



Powerpack Twin Disc Clutch Installation Instructions

All assemblies should be balanced to the flywheel you are replacing. Twin-Disc Powerpack assemblies are not pre-balanced from the factory. Allow 1200 shift cycles break-in period before hard driving.

When performance driving, all traction control devices must be turned off or clutch slippage will occur.

- 1) Inspect clutch assembly before disassembly. See Figure. 1. Note alignment marks.

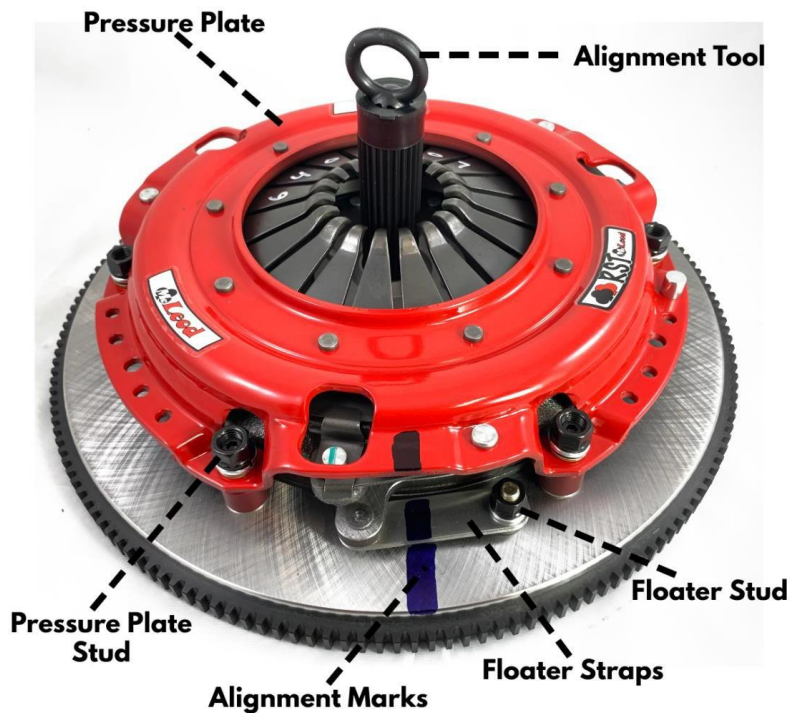


Figure 1

- 2) Unbolt pressure plate by removing six nuts. **Note alignment mark (blue paint) on pressure plate, floater and flywheel. These must be in same position when re-assembling components.**

- 3) Remove top disc and alignment tool. Notice “Flywheel Side” on the disc center. See Figure 2

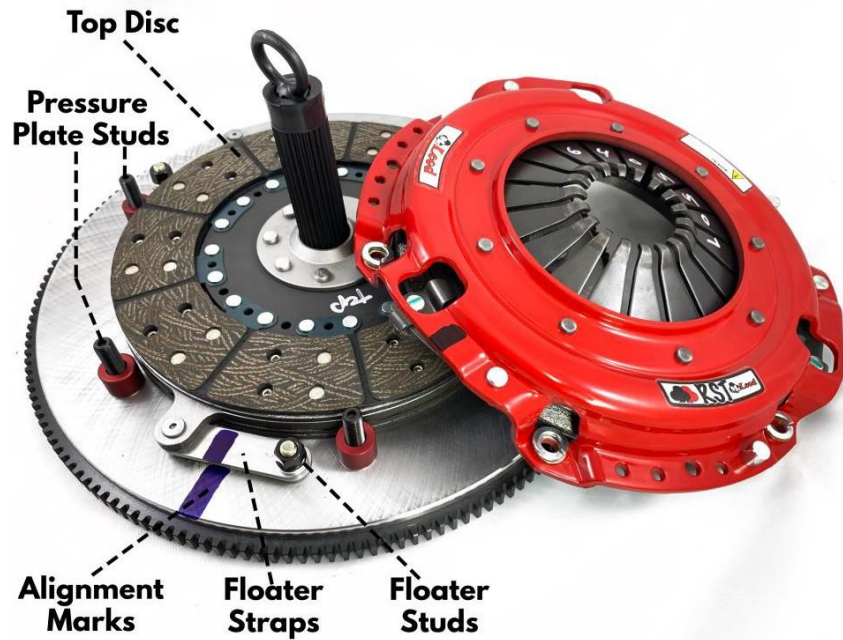


Figure 2

- 4) Remove the three nuts and lock washers that hold the floater straps onto the flywheel. Remove the floater assembly. Note the straps on the floater are on the flywheel side. There are six large studs and three small studs in the flywheel. There is a series of stands and shims on these studs. Do not mix these parts. Install nuts onto studs to prevent the stands and shims from falling off the studs during flywheel installation!
- 5) Remove the bottom disc. Also note “Flywheel Side” on the disc center. See Figure 3

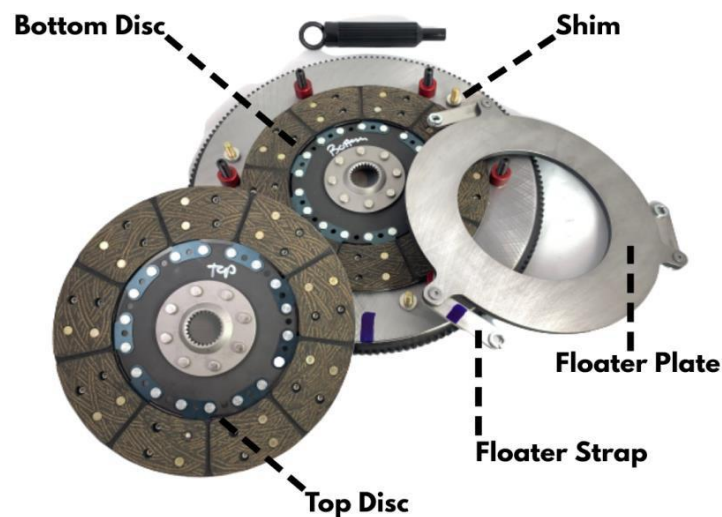


Figure 3

- 6) Inspect the crankshaft at this time. Remove any dirt from the crank and clean the pilot hole. A wire brush can be used. Inspect the pilot bushing; if worn or damaged replace it at this time. Install flywheel onto crank using high-quality crank bolts. Torque bolts to factory specifications.
- 7) Remove the three small nuts from the floater studs and lock washers. Be sure the shims do not fall off the studs.
- 8) Install the bottom disc with the sticker on the flywheel side towards the engine. Install the floater onto the studs. Be sure to note the alignment marks. **Do not add any washers to any locations if they were not present with the McLeod clutch assembly.** Floater straps must be on flywheel side. Install the three nuts and tighten to 25 ft/lbs. Check disc clearance at this time. See Figure 4

Insert the pilot tool and rotate the disc. The disc should be free and clear. Remember to keep the same shims on the factory studs. If all is correct re-tighten the three floater nuts on each stud to 25 ft/lbs. **Do not use Loctite on these nuts!** See Figure 5

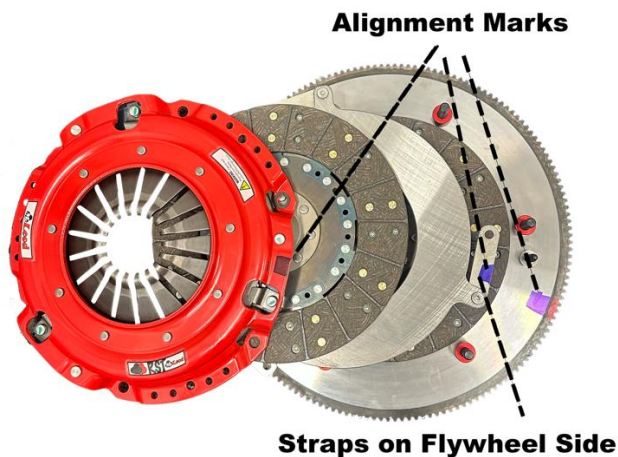


Figure 4

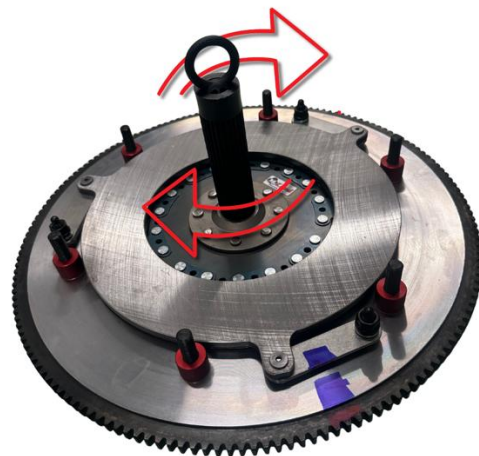


Figure 5

Order of Hardware:

Floater Plate:

- 5/16" -19 x 5/16" – 24 studs
- Shims on top of .200" machined spacer
- (2)-.005" shims. (1) -.010" shim (.312" ID)
- Floater plate
- 5/16" split lock washer
- 5/16" flange nut – torque to 25 ft/lbs.

Pressure Plate:

- 3/8"-16 x 3/8"-24 studs
- Stands
- Shims (if required)
- Pressure Plate
- Washer
- 3/8" flange nut – torque to 35 ft/lbs.

- 9) Install top disc. Be sure the "Flywheel Side" sticker on the disc is to the engine. Insert and rotate the pilot tool all the way into the pilot bushing to align both discs. Remove the nuts and flat washers from the six large studs. Do not allow the stands or shims to fall off the studs.
- 10) Install the pressure plate onto the six studs. Be certain to note the alignment marks. Install washers, lock washers and then nuts onto the studs and tighten to 35 ft. lbs. **Do not use Loctite on these six pressure plate studs!**
- 11) Complete the bell housing, transmission and driveline installation.

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 ensure 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 ensure 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	20 Ft/Lbs.
3/8-16 Grade 8	35 Ft/Lbs.
7/16-20 Grade 8	65 Ft/Lbs.
1/2-20 Grade 8	70 Ft/Lbs.

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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.

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