

Engine Electronic Control Module - Diagnostic Trouble Codes.

Diagnostic trouble codes (DTCs) are logged in the ECM memory when there is a confirmed fault in the system.

The codes are reported to the Triumph diagnostic software as a four digit code.

As mentioned earlier, when the system detects a fault, it begins to count the number of times the fault occurs before illuminating the MIL and storing a fault code.

Similarly, if a fault clears, the ECM also records this fact and will turn off the MIL when sufficient no fault warm-up cycles have taken place.

Any fault codes will remain in the ECM memory until the required number of no fault warm-up cycles have taken place. The number of warm-up cycles required to extinguish the MIL will always be less than the number required to remove a DTC from the ECM memory. DTCs can be removed at any time using the Triumph diagnostic software.

The system will log the diagnostic trouble codes listed below/over:

Diagnostic Trouble Code (DTCs)	Fault Description	Number of no-fault cycles before turning off MIL	Number of fault cycles before DTC is erased	MIL illuminated when fault is logged	Pinpoint test page number
P0030	Oxygen Sensor 1 Heater open circuit or short circuit to ground	3	40	Yes	Oxygen sensor heater
P0032	Oxygen sensor 1 Heater short circuit to battery voltage	3	40	Yes	Oxygen sensor heater
P0050	Oxygen Sensor 2 Heater open circuit or short to ground	3	40	Yes	Oxygen sensor heater
P0052	Oxygen sensor 2 Heater short circuit to battery voltage	3	40	Yes	Oxygen sensor heater
P0105	Manifold absolute pressure sensor 1 open circuit or short circuit to 5 volt supply	3	40	Yes	Manifold Absolute Pressure (MAP) Sensor
P0107	Manifold absolute pressure sensor 1 short circuit to ground	3	40	Yes	Manifold Absolute Pressure (MAP) Sensor

P0110	Manifold absolute pressure sensor 1 short circuit to 5 volt supply	3	40	Yes	Intake Air Temperature Sensor
P0112	Intake Air Temperature Sensor Short circuit to ground	3	40	Yes	Intake Air Temperature Sensor
P0115	Engine coolant temperature sensor open circuit or short to 5 volt supply	3	40	Yes	Coolant Temperature Sensor
P0117	Engine coolant temperature sensor short circuit to ground	3	40	Yes	Coolant Temperature Sensor
P0120	Throttle position sensor 1 short circuit to battery Voltage or open circuit	3	40	Yes	Throttle Position Sensor
P0122	Throttle position sensor 1 short circuit to ground	3	40	Yes	Throttle Position Sensor
P0130	Oxygen sensor 1 open circuit or short circuit to battery Voltage	3	40	Yes	Oxygen Sensor
P0131	Oxygen sensor 1 short circuit to ground	3	40	Yes	Oxygen Sensor
P0150	Oxygen sensor 2 circuit open circuit or short circuit battery Voltage	3	40	Yes	Oxygen Sensor
P0151	Oxygen sensor 2 short circuit to ground	3	40	Yes	Oxygen Sensor
P0201	Injector 1 circuit malfunction	3	40	Yes	Fuel Injectors
P0202	Injector 2 circuit malfunction	3	40	Yes	Fuel Injectors

P0220	Throttle position sensor 2 short circuit to battery Voltage or open circuit	3	40	Yes	Throttle Position Sensor
P0222	Throttle position sensor 2 short circuit to ground	3	40	Yes	Throttle Position Sensor
P0335	Crankshaft sensor circuit malfunction	3	40	Yes	Crankshaft Sensor
P0351	Ignition coil 1 malfunction	3	40	Yes	Ignition Coil
P0352	Ignition coil 2 malfunction	3	40	Yes	Ignition Coil
P0443	Purge valve short circuit to ground or open circuit	3	40	Yes	Purge Valve
P0459	Purge valve short circuit to battery Voltage	3	40	Yes	Purge Valve
P0460	Fuel level sensor circuit Circuit malfunction	3	40	No	Fuel Level Sensor
P0500	Vehicle speed sensor malfunction	3	40	Yes	Vehicle Speed Sensor
P0560	System voltage - battery circuit malfunction	3	40	Yes	System Voltage
P0571	Brake 1 switch malfunction	3	40	Yes	Brake Switches
P0603	EEPROM Error	0	40	No	EEPROM Error
P0606	ECM internal error	0	0	Yes	Engine ECM Internal Error
P0616	Starter relay short circuit to ground or open circuit	3	40	Yes	Starter Motor Relay
P0617	Starter relay short circuit to battery Voltage	3	40	Yes	Starter Motor Relay
P0914	Gear position sensor short circuit to ground or open circuit	3	40	Yes	Gear Position Sensor

P0917	Gear position sensor short circuit to 5 Volt sensor supply	3	40	Yes	Gear Position Sensor
P1105	Manifold absolute pressure sensor 1 pipe malfunction	3	40	Yes	Manifold Absolute Pressure (MAP) Sensor
P1131	Oxygen sensor circuits reversed	3	40	Yes	Oxygen Sensor Reverse Connection
P1135	Traction Control prevented due to ABS malfunction	3	40	Yes	Traction Control Disabled due to ABS Malfunction
P1231	Fuel pump relay short circuit to ground or open circuit	3	40	Yes	Fuel Pump Relay
P1232	Fuel pump relay short circuit to battery Voltage	3	40	Yes	Fuel Pump Relay
P1508	Unmatched immobiliser ECM	3	40	Flashing	Immobiliser and TPMS Control Module ID Incompatible
P1520	Unmatched ABS module	3	40	Flashing	ABS Modulator ID Incompatible
P1521	CAN fault - lost communication with ABS module or ABS system status error	3	40	Yes	ABS Modulator Communication
P1552	Cooling fan relay short circuit to ground or open circuit	3	40	Yes	Cooling Fan Relay
P1553	Cooling fan relay short circuit to battery Voltage or over temp	3	40	Yes	Cooling Fan Relay
P1571	Brake 2 switch malfunction	3	40	Yes	Brake Switches
P1576	Brake 1 switch correlation error with brake switch 2	3	40	Yes	Brake Switches

P1577	Brake 2 switch correlation error with brake switch 1	3	40	Yes	Brake Switches
P1604	ECM tamper detected - return to Triumph	0	0	Yes	Engine ECM Tamper Detected
P1605	ECM locked by the tune lock Flashing	Only if tune lock is unlocked		Flashing	ECM locked by the Calibration Lock function
P1607	ECM ride by wire internal error	3	40	Yes	Engine ECM Internal error
P1608	ECM ride by wire internal error	3	40	Yes	Engine ECM Internal error
P1614	Instrument ID incompatible	Only if Instrument ID matching		Flashing	Instrument ID incompatible
P1619	Headlamp relay short circuit to ground or open circuit	0	40	No	Headlight Relay
P1620	Headlamp relay short circuit to battery Voltage	0	40	No	Headlight Relay
P1631	Fall detection circuit short circuit to ground	3	40	Yes	Fall Detection Switch
P1632	Fall detection circuit short circuit to battery Voltage	3	40	Yes	Fall Detection Switch
P1650	CAN fault- lost communication with Immobiliser ECM	3	40	Yes	Immobiliser Control Module Communication
P1659	Ignition power supply malfunction	3	40	Yes	EMS Ignition Voltage Input Circuit
P1685	Main relay circuit malfunction	3	40	Yes	EMS Main Relay Circuit
P1690	CAN Fault	3	40	Yes	CAN Communication
P1695	CAN fault - lost communication with Instrument panel	No	40	No	Instrument Communication CAN

P1698	5 Volt sensor supply malfunction	3	40	Yes	5 Volt Sensor Supply Circuit
P2100	Throttle actuator control motor open circuit	3	40	Yes	Throttle Actuator Motor
P2102	Throttle actuator control internal motor relay does not operate	3	40	Yes	Throttle Valve Drive Error
P2103	Throttle actuator control internal motor relay operates continually	3	40	Yes	Throttle Valve Drive Error
P2111	Throttle valve drive error (stuck open)	3	40	Yes	Throttle Valve Drive Error
P2119	Throttle valve drive error	3	40	Yes	Throttle Valve Drive Error
P2120	Twist grip position sensor 1 short circuit to ground or open circuit	3	40	Yes	Twist Grip Position Sensor 1
P2123	Twist grip position sensor 1 short circuit to battery Voltage	3	40	Yes	Twist Grip Position Sensor 1
P2125	Twist grip position sensor 2 short circuit to ground or open circuit	3	40	Yes	Twist Grip Position Sensor 2
P2128	Twist grip position sensor 2 short circuit to battery Voltage	3	40	Yes	Twist Grip Position Sensor 2
P2135	Throttle position sensor 1 correlation error with throttle position sensor 2	3	40	Yes	Throttle Position Sensor

P2138	Twist grip position sensor 1 correlation error with twist grip position sensor 2	3	40	Yes	Twist Grip Position Sensor 1 correlation error with twist grip position sensor 2
P2226	Ambient air pressure sensor circuit open circuit or short circuit to 5 Volt sensor supply	3	40	Yes	Ambient Air Pressure Sensor
P2228	Ambient air pressure sensor circuit short circuit to ground	3	40	Yes	Ambient Air Pressure Sensor

Immobiliser Control Module - Diagnostic Trouble Codes

Diagnostic trouble codes (DTCs) are logged in the immobiliser/TPMS control module memory when there is a confirmed fault in the system.

The codes are reported to the Triumph Diagnostic Tool as a four digit code.

The system will log the Diagnostic Trouble Codes listed below:

Diagnostic Trouble Code (DTC)	Fault Description	Warning Light/Information
L0001	Front wheel sensor unit battery alert	For low battery Voltage - lo bAtt visible in the instrument display screen. The TPMS symbol in the display screen will indicate which sensor has low battery Voltage. For zero battery Voltage - Only dashes will be visible in the instrument display screen, TPMS warning light ON and the TPMS symbol in the display screen will flash ON and OFF
L0002	Rear wheel sensor unit battery alert	
L0003	Front wheel 1 sensor unit fault alert	TPMS warning light ON and the TPMS symbol in the display screen will flash ON and OFF
L0004	Rear wheel 1 sensor unit fault alert	
L0005	Front Wheel Sensor Unit loss of communication	
L0006	Rear Wheel Sensor Unit loss of communication	
L0007	Immobiliser ECM Fault	
L0008	Invalid Key. Key authentication unsuccessful	Alarm Immobiliser Light ON

Further Diagnosis

The tables that follow will, if used correctly, help to pinpoint a fault in the system once a diagnostic trouble code has been stored.