



Owner's Installation Guide for the

***Paxton Automotive
Novi 1000 Supercharger***

for the

2001-2003 4.6L SOHC Mustang GT

**Paxton Automotive . 1300 Beacon Place . Oxnard CA 93033
805 604-1336 . FAX (805) 604-1337**

FOREWORD

Before you start the installation of your supercharger Paxton supercharger kit, you will have to find the Paxton Computer Chip Voucher located in your information packet. The 2001-2003 Mustang GT Supercharger Kit requires a computer chip upgrade. You will need to fill out the chip voucher and send it and your computer to Paxton Automotive to receive your chip upgrade. Please refer to section 7 of this manual for the procedure for removing your engine control module.

Complete the Paxton Automotive/Ford Computer Chip Voucher and return it to Paxton Automotive to receive the proper computer module for your vehicle.

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IMPORTANT NOTES

Congratulations! You have purchased the finest street supercharger available for the Mustang GT. The centerpiece of this kit is the High Efficiency PAXTON Supercharger, a mechanically driven centrifugal blower.

This kit comes with all the parts you will need to install the supercharger. The instruction manual has been edited in order of sequence, and photographs and drawings have been included to illustrate the text. This will allow you quick part identification and orientation.

The installation will require metric and SAE sockets and wrenches, a hand drill and bits, an Air Hammer (and compressor), a 3/8" x 18 NPT tap, screwdrivers, and a supply of buckets for the reserve of coolant and oils.

We suggest that you obtain a copy of a Mustang shop manual for your model of car. This may be obtained from your dealer, or may be ordered by

mail from Helm Publications at (800) 782-4356. Become familiar with the details of your car's system. If it is not operating within normal parameters, we do not recommend the installation or use of the supercharger.

For the quickest installation time, we suggest that you read this manual thoroughly before beginning. Make sure that you understand the process, have identified the areas of the car that you will be working on, and have the tools that you will need on hand. The average installation time is 8 to 10 hours, but your time will depend on your working conditions, experience installing superchargers, personal skill level, and preparedness for the job. This estimate does not include time for the initial vehicle inspection, cleaning, fine tuning, or trouble-shooting. Once again, we recommend reading the manual before beginning the process. We are available for tech support at (805) 604-1336, Monday through Friday, 7AM - 3 PM PST.

After reading the manual, verify that all major assembly groups are present in the main kit box. As you remove a box or bag, note the identification label and compare it to the parts list.

PAXTON AUTOMOTIVE makes every effort to insure that all parts are included in the box. If you discover that you are missing any part, or that a part was damaged in shipping, call PAXTON immediately. DO NOT begin installation if a part is missing. Failure to contact PAXTON prior to beginning installation will result in a charge for the missing part.

We suggest that the engine compartment be cleaned before the installation. You can clean the engine with a pressure washer that is found at self-

serve car washes. Use a safe-for-aluminum cleaner/degreaser, and cover the distributor and any electronics with a plastic bag to prevent water from entering.

You are undoubtedly eager to get started, but please take a little more time to insure that your safety is not in jeopardy. A moment's lack of attention may cause a serious injury to you, or to someone else who happens to be standing around. By following some simple safety precau-

tions, you can avoid many potential dangers. The following list is not meant to be a comprehensive list, but rather it is meant to make you aware of some of the risks, and encourage you to take a safety minded approach to your work area.

-
- *Never rely solely on a floor jack when working underneath a vehicle. Always use jack stands that are rated for the weight of your vehicle, use them at the recommended lift points, and place your vehicle in 'PARK' or 'FIRST' gear with the parking brake set.*
 - *Always use eye protection when using power tools, such as drills, saws, and grinders, or when working underneath a vehicle.*
 - *Never smoke, use an open flame, or have spark producing items around gasoline or flammable objects. Always have a fire extinguisher that is rated for chemical and electrical fires handy when working on motor vehicles. Also, make sure that the extinguisher is fully charged.*
 - *Operate engines only in a well ventilated area. Carbon Monoxide, gasoline, and solvent vapors are colorless and sometimes odorless, and may asphyxiate and explode without warning.*
 - *Always disconnect the battery from your engine before doing work on the electrical or fuel systems, or doing underdash work.*
 - *The chemicals used in the vehicle systems, such as oils and coolants, are poisonous. Clean up any spills immediately, and dispose of waste materials properly. Pets, wild animals, and children may die if they ingest the liquid.*

PAXTON Automotive thanks you for your purchase. We welcome your comments and suggestions to help us improve our product.

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Section 1

INITIAL PREPARATION AND REMOVAL

1.1 INITIAL PREPARATION AND REMOVAL

- A.** Begin the initial preparation and disassembly process by first disconnecting the negative side of the battery, and draining one gallon of coolant from the coolant reservoir. To do this, open the valve at the bottom of the radiator and allow to drain into a suitable container. DO NOT allow coolant to drain onto floor, and be sure to mop up any coolant splatter immediately. Animals like the taste of coolant, and if they drink it, it will kill them.
- B.** Before the air intake assembly can be removed, you must first disconnect the plastic crankcase breather hose (A) and air idle bypass hose (B). Unplug the air temperature sensor (C) and mass air flow sensor (D). (See Fig. 1-a.)

*****NOTE*****

(2002-2003 GT only) The air intake temperature sensor is now located in the MAF. (Step "C" no longer applies.)



Fig. 1-a

- C. Using a flat-head screwdriver, loosen the hose clamps at the mass air flow sensor and the throttle body, and remove the air intake hose (see *Fig 1-b*). Remove the air temperature sensor from the air intake hose and place it aside—it will be re-installed in a later step.

NOTE: On 2002-2003 GTs this step will not be done.

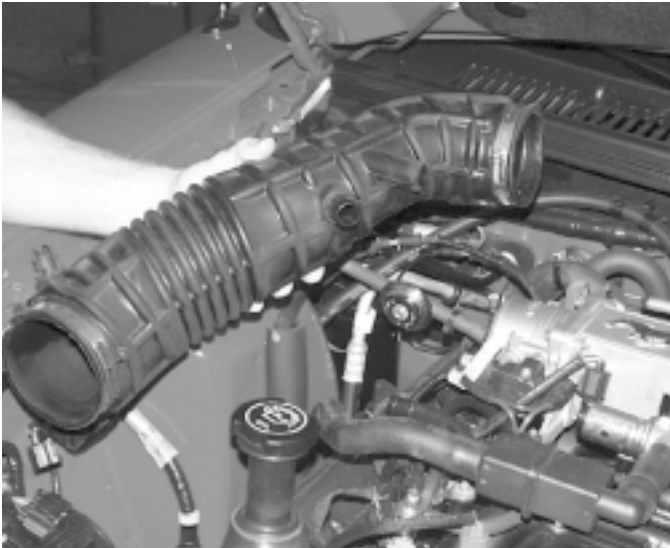


Fig. 1-b

- D. Use an 8mm socket to remove the single air filter housing retaining bolt. The air filter and mass air sensor can then be removed as an assembly. (See *Fig 1-c*.)

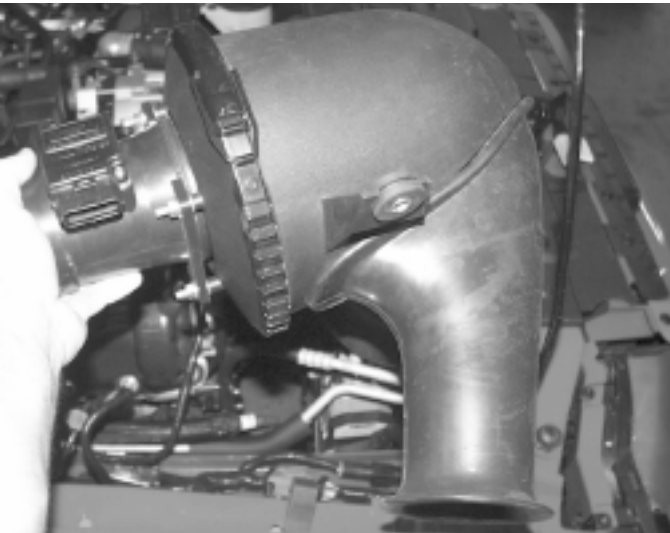


Fig. 1-c

- E. Once the assembly is out of the car, use a 10mm socket to remove the mass air flow sensor and screen from the air filter housing (see *Fig 1-d*). Place the mass air flow sensor aside to be re-installed in a later step.



Fig. 1-d

- E. The coolant reservoir is secured by three nuts (see *Fig 1-e*). Use a 10mm socket to remove these, and place the reservoir aside. Remove the upper radiator hose.

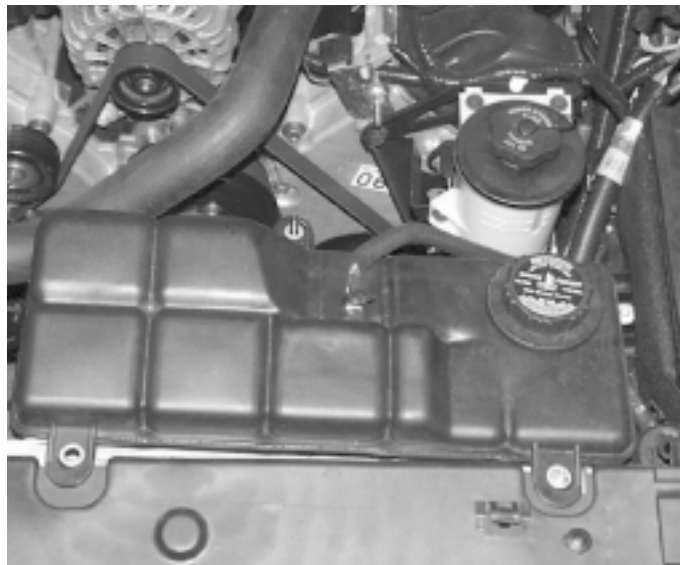


Fig. 1-e

Section 2

SUPERCHARGER MOUNTING BRACKET ATTACHMENT

2.1 SUPERCHARGER MOUNTING BRACKET ATTACHMENT

- A. Loosen (but do not remove) the four 10 mm head bolts securing the water pump pulley. Next, remove the accessory drive belt using a 3/8-inch drive ratchet or breaker bar into the square at the end of the tensioner, and rotate the tensioner clockwise. This will relieve the tension on the belt so it can be removed. It will not be re-used. (See *Fig. 2-a.*)



Fig. 2-a

- B. Use a 13 mm socket to remove the idler pulley, located above the belt tensioner (see *Fig 2-b*). Place the pulley aside to be used in a later step. Now, you may finish removing the four 10mm bolts securing the water pump pulley, and place the pulley and its fasteners aside for use in a later step.

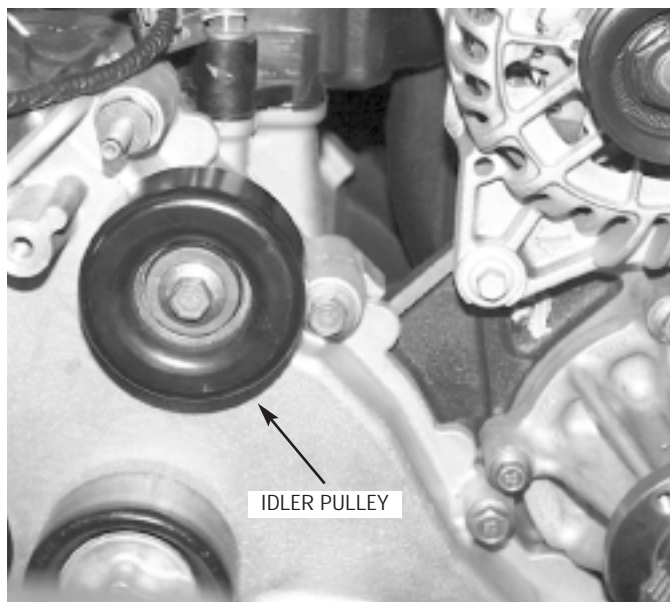


Fig. 2-b

- C. Next, remove three bolts at the front of the engine (see *Fig 2-c*). A 10mm alternator mounting bolt (A), and two 13 mm timing cover bolts (B and C).

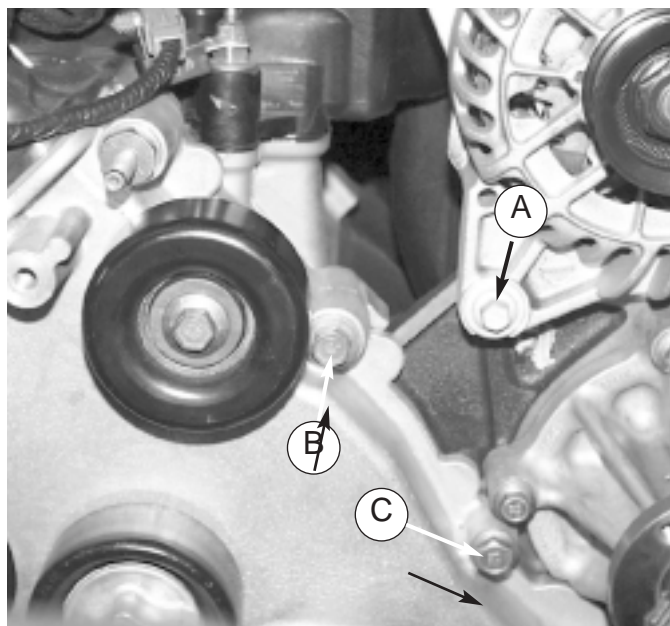


Fig. 2-c

- D. Remove both nuts using a 10mm and 13mm socket. Then remove both studs using a 13mm and 18mm socket. Enlarge the hole in the tab that held the wiring harness to the outermost stud. Using a round file, enlarge the hole so that it will slip over the large diameter of the stud. This tab will get sandwiched between the cylinder head and a spacer in a later step. (See Fig 2-d.) Note that on some of the 2001-2003 GTs this step will not be required and a .065 shim will go in its place.



Fig. 2-d

- E. Install the supercharger idler pulley bracket using the supplied hardware. Be sure to install spacer between bracket and alternator. (See Fig 2-e)

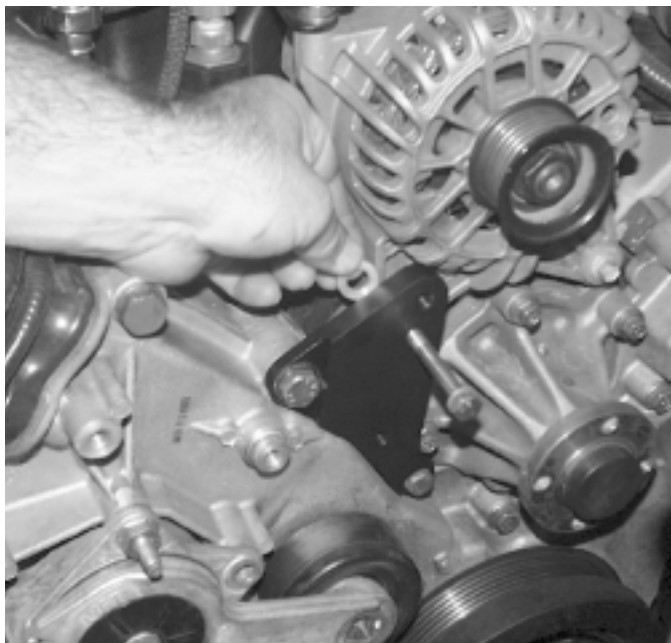


Fig. 2-e

*****NOTE*****

This photo is for illustration purposes. It will be easier for you to install this bolt/spacer first, then install the other two mounting bolts.

- F. Re-install the factory idler pulley using the factory hardware (see Fig. 2-f), followed by the supplied supercharger idler pulley (see Fig. 2-g).

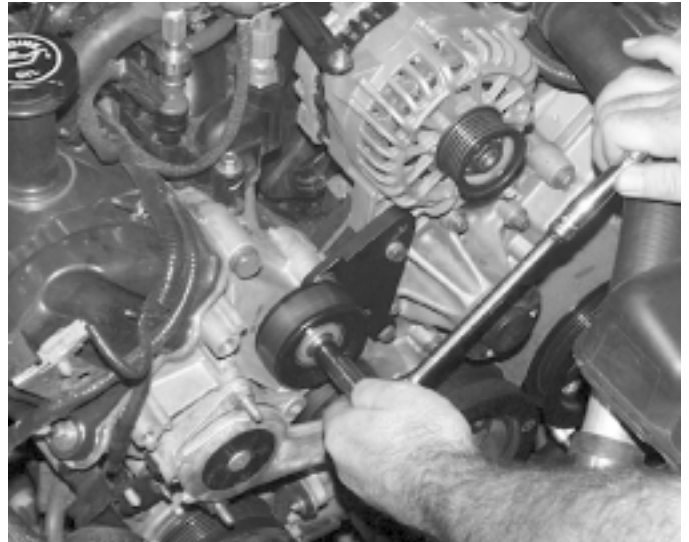


Fig. 2-f



Fig. 2-g

- G. Install the supercharger rear support bracket as shown in *Fig 2-h*. Temporarily install the long 10mm bolt to line up the bracket. Leave the bolts finger tight, as it will be necessary to move the bracket when you install the main supercharger bracket. *(This photo is for illustration only. You will have to install the supercharger and accessory belt before installing the bracket. There won't be clearance after the bracket is installed.)*



Fig. 2-h

- H. Modify the previously removed upper radiator hose with supplied hose, aluminum coupler and clamps. See Appendix 'B' (1015309) for diagram of modification.

*****NOTE*****

*The radiator hose assembly needs to clear the supercharger, so it is better to leave it long and trim the assembly later than to end up short. The finished radiator assembly is shown in *Fig. 2-i*.*



Fig. 2-i

- I. Before installing the main supercharger bracket, the A/C refrigerant refilling port must be bent from its upright position downward, so that the cap is facing the driver's side fender. (See *Fig 2-j*.)

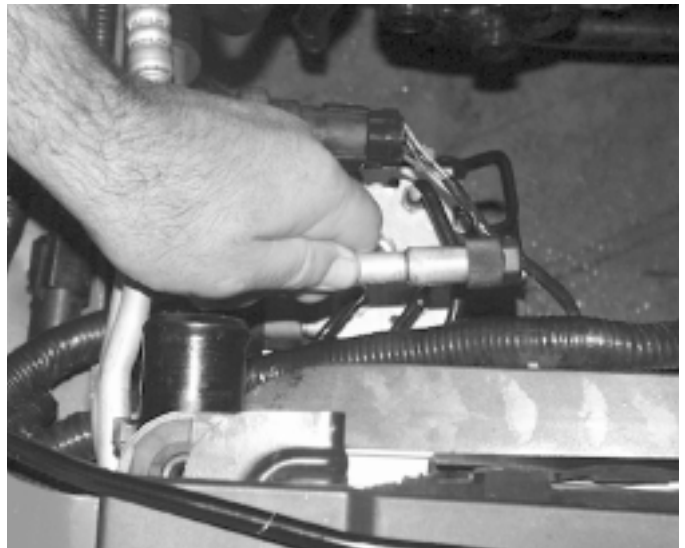


Fig. 2-j

*****NOTE*****

If possible, use a proper tubing bender for this step. If one is not available, the line can be bent by hand, but extreme care must be taken as the refrigerant within the line is under very high pressure. In any case, use a pair of heavy gloves and eye protection to prevent injury in the event of a ruptured line.

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Section 3

FAN RESISTOR RELOCATION

3.1 FAN RESISTOR RELOCATION

- A. Disconnect the wiring harness from the fan resistor. (See *Fig. 3-a.*) Remove clips holding the fan resistor to the fan shroud. Attach the fan resistor to the supplied bracket using the supplied hardware.

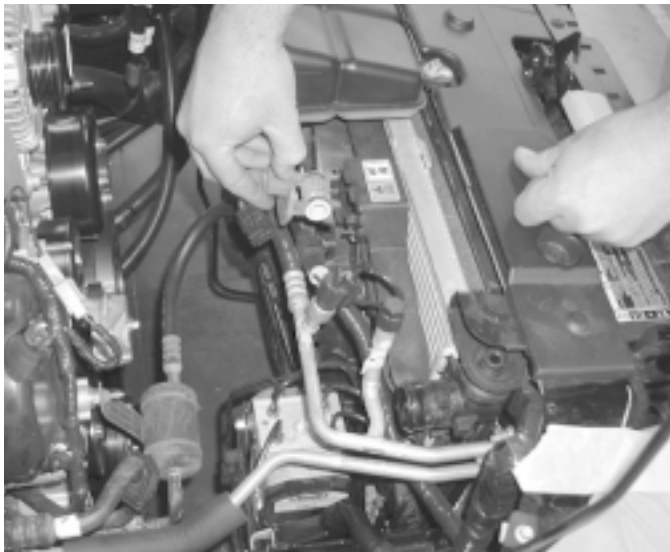


Fig. 3-a

- B. Trim the fan resistor mounting tabs on the fan shroud to provide clearance for the air intake assembly. (See *Fig. 3-b.*) The fan shroud should look like this after trimming. (See *Fig. 3-c.*)



Fig. 3-b



Fig. 3-c

- C. Re-attach the fan resistor to the wiring harness to ensure adequate wire length. (See *Fig. 3-d.*) Position the fan bracket on the passenger side of the lower fan shroud. Mark two mounting points along the fan shroud and drill the holes. Attach the mounting bracket with the supplied hardware.

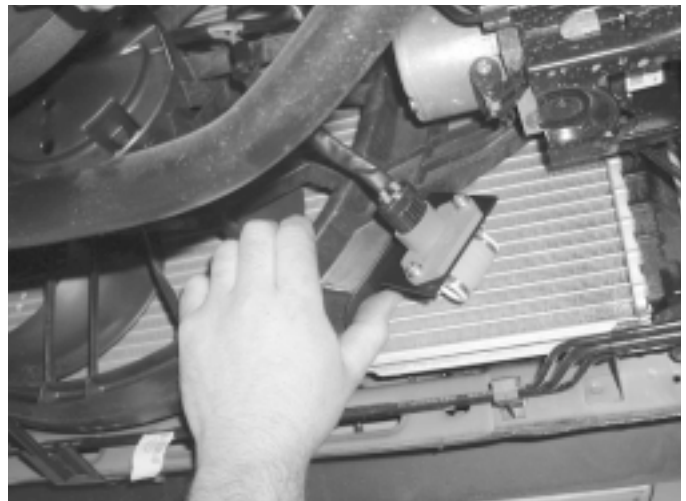


Fig. 3-d

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Section 4

PREPARING TO MOUNT THE SUPERCHARGER

4.1 PREPARING TO MOUNT THE SUPERCHARGER

- A. Mount the main supercharger bracket, installing the two 3/8 bolts and spacers in the upper portion of the bracket. Install the long 6mm bolt and spacer in the lower middle portion of the bracket, sandwiching the A/C support between the spacer and rear mounting bracket. Next, install the lower most bolt and two spacers: one in between the support and main brackets, one in between the two brackets and the other between the rear bracket and the cylinder head. The small metal tab securing the wiring harness gets sandwiched between the cylinder head and the spacer. Leave everything finger tight at this point.

*****NOTE*****

The drive belt, shown in this picture, should be installed at this point. (See Fig. 4-a.)

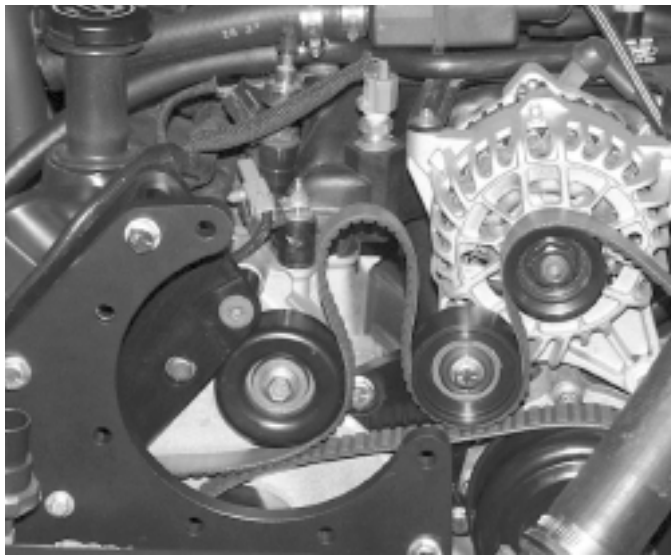


Fig. 4-a

- B. Next, install the bolt and spacer at lower right portion of the bracket. (See Fig. 4-b.) Go back and tighten all bolts on the mounting bracket, being careful not to over torque the small 6mm bolt. Install the supplied drive belt as shown. (See Fig. 4-a.)



Fig. 4-b

- C. Install the supercharger oil drain-back hose on the supercharger. (See Fig. 4-c.)

*****NOTE*****

The hose clamp screw head should be parallel to the supercharger mounting base.

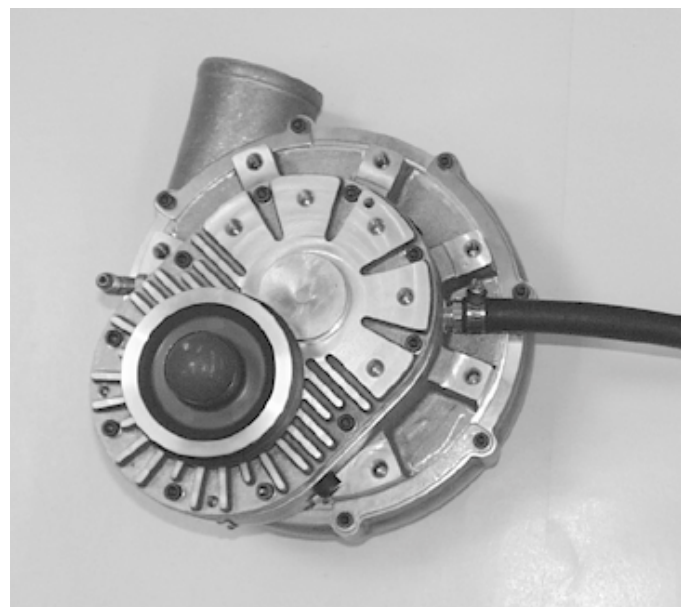


Fig. 4-c

- D. Remove the drive belt from the alternator pulley. Install the supercharger into the main bracket, while looping the drive belt around the supercharger pulley. (See *Fig. 4-d.*)

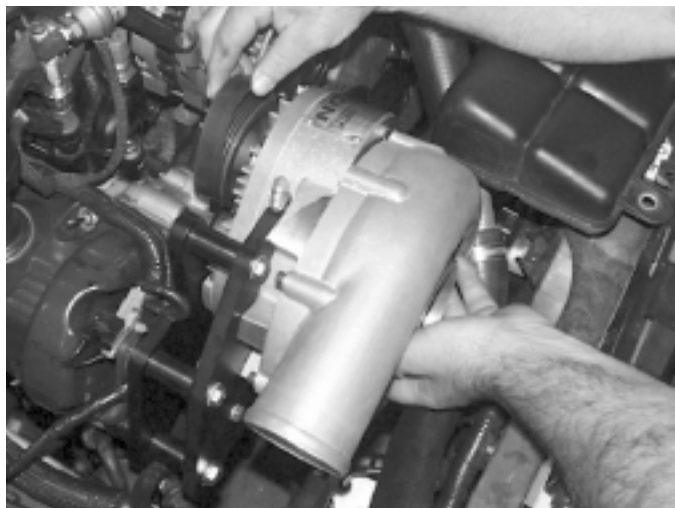


Fig. 4-d

- E. Tighten the supercharger mounting bolts. Once the supercharger is installed, release the belt tensioner and loop the belt back around the alternator pulley. (See *Appendix K* for a diagram of the drive belt routing.)

*****NOTE*****

For maximum performance, PAXTON Automotive recommends the factory stock platinum spark plugs be replaced with a copper spark plug (Autolite 764 or equivalent) gapped to .035.

- F. Remove the two 8mm bolts on either end of the Fuel Injector Rail and lift the unit out. Replace the stock injectors with the supplied injectors. Use white lithium grease on the O-rings to insure a smooth fit.



Fig. 4-e

Section 5

OIL FEED AND DRAIN LINES

5.1 OIL FEED AND DRAIN LINES

- A. Your Paxton Automotive NOVI 1000 supercharger uses pressurized engine oil for lubrication. Use an oil sending unit socket (Snap-On tools; part number 6152 or equivalent) to remove the oil sending unit on the underside of the oil filter housing (see Fig 5-a). Install the supplied brass junction fitting using a small amount of Teflon paste. **DO NOT USE TEFLON TAPE.** Once installed, the junction fitting should be oriented so that the opening faces toward the front of the car.



Fig. 5-a

- B. Install the oil sending unit in the end of the brass junction. Install the 90 degree 1/8-inch to -4 fitting into the side of the brass junction, and orient this fitting to face towards the driver's side frame rail. Attach the supplied length of braided stainless steel feed line, and route upwards to the 90 degree fitting on the supercharger.

*****NOTE*****

Be sure to stay clear of any moving parts or coolant hoses (engine vibration can cause the stainless line to chafe the rubber coolant hose, creating a leak over time). Install the line, and tighten moderately—no sealant is required. (See Fig. 5-b.)

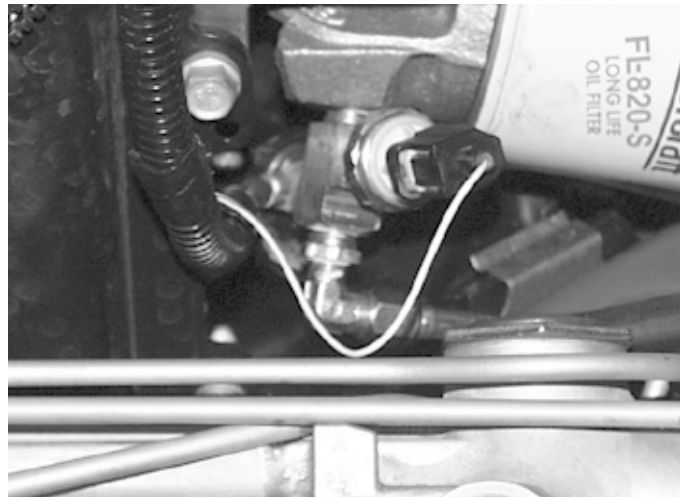


Fig. 5-b

- C. Mark the front of the oil pan 1" inch below the pan rail and between the the two pan rail bolts, directly in the center of the small 'hump'. (See *Appendix G.*) Cover a 3/16-inch drill bit with heavy grease and drill a pilot hole (see *Fig. 5-c*). The grease will help prevent metal particles from falling into the pan. Once the hole has been drilled, insert a straight length of welding rod or heavy wire (such as a coat hanger) into the hole approximately three inches to make sure no interference is encountered. If the path is blocked, turn the engine over until the pathway is clear.



Fig. 5-c

- D. Next, apply a small amount of anti-seize lubricant to the tip of the punch, and insert it into the pilot hole. Hit the punch with an air hammer carefully using small bursts, until the punch is inserted up to its shoulder. The hole should measure $9/16$ ". (See Fig 5-d.)

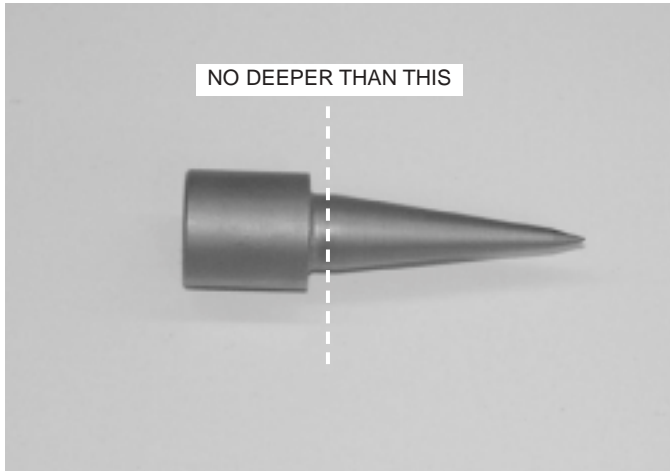


Fig. 5-d

*****NOTE*****

Do not use hand tools. Using an ordinary hammer will dent the pan. Use extreme caution not to make the hole to big, or the drain fitting will not fit and the pan will be ruined.

- E. Apply a liberal amount of heavy grease to a $3/8$ inch x 16 NPT tap (not included), and gradually thread into the hole. Clean the threads using a clean rag and an approved solvent, such as carburetor cleaner.
- F. Apply a ample amount of silicone RTV to the threads of the supplied $3/8$ -inch pipe to - 8 fitting and insert into the hole, being careful not to over-tighten. (See Fig. 5-e.)

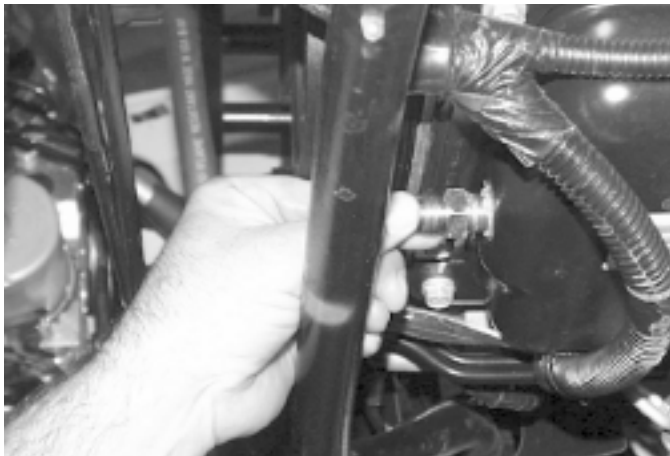


Fig. 5-e

- G. Install the supercharger drain-back hose fitting so that the elbow is oriented toward the passenger side, away from the harmonic balancer/crank pulley.(See Fig 5-f.)

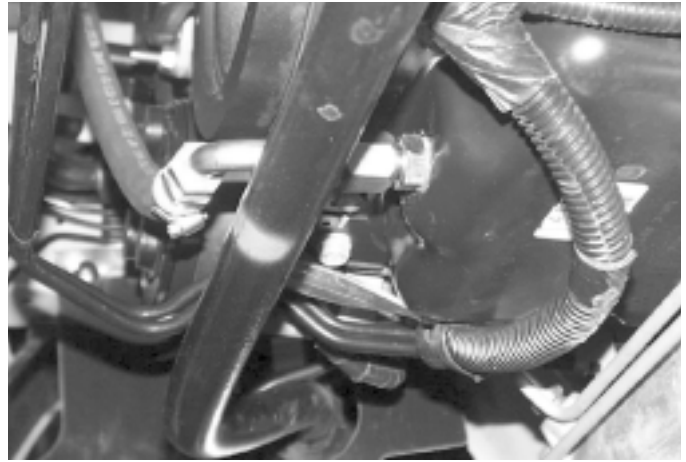


Fig. 5-f

Section 6

INTAKE TRACT MODIFICATIONS

6.1 INTAKE TRACT MODIFICATIONS

- A. Install the discharge tube assembly as shown, using the supplied rubber sleeves and stainless steel clamps. (See Fig. 6-a.)



Fig. 6-a

- B. Install the supplied length of rubber hose to the end of the hard crank case ventilation line that runs from the driver's side valve cover across the engine, (see Fig 6-b). Route the hose over the passenger side valve cover and towards the front of the engine.



Fig. 6-b

- C. Install the idle air control valve to the throttle body housing with the original hose, and to the discharge tube with the supplied length of rubber hose and hose clamps. (See Fig 6-c.)



Fig. 6-c

- D. The supercharger bypass valve requires a vacuum source. Remove the existing plastic coupler in the vacuum hose that runs along the firewall on the passenger side. Replace with the supplied vacuum 'T'. (See Fig 6-d.) Attach the supplied length of vacuum hose, and route along the passenger side frame rail towards the supercharger. It will be connected to the bypass valve assembly in a later step.



Fig. 6-d

- E. Remove the screen from the MAF, which was removed in step 4.(See Fig. 6-e.)



Fig. 6-e



Fig. 6-f

- F. Assemble the MAF, mounting bracket, MAF/air filter adapter and air filter. The MAF bracket assembly may look different from what you receive in your kit, but the assembly procedure is the same.
- G. Using the supplied 1/4-20 hardware, mount the MAF meter to the MAF bracket and secure. Remove the factory MAF screen before attaching the meter to the new bracket.

- H. Attach the supplied K & N air filter, 3-1/2" sleeve, 90° 3-1/2" elbow and #56 hose clamps to the MAF and secure.
- I. Insert the factory air temperature sensor into the rubber grommet located on the side of the supplied 3-1/2" x 90° elbow. Lubricate for easier fit.

NOTE

2002-2003 models do not have a separate IAT sensor. Use the supplied elbow without a hole or grommet for 2002-2003 models only.

- J. Using a #52 hose clamp, connect the piece of 3-1/2" flex hose to the elbow attached to the MAF meter and route it through the opening in the right side inner fender toward the supercharger. Make sure the 3 1/2" flex hose does not contact or rub on the edge of the inner fender opening. (Eventual hose failure will result if the hose is not properly routed.)
- K. The MAF/air filter assembly will be relocated inside the passenger fender. Remove the two nuts that secure the passenger side bumper cover to the inner fender. (See Fig. 6-g.) Next, locate the screw at the forward, lower edge of the passenger side wheel opening and remove it. This will allow the plastic inner fender to be pulled back so the MAF/air filter assembly can be installed.



Fig. 6-g

- L. Place the MAF/air filter bracket over the existing studs, then secure with the original nuts. (See Fig. 6-h.)



Fig. 6-h

- M. Carefully open the main wiring harness (runs from the passenger side inner fender into the engine compartment) with a razor blade, making an incision that is approximately 6-inches long. Pull the MAF wiring upwards, until the wires are long enough to be routed back through the opening in the inner fender, and down to the MAF. (See Fig. 6-i.)

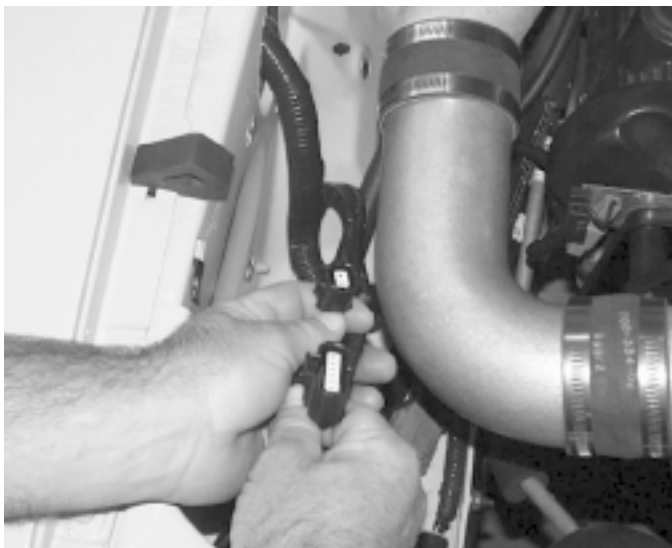


Fig. 6-i

- N. Insert the 1" x 10" rubber hose to the inlet of the compressor bypass valve. Secure both hoses with the supplied #16 hose clamps.
- O. Install the bypass valve assembly on the underside of the secondary intake tube. (See Fig. 6-j.) Tighten the hose clamp to secure the valve assembly to the intake tube.



Fig. 6-j

- P. Connect the plastic inlet duct (with bypass valve and hoses attached) to the supercharger inlet. This is to illustrate what the MAF assembly should look like after assembly. (See Fig. 6-k.)

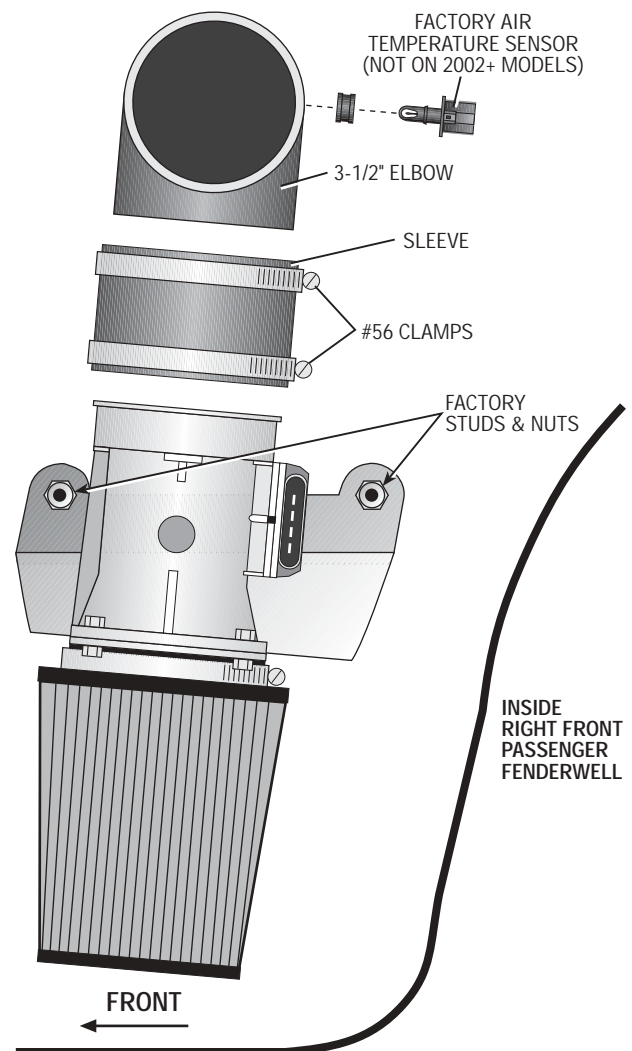


Fig. 6-k

- Q. Join the supercharger inlet duct to the previously installed MAF hose with the supplied #52 hose clamp.
- R. Connect the opposite ends of each hose to the crankcase breather fitting on the driver's side valve cover (5/8" hose) and the idle air control resonator (3/4" hose). Trim hose length if required.
- S. Install the 5/8" hose union into the crankcase breather line. It may be necessary to trim this line to ensure a proper fit. (See *Fig. 6-l.*)



Fig. 6-l

- T. Place the secondary intake tube/bypass valve assembly on the supercharger inlet, and attach it to the flex hose. Attach the other end of the bypass valve to the discharge tube. Connect the hose that was previously installed on the hard plastic crank case ventilation line to the brass fitting on the intake tube. Tighten the clamps. The finished installation appear as in *Fig. 6-m.*

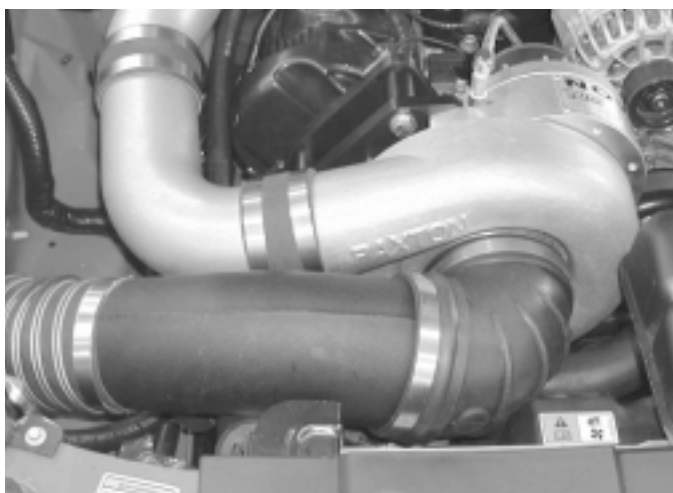


Fig. 6-m

Section 7

ENGINE CONTROL COMPUTER REMOVAL AND MODIFICATION

7.1 ENGINE CONTROL COMPUTER REMOVAL AND MODIFICATION

- A. Remove the passenger side door sill plate, followed by the passenger side kick panel. This will reveal the engine control computer and its harnesses. The harnesses are secured using clips, which are attached to a small metal bracket. Pull the harnesses off the bracket, then remove the two 7/32-inch bolts that secure the bracket itself. Remove the bracket. (See Fig. 7-a.)



Fig. 7-a

- B. Pull the harnesses down and out of the way, creating unobstructed access to the computer. Remove the 7/32 screw that secures the retention strap (see Fig. 7-b) and pull the computer out of the foot well. (see Fig. 7-c.)



Fig. 7-b

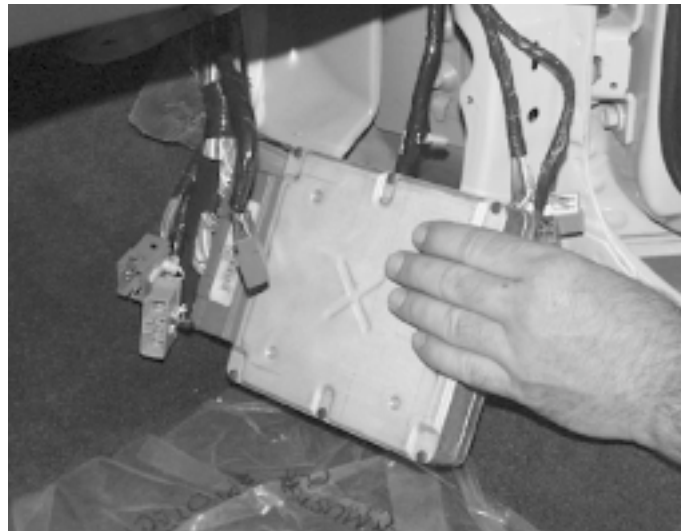


Fig. 7-c

- D. Remove the 10mm bolt that secures the main harness to the computer, and remove the harness. (See *Fig. 7-d.*)

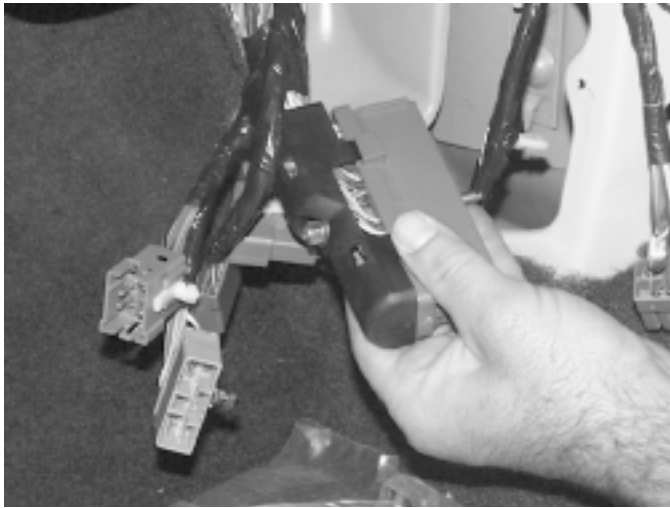


Fig. 7-d

- E. Once the computer is removed from the car, you will need to send your computer and the chip voucher to Paxton Automotive. The computer will be cleaned, a computer chip installed and returned to you, ready to be install back into your vehicle.

Section 8

IN-TANK FUEL PUMP INSTALLATION

8.1 IN-TANK FUEL PUMP INSTALLATION (2001-2002 Models Only)

- A. Raise the rear of the car and support it with jack stands.
- B. Open the fuel door and remove the fuel cap and the three filler neck screws using a 10mm socket.
- C. Remove the fuel filter inlet line with a 3/8" spring-lock tool.
- D. With the weight of the fuel tank supported with a jack, remove the bolts securing the two fuel tank straps.
- E. Slowly lower the fuel tank, allowing it to lean over with the filler side up until the electrical connections leading to the center mounted fuel pump are revealed. Disconnect these two electrical connections.
- F. Remove the six bolts securing the fuel pump access cover (on top of the fuel tank) with an 8mm wrench. Depress the two clips securing the plastic fuel pump enclosure and slide it out of the tank. The fuel sender float is attached to the fuel pump enclosure and must be handled with care. Ensure that the tank has been lowered enough to remove the fuel pump enclosure.
- G. Remove the two screws securing the plastic fuel pump outlet manifold to the enclosure cap. Pull the manifold up and away from the fuel pump.
- H. Remove the three screws securing the fuel pump enclosure's cover using a 3/16" nut driver and remove the cover. Modify the fuel pump cover as shown. (See Figs. 8.1-a, 8.1-b.)
- I. This allows the larger O.D. pump to fit in the cover.
- J. Remove the stock fuel pump from its enclosure. Separate the rubber pump support from beneath the filter and install it on the supplied pump. Secure the support with the new pump provided.
- K. Cut the two fuel pump power wires about 1" from the fuel pump electrical connector. Noting the corresponding (+) and (-) connections, splice the supplied wiring harness into place using two butt connectors.
- L. Using the supplied fuel pump, reassemble the fuel pump assembly and canister with cap. Install the supplied 1/8" spacers beneath the pump outlet manifold and canister cap and install the modified pump assembly. (See Fig. 8.1-c.)

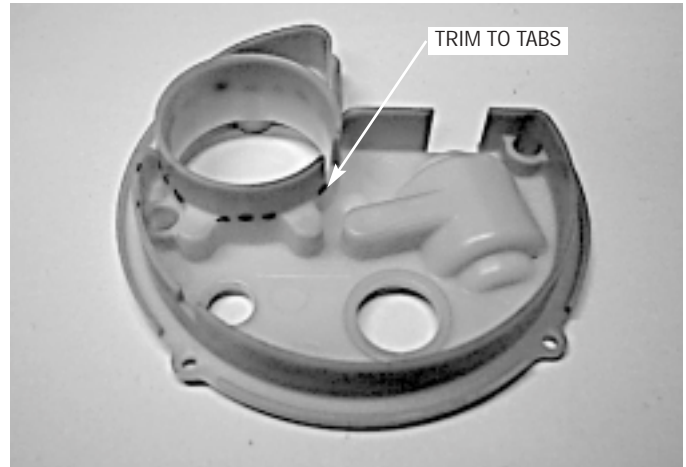


Fig. 8.1-a



Fig. 8.1-b

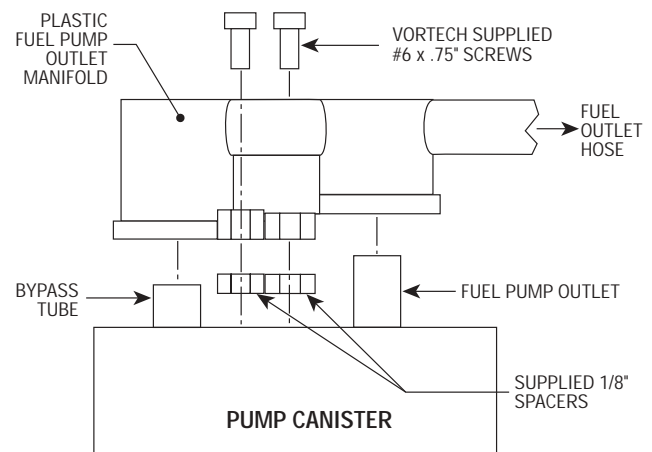


Fig. 8.1-c

8.1 IN-TANK FUEL PUMP INSTALLATION (2001-2002 Models Only), cont'd.

- M. Remove the screen from the bottom of the canister assembly being careful not to puncture flapper valve. (See Fig. 8.2-b.)
- N. Reinstall the fuel tank, reconnect the fuel filter inlet line, reattach the fuel filler neck, and reinstall the fuel pump.
- O. Turn the ignition key on and check for fuel leaks.

**The installation is complete.
Congratulations!**

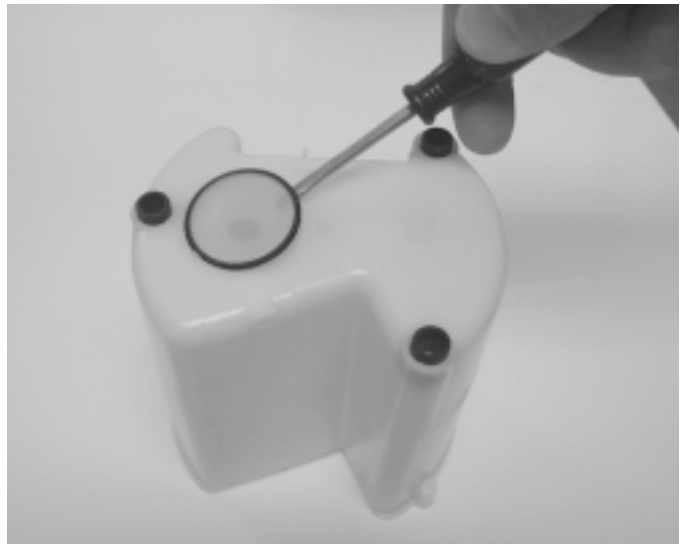


Fig. 8.2-b

8.2 IN-TANK FUEL PUMP INSTALLATION (2003 Models Only)

- A. Raise the rear of the car and support it with jack-stands.
- B. Open the fuel door and remove the fuel-cap and the three filler neck screws using a 10mm socket.
- C. Remove the fuel filter inlet line with a 3/8 springlock tool.
- D. With the weight of the fuel tank supported with a jack, remove the bolts securing the two fuel tank straps.
- E. Slowly lower the fuel tank, allowing it to lean over with the filler side up, until the electrical connections leading to the center mounted fuel pump are revealed. Disconnect these two electrical connections.
- F. Remove the six bolts securing the fuel pump access cover (on top of the fuel tank) with an 8mm wrench. Depress the two clips securing the plastic fuel pump enclosure and slide it out of the tank. The fuel sender float is attached to the fuel pump enclosure and must be handled with care. Ensure that the tank has been lowered enough to remove the fuel pump enclosure.
- G. Remove the two screws securing the plastic fuel pump outlet manifold to the enclosure cap. Pull the manifold up and away from the fuel pump. (See Fig. 8.2-a.)
- H. Remove the three screws securing the fuel pump enclosure's cover using a 3/16 nut-driver and remove the cover.
- I. Remove the stock fuel pump from its enclosure. Separate the rubber pump support from beneath the filter and install it on the supplied pump. Secure the support with the new filter provided.
- J. Using the supplied fuel pump, reassemble the fuel pump assembly and canister with cap.
- K. Reinstall the canister assembly into the fuel tank and reattach the electrical connections.
- L. Reinstall the fuel tank, reconnect the fuel filter inlet line, reattach the fuel filler neck and reinstall the fuel cap.
- M. Turn the ignition key on and check the fuel pump for leaks.

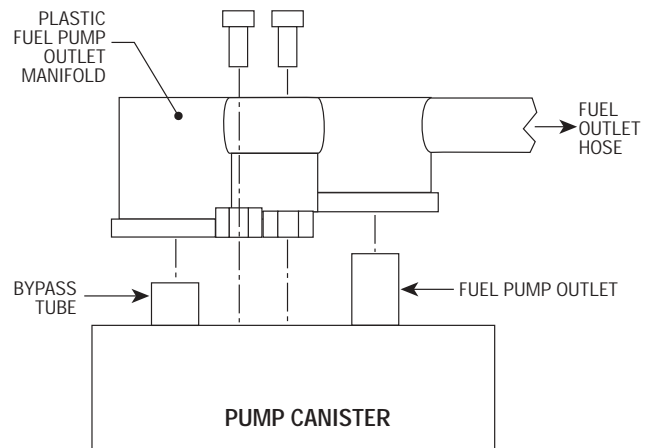


Fig. 8.2-a



Fig. 8-c / Completed Installation

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Section 9

FINAL ASSEMBLY AND CHECK

9.1 FINAL ASSEMBLY AND CHECK

We know that you are anxious to get out and drive your new vehicle, but please take a little bit more time to perform these simple check-out steps.

- A. Inspect all wiring harnesses and electrical connections. Make sure that all items are properly routed, connected and secured. If available, check grounds with an amp meter. If the ground connection is suspect, connect to the battery ground.
- B. Check all hoses, lines, and fittings for properly secured connections..
- C. Make certain all fasteners, brackets, and clamps are installed and properly tightened.
- D. Check serpentine accessory belt and super-charger drive belts for proper tension and alignment.
- E. Cycle ignition key from “off” to the “on” position 4-5 times.
- F. Check the entire fuel system for possible leaks.
- G. Start engine and verify that the oil pressure is within normal range.
- H. Allow the engine to come up to normal operating temperature. Turn the engine off.
- I. Check the coolant level in the coolant recovery bottle and top off as needed.
- J. Check the following:
 - Fluid Leaks
 - Fluid Levels
 - Belt Slippage
 - Throttle Response

Now that the work is done, it’s time to enjoy.

PAXTON Automotive wants to thank you for choosing our product, and wants to remind you that the performance and response of your vehicle is now different that what you are used to. Please drive cautiously until you have grown accustomed to the feel of your vehicle.

Please see the service manual included in your kit for information on the service and maintenance of your **PAXTON Supercharger**. Belt tightening, troubleshooting, special tuning requirements, and warranty information is also included in the Service Manual.

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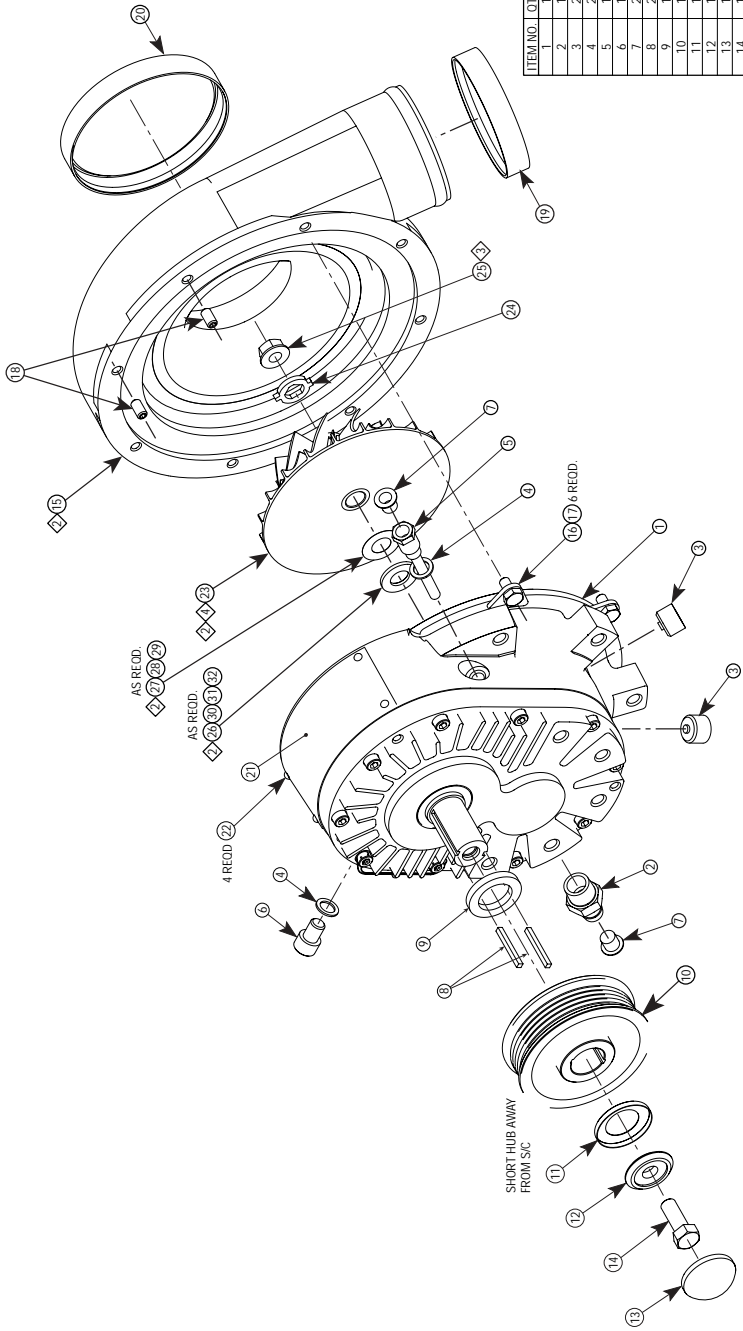
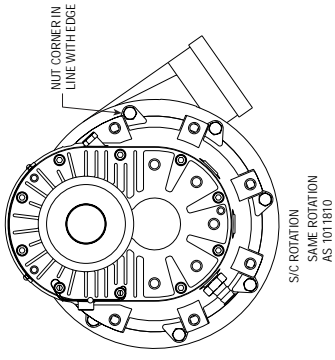
APPENDIX

Please realize that **PAXTON Automotive** is constantly improving the performance and look of the **NOVI 1000** supercharger. Parts in your kit may appear differently than what is pictured in this manual. This is due to photographs taken in pre-production, a change in material, costs, or an improvement in performance.

Rest assured that you have purchased the best quality kit that **PAXTON Automotive** manufactures at this time. The installation of the materials will remain the same.

List of Appendices

Appendix Number....	DWG Number.....	DWG Title
Appendix A	1011816	ASY, S/C NOVI 1000
Appendix B	1015309	ASY, RADIATOR HOSE MODIFICATION
Appendix C	1016630	ASY, S/C MOUNTING BRACKET
Appendix D	1015933	ASY, AIR INTAKE
Appendix E	1017017	ASY, AIR DISCHARGE
Appendix F	1019336	ASY, OIL SUPPLY
Appendix G	1019328	ASY, OIL RETURN
Appendix H	1015506	ASY, COMPRESSOR BYPASS
Appendix I	1015530	ASY, FAN RESISTOR RELOC.
Appendix J	1017734	ASY, FUEL PUMP
Appendix K	7000170	DIAGRAM, BELT ROUTING



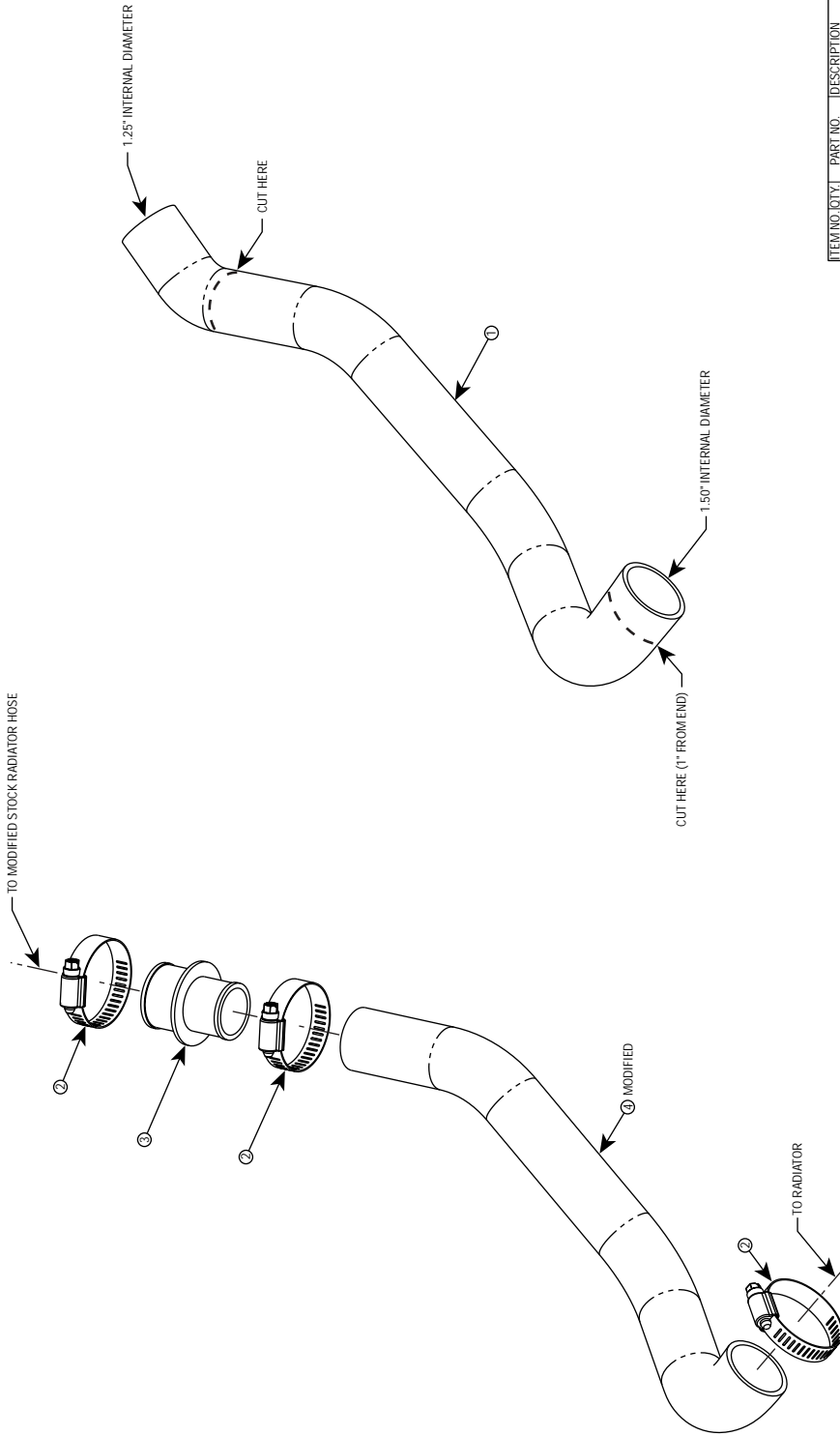
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	2H229-000	ASY GEARCASE NOVI 1000 COW
2	1	7P325-017	FTG. NIPPLE 3/8NPT X 1/2 HOSE, MODIFIED
3	2	7P325-016	FTG. PLUG 3/8NPT WITH MAGNET
4	2	7J375-024	WASHER COPPER CRUSH .38
5	1	7P375-090	OILJET LG.
6	1	7P375-104	SCREW SCHD. 3/8-16UNC-2A X 1.00 LG.
7	2	008704	CAP SHIPPING T2
8	2	7U100-075	KEY 1/8 X 1.25 LG.
9	1	2H071-185	SPACER PULLEY .185 THK.
10	1	2H036-325	PULLEY S/C 6 GRV 3.25
11	1	2H060-021	RET. CUP BLWR PULLEY
12	1	2H060-011	RET. PULLEY S/C .38
13	1	008718	CAP TAMPER PROOF
14	1	7B375-110	SCREW HND. 3/8-24UNC-2A X 1.00 LG.
15	1	2H060-020	RET. PULLEY S/C 6 GRV 3.25
16	6	2H060-050	CLAMP VOLUTE
17	6	7A250-052	SCREW HYDR. 1/4-20UNC-2A X .50 LG.
18	2	7A250-052	SCREW SET 1/4-20UNC-2A X .50 LG.
19	1	008706	CAP SHIPPING 3"
20	1	008719	CAP SHIPPING 4"
21	1	2H100-030	NAMEPLATE NOMI 1000
22	4	7U100-021	SCREW DRIVE #4 X .187 LG.
23	1	2H021-201	IMPELLER NOVI 1000 COW BALANCED
24	1	2H071-021	WASHER ANTI-ROTATION
25	1	76010-155	NUT 3/8-24UNF-2B FLG LOCK
26	1	2H060-030	MATING RING .090 THK
27	0	2H060-030	MATING RING .090 THK
28	0	2H100-003	SHIM IMP .003 THK
29	0	2H100-003	SHIM IMP .003 THK
30	0	2H100-005	SHIM IMP .010 THK
31	0	2H060-031	MATING RING .090 THK
32	0	2H060-040	MATING RING .103 THK
33	0	2H060-041	MATING RING .112 THK

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: .XX±.01 DECIMALS: .XX±.005 FRACTIONS: ±1/2" ANGLES: ±1/16		CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE	
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ENGINEERING G. COMPTON		R&D 12/04/01	
MATERIAL SEE PARTS LIST		APPR. G. COMPTON	
FINISH NONE		WEIGHT 20.8 LBS	
SCALE: 3:4		DO NOT SCALE DRAWING	
REV. B		SHEET 1 OF 1	



1300 BEACON PLACE OXNARD, CA 93033
TEL: (805) 604-1336 FAX: (805) 604-1337

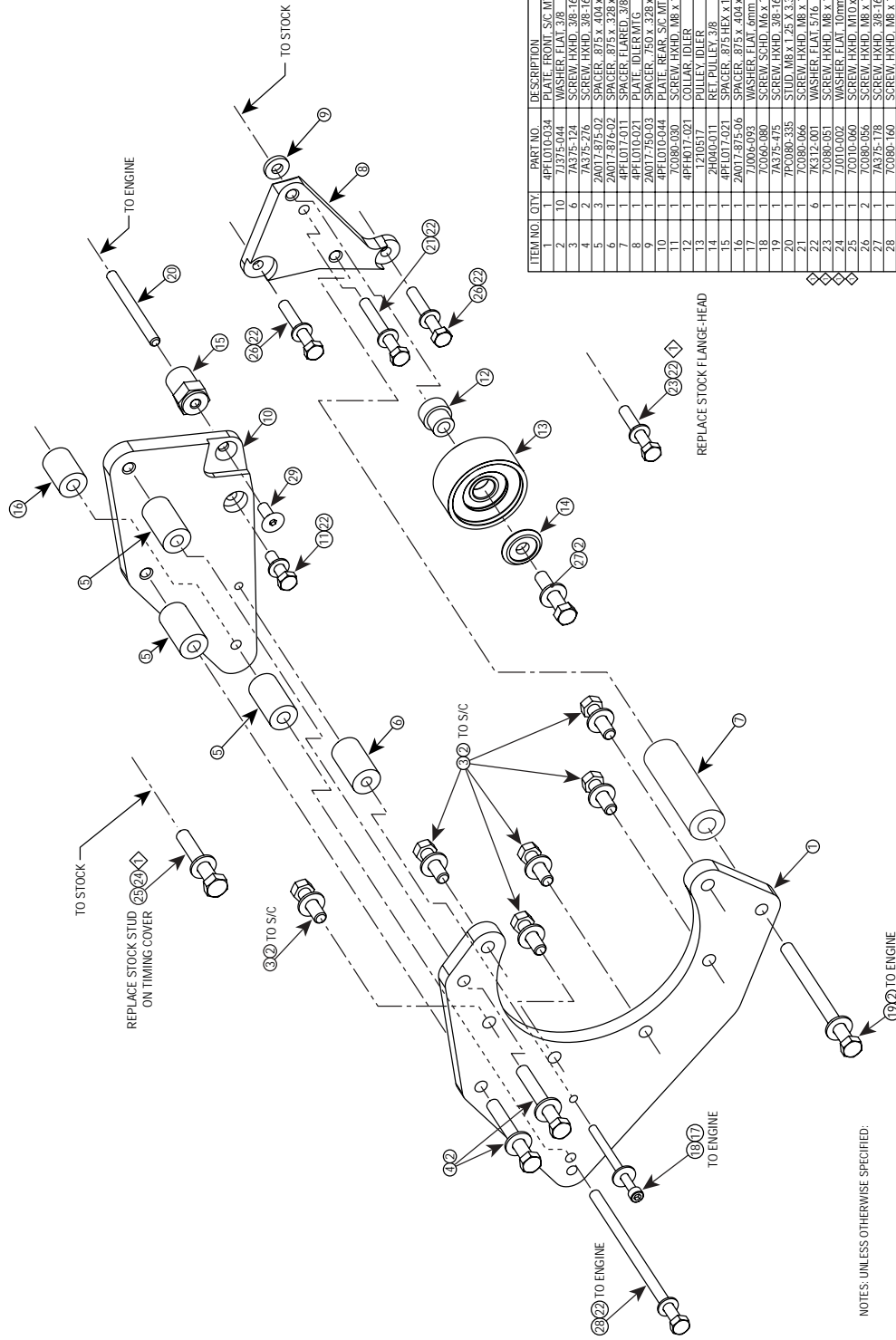
98-03 4.6L MUSTANG GT
ASY, S/C NOVI 1000 REVERSE ROTATION,
4.6L 2V, 2000-2001, SATIN



ITEM NO.	QTY	PART NO.	DESCRIPTION
2	1	4809628	HOSE, RADIATOR
3	1	4809628	REDUCER, RADIATOR HOSE
4	1	4809628	REDUCER, RADIATOR HOSE

		1300 BEACON PLACE OXNARD, CA 93033 TEL: (805) 604-1336 FAX: (805) 604-1337	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: XX+ .01 DECIMALS: .XX±.005 FRACTIONS: +1/2* ANGLES: ±1/16		CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE	
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ENGINEERING		R&D	
MATERIAL	SEE PARTS LIST	APPR.	
FINISH	NONE	WEIGHT	
99-03 4.6L MUSTANG GT ASY, RADIATOR HOSE MODIFICATION		SIZE	D
		DWG. NO.	1015309
		REV.	A
		SCALE:	1:1.25 DO NOT SCALE DRAWING
			SHEET 1 OF 1

P/N: 4809628
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 05JUN03 v2.1 MusGT(4809628 v2.1)



ITEM NO.	QTY	PART NO.	DESCRIPTION
1	1	4PFL010-034	PLATE, FRONT, S/C, MTG BRKT
2	10	7J375-044	WASHER, FLAT, 3/8
3	6	7K375-124	SCREW, HHHD, 3/8-16UNC-2A X 1.25 LG.
4	6	7K375-174	SCREW, HHHD, 3/8-16UNC-2A X 1.75 LG.
5	3	2A017-875-02	SPACER, 875 x .004 X 1.565 LG.
6	1	2A017-876-02	SPACER, 875 x .004 X 1.565 LG.
7	1	2A017-874-02	SPACER, 875 x .328 X 1.500
8	1	4PFL017-011	SPACER, FLARED, 3/8
9	1	4PFL010-021	PLATE, IDLER MTG
10	1	2A017-750-03	SPACER, 750 x .328 x 1.301 LG.
11	1	4PFL010-044	PLATE, REAR, S/C, MTG BRKT
12	1	7C080-080	SCREW, HHHD, M8 X 1.25 X 30mm
13	1	7C080-080	SCREW, HHHD, M8 X 1.25 X 30mm
14	1	7C080-080	SCREW, HHHD, M8 X 1.25 X 30mm
15	1	7C080-080	SCREW, HHHD, M8 X 1.25 X 30mm
16	1	2H040-011	RET PULLEY, 3/8
17	1	4PFL017-021	SPACER, 875 HEX X 1.275 LG.
18	1	2A017-875-06	SPACER, 875 x .404 X 1.235 LG.
19	1	7J006-093	WASHER, FLAT, 6mm
20	1	7C096-090	SCREW, SCRD, M6 X 1.00 X 80mm
21	1	7K375-175	SCREW, HHHD, 3/8-16UNC-2A X 1.75 LG.
22	1	7C080-066	SCREW, HHHD, M8 X 1.25 X 60mm
23	6	7K312-001	WASHER, FLAT, 5/16
24	1	7C080-051	SCREW, HHHD, M8 X 1.25 X 50mm
25	1	7J010-002	WASHER, FLAT, 10mm
26	2	7C010-060	SCREW, HHHD, M10 X 1.50 X 60mm
27	1	7K375-178	SCREW, HHHD, 3/8-16UNC-2A X 1.75 LG.
28	1	7C080-093	SCREW, HHHD, M8 X 1.25 X 60mm
29	1	7C080-093	SCREW, HHHD, M8 X 1.25 X 60mm
30	1	2A046-013	BELT 6 GRV

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE: XX± .01
DECIMALS: .XXX±.005
FRACTIONS: ±1/2*
ANGLES: ±1/16

MATERIAL: SEE PARTS LIST

FINISH: NONE

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DO NOT MANUALLY UPDATE

APPROVALS: A. PROCTOR DATE: 10/25/00
G. COMPTON DATE: 11/6/00

ENGINEERING: L. KECK DATE: 12/11/00
R&D: G. COMPTON DATE: 12/11/00

APP: G. COMPTON DATE: 12/11/00

WEIGHT: 7.3 LBS

1300 BEACON PLACE OXNARD, CA 93033
TEL: (805) 604-1336 FAX: (805) 604-1337

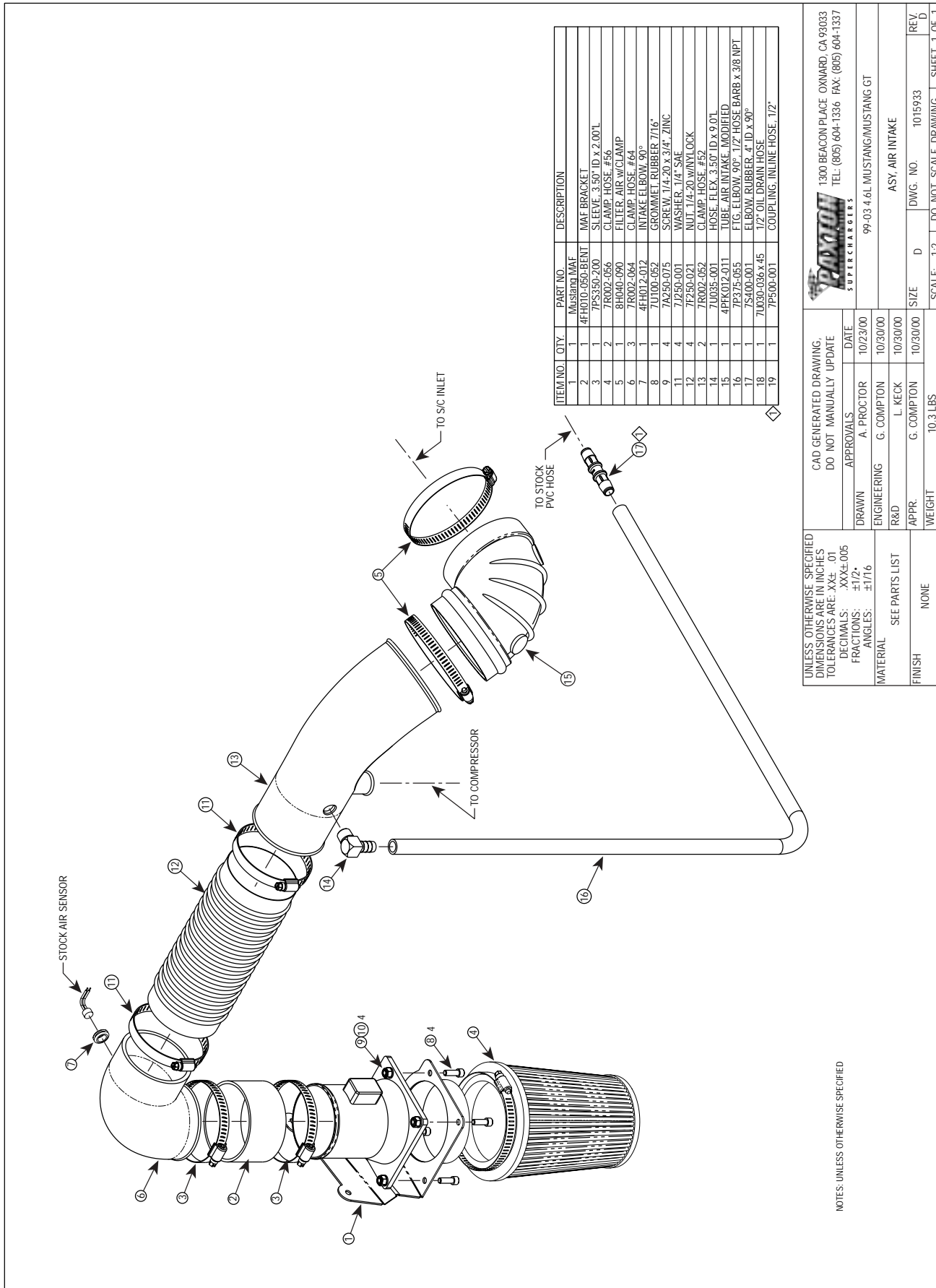
PAXTON
SUPERCHARGERS

99-03 4.6L MUSTANG GT

ASY, S/C NOVI 1000 FORWARD ROTATION
PROWLER, POLISHED WITH UPGRADE

SCALE: 1:1.5 DO NOT SCALE DRAWING SHEET 1 OF 1

REV B DWG. NO. 1016630



UNLESS OTHERWISE SPECIFIED
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 DECIMALS: .XXX±.005
 FRACTIONS: ±1/2"
 ANGLES: ±1/16

CAD GENERATED DRAWING,
 DO NOT MANUALLY UPDATE

1300 BEACON PLACE OXNARD, CA 93033
 TEL: (805) 604-1336 FAX: (805) 604-1337

PAXTON
 SUPERCHARGERS

99-03 4.6L MUSTANG/MUSTANG GT

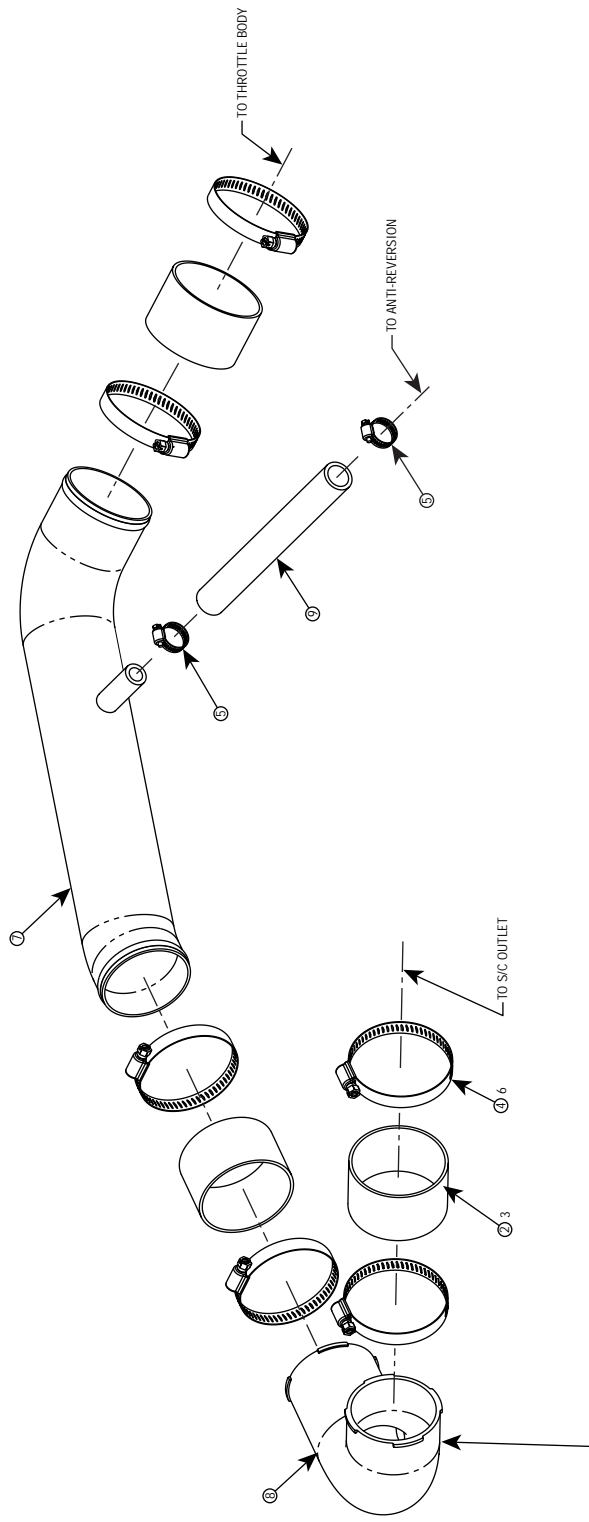
ASSEMBLY: ASY, AIR INTAKE

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ENGINEERING G. COMPTON	10/30/00
R&D L. KECK	10/30/00
APPR G. COMPTON	10/30/00
WEIGHT	10.3 LBS

MATERIAL: SEE PARTS LIST
 FINISH: NONE

Appendix D 1015933 ASY, AIR INTAKE

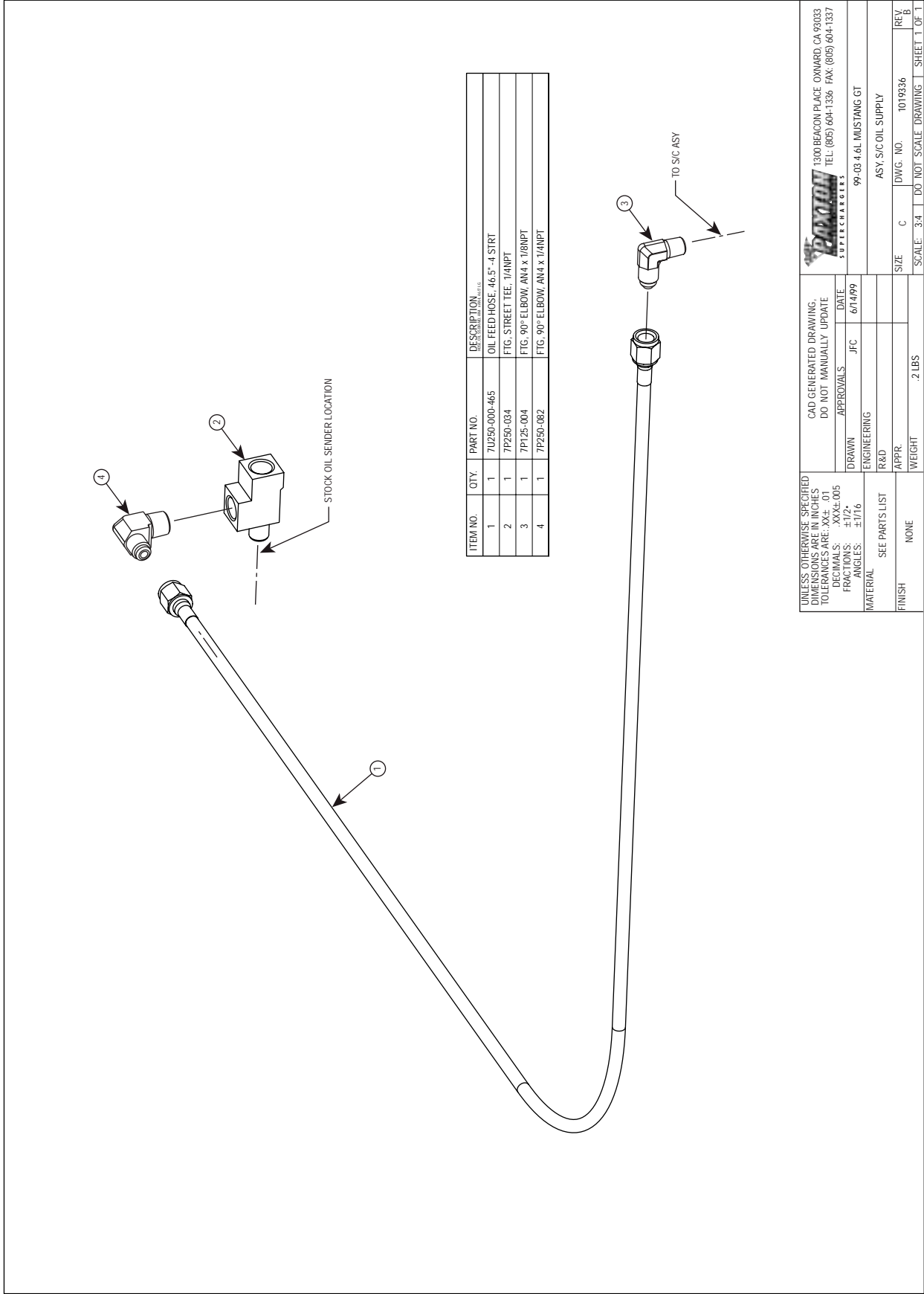


ITEM NO.	QTY.	PART NO.	DESCRIPTION
2	3	7PS300-200	SLV. BLK. 3.00D X 2.00
4	6	7R002-048	HOSE CLAMP
5	2	7R002-010	CLAMP HOSE #10
7	1	4PH072-050	
8	1	4PH072-301	
9	1	7003E-000-9	

ITEM	QTY	PART
1	1	4PH072-020
3	1	4PH072-008
1	1	4PH072-028
1	1	TEST1

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: XX: .01 DECIMALS: XXXX: .005 FRACTIONS: ±1/2" ANGLES: ±1/16"		CAD GENERATED DRAWING; DO NOT MANUALLY UPDATE	
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DRAWN	A. PROCTOR	DATE	10/20/00
ENGINEERING	G. COMPTON	DATE	10/23/00
R&D	L. KECK	DATE	10/30/00
APPR	G. COMPTON	DATE	10/30/00
WEIGHT	3.6 LBS	SCALE	1:1.75 DO NOT SCALE DRAWING
FINISH	NONE	SIZE	D
MATERIAL	SEE PARTS LIST	DWG. NO.	1017017
SEE PARTS LIST		REV	A
MATERIAL		99-03 4.4L MUSTANG GT	
MATERIAL		ASY, AIR DISCHARGE	
MATERIAL		1300 BEACON PLACE OXWARD, CA 93033	
MATERIAL		TEL. (865) 604-1336 FAX. (865) 604-1337	
MATERIAL		PAXTON SUPPLY	

Appendix E 1017017 ASY, AIR DISCHARGE



ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	7U250-000-465	OIL FEED HOSE, .465" -4 STRT
2	1	7P250-034	FIG. STREET TEE, 1/4"NPT
3	1	7P125-004	FIG. 90° ELBOW, AN4 X 1/8NPT
4	1	7P250-082	FIG. 90° ELBOW, AN4 X 1/4"NPT

UNLESS OTHERWISE SPECIFIED
 DIMENSIONS ARE IN INCHES
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 DECIMALS: .XXX±.005
 FRACTIONS: ±1/32"
 ANGLES: ±1/16"

CAD GENERATED DRAWING,
 DO NOT MANUALLY UPDATE

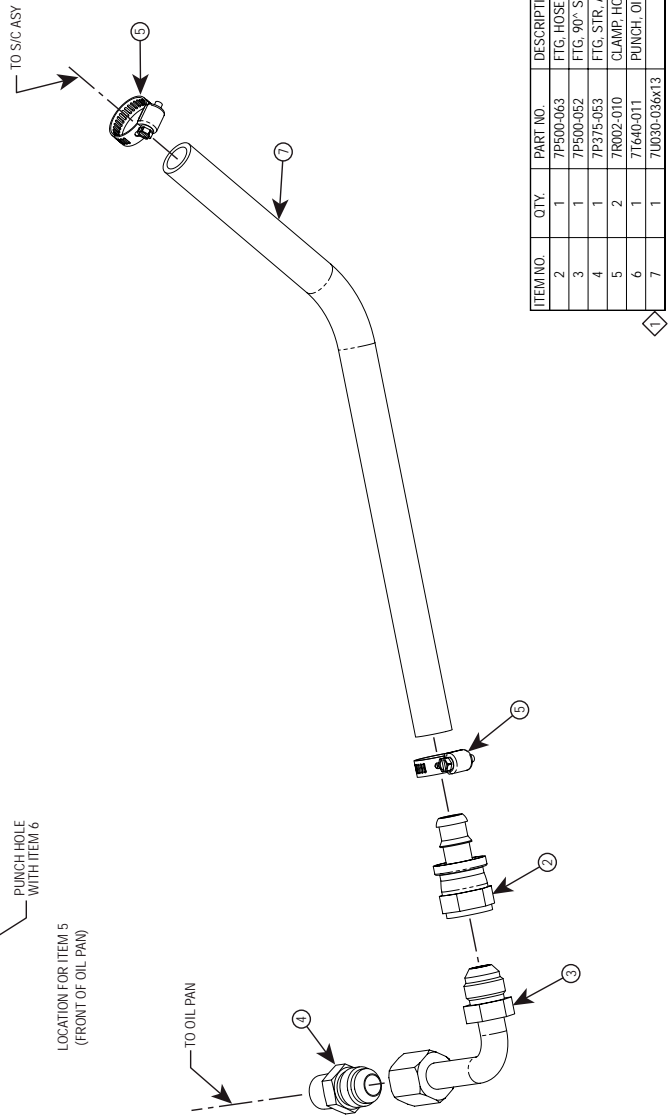
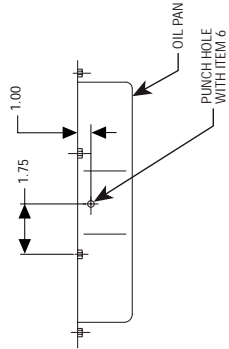
DRAWN	APPROVALS	JFC	DATE
ENGINEERING			6/14/99
R&D			

MATERIAL: SEE PARTS LIST
 FINISH: NONE
 WEIGHT: .2 LBS

1300 BEACON PLACE OXWARD, CA 95033
 TEL: (805) 604-1336 FAX: (805) 604-1337
PAXTON
 SUPERCHARGERS

99-03 4.6L MUSTANG GT
 ASY, S/C OIL SUPPLY

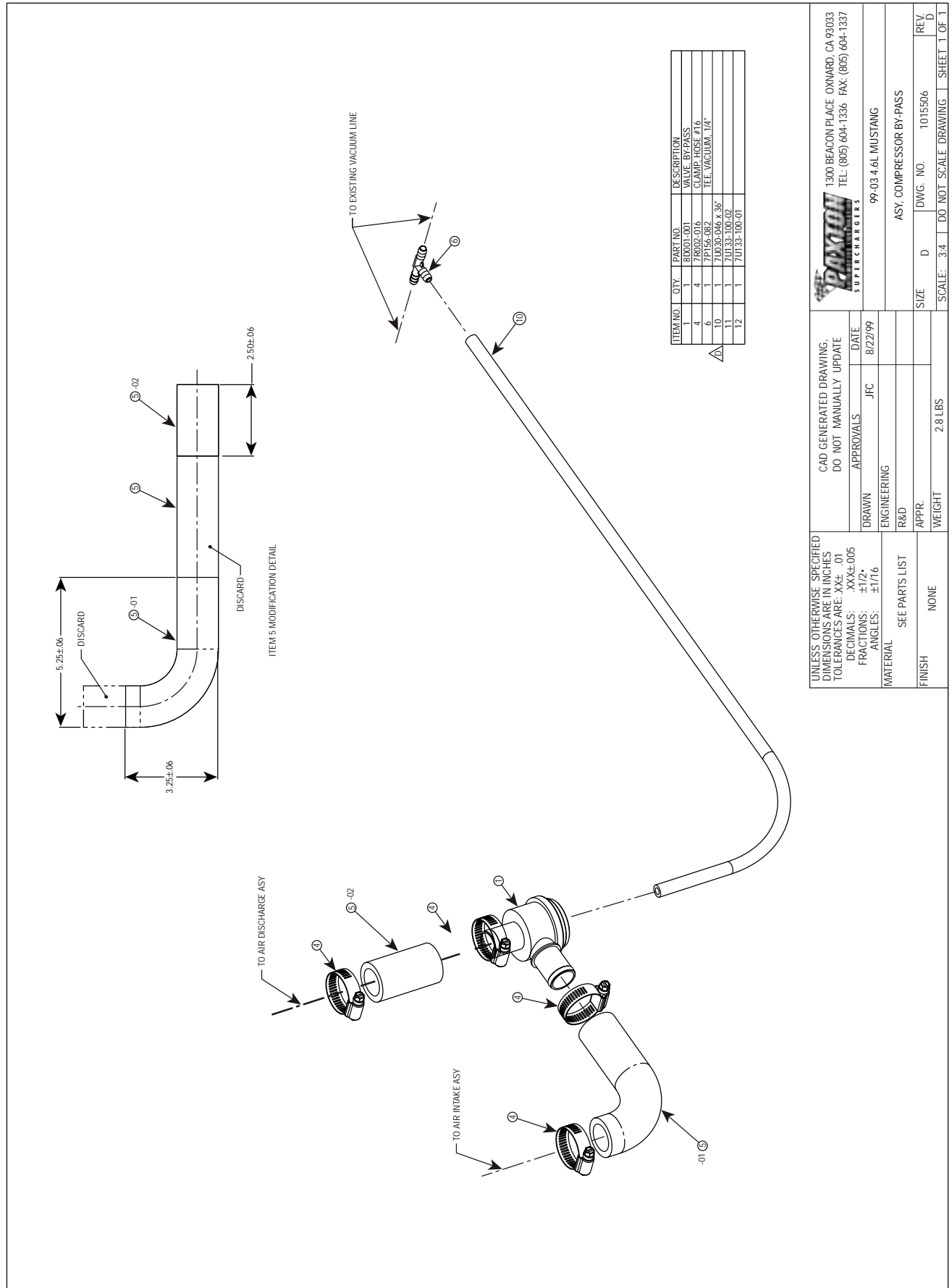
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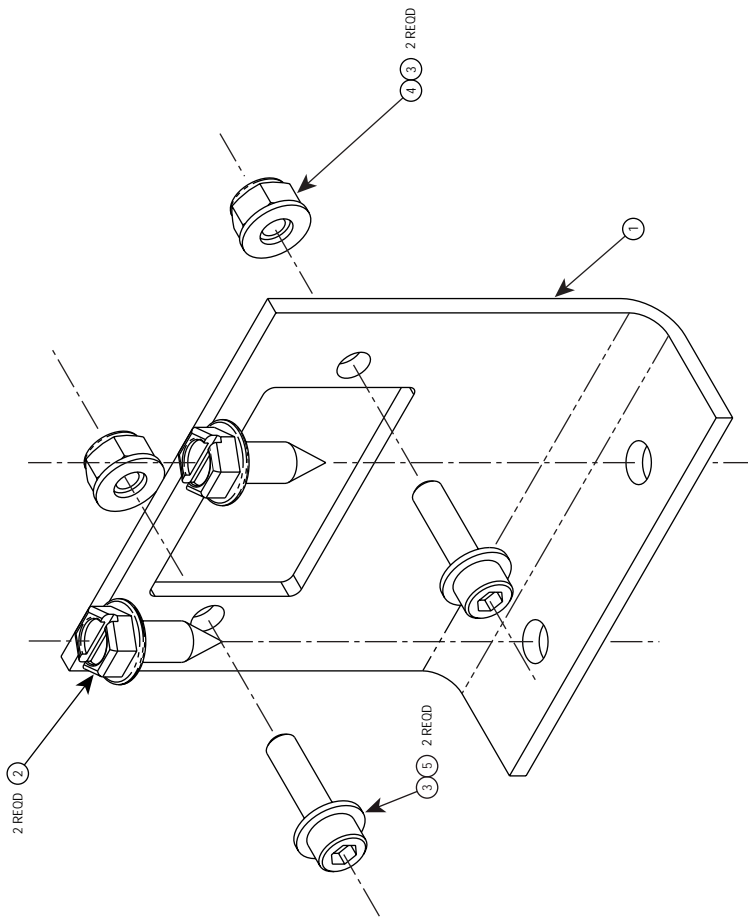


ITEM NO.	QTY.	PART NO.	DESCRIPTION
2	1	7P500-063	FTG. HOSE END, AN8 X 1/2 BARB
3	1	7P500-052	FTG. 90° SWIVEL, AN8 MALE X AN8 FEM
4	1	7P375-053	FTG. STR, AN8 X 3/8 NPT
5	2	7R002-010	CLAMP, HOSE, #10
6	1	7T640-011	PUNCH, OIL PAN
7	1	7U030-036X13	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: XX: .01 DECIMALS: .XXX±.005 FRACTIONS: ±1/2" ANGLES: ±1/16"		CAD GENERATED DRAWING. DO NOT MANUALLY UPDATE		1300 BEACON PLACE, OXWARD, CA 93033 TEL: (805) 604-1336 FAX: (805) 604-1337	
MATERIAL SEE PARTS LIST		APPROVALS	DATE	99-03 4.6L MUSTANG	
FINISH NONE		ENGINEERING	JFC	ASSEMBLY NO. 1019328	
R&D		APPR		SIZE	C
WEIGHT 8 LBS		SCALE: 3:4		DO NOT SCALE DRAWING	SHEET 1 OF 1

NOTES: UNLESS OTHERWISE SPECIFIED
1. SHIP THIS ITEM LOOSE.





ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	4PE10-041	BRKT, FAN RESISTOR RELOCATION
2	2	7E014-075	SCREW, #14 X, 75 LG, SELF TAPPING
3	4	7J010-001	WASHER, FLAT, #10
4	2	7F010-024	NUT, HEX, 10-24UNC-2B, STEEL WITH NYLOK
5	2	70D10-075	SCREW, SHCS, 10-24UNC-2A X 75 LG, STEEL GR5

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: XX: .01 DECIMALS: XXX±.005 FRACTIONS: ±1/2 ANGLES: ±1/16		CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE		1300 BEACON PLACE OXWARD, CA 92033 TEL: (805) 604-1336 FAX: (805) 604-1337	
DRAWN	APPROVALS	DATE	2001.4.0L MUSTANG GT		
ENGINEERING	G. COMPTON	11/7/00	ASSEMBLY		
R&D	L. KECK	12/11/00	ASSEMBLY		
APPR.	G. COMPTON	12/11/00	ASSEMBLY		
FINISH	NONE	WEIGHT	2 LBS	SCALE: 2:1	DO NOT SCALE DRAWING
SEE PARTS LIST			SIZE	C	DWG. NO. 1015530
			REV	A	SHEET 1 OF 1

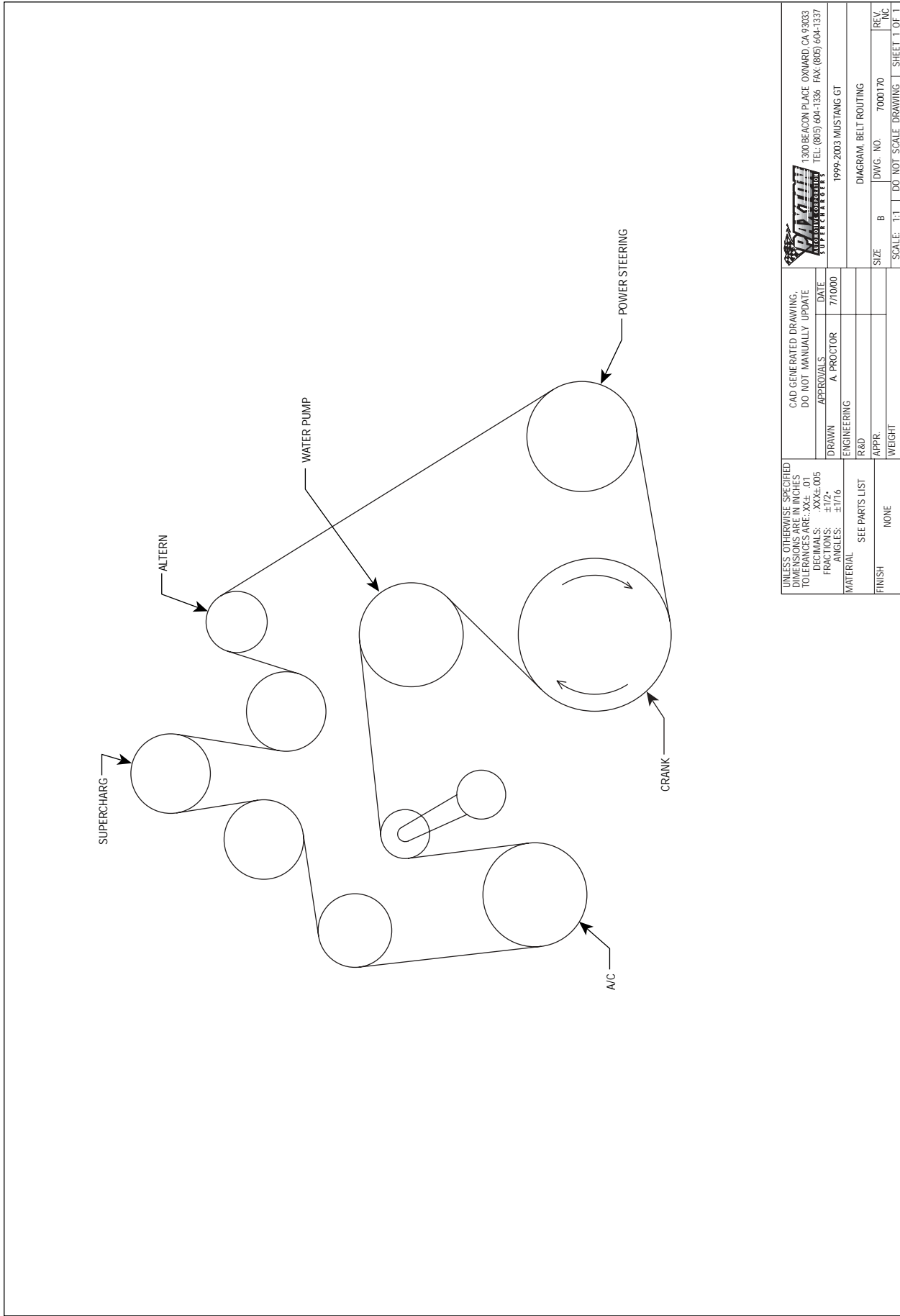
Appendix I 1015530 ASY, FAN RESISTOR RELOC.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
2	1	5W001-052	PIGTAIL CONNCTR, FUEL PUMP
3	2	2A017-048	SPACER, .312 ODI, 14 ID
4	2	5W001-013	14-16AWG SOLDERLESS CONNECTOR
5	2	7E006-075	SCREW, SHITMTL, HWHD, #6 x. 75 LG.

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL ITEMS SHIPPED LOOSE.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: .XX± .01 DECIMALS: .XXX±.005 FRACTIONS: ±1/2" ANGLES: ±1/16	CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE	DATE 5/3/01	1300 BEACON PLACE, ONWARD, CA 93033 TEL: (805) 604-1336 FAX: (805) 604-1337
MATERIAL SEE PARTS LIST	ENGINEERING R&D	99-02 4.6L MUSTANG GT	ASV, FUEL PUMP
FINISH NONE	APPR. WEIGHT	SIZE SCALE: 1:1	REV. NC DWG. NO. 1017734 DO NOT SCALE DRAWING SHEET 1 OF 1



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: .XX± .01 DECIMALS: .XXX±.005 FRACTIONS: +1/2- ANGLES: ±1/16		CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE		1300 BEACON PLACE OXNARD, CA 93033 TEL: (805) 604-1336 FAX: (805) 604-1337	
DRAWN	APPROVALS	DATE	1999-2003 MUSTANG GT		
ENGINEERING	A. PROCTOR	7/10/00	DIAGRAM, BELT ROUTING		
R&D			SIZE	B	DWG. NO. 7000170
APPR.			SCALE	1:1	DO NOT SCALE DRAWING
WEIGHT	NONE		REV	NC	SHEET 1 OF 1

Appendix K 7000170 DIAGRAM, BELT ROUTING



**Paxton Automotive . 1300 Beacon Place . Oxnard CA 93033
805 604-1336 . FAX (805) 604-1337**