



Owners Installation Guide for the Paxton Automotive NOVI 2000 Supercharger 1994-2001 Dodge V-10 Truck

PAXTON Automotive . 1300 Beacon Place . Oxnard CA 93033 (888) 9-PAXTON . FAX (805) 247-0669

his manual provides information on the installation, maintenance and servicing of the *Paxton* NOVI-2000 Supercharger kit expressly designed for the *1994-2001 Dodge V-10 truck*. Contact *Paxton* for information regarding these modifications at (805)604-1336 7:00 a.m.-3:30p.m.

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 the publication. The right is reserved to make changes at any time without notice.



KIT P/N: 1201210

© 2003 PAXTON AUTOMOTIVE

All rights received. No parts of this publication may be reproduced, transmitted, transcrived, or translated into another language in any form, by any means without written permission of Paxton Automotive.

TABLE OF CONTENTS

FOREWORD					
TABLE OF CONTENTS					
1.0 INTRODUCTION					
2.0 INITIAL PREPARATION AND DISASSEMBLY2-1					
3.0 SUPERCHARGER INSTALLATION AND ASSEMBLY					
4.0 ADDITIONAL INJECTOR CONTROLLER INSTALLATION4-					
5.0 FINAL CHECK AND START-UP					
	APPENDICES				
Appendix A	PARTS LIST				
Appendix B	ASY, NOVI 2000 SUPERCHARGER				
Appendix C	ASY, SUPERCHARGER MOUNTING BRACKET				
Appendix D ASY, CRANK PULLEY					
Appendix E	Appendix E ASY, AIR INTAKE				
Appendix F	Appendix F ASY, AIR DISCHARGE				
Appendix G ASY, COMPRESSOR BYPASS					
Appendix H ASY, SPRING LOADED TENSIONER					
Appendix I	Appendix I ASY, AUXILIARY FUEL SYSTEM				
Appendix J	pendix J ASY, FUEL ENRICHMENT				
Appendix K	endix K ASY, OIL SUPPLY AND RETURN				
Appendix L	ASY, HEATER HOSE RELOCATION				
Appendix M	RADIATOR HOSE EXTENSION ASSEMBLY				
Appendix N	ASY, WASHER BOTTLE RELOCATION				

This Page Left Intentionally Blank

Section 1.0

INTRODUCTION

ongratulations! You have purchased the finest street supercharger available for the 1994-2001 Dodge V-10 truck. The centerpiece of the kit is the highly efficient and reliable PAXTON NOVI-2000 supercharger - a mechanically driven (by belt) centrifugal blower (supercharger).

This kit comes with all of the parts you'll need for a successful installation. The operations required have been grouped in order of sequence. Photos and drawings accompany the text, allowing quick orientation and parts identification.

Installation requires a selection of tools which are listed in a table at the end of this section.

We also suggest that you obtain a Dodge truck shop manual and become familiar with the details of your car's systems. Manuals may be obtained from your local Dodge dealer or you can order one from Helm Publications at (800) 782-4356.

For best results, follow the instructions closely and in sequence. The average installation time for this kit is 8-10 hours. Your actual installation time will depend on skill level and working conditions. The estimate does not include time for initial vehicle inspection, cleaning, fine tuning or troubleshooting. Before even picking up a wrench, *read this entire manual*. We are available for technical assistance at (805) 604-1336, 7 AM-3:30 PM Pacific Time.

After reading the manual, verify that all major assembly groups are present in the main kit box. You should have ample space to lay out the components. As you remove a box or bag from the main kit, note the identification label and compare it with the parts list. Please check the box for small parts.

Paxton makes every effort to insure that all parts are included in the box. However, if you discov-

er any missing or mislabeled parts, please contact Paxton by phone for service.

***** WARNING *****

DO NOT attempt installation if any part(s) are missing from this kit. Failure to contact Paxton prior to beginning installation will result in a charge for any missing parts.

Before starting the installation, we suggest your engine and engine compartment be clean. You can clean the engine and compartment with a pressure washer (such as those used at self-serve car washes) and a safe-for-aluminum cleaner/degreaser. Cover the distributor with a plastic bag to prevent water from entering.

***** CAUTION *****

We do not recommend proceeding with the kit installation unless your vehicle is within normal operating parameters.

You are undoubtedly enthusiastic about getting started on your project, but take just a little more time to insure that your safety is not jeopardized. A moment's lack of attention can result in an accident, as can failure to observe certain simple safety precautions. The possibility of an accident will always exist, and the following points should not be considered a comprehensive list of all dangers. Rather, they are intended to make you aware of the risks and to encourage a safety conscious approach to all work you do on your vehicle.

- Never rely solely on a jack when working under a vehicle. Always use approved jackstands to support the vehicle and place them under the recommended lift points.
- When jacking the vehicle, make sure it is on a level surface, preferably concrete or asphalt. The transmission should be in

"PARK" or "FIRST", the parking brake engaged, and the wheels blocked.

- Never start the car without first verifying that the transmission is in neutral and the parking brake is set.
- Never remove the radiator cap while the engine is still hot.
- Always wear eye protection when using power tools such as drills, saws, grinders, etc., or when working under a vehicle.
- Never smoke, use an open flame, or have spark-producing items around gasoline or flammable solvents. Always have a fire extinguisher rated for chemical and electrical fires handy when working on motor vehicles.
- Run engines only in a well ventilated area. Carbon monoxide, gasoline and solvent vapors are colorless, and sometimes odorless. These can asphyxiate or explode without warning.
- Always disconnect at least the (-) negative or ground terminal of the battery when doing any electrical, fuel system, or under-dash work.

We look forward to hearing from you, particularly if you have any comments or suggestions regarding this manual.

NOTE:

Throughout these procedures the word "discard" is used periodically in relationship to items that will no longer be utilized in conjunction with the supercharger installation. It is recommended that these items be saved for future use should it become necessary.

RECOMMENDED TOOLS FOR INSTALLATION:

9/16" Wrench 3/8" Ratchet 9/16" Socket 3/8" Drive 5/8" Socket 3/8" Drive Pliers Hacksaw Wire Cutters 13mm Socket 3/8" Drive 10mm Socket Long Extension Wire Crimper/Strippers 13mm Wrench Medium Extension **Drill Motor** 1/8" Drill Bit 13/64" Drill Bit" 1/4" Drill Bit 5/16" Nut Driver or Slot Screwdriver 1/4" Allen Wrench or Socket 3/4" Socket 8mm Wrench Hose Cutter or Sharp Knife #2 Phillips Screwdriver 13mm Socket 3/8" Drive Air Chisel/Hammer Harmonic Balancer Puller Power Steering Pulley/Puller Installer

Section 2.0

INITIAL PREPARATION AND DISASSEMBLY

In this section, you will be preparing for the installation procedure by disconnecting the battery cables and removing and relocating a few pieces to make room for your new Paxton supercharger.

2.1 INITIAL DISASSEMBLY AND REMOVAL:

- **A.** With a 1/2" wrench, remove both battery cables.
- **B.** An 8mm wrench or socket is used to remove the battery hold-down. Lift the battery out of the tray and set it aside.
- C. Unclip the cruise control cable from the throttle body and mount if equipped. (See *Fig. 2-a.*)



Fig 2-a

D. The tray is secured with two bolts and two nuts above and two more accessible from below. Use a 13mm socket with an extension, and raise the battery tray from the vehicle. (See *Fig. 2-b.*)

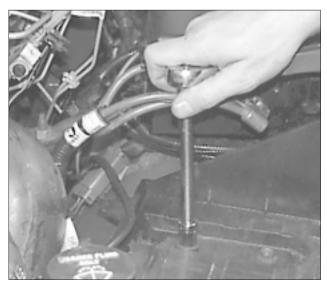


Fig 2-b

E. Use a 10mm wrench and remove the cruise control actuator from the bottom of the battery tray. Later it will be modified and reinstalled. (See *Fig. 2-c.*).

*** NOTE ***

On some later model trucks, the factory relocated the cruise control actuator so this step will not need to be done.

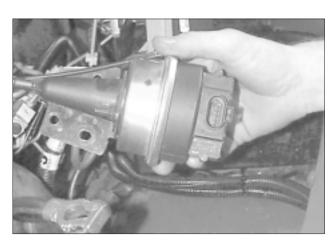


Fig 2-c

2.2 AIR INTAKE ASSEMBLY:

A. Disconnect the plastic duct from between the air cleaner assembly and the air horn on the radiator core support (See *Fig. 2-d.*).



Fig 2-d

B. There are two bolts securing the air horn to the core support. From the front of the core support, use a 10mm socket and remove the horn from the core support. You will have to bend the bracket in order to remove it. (See *Fig. 2-e.*)



Fig 2-e

C. Unclip the air cleaner assembly from its base and remove it along with the air filter element. (See *Fig. 2-f.*)



Fig 2-f

- **D.** Use a 7/16" deep socket and remove the four nuts securing the air cleaner base to the throttle body.
- **E.** Pull the base away from the throttle body and disconnect the crankcase vent hose from it. Set it aside, it will not be reused. (See *Fig. 2-g.*)



Fig 2-g

2.3 FAN AND FAN SHROUD:

WARNING

Clean up any anti-freeze spillage immediately. Animals like the taste of coolant, and if ingested they can become very sick, and even die.

A. With a pair of pliers, remove the lower radiator hose and drain the coolant from the vehicle. Replace the hose and resecure with the factory clamp.

- **B.** Disconnect the upper radiator hose and fold it back out of the way.
- C. Unclip the window washer bottle from the shroud. Lift the bottle and disconnect the two plugs and the hose from the bottle. Set it aside. (See *Fig. 2-h*.)



Fig 2-h

D. With a 36mm wrench or large crescent wrench, loosen the fan and remove it from the water pump. Set it into the fan shroud.

*** **NOTE** *** This nut has right hand threads. (See Fig. 2-i.)



Fig 2-i

E. Remove the four screws securing the shroud to the radiator using a 10mm socket. Lift the shroud and fan out of the engine compartment together. (See *Fig. 2-j.*).



Fig 2-j

2.4 POWER STEERING BRACKET:

A. Use a 16mm wrench, turn the belt tensioner counter clockwise and remove the stock accessory drive belt. (See Fig. 2-k.)



Fig 2-k

B. Follow the accompanying instructions with the power steering pulley puller/pusher and remove the power steering pulley. (See *Fig. 2-l.*)



Fig 2-1

C. Use a 15mm socket and remove the three bolts securing the pump to the bracket. (See *Fig. 2-m.*)

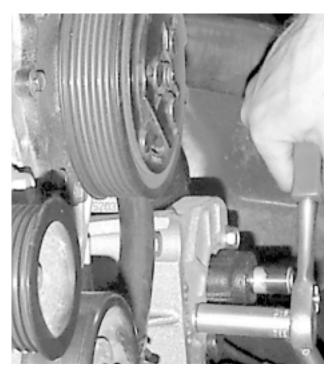


Fig 2-m

- **D.** With a 9/16" socket and extension, remove the four bolts that secure the power steering bracket to the engine. Do not disconnect the fluid lines.
- E. On the back of the pump, remove the two nuts with a 15mm wrench and the two bolts with a 12mm socket. Remove the bracket from the pump and lay the pump on the steering box. Grab the power steering pump with both hands. Bend the pressure line down until it is flat, as shown. (See *Fig. 2-n*.)

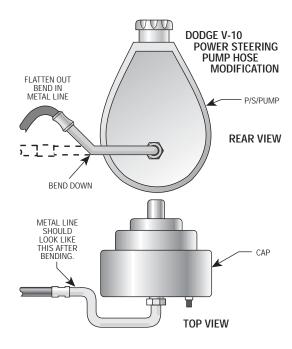


Fig 2-n

F. Remove the bolt from the upper rod on the A/C compressor with a 1/2" socket. (See *Fig. 2-o.*)



Fig 2-0

G. With a 9/16" socket, remove the four bolts securing the A/C bracket to the head. (See *Fig 2-p*.)

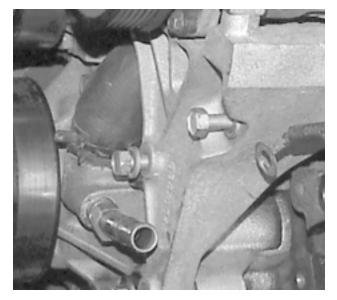


Fig 2-p

H. With a pair of pliers, disconnect the heater hose at the splice. Then, remove the hose at the nipple on the side of the water pump. (See *Figs 2-q, 2-r*.)



Fig 2-q



Fig 2-r

I. Lift the A/C bracket up and out of the way. Remove the long heater hose nipple from the water pump with a 3/4" wrench. (See Fig. 2-s.)

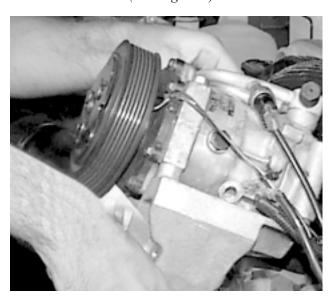


Fig 2-s

J. Install the 45° brass elbow into the water pump and tighten with a 13/16" wrench. Use Teflon tape and position as shown. (See *Fig. 2-t.*)

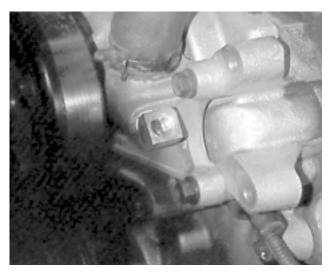


Fig 2-t

K. Install the brass nipple into the fitting installed in *step 2-t* with Teflon tape and tighten with a 5/8" wrench. (See *Fig. 2-u* and *Appendix M*.)



Fig 2-u

L. Reinstall the A/C bracket using the stock bolts. When resecuring the rod to the top of the compressor, secure the two ground wires previously secured to the power steering pump bracket. Install the wires between the rod and the compressor. (See *Fig. 2-v.*)



Fig 2-v

Section 3.0

SUPERCHARGER INSTALLATION AND ASSEMBLY

Tow we start modifying various electrical and mechanical assemblies as well as beginning the supercharger installation.

NOTE

On some later model vehicles, this step will not apply.

3.1 MODIFICATION AND INSTALLA-TION

A. Modify the previously removed Cruise Control bracket as shown. (See *Figs. 3-a, 3-b.*) It is not necessary to remove the Cruise Control Actuator from the bracket.



Fig 3-a

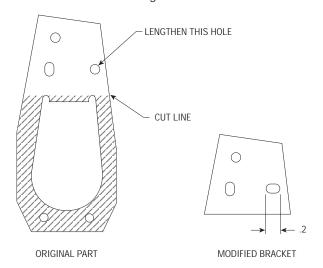


Fig 3-b

B. Secure the cruise control to the two screws that secure the windshield wiper motor, near the firewall and the washer bottle. (See *Fig 3-c*.)



Fig 3-c

C. Use the supplied wire, wire loom and butt connectors to extend the factory harness to the cruise control module. Cut off the plug leaving about 6" of wire

3.2 WINDOW WASHER BOTTLE

A. The washer bottle will be mounted on the passenger side firewall. The wire bracket must be bent in order for the bottle to clear the A/C line running across the firewall in that area. Bend an offset in the bracket, set it in place and mark the mounting holes. Use a 1/8" drill and drill the two mounting holes. (See *Fig. 3-d.*)



Fig 3-d

- **B.** Remove the pump and sensor from the factory washer bottle along with their grommets. Use a small amount of clear silicone and install the grommets in the new bottle so that the pump is positioned on the inboard side and the sensor is toward the passenger fender. Push the pump and sensor into their respective holes.
- C. Set the bottle in place and secure it to the firewall with the supplied sheet metal screws.

*** NOTE ***

To save a step, it is recommended at this time, to tap into the factory wiring harness for the additional injector driver. Refer to Appendix L for ECU pin location.

- D. Near the brake master cylinder, separate the washer hose at the splice. Connect the supplied length of washer hose to the piece running to the wipers and route the other end to the pump.
- **E.** In the battery tray area, cut the electrical connectors for the pump and sensor off of the harness, leave at least 6" of length left with the connectors.
- F. Use the supplied lengths of wire, plastic loom and butt connectors to extend the harness back to the pump and sensor. (Appendix 'P')
- **G.** Route the harness extension back and along the firewall. Use the supplied plastic ties to secure it away from any hot or moving parts. (See *Fig. 3-e.*)

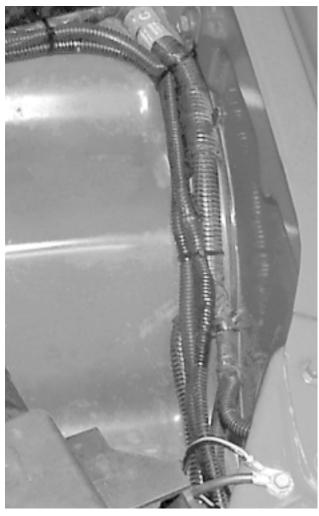


Fig 3-e

3.3 CRANK PULLEY:

- **A.** Using a 1-1/8" socket remove the large center bolt from the crank pulley.
- **B.** With an adequate puller, pull the crank pulley off of the crank shaft. (See *Fig. 3-f.*)

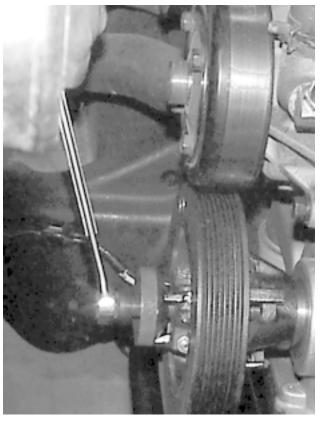


Fig 3-f

- C. Replace the stock crank pulley with the supplied re-machined pulley. Pull the pulley onto the crank shaft with the stock large center bolt.
- **D.** Remove the center bolt and place the new center hub into the middle of the crank pulley. Align the two dowel pins and secure with the longer supplied center bolt. Reuse the large washer from the factory center bolt. Torque the bolt to 150ft-lbs. (See *Fig. 3-g, Appendix 'D'*)

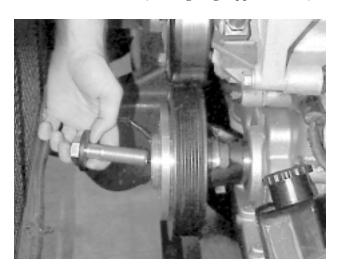


Fig 3-g

E. Use a 9/16" socket and install the crank pulley on the adapter with the four 3/8" bolts. (See *Fig. 3-h*.)

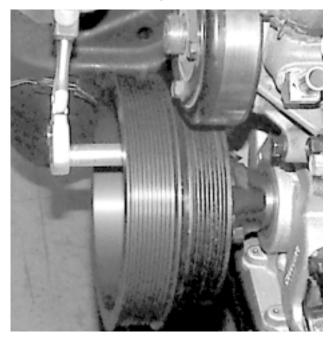


Fig 3-h

F. Remove the current spark plugs and replace with copper plugs (AutoLite #5224 or equivalent) gapped at .035. Do not use platinum spark plugs with the supercharger.

3.4 SUPERCHARGER BRACKET:

A. Install the backing plate to the front of the engine with one 3/8" x 1" bolt and a second 3/8" bolt as an alignment bolt as shown. Torque the first bolt to 28-30 ft/lbs. Remove the alignment bolt (See *Fig. 3-i.*)

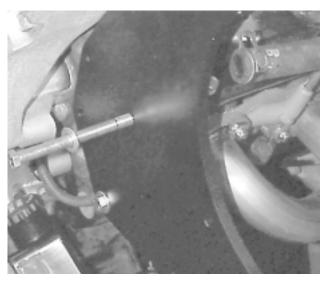


Fig 3-i

B. Mount the power steering pump to the front plate using two of the stock bolts and two of the supplied countersunk bolts. (See *Fig. 3-j.*)

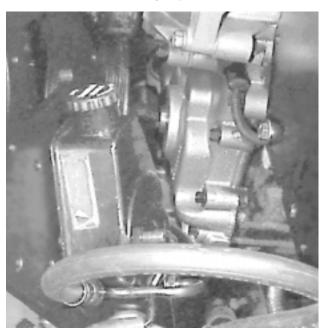


Fig 3-j

C. Nine bolts secure the front plate to the rear plate. The longest bolt enters the lowest part of the bracket. The next three shorter bolts enter the bracket above and thread into the head. The next four enter the bracket to the side of the engine and thread into the rear plate. The last, shortest bolt enters the bracket through the counter-bored hole. Start all nine bolts before tightening them to 28-30ft-lbs. (See Fig. 3-k, Appendix 'C'.)



Fig 3-k

D. Follow the supplied instructions and use the pulley pusher to re-install the power steering pulley. Use a small amount of anti-seize lubricant to ease installation. (See *Fig. 3-l.*)



Fig 3-I

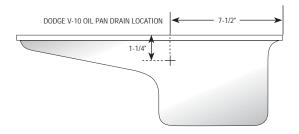
- **F.** Cut off about 2" of heater hose where you disconnected it at the splice.
- **G.** Use the supplied section of hose and clamps to install the supplied heater tube as shown. (See *Fig. 3-m, Appendix 'M'*.)



Fig 3-m

3.5 SUPERCHARGER INSTALLATION:

- **A.** Drain the oil from the engine. Save and reuse or dispose of properly.
- **B.** Follow the diagram and with the supplied punch, knock a hole in the side of the oil pan (see *Fig. 3-n*). Carefully drive the punch a small way into the pan, then check the hole size with the tap. Do this until the hole is the correct size for the tap. The hole should be approximately Ø9/16".



INSTALL FITTING POINTING FORWARD AND UP 5° FROM LEVEL

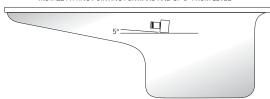


Fig 3-n

- C. Coat a 3/8" pipe tap with grease and tap the hole. The grease will trap and hold the shavings. Using silicone, install the supplied 90° fitting in the side of the pan. Angle the fitting forward and slightly upward.
- **D.** Place but do not attach the supplied oil drain hose through the middle of the bracket as shown. (See *Fig. 3-o.*)

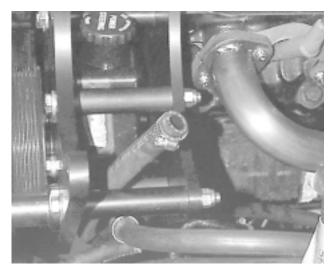


Fig 3-0

E. Make sure that the power steering hose is up as high as possible against the bracket. (See *Fig. 3-p.*)



Fig 3-p

F. Set the supercharger into the bracket and secure the oil drain hose to the fitting on the bottom of the supercharger with the supplied hose clamp. (See *Fig. 3-q, Appendix 'K'*.)

*** NOTE ***

Make sure there are no dips or kinks in the oil drain line as this may effect supercharger life and reliability.

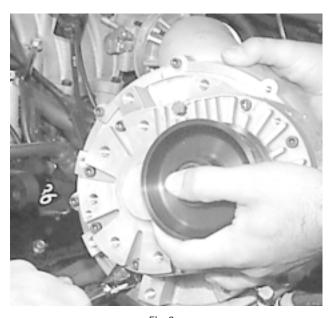


Fig 3-q

G. Set the unit down into the bracket and secure it to the bracket with the 5 supplied 3/8-16 x 1.5" bolts, leave the third hole from the top open. (See *Fig.3-r*; *Appendix* 'E'.)



Fig 3-r

- **H.** From underneath the vehicle, secure the other end of the oil drain hose to the fitting on the oil pan with the supplied hose clamp.
- I. Install the supercharger belt tensioner mount to the front of the supercharger and the last open mounting hole in the front of the bracket, using supplied spacer. (See *Fig. 3-s, Appendix 'F'*.)

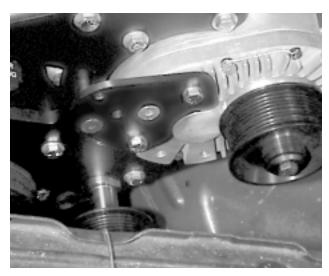


Fig 3-s

J. Mount the supplied belt tensioner to the mount with the large bolt, nut and washer through the middle of the tensioner. (See *Fig. 3-t.*)

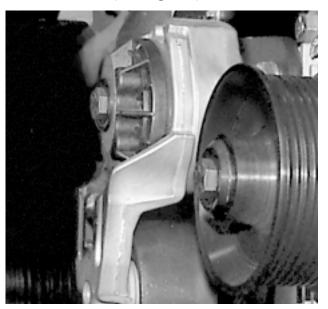


Fig 3-t

K. On the passenger side of the engine, remove the factory oil pressure sensor located above the oil filter. Replace the sensor with the supplied street 'TEE'. Position the 'TEE' so that the sensor will reinstall into the 'TEE' at an angle pointing toward the smog pump. (See *Fig. 3-u.*)

ANGLE SENDER TOWARD FRONT OF VEHICLE SO IT CLEARS STEEL LINES AND SMOG PUMP

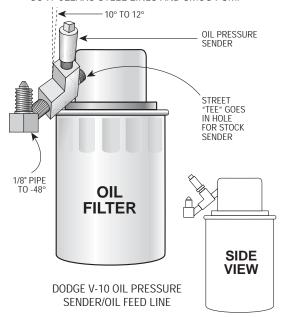


Fig 3-u

- L. Install the sensor and connect the supplied oil pressure hose to the last port on the TEE.
- M. Route the pressure line up and across the front of the engine behind the smog pump and alternator and over to the supercharger. Connect the line to the previously installed fitting leading to the oil jets in the supercharger. (See *Fig. 3-v.*)



Fig 3-v

- N. You can now install the drive belts. Follow the factory routing and install the accessory drive belt as it was removed.
- **O.** Install the supercharger drive belt using the supplied tensioning tool.

3.6 FAN AND SHROUD MODIFICATION AND INSTALLATION

A. Screw the new fan spacer on the front of the water pump, snug by hand. (See *Fig. 3-w.*)



Fig. 3-w

B. With a saws-all or jig saw, cut the tapered area off of the bottom of the fan shroud to gain fan clearance. (See *Figs. 3-x, 3-y.*)



Fig. 3-x

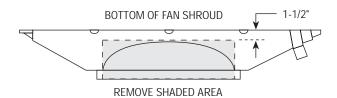


Fig 3-y

- C. Place the fan into the shroud and drop them both into the engine compartment together. Screw the fan with the new fan spacer and tighten with the 36mm wrench. This will tighten the spacer as well.
- **D.** Secure the fan shroud with the factory bolts.

3.7 AIR INTAKE ASSEMBLY

A. With the clamps on the intake tube loose, slip the tube in behind the supercharger from above, it will go through the "loop" in the power steering hose. Secure the tube to the inlet in the center of the supercharger, rotate the tube so that it follows the contour of the inner fender and tighten the clamps. (See *Fig. 3-z, Appendix 'E'*.)



Fig. 3-z

B. On the air intake assemble, slip the supplied length of flex hose on the end of the intake tube about 2" and tighten the clamp. (See *Fig. 3-aa.*)

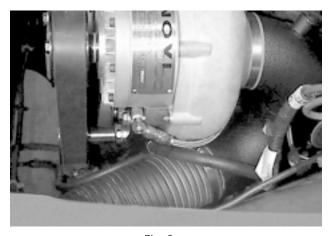


Fig. 3-aa

C. With a 10mm socket, remove the screw from the upper radiator mount. Secure the bracket on the top of the air filter to the radiator mount with the stock screw.(See *Fig. 3-bb.*)



Fig. 3-bb

D. Connect the rubber elbow on the air filter assembly to the flex hose. Route the 1/2" vent hose under the flex hose and up to the rear of the valve cover. Connect the vent hose to the nipple in the valve cover and tighten the clamp. Connect the other end of the hose to the plastic elbow in the air filter. (See *Appendix 'E'*.)

3.8 AIR DISCHARGE ASSEMBLY

A. Secure the throttle body adapter flange to the throttle body on the factory studs with the stock nuts and gasket. (See *Fig. 3-cc, Appendix 'H'*.)



Fig 3-cc

B. Install the discharge tube between the adapter flange and the outlet of the supercharger. Adjust the turbo sleeves and tighten all the clamps. (See *Fig. 3-dd*.)

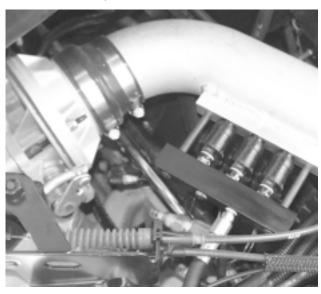


Fig 3-dd

C. Between the 1" nipples on the intake and discharge tubes, install the compressor bypass valve with the supplied sections of hose and clamps. The bottom of the diaphragm in the valve should be facing the discharge tube.

D. Route the supplied length of vacuum hose from the valve, across the engine and with the supplied TEE, connect it to the vacuum nipple on the front of the upper intake manifold. (See *Fig. 3-ee*.)

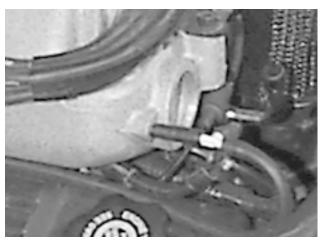


Fig 3-ee

- E. Route the fuel line from the discharge tube fuel rail to the passenger side fuel rail, being careful to avoid any potentially hot surfaces.
- **F.** Fuel system is under pressure. Relieve pressure by depressing on the Schraeder Valve Core, using a small pen or screwdriver.
- **G.** Remove the Schraeder Valve from the passenger side fuel rail and connect the fuel line from the discharge tube assembly to the fuel rail.

3.9 FUEL SYSTEM MODIFICATION

- A. Open the driver's door, remove the plastic trim across the bottom of the door jam and lift the carpet.
- **B.** From under the vehicle, align the fuel system mounting plate (Assembly #1020101) Appendix "I" to the underside of the floor pan so that the notched out section surrounds the parking brake cable. (See *Fig. 3-ff*.)

NOTE

On some later mocel vehicles, you may have to move the F/P mounting plate foreward for best fuel hose routing.

V-10 DODGE FUEL SYSTEM MOUNTING PLATE (Looking at underside of driver's floor)

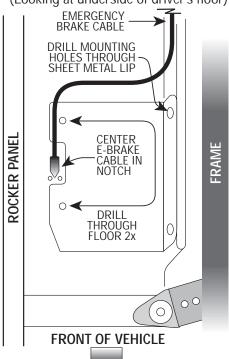


Fig 3-ff

- c. Mark and drill the mounting holes with a 1/4" drill.
- **d.** Secure the auxiliary fuel system to the floor pan with the supplied hardware. Re-install the carpet and plastic trim in the door jam. (See *Appendix 'I'*.)
- e. From underneath the vehicle, take the two fuel lines from the auxiliary fuel system and thread them above the frame rail toward the fuel line.

f. Disconnect the factory fuel line from the fitting. Connect the Auxiliary Fuel system to the Factory Fuel line. (See *Fig.* 3-gg.)

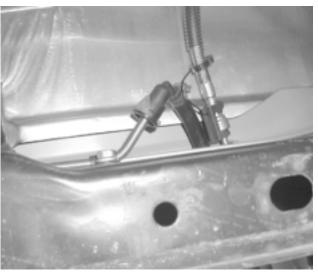


Fig 3-gg

3.10 BATTERY AND RADIATOR WRAP UP

- A. Re-install the factory battery tray in the stock location with the stock nuts and bolts.
- **B.** Install the battery with the factory hold-down. Reconnect the cables
- **C.** Connect the new upper radiator hose extension to the end of the factory radiator hose and to the radiator. Secure with the supplied clamps. (See *Fig. 3-hh*.)
- **D.** Fill the radiator with the fluid drained in the beginning of the installation.



Fig. 3-hh

3.11 AICU RELAY INSTALLATION INSTRUCTIONS

- A. Locate a suitable location in the passenger compartment on the driver's side of the vehicle. Under the dash, attach the AICU and the RPM signal box using nylon wire ties.
- **B.** Attach both of the red power wires from the AICU and the RPM signal box to terminal #87 on the supplied relay using the connectors provided.
- C. Attach both the black ground wires of the AICU and the RPM signal box to the fuse box ground using the ring terminals provided
- **D.** Using the provided butt connectors, connect the yellow/black wires of the RPM signal box to the yellow/black wire on the AICU controller.
- E. Locate the black ECU plug on the factory ECU. Attach the gralyblack wire from the RPM signal box to pin #8 on the factory ECU. (Refer to *Appendix Q*.) (See *Fig. 3-ii*.)



Fig 3-ii

- F. Route the RPM signal wire across the firewall and into the driver's compartment and connect it to the grey/black on the RPM signal box using the connectors provided.
- G. Run the AICU injector plugs through the grommet that would normally be used for the clutch cable. Route the injector plugs to the supplemental injectors located in the discharge tube. Route the wires away from hot or sharp objects and secure with nylon wire ties.

*** NOTE ***

The wires and injectors are connected in no particular order

- H. Using the vacuum hose and TEE's provided, connect one end of the vacuum hose to the AICU and route the hose through the firewall and TEE into the vacuum/boost hose going to the bypass valve.
- I. Recheck all of the wire connections. We recommend that you solder all wire connections. If you do not have access to a soldering gun you can use the connectors that are provided.



Fig. 3-jj

L. Using the AICU relay as a template, drill a .138 diameter hole in the firewall (*Fig 3-kk*. shows the approximate location). Mount the supplied relay using the self-tapping screw provided.



Fig 3-kk

M. There are two sets of wires leading from the relay. Take the longer set of two wires and route them down and along the bottom frame rail and to the auxiliary fuel system. Attach them to the fuel pump, red to positive and black to negative. (See *Fig 3-ll*.)

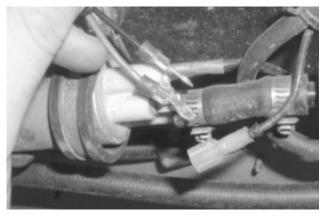


Fig 3-II

N. The set of three wires will run to the fuse box. Route them along the frame and firewall to the fuse box. (See *Fig 3-mm*.)

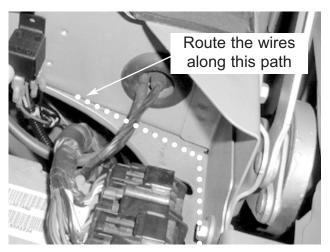


Fig 3-mm

O. Attach the trigger wire (from the relay) to the solid blue wire [switched 12v] (from the wiring harness directly in front of the fuse box terminals) with the provided quick connector. (See *Fig. 3-nn*.)

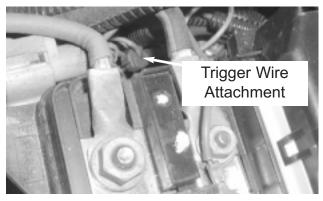


Fig 3-nn

P. Attach the ground and power wires from the relay to the Fuse Box, red to positive, black to negative. (See *Fig. 3-oo.*)

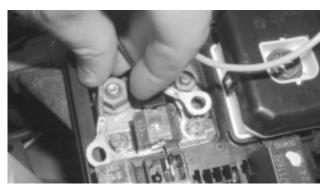


Fig 3-00

Here is your finished engine. Please take the time to do a final checkout. Make sure all of the items are properly tightened, and that you have refilled your oil and coolant to proper levels. Finally, take care driving until you have learned the new feel of your vehicle. It has more power now, and will handle differently on the road.



Section 4

FINAL CHECK-OUT AND START-UP

This section covers pre-start checks and inspections, as well as initial start-up.

Your vehicle is now a high performance truck. Be sure to use only premium high octane fuel from now on.

4.1 INSPECT THE FOLLOWING:

- **a.** Wires, harnesses and electrical connections. Are all items properly dressed, connected and secured?
- **b.** Hoses, lines and fittings. Are all items properly dressed, connected, and secured?
- c. Fasteners, brackets, and clamps. Are all items properly installed and tightened?
- **d.** Fluid levels. Are the radiator coolant and engine oil at their proper levels? Are there any fluid leaks?
- e. Belt(s). Is the serpentine drive belt (or accessory drive and supercharger drive belts, depending on requirement of your vehicle) properly installed, aligned and tensioned?

4.2 PERFORM THE FOLLOWING:

- a. Cycle the ignition key from "OFF" to "ON" position three (3) times at fifteen (15) second intervals. Afterwards, check the entire fuel system for any leaks.
- b. Start the car. Verify that the oil pressure is within the normal operating range. Listen closely. The engine should idle and sound the same as it did before you began the installation.
- **c.** Allow the engine to come up to normal operating temperature. Bleed the cooling system and top off as necessary.

4.3 CHECK FOR THE FOLLOWING:

- a. FLUID LEAKS.
- **b.** FLUID LEVELS.
- c. BELT SLIPPAGE.
- d. THROTTLE RESPONSE.

CAUTION

See the supercharger service manual included in your kit for information on supercharger servicing and maintenance, belt tightening, troubleshooting, special tuning, and warranty information.

Now that the work is done, it's time to enjoy your labor of love. Take the car out on the road and let it flex its muscles, but remember, the response and performance will now be different from that to which you have been accustomed. *Have fun!*

This Page Left Intentionally Blank

P/N: 4800019 ©2003 Paxton Automotive All Rights Reserved, Intl. Copr. Secured 25SEP03 v2.0 Dodge V-10(4800019v2.0)

Appendix

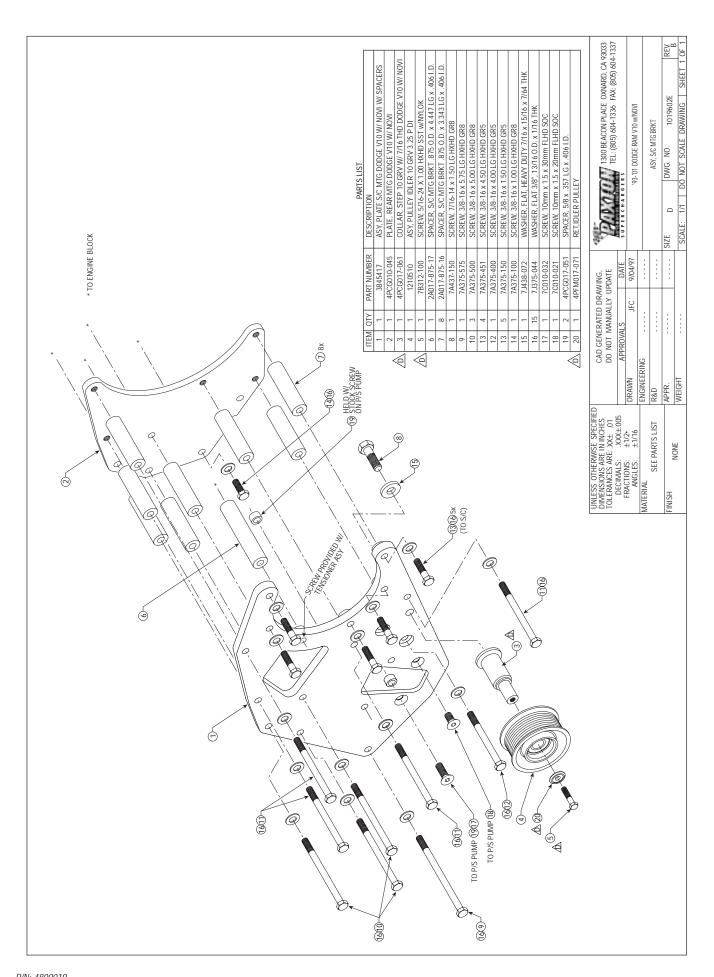
Please understand that PAXTON Automotive is constantly improving the performance and look of the NOVI 2000 supercharger. Parts in your kit may appear differently than what is pictured in this manual. This is due to photographs taken in pre-production, a change in material, or an improvement in performance.

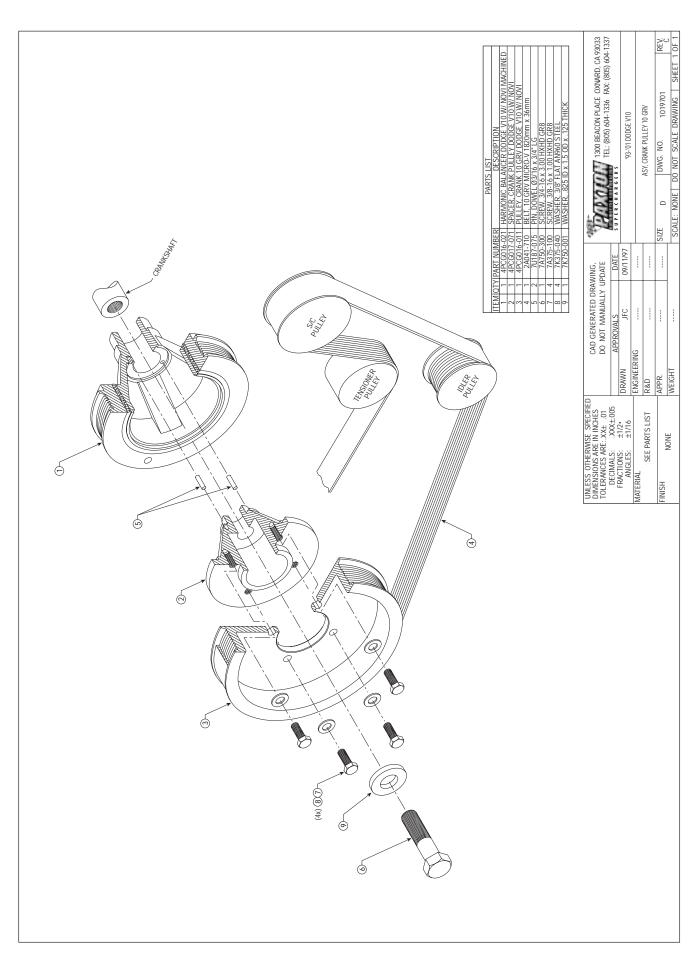
Rest assured that you have purchased to best quality kit that PAXTON Automotive manufactures at this time. The installation of the materials will remain the same.

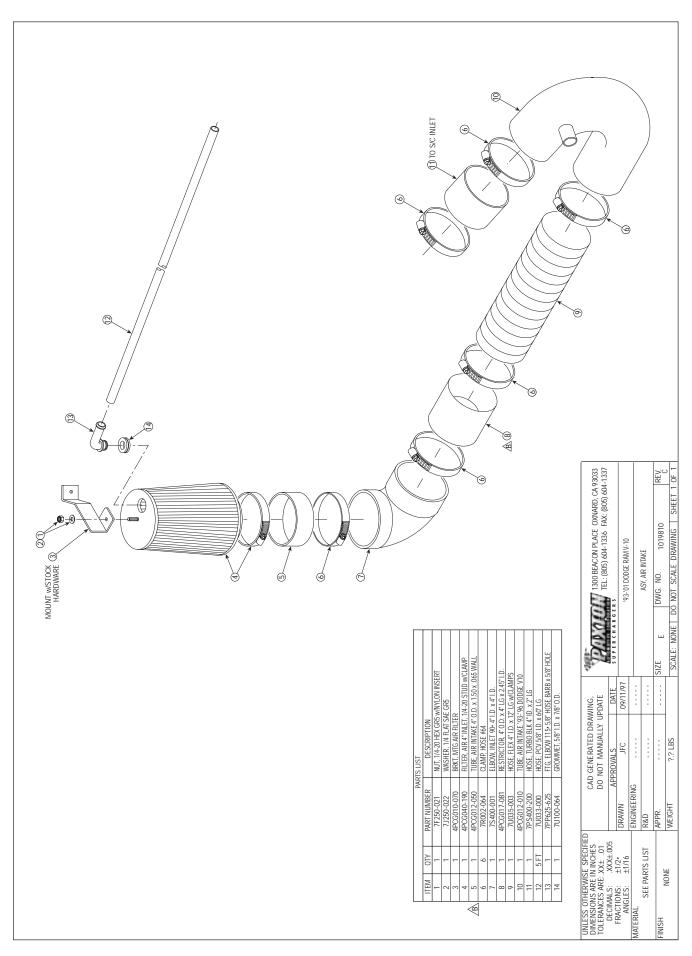
List of Appendices

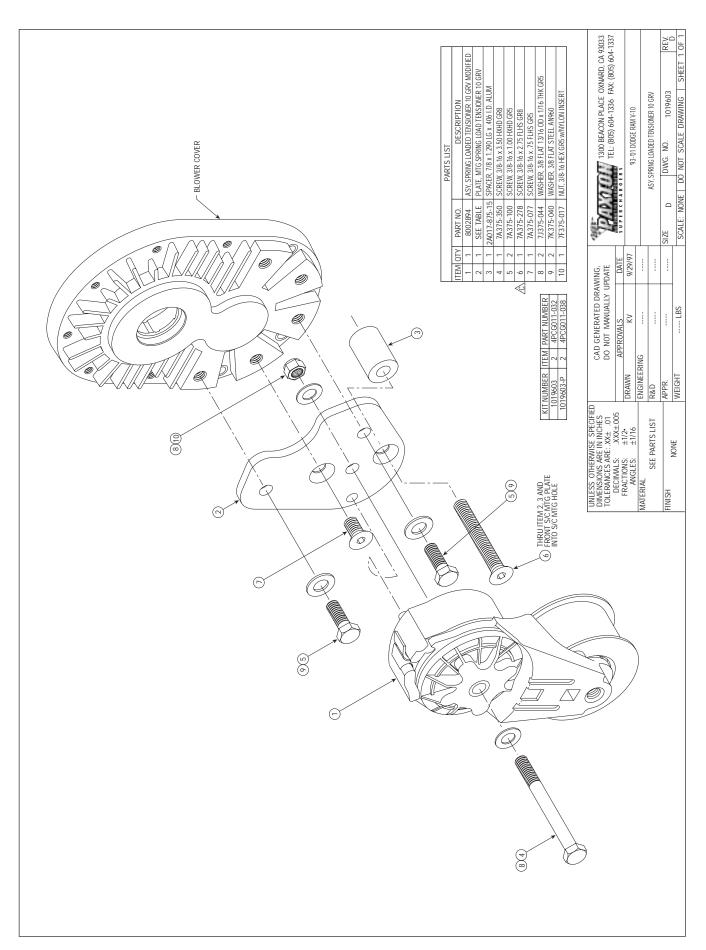
Appendix Number	DWG Number	Rev	DWG Title
Α	1201210	G	KIT, 1993-01 DODGE RAM V10
В	1019520	С	ASY, S/C NOVI 2000 REAR DISCHARGE
С	1019602	Е	ASY, S/C MOUNTING BRACKET
D	1019701	С	ASY, CRANK PULLEY
E	1019810	С	ASY, AIR INTAKE
F	1019603	D	ASY, SPRING LOADED TENSIONER
G	1015512	NC	ASY, COMPRESSOR BYPASS VALVE
Н	1019910	E	ASY, AIR DISCHARGE, FUEL ENRICHMENT
1	1020101	G	ASY, AUXILIARY FUEL SYSTEM
J	1016031	В	ASY, FUEL ENRICHMENT
K	1019313	E	ASY, S/C OIL SUPPLY HOSE
L	1019314	D	ASY, S/C OIL RETURN HOSE
M	1020350	В	ASY, HEATER HOSE RELOCATION
N	1020360	В	ASY, RADIATOR HOSE EXTENSION
0	1020450	В	ASY, CRUISE CONTROL RELOCATION
Р	1020550	С	ASY, WASHER BOTTLE RELOCATION

Appendix B 1019520 Asy, S/C Novi 2000 Rear Discharge

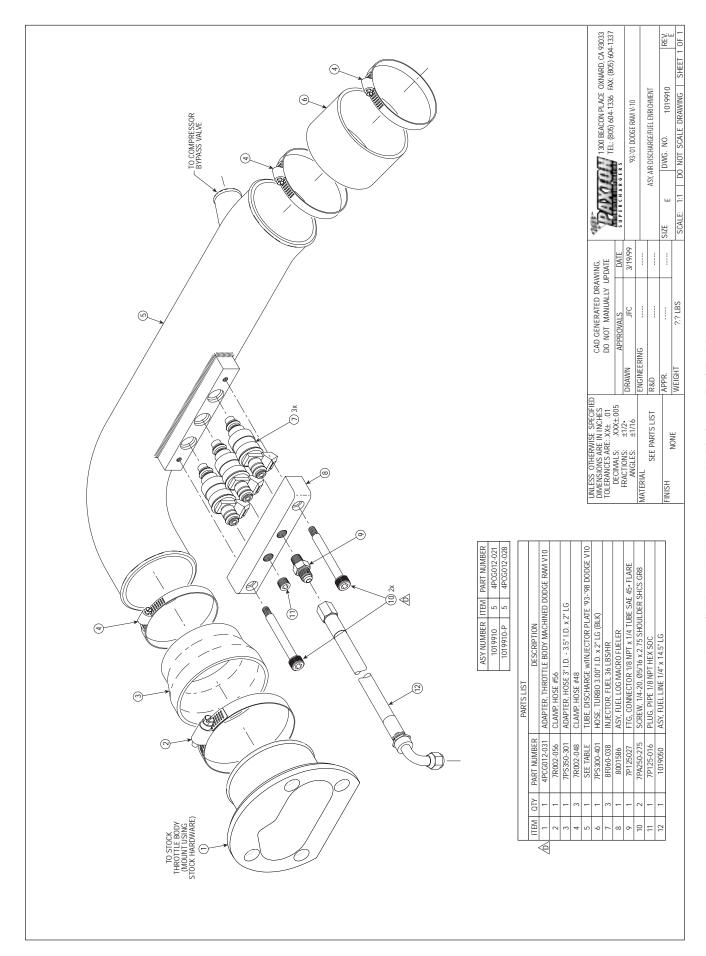


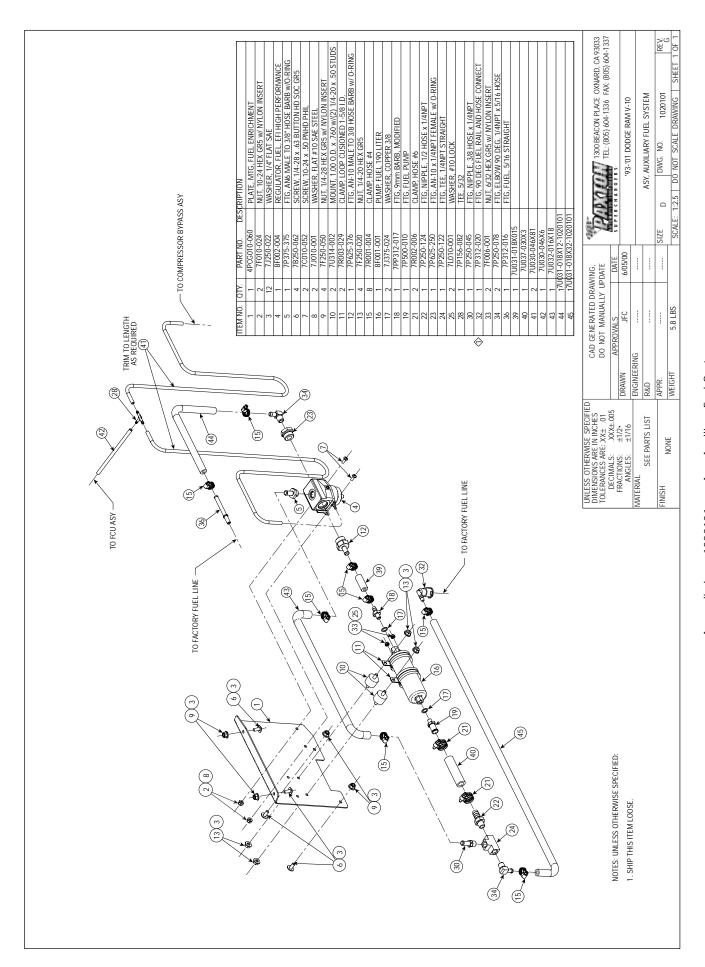


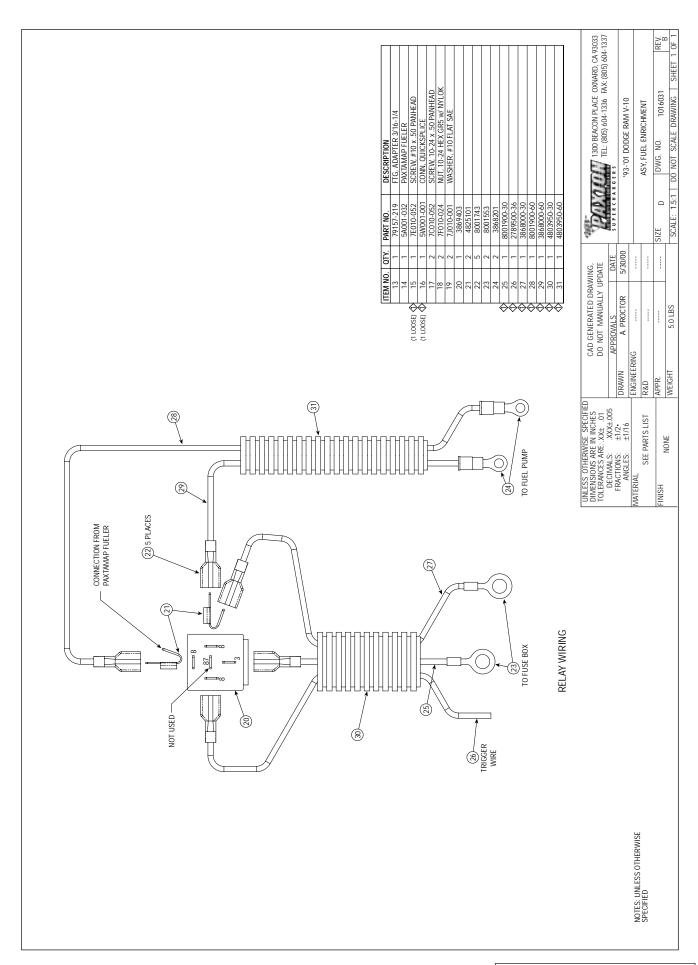


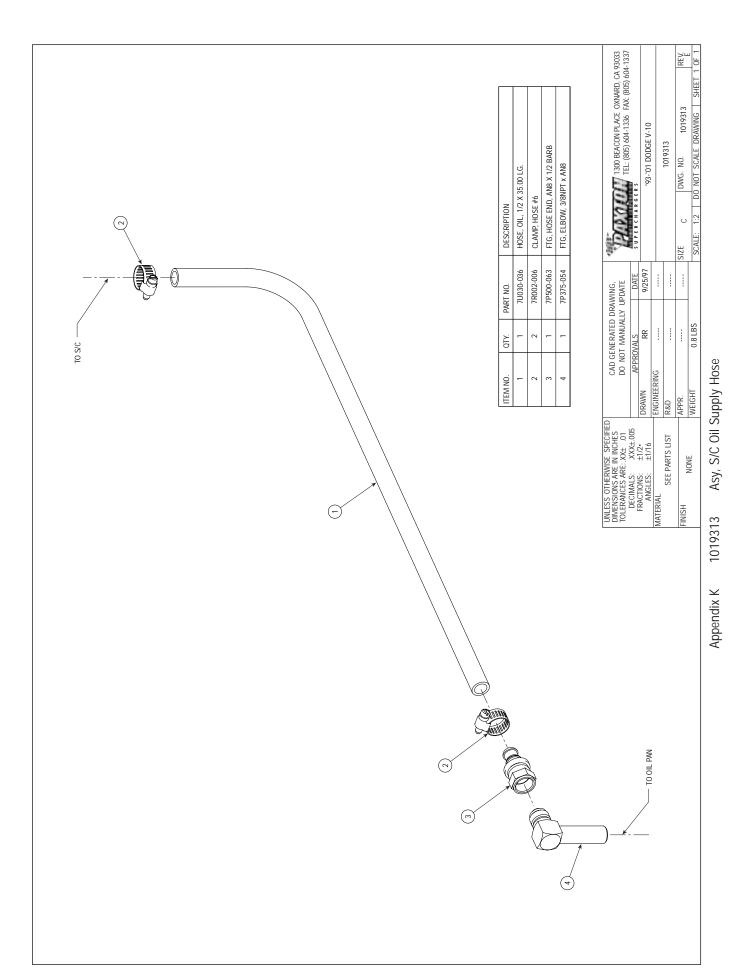


Appendix G 1015512 Asy, Compressor Bypass Valve

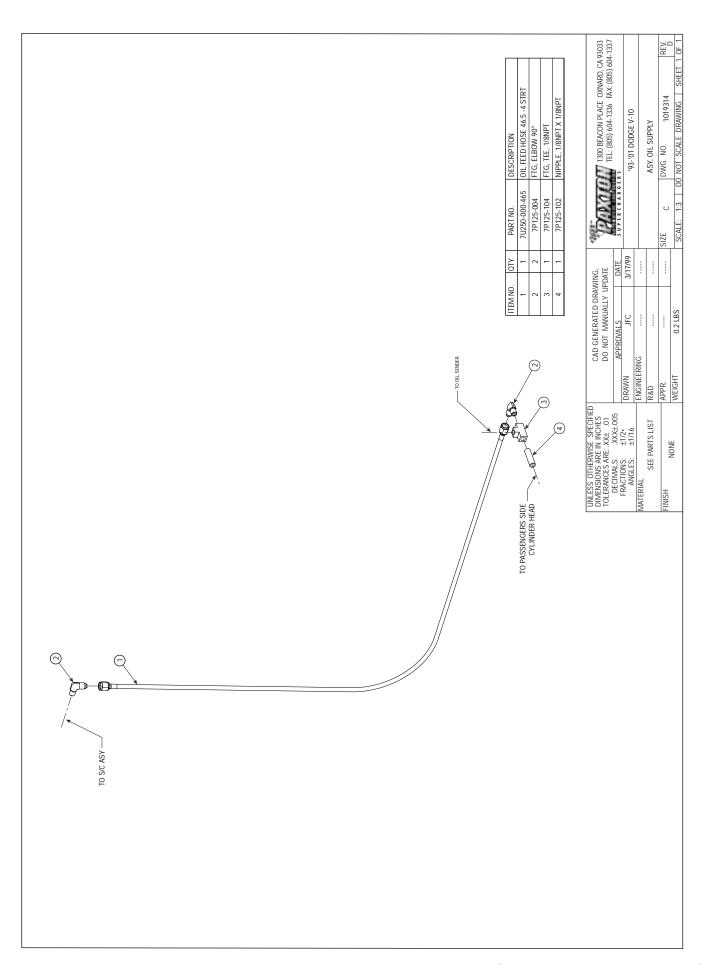


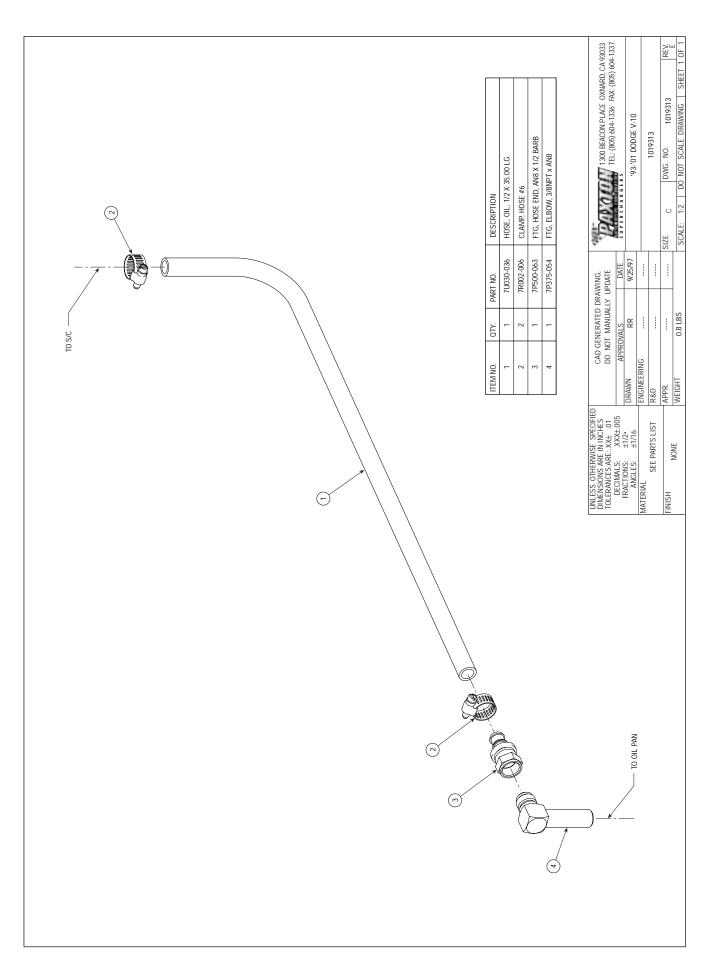


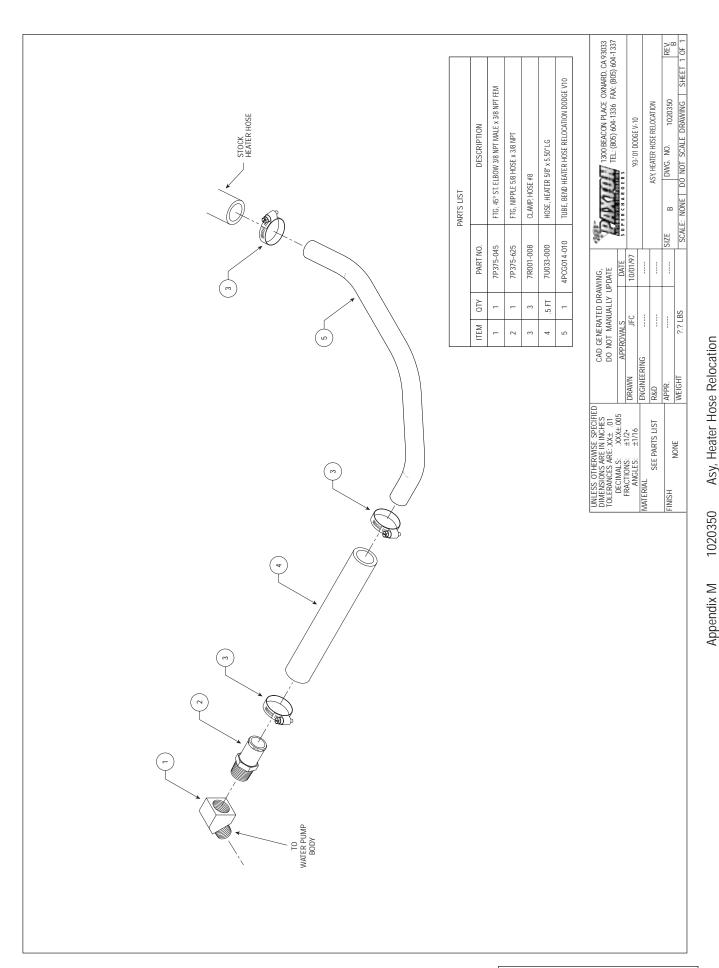


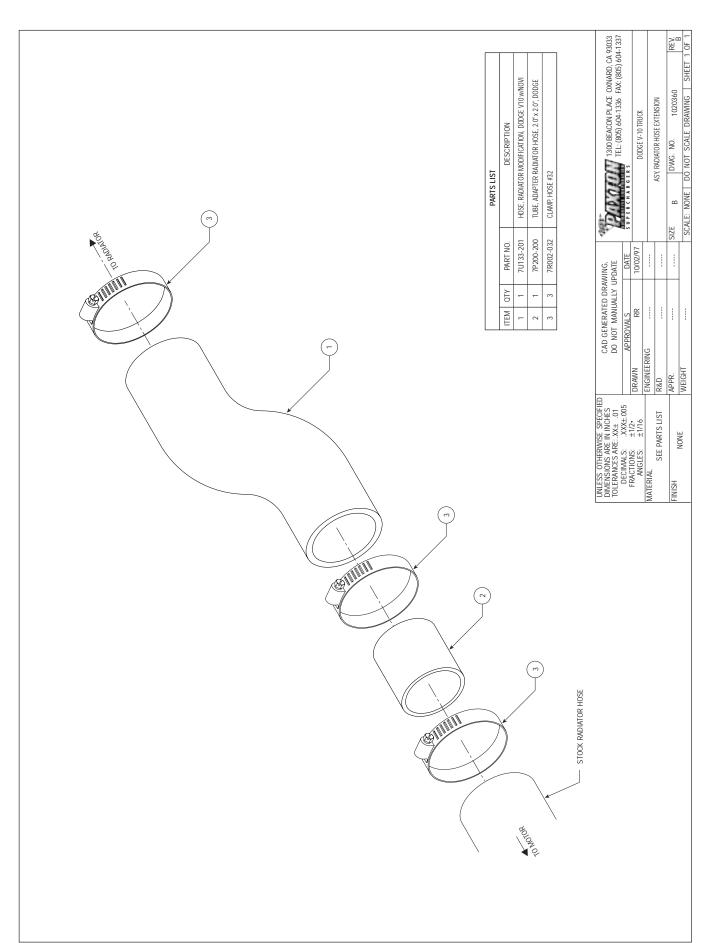


P/N: 4800019 ©2003 Paxton Automotive All Rights Reserved, Intl. Copr. Secured 25SEP03 v2.0 Dodge V-10(4800019v2.0)









SCALE: NONE | DO NOT SCALE DRAWING | SHEET 1 OF 1

ASY, CRUISE CONTROL RELOCATION '93-'01 DODGE V-10

09/29/97 DATE

CAD GENERATED DRAWING, DO NOT MANUALLY UPDATE

APPROVALS

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE. XX4. 01
DECIMALS: XXX4.005
FRACTIONS: ±1/12
ANGLES: ±1/16
MATERIAL

ENGINEERING DRAWN

R&D APPR. WEIGHT

FINISH

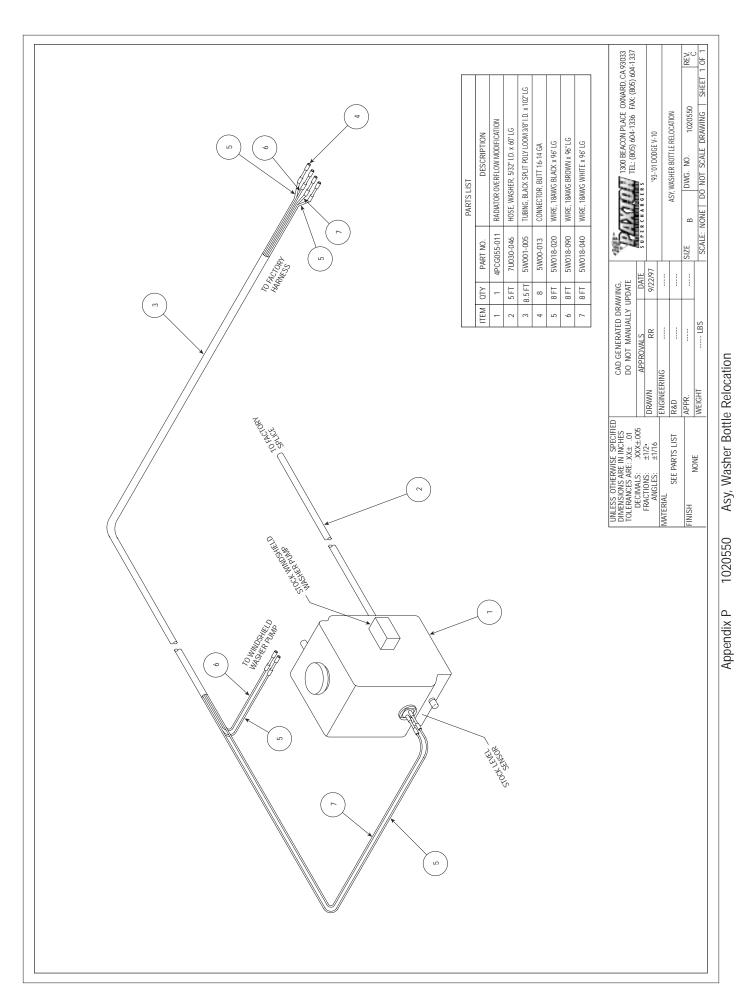
SEE PARTS LIST NONE

7 1300 BEACON PLACE OXNARD, CA 93033 TEL: (805) 604-1336 FAX: (805) 604-1337

		_										
PARTS LIST	DESCRIPTION	BRKT, CRUISE CONTROL RELOCATION	SCREW, 8mm x 1.25 x 35mm HXHD GR5	SCREW, 5/16-18 x .75 HXHD GR5	WASHER, 5/16 FLAT SAE GR5	NUT, 5/16-18 HEX GR5 w/ NYLON INSERT	WIRE, 18AWG, BLACK x 40" LG	WIRE, 18AWG, BROWN x 40" LG	WIRE, 18AWG, BLUE x 40" LG	WIRE, 18AWG, GREEN x 40" LG	CONNECTOR, BUTT, 22-18 GA	TUBING, SPLIT POLY LOOM 3/8 x 45" LG
	PART NO.	4PCG010-090	7C080-035	7A312-075	7J312-000	7F312-017	5W018-020	5W018-090	5W018-080	5W018-070	5W001-012	- 5W001-005
	ALO.	1	7	2	9	2	3.4 FT	3.4 FT	3.4 FT	3.4 FT	8	3.75 FT
	ITEM	1	2	3	4	2	9	L	8	6	10	11

NOTES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONS ARE FOR IDENTIFICATION ONLY. 1. DO NOT SCALE DRAWING.



P/N: 4800019 ©2003 Paxton Automotive All Rights Reserved, Intl. Copr. Secured 25SEP03 v2.0 Dodge V-10(4800019v2.0)

Appendix Q 5A001-030 Injector Controller



1300 Beacon Place • Oxnard, CA 93033-9901 • (805) 604-1336 FAX (805) 604-1337 • paxtonautomotive.com • M-F 8:00 AM - 4:30 PM PST