Description:	This DTC sets when the engine oil temperature protection strategy in the PCM has been activated. This temporarily prohibits high engine speed operation by disabling injectors, to reduce the risk of engine damage from high engine oil temperature. The PCM uses an oil algorithm to determine actual engine oil temperature.			
Possible Causes:	• Very high engine RPM for an extended period of time • Overheating condition • Base engine concerns			
Diagnostic Aids:	The engine is operating in high RPM range due to incorrect gear selection. This may cause a lack/loss of power or surge.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test DY.		

P0299 - Turbocharger/Supercharger A Underboost Condition

Description:	This DTC sets when the actual TCBP value is less than the desired TCBP value by 27.6 kPa (4 psi) or more for 5 seconds, indicating an under boost condition.			
Possible Causes:	• Damaged turbocharger (TC) wastegate regulating valve solenoid • TC wastegate regulating solenoid valve stuck • Wastegate stuck open • Wastegate control hose open or plugged • Air leak between turbocharger and throttle			
Diagnostic Aids:	Check tubing for obstructions, cracks and incorrect fitting connections. Check the turbocharger wastegate regulating valve solenoid for correct operation.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HN.		

P0300 - Random Misfire Detected

Description:	This DTC sets when the misfire detection monitor detects an engine misfire in multiple cylinders or the PCM cannot identify which cylinder is misfiring.			
Possible Causes:	• Damaged camshaft position (CMP) sensor • Low fuel (less than 1/8 tank) • Stuck open exhaust gas recirculation (EGR) valve • Blocked EGR passages • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair			
Diagnostic Aids:	One or more EGR passages may be blocked or partially blocked.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0301 - Cylinder 1 Misfire Detected

Description:	This DTC sets when the misfire detection monitor detects an engine misfire in cylinder 1.

Possible Causes:	• Ignition system • Fuel injector 1 • Running out of fuel • EVAP purge valve • Fuel pressure • Evaporative emission system • Exhaust gas recirculation (EGR) system • Base engine • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair
Diagnostic Aids:	Misfire is defined as lack of combustion in a cylinder due to absence of spark, incorrect fuel metering, low compression, or any other cause. The malfunction indicator lamp (MIL) blinks once per second when a misfire severe enough to cause catalyst damage is detected. If the MIL is on steady state due to a misfire, this indicates the threshold for emissions was exceeded and caused the vehicle to fail an inspection and maintenance tailpipe test.

Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0302 - Cylinder 2 Misfire Detected

Description:	This DTC sets when the misfire detection monitor detects an engine misfire in cylinder 2.
Possible Causes:	• Ignition system • Fuel injector 2 • Running out of fuel • EVAP purge valve • Fuel pressure • Evaporative emission system • Exhaust gas recirculation (EGR) system • Base engine • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair
Diagnostic Aids:	Misfire is defined as lack of combustion in a cylinder due to absence of spark, incorrect fuel metering, low compression, or any other cause. The malfunction indicator lamp (MIL) blinks once per second when a misfire severe enough to cause catalyst damage is detected. If the MIL is on steady state due to a misfire, this indicates the threshold for emissions was exceeded and caused the vehicle to fail an inspection and maintenance tailpipe test.

Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0303 - Cylinder 3 Misfire Detected

Description:	This DTC sets when the misfire detection monitor detects an engine misfire in cylinder 3.

Possible Causes:	• Ignition system • Fuel injector 3 • Running out of fuel • EVAP purge valve • Fuel pressure • Evaporative emission system • Exhaust gas recirculation (EGR) system • Base engine • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair			
Diagnostic Aids:	Misfire is defined as lack of combustion in a cylinder due to absence of spark, incorrect fuel metering, low compression, or any other cause. The malfunction indicator lamp (MIL) blinks once per second when a misfire severe enough to cause catalyst damage is detected. If the MIL is on steady state due to a misfire, this indicates the threshold for emissions was exceeded and caused the vehicle to fail an inspection and maintenance tailpipe test.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0304 - Cylinder 4 Misfire Detected

Description:	This DTC sets when the misfire detection monitor detects an engine misfire in cylinder 4.			
Possible Causes:	• Ignition system • Fuel injector 4 • Running out of fuel • EVAP purge valve • Fuel pressure • Evaporative emission system • Exhaust gas recirculation (EGR) system • Base engine • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair			
Diagnostic Aids:	Misfire is defined as lack of combustion in a cylinder due to absence of spark, incorrect fuel metering, low compression, or any other cause. The malfunction indicator lamp (MIL) blinks once per second when a misfire severe enough to cause catalyst damage is detected. If the MIL is on steady state due to a misfire, this indicates the threshold for emissions was exceeded and caused the vehicle to fail an inspection and maintenance tailpipe test.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0305 - Cylinder 5 Misfire Detected

Description:	This DTC sets when the misfire detection monitor detects an engine misfire in cylinder 5.

Possible Causes:	• Ignition system • Fuel injector 5 • Running out of fuel • EVAP purge valve • Fuel pressure • Evaporative emission system • Exhaust gas recirculation (EGR) system • Base engine • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair			
Diagnostic Aids:	Misfire is defined as lack of combustion in a cylinder due to absence of spark, incorrect fuel metering, low compression, or any other cause. The malfunction indicator lamp (MIL) blinks once per second when a misfire severe enough to cause catalyst damage is detected. If the MIL is on steady state due to a misfire, this indicates the threshold for emissions was exceeded and caused the vehicle to fail an inspection and maintenance tailpipe test.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0306 - Cylinder 6 Misfire Detected

Description:	This DTC sets when the misfire detection monitor detects an engine misfire in cylinder 6.			
Possible Causes:	• Ignition system • Fuel injector 6 • Running out of fuel • EVAP purge valve • Fuel pressure • Evaporative emission system • Exhaust gas recirculation (EGR) system • Base engine • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair			
Diagnostic Aids:	Misfire is defined as lack of combustion in a cylinder due to absence of spark, incorrect fuel metering, low compression, or any other cause. The malfunction indicator lamp (MIL) blinks once per second when a misfire severe enough to cause catalyst damage is detected. If the MIL is on steady state due to a misfire, this indicates the threshold for emissions was exceeded and caused the vehicle to fail an inspection and maintenance tailpipe test.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0307 - Cylinder 7 Misfire Detected

Description:	This DTC sets when the misfire detection monitor detects an engine misfire in cylinder 7.

Possible Causes:	• Ignition system • Fuel injector 7 • Running out of fuel • EVAP purge valve • Fuel pressure • Evaporative emission system • Exhaust gas recirculation (EGR) system • Base engine • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair			
Diagnostic Aids:	Misfire is defined as lack of combustion in a cylinder due to absence of spark, incorrect fuel metering, low compression, or any other cause. The malfunction indicator lamp (MIL) blinks once per second when a misfire severe enough to cause catalyst damage is detected. If the MIL is on steady state due to a misfire, this indicates the threshold for emissions was exceeded and caused the vehicle to fail an inspection and maintenance tailpipe test.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0308 - Cylinder 8 Misfire Detected

Description:	This DTC sets when the misfire detection monitor detects an engine misfire in cylinder 8.			
Possible Causes:	• Ignition system • Fuel injector 8 • Running out of fuel • EVAP purge valve • Fuel pressure • Evaporative emission system • Exhaust gas recirculation (EGR) system • Base engine • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair			
Diagnostic Aids:	Misfire is defined as lack of combustion in a cylinder due to absence of spark, incorrect fuel metering, low compression, or any other cause. The malfunction indicator lamp (MIL) blinks once per second when a misfire severe enough to cause catalyst damage is detected. If the MIL is on steady state due to a misfire, this indicates the threshold for emissions was exceeded and caused the vehicle to fail an inspection and maintenance tailpipe test.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0309 - Cylinder 9 Misfire Detected

Description:	This DTC sets when the misfire detection monitor detects an engine misfire in cylinder 9.

Possible Causes:	• Ignition system • Fuel injector 9 • Running out of fuel • EVAP purge valve • Fuel pressure • Evaporative emission system • Exhaust gas recirculation (EGR) system • Base engine • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair			
Diagnostic Aids:	Misfire is defined as lack of combustion in a cylinder due to absence of spark, incorrect fuel metering, low compression, or any other cause. The malfunction indicator lamp (MIL) blinks once per second when a misfire severe enough to cause catalyst damage is detected. If the MIL is on steady state due to a misfire, this indicates the threshold for emissions was exceeded and caused the vehicle to fail an inspection and maintenance tailpipe test.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0310 - Cylinder 10 Misfire Detected

Description:	This DTC sets when the misfire detection monitor detects an engine misfire in cylinder 10.			
Possible Causes:	• Ignition system • Fuel injector 10 • Running out of fuel • EVAP canister purge valve • Fuel pressure • Evaporative emission system • Exhaust gas recirculation (EGR) system • Base engine • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair			
Diagnostic Aids:	Misfire is defined as lack of combustion in a cylinder due to absence of spark, incorrect fuel metering, low compression, or any other cause. The malfunction indicator lamp (MIL) blinks once per second when a misfire severe enough to cause catalyst damage is detected. If the MIL is on steady state due to a misfire, this indicates the threshold for emissions was exceeded and caused the vehicle to fail an inspection and maintenance tailpipe test.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0313 - Misfire Detected With Low Fuel

Description:	This DTC sets when an engine misfire fault is detected with low fuel level.			
Possible Causes:	• Customer driving habits • Low fuel or no fuel in tank (less than 1/8 tank)			
Diagnostic Aids:	Verify the fuel level is above 1/8 before diagnosing engine misfire DTCs.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test HD.		

P0315 - Crankshaft Position System Variation Not Learned

For Neutral Profile Correction Using Scan Tool				
Description:	The PCM has not learned the crankshaft pulse wheel tooth spacing. This DTC disables the misfire monitor.			
Possible Causes:	• Aftermarket performance products • Misfire monitor neutral profile correction has not been relearned since the last mechanical repair • PCM reprogramming • PCM replacement • Internal PCM non-volatile random access memory (NVRAM) error			
Diagnostic Aids:	The misfire monitor neutral profile correction must be relearned after any engine rotational component installation or repair. Carry out the Misfire Monitor Neutral Profile Correction procedure using the scan tool. Refer to Section 2, Flash Electrically Erasable Programmable Read Only Memory (EEPROM), Neutral Profile Correction.			
For All Others				
Description:	The PCM is unable to learn and correct for mechanical inaccuracies in crankshaft pulse wheel tooth spacing. This DTC disables the misfire monitor.			
Possible Causes:	• Damaged crankshaft pulse wheel teeth • Damaged crankshaft position (CKP) sensor			
Diagnostic Aids:	Requires visual inspection of the CKP sensor and the crankshaft pulse wheel teeth for damage.			
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
F-150 5.0L, Fiesta 1.0L, Fiesta 1.6L GTDI, Focus 2.0L GTDI, Mustang 3.7L, Mustang 5.0L, Mustang 5.8L		Refer to the Description, Possible Causes and Diagnostic Aids for the DTC.		
All others		GO to Pinpoint Test HD.		

P0316 - Misfire Detected On Startup (First 1000 Revolutions)

Description:	DTC P0316 sets in addition to any type B misfire DTC which occurs in the first 1,000 revolution test interval following engine start.
Possible Causes:	• Damaged crankshaft position (CKP) sensor • Damaged ignition system • Damaged fuel injectors • Running out of fuel • Fuel quality • Base engine • Damaged PCM
Diagnostic Aids:	Freeze frame data and the DTC P03xx are also stored, indicating which cylinder the misfire occurred.

Application		Key On Engine Off	Key On Engine Running	Continuous Memory
All		GO to Pinpoint Test HD.		

P0320 - Ignition/Distributor Engine Speed Input Circuit

Description:	This DTC sets when several erratic profile ignition pickup (PIP) pulses have occurred in the crankshaft position (CKP) sensor signal within a calibrated time period when the camshaft speed exceeds the equivalent speed of engine idle.			
Possible Causes:	• CKP+ circuit intermittent open (VR type) • CKP- circuit intermittent open (VR type) • CKP circuit intermittent open (Hall effect) • VREF circuit intermittent open (Hall effect) • SIGRTN circuit intermittent open (Hall effect) • CKP+ circuit intermittent short to voltage (VR type) • CKP- circuit intermittent short to voltage (VR type) • CKP circuit intermittent short to voltage (Hall effect) • VREF circuit intermittent short to voltage (Hall effect) • SIGRTN circuit intermittent short to voltage (Hall effect) • CKP+ circuit intermittent short to ground (VR type) • CKP- circuit intermittent short to ground (VR type) • CKP circuit intermittent short to ground (Hall effect) • VREF circuit intermittent short to ground (Hall effect) • SIGRTN circuit intermittent short to ground (Hall effect) • CKP sensor incorrectly installed • Damaged CKP sensor • Incorrect, damaged or corroded connections • Arcing secondary ignition components (coil, wires and plugs) • Arcing relays or other high current devices (cooling fan or starter motor) • On board 2 way radio transceiver • Radio frequency interference or electromagnetic interference from an external source • Improperly grounded high power aftermarket equipment			
Diagnostic Aids:				
Application		**Key On Engine Off**	**Key On Engine Running**	**Continuous Memory**
All		GO to Pinpoint Test A.		

P0322 - Ignition/Distributor Engine Speed Input Circuit No Signal

Description:	This DTC sets when the crankshaft position (CKP) sensor profile ignition pickup (PIP) pulse is missing for greater than a calibrated number of camshaft revolutions when the camshaft speed exceeds the equivalent speed of engine idle.
Possible Causes:	• CKP+ circuit intermittent open (VR type) • CKP- circuit open (VR type) • CKP circuit open (Hall effect) • VREF circuit open (Hall effect) • SIGRTN circuit open (Hall effect) • CKP+ circuit short to voltage (VR type) • CKP- circuit short to voltage (VR type) • CKP circuit short to voltage (Hall effect) • VREF circuit short to voltage (Hall effect) • SIGRTN circuit short to voltage (Hall effect) • CKP+ circuit short to ground (VR type) • CKP- circuit short to ground (VR type)