



PAXTON

SUPERCHARGERS



Owner's Installation Guide for the
Paxton Automotive
Novi 1500 Supercharger
for the
Universal Big Block
Mopar/440 Carbureted System*

*Legal in California only for racing vehicles which may never be used upon a public highway.

Paxton Automotive . 1300 Beacon Place . Oxnard CA 93033
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FOREWORD

This manual provides information on the installation, maintenance and service of the Paxton supercharger kit expressly designed for this vehicle. All information, illustrations and specifications contained herein are based on the latest product information available at the time of this publication. Changes to the manual may be made at any time without notice. Contact Paxton Automotive for any additional information regarding this kit and any of these modifications at (805) 888-PAXTON 8:00am-4:30pm PST.



Take note of the following before proceeding:

1. Proper installation of this supercharger kit requires general automotive mechanic knowledge and experience. Please browse through each step of this instruction manual prior to beginning the installation to determine if you should refer the job to a professional installer/technician. Please contact your dealer or Paxton Automotive for possible installers in your area.
2. **This product was designed for use on stock (un-modified, OEM) vehicles.** The carburetor, engine, transmission, drive axle ratios and tire O.D. must be stock. If the vehicle or engine has been modified in any way, check with Paxton prior to installation and use of this product.
3. Use only premium grade fuel with a minimum of 91 octane ($R+M/2$).
4. Always listen for any sign of detonation (*knocking/pinging*) and discontinue hard use (*no boost*) until the problem is resolved.
5. Paxton is not responsible for any clutch, transmission, drive-line or engine damage.

Exclusions from Paxton warranty coverage considerations include, but not limited to:

1. Neglect, abuse, lack of maintenance, abnormal operation or improper installation.
2. Continued operation with an impaired vehicle or sub-system.
3. The combined use of Paxton components with other modifications such as, but not limited to, exhaust headers, aftermarket camshafts, nitrous oxide, third party PCM programming or other such changes.

NOTES

- The crank pulley supplied with this kit is designed to accommodate the stock water pump pulley, alternator and power steering. Vehicles with different accessories may need custom spacing or elimination of some accessories.
- Due to the many possible engine configurations and boost requirements, a standard supercharger pulley has been included in this kit.

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*****IMPORTANT NOTES *****

The following carbureted base system support parts are not included as part of the system but are available from Paxton Automotive:

1. Race Bypass P/N 8D204-010 is included in the 1201860(P) systems and is required for applications exceeding 5psi. A larger compressor bypass valve and flange is required on applications exceeding 10 psig boost / 600HP. Contact the technical department to determine the proper valve selection for the application.
 - Paxton # **8D103-001** Mondo Race Bypass Valve
 - Paxton # **8D003-052** Mondo Race Bypass Valve weld-on flange (aluminum)
 - Paxton # **9AT200-090** Tube, aluminum Ø2.0" x specify length (for welding 8D004-052 to round tube)
 - Paxton # **8D205-003** BV57 Bypass Valve (Includes V-Band Clamp and O-ring Seal)
 - Paxton # **8D005-051** BV57 Bypass Valve weld-on flange (aluminum)
2. Boost referenced ignition/timing retard system.
 - Paxton # **5A001-001** Stand alone ignition retard "MSD" (not an ignition enhancer)
3. Supercharger pulleys: (Contact technical department for proper application match)
 - Paxton # **4MA031-312**: 3.12" Diameter 10-rib driven pulley
 - Paxton # **4MA031-333**: 3.33" Diameter 10-rib driven pulley
 - Paxton # **4MA031-348**: 3.48" Diameter 10-rib driven pulley
 - Paxton # **4MA031-360**: 3.60" Diameter 10-rib driven pulley
 - Paxton # **4MA018-041**: 6.00" Diameter 10-rib drive (crank) pulley
 - Paxton # **4MA018-061**: 7.80" Diameter 10-rib drive (crank) pulley

Items to be supplied by installer/end user:

- Carburetor with mechanical secondaries (4150 Holley/Barry Grant MD style)
- High performance electric fuel pump
- Boost referenced fuel pressure regulator

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Universal Big Block Mopar Carbureted System Installation Instructions

PLEASE READ CAREFULLY

This kit should only be installed by qualified mechanics. **It is imperative that the correct air/fuel mixture be maintained at all times. This kit is to be supplied to competent engine tuners for their completion by the addition of, and tuning of, an appropriate carburetor unit.**

This product is intended for use on healthy, well maintained engines. Installation on a worn-out or damaged engine is not recommended and may result in failure of the engine.

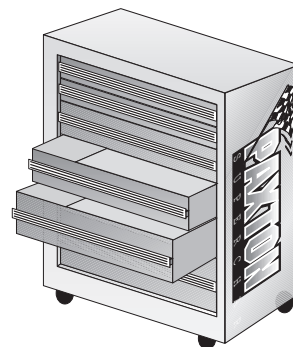
Paxton Automotive is not responsible for engine damage. Installation on new engines will not harm or adversely affect the break-in period so long as factory break-in procedures are followed.

For best performance and continued durability, please take note of the following key points:

1. Use only premium grade fuel 91 octane or higher (R+M/2).
2. The engine must have stock or lower than stock compression ratio.
3. If the engine has been modified in any way, check with Paxton prior to using this product.
4. Always listen for any sign of detonation (pinging) and discontinue hard use (no boost) until problem is resolved.
5. Perform an oil and filter change upon completion of this installation and prior to operating the vehicle. Thereafter, always use a high grade "SF" rated engine oil or a high quality synthetic, and change the oil and filter every 3000 miles.
6. Before beginning installation, replace all spark plugs with one to two step colder heat range and reset timing to no more than 22° total or install a boost retard ignition. (Always follow the procedures indicated in the factory repair manual.)

TOOL & SUPPLY REQUIREMENTS:

- Factory Repair Manual
- 3/8" Drive and Socket Set: SAE and Metric
- 1/2" Drive and Socket Set: SAE and Metric
- Open End Wrenches: SAE and Metric
- Oil Drain Tools
- SF Rated Quality Engine Oil
- Loctite Sealer #RC-609
- Oil Filter, and Wrench
- Heavy Grease
- Silicone Sealer
- Teflon Paste Sealant
- TAP, 3/8-18 NPT





Big Block Mopar "Tuner" Kit 440

Part No. 1201860-1, 1201860-1P

PARTS LIST

IMPORTANT: Before beginning installation, verify that all parts are included in the kit. Report any shortages or damaged parts immediately.

PART NO.	DESCRIPTION	QTY.	PART NO.	DESCRIPTION	QTY.
1016143	S/C ASY,NOVI 1500,CW,CRV,10-RI	1		OPTIONAL EQUIPMENT	
4PCF110-044	MTG BRKT ASSY, 440 BB MOPAR	1	4MA031-275	S/C PULLEY, 2.75" GEN2 MERC	1
2A017-040	SEPARATOR, BEARING, 6203	1	4MA031-295	S/C PULLEY, 2.95" GEN2 MERC	1
2A017-875-01	SPACER, .875 OD X 1.315 LONG	2	4MA031-312	S/C DRIVE PULLEY 3.12" GEN2 MERC	1
2A017-875-08	SPACER, .875 OD X .290 LONG	5	4MA031-333	S/C DRIVE PULLEY 3.33" GEN2 MERC	1
2A017-875-19	SPACER, .875 OD, .404 ID X 1.6	1	4MA031-360	S/C DRIVE PULLEY 3.60" GEN2 MERC	1
2A017-875-20	SPACER, .875 OD X .404 ID X 1.	4	4MA031-387	S/C DRIVE PULLEY 3.87" GEN2 MERC	1
4FP116-030	IDLER W/BRNG ASSY, 36MM COG	1	5A001-008	HI-6 TR IGN. SYSTEM, CRANE	1
4GA017-011	SPCR, IDLR,DL. PLT BBC 10-RIB	1			
4PCF010-011	BLK, MOUNTING CYL HEAD, MOPAR	1			
4PCF010-034	PLT, DUAL SUPPRT, MOPAR 440 BB	1			
4PCF010-044	PLT, SUPERCHARGER MNTNG, MOPAR	1			
4PFA010-031	BRACKT, IDLER ADJUST SCREW	1			
7A250-100	1/4-20 X 1 FLAT ALLEN	2			
7A375-105	3/8-16 X 1" HHCS, GR8, PLATED	2			
7A375-151	3/8-16 X 1.5 HXHD GR8	5			
7A375-253	3/8-16 X 2.5" HX HD GR8 FULL T	1			
7A375-426	3/8-16 X 4.25" HX HD GR8	2			
7A375-650	3/8-16 X 6-1/2 HX GR5	3			
7B375-200	3/8-24 X 2" GR8 BOLT	3			
7B500-240	ARBOR, S/C TENS PLY, RENEGADE	1			
7C012-022	M12 X 1.75 X 20MM THIN HD	3			
7F375-028	PRESS NUT, 3/8-24 X .50	3			
7F500-020	1/2"-20 HEX JAM NUT GR5 ZINC	1			
7J012-092	12MM WASHER, FLAT	3			
7K375-040	3/8 AN960 FLAT WASHR PLATED	16			
7PA375-500	SCREW, IDLER ADJUST, 5.00"	1			
4PCF112-010	AIR INLET ASM, 440 BB MOPAR	1			
4PCF012-010	INLET TUBE, MOPAR 440	1			
8H040-235	AIR FILTER, 4" FLG X 7.0L	1			
7R002-060	#60 SAE TYPE F SS HOSE CLAMPS	1			
7R002-064	#64 SAE TYPE F SS HOSE CLAMP	1			
7PS400-375	SLEEVE 4.0 X 3.75 X 3.0L	1			
4PCF116-010	DRIVE ASSY, 10-RIB- 440 BB MOP	1			
2A041-607	BELT, K100607-GATES	1			
4PCF017-011	SPCR, CRNK PULY MOPAR 440	1			
4MA018-051	CRANK PLY, 7", UNIVERSAL	1			
7A312-375	5/16-18 X 3 3/4"SHCS	6			
7A312-152	5/16-18 X 1.5 SHCS, ZN PLT	6			
7K312-001	5/16 AN WASHER, PLATED	6			
7A312-326	5/16-18 X 3.25 SHCS ZINC CLS 1	6			
4PCF130-026	OIL FEED ASSY, 440 BB MOPAR	1			
7P125-034	1/8NPTX1/8NPT STRT T	1			
7P125-103	1/8NPT X 45° -4SAE FLARE	2			
7P125-016	1/8 NPT PLUG	1			
7U250-000-420	OIL FEED HOSE,42",-4 STRT	1			
4PCF130-036	OIL DRAIN ASSY, 440 BB MOPAR	1			
7U030-036	1/2" OIL DRAIN HOSE	4FT			
7R001-008	#8 STNLS HOSE CLAMP	2			
7P375-017	3/8NPT X 1/2 BEADED HSE BRB	1			
4PCF010-051	PLATE, DRAIN RETURN, FUEL BLOC	1			
7A375-076	3/8-16 X 3/4" HXHD S.S.	2			
7K375-040	3/8 AN960 FLAT WASHR PLATED	2			
4PCF040-050	GASKET, FUEL PUMP PLATE	1			
008575	3 YR S/C STRT INFO PKG ASSY PA	1			
4809662	INSTR. MANUAL,BB. 440 MOPAR CA	1			



Big Block Mopar "Universal" Kit 440

Part No. 1201860, 1201860-P

PARTS LIST

IMPORTANT: Before beginning installation, verify that all parts are included in the kit. Report any shortages or damaged parts immediately.

PART NO.	DESCRIPTION	QTY.	PART NO.	DESCRIPTION	QTY.
1016143	S/C ASY,NOVI 1500,CW,CRV,10-RI	1		OPTIONAL EQUIPMENT	
4PCF110-044	MTG BRKT ASSY, 440 BB MOPAR	1	4MA031-275	S/C PULLEY, 2.75" GEN2 MERC	1
2A017-040	SEPARATOR, BEARING, 6203	1	4MA031-295	S/C PULLEY, 2.95" GEN2 MERC	1
2A017-875-01	SPACER, .875 OD X 1.315 LONG	2	4MA031-312	S/C DRIVE PULLEY 3.12" GEN2 MERC	1
2A017-875-08	SPACER, .875 OD X .290 LONG	5	4MA031-333	S/C DRIVE PULLEY 3.33" GEN2 MERC	1
2A017-875-19	SPACER, .875 OD, .404 ID X 1.6	1	4MA031-360	S/C DRIVE PULLEY 3.60" GEN2 MERC	1
2A017-875-20	SPACER, .875 OD X .404 ID X 1.	4	4MA031-387	S/C DRIVE PULLEY 3.87" GEN2 MERC	1
4FP116-030	IDLER W/BRNG ASSY, 36MM COG	1	5A001-008	HI-6 TR IGN. SYSTEM, CRANE	1
4GA017-011	SPCR, IDLR,DL. PLT BBC 10-RIB	1			
4PCF010-011	BLK, MOUNTING CYL HEAD, MOPAR	1			
4PCF010-034	PLT, DUAL SUPPRT, MOPAR 440 BB	1			
4PCF010-044	PLT, SUPERCHARGER MNTNG, MOPAR	1			
4PFA010-031	BRACKET, IDLER ADJUST SCREW	1			
7A250-100	1/4-20 X 1 FLAT ALLEN	2			
7A375-105	3/8-16 X 1" HHCS, GR8, PLATED	2			
7A375-151	3/8-16 X 1.5 HXHD GR8	5			
7A375-253	3/8-16 X 2.5" HX HD GR8 FULL T	1			
7A375-426	3/8-16 X 4.25" HX HD GR8	2			
7A375-650	3/8-16 X 6-1/2 HX GR5	3			
7B375-200	3/8-24 X 2" GR8 BOLT	3			
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7F500-020	1/2"-20 HEX JAM NUT GR5 ZINC	1			
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4PCF112-010	AIR INLET ASM, 440 BB MOPAR	1			
4PCF012-010	INLET TUBE, MOPAR 440	1			
8H040-235	AIR FILTER, 4" FLG X 7.0L	1			
7R002-060	#60 SAE TYPE F SS HOSE CLAMPS	1			
7R002-064	#64 SAE TYPE F SS HOSE CLAMP	1			
7PS400-375	SLEEVE 4.0 X 3.75 X 3.0L	1			
4PCF112-030	AIR DISCHARGE ASM, 440 BB MOPAR	1			
4PCF012-030	DISCH, TUBE, BB MOPAR G2	1			
7P156-082	5/32 VACUUM TEE	1			
7PS300-200	SLEEVE, BLACK, 3.00D X 2.00	1			
7PS300-275	REDUCER, BLK □3.0-□2.75	1			
7R002-044	#44 SAE TYPE F SS HOSE CLAMP	1			
7R002-048	#48 SAE TYPE F SS HOSE CLAMP	3			
7U030-046	5/32" VACUUM LINE	2.5FT			
8D004-052	FLNG, WELD, RACE BYPASS, ALUM.	1			
8D004-055	TUBE, AL, 1.5 OD X .9 WALL X 1	1			
8M106-011	ASSY, CARB HAT, SINGLE INLET	1			
8D204-010	RACE BYPASS VALVE-BLACK	1			
4PCF116-010	DRIVE ASSY, 10-RIB- 440 BB MOP	1			
2A041-607	BELT, K100607-GATES	1			
4PCF017-011	SPCR, CRNK PULY MOPAR 440	1			
4MA018-051	CRANK PLY, 7", UNIVERSAL	1			
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7K375-040	3/8 AN960 FLAT WASHR PLATED	2			
4PCF040-050	GASKET, FUEL PUMP PLATE	1			
008575	3 YR S/C STRT INFO PKG ASSY PA	1			
4809662	INSTR. MANUAL, BB. 440 MOPAR CA	1			

Section 1

INTRODUCTION

Congratulations! You have purchased the finest street Supercharger available. The centerpiece of this kit is the highly efficient and reliable Paxton Automotive Corp. NOVI-1500 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 on *page vi*.

We also suggest that you obtain a shop manual and become familiar with the details of your cars systems.

For best results follow the instructions closely and in sequence. The average installation time for this kit is 6 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) 487-3796, 8am-4:30pm 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 layout 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 discover 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.

(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 risk and to encourage a safety conscious approach to all work you do on your vehicle.

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

(805) 487-3796
Paxton Automotive Corporation
1300 Beacon Place
Oxnard, CA 93033
E-mail Address info@paxtonauto.com.

***** 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.

Before starting the installation, we suggest your engine compartment be clean. You can clean the engine and compartment with a pressure washer

WARNINGS

- Never rely solely on a jack when working under a vehicle. Always use an approved set of jackstands to support the vehicle and place them under the recommended lift points.
- When jacking a 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 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 well ventilated areas. 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 underdash work.

Paxton Automotive makes every effort to insure that all parts are included in the box, but mistakes do occur. If you discover that you are missing any part, or that a part is damaged in transit, please call Paxton Automotive for service. 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. We look forward to hearing from you, particularly if you have any comments or suggestions regarding this manual.

Section 2

PREPARATION/REMOVAL

2.1 PREPARATION/REMOVAL

- A. Disconnect the negative lead of all batteries.

*** NOTE ***

Refer to Fig. 2.1-a for the following steps.

- B. Loosen all nuts and bolts that are used to tension the alternator and power steering pump V-belts.
- C. Remove all of the belts from the accessories.
- D. Remove the stock crank pulley.
- E. Remove the alternator stay (adjustment bar) and retain hardware to be reused in a later step.

*** NOTE ***

If you have not changed spark plugs in the last 15,000 miles, do so prior to the installation of this kit.

- F. Remove any remaining hardware securing the alternator to the cylinder head. The alternator will be relocated in a lower position.

*** NOTE ***

If you are installing a universal supercharger kit, some of the following instructions may not apply or may require custom fabrication.

*** NOTE ***

The current setup of this kit requires the use of the following components:

- Electric radiator cooling fan(s).
 - Stock crank & accessory pulleys
 - Electric fuel pump with boost referenced regulator
 - Appropriate carburetor
-

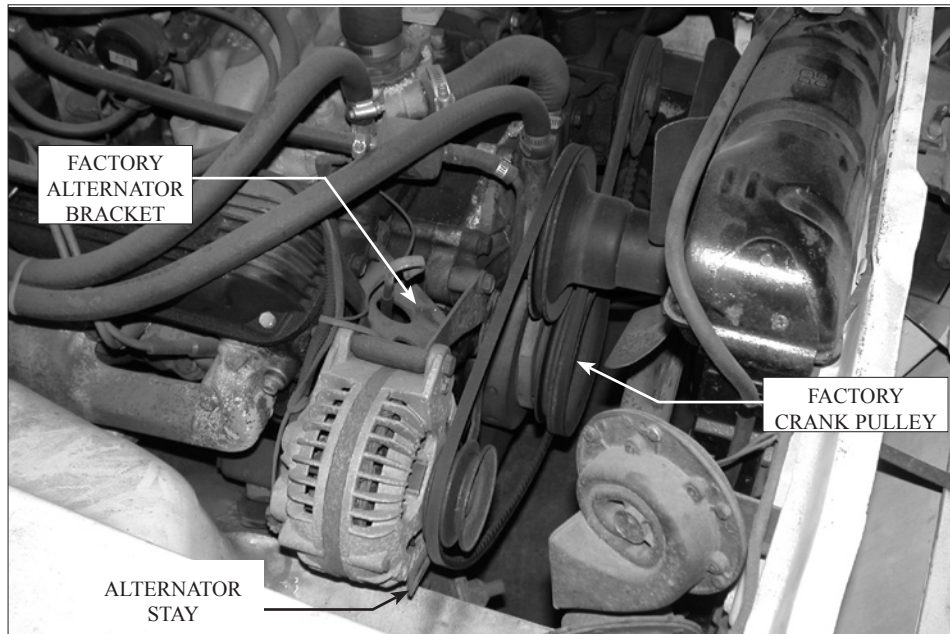


Fig. 2.1-a

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Section 3

OIL FEED INSTALLATION

3.1 OIL FEED INSTALLATION

- A. The supercharger uses engine oil for lubrication and must have an oil feed line connected to a filtered oil access on the engine.
- B. Install the supplied 1/4"NPT street TEE into the block located on upper rear of the engine block just above where the bell housing attaches. Install the oil pressure sender into the end of the TEE. Install the 1/4" x -4 fitting into the branch of the TEE. Position the fitting so that the opening faces the passenger's side/rear of the engine. (See *Fig. 3.1-a.*)

*** NOTE ***

Use clean engine oil on the pipe threads. Teflon tape and sealant is NOT recommended as it might loosen and cause blockage of the small oil feed orifice resulting in supercharger failure.

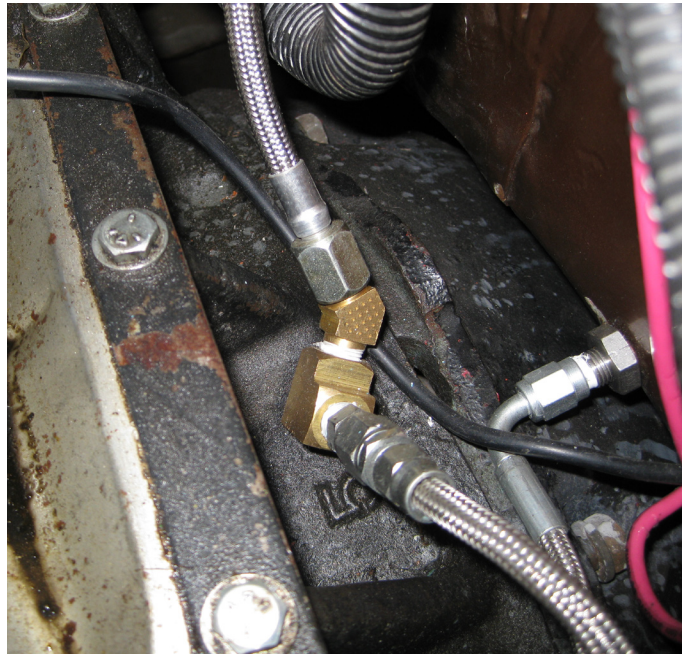


Fig 3.1-a.

- C. Attach the end of the supplied -4 braided oil feed line to the installed fitting. (See *Fig. 3.1-a.*) Secure the hose with the tie-wraps provided, routing it away from exhaust heat, chafing and/or sharp objects. Temporarily cover the open end from debris until the connection is made to the supercharger.

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Section 4

OIL DRAIN INSTALLATION

4.1 OIL DRAIN INSTALLATION (OPTION 1)

- A. To provide an oil drain for the supercharger, it is necessary to install the supplied mechanical fuel pump block off plate with barb fitting.
- B. Install the plate and gasket using two supplied 3/8-16 x .75" bolts and washers onto the port located on the front passenger side of the block, just behind the water pump. Fig. 4.1-a
- C. Attach one end of the 1/2" drain line to the barb end of the installed fitting and secure with #8 hose clamp. Route the hose up towards the passenger side of the car to be connected to the supercharger in a later step.

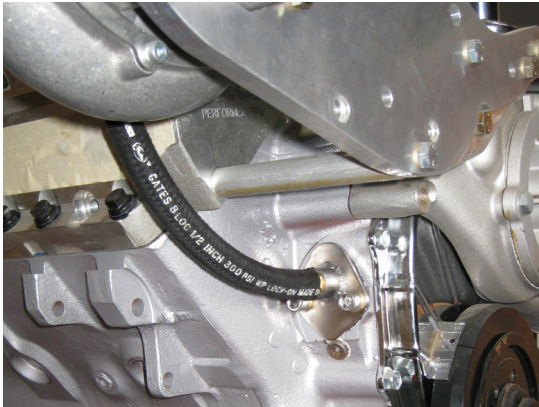


Fig. 4.1-a

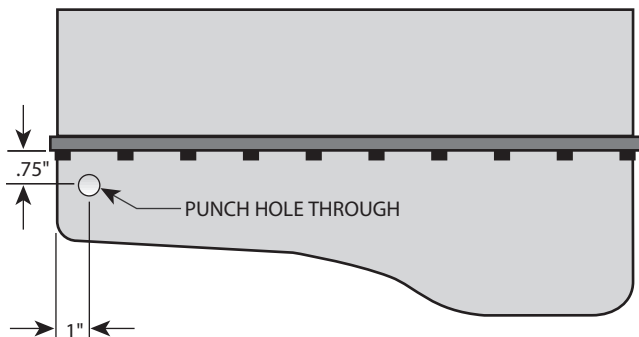


Fig. 4.2-a
Passenger side oil drain

4.2 OIL DRAIN INSTALLATION (OPTION 2)

- A. Alternately, you can punch a hole in the side of the oil pan. The hole should be placed above the oil level in the pan to allow for unrestricted flow of the return oil. (Roughly no more than 1" below the top edge of the pan)

*** NOTE ***

Removal of the oil pan may ease oil drain fitting installation on some applications.

- B. Remove any paint from around the hole area.
- C. Use a small center punch to perforate the pan and expand the hole, switch to a larger diameter punch and expand the hole further to approximately Ø9/16". Most punches are made from hexagon material and may be placed in a socket with an extension to make this procedure easier. Use caution so that the hole is not enlarged too much and that the punch does NOT contact the engine internals.
- D. Tap the hole with a 3/8"NPT tap approximately 1/4" deep. Pack the flutes of the tap with heavy grease to hold the chips. Use a small magnet to check for any stray chips. Fig. 4.2-a

*** NOTE ***

This method of rolling over the lip of the hole and tapping works very well if carefully done and should cause no problems.

- E. Thoroughly clean the threaded area. Apply a small amount of silicone sealer to the new threads. Apply more sealer to the supplied 3/8"NPT x 1/2" barb, and secure in the previously threaded hole. Make sure a seal is formed all around the fitting.
- F. Drain the engine oil, install a new filter and refill with fresh oil.

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Section 5

MOUNTING BRACKET/SUPERCHARGER INSTALLATION

5.1 MOUNTING BRACKET INSTALLATION

- A. Clean the front of the passenger's side cylinder head so that the mounting spacers will sit flat when installed.
- B. Clean the front of the water pump bosses so the supercharger bracket will mount flat against the mounting surfaces.
- E. Install two of the 6.5" bolts and washers through the main bracket and then through the cylinder head mounting block as shown in Figs 5.1-b, 5.1-c. Make sure the side of the mounting block with the center tapped hole faces the rear side of the Main Bracket.

*** NOTE ***

Refer to Fig. 5.1-b for assistance in the next few steps. DO NOT tighten hardware until all fasteners and spacers are installed.

- C. Locate the mounting bracket assembly
- D. Locate the three 3/8-16 x 6.5" bolts, 3/8 AN washers, cylinder head mounting block, 1.691" spacer, and main supercharger mounting bracket (See Fig. 5.1-a.)

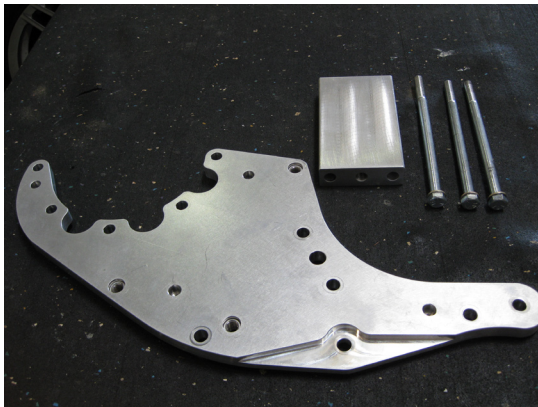


Fig. 5.1-a

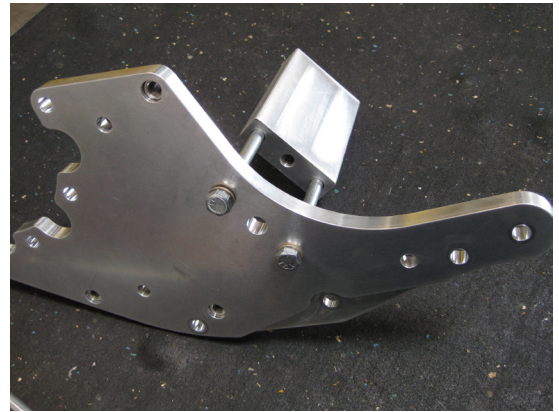


Fig. 5.1-b

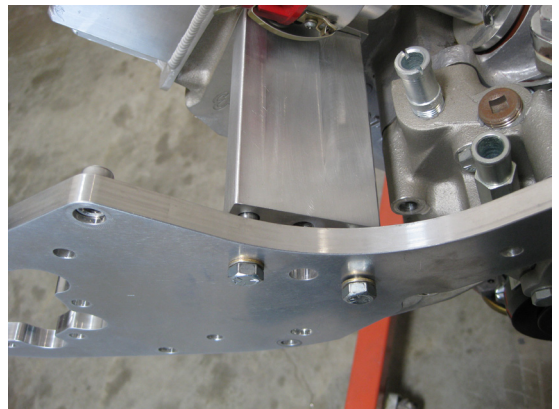


Fig. 5.1-c

- F. Attach the factory alternator using the third 6.5” bolt and washer through the lower hole of the main bracket, next through the alternator, then through the 1.691” spacer and finally into the cylinder head. Keep the bolt loose until the belt is tensioned in a later step. (See Fig. 5.1-d.)

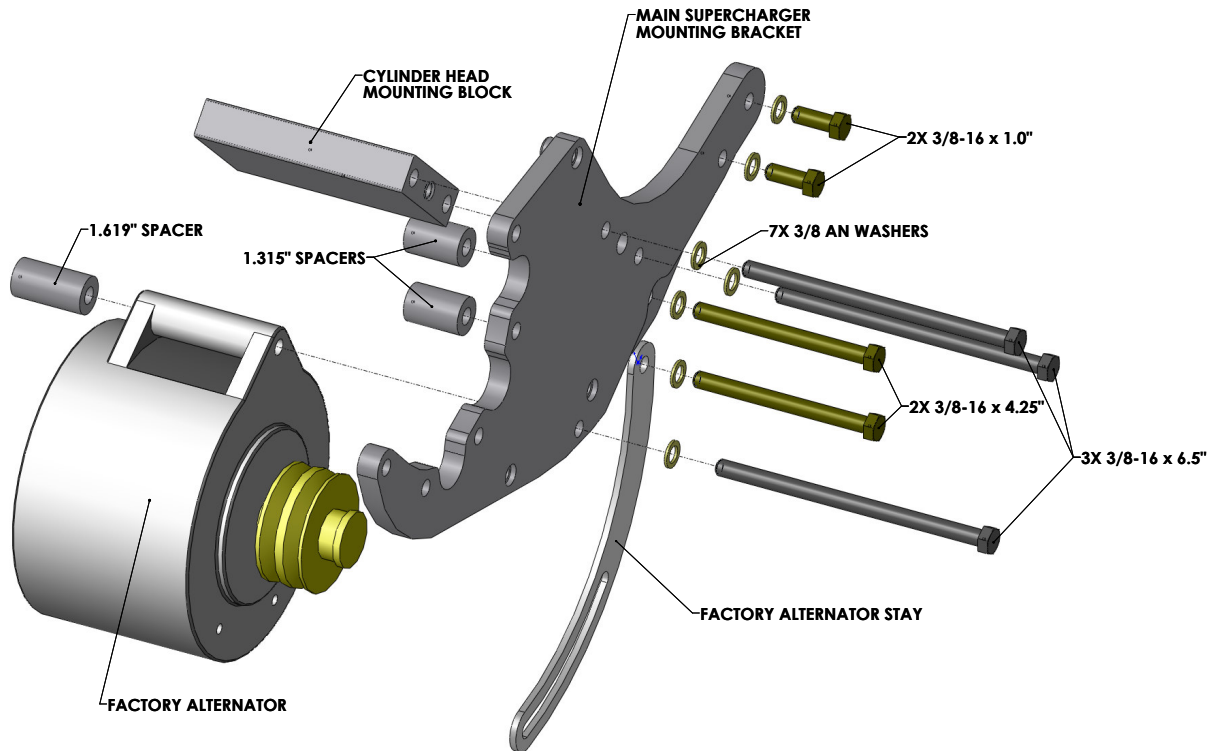


Fig. 5.1-d

- G. Locate two 3/8-16 x 1.0” bolts and 3/8 AN washers and install through the two holes located in the tail end of the main supercharger mounting bracket and into the threaded water pump bosses. (See Fig 5.1-d)
- H. Locate two 3/8-16 x 4.25” bolts, 3/8 AN washers, and two 1.315” spacers. Install one bolt & washer through the hole located in the recessed section of the main bracket, then through one of the 1.315” spacers, through the water pump and finally into the engine block. (See Fig 5.1-d). Install the second bolt and washer through the factory alternator stay (adjustment bar), through a 1.315” spacer, through the water pump and into the engine block.
- I. Attach the alternator stay to the alternator using the factory retainer.
- J. Route the v-belt (not included) around the crank, water pump, and alternator pulleys and swing the alternator to tension.
- K. Tighten all hardware installed to this point, making sure that all spacers and brackets are flat against their mounting surfaces.

5.2 SUPERCHARGER INSTALLATION

- A. Attach the open end of the oil drain line to the supercharger and secure using one of the #8 hose clamps provided.

*** NOTE ***

The oil drain hose may need to be trimmed for proper fit. It must maintain a continuous downward direction free of any dips or restrictions.

- B. Lower the supercharger onto the mounting plate installed on the engine.
- C. Locate the five 3/8-16 x 1.5" bolts, 3/8 AN washers, and five .29" spacers. Install the five bolts through to the supercharger while sandwiching the .29" spacers between the supercharger mounting bosses and the backside of the main bracket. Tighten in steps. (See Fig 5.2-a.)

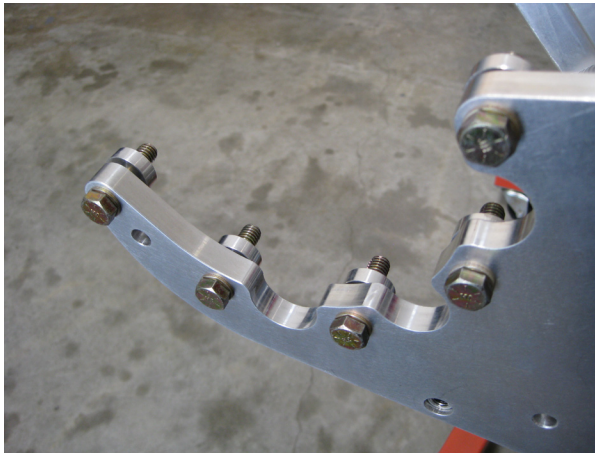


Fig. 5.2-a

- D. If not already completed, attach the oil drain line to the fitting previously installed in the oil pan or fuel pump block off plate and secure using the supplied #8 hose clamp.

- E. Install the 1/8"NPT x -4 x 45° fitting onto the oil feed fitting using oil to lubricate the threads. Attach the oil feed hose to this fitting and tighten. (See Fig. 5.2-b.)

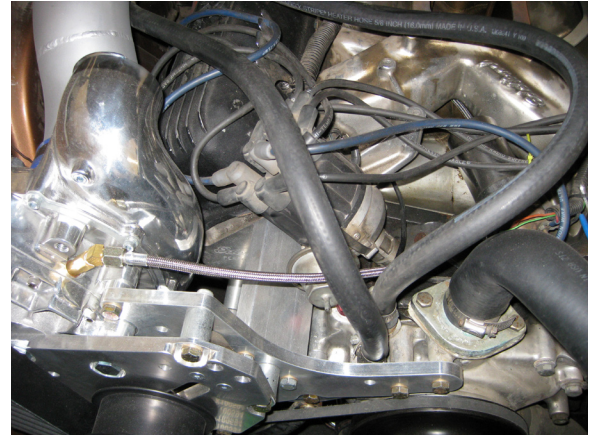


Fig. 5.2-b

*** NOTE ***

Some applications (depending on intake manifold height) may require the relocking of the supercharger volute. If relocking is required for your application, loosen and remove the six 1/4-20 cap screws and retaining plates that hold the compressor housing (volute) to the gearcase. If the compressor housing does not rotate freely relative to the gearcase, **DO NOT FORCE IT. SERIOUS SUPERCHARGER DAMAGE MAY OCCUR.** The machined mating surfaces are designed to prevent pressurized air from escaping and have minimal tolerances. If the housing will not move or is very tight, contact Paxton Automotive immediately at 888 9-PAXTON and ask our service department for further assistance.

5.3 TENSIONER PLATE INSTALLATION

- A.. Attach the supplied tensioner adjustment screw, tensioner arbor and adjustment screw locator block to the back of the tensioner plate using the 1/4-20 Flat Head screws as shown in Fig 5.3-a.

*** NOTE ***

Apply a small amount of anti-seize lube to the threads on the tensioner adjustment screw prior to assembly.

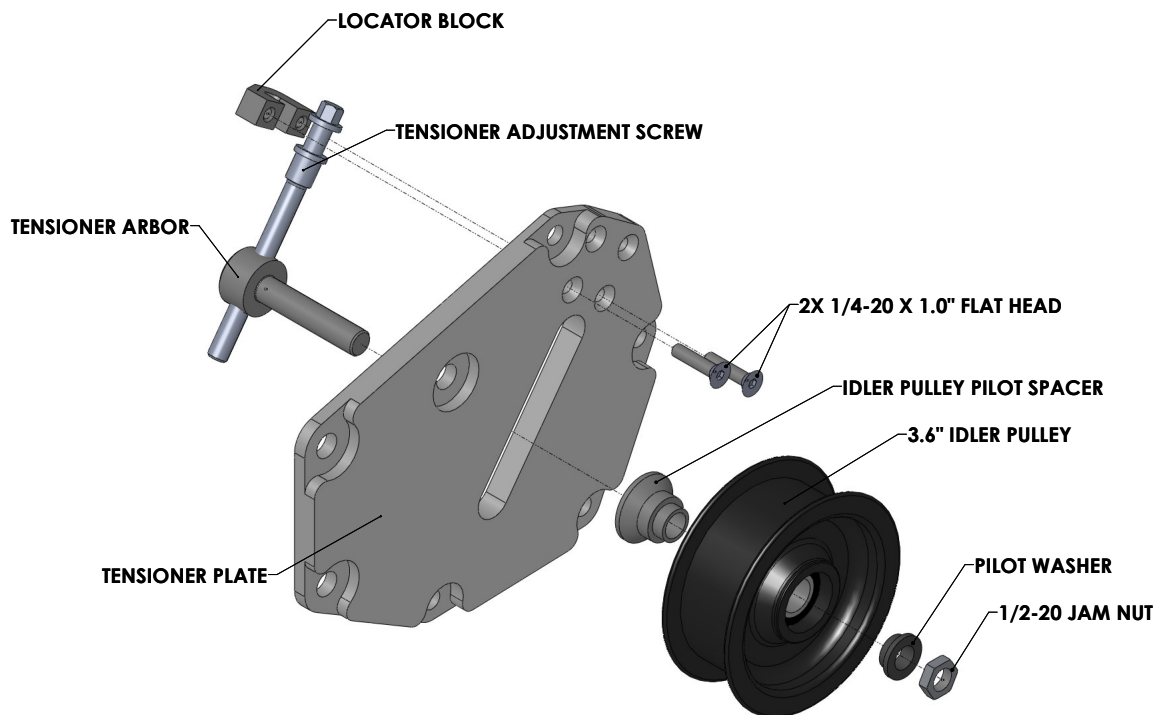


Fig. 5.3-a

- B. Assemble the idler pulley pilot spacer, idler pulley with snap ring facing rear of vehicle, pilot washer, and 1/2-20 jam nut on to tensioner arbor as shown in Fig. 5.3-a. Assemble parts as shown, but leave 1/2" nut just loose enough to allow for adjustment with tensioner adjustment screw. Position idler pulley by adjusting tensioner screw so that access to the hardware mounting holes is not obstructed (in order to allow for installation on to main bracket).

- C. Using three M12-1.75 x 20mm and corresponding M12 washers, attach the tensioner plate to the front of the supercharger head unit. (See Fig 5.3-b.)

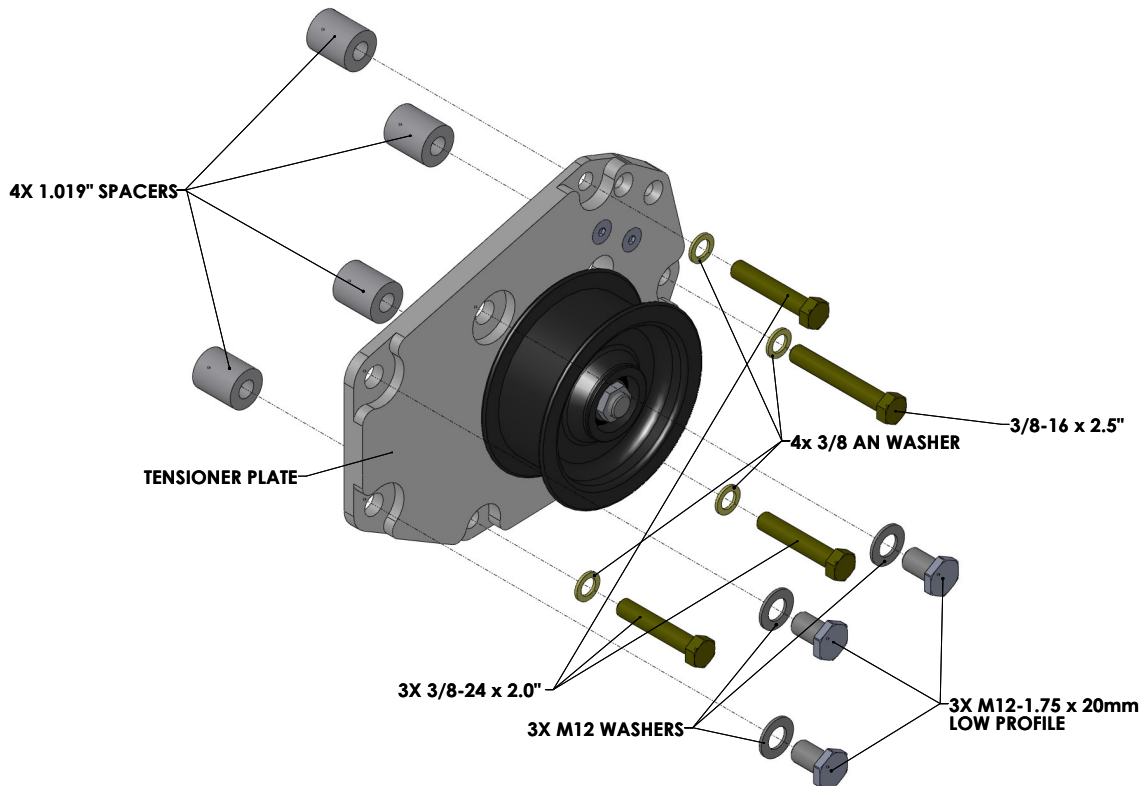


Fig. 5.3-b

- D. Locate three 3/8-24 x 2.0" fine thread bolts, one 3/8-16 x 2.5" coarse thread bolt, four 3/8 AN washers, and four 1.019" spacers. Install 3/8-16 x 2.5" coarse thread bolt and washer through the tensioner plate, through 1.019" spacer, through main bracket into threaded hole of the cylinder head mounting block. Install the remaining 3/8-24 x 2.0" fine thread bolts and washers through the tensioner plate, through 1.019" spacers and into the threaded inserts pressed into the rear of the main bracket. Tighten all hardware installed at this time making sure that the tensioner plate is seated evenly between all surfaces.

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Section 6

CRANK PULLEY INSTALLATION

*** NOTE ***

Depending on the model year of the vehicle, the bolt pattern on the Harmonic Balancer will either be an OFFSET or SYMMETRICAL bolt pattern. The OFFSET pattern has a single hole that is offset in the circle. You will need to determine which pattern your vehicle has and proceed accordingly.

6.1 CRANK PULLEY INSTALLATION (OFFSET BOLT PATTERN)

- A. Locate the 10-rib Drive Assembly.
- B. To assemble the crank pulley assembly on an offset bolt pattern, install six 5/16-18 x 3.25" socket head bolts with a drop of blue loctite on each fastener and NO washers through the counterbored holes of the crank pulley spacer, and through the factory crank pulley. Be sure the counterbores face the front of the vehicle. (See Fig.6.1-a.)
- C. Install the assembly onto the engine balancer and secure using the installed hardware.

*** NOTE ***

Make sure that the pulleys are seated and piloting correctly when securing. Use criss-cross torquing sequence

- D. Using the six 5/16-18 x 1.5" bolts with a drop of blue loctite on each fastener and washers, install the supplied 10-rib drive pulley on to the pilot of the crank pulley spacer using the 6 bolt symmetrical hole pattern in the supplied pulley. Make sure the pulley is fully seated and tighten in crisscross pattern.

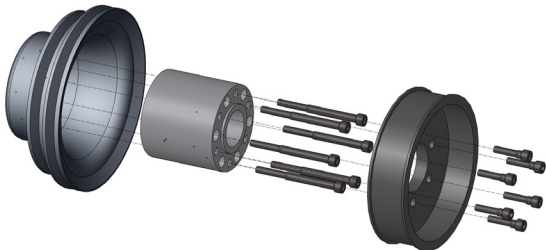


Fig. 6.1-a

6.2 CRANK PULLEY INSTALLATION (SYMMETRICAL BOLT PATTERN)

- A. Locate the 10-rib Drive Assembly.
- B. To assemble the crank pulley assembly on a symmetrical bolt pattern you will first need to remove the threads from the six threaded holes in the crank pulley spacer using a 21/64 drill.
- C. Assemble the crank pulley assembly as follows: install six 5/16-18 x 3.75" bolts with a drop of blue loctite on each fastener and washers through the provided 10-rib crank pulley, through the supplied crank pulley spacer (previously drilled), and through the factory crank pulley. Make sure the spacer pilot is seated in the supplied 10-rib pulley.

*** NOTE ***

Some supplied crank pulleys may have multiple bolt patterns to fit different applications. Be sure to select the bolt pattern that matches the stock crank pulley.

- D. Install the crank pulley assembly onto the engine balancer and secure using the previously installed hardware.

*** NOTE ***

Make sure that the pulleys are seated and piloting correctly when secure.

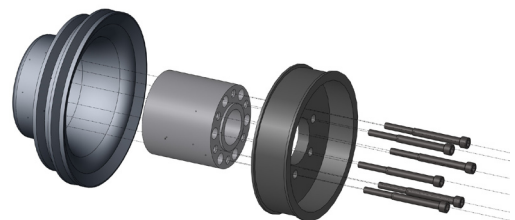


Fig. 6.2-a

6.3 BELT INSTALLATION

- A. Start by adjusting the tensioner idler previously installed on the dual bracket, all the way up to the highest point.
- B. Next route the supplied 10 rib serpentine belt around the newly installed crank drive pulley and up around the supercharger drive pulley making sure the belt is routed underneath the tensioner idler attached to the tensioner plate.
- C. Adjust the tensioner by torquing the tensioner screw so that idler pulley is lowered onto the drive belt applying tension.
- D. Once adequate tension is applied lock the tensioner in place by finally tightening the jam nut on the tensioner arbor previously left loose for adjustment purposes. (See Fig. 6.3-a.)

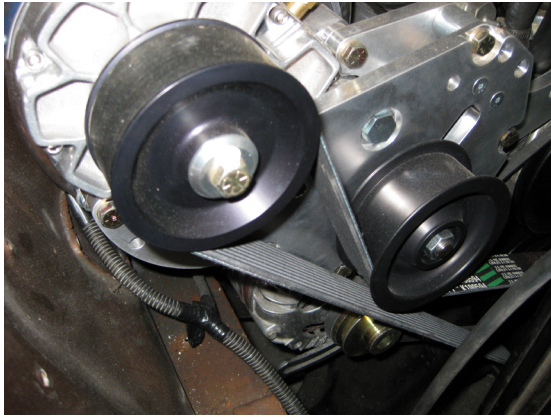


Fig. 6.3-a

Section 7

AIR INLET DUCTING INSTALLATION

7.1 AIR INLET DUCTING INSTALLATION

- A. Locate the Air Inlet Assembly
- B. Install the 3.75" end of the 3.75" to 4.00" reducer sleeve onto the supercharger inlet and secure using the #60 hose clamp provided.
- C. Install the 4" inlet duct into the sleeve previously installed and secure using the remaining #64 hose clamp.
- D. Secure the supplied filter to the open end of the inlet duct. (See Fig. 7.1-a.)



Fig. 7.1-a

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Section 8

CARBURETOR MODIFICATIONS

8.1 CARBURETOR MODIFICATIONS

- A. If you have purchased a 1201860/-P (complete kit), a 4PCF112-030/-038 discharge assembly was included. Please proceed to section 9.
- B. If you have purchased a 1201860-1/P (tuner kit), you will need to provide a supercharger discharge to the carburetor. This may be accomplished by using an enclosure or blow-through bonnet of some kind. Skip to section 10

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Section 9

DISCHARGE INSTALLATION

(COMPLETE KIT ONLY)

9.1 DISCHARGE INSTALLATION (For Use With 4PCF112-030/-038)

- A. Locate the 4PCF112-030/-038 discharge assembly.

*** NOTE ***
Refer to Fig. 9-a for the following steps.

- B. Using the supplied #44 clamp, attach the 2.75" x 3.0" reducer sleeve to the S/C discharge. (See Fig. 9-a.).
- C. Secure the 3.0" x 2.0" sleeve to the supplied carburetor hat using a supplied #48 hose clamp.
- D. Locate the supplied Race By-Pass Valve, mounting flange and short piece of 1.5" tube. Weld the bypass flange to the supplied 3.0" discharge tube as desired and drill out tube with appropriate hole saw. The by-pass valve discharge should face horizontal. Secure the valve to the Ø3.0" tube with welded flange using the supplied 1/4-20 hardware and gasket.
- E. Install the discharge tube into the previously installed 2.75" x 3.0" reducer sleeve and secure using a #48 hose clamp provided.
- F. Install the carburetor hat with attached coupler to the open end of the discharge tube with the remaining #48 clamp and install carburetor hat to carburetor using the supplied hardware and gasket.
- G. Connect the supplied vacuum line to the vacuum port on the by-pass valve. Locate an engine vacuum source and secure the open end of the previously installed vacuum line.

*** NOTE ***
The vacuum source used should be non-ported intake manifold vacuum.

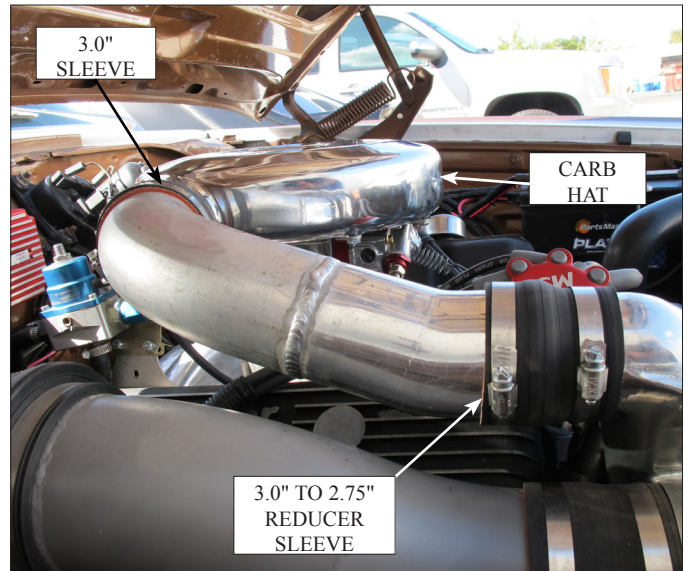


Fig. 9-a

*** NOTE ***
Some applications (depending on intake manifold height) may require the relocking of the supercharger volute. If relocking is required for your application, loosen and remove the six 1/4-20 cap screws and retaining plates that hold the compressor housing (volute) to the gearcase. If the compressor housing does not rotate freely relative to the gearcase, DO NOT FORCE IT. SERIOUS SUPERCHARGER DAMAGE MAY OCCUR. The machined mating surfaces are designed to prevent pressurized air from escaping and have minimal tolerances. If the housing will not move or is very tight, contact Paxton Automotive immediately at 888 9-paxton and ask our service department for further assistance.

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Section 10

FINAL RE-ASSEMBLY AND CHECK

10.1 FINAL REASSEMBLY AND CHECK

***** WARNING *****

Do not attempt to operate the vehicle until all components are installed and all operations are completed including final check.

- A. Reconnect the battery.
- B. If your vehicle has gone over 15,000 miles since its last spark plug change, you will need to change the spark plugs now before test driving the vehicle.
- C. Check all fittings, nuts, bolts and clamps for tightness. Pay particular attention to oil and fuel lines around moving parts, sharp edges and exhaust system parts. Make sure all wires and lines are properly secured with clamps or tie wraps.
- D. Check all fluid levels, making sure that your tank(s) is filled with 91 octane or higher fuel before commencing test drive.
- E. Start engine and allow to idle a few minutes, then shut off.
- F. Recheck to be sure that no hoses, wires, etc. are near exhaust headers or moving parts and for signs of any fluid leakage. Re-jet the carburetor as required. Install a high performance electric fuel pump with boost referenced fuel regulator. Use a wide band O₂ sensor to verify a proper air/fuel ratio (*Vortech suggests 11.0:1 for 91 octane pump fuel.*) Check ignition timing to make sure it is properly set before commencing test drive.



Fig. 10-a

- G. **PLEASE TAKE SPECIAL NOTE:**
Operating the vehicle without all sub assemblies completely and properly installed and working may cause FAILURE OF MAJOR ENGINE COMPONENTS.
- H. Keep in mind that this manual does not address air/fuel or ignition timing considerations. (See Page vi.)
- I. Test drive the vehicle.
- J. Read the Street Supercharger System Owner's Manual and RETURN THE Warranty REGISTRATION FORM within thirty (30) days of purchasing your supercharger system to qualify.



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