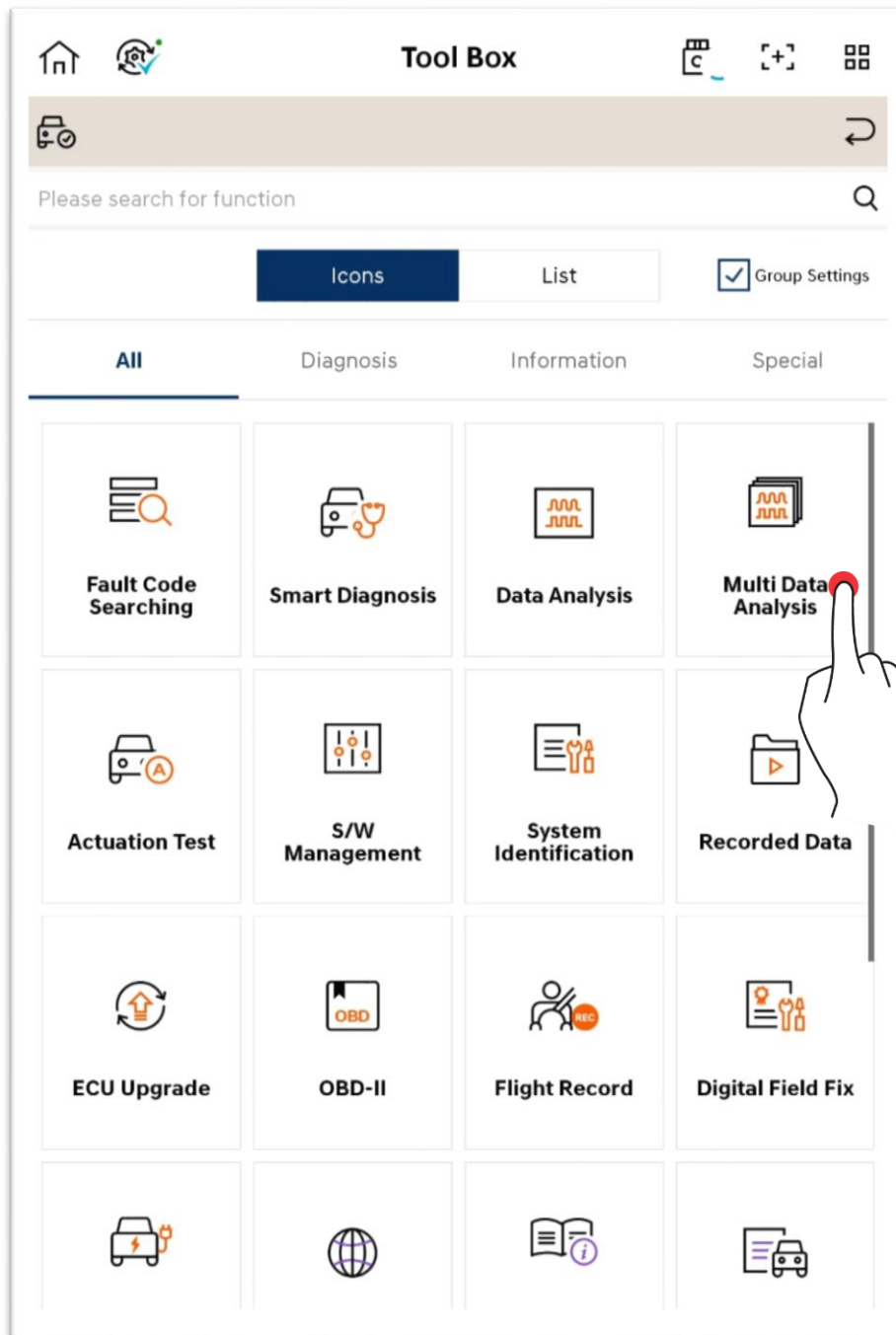


Tool Box – Multi Data Analysis

This function is similar to Sensor Data Diagnosis, which supports the analysis of each sensor item of multiple controllers mounted on the vehicle on a single screen at the same time.

* It only supports modules that support CAN communication protocol.



Sensor Data Item Selection

Select a sensor data item to analyze.

Select items for each system to analyze.

Multi Data Analysis

Setting Sensor Data

ENGINE Engine Control AT Automatic Transaxle

Item Selection

Please enter the search word. X

- Immobilizer Built-in
- SMART Key Built-in
- Fuel Level Sensor Built-in
- Fuel Tank Press Sensor Built-in
- Low Pressure Fuel Pump Relay(Normal Closed)
- MAP Sensor Built-in
- MAF Sensor Built-in
- Alternator PWM Built-in
- A/Con Pressure Sensor Built-in
- Linear O2 Sensor Built-in
- ESP Built-in
- CDA Built-in

Selected Item

System	Sensor Name
--------	-------------

Cancel Setting Complete

Select the entire items

Window for entering search word

Cancel all items

Spread/fold

Mode

This section describes the sensor data indicating mode.

Text Mode

It indicates sensor data in text format.

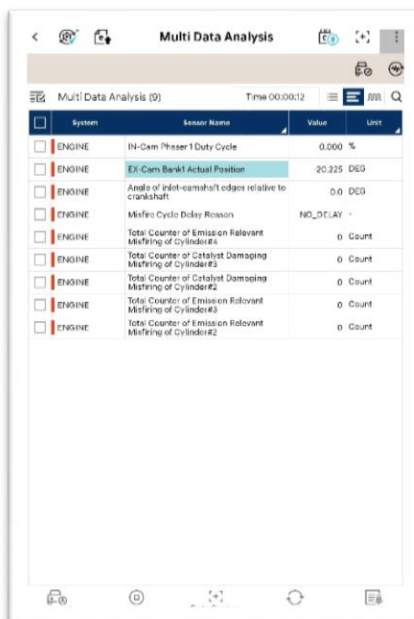


The screenshot shows the 'Multi Data Analysis' interface in Text Mode. The title bar indicates 'Multi Data Analysis (5)' and 'Time 00:00:01'. Below the title bar is a table with the following data:

System	Sensor Name	Value	Unit
ENGINE	Immobilizer Built-in	OFF	-
ENGINE	Fuel Level Sensor Built-in	ON	-
ENGINE	Low Pressure Fuel Pump Relay(Normal Close)	ON	-
ENGINE	MAP Sensor Built-in	ON	-
ENGINE	MAF Sensor Built-in	OFF	-

Bar Graph Mode

It indicates sensor data in bar graph format.

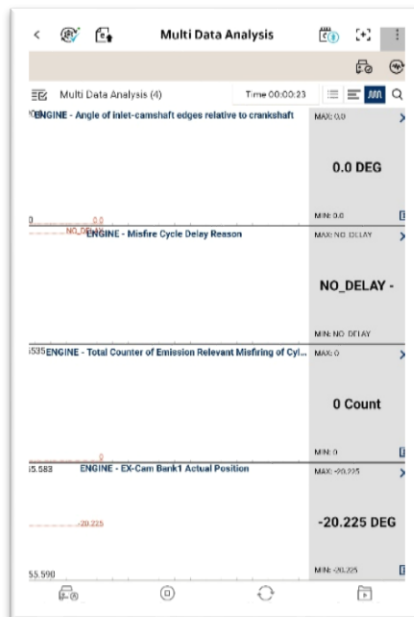


The screenshot shows the 'Multi Data Analysis' interface in Bar Graph Mode. The title bar indicates 'Multi Data Analysis (9)' and 'Time 00:00:12'. Below the title bar is a table with the following data:


System	Sensor Name	Value	Unit
ENGINE	IN-Cam Phase1 Duty Cycle	0.000	%
ENGINE	Ex-Cam Bank1 Actual Position	20.225	DEG
ENGINE	Angle of Inlet-camshaft edges relative to crankshaft	0.0	DEG
ENGINE	MAFto Cycle Delay Reason	NO_DELAY	-
ENGINE	Total Counter of Emission Relevant MAFring of Cylinder#1	0	Count
ENGINE	Total Counter of Catalyst Damaging MAFring of Cylinder#1	0	Count
ENGINE	Total Counter of Catalyst Damaging MAFring of Cylinder#2	0	Count
ENGINE	Total Counter of Emission Relevant MAFring of Cylinder#1	0	Count
ENGINE	Total Counter of Emission Relevant MAFring of Cylinder#2	0	Count

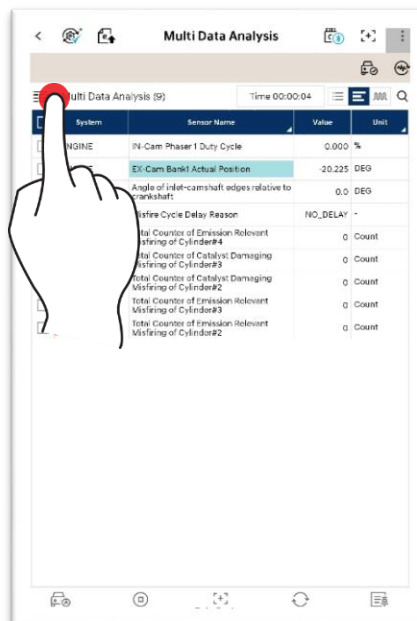
Graph Mode

It indicates the selected sensor data in graph format.



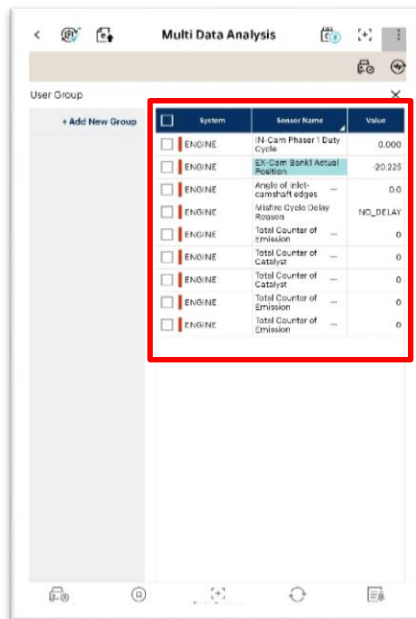
User Group

You can use the User Group function via  button on top left corner of screen.

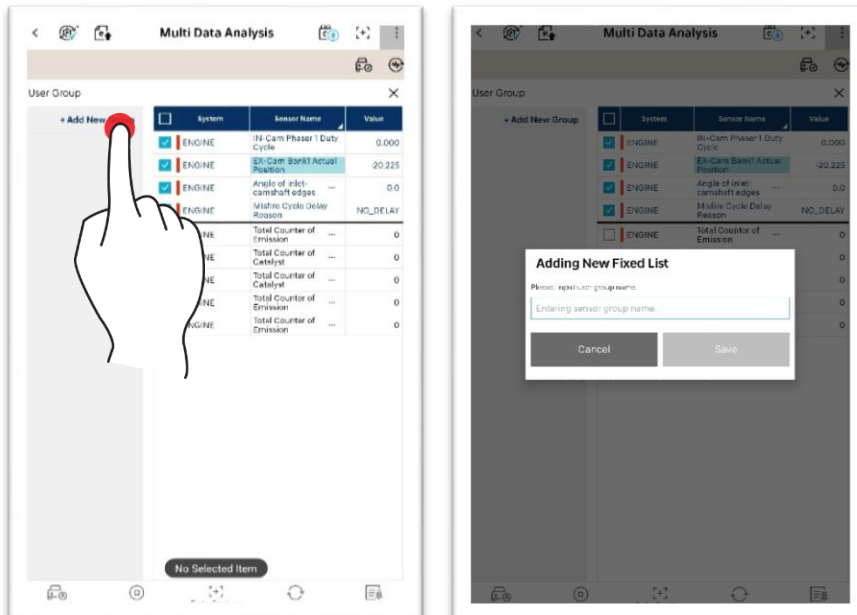


System	Sensor Name	Value	Unit
ENGINE	IN-Cam Phaser 1 Duty Cycle	0.000	%
ENGINE	EX-Cam Bank1 Actual Position	-20.225	DEG
ENGINE	Angle of Inlet-camshaft edges relative to crankshaft	0.0	DEG
ENGINE	Misfire Cycle Delay Reason	NO_DELAY	-
ENGINE	Total Counter of Emission Relevant Misfiring of Cylinder#4	0	Count
ENGINE	Total Counter of Catalyst Demising Misfiring of Cylinder#3	0	Count
ENGINE	Total Counter of Catalyst Demising Misfiring of Cylinder#2	0	Count
ENGINE	Total Counter of Emission Relevant Misfiring of Cylinder#3	0	Count
ENGINE	Total Counter of Emission Relevant Misfiring of Cylinder#2	0	Count

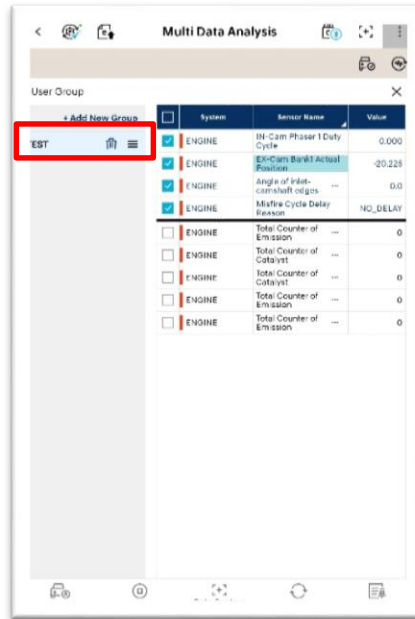
1. After entering User Group function, select sensor data items to be grouped.



2. Once item selection is completed, create a group via 'Add a New Group'.



3. Group creation is completed.



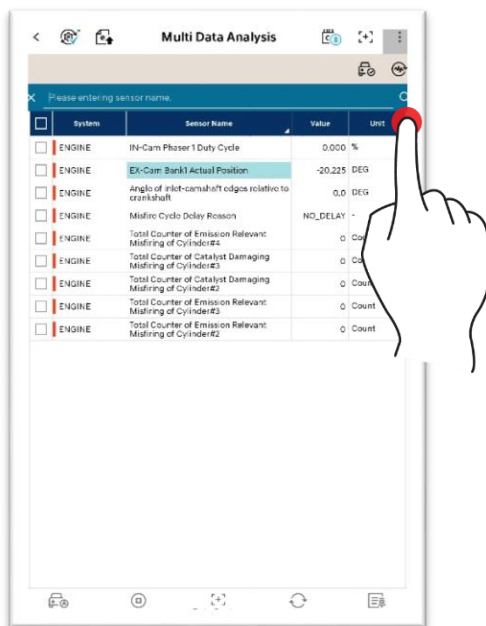
You can delete a created group.




You can change the group order.

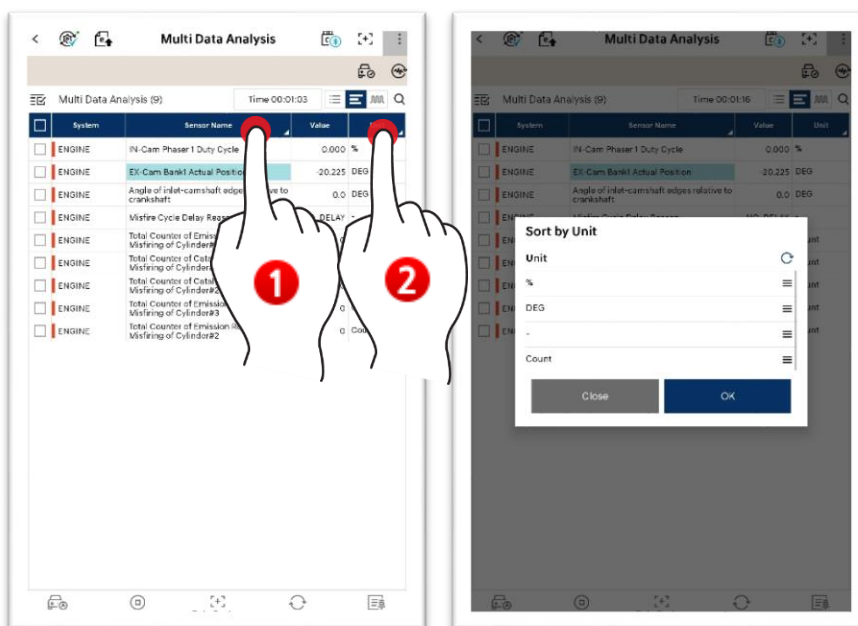
Search

After entering a search word, touch , and you can search sensor data.








Arrangement, Unit Change

You can arrange items by touching sensor names, and change the unit by touching unit. Touch  at top right corner of each title.

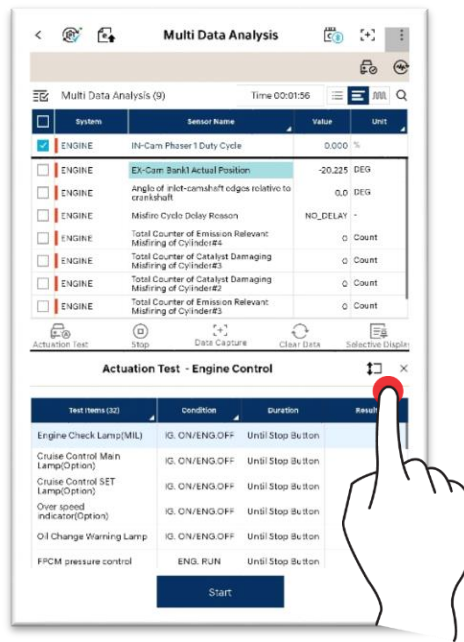


Bottom Function Buttons

 Selective Display	<p>This only shows the sensor values of the sensor data items, which were selected based on needs.</p> <p>The entire sensor data values are shown when Fixed Output function is turned off.</p>
 Actuation Test	<p>You can check change in sensor data by forcefully driving the actuator through Control Module.</p> <p>Select a system to perform forced driving.</p>
 Clear Data	<p>This initializes the collected sensor data values, and recollects them.</p>
 Stop	<p>This function collects sensor data values over a certain period of time, and stops the sensor data values. 'Start' and 'Stop' buttons operate in turn.</p>
 Recorded Data	<p>This function analyzes the saved sensor data file.</p> <p>This is linked to Saved Data Analysis function.</p>

Screen Control

1. You can spread or fold the screen by dragging  button upwards or downwards.



2. You can maximize/minimize the items in Graph Mode.

