

# IMPORTANT

## TOYOTA CLUTCH ADJUSTMENT (MOST CARS AND TRUCKS)

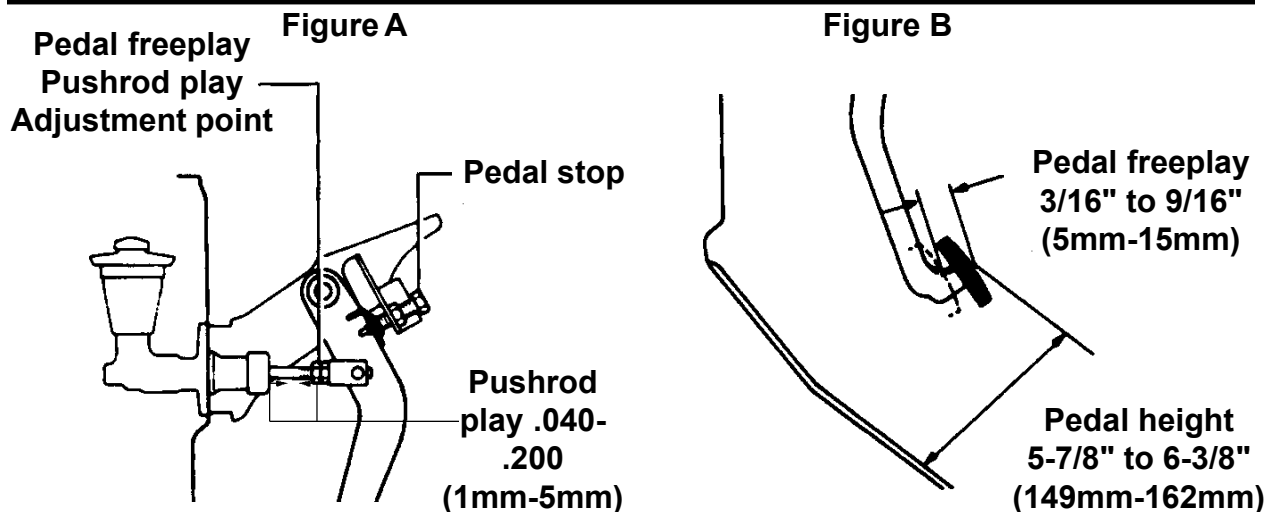
The following procedures must be followed after installation of new clutch assembly prior to operating or driving of the vehicle.

**WARNING:** Failure to properly follow these procedures may result in poor clutch performance, improper release, clutch slippage, and premature wear or failure!

**A:** Measure the clutch pedal height (figure B), this height should be 5-7/8" (149mm) to 6-3/8" (162mm) (equal to brake pedal height). To adjust, (figure A), loosen the pedal stop locknut and turn the bolt to adjust pedal height to specification. After proper pedal height is achieved, secure the locknut.

**B:** Measure the clutch pedal freeplay (figure B), this dimension should be between 3/16"(5mm) to 9/16"(15mm). To adjust pedal freeplay, loosen the pushrod locknut and turn the pushrod (located between the clutch pedal and the master cylinder) lengthening the pushrod to reduce pedal freeplay or shortening to add more pedal freeplay to specified freeplay dimension, then secure the pushrod locknut and verify proper adjustment. Once this has been done, the pushrod play should be approx. .040" (1mm) to .200" (5mm).

**NOTE:** This setting is a recommendation and may be adjusted as needed, however a minimum of 3/16"(5mm) of pedal freeplay must be maintained! Be careful that the pushrod does not begin to depress the master cylinder (pushrod play must be maintained).



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

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**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!**



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

**Flywheels:** All Centerforce® 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 steel inserts.

**Break-In:** All Centerforce clutches require a break-in period of 450-500 miles of stop-and-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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## ***Clutch Disc Fitment and Lubrication Procedure***

**IMPORTANT:** Handle your new Centerforce clutch disc and clutch parts very carefully. DO NOT drop or bend the clutch disc assembly. DO NOT contaminate the friction material or friction surfaces with any grease or oil. Be sure your hands are clean before working with your new clutch parts.

1. Once the transmission has been removed from your vehicle, remove the old clutch release bearing. Then, using a wire brush, thoroughly clean the transmission input shaft splines and release bearing sleeve. Rinse with brake cleaner or similar product and allow the splines to dry. Repeat this step as needed.
2. Test fit the new Centerforce clutch disc onto your transmission input shaft splines. Ensure the disc moves freely fore and aft.
3. Remove the clutch disc from transmission splines.
4. Install your new clutch release bearing. Applications that use a plastic release bearing collar or insert, DO NOT use any grease between the plastic collar and the metal transmission sleeve. Install dry. A release bearing with a metal collar on a metal transmission sleeve needs a small amount of grease.
5. Using the enclosed grease packet, spread a thin film of grease on the transmission input shaft splines. A small nylon brush may be helpful in order to apply the grease completely and evenly on the transmission splines.
6. Slide the new disc on the greased transmission input shaft splines to help transfer and distribute grease to the splines of the clutch disc.
7. Remove the clutch disc from the transmission input shaft splines.
8. WIPE OFF any grease that is outside of the clutch disc splines or on the clutch disc hub. Any excessive grease on the clutch disc hub will be slung outward with engine RPM and can contaminate the clutch disc friction material. Again, you only need a thin film of grease on the transmission input shaft!

Should you have questions or if you need further information, please call our tech line at (928) 771-8422 or visit us at [www.centerforce.com](http://www.centerforce.com)



## **8mm - Pressure Plate Bolts**

Centerforce does not require you to use any type of thread locking compound for the Pressure Plate bolts. If you decide to use a thread locking compound on the Pressure Plate bolts, just one SINGLE drop is adequate.

These bolts are to be used in conjunction with dowel pins for proper Pressure Plate retention.

Tighten all bolts evenly, ¼ turn at a time in a crisscross pattern until pressure plate is completely drawn-up to the flywheel.

**Final torque all 6 bolts to: 23 - 25 ft/lbs.**

**Note:** These specifications apply only to the fasteners supplied by Centerforce.

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102MI009 **CENTERFORCE TECH. LINE (928) 771-8422**

## **Toyota Flywheel Installation Tips**

- 1) Your new Centerforce flywheel is designed to fit tightly over the crankshaft register. It may be necessary to “draw-up” the flywheel to the crankshaft using the 8 enclosed flywheel bolts. Install the flywheel in the proper position and then tighten the bolts, using hand tools, 1/4 turn at a time in a crisscross pattern until the flywheel is fully seated on the crankshaft flange. NOTE: A small amount of Threadlocking compound is recommended on the enclosed flywheel bolts. DO NOT use a washer with this flywheel bolt.
- 2) Once the flywheel is fully drawn-up to the crankshaft flange, torque all 8 bolts in 3 steps.

**First to 25 ft/lbs, then to 45 ft/lbs**

**FINAL TORQUE to 70 ft/lbs**

**Note: M10 x 1.25 Threads**