

Important Clutch Installation Hints

The following check list is a reminder of the necessary inspection points and precautions required to insure a trouble-free clutch installation.

Installation / Do's

- 1) Determine cause of original clutch failure. Cause of first clutch failure (if not wear) MUST be found and corrected. If oil is present on clutch plate, cause of leak MUST be corrected before installation of new clutch unit.
- 2) Check splines on transmission input shaft for signs of abnormal wear or twisting. Slide new disc on spline by hand gently to check fit. Disc should move FREELY on splines.
- 3) Remove ALL oil or grease from friction surfaces on flywheel and cover assembly. Surfaces MUST be clean and dry. Also clean input shaft spline with a wire brush. Lubricate with dry graphite spray if needed.
- 4) To insure proper operation, friction surface of flywheel MUST be resurfaced. Check dowel pins, they must be smooth and straight.
- 5) If throw-out bearing is worn, replace it, better now than later.
- 6) Closely inspect pilot bearing or bushing for excessive wear to avoid transmission shaft misalignment. Replace it if any doubts.
- 7) Use clutch alignment tool to insure disc and cover are properly aligned with pilot bearing.
- 8) If using an aftermarket scatter shield/bell housing, checking center hole run-out is highly recommended.
- 9) Be sure all special type bolts, if any, are replaced in their proper locations.
- 10) Torque all clutch cover bolts evenly, to factory recommended spec, using a progressive "criss-cross" tightening pattern.
- 11) Before completing installation, inspect all clutch linkage parts (fork, clevis, pins, etc.) for signs of wear and replace ALL worn pieces. Grease all pivot points in linkage system.
- 12) Adjust clutch pedal "free play" to correct specifications. Throw-out bearing should not be tight against clutch fingers. 1/8" – 1/4" is recommended, except cable linkage.

Installation / Don'ts

- 1) Don't let any grease or oil contact ANY friction Surface.
- 2) Don't use an impact (air gun) to tighten cover bolts.
- 3) Don't let transmission weight rest on input shaft during installation.

Torque Specs

5/16-18 Grade 8	25 Ft/Lbs
3/8-16 Grade 8	35 Ft/Lbs
7/16-20 Grade 8	65 Ft/Lbs
1/2-20 Grade 8	75 Ft/Lbs

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 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. McLeod will not be held liable for the labor charges and other intangible or consequent losses that might 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 the misuse or improper installation of any part subject to this warranty.

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Performance Engineered Driveline Components

Pressure Plate, Street Level, Street Pro,

Super Street Pro & Street Extreme

General Installation Instructions

Please refer to www.mcleodracing.com for the most current and up to date instructions for your McLeod Product.



Street Pro #75124 Shown

Important Bolt Torque Specifications

***PLEASE NOTE:** The torque value is based on the *shank* of the bolt, not the head of the bolt.

1/4" = 15 ft. lbs.

5/16" = 25 ft. lbs.

3/8" = 35 ft. lbs.

7/16" = 65 ft. lbs.

1/2" = 70 ft. lbs.

8mm = 25 ft. lbs.

10mm = 35 ft. lbs.

10mm Crank Bolt = 65 ft. lbs.

11mm Crank Bolt = 65 ft. lbs.

General Applications

HELPFUL HINTS

1. PROPER THROW OUT BEARING INSTALLATION FOR GENERAL MOTOR CARS

INCORRECT

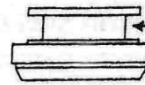


Spring clip does not go on the outside or on top of throw out bearing

CORRECT



Both spring clip & fork go inside the channel on the throw out bearing



CHANNEL OF THROW OUT BEARING

2. PROPER THROW OUT BEARING ADJUSTMENT FOR ALL CARS

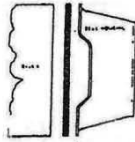
Fig. A



Fig. B



Fig. C



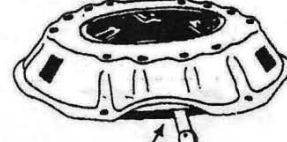
Motor or block plate

Fig. D



Drill hole here

Fig. E



Place feeler gauge between pressure plate & disc.

2. ADJUSTABLE PIVOT — Install from fly side — adjust with screwdriver, through pivot bushing bore

3. LOCK NUT — Installed on adjustable pivot — used to lock pivot after height is adjusted. Loctite recommended

1. PIVOT BASE — Screw in tight — flush with bell housing

It is very important you follow proper installation procedures during clutch replacement; while second most important is proper adjustment.

If you have two-piece bell housing, throw out bearing adjustment is simple: just look into the bell housing and adjust the T.O. Bearing off the pressure plate fingers $\frac{1}{4}$ inch (.250").

If your bell housing is full 360 degree bell housing, first determine whether or not your T.O. Bearing is of sufficient length and is at the proper pivot angle. Disconnect the adjustment rod so that the fork is free. Move the fork by hand toward the transmission until the T.O. bearing contacts the clutch pressure plate fingers. At this point, check the angle of the fork as it comes out of the bell housing. It should be coming out straight or be slightly angled toward the engine. See Fig. A. If the angle is toward the transmission, See Fig B, you are past the Center Line with the bearing and are losing all mechanical leverage. To correct this problem, install a slightly longer T.O. bearing (with flat face)) or use an adjustable ball stud. Be sure to use the McLeod Adjustable Length T. O. Bearing #16505 or its equivalent

When using a scatter shield with a motor plate or block plate, See Fig. C, use of an adjustable ball stud or intermediate T.O. bearing is recommended. To ensure proper adjustment for release on most high performance or drag cars, a hole should be drilled into the bell housing under the clutch assembly large enough to permit entry of a feeler gauge, See Fig D.

When adjusting with a feeler gauge, push the pedal all the way to the floor (or pedal stop); then, by adjusting the clutch rod, slide the feeler gauge between the disc and pressure plate until you have .050" air gap, See Fig. E. When .050" is adjusted into the clutch let the pedal up. Your clutch assembly should be properly adjusted.

When installing a clutch with a Long or Borg & Beck style pressure plate assembly you must remove the plastic spacers between the fingers and the pressure plate cover after you install the clutch. This is a simple process to perform. Using a wood dowel or the handle of a hammer you can lever the finger pressure from the finger to the cover. Place the wood hammer handle under the cover and over the finger and press down on the head of the hammer to release the tension holding the plastic spacer in place. Remove the spacers (3) one at a time. **Do not let your finger get between the clutch lever and the cover during this procedure or you will get pinched, as there is strong spring pressure on the lever!**

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 controls must be turned off or clutch slippage will occur!

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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 warranty described above, please refer to www.mcleodracing.com before installation of product.



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.

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General Installation Instructions / Clutch Break-In Period

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BOLT TORQUE SPECS

NOTE: ALL TORQUE VALUES ARE BASED ON THE SHANK OF THE BOLT, ***NOT*** THE HEAD OF THE BOLT

Flywheel to Crank

Pressure Plate to Flywheel.

Bolt Dia.	Ft/Lbs.	NM	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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