

A photograph of two men in a server room. The man on the left is wearing glasses and a dark blue sweater, looking towards the right. The man on the right is seen from the back, wearing a grey sweater and glasses, looking at a large digital display. The display shows various data visualizations, including a world map on the right side. The overall lighting is blue and futuristic.

Easy! Smooth!

Replacement Guidebook (Hardware)

GP4000 Series W Model → ST6000 Series (GP-Pro EX)

The 2nd Edition Feb. 2023

Update History

Date	Edition	Updated Slide	Description
2021/01/26		-	Newly created
2023/02/02	2 nd Edition	6, 8,10,12,14 31	Correction of backup memory type for ST6000 Series (SRAM → NVRAM) Software compatibility page updated

Preface

This guidebook introduces the procedures to replace a unit from “GP4000 Series W Model” to “ST6000 Series (GP-Pro EX)”. The recommended substitute models are as follows.

Model in use		Recommended substitutes	
GP-4201TW	PFXGP4201TADW	ST-6200WA (GP-Pro EX)	PFXST6200WADE
GP-4201T	PFXGP4201TAD	ST-6200WA (GP-Pro EX)	PFXST6200WADE
GP-4301TW	PFXGP4301TADW	ST-6400WA (GP-Pro EX)	PFXST6400WADE
GP-4401WW	PFXGP4401WADW	ST-6400WA (GP-Pro EX)	PFXST6400WADE
GP-4501TW	PFXGP4501TADW	ST-6600WA (GP-Pro EX)	PFXST6600WADE

Safety Information

HAZARD OF OPERATOR INJURY, OR UNINTENDED EQUIPMENT DAMAGE

- Before operating any of these products, be sure to read all related manuals thoroughly.
- Be sure to do installation, connection, and maintenance by a person who is familiar with the construction method of electrical equipment, related laws and regulations, and has appropriate technology.

We shall not be liable for any serious injury to human life, damage to equipment, or any other consequences if used without observing these.

Agenda

1. Specification Comparison

GP-4201TW vs ST-6200WA	1.1 Basic Information	1.2 Interface
GP-4201T vs ST-6200WA	1.1 Basic Information	1.2 Interface
GP-4301TW vs ST-6400WA	1.1 Basic Information	1.2 Interface
GP-4401WW vs ST-6400WA	1.1 Basic Information	1.2 Interface
GP-4501TW vs ST-6600WA	1.1 Basic Information	1.2 Interface

2. [Standard compatibility](#)

3. Hardware compatibility

GP-4201TW vs ST-6200WA	3. Hardware compatibility
GP-4201T vs ST-6200WA	3. Hardware compatibility
GP-4301TW vs ST-6400WA	3. Hardware compatibility
GP-4401WW vs ST-6400WA	3. Hardware compatibility
GP-4501TW vs ST-6600WA	3. Hardware compatibility

4. [Option compatibility](#)

5. [Software compatibility](#)

6. [About resolutions](#)

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1. GP-4201TW vs ST-6200WA Specification comparison -1. Basic information-

		PFXGP4201TADW	PFXST6200WADE	Compatibility
Display Size		3.5"	4.3"W	UP!
Display Type		TFT color LCD	TFT color LCD	✓
Display Colors		65,536 colors	16 million colors	UP!
Display Resolution		320 x 240 pixels (QVGA)	480 x 272 pixels (WQVGA)	- Need to change resolution setting by Software
Backlight		White LED (not user replaceable)	White LED (not replaceable)	- Backlight is not replaceable.
	Service life	50,000 hours or more (continuous operation at 25 ° C [77 ° F] before backlight brightness decreases to 50%)	50,000 hours or more (continuous operation at 25 ° C [77 ° F] before backlight brightness decreases to 25%)	- This spec becomes lower.
Panel Cutout Dimensions		W118.5 x H92.5 mm	W118.5 x H92.5 mm	✓
External Dimensions		W132 x H106 x D42 mm	W134.5 x H108.5 x D43 mm	-
Touch Panel	Type	Resistive film (analog, single touch)	Resistive film (analog, single touch)	✓
	Service life	1 million times or more	1 million times or more	✓
Memory	Application	FLASH EPROM 8MB	FLASH EPROM 64MB	UP!
	Backup Memory	Screen area: SRAM 128KB	Screen area: NVRAM 320KB Variable area: NVRAM 64KB	Please refer to the FAQ for the available capacity of each memory.
Backup Battery		Rechargeable battery / Secondary battery for clock data backup	Replaceable battery / Primary battery for clock data backup	UP! Battery can be replaced by user.
Input Voltage		DC 24V	DC 24V	✓

1. GP-4201TW vs ST-6200WA Specification comparison -2. Interface-

		PFXGP4201TADW	PFXST6200WADE	Compatibility
Serial I/F	COM1	RS-232C (D-Sub 9pin Plug)	RS-232C/RS-422/RS-485 (D-Sub 9pin Plug)	- Please check the manual for the communication cable.
	COM2	RS-422/485 (D-Sub 9pin Plug)	-	
Ethernet I/F		-	10BASE-T/100BASE-TX (RJ-45) x 1	UP!
CF Card I/F		-	-	✓
SD Card I/F		-	-	✓
USB I/F	Type A	USB 2.0 x1 -USB transfer cable (CA3-USBCB-01)	USB 2.0 x1	- No screen data transfer via Type A
	Type mini-B	USB 2.0 x1 -USB data transfer cable(ZC9USCBMB1) or commercial USB mini-B transfer cable	-	- USB I/F changed from USB Type mini-B to Type micro-B.
	Type micro-B	-	USB 2.0 x1 -USB transfer cable(PFXZUSCBMB2) or commercial USB micro-B transfer cable	
Auxiliary I/O I/F		-	-	✓
Sound Output I/F		-	-	✓
Field Bus / Expansion Unit I/F		-	-	✓

Hardware Manual: [ST6000 Series Hardware Manual](#)

1. GP-4201T vs ST-6200WA Specification comparison -1. Basic information-

		PFXGP4201TAD	PFXST6200WADE	Compatibility
Display Size		3.5"	4.3"W	UP!
Display Type		TFT color LCD	TFT color LCD	✓
Display Colors		65,536 colors	16 million colors	UP!
Display Resolution		320 x 240 pixels (QVGA)	480 x 272 pixels (WQVGA)	- Need to change resolution setting by Software
Backlight		White LED (not user replaceable)	White LED (not replaceable)	- Backlight is not replaceable.
	Service life	50,000 hours or more (continuous operation at 25 ° C [77 ° F] before backlight brightness decreases to 50%)	50,000 hours or more (continuous operation at 25 ° C [77 ° F] before backlight brightness decreases to 25%)	- This spec becomes lower.
Panel Cutout Dimensions		W118.5 x H92.5 mm	W118.5 x H92.5 mm	✓
External Dimensions		W132 x H106 x D42 mm	W134.5 x H108.5 x D43 mm	-
Touch Panel	Type	Resistive film (analog, single touch)	Resistive film (analog, single touch)	✓
	Service life	1 million times or more	1 million times or more	✓
Memory	Application	FLASH EPROM 16MB	FLASH EPROM 64MB	UP!
	Backup Memory	Screen area: SRAM 320KB Variable area: SRAM 64MB	Screen area: NVRAM 320KB Variable area: NVRAM 64KB	Please refer to the FAQ for the available capacity of each memory.
Backup Battery		Rechargeable battery / Secondary battery for clock data backup	Replaceable battery / Primary battery for clock data backup	UP! Battery can be replaced by user.
Input Voltage		DC 24V	DC 24V	✓

1. GP-4201T vs ST-6200WA Specification comparison -2. Interface-

		PFXGP4201TAD	PFXST6200WADE	Compatibility
Serial I/F	COM1	RS-232C/RS-422/RS-485 (D-Sub 9pin Plug)	RS-232C/RS-422/RS-485 (D-Sub 9pin Plug)	✓ Please check the manual for the communication cable.
	COM2	-	-	
Ethernet I/F		10BASE-T/100BASE-TX (RJ-45) x1	10BASE-T/100BASE-TX (RJ-45) x 1	✓
CF Card I/F		-	-	✓
SD Card I/F		-	-	✓
USB I/F	Type A	USB 2.0 x1 -USB transfer cable (CA3-USBCB-01)	USB 2.0 x1	- No screen data transfer via Type A
	Type mini-B	USB 2.0 x1 -USB data transfer cable(ZC9USCBMB1) or commercial USB mini-B transfer cable	-	-
	Type micro-B	-	USB 2.0 x1 -USB transfer cable(PFXZUSCBMB2) or commercial USB micro-B transfer cable	USB I/F changed from USB Type mini-B to Type micro-B.
Auxiliary I/O I/F		-	-	✓
Sound Output I/F		-	-	✓
Field Bus / Expansion Unit I/F		-	-	✓

Hardware Manual: [ST6000 Series Hardware Manual](#)

1. GP-4301TW vs ST-6400WA Specification comparison -1. Basic information-

		PFXGP4301TADW	PFXST6400WADE	Compatibility
Display Size		5.7"	7"W	UP!
Display Type		TFT color LCD	TFT color LCD	✓
Display Colors		65,536 colors	16 million colors	UP!
Display Resolution		320 x 240 pixels (QVGA)	800 x 480 pixels (WVGA)	- Need to change resolution setting by Software
Backlight		White LED (not user replaceable)	White LED (not replaceable)	- Backlight is not replaceable.
	Service life	50,000 hours or more (continuous operation at 25 ° C [77 ° F] before backlight brightness decreases to 50%)	50,000 hours or more (continuous operation at 25 ° C [77 ° F] before backlight brightness decreases to 25%)	- This spec becomes lower.
Panel Cutout Dimensions		W156 x H123.5 mm	W190 x H135 mm	-
External Dimensions		W169.5 x H137 x D59.5 mm	W208 x H153 x D45 mm	-
Touch Panel	Type	Resistive film (analog, single touch)	Resistive film (analog, single touch)	✓
	Service life	1 million times or more	1 million times or more	✓
Memory	Application	FLASH EPROM 8MB	FLASH EPROM 64MB	UP!
	Backup Memory	Screen area: SRAM 128KB	Screen area: NVRAM 320KB Variable area: NVRAM 64KB	Please refer to the FAQ for the available capacity of each memory.
Backup Battery		Rechargeable battery / Secondary battery for clock data backup	Replaceable battery / Primary battery for clock data backup	UP! Battery can be replaced by user.
Input Voltage		DC 24V	DC 24V	✓

1. GP-4301TW vs ST-6400WA Specification comparison -2. Interface-

		PFXGP4301TADW	PFXST6400WADE	Compatibility
Serial I/F	COM1	RS-232C (D-Sub 9pin Plug)	RS-232C (D-Sub 9pin Plug)	✓ Please check the manual for the communication cable.
	COM2	RS-422/485 (D-Sub 9pin Plug)	RS-422/485 (D-Sub 9pin Plug)	
Ethernet I/F		10BASE-T/100BASE-TX (RJ-45) x1	10BASE-T/100BASE-TX (RJ-45) x2	UP!
CF Card I/F		-	-	✓
SD Card I/F		-	-	✓
USB I/F	Type A	USB 2.0 x1 -USB transfer cable (CA3-USBCB-01)	USB 2.0 x1	- No screen data transfer via Type A
	Type mini-B	USB 2.0 x1 -USB data transfer cable(ZC9USCBMB1) or commercial USB mini-B transfer cable	-	-
	Type micro-B	-	USB 2.0 x1 -USB transfer cable(PFXZUSCBMB2) or commercial USB micro-B transfer cable	USB I/F changed from USB Type mini-B to Type micro-B.
Auxiliary I/O I/F		-	-	✓
Sound Output I/F		-	-	✓
Field Bus / Expansion Unit I/F		-	-	✓

Hardware Manual: [ST6000 Series Hardware Manual](#)

1. GP-4401WW vs ST-6400WA Specification comparison -1. Basic information-

		PFXGP4401WADW	PFXST6400WADE	Compatibility
Display Size		7"	7"W	UP!
Display Type		TFT color LCD	TFT color LCD	✓
Display Colors		65,536 colors	16 million colors	UP!
Display Resolution		800 x 480 pixels (WVGA)	800 x 480 pixels (WVGA)	✓
Backlight		White LED (not user replaceable)	White LED (not replaceable)	- Backlight is not replaceable.
	Service life	50,000 hours or more (continuous operation at 25 ° C [77 ° F] before backlight brightness decreases to 50%)	50,000 hours or more (continuous operation at 25 ° C [77 ° F] before backlight brightness decreases to 25%)	- This spec becomes lower.
Panel Cutout Dimensions		W204.5 x H159.5 mm	W190 x H135 mm	-
External Dimensions		W218 x H173 x D60 mm	W208 x H153 x D45 mm	-
Touch Panel	Type	Resistive film (analog, single touch)	Resistive film (analog, single touch)	✓
	Service life	1 million times or more	1 million times or more	✓
Memory	Application	FLASH EPROM 16MB	FLASH EPROM 64MB	UP!
	Backup Memory	Screen area: SRAM 128KB	Screen area: NVRAM 320KB Variable area: NVRAM 64KB	Please refer to the FAQ for the available capacity of each memory.
Backup Battery		Replaceable battery / Primary battery for clock data backup	Replaceable battery / Primary battery for clock data backup	✓
Input Voltage		DC 24V	DC 24V	✓

1. GP-4401WW vs ST-6400WA Specification comparison -2. Interface-

		PFXGP4401WADW	PFXST6400WADE	Compatibility
Serial I/F	COM1	RS-232C (D-Sub 9pin Plug)	RS-232C (D-Sub 9pin Plug)	✓ Please check the manual for the communication cable.
	COM2	RS-422/485 (D-Sub 9pin Plug)	RS-422/485 (D-Sub 9pin Plug)	
Ethernet I/F		10BASE-T/100BASE-TX (RJ-45) x1	10BASE-T/100BASE-TX (RJ-45) x2	UP!
CF Card I/F		-	-	✓
SD Card I/F		Yes	-	- No SD card slot *1
USB I/F	Type A	USB 2.0 x1 -USB transfer cable (CA3-USBCB-01)	USB 2.0 x1	- No screen data transfer via Type A
	Type mini-B	USB 2.0 x1 -USB data transfer cable(ZC9USCBMB1) or commercial USB mini-B transfer cable	-	- USB I/F changed from USB Type mini-B to Type micro-B.
	Type micro-B	-	USB 2.0 x1 -USB transfer cable(PFXZUSCBMB2) or commercial USB micro-B transfer cable	
Auxiliary I/O I/F		-	-	✓
Sound Output I/F		-	-	✓
Field Bus / Expansion Unit I/F		-	-	✓

Hardware Manual: [ST6000 Series Hardware Manual](#)

- *1 Alternative solution proposal:
- Use Larger Backup memory on ST6000
 - Use USB memory stick
 - Use Network storage

1. GP-4501TW vs ST-6600WA Specification comparison -1. Basic information-

		PFXGP4501TADW	PFXST6600WADE	Compatibility
Display Size		10.4"	12.1"W	UP!
Display Type		TFT color LCD	TFT color LCD	✓
Display Colors		65,536 colors	16 million colors	UP!
Display Resolution		640 x 480 pixels (VGA)	1,280 x 800 pixels (WXGA)	- Need to change resolution setting by Software
Backlight		White LED (not user replaceable)	White LED (not replaceable)	- Backlight is not replaceable.
	Service life	50,000 hours or more (continuous operation at 25 ° C [77 ° F] before backlight brightness decreases to 50%)	50,000 hours or more (continuous operation at 25 ° C [77 ° F] before backlight brightness decreases to 25%)	- This spec becomes lower.
Panel Cutout Dimensions		W301.5 x H227.5 mm	W295 x H217 mm	-
External Dimensions		W315 x H241 x D56 mm	W313 x H235 x D50 mm	-
Touch Panel	Type	Resistive film (analog, single touch)	Resistive film (analog, single touch)	✓
	Service life	1 million times or more	1 million times or more	✓
Memory	Application	FLASH EPROM 16MB	FLASH EPROM 64MB	UP!
	Backup Memory	Screen area: SRAM 128KB	Screen area: NVRAM 320KB Variable area: NVRAM 64KB	Please refer to the FAQ for the available capacity of each memory.
Backup Battery		Replaceable battery / Primary battery for clock data backup	Replaceable battery / Primary battery for clock data backup	✓
Input Voltage		DC 24V	DC 24V	✓

1. GP-4501TW vs ST-6600WA Specification comparison -2. Interface-

		PFXGP4501TADW	PFXST6600WADE	Compatibility
Serial I/F	COM1	RS-232C (D-Sub 9pin Plug)	RS-232C (D-Sub 9pin Plug)	✓ Please check the manual for the communication cable.
	COM2	RS-422/485 (D-Sub 9pin Plug)	RS-422/485 (D-Sub 9pin Plug)	
Ethernet I/F		10BASE-T/100BASE-TX (RJ-45) x1	10BASE-T/100BASE-TX (RJ-45) x2	UP!
CF Card I/F		-	-	✓
SD Card I/F		Yes	-	- No SD card slot *1
USB I/F	Type A	USB2.0 x1 -USB transfer cable (CA3-USBCB-01)	USB 2.0 x1	- No screen data transfer via Type A
	Type mini-B	USB2.0 x1 -USB data transfer cable(ZC9USCBMB1) or commercial USB mini-B transfer cable	-	-
	Type micro-B	-	USB 2.0 x1 -USB transfer cable(PFXZUSCBMB2) or commercial USB micro-B transfer cable	USB I/F changed from USB Type mini-B to Type micro-B.
Auxiliary I/O I/F		-	-	✓
Sound Output I/F		-	-	✓
Field Bus / Expansion Unit I/F		-	-	✓

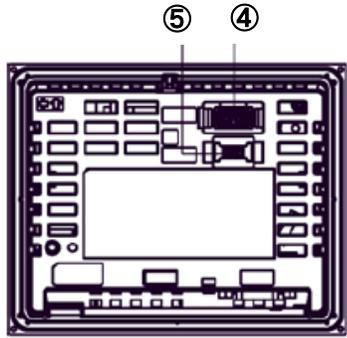
Hardware Manual: [ST6000 Series Hardware Manual](#)

- *1 Alternative solution proposal:
- Use Larger Backup memory on ST6000
 - Use USB memory stick
 - Use Network storage

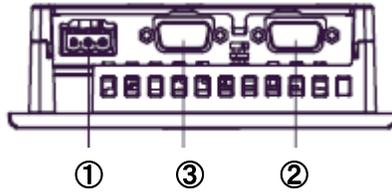
2. Standards compatibility

Certification	GP4000 Series W Model	ST6000 Series (GP-Pro EX)
CE (EN61000-6-4, EN61000-6-2, EN61131-2)	✓	✓
UKCA	✓	✓
UL/cUL	✓ (UL508) (CSA C22.2 No.142)	✓ (UL61010-2-201) (CSA C22.2 No.61010-2-201)
UL/cUL Class 1, Div. 2	✓ (ANSI/ISA12.12.01) (CSA C22.2 No213)	✓ (UL121201) (CSA C22.2 No213)
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 (DNV-GL, ABS, LR, BV, NK, RINA, CCS)	DNV-GL, ABS, LR, BV, NK, RINA, CCS	-
WEEE	✓	✓

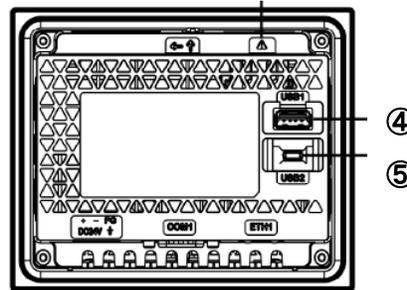
3. Hardware compatibility



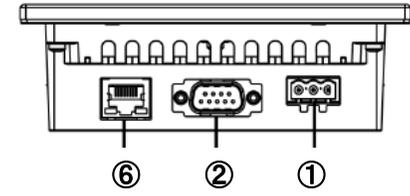
GP-4201TW Rear



GP-4201TW Bottom



ST-6200WA Rear

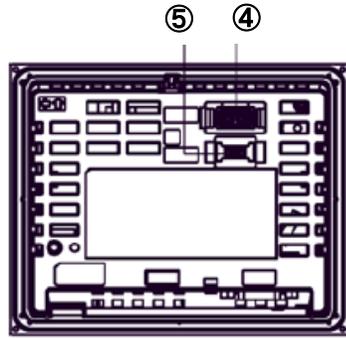


ST-6200WA Bottom

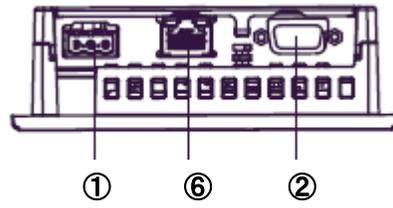
	GP-4201TW	ST-6200WA
①	Power Connector (DC)	Power Connector (DC)
②	Serial Interface (COM1)	Serial Interface (COM1)
③	Serial Interface (COM 2)	-
④	USB (Type A) Interface	USB (Type A) Interface
⑤	USB (mini-B) Interface	USB (micro-B) Interface
⑥	-	Ethernet Interface(ETH1)
⑦	-	-
⑧	-	-
⑨	-	-

Please check [ST6000 Series Hardware Manual](#) for details such as interface specifications and pin assignments.

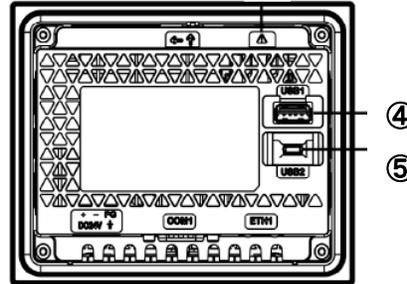
3. Hardware compatibility



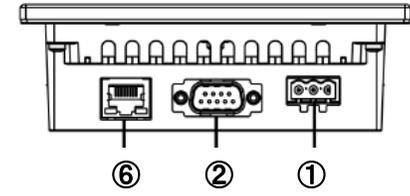
GP-4201T Rear



GP-4201T Bottom



ST-6200WA Rear

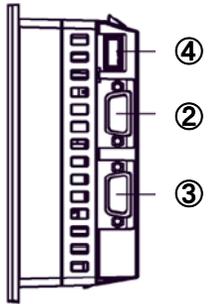


ST-6200WA Bottom

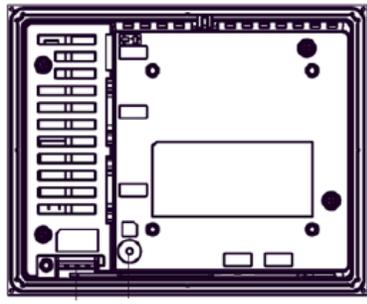
	GP-4201T	ST-6200WA
①	Power Connector (DC)	Power Connector (DC)
②	Serial Interface (COM1)	Serial Interface (COM1)
③	-	-
④	USB (Type A) Interface	USB (Type A) Interface
⑤	USB (mini-B) Interface	USB (micro-B) Interface
⑥	Ethernet Interface(ETH1)	Ethernet Interface(ETH1)
⑦	-	-
⑧	-	-
⑨	-	-

Please check [ST6000 Series Hardware Manual](#) for details such as interface specifications and pin assignments.

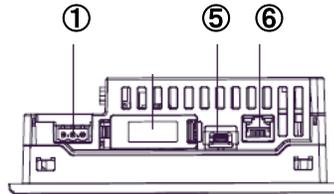
3. Hardware compatibility



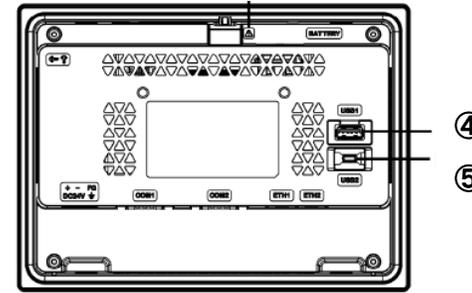
GP-4301TW
Right



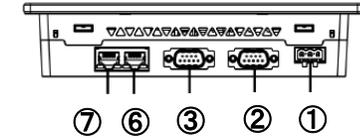
GP-4301TW Rear



GP-4301TW Bottom



ST-6400WA Rear

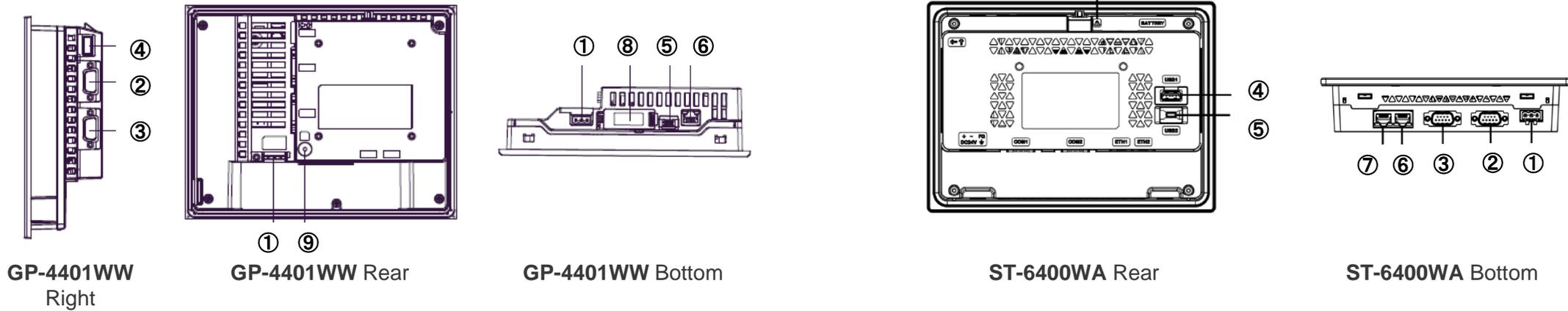


ST-6400WA Bottom

	GP-4301TW	ST-6400WA
①	Power Connector (DC)	Power Connector (DC)
②	Serial Interface (COM1)	Serial Interface (COM1)
③	Serial Interface (COM 2)	Serial Interface (COM 2)
④	USB (Type A) Interface	USB (Type A) Interface
⑤	USB (mini-B) Interface	USB (micro-B) Interface
⑥	Ethernet Interface(ETH1)	Ethernet Interface(ETH1)
⑦	-	Ethernet Interface(ETH2)
⑧	-	-
⑨	-	-

Please check [ST6000 Series Hardware Manual](#) for details such as interface specifications and pin assignments.

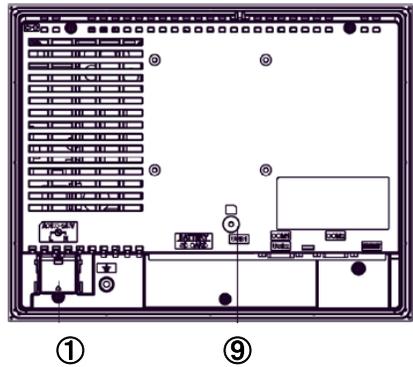
3. Hardware compatibility



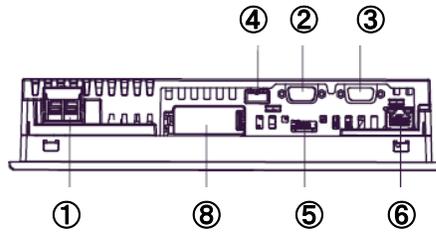
	GP-4401WW	ST-6400WA
①	Power Connector (DC)	Power Connector (DC)
②	Serial Interface (COM1)	Serial Interface (COM1)
③	Serial Interface (COM 2)	Serial Interface (COM 2)
④	USB (Type A) Interface	USB (Type A) Interface
⑤	USB (mini-B) Interface	USB (micro-B) Interface
⑥	Ethernet Interface(ETH1)	Ethernet Interface(ETH1)
⑦	-	Ethernet Interface(ETH2)
⑧	SD Card Interface	-
⑨	SD Card Access LED	-

Please check [ST6000 Series Hardware Manual](#) for details such as interface specifications and pin assignments.

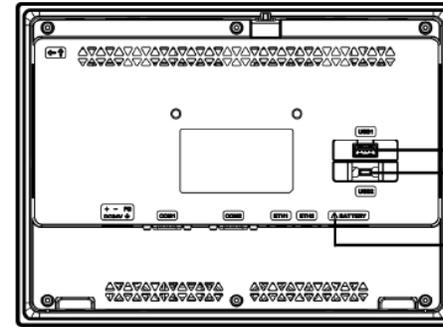
3. Hardware compatibility



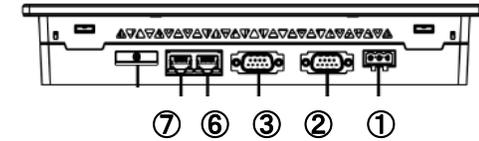
GP-4501TW Rear



GP-4501TW Bottom



ST-6600WA Rear



ST-6600WA Bottom

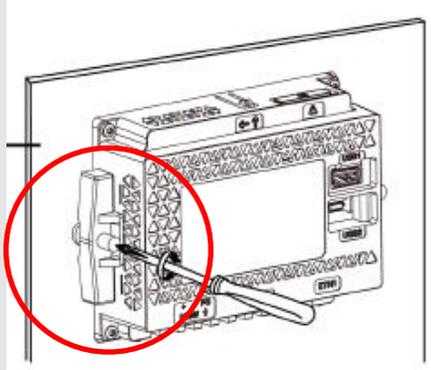
	GP-4501TW	ST-6600WA
①	Power Connector (DC)	Power Connector (DC)
②	Serial Interface (COM1)	Serial Interface (COM1)
③	Serial Interface (COM 2)	Serial Interface (COM 2)
④	USB (Type A) Interface	USB (Type A) Interface
⑤	USB (mini-B) Interface	USB (micro-B) Interface
⑥	Ethernet Interface(ETH1)	Ethernet Interface(ETH1)
⑦	-	Ethernet Interface(ETH2)
⑧	SD Card Interface	-
⑨	SD Card Access LED	-

Please check [ST6000 Series Hardware Manual](#) for details such as interface specifications and pin assignments.

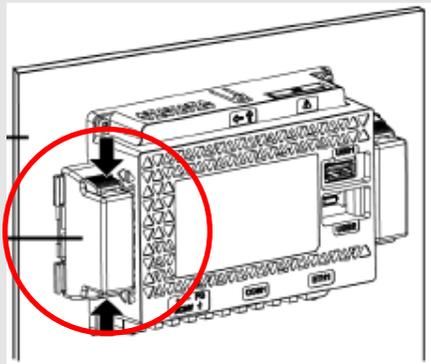
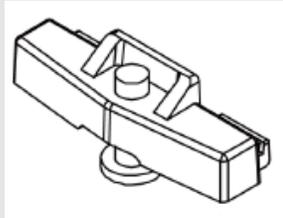
Difference in installation method

ST6000(4"W)

There are 2 patterns for attaching 4"W model to a panel as shown below.



Fix it with the installation fastener enclosed in the package.

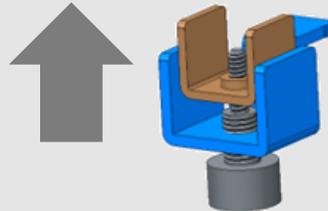
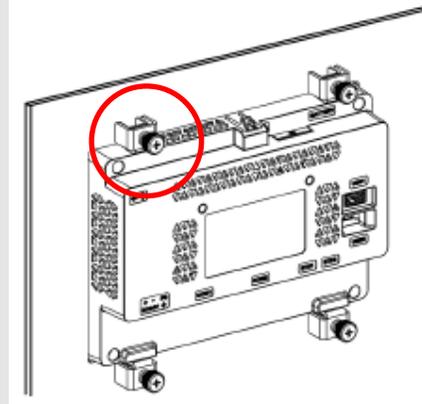


Fix it with tool-less spring clip. (An option to be separately purchased)



*2 types of settings are possible according to the panel thickness. (1.5 to 4 mm, 4 to 6 mm)

ST6000(except for 4"W)

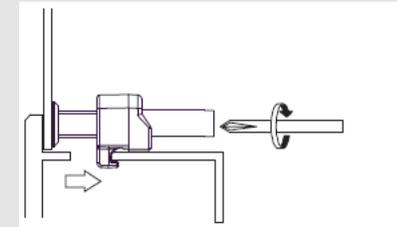


Fix it with the installation fastener enclosed in the package.

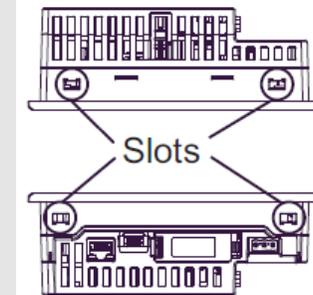
*The screw head side is bigger than before and has a jagged pattern for anti-slipping processing. You can fasten the screw with fingers even without a cross screwdriver. (Use the screwdriver when lack of torque.)

GP4000 W Model

Use a Phillips screwdriver to tighten each fastener screw.

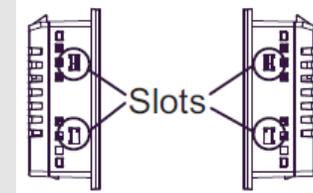


GP-4301T



Slots

GP-4201T



Slots

4. Option compatibility

	Product Name	GP-4000 W	ST-6000 EX	Description	Compatibility
Serial Interface	RS-232C Cable (5m)	CA3-CBL232/5M-01	CA3-CBL232/5M-01	Connects a host controller to the GP unit.(RS-232C)	✓
	RS-422 Cable (5m)	CA3-CBL422/5M-01	CA3-CBL422/5M-01	CA3-CBL422/5M-01 Connects a host controller to the GP unit. (RS-422 / Socket Type)	✓
	RS-422 Cable (5m)	CA3-CBL422-01	CA3-CBL422-01	Connects a host controller to the GP unit. (RS-422 / Plug Type)	✓
	Mitsubishi PLC A-Series Connection Cable (5m)	CA3-CBLA-01	CA3-CBLA-01	Connects Mitsubishi PLC A or QnA Series programming console I/F to GP unit. (Simultaneous use of programming consoles is not possible.)	✓
	Mitsubishi PLC Q-Series Connection Cable (5m)	CA3-CBLQ-01	CA3-CBLQ-01	Connects Mitsubishi PLC Q-Series programming console I/F to GP unit.(Simultaneous use of programming consoles is not possible.)	✓
	Mitsubishi PLC Q-Series Link Cable (5m)	CA3-CBLLNKMQ-01	CA3-CBLLNKMQ-01	Connects Mitsubishi PLC Q-Series (or other host controller) to the GP unit. (RS-232C)	✓
	Mitsubishi PLC FX-Series Connection Cable	CA3-CBLFX/1M-01 (1m) CA3-CBLFX/5M-01 (5m)	CA3-CBLFX/1M-01 (1m) CA3-CBLFX/5M-01 (5m)	Connects Mitsubishi PLC FX-Series programming console I/F and GP unit. (Simultaneous use of programming consoles is not possible.)	✓
	Omron PLC SYSMAC Link Cable(5m)	CA3-CBLSYS-01	CA3-CBLSYS-01	Connects Omron PLC SYSMAC Series unit (or other host controller) to the GP unit. (RS-232C)	✓
	Siemens TTY Converter Cable (5m)	CA6-CBLTTY/5M-01	CA6-CBLTTY/5M-01	Connects Siemens PLC S5 Series to the GP unit.	✓
	MPI Cable (3.5m)	ST03-A2B-MPI21-PFE CA3-MPI-PG1-PFE CA3-MPI-PGN-PFE	-	Connects a host controller to the GP unit for MPI communication.	-

4. Option compatibility

	Product Name	GP-4000 W	ST-6000 EX	Description	Compatibility
Serial Interface	Multi-Link Cable (5m)	CA3-CBLMLT-01	CA3-CBLMLT-01	Connects a host controller to the GP unit for multi-link (n:1) communication. Please see "GP-Pro EX Device/PLC Connection Manual" for how to connect the cable.	✓
		PFXZCBCBML1	PFXZCBCBML1	Connects a host controller directly to the GP unit (D-sub 9 pin plug) for multi-link (n:1) communication.	✓
	9-pin-to-25-pin RS-232C Conversion Cable (0.2m)	CA3-CBLCBT232-01	CA3-CBLCBT232-01	Connects a standard RS-232C cable (D-Sub 25-pin socket) to the GP unit (D-sub 9-pin plug).	✓
	RS-422 9/25-pin Conversion Cable (0.2m)	PFXZCBCBCVR41	PFXZCBCBCVR41	Connects a standard RS-422 cable (D-sub 25-pin socket) to the GP unit (D-sub 9 pin plug).	✓
	2 Port Adapter Cable (5m)	CA3-MDCB11	CA3-MDCB11	Connects Mitsubishi PLC to the GP unit using 2 port adapter II (RS-422). Please see "GP Pro EX Device/PLC Connection Manual" for how to connect the cable. End of sale: 2019/12/26	✓
		PFXZCBCBMD1	PFXZCBCBMD1	Connects Mitsubishi PLC directly to the GP unit (D-sub 9 pin plug) using 2 port adapter II (RS-422). End of sale: 2019/12/26	✓
	Mitsubishi PLC A, QnA, FX Series 2 Port Adapter II	GP070-MD11	GP070-MD11	Enables simultaneous use of a GP unit and a Mitsubishi PLC A, QnA, or FX Series peripheral device. End of sale: 2019/12/26	✓
	COM Port Conversion Adapter	CA3-ADPCOM-01	CA3-ADPCOM-01	Connects optional RS-422 communication items to serial interface.	✓
	RS-422 Terminal Block Conversion Adapter	PFXZCBADTM1	PFXZCBADTM1	Connects output from a serial interface (D-sub 9 pin plug) directly to an RS-422 terminal block.	✓
	Terminal Block Conversion Adapter	CA3-ADPTRM-01	CA3-ADPTRM-01	Connects output from a GP unit's Serial Interface (D-sub 9 pin socket) directly with an RS-422 terminal block.	✓
RS-232C Isolation Unit	CA3-ISO232-01	CA3-ISO232-01	Connects a host controller to this product and provides isolation (RS-232C and RS-422 are switchable).	✓	

4. Option compatibility

* Please check your GP-Pro EX version supports the product.

	Product Name	GP-4000 W	ST-6000 EX	Description	Compatibility
USB Interface	USB Transfer Cable (2m)	CA3-USBCB-01	-	Cable for transferring screen data between a PC (USB Type A) and the GP unit (USB Type A).	- A to A screen transfer is not available.
	USB Transfer Cable	ZC9USCBMB1	-	Cable for transferring screen data from a PC (USB Type A) to the GP unit (USB mini-B).	NEW! Use the option for ST6000 series.
	USB Transfer Cable	-	PFXZUSCBMB2	Cable for transferring screen data from a PC (USB Type A) to this product (USB micro-B).	
	USB Cable (5m)	FP-US00	FP-US00 *	Connects a USB printer (Type B).	✓
	USB Front Cable (1m)	CA5-USBEXT-01	CA5-USBEXT-01	Extension cable that attaches USB interface (Type A) to front panel.	✓
	USB Panel-mount Extension Cable (USB mini-B) (1 m)	ZC9USEXMB1	-	Extension cable that attaches to the USB (mini-B) interface on the front side of the operation panel.	NEW! Use the option for ST6000 series.
	USB (micro-B) Front Cable	-	PFXZCIEXMB2	Extension cable that attaches USB interface (micro-B) to front panel.	
	USB Clamp Type A (1 port)	PFXZCBCLUSA1	PFXZCBCLUSA1	Clamp to prevent disconnection of USB cable (USB/A, 1 port, 5 clamps/set)	✓ This clamp is included in the package of GP4000TW, not included in ST6000.
	USB Clamp mini-B (1 port)	ZC9USCLMB1	-	Clamp to prevent disconnection of USB cable (USB/mini-B, 1 port, 5 clamps/set)	- No option available as micro-B clamp
	USB-Serial (RS-232C) Conversion Cable (0.5m)	CA6-USB232-01	CA6-USB232-01 *	Cable for converting a USB interface into a serial interface (RS-232C).	✓
USB/RS-422/485 Conversion Adapter	PFXZCBCBCVUSR41	PFXZCBCBCVUSR41 *	Adapter for connecting this product (USB Type A) to an external device (RS-422/RS-485).	✓	

4. Option compatibility

* Please check your GP-Pro EX version supports the product.

	Product Name	GP-4000 W	ST-6000 EX	Description	Compatibility
USB Interface	EZ Tower Light tube mounting fixing plate	PFXZCETWHA1	PFXZCETWHA1 *	USB Connection Type Monolithic EZ Tower Light tube mounting with fixing plate 3 tiers, Ø60, lighting and flashing with a buzzer.	✓
	EZ Tower Light with base mounting	PFXZCETWW1	PFXZCETWW1 *	USB Connection Type Monolithic EZ Tower with base mounting 3 tiers, Ø60, lighting and flashing with a buzzer.	✓
	EZ LAN Adapter	PFXZCGEUUE1	-	An adapter to expand an Ethernet port to HMI	- Not supported
	EZ Illuminated Switch	PFXZCCEUSG1	PFXZCCEUSG1 *	A unit of 5 illuminated switches with multiple color LED easily connected with this product unit via USB.	✓
	EZ Numpad	PFXZCCEUKB1	PFXZCCEUKB1 *	Numpad connected to this product via USB.	✓
	EZ Fingerprint Recognition Unit	PFXZCCEUSS1	PFXZCCEUSS1 *	Fingerprint recognition unit connected to this product via USB. End of sale: 2020/3/31	✓

4. Option compatibility

	Product Name	GP-4000 W	ST-6000 EX	Description	Compatibility	
Other	SD Memory Card	PFXZCBSD4GC41	-	SD Memory Card (4GB)	- ST6000 series do not have SD card slot.	
	Screen Protection Sheet	GP-4501TW	PFXZCBDS101	-	Disposable, dirt-resistant sheet for the GP unit screen (5 sheets/set)	NEW! Use the option for ST6000 series.
		GP-4401WW	PFXZCBDS72	-		
		GP-4301TW	PFXZCBDS61	-		
		GP-4201T GP-4201TW	CA6-DFS4-01	-		
	UV Protection Sheet	GP-4501TW	PFXZCFUV101	-	Sheet to protect the display from dirt and ultraviolet light (1 sheet / set)	
		GP-4401WW	PFXZCFUV72	-		
		GP-4301TW	PFXZCFUV61	-		
		GP-4201T GP-4201TW	PFXZCFUV41	-		
	Screen Protection Sheet	ST-6600WA	-	PFXZCDDS122	Disposable, dirt-resistant sheet for the display (5 sheets/set)	
	UV Protection Sheet	ST-6600WA	-	PFXZCFUV122	Sheet to protect the display from dirt and ultraviolet light (1 sheet)	
	Screen Protection Sheet with UV protected	ST-6700WA	-	PFXZCIDS152	Disposable, dirt-resistant sheet for the display and ultra-violet protection sheet (1 sheet /set)	
		ST-6500WA	-	PFXZCIDS102		
ST-6400WA		-	PFXZCIDS72			
ST-6200WA		-	PFXZCIDS42			

4. Option compatibility

	Product Name	GP-4000 W	ST-6000 EX	Description	Compatibility	
Other	Environment Cover	GP-4501TW	PFXZCBOP121	-	Disposable, environmental resistant cover for the GP unit screen (1 sheet / set)	-
		GP-4401WW	PFXZCBOP71	-		
		GP-4301TW	PFXZCBOP61	-		
		GP-4201T GP-4201TW	PFXZCBOP41	-		
	Spring Clip	-	XBTZ3002	Fasteners to attach this product to the mounting surface	NEW! This option is for ST-6200WA.	

4. Option compatibility

Product Name		GP-4000 W	ST-6000 EX	Description	Compatibility	
Maintenance	Installation Fastener	All GP4000TW	PFXZCBAF1	-	Used to install the GP unit into a solid panel (4 pieces/set)	NEW! Use the option for ST6000 series.
		ST-6700WA ST-6600WA ST-6500WA ST-6400WA	-	PFXZCIAFTF1	Installation fastener (2 pieces/set)	
		ST-6200WA	-	PFXZCFAF31	Installation fastener (2 pieces/set)	
	Installation Gasket	GP-4501TW	PFXZCBWG121	-	Provides dust and moisture resistance when this product is installed into a solid panel (1 piece).	NEW! Use the option for ST6000 series.
		GP-4401WW	PFXZCBWG71	-		
		GP-4301TW	PFXZCBWG61	-		
		GP-4201T GP-4201TW	PFXZCBWG41	-		
		ST-6700WA	-	PFXZCIWG153		
		ST-6600WA	-	PFXZCIWG123		
		ST-6500WA	-	PFXZCIWG103		
ST-6400WA ST-6200WA		- -	PFXZCIWG73 PFXZCIWG43			
USB Clamp Type A (1 port)		PFXZCBCLUSA1	PFXZCBCLUSA1	Clamp to prevent disconnection of USB cable (USB/A, 1 port, 5 clamps/set)	 This clamp is included in the package of GP4000TW, not included in ST6000.	

4. Option compatibility

	Product Name	GP-4000 W	ST-6000 EX	Description	Compatibility	
Maintenance	DC Power Supply Connector	PFXZCBCNDC1	-	Connector to connect DC power supply cables (5 pcs/set)	-	
	DC Power Supply Connector (Right-angle)	PFXZCBCNDC2	-	Right-angle connector to connect DC power supply cables (5 pcs/set)		Use the option for ST6000 series.
	DC Power Supply Connector	-	CA5-DCCNM-01	Connector to connect DC power supply cables (5 pcs/set)		
	Battery for Memory Backup	PFXZCBBT1	-	Primary battery for memory and time data backup (1 piece) For GP-4501TW/GP4401WW	NEW! Use the option for ST6000 series.	
	Battery for Data Backup	-	PFXZGEBT1	Primary battery for memory and time data backup (1 piece) For all ST6000 series		
	Panel Cutout Adapter	CA4-ATM10-01	-	Panel cutout adapter for mounting GP-4501TW in cutout for GP-2500/2600 series.	-	

5. Software compatibility

Software	GP-4000 W Model	ST6000 (GP-Pro EX)	Compatibility of Project Data
GP-Pro EX	✓ Ver. 3.01 or later (Ver. 3.0 or later for GP-4301TW)	✓ Ver. 4.09.200 or later	✓
	https://www.pro-face.com/otasuke/files/manual/gpproex/new/refer/gpproex.htm		
Pro-Server EX	✓ Ver. 1.30 or later	✓ Ver. 1.37.200 or later	✓
	https://www.pro-face.com/otasuke/files/manual/soft/server_ex/v1_37/ref/SRPreface.htm		
Pro-face Remote HMI (iOS/Android) *1	✓ Ver. 1.0 or later	✓ Ver. 1.30 or later	✓
	https://www.pro-face.com/otasuke/qa/remotehmi/faq.html		
Pro-face Remote HMI Client for Win *1	✓ Ver. 1.40 or later	✓ Ver. 1.40 or later	✓
	https://www.proface.com/en/product/soft/remotehmi_client/download		
Pro-face Connect *1	✓ Ver. 1.0 or later	✓ Ver. 9.6 or later	✓
	https://www.proface.com/en/product/soft/proface_connect/download		

*1: Supported GP-Pro EX Version differs depending on the software.

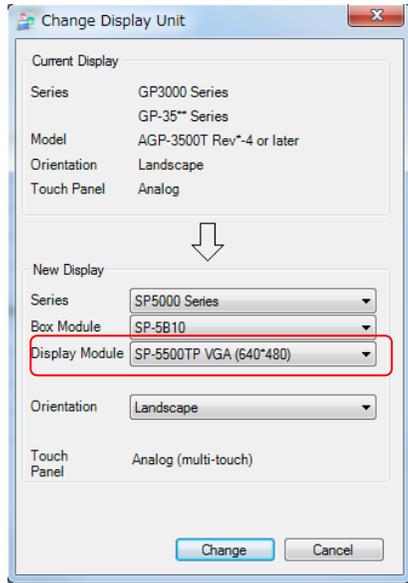
Software	Version	Supported GP-Pro EX Version
Pro-face Remote HMI (iOS/Android)	1.10	3.5 or later
	1.20	3.6 or later
	1.30	4.0 or later
	1.31	4.02 or later
	1.41	4.03 or later
	1.42 or later	4.05 or later
Pro-face Remote HMI Client for Win	1.40 or later	4.03 or later
Pro-face Connect	1.0 or later	4.07.100 or later

If you would like to check the software replacement procedure, please check the following document included in the zip file. Replacement Guidebook (Software)_EN.pdf

6. About Resolutions

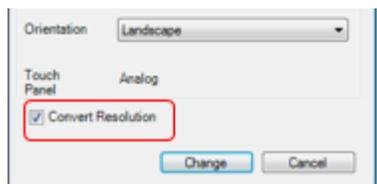
When replacing with a model with a different resolution, Convert the resolution with the following settings.

With GP-Pro EX



The display resolution can be selected on the 'Change Display Unit' screen of GP-Pro EX.

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 please note that their width gets larger due to change of horizontal resolution of the screen area. In this case, confirm their size and location and adjust them if necessary. Especially, if using Standard font for the font type, after resolution converter, the size will get smaller. In that case, you can improve by using stroke font or image font.



7. Other Important notes

- Do not expose the hardware to direct sunlight. Recommend to use the option item “UV Protection Sheet” to protect the display from ultraviolet light.
- Do not use the hardware outdoors.
- Do not turn on the hardware if condensation has occurred inside the device.
- The panel brightness may decrease when used for a long time in an environment continuously filled with inert gas. Please ventilate the control panel periodically.

