

# 1. USB Memory Correspondence

## More lightly and stylishly

The USB memory which is convenient to the conveyance of the simple data.

If the USB memory logger which everyone has is connected to midi LOGGER GL200CS, you can utilize that way USB memory as a retention device of bulk. Recording data and copy data of picture, in all small USB memories.

With midi LOGGER GL200CS the stylish measurement scene is proposed.



Recording time at time of ■USB memory 256MB utilization

100ms	200ms	500ms	1s
Approximately	Approximately	Approximately	Approximately
13 days	26 days	65 days	130 days

\* At the time of 10ch measurement and pulse logic OFF

## In design the efficiency which is concealed

As for the design which is applied to the compact body, above the eye which was seen it is the expectation which can feel as reality. The grip function which feeling well fits in the hand which you grasp. With the key design which considers the operativity only of the midi LOGGER series, you can handle with operation of minimum.



## The new measurement style where it is born advanced low from price

Midi LOGGER GL200CS which actualizes true high cost performance with the wide measurement scene shows the result because of you as your personal data logger. You can be satisfied design and efficiency, in application, the software and all elements.

## 2. Built – in Flash Acquisition Memory Loading

midi LOGGER GL200CS has loaded the built-in flash memory of 3.5MB.

Forgetting USB memory, recording the multiple files is possible. In addition dropping power source, feeling at rest the worry where the data which you recorded goes out without, you can use. By any chance dropping power source, because the inside of recording periodically retains the data, forward dropping power source to, the data is retained.



### Adjusting to use, it chooses recording method!

Feeling at rest with recording to built-in flash memory, recording is possible.

Adjusting to use and environment, [direct recording to USB memory](#) it is possible to use properly.

Data recording possible time (at the time of 10ch measurement and pulse logic OFF)

Recording interval (Sampling speed)	100ms	200ms	500ms	1s	10s
<b>3.5MB Built-in flash memory</b>	Approximately 4 hours	Approximately 8 hours	Approximately 20 hours	Approximately 1.8 days	Approximately 18 days
<b>256MB USB memory</b>	Approximately 13 days	Approximately 26 days	Approximately 65 days	Approximately 130 days	Approximately 1300 days

### 3. 10 Channel Isolation Input

In small body the analog input of 10CH. Furthermore it is the insulated input method which does not receive the influence in channel to channel. Already, there is no worry which uses the air in wiring. In the multiple function correspondence which corresponds to temperature/voltage/humidity/pulse/logic input, participating with all uses is promised.



#### M3 screw Terminal Block

The M3 screw stop type terminal (small size) you adopt for the input section of the analog signal input terminal.

Wiring is produced simply and securely with the round terminal and the tip opening type terminal.



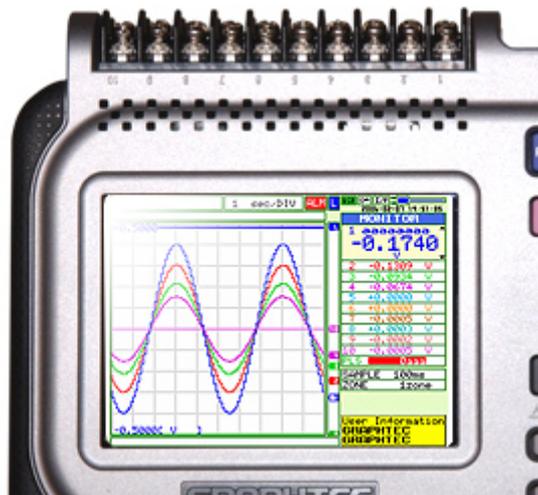
丸型端子

先開型端子

### 4. Bright 3.5 Inch TFT LCD Display

3.5 inch TFT color liquid crystal of the high brightness which is superior in visibility (the 320×240 dot) it loaded.

The ripple mark and digital value become markedly easy to see, can verify the recording data securely at that place.



## 5. 6 Hour Long Time Battery

Putting in place the AC adapter from this of returning on the same day test, you will go out. When full it charges battery pack of option, 6 hour thing operations are possible. It is not necessary to be flurried by the battery remaining amount which is understood at the glance. In addition, it has backed up the file automatically even with when by any chance the battery is cut off. Worry of data loss is unnecessary.



### \* Easy to see battery indication

-  : In the midst of AC power source operation
-  : Battery multi
-  : In battery
-  : Batteries few
-  : Battery few

Drive time	
LCD usage condition	Approximately 5 hours
Screen saver state	Approximately 6 hours
<p>* At the time of internal organs memory recording and sampling 1s                      * It differs depending upon use environmental charge state USB memory connection and the like.</p>	

Drive system		
	DC voltage	Battery charge
AC drive (attachment AC adapter use) * 1	-	Yes * 2
DC drive * 3	+24V	Yes * 2
	+12V	Failure
	+8.5V	Failure
<p>* As for 1 drives AC adapter priority.                      * 2 substance power source ON, either of OFF charge possibility.                      * In 3 DC drives DC drive cable (B-514: Option) is necessary.</p>		

## 6. Indicatory Change Function

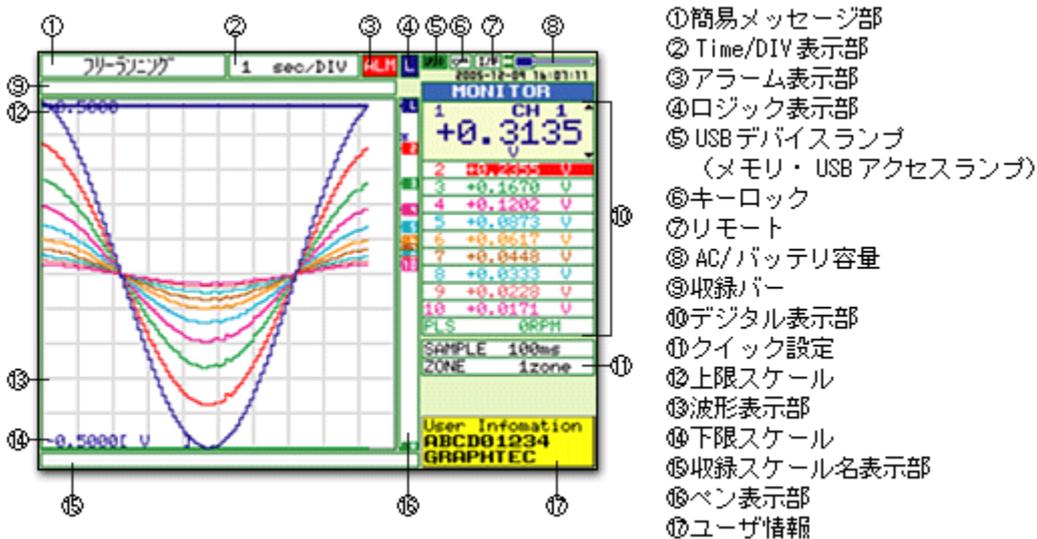
Adjusting to the method of using, please utilize various display functions.  
While recording if change is possible with anytime.

- Corrugated + digital picture
- Pen indication
- Corrugated picture
- Quick setting
- Digital + operational picture
- Setting picture
- 2 picture playbacks

### \* Corrugated + digital picture

It becomes all basic pictures of GL200CS.

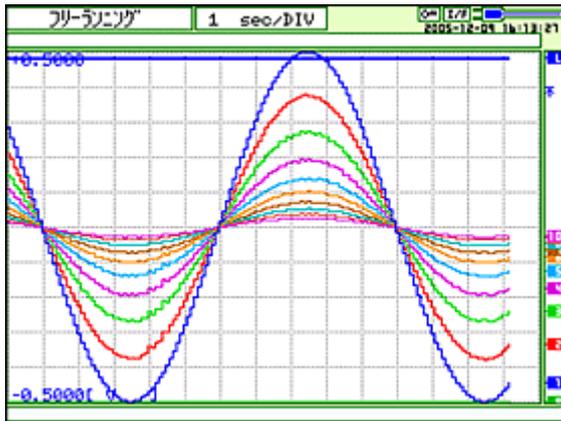
As for the corrugated + digital picture, it is the picture mode where you can see Y-T corrugated indication and digital display simultaneously. In addition also it modifies the span and position, quick it sets and it verifies the user etc in this picture.



### \* Corrugated picture

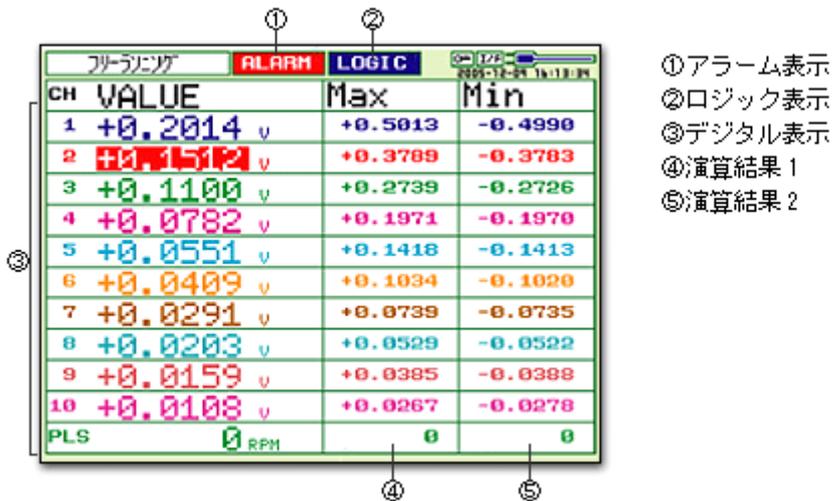
When we would like to chase trend with just the ripple mark, please use the corrugated picture.

It is the corrugated indicatory private picture mode which utilizes all picture.



\* Digital + operational picture

It is the digital display scope whose visual characteristic is high with big letter. Because the picture right section statistics of real time (maximum, smallest and average, peak and effective value) has indicated the result, presently by comparison with value while it can analyze.

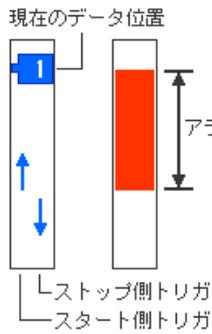


- ①アラーム表示
- ②ロジック表示
- ③デジタル表示
- ④演算結果1
- ⑤演算結果2

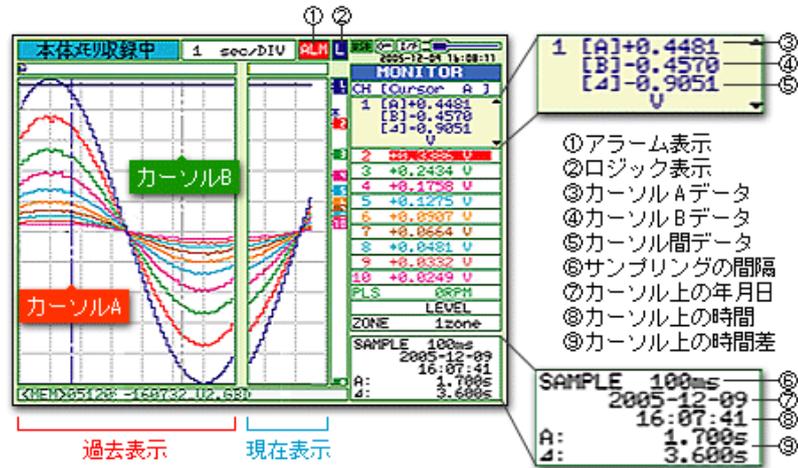
## 2 picture indication

While recording in long haul, you recorded what kind of data, it doesn't become matter of concern?

With midi LOGGER GL200CS, even while recording 2 picture display functions which play back the data which was already recorded are had. Past the data



and it is possible presently to compare the data.



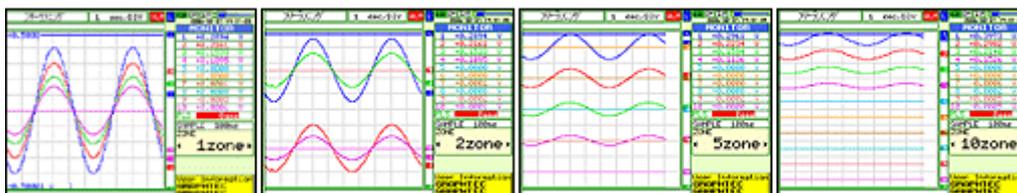
\* Pen indication

Pen indication evolving, to be easier to use it became convenient. In addition to the pen indication of corrugated level, active CH Trigger level indication and alarm range display function were added. While recording you verify the position of trigger start/stop, Also it is possible to inspect the range of the alarm.

\* Quick setting

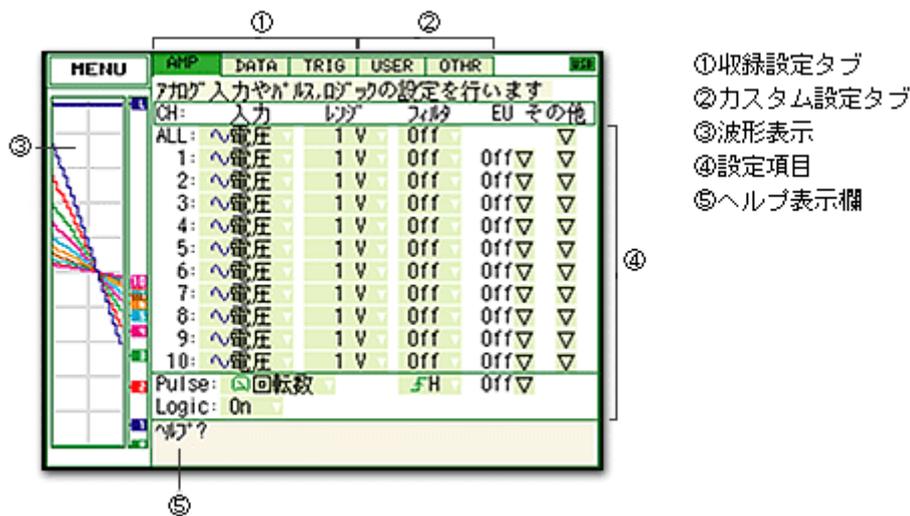
The menu whose use frequency is high was inserted in quick setting. Sampling interval and zone division etc can be modified with 1 buttons without opening the setting menu.

(Example) zone division



\* Setting picture

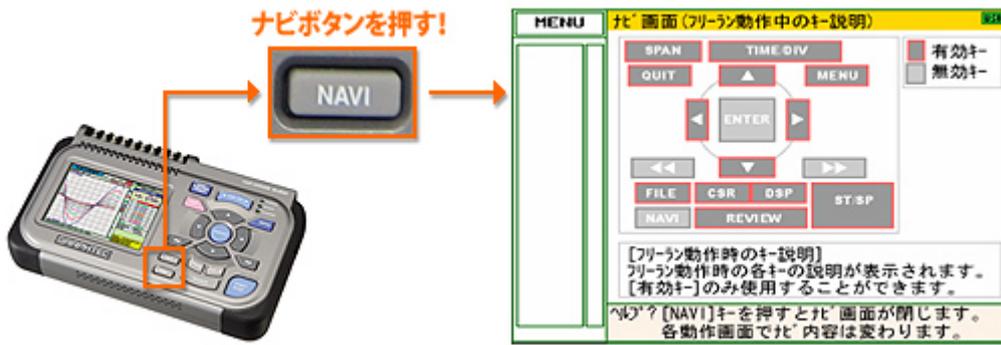
Being simple, you prepared the setting picture which is easy to understand. As for the setting picture three which passes. After, it is the modification possible customization picture optionally. While looking at the ripple mark, it can set. In addition, because help is indicated in setting item one one, it became without either the inconvenience which is operated in instruction manual one hand.



## 7. Operation Nabi

The mode which in midi LOGGER GL200CS exists is three "in the midst of "free running" and recording" and "in the midst of playing back".

Because it advises the explanation of the key which is used with the respective mode graphical, feeling at rest even with new one, you can use.



\* Help indication

Help display function corresponds to various operation menus.

Adjusting to the cursor on the picture, help of item is indicated. There being a function and a terminology which do not understand, feeling at rest, you can use.



## 8. USB Drive Mode Loading

Connecting GL200CS and the personal computer with the USB cable, [START/STOP] of GL200CS pushing the key, when you turn on power, it becomes USB drive mode. Like the external media it can use the built-in memory of GL200CS from the personal computer. The case where the recording data is copied in the personal computer, with the drug & drop it can make simple.



\* When USB mode is used, installation of the USB driver software of attachment becomes necessary.

## 9. User's Registration Function

Already there is no operational error which is by others.

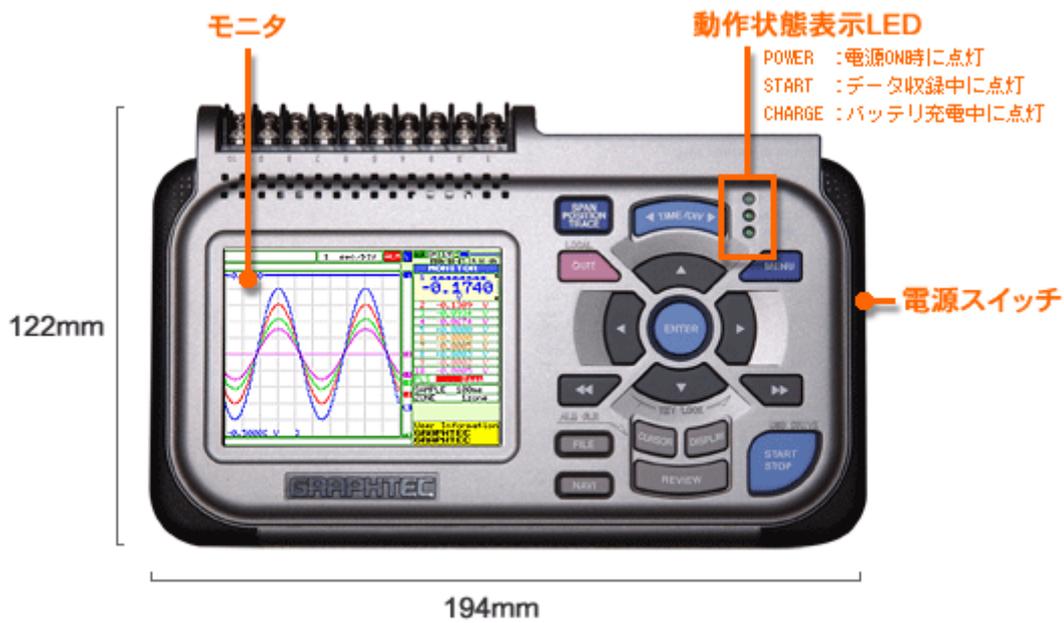
With midi LOGGER GL200CS the user's registration function which can register the user 2 is had. If you insert your own name and section signature, being indicated in the picture, be able to verify, whether at the glance it is operational with someone's mode there is no worry which you make a mistake. In addition, we prepare also guest mode, you can use even with the 3rd person user. Also it is possible of course, to set every of actual place.



## 10. View Point

It is the substance explanation of midi LOGGER GL200CS. You can view the product from each point of view.





## 11. PC Software Over View

First GL200CS and the personal computer USB will be connected. With just GL200CS skill please do the colorful function which it is not possible. As for recording, playback, analysis, report and midi LOGGER Software it is the excellent partner who can manage simply with any one.

- |  |   |
|--|---|
| <input type="checkbox"/> USB connection                    | <input type="checkbox"/> Operational function                     |
| <input type="checkbox"/> Double data setting               | <input type="checkbox"/> Comparison of plural data                |
| <input type="checkbox"/> Colorful data display             | <input type="checkbox"/> Connection indication                    |
| <input type="checkbox"/> Help function                     | <input type="checkbox"/> Comment input                            |
| <input type="checkbox"/> Data management sum nail function | <input type="checkbox"/> Mail setting at time of alarm occurrence |
| <input type="checkbox"/> Direct EXCEL function             | <input type="checkbox"/> Printing and retaining the picture       |

### \* Very simple USB connection

Because the USB port which it is on-board onto most personal computers is

used, the additional part is unnecessary. Just connects cable 1 connection is completion.

\* PC efficiency, depending upon OS there are times when you cannot connect.



#### \* With when relief double data setting

As for GL200CS and the personal computer which are connected the one flesh. The recording data is retained in the same way to personal computer and to GL200. By any chance, the data has not taken with the personal computer and the [te] the partner backs up securely.



#### \* One varieties of using. Colorful data display

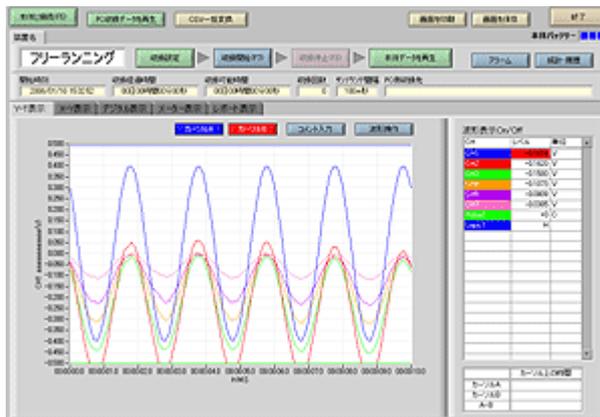
As for method of using infinite variety. Supposing all using, you prepared colorful data display.

Furthermore, even while recording it is changed favorite to indication.

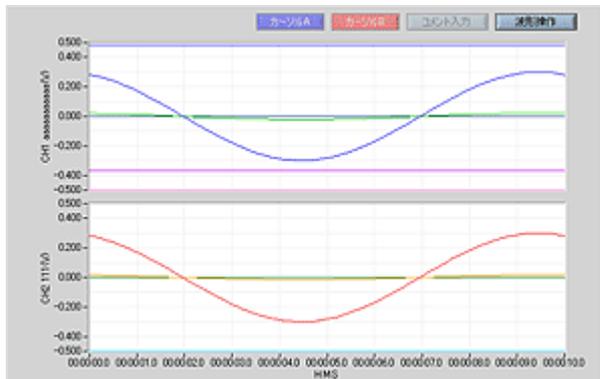
- Y-T indication

It is the most orthodox corrugated indication. Vis-a-vis X axis of time, level of the input signal is expressed with Y axis. You can adjust while recording, while X axis and the Y axis are thinking. In addition, because the instantaneous value of all CH is indicated in simultaneously digitally, perhaps in just this indication suffices. Furthermore, the graph is divided, the ripple mark the top and bottom is shifted, plotting is acquired to the sample point, all customization characteristics are concealed.

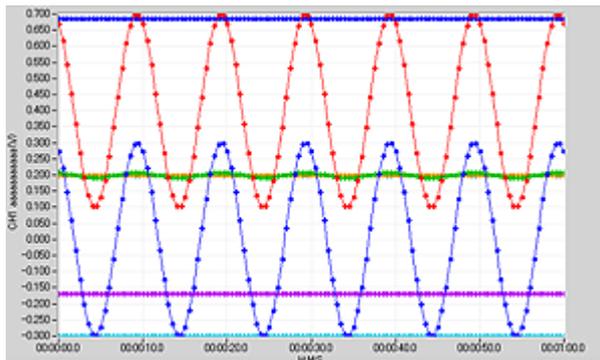
Corrugated + digital picture



2 split screens. 5 divisions and 10 divisions are prepared.



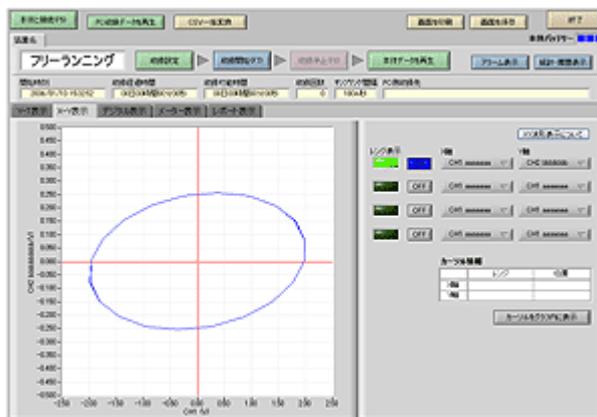
Corrugated plotting



- X-Y indication

It can look up to at the maximum of XY ripple marks simultaneously four. It is possible in X axis and the Y axis to set optional CH.

Applying cursor to the place where it becomes matter of concern, it can also verify measurable quantity.



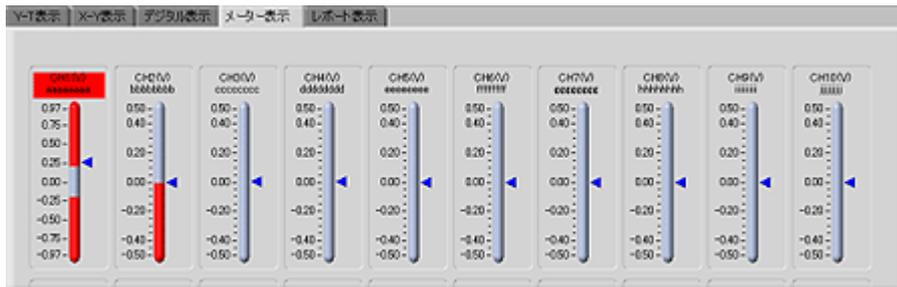
- Digital display

It is the digital display scope whose visual characteristic is high with big letter. CH where the alarm occurs becomes red, can verify warning instantaneously.



- Meter indication

Meter indication although present state is grasped at the glance, is optimum. Because the occurrence territory of the alarm is indicated red, it is faced to use in supervision.



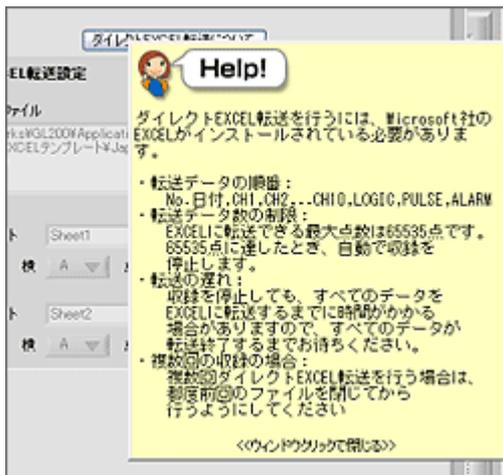
- Report indication

Separately from recording main, to indicate and it is possible to draw up the data of the daily report monthly report. Specially, the data thinning is done, not to form also the [te], on the 1st 1 files, draws up 1 files automatically in 1 months. In addition, the inside of recording the mean value of all CH, has indicated maximum and minimum with anytime.

No.	Time	CH1(V)	CH2(V)	CH3(V)	CH4(V)	CH5(V)	CH6(V)	CH7(V)	Pulse(V)	Logic(V)	≒210067654
1	2006-01-10 181831	+0.3175	+0.3802	+0.2241	+0.1682	+0.1201	+0.0617	0	H	LLLLLLLLLL	
2	2006-01-10 181832	+0.2456	-0.1704	+0.1954	-0.1371	+0.0979	+0.0504	0	H	LLLLLLLLLL	
3	2006-01-10 181833	-0.2441	+0.1724	-0.1886	-0.1361	-0.0865	-0.0488	0	H	LLLLLLLLLL	
4	2006-01-10 181834	+0.2457	-0.1704	+0.1905	+0.1353	+0.0963	+0.0482	0	H	LLLLLLLLLL	
5	2006-01-10 181835	-0.2440	+0.1724	-0.1889	-0.1353	-0.0971	-0.0481	0	H	LLLLLLLLLL	
6	2006-01-10 181836	+0.2457	-0.1704	+0.1895	-0.1361	+0.0968	+0.0480	0	H	LLLLLLLLLL	
7	2006-01-10 181837	-0.2440	+0.1724	-0.1890	-0.1365	-0.0972	-0.0480	0	H	LLLLLLLLLL	
8	2006-01-10 181838	+0.2458	-0.1705	+0.1954	-0.1371	+0.0975	+0.0485	0	H	LLLLLLLLLL	
9	2006-01-10 181839	-0.2439	+0.1722	-0.1889	-0.1352	-0.0968	-0.0487	0	H	LLLLLLLLLL	
10	2006-01-10 181840	+0.3317	-0.1834	-0.2514	-0.1791	+0.1275	+0.0648	0	H	LLLLLLLLLL	
11	2006-01-10 181841	-0.3290	+0.1861	-0.2505	-0.1790	-0.1219	-0.0626	0	H	LLLLLLLLLL	
平均値		+0.2290	+0.0264	-0.0220	-0.0158	+0.0115	+0.0059	0			
最大値		+0.3317	+0.3802	+0.2514	+0.1791	+0.1275	+0.0648	0			
最小値		-0.3290	-0.1705	-0.2505	-0.1790	-0.1219	-0.0626	0			

\* Already help function of the instruction manual not needing

When being the function which just a little does not understand, it does not remove the instruction manual specially and can solve also the [te] with help function. Functional next door [?] When the button is pushed, functional explanation is indicated in another picture and can inspect directly.



**\* Very easily sum nail function of data management**

However the many data were recorded, you do not know whether glance you just saw it is what kind of data,.... Already, there is no such worry. The data which you recorded is not specially opened and verification can do also the [te] with the small corrugated sum nail.



**\* The data is transferred to Excel directly, direct EXCEL function**

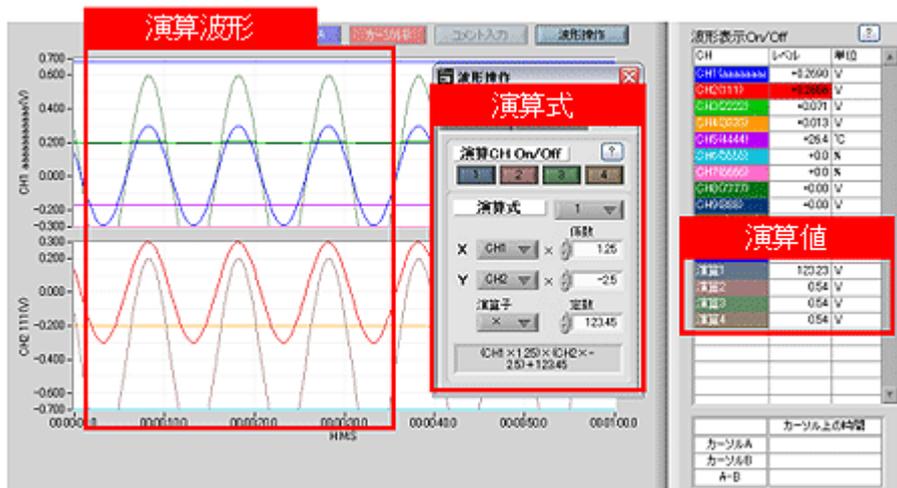
Using we would like to make the data Excel indicate which is accustomed directly. We would like to make the Excel ripple mark indicate in real time. You

would like to use the Excel format of your own taste. Direct Excel function can actualize those. If the templet is appointed, the seat is chosen and the start cell is decided, setting is completion. After, the software entrust with one after another it keeps transferring the data.

**\* Powerful operational function**

Calculation you want between CH and, we would like to take also statistics in real time, if it can make entirely at one time it is good, but is. With midi LOGGER Software while recording and the ripple mark and being digital, it can indicate the operational result between CH in normally while playing back. In addition, maximum and minimum, mean value, a peak value and all CH be able to indicate, a time which uses another software specially and calculates there is no.

\* As a data it does not retain. Only indication utilizes.



Statistical operational alarm past record picture

The statistical result of all CH and the past record where the alarm occurs are indicated.

The data which is indicated can also retain in CSV type.

結果をファイルに保存

統計							アラーム履歴		
CH	パターン	最小値	最小値時刻	最大値	最大値時刻	平均値	単位	CH	発生時刻
CH1	aaaaaaaaaaaa	-0.3996	06-01-10 18:45:22	+0.4014	06-01-10 18:45:07	-0.0001	V	1	06-01-10 18:45:06
CH2	bbbbbbbbbbbb	-0.0007	06-01-10 18:45:06	+0.2544	06-01-10 18:45:21	-0.0091	V	1	06-01-10 18:45:06
CH3	cccccccccccc	-0.0016	06-01-10 18:45:15	+0.3028	06-01-10 18:45:15	-0.0021	V	1	06-01-10 18:45:10
CH4	dddddddddddd	-0.2157	06-01-10 18:45:22	+0.2169	06-01-10 18:45:23	-0.0016	V	1	06-01-10 18:45:12
CH5	eeeeeeeeeeee	-0.1547	06-01-10 18:45:22	+0.1552	06-01-10 18:45:15	-0.0013	V	1	06-01-10 18:45:14
CH7	ghhhhhhhhh	-0.0790	06-01-10 18:45:10	+0.0798	06-01-10 18:45:15	-0.0006	V	1	06-01-10 18:45:16
Pulse1		+0	06-01-10 18:45:06	+0	06-01-10 18:45:06		°C	1	06-01-10 18:45:18
Logic1								1	06-01-10 18:45:20
								1	06-01-10 18:45:22
								1	06-01-10 18:45:24

**\* The overwrite function which compares the plural data**

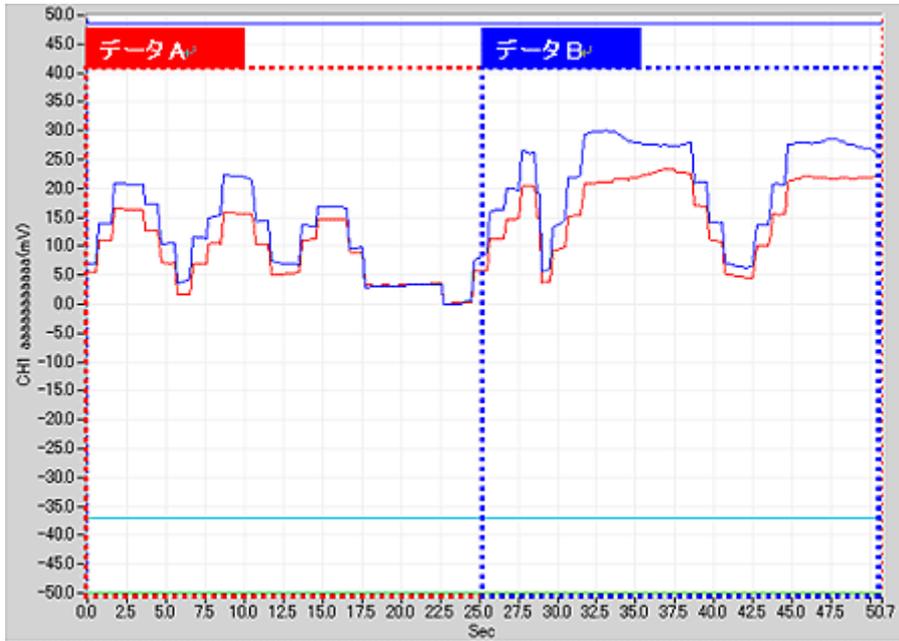
Finite difference of that data and this data like. Such a time, overwrite function is convenient. Piling up the plural data entirely, because it indicates, the difference of the data is clear. In addition, because it indicates also digital value, it can also verify finite difference at numerical value.



**\* The connection indication which designates repetition recording as 1 these files**

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Little by little, changing condition, being able to connect the data which repeatedly you recorded entirely, because it is possible, to indicate, it is possible to try making the data with respect to the time when it continues.

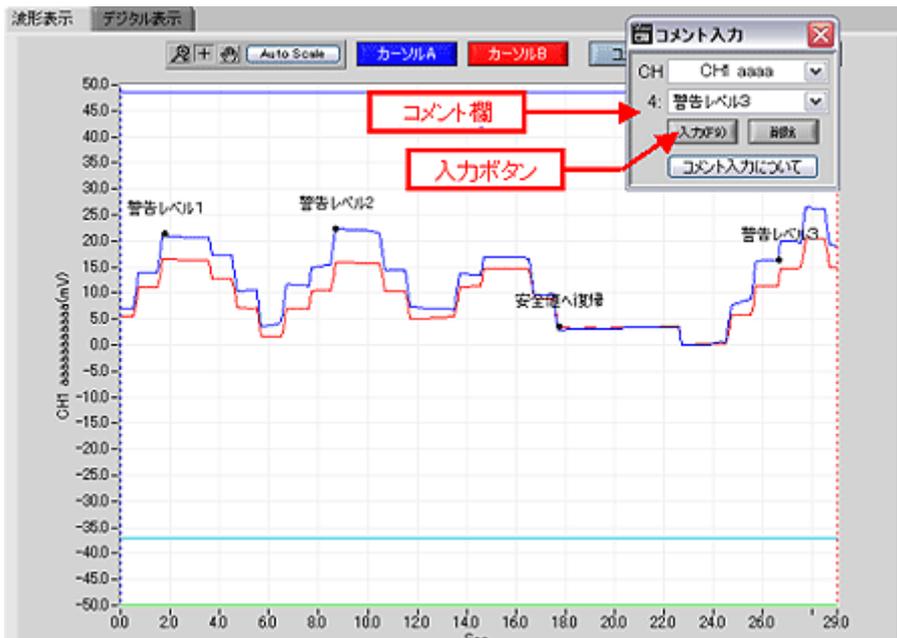


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**\* The place where it becomes matter of concern comment input**

While recording, it is not necessary to prepare the paper and the pen. It is possible to input comment on the ripple mark which has accident. "The place "note" where it becomes matter of concern" distantly please input favorite comment. Temporarily, it just inputs, at the time of PC recording playback the fact that by the fact that modification and it is located adjusts of comment it corrects in precise information it is possible.

\* Simultaneous retention to PC recording data



**\* The feed function the mail at the time of alarm occurrence**

In case of recording in long haul, it is impossible always to watch. Such a time mail transmission function is convenient. When it reaches to the level which the input signal appoints, the channel and the level where the alarm occurs are transmitted with the mail. As for this mail it can perceive quickly by the personal computer and the portable telephone. Because you can send to 5 addresses the mail simultaneously, it can also send to the group of people.

### メール設定

アラームが発生したらメールを送る

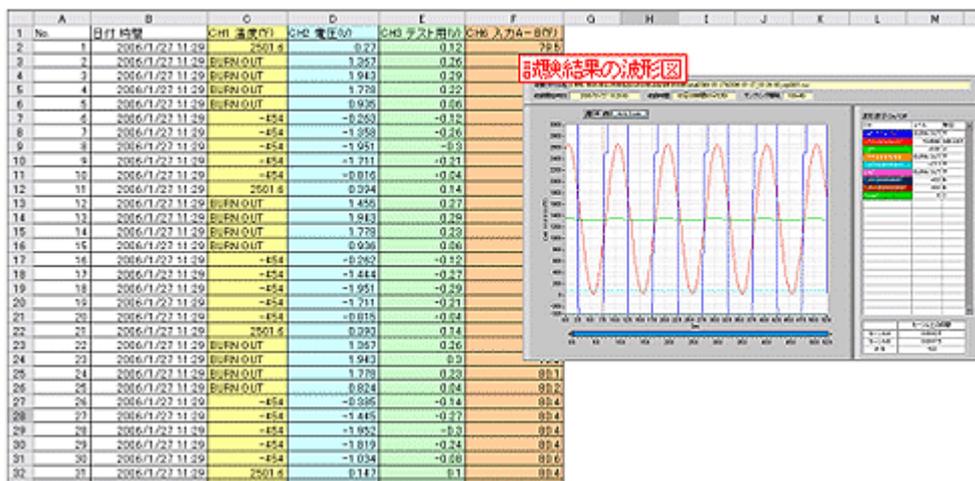
・アドレス 1	コメント
12345@aaaa.com	****さん。申し訳ないけど駆けつけてください。
・アドレス 2	コメント
23456@bbbb.net	明日。朝一で点検お願いします！！
・アドレス 3	コメント
77777@cccc.co.jp	ABC企画 ○○様。異常データをお送りさせていただきます。
・アドレス 4	コメント
・アドレス 5	コメント

・送信メールサーバ  
mail@aaa.com

・送信者アドレス  
OOOO@VVVV.co.jp

**\* Retention function of printing and picture of picture**

Because not only the ripple mark and digital value, start time, recording elapsed time, it indicates also sampling interval and the like in midi LOGGER Software, the screen just is printed can use for the report. In addition because, using the retention function of the picture, is possible the fact that it draws up the bit map file of the picture to the electronic file, it can draw up the report file easily.



## 12. Specification

Item	Contents
The quantity of analog input CH	10CH
External input/output	Trigger input logic input pulse input alarm output
Alarm output	Channel number: 1ch Power form: Open collector output (pull-up resistance 100kΩ) Output condition: Level decision, window decision, logic pattern decision and pulse decision
External trigger input	1ch
PC I/F	USB (Ver1.1) standard equipment
Indicatory department	3.5 inch TFT color liquid crystal (320×240 dot)
Storage unit	Substance memory approximately 3.5M byte (Flash type) USB memory: It depends on the memory which you use
Backup function	Setting condition: EEPROM/clock: Lithium accumulator
Use environment	0~40℃ and 30~80%RH
Withstand voltage	350Vp-p (between each input CH-筐体) 1 minutes
Power source	AC adapter: AC100~240V/50~60Hz DC input: DC8.5~24V Battery pack (option): DC7.4V (2200mAh)
Electric power consumption	Below 28VA (AC drive) * at during AC drive, LCDON and battery charging.
External size	Approximately 194×122×41mm
Mass	Approximately 480g * battery and AC adapter not being included.
In addition	Buzzer (key click sound and the like)
Input section	
System	The scan method by photo moth relay Scan speed: 0.1 second /10ch most speed All the channel insulation input
Measuring range	Voltage: 20, 50, 100 and 200, 500mV, 1, 2, 5, 10 and 20, 50V and 1-5V/F.S. Temperature thermocouple: K, J, E, T, R, S, B, N and W (WRe5-26) Humidity: 0~100% (voltage 0V~1V scaling conversion) * at the time of B-530 installing of option
A/D converter	16Bit (internal validity: 14Bit)
Maximum input potential	+/-間: 60Vp-p Between frames: 60Vp-p
Withstand voltage	350Vp-p (between each input ch-筐体 and between each ch) 1

	minutes
<b>Function</b>	
Picture indication	Corrugated + digital display Corrugated indication (enlargement) Digital display + operation and indication
Sampling interval	100ms~1h
Filter	OFF, 2, 5, 10, 20 and 40 filters are moving average. It becomes mean value of the sample frequency which is set.
EU (Scaling function)	In each every channel 4 point setting
Data retention function	Substance memory recording USB memory recording Setting data retention (substance memory /USB memory) Picture [kohi]° [deta] retention (substance memory /USB memory) Playback data retention between cursor (substance memory /USB memory)
Operational function	Statistical operation: Maximum and minimum, mean value, peak value and effective value When recording optional two setting possibility When playing back in optional range one setting possibility <b>* It</b> does not do the data retention of the operational result with GL200CS itself.
Search function	Searching analog input, pulse input, logic input and alarm occurrence
Trigger function	Type: Start (with trigger formation start of recording) Stop (with trigger formation recording stop) Condition: Start: OFF, level, time and outside Stop: OFF, level and time, time, outside
Alarm function	Type: Analog, logic and pulse Condition: Analog: H L Window In Window Out Pulse: H L Window In Window Out Logic: H L
Logic pulse input	Pulse 1 ch and logic 1ch
Pulse input range	Addition [moto]°: Maximum 50k/sample period Instantaneous [moto]°: Maximum 50k/sample period Rpm [moto]°: The highest 50k/sec