

### Blower Hardware Check List - for putting a supercharger on your car.

This document deals with installing a roots type supercharger on your engine/car. All prices are in Australian Dollars. Our standard price is marked as LIST Price and racers who carry our stickers on their vehicles are entitled to the "Racers Decal Discount".

We often get asked by a client for a "supercharger kit" to put a supercharger on their engine. Because there is no one kit due to the range of differences in engines, superchargers, and applications.



Street, drag and boat applications often differ in hardware to accomplish the desired task. We will discuss each here and you get to pick the hardware you want or you can call us and we will guide you in your selection. Usually when we are asked for a "supercharger kit" this is a client wanting to put a blower on a street application. Street applications are slightly different than either drag race or boat applications. Because of the complexities of getting the blower belt into a space in front of the engine can be a challenge getting it to clear, water pumps, alternators, power steering and even in some situations air conditioning, Street applications are much different than race applications and street configurations are not desirable in a race environment. There are some suppliers that supply a street blower package but don't ever think it will just bolt on your engine, if it does with no changes, modifications or additional hardware it is a rare event indeed. We like satisfied clients, and do not want the drama of an unhappy client. We work hard to make the client happy.



On this document we discuss the ranges of hardware and applications, to see the specific hardware LOWE has available for each situation please see the respective literature. After you have a chance to have a look at this information then we can discuss exactly what you need for your application. Often it is much easier if you can just chat with someone about what you need and how to do what you want to do. We are always available to speak to and will assist you in any way we can, so please call us. My phone number is at the bottom of every page.

**Supercharger** – often clients come to us having already purchased their supercharger or blower. Regardless of this, if you already own a blower or not we can discuss with you if it is the optimum for your application or even if it is acceptable for the application. For purposes of this discussion paper we will presume the blower or supercharger (same thing) you are going to use is either a 6-71 or all the way up to a 16-71. Blower sizes are measured by the length of the blower rotor, which is usually the length of the blower case not including the end covers.

6-71 has a rotor 15 inches long  
8-71 has a rotor 16 inches long  
10-71 has a rotor 17 inches long  
12-71 has a rotor 18 inches long  
14-71 has a rotor 19 inches long  
16-71 has a rotor 20 inches long

There are other blowers available but these are the common ones. Uncommon blowers will require different (non standard) mounting and drive hardware and inlet systems which often inflates the cost of installation of those blowers often creating a situation where it would have been less expensive,



easier and made more power with a standard blower. Most people know the original 6-71 were originally used on 6-71 Detroit Diesel engines. This means they were 6 cylinder engines with 71 cubic inches per cylinder or a 426 cubic inch engine. These are two stroke engines and in this application they were only meant to start the air flow through the engine and push out the exhaust gasses. In this application there was little if any “boost” as it was simply a blow through design. Although the design was originally patented in 1860 as an air pump for blast furnaces there have been many technical improvements in the design to allow the design to compress air more efficiently. Stock 6-71’s off the side of a Detroit Diesel won’t do much work and certainly require extensive modification to allow them to be used on a street or race

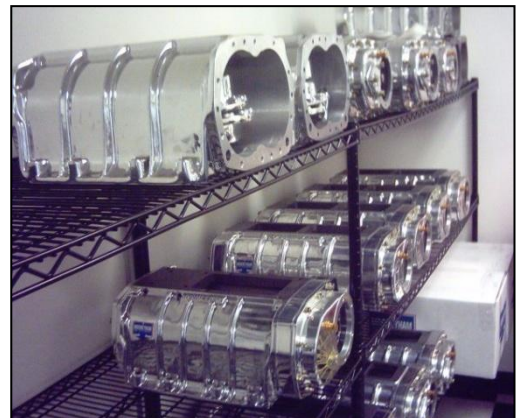
engine. Many times the cost of “fixing up” a stock 6-71 exceeds the cost of purchasing a good reconditioned race blower. It must be noted that you cannot use a Teflon and Nylatron stripped race blower in street use. There are a lot of considerations that must be addressed in the decision on which blower to use, rotor design, case internal design, intake location, exhaust location and design, all of which we will discuss with you when you decide you want to supercharge your engine.



On the supercharger inlet the fuel injector hat will either be an 8 top or a 10 top, if this does not match the blower inlet we have adapters available to get the blower and injector to fit.

The mounting bolt holes on an 8 top is 13.25” front to rear while the 10 top is 15.312” front to rear.

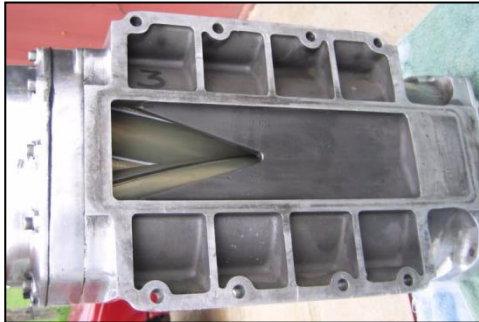
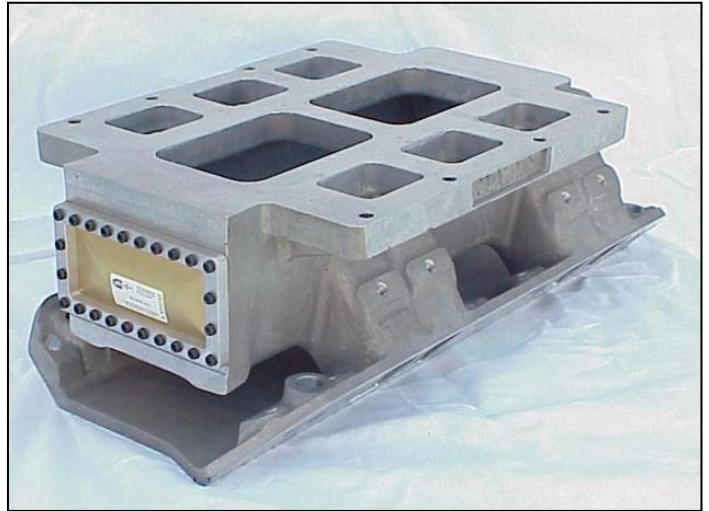
We can supply the correct blower for your application in both new and reconditioned. To select the correct blower for your application make a phone call and speak to Ken at 0411-699 535 before you purchase because if you start out with the wrong blower it just makes things harder than they have to be and will result in a less than satisfactory result for you.



As you read through this document you will find some prices on hardware that we have available to assist you. You will see the list price and the Racer Decal Discount Price (RDD). Here we offer the

racer a price incentive to display our stickers to help us get our message to other racers. We don't expect you to do this with our compensation so we offer a special Racer Decal Discount price to anyone willing to put our sticker on their car. Your help in getting our message to new clients is appreciated and rewarded.

**Manifold** – The blower manifold connects the blower to the engine or cylinder heads. The exhaust of a supercharger (where it bolts to the manifold) are not always the same size. All the mounting bolt patterns are the same but the cut of the exhaust hole can change, and obviously the exhaust of a 14 can be bigger than the exhaust of a 6. Ordering a new blower you get what you want, using someone else's second hand blower you get what



they wanted. Make sure your blower exhaust will work with your manifold.

Race manifolds are designed to create the most power and as such will often sit a lot higher than street manifolds and race manifolds will not have thermostat provisions like a street manifold might.

Street manifolds are usually lower than race

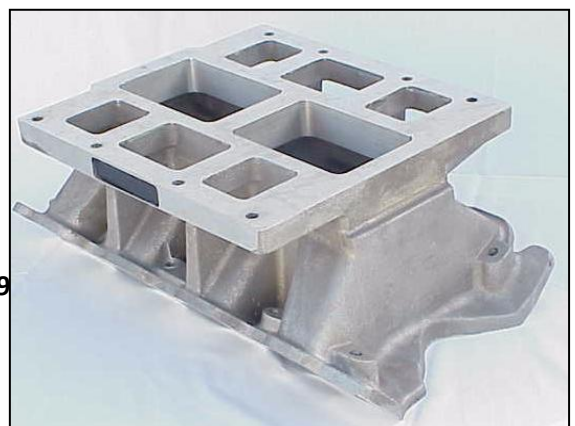
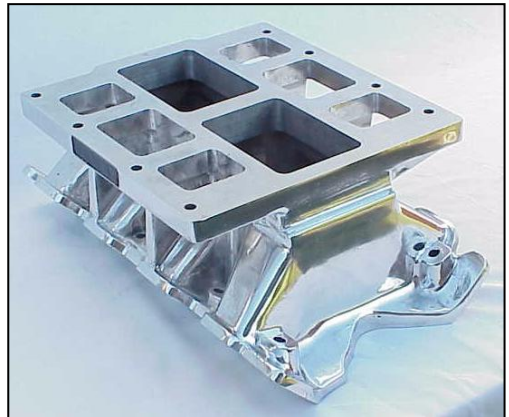
manifolds and often will have flat bottom or near flat bottom plenum chambers under the blower. Using carburetors on gasoline (petrol) this is not a problem but will be a problem on a methanol injected application as the increased idle volume will cause puddling which causes very poor idle. Street manifolds are not recommend to use in a race application. Race manifolds on the street are usually no problem except that the blower will sit a lot higher. We have race manifolds for small block Chevy and big block Chevy and Ford Cleveland's. Others can be fabricated if necessary but fabricated manifolds are very pricy due to the amount of labor that goes into building the manifold. We can supply you with blower manifolds for small and big block Chevy with standard cylinder heads and Ford Cleveland engines with 2V and 4V heads. In situations where there is no good cast manifold available the only alternative is a fabricated manifold. Not a sheet metal manifold but a manifold fabricated from aluminum plate. The difference is the thickness. Sheet metal manifolds for carburetors are usually made from .080 (2mm) sheet and bent to shape. We fabricate our blower manifolds from .250 (6mm) plate and cut the shape and weld together to get the port shape. This is much more work and we have found most fabricated manifolds consume at least 100 hours of work or more. This is not an inexpensive option but if you need a manifold that suits a set of heads that there is no commercially available cast manifold available for then fabricating a manifold is nearly





your only option. I say nearly because in some situations we have found it to be acceptable to use a tunnel ram manifold and modify it to suit the blower but there has to be a tunnel ram manifold available for that cylinder head situation. We provide race manifold applications, not street applications. Race applications make no compromises towards performance that often occur in street applications. Street manifolds usually have a lot of compromises built in to make them more "friendly" in a street environment. Often they install thermostat provisions and are constructed with the blower mounting very low on the engine almost never have port nozzle provisions. Most street manifolds are meant to be used in a gasoline (petrol) environment with either carburetors or EFI. On gasoline the volume of fuel is less than half that of methanol and as such the environment inside the manifold is much drier than on a methanol situation. Many of the street manifolds have a flat floor to accommodate the plenum size with the low mounted blower. Race manifolds have a raised floor with a crown or a peak in the middle to insure the wet mixture does not puddle in the manifold. Our no "compromise" cast manifolds list for \$2150.00+ GST and the RDD is \$1995.00 AUD + GST if applicable. Some options are burst panel kit provisions or complete installation and single or multiple port nozzle options. Please contact us for pricing on these options.

## Cleveland Blower Manifold



As cast manifold RDD \$1995.00+  
With burst panel kit add \$350.00+

**Fits 6-71 and 8-71 and may be modified to suit 14-71 and 16-71 blower.**

**Available in as cast and polished (standard polish and show polish)**

**Available with burst panel provision or burst panel complete.**



Blower weld on plate to suit up to 14-71, 15 mm thick (.600) drilled and tapped for blower and cut to suit standard blower configuration

Part Number 36375-99901 List Price \$495.00+

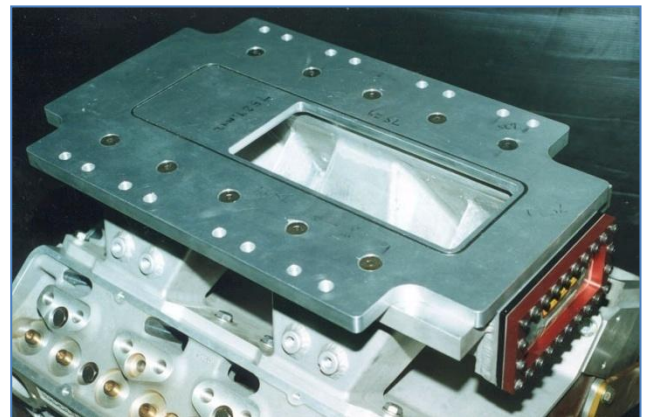
Racer Decal Discount \$ 425.00+

Blower weld on plate to suit up to 14-71, 15 mm thick (.600) drilled and tapped for blower and cut to suit customer special application

Part Number 36375-99902 List Price

\$550.00+

Racer Decal Discount \$ 475.00+



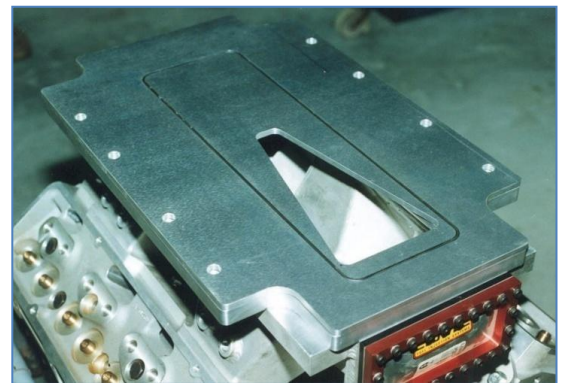
Retro adapter plate. Moves blower back on manifold 1.25" to suit most retrofit

blower with blower exhaust moved forward into the front gear case. Measure yours to see how much offset you need. Special retro adapter plates available. 12 mm thick (.500) drilled and tapped for blower and cut to suit standard blower opening

Part Number 36375-99921 List Price

\$455.00+

Racer Decal Discount \$ 400.00+



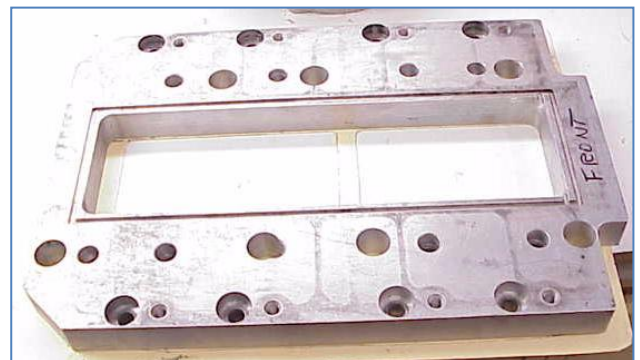
Retro adapter plate. - custom fit - Moves blower back on manifold to suit your blower.

Measure yours to see how much offset you need. 12 mm thick (.500) drilled and tapped for blower and cut to suit standard blower opening

Part Number 36375-99922 List Price

\$550.00+

Racer Decal Discount \$ 470.00+



Special adapters upon request.



All we need to ship your order is your credit card details and a shipping address. We accept Master Card and Visa. There is a printed number on the back of your credit card on the signature line. Would you give us the last three digits of that number. Please include your phone number as well. Prices are in AUD (Australian Dollars) + GST (if applicable) GST does not apply to orders from outside Australia. Price does not include shipping. All prices are subject to change without notice. Prices must be verified at time of purchase only.



**The 200 page, 31 Chapter, *LOWE* Fuel Injection instruction manual is still only \$99.95 They make great birthday or Christmas gifts. Order early – order now.**

**Blower Drive** – sometimes called a blower nose

it is the housing, drive shaft, bearings and seal that allows a blower drive pulley to bolt to the blower.

They come in different length to accommodate the different blower mounting positions. Some blowers are mounted forward on the manifold necessitating a short nose, while other blowers are mounted towards the rear of the manifold necessitating a long nose. Some applications will

use a long nose in a forward position because of the location of the bottom drive pulley being located further forward. This is not a recommended application as moving the blower drive pulley forward put excessive side load stress on the front of the crankshaft.



Blower nose assembly (Aluminum) 3 7/8" long

PN36225-38750 List Price \$ 525.00+ Racer Decal Discount \$ 445.00+

Blower nose drive coupling

PN36225-38752 List Price \$ 205.00 Racer Decal Discount \$ 180.00+

**Blower drive pulley** - Blower drive pulleys come in various pitches (space from tooth to tooth) 1/2", 8mm, 13.9mm, 14mm. Which one is right for you? When blowers were first put on automotive engines in a drag racing application in the early 1950's there was a range of drives used, everything from chain drive to multiple v belts. Eventually everyone settled on the 1/2" pitch belt which worked well up until the blowers got bigger and bigger and required more and more power to drive them and the 1/2"pitch belts started to fail. The next step was the 8mm belt which was a huge improvement in design. Some experienced failure in the 8mm belts and then the 14mm belt became an option for those that were stressing their belts. The 13.9mm was invented to get around the patented 14mm Gates design. The limitations of the 13.9mm belt is that there is only one length of belt with that tooth configuration often requiring extensive pulley changes to achieve the desired results. Some applications are just not possible with the 13.9mm drive. Improved belt design and blower over drive limits made the 8mm belt more popular as with the smaller teeth it was possible to get closer to the maximum overdrive limit and the improved belts made the 8mm belt much stronger. Today almost all Top Door, Top Alcohol cars use the 8mm belts. Because of the popularity of this drive configuration we only stock the 8mm pulleys.



44 tooth billet PN 36570-34400	List Price \$ 256.00+	RDD \$ 226.00+
46 tooth billet PN 36570-34600	List Price \$ 258.00+	RDD \$ 228.00+
48 tooth billet PN 36570-34800	List Price \$ 260.00+	RDD \$ 230.00+
50 tooth billet PN 36570-35000	List Price \$ 262.00+	RDD \$ 232.00+
52 tooth billet PN 36570-35200	List Price \$ 264.00+	RDD \$ 234.00+
54 tooth billet PN 36570-35400	List Price \$ 266.00+	RDD \$ 236.00+
56 tooth billet PN 36570-35600	List Price \$ 268.00+	RDD \$ 238.00+
58 tooth billet PN 36570-35800	List Price \$ 270.00+	RDD \$ 240.00+
60 tooth billet PN 36570-36000	List Price \$ 272.00+	RDD \$ 242.00+
62 tooth billet PN 36570-36200	List Price \$ 274.00+	RDD \$ 244.00+
64 tooth billet PN 36570-36400	List Price \$ 276.00+	RDD \$ 246.00+
66 tooth billet PN 36570-36600	List Price \$ 278.00+	RDD \$ 248.00+
68 tooth billet PN 36570-36800	List Price \$ 280.00+	RDD \$ 250.00+
70 tooth billet PN 36570-37000	List Price \$ 282.00+	RDD \$ 252.00+
72 tooth billet PN 36570-37200	List Price \$ 284.00+	RDD \$ 254.00+
74 tooth billet PN 36570-37400	List Price \$ 286.00+	RDD \$ 256.00+
76 tooth billet PN 36570-37600	List Price \$ 288.00+	RDD \$ 258.00+
78 tooth billet PN 36570-37800	List Price \$ 290.00+	RDD \$ 260.00+
80 tooth billet PN 36570-38000	List Price \$ 292.00+	RDD \$ 262.00+
82 tooth billet PN 36570-38200	List Price \$ 294.00+	RDD \$ 264.00+

Not all pulleys are manufactured the same way. Often cheap pulleys are cast, not billet which costs more, and as well the method of putting the “teeth” on the pulley can vary. The cheap method is by “hobbing” the tooth which makes the “tooth” in a single pass with a single cutting tool leaving a rough finish to the tooth shape and this wears the belt quicker. The “generated” tooth shape creates a smooth finish making the belt last much longer but the process is slightly more expensive. You want a billet material pulley with a generated tooth profile. It must be noted that cast pulleys are not legal in most forms of motorsport.

As a general rule we stock the even tooth numbers while the odd tooth numbers can be made for you at your request.

**Blower belt** - Belts must match the pulley teeth configuration and come in different length. We stock the 8mm belts in 150 tooth (1360 long) to 190 tooth (1680 long) but other lengths are available. Belt width must match the pulley width and the belt idler width.



#### **8mm tooth 1360mm length 150 tooth**

pn 36070-08150 List Price \$ 275.00 + Racer Decal Price \$ 235.00 +

#### **8mm tooth 1440mm length 160 tooth**

pn 36070-08160 List Price \$ 235.00 + Racer Decal Price \$ 199.00 +

#### **8mm tooth 1520mm length 170 tooth**

pn 36070-08170 List Price \$ 235.00 + Racer Decal Price \$ 199.00 +

#### **8mm tooth 1600mm length 180 tooth**

pn 36070-08180 List Price \$ 235.00 + Racer Decal Price \$ 199.00 +

#### **8mm tooth 1680mm length 190 tooth**

pn 36070-08190 List Price \$ 275.00 + Racer Decal Price \$ 235.00 +

**Blower belt idler pulley** - Idler pulleys keep the belt from jumping over teeth under a load. Idler pulley width must match the belt width. Most time the idler will be as wide as the drive pulleys or about 1/4" or 6mm wider than the drive belt. Idler spindle may be shortened to locate the belt correctly. Idler pulley bracket may be spaced as well to set the belt track on the top and bottom pulley.



Blower idler pulley assembly with T nut and lock bolt

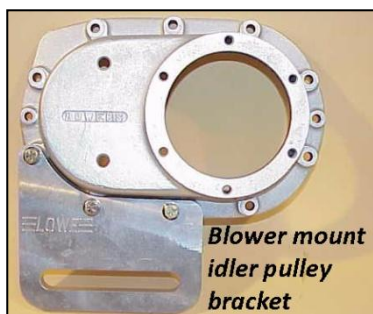
PN 36340-33759

List Price \$ 345.00+

Racer Decal Discount \$ 295.00+

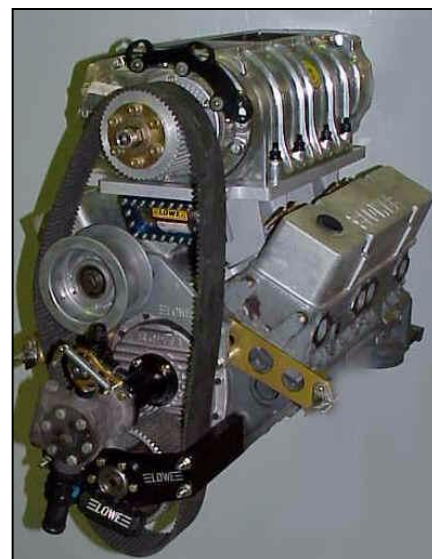
### Blower belt idler pulley bracket

Idler pulley brackets mount to the front of the engine or supercharger and keep the blower belt tension correct to



keep the blower belt from jumping the teeth on the pulleys. Smaller blowers or street applications can use a blower mounted idler

bracket as these applications do not require a lot of strength in the idler bracket.



Idler brackets available for Small Block Chevy, Big Block Chevy, Early and Late Hemi and Wedge. Available with or with out water ports, water ports are Dash 8 SAE O-ring thread to allow the use of standard race car plumbing hardware to connect to the cooling system. They are machined to fit O-rings we supply so there is no need to use gaskets to seal the water in. You should consider that most idler brackets are only 12mm or 1/2" thick which makes them vulnerable

to flex under load which will cause the belt to loosen under load and cause premature belt failure.



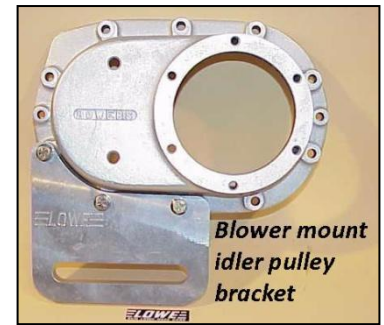
### Idler bracket (front of blower case) 12mm thick

PN 36090-00000

List Price \$ 205.00+

Racer Decal Discount\$ 165.00+

NOT recommended for race applications.



### Idler bracket - Non water application (DRY)

Idler bracket only - Small block Chevy 16mm thick PN 36090-07001

List Price \$ 295.00+ Racer Decal Discount \$ 225.00+

Idler bracket only -Big block Chevy 16mm thick

PN 36090-07002 List Price \$295.00+ RDD \$ 225.00+



Idler bracket only- Chrysler 426-440 16mm thick

PN 36090-07003 List Price \$295.00+ Racer Decal Discount \$ 225.00+

Bolt and spacer kit for non water blower drive idler brackets

PN 36 List Price \$ + RDD \$ +



### Idler bracket - Water port application

Idler bracket only - Small block Chevy 16mm thick

PN 36090-07011 List Price \$295+ RDD \$255+

Idler bracket only - Big block Chevy 16mm thick

PN 36090-07012 List Price \$295+ RDD \$255+

Idler bracket only – Chrysler 426-440 16mm thick

PN 36090-07013 List Price \$295+ RDD \$255+



Idler Bracket Spacers



### Spacers – SBC water port type with o-ring on one side

Spacer **6mm thick** – o-ring on one side PN 36090-40141 pair price List \$ 75.00+ RDD \$ 65.00+

Spacer **10mm thick** – o-ring on one side PN 36090-40142 pair price List \$ 85.00+ RDD \$ 75.00+

Spacer **12mm thick** – o-ring on one side PN 36090-40143 pair price List \$ 88.00+ RDD \$ 78.00+

Spacer **16mm thick** – o-ring on one side PN 36090-40144 pair price List \$ 90.00+ RDD \$ 80.00+

Spacer **18mm thick** – o-ring on one side PN 36090-40145 pair price List \$ 95.00+ RDD \$ 85.00+

Spacer **20mm thick** – o-ring on one side PN 36090-40146 pair price List \$ 95.00+ RDD \$ 85.00+  
Spacer **25mm thick** – o-ring on one side PN 36090-40147 pair price List \$ 105.00+ RDD \$ 95.00+

## Spacers –

### BBC water port type with o-ring on one side

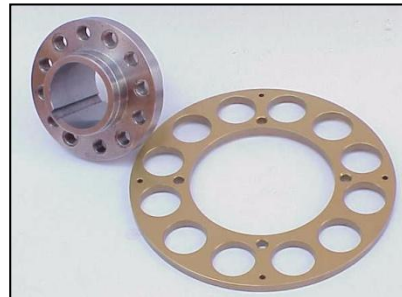
Spacer **6mm thick** – o-ring on one side PN 36090-40151 pair price List \$ 75.00+ RDD \$ 65.00+  
Spacer **10mm thick** – o-ring on one side PN 36090-40152 pair price List \$ 85.00+ RDD \$ 75.00+  
Spacer **12mm thick** – o-ring on one side PN 36090-40153 pair price List \$ 88.00+ RDD \$ 78.00+  
Spacer **16mm thick** – o-ring on one side PN 36090-40154 pair price List \$ 90.00+ RDD \$ 80.00+  
Spacer **18mm thick** – o-ring on one side PN 36090-40155 pair price List \$ 95.00+ RDD \$ 85.00+  
Spacer **20mm thick** – o-ring on one side PN 36090-40156 pair price List \$ 95.00+ RDD \$ 85.00+  
Spacer **25mm thick** – o-ring on one side PN 36090-40157 pair price List \$ 105.00+ RDD \$ 95.00+

**FORD – Cleveland and Windsor Idler pulley brackets are built into the crank support mounting plate.**

**Blower drive bottom pulley hub (crankshaft hub)** The **LOWE** blower hubs are a little different. First, we start with tougher steel. All of our blower hubs are made from 4140 steel which is



much stronger than the steel most other blower hubs are made from. We do this to give you the best product possible. Blower hub failure will manifest itself by either the keyway failing or the hub itself cracking, or both. Usually, when the blower hub keyway fails it does so because the key starts to roll over in the



key slot because of the load. We try to stop this first, with tougher steel, which reduces distortion under load, and second a better fit on the keyway and the crankshaft nose.

**Keyways –** When the automobile engine manufacturer made the engine for the original application they never intended to take several hundred horsepower off the front of the engine. In some cases this is more than the factory originally intended to take off the back of the crankshaft. Their intention was to drive the water pump, fan, alternator, power steering, air conditioner and such. This would consume at the most 20-30 horsepower even in the worst of conditions. In a race application with a supercharger, often we ask several hundred horsepower to come off the front of the crankshaft to drive the supercharger. We do this and ask the keyway to take the entire load. Not a great design but it is the one we are stuck with today. In my opinion the best design would be to get the crankshaft manufactures to spline the ends of the crank and then supply a broached hub to suit. Kind of like an axle and spool situation. That would be the better design, but we don't have that right here right now. So how do we make what



we have available to us, live?

First the keyway and key must fit properly. Often I see the width is OK but the hub is broached too deep and the key has room to start the "roll over" under hard load. I don't broach our keyway that deep and want you to fit the key to the slot so there is a minimum of room over the key. You should wait to keyway your crankshaft until you have the blower hub in hand to know how deep to cut the keyway. Second the stronger 4140 hub will not distort as easily as the softer steels this makes it harder for the key to fail since it takes more energy to distort the hub in the roll over process. Many decades ago when blower hubs keys failed, the first, (but not the best answer) was to add a second keyway to double the strength. Initially adding a second key sounds like a good idea but I want to remind you that you are removing material from the nose of the crankshaft and the hub. On smaller crankshaft noses like Cleveland's and Small Block Chevys the nose is not that big anyway and removing material only makes them weaker. I believe you are addressing the symptom and not the problem. I also suggest that the double keyway process is flawed as since putting the two keyways in the crank and hub is not a spline process, minor machining error with this process makes one of the keys take most, if not all the load anyway. We don't recommend the process but we do supply the service if a customer wants it. Cleveland's, Windsor's, Big Block Chevy's, Small Block Chevy's all use a 3/16" keyway in the stock harmonic balancer which for the stock applications is completely adequate. We do not recommend the two keyway combination but we do broach a 1/4" keyway in our hubs. To take full advantage of the larger keyway the crankshaft must have a 1/4" keyway slot milled in it. You must fit the key stock to the hub and crankshaft combination in such a way as to minimize the space on the top or the bottom of the key stock. A snug fit is preferred with a maximum of .005 clearances on the top of the key stock. The Cleveland and Windsor both use a 5/8" unf bolt as a center bolt which is adequate. The Big Block Chevy uses a 7/16" unf, which if you are using a crank support should be re drilled and tapped to 3/4" unf.

The use of harmonic balancers on supercharged engines are not necessary as the blower belt itself acts as a harmonic balancer. If harmonic balancers were a good idea on supercharged engines you would see one on every Top Alcohol Dragster, Funny Car and Top Door cars and all the nitro dragsters and funny cars as well. If you have a look NONE of them run a "harmonic" balancer. The problem with a "harmonic" balancer is that since they are not meant to take the load the supercharger puts on a drive hub they are made from lesser grade material than a good blower drive hub is. The next problem is that the "harmonic" balancer with a blower pulley on it pushes the blower pulley a couple of inches further away from the front main bearing giving the belt more leverage to try to lift up the front of the crankshaft. The closer you can keep the blower belt to the front main bearing the longer your crankshaft will last, that and add a crank support if you really love your crankshaft. Your wallet will be happier as well.

### **Hone finish**

Our blower hubs are CNC turned and milled to exacting specifications. In order to create a better product we bore the center of the hub slightly undersize as this allows us to hone fit the inside diameter of the hub. We do this to get a better fit by controlling the dimensions. Although the CNC boring process is very accurate there are still tolerances that we feel are not adequate for the fit of the hub to the crankshaft. It is more work to final hone the inside dimension for the crank nose but by doing so we insure that there is a minimum opportunity for the key to do the roll over.

We hone fit the hub to give a half of a thousands press fit. This makes for a snug fit going on the crankshaft, so installation with a hub installer not a hammer is a requirement. This snug fit insures the keyway has a better chance of survival driving that big supercharger of yours. Use antiseize lubricant to coat the surfaces between the hub and the crank snout (nose). We have measured several of our competitor's blower hubs. Since they are just bored and not honed we find they often



have a taper in the center hole of up to nearly .002" Due to manufacturing techniques and processes we find that the start of the hole will be close to size while the other end (where the key is located) will be loose. Before installing the blower hub, check the diameter of your crankshaft nose and insure there are no burrs or imperfections that would impede the installation of the blower hub.

### **Bolt Pattern**

The bolt pattern to hold the blower pulley to the hub is a six hole pattern on a 2.8" diameter. Our standard is an even space pattern. Some blower pulleys use one hole offset slightly while most blower pulleys have both even space and an offset hole by "slotting" the one hole concerned. There is no good reason to use an offset bolt pattern in this application. How it got started goes back to the early 50's Chrysler engines. This engine was one of the first engines to get a supercharger installed by hot rodders and initially everyone just use



the factory harmonic balancers to drive the pulley. On the early Chrysler engines the timing mark was on the pulleys not the harmonic balancer so in a factory application when the pulleys were installed on the harmonic balancer the offset hole insured that the pulleys could not be installed in the wrong place. By using the stock harmonic balancer initially there was a lot of pulleys made with the offset hole. Later when the stock harmonic balancers started to fail and everyone started making hubs to replace them to use the pulleys they had they just offset the one hole. This carries on even today. The offset hole pulleys or hubs are difficult to install as locating the offset hole in the hub and the pulley at the same time is difficult. Today most pulleys are even spaced or dual pattern Ken Lowe decided to just have an even space pattern on the hub. If you want an even space pattern and the offset pattern both on your hubs please specify this when ordering.

The LOWE blower hub has a 1.999" spigot to align the center of the blower pulley. The standard blower pulley has a 2.00" center hole.

### **Blower hubs available for**

#### **Small Block Chevy 265-350**

**Big Block Chevy 396-427 (non counterweighted only)**

**Hemi (Early) – 354-392**

**Hemi (Late) – 426**

#### **Chrysler Wedge 361-426**

**Ford 351 Windsor, Cleveland , Fontana in either neutral balance or counterweighted.**

All we need to ship your order is your credit card details and a shipping address. We accept Master Card and Visa. There is a printed number on the back of your credit card on the signature line. Would you give us the last three digits of that number. Please include your phone number as well. Prices are in AUD (Australian Dollars) + GST (if applicable) GST does not apply to orders from outside Australia. Price does not include shipping. All prices are subject to change without notice. Prices must be verified at time of purchase only.

## **Blower Crankshaft Hubs**



### **Chevy – Small Block 265-283-302-327-350-400**

SBC Blower drive crankshaft hub 4140 steel SBC – neutral balance

**Single bolt pattern** Part number 36335-01100 List price \$ 235.00+ RDD \$ 195.00+

SBC Blower drive crankshaft hub 4140 steel SBC – neutral balance

**Dual bolt pattern** Part number 36335-01101 List price \$ 255.00+ RDD \$ 225.00+

## **Chevy - Big Block 366-396-402-427-454**

BBC Blower drive crankshaft hub 4140 steel BBC – neutral balance

**Single bolt pattern** Part number 36335-01200 List price \$ 235.00+ RDD \$ 195.00+

BBC Blower drive crankshaft hub 4140 steel BBC – neutral balance

**Dual bolt pattern** Part number 36335-01201 List price \$ 255.00+ RDD \$ 225.00+

## **Chrysler Hemi 354,392, 426 and Wedge 361,383,426**

Blower drive crankshaft hub 4140 steel 392, 426

**Single bolt pattern** Part number 36335-01300 List price \$ 235.00+ RDD \$ 195.00+

Blower drive crankshaft hub 4140 steel 392, 426

**Dual bolt pattern** Part number 36335-01301 List price \$ 255.00+ RDD \$ 225.00+

## **Ford – Small Block Cleveland, Windsor, Fontana 302-351**

SBF Blower drive crankshaft hub 4140 steel 302,351 Windsor, 351 Cleveland

**Counterweighted - Single bolt pattern** ...

Part Number 36335-01500 List price \$ 535.00+ RDD \$ 435.00+

SBF Blower drive crankshaft hub 4140 steel 302,351 Windsor, 351 Cleveland

**Counterweighted - Dual bolt pattern**

Part Number 36335-01501

List price \$ 550.00+ RDD \$ 465.00+

Some Windsor/Chain need a +.400 space \$95.00

SBF Blower drive crankshaft hub 4140 steel

302,351 Windsor, 351 Cleveland

**Neutral Balance - Single bolt pattern**

Part Number 36335-01510

List price \$ 450.00+ RDD \$ 390.00+



SBF Blower drive crankshaft hub 4140 steel 302,351 Windsor, 351 Cleveland

**Neutral Balance - Dual bolt pattern**

Part Number 36335-01511 List price \$ 480.00+ RDD \$ 410.00+

The Ken Lowe Ford 351 Cleveland Windsor blower hubs are either counterweighted or neutral balance. If your engine is externally balanced you must use a counterweighted hub and that hub must be balanced to the engine combination. Failure to do so will result in an unsatisfactory outcome.

On the standard Ford hubs the standard seal inside diameter is 1.875" this makes the hub a little weak since it is not very thick. This is adequate for a harmonic balancer but not a blower hub. We have increased this dimension to 2.00" or about 25% stronger with just this modification, add in the 4140 steel and now you have a hub that is almost twice as strong as "standard hub". You do have to replace the front seal with a seal number CR19852 this is the same outside diameter as the stock seal but with a larger inside diameter to accommodate the larger diameter seal area on the Ken Lowe hub.

Use front seal part number CR19852 on Ford 351C and 351W

## Ignition Timing Marks

Accurate ignition timing on a supercharged engine is a requirement. Get it wrong and you are picking up parts off the race track. Ignition timing accuracy is increased by increasing the diameter of the wheel where the timing is read. A six inch diameter wheel is significantly more accurate than a three inch diameter wheel. We have available a timing ring that is shrink fit to the blower hub. Since we do not know where your TDC is we have left the wheel blank allowing you to set your TDC and install your timing marker then using some marking tools mark the TDC on the timing ring. While you are doing this you are probably doing your camshaft degree at the same time so you have your degree wheel set up on the engine, go ahead and make the marks at 90-180-270 for setting the valves. Make a mark at 30 degrees BTDC as a base line for your ignition timing. Decide where you want the ignition timing to be and set some marks there as well. One more thing, if you want make it more useful and you know what your cam centerline is, and you use the lobe center method for setting your cam location go ahead and mark there as well. That will usually be somewhere between 108 and 114 degrees ATDC number one.



**Timing Ring** - a small diameter surface such as the blower hub itself does not give a engine tuner enough room(space) to accurately set the ignition timing. The Timing Ring 6 3/8" diameter does give the tuner enough room to accurately set the ignition timing as well it can be marked for TDC of the other cylinders to allow the valves to be set accurately too. The timing rings fit all of our blower hubs.



## Timing Ring Part number 36335-63750

**List price \$ 105.00+ Racer Decal Discount \$ 89.00+**

**Crank support** –When your engine was originally designed, the manufacturer designed it to take up to 20 horsepower off the front of the crankshaft to drive the water pump, fan, power steering and the air conditioning and the alternator. For this power load the front of the crankshaft does well.

Now you want to drive the supercharger from the front of the engine. The front of the crankshaft on a supercharged engine takes a lot of strain from the pull of the belt turning

the supercharger. On some applications it takes up to 400 horsepower to just turn the blower at full boost. The front of the crankshaft was never designed to take this type of load. The big block Chevy has one of the largest crankshaft noses in drag racing but even they still they flex. In fact it was a big block Chevy that Ken first made a crank support for. This solved the problem of the damage to the front main bearing but only later did Ken learn that the crankshaft would last over twice as long as a result. On the lower pulley the side load (belt pulling up) on the crankshaft is massive. The belt load is





trying to lift the front of the crankshaft up and this load will cause the crankshaft to fail prematurely at the radii on the front of the first rod journal. On a supercharged engine it is not **if** the crank will fail it is **when**. A crank support will drastically extend the life of a crankshaft in your race car. This is even when everything is going good. How bad is it for your crankshaft, if you backfire the engine for some reason and nothing happens except you just break the belt ask yourself what amount of energy did it take to break this belt and how did this energy manifest itself in the crankshaft. The belt broke because the engine kept turning when the supercharger stopped (or wanted to stop) because of a spike of excessive pressure in the manifold (from the backfire). What did it do to the front of the unsupported crankshaft? What you did not realize is that although you do not see the damage you probably just cracked the crankshaft on the number one rod journal. Though it will still run (probably) the crankshaft just had over half of its normal life eliminated. Now what did that cost? A KLRC crank support will usually double the life of a crankshaft making the LOWE crank support one of the best investments you can make. If your crankshaft costs \$2000.00 (or more) and lasts 40 runs before it cracks beyond safe use and you can get 70 or 80 runs with a LOWE crank support then the LOWE crank support should be worth \$2000.00.(or more) **JUST THE FIRST TIME THAT YOU USE IT.** We make crank supports for both the Big Block Chevy and the Small Block Chevy and the Small Block Ford (351C351W and Fontana) On the BBC/SBC LOWE crank support attaches to the lower four bolt holes in the front of the engine block with studs. The crank support side plates slide on the studs and the front bearing plate goes on after the side plates. The crank spindle attaches to the centre of the crankshaft and the bearing that rides in the front bearing plates goes on the end of the spindle. The LOWE Race Car Hardware crank support has adjustment built into the design to allow for differences in crank tunnel bore but once the adjustment is set you can disassemble and reassemble the engine without having to readjust the crank support. The LOWE crank support comes anodized with a complete set of instructions to install the kit correctly.

## Front Crank Support – Small Block Chevy and Big Block Chevy

The LOWE crank support for the Chevy attaches to the lower four bolt holes in the front of the engine block with studs. The crank support side plates slide on the studs and the front bearing plate goes on after the side plates. The crank spindle attaches to the centre of the crankshaft and the bearing that rides in the front bearing plates goes on the end of the spindle. The LOWE Race Car Hardware crank support has



adjustment built into the design to allow for differences in crank tunnel bore but once the adjustment is set you can disassemble and reassemble the engine without having to readjust the crank support. The LOWE crank support comes anodized with a complete set of instructions to install the kit correctly.

Check list of items you may need.

\* Crank support kit    \* Crank hub    \* Crank hub timing ring



### Small Block Chevy - Crank Support Kit includes

**Cranksupport spindle, spindle bearing, center bolt, front plate, pair of clamp rings with bolts, pair of side plates with studs and nuts and installation instructions.**

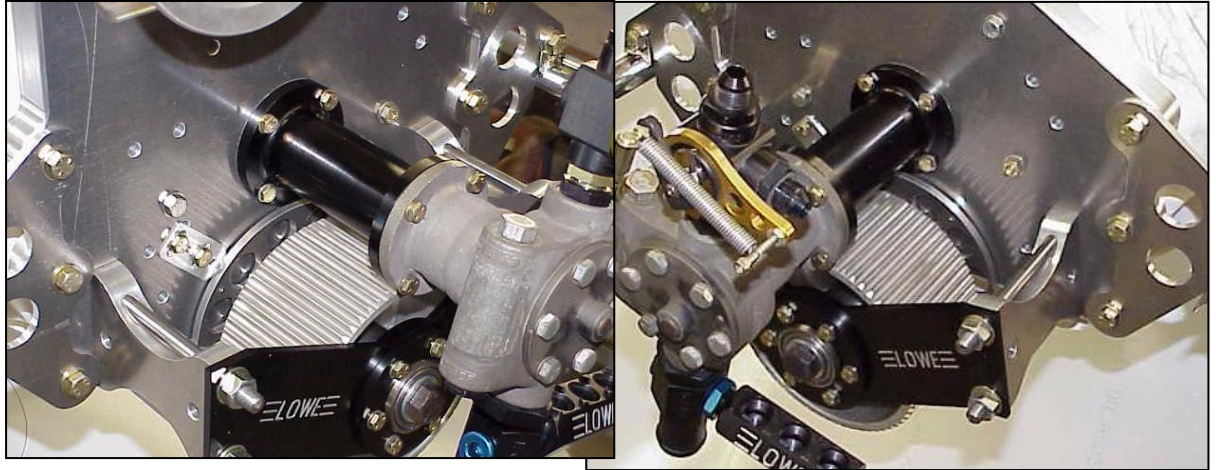
pn 39725-35000 List price \$ 925.00 + Your Racer Decal Discount \$ 750.00 +

## Big Block Chevy - Crank Support Kit includes

Cranksupport spindle, spindle bearing, center bolt, front plate, pair of clamp rings with bolts, pair of side plates with studs and nuts and installation instructions.

pn 39725-42700 List price \$ 995.00 + Your Racer Decal Discount \$ 795.00 +

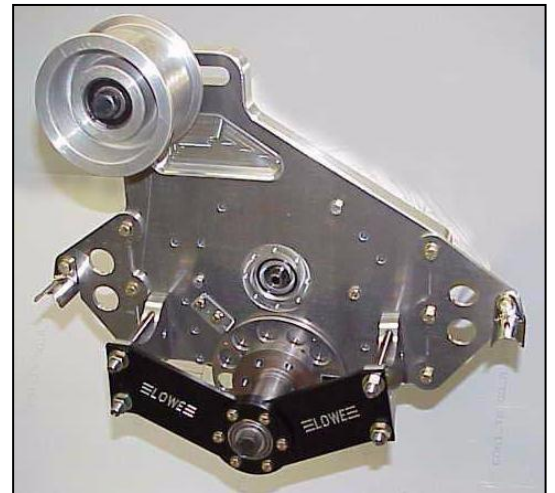
## Front Crank Support



## Small Block FORD

Check list of items you may need.

- \* Front cover - select application
- \* Crank support kit



- \* Fuel pump hex drive
- \* Fuel pump hex drive adapter
- \* Crank hub
- \* Crank hub timing ring
- \* Idler pulley
- \* Engine mounts  
(if needed, with or without saddles)

Call and speak to Ken if you have questions.

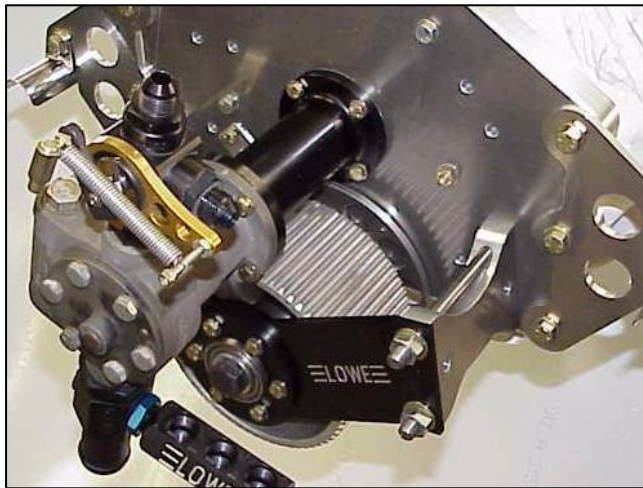
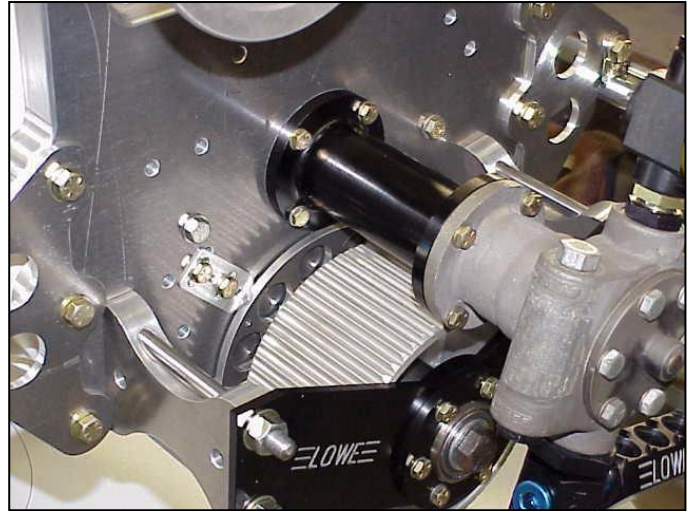
When your engine was originally designed, the manufacturer designed it to take up to 20 horsepower off the front of the crankshaft to drive the water pump, fan, power steering and the air conditioning and the alternator. For this power load the front of the crankshaft does well. Now you want to drive the supercharger off the front of the engine. The front of the crankshaft on a supercharged engine takes a lot of strain from the pull of the belt turning the supercharger. On some applications it takes up to 400 horsepower to just turn the blower at full boost. The front of the crankshaft was never designed to take this type of load. As the crankshaft pulley pulls down on the belt to turn the blower pulley the side load on the crankshaft is massive. The belt load is trying to lift the front of the crankshaft up and this load will cause the crankshaft to fail prematurely at the radii on the front of the first rod journal. On a supercharged engine it is not **if** the crank will fail it is **when**. A crank support will drastically extend the life of a crankshaft in your race car. This is even when everything to going good. How bad is it for your crankshaft if you back fire the engine for some reason and nothing happens except you just break the belt ask yourself what amount of energy did it take to break this belt and how did this energy manifest itself in the crankshaft. The belt broke because the engine kept turning when the supercharger stopped (or wanted to stop) because of a spike of excessive pressure in the manifold (from the backfire). What did it do to the front of the unsupported crankshaft? What you did not realize is that although you do not see the damage you probably just cracked the crankshaft on the number one rod journal. Though it will still run (probably) the



crankshaft just had over half of its normal life eliminated. Now what did that cost? A KLRC crank support will usually double the life of a crankshaft making the LOWE crank support one of the best investments you can make. If your crankshaft costs \$2000.00 (or more) and lasts 40 runs before it cracks beyond safe use and you can get 70 or 80 runs with a LOWE crank support then the LOWE crank support should be worth \$2000.00.( or more) **JUST THE FIRST TIME THAT YOU USE IT.**



The LOWE crank support attaches to the lower four bolt holes in the front of the engine block with studs. The crank support side plates slide on the studs and the front bearing plate goes on after the side plates. The crank spindle attaches to the centre of the crankshaft and the bearing that rides in the front bearing plates goes on the end of the spindle. The LOWE Race Car Hardware crank support has adjustment built into the design to allow for differences in crank tunnel bore but once the adjustment is set you can disassemble and reassemble the engine with out having to readjust the crank support. The LOWE crank support comes anodised with a complete set of instructions to install the kit correctly.



Check list of items you may need.

- \* Front cover - select application
- \* Crank support kit
- \* Fuel pump hex drive
- \* Fuel pump hex drive adapter
- \* Crank hub
- \* Crank hub timing ring
- \* Idler pulley
- \* Engine mounts  
(if needed, with or without saddles)

### **Crank Support Kit**

**Ford Cleveland/Windsor/Fontana** - This kit fits all the SBF front base plates shown below and includes side plates and mounting studs, front plate with bearing clamp rings, crank support bearing spindle, bearing, and center bolt. This kit requires the use of the correct front cover (base plate) listed below.

**Includes crank support spindle, spindle bearing, spindle bolt, front plate, 2 side plates, clamp rings**

**with lock bolts and a mounting stud kit.**

pn 39725-69351

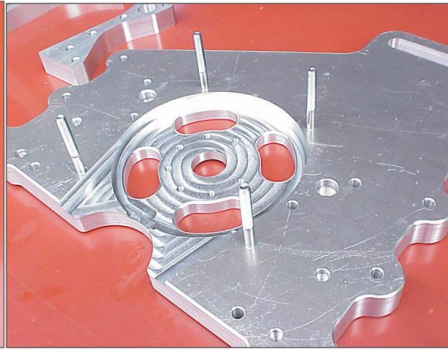
List price \$ 995.00 +

Racer Decal Discount \$ 850.00 +

### **Front Base Plates (for crank support mounting)**

**Base plate** machined for fuel pump mount, blower belt idler pulley mounting bracket, front engine mount holes provided, timing pointer holes drilled and tapped and dash 8 SAE O-ring water ports. CNC machined billet aluminum. 25mm hardened aluminium. I can supply a fully modified cover that will bolt to your Windsor and the crank support plate will bolt to it, this specially modified cover comes with a special seal for the big blower hub, complete bolt kit and a set of custom made spacers to assemble the crank support plate to your engine.

## Windsor – JESEL timing belt



**Front base plate –**  
pn 39725-69950  
List price \$ 1395.00+

Racer Decal Discount \$  
1150.00+



### Front base plate mounting kit

Includes

2ea JESEL 20mm spacers and O-rings  
2ea JESEL 25mm spacers and O-rings  
and a bolt kit to mount the front support  
plate

pn 39725-69951

List price \$ 510.00+

Racer Decal Discount \$ 488.00+



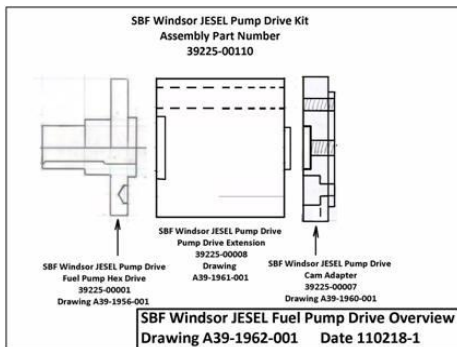
### Timing Pointer KIT

Includes CNC machined timing pointer with mounting bolts and  
washers.

pn39725-69891

List price \$ 39.00+

Racer Decal Discount \$ 22.00+



### FORD-Windsor JESEL fuel pump drive kit

Includes

1ea Camshaft Adapter  
1ea Fuel Pump Drive Hex  
1ea Hex drive extensions  
and bolt kit to mount with

pn 39225-00110

List Price \$ 325.00+ Racer Decal Discount \$ 295.00+

## Windsor – standard timing chain

### Front base plate pn 39725-69981

List price \$ 1050.00+

Racer Decal Discount \$ 895.00+

**Timing Cover “B”modified** to suit Front Base Plate mounting – includes spacers as needed and special crank hub seal pn 39725-69989 net \$ 395.00+

### Front base plate mount bolt kit

pn 39725-69982

List price \$ 49.00+

Racer Decal Discount \$ 38.00+

**Timing Pointer KIT -Includes CNC machined timing pointer with mounting bolts and washers.**

pn39725-69891

List price \$ 39.00+

Racer Decal Discount \$ 22.00+

### FORD-Windsor fuel pump drive kit - see info below

pn 39225-00009

List Price \$ 225.00+

Racer Decal Discount \$ 195.00+

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## Fontana – standard timing chain –

### Front base plate pn 39725-69981

List price \$ 1050.00+

Racer Decal Discount \$ 895.00+

**Timing Cover “B”modified** to suit Front Base Plate mounting – includes spacers as needed and special crank hub seal pn 39725-69989 net \$ 395.00+

### Front base plate mount bolt kit

pn 39725-69982

List price \$ 49.00+

Racer Decal Discount \$ 38.00+

**Timing Pointer KIT -Includes CNC machined timing pointer with mounting bolts and washers.** pn39725-69891

List price \$ 39.00+

Racer Decal Discount \$ 22.00+

### FORD-Fontana fuel pump drive kit - see info below

pn 39225-00009

List Price \$ 225.00+

Racer Decal Discount \$ 195.00+

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## Cleveland – standard timing chain

### Front base plate pn 39725-69990

List price \$ 1050.00+

Racer Decal Discount \$ 895.00+

**Timing Cover modified** to suit Front Base Plate mounting pn 39725-69999  
modify clients cover to suit net \$ 55.00+

**Front base plate mounting kit** with bolts and special seal for HD blower drive hub

pn 39725-69992

List price \$ 88.00+

Racer Decal Discount \$ 66.00+

**Timing Pointer KIT -Includes CNC machined timing pointer with mounting bolts and washers.** pn39725-69891

List price \$ 39.00+

Racer Decal Discount \$ 22.00+

### FORD-Cleveland fuel pump drive kit - see info below

pn 39225-00109

List Price \$ 225.00+

Racer Decal Discount \$ 195.00+





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## SBF Fuel Pump Drive Kit (Chain Drive)

FORD 351 Windsor, Cleveland, Fontana

1ea Camshaft Adapter

1 ea Fuel Pump Hex Drive

3 ea 5/16" x 3/4" UNC Allen Bolts

pn 39225-00109 List Price \$ 225.00 Racer Decal Discount \$ 195.00 +

## SBF Fuel Pump Drive Kit (JESEL BELT Drive)

FORD 351 Windsor, Cleveland, Fontana

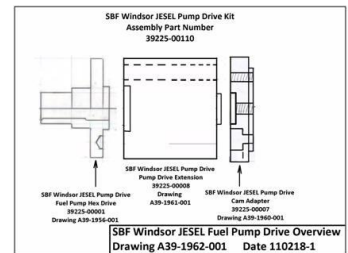
1ea Camshaft Adapter

1 ea Fuel Pump Hex Drive

1ea Fuel pump hex driver spacer

3 ea 5/16" x 1 1/4" UNC Allen Bolts

pn 39225-00110 List Price \$ 325.00 Racer Decal Discount \$ 295.00 +



Blower Hubs - Note: Some blower hub manufacturers make their counterweighted hubs with the counterweight on the rear of the hub. This will interfere with the crank support base plate. The LOWE counterweighted blower hubs the counterweight is moved forward to clear any hardware that may be close to the front of the engine.

My background is in Chevrolet and Chrysler engines. I accepted the commonality of components for each manufacturer as a natural state of engineering. Once I was asked to design and make parts for the FORD engines I was in for a learning experience.

The FORD 351 Windsor has had many fathers, it seem like every engineer that touched the engine has put their own personal stamp on it and this shown more in the front timing chain covers than anywhere else. As a designer and machinist making product to fit the engine I have been given a challenge to identify the different configurations, the ones I have listed below are not all the different options but the most popular ones.

In order to supply you with the correct crank support mounting plate we need to identify the cover that your engine has. If you engine has cover marked "D" you will need to change covers as this cover does not give a clear shot for the access to the front of the cam for the fuel pump drive.

You will please notice that there are two different oil pan front arcs available. Very early engines have a larger oil pan front arc than the later model engines. For your sake let's hope you have a later model front cover and oil pan design.

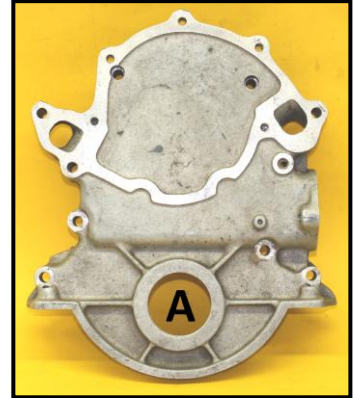
It is recommended to use cover "B" but it will require the existing mechanical fuel pump hole be welded shut and the edge of the mechanical fuel pump mount machined back off to clear the crank support front mounting plate.

The EFI cover show as "C" does not require this but does not have the additional water port bolt hole which we recommend to help seal the cooling system. If this is your cover we will have to make a special crank support mounting plate leaving out those two holes.

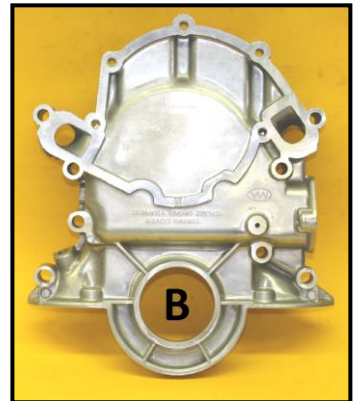
Modifying your timing cover to access the fuel pump cam drive is something you can do yourself or we can modify your cover to suit or supply a fully modified cover ready to bolt on.

We can supply you with a modified cover with your crank support kit as well. One of the advantages of us supplying a prepared timing chain cover as we can insure the four spacers required are the correct length, not to mention you will not have to try to love up a dirty corroded part to put back on your fresh new clean engine.

**A** - This cover seems to fit the much earlier engines and has a much larger diameter oil pan front arc. If your oil pan uses this cover you will have to supply the cover for us to modify as we cannot find this cover to supply. Pump cover B is a direct replacement for this but does have a smaller oil pan arc. Cover A does have one oil pan bolt on each side; all the small arc covers have two oil pan bolt holes on each side. Requires 4 ea .625 spacers.

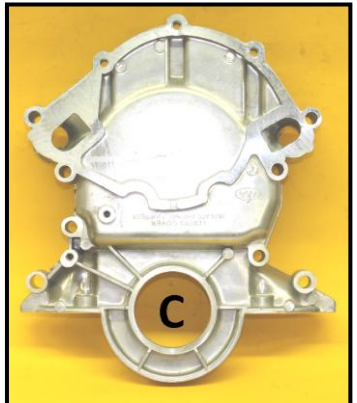


**B** – Fits 289-302-351 1965-1985 Standard Water pump – mechanical fuel pump. This is the recommended front cover to be used. It does require the mechanical fuel pump port be filled and welded and the forward ear be machined off. It will require the fuel pump cam drive port be added to access the cam drive hex. This pump cover does have a dip stick port on the right side. It also has a small oil pan arc and two bolts on each side for the oil pan rail.



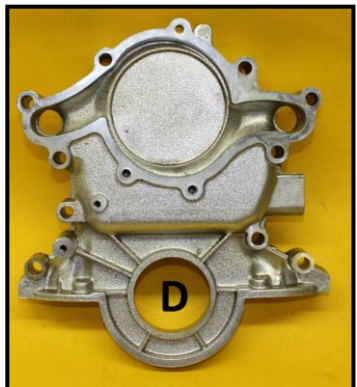
Requires 4ea .673 spacers

**C** – Fits 302-351 EFI with reverse rotation water pump fits Mustang and F Truck 1985 onwards. Does have the same engine block mount holes as B and the small oil pan arc as B but if you are using this cover let us know as we must omit two holes in the crank support mounting plate front cover.



Cover “C” does not have a dip stick provision.

**D**- This cover is used in the following applications, Crown Vic, Thunderbird, Grand Marque, Mustang 94-95, Explorer, and all Falcon engines from 1991 onwards. This cover cannot be used as the small water pump flange does not cover the path for the cam driven fuel pump drive.



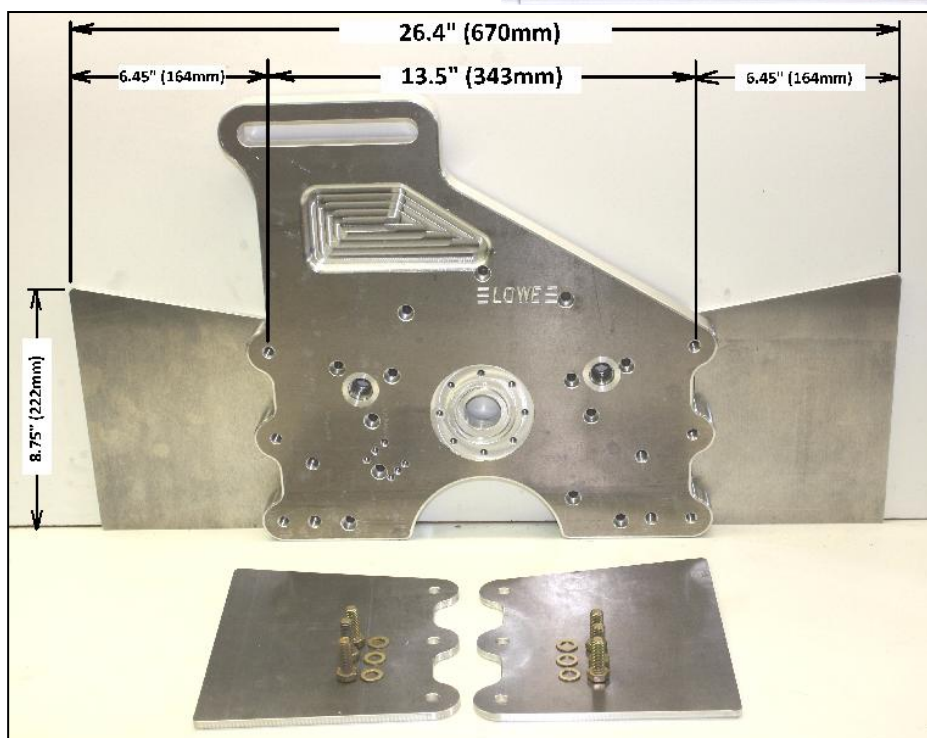
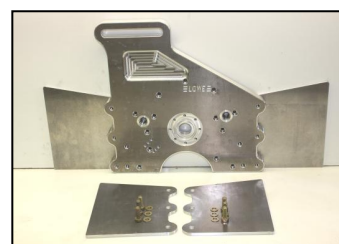


## Ford Engine Mount Wings (Sedan)

PN 38090-67956 Ford 351 Windsor-Cleveland-Fontana engine mount wings.  
Bolts to LOWE front cover or LOWE crank support mounting plate and must be fitted to suit chassis application.  
Includes mounting bolts and washers

List Price \$ 175.00+ set RDD \$ 152.00+ set

We accept Master Card and Visa. Prices are in AUD (Australian Dollars) + GST (if applicable) Price does not include shipping. All prices are subject to change without notice. Prices must be verified at time of purchase.

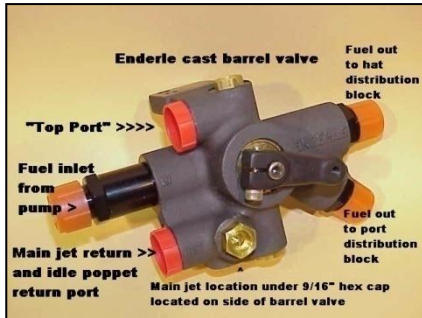




## Fuel injection hat assembly – Many racers follow the bigger is better line of thought.

Sometimes this is true but not always. Selecting the correct hat assembly for your application is one of the decisions you have to make, some of the others are....

**Do you want a high flow barrel valve or a standard one?** How much fuel volume will my engine need? Do



you want to run

a high speed

valve? Do you

want to run port nozzles? When should you run port nozzles?

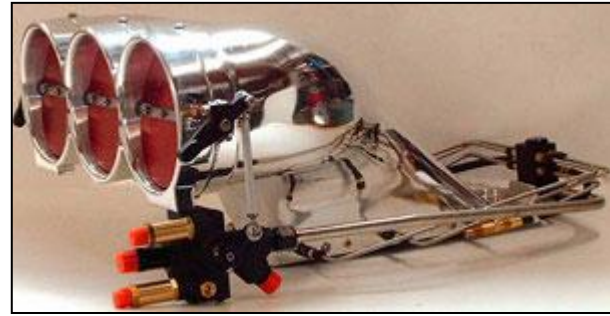
Do you need a pump sizer?

How many nozzles should I run in the hat? Why would I need more than 8?

Remember your hat must fit your blower, is it a 8 top or a 10 top blower? We have adapters available to allow you to bolt

your injector to your blower should the size be different.

**We can supply just the hardware you want, a base line fuel system or a complete flowed system ready to bolt on and go to the starting line. Due to the range of hardware available we have not included this information here, if you want Fuel Injection information please contact Ken and we will post it out to you.**



## Injector Sizes by opening size

Bug = 3 round x 3.69 diameter = 32.08 square inches

Bird = 3 round x 4.38 diameter = 45.20 square inches

Buzzard = 3 round x 5.00 diameter = 58.90 square inches

Barndoor = 2 rectangle 7.25 x 5.125 = 72.0 square inches

Big And Ugly BAU-1 = 3 round x 4.37 diameter = 44.99 square inches

Big And Ugly BAU-1-5 = 3 round x 5.0 diameter = 58.90 square inches

Big And Ugly BAU-1-44 = 3 round x 5.62 diameter = 74.41 square inches

Single 4 bbl carb with 1.5" diameter bfly = 7.06 square inches

Single 4 bbl carb with 2.0" diameter bfly = 12.56 square inches

Dual 4 bbl carb with 1.5" diameter bfly = 14.12 square inches

Dual 4 bbl carb with 2.0" diameter bfly = 25.13 square inches

Eight Stack with 1 7/8" diameter butterflies = 22.08 square inches

Eight Stack with 2 1/4" diameter butterflies = 31.80 square inches

Eight Stack with 2 5/8" diameter butterflies = 43.29 square inches

Eight Stack with 3" diameter butterflies = 56.54 square inches

## Injector Hat Adapters

Injector hats come in different sizes and blowers come in different sizes. Forty years ago there was one size hat and one size blower. The original blower was a 6-71 and the rotors are 15" long and most injectors were made to fit this blower. Even back then there were 8-71 rotors (1" longer) but no cases that would bolt up to a race blower manifold, someone made a 1" spacer to bolt to the back of a 6-71 blower so 8-71 rotors could be used. It worked very well. Then to build a better blower someone decided to cast up the first aftermarket (non GMC)



blower case to suit the 8-71 (16" rotors) This worked even better. Now that aftermarket blower cases were available why not add one more inch to the case and build rotors to suit by slicing off a bit of rotor and pressing in longer bearing shafts. Now the 10-71 blower was born. At the time it made sense to make the blower inlet longer (actually this was false but it made sense at the time) to differentiate between the small opening called an 8 top blower and the new 10 top blower opening.

Bug Catcher Injectors() all have 8 top

Bird Catcher injector ( ) can have either a 8 top or a 10 top

Buzzard Catcher injectors ( ) will all be 10 top

BAU injectors ( ) can be either 8 top or 10 top



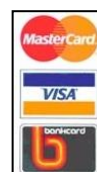
What do you do if you have a 10 top blower and a 8 top hat? Use the LOWE hat adapter available in 12mm thick for just a simple adapter or use the 16mm thick to give you the option of drilling and tapping for your hat nozzles to place them where you want or adding more nozzles. I have used as many as 16 nozzles in the hat to spread the fuel out over the entire length of the rotor to keep the rotor wet and lubricated to make more boost and prevent premature blower wear.

**8 Top is 13.25" from front bolt to rear bolt**

**10 Top is 15.312" from front bolt to rear bolt**



**Photo of using the adapter as a nozzle plate**



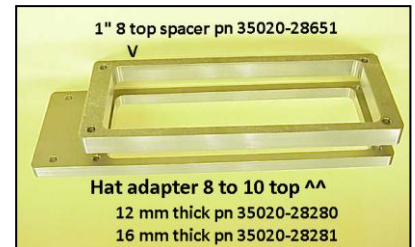
The 200 page, 31 Chapter, **LOWE Fuel Injection** instruction manual is still only \$99.95 They make great birthday or Christmas gifts. Order early – order now.

**Injector hat adapter - 10 top blower to 8 top injector**

5.5" x 17.075" long x 12mm thick

pn 35020-28280 List Price \$ 265.00 +

Racer Decal Price \$ 185.00 +



**Injector hat adapter - 10 top blower to 8 top injector**

5.5" x 17.075" long x 16mm thick

pn 35020-28281 List Price \$ 285.00 +

Racer Decal Price \$ 198.00 +



**8 Top hat spacer 1" tall (25mm)**

pn 35020-28651 List Price \$ 325.00 +

Racer Decal Price \$ 205.00 +

**Injector hat adapter**

**8 top blower to 10 top injector**

5.5" x 17.075" long x 12mm thick

pn 35020-28290 List Price \$ 295.00 +

Racer Decal Price \$ 195.00+



**Fuel injection Pump** – the fuel pump must be matched to the engines fuel delivery needs. Since CFI is tuned based on how much fuel you return to the tank you do not want to use a huge pump and then ask the fuel system to return 70% of the fuel to the tank. Bigger isn't better and too small is a recipe for disaster. The wrong pump can easily turn all your new parts to rubbish. We can advise you on the correct size pump for your application. Call 0411-699 535





**Fuel Injection Pump – Inlet fittings** – most clients in supercharged applications use a 1 1/4" nipple and hose arraignment. This insures an adequate supply of fuel to the pump and the 1 1/4" hose is relatively inexpensive so it can be changed at frequent intervals. This size is used as it is easy to find molded hose (radiator hose) this size and it is available at any auto supply store. We stock a range of these fittings both with and without side return ports.



### Fuel Pump Inlet Nipple

Dash 12 inlet x 1 1/4" hose barb with two dash 6 SAE o-ring side return ports.

Fits Enderle 110, 990, 1100, 1200 pumps

Fits Hilborn 175-2, 175-3, 175-4 pumps

CNC machined billet aluminum body and anodized.



**Part number 35247-04012** Includes lock nut and o-ring

**List Price \$ 145.00 + Racer Decal Price \$ 125.00 +**

### Fuel Pump Inlet Nipple

Dash 8 inlet x 1 1/4" hose barb with two dash 8 SAE o-ring side return ports.

Fits Enderle 80A series pumps

Fits Hilborn 150 series pumps

CNC machined billet aluminum body and anodized. Nipple is billet steel as the dash 8 nipple in aluminum is not strong enough.



**Part number 35247-01008** Includes lock nut and o-ring

**List Price \$ 165.00 + Racer Decal Price \$ 145.00 +**

### Fuel Pump Inlet Nipple

Dash 12 inlet x 1 1/4" hose barb with two dash 8 SAE o-ring side return ports.

Fits Enderle 110, 990, 1100, 1200

Hilborn 175-2, 175-3, 175-4



CNC machined billet aluminum and anodized.

**Part number 35247-01012** Includes lock nut and o-ring

**List Price \$ 145.00 + Racer Decal Price \$ 125.00 +**



### Fuel Pump Inlet Nipple

Dash 12 inlet x 1 ¼" hose barb

Fits Enderle 110, 990, 1100, 1200 pumps

Fits Hilborn 175-2, 175-3, 175-4 pumps

CNC machined billet aluminum body and anodized.

**Part number 35247-05012 Includes lock nut and o-ring**

**List Price \$ 105.00 + Racer Decal Price \$ 95.00 +**



### Fuel Pump Inlet Nipple

Dash 8 inlet x 1 ¼" hose barb with

two dash 8 SAE o-ring side return ports.

Fits Enderle 80A series pumps

Fits Hilborn 150 series pumps

CNC machined billet steel body and zinc plated.

**Part number 35247-04008 Includes lock nut and o-ring**

**List Price \$ 105.00 + Racer Decal Price \$ 95.00 +**



### Fuel injection pump drive – Almost all

supercharged fuel systems use a camshaft driven fuel pump although it is possible to use a belt drive fuel pump. Usually belt drives are only used where either no cam drive is available or the client wants to retain a stock type water pump. Front covers and cam drives are

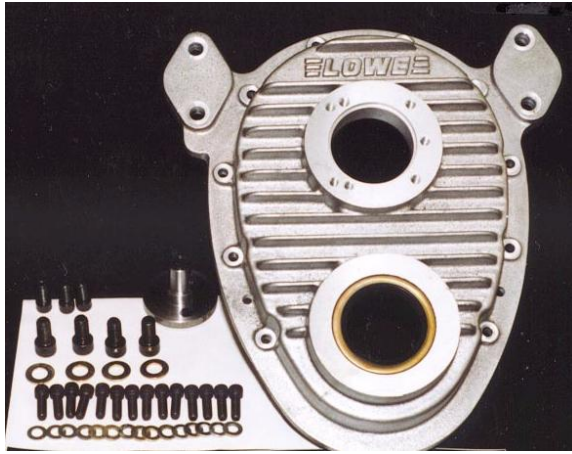
available for small and big block Chevys and Ford 351's but the cranks support front mounting plate also provides the place to mount the fuel pump and drive it off the camshaft as well.

Also available is a mounting plate to be used with a JESEL belt drive to drive the fuel pump.



## Engine Timing Covers

## Small block Chevy



### SBC Timing cover – Supercharged

SBC Chevy cast alum timing cover kit - Supercharged application

Does not includes water block off plates

Includes fuel pump mounting flange drilled for 3 & 4 bolt

Includes fuel pump hex drive adapter and 3 bolt pattern points the fuel pump at 2:30  
pn 39195-35003 List \$ 285.00 + Racer Decal Discount \$ 276.00 +



SBC Chevy cast alum timing cover only - Supercharged application

Does not includes water block off plates

Includes fuel pump mounting flange drilled for 3 & 4 bolt

3 bolt pattern points the fuel pump at 2:30

pn 39195-35004 List \$ 245.00 + Racer Decal Discount \$ 211.00 +

### SBC Timing cover – Non supercharged

Can be used on supercharged application

**SBC Chevy cast alum timing cover kit** - Non Supercharged application machined to clear a Romac balancer 6.25" diameter & 1.375" from the engine block to the timing case cover front. It is necessary to use a KLRC notched 2.5 fuel pump extension in this application to get the pump far enough forward to get it to clear the harmonic balancer. The notched fuel pump extension, bearing and driveshaft is part number 35225-25101

Does not includes water block off plates

Includes fuel pump mounting flange drilled for 4 bolt

Includes fuel pump hex drive adapter

pn 39195-35013 List \$ 330.00 + Racer Decal Discount \$ 311.00 +

**SBC Chevy cast alum timing cover only** - Non Supercharged application machined to clear a Romac balancer 6.25" diameter & 1.375" from the engine block to the timing case cover front. It is necessary to use a KLRC notched 2.5 fuel pump extension in this application to get the pump far enough forward to get it to clear the harmonic balancer. The notched fuel pump extension, bearing and driveshaft is part number 35225-25101

Does not includes water block off plates

Includes fuel pump mounting flange drilled for 4 bolt

pn 39195-35014 List \$ 285.00 + Racer Decal Discount \$ 245.00 +



## Small Block Chevy Roller Cam bearing kit

Flat tappet cam have the lobes ground to keep the lifters rotating in their lifter bore this taper on the lobe naturally causes the camshaft to be pulled backwards in the block keeping the pressure on the front timing gear and locating the camshaft. Roller cams do NOT have this feature. The lobes on roller cams are ground square to the centerline of the camshaft and with out some kind of device to hold the cam back in the block the camshaft will float forwards and backwards. This can cause erratic timing if you are still driving the distributor or magneto off the stock location on the camshaft and this floating action can actually cause fuel pump damage if the pump is mounted on the timing cover directly. We supply a bearing and housing kit that will allow you to put a thrust bearing on the cam fuel pump drive and shim it to achieve zero or near zero camshaft movement.

### Thrust bearing kit pn 39195-35099 Racer Decal Discount \$ 125.00 +

As you read through this document you will find some prices on hardware that we have available to assist you. You will see the list price and the Racer Decal Discount Price (RDD). Here we offer the racer a price incentive to display our stickers to help us get our message to other racers. We don't expect you to do this with our compensation so we offer a special Racer Decal Discount price to anyone willing to put our sticker on their car. Your help in getting our message to new clients is appreciated and rewarded.

## Timing Chain Cover – Big Block Chevy

### BBC Chev cast alum timing **cover kit**

Includes Chev cast alum timing cover  
Does not includes water pump block off plates cast in cover  
Includes 3 hole and 4 hole fuel pump mount drilled and tapped in cover  
includes fuel pump drive hex  
pn 39195-42703  
List \$ 370.00 +  
Racer Decal Discount \$ 331.00 +



### BBC Chev cast alum timing **cover only**

includes Chev cast alum timing cover  
Does not includes water pump block off plates cast in cover  
Includes 3 hole and 4 hole fuel pump mount drilled and tapped in cover  
pn 39195-42704      List \$ 301.00 +      Racer Decal Discount \$ 251.00 +

### BBC Chev cast alum timing **cover only**

Includes Chev cast alum timing cover  
Does not includes water pump block off plates cast in cover  
Blank fuel pump pad, does not include fuel pump mount drilled and tapped in cover  
pn 39195-42705      List \$ 285.00 +      Racer Decal Discount \$ 235.00 +



## Fuel Pump Hex Cam Drive - 3/8" Hex

**Chevy cam bolt pattern**

**Hex Drive Only**

pn 39225-00001 List Price \$95.00+

Racer Decal Price \$ 75.00 +



## Fuel Pump Cam Drive Thrust Bearing Kit

"A must for all roller cam Chevy engines"

1 ea Thrust Bearing

4 ea Hardened bearing races / shims .032" thick – shim to set cam end play

pn 39225-00002 List Price \$ 50.00+ Racer Decal Price \$ 45.00 +

## Small Block Ford

### Front Timing Cover

### Fuel Pump Drive

\* Cleveland

\* Fontana

\* Windsor

Engine mounts shown in  
photo are available



### 351C Ford Cleveland Front plate only

CNC machined billet alum-no fuel pump mounting

pn 39195-69449 List \$ 285.00 + Racer Decal Discount \$ 235.00 +

### 351C Ford Cleveland Front plate only but plate has pump provisions and mount holes

CNC machined billet alum-includes fuel pump mounting

pn 39195-69440 List \$ 295.00 + Racer Decal Discount \$ 265.00 +

### 351C Ford Cleveland Front plate with pump provisions, mount holes and pump drive kit.

CNC machined billet alum-includes fuel pump mounting and cam drive fuel pump drive kit

pn 39195-69441 List \$ 495.00 + Racer Decal Discount \$ 430.00 +

**351F Ford Fontana Front plate only**

CNC machined billet alum-no fuel pump mounting

pn 39195-69479      List \$ 285.00 +      Racer Decal Discount \$ 235.00 +

**351F Ford Fontana Front plate only but plate has pump provisions and mount holes**

CNC machined billet alum-includes fuel pump mounting

pn 39195-69470      List \$ 295.00 +      Racer Decal Discount \$ 265.00 +

**351F Ford Fontana Front plate with pump provisions, mount holes and pump drive kit.**

CNC machined billet alum-includes fuel pump mounting and cam drive fuel pump drive kit

pn 39195-69471      List \$ 495.00 +      Racer Decal Discount \$ 430.00 +

**351W Ford Windsor Front plate only**

CNC machined billet alum-no fuel pump mounting

pn 39195-69479      List \$ 285.00 +      Racer Decal Discount \$ 235.00 +

**351W Ford Windsor Front plate only but plate has pump provisions and mount holes**

CNC machined billet alum-includes fuel pump mounting

pn 39195-69470      List \$ 295.00 +      Racer Decal Discount \$ 265.00 +

**351W Ford Windsor Front plate with pump provisions, mount holes and pump drive kit.**

CNC machined billet alum-includes fuel pump mounting and cam drive fuel pump drive kit

pn 39195-69471      List \$ 495.00 +      Racer Decal Discount \$ 430.00 +

**Windsor or Fontana with a JESEL Belt Drive**

**351J Ford Windsor JESEL Front plate only**

CNC machined billet alum-no fuel pump mounting

pn 39195-69489      List \$ 310.00 +      Racer Decal Discount \$ 275.00 +

**351J Ford Windsor JESEL Front plate only but plate has pump provisions and mount holes**

CNC machined billet alum-includes fuel pump mounting

pn 39195-69480      List \$ 325.00 +      Racer Decal Discount \$ 305.00 +

**351J Ford Windsor JESEL Front plate with pump provisions, mount holes and pump drive kit.**

CNC machined billet alum-includes fuel pump mounting and cam drive fuel pump drive kit

pn 39195-69481      List \$ 535.00 +      Racer Decal Discount \$ 470.00 +





## SBF Fuel Pump Drive Kit (TIMING CHAIN) FORD 351 Windsor, Cleveland, Fontana

1 ea Camshaft Adapter  
1 ea Fuel Pump Hex Drive  
3 ea 5/16" x 3/4" UNC Allen Bolts

pn 39225-00109

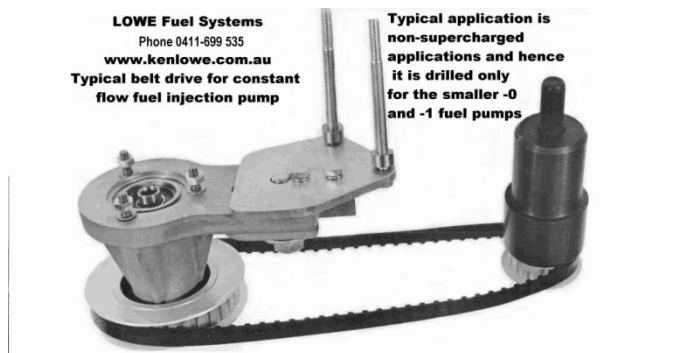
List Price \$ 225.00

Racer Decal Discount \$ 195.00 +

**Belt drive hardware** is usually used on non supercharged applications hence they are drilled for the smaller three bolt pumps. They can be used on some supercharged applications but it is not recommended for a big pump drive.

## Belt Drive Kit – Fuel Pump

The belt drive kits are usually used in non supercharged applications and as such are drilled for mounting the smaller three bolt pumps such as the 80A or the 150 series pumps. If you are using them for supercharged applications then they may be redrilled for the larger four bolt pumps used my most supercharged applications. The drive ratios provided with the pulleys supplied turn the pump at camshaft speed. Larger or smaller pulleys can be installed to increase or decrease pump speed (and size) to suit your particular application. If you want 10% more (or less) volume change the ratios accordingly.



## Chevy -Small Block

Part Number 35225-80001

List Price \$ 475.00+

Racer Decal Discount \$ 410.00+



## Chevy - Big Block

Part Number 35225-80002

List Price \$ 475.00+

Racer Decal Discount \$ 410.00+



## Ford – Small Block

(can be adapted to Big Block Ford)

Part Number 35225-80005

List Price \$ 475.00+ Racer Decal Discount \$ 410.00+



### **JESEL pump drive.**

Using a JESEL belt drive makes adjusting the cam so easy. The JESEL fuel pump drive allows you to drive the fuel pump off the camshaft and still be able to easily adjust the camshaft.

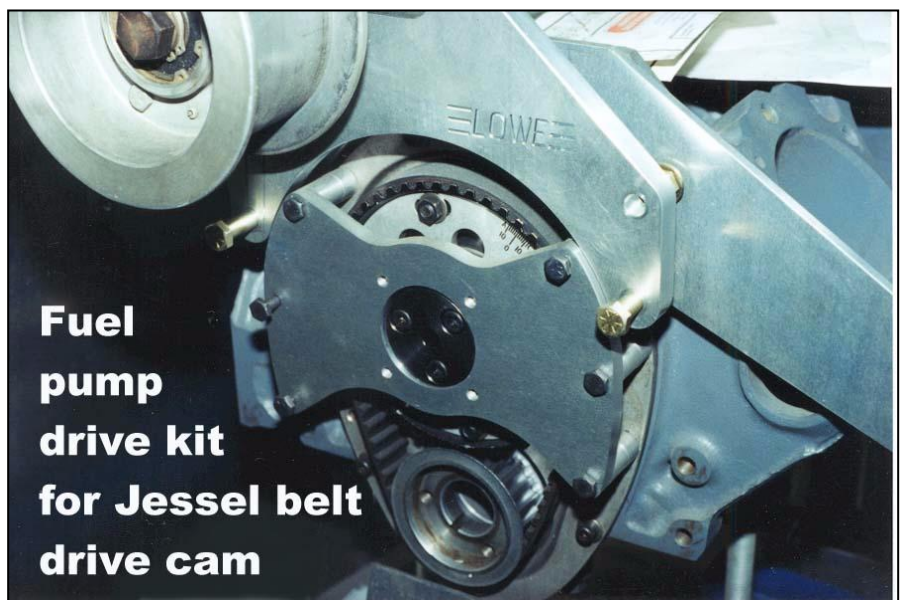
## JESEL Fuel Pump Drive Kit

### Chevy (SBC-BBC) and FORD Windsor Fontana

At LOWE Race Car Hardware we build our hardware to exacting standards. This insures that you the client gets the best possible quality, what this means is that – “Our stuff fits, and our stuff works”

Since a lot of our hardware has to integrate with other

manufacturers hardware such as the JESEL Fuel Pump Drive we have no control over the hardware other manufactures produce. Most manufacturers produce a quality product but since all this hardware has to fit together from time to time manufacturers change the



design of their products without consideration of how their product interacts with other products, when that happens often it will not fit with other existing hardware.

If such a situation should occur where our product no longer fits where it is designed to go all you have to do is to call us and we will make every attempt to rectify the situation.

It is HIGHLY recommended to use a fuel pump extension with the LOWE JESEL fuel pump drive as this will insure the pump mounting flange will be concentric with the fuel pump and have minimum run out on the pump drive. The LOWE JESEL fuel pump drive is made to exacting standards but it has to bolt to another product which in turn bolts to a production engine block. The tolerances of different manufactures can create a challenge to keep everything in perfect alignment. The relationship of the cover bolt holes with the cam center could cause some slight misalignment on the pump drive. In fact we have never actually found this to be true but the possibility is there and to insure the fuel pump runs in a true and concentric environment if you use a high quality fuel pump extension then you will insure this. On normally aspirated engines a short 2.5" extension will do and have the added advantage of moving the pump forward to clear both the harmonic balancer as well as a MSD crank trigger ring if one is installed. On supercharged engines a 5" extension will move the pump far enough forward to get it to clear the blower drive belt. On a small block Chevy engine the cam to crank distance will necessitate the use of a notched face pump extension. We stock both the 2.5" notched face and the 5" notched face extensions.

To install the LOWE JESEL fuel pump drive remove the left hand threaded bolt in the center of the JESEL cam drive and remove the JESEL flange washer that holds the pulley to the hub. Install the LOWE cam adapter with the ½" steel drive pins locating in the three bolt holes for the cam drive hub and secure with the original JESEL left hand threaded center bolt. Then insure the three ½" steel drive pins are below the face surface of the cam adapter and install the female hex pump drive with the three 5/16"unc socket head cap screws provided. Install the pump bracket over the top of the fuel pump hex drive and locate with the stands and bolts provided. Shim or trim the stands to insure the fuel pump hex drive is .100 to .110 below the surface of the pump mount. If you are using a fuel pump extension this dimension is not critical or important as long as the fuel pump driveshaft is of adequate length.

### **SBC JESEL fuel pump drive kit – JFPD-SBC (JESEL Fuel Pump Drive-Small Block Chevy)**

JESEL SBC fuel pump drive kit complete - All parts CNC made, includes billet aluminum front mount plate, steel cam adapter, hex pump drive and six aluminum stands.

Part Number 39225-31000 List Price \$525.00+ Racer Decal Discount \$ 450.00+

### **BBC JESEL fuel pump drive kit - JFPD-BBC (JESEL Fuel Pump Drive- Big Block Chevy)**

JESEL BBC fuel pump drive kit complete - All parts CNC made, includes billet aluminum front mount plate, steel cam adapter, hex pump drive and six aluminum stands.

Part Number 39225-32000 List Price \$525.00+ Racer Decal Discount \$ 450.00+



## SBF (Small Block Ford – Windsor) JESEL fuel pump drive kit

### JFPD-SBF (JESEL Fuel Pump Drive-Small Block Ford)

JESEL SBF fuel pump drive kit complete - All parts CNC made, includes billet aluminum front mount plate, steel cam adapter, hex pump drive and six aluminum stands. This product made for non supercharged engines, and it provides dash 8 threaded water ports on the front.

Part Number 39225-33000 List Price \$1095.00+ Racer Decal Discount \$ 950.00+

For supercharged engines use the appropriate crank support mounting plate to accommodate the JESEL belt drive.



## Fuel Pump

### Extensions – Fuel

pump extensions are not a complicated piece of hardware. Their job is to simply move the pump forward to clear the blower belt on some applications or the harmonic balancer in other situations. Or that is where they start, in the design and application process. More

considerations come into

play once the product is placed in use. In some applications, like non supercharged engines with small fuel pumps, it probably does not make any difference how strong the pump extension is because almost any design will work as long as it meets the rest of the design criteria. Such as, does it have a notch to clear the harmonic balancer and does it prevent oil from leaking between the pump and the end of the extension. Not all pump extensions will do that.

In supercharged applications more considerations must be met in the design criteria of the product. Supercharged engines use larger, heavier fuel pumps, and often fuel pump magneto drives. Now the fuel pump extension must carry the larger fuel pump, the offset magneto drive and the magneto.

Now all that stuff is getting heavy and you are hanging it out on the end of a flimsy fuel pump extension. How long will that last? Add to this some bad tire shake and you have a fuel pump extension housing failure. Since the magneto is driven through the fuel pump extension, should it fail at an incontinent time it could misfire and cause a blower explosion.



**Extension assemblies include bearing and driveshaft**



There are three basic different designs for fuel pump extensions.

- \*Three piece billet design
- \*One piece cast design
- \*One piece billet design.

### Three piece billet design

The three piece billet design was created to produce a product that can be manufactured with the

least amount of material and work thus reducing the cost of the product. The problem is that this design uses ¼" bolts or smaller in a very small bolt pattern around the tube of the extension to bolt the end pancakes to. This small bolt circle has a limited strength since the top and bottom bolts are usually only about 1 1/4 inch apart. If you hang a big fuel pump, magneto offset drive and a magneto out on the end of a long extension and have some tire shake how long will it take to have a failure here? Remember they are threaded into the aluminum pancakes that form the fuel pump extension flanges which are usually only about 3/8" thick.

### **One piece cast design**

One piece cast design is not very robust and must be much heavier. In today's racing some racers are using more and more overdrive which means larger and larger bottom pulleys and in this situation getting the clearance between the bottom pulley and the fuel pump extension can be a problem.

### **One piece billet design**

Although this design is the most expensive because it requires a lot of machining to remove the material to create the product. Material that costs to purchase initially and then has to be removed to create the product. This design is by far the strongest design. The one piece billet design starts with a solid bar of aluminum and machines off the material that is not needed. A strong and robust design creates a product that the racer will never have a problem with. Although more expensive to manufacture than other designs this is the product that racers use when they do not want failures.

### **Design features used in a quality product**

A design consideration that is often overlooked by the designer and manufacturers of fuel pump extensions is to insure the engine oil from the front timing cover or gear drive does not leak out. Some do not use a bearing to support the driveshaft and even some of those who do rely on the bearing to hold the oil inside the engine. Unfortunately the oil will seep past the bearing and the shaft or the housing and will leak out. The LOWE Industries fuel pump extension uses both a bearing (with seals to protect the bearing) and a separate seal on the fuel pump driveshaft to seal the oil inside the engine. Most fuel pump extensions do not take this into consideration and racers find that they must put some type of sealer between the fuel pump and the extension to keep the oil from dripping out. There are two problems with this. First is only covering up a design flaw of the fuel pump extension and second if the fuel pump seal should fail it insures that it will not leak onto the ground. There are two problems with this.

As a racer you want to know if your fuel pump is leaking as the seal because this means that fuel intended for the engine is not getting there which means a lean condition and also that the fuel instead of leaking onto the ground is now going into the engine and diluting the engine oil, something else you do NOT want.

### **Bolt pattern.**

There are two different bolt patterns on fuel pumps. Most small pumps have the asymmetrical three bolt pattern while all large pumps have the standard four bolt pattern. This pattern is four 1/4" holes on a 2.75" bolt circle. Our fuel pump extensions are drilled for mounting to the engine with the four holes for three reasons. First four bolts are stronger than three, and the four bolts are symmetrical. Finally the square pattern is more mounting friendly. Where the fuel pump mounts most of our fuel pump extensions have dual pattern. One pattern is the standard symmetrical four hole pattern for the big pumps and the other is the asymmetrical pattern for the small pumps. Most pumps made today have a separate mounting flange that allows the pump to rotate to position the pump where you want it but the older pumps do not have that. We have positioned the three hole asymmetrical pattern to point the pump outlet at the 2 o'clock position (as you look at the front of the engine) as this points the pump outlet towards the barrel valve on a supercharged engine. Caution as the lower

pump mounting bolt length may be critical as on some applications it may pass through and hit either the crank trigger ring or blower pulley.

### **Driveshaft length.**

Since our fuel pump extension may be used with other vendors hardware it is important to verify the driveshaft length when installing the fuel pump extension. We will provide you with a driveshaft long enough for most applications and in some applications it may be too long so you may have to remove a little off the end. If it is too short (very rare) let us know and we can supply you with a driveshaft made to the length desired.

### **Advantages of LOWE Industries fuel pump extensions**

- \*One piece billet makes it the strongest possible design and insures no leaks between bolt together joints.**
- \* Bearing supported drive shaft insures the fuel pump drive will not be subjected to undue stress.**
- \* Inner seal keep the oil inside the engine and any leaking fuel outside the engine.**

Now that the design parameters are out of the way lets discuss application.

The 2.5" extension is usually meant for use on non supercharged engines to get the pump out past the harmonic balancer and in some cases past the crank trigger ring. It can be used in some situations where there is limited clearance in the front of the engine and the bottom blower pulley is not so large as to get in the way and it allows the pump to sit back slightly inside the blower belt saving room in front of the engine.

The 5" extension is the usual extension for most normal applications. Our billet extension is strong enough we have even had customers cut the bottom out of it so they could run a very big bottom pulley so that the blower pulley just barely cleared the fuel pump driveshaft. Now that is a big pulley. Small block Chevy's usually use the notched extensions. This is because of the distance between the crank centerline and the cam centerline on this engine. The notch is used to clear the harmonic balancer on a normally aseriated engine (with a 2.5" extension) or the notch is used to clear the blower pulley on a supercharged engine. Not all supercharged engines use a blower pulley large enough to require a notched extension but some do and if you are ever going step up your combination you may need the clearance.

Big block Chevys, Small block Fords and Chrysler Hemi's do not need a notched extension. So far this has been a lot of information about a product that is really quite simple but knowledge is power and we want to give all our customers as much power as possible.

### **Four different configurations**

- A. 2.5" – no notch – pn 35225-25100**
- B. 2.5" – notch – pn 35225-25101**
- C. 5" – no notch – pn 35225-50100**
- D. 5" – notch – pn 35225-50101**



**Prices are on next page**



**2.5" – no notch – pn 35225-25100 List Price \$ 315.00 + RDD \$ 275.00 +**  
**2.5" – notch – pn 35225-25101 List Price \$ 335.00 + RDD \$ 300.00 +**  
**5" – no notch – pn 35225-50100 List Price \$ 345.00 + RDD \$ 305.00 +**  
**5" – notch – pn 35225-50101 List Price \$ 360.00 + RDD \$ 330.00 +**

As you read through this document you will find some prices on hardware that we have available to assist you. You will see the list price and the Racer Decal Discount Price (RDD). Here we offer the racer a price incentive to display our stickers to help us get our message to other racers. We don't expect you to do this with our compensation so we offer a special Racer Decal Discount price to anyone willing to put our sticker on their car. Your help in getting our message to new clients is appreciated and rewarded.

### **Fuel Shut Off Valve – all**

sanctioning bodies require that constant flow fuel systems be fitted with a fuel shut off valve. Our three way valve insures the fuel is shut off with out pressure spiking the pump. We make an over center spring kit for these fuel shut off valves to insure the



valve stays in the position it is put in. Some situations the valve can work open while during a race causing the engine to lean out with devastating results.

Fuel Shut Off Valves come in several different sizes.

### **Over center spring kits - Enderle fuel shut off over center spring mount**

**(BLUE) Dash 6 fuel shut off body - 1.010"dia pn 53090-35204**

**(RED) Dash 8 fuel shut off body - 1.295"dia pn 53090-35205**

**(GOLD) Dash 10 fuel shut off body - 1.480"dia pn 53090-35206**

List Price \$ 99.00 + Racer Decal Discount \$ 89.00 +

Use Dash 6 or Dash 8 for normally aspirated systems. Most supercharged systems except for high flow Top Alcohol or Top Door applications will use a Dash 8 fuel shut off with fittings. Dash 10 is only required on high flow applications.

### **3 way Fuel shut off valve #6 port with fittings**

Part Number 35775-00601 List Price \$ 245.00+ Racer Decal Discount \$235.00+

### **3 way Fuel shut off valve #8 port with fittings**

Part Number 35775-00801 List Price \$ 295.00+ Racer Decal Discount \$275.00+

### **3 way Fuel shut off valve #10 port with fittings**

Part Number 35775-01001 List Price \$ 345.00+ Racer Decal Discount \$310.00+

**Fuel tank** – Size and location are part of deciding what you need. Is this a sedan application where



you want to keep the big tank in the rear or a front engine dragster or an altered. Each has different

applications. Constructing a tank that will perform to your needs



you must consider a lot of different design

considerations.

How many returns do you need? What size feed line



do I need ? Where do I get the hardware to build the tank? We can answer all your tank questions and provide you with the hardware to build your tank with. Because of the range of options it is not feasible to discuss them here but we are very happy to assist you with the correct design of your fuel tank.



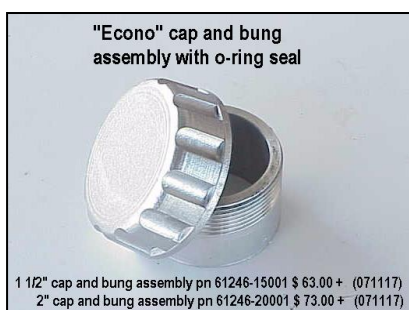
Most fuel tanks for constant flow fuel injection need several ports to return the fuel back to the tank. There is usually a minimum of two ports required. As a racer you have several options. One you can weld on two separate bungs but for a tidy appearance you must be sure to keep them in line. Installing the minimum quantity will allow you to provide for your needs, today. Many times later there is a desire to add an extra port or two for more returns as your fuel system gets a little more complicated. If you install the minimum number required then you have no expansion room without removing the tank and adding more ports. If you add at least one more port than is necessary today and just plug it up until it is needed. We have made several different size billet weld bung blocks. We make both three and four hole and both dash 6 and dash 8 sizes plus blank threaded ones that allow you to drill and tap the sizes you want. For appearance sake we make both the profiled and the straight side billet weld bung blocks to suit any customers' needs.

Prices shown are racer decal discount prices. Wholesale volume purchases get a 15% discount if you purchase any three of the billet weld bung blocks on one order.

A lot of race car fuel tanks use the 1 ¼" supply hose. This size is used because it has flows that are adequate for everything up to Top Fuel and at 1 ¼" common radiator hose which is methanol compatible is inexpensive and readily available. Below is a weld nipple for your fuel tank that has an anti cavitation plate made into the top of the nipple. When this nipple is used in the tank it provides a certain amount of protection to prevent cavitation from when the pump draws the fuel from the tank it can also create a low pressure area in the fuel that can vortex into a path for the pump to draw air.







## Weld Bung (female thread weld in tank fittings)

Dash 6 AN female weld bung	9/16" x 18 thread	pn 61125-60006	\$ 19.95
Dash 8 AN female weld bung	3/4" x 16 thread	pn 61125-60008	\$ 22.95
Dash 10 AN female weld bung	7/8" x 14 thread	pn 61125-60010	\$ 25.15
Dash 12 AN female weld bung	1 1/16" x 12 thread	pn 61125-60012	\$ 28.15
Dash 16 AN female weld bung	1 5/16" x 12 thread	pn 61125-60016	\$ 34.75
Dash 20 AN female weld bung	1 5/8" x 12 thread	pn 61125-60002	\$ 39.50



## NPT weld bungs

NPT weld bung - 1/8" NPT (female) aluminum weld bung	pn 61125-50002	\$ 16.50
NPT weld bung - 1/4" NPT (female) aluminum weld bung	pn 61125-50004	\$ 18.50
NPT weld bung - 3/8" NPT (female) aluminum weld bung	pn 61125-50006	\$ 19.50
NPT weld bung - 1/2" NPT (female) aluminum weld bung	pn 61125-50008	\$ 21.50
NPT weld bung - 3/4" NPT (female) aluminum weld bung	pn 61125-50012	\$ 24.50
NPT weld bung - 1" NPT (female) aluminum weld bung	pn 61125-50016	\$ 29.50

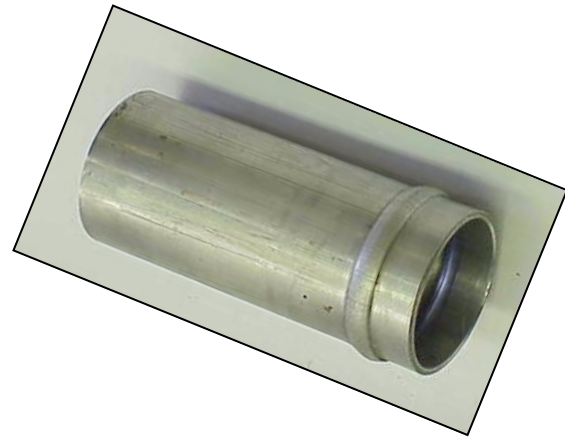
## BSP weld bungs

Below are BSP weld bungs. BSP is one thread (TPI) different than NPT in sizes less than 1/2". Larger than 1/2" they are the same TPI and will interchange.

61125-60002 1/8" BSP (female) aluminum weld bung	\$ 16.50
61125-60004 1/4" BSP (female) aluminum weld bung	\$ 18.50
61125-60006 3/8" BSP (female) aluminum weld bung	\$ 19.50

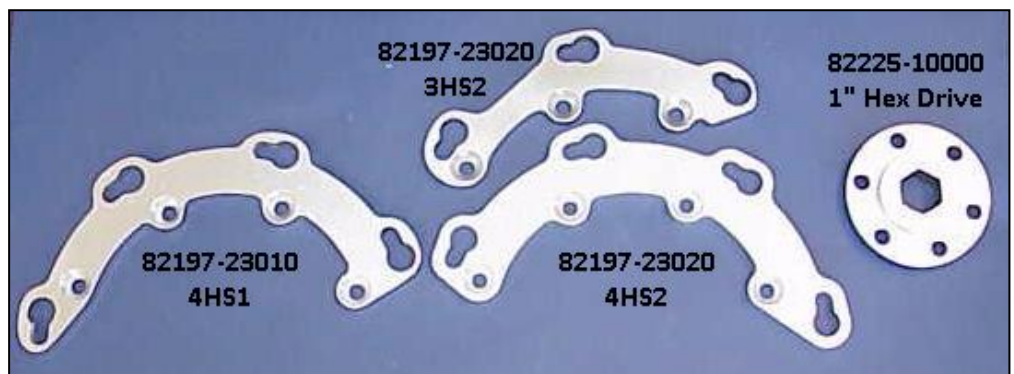
NOTE: BSP weld fittings have a small groove cut around the outside to distinguish the BSP from the NPT since they will look almost identical except for the TPI being one thread different.

1 1/4" x 3" tank nipple (weld on)  
 pn 61390-12503 \$ 15.00  
 1 1/4" x 4" tank nipple (weld on)  
 pn 61390-12504 \$ 16.50  
 1 1/4" x 5" tank nipple (weld on)  
 pn 61390-12505 \$ 18.00  
 1 1/4" x 6" tank nipple (weld on)  
 pn 61390-12506 \$ 19.50



**Remote starter options** – using the top pulley of the blower to drive the starter from is very popular in all the professional categories as it insures adequate cranking speed to fire the magnetos and start the engine. Usually these starters use 24-36 volts to get the crank speed necessary. It is not necessary to

use this method to start your supercharged engine but you must have a good starter that can spin the engine quick enough for starting crankshaft speed.



**Starter crescent only 4 hole style 1 CCW rotation**

PN 82197-23010 (4HS1) List Price \$175.00+ Racer Decal Discount \$ 145.00+

**Starter crescent only 4 hole style 2 CW rotation**

PN 82197-23020 (4HS2) List Price \$175.00+ Racer Decal Discount \$ 145.00+

**Starter crescent only 3 hole style 1 CW rotation**

PN 82197-23030 (3HS1) List Price \$175.00+ Racer Decal Discount \$ 145.00+

**Starter crescent with stands and studs assembly 4HS1**

PN 82197-23011 List Price \$375.00+ Racer Decal Discount \$ 325.00+

**Starter crescent with stands and studs assembly 4HS2**

PN 82197-23021 List Price \$375.00+ Racer Decal Discount \$ 325.00+

**Starter crescent with stands and studs assembly 3HS1**

PN 82197-23031 List Price \$375.00+ Racer Decal Discount \$ 325.00+

**Hex starter drive dog 1 inch drive**

PN 82225-10000 List Price \$195.00+ Racer Decal Discount \$ 155.00+

**Electrical quick disconnect 50 amp**

Battery recharge PN 83190-05000 (each)

List Price \$31.00+

Racer Decal Discount \$ 22.00+

**Electrical quick disconnect 175 amp**

Starter connection PN 83190-17500 each

List Price \$ 41.00+

Racer Decal Discount \$ 29.50+



**Water pumps** – since most blown systems use a cam drive fuel pump this means the use of the stock water pump is not an option. These days this is no problem since there are many inline electric powered water pumps available. The LOWE inline water pump is shown in the adjacent photo. Not recommended for street applications, drag race only.

**Water pump 12VDC electric with 3/4" connections**

PN 40571-10001 List Price \$ 430.00+ Racer Decal Discount \$ 395.00+

**Water pump electrical quick disconnect kit (same as EFI nozzle connector)**

PN 40571-10002 List Price \$ 35.00+ Racer Decal Discount \$ 23.00+

**40155-81620 Water pump mounting clamps-flat back 1/4" hole mount**

PN 40155-81620 List Price \$ 92.00+ Racer Decal Discount \$ 75.00+

**Water pump mounting clamps- 1 1/8" tube clamp**

PN 40155-81618 List Price \$ 115.00+ Racer Decal Discount \$ 95.00+

**Water pump mounting clamps- 1 1/4" tube clamp**

PN 40155-81621 List Price \$ 115.00+ Racer Decal Discount \$ 95.00+

**Water pump mounting clamps- 1 3/8" tube clamp**

PN 40155-81638 List Price \$ 115.00+ Racer Decal Discount \$ 95.00+



**Ignition requirements** – in a street application running on petrol or gasoline a MSD 6 or 7 battery ignition will perform adequately and provide you with the rev limiter options that we recommend with even the MSD7 having an ignition retard feature which would be beneficial in this application. In a methanol race application some who wish to stay with battery ignition choose to go to the MSD 8 or 10 although most go with a magneto to fire the heavy wet methanol mixture. Supermags have been around for a long time and are very good but the Supermag II and III do not have permanent magnets and must be recharged while the Supermag IV, V and VI all have permanent magnets and do not have to be recharged. The MSD 12 and 44 are both very good mags for this application with built in rev limiters. The Supermags do not have revlimiters built in. Autometer makes a revlimiter that works on a Supermag II and III but not the IV thru VI. We do not recommend a Vertex mag except for possible nostalgia applications.



## Mag Drive Options



if you decide you are going to use a magneto you have several options to drive the magneto. On a Chevy, it doesn't take a big supercharger to fill up the top of the engine and even if you are using a small supercharger on a small block Chevy or a big block Chevy then you may have to drive the magneto with an offset drive as shown in the photo on the right. Often though offset mag drives can still have clearance problems in the



rear of the engine if they interfere with the firewall. In a Ford application the problem is worse as where the factory distributor is located will be directly under the blower providing no room whatsoever for a big mag. There are 90 degree drives available for stock factory FORD distributors but they must be custom made to suit.



We have solved these problems in another way.

We also make a FPMD (Fuel Pump Magneto Drive) which mounts on the front of the engine where the fuel pump drives off the camshaft. The fuel pump bolts to the front of the FPMD and the mag goes in the offset housing. Our FPMD comes with a drive that will take all Supermag II, III, IV, V, VI mags and all MSD mags as it has a two pin drive, a four pin drive and a Dunn drive all built into one drive. No adapters are necessary. The benefit of the FPMD is that it will fit any type of engine since it drives from the fuel pump mount. Remember if you move the mag to a location other than stock you still have to make a drive that goes where the distributor was to drive the oil pump except if you have installed a belt drive dry sump pump. Also remember if you are using a roller cam you MUST use a bronze gear on the drive.

# FPMD

## (Fuel Pump Magneto Drive) 4.8" offset (center to center)

We have been manufacturing offset mag drives for over twenty years and have created several different designs for different applications. Since the blowers have gotten larger and larger, room for the magneto in the conventional location on top of the engine has vanished. All fuel injected race engines have a mechanical fuel pump drive off the camshaft and this provides an excellent power source to drive a magneto as well. Just unbolt your fuel pump and bolt the LOWE FPMD on to your engine or fuel pump extension and then bolt your fuel pump back on to the front of the FPMD. Now install your magneto (SuperMag 1 through 6 or MSD magneto) on to the FPMD mag drive housing using your standard lock clamp. Set your timing and you are done.



In standard locations the bottom of the magneto (or distributor) drives the oil pump as well and if you drive the magneto from another power source you must still install a oil pump drive. We have these available as well.

### Features of the LOWE 4.8" FPMD.

- Reliable belt drive to the magneto

- Triple option for magneto drive with no changes, two pin, four pin or Dunn drive all in one.



- 4140 fuel pump drive shaft – strong enough to drive the fuel pump and magneto

- Dual pattern on mounting flange

- Trimmed bottom case to allow offset drive to be moved closer to engine and clear most blower pulleys

- Keyway shafts and hubs.

- Seal in the fuel pump drive shaft to keep oil out of belt housing – not just a sealed bearing.

- Support mounting holes provided in

housing

- Anodized housing for appearance and durability

- Predrilled and tapped fuel pump mount flange

- Full sealed ball bearing design for long life.

- Separate oil seal to prevent engine oil from

- entering the inside of the belt case – not just a sealed bearing which will leak oil around the outside.



**Belt tension never needs adjustment.**

**Fully enclosed belt drive housing to prevent damage to belt.**

**Easy to disassemble to inspect**

**All stainless fasteners**

**Cable tach drive option**

The 4.8 offset drive has a totally enclosed belt to protect the belt. We allowed the mag drive shaft to be flush with the back of the housing so it can be observed if the mag drive is turning while the engine is cranking to start. This was provided to allow the tuner to trouble shoot problems more easily.

Our unique drive hub insures that your mag drive will fit your mag. Our universal hub has both a two pin and a four pin drive provisions as well as the Dunn drive cross. Slide your mag on and tighten the clamp.

In supercharged applications if you mount the FPMD directly to the front of the engine without using a fuel pump extension the FPMD must sit at the 12 o'clock (or straight up) position. Some conflict with the idler pulley can be a concern. Mounting it this way does limit the diameter of the bottom pulley but it will move the fuel pump back as far as possible which in some cases can be a big benefit as fuel tanks and other chassis hardware may conflict.



Moving the FPMD out to the end of a fuel pump extension allows the FPMD to be installed at any angle desired as the FPMD will sit in front of the blower drive belt. This also removes any conflict with the blower belt idler pulley.



Fuel pump extensions for this application must



be robust as it must hold the weight of both the fuel pump and the magneto. The LOWE fuel pump extensions come in two lengths 2 ½" and 5" and also have the option of a notched flange to accommodate applications such as small block Chevys that have a very close crank to cam center line. The fuel pump extension is notched to clear both a harmonic

balancer or larger blower pulleys and timing rings. The LOWE fuel pump extensions are CNC machined from one piece billet aluminum and have a bearing supported drive shaft with a seal on the drive hub to keep oil inside the engine and not let it drip out at the end of the pump extension.

The mounting for the offset mag drive to the pump extension or engine is with the standard symmetrical four bolt patter of 1/4" bolts on 2.75" bolt circle. We provide two sets of mounting holes for two reasons. It offers the customer more options for mounting.

Our offset mag drive housing has been clearance milled housing to give more room in tight positions and clearance milled to allow larger blower pulleys in certain cases.

The LOWE FPMD has two extra 1/4" holes on the top which can be used for either attaching a support bracket to make the mounting more robust or provisions to zip tie the plug wires to go inside the blower belt.

All the components are fully cnc machined to exacting standards for the ultimate in fit and finish.



The complete housing is anodized to protect the aluminum as well as improve the appearance.

The fuel pump mounting face is drilled and tapped for a standard symmetrical four bolt pump mounting on a 2.75" bolt circle. This will accommodate all Enderle 110, 990, 1100, 1200 pumps and Hilborn 175 series pumps and all Waterman Big Bertha pumps. We did not provide a three hole asymmetrical bolt pattern like the small pumps as doing so would require us to increase the material on the bottom of the housing where we have removed it for clearance and vary rarely does anyone use the small pumps in a supercharged application.



If you want to use the FPMD in the original distributor location for Chevy applications we provide a drive that doubles as both the oil pump drive as well as a FPMD drive.

The standard LOWE FPMD has an offset of 4.8" from center to center. In quantities of 10 or more we can make any of the following length offsets. Sixty to ninety day lead time from receipt of deposit. 50% deposit required with order.

**PN 39225-30480**

**List Price \$ 1375.00 +**

**Racer Decal Discount \$ 995.00 +**

**Blower Restraints** – the compressed air and fuel in the manifold can create a nasty explosion, should it find a spark. This can happen if the magnito is not set correctly or it moves or for some reason the intake valve does not seal when it closes. When the spark gets to the compressed air and fuel the blower has a tendency to jump off the manifold and the blower restraints limits the travel the blower has. Usually it only jumps up an inch or so, with the blower traveling to the length of the blower restraints, relieving all the pressure and sits right back down on the manifold. This is providing the blower is secured with the proper





aluminum studs which if prepared correctly will snap off under an explosive load. Using steel bolts here is a recipe for disaster. You will have a broken blower, manifold or both, if you backfire the engine with steel fasteners. All 6-71 blowers have the inlet cross bar to strengthen the blower case in the same location. Others will have the cross bar in different locations based on how long the inlet opening is. Some will locate this bar slightly forward others will locate it slightly backwards. We provide a blower restraints with a blank centers that can be cut to suit your application.

**Blower restraint – 6-71 and 8-71 blower (8 Top bolt pattern) 13.25 " from front bolt to rear bolt**

PN 36585-00002 List Price \$ 635.00+ Racer Decal Discount \$ 595.00+

**Blower restraint – 10-71, 12-71, 14-71, 16-71 (10 Top bolt pattern) 15.312" from front bolt to rear bolt**

PN 36585-00002 List Price \$ 635.00+ Racer Decal Discount \$ 595.00+

**Blower restraint – 8 Top to 10 Top adapter – Has both bolt patterns to allow the use of a 8 Top injector hat to be used on a 10 Top blower.**

PN 36585-00003 List Price \$ 695.00+ Racer Decal Discount \$ 620.00+

**Blower restraint "Y" bracket – bolts to exhaust header bolts or welds to exhaust header mount plate.**

PN 36585-10001

List Price \$ 125.00+

Racer Decal Discount \$ 95.00ea+

**Blower restraint "Y" bracket pin**

PN 36585-10002

List Price \$ 35.00+

Racer Decal Discount \$ 25.00ea+

**Blower mounting studs** – do not use steel bolts to hold your blower to the manifold. Use the aluminum studs, use plenty of antiseize to lube the threads and torque to 120 inch pounds. We recommend drilling the center of the studs up from the bottom (course thread end) just past the point where the threaded part meets the unthreaded part) to 3/16" to allow them to snap off is the engine is backfired. This saves the blower and the manifold. Set of replacement studs are still cheaper than a new burst panel. Good idea to keep a spare set in the trailer as well.



**Blower stud set of 8 studs and nuts (anodized aluminum studs/plain top - steel nuts)**

PN 36720-10437 List Price \$105.00+ Racer Decal Discount \$85.00+

**Blower stud set of 8 studs and nuts (anodized aluminum studs/plain top – aluminum nuts)**

PN 36720-11437 List Price \$119.00+ Racer Decal Discount \$99.00+

**Blower stud set of 8 studs and nuts (anodized aluminum studs/hex top – aluminum nuts)**

PN 36720-12437 List Price \$135.00+ Racer Decal Discount \$112.00+

**Burst Panels** – these are a good idea as they can save a lot of money should something go wrong. Unless specified by sanctioning body regulations they are not necessary if you have the correct blower mounting hardware, not necessary but a good idea. Most race manifolds have provisions for burst panels while no street manifolds do. The height of the burst panel requires a moderately large plenum under the blower and street manifolds plenum is not that tall.



## Blower Burst Panel Kits

Complete kit includes burst panel, clamp ring, support ring with set screw, weld ring and complete set clamp bolts. Some manufacturers use countersunk flat head socket head cap screws but we have found that when the burst panel releases because of a backfire the stress causes the clamp ring bolts to tighten. The very small hex socket opening on the flat head fasteners make it almost impossible to install and remove the flat head screws. Because they are flat head you cannot grab the outside of the screw for additional assistance in removing the bolts. This often makes what should be a very simple job very a very difficult job. We decided this was the wrong screw for the application and designed ours with standard socket head cap screws which have a much larger and more robust tool to remove the fastener and if they need assistance you can grasp the outside of the fastener with a vice grip if necessary.



### **Burst panel complete kit with burst plate**

Part number 36525-19000 List Price \$ 475.00+ Racer Decal Discount \$ 425.00+

### **Burst panel complete kit without burst plate**

Part number 36525-19001 List Price \$ 365.00+ Racer Decal Discount \$ 315.00+

### **Burst panel replacement**

Part number 36525-19010 List Price \$ 125.00+ Racer Decal Discount \$ 110.00+

### **Burst panel clamp ring**

Part number 36525-19020 List Price \$ 115.00+ Racer Decal Discount \$ 95.00+

### **Burst panel weld ring**

Part number 36525-19030 List Price \$ 90.00+ Racer Decal Discount \$ 65.00+

### **Burst panel inner support plate with load screw**

Part number 36525-19040 List Price \$ 125.00+ Racer Decal Discount \$ 110.00+

Burst panel inner support plate is important as it stops the pulsations of the air coming out of the supercharger to cause the burst panel to cause the premature failure of the burst panel. The load screw, when set correctly, applies a bit of pressure to the center of the burst panel to prevent the pulsations from allowing the “oil can” effect to cause the premature failure of the burst panel.

**Connecting Everything** – we have available a complete range of cables, brackets, clamps and hardware to connect the throttle, fuel shut off or other controls you may need.



## Motion Control Hardware



### Cables – Motion Control

Measured from tip to tip

**Racer Decal Discount - Save \$20.00 off every cable**

Motion Control cable	39" or 3'3"	PN 53140-00100	List \$ 106.00+	Racer Decal Discount = \$ 86.00+
Motion Control cable	49" or 4'1"	PN 53140-00125	List \$ 107.00+	Racer Decal Discount = \$ 87.00+
Motion Control cable	59" or 4'11"	PN 53140-00150	List \$ 108.00+	Racer Decal Discount = \$ 88.00+
Motion Control cable	69" or 5'9"	PN 53140-00175	List \$ 109.00+	Racer Decal Discount = \$ 89.00+
Motion Control cable	79" or 6'7"	PN 53140-00200	List \$ 112.50+	Racer Decal Discount = \$ 92.50+
Motion Control cable	89" or 7'5"	PN 53140-00225	List \$ 115.00+	Racer Decal Discount = \$ 95.00+
Motion Control cable	101" or 8'5"	PN 53140-00250	List \$ 117.50+	Racer Decal Discount = \$ 97.50+
Motion Control cable	108" or 9'0"	PN 53140-00275	List \$ 118.00+	Racer Decal Discount = \$ 99.00+
Motion Control cable	118" or 9'10"	PN 53140-00300	List \$ 124.00+	Racer Decal Discount = \$ 104.00+
Motion Control cable	128" or 10'8"	PN 53140-00325	List \$ 126.00+	Racer Decal Discount = \$ 106.00+
Motion Control cable	138" or 11'6"	PN 53140-00350	List \$ 128.00+	Racer Decal Discount = \$ 108.00+
Motion Control cable	148" or 12'4"	PN 53140-00375	List \$ 135.00+	Racer Decal Discount = \$ 115.00+
Motion Control cable	158" or 13'2"	PN 53140-00400	List \$ 142.00+	Racer Decal Discount = \$ 122.00+
Motion Control cable	167" or 13'11"	PN 53140-00425	List \$ 145.00+	Racer Decal Discount = \$ 125.00+
Motion Control cable	177" or 14'9"	PN 53140-00450	List \$ 149.00+	Racer Decal Discount = \$ 129.00+
Motion Control cable	187" or 15'7"	PN 53140-00475	List \$ 155.00+	Racer Decal Discount = \$ 135.00+
Motion Control cable	197" or 16'5"	PN 53140-00500	List \$ 161.00+	Racer Decal Discount = \$ 141.00+

## Cable housing quick release clip

Stainless steel

Part number 53155-01000

List Price \$ 39.00 +

Racer Decal Discount Price \$ 29.00 +



## Cable Housing Billet Clamp

Comes with stainless steel countersunk Allen head capscrew and nylon lock nut to bolt to the bracket.



Part number 53155-32621

List Price \$ 42.00 +

Racer Decal Discount Price \$ 29.75 +

## Quick Release Ball Joint

3/16" thread (10-32tpi)

Part Number 53347-10100

List \$45.00+

Racer Decal Discount \$ 35.00+



## Spring Mount - Enderle Throttle Lever

Includes: 2 ea 10-24 threaded screws 1 ea spring mount plate

Part number 53385-13020 List Price \$ 15.00 +

Racer Decal Discount Price \$ 12.50 +



## Throttle Spring

Often a trip to the hardware store is time consuming and gets you a spring that is too short, too strong or too weak. Here is a spring that works on most throttle return applications, and it is stainless so rust is never a problem. 4" (100mm)

long Part number 53680-12390

List Price \$ 18.00 +

Racer Decal Discount Price \$ 12.50 +





## Bellcrank 1.75"

Pivot bearing ¼" id  
Linkage holes are 1.75" and 1.25" from the pivot center and threaded to 10-32 thread.  
CNC billet aluminum with sealed ball bearings.

List Price \$ 120.00 +  
Racer Decal Discount Price \$ 95.00+  
Wholesale (purchase 3 at \$ 85.00ea +)



## Throttle cable mount – Supercharger / Fuel Injection

**Cable housing quick release clip**  
(stainless steel)PN 53155-01000  
List Price \$ 39.00+  
Racer Decal Discount \$ 29.00+

**Quick Release Ball Joint 3/16 Male thread**  
(SAE) 3/16" Cable end  
Part Number 53347-10100  
List Price \$45.00+  
Racer Decal Discount \$ 35.00+



**Enderle throttle arm return spring mount**  
PN 53385-13020  
List Price \$15.00+  
Racer Decal Discount \$ 12.50+



**Spring,throttle return 3/8" x 4" (100mm)**  
PN 53680-12390  
List Price \$18.00+  
Racer Decal Discount \$ 12.50+

**Throttle cable mount, Roots supercharger-Enderle Bug hat** (use with 53155-01000 stainless steel clip)  
Part Number 53090-13336  
List Price \$85.00+  
Racer Decal Discount \$ 69.00+

**Throttle cable mount, Roots supercharger-Enderle Bird hat** (use with 53155-01000 stainless steel clip)  
Part Number 53090-13349  
List Price \$95.00+  
Racer Decal Discount \$ 79.00+

**Throttle cable mount, Roots supercharger-Enderle Buzzard hat** (use with 53155-01000 stainless steel clip)  
Part Number 53090-13356  
List Price \$105.00+  
Racer Decal Discount \$ 89.00+

**Throttle cable mount adapter kit**

Enderle Bug/Bird/Buzzard and roots blower with a  
**426 Chrysler** spacer bolt kit 1.5" long - This allows the throttle cable to clear the magneto.  
PN 53130-13330  
List Price \$ 45.00+  
Racer Decal Discount \$ 31.00

**PSI (large hat) throttle mount bracket**

(use with 53155-01000 stainless steel clip)  
PN 53090-13526 List Price \$195.00+  
Racer Decal Discount \$ 165.00+

**Quick Release Ball Joint 3/16 Male thread (SAE)**

3/16" Cable end  
Part Number 53347-10100  
List Price \$45.00+  
Racer Decal Discount \$ 35.00+



**Fuel Shut Off**

**Cable mount at pump**

**Cable housing quick release clip**  
(stainless steel)PN 53155-01000  
List Price \$ 39.00+  
Racer Decal Discount \$ 29.00+

**Quick Release Ball Joint 3/16 Male thread**  
(SAE) 3/16" Cable end  
Part Number 53347-10100  
List Price \$45.00+  
Racer Decal Discount \$ 35.00+

**Cable mount bracket – Pump mount**

**Enderle 80A and Hilborn 150A**  
(use with 53155-01000 clip)  
PN 53090-35073  
List Price \$85.00+  
Racer Decal Discount \$ 65.00+



**Cable mount bracket – Pump mount - Enderle 110. 990, 1100, 1200**

(use with 53155-01000 clip)

PN 53090-35113

List Price \$95.00+

Racer Decal Discount \$ 85.00+

**Cable mount bracket – Pump mount – Hilborn 175-2, 175-3 175-4**

PN 53090-35113

List Price \$65.00+

Racer Decal Discount \$ 55.00+

**Cable mount bracket – Pump mount – LOWE 100 series pumps (use with 53155-01000 clip)**

PN 53090-35113

List Price \$95.00+

Racer Decal Discount \$ 85.00+

**Enderle fuel shut off over center spring mount**

(BLUE) Dash 6 fuel shut off body - 1.010"dia

pn 53090-35204

(RED) Dash 8 fuel shut off body - 1.295"dia

pn 53090-35205

(GOLD) Dash 10 fuel shut off body - 1.480"dia

pn 53090-35206

(Does not include quick release ball joint or fuel shut off)

List Price \$ 95.00 +

Racer Decal Discount \$ 89.00 +



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**Fuel Shut Off - cable mount at control lever**

**Fuel Shut off lever – Chassis mount**

PN 53360-22126

List Price \$45.00+

Racer Decal Discount \$ 35.00+

**Weld Stud** for Fuel Shut off lever  
includes lock nut and washer.

PN 53360-22127

List Price 4.00+

Racer Decal Discount \$ 2.00+

**Quick Release Ball Joint**

3/16 Male thread (SAE) 3/16" Cable  
end

Part Number 53347-10100 List Price \$45.00+ Racer Decal Discount \$ 35.00+



### **Billet Aluminum Cable Housing Clamp**

Comes with stainless steel countersunk Allen head capscrew and nylon lock nut to bolt to the bracket.

Part number 53155-32621

List Price \$ 42.00 +

Racer Decal Discount \$ 29.75+



**Weld bracket** – Steel – hold the cable housing mount or can be used for mounting the fuel shut off lever.

3" long x 1" wide x 3mm steel with 3/16" hole for the cable clamp lock bolt

Part Number 11735-21500

List Price \$15.00 +

Racer Decal Discount \$ 9.00+



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## **Parachute Lever and cable**

**Parachute lever – Chassis mount**

PN 53360-22146 Colors available

List Price \$ 75.00+

Racer Decal Discount \$ 55.00+

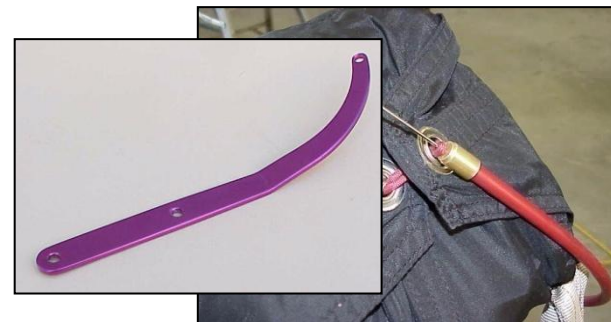
**Weld Stud**

for Fuel Shut off lever includes lock nut and washer.

PN 53360-22127

List Price 4.00+

Racer Decal Discount \$ 2.00+



**Quick Release Ball Joint** 3/16 Male thread (SAE) 3/16" Cable end

Part Number 53347-10100

List Price \$45.00+

Racer Decal Discount \$ 35.00+

**Parachute cable housing tip.** This allows the cable to retract inside the tip and release the chute without the possibility of the cable housing snagging the loop and preventing the chute from deploying.

PN 53240-90000

List Price 45.00+

Racer Decal Discount \$25.50+

**Billet Aluminum Cable Housing Clamp** Comes with stainless steel countersunk Allen head capscrew and nylon lock nut to bolt to the bracket.

Part number 53155-32621

List Price \$ 42.00 +

Racer Decal Discount \$ 29.75+



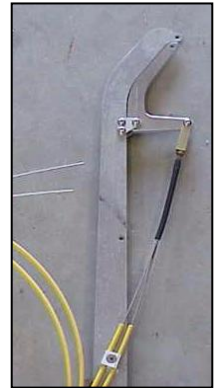
**Weld bracket** – Steel – hold the cable housing mount or can be used for mounting the fuel shut off lever.

3" long x 1" wide x 3mm steel with 3/16" hole for the cable clamp lock bolt

Part Number 11735-21500 List Price \$15.00 + Racer Decal Discount \$ 9.00+

## Brake Handles – Funny Car - Altered

Cars that have clutches use hand brakes. Our hand brake levers are CNC machined from billet aluminum and may be fitted with grips if you so desire. The grips come in a range of colors. Dragsters use a 25 degree handle and Funny Cars and Altered use a 45 degree handle. The difference is the drivers body position in relation to the handle. Handles with no boss welded on may be cut to length you desire.



### Handle FC/A & FED 45 degree brake lever 24"

(no boss welded on)

PN 18360-22316

List Price \$175.00+

Racer Decal Discount \$145.00+



### Handle FC/A & FED 45 degree push brake lever 24" with boss

PN 18360-22326

List Price \$ 195.00+

Racer Decal Discount \$175.00+



### Handle FC/A & FED 45 degree pull brake lever 24" with boss

PN 18360-22336 List Price 195.00 Racer Decal Discount \$175.00+

**Accessory Lever** - Brake lever accessory lever assembly & mount kit includes the hinge mechanism and the nuts and bolts to attach to the brake lever. Excellent for use as a parachute lever, fuel shut off lever or a fire bottle activator lever. Fits 45 degree FC/A levers. PN 18360-22326 List Price \$145.00 Racer Decal Discount \$ 125.00+

## Brake Handles – Rear Engine Dragster

**Handle 25 degree push brake lever**

**19.50" long no boss**

PN 18360-22486

List Price \$175.00+

Racer Decal Discount \$ 145.00+

**Handle 25 degree push brake lever**

**19.50" long with boss.**

Can be used as a standard rear engine dragster shifter lever or Lenco reverser lever.

PN 18360-22496

List Price \$ 195.00

Racer Decal Discount \$ 175.00+



**Handle 25 degree push brake lever**

**18.50" long no boss**

PN 18360-22466

List Price \$180.00+

Racer Decal Discount \$ 160.00+

**Handle 25 degree push brake lever 18.50" long with boss.**

Can be used as a Lenco reverser lever. PN 18360-22476 List Price \$ 195.00+ Racer Decal Discount \$ 165.00+

**Handle 25 degree – Rear engine dragster front brake lever 13.5" long – no box**

PN 18360-22446 List Price \$120.00+ Racer Decal Discount \$ 105.00+

**Handle 25 degree – Rear Engine Dragster brake lever 26" long – no boss**

PN 18360-22606 List Price 175.00+ Racer Decal Discount \$ 130.00+

**Grip Set, with stainless screws – Anodized** List Price \$125.00+ Racer Decal Discount \$ 95.00+

Black PN 18360-22613      Red PN 18360-22614

Blue PN 18360-22615      Purple PN 18360-22616      Gold PN 18360-22616

## LENCO Reverser levers

### Reverser lever for Lenco (Weld on) Funny car/Altered

PN 53360-22900

List Price \$ 175.00+

Racer Decal Discount \$ 145.00+



### Reverser lever for Dragster CNC milled aluminum – no boss

Will accept standard 25 degree hand grip listed above.

PN 53360-22956

List Price \$175.00+

Racer Decal Discount \$ 135.00+

### Billet Aluminum Cable Housing Clamp

Comes with stainless steel countersunk Allen head capscrew and nylon lock nut to bolt to the bracket.

Part number 53155-32621

List Price \$ 42.00 +

Racer Decal Discount \$ 29.75+



**Weld bracket** – Steel – holds the cable housing mount or can be used for mounting the fuel shut off lever.

3" long x 1" wide x 3mm steel with 3/16" hole for the cable clamp lock bolt

Part Number 11735-21500

List Price \$15.00 + Racer Decal Discount \$ 9.00+



## LENCO Reverser cable bracket

### Lenco Reverser Cable Bracket – Fits CS1 and CS2

Some Lenco housing come drilled for this and some do not. IF not drill the mounting pad on 1" centers and tap to 3/8"unf and install a 1" long bolt through from the inside and lock tight in place. This provides a stud arraignment for the bracket and allows it to be removed without disassembling the transmission. Use with Cable housing quick release clip PN 53155-01000. Comes with screws for the stainless steel quick clip.



PN 53090-22986 List Price \$ 55.00+ Racer Decal Discount \$ 45.00+

### Cable housing quick release clip

(stainless steel)

PN 53155-01000

List Price \$ 39.00+

Racer Decal Discount \$ 29.00+

### Quick Release Ball Joint 3/16 Male thread

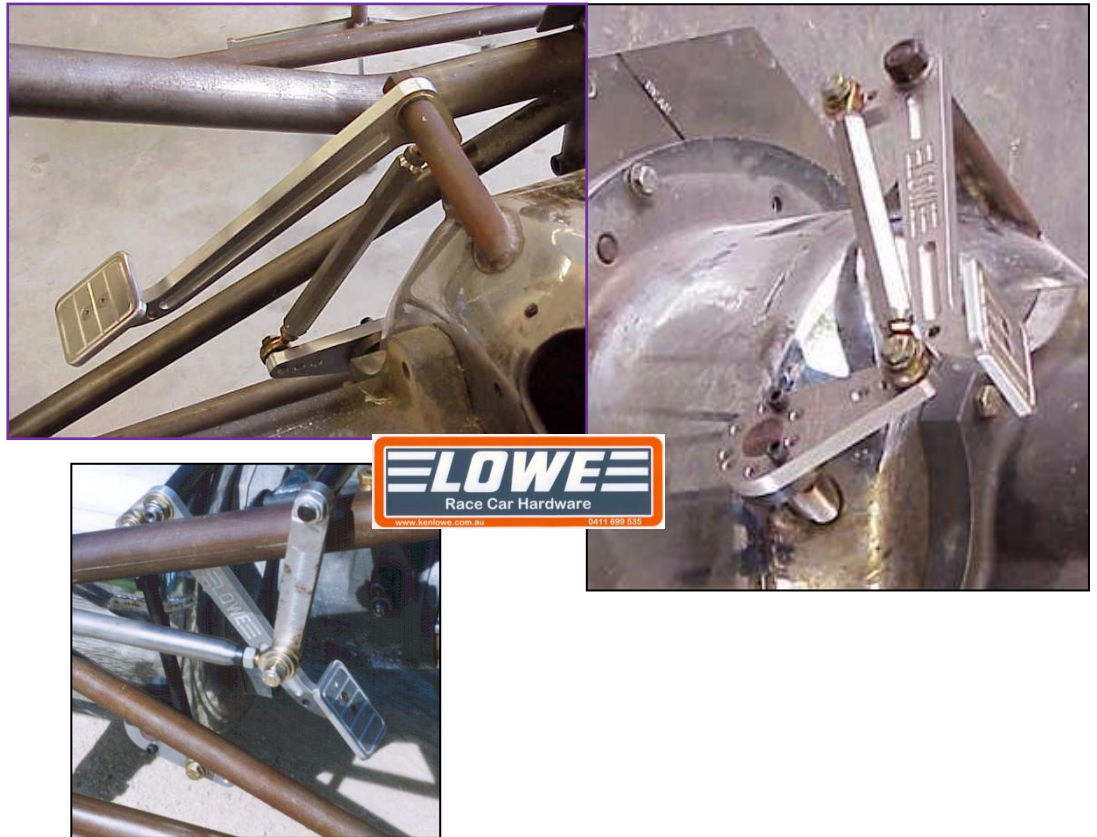
(SAE) 3/16" Cable end

Part Number 53347-10100

List Price \$45.00+

Racer Decal Discount \$ 35.00+

## Clutch Controls – Pedals – Funny Car / Altered – FED



### Clutch Pedals

Clutch pedal Rear Engine Dragster 1/4" thick with pad and boss

Part Number 33535-00006

List Price \$175.00+

Racer Decal Discount \$ 150.00+

33535-00010 Clutch pedal Rear Engine Dragster 3/8" thick with pad and boss

Part Number 33535-00010

List Price \$195.00+

Racer Decal Discount \$ 165.00+

Clutch pedal assy FC/A for top of bellhousing

Part Number 33535-29659

List Price \$225.00+

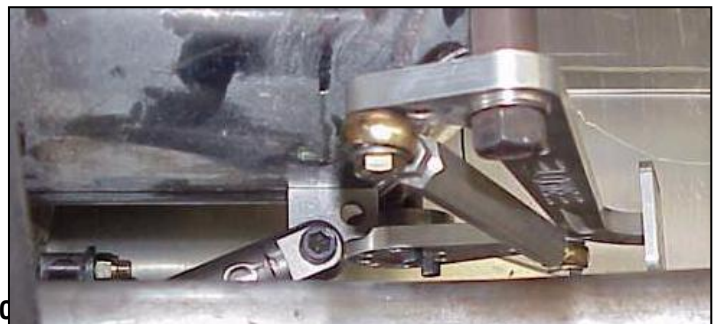
Racer Decal Discount \$ 195.00+

Clutch pedal for RED adjust-a-rail pedal 10" c-c

Part Number 33535-10001 List

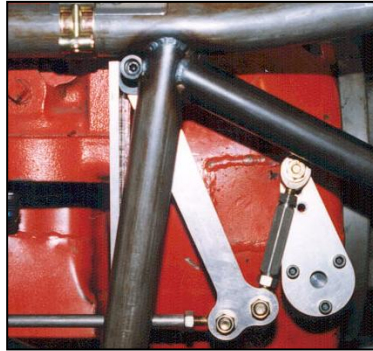
Price \$225.00+

Racer Decal Discount \$ 195.00+





## Clutch Controls – Linkage – Rear Engine Dragster



Clutch idler arm 1 Hole 7" c-c

Part Number 33030-27176 List Price \$55.00+ Racer Decal Discount \$ 35.00+

Clutch idler arm 1 Hole 8" c-c

Part Number 33030-27186 List Price \$55.00+ Racer Decal Discount \$ 35.00+

Clutch idler arm 2 Hole support plate

Part Number 33030-27206 List Price \$45.00+ Racer Decal Discount \$ 32.00+

Clutch idler arm 2 Hole 7" c-c

Part Number 33030-27276 List Price \$45.00+ Racer Decal Discount \$ 40.00+

Clutch idler arm 2 Hole 8" c-c

Part Number 33030-27286 List Price \$55.00+ Racer Decal Discount \$ 45.00+

Clutch idler arm 4 Hole support plate

Part Number 33030-27406 List Price \$55.00+ Racer Decal Discount \$ 40.00+

Clutch idler arm 4 Hole 7" c-c

Part Number 33030-27476 List Price \$55.00+ Racer Decal Discount \$ 45.00+

Clutch idler arm 4 Hole 8" c-c

Part Number 33030-27486 List Price \$55.00+ Racer Decal Discount \$ 50.00+

Clutch bellhousing arm - mount ring

Part Number 33030-29740 List Price \$65.00+ Racer Decal Discount \$ 55.00+

Clutch bellhousing arm 2", 2.5" & 3" long (standard)

Part Number 33030-29750 List Price \$95.00+ Racer Decal Discount \$ 85.00+

Clutch bellhousing arm 2", 2.5" & 3" long (heavy duty) Recommended

Part Number 33030-29751 List Price \$95.00+ Racer Decal Discount \$ 85.00+

## Ford Engine Mount Wings (Sedan)

PN 38090-67956 Ford 351 Windsor-Cleveland-Fontana engine mount wings. Bolts to LOWE front cover or LOWE crank support mounting plate and must be fitted to suit chassis application. Includes mounting bolts and washers

**List Price \$ 175.00+ set**

**RDD \$ 152.00+ set**

