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TCI® 448905

Installation Instructions for

C-6 Ford - 1977 & Later

KIT INTRODUCTION

Read all instructions first to familiarize yourself with the parts and procedures. Work slowly and do not force any parts. Burrs and dirt are the number one enemies of an automatic transmission. Cleanliness is very important so a clean work area or bench is necessary. We suggest a clean work bench to from which oil can easily be cleaned or a large piece of cardboard.

Benefit from purchase and installation of this kit: Use of this kit prevents premature failure of bands and clutches. It provides improved, but not harsh, shift feel and timing that lets you know that your transmission is working properly.

Before starting any type of installation, read directions, check parts list **(See Figure 1)**, and allow enough time to properly install kit. A good work area is suggested and good lighting is a must.

Let vehicle cool to avoid being burned from hot fluid or parts.

THINK SAFETY!

REBUILD GUIDELINES

For a successful rebuild TCI® recommends following these guidelines as you install your Truckmaster kit.

- If you are not familiar with the C-6 it is a good idea to purchase a rebuild manual such as TCI® part number 892900. TCI® also carries a video (898000) that provides valuable insight on the fundamentals of inspection and modifications of automatic transmissions.

- Inspect the front pump castings and gears for excess wear.

- Thoroughly check your case for cracks and stripped threads before rebuilding the unit.

- Look closely at the intermediate servo bore machined in the case (i.e. accumulator) for wear or damage.

- Do not use any wave plates in the clutch packs.

- Check the condition of your vacuum modulator line. It should be constructed from steel tubing and be free of leaks and kinks.

- Be sure that the governor assembly is not sticking.

- Build the clutch packs to the following clearances:

Lo/Reverse: 0.060 - 0.080 in.

Forward: 0.020 - 0.040 in.

Intermediate Band: Tighten to 10 ft.-lbs; back off 1-1/2 turns

Direct: 0.050-0.070 in.

Unit endplay: 0.010 - 0.020 in.

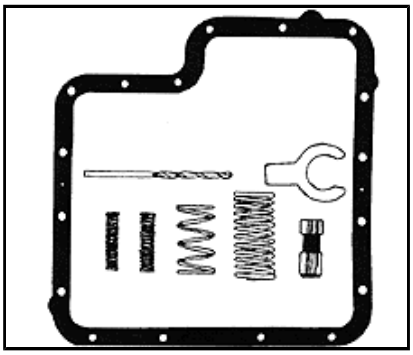


Figure 1

DRAIN PLUG INSTALLATION

STEP 1 If your transmission pan does not already contain a drain plug then thoroughly clean it and make sure it is still usable. Select a good location for the drain plug We recommend that you install the drain plug in a location that will provide easy access and allow the fluid to drain completely.

STEP 2 After you have marked the location, drill a hole using a 29/64" (.453) bit. Take a round file and deburr the edges of the opening. Next, clean the transmission pan.

STEP 3 Screw the insert into the pan. The plastic sealing washer fits against the outside of the pan. Using the 3/4 nut, secure the insert. (Nut screws onto insert from inside the pan.

STEP 4 Insert the 7/16" pipe plug into the insert and tighten.

VALVE BODY MODIFICATIONS

STEP 1 Drain and remove valve body from transmission.

STEP 2 Remove screen from lower valve body. (9 attaching screws). Remove screen and gasket.

STEP 3 Separate upper and lower valve bodies. (12 attaching screws). Remove separator plate and gasket. BE CAREFUL NOT TO LOSE CHECK VALVES OR SPRINGS.

STEP 4 Upper Valve Body Disassembly. (See Figure 2).

Figure 2 shows a typical layout of a 1966-Early 1975 and Late 1975-Later upper valve body. This is used as a guide.

1966-Early 1975: Replace stock outer pressure regulator spring with **GREEN** spring supplied. Reinstall inner spring if your valve body had one.

Late 1975 & Later: (Booster sleeve is held in with a clip). Replace stock outer pressure
regulator spring with **GREEN** sprint supplied. Twist spring onto spring seat and
install on pressure regulator valve. Reinstall inner spring if your valve body had one.

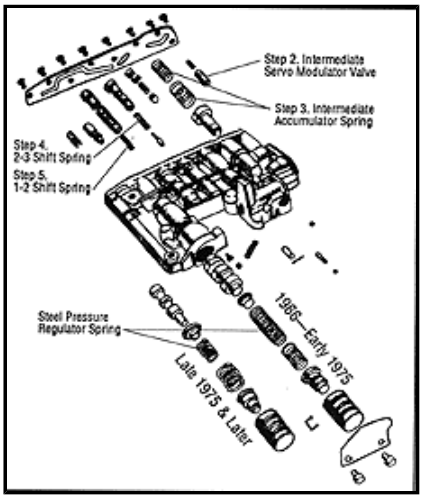


Figure 2

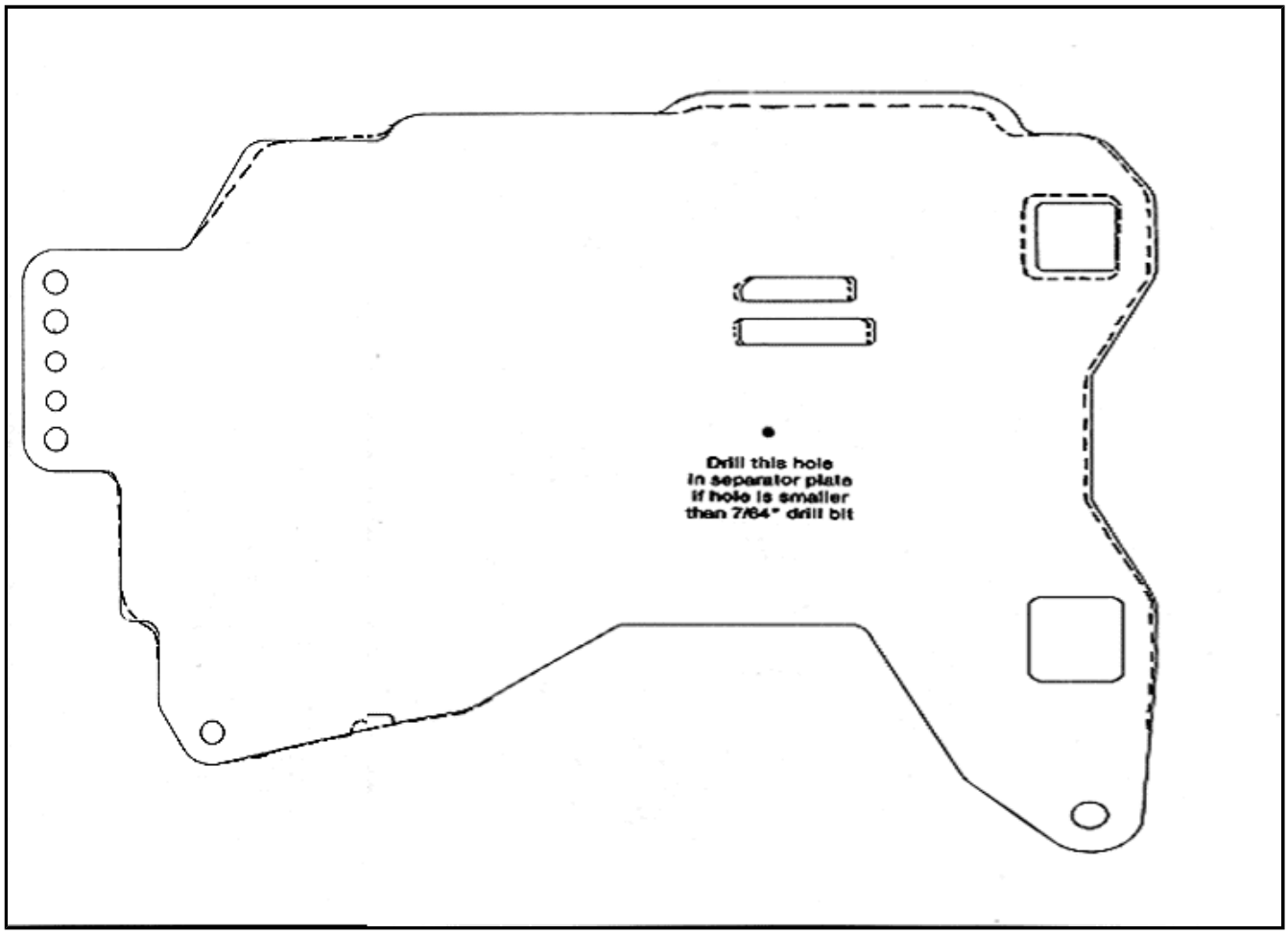
STEP 5 For firmer shifts replace the original intermediate servo modulator valve with the new one supplied.

STEP 6 Replace stock intermediate accumulator valve with plain spring supplied. Your valve body may have one or two springs. When using the spring provided with your TCI® kit, it is not necessary to use two springs. Discard OEM springs.

After you have removed your valve body separator plate, match to template.

(Early and late model separator plate illustrated)

NOTE: Clean all gasket material and foreign materials from plate before reinstalling into valve body.



STEP 7 Reinstall check balls in upper valve body half as shown. **(See Figure 3 and Figure 4)** (On 1967 and later the converter pressure relief spring is longer than the throttle pressure relief spring). Check balls will remain in the stock location.

STEP 8 Match separator plate against template on instruction sheet. You will see a drill area indicated. Locate this hole on your separator plate. Take drill supplied with this kit. Compare size. If hole in your separator plate is smaller in diameter, it will be necessary to drill to size. Use TCI® drill bit supplied (7/64"). After completion of drilling, deburr hole, if necessary, and clean plate of any debris or foreign material.

STEP 9 Reassemble valve body and install in transmission.

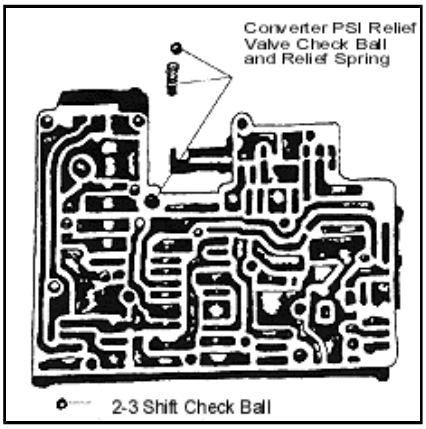


Figure 3
1966 Model

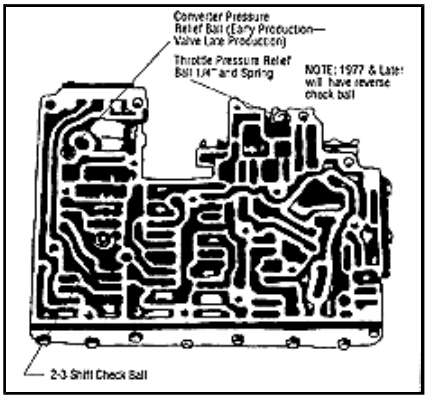


Figure 4
1967 and Later

STEP 10 Clean pan and remove gasket material before using new TCI® pan gasket supplied. Reinstall transmission pan.

STEP 11 Fill transmission with proper amount of automatic transmission fluid. DO NOT OVERFILL TRANSMISSION.

TRANSMISSION ADJUSTMENT

STEP 1 Band Adjustment: Loosen adjusting screw lock nut and tighten adjusting screw to 10 ft.-lbs. Back of 1-1/2 turns.

NOTE: Do not allow adjusting screw to be back off more than four turns from 10 ft.-lbs. torque position. Screw could be backed off allowing band struts to fall out. Removal of pan would be necessary to reposition to struts. Replace adjust screw lock if molded seal properly. This is common if bands have been adjusted frequently or if screw had been torqued for a long period of time.

STEP 2 Modulator Adjustments:

Adjustable Screw-In Modulator: For firmer or later shifts, turn the adjusting screw in. For softer or earlier shifts, turn the adjusting screw out.

Push-In Modulator: For softer or earlier shifts install the modulator shim supplied between modulator and case. If shifts are incorrect check the EGR system. Disconnect and plug the front line going to the modulator. Leave tube in modulator open. If transmission shifts correctly, the EGR system is defective.

STEP 3 Kickdown Adjustment: Back off on kickdown linkage until there is no kickdown above 45-50 mph. It may be necessary to bend the linkage to do this. Readjust linkage until you are able to get passing gear at full throttle only.

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