



Easy! Smooth!

Replacement Guidebook

GP4000H Series → GPH6000 Series (Advanced Handheld HMI)

The 1st Edition January 2026

SE01-Guide-GP4000HtoGPH6000-EN-00

*Products may be changed or discontinued without notice. Please check our website for the latest information.

Update History

Date	Edition	Updated Slide	Description
2026/01/14	1 st	-	Newly created

Legal Information

The information provided in this document contains general descriptions, technical characteristics and/or recommendations related to products/solutions.

This document is not intended as a substitute for a detailed study or operational and site-specific development or schematic plan. It is not to be used for determining suitability or reliability of the products/solutions for specific user applications. It is the duty of any such user to perform or have any professional expert of its choice (integrator, specifier or the like) perform the appropriate and comprehensive risk analysis, evaluation and testing of the products/solutions with respect to the relevant specific application or use thereof.

The Pro-face brand and any trademarks of Schneider Electric SE and its subsidiaries referred to in this document are the property of Schneider Electric SE or its subsidiaries. All other brands may be trademarks of their respective owner.

This document and its content are protected under applicable copyright laws and provided for informative use only. No part of this document may be reproduced or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), for any purpose, without the prior written permission of Schneider Electric.

Schneider Electric does not grant any right or license for commercial use of the document or its content, except for a non-exclusive and personal license to consult it on an "as is" basis.

Schneider Electric reserves the right to make changes or updates with respect to or in the content of this document or the format thereof, at any time without notice.

To the extent permitted by applicable law, no responsibility or liability is assumed by Schneider Electric and its subsidiaries for any errors or omissions in the informational content of this document, as well as any non-intended use or misuse of the content thereof.

Safety Information

Important Information


Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.




The addition of this symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.




This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

 **DANGER**

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 **CAUTION**

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

 **WARNING**

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

Please Note

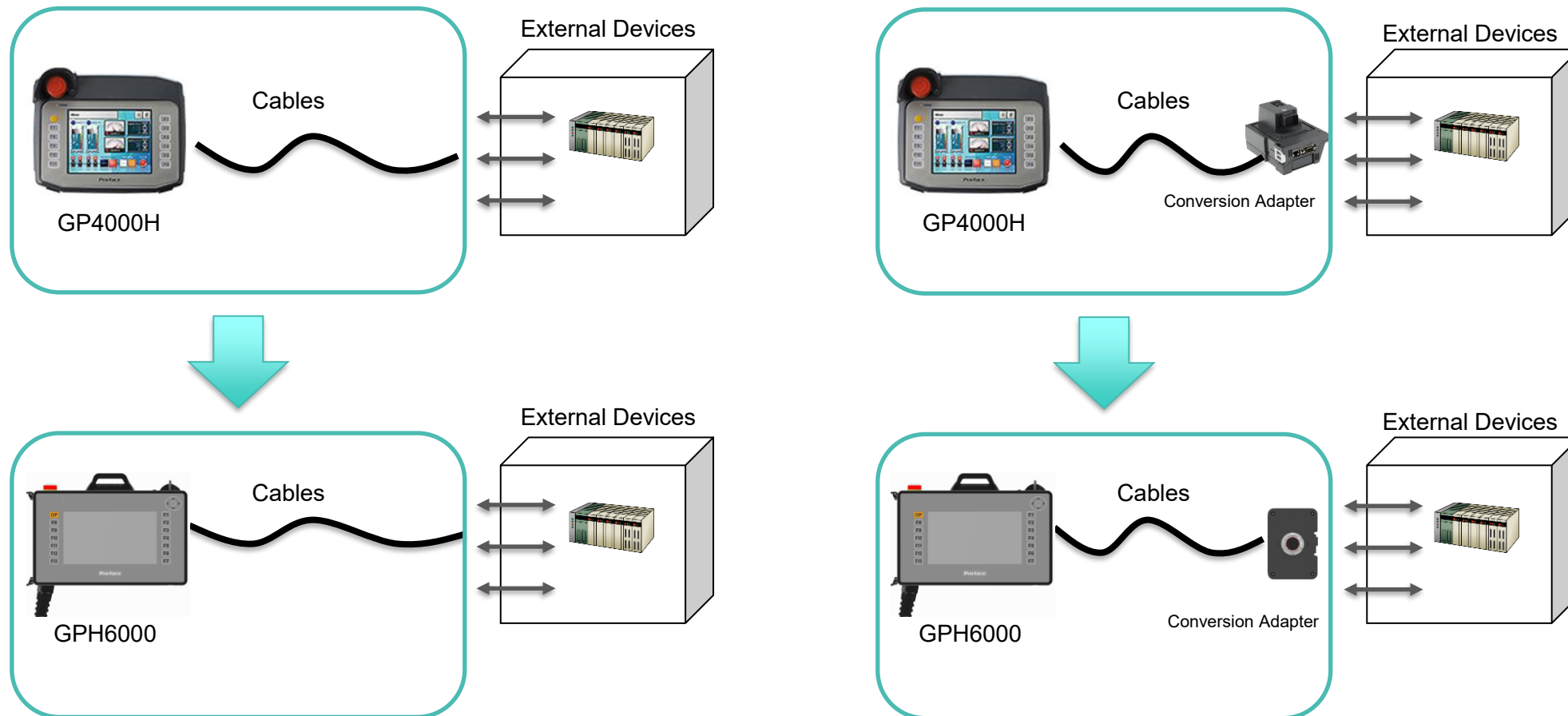
Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.
A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation and has received safety training to recognize and avoid the hazards involved.

About this book

Document Scope

This guidebook introduces the procedures to replace a unit from “GP4000H Series” to “GPH6000 Series”.

Handheld HMI is a solution offer. To start the migration, you must consider the replacement of the solution fitting the connection to the external devices (GP4000H + dedicated direct cables) or the solution (GP4000H + dedicated adapter cables + adapter).



About this book

Validity Note

This document is valid for GPH6000 Series.

The characteristics of the products described in this document are intended to match the characteristics that are available on www.pro-face.com. As part of our corporate strategy for constant improvement, we may revise the content over time to enhance clarity and accuracy. If you see a difference between the characteristics in this document and the characteristics on www.pro-face.com, consider www.pro-face.com to contain the latest information.

Product Related Information

This product has been designed, developed and manufactured for use in industrial or factory automation systems.

- The product is not appropriate for use with aircraft control devices, medical life-support equipment, central trunk data transmission (communication) devices, or nuclear power control devices, due to inherent requirements for extremely high levels of safety and reliability.
- When using the product with transportation vehicles (trains, cars, and ships), disaster and crime prevention devices, safety equipment, or medical devices unrelated to life-support systems, use redundant and/or failsafe system designs to ensure reliability and safety.

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Unplug the power cable from both this product and the power supply prior to installing or removing the product.
- Always use a properly rated voltage sensing device to confirm power is off where and when indicated.
- Replace and secure all covers or elements of the system before applying power to this product.
- Use only the specified voltage when operating this product. This product is designed to use 24 Vdc. Always check whether your device is DC powered before applying power.

Failure to follow these instructions will result in death or serious injury.

DANGER

EXPLOSION HAZARD

- Do not use this product in hazardous environments.
- Do not connect or disconnect this product unless power has been switched off or the area is known to be non-hazardous.
- Do not attempt install, operate, modify, maintain, service, or otherwise alter this product except as permitted in this manual.

Failure to follow these instructions will result in death or serious injury.

About this book

Critical alarm indicators and system functions require independent and redundant protection hardware and/or mechanical interlocks.

Please design a safety circuit external to this product so that the entire system operates safely even if the external power supply or this product fails or malfunctions.

Design the circuit so that power is supplied to the external device or load control power supply connected to this product before it starts.

When you cycle power, wait at least 10 seconds after it has been turned off. If this product is restarted too quickly, it may not operate correctly.

Do not create any switches on the touch panel that may cause personal injury, property damage, or compromise the safety of the equipment. Design the system so that controls for important operations are managed by devices other than this product, or by independent hardware switches.

In the event the screen cannot be properly read, for example, if the backlight is not functioning, it may be difficult or impossible to identify a function. Functions that may present a hazard if not immediately executed, such as a fuel shut-off, must be provided independently of this product.

WARNING

LOSS OF CONTROL

- The designer of any control scheme must consider the potential failure modes of control paths and, for certain critical control functions, provide a means to achieve a safe state during and after a path failure. Examples of critical control functions are emergency stop and overtravel stop, power outage and restart.
- Separate or redundant control paths must be provided for critical control functions.
- System control paths may include communication links. Consideration must be given to the implications of unanticipated transmission delays or failures of the link.
- Observe all accident prevention regulations and local safety guidelines.
- Each implementation of this product must be individually and thoroughly tested for proper operation before being placed into service.
- The machine control system design must take into account the possibility of the backlight no longer functioning and the operator being unable to control the machine, or making errors in the control of the machine.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

For additional information, refer to NEMA ICS 1.1 (latest edition), "Safety Guidelines for the Application, Installation, and Maintenance of Solid State Control" and to NEMA ICS 7.1 (latest edition), "Safety Standards for Construction and Guide for Selection, Installation and Operation of Adjustable-Speed Drive Systems" or their equivalent governing your particular location.

About this book

⚠ WARNING

UNINTENDED EQUIPMENT OPERATION

- The application of this product requires expertise in the design and programming of control systems. Only persons with such expertise should be allowed to program, install, alter, and apply this product.
- Follow all applicable safety standard, local regulations and directives.
- Do not use this product as the only means of control for critical system functions such as motor start/stop or power control.
- Do not use this equipment as the only notification device for critical alarms, such as device overheating or overcurrent.
- Use only the software provided with this product. If you use other software, please confirm the operation and safety before use.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

⚠ WARNING

UNINTENDED EQUIPMENT OPERATION

Do not step or pull cable.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

⚠ CAUTION

RISK OF INJURY, EQUIPMENT DAMAGE

- Do not trip over the cable.
- Always use the hand strap during operation to avoid dropping the product.

Failure to follow these instructions can result in injury or equipment damage.

The following characteristics are specific to the LCD panel and are considered normal behavior:

- LCD screen may show unevenness in the brightness of certain images or may appear different when seen from outside the specified viewing angle. Extended shadows, or crosstalk may also appear on the sides of screen images.
- LCD screen pixels may contain black and white colored spots and color display may seem to have changed.
- When experiencing vibrations within a certain frequency range and vibration acceleration is above what is acceptable, the LCD screen may partially turn white. Once the vibration condition ends, the whitening of the screen is resolved.
- When the same image is displayed on the screen for a long period, an afterimage may appear when the image is changed.
- The panel brightness may decrease when used for a long time in an environment continuously filled with inert gas. To prevent deterioration of panel brightness, regularly ventilate the panel. For more information, please contact customer support. <https://www.pro-face.com/trans/en/manual/1015.html>

⚠ WARNING

SERIOUS EYE AND SKIN INJURY

The liquid in the LCD panel contains an irritant:

- Avoid direct skin contact with the liquid.
- Wear gloves when you handle a broken or leaking unit.
- Do not use sharp objects or tools in the vicinity of the LCD panel.
- Handle the LCD panel carefully to prevent puncture, bursting, or cracking of the panel material.
- If the panel is damaged and any liquid comes in contact with your skin, immediately rinse the area with running water for at least 15 minutes. If the liquid gets in your eyes, immediately rinse your eyes with running water for at least 15 minutes and consult a doctor.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

About this book

NOTICE

REDUCTION OF SERVICE LIFE OF PANEL

Change the screen image periodically and try not to display the same image for a long period of time.

Failure to follow these instructions can result in equipment damage.

⚠ CAUTION

INOPERATIVE EQUIPMENT

- Do not operate or store the product where chemicals evaporate, or where chemicals are present in the air. Chemicals refer to the following: A) Corrosive chemicals: Acids, alkalines, liquids containing salt, B) Flammable chemicals: Organic solvents.
- Do not allow water, liquids, metal, and wiring fragments to enter the product.

Failure to follow these instructions can result in injury or equipment damage.

NOTICE

EQUIPMENT DAMAGE

- Ensure this product is not in permanent and direct contact with oils.
- Do not press on the display of this product with excessive force or with a hard object.
- Do not press on the touch panel with a pointed object, such as the tip of a mechanical pencil or a screwdriver.
- Do not expose the product to direct sunlight.
- Store this product in areas where temperatures are within the product's specifications.

Failure to follow these instructions can result in equipment damage.

Precautions on using models with projected capacitive touch panel

Models with a projected capacitive touch panel may operate abnormally when the display surface is wet.

⚠ WARNING

LOSS OF CONTROL

- Do not touch the touch panel area during operating system startup.
- Do not operate when the touch panel surface is wet.
- If the touch panel surface is wet, remove any excess water with a soft cloth before operation.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

NOTICE

EQUIPMENT DAMAGE

- Do not press on the display of this product with excessive force or with a hard object.
- Do not press on the touch panel with a pointed object, such as the tip of a mechanical pencil or a screwdriver.
- Handle this product carefully to prevent puncture, bursting, or cracking of the panel material.

Failure to follow these instructions can result in equipment damage.

Compared to conventional analog resistive film, projected capacitive touch panels have higher transmittance and lighter touch operation, as well as supporting multi-touch. As it is able to detect weak changes in capacitance, projected capacitive touch panels are susceptible to environmental noise.

While our products have been optimized for industrial environmental noise and conform to CE marking, our products cannot support all environmental noise.

About this book

While our products have been optimized for industrial environmental noise and conform to CE marking, our products cannot support all environmental noise.

Please consider the following in the installation environment to avoid touch malfunction.

Example:

To reduce FG noise flowing into this product:

- Implement noise countermeasures in the equipment. For example, install a noise filter on the inverter, servo amplifier, or other equipment. Refer to the manufacturer's instruction manual.
- Attach a ground wire noise filter to the FG connection of equipment.
- Connect the enclosure for the equipment to the building. For example, connect to the concrete or steel reinforcement parts of the building.

NOTE: If there is a lot of environmental noise, because the noise filter for the touch panel controller has to run, touch response may become slow.

Regarding Open-source Software

The complete list of the open-source components included in the product, and the licenses thereof, may be found in the user interface of the product. From the System Settings, select System > Legal. For at least three (3) years from delivery of this product (and, if provided by the applicable license, for the period in which this product is officially supported by Schneider Electric), Schneider Electric will give to any third party who contacts it at the contact information provided below, for a charge no more than the cost of physically performing source code distribution, a complete machine-readable copy of the corresponding source code (as defined in the applicable license) and of the installation instructions (if provided for, and as defined by the applicable license) of the open source components covered under LGPL or GPL licenses or other licenses with the obligation to do so.

Contact Information: <https://www.pro-face.com/trans/en/manual/1015.html>

General Cybersecurity Information

In recent years, the growing number of networked machines and production plants has seen a corresponding increase in the potential for cyber threats, such as unauthorized access, data breaches, and operational disruptions. You must, therefore, consider all possible cybersecurity measures to help protect assets and systems against such threats.

To help keep your Pro-face products secure and protected, it is in your best interest to implement the cybersecurity best practices as described in the [Cybersecurity Best Practices](#) document.

Pro-face provides additional information and assistance:

- Visit the [Security Notification](#) page to find security notifications.
- [Contact us](#) to report vulnerabilities and incidents.

Related Documents

You can download the manuals related to this product, such as the software manual, from the Pro-face download page.

(www.pro-face.com/trans/en/manual/1085.html)

Information on Non-Inclusive or Insensitive Terminology

As a responsible, inclusive company, Schneider Electric is constantly updating its communications and products that contain non-inclusive or insensitive terminology. However, despite these efforts, our content may still contain terms that are deemed inappropriate by some customers.

Registered Trademarks

Product names used in this manual may be the registered trademarks owned by the respective proprietors.

Cybersecurity

Cybersecurity Guideline

Use this product inside a secure industrial automation and control system. Total protection of components (equipment/devices), systems, organizations, and networks from cyber attack threats requires multi-layered cyber risk mitigation measures, early detection of incidents, and appropriate response and recovery plans when incidents occur. For more information about cybersecurity, refer to the Pro-face HMI/IPC Cybersecurity Guide.

https://www.proface.com/en/download/manual/cybersecurity_guide

<p>⚠ WARNING</p> <p>POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY</p> <ul style="list-style-type: none">• Change default passwords at first use to help prevent unauthorized access to device settings, controls and information.• Disable unused ports/services and default accounts, where possible, to minimize pathways for malicious attacks.• Place networked devices behind multiple layers of cyber defenses (such as firewalls, network segmentation, and network intrusion detection and protection).• Apply the latest updates and hotfixes to your Operating System and software.• Use cybersecurity best practices (for example: least privilege, separation of duties) to help prevent unauthorized exposure, loss, modification of data and logs, interruption of services, or unintended operation. <p>Failure to follow these instructions can result in death, serious injury, or equipment damage.</p>
--

Security Seal

This product has a security seal attached, which helps detect unauthorized repairs or modifications to the product. Once the security seal is removed, it cannot be reapplied, increasing the product's security risk.

<p>⚠ WARNING</p> <p>POTENTIAL COMPROMISE OF SYSTEM AVAILABILITY, INTEGRITY, AND CONFIDENTIALITY</p> <ul style="list-style-type: none">• Do not remove the security seal on the product.• Do not use products with removed security seals. <p>Failure to follow these instructions can result in death, serious injury, or equipment damage.</p>

Index

1

[Summary](#)

2

[Hardware Section](#)

2-1

[Specification Comparison](#)

2-2

[Standard Compatibility](#)

2-3

[Interface Compatibility](#)

2-4

[Installation Method Compatibility](#)

2-5

[Option Equivalence](#)

2-6

[System Configuration](#)

2-7

[Other Important Notes on Hardware](#)

3

[Software Section](#)

3-1

[Replacement Procedure](#)

3-2

[Software Compatibility](#)

3-3

[Other Important Notes on Software](#)

[Appendix](#)

1. Summary

On replacement from GP4000H Series to GPH6000 Series, the following points are the main points to note.

- Difference in product lineup
 - 5 model numbers available in GP4000H Series depending on your preference of with or without switches.
In the case of GPH6000 Series, we have only 1 selection, which has Emergency Stop Switch and Key Switch.

Model in use			Recommended substitutes		
GP4000H Series	PFXGP4311HTAD	without any Stop Switch without Key Switch	→	GPH6000 Series	PFXGPH6400WAD with Emergency Stop Switch (Illuminated, Red) with Key Switch
	PFXGP4311HTADER	with Emergency Stop Switch (Red) without Key Switch			
	PFXGP4311HTADERK	with Emergency Stop Switch (Red) with Key Switch			
	PFXGP4311HTADEYK	with Stop Switch (Yellow) with Key Switch			
	PFXGP4311HTADEGK	with Stop Switch (Gray) with Key Switch			



GP4000H Series



GPH6000 Series
Supported by GP-Pro EX Ver.5.01.000 or later

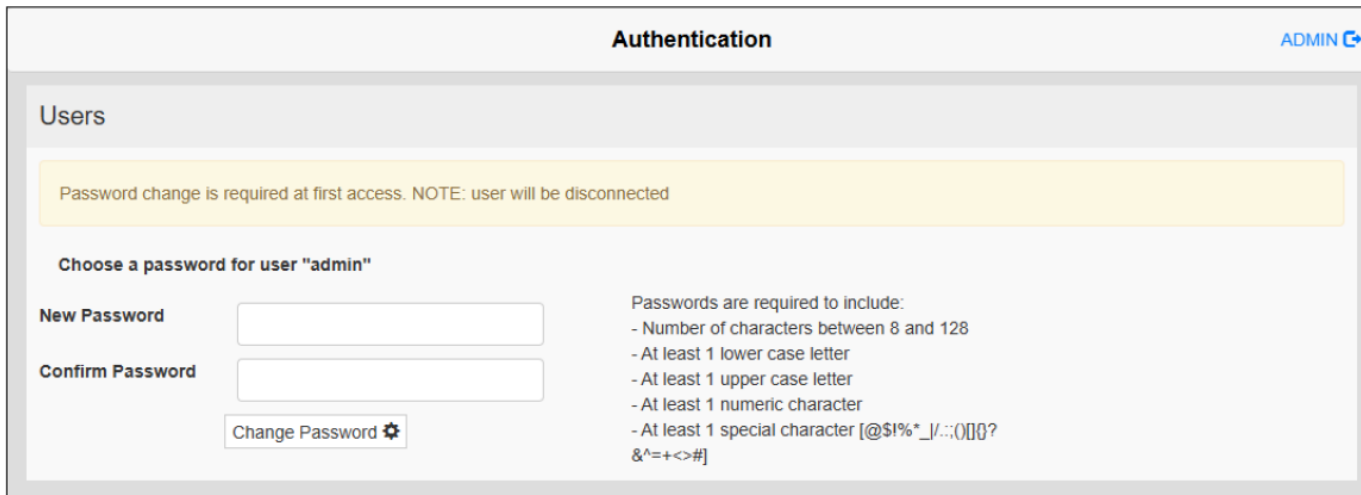
1. Summary

On replacement from GP4000H Series to GPH6000 Series, the following points are the main points to note. (continue)

- Display size & resolution
 - PFXGPH6400WAD has a bigger-sized display and a better resolution.
You need to convert resolution by the screen editing software GP-Pro EX to use old project data from PFXGP4311HTAD*.
- | | | | |
|----------------|------------------------------|---------------|-------------------------------------|
| PFXGP4311HTAD* | 5.7", 640 x 480 pixels (VGA) | PFXGPH6400WAD | 7" wide, 1,024 x 600 pixels (WSVGA) |
|----------------|------------------------------|---------------|-------------------------------------|
- Adapter and cables
 - The options of GP4000H Series such as adapter and cables cannot be used for GPH6000 Series. Please purchase the options for GPH6000 Series.
 - Screen transfer limitation
 - As USB cable transfer is not available with GPH6000, transfer the screen data by Ethernet.
 - Supported software
 - The supported version of GP-Pro EX is V5.01.000 for GPH6000 Series.

1. Summary

- Out-of-box experience is different between GP4000H Series and GP6000 Series.
In the case of GP4000H Series, after power on the product for the first time, Welcome screen is displayed.
In the case of GPH6000 Series, after power on the product for the first time, the **Authentication** screen is displayed.
- Set the password for the administrator user account. Then, the screen goes to the Welcome screen.



NOTE:

- Passwords should be at least 8 characters long and include at least one uppercase letter, one lowercase letter, one number, and one special character.
- You can change the password at any time.
- Please be careful not to forget your password. If you forget the administrator password, you will need to initialize the product. Initializing (device restore) the product will result in the loss of user data stored in the product.
- The password setting is a Cyber Security requirement.



1. Summary

- GPH6000 Series is equipped with System Settings separate from offline mode. In the System Settings, you can configure the settings for the product hardware, such as IP address and internal clock.
- The following configurations are done in the System Settings, not in offline mode.
 - Main Unit – Ethernet settings
 - Maintenance Menu – Calibrate Touch Panel
- The System Settings user interface is based on HTML pages. You can interact with it either directly on the product screen (HMI device) or remotely via a web browser on a connected computer (development environment).
 - For how to set up, refer to:
 - [GPH6000 Series User Guide > System Settings > Setup > Set up on Device](#)
 - [GPH6000 Series User Guide > System Settings > Setup > Set up via PC \(Remote Setup\)](#)



Set up on Device



Set up via PC

- Password entry is required to log in to System Settings. Please manage your password appropriately so you do not forget it.
- For more information about the System Settings, refer to GPH6000 Series User Guide.

1. Summary

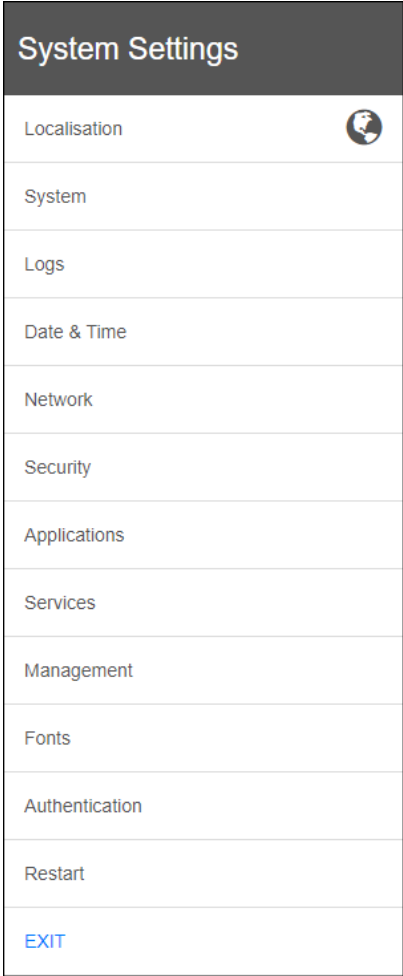
These functions are available in the System Settings.

Function	Description
Localization	Select the language and keyboard for the System Settings user interface.
System	Displays the current operation status of the product.
Logs	Exports the system settings operation log in the product.
Date & Time	Set the date and time of the product's internal clock.
Network	Configure network settings such as the IP address.
Security	Controls access to the external storage connected to the product.
Applications	Add or remove applications and configure how they behave when you turn on your product.
Services	Enable/disable the various services.
Management	Updates system components and applications.
Display*1	Calibrate the touch panel.
Fonts	Lists the available system fonts. You can also upload custom fonts. NOTE: Please note that using the font files may require a license.
Authentication	Manage permissions to access the system settings.
Restart	Restart the product.
Exit	Log out from the System Settings. Return to the screen before logging in.

***1 Display** only appears in the menu only when you log in System Settings with tap-tap operations on the 7-inch wide model. Refer to “Display System Settings on the Product Screen” in GPH6000 Series User Guide.

To change system settings values, enter edit mode by touching the EDIT button at the top right of the screen. The EDIT button is available only in screens with modifiable parameters.

NOTE: For more information about System Settings, refer to GPH6000 Series User Guide.



2. Hardware Section

2-1. GP4000H vs GPH6000 Specification Comparison -1. Basic Information-

		PFXGP4311HTAD*	PFXGPH6400WAD	Points to note when replacing
Display Type		TFT Color LCD	TFT Color LCD	
Display Size		5.7"	7" wide	Display size becomes bigger.
Resolution		640 x 480 pixels (VGA)	1,024 x 600 pixels (WSVGA)	Need resolution setting change by Software
Display colors		65,536 colors (no blink) 16,384 colors (with blink)	16,777,216 colors (no blink) 4,194,304 colors (with blink)	
Backlight		White LED (not user replaceable)	White LED (not replaceable)	Backlight is not replaceable.
Backlight service life		50,000 hours or more (before backlight brightness decreases to 50%)	30,000 hours or more (before backlight brightness decreases to 50%)	
Brightness control		16 levels (Adjusted with touch panel)	0-100 (Adjusted with touch panel or software)	
Touch panel type		Resistive film (analog, single touch)	Resistive film (analog, single touch)	
Touch panel service life		1 million times or more	1 million times or more	
Application memory	Screen area	FLASH EPROM 32MB	eMMC Flash 128MB	
	Logic Program	FLASH EPROM 132KB (15,000 steps)	eMMC Flash 132KB (15,000 steps)	
Backup memory	Screen area	SRAM 320KB	FRAM 320KB	
	Variable area	SRAM 64KB	FRAM 64KB	
Battery (clock data backup)		Rechargeable battery / Secondary battery for clock data backup	Rechargeable battery / Secondary battery for clock data backup	
Rated Input Voltage		DC24V (Input voltage limits: DC19.2~28.8V)	DC24V (Input voltage limits: DC19.2~28.8V)	
Power Consumption		12W or less (maximum power consumption) 8W or less (when power is not supplied to external devices)	12W or less	
IP Rating		IP65F	IP65F	
External Dimensions		W224 x H178.3 x D87.8 mm (without any Stop Switch) D107.7 mm (with an Emergency Stop Switch or a Stop Switch)	W270 x H189 x D63 mm	
Weight		910g or less (without a key switch, unit only) 960g or less (with a key switch, unit only)	1,100g (with a key switch, unit only)	

2-1. GP4000H vs GPH6000 Specification Comparison -2. Interfaces-

		PFXGP4311HTAD*	PFXGPH6400WAD	Points to note when replacing
Environmental Spec	Ambient air temperature / humidity	0-40 °C 10% to 90% (no condensation)	-20-60 °C 5% to 85% (no condensation)	
	Storage temperature / humidity	-20-60 °C 10% to 90% (no condensation)	-20-70 °C 5% to 85% (no condensation)	
	Drop resistance	1.0m drop	1.0m drop	
	Vibration resistance	1G, IEC/EN 61131-2 compliant	1G, IEC/EN 61131-2 compliant	
	Shock resistance	15G, IEC/EN 61131-2 compliant	15G, IEC/EN 61131-2 compliant	
USB I/F	Type A	1x USB 2.0 (Type A)	1x USB 2.0 (Type A)	N/A for screen transfer via USB Cable
	Mini-B	1x USB 2.0 (mini-B)	-	Screen transfer via Ethernet
SD Card I/F		1x SD card slot (storage)	1x SD card slot (storage)	
Function switches		11x switches (F1 to F11) 1x operation switch	13x switches (F1 to F13) 1x operation switch 1x Cross shape key (navigator)	More function keys with GPH6000 No function switch sheet supported
Dedicated Cable I/F	Serial I/F	1x RS-232C/422/485	1x RS-232C/422/485	
	Ethernet I/F	1x 10BASE-T/100BASE-TX (RJ-45)	1x 10BASE-T/100BASE-TX (RJ-45)	
	Emergency stop switch	Push-lock switch (optional) Red/Yellow/Gray/None	Push-lock switch Illuminated (Red)	
	Enabling switch (3-position enable switch)	3-Position Output Switch on the rear	3-Position Output Switch on the rear	
	Key switch	Optional (depending on model)	Yes	
	External output I/F	Operation output, External buzzer output, DOUT output	-	External output I/F is not supported.
Installation		hanger, wall mount (option)	hanger, magnetic, wall mount (option)	
Option		hand strap, neck strap, touch pen	hand strap, touch pen	No neck strap

NOTE: For more details about specification, please refer to GPH6000 Series User Guide.

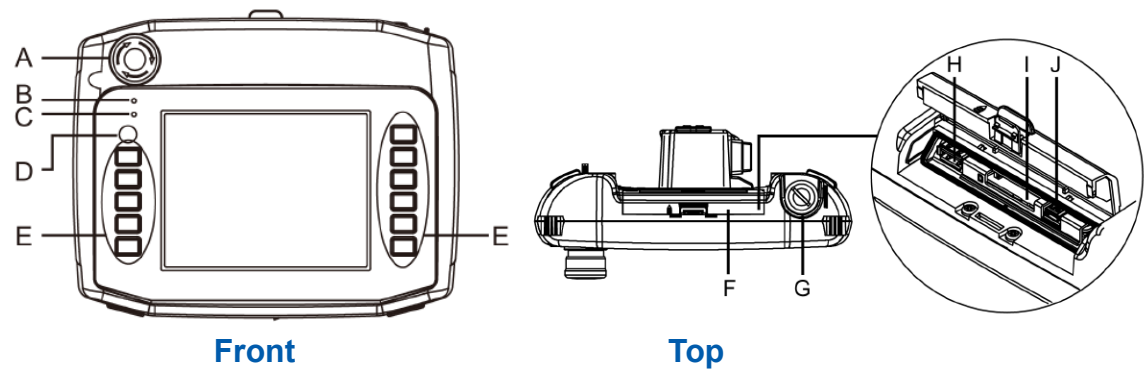
2-2. Standards Compatibility

Certifications and Standards	PFXGP4311HTAD*	PFXGPH6400WAD
CE (EN61000-6-4, EN61000-6-2, EN61131-2)	✓	✓
UKCA	✓	✓
UL/cUL	✓ (UL61010-2-201) (CSA C22.2 No.61010-2-201)	✓ (UL61010-2-201) (CSA C22.2 No.61010-2-201)
UL/cUL Class 1, Div. 2	-	-
ATEX (Zones 2/22, equipment category 3 Gas Dust)	-	-
IECEX (Zones 2/22, equipment category 3 Gas Dust)	-	-
UKEX	-	-
KCs	-	-
NEPSI → CCC-Ex	-	-
RCM (C-Tick)	✓	✓
EAC (GOST-R)	✓	✓
RoHS for EU	✓	✓
RoHS for China	✓	✓
REACH	✓	✓
CCC *apply for CCC exemption	-	-
KC	✓	✓
Marine	-	-
WEEE	✓	✓

2-3. Interface Compatibility – Front, Top and Bottom

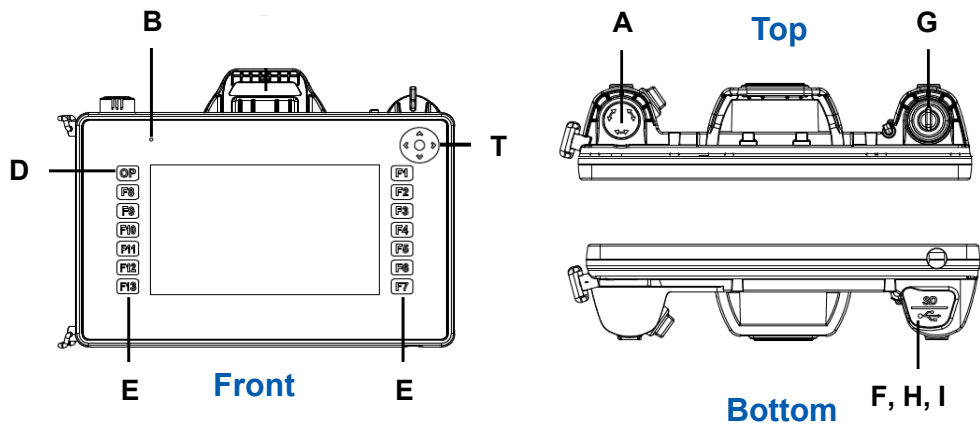
The locations of switches and connectors are different between GP4000H and GPH6000.
Refer to GPH6000 Series User Guide for details such as interface specifications.

PFXGP4311HTAD*



	PFXGP4311HTAD*	PFXGPH6400WAD
A	Emergency stop switch / stop switch	Emergency stop switch
B	Status LED (POWER)	Status LED
C	Operation LED (O.P.)	-
D	Operation switch	Operation switch (OP)
E	Function switches	Function keys
F	Maintenance cover	Cover
G	Key switch	Key switch
H	USB (Type A) interface	USB (Type A) interface
I	SD card slot	SD card slot
J	USB (mini-B) interface	-
T	-	Navigator

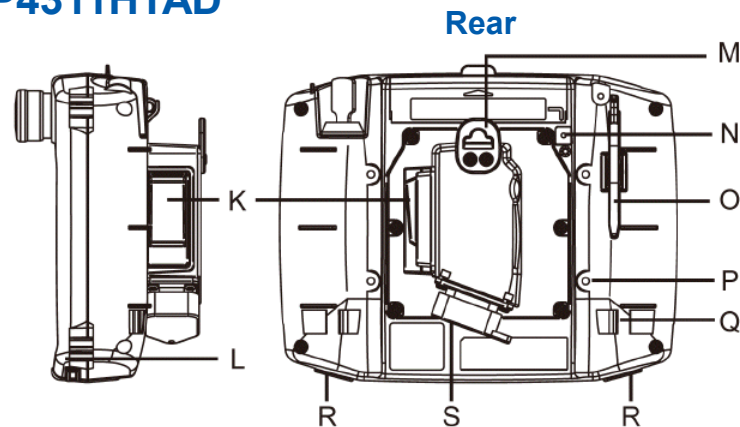
PFXGPH6400WAD



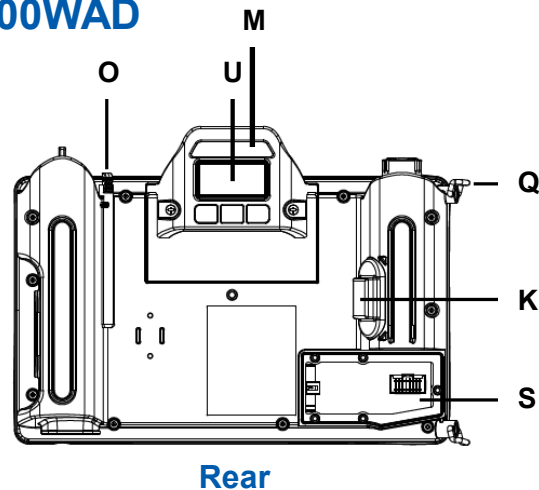
2-3. Interface Compatibility – Rear

The locations of switches and connectors are different between GP4000H and GPH6000.
Refer to GPH6000 Series User Guide for details such as interface specifications.

PFXGP4311HTAD*



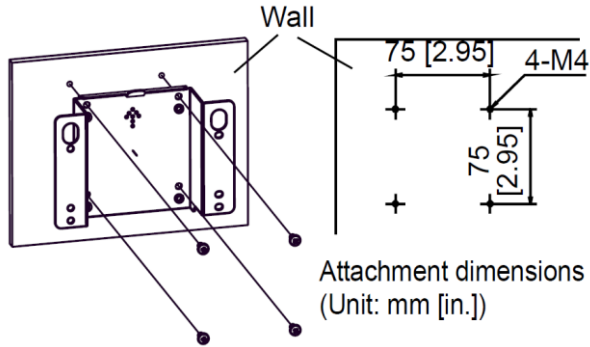
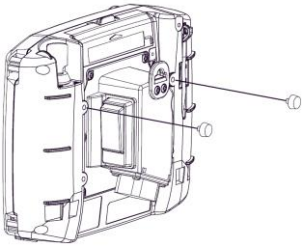
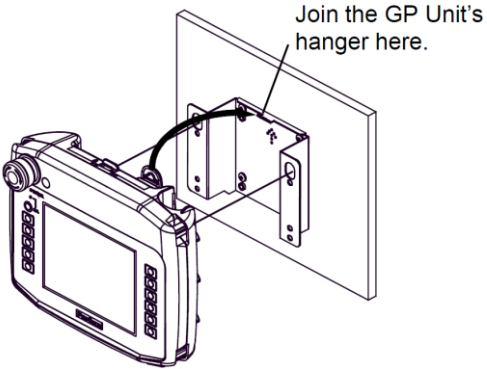
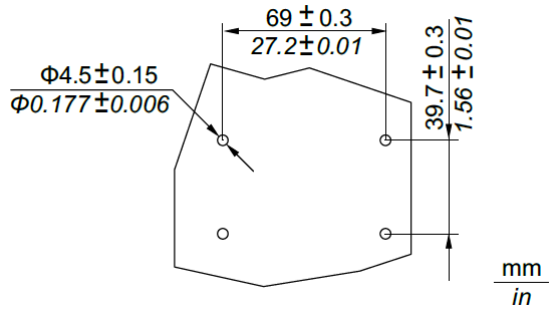
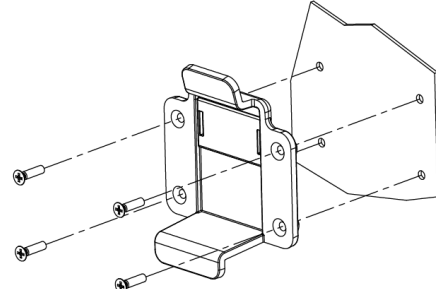

PFXGPH6400WAD



	PFXGP4311HTAD*	PFXGPH6400WAD
K	3-position enable switch	3-position enable switch
L	Neck strap attachment slot	-
M	Hanger	Hanger
N	SD card access LED	-
O	Touch pen	Touch pen
P	Wall handing adapter attachment slots	-
Q	Hand strap attachment slots	Hand strap hook
R	Insertion hole (with cover) for function switch sheet	-
S	Interface for direct-connect cable (with connector cover)	Dedicated cable installation opening
U	-	Magnetic holder

2-4. Installation Method Compatibility

Wall mounting is available using the wall mount adapter (P/N: PFXZHWALADP). As the adapter for GP4000H cannot be used for GPH6000, use the dedicated adapter for GPH6000.

PFXGP4311HTAD*	PFXGPH6400WAD
<p>1) Drill holes in the wall for the supplied screws (M4x6). The necessary torque is 0.5 to 0.7 N•m.</p>  <p>Attachment dimensions (Unit: mm [in.])</p> <p>2) Fasten 2 fixing screws (M4x4 decorative screws) to the rear of GP4000H as shown below.</p>  <p>3) Join the hanger of GP4000H to this attachment.</p> 	<p>1) Drill holes in the wall for M4 screws.</p>  <p>NOTE: Installation screws are not included. Depending on the installation surface, please prepare four M4 screws (screw head type: ISO 7046-1) or self-tapping screws by yourself. Recommended screw length: 14 mm or more.</p> <p>2) Attach the wall hanging adapter to the wall using M4 screws. The necessary torque is 1.3N•m.</p>  <p>3) Hook the hanger of GP-6400WA on this attachment.</p> 

NOTE: It's not possible to mount GPH6000 on a commercial arm (VESA 75mm), that was possible for GP4000H with this option.

2-5. Option Compatibility

Product Name	Product Number (Pro-face CR)	Description	GP4000H	GPH6000
USB Transfer Cable (2m)	PFXZC3CBUSA1 (CA3-USBCB-01)	Downloads project data created with the screen editing software via the display unit's USB I/F.	✓	No
USB Cable (5m)	FP-US00 (PFXZC0CBUS1)	Connects a USB printer (Type B)	✓	No
USB Transfer Cable (USB Type A/mini-B) (1.8 m)	ZC9USCBMB1	Cable for transferring screen data from a PC (USB Type A) to this product (USB mini-B).	✓	No
GP3000H Hard-type 10m Direct-connect Cable	PFXZGPCBH101 (GP3000H-CBLH-10M)	Heavy-duty type interface cable for communication between this product and external equipment (e.g. host controller), equipped with common mode filter.	✓	No
GP3000H Soft-type 3m Direct-connect Cable	PFXZGPCBS31 (GP3000H-CBLS-3M)	Standard type interface cable for communication between this product and external equipment (e.g. host controller), equipped with common mode filter.	✓	No
GP3000H Soft-type 5m Direct-connect Cable	PFXZGPCBS51 (GP3000H-CBLS-5M)		✓	No
GP3000H Soft-type 10m Direct-connect Cable	PFXZGPCBS101 (GP3000H-CBLS-10M)		✓	No
GP3000H Hard-type 10m Direct-connect Cable (with connector)	PFXZGPCBHD101 (GP3000H-CBLHD-10M)	Heavy-duty type cable between the GP3000H Conversion Adapter and this product.	✓	No
GP3000H Soft-type 3m Direct-connect Cable (with connector)	PFXZGPCBSD31 (GP3000H-CBLSD-3M)	Standard type cable between the GP3000H Conversion Adapter and this product.	✓	No
GP3000H Soft-type 5m Direct-connect Cable (with connector)	PFXZGPCBSD51 (GP3000H-CBLSD-5M)		✓	No
GP3000H Soft-type 10m Direct-connect Cable (with connector)	PFXZGPCBSD101 (GP3000H-CBLSD-10M)		✓	No
GP3000H Conversion Adapter	PFXZGPADCM3H1 (AGP3000H-ADPCOM-01)	Conversion Adapter for interfacing with a Cable Connector and External Output I/F output the following connectors; serial: D-Sub 9 pin (plug), ethernet: modular jack (RJ-45), others: terminal block.	✓	No

NOTE: The options for GP4000H Series cannot be used for GPH6000 Series except for SD memory card. Please use the options for GPH6000 Series.
Products may be changed or discontinued without notice. Please check our website for the latest information.

2-5. Option Compatibility

Product Name	Product Number (Pro-face CR)	Description	GP4000H	GPH6000
Direct connection cable 5m	PFXZHCBLOUT5M	Cable for directly connecting the GPH6000 Series (wired type) to the host controller	No	✓
Direct connection cable 10m	PFXZHCBLOUT10M		No	✓
Wired adapter connection cable 5m	PFXZHCBLCOM5M	Cable for connecting the GPH6000 Series (wired type) and wired adapter	No	✓
Wired adapter connection cable 10m	PFXZHCBLCOM10M		No	✓
Wired adapter connection cable 20m	PFXZHCBLCOM20M	Cable for connecting the GPH6000 Series (wired type) and wired adapter, 20 m. Serial communication is not possible when using this cable.	No	✓
Wired adapter *1	PFXZHADPCOM	Conversion adapter for the GPH6000 Series (wired type).	No	✓
SD Memory Card	PFXZCBSD4GC41	SD memory card (4 GB, CLASS4)	✓	✓
	PFXZCSD16GC101	SD memory card (16 GB), SDHC	✓	✓
	PFXZCSD32GC101	SD memory card (32 GB), SDHC	✓	✓
Screen Protection Sheet	PFXZCBDS61	Disposable, dirt-resistant sheet for the display (5 sheets/set)	✓	No
	PFXZCBDS72	Disposable, dirt-resistant sheet for the display (5 sheets/set)	No	✓
UV Protection Sheet	PFXZCFUV61	Sheet to protect the display from dirt and ultraviolet light.	✓	No
Anti-glare sheet	PFXZCAG5W1	Prevent reflections, dirt-resistant sheet for 10-inch wide display (5 sheets/set)	No	✓
Neck Strap	GP2000H-STRAP11	Strap for wearing over the neck.	✓	No
Wall Hanging Adapter	GP3000H-WMA-01	Bracket for mounting this product to a commercially available arm or panel.	✓	No
	PFXZHWALADP	Adapter for hanging the GPH6000 Series on a wall.	No	✓
Grip	PFXZHGRIP	Grip to make GPH6000 Series 10-inch wide model easier to hold	No	✓

*1 For the connection cables with host controllers, refer to the corresponding device driver manual of your screen editing software.

NOTE: Products may be changed or discontinued without notice. Please check our website for the latest information.

2-5. Option Compatibility – Maintenance Options

Product Name	Product Number (Pro-face CR)	Description	GP4000H	GPH6000
Touch Pen	CA7-TPPEN/ALL-01	Touch pens for screen operation (5 pcs / set)	✓	No
	PFXZHTPEN4W	Touch pen for GPH6000 Series 7-inch wide model (5 pcs / set)	No	✓
	PFXZHTPEN5W	Touch pen for GPH6000 Series 10-inch wide model.	No	✓
Hand Strap	GP3000H-HS-01	Strap for hand-held operation.	✓	No
	PFXZHSTRAP		No	✓
Stop Switch Guard	GP3000H-EMGD-01	For preventing accidental operation.	✓	No
Function Switch Sheet	GP3000H-DUPS-01	For changing image of the function switches, 5 sheets/set (x 5)	✓	No

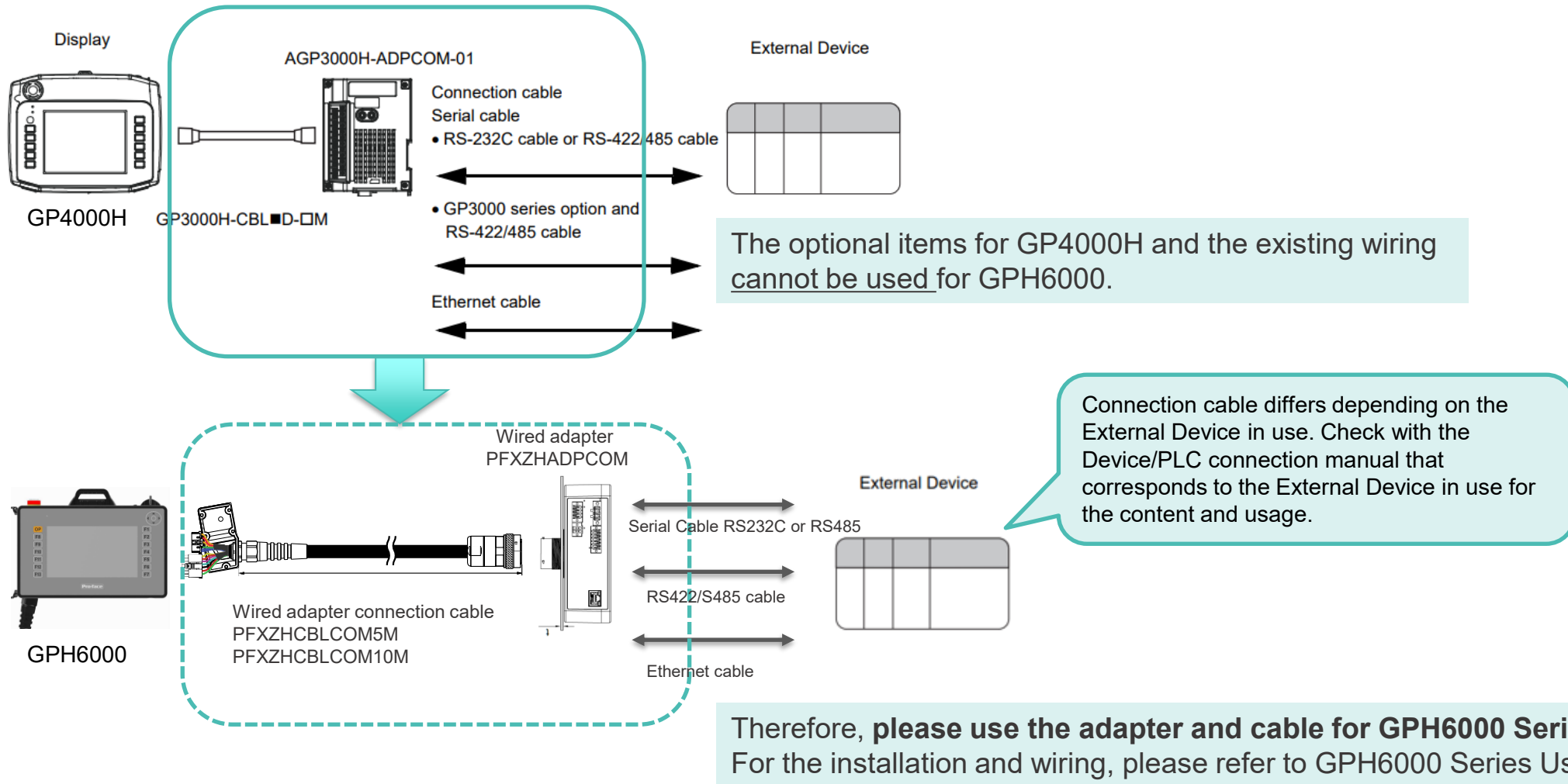
Options / Maintenance Options for Adapters

Product Name	Product Number (Pro-face CR)	Description	GP4000H	GPH6000
RS-232C Isolation Unit	CA3-ISO232-01	Connects a host controller to this adapter with provides isolation. (RS-232C and RS-422 are switchable.)	✓	No
Installation Gasket	GP3000H-WPGADP-01	Provides dust and moisture resistance when GP3000H Conversion Adapter is installed into a solid panel.	✓	No
Maintenance kit for wired adapter	PFXZHCOMKIT	One set includes four types of interface connectors (1 piece of each), installation gasket (1 piece), and installation screws (4 pieces).	No	✓

NOTE: Products may be changed or discontinued without notice. Please check our website for the latest information.

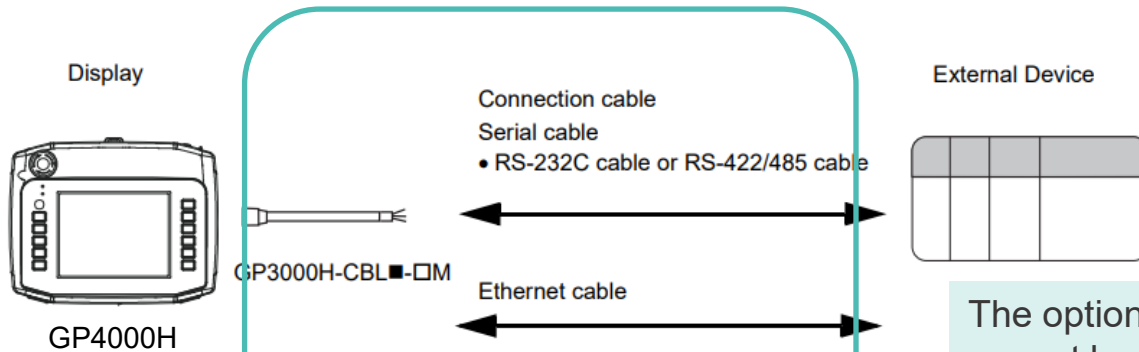
2-6. System configuration when connecting with Adapter

When you are using GP3000H Conversion Adapter (AGP3000H-ADPCOM-01)

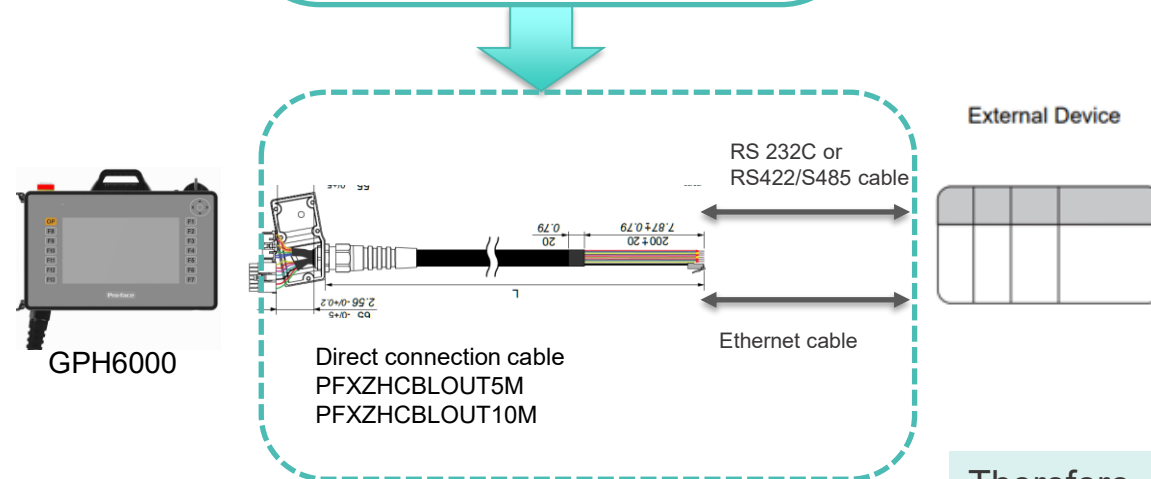


2-6. System configuration when connecting with Direct Connection Cable

When you are using GP3000H Direct-connect cable (without connector)



The optional items for GP4000H and the existing wiring cannot be used for GPH6000.



Connection cable differs depending on the External Device in use. Check with the Device/PLC connection manual that corresponds to the External Device in use for the content and usage.

Therefore, **please use the cable for GPH6000 Series.**
For the installation and wiring, please refer to GPH6000 Series User Guide.

2-7. Other Important Notes on Hardware

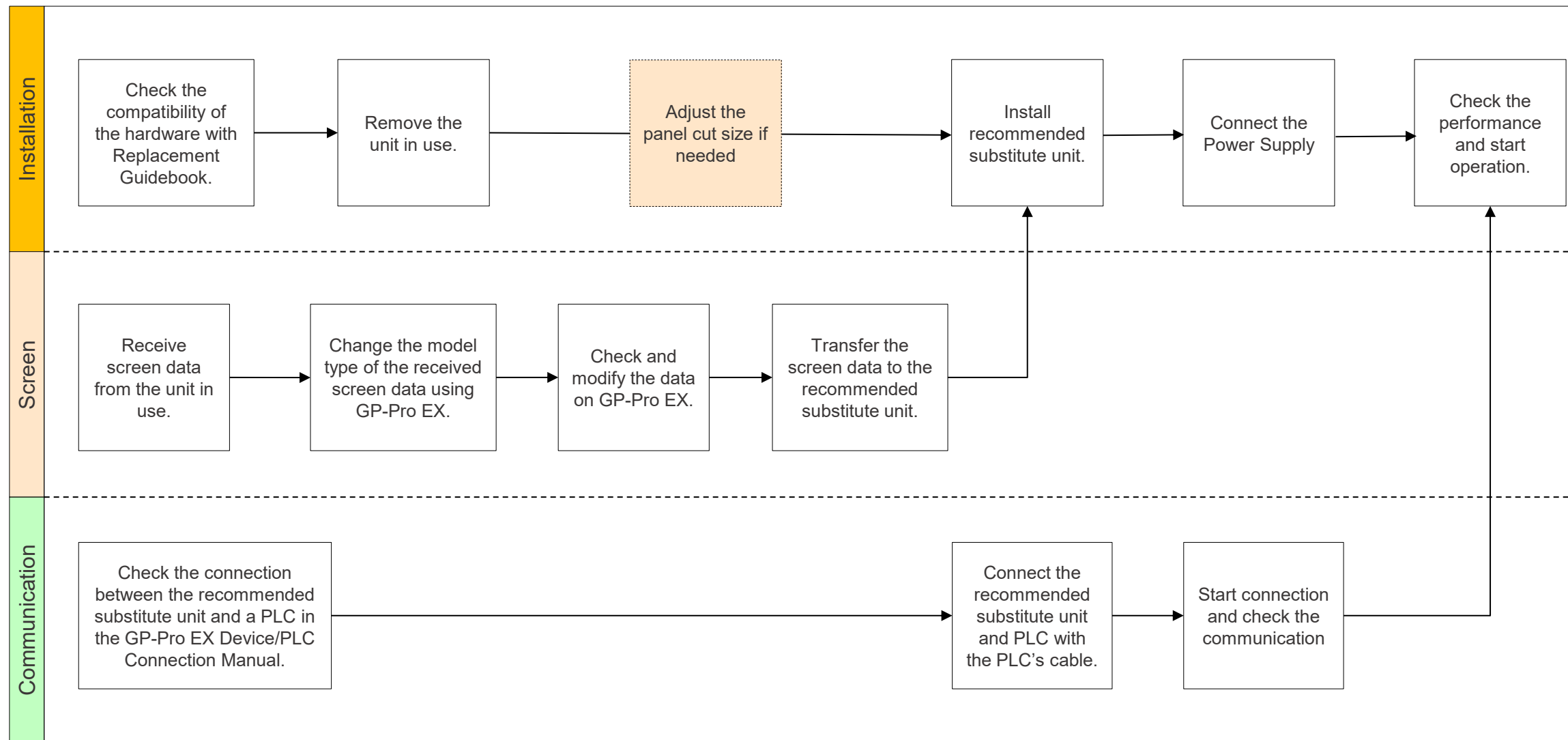
- Emergency Stop Switch specification difference
 - GPH6000 has an emergency stop switch with 2b contacts, while the emergency stop switch of GP4000H is 1a2b contacts.
 - The position of the emergency stop switch has been changed.
- Key Switch specification difference
 - You can turn ON or OFF the power of GP4000H by turning the Key Switch. In the case of GPH6000, the main unit will not be turned ON or OFF by this Key Switch by default but be possible using external relay circuit and Key Switch contacts.
 - The key switch of GP4000H is powered by DC24V. The key switch of GPH6000 is powered by COM contact.
- No rotary switch on GPH6000 Wired Adapter
 - There's no rotary switch on GPH6000 Wired Adapter, so you cannot set the ID number for this product.
 - 1:N connection, to connect one GPH6000 main unit to multiple adapters is not possible.
- External output interface (Operation output, External buzzer output, DOUT output)
 - This interface is not supported by GPH6000 conversion adapter.
- Adapter interface difference
 - 24-terminals block of GP3000H Conversion Adapter is changed to removable Connectors on GPH6000 Wired Adapter.
- Function switches
 - The number of function keys are different. PFXGPH6400WAD has 13 switches while PFXGP4311HTAD* has 11 switches. Please aware of it when converting project data. Please refer to [3-2. Software Compatibility – Adjust function key position](#).
 - No function switch sheet available for GPH6000 Series.

2-7. Other Important Notes on Hardware

- No Status LED for OP switch and SD card access
 - LED indications for Operation Switch (OP) and SD card access are not available on GPH6000. To check the status of OP switch and SD card access, please use the corresponding system variables so that you can confirm it on HMI screen.
- Hot swap is not supported
 - Do not disconnect (or connect) GPH6000 with Wired Adapter when product is power on.

3. Software Section

3-1. Replacement Procedure – Workflow



*1: This step is required if screen data is saved only in the GP unit, not in any other device.

3-1. Replacement Procedure – Preparation

When receiving screen data from GP4000H

Requirements for receiving screen data from the unit in use *1	PC in which GP-Pro EX Transfer Tool is installed. *2
	Transfer Cable (the followings can be used) USB transfer cable: PFXZC3CBUSA1 (Type A - Type A) *It's also possible to send/receive a screen via USB storage device or Ethernet.

When transferring screen data to GPH6000

Requirements for converting screen data of the unit in use and transferring the converted data to Recommended substitute unit	PC with GP-Pro EX installed GPH6000 Series supported version: Ver. 5.01.000 or later NOTE: Need to purchase software license to transfer project from GP-Pro EX Ver. 5.00.000 or later
	Send/receive a screen via Ethernet NOTE: Not possible to transfer via USB transfer cable, USB storage device nor SD card.

***1:** This step is required if screen data is saved only in the HMI unit, not in any other device.

If you already have the screen data backup, please go to “[3-1. Replacement Procedure – Change model to recommended substitute unit \(GP-Pro EX\)](#)”.

***2:** Please use the same or later version of the software used when creating screens on the old model. If you don't know the software version, we recommend that you use the latest one. You can download the latest transfer tool from our website.

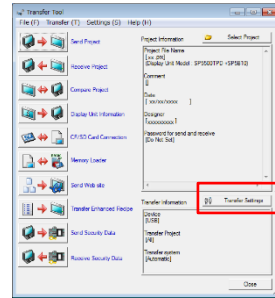
<https://www.proface.com>

3-1. Replacement Procedure – Receive Screen data from the model in use (GP-Pro EX)

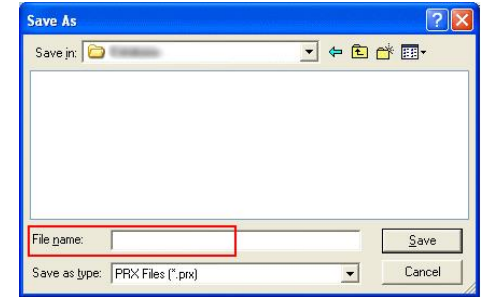
In this section, we will introduce how to receive screen data with a USB transfer cable as an example. If you have the backup of screen data, this step is not necessary. Please go to the next section.

1. Connect your PC and the model in use with a USB transfer cable. If the driver of the cable has not been installed on your PC yet, a dialog box will appear. Please follow the instructions.

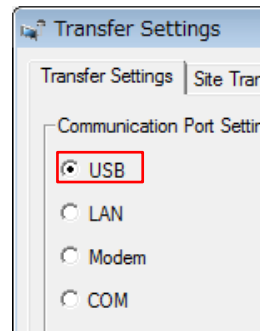
2. Start the Transfer Tool of GP-Pro EX.



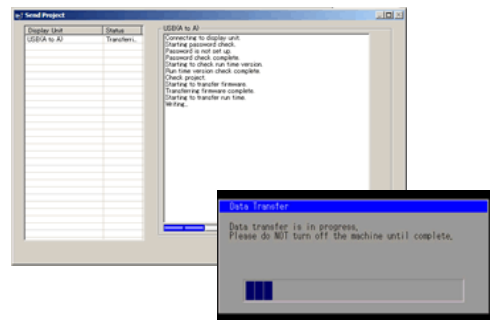
5. Click [Receive Project], and the following dialog box will appear. Specify a place to save the received data in and a project file name, and then click [Save] to start transfer.



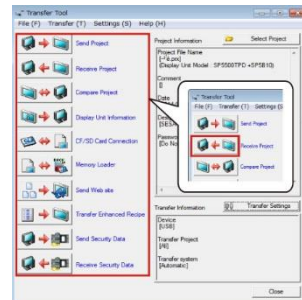
3. Make sure that the [Device] in the “Transfer Settings Information” is set to [USB]. If not, click the [Transfer Setting] button to open the “Transfer Setting” dialog box. Select [USB] in the Communication Port Settings field and click [OK].



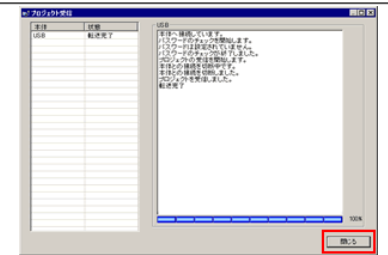
6. The following dialog box appears during transfer, and you can check the communication status. (The display unit enters the Transferring mode and communication with the device such as a PLC is terminated.)



4. Start GP-Pro EX Transfer Tool and click the [Receive Project] button.



7. When transfer is completed, the status displayed in the dialog box will change from [Transferring] to [Complete Transfer]. Click [Close] to close the dialog box.

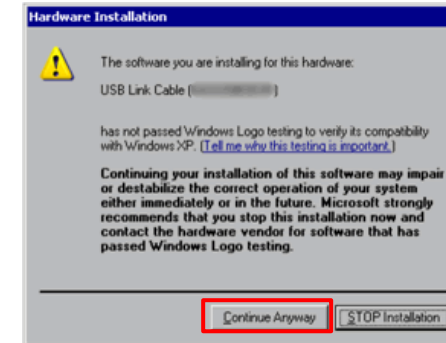


8. Close the Transfer Tool.

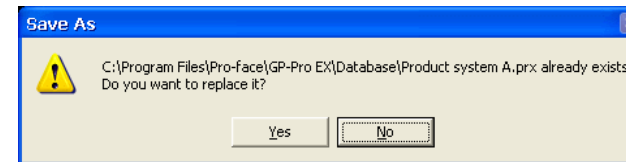
3-1. Replacement Procedure – Receive Screen data from the model in use (GP-Pro EX)

NOTES

- The “Hardware Installation” dialog box as shown on the right may appear during installing the USB driver depending on the security level of Windows®. Click [Continue Anyway] to start installing the driver. When installation is completed, click [Finish].



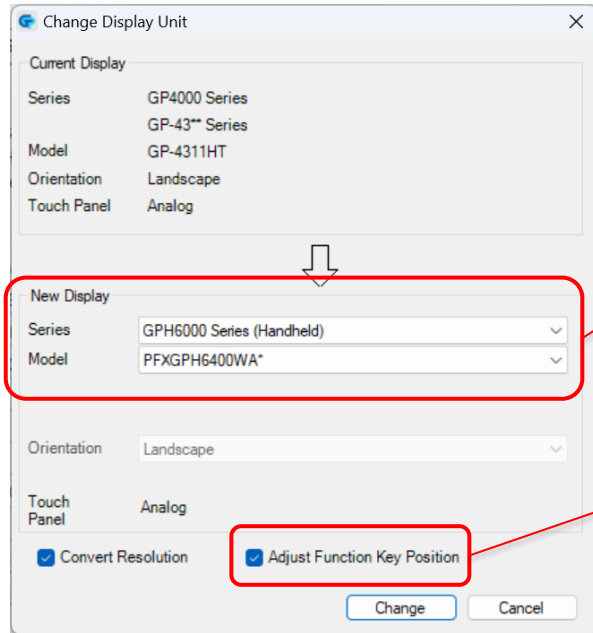
- When the file already exists, a window will appear asking if you want to overwrite the file.



- When receiving a project file that uses SD card/USB memory data such as Recipe Function (CSV data), the following dialog box will appear during the transfer. Please specify where to save the data. Click [OK] to return to the [Receive Project] dialog box and complete the transfer.



3-1. Replacement Procedure – Change model to recommended substitute unit (GP-Pro EX)

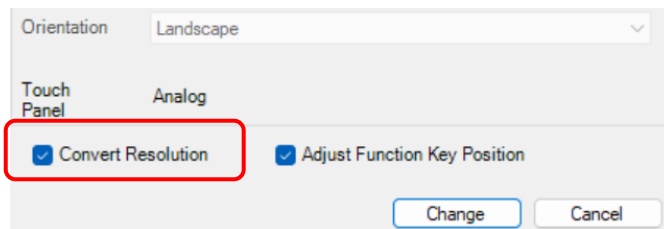


Change the Display unit from GP4000H to GPH6000 Series

The display can be changed from the menu bar “Project” → “System Settings” → “Display” → “Change Display” in GP-Pro EX.

If you check on “Adjust Function Key Position”, you can keep the position of function keys after conversion. For details, refer to [Slide 47](#).

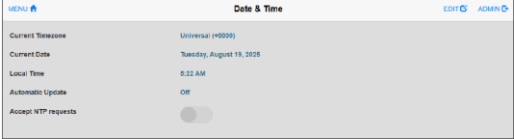
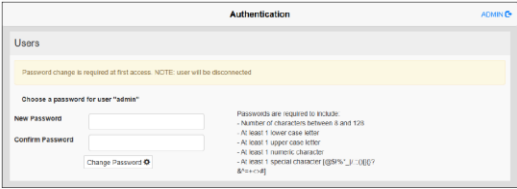
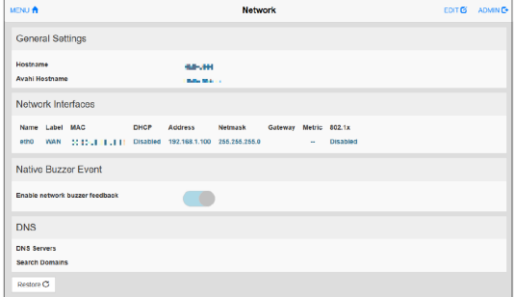

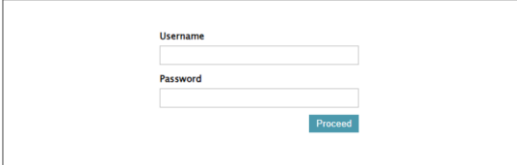

If you check on [Convert Resolution] when changing the Display Unit type (as shown below), you can adjust both size and location of the part and the text relative to the display resolution automatically. But still, you may need to adjust them manually. Please pay attention to the following points.



- A function that requires absolute coordinates. Please adjust the settings manually.
 - **Global window**
 - **Position Animation**
- Due to font size and resolution restrictions, manual changes may be required. Please resize them if needed
 - **Font:** In the case of using Standard font, the size will be smaller. You can improve by using Stroke font or Image font.
 - **Objects**
 - **Parts**
 - **Images**
 - **Alarm parts**
- Position may differ from the original project. Please check the coordinate of the window and adjust if needed.
 - **Window display**

3-1. Replacement Procedure – Transfer screen data to recommended substitute unit (GP-Pro EX)

After turning on the product for the first time, perform the system setup. This procedure is also written in **GPH6000 Series User Guide**.

1. Power on the product.		5. The system settings menu is displayed. From the menu, select Date & Time . To enter editing mode, in the top right-hand corner of the screen, touch EDIT . Set the date and time for the product's internal clock. In the top of the screen, touch SAVE to save the changes.	
2. The Authentication screen is displayed. Set the password for the administrator user account. NOTE: <ul style="list-style-type: none">• Passwords should be at least 8 digits long and include at least one uppercase letter, one lowercase letter, one number, and one special character.		6. From the menu, select Network . Select Network Interface and touch EDIT . Set the product's IP address, subnet mask, and so on. Touch SAVE to save the changes.	
3. The Welcome screen is displayed. Touch System Settings .		7. Change other settings as required.	
4. The Login screen is displayed. Enter the username “ admin ” and the password set earlier, then touch Proceed .		8. From the menu, select EXIT. The Welcome screen is displayed.	

(continue to the next page)

3-1. Replacement Procedure – Transfer screen data to recommended substitute unit (GP-Pro EX)

In this section, we will introduce how to transfer screen data via Ethernet (LAN).

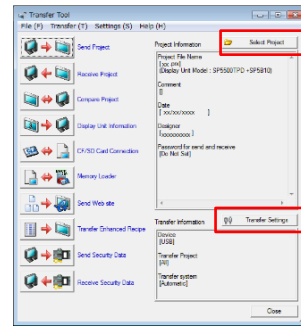
1. After the initial setup on GP6000 (in the previous page), Welcome screen is displayed.



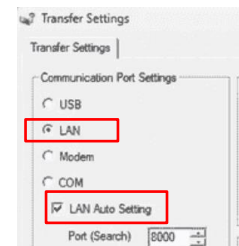
2. Connect the LAN cable to the display unit to establish the network with the PC installed with GP-Pro EX. (Set up the same network IP address on your PC.)

3. On the GP-Pro EX status bar, click the [Transfer Project] icon and launch the Transfer Tool. Confirm the project details in [Project Information]. To transfer a different project, click the [Select Project] button and choose the appropriate project.

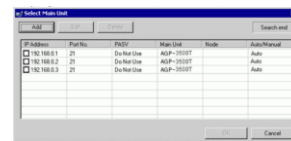
Click [Transfer Setting] to display the [Transfer Tool] dialog box.



4. Ensure that [Communication Port Settings] is set to [LAN]. Select the [LAN Auto Setting] check box and click [OK].



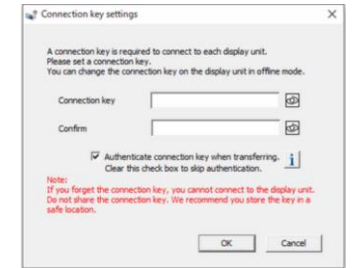
5. Click [Send Project]. The [Select Display Unit] dialog box displays the IP addresses of the display units available on the network.



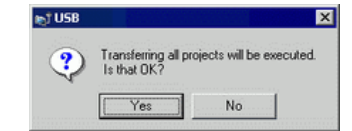
6. Select each IP address of the display unit to which you want to transfer and click [OK]. When multiple IP addresses are checked, the project is sent to multiple display units at once.

7. Set the connection key and click [OK].

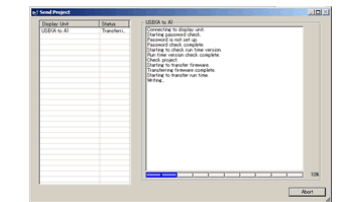
NOTE: If you forget the connection key, you will not be able to connect to the display unit. For more information about connection key, refer to GP-Pro EX reference manual (34.14.4 How the Connection Key Works).



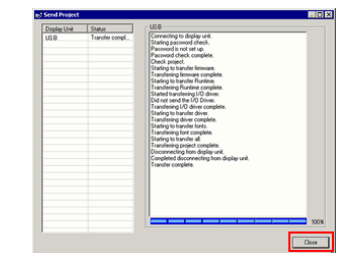
8. When the following dialog box appears, click [Yes].



9. The transfer begins. The following dialog box appears during transfer, and you can check the communication status. (The display unit changes to Transferring mode and communication with the device/PLC is suspended.)



10. When transfer is completed, the state of the dialog box changes from [Transferring] to [Transfer Complete]. Click [Close].



3-2. Software Compatibility – GP-Pro EX Supported Feature Comparison

Specification UP in GPH6000

NOT supported in GPH6000

GP-Pro EX Feature		GP4000H	GPH6000
Display	Screen Area (Application memory, unit: byte)	32M	128M
	Portrait Installation	-	-
	Function Expansion Memory	-	-
	Installing the USB/RS-422/485 Conversion Adapters	✓	-
	MAC Address Display	✓	✓
External Storage	CF Card	-	-
	SD Card	✓	✓
	CFast Card	-	-
	USB storage	✓	✓
	FTP server	✓	✓
System Settings	Drawing in 256 colors	✓	✓
	Reverse Display	✓	-
	Blink	✓	✓
	Faded Color Blink	✓	✓
	Synchronize Text Display with Text Table	✓	✓
	Time Zone settings	-	✓*1
	Enhanced System Password	✓	✓
	Detect Backlight Burnout	-	-
	Dimmer settings	✓	✓
	2-point touch / Multitouch	-	-
	Display the SD/USB Removal Icon	✓	✓

*1 Set in the System Settings.

3-2. Software Compatibility – GP-Pro EX Supported Feature Comparison

Specification UP in GPH6000

NOT supported in GPH6000

GP-Pro EX Feature		GP4000H	GPH6000
System Settings	Screen Capture	✓	✓
	SRAM Auto Backup	✓	✓
	Image Font	✓	✓
	Bitmap Font	✓	✓
	Standard Font	✓	✓
	Port Control	-	✓
Device/PLC Communication *1	Number of Devices/PLCs that can communicate simultaneously	4	4
	Specify Indirect Device	✓	✓
	Import Device/PLC tags	✓	✓
	Ethernet Multilink	✓	✓
	Device Monitor	✓	✓
	Ladder Monitor	-	-
Transfer	Network Transfer	✓	✓
	USB Transfer	✓	-
	Modem Transfer	✓	-
	SIO Transfer (COM Connection)	✓	-
	Memory loader feature	✓	-
	CF/SD Card Connection	✓	✓
	Connection Key	✓	✓

*1 Depends on the type of connected PLC/Device.

3-2. Software Compatibility – GP-Pro EX Supported Feature Comparison

Specification UP in GPH6000

NOT supported in GPH6000

GP-Pro EX Feature		GP4000H	GPH6000
Common Settings	Change Backlight Color	-	-
	Clock Update Settings	✓	✓
	Start Screen Settings	✓	-
	Date format on CSV file output	✓	✓
	Divide destination folders by file numbers	✓	✓
	Increase Alarm Type [Extended] settings and Text Table index numbers	✓	✓
	Alarm Message Multiple Line Display	✓	✓
	Attach Data Value to Operation Log	✓	✓
	Changing passwords at run time (CSV file)	✓	✓
	Changing passwords at run time (password change screen)	✓	✓
	User ID Mode – Enhanced	✓	✓
	Append Date/Time to CSV File Name	✓	✓
	Transfer sampling CSV file to FTP	✓	✓
	Transferring sampled data to the cloud	✓	✓
	Indirectly specify Sampling Frequency and Alarm Settings	✓	✓
	Sampling data/Enhanced recipe data format co-exist	✓	✓
	Create a recipe (CSV data) index file at runtime	✓	✓
	Enhanced Recipes	✓	✓
	Extended Script copy file function	✓	✓
	Global Trigger	✓	✓

3-2. Software Compatibility – GP-Pro EX Supported Feature Comparison

Specification UP in GPH6000

NOT supported in GPH6000

GP-Pro EX Feature		GP4000H	GPH6000
Common Settings	Movie record/play feature	-	-
	Use Image unit	-	-
	Sound Output Feature	-	-
	AUX	-	-
	Retentive Variables Function	✓	✓
	PDF Settings	-	-
Parts	Selector List	✓	✓
	XY Graph (Historical Trend, Data Block Display Graph)	✓	✓
	Picture Display [CF Image Display] / [SD Image Display] for showing JPEG files	✓	✓
	Indirectly specify a block of Alarm parts	✓	✓
	Special Data Display [File Manager] sort function and default path	✓	✓
	Special Data Display [File Manager] copy file to FTP	✓	✓
	Message Display's Bulletin Message	✓	✓
	Image Sensor Display	✓	✓
	Animation	✓	✓
	Alarm History Message Flow Display	✓	✓
	Alarm History / Sampling Data / Enhanced Recipe Data Refine Search / Sort Function	✓	-
	Alarm Analysis Function	✓	-

3-2. Software Compatibility – GP-Pro EX Supported Feature Comparison

Specification UP in GPH6000

NOT supported in GPH6000

GP-Pro EX Feature		GP4000H	GPH6000
Logic ^{*1}	Logic Program Operation	✓	✓
	I/O Driver	-	-
	Function Block	✓	✓
Network	RPA Function (end of support from Ver.4.09.400)	-	-
	GP-Viewer EX	✓	-
	FTP Function	✓ ^{*2}	✓ ^{*2}
	Web Server (end of support from Ver.4.09.450)	-	-
	Camera-Viewer EX	-	-
	Pro-face Remote HMI	✓	-
	E-mail	✓	-
	GP Remote Printer Server	✓	-
	Pro-face Connect (models you can register as SiteManager)	✓	-
	IPsec	✓	-
	DHCP Function	-	✓ ^{*3}
	Changing the IP address using system variables	-	-
	Pro-Server EX	✓	-
Input Equipment / Peripheral Equipment (USB Device)	USB Keyboard	-	-
	EZ Illuminated Switch	-	-
	EZ Tower Light	-	-
	EZ LAN Adapter	-	-

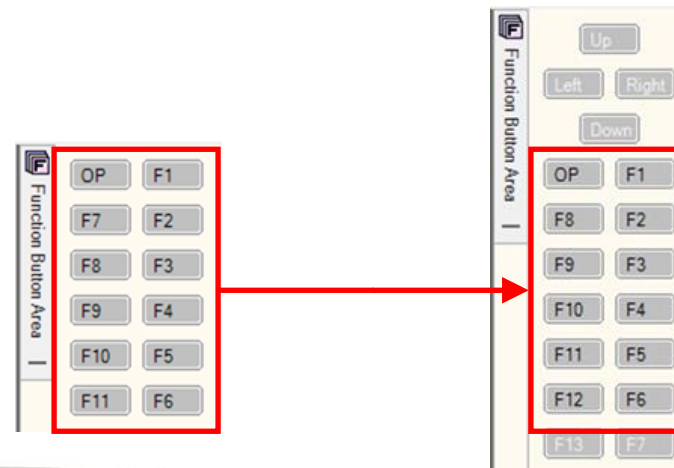
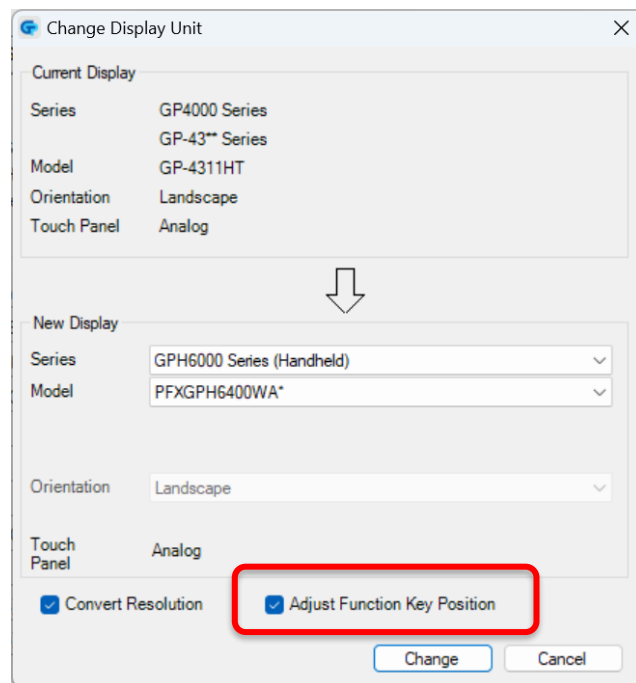
^{*1} Unable to use with USB-Serial (RS-232C) adaptor cable or USB/RS-422/485 conversion adapter. ^{*2} Supports encryption of transmission data using FTPS. ^{*3} Set in the System Settings.

3-2. Software Compatibility – Supported Software Version

Supported Software	GP4000H	GPH6000	Compatibility of Project Data
GP-Pro EX	✓	✓ Ver. 5.01.000 or later	✓
	https://www.pro-face.com/otasuke/files/manual/gpproex/new/refer/gpproex.htm		
Pro-Server EX	✓	-	-
	https://www.pro-face.com/otasuke/files/manual/soft/server_ex/v1_37/ref/SRPreface.htm		
Pro-face Remote HMI (iOS/Android)	✓	-	-
	https://www.pro-face.com/otasuke/qa/remotehmi/faq.html		
Pro-face Remote HMI Client for Win	✓	-	-
	https://www.proface.com/en/product/soft/remotehmi_client/download		
Pro-face Connect	✓	-	-
	https://www.proface.com/en/product/soft/proface_connect/download		

3-2. Software Compatibility – Adjust function key position

- The number of function keys are different. PFXGPH6400WAD has 13 switches while PFXGP4311HTAD* has 11 switches. Functions set on function keys of PFXGP4311HTAD* can be assigned to keys of PFXGPH6400WAD in the same position by the GP-Pro EX setting below.
- When change display unit from GP4000H to GPH6000, add check mark on “Adjust Function Key Position”.



3-3. Other Important Notes on Software

- The Date & Time in the System Settings synchronizes with the Time Setting in offline mode. We recommend adjusting the time setting in offline mode after the project file is transferred.
- We recommend using the Port Control feature in GP-Pro EX to control communication and prevent unauthorized access.
- Do not use the following Ethernet port numbers in a project file because these Ethernet port numbers are used by the display unit system.
 - 3000
 - 4804
 - 8001
 - 8080
- When the backlight is OFF (standby mode), the status LED flashes in green (ON/OFF every 3 seconds).
- You cannot use bar code readers or two-dimensional code readers.
- You cannot print display unit screens or saved data by connecting a printer to the display unit.
- When communicating with external equipment, even if you set the communication format to RS-232C, you cannot set up the 5V power supply.
- Not compatible with the DOUT output on the optional GP3000H Conversion Adapter (AGP3000H-ADPCOM-01).
- The following Transfer Tool functions are not supported.
 - Display Unit Information - Display Unit
 - Memory Loader
- Maintenance Menu - In offline mode, Memory Info does not display the NAND USE/TOTAL information.

Appendix

Appendix

To compare the interface specifications between GP4000H and GPH6000:

- [\[Appendix 1\] Interfaces of GP3000H Conversion Adapter \(P/N: AGP3000H-ADPCOM-01\)](#) *GP4000H option
- [\[Appendix 2\] Interfaces of GPH6000 Wired Adapter \(P/N: PFXZHADPCOM\)](#)
- [\[Appendix 3\] Installation of GPH6000 Wired Adapter \(P/N: PFXZHADPCOM\)](#)

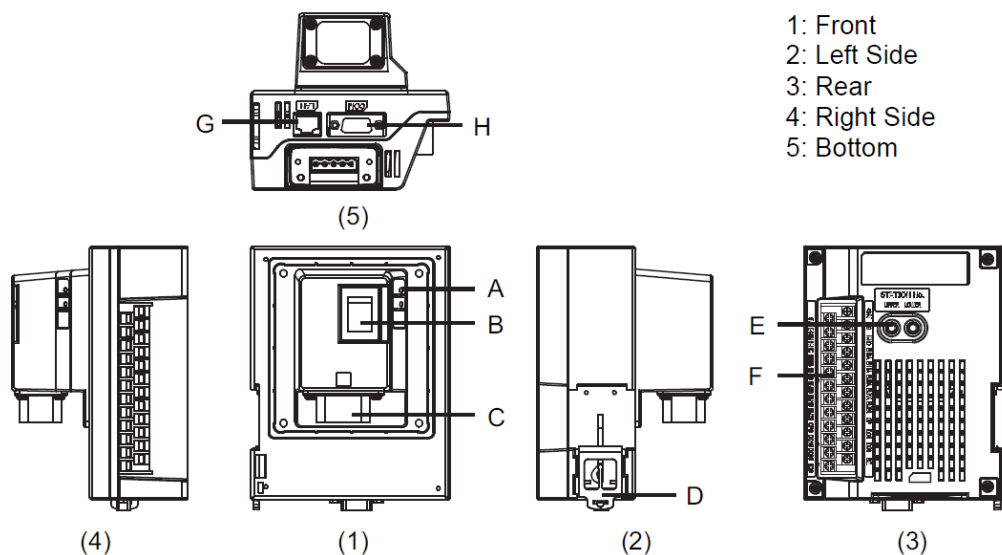
To compare the signal line specifications between GP4000H and GPH6000:

- [\[Appendix 4\] Signal line of GP4000H Direct-connect cables](#)
- [\[Appendix 5\] Signal line of GPH6000 Direct connection cables \(P/N: PFXZHCBL0UT5M /10M\)](#)

To check how to install the cable to GPH6000:

- [\[Appendix 6\] How to install the dedicated cable to GPH6000](#)

[Appendix 1] Interfaces of GP3000H Conversion Adapter (P/N: AGP3000H-ADPCOM-01)



A	LED	The color changes depending on the status.
B	Power switch	I: Power ON, O: Power OFF
C	External Interface	Connect the direct-connected cable (with connector) to the display unit. The connector cover is attached.
D	Hook	For mounting to a DIN rail (35 mm [1.38 in])
E	Rotary switch	Use the [UPPER] and [LOWER] rotary switches to set the ID number*1 for this product. The [UPPER] rotary switch sets digit 2 of the hexadecimal number, and the [LOWER] rotary switch sets digit 1 of the hexadecimal number, for an ID number range of 0 to 255 (00H to FFH). Example: For 95 (5FH), set the [UPPER] rotary switch to 5, and the [LOWER] rotary switch to F.
F	24-pole terminal block	Connect DOUT signals and other external outputs, power supply lines, etc. Customer to provide connection cable.
G	Ethernet interface	Standard: IEEE802.3u, 10BASE-T/100BASE-TX Connector: Modular jack (RJ-45) x 1
H	Serial interface	Switch the communication method between RS-232C and RS-422/RS-485 via the software

*1 Support of ID numbers, and how the ID number is used, differs depending on the screen editing software. For details, refer to your screen editing software manual.

24-pole terminal block (power, external outputs, etc.)

This product side	Pin No.	Signal name	Description
	1	DC24V	Power input 24 Vdc
	2	0V	Power input 0 Vdc
	3	FG	Functional ground (common with SG)
	4	KEY_COM*1	Key switch common. When this product's power on, 24 Vdc is output. Rating: 24 Vdc \pm 20%, 200 mA
	5	KEY_NO	Key switch (a-contact: normally open)
	6	KEY_NC	Key switch (b-contact: normally closed)
	7	ENB0A	3-position operation switch 0A (a-contact) Rating: 30 Vdc, 700 mA (Minimum applicable load: 3 Vdc, 5 mA)
	8	ENB0B	3-position operation switch 0B (a-contact)
	9	ENB1A	3-position operation switch 1A (a-contact) Rating: 30 Vdc, 700 mA (Minimum applicable load: 3 Vdc, 5 mA)
	10	ENB1B	3-position operation switch 1B (a-contact)
	11	EMG0A	Emergency stop switch / Stop switch 0A (a-contact) Rating: 30 Vdc, 1 A (Minimum applicable load: 5 Vdc, 1 mA)
	12	EMG0B	Emergency stop switch / Stop switch 0B (a-contact)
	13	EMG1A	Emergency stop switch / Stop switch 1A (b-contact) Rating: 30 Vdc, 1 A (Minimum applicable load: 5 Vdc, 1 mA)
	14	EMG1B	Emergency stop switch / Stop switch 1B (b-contact)
	15	EMG2A	Emergency stop switch / Stop switch 2A (b-contact) Rating: 30 Vdc, 1 A (Minimum applicable load: 5 Vdc, 1 mA)
	16	EMG2B	Emergency stop switch / Stop switch 2B (b-contact)
	17	OP	OP. output, open collector: 24 Vdc, 300 mA
	18	OP_GND	OP. ground
	19	DOUT1	DOUT1 output, open collector: 24 Vdc, 300 mA
	20	DOUT1_GND	DOUT1 ground
	21	DOUT0	DOUT0 output, open collector: 24 Vdc, 300 mA
	22	DOUT0_GND	DOUT0 ground
	23	BUZZ	Buzzer output, open collector: 24 Vdc, 300 mA
	24	BUZZER_GND	Buzzer ground

*1 [KEY_COM] terminal is used as a power source for the external safety circuit when developing the external safety circuit using display unit's Key Switch. When this product's power on, 24 Vdc is output. Do not connect pin #4 [KEY_COM] to touch any other terminals. For the details, refer to "GP3000H Conversion Adapter Installation Guide".

[Appendix 1] Interfaces of GP3000H Conversion Adapter (P/N: AGP3000H-ADPCOM-01)

Serial interface

Asynchronous transmission	RS-232C/422/485
Data length	7 or 8 bits
Stop bit	1 or 2 bits
Parity	None, odd, or even
Data transmission speed	2,400...115,200 bps, 187,500 bps (MPI)
Maximum transmission distance*1	15 m (RS-232C), 1,200 m (RS-422, 115,200 bps)
Connector	D-Sub 9 pin (plug) x 1

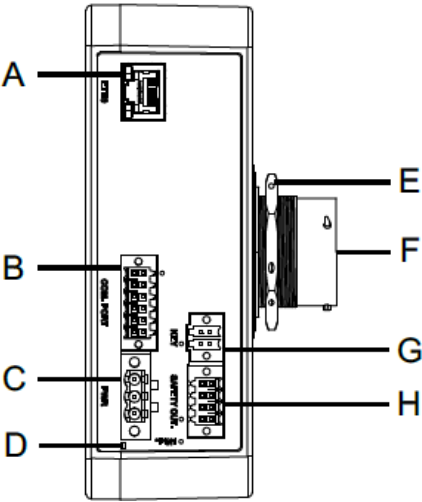
*1 Includes length of connection cable between the display unit and this product.

Pin #	RS-232C		RS-422/RS-485	
	Signal name	Description	Signal name	Description
1	CD	Carrier detect	RDA	Receive data A(+)
2	RD(RXD)	Receive data	RDB	Receive data B(-)
3	SD(TXD)	Send data	SDA	Send data A(+)
4	ER(DTR)	Data terminal ready	ERA	Data terminal ready A(+)
5	SG	Signal ground	SG	Signal ground
6	DR(DSR)	Data set ready	CSB	Clear to send B(-)
7	RS(RTS)	Request to send	SDB	Send data B(-)
8	CS(CTS)	Clear to send	CSA	Clear to send A(+)
9	CI(RI)/VCC	Called status display/+5V±5% output 0.25 A*2	ERB	Data terminal ready B(-)
Shell	FG	Frame ground (common with SG)	FG	Frame ground (common with SG)

*2 The RI/VCC selection for Pin #9 is switched via software. The VCC output is not protected against overcurrent. To prevent damage or unit malfunctions, use only the rated current.

[Appendix 2] Interfaces of GPH6000 Wired Adapter (P/N: PFXZHADPCOM)

Parts Identification



- A. Ethernet interface
- B. Serial interface (COM)
- C. Power supply
- D. Status LED *1
- E. Nut *2
- F. Dedicated cable connector
- G. Key switch output interface
- H. Emergency stop switch/Enabling switch output interface

*1: The light is green while power is supplied.
*2: Decide whether to use the nuts, depending on the panel thickness and the number of screws installed.

Interface Specifications of Wired Adapter

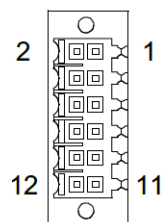
Use only the SELV (Safety Extra-Low Voltage) circuit to connect the interfaces.

Ethernet interface	Connector	Modular jack (RJ-45) x 1
	Standard	IEEE802.3i/IEEE802.3u, 10BASE-T/ 100BASE-TX
	Maximum communication distance*1	100 m
Serial interface (COM)*1	Connector	Plug-in connector (12-poles) x 1 Pitch: 3.5 mm
	Asynchronous transmission	RS-232C/422/485
	Data length	7 or 8 bits
	Stop bit	1 or 2 bits
	Parity	None, odd, or even
	Data transmission speed	2,400...115,200 bps
	Maximum communication distance*2	When using RS-232C: 15 m When using RS-422 at 115,200 bps: 1,200 m
Emergency stop switch / Enabling switch output interface	Connector	Plug-in connector (8-poles) x 1 Pitch: 3.5 mm
Key switch output interface	Connector	Plug-in connector (4-poles) x 1 Pitch: 3.5 mm
Power input interface	Connector	Plug-in connector (3-poles) x 1 Pitch: 5.08 mm

*1 Serial communication is not possible when you connect this product to the adapter using the 20 m dedicated cable.
*2 The distance includes the cable length between the handheld display and the wired adapter.

[Appendix 2] Interfaces of GPH6000 Wired Adapter (P/N: PFXZHADPCOM)

Serial interface (COM)



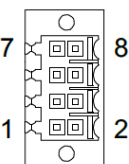
Pin number	RS-232C		
	Signal name	Direction	Description
1	DTR	Output	Data terminal ready
2	DCD	Input	Data carrier detect
3	DSR	Input	Data set ready
4	RI	Input	Ring Indicator
5	-	-	(Reserved)
6	FG	-	Frame ground
7	SG	-	Signal ground
8	FG	-	Frame ground
9	TX	Output	Send data
10	RX	Input	Receive data
11	RTS	Output	Request to send
12	CTS	Input	Send possible

Pin number	RS-422/485		
	Signal name	Direction	Description
1...6	-	-	(Reserved)
7	SG	-	Signal ground
8	FG	-	Frame ground
9	TXP (SDA)	Output	Send data A (+)
10	RXP (RDA)	Input	Receive data A (+)
11	TXN (SDB)	Output	Send data B (-)
12	RXN (RDB)	Input	Receive data B (-)

NOTE: For information on how to connect controllers and other types of equipment, refer to the corresponding device driver manual of your screen editing software.

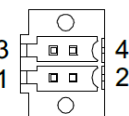
The SG (signal ground) and FG (frame ground) terminals are separated inside this product.

Emergency stop switch / Enabling switch output interface



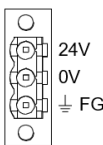
Pin number	Signal name	Description
1	EMG1A	Emergency stop switch b-contact (normally close)
2	EMG1B	Emergency stop switch b-contact (normally close)
3	EMG2A	Emergency stop switch b-contact (normally close)
4	EMG2B	Emergency stop switch b-contact (normally close)
5	ENB1A	Enabling switch a-contact (normally open)
6	ENB1B	Enabling switch a-contact (normally open)
7	ENB2A	Enabling switch a-contact (normally open)
8	ENB2B	Enabling switch a-contact (normally open)

Key switch output interface



Pin number	Signal name	Description
1	Key_NO	Key switch a-contact (normally open)
2	Key_NC	Key switch b-contact (normally close)
3	-	(Reserved)
4	Key_COM	Key switch common terminal

Power input interface



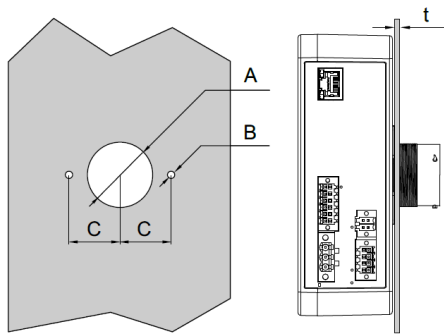
Signal name	Description
24V	24 Vdc
0V	0 Vdc
FG	Functional ground

[Appendix 3] Installation of GPH6000 Wired Adapter (P/N: PFXZHADPCOM)

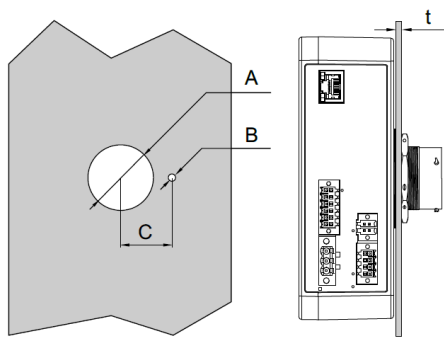
Panel cut-out Dimensions

A	B	C
$\Phi 39 \pm 0.15 \text{ mm}$	$\Phi 4.5 \pm 0.1 \text{ mm}$	$30.5 \pm 0.3 \text{ mm}$

Installation example 1: use two screws



Installation example 2: use one screw and nut



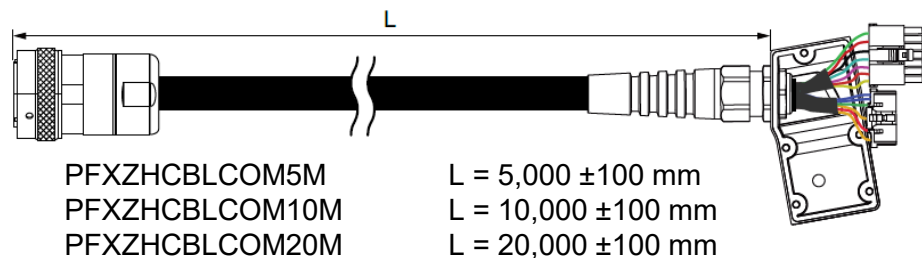
Panel thickness: 1.5 - 5 mm

Panel thickness	Screws	Number of screws	Nut
$1.5 \leq t < 3 \text{ mm}$	M4, length: 6 mm	2 pieces	No need to use nut.
$3 \leq t < 5 \text{ mm}$	M4, length: 8 mm	2 pieces	No need to use nut.
$1.5 \leq t < 3 \text{ mm}$	M4, length: 6 mm	1 piece	Need to use nut.

[Appendix 3] Installation of GPH6000 Wired Adapter (P/N: PFXZHADPCOM)

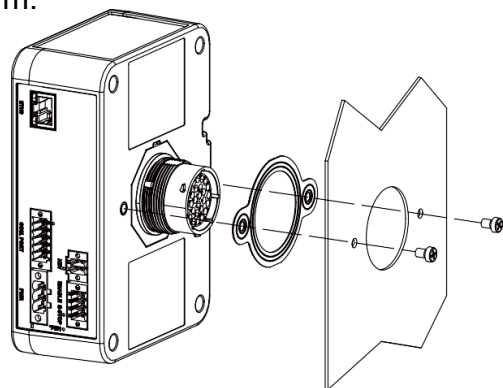
Installing the adapter to panel

Prepare the dedicated cable in advance.

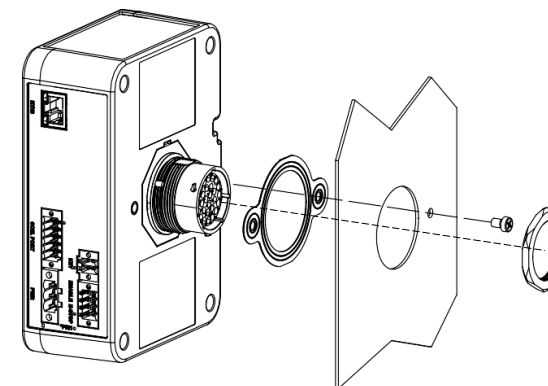


Installation Procedure

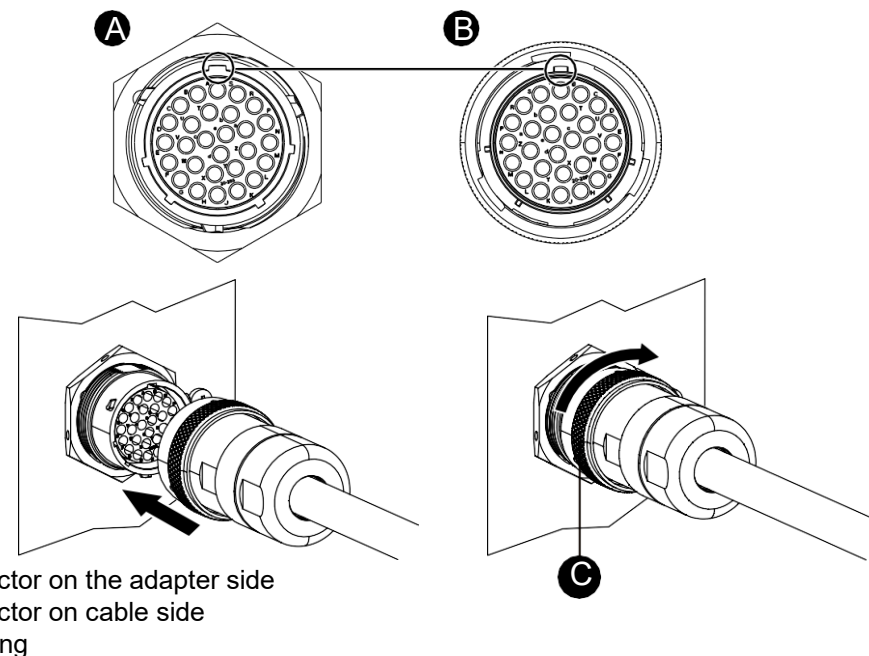
1. Based on the product's Panel Cut-out Dimensions, cut out a mounting hole on the panel.
2. Remove the nut from the adapter.
3. Attach the supplied gasket to the cable connector on the adapter.
4. Insert the cable connection part of the adapter from the back side of the panel.
5. Affix the product to the panel with the screws (included).
Tighten the installation screws clockwise with a screwdriver. The necessary torque is 0.6 N•m.



NOTE: If using only one screw, install the nut.



6. Connect the cable. Check the shapes of connectors to attach them in the correct orientation. Turn the lock ring in the direction of the arrow to secure the cable.



[Appendix 4] Signal line of GP4000H Direct-connect cables

GP3000H Hard/Soft-type Direct-connect Cable
(GP3000H-CBLH-10M / GP3000H-CBLS-3M /5M /10M)

Serial Interface

Cable Color/ Marking Color, Number	RS232C		RS422/RS485	
	Signal Name	Description	Signal Name	Description
Brown/White 1	CD	Carrier Detect	RDA	Receive Data A(+)
Brown/Black 1	RD(RXD)	Receive Data	RDB	Receive Data B(-)
Brown/White 2	SD(TXD)	Send Data	SDA	Send Data A(+)
Brown/White 4	ER(DTR)	Data Terminal Ready	ERA	Data Terminal Ready A(+)
Brown/None	SG	Signal Ground	SG	Signal Ground
Brown/Black 3	DR(DSR)	Data Set Ready	CSB	Clear to Send B(-)
Brown/Black 2	RS(RTS)	Request to Send	SDB	Send Data B(-)
Brown/White 3	CS(CTS)	Clear to Send	CSA	Clear to Send A(+)
Brown/Black 4	CI(RI)/VCC	Called status display/ +5 V±5% Output 0.25 A*1	ERB	Data Terminal Ready B(-)
Green/None	FG*2	Frame Ground (Common with SG)	FG*2	Frame Ground (Common with SG)

*1 The RI/VCC selection is switched via software. The VCC output is not protected against overcurrent. To prevent damage or unit malfunctions, use only the rated current.
*2 Select AWG22 cable to use out of two green cables. Be sure to twist wires from a part close to the power supply.

Ethernet Interface

Ethernet (IEEE802.3u,10BASE-T/100BASE-TX) with modular jack connector (RJ-45)

Cable Color	Signal	Direction	Description
Blue	TX +	Output	Ethernet Send (+)
White	TX -	Output	Ethernet Send (-)
Brown	RX +	Input	Ethernet Receive (+)
Gray	RX -	Input	Ethernet Receive (-)

DC24V Interface

Cable Color	Signal Name	Direction	Description
Red	DC24V	Input	Power Input 24V DC
Black	0V	Input	Power Input 0V
Green	FG *1	-	Frame Ground (Common with SG)

*1. Select AWG16 cable to use out of two green cables. Be sure to twist wires from a part close to the power supply.

3-Position Enable Switch Output Interface

Cable Color / Marking Color, Number	Signal Name	Description
Blue / Black 2	ENB0A	3-position enable switch 0A (a-contact : normally open) Rating: 30 VDC, 700 mA (Minimum applicable load: 3 VDC, 5 mA)
Blue / Black 3	ENB0B	3-position enable switch 0B (a-contact : normally open)
Blue / None	ENB1A	3-position enable switch 1A (a-contact : normally open) Rating: 30 VDC, 700 mA (Minimum applicable load: 3 VDC, 5 mA)
Blue / Black 1	ENB1B	3-position enable switch 1B (a-contact : normally open)

[Appendix 4] Signal line of GP4000H Direct-connect cables

GP3000H Hard/Soft-type Direct-connect Cable (GP3000H-CBLH-10M / GP3000H-CBLS-3M /5M /10M)

Emergency Switch Output Interface

Cable Color / Marking Color, Number	Signal Name	Description
Purple / Black 2	EMG0A	Emergency switch 0A (a-contact : normally open) Rating: 30 VDC, 1 A (Minimum applicable load: 5 VDC, 1 mA)
Purple / White 3	EMG0B	Emergency switch 0B (a-contact : normally open)
Purple / Black 1	EMG1A	Emergency switch 1A (b-contact : normally closed) Rating: 30 VDC, 1 A (Minimum applicable load: 5 VDC, 1 mA)
Purple / White 2	EMG1B	Emergency switch 1B (b-contact : normally closed)
Purple / None	EMG2A	Emergency switch 2A (b-contact : normally closed) Rating: 30 VDC, 1 A (Minimum applicable load: 5 VDC, 1 mA)
Purple / White 1	EMG2B	Emergency switch 2B (b-contact : normally closed)

Key Switch Output Interface

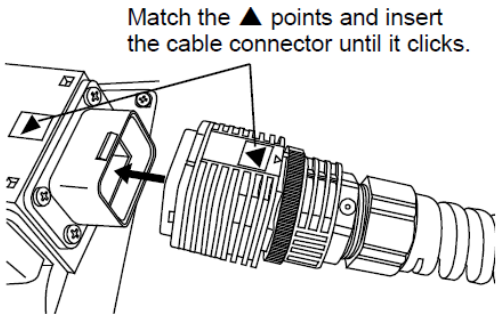
Cable Color / Marking Color, Number	Signal Name	Description
Orange / None	KEY_NC	Key Switch b-contact (normally closed) Rating: 24 VDC, 300 mA
Orange / Black 1	KEY_NO	Key Switch a-contact (normally open) Rating: 24 VDC, 300 mA

IMPORTANT

External Output Interface
To use the DOUT, Operation Switch Output or External Buzzer Output, the GP3000H Conversion Adapter (AGP3000H-ADPCOM-01) is required.

Connecting to GP4000H

Insert the cable connector to the cable connector until it clicks.
Match the ▲ points and insert the cable connector, as shown below.



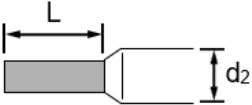
For the details, refer to “GP3000H Direct-connect Cable Installation Guide”.

[Appendix 5] Signal line of GPH6000 Direct connection cables (P/N: PFXZHCBLOUT5M /10M)

Connection destination	Signal name	Cable color	Cable diameter (outer diameter)	Wire gauge	Twisted pair*1
Power supply	24 Vdc	Brown	1.7 mm	AWG 18	
	0 Vdc	White	1.7 mm	AWG 18	
	FG (functional ground)	Black (Shield)	1.0 mm	Φ1.0 mm	
Emergency stop switch	EMG1A	Yellow	2.0 mm	AWG 16	
	EMG1B	Green			
	EMG2A	Grey			
	EMG2B	Pink			
Enabling switch	ENB1A	Red	1.25 mm	AWG 22	
	ENB1B	Blue			
	ENB2A	Black			
	ENB2B	Violet			
Key switch	Key_NO	White/Green	1.25 mm	AWG 22	
	Key_NC	Grey/Pink			
	Key_COM	Red/Blue			

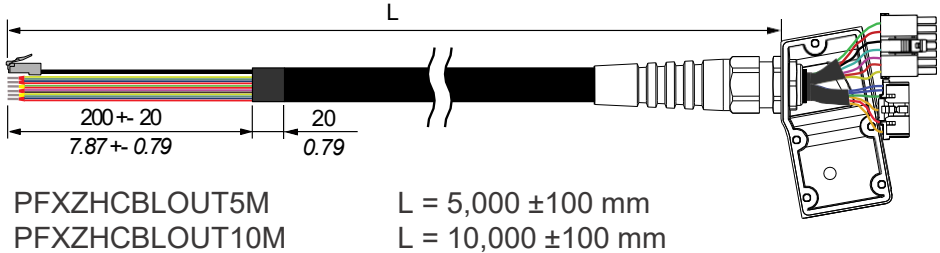
*1 Twist the cables with the same number.

The direct cable has an RJ-45 connector for the Ethernet interface.
The other cables are loose wires, each with a ferrule terminal.
The specifications of each ferrule terminal are as follows;



Ferrule terminal	Wire gauge	Connection destination
L2 = 6 mm, d2 = Φ0.8 mm	AWG 16	Emergency stop device
L2 = 8 mm, d2 = Φ1.2 mm	AWG 18	Power supply unit
L2 = 8 mm, d2 = Φ1.7 mm	AWG 22 ~ 26	Enabling device, host controller, etc.

Connection destination	Signal name	Cable color	Cable diameter (outer diameter)	Wire gauge	Twisted pair*1
Serial interface	DTR (RS-232C)	Brown/Green	1 mm	AWG 26	1
	DCD (RS-232C)	Grey/Brown			1
	DSR (RS-232C)	Yellow/Brown			2
	RI (RS-232C)	White/Yellow			2
	TX (RS-232C)/TXP (RS-422/485)	White/Pink			3
	RX (RS-232C)/RXP (RS-422/485)	White/Blue			4
	RTS (RS-232C)/TXN (RS-422/485)	Pink/Brown			3
	CTS (RS-232C)/RXN (RS-422/485)	Brown/Blue			4
Ethernet	SG	White/Gray	1.05 mm	AWG 26	
	TX+	Yellow			5
	RX+	White			6
	TX-	Orange			5
	RX-	Blue			6



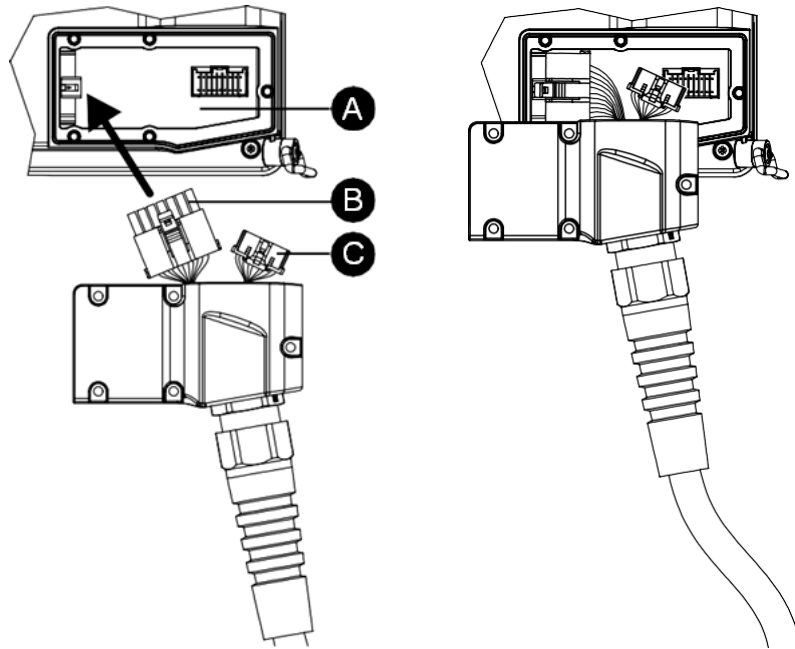
[Appendix 6] How to install the dedicated cable to GPH6000

This section describes how to attach a dedicated cable to GPH6000.

Wired adapter connection cable
PFXZHCBLCOM5M
PFXZHCBLCOM10M
PFXZHCBLCOM20M

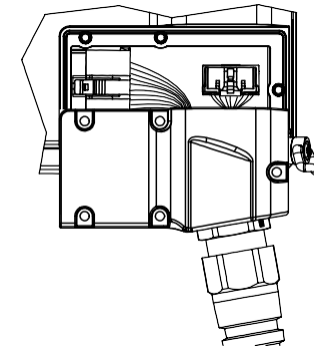
Direct connection cable
PFXZHCBLOUT5M
PFXZHCBLOUT10M

1. Place the product face down on a clean, flat, level surface.
2. Connect the larger connector on the cable to the connector in the dedicated cable installation opening on the rear of the product.



- A. Dedicated cable installation opening
B. Larger connector
C. Smaller connector

3. Connect the smaller connector of the cable to the connector on the rear of the product.



4. Use a screwdriver (Ph1) to fasten the five screws that come with the cable to secure it. The necessary torque is 0.6 N•m.

