

1957 Ford Fairlane 500

Project to remove original Ford-O-Matic transmission and replace with Ford Automatic Over/Drive transmission.

Summary of Tasks to complete

March 2020

1. Remove existing transmission

Remove driveshaft

Disconnect

coolant lines

speedometer cable

shift linkage & kickdown linkage

Remove cross member

Remove bolts from bellhousing (access top two bolts through the top of the transmission tunnel inside of the cabin)

Pull transmission back away from engine, support weight on jack or other method (it's heavy)

2. Purchase adapter kit for mounting AOD on Y-Block engine (\$975 – including shipping)

Install new starter on transmission adapter plate

Install adapter kit on back of engine, install crankshaft extender

3. Purchase AOD transmission & torque converter – have it rebuilt if necessary (\$900)

4. Loosen engine mount bolts, (I had to use a jack to force the engine to tilt towards the back – If you don't do this, the transmission will hit the transmission tunnel and you cannot get it installed.)

Create a relief hole in the AOD bell housing as indicate by the instructions so that the starter gear will have room to move forward and engage the gear on the flex plate.

Install the torque converter onto the front shaft of the transmission, make sure it is fully engaged on the shaft

Put the top two bolts into the top of the new bell housing.

Install the transmission to the adapter plate, make sure that the flex plate bolt holes line up with the studs on the torque converter.

Retighten engine mount bolts

Tighten 4 transmission to adapter bolts from under the car. Tighten the top two bolts through the access holes in the transmission tunnel.

Rotating the engine, install the nuts on the torque converter to the flex plate

5. Modify the cross member (see video) or build a new cross member to support the rear of the AOD transmission.

Use 2000 Ford Explorer transmission mount (\$16)

6. Purchase Lokar parts

TD-3AODFM - Flexible dip stick (\$84.67 – search online for best price and Summit Racing will match it)

(NOTE: Summit Racing is my preference for these types of parts – GREAT customer service)

KD2AODHT - Throttle Valve Cable (\$80.31)

SPK-4000 – Throttle Cable & TV cable bracket (\$35.95) If you have a Holley carb (I thought this would work with my Holley EFI – It did not – see video for modification I made)

7. I wanted to use the stock column shifter – Fabricate shift linkage and install (see video)

8. Install TV cable (Monster Transmission has a great instructional video for this – actually, pretty easy to do.)

9. Install coolant lines. One line had to be shortened and shape modified, second line had to be lengthened and shape modified.

10. Extend length of drive shaft about 2” and reinstall

11. Reinstall speedometer cable. Original gear was 19 teeth, after road test I determined that I needed a 21 tooth gear. 60 mph indicated was 67 actual mph measured with GPS. Standard AOD gear will fit on the '57 cable.

12. Install plug on transmission for neutral safety switch. Purchase from Ron Francis wiring if you don't have one.

13. Connect wiring to new gear driven starter.

Remove positive cable from battery to solenoid

Remove cable from other side of solenoid that went to original starter

Install new power cable from batter directly to starter

Install new #12 wire from positive terminal of battery to solenoid where original battery cable was installed

Install #12 wire from the smaller terminal on the solenoid (wire closest to the large terminal where battery is connected) to the starter (spade connector).

14. Transmission and torque converter hold 12 quarts of oil. I used MerconV, it is backward compatible and recommended for this unit. I started with 10 quarts. Start the engine and let run for a few minutes, this will get oil into the converter. I then put in 1.5 quarts and let the engine warm up. I shifted through the gears to make sure oil was flowing everywhere. My transmission now reads full with 11.5 quarts in it. Yours may be different.

15. Get a reliable oil pressure gauge and connect it to the proper port on the passenger side of the transmission . It is the middle of three plugs(1/8” pipe fitting). Get out your instructions for making the adjustment for the TV cable which will including setting the pressure at 35 psi with the test gauge installed and zero pressure with the test gauge removed. I had to install a helper spring (see video) to ensure that the TV cable moved to the fully off position. I did contact Lokar on this issue and they said that is was not unusual to have to do this. It is very important that the TV lever on the transmission go to the zero pressure point.

16. Take it out for a test drive – check oil level when you return. Have a beer and relax – This was a hard afternoon project.

