ON-BOARD DIAGNOSTIC SYSTEM TEST MODE [SKYACTIV-D 2.2]

id0102s4142500

Caution

- **Vehicle specifications differ depending on the vehicle identification number (VIN).**
  - **— Type A VIN:**
    JM0 KE**** 100001—**
    JM6 KE**** 100001—**
    JM8 KE**** 100001—**
    JMZ KE**** 100001—**
  - **— Type B VIN:**
    JM0 KE**** 200001—**
    JM6 KE**** 200001—**
    JM8 KE**** 200001—**
    JMZ KE**** 200001—**

Diagnostic Test Mode

- To match the OBD regulations, the following diagnostic test modes are supported.

Diagnostic test mode	Item
Mode 01	Sending diagnostic data (PID data monitor/On-board system readiness test)
Mode 02	Sending freeze frame data
Mode 03	Sending emission-related malfunction code (Diagnostic trouble code: DTC)
Mode 04	Clearing/resetting emission-related malfunction information
Mode 07	Sending continuous monitoring system test results (Pending code)
Mode 08	On-board device control (Simulation test, active command mode)
Mode 09	Request vehicle information

Sending Diagnostic Data (Mode 01)

PID data monitor

- The PID data monitor items are shown below.

PID data monitor table

—: Not applicable

Full names	Unit
Monitor status since DTCs cleared	No unit
LOAD	%
ECT	°C, °F
MAP (No.2)	kPa, Bar, psi
Engine speed	rpm
Vehicle speed	km/h, mph
IAT (No.2)	°C, °F
MAF	g/s
Intake shutter valve	%
OBD requirement according to vehicle design	—
Time since engine start	sec
Distance travelled while check engine light is activated	km, miles
Common rail pressure	kPa, Bar, psi
Remaining fuel	%
Number of warm-up since DTCs cleared	Count
Distance travelled since DTCs cleared	km, miles
Barometric pressure	kPa, Bar, psi
Battery voltage	V
Absolute TP	%
IAT (No.1)	°C, °F
APP sensor No.1	%
APP sensor No.2	%
Intake shutter valve control desired value	%
External Test Equipment Configuration Information #1	—
External Test Equipment Configuration Information #2	—
Fuel type which is used	—
Absolute common rail pressure	kPa, Bar, psi
Absolute APP	%

Full names	Unit
Engine oil temperature	°C, °F
MAF	—
ECT	—
EGR valve actual opening angle	—
Throttle valve actuator control command	—
Common rail pressure desired value	—
MAP (No.1)	—
MAP desired value (No.2)	—
Wastegate valve	—
Wastegate valve desired value	—
Exhaust gas pressure	—
Boost air temperature	—
Exhaust gas temperature (No.1)	—
Diesel particulate filter	—

Sending Freeze Frame Data (Mode 02)

Freeze frame data

- The freeze frame data consists of data for vehicle and engine control system operation conditions when malfunctions in the engine control system are detected and stored in the PCM.
- Freeze frame data is stored at the instant the check engine light illuminates, and only a part of the DTC data is stored.
- For the freeze frame data, if there are several malfunctions in the engine control system, the data for the malfunction which occurred initially is stored. Thereafter, if a misfire or fuel injection control malfunction occurs, data from the misfire or fuel injection control malfunction is written over the initially stored data. However, if the initially stored freeze frame data is a misfire or fuel injection control malfunction, it is not overwritten.

Snapshot data

- The snapshot data stores the currently detected DTC data.
- The recording timing for the freeze frame data/snapshot data differs depending on the number of DTC drive cycles.
  - — For a DTC with a drive cycle number 1, only the malfunction determination data is recorded.
  - — For a DTC with a drive cycle number 2, both the malfunction determination and undetermined data is recorded.

Freeze frame data table

—: Not applicable

Freeze frame data item	Description	Unit	Corresponding PID data monitor item
LOAD	Engine load	%	LOAD
ECT	Engine coolant temperature	°C, °F	ECT
RPM	Engine speed	RPM	RPM
VS	Vehicle speed	KPH, MPH	VSS
TP	Throttle valve position No.1	%	—
FRP	Fuel pressure at common rail	KPa {MPa}, mBar {Bar}, psi, in H20	FRP
CLRDIST	Mileage after DTC cleared	km, ft {mi}	—
BARO	Barometric pressure	KPa {MPa}, mBar {Bar}, psi, in H20	BARO
VPWR	Module supply voltage	V	VPWR
AAT	Ambient air temperature	°C, °F	AMB_TEMP
APP_D	Accelerator pedal position No.1	%	APP1
APP_E	Accelerator pedal position No.2	%	APP2
TAC_PCT	Target throttle valve position	%	—
EOT	Engine oil temperature	°C, °F	EOT
FRP_A_CMD	Commanded fuel pressure at common rail	KPa {MPa}, mBar {Bar}, psi, in H20	FRP
FRP_A	Fuel pressure at common rail	KPa {MPa}, mBar {Bar}, psi, in H20	FRP
FRT_A	Fuel temperature at common rail	°C, °F	FRT

Freeze frame data item	Description	Unit	Corresponding PID data monitor item
TCA_CINP	Manifold absolute pressure (No.1)	KPa {MPa}, mBar {Bar}, psi, in H20	TCA_CINP
TCB_CINP	Manifold absolute pressure (No.1)	KPa {MPa}, mBar {Bar}, psi, in H20	—
EP_1	Exhaust gas pressure sensor No.1 value	KPa {MPa}, mBar {Bar}, psi, in H20	EXHPRES1
CACT12_SUP	Boost air temperature sensor value support	°C, °F	CACT12
EGT11	Exhaust gas temperature sensor No.1 value	°C, °F	EXHTEMP
EGT12	Exhaust gas temperature sensor No.2 value	°C, °F	EXHTEMP1
EGT13	Exhaust gas temperature sensor No.3 value	°C, °F	EXHTEMP2
DPF1_DP	Exhaust gas pressure sensor No.2 value	KPa {MPa}, mBar {Bar}, psi, in H20	EXHPRESS_DIF

Snapshot data table

—: Not applicable

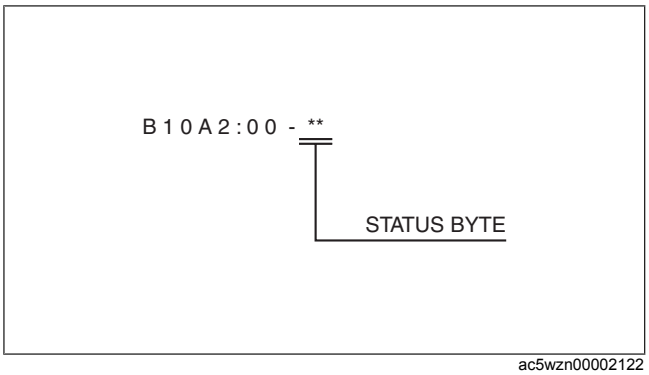
Snapshot data item	Definition	Data read/use method	Unit	Corresponding PID data monitor item
ALTT_V	Generator output voltage	—	V	ALTT V
APP1	Accelerator pedal position No.1 voltage	—	V	APP1
	Accelerator pedal position No.1		%	
APP2	Accelerator pedal position No.2 voltage	—	V	APP2
	Accelerator pedal position No.2		%	
ALT_CUR_DSD	Generator target generated current	—	A	—
BATT_RES	Battery internal resistance (estimated)	—	ohm	BATT_RES
TOTAL_TIME	Total energization time for module	The elapsed time when the PCM detected a DTC can be calculated by performing the following procedure. 1. Verify the instrument cluster PID item TOTAL_TIME. 2. Verify the snapshot data item TOTAL_TIME. 3. Subtract 2 from 1.	hh:mm:ss	—
TOTAL_DIST	Total distance	The distance traveled when the PCM detected a DTC can be calculated by performing the following procedure. 1. Verify the odometer value in the instrument cluster. 2. Verify the snapshot data item TOTAL_DIST. 3. Subtract 2 from 1.	km, ft {mi}	—
FUELSYS	Fuel system status	—	OL/CL/OL-Drive/OL-Fault/CL-Fault	—
LOAD_C	Calculated engine load	—	%	LOAD
ECT	Engine coolant temperature	—	°C, °F	ECT
MAP	Manifold absolute pressure	—	KPa {MPa}, mBar {Bar}, psi, in H20	MAP
RPM	Engine speed	—	RPM	RPM
VSS	Vehicle speed	—	KPH, MPH	VSS
IAT	Intake air temperature No.1	—	°C, °F	IAT
MAF	Mass airflow	—	g/sec	MAF
TP1	Throttle valve position No.1	—	%	—

Snapshot data item	Definition	Data read/use method	Unit	Corresponding PID data monitor item
EG_RUN_TIME	Time from engine start	—	hh:mm:ss	—
FUEL_PRES	Fuel pressure	—	KPa {MPa}, mBar {Bar}, psi, in H20	—
SEGRP_DSD	Target EGR valve position	—	%	—
EVAPCP	Purge solenoid valve controlled value	—	%	—
FLI	Fuel level in fuel tank	—	%	—
CLR_CNT	Number of warm-up cycle after DTC cleared	—	—	—
CLR_DIST	Mileage after DTC cleared	—	km, ft {mi}	CLR_DIST
FTP	Fuel tank pressure	—	KPa {MPa}, mBar {Bar}, psi, in H20	—
BARO	Barometric pressure	—	KPa {MPa}, mBar {Bar}, psi, in H20	BARO
CATT11_DSD	Estimated catalytic converter temperature	—	°C, °F	—
VPWR	Module supply voltage	—	V	VPWR
EQ_RAT11_DSD	Target equivalence ratio (lambda)	—	—	—
TP_REL	Relative throttle position	—	%	—
AAT	Ambient air temperature	—	°C, °F	AMB_TEMP
TP2	Throttle valve position No.2	—	%	—
ETC_DSD	Target throttle valve position	—	%	—
SHRTFT12	Short term fuel trim (HO2S)	—	%	—
LONGFT12	Long term fuel trim (HO2S)	—	%	—
FRP	Fuel pressure at common rail (absolute)	—	KPa {MPa}, mBar {Bar}, psi, in H20	FRP
APP_R	Relative accelerator pedal position	—	%	—
EOT	Engine oil temperature	—	°C, °F	EOT
ECT1_SUP	Engine coolant temperature No.1 support	—	No/Yes	—
ECT2_SUP	Engine coolant temperature No.2 support	—	No/Yes	—
ECT1	Engine coolant temperature No.1	—	°C, °F	ECT
ECT2	Engine coolant temperature No.2	—	°C, °F	—
IAT12	Intake air temperature No.2	—	°C, °F	—
TAC_A_CMD	Commanded throttle valve actuator control	—	%	—
TP_A_REL	Relative throttle valve position	—	%	—
FRP_A_CMD	Commanded fuel pressure at common rail	—	KPa {MPa}, mBar {Bar}, psi, in H20	FRP
FRP_A	Fuel pressure at common rail	—	KPa {MPa}, mBar {Bar}, psi, in H20	FRP
FRT	Fuel temperature at common rail	—	°C, °F	FRT
TCA_CINP	Manifold absolute pressure No.1 value	—	KPa {MPa}, mBar {Bar}, psi, in H20	TCA_CINP
TCB_CINP	Manifold absolute pressure No.1 value	—	KPa {MPa}, mBar {Bar}, psi, in H20	—
BP_A_CMD	Commanded manifold absolute pressure No.2	—	KPa {MPa}, mBar {Bar}, psi, in H20	MAP

Snapshot data item	Definition	Data read/use method	Unit	Corresponding PID data monitor item
BP_A_ACT	Manifold absolute pressure No.2 value	—	KPa {MPa}, mBar {Bar}, psi, in H20	MAP
BP_A_ST	Manifold absolute pressure No.2 control status	—	Open Loop/ Closed Loop/ Fault present	MAP
EP_1	Exhaust gas pressure sensor No.1 value	—	KPa {MPa}, mBar {Bar}, psi, in H20	EXHPRES1
CACT12	Boost air temperature sensor value	—	°C, °F	CACT12
EXHTEMP1	Exhaust gas temperature sensor No.1 value	—	°C, °F	EXHTEMP
EXHTEMP2	Exhaust gas temperature sensor No.2 value	—	°C, °F	EXHTEMP1
EXHTEMP3	Exhaust gas temperature sensor No.3 value	—	°C, °F	EXHTEMP2
EXHPRESS_DIF	Exhaust gas pressure sensor No.2 value	—	KPa {MPa}, mBar {Bar}, psi, in H20	EXHPRESS_DIF

Status Byte for DTC

- The status byte is the two-digit code (two digits after hyphen (-)) after the DTC.
- The status byte is a code which indicates the pending code, current/past malfunction status, or warning illumination status.
- The status byte can be read by performing a CMDTC self test using the Mazda Modular Diagnostic System (M-MDS).
- For details on the status byte, refer to the explanation on the M-MDS when reading the DTC.



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Sending Emission-related Malfunction Code (DTC) (Mode 03)

- The DTCs are shown below.

×: Applicable
—: Not applicable

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
B10A2:00 *10	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Vehicle collision	×	1	Other	C	×
P0016:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Camshaft position/ Crankshaft position correlation problem	×	1	CCM	C, R	×
P0030:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	A/F sensor heater control circuit range/ performance problem	×	1	A/F sensor	C	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P0034:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Compressor bypass solenoid valve control circuit low input	×	1	CCM	C, O, R	×
P0035:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Compressor bypass solenoid valve control circuit high input	×	1	CCM	C, O, R	×
P0047:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Regulating solenoid valve control circuit low input	×	1	CCM	C, O, R	×
P0048:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Regulating solenoid valve control circuit high input	×	1	CCM	C, O, R	×
P004C:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Wastegate solenoid valve control circuit low input	×	1	CCM	C, O, R	×
P004D:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Wastegate solenoid valve control circuit high input	×	1	CCM	C, O, R	×
P0072:00* 2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Ambient temperature sensor circuit low input	—	1	Other	C, O, R	×
P0073:00* 2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Ambient temperature sensor circuit high input	—	1	Other	C, O, R	×
P0079:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	OCV circuit low input	×	1	CCM	C, O, R	×
P007B:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Boost air temperature sensor circuit range/ performance problem	×	2	CCM	C	×
P007C:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Boost air temperature sensor circuit low input	×	1	CCM	C, O, R	×
P007D:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Boost air temperature sensor circuit high input	×	1	CCM	C, O, R	×
P0080:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	OCV control circuit high input	×	1	CCM	C, O, R	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P0087:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Low pressure malfunction in common rail fuel pressure control system	×	2	Fuel system	C	×
P0088:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	High pressure malfunction in common rail fuel pressure control system	×	2	Fuel system	C	×
P0089:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	High pressure malfunction in common rail fuel pressure control system	×	2	Fuel system	C	×
P0093:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel leakage from fuel pressure control system	×	1	Fuel system	C	×
P0096:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	IAT sensor No. 2 circuit range/ performance problem	×	2	CCM	C	×
P0097:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	IAT sensor No. 2 circuit low input	×	1	CCM	C, O, R	×
P0098:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	IAT sensor No. 2 circuit high input	×	1	CCM	C, O, R	×
P009B:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel pressure relief valve signal circuit problem	×	1	Fuel system	C	×
P009F:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel pressure relief valve malfunction (stuck close)	×	1	Fuel system	C	×
P0101:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	MAF sensor circuit range/ performance problem	×	2	CCM	C	×
P0102:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	MAF sensor circuit low input	×	1	CCM	C, O, R	×
P0103:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	MAF sensor circuit high input	×	1	CCM	C, O, R	×
P0106:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	MAP sensor No.2 circuit range/ performance problem	×	2	CCM	C	×
P0107:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	MAP sensor No.2 circuit low input	×	1	CCM	C, O, R	×
P0108:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	MAP sensor No.2 circuit high input	×	1	CCM	C, O, R	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P0111:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	IAT sensor No. 1 circuit range/ performance problem	×	2	CCM	C	×
P0112:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	IAT sensor No. 1 circuit low input	×	1	CCM	C, O, R	×
P0113:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	IAT sensor No. 1 circuit high input	×	1	CCM	C, O, R	×
P0116:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	ECT sensor circuit range/ performance problem	×	2	CCM	C	×
P0117:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	ECT sensor circuit low input	×	1	CCM	C, O, R	×
P0118:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	ECT sensor circuit high input	×	1	CCM	C, O, R	×
P0121:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	APP sensor No.1/No.2 correlation problem	×	1	CCM	C	×
P0122:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	APP sensor No.1 circuit low input	×	1	CCM	C, O, R	×
P0123:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	APP sensor No.1 circuit high input	×	1	CCM	C, O, R	×
P0131:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	A/F sensor circuit low input	×	1	A/F sensor	C, O, R	×
P0132:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	A/F sensor circuit high input	×	1	A/F sensor	C, O, R	×
P0133:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	A/F sensor circuit no activity detected	×	1	A/F sensor	C	×
P0134:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	A/F sensor circuit problem	×	1	A/F sensor	C, O, R	×
P0154:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Atmosphere learning malfunction in A/F sensor circuit	×	1	A/F sensor	C	×
P0181:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel temperature sensor circuit range/ performance problem	×	2	Fuel system	C	×
P0182:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel temperature sensor circuit low input	×	1	Fuel system	C, O, R	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P0183:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel temperature sensor circuit high input	×	1	Fuel system	C, O, R	×
P0191:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel pressure sensor circuit range/ performance problem	×	2	Fuel system	C	×
P0192:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel pressure sensor circuit low input	×	1	Fuel system	C, O, R	×
P0193:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel pressure sensor circuit high input	×	1	Fuel system	C, O, R	×
P0196:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Engine oil temperature sensor circuit range/ performance problem	×	2	CCM	C	×
P0197:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Engine oil temperature sensor circuit low input	×	1	CCM	C, O, R	×
P0198:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Engine oil temperature sensor circuit high input	×	1	CCM	C, O, R	×
P0201:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector No.1 circuit operating abnormally	×	1	Fuel system	C, R	×
P0202:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector No.2 circuit operating abnormally	×	1	Fuel system	C, R	×
P0203:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector No.3 circuit operating abnormally	×	1	Fuel system	C, R	×
P0204:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector No.4 circuit operating abnormally	×	1	Fuel system	C, R	×
P0219:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Engine overspeed condition	—	1	Other	C	×
P0222:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	APP sensor No.2 circuit low input	×	1	CCM	C, O, R	×
P0223:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	APP sensor No.2 circuit high input	×	1	CCM	C, O, R	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P0234:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Small-type turbocharger overboost condition	×	2	CCM	C	×
P0236:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	MAP sensor No.1 circuit range/ performance problem	×	2	CCM	C	×
P0237:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	MAP sensor No.1 circuit low input	×	1	CCM	C, O, R	×
P0238:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	MAP sensor No.1 circuit high input	×	1	CCM	C, O, R	×
P0299:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Small-type turbocharger underboost condition	×	2	CCM	C	×
P02CA:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Large-type turbocharger overboost condition	×	2	CCM	C	×
P02CB:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Large-type turbocharger underboost condition	×	2	CCM	C	×
P0301:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Cylinder No.1 misfire detected	×	2	Misfire	C	×
P0302:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Cylinder No.2 misfire detected	×	2	Misfire	C	×
P0303:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Cylinder No.3 misfire detected	×	2	Misfire	C	×
P0304:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Cylinder No.4 misfire detected	×	2	Misfire	C	×
P0313:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Misfire detected with low fuel	×	1	Other	C	×
P0336:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	CKP sensor circuit range/ performance problem	×	2	CCM	C, R	×
P0337:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	CKP sensor circuit problem	×	1	CCM	C, R	×
P0339:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	CKP sensor circuit range/ performance problem	×	1	CCM	C	×
P0341:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	CMP sensor circuit range/ performance problem	×	2	CCM	C, R	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P0342:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	CMP sensor circuit problem	×	1	CCM	C, R	×
P0383:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Glow control module circuit low input	×	1	CCM	C	×
P0384:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Glow control module circuit high input	×	1	CCM	C	×
P0401:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	EGR flow insufficient detected	×	2	CCM	C	×
P0402:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	EGR flow excessive detected	×	2	CCM	C	×
P0404:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Circuit malfunction in EGR valve DC motor control system	×	1	CCM	C	×
P0405:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	EGR valve position sensor circuit low input	×	1	CCM	C, O, R	×
P0406:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	EGR valve position sensor circuit high input	×	1	CCM	C, O, R	×
P0421:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Warm up catalyst system efficiency below threshold	×	2	CCM	C	×
P0471:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas pressure sensor No.1 circuit range/ performance problem	×	2	CCM	C	×
P0472:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas pressure sensor No.1 circuit low input	×	1	CCM	C, O, R	×
P0473:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas pressure sensor No.1 circuit high input	×	1	CCM	C, O, R	×
P0480:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Fan control module No.1 control circuit problem	—	1	Other	C, O	×
P0481:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Fan control module No.2 control circuit problem	—	1	Other	C, O	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P0488:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Duty signal error in EGR valve (cooler side) control system	×	1	CCM	C	×
P0500:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	VSS circuit problem	×	1	CCM	C, O, R	×
P0522:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Engine oil pressure sensor circuit low input	×	1	CCM	C, O, R	×
P0523:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Engine oil pressure sensor circuit high input	×	1	CCM	C, O, R	×
P0524:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Engine oil pressure too low	×	1	CCM	C	×
P0532:00 *2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Refrigerant pressure sensor circuit low input	×	1	Other	C	×
P0533:00 *2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Refrigerant pressure sensor circuit high input	×	1	Other	C	×
P053B:00	OFF	ON	OFF	OFF	OFF	OFF	OFF	Blow-by heater relay control circuit low input	—	1	Other	C, O, R	×
P053C:00	OFF	ON	OFF	OFF	OFF	OFF	OFF	Blow-by heater relay control circuit high input	—	1	Other	C, O, R	×
P0545:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas temperature sensor No.1 circuit low input	×	1	CCM	C	×
P0546:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas temperature sensor No.1 circuit high input	×	1	CCM	C, O, R	×
P0555:00	OFF	OFF	Flash	OFF	OFF	OFF	OFF	Power brake unit vacuum sensor circuit problem	×	1	Other	C, R	×
P055F:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Engine oil pressure control circuit low oil pressure	×	1	CCM	C	×
P0571:00	ON	ON	OFF	OFF	OFF	OFF	OFF	Brake switch circuit problem	×	2	CCM	C	×
P057F:00	OFF	ON	Flash	OFF	OFF	OFF	OFF	Power system: Battery deterioration	×	2	Other	C	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P058A:00	OFF	ON	Flash	ON*6	OFF	OFF	OFF	Current sensor: Function malfunction	×	2	Other	C	×
P0601:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	PCM memory check sum error	×	1	CCM	C, O, R	×
P0602:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	PCM programming error	×	1	CCM	C	×
P0605:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	PCM memory check sum error	×	1	CCM	C	×
P0606:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	PCM processor error	×	1	CCM	C, O, R	×
P0607:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Control module performance problem	×	1	CCM	C, O, R	×
P0610:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	PCM vehicle configuration error	×	1	CCM	C	×
P0615:00	OFF	OFF	Flash	OFF	OFF	OFF	OFF	Starter relay circuit problem	—	1	Other	C	×
P062A:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Suction control valve circuit problem	×	1	Fuel system	C, R	×
P062B:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	PCM internal malfunction	×	1	Fuel system	C, R	×
P0642:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Constant voltage power supply circuit low input	×	1	CCM	C	×
P0643:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Constant voltage power supply circuit high input	×	1	CCM	C	×
P0646:00*2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	A/C relay circuit low input	—	1	Other	C	×
P0647:00*2	OFF	OFF	OFF	OFF	OFF	OFF	OFF	A/C relay circuit high input	—	1	Other	C	×
P0652:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Constant voltage power supply control circuit low input	×	1	CCM	C	×
P0653:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Constant voltage power supply control circuit high input	×	1	CCM	C	×
P0668:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	PCM internal temperature sensor circuit low input	×	1	CCM	C	×
P0669:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	PCM internal temperature sensor circuit high input	×	1	CCM	C	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P0670:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Glow control module control circuit problem	×	1	CCM	C	×
P0671:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Glow plug No.1 control circuit problem	×	1	CCM	C	×
P0672:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Glow plug No.2 control circuit problem	×	1	CCM	C	×
P0673:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Glow plug No.3 control circuit problem	×	1	CCM	C	×
P0674:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Glow plug No.4 control circuit problem	×	1	CCM	C	×
P0683:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Glow control module control circuit problem	×	1	CCM	C	×
P0684:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Glow control module control circuit communication error	×	1	CCM	C	×
P06B8:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Internal control module non-volatile RAM error	×	1	CCM	C, O, R	×
P06DB:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Engine oil solenoid valve circuit low input	×	1	CCM	C, O, R	×
P06DC:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Engine oil solenoid valve control circuit high input	×	1	CCM	C, O, R	×
P06DD:00	OFF	ON	OFF	OFF	OFF	OFF	OFF	Engine oil pressure switch control circuit high input	—	1	Other	C	×
P06DE:00	OFF	ON	OFF	OFF	OFF	OFF	OFF	Engine oil pressure switch control circuit low input	—	1	Other	C	×
P0703:00	ON	ON	OFF	OFF	OFF	OFF	OFF	Brake switch input circuit problem	×	2	CCM	C	×
P0704:00*3	ON	OFF	OFF	OFF	OFF	OFF	OFF	CPP switch input circuit problem	×	2	CCM	C	×
P07BE:00*3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Transmission indeterminate failure (failed to neutral)	—	1	Other	C	×
P0850:00*3	ON	OFF	OFF	OFF	OFF	OFF	OFF	Neutral switch No.1 input circuit problem	×	2	CCM	C	×
P0A0F:00	OFF	OFF	Flash	OFF	OFF	OFF	OFF	Engine failed to restart	—	1	Other	C	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P0A8D:00	OFF	ON	Flash	OFF	OFF	OFF	OFF	Power supply system circuit low input	×	1	Other	C	×
P0A94:00	OFF	OFF	Flash	OFF	OFF	OFF	OFF	DC-DC converter: control circuit signal error	×	1	Other	C	×
P111A: 00*10	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Engine coolant temperature is high	×	—	Other	C	×
P1140:00	OFF	ON	OFF	OFF	OFF	ON*7	OFF	Sedimentor switch control circuit range/ performance problem	—	1	Other	C	×
P115A:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Lack of remaining fuel (output restriction)	×	1	Other	C	×
P115B:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Lack of remaining fuel (fuel injection pause)	×	1	Other	C	×
P117A: 00*10	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Record of torque restriction for piston protection	—	—	Other	C	×
P1196:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Main relay control circuit problem	—	1	Other	C	×
P1200:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injection amount learning not completed	×	1	Other	C	×
P1260:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Immobilizer system problem	—	—	Other	C	—
P1282:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Common rail control system problem	×	2	Fuel system	C	×
P1303:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	EGR cooler bypass valve full closing angle malfunction	—	1	Other	C	×
P1329:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Common rail pressure higher than desired (engine running)	×	2	Fuel system	C	×
P1336:00	OFF	ON	OFF	OFF	OFF	OFF	OFF	CKP sensor/ CMP sensor malfunction	—	1	CCM	C	×
P1378:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector circuit low input	×	1	Fuel system	C, R	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P1379:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector circuit high input	×	1	Fuel system	C, R	×
P1589:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Intake shutter valve control duty signal error	—	2	CCM	C	×
P1675:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector code not programmed	×	1	Fuel system	C	×
P1676:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector code mistakenly programmed	×	1	Fuel system	C	×
P167B:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injection amount learning not completed in fuel injection system	×	1	Other	C	×
P176E:00*3	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Clutch stroke sensor/starter interlock switch correlation problem	×	1	Other	C, O, R*11/ C*12	×
P1905:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Check connector circuit low input	—	1	Other	C	×
P2002:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Diesel particulate filter function decreased	×	2	CCM	C	×
P2032:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas temperature sensor No.2 circuit low input	×	1	CCM	C, O, R	×
P2033:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas temperature sensor No.2 circuit high input	×	1	CCM	C	×
P2101:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Intake shutter valve control circuit overcurrent	×	1	CCM	C	×
P2105:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Intake air shutter valve actuator control system malfunction (forced engine shutdown)	—	1	Other	C	×
P2118:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Intake shutter valve control duty signal error	×	2	CCM	C	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P2146:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector No.1 and No.4 circuit abnormal operation	×	1	Fuel system	C, R	×
P2147:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector No.1 and No.4 circuit low input	×	1	Fuel system	C, R	×
P2148:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector No.1 and No.4 circuit high input	×	1	Fuel system	C, R	×
P2149:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector No.2 and No.3 circuit abnormal operation	×	1	Fuel system	C, R	×
P2150:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector No.2 and No.3 circuit low input	×	1	Fuel system	C, R	×
P2151:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Fuel injector No.2 and No.3 circuit high input	×	1	Fuel system	C, R	×
P2227:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	BARO sensor circuit range/ performance problem	×	2	CCM	C	×
P2228:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	BARO sensor circuit low input	×	1	CCM	C, O, R	×
P2229:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	BARO sensor circuit high input	×	1	CCM	C, O, R	×
P2263:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Regulating valve control circuit range/ performance problem	×	2	CCM	C	×
P2299:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Accelerator pedal: spring back malfunction	—	1	Other	C	×
P242C:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas temperature sensor No.3 circuit low input	×	1	CCM	C, O, R	×
P242D:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas temperature sensor No.3 circuit high input	×	1	CCM	C	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P242F:00	ON	ON	OFF	OFF	OFF	OFF	Flash*8	Diesel particulate filter excess accumulation (exceeded acceptable amount)	×	1	CCM	C	×
P244A:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas pressure sensor No.2 range/ performance problem	×	1	Other	C	×
P2452:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Signal malfunction in exhaust gas pressure sensor No.2	—	1	Other	C	×
P2453:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Pressure malfunction in exhaust gas pressure sensor No.2	—	1	Other	C	×
P2454:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas pressure sensor No.2 circuit low input	×	1	CCM	C, O, R	×
P2455:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Exhaust gas pressure sensor No.2 circuit high input	×	1	CCM	C, O, R	×
P2456:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Characteristic malfunction in exhaust gas pressure sensor No.2	×	1	CCM	C	×
P2458:00	OFF	ON	OFF	OFF	OFF	OFF	Flash*8	Diesel particulate filter excess accumulation (mid)	×	1	Other	C	×
P245A:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	EGR cooler bypass valve control: Drive circuit malfunction	×	1	CCM	C	×
P245B:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	EGR cooler bypass valve control: duty signal malfunction	×	1	CCM	C	×
P2463:00	ON	ON	OFF	OFF	OFF	OFF	Flash*8	Diesel particulate filter excess accumulation (large)	×	1	CCM	C	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P246C:00	OFF	ON	OFF	OFF	ON*9	OFF	Flash*8	Engine oil dilution, oil pressure decreased	—	1	Other	C	×
P2494:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	EGR cooler bypass valve position sensor circuit low input	×	1	CCM	C, O, R	×
P2495:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	EGR cooler bypass valve position sensor circuit high input	×	1	CCM	C, O, R	×
P24A5:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	EGR cooler bypass valve control: EGR cooler bypass valve (stuck)	×	2	CCM	C	×
P2502:00	OFF	OFF	Flash	ON*6	OFF	OFF	OFF	Generator system: Malfunction in voltage generated by generator	×	1	Other	C	×
P2503:00	OFF	OFF	Flash	ON*6	OFF	OFF	OFF	Generator system: Voltage generated by generator is low	×	1	Other	C	×
P2504:00	OFF	OFF	Flash	ON*6	OFF	OFF	OFF	Generator system: Voltage generated by generator is high	×	1	Other	C	×
P2507:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	PCM battery voltage low input	×	1	CCM	C	×
P252F:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Engine oil level too high	—	1	Other	C	×
P253F:00	OFF	ON	OFF	OFF	ON*9	OFF	Flash*8	Engine oil deteriorated	—	1	Other	C	×
P2564:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Regulating valve position sensor circuit low input	×	1	CCM	C, O, R	×
P2565:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Regulating valve position sensor circuit high input	×	1	CCM	C, O, R	×
P2610:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Instrument cluster internal engine off timer performance problem	×	2	CCM	—	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
P2621:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Intake shutter valve position sensor circuit low input	×	1	CCM	C, O, R	×
P2622:00	ON	OFF	OFF	OFF	OFF	OFF	OFF	Intake shutter valve position sensor circuit high input	×	1	CCM	C, O, R	×
U0073:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	CAN system communication error (HS CAN)	—	1	Other	C, O, R	×
U0074:00 *4	OFF	OFF	OFF	OFF	OFF	OFF	OFF	CAN system communication error (local CAN between PCM and TCM)	—	1	Other	C, O, R	×
U0101:00 *4	ON	OFF	Flash	OFF	OFF	OFF	OFF	CAN communication : communication error to TCM	×	1	CCM	C, O, R	×
U0121:00	ON	OFF	Flash	OFF	OFF	OFF	OFF	CAN communication : communication error to DSC HU/CM	×	1	CCM	C, O, R	×
U0131:00	ON	OFF	Flash	OFF	OFF	OFF	OFF	CAN communication : communication error to EPS control module	—	1	Other	C, O, R	×
U0140:00	ON	OFF	Flash	OFF	OFF	OFF	OFF	CAN communication : communication error to front body control module (FBCM)	—	1	Other	C, O, R	×
U0151:00	OFF	OFF	Flash	OFF	OFF	OFF	OFF	CAN communication : communication error to SAS control module	—	1	Other	C, O, R	×
U0155:00	ON	OFF	Flash	OFF	OFF	OFF	OFF	CAN communication : communication error to instrument cluster	×	1	CCM	C, O, R	×

DTC No.	Check engine light	Master warning light	i-stop warning light (amber)	Charging system warning light	Engine oil warning light	Wrench indicator light	Diesel particulate filter indicator light	Condition	Fail-safe function	Drive cycle	Monitor item	Self test type *1	Memory function
U0214:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	CAN communication : communication error to start stop unit	—	1	Other	C, O, R	×
U0235:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	CAN communication : communication error to laser sensor	—	1	Other	C	×
U0298:00	OFF	OFF	Flash	OFF	OFF	OFF	OFF	CAN/LIN communication system: DC-DC converter information communication error with front body control module (FBCM)	×	1	Other	C	×
U0302:00 *4	ON	OFF	OFF	OFF	OFF	OFF	OFF	TCM processor error	×	1	CCM	C	×
U0315:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	DSC HU/CM error	—	1	Other	C	×
U0320:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	EPS control module error	—	1	Other	C, O, R	×
U0323:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Instrument cluster error	—	1	Other	C, O, R	×
U0336:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	SAS control module error	—	1	Other	C, O, R	×
U0338:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Start stop unit error	—	1	Other	C, O, R	×
U0433:00	OFF	OFF	OFF	OFF	OFF	OFF	OFF	Abnormal message from rear body control module (RBCM)	—	1	Other	C	×
U2300:00	OFF	ON*5	OFF	OFF	OFF	OFF	OFF	Global central configuration error	—	1	Other	C	×
U3000:41	OFF	OFF	OFF	OFF	OFF	OFF	OFF	PCM processor error	—	1	Other	C	—

*1 : C: CMDTC self test, O: KOEO self test, R: KOER self test
*2 : With air conditioner
*3 : MTX
*4 : ATX
*5 : Message "Vehicle System Inspection Required" is frequently indicated in TFT LCD. (With TFT LCD)
*6 : Message "Charging System Inspection Required" is frequently indicated in TFT LCD. (With TFT LCD)
*7 : Message "Drain Water from Fuel Filter" is frequently indicated in TFT LCD. (With TFT LCD)
*8 : Message "DPF Inspection Required" is frequently indicated in TFT LCD. (With TFT LCD)
*9 : Message "Engine Oil Pressure Inspection Required" is frequently indicated in TFT LCD. (With TFT LCD)

*10 : If equipped
*11 : Type A VIN
*12 : Type B VIN

Sending Continuous Monitoring System Test Results (pending code) (Mode 07)
- These appear when a problem is detected in a monitored system.

1-drive cycle type
- If any problems are detected in the first drive cycle, pending codes will be stored in the PCM memory, as well as DTCs.
- After pending codes are stored, if the PCM determines that the system is normal in any future drive cycle, the PCM deletes the pending codes.

2-drive cycle type
- The code for a failed system is stored in the PCM memory in the first drive cycle. If the PCM determines that the system returned to normal or the problem was mistakenly detected, it deletes the pending codes. If the problem is found in the second drive cycle, the PCM determines that the system is malfunctioning, and stores the pending codes and also DTCs.
- After pending codes are stored, if the PCM determines that the system is normal in any future drive cycle, the PCM deletes the pending codes.