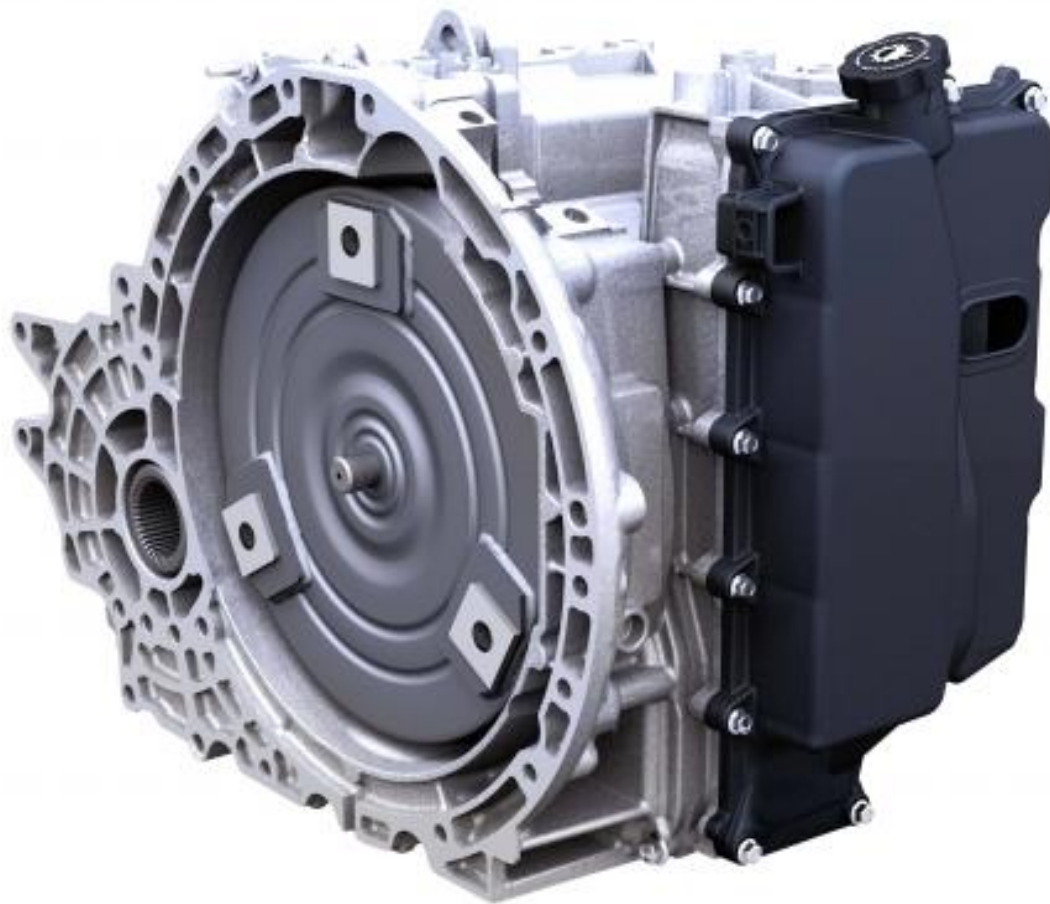


# 6F35 – 6F55 Installation Guide

Read This Entire Document Before Installing Your  
Transmission



# **Extremely Important**

## **Warranty Requirements**

**This Transmission has critical installation requirements. Failure to adhere to these requirements VOIDS your warranty**

## BEFORE REMOVING THE OLD TRANSMISSION

You **MUST** have a scanner and scan the vehicle for any codes. All codes **MUST** be fixed **BEFORE** installing the new transmission.



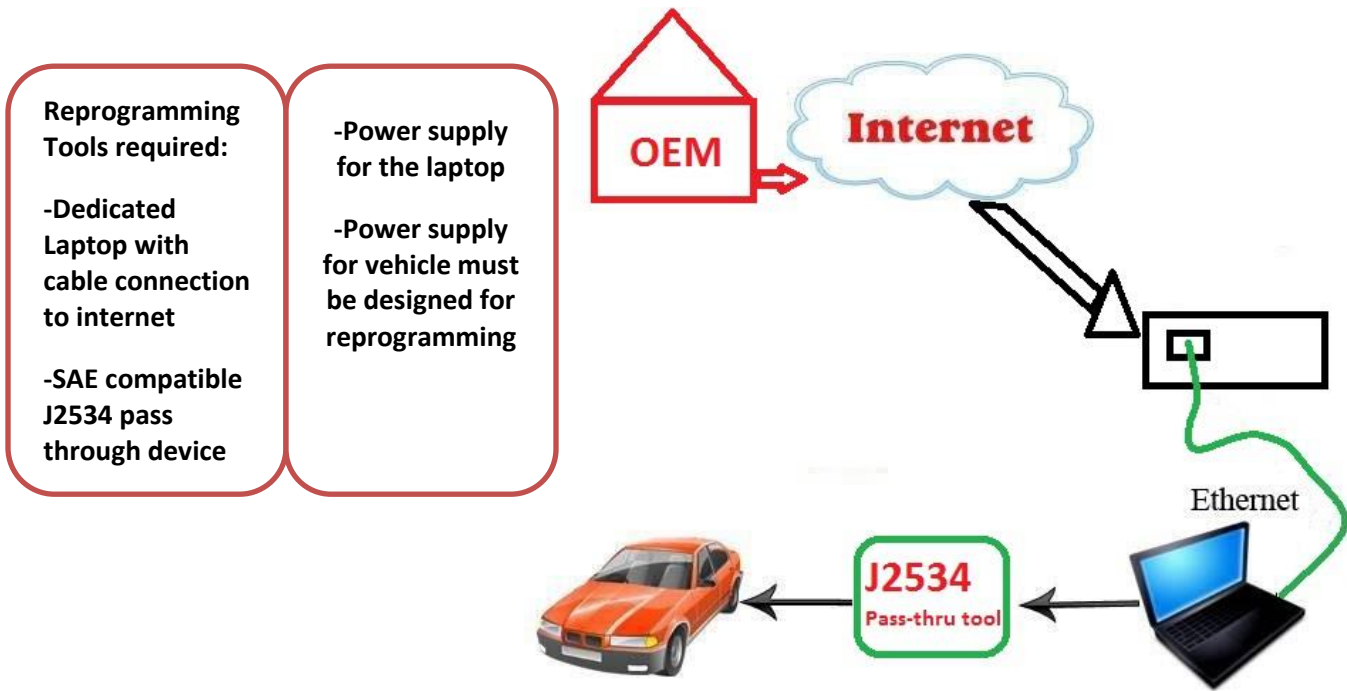
## INSTALLATION SUGGESTIONS

1. The cooling system on this vehicle **SOULD** be replaced. The plate cooler in this vehicle cannot be properly flushed and is a non-serviceable component which must be replaced with new.
2. This transmission is an electronically controlled unit with an internal TCM (transmission control module) that must be Reprogrammed before operating the vehicle. Failure to do so will destroy the transmission. If an in shop reflash cannot be accomplished the vehicle must be flat bedded to a dealership for Reprogramming

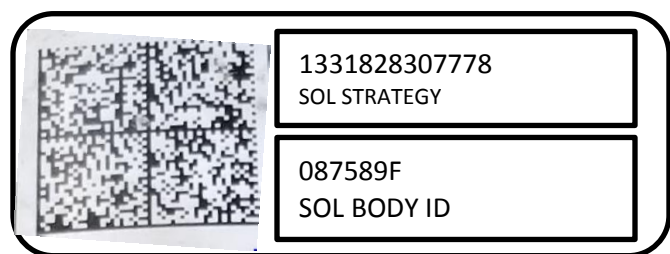
### Reprogramming Procedure

**Your remanufactured transmission comes with a new solenoid block. This will require reprogramming the vehicles PCM to match calibration of the new solenoid block.**

***See next page for reprogramming details:***



- A. Go to [www.motorcraftservice.com](http://www.motorcraftservice.com) , pick your region, select Reprogramming, follow the prompts on Programming site. Purchase the required subscription (at the time this was created a 72hr license was \$32.95)
- B. Verify that the Powertrain Control Module (PCM) is programmed to the latest available OEM calibrations (if not start with updating to the latest calibration).
- C. Look for the solenoid sticker located on the bellhousing.



- D. Match the Solenoid Strategy and Body ID the PCM.
- \*See next page if sticker is missing or illegible.

E. \*Note\* Information is also located on the solenoid block connector.\*



**\*If an “in-shop” reprogram cannot be accomplished the vehicle must be Flat bedded to a dealership for this service.**



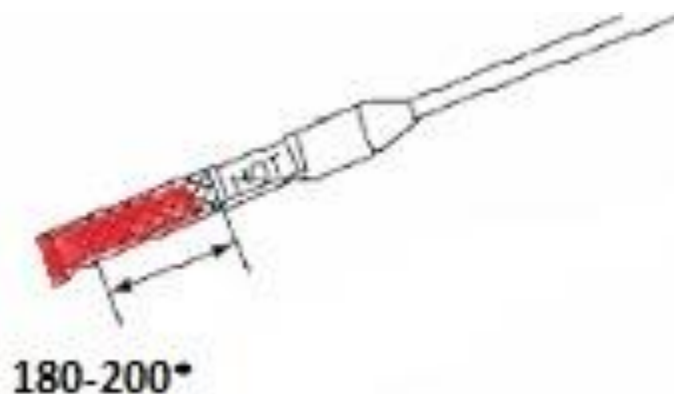
### Verify proper shifter cable adjustment:

- Set the transmission to park and attempt to turn the wheels. If the wheels DO NOT turn then you are in park.
- Now rotate the linkage two detents(clicks) in the opposite direction of park (this verifies you are in neutral).
- Now have an assistant select neutral with the vehicles shift lever. The cable end and manual lever should line up. Now connect the cable end.  
\*Look up adjustment procedure if one is needed.

### Properly fill with Motorcraft XT-8-QAW Automatic Transmission Fluid:

- BEFORE YOU START THE VEHICLE fluid must be touching the bottom of the stick.
- Make sure the Vehicle is on level ground
- Start the vehicle and move the shift through all ranges pausing for 3 secs in each range.
- Final level check, engine idling, transmission in park, temperature must be 180-200\*
  - if temp is too low select manual 2 and stall test for a max of 15 seconds at a time till temp is reached

Fluid should read in the cross hatches on the dipstick. DO NOT OVERFILL



## **Fast Learn:**

1. Use a scan tool capable of performing the fast learn procedure
2. TFT 158-230°F (70-110°C), Move the selector in/out of gear 3 times
3. Select the fast learn process from the scan tool menu
4. Place the transmission in Drive with the vehicle stationary. The TCM will individually apply the clutches and calculate the clutch volume. Place the transmission in Reverse with the vehicle stationary. The TCM will individually apply the clutches and calculate the clutch volume
5. Shut off the engine for at least 30 seconds, open and close the door to allow "RAP" to expire or false DTC's may set, After a minimum of 30 seconds the car can be restarted , power off the scanner
6. The process is now complete

The fast learn procedure will not run if:

- DTC's are set
- TFT is not between 158-230 °F (70-110°C)
- The brake switch is not working
- TP is 0% but engine RPM increases during the test
- P/N switch is improperly adjusted or is not functioning correctly
- Line pressure control system is malfunctioning

**After this procedure it still may take several days of driving the vehicle for the transmission to fully adapt and begin to shift properly.**

***Once the reprogramming and Fast learn steps are complete, perform a thorough test drive with multiple accelerations and from a stop with light to medium throttle application.***

***Rescan the vehicle. If codes are present, compare these to the original codes. Use a scan tool for DTC's and correct the codes and re-road test the vehicle.***

## INSTALLATION CHECKLIST

- Scan vehicle and fix all codes
- Replace the cooling system (Radiator) and replace or clean cooling lines
- Inspect flex plate for cracks or breakage. Damaged flex plates are common
- Compare bolt pattern on flex plate to bolt pattern on new torque converter
- Inspect crankshaft pilot bore for wear and apply grease to aid with installation
- Compare replacement transmission and torque converter to original before installation
- Verify all dowel pins are present, clean, and in good condition – these are critical for proper alignment
- Do not tighten bell housing bolts with force; may damage torque converter if shifted in transit
- Inspect wiring harness and connector for damage and /or corrosion
- Inspect entire electrical system including ground, battery, alternator, mass air flow sensor and throttle position sensor.
- Inspect axle shaft splines and check transmission/engine mounts
- Install supplied tail shaft housing gaskets and seals
- If 4WD application, replace transfer case input shaft seal
- Inspect transmission mounts, carrier bearing, driveshaft, yoke and U-joints. Excessive vibration due to defective mounts and other faulty driveline parts is the main cause of broken cases.

## Road Test Check list

- Does vehicle hold in park
- Engagement into reverse
- Acceleration in reverse
- Does engine free spin in neutral
- Engagement into Over Drive
- Acceleration in Over Drive
- 1-2 shift in Over Drive
- 2-3 shift in Over Drive
- 3-4 shift in Over Drive
- 4-5 shift in Over Drive
- 5-6 shift in Over Drive
- 6-5 downshift in Over Drive
- 5-4 downshift in Over Drive
- 4-3 downshift in Over Drive
- 3-2 downshift in Over Drive
- 2-1 downshift in Over Drive
- Engine braking in manual 1
- Engine braking in manual 2
- Torque Converter lock up and release