

TOUCH SCREEN MANUAL FOR DYNAMIC AND STATIC DATA LOGGER



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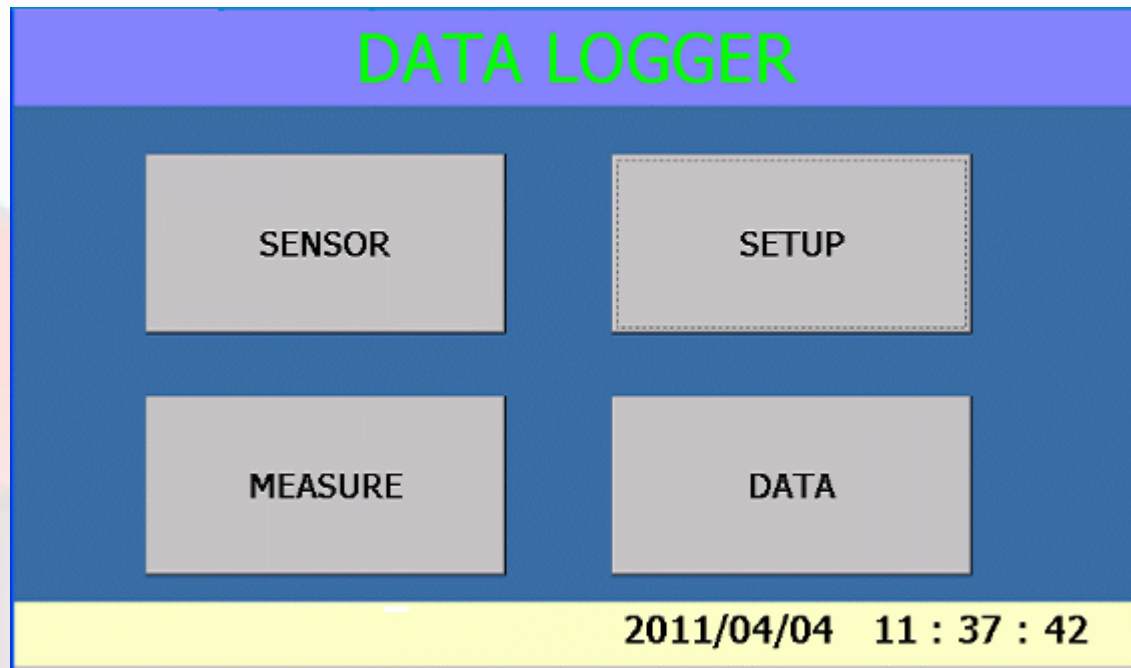


JooShin Corporation

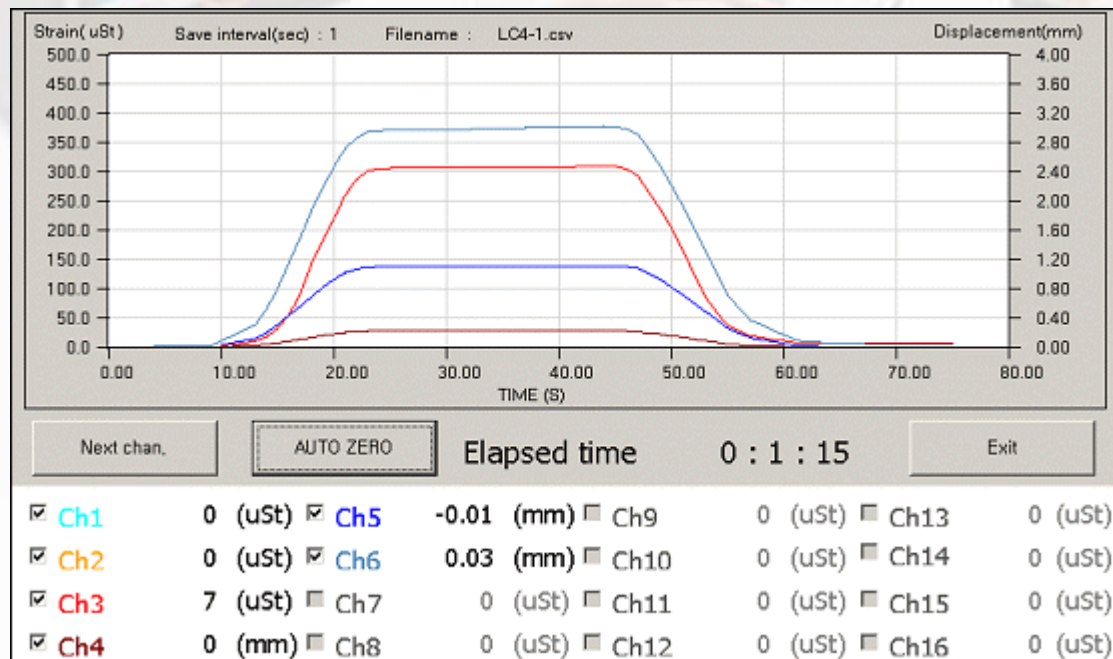
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TOUCH SCREEN MANUAL FOR DYNAMIC AND STATIC DATA LOGGER

1. LOGGER – Initial screen



- 1). [SENSOR] : Set environment of sensor.
- 2). [SETUP] : Set save interval and environment of data.
- 3). [MEASURE] : Start measurement according to setup.
- 4). [DATA] : Manage saved data.



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2. [SENSOR]

Channel	Status	Sensor Type	Dec.Point	Unit	Mode	Capacity	R.O(mv/v)	G.F
Ch 1	On	1 Gage 120	00000.	uSt	Measure	-	-	2
Ch 2	On	1 Gage 120	00000.	uSt	Measure	-	-	2
Ch 3	On	1 Gage 120	00000.	uSt	Measure	-	-	2
Ch 4	On	1 Gage 120	00000.	uSt	Measure	-	-	2
Ch 5	On	1 Gage 120	00000.	uSt	Measure	-	-	2
Ch 6	On	1 Gage 120	00000.	uSt	Measure	-	-	2
Ch 7	On	1 Gage 120	00000.	uSt	Measure	-	-	2
Ch 8	On	1 Gage 120	00000.	uSt	Measure	-	-	2
Ch 9	On	1 Gage 120	00000.	uSt	Measure	-	-	2
Ch 10	On	1 Gage 120	00000.	uSt	Measure	-	-	2
Ch 11	On	1 Gage 120	00000.	uSt	Measure	-	-	2
Ch 12	On	1 Gage 120	00000.	uSt	Measure	-	-	2

CH ▲ CH ▼

☒ INT. ☐ EXT (1~32) ☐ EXT (33~64) OK

- 1). Operator can show setup of all channels.
 - 2). Operator can check setup of each channel to 12channels per one screen.
 - 3). Channel Click : Operator can change setup of selected channel.
 - 4). [CH ▲] : Operator can check the former 12channels.
 - 5). [CH ▼] : Operator can check the next 12channels.
 - 6). [INT.] : Set standard 1~32 channel.
 - 7.) [EXT.1(1~32)] : Set extend 1~32.
 - 8). [EXT.1(33~64)] : Set extend 33~64.
- 2-1. Screen of channel selection

SETUP Internal

Strain Range

Ch SELECT

CH 1

STATUS

On

Mode

Measure

SENSOR TYPE

1 Gage 120

CAPACITY

R.O(mv/v)

G.F

2

DEC.POINT

00000

UNIT

uSt

GRAPH AXIS

Strain

On/Off

Measure / Direct

Group Set

OK

- 1). [Ch SELECT] : Display selected channel or select channel.
- 2). [Status] : Set ON or OFF of measurement. If select ON, the selected channel is measured.

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3). [Mode] : Select how to measure when automatic zero point is selected.

- * Measure : Set zero point at the selection time.

- * Direct : Not set zero point.

4). [Sensor type] :

- 1Gage 120 => Strain gage 120 Ω

- 1Gage 350 => Strain gage 3500 Ω

- 4Gage => 4Gage type sensor as like load cell, pressure sensor, displacement sensor, torque sensor,

- accelerometer, etc.

- Lvdt(pot.) => Potentiometer type displacement sensor

- Volt => Voltage type sensor or voltage signal from amplifier. (± 10 Volt)

5). [Capacity , R.O (mv/v) , G.F]

- * Input gage factor(G.F) for strain gage.

- * Input capacity and R.O(Rated Output) by mv/v for 4Gage type sensors.

- * Input capacity for Pot(Potentiometer) type sensors.

- * Input capacity at the 10V for Voltage type sensors.

Example, if certain load cell output 10V at the 10,000kg, operator shall input 10000 at capacity.

- * Graph Axis : Select value of Y axis for display as graph.

6). In case that display strain for 4gage and,

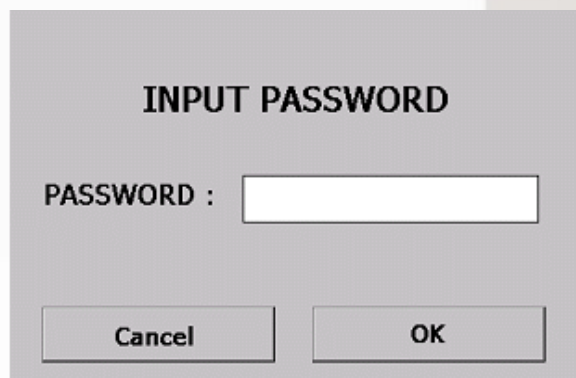
- input 5 to R.O(Rated Output) mV/V and 10000 to Capacity, operator can measure micro strain to ± 10000 .

- input 2 to R.O(Rated Output) mV/V and 4000 to Capacity, operator can measure micro strain to ± 4000 .

- input 1 to R.O(Rated Output) mV/V and 2000 to Capacity, operator can measure micro strain to ± 2000 .

- Unit : Select unit

7). [Strain Range]



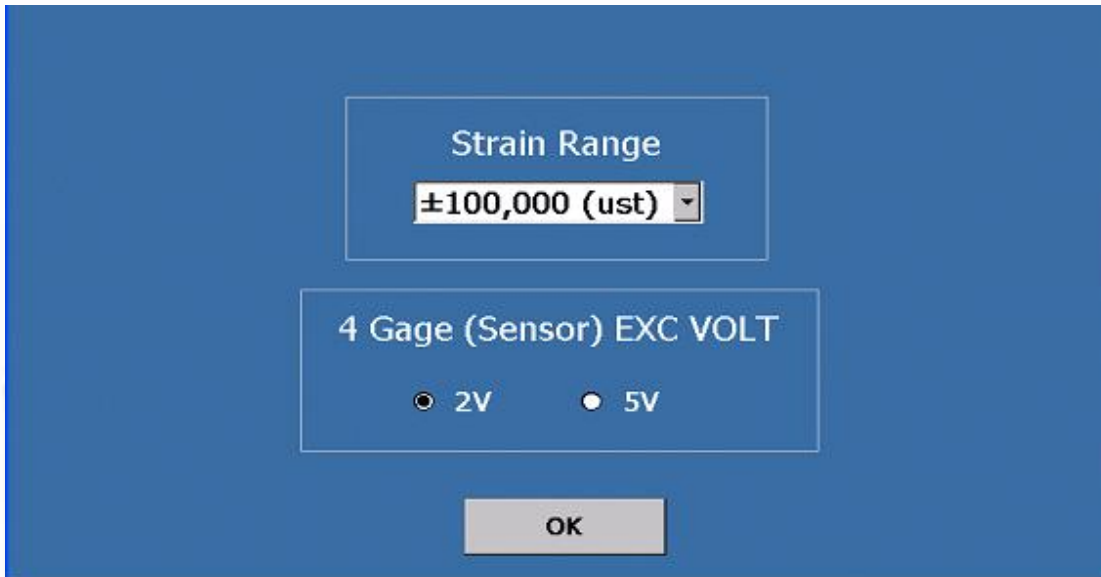
INPUT PASSWORD

PASSWORD :

* [PASSWORD] : Input 1234.

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* [Strain Range]



Strain Range

±100,000 (ust)

4 Gage (Sensor) EXC VOLT

☒ 2V ☐ 5V

OK

* [Strain Range] : Set strain gage range.

* [4Gage (Sensor) EXC. VOLT] : Set output voltage for 4gage type sensor.

8). [On/Off]



On / Off

OK

All On All Off

CH 1 [On]	CH 2 [On]	CH 3 [On]	CH 4 [On]	CH 5 [On]	CH 6 [On]	CH 7 [On]	CH 8 [On]
CH 9 [On]	CH 10 [On]	CH 11 [On]	CH 12 [On]	CH 13 [On]	CH 14 [On]	CH 15 [On]	CH 16 [On]
CH 17 [On]	CH 18 [On]	CH 19 [On]	CH 20 [On]	CH 21 [On]	CH 22 [On]	CH 23 [On]	CH 24 [On]
CH 25 [On]	CH 26 [On]	CH 27 [On]	CH 28 [On]	CH 29 [On]	CH 30 [On]	CH 31 [On]	CH 32 [On]

* Check conditions of all channels and correct "On or Off".

* [All On] : Turn on all channels.

* [All Off] : Turn off all channels.

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9). [Measure/Direct]

* Check mode of all channels and correct "Measure or Direct".

* [All Measure] : Select all channels as "Measure".

* [All Direct] : Select all channels as "Direct".

10). [Group SET]

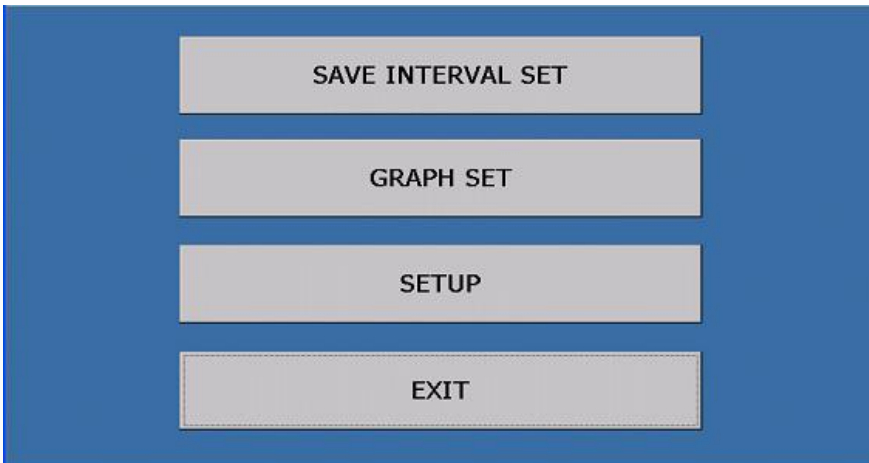
* Selected channels apply same setups.

* [All On] : Turn on all channels.

* [All Off] : Turn off all chnnels.

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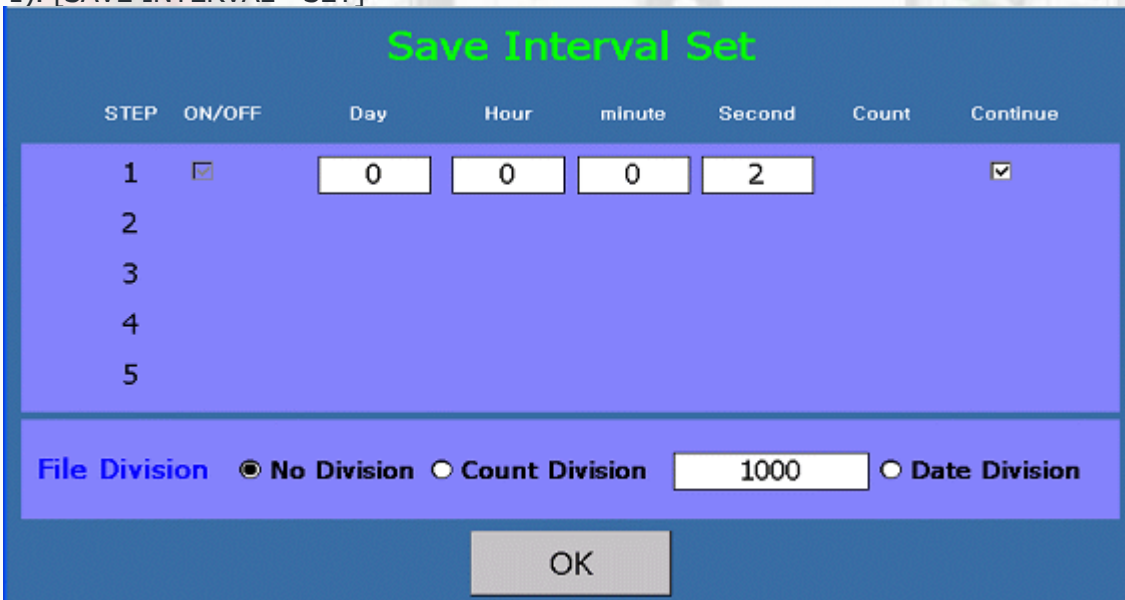
3. [SETUP]



A blue rectangular menu with four grey buttons stacked vertically. The buttons are labeled 'SAVE INTERVAL SET', 'GRAPH SET', 'SETUP', and 'EXIT' from top to bottom.

- 1). [SAVE INTERVAL SET] : Set save interval.
- 2). [GRAPH SET] : Select channels that display screen during test (Max. 16channels).
- 3). [SETUP]
- 4). [EXIT]

1). [SAVE INTERVAL SET]



The 'Save Interval Set' screen has a blue background with green text at the top. It contains a table for setting intervals and a section for file division.

STEP	ON/OFF	Day	Hour	minute	Second	Count	Continue
1	☒	0	0	0	2		☒
2							
3							
4							
5							

File Division ☒ No Division ☐ Count Division ☐ Date Division

OK

* Operator can divide save interval by Max. 5steps.

* Operator select [ON/OFF] and input save interval [Day, Hour, Minute, Second] and select [Continue/Count].

* STEP : Set save interval from 1step to 5step.

*[On/Off] : Set it by "Check box". (Set "On" to Step 1 allways.)

*[Count] : Input numbers of save by each step.

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*[Continue] : Save data continuously by setup interval. (If 1st step is "Continue", the set up of next step is not applied.)

*[File Division] - [No Division] : Save data by one file.

- [Count Division] : Save data to setup "Count" and then generate new file.

- Date Division : generate new file on 0 hour

[OK] : Exit

Save interval (Sec) 2

0	1	2	3	4	-	<--	ESC
5	6	7	8	9	.	CLS	Enter

Interval 0 D 0 H 0 M 2 S

Save Count 1000 ☐ Continuous

OK

1-1). [Save Interval]

* Set and input "Save interval" and "Save Count", and/or "Continuous" to the selected step.

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2). [GRAPH SET]

Graph Set

☐ 2
☐ 4
☐ 8
☐ 12
☒ 16

CH 1	CH 1	CH 5	CH 5	CH 9	CH 9	CH 13	CH 13
CH 2	CH 2	CH 6	CH 6	CH 10	CH 10	CH 14	CH 14
CH 3	CH 3	CH 7	CH 7	CH 11	CH 11	CH 15	CH 15
CH 4	CH 4	CH 8	CH 8	CH 12	CH 12	CH 16	CH 16

OK

* Select channel to display graph in 2/4/8/16 channels.

* Display graph from 2 to 16channels.

* If select [TEXT], operator can change channels.

2-1). Selection of [INT.] , [EXT.1(1~32)] , [EXT.1(33~64)]

☒ INT.
☐ EXT.1 (1~32)
☐ EXT.1 (33~64)

☒ CH 1	☐ CH 9	☐ CH 17	☐ CH 25
☐ CH 2	☐ CH 10	☐ CH 18	☐ CH 26
☐ CH 3	☐ CH 11	☐ CH 19	☐ CH 27
☐ CH 4	☐ CH 12	☐ CH 20	☐ CH 28
☐ CH 5	☐ CH 13	☐ CH 21	☐ CH 29
☐ CH 6	☐ CH 14	☐ CH 22	☐ CH 30
☐ CH 7	☐ CH 15	☐ CH 23	☐ CH 31
☐ CH 8	☐ CH 16	☐ CH 24	☐ CH 32

* Operator can select extended channels by selection of [INT.] , [EXT.1(1~32)] , [EXT.1(33~64)].

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3). [SETUP]

Language	☐ Korean	☒ English	
Beep (Save)	☐ On	☒ Off	
AUTO ZERO	☐ All Zero	☒ CH Select Zero	
Zero set	☒ FREE	☐ Maintain Zero	☐ Zero Check
Zero All Check	☒ Screen Check	☐ All Check	
Backlight	☒ ON/OFF	60 (sec)	

OK

* [Language] : Select language between Korean or English.

* [Beep (Save)] : Select "On/Off when file save.

* [AUTO ZERO]

- [All Zero] : Set all channels automatically as zero.

- [CH Select Zero] : Set selected channels as zero after selection of channels.

* [Zero set]

- [FREE] : Not check zero points when test start.

- [Maintain Zero] : Maintain zero points when test start.

- [Zero Check] : Check zero points when test start.

* [Zero All Check] :

- [Screen Check] – Apply "Auto zero" to selected channels at the "AUTO ZERO" step.

- [All Check] – Apply "Auto zero" to all channels at the "AUTO ZERO" step.

* [Backlight] :

- [Off] – Use no backlight.

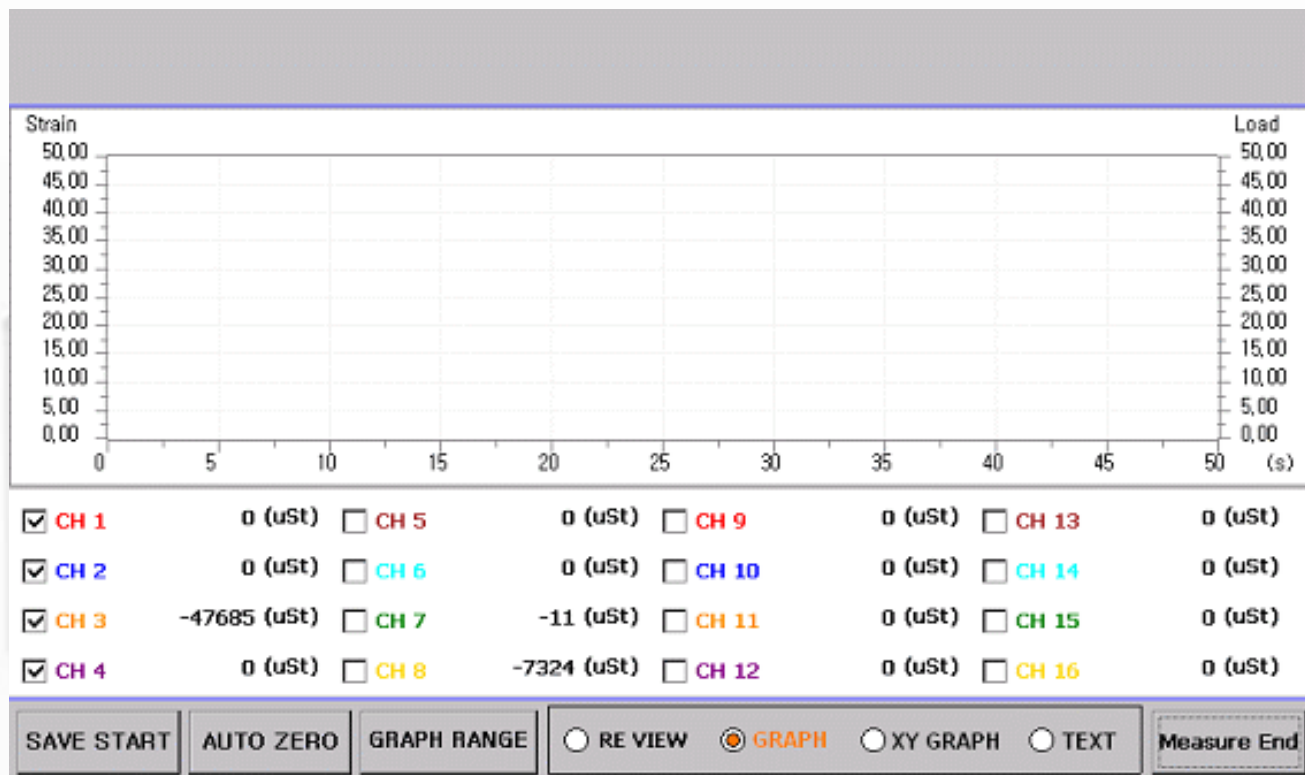
- [On] – Backlight is off after setup time when test start.

* [OK] : Exit

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4.[MEASURE]

1). [GRAPH]



- * [Save start] : Start save.
- * [Paused] : Pause save and graph.
- * [Continue] : Continue save
- * [Auto zero] : Set zero points.
- * [GRAPH RANGE] : Available to change graph range.
- * [REVIEW] : Available to review the past graph.
- * [GRAPH] : Display graph.
- * [XY GRAPH] : Display XY Graph.
- * [TEXT] : Display text screen.
- * [Measure End] : Exit after save.

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2). [AUTO ZERO]

* [AUTO ZERO CH]

AUTO ZERO CH			
☒ INT. ☐ EXT (1~32) ☐ EXT (33~64)			
☐ CH 1	☐ CH 9	☐ CH 17	☐ CH 25
☐ CH 2	☐ CH 10	☐ CH 18	☐ CH 26
☐ CH 3	☐ CH 11	☐ CH 19	☐ CH 27
☐ CH 4	☐ CH 12	☐ CH 20	☐ CH 28
☐ CH 5	☐ CH 13	☐ CH 21	☐ CH 29
☐ CH 6	☐ CH 14	☐ CH 22	☐ CH 30
☐ CH 7	☐ CH 15	☐ CH 23	☐ CH 31
☐ CH 8	☐ CH 16	☐ CH 24	☐ CH 32
All Check		All No Check	
		Cancel	OK

* Set zero points by "Check" to each channels.

* [All Check] : Select "Check" for zero points.

* [All No Check] : Cancel "Check" for zero points.

* [Cancel]

* [OK] : Apply setup of zero points.

* [INT.] : Set zero points to standard No.1~32 channels.

* [EXT.1(1~32)] : Set zero points to extended No.1~ 32 channels.

* [EXT.1(33~64)] : Set zero points to extended No.33~64 channels.

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3). [Graph Range]

X(time) axis range sec

OK

	Minimum	Maximum
Strain	0	50
Load	0	50
Displacement	0	50
Pressure	0	50
Acce.	0	50
Volt	0	50
Temperature	0	50

Y1 axis title
Strain

Y2 axis title
Load

X axis line No.
10ea

Y axis line No.
10ea

Line Color

Graph Set

- * [X(time) axis range] : Input Max. time(Min. time : 0 second).
- * [Minimum] : Display Y-axis minimum.
- * [Maximum] : Display Y-axis maximum.
- * [X(time) axis range] : Display X-axis maximum.
- * [Y1 axis title] : Display Y-axis title (Graph left side).
- * [Y2 axis title] : Display Y-axis title (graph Right side).
- * [X axis line No.] : Number of X-axis line
- * [Y axis line No.] : Number of Y-axis line
- * [OK] : Exit after save.

3-1). Line color : Select line color for graph.

Ch Color

Default value

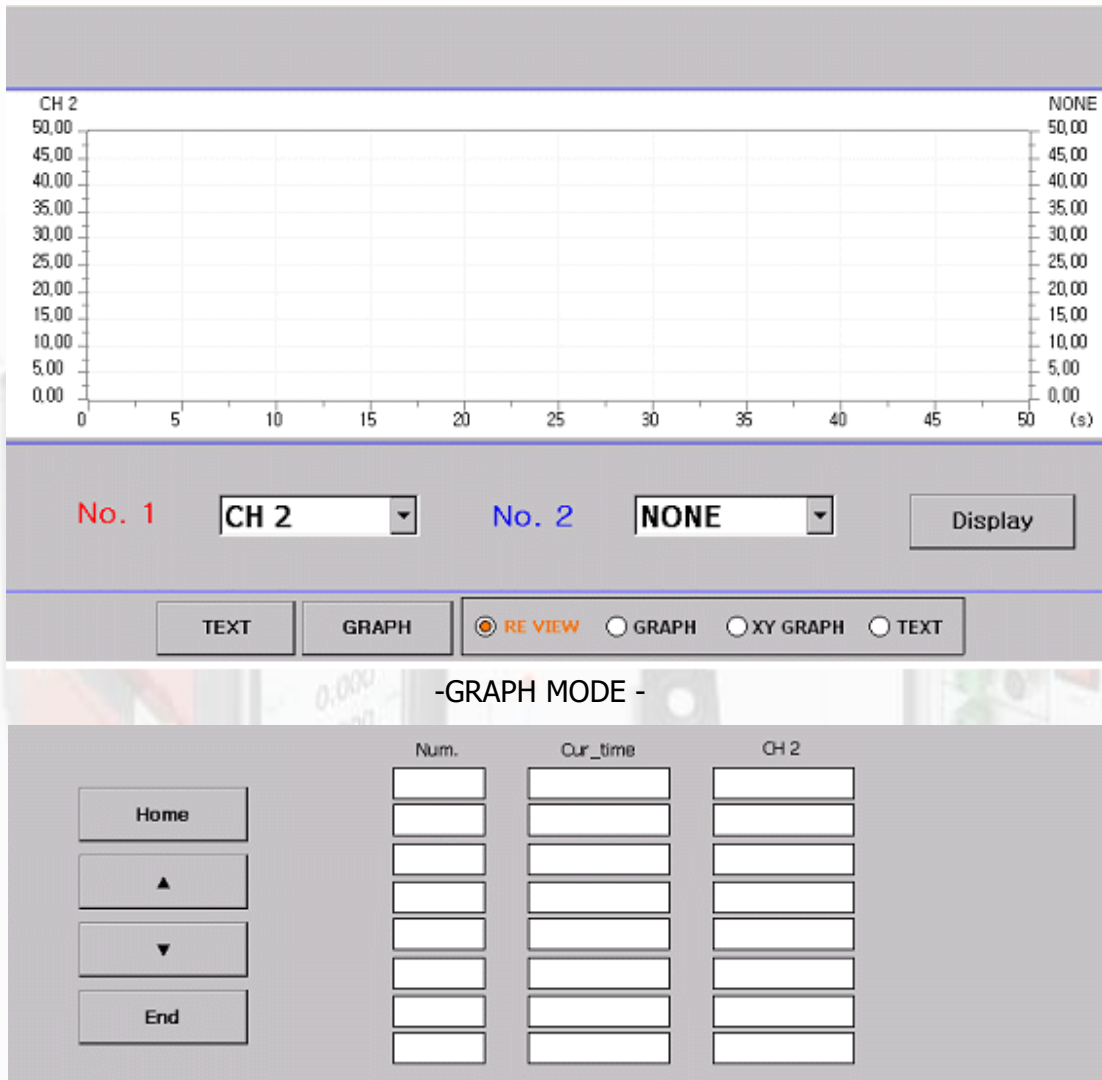
OK

Ch 1				
Ch 2				
Ch 3				
Ch 4				
Ch 5				
Ch 6				
Ch 7				
Ch 8				

- * Select channels No. (Ch 1 ~ Ch 8) and select color on right side.
- * [Default value] : Apply default color.
- * [OK] : Exit

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4). [RE VIEW] : Operator can review the past graph during measurement.



-TEXT MODE -

- * If operator select 2 measuring channel by text or graph.
- * [Display] : Display measuring data by text or graph.
- * [Home] : Display initial data.
- * [▲] : Display the former measured 8 values.
- * [▼] : Display the next measured 8 values.
- * [End] : Display the last data.

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5). [XY GRAPH]



5-1). [SETUP]

	Channel	Axis
PLOT 1	NONE	Y1
PLOT 2	1 Ch	Y1
PLOT 3	2 Ch	Y1
X Axis	3 Ch	
Y1 Title	Strain	
Y2 Title	Strain	

At the bottom right is an 'OK' button.

* [GRAPH RANGE] : Available to change range of X axis , Y1axis and Y2 axis.

* [Plot-1] : Channel : Select channel of graph.

Y-Axis : Select axis of graph.

* [Plot-2] : Channel : 그래프 Select channel of graph.

Y-Axis : Select axis of graph.

* [Plot-3] : Same with the above and if select "NONE", it is not displayed.

* [Title] : Input title of Y1 axis and Y2 axis.

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6). [TEXT]

☒ INT. ☐ EXT (1~32) ☐ EXT (33~64)			
CH 1 (uSt) 0	CH 9 (uSt) 0	CH 17 (uSt) 0	CH 25 (uSt) 0
CH 2 (uSt) 0	CH 10 (uSt) 0	CH 18 (uSt) 0	CH 26 (uSt) 0
CH 3 (uSt) -47696	CH 11 (uSt) 0	CH 19 (uSt) 0	CH 27 (uSt) 0
CH 4 (uSt) 0	CH 12 (uSt) 0	CH 20 (uSt) 0	CH 28 (uSt) 0
CH 5 (uSt) 0	CH 13 (uSt) 0	CH 21 (uSt) 0	CH 29 (uSt) 0
CH 6 (uSt) 0	CH 14 (uSt) 0	CH 22 (uSt) 0	CH 30 (uSt) 0
CH 7 (uSt) -11	CH 15 (uSt) 0	CH 23 (uSt) 0	CH 31 (uSt) 0
CH 8 (uSt) -10987	CH 16 (uSt) 0	CH 24 (uSt) 0	CH 32 (uSt) 0

SAVE START	AUTO ZERO	GRAPH RANGE	☐ RE VIEW	☐ GRAPH	☐ XY GRAPH	☒ TEXT	Measure End
------------	-----------	-------------	-------------------------------	-----------------------------	--------------------------------	---------------------------------------	-------------

* Operator can all channels by digital.

* [INT.] : Display standard channels (No1.~32).

* [EXT.1(1~32)] : Display extended channel (No1.~32).

* [EXT.1(33~64)] : Display extended channel (No33.~64).

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5.[DATA]

Internal Data Memory Folder.		USB Data Folder	
File Name	File Size(byte)		
Internal memory capacity available		123,456 (byte)	
COPY	ALL COPY	DELETE	EXIT

- 1). Internal Data Memory Folder] : Load saved folder from built-in memory.
- 2). [USB Data Folder] : Load saved file from USB memory.
- 3). [COPY] : Copy selected file from built-in memory and save to data folder in USB memory.
- 4). [ALL COPY] : Copy all file from built-in memory and save to data folder in USB memory.
- 5). [DELETE] : Delete selected file.
- 6). [EXIT]
- 7). Internal memory Capacity available : Display the amount of memory available(byte).

