Motorcraft Mercon V Automatic Transmission Fluid Refill Guide

Tools Required:

- Floorjack
- Jackstands,
- Oil drain pan
- T-30 Torx bit socket
- 3/8 ratchet
- Torque wrench
- Suction gun or gear lube pump
- Filler tube adaptor
- Rubber gloves

Technical Notes: The 5R55S automatic transmission equipped with 2005+ Mustang is a sealed unit. You will not find a transmission dip stick under the hood unless you've upgrade to aftermarket pan that adds this feature. This guide will show you how to correctly add fluid to an empty pan which you drained completely or refilling a suspected low fluid condition. Over time the fluid can be lost from this closed unit due to blow vent tube on top that routes in to the front bell housing that may show as a drip or road grime oil mix residue. This procedure does require a special filler tube. P/N: 307-437 retail cost about $12. However you may use a Watt's ¼ brass pipe available at your local hardware store for $3 dollars which will do the same job.

Normally Maintenance drain / refill require at least 5-6 quarts of Mercon V.

Lift Vehicle:

1. Proceed to raise vehicle with floor jack and place jack stands under vehicle recommended jacking points securely and lower. Set the vehicle as close to level as possible.

Draining:

1. Place a suitable oil catch contain below drain plug.

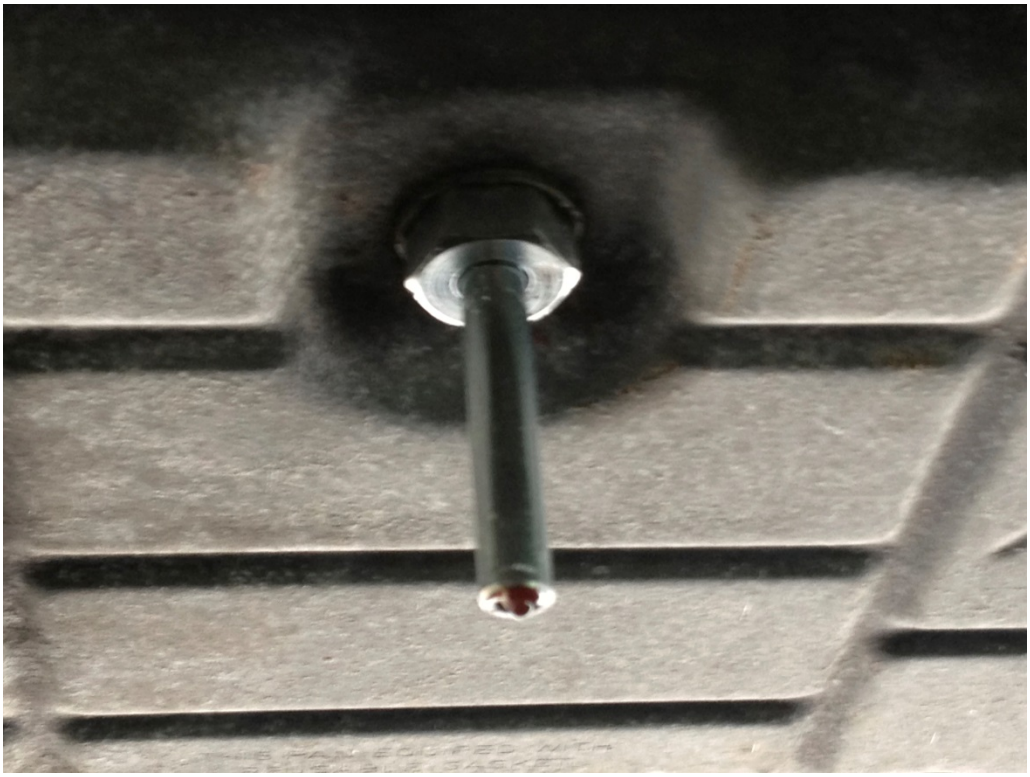
2. Remove large drain plug with 7/8 wrench and allow fluid to drain.

3. Replace drain plug with gasket and tighten to 19 ft. lbs. with 7/8 socket.

Refilling - Empty Pan:

1. Remove small level indicating plug using a T-30 Torx bit socket

2. Install transmission fluid fill adapter.



3. Add 2 – 3 quarts of Motorcraft Mercon V in to the pan then proceed to start vehicle. Proceed to add Additional 2 quarts.

4. Allow vehicle to run until transmission temperature reaches 27-49°C – (80-120°F) Running vehicle for approximately 10-15 minutes will result in correct temperature. (Note: Engine idle speed is approximately 650 RPM.)

5. Slowly cycle through each gear allowing fluid to fill in each value and engage while holding brake pedal fully depressed to floor.

6. Place vehicle in Neutral proceed to check transmission fluid level. If no fluid drains back, more fluid will need to be added. (Add in increments of 1 pint and recheck fluid level)

7. Allow the fluid to drain to level. When the fluid comes out as a thin stream or drip, the fluid is at the correct level. Proceed to remove special filler adapter.

8. Reinstall leveling indicating plug using T-30 Torx and torque to (89 inch lbs.) or can be converted to: *(10 Nm - Newton Meters) or (7.41 ft. lbs. – Foot lbs.)*

9. Turn off engine, and proceed to lower vehicle back to ground level and test drive.

Refilling - Suspected low fluid level:

Note: Engine must be running and in shifted in NEUTRAL with fluid at correct temperature! Do not remove leveling plug while vehicle is off and oil is cold this will result is 1.5 Quarts dumping back out filler tube!

1. Start vehicle until transmission temperature reaches 27-49°C – (80-120°F) Running vehicle for approximately 10-15 minutes will result in correct temperature. Leave Vehicle running shifted in (N) – NEUTRAL

2. Remove small level indicating plug using a T-30 Torx Bit Socket.

3. Install transmission fluid fill adapter.

4. Proceed to check transmission fluid level. If no fluid drains back, more fluid will need to be added. (Add in increments of 1 pint and recheck fluid level)

5. Slowly cycle through each gear allowing fluid to fill in each value and engage while holding brake pedal fully depressed to floor.

6. Allow the fluid to drain to level. When the fluid comes out as a thin stream or drip, the fluid is at the correct level.

7. Reinstall leveling indicating plug using T-30 Torx and torque to (89 inch lbs.) or can be converted to: *(10 Nm - Newton Meters) or (7.41 ft. lbs. – Foot Lbs.)*

8. Turn off engine, and proceed to lower vehicle back to ground level and test drive.

I have also included three set up using following options below:

Method #1 - Suction gun with filler adaptor

Method #2 - Gear lube pump with filler adaptor.

Method # 3 - Gear lube pump with closed ball valve attachment.

I suggest using a Gear Pump it's the best method and you won't lose any fluid in the transfer and less messy of the two methods. If you plan on doing this regularly I recommend building the shut off valve, this allows you get back in the vehicle cycle gears and not worry if you're losing fluid until you ready open and level fluid.

Installation Instructions written by AmericanMuscle customer Ryan Maguire 08.19.13