GRAPHTEC INSTRUMENTS

Compact Standalone

GL260
data LOGGER

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midi LOGGER GL260
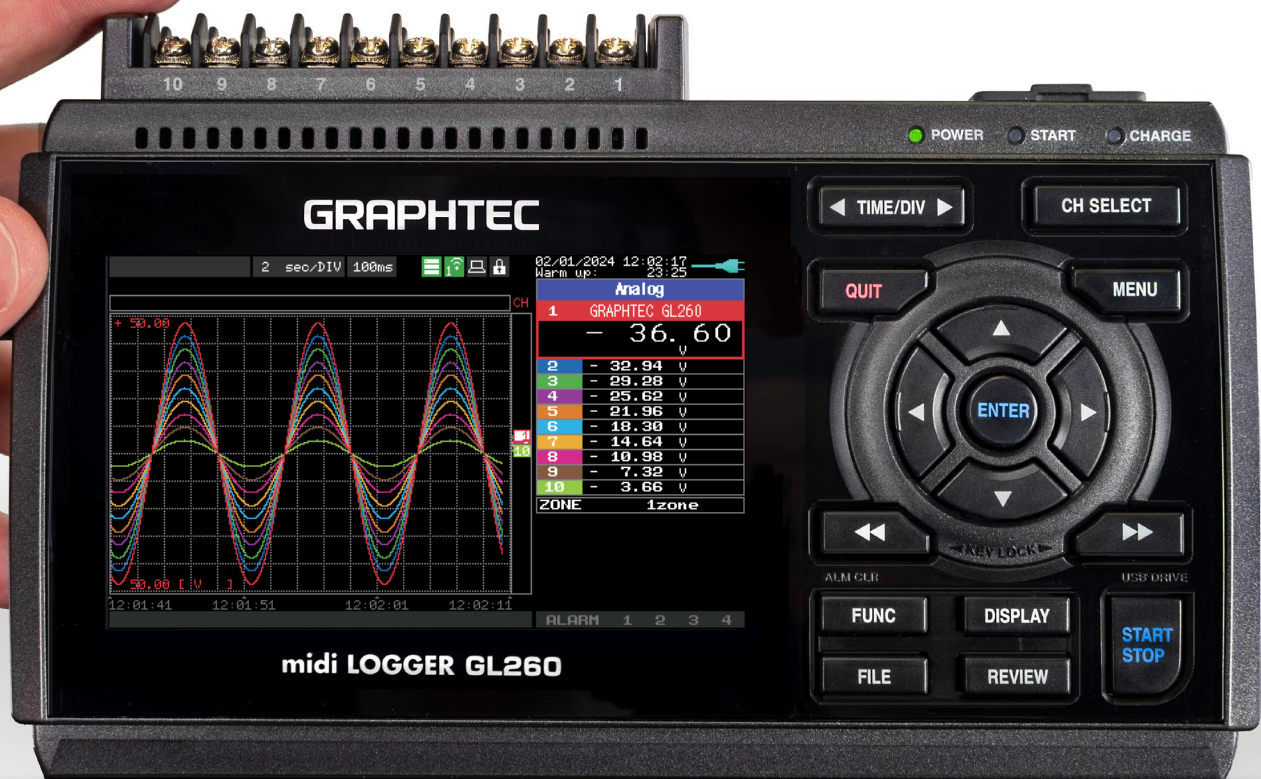
Evolved

SIMPLE • PORTABLE • VERSATILE

NEW FEATURES including CLOUD ACCESS

Alarm History Function
• Easy search of event dates and history

Enhanced CH to CH Calculation
• New calculation functions added

Memory Loop Function
• Enables recording for longer periods of time

G–REMOTE
• **Cloud Server Service**
• **Remote Control Service**
• **Data Storage Service**

*Additional charge for use.
*Offered in limited areas only.

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Graphtec America, Inc.

GL260 data LOGGER

GRAPHTEC INSTRUMENTS

SPECIFICATIONS

Item		Description
Analog input	Number of channels	10ch / Screw terminal (M3)
	Type	Scans channels for sampling, All channels isolated, balanced input
	Measurement range	Voltage: 20mV - 100V, 1-5V F.S.
		Thermocouple: K, J, E, T, R, S, B, N, C and (the old W: WRe5-26)
		Humidity: 0 - 100% (optional item B-530 is required)
	Filter	Off, 2, 5, 10, 20, 40 (moving average in selected number)
	Max. input voltage	Between(+) / (-) terminal — 20mV - 1V range: 60V p-p / 2V - 100V range: 110V p-p
		Channels ((-) / (-)): 60 V p-p Channel / GND: 60 V p-p
External input (*1)	Number of channels	Trigger of Sampling (1 channel), or External Sample Inputs 1ch Logic / Pulse (4 channel)
	Pulse input	Rotation count (RPM) mode (*2) Accumulating count mode Instant count mode Max. input frequency : 50kHz / Max. count: 50kc / sampling
External output (*1)		Alarm output: 4ch
Scaling function		Analog channel, Pulse channel
Sampling interval		10ms - 1h (10ms to 50ms: voltage only, limited number of CH) External signal
A/D converter		ΔΣ type, 16Bit (effective resolution: 1/40,000 of ± range)
PC I/F		USB2.0, wireless LAN (optional item B-568 is required)
Storage medium (*3)	Storage	Built-in memory : approx. 8GB, SD card slot: 1
	Data format	GBD / CSV
Capturing mode		OFF (default), Ring, Relay
Other functions		Calculation function, Trigger, Alarm function, Data backup function(*4)
Display		4.3" TFT (WQVGA: 480 x 272 dots)
Operating environment (*5)		0 - 45º, 5 - 85% RH
Power source	AC adaptor	AC100 - 240V / 50 - 60Hz
	DC input	DC 8.5 - 24V (optional item B-514 is required)
	Battery pack	DC 7.2V (2875mAh) (optional item B-573 is required)
Power consumption		Max. 36VA (when AC100V)
Dimentions		188 (W) x 117(D) x 42(H) mm
Weight		500g (excluding AC adaptor and battery pack)
Vibration resistance		Equivalent to Automobile parts Type 1 Class A

OPTIONS

Item	Model No.	Description
GL wireless LAN unit	B-568	Standard: IEEE802.11b / g / n Communication distance: approx. 40m (Depending on the situation)
Battery pack	B-573	1 unit: 7.2V/2875mAh
Input/Output cable for GL	B-513	2m long (no clip on end of cable)
DC drive cable	B-514	2m long (no clip on end of cable)
Humidity sensor (*7)	B-530	3m long (with power plug)
Shunt resistor 250Ω	B-551-10	±250 Ω (0.1%), Rated power of 1 W, Maximum operating voltage15.8V
AC adapter for GL260	ACADP-20	AC adapter for maintenance
Type K TC adapter	TC-K-5	Type K mini-connector to spade lugs, 12", 5 pack
Type T TC adapter	TC-T-5	Type T mini-connector to spade lugs, 12", 5 pack
Pelican case	B-536US-260	Custom Pelican case for GL260

CLOUD SERVICE (G-REMOTE)

(*Additional charge for use)

Item	Description
Supported OS (*6)	Windows11/10
Supported WEB browser	Google Chrome (reccomended), Microsoft Edge, Firefox (*Internet browser supporting HTML5)
Service content	<Remote control service> Easy remote control and confirmation of measurement data from G-REMOTE on a browser via an Internet connection <Data save service> Storing data on Graphtec cloud servers via Internet connection * For more information about product, please check the web site

Max Sampling Interval of up to 10ms

By narrowing down the number of channels, enabled to record data in max. 10 ms.

Sampling Interval		10ms	20ms	50ms	100ms
Number of CHs		1	2	5	10
Measuring	Voltage	✓	✓	✓	✓
	Temp.	—	—	—	✓

8GB memory for reliable long-term measurement

Recording time example (when only 10 analog channels are used, 2 GB recorded)*

Sampling Interval* [2]	10ms	50ms	100ms	200ms	500ms	1s
GBD Format	41 days	88 days	103 days	207 days	Over 365	Over 365 [1]
CSV Format	3 days	12 days	18 days	36 days	91 days	182 days

*1: Recording times are approximate.
*2: Depending on the sampling interval, the number of channels are limited. 10ms: 1ch, 20ms: 2ch, 50ms: 5ch

SOFTWARE SPECIFICATIONS PC

Item	Description
Supported OS (*6) GL28-APS	Windows11/10 PC for date logger settings, data recording, storage, playback
	Supported Models: GL260/GL840/GL240
	Connectable Units / channels: Max. 10 units / 1,000ch
GL-Connection	GL Series Integration Software
	PC for date logger settings, data recording, storage, playback
	Supported models: GL7000/GL2000/GL980/GL840 GL240/GL260/GLT400
	Connectable units: 20
	Max. 2000ch

CALIBRATION (Production Data)

Item	Code
NIST-CAL	NIST calibration with cert.
NIST-CAL-DATA	NIST calibration with cert & data
ISO-17025-260	ISO-17025 calibration for GL260

*Documents ordered at the time of product purchase are data at the time of manufacture.
*Please visit calibration services section of our website for details.

*1: Input/Output cable for GL (option B-513) is required.
*2: The pulse count mode counts the number of pulses per sample interval and converted to revolutions per minute.
*3: Recorded in 2GB per file, SD cards available.
   *Supported SDHC, up to approx. 32GB memory
*4: If the ring setting and external sampling function is ON, the backup function is not available. If the backup destination is FTP , GL wireless LAN unit(B-568) is required.
*5: When operating with battery pack 0 to 40º C, charging battery 15 to 35º C
*6: OS that are no longer supported by the OS manufacturer are not supported by Graphtec.
*7: Available temperature range: -25º~+80º Special order/ 10m, 15m, 20m avilable)
*8: Specifications are subject to change without notice as this is a commercial product.

CE

GL260_q_KE10950_1D

⚠ For using equipment in correctly and safely

• Before using it, please read the user manual and then please use it properly in accordance with the description.
• To avoid malfunction or an electric shock by current leakage or voltage, please ensure a ground connection and use according to specifications.

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GL260

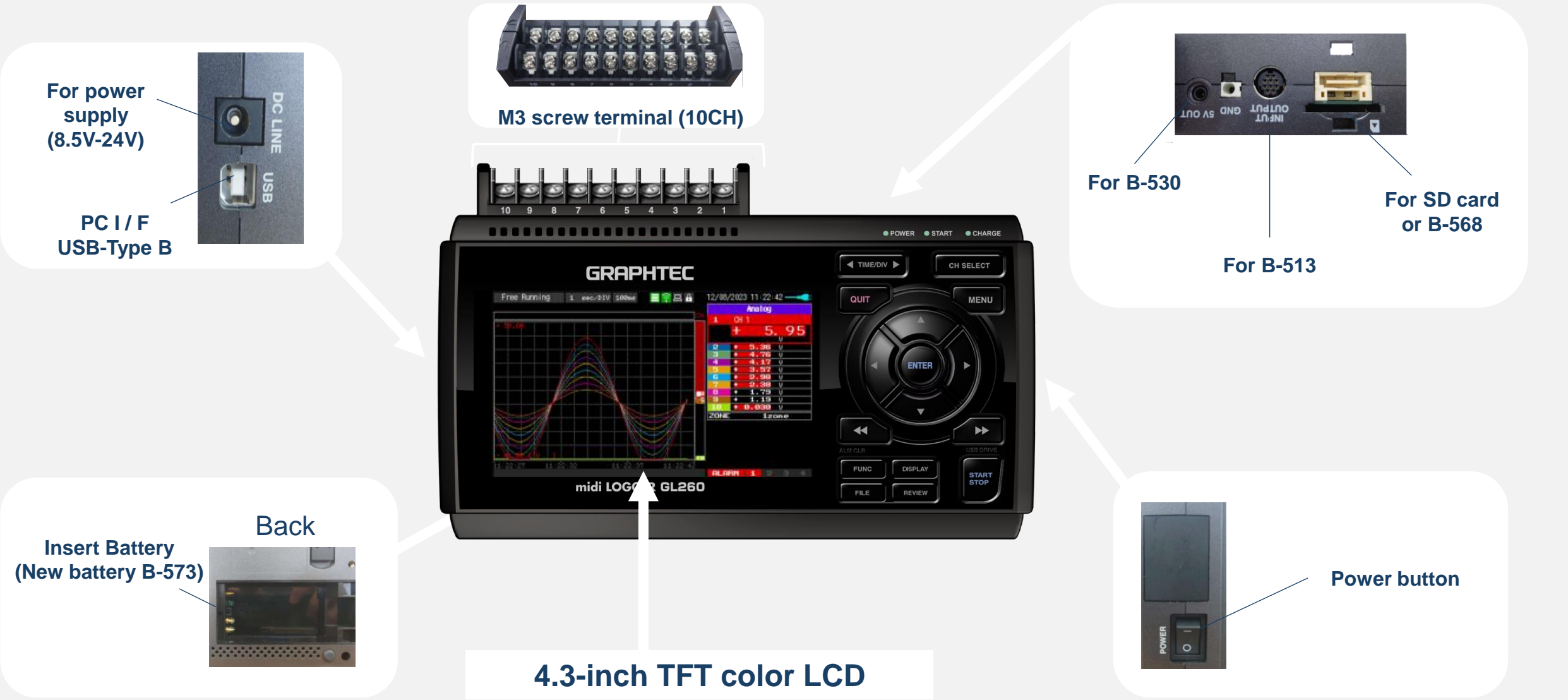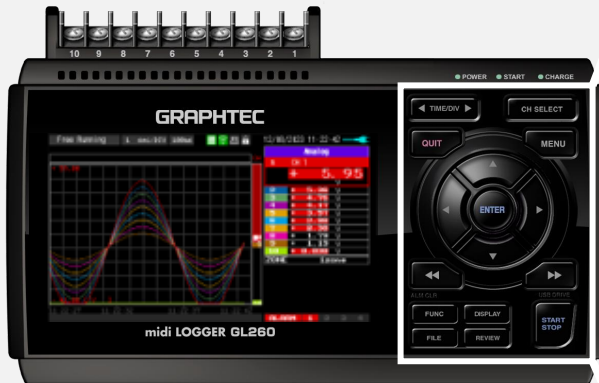**About the Unit**

Unit Design

Interface

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For power supply (8.5V-24V)

PC I / F USB-Type B

M3 screw terminal (10CH)

For B-530

For B-513

For SD card or B-568

Back

Insert Battery (New battery B-573)

4.3-inch TFT color LCD

Power button

Control panel key

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TIME / DIV: Change Time axis display width

Quit: Quit / Back

NEW
CH SELECT: Select CH Category
(Analog / Logic-Pulse / Calculation)

*Changed from "SPAN / POSI / TRACE" in GL240

MENU: Open setting menu

NEW
ENTER: Enter / Open waveform setting

▲▼▶◀ : Cursor Key

◀◀ / ▶▶ : Fast forward key (KEY LOCK)

NEW
FUNC: Shortcuts for useful functions

*Changed from "Cursor" in GL240

DISPLAY: switch display mode

NEW
FILE: Open File menu

*Changed from "File / Group" in GL240

START / STOP: Start / Stop for recording

REVIEW: Playback of recorded files

Improved Visibility

Improved Visibility

3 visibility improvements

Display chromaticity

Light in GL240 **Dark in GL260**

Increased chromaticity to improve visibility.

Changed font

DC → DC

Added margins to improve visibility.
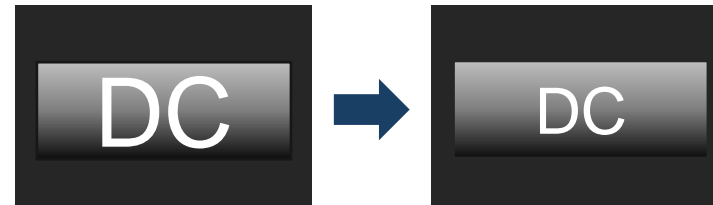
Changed menu tree

hard to read…

Vacant space.
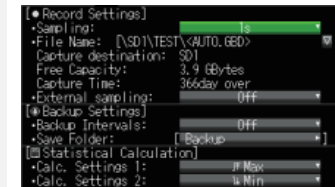
Simplified the menu tree and made it more intuitive.
(Menu Key & FILE Key)

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Improved Operability

Improved Operability

3 operability improvements

Simplified waveform setting
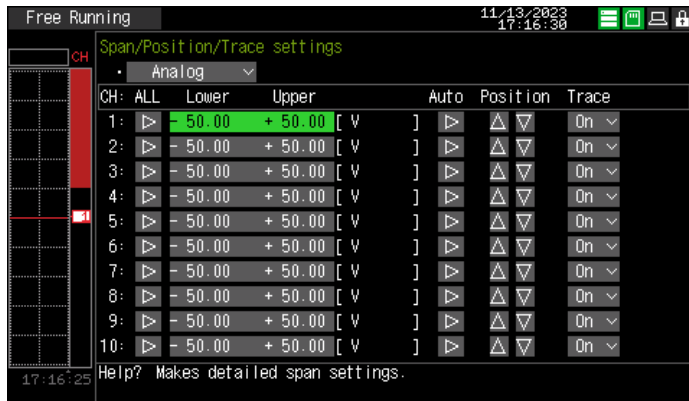
Intuitive SPAN / POSI / TRACE operation.

Web server function
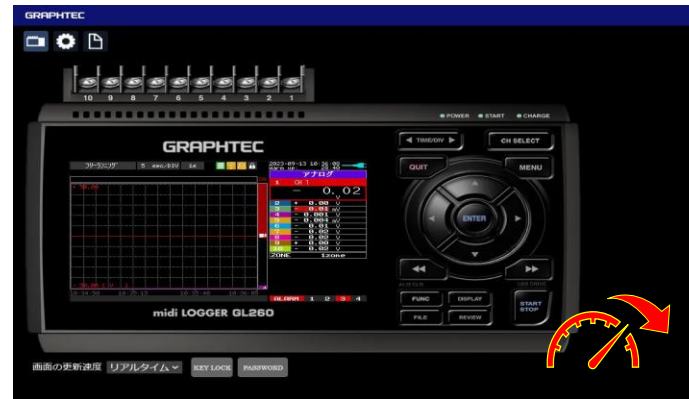
Faster update speed.

HELP-QR function

QR code for more detailed information.

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Simplified waveform setting

SPAN / POSI / TRACE settings can now be configured in less steps.

1 click to display waveform setting

GL240

①MENU

②Misc.

- Annotation Strings:
- Inter-CH Op Settings:
- Span Settings:
- Waveform Color Setting:
- Am
- Tr
- Perform Auto Zero ADJ.

③ Span settings

GL260

①ENTER

Span/Position/Trace settings
· Analog
CH: ALL   Lower   Upper
1: ▷   − 41.00   + 59.00 [
2: ▷   − 41.00   + 59.00 [
3: ▷   − 41.00   + 59.00 [
4: ▷   − 41.00   + 59.00 [

②SPAN / POSI / TRACE

Actual screen

Free Running   12/08/2023
                                10:07:22
Span/Position/Trace settings
· Analog ∨
CH: ALL   Lower   Upper   Auto Position Trace
1: ▷   − 41.00   + 59.00 [V   ]   ▷   △ ▽   On ∨
2: ▷   − 41.00   + 59.00 [V   ]   ▷   △ ▽   On ∨

Set all spans   Input span   NEW Auto Span

5: ▷   − 41.00   + 59.00 [V   ]   ▷   △ ▽   On ∨
6: ▷   − 41.00   + 59.00 [V   ]   ▷   △ ▽   On ∨
7: ▷   − 41.00   + 59.00 [V   ]   ▷   △ ▽   On ∨
8: ▷   − 41.00   + 59.00 [V   ]   ▷   △ ▽   On ∨
9: ▷   − 41.00   + 59.00 [V   ]   ▷   △ ▽   On ∨
10: ▷   + 1.000   + 5.000 [V   ]   ▷   △ ▽   On ∨
10:07:19 Help? Makes detailed span settings.

More intuitive setting with auto span

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HELP – Display QR Code

Scan the QR code to see the related web page and check the detailed information.

QR code	Directed to FAQ

HELP icon & QR code

Access

By scanning the QR code in each setting item, users can reach to information on the FAQ web page.

FAQ Supported languages: Japanese and English

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Faster WEB server function

For smoother operation, CPU processing speed has been increased and settings screen has been renewed.

Faster update speed

3s
GL240

Speed x6

0.5s
GL260

Smooth operation is now possible with faster processing speeds.

New setup screen design

Install the same setup screen design as the logger. Data in the loggers can be downloaded.

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News

The game function has been restored aiming to familiarize users with key operations.

Number order

Number order game   Arrange in order from 1
<Rules>
Arrange from 1 to 15

[START]: Start
[CURSOR]: Move curs.
[ENTER]: Move panel
[REVIEW]: Redo
[QUIT]: End

3	1	7	
2	12	10	13
9	6	4	15
5			

Total points: 0

Reversi

Reversi game   [START] starts the game
<Rules>
Rival's stone is placed, upset, and one with a lot of stones wins at end

[START]:   Start
[CURSOR]: Move curs.
[ENTER]:   Drop stone
[REVIEW]: Pass
[QUIT]:   End

Total points: 0

First move Second mover

1024

1024 Game   Match numbers.
<Rules>
Combine the same numbers to make 1024

[START] : Start
[CURSOR]: Move panel
[QUIT]   : Quit game

Total points: 0

Elapsed: 00:00:06

Sudoku

[START] : Start
[CURSOR]: Move curs.
[FLEFT] : Enter num.
[FRIGHT]: Enter num.
[REVIEW]: Review
[QUIT]   : Quit Game

Total points: 0

Elapsed: 00:00:30
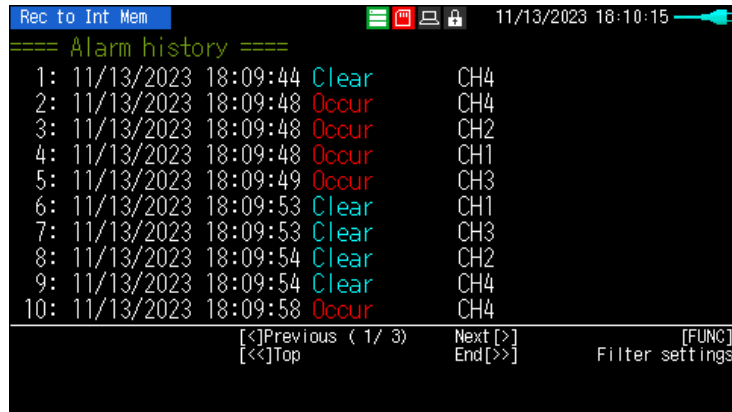
< MENU > ➡ < OTHER > ➡ < Game >

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New Functions

Improved functionality

3 new functions

Alpha History

Display of alarm history

New calculation
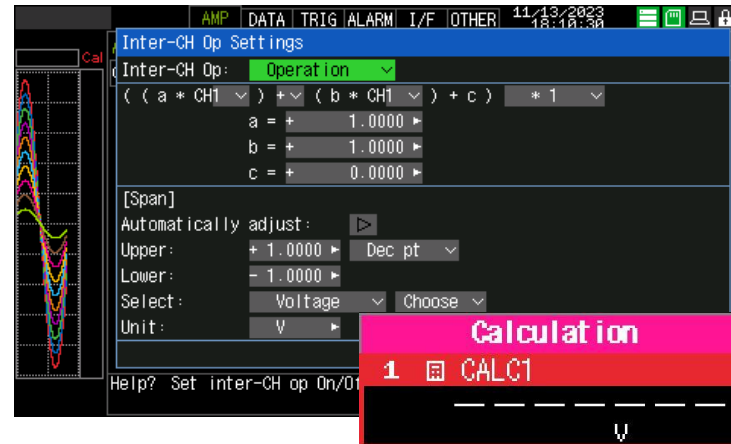
Newly installed calculation CH coefficients can be used for CH calculations.

Memory Loop
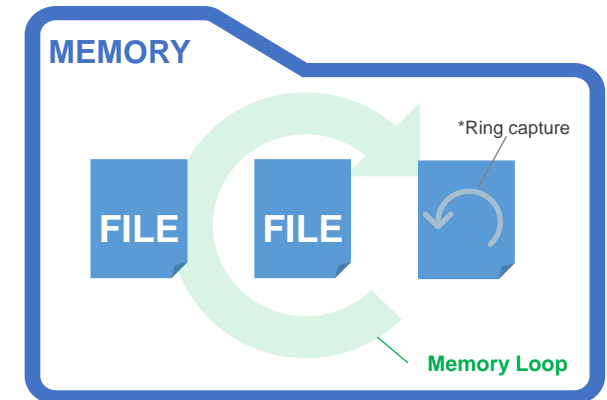
Circulation recording is now possible in relay capturing

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Alarm History

What is Alarm History Function?

This function shows the date / time history of alarm occurrence / cancellation.

Actual screen

Easily check the CH and date of alarm occurrence at once.

Usage

Gas turbine maintenance
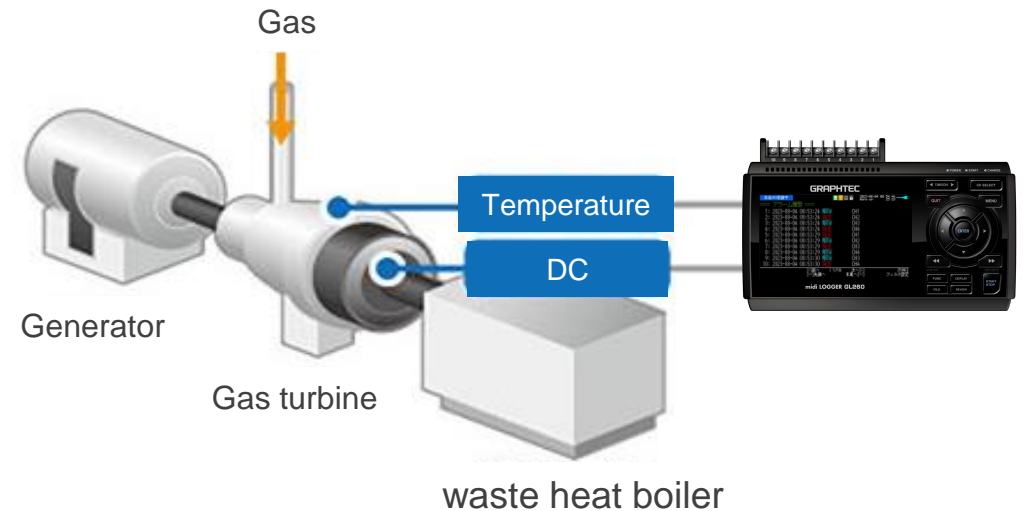
Alarm occurs due to temperature abnormality → **on-site investigation** → **Easily check the alarm occurrence date and time with alarm history function.**

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Alarm History Function

Target Users

☑ Want to keep a record of the condition.

☑ Want to check the alarm history during recording.

☑ Want to use the alarm function.

Production Monitoring

Testing

Condition Monitoring
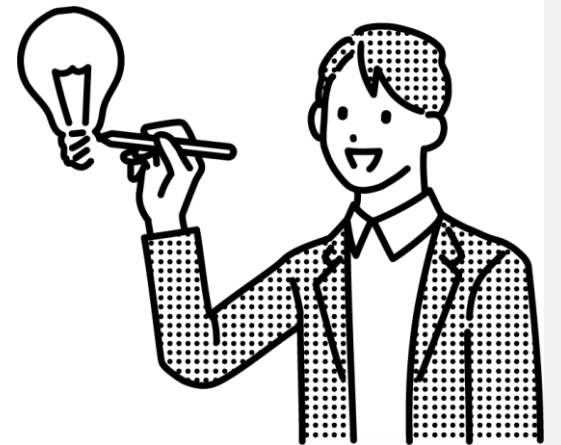
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Alarm History - Data format-

Alarm history data is saved in text format data.

- Alarm history data is saved in .GAH format.

- GAH can be opened as a text file.

*GAH files are saved in the same folder as the recorded files.

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New Calculation

CH-to-CH calculation function

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What is the CH-to-CH calculation function?

Calculation function between two CHs.

=> Ex.) CH1 + CH2 = X

GL240 calculation function

- Overwrite analog CH with calculation

  = 1 CH occupied by calculation.

- Calculation is only between CHs

  = Coefficients are not available.

=> **Only limited calculation** can be performed.

GL260 New Calculation

- **Dedicated CHs** for calculation is set up

- **Coefficients** can now be used

- **Two types** of calculation can be selected

\<Calculation\> Arithmetic equation

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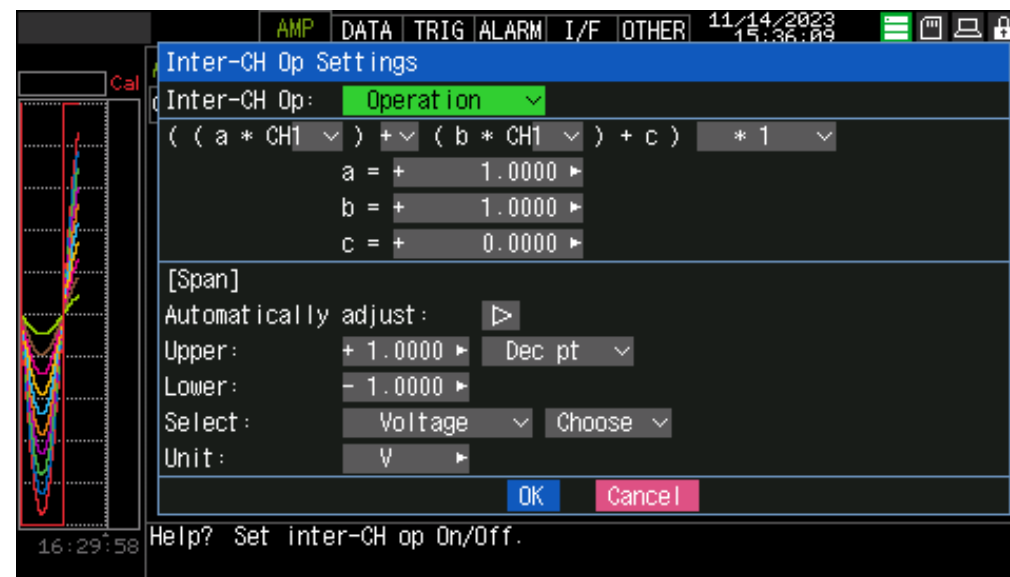
Output calculated data using **coefficients** or **adjusting the number of digits** are now available.
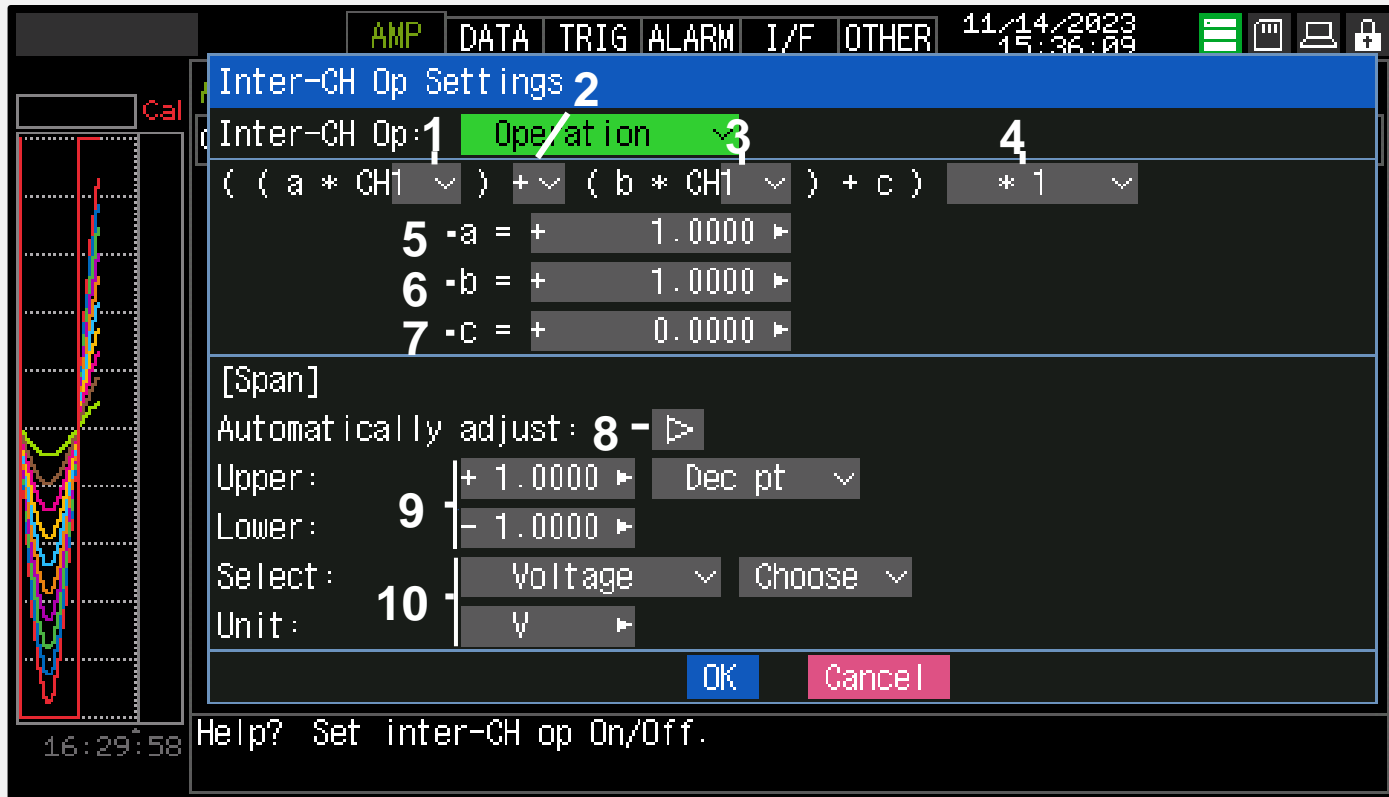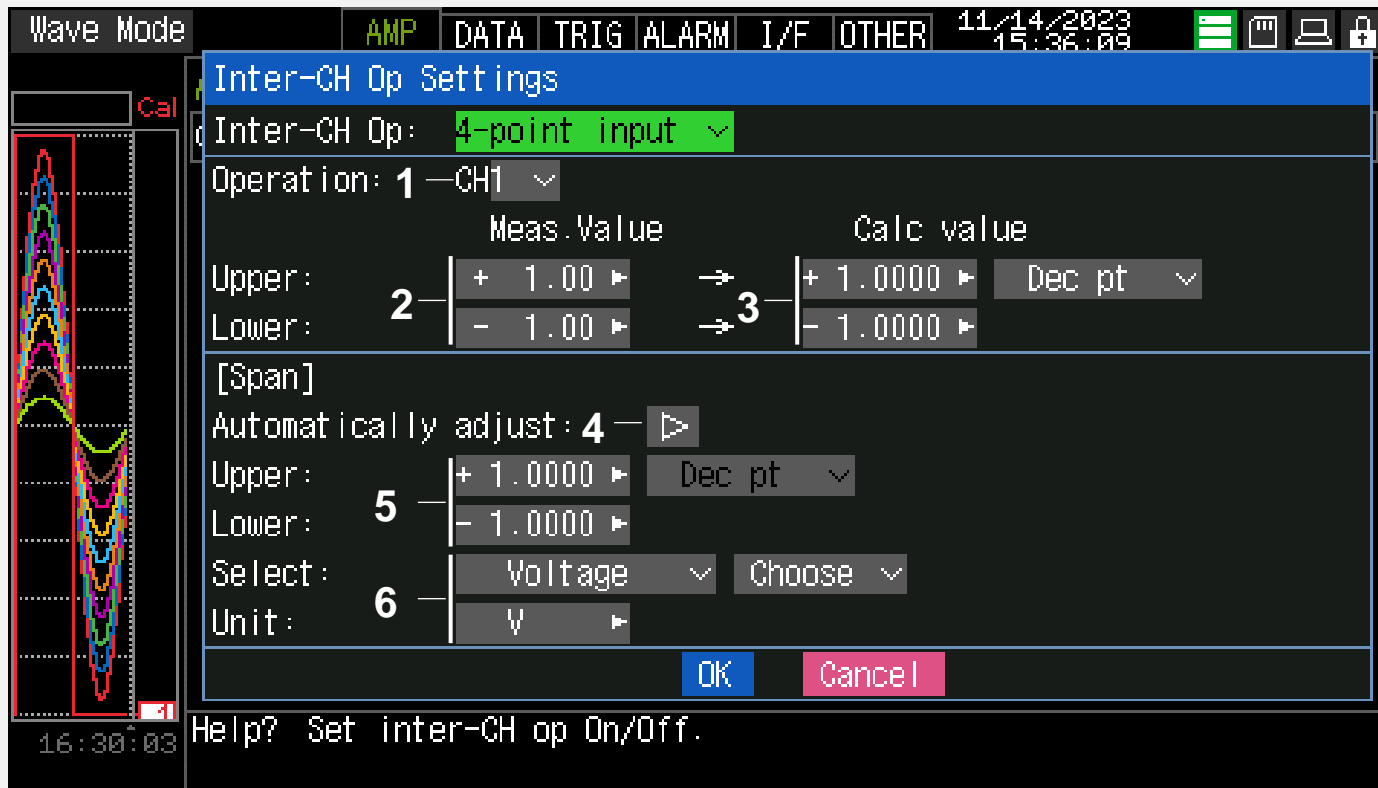

[Arithmetic equation]

1. CH referenced by calculation
2. Arithmetic symbols
3. CH referenced by calculation
4. Digit adjustment
5. Coefficient a
6. Coefficient b
7. Coefficient c

[Span]

8. Auto span
9. Manual input
10. Select the unit of output value

<Calculation> 4-point input

The 4-point input enables temperature slope calculation output.
(Allows adjustment of graph tilt)

[4-point input]

1. Upper and lower limits of measured value
2. Four arithmetic operations
3. Upper and lower limits of output values

[Span]

4. Auto span
5. Manual input
6. Unit Selection of output value

\<Calculation\> Application Example

Temperature display adjustment in Heat Sterilizer

Indicated value

180℃

41℃

Difference in the displayed temperature

GL recorded value

190℃

43℃

Heat Sterilizer Machine
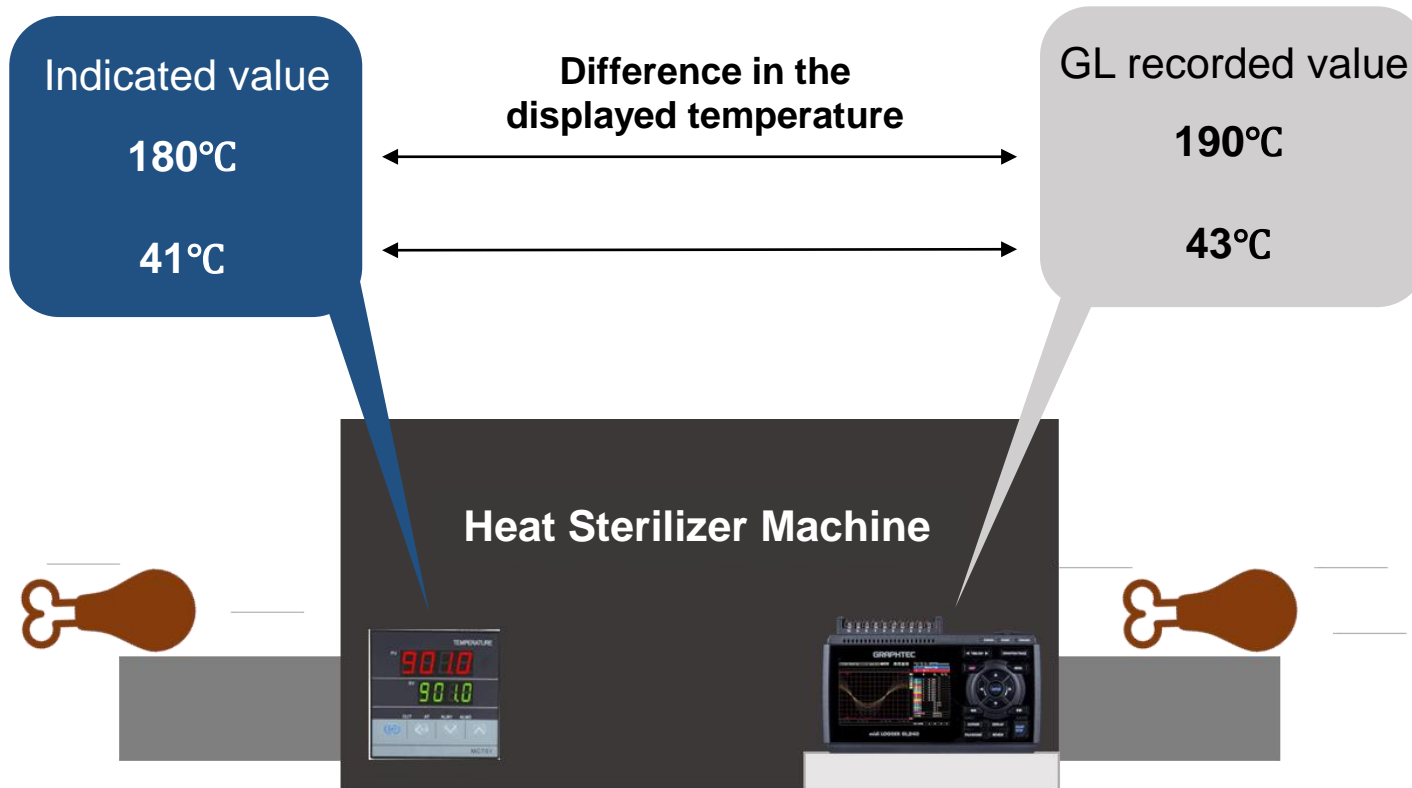
4-point input

Adjust the difference of displayed temperature between the sterilizer and data logger.

Data logger

Heat Sterilizer
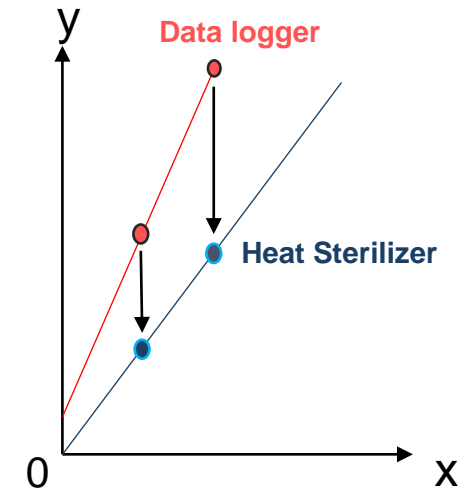
Memory Loop Function ↻

What is Memory Loop Function?

A new optional function of Relay capturing that
automatically deletes the oldest files before memory capacity runs out
and continues recording.

Relay capturing

MEM

Memory

FULL!!!　STOP!

FILE1　FILE 100

"Memory Loop"

MEM

Memory

Delete　Continue

FILE1　FILE 100　FILE 101

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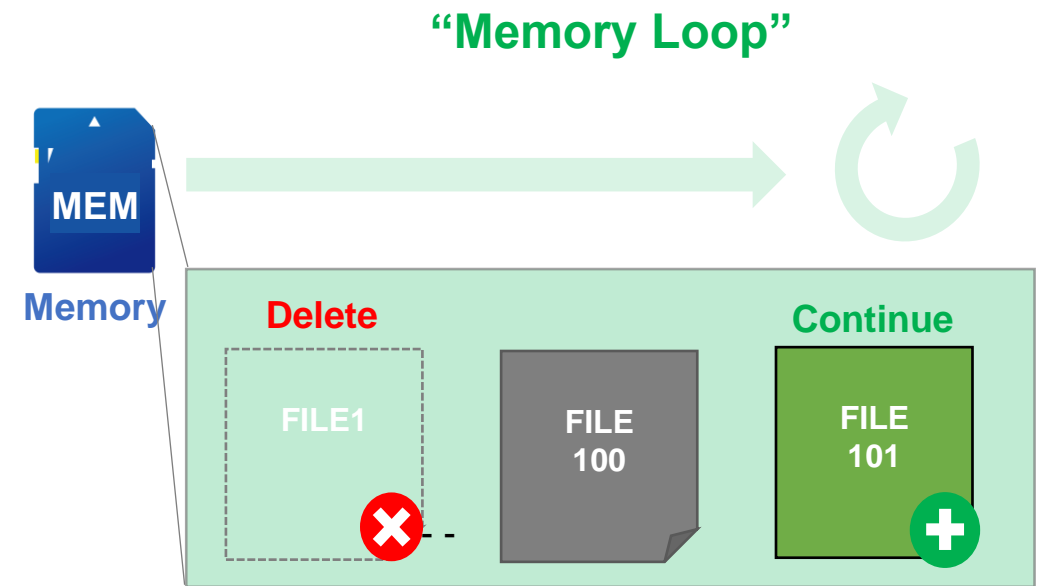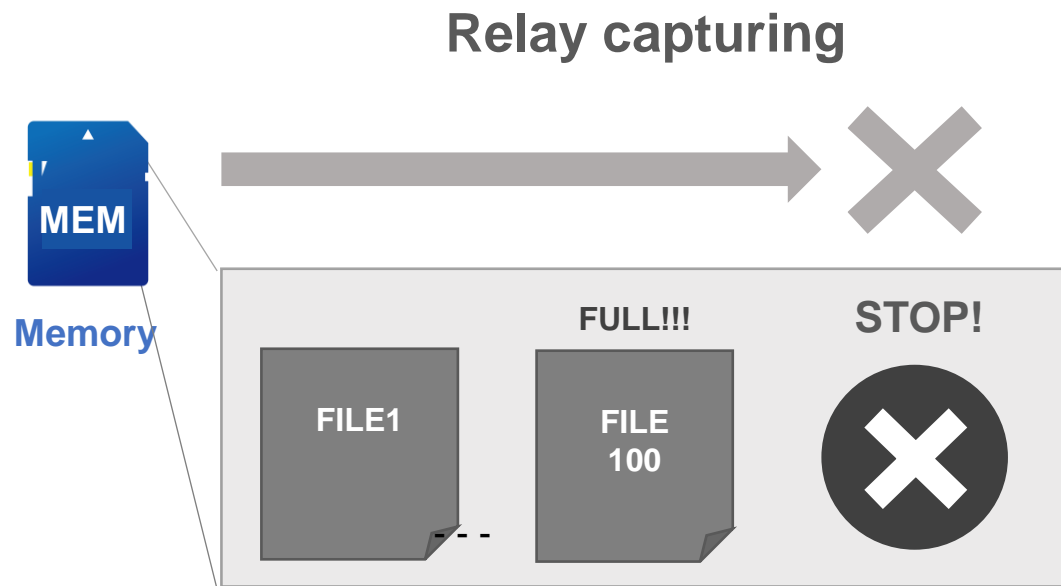
Difference between Ring Capturing and Memory Loop

Ring Capturing is a function that saves only the latest data of a specified number. **Memory Loop** is a function that storages data using the memory of the recording destination to the maximum extent.
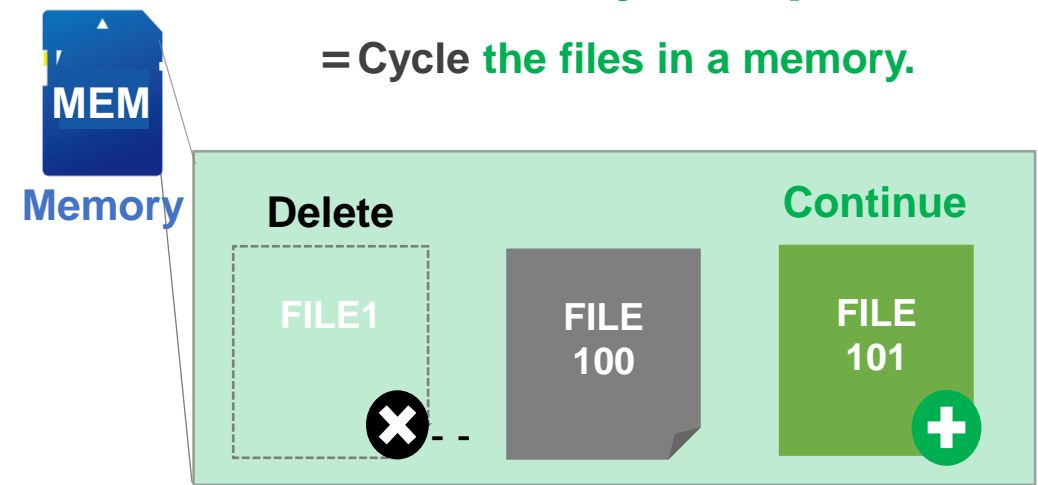
Ring Recording

FILE

File

= Circulate **the data in a file.**

Delete   **Continue**

| 1 | 2 | | 9999 | 10000 |

❌ 2℃   3℃   - - -   27℃   31℃

Memory Loop

MEM
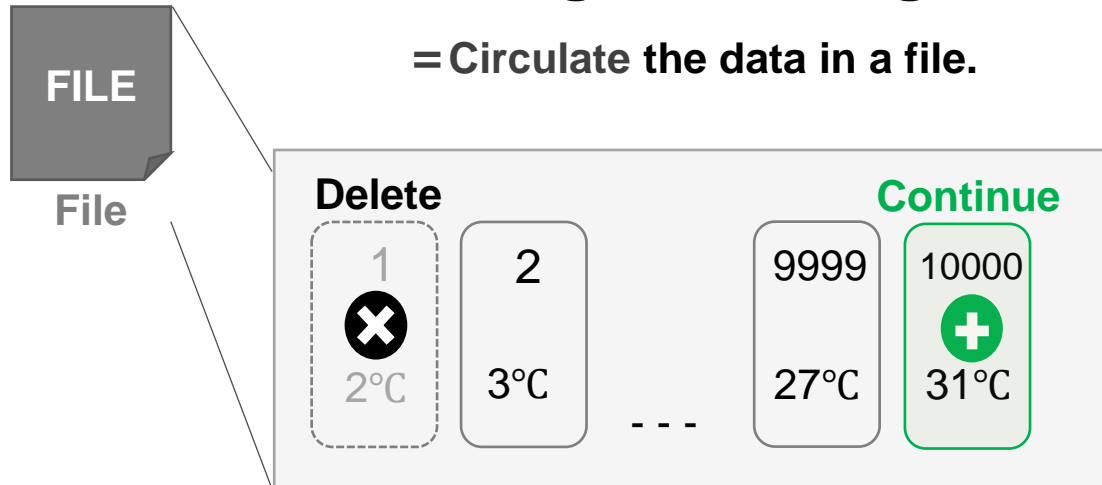
Memory

= Cycle **the files in a memory.**

Delete   **Continue**

FILE1   FILE 100   FILE 101

❌ - - -

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<Memory Loop> Application Example

Maintenance of production line

We want the to monitor the machine condition semi-permanently. Also, the recording should be stopped and the data to be saved for 6 months only when a trouble caused.
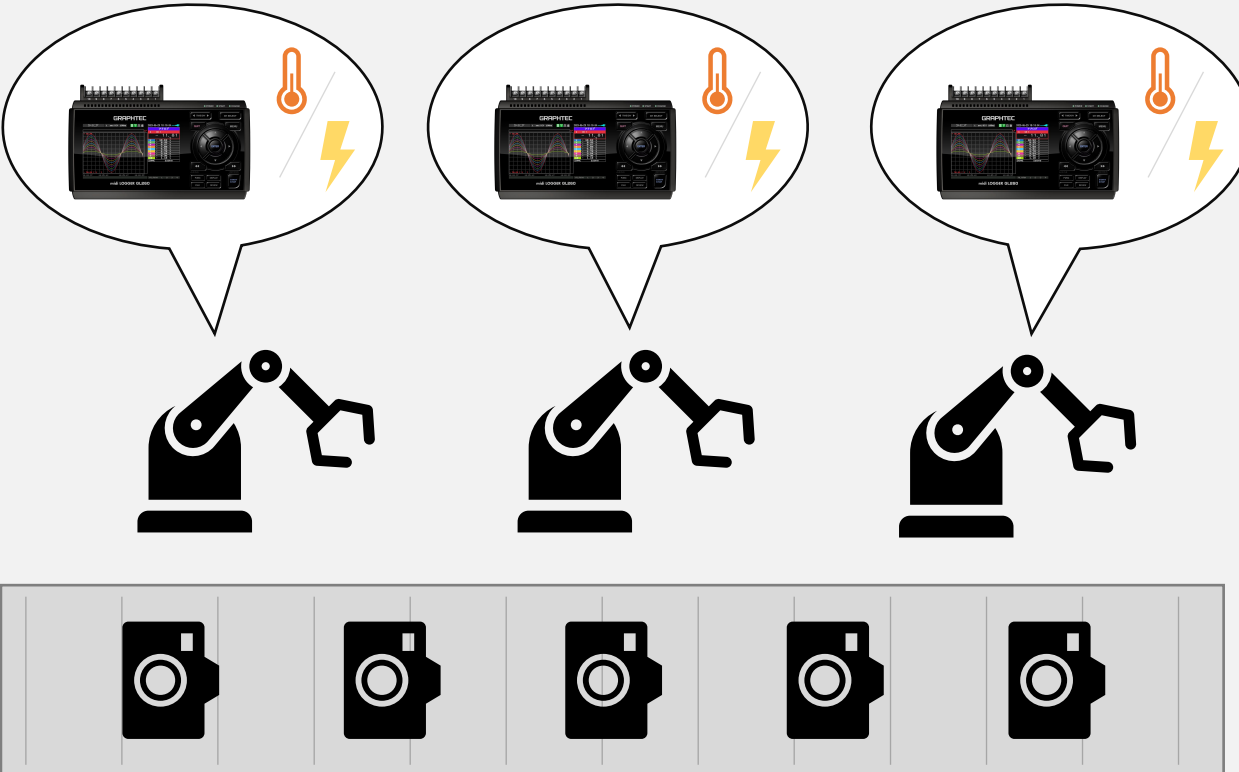
- Ring Recording

  Sampling speed needs to be slower than 200ms.
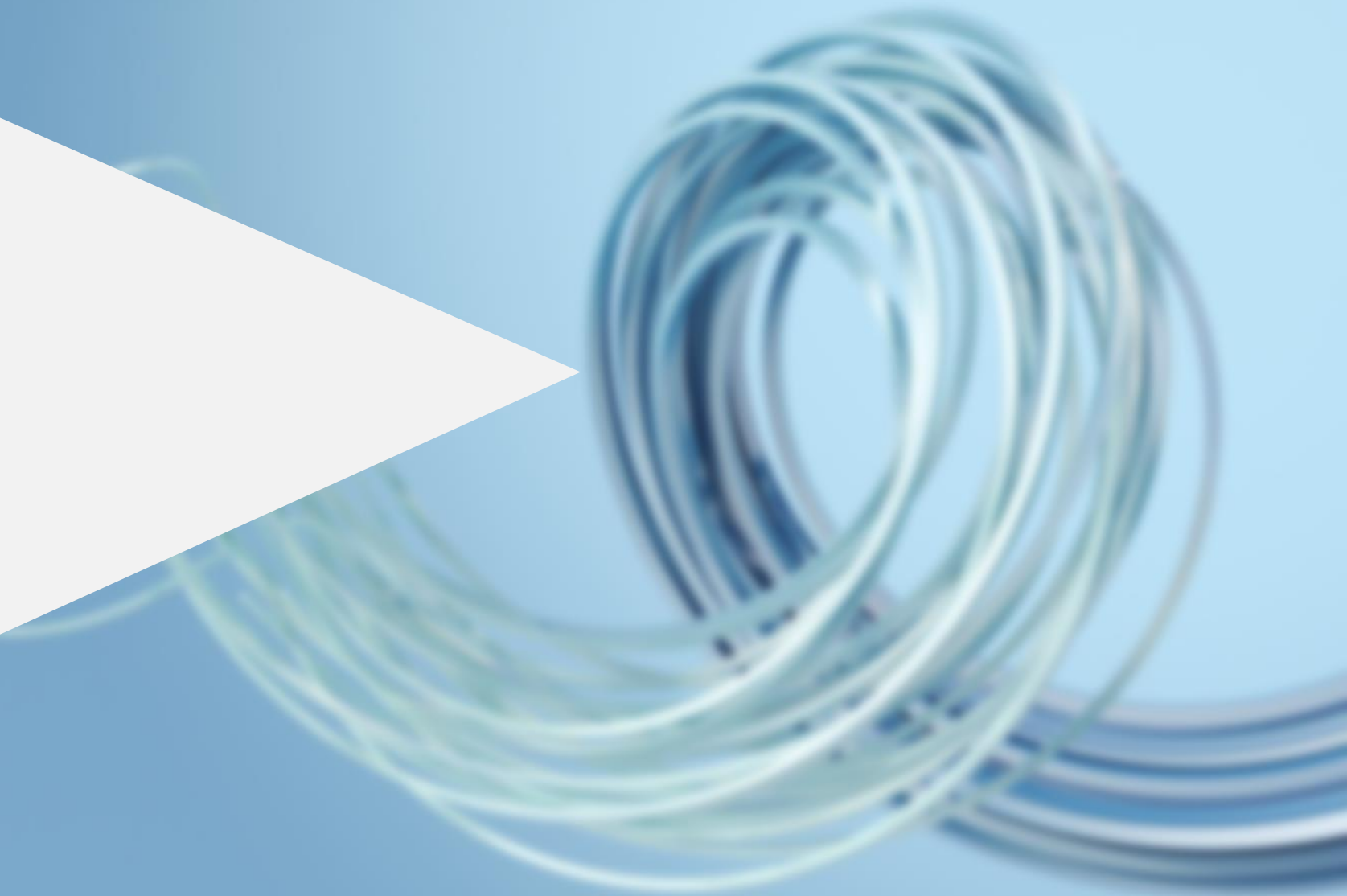
- Relay Recording

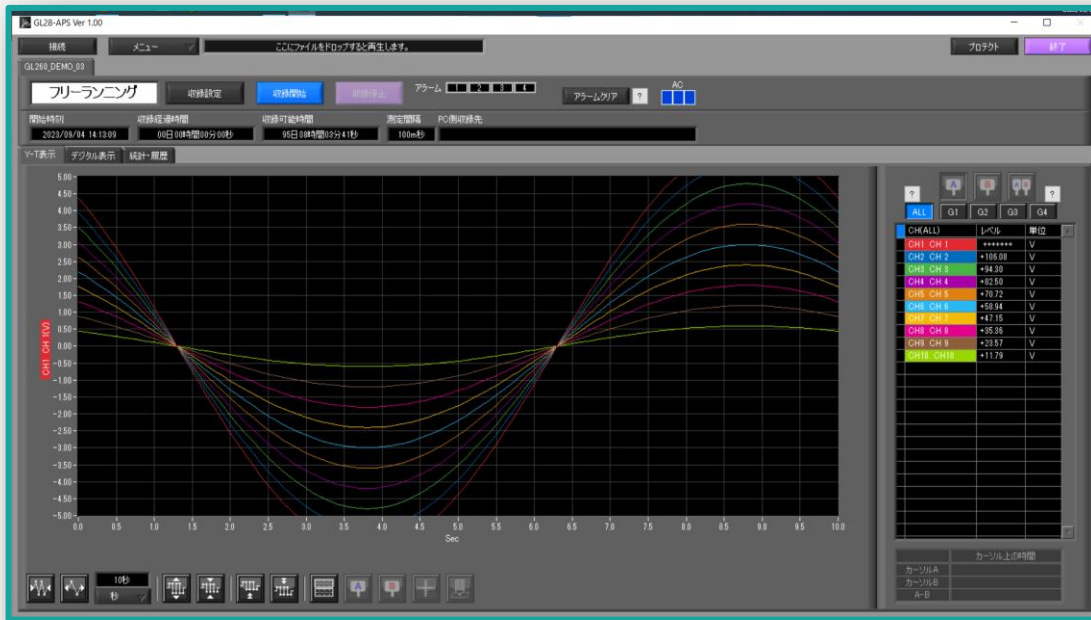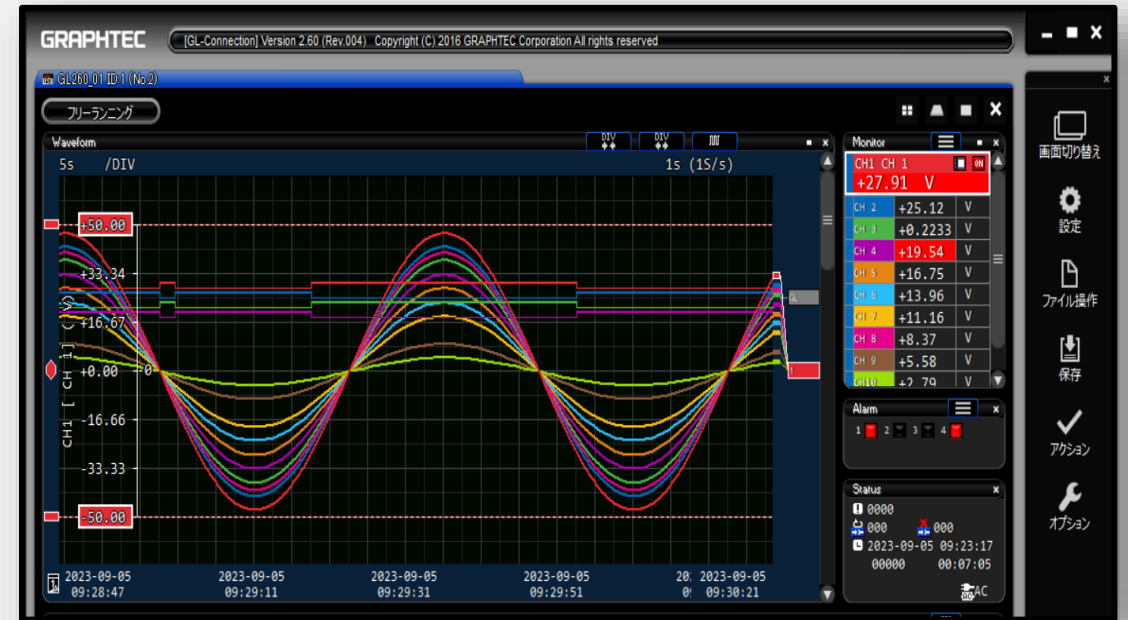 Recording stops automatically   when the memory is full

- Memory Loop

Software

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Software

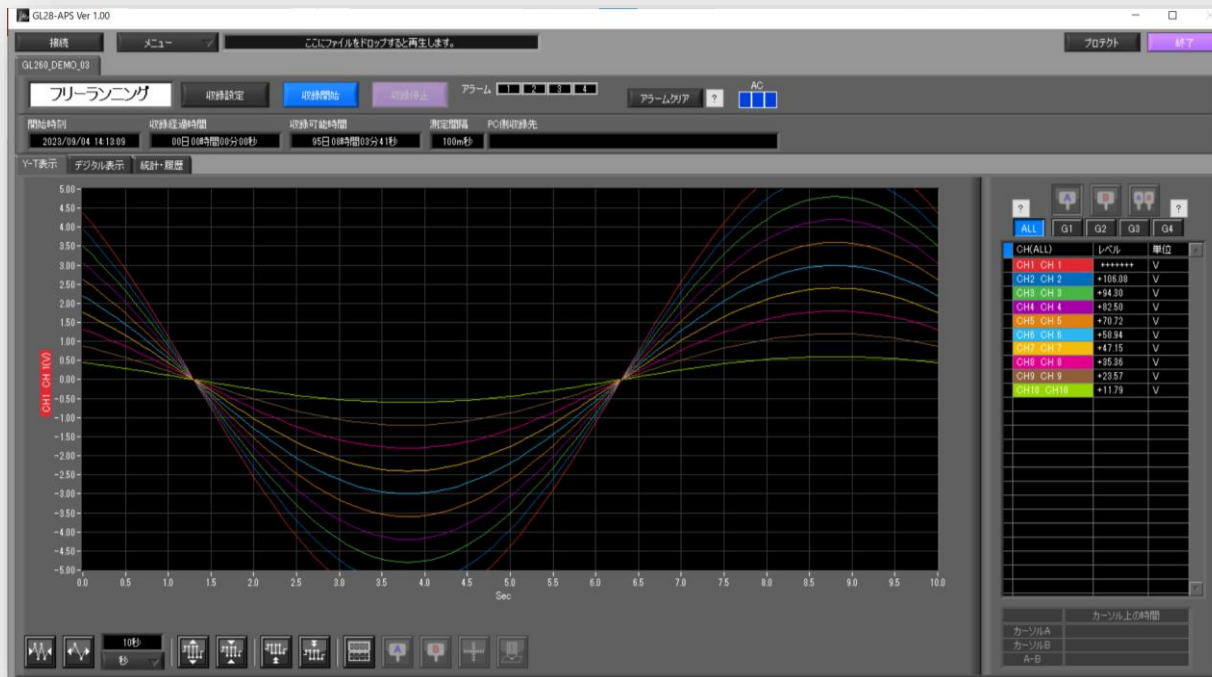# Standard Software

GL28-APS

GL-Connection

Software for GL260

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GL28-APS
Supported models: GL260 / GL840 / GL240

Max. 10 units can be connected

Standard software to check, record, and save waveforms on a PC

Easy operation

Intuitive UI design

Simple specifications

Versatile display

Digital Value Screen

Statistical calculation screen

Integral bar graph screen

⚠ **GL820 / GL220 / GL100 are supported by GL100_240_840-APS.**

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GL-Connection

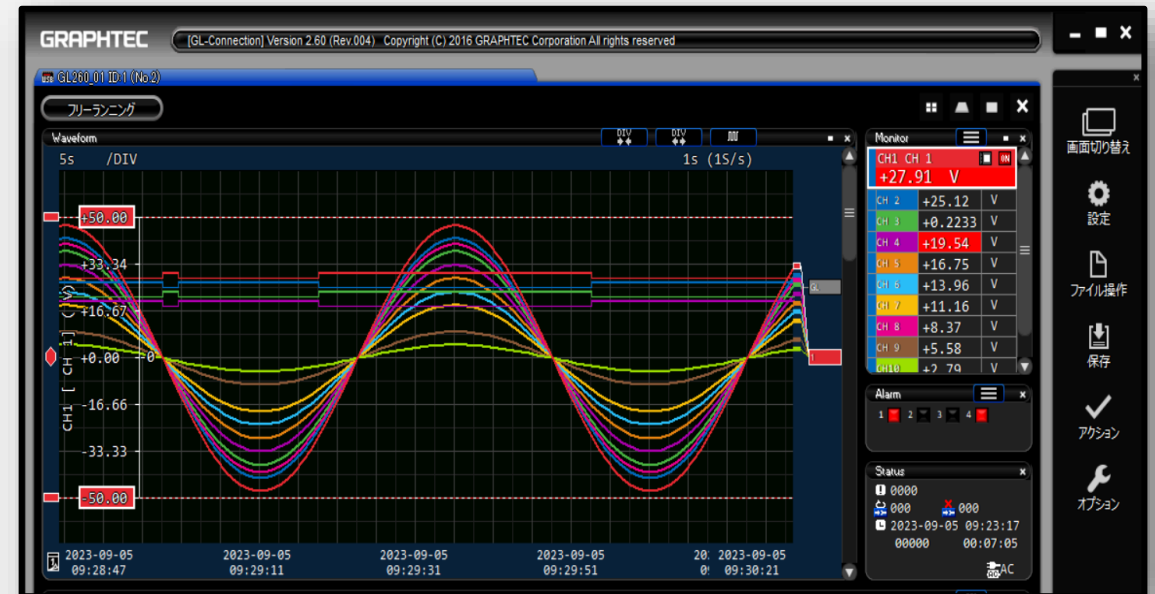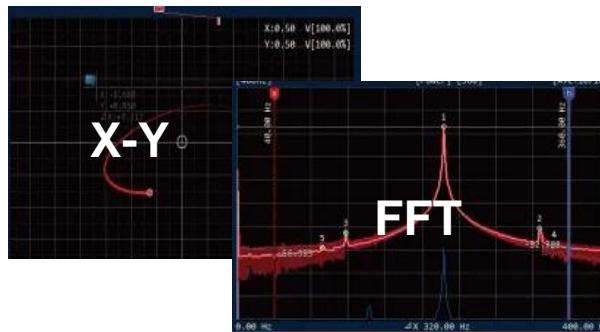**Supported models:** GL260 / GL7000 / GL2000 / GL980 / GL840 / GL240 / GLT400

Multiple GL series can be managed at once.

Focus on visibility

Split screen into max. 4

Monitor multiple loggers!

Various waveform displays

X-Y

FFT

New Battery Pack

The battery pack will be changed from GL260.

B-569 → **B-573**
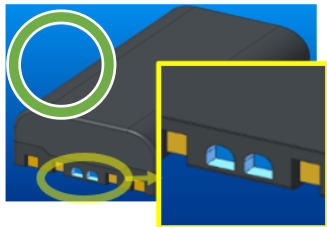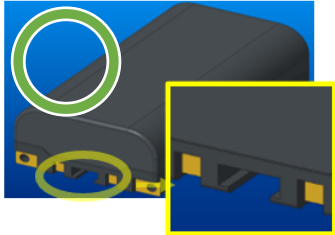
GL240 → GL260

Model	B-569	B-573
GL240	Y	-
GL840	Y	-
GL980 / GL2000	Y	-
GL260	*	Y

*Battery performance declines by 20%.

Model	B-569	B-573
Capacity	2900mAh	2875mAh
Charge voltage	8.4V	7.2V

*Battery life does not change. (When LCD is used: approx. 6 hours)

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