

Description and Operation

Overview



This electronically controlled automatic transmission is a 6-speed transmission with electronic shift control. It is designed for operation in a transverse powertrain for [FWD \(front wheel drive\)](#) and [AWD \(all-wheel drive\)](#) vehicles. Gear selection is achieved by the control of transmission fluid flow to operate various internal clutches. The [TCM \(transmission control module\)](#) operates the electrical components and provides control of gear selection shift pressure, which increases refinement and torque converter slip.

This transmission has the following features:

- Six forward speeds
- Torque converter with an integral converter clutch
- Electronic shift and pressure controls
- Three planetary gearsets
- Three fixed multi-disc clutches
- Two multi-plate drive clutches
- [TCM](#)

All hydraulic functions are directed by electronic solenoids to control the following:

- Engagement feel
- Shift feel
- Shift scheduling
- Modulated [TCC \(torque converter clutch\)](#) applications

This transmission has a main control which contains:

- Solenoid body with [TFT \(transmission fluid temperature\)](#) sensor
- Upper Valve body
- Lower Valve body

The [TCM](#) receives inputs directly from:

- [TR \(transmission range\)](#) sensor.
- [TFT](#) sensor.
- [TSS \(turbine shaft speed\)](#) sensor.
- [ISS \(input shaft speed\)](#) sensor.
- [OSS \(output shaft speed\)](#) sensor.

The [TCM](#) also receives information from other modules via [CAN \(controller area network\)](#) such as:

- Engine speed.
- Engine torque.
- ECT (engine coolant temperature).
- TP (throttle position).
- APP (accelerator pedal position).
- ABS (anti-lock brake system) wheel speed.
- Traction control status.

In the event of a system fault, the TCM also provides for Failure Mode Effect Management to maintain maximum functional operation of the transmission with a minimum power reduction. In the event of a total loss of control or electrical power, the basic transmission functions P, R, N and D are retained. Also 5th gear is retained by the hydraulic system.

Identification Tags

Identification Tag Location



E150606

Item	Description
1	Transmission identification tag
2	Solenoid body identification tag

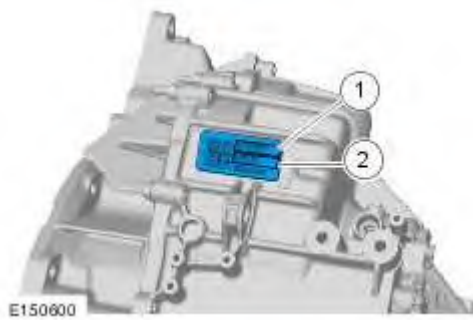
Transmission Identification Tag



E150607

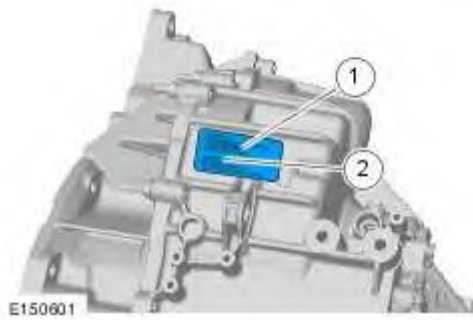
Item	Description
1	Transmission part number
2	Transmission build date
3	Transmission serial number

Original Solenoid Body Tag



Item	Description
1	13 - digit solenoid body strategy
2	7 - digit solenoid body identification

Replacement Solenoid Body Tag



Item	Description
1	13 - digit solenoid body strategy
2	7 - digit solenoid body identification

Solenoid Body Identification Tag



Item	Description
1	13 - digit solenoid body strategy
2	7 - digit solenoid body identification