

INSTALLATION INSTRUCTIONS

'94-'95 4.6L Thunderbird

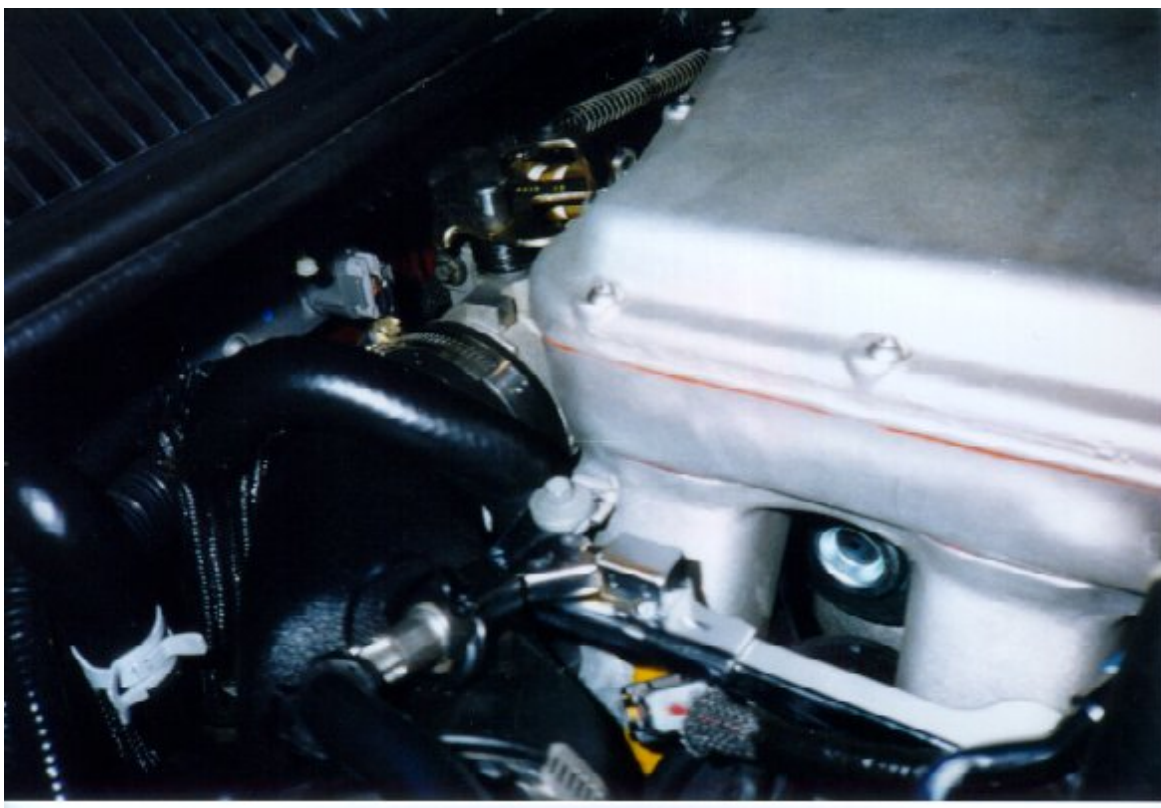
Before you start you will need some parts that are **not** included in the installation kit. The extra parts list is at the end of these instructions...

It is highly recommended that the high volume fuel pump be installed before the supercharger installation. To save time later, it's also recommended that you install the water pump and intercooler heat exchanger under the front fascia before starting.

- 1) Relieve fuel system pressure. Disconnect the inertia switch in the trunk by removing the electrical connector. Start the engine and let it run until the fuel supply is exhausted. Once the engine stalls, the fuel lines are empty.
- 2) Disconnect the negative ground cable from the battery. Then disconnect the positive terminal from the battery. Remove the battery and the hold down tray from the engine bay.
- 3) Draw and label the spark plug wire layout. Remove the spark plug wires, and mounting plate/separators from vehicle. CAUTION: Do not pull on the ignition wires, use the rubber boots.
- 4) Disconnect the Mass Air Meter and Temperature sensor from the upper air box lid. Remove air cleaner lid, plastic intake case and air box bottom from the vehicle. Also remove the breather vent hose and idle air hose from plastic intake case.
- 5) Label all vacuum hoses and disconnect them from the intake manifold.
- 6) Drain the engine cooling system from the petcock valve on the bottom of the radiator. Attach a 3/8-inch diameter hose to the drain fitting to direct the coolant into a container. Open the valve and catch the coolant. Squeeze the upper radiator hose to release air bubbles. After the coolant stops flowing, use fresh water from a garden hose to flush out the radiator. Dispose of the engine coolant properly.
- 7) Remove the two bolts retaining the fan to the radiator. Remove the upper radiator hose from thermostat housing first then remove the hose from the radiator. Disconnect the fan wiring harness and remove the fan shroud assembly from the vehicle.
- 8) Disconnect the spring lock couplings on the fuel lines. You must have both 1/2" (blue) and 3/8" (red) spring lock coupling tools.
- 9) Remove the accessory drive belt. Use a breaker bar or 1/2" ratchet.
- 10) Disconnect Alternator wires (2 plus and 1 power cable).
- 11) Remove Alternator.
- 13) Disconnect water heater hose from rear of intake manifold.
- 14) Raise the vehicle safely on jack stands and loosen EGR tube retaining nut at passenger side exhaust manifold. Use an 1-1 1/16" box wrench and a pair of vise grips on the handle of the wrench for leverage. It will break loose, without much effort.
- 15) Label all vehicle wiring harness connectors. This is important for proper re-assembly. Disconnect electrical connectors from Fuel Injectors, Temperature Sensors, Throttle Position Sensor, Idle Air Valve, EGR Solenoid, etc., and position out of the way.
- 16) Loosen the Intake Manifold bolts in 1/4-turn increments, following the reverse order of the tightening sequence. Remove Intake Manifold bolts (11), including the ones retaining the water outlet.
- 17) Remove Thermostat housing (water outlet) and O-ring from the intake manifold.

- 18) Remove the Throttle Body from the intake manifold noting which way the gasket faces.
- 19) Pry the plastic wiring harness apart on top of the intake manifold and release the wiring. Note that two wires are wrapped in tin foil. Remove the plastic cover from the vehicle. Position the wiring pack out of the way as best as possible. Remove the Intake Manifold from the vehicle. This is a difficult step because the manifold must be removed with the EGR tube attached.
- 20) Remove the stock Intake Manifold Gaskets. They will not be re-used but do not discard.
- 21) Vacuum any dirt or debris from the Intake Manifold flanges and cover with duct tape or equivalent.
- 22) Mark Heater water tube/hose assembly, located in the engine valley, at the location shown. After the tube is marked, loosen the two bolts (on the rear of the cylinder head) holding the tube assembly and remove.
- 23) Cut tube at mark, and slightly flare tube end (so hose will not slip off). Install a longer hose (provided) and position to the right side of valley, to have clearance for By-Pass Valve.
- 24) Move the condenser from right side of driver side coil pack to left side, to give alternator clearance. Cut bracket with tin snips or equivalent.
- 25) Remove Driver side coil pack mount from front cover. Do not remove the coil from the mount! It is necessary to disconnect the camshaft position sensor to perform this step, remember to reconnect it after the bracket is replaced with the new mount.
- 26) Remove lower stud used for driver side coil pack mount. This will need to be replaced with a new stud without the integrated nut (supplied in kit).
- 27) Remove the front cover bolts which will need to be replaced for the mounting of the Idler Pulley Mount. To determine which bolts need to be replaced, if not obvious to you, hold the mount up to the front cover and position the hole over the stud you just replaced.
- 28) Loosen the Water Pump Pulley bolts to gain access to the bolt recessed behind the water pump pulley. Position the Idler Pulley Mount and retain with bolts provided. (Torque to 17-22 ft.-lb.) Re-tighten the water pump pulley bolts. It may be necessary to grind the face of the lower bolt (under the water pump pulley) so the pulley does not rub on this bolt. If the pulley turn freely, no modifications are necessary.
- 29) Attach Pulley to Mount and retain with provided bolt. (Torque to 25 ft.-lb.)
- 30) Install Drive Belt (provided) and attach Alternator Mount to engine block. This may seem like two steps in one, but they must be done simultaneously. Use the stock bolts from the alternator, however it is necessary to shorten one of the bolts to gain clearance with the coolant sensor (right side bolt). Thread the bolt into the hole and mark where it needs to be cut, then remove the bolt. Thread a nut over the mark you made and cut the bolt to length, then remove the nut to fix the threads. Tighten the bolts by hand (to be torqued later). Please note the revised belt routing before attempting this step (See figure 1).
- 31) Place the new EGR Valve onto the Throttle Body Adapter (TBA). The TBA must be removed from the supercharger to complete this step. Use the bolts from the old setup (Torque to 17-22 ft.-lb.). Be sure to replace the gasket to assure proper functioning of the OBD-II emission controls. Note: The EGR bolt extends into the port, but flow testing indicates no flow restriction! (DO NOT SHORTEN THE BOLT)
- 32) Add sealant (Loctite 510 or equivalent) to the TBA and Attach to the Supercharger. Torque bolts to 17-22 ft.-lbs.
- 33) Pay close attention to clean any dirt or debris from inside the supercharger or TBA.
- 34) Install the new Idle Air Valve to the Throttle Body Adapter. Use the new gasket.

- 35) Move the EGR Pressure Transducer to the firewall, use an electric screwdriver and self taping screws provided. CAUTION: Do not drill into the firewall.
- 36) Move the wiring Harness to the firewall with clamp provided. You must find a nut from the old EGR Solenoid bracket to fit the threaded stud in the firewall. Do not over tighten the clamp until the wiring harness has been extended.
- 37) Since the EGR tube is different on the '96-'97 4.6L engines, the supplied tube must be modified. This procedure can be performed outside the vehicle with common hand tools. Cut the EGR Tube at point shown (Sears Tube Cutter Part #51251). The tube needs to be moved approximately 1/2 inch closer to the driver side of the car to clear the Throttle Body Intake Tube. Use Brass Tube connectors (supplied).
- 40) EGR Tube also needs to be cut as it goes over the Throttle Body Tube.
- 41) Install brass tube connector on EGR tube. Apply Teflon sealant to the threads to ensure no leaks.

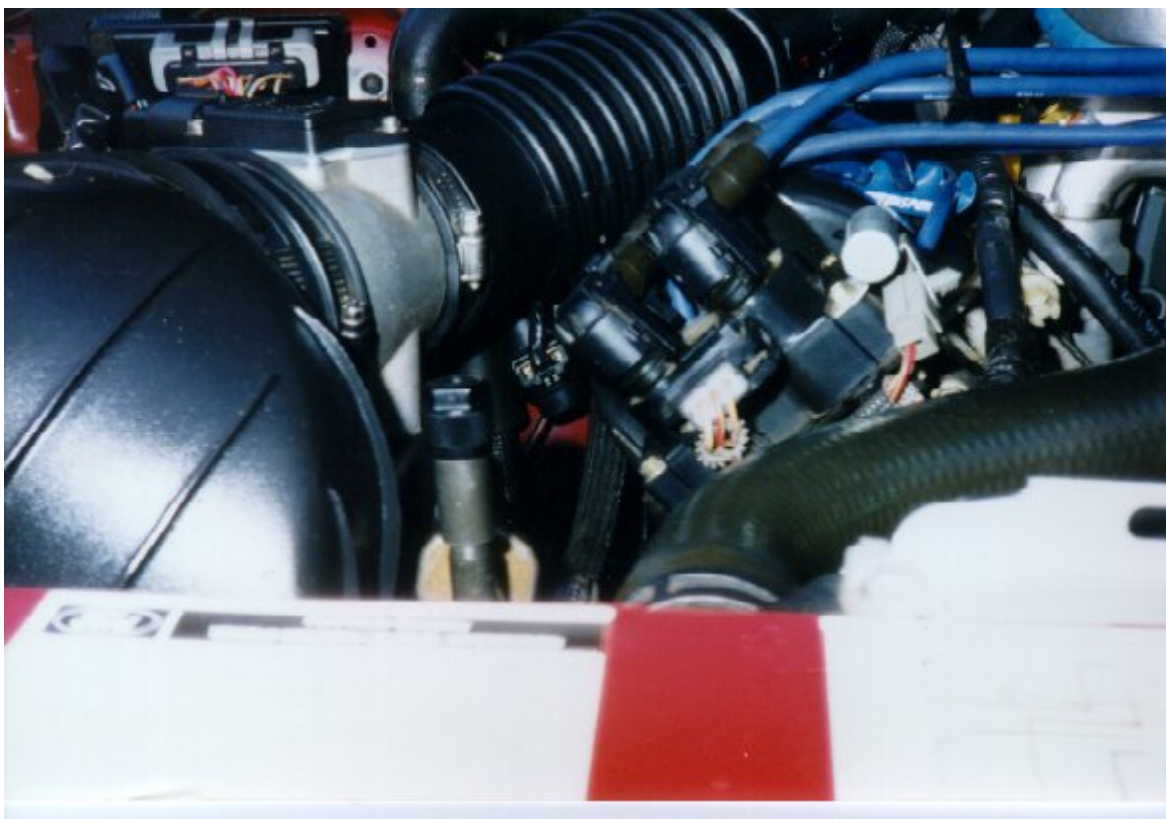


This photo shows how various hoses are routed. Note the Stainless plenum bolts

- 42) Slide insulator over EGR tube.
- 43) You should start the wire lengthening before adding components back to the engine at this time. You will need the following to perform the job Soldering gun, solder, flux, electrical tape, AWG 14, 16, 18 gauge assorted colors of wires, heat shrink, and a wire crimping tool.

The Idle Air Valve (IAC), Throttle Body, Temperature Sensors, and Alternator wiring must be lengthened to accommodate their revised locations. Wires of proper color are provided for each along with crimp connectors. It is highly recommended that soldering and shrink-wrapping be used, in favor of the crimp connectors. Cut the wires a few inches from the connectors and splice them to the wire provided. Leave the loose ends of the wires free until the wiring harness is installed later. Be sure to obey the color coding and don't be afraid to mark where they go (check at least twice).

44) It is difficult to lengthen the EGR Solenoid and Air Idle Valve on the '94-'95 cars. Mount the EGR Solenoid to a hole in the shock tower (passenger side). Use a self tapping screw from the old parts that were removed. The solenoid should run very close to the A/C lines as they come over the shock tower. Note: On the '96-'97 cars, the EGR Solenoid is mounted to the passenger side coil pack via a bracket. Measure twice, cut once. The EGR Solenoid wiring needs to be run around the rear of the engine and along the main wiring harness to the new location. Wires are not provided in the kit for this sensor. Draw and label the red/green vacuum plug from the solenoid, then remove the plug from the solenoid and discard.



EGR Solenoid Location
A good place to mount the solenoid is on the shock tower using an existing hole.

45) The '96-'97 Idle Air Valve (IAC) will not fit the plug on the '94-'95 wiring harness. It is highly recommended that a downer IAC pigtail be used and spliced into the supplied wiring. If this is not available, remove the wires from the plug on the harness and plug them directly on to the IAC. Fill the connector with silicone sealant and let dry to hold the wires in place.

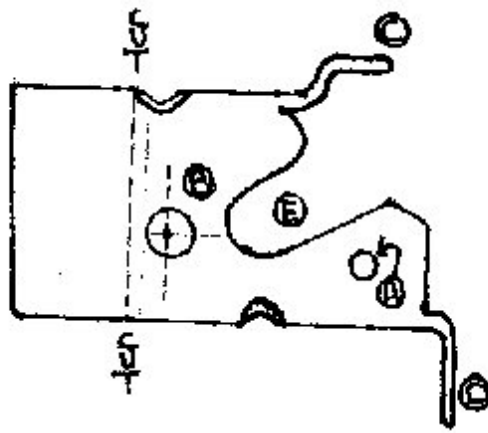
46) The wiring harness on top of the stock intake manifold needs to be lengthened on some cars. Wires are not supplied in the kit for this operation. The following needs to be lengthened Passenger side injectors 1-4, Coolant temperature sender (left side), and two wires wrapped in tin foil. On some cars it may be necessary to lengthen the driver side #2 injector to have clearance for the Supplementary fuel pressure regulator.

47) Lengthen all the wires to desired length and wrap them with electrical tape. The two wires running over the intake with tin foil require special treatment. Strip a 4 inch extension wire of its shielding and solder them in. Afterwards wrap the two wires individually with aluminum foil and place them out of the way.

48) The Throttle cable bracket needs to be modified. Please refer to new drawings for installation. Do Not bend flat at point shown in the instruction photos, ignore this step. This step is different for the '94-'95 cars. The bend allows the throttle body return spring to clear the bracket. Do not drill 17/64 at the point shown in the photo. It is not necessary, since you will mount the cruise cable to an intake-plenum buttonhead screw.

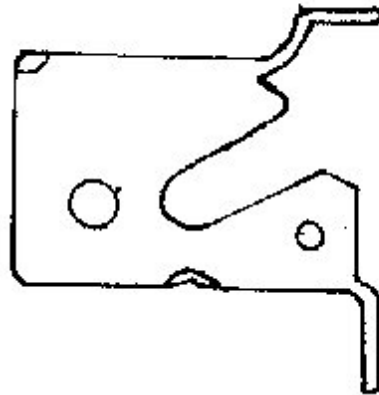
FIGURE #2

NOT TO SCALE



THROTTLE
CABLE
MOUNT
BRACKET

- A. SOCK BOLT HOLE
- B. ALIGNMENT HOLE
- C. PERCH FOR RETURN SPRING
- D. MOUNT TO INTAKE
- E. THROTTLE CABLE SLOT



MODIFIED THROTTLE
CABLE MOUNT
BRACKET

CUT AT MARKED LINE AND FILE SMOOTH.
DRILL A CLEARANCE HOLE (B) FOR THE THROTTLE
CABLE TO BE ALIGNED CORRECTLY. HOLE (A) IS NO LONGER
USED. THE THROTTLE CABLE GOES IN THE SLOT (E) AND
ITS BOLT THROUGH THE NEW ALIGNMENT HOLE.
ATTACH A NUT OVER THE THROTTLE CABLE BOLT AND
SECURE. THE RETURN SPRING GOES IN THE SMALL
HOLE ON TOP OF THE PERCH (C). THE OTHER HOLE AT THE
TOP OF THE BRACKET (RIGHT OF PERCH) IS NOT USED.

Figure 2

Cut the back part of the mount off as shown in the instructions. It is necessary to drill a clearance hole below the dimple in the bracket, see photo and drawings. Mount the throttle cable to the bracket and mark where the hole needs to be drilled. This hole is for the throttle cable mounting bolt. File the rough edges from the cut and paint flat black to prevent rusting. Slide the throttle mount into the slot in the bracket and line the hole up with the throttle cable mount hole. Install a bolt and nut to secure the throttle cable.

49) Fit all hoses on the TBA as specified in figure 5. If this step is done already from AED, analyze the set up to ensure understanding when installing the hoses to their vacuum source.

50) Plug in the Idle Air Control (IAC) valve electrical connector with the extended wire to the valve. **DO NOT FORGET** this step as it is very difficult to install later. This wire needs to be wrapped with electrical tape and wire loomed for appearance. The wire then needs to be routed through runners #7 & #8.

51) Make a dry run as to how the intake manifold gets lowered and positioned onto the intake gaskets. Use the old stock gaskets while lowering the intake over the cylinder heads to prevent damage to the head surface. Three people really make the effort easy when installing the intake over the supercharger. Note the IAC wiring and hoses that need to run through various runners. Remove intake manifold and old intake gaskets, vacuum the ports out with a shop vacuum.

52) Add sealant to blower flange (Loctite 510 or equivalent). Eaton blower sealant is included in the kit for this operation.

53) Remove protective covers (i.e. rags, tape) from intake manifold flanges and clean the surfaces with appropriate cleaner. Then position the new intake manifold gaskets, making sure to align the dowels in the cylinder heads.

54) Plug in the fuel regulator hose located under the plenum between #7 & #8 runners. Note, this step may be done from AED.

55) Set the intake manifold on top of the engine a few inches forward of the actual mounting position.

56) Install the throttle cable bracket to the rear of the intake manifold plenum. Install throttle cable and return spring to throttle body.

57) The intake manifold can now be guided into the proper mounting position. It is important to make sure the vacuum hoses for the EGR solenoid and purge canister are routed between runners #3 & #4. The fuel regulator hose and idle air control wires are routed between runners #7 & #8. The PVC hose is routed in front of runner #1 and the power brake hose in back of runner #8.

58) Install and tighten the bolts (4) that hold the supercharger to the intake manifold and torque to 17-22 ft.-lbs.

59) Install and tighten the bolts (12) that hold the intake manifold to the engine. Do not reuse the stock intake bolts, use the new socket cap alien bolts provided. Torque to 17-22 ft.-lbs. Install a new thermostat and 0-ring. The 0-ring goes over the thermostat, then install the thermostat housing and secure with the bolts provided.

60) Lubricate the 0-rings and install the intercooler into the intake manifold. Be sure to remove any protective covering before installing. Note: the intercooler has a chamfer on its front edge which needs to be positioned down.

61) Install intercooler clamp bolt. Use loctite or thread sealant on the threads. Install plenum cover on intake manifold using silicone as a sealant. Torque bolts to 6-9 ft. -lbs.

62) Install blower housing clamp and tighten the bolts to 5 ft. -lbs. Do not over tighten.

63) The alternator bracket bolts can be tightened now, torque to 17-22 ft.-lbs. The fan must be re-installed at this point, before the alternator goes on the bracket. The alternator can now be installed. The red adapter can be removed (for hood clearance) and the alternator wire attached directly to the alternator.

64) The upper radiator hose must be cut and the supplied elbow fitted, use the factory spring clamps at their original position, and the supplied hose clamps at the elbow.

65) Install the ignition wires and route them over the blower snout to their proper locations, refer to the drawing you made if unsure. Install the boots in the tear drop shaped area around the base of the runners. Note that the boots face opposite directions on the left and right side of the engine. Install wire loom separators and wire tie the ignition wires to an intercooler hose later.

66) Install the bolt for the throttle body adapter hanger and tighten both to 6-9 ft. -lbs. This hanger attaches to one of the throttle body bolts and a bolt at the rear of the plenum.

67) Attach the Cruise Control cable (plastic with red tip) to Throttle Body. Then attach Cruise Control cable mount to one of the rear bolts from the intake manifold plenum. Use two spider washers to sandwich the mount to the intake-plenum. This is important, to keep the mount from moving and preventing wide open throttle. Check your application by monitoring the position of the throttle plate when the linkage is activated (WOT).

68) Using a small amount of grease as lubrication on the O-rings, press the fuel injectors into the intake manifold. Engine Oil is suitable as O-ring lubrication.

69) The Fuel rails now need to be installed. They will need to be modified if purchased from Ford, follow the pictures carefully. If purchased from AED, the fuel rails will be modified and ready to install.

70) Cut the rubber fuel hoses both front and rear of the fuel rail. Do not get so close to the metal part of the fuel rail as to crush it.

71) After cutting, trim the fuel lines off the fuel rail with a knife.

72) Remove the metal fuel return (small outlet) from the right fuel rail. This can be done with a hacksaw at this point.

73) You can now use a side cutter here to mark and bend off Use a file to smooth. Be sure to tape the fuel rails to keep the shavings out.

74) Remove the fuel pressure regulator from the left side fuel rail,

75) Install supplied fuel return adapter. All fuel will now exit the fuel rail through this fitting.

76) Using a small amount of oil as lubrication press the fuel line onto the right side fuel rail. Route the fuel hose in the back of #1 intake manifold runner around the front of the manifold and in back of #5 intake manifold runner. Trim the fuel hose to length, (do not cut too short) and press on the left side fuel rail. Use the stock fuel rail hold down bolts and tighten the drivers side fuel rail to 6-9 ft-lbs.

77) Attach fuel pressure regulator to adapter supplied (use oil as a lubricant on the O-rings). Assemble the fuel pressure regulator/adapter to the supplementary fuel pressure regulator using the V band clamp supplied

78) Press the fuel return hose onto the rear of the drivers side fuel rail and press the outer end onto the fuel pressure regulator adapter. Mount the SFPR to the side of the manifold using a clamp provided. At this point its necessary to wire loom the wiring harness running over the intake manifold. Use the 3/4" supplied loom and electrical tape the outside of the loom. Be sure to install all of the sensors to their revised locations (i.e. fuel injectors, temperature sensors, throttle body position sensor, etc.)

Press the fuel return hose onto the outlet of the fuel pressure regulator adapter, and route the hose around the front of the intake manifold along the passenger side fuel rail to the return. The SFPR has two vacuum ports that are linked with a "T" fitting and connect to the bottom of the manifold.

79) Attach the vacuum hose from the throttle body adapter to the red vacuum line on the EGR Solenoid. Attach the vacuum hose from the green plug to the EGR Valve using supplied hose. Attach the vacuum hose from the throttle body adapter to the purge canister which comes over the passenger side valve cover at the shock tower (this originally plugs into the PCV Valve). Plug off the upper portion of the PCV valve with a rubber grommet. If you need to extend the small hose with the brass fitting to reach the vacuum source, use the intercooler overflow tank hose. Do not cut too short as the emergency overflow will spray onto the euzine.

80) install the air cleaner adapter tube (black plastic) through the heater hose. Use the short hose (attached to the tube during shipment) and two hose clamps to secure the tube to the throttle body. Connect the heater hose from the rear of the intake manifold flange to the heater core, use the factory spring clamp. Rotate this clamp with the ears as far forward as possible, next to the number 4 intake runner. If needed, use a hose clamp to attach the heater hose to the intake manifold instead of the factory clamp. This is necessary to clear the air cleaner adapter tube.

Install the air box bottom into the vehicle and secure it. Install the filter into the air box. Re-install the Mass Air harness and Air intake Temperature sensor harness to the air box lid. Spray a small amount of WD-40 or equivalent to the inside of the factory air cleaner tube and push onto the black plastic tube. Press it as far on as possible to have clearance with the A/C lines. Install air cleaner tube into inlet of the Mass Air meter and secure the hold down clamps for the air box. Tighten all hose clamps to ensure no leaks or that it won't slip off

81) Hook up the power brake vacuum line (3/8" hose) which comes from the back of the throttle body adapter. Use the U-shaped metal tubing from the stock manifold and the factory clamps to secure the tubing to the hose. Wire tie the tubing to another line or hose so it does not interfere with the throttle linkage.

82) Plug in the PCV hose (3/8" hose) to the passenger side valve cover PCV valve. You will need to block off the upper portion of the PCV Valve with a rubber vacuum plug, it will no longer be used.

83) Install Idle Air Valve supply hose. Since the IAC has been relocated, you will need to use the longer (3/4") hose supplied. Pull the plastic fitting from the stock muffler/hose assembly. Use the plastic fitting to attach the new 3/4" hose, then run the hose over the intake manifold past the SFPR and to the IAC tube that extends from the rear side of the manifold. Note that the manifold flange is slotted to accept the IAC tube and new hose. Next, mark the 3/4" hose that extends from the IAC Valve about 5 inches from the end and cut. Install the stock muffler 90 degree elbow bend at this location. Mark the other end of the 3/4" hose at the middle of the mufflers straight fitting and cut. Attach the hoses and be sure it does not interfere with any parts. Note: The hose can be run directly to the IAC Valve from the intake tube. However, this will kink the hose closed as it bends to reach the IAC Valve.

84) Install the crankcase breather hose from the driver side valve cover to the air cleaner tube using the smaller hose and brass coupling fitting supplied.

85) The wiring harness for the passenger side injectors runs over the top of the manifold between the two hoses as seen in the picture. At this time you must use the 3/4" wire loom to shield the wires. Use electrical tape to seal the wire loom and be sure to tape up all loose wires running around the intake manifold.

86) Refill the engine coolant system with the proper coolant. Close the petcock first and top off after the engine warms up.

87) The passenger side fuel rail can now be tightened if you haven't already done so.

88) Re-Connect the fuel line spring lock couplings and safety clips. The fuel return line (blue Aeroquip) should be pinned down under the air cleaner tube for clearance reasons. The fuel inlet line should run over the black plastic intake tube in the dimple.

89) Attach the intercooler tank to the SFPR cover with the button head screws provided. Hood clearance is minimal here, slide the SFPR down on the clamp as far as possible.

90) install the two 5/8" hose fittings into the intercooler water pump. Mount the pump on the water pump mount using the four socket head screws, rubber bushings, and washers provided. The pump can now be mounted in the driver side wheel well, and attached to the front bumper. The holes exist in the metal bumper and can be accessed from under the valance skirt. Look through the rectangular hole in the underskirt and align the pump by pushing the studs through the holes and install the washers and nuts. It is advisable to have extended the wires slightly from the water pump to reach the relay location before installing the pump. The pumps lower fitting should be seen through drivers side fog light hole.



Water pump mount location viewed through the fog light hole

91) The heat exchanger for the intercooler can now be mounted under the valence with the outlets on the driver side, use Teflon tape or thread sealant on the threads.



Cut support tab off from under license plate bracket

92) It is necessary to cut a small rectangle piece out of the valence and slide the heat exchanger up and into the valence. You can now install the mounting brackets, and mark the hole positions using a magic marker. Drill the holes using a #33 drill bit for the self tapping screws supplied. Button head screws are provided for the mounting bracket ends that attach to the valence and to the metal bumper. You also need to trim away the driver side valence where the lower heat exchanger fitting aims. The hose from the pump needs to bend to reach the fitting, so you need to cut away a small relief, be sure to de-bur the plastic.



Heat exchanger mounting on '94 - '95 cars

93) At this time you can run the wire for the water pump. This is a continuous duty pump which requires a switched power supply. You can tap into the turn signal fuse under the dash. Run the wire from the relay down past the pump and exit it through a small hole under the High Current Fuse Panel next to the battery. Then run it along the brake lines and around back of the shock tower to the wiring harness mounted to the fire wall. It is possible to drill a clearance hole in a front of the wire cap to allow the wire to enter the fire wall. Use a 10mm socket to remove the harness from the fire wall and carefully mark a pin hole that does not have a transfer pin in it (the white tube located on the fire wall connector is a hole without a pin).

Drill out the circle from the front side of wire connector that matches the white piii hole on the fire wall connector. Use a drill bit slightly larger than the wire thickness and be careful. Then push the wire through the hole in the connector and through the hole in the fire wall connector (white pin). Then run the wire to the underdash fuse panel and re- install the fire wall wiring harness connector and plastic cover. This gives you a professional wiring install and the connector seals water tight to protect the passenger compartment.

A fusible link (supplied) can be attached to the positive side of the battery and run to the relay (supplied). In this picture you can see the fusible link and the relay.



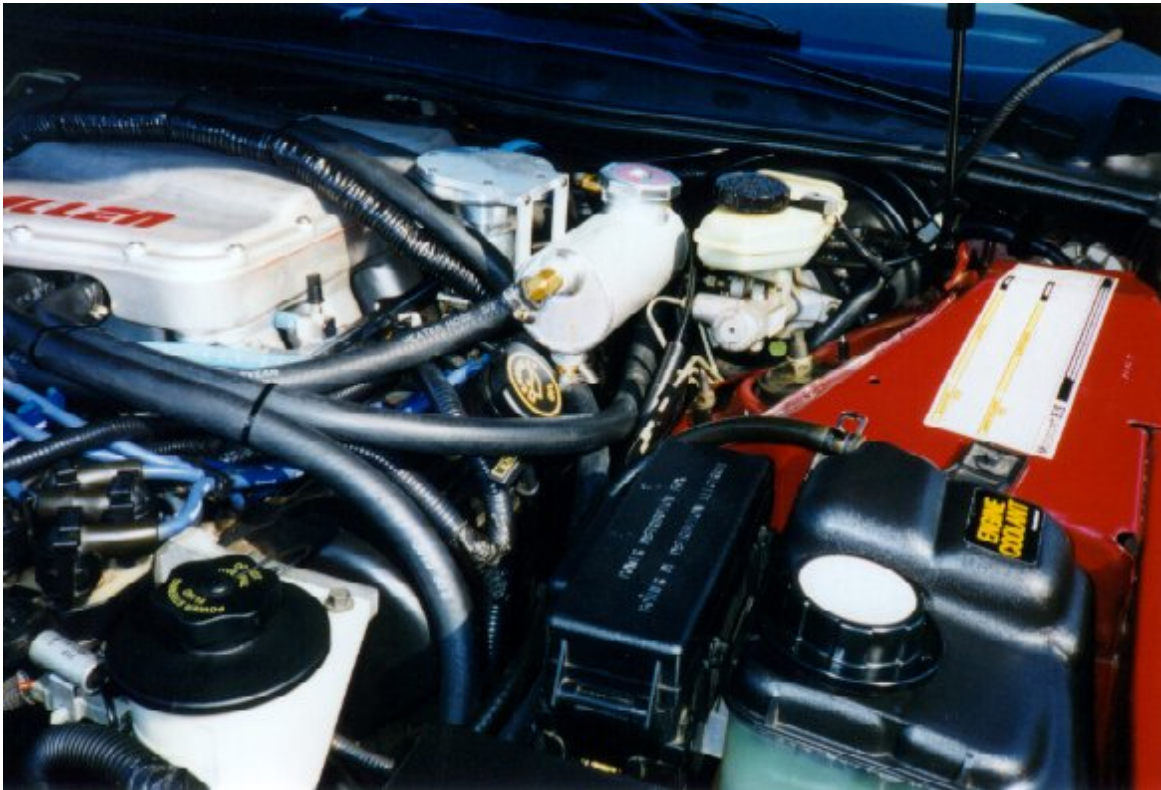
**IAC hose and vent hose. The left hose gets the brass coupling fitting (supplied).
The right side gets the plastic fitting from the stock setup.**

94) Connect the intercooler hoses by running them from their proper location to the fittings. Mark the hoses and cut, make sure the hoses are not pinched or rubbing. Tighten all of the provided hose clamps and be sure to re-tighten the clamps after a few weeks. Fill the intercooler water tank with a 50/50 percent mixture of distilled water and coolant for corrosive protection and heat transfer (Texaco DEXCOOL is recommended). It will be necessary to burp the system by loosening the set screw on the side of the water pump. When you get water at this point tighten the screw and top off the intercooler tank. Run the water pump for a few seconds and recheck the level in the tank. When the system is properly bled you will be able to see the coolant circulating when the pump is on. Top off the intercooler tank and install the radiator cap.

95) On figure 6 it is easier to install the fuse link between # 30 and the positive terminal on the battery. Run the black (negative) wire from the pump to a good chassis ground (i.e. battery ground on frame).

96) Figure 7 is the hose routing for the intercooler.

97) Before starting the vehicle, double check all electrical connections including all eight fuel injector harnesses, IAC, EGR Pressure Transducer, Mass Air Meter, Fan wiring harness, Throttle body position sensor, Air intake sensor (in air box), two coolant sensors, etc. Prime the fuel pump for a few seconds and then repeat this procedure a few times to ensure that you have fuel to all eight injectors. Start the vehicle and check for leaks. Once the fluids have warmed, take the vehicle out for a test drive. You now have 100 more horsepower!!! ENJOY



Finished installation!

This supercharger kit requires little to no engineering to install. However some procedures require concentration to perform correctly. It is advisable that you install the kit in segments. It will take you approximately 40 hours or three full days from start to finish to complete. Plan ahead and read the instructions thoroughly. You will need many common hand tools, a work bench with a vise and a grinder. Enlist the support of two additional mechanically inclined people to aid in the work. Be sure to have all the materials needed on hand and ready to use. Most importantly, do not work fatigued. You could make a mistake that could hinder your advancement or possible cause injury to yourself

IMPORTANT NOTE - It is very important to close the gap on the factory sparkplugs to a recommended 0.035". Recommended sparkplugs are Motorcraft AWSF-32C. **NOTE:** If the original sparkplugs are in good condition they can be reused, bitt changing the plugs is preventative maintenance. Perform this modification during the installation of the supercharger kit while many of the intake manifold components have been removed.

It's also recommended to change the sparkplug ignition wires at this time if the wires are original or worn out.

A special thanks to Anthony Frusco who wrote these additional instructions for 94-95 Thunderbirds. I have a 96 T-bird and tried the .035 spark plug gap. While it ran OK at high RPM the idle had what I would call an occasional hiccup. I went to .040 gap and the car ran excellent.

Jim Sanborn A.E.D.

**EXTRA PARTS LIST FOR 94-95 T-BIRD
(ALLEN ENGINE SUPERCHARGER KIT)**

<u>DESCRIPTION</u>	<u>PART#</u>	<u>LIST PRICE</u>
IDLE AIR VALVE	F6AZ-9F715EB	\$105.22

THERMOSTAT HOUSING	F6ZZ-8592-C	\$ 34.84
EGR TUBE	F6SZ-9D477-C	\$ 59.70
EGR VALVE	F6ZZ-9D475-CA	\$ 74.04
IAC GASKET	FE7SZ-9F670-A	\$ 3.14
THROTTLE CABLE BRACKET	F6SZ-9728-A	\$ 5.98
AIR INTAKE HOSE	F6SZ-9B659-AC	\$ 90.36
THROTTLE BODY	F6AZ-9E926-AA	\$148.28
FUEL RAIL	F6ZZ-9F792-DA	\$174.74
INTAKE GASKET (2)	F6AZ-9439-A	\$ 15.80
	TOTAL	\$712.10

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