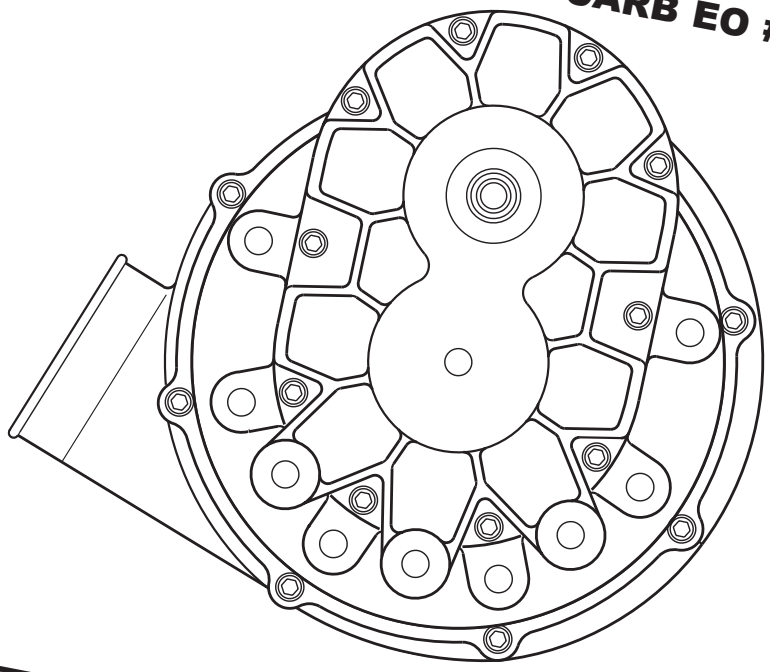
Ford 4.0L Mustang V6

Supercharger System Installation Instructions

2005-2008 Model Year:
50 State Smog Legal Per CARB EO #D-213-26



VORTECH®

ENGINEERING, LLC

1650 Pacific Avenue, Channel Islands CA 93033-9901 • Phone: 805 247-0226
Fax: 805 247-0669 • www.vortechsuperchargers.com • M-F 8:00AM - 4:30PM (PST)

FOREWORD

This manual provides information on the installation, maintenance and service of the Vortech 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 Vortech Engineering for any additional information regarding this kit and any of these modifications at (805) 247-0226 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 Vortech Engineering 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 Vortech 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 the problem is resolved.

5. Vortech is not responsible for any clutch, transmission, drive-line or engine damage.

Exclusions from Vortech 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 Vortech components with other modifications such as, but not limited to, exhaust headers, aftermarket camshafts, nitrous oxide, third party PCM programming or other such changes.

P/N: 4FU020-610
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06AUG08 v4.1 05MusV6(4FU..610v4.1)

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IMPORTANT NOTES

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2005-2008 Mustang V6

Installation Instructions

Congratulations on selecting the best performing and best backed automotive supercharger available today... the VORTECH® 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.

Vortech 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 Vortech Engineering. 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. Vortech Engineering 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 Vortech 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

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2005-2006 Mustang V6, Standard

Part No. 4FU218-610SQ/618SQ

PARTS LIST

VORTECH ENGINEERING, LLC

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

PART NO.	DESCRIPTION	QTY.
2E229-600	**V2-S ASY, '05 MUS V6 STD**	**1**
2A036-361	S/C PULLEY Ø3.60" 6-GROOVE	1
2A046-105	BELT, 5061055-DAYCO FORD 351	1
1210517	ASY, IDLER PLY, SMOOTH 6-RIB	1
4FU110-010	**P/S RESERV RELOC, '05 MUS GT**	**1**
7P375-075	Ø3/4" HOSE BARB UNION, BRASS	1
7P375-050	Ø3/8" 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	Ø3/8" EFI FUEL HOSE HI-PSR	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 GT MUS	1
7U100-055	TIE-WRAP, 7.5" NYLON	4
4FU110-644	**S/C MTG BRKT ASY, '05 MUST V6**	**1**
2A017-016	PILOT, 6203/5 BRG	1
4FU017-182	SPACER, IDLER SMOOTH 6-RIB	1
2A017-881-02	SPACER, .875"OD X 4.165"LONG	3
4FU010-644	S/C MOUNT PLT, '05 MUS V6	1
4FU010-671	BRKT, INTAKE SUPPORT V6	1
7A375-100	3/8-16 X 1" G5 HXHD PLT	5
7A375-352	3/8-16 X 3-1/2" HXHD	1
7C010-220	STUD, M10-1.5 X 220MM	3
7C080-016	M8-1.25 X 16 HXHD	3
7F375-016	3/8-16 HX NUT	1
7G010-150	NUT, IMP M10 RH SL 6-PT	2
7J010-002	10MM WASHER, ZINC PLATED	3
7J375-044	3/8"SAE WASHER, PLTD	8
4CJ017-021	SPACER, .625" COIL	4
7C080-030	M8-1.25 X 30 HXHD CL10.9	4
4FU112-610	**AIR INLET ASY, '05 MUS V6**	**1**
4FU012-010	INLET DUCT, “A”, '05 MUS GT	1
4FU012-015	INLET DUCT, “B”, '05 MUS GT	1
7R002-056	#56 SAE TYPE “F” SS HOSE CLAMP	1
7S400-200	SLEEVE, Ø4" X Ø2", BLUE	2
7S400-351	SLEEVE Ø4" X Ø3.5" X 2.35"L	1
7R002-064	#64 SAE TYPE “F” SS HOSE CLAMP	5
8H040-235	AIR FILTER, '05 MUS H.O.	1
8A003-071	MAF WELDED ASY, '05 MUST GT	1
7P750-102	Ø3/4"NPT X 1" X 90° HSE FIT	1
7P250-048	Ø1/4"NPT- 5/8" BARB 90°	1
7U033-000	Ø5/8" FUEL/PCV HOSE	2.5'
4FU013-010	COVER, AIR FILTER, '05 MUS GT	1
4FU112-620	**DISCH ASY, '05 MUST V6**	**1**
7P100-010	Ø1" HOSE MENDER	1
7P218-156	VAC TEE, Ø7/32", Ø7/32", Ø5/32"	1
7R002-016	#16 SAE TYPE “F” SS HOSE CLAMP	5
7R002-044	#44 SAE TYPE “F” SS HOSE CLAMP	1
7R002-048	#48 SAE TYPE “F” SS HOSE CLAMP	1
7S275-094	ELBOW, Ø2.75" X Ø3" X 90° W/1"ID, V6 MUS	1
7U030-046	Ø5/32" VACUUM LINE	5'
7U034-016	Ø1" GS HEATER HOSE	1.75'
8D001-001	STD COMPRESS BYPASS VALVE	1
4FU130-626	**OIL FEED ASY, '05 MUS V6**	**1**
7U250-090-260	OIL FEED HOSE, 26" -4 X 90°	1
7P125-004	Ø1/8"NPT 90° X -4 JIC FTG	1
7P250-091	Ø1/4"NPT 90° X -4 JIC FTG STL	1
7P250-122	Ø1/4" PIPE THRD AN917 TEE	1
7P250-123	Ø1/4"NPT X 1-1/2"L PIPE NIPPLE	1
4FU130-636	**OIL DRAIN ASY, '05 MUS V6**	**1**
7P375-017	Ø3/8"NPT X 1/2" BEADED HSE BRB	1
7R001-008	#8 STNLS HOSE CLAMP	2
7T560-001	CUTTER, Ø9/16" ROTABROACH	1
7T560-002	ARBOR, ROTABROACH	1
7U030-036	Ø1/2" OIL DRAIN HOSE	1.25'

PART NUMBER	DESCRIPTION	QTY.
4FU139-096	**PCV/MAF MOD ASY, '05 GT**	**1**
7P375-106	PCV VALVE, FORD, Ø3/8" HOSE	1
7P625-375	REDUCER, Ø5/8" BARB TO Ø3/8" BARB	1
7R001-006	#6 STNLS HOSE CLAMP, NARROW	2
7R001-008	#8 STNLS HOSE CLAMP	3
7R002-010	#10 SAE TYPE “F” SS HOSE CLAMP	1
7U032-016	Ø3/8" EFI FUEL HSE HI-PSR	0.5'
5W018-030	18GA STRD WIRE GREY	1'
5W018-010	18GA STRD WIRE RED	1'
5W018-020	18GA STRD WIRE BLK, UL1015	1'
5W018-080	18GA STRD WIRE BLUE BULK	1'
5W018-090	18GA STRD WIRE BROWN BULK	1'
5W018-100	18GA STRD WIRE PURPLE	1'
5W001-007	3/16" HEAT-SHRINK TUBING	1.5'
5W001-005	3/8" PLASTIC WIRE LOOM	1.5'
5W001-012	18-22 GA BUTT CONN RED INSUL	12
7U033-020	HOSE, 5/8"ID CLASS-1 EMISSIONS	0.66'
5A003-035	**DIABLO PREDATOR, '05 MUS GT**	**1**
8F060-048	**FUEL INJ, 39LB EV6, OEM '03 COB**	**6**
4FU020-610	**INSTR MAN '05 MUS V6**	**1**
008110	**SMALL SILVER DIE-CUT DECAL**	**2**
008130	**LICENSE PLATE FRAME, VORTECH**	**1**
008444	**S/C STRT INFO PKG ASY VORT**	**1**

P/N: 4FU020-610

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2005-2006 Mustang V6, H.O.

Part No. 4FU218-620SQ/628SQ

PARTS LIST

ENGINEERING, LLC

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

PART NO.	DESCRIPTION	QTY.
2E229-620	**V2-S ASY, '05 MUS. V6 CAC**	**1**
2A036-325	S/C PULLEY, Ø3.25" 6-GROOVE	1
4FH016-150	IDLER PULLEY, 6-RIB Ø3"	1
2A046-105	BELT, 5061055 DAYCO, 6-RIB	1
4FU110-010	**P/S RESERV RELOC, '05 MUS GT**	**1**
7P375-075	Ø3/4" HOSE BARB UNION, BRASS	1
7P375-050	Ø3/8" 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	Ø3/8" EFI FUEL HOSE HI-PSR	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 GT MUS	1
7U100-055	TIE-WRAP, 75" NYLON	4
4FU110-644	**S/C MTG BRKT ASY, '05 MUS V6**	**1**
2A017-016	PILOT, 6203/5 BRG	1
4FU017-182	SPACER, IDLER SMOOTH 6-RIB	1
2A017-881-02	SPACER, .875"OD x 4.165" LONG	3
4FU010-644	S/C MOUNT PLT, '05 MUS V6	1
4FU010-671	BRKT, INTAKE SUPPORT V6	1
7A375-100	3/8-16 x 1" G5 HXHD PLT	5
7A375-352	3/8-16 x 3-1/2" HXHD	1
7C010-220	STUD, M10-1.5 x 220mm	3
7C080-016	M8-1.25 x 16 HXHD	3
7F375-016	3/8-16 HX NUT	1
7G010-150	NUT, IMP M10 RH SL 6-PT	2
7J010-002	10mm WASHER, ZINC PLATED	3
7J375-044	3/8"SAE WASHER, PLTD	8
4CJ017-021	SPACER, .625" COIL	4
7C080-030	M8-1.25 x 30 HXHD CL10.9	4
4FU112-610	**AIR INLET ASY, '05 MUS V6**	**1**
4FU012-010	INLET DUCT, "A", '05 MUS GT	1
4FU012-015	INLET DUCT, "B", '05 MUS GT	1
7R002-056	#56 SAE TYPE "F" SS HOSE CLAMP	1
7S400-200	SLEEVE, Ø4" x Ø2", BLUE	2
7S400-351	SLEEVE Ø4" x Ø3.5" x 2.35"L	1
7R002-064	#64 SAE TYPE "F" SS HOSE CLAMP	5
8H040-235	AIR FILTER, '05 MUS H.O.	1
003-071	MAF WELDED ASY, '05 MUST GT	1
7P750-102	Ø3/4"NPT x Ø1" x 90° HSE FIT	1
7P250-048	Ø1/4"NPT- Ø5/8" BARB 90°	1
7U033-000	Ø5/8" FUEL/PCV HOSE	2.5'
4FU013-010	COVER, AIR FILTER, '05 MUS GT	1
4FU130-626	**OIL FEED ASY, '05 MUS V6**	**1**
7U250-090-260	OIL FEED HOSE, 26" -4 x 90°	1
7P125-004	Ø1/8"NPT 90° x -4 JIC FTG	1
7P250-091	Ø1/4"NPT 90° x -4 JIC FTG STL	1
7P250-122	Ø1/4" PIPE THRD AN917 TEE	1
7P250-123	Ø1/4"NPT x 1-1/2" PIPE NIPPLE	1
4FU130-636	**OIL DRAIN ASY, '05 MUS V6**	**1**
7P375-017	Ø3/8"NPT x Ø1/2" BEADED HSE BRB	1
7R001-008	#8 STNLS HOSE CLAMP	2
7T560-001	CUTTER, Ø9/16" ROTABROACH	1
7T560-002	ARBOR, ROTABROACH	1
7U030-036	Ø1/2" OIL DRAIN HOSE	1.25'
4FU139-096	**PCV/MAF MOD ASY, '05 GT**	**1**
7P375-106	PCV VALVE, FORD, Ø3/8" HOSE	1
7P625-375	REDUCER, Ø5/8" BARB TO Ø3/8" BARB	1
7R001-006	#6 STNLS HOSE CLAMP, NARROW	2
7R001-008	#8 STNLS HOSE CLAMP	3
7R002-010	#10 SAE TYPE "F" SS HOSE CLAMP	1
7U032-016	Ø3/8" EFI FUEL HSE HI-PSR	0.5'
5W018-030	18GA STRD WIRE GREY	1'
5W018-010	18GA STRD WIRE RED	1'
5W018-020	18GA STRD WIRE BLK, UL1015	1'
5W018-080	18GA STRD WIRE BLUE BULK	1'
5W018-090	18GA STRD WIRE BROWN BULK	1'
5W018-100	18GA STRD WIRE PURPLE	1'
5W001-007	3/16" HEAT-SHRINK TUBING	1.5'
5W001-005	3/8" PLASTIC WIRE LOOM	1.5'
5W001-012	18-22GA BUTT CONN RED INSUL	12
7U033-020	HOSE, 5/8"ID CLASS-1 EMISSIONS	0.66'

PART NO.	DESCRIPTION	QTY.
5A003-035	**DIABLO PREDATOR, '05 MUS**	**1**
8F060-048	**FUEL INJ, 39LB EV6, OEM 03 COB**	**6**
4FU020-610	**INSTR MAN '05 MUS V6**	**1**
008110	**SMALL SILVER DIE-CUT DECAL**	**2**
008130	**LICENSE PLATE FRAME, VORTECH**	**1**
008444	**S/C STRT INFO PKG ASY VORT**	**1**
8N101-620	**WELDED CORE ASY, '05 V6 MUS**	**1**
8N155-080	**COOLANT RES RELOC, '05 MUS**	**1**
8N055-080	TANK, RAD OVERFLOW, '05 MUS	1
4FU010-051	MTG BRKT "A", RES RELOC '05 MUS	1
4FU010-061	BRKT "B", COOL RES RELOC '05 MUS	1
7A250-051	1/4-20 x 50 HHCS ZINC PLTD	4
7P250-045	1/4" MALE NPT x Ø3/8" MALE BARB	1
7J006-093	6mm WASHER, PLATED	4
7R002-010	#10 SAE TYPE "F" SS HOSE CLAMP	1
7P375-050	Ø3/8" HOSE UNION, BRASS	1
7U030-056	Ø3/8" PCV/VAC RUBBER HOSE	2.5'
7R004-002	STEPLESS CLAMP, 170-70	3
7C060-020	M6-10 x 20mm HHCS ZN	3
7J006-093	6mm WASHER, PLATED	3
8N106-130	**WATER COOLER ASY, '05 MUS**	**1**
8N006-010	WATER COOLR, SETRAB SINGLE PAS	1
8N010-180	MTG BRKT, CAC RTSIDE, 'O5 MUS	1
8N010-190	MTG BRKT, CAC LSIDE, 'O5 MUS	1
2A017-036	SPACER, PLTBRGH SG, 0186"	4
7C080-030	M8-1.25 x 30 BLT CL88	4
7F008-020	NUT, M8-125	4
7J312-000	5/16" FLAT WASHER-SAE	8
7R003-016	ADEL CLAMP, 10"	1
7J006-093	6mm WASHER, PLATED	2
7F250-021	1/4-20 NYLOCK NUT ZINC PLATED	5
7A250-074	1/4-20 x .75" HHCS PLTD	5
7J250-001	1/4" WASHER, SAE, PLTD	10
8N104-620	**SUPPORT PCS, '05 MUS V6 CLR**	**1**
008341	VORTECH CHARGE COOLER DECAL	1
4FE014-010	RADIATOR PIPE, STAINLESS	1
4PCS010-110	MTG BRKT, RES TNK SRT10 TRUCK	1
5W001-009	16-14GA MALE SLIDE INSULATED	1
5W001-011	16-14GA RING TERM 26" HOLE	1
5W001-015	FUSE, BLADE TYPE 20AMP	1
5W001-022	T-TAP CONN, 14-16AWG	1
5W001-032	Ø1/4" PLASTIC WIRE LOOM	60"
5W001-071	FUSE HOLDER, 16GA WIRE	1
5W018-010	18GA STRD WIRE RED	5'
7A250-050	1/4-20 x .50" SHCS ZINC PLTD	3
7A250-051	1/4-20 x .50" HHCS ZINC PLTD	2
7E014-075	#14 x .75" SHEETMETAL SCREW	2
7J006-093	6mm WASHER, PLATED	5
7P218-156	VAC TEE, Ø7/32", Ø7/32", Ø5/32"	1
7P375-075	Ø3/4" HOSE BARB UNION, BRASS	1
7P500-026	Ø1/2"NPT x Ø3/4" BARB 90° BRASS	6
7P500-078	Ø1/2"NPT x Ø3/4" HOSE FIT STRT	1
7P500-750	Ø1/2"NPT x Ø3/4" BARB 90° SHORT	1
7PP100-076	HOSE REDUCER, Ø1" - Ø3/4" MOD	1
7R002-016	#16 SAE TYPE "F" SS HOSE CLAMP	4
7R002-024	#24 SAE TYPE "F" SS HOSE CLAMP	2
7R002-044	#44 SAE TYPE "F" SS HOSE CLAMP	3
7R002-052	#52 SAE TYPE "F" SS HOSE CLAMP	1
7R003-016	ADEL CLAMP, 10"	1
7R003-027	ADEL CLAMP, 1-11/16"	1
7R007-001	NYLON RATCHET CLAMP 1-1/8"	14
7S275-055	ELBOW, Ø2.75" x 55° SILICONE	1
7S300-101	SLEEVE, Ø3" x Ø1", 1-PLY	1
7S325-275	ELBOW, 90° SILICONE 3.25"/2.75"	1
7U030-046	Ø5/32" VACUUM LINE	5'
7U030-065	Ø3/4" x 90° RUBBER HOSE, SHORT	1
7U034-016	Ø1"GS HEATER HOSE	0.5'
7U034-016	Ø1"GS HEATER HOSE	2.25'
7U038-000	Ø3/4" HEATER HOSE	14'
7U038-012	HOSE, Ø3/4" x 90°, 4" x 12" LEGS	2
7U100-055	TIE-WRAP, 7.5" NYLON	6
7U375-054	3/4" VINYL CAP	1
8D001-001	STD BYPASS VALVE	1
8F001-402	PUMP, WATER, PIERBURG	1
8N010-160	SURGE TANK BRKT, '05 MUS GT	1
8N055-030	TANK, WATER, TRIANGLE SHAPE	1
8N055-050	PLASTIC CAP, SURGE TANK	1
8N056-061	SURGE TANK INTEGRA GSR MODIFIED	1

P/N: 4FU020-610

06AUG08 v4.1 05MusV6(4FU..610v4.1)

2007-2008 Mustang V6, Standard

Part No. 4FU218-630SQ

PARTS LIST

VORTECH ENGINEERING, LLC

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

PART NO.	DESCRIPTION	QTY.
2E229-600	**V2-S ASY, '05 MUS V6 SAT**	**1**
2A036-361	S/C PULLEY Ø3.60" 6-GRV	1
2A046-105	BELT, 5061055 DAYCO	1
1210517	ASY, IDLER PLY SMOOTH 6-RIB	1
4FU020-610	**INSTR MANL, '05 MUS V6**	**1**
4FU110-010	P/S RESERV RELOC, '05 MUS GT	1
7P375-075	Ø3/4" HOSE BARB UNION, BRASS	1
7P375-050	Ø3/8" HOSE UNION, BRASS	1
7R001-004	#4 HOSE CLAMP	2
7R001-008	#8 STNLSS HOSE CLAMP	2
7U038-030	HOSE, P/S 3/4'ID	3'
7U032-016	Ø3/8" EFI FUEL HOSE, HI-PSR	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-WRAP, 7.5" NYLON	4
4FU110-644	**S/C MTG BRKT ASY, '05 MUS V6**	**1**
2A017-016	PILOT, 6203/5 BRG, 3/8" SCREW	1
2A017-881-02	SPACER, .875"OD x 4.165"L	3
4CJ017-021	SPACER, .625" COIL	4
4FU010-644	MTG PLATE, S/C, '05 MUS V6	1
4FU010-671	BRKT, INTAKE SUPPORT, V6	1
4FU017-182	SPACER, 1.82"L x 1"OD x .391"ID	1
7A375-100	3/8-16 x 1" G5 HHCS, PLT	5
7A375-352	3/8-16 x 3.5" HXHD GR8	1
7C010-220	STUD, M10-1.5 x 220mm	3
7C080-016	M8-1.25 x 16 HXHD	3
7C080-030	M8-1.25 x 30 HXHD CL10.9	4
7F375-016	3/8-16 HX NUT	1
7G010-150	NUT, IMP M10 RH SL 6 PT	2
7J010-002	10mm WASHER, ZINC PLATED	3
7J375-044	Ø3/8" SAE WASHER, PLTD	8
7R001-008	#8 STNLS HOSE CLAMP	1
4FU112-610	**AIR INLET ASY, '05 MUS V6**	**1**
4FU012-010	INLET DUCT "A", "05 MUS GT	1
4FU012-015	INLET DUCT "B", '05 MUS GT	1
7R002-056	#56 SAE TYPE "F" SS HOSE CLAMP	1
7S400-200	SLEEVE, Ø4" x 2"L, BLUE	2
7S400-351	REDUCER SLV, Ø4" x Ø3.5" x 2.35"L	1
7R002-064	#64 SAE TYPE "F" SS HOSE CLAMP	5
8H040-235	AIR FILTER, 4.0"FLG x 7.0"L	1
8A003-071	MAF, 3.8"ID, '05 MUS GT	1
7P750-102	Ø3/4"NPT 1" x 90° HSE FIT	1
7P250-048	Ø1/4"NPT x Ø5/8" BARB x 90°	1
7U033-000	Ø5/8" PCV HOSE	2.5'
4FU013-010	COVER, AIR FILTER, '05 MUS GT	1
4FU112-620	**DISCH ASY, '05 MUS V6**	**1**
7P218-156	VAC TEE, 7/32", 7/32", 5/32"	1
7R002-016	#16 SAE TYPE "F" SS HOSE CLAMP	5
7R002-044	#44 SAE TYPE "F" SS HOSE CLAMP	1
7R002-048	#48 SAE TYPE "F" SS HOSE CLAMP	1
72275-094	ELBOW, Ø2.75" x Ø3" x 90°· w/1"ID, V6	1
7U030-046	Ø5/32" VACUUM LINE	5'
7U034-016	1" GS HEATER HOSE	1.75'
8D001-001	STD COMPRESS BYPASS VALVE	1
7P100-010	1" HOSE BARB UNION	1

PART NUMBER	DESCRIPTION	QTY.
4FU130-626	**OIL FEED ASY, '05 MUS V6**	**1**
7U250-090-260	OIL FEED HOSE, 26" x -4 x 90°	1
7P125-004	Ø1/8"NPT x 90° x -4 JIC FTG STL	1
7P250-091	Ø1/4"NPT x 90° x -4 JIC FTG STL	1
7P250-122	Ø1/4" PIPE THRD AN917 TEE	1
7P250-123	Ø1/4"NPT x Ø1-1/2" PIPE NIPPLE	1
4FU130-636	**OIL DRAIN ASY, '05 MUS V6**	**1**
7P375-017	Ø3/8" x Ø1/2" BEADED HOSE BARB	1
7R001-008	#8 STNLS HOSE CLAMP	2
7T560-001	CUTTER, 9/16" ROTABROACH	1
7T560-002	ARBOR, ROTABROACH	1
7U030-036	Ø1/2" OIL DRAIN HOSE	1.25'
4FU139-096	**PCV/MAF MOD ASY, '05 GT**	**1**
7P375-106	PCV VALVE, FORD, Ø3/8" HOSE	1
7P625-375	REDUCER, Ø5/8" BARB x Ø3/8" BARB	1
7R001-006	#6 STNLS HOSE CLAMP, NARROW	2
7R001-008	#8 STNLS HOSE CLAMP	3
7R002-010	#10 SAE TYPE "F" SS HOSE CLAMP	1
7U032-016	Ø3/8" EFI FUEL HSE HI-PSR	.5'
5W018-030	18GA STRD WIRE GREY	1'
5W018-010	18GA STRD WIRE RED	1'
5W018-020	18GA STRD WIRE BLK, UL1015	1'
5W018-080	18GA STRD WIRE BLUE BULK	1'
5W018-090	18GA STRD WIRE BROWN BULK	1'
5W018-100	18GA STRD WIRE PURPLE	1'
5W001-007	Ø3/16" HEAT-SHRINK TUBING	1.5'
5W001-005	Ø3/8" PLASTIC WIRE LOOM	1.5'
5W001-012	18GA BUTT CONN RED INSUL	12
7U033-020	HOSE, 5/8"ID CLASS-1, EMISSIONS	.66'
5A003-038	**PREDATOR, '07 MUSTANG**	**1**
8F060-048	**FUEL INJ, 39LB EV6, OEM '03 COB**	**6**
008110	**SMALL SILVER DIE-CUT DECAL**	**2**
008130	**LICENSE PLATE FRAME, VORTECH**	**1**
008444	**S/C STRT INFO PKG ASY VORTECH**	**1**

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Part No. 4FU218-640SQ

PARTS LIST

ENGINEERING, LLC

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

PART NO.	DESCRIPTION	QTY.
2E229-620	**V2-S ASY, '05 MUS V6 CAC SAT**	**1**
2A036-325	S/C PULLEY Ø3.25" 6-GRV	1
2A046-105	BELT, 5061055-DAYCO FORD, 351	1
4F016-150	IDLER PULLEY, 6-RIB, Ø3" FLANGED	1
4FU020-610	**INSTR MANL, '05 MUS V6**	**1**
4FU110-010	**P/S RESERV RELOC, '05 MUS GT**	**1**
7P375-075	Ø3/4" HOSE BARB UNION, BRASS	1
7P375-050	Ø3/8" 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	Ø3/8" EFI FUEL HOSE, HI-PSR	3'
7A250-075	1/4-20 x .75" SHCS PLTD	1
7J250-001	1/4" WASHER, SAE, PLATED	2
7F250-021	1/4-20 NYLOCK NUT, ZINC PLATED	1
4FU010-010	P/S RELOC BRKT, '05 MUS GT	1
7U100-055	TIE-WRAP, 7.5" NYLON	4
4FU110-644	**S/C MTG BRKT ASY, '05 MUS V6**	**1**
2A017-016	PILOT, 6203/5 BRG, 3/8" SCREW	1
2A017-881-02	SPACER, .875"OD x 4.165"L	3
4CJ017-021	SPACER, .625" COIL	4
4FU010-644	MTG PLATE, S/C, '05 MUS V6	1
4FU010-671	BRKT, INTAKE SUPPORT, V6	1
4FU017-182	SPACER, 1.82"L x 1"OD x .391"ID	1
7A375-100	3/8-16 x 1" G5 HHCS, PLT	5
7A375-352	3/8-16 x 3.5" HXHD GR8	1
7C010-220	STUD, M10-1.5 x 220mm	3
7C080-016	M8-1.25 x 16 HXHD	3
7C080-030	M8-1.25 x 30 HXHD CL10.9	4
7F375-016	3/8-16 HX NUT	1
7G010-150	NUT, IMP M10 RH SL 6-PT	2
7J010-002	10mm WASHER, ZINC PLATED	3
7J375-044	Ø3/8" SAE WASHER, PLATED	8
7R001-008	#8 STNLS HOSE CLAMP	1
4FU112-610	**AIR INLET ASY, '05 MUS V6**	**1**
4FU012-010	INLET DUCT "A", '05 MUS GT	1
4FU112-015	INLET DUCT, "B", '05 MUS GT	1
7R002-056	#56 SAE TYPE "F" SS HOSE CLAMP	1
7S400-200	SLEEVE, Ø4" x Ø2", BLUE	2
7S400-351	REDUCER SLV Ø4" x Ø3.5" x 2.35L	1
7R002-064	#64 SAE TYPE "F" SS HOSE CLAMP	5
8H040-235	AIR FILTER, 4.0"FLG x 7.0"L	1
8A003-071	MAF, 3.8"ID, '05 MUS GT	1
7P750-102	Ø3/4"NPT x Ø1" x 90° HOSE FIT	1
7P250-048	Ø1/4"NPT x Ø5/8" BARB x 90°	1
7U033-000	Ø5/8" PCV HOSE	2.5'
4FU013-010	COVER, AIR FILTER, '05 MUS GT	1
4FU130-626	**OIL FEED ASY, '05 MUS V6**	**1**
7U250-090-260	OIL FEED HOSE, 26" x -4 x 90°	1
7P125-004	Ø1/8"NPT x 90° x -4 x JIC FTG STL	1
7P250-091	Ø1/4"NPT x 90° x -4 JIC FTG STL	1
7P250-122	Ø1/4" PIPE THRD AM917 TEE	1
7P250-123	Ø1/4"NPT x 1-1/2" PIPE NIPPLE	1
4FU130-636	**OIL DRAIN ASY, '05 MUS V6**	**1**
7P375-017	Ø3/8"NPT x Ø1/2" BEADED HSE BRB	1
7R001-008	#8 STNLS HOSE CLAMP	2
7T560-001	CUTTER, Ø9/16" ROTABROACH	1
7T560-002	ARBOR, ROTABROACH	1
7U030-036	Ø1/2" OIL DRAIN HOSE	1.25'
4FU139-096	**PCV/MAF MOD ASY, '05 GT**	**1**
7P375-106	PCV VALVE, FORD, 3/8" HOSE	1
7PP625-375	REDUCER, Ø5/8" BARB x Ø3/8 BARB	1
7R001-006	#6 STNLS HOSE CLAMP, NARROW	2
7R001-008	#8 STNLS HOSE CLAMP	3
7R002-010	#10 SAE TYPE "F" SS HOSE CLAMP	1
7U032-016	3/8" EFI FUEL HOSE, HI-PSR	.5'
5W018-030	18GA STRD WIRE GREY	1'
5W018-010	18GA STRD WIRE RED	1'
5W018-020	18GA STRD WIRE BLK, UL1015	1'
5W0188-080	18GA STRD WIRE BLUE BULK	1'
5W018-090	18GA STRD WIRE BROWN BULK	1'
5W018-100	18GA STRD WIRE PURPLE	1'
5W001-007	3/16" HEAT-SHRINK TUBING	1.5'
5W001-005	3/8" PLASTIC WIRE LOOM	1.5'
5W001-012	18-22GA BUTT CONN RED INSUL	12
7U033-020	HOSE, 5/8"ID CLASS-1, EMISSIONS	.66'
5A003-038	**PREDATOR, '07 MUS**	**1**
8F060-048	**FUEL INJ 39LB EV6, OEM '03 COB**	**6**
8N101-620	**WELDED CORE ASY, '05 MUS V6**	**1**
8N155-082	**COOLANT RES RELOC, '07 MUS**	**1**
8N055-080	TANK, RAD OVERFLOW, '05 MUS	1
4FU010-061	BRKT "B", COOL RES RELOC '05 MUS	1
7A250-051	1/4-20 x .50" HHCS ZINC PLATED	4
7P250-045	Ø1/4" MALE NPT x 3/8" MALE BARB	1
7J006-093	6mm WASHER, PLATED	10
7P375-050	Ø3/8" HOSE UNION, BRASS	1
7U030-056	Ø3/8" 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 PLATED	3
7F250-021	1/4-20 NYLOCK NUT ZINC PLATED	3
7R002-010	#10 SAE TYPE "F" SS HOSE CLAMP	2
7U038-000	Ø3/4" HEATER HOSE	1.83'
7P100-076	HOSE REDUCER, Ø1" x Ø3/4" PLASTIC	1
8N106-130	**WATER CLR ASY, '05 MUS**	**1**
8N006-010	WATER COOLER, SETRAB SINGLE PASS	1
8N010-180	MTG BRACKET, CAC RTSIDE, '05 MUS	1
8N010-190	MTG BRACKET, CAC LSIDE, '05 MUS	1
2A017-036	SPACER, PLT.BRG.HSG. 0.186"	4
7C080-030	M8-1.25 x 30 HXHD CL10.9	4
7F008-020	NUT, M8-1.25	4
7J312-000	5/16" FLAT WASHER-SAE	8
7R003-016	ADEL CLAMP, 1.0"	1
7J006-093	6mm WASHER, PLATED	2
7F250-021	1/4-20 NYLOCK NUT, ZINC PLATED	5
7A250-074	1/4-20 x .75" HHCS PLTD	5
7J250-001	1/4" WASHER, SAE PLTD	10
8N104-620	**SUPPORT PCS, '05 MUS V6 CLR**	**1**
008341	VORTECH CHARGE COOLER DECAL	1
4FE014-010	RADIATOR PIPE-STAINLESS	1
4PCS010-110	MTG BRKT, RES TNK SRT10 TRK	1
5W001-009	16-14GA MALE SLIDE INSULATED	1
5W001-011	16-14GA RING-TERM, .26" HOLE	1
5W001-015	FUSE, BLADE TYPE 20AMP	1
5W001-022	T-TAP CONN. 14-16AWG	1
5W001-032	Ø1/4" PLASTIC WIRE LOOM	60"
5W001-071	FUSE HOLDER, 16GA WIRE	1
5W018-010	18GA STRD WIRE RED	5'
7A250-050	1/4-20 x .50" SHCS ZINC PLATED	3
7A250-051	1/4-20 x .50" HHCS ZINC PLATED	2
7E014-075	#14 x .75" SHEETMETAL SCREW	2
7J006-093	6mm WASHER, PLATED	5
7P218-156	VAC TEE, Ø7/32", Ø7/32", Ø5/32"	1
7P375-075	Ø3/4" HOSE BARB UNION, BRASS	1
7P500-026	Ø1/2"NPT x Ø3/4" BARB x 90°, BRASS	6
7P500-078	Ø1/2"NPT x 3/4" HOSE FIT STRT	1
7P500-750	Ø1/2"NPT x Ø3/4" HOSE BARB x 90°	1
7PP100-076	HOSE REDUCER, Ø1" x Ø3/4" MOD	1
7R002-016	#16 SAE TYPE "F" SS HOSE CLAMP	4
7R002-024	#24 SAE TYPE "F" SS HOSE CLAMP	2
7R002-044	#44 SAE TYPE "F" SS HOSE CLAMP	3
7R002-052	#52 SAE TYPE "F" SS HOSE CLAMP	1
7R003-016	ADEL CLAMP, Ø1.0"	1
7R003-027	ADEL CLAMP, 1-11/16"	1
7R007-001	NYLON RATCHET CLAMP, Ø1-1/8"	14

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Part No. 4FU218-640SQ

PARTS LIST

ENGINEERING, LLC

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.
7S275-055	ELBOW, Ø2.75" X 55° SILICONE	1			
7S300-101	SLEEVE, Ø3" X 1"L, 1-PLY	1			
7S325-275	ELBOW, 90° SILICONE, Ø3.25" X Ø2.75"	1			
7U030-046	Ø5/32" VACUUM LINE	5'			
7U030-065	Ø3/4" X 90° RUBBER HOSE, SHORT	1			
7U034-016	Ø1" GS HEATER HOSE	.5'			
7U034-016	Ø1" GS HEATER HOSE	2.25'			
7U038-000	Ø3/4" HEATER HOSE	14'			
7U038-012	HOSE, Ø3/4" X 90°, 4" X 12" LEGS	2			
7U100-055	TIE-WRAP, 7.5' NYLON	6			
7U375-054	3/4" VINYL CAP	1			
8D001-001	STD COMPRESS BYPASS VALVE	1			
7F001-402	PUMP, WATER, PIERBURG	1			
8N010-160	SURGE TANK BRKT, '05 MUS GT	1			
8N055-030	TANK WATER, TRIANGLE SHAPE	1			
8N055-050	PLASTIC CAP, SURGE TANK	1			
7U056-061	SURGE TANK INTEGRA GSR MODIFIED	1			
008341	**VORTECH CHARGE COOLER DECAL**	**1**			
008110	**SMALL SILVER DIE-CUT DECAL**	**2**			
008130	**LICENSE PLATE FRAME, VORTECH**	**1**			
008444	**S/C STRT INFO PKG ASY, VORTECH**	**1**			

1. PREPARATION/REMOVAL

A. Disconnect the mass air flow (MAF) sensor plug. Remove the MAF sensor from the factory inlet duct and set it aside (with the original screws) for later use. (See Fig. 1-a.)

B. Disconnect the crankcase vent line where it attaches to the driver's side valve cover.

C. Remove the factory air filter housing and inlet duct up to the throttle body. (See Fig. 1-a.)

D. Drain and remove the power steering reservoir. The reservoir will be relocated during a later step.

E. Remove one of the three bolts from the power steering pulley. Replace it with one of the supplied M8-16mm bolts. (Do not use a washer.) Repeat step for the two remaining power steering pulley bolts. (See Fig. 1-b.)

F. Using a 3/8" ratchet, compress the accessory belt spring tensioner and remove the belt from the vehicle.

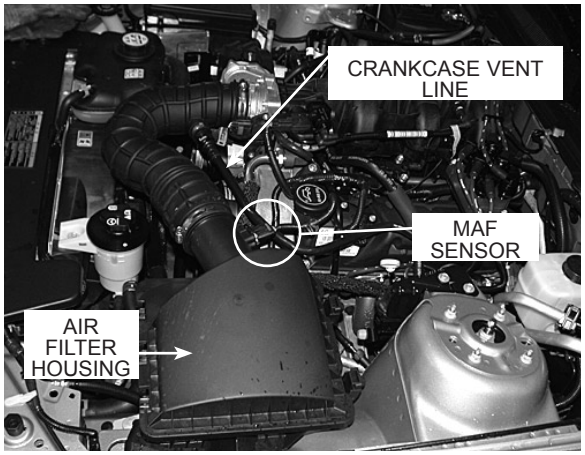

Fig. 1-a

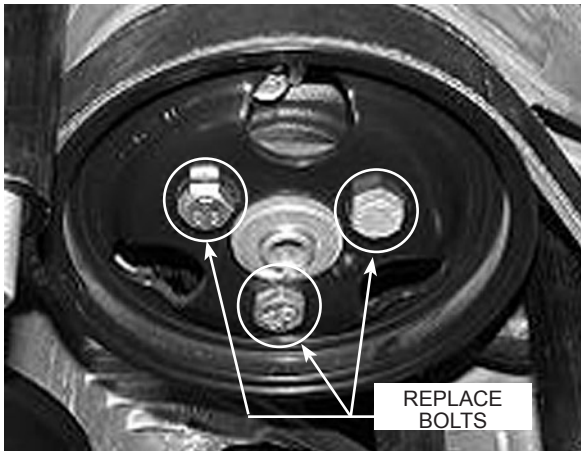

Fig. 1-b

2. OIL DRAIN LINE INSTALLATION (Engine oil-fed kits only. Applications with V-3 superchargers skip ahead to step 4.)

A. To provide an oil drain for the supercharger, it is necessary to make a hole in the front of the timing cover. Locate and center punch the hole on the flat area on the driver's side front of the timing cover about, 1-1/2" above the oil pan sealing surface.

B. Drill 1/8" pilot hole at the marked location.

C. Use the supplied 9/16" roto broach to drill a hole. Break through carefully so that the cut out piece does not go into the engine.

D. Tap the hole with a 3/8"NPT to approximately 1/2" deep or until the fitting can be started. Pack the flutes of the tap with heavy grease to hold any loose chips.

E. Thoroughly clean the threaded area. Reach inside the timing cover and retrieve any stray chips. Apply a small amount of silicone sealer to the 3/8"NPT nipple and secure in a hole.

F. Drain the engine oil, install a new filter and refill with fresh engine oil.

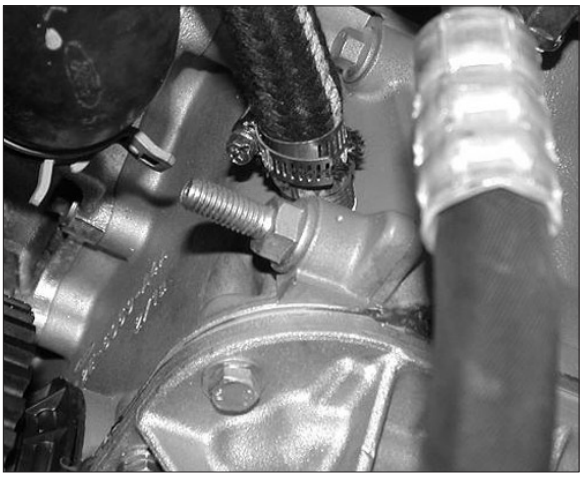

Fig. 2-a

3. OIL FEED INSTALLATION (Engine oil-fed kits only. Applications with V-3 superchargers skip ahead to step 4.)

A. Locate the factory oil sensor on the driver's side near the front of the engine above the oil pan.

B. Remove the sending unit and set aside.

C. Using engine oil on the threads, install the supplied fittings in the following order.

1. Install the 1/4"NPT x 1.5" nipple into the branch of the 1/4"NPT TEE.

2. Screw the open end of the 1/4"NPT nipple into the engine block, where the pressure sender was previously removed. (See *Fig. 3-a*.)

3. Install the 1/4"NPT x 90° x -4 fitting and factory oil pressure sender into the previously installed TEE. (See *Fig. 3-a*.) Reconnect the pressure sender harness connection.

NOTE: Pipe tape, paste or other sealant is not recommended as it may loosen and cause blockage of the oil feed orifice, resulting in supercharger failure.

D. Attach the stainless steel -4 hose to the -4 fitting installed in the TEE.

E. Cover the open end and route the hose away from hot, sharp or moving parts and to the top of the engine to be attached to the supercharger oil feed.

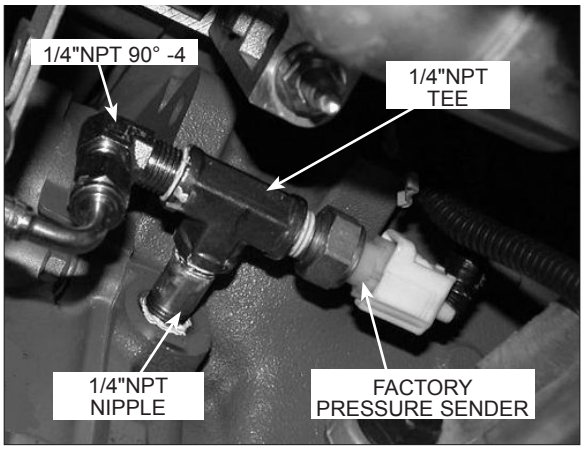

Fig. 3-a

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4. POWER STEERING RELOCATION

A. Locate the power steering assembly 4FU110-010.

B. Attach the 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*.)

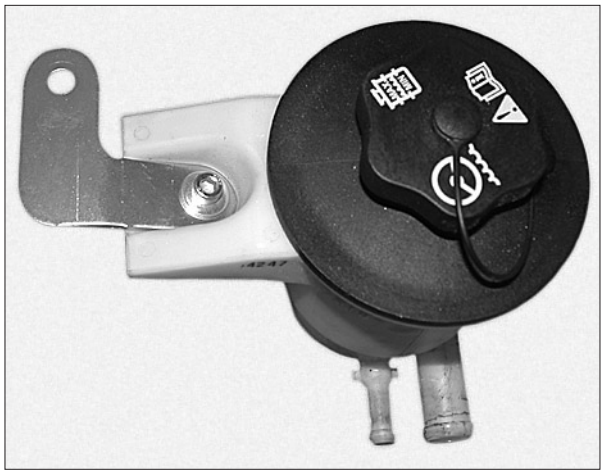

Fig. 4-a

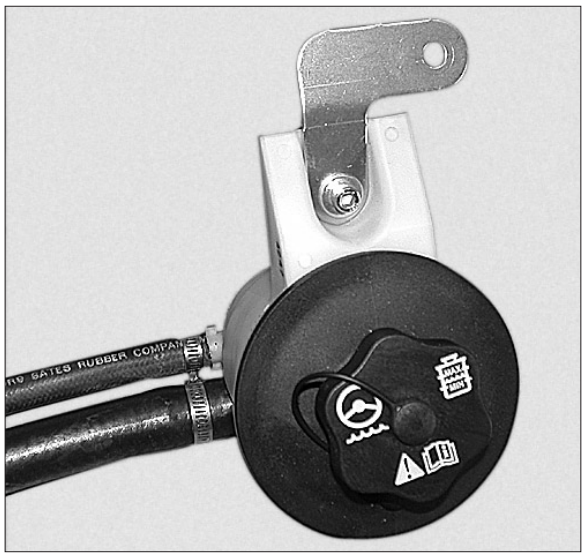

Fig. 4-b

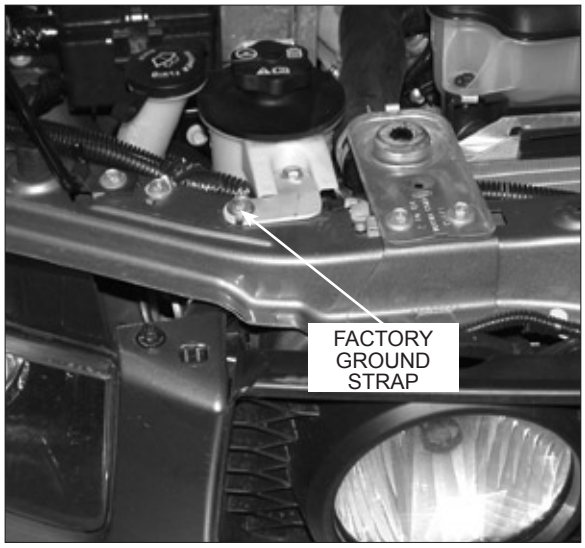

Fig. 4-c

Fig. 4-d

5. FUEL INJECTOR REPLACEMENT

A. On the driver's side, temporarily remove the four screws that secure the coil-pack bracket to the manifold and cylinder head. Unplug the driver's side plug wires where they connect at the coil pack, to allow the coil-pack assembly to be pulled back to access to the fuel rail location. (See Fig. 5-a.)

B. Unplug the electrical connectors from each fuel injector.

C. Remove the four bolts securing the injector rails to the intake manifold.

D. Remove the small clips that retain the factory fuel injectors to the fuel rail (if equipped). Remove the factory fuel injectors and set aside, these will not be reused.

E. Locate the supplied fuel injectors. Lubricate the injector O-rings with clean motor oil and install in to the fuel rail. Reinstall the small retaining clips onto the injectors. (If equipped)

F. Lower the fuel rail/injector assembly on to the manifold, making sure that the injectors seat properly into the manifold.

G. The supplied fuel injectors are taller than the factory injectors. Therefore, place the supplied .45" spacers between the fuel rails and the intake manifold and secure the fuel rails using the four supplied M8-30mm bolts. (See Fig. 5-b.)

H. Reconnect the fuel injector plugs.

I. Re-install the driver's side coil bracket and reconnect the spark plug wires.

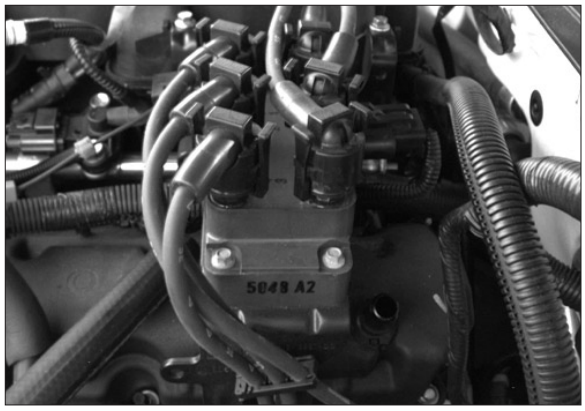

Fig. 5-a

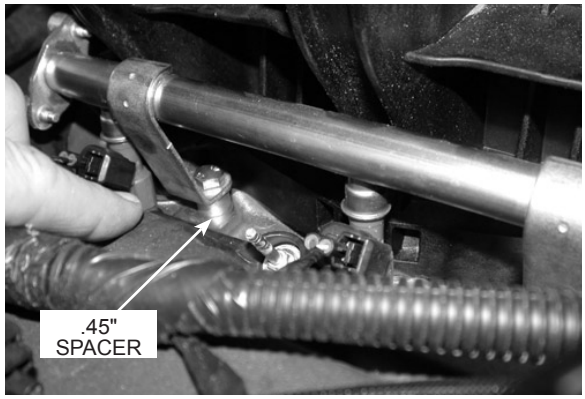

Fig. 5-b

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6. SUPERCHARGER BRACKET INSTALLATION

A. Remove two of the bolts and the stud that secures the power steering pump bracket to the front of the cylinder head. The fourth bolt does not need to be removed.

B. Install the supplied studs into each of the empty holes and install a 4.2" spacer over each stud.

C. Remove the flexible heat shielding from the EGR tube where it will run by the supercharger pulley and belt. It may be secured from possible contact by installing a hose clamp. (See *Fig. 6-d.*)

D. Loosely route the supplied belt around the power steering and A/C pulleys as shown. (See *Fig. 6-a*.)

***E.** Attach the supplied length of 1/2" oil drain hose to the drain fitting on the supercharger and secure with a hose clamp.

F. Attach the supplied mounting plate and air inlet support bracket to the supercharger using the five supplied 3/6" x 1-1/4" bolts and washers. (See *Fig. 6-b*.)

G. Use the 3/8" x 3-1/2" bolt installed through the pilot, idler and spacer as shown. (See *Fig. 6-c*.) Attach the idler (*with snap ring, if so equipped, towards the supercharger*) to the mounting plate in the hole provided. Tighten the nut. (See *Fig. 6-b*.)

H. Loosely install the supercharger/plate assembly onto the previously installed studs on the engine.

I. Route the belt so that it goes from the power steering, under the idler, over the supercharger pulley, and then to the A/C pulley. (See *Fig. 6-e*.)

J. Making sure that nothing is in the way (*including the belt*), secure the mounting plate to the engine with the supplied M10 nuts and the nut removed from the factory stud.

K. Compress the spring tensioner using a 3/8" square drive and install belt around the remaining pulleys in the original manner.

* Applies to "engine oil-fed" units only. V-3 applications skip these steps.

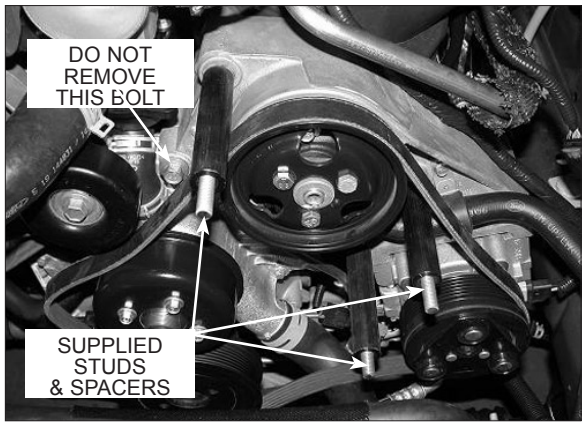

Fig. 6-a

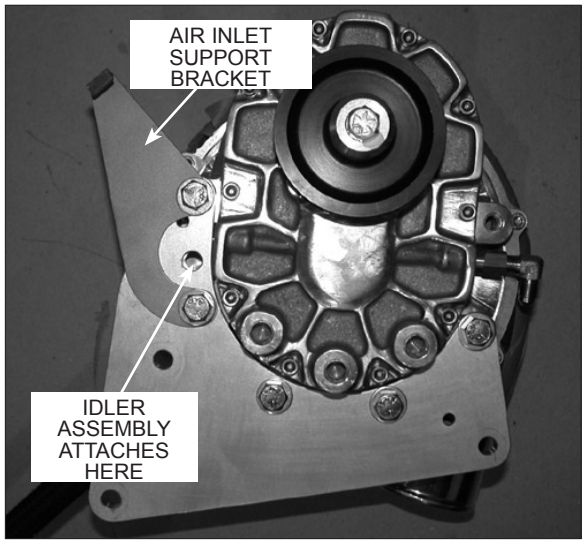

Fig. 6-b

Fig. 6-c

6. SUPERCHARGER BRACKET INSTALLATION, cont'd

***L.** Attach the oil drain line to the fitting previously installed in the timing cover. Secure with a #8 clamp

NOTE: Ensure that the hose does not have any dips or kinks in the routing. Supercharger failure may be the result of a restricted drain path.

*M. Attach the previously installed oil feed hose to the supercharger using the supplied 90° fitting. Do not overtighten. (See Fig. 6-d.)

**N. Secure the "remote" drain hose away from the belt and other hoses using tie-wraps.

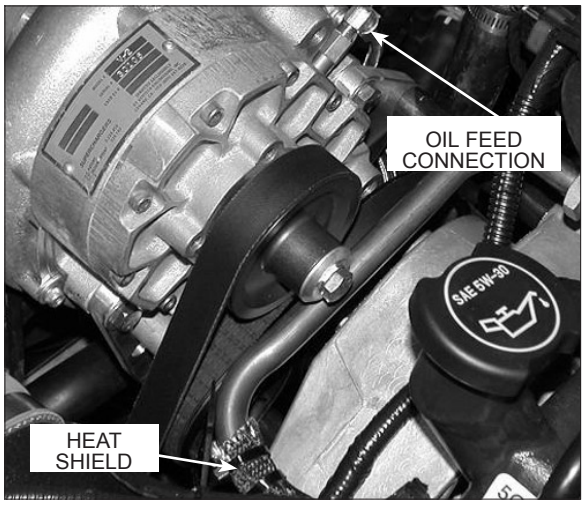

Fig. 6-d

* Applies to "engine oil-fed" units only. V-3 applications skip these steps.
** Applies to V-3 Applications only.

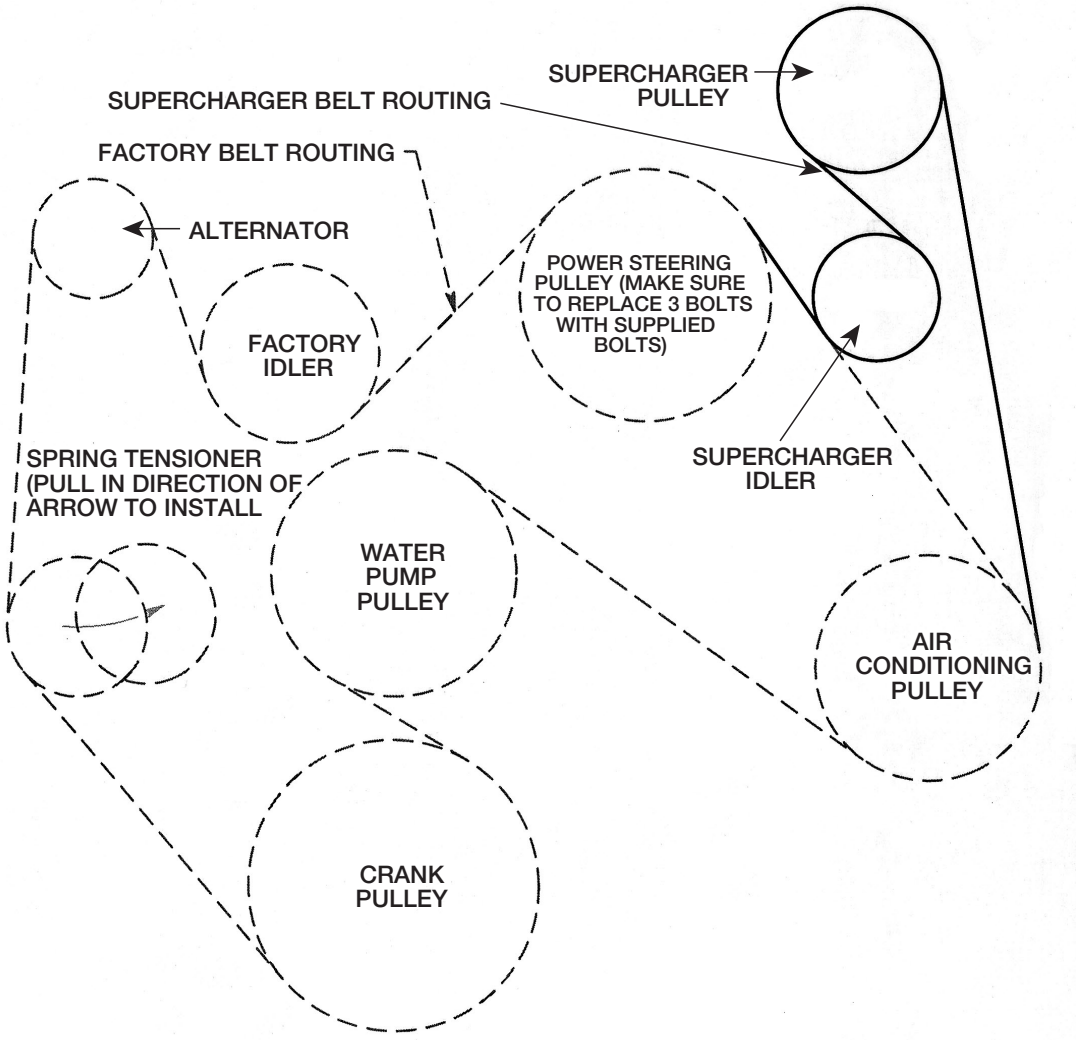

Fig. 6-e

7. CHARGE AIR COOLER INSTALLATION (H.0. Kits Only)

NOTE: For non-cooled kits skip this section and proceed to Section 8.

A. BUMPER COVER AND SPLASH PAN

1. Raise the vehicle with a floor jack and set on jack stands.
2. Remove the six plastic push-pins securing the radiator cover. Remove the cover and set aside to be reinstalled later. (See *Fig. 7A-a*.)
3. Remove the seven 5.5mm headed screws retaining the lower splash pan. (*If equipped.*) (See *Fig. 7A-b*.)
4. 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.
5. Remove the two 8mm headed bolts securing the coolant overflow reservoir to the plastic fan shroud.
6. Disconnect the small overflow hose (*running across the top of the radiator*) from the overflow reservoir. (See *Fig. 7A-c.*)
7. Remove the large hose connected to the bottom of the overflow reservoir.
8. Remove the six Phillips-head screws (*three on each side*) on the lower portions of the plastic innner fender liners.
9. Remove the five plastic clips retaining the front portion of each fender liner. Both sides need to be removed.
10. Remove the four 10mm nuts (*2 each side*) retaining the bumper cover to the fenders. (See *Fig. 7A-d*.)

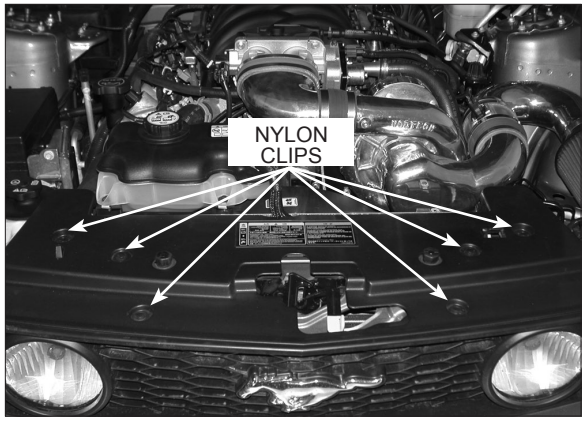

Fig. 7A-a

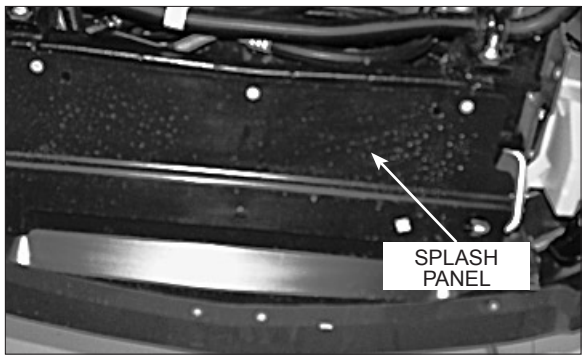

Fig. 7A-b

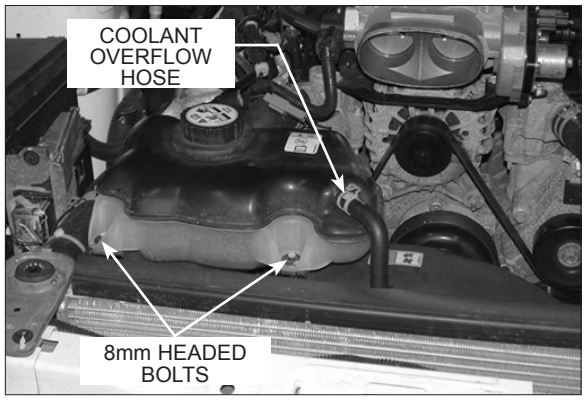

Fig. 7A-c

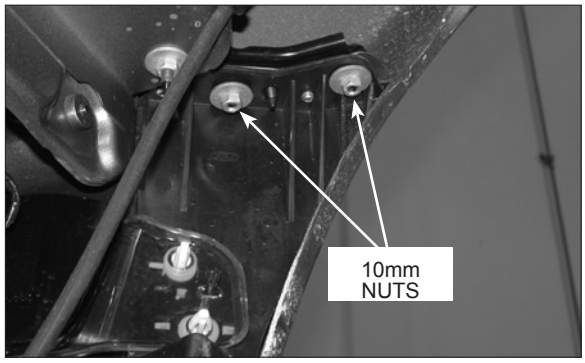

Fig. 7A-d

P/N: 4FU020-610

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7. CHARGE AIR COOLER INSTALLATION (H.0. Kits Only), cont'd

A. BUMPER COVER AND SPLASH PAN cont'd

11. Disconnect the connectors on the parking and the lower fog lights.

12. Remove the two 10mm headed bolts (*one each side upper portion of grill*). (See *Fig. 7A-e*.)

13. Lift up on the tabs releasing them from the clips.

14. Pull out on the bumper cover

15. Remove the connector to the driving light in the grill (if equipped).

16. Remove the bumper cover and set aside. (See *Fig. 7A-f*.)

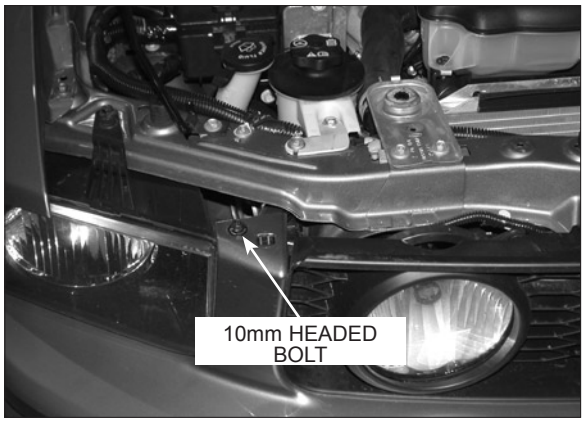

Fig. 7A-e

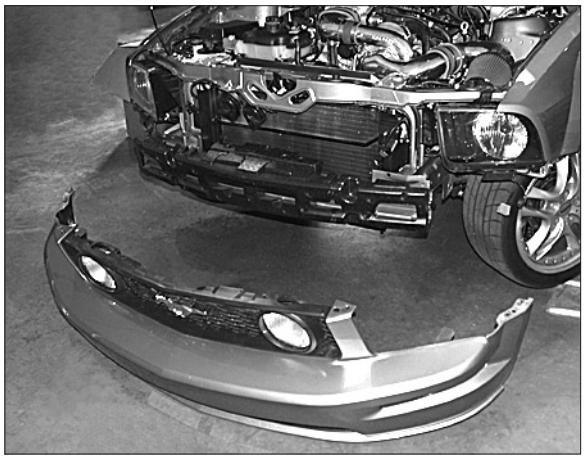

Fig. 7A-f

7. CHARGE AIR COOLER INSTALLATION (H.O. KITS ONLY), cont'd

B. WATER COOLER ASSEMBLY INSTALLATION

NOTE: Refer to Fig. 7C-d 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. 7B-a*.)

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

3. Remove four nylon push pins from the styrofoam bumper support and set the support and the pins aside to be reinstalled. (See *Fig. 7B-b.*)

4. Remove six of the eight 13mm headed inset bolts retaining the metal bumper support. (See *Fig. 7B-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. 7B-d.)*

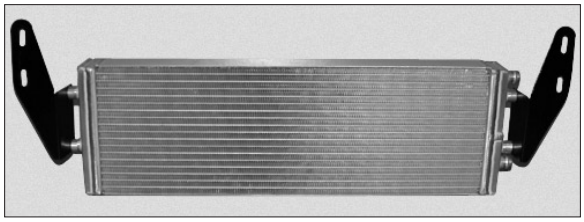

Fig. 7B-a

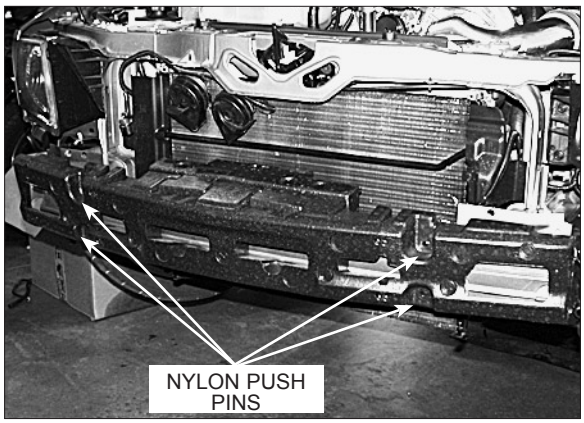

Fig. 7B-b

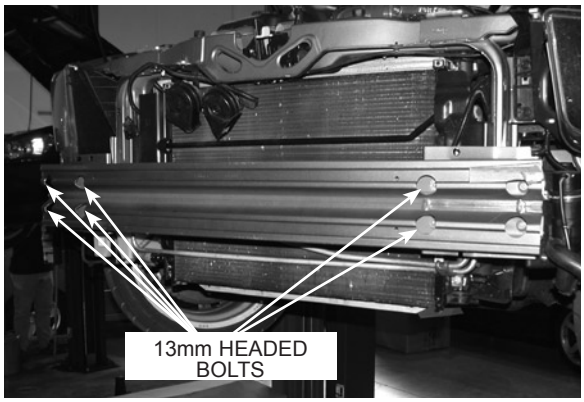

Fig. 7B-c

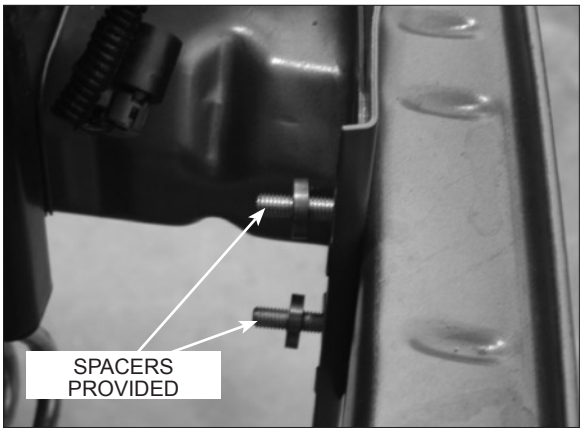

Fig. 7B-d

7. CHARGE AIR COOLER INSTALLATION (H.O. KITS ONLY), 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. 7B-e*.)

NOTE: When installing the cooler, make sure that the water ports are configured as shown in Figs. 7B-a, 7c-d. The "top cooler port" must be the highest point on the cooler for proper air purging.

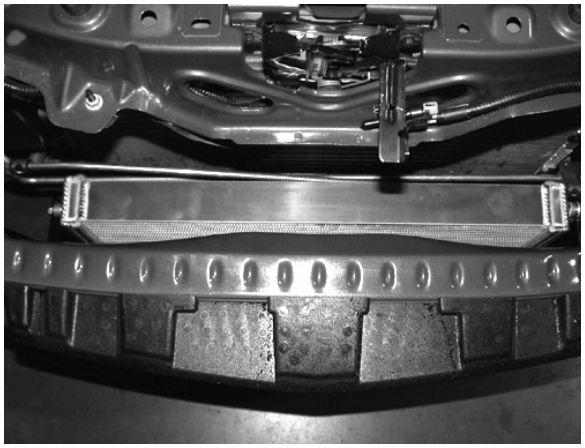

Fig. 7B-e

8. Attach the supplied short 90° hose (7U030-065) to the top port on the CAC cooler as shown.

9. Install one of the supplied 3/4" hose unions into the open end of the previously installed 90° hose and secure. (See *Figs. 7C-d*)

7. CHARGE AIR COOLER INSTALLATION (H.O. KITS ONLY), cont'd

B. WATER COOLER ASSEMBLY INSTALLATION, cont'd

10. Locate assembly 8N104-620. Confirm that the assembly is complete. Locate and set aside the "short" 1/2" NPT x 3/4" x 90° fitting (this fitting has only two barbs versus the standard three). Later the fitting will be used in a specific location as specified in step 7-E 11.

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. 7B-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. 7B-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 connnector. (See *Fig., 7B-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. 7B-i.*)

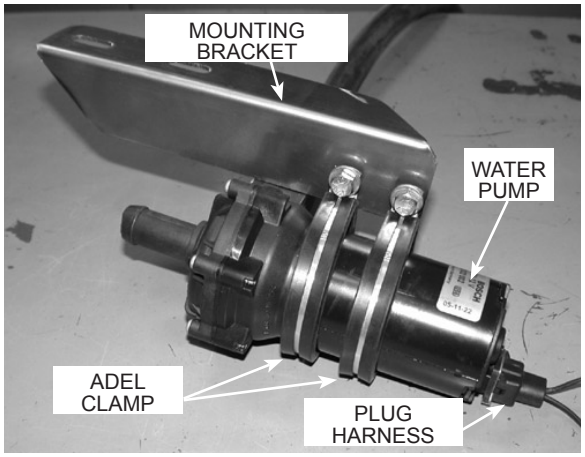

Fig. 7B-g

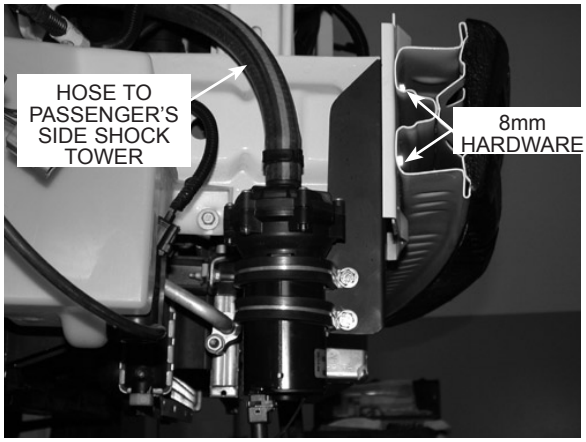

Fig. 7B-h

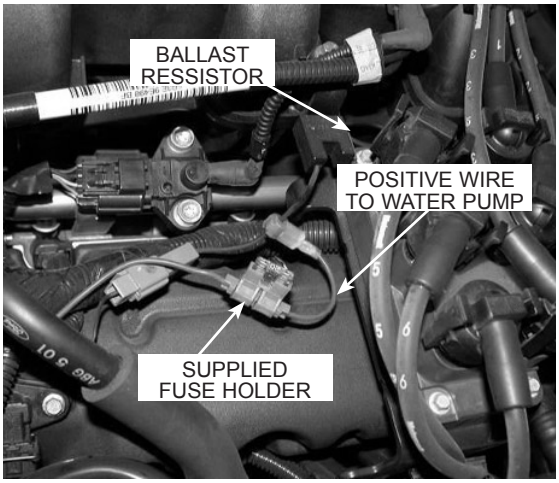

Fig. 7B-i

7. CHARGE AIR COOLER INSTALLATION (H.O. KITS ONLY), 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 tthe hose union and the previously installed water pump discharge. Secure all hose connections using the nylon ratchet clamps provided. (See Fig. *7B-j.*)

18. Attach a length of 3/4" hose approximatelly 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 connnected in later step. (See Fig. *7B-h.*)

NOTE: The installation of this hose section should maintain an "uphill" routing wthout dips or kinks.

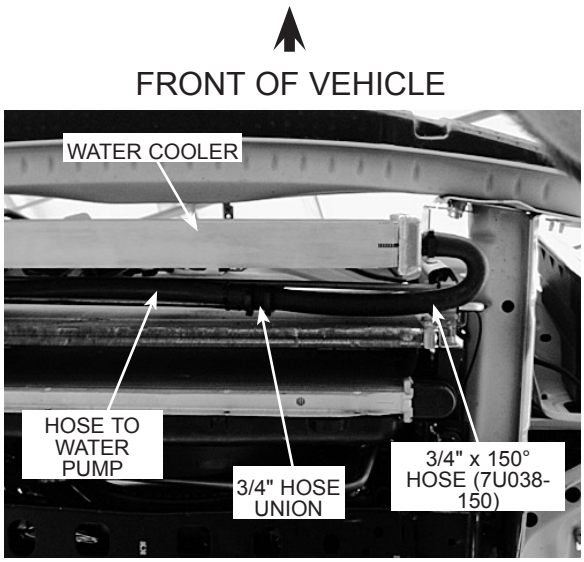

Fig. 7B-j | Viewed From Below

7. CHARGE AIR COOLER INSTALLATION (H.O. KITS ONLY), cont'd

C. SURGE TANK INSTALLATION

1. 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. 7C-a*.)

2. 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. 7C-b*.)

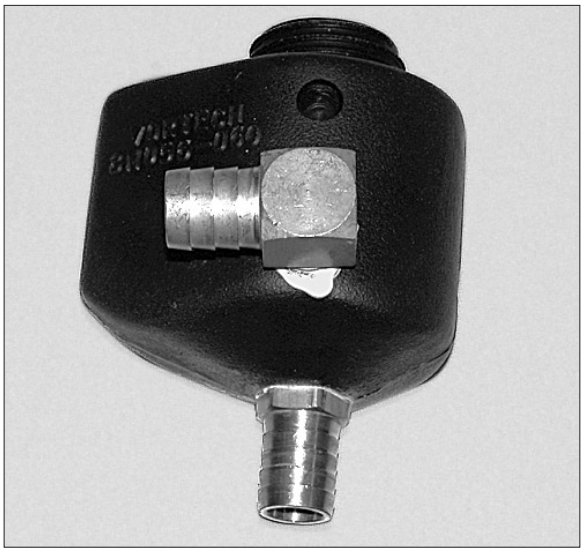

Fig. 7C-a

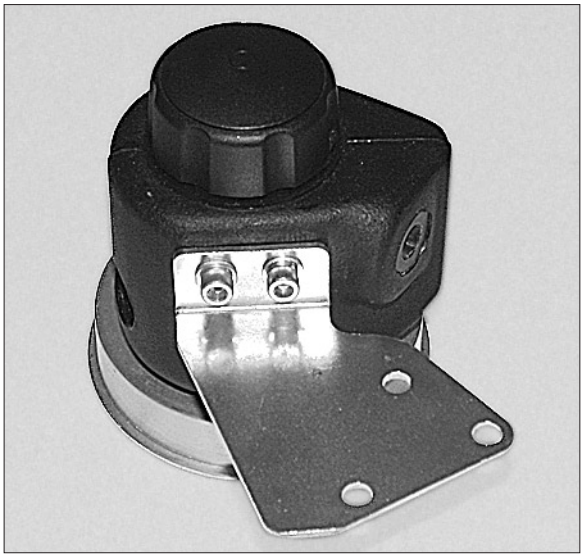

Fig. 7C-b

7. CHARGE AIR COOLER INSTALLATION (H.0. Kits Only), cont'd

C. SURGE TANK INSTALLATION

3. 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. 7C-c*.)

NOTE: The surge tank is mounted in a later step.

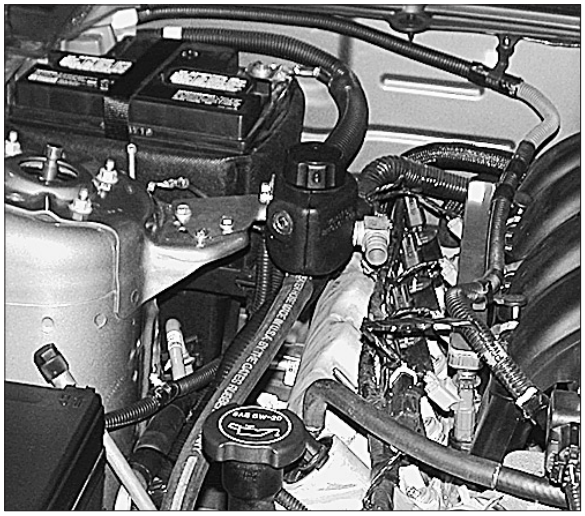

Fig. 7C-c

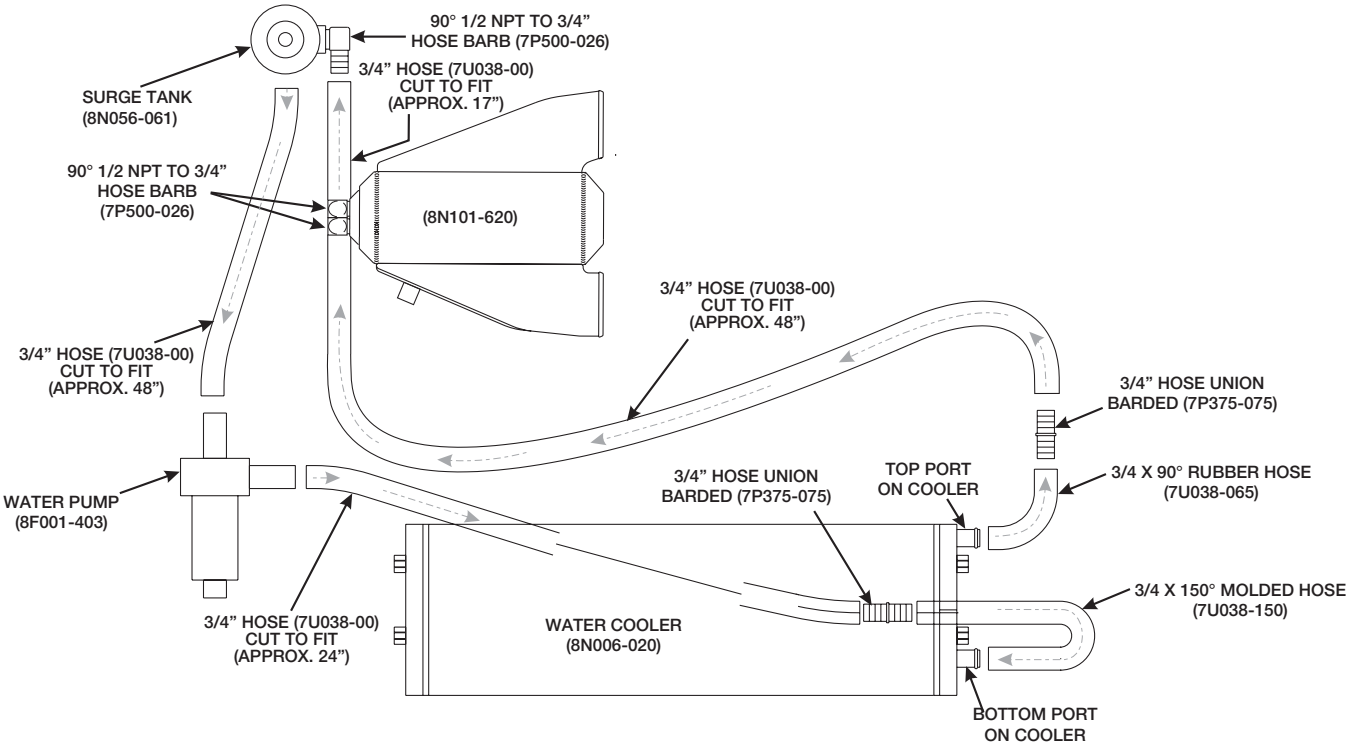

Fig. 7C-d

7. CHARGE AIR COOLER INSTALLATION (H.0. Kits Only), cont'd

D. ENGINE COOLANT RESERVOIR INSTALLATION, (2005-2006 Models Only)

(2007-2008 Models Skip to Section 7E.)

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. 7D-a*.)

3. Attach bracket 4FU010-061 to the front of the reservoir with the hardware provided. (See *Fig. 7D-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. 7D-c*.)

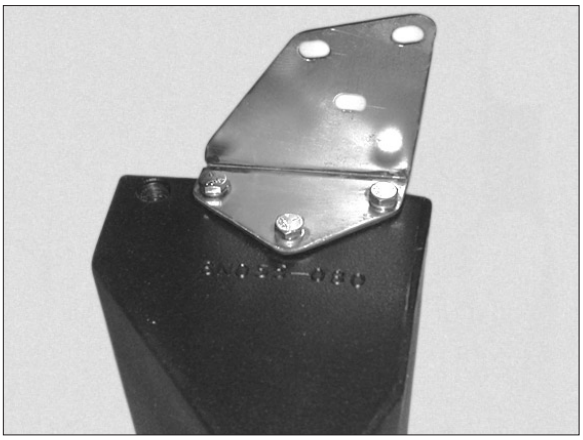

Fig. 7D-a

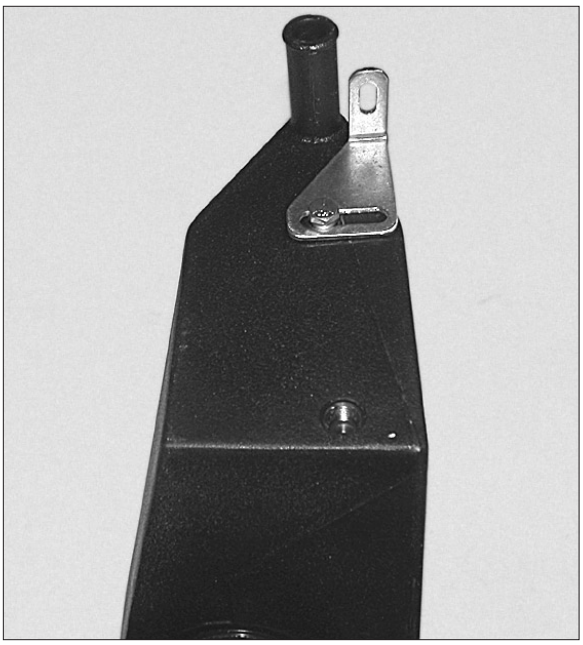

Fig. 7D-b

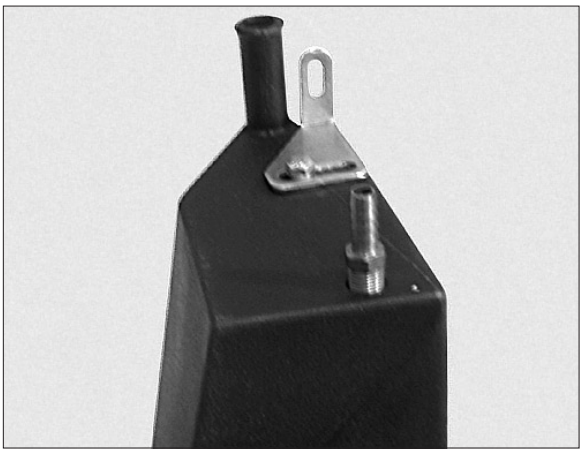

Fig. 7D-c

7. CHARGE AIR COOLER INSTALLATION (H.0. Kits Only), cont'd

D. 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. 7D-d*.)

6. Install the coolant reservoir. Secure the front of the reservoir with the factory fastener removed previously. (See *Fig. 7D-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. 7D-f*.)

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

8. Attach a 3/4" hose elbow to the front of the coolant reservoir. Use the supplied Ø3/4 x Ø1" increaser to connect it to the factory surge-tank hose. (See Fig. 7D-g.) Tighten the clamps on all connections and secure the hose so that it will not contact any moving part.

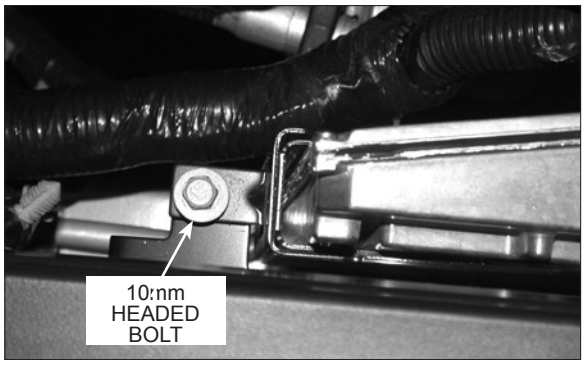

Fig. 7D-d

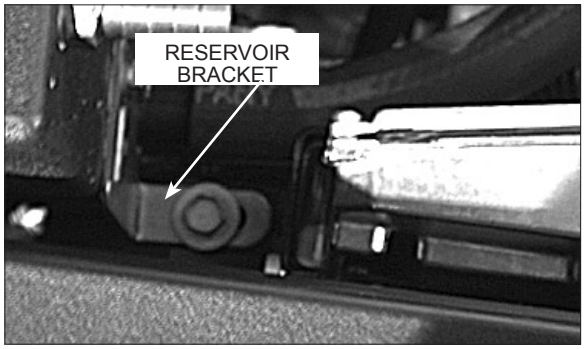

Fig. 7D-e

Fig. 7D-f

Fig. 7D-g

7. CHARGE AIR COOLER INSTALLATION, cont'd (H.O. KITS ONLY)

D. 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. 7D-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. 7D-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. 7D-j*.)

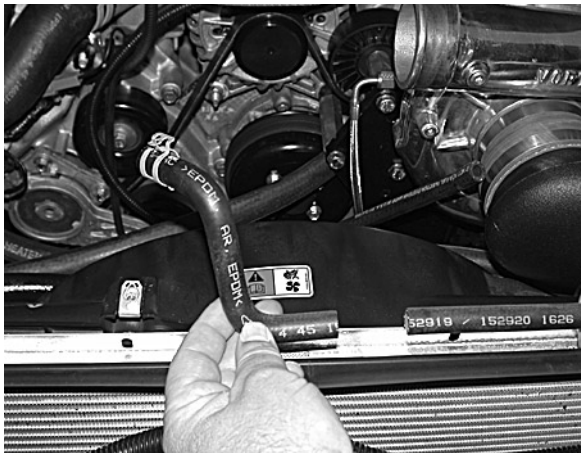

Fig. 7D-h

Fig. 7D-i

Fig. 7D-j

7. CHARGE AIR COOLER INSTALLATION (H.O. Kits Only), cont'd

E. ENGINE COOLANT RESERVOIR INSTALLATION (2007-2008 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. 7E-a.*)
3. Attach bracket 4FU010-061 to the front of the reservoir with the hardware provided. (See *Fig. 7E-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 approppriate drill bit. (See *Fig. 7E-c.*)

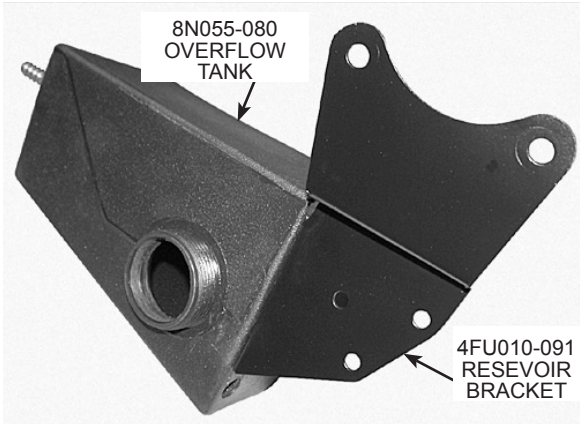

Fig. 7E-a

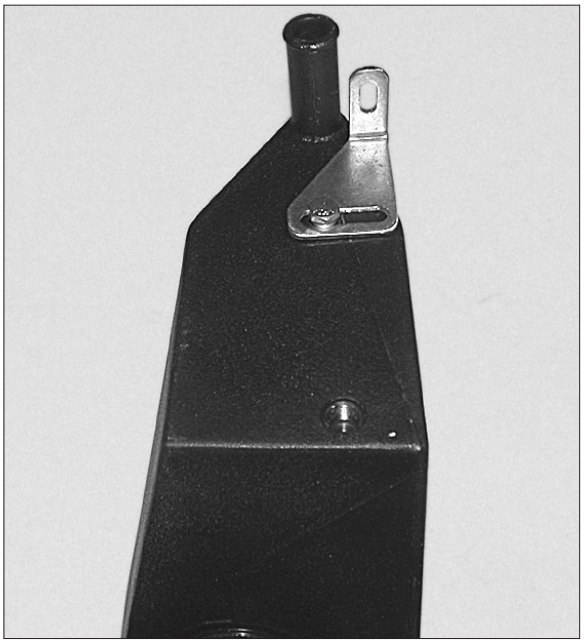

Fig. 7E-b

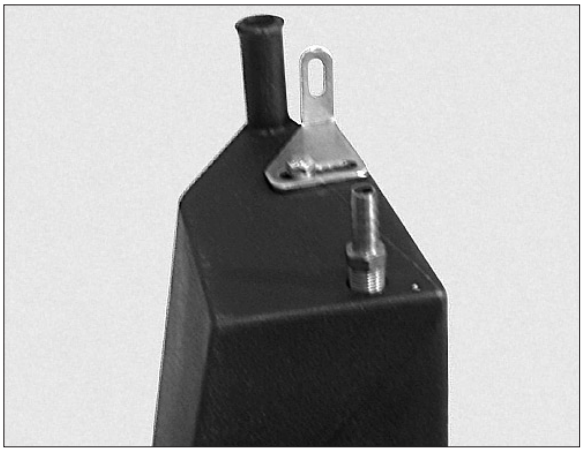

Fig. 7E-c

7. CHARGE AIR COOLER INSTALLATION (H.O. Kits Only), cont'd

E. ENGINE COOLANT RESERVOIR INSTALLATION (2007-2008 Models Only), cont'd

5. Remove the 10mm headed bolt that secures the back of the ECU and the power distribution box. (See *Fig. 7E-d*.)

6. Install the coolant reservoir. Secure the front of the reservoir with the factory fastener removed previously. (See *Fig. 7E-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, and 1/4-20 hardware provided (See *Fig. 7E-f*.)

8. Attach a 3/4" hose elbow to the front of the coolant reservoir. Use the supplied Ø3/4" x Ø1" increaser to connect it to the factory surge-tank hose. (See *Fig. 7E-g*.) Tighten the clamps on all connections and secure the hose so that it will not contact any moving part.

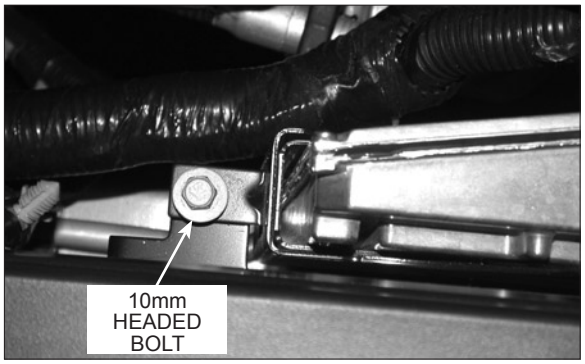

Fig. 7E-d

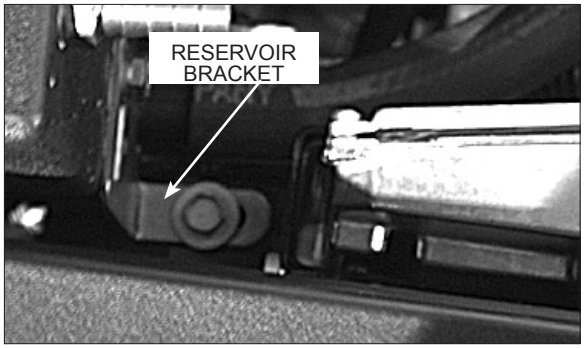

Fig. 7E-e

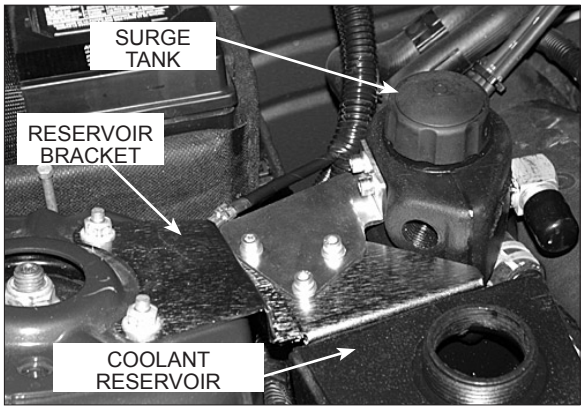

Fig. 7E-f

Fig. 7E-g

7. CHARGE AIR COOLER INSTALLATION, cont'd (H.O. KITS ONLY)

E. ENGINE COOLANT RESERVOIR INSTALLATION (2007 -2008 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. 7E-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. 7E-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. 7E-j*.)

Fig. 7E-h

Fig. 7E-i

Fig. 7E-j

7. CHARGE AIR COOLER INSTALLATION (H.0. Kits Only), cont'd

F. RADIATOR HOSE MODIFICATIONS

1. Remove the passenger's side upper radiator hose.
2. Modify the upper hose by cutting the hose. (See *Fig. 7F-a*.)
3. Attach the hose to the stainless union with a #24 SS hose clamps.
4. Trim the short 90° hose end that was previously connected to the engine (*it will now be connected to the radiator*) so as to bring the hose as close to the radiator as possible. Secure using the factory hose clamp. (See *Figs. 7F-a, 7F-c.)*
5. Attach the open end of the hose assembly to the engine and secure using the factory hose clamp. Adjust the hose assembly to allow as much room as possibly for cooler clearance in a following step. Secure all clamps at this time. (See *Figs. 7F-b, 7F-c.*)
6. 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.
7. 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.
8. Attach the cooler discharge to the previously installed elbow.
9. Tighten all cooler clamps at this time.
10. Install a 1/2"NPT x 3/4" x 90° fitting in the lower hole in the charge cooler end tank. Tighten and leave pointing down.
11. Take the remaining "short" 1/2"NPT x 3/4" x 90° fitting (*set aside in Step 7B-10*) and install it in the upper hole in the charge air cooler end tank. Leave this fitting pointed towards the rear of the vehicle.
12. Attach a length of 3/4" hose from the 90° fitting on the surge tank to the rear facing fitting on the charge air cooler.
13. Attach a section of 3/4" hose to the fitting on the charge air cooler that is pointing down and route to the hose union previously installed in the 90° on the driver's side of the water cooler and secure all hose connections with the nylon ratchet clamps provided.

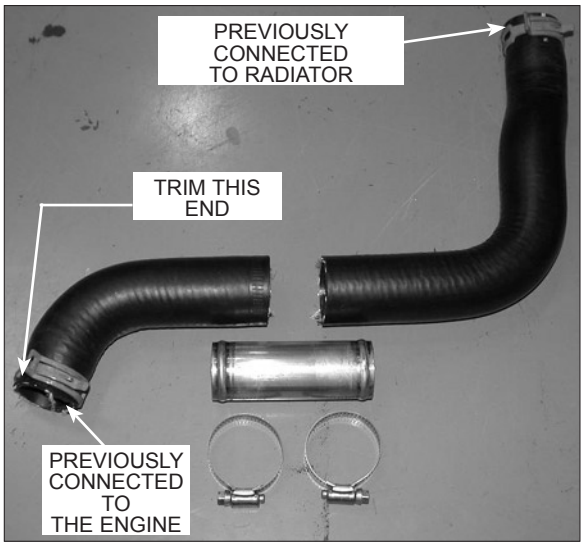

Fig. 7F-a


Fig. 7F-b

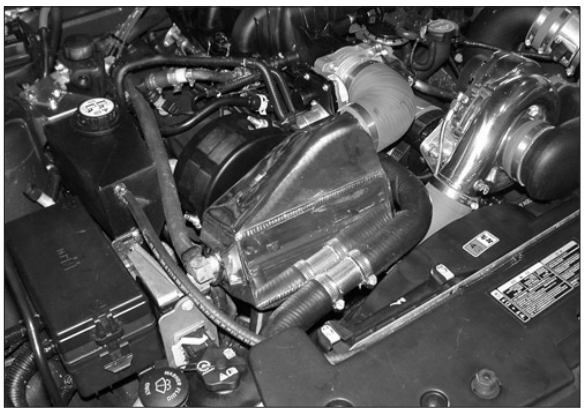
Fig. 7F-c

7. CHARGE AIR COOLER INSTALLATION (H.0. Kits Only), 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 Vortech 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 Vortech supplied reservoir.
4. 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 coolant using a 25%/75% antifreeze/water mix. 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.
5. Reinstall the front bumper assembly including the foam inner bumper, all plastic splash panels and light connections in the reverse order removed.

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7. CHARGE AIR COOLER INSTALLATION (H.0. Kits Only), cont'd

H. COMPRESSOR BYPASS VALVE ASSEMBLY INSTALLATION

1. Assemble the bypass using a piece of Ø1" hose cut to 6" long and a piece cut to 24" long and four #16 hose clamps.. (See Fig 7H-a)
2. Attach the 6" piece of hose to the inlet of the bypass and secure with a clamp. (See Fig. 7H-a)
3. Secure the 24" piece to the outlet of the valve, securing it with a clamp. (See *Fig. 7H-a*.)
4. Attach the bypass assembly to the charge cooler. The 6" long piece will be attached to the charge cooler. Secure with clamps. Leave the 24" long section open for future attachement to the air inlet.
5. Attach a length of 5/32" vacuum hose to the bypass valve and route to the vacuum port on top of the intake manifold.
6. Remove the plastic union connecting the fuel rail pressure sensor to the intake manifold. Install the supplied TEE in its place. (See *Fig. 8-b*.)
7. Attach the vacuum hose from the bypass valve to the TEE.

Once Section 7 has been completed, skip Section 8 and proceed with Section 9.

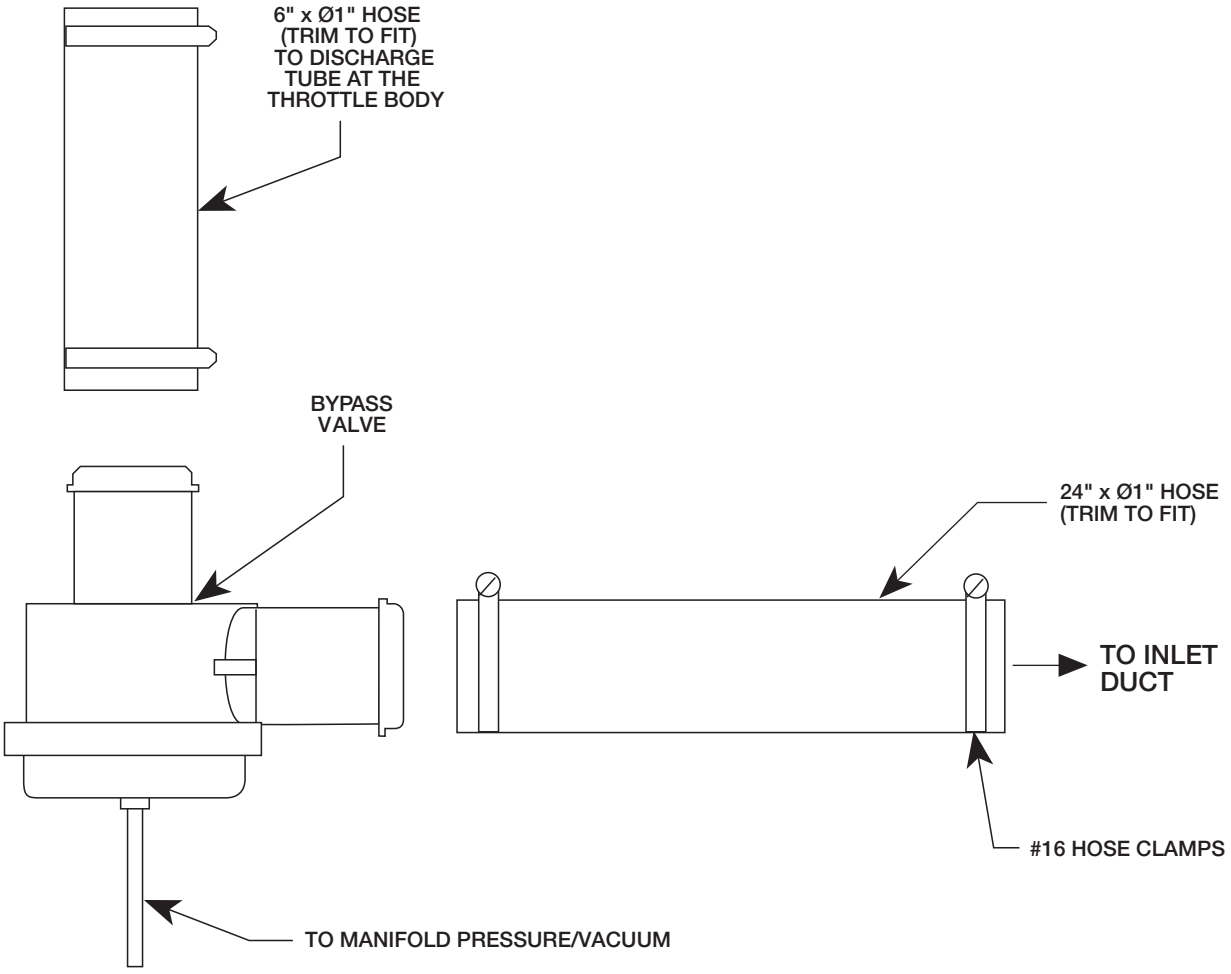

Fig. 7H-a

8. STANDARD DISCHARGE, (Non-Cooled Kits Only)

A. Install the supplied supercharger elbow between the supercharger discharge and the throttle body. Secure with clamps. (See *Fig. 8-a*.)

B. Attach the bypass valve inlet to the discharge elbow.

C. Attach one end of the supplied Ø1" hose to the bypass valve discharge. Install and tighten the supplied #16 hose clamps on each end of the bypass valve. The open end of the hose will be connected to the air inlet in a future step. (See Fig. 8-c)

D. Attach a length of 5/32" vacuum hose to the bypass valve and route to the vacuum port on top of the intake manifold. (See Fig. 8-c)

E. Remove the plastic union connecting the fuel rail pressure sensor to the intake manifold. Install the supplied TEE in its place. (See *Fig. 8-b*.)

F. Attach the vacuum hose from the bypass valve to the TEE.

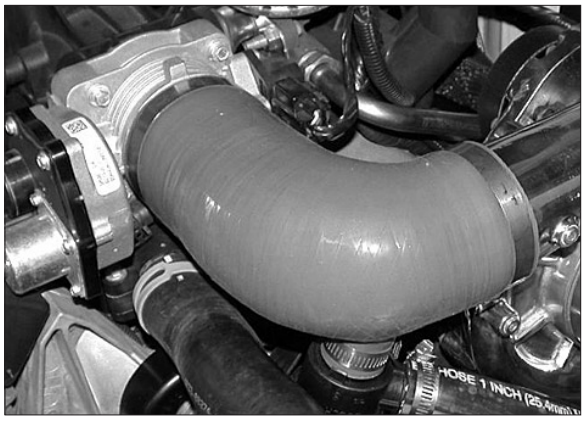

Fig. 8-a

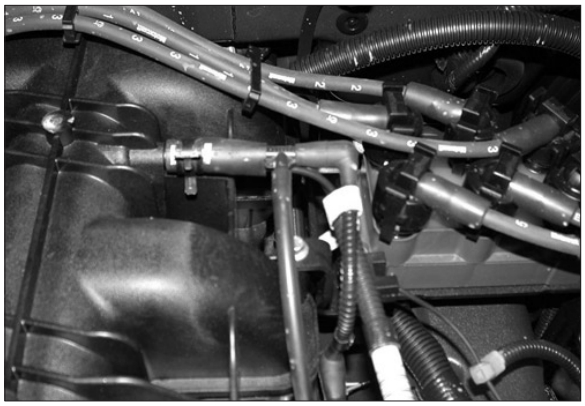

Fig. 8-b

Fig. 8-c

9. AIR INLET ASSEMBLY

A. Locate assembly 4FU112-610.

B. Install the Ø3/4"NPT x Ø1" x 90° Plastic fitting into the air inlet duct. (See Fig. 9-a)

C. Install the Ø1/4"NPT x Ø5/8" hose barb fitting in the location noted. (See Fig. 9-a)

D. Attach the 4.0" x 3.5" reducer sleeve to the inlet duct. Secure the sleeves with the clamps provided. (See *Fig. 9-a*.)

E. Attach the Ø5/8" hose previously connected to the passenger's side valve cover, to the Ø1/4"NPT x Ø5/8" hose x 90° fitting installed in a previous step.

F. Attach the Ø1" bypass outlet hose to the 90° plastic fitting and secure the hose with a #16 hose clamp.

G. Install the duct onto the inlet of the supercharger and secure in place with the clamps provided.

H. Locate and install a Ø4.0" x 2.0" long sleeve to the inlet of duct 4FU012-010 and two #64 clamps. (See *Fig. 9-b*.)

I. Remove the Factory MAF sensor element from the top portion of the factory air filter housing.

J. Install the element reusing the factory hardware to the supplied MAF tube that is provided. (See *Figs. 9-c*.)

Fig. 9-a

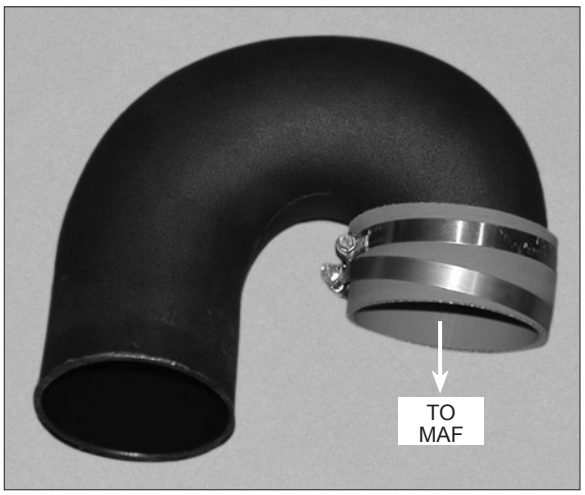

Fig. 9-b

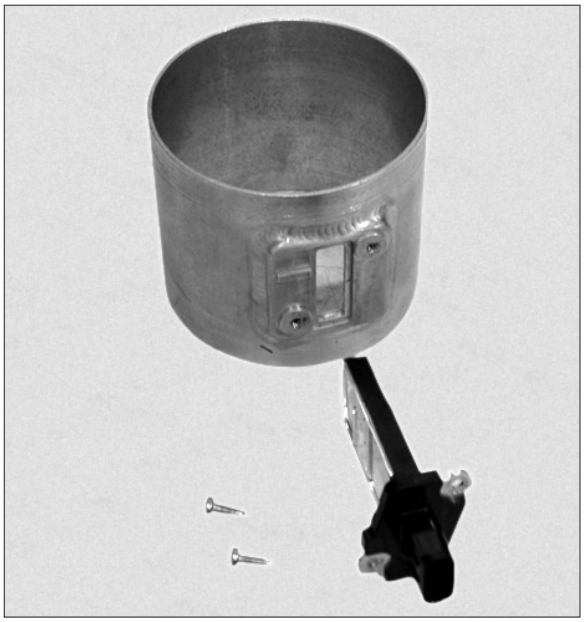

Fig. 9-c

9. AIR INLET ASSEMBLY, cont'd

NOTE: Install the MAF sensor element so the inlet of the sensor faces the air filter.

L. Install the MAF sensor and air filter to the 180° duct. (See *Fig. 9-e*.)

M. Install the 180° duct and the MAF sensor with the filter to the inlet duct leading to the Supercharger. (See *Fig. 9-f*.) Clock the MAF **exactly** as shown in the figure.

N. Secure the rear clamp at the inlet duct union to the previously installed support bracket. (See *Fig. 9-f*.)

O. Install the air filter cover as shown. (See *Fig. 9-f*.)

P. MAF (*Mass Air Meter*) 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 (*Mass Air Meter*) 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.

Fig. 9-e

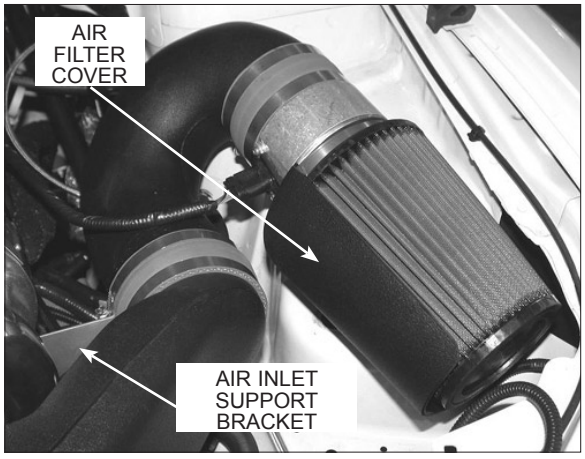

Fig. 9-f

10. CRANK CASE BREATHER AND PCV INSTALLATION

A. Locate PVC/MAF assembly 4FU139-096.

B. Disconnect the plastic Ø5/8" tube assembly attached to the passenger's side valve covder. Remove the plastic Ø5/8" x 90° connector from the plastic tube that was connected at the passenger's side valve cover. Discard the remainder of the hose assembly as it will not be re-used.

> 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. Locate the factory Ø5/8" x 90° hose end connector removed in a previous step. Cut two pieces of the supplied 5/8"ID hose approximately 2" long. Connect one hose to the 90° fitting.

D. Install the supplied PCV valve into the 5/8" hose.

E. Cut a piece of the supplied 3/8"ID hose and connect to the previously installed PCV valve.

F. Install the supplied 3/8" x 5/8" hose union to the open end of the 3/8" hose. Connect the second 5/8" hose to the hose union.

G. 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 *Fig. 10-a* for assistance.)

H. Disconnect and remove the factory Ø5/8" plastic breather hose assembly attached to the driver's side valve cover and intake manifold. Remove the 90° fitting.

I. Attach the supplied length of Ø5/8" hose to the 90° fitting just removed and attach the fitting to the driver's side valve cover in its original location. (See *Fig. 10-b*.)

J. Attach open end of hose to the 90° fitting installed in the air inlet. (See *Fig. 9-a*.)

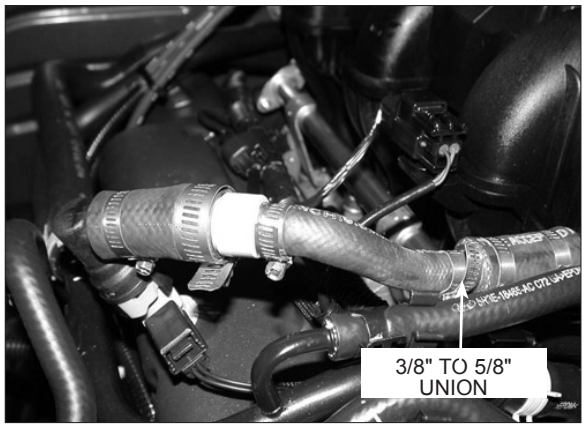

Fig. 10-a

Fig. 10-b

11. 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.

A. Reconnect the battery.

B. Locate the vehicles OBD2 connector located in the lower left hand corner of the dash on the driver's side of the vehicle. (See *Fig 11-a*.)

C. Attach the OBD2 connector from the Flash tool that is provided in the kit to the vehicle's OBD2 port. (See *Fig 15-b*.) Make sure this connector is seated all the way in the vehicles OBD2 port. You do not want this connector coming out during programming or damage may occur to the vehicle's ECM.

D. The Reflash tool should power up and display three parameters.

1. **Performance Tune**
2. **Diagnostics**
3. **Options**

E. Select "Performance Tune" and press the enter button in the middle of the arrow keys. (See *Fig 11-c*.)

F. Read the disclaimer entirely, then select "Agree" and press enter.

G. At this point please read the screen displayed on the reflash tool. If you have any questions, either refer to the manual that is provided with the reflash tool or contact our service department for further assistance.

H. Turn the ignition on (*do not start the vehicle*). Set the parking brake and press the enter button to continue.

I. **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 a choice of three to choose from:

1. STD OUTPUT (*non charge-cooled*)
2. CHARGE-COOLED, air/water
3. Original Backup

J. Continue to follow the screen instructions and when finished unplug the reflash tool from the vehicles OBD2 port.

NOTE: Do not disturb the cable, or turn the ignition off during this time. If the programming is disrupted, the vehicle's computer may be damaged!

Fig. 11-a

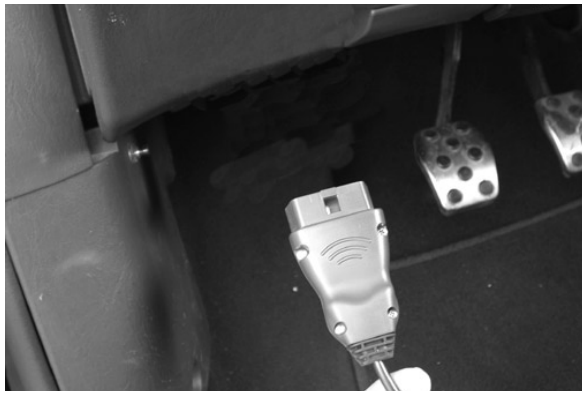

Fig. 11-b

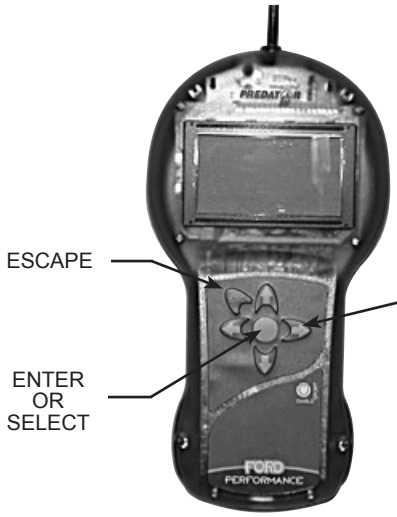

Fig. 11-c

12. 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 and check for signs of any 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.

Fig. 12-a (Standard Kit)

Fig. 12-b (H.O. Kit)

12. FINAL CHECK, CONT'D

For internally lubricated V3 units only

This supercharger has been factory pre-filled with special Vortech synthetic lubricant. Oil does not need to be added to a brand new unit; however a fluid level check should be performed.

Prior to operating the supercharger on the vehicle and after installation onto the vehicle:

Remove the factory installed flat-head brass shipping plug (not the dipstick) from the top of the supercharger case. Replace the sealed shipping plug with the supplied “vented” plug. Do not operate the supercharger without it. Check the supercharger fluid level.

Fluid level checking procedure:

1. Ensure that the .06” copper sealing washer is located on the dipstick base.
2. Thread the clean dipstick into the supercharger unit it seats.
3. Once the dipstick has seated, remove the dipstick from the unit. Fluid should register in the crosshatched area on the dipstick.
4. DO NOT OVERFILL!!! Drain excess fluid the unit if it is above the maximum level on the dipstick.

Check the fluid level using the dipstick at least every 2,500 miles.

Initial supercharger fluid change must be performed at 2,500 miles. The supercharger fluid must be changed at least every 7,500 miles.

Drain the fluid, refill the unit with 4 oz. of Vortech V3 lubricating fluid and then confirm proper oil level using the dipstick. DO NOT OVERFILL!!!

WARNING:	Use of any other fluid other than the special Vortech lubricant will void the warranty and may cause component failure.

ENGINEERING, LLC

1650 Pacific Avenue, Channel Islands CA 93033-9901 • Phone: 805 247-0226
Fax: 805 247-0669 • www.vortechsuperchargers.com • M-F 8:00AM - 4:30PM (PST)