WEIAND SUPERCHARGER INSTALLATION INSTRUCTIONS PART A

This set of instruction sheets applies to all WEIAND small block and big block Chevrolet supercharger installations. Note that throughout these instructions, there may be sections that only apply to certain supercharger models or certain engines. These sections will be clearly marked. If they do not apply to your particular installation, skip over them. Please carefully read through these instructions before you begin an installation. (For Pro-Marine applications, see Part B). You may find that you'll need certain additional parts to complete your installation, and it will make your job easier if you have all of these parts before you begin. Additionally, we suggest that you read the Weiand Supercharger Technical Manual before you begin. It will alert you to certain aspects of the installation that will make your finished installation as successful as possible. Should you need information or parts assistance, please do not return the unit to the store without first contacting Technical Service at 1-270-781-9741, Monday-Friday, 7 a.m. to 5 p.m. CST. Please have the part number on hand of the product you purchased when you call.

PARTS SUPPLIED IN KIT

1. Supercharger assembly
2. Intake manifold (includes pop-off plate on 671-1471)
3. 2-4V Carburetor adapter (256, 671-1071)
4. 1-4V 4500 Dominator adapter (1271-1471)
5. Drive Belt
   Pro-Street 142: 6-Rib Poly-V
   Pro-Street 177: 6-Rib Poly-V
   Pro-Street & Pro-Marine 256: 16-Rib Poly-V
   Pro-Marine 142: 10-Rib Poly-V
   Pro-Marine 177: 10-Rib Poly-V
   671 (Street): 3" wide 1/2" Drive Pitch Gilmer Belt
   671-1471: 3" wide 8mm Drive Pitch Belt.
6. Upper & lower drive pulley
7. Drive belt idler assembly
8. Front cover w/ nose drive coupler (671-1471)
9. Two V-groove accessory crank pulley (671-1271)
10. Three V-groove accessory crank pulley on 871-1471 Marine kits (1471 street also)
11. Idler pulley mounting bracket & hardware (671-1471)
12. Stud kit or bolt kit (Supercharger to Intake manifold)
13. Gaskets
    Supercharger to Manifold
    Front Cover gasket (671-1471)
    Carburetor adapter to supercharger (256, 671-1471)
14. Thermostat housing (Pro-Street 142 E.O. kits)
15. Offset water outlet adapter & water outlet spacer (Pro-Marine 142-177)
16. Intake manifold bolt set (256)
17. Hardware pack
18. Remote thermostat box & bracket (392 Hemi)
19. Cylinder head water outlet plates (392 Hemi)

ADDITIONAL PARTS THAT MAY BE REQUIRED

1. Intake manifold gasket set
   Fel-Pro #1256 for small block Chevy
   Fel-Pro #1275 for big block Chevy w/ rectangular ports
   Fel-Pro #1251 Trim-to-fit for big block Chevy w/ oval ports
2. Valve cover gasket set
3. Thermostat housing gasket
4. Distributor to manifold gasket
5. 1/2"-NPT pipe plugs (2) required
6. Hi-temp non-hardening gasket sealer
7. Hi-temp silicone sealant
8. Teflon tape
9. Carburetor linkage kits
10. Thread locking compound

SUGGESTED TOOL LIST

1. Socket wrench set with ratchet & extension
2. Box or open end wrenches 3/8" to 1"
3. Ignition wrench set
4. Torque wrench (lb./ft.)
5. Screwdrivers, standard & Phillips, various lengths
6. Gasket scraper
7. Flare-nut wrenches
8. Pliers, standard & needle nose
9. Drain pan
10. 3/8"-16 tap (for cleaning intake manifold threads in head)
11. Straight-edge
12. Allen wrench set to 3/8"
13. Timing light
14. Oil pressure gauge

PLEASE READ THE FOLLOWING CAREFULLY BEFORE STARTING INSTALLATION:
These instructions cover the following Weiand Supercharger kits:

Application	Weiand Supercharger Kit Sizes
Small Block Chevy	142, 177, 671-871
Big Block Chevy	177, 256, 671-1471
Chrysler 392 Hemi	671
Chrysler 426 Hemi	871

There are some important differences between these kits. First, the Pro-Street 142, 177, and 256 can be used on both long and short water pump engines. The 671-871 small block and the 671-1471 big block kits can use only the short style water pumps. Chrysler 392 Hemi kits **must** be used with the Weiand #8214 water pump.

If you have a long water pump on your engine, you can convert to a short water pump and short water pump style pulleys. The proper crankshaft V-belt pulleys are supplied in the 671-1471 kits. You will have to remount the alternator, A/C compressor, and power steering pump (if you have them) using early short water pump style brackets or aftermarket brackets suitable for you accessories.

DISASSEMBLY AND PREPARATION

STEP 1

Disconnect the battery. Drain the radiator and cooling system. Make sure the block is drained, as you will be removing the intake manifold. It may make the installation easier if you remove the radiator and fan shroud to gain better access. Remove the upper radiator hose from the thermostat housing. Remove the thermostat housing making note of the direction the outlet is pointing. If you are going to reuse the thermostat housing, make sure there is no leftover gasket material on the housing. Old gasket material can cause leaks. Remove the thermostat from the manifold. Disconnect the heater hoses (if present) from the manifold.

a) Carefully remove the heater hoses from the manifold, as these are to be reused.
b) It is usually a good idea to use new fittings and clamps.

STEP 2

Mark which ignition wire goes to which distributor cap terminal. Disconnect the ignition wires from the distributor cap. Disconnect the distributor primary wire or the plug for the HEI distributor.

Note the position of the distributor rotor to the distributor body and of the distributor body to the engine. You may want to place a mark on the distributor for reference. This will make reinstallation of the distributor much easier. Remove the distributor from the engine. Remove the ignition coil from the stock intake manifold, if so equipped.

STEP 3

Loosen and, if necessary, remove the accessory belts. Remove the A/C compressor, alternator, and other brackets and hardware from the intake manifold.

STEP 4

Remove the throttle linkage from the carburetor. Note how the linkage attaches. You may need to fabricate a new throttle linkage, depending upon your linkage configuration, or you may elect to use a Weiand linkage kit. After the supercharger is installed, the carburetor will be 3 to 4 inches higher on the 142, 177, and 256; and 5 to 6 inches higher on the 671-1471. If the vehicle is equipped with a cable type linkage, you may simply need a longer cable. Disconnect and remove the transmission kickdown and throttle pressure control linkage. If your vehicle is equipped with a 700-R4 transmission, note the distance between the carburetor throttle lever and the cable brackets, as this distance will need to be duplicated after the supercharger is installed. If the geometry of the throttle pressure linkage is improper, the transmission will not shift properly or may slip and overheat. Remove all old gasket material from the bottom of the existing carburetor, if it is to be reused. Set the carburetor aside and protect it from dirt and debris.

STEP 5

Remove the bolts hat retain the stock intake manifold to the cylinder heads. There are 12 bolts on the small block and 16 bolts on the big block. (Note: You will only be reinstalling 12 bolts on the big block Chevy 177 & 671-1471 kits. The 256 kits include 16 intake manifold bolts. You may find that removing one or both of the valve cover gaskets after blower installation.

NOTE: Valve cover gaskets are not included in the WEIAND supercharger kits.

Insert a screwdriver beneath the front or rear of the manifold to pry it away from the engine. AVOID damaging the sealing surface of the cylinder heads or block. AVOID getting water in the lifter valley of the engine.

STEP 6

After removing the manifold, remove any debris that may have fallen into the lifter valley. Insert clean rags into the intake ports and lifter valley to catch the gasket scrapings that may fall as you clean the cylinder head and block to manifold sealing surfaces. Use a 3/8"-16 tap to clean the manifold bolt holes in the cylinder heads. This provides for a better torque reading when installing the manifold bolts. Unless you are using new intake manifold bolts, be sure to clean the threads on the stock bolts.

STEP 7

Remove the three stock bolts holding the lower pulley on the harmonic damper. Remove the large center bolt and thick washer from the damper. **Do not remove the damper.**

WEIAND 671-1471:

NOTE: If you are utilizing a 671-1471 supercharger, we recommend using an aftermarket steel harmonic damper. The toothed type drive belt on these superchargers does put extra load on the bolts holding the blower drive pulley on the damper, and over time, the stock cast iron damper may fail. The 671-1271 street supercharger kits are supplied with a 2V crank pulley and locator. The 871-1271 Marine and 1471 Street/Marine kits are supplied with a 3V crank pulley and locating pilot. The stock stamped steel pulleys are not used.

If you use an aftermarket damper on a 671-1471 installation, you also may want to consider adding an additional keyway to the crank and damper that is 180° from the existing key. This new key can be 1-16" wider than the stock key.

Pro-Street 142, 177, & 256:

Clean the stock stamped steel pulley's front surface, so that the supercharger drive pulley fits squarely. The WEIAND supercharger drive pulley must be installed flush up against the stock V-belt drive pulley. Test fit the WEIAND pulley to the stock V-belt pulley. The small pilot on the rear of the WEIAND pulley should fit snugly into the center of the stock pulley. Some vehicles, particularly light trucks, use a cast iron pulley with a thicker center section and insufficient room for the supercharger pulley to fit inside. This pulley must be replaced with a similar stamped steel pulley, available at most wrecking yards or Chevrolet dealers.

CAUTION: IF THE WEIAND SUPERCHARGER DRIVE PULLEY DOES NOT FIT SQUARELY AGAINST THE STOCK LOWER PULLEY, THE PULLEY WILL APPEAR TO WOBBLE ON THE CRANKSHAFT WHEN TURNED AND THE DRIVE SYSTEM WITLL THROW DRIVE BELTS.

STEP 8

Pro-Street 142, 177, & 256:

Align the holes and place the V-belt pulley and the blower drive pulley assembly on the damper. Install the supplied crank bolt (7/16"-20 x 4" on the small block, 1/2"-20 x 4" on the big block) with the supplied thick washer into the center of the crankshaft. **Do not use the thick factory washer on the center bolt.** Install the supplied three 3/8" bolts and 3/8" flat washers and tighten them finger tight. Torque the supplied 7/16" center bolt to 60 lb./ft. Torque the 1/2" bolt to 80 lb./ft. Torque the three 3/8" bolts to 30 lb./ft.

WEIAND 671-1471:

Install the supplied locating pilot for the V-belt accessory drive pulley using the bolt and washer provided. This bolt is threaded into the end of the crankshaft. **Do not use the thick factory washer on the center bolt.** Torque center bolt to 80 lb./ft. for the big block Chevy, 60 lb./ft. for the small block.

Install the V-belt accessory drive pulley to the damper using the bolts provided. Torque to 20 lb./ft. Use red Loctite.

Install the WEIAND lower blower drive pulley to this assembly using the six bolts provided. Torque to 20 lb./ft. Use blue Loctite.

STEP 9

The WEIAND Supercharger intake manifold should be thoroughly washed prior to installation. Be sure to remove any foreign matter, such as chips, dirt, polishing, dust, or packing material from both the intake runners and the exterior of the manifold.

Pro-Street 177, 256, and 671-1471

Note: It is necessary to drill and tap the hole in the manifold for the boost gauge before installing the manifold on the engine.

STEP 10

WEIAND does not include intake manifold gaskets in the kit, but recommends that you use a Fel-Pro intake manifold gasket set as follows:

Big Block Rectangular Port: #1275
Big Block Oval Port: #1251 Trim-to-fit
Small Block: #1256

The above gasket recommendations are for stock ports. If the ports in your heads and/or manifold have been enlarged, consult the Fel-Pro catalog or your engine builder for the correct gasket. WEIAND recommends these gaskets because of their exceptional sealing quality with aluminum manifolds.

Install the port gaskets per gasket kit instructions. **Do not use cork or rubber end gaskets.** Use a bead of silicone sealer both front and rear. Place the manifold on the engine, using a brass dowel or large Phillips screwdriver to align the bolt holes. DO NOT displace the gaskets when moving the manifold and do not damage the threads in the cylinder head. Install all the intake manifold bolts. Hand tighten only at this time.

If the valve covers were removed earlier, you may reinstall them at this time. Fit-check valve covers before torquing manifold. Following the proper tightening sequence, as shown in a typical shop manual; torque the intake manifold bolts in two steps. First torque all bolts to 15 lb./ft. Then torque the intake manifold bolts to 30 lb./ft. It is advisable to use new gaskets to prevent any leakage.

Install the thermostat into the intake manifold. Make sure that the thermostat is pointing in the correct direction. If the thermostat is installed upside down, overheating will result. For most early applications, you can reuse the stock thermostat housing. Late model applications with the Pro-Street 142 that are using the stock smog fittings located on the original thermostat housing must use the WEIAND thermostat housing (#6200 Satin, #6201 Polished). **Note:** This style thermostat housing is included in the following kits: 6502, 6503, 6504, 6507, 6508, & 6509. If you use this housing, remove the thermostat mounted temperature controlled sensors from the stock housing and install them into the WEIAND housing. These fittings can be somewhat fragile, so be very careful not to overtighten or damage the fittings during installation. Vehicles equipped with late model radial style air conditioning compressors may require this housing so that the compressor brackets will not interfere with the upper radiator hose. On the 142 & 177, this is a good time to install the temperature sender and the heater hose fittings. If you wish to use the WEIAND thermostat housing, but do not need to use the smog sensors, the sensor bosses can be plugged using 1/2" NPT plugs.

Install the thermostat housing on the manifold using a new gasket and stock bolts. Torque bolts to 15 lb./ft.

STEP 11

WEIAND 671-1471 superchargers are shipped without the front cover installed on the blower. Install the cover as follows:

1. Insert a large clean rag or t-shirt between the rotors to keep them from turning.
2. Position the drive coupler to the driver's side rotor gear, making sure that the coupler registers properly. The coupler should fit flush against the gear. In some cases, there may be burrs on the center portion of the gear that will have to be filed off carefully.
3. Using red Loctite, install the six coupler mounting bolts. Torque to 20 lb./ft.
4. Install four idler mounting bracket studs into the front of the supercharger. See Figure 1on page 8 for bolt hole locations for these four studs. Use the four holes that are colored black in Figure 1.
5. Place the gear cover gasket over the four studs and locating dowel pins. Do not use any gasket sealer on the gasket.
6. Installing the front cover:
   671 w/ one piece front cover. Align the splined mainshaft in the cover with the splined coupler bolted to the blower and carefully slide the cover onto the studs and dowel pins. Install the gear cover bolts into the six remaining holes and tighten to 15 lb./ft.
   671-1471 w/ two piece front cover. Install the cover onto the four studs and locating dowel pins. Install the gear cover bolts into the six remaining holes and tighten 15 lb./ft. Position the gasket onto the nose drive. Do not use gasket sealer. Align the mainshaft splines in the nose drive with the splined coupler and install the nose drive. Install the supplied bolts. Torque nose drive to 15 lb./ft.

NOTE: You may experience difficulty getting the cover snug over the dowel pins. Use a rubber hammer or plastic mallet to tap the cover down flush to the blower front face before torquing the bolts.

At this point, fill the oil reservoir on 671-1471s. See the maintenance section beginning on page 8 for the type of oil to use and information on how to fill the oil reservoirs.

STEP 12

All WEIAND superchargers come equipped with the drive pulley (or pulleys, in the case of the 671-1471) best suited to produce a boost pressure of approximately 5 to 7 psi for most basic factory stock engines. See charts on page 6 for optional drive pulleys.

In order to remove the installed blower pulley or to install an upper pulley on the blower, remove the shipping cover from the top of the blower and insert a clean rag between the rotors. This will gently jam the rotors to allow removal or installation of the pulley bolt and washer from the front of the supercharger input shaft on the Pro-Street blowers or the six bolts on the 671-1471.

On the 142, 177, or 256, slide the pulley forward off the shaft. Slide the new pulley on the drive shaft. Be sure to keep the 3/16" key on the shaft when installing the new pulley. **Do not use a hammer to install the pulley on the shaft.** Place a drop of thread adhesive, such as Loctite, on the pulley retaining bolt threads. Reinstall the pulley retaining bolt with washer into the drive shaft. Tighten this bolt to 30 lb./ft.

The 671-1471 upper pulley bolts to a steel flange on the input shaft of the blower with six supplied bolts. Make sure the pulley fits correctly over the pilot diameter of this flange. Install the six bolts and torque to 30 lb./ft. NOTE: On the Chevy big block 671 kit, use the provided 2" wide spacer between the top pulley and steel flange. The 871 and 1071 kits use the provided 1" spacer, and the 1271 and 1471 pulley bolts directly to the steel flange requiring no spacer.

STEP 13

Pro-Street 142:

Locate the supercharger to intake manifold gasket onto the manifold surface. The gasket can be coated with talcum or baby powder to prevent sticking to manifold or supercharger. **Do not use any type of gasket sealant, as this will void your warranty.** Remove tape from the bottom of the blower. **Clean off any tape residue with solvent.** DO NOT let any foreign matter, dirt, or debris into the rotor housing, as this will cause **severe damage** to the rotors and housing. Set the blower onto the manifold, being careful not to dislodge the gasket. Install the four long mounting bolts and tighten to **8-10 lb./ft.** using a criss-cross pattern.

Pro-Street 177, 256, and 671-1471:

Install the supercharger to intake manifold mounting studs into the manifold. There are six 5/16" x 1-1/2" for the 177, eight 5/16" x 1-3/4" for the 256, and eight 7/16" x 2-11/16" for the 671-1471. Tighten to 10-12 lb./ft. NOTE: If you are using a WEIAND linkage kit, install the two extra long studs supplied with the linkage in place of the studs that came with your supercharger kit. See "Linkage Instructions" for location of these studs. Place the supercharger to manifold gasket (O-ring on the 256) on the manifold. The gasket or O-ring can be coated with talcum or baby powder to prevent sticking to manifold or supercharger. **Do not use any type of gasket sealant, as this will void your warranty.** If you have not already done so, remove the tape from the bottom of the supercharger. **Clean off any tape residue with solvent.** DO NOT let any foreign matter, dirt, or debris into the rotor housing, as this will cause **severe damage** to the rotors and housing. Set the supercharger on the manifold. Install the six or eight supercharger hold-down nuts (and WEIAND linkage bracket,

if applicable) and tighten in sequence to **8-10 lb./ft.** using a criss-cross pattern.

IMPORTANT NOT FOR ALLWEIAND SUPERCHARGERS:
While you are tightening the supercharger to the manifold, turn the supercharger driven pulley (which is the pulley attached to the supercharger) to make sure the supercharger does not bind up. Supercharger bind is caused by the blower case distorting when it is **OVER-TORQUED.** If the supercharger does bind, loosen the bolts or studs and retorque, following the same procedure.

IMPORTANT:
On the 142, 177, & 256, use the supplied feeler gauges to determine any changes in running clearances after you tighten down the supercharger. The proper way to check these clearances is as follows:

Pro-Street 142, 177, & 256:
The two feeler gauges supplied in the kit represent the minimum clearance between the rotor and the case at the top. This clearance is preset at the factory. If the supercharger is **over-torqued** on the manifold, variation can occur, causing rotor to case interference (binding). If **under-torqued**, vacuum and boost leakage can result.

If you have not already done so, remove the tape covering from the top of the supercharger. Clean the surface of the supercharger so there is no excess glue.

Bringing the two feeler gauges together (.004" and .008"), insert the .012" combined feeler gauges into the supercharger no more than 1/2" past the edge of the opening. Check the rotor to case clearance all along both of the upper edges of the case, from front to back, making sure there is no bind along that edge. If the rotor binds against the feeler gauges, the supercharger should be loosened from the manifold, rechecked, and slowly retorqued, repeating the above step.

WEIAND 671-1471:
Checking the rotor to case clearance is not required because the larger blowers have a more rigid case, reducing flex. However, you should rotate the blower rotors while tightening the mounting studs.

STEP 14
Install the air conditioning and alternator brackets on the manifold.

Pro-Street 142 and 177 for Small Block Chevy:
Use the stock accessory brackets. There are two similar, but distinctly different alternator brackets used on most long water pump applications. The WEIAND Pro-Street supercharger manifold will not accept the longer of the two brackets. The shorter bracket is available through most wrecking yards or from your Chevy dealer and is required on all long water pump applications. Note that the mounting bracket that bolts to one of the thermostat housing bolts will not work with this supercharger.

Pro-Street 177 and 256 for Big Block Chevy:
Check if any of your stock brackets will work. If not, you will have to use aftermarket accessory brackets that are available from a number of manufacturers. One company that offers a wide variety of accessory brackets specifically designed to work with WEIAND superchargers is Street & Performance (501-394-5711).

WEIAND 671-1471:
There is no provision for stock accessory brackets on these manifolds. Aftermarket accessory brackets that bolt to the head must be utilized.

STEP 15
Pro-Street 142, 177, & 256:
Install and tighten the accessory belts. Slip the WEIAND supercharger drive belt around the lower (drive) pulley and fan.

Pull the idler/tensioner arm down using a 3/4" box or socket wrench on the idler pulley nut. Slip the belt around the idler pulley and upper (driven) pulley, then release the tensioner arm. The supercharger drive belt now has the correct tension. Make sure the belt is aligned in the grooves of each pulley and is not touching or rubbing on any of the accessories or stock pulleys. In rare instances, some vehicles may require a smaller diameter water pump pulley to avoid interfering with the path of the supercharger belt.

WEIAND 671-1471:
Install and tighten the accessory drive belts. Install the idler bracket to the blower housing front cover using the supplied studs, hex connectors, and capscrews. Torque the capscrews to 12 lb./ft. of torque. Mount the idler pulley to the bracket using the supplied hardware. Seat the machined nut into the slot of the bracket and thread the bolt into the nut, tightening it finger tight.

Place the blower belt around the lower, upper, and idler pulleys. Slide the idler pulley out, until the pulley is tight against the belt and snug down the idler pulley center bolt with a wrench, so it won't change position. Grasp the belt halfway between the upper and lower pulley on the driver's side of the engine and move it in and out. When the belt is properly tensioned on a cold engine, you should be able to move this belt approximately a total of 1inch (1/2" in, 1/2" out). Then tighten the idler pulley center bolt to 60 lb./ft.

NOTE: When installation is complete and engine has reached full operating temperature, you should check the belt tension again. Expansion occurs as the engine gets to operating temperature and the belt will get tighter. If it gets too tight, it can snap off the crank snout or the blower snout. When warm, you should be able to move the belt 1/4 to 1/2 inch. **Do not** allow the belt to be overly tight.

STEP 16
Some installations may require a short fan spacer (available at most auto parts stores) that allows the fan to clear he supercharger drive belt. The supercharger belt should be 3/8 to 1/2" away from the fan. The fan should not be placed any closer than 3/8" from the radiator. We recommend using the original clutch fan, but there are several quality aftermarket flexible blade fans that are suitable. If there isn't enough room between the supercharger drive belt and the fan, and space is available in front of the radiator, an electric cooling fan mounted in front of the radiator may be an alternate solution.

Install the radiator, hoses, and coolant. Follow the coolant manufacturer's instructions to determine the proper water and antifreeze mix. Proper cooling is essential on a supercharged application. Every effort must be made to make the cooling system as efficient as possible; this includes the use of a fan shroud. If your vehicle comes equipped with a fan shroud from the factory, you should retain it.

STEP 17
Install the distributor. Be sure to use a new distributor gasket. Make sure the distributor sits all the way down on the manifold. Use the stock distributor hold down assembly. Install the distributor housing and rotor to the position noted prior to removal. Reconnect the spark plug wires in the order removed or refer to the factory service manual for correct firing order. Install the coil on the WEIAND manifold. The stock coil bracket will fit the WEIAND manifold in most applications. NOTE: WEIAND 671-1471 manifolds do not have provision for a coil bracket.

STEP 18
Pro-Street 142 & 177:
Install the desired carburetor gasket on the supercharger. If you wish to use a Quadrajet or other spreadbore type carburetor, clearance between the large, secondary throttle blades and the supercharger housing will have to be checked (some spreadbore carburetors have larger secondary throttle blades than others). Using the gasket supplied, place the carburetor on the supercharger and open the secondary throttle blades fully. If the throttle blades hit the case, a carburetor base gasket of 1/8" thickness or more will have to be used. Holley carburetors using the 50cc REO accelerator pump may require using at least two regulator carburetor base gaskets, so the accelerator pump actuating arm will not hit the supercharger case. Make sure the

carburetor throttle blades and linkage do not bind against anything or become jammed. Partial throttle will result in partial performance. A throttle jammed open can be an extremely dangerous condition.

To complete your supercharger installation consider WEIAND's Hiborn or Enderle style polished cast aluminum air scoops featuring a greater frontal area for increased air intake. Air scoops come with WEIAND's exclusive 3" air cleaner(s).

Hilborn Style

Enderle Style

WEIAND 1271-1471:
These supercharger kits come standard with a 1" thick dual 4500 Dominator inlet adapter. On the dual setups, some carburetors can be installed in line, such as some Holleys, but most other carburetors must be installed side-saddle. WEIAND offers linkage kits for both applications. In most instances, your stock throttle linkage or cable will interface, or can be modified to interface, with WEIAND linkage kits.

STEP 19

Install the throttle linkage to the carburetor. Some later model applications may be able to use the stock type throttle cable or a similar longer cable. Rod and lever linkages may require a little modification to the carburetor lever and some linkage components to make the throttle lever work properly.

REMEMBER: FULL THROTTLE IS ESSENTIAL FOR MAXIMUM PERFORMANCE.

If you have an automatic transmission with a mechanical or electric kickdown, be sure that the kickdown is adjusted properly. The 700-R4 has a throttle pressure cable. This MUST be installed and adjusted properly or the transmission will slip under load and shift erratically, possibly causing transmission overheating and failure. In addition, the throttle pressure cable must allow for full throttle movement or full throttle performance will be impaired. Note that very minor adjustments in this cable can make a huge difference in transmission performance. In all cases, refer to the factory service manual for proper adjustment procedure.

Install a longer fuel line to the carburetor. WEIAND recommends using a high flow in-line filter. Remove any screen type filter in the carburetor. **Minimum fuel pressure of 5 lbs.** is necessary at wide-open throttle.

Make sure the fuel line is well away from hot exhaust components or sharp edges. Use only an approved fuel line.

Connect the power brake vacuum line to the CARBURETOR BASE. **DO NOT** use a T-fitting to connect the power brake booster line to the same carburetor fitting as the PCV valve. This can lead to a low vacuum condition in the brake booster reservoir and may cause the brakes to need unnecessary pedal effort.

DO NOT connect the brake booster vacuum line to the intake manifold.

WEIAND Pro-Street 256, 671-1071:
These supercharger kits come standard with a 1" thick dual 4V inlet adapter that utilizes two carburetors. WEIAND offers a dual adapter separately that is 2-3/4" thick (#7164).

STEP 20

Install the desired air cleaner. Some stock air cleaners require a preheat tube form the exhaust to the inlet of the air cleaner housing. This tube permits faster warm-up. The supercharger's rotors provide good atomization of the fuel as it passes through the blower, meaning the choke and preheat tube may not be as functionally critical on a supercharged application. Make sure the air cleaner lid is not restricting the air flow into the carburetor opening. The lid should be at least 1" higher than the choke tower of the carburetor.

You should use as large an air cleaner as possible. Too small an air cleaner can result in poor performance due to insufficient flow capacity or by causing a full throttle restriction. Check out WEIAND's full line catalog for a complete listing of high performance air cleaners.

DO NOT drive the vehicle without an air cleaner. Foreign particles entering the supercharger will cause **severe damage** to the rotors and housing and **void the warranty**.

STEP 21

After all the connections and fittings are in place, start the engine. Check carefully for coolant, oil, gasoline, or vacuum leaks. Adjust the idle.

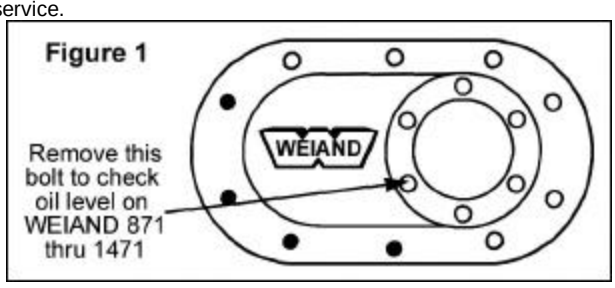
Be sure to set the spark timing using a timing light. Setting the timing "by ear" is imprecise and can cause engine damage due to detonation or preignition.

Do not run more than 34° of total timing. See the Weiand Supercharger Technical Manual for more details on setting the ignition timing.

STEP 22

The stock engine idle will not be affected by the installation of the supercharger. Under normal circumstances, there will be some noise generated by the supercharger. Should the noise seem excessive, immediately turn off the engine off and investigate. If the noise is noticeable at idle, but goes away as the RPMs increase, this is normal.

MAINTENANCE SECTION
The WEIAND Supercharger is designed to provide a substantial increase in performance with a minimum of maintenance. Regular maintenance will provide many miles of trouble-free driving. The most critical aspect of your supercharger is oil level. The level should be checked each time you check the engine oil level. Oil levels on various Weiand blowers can be checked as follows:
WEIAND Pro-Street 142, 177, & 256:
Front reservoir: Check oil level by removing the top plug, which contains a dipstick.
Rear reservoir: Check oil level by removing the pipe plug in the rear of the back cover. Oil level should be up to this hole.
WEIAND 671:
Front reservoir: Check oil level by removing the pipe plug on the passenger side of the front cover. Oil level should be up to this hole. Fill through the pipe plug at the top of the front cover.
Rear reservoir: The rear bearings are sealed and require no oil service.



WEIAND 871-1471:
Front reservoir: Check oil level by removing one of the bolts holding the front input shaft housing to the front cover. Refer to the figure above to see which bolt may be removed. Oil level should be up to this hole. Fill through the plug in the top of the front cover. Rear reservoir: The rear bearings are sealed and require no oil service. Add 80W-90 gear oil (service GL-5 or higher) until the oil is at the proper level. Reinstall any plugs that have been removed.

You also should check the condition of the supercharger drive belt. Turn the belt so you can see the grooves or the teeth. The grooves or teeth should appear slightly rough, but have no missing or excessively worn ribs. The belt should not have oil or dirt on it. Make sure the belt is kept clean. The blower belts supplied in WEIAND Supercharger kits normally will last for extended periods of time before replacement. Belt breakage or failure in street applications is highly unlikely. **Carrying a spare belt normally is not required, because the vehicle will run adequately without a belt.**

TIMING AND CARBURETOR RECOMMENDATIONS
The worst enemy of a supercharged engine is detonation. Detonation combined with continued high RPM use can quickly damage a healthy engine. This condition MUST be eliminated. Detonation can be caused by overly advanced ignition timing, poor grade/quality of fuel, excessively high compression ratio, cylinder cross-firing, or too much boost relative to the static compression ratio.

We have found that a good starting point for the ignition timing is to run 6 to 10° of initial advance (static timing advance) with about 22 to 24° of mechanical advance in the distributor, for a total of 28 to 34° of advance, which should be all in by 2500 RPM. If uncertain as to what the initial ignition timing should be for a particular engine, set the timing to the lower figure for initial start-up. Once the engine has been started, the timing can then be adjusted for optimum performance. With too much advance, detonation may occur, which could lead to engine damage. If the ignition timing is set too retarded, the engine will tend to run hot, feel unresponsive, and use an excessive amount of fuel. Dwell should be set to factory specifications.

The correct carburetor for the engine is also dependent on a variety of conditions. We have had very good results with 750 to 850 CFM vacuum secondary carburetors. These carburetors are large enough to adequately feed the majority of supercharged installations and are versatile enough to adapt to most smaller engines. In any case, we recommend that you use a vacuum secondary carburetor for street applications.
Here are some recommendations for street engines:

Supercharger	Engine	Carburetor(s) CFM
Pro-Street/Marine 142	Chevy SB 350	600-750
Pro-Street/Marine 177	Chevy SB 350	650-800
Pro-Street/Marine 177	Chevy BB 454	750-850
Pro-Street/Marine 256	Chevy BB 454	(2) 650-850
671	Chrysler 392 Hemi	(2) 600-750
871	Chrysler 426 Hemi	(2) 600-850
671	Chevy SB 350	(2) 450-650
871	Chevy SB 350	(2) 600-750
671	Chevy BB 454	(2) 600-750
871	Chevy BB 454	(2) 750-850
1071	Chevy BB 502	(2) 1000-1150
1271	Chevy BB 502	(2) 1000+ (4500)
1471	Chevy Bb 502	(2) 1050+ (4500)

Note that larger engines may require larger carburetors. Higher boost setups will also require carburetor sizes at the upper end of the ranges given above.

If you use a mechanical secondary carburetor and your vehicle is equipped with an automatic transmission, you may need to install a higher than stock stall speed torque converter or a numerically high rear end ratio that the engine can respond to sudden full throttle operation, rather than the more gradual secondary carburetor provides.

If your vehicle is equipped with a standard transmission, rapid initial movement may require engaging the clutch at a higher RPM.

NOTE: REFER TO THE WEIAND SUPERCHARGER TECHNICAL MANUAL FOR ADDITIONAL DETAILS.

WEIAND Pro-Street and 671 superchargers can be installed on a stock engine, as long as its static compression ratio is 9:1 or less and engine speed is limited to 6000 RPM. Most stock engines are equipped with cast pistons, cast crankshaft, two bolt main caps, and a small camshaft, requiring you to run very low boost pressure (3 to 5 lbs. maximum). Higher boost levels **will** cause detonation and engine failure.

You may elect to run a different blower drive ratio than that supplied in your kit. If so, please consult the charts in this manual or the Weiand catalog for details on optional pulleys available. Also, be sure to read the section on boost in the Weiand Supercharger Technical Manual.

WEIAND PRO-MARINE SUPERCHARGER INSTRUCTIONS PART B

When installing a WEIAND Pro-Marine Supercharger (142, 177, or 256), follow the basic installation instructions on the previous pages while incorporating the following unique marine characteristics.

THERMOSTAT HOUSING
The Pro-Marine 142 and 177 Supercharger Kits include a special Offset Water Outlet Adapter and Water Outlet Spacer that permit use of the stock Mercruiser thermostat housing, as well as similar aftermarket marine thermostat housings.

On the Pro-Marine 256, if you currently have a Mercruiser Marine engine and you wish to utilize the stock Mercruiser thermostat housing or a similar aftermarket marine thermostat housing, you will need WEIAND's optional 256 Offset Water Outlet Adapter, #6240 (Satin) or #6241 (Polished). As an option, you can purchase a special thermostat housing that Mercruiser uses on certain other supercharged engines. This particular housing will bolt directly to the front face of the WEIAND 256 manifold and permits utilization of all stock Mercruiser plumbing. The WEIAND part number is #6249.

When using these various water outlet adapters, in most instances the stock water hoses will need to be lengthened.

CRANKSHAFT PULLEY ASSEMBLY
Mercruiser marine engines use two types of crankshaft V-belt pulleys. One is aluminum and one is steel. All of WEIAND's Pro-Marine supercharger kits are supplied in two versions: one for the steel pulley and one for the aluminum pulley engine.

If your engine has the steel pulley, follow the instructions in the main part of this booklet.
If your engine uses an aluminum pulley, remove the stock aluminum accessory pulley and replace it with the supplied WEIAND 3V-belt accessory pulley mated to the WEIAND serpentine supercharger drive belt pulley. Loosely install the accessory V-belts and the 3V pulley and serpentine drive pulley using the supplied crankshaft bolt and thick washer into the center of the crankshaft. Then install the three supplied pulley bolts into the harmonic damper. Torque the center crankshaft bolt to 60 lb/ft. Torque the three pulley bolts to 30 lb/ft. Then adjust the three accessory belts to the proper tension.

FUEL AND IGNITION SYSTEMS
Follow the carburetor size recommendations given in these instructions and also in the Weiand Supercharger Technical Manual. Since most pleasure marine applications are usually operated at RPMs below 5500, you can usually choose your carburetor from the low end of the recommended size range. Additionally, if your application calls for a Coast Guard approved carburetor and spark arrestor style air cleaner, make sure that you use Coast Guard certified products.

To avoid engine damage, your carburetor **must** be modified for marine use. We strongly recommend that you either have your carbs modified by, or purchase carbs from, a marine specialist who is experienced in supercharged applications. The most important modification is commonly called "boost referencing the power valve." If you do not have this modification, here is what can happen:

At part throttle planing speed, your engine will be producing some boost, but the carburetor can still have a high amount of vacuum under it. In this condition, this high vacuum signal will not allow the power valve to operate properly and the correct amount of fuel will not be delivered for the boost provided by the blower. A lean condition can result with possible engine damage.

There are a number of carburetor specialists who have experience in supercharged marine applications. If you need help locating someone, please call the Holley Technical Service department for recommendations at (270) 781-9741.

We recommend that you utilize some type of detonation alert device to detect any spark knock. We do not recommend the use of a boost retard system. While these systems are fine for street vehicle applications where the ignition typically is retarded for short periods of time. In marine use, where the blower is basically in the boost mode all the time, running the ignition constantly retarded under power will cause the engine to run hot and lead to exhaust valve failure.

The stock ignition system on most Mercruiser marine engines is not suitable for use with a blower. The stock V-8 module with one of Mercruiser's V-6 modules or using a boost retard system, such as the Annihilator 800-300 system, will provide the proper operating advance. We recommend a total of 28° of advance. Contact Holley Technical Service at (270) 781-9741 for additional information on marine ignition systems.

Fuel lines should be a minimum of 3/8" i.d. and fuel pump should provide 6 to 7 psi at wide-open throttle. Fuel pressure gauges may be mounted directly on the engine or on the dash using an isolator. Note that insufficient fuel flow is the single biggest contributor to engine failure on supercharged marine engines, so it is very important to make sure that your engine is receiving the proper amount of fuel at wide-open throttle.

It is possible that on certain stock marine installations, the existing fuel pump and fuel lines are inadequate. We recommend an electric pump that is rated at least 130 gph and it should be a Coast Guard approved marine rated pump. Additionally, stock fuel filters or water separators may be overly restrictive and may have to be replaced with units that provide more fuel flow in order to maintain a minimum of 6 psi fuel pressure at wide-open throttle.

If you incorporate a fuel pressure regulator into your fuel system, we recommend that you use a high-flow unit, such as Holley P/N 12-803 for single carb installation or Holley P/N 12-707 for a two carb installation.

Once you have your marine supercharger installed, we strongly recommend on you initial test run that you hook up a fuel pressure gauge where the boat operator or passenger can observe it while the boat is under full power. This could even be a temporary hookup just for test purposes.

When the boat is taken to wide-open throttle, you must maintain a minimum of 6 psi of fuel pressure at the carburetor. If you do not have at least 6 psi, do not continue to operate the boat until the proper fuel pressure is produced.
Inadequate fuel pressure can usually be traced to one or more of the following problems:

1. Fuel pump is too small. (Use 130 gph marine rated pump.)
2. Fuel lines are too small. (Use 1/2" lines and fittings.)
3. Restrictions in the system:
   a. Water separator (Fram or Mercury Marine high flow units are required.)
   b. Fuel pressure regulator (use a Holley P/N 12-803 for single carb or Holley P/N 12-707 for dual carbs.)
4. Inadequate vent in fuel tank. (Install a larger vent.)

NOTE: It is extremely important that proper fuel pressure is provided to a supercharged marine engine. Otherwise, severe engine damage can occur if the engine is run too lean.

While a 130 gph rated fuel pump is technically much larger than what is required in most applications, experience has shown that this is an area where it is advisable to incorporate a significant safety factor to avoid any fuel supply problems.

PROP CHANGES
With additional horsepower available from a blown engine, you can typically run a prop with more pitch. Assuming that you had the correct prop on your engine before the blower was installed, you can typically add 1/2" of prop pitch per additional 300 RPM increase achieved with the blower.

Additionally, you may find that performance is improved by going from the three blade prop to a four blade prop. This will reduce the tendency for prop cavitation caused by rapid throttle advancement at low boat speeds.

BLOWER BOOST
Weiand Pro-Marine supercharger kits can be installed on a stock engine as long as the static compression ratio is 8.5:1 or less. The engine speed should be limited to 5500 RPM. Most stock engines are equipped with cast pistons, cast crankshaft, two bolt main caps, and a small camshaft, requiring you to run very low boost pressure, 2 to 4 lbs. maximum. Higher boost levels **will** cause detonation and engine failure.

You may elect to run a different blower drive ratio than that supplied in your kit. If so, please consult the charts or the Weiand catalog for details on optional pulleys available. Also, be sure to read the section on boost in the Weiand Supercharger Technical Manual.

Note that marine applications should not get too aggressive on boost pressure. Because marine engines essentially are in boost all of the time (compared with street driven vehicles, which only see boost for short periods), it is preferable to keep the maximum amount of boost in the 4 to 7 psi range. If you attempt to run excessive amounts of boost on a marine engine, you may experience problems with burned valves or piston damage.

CONCLUSION
We recommend that you work with an experienced marine supercharger specialist when installing a WEIAND supercharger on your marine application. It is important to remember that marine installations are quite different from installation on street driven vehicles, since a marine engine is typically under boost 100% of the time, whereas a street driven blown engine is usually under boost for very limited periods. The requirements that the supercharger places on a marine engine are therefore quite different and you will find that working with an experienced marine specialist will provide you with a successful installation.

A properly installed and set up WEIAND supercharged engine can provide substantial performance improvements and still deliver a very high level of reliability.

CHRYLSER 392-426 HEMI SPECIAL INSTRUCTIONS PART C

Installing a 671 on your 392 Hemi or an 871 on your 426 Hemi is not much different from installing a 671 on a Chevy. Below are the changes to each step necessary to complete your installation. If a step is not listed below, that step is universal and you can follow the instructions printed within.

STEP 7: 392 & 426

Remove six bolts from damper. Remove the large center bolt and harmonic damper. Slide the 1/8" thick damper spacer ring over the crank snout and install the damper. Torque to 90-100 lb/ft.

NOTE: 392

Your timing cover must be modified to clear the water pump. You can purchase a timing cover with the needed modifications from:

Junior Thompson Enterprises
(310)-868-2761

STEP 8: 392 & 426

Install the 2V-belt accessory pulley and 3" blower pulley on the damper using the six 5/16"-8 x 2 1/2" bolts provided. Torque to 25 lb/ft. using red Loctite.

STEP 12: 392-671 & 426-871

The 392-671 installation requires the use of the supplied 1/2" thick spacer between the blower steel mounting flange and the top pulley.

The 426-871 installation requires the use of the supplied 1-3/4" thick spacer between the blower steel mounting flange and the top pulley.

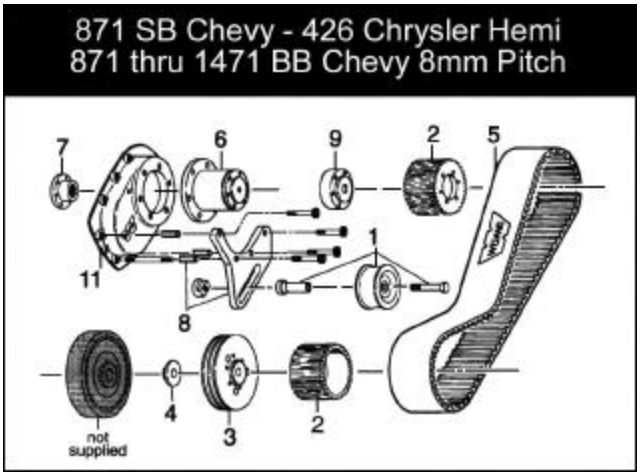
STEP 13: 392

Install the remote thermostat housing bracket on the two front left (driver's side) studs. Then install nuts and torque following the regular Step 13 instructions.

NOTE: All the fittings and hoses needed to reroute your water system can be purchased from your local dealer using Earl's part numbers listed below.

PARTS NEEDED

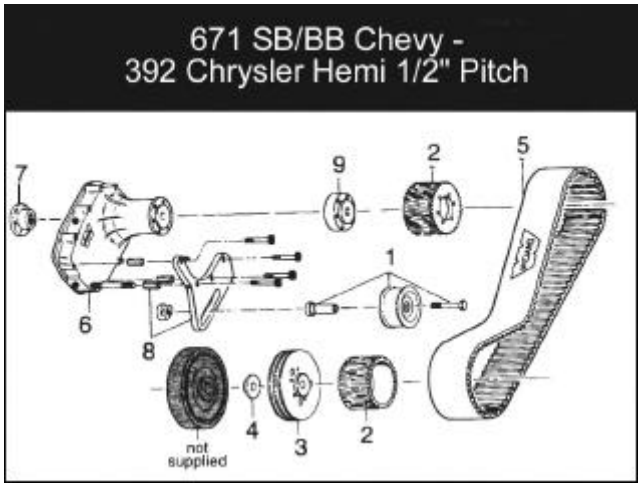
QUANTITY	EARL'S PART NUMBER
1	982210
2	981610
1	800110
2	809110
1	829010
6"	400100



Individual Component Parts List for 8mm Street-Marine/Comp Drives (Listed parts are included in 871, 8mm kits).

Ref. #	Description	P/N
1	Idler pulley assembly	7027
2	8mm drive pulley, specify tooth count, see charts.	
3a	2V accessory drive pulley (1 1/4" thick, 2" register), Chevy SB & BB Street	7109
3b	3V accessory drive pulley (2 1/4" thick, 2" register), Chevy Marine BB only.	7114
3c	2V accessory drive pulley (1 1/4" thick, 2" register), Chrysler 426 Hemi	7084
4a	Locating pilot, SB Chevy accessory drive pulley	7037
4b	Locating pilot, BB Chevy accessory drive pulley	7038
5	Drive belt, 8mm pitch, 1440mm long x 75mm wide	7100
6a	Nose drive assembly (3 3/4" long, 2" register), SB Chevy only.	7103
6b	Nose drive assembly (4 13/16" long, 2" register), BB Chevy Street/Marine, 426 Chrysler Hemi	7104
7a	Coupler-nose drive to supercharger, SB Chevy	7034
7b	Coupler-nose drive to supercharger, BB Chevy, 426 Chrysler Hemi	7035
8a	Idler pulley bracket, SB Chevy (incl. hardware)	7069
8b	Idler pulley bracket, BB Chevy for supercharger kits 7186/7186P/7190P/7195P (incl. hardware)	7070
8c	Idler pulley bracket, 426 Chrysler Hemi (incl. hardware)	7073P
8d	Idler pulley bracket, BB Chevy for supercharger kits 7191P/7186P/7196P (incl. hardware)	7071P
8e	Idler pulley bracket, BB Chevy for supercharger kits 7192P/7193P/7197P(incl. hardware)	7072P
9a	1" spacer—upper pulley to nose drive, BB Chevy Street only (2" register)	7106
9b	2" spacer—upper pulley to nose drive, BB Chevy Marine only (2" register)	7108
9c	1 3/4" spacer—upper pulley to nose drive, 426 Chrysler Hemi (2" register)	7107
11	Front gear cover (depth: 2")	7039

For polished components, add a "P" after the part number when ordering.



Components Parts List for 1/2" Pitch Street Drives (Listed parts are included in 671, 1/2" pitch kits).

Ref. #	Description	P/N
1	Idler pulley assembly	7027
2	1/2" pitch drive pulley, specify tooth count, see charts (2-1/4" register).	7029
3a	2V accessory drive pulley (1-1/4" thick, 2-1/4" register), 392 Hemi only	7083
3b	2V accessory drive pulley (1-1/4" thick, 2-1/4" register), SB & BB Chevy only.	7036
4a	Locating pilot, SB Chevy accessory drive pulley	7037
4b	Locating pilot, BB Chevy accessory drive pulley	7038
5	Drive belt, 1/2" pitch, Gilmer style	See chart
6	Gear cover/nose drive assy. (6-13/16" long, 2-1/4" register).	7024
7	Coupler-nose drive to supercharger	7035
8a	Idler pulley bracket, SB Chevy 1/2" pitch (incl. hardware).	7065
8b	Idler pulley bracket, BB Chevy 1/2" pitch (incl. hardware).	7066
8c	Idler pulley bracket, 392 Chrysler Hemi 1/2" pitch (incl. hardware).	7064
9a	2" spacer—upper pulley to nose drive, Chevy BB (2-1/4" register).	7055
9b	1/2" spacer—upper pulley to nose drive, 392 Hemi (2-1/4" register).	7053

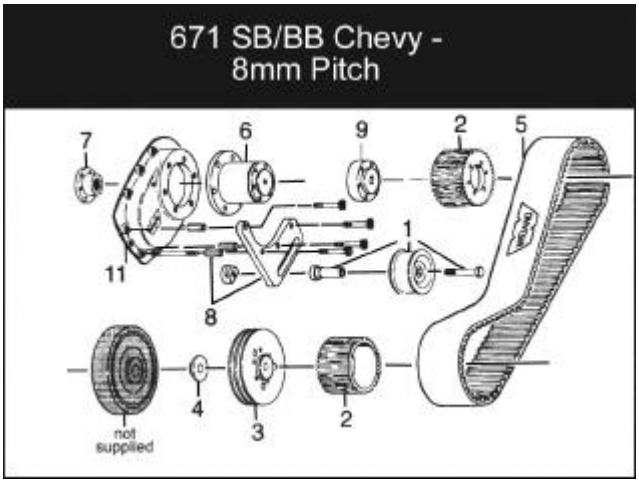
For polished components, add a "P" after the part number when ordering.

OTHER DRIVE COMPONENTS AVAILABLE

Ref. #	Description	P/N
3	1V accessory pulley (3/4" thick, 2-1/4" register), SB & BB Chevy	7059*
6	Nose drive assembly (3-3/4" long, 2-1/4" register).	7044**

* Using 1V accessory pulley requires modifying spacing on drive pulley and idler pulley bracket.

**Used for 2 piece competition style 1/2" pitch front cover.



Components Parts List for 8mm Street/Comp Drives (Listed parts are included in 671, 8mm kits.)

Ref. #	Description	P/N
1	Idler pulley assembly	7027
2	8mm drive pulley, specify tooth count, see charts. (2" register)	7109
3	2V accessory drive pulley (1-1/4" thick, 2" register)	7113
4a	Locating pilot, SB Chevy accessory drive pulley	7037
4b	Locating pilot, BB Chevy accessory drive pulley	7038
5	Drive belt, 8mm pitch, 1440mm long x 75mm wide	7100
6	Nose drive assembly (4-13/16" long, 2" register)	7104
7	Coupler-nose drive to supercharger	7035
8a	Idler pulley bracket, SB Chevy (incl. hardware)	7067
8b	Idler pulley bracket, BB Chevy (incl. hardware)	7068
9	2" spacer-upper pulley to nose drive, BB Chevy (2" register)	7108
11	Front gear cover (depth: 2")	7039

DETERMINING DRIVE RATIOS FOR 671-1471

For 1/2" Pitch Pulley
Top Pulley

	32	33	34	35	36	37	38	39
32	0 [64]	-3.0 [65]	-5.9 [66]	-8.6 [67]	-11.1 [68]	-13.5 [69]	-15.8 [70]	-17.9 [71]
33	3.1 [65]	0 [66]	-2.9 [67]	-5.7 [68]	-8.3 [69]	-10.8 [70]	-13.1 [71]	-15.4 [72]
34	6.3 [66]	3.0 [67]	0 [68]	-2.8 [69]	-5.5 [70]	-8.1 [71]	-10.5 [72]	-12.8 [73]
35	9.4 [67]	6.1 [68]	2.9 [69]	0 [70]	-2.8 [71]	-5.4 [72]	-7.9 [73]	-10.2 [74]
36	12.5 [68]	9.1 [69]	5.9 [70]	2.8 [71]	0 [72]	-2.7 [73]	-5.2 [74]	-7.7 [75]
37	15.6 [69]	12.1 [70]	8.8 [71]	5.7 [72]	2.8 [73]	0 [74]	-2.6 [75]	-5.1 [76]
38	18.7 [70]	15.2 [71]	11.7 [72]	8.5 [73]	5.6 [74]	2.7 [75]	0 [76]	-2.5 [77]
39	21.9 [71]	18.2 [72]	14.7 [73]	11.4 [74]	8.3 [75]	5.4 [76]	2.6 [77]	0 [78]

O" represents a 1:1 drive ratio. Number in upper right hand corner of each cell represents total teeth count.

1/2" Pitch Pulleys for 671 Superchargers

No. of Teeth on Pulley	Pulley Part Number
32	7029-32
33	7029-33
34	7029-34
35	7029-35
36	7029-36
37	7029-37
38	7029-38
39	7029-39

For 8mm Pitch Pulley
Top Pulley

	50	51	52	53	54	55	57	59	61	63
50	0 [100]	-2.0 [101]	-3.8 [102]	-3.8 [103]	-7.4 [104]	-9.4 [105]	-12.3 [107]	-15.3 [109]	-18.0 [111]	-20.0 [113]
51	2.0 [101]	0 [102]	-1.9 [103]	-3.8 [104]	-5.6 [105]	-7.3 [106]	-10.5 [108]	-13.6 [110]	-16.4 [112]	-19.0 [114]
52	4.0 [102]	2.0 [103]	0 [104]	-1.9 [105]	-3.7 [106]	-5.5 [107]	-8.8 [109]	-11.9 [111]	-14.8 [113]	-17.5 [115]
53	6.0 [103]	3.9 [104]	1.9 [105]	0 [106]	-1.9 [107]	-3.6 [108]	-7.0 [110]	-10.2 [112]	-13.1 [114]	-15.9 [116]
54	8.0 [104]	5.9 [105]	3.8 [106]	1.9 [107]	0 [108]	-1.8 [109]	-5.3 [111]	-8.5 [113]	-11.5 [115]	-14.3 [117]
55	10.0 [106]	7.8 [106]	5.8 [107]	3.8 [108]	1.9 [109]	0 [110]	-3.5 [112]	-6.8 [114]	-9.8 [116]	-12.7 [118]
57	14.0 [107]	11.8 [108]	9.6 [109]	7.5 [110]	5.6 [111]	3.6 [112]	0 [114]	-3.4 [116]	-6.6 [118]	-9.5 [120]
59	18.0 [109]	15.7 [110]	13.5 [111]	11.3 [112]	9.3 [113]	7.3 [114]	3.5 [116]	0 [118]	-3.3 [120]	-6.3 [122]
61	22.0 [111]	19.6 [112]	17.3 [113]	15.1 [114]	13.0 [115]	10.9 [116]	7.0 [117]	3.4 [118]	0 [120]	-3.2 [122]
63	26.0 [113]	23.5 [114]	21.2 [115]	18.9 [116]	16.7 [117]	14.5 [118]	10.5 [120]	6.8 [122]	3.3 [124]	0 [126]

0" represents a 1:1 drive ratio. Number in upper right hand corner of each cell represents total teeth count.

8mm Pulleys for 671-1471 Superchargers

No. of Teeth on Pulley	Pulley Part Number
50	7109-50
51	7109-51
52	7109-52
53	7109-53
54	7109-54
55	7109-55
57	7109-57
59	7109-59
61	7109-61
63	7109-63

Supercharger Kit
Drive Ratios

Application	Standard Drive Ratio % ("-" means underdriven)					
Chevy small block 350	-10.5	-11.5	-14.3	-	-	-
Chevy Big Block 454-502	-7.9	-8.5	-11.5	-8.5	-13.1	-19.0
Chrysler 392 Hemi	-10.5	-	-	-	-	-
Chrysler 426 Hemi	-	-	-11.5	-	-	-
	1/2"	**8mm**	**8mm**	**8mm**	**8mm**	**8mm**
	671		**871**	**1071**	**1271**	**1471**
	Supercharger Size & Drive Pitch					

Determining Correct Belt Length When Using Optional Pulleys

To find the belt length required and the part number for that belt, do the following: Add the number of teeth on your top and bottom pulley. Look in the belt chart below in the column under the engine you are using and find the number that equals the total teeth on your pulleys, then read to the left for the proper belt part number. For example, if you have a 38 tooth top pulley and a 34 tooth bottom pulley, the total is 72 teeth. If you have a small block, you would use a #7012 55.5" long belt. If you had a standard deck big block, you would use a #7013 58.5" long belt. If you had a tall big block, you would use a #7009 60" long belt.

3" Wide Supercharger Drive Belts
Street and Marine/Comp Drive Belts
(Gilmer Style 1/2" Pitch)[2]

Belt Length	3" P/N	Chev. 262-400 V-8	Chev. 396-454-502 V-8 Standard Deck	Chev. Tall Deck[1]	Chrysler 392 Hemi 671
54.0"	**7006**	64 to 70			
55.5"	**7012**	67 to 77			64 to 67
56.0"	**7007**	70 to 78	64 to 66		65 to 69
57.0"	**7008**	74 to 78	64 to 70		69 to 73
58.5"	**7013**		68 to 77	64 to 69	75 to 78
60.0"	**7009**		75 to 78	65 to 76	

[1] The belts listed are for WEIAND supercharger kits installed on a Chevrolet BB tall deck with either a WEIAND #8204 or #8206 manifold spacer kit or WEIAND's new manifold #7152 (satin) or #7152P (polished). See WEIAND catalog.

[2] 1/2" pitch measurement is taken from center of one tooth to center of next.

Holley Performance Products
P.O. Box 10360
Bowling Green, KY 42102-7360

Technical Service: 270-781-9741

Printed in U.S.A.

Holley
Performance Products

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