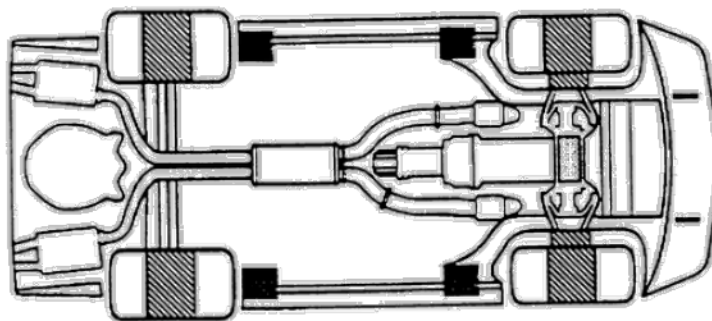
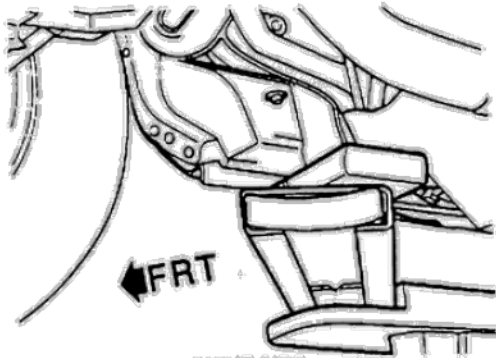


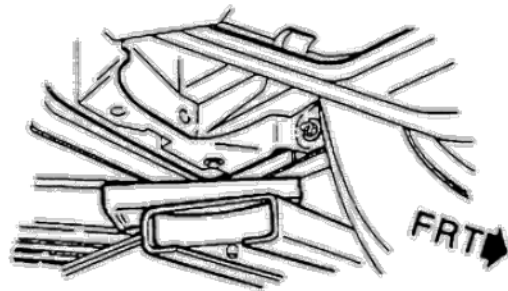


FRT →

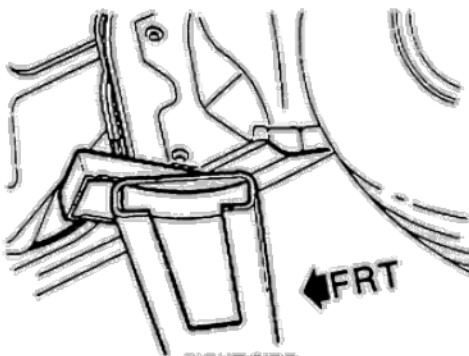
■ FRAME CONTACT HOIST
 ▨ FLOOR JACK
 ▩ SUSPENSION CONTACT HOIST



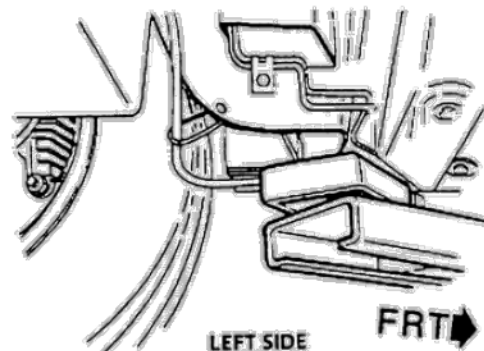
RIGHT SIDE
 FRAME CONTACT HOIST
 REARWARD OF FRONT WHEEL



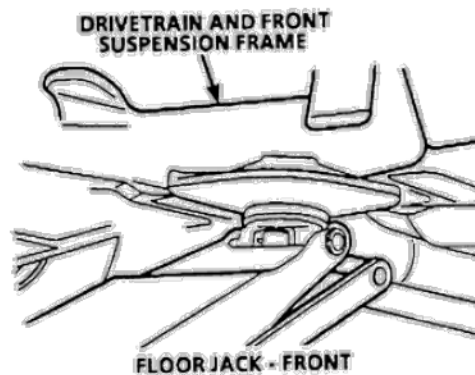
LEFT SIDE
 FRAME CONTACT HOIST
 REARWARD OF FRONT WHEEL



RIGHT SIDE
 FRAME CONTACT HOIST
 FORWARD OF REAR WHEEL



LEFT SIDE
 FRAME CONTACT HOIST
 FORWARD OF REAR WHEEL



SEVERE MAINTENANCE INTERVALS

TO BE SERVICED	TYPE OF SERVICE	VEHICLE MILEAGE INTERVAL (x1000)																			
		3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
Change engine oil	R	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replace engine oil filter	R	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Check manual transmission fluid and add if necessary	S/I																				
Chassis lubrication	L		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓
Rotate and inspect the tires and wheels	S/I		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓
Inspect the brake system components	S/I		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓
Throttle body mount bolt torque (1984-91 vehicles only)	S/I		✓																		
Check and adjust idle speed (if possible)	S/I		✓																		
Inspect the caliper and steering knuckle	S/I				✓				✓				✓				✓				✓
Inspect the air cleaner element ①	S/I					✓					✓					✓					✓
Replace the air cleaner element	R										✓										✓
Inspect the accessory drive belts	S/I																				✓
Inspect the PCV valve (1984-88 vehicles)	S/I										✓										✓
Inspect the EGR system (1984-88 vehicles)											✓										✓
Change the automatic transaxle fluid and filter	R	Every 50,000 miles, if operated in conditions listed below ②																			
Inspect the spark plug wires	S/I	See note below ③																			
Replace the spark plugs	R	See note below ④																			
Cooling system service ⑤	R	See note below ⑥																			

R - Replace S/I - Inspect and service, if needed L - Lubricate A - Adjust C - Clean

NOTE: The services shown in this schedule up to 120,000 miles, should be performed at the same intervals after 120,000 miles.

① Inspect air cleaner element if vehicle is driven under dusty conditions

② Change the automatic transaxle fluid and filter ONLY if the vehicle is mainly driven under one or more of the conditions listed under severe service.

③ For 1984-95 vehicles, inspect the spark plug wires every 30,000 miles. For 1996 vehicles, inspect them every 100,000 miles

④ For 1984-91 vehicles, & 1992 VIN J engines, replace the spark plugs every 30,000 miles. On 1992 VIN P and 1993-96 vehicles, replace every 100,000 miles

⑤ Drain, flush and refill the cooling system. Inspect the hoses, clean the radiator, condenser, pressure cap and neck. Pressure test the cooling system and pressure cap.

⑥ For 1984-93 vehicles, perform the cooling system service every 30,000 miles. For 1994-96 vehicles perform the service every 100,000 miles.

FREQUENT OPERATION MAINTENANCE (SEVERE SERVICE)

If a vehicle is operated under any of the following conditions it is considered severe service:

- Towing a trailer or using a camper or car-top carrier.
- Repeated short trips of less than 5 miles in temperatures below freezing, or trips of less than 10 miles in any temperature.
- Extensive idling or low-speed driving for long distances as in heavy commercial use, such as delivery, taxi or police cars.
- Operating on rough, muddy or salt-covered roads.
- Operating on unpaved or dusty roads.
- Driving in extremely hot (over 90°) conditions.

NORMAL MAINTENANCE INTERVALS

Use this chart only if none of the conditions listed under Severe Maintenance apply

TO BE SERVICED	TYPE OF SERVICE	VEHICLE MILEAGE INTERVAL (x1000)															
		7.5	15	22.5	30	37.5	45	52.5	60	67.5	75	82.5	90	97.5	105	112.5	120
Change engine oil	R	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Replace engine oil filter		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Check manual transmission fluid and add if necessary	S/I	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lube the suspension grease fittings and linkages	L	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rotate and inspect the tires and wheels	S/I	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Inspect the brake system components	S/I	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Inspect throttle body mount torque (1984-91 vehicles)	S/I	✓															
Check and adjust idle speed (if possible)	S/I	✓															
Inspect the caliper and steering knuckle	S/I		✓		✓		✓		✓		✓		✓		✓		✓
Replace the air cleaner element	R				✓				✓				✓				✓
Inspect the fuel tank cap and fuel lines	S/I				✓				✓				✓				✓
Inspect the accessory drive belts	S/I								✓								✓
Inspect the PCV valve (1984-88) vehicles	S/I								✓								✓
Inspect the EGR system (1984-88) vehicles									✓								✓
Change the automatic transaxle fluid and filter	R	Every 50,000 miles, if operated in conditions listed below ①															
Inspect the spark plug wires	S/I	See note below ②															
Replace the spark plugs	R	See note below ③															
Cooling system	R	See note below ④															

R - Replace S/I - Inspect and service, if needed L - Lubricate A - Adjust C - Clean

NOTE: The services shown in this schedule up to 120,000 miles, should be performed at the same intervals after 150,000 miles.

① Change the automatic transaxle fluid and filter **ONLY** if the vehicle is mainly driven under on or more of the following conditions:

- a: In heavy city traffic where the outside temperatures reach 90°F (32°C) or higher.
- b: In hilly or mountainous terrain.
- c: When performing frequent trailer towing.
- d: When used as a taxi, police car or for delivery service.

② For 1984-95 vehicles, inspect the spark plug wires every 30,000 miles. For 1996 vehicles, inspect them every 100,000 miles.

③ For 1984-91 vehicles and 1992 VIN J engines, replace the spark plugs every 30,000 miles. For 1992 VIN P and all 1993-96 vehicles, replace the spark plugs every 100,000 miles.

④ Drain, flush and refill the cooling system. Inspect the hoses, clean the radiator, condenser, pressure cap and neck. Pressure test the cooling system and pressure cap. For 1984-93 vehicles, perform the cooling system service every 30,000 miles. For 1994-96 vehicles perform the service every 100,000 miles.

CAPACITIES

Year	Model	Engine ID/VIN	Engine Displacement Liters (cc)	Engine Oil with Filter	Transmission (pts.)			Drive Axle		Fuel Tank (gal.)	Cooling System (qts.)
					5-Spd	6-Spd	Auto.	Front (pts.)	Rear (pts.)		
1984	Corvette	8	5.7L (5700)	5.0 ①	6.0	—	20.0	—	4.0	20.0	14.5
1985	Corvette	8	5.7L (5700)	5.0	7.0	—	20.0 ②	—	3.75	20.0	14.0
1986	Corvette	8	5.7L (5700)	5.0	7.0	—	20.0 ②	—	3.75	20.0	14.0
1987	Corvette	8	5.7L (5700)	5.0	7.0	—	20.0 ②	—	3.75	20.0	14.0
1988	Corvette	8	5.7L (5700)	5.0	7.0	—	20.0 ②	—	3.75	20.0	14.0
1989	Corvette	8	5.7L (5700)	5.0	—	4.4	20.0 ②	—	3.75	20.0	14.0
1990	Corvette	8	5.7L (5700)	5.0	—	4.4	20.0 ②	—	3.75	20.0	17.8
	Corvette	J	5.7L (5700)	8.6	—	4.4	20.0 ②	—	3.75	20.0	14.7
1991	Corvette	8	5.7L (5700)	5.0	—	4.4	20.0 ③	—	3.75	20.0	17.8
	Corvette	J	5.7L (5700)	8.6	—	4.4	20.0 ③	—	3.75	20.0	14.7
1992	Corvette	P	5.7L (5700)	5.0	—	4.4	20.0 ③	—	3.75	20.0	17.8
	Corvette	J	5.7L (5700)	8.6	—	4.4	20.0 ③	—	3.75	20.0	14.7
1993	Corvette	P	5.7L (5700)	4.5	—	4.4	20.0 ③	—	3.75	20.0	17.8
	Corvette	J	5.7L (5700)	8.6	—	4.4	20.0 ③	—	3.75	20.0	14.7
1994	Corvette	P	5.7L (5700)	4.5	—	4.4	20.0 ③	—	3.75	20.0	17.8
	Corvette	J	5.7L (5700)	8.6	—	4.4	20.0 ③	—	3.75	20.0	14.7
1995	Corvette	P	5.7L (5700)	4.5	—	4.4	20.0 ③	—	④	20.0	17.8
	Corvette	J	5.7L (5700)	8.6	—	4.4	20.0 ③	—	④	20.0	14.7
1996	Corvette	P	5.7L (5700)	4.5	—	4.4	20.0 ③	—	④	20.0	14.5
	Corvette	5	5.7L (5700)	4.5	—	4.4	20.0 ③	—	④	20.0	14.5

NOTE: All capacities are approximate. Add fluid gradually and check to be sure a proper fluid level is obtained

- ① Add 1 quart if equipped with an engine oil cooler.
- ② Specification given is for fluid drain and refill. For transmission overhaul, use approximately 23 pts.
- ③ Specification given is for fluid drain and refill. For transmission overhaul, use approximately 22.4 pts.
- ④ Specification for rear axle is 3.0 pts., plus 4 oz. of limited-slip additive

ENGLISH TO METRIC CONVERSION: MASS (WEIGHT)

Current mass measurement is expressed in pounds and ounces (lbs. & ozs.). The metric unit of mass (or weight) is the kilogram (kg). Even although this table does not show conversion of masses (weights) larger than 15 lbs, it is easy to calculate larger units by following the data immediately below.

To convert ounces (oz.) to grams (g): multiply the number of ozs. by 28

To convert grams (g) to ounces (oz.): multiply the number of grams by .035

To convert pounds (lbs.) to kilograms (kg): multiply the number of lbs. by .45

To convert kilograms (kg) to pounds (lbs.): multiply the number of kilograms by 2.2

lbs	kg	lbs	kg	oz	kg	oz	kg
0.1	0.04	0.9	0.41	0.1	0.003	0.9	0.024
0.2	0.09	1	0.4	0.2	0.005	1	0.03
0.3	0.14	2	0.9	0.3	0.008	2	0.06
0.4	0.18	3	1.4	0.4	0.011	3	0.08
0.5	0.23	4	1.8	0.5	0.014	4	0.11
0.6	0.27	5	2.3	0.6	0.017	5	0.14
0.7	0.32	10	4.5	0.7	0.020	10	0.28
0.8	0.36	15	6.8	0.8	0.023	15	0.42

ENGLISH TO METRIC CONVERSION: TEMPERATURE

To convert Fahrenheit (°F) to Celsius (°C): take number of °F and subtract 32; multiply result by 5; divide result by 9

To convert Celsius (°C) to Fahrenheit (°F): take number of °C and multiply by 9; divide result by 5; add 32 to total

Fahrenheit (F) Celsius (C)				Fahrenheit (F) Celsius (C)				Fahrenheit (F) Celsius (C)			
°F	°C	°C	°F	°F	°C	°C	°F	°F	°C	°C	°F
-40	-40	-38	-36.4	80	26.7	18	64.4	215	101.7	80	176
-35	-37.2	-36	-32.8	85	29.4	20	68	220	104.4	85	185
-30	-34.4	-34	-29.2	90	32.2	22	71.6	225	107.2	90	194
-25	-31.7	-32	-25.6	95	35.0	24	75.2	230	110.0	95	202
-20	-28.9	-30	-22	100	37.8	26	78.8	235	112.8	100	212
-15	-26.1	-28	-18.4	105	40.6	28	82.4	240	115.6	105	221
-10	-23.3	-26	-14.8	110	43.3	30	86	245	118.3	110	230
-5	-20.6	-24	-11.2	115	46.1	32	89.6	250	121.1	115	239
0	-17.8	-22	-7.6	120	48.9	34	93.2	255	123.9	120	248
1	-17.2	-20	-4	125	51.7	36	96.8	260	126.6	125	257
2	-16.7	-18	-0.4	130	54.4	38	100.4	265	129.4	130	266
3	-16.1	-16	3.2	135	57.2	40	104	270	132.2	135	275
4	-15.6	-14	6.8	140	60.0	42	107.6	275	135.0	140	284
5	-15.0	-12	10.4	145	62.8	44	112.2	280	137.8	145	293
10	-12.2	-10	14	150	65.6	46	114.8	285	140.6	150	302
15	-9.4	-8	17.6	155	68.3	48	118.4	290	143.3	155	311
20	-6.7	-6	21.2	160	71.1	50	122	295	146.1	160	320
25	-3.9	-4	24.8	165	73.9	52	125.6	300	148.9	165	329
30	-1.1	-2	28.4	170	76.7	54	129.2	305	151.7	170	338
35	1.7	0	32	175	79.4	56	132.8	310	154.4	175	347
40	4.4	2	35.6	180	82.2	58	136.4	315	157.2	180	356
45	7.2	4	39.2	185	85.0	60	140	320	160.0	185	365
50	10.0	6	42.8	190	87.8	62	143.6	325	162.8	190	374
55	12.8	8	46.4	195	90.6	64	147.2	330	165.6	195	383
60	15.6	10	50	200	93.3	66	150.8	335	168.3	200	392
65	18.3	12	53.6	205	96.1	68	154.4	340	171.1	205	401
70	21.1	14	57.2	210	98.9	70	158	345	173.9	210	410
75	23.9	16	60.8	212	100.0	75	167	350	176.7	215	414

ENGLISH TO METRIC CONVERSION: MASS (WEIGHT)

Current mass measurement is expressed in pounds and ounces (lbs. & ozs.). The metric unit of mass (or weight) is the kilogram (kg). Even although this table does not show conversion of masses (weights) larger than 15 lbs, it is easy to calculate larger units by following the data immediately below.

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To convert grams (g) to ounces (oz.): multiply the number of grams by .035

To convert pounds (lbs.) to kilograms (kg): multiply the number of lbs. by .45

To convert kilograms (kg) to pounds (lbs.): multiply the number of kilograms by 2.2

lbs	kg	lbs	kg	oz	kg	oz	kg
0.1	0.04	0.9	0.41	0.1	0.003	0.9	0.024
0.2	0.09	1	0.4	0.2	0.005	1	0.03
0.3	0.14	2	0.9	0.3	0.008	2	0.06
0.4	0.18	3	1.4	0.4	0.011	3	0.08
0.5	0.23	4	1.8	0.5	0.014	4	0.11
0.6	0.27	5	2.3	0.6	0.017	5	0.14
0.7	0.32	10	4.5	0.7	0.020	10	0.28
0.8	0.36	15	6.8	0.8	0.023	15	0.42

ENGLISH TO METRIC CONVERSION: TEMPERATURE

To convert Fahrenheit (°F) to Celsius (°C): take number of °F and subtract 32; multiply result by 5; divide result by 9

To convert Celsius (°C) to Fahrenheit (°F): take number of °C and multiply by 9; divide result by 5; add 32 to total

Fahrenheit (F) Celsius (C)				Fahrenheit (F) Celsius (C)				Fahrenheit (F) Celsius (C)			
°F	°C	°C	°F	°F	°C	°C	°F	°F	°C	°C	°F
-40	-40	-38	-36.4	80	26.7	18	64.4	215	101.7	80	176
-35	-37.2	-36	-32.8	85	29.4	20	68	220	104.4	85	185
-30	-34.4	-34	-29.2	90	32.2	22	71.6	225	107.2	90	194
-25	-31.7	-32	-25.6	95	35.0	24	75.2	230	110.0	95	202
-20	-28.9	-30	-22	100	37.8	26	78.8	235	112.8	100	212
-15	-26.1	-28	-18.4	105	40.6	28	82.4	240	115.6	105	221
-10	-23.3	-26	-14.8	110	43.3	30	86	245	118.3	110	230
-5	-20.6	-24	-11.2	115	46.1	32	89.6	250	121.1	115	239
0	-17.8	-22	-7.6	120	48.9	34	93.2	255	123.9	120	248
1	-17.2	-20	-4	125	51.7	36	96.8	260	126.6	125	257
2	-16.7	-18	-0.4	130	54.4	38	100.4	265	129.4	130	266
3	-16.1	-16	3.2	135	57.2	40	104	270	132.2	135	275
4	-15.6	-14	6.8	140	60.0	42	107.6	275	135.0	140	284
5	-15.0	-12	10.4	145	62.8	44	112.2	280	137.8	145	293
10	-12.2	-10	14	150	65.6	46	114.8	285	140.6	150	302
15	-9.4	-8	17.6	155	68.3	48	118.4	290	143.3	155	311
20	-6.7	-6	21.2	160	71.1	50	122	295	146.1	160	320
25	-3.9	-4	24.8	165	73.9	52	125.6	300	148.9	165	329
30	-1.1	-2	28.4	170	76.7	54	129.2	305	151.7	170	338
35	1.7	0	32	175	79.4	56	132.8	310	154.4	175	347
40	4.4	2	35.6	180	82.2	58	136.4	315	157.2	180	356
45	7.2	4	39.2	185	85.0	60	140	320	160.0	185	365
50	10.0	6	42.8	190	87.8	62	143.6	325	162.8	190	374
55	12.8	8	46.4	195	90.6	64	147.2	330	165.6	195	383
60	15.6	10	50	200	93.3	66	150.8	335	168.3	200	392
65	18.3	12	53.6	205	96.1	68	154.4	340	171.1	205	401
70	21.1	14	57.2	210	98.9	70	158	345	173.9	210	410
75	23.9	16	60.8	212	100.0	75	167	350	176.7	215	414

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To convert millimeters (mm) to inches (ins.): multiply number of millimeters by .04

Inches	Decimals	Milli-meters	Inches to millimeters inches mm	Inches	Decimals	Milli-meters	Inches to millimeters inches mm
	1/64 0.051625	0.3969	0.0001 0.00254		33/64 0.515625	13.0969	0.6 15.24
1/32	0.03125	0.7937	0.0002 0.00508	17/32	0.53125	13.4937	0.7 17.78
	3/64 0.046875	1.1906	0.0003 0.00762		35/64 0.546875	13.8906	0.8 20.32
1/16	0.0625	1.5875	0.0004 0.01016	9/16	0.5625	14.2875	0.9 22.86
	5/64 0.078125	1.9844	0.0005 0.01270		37/64 0.578125	14.6844	1 25.4
3/32	0.09375	2.3812	0.0006 0.01524	19/32	0.59375	15.0812	2 50.8
	7/64 0.109375	2.7781	0.0007 0.01778		39/64 0.609375	15.4781	3 76.2
1/8	0.125	3.1750	0.0008 0.02032	5/8	0.625	15.8750	4 101.6
	9/64 0.140625	3.5719	0.0009 0.02286		41/64 0.640625	16.2719	5 127.0
5/32	0.15625	3.9687	0.001 0.0254	21/32	0.65625	16.6687	6 152.4
	11/64 0.171875	4.3656	0.002 0.0508		43/64 0.671875	17.0656	7 177.8
3/16	0.1875	4.7625	0.003 0.0762	11/16	0.6875	17.4625	8 203.2
	13/64 0.203125	5.1594	0.004 0.1016		45/64 0.703125	17.8594	9 228.6
7/32	0.21875	5.5562	0.005 0.1270	23/32	0.71875	18.2562	10 254.0
	15/64 0.234375	5.9531	0.006 0.1524		47/64 0.734375	18.6531	11 279.4
1/4	0.25	6.3500	0.007 0.1778	3/4	0.75	19.0500	12 304.8
	17/64 0.265625	6.7469	0.008 0.2032		49/64 0.765625	19.4469	13 330.2
9/32	0.28125	7.1437	0.009 0.2286	25/32	0.78125	19.8437	14 355.6
	19/64 0.296875	7.5406	0.01 0.254		51/64 0.796875	20.2406	15 381.0
5/16	0.3125	7.9375	0.02 0.508	13/16	0.8125	20.6375	16 406.4
	21/64 0.328125	8.3344	0.03 0.762		53/64 0.828125	21.0344	17 431.8
11/32	0.34375	8.7312	0.04 1.016	27/32	0.84375	21.4312	18 457.2
	23/64 0.359375	9.1281	0.05 1.270		55/64 0.859375	21.8281	19 482.6
3/8	0.375	9.5250	0.06 1.524	7/8	0.875	22.2250	20 508.0
	25/64 0.390625	9.9219	0.07 1.778		57/64 0.890625	22.6219	21 533.4
13/32	0.40625	10.3187	0.08 2.032	29/32	0.90625	23.0187	22 558.8
	27/64 0.421875	10.7156	0.09 2.286		59/64 0.921875	23.4156	23 584.2
7/16	0.4375	11.1125	0.1 2.54	15/16	0.9375	23.8125	24 609.6
	29/64 0.453125	11.5094	0.2 5.08		61/64 0.953125	24.2094	25 635.0
15/32	0.46875	11.9062	0.3 7.62	31/32	0.96875	24.6062	26 660.4
	31/64 0.484375	12.3031	0.4 10.16		63/64 0.984375	25.0031	27 690.6
1/2	0.5	12.7000	0.5 12.70				

ENGLISH TO METRIC CONVERSION: TORQUE

To convert foot-pounds (ft. lbs.) to Newton-meters: multiply the number of ft. lbs. by 1.3

To convert inch-pounds (in. lbs.) to Newton-meters: multiply the number of in. lbs. by .11

in lbs	N-m	in lbs	N-m	in lbs	N-m	in lbs	N-m	in lbs	N-m
0.1	0.01	1	0.11	10	1.13	19	2.15	28	3.16
0.2	0.02	2	0.23	11	1.24	20	2.26	29	3.28
0.3	0.03	3	0.34	12	1.36	21	2.37	30	3.39
0.4	0.04	4	0.45	13	1.47	22	2.49	31	3.50
0.5	0.06	5	0.56	14	1.58	23	2.60	32	3.62
0.6	0.07	6	0.68	15	1.70	24	2.71	33	3.73
0.7	0.08	7	0.78	16	1.81	25	2.82	34	3.84
0.8	0.09	8	0.90	17	1.92	26	2.94	35	3.95
0.9	0.10	9	1.02	18	2.03	27	3.05	36	4.0

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To convert millimeters (mm) to inches (ins.): multiply number of millimeters by .04

Inches	Decimals	Milli-meters	Inches to millimeters inches mm	Inches	Decimals	Milli-meters	Inches to millimeters inches mm
	1/64	0.051625	0.3969	0.0001	0.00254		
1/32	0.03125	0.7937	0.0002	0.00508			
	3/64	0.046875	1.1906	0.0003	0.00762		
1/16	0.0625	1.5875	0.0004	0.01016			
	5/64	0.078125	1.9844	0.0005	0.01270		
3/32	0.09375	2.3812	0.0006	0.01524			
	7/64	0.109375	2.7781	0.0007	0.01778		
1/8	0.125	3.1750	0.0008	0.02032			
	9/64	0.140625	3.5719	0.0009	0.02286		
5/32	0.15625	3.9687	0.001	0.0254			
	11/64	0.171875	4.3656	0.002	0.0508		
3/16	0.1875	4.7625	0.003	0.0762			
	13/64	0.203125	5.1594	0.004	0.1016		
7/32	0.21875	5.5562	0.005	0.1270			
	15/64	0.234375	5.9531	0.006	0.1524		
1/4	0.25	6.3500	0.007	0.1778			
	17/64	0.265625	6.7469	0.008	0.2032		
9/32	0.28125	7.1437	0.009	0.2286			
	19/64	0.296875	7.5406	0.01	0.254		
5/16	0.3125	7.9375	0.02	0.508			
	21/64	0.328125	8.3344	0.03	0.762		
11/32	0.34375	8.7312	0.04	1.016			
	23/64	0.359375	9.1281	0.05	1.270		
3/8	0.375	9.5250	0.06	1.524			
	25/64	0.390625	9.9219	0.07	1.778		
13/32	0.40625	10.3187	0.08	2.032			
	27/64	0.421875	10.7156	0.09	2.286		
7/16	0.4375	11.1125	0.1	2.54			
	29/64	0.453125	11.5094	0.2	5.08		
15/32	0.46875	11.9062	0.3	7.62			
	31/64	0.484375	12.3031	0.4	10.16		
1/2	0.5	12.7000	0.5	12.70			

ENGLISH TO METRIC CONVERSION: TORQUE

To convert foot-pounds (ft. lbs.) to Newton-meters: multiply the number of ft. lbs. by 1.3

To convert inch-pounds (in. lbs.) to Newton-meters: multiply the number of in. lbs. by .11

in lbs	N-m	in lbs	N-m	in lbs	N-m	in lbs	N-m	in lbs	N-m
0.1	0.01	1	0.11	10	1.13	19	2.15	28	3.16
0.2	0.02	2	0.23	11	1.24	20	2.26	29	3.28
0.3	0.03	3	0.34	12	1.36	21	2.37	30	3.39
0.4	0.04	4	0.45	13	1.47	22	2.49	31	3.50
0.5	0.06	5	0.56	14	1.58	23	2.60	32	3.62
0.6	0.07	6	0.68	15	1.70	24	2.71	33	3.73
0.7	0.08	7	0.78	16	1.81	25	2.82	34	3.84
0.8	0.09	8	0.90	17	1.92	26	2.94	35	3.95
0.9	0.10	9	1.02	18	2.03	27	3.05	36	4.0

ENGLISH TO METRIC CONVERSION: TORQUE

Torque is now expressed as either foot-pounds (ft./lbs.) or inch-pounds (in./lbs.). The metric measurement unit for torque is the Newton-meter (Nm). This unit—the Nm—will be used for all SI metric torque references, both the present ft./lbs. and in./lbs.

ft lbs	N-m	ft lbs	N-m	ft lbs	N-m	ft lbs	N-m
0.1	0.1	33	44.7	74	100.3	115	155.9
0.2	0.3	34	46.1	75	101.7	116	157.3
0.3	0.4	35	47.4	76	103.0	117	158.6
0.4	0.5	36	48.8	77	104.4	118	160.0
0.5	0.7	37	50.7	78	105.8	119	161.3
0.6	0.8	38	51.5	79	107.1	120	162.7
0.7	1.0	39	52.9	80	108.5	121	164.0
0.8	1.1	40	54.2	81	109.8	122	165.4
0.9	1.2	41	55.6	82	111.2	123	166.8
1	1.3	42	56.9	83	112.5	124	168.1
2	2.7	43	58.3	84	113.9	125	169.5
3	4.1	44	59.7	85	115.2	126	170.8
4	5.4	45	61.0	86	116.6	127	172.2
5	6.8	46	62.4	87	118.0	128	173.5
6	8.1	47	63.7	88	119.3	129	174.9
7	9.5	48	65.1	89	120.7	130	176.2
8	10.8	49	66.4	90	122.0	131	177.6
9	12.2	50	67.8	91	123.4	132	179.0
10	13.6	51	69.2	92	124.7	133	180.3
11	14.9	52	70.5	93	126.1	134	181.7
12	16.3	53	71.9	94	127.4	135	183.0
13	17.6	54	73.2	95	128.8	136	184.4
14	18.9	55	74.6	96	130.2	137	185.7
15	20.3	56	75.9	97	131.5	138	187.1
16	21.7	57	77.3	98	132.9	139	188.5
17	23.0	58	78.6	99	134.2	140	189.8
18	24.4	59	80.0	100	135.6	141	191.2
19	25.8	60	81.4	101	136.9	142	192.5
20	27.1	61	82.7	102	138.3	143	193.9
21	28.5	62	84.1	103	139.6	144	195.2
22	29.8	63	85.4	104	141.0	145	196.6
23	31.2	64	86.8	105	142.4	146	198.0
24	32.5	65	88.1	106	143.7	147	199.3
25	33.9	66	89.5	107	145.1	148	200.7
26	35.2	67	90.8	108	146.4	149	202.0
27	36.6	68	92.2	109	147.8	150	203.4
28	38.0	69	93.6	110	149.1	151	204.7
29	39.3	70	94.9	111	150.5	152	206.1
30	40.7	71	96.3	112	151.8	153	207.4
31	42.0	72	97.6	113	153.2	154	208.8
32	43.4	73	99.0	114	154.6	155	210.2

1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7

Fuel Delivery: FI | Fuel: GAS

Pay attention to the instructions provided. There are 3 common mistakes in mechanical work:

1. Incorrect order of assembly, disassembly or adjustment. When taking something apart or putting it together, performing steps in the wrong order usually just costs you extra time; however, it CAN break something. Read the entire procedure before beginning disassembly. Perform everything in the order in which the instructions say you should, even if you can't immediately see a reason for it. When you're taking apart something that is very intricate, you might want to draw a picture of how it looks when assembled at one point in order to make sure you get everything back in its proper position. We will supply exploded views whenever possible. When making adjustments, perform them in the proper order. One adjustment possibly will affect another.
2. Overtorquing (or undertorquing). While it is more common for overtorquing to cause damage, undertorquing may allow a fastener to vibrate loose causing serious damage. Especially when dealing with aluminum parts, pay attention to torque specifications and utilize a torque wrench in assembly. If a torque figure is not available, remember that if you are using the right tool to perform the job, you will probably not have to strain yourself to get a fastener tight enough. The pitch of most threads is so slight that the tension you put on the wrench will be multiplied many times in actual force on what you are tightening. A good example of how critical torque is can be seen in the case of spark plug installation, especially where you are putting the plug into an aluminum cylinder head. Too little torque can fail to crush the gasket, causing leakage of combustion gases and consequent overheating of the plug and engine parts. Too much torque can damage the threads or distort the plug, changing the spark gap.

There are many commercial products available for ensuring that fasteners won't come loose, even if they are not torqued just right (a very common brand is Loctite®). If you're worried about getting something together tight enough to hold, but loose enough to avoid mechanical damage during assembly, one of these products might offer substantial insurance. Before choosing a threadlocking compound, read the label on the package and make sure the product is compatible with the materials, fluids, etc. involved.

3. Crossthreading. This occurs when a part such as a bolt is screwed into a nut or casting at the wrong angle and forced. Crossthreading is more likely to occur if access is difficult. It helps to clean and lubricate fasteners, then to start threading the bolt, spark plug, etc. with your fingers. If you encounter resistance, unscrew the part and start over again at a different angle until it can be inserted and turned several times without much effort. Keep in mind that many parts, especially spark plugs, have tapered threads, so that gentle turning will automatically bring the part you're threading to the proper angle. Don't put a wrench on the part until it's been tightened a couple of turns by hand. If you suddenly encounter resistance, and the part has not seated fully, don't force it. Pull it back out to make sure it's clean and threading properly.

Be sure to take your time and be patient, and always plan ahead. Allow yourself ample time to perform repairs and maintenance. You may find maintaining your car a satisfying and enjoyable experience.

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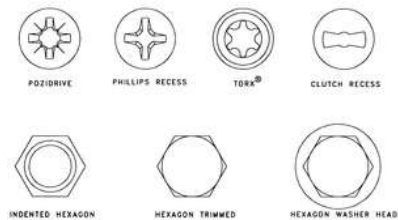
Submodel: | Engine Type: V8 | Liters: 5.7
Fuel Delivery: FI | Fuel: GAS

Many procedures in this book require you to "label and disconnect . . ." a group of lines, hoses or wires. Don't be lulled into thinking you can remember where everything goes — you won't. If you hook up vacuum or fuel lines incorrectly, the vehicle may run poorly, if at all. If you hook up electrical wiring incorrectly, you may instantly learn a very expensive lesson.

You don't need to know the official or engineering name for each hose or line. A piece of masking tape on the hose and a piece on its fitting will allow you to assign your own label such as the letter A or a short name. As long as you remember your own code, the lines can be reconnected by matching similar letters or names. Do remember that tape will dissolve in gasoline or other fluids; if a component is to be washed or cleaned, use another method of identification. A permanent felt-tipped marker or a metal scribe can be very handy for marking metal parts. Remove any tape or paper labels after assembly.

Although there are a great variety of fasteners found in the modern car or truck, the most commonly used retainer is the threaded fastener (nuts, bolts, screws, studs, etc). Most threaded retainers may be reused, provided that they are not damaged in use or during the repair. Some retainers (such as stretch bolts or torque prevailing nuts) are designed to deform when tightened or in use and should not be reinstalled.

Fig. 1: Here are a few of the most common screw/bolt driver styles



Whenever possible, we will note any special retainers which should be replaced during a procedure. But you should always inspect the condition of a retainer when it is removed and replace any that show signs of damage. Check all threads for rust or corrosion which can increase the torque necessary to achieve the desired clamp load for which that fastener was originally selected. Additionally, be sure that the driver surface of the fastener has not been compromised by rounding or other damage. In some cases a driver surface may become only partially rounded, allowing the driver to catch in only one direction. In many of these occurrences, a fastener may be installed and tightened, but the driver would not be able to grip and loosen the fastener again. (This could lead to frustration down the line should that component ever need to be disassembled again).

Fig. 2: There are many different types of threaded retainers found on vehicles

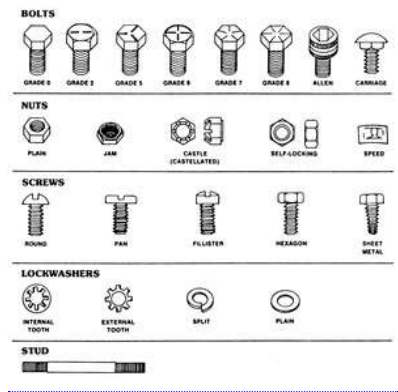


Fig. 3: Threaded retainer sizes are determined using these measurements

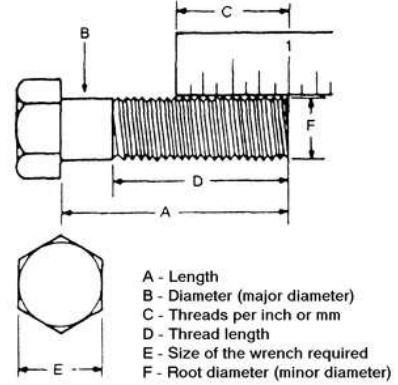
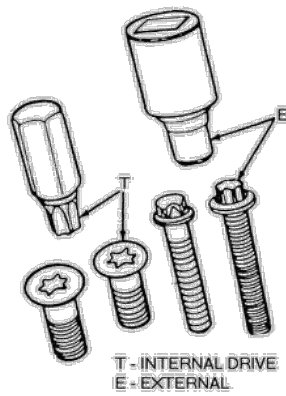


Fig. 4: Special fasteners such as these Torx(head bolts are used by manufacturers to discourage people from working on vehicles without the proper tools



If you must replace a fastener, whether due to design or damage, you must ALWAYS be sure to use the proper replacement. In all cases, a retainer of the same design, material and strength should be used. Markings on the heads of most bolts will help determine the proper strength of the fastener. The same material, thread and pitch must be selected to assure proper installation and safe operation of the vehicle afterwards.

Thread gauges are available to help measure a bolt or stud's thread. Most automotive and hardware stores keep gauges available to help you select the proper size. In a pinch, you can use another nut or bolt for a thread gauge. If the bolt you are replacing is not too badly damaged, you can select a match by finding another bolt which will thread in its place. If you find a nut which threads properly onto the damaged bolt, then use that nut to help select the replacement bolt. If however, the bolt you are replacing is so badly damaged (broken or drilled out) that its threads cannot be used as a gauge, you might start by looking for another bolt (from the same assembly or a similar location on your vehicle) which will thread into the damaged bolt's mounting. If so, the other bolt can be used to select a nut; the nut can then be used to select the replacement bolt.

In all cases, be absolutely sure you have selected the proper replacement. Don't be shy, you can always ask the store clerk for help.

WARNING

Be aware that when you find a bolt with damaged threads, you may also find the nut or drilled hole it was threaded into has also been damaged. If this is the case, you may have to drill and tap the hole, replace the nut or otherwise repair the threads. NEVER try to force a replacement bolt to fit into the damaged threads.

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- Don't run the engine in a garage or anywhere else without proper ventilation — EVER! Carbon monoxide is poisonous; it takes a long time to leave the human body and you can build up a deadly supply of it in your system by simply breathing in a little every day. You may not realize you are slowly poisoning yourself. Always use power vents, windows, fans and/or open the garage door.
- Don't work around moving parts while wearing loose clothing. Short sleeves are much safer than long, loose sleeves. Hard-toed shoes with neoprene soles protect your toes and give a better grip on slippery surfaces. Jewelry such as watches, fancy belt buckles, beads or body adornment of any kind is not safe working around a vehicle. Long hair should be tied back under a hat or cap.
- Don't use pockets for toolboxes. A fall or bump can drive a screwdriver deep into your body. Even a rag hanging from your back pocket can wrap around a spinning shaft or fan.
- Don't smoke when working around gasoline, cleaning solvent or other flammable material.
- Don't smoke when working around the battery. When the battery is being charged, it gives off explosive hydrogen gas.
- Don't use gasoline to wash your hands; there are excellent soaps available. Gasoline contains dangerous additives which can enter the body through a cut or through your pores. Gasoline also removes all the natural oils from the skin so that bone dry hands will suck up oil and grease.
- Don't service the air conditioning system unless you are equipped with the necessary tools and training. When liquid or compressed gas refrigerant is released to atmospheric pressure it will absorb heat from whatever it contacts. This will chill or freeze anything it touches.
- Don't use screwdrivers for anything other than driving screws! A screwdriver used as an prying tool can snap when you least expect it, causing injuries. At the very least, you'll ruin a good screwdriver.
- Don't use an emergency jack (that little ratchet, scissors, or pantograph jack supplied with the vehicle) for anything other than changing a flat! These jacks are only intended for emergency use out on the road; they are NOT designed as a maintenance tool. If you are serious about maintaining your vehicle yourself, invest in a hydraulic floor jack of at least a 1 1/2 ton capacity, and at least two sturdy jackstands.

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- Do keep a fire extinguisher and first aid kit handy.
- Do wear safety glasses or goggles when cutting, drilling, grinding or prying, even if you have 20–20 vision. If you wear glasses for the sake of vision, wear safety goggles over your regular glasses.
- Do shield your eyes whenever you work around the battery. Batteries contain sulfuric acid. In case of contact with the eyes or skin, flush the area with water or a mixture of water and baking soda, then seek immediate medical attention.
- Do use safety stands (jackstands) for any undervehicle service. Jacks are for raising vehicles; jackstands are for making sure the vehicle stays raised until you want it to come down. Whenever the vehicle is raised, block the wheels remaining on the ground and set the parking brake.
- Do use adequate ventilation when working with any chemicals or hazardous materials. Like carbon monoxide, the asbestos dust resulting from some brake lining wear can be hazardous in sufficient quantities.
- Do disconnect the negative battery cable when working on the electrical system. The secondary ignition system contains EXTREMELY HIGH VOLTAGE. In some cases it can even exceed 50,000 volts.
- Do follow manufacturer's directions whenever working with potentially hazardous materials. Most chemicals and fluids are poisonous if taken internally.
- Do properly maintain your tools. Loose hammerheads, mushroomed punches and chisels, frayed or poorly grounded electrical cords, excessively worn screwdrivers, spread wrenches (open end), cracked sockets, slipping ratchets, or faulty droplight sockets can cause accidents.
- Likewise, keep your tools clean; a greasy wrench can slip off a bolt head, ruining the bolt and often harming your knuckles in the process.
- Do use the proper size and type of tool for the job at hand. Do select a wrench or socket that fits the nut or bolt. The wrench or socket should sit straight, not cocked.
- Do, when possible, pull on a wrench handle rather than push on it, and adjust your stance to prevent a fall.
- Do be sure that adjustable wrenches are tightly closed on the nut or bolt and pulled so that the force is on the side of the fixed jaw.
- Do strike squarely with a hammer; avoid glancing blows.
- Do set the parking brake and block the drive wheels if the work requires a running engine.

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One of the most common, if not THE most common, problems associated with trailer towing is engine overheating. If you have a cooling system without an expansion tank, you'll definitely need to get an aftermarket expansion tank kit, preferably one with at least a 2 quart capacity. These kits are easily installed on the radiator's overflow hose, and come with a pressure cap designed for expansion tanks.

Aftermarket engine oil coolers are helpful for prolonging engine oil life and reducing overall engine temperatures. Both of these factors increase engine life. While not absolutely necessary in towing Class I and some Class II trailers, they are recommended for heavier Class II and all Class III towing. Engine oil cooler systems usually consist of an adapter, screwed on in place of the oil filter, a remote filter mounting and a multi-tube, finned heat exchanger, which is mounted in front of the radiator or air conditioning condenser.

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The engine code is represented by the eighth character in the VIN and identifies the engine type, displacement, fuel system and manufacturing division.

The engine identification code is either stamped onto the engine block or found on a label affixed to the engine. This code supplies information about the manufacturing plant location and time of manufacture. The location of the engine code is shown in the accompanying illustrations.

Fig. 3: Engine VIN location — 5.7L (VIN 8) engines

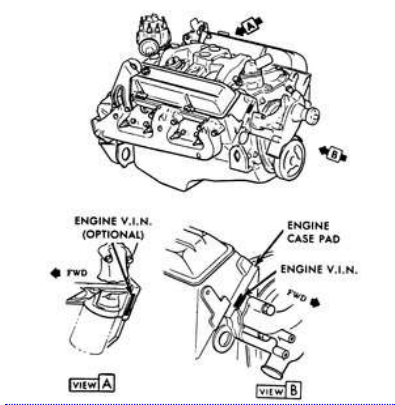


Fig. 4: Engine identification tag locations — 5.7L (VIN J) engines

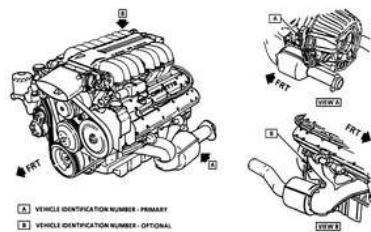
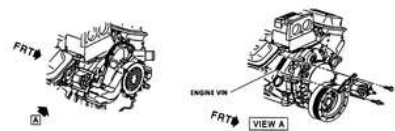


Fig. 5: Engine VIN plate locations — 5.7L (VIN P and 5) engines



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Your vehicle was primarily designed to carry passengers and cargo. It is important to remember that towing a trailer will place additional loads on your vehicles engine, drivetrain, steering, braking and other systems. However, if you decide to tow a trailer, using the prior equipment is a must.

Local laws may require specific equipment such as trailer brakes or fender mounted mirrors. Check your local laws.

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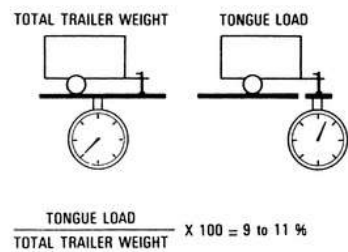
Towing a trailer with ease and safety requires a certain amount of experience. It's a good idea to learn the feel of a trailer by practicing turning, stopping and backing in an open area such as an empty parking lot.

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Calculate the hitch weight in order to select a proper hitch. The weight of the hitch is usually 9–11% of the trailer gross weight and should be measured with the trailer loaded. Hitches fall into various categories: those that mount on the frame and rear bumper, the bolt-on type, or the weld-on distribution type used for larger trailers. Axle mounted or clamp-on bumper hitches should never be used.

Fig. 1: Calculating proper tongue weight for your trailer



Check the gross weight rating of your trailer. Tongue weight is usually figured as 10% of gross trailer weight. Therefore, a trailer with a maximum gross weight of 2000 lbs. will have a maximum tongue weight of 200 lbs. Class I trailers fall into this category. Class II trailers are those with a gross weight rating of 2000–3000 lbs., while Class III trailers fall into the 3500–6000 lbs. category. Class IV trailers are those over 6000 lbs. and are for use with fifth wheel trucks, only.

When you've determined the hitch that you'll need, follow the manufacturer's installation instructions, exactly, especially when it comes to fastener torques. The hitch will be subjected to a lot of stress and good hitches come with hardened bolts. Never substitute an inferior bolt for a hardened bolt.

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Submodel: | Engine Type: V8 | Liters: 5.7
Fuel Delivery: FI | Fuel: GAS

This manual for the 1984–96 Chevrolet Corvette is intended to help you learn more about the inner workings of your vehicle while saving you money on its upkeep and operation.

The beginning of the book will likely be referred to the most, since that is where you will find information for maintenance and tune-up. The other sections deal with the more complex systems of your vehicle. Operating systems from engine through brakes are covered to the extent that the average do-it-yourselfer becomes mechanically involved. This book will not explain such things as rebuilding a differential for the simple reason that the expertise required and the investment in special tools make this task uneconomical. It will, however, give you detailed instructions to help you change your own brake pads and shoes, replace spark plugs, and perform many more jobs that can save you money, give you personal satisfaction and help you avoid expensive problems.

A secondary purpose of this book is a reference for owners who want to understand their vehicle and/or their mechanics better. In this case, no tools at all are required.

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Submodel: | Engine Type: V8 | Liters: 5.7
Fuel Delivery: FI | Fuel: GAS

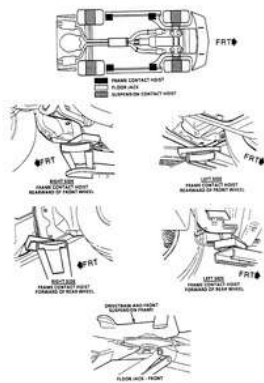
Your vehicle was supplied with a jack for emergency road repairs. This jack is fine for changing a flat tire or other short term procedures not requiring you to go beneath the vehicle. If it is used in an emergency situation, carefully follow the instructions provided either with the jack or in your owner's manual. Do not attempt to use the jack on any portions of the vehicle other than specified by the vehicle manufacturer. Always block the diagonally opposite wheel when using a jack.

A more convenient way of jacking is the use of a garage or floor jack. You may use the floor jack to lift the front of the vehicle by positioning the jack in the center of the front crossmember. When raising the rear of the vehicle, position the jack on the rear axle housing.

Never place the jack under the radiator, engine or transmission components. Severe and expensive damage will result when the jack is raised. Additionally, never jack under the floorpan or bodywork; the metal will deform.

Whenever you plan to work under the vehicle, you must support it on jackstands or ramps. Never use cinder blocks or stacks of wood to support the vehicle, even if you're only going to be under it for a few minutes. Never crawl under the vehicle when it is supported only by the tire-changing jack or other floor jack.

Fig. 1: Vehicle lifting points



NOTE: Always position a block of wood or small rubber pad on top of the jack or jackstand to protect the lifting point's finish when lifting or supporting the vehicle.

Small hydraulic, screw, or scissors jacks are satisfactory for raising the vehicle. Drive-on trestles or ramps are also a handy and safe way to both raise and support the vehicle. Be careful though, some ramps may be too steep to drive your vehicle onto without scraping the front bottom panels. Never support the vehicle on any suspension member (unless specifically instructed to do so by a repair manual) or by an underbody panel.

1990 Chevrolet CORVETTE

Submodel: | **Engine Type:** V8 | **Liters:** 5.7

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The following safety points cannot be overemphasized:

- Always block the opposite wheel or wheels to keep the vehicle from rolling off the jack.
- When raising the front of the vehicle, firmly apply the parking brake.
- When the drive wheels are to remain on the ground, leave the vehicle in gear to help prevent it from rolling.
- Always use jackstands to support the vehicle when you are working underneath. Place the stands beneath the vehicle's jacking brackets. Before climbing underneath, rock the vehicle a bit to make sure it is firmly supported.

SEVERE MAINTENANCE INTERVALS

[illegible]

NORMAL MAINTENANCE INTERVALS

[illegible]

CAPACITIES

CAPACITIES									
Year	Model	Engine (CVN)	Engine Displacement (liters)	Engine Power (kW)	Transmission	Gear		Fuel Tank (liters)	Coring System (liters)
						Ratio	Ratio		
1985	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1986	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1987	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1988	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1989	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1990	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1991	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1992	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1993	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1994	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1995	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1996	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1997	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1998	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
1999	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2000	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2001	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2002	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2003	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2004	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2005	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2006	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2007	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2008	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2009	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2010	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2011	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2012	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2013	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2014	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2015	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2016	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2017	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2018	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2019	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—
2020	Corvette	R	5.7, 3,000	10	4.4	20.0:1	—	—	—

NOTE: All capacities are approximate. Add fuel gradually and there is to be sure a proper fuel level is obtained.

- Ⓢ Add 1 quart 10W/40 engine oil.
- Ⓢ Specification gear is to fuel tank and shaft. For horsepower method, use approximately 21 qt.
- Ⓢ Specification gear is to fuel tank and shaft. For horsepower method, use approximately 22 qt.
- Ⓢ Specification for one axle is 3.0 qt., plus a 1/2 of bottom-shaft oil.

ENGLISH TO METRIC CONVERSION: MASS AND WEIGHT

ENGLISH TO METRIC CONVERSION: MASS (WEIGHT)									
To convert mass (measured in ounces) to grams (kg & lbs): The number of ounces (weight) is the English unit. From English plus the table and show conversion of mass (weight) larger than 10 lbs. It is only for reference only.									
To convert grams (kg) to ounces (lb): Multiply the number of grams by 0.035.									
To convert pounds (kg) to ounces (lb): Multiply the number of pounds by 16.									
lb	oz	kg	lb	oz	kg	lb	oz	kg	lb
1	16	0.45	1	16	0.45	1	16	0.45	1
2	32	0.91	2	32	0.91	2	32	0.91	2
3	48	1.36	3	48	1.36	3	48	1.36	3
4	64	1.82	4	64	1.82	4	64	1.82	4
5	80	2.27	5	80	2.27	5	80	2.27	5
6	96	2.72	6	96	2.72	6	96	2.72	6
7	112	3.18	7	112	3.18	7	112	3.18	7
8	128	3.63	8	128	3.63	8	128	3.63	8
9	144	4.09	9	144	4.09	9	144	4.09	9
10	160	4.54	10	160	4.54	10	160	4.54	10
11	176	5.00	11	176	5.00	11	176	5.00	11
12	192	5.45	12	192	5.45	12	192	5.45	12
13	208	5.91	13	208	5.91	13	208	5.91	13
14	224	6.36	14	224	6.36	14	224	6.36	14
15	240	6.82	15	240	6.82	15	240	6.82	15
16	256	7.27	16	256	7.27	16	256	7.27	16
17	272	7.72	17	272	7.72	17	272	7.72	17
18	288	8.18	18	288	8.18	18	288	8.18	18
19	304	8.63	19	304	8.63	19	304	8.63	19
20	320	9.09	20	320	9.09	20	320	9.09	20
21	336	9.54	21	336	9.54	21	336	9.54	21
22	352	10.00	22	352	10.00	22	352	10.00	22
23	368	10.45	23	368	10.45	23	368	10.45	23
24	384	10.91	24	384	10.91	24	384	10.91	24
25	400	11.36	25	400	11.36	25	400	11.36	25
26	416	11.82	26	416	11.82	26	416	11.82	26
27	432	12.27	27	432	12.27	27	432	12.27	27
28	448	12.72	28	448	12.72	28	448	12.72	28
29	464	13.18	29	464	13.18	29	464	13.18	29
30	480	13.63	30	480	13.63	30	480	13.63	30
31	496	14.09	31	496	14.09	31	496	14.09	31
32	512	14.54	32	512	14.54	32	512	14.54	32
33	528	15.00	33	528	15.00	33	528	15.00	33
34	544	15.45	34	544	15.45	34	544	15.45	34
35	560	15.91	35	560	15.91	35	560	15.91	35
36	576	16.36	36	576	16.36	36	576	16.36	36
37	592	16.82	37	592	16.82	37	592	16.82	37
38	608	17.27	38	608	17.27	38	608	17.27	38
39	624	17.72	39	624	17.72	39	624	17.72	39
40	640	18.18	40	640	18.18	40	640	18.18	40
41	656	18.63	41	656	18.63	41	656	18.63	41
42	672	19.09	42	672	19.09	42	672	19.09	42
43	688	19.54	43	688	19.54	43	688	19.54	43
44	704	20.00	44	704	20.00	44	704	20.00	44
45	720	20.45	45	720	20.45	45	720	20.45	45
46	736	20.91	46	736	20.91	46	736	20.91	46
47	752	21.36	47	752	21.36	47	752	21.36	47
48	768	21.82	48	768	21.82	48	768	21.82	48
49	784	22.27	49	784	22.27	49	784	22.27	49
50	800	22.72	50	800	22.72	50	800	22.72	50
51	816	23.18	51	816	23.18	51	816	23.18	51
52	832	23.63	52	832	23.63	52	832	23.63	52
53	848	24.09	53	848	24.09	53	848	24.09	53
54	864	24.54	54	864	24.54	54	864	24.54	54
55	880	25.00	55	880	25.00	55	880	25.00	55
56	896	25.45	56	896	25.45	56	896	25.45	56
57	912	25.91	57	912	25.91	57	912	25.91	57
58	928	26.36	58	928	26.36	58	928	26.36	58
59	944	26.82	59	944	26.82	59	944	26.82	59
60	960	27.27	60	960	27.27	60	960	27.27	60
61	976	27.72	61	976	27.72	61	976	27.72	61
62	992	28.18	62	992	28.18	62	992	28.18	62
63	1008	28.63	63	1008	28.63	63	1008	28.63	63
64	1024	29.09	64	1024	29.09	64	1024	29.09	64
65	1040	29.54	65	1040	29.54	65	1040	29.54	65
66	1056	30.00	66	1056	30.00	66	1056	30.00	66
67	1072	30.45	67	1072	30.45	67	1072	30.45	67
68	1088	30.91	68	1088	30.91	68	1088	30.91	68
69	1104	31.36	69	1104	31.36	69	1104	31.36	69
70	1120	31.82	70	1120	31.82	70	1120	31.82	70
71	1136	32.27	71	1136	32.27	71	1136	32.27	71
72	1152	32.72	72	1152	32.72	72	1152	32.72	72
73	1168	33.18	73	1168	33.18	73	1168	33.18	73
74	1184	33.63	74	1184	33.63	74	1184	33.63	74
75	1200	34.09	75	1200	34.09	75	1200	34.09	75
76	1216	34.54	76	1216	34.54	76	1216	34.54	76
77	1232	35.00	77	1232	35.00	77	1232	35.00	77
78	1248	35.45	78	1248	35.45	78	1248	35.45	78
79	1264	35.91	79	1264	35.91	79	1264	35.91	79
80	1280	36.36	80	1280	36.36	80	1280	36.36	80
81	1296	36.82	81	1296	36.82	81	1296	36.82	81
82	1312	37.27	82	1312	37.27	82	1312	37.27	82
83	1328	37.72	83	1328	37.72	83	1328	37.72	83
84	1344	38.18	84	1344	38.18	84	1344	38.18	84
85	1360	38.63	85	1360	38.63	85	1360	38.63	85
86	1376	39.09	86	1376	39.09	86	1376	39.09	86
87	1392	39.54	87	1392	39.54	87	1392	39.54	87
88	1408	40.00	88	1408	40.00	88	1408	40.00	88
89	1424	40.45	89	1424	40.45	89	1424	40.45	89
90	1440	40.91	90	1440	40.91	90	1440	40.91	90
91	1456	41.36	91	1456	41.36	91	1456	41.36	91
92	1472	41.82	92	1472	41.82	92	1472	41.82	92
93	1488	42.27	93	1488	42.27	93	1488	42.27	93
94	1504	42.72	94	1504	42.72	94	1504	42.72	94
95	1520	43.18	95	1520	43.18	95	1520	43.18	95
96	1536	43.63	96	1536	43.63	96	1536	43.63	96
97	1552	44.09	97	1552	44.09	97	1552	44.09	97
98	1568	44.54	98	1568	44.54	98	1568	44.54	98
99	1584	45.00	99	1584	45.00	99	1584	45.00	99
100	1600	45.45	100	1600	45.45	100	1600	45.45	100

ENGLISH TO METRIC CONVERSION: TEMPERATURE									
To convert Fahrenheit (°F) to Celsius (°C): Take number of °F and subtract 32; multiply result by 5; divide result by 9.									
To convert Celsius (°C) to Fahrenheit (°F): Take number of °C and multiply by 9; divide result by 5; add 32 to total.									
Fahrenheit (°F)	Celsius (°C)	Fahrenheit (°F)	Celsius (°C)	Fahrenheit (°F)	Celsius (°C)	Fahrenheit (°F)	Celsius (°C)	Fahrenheit (°F)	Celsius (°C)
-40	-40	-30	-34.4	40	32.2	100	37.8	160	71.1
-30	-34.4	-20	-28.9	50	38.9	110	43.3	170	76.7
-20	-28.9	-10	-23.3	60	44.4	120	48.9	180	82.2
-10	-23.3	0	-17.8	70	50.0	130	54.4	190	87.8
0	-17.8	10	-12.2	80	55.6	140	58.9	200	93.3
10	-12.2	20	-6.7	90	61.1	150	63.3	210	98.9
20	-6.7	30	-1.1	100	66.7	160	66.7	220	104.4
30	-1.1	40	4.4	110	72.2	170	70.0	230	110.0
40	4.4	50	10.0	120	77.8	180	73.3	240	115.6
50	10.0	60	15.6	130	83.3	190	77.8	250	121.1
60	15.6	70	21.1	140	88.9	200	82.2	260	126.7
70	21.1	80	26.7	150	94.4	210	86.7	270	132.2
80	26.7	90	32.2	160	100.0	220	91.1	280	137.8
90	32.2	100	37.8	170	105.6	230	95.6	290	143.3
100	37.8	110	43.3	180	111.1	240	100.0	300	148.9
110	43.3	120	48.9	190	116.7	250	104.4	310	154.4
120	48.9	130	54.4	200	122.2	260	108.9	320	160.0
130	54.4	140	60.0	210	127.8	270	113.3	330	165.6
140	60.0	150	65.6	220	133.3	280	117.8	340	171.1
150	65.6	160	71.1	230	138.9	290	122.2	350	176.7
160	71.1	170	76.7	240	144.4	300	126.7	360	182.2
170	76.7	180	82.2	250	150.0	310	131.1	370	187.8
180	82.2	190	87.8	260	155.6	320	135.6	380	193.3
190	87.8	200	93.3	270	161.1	330	140.0	390	198.9
200	93.3	210	98.9	280	166.7	340	144.4	400	204.4
210	98.9	220	104.4	290	172.2	350	148.9	410	210.0
220	104.4	230	110.0	300	177.8	360	153.3	420	215.6
230	110.0	240	115.6	310	183.3	370	157.8	430	221.1
240	115.6	250	121.1	320	188.9	380	162.2	440	226.7
250	121.1	260	126.7	330	194.4	390	166.7	450	232.2
260	126.7	270	132.2	340	198.9	400	171.1		
270	132.2	280	137.8	350	204.4	410	176.7		
280	137.8	290	143.3	360	210.0	420	182.2		
290	143.3	300	148.9	370	215.6	430	187.8		
300	148.9	310	154.4	380	221.1	440	193.3		
310	154.4	320	160.0	390	226.7	450	198.9		
320	160.0	330	165.6	400	232.2				
330	165.6	340	171.1	410	237.8				
340	171.1	350	176.7	420	243.3				
350	176.7	360	182.2	430	248.9				
360	182.2	370	187.8	440	254.4				
370	187.8	380	193.3	450	260.0				
380	193.3	390	198.9						
390	198.9	400	204.4						
400	204.4	410	210.0						
410	210.0	420	215.6						
420	215.6	430	221.1						
430	221.1	440	226.7						
440	226.7	450	232.2						
450	232.2								

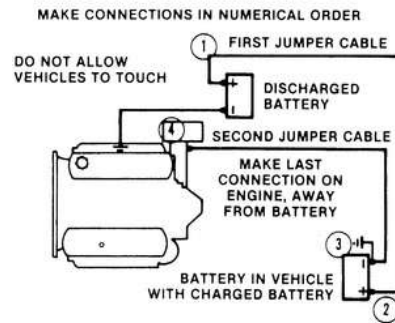
1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7

Fuel Delivery: FI | Fuel: GAS

Whenever a vehicle is jump started, precautions must be followed in order to prevent the possibility of personal injury. Remember that batteries contain a small amount of explosive hydrogen gas which is a by-product of battery charging. Sparks should always be avoided when working around batteries, especially when attaching jumper cables. To minimize the possibility of accidental sparks, follow the procedure carefully.

Fig. 1: Connect the jumper cables to the batteries and engine in the order shown



CAUTION

NEVER hook the batteries up in a series circuit or the entire electrical system will go up in smoke, including the starter!

Vehicles equipped with a diesel engine may utilize two 12 volt batteries. If so, the batteries are connected in a parallel circuit (positive terminal to positive terminal, negative terminal to negative terminal). Hooking the batteries up in parallel circuit increases battery cranking power without increasing total battery voltage output. Output remains at 12 volts. On the other hand, hooking two 12 volt batteries up in a series circuit (positive terminal to negative terminal, positive terminal to negative terminal) increases total battery output to 24 volts (12 volts plus 12 volts).

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- Be sure that both batteries are of the same voltage. Vehicles covered by this manual and most vehicles on the road today utilize a 12 volt charging system.
- Be sure that both batteries are of the same polarity (have the same terminal, in most cases NEGATIVE grounded).
- Be sure that the vehicles are not touching or a short could occur.
- On serviceable batteries, be sure the vent cap holes are not obstructed.
- Do not smoke or allow sparks anywhere near the batteries.
- In cold weather, make sure the battery electrolyte is not frozen. This can occur more readily in a battery that has been in a state of discharge.
- Do not allow electrolyte to contact your skin or clothing.

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1. Make sure that the voltages of the 2 batteries are the same. Most batteries and charging systems are of the 12 volt variety.
2. Pull the jumping vehicle (with the good battery) into a position so the jumper cables can reach the dead battery and that vehicle's engine. Make sure that the vehicles do NOT touch.
3. Place the transmissions/transaxles of both vehicles in **Neutral** (MT) or **P** (AT), as applicable, then firmly set their parking brakes.
NOTE: If necessary for safety reasons, the hazard lights on both vehicles may be operated throughout the entire procedure without significantly increasing the difficulty of jumping the dead battery.
4. Turn all lights and accessories OFF on both vehicles. Make sure the ignition switches on both vehicles are turned to the **OFF** position.
5. Cover the battery cell caps with a rag, but do not cover the terminals.
6. Make sure the terminals on both batteries are clean and free of corrosion or proper electrical connection will be impeded. If necessary, clean the battery terminals before proceeding.
7. Identify the positive (+) and negative (-) terminals on both batteries.
8. Connect the first jumper cable to the positive (+) terminal of the dead battery, then connect the other end of that cable to the positive (+) terminal of the booster (good) battery.
9. Connect one end of the other jumper cable to the negative (-) terminal on the booster battery and the final cable clamp to an engine bolt head, alternator bracket or other solid, metallic point on the engine with the dead battery. Try to pick a ground on the engine that is positioned away from the battery in order to minimize the possibility of the 2 clamps touching should one loosen during the procedure. DO NOT connect this clamp to the negative (-) terminal of the bad battery.
CAUTION
Be very careful to keep the jumper cables away from moving parts (cooling fan, belts, etc.) on both engines.
10. Check to make sure that the cables are routed away from any moving parts, then start the donor vehicle's engine. Run the engine at moderate speed for several minutes to allow the dead battery a chance to receive some initial charge.
11. With the donor vehicle's engine still running slightly above idle, try to start the vehicle with the dead battery. Crank the engine for no more than 10 seconds at a time and let the starter cool for at least 20 seconds between tries. If the vehicle does not start in 3 tries, it is likely that something else is also wrong or that the battery needs additional time to charge.
12. Once the vehicle is started, allow it to run at idle for a few seconds to make sure that it is operating properly.
13. Turn ON the headlights, heater blower and, if equipped, the rear defroster of both vehicles in order to reduce the severity of voltage spikes and subsequent risk of damage to the vehicles' electrical systems when the cables are disconnected. This step is especially important to any vehicle equipped with computer control modules.
14. Carefully disconnect the cables in the reverse order of connection. Start with the negative cable that is attached to the engine ground, then the negative cable on the donor battery. Disconnect the positive cable from the donor battery and finally, disconnect the positive cable from the formerly dead battery. Be careful when disconnecting the cables from the positive terminals not to allow the alligator clips to touch any metal on either vehicle or a short and sparks will occur.

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Fuel Delivery: FI | Fuel: GAS

It's necessary to mention the difference between maintenance and repair. Maintenance includes routine inspections, adjustments, and replacement of parts which show signs of normal wear. Maintenance compensates for wear or deterioration. Repair implies that something has broken or is not working. A need for repair is often caused by lack of maintenance. Example: draining and refilling the automatic transmission fluid is maintenance recommended by the manufacturer at specific mileage intervals. Failure to do this can shorten the life of the transmission, requiring very expensive repairs. While no maintenance program can prevent items from breaking or wearing out, a general rule can be stated: MAINTENANCE IS CHEAPER THAN REPAIR.

Two basic mechanic's rules should be mentioned here. First, whenever the left side of the vehicle or engine is referred to, it is meant to specify the driver's side. Conversely, the right side of the vehicle means the passenger's side. Second, screws and bolts are removed by turning counterclockwise, and tightened by turning clockwise unless specifically noted.

Safety is always the most important rule. Constantly be aware of the dangers involved in working on an automobile and take the proper precautions. See the information in this section regarding SERVICING YOUR VEHICLE SAFELY and the SAFETY NOTICE on the acknowledgment page.

1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7
Fuel Delivery: FI | Fuel: GAS

These vehicles have an identification number stamped into the bottom surface of the carrier at the cover mounting flange.

VEHICLE IDENTIFICATION CHART							Model Year	
Engine Code							Code	Year
Code	Liters	Cu. In. (cc)	Cyls.	Fuel Sys.	Eng. Mfg.			
B	5.7	350 (5700)	8	TPI	Chevrolet	F		1984
B	5.7	350 (5700)	8	TPI	Chevrolet	F		1985
J	5.7	350 (5700)	8	MP	GM	D		1986
P	5.7	350 (5700)	8	MP10FI	Chevrolet	V		1987
S	5.7	350 (5700)	8	SP1	Chevrolet	Z		1988
						K		1989
						L		1990
						M		1991
						N		1992
						P		1993
						R		1994
						S		1995
						T		1996

T86 - Throttle Body Injection (Cross-Flow Injection)

T96 - Tuned Port Injection

MP - Multi-Point Electronic Fuel Injection

MP10 - Sequential Multi-Point Fuel Injection

SP - Sequential Multi-Point Fuel Injection

© - Manufactured by Mercury Marine

ENGINE IDENTIFICATION						
Engine						
Year	Model	Displacement (Liters (cc))	Engine Series (CVRV)	Fuel System	No. of Cylinders	Engine Type
1984	Corvette	5.7 (5700)	B	TPI	8	OHV
1985	Corvette	5.7 (5700)	B	TPI	8	OHV
1986	Corvette	5.7 (5700)	B	TPI	8	OHV
1987	Corvette	5.7 (5700)	B	TPI	8	OHV
1988	Corvette	5.7 (5700)	B	TPI	8	OHV
1989	Corvette	5.7 (5700)	B	TPI	8	OHV
1990	Corvette	5.7 (5700)	B	TPI	8	OHV
1991	Corvette	5.7 (5700)	J	MP	8	DOHC
1992	Corvette	5.7 (5700)	J	MP	8	DOHC
1993	Corvette	5.7 (5700)	P	MP	8	DOHC
1994	Corvette	5.7 (5700)	P	MP	8	DOHC
1995	Corvette	5.7 (5700)	P	MP	8	DOHC
1996	Corvette	5.7 (5700)	P	MP	8	DOHC
1997	Corvette	5.7 (5700)	P	MP	8	DOHC
1998	Corvette	5.7 (5700)	P	MP	8	DOHC
1999	Corvette	5.7 (5700)	P	MP	8	DOHC
2000	Corvette	5.7 (5700)	S	SFI	8	OHV

TPI - Throttle Body Injection (Close Fit Injection)
TPI - Throttle Body Injection
MP - Multi-Point Injection Fuel Injection
SFI - Sequential Multi-Port Fuel Injection
DOHC - Double Overhead Cam
DOHC - Double Overhead Cam

1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7

Fuel Delivery: FI | Fuel: GAS

It is virtually impossible to anticipate all of the hazards involved with automotive maintenance and service, but care and common sense will prevent most accidents.

The rules of safety for mechanics range from "don't smoke around gasoline," to "use the proper tool(s) for the job." The trick to avoiding injuries is to develop safe work habits and to take every possible precaution.

Fig. 1: Screwdrivers should be kept in good condition to prevent injury or damage which could result if the blade slips from the screw

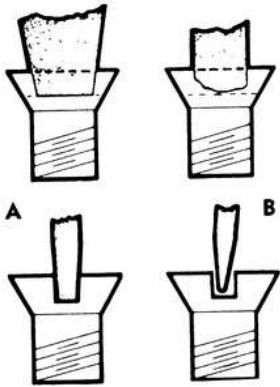


Fig. 2: Power tools should always be properly grounded

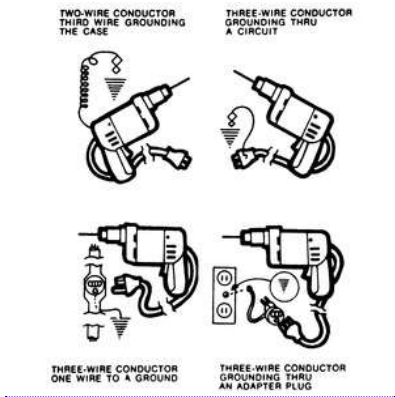


Fig. 3: Using the correct size wrench will help prevent the possibility of rounding off a nut

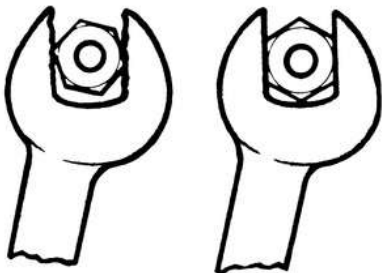
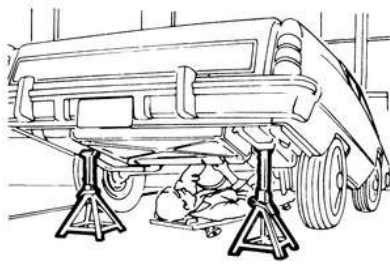


Fig. 4: NEVER work under a vehicle unless it is supported using safety stands (jackstands)



1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7
Fuel Delivery: FI | Fuel: GAS

Normally, the use of special factory tools is avoided for repair procedures, since these are not readily available for the do-it-yourself mechanic. When it is possible to perform the job with more commonly available tools, it will be pointed out, but occasionally, a special tool was designed to perform a specific function and should be used. Before substituting another tool, you should be convinced that neither your safety nor the performance of the vehicle will be compromised.

Special tools can usually be purchased from an automotive parts store or from your dealer. In some cases special tools may be available directly from the tool manufacturer.

1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7
Fuel Delivery: FI | Fuel: GAS

Throughout this manual, specifications are given to help you determine the condition of various components on your vehicle, or to assist you in their installation. Some of the most common measurements include length (in. or cm/mm), torque (ft. lbs., inch lbs. or Nm) and pressure (psi, in. Hg, kPa or mm Hg). In most cases, we strive to provide the proper measurement as determined by the manufacturer's engineers.

Though, in some cases, that value may not be conveniently measured with what is available in your toolbox. Luckily, many of the measuring devices which are available today will have two scales so the Standard or Metric measurements may easily be taken. If any of the various measuring tools which are available to you do not contain the same scale as listed in the specifications, use the accompanying conversion factors to determine the proper value.

The conversion factor chart is used by taking the given specification and multiplying it by the necessary conversion factor. For instance, looking at the first line, if you have a measurement in inches such as "free-play should be 2 in." but your ruler reads only in millimeters, multiply 2 in. by the conversion factor of 25.4 to get the metric equivalent of 50.8mm. Likewise, if the specification was given only in a Metric measurement, for example in Newton Meters (Nm), then look at the center column first. If the measurement is 100 Nm, multiply it by the conversion factor of 0.738 to get 73.8 ft. lbs.

Fig. 2: Standard and metric conversion factors chart

CONVERSION FACTORS				
LENGTH-DISTANCE				
Inches (in.)	x 25.4	=	Millimeters (mm)	= Inches
Feet (ft.)	x .305	=	Meters (m)	= Feet
Miles	x .609	=	Kilometers (km)	= Miles
VOLUME				
Cubic Inches (in ³)	x .068	=	Cubic Centimeters (cc)	= in ³
IMP Pints (IMP pt.)	x .568	=	Liters (L)	= IMP pt.
IMP Quarts (IMP qt.)	x 1.137	=	Liters (L)	= IMP qt.
IMP Gallons (IMP gal.)	x 4.546	=	Liters (L)	= IMP gal.
IMP Quarts (IMP qt.)	x 1.137	=	US Quarts (US qt.)	= IMP qt.
IMP Gallons (IMP gal.)	x 1.201	=	US Quarts (US qt.)	= IMP gal.
IMP Gallons (IMP gal.)	x 3.785	=	Liters (L)	= IMP gal.
lit. (quarts)	x .25	=	Liters (L)	= Quarts
US Pints (US pt.)	x .473	=	Liters (L)	= Pints
US Quarts (US qt.)	x .946	=	Liters (L)	= Quarts
US Gallons (US gal.)	x 3.785	=	Liters (L)	= Gallons
MASS-WEIGHT				
Ounces (oz.)	x 28.35	=	Grams (g)	= Ounces
Pounds (lb.)	x .454	=	Kilograms (kg)	= Pounds
PRESSURE				
Pounds Per Sq. In. (psi)	x .069	=	Kilopascals (kPa)	= psi
Inches of Mercury (inHg)	x .491	=	mm	= inHg
Inches of Mercury (inHg)	x 3.34	=	Kilopascals (kPa)	= inHg
Inches of Water (inH ₂ O)	x .036	=	Inches of Mercury	= inH ₂ O
Inches of Water (inH ₂ O)	x .0004	=	mm	= inH ₂ O
Inches of Water (inH ₂ O)	x .0004	=	Kilopascals (kPa)	= inH ₂ O
TORQUE				
Pounds-Feet (lb-ft)	x 1.356	=	Newton Meters (N-m)	= lb-ft
Pounds-Feet (lb-ft)	x 3.7	=	Newton Meters (N-m)	= lb-ft
VELOCITY				
Miles Per Hour (MPH)	x .609	=	Kilometers Per Hour (KPH)	= MPH
POWER				
Horsepower (HP)	x .746	=	Kilowatts	= Horsepower
FUEL CONSUMPTION*				
Miles Per Gallon (MPG)	x .409	=	Kilometers Per Liter (Km/L)	= MPG
Kilometers Per Liter (Km/L)	x 2.35	=	MPG	= Km/L
Miles Per Gallon (MPG)	x .409	=	Kilometers Per Liter (Km/L)	= MPG
Kilometers Per Liter (Km/L)	x 2.35	=	MPG	= Km/L
*To convert to miles per gallon (mpg) to liters per 100 kilometers (l/100 km), when mpg (MPG) x 1/100 km = 25.4 and mpg (MPG) x 1/100 km = 25.4				
TEMPERATURE				
Fahrenheit (°F)	x .556	=	Celsius (°C)	= Fahrenheit
Celsius (°C)	x 1.8	=	Fahrenheit (°F)	= Celsius

1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7

Fuel Delivery: FI | Fuel: GAS

Naturally, without the proper tools and equipment it is impossible to properly service your vehicle. It would also be virtually impossible to catalog every tool that you would need to perform all of the operations in this book. Of course, it would be unwise for the amateur to rush out and buy an expensive set of tools on the theory that he/she may need one or more of them at some time.

The best approach is to proceed slowly, gathering a good quality set of those tools that are used most frequently. Don't be misled by the low cost of bargain tools. It is far better to spend a little more for better quality. Forged wrenches, 6 or 12-point sockets and fine tooth ratchets are by far preferable to their less expensive counterparts. As any good mechanic can tell you, there are few worse experiences than trying to work on a vehicle with bad tools. Your monetary savings will be far outweighed by frustration and mangled knuckles.

Begin accumulating those tools that are used most frequently: those associated with routine maintenance and tune-up. In addition to the normal assortment of screwdrivers and pliers, you should have the following tools:

- Wrenches/sockets and combination open end/box end wrenches in sizes 3mm–19mm 13/16 in. or 5/8 in. spark plug socket (depending on plug type).

NOTE: If possible, buy various length socket drive extensions. Universal-joint and wobble extensions can be extremely useful, but be careful when using them, as they can change the amount of torque applied to the socket.

- Jackstands for support.
- Oil filter wrench.
- Spout or funnel for pouring fluids.
- Grease gun for chassis lubrication (unless your vehicle is not equipped with any grease fittings — for details, please refer to information on Fluids and Lubricants, later in this section).
- Hydrometer for checking the F (unless equipped with a sealed, maintenance-free battery).
- A container for draining oil and other fluids.
- Rags for wiping up the inevitable mess.

Fig. 1: All but the most basic procedures will require an assortment of ratchets and sockets



Fig. 2: In addition to ratchets, a good set of wrenches and hex keys will be necessary



Fig. 3: A hydraulic floor jack and a set of jackstands are essential for lifting and supporting the vehicle

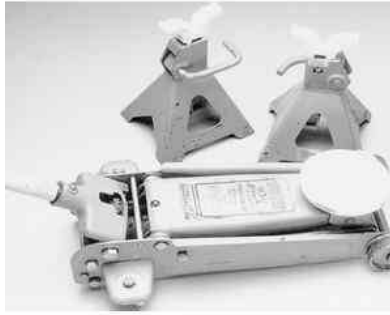


Fig. 4: An assortment of pliers, grippers and cutters will be handy for old rusted parts and stripped bolt heads



Fig. 5: Various drivers, chisels and prybars are great tools to have in your toolbox



Fig. 6: Many repairs will require the use of a torque wrench to assure the components are properly fastened



In addition to the above items there are several others that are not absolutely necessary, but handy to have around. These include Oil Dry(or an equivalent oil absorbent gravel — such as cat litter) and the usual supply of lubricants, antifreeze and fluids, although these can be purchased as needed. This is a basic list for routine maintenance, but only your personal needs and desire can accurately determine your list of tools.

After performing a few projects on the vehicle, you'll be amazed at the other tools and non-tools on your workbench. Some useful household items are: a large turkey baster or siphon, empty coffee cans and ice trays (to store parts), ball of twine, electrical tape for wiring, small rolls of colored tape for tagging lines or hoses, markers and pens, a note pad, golf tees (for plugging vacuum lines), metal coat hangers or a roll of mechanics's wire (to hold things out of the way), dental pick or similar long, pointed probe, a strong magnet, and a small mirror (to see into recesses and under manifolds).

Fig. 7: Although not always necessary, using specialized brake tools will save time



Fig. 8: A few inexpensive lubrication tools will make maintenance easier



Fig. 9: Various pullers, clamps and separator tools are needed for many larger, more complicated repairs



Fig. 10: A variety of tools and gauges should be used for spark plug gapping and installation



Fig. 11: Inductive type timing light



Fig. 12: A screw-in type compression gauge is recommended for compression testing



Fig. 13: A vacuum/pressure tester is necessary for many testing procedures



Fig. 14: Most modern automotive multimeters incorporate many helpful features



Fig. 15: Proper information is vital, so always have a manual handy



A more advanced set of tools, suitable for tune-up work, can be drawn up easily. While the tools are slightly more sophisticated, they need not be outrageously expensive. There are several inexpensive tach/dwell meters on the market that are every bit as good for the average mechanic as a professional model. Just be sure that it goes to a least 1200–1500 rpm on the tach scale and that it works on 4, 6 and 8-cylinder engines. The key to these purchases is to make them with an eye towards adaptability and wide range. A basic list of tune-up tools could include:

- Tach/dwell meter.
- Spark plug wrench and gapping tool.
- Feeler gauges for valve adjustment.
- Timing light.

The choice of a timing light should be made carefully. A light which works on the DC current supplied by the vehicle's battery is the best choice; it should have a xenon tube for brightness. On any vehicle with an electronic ignition system, a timing light with an inductive pickup that clamps around the No. 1 spark plug cable is preferred.

In addition to these basic tools, there are several other tools and gauges you may find useful. These include:

- Compression gauge. The screw-in type is slower to use, but eliminates the possibility of a faulty reading due to escaping pressure.
- Manifold vacuum gauge.
- 12V test light.
- A combination volt/ohmmeter
- Induction Ammeter. This is used for determining whether or not there is current in a wire. These are handy for use if a wire is broken somewhere in a wiring harness.

As a final note, you will probably find a torque wrench necessary for all but the most basic work. The beam type models are perfectly adequate, although the newer click types (breakaway) are easier to use. The click type torque wrenches tend to be more expensive. Also keep in mind that all types of torque wrenches should be periodically checked and/or recalibrated. You will have to decide for yourself which better fits your pocketbook, and purpose.

1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7
Fuel Delivery: FI | Fuel: GAS

Torque is defined as the measurement of resistance to turning or rotating. It tends to twist a body about an axis of rotation. A common example of this would be tightening a threaded retainer such as a nut, bolt or screw. Measuring torque is one of the most common ways to help assure that a threaded retainer has been properly fastened.

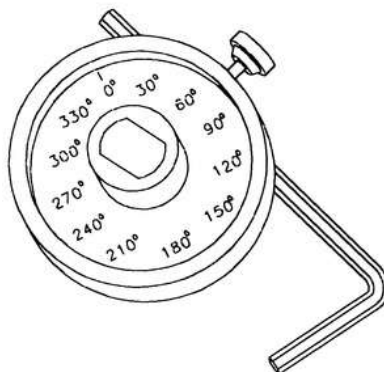
When tightening a threaded fastener, torque is applied in three distinct areas, the head, the bearing surface and the clamp load. About 50 percent of the measured torque is used in overcoming bearing friction. This is the friction between the bearing surface of the bolt head, screw head or nut face and the base material or washer (the surface on which the fastener is rotating). Approximately 40 percent of the applied torque is used in overcoming thread friction. This leaves only about 10 percent of the applied torque to develop a useful clamp load (the force which holds a joint together). This means that friction can account for as much as 90 percent of the applied torque on a fastener.

1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7

Fuel Delivery: FI | Fuel: GAS

Fig. 1: Some specifications require the use of a torque angle meter (mechanical protractor)



Because the frictional characteristics of each fastener or threaded hole will vary, clamp loads which are based strictly on torque will vary as well. In most applications, this variance is not significant enough to cause worry. But, in certain applications, a manufacturer's engineers may determine that more precise clamp loads are necessary (such is the case with many aluminum cylinder heads). In these cases, a torque angle method of installation would be specified. When installing fasteners which are torque angle tightened, a predetermined seating torque and standard torque wrench are usually used first to remove any compliance from the joint. The fastener is then tightened the specified additional portion of a turn measured in degrees. A torque angle gauge (mechanical protractor) is used for these applications.

Fig. 1: Various styles of torque wrenches are usually available at your local automotive supply store

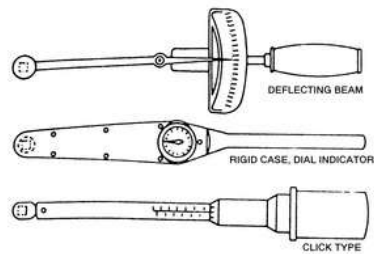


Fig. 2: Standard and metric bolt torque specifications based on bolt strengths — WARNING: use only as a guide

Standard Torque Specifications and Fastener Markings
In the absence of specific torque values, the following chart can be used as a guide for the minimum torque values for common fasteners.
* These are the torque values for new or clean threads.
* Torque values are based on clean, dry threads. Reduce the value by 50% if threads are coated with oil or grease.
* The torque required for aluminum components or fasteners is considerably less.

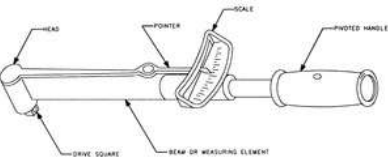
Bolt Size Nominal Size by U.S. Standard	SAE Grade 5		SAE Grade 8		Metric Grade 8.8		Metric Grade 10.9	
	U.S. Units lb-ft	Metric Units N-m	U.S. Units lb-ft	Metric Units N-m	U.S. Units lb-ft	Metric Units N-m	U.S. Units lb-ft	Metric Units N-m
1/4-20	10	13.5	15	20.3	15	20.3	15	20.3
5/16-18	15	20.3	20	27.1	20	27.1	20	27.1
3/8-16	20	27.1	30	40.7	30	40.7	30	40.7
1/2-13	30	40.7	50	67.8	50	67.8	50	67.8
3/4-10	50	67.8	80	108.0	80	108.0	80	108.0
1-8	80	108.0	120	162.7	120	162.7	120	162.7
1 1/4-6	120	162.7	180	244.5	180	244.5	180	244.5
1 3/8-5	180	244.5	240	325.4	240	325.4	240	325.4
2-4	240	325.4	300	407.0	300	407.0	300	407.0
2 1/2-3	300	407.0	360	489.0	360	489.0	360	489.0

Bolt Size Nominal Size by U.S. Standard	Metric Grade 8.8		Metric Grade 10.9	
	U.S. Units lb-ft	Metric Units N-m	U.S. Units lb-ft	Metric Units N-m
8x1.2	10	13.5	15	20.3
8x1.6	15	20.3	20	27.1
10x1.2	20	27.1	30	40.7
10x1.6	30	40.7	40	54.0
12x1.2	40	54.0	50	67.8
12x1.6	50	67.8	60	81.6
14x1.2	60	81.6	70	94.4
14x1.6	70	94.4	80	108.0
16x1.2	80	108.0	90	122.5
16x1.6	90	122.5	100	135.6
18x1.2	100	135.6	110	149.0
18x1.6	110	149.0	120	162.7
20x1.2	120	162.7	130	176.0
20x1.6	130	176.0	140	189.0
22x1.2	140	189.0	150	202.5
22x1.6	150	202.5	160	216.0

In most applications, a torque wrench can be used to assure proper installation of a fastener. Torque wrenches come in various designs and most automotive supply stores will carry a variety to suit your needs. A torque wrench should be used any time we supply a specific torque value for a fastener. A torque wrench can also be used if you are following the general guidelines in the accompanying charts. Keep in mind that because there is no worldwide standardization of fasteners, the charts are a general guideline and should be used with caution. Again, the general rule of "if you are using the right tool for the job, you should not have to strain to tighten a fastener" applies here.

Beam Type

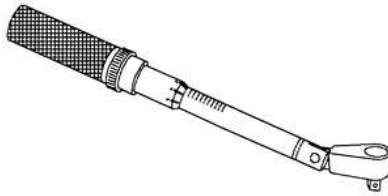
Fig. 3: Example of a beam type torque wrench



The beam type torque wrench is one of the most popular types. It consists of a pointer attached to the head that runs the length of the flexible beam (shaft) to a scale located near the handle. As the wrench is pulled, the beam bends and the pointer indicates the torque using the scale.

Click (Breakaway) Type

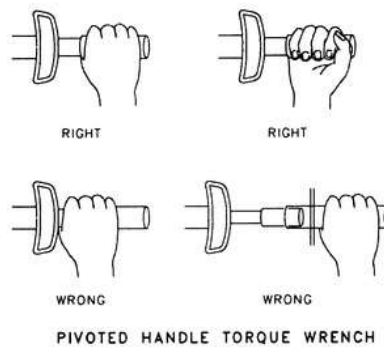
Fig. 4: A click type or breakaway torque wrench — note that this one has a pivoting head



Another popular design of torque wrench is the click type. To use the click type wrench you pre-adjust it to a torque setting. Once the torque is reached, the wrench has a reflex signaling feature that causes a momentary breakaway of the torque wrench body, sending an impulse to the operator's hand.

Pivot Head Type.

Fig. 5: Torque wrenches with pivoting heads must be grasped and used properly to prevent an incorrect reading

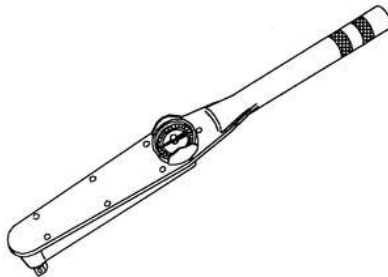


Some torque wrenches (usually of the click type) may be equipped with a pivot head which can allow it to be used in areas of limited access. BUT, it must be used properly. To hold a pivot head wrench, grasp the handle lightly, and as you pull on the handle, it should be floated on the pivot point. If the handle comes in contact with the yoke extension during the process of pulling, there is a very good chance the torque readings will be inaccurate because this could alter the wrench loading point. The design of the handle is usually such as to make it inconvenient to deliberately misuse the wrench.

NOTE: It should be mentioned that the use of any U-joint, wobble or extension will have an effect on the torque readings, no matter what type of wrench you are using. For the most accurate readings, install the socket directly on the wrench driver. If necessary, straight extensions (which hold a socket directly under the wrench driver) will have the least effect on the torque reading. Avoid any extension that alters the length of the wrench from the handle to the head/driving point (such as a crow's foot). U-joint or wobble extensions can greatly affect the readings; avoid their use at all times.

Rigid Case (Direct Reading).

Fig. 6: The rigid case (direct reading) torque wrench uses a dial indicator to show torque



A rigid case or direct reading torque wrench is equipped with a dial indicator to show torque values. One advantage of these wrenches is that they can be held at any position on the wrench without affecting accuracy. These wrenches are often preferred because they tend to be compact, easy to read and have a great degree of accuracy.

1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7
Fuel Delivery: FI | Fuel: GAS

The weight of the trailer is the most important factor. A good weight-to-horsepower ratio is about 35:1, 35 lbs. of Gross Combined Weight (GCW) for every horsepower your engine develops. Multiply the engine's rated horsepower by 35 and subtract the weight of the vehicle passengers and luggage. The number remaining is the approximate ideal maximum weight you should tow, although a numerically higher axle ratio can help compensate for heavier weight.

1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7

Fuel Delivery: FI | Fuel: GAS

An automatic transmission is usually recommended for trailer towing. Modern automatics have proven reliable and, of course, easy to operate, in trailer towing. The increased load of a trailer, however, causes an increase in the temperature of the automatic transmission fluid. Heat is the worst enemy of an automatic transmission. As the temperature of the fluid increases, the life of the fluid decreases.

It is essential, therefore, that you install an automatic transmission cooler. The cooler, which consists of a multi-tube, finned heat exchanger, is usually installed in front of the radiator or air conditioning compressor, and hooked in-line with the transmission cooler tank inlet line. Follow the cooler manufacturer's installation instructions.

Select a cooler of at least adequate capacity, based upon the combined gross weights of the vehicle and trailer.

Cooler manufacturers recommend that you use an aftermarket cooler in addition to, and not instead of, the present cooling tank in your radiator. If you do want to use it in place of the radiator cooling tank, get a cooler at least two sizes larger than normally necessary.

NOTE: A transmission cooler can, sometimes, cause slow or harsh shifting in the transmission during cold weather, until the fluid has a chance to come up to normal operating temperature. Some coolers can be purchased with or retrofitted with a temperature bypass valve which will allow fluid flow through the cooler only when the fluid has reached above a certain operating temperature.

1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7

Fuel Delivery: FI | Fuel: GAS

Similar to the engine identification code, the transaxle identification code supplies information about the transaxle such as the manufacturing plant, Julian date of manufacture, shift number and model. The location for the transaxle code is shown in the accompanying illustrations.

Fig. 6: Typical manual transmission identification label location

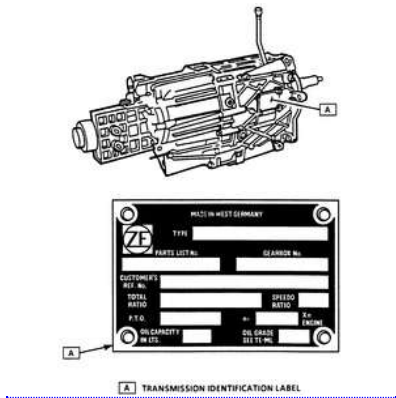
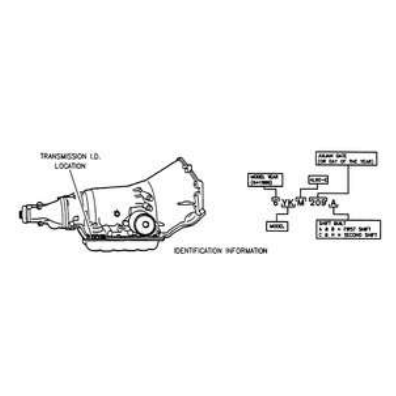


Fig. 7: Location of the automatic transmission identification tag



1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7

Fuel Delivery: FI | Fuel: GAS

The Vehicle Identification Number (VIN) plate, which contains the Vehicle Identification Number (VIN), is located at the top rear of the instrument panel on the left side. It is visible from outside the vehicle on the lower left (driver's) side of the windshield. The VIN consists of 17 characters which represent codes supplying important information about your vehicle. Refer to the illustration for an example of VIN interpretation.

Fig. 1: The VIN is stamped into a plate which is visible through the windshield

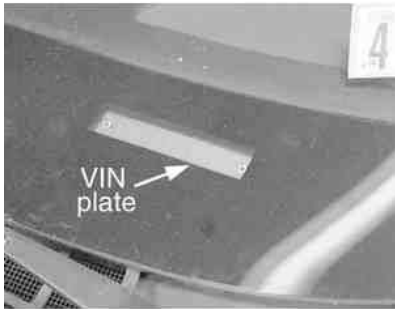
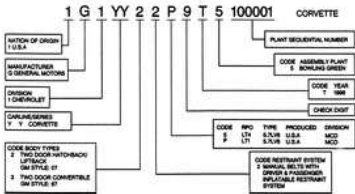


Fig. 2: Example of VIN interpretation



1990 Chevrolet CORVETTE

Submodel: | Engine Type: V8 | Liters: 5.7
Fuel Delivery: FI | Fuel: GAS

Before removing any bolts, read through the entire procedure. This will give you the overall view of what tools and supplies will be required. There is nothing more frustrating than having to walk to the bus stop on Monday morning because you were short one bolt on Sunday afternoon. So read ahead and plan ahead. Each operation should be approached logically and all procedures thoroughly understood before attempting any work.

All sections contain adjustments, maintenance, removal and installation procedures, and in some cases, repair or overhaul procedures. When repair is not considered practical, we tell you how to remove the part and then how to install the new or rebuilt replacement. In this way, you at least save labor costs. "Backyard" repair of some components is just not practical.