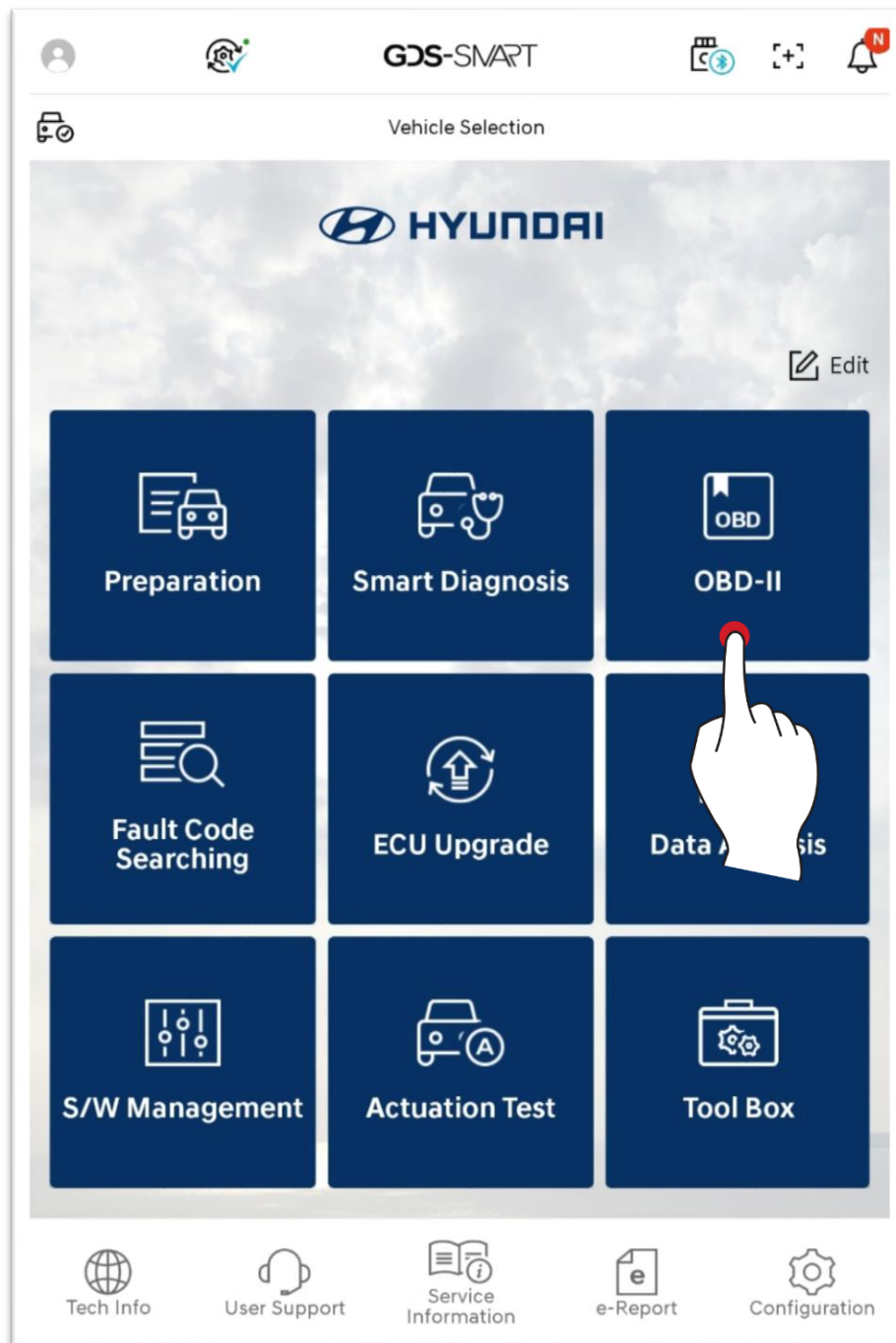


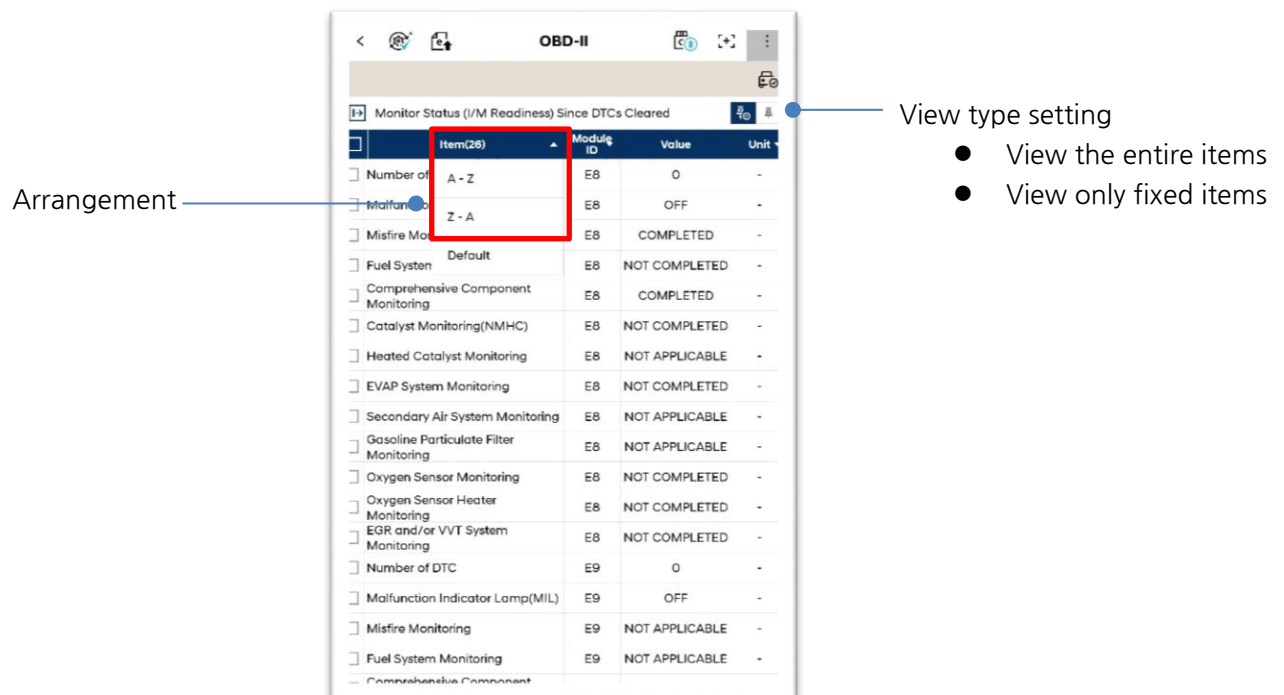
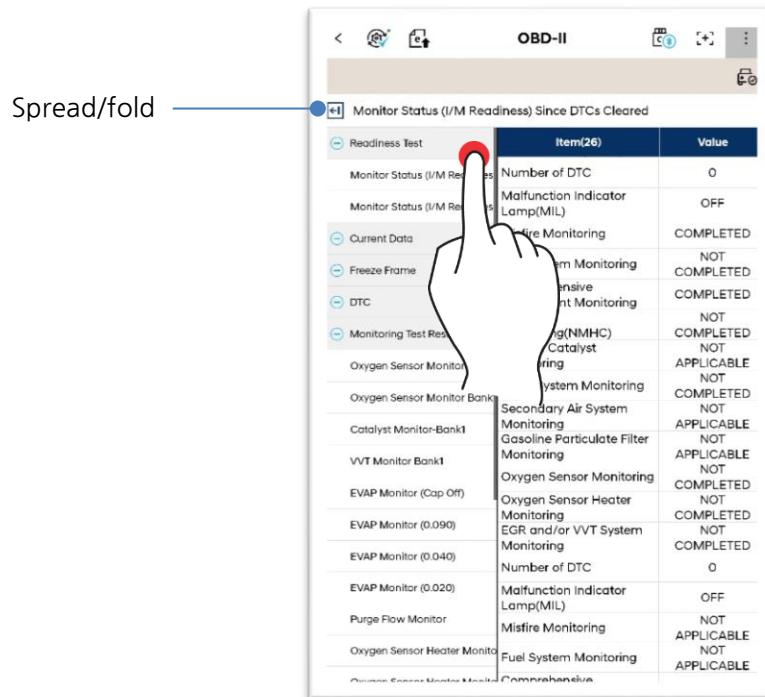
OBD-II

OBD-II mode is used to display generic vehicle powertrain diagnostic data.



Monitoring Status

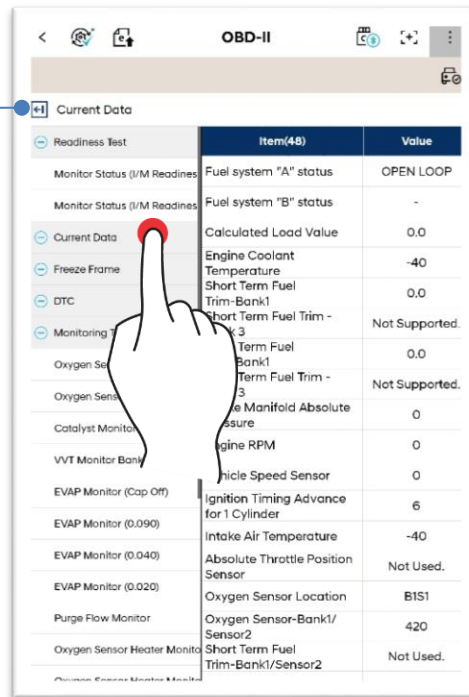
It indicates overall monitoring status on each module of the vehicle depending on OBD-II method. It indicates the status based on each item such as number of fault codes and warning light status, etc.



Current Data

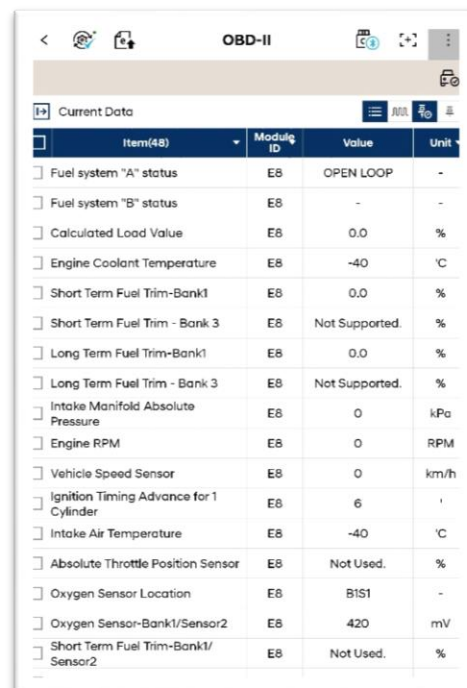
It indicates the current sensor data and actuator based on OBD-II method.

Spread/fold



	Item(48)	Value
Readiness Test		
Monitor Status (I/M Readiness)	Fuel system "A" status	OPEN LOOP
Monitor Status (I/M Readiness)	Fuel system "B" status	-
Current Data	Calculated Load Value	0.0
Freeze Frame	Engine Coolant Temperature	-40
DTC	Short Term Fuel Trim-Bank1	0.0
Monitoring	Short Term Fuel Trim - Bank 3	Not Supported.
Oxygen Sensor	Long Term Fuel Trim-Bank1	0.0
Oxygen Sensor	Long Term Fuel Trim - Bank 3	Not Supported.
Catalyst Monitor	Intake Manifold Absolute Pressure	0
VVT Monitor Bank	Engine RPM	0
EVAP Monitor (Cap Off)	Vehicle Speed Sensor	0
EVAP Monitor (0.090)	Ignition Timing Advance for 1 Cylinder	6
EVAP Monitor (0.040)	Intake Air Temperature	-40
EVAP Monitor (0.020)	Absolute Throttle Position Sensor	Not Used.
Purge Flow Monitor	Oxygen Sensor Location	B1S1
Oxygen Sensor Heater Monitor	Oxygen Sensor-Bank1/Sensor2	420
	Short Term Fuel Trim-Bank1/Sensor2	Not Used.

View type setting



<input type="checkbox"/>	Item(48)	Module ID	Value	Unit
<input type="checkbox"/>	Fuel system "A" status	E8	OPEN LOOP	-
<input type="checkbox"/>	Fuel system "B" status	E8	-	-
<input type="checkbox"/>	Calculated Load Value	E8	0.0	%
<input type="checkbox"/>	Engine Coolant Temperature	E8	-40	°C
<input type="checkbox"/>	Short Term Fuel Trim-Bank1	E8	0.0	%
<input type="checkbox"/>	Short Term Fuel Trim - Bank 3	E8	Not Supported.	%
<input type="checkbox"/>	Long Term Fuel Trim-Bank1	E8	0.0	%
<input type="checkbox"/>	Long Term Fuel Trim - Bank 3	E8	Not Supported.	%
<input type="checkbox"/>	Intake Manifold Absolute Pressure	E8	0	kPa
<input type="checkbox"/>	Engine RPM	E8	0	RPM
<input type="checkbox"/>	Vehicle Speed Sensor	E8	0	km/h
<input type="checkbox"/>	Ignition Timing Advance for 1 Cylinder	E8	6	°
<input type="checkbox"/>	Intake Air Temperature	E8	-40	°C
<input type="checkbox"/>	Absolute Throttle Position Sensor	E8	Not Used.	%
<input type="checkbox"/>	Oxygen Sensor Location	E8	B1S1	-
<input type="checkbox"/>	Oxygen Sensor-Bank1/Sensor2	E8	420	mV
<input type="checkbox"/>	Short Term Fuel Trim-Bank1/Sensor2	E8	Not Used.	%

- List
- Graph
- View the entire items
- View only fixed items

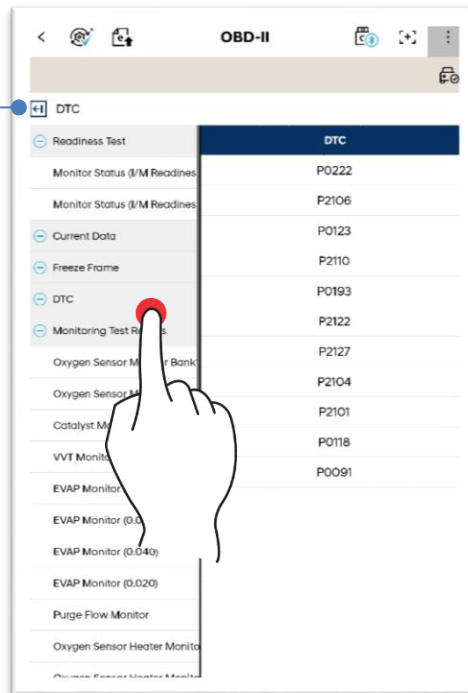
Freeze Frame Data

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

DTC

It indicates the fault codes stored in ECU.

Spread/fold



The screenshot shows the DTC list with the following data:

DTC	Description	Module ID	DTC status
P0222	Throttle/Pedal Position Sensor/Switch "B" Circuit Low	E8	Pending
P2106	Throttle Actuator Control System - Forced Limited Power	E8	Pending
P0123	Throttle/Pedal Position Sensor/Switch "A" Circuit High	E8	Pending
P2110	Throttle Actuator Control System - Forced Limited RPM	E8	Pending
P0193	Fuel Rail Pressure Sensor Circuit High	E8	Pending
P2122	Throttle/Pedal Position Sensor/Switch "D" Circuit Low Input	E8	Pending
P2127	Throttle/Pedal Position Sensor/Switch "E" Circuit Low Input	E8	Pending
P2104	Throttle Actuator Control System - Forced Idle	E8	Pending
P2101	Throttle Actuator Control Motor Circuit Range/Performance	E8	Pending
P0118	Engine Coolant Temperature Circuit High	E8	Pending
P0091	Fuel Pressure Regulator 1 Control Circuit Low	E8	Pending

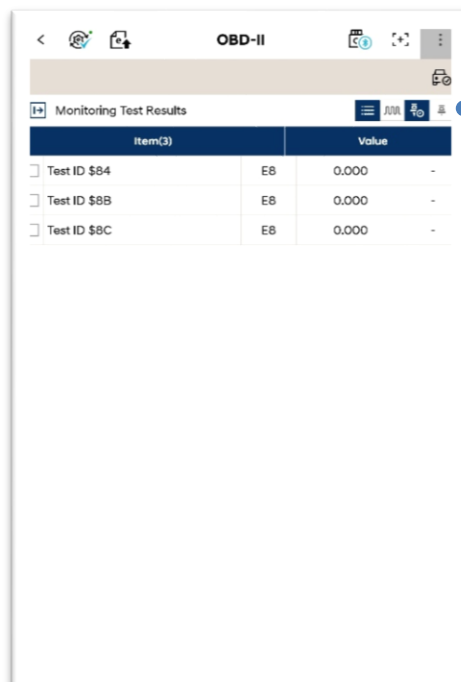
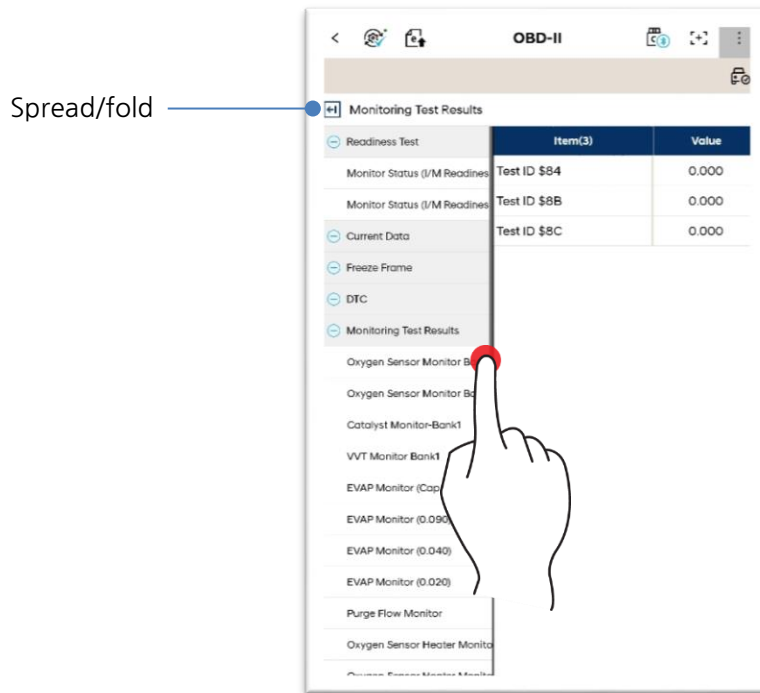
At the bottom of the screen, there are two buttons: 'Rescan' and 'All Erase'. A blue line points from the text 'Remove all fault codes' to the 'All Erase' button.

Remove all fault codes

Monitoring Test Results

Monitoring test performs monitoring of operating status of each sensor related to exhaust gases, and its results accordingly.

※ It may not be supported depending on the type of vehicle.



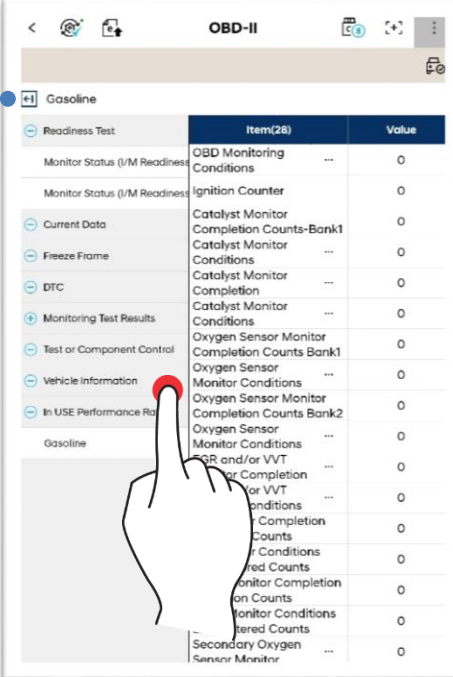
View type setting

- List
- Graph
- View the entire items
- View only fixed items

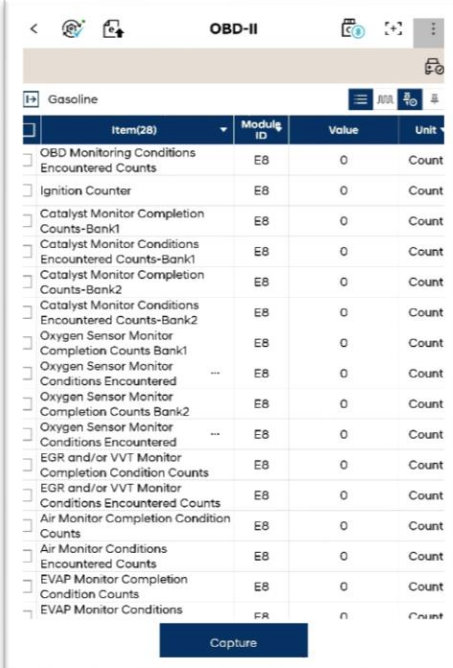
Vehicle Information

It indicates information on the vehicle.

Spread/fold



Item(28)	Value
Readiness Test	
Monitor Status (I/M Readiness)	OBD Monitoring Conditions
Monitor Status (I/M Readiness)	Ignition Counter
Current Data	Catalyst Monitor Completion Counts-Bank1
Freeze Frame	Catalyst Monitor Conditions
DTC	Catalyst Monitor Completion
Monitoring Test Results	Catalyst Monitor Conditions
Test or Component Control	Oxygen Sensor Monitor Completion Counts Bank1
Vehicle Information	Oxygen Sensor Monitor Conditions
In USE Performance R	Oxygen Sensor Monitor Completion Counts Bank2
Gasoline	Oxygen Sensor Monitor Conditions
	EGR and/or VVT
	Completion
	or VVT
	Conditions
	Completion
	Counts
	Conditions
	Counts
	Monitor Completion
	on Counts
	Monitor Conditions
	erred Counts
	Secondary Oxygen
	Sensor Monitor



Item(28)	Module ID	Value	Unit
OBD Monitoring Conditions Encountered Counts	E8	0	Count
Ignition Counter	E8	0	Count
Catalyst Monitor Completion Counts-Bank1	E8	0	Count
Catalyst Monitor Conditions Encountered Counts-Bank1	E8	0	Count
Catalyst Monitor Completion Counts-Bank2	E8	0	Count
Catalyst Monitor Conditions Encountered Counts-Bank2	E8	0	Count
Oxygen Sensor Monitor Completion Counts Bank1	E8	0	Count
Oxygen Sensor Monitor Conditions Encountered	...	0	Count
Oxygen Sensor Monitor Completion Counts Bank2	E8	0	Count
Oxygen Sensor Monitor Conditions Encountered	...	0	Count
EGR and/or VVT Monitor Completion Condition Counts	E8	0	Count
EGR and/or VVT Monitor Conditions Encountered Counts	E8	0	Count
Air Monitor Completion Condition Counts	E8	0	Count
Air Monitor Conditions Encountered Counts	E8	0	Count
EVAP Monitor Completion Condition Counts	E8	0	Count
EVAP Monitor Conditions	E8	0	Count

Capture

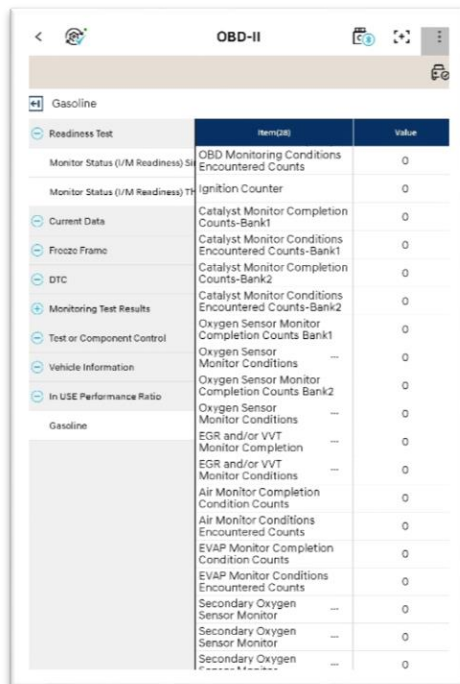
In Use Performance Ratio

It proceeds the test using all conditions necessary to detect parts of the vehicle or system fault status, etc. in accordance with OBD-II regulation.

In addition, the user can also check number of abnormal operations of the system under a designated condition.

Monitoring items specified in OBD-II

- ✓ Catalyst (Catalyst bank1, bank2)
- ✓ Oxygen sensor (Primary oxygen sensor bank1, bank2)
- ✓ Evaporative gas leak detecting system
(Evaporative 0.020" leak detecting system)
- ✓ Exhaust gas recirculation system (EGR system)
- ✓ Secondary air supply system (Secondary air system)



The screenshot shows a mobile application interface for OBD-II monitoring. On the left is a sidebar menu with categories: Gasoline, Readiness Test, Monitor Status (I/M Readiness), Current Data, Freeze Frame, DTC, Monitoring Test Results, Test or Component Control, Vehicle Information, and In Use Performance Ratio. The 'In Use Performance Ratio' category is selected. The main area displays a table with columns 'Item(26)', 'Value', and 'Unit'. The table lists various monitoring items such as 'OBD Monitoring Conditions Encountered Counts', 'Ignition Counter', 'Catalyst Monitor Completion Counts-Bank1', 'Catalyst Monitor Conditions Encountered Counts-Bank1', 'Catalyst Monitor Completion Counts-Bank2', 'Catalyst Monitor Conditions Encountered Counts-Bank2', 'Oxygen Sensor Monitor Completion Counts Bank1', 'Oxygen Sensor Monitor Conditions Encountered Counts Bank1', 'Oxygen Sensor Monitor Completion Counts Bank2', 'Oxygen Sensor Monitor Conditions Encountered Counts Bank2', 'EGR and/or VVT Monitor Completion Condition Counts', 'EGR and/or VVT Monitor Conditions Encountered Counts', 'Air Monitor Completion Condition Counts', 'Air Monitor Conditions Encountered Counts', 'EVAP Monitor Completion Condition Counts', 'EVAP Monitor Conditions Encountered Counts', 'Secondary Oxygen Sensor Monitor', and 'Secondary Oxygen Sensor Monitor'.

Item(26)	Value	Unit
OBD Monitoring Conditions Encountered Counts	0	
Ignition Counter	0	
Catalyst Monitor Completion Counts-Bank1	0	
Catalyst Monitor Conditions Encountered Counts-Bank1	0	
Catalyst Monitor Completion Counts-Bank2	0	
Catalyst Monitor Conditions Encountered Counts-Bank2	0	
Oxygen Sensor Monitor Completion Counts Bank1	0	
Oxygen Sensor Monitor Conditions Encountered Counts Bank1	0	
Oxygen Sensor Monitor Completion Counts Bank2	0	
Oxygen Sensor Monitor Conditions Encountered Counts Bank2	0	
EGR and/or VVT Monitor Completion Condition Counts	0	
EGR and/or VVT Monitor Conditions Encountered Counts	0	
Air Monitor Completion Condition Counts	0	
Air Monitor Conditions Encountered Counts	0	
EVAP Monitor Completion Condition Counts	0	
EVAP Monitor Conditions Encountered Counts	0	
Secondary Oxygen Sensor Monitor	0	
Secondary Oxygen Sensor Monitor	0	
Secondary Oxygen Sensor Monitor	0	



This screenshot shows the same OBD-II monitoring interface as the previous one, but with the table expanded to show additional columns: 'Module ID' and 'Unit'. The 'Unit' column is present for all items except the first two. At the bottom of the screen, there is a blue button labeled 'ILPR-Report'.

Item(26)	Module ID	Value	Unit
OBD Monitoring Conditions Encountered Counts	E8	0	Count
Ignition Counter	E8	0	Count
Catalyst Monitor Completion Counts-Bank1	E8	0	Count
Catalyst Monitor Conditions Encountered Counts-Bank1	E8	0	Count
Catalyst Monitor Completion Counts-Bank2	E8	0	Count
Catalyst Monitor Conditions Encountered Counts-Bank2	E8	0	Count
Oxygen Sensor Monitor Completion Counts Bank1	E8	0	Count
Oxygen Sensor Monitor Conditions Encountered Counts Bank1	E8	0	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	0	Count
EGR and/or VVT Monitor Conditions Encountered Counts	E8	0	Count
Air Monitor Completion Condition Counts	E8	0	Count
Air Monitor Conditions Encountered Counts	E8	0	Count
EVAP Monitor Completion Condition Counts	E8	0	Count
EVAP Monitor Conditions Encountered Counts	E8	0	Count
Secondary Oxygen Sensor Monitor Completion Counts Bank1	E8	0	Count
Secondary Oxygen Sensor Monitor	--	--	--

ILPR-Report