

**Powerdyne Automotive Products Inc.**  
*Installation Instructions, 1996-1999 Chevy/GMC  
S-10 Pickup/SUV, 4.3L Engine.*

This manual is intended for the installation of Powerdyne Supercharger kit, Part Number K10525 on Chevrolet and GMC S-10/15 Pickup and SUV's with the 4.3 liter Vortec motor, model years 1996-1999. This kit is designed to be 50 state smog legal and as of the writing of this manual C.A.R.B. (California Air Resources Board) exemption is pending. This kit already complies with EPA memorandum 1A, making it smog legal in 49 states providing your states pollution laws do not supercede EPA memorandum 1A.

**It is very important that these instructions be followed exactly. Premium unleaded fuel with an octane rating of 92 or higher must be used with this Supercharger installed at all times. Failure to use the proper fuel may cause detonation (pinging) and cause severe engine damage. Never change the crank Pulley or the Supercharger Pulley as this will void the factory warranty (see warranty document on the preceding page) and may cause severe engine damage.**

**To help you with the installation, please read the entire step before proceeding with that step.**

**Only install this kit on an engine with 0 (zero) fuel pressure to avoid fire, injury and possible damage. Make sure that you have a chemical fire extinguisher handy when installing and/or testing any part of the fuel system. DO NOT install any part of the fuel system, or break open any fuel lines near to any source of heat or flame such as a water heater or cigarette. If you are not a qualified mechanic do not attempt this installation. Instead take the vehicle to a qualified mechanic.**

**Component Removal:**

- A.** Disconnect battery cables from battery.
- B.** Remove fan shroud and fan.
- C.** Remove entire air inlet Assy. including the filter box and the IAT sensor.
- D.** Remove vent tube from right side valve cover.
- E.** Remove accessory drive belt.
- F.** Remove the tensioner from the alternator mounting bracket.
- G.** Remove the alternator and it's mounting bracket.
- H.** Remove 3/8" stud from right side cylinder head.
- I.** Drain about 1 gallon of fluid from radiator.
- J.** Remove the rubber heater hoses that run from the heater core to the water pump and intake manifold

**Step 1.** Connect the supplied 5/8" x 32" hose in place of the hose removed in step "J" above. The 3/4" heater hose going to the intake manifold from the water pump must now be trimmed 1" on the manifold end and 3" on the firewall end and reconnected. See Figure 1 (next page)

**Step 2.** Install dipstick relocation spacer.

**Step 3.** Before installing the Supercharger Mounting Bracket, you must bolt the Assy. together. See Figure 2. You will need the following parts:

- A.** Supercharger Mounting bracket.
- B.** 3/8"-16 x 6" bolts (4)
- C.** 3/8"-16 x 7" bolt. (1)
- D.** 3/8" AN washers. (5)
- E.** 3/8" SAE washers. (2)
- F.** 3/8" nuts. (2)
- G.** 3/4" x 4.465" spacers. (4)
- H.** 3/4" x 2.465" spacers (1)
- I.** 1/4" rear alternator spacers. (1)
- J.** Engine mounting plate.
- K.** Smooth idler pulley
- L.** 8mm x 30mm bolt (1)
- M.** 5/16 flat washer (1)
- N.** Accessory tensioner.

Bolt entire Assy. together as shown in figure 2, Place the 1/4" Alt. spacer in the pocket on the engine mounting plate. Secure the Alt. to the threaded boss on the rear of Alt. using the 8mm x 30mm bolt and 5/16 flat washer.

Use the 2.465" spacer, 3/8-16 x 6" bolt, 2 washers and 3/8-16 nut to secure alternator to the supercharger bracket. Use 3/8-16 x 7" bolt through the smooth idler pulley, tensioner shaft, supercharger bracket, 4.465" spacer and engine mounting plate. Assemble the rest of the bracket assemble as shown in figure 2.



Figure 1.



Figure 2

**Step 4.** Install accessory belt tensioner to Supercharger mounting bracket using 3/8-16 x 1" bolt, SAE washer, split washer supplied. Now install entire Assy. to vehicle and tighten all bolts and nuts securely. See Figure's 2 and 3.

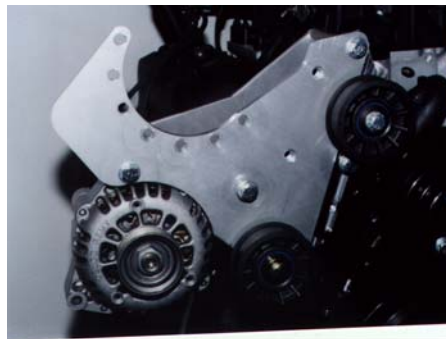


Figure 3.

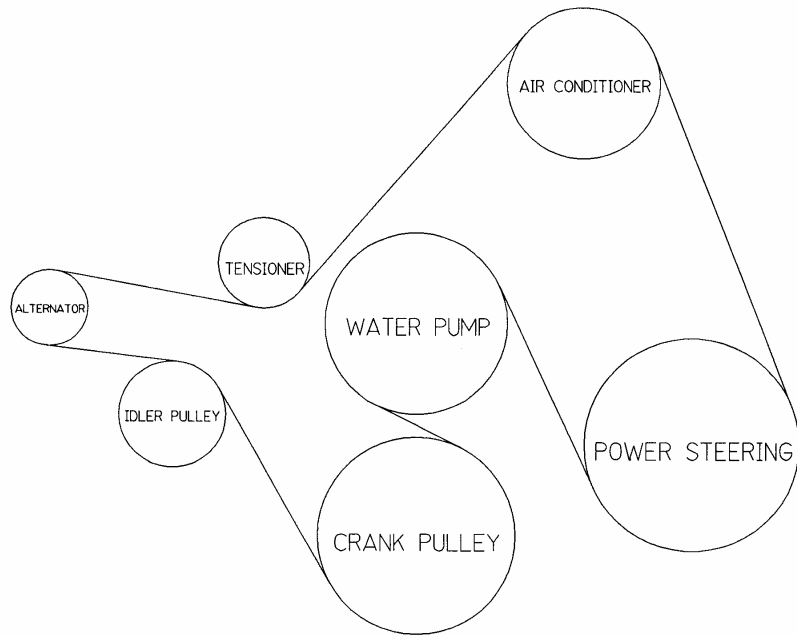
**Step 5.** Unbolt the stock crank pulley from balancer. Set the supplied crank pulley spacer in the crank pulley, then set the new supercharger crank pulley on top of the spacer. Using the supplied 3/8-24 x 3" bolts, the supplied 7/16-20 x 4" bolt and the washers provided, along with the stock center bolt washer, reinstall the entire crank pulley Assy. Make sure all bolts are evenly and securely tightened.

**Step 6.** Attach the provided fan spacer and reinstall the fan. Make sure that both are tight and secure.

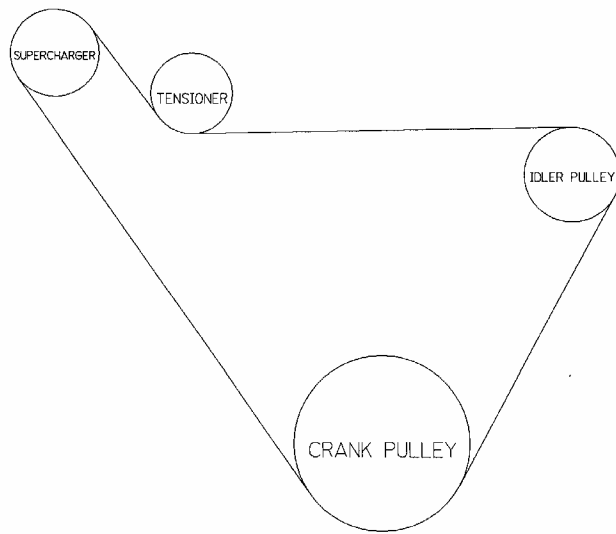
**Step 7.** Install the new accessory belt (K060994) using the diagram shown in Figure 4. (next page) **Note:** GM makes 3 different size Air Compressor's for this vehicle. Powerdyne has included the most popular size. If you need to purchase a different belt to fit. Please return the new supplied belt and a copy of your receipt. Powerdyne will reimburse you for the correct belt.

**Step 8.** Mount Supercharger to mounting plate using the (7) 3/8-16 x 1" Cap head screws and AN washers supplied. Install ribbed idler pulley, standoff, pulley retainer and 10mm bolt and washer to threaded boss on AC bracket.

**Step 9.** Install the provided supercharger drive belt using the supplied belt tensioner as per Figure 4A. (Next Page). Make sure the tensioner is installed "long side" down. Tension belt so that you cannot turn the slack side more that 120 degrees with your fingers. (Good and Tight!) Re-install the fan shroud.

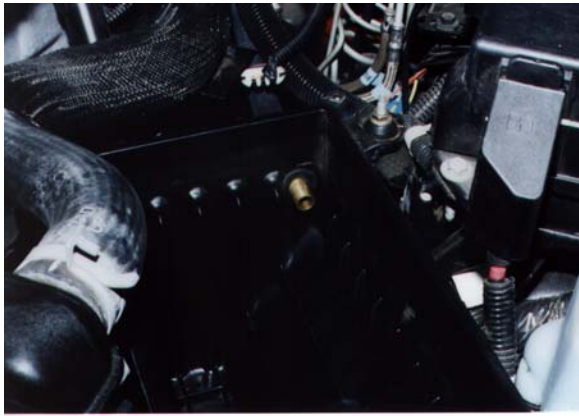


**Figure 4**



**Figure 4A**

**Step 10.** Drill a 3/4" hole in the factory air filter housing. Make sure to place the hole low enough so that it does not interfere with the air filter. See figure 5 for placement. Install the provided grommet and hose adapter as shown in figure 5.



**Figure 5.**

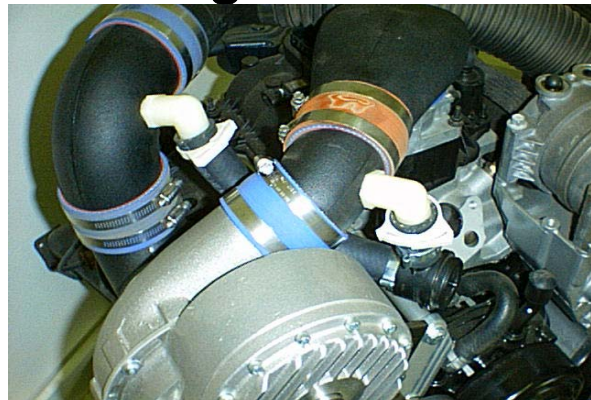
**Step 11.** Use the provided 3/4" elbow and install in the right side valve cover in the hole left open by the vent tube, removed in Step "D" of the Component Removal section. Attach the provided 3/4" x 38" hose to the elbow and the other end to the 3/4" fitting on the Air Filter box.

**Step 12.** Remove the entire throttle body plenum.

**Step 13.** Attach the Powerdyne discharge tube between the supercharger and the supplied throttle body plenum. Use the provided 3" silicone sleeve and #48 clamps to attach to the supercharger. The throttle body side will use a 3" sleeve as a spacer and a 3 1/2" sleeve over it. Use the provided #52 clamps to secure. Install the factory air temperature sensor in the hole with the grommet in it, in the discharge tube. Remove IAT sensor wires back to the tee in wire harness. Install 9" wire sleeve and reconnect wire to the sensor. See Figure 6



**Figure 6**

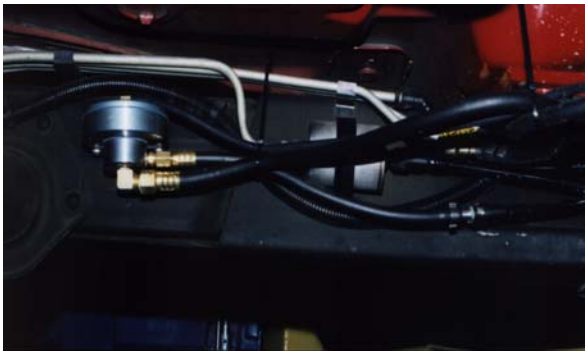


**Figure 6A**

**Step 14.** Use the 3/4"x 3 1/2" orange sleeve as a spacer on the MAF. Install plastic elbow and flex hose as shown in figure 6A. Install bypass valve with the 5/32" port facing forward and connect the long 1" hose to the 90 deg fitting on the intake elbow, connect the short 1" hose to the 90 deg fitting on the discharge tube and secure both ends with the nylon clamps provided.

**Step 15.** Using the Fuel Regulation Unit (FRU) as a template, mark and drill the frame rail behind the fuel filter, as high as possible, using a 9/64" drill bit. See Figure 7. Disconnect the factory fuel return line at the fitting located in front of the filter. This will cause any fuel in the line to leak out of the line. catch the fuel in a pan, Make sure to not disconnect the feed line. (The feed line is the line that comes out of the filter and runs to the throttle body).

Connect the supplied 12" fuel line to the fitting on the side of the FRU. Connect the 24" female line to the fitting on the bottom of the FRU. Connect the FRU to the frame rail using the screws provided. Connect the female line to the male part of the fitting on the fuel return line. connect the male line to the female part of the fitting on the fuel return line. Use the supplied tie wraps to secure the FRU lines to the frame rail. Make sure that FRU lines are secured out of the way and cannot be cut or snagged by road debris. See figure 7.



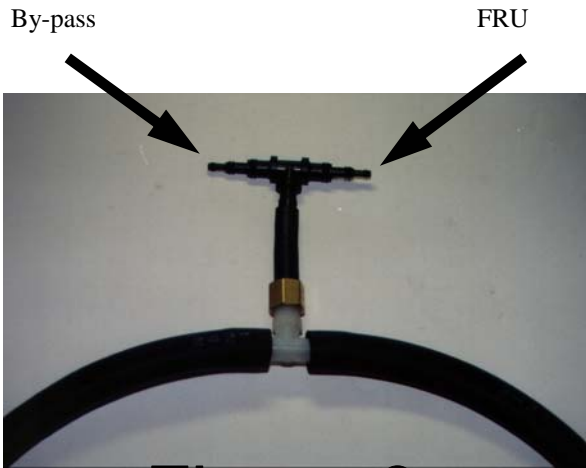
## Figure 7

**Step 16.** Remove the 1/2" brake booster vacuum line from the intake manifold. Cut the line Approx. 3" from the intake manifold side and install the provided 1/2" adapter tee. See Figure 8.



## Figure 8

**Step 17.** Run the 5/32 x 80" line from the fitting on the top of the FRU to one side of the 5/32" tee. Route the 5/32" x 27" vacuum line from the tee to the bypass valve installed earlier. See Figure 9. Use the supplied wire ties to secure the vacuum line away from any heat source or moving parts. Make sure to leave a little slack on the line to allow for engine torque.



**Figure 9**

**Step 18.** Refill the radiator. Re-connect the battery cables. Turn the key to the on position without starting the vehicle. Check FRU lines and connections for leaks. If there is **any** leakage whatsoever, immediately turn the ignition off and fix the problem before proceeding.

**Step 19.** Turn the engine over a few times without starting it. Check for belt alignment and tension. **Check to make sure** that you tied all lines : Fuel, electrical and vacuum, away from any heat source or moving parts and left room for engine torque where necessary. Start engine and let idle for a few minutes. Shut of engine and re-check for belt alignment and tension. Re-check for fuel leaks.

**Step 20.** Drive vehicle under boost for a very short period and listen for any sign of pinging. Re-check for fuel leaks. If vehicle pings or has any sign of fuel leakage, correct the condition before driving or starting vehicle.

## Suggested add-ons:

While your new Powerdyne Supercharger is designed to work flawlessly with your stock vehicle, many customers ask us what else they can do to their vehicle to even further improve the performance. We would make the following suggestions:

1. A good "Cat-Back" exhaust system will free up your exhaust back pressure and add substantial horsepower. We recommend the Borla stainless steel system.