

Thank you very much for purchasing Panasonic products. Read this Instruction Manual carefully and thoroughly for the correct and optimum use of this product. Kindly keep this manual in a convenient place for quick reference.

WARNING

- Never use this product as a device for personnel protection.
- When using devices for personnel protection, use products that meet the laws and standards for personnel protection that apply in each region or country, such as OSHA, ANSI and IEC.

- To use this product, the USB driver and the **HG-T Configuration Tool** software tool are required. The USB driver and **HG-T Configuration Tool** software tool can be downloaded from our website (<https://panasonic.net/id/pidsx/global>).
- For detailed information on usage procedures and settings, refer to the "**HG-T Configuration Tool User's Manual**".

1 STANDARDS AND REGULATIONS

- This product conforms to the standards and regulations below.
- <European Directives>
EMC Directive



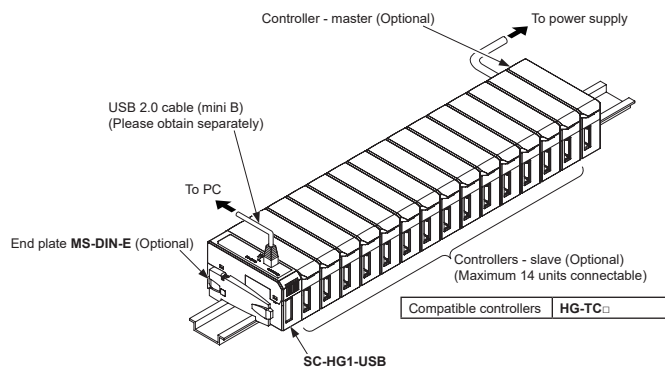
2 CONTENTS OF PACKAGE

- USB Communication Unit 1 pc.
- Instruction Manual (English / Japanese, Chinese / Korean) 1 pc. each
- General Information for Safety, Compliance, and Instructions (23 languages) 1 pc.

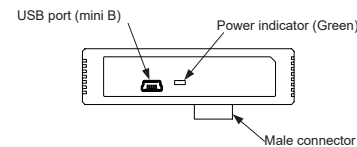
3 SYSTEM CONFIGURATION

- This product can be connected to a maximum of 15 controllers (one master controller, 14 slave controllers). Connect this product to the end unit.
- The power that drives this product is supplied from a connected controller (master controller).
- This product can be connected to a PC using a commercially available USB 2.0 cable (mini B).
- This product is a communication unit that can be used in combination with the **HG-T Configuration Tool** software tool. By connecting this product to a PC, the following tasks can be performed.
 - Check and configure settings on connected **HG-T** series units
 - Display values measured by connected **HG-T** series units
 - Display waveforms of light received by connected **HG-T** series units

For detailed information, refer to the "**HG-T Configuration Tool User's Manual**".



4 DESCRIPTION OF PARTS



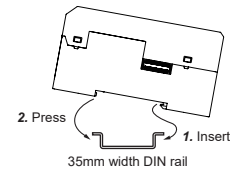
Name	Function
USB port (mini B)	Connect to a PC using a commercially available USB 2.0 cable (mini B)
Power indicator (Green)	Lights up when power is supplied.
Male connector	Connect to a master controller or slave controller.

5 CONNECTION PROCEDURE

- Before connecting the product to or disconnecting the product from a controller, always shut OFF the controller power. Risk of damage to the product and controller if connected or disconnected with the power ON.
- Insert the male connector on the product firmly into the female connector on the controller. Risk of damage to the product and controller if not inserted completely.
- Always mount the product on a DIN rail. Attach end plates **MS-DIN-E** (optional) or commercially available fittings so as to enclose the connected units at the ends.
- For cautions on using controllers, refer to the manual for the controller.

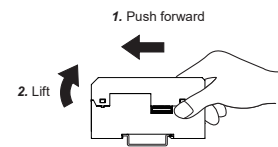
Procedure for mounting on DIN rail

1. Insert the rear of the mounting part into the DIN rail.
2. While pressing down on the rear of the mounting part, insert the front of the mounting part into the DIN rail.



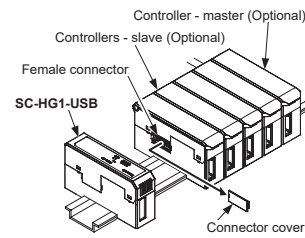
Procedure for removal from DIN rail

1. Grasp the product and push forward.
2. Lift the front to remove.

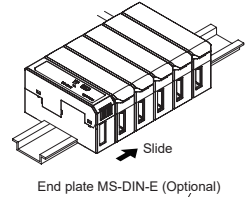


Connection procedure

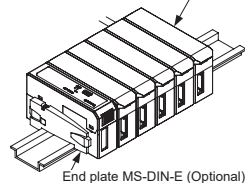
1. Remove the connector cover from the controller. (Note)



2. Slide the product, and connect the male connector on the product to the female connector on the controller.



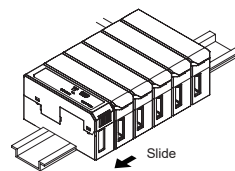
3. Attach end plates **MS-DIN-E** (optional) with the flat side facing in so as to enclose the connected units at the ends.
4. Tighten the screws to fasten the end plates **MS-DIN-E** (optional). Tighten to a torque of 0.3N·m or less.



Note: Be sure to keep the connector cover you removed from the controller.

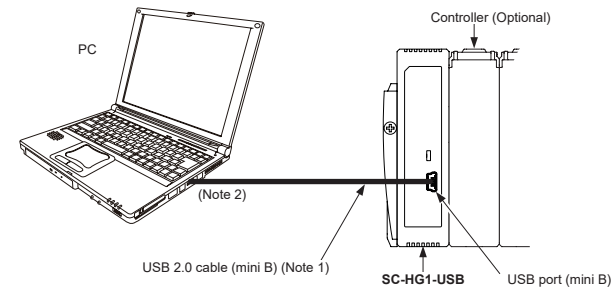
Removal procedure

1. Loosen the screws on the end plates **MS-DIN-E** (optional) and remove the end plates.
2. Slide and disconnect the product and controllers.



6 PROCEDURE FOR CONNECTION TO A PC

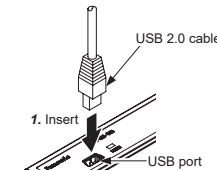
- Connect the product to a PC with a commercially available USB 2.0 cable (mini B).



Notes: 1) Please obtain a USB 2.0 cable (mini B) separately.
2) Select a USB 2.0 cable with a connector type on the PC side that matches the port on the PC.

USB 2.0 cable connection procedure

1. Insert the connector of the USB 2.0 cable into the USB port on the product.

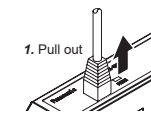


Note: Insert the connector of the USB 2.0 cable firmly.

Do not apply stress, such as excessive bending or pulling, to the extracted part of the USB 2.0 cable.

USB 2.0 cable disconnection procedure

1. With the product secured in place, grasp the connector of the USB 2.0 cable and pull out.



Note: Do not apply excessive force to the cable part of the USB 2.0 cable.

7 SPECIFICATIONS

Product name	USB Communication Unit
Model No.	SC-HG1-USB
Compatible controllers	HG-TC
Number of units connectable	Maximum of 15 controllers (one master, 14 slaves) per SC-HG1-USB unit
Supply voltage (Note 1)	24V DC ±10%, Ripple P-P 10% or less
Current consumption	50mA or less
Communication standard (Note 2)	USB2.0 Full speed
Protocol	Dedicated Panasonic protocol
USB port	USB mini B
Protection	IP40 (IEC)
Pollution degree	2
Ambient temperature	-10 to +45°C (No condensation or icing), Storage: -20 to +60°C
Ambient humidity	35 to 85% RH, Storage: 35 to 85% RH
Operating altitude	2,000m or less (Note 3)
Material	Unit case: Polycarbonate
Weight	Approx. 35g

Notes: 1) Power is supplied from a connected controller (master).
2) Varies depending on the PC operating environment.
3) Do not use or store in an environment that has been pressurized to an air pressure higher than the atmospheric pressure at 0m.

8 CAUTIONS

This product is designed to be used with the **HG-TC** Controller. If used with a separately purchased dedicated controller, the specifications will not be met and product malfunctioning or damage may occur.

- This product has been developed / manufactured for industrial use only.
- Do not use this product outside the range of the specifications. Risk of an accident and product damage. There is also a risk of a noticeable reduction of service life.
- Verify that fluctuations of power input supply voltage do not exceed the rating, including controllers.
- Do not use during the initial transient time after the controller power is switched ON.
- When noise generating equipment (switching regulator, inverter motor, etc.) is used in the vicinity of the product, always connect the frame ground (F.G.) terminal of the equipment to ground.
- Do not wire the USB 2.0 cable (mini B) between the product and PC in parallel with a high-voltage line or power line, or run through the same conduit. Risk of malfunctioning due to induction.
- Make sure the power is OFF while performing connection work.
- This product is suitable for indoor use only.
- Avoid dust, dirt, and steam.
- Do not use in a location where there are corrosive or other harmful gases.
- Ensure that the product does not come into contact with organic solvents such as thinner.
- Ensure that the product does not come into contact with strong acid or alkaline.
- Ensure that the product does not come into contact with oil or grease.
- The product cannot be used in an environment that contains flammable or explosive gases.
- Performance may not be satisfactory in a strong electromagnetic field.
- Do not use the product in a location subject to intense vibration or shock.
- This product is a precision device. Do not drop or otherwise subject to shock. Risk of product damage.
- Never attempt to disassemble, repair, or modify the product.
- When the product becomes unusable or unneeded, dispose of the product appropriately as industrial waste.
- For the procedures for using a connected PC, follow the instructions in the manual provided with the PC.