

|                 |                                                                          |                                                                                                                                |
|-----------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| SSPCF_F         | (SSPCF) Status                                                           | Fault status for the Shift Solenoid Pressure Control F(SSPCF)/CB28                                                             |
| SST_D           | SelectShift <sub>â</sub> , <sub>ç</sub> Transmission - Down Switch Input | SelectShift <sub>â</sub> , <sub>ç</sub> transmission-down switch input                                                         |
| SST_U           | SelectShift <sub>â</sub> , <sub>ç</sub> Transmission - Up Switch Input   | SelectShift <sub>â</sub> , <sub>ç</sub> transmission-up switch input                                                           |
| TC_SLIPACT      | Torque Converter Slip Actual                                             | Actual difference between engine speed and turbine speed, measured in rpm                                                      |
| TC_SLIPDSD      | Torque Converter Slip Desired                                            | PCM commanded difference between engine speed and turbine speed, measured in rpm                                               |
| TCC             | Torque Converter Clutch Solenoid                                         | Commanded pressure for the TCC                                                                                                 |
| TCC AMP#        | Converter Pressure Control                                               | Commanded current for the TCC                                                                                                  |
| TCC_F           | Torque Converter Clutch Pressure Control Fault                           | Fault status for the TCC                                                                                                       |
| TCC_OSC#        | Output State Control of Torque Converter                                 | Output state control commanded pressure to the TCC                                                                             |
| TCC_RAT         | Torque Slip Ratio                                                        | Actual speed ratio of torque converter (1.0 = fully engaged)                                                                   |
| TCS_DEPRES      | Transmission Control Switch Pressed                                      | TCS status                                                                                                                     |
| TFPS_A          | Transmission Fluid Pressure Sensor A                                     | Voltage reading that represents the A clutch pressure.                                                                         |
| TFPS_B          | Transmission Fluid Pressure Sensor B                                     | Voltage reading that represents the B clutch pressure.                                                                         |
| TFT             | Transmission Fluid Temperature                                           | TFT                                                                                                                            |
| TFTV            | Transmission Fluid Temperature                                           | TFT voltage                                                                                                                    |
| TFT_QF          | Transmission Fluid Temperature Sensor Quality Factor                     | Fault status for TFT sensor                                                                                                    |
| TR              | Transmission Range                                                       | TR                                                                                                                             |
| TR_CRANK        | Transmission Range Input Allowing Engine Start                           | TR                                                                                                                             |
| TR_PARK_STAT    | Transmission Park Position Sensor Status                                 | Transmission Park Position Sensor Status                                                                                       |
| TR_PAWL_NOTPARK | Transmission Park Pawl                                                   | Transmission park pawl control has not been moved to the park position since it was last in the manual park override position. |
| TR_QF           | Transmission Range Quality Factor                                        | Fault status for TR sensor                                                                                                     |
| TRAN_RAT        | Gear Ratio Measured                                                      | Actual transmission gear ratio                                                                                                 |
| TRANS_VOLT_A    | Transmission Supply Voltage Control State                                | Transmission supply voltage                                                                                                    |
| TSS_QF          | Turbine Shaft Speed Sensor Quality Factor                                | Fault status of the TSS sensor (rpm)                                                                                           |
| TSS_RAW         | Turbine Shaft Speed - Raw                                                | Actual speed of the TSS sensor (rpm)                                                                                           |
| VPWR_PCM        | Module supply voltage                                                    | PCM supply voltage                                                                                                             |
| VSS             | Vehicle Speed                                                            | Vehicle Speed                                                                                                                  |
| VSS_HR          | Vehicle Speed High Resolution                                            | Vehicle Speed High Resolution                                                                                                  |
| WARMUPS         | Number Of Warm-ups Since (DTCs) Cleared                                  | Number Of Warm-ups Since (DTCs) Cleared counter                                                                                |



## Diagnostic Trouble Code (DTC) Charts and Pinpoint Tests - 2.0L EcoBoost (184kW/250PS) â€“ MI4

### DTC Chart: PCM

Diagnostics in this manual assume a certain skill level and knowledge of Ford-specific diagnostic practices.  
REFER to: Diagnostic Methods (100-00 General Information, Description and Operation).

### DTC Chart

| DTC   | Description                                                         | Warning Light/DTC Type     | Action<br><i>New: hover over Pinpoint Test links to show title</i>                                                                                                                                                                                                                                                                                                                                                                                  |
|-------|---------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P0657 | Actuator Supply Voltage "A" Circuit Open                            | MIL, Wrench/Continuous     | CLEAR the DTC. If the DTC resets, <a href="#">GO to Pinpoint Test A</a>                                                                                                                                                                                                                                                                                                                                                                             |
| P0702 | Transmission Control System Electrical                              | Wrench/Continuous          | If DTCs P0882 or P0883 are set, REPAIR the more specific DTC first. INSPECT the PCM power and ground circuits for opens or short to ground. INSPECT the PCM connector for damaged or pushed-out terminals, corrosion or loose wires. CLEAR the DTC. RERUN the KOEO and KOER self-test. If DTC P0702 returns, REFER to: Charging System - 2.0L EcoBoost (184kW/250PS) â€“ MI4 (414-00 Charging System - General Information, Diagnosis and Testing). |
| P0706 | Transmission Range Sensor "A" Circuit Range/Performance             | Wrench/KOEO, Continuous    | The TR sensor outputs a duty cycle indicating manual lever position. This DTC sets when the TR sensor A frequency is 25Hz greater or less than the expected duty cycle by 125Hz or more. Engine may not crank. CLEAR the DTC. If DTC P0706 returns, <a href="#">GO to Pinpoint Test C</a>                                                                                                                                                           |
| P0707 | Transmission Range Sensor "A" Circuit Low                           | Wrench/KOEO, Continuous    | TR sensor A duty cycle is out of range low, less than 7.0%. Engine may not crank, CLEAR the DTC. If DTC P0707 returns, <a href="#">GO to Pinpoint Test C</a>                                                                                                                                                                                                                                                                                        |
| P0708 | Transmission Range Sensor "A" Circuit High                          | Wrench/KOEO, Continuous    | TR sensor A duty cycle is out of range high, greater than 93%. Engine may not crank, CLEAR the DTC. If DTC P0708 returns, <a href="#">GO to Pinpoint Test C</a>                                                                                                                                                                                                                                                                                     |
| P0709 | Transmission Range Sensor "A" Circuit Intermittent                  | Wrench/Continuous          | The TR sensor outputs a duty cycle indicating manual lever position. This DTC sets when the duty cycle is within range but is in the dead band between the design position, and in-range but invalid duty cycle. <a href="#">GO to Pinpoint Test C</a>                                                                                                                                                                                              |
| P0710 | Transmission Fluid Temperature Sensor "A" Circuit                   | Wrench/Continuous          | CLEAR the DTC. If DTC P0710 returns, <a href="#">GO to Pinpoint Test B</a>                                                                                                                                                                                                                                                                                                                                                                          |
| P0711 | Transmission Fluid Temperature Sensor "A" Circuit Range/Performance | MIL/Continuous             | CLEAR the DTC. Road test the vehicle at least 5 minutes. If DTC P0711 returns, <a href="#">GO to Pinpoint Test B</a>                                                                                                                                                                                                                                                                                                                                |
| P0712 | Transmission Fluid Temperature Sensor "A" Circuit Low               | MIL/KOEO, KOER, Continuous | DTC P0710 may set. CLEAR the DTC. If DTC P0712 returns, <a href="#">GO to Pinpoint Test B</a>                                                                                                                                                                                                                                                                                                                                                       |
| P0713 | Transmission Fluid Temperature Sensor "A" Circuit High              | MIL/KOEO, KOER, Continuous | DTC P0710 may set. CLEAR the DTC. If DTC P0713 returns, <a href="#">GO to Pinpoint Test B</a>                                                                                                                                                                                                                                                                                                                                                       |
| P0715 | Turbine Shaft Speed (TSS) Sensor "A" Circuit                        | MIL/KOEO, KOER, Continuous | CLEAR DTC. If DTC P0715 returns during KOEO, <a href="#">GO to Pinpoint Test D</a>                                                                                                                                                                                                                                                                                                                                                                  |
| P0716 | Turbine Shaft Speed (TSS) Sensor "A" Circuit Range/Performance      | MIL/Continuous             | The PCM did not detect a circuit fault, but the TSS fails for any one of the following, sensor drop out, noise spike, or TSS not corresponding to other speed sensor inputs for current gear state. REPAIR all clutch faults first. INSPECT TSS sensor for proper mounting. INSPECT input shaft S2 for damage. <a href="#">GO to Pinpoint Test D</a>                                                                                                |
| P0717 | Turbine Shaft Speed (TSS) Sensor "A" Circuit No Signal              | Wrench/Continuous          | P0717 illuminates the wrench light in conjunction with P0715, P07BF, and/or P07C0. Service the more specific DTC first. <a href="#">GO to Pinpoint Test D</a>                                                                                                                                                                                                                                                                                       |

| DTC   | Description                                               | Warning Light/DTC Type     | Action<br><i>New: hover over Pinpoint Test links to show title</i>                                                                                                                                                                                                                                                                                                                                                          |
|-------|-----------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P0718 | Turbine Shaft Speed (TSS) Sensor "A" Circuit Intermittent | MIL/Continuous             | The PCM detected TSS sensor fault, but the fault did not last long enough for the PCM to set a more specific TSS sensor DTC. Inspect TSS sensor wiring and connectors for damage. <a href="#">GO to Pinpoint Test D</a>                                                                                                                                                                                                     |
| P0720 | Output Shaft Speed Sensor Circuit                         | MIL/KOEO, KOER, Continuous | CLEAR the DTC. If DTC P0720 returns during KOEO, <a href="#">GO to Pinpoint Test D</a>                                                                                                                                                                                                                                                                                                                                      |
| P0721 | Output Shaft Speed Sensor Circuit Range/Performance       | MIL/Continuous             | The PCM detected OSS sensor drop out, noise spike, or OSS sensor not corresponding to other speed sensor inputs for current gear. REPAIR all clutch faults first. INSPECT OSS sensor for proper mounting. INSPECT OSS sensor tone wheel (part of planetary carrier No. 4 output shaft) for damage. <a href="#">GO to Pinpoint Test D</a>                                                                                    |
| P0722 | Output Shaft Speed Sensor Circuit No Signal               | Wrench/Continuous          | DTC P0722 illuminates the wrench light in conjunction with P0720, P077C, and/or P077D. Service the more specific DTC first. <a href="#">GO to Pinpoint Test D</a>                                                                                                                                                                                                                                                           |
| P0723 | Output Shaft Speed Sensor Circuit Intermittent            | MIL/Continuous             | The PCM detected OSS sensor fault, but the fault did not last long enough for the PCM to set a more specific OSS sensor DTC. Inspect OSS sensor wiring and connectors for damage. <a href="#">GO to Pinpoint Test D</a>                                                                                                                                                                                                     |
| P0729 | Gear 6 Incorrect Ratio                                    | Wrench/Continuous          | The PCM detected multiple ratio errors either in or while shifting to 6th gear. The ratio error did not last long enough for the PCM to isolate the fault to a specific clutch.<br>REFER to: Diagnosis By Symptom (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 8-Speed Automatic Transmission â€“ 8F35, 8-Speed Automatic Transmission â€“ 8F40, 8-Speed Automatic Transmission â€“ 8F35/8F40) . |
| P0731 | Gear 1 Incorrect Ratio                                    | Wrench/Continuous          | The PCM detected multiple ratio error either in or while shifting to 1st gear. The ratio error did not last long enough for the PCM to isolate the fault to a specific clutch.<br>REFER to: Diagnosis By Symptom (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 8-Speed Automatic Transmission â€“ 8F35, 8-Speed Automatic Transmission â€“ 8F40, 8-Speed Automatic Transmission â€“ 8F35/8F40) .  |
| P0732 | Gear 2 Incorrect Ratio                                    | Wrench/Continuous          | The PCM detected multiple ratio error either in or while shifting to 2nd gear. The ratio error did not last long enough for the PCM to isolate the fault to a specific clutch.<br>REFER to: Diagnosis By Symptom (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 8-Speed Automatic Transmission â€“ 8F35, 8-Speed Automatic Transmission â€“ 8F40, 8-Speed Automatic Transmission â€“ 8F35/8F40) .  |
| P0733 | Gear 3 Incorrect Ratio                                    | Wrench/Continuous          | The PCM detected multiple ratio error either in or while shifting to 3rd gear. The ratio error did not last long enough for the PCM to isolate the fault to a specific clutch.<br>REFER to: Diagnosis By Symptom (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 8-Speed Automatic Transmission â€“ 8F35, 8-Speed Automatic Transmission â€“ 8F40, 8-Speed Automatic Transmission â€“ 8F35/8F40) .  |
| P0734 | Gear 4 Incorrect Ratio                                    | Wrench/Continuous          | The PCM detected multiple ratio errors either in or while shifting to 4th gear. The ratio error did not last long enough for the PCM to isolate the fault to a specific clutch.<br>REFER to: Diagnosis By Symptom (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 8-Speed Automatic Transmission â€“ 8F35, 8-Speed Automatic Transmission â€“ 8F40, 8-Speed Automatic Transmission â€“ 8F35/8F40) . |
| P0735 | Gear 5 Incorrect Ratio                                    | Wrench/Continuous          | The PCM detected multiple ratio errors either in or while shifting to 5th gear. The ratio error did not last long enough for the PCM to isolate the fault to a specific clutch.<br>REFER to: Diagnosis By Symptom (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 8-Speed Automatic Transmission â€“ 8F35, 8-Speed Automatic Transmission â€“ 8F40, 8-Speed Automatic Transmission â€“ 8F35/8F40) . |
| P0736 | Reverse Incorrect Ratio                                   | Wrench/Continuous          | The PCM detected multiple ratio error either in or while shifting to Reverse. The ratio error did not last long enough for the v to isolate the fault to a specific clutch.<br>REFER to: Diagnosis By Symptom (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 8-Speed Automatic Transmission â€“ 8F35, 8-Speed Automatic Transmission â€“ 8F40, 8-Speed Automatic Transmission â€“ 8F35/8F40) .     |
| P073D | Unable to Engage Neutral                                  | None/Continuous            | The PCM detected low PCM speed multiple times in Park or Neutral, but the PCM didn't set a stuck clutch On DTC. If any speed sensor DTCs are set resolve them first, otherwise, REFER to: Diagnosis By Symptom (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 8-Speed Automatic Transmission â€“ 8F35, 8-Speed Automatic Transmission â€“ 8F40, 8-Speed Automatic Transmission â€“ 8F35/8F40) .    |
| P073E | Unable to Engage Reverse                                  | None                       | The PCM detected a forward gear multiple times in Reverse, but didn't see a stuck clutch DTC. If any speed sensor DTCs are set resolve them first, otherwise, REFER to: Diagnosis By Symptom (307-01 Automatic Transmission, Transfer Case and Power Transfer Unit - 8-Speed Automatic Transmission â€“ 8F35, 8-Speed Automatic Transmission â€“ 8F40, 8-Speed Automatic Transmission â€“ 8F35/8F40) .                      |