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# IMPORTANT

YOUR NEW CENTERFORCE® CLUTCH ASSEMBLY AND FLYWHEEL HAVE BEEN DESIGNED TO BE USED WITH LOCATING DOWEL PINS.

THE ALIGNMENT DOWEL PINS ARE USED TO PROPERLY LOCATE THE PRESSURE PLATE TO THE FLYWHEEL FOR BALANCE PURPOSES AS WELL AS TO ADD PRESSURE PLATE TO FLYWHEEL SHEAR STRENGTH. THE ALIGNMENT DOWEL PINS SHOULD ALWAYS BE REPLACED IF THEY ARE DAMAGED, BROKEN OFF, OR MISSING FROM THE FLYWHEEL.

FAILURE TO INSTALL OR REPLACE THE DOWEL PINS AS REQUIRED MAY RESULT IN CLUTCH VIBRATION, IMPROPER CLUTCH OPERATION, AND POSSIBLE CLUTCH FAILURE WHICH MAY VOID THE WARRANTY!







"NOTE" Centerforce tip sheets are for general reference only. Please refer to your owners manual for vehicle specifications.

IMPORTANT

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## IMPORTANT

### 2005-10 FORD MUSTANG, GT, COBRA & SHELBY

### Hydraulic Clutch System Instructions:

#### You will need the following before starting:

- a) New Ford Release Bearing and Slave Cylinder assembly.
- b) 12 oz. Motorcraft DOT 3, High-Performance clutch/brake fluid.
- c) A hand-type vacuum pump and rubber seal or plug.

### **IMPORTANT**: When changing your clutch the hydraulic release system must be serviced in the following manner:

- DO NOT depress the clutch pedal while the hydraulic clutch lines are disconnected. We recommend that you
  place a suitable spacer (IE; block of wood or rolled towel) under the clutch pedal to keep the pedal in its most
  upward position and to prevent any movement during the clutch installation process.
- Replace your hydraulic slave cylinder and release bearing as a matched set. Use only a new Original Equipment clutch release bearing and slave cylinder available from your local Ford Dealer.
- Important note: once the hydraulic line has been disconnected from the old Slave Cylinder assembly at the transmission bellhousing, the clutch line will continue to leak fluid <u>have ready the enclosed black plastic plug to</u> temporally stop the fluid flow during the clutch installation process.
- 4) The 2005-09 Ford Mustang clutch fluid reservoir is shared with the brake reservoir – use <u>only</u> Ford Motorcraft approved DOT 3, High-Performance fluid when servicing your hydraulic clutch or brake system. The use of any other fluid may cause clutch and/or brake problems!



Centerforce Supplied Plug

- Upon re-installation of your transmission, make sure all of the clutch hydraulic lines and bleed screws (when applicable) are correctly seated and tight.
- 6) Make sure the clutch pedal is in the most upward position.
- 7) Remove reservoir cap and fill the brake/clutch reservoir with the specified fluid to the MAX mark.
- 8) In order to properly bleed this hydraulic system, you must use a hand-type vacuum pump available from most auto parts stores or specialty tool stores.
- Use a round rubber stopper (50mm in diameter) or suitable flat rubber cap to seal against the fluid reservoir opening – either type of seal requires a hole in the center in which the vacuum will be applied.
- 10) Holding the vacuum cap seal in place on the reservoir, operate the vacuum pump to draw 20 inches of vacuum. Hold this vacuum for one minute then, quickly relieve the vacuum.
- 11) Check and fill the brake/clutch reservoir with the specified fluid to the MAX mark as needed. Install the reservoir cap.
- 12) Depress and release the clutch pedal 10 to 15 times.

Repeat Steps 6 through 12 two additional times or until the clutch pedal effort is consistent and

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# IMPORTANT

## Please follow these instructions to maintain the warranty of your Centerforce® product!

**Flywheels:** All Centerforce<sup>®</sup> clutches need to be installed on a clean, properly resurfaced or brand new flywheel. Flywheels must be within original equipment specifications. Centerforce clutches are designed to be used on flywheels made of cast iron, steel, or aluminum with <u>steel</u> inserts.

**Break-In:** All Centerforce clutches require a break-in period of 450-500 miles of stopand-go street driving before applying full engine power. This period is required to properly seat the disc with the pressure plate and flywheel.

**Balance:** All Centerforce clutches are balanced from the factory to meet or exceed Original Equipment (O.E.) specifications. Balancing with the Centerforce weights installed on the clutch assembly may cause an out-of-balance condition. Removing the weights without permission from Centerforce may void the warranty.

**Centrifugal Weight System:** If your new Centerforce clutch is equipped with the patented centrifugal weight system, do not remove the ring, weights, or spring wire retaining the weight system to the diaphragm fingers. If your Centerforce clutch does not include the centrifugal weight system, it is because there is not sufficient clearance for Centerforce to safely & effectively install the centrifugal weight system.

**Aftermarket Hydraulic Release Bearings:** When using an aftermarket hydraulic release bearing it is important to check for proper clearance between the bearing and the centrifugal weight system. Some aftermarket hydraulic bearings have an anti-rotator pin that may come into contact with the centrifugal weight system.

Failure to follow the above procedures will void your warranty and may result in decreased performance and/or premature wear!

**Questions? Please contact the Tech Department at Centerforce** 





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# IMPORTANT

### 2011-UP FORD MUSTANG with 5.0L Engine.

The enclosed Centerforce pressure plate assembly is designed to be used on late model Ford 5.0L engines. Please note that the Original Equipment (O.E.) Ford factory flywheel may utilize EITHER SIX or NINE pressure plate bolts. If you are using an O.E. flywheel that has provisions for NINE pressure plate bolts, your new Centerforce pressure plate will only be using SIX of the flywheel bolt holes. Specific instructions as follows:

**For O.E. flywheels with NINE pressure plate bolts:** in order to properly mount the Centerforce pressure plate to your flywheel, you **MUST use the THREE stepped** dowel pins (disregard the three straight side dowel pins enclosed) and SIX special pressure plate bolts enclosed. Remove the factory straight dowel pins and replace with the 3 supplied stepped dowel pins (large end of the pin will press fit into the flywheel). Centerforce recommends a small amount of thread locking compound to be used on the enclosed pressure plate bolts – locate your pressure plate over the 3 stepped dowel pins, then using the pressure plate bolts, draw the pressure plate up evenly to the flywheel by turning each bolt 1/4 turn at a time in a crisscross pattern. Once the pressure plate is completely drawn to the flywheel, torque all SIX bolts: **48 to 50 ft/lbs.** 

**For O.E. flywheels with SIX pressure plate bolts:** in order to properly mount the Centerforce pressure plate to your flywheel, you **MUST use the THREE straight side** dowel pins (disregard the three stepped dowel pins enclosed) and use the SIX special pressure plate bolts enclosed. Install dowel pins into the flywheel (either end will press fit into the flywheel). Centerforce recommends a small amount of thread locking compound to be used on the enclosed pressure plate bolts – locate your pressure plate over the 3 dowel pins, then using the pressure plate bolts, draw the pressure plate up evenly to the flywheel by turning each bolt 1/4 turn at a time in a crisscross pattern. Once the pressure plate is completely drawn to the flywheel, torque all SIX bolts: **48 to 50 ft/lbs.** 

For more information please contact our Tech Line at: (800) 932-5882





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### IMPORTANT

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## IMPORTANT

#### 2011-17 Ford Mustang 5.0L engine w/ 23 Spline input shaft transmission

If your Original Equipment transmission included a spacer behind the release bearing, please re-use this spacer. Some OE transmissions did not require a release bearing spacer, and therefore your vehicle may not have one.

2-3/8"

Upon replacing your release bearing, please verify the bellhousing face to release bearing (fully extended) dimension as shown to the right. This dimension can be obtained by using a long straight edge or yard stick across the mouth of (+/- 1/16)the bellhousing and then measuring to the face of the release bearing (DO NOT include the thickness of the straight edge in your measurement).

Regardless of transmission type (with or without the OE bearing spacer) your measurement should be 2-3/8" (+/- 1/16") as shown. If you obtain a measurement outside of this tolerance, please contact our Technical Department for additional information.

If your bellhousing to release bearing measurements meets the 2-3/8" depth specification, proceed with the clutch/ transmission installation as normal.

Should you have questions or require further information,

please contact our Tech Line at: (928) 771-8422





BELLHOUSING

SIDE VIEW CUT-A-WAY

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### **IMPORTANT**

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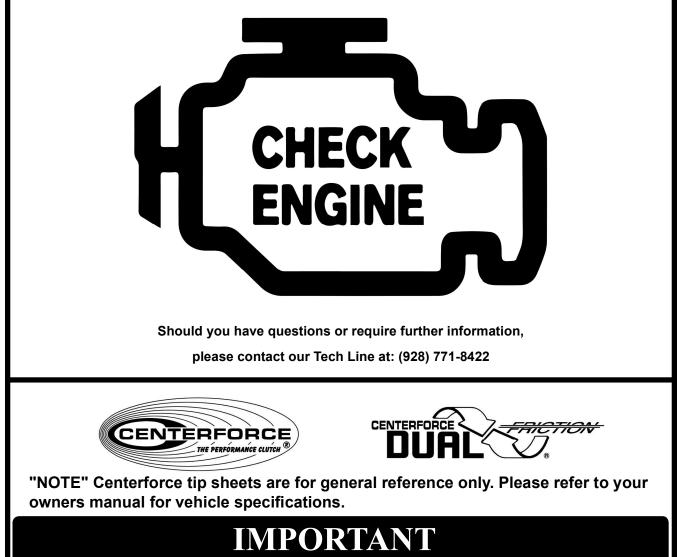
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## IMPORTANT

## 2011-Up Ford V8 engines with the check engine light displayed after a clutch replacement

Per Ford TSB 21474: Not all, but some vehicle owners may get a Check Engine light and Random Cylinder Misfire Code (P030x) after performing a clutch replacement. To clear this code, you must use a Ford Integrated Diagnostic System (IDS) scan tool or equivalent. Your Ford Dealer or trained Auto Repair facility will need to perform a Misfire Monitor Neutral Profile Correction using the IDS scan tool.

For more information, please contact your local Ford Dealer or consult your Ford Factory Service Manual.



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