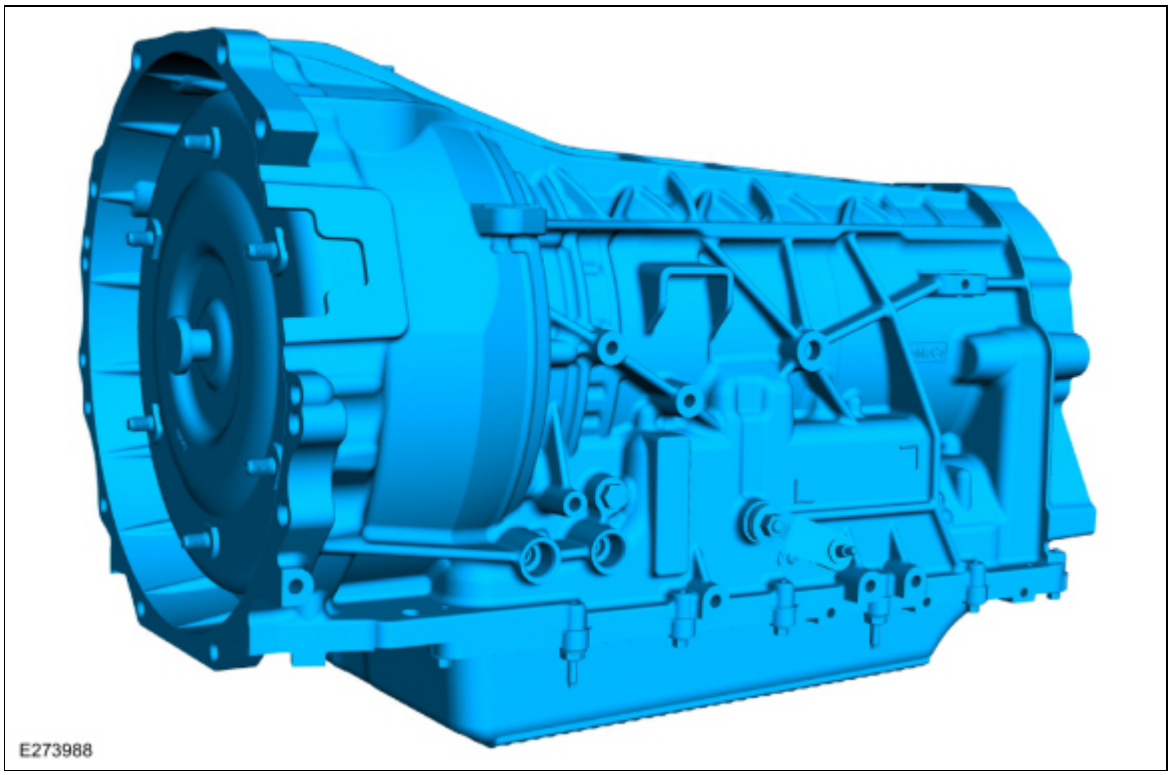
Transmission Description - Overview

Overview



This transmission is a 10-speed electronically controlled transmission which uses planetary gears. Gear selection is achieved by the electronic control of transmission fluid flow to operate various internal clutches.

This transmission includes:

- Torque converter with an integral converter clutch
- Electronic shift and pressure controls
- Four planetary gearsets
- Two multi-disc holding clutches
- Four multi-plate drive clutches
- One one way holding clutch
- Main control valve body unit

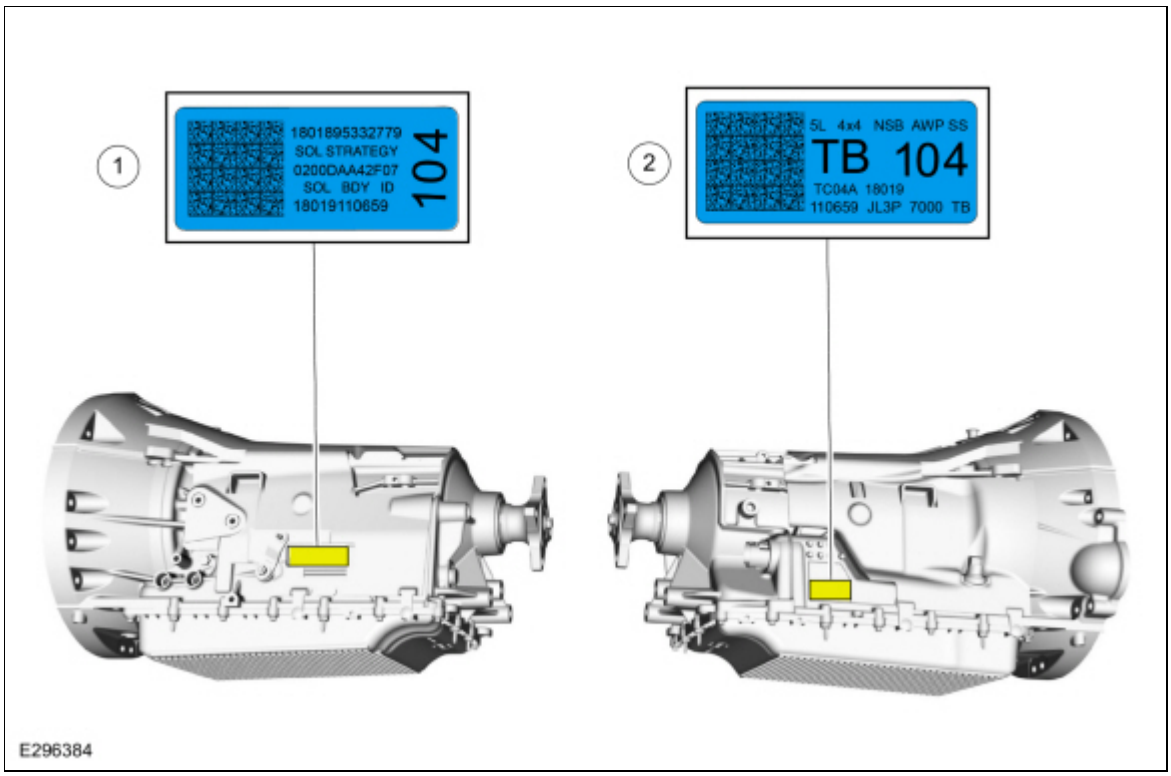
The main control consists of a valve body assembly with solenoids inside the transmission and is controlled by a PCM for gas engine applications and a TCM for diesel engine applications. The PCM or TCM operates the electrical components to provide refined engagement feel, shift feel, and shift scheduling.

Engine power reaches the transmission by a torque converter with an integral clutch. The 10 forward gears and one reverse gear are obtained from 4 planetary gearsets.

This automatic transmission is a 10-speed electronically controlled transmission with a main control valve body unit with 8 solenoids and a torque converter. Gear selection is achieved by the control of transmission fluid to operate various internal clutches. The PCM or TCM operates the electrical components and provides control of gear selection, shift pressure and torque converter slip.

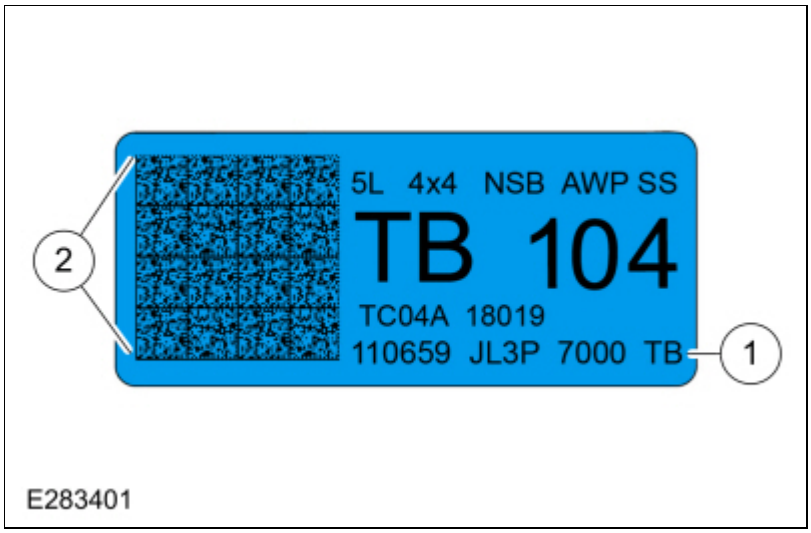
Identification Tags

Identification Tag Location



Item	Description
1	Solenoid body identification tag
2	Transmission identification tag

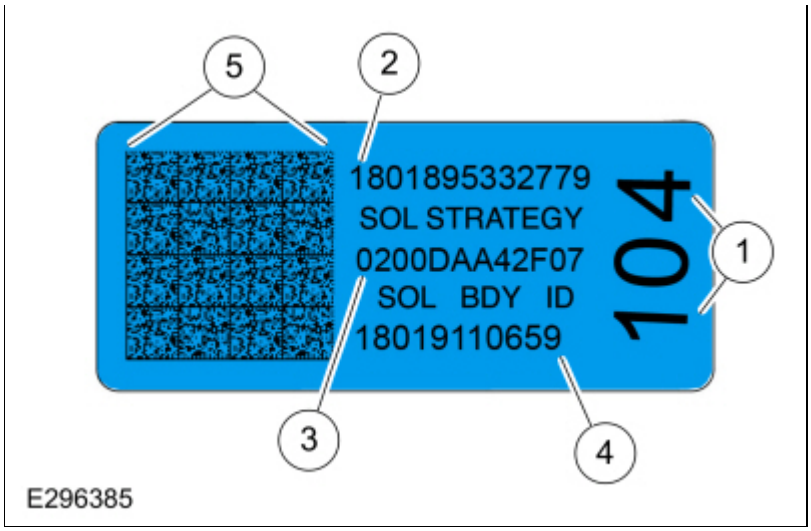
Transmission identification tag



Item	Description
1	Transmission part number
2	Two-dimensional matrix barcode

When servicing the transmission, use the transmission identification tag located on the right side of the transmission case.

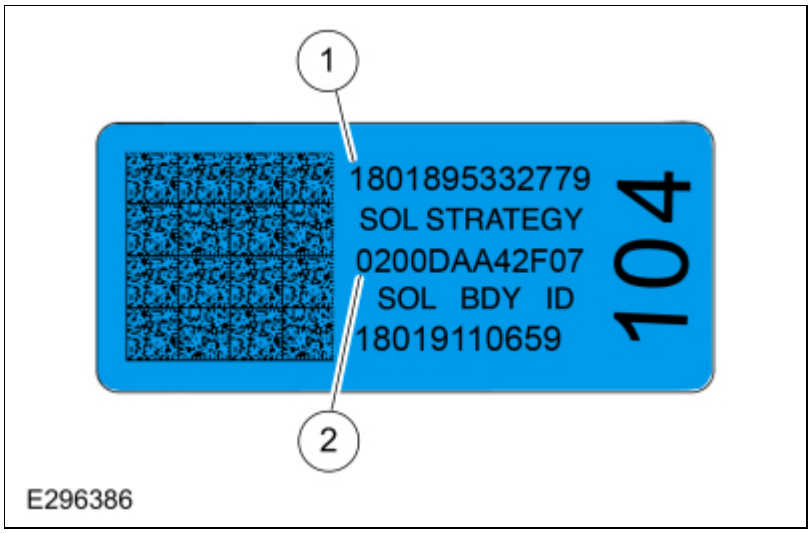
Original Solenoid Body Tag



Item	Description
1	Three-digit transmission model code
2	Thirteen-digit solenoid body strategy
3	Twelve-digit solenoid body identification
4	Eleven-digit transmission unique running number
5	Two-dimensional matrix barcode with TRID transmission characterization data

The solenoid body strategy is a file programmed into the PCM or TCM to control the shift, LPC and TCC solenoids to improve shift quality. The solenoid body tag on the transmission case contains the 13-digit solenoid body strategy and the 12-digit solenoid body identification.

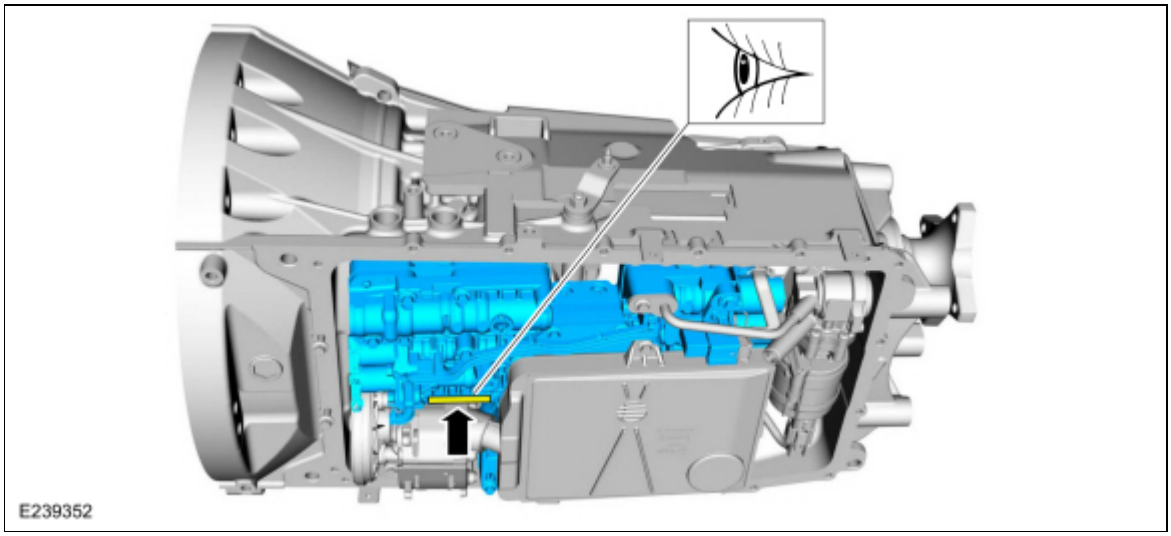
Replacement Solenoid Body Tag



Item	Description
1	Thirteen-digit solenoid body strategy
2	Twelve-digit solenoid body identification

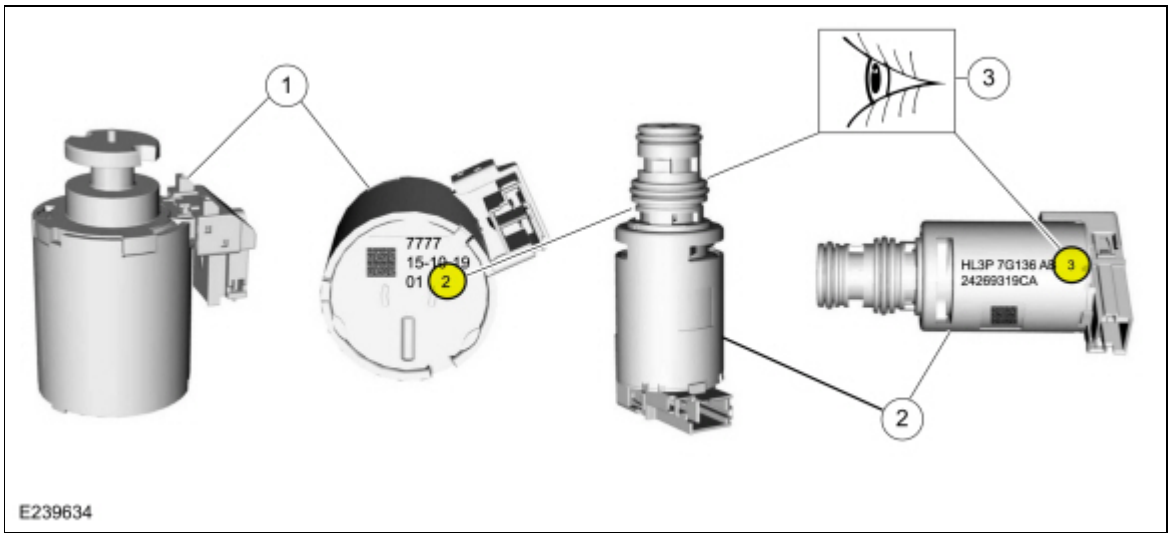
Anytime a new main control is installed, a new solenoid body strategy file is downloaded into the PCM or TCM using the scan tool. A replacement solenoid body tag is supplied with the new solenoid body which contains the 13-digit solenoid body strategy and the 12-digit solenoid body identification. The new tag is placed over the original solenoid body tag.

Solenoid Body Identification and Strategy



If the solenoid body strategy etched on the main control does not match what the scan tool displays, the solenoid body strategy must be downloaded into the PCM or TCM or harsh shifts will result.

Solenoid Band Number



Item	Description
1	CIDAS (casting integrated direct acting solenoid)
2	VFS (variable force solenoids)
3	Band number

The solenoids are calibrated from the factory and are not all the same. There are 2 types of VFS (variable force solenoids), normally high and normally low solenoids. The CIDASs are all normally low solenoids. The solenoids can be replaced separately, but only with the same type of solenoid. The replacement solenoid band number must match the band number of the solenoid being replaced. The band number is printed on the solenoids in the location shown and will be a 1, 2, 3, 4 or 5.