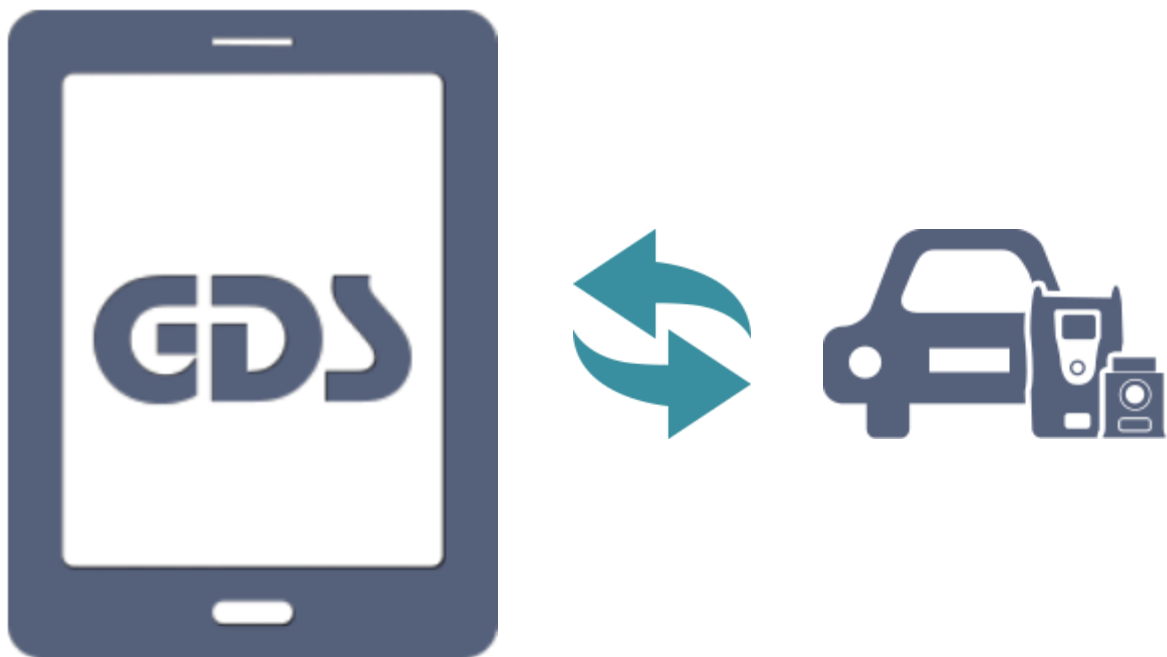


OBD-II



OBD II mode is used to display generic vehicle powertrain diagnostic data. The vehicle communication protocol is automatically determined when OBD II mode is selected.

Readiness Test

The System and status of the READINESS TESTS supported for each MODULE within the vehicle will be displayed. The number of DTCs present and the MIL status will also be displayed.

Readiness Test	Sensor Name(12)
Current Data	Number of DTC
Freeze Frame Data	Malfunction Indicator Lamp(MIL)
Diagnostic Trouble Code	Misfire Monitoring
Monitoring Test Results	Fuel System Monitoring
Test or Component Control	Comprehensive Component Monitoring
Vehicle Information	Catalyst Monitoring
In Use Performance Tracking	Heated Catalyst Monitoring
	EVAP System Monitoring
	Secondary Air System Monitoring
	Oxygen Sensor Monitoring
	Oxygen Sensor Heater Monitoring
	EGR and/or VVT System Monitoring

Current Data

The CURRENT DATA MODE allows for sensor values and status to be displayed, based upon the standard that one component may be supported by several systems. Supporting module information is displayed in this mode.

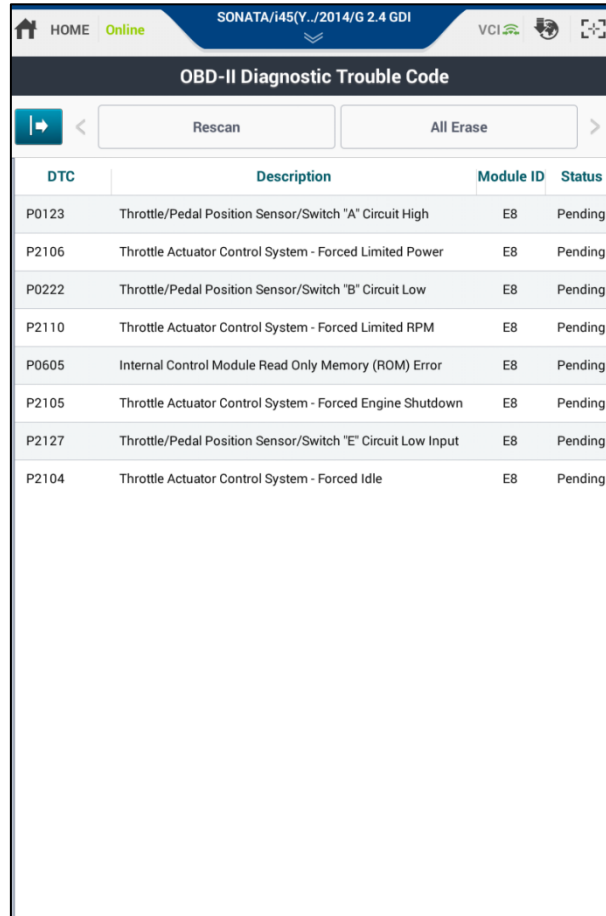
Sensor Name(21)	Module ID	Value	Unit
Calculated Load Value			%
Short Term Fuel Trim-Bank2			%
Ignition Timing Advance for 1 Cylinder			'
Intake Air Temperature Sensor			°C
Air Flow Rate from Mass Air Flow Sensor			g/s
Absolute Throttle Position Sensor			%
Secondary Air Status			-
Oxygen Sensor Location			-
Oxygen Sensor-Bank1/Sensor2			mV
Short Term Fuel Trim-Bank1/Sensor2			%
Oxygen Sensor-Bank2/Sensor3			mV
Short Term Fuel Trim-Bank2/Sensor3			%
Distance After MIL On			km
Command Evaporative Purge			%
Number of Warm-ups Since DTC Cleared			-
Distance Since DTC Cleared			km
Barometric Pressure Sensor			kPa
Catalyst Temperature-Bank1/Sensor1			°C
Commanded Equivalence Ratio			-

Freeze Frame Data

The FREEZE FRAME DATA displays the sensor data stored in the Engine Control Module at the point when the first conformed DTC is detected.

Diagnostic Trouble Code

This is to read and display the saved DTC(Diagnostic Trouble Code) on the ECU.



DTC	Description	Module ID	Status
P0123	Throttle/Pedal Position Sensor/Switch "A" Circuit High	E8	Pending
P2106	Throttle Actuator Control System - Forced Limited Power	E8	Pending
P0222	Throttle/Pedal Position Sensor/Switch "B" Circuit Low	E8	Pending
P2110	Throttle Actuator Control System - Forced Limited RPM	E8	Pending
P0605	Internal Control Module Read Only Memory (ROM) Error	E8	Pending
P2105	Throttle Actuator Control System - Forced Engine Shutdown	E8	Pending
P2127	Throttle/Pedal Position Sensor/Switch "E" Circuit Low Input	E8	Pending
P2104	Throttle Actuator Control System - Forced Idle	E8	Pending

Monitoring Test Result

The results of on board Readiness monitoring tests conducted during normal driving are displayed this mode.

	Sensor Name(0)	Module ID
Readiness Test		
Current Data	Not Supported.	
Freeze Frame Data		
Diagnostic Trouble Code		
Monitoring Test Results		
Oxygen Sensor Monitor Bank1-Sensor4		
Oxygen Sensor Monitor Bank2-Sensor4		
Oxygen Sensor Monitor Bank4-Sensor2		
Oxygen Sensor Monitor Bank4-Sensor3		
Oxygen Sensor Monitor Bank4-Sensor4		
Monitor ID \$11		
Monitor ID \$12		
Monitor ID \$13		
Monitor ID \$15		
Monitor ID \$1A		
Monitor ID \$1E		
Monitor ID \$1F		
Test or Component Control		
Vehicle Information		
In Use Performance Tracking		

Vehicle Information

Vehicle Information

VIN

Calibration ID
ECU :
TCU :

Verification Number
ECU :
TCU :

OK

In-USE Performance Tracking

This data is used to support possible regulatory requirements for In-use Performance Tracking. Manufacturers are required to implement software algorithms that track in-use performance for each of the following component:

- Catalyst bank 1
- Catalyst bank 2
- Primary oxygen sensor bank 1
- Primary oxygen sensor bank 2
- Evaporative 0.020" leak detecting system
- EGR system
- Secondary air system

The parameters for each component or system shall record the number of times that all conditions necessary for a specific monitor to detect a malfunction have been met the values for each component or system shall track the number of times that the vehicle has been operated in the specified conditions. These conditions are specified for each monitored component or system.

The ignition counter shall track the number of times that the engine has been started. All data items of the In-use Performance Tracking record have to be reported in the order as shown.

Sensor Name	Module ID	Value	Unit
OBD Monitoring Conditions Encountered Counts	E8	410	Count
Ignition Counter	E8	1172	Count
Catalyst Monitor Completion Counts-Bank1	E8	410	Count
Catalyst Monitor Conditions Encountered Counts-Bank1	E8	410	Count
Catalyst Monitor Completion Counts-Bank2	F8	0	Count
Catalyst Monitor Conditions Encountered Counts-Bank2	E8	0	Count
Oxygen Sensor Monitor Completion Counts Bank1	E8	443	Count
Oxygen Sensor Monitor Conditions Encountered Counts Bank1	E8	410	Count
Oxygen Sensor Monitor Completion Counts Bank2	E8	0	Count
Oxygen Sensor Monitor Conditions Encountered Counts Bank2	E8	0	Count
EGR and/or VVT Monitor Completion Condition Counts	E8	379	Count
EGR and/or VVT Monitor Conditions Encountered Counts	E8	410	Count
Air Monitor Completion Condition Counts	E8	0	Count
Air Monitor Conditions Encountered Counts	E8	0	Count
EVAP Monitor Completion Condition Counts	E8	61	Count
EVAP Monitor Conditions Encountered Counts	E8	149	Count
Secondary Oxygen Sensor Monitor Completion Counts Bank1	E8	418	Count
Secondary Oxygen Sensor Monitor Conditions Encountered Counts Bank1	E8	410	Count
Secondary Oxygen Sensor Monitor Completion Counts Bank2	E8	0	Count