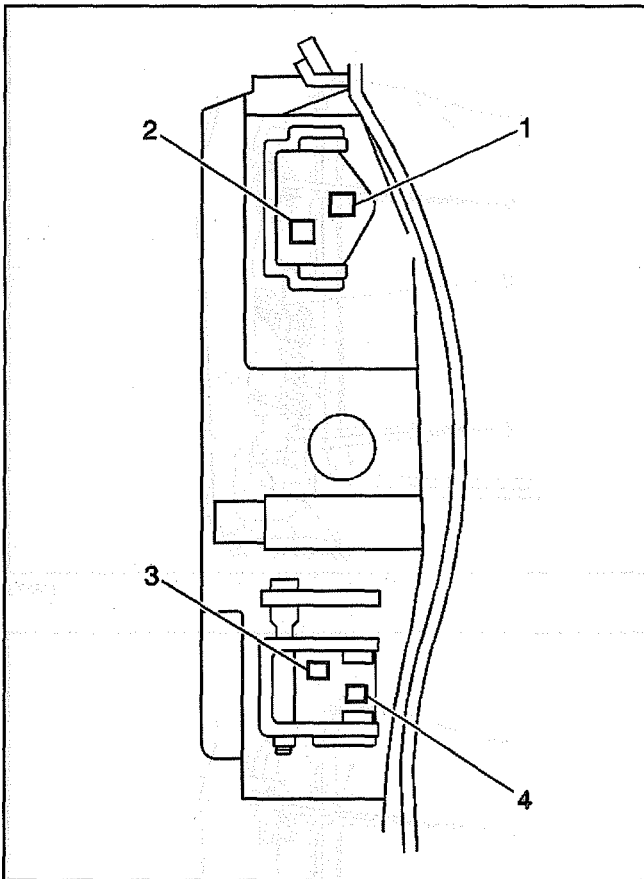
3. Install door spring.
4. Install crosscar and front side door wiring harness from door.
5. Install wiring harness grommet (3) from door (1).
6. Install electrical connectors from all components in door.
7. Install water deflector. Refer to *Water Deflector Replacement - Door*.
8. Install front side door trim. Refer to *Trim Panel Replacement - Door*.



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378879

Hinge Replacement - Door (Lower Hinge)

Removal Procedure

Tools Required

J 36604 Door Hinge Spring Compressor

1. Mark the location of the lower hinge on the door and on the hinge pillar.
2. Support the door.
3. Remove the door hinge spring using *J 36604* on the lower hinge only.
4. Remove the bolts securing the lower hinge to the hinge pillar.
5. Remove the bolts securing the lower hinge to the door.
6. Remove the lower door hinge.

Installation Procedure

1. Position the hinge to the marks on the door.
2. Install the hinge to door bolts in sequence (1 through 4 as shown).

Notice: Refer to *Fastener Notice* in Cautions and Notices.

3. Install the bolts attaching the hinge to the door.

Tighten

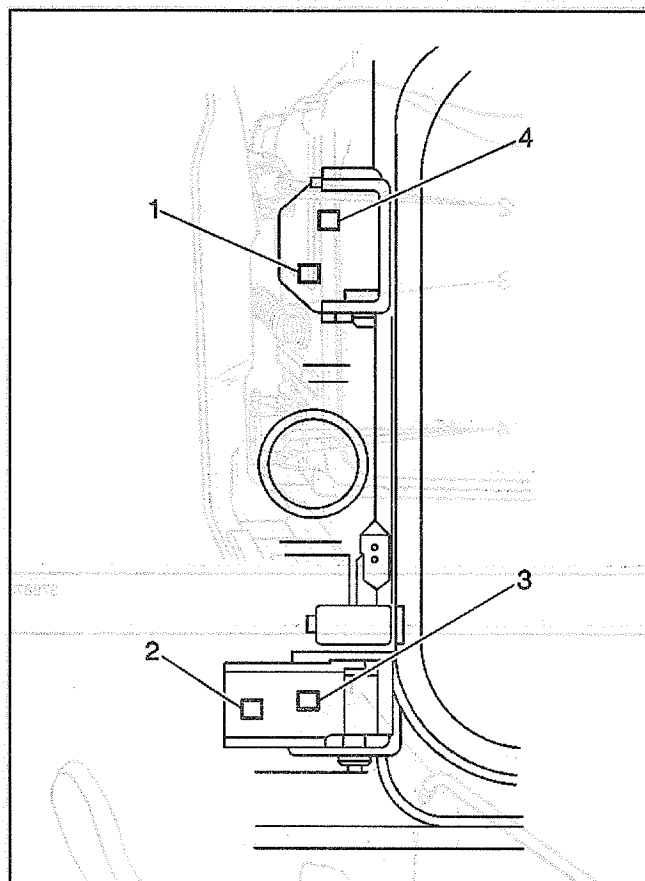
Tighten the door hinge to door bolts to 30 N·m (22 lb ft).

4. Position the hinge to the marks on the hinge pillar.
5. Install the bolts in sequence (1 through 4 as in figure) attaching the hinge to the hinge pillar.

Tighten

Tighten the hinge to hinge pillar bolts to 30 N·m (22 lb ft).

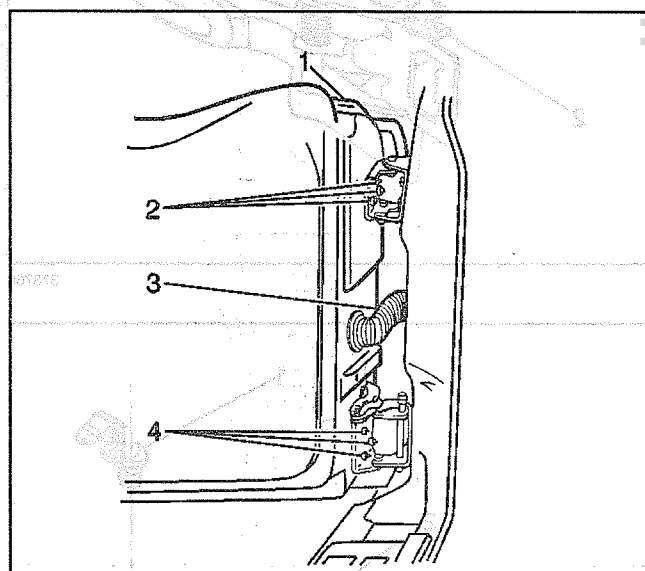
6. Install the spring (lower hinge only).
7. Remove the door support and check the alignment of the door.



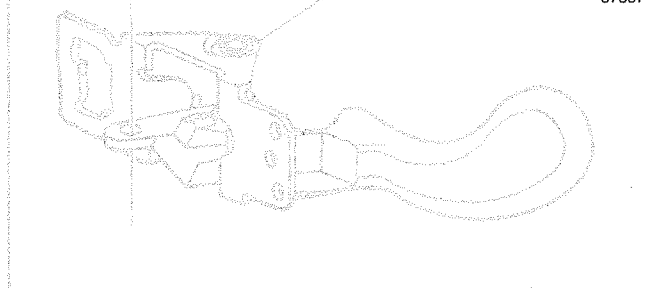
384561

Hinge Replacement - Door (Upper Hinge)**Removal Procedure**

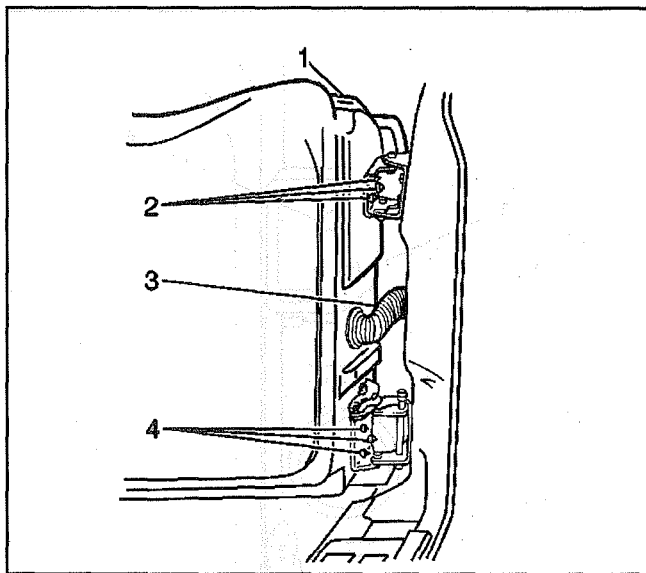
1. Support the door in the full open position.
2. Mark the position of the upper hinge on the door and hinge pillar.
3. Remove door upper hinge bolts.
4. Remove door upper hinge nuts (2).
5. Remove door upper hinge.



378873



378873



378873

Installation Procedure

1. Install door upper hinge to position marked.

Notice: Refer to *Fastener Notice* in Cautions and Notices.

2. Install upper hinge nuts and tighten.

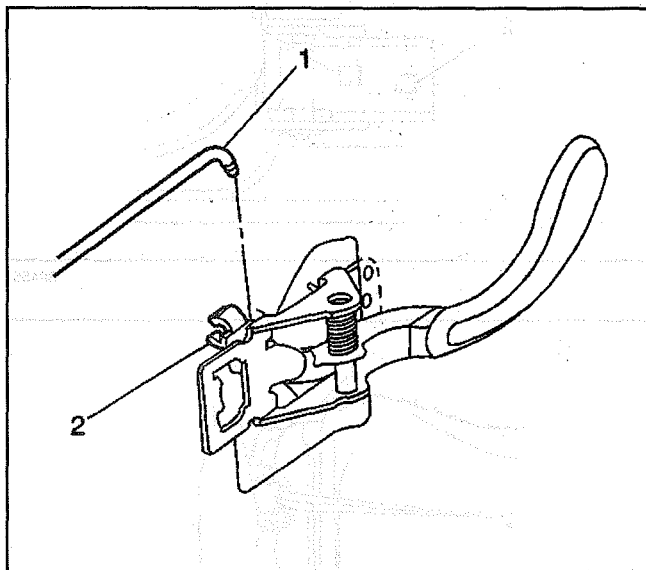
Tighten

Tighten the upper hinge nuts to 50 N·m (37 lb ft) in sequence.

3. Install upper hinge bolts (2).

Tighten

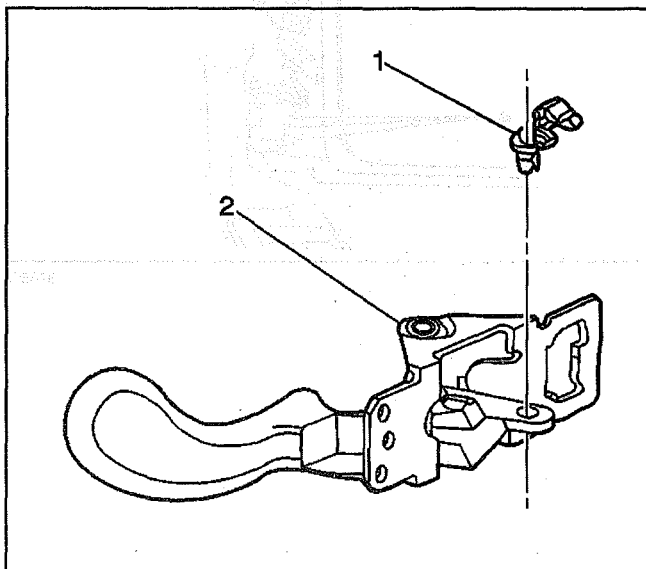
Tighten the upper hinge bolts to 50 N·m (37 lb ft).



378768

Door Handle Replacement - Inside**Removal Procedure**

1. Raise window.
2. Remove front side door trim. Refer to *Trim Panel Replacement - Door*.
3. Remove inside handle seal.
4. Remove water deflector. Refer to *Water Deflector Replacement - Door*.
5. Remove inside handle rivet by drilling out rivet with 3/16 drill bit and drill.
6. Remove handle tab from door inner panel slot by sliding handle rearward.
7. Remove inside handle rod from fastener on clip.
8. Remove inside handle rod (1) from clip (2).

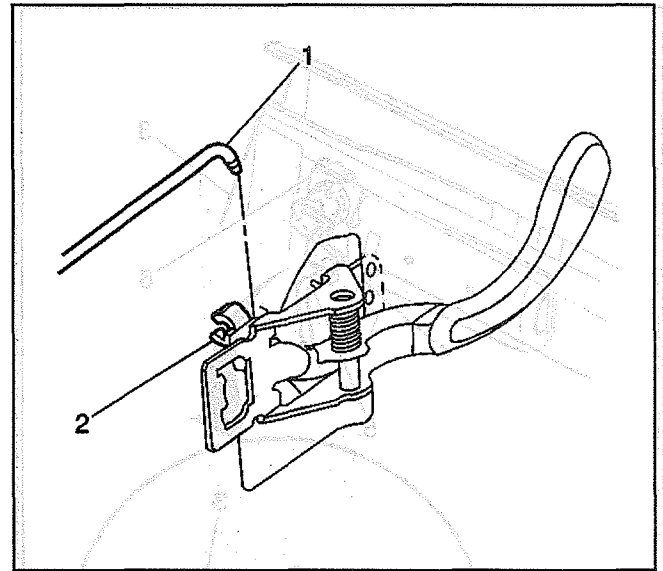


378764

9. Remove inside handle from door inner panel.
10. Remove inside handle rod clip (1) from handle (2) by using needle-nose pliers to squeeze clip and push from handle.

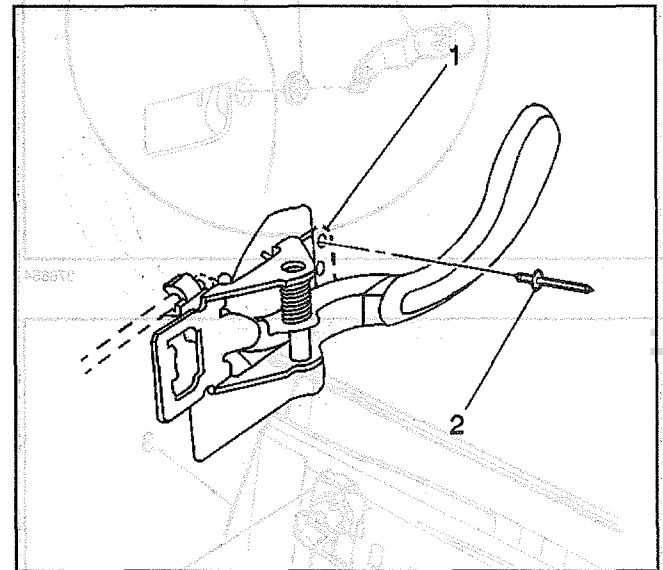
Installation Procedure

1. Install inside handle rod clip into handle.
2. Install inside handle to door inner panel by rotating the front of the handle into the slot.
3. Install inside handle rod (1) to clip (2).

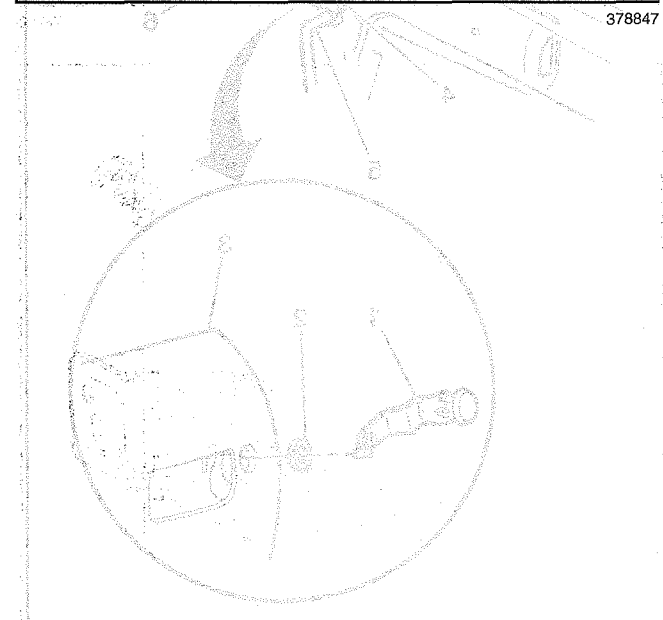


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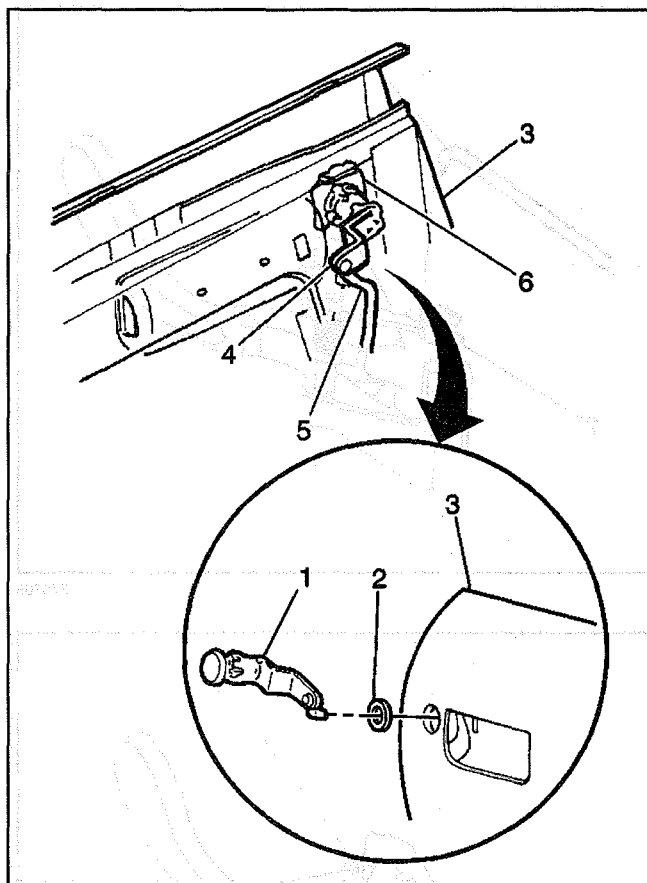
4. Tap handle into slot on door inner panel by rotating and sliding forward.
5. Align hole in handle with hole in door inner panel.
6. Install handle rivet (2) to handle (1).
7. Install water deflector. Refer to *Water Deflector Replacement - Door*.
8. Install inside handle seal.
9. Install front side door trim. Refer to *Trim Panel Replacement - Door*.
10. Lower window.



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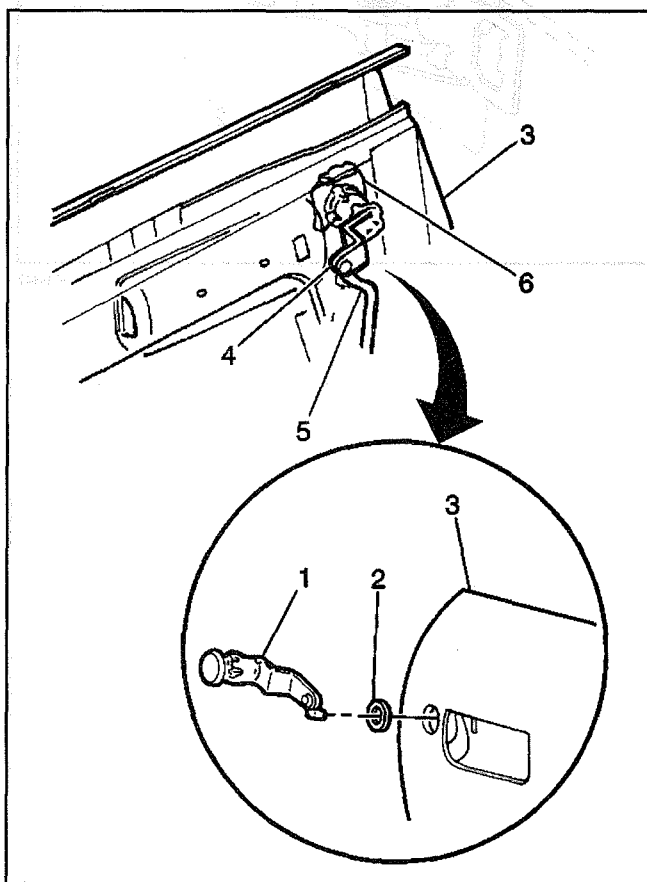


378854

Lock Replacement - Door

Removal Procedure

1. Raise window.
2. Remove front side door trim panel. Refer to *Lock Striker Adjustment - Door*.
3. Remove water deflector as needed. Refer to *Water Deflector Replacement - Door*.
4. Remove lock cylinder rod (5) from lock cylinder pawl clip (4).
5. Remove the lock cylinder retainer (2) using a screwdriver to slide the retainer upward.
6. Remove door lock cylinder (1) from door (3).
7. Remove lock cylinder gasket (2) from door (3).



378854

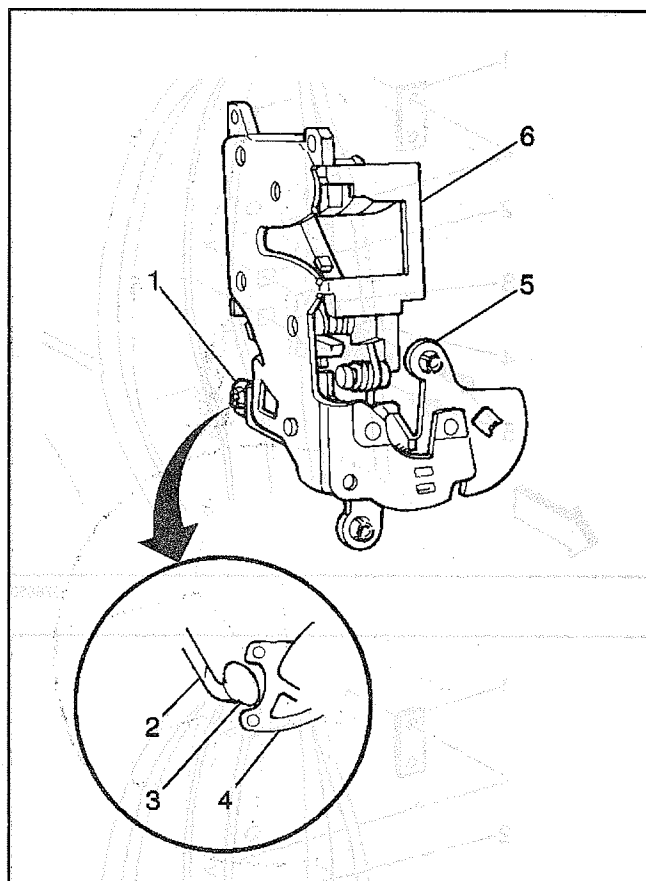
Installation Procedure

1. Install new lock cylinder gasket (2) to door (3).
2. Install door lock cylinder (1) from door (3).
3. Install the lock cylinder retainer (2) by using a screwdriver to slide the retainer downward into place.
4. Install lock cylinder rod (5) to lock cylinder pawl clip (4).
5. Install water deflector as needed. Refer to *Water Deflector Replacement - Door*.
6. Install front side door trim panel. Refer to *Lock Striker Adjustment - Door*.
7. Lower window.

Lock Actuator Replacement - Door

Removal Procedure

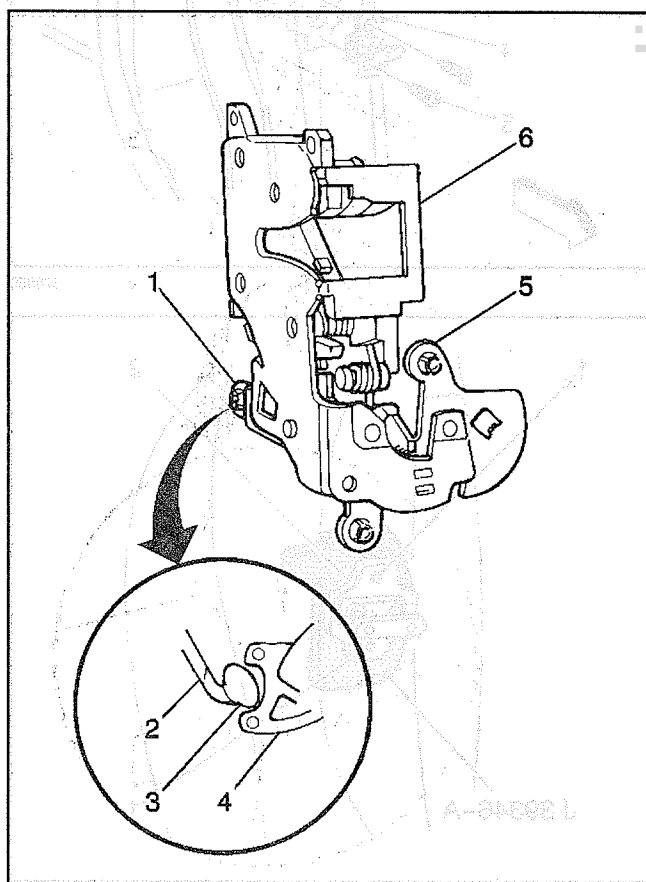
1. Remove the side door lock. Refer to *Lock Replacement - Door*.
2. Remove the actuator mounting bolts.
3. Remove the actuator (6).



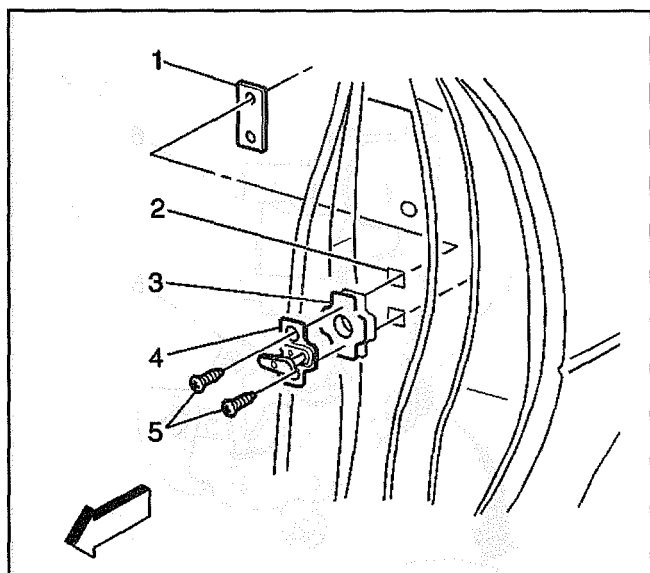
378859

Installation Procedure

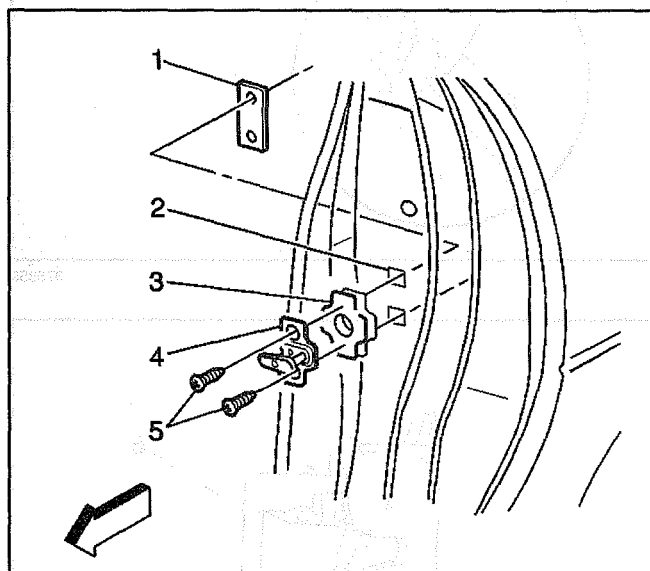
1. Install the actuator (6).
2. Install the actuator mounting bolts.
3. Install the side door lock. Refer to *Lock Replacement - Door*.



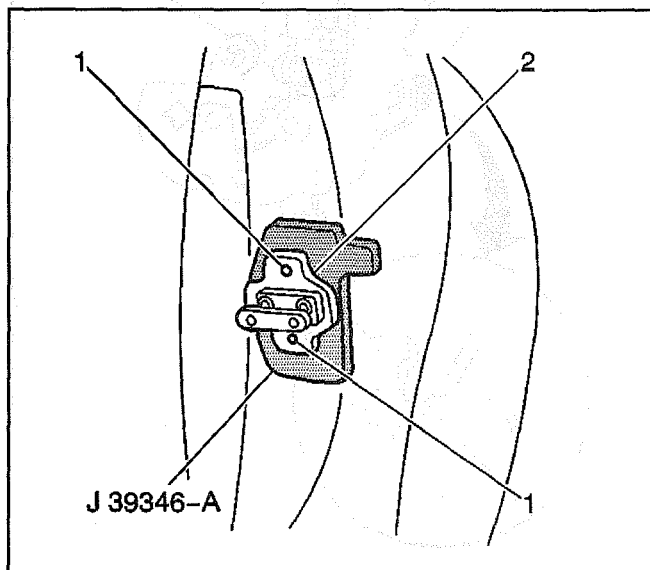
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378850



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378851

Striker Replacement - Door

Removal Procedure

1. Open the door to gain access to the striker.
2. Remove the screws (5) attaching the striker (4) to the jamb (2).
3. Remove the shims (3) and the striker (4).

Installation Procedure

1. Position the striker (4) and shims (3) to the lock pillar (2).
2. Loosely install the attaching screws.
3. Close the door to align the striker.

Notice: Refer to *Fastener Notice* in Cautions and Notices.

4. Open the door and tighten the screws.

Tighten

Tighten the door lock striker screws to 24 N·m (18 lb ft).

5. Perform lock striker adjustment. Refer to *Lock Striker Adjustment - Door* in Doors.

Lock Striker Adjustment - Door

Tools Required

J 39346-A Mini-Wedge Door striker Aligner

1. Loosen door lock striker bolts/screws (1) just enough to allow movement of the lock striker (2).

Important: Door must be properly aligned before adjusting the striker.

2. Install J 39346-A to the lock striker (2).
3. Close the door while holding the outside handle in the open position.

Important: Do not slam door.

4. Open the door.

Notice: Refer to *Fastener Notice* in Cautions and Notices.

5. Retighten the lock striker bolts.

Tighten

Tighten the door lock striker bolts/screws (1) to 29 N·m (21 lb ft).

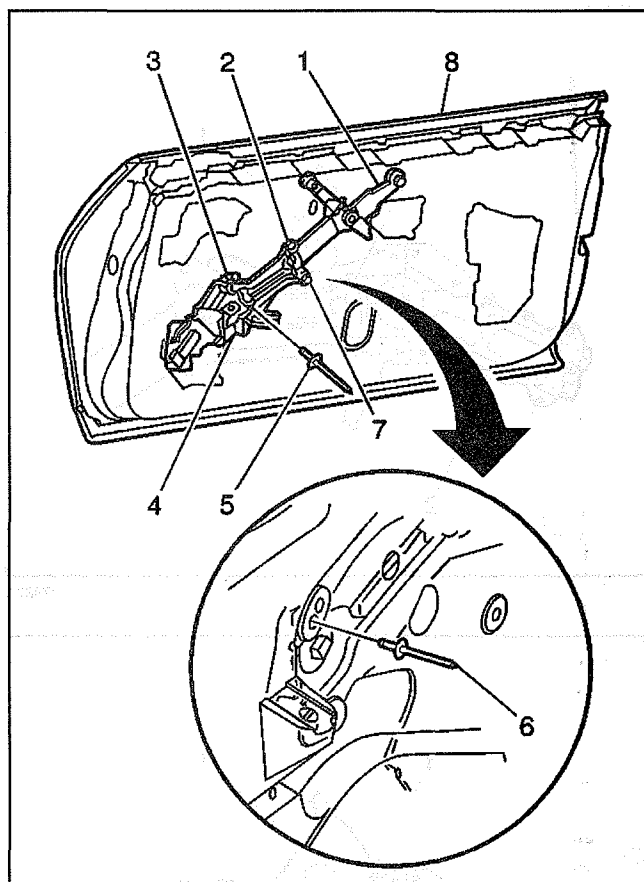
6. Remove J 39346-A.

Window Regulator Replacement

Removal Procedure

Caution: Disconnect the power window switch when working inside the driver's door. When operated, the Express Down Feature allows the door window to drop very quickly, without stopping, which could cause personal injury.

1. Place window in halfway down position.
2. Remove front side door trim panel. Refer to *Trim Panel Replacement - Door*.
3. Remove water deflector. Refer to *Water Deflector Replacement - Door*.
4. Support window in position by inserting rubber wedge door stops at front and rear of window between window and door inner panel.
5. Remove window rear guide nuts so rear guide channel can be moved.
6. Remove window regulator rivets by drilling out rivet with drill.
7. Remove electrical connectors from regulator motor by sliding motor and regulator rearward, if equipped.
8. Remove window regulator (3) from channels.
9. Remove window regulator with regulator motor attached if equipped through rear access hole.

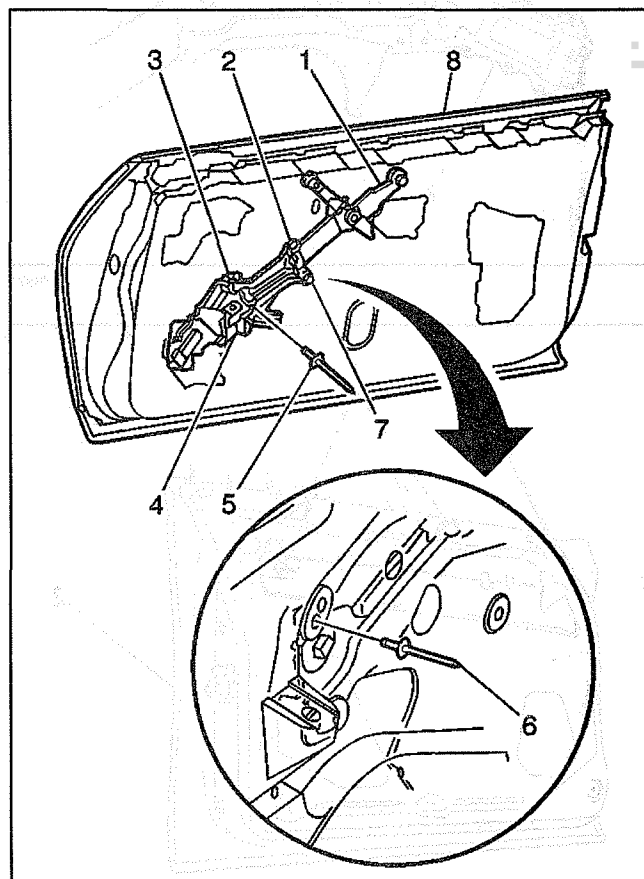


378904

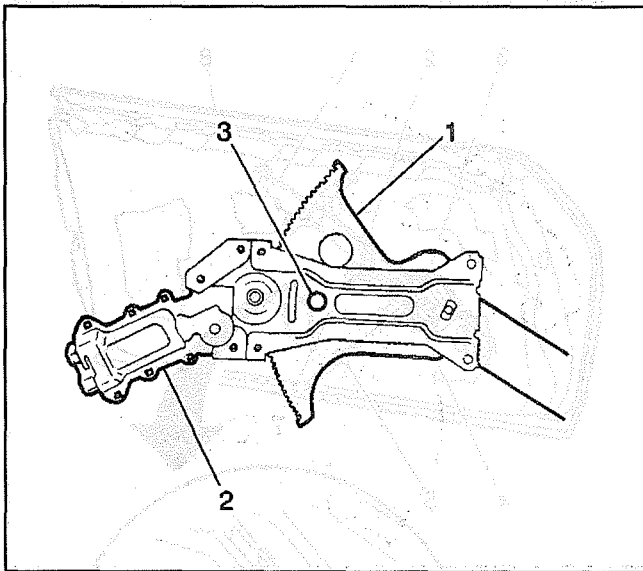
Installation Procedure

Caution: Disconnect the power window switch when working inside the driver's door. When operated, the Express Down Feature allows the door window to drop very quickly, without stopping, which could cause personal injury.

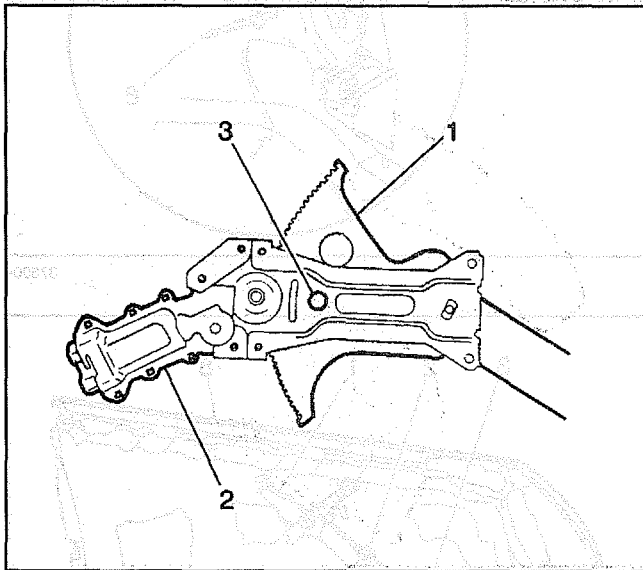
1. Install window regulator with regulator motor through rear access hole. (1)
2. Install window regulator to channels in door.
3. Install electrical connector to regulator motor, if equipped.
4. Install regulator rivets (5) to regulator (1).
5. Install window rear guide channel nuts.
6. Install water deflector. Refer to *Water Deflector Replacement - Door*.
7. Install front side door trim panel. Refer to *Trim Panel Replacement - Door*.



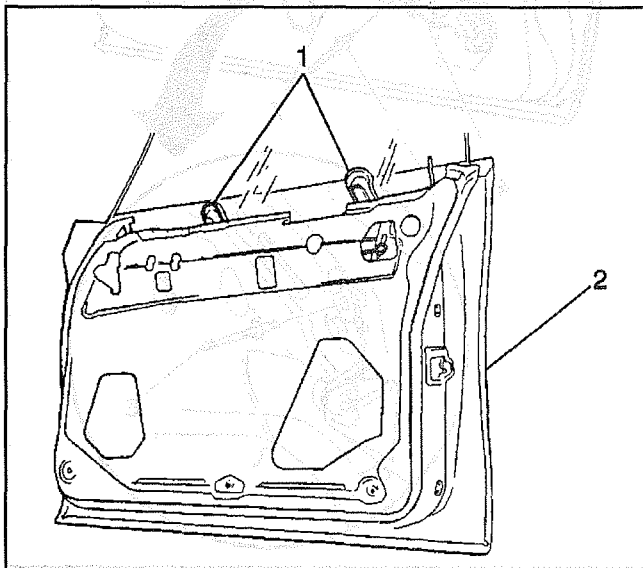
378904



378871



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378861

Window Regulator Motor Replacement - Door

Coupe and sedan front doors use a cross arm regulator.

Removal Procedure

1. Remove window regulator assembly. Refer to *Window Regulator Replacement*.
2. Drill hole (3) through window regulator sector gear and backplate.
3. Install bolt and nut to lock sector gear into position.
4. Remove rivets by drilling out rivets with drill.
5. Remove regulator motor (2) from regulator (1).

Installation Procedure

1. Install regulator motor (2) to regulator (1).
2. Install rivets with rivet gun.
3. Remove bolt and nut used to secure sector gear.
4. Remove window regulator assembly. Refer to *Window Regulator Replacement*.

Window Replacement - Door

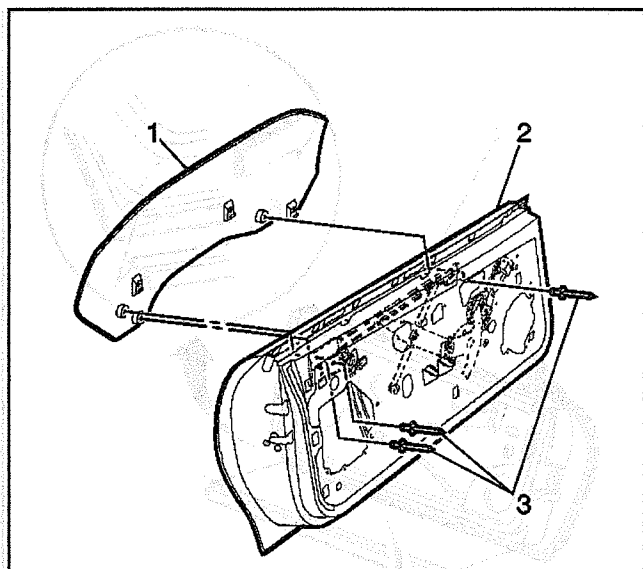
Removal Procedure

1. Lower window about halfway.
2. Remove front side door trim. Refer to *Trim Panel Replacement - Door*.
3. Remove water deflector. Refer to *Water Deflector Replacement - Door*.
4. Support the window in a position needed to access the window rivets by inserting rubber wedge door stops (1) at the front and rear of the window between the window and the door inner panel.

5. Remove the window rivets (3) with a 1/4 inch drill bit.
6. Remove window (1) by raising out of door.

Important: Inspect window bushings, window bushing retainers, window front up stop, window stabilizer pins and window wedges on the window for damage.

7. Remove window bushings and window bushing retainers if necessary, using a flat-bladed tool covered with cloth body tape.
8. Remove window front up-stop bolt/screw if necessary.
9. Remove window front up-stop, front up-stop nut and front up-stop washer if necessary.
10. Remove window stabilizer bolts/screws, if necessary.
11. Remove window stabilizer pins, stabilizer pin nuts and window wedges if necessary.



378863

Installation Procedure

1. Install window stabilizer pins, stabilizer pin nuts and window wedges if necessary.

Notice: Refer to *Fastener Notice* in Cautions and Notices.

2. Install window stabilizer bolts/screws, if necessary.

Tighten

Tighten the bolts/screws to 7 N·m (62 lb in).

3. Install stabilizer pin nuts, if removed.

Tighten

Tighten the window stabilizer pin nuts to 8 N·m (71 lb in).

4. Install window front up-stop washer, if removed.
5. Install window front up-stop bolt/screw, if removed.

Tighten

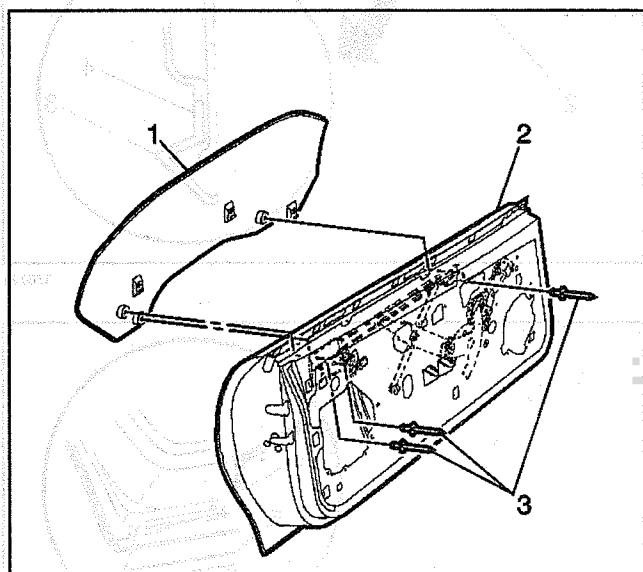
Tighten the window front up-stop bolt/screw to 7 N·m (62 lb in).

6. Install window front up-stop nut if removed.

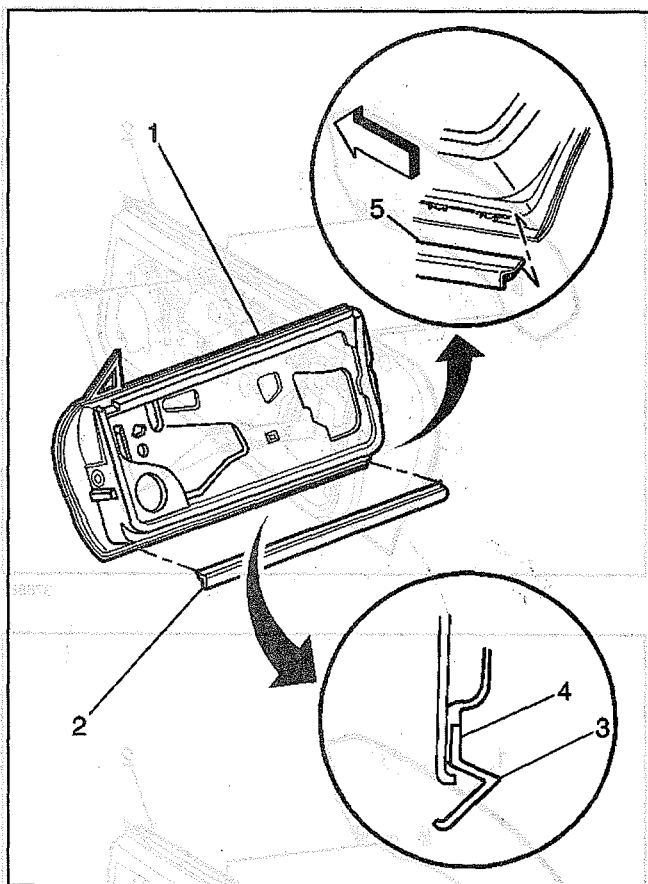
Tighten

Tighten the window front up-stop nut to 8 N·m (71 lb in).

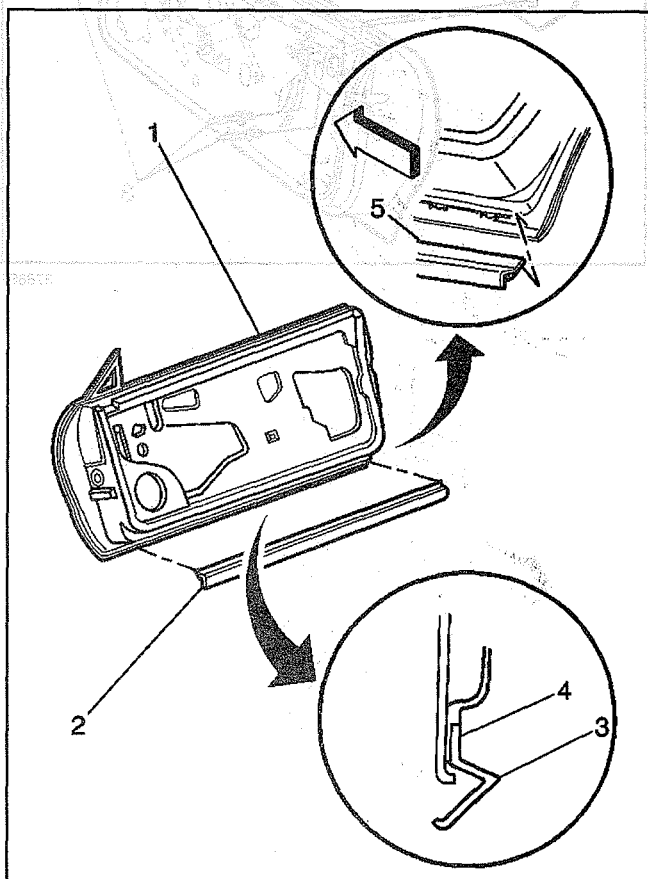
7. Install window bushings and bushing retainers, if removed.
8. Install window (1) into door so that holes in window bushings line up with holes in channel.
9. Install window rivets (3) in sequence.
10. Install water deflector. Refer to *Water Deflector Replacement - Door*.
11. Install front side door trim. Refer to *Trim Panel Replacement - Door*.
12. Raise window.



378863



378721



378721

Door Seal Replacement

Removal Procedure

1. Open door to gain access to sealing strip (2).
2. Remove door sealing strip with heat gun or careful scraping.

Important: Ensure that sealing strip removal doesn't scratch door finish.

3. Clean area with suitable solution of isopropyl alcohol 50/50 mixture by volume with water or high flash naphtha.
4. Clean and dry area with dry cloth.

Installation Procedure

1. Install new door sealing strip (2) to door (1).

Important: Temperature must be 95 degrees +/- 5 degrees for proper adhesion of strip to door. If necessary, use heat gun to lightly warm strip prior to installation.

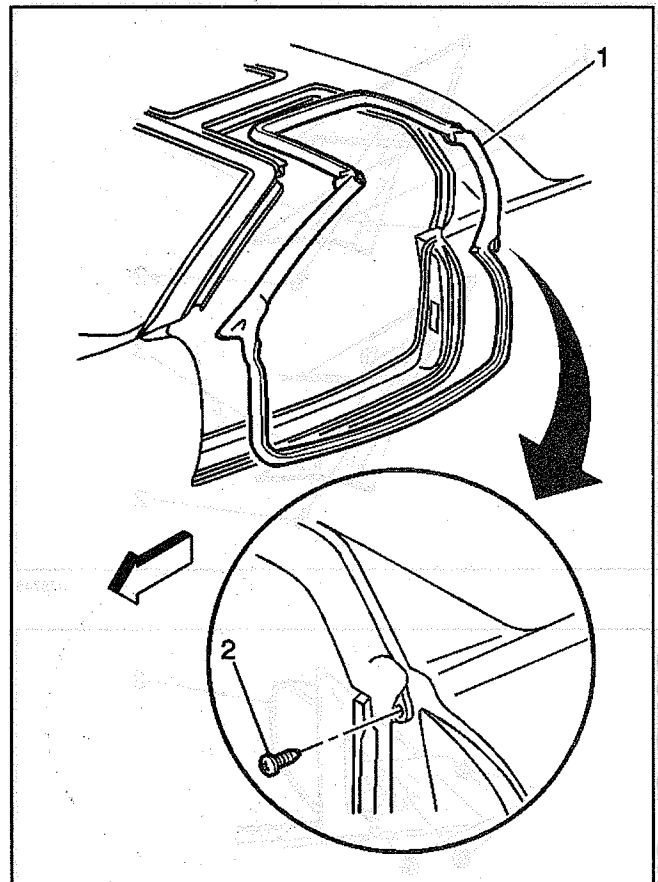
2. Remove protective liner from sealing strip.

Important: Position bottom sealing strip carefully. Sealing strip cannot be removed without reapplying adhesive after contact with vehicle.

3. Align bottom sealing strip to locating feature starting at rear edge of door inner panel.
4. Press bottom sealing strip into place and apply pressure along entire surface.

Weatherstrip Replacement - Door**Removal Procedure**

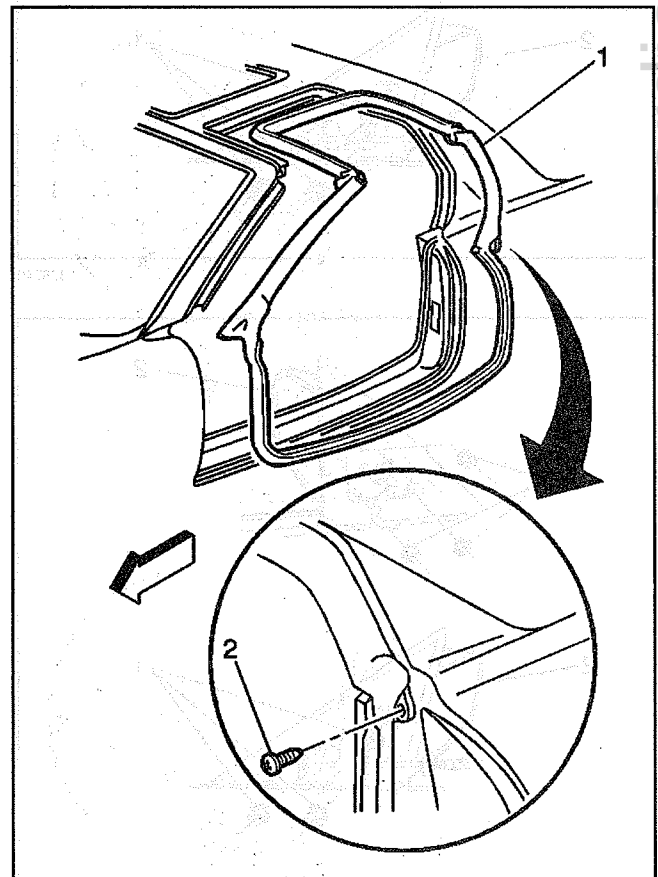
1. Remove body hinge pillar trim panel.
2. Remove windshield side upper garnish molding (1).
3. Remove rear quarter trim panel.
4. Remove roof lift off window (if equipped).
5. Remove lift window body side weatherstrip bolts/screws, if equipped.
6. Remove side door weatherstrip retainers (6).
7. Remove side door weatherstrip by pulling weatherstrip from flange and weatherstrip body retainers (6).



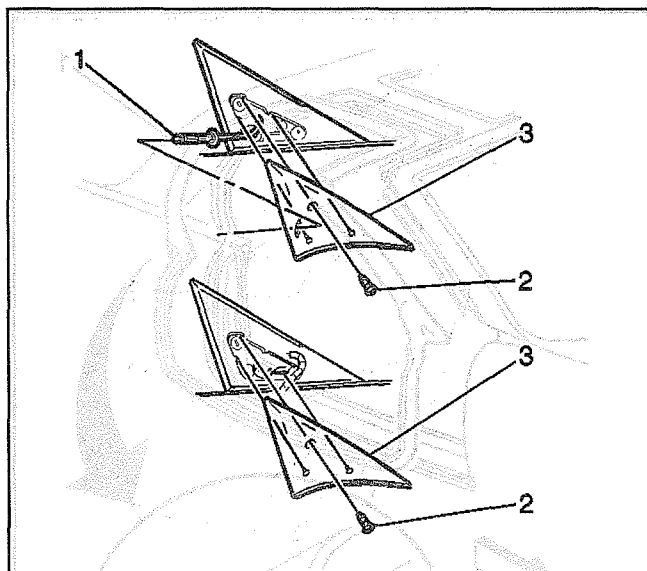
378887

Installation Procedure

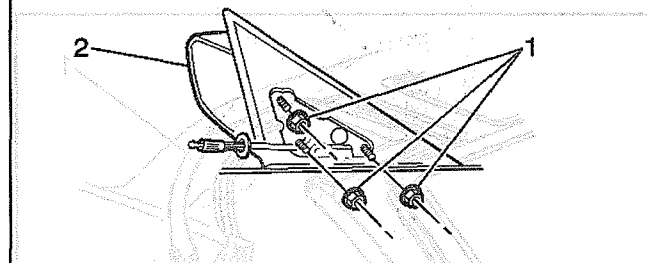
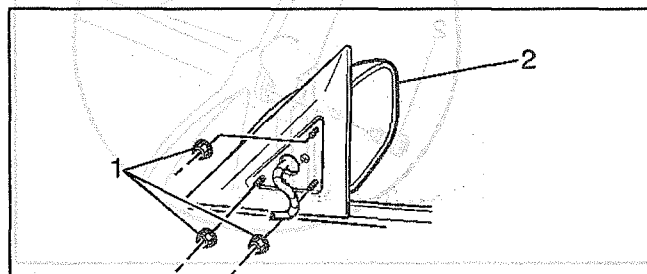
1. Install side door weatherstrip by pulling weatherstrip from flange and weatherstrip body retainers.
2. Install side door weatherstrip retainers (6).
3. Install lift window body side weatherstrip bolts/screws (2), if equipped.
4. Install roof lift off window (if equipped).
5. Install rear quarter trim panel.
6. Install windshield side upper garnish molding.
7. Install body hinge pillar trim panel.



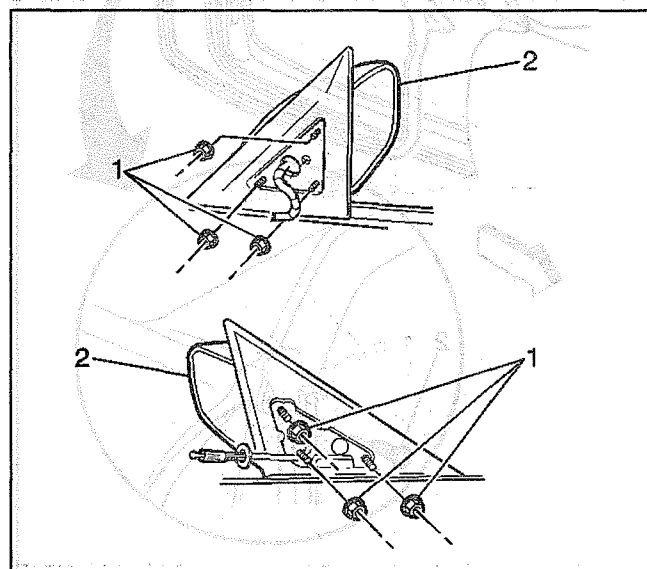
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378745



378740



378740

Mirror Replacement

Removal Procedure

1. Remove mirror bezel bolt/screw. (2)
2. Remove rearview mirror bezel (3).
3. Remove remote handle from bezel, if equipped.
4. Remove door trim panel from door. Refer to *Trim Panel Replacement - Door*.
5. Disconnect electrical connector, if equipped.
 - 5.1. Pull rosebud clip on electrical connector from mirror.
 - 5.2. Pull apart connection.
6. Remove outside rearview mirror nuts (1) from mirror assembly (2).
7. Remove outside rearview mirror (2).

Installation Procedure

1. Install outside rearview mirror.
- Notice:** Refer to *Fastener Notice* in Cautions and Notices.
2. Install outside rearview mirror nuts (1) to mirror assembly (2).

Tighten

Tighten the outside rearview mirror nuts (1) to 12 N·m (106 lb in).
 3. Connect electrical connector, if equipped.
 - 3.1. Push connectors together.
 - 3.2. Push rosebud clip into electrical connector.
 4. Install door trim panel from door. Refer to *Trim Panel Replacement - Door*.
 5. Install remote handle from bezel, if equipped.

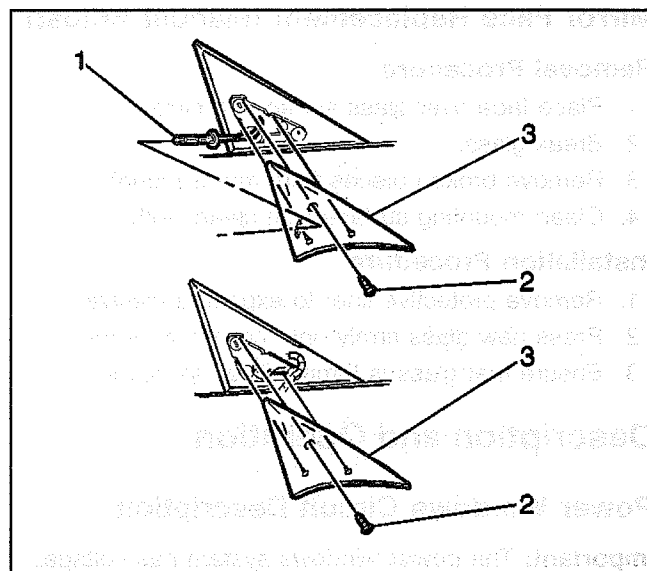
6. Install rearview mirror bezel (2).

Important: Ensure that retainer guides on back of bezel is aligned with holes in applique.

7. Install rearview mirror bezel bolt/screw.

Tighten

Tighten the bolt/screw to 2 N·m (18 lb in).



378745

Mirror Face Replacement (Electric Adjust)

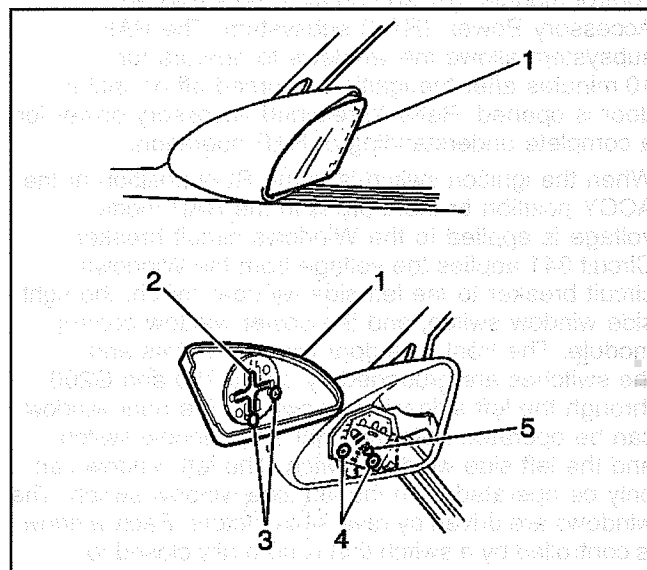
Removal Procedure

Caution: When working with any type of glass, use approved safety glasses and gloves to reduce the chance of personal injury.

1. Push in on one edge of the mirror glass (1) tilting the mirror case to allow finger access.
2. Grasp the glass (1) case firmly and pull the case from the mirror body.

Important: Inspect the motor pack unit (5) and if damaged, replace entire mirror assembly.

3. Remove the jackscrews (4) from the motor pack unit (5).

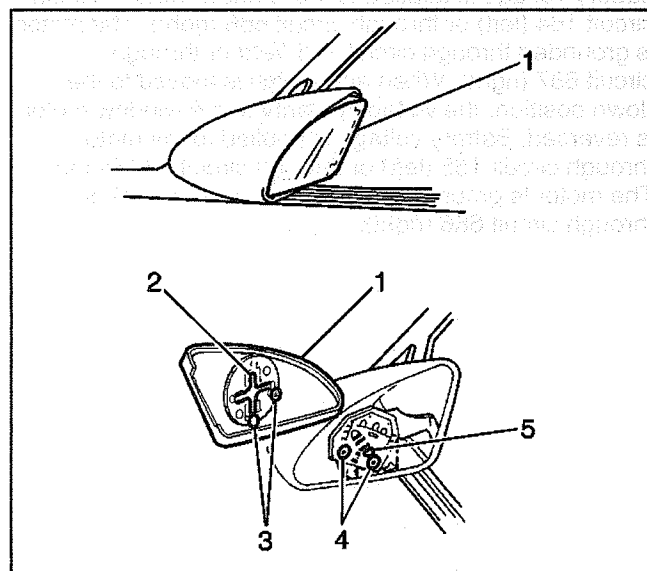


378747

Installation Procedure

Caution: When working with any type of glass, use approved safety glasses and gloves to reduce the chance of personal injury.

1. Install the jackscrews (4) and trunion bars (2) to the new glass (1).
2. Install new rearview mirror glass.
 - 2.1. Align jackscrews (3) perpendicular to the glass (1).
 - 2.2. Align trunion bar parallel (2) to glass
 - 2.3. Position end of jackscrews (3) at opening approximately 13 mm (0.5 inch) into pack unit (5).
 - 2.4. Visually align trunion bar with receptor by lifting inboard corner of glass.
 - 2.5. Apply pressure with palm of hand until glass is seated firmly to receptor.
 - 2.6. Manually rotate glass to check for proper installation.



378747

Mirror Face Replacement (Manual Adjust)

Removal Procedure

1. Place tape over glass surface of mirror.
2. Break glass.
3. Remove broken pieces from mirror mount.
4. Clean mounting surface with clean cloth.

Installation Procedure

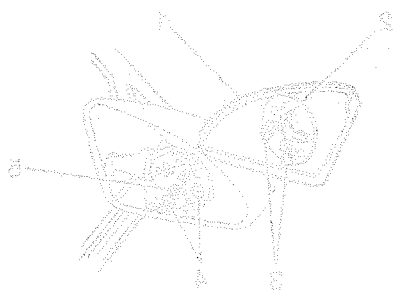
1. Remove protective liner to expose adhesive.
2. Press new glass firmly onto center of mirror.
3. Ensure that glass is firmly affixed to mirror.

Description and Operation

Power Windows Circuit Description

Important: The power windows system has voltage applied by the Windows circuit breaker. The body control module (BCM) contains the Retained Accessory Power (RAP) subsystem. The RAP subsystem allows the windows to operate for 10 minutes after the ignition is turned off or until a door is opened. Refer to retained accessory power for a complete understanding of RAP operation.

When the ignition switch is in the RUN position or the ACCY position or the BCM is in the RAP mode, voltage is applied to the Windows circuit breaker. Circuit 341 applies the voltage from the Windows circuit breaker to the left side window switch, the right side window switch, and the power window control module. The front side door window motors and the switches are grounded by circuit 750 and G200 through the left side window switch. The right window can be operated from the right side window switch and the left side window switch. The left window can only be operated from the left side window switch. The windows are driven by reversible motors. Each window is controlled by a switch that is normally closed to ground. When any switch is moved to the up position, battery voltage is applied to the window motor through circuit 164 (left) or through circuit 666 (right). The motor is grounded through circuit 165 (left) or through circuit 667 (right). When any switch is moved to the down position, the voltage polarity at the window motor is reversed. Battery voltage is applied to the motor through circuit 165 (left) or through circuit 667 (right). The motor is grounded through circuit 164 (left) or through circuit 666 (right).



Each window motor contains an internal electronic circuit breaker. If a window switch is held in the up or down position after the window is fully opened or closed, the circuit breaker opens to stop the motor. The circuit breaker also opens to stop the window when the window becomes obstructed during operation. The circuit breaker resets when the voltage to the motor is interrupted.

Express Down Feature

The power window system also includes an express down feature. This feature allows the left window to open completely when the left window switch is momentarily pressed in the down position. All of the solid state circuitry for the express down feature is contained in the power window control module.

Power Door Locks Circuit Description

Important: The power door locks are controlled by the body control module (BCM). The BCM allows the door locks to operate for 10 minutes after the ignition is turned off and both of the doors remain closed. The BCM also allows the door locks to operate for 35 seconds after exiting the vehicle and closing the doors. The door locks are enabled whenever either door is open unless the ignition key is in the ignition and the lockout prevention feature is enabled. Refer to *Retained Accessory Power (RAP) Circuit Description* in Retained Accessory Power for a complete understanding of RAP operation.

Both door lock actuators lock or unlock when either door lock switch is pressed. The locks are operated by reversible actuators. The door lock switches operate the actuators by applying a ground input signal to the BCM. The BCM then commands the actuators to lock or unlock. When the right door lock switch or the left door lock switch is moved to the lock position, ground is applied to the BCM lock input through circuit 780. The BCM then applies battery voltage to both actuators through circuit 295. The actuators are grounded by the BCM through circuit 694 and through circuit 1663. When the right door lock switch or the left door lock switch is moved to the unlock position, ground is applied to the BCM unlock input through circuit 781. The BCM applies battery voltage to the actuators through circuit 694 and through circuit 1663. Both of the actuators are grounded by the BCM through circuit 295. The ground is supplied to the BCM by G200 through circuit 650.

Door Lock Feature Customization

The body control module (BCM) can be programmed to customize the power door lock operation. The two programmable functions are described below.

Last Door Closed Locking

The last door closed locking feature allows delayed door locking on all vehicles equipped with power door locks. This feature assures that all vehicle doors are locked after the driver and all passengers have exited the vehicle. When the driver door lock switch is pressed, an audible warning tone sounds three times to indicate that the last door closed locking function is initiated. The doors lock automatically three seconds after both doors are closed. Pressing the door lock switch to the unlock position after the warning tones cancels the last door closed locking function. Pressing the door lock switch to the lock position twice locks the doors immediately. The last door closed locking function does not work if the ignition key is in the ignition switch and the lockout prevention feature is enabled. The last door closed locking feature is disabled from the factory. To enable the last door closed locking feature, refer to *Feature Customization* in Theft Deterrent.

Lockout Prevention

The lockout prevention feature prevents the driver from locking the ignition key in the vehicle. The power door locks are disabled with the ignition key in the ignition and a door open. When the door lock switch is pressed with a door open an audible warning sounds five times as a reminder to remove the ignition key. The lockout prevention feature is disabled from the factory. To enable the lockout prevention feature, refer to *Feature Customization* in Theft Deterrent.

Outside Mirrors Circuit Description

Chevrolet

Each outside rearview mirror has two reversible motors. One motor adjusts the mirror up and down. The other motor adjusts the mirror left and right. The motors are controlled by the outside rearview mirror switch. The outside rearview mirror switch consists of two different switches:

- The mirror select switch is used to select the mirror to be adjusted.
- The mirror position switch controls the movement of the selected mirror.

The power mirror system has voltage applied by the PWR ACCY fuse through circuit 640 to the outside rearview mirror switch. When the position switch is pressed to the up position, voltage is applied through circuit 88 to the up/down motor of the left mirror. When

the position switch is pressed to the down position, voltage is applied through circuit 82 to the up/down motor of the left mirror. The left/right motor of the left mirror operates similar to the up/down motor. When the position switch is pressed to the left position, voltage is applied through circuit 82 to the left/right motor of the left mirror. When the position switch is pressed to the right position, voltage is applied through circuit 81 to the right/left motor of the left mirror.

The right mirror operates the same way when the mirror select switch is moved to the right position. Each mirror motor contains an internal electronic circuit breaker. If a mirror position switch is held in the up/down position or the left/right position after the mirror movement stops, the circuit breaker opens to protect the motor. The circuit breaker also opens to stop the motor if the mirror becomes obstructed during operation. The circuit breaker resets when the voltage to the motor is interrupted.

Pontiac

Each outside rearview mirror has two reversible motors. One motor adjusts the mirror up and down. The other motor adjusts the mirror left and right. The motors are controlled by the outside rearview mirror switch. The outside rearview mirror switch consists of two different switches:

- The mirror select switch is used to select the mirror to be adjusted.
- The mirror position switch controls the movement of the selected mirror.

The power mirror system has voltage applied by the PWR ACCY fuse through circuit 640 to the outside rearview mirror switch. When the position switch is pressed to the up position, voltage is applied through circuit 88 to the up/down motor of the left mirror. When the position switch is pressed to the down position, voltage is applied through circuit 89 to the up/down motor of the left mirror. The left/right motor of the left mirror operates similar to the up/down motor. When the position switch is pressed to the left position, voltage is applied through circuit 82 to the left/right motor of the left mirror. When the position switch is pressed to the right position, voltage is applied through circuit 81 to the right/left motor of the left mirror.

The right mirror operates the same way when the mirror select switch is moved to the right position. Each mirror motor contains an internal electronic circuit breaker. If a mirror position switch is held in the up/down position or the left/right position after the mirror movement stops, the circuit breaker opens to protect the motor. The circuit breaker also opens to stop the motor if the mirror becomes obstructed during operation. The circuit breaker resets when the voltage to the motor is interrupted.

