



## Installation Tips

Thank you for your recent purchase of a TREMEC TKO transmission. All TREMEC transmissions are manufactured under strict ISO and QS 9000 quality standards, ensuring that you receive a quality product. Proper installation, maintenance and appropriate driving techniques will provide years of enjoyment from your new TREMEC transmission. The transmission installation should be performed by an ASE Certified Mechanic with appropriate tools, lifts and follow standard safety precautions.

### Pre-Installation

While unlikely, the transmission may be stuck between gears if the transmission was placed on end during shipment. **Before installing the transmission into the vehicle**, make sure that the transmission turns freely. Simply turn the input shaft by hand and attempt to shift the transmission into each gear. If you are unable to turn, or shift the transmission, please contact the distributor where you purchased your transmission for further instructions.

### Oil

**Caution: NO OIL IN TRANSMISSION.** Due to various synchronizer materials used in TREMEC transmissions, and different climates and applications, no one single fluid will work for all transmissions. We recommend GM synchromesh part # 12345349, or Dexron III / Mercon Spec ATF fluid for all TKO transmissions. The transmission should be filled through the fill plug located on the passenger side of the transmission. Proper fill level is achieved when oil reaches the fill plughole when level (approximately 5.28 pints)

### Clutch housing

The clutch housing must be properly installed and aligned using a dial indicator. The centerline of the transmission must match the crankshaft, or severe damage to the transmission will occur. The clutch housing must also be perpendicular to the rear of the engine block. A maximum run-out of .005" is allowable. Specific dial indicating instructions should be included with your clutch housing.

### Clutch disc

Proper clutch adjustment is necessary; usually between 030 to .085 inch, air gap is required. (Please see clutch manufactures recommendations). The clutch disc must have an "air gap" to break torque to make a clash-free shift and prevent damage to the transmission. An adjustable clutch cable with a solid mount at the firewall, or a hydraulic system is desirable.

### Drive shaft

It is extremely important to maintain the original driveline angle. Excessive driveline angles will cause vibrations and may damage the transmission. All TKO transmissions use a standard 31-spline slip-yoke part # 2-3-6041X, which is available from authorized TREMEC distributors. When installing the slip-yoke, be careful not to damage the rear-seal, as this will result in oil leakage. There is a rubber donut on the output-shaft that is used to prevent any remaining oil in the transmission from leaking during shipment. While you may remove this donut, it is not necessary. It will simply slide forward on the shaft when the slip-yoke is installed. If you do remove the donut, use extreme caution to avoid damaging the rear seal. The slip-yoke must be able to stroke freely on the transmissions output shaft without bottoming out while maintaining maximum spline contact. Therefore, proper driveshaft length is critical.

### Crossmember & Mount

It is important to have the crossmember located properly to the rear mount location on the transmission. Modifications that result in an "overhang" or cantilevered mount will result in a vibration and potential to cause severe damage to the transmission. Proper mount height and crossmember location are very important to maintain correct driveline angle.

### **Shifters**

The transmission will accommodate several applications by using any one of the eight available shifter locations. The stock shifter may be unbolted by removing the six bolts and rotating the shifter 180 degrees, which will move the shifter forward approximately 2 ¾". The bolt pattern on the stub lever will fit most Hurst® shift levers. TREMEC also manufactures a front shifter part # TCKT1960, a mid-shifter part # 2671127 and an offset shifter part # 30-17-3X. All of these shifters are available from authorized TREMEC distributors. Using an aftermarket shifter may void your warranty. If an aftermarket shifter is used, remove the shift stops. All TREMEC transmissions have internal stops and can not be over shifted. When installing the upper shift lever, be sure to use a rubber isolator to reduce driveline noise.

### **Electronic connectors**

There are three electronic connectors on the TKO transmission 1) neutral safety switch, 2) Back-up light sensor, and 3) speedometer pick-up. The neutral safety switch can be used to prevent the car from being started while in gear. The pigtail located on the rear of the transmission is an open circuit until the transmission is placed in neutral. The pigtail uses a standard Ford connector. The back-up light sensor is on the driver side of the transmission case and is an open circuit until the transmission is shifted into reverse. The electronic speedometer pick-up is located on the rear-extension passenger side.

### **Mechanical speedometer pick-up**

All TKO's have the same Ford style speedometer pick-up bore located on the driver-side rear extension. You must use a Ford T-5 speedometer cable end. (Note: If you are using the electronic pick-up, you must plug the hole for the mechanical speedometer with a metal plug, part # TCTA5707 available from authorized TREMEC distributors to prevent oil leaks. Do not use the black rubber shipping plug.)

### **Maintenance**

Recommended oil change intervals should be based on specific usage. In most cases a "fill for life" is adequate, while in severe applications such as drag racing, or road racing a more frequent fluid change should be prescribed. Excessive heat will cause most fluids to breakdown and ultimately cause damage to the transmission.

### **Driving Techniques**

A 500-mile break-in period will prevent premature wear and possible damage to the transmission. During the break-in period, you must avoid high RPM shifts and drag starts. The clutch must be fully disengaged to shift the transmission. Do not use excessive force when shifting the transmission. If you experience clash shifts (grinding), check the travel of the clutch to ensure proper air-gap is achieved (see above). Another possible cause of clash shifting is improper transmission installation, (excessive driveline angle / resulting in poor driveline alignment). Do not attempt to shift the transmission when the engine is revving over 6,500 RPM's. Do not hold the transmission in gear by applying force on the shifter. This will damage the pads on the shift forks and may result in significant damage to the transmission.

### **Warranty**

This product is warranted 90 days from date of purchase. (Must provide proof of purchase). No labor. TREMEC warrants that the transmission will be free of defects in material and workmanship under normal use and service when properly installed in appropriate applications. Warranty is voided if transmission is used in competition, or if failures result from modifications.

**Questions regarding installation and warranty should be directed to the TREMEC distributor where you purchased your transmission**