



# **PAXTON**

## **SUPERCHARGERS**

# **SHELBY**



*Owner's Installation Guide for the*

## ***Paxton Automotive Novi 1200 Supercharger***

*for the*

## ***2005-2007 4.6L Mustang GT***

**Paxton Automotive . 1300 Beacon Place . Oxnard CA 93033  
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# FOREWORD

This manual provides information on the installation, maintenance and service of the Paxton supercharger kit expressly designed for this vehicle. All information, illustrations and specifications contained herein are based on the latest product information available at the time of this publication. Changes to the manual may be made at any time without notice. Contact Paxton Automotive for any additional information regarding this kit and any of these modifications at (805) 247-0228 8:00am-4:30pm PST.



*Take note of the following before proceeding:*

1. Proper installation of this supercharger kit requires general automotive mechanic knowledge and experience. Please browse through each step of this instruction manual prior to beginning the installation to determine if you should refer the job to a professional installer/technician. Please contact your dealer or Paxton Automotive for possible installers in your area.
2. **This product was designed for use on stock (*un-modified, OEM*) vehicles.** The PCM (*computer*), engine, transmission, drive axle ratios and tire O.D. must be stock. If the vehicle or engine has been modified in any way, check with Paxton prior to installation and use of this product.
3. Use only premium grade fuel with a minimum of 91 octane (*R+M/2*).
4. Always listen for any sign of detonation (*knocking/pinging*) and discontinue hard use (*no boost*) until problem is resolved.
5. Paxton is not responsible for any clutch, transmission, drive-line or engine damage.

*Exclusions from Paxton warranty coverage considerations include, but not limited to:*

1. Neglect, abuse, lack of maintenance, abnormal operation or improper installation.
2. Continued operation with an impaired vehicle or sub-system.
3. The combined use of Paxton components with other modifications such as, but not limited to, exhaust headers, aftermarket camshafts, nitrous oxide, third party PCM programming or other such changes.

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# IMPORTANT NOTES

## NOTICE

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# 2005-2007 Mustang GT

## Installation Instructions

*Congratulations on selecting the best performing and best backed automotive supercharger available today... the PAXTON® supercharger!*

Before beginning this installation, please read through this entire instruction booklet and the **Street Supercharger System Owner's Manual** which includes the **Limited Warranty Program**, the **Warranty Registration form** and return envelope.

Paxton supercharger systems are performance improving devices. In most cases, increases in torque of 30-35% and horsepower between 35-45% can be expected with the boost levels specified by Paxton Automotive. This product is intended for use on healthy, well maintained engines. Installation on a worn-out or damaged engine is not recommended and may result in failure of the engine as well as the supercharger. Paxton Automotive is not responsible for engine damage.

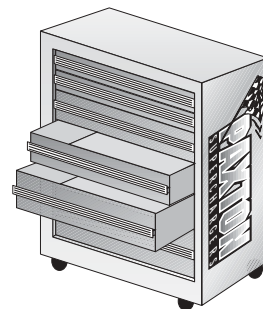
Installation on new vehicles will not harm or adversely affect the break-in period so long as factory break-in procedures are followed.

**For best performance and continued durability, please take note of the following key points:**

1. Use only premium grade fuel 91 octane or higher (R+M/2).
2. The engine must have stock compression ratio.
3. If the engine has been modified in any way, check with Paxton prior to using this product.
4. Always listen for any sign of detonation (pinging) and discontinue hard use (no boost) until problem is resolved.
5. Perform an oil and filter change upon completion of this installation and prior to test driving your vehicle. Thereafter, always use a high grade SF rated engine oil or a high quality synthetic, and change the oil and filter at least every 3,000 miles. Never attempt to extend the oil change interval beyond 3,000 miles, regardless of oil manufacturer's claims as potential damage to the supercharger may result.
6. Before beginning installation, replace all spark plugs that are older than 1-year or 15,000 miles with original heat range plugs as specified by the manufacturer and reset timing to factory specifications (follow the procedures indicated within the factory repair manual and/or as indicated on the factory underhood emissions tag). Do not use platinum spark plugs unless they are original equipment. Change spark plugs every 20,000 miles.

### **TOOL & SUPPLY REQUIREMENTS**

- Factory repair manual
- 3/8" socket and drive set: SAE & metric
- 1/2" socket and drive set: SAE & metric
- 3/8"NPT tap, 3/8-18 tap & handle
- Adjustable wrench
- Open end wrenches: 3/8", 7/16", 1/2", 9/16"
- Center punch and a 5/8" tapered punch
- 6 quarts (or what is specified in your owner's manual)  
SF rated quality engine oil, oil filter and wrench



**If it has been 15,000 miles or more since your vehicle's last spark plug change, then you will also need:**

- Spark plug socket
- NEW spark plugs





# 2005-2006 Mustang GT, H.O.

Part No. 1001860

## PARTS LIST

**IMPORTANT:** Before beginning installation, verify that all parts are included in the kit. Report any shortages or damaged parts immediately.

PART NO.	DESCRIPTION	QTY.	PART NUMBER	DESCRIPTION	QTY.
1016140	S/C ASY, SHELBY '05-'07 V8 MUS	1	8N101-290	WELDED CORE ASY, '05 MUS GT	1
4FU130-036	OIL DRAIN ASY, '05 MUS GT	1	8N155-080	COOLANT RES.RELOC. '05 MUS	1
7U030-036	1/2" OIL DRAIN HOSE	2.5'	8N055-080	TANK, RAD OVERFLOW, '05 MUS	1
7R001-008	#8 STNLS HOSE CLAMP	2	4FU010-051	MTG BRKT "A", RES.RELOC. '05 MUS	1
7P375-017	3/8"NPT x 1/2" BEADED HSE BRB	1	4FU010-061	BRKT "B", COOL RES.RELOC. '05 MUS	1
4FU130-026	OIL FEED ASY, G5 MUS GT	1	7A250-051	1/4-20 x .50" HHCS ZINC PLTD	4
7U250-090-260	OIL FEED HSE, 26" x -4 x 90°	1	7P250-045	1/4" MALE NPT x 3/8" MALE BARB	1
7P125-005	1/8"NPT STR. x -4 JIC FTG STL	1	7J006-093	6mm WASHER, PLATED	4
7P250-091	1/4"NPT x 90° x -4 JIC FTG STL	1	7R002-010	#10 SAE TYPE "F" SS HOSE CLAMP	1
9P250-034	1/4"NPT x 1/4"NPT STRT T	1	7P375-050	3/8" HOSE UNION, BRASS	1
4FU112-010	AIR INLET ASY, '05 MUS GT	1	7U030-056	3/8" PCV/VAC RUBBER HOSE	2.5'
4FU012-010	INLET DUCT, "A", '05 MUS GT	1	7R004-002	STEPLESS.CLAMP, 17.0-70	3
4FU012-015	INLET DUCT, "B", '05 MUS GT	1	7C060-020	M6-1.0 x 20mm HHCS ZN	3
7R002-056	#56 SAE TYPE "F" SS HOSE CLAMP	1	7J006-093	6mm WASHER, PLATED	3
7S400-200	SLEEVE, 4" x 2", BLUE	1	4FU139-096	PCV/MAF MOD ASY, '05 GT	1
7S400-351	REDUCER SLV 4.00" x 3.5" x 2.35"L	1	7P375-106	PCV VALVE, FORD, 3/8" HOSE	1
7R002-064	#64 SAE TYPE "F" SS HOSE CLAMP	5	7P625-375	REDUCER, 5/8" BARB TO 3/8" BARB	1
8H040-235	AIR FILTER, 4.0" FLG x 7.0"L	1	7R001-006	#6 STNLS HOSE CLAMP, NARROW	2
8A003-071	MAF, 3/8"ID, '05 MUS GT	1	7R001-008	#8 STNLS HOSE CLAMP	3
7P750-102	3/4"NPT x 1" x 90° HSE FIT	1	7R002-010	#10 SAE TYPE "F" SS HOSE CLAMP	1
7P250-047	1/4"NPT TO 3/8" BARB x 90°	1	7U032-016	3/8" EFI FUEL HOSE HI-PRSR	.5'
4FU010-071	BRKT, INTAKE SUPPORT	1	5W018-030	18GA STRD WIRE GREY	1.0'
7U032-016	3/8" EFI FUEL HSE HI-PRSR	4.0'	5W018-010	18GA STRD WIRE RED	1.0'
4FU013-010	COVER, AIR FILTER, '05 MUS GT	1	5W018-020	18GA STRD WIRE BLK, UL1015	1.0'
7C040-008	M4-7 x 8mm SHCD SS	2	5W018-080	18GA STRD WIRE BLUE BULK	1.0'
4FU111-044	S/C MTG BRKT ASY, '05 MUS GT	1	5W018-090	18GA STRD WIRE BROWN BULK	1.0'
4FU010-044	S/C MOUNT PLT, '05 MUS GT	1	5W018-100	18GA STRD WIRE PURPLE	1.0'
4FU010-034	IDLER MOUNT PLATE, '05 MUS	1	5W001-007	3/16" HEAT SHRINK TUBING	1.5'
4FU017-011	SPACER, STUDDED '05 MUS GT	2	5W001-005	3/8" PLASTIC WIRE LOOM	1.5'
2A017-750-05	SPACER, .750"OD x 2.691"LONG	2	5W001-012	18-22 GA BUTT CONN RED INSUL	12
2A017-750-06	SPACER, .750"OD x 2.712"LONG	1	7U033-020	HOSE, 5/8"ID CLASS 1 EMISSIONS	0.066'
2A017-879-08	SPACER, .879"OD x 1.776"LONG	1	8F060-048	FUEL INJ, 39lb EV6, OEM '03 COB	8
2A017-750-07	SPACER, .750"OD x .097"LONG	1	3863515	DECAL, PAXTON COLOR, 9" x 3"	2
4FU017-021	SPACER, IDLER, '05 MUS GT	1	008575	S/C STRT INFO PKG ASY PAXTON	1
4PCS016-160	PULLEY, IDLER, SRT10 TRUCK	1	4809660	INSTR MANUAL, '05 MUS GT	1
2A046-120	BELT, GATES K061203	1	4FU114-010	RAD PIPE RELOC ASY, '05 MUS GT	1
7A375-375	3/8-16 x 3-3/4" HXHD	1	4FU014-010	RADIATOR PIPE, '05 MUS GT	1
7C080-150	M8-1.25 x 150mm HXHD CL10.9	1	7R002-024	#24 SAE TYPE "F" SS HOSE CLAMP	2
7C080-140	M8-1.25 x 140 HXHD CL8.8	2	8F101-262	FUEL PUMP ASY, '05 MUS TWIN INTA	1
7A375-100	3/8-16 x 1" G5 HHCS, PLT	7	7U032-016	3/8" EFI FUEL HSE, HI-PRESS.	.23'
7K312-030	5/16"AN WASHER, SS	2	7U100-055	TIE-WRAPS, 7.5" NYLON	4
7K375-040	3/8"AN960 FLAT WASHER PLATED	10	7R004-002	STEPLESS CLAMP, 17.0-70	2
4FU214-021	COOL BYPASS HOSE RELOC ASY, '05 GT	1	8F001-255	255 INTANK FUEL PUMP, '86-'97	1
4FU114-021	ASY, WATER OUTLET, '05 MUS GT	1	7R002-044	#44 SAE TYPE "F" SS HOSE CLAMP	1
7J875-010	7/8" SEALING WASHER	1	7R004-006	STEPLESS CLAMP, 11.3" x 5mm WIDE	4
7F875-010	NUT, 7/8-14, SHORT/JAM	1	5W001-022	T-TAP CONNECTOR 14-16AWG	2
7U133-050	1.5" x 90° HOSE, LONG LEG	1	5W001-009	16-14GA MALE SLIDE INSULATED	2
7U133-190	HOSE, COOLANT DRIVER'S SIDE, '05 MUS	1	5W001-080	FUSE, 20AMP MINI BLADE	1
7U038-000	3/4" HEATER HOSE	3.5'	7P375-099	Y-UNION, 3/8" BARBED, TEFLON	1
7P375-075	3/4" HOSE BARB UNION, BRASS	1	7U032-025	HOSE, 5/16"ID x 3/8"OD x 1"W	0.125'
7R002-020	#20 SAE TYPE "F" SS HOSE CLAMP	4	7U032-030	HOSE, SPIRAL, 3/8" CUFF ID, 1"L	2
7R002-024	#24 SAE TYPE "F" SS HOSE CLAMP	2			
7P125-002	FREEZE PLUG, Ø1.25" x .25" TALL	1			
7R002-010	#10 SAE TYPE "F" SS HOSE CLAMP	4			
7P125-016	1/8"NPT PLUG	1			
4FU110-010	P/S RESERV. RELOC. '05 MUS GT	1			
7P375-075	3/4" HOSE BARB UNION, BRASS	1			
7P375-050	3/8" HOSE UNION, BRASS	1			
7R001-004	#4 HOSE CLAMP	2			
7R001-008	#8 STNLS HOSE CLAMP	2			
7U038-030	HOSE, P/S, 3/4"ID	3'			
7U032-016	3/8" EFI FUEL HOSE, HI-PRSR	3'			
7A250-075	1/4-20 x .75" SHCS PLTD	1			
7J250-001	1/4" WASHER, SAE PLTD	2			
7F250-021	1/4-20 NYLOCK NUT, ZINC PLATED	1			
4FU010-010	P/S RELOC BRKT, '05 MUS GT	1			
7U100-055	TIE-WRAPS, 7.5" NYLON	4			



# 2005-2006 Mustang GT, H.O. cont'd

Part No. 1001860

## PARTS LIST

**IMPORTANT:** Before beginning installation, verify that all parts are included in the kit. Report any shortages or damaged parts immediately.

PART NO.	DESCRIPTION	QTY.	PART NUMBER	DESCRIPTION	QTY.
5A003-035	PREDATOR, '05 MUS	1			
5A001-025	DIABLO MAFia, '05 MUS	1			
8N104-125	SUPPORT PCS.'05 GT MUS CLR GEN2	1			
8N056-061	SURGE TANK, INTEGRA GSR MODIFIED	1			
8N055-050	PLASTIC CAP, SURGE TANK	1			
8N010-160	SURGE TANK BRKT, '05 MUS GT	1			
7R007-001	NYLON RATCHET CLAMP, 1-1/8"	16			
7P500-026	1.2"NPT x 3/4" BARB x 90° BRASS	2			
7U038-012	HOSE, Ø3/4" x 90°, 4" x 12" LEGS	1			
7U038-000	3/4" HEATER HOSE	12'			
7U030-065	3/4" x 90° RUBBER HOSE, SHORT	1			
7P500-078	1/2"NPT x 3/4" HOSE FIT STRT	2			
7S275-055	ELBOW, Ø2.75" x 55° SILICONE	1			
7S450-200	SLEEVE, 4-1/2" x 2", BLUE	1			
7R002-044	#44 SAE TYPE "F" SS HOSE CLAMP	2			
7R002-072	#72 SAE TYPE "F" SS HOSE CLAMP	2			
7P375-075	3/4" HOSE BARB UNION, BRASS	3			
7J006-093	6mm WASHER, PLATED	5			
7A250-050	1/4-20 x .50" SHCS ZINC PLTD	3			
7A250-051	1/4-20 x .50" HHCS ZINC PLTD	2			
7U038-020	HOSE, Ø3/4" "S" MOLDED RUBBER	1			
8F001-403	PUMP, WATER, BOSCH	1			
7R003-028	ADEL CLAMP, 2-3/8" x .26" HOLE	2			
5W018-010	18GA STRD WIRE, RED	5'			
5W001-009	16-14GA MALE SLIDE, INSULATED	1			
5W001-011	16-14GA RING TERM. .26" HOLE	1			
5W001-022	T-TAP CONN. 14-16AWG	1			
5W001-032	1/4" PLASTIC WIRE LOOM	60'			
7U100-055	TIE-WRAPS, 7.5" NYLON	6			
7R002-016	#16 SAE TYPE "F" SS HOSE CLAMP	4			
7P156-082	5/32" TEE	1			
7U030-046	5/32" VACUUM LINE	5'			
8D001-001	STD COMPRESS BYPASS VALVE	1			
7U034-016	1" GS HEATER HOSE	1'			
7U034-016	1" GS HEATER HOSE	1.25'			
5W001-071	FUSE HOLDER, 16GA WIRE	1			
5W001-015	FUSE, BLADE, TYPE 20AMP	1			
008341	PAXTON CHARGE COOLER DECAL	1			
7U375-054	3/4" VINYL CAP	1			
7P218-156	VAC.TEE, 7/32", 7/32", 5/32"	1			
5W001-050	HARNESS, FUEL INJ. PLUG w/WIRES	1			
7R003-016	ADEL CLAMP, 1.0"	1			
7A250-074	1/4-20 x .75" HHCS PLTD	2			
7J250-001	1/4" WASHER, SAE, PLTD	4			
7F250-020	1/4-20 HEX NUT	2			
7u038-150	HOSE, 3/4" x 150° MOLDED HOSE	1			
8N010-220	MTG BRKT, '05-'07 MUS BOSCH PUMP	1			
8N106-135	WATER CLR ASY, '05 MUS GEN II	1			
8N006-020	WATER COOLR, FLDYN DUAL PASS	1			
8N010-171	BRACKET, DRVR'S SIDE CLR MNT. PLT	1			
8N010-173	BRACKET, PASS'S SIDE CLR MNT.	1			
2A017-036	SPACER, PLT. BRG.HSG., 0.186"	4			
7C080-030	M8-1.25 x 30 HXHD CL10.9	6			
7F008-020	NUT, M8-1.25	6			
7J312-000	5/16" FLAT WASHER, SAE	12			
7A250-051	1/4-20 x .50 HHCS ZINC PLATED	4			
7J250-001	1/4" WASHER, SAE PLATED	4			







# 2007 Mustang GT, H.O.

Part No. 1001859

## PARTS LIST

**IMPORTANT:** Before beginning installation, verify that all parts are included in the kit. Report any shortages or damaged parts immediately.

PART NO.	DESCRIPTION	QTY.	PART NUMBER	DESCRIPTION	QTY.
1016140	S/C ASY, SHELBY '05-'07 V8 MUS	1	7R002-010	#10 SAE TYPE "F" SS HOSE CLAMP	2
8FU130-036	OIL DRAIN ASY, '05 MUS GT	1	7U038-000	3/4 HEATER HOSE	1.83"
7U030-036	1/2" OIL DRAIN HOSE	2.5'	7P100-076	HOSE REDUCER, 1" - 3/4" PLASTIC	1
7R001-008	#8 STNLS HOSE CLAMP	2	4FU139-096	PCV/MAF FOD ASY, '05 GT	1
7P375-017	3/8"NPT x 1/2" BEADED HSE BRB	1	7P375-106	PCV VALVE, FORD, 3/8" HOSE	1
4FU130-026	OIL FEED ASY '05 MUS GT	1	7P625-375	REDUCER, 5/8" BARB x 3/8" BARB	1
7U250-090-260	OIL FEED HOSE, 26' -4 x 90°	1	7R001-006	#6 STNLS HOSE CLAMP, NARROW	2
7p125-005	1/8"NPT STR x -4 JIC FTG STL	1	7R001-008	#8 STNLS HOSE CLAMP	3
7P250-091	1/4"NPT x 90° x -4 JIC FTG STL	1	7R002-010	#10 SAE TYPE "F" SS HOSE CLAMP	1
7P250-034	1/4"NPT x 1/4"NPT STRT T	1	7U032-016	3/8" EFI FUEL HSE HI-PSR	.5'
4FU112-010	AIR INLET ASY, '05 MUS GT	1	5W018-030	18GA STRD WIRE GREY	1'
4FU012-010	INLET DUCT, "A", '05 MUS GT	1	5W018-010	18GA STRD WIRE RED	1'
4FU012-015	INLET DUCT, "B", '05 MUS GT	1	5W018-020	18GA STRD WIRE BLK, UL1015	1'
7R002-056	#56 SAE TYPE "F" SS HOSE CLAMP	1	5W018-080	18GA STRD WIRE BLUE BULK	1'
7S400-200	SLEEVE, 4" x 2" BLUE	2	5W018-090	18GA STRD WIRE BROWN BULK	1'
7S400-351	REDUCER SLV 4.0" x 3.5" x 2.35"L	1	5W018-100	18GA STRD WIRE PURPLE	1'
7R002-064	#64 SAE TYPE "F" SS HOSE CLAMP	5	5W001-007	3/16" HEAT-SHRINK TUBING	1.5'
8H040-235	AIR FILTER, 4.0" FLG x 7.0"L	1	5W001-005	3/8" PLASTIC WIRE LOOM	2.5'
8A003-071	MAF, 3.8"ID, '05 MUS GT	1	5W001-012	18-22GA BUTT CONN RED INSUL	12
7P750-102	3/4"NPT x 1" x 90° HSE FIT	1	7U033-020	HOSE, 5/8"ID CLASS 1 EMISSIONS	.066'
7P250-047	1/4"NPT x 3/8" BARB x 90°	1	8F060-048	FUEL INJ. 39LB EV6, OEM '03 COB	8
4F010-071	BRKT, INTAKE SUPPORT	1	3863515	DECAL, PAXTON COLOR, 9" x 3"	1
7U032-016	3/8"EFI FUEL HSE HI-PRSR	4'	008575	S/C STRT INFO PKG ASY PAXTON	1
4FU013-010	COVER, AIR FILTER, '05 MUS GT	1	4809660	INSTR MANUAL '05 MUS GT	1
7C040-008	M4-7 x 8mm SHCD SS	2	4FU114-030	WATER PIPE ASY, '07 MUS GT	1
4FU111-044	S/C MTG BRKT ASY, '05 MUS GT	1	4FU014-051	HOUSING, THRST RELC '07 MUS GT	1
4FU010-044	S/C MOUNT PLT, '05 MUS GT	1	7C060-015	M6-1.0 x 16mm SHCS CL10.9 + 2	2
4FU010-034	IDLER MOUNT PLATE, '05 MUS	1	7U012-018	O-RING, '07 MUS GT THERM HSG	1
4FU017-011	SPACER, STUDDED '05 MUS GT	2	4FU014-060	WATER PIPE, Ø1.5" x 90", '07 MUS	1
2A017-750-05	SPACER, .750"OD x 2.691"L	2	7R002-024	#24 SAE TYPE "F" SS HOSE CLAMP	3
2A017-750-06	SPACER, .750"OD x 2.712"L	1	5W001-085	SLEEVE, FLEX BRD Ø1.5" NOM	.83'
2A017-879-08	SPACER, .875"OD x 1.776"L	1	7C060-025	M6-1.0" x 25mm HX	2
2A017-750-07	SPACER, .750"OD x .097"L	1	7J006-094	6mm WASHER SS	2
4FU017-021	SPACER, IDLER, '05 MUS GT	1	4FE014-010	RADIATOR PIPE, STAINLESS	1
4PCS016-160	PULLEY, IDLER, SFT10 TRUCK	1	8N106-135	WATER COOLER ASY, '05 MUS	1
2A046-120	BELT, GATES K061203	1	8N006-020	WATER COOLER, FELDYN DUAL PA	1
7A375-375	3/8-16 x 3-3/4" HXHD	1	8N010-171	BRACKET, DRV'R'S SIDE, CLR MNT	1
7C080-150	M8-1.25 x 150mm HXHD CL10.9	1	8N010-173	BRACKET, PASS'S SIDE, CLR MNT	1
7C080-140	M8-1.25 x 140mm HXHD CL8.8	2	2A017-036	SPACER, PLT, BRG HSG, 0.186"	4
7A375-100	3/8-16 x 1"GS HHCS, PLT	7	7C080-030	M8-1.25 x 30mm HXHD CL10.9	6
7K312-030	5/16"AN WASHER, SS	2	7F008-020	NUT, M8-1.25	6
7K372-040	3/8"AN960 FLAT WASHER PLATED	10	7J312-000	5/16" FLAT WASHER-SAE	12
4FU110-010	P/S RESERV RELOC, '05 MUS GT	1	7A250-051	1/4-20 x .50" HHCS ZINC PLTD	4
7P375-075	3/4" HOSE BARB UNION, BRASS	1	7J250-001	1/4" WASHER, SAE, PLTD	4
7P375-050	3/8" HOSE UNION, BRASS	1	8F101-262	FUEL PMP ASY, '05 MUS TWIN INTA	1
7R001-004	#4 HOSE CLAMP	2	7U032-016	3/8" EFI FUEL HSE HI-PSR	.23'
7R001-008	#8 STNLS HOSE CLAMP	2	7U100-055	TIE-WRAP, 7.5" NYLON	4
7U038-030	HOSE, P/S, 3/4"ID	3'	7R004-002	STEPLESS CLAMP, 17.0-70	2
7U032-016	3/8" EFI FUEL HOSE HI-PRSR	3'	8F001-255	255 INTANK FUEL PUMP '86-'97	1
7A250-075	1/4-20 x .75" SHCS PLTD	1	7R002-044	#44 SAE TYPE "F" SS HOSE CLAMP	1
7J250-001	1/4" WASHER, SAE, PLTD	2	7R004-006	STEPLESS CLAMP, 11.3 x 5mm WIDE	4
7F250-021	1/4-20 NYLOCK NUT ZINC PLATED	11	5W001-022	T-TAP CONN, 14-16AWG	2
4FU010-010	P/C RELOC BRKT, '05 MUS GT	1	5W001-009	16-14GA MALE SLIDE INSULATED	2
7U100-055	TIE-WRAP, 7.5" NYLON	4	5W001-080	FUSE, 20AMP MINI BLADE	1
8N155-082	COOLANT RES RELOC, '07 MUS	1	7P375-099	Y-UNION, 3/8" BARBED TEFLON	1
8N055-080	TANK, RAD OVERFLOW, '05 MUS	1	7U032-025	HOSE, 5/16"ID, 3/8"OD, 1/32"W	.125'
4FU010-061	BRKT "B", COOL RES RELOC '05 MUS	1	7U032-030	HOSE, SPIRAL 3/8" CUFF ID, 1"L	2
7A250-051	1/4-20 x .50" HHCS ZINC PLTD	4			
7P250-045	1/4" MALE NPT x 3/8" MAKE BARB	1			
7J006-093	6mm WASHER, PLATED	10			
7P375-050	3/8" HOSE UNION, BRASS	1			
7U030-056	3/8" PCV/VAC RUBBER HOSE	2.5'			
7R004-002	STEPLESS CLAMP, 17.0-70	3			
4FU010-091	BRKT. COOL RES RELOC, '07 GT	1			
7A250-074	1/4-20 x .75" HHCS PLTD	3			
7F250-021	1/4-20 NYLOCK NUT ZINC PLATED	3			



# 2007 Mustang GT, H.O. cont'd

Part No. 1001859

## PARTS LIST

**IMPORTANT:** Before beginning installation, verify that all parts are included in the kit. Report any shortages or damaged parts immediately.

PART NO.	DESCRIPTION	QTY.	PART NUMBER	DESCRIPTION	QTY.
5A003-038	PREDATOR, '07 MUS	1			
5A001-025	DIABLO MAFia, '05 MUS	1			
8N104-125	SUPRT PCS, '05 MUS GT CLR GEN2	1			
8N056-061	SURGE TANK, INTEGRA GSR MODIFIED	1			
8N055-050	PLASTIC CAP, SURGE TANK	1			
8N010-160	SURGE TANK BRKT, '05 MUS GT	1			
7R007-001	NYLON RATCHET CLAMP, 1-1/8"	16			
7P500-026	1.2"NPT x 3/4" BARB x 90° BRASS	2			
7U038-012	HOSE, Ø3/4" x 90°, 4" x 12" LEGS	1			
7U038-000	3/4" HEATER HOSE	12'			
7U030-065	3/4" x 90° RUBBER HOSE, SHORT	1			
7P500-078	1/2"NPT x 3/4" HOSE FIT STRT	2			
7S275-055	ELBOW, Ø2.75" x 55° SILICONE	1			
7S450-200	SLEEVE, 4-1/2" x 2", BLUE	1			
7R002-044	#44 SAE TYPE "F" SS HOSE CLAMP	2			
7R002-072	#72 SAE TYPE "F" SS HOSE CLAMP	2			
7P375-075	3/4" HOSE BARB UNION, BRASS	3			
7J006-093	6mm WASHER, PLATED	5			
7A250-050	1/4-20 x .50" SHCS ZINC PLTD	3			
7A250-051	1/4-20 x .50" HHCS ZINC PLTD	2			
7U038-020	HOSE, Ø3/4" "S" MOLDED RUBBER	1			
8F001-403	PUMP, WATER, BOSCH	1			
7R003-028	ADEL CLAMP, 2-3/8" x .26" HOLE	2			
5W018-010	18GA STRD WIRE, RED	5'			
5W001-009	16-14GA MALE SLIDE, INSULATED	1			
5W001-011	16-14GA RING TERM. .26" HOLE	1			
5W001-022	T-TAP CONN. 14-16AWG	1			
5W001-032	1/4" PLASTIC WIRE LOOM	60"			
7U100-055	TIE-WRAPS, 7.5" NYLON	6			
7R002-016	#16 SAE TYPE "F" SS HOSE CLAMP	4			
7P156-082	5/32" TEE	1			
7U030-046	5/32" VACUUM LINE	5'			
8D001-001	STD COMPRESS BYPASS VALVE	1			
7U034-016	1" GS HEATER HOSE	1'			
7U034-016	1" GS HEATER HOSE	1.25'			
5W001-071	FUSE HOLDER, 16GA WIRE	1			
5W001-015	FUSE, BLADE, TYPE 20AMP	1			
008341	VORTECH CHARGE COOLER DECAL	1			
7U375-054	3/4" VINYL CAP	1			
7P218-156	VAC.TEE, 7/32", 7/32", 5/32"	1			
5W001-050	HARNES, FUEL INJ. PLUG w/WIRES	1			
7R003-016	ADEL CLAMP, 1.0"	1			
7A250-074	1/4-20 x .75" HHCS PLTD	2			
7J250-001	1/4" WASHER, SAE, PLTD	4			
7F250-020	1/4-20 HEX NUT	2			
7u038-150	HOSE, 3/4" x 150" MOLDED HOSE	1			
8N010-220	MTG BRKT, '05-'07 MUS BOSCH PUMP	1			
8N101-290	WELDED CORE ASY, .05 MUS GT	1			

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## 1. PREPARATION/REMOVAL

- A. Disconnect the battery *before* proceeding.
- B. Loosen the hose clamp at the throttle body. Disconnect the plastic 3/8" tube assembly attached to the passenger's side valve cover. Remove the plastic 3/8" x 90° connector from the plastic tube that was connected at the passenger's side valve cover. Set this connector aside to be re-used in a later step. Discard the remainder of the hose assembly, as it will not be re-used. (See Fig. 1-c.)

**NOTE:** *The preferred method of removing the 90° connector from its original plastic tube is to apply a small amount of heat to the tube and slide the connector free.*

- C. Disconnect the mass air flow (MAF) sensor plug and remove the inlet duct and upper air filter cover from the car. (See Figs. 1-a, 1-b, 1-c.)
- D. Remove the 10mm headed bolt (located next to the inner fender) which secures the lower portion of the air filter enclosure. Remove the lower portion from the car - it will not be reused. (See Fig. 1-d.)
- E. Remove the six plastic push pins securing the radiator cover. Remove the cover and set aside to be reinstalled later. (See Fig. 1-e.)

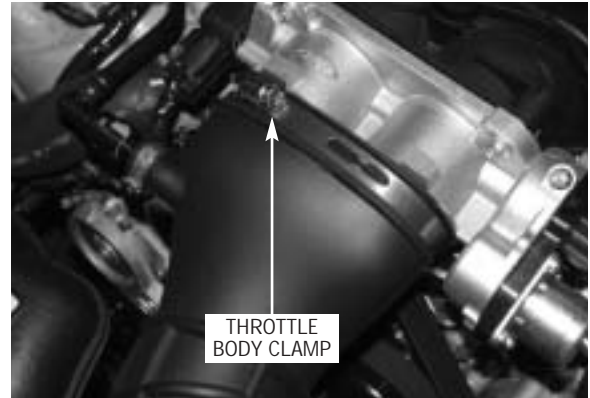


Fig. 1-a

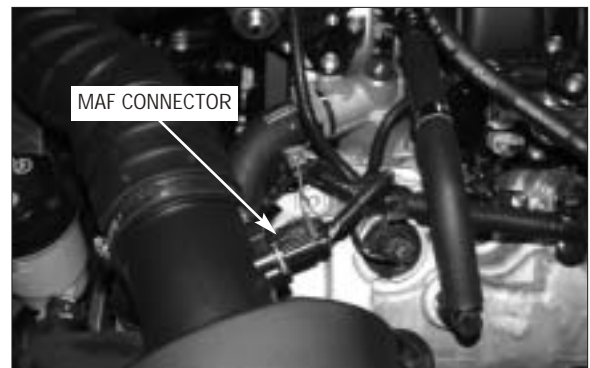


Fig. 1-b



Fig. 1-c

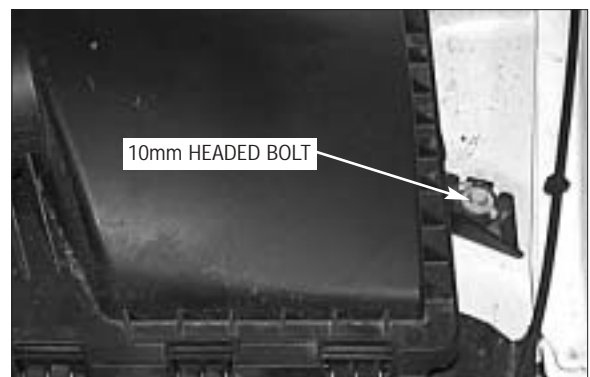


Fig. 1-d

## 1. PREPARATION/REMOVAL, cont'd

- F. Locate the coolant drain plug on the passenger's side of the radiator. Next drain the coolant into a clean container. This coolant will be reused in a later step.
- G. Remove the two 8mm headed bolts securing the coolant overflow reservoir to the plastic fan shroud. (See Fig. 1-f.)
- H. Disconnect the small overflow hose (running across the top of the radiator) from the overflow reservoir. (See Fig. 1-f.)
- I.1 **(2007 Models Only)** Remove the large hose connected to the bottom of the coolant overflow reservoir. (See Fig. 1-g.)

### 2007 Models Skip to 1.m.

- I.2 **(2005-2006 Only)** Remove the large hose connecting the thermostat housing to the bottom of the overflow reservoir. Set the hose and reservoir aside to be reinstalled in a later step. (See Fig. 1-g.)

**NOTE:** If you are installing H.O. (charge cooled) kit, the coolant reservoir will not be reused. Retain only the fill cap for reuse.

- J. Remove the two upper radiator hoses from the engine coolant crossover tube and set aside. The radiator hose located on the driver's side will not be reused. (See Fig. 1-g.)
- K. Remove the thermostat housing from the large formed hose leading to the engine block and the lower outlet of the radiator. (See Fig. 1-h.) Set the thermostat housing aside to be reinstalled in a later step.
- L. Remove the lower hose on the radiator and set the hose aside, as it will not be reused.
- M. Drain and remove the power steering reservoir. This reservoir will be relocated in a later step.
- N. Disconnect and remove the factory 5/8" plastic breather hose assembly attached to the driver's side valve cover and intake manifold. Remove the two fittings from the ends of the plastic tube for re-use. Discard the striped plastic tube. (See Fig. 1-i.)

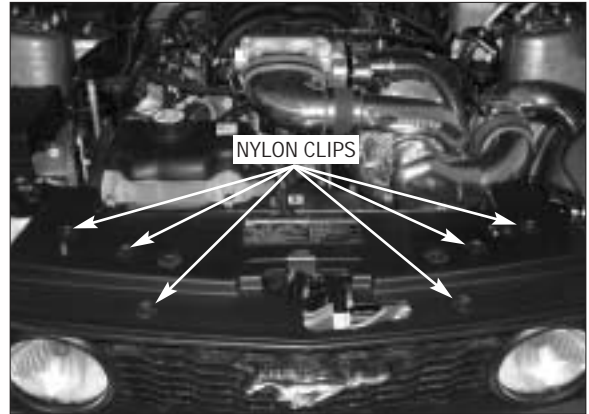


Fig. 1-e

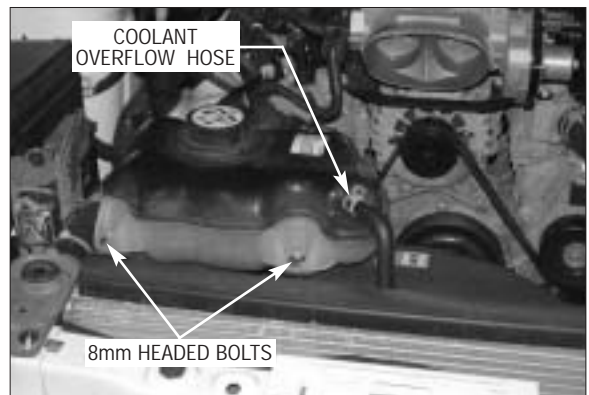


Fig. 1-f

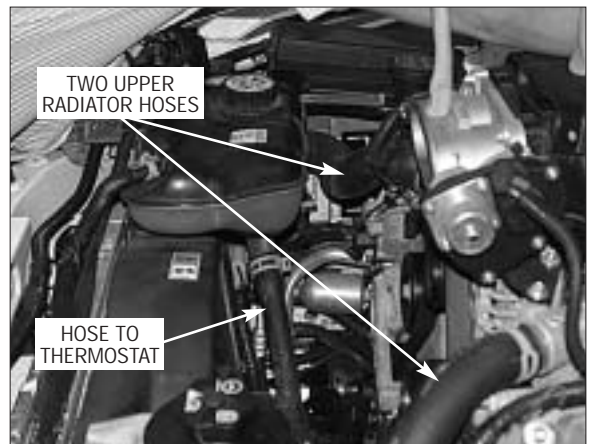


Fig. 1-g

## 1. PREPARATION/REMOVAL, cont'd

- O. The installation of this supercharger system requires the removal, in part or whole, of the intake manifold so that modifications can be made to the coolant crossover tube or thermostat housing depending on year of application:
1. **(2005-2006 Only)** Unplug the wire connectors from each of the eight injectors. Remove all of the vacuum hoses and connectors located at the front and rear of the intake manifold. Remove the connector attached to the intake manifold runner control (IMRC) unit located at the rear of the manifold on the passenger's side.
  2. **(2007 Only):** Unplug the wire connectors from each of the eight injectors.
  3. Remove the four 8mm headed bolts securing the injector rails to the intake manifold. Do not remove the small clips that retain the injectors to the fuel rails. Using a 5/8" spring lock tool, disconnect the fuel feed line from the fuel rail. Remove the vacuum line from the fuel regulator. Remove the rails and injectors as a complete unit and set aside. New injectors will be installed in a later step. (See Figs. 1-i, 1-j.)
  4. Locate and remove the remaining 10mm headed bolts retaining the intake manifold to the cylinder heads. There are **five** on each side.
  5. **(2005-2006 Only):** Remove the intake manifold and set aside so it can be reinstalled after modifications to the coolant crossover tube are made.

**NOTE:** Modification to the crossover tube will be completed in a later step

6. **(2007 Only):** It is not necessary to remove the intake manifold from the vehicle completely. Raise the front of the manifold 3-4" and support between the throttle-body and alternator.

**NOTE:** Modification to the thermostat will be completed in a later step.

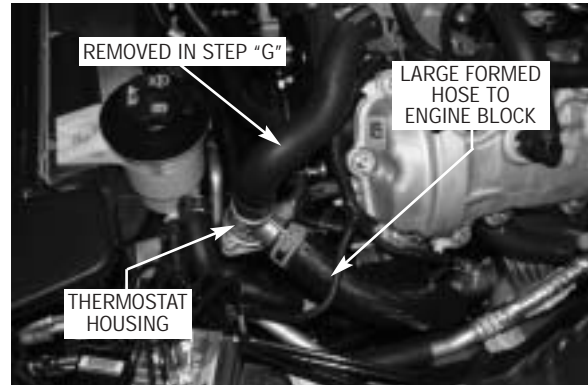


Fig. 1-h

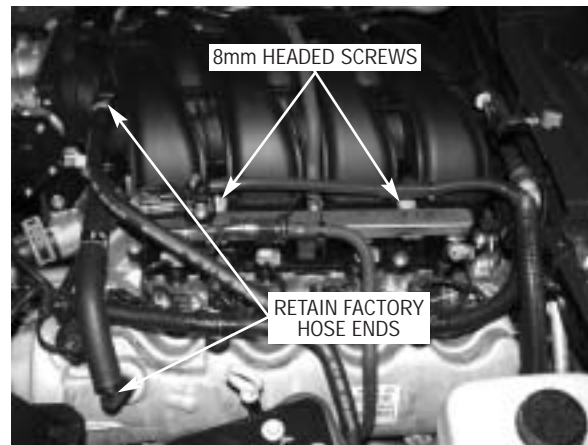


Fig. 1-i

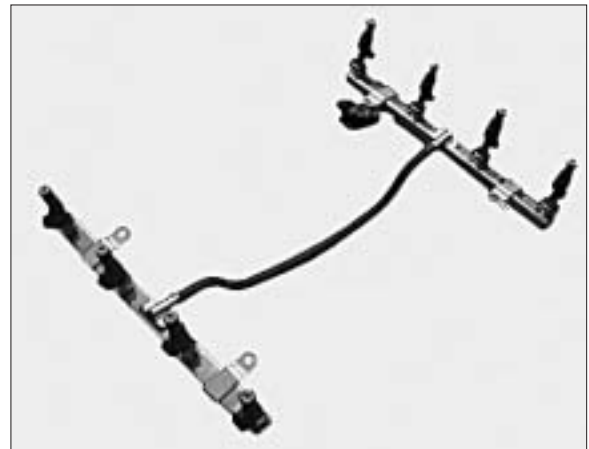


Fig. 1-j

## 1. PREPARATION/REMOVAL, cont'd

- P.** Using a 1/2" ratchet, release the tension from the accessory drive belt and remove it from the car. This drive belt will be replaced with a longer one later in the installation.
- Q.** Locate and remove the stud bolt that secures the alternator in place as well as the bolt located to the right of the alternator. (See *Fig. 1-o.*) Using a 15mm socket or wrench, remove the nut that secures the capacitor, resistor and coolant hose support bracket to the stud bolt. Using an 18mm socket or wrench, remove the stud bolt, it will be modified and replaced in a later step.
- R.** There is a small tab that secures the wiring harness in place on the valve cover that will need to be removed to gain clearance for the supercharger belt. This tab is best removed with a small air saw but a grinder will work. After removal, smooth the area to prevent damage to the belt. (See *Figs. 1-r, 1-r1.*)
- S.** As seen in *Fig. 1-o*, the upper bolt is removed from the timing chain cover. This bolt will have to be modified by cutting off the threaded end where the resistor attaches. Modify and reinstall the bolt. (See *Fig. 1-s.*)
- T.** Disconnect the plug to the cam position sensor. Remove the wiring harness from the retaining clips that hold it to the valve cover. Move the harness out of the way. This harness will have to be relocated to gain clearance for the supercharger.

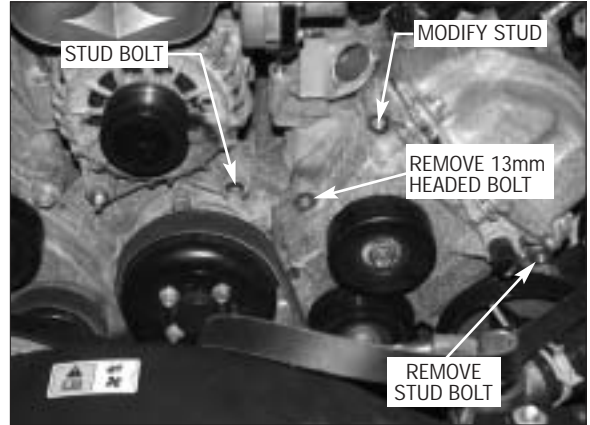


Fig. 1-o



Fig. 1-r

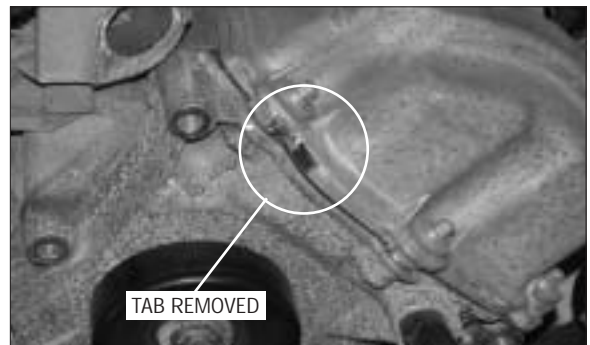


Fig. 1-r1

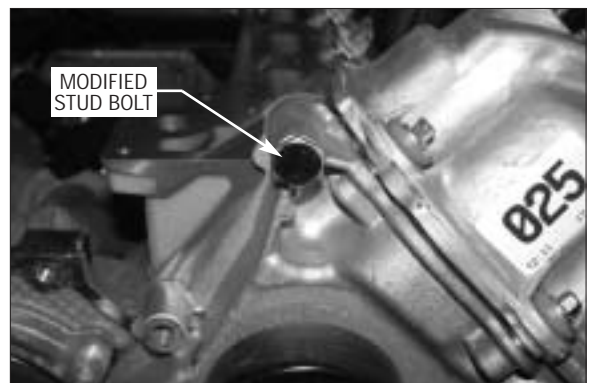


Fig. 1-s



## 2. OIL FEED INSTALLATION

- A. Locate the factory oil sensor on the driver's side of the vehicle near the oil filter.
- B. Remove the sending unit and set aside.
- C. Locate the supplied 1/4"NPT street TEE fitting. Install the TEE in the same location as the factory sending unit with the 1/4" x -4 x 90° installed on the TEE at the location noted. (See Fig. 2-a.)
- D. Attach the stainless steel -4 hose to the -4 fitting installed in the street TEE. (See Fig. 2-a.)
- E. Route the hose away from hot, sharp or moving parts and move to the top of the engine where it will be attached to the supercharger oil feed.
- F. Reinstall the factory sensor in the branch of the TEE as shown. (See Fig. 2-a.)

**NOTE:** The oil feed hose to the S/C will be installed in a later step of the installation. Temporarily cap the open end of the hose to prevent contamination to the inside of the hose.



Fig. 2-a

## 3. OIL DRAIN ASSEMBLY INSTALLATION

- A. To provide an oil drain for the supercharger, it is necessary to make a hole in the oil pan. It is best to *punch* the hole rather than to drill it.
- B. Remove paint from the area around the hole.
- C. Mark the oil pan 5/8" down from the oil pan mounting rail on the driver's side of the engine. Measure forward 3/4" from the first bolt on the side of the oil pan. (See Fig. 3-a.)
- D. Use a small center punch to perforate the pan and expand the hole. Switch to a larger diameter punch and expand the hole further to approximately  $\text{Ø}9/16"$ . Most punches are made from hexagon material and may be placed in a socket with an extension to make this procedure easier.
- E. Tap the hole with a 3/8"NPT tap approximately 1/4" deep. Pack the flutes of the tap with heavy grease to hold chips. Use a small magnet to check for any stray chips.

**NOTE:** This method of rolling over the lip of the hole and tapping it works very well if carefully done and should cause no problems.

- F. Thoroughly clean the threaded area. Apply a small amount of silicone sealer or teflon paste to the new threads. Apply more sealer to the 3/8"NPT hose fitting and secure in the hole. Make sure a seal is formed all around the fitting. (See Fig. 3-b.)
- G. Drain the engine oil and change the filter.

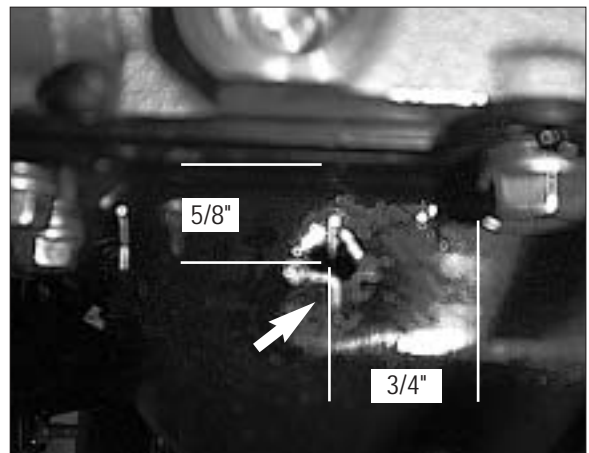


Fig. 3-a



Fig. 3-b

#### 4. POWER STEERING RELOCATION

- A. Locate the power steering assembly 4FU110-010.
- B. Attach the power steering (P/S) relocation bracket 4FU010-010 with the hardware provided to the P/S reservoir removed in an earlier section. (See Fig.4-a.)
- C. Attach the 3/4" P/S hose along with the 3/8" P/S hose to the outlets of the reservoir with the clamps provided. (See Fig. 4-b.)
- D. Attach the 3/4" and the 3/8" hose barb unions to the factory hoses using the factory clamps.
- E. Attach the reservoir to the passenger's side radiator core support using one of the factory ground strap retaining bolts. (See Fig. 4-c.)
- F. Attach the hoses from the reservoir to the factory P/S hoses and secure with the supplied clamps. Trim for best fit. Secure the hose to the fan shroud away from heat and moving objects.
- G. It will be necessary to trim the corner of the radiator core support cover to clear the relocated P/S reservoir. (See Fig. 4-d..)



Fig. 4-a



Fig. 4-b



Fig. 4-c



Fig. 4-d

## 5.1 COOLANT TUBE RELOCATION (2005-2006 Models Years Only)

**NOTE:** For 2007 Models skip to Section 5.2.

- A. Locate assembly 4FU214-021.
- B. Remove the hose connected to the back, lower portion of the engine coolant crossover tube. (See Fig. 5.1-a.)
- C. Remove the nylon clip retaining the wire harness to the alternator brace and the four 10mm headed bolts securing the alternator brace. Set the brace aside to be reinstalled. (See Fig. 5.1-b.)
- D. Remove the factory coolant bleed plug and set the plug aside. It will not be reused. (See Fig. 5.1-c.)
- E. Remove the remaining two 10mm head bolts securing the crossover tube to the cylinder heads.

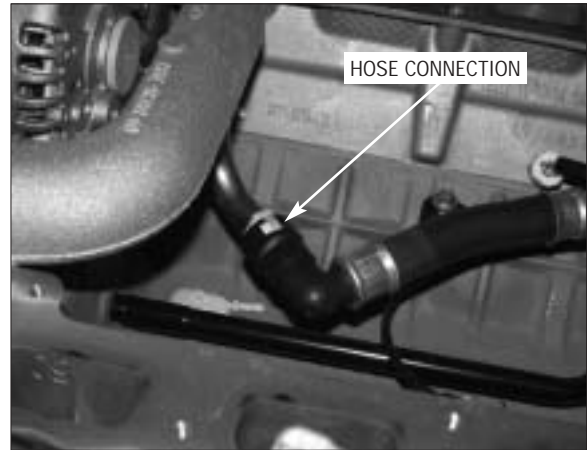


Fig. 5.1-a

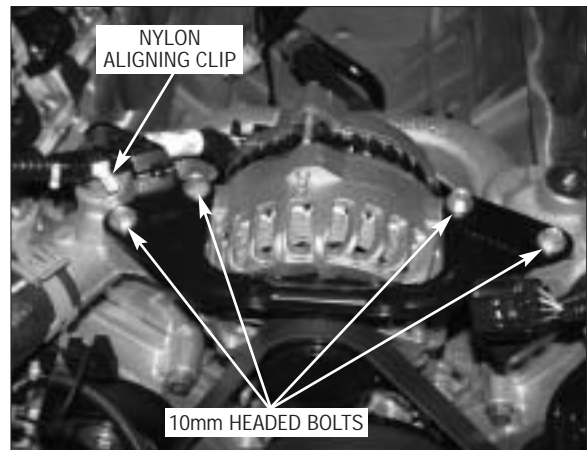


Fig. 5.1-b

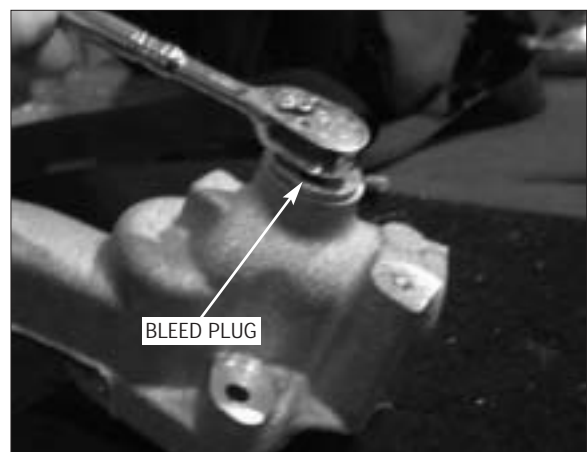


Fig. 5.1-c

## 5.1 COOLANT TUBE RELOCATION (2005-2006 Models Years Only), cont'd

- F. Remove the factory O-ring type gaskets to prevent damage from heat. Clamp the steel hose barb end of the coolant crossover tube in a vise as shown. Using a small amount of heat, heat the aluminum crossover tube. Using a twisting motion, remove the steel insert. (See Fig. 5.1-d.) Penetrating oil will also aid in this step.
- G. Locate the supplied 1-1/4" expansion plug (7P125-002).
- H. Coat the expansion plug with sealant. Using a tube or socket that matches the recessed diameter of the plug, install the plug flush with the machined surface sealing the outlet of the crossover tube. (See Figs. 5.1-e, 5.1-f.)
- I. Locate the supplied coolant relocation fitting, sealing nut and O-ring washer. (See Fig. 5.1-g.)
- J. Install the fitting in the location of the factory coolant bleed plug. (See Fig. 5.1-h.) Screw the jam nut all the way onto the fitting. Tighten the fitting in the position shown. (See Fig. 5.1-h.) Secure with the jam nut.

**NOTE:** It is recommended that sealant be used to seal the thread of the fitting.

- K. Reinstall the factory O-ring gaskets to the crossover tube.
- L. Set the coolant crossover tube back in its original location.
- M. Reinstall the two 10mm headed bolts through the crossover tube into the cylinder heads. Temporarily install two intake manifold retaining bolts through the crossover tube into the cylinder heads, where the manifold will be secured. Leave these loose as they are there only as a pilot for the crossover tube.
- N. Tighten the crossover tube retaining bolts, and remove the two manifold retaining bolts.



Fig. 5.1-d



Fig. 5.1-e



Fig. 5.1-f

## 5.1 COOLANT TUBE RELOCATION (2005-2006 Models Years Only), cont'd

- O. Reconnect the coolant crossover tube hose at the lower rear portion of the coolant crossover tube. Remove any coolant that may have spilled into the engine valley.
- P. Reinstall the alternator support bracket and the four 10mm headed retaining bolts removed earlier. Attach the capacitor resistor removed from the stud bolt on the front cover to one of the 10mm bracket retainers. Route the resistor and its wire away from moving parts.

**NOTE:** Leave two 10mm headed bolts that attach the bracket to the crossover tube loose.

- Q. Reinstall the Intake Manifold removed in a previous step. Check to see that the rubber intake runner gaskets are in place and undamaged. Make sure the cylinder head surface is clean.
- R. Lower the intake manifold onto the cylinder heads.
- S. Install the ten factory 10mm headed manifold retainers and tighten to factory specifications. Tighten the two 10mm headed bracket bolts that were previously left loose.
- T. Reconnect the IMRC control unit at the rear of the manifold along with the vacuum hose.
- U. Remove the small clips that retain the factory fuel injectors to the fuel rail. Remove the factory fuel injectors and set aside - they will not be reused.
- V. Locate the supplied fuel injectors. Lubricate the injector O-rings with clean motor oil and install into the fuel rail. Reinstall the small retaining clips onto the injectors.
- W. Lower the fuel rail/injector assembly onto the manifold, making sure that the injectors seat properly into the manifold. Secure with the four factory 8mm headed bolts.
- X. Reconnect the fuel injector plugs and all other connections and vacuum lines previously removed from the manifold assembly.



Fig. 5.1-g

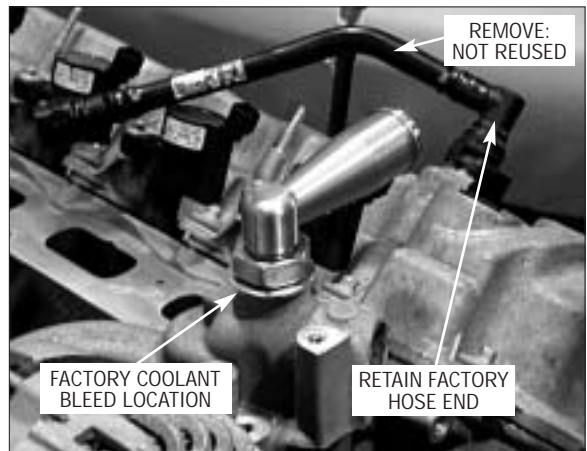


Fig. 5.1-h

## 5.2 THERMOSTAT HOUSING/RADIATOR HOSE MODIFICATION (2007 Model Year Only)

- A. Using an 8mm socket, remove the two 6mm screws that retain the thermostat housing. Set the housing aside to be reused later. Leave the factory thermostat and O-ring seal in place as they will be reused (*provided they are in good condition*). (See Fig. 5.2-a.)
- B. Locate the supplied thermostat housing adaptor and hardware. Using the two 6mm socket-head screws, install the housing adaptor as shown. (See Fig. 5.2-b.)
- C. Using the 6mm hardware, washers and O-ring provided, reinstall the thermostat housing. Attach the previously removed resistor to the housing as shown. (See Fig. 5.2-c.)
- D. Reinstall the intake manifold removed in a previous step. Check to see that the rubber intake runner gaskets are in place and *undamaged*. Make sure the cylinder head surface is clean.
- E. Lower the intake manifold onto the cylinder heads.
- F. Install the ten factory 10mm headed manifold retainers, and tighten to factory specifications.
- G. Remove the small clips that retain the factory fuel injectors to the fuel rail. Remove the factory fuel injectors and set aside. These will not be reused.
- H. Locate the supplied fuel injectors. Lubricate the injector O-rings with clean motor oil and install into the fuel rail. Reinstall the small retaining clips onto the injectors.
- I. Lower the fuel rail/injector assembly onto the manifold, making sure that the injectors seat properly into the manifold. Secure with the four factory 8mm headed bolts.
- J. Reconnect the fuel injector plugs, all other connections and vacuum lines previously removed from the manifold assembly.

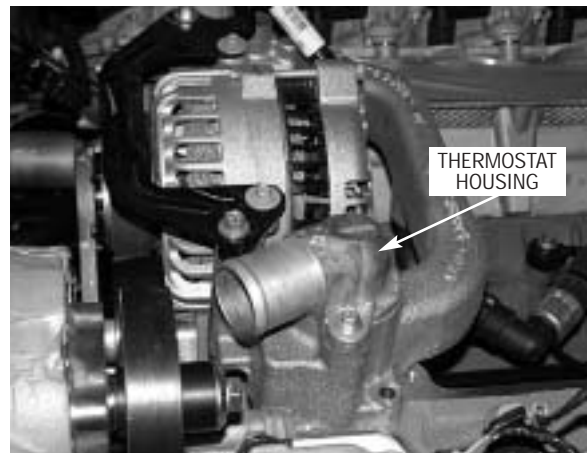


Fig. 5.2-a

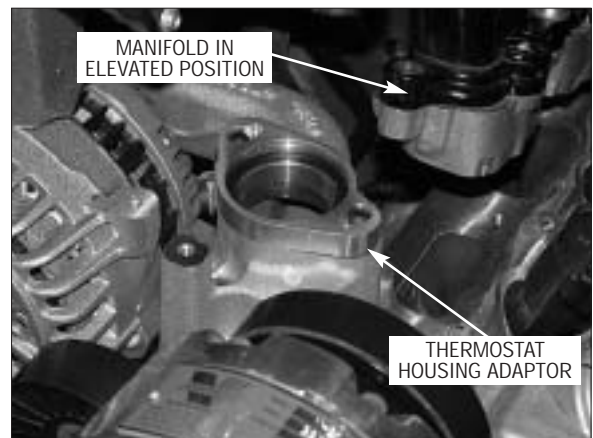


Fig. 5.2-b

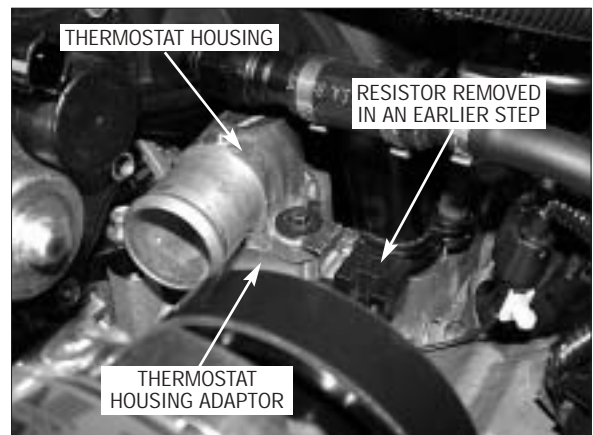


Fig. 5.2-c



## 6. SUPERCHARGER MOUNTING PLATE INSTALLATION

- A. The mounting plate is provided with the spacers and bolts as they would be installed on the vehicle. *Keep these bolts and spacers marked as to their locations.* They are all different in size and mismatching them will result in misalignment of the mounting plate.
- B. Locate the two supplied stud-bolt spacers (see Figs. 6-b, 6-c) in the S/C mounting plate assembly. Remove the factory screws retaining the idler pulleys on the driver's side of the engine and replace with the stud spacers.
- C. It is necessary to install the supercharger accessory drive belt and loosely route it following Fig. 6-c, as not all pulleys are currently in place.
- D. Locate the supercharger mounting plate 4FU010-044 from the supercharger mounting plate assembly. (See Fig. 6-a.)
- E. Locate the two 8mm x 140mm long bolts and washers from the mounting bracket assembly and install in the locations noted. (See Fig. 6-a.)
- F. Slide the two long spacers onto the bolts previously installed. (See Fig. 6-f.) Install the small triangle-shaped idler pulley mounting bracket to the spacers. Install the .093" spacer onto the bolt that will be attached in the alternator location.
- G. Lower the mounting plate assembly into position on the front of the engine. Be sure to route the drive belt on the correct side of the idler bracket and spacers. (See Fig. 6-g.)
- H. Loosely attach the plate using the previously installed 140mm hardware. Locate the two 3/8-16 x 1.0" bolts and washers and install through the plate into the two stud bolt spacers retaining the factory idlers. (See Figs. 6-a, 6-c.)
- I. Locate the 8mm x 150mm bolt and washer. Loosely install the bolt through the mounting plate and remaining long spacer into the engine cover using Fig. 6-a for location reference.
- J. Locate the supplied idler, 1.776" idler spacer, idler pilot spacer, 3/8-16 x 3.75" long bolt and washer. Install the bolt/washer through the mounting plate, 1.776" spacer, supplied idler, idler pilot spacer and into the triangle-shaped bracket. (See Figs. 6-f to 6-h for assistance.)

**NOTE:** If installing a standard output kit (non-cooled), the 3/8" x 3.75" bolt will be installed in the upper hole location. H.O. kits install in the lower hole.

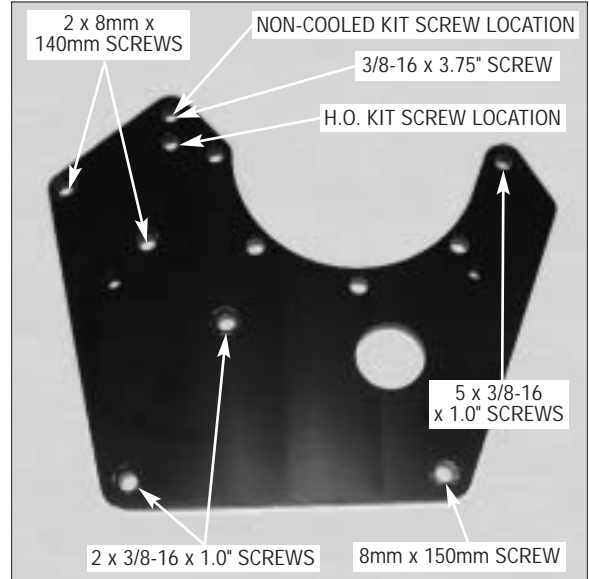


Fig. 6-a

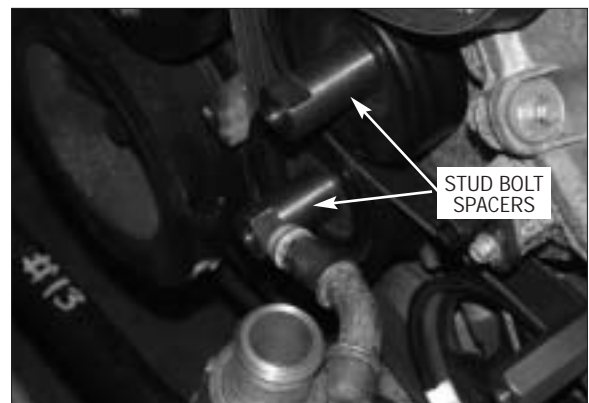


Fig. 6-b

**NOTE:** This figure is just for reference. The small idler pulley mounting bracket will need to be installed at the same time as the supercharger (S/C) Mounting Plate. (See Fig. 7-d.)

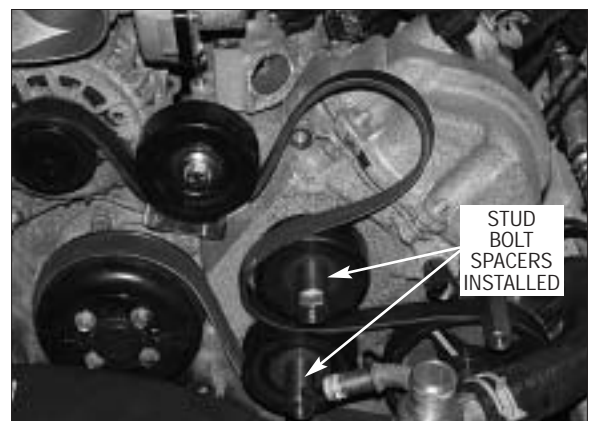


Fig. 6-c



6. SUPERCHARGER MOUNTING PLATE INSTALLATION, cont'd

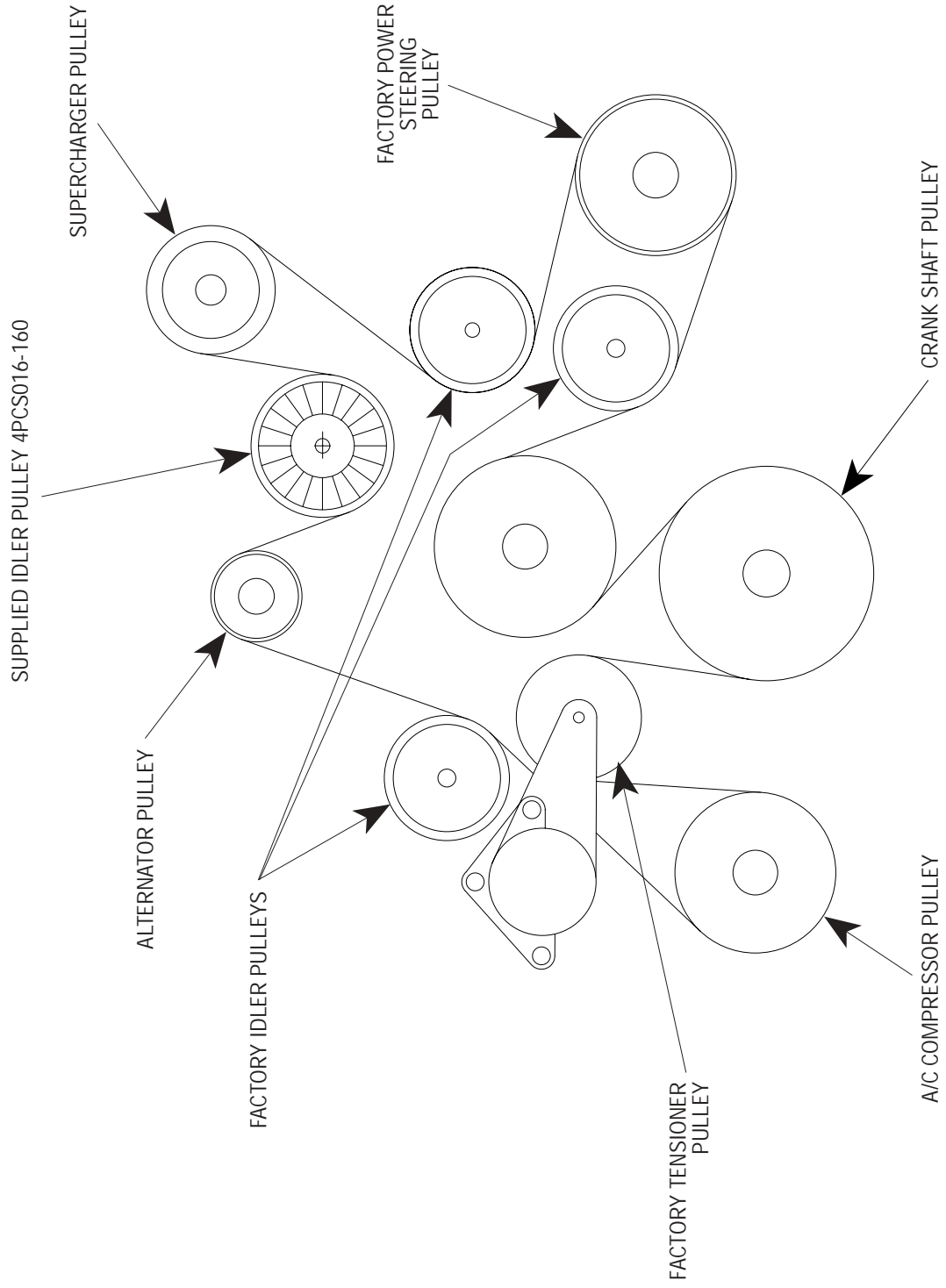


Fig. 6-e / Belt routing

## 6. SUPERCHARGER MOUNTING PLATE INSTALLATION, cont'd

- K. Tighten all mounting plate hardware, making sure the drive belt is properly routed and no wiring or hoses are caught between the mounting surfaces. (See Fig. 6-g.)
- L. Install the five 3/8-16 x 1.0" bolts and washers through the back side of the mounting plate. (See Fig. 6-h.)
- M. Attach the supplied length of 1/2" oil drain line hose, and one #8 hose clamp from the previously installed oil drain assembly, to the 1/2" barbed fitting in the supercharger.
- N. Install the supplied 1/8"NPT x -4 straight fitting from assembly 4FU130-026 to the oil feed fitting on the supercharger.

**NOTE:** Use only clean engine oil on the pipe threads. Teflon tape or pipe sealant is not recommended as it might loosen and cause blockage of the small oil feed orifice resulting in possible supercharger failure.

- O. Attach the supercharger assembly to the mounting plate using the previously installed hardware. A 9/16" ratcheting end wrench will greatly aid in this step.
- P. Secure the oil drain hose to the previously installed brass fitting in the oil pan, making sure to route in a smooth *downward* manner and *away* from moving or hot objects.

**NOTE:** Any dips, "uphill" sections, kinks or restrictions may cause drainage problems and possible supercharger failure.

- Q. Attach the -4 oil feed hose to the straight -4 fitting previously installed in the supercharger. Secure away from moving or hot objects.
- R. Using a 1/2" ratchet, rotate the factory spring tensioner clockwise and install the accessory drive belt. (Refer to Fig. 6-e for proper belt routing.)

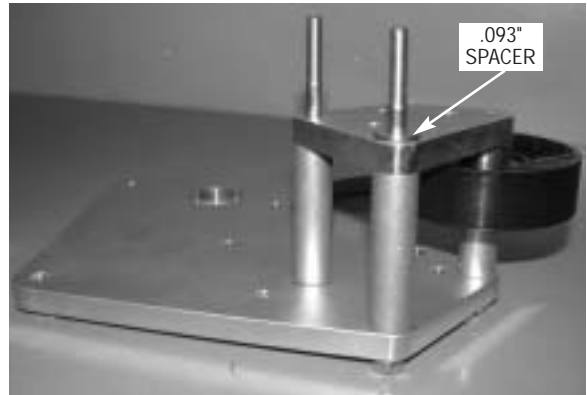


Fig. 6-f



Fig. 6-g

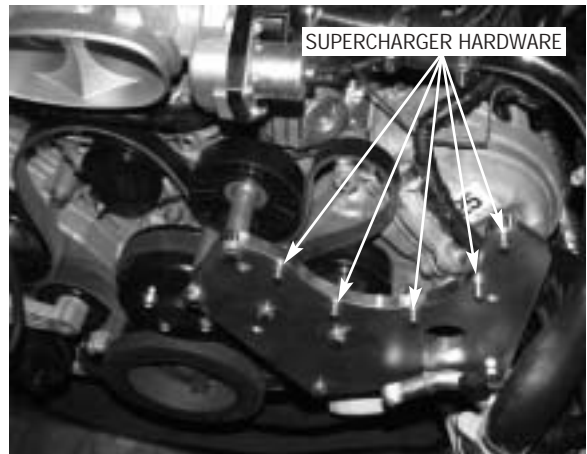


Fig. 6-h

## 7. THERMOSTAT HOUSING RELOCATION (2005-2006 Only)

**NOTE:** 2007 Model years skip to Section 8.

- A. It will be necessary to relocate the thermostat housing to gain clearance for the supercharger mounting bracket.
- B. Locate hose 7U133-050. This hose will be modified and replace the factory lower radiator hose removed in a previous step. (See Fig. 7-a.)
- C. Modify the supplied hose as seen in the figures below. (See Figs. 7-b, 7-c.)
- D. Trim approximately 5" off of the 9" end of the hose and 5-1/4" off the 13" end. (See Fig. 7-c.)

**NOTE:** Because of manufacturing tolerances, it is best to leave this hose long and trim to fit.

- E. Install the long end of the modified hose to the outlet of the radiator with a #24 hose clamp. Leave the clamp loose for adjustment.
- F. Install the thermostat housing to the open end of the new, lower radiator hose and the large formed factory hose. Adjust the thermostat's location making sure it clears any moving parts.

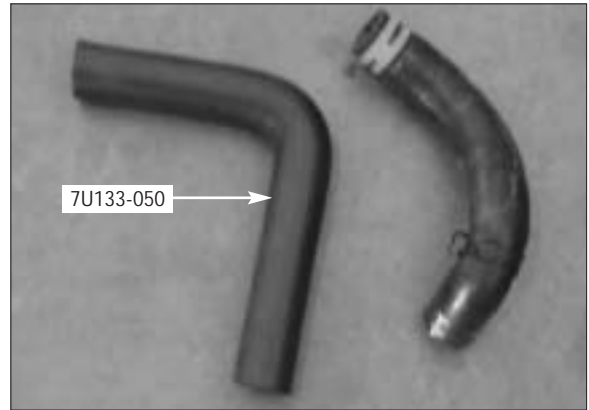


Fig. 7-a

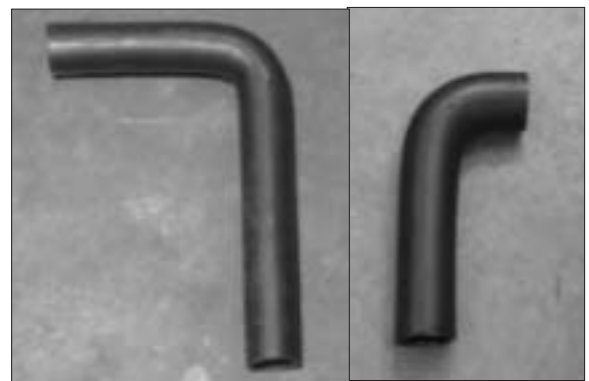


Fig. 7-b

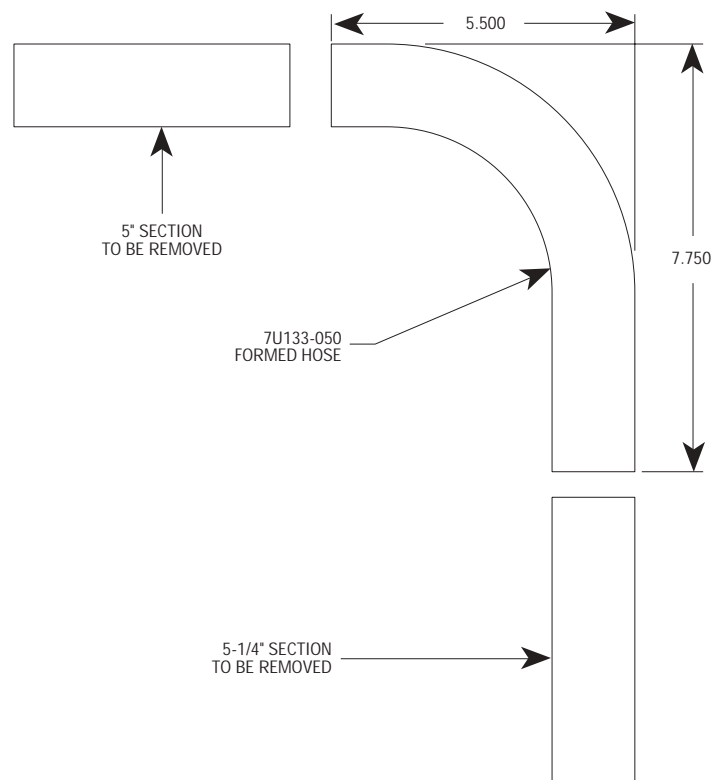


Fig. 7-c

## 7. THERMOSTAT HOUSING RELOCATION (2005-2006 Only), cont'd

**NOTE:** The hose clamps will be left loose for adjustment of the thermostat's location until after the installation of the supercharger and supercharger mounting bracket.

- G. Locate the 7U133-190 molded coolant hose. (See Fig. 7-c.)
- H. Install the end with the 90° bend onto the thermostat housing.
- I. Install the opposite end to the previously modified coolant crossover tube. Secure using the #20 hose clamps provided. (See Fig. 7-c.)



Fig. 7-d

## 8. CHARGE AIR COOLER INSTALLATION

### A. BUMPER COVER AND SPLASH PAN

1. Raise the vehicle with a floor jack and set on jack stands.
2. Remove the seven 5.5mm headed screws retaining the lower splash panel. (See Fig. 8A-a.)
3. Remove the six Phillips-head screws (*three on each side*) from the lower portions of the plastic inner fender liners. (See Fig. 8A-b.)
4. Remove the five plastic clips retaining the front portion of the fender liner. Both sides need to be removed. (See Fig. 8A-c.)
5. Remove the four 10mm nuts (*two on each side*) retaining the bumper cover to the fenders. (See Fig. 8A-d.)

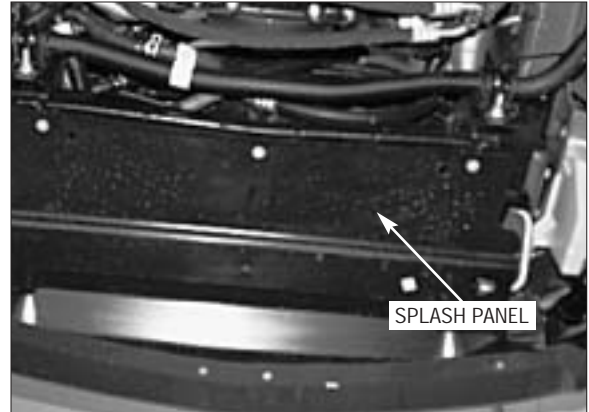


Fig. 8A-a

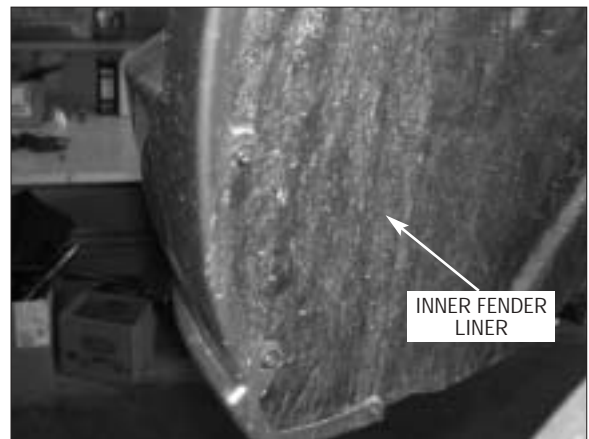


Fig. 8A-b



Fig. 8A-c

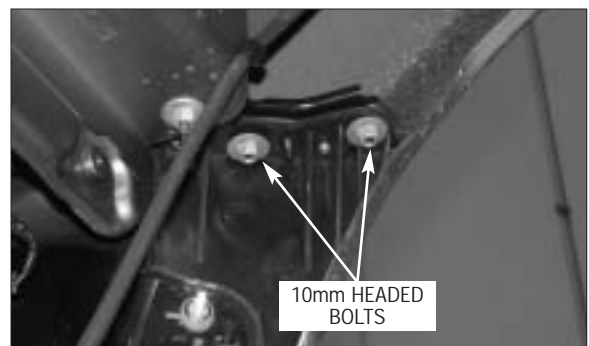


Fig. 8A-d

## 8. CHARGE AIR COOLER INSTALLATION (cont'd)

### A. BUMPER COVER AND SPLASH PAN, cont'd

6. Disconnect the connectors on the parking and the lower fog lights. (See Fig. 8A-e.)
7. Remove the six nylon clips retaining the upper radiator core support cover. (See Fig. 8A-f.)
8. Remove the two 10mm headed bolts (one on each side in the upper portion of the grill). (See Fig. 8A-g.)

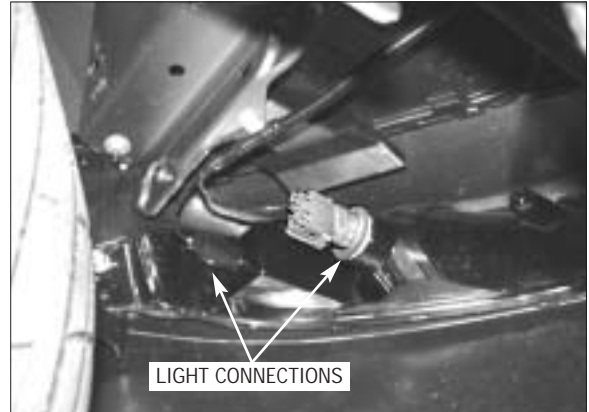


Fig. 8A-e

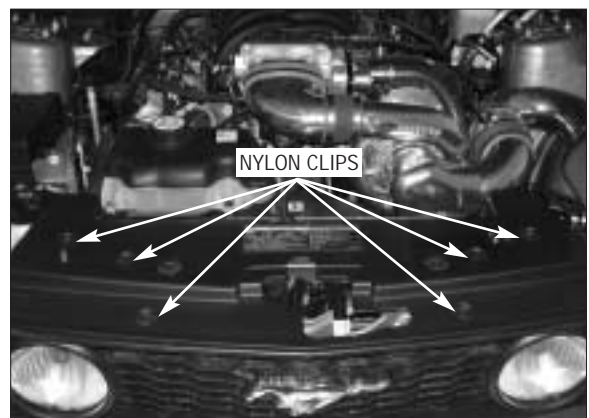


Fig. 8A-f

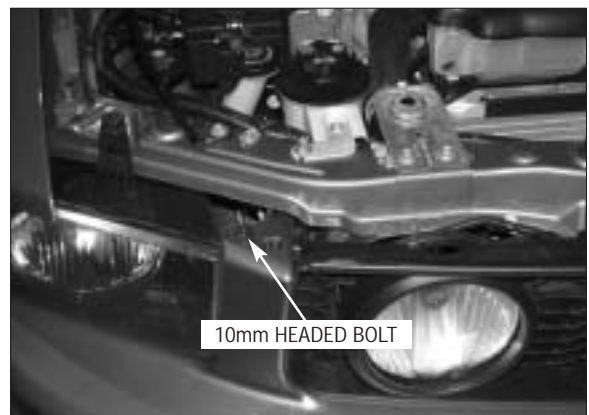


Fig. 8A-g

## 8. CHARGE AIR COOLER INSTALLATION *cont'd*

### A. BUMPER COVER AND SPLASH PAN, *cont'd*

9. Lift up on the tabs releasing them from the clips. (See *Fig. 8A-h.*)
10. Pull out on the bumper cover
11. Remove the connector to the driving light in the grill (*if equipped*).
12. Remove the bumper cover and set aside. (See *Fig. 8A-i.*)



*Fig. 8A-h*



*Fig. 8A-i*

## 8. CHARGE AIR COOLER INSTALLATION *cont'd*

### B. WATER COOLER ASSEMBLY INSTALLATION

**NOTE:** Refer to Fig. 8B-q throughout the following steps:

1. Locate the water cooler assembly 8N106-135.
2. Install the two mounting bracket 8N010-171 and 8N010-173 to the water cooler using the supplied 1/4-20 x 1/2" screws, washers. (See Fig. 8B-a.)

**NOTE:** Leave these screws loose for adjustment when attaching the assembly to the vehicle.

3. Remove four nylon push pins from the styro-foam bumper support and set the support and the pins aside to be reinstalled. (See Fig. 8B-b.)
4. Remove six of the eight 13mm headed inset bolts retaining the metal bumper support. (See Fig. 8B-c.)
5. Replace the bolts previously removed with the six 8mm x 1.25" x 35mm long bolts and washers provided.
6. Install the four 2A017-036 spacers (two each side) onto the bolts that will secure the water cooler. (See Fig. 8B-d.)

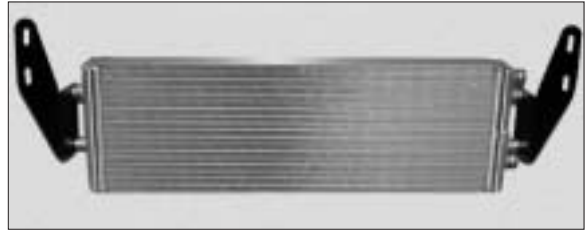


Fig. 8B-a

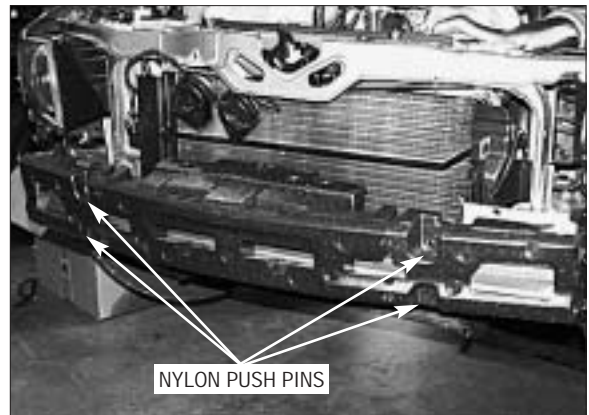


Fig. 8B-b

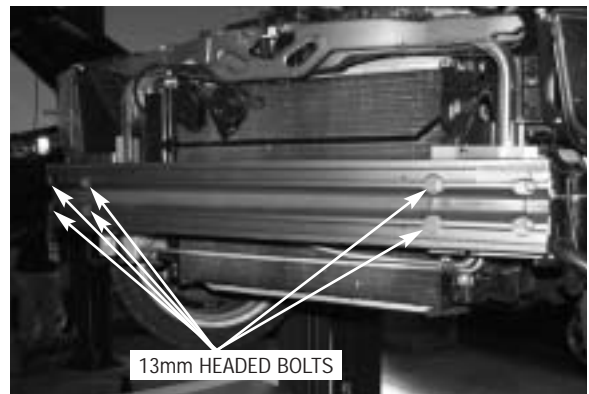


Fig. 8B-c

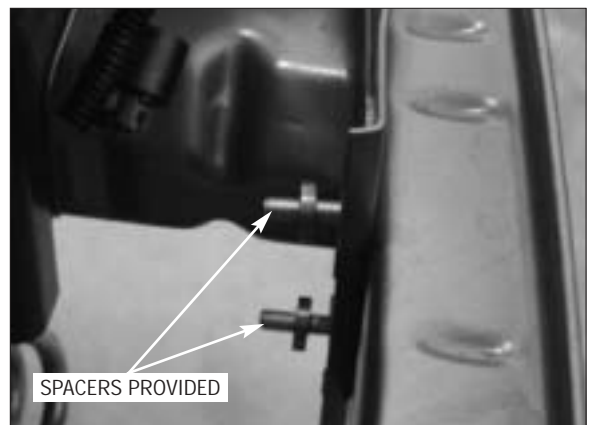


Fig. 8B-d



## 8. CHARGE AIR COOLER INSTALLATION *cont'd*

### B. WATER COOLER ASSEMBLY INSTALLATION, *cont'd*

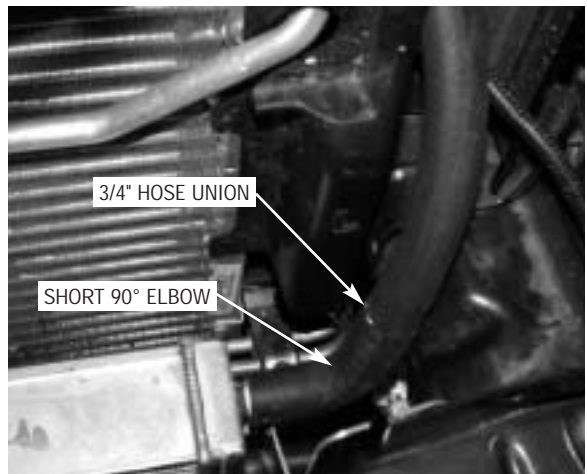
7. Attach the previously assembled water cooler to the bolts and spacers and secure with the 8mm nuts and washers provided. Tighten all cooler hardware at this time. (See *Fig. 8B-e.*)

**NOTE:** When installing the cooler, make sure that the water ports are configured as shown in *Figs. 8B-a, 8B-q.* The "top cooler port" must be the highest point on the cooler for proper air purging.

8. Attach the supplied short 90° hose (7U030-065) to the top port on the CAC cooler as shown. (See *Fig. 8B-f.*)
9. Install one of the supplied 3/4" hose unions into the open end of the previously installed 90° hose and secure. (See *Figs. 8B-f, 8B-q.*)



*Fig. 8B-e*



*Fig. 8B-f*

## 8. CHARGE AIR COOLER INSTALLATION cont'd

### B. WATER COOLER ASSEMBLY INSTALLATION, cont'd

10. Locate assembly 8N104-125. Confirm that the assembly is complete.
11. Attach the provided ring terminal to the ground wire on the supplied water pump plug harness. Connect the supplied length of 16GA wire to the positive wire using the supplied butt connector. Connect the water pump harness to the water pump.
12. Locate the supplied water pump (8F001-403), two 2-3/8" adel clamps, and water pump mounting bracket. Place the adel clamps on the water pump. Using the supplied 1/4-20 hardware, secure the water pump and clamps to the mounting bracket. When installing, attach the water pump ground wire to one of the water pump mounting clamps using the previously installed ring terminal. (See Fig. 8B-g.)
13. Attach the pump assembly to the two 8mm x 35mm long bolts previously installed and secure using the 8mm nuts and washers provided. (See Fig. 8B-h.)
14. Route the positive wire up towards the driver's side valve cover.
15. Locate the ballast resistor plug. Install the supplied T-tap connector, cut the water pump positive wire (from the water pump) for best fit, attach the supplied male spayed connector and attach to the wire T-tap connector. (See Fig., 8B-i.)
16. Cut the water pump positive wire and install the inline fuse holder and fuse. Install the wire loom provided and secure away from heat and moving parts. (See Fig. 8B-i.)

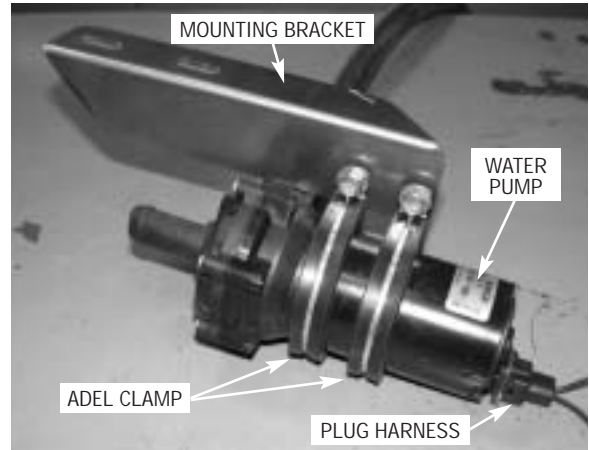


Fig. 8B-g

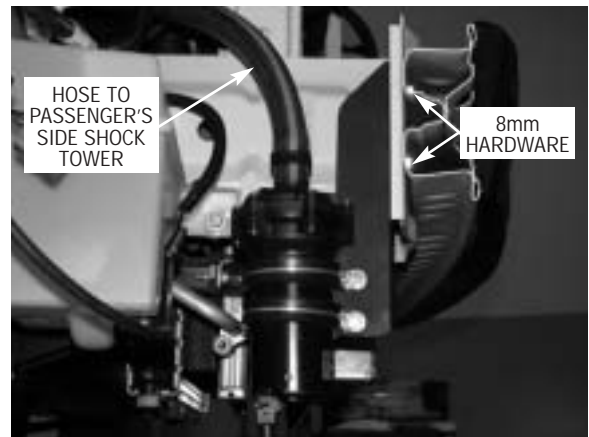


Fig. 8B-h

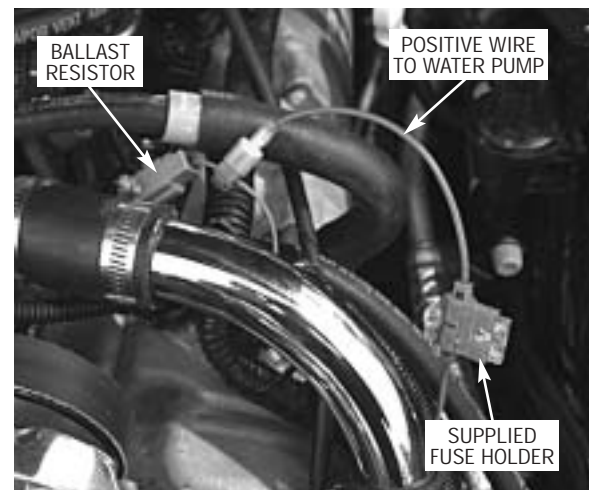


Fig. 8B-i

## 8. CHARGE AIR COOLER INSTALLATION *cont'd*

### B. WATER COOLER ASSEMBLY INSTALLATION, *cont'd*

17. Locate the 3/4" x 150° molded rubber hose (7U038-150). Connect the short end of the 3/4" x 150° hose to the lower port on the previously installed water cooler. Install one of the provided 3/4" hose unions into the open end of the 150° hose. Attach a length of 3/4" hose approximately 24" between the hose union and the previously installed water pump discharge. Secure all hose connections using the nylon ratchet clamps provided. (See Fig. 8B-j.)
18. Attach a length of 3/4" hose approximately 48" long to the previously installed water pump feed port and secure. Route the open end of the installed hose toward the passenger's side shock tower. This hose will be connected in later step. (See Fig. 8B-h.)

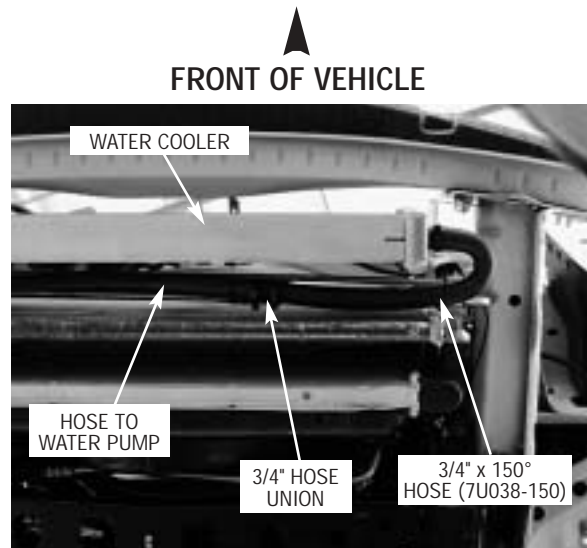


Fig. 8B-j | Viewed From Below

**NOTE:** *The installation of this hose section should maintain an "uphill" routing without dips or kinks.*

## 8. CHARGE AIR COOLER INSTALLATION *cont'd*

### B. WATER COOLER ASSEMBLY INSTALLATION, *cont'd*

19. Assemble the surge tank reservoir 8N056-060 install a 1/2"NPT x 3/4" straight barbed fitting in the bottom of the surge tank and one 1/2"NPT x 3/4" x 90° in the side. (See *Fig. 8B-k.*)
20. Locate and attach the surge tank mounting bracket 8N010-160. Attach the bracket with two 1/4-20 x 1/2" socket head cap screws and washers. (See *Fig. 8B-l.*)



*Fig. 8B-k*



*Fig. 8B-l*

## 8. CHARGE AIR COOLER INSTALLATION *cont'd*

### B. WATER COOLER ASSEMBLY INSTALLATION, *cont'd*

21. On the passenger's side of the engine, attached to the valve cover, is a large wire harness. The harness will have to be relocated to gain clearance for the surge tank and the radiator overflow reservoir. (See *Figs. 8B-n, 8B-m.*)
22. Detach the wiring harness from the retaining clips and move the harness to the shock tower. Secure the harness to the A/C line with wire ties. (See *Fig. 8B-n.*)
23. Remove the small clip retaining the small wiring harness to the shock tower. (See *Fig. 8B-n.*)
24. Attach the small harness to the large harness with wire ties.
25. To gain clearance for the coolant reservoir, the A/C line will need to be bent slightly towards the passenger's side fender. (See *Fig. 8B-n.*)

**NOTE:** *A/C line is under high pressure. Use caution not to kink or damage the line.*

#### **(2005-2006 Only)**

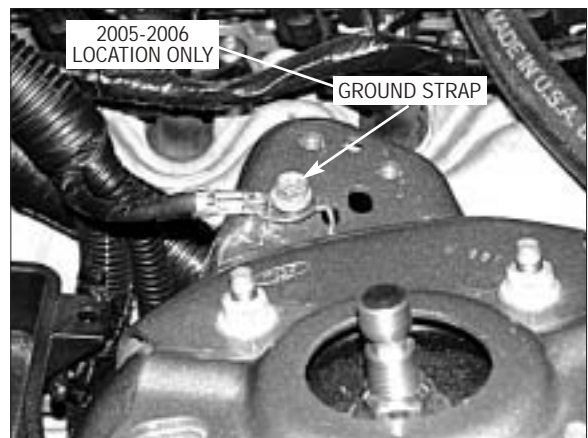
26. Remove the 10mm headed screw retaining the ground strap to the bracket on the strut tower. (See *Fig. 8B-o.*)



*Fig. 8B-m*



*Fig. 8B-n*



*Fig. 8B-o*

## 8. CHARGE AIR COOLER INSTALLATION cont'd

### B. WATER COOLER ASSEMBLY INSTALLATION, cont'd

27. Attach the 3/4" hose previously installed to the straight 1/2"NPT x 3/4" barb at the bottom of the surge tank reservoir. Secure with a nylon clamp. (See Fig. 8C-p.)



Fig. 8B-p

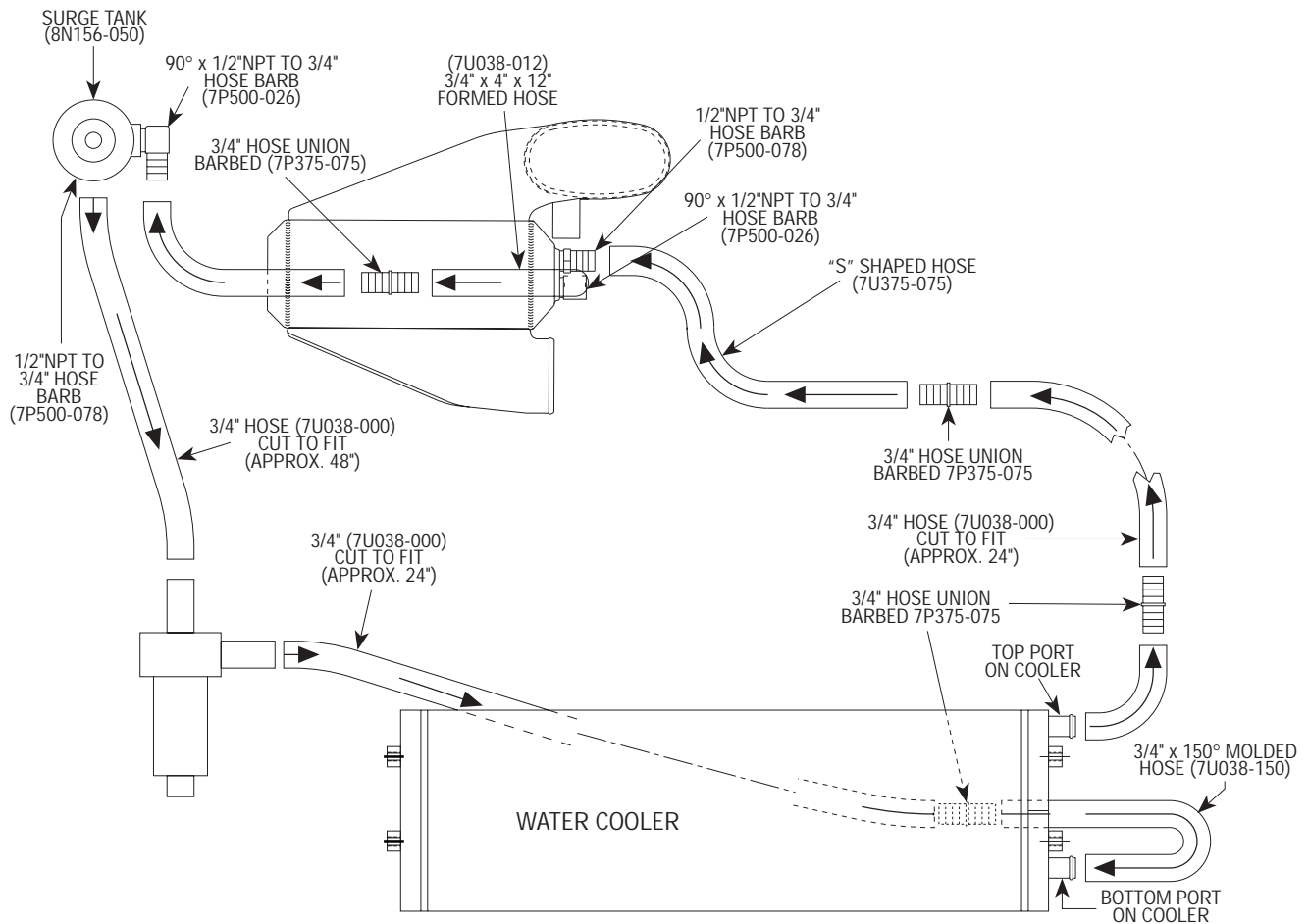


Fig. 8B-q

## 8. CHARGE AIR COOLER INSTALLATION

### C. ENGINE COOLANT RESERVOIR INSTALLATION (2005-2006 Models Only)

**NOTE:** For 2007 models skip to Section 8.F.

1. Locate assembly 8N155-080.
2. Attach the rear reservoir mounting bracket 4FU010-051 to the reservoir with the 1/4-20 x 1/2" long bolts and washers provided. (See *Fig. 8C-a.*)
3. Attach bracket 4FU010-061 to the front of the reservoir with the hardware provided. (See *Fig. 8C-b.*)
4. Locate and install 1/4"NPT x 3/8" barbed fitting in the tapped hole just above the previously installed mounting bracket. This hole may have to be opened using the appropriate drill bit. (See *Fig. 8C-c.*)



*Fig. 8C-a*



*Fig. 8C-b*



*Fig. 8C-c*

## 8. CHARGE AIR COOLER INSTALLATION *cont'd*

### C. ENGINE COOLANT RESERVOIR INSTALLATION (2005-2006 Models Only), *cont'd*

5. Remove the 10mm headed bolt that secures the back of the ECU and the power distribution box. (See Fig. 8C-d.)
6. Install the coolant reservoir. Secure the front of the reservoir with the factory fastener removed previously. (See Fig. 8C-e.)

**NOTE:** Leave this bolt loose for final adjustment in a later step.

7. Attach the rear mounting bracket with the surge tank mounting bracket to the strut tower with the 6mm x 20mm long screws and washer provided. (See Fig. 8C-f.)

**NOTE:** Reinstall the factory ground wire with one of the 6mm screws and washers.

8. Attach a length of 3/4" hose (approximately 3' long) to the 3/4" bung on the front of the coolant reservoir. Route the hose to the 3/4" outlet on the thermostat housing secure the hose with the clamps provided. (See Fig. 8C-g.)

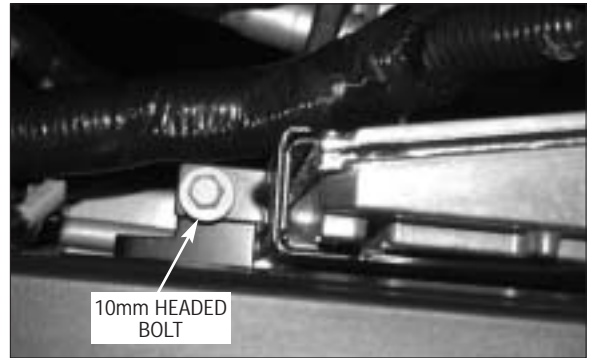


Fig. 8C-d

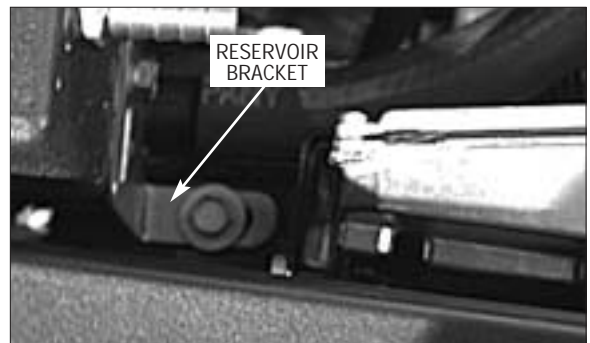


Fig. 8C-e

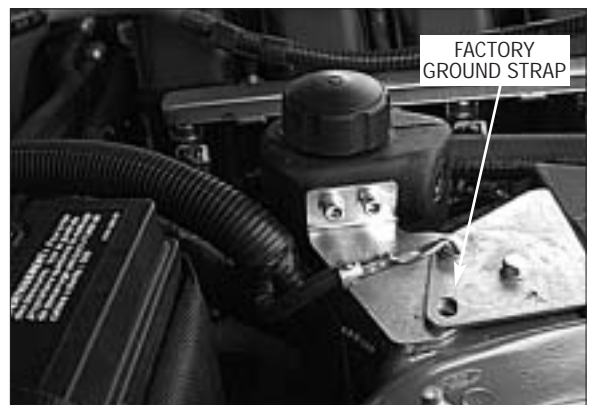


Fig. 8C-f



Fig. 8C-g



## 8. CHARGE AIR COOLER INSTALLATION *cont'd*

### C. ENGINE COOLANT RESERVOIR INSTALLATION (2005-2006 Models Only), *cont'd*

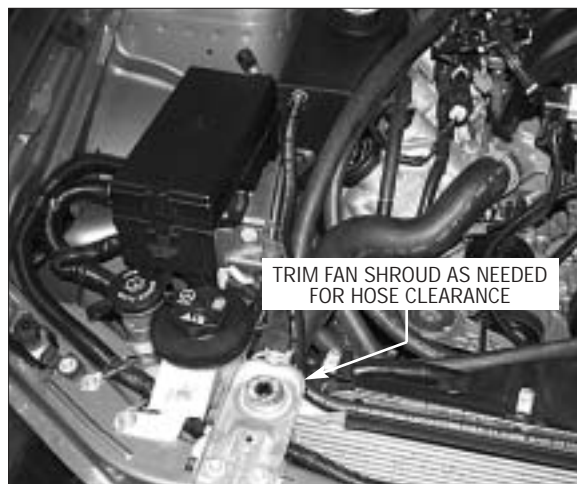
9. Modify the small hose removed from the factory coolant overflow reservoir. By cutting the "S" bend off the hose end. (See *Fig. 8C-h*.)
10. Install a 3/8" union and a #17 stepless clamp. Secure the clamp. Using a length of 3/8" (approximately 40" long) hose that is provided, secure the hose to the union with a #17 stepless clamp. (See *Fig. 8C-i*.)
11. Route the overflow hose across the radiator and under the radiator retaining bracket to the 1/4"NPT x 3/8" hose barb fitting in the coolant reservoir securing with a clamp. (See *Fig. 8C-j*.)



*Fig. 8C-h*



*Fig. 8C-i*



*Fig. 8C-j*

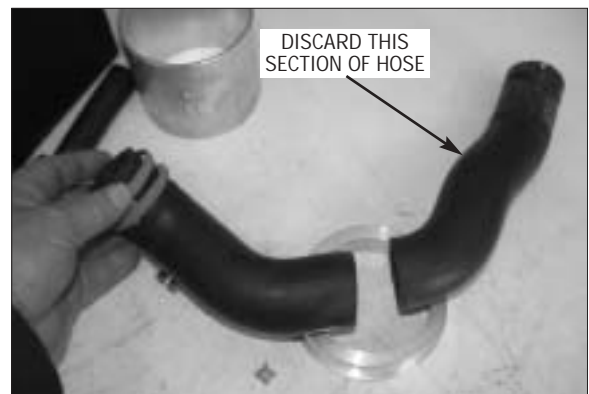
## 8. CHARGE AIR COOLER INSTALLATION

### D. RADIATOR HOSE MODIFICATIONS ('05-'06 Models Only)

1. Remove the passenger's side upper radiator hose. (See *Fig. 8D-a.*)
2. Modify the upper hose by cutting the hose just after the bend. (See *Fig. 8D-b.*)
3. Attach the hose to the formed stainless tube 4FU014-010 with a #24 hose clamp.
4. A section of 1-1/2"ID hose left from the coolant tube relocation will be cut to approximately 2-3/4" long and attached to the outlet of the radiator reusing the factory spring clamp to secure the hose to the outlet.
5. Install the formed coolant tube to the inlet on the engine and to the radiator. Secure with hose clamps. (See *Fig. 8D-c.*)



*Fig. 8D-a*



*Fig. 8D-b*

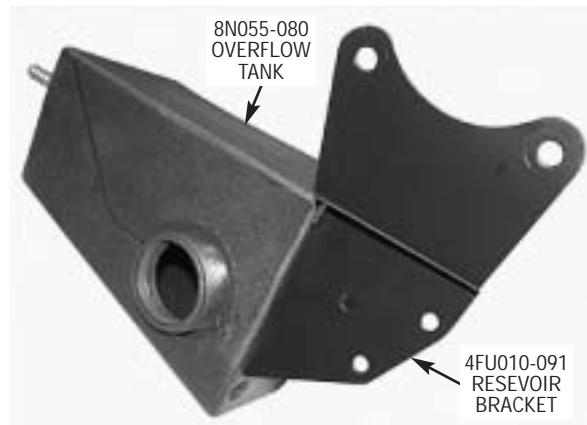


*Fig. 8D-c*

## 8. CHARGE AIR COOLER INSTALLATION *cont'd*

### E. ENGINE COOLANT RESERVOIR INSTALLATION (2007 Models Only)

1. Locate assembly 8N155-082.
2. Attach the rear reservoir mounting bracket 4FU010-091 to the reservoir with the 1/4-20 x 1/2" long bolts and washers provided. (See *Fig. 8E-a.*)
3. Attach bracket 4FU010-061 to the front of the reservoir with the hardware provided. (See *Fig. 8E-b.*)
4. Locate and install 1/4"NPT x 3/8" barbed fitting in the tapped hole just above the previously installed mounting bracket. This hole may have to be opened using the appropriate drill bit. (See *Fig. 8E-c.*)



*Fig. 8E-a*



*Fig. 8E-b*



*Fig. 8E-c*

## 8. CHARGE AIR COOLER INSTALLATION cont'd

### E. ENGINE COOLANT RESERVOIR INSTALLATION (2007 Models Only), cont'd

5. Remove the 10mm headed bolt that secures the back of the ECU and the power distribution box. (See Fig. 8E-d.)
6. Install the coolant reservoir. Secure the front of the reservoir with the factory fastener removed previously. (See Fig. 8E-e.)

**NOTE:** Leave this bolt loose for final adjustment in a later step.

7. Attach the rear mounting bracket with the surge tank mounting bracket to the strut tower using the factory strut mounting hardware. (See Fig. 8E-f.)
8. Attach a length of 3/4" hose (approximately 22" long) to the 3/4" bung on the front of the coolant reservoir. Secure using one of the #10 hose clamps provided. Route the open end of the hose to the 1" hose previously connected to the factory coolant reservoir. Connect and secure the two hoses using the 3/4" x 1" hose union, the factory 1" spring clamp and the #10 hose clamp provided.

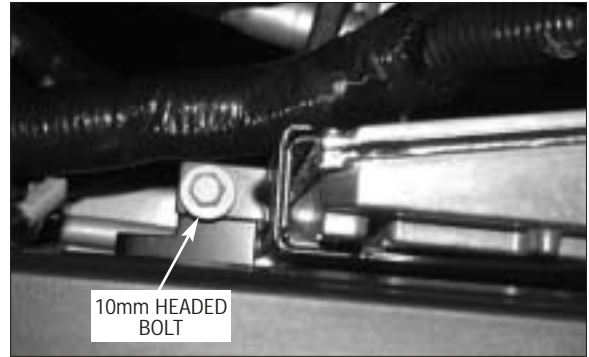


Fig. 8E-d

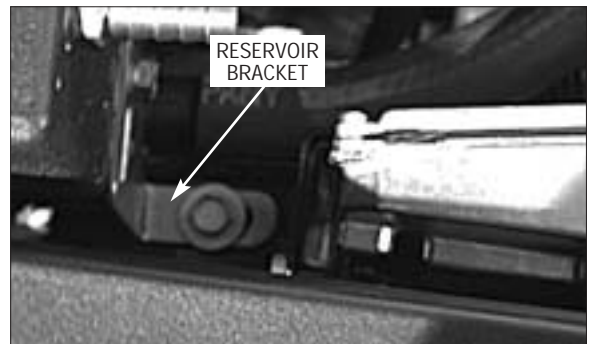


Fig. 8E-e

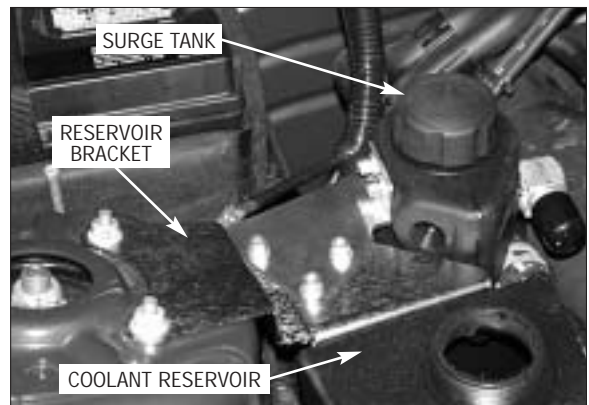


Fig. 8E-f



Fig. 8E-g

## 8. CHARGE AIR COOLER INSTALLATION

### E. ENGINE COOLANT RESERVOIR INSTALLATION (2007 Models Only), cont'd

9. Modify the small hose removed from the factory coolant overflow reservoir. By cutting the "S" bend off the hose end. (See Fig. 8E-h.)
10. Install a 3/8" union and a #17 stepless clamp. Secure the clamp. Using a length of 3/8" (approximately 40" long) hose that is provided, secure the hose to the union with a #17 stepless clamp. (See Fig. 8E-i.)
11. Route the overflow hose across the radiator and under the radiator retaining bracket to the 1/4"NPT x 3/8" hose barb fitting in the coolant reservoir securing with a clamp. (See Fig. 8E-j.)



Fig. 8E-h



Fig. 8E-i



Fig. 8E-j

## 8. CHARGE AIR COOLER INSTALLATION

### F. COOLER CORE INSTALLATION.

1. Locate the charge air cooler assembly.
2. Attach the 4.5" x 2" sleeve to the throttle body and secure with a #72 hose clamp.
3. Install the 1/2"NPT x 3/4" barb 90° and straight fittings into the charge cooler as shown. (See Fig. 8F-a.)
4. Attach the long end of the 2.75" silicone elbow to the cooler inlet and loosely install a #44 hose clamp. The open end of the elbow should be facing up as it will be attached to the supercharger discharge.
5. Lower the cooler assembly into position. Attach the open end of the previously installed 2.75" elbow to the supercharger discharge and loosely install a #44 hose clamp.
6. Attach the cooler discharge to the previously installed sleeve on the throttle body. Secure with a #72 hose clamp.
7. Tighten all cooler clamps at this time.
8. Locate the remaining 3/4" molded 90° hose. Trim approximately 5" from the long end and attach the short end to the 3/4" x 90° fitting previously installed in the cooler. Secure with the nylon ratchet clamp provided.
9. Install a 3/4" hose union into the open end of the previously installed hose. Attach a section of 3/4" hose approximately 32" long to the union. Route the open end of the hose to the surge tank. Using the remaining adel clamp and factory hardware, secure the hose to the factory coolant reservoir mounting location. (See Figs. 8F-q, 8F-b for assistance.) Secure all hose connections with the supplied nylon ratchet clamps.
10. Locate the supplied "S" shaped hose. Trim approximately 1" from the short end and attach it to the straight fitting previously installed in the cooler. Install a 3/4" hose union into the open end of the "S" hose. Attach a section of 3/4" hose approximately 24" long to the union and route to the driver's side and down to the water cooler. Trim for best fit and connect to the 3/4" hose union previously installed in the 90° short rubber hose attached to the top water port on the CAC cooler.

11. **NOTE:** *The installation of this hose section should maintain an "uphill" routing without dips or kinks.*
12. **(2007 Models Only)** To provide additional clearance for the CAC, you will need to cut the factory radiator hose approximately 4" from its connection at the radiator. Install the supplied Ø1.5" x 4" hose union and two #24 hose clamps. Adjust to allow CAC clearance and secure. (See Fig. 8F-c.)

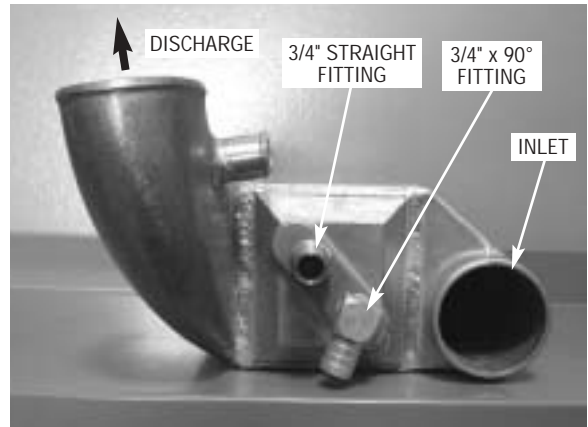


Fig. 8F-a

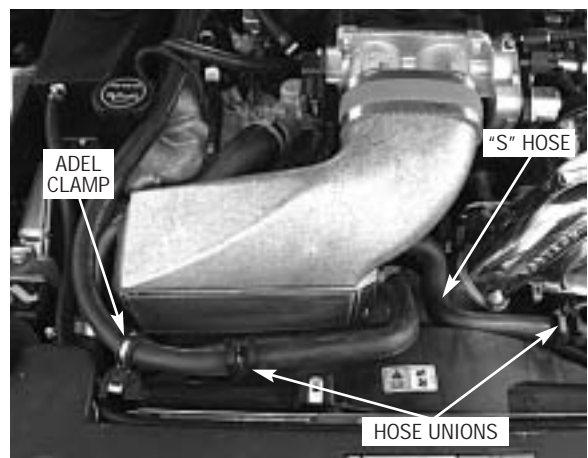


Fig. 8F-b

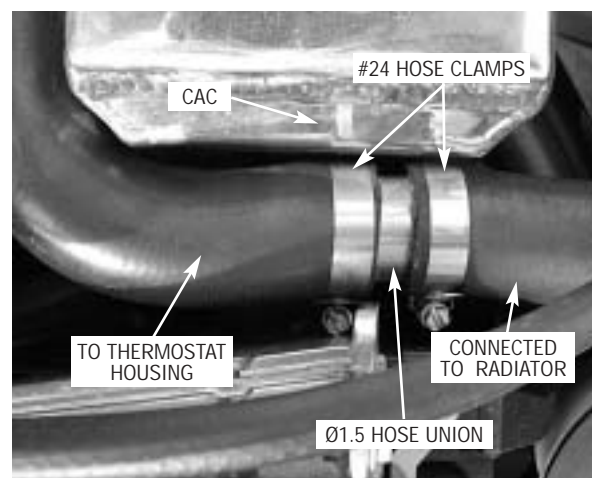


Fig. 8F-c | 2007 Models Only

## 8. CHARGE AIR COOLER INSTALLATION *cont'd*

### G. COOLANT RESERVOIR FILL

1. Check to make sure all previously installed hose connections are secure.
2. Fill the engine cooling system through the Paxton supplied coolant reservoir using the factory coolant previously drained.
3. Locate the factory coolant reservoir cap removed in section 1 and install it on the Paxton supplied reservoir.
4. *(2005-2006 Only)* Once the coolant system is filled and all trapped air expelled, install the 1/8"NPT plug provided in the previously installed cross-over tube. Thread sealant should be used.
5. CAC cooling system.
  - a. Temporarily remove the 3/4" hose attached to the 3/4" x 90° fitting on the CAC surge tank.
  - b. Cap the open end of the 3/4" x 90° fitting using the provided vinyl cap.
  - c. Fill the CAC system using a 25%/75% antifreeze/water mix. Using a funnel, fill through the 3/4" hose removed from the surge tank fitting.
  - d. Fill the system until the coolant level reaches the surge tank.
  - e. Remove the vinyl cap from the surge tank fitting and reinstall the 3/4" hose previously removed and secure with the nylon ratchet clamp.
6. Reinstall the front bumper assembly including the foam inner bumper, all plastic splash panels and light connections in the reverse order removed.

## 8. CHARGE AIR COOLER INSTALLATION

### H. COMPRESSOR BYPASS VALVE ASSEMBLY INSTALLATION

1. Assemble the bypass using a piece of 1" hose cut to 11" long and a piece cut to 13" long and four #16 hose clamps.
2. Attach the 11" piece of hose to the inlet of the bypass and secure with a clamp.
3. Secure the 13" piece to the outlet of the valve, securing it with a clamp. (See Fig. 8H-a.)
4. Attach the bypass assembly to the charge cooler. The 11" long piece will be attached to the charge cooler. Secure with clamps. Leave the 13" long sec-

tion open for future attachment to the air inlet.

5. Attach a length of 5/32" vacuum hose to the bypass valve and route to the vacuum port of the fuel rail sensor.
6. Cut a section of the factory hose and install the vacuum TEE that is provided. (See Fig. 10-b on page 40.)
7. Attach the vacuum hose from the bypass valve to the TEE.

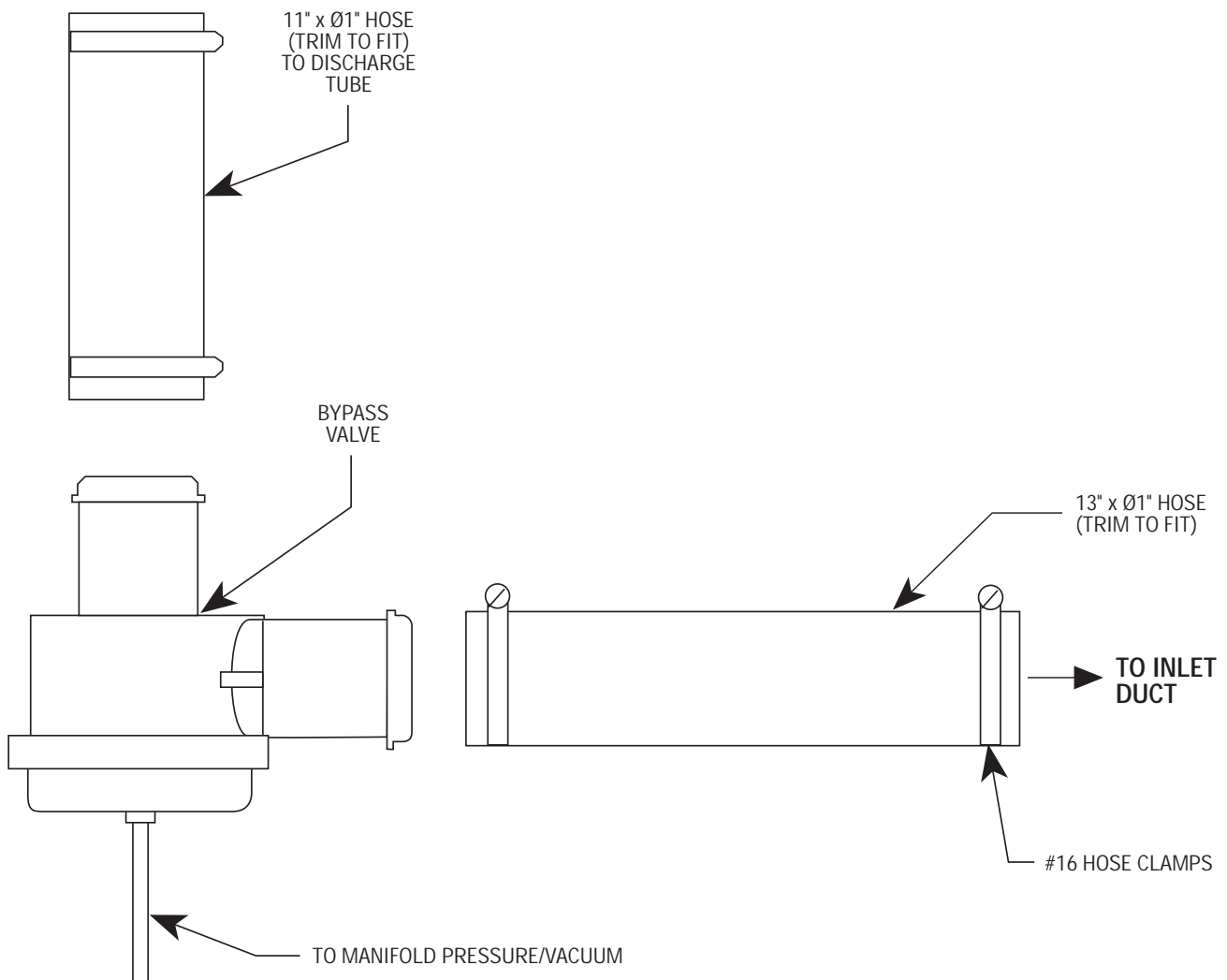
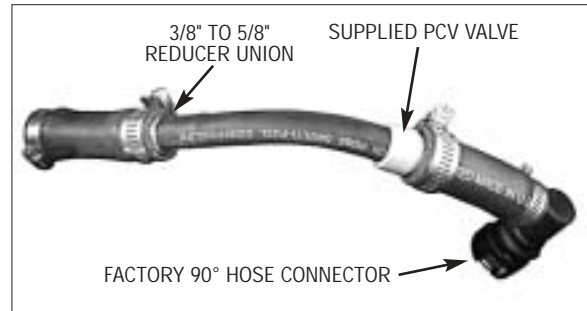


Fig. 8H-a

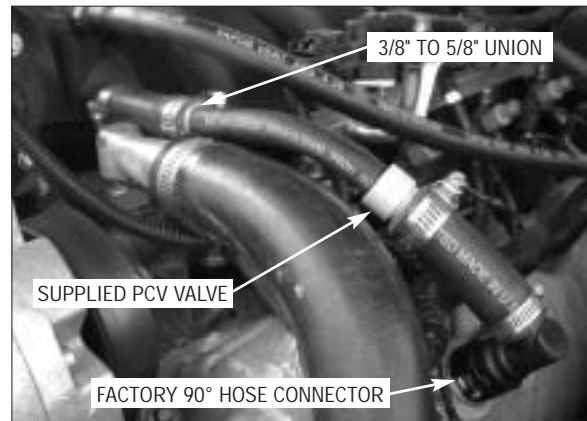


## 9. CRANK CASE BREATHER AND PCV INSTALLATION

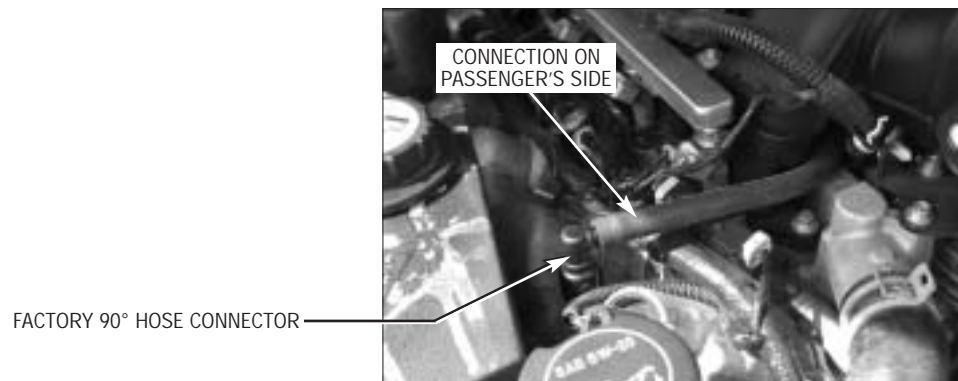
- A. Locate PVC/MAF assembly 4FU139-096.
- B. Locate the factory 5/8" x 90° hose end connector removed in a previous step. Cut two pieces of the supplied 5/8"ID hose approximately 3" long. Connect one hose to the 90° fitting.
- C. Install the supplied PCV valve into the 5/8" hose.
- D. Cut a piece of the supplied 3/8"ID hose 5" long and connect to the previously installed PCV valve.
- E. Install the supplied 3/8" to 5/8" hose union to the open end of the 3/8" hose. Connect the second 5/8" x 3" hose to the hose union.
- F. Install the hose assembly between the driver's side valve cover and the intake manifold. Secure hose connections as necessary using the supplied hose clamps. (See *Figs. 9-a, 9-b* for assistance.)
- G. Locate the factory 3/8" x 90° fitting removed from the passenger's side valve cover in a previous step.
- H. Connect the remainder of the supplied 3/8"ID hose to the 90° fitting and connect to the passenger's side valve cover. (See *Fig. 9-c*.)
- I. Route the open end of the 3/8" hose behind the alternator and across to where the air inlet duct will be located.



*Fig. 9-a*



*Fig. 9-b*



*Fig. 9-c*

## 10. AIR INLET ASSEMBLY

- A. Locate assembly 4FU112-010.
- B. Remove two of the 3/8-16 x 1" bolts securing the supercharger in place. Install the air inlet support bracket and secure with the 3/8" bolts removed from the supercharger mounting plate. (See Fig. 10-a.)
- C. Install the 3/4"NPT x 1" x 90° plastic fitting to the air inlet duct. (See Fig. 10-b.)
- D. Install the 1/4"NPT x 3/8" hose barb fitting in the location noted. (See Fig. 10-c.)
- E. Attach the 4.0" x 3.5" reducer sleeve to the inlet duct. Secure the sleeves with the clamps provided. (See Fig. 10-d.)



Fig. 10-a

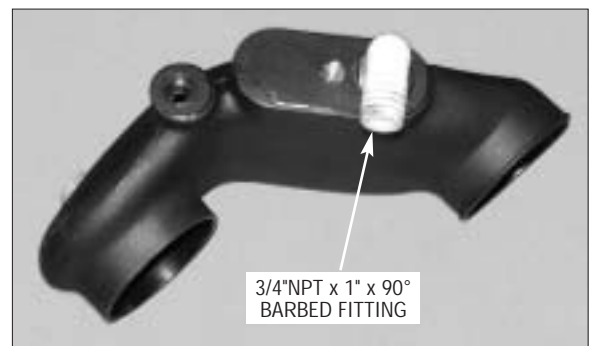


Fig. 10-b

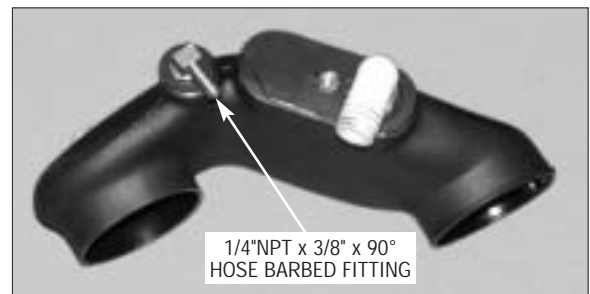


Fig. 10-c



Fig. 10-d

## 10. AIR INLET ASSEMBLY, cont'd

- F. Attach the 3/8" hose previously connected to the passenger's side valve cover, to the 1/4"NPT x 3/8" hose x 90° fitting installed in a previous step.
- G. Attach the 1" bypass outlet hose to the 90° plastic fitting and secure the hose with a #16 hose clamp.
- H. Install the duct to the inlet of the supercharger and secure in place with the clamps provided.
- I. Locate and install a 4.0" x 2.0" long sleeve to the inlet of duct 4FU012-010 and secure with two #64 clamps. (See Fig. 10-e.)
- J. Remove the Factory MAF sensor element from the top portion of the air filter housing.
- K. Install the element using the 4mm hardware provided to the supplied MAF tube. (See Figs. 10-f, 10-g.)



Fig. 10-e

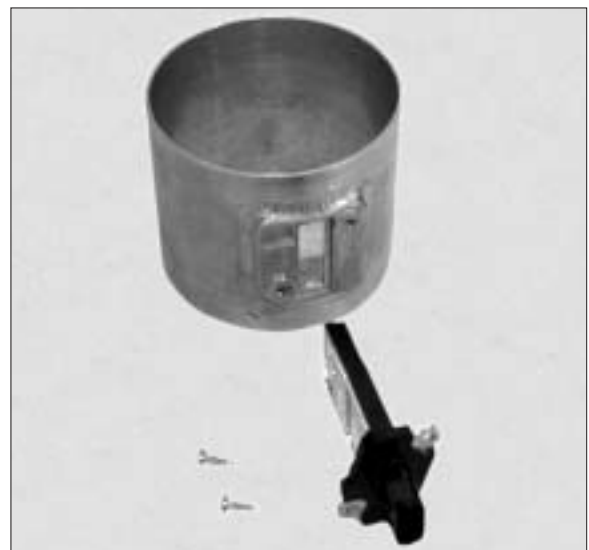


Fig. 10-f

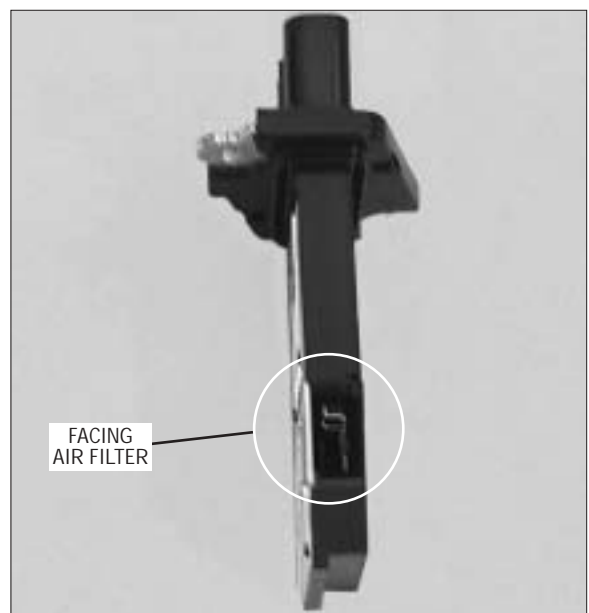


Fig. 10-g

## 10. AIR INLET ASSEMBLY, cont'd

**NOTE:** Install the MAF sensor element so the inlet of the sensor faces the air filter. (See Fig. 10-h.)

- L. Install the MAF sensor and air filter to the 180° duct. (See Fig. 10-h.)
- M. Install the 180° duct and the MAF sensor with filter to the inlet duct leading to the Supercharger. (See Fig. 10-i.) Clock the MAF *exactly* as shown. (See Fig. 10-i.)
- N. Secure the rear clamp at the inlet duct union to the previously installed support bracket. (See Fig. 10-i.)
- O. MAF (Mass Air Meter) (Standard Output Only) Harness Extension:
  1. Locate the supplied wire and butt connectors in assembly 4FU139-096.

**NOTE:** It is strongly recommended that the wires be soldered. Temporary solderless connectors have been provided in case you are unable to solder.

2. Remove the split loom from the factory wires on the MAF sensor.
  3. Cut the wires to the connector approximately 2" from the plug.
  4. Using the supplied connectors and wire, extend the connector to the MAF.
  5. Install the supplied 3/8" split-loom to the extended sensor plug harness. Secure the split-loom with wire-ties or tape.
  6. Route the lengthened wires and connector to the MAF, keeping the wires away from hot or moving parts.
- P. MAF Interface Adapter Installation (*H.O. kits only*)
1. Locate the MAFia (*Interface Adapter*) box.
  2. Plug the MAFia in between the factory MAF connector and the MAF sensor.
  3. Remove the small red cover in the middle of the supplied MAF Interface Adapter box.
  4. Verify that the MAF Interface Adapter box is set on number "2".
  5. If you find that the MAF Interface Adapter box is not set, use the tool that is provided with the MAF Interface Adapter box and set to the number "2".
  6. Replace the cover and secure the MAF Interface Adapter box and set to the number "2".

**NOTE:** *It is critical* that the MAF Interface Adapter box be set on number "2". The calibration that is provided with this kit has been created to work at this setting. Any change to the MAF Interface Adapter box by setting it to a higher or lower number could cause damage to the engine.



Fig. 10-h

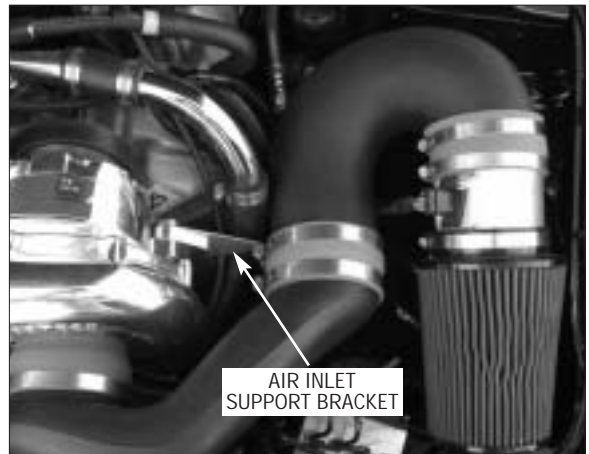


Fig. 10-i

## 11. FUEL PUMP UPGRADE

**NOTE:** This section is best performed with the fuel level *BELOW* half a tank.

- A. Remove the rear seat by depressing the two release buttons at the front edge of the seat. (See Fig. 11-a.)
- B. Remove the round plastic inspection cover on the driver's side. (See Fig. 11-b.)
- C. Unplug the sending unit harness and disconnect the fuel line connection.
- D. Using a small screwdriver or chisel and hammer, tap the retaining ring in a counter clockwise direction. Remove the retaining ring and set aside. (See Fig. 11-b.)
- E. Slowly pull the fuel pump assembly up. Locate the crossover fuel line connection on the fuel pump assembly and disconnect. (See Fig. 11-c.)
- F. Remove the pump assembly from the tank being careful not to damage or lose the rubber O-ring.
- G. Carefully cut the step-less clamps securing the short corrugated fuel line between the fuel pump outlet and distribution rail. Remove the fuel line and discard. (See Fig. 11-d.)



Fig. 11-a

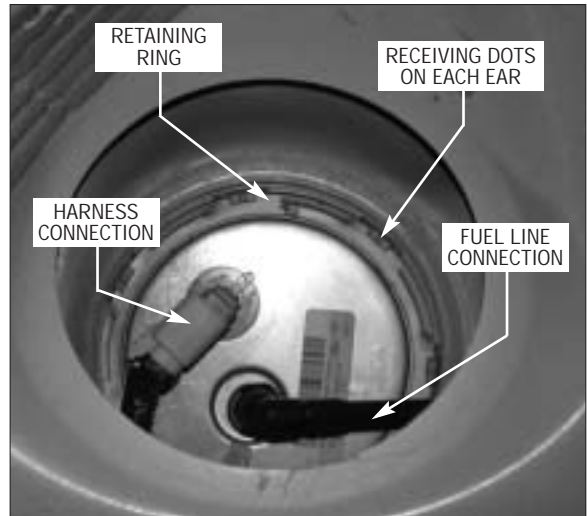


Fig. 11-b

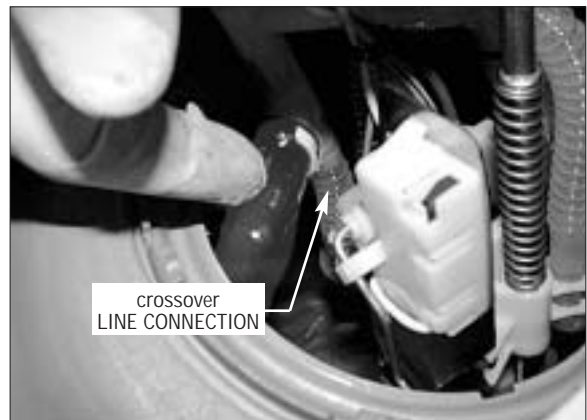


Fig. 11-c

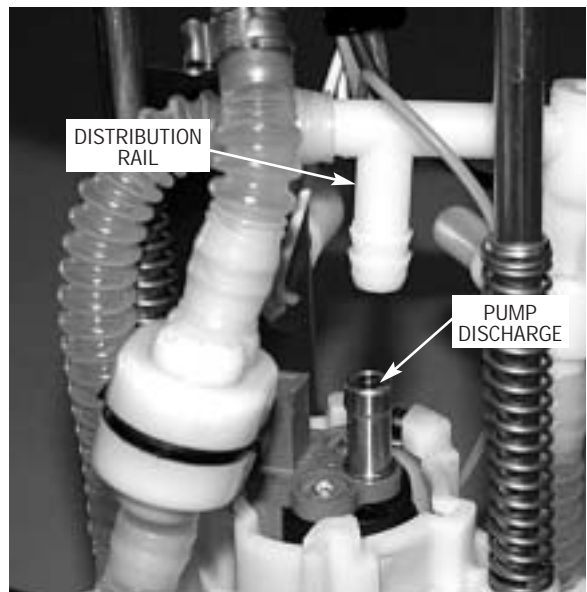


Fig. 11-d

## 11. FUEL PUMP UPGRADE, cont'd

- H. Using the supplied 17.0 stepless clamps and 2.75" length of  $\text{Ø}3/8$ " rubber hose, connect the supplied "Y" fitting to the distribution rail. (See Fig. 11-e.)
- I. Locate the supplied fuel pump and pump inlet screen. Attach the pump inlet screen to the pump and orient exactly as shown. (See Fig. 11-f.)
- J. Secure the supplied fuel pump to the side of the factory pump assembly using the #44 hose clamp supplied. Verify that the hose clamp is routed inside of the metal posts so that they can be pushed down without restriction. (See Fig. 11-f.)
- K. Slide the two supplied .75" long teflon sleeves over the discharge of each fuel pump. (See Fig. 11-g.)

**NOTE:** The supplied 1.5" long Teflon tube will need to be cut into two .75" long pieces.



Fig. 11-e

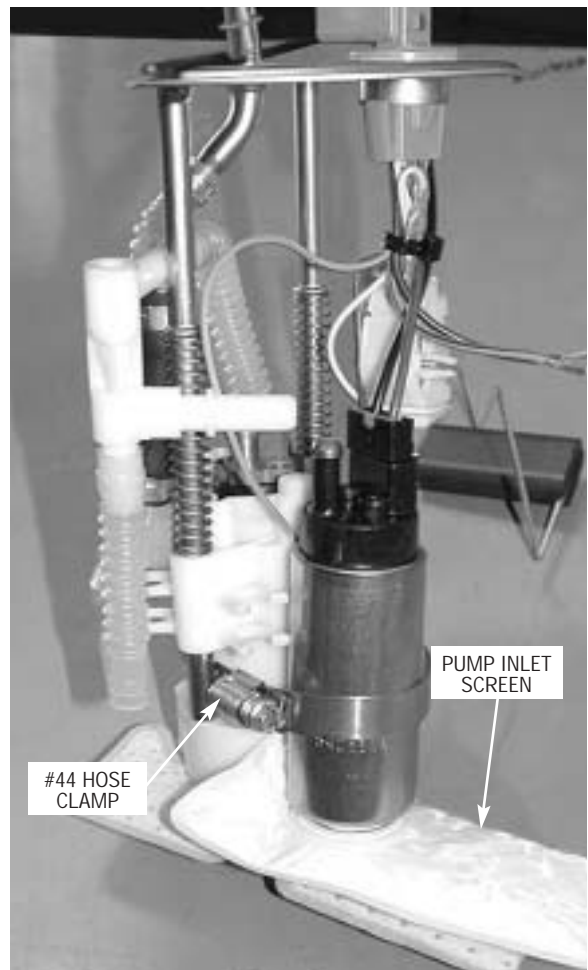


Fig. 11-f

## 11. FUEL PUMP UPGRADE, cont'd

- L. Slide the supplied 11.3 stepless clamps onto the two open legs of the Y-fitting. Connect the discharge of both pumps to the previously installed "Y" fitting using the two supplied  $\text{\O}3/8$ " corrugated teflon hoses. Secure the remaining hose ends using the supplied 11.3 stepless clamps. (See Fig. 11-h.)
- M. Secure all hoses to the fuel pump assembly using the supplied ties. Make sure the lid is able to spring up and down without restriction and that the hoses do not kink. (See Fig. 11-h.)
- N. Use the supplied T-splice and slide connectors to connect the black and red wires from the supplied pump to the corresponding power and ground on the factory pump. (See Fig. 11-h.)
- O. Reinstall the fuel pump assembly into the fuel tank in the reverse order of removal. Ensure that the fuel hoses do not rub on the sharp edges of the fuel tank. Take care not to damage the assembly. **INSTALLATION WILL BE TIGHT.** Connect all fuel and electrical connections. Verify that the fuel gauge float is able to move freely. Make sure the O-ring seal is in place and not damaged. There is an alignment arrow on the pump assembly top that will need to be aligned with the dot on the fuel tank. (See Fig. 11-b.)

**NOTE:** Retaining ring indents must engage their receivers for proper seal. (See Fig. 11-b.)

- P. Locate the power distribution box located on the passenger's side of the engine compartment. Verify the #41 fuse is for the fuel pump. Replace the factory 15AMP fuse with the supplied 20AMP fuse.
- Q. Cycle the ignition key and check for any fuel leaks, verify proper fuel gauge operation.
- R. Reinstall the plastic inspection cover and rear seat.



Fig. 11-g

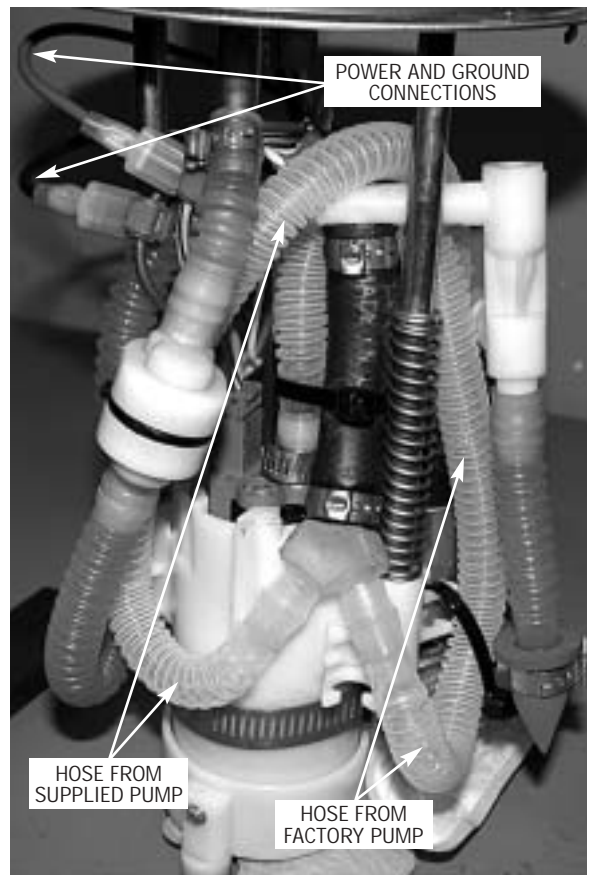


Fig. 11-h

## 12. REFLASH COMPUTER

**IMPORTANT!** To ensure trouble-free programming of your vehicle's computer:

- Make sure the vehicle's battery is sufficiently charged.
- Turn off all accessories and close doors to prevent unnecessary drain on the battery.
- Do not attempt to program your vehicle while a battery charger is connected.
- Improper battery voltage will result in failure of the programming process.
- Do not disconnect the cable or turn off the ignition during programming.

- Reconnect the battery.
- Locate the vehicle's OBD2 connector located in the lower left hand corner of the dash on the driver's side of the vehicle. (See Fig 12-a.)
- Attach the OBD2 connector from the Flash tool (provided in the kit) to the vehicle's OBD2 port. (See Fig 12-b.) Make sure this connector is seated all the way into the vehicle's OBD2 port. You do not want this connector coming out during programming or damage may occur to the vehicle's ECM.
- The Reflash tool should power up and display three parameters:
  - Performance Tune
  - Diagnostics
  - Options
- Select "Performance Tune" and press the enter button in the middle of the arrow keys. (See Fig 12-c.)
- Read the disclaimer entirely, then select agree and press ENTER.
- At this point please read the screen displayed on the reflash tool. If you have any questions, either refer to the manual provided with the reflash tool or contact our service department for further assistance.
- Turn the ignition on (*do not start the vehicle*). Set the parking brake and press the "ENTER" button to continue.
- "SELECT TUNE" will be displayed at the top of the screen. Use the arrow keys to select the appropriate tune for your vehicle and press the ENTER button. You will have four choices to select from:
  - STD OUTPUT (non charge-cooled)
  - Charge-cooled, air/water
  - Charge-cooled, air/air (*this option is NOT used in this application*)
  - Original Backup
- Continue to follow the screen and when finished unplug the reflash tool from the vehicles OBD2 port.



Fig. 12-a



Fig. 12-b



Fig. 12-c

**NOTE:** Do not disturb the cable, or turn the ignition off during this time. If the programming is disrupted, the computer will not start or run your vehicle!



### 13. FINAL CHECK

**WARNING:** Do not attempt to operate the vehicle until all components are installed and all operations are completed including the final check.

- A. If your vehicle has gone over 15,000 miles since its last spark plug change, you will need to change the spark plugs now *before* test driving the vehicle.
- B. Check all fittings, nuts, bolts and clamps for tightness. Pay particular attention to oil and fuel lines around moving parts, sharp edges and exhaust system parts. Make sure all wires and lines are properly secured with clamps or tie-wraps.
- C. Check all fluid levels, making sure that your tank(s) is/are filled with 91 octane or higher fuel before commencing test drive.
- D. Start the engine and allow to idle a few minutes, then shut off.

***H.O Charge Cooled Kits Only***

**NOTE:** Check to see that CAC coolant is flowing through the surge tank. If coolant is not flowing, remove the 3/4" rubber hose from the side of the surge tank and apply light suction in an attempt to pass any trapped air in the system. Reconnect the hose and recheck coolant flow.

- E. Recheck to be sure that no hoses, wires, etc. are near exhaust headers or moving parts. Look also for any signs of fluid leakage.
- F. **PLEASE TAKE SPECIAL NOTE:** Operating the vehicle without ALL the subassemblies completely and properly installed may cause **FAILURE OF MAJOR COMPONENTS.**
- G. Test drive the vehicle.
- H. Always listen carefully for engine detonation. Discontinue heavy throttle usage if detonation is heard.
- I. Read the **STREET SUPERCHARGER SYSTEM OWNER'S MANUAL AND RETURN THE WARRANTY REGISTRATION FORM** within thirty (30) days of purchasing your supercharger system to qualify.



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