

MEASUREMENT SENSOR

HL-G1 Easy Setup Guide

Table of Contents

1	Hardware3
2	Download Software4
3	Wire The Hardware7
4	Install the GT Driver9
5	Install Software for the GT Touch Terminal12
	5.1 Use Computer Management to Find COM Port
6	Install PC Software16
7	Basic Settings in the PC Software HL-G1SMI20
8	Wiring the Components22
9	Operation23
	9.1 Using the HL-G1 Sensor and GT Touch Terminal23
	9.2 Using the HL-G1 Sensor, GT Touch Terminal and PC Software

10	Questions?		5
----	-------------------	--	---

1 Hardware

The HL-G1xx-S-J and GT touch terminal have arrived.



Please have a USB-to-Mini-USB cable ready to connect the GT touch terminal to the PC.



2 Download Software

Please find the application software on our home page http://www.panasonic-electric-works.com/peweu/de/html/27143.php:



Procedure ⁼

1. Click the download symbol next to the software desired (HL-G1 GTxx software, HL-G1 setting software).

HOME / IHR PANASONIC ELECTRIC WORKS / DOWNLOADS BY PRODUCT NAME / SENSORS / HL-G1

HL-G1								
Manuals								
Product number	Description	Language	Release date	Download				
ME-HLG1 (00)	HL-G1 Series User's Manual	EN	10/2010	(1.97MB)				
ME- HLG1DP (00)	HL-G1 Series User's Manual (Console Version)	EN	10/2010	(1.02MB)				
	HL-G1 User's Manual, Compact Laser Displacement Sensor (Console-dedicated Version)	EN	10/2010	(1.02MB)				
	HL-G1 User's Manual, Compact Laser Displacement Sensor	EN	10/2010	(1.97MB)				

Software

Product number	Description	Language Release date	Download
	HL-G1 GT02 software	2/24/2011	👛 (5.84MB)
	HL-G1 GT12 software	2/24/2011	👛 (6.24MB)
	HL-G1 PC setting software	2/24/2011	👛 (22.27MB)



You are directed to our password-protected area.

2. If already registered, enter your e-mail address and password or Register as a new customer.

Register					
Register					
Please enter your personal details					
Salutation *	Please select form of address				
First name *					
Surname *					
Company *					
Street *					
City *					

Fill out the online form to profit from this free service for members.

3. After registering, call up the desired software files http://www.panasonic-electric-works.com/peweu/de/html/27143.php again.

4. Save all files required in one folder.

Remember the folder when it comes time to install the GT driver (see "Install the GT Driver" on page 9).

È	C:\Documents and Settings\herzog\Desktop\HLG1 Software									
D	atei	Bearbeiten	Ansicht	Favoriten	Extras	?				
) Zu	rück 🔻 🎅	- 🍺	🔎 Suche	n 🕞	Ordner	•			
Ac	resse	C:\Docur	ments and	Settings\her	zog\Desk	top\HLG:	l Software			
					N	ame 🔺			Größe	Тур
	Dat	ei- und Ordn	neraufgab	oen 🌣		gtdown	loader_gt12	Öffnen		WinRAR ZIP archive
	D Ì	Datei umbene	ennen		3000	hlg1smi	_1_01.zip	Explorer		WinRAR ZIP archive
		Datei verschie	eben		8	gtdown	loader_gt02	Extract files		WINRAR ZIP archive
	ñ	Datei kopierer	n					Extract Here		
	8	Datei im Web	veröffentl	lichen				Extract to gtdownload	er_gt12_v101a\	

5. Unpack the ZIP file.

A new subfolder is created with the same name as the ZIP file.



6. Repeat this step for all zipped files.

3 Wire The Hardware

Before you can install software on your GT touch terminal, you have to connect it.



• Procedure

1. Connect the GT touch terminal to the terminals +24V and 0V.





2. Connect the GT touch terminal to your PC using a USB-to-Mini-USB cable.

3. Turn on the power.

The GT touch terminal boots. After a few seconds, the screen displays the following:



4 Install the GT Driver

Your PC will find new hardware and launch the Hardware Assistant.



Procedure³

1. If this dialog appears, select "Ask me to search Windows every time I connect a new device." Select [Next].

Assistent für das Suchen neuer Hardware					
	Willkommen				
	Es wird nach aktueller und aktualisierter Software auf dem Computer, auf der Hardwareinstallations-CD oder auf der Windows Update-Website (mit Ihrer Erlaubnis) gesucht. <u>Datenschutzrichtlinie anzeigen</u>				
	Soll eine Verbindung mit Windows Update hergestellt werden, um nach Software zu suchen?				
	O Jai nut diese eine Mal				
	Ja, und jedes Mal, wenn ein Gerät angeschlossen wird				
	C ivein, diesmai nicht				
	Klicken Sie auf "Weiter", um den Vorgang fortzusetzen.				
	< <u>∠</u> uriúc <u>W</u> eiter > Abbrechen				

2. Select the option button "Install from a list or specific location (Advanced). Select [Next].



3. Search your PC for the folder, in which you saved the software you

nd New Hardwa Please choose	re Wizard your search and installation options.
Search for	or the best driver in these locations.
Use the c paths and	heck boxes below to limit or expand the default search, which includes local removable media. The best driver found will be installed.
🗖 Se	arch removable <u>m</u> edia (floppy, CD-ROM)
☑ Inc	lude this location in the search:
O <u>D</u> on't sea	rch. I will choose the driver to install.
Choose th the driver	is option to select the device driver from a list. Windows does not guarantee that you choose will be the best match for your hardware.
	< <u>B</u> ack <u>N</u> ext > Cancel

- 4. Browse to the folder "GTVUART".

Browse For Folder		? ×
Select the folder that contains drivers for your hard	ware.	
Hy Documents		_
GTDownloader(GT12_Ver1.01)		
Attachments DeleteEventually		
🗄 🛅 BarTender		_
<u>, </u>		
To view any subfolders, click a plus sign above.		
	ОК	Cancel

5. Select [OK].

downloaded (see "Download Software" on page 4).

6. Select [Next].



The software installation process begins.

7. When the software has been installed, click [Finish].

Found New Hardware Wizard			
	Completing the Found New Hardware Wizard		
	The wizard has finished installing the software for:		
	Panasonic Electric Works GT Virtual UART		
	Click Finish to close the wizard.		
	Kernel Cancel		

5 Install Software for the GT Touch Terminal

1. 2. 3.

Procedure

- 1. Go to the folder where you saved the software when you downloaded it (see "Download Software" on page 4).
- 2. Open the folder "GTdownloader_gt_xx_xxx".



3. Open the folder "GTDownloader".



4. "Double-click "GTDownloader.exe" .



The dialog "GTDownloader" opens.

GTDownloader	×			
COM port	COM1 🔽			
Execute Download?				
ОК	Cancel			

- 5. Determine which COM port the GT touch terminal uses (see "Use Computer Management to Find COM Port" on page 15).
- 6. Select the correct COM port.
- 7. Select [OK].

Data transfer begins. Do not break the connection!



After a time, the following display appears:



8. Click [OK] after the software has been successfully installed on your GT touch terminal.



9. Turn off the power.

The HL-G1 can now be connected to the GT touch terminal.

And now?

- You wish to use the sensor and GT touch terminal (see "Using the HL-G1 Sensor and GT Touch Terminal" on page 23).
- You also wish to install the PC software HL-G1SMI (see "Install PC Software" on page 16).

5.1 Use Computer Management to Find COM Port



Procedure

- 1. Open Computer Management, e.g. via System Control: System \rightarrow Hardware \rightarrow Computer Management.
- 2. Click "Ports (COM & LPT)".

The Panasonic GT touch terminal is shown.



3. Remember the COM port, e.g. COM9.

6 Install PC Software

The following operating systems are supported:

- Microsoft Windows® XP Professional 32 bits (SP2) or later
- Microsoft Windows[®] Vista Business 32 bits
- Microsoft Windows® 7 Professional 32 bits



Procedure [■]

- 1. Search your PC for the folder, in which you saved the software you downloaded (see "Download Software" on page 4).
- 2. Open the folder "hlg1smi_1_01\Setup" and double-click "Setup.exe".



3. Select the desired language.

4. Select [OK].



The HL-G1SMI installation assistant opens.

🙀 Panasonic-EW SUNX Sensor HL-G15MI - InstallShield Wizard					
2	Welcome to the InstallShield Wizard for Panasonic-EW SUNX Sensor HL-G1SMI				
	The InstallShield(R) Wizard will install Panasonic-EW SUNX Sensor HL-G1SMI on your computer. To continue, click Next.				
	WARNING: This program is protected by copyright law and international treaties.				
	< Back Next > Cancel				

5. Select [Next].

6. Accept the license terms (License Agreement).

🙀 Panasonic-EW SUNX Sensor HL-G15M	1I - InstallSh	ield Wizard	×	
License Agreement Please read the following license agreeme	ent carefully.		3	
	PEV	VJSX(E_Software_Lice	nseB)101001 🔺	
Software Li	Software License Agreement			
Panasonic Electric Works SUNX Co., Ltd. ("PEWJSX") grants to you a license to use this Software on condition that you accept this Agreement. You must read this Agreement carefully before using this Software. Only in case that you accept this Agreement, you may start your use of this Software. Your unsealing the package of this Software, or your downloading, installing or launching this Software or likes shall be deemed as your acceptance of this Agreement.				
Article 1 Grant of License				
I accept the terms in the license agreement Print				
C I do not accept the terms in the license a	greement			
	< <u>B</u> ack	Next >	Cancel	

7. Select [Next].



8. Select [Next].

9. Select [Next].

🖶 Panasonic-EW SUNX Sensor HL-G15N	1I - InstallSh	ield Wizard	×
Ready to Install the Program The wizard is ready to begin installation.			と
Click Install to begin the installation.			
If you want to review or change any of y exit the wizard.	your installatior	n settings, click Back. C	lick Cancel to
☑ Create a shortcut to the deskto	р,		
InstellShield	< <u>B</u> ack	Install	Cancel

The installation begins.

10. When the installation has been finished, click [Finish].

The PC software HL-G1SMI has been installed and can be opened via the icon on the desktop.



7 Basic Settings in the PC Software HL-G1SMI

The main dialog is displayed when the software is opened.



- Procedure¹
- 1. System(S) \rightarrow SW Performance Setting

Disp At	List Buffeing MeacVal	Coline Online	
TRES TRANS	Ecolesci System Setting Timine Mode Hold Console Pare Eco-OFF Console Bac Sampling Cycle 500 us Image: Console Bac Shutter Time Auto Image: Console Bac Data Ave. Time ItECMinnes Image: Console Bac Meas Surface Fissility Itechnic Surface Image: Console Bac	el Lock OFF Light Color WHQRP Food Output Jude Output Displace THLD a 40000mm Hysteresis 00000mm Jude Output OffDelay OFF	Sensor Head Model Sensor Head Ver Current Menory M0 Alaram Setting Analog Output at Alarm Digital Output at Alarm Hold Alaren Delay Times 0
	Span 1.000 = Offset 0.0000mm =	Analog Setting Analog Cutput Analog Scaling Meas valA -40000nm Volt a Meas valB 40000nm Volt b	Curr a 4000mA

mm Setun	Controller Alias		
R5-422/485	ID	Alias	<u>ـ</u>
Communication Device Through a dedicated GT HL-G1 💌	ID1		
COM Part COM9 BCC Calc	ID2		
© None	ID3		
Baud Rate 384000ps C Yes	ID4		
	ID5		
Parity none	ID6		
Time Out 10s	ID7		
	ID8		
licy	ID9		
To Do Drivelty Too Low	ID10		-
Separator Setup	Memory Alias	Alias	
Separator Setup Comma[,] C Semicolon ; C TAB	Memory Alias Memory Name	Alias	<u>^</u>
Separator Setup Comma[,] C Semicolon ; C TAB	Memory Alias Memory Name ID1 M0 ID1 M0	Alias	
© Comma[,] C Semicolon ; C TAB	Memory Alias Memory Name ID1 M0 ID1 M1 ID1 M1	Alias	^
Separator Setup © Comma[,] C Semicolon ; C TAB Decimal Pt © Period . C Comma[,]	Memory Alias Memory Name ID1 M0 ID1 M1 ID1 M2 ID1 M2	Alas	
Separator Setup © Comma[,] C Semicolon ; C TAB Decimal Pt © Period , C Comma[,]	Memory Alias Memory Name ID1 M0 ID1 M1 ID1 M2 ID1 M3 ID1 M3	Alas	
Separator Setup © Comma[,] C Semicolon ; C TAB Decimal Pt © Period . C Comma[,]	Memory Alias Memory Name ID1 M0 ID1 M1 ID1 M2 ID1 M3 ID2 M0 ID2 M0	Alias	
Separator Setup © Comma[,] C Semicolon ; C TAB Decimal Pt © Period . C Comma[,] splay	Memory Alias ID1 M0 ID1 M1 ID1 M2 ID1 M3 ID2 M0 ID2 M0	Alias	<u> </u>
Separator Setup © Comma[,] C Semicolon ; C TAB Decimal Pt © Period . C Comma[,] splay Decimal Place 4	Memory Alias ID1 M0 ID1 M1 ID1 M2 ID1 M3 ID2 M0 ID2 M1 ID2 M2	Akas	
Separator Setup © Comma[,] C Semicolon ; C TAB Decimal Pt © Period . C Comma[,] splay Decimal Place 4	Memory Alias ID1 M0 ID1 M1 ID1 M2 ID1 M3 ID2 M0 ID2 M1 ID2 M1 ID2 M2 ID2 M3	Akas	
splay Decimal Place	Memory Alias ID1 M0 ID1 M1 ID1 M2 ID1 M3 ID2 M0 ID2 M1 ID2 M1 ID2 M3 ID2 M3 ID3 M0	Alias	

The dialog "SW Performance Setting" opens.

2. Select the following settings:

Parameter	Setting
Communication Device	Through a dedicated GT HL-G1
COM port	As determined by Computer Management (see "Use Computer Management to Find COM Port" on page 15)
Baud Rate	38400 bps
Time Out	10s

3. Select [Next].

The dialog closes and you return to the main dialog. The software can now be used with the HL-G1 sensor.

8 Wiring the Components



Procedure

- 1. Turn off the power.
- 2. Connect the sensor to the power supply directly on the GT touch terminal.
- 3. Connect the sensor via RS422 with the GT touch terminal as illustrated below.
- 4. In addition, short -RD and E.



- NOTE
- Be sure that none of the unused, open wire ends are short-circuited.
- Setting: "Terminating resistor ON".

9 Operation

9.1 Using the HL-G1 Sensor and GT Touch Terminal





Procedure ^{*}

1. Turn on the power.

The GT touch terminal boots. The measurement sensor HL-G1 begins emitting its laser beam.

2. Aim the laser beam at a test object with the sensing range.

The GT touch terminal displays the same measurement value as the sensor's display.

9.2 Using the HL-G1 Sensor, GT Touch Terminal and PC Software



Procedure =

- 1. Make sure that the GT touch terminal is connected to the PC, that the software is installed completely and that the basic settings have been made according to the directions provided in this manual.
- 2. Turn on the power.
- 3. Open the software HL-G1SMI by using the desktop icon, for example.



4. Click [Online].

If online appears in red, your new HL-G1 sensor has been successfully put into operation and the sensor is online.

10 Questions?

If everything does not function as described, call us at: +49 8024 648 737.



Panasonic Electric Works Global Sales Companies

Europe		
Headquarters	Panasonic Electric Works Europe AG	Rudolf-Diesel-Ring 2, 83607 Holzkirchen, Tel. +49 (0) 8024 648-0, Fax +49 (0) 8024 648-111, www.panasonic-electric-works.com
► Austria	Panasonic Electric Works Austria GmbH	Rep. of PEWDE, Josef Madersperger Str. 2, 2362 Biedermannsdorf, Tel. +43 (0) 2236-26846, Fax +43 (0) 2236-46133, www.panasonic-electric-works.at
	PEW Electronic Materials Europe GmbH	Ennshafenstraße 30, 4470 Enns, Tel. +43 (0) 7223 883, Fax +43 (0) 7223 88333, www.panasonic-electronic-materials. com
Benelux	Panasonic Electric Works Sales Western Europe B.V.	De Rijn 4, (Postbus 211), 5684 PJ Best, (5680 AE Best), Netherlands, Tel. +31 (0) 499 372727, Fax +31 (0) 499 372185, www.panasonic-electric-works.nl
Czech Republic	Panasonic Electric Works Czech s.r.o.	Prumtyslová 1, 34815 Planá, Tel. (+420-)374799990, Fax (+420-)374799999, www.panasonic-electric-works.cz
► France	Panasonic Electric Works Sales Western Europe B.V.	Succursale française, 10, rue des petits ruisseaux, 91371 Verrières le Buisson, Tél. +33 (0) 1 6013 5757, Fax +33 (0) 1 6013 5758, www.panasonic-electric-works.fr
 Germany 	Panasonic Electric Works Europe AG	Rudolf-Diesel-Ring 2, 83607 Holzkirchen, Tel. +49 (0) 8024 648-0, Fax +49 (0) 8024 648-111 www.panasonic-electric-works.de
► Hungary	Panasonic Electric Works Europe AG	Magyarországi Közvetlen Kereskedelmi Képviselet, 1117 Budapest, Neumann János u. 1., Tel. +36(0)1482 9258, Fax +36 (0) 1482 9259, www.panasonic-electric-works.hu
Ireland	Panasonic Electric Works UK Ltd.	Dublin, Tel. +353 (0) 14600969, Fax +353 (0) 14601131, www.panasonic-electric-works.co.uk
► Italy	Panasonic Electric Works Italia s.r.l.	Via del Commercio 3-5 (Z.I. Ferlina), 37012 Bussolengo (VR), Tel. +39 (0) 456752711, Fax +39 (0) 456700444, www.panasonic-electric-works.it
Nordic Countries	Panasonic Electric Works Nordic AB	Knarrarnäsgatan 15, 16440 Kista, Sweden, Tel. +46 859476680, Fax +46 859476690, www.panasonic-electric-works.se
	PEW Fire & Security Technology Europe AB	Jungmansgatan 12, 21119 Malmö, Tel. +46 40697-7000, Fax +46 40697-7099, www.panasonic-fire-security.com
► Poland	Panasonic Electric Works Polska sp. z o.o.	Al. Krakowska 4/6, 02-284 Warszawa, Tel. +48 (0) 22 338-11-33, Fax +48 (0) 22 338-12-00, www.panasonic-electric- works.pl
Portugal	Panasonic Electric Works España S.A.	Portuguese Branch Office, Avda Adelino Amaro da Costa 728 R/C J, 2750-277 Cascais, Tel. +351 214812520, Fax +351 214812529
► Spain	Panasonic Electric Works España S.A.	Barajas Park, San Severo 20, 28042 Madrid, Tel. +34 913293875, Fax +34 913292976, www.panasonic-electric-works.es
Switzerland	Panasonic Electric Works Schweiz AG	Grundstrasse 8, 6343 Rotkreuz, Tel. +41 (0) 417997050, Fax +41 (0) 417997055, www.panasonic-electric-works.ch
United Kingdom	Panasonic Electric Works UK Ltd.	Sunrise Parkway, Linford Wood, Milton Keynes, MK14 6LF, Tel. +44(0) 1908 231555, +44(0) 1908 231599, www.panasonic-electric-works.co.uk
North & South	America	
▶ USA	PEW Corporation of America	

Asia Pacific/China/Japan			
► China	Panasonic Electric Works (China) Co., Ltd.	Level 2, Tower W3, The Tower Oriental Plaza, No. 2, East Chang An Ave., Dong Cheng District, Beijing 100738, Tel. (010) 5925-5988, Fax (010) 5925-5973, www.pewc.panasonic.cn	
Hong Kong	Panasonic Electric Works (Hong Kong) Co., Ltd.	RM1205-9, 12/F, Tower 2, The Gateway, 25 Canton Road, Tsimshatsui, Kowloon, Hong Kong, Tel. (8520) 2956-3118, Fax (0852) 2956-0398	
► Japan	Panasonic Electric Works Co., Ltd.	1048 Kadoma, Kadoma-shi, Osaka 571-8686, Japan, Tel. (06)-6908-1050, Fax (06)-6908-5781 http://panasonic-electric-works.net	
Singapore	Panasonic Electric Works Asia Pacific Pte. Ltd.	101 Thomson Road, #25-03/05, United Square, Singapore 307591, Tel. (06255)-5473, Fax (06253)-5689	