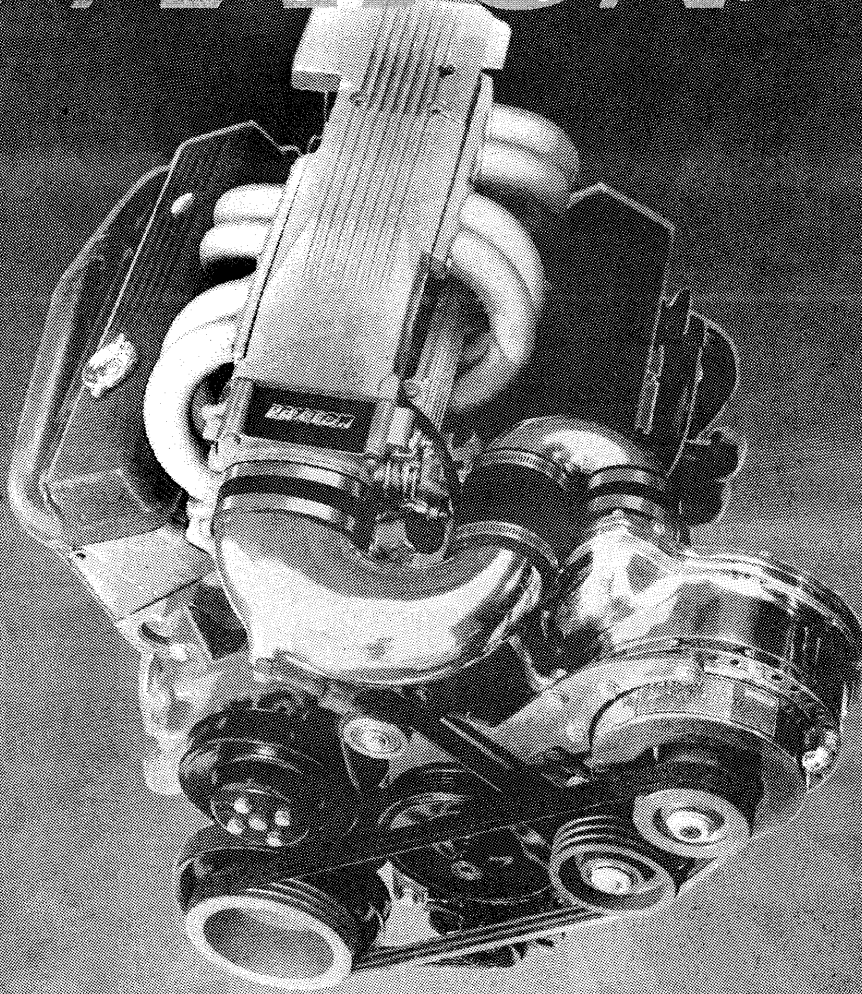


# **PAXTON** SUPERCHARGERS



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**Owner Installation Guide for  
95/350TPI Supercharging Kit  
Port-Injection Camaros**

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PAXTON Automotive Corp. - 1250 Calle Suerte - Camarillo CA. 93012

## FOREWARD

This manual provides information on the installation, maintenance and servicing of the Paxton supercharger kit expressly designed for the 1988 to 1992 Camaro with a 305/350TPI engine. An understanding of the information contained herein will help novices as well as experienced technicians to correctly install and receive the greatest possible benefit from their Paxton supercharger.

When reference is made in this manual to a brand name, number or specific tool or technique, an equivalent product may be used in place of the item mentioned.

All information, illustrations and specifications contained herein are based on the latest product information available at the time of publication. The right is reserved to make changes at any time without notice.

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# Section 1.0

## INTRODUCTION AND GENERAL INFORMATION

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**C**ongratulations on your purchase of a Paxton Supercharger Kit. Paxton's Supercharger is by far, the finest bolt-on, emissions-legal supercharger available for your fuel injected vehicle. The kit is manufactured to precision specifications and the highest quality. By following the instructions outlined in this manual, your installation should go smoothly.

Before beginning the installation of your kit, you may wish to degrease your engine compartment. This will make your installation much easier and enhance the beauty of your Paxton Supercharger. Select a level location (the front of the vehicle will need to be jacked up) where the vehicle will not need to be moved for the duration of the installation. Be sure the vehicle is cold, so as not to run the risk of burns to your hands and arms.

DO NOT remove or tamper with any emission control devices on your vehicle. Tampering with smog control equipment is a violation of the Clean Air Act, the Vehicle Code and possibly other laws (as applicable from state to state). To violate this warning may result in, but is not limited to severe fines, penalties and prosecution.

You should possess good mechanical skills along with a complete understanding of your vehicle's computer, emission, fuel injection and vacuum systems. If not, we suggest you seek the assistance of a qualified automotive service

technician.

Read this manual thoroughly before you begin. The instructions have been simplified, including many photographs, to make the installation go effortlessly. If, however, you need assistance, please contact Paxton Automotive's installation Hot Line. Paxton's business hours are Monday through Friday, 7:00 A.M. to 3:30 P.M. (PST). The telephone number is (805) 987-8660, or you may Fax your questions to (805) 987-2985, attention Technical Dept.

If an automotive technician is not available at the time, please leave a message and include the following information:

First and last name.

Daytime phone number where you can be reached, including area code.

Vehicle make, model, engine and year.

A brief, but complete description of your problem.

### ABBREVIATIONS:

S/C = Supercharger

A/C = Air Conditioning

P/N = Part Number

P/S = Power Steering

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# Section 2.0

## PRELIMINARY PREPARATIONS

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**B**efore beginning your supercharger installation, run a computer diagnostic check on your vehicle using the supplied Paxta-Key™ and the laminated computer card. Make sure you perform the computer diagnostic check BEFORE disconnecting the battery. Disconnecting the battery will erase all stored trouble codes. Follow the instructions on the card precisely. If any trouble codes are present, take your vehicle to an authorized new car dealer for further diagnostics and/or repair.

**NOTE:** *During the disassembly process, save ALL of the hardware. Much of it will be reused during reassembly. If an item will not be needed, reference will be made to a replacement part at the appropriate time.*

Before installing your Paxton Supercharger kit, make sure that your vehicle is in top running condition. Check all fluids to ensure that they are clean and fresh. A tune-up may also be necessary. Make sure the vehicle is positioned on a clean, flat surface, transmission in park (automatic), or in first gear (manual) and properly “blocked”. Assemble all of the tools necessary before you begin your tear down. This will eliminate wasted time as well as disruption of the installation procedure by having to constantly look for tools.

During the tear down, you may wish to take Polariod™ photos of the engine. This will eliminate the guess work of “where does this go?”, should you be interrupted and have to resume

the installation at a later time.

Once installed, do not perform harsh break-in periods. Drive your vehicle normally. Your supercharger has already gone through a break-in/quality control period on our test stands at the factory. If your engine is new, or newly rebuilt, follow the break-in procedures outlined by the motor builder or the manufacturer of your vehicle.

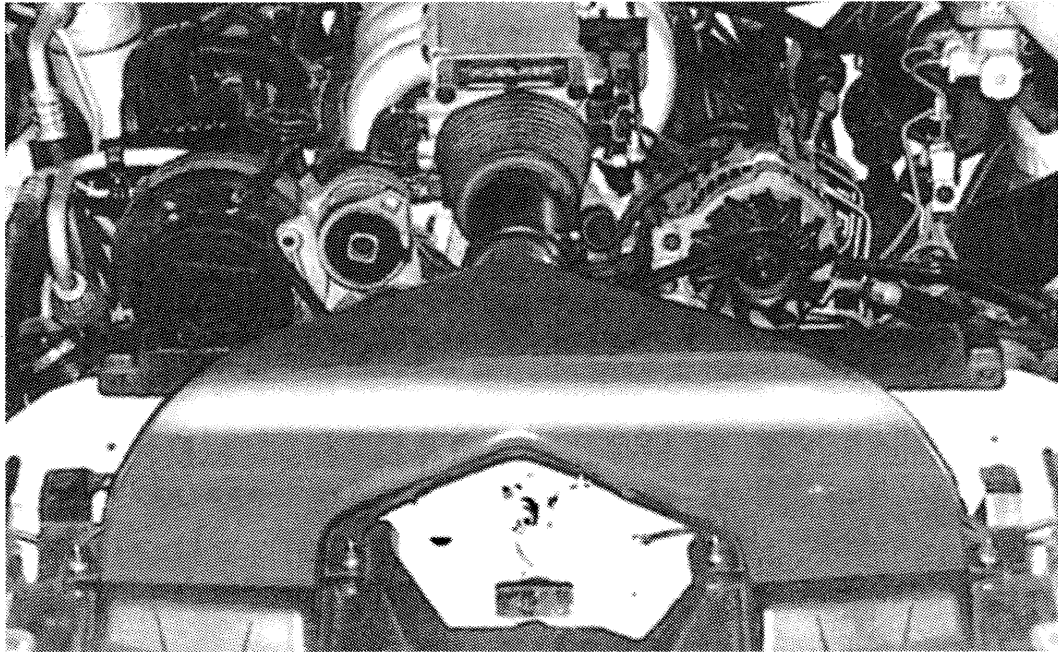
**NOTE:** *Make sure you use your vehicle's stock E-PROM. Your Paxton Supercharger kit was designed for such use. DO NOT use, or install a high performance E-PROM which has been programmed for normally aspirated or nitrous applications in conjunction with the Paxton Supercharger. A loss of power or even severe engine damage may result.*

Make sure you are using a premium unleaded gasoline with a minimum octane rating of 91 or higher. However, you may use unleaded gasoline with an octane rating of 87-90 if the optional Paxton/MSD electronic timing control is installed.

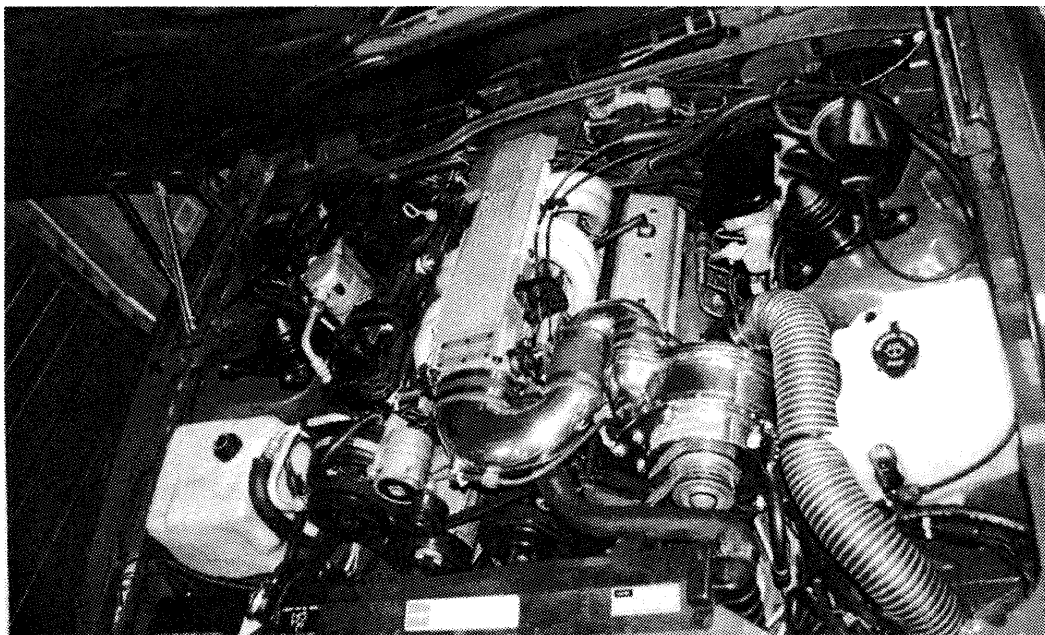
Check your engine timing using a reliable timing light. Set the timing to 6° BTDC. DO NOT increase the initial timing beyond 6° BTDC or serious engine damage will result. However, you may increase your initial timing (FOR OFF ROAD USE ONLY), if the optional Paxton/MSD electronic timing control is installed. Please call or write your Paxton Automotive sales representative for details.

## RECOMMENDED TOOLS AND SUPPLIES

Combination wrenches sizes 5/16" to 3/4" and 10mm to 19mm  
SAE and metric socket set 1/4" to 13/16" (including 5/8" sparkplug socket) and 7mm to 19mm  
3/8"-drive torque wrench with range of 0-100 ft.-lb.  
Torx bits T-40, T-45 and T-47  
Flathead screwdrivers ranging from small to large sizes  
Center punch  
Scribe and/or grease pencils  
Electric drill  
1/8", 3/16", 1/4" and 5/16" steel drill bits  
7/8" hole saw and 3-1/2" hole saw (or Sawzall™)  
Hacksaw  
Metal deburring file  
1/2" breaker bar  
Mechanic's straight edge  
Measuring tape and/or ruler  
Hammer  
Hose cutter  
Vice grips and/or crescent wrench  
Wire cutters, wire crimpers and wire strippers  
2-ton floor jack and 2-ton jack stands(2)  
UL-listed utility light and grounded extension cord  
Radiator filler or one-quart capacity funnel  
4-1/2 gallon capacity drain pan  
Two gallons of antifreeze  
Clean 12-fluid ounce capacity squeezable bottle and/or small clean funnel  
Safety glasses or goggles  
Assorted tie wraps  
WD-40™, Loc-Tite™, anti-seize and silicone  
Small magnet



*Photo 2-1 / View of stock engine compartment. [View from front of car.]*



*Photo 2-2 / View of completed installation. [View from front of car.]*

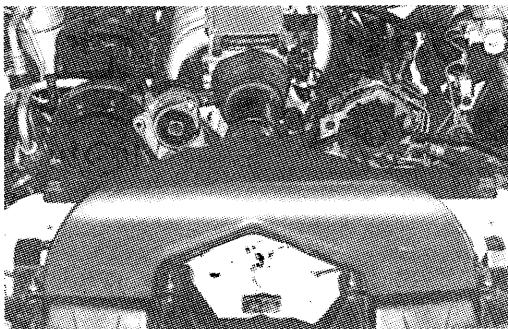
# Section 3.0

## DISASSEMBLY

**B**egin the disassembly process by disconnecting both battery cables from the battery using a 5/16" or 8mm combination wrench.

Remove the radiator cap. Place a 4-1/2 gallon capacity drain pan under the vehicle's radiator, then drain by gently pushing in and turning the drain valve counterclockwise. If no drain valve is present, you must loosen the bottom radiator hose slightly to allow the radiator to drain. Then completely disconnect the hose from the radiator to allow it to fully drain. Once drained, reconnect the hose, tighten the clamp and replace the radiator cap.

Remove the factory air intake assembly (photo 3-1) by loosening the clamp connecting the bellows to the throttle body. Then loosen the six quarter turn fasteners located toward the front of the vehicle, disconnect the mass air sensor (1988-1989 models only) and lift off the complete assembly. Separate the mass air sensor from the intake assembly by loosening the clamps at both ends.

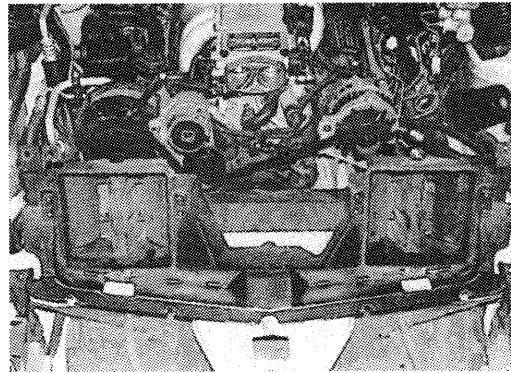


*Photo 3-1 / Stock air intake assembly  
[View from front of car.]*

Note the direction of the mass air sensor as it relates to the throttle body because you will need to know which way to install it later in the

installation procedure. We recommend that you mark an arrow pointing toward the throttle body on the side of the sensor to show the direction of air flow.

Remove the bottom of the air intake assembly (photo 3-2) located between the front cowl and radiator support bracket by removing the four 7mm hex head screws, and two plastic pin inserts. Replace the four screws in the cowl assembly.



*Photo 3-2 / Lower portion of stock air intake assembly. [View from front of car.]*

Remove the upper radiator hose by loosening the clamps at both ends. A new upper radiator hose is required for your S/C installation, and is supplied with the kit.

### **3.1 REMOVAL OF STOCK BRACKET**

You will be replacing the stock aluminum bracket that holds the alternator and P/S pump with a new supercharger bracket. The new bracket will hold the P/S pump and alternator as well as the S/C.

However, the alternator will eventually be relocated below the P/S pump. In the following steps, you will be removing the stock bracketry. The new, S/C bracket will





Place a small amount of anti-seize on the 1/4" ball bearing and insert it along with the piece of pin stock into the pulley shaft (photo 3-6).



Photo 3-6 / Ball bearing and pin insertion

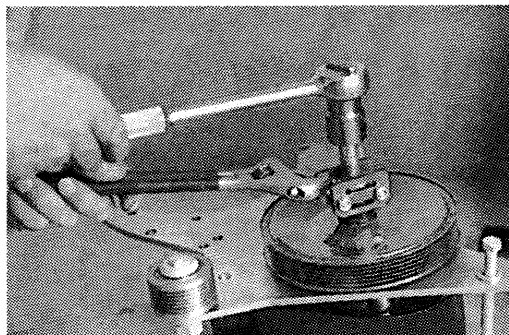


Photo 3-7 / P/S pump pulley removal

Thread into the puller assembly the large puller (not stepped) bolt. Holding the assembly with a crescent wrench, turn the puller bolt into the assembly with a socket

(refer back to photo 3-7). Continue until the pulley has been pulled off of the shaft.

There are three Torx head bolts which hold the P/S pump to the bracket. Remove and set aside these bolts. There are also two 15mm nuts behind the pump which secure it to the factory bracket. Remove this bracket from the pump and the engine and set aside. Carefully set the P/S pump aside. Using a 9/16" socket with extension, remove the three bolts which hold the factory aluminum bracket to the engine. Using the double nut method, remove the two studs from the cylinder head and block (photo 3-8). Set aside the bolts, studs and bracket.

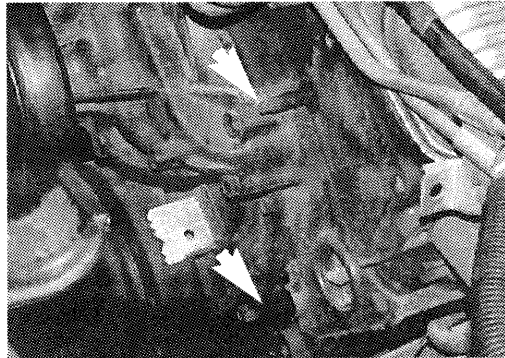


Photo 3-8 / Location of factory P/S bracket mounting studs [View from driver's front]

### 3-2 MODIFICATIONS:

Now that you've made a little room, some modifications are needed in the front fenderwell area to facilitate the installation of the air intake assembly. In the next three sections, you will be relocating the cruise control diaphragm, the windshield washer reservoir and the vapor recovery canister; leaving room for the air intake assembly and the S/C.

### 3-3 CRUISE CONTROL RELOCATION

Disconnect the hoses and wires from the cruise control unit. Using a 13mm socket,

remove the assembly from the fenderwell. Do not remove the cable from the assembly or throttle body. Relocate the assembly behind the driver's side strut tower bracket (approximately 2-1/8" behind the front bolt on the strut bracket, photo 3-9).

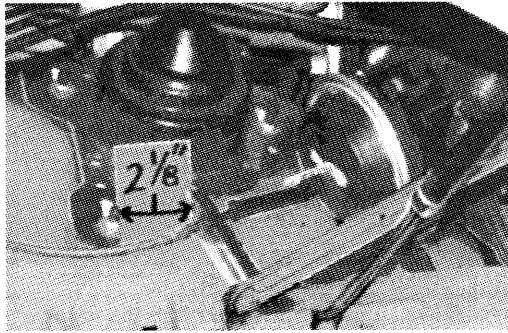


Photo 3-9 / Cruise control assembly relocation  
[View of driver's side shock tower]

You will need to bend the mounting tabs on the assembly 90° from their original position (photo 3-10).



Photo 3-10 / Cruise control bracket modification

Mark and center punch the new hole locations. CHECK FOR HOOD CLEARANCE. Drill a hole in the marked locations using a 1/4" drill bit; debur as necessary. Find the cruise control relocation kit (P/N: 1211100) and secure the assembly to the fenderwell using the two 1/4"-20 X 1" bolts, washer and nut. Pull the cruise control wires from the plastic holder and reconnect them to the unit. Install a new

longer vacuum hose from the unit to the tee located near the original mounting location.

### 3.4 WINDSHIELD WASHER RELOCATION

Remove the plastic hold-downs from the factory windshield washer reservoir and move the reservoir as far outboard (approximately 3/4") as possible. This will give added clearance for the P/S hoses later in the installation. Mark and center punch the new hole locations. CHECK FOR HOOD CLEARANCE. Drill the new holes in the marked locations using a 5/16" drill bit; debur as necessary. Secure the reservoir with the stock plastic hold-downs.

### 3.5 VAPOR CANISTER RELOCATION

Using a 7/16" socket with extension, remove the vapor recovery canister from the wheelwell behind the driver's side headlight. Disconnect the wires and hoses from the canister and remove it from the engine compartment. Reconfigure the two sheetmetal clips for easier reinstallation (photo 3-11).

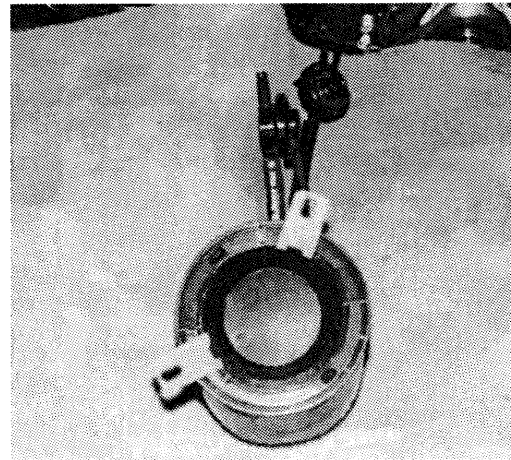


Photo 3-11 / Bottom view of vapor recovery canister

Place the canister as far forward on the wheelwell as possible. Aligning the rearward of the two clips with an existing hole in the fenderwell, mark and center punch a hole location on the inside fenderwell lip. Drill a hole using a 1/4" drill bit (because of the angle, you may want to drill a pilot hole using a smaller drill bit). Using the spacer (P/N: 3862212) and bolts (P/N: 1033200) provided, reinstall the vapor canister in its new location and reconnect the hoses and wires (photo 3-12).

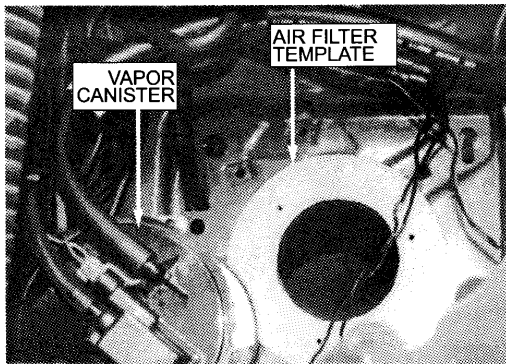


Photo 3-12/ Relocated vapor canister and new position of air filter [Top view of driver's side wheelwell]

### 3.6 AIR FILTER MODIFICATION

Find the air filter template in the appendix of this manual. Cut it out as necessary and place it in the fenderwell behind the vapor canister, aligning two of the screw holes with the two existing holes (photo 3-12).

Mark and drill the last 1/8" hole. Then mark and cut out the 3-1/2" hole for the A/F flange; debur as necessary. You could install the air filter (P/N: 1111300) now. However, it would be easier to install the filter after the S/C mounting bracket is installed. You can install the filter and alternator at the same time while the vehicle is jacked up in the air.

# Section 4.0

## SUPERCHARGER INSTALLATION

### 4.1 CRANKSHAFT PULLEY INSTALLATION

Using a 5/8" socket with extension, remove the one large center bolt from the stock crankshaft pulley. Save the thick washer for reuse. Next, with a 9/16" socket and extension, remove the three outer crankshaft pulley bolts and set aside. Remove the stock crankshaft pulley from the engine. Find the crankshaft pulley assembly (P/N: 1210601). Place the Paxton crankshaft pulley with spacer into the stock pulley and align holes (photo 4-1).

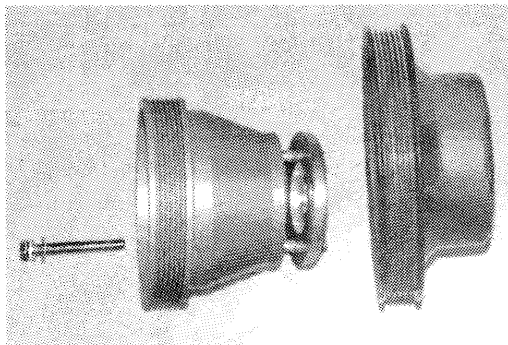


Photo 4-1 / S/C crankshaft pulley and spacer

Insert the three outer 3/8"-24 X 3" bolts (P/N: 1046330) into their respective holes each with a flat washer (P/N: 1003750) and a lock washer (P/N: 3827600). Place the assembly onto the engine and thread each bolt into the harmonic balancer. Tighten each bolt evenly so as not to allow the pulley assembly to bind and not seat straight; torque each bolt to 24 ft.-lbs. Next, place the thick washer onto the 7/16"-20 X 3-1/2" bolt (P/N: 8000179) and thread it into the center of the crank-

shaft; torque to 24 ft.-lbs.

### 4.2 S/C MOUNTING BRACKET ASSEMBLY INSTALLATION

Using a 9/16" socket, remove the thermostat housing from the intake manifold and thoroughly clean. Mark a line approximately 2" from the mouth of the housing (Figure 4-1) and place it in a vise.

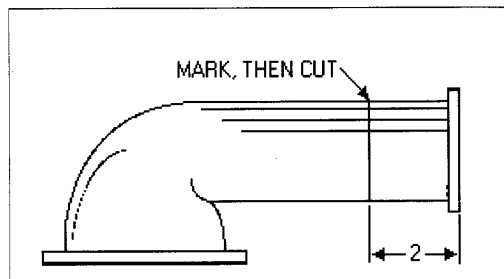


Fig. 4-1 / Thermostat housing modification.

Shorten the housing by cutting it at the 2" mark; debur as necessary. Using a Torx bit, remove the two front intake manifold bolts nearest the thermostat. Install the engine lifting hoop (P/N: 3865301) found in the S/C mounting bracket assembly (P/N: 1210401). Reinstall the thermostat housing using a new housing gasket.

The hard fuel lines running across the front of the head will need to be bent to provide clearance for the S/C mounting. Disconnect the lines from their bracket using a 7mm socket. Gently bend the lines down to valve cover height and back so that they are almost touching the front of the valve cover (photo 3-8).

### 4.3 ALTERNATOR WIRE EXTENSION

Since the alternator will be relocated down below the P/S pump, you will need to

extend the alternator wires. Locate the alternator wire extension kit (P/N: 1210700). Cut the stock alternator wires far enough back from the terminal connectors to facilitate crimping. Strip and crimp the wire extensions into the wires using supplied heat-shrink butt connectors. Once extended, carefully shrink the plastic sheath of the butt connectors to form a water-tight seal using a heat gun.

#### 4.4 MOUNTING BRACKET INSTALLATION

Preassembled on the mounting bracket assembly is the black stiffener bracket (P/N: 3845200).

**HINT:** You will want to refer to FIGURE 4-2 throughout the mounting bracket installation

Remove this bracket and bolt it to the front of the driver's side cylinder head using the two 3/8"-16 X 1" bolts (P/N: 2740400) and flat washers (P/N: 1003750), (photo 4-2).

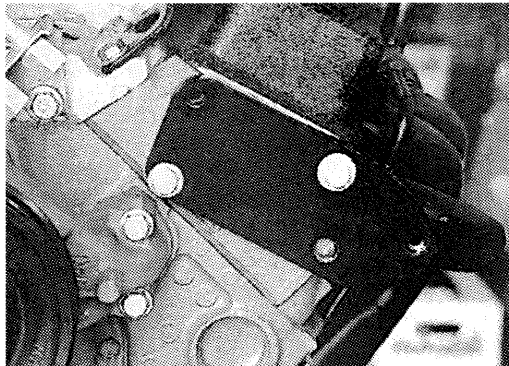


Photo 4-2 / Stiffener bracket installation  
[Front view of driver's side of engine]

Hold the main mounting bracket in front of the engine. Position the P/S-pump into the square slot in the mounting bracket. Secure it to the mounting bracket using the three hex-head bolts (P/N: 4804100) and three aluminum washers (P/N: 2740500), (photo 4-3).

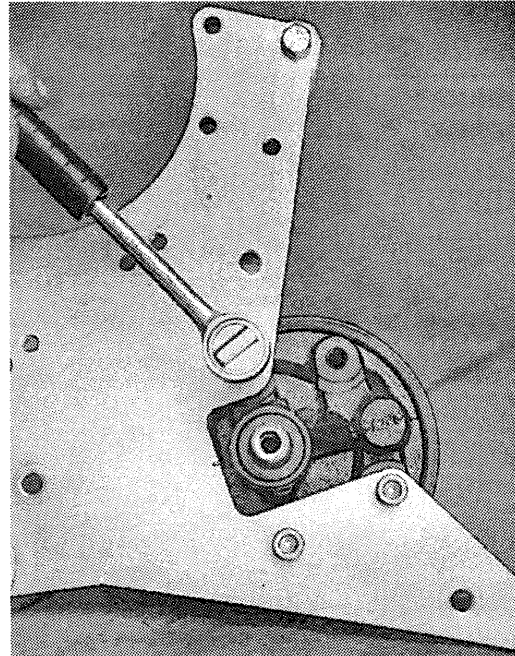


Photo 4-3 / Mounting the P/S pump to the S/C bracket

Slip the 3/8"-16 X 5-1/2" bolt (P/N: 4807300) with an aluminum washer through the hole second from the bottom of the bracket and through the 4-1/2" X 3/8" black aluminum spacer (P/N: 3867600). Start the bolt into the upper mounting boss in the engine block (photo 4-4).

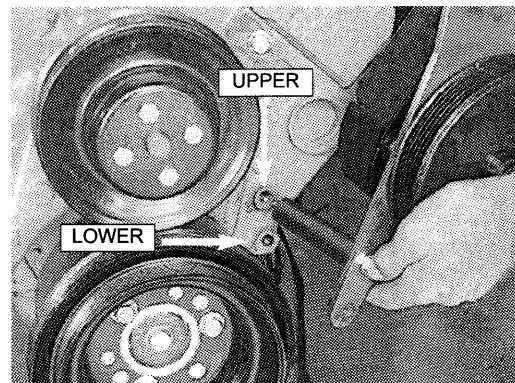


Photo 4-4 / Engine block mounting bosses  
[Front view of driver's side of engine]

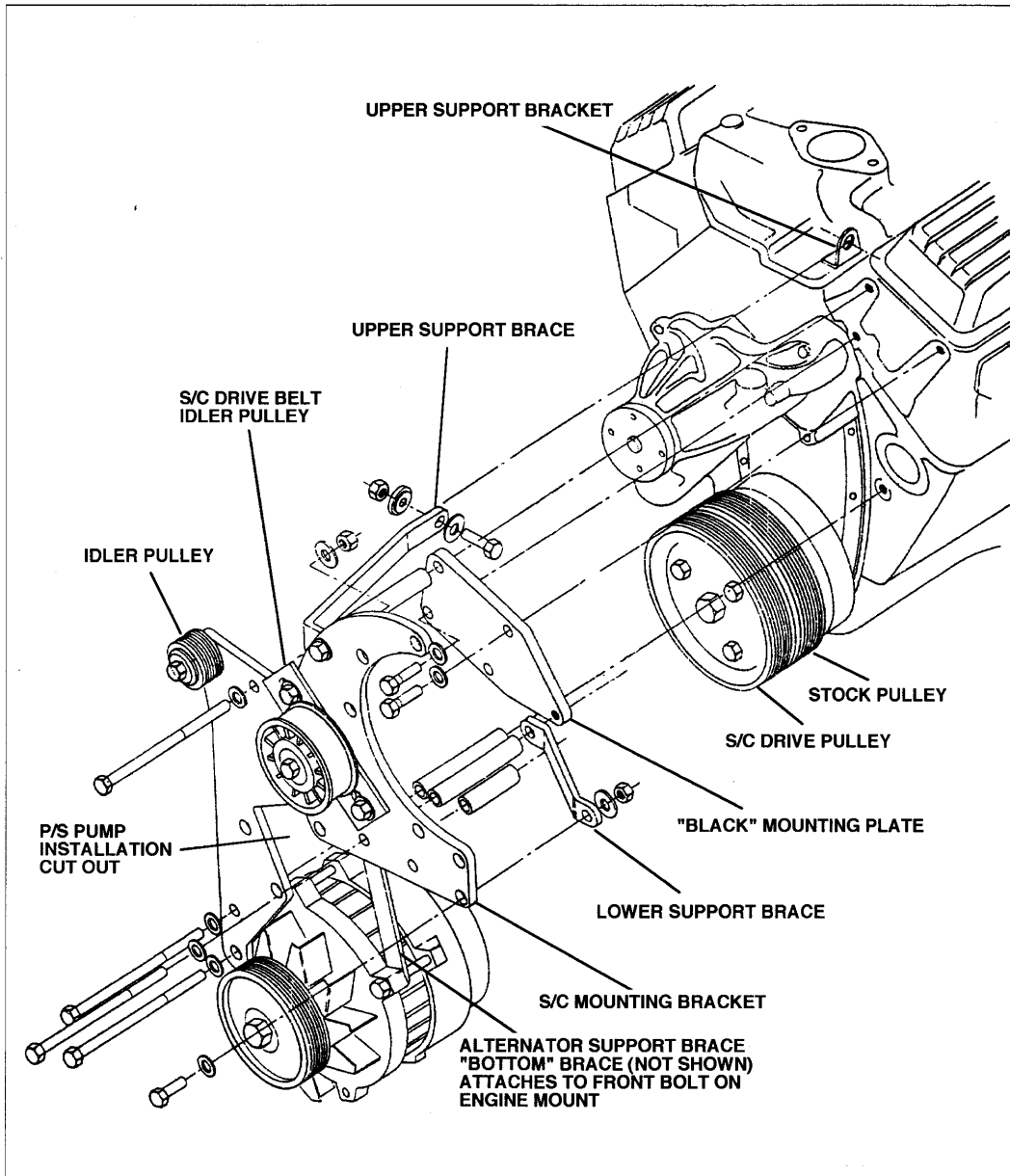


Fig. 4-2 / Exploded view of S/C mounting bracket and mounting location

Aligning the stud in the back of the P/S pump into the blank hole in the stiffener, start the 3/8"-16 X 5" bolt (P/N: 1047340) already preassembled on the mounting bracket into the threaded hole out on the end of the stiffener (photo 4-5).

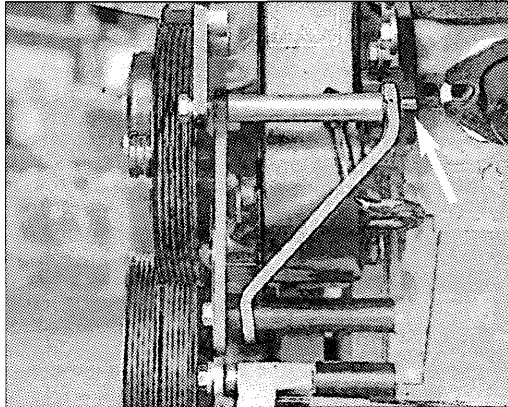


Photo 4-5 / 5" long bolt threaded into stiffener  
[Side view of driver's side front of engine]

There should be one hole left in the stiffener. Place the 4 1/8" X 3/8" aluminum spacer (P/N: 3862203) between the mounting bracket and the stiffener. Push the 3/8"-16 X 5-1/2" bolt (P/N: 4807300) with an aluminum washer through the bracket, spacer and stiffener, and thread it into the head ( see figure 4-5).

Using the large stepped black aluminum washer (P/N: 3717205), the 3/8"-24 X 1-1/4" bolt (P/N: 4803100), 3/8" flat washer (P/N: 1003750) and nylon lock nut (P/N: 1001750), attach the upper mounting brace (P/N: 8000089) to the engine lifting hoop previously installed. Use the other 3/8"-24 X 1-1/4" bolt (P/N: 4803100), nylon lock nut and washer to attach the other end of the upper support brace to the S/C mounting bracket ( see figure 4-5).

You may now wish to jack up the front of the vehicle to reinstall the alternator from underneath the car.

**BE SURE TO SET THE VEHICLE ON JACK STANDS.** Push the last 3/8"-16 X 5-1/2" bolt (P/N: 4807300) with an aluminum washer through the bottom hole in the mounting bracket (photo 4-6), through

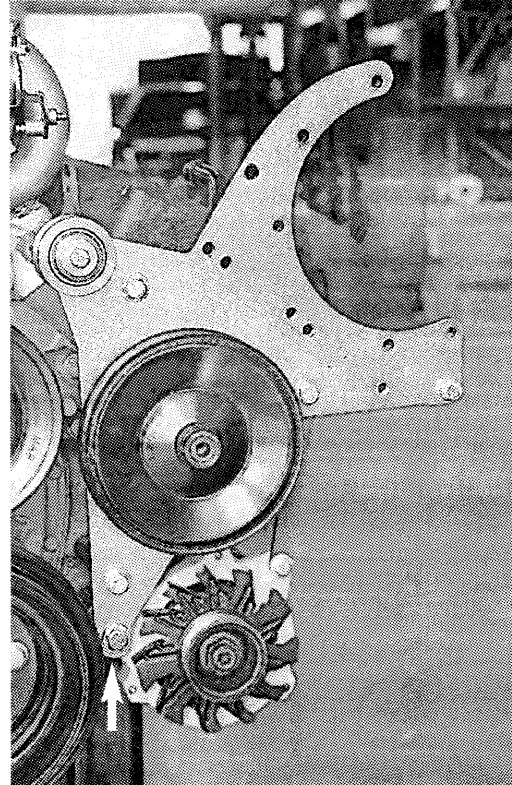


Photo 4-6 / Front view of S/C bracket installed

the mounting boss on the side of the alternator, through the 2.209" X 3/8" aluminum spacer (P/N: 3867700) and thread it into the lower mounting boss in the engine block (photo 4-4).

Secure the threaded boss on the other side of the alternator to the alternator stay (pre-assembled on the mounting bracket) with the 5/16"-24 X 1" bolt (P/N: 1033300) and an aluminum washer.

Using a 5/8" socket with extension and an 11/16" combination wrench, loosen the



driver's side motor mount bolt. Slip the large slotted end of the alternator-to-engine-mount-bracket (P/N: 4812500) behind the motor mount nut and align the other end to the threaded boss at the back of the alternator. Secure the bracket to the alternator with the stock 8mm-1 1/4 X 3/4" bolt. Retighten the motor mount bolt. Finally, torque all S/C mounting bracket bolts to 20-24 ft.-lbs.

#### 4.5 P/S PULLEY REINSTALLATION

If you have not already done so, use a small magnet to retrieve the ball bearing from inside the P/S pulley shaft. Remove and disassemble the puller assembly from the P/S pulley. To reinstall the pulley back on the shaft, screw the large nut all the way onto the stepped bolt (photo 4-7). Add the thrust bearing.

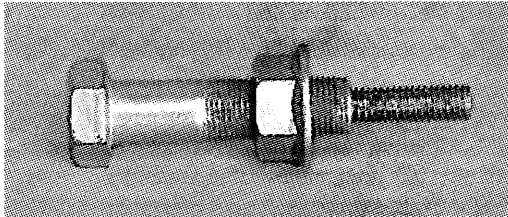


Photo 4-7 / Stepped bolt and washer-head nut

Place the pulley on the shaft and thread the pusher assembly through the pulley hub and into the shaft. Hold the bolt with a boxed end wrench or socket and turn the nut until the shaft comes out flush with the end of the pulley hub (photo 4-8).

Loosen the nut and remove the bolt from the shaft. If you removed the cooling fan, reinstall it now. Install the new accessory drive belt (P/N: 4805000) supplied in the crank pulley assembly. Following the belt routing diagram in this manual (Figure 4-3), align the belt around the pulleys. Place a 1/2" breaker bar into the slot on the spring loaded tensioner and push down sliding the belt under the idler pulley.



Photo 4-8 / P/S pump pulley reinstallation

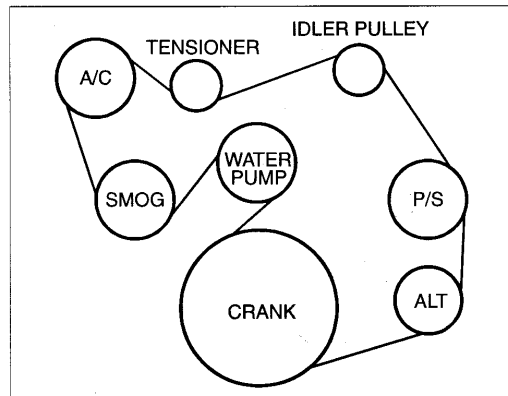
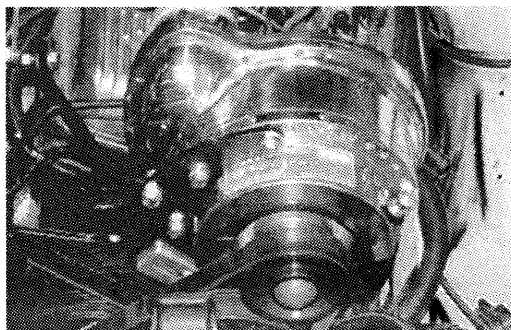


Fig 4-3 / Accessory drive belt routing

#### 4.6 S/C INSTALLATION

Install the Paxton Supercharger (P/N: 1210000) onto the mounting bracket using the five 5/16"-18 X 1-1/4" bolts (P/N: 2737201) and remaining aluminum washers. Be sure that the black manufacturer plate is directly up (refer to photo 4-9).

Tighten with a 1/2" socket and extension. Torque the bolts to 18-20 ft.-lbs. Fill the S/C with 8-10 ounces of automatic transmission fluid TYPE F (P/N: 4850000)



*Photo 4-9 / Supercharger installation  
[View from front]*

supplied in the kit, or Paxta-Trac high performance fluid (P/N: 4813500).

Install the idler assembly (P/N: 1210101) using the supplied 3/8" bolts and washers onto the mounting bracket's upper most threaded hole and third threaded hole; snug the bolts using a 9/16" wrench. Place the S/C drive belt around the crank shaft pulley and S/C pulley.

Using a short aluminum bar or brass drift and a hammer, tap the idler assembly upward toward the water pump until the S/C drive belt has no slack. Tighten the idler mounting bolts with a short 9/16" combination wrench.

Install the new upper radiator hose assembly (P/N: 1210900) using the supplied hose clamps. Attach the hose to the radiator flange and to the thermostat housing flange. Tighten the clamp at the radiator.

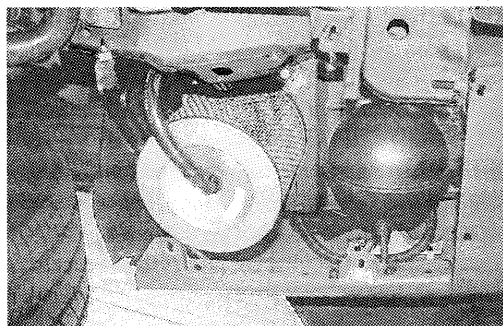
Give the hose a slight clockwise twist at the thermostat housing ( to give the hose added clearance over the small steel idler pulley) and tighten the clamp. Refill the radiator with coolant mixture.

#### **4.7 AIR FILTER INSTALLATION**

Some vehicles are equipped with a "Y" brace between the bottom of the fender and the frame rail. If your vehicle is so equipped, remove the brace for the air filter installation using a 10mm socket. With

some slight bending, it may be reinstalled once the air filter is in place.

From underneath the vehicle, set the Paxton high-flow air filter assembly (P/N: 1111300) inside the fender nose and rest it on the fender lip. From above, reach through the 3-1/2" hole previously cut and pull the air filter flange up through the hole. Attach the filter to the fenderwell using the supplied sheetmetal screws (P/N: 2717100) (see photo 4-10).

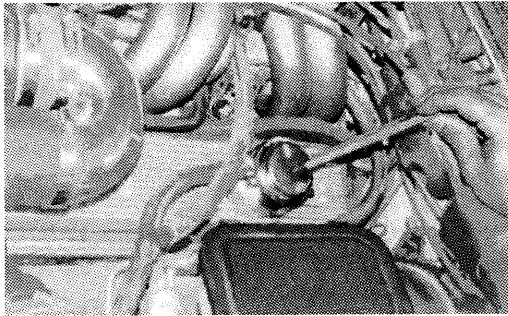


*Photo 4-10 / Air filter installation  
[View from under driver's side front wheel well]  
(Spherical vacuum canister is on Firebirds only)*

#### **4.8 CRANK CASE VENTILATION**

When boost pressure is applied to the engine, cylinder pressure is increased, thus increasing piston ring "blow-by". This causes a rise in crankcase pressure which needs to be released. If not relieved, this pressure will push out oil from the seals and dipstick tube. Therefore, you need to increase the crankcase ventilation capabilities of the engine. The idea is to keep boost from being pumped into the crankcase and to evacuate the crankcase more effectively.

Remove the stock oil filler cap. If your vehicle is equipped with a stamped sheet-metal cap, set it aside. Insert the rubber grommet (P/N: 3863901) into the oil-fill hole and seal with silicone. Install the chrome oil filler cap (P/N: 3863900), see photo 4-11.

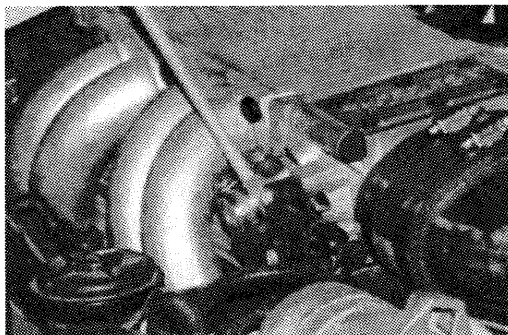


*Photo 4-11 / Oil filler cap installed  
[Top view from driver's side rear]*

If your vehicle is equipped with a plastic oil-fill cap, place the cap in a vise and, using a 7/8" hole saw, cut a hole through the top center of the cap.

Next, turn the cap over and replace in the vise. Drill a 1/2" hole through the bottom of the cap. Deburr the cap and clean out all of the plastic shavings. Install the small grommet (P/N: 6243900) into the 7/8" hole (some trimming of the lip on the grommet may be required to get a good fit inside the cap). Install the 105° elbow (P/N: 6241600) into the grommet. Replace the cap in the valve cover.

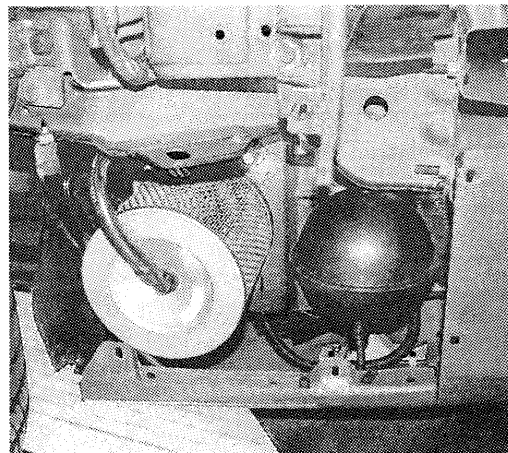
Remove the PCV hose from the throttle body and the passenger's side valve cover. Using the 5/8" x 1-1/2" hose (P/N 3863101), the 5/8" plug (P/N: 3866800) and the clamp (P/N: 4208000) plug the nipple on the throttle body (photo 4-12).



*Photo 4-12 / Throttle body PCV modification  
[Top view of passenger's side front]*

Connect the 1/2" x 72" length of PCV hose (P/N: 5325272) supplied in the air intake assembly to the fitting in the passenger's side valve cover. Run the hose across the top of the engine, behind the upper intake plenum, and forward along the driver's side valve cover. You will be using the "Y" connector (P/N: 5341500) to connect this hose to the fitting in the oil-fill cap.

Find an appropriate location, cut the hose and install the "Y" into the hose. Measure and cut another length of hose from the 1/2" x 18" PCV hose (P/N: 5325218) and install it between the "Y" and the fitting in the oil-fill cap (photo 4-11). From the remaining hose, measure, cut and install the hose between the last nipple on the "Y" and the elbow at the bottom of the air filter assembly (photo 4-13).



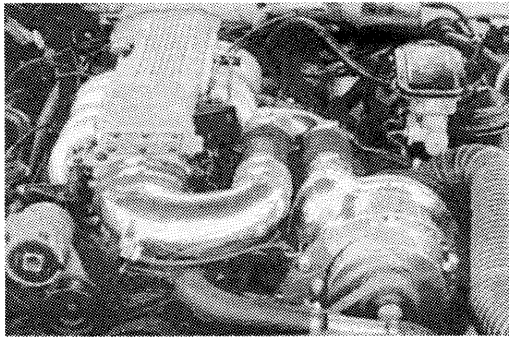
*Photo 4-13 / Air filter installation  
[View from under driver's side front wheel well]  
(Spherical vacuum canister is on Firebirds only)*

**NOTE: HOSE ROUTING IS VERY IMPORTANT FOR A NEAT AND ATTRACTIVE INSTALLATION.**

#### **4.9 S/C DISCHARGE INSTALLATION**

Assemble the air discharge assembly (P/N: 1210200). Connect the two polished aluminum U-tubes (P/N's: 3861502 and

3861400) together at their 3" flanges using the 3" X 4" rubber sleeve (P/N: 2746845) and two #48 clamps (P/N: 1055970). Place the larger 4" x 2" rubber sleeve (P/N: 2735400) over the oval-shaped flange end and tighten with one #64 clamp (P/N: 1053430). Place the other #64 clamp on the large rubber sleeve but do not tighten yet. Place the 2-3/4" x 1-1/2" rubber sleeve over the flange at the opposite end of the assembly. Secure it to the flange with a #44 clamp (P/N: 1053400), placing the last #44 clamp over the sleeve but not tightening. Slide the large oval sleeve over the flange on the throttle body and the 2-3/4" sleeve over the S/C discharge flange at the same time. Tighten the two remaining clamps to secure the discharge assembly onto the engine (photo 4-14).



*Photo 4-14 / Discharge tube/water injection tube installation [Top view from front of car]*

#### **4.10 PRE-DETONATION SUPPRESSION SYSTEM**

Find the water injection pump (P/N: 4815100) located in the water injection kit (P/N: 1211200) and locate the pump in a convenient place directly below the windshield washer reservoir. Mark and center-punch two mounting holes. Drill 1/8" holes in the marked locations. Using the two sheetmetal screws (P/N: 2717100) and two washers (P/N: 1044440) supplied in

the kit, secure the water injection pump to the fenderwell.

Drill a 1/4" hole in the top of the windshield reservoir. Push a length of 7/32" hose (P/N: 2707332) down through the hole to the bottom of the reservoir; seal with a dab of silicone. Connect the other end of the hose to the "in" side of the water injection pump, trimming as necessary. Secure the hose to the pump with a plastic snapper clamp (P/N: 4801800). Secure another piece of the 7/32" x 32" hose (P/N: 2707332) to the "out" side of the water injection pump with another snapper clamp. As neatly as possible, route the hose toward the brass nipple pre-installed on the front of the large discharge U-bend (photo 4-14).

Connect a red one-way check valve (P/N: 3898110) to the other end using a snapper clamp. Be sure that the directional arrow on the check valve points away from the pump. Using the short piece of hose, 7/32" x 1-1/2" (P/N: 2707315) and two snapper clamps, connect the other end of the check valve to the brass nipple pre-installed on the discharge tube (photo 4-14).

With the wire provided in the water injection assembly, connect the "+" terminal on the water injection pump to an ignition source, not a battery lead (to prevent filling the engine with water in case of a malfunction in the water injection system). You may reconnect the battery cables at this time, if you have not already done so, to locate an ignition source. **DO NOT START THE VEHICLE.**

At the back of the upper intake plenum, on the passenger's side of the engine, there are two vacuum nipples installed. Remove the stock vacuum hose from the nipple furthest back and remove the nipple using a 1/2" deep-well socket. Thread in the

brass 1/4" NPT x 2" extension (P/N: 4825600) between the intake plenum and one of the ends of the brass 1/4" NPT TEE (P/N: 3863600). In the branch port of the TEE, thread in the original vacuum nipple removed earlier. Into the other end of the TEE, screw in the 1/4" NPT x 1/8" NPT bushing (P/N: 1046310). Then thread the Hobbs Switch (P/N: 3886900) into the bushing. Do not use teflon tape or pipe sealant on any of the connections, because a good electrical ground must be attained at this location. Reconnect the stock vacuum hose to the stock nipple (Fig 4-4).

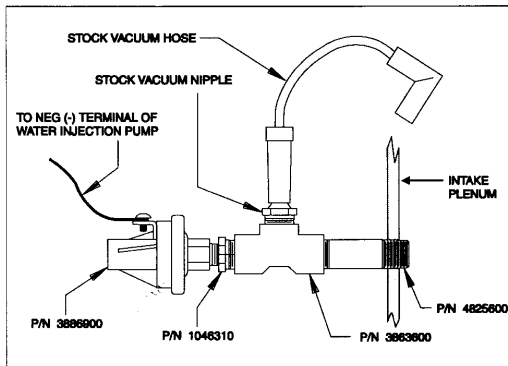


Fig 4-4 / Vacuum nipples and Hobbs Switch installation [Passenger's side rear of intake plenum]

From the "-" terminal on the water injection pump, run a wire to the single terminal on the Hobbs switch, using supplied terminal connectors.

#### 4.11 INTAKE SYSTEM INSTALLATION

From the intake air kit, find the rubber intake elbow (P/N: 3706500). Insert into the rubber elbow, the polished aluminum elbow (P/N: 3862100), long side first, and retighten the clamp. Install the assembly onto the S/C inlet flange (photo 4-15).

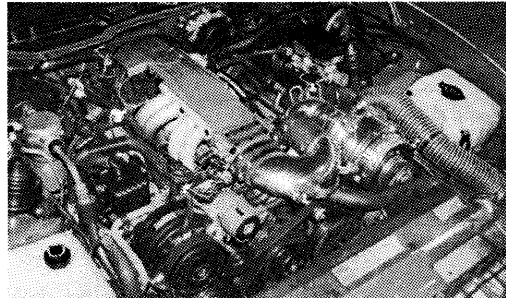


Photo 4-15 / Intake system installation

Using the rubber sleeve (P/N: 2746801) and two #48 clamps (P/N: 1055970), connect the mass air flow sensor (1988-1989 models only) to the air filter flange installed previously.

Connect the polished elbow at the S/C to the mass air sensor using the 3" x 27" flex hose (P/N: 2748207) and two #44 clamps (P/N: 1053400). If you have a 1990-1992 model, then you do not have a mass air flow sensor. Connect the flex hose directly to the air filter flange. Tighten all clamps. Reconnect the mass air flow wires to the sensor extending the wires as necessary.

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# Section 5.0

## FINAL CHECKS

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### **Belts:**

Make sure the belt routing is correct and that the S/C belt is as tight as you can get it.

### **Fluids:**

Recheck the S/C fluid. It is easiest to see if you pull the dipstick out and lay it flat on a white napkin. The fluid level must be up to the higher of the two marks.

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### **WARNING**

*Never run the S/C without the correct amount and type of fluid. Using any alternative fluids, such as synthetics, may cause serious S/C compressor damage and VOID your warranty.*

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Recheck the P/S fluid to be sure none spilled out during the installation .

Start the vehicle with the radiator cap off. Let the engine run until you can see the coolant flowing. Keep filling the radiator until the level does not drop from 1/2" below the neck. Replace the radiator cap when full.

Make sure that your windshield washer reservoir is full. A 25% mixture of methanol alcohol or windshield washer fluid to water works very well. Under normal driving conditions, the reservoir will empty out in less than two tank fulls of fuel.

### **Water injection system:**

Remove the hose from the brass nipple on

the front of the discharge U-bend. Using a wire or a test light, ground the terminal at the Hobbs switch with the ignition "on".

The test light should light up and water begin to flow from the hose. If not, check your electrical connections and hoses for kinks or blockages. If you cannot find the problem, call Paxton's Automotive Techline at (805) 987-8660 Monday-Friday 7:00 A.M. to 3:30 P.M. (PST).

### **HAVE FUN**

Enjoy your Paxton Supercharger. See your service manual supplied in the S/C head assembly box for troubleshooting guides, service schedules and procedures, and care and maintenance of your Paxton Supercharger. If you would like to ask a question or make a comment about the performance, the installation, or this manual, call our Paxton Sales Representatives Monday-Friday, 7:00 A.M.-3:30 P.M. at (805) 987-8660 or fax us at (805) 987-2985.

### **SMOG LEGAL PERFORMANCE**

Your Paxton Supercharger is California Air Resources Board (C.A.R.B.) approved under exemption order number D-195-15. Since C.A.R.B. has the highest standards in the country, this means that the Paxton Supercharger is STREET LEGAL in all 50 states.



Thank you for purchasing a quality Paxton Supercharger kit. Your supercharged vehicle now requires 92 octane or better fuel for it to function properly. For your convenience we have included these octane reminder decals.

We recommend this decal to be placed near your dash fuel gauge.

**SUPERCHARGED ENGINE**  
Use only 92 octane fuel  
Do not boost until engine has warmed up

We recommend this decal to be placed on your gas cap.



Please clean the adhesion area with rubbing alcohol before applying decals.

