INSTALLATION INSTRUCTIONS

Stillen Super Charger
2000 Nissan Maxima
P/N 407500

Materials supplied:

1- VORTECH SUPERCHARGER & MOUNTING PLATE ASSY.
- 1ea. Supercharger assy. with pulley
- 1ea. Aluminum mounting plate
- 2ea. M6-1.0 x 55mm bolts in plate assy.
- 1ea. 6-Rib drive belt

1- AIR FILTER ASSY.
- 1ea. Air filter & Adapter
- 1ea. Support bracket, tubular
- 1ea. Support bracket, "Z" shape
- 2ea. Rubber isolator
- 2ea. Rubber isolator, inner sleeve
- 5ea. M6-1.0 x 16mm Flange HHCS
- 2ea. M6-1.0 x 30mm Flange HHCS
- 1ea. M6-1.0 Flange hex nut
- 2ea. #¼ Flat washers

1- CRANKCASE BREATHER ASSY.
- 1ea. 24"- 5/8 I.D. Emission vent hose
- 1ea. 5/8 x 5/8 x ¼ Plastic "T" elbow
- 1ea. Multi-size Plastic "T"

1- OIL FEED LINE / SUPERCHARGER
- 1ea. –4 Braided line w/ fittings
- 3ea. –6 ADEL clamps
- 3ea. Aluminum spacer ½" long
- 3ea. M6-1.0 x 25mm HHCS
- 3ea. M6 Flat washer
- 1ea. Oil feed "T" adapter

1- FUEL PUMP & MANAGEMENT ASSY.
- 1ea. Fuel management assy w/bracket
- 1ea. Fuel pump assy w/ ADEL clamps
- 1ea. Mounting plate w/ Insulators
- 2ea. ¼" Flat washers
- 2ea. ¼" –20 Nylock nuts
- 2ea. Rubber bonded isolators ¼" M/F
- 1ea. Package- fuel pump terminal nuts & washers
- 2ea. M6-1.0 x 25mm HHCS
- 2ea. M6 Split washer
- 11ea. Hose clamp #4 – fuel hose
- 1ea. 8' - 5/16" I.D. High pressure fuel hose
- 2ea. Cable ties 11"
- 3ea. 5/16" Barbed joiner – fuel hose

1- AUXILIARY FUEL PUMP ELECTRICAL ASSY.
- 1ea. Fuel pump relay w/ wring harness
- 1ea. Fuel pump pressure switch w/ bracket
- 1ea. Blue 3M splice connector
- 1ea. M6-1.0 X 65mm HHCS
- 1ea. M6 Flat washer
- 1ea. ½"OD X 1-1/2" aluminum spacer

1-POWER STEERING
- 1ea. 8' – 3/8" I.D. Blue hose
- 1ea. 12" lg. Foam tube
- 2ea. Hose clamp #4
- 1ea. Aluminum "U" tube
- 1ea. 18" lg. Perforated back strap
- 3ea. M6-1.0 x 12mm Flange HHCS
- 3ea. –4 ADEL clamps

1- COOLANT OVERFLOW RELOCATION
- 1ea. Mounting bracket – bottle relocation
- 1ea. M6-1.0 x 16mm Flange HHCS

1- WINDSHIELD WASHER BOTTLE
- 1ea. Molded hose
- 2ea. Hose clamp #24
- 1ea. 11" Cable ties

1- BYPASS VALVE
- 1ea. BOSCH bypass valve
- 1ea. 12" –1.0" I.D. Rubber hose
- 4ea. Hose clamp #12 narrow

1- OIL DRAIN BACK
- 1ea. Modified oil drain back plate
- 1ea. Molded hose – supercharger drain back
- 2ea. Hose clamp #10 narrow

1- FUSE BOX RELOCATION
- 1ea. Teardrop shape retainer
- 1ea. Fuse box mounting plate
- 2ea. 10-32 x ¾" FHCS
- 2ea. 10-32 Nylock hex nut
- 1ea. M6-1.0 x 20mm HHCS
- 1ea. M6-1.0 Nylock hex nut
- 1ea. M6 Flat washer

1- PRESSURE PIPE ASSY.
- 1ea. Pressure pipe w/ welded mounting tabs
- 1ea. 2.0" lg. X 2-3/4" I.D. Silicone hose
- 1ea. 90° 2-1/2 I.D. x 2-3/4" I.D. Hose
- 1ea. Hose clamp #36
- 1ea. Hose clamp #40
- 2ea. Hose clamp #44
- 2ea. M6-1.0 x 12mm Flange HHCS

1- INLET PIPE
- 1ea. Inlet pipe assy.
- 1ea. 2.0" lg. X 2-3/4" I.D. Silicone hose
- 1ea. 90° 3-1/2 I.D. x 2-1/2" I.D. Hose
- 1ea. Hose clamp #56
- 1ea. Hose clamp #40
- 1ea. 12" lg. X ½ w. Double sided tape
- 2ea. 14" Cable ties

1- BELT ADJUSTER / PULLEY
- 1ea. Base bracket
- 1ea. 2"∅ Pulley w/ side rails
- 1ea. Spacer - pulley

1- IDLER PULLEY
- 1ea. 2"∅ Pulley, No side rails w/ brg. sleeve
- 1ea. ½-13 x 1-1/2" HHCS
- 1ea. M12 Flat washer

1- VACUUM FITTINGS
- 1ea. 5-Way Plastic connector
- 1ea. 72" – 5/32"∅ Vacuum hose

1- ASSOCIATED HARDWARE
- 1ea. M6-1.0 X 65mm HHCS – S/C plate to engine
- 2ea. M6 Stand-off bolts – S/C plate to engine
- 1ea. M6-1.0 X 55mm HHCS – S/C plate to engine
- 1ea. M6-1.0 X 30mm HHCS – S/C plate to stand-off, outer
- 1ea. M6-1.0 X 20mm FHCS – S/C plate to stand-off, inner
- 2ea. M6 Flat washer & Split lock washer
- 1ea. M6 Serrated spring washer
- 1ea. M8-1.25 x 25mm FHCS – S/C plate/ belt adjuster mtg. to engine
- 1ea. M8-1.25 x 30mm Flange HHCS – S/C plate to alternator
- 2ea. M10-1.5 x 60mm HHCS & Flat washer – S/C plate to eng. Mtg.
- 1ea. Cam sensor retainer plate

INSTALLATION INSTRUCTIONS
Stillen Super Charger
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WARNING!!! IF YOU ARE NOT EXPERIENCED IN THE AREA OF AUTOMOTIVE MECHANICS WE STRONGLY URGE THAT YOU REFER THIS INSTALLATION TO YOUR MECHANIC

Equipment needed:

1. Metric & SAE sockets, ratchets and wrenches
2. +,-- Screw drivers
3. Long hex key drive & universal joint 3/8 drive (Mac tool #XDLS)
4. Loctite® Threadlocker #242 (Blue)
5. Liquid sealer (i.e. Permatex Form-a-Gasket#2®, Loctite®518)
6. Anti-seize paste
7. Wire crimps (Electrical connector type)
8. Pliers
9. Engine oil & filter, oil drain plug copper sealing washer
10. Engine Coolant
11. Pipe thread sealant paste (Not Teflon tape)
12. Jack stands (Recommended)

Installation:

Please read instructions a few times and visually look over your vehicle while reading before starting the assembly process. We recommend to torque all fasteners and Loctite be used on all threaded fasteners during installation. Also keep covers on supercharger inlet & outlet to prevent foreign objects from entering.

1. Disconnect the battery (Note, save radio stations and any other electronic memory as needed). Undo 2-battery retaining rods and remove from vehicle. Remove the battery tray by undoing the 4-bolts in the tray, 2-bolts on the relay box and three wiring clips.
2. Support the front of the vehicle on jack stands.
3. Remove air filter box assembly from backside of battery and unbolt MAS (Mass Air Sensor) from air filter lid, as OEM filter box assembly will not be used in the kit.

Remember to save O-ring gasket from MAS, it will be re-used later.

4. Remove the cover panels from under the radiator and lower engine area by retaining clips and bolts. Drain all engine oil and replace oil filter with a new quality oil filter. Also replace the copper o-ring sealing gasket on drain plug. Torque drain plug to 22-29 ft-lb. Dispose of engine oil properly.

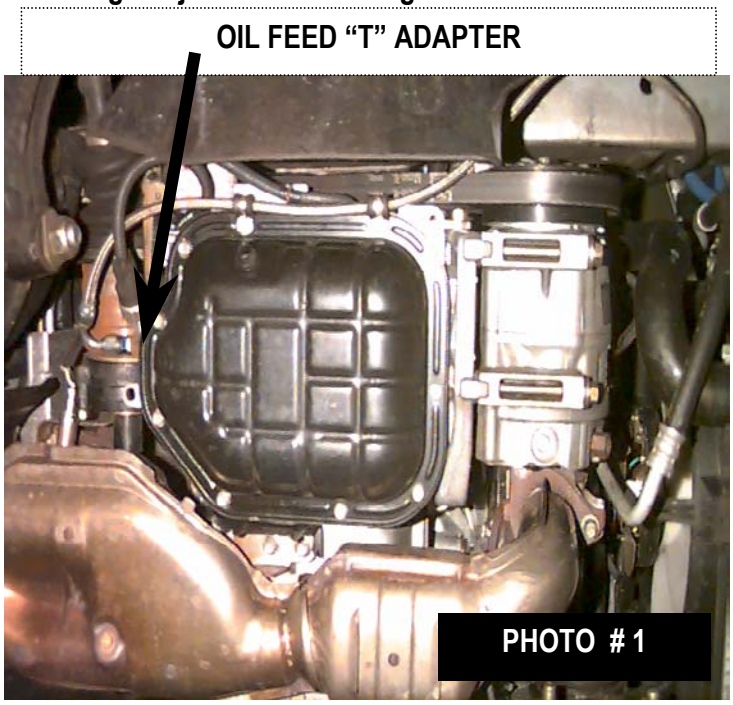


PHOTO # 1

5. On backside of engine closest to the oil filter remove the oil pressure-sending unit and install the oil feed "T" adapter assembly. Apply liquid sealant, on threads, and screw male thread into engine block, rotate till "T" points out toward right front tire. Screw oil pressure sending unit into side of “T”. (SEE PHOTO #1)

6. Attach -4 steel braided oil pressure feed line to -4 male fitting at end of "T" adapter that was just attached into engine block. The 120° fitting goes on backside of "T" adapter assembly. The other end of the line with the straight fitting will attach to supercharger later on the installation process.
7. Route the -4 stainless steel braided oil feed line along edge of oil pan closest to right front tire, by removing 2 of the M6- 1.0 x 10mm HHCS that hold the oil pan to engine block, they are located next to the oil filter. Replace with the ½” long aluminum spacer, M6- 1.0 x 25mm HHCS and M6 Flat washer and two –6 ADEL clamps provided in kit, This oil line will have to be routed in such a way that it will not be in contact with ANYTHING AT ALL!!!! At this point the feed line is still not attached to the supercharger and is hanging loose from below crank pulley. (SEE PHOTO # 2)
8. On some 2000 models remove anti-theft horn from body of vehicle chassis next to windshield washer bottle. Unbolt “L” shape bracket from horn leaving only the straight tab bracket already bolted to horn. Remount horn in any one of two holes already in the upper radiator support brace. Mount the horn in front of the A/C condenser. Extend horn wire harness by cutting taped plastic harness holder. This will extend the harness so it can be rerouted underneath the radiator support brace to horn. (SEE PHOTO # 3)
9. Remove the OEM serpentine drive belt from engine by loosening the lock nut on the adjuster pulley, then by loosening the nut on the tension adjuster in a counterclockwise rotation. A longer belt will be used for the Stillen supercharger assembly.
10. Remove factory serpentine idler pulley assembly from the engine block, by removing its 3-bolts.

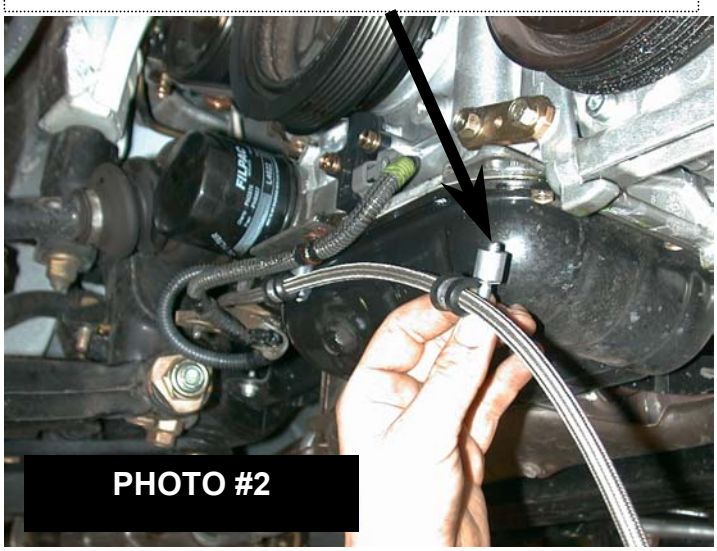


PHOTO #2


PHOTO # 3, ANTI-THEFT HORN


PHOTO # 3, WIRE HARNESS

11. Install Stillen supercharger oil drain back plate (identical plate with welded "J" tube) by first removing the black water pump cover plate from front of engine located above and to the right of crank pulley and just below and left of thermostat housing. Then clean all sealing surfaces and apply a modest amount of sealer. Fit the Stillen supercharger oil drain back plate and tighten to the engine block with the same 4- bolts.
12. Remove engine coolant overflow bottle and hose from radiator neck. This will be relocated to backside of battery later on in the installation process.
13. To provide adequate clearance for the Stillen supercharger fitment it is necessary to relocate the fuse box on the right fender apron rearward.

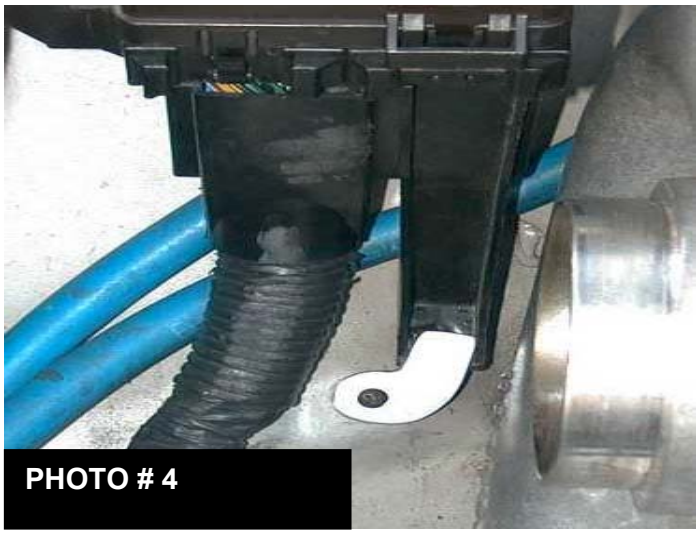


PHOTO # 4

- First remove and re-assemble the fuse box to the new mounting plate supplied by kit, by using 2 of the 10-32x ¾" FHCS and Nyloc hex nuts also supplied from kit.
- Trim off the original location peg under the foot of the fuse box.
- Mount the fuse box w/-mounting bracket to the original fuse box mounting holes, using the previously removed hardware.
- Partially removed the right inner wheel arch cover, to gain access. Fit the teardrop shape retainer (supplied in kit) over the foot of the fuse box, using an M6-1.0x20mm HHCS, flat washer and Nyloc hex nut supplied by kit. (SEE PHOTO # 4)

14. Remove the filler neck from the windshield washer bottle, it will be modified and relocated later.
15. Remove the Power Steering Cooler lines from the oil reservoir to the right side frame rail. Using the 3/8 ID blue power steering hose supplied in kit cut into two-4ft. Lengths attach to the oil reservoir and route under the fuse box (SEE PHOTO # 4). Slide the 12" foam sleeve over the hoses (First seal the ends of hoses with tape to keep free of any foam particles). Route the hoses through the hole in the right side inner fender panel, then exit the 2- hoses in front of the

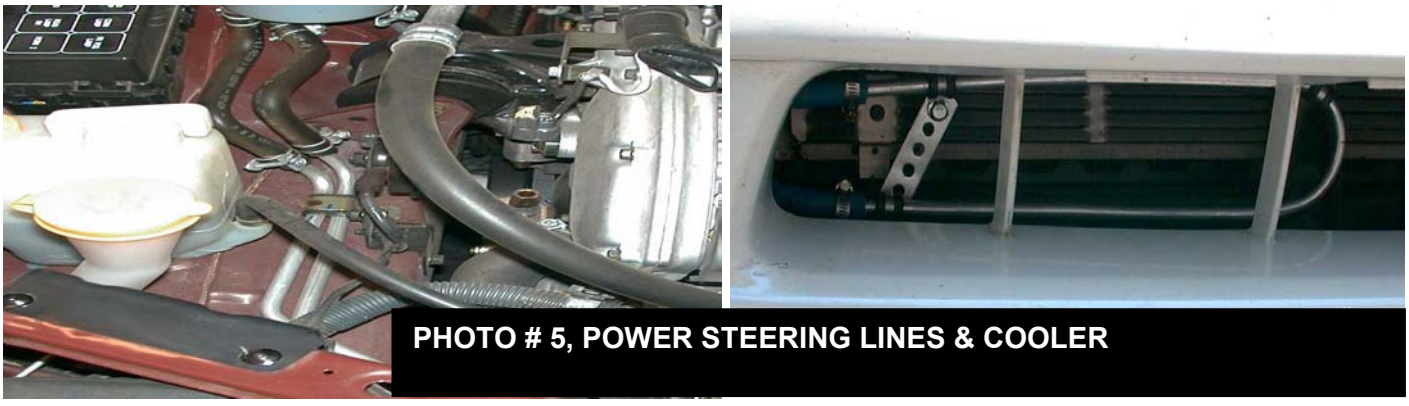


PHOTO # 5, POWER STEERING LINES & COOLER

radiator panel. Attach the "U" shape oil cooler tube to he center radiator support and lower cross member as shown in PHOTO # 5 using the 18" perforated back strap, M6-1.0x12mm flanged HHCS and –4 ADEL clamps supplied. Ensure that hoses can not rub on anything, and that the foam sleeve insulates the hoses inside the inner fender.

16. Unplug connector from the Cam Timing Sensor, and remove the M6 bolt that attaches the sensor to the timing case. Install the new cam sensor retainer assembly provided in kit. Rotate the sensor so that the retainer indexes on the sensor, refit the original M6 bolt and do not tighten at this time, as sensor must be aligned once the supercharger is fitted.

17. Partially assemble the new belt adjuster bracket from kit, using the original tension adjuster rod and nut, and 1/8" thick OEM washer between rod and mounting plate. Refit this partial assembly back onto the engine with the original mounting bolts in the lower 2-holes only. Do not fully tighten at this time. (SEE PHOTO # 6)

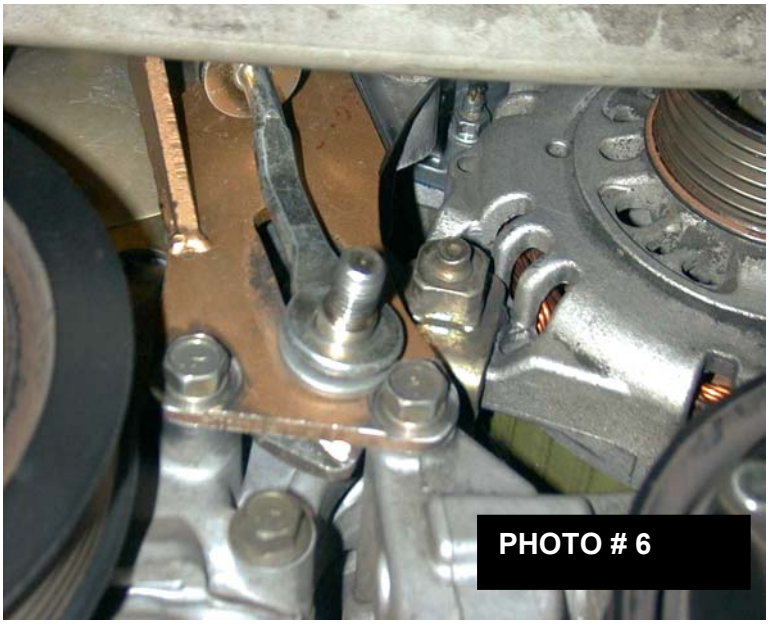


PHOTO # 6

18. Slip on rubber drain back hose with a #10 hose clamp supplied in kit, to the drain back plate "J" pipe. Place the other #10 hose clamp on the opposite end, it will be attached to bottom of supercharger brass drain back fitting later on. Some trimming will be needed to fine tune hose for clearance. Make sure hose is not pinched, so it will not block flow of drain back oil from supercharger.

19. Remove two M10 bolts from front engine mount located on Right side of engine bay (Passenger side) near Power Steering Reservoir.

20. Remove the cranked bracket, which secures the upper alternator ear to the engine. Loosen the lower alternator bolt to allow the alternator to move freely. Loosen and turn the hose clamp on the hose to thermostat joint so it will be accessible once supercharger is fitted.

21. Looking at the supercharger & mounting plate assembly, you will note that there are two M6-1.0x55mm HHCS captive in the plate behind the pulley, the other fittings are in the kit and are identified in photo # 8. In order to fit the supercharger & mounting plate assembly it will be necessary to remove the six M6 bolt from the forward section of the timing case <u>DO NOT REMOVE THESE BOLTS AT THIS TIME , AS OIL LEAKS CAN OCCUR YOU MUST FIRST:</u>

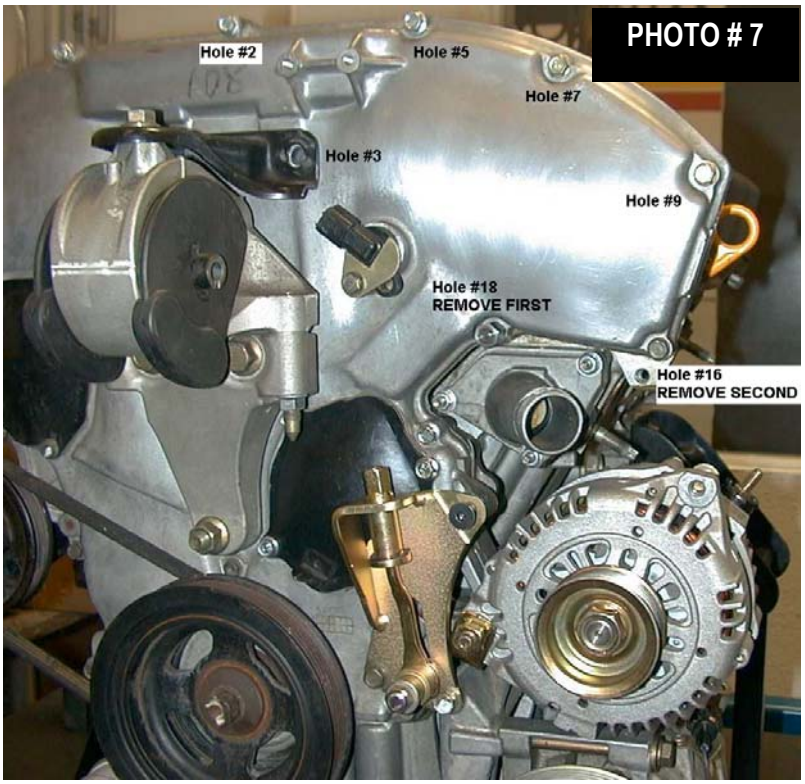
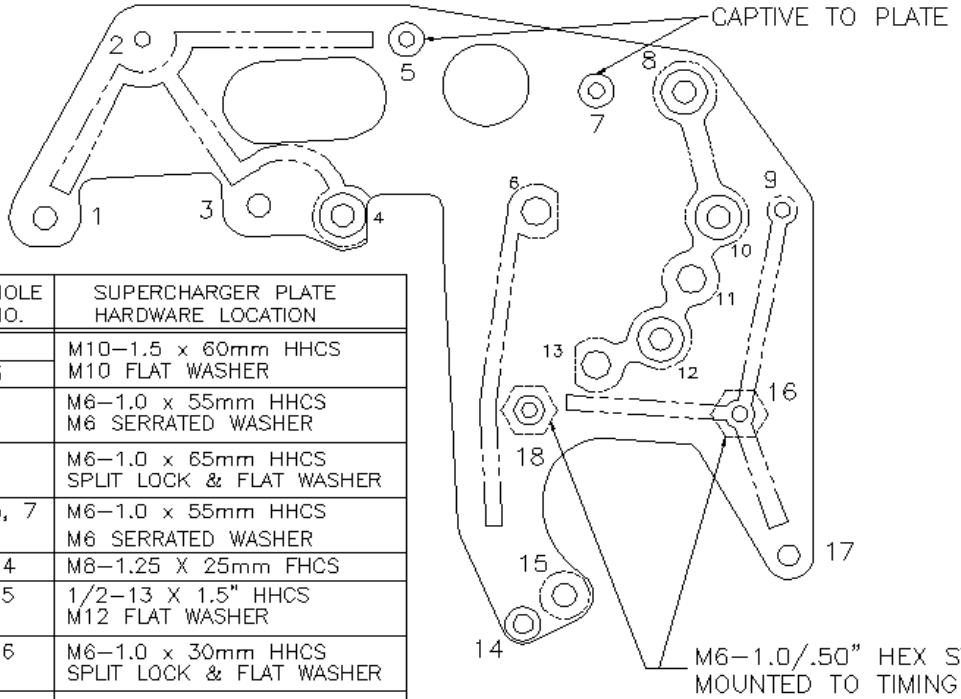


PHOTO # 7

- Remove M6 bolt directly above main body of the thermostat housing (SEE PHOTO # 7), and replace with an M6-1.0 Stand –off bolt supplied in kit. Note use Loctite Theadlocker #242 (blue) on threads. Torque to 8.7 to 10 ft.lbs (DO NOT OVER TIGHTEN).
- Repeat this procedure to the M6 bolt adjacent to the previous M6 bolt, above the neck of the thermostat housing.

- With this area secured, you can now remove the four M6 bolts located counter clockwise to the 2-Stand-off bolts around the upper section of the timing case, nearest the front of the car.
- Offer up the supercharger & mounting plate assembly to the engine timing case. The two M6 bolts captive to the mounting plate MUST BE INSERTED FIRST into the timing case, (NOTE: use loctite #242 on all threaded hardware) and progressively tighten until the plate is flush onto the engine timing case and the 2-Stand-offs. NOTE: * FAILURE TO DO SO WILL RESULT IN POSSIBLE PULLEY DAMAGE DURING ASSEMBLY. ***Do not full tighten*** these two M6-1.0X 55mm HHCS at this time, as the mounting plate must be aligned to allow fitment of the other hardware.
- Using the two M10-1.5x60mm HHCS & Flat washers supplied in kit, secure the mounting plate at the upper engine mount. Do not tighten at this time. Using PHOTO # 8 as a guide locate and fit all the hardware shown progressively around the plate.
- The M6-1.0x20mm FSHS (HOLE 18) requires patience and a 6" long 4mm hex ball end Allen wrench (MAC tool # XDLS), a 3/8" socket U/ joint with a 3" extension and ratchet.
- Once all hardware is located and fitted, torque all M6 bolts to 8.7 to 10 ft.lbs max. Torque both M10 engine mount bolts to 32 to 41 ft.lbs.



HOLE NO.	SUPERCHARGER PLATE HARDWARE LOCATION
1	M10-1.5 x 60mm HHCS
3	M10 FLAT WASHER
2	M6-1.0 x 55mm HHCS M6 SERRATED WASHER
9	M6-1.0 x 65mm HHCS SPLIT LOCK & FLAT WASHER
5, 7	M6-1.0 x 55mm HHCS M6 SERRATED WASHER
14	M8-1.25 X 25mm FHCS
15	1/2-13 X 1.5" HHCS M12 FLAT WASHER
16	M6-1.0 x 30mm HHCS SPLIT LOCK & FLAT WASHER
17	M8-1.25 X 30mm FL. HHCS
18	M6-1.0 x 20mm FHCS

SUPERCHARGER
SIDE OF PLATE

PHOTO # 8

22. Align the alternator with the hole in the mounting plate and fit an M8-1.25x30mm Flange HHCS supplied in kit. Fit the oil drain back hose to the nipple under the supercharger, align to clear, and tighten both hose clamps using a small socket & extension bar.
23. Working from under the vehicle, now tighten the 2 lower bolts securing the belt adjuster plate to the engine. Fit the pulley step spacer onto the though bolt then slip on the 2" dia. pulley with the 2-side rails (supplied in kit), then the original washer and nut LEAVE LOOSE AT THIS TIME.
24. Fit the 2" dia. Idler pulley w/o side rails (supplied in kit) to the ½-13UNC hole in the mounting plate, just below the thermostat housing, using the ½-13UNCx1.5" HHCS and M12 flat washer supplied in kit. Apply LOCTITE #242 & tighten this bolt and the lower bolt on the alternator at this time.
25. Route the drive belt as shown in PHOTO # 9, ensure it is in all the pulleys correctly, then tighten the tension adjuster nut until the longest section of the belt can be rotated 90° using the thumb and forefinger. Then tighten the nut on the adjuster pulley to 19 to 24 ft.lbs.
26. Route the cam angle sensor wiring over the upper mounting plate and connect to the sensor, plug the plastic cable locator into the threaded hole on the timing case, and tighten the retaining bolt.
27. Route the –4 braided oil line for the supercharger up to the 90° fitting on the supercharger, secure the oil line to the threaded hole in the chassis rail using the –6ADEL clamp, 1/2"long spacer, M6-1.0x25mm HHCS and M6Flat washer supplied. When tightening the oil line fitting to the supercharger, HOLD THE FITTING ON THE SUPERCHARGER WITH A WRENCH WHILE DOING SO.

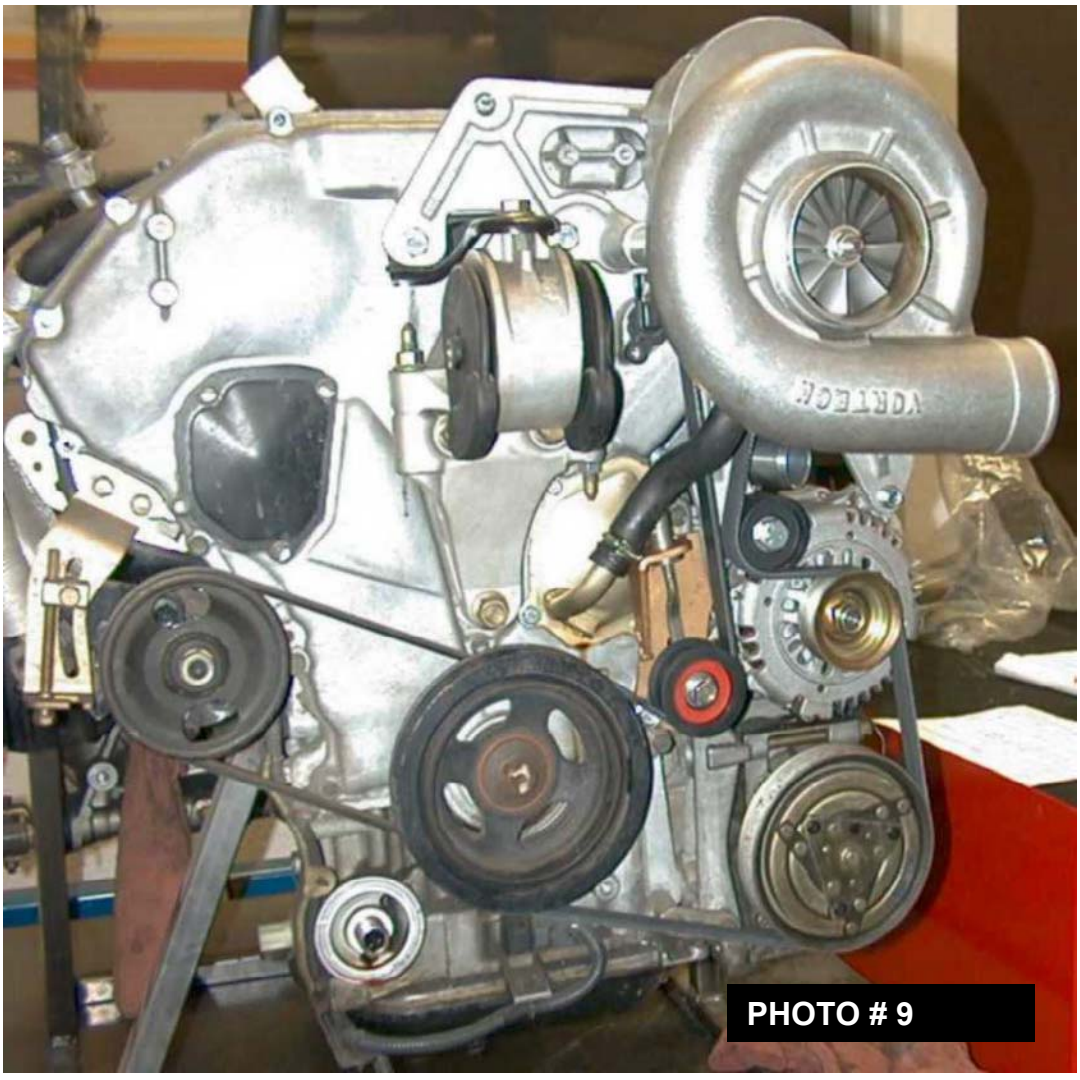


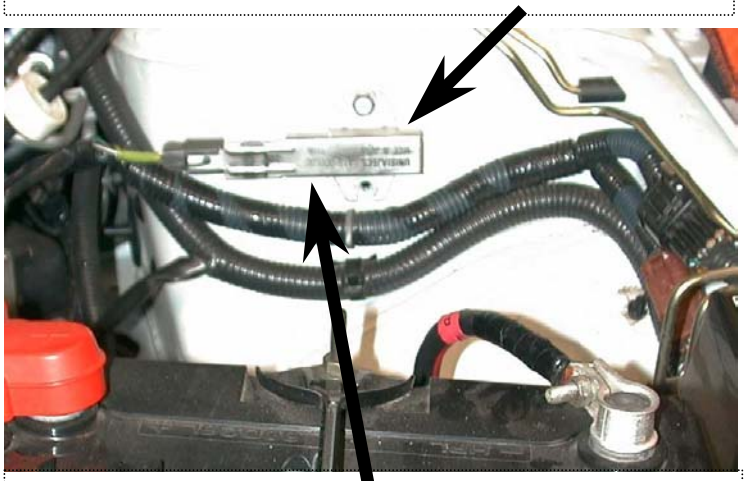
PHOTO # 9

28. On Automatic transmission models – Remove ballast resistor from (Drivers side) left front strut tower and relocate to tab on bottom of battery tray. Unclip harness from left inner fender and ABS unit. Install fuel pump & management assembly, utilizing the ballast resistor mounting holes (SEE PHOTO # 10)
29. On Manual transmission models install and mount auxiliary fuel pump and pressure regulator assembly on left strut tower in engine bay just below brass clutch bleed union. NOTE: It will be necessary to partially dismantle the FMU / fuel pump assembly from its mounting plate before installing, for both the Automatic / Manual transmission models. (SEE PHOTO # 12)

- First remove the two ¼-20 nuts on top of the rubber isolator mounts, so that the M6 hardware and the fuel pump mounting plate can be accessed.
- Fit the fuel pump mounting plate to the strut tower with the two M6-1.0x25mm HHCS, split lock washer and1/4 M/F rubber bonded isolators.
- Reassemble the FMU / Fuel pump assembly with the ¼-20 nuts. Make sure all hardware is tight and secure.

30. Assemble the auxiliary fuel pump pressure switch and relay to the raised area behind the battery tray (SEE PHOTO # 11), mount using 1/2OD x 1-1/2 lg. spacer and M6-1.0 x 65mm HHCS as shown.
31. Remove the wiring support bracket from the wiring harness at the point immediately behind the right headlamp and discard. The wiring support bracket at the alternator can be re-bent and located onto the original mounting where the original alternator bracket was located with the bolt previously remove (SEE PHOTO BELOW).

MOUNTING LOCATION FOR AUX. FUEL PUMP ASSY.



REMOVE FROM HERE ... AND INSTALL HERE

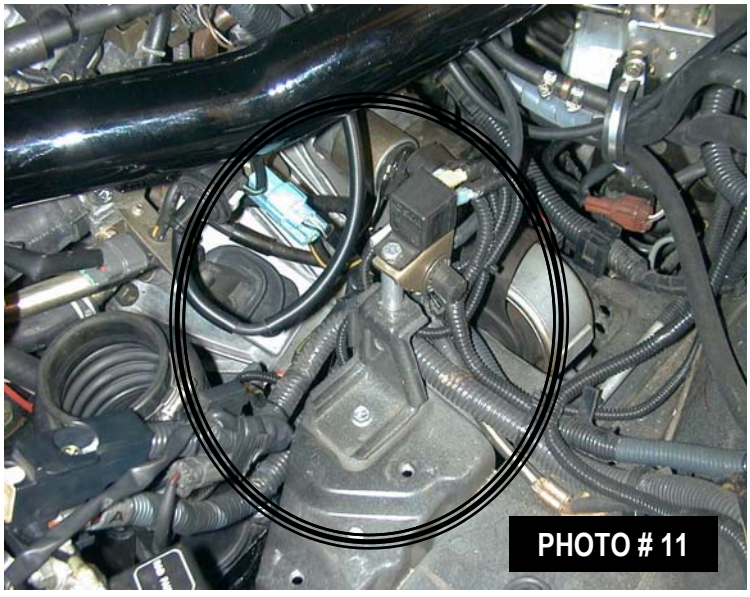


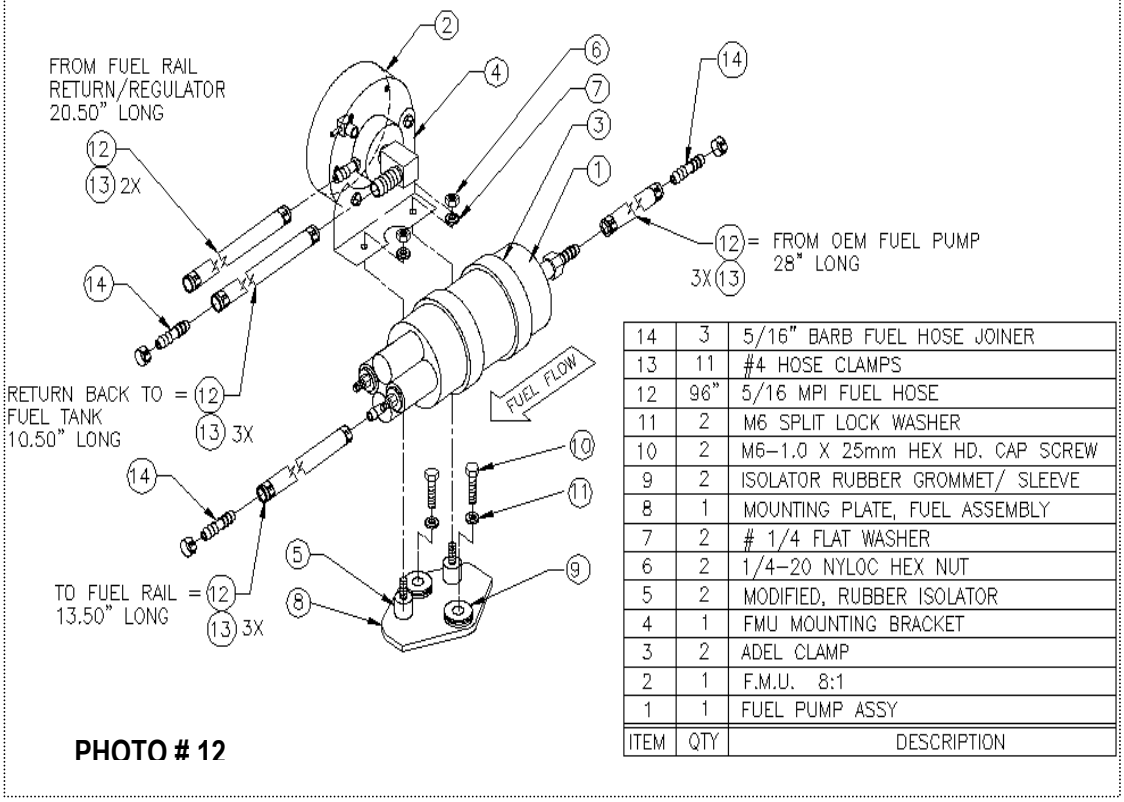
PHOTO # 11

32. Attach fuel lines. NOTE: Use 5/16" ID HIGH PRESSURE FUEL LINES with the 9- #4 hose clamps, cut to 4 different length as shown in PHOTO # 12.

- Locate the fuel inlet hose to the engine from the tank, it's identified by a 2-bolt flange fitting immediately behind the engine, and connected to a steel tube and bracket on the engine beneath the throttle body. It is necessary to cut this hose so that the auxiliary fuel pump can be connected into the O/E system.

<u>NOTE: THERE WILL BE RESIDUAL FUEL PRESSURE IN THE HOSE- YOU WILL NEED TO COVER THE HOSE, AND WEAR EYE PROTECTION.</u>

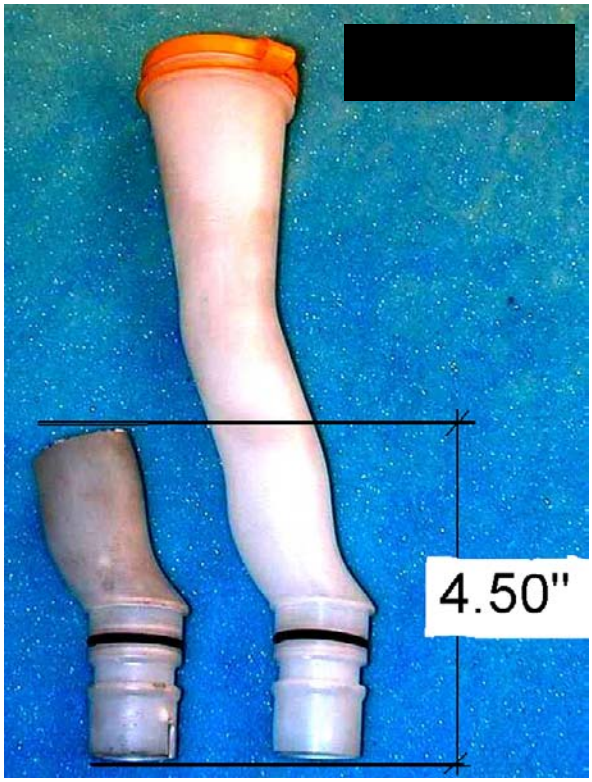
- Cut the hose 2-1/2" from the end near the throttle body.
- Using a 28" length of MPI fuel hose, a 5/16 barb fuel hose joiner and two #4 hose clamps, extend the O/E hose <u>from the tank</u>, to the inlet of the auxiliary fuel pump as shown in photo # 12.
- Using a 13.50" length of MPI fuel hose, a 5/16 barb fuel hose joiner and three #4 hose clamps, complete the fuel pump circuit from the auxiliary fuel pump outlet to the 2-1/2" hose on the fuel rail inlet.
- Locate the fuel pressure regulator assembly directly below the center of the plastic valve assembly on the end of the inlet manifold. Remove the return line hose which routes fuel back to the tank, and connect a 20.50" length of MPI fuel hose from the outlet of the O/E pressure regulator to the straight fitting on the F.M.U.
- Complete the F.M.U. circuit using a 10.50" length of MPI fuel hose, a 5/16 barb fuel hose joiner and three #4 hose clamps, connect between the 90° fitting on the bottom of the F.M.U. and the hose(previously removed from the O/E regulator) to the fuel tank return.
- Check that all lines are connected per photo # 12. Check / tighten all hose clamps, and bunch hoses together at the point below the A.B.S. unit, fit the large ADEL clamp from the kit around the hoses, and mount to the M6 nut on the end of the A.B.S. unit.



ITEM	QTY	DESCRIPTION
14	3	5/16" BARB FUEL HOSE JOINER
13	11	#4 HOSE CLAMPS
12	96"	5/16 MPI FUEL HOSE
11	2	M6 SPLIT LOCK WASHER
10	2	M6-1.0 X 25mm HEX HD. CAP SCREW
9	2	ISOLATOR RUBBER GROMMET/ SLEEVE
8	1	MOUNTING PLATE, FUEL ASSEMBLY
7	2	# 1/4 FLAT WASHER
6	2	1/4-20 NYLOC HEX NUT
5	2	MODIFIED, RUBBER ISOLATOR
4	1	FMU MOUNTING BRACKET
3	2	ADEL CLAMP
2	1	F.M.U. 8:1
1	1	FUEL PUMP ASSY

PHOTO # 12

33. Modify the windshield washer bottle filler neck, by cutting off 4.50" from the lower section see photo # 13. Using the molded hose and two #24 hose clamp supplied in kit, remount the reaming upper section of the filler neck against the fuse box as shown in photo # 14, Secure the hose to the wiring loom from fuse box with a 11" cable tie supplied in kit.



34. PRESSURE PIPE FITMENT

- Locate the long pressure pipe from the kit. Identified by 2 mounting brackets welded on the side of the pipe.
- Fit the 90°x 2-1/2"ID x 2-3/4"ID hose from kit to the small outlet spout on the supercharger (SEE PHOTO # 14), using the #40 hose clamp, do not tighten at this time. Loosely fit the #36 hose clamp to the 2-1/2"ID side of hose (pipe side).

NOTE: This 90° hose to supercharger may require trimming to align pressure pipe mounting tabs to engine cam cover corresponding holes. It will be necessary to modify the right hand cooling fan mount to gain clearance (SEE PHOTO # 14 A).

- Fit the 2.0" lg. X 2-3/4" ID silicone hose to the throttle body on the engine using the two #44 hose clamps. Insert the pressure pipe into both hoses align the mounting tabs with the corresponding holes on the cam cover and on the water neck at the rear of engine.
- Secure the mounting tabs to cam cover with the 2 M6-1.0 x 12mm flange HHCS supplied in kit.
- Align the rubber hoses to ensure good seating on both the supercharger and throttle body, then tighten all hose clamps.
- Locate the 12.0" length of double-sided strip of rubber centrally along the upper face of the pressure pipe previously fitted, peel off 1 side of covering and adhere to the pressure pipe.

Grind this section of radiator fan cover for proper clearance.

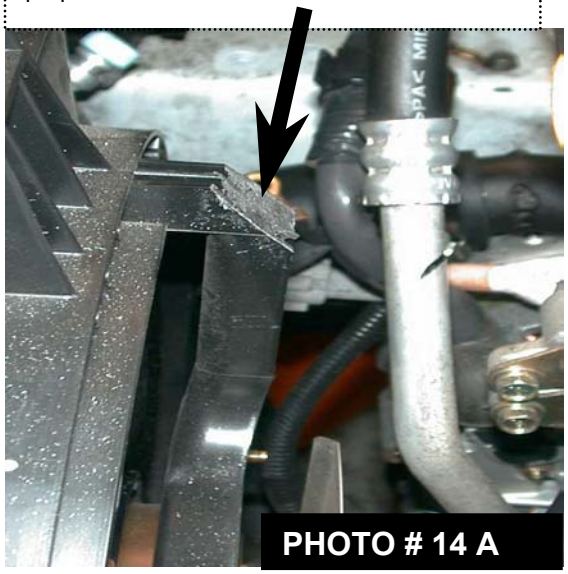


PHOTO # 14 A

35. AIRFILTER ASSEMBLY

- Refit the battery tray to the vehicle.
- Assemble the air filter assembly to the M.A.S. using the adapter, "Z" shape bracket and tubular bracket. Refer to photo # 15 for the correct location of the brackets.

NOTE ensure that the O-ring is refitted to the M.A.S. before attaching the adapter, and do not over tighten the bolts to this assembly.

- Fit the flexible O/E hose onto the M.A.S.
- Fit the air filter assembly to the vehicle, using a M6-1.0 x 16mm flange HHCS and M6 nut to retain the "Z" bracket to the under side of the battery tray (SEE PHOTO # 16). Use two M6-1.0x 16mm flange HHCS to attach the tubular bracket to the frame rail.

M6-1.0x 16mm FL. HHCS, 2-PLACES

PHOTO #15

NOTE: LOCATION OF WIRING PLUG

M6-1.0x30mm FL. HHCS W/ #1/4 WASHER, 2-PLACES

36. INLET PIPE FITMENT

- Check fit the 90° hose from the kit to the inlet spout on the rear face of the supercharger. The hose will require trimming so that the hose does not foul on the windshield washer filler neck, trim the neck of hose to give 1/2" nominal clearance. Fit the hose clamps #56 and #40 to the hose, partially tighten the clamp to the supercharger so that the hose can be rotated.
- Temporally insert the inlet pipe assembly into the 90° hose, rotate the hose so that the inlet pipe lays flat along the top of the pressure pipe and clears the upper radiator hose.
- Connect the other end to the flexible rubber hose on the air filter assembly, if fitment is OK, remove the inlet pipe, peel the covering from the rubber strip on top of the pressure pipe and refit the inlet pipe fully.
- Tighten all hose clamps on both pipes, at the supercharger, throttle body and air filter assembly.
- Fasten the 2-pipes together using the 14.0" cable ties.
- Obtain the Ambient Air Temperature Sensor grommet from the O/E plastic inlet housing, fit the grommet into the hole in the inlet pipe above the air filter assembly, and push in the Ambient Air Temperature Sensor.

37. BYPASS VALVE FITMENT

- Cut a 2.0" section from the 12.0" x1.0"∅ hose supplied in kit.
- Attach this 2.0" section to the spout under the BOSCH bypass valve and the 1.0" ∅ nipple on the pressure pipe (near the throttle body), using two # 12 hose clamps.
- Using the remaining 10.0" of hose and two # 12 hose clamps, connect the bypass valve at the90° nipple to the1.0" ∅ nipple on the inlet pipe (SEE PHOTO # 17).

38. CRANKCASE BREATHER ASSEMBLY

- Cut a 2.0" section from the 5/8"∅ vent hose supplied in kit.
- Attach this 2.0" section and the plastic "T" elbow to the front cam cover, fit the remaining 22.0" of hose to other end of "T" elbow and route down to the 5/8" ∅ tubular nipple on the air filter adapter.
- The molded 1/4" ID hose which previously connected to the O/E air cleaner box must be cut on the straight section behind the last bend, the multi size "T" inserted, and then connected to the plastic1/4" nipple on the cam cover 90° adapter.
- The small 5/32" ∅ dump line which was also connected to the remaining nipple on the multi size "T"(SEE PHOTO # 17).

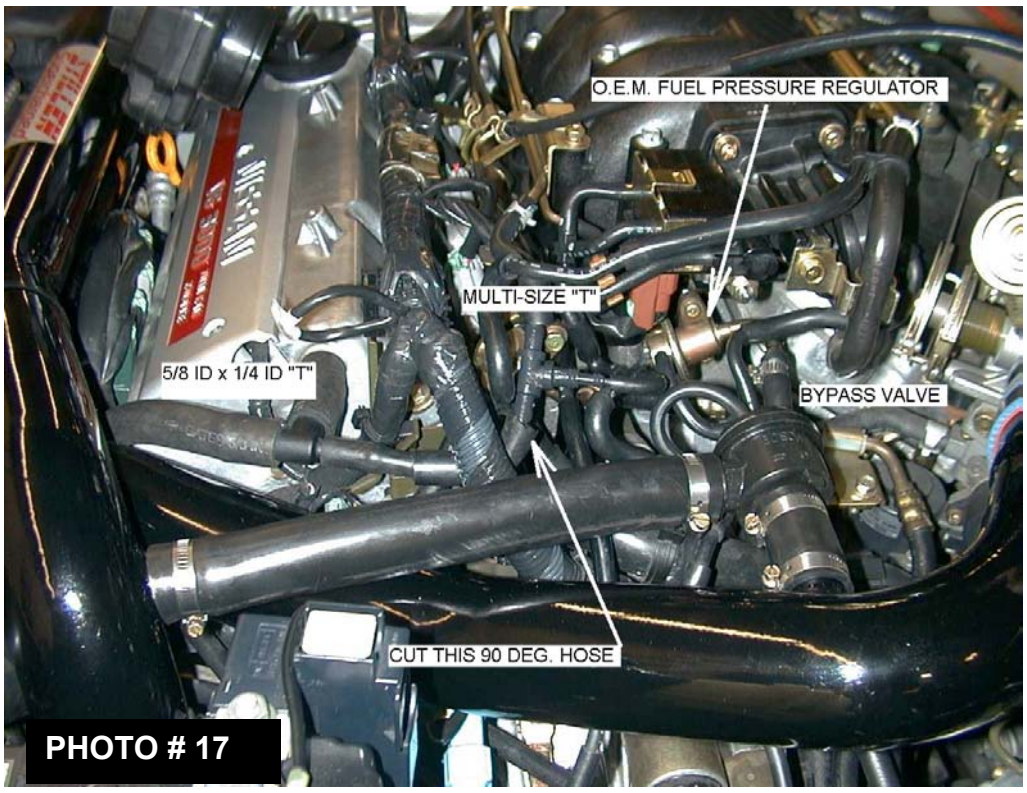
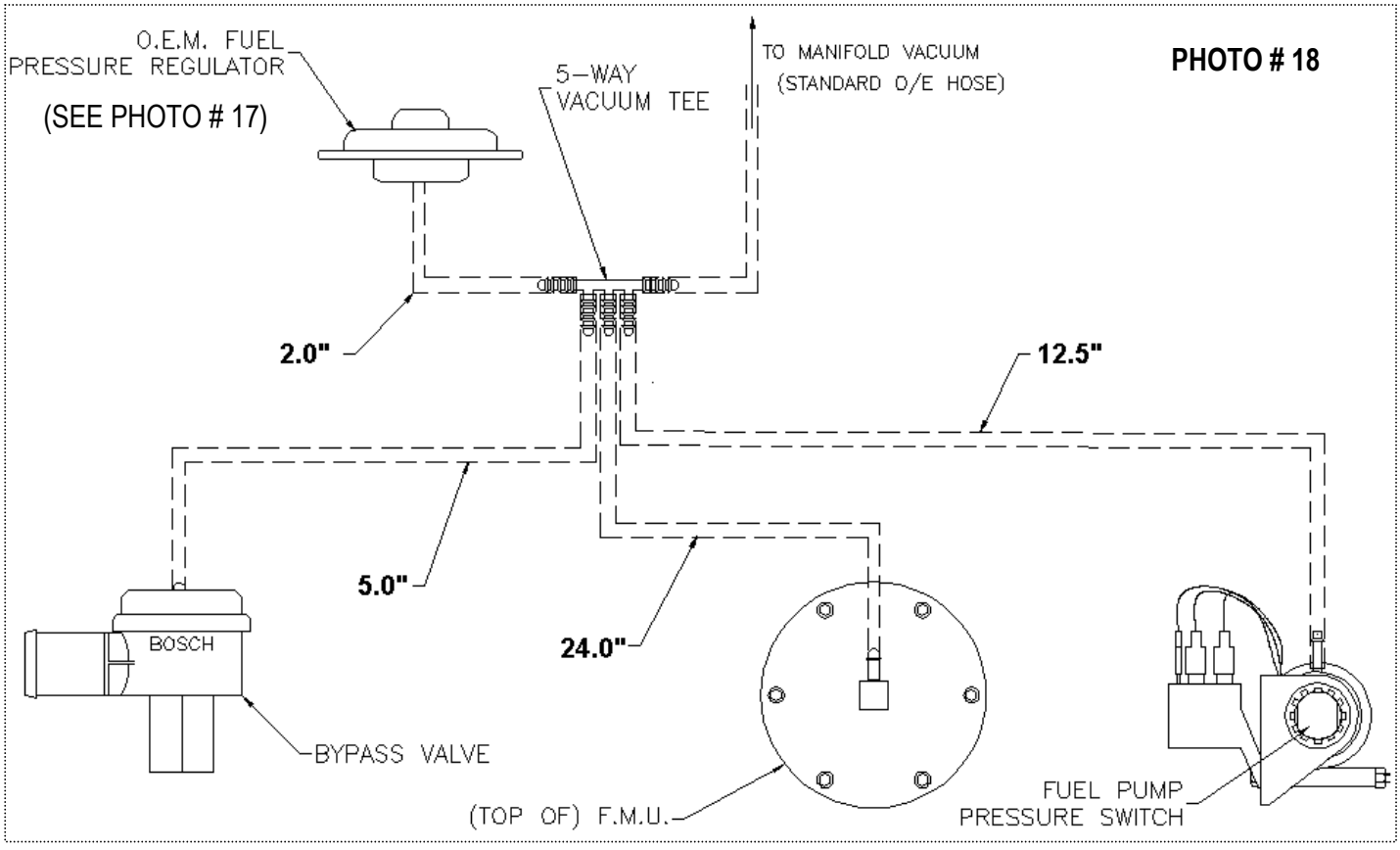


PHOTO # 17

39. VACUUM LINE ROUTING

- Using the 72" of 5/32"∅ vacuum hose and the 5-way connector supplied in kit. Cut and route the hoses as shown in photo # 18.
- The vacuum hoses to the F.M.U. can be routed throughout the large ADEL clamp with the fuel lines.



40. AUXILIARY FUEL PUMP ELECTRICAL CONNECTION

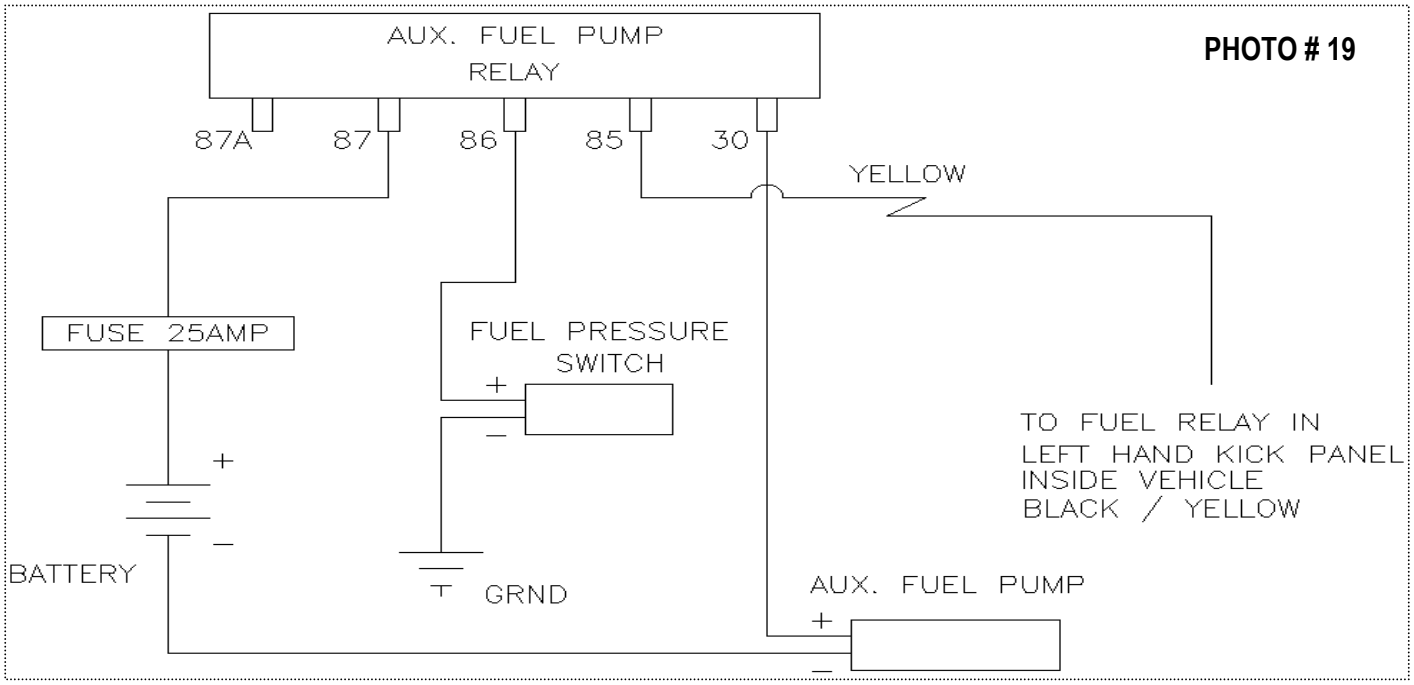


PHOTO # 19

- The wiring harness attach to the fuel pump relay/ pressure switch mounted near the battery (SEE PHOTO # 11) can now be connected as shown in photo # 19.
- The long yellow wire must be routed through to the left-hand (driver side) inner trim kick panel. Run through the fender well along side the hood release cable and through the rubber grommet on firewall.
- Remove the left-hand kick panel and the bolts retaining the computer and lay off to one side out of the way.
- Remove 2 M6 bolts retaining the blue zinc plated bracket to access the fuel pump relays. (SEE PHOTO # 20)

NOTE: IT IS IMPORTANT THAT ALL THE FUEL LINES HAVE BEEN CONNECTED AND SECURED.

- Temporarily connect the battery, and turn on the ignition. With the ignition on a distinct "clicking" will be heard from one of the relays as it turned on, then the relay will "click" off again in 2 to 3 seconds. This will help identify the correct relay.
- Using a test lamp and probe, locate the black and yellow wire of this relay check that this wire is HOT for only 2-3 seconds after ignition is turned on, and then goes off. If so splice in the yellow wire from the Auxiliary fuel pump relay using the 3M blue connector from kit.
- Re-assemble the relays and computer, refit the kick trim panel and any other parts that were removed.

PHOTO # 20

41. COOLANT OVERFLOW BOTTLE RELOCATION

- Using the coolant bottle mounting bracket and the M6-1.0X 16MM flange HHCS supplied in kit, assemble the O/E bottle to the mounting bracket.
- Locate the coolant bottle immediately behind the battery, slide the rear battery hold down rod through the tube on the bracket and lower the bottle assembly till it bases. Assemble the battery hold down rod as normal.
- Route the coolant overflow hose across to the radiator neck and secure.
- Ensure that there are no kinks or restrictions in the hose.

42. Recheck all fasteners, hoses / clamps, oil, vacuum, and fuel lines to make sure they are properly tightened. Replenish and top off all fluids. I.E. engine oil, coolant and power steering oil.
43. Reconnect battery. Turn key to "ON" position and check fuel lines for any leaks. Auxiliary fuel pump will turn on. As soon as engine is started auxiliary pump will turn off. This is normal.
44. Start engine and inspect for any fuel, oil, vacuum, or water leaks. Make sure supercharger drive belt is tracking properly and has proper tension. (Refer back to step #24.) Due to the nature of gears in the supercharger gear housing some gear noise will be apparent
45. After a short drive, double-check all connections and fasteners for tightness.

Engine start up and fuel considerations.

Never operate your engine at full throttle when engine is cold. When starting the engine each day, always allow plenty of time for the oil to reach full operating temperature before running above 2500RPM. Full supercharger operating temperature is achieved only after the engine water temperature has been at the normal indicated operating temperature for about 5minutes. Always use highest-octane **SUPER UNLEADED 92 Octane** fuel. Always use national brand fuel. If filling from another source than the one you use regularly, always listen for audible detonation. If detonation is audible, cease using heavy throttle and drive with greater care until fuel is consumed or replaced.

COMPLETED ASSEMBLY