

Ultra High-Speed, High-Accuracy
Laser Displacement Sensor

HL-C2 Series User's Manual

Programmable Display

Introduction

Thank you for downloading the "Screen Data for GT-series Programmable Display for the HL-C2-series Ultra High-Speed, High-Accuracy Laser Displacement Sensor." Read this manual carefully and be sure you understand the information provided before attempting to install and operate the product so that the product will fully demonstrate its superior performance. Refer to the website of Panasonic Industry Co., Ltd. (<https://industry.panasonic.com/>) for the latest information on the product as well as the latest version of the manual.

■ Note

1. The illustrations of the product in the manual may differ from the actual design of the product.
2. The contents of this user's manual may change without notice for possible improvements in the future.
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5. Panasonic Industry Co., Ltd. shall be in no case responsible for any consequences resulting from your operation of the product.

■ Conventions

The following conventions are used to indicate and classify precautions in this manual. Always heed the information provided with them.





 WARNING	Indicates information that, if not heeded, is likely to result in loss of life or serious injury.
 CAUTION	Indicates information that, if not heeded, could result in relatively serious or minor injury, damage to the product, or faulty operation.
 CHECK	Explains matters that should be observed or mistakes that the user is apt to make.
 REFERENCE	Explains items that should be kept in mind, relevant information in detail, and references.

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1. Introduction of HL-C2 Dedicated Console

1-1 Using GT Series for HL-C2 Series

Panasonic Industry's GT series Programmable Display will work as a dedicated console for HL-C2 Series Ultra High-Speed, High-Accuracy Laser Displacement Sensor if dedicated screen data is written to the Programmable Display.

■ Used as Dedicated Console

By writing dedicated screen data to the Programmable Display, sensor head settings can be made to and measurement values can be monitored from the HL-C2 as a dedicated console under remote control.

For information on the applicable models, refer to "1-2 Applicable Programmable Display Models."

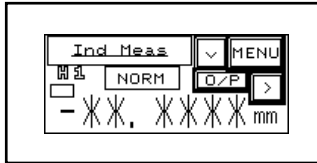
1-2Applicable Programmable Display Models

GT-series Programmable Display models applicable

- Applicable series names GT12 Series
- Power supply voltage 24 VDC
- Communications port RS232C
- SD card memory slot None (or not used)

Products applicable

Product name	Screen	Backlight	Body color	Product no.
GT12G	4.6-inch STN 320 x 120 dots	Green/Orange/Red	Pure black	AIG12GQ02D
			Hairline silver	AIG12GQ12D
				AIG12GQ03D
			AIG12GQ13D	
GT12M	320 x 120 dots	White /Pink/ Red	Pure black	AIG12MQ02D
			Hairline silver	AIG12MQ12D
				AIG12MQ03D
			AIG12MQ13D	



GT12 Series measurement value display

- The GT12□ Series can control only a single controller when it is used as a dedicated console.

For information on the installation and connection of the GT Series, download the "GT-series User's Manual". Read the manual carefully and be sure you understand the information provided before attempting to install and operate the GT Series.

1-3 Steps to Introduce Dedicated Console

This section provides brief information on the introduction of the GT Series as a dedicated console.

For the procedure in detail, refer to "3. Acquiring and Writing Screen Data".

- Preparation

- PC connected to the Internet
 - * For the operating environment of the PC, refer to "1.3.2 Software Usage Environment and Applicable Cables" of "GT-series User's Manual".
- USB cable (for A-to-mini B-connector connection)
- Power supply for Programmable Display (24 VDC)

- Writing HL-C2-dedicated screen data to the GT-series

Acquiring and writing screen data

- [1] Downloading dedicated software: See "3-1 Downloading Dedicated Software".
- [2] Writing screen data to the GT Series See "3-3 Writing Screen Data".

- Using GT Series as HL-C2-dedicated console.

Connecting the console to the sensor head

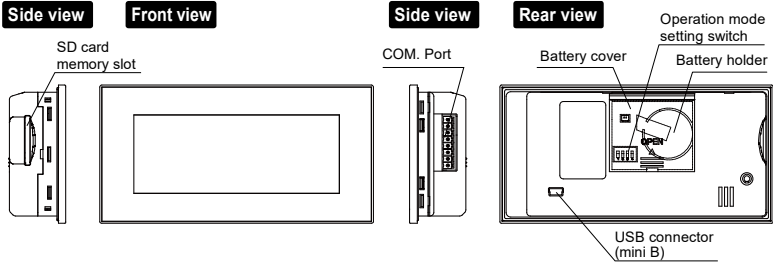
- [1] Installation: See "4-1 Mounting Console".
- [2] Connecting the dedicated console to the HL-C2: See "4-2 Connecting Dedicated Console to HL-C2".

Console operation

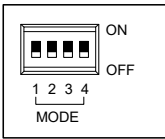
Refer to the "HL-C2-series User's Manual".

2. Nomenclature

■ GT12 Series



• Operation mode setting switch



SW No.	Function	OFF	ON
1	Reserved (not used)	<u>Always turned OFF</u>	
2	Not allowed to go to system menu	Movement possible	Movement prohibited
3	Reserved (not used)	<u>Always turned OFF</u>	
4		<u>Always turned OFF</u>	

❗ CHECK

The SD memory card slot or internal battery is not used in the case of using either one of the above as a dedicated console for the HL-C2 Series.

3. Acquiring and Writing Screen Data

3-1 Downloading Dedicated Software

Download the applicable data file of dedicated software according to the GT-series model to be used. The following data files are available.

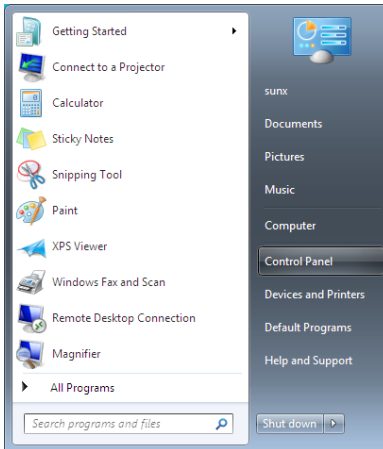
Applicable model	Applicable product number	Dedicated software
GT12G	AIG12GQ02D	Screen Data for Programmable Display GT12
	AIG12GQ12D	
	AIG12GQ03D	
	AIG12GQ13D	
GT12M	AIG12MQ02D	
	AIG12MQ12D	
	AIG12MQ03D	
	AIG12MQ13D	

- 1 Go to the download page from the top page of Panasonic Industry's website.
<https://industry.panasonic.com/>
- 2 Download the applicable data file from the page for "HL-C2-series Ultra High-Speed, High-Accuracy Laser Displacement Sensor".
- 3 The downloading file is compressed (in zip). Uncompress the file in an appropriate folder.

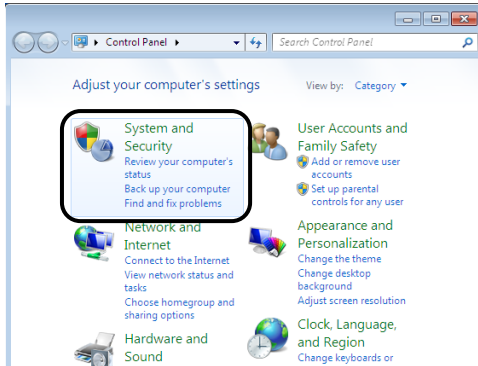
3-2 Installation of USB Driver

The USB driver is required when writing screen data from the PC. Therefore, the USB driver must be installed to the PC before writing screen data.

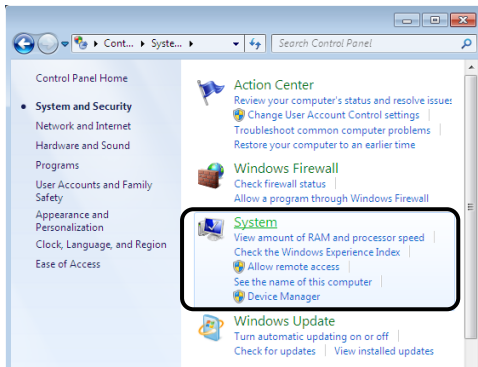
- Installation to PC (with Windows Vista or Windows 7 operating system)
 - 1 Connect the HL-C2 Series Controller and GT, and connect the PC and GT over USB cable.
For how to wire the DC power supply to the HL-C2 Controller, refer to the "3-4 Wiring Power Supply" of "HL-C2 series User's Manual" for how to wire the DC power supply to the HL-C2 Controller.
 - 2 The PC will automatically recognize the USB driver, and a new hardware detection wizard will be displayed. Click "Check later."
 - 3 Select "Control Panel" in the Start menu.



4 Select "System and Security" in the Control Panel.



5 Select "System" in the System and Security.

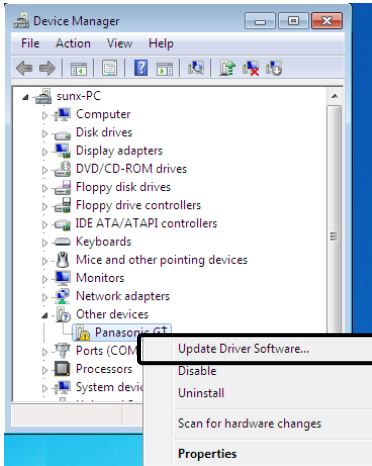


6 Select "Device Manager" in the System.

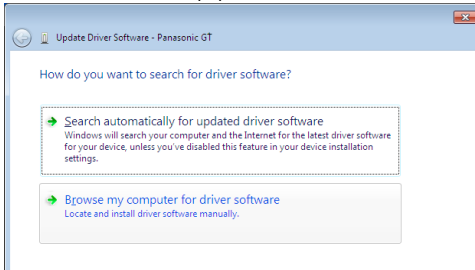


The User Account Control window will be displayed. Click "Continue (C)."

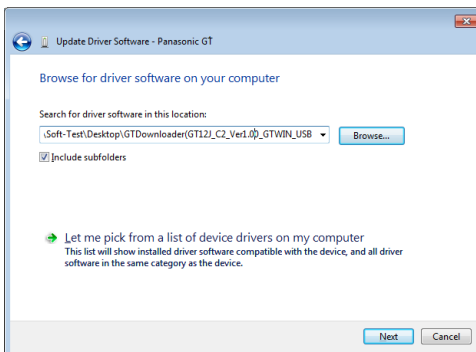
- 7 Right-click "Panasonic GT" in the Device Manager window, and select "Update Driver."



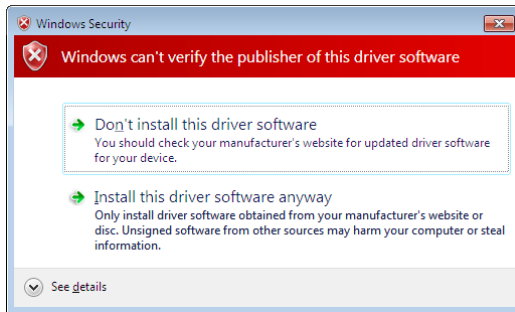
- 8 The Update Driver window will be displayed. Click "Browse my computer for driver software (R)."



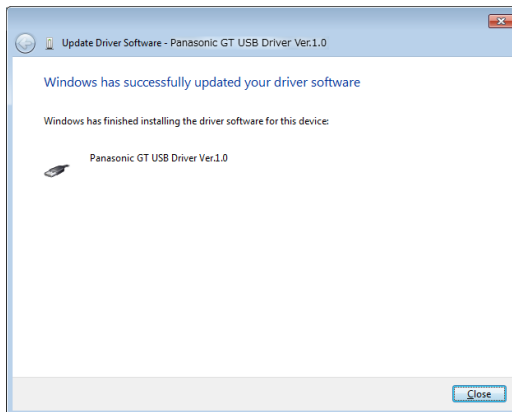
- 9 A list of drivers will appear. Select the folder copied and expanded in steps (1) and (2), and click "Next (N)."



- 10 The Windows Security window will be displayed. Click "Install this driver (I)".



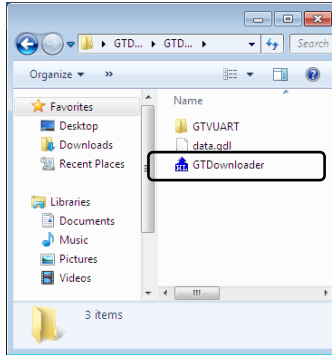
- 11 The Update Complete window will be displayed. Click "Close (C)."



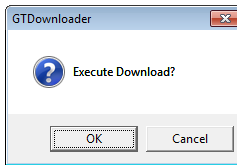
The installation of the Panasonic GT USB driver to the PC will be completed at this stage.

3-3 Writing Screen Data

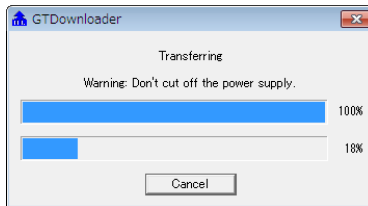
- 1 Click the "GTDownloader.exe" in the folder where the file has been expanded.



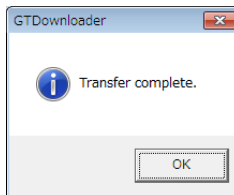
- 2 The message "Execute Download?" will be displayed in the prompt screen for the screen data. Click the "OK" button.



- 3 A progress screen will be displayed. Wait until the transfer of the data is completed.



- 4 Click the "OK" button on completion of data transfer.



- 5 End.

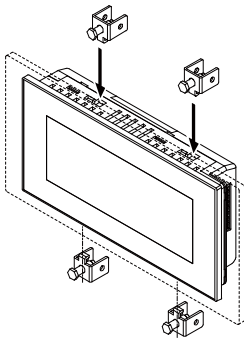
4. Sensor Connection

4-1 Mounting Console

For the installation of the GT Series in detail, refer to "Chapter 3 Installation and Wiring" of the "GT-series User's Manual".

Use the four mounting brackets and four mounting screws provided and mount the console to the mounting plate.

■ GT12 Series

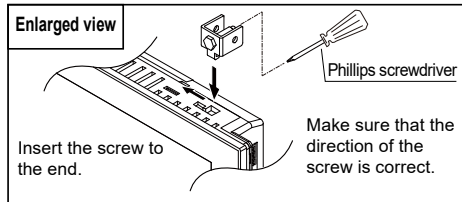


- (1) Insert the unit into the mounting plate.
- (2) Attach the mounting brackets to the grooves of the unit.
Tighten the screws and fix the unit to the mounting plate securely.

Note 1) Use a No. 1 Phillips screwdriver.

Note 2) Screw tightening torque of 0.2 to 0.3 N·m

Note 3) Do not tighten the screws in excess, or otherwise the front panel may deform and the touch switch cannot work properly. Be sure to keep the above torque range.



4-2 Connecting Dedicated Console to HL-C2

For general handling information on the GT Series, refer to the "GT-series User's Manual".

- Connecting GT12 Series to HL-C2 (RS232C)

Use the dedicated cable according to the GT-series model to be used. The following Cable is available.

Applicable model	Applicable product number	Dedicated cable
GT12G	AIG12GQ02D	HL-C2 dedicated GT series connect cable HL-C2GT-C3
	AIG12GQ12D	
	AIG12GQ03D	
	AIG12GQ13D	
GT12M	AIG12MQ02D	
	AIG12MQ12D	
	AIG12MQ03D	
	AIG12MQ13D	

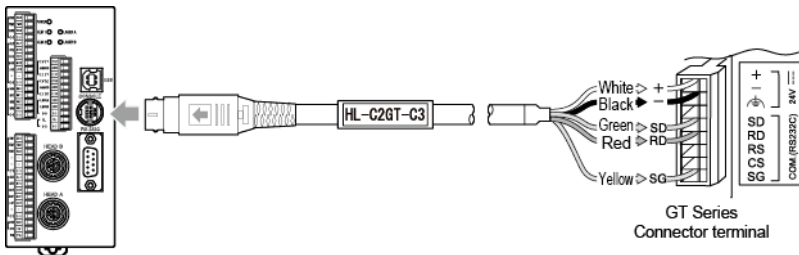
⚠ CHECK

The cable of attachment in the console "HL-C2DP" is unusable.

When using the GT12□, please always use the HL-C2GT-C3 of HL-C2 dedicated GT series connect cable.

Please wire as the shown below.

- Connect the white cable of HL-C2 side to the + of the console side.
- Connect the black cable of HL-C2 side to the - of the console side.
- Connect the green cable of HL-C2 side to the SD of the console side.
- Connect the red cable of HL-C2 side to the RD of the console side.
- Connect the yellow cable of HL-C2 side to the SG of the console side.



Revision history

Revision No.	Released date	Revision item
A first release	October 2012	—
Second release	October 2013	—
Third release	April 2024	Company name change

Panasonic Industry Co., Ltd.

1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8506, Japan
<https://industry.panasonic.com/>

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