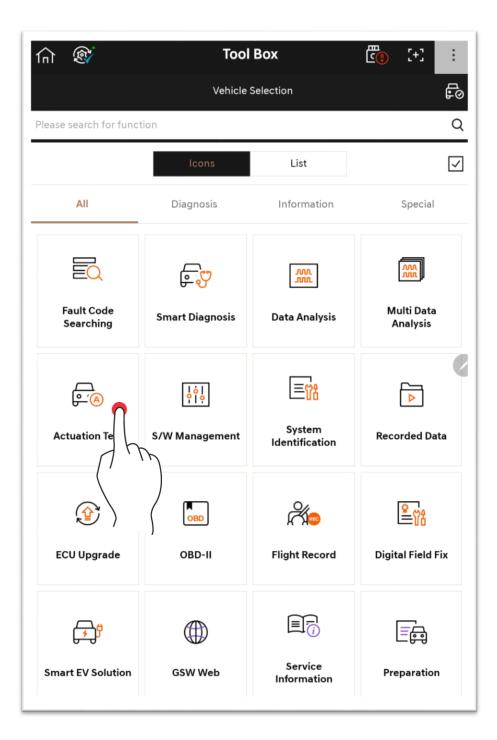


Tool Box – Actuation Test

This is a function of performing forced self-driving and stopping various actuators installed on vehicles through a control module, which can inspect the normal driving status of parts.



Actuation Test

It displays Actuation Test Item supported on the selected vehicle and operates the selected actuator manually.

🖸 Data Analysis (382)		Time 00:0	0:03	
Sensor Na	me	Value	Unit	Link Up
Fuel Tank Pressure Value	(Option)	-0.157	hPa	-
O2 Sensor Binary Type Ba Downstream(Option)	ank1	0.452	V	
O2 Sensor Binary Type Ba Downstream(Option)	ank2	0.452	V	
O2 Sensor Linear Type Ba Upstream(Option)	ank1	62.67	V	
O2 Sensor Linear Type Ba Upstream(Option)	ank2	62.67	V	
Vehicle Speed		0	km/h	
Relative Charge Value		906.3 %		
Purge Control Valve		0.0	%	
	[+]	\bigcirc		Ē
© Stop Da	[+] ta Capture Actuation Test	Clear Data	:	도 Gelective Displa
	ta Capture			
Stop Da Test Items (39)	ta Capture Actuation Test	:	on	Selective Displa
Stop Da Test Items (39) Fuel Pump Relay	Actuation Test	Duratic	on	Selective Displa
Stop Date Test Items (39) Image: Complex Stop Fuel Pump Relay Image: Complex Stop A/C Complex Stop Image: Complex Stop	Condition IG. ON/ENG.OFF	Duratic 1 Sec	on .	Selective Displa
Stop Date Test Items (39) Fuel Pump Relay A/C Completes or Relay	Condition IG. ON/ENG.OFF	Duratic 1 Sec 1 Sec	n . Button	Selective Displa
Stop Date Test Items (39) Image: Complexity of the state of the	Actuation Test Condition IG. ON/ENG.OFF IG. ON/ENG.OFF IG. ON/ENG.OFF	Duratio 1 Sec 1 Sec Until Stop I	n . Button .	Selective Displa
Stop Date Test Items (39) Fuel Pump Relay A/C Completions Relay Fuel Pum ol Fuel Pum ol Canister Purge Valve Oil Control Valve - Intake	Actuation Test Condition IG. ON/ENG.OFF IG. ON/ENG.OFF IG. ON/ENG.OFF IG. ON/ENG.OFF	Duration 1 Sec 1 Sec Until Stop I 1 Sec	n ()) Button ()	Selective Displa

Data Analysis Mode

It displays the input/output value of sensor data when the user performs Actuation Test

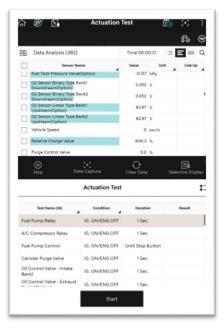


This indicates the sensor data as text format.

	er 🗈	Actuation	Test	()	(+C) =
					6 C
	Data Analysis (382)		Time 00:0	0:03	≡ ANA C
	Sensor Nat Fuel Tank Pressure Value(Value -0.157	Unit hPa	Link Up
	O2 Sensor Binary Type Ba Downstream(Option)	nk1	0.452	v	
	O2 Sensor Binary Type Ba Downstream(Option)	nk2	0.452	v	
	O2 Sensor Linear Type Ba Upstream(Option)	nk1	62.67	v	
	O2 Sensor Linear Type Ba Upstream(Option)	nk2	62.67	v	
	Vehicle Speed		0	km/h	
	Relative Charge Value		906.3	%	
	Purge Control Valve		0.0	%	
		5+3	0		Ē
	Stop Dat	a Capture	Clear Data	Sele	ective Display
	Stop Dat	Actuation Test		Sek	tetive Display
	Stop Dat Test Items (39)				Result
Fue	000 1000 0000	Actuation Test	t	n	:
	Test items (39)	Actuation Test	Duretic	n	:
A/C	Test Items (J9)	Condition IG. ON/ENG.OFF	Duratic 1 Sec	n	:
A/C Fue	Test Items (39) I Pump Relay Compressor Relay	Actuation Test Condition IG. ON/ENG.OFF IG. ON/ENG.OFF	Duratic 1 Sec 1 Sec	n - - Button	:
A/C Fue Can	Test Items (39) I Pump Relay : Compressor Relay I Pump Control Nister Purge Valve Control Valve - Intake	Condition IG. ON/ENG.OFF IG. ON/ENG.OFF	Duratic 1 Sec 1 Sec Until Stop I	n . Button .	:
A/C Fue Can Oil (Ban Oil (Test Items (39) I Pump Relay : Compressor Relay I Pump Control Nister Purge Valve Control Valve - Intake	Condition IG, ON/ENG.OFF IG, ON/ENG.OFF IG, ON/ENG.OFF IG. ON/ENG.OFF	Duratic 1 Sec 1 Sec Until Stop I 1 Sec	m - Button -	:

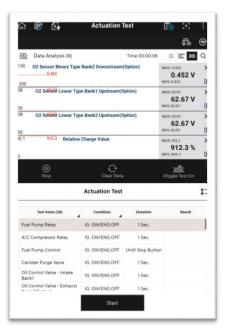
Bar Graph Mode 😑

This indicates the sensor data as a bar graph format.



Graph Mode M

This indicates a selected sensor data as a graph format.



Graph Mode – Function Button

Wiggle Test On / Off

When Wriggle Test function is switched ON, the user can configure a desired data maximum/minimum value, and receive a notification if the sensor value exceeds or falls below the standard value.



Wiggle Test On – Hole Range On

If Hold Range is switched ON, it only shows the sensor values that exceed or fall below the standard value.

	87 E÷	Actuation	lest	C (+)	•
				Fo	0
E D	ata Analysis (4)		Time 00:01:02	= = m	C
197 02	Sensor Binary Ty	pe Bank2 Downstream	0.452	MAX: 0.452 0.452 V	
107			0.4	Min: 0,452	
	12 Sensor Linear T	ype Bank1 Upstream(62.67	MAX: 62.67 62.67 V	
.41				MPC 62.67	_
.94 C	12 Sensor Linear T	ype Bank2 Upstream(67.67	MAX: 62.67 62.67 V	
.41	Delati	ve Charge Value	-	0.0001132010	_
	Relati	ve charge value	£. 309	MAX: 912.3 906.3 % MIN: 905.3	
5.7				are 909.5	_
) op	Clear Data	ज्योत Wiggle Test Off	Hold Range	
		Actuation Test	1		:
2	Test Items (39)	Condition	Duration	Result	
	Test Items (29) mp Relay	Condition IG. ON/ENG.OFF	Duration	Result	
Fuel Pur				Result	
Fuel Pur	mp Relay	IG. ON/ENG.OFF	1 Sec. 1 Sec.		
Fuel Pur A/C Cor Fuel Pur	mp Relay npressor Relay	IG. ON/ENG.OFF IG. ON/ENG.OFF	1 Sec. 1 Sec.		
Fuel Pur A/C Cor Fuel Pur Canister	mp Relay npressor Relay mp Control	IG. ON/ENG.OFF IG. ON/ENG.OFF IG. ON/ENG.OFF	1 Sec. 1 Sec. Until Stop Button		
Fuel Pur A/C Cor Fuel Pur Canister Oil Cont Bank1	mp Relay npressor Relay mp Control r Purge Valve trol Valve - Intake trol Valve - Exhaus	IG. ON/ENG.OFF IG. ON/ENG.OFF IG. ON/ENG.OFF IG. ON/ENG.OFF IG. ON/ENG.OFF IG. ON/ENG.OFF	1 Sec. 1 Sec. Until Stop Button 1 Sec.		

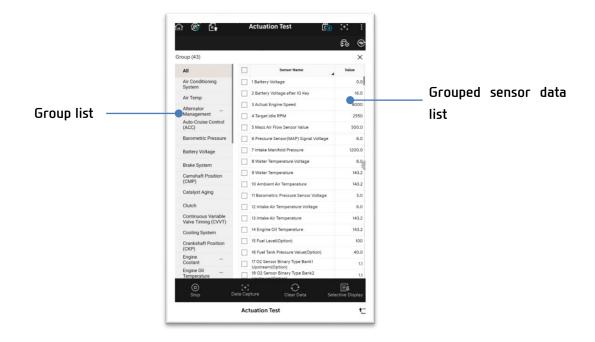
Group/User Group

Through $\overline{\Xi}\overline{\Box}$ button on the top-left corner, the user can use Group/User Group function.

	ta Analysis (416)	Time 00:0	0-20		Data Analys	ie (416)	Time 00:0	0:05	
Y Y					Els Data Analys				-
41	Sensor Name	Value	Unit	Link Up	Group (43)	sor Narr	Value	Unit	.d Link U
9 1	tery Voltage	0.0	v	E0	User Group		16.0		EG
91	Voltage after IG Key	16.0	v			fter IG vey	0.0	v	
1	1 Deed	8000	RPM	eg	Actual Ensin	e forent	0	RPM	8
/		2550	RPM	EQ	4 Terget idle R	PM	0	RPM	61
	or Value	500.0	kg/h		5 Mass Air Flov	v Sensor Value	0.0	kg/h	
	AP) Signal Voltage	6.0	v	EQ	6 Pressure Sen	sor(MAP) Signal Voltage	0.0	v	EG
<hr/>	ressure	1200.0	hPa	EQ	7 Intake Manife	old Pressure	0.0	hPa	EG
	sture Voltage	6.0	v	80	8 Water Tempe	rature Voltage	0.0	v	EB
	ture	143.2	'C	E6	9 Water Tempe	rature	-48.0	'C	EG
10 A	mbient Air Temperature		'C	EQ	10 Ambient Air	Temperature	-48.0	'C	EG
11 Ba	rometric Pressure Sensor Voltage		v	EG	11 Barometric F	Pressure Sensor Voltage	0.0	v	EG
12 In	take Air Temperature Voltage		v	Eo	12 Intake Air Te	mperature Voltage	0.0	v	80
13 In	take Air Temperature		'C	EG	13 Intake Air Te	mperature	-48.0	'C	61
14 Er	igine Oil Temperature		'C	EG	14 Engine Oil 7	emperature	-48.0	'C	Ē
15 Fu	el Level(Option)		%	8	15 Fuel Level(O	ption)	0	s.	EG
16 Fu	el Tank Pressure Value(Option)		hPa	8	16 Fuel Tank Pr	essure Value(Option)	-40.0	hPa	88
	Sensor Binary Type Bank1		v	-	17 O2 Sensor B Upstream(Opt	inary Type Bank1	-0.2	v	
	ream(Option) 2 Sensor Binary Type Bank2		v			inary Type Bank2	-0.2	v	
0) [+]	•		Ē	0	5+3	0		E.

Group

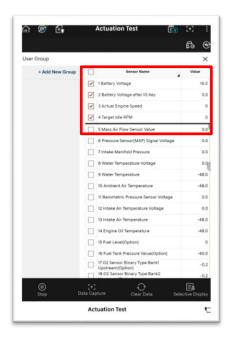
It forms a group of sensor data items to express only relevant data.



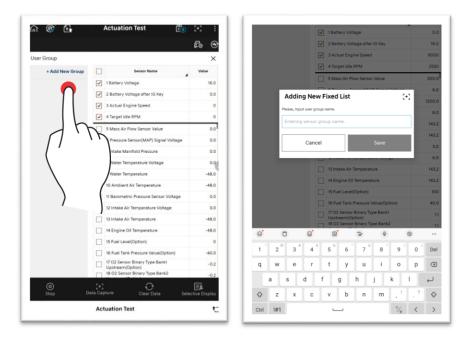
User Group

The user can form or edit a group of desired sensor data items.

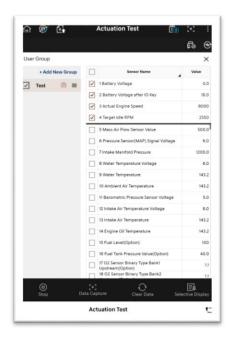
1. In User Group screen, select the sensor data items to be grouped.



2. Once selection of items is made, form a group through 'Add a New Group'.



3. The group formation is completed.





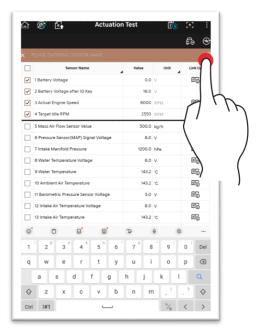
同

You can delete the formed group.

You can change the group order.

Search

You can search the sensor data by entering a search word and touching ${\sf Q}$.



Link-up

You can check the sensor information of the selected items by touching $\exists \overline{a}$

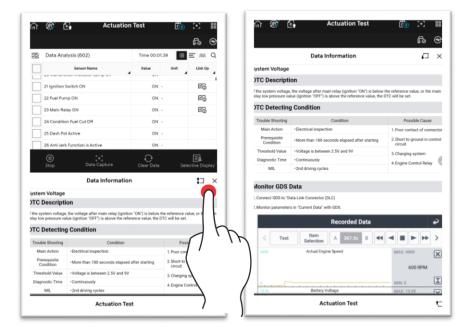
ſn	🎯 📴 Actuatio	on Test	E 3	5+3 E	ଳ 🕸 ପ	Actuation Test	Č (*)
				Fo 😌			6 (
E	Data Analysis (416)	Time 00:0	0:05	E MA Q		Data Information	p
	Sensor Name	Value	Unit	Link Up	iystem Voltage		
3	1 Battery Voltage	0.0	v	E6	OTC Descripti	on	
]	2 Battery Voltage after IG Key	16.0	v		f the system voltage	, the voltage after main relay (ignition 'ON') is belo ilue (ignition 'OFF') is above the reference value, th	w the reference value, or the m the DTC will be set.
]	3 Actual Engine Speed	8000	RPM	eg	TC Detecting		
1	4 Target idle RPM	2550	RPM	EG	Trouble Shooting	Condition	Possible Cause
	5 Mass Air Flow Sensor Value	500.0	kg/h		Main Action	Electrical inspection	1. Poor contact of conner
1	6 Pressure Sensor(MAP) Signal Voltage	6.0	v	Ξ	Prerequisite	•More than 180 seconds elapsed after starting	2. Short to ground in com
	7 Intake Manifold Pressure	1200.0	hPa	E	Threshold Value	-Voltage is between 2.5V and 9V	3. Charging system
	8 Water Temperature Voltage	6.0	v	a h	Diagnostic Time	Continuously	4 Engine Control Relay
	9 Water Temperature	143.2	'C	AIL	h MIL	 2nd driving cycles 	- cognie control many
	10 Ambient Air Temperature	143.2	'C	//	Monitor GDS	Data	
	11 Barometric Pressure Sensor Voltage	5.0	v	(. Connect GDS to "D	uta Link Connector (DLC)	
	12 Intake Air Temperature Voltage	6.0	v	\		s in 'Current Data' with GDS.	
1	13 Intake Air Temperature	143.2	'C	\backslash		Recorded Data	
1	14 Engine Oil Temperature	143.2	'C	a)		Recorded Data	
]	15 Fuel Level(Option)	100	%	E.	< Text	Item A 207/56 B	4 4 H Þ Þ
1	16 Fuel Tank Pressure Value(Option)	40.0	hPa	63	1.000	Actual Engine Speed	MAX 4999
	17 O2 Sensor Binary Type Bank1 Upstream(Option)	1.1	v				600 RPM
1	18 O2 Sensor Binary Type Bank2	1.1	v				
		0			2		MIN: 0
	Stop Data Capture	Clear Data		lective Display	15.06	Battery Voltage	MAX: 13.69
	Actuation Te			t		Actuation Test	

Bottom Function Buttons

D Stop	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.
[+] Data Capture	This captures the sensor data screen.
Clear Data	This initializes the collected sensor data values, and recollects them.
Selective Display	This only shows the sensor values of the sensor data items, which were selected based on needs. The entire sensor data values are shown when Fixed Output function is turned off.
Recorded Data	This function analyzes the saved sensor data file. This is linked to Saved Data Analysis function.

Screen Control

1. You can spread or fold the screen by dragging $\ddagger \exists$ button upwards or downwards.



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

