



TREMEC[®]
TRANSMISSIONS

Mid-Shift Conversion Kit
For TKO-500 & TKO-600
30-17-4X

*Disassembly and Assembly
Instructions*

Bulletin No. TRAM-008-0107



Mid-Shift Conversion Kit For TKO-500 & TKO-600 30-17-4X

Disassembly and Assembly Instructions

Kit Contents

Qty.	Part No.	Description
4	2603968	Bolts, Shift Control Assembly
1	2606213	3/4 Shift Lug
1	12F000015	Expansion Plug
1	1386-021-001	Boot
1	30-17-4	Shift Control Assembly
1	TCPT5706	Cover Plate

NOTE: Conversion of the shift location from the rear to a Mid-Shift will disable the Neutral Start option of the TKO product. DO NOT REMOVE the neutral start switch from the extension housing unless you have a suitable plug to re-seal opening. Removal of the switch without resealing the opening will result in loss of transmission fluid and could lead to eventual failure of transmission.

SAFETY FIRST

Carefully read the conversion instructions before beginning any work on your transmission.

General Safety Precautions



Use a hoist whenever lifting the transmission to prevent muscle strain or other possible injuries.



Always wear safety glasses when working on the transmission. Small objects may fly up unexpectedly during a teardown or rebuild.

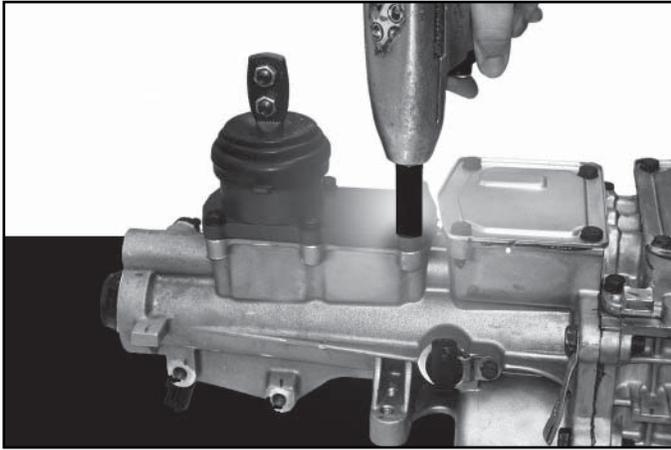


Be careful when picking up gears or other sharp components. To avoid cuts and other injuries, consider wearing heavy cloth gloves or covering sharp objects with shop towels before picking them up.

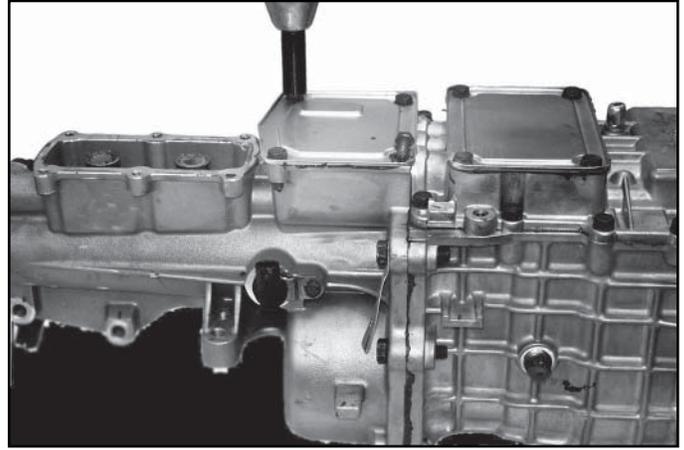


When draining the transmission prior to working on it, be careful to let the unit cool down first. Otherwise, hot transmission fluid could cause burns.

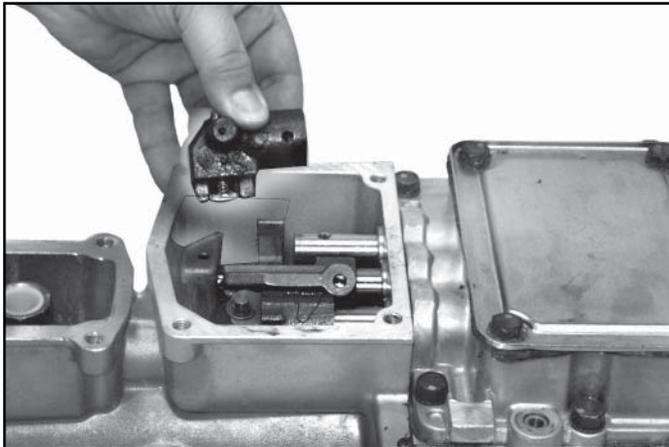
Disassembly



1. Shift unit into neutral position. Remove six (6) shift tower housing bolts from rear of extension housing. **NOTE: Do not discard bolts as they will be needed during reassembly.** Remove shifter housing and discard.

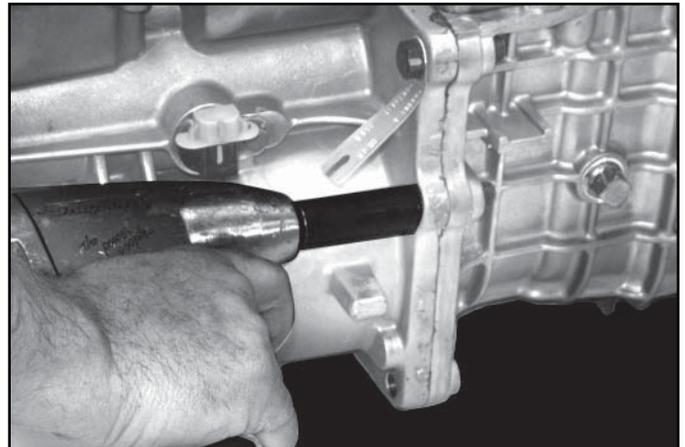


2. Remove the four (4) bolts and star washers from the middle inspection cover. Remove inspection cover. **NOTE: The old bolts are not required for re-assembly. Four new longer bolts are supplied in kit.**

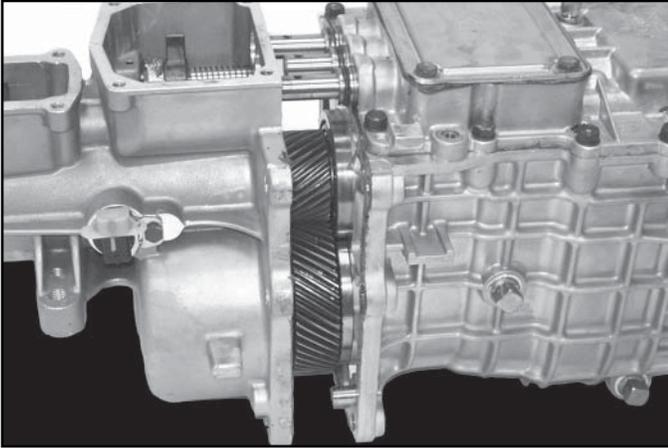


3. Using a punch, remove the roll pins from the three forward shift lugs. Slide the two (2) outside shift lugs towards the rear and remove from unit. **DO NOT CLEAN** the factory applied grease from the lugs.

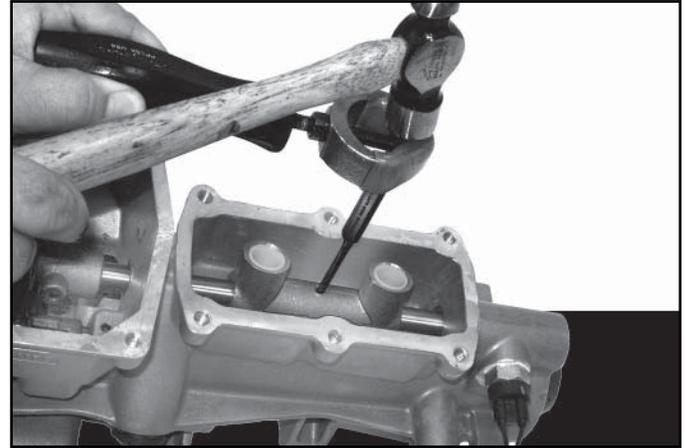
Rotate the rear middle shift selector rail moving selector finger away from the 3/4 shift lug. Remove the 3/4 shift lug. **NOTE: The roll pins will need to be retrieved after the rear extension is removed for re-use.**



4. Remove the six (6) rear extension assembly to main case bolts.

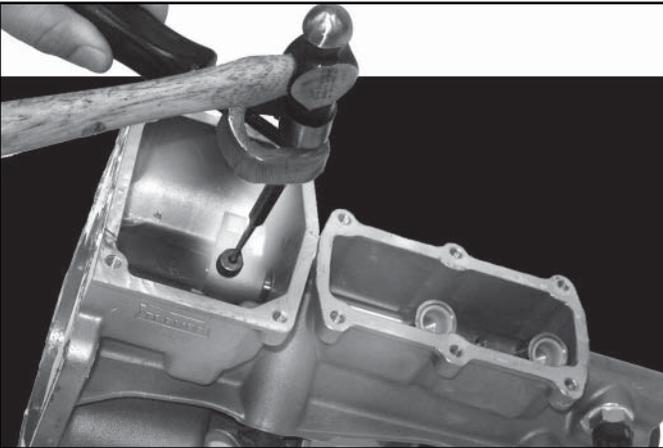


5. Separate rear extension from main case.



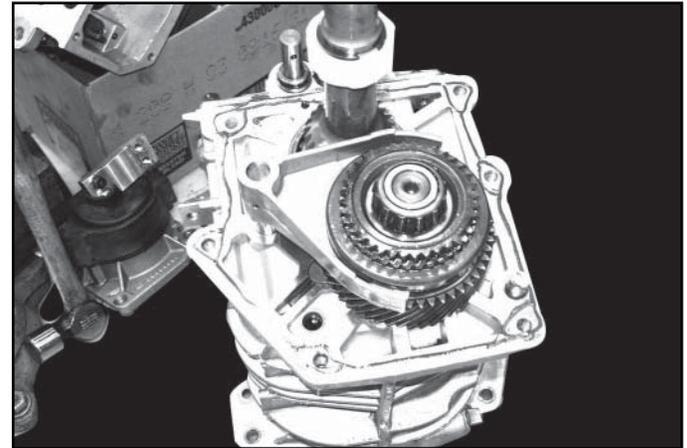
6. Make sure the rear shift rail is in neutral position. Using a punch, remove the roll pin in the double shift lever socket. The roll pin will fall through the drain hole and will need to be removed after the extension housing is separated from the main case.

Assembly



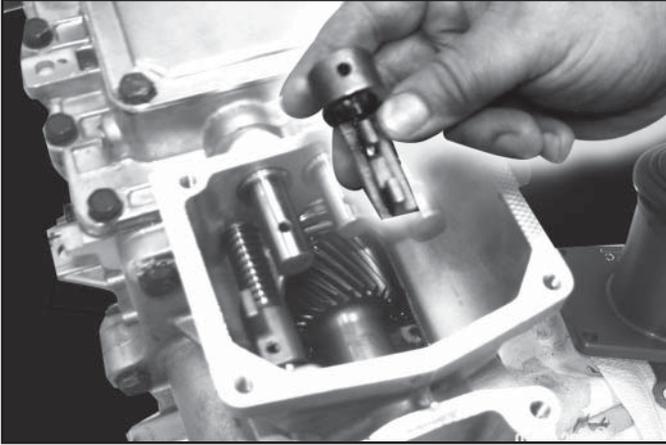
7. Rotate rear shift selector rail/shift finger 90 degrees. Using a punch, remove the roll pin from shift selector finger. Remove shift selector finger and discard.

8. With the rear extension separated, remove the rear shift selector rail by pulling rail forward. Discard rear shift selector rail. Remove the double shift lever socket from the extension and discard. Locate and remove all five (5) roll pins from extension. Three (3) of the roll pins will be re-used.

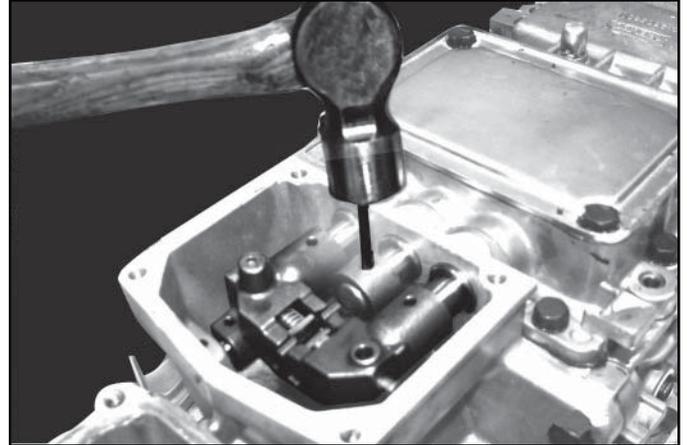


9. Clean all mating surfaces thoroughly. Check condition of all six O-rings on shift rails prior to attaching the rear extension. Replace if cut or missing. Apply anaerobic sealer to mating surface of the main case and attach the rear extension assembly. Torque the six bolts to 42-50 ft-lb.

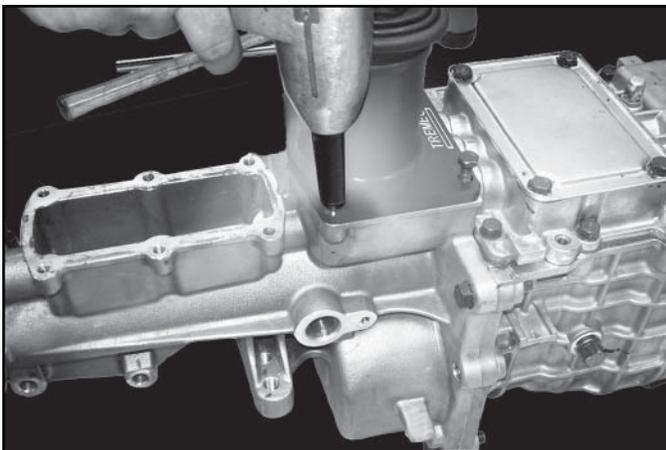
Assembly



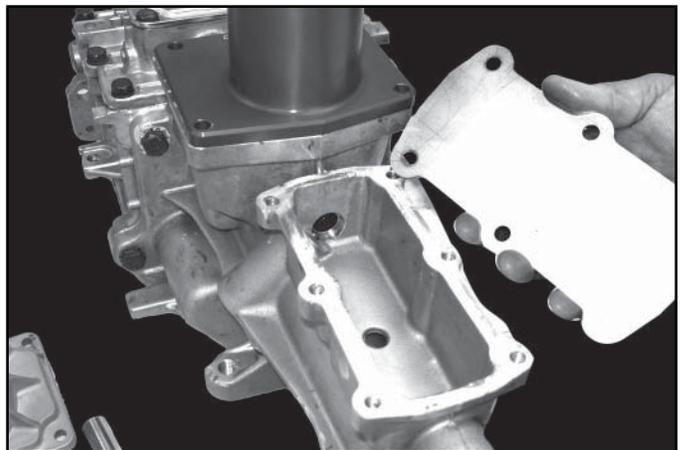
10. Install the new 3/4 shift lug supplied in the kit. Make sure that the opening on shifting lug is up.



11. Install the two (2) outside shift lugs with the openings to the center. Secure all three (3) shift lugs with roll pins.



12. Clean mating surfaces thoroughly. Apply RTV sealant to mating surface of the shift tower assembly and rear extension. Install new shift tower assembly. Torque the four (4) new bolts included in kit to 18-22 ft-lb. Install shift boot.



13. Apply RTV sealant to rear shift cover opening. Install rear cover plate supplied in kit. Re-use the original shifter bolts to secure plate. Torque to 18-22 lb./ft.



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