In compliance with various test requirements, this data logger is capable of performing high-speed simultaneous voltage and temperature measurements

High-speed isolated 8-channel multifunction logger

midi LOGGER
GL900

Easy-to-use, upright, high-speed, isolated 8-channel multifunction logger
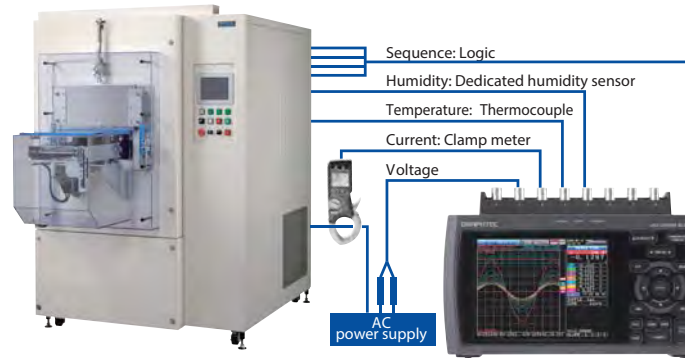
An easy-to-use upright device enabling isolated 8-channel multifunction input, the GL900 is capable of performing high-speed simultaneous measurements of voltage, temperature, and various other phenomena.

Voltage +/-20 mV to +/-500 V

Temperature Thermocouples: K, J, E, T, R, S, B, N, W

Humidity 0 to 100% (the B-530 option is required)

Pulse 4 channels Count, Inst., RPM

Logic 4 channels ‡ Select either Pulse or Logic

BNC terminal for voltage measurement

M3 screw terminal for temperature measurement
‡ Connections are made to both the BNC terminal and M3 screw terminal for the same channel.
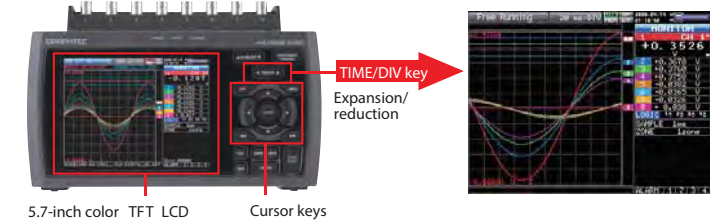
High-voltage measurement capabilities

The wide 500 V range enables 100 to 240 VAC power supply voltage waveform measurements. Using logic input and a clamp meter simultaneously allows measurement of a device's power supply voltage and current concurrently with sequential control of various points.

Sequence: Logic
Humidity: Dedicated humidity sensor
Temperature: Thermocouple
Current: Clamp meter
Voltage
AC power supply

Built-in, large-format 5.7 inch color LCD for easy-to-read waveforms

The bright, easy-to-read large-format 5.7-inch color TFT LCD provides vivid, easy-to-read waveform displays. Cursor keys enable fast, easy control and setup. The waveform display can be scrolled at high-speed – 10 ms/DIV.

TIME/DIV key
Expansion/ reduction
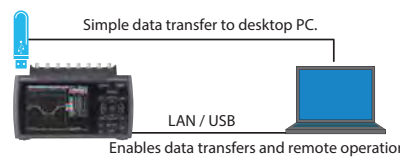5.7-inch color TFT LCD
Cursor keys

Free Running display for waveform-analysis for non-recording usage

The Free Running display lets users check input signal waveforms even before measurements begin. Waveforms are displayed on each setup screen, A users can change settings while viewing the waveforms.

Data can be captured to PC-friendly USB memory sticks

Long-term data can be captured directly to built-in 256-MB flash memory or to an external USB memory stick at sampling intervals from 1 ms to 1 min. For high-speed sampling at intervals faster than 1 ms, up to one million data points can be captured to an internal RAM.

Simple data transfer to desktop PC.
LAN / USB
Enables data transfers and remote operation

Example of 8-channel analog measurement

Capture destination	10µs	100µs	500µs	1ms	10ms	100ms	1s
Internal RAM (up to one million points)	10 seconds	Approx. 1 min. and 40 sec.	Approx. 8 min. and 20 sec.	Approx. 16 min. and 40 sec.	Approx. 2 hrs. and 40 sec.	Approx. 1 day and 3 hrs.	Approx. 11 days and 13 hrs.
Internal flash memory (256 MB)	x	x	x	Approx. 11 hrs.	Approx. 4 days	Approx. 49 days	Approx. 493 days
External USB memory stick (512 MB)	x	x	x	Approx. 22 hrs.	Approx. 8 days	Approx. 98 days	Approx. 986 days

The USB memory stick must be a standard model (without fingerprint recognition or other proprietary features).

Can be used an X-Y recorder

The GL900 reproduces analog X-Y recorder movements and provides the illusion of pen up/pen down movements. It can be operated like an analog X-Y recorder and can also be used as a 4-pen X-Y recorder. The digital data format facilitates post-measurement confirmation of data values and report creation.

High precision measurement even during high-speed sampling

Lets users perform high-precision temperature measurements even during high-speed sampling – ideal for performing combined voltage and temperature measurements.

Easy PC measurement via USB; remote monitoring via ethernet Web server and FTP functions

The USB and Ethernet connections enable transfer of captured data to your PC and setup and control of the GL900 from a PC, even without the PC software provided as standard software with the GL900.

Ethernet

Web server/FTP server functions
Waveform display and GL900 setup operations can be performed via a web browser (e.g., Internet Explorer). In addition, data files captured to the GL900's internal memory or to a USB memory stick can be transferred or deleted from the PC.

USB drive mode
When your GL900 is connected to your PC via the USB interface, the GL900 can be operated in USB mode to enable fast, easy data transfers from internal memory to the PC.

NTP client function
Simply connect the GL900 to an NTP server via an Ethernet connection to synchronize GL900 time with NTP server time at periodic intervals.

Comprehensive built-in trigger and timer functions

Using a combination of trigger and timer functions eliminates superfluous data and enables capture of only the required data.

Setting example 1
To perform measurement over a four-day period starting January 10

Timer setting	Date and time	Start setting	January 10 00 hours 00 minutes
		Stop setting	January 14 23 hours 59 minutes
Trigger setting		Start trigger	Off
		Stop trigger	Off

Start key On
Timer period
Data capture
January 1   5   10   15   20   25   30

Setting example 3
To perform measurements every 20 minutes

Timer setting	Hourly cycle	Start setting	00 minutes 00 seconds
		Stop setting	20 minutes 00 seconds
Trigger setting		Start trigger	Off
		Stop trigger	Off

Start key On
Timer period
Data capture
0:00   1:00   2:00   3:00   4:00   5:00   6:00

Setting example 2
To perform measurements of abnormal signals during device operations

Timer setting	Daily cycle	Start setting	09 hours 00 minutes
		Stop setting	17 hours 00 minutes
Trigger setting		Start trigger	Level CH 1 (3 V Rising)
		Stop trigger	Level CH 1 (2 V Falling)
		Repeat	On

Start key On
End of data capture as timer setting takes priority
Timer period
Trigger activation points
Data capture
Start trigger 3 V
Stop trigger 2 V
0:00   6:00   12:00   18:00   0:00   6:00   12:00   18:00   0:00
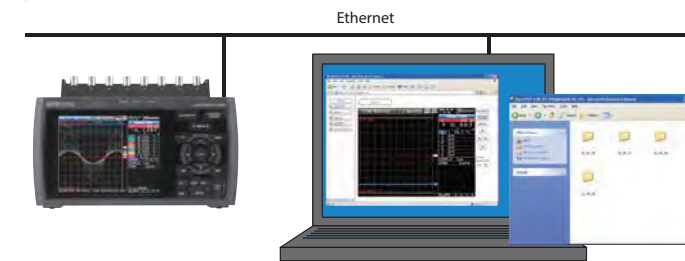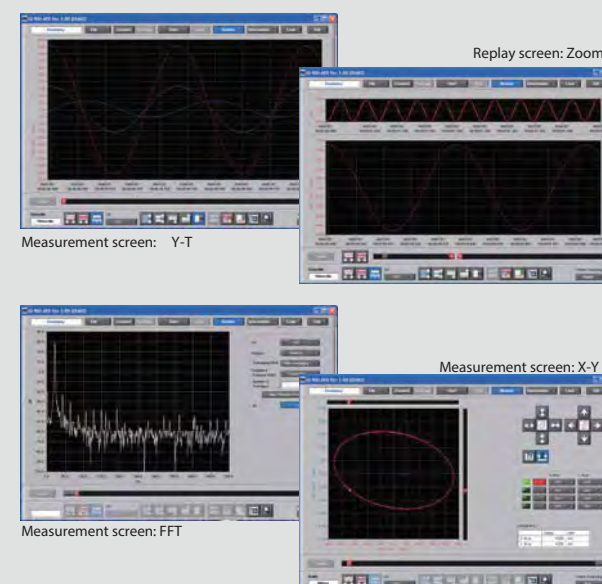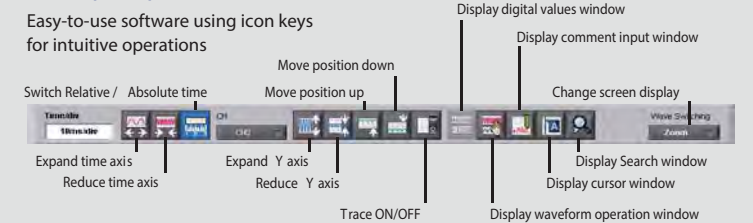
Setting example 4
To perform measurements for a period of one hour, every four hours, daily

With the timer set to daily cycle status, data is captured repeatedly for one hour every four hours.

Trigger setting		Start trigger	Off
		Stop trigger	Scheduled time (one hour)
		Repeat	On (Rep eat interval: 4 hours)

Timer settings	Timer mode	Off, Date and time, Daily cycle, Hourly cycle
Trigger settings	Start source setting	Off, Level value, External input
	Stop source setting	Off, Level value, External input, Scheduled time
	Pre-trigger	0 -100%
	Repeat capture	On, Off and Repeat interval

Dedicated software for real-time data capture

Three measurement screens are provided to allow selection of the screen that best suits measurement needs.
The Replay screen provides a Zoom screen feature to enable enlarged display of specific sections of long-term measurement data.

Replay screen: Zoom
Measurement screen: Y-T
Measurement screen: X-Y
Measurement screen: FFT

■ Simple operations for various user levels.
Easy-to-use software using icon keys for intuitive operations

Display digital values window
Display comment input window
Move position down
Switch Relative / Absolute time
Move position up
Change screen display
Expand time axis
Expand Y axis
Reduce time axis
Reduce Y axis
Display Search window
Trace ON/OFF
Display cursor window
Display waveform operation window

■ Convenient functions
Various convenient data-processing functions are built in.

■ Direct to Excel function
This function enables measurement data to be written directly to an Excel file.

■ Search function
This function enables searching for specific values in the captured data.

■ CSV batch conversion function
This function enables batch conversion of multiple captured files to CSV file format.

■ Thumbnail function
This function enables display of captured data files as thumbnails.