



Supplemental Installation Instructions

Holley 174 cid Power Charger

Supercharger for Ford 302 cid Small Block Engine

P/N 77-174FSB-1 and 77-174FSBP-1

This supercharger kit is designed to fit 302 cid small block Ford engines. It will not fit any 351 cid or larger engines. (Adapter kits to fit the 351 Windsor are available from other companies). The 77-174FSB-1 kit has a satin finish, while the 77-174FSBP-1 is polished. Either the large or small diameter Ford distributor can be used with this kit. The supercharger used in this kit is the 174 cid unit. The kit now includes a ten rib drive belt and a new design idler (Fig. 1).



Figure 1

This kit is designed to give a boost level of 9 psi or more. The high boost levels provided by this blower require major engine modifications to avoid detonation and serious engine damage. See the General Supercharger Installation Instructions and Technical Manual included with this kit for more details of the types of modifications required.

This kit will fit with most factory installed engine accessories driven by V-belts. It will fit with up to a three groove crankshaft pulley. The kit is intended to be used

with the later model, long harmonic balancer. If you have an early model short (flat) balancer, you will need to use Holley spacer #90683 (sold separately). Adapter kit, #90684, for late model Mustang or other engines with a single serpentine drive for all of the engine accessories is also included with this kit.

The supercharger is complete in this kit, except for the driven (upper) pulley. This must be purchased separately since different size pulleys are required for different boost levels. The chart below shows the part numbers of the driven pulleys for different boost levels with 302 cid engines. These boost levels are approximate and will vary with different camshafts.

DRIVEN PULLEY RECOMMENDATIONS						
For 302 cid Engine						
8-9 psi	10-11 psi	12-13 psi	14-15 psi	16-17 psi	18-19 psi	20-21 psi
90639	90544	90543	90542	90545	90541	90634

The basic installation of the supercharger is covered in the General Installation Instructions packed with the supercharger. The only areas where this kit requires different procedures are:

CRANK PULLEY: The crankshaft spacer and 10 rib blower drive pulley are attached to the harmonic balancer with four supplied bolts. For late model engines, you will need to install the tubular sheet metal spacer into the pilot in the harmonic balancer and install the Holley crank spacer into the tubular sheet metal spacer. If you have the early, short harmonic balancer, you will need to use Holley spacer #90683, in addition to the spacer included with this kit.

INTAKE MANIFOLD: The 174 cid blower is too long to allow for the use of an exhaust gas recirculation valve (EGR valve). A block-off plate is installed on the pad at the rear of the manifold that is used for an EGR valve with the 144 cid blower. The manifold has provision for exhaust

heat, but if you are not in a cold climate, the exhaust crossover passages in the intake manifold can be blocked off. In average to warm climates, the exhaust heat is not needed for driveability.

IDLER ASSEMBLY: Bolt the cast idler bracket to the four tapped holes on the bottom of the blower drive housing, using four 5/16-18 x 1.25" screws and AN washers (see Fig. 2). The fixed idler pulley is part of this idler assembly. Bolt the spring-loaded pulley assembly to the holes in the bracket in the position specified in the table below (see Fig. 3). This is a preliminary location for the idler. It may be necessary to move it in or out later, so that the distance between the end of the fixed tube and the idler support is between .30" to .50" (5/16" to 1/2"). See Figure 5 in the general installation instructions.

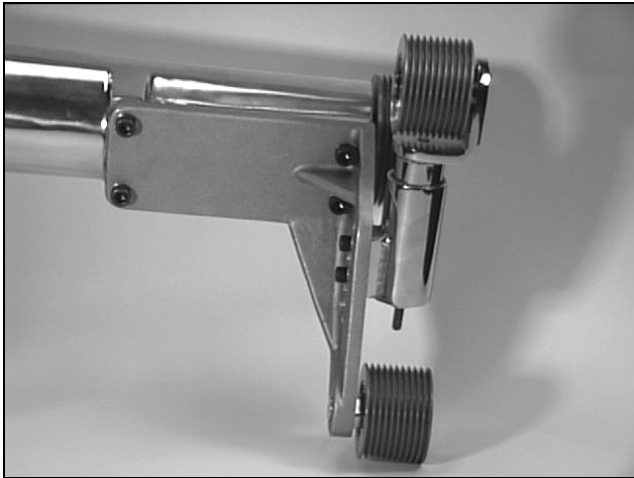


Figure 2

CARBURETOR: A 750 CFM carburetor can be used on this engine for up to 12 psi boost and for street driving. An 850 CFM carburetor is needed for higher boost and high-speed operation. If you use a Holley carburetor with center-hung floats, you will need to use a 45° elbow fitting on the front float bowl to clear the supercharger housing.

IDLER MOUNTING LOCATION CHART	
Pulley Part Number	Idler Mounting Location
90639	A
90544	C
90543	E
90542	G
90545	H
90541	I
90634	I

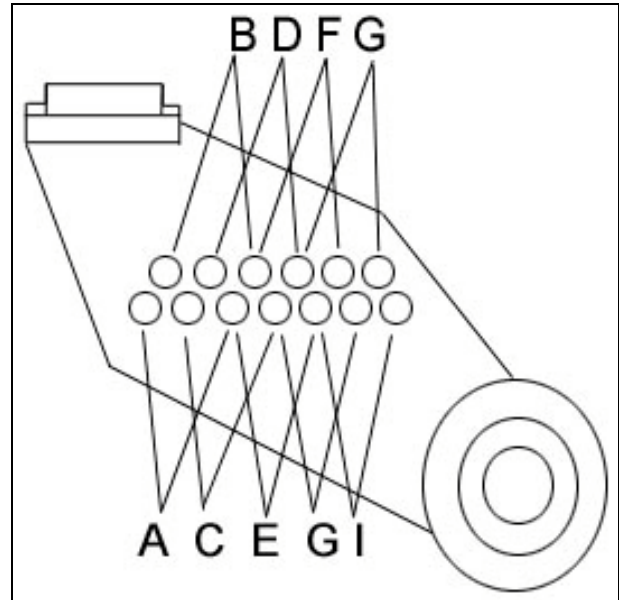


Figure 3