

# YOU CAN DO IT EASY UPGRADES

by Randy Irwin

## 1955-57 TREMEC 5-SPEED TRANSMISSION INSTALLATION-UPDATED

19-300

19-299

19-26



### Randy Irwin - Technical Writer

Randy has been involved in the Chevy parts business for over 25 years. He is a wizard at creating, making and modifying custom parts for Chevys.

The Tremec TKO 600 5-speed manual transmission has become one of the most popular conversions for many early model GM cars. If you already have a 4-speed transmission in your car, it is just about a bolt-in change. When the Tremec is in 5th gear, there is a 36% reduction in engine rpm compared to a 3 or 4-speed, which has a 1 to 1 ratio in high gear. The Tremec TKO 5-speed has the same bellhousing bolt pattern as the Saginaw and Muncie transmissions, so the original GM cast iron or aluminum bell housing can be used. The top-loader design of the Tremec gives superior positive shifts with no linkage to bind or get out of adjustment. It can be used behind your docile street engine or with your 700 HP mountain motor. The TKO is truly a high performance transmission!



### Parts List:

Catalog price Member price

- 08-400 1955-72 Tremec TK0600 5-Speed Manual Transmission
- 08-415 Complete Kit For Internally Balanced Engine Steel Flywheel \*
- 08-416 Complete Kit For Internally Balanced Engine Aluminum Flywheel \*
- 08-417 Complete Kit For Externally Balanced Engine Steel Flywheel \*
- 08-418 Complete Kit For Externally Balanced Engine Aluminum Flywheel \*
- 08-419 Complete Kit For LS Engines Aluminum Flywheel \*
- 08-401 1955-72 Tremec TKO 5-Speed Transmission 2" Offset Shifter Base
- 08-402 1955-72 Tremec 5-Speed Manual Transmission Curved Shifter Arm Use With Bench Seat
- 08-403 1955-72 Tremec 5-Speed Manual Transmission Shifter Arm Use With Bucket Seats
- 19-153 1955-57 Tubular Transmission Crossmember Kit
- 19-299 1955-72 Tremec 5-Speed Transmission Driveshaft Yoke
- 19-300 1955-72 Tremec 5-Speed Transmission Heavy-Duty U-Joint
- 08-505 1955-57 Hydraulic Clutch System With Tremec 5 & 6-Speed Transmission
- 19-26 1955-81 Manual & Automatic TH400 Transmission Rear Mount
- 08-23 1955-72 11" Clutch Aluminum Bellhousing
- 208-09 1955-72 Hurst Shifter Boot

\* Complete Tremec Transmission Kits Include: Tremec TKO 600 5-Speed Transmission with Tremec Shifter and All Electrical Senders, RAM Clutch & Pressure Plate, Pilot Bushing & Flywheel Kit, Transmission Tunnel, Tubular Transmission Crossmember and Transmission Mount, Aluminum Bell-Housing, Front Drive Shaft Slip Yoke and U-Joint and ALL Mounting Hardware.

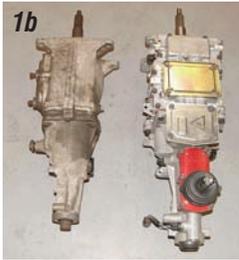
### Tools Needed:

- 1/2" Wrench
- 9/16" Wrench
- 9/16" Socket & Ratchet
- 11/16" Socket
- 3/4" Socket
- Drill & 3/8" Drill Bit
- Torque Wrench

### Time Frame:

5 hours





**Photos 1a & 1b:** The Tremec 5-speed transmission P/N 08-400 has the same bellhousing bolt pattern as the early model GM Muncie and Saginaw 3 and 4-speed transmissions.

**Photo 2:** The Tremec 5-speed transmission measures 22" in length overall. The Tremec is longer than any Muncie, T-10 or Saginaw transmission so the driveshaft must always be shortened.



**Photos 3a, 3b, 3c & 3d:** The Tremec transmission P/N 08-400 includes the factory Tremec shifter. The shifter will be installed in the rear-most position when delivered. If bucket seats are going to be used, the stock Tremec shifter can be used and will remain in this position. If a stock bench seat is used and is adjusted all the way to the rear (or if buckets are used and adjusted forward), the shifter will need to be moved to the front mount position. The shifter is held to the transmission case with six metric bolts. Remove the six bolts and rotate the shifter 180 degrees so that it is oriented toward the front. Clean the base of the shifter, apply a small amount of gasket sealer to the shifter and bolt the shifter back in place. Torque the bolts to 21 ft/lbs. This shifter will keep the shifter arm in the center of the transmission and the center of the transmission hump, unlike the 3 or 4-speed shifters, which are mounted to the side of the transmission offsetting it closer to the driver.



**Photo 4:** If the stock front bench seat is going to be used and adjusted forward, or if you prefer the shifter to be in a position similar to the 3 or 4-speed transmission, the McLeod offset shifter P/N 08-401 will need to be used. This shifter offsets the shifter arm 2" to the left (driver's side) and 2-3/4" forward. The McLeod shifter bolts in place of the stock Tremec shifter.

**Photo 5:** The input shaft on the Tremec 5-speed is 1-1/8" 26 spline, which is the same as a Muncie M22. If a Muncie M22 is being removed, the Tremec will go right back in its place.

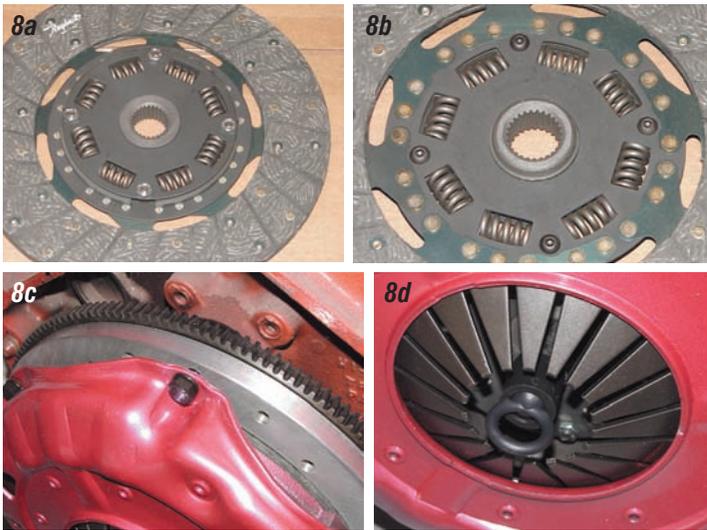


**Photo 6:** A new brass pilot bushing is included with the clutch and pressure plate kit. The bushing is installed in the rear crank hub to support the input shaft of the transmission on the flywheel side of the clutch disc. The bushing is driven in flush with the hub of the crankshaft. Grease the inner bore of the pilot bushing with chassis grease.



**Photos 7a, 7b, 7c & 7d:** The flywheel P/N 08-409 is for an internally balanced small block or big block engine and will accept a 10-1/2" or 11" clutch and pressure plate. The flywheel is held to the crankshaft with six 7/16" standard transmission flywheel bolts P/N 19-61 and serrated lock washers. Always use a small amount of thread locker on the flywheel and pressure plate bolts. Torque the flywheel bolts to 65 ft./lbs.

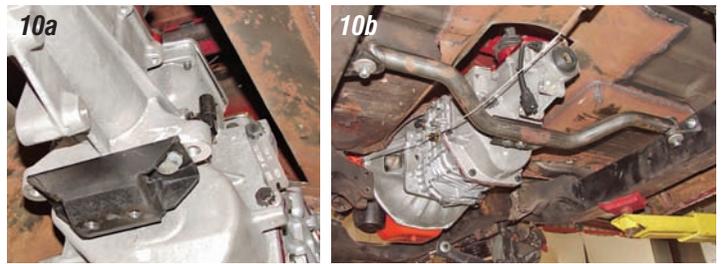
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**Photos 8a, 8b, 8c & 8d:** The clutch disc hub has a tall side and a short side. The short side goes toward the flywheel and the tall side goes toward the transmission. If the tall side were to be installed to the flywheel side, the clutch disc hub and springs would make contact with the flywheel bolts. Install the clutch and pressure plate to the flywheel leaving the pressure plate bolts **P/N 08-413** loose at this time. Next install the alignment tool that is supplied with the clutch and pressure plate kit. The alignment tool will align the clutch disc splines to the pilot bushing center perfectly. With the tool in place, apply a small amount of thread locker to each bolt and tighten the pressure plate bolts to 24 ft/lbs. Remove the alignment tool.



**Photo 9:** You may install the Tremec using the stock cast iron bellhousing if you desire. The aluminum bellhousing **P/N 08-23** is a reproduction of the mid to late 60's GM bellhousing and can be used with side engine mounts only. The bellhousing bolts to the back of the engine with six supplied  $3/8"$  X  $1-1/4"$  bolts and lock washers.



**Photos 10a & 10b:** The Tremec transmission is bolted to the bellhousing with the four supplied  $1/2"$  X  $1-1/2"$  bolts and lock washers. The tailshaft mount **P/N 19-26** is bolted to the transmission case with two supplied 10 millimeter metric bolts and lock washers. The transmission mount bolts to the supplied transmission crossmember **P/N 19-153** with two  $7/16"$  X  $1"$  bolts, flat washers and lock washers.



**Photo 11:** When mounting the transmission crossmember to the frame rails, the output shaft of the transmission must measure  $6-1/2"$  from the center to the bottom of the frame rails. The brackets for the

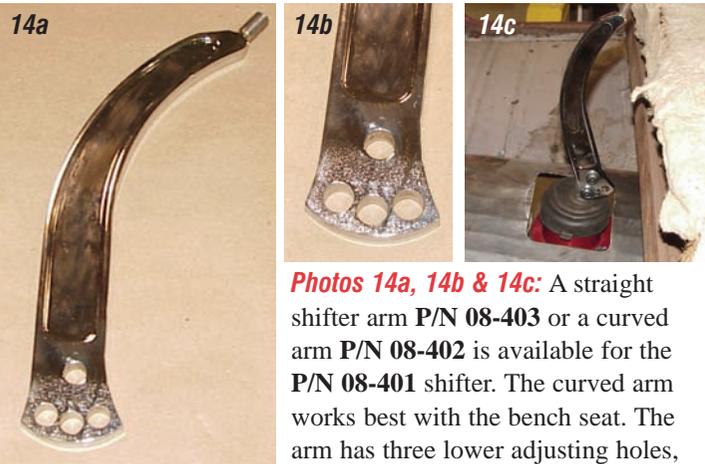
transmission crossmember bolts to the frame with the supplied  $3/8"$  X  $5"$  carriage bolts, flat washers, lock washers and nuts. The crossmember is bolted to the bracket with  $1/2"$  X  $2"$  bolts, flat washers and lock nuts.



**Photos 12a & 12b:** The Tremec transmission case is fairly large and will make contact with the stock transmission hump. Tunnel **P/N 31-350** is a 16 gauge panel that can be installed in place of the stock hump to provide enough clearance for the Tremec case. The panel can be welded in or held in with tech screws. The stock carpet will still work perfectly.



**Photos 13a & 13b:** When using the offset shifter P/N 08-401, there is plenty of room for the bench seat to be all the way forward or all the way back.



**Photos 14a, 14b & 14c:** A straight shifter arm P/N 08-403 or a curved arm P/N 08-402 is available for the P/N 08-401 shifter. The curved arm works best with the bench seat. The arm has three lower adjusting holes,

allowing the arm to be installed straight up or leaned forward or back. This allows you to install the shift arm wherever it is most comfortable for you.



**Photo 15:** The large Hurst shifter boot P/N 208-09 works great with the McLeod shifter. The boot is held to the floor with six #6 sheet metal screws. This boot is not included in the Tremec installation kit. A white P/N 08-404 or black P/N 08-405 5-speed shifter ball is available for the McLeod shifter.



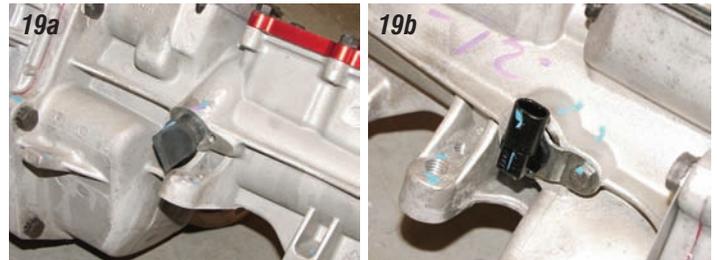
**Photos 16a & 16b:** The Tremec transmission uses a Ford C-6 automatic driveshaft slip yoke P/N 19-299. P/N 19-300 U-joint will adapt the Ford style yoke to the Chevy driveshaft.



**Photo 17:** There are several electrical senders on the Tremec transmission case. The upper forward 2-pin sender on the driver's side of the transmission is the sender for the back-up lights. To connect the back-up lights to the sender, connect one of the pins of the sender to a key on fused

12-volt source. Connect the other pin on the sender to the wire that connects to the back-up lights.

**Photo 18:** The neutral safety switch sender on the tailshaft housing has an 8" wiring pigtail. This sender should be wired inline with the starter solenoid stator wire (the violet wire). If the transmission is in any gear other than neutral, the starter motor will not operate.



**Photos 19a & 19b:** On both sides of the tailshaft housing you will find two plugs. The plug on the passenger side is for an electrical speedometer. The rubber plug on the driver's side is for a mechanical speedometer cable. If an electrical speedometer is going to be used, install the supplied aluminum plug into the hole on the driver's side of the tailshaft housing. If a mechanical speedometer is going to be used then P/N 19-223 speedometer cable kit must be ordered. When ordering the speedometer cable kit, you will need to supply the rear tire height and rear end gear ratio.

With the new Tremec 5-speed transmission you will have a blast running down the highway and changing those gears smoothly and quickly away from stoplights. With that 36% reduction in 5th gear, you will enjoy great gas mileage and a quieter interior compartment due to much lower engine rpm. Good Luck! ✓