

## General Installation Instructions / Clutch Break-In Period

Thank You for your support of Mcleod Racing. Before installing your new McLeod clutch or flywheel there are some steps we recommend you should take to ensure that you have a proper running clutch. The first thing is to make sure that the flywheel is resurfaced with a new clean drive surface with a course surface texture. We call out an 80 -120 grit surface finish. You should see a cross hatch in the flywheel that you could run a finger nail across and the texture would catch your finger nail. This will ensure a proper seating of the disc against the flywheel and also combat against clutch chatter or judder. Make sure that the drive surface of the flywheel is clean and dry of any Anti-Rust Inhibitor before installation. Brake Cleaner is your friend! (Note: Clutch Chatter is NOT Warrantable)

The second thing we recommend doing is having the flywheel and new clutch assembly balanced together as a complete assembly. This step is a good practice to ensure that there are no issues with vibrations at specific RPM and is the same practice you would use if you are installing new wheels and tires or a new rotating assembly in your engine. Anything that rotates at high speed should be balanced as an assembly. We recommend a professional machine shop that has knowledge on balancing rotating assemblies. McLeod Racing also offers an in house service to balance your assembly. Give our tech and sales team a call at 714-630-2764 x 351 and schedule a RMA Number before you send the unit to us.

All McLeod street performance clutches require a Break-In period of 1200 to 1500 clutch cycles of street type driving before driving at wide open throttle. This procedure is required to properly seat the disc with the pressure plate and flywheel. You can drive 750 miles on the highway and not depress the clutch pedal enough times to properly seat a clutch disc.

## Do not run the vehicle on a chassis dyno prior to full Break-In procedure (Will VOID Warranty)

### Important: During performance driving, all traction control devices must be turned off or clutch slippage will occur!



McLeod flywheels are zero balanced units. Many engines require zero balanced flywheels (Internally balanced). If your engine requires an external balance weight, the amount of external weight is easily added to the flywheel by following these easy steps. Determine your engine displacement and balance weight requirement:

Ford Engines: One weight position. See Figure 1 & 2 Long screws must be used on Aluminum Flywheels!

Install small (28 in oz) or large (50 in oz) weight. Attach with supplied screws.'68 –'80 302/5.0L Require 28 in oz weight.

'81 – '01 302/5.0L Require 50 in oz weight.	'70 – '74 351C Require 28 in oz weight.
'69 – '97 351W Require 28 in oz weight.	'79 – '99 460 Require 28 in oz weight.
'77 – '82 351M & 400M Require 28 in oz weight.	'66 – '70 428 Require 28 in oz weight.

# **Chevrolet Engines: Two weight positions (A or C).** See Figure 3 & 4 **Be certain to mount weight in correct position <u>Long</u> <u>screws must be used on Aluminum Flywheels!</u>**

'86 – '97 305/350 Install smallest weight (radius edges) in position A. Attach with supplied screws.

'70 – '85 383/400 Install small weight (weight with sharp corners, 4" wide) in position C. Attach with supplied screws.'70-'90 454 Install medium weight (5" wide) in position C. Attach with supplied screws.

'91+ 454 Install large weight (6" wide) in position C. Attach with supplied screws.

'91+ 502 Install large weight (6" wide) in position A. Attach with supplied screws.

## **Mopar Engines: Two weight positions (A or C).** See Figure 5 & 6 Be **certain to mount weight in correct position!** <u>Long</u> <u>screws must be used on Aluminum Flywheels!</u>

340 CID '71-'76 w/cast crank Install small aluminum weight in position A. Attach with supplied screws.

360 CID '71-'02. Install large weight in position A. Attach with supplied screws.

'94-'02 Magnum engines. Install extra large weight in position A. Attach with supplied screws.

'71+ 383/400/440 w/cast crank. Install medium steel weight in position C. Attach with supplied screws.

'70-'72 440 w/ 4BBL & 6BBL. Install small steel weight in position C. Attach with supplied screws.





Mopar Weight Kit:

Chevy Weight Kit:

## NOTE: Use long screws on Aluminum Flywheels. Use short screws on Steel Flywheels

Typical examples are shown below. Be certain you mount the correct weight in the specified location!





Figure 1

Ford Aluminum Flywheel

Figure 2





Figure 3

Chevrolet Aluminum Flywheel

Figure 4



Figure 5 **10019** 



Figure 6 (714) 630-2764

360 CID Weight in Position 'A' Mopar Aluminum Flywheel



# Thank you for your purchase at McLeod Racing. If you require assistance with your new product, please call (714) 630-2764 and ask for the tech line.

# Please refer to <u>www.mcleodracing.com</u> for the most current and up to date instructions for your McLeod product.

#### Limited Warranty

McLeod Racing LLC, products are warranted to be free from defects in material and workmanship for the period of ninety (90) days, from the date of purchase. McLeod does not warrant or make any representations concerning its products when not installed and/or used strictly in accordance with the manufacturer's instructions for such; installation and operation, and in accordance with good installation and maintenance practices of the automotive industry. Products purchased used do not carry a warranty. This warranty is to the original purchaser and is non-transferable.

<u>McLeod Racing LLC will not be held liable for the labor charges and other intangible or consequent losses that might</u> <u>be claimed as a result of the failure of any part, nor shall it be liable for damages or injury to persons or property resulting from</u> <u>the misuse or improper installation of any part subject to this warranty.</u>

No merchandise may be returned for any reason unless prior return merchandise authorization number (RMA) has been obtained from McLeod. An RMA number may be obtained via <u>ww.mcleodracing.com</u> or by calling McLeod directly.

McLeod Racing LLC reserves the right to examine all parts returned for warranty claim to determine whether or not any such part has failed because of a defect in material or workmanship. McLeod's obligation under this warranty shall be limited to repairing, replacing or crediting, at its option, any part found to be defective. All products returned to McLeod for warranty inspection must be prepaid by the customer under this warranty.

In a racing environment, the type of stress placed on automotive parts can vary dramatically by the type of use, driving style, track preparation, differing tire style and other variables that are out of McLeod's control. *For this reason, any parts used in a racing environment shall be void of any warranty either expressed or implied.* 

There are no other warranties, either expressed or implied including, but not limited to, warranty of merchantability, and warranty of fitness for a particular purpose which extend beyond those set forth in the preceding paragraphs. This warranty shall be interpreted and applied in accordance with California law.

For any changes or updated versions of the warrant described above, please refer to <u>www.mcleodracing.com</u> before installation of product.







NOTE: ALL TORQUE VALUES ARE BASED ON THE Shank of the Bolt, <u>Not</u> the head of the Bolt

### **Flywheel to Crank**

### Pressure Plate to Flywheel.

Bolt Dia.	Ft/Lbs.	NM	I	Bolt Dia.	Ft/Lbs.	NM	
10mm x 1.0	65	88		8mm x 1.0	25	34	
10mm x 1.25	65	88		8mm x 1.25	25	34	
11mm x 1.50	65	88		10mm x 1.5	35	47	
12mm x 1.0	73	100		5/16-18	25	33	
7/16-20	65	88		5/16-24	25	33	
1/2 – 20	70	94		3/8-16	35	47	

NOTE: DO NOT use an impact diver to tighten crankshaft bolts. Improper tightening can damage bolts.

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