Pro-face
by Schneider Electric

Easy! Smooth!

Replacement Guidebook

GP-3300T, GP-3310T, GP-3360T Series

> SP-5400WA(Advanced Display)

\+ SP-5B10(Power Box)

SP-5B00(Standard Box)

The 7th Edition Apr. 2019

Preface

This guidebook introduces the procedures to replace GP3000 series in below table with a SP-5400WA+SP-5B00/SP-5B10.

Model in use	Model No.	Recommended Substitution
GP-3300T/S/L	AGP3300-L1-D24 AGP3300-S1-D24 AGP3300-T1-D24	SP-5400WA (Advanced Display) + SP-5B00 (Standard Box) ->see 1.1
GP-3310T	AGP3310-T1-D24	->see1.3
GP-3360T	AGP3360-T1-D24	->see1.4
GP-3300T/S/L (DIO model)	AGP3300-L1-D24-D81C AGP3300-L1-D24-D81K AGP3300-S1-D24-D81C AGP3300-S1-D24-D81K AGP3300-T1-D24-D81C AGP3300-T1-D24-D81K	SP-5400WA (Advanced Display) +SP-5B10 (Power Box) + FLEXNETWORK unit (Model No: PFXZCHEUFN1) ->see 1.2
GP-3300T/L (FLEXNETWORK model)	AGP3300-L1-D24-FN1M AGP3300-T1-D24-FN1M	
GP-3300T/S/L (CANopen model)	AGP3300-L1-D24-CA1M AGP3300-S1-D24-CA1M *1 AGP3300-T1-D24-CA1M	SP-5400WA (Advanced Display) +SP-5B10 (Power Box) + CANopen Master Unit (Model No: PFXZCHEUCAM1) ->see 1.2

'Display' and 'Box' of SP5000 series can be separated, so you can freely select a suitable combination of them according to use. This guidebook introduces specifications for a combination of SP-5400WA (Advanced Display) that is a 7-inch wide display module and SP-5B10 (Power box)/SP-5B00(Standard Box) that is a box module.

Safety Information

HAZARD OF OPERATOR INJURY, OR UNINTENDED EQUIPMENT DAMAGE

Before operating any of these products, be sure to read all related manuals thoroughly.

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

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Chapter 1 Specification Comparison

1.1 Specifications of GP-3300T/S/L (Standard Class) and SP-5400WA+SP-5B00

		GP3000 series	SP5000 series
		 **GP-3300T**	 **SP-5400WA (Advanced Display) + SP-5B00 (Standard Box)**
Display Type		TFT Color LCD	
Display Colors		65,536 colors (without blink) / 16,384 colors (with blink)	**UP!** 262,144 colors (without blink) *1
Display Resolution		QVGA (320×240 pixels)	**NEW!** WVGA (800×480 pixels) -> see 2.8
Panel Cutout Dimensions		W156.0×H123.5mm	**NEW!** W190 x H135mm-> see 2.9
External Dimensions		W167.5×H135×D59.5mm	**NEW!** W203.6×H148.6×D67mm*2 -> see 2.9
Touch Panel Type		Resistive film (Analog)	
Memory	**Application**	6MB	**UP!** 64MB
	SRAM	SRAM: 320KB	**UP!** NVRAM: 320KB
Backup Battery		Secondary Battery (Rechargeable Lithium battery)	**UP!** - -> see 2.5
Input Voltage		DC24V	**NEW!** DC 12 to 24V
Serial I/F	**COM1**	D-Sub9 pin (plug) RS-232C/422/485	D-Sub9 pin (plug) RS-232C
	COM2	D-Sub9 pin (socket) RS-422/485	**UP!** D-Sub9 pin (plug) RS-422/485 ->see 2.3.1 and Chapter4
Ethernet I/F		1 port	**UP!** 2 ports
CF Card I/F		✔	- ->see 2.3.4
SD card I/F		-	**NEW!** ✔ ->see 2.3.4
USB I/F	**Type A**	1 port	**UP!** 2 ports->see 2.4.1
	Type mini B	-	**UP!** 1 port->see 2.4.1
Auxiliary I/O I/F		-	- *3
Sound Output I/F		-	- *3
FLEX NETWORK I/F		✔ (AGP3300-*1-D24-FN1M Only)	- *3
CANOpen I/F		✔ (AGP3300-*1-D24-CA1M Only)	- *3
DIO I/F		✔ (AGP3300-*1-D24-D81* Only)	- *3
Expansion Unit I/F		✔	- *3
Software		GP-Pro EX V2.00 or later*4	GP-Pro EX V4.08.200 or later

*1: SP-5B00 does not support hardware 3rd speed blink.
*2: Size for the time when SP-5400WA (Advanced Display) is combined with SP-5B00 (Standard box).
*3: If need this I/F, SP5B10(Power box) is required.
*4: GP-Pro EX V2.6 or later is required for hardware unit with Rev.4 or later.

1.2 Specifications of GP-3300T/S/L (Control Class) and SP-5400WA+SP-5B10

		GP3000 series	SP5000 series
		 **GP-3300T/S/L**	 **SP-5400WA (Advanced Display) + SP-5B10 (Power box)**
Display Type		TFT Color LCD	
Display Colors		65,536 colors (without blink) / 16,384 colors (with blink)	**UP!** 262,144 colors (without blink) / 65,536 colors (with blink)
Display Resolution		QVGA (320×240 pixels)	**NEW!** WVGA (800×480 pixels) -> see 2.8
Panel Cutout Dimensions		W156.0×H123.5mm	**NEW!** W190 x H135mm-> see 2.9
External Dimensions		W167.5×H135×D59.5mm	**NEW!** W203.6×H148.6×D67mm*1 -> see 2.9
Touch Panel Type		Resistive film (Analog)	
Memory	**Application**	6MB	**UP!** 64MB
	SRAM	SRAM: 320KB	**UP!** NVRAM: 320KB
Backup Battery		Secondary Battery (Rechargeable Lithium battery)	**UP!** - -> see 2.5
Input Voltage		DC24V	**NEW!** DC 12 to 24V
Serial I/F	**COM1**	D-Sub9 pin (plug) RS-232C/422/485	D-Sub9 pin (plug) RS-232C/422/485
	COM2	D-Sub9 pin (socket) RS-422/485	**UP!** D-Sub9 pin (plug) RS-232C/422/485 ->see 2.3.1 and Chapter4
Ethernet I/F		1 port	**UP!** 2 ports
CF Card I/F		✔	- ->see 2.3.4
SD card I/F		-	**NEW!** ✔ ->see 2.3.4
USB I/F	**Type A**	1 port	**UP!** 2 ports->see 2.4.1
	Type mini B	-	**UP!** 1 port->see 2.4.1
Auxiliary I/O I/F		-	✔
Sound Output I/F		-	**UP!** Speaker Output: 300mW or more (Rated Load: 8Ω, Frequency: 1kHz) LINE Output: 1.4Vp-p (Rated Load: 10kΩ) Connector: 2-piece terminal block(AUX) x 1 ->see 2.3.2
FLEX NETWORK I/F		✔ (AGP3300-*1-D24-FN1M Only)	FLEXNETWORK Unit (Model No. PFXZCHEUFN1) is required. ->see 2.3.3
CANOpen I/F		✔ (AGP3300-*1-D24-CA1M Only)	CANOpen Master Unit (Model No. PFXZCHEUCAM1) is required.

		->see 2.3.3
DIO I/F	✔ (AGP3300-*1-D24-D81* Only)	Required to change to FLEXNETWORK
Expansion Unit I/F	✔	✔ → see 2.4.3
Software	GP-Pro EX V2.00 or later*2	GP-Pro EX V4.00 or later

*1: Size for the time when SP-5400WA (Advanced Display) is combined with SP-5B10 (Power box). For further use of PROFIBUS DP SLAVE/MPI unit (Model No.: PFXZCDEUPF1), please refer to below FAQ
https://www.proface.com/en/support/faq?page=content&country=PROFACE&lang=en&locale=en_US&id=FA315627&prd=&redirect=true

*2: GP-Pro EX V2.6 or later is required for hardware unit with Rev.4 or later.

1.3 Specifications of GP-3310T (Standard Class) and SP-5400WA+SP-5B00

		GP3000 series	SP5000 series
		 **GP-3310T**	 **SP-5400WA (Advanced Display) + SP-5B00 (Standard Box)**
Display Type		TFT Color LCD	
Display Colors		65,536 colors (without blink) / 16,384 colors (with blink)	**UP!** 262,144 colors (without blink) *1
Display Resolution		VGA (640×480 pixels)	**NEW!** WVGA (800×480 pixels) -> see 2.8
Panel Cutout Dimensions		W156.0×H123.5mm	**NEW!** W190 x H135mm-> see 2.9
External Dimensions		W167.5×H135×D59.5mm	**NEW!** W203.6×H148.6×D67mm *2 ->see 2.9
Touch Panel Type		Resistive film (Analog)	
Memory	**Application**	8MB	**UP!** 64MB
	SRAM	SRAM: 320KB	**UP!** NVRAM: 320KB
Backup Battery		Secondary Battery (Rechargeable Lithium battery)	**UP!** - -> see 2.5
Input Voltage		DC24V	**NEW!** DC 12 to 24V
Serial I/F	**COM1**	D-Sub9 pin (plug) RS-232C/422/485	D-Sub9 pin (plug) RS-232C
	COM2	D-Sub9 pin (socket) RS-422/485	**UP!** D-Sub9 pin (plug) RS-422/485 ->see 2.3.1 and Chapter4
Ethernet I/F		1 port	**UP!** 2 ports
CF Card I/F		✔	- ->see 2.3.4
SD card I/F		-	**NEW!** ✔ ->see 2.3.4
USB I/F	**Type A**	1 port	**UP!** 2 ports->see 2.4.1
	Type mini B	-	**UP!** 1 port->see 2.4.1
Auxiliary I/O I/F		-	-*3
Sound Output I/F		Speaker Output: 70mW(Rated Load: 8Ω, Frequency 1kHz), Connector: MINI-JACK Φ3.5	- *3
Expansion Unit I/F		✔	-*3
Software		GP-Pro EX V2.00 or later*4	GP-Pro EX V4.08.200 or later

*1: SP-5B00 does not support hardware 3rd speed blink.
*2: Size for the time when SP-5400WA (Advanced Display) is combined with SP-5B00 (Standard box).
*3: If need this I/F, SP5B10(Power box) is required.
*4: GP-Pro EX V2.6 or later is required for hardware unit with Rev.4 or later.

1.4 Specifications of GP-3360T (Standard Class) and SP-5400WA+SP-5B00

		GP3000 series	SP5000 series
		 **GP-3360T**	 **SP-5400WA (Advanced Display) + SP-5B00 (Standard box)**
Display Type		TFT Color LCD	
Display Colors		65,536 colors (without blink) / 16,384 colors (with blink)	**UP!** 262,144 colors (without blink) *1
Display Resolution		VGA (640×480 pixels)	**NEW!** WVGA (800×480 pixels) -> see 2.8
Panel Cutout Dimensions		W156.0×H123.5mm	**NEW!** W190 x H135mm ->see 2.9
External Dimensions		W167.5×H135×D59.5mm	**NEW!** W203.6×H148.6×D67mm *2 -> see 2.9
Touch Panel Type		Resistive film (Analog)	
Memory	**Application**	8MB	**UP!** 64MB
	SRAM	SRAM: 320KB	**UP!** NVRAM: 320KB
Backup Battery		Secondary Battery (Rechargeable Lithium battery)	**UP!** - -> see 2.5
Input Voltage		DC24V	**NEW!** DC 12 to 24V
Serial I/F	**COM1**	D-Sub9 pin (plug) RS-232C/422/485	D-Sub9 pin (plug) RS-232C
	COM2	D-Sub9 pin (socket) RS-422/485	**UP!** D-Sub9 pin (plug) RS-422/485 ->see 2.3.1 and Chapter4
Ethernet I/F		1 port	**UP!** 2 ports
CF Card I/F		✔	- ->see 2.3.4
SD card I/F		-	**NEW!** ✔ ->see 2.3.4
USB I/F	**Type A**	1 port	**UP!** 2 ports->see 2.4.1
	Type mini B	-	**UP!** 1 port->see 2.4.1
Auxiliary I/O I/F		-	-*3
Video Input Interface (V-IN)		NTSC: 59.9Hz PAL: 50Hz Connector: RCA 75W	- see 2.3.5
Audio Input Interface (L-IN/MIC)		MIC input/LINE input (Change with S/W) Connector: MINI-JACK F3.5	- see 2.3.5
Sound Output I/F		Speaker Output: 70mW(Rated Load: 8Ω, Frequency 1kHz), Connector: MINI-JACK Φ3.5	-*3
Expansion Unit I/F		✔	-*3
Software		GP-Pro EX V2.50 or later	GP-Pro EX V4.08.200 or later

*1: SP-5B00 does not support hardware 3rd speed blink.
*2: Size for the time when SP-5400WA (Advanced Display) is combined with SP-5B00 (Standard box).

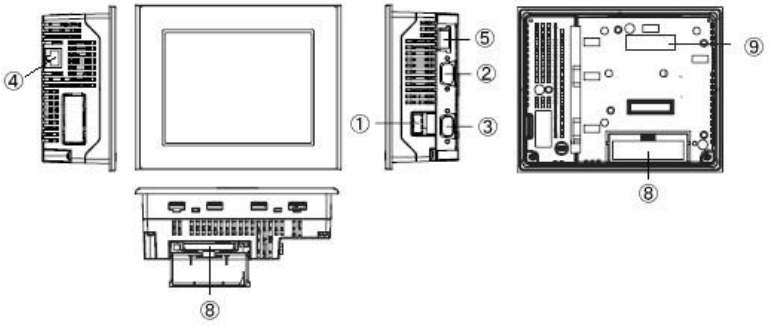
*3: If need this I/F, SP5B10(Power box) is required.

Chapter 2 Compatibility of Hardware

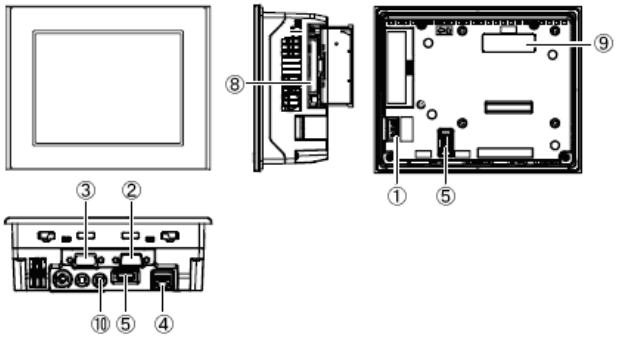
2.1 Locations of connector

Connector locations on GP-3360T and SP5000 are as follows:

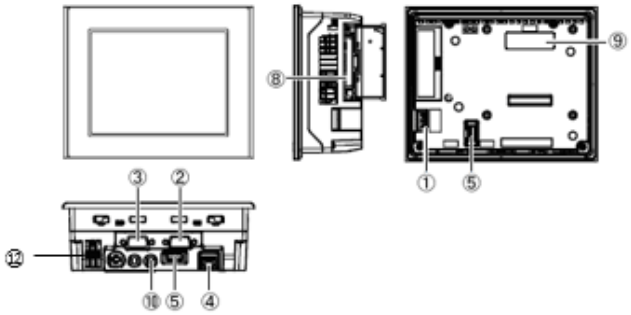
GP-3300T



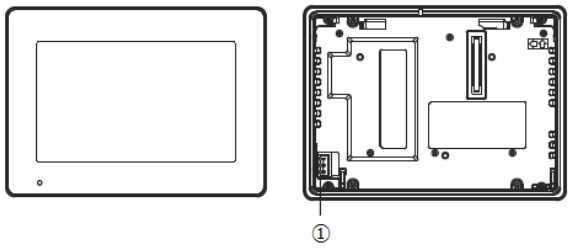
GP-3310T



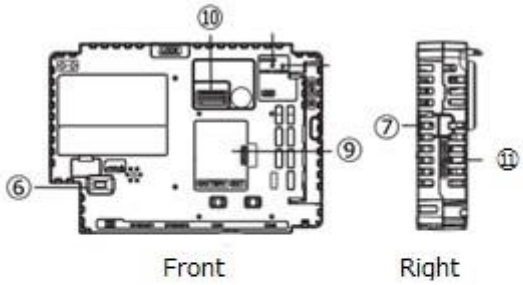
GP-3360T



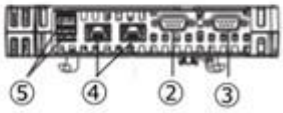
SP-5400WA(Advanced Display)



SP-5B10(Power box)

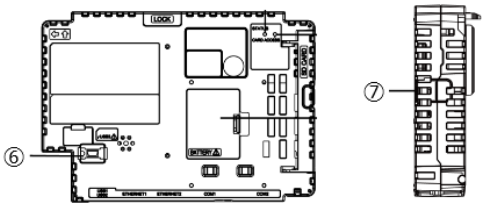


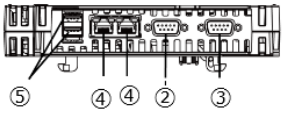
Front Right



Bottom

SP-5B00(Standard box)





Interface names

	GP-3300T	GP-3310T	GP-3360T	SP-5400WA (Advanced Display) + SP-5B10 (Power box)	SP-5400WA (Advanced Display) + SP-5B00 (Standard box)
1	Power Connector	Power Connector (DC)	Power Connector	Power Connector (DC)	Power Connector (DC)
2	Serial I/F (COM1)				
3	Serial I/F (COM2)				
4	Ethernet I/F				
5	USB I/F (Type A)				
6	-	-	-	USB I/F (Type mini B)	
7	-	-	-	Storage Card Cover (There's a SD card I/F for storage under the cover.)	
8	CF card I/F			-	-
9	Expansion Unit I/F (Communication Unit)				-
10	-	Sound Output I/F		Auxiliary I/O /Sound Output I/F(AUX)	-
11	-	-	-	System Card Cover (There's a SD card I/F for the system under the cover.)	-
12	-	-	Video Input I/F	-	-

2.2 USB Transfer cable

Like the GP3000 series, a USB transfer cable (CA3-USBCB-01) can be used for the SP5000 series. Also, a USB (Type mini B) cable (ZC9USCBMB1) and commercial cables can be used on the SP5000 series' side.

	Model	Connector Type	Connector on Display
Options	CA3-USBCB-01		USB (Type A)
	ZC9USCBMB1		USB (Type mini B)
Commercial Item	-		

2.3 Interface

2.3.1 Serial Interface

The SP5000 series has a COM port on the side of box module.
The pin array and the shapes of the plug and the socket differ between GP-3300T/3310T/3360T COM2 port and SP-5B10 (Power box)/SP-5B00(Standard box) COM port. The PLC connection cable that used to be connected to GP-3300T/3310T/3360T via its COM2 port cannot be used as it is. For details, refer to "Chapter 4 Communication with Device/PLC". Cables other than that can be used as they are.

When both the COM1 port and the COM2 port have the RS-422/485 setting, only the COM2 port can be used for RS-422/485 connection after replacement to SP-5B00(Standard box).

2.3.2 Sound Output Interface (for GP-3310T/3360T only)

If needed, apply SP5B10(Power box)'s AUX I/F.
The output value has been increased from 70mW to 300mW. Please take note of it when you use an amplifier.

2.3.3 When using DIO I/F, FLEX NETWORK I/F, CANOpen I/F

When GP3000 series (C Class) DIO model, FLEXNETWORK model and CANOpen model was used, SP-5B10 (Power BOX) is required.

For SP5000 series, below module is required.

GP3000 series (C Class)		Expansion unit for SP5000 series
FLEXNETWORK	AGP3300-L1-D24-FN1M AGP3300-T1-D24-FN1M	FLEXNETWORK unit (Model No: PFXZCHEUFN1) is required.
CANopen	AGP3300-L1-D24-CA1M AGP3300-S1-D24-CA1M AGP3300-T1-D24-CA1M	CANopen Master unit (Model No: PFXZCHEUCAM1) is required.
DIO	AGP3300-L1-D24-D81C AGP3300-L1-D24-D81K AGP3300-S1-D24-D81C AGP3300-S1-D24-D81K AGP3300-T1-D24-D81C AGP3300-T1-D24-D81K	FLEXNETWORK unit (Model No: PFXZCHEUFN1) and FLEXNETWORK I/O unit (Model No:FN-XY16S*41) is required

SP-5B00 (Standard Box) cannot be used for expansion unit.

2.3.4 CF Card Interface

SP5000 series is not equipped with a CF card slot. But a SD card slot and a USB interfaces are installed. In order to use the GP3000 series data saved in the CF card and the functions using the CF card, use a SD card or a USB flash drive instead.

SP-5B10 (Power box) has 2 SD card interfaces, one for the system and the other for backup. Use the interface of the SD card for backup.

* When using a SD card with SP-5B10 (Power box), please verify it supports the following specifications:

	File format	Maximum capacity
SD	FAT16	2GB
SDHC	FAT32	32GB

When the setting of the output destination folder is set to "CF Card" on GP-Pro EX, if you change the display unit type, the setting will automatically change to the one that uses a SD card.
To change the setting of the output destination folder, see [5.1 Changing the setting of the external media to use].

2.3.5 Video and Audio Input Interface (for GP-3360T only)

SP5000 series is not equipped with the Multimedia function. The Multimedia function for GP-3360T cannot be used.

2.4 Peripheral units and option units

2.4.1 Barcode/ 2D [two-dimensional] code reader connection

Like GP3000 series, SP5000 series allows you to connect a barcode reader to its USB interface (Type A) or its serial interface. In replacing GP3000 series with SP5000 series, verify proper operation of the barcode/2D code reader before use.

2.4.2 Printer connection

Like GP3000 series, SP5000 series allows you to connect a printer on its USB interface (Type A). In replacing GP3000 series with SP5000 series, verify proper operation of the printer before use.

2.4.3 Expansion Unit

If you used PROFIBUS unit for GP3000 series, SP-5B10 (Power Box) is required for the replacement.

If you used PROFIBUS unit for GP3000 series (model:CA5-PFSALL/EX-01), please apply PROFIBUS DP Slave (model no.: PFXZCDEUPF1) for SP-5B10(Power box).

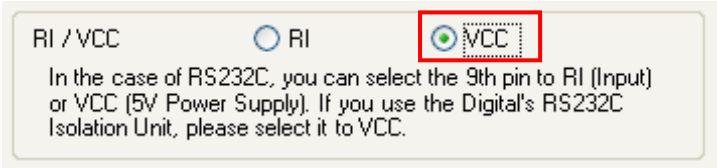
Reference:
[FA315627] Replacement for GP3000 series PROFIBUS unit (Model no.: CA5-PFSALL/EX-01)
https://www.proface.com/en/support/faq?page=content&country=PROFACE&lang=en&locale=en_US&id=FA315627&prd=&redirect=true

SP5000 Series Option List
(https://www.proface.com/en/product/hmi/sp5000/option)

The expansion unit (each kind of unit like CC-LINK Unit, VM unit) for GP3000 series cannot be used for SP5000 series.

2.4.4 Isolation Unit

RS-485 isolation unit for GP-3310T/3360T (CA3-ISO485-01) cannot be used for SP-5B10 (Power box)/SP-5B00 (Standard box). You can use the RS-232C isolation unit (CA3-ISO232-01) instead. (The communication method is switched with this unit's DIP switch.)

Note for using RS-232C isolation unit (CA3-ISO232-01)
・ Connect it to SP5000 series via COM1 (232C). ・ In the case of RS-232C, it's necessary to set the 9th pin of the COM port to VCC. [Settings on GP-ProEX] Select "VCC" from [System Settings] -> [Device/PLC] in the [Project] menu on GP-Pro EX.    ・ RS-422/485 (2-wire type) communication and serial multilink are not supported.

2.5 Backup Battery

SP-5B10/SP-5B00 is not needed a backup battery for Clock.
Supercapacitor (electric double-layer capacitor) can be back up clock data.

Please note the following points,

- When the voltage from the Supercapacitor is low, clock data is lost when this product is turned OFF. In order to charge up the super capacitor, power needs to be supplied to the main unit for 5 minutes or longer.

- The average period for backup is as follows:

  Initial: Approximately 100 days
  After 5 years: Approximately 30 days (used at ambient temperature of 25 °C [77 °F])

  By connecting the Battery for Memory Backup (Model Number PFXZCBBT1) accessory, you can set up a backup period of up to 10 years or more.

2.6 About Ladder monitor

PLC Ladder monitor tool cannot be used for SP5000 series.

2.7 About Pro-Server EX

Use Pro-Server EX Ver.1.33 or later. For more detail, please refer to the following.

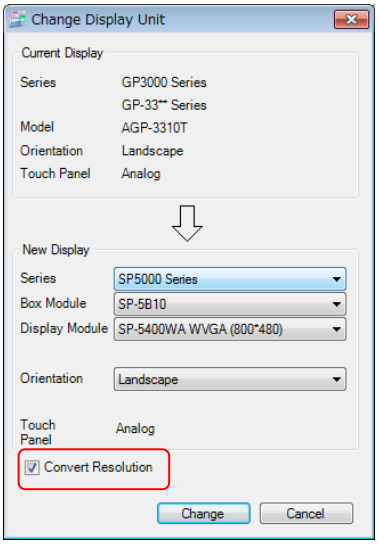
(http://www.proface.co.jp/otasuke/qa/server_ex/replace/)

If using SP-5B00(Standard BOX), use Pro-Server EX Ver.1.36 or later.

2.8 Display Resolution

The display resolution of GP-3300T is QVGA (320x240 pixels) and one of GP-3310T/3360T is VGA (640x480 pixels). And those are different from that of SP-5400WA (WVGA 800x480 pixels). It means that display area of SP-5400WA is larger than GP-3300T/3310T/3360T. So you may need to edit layout with GP-Pro EX, if screen is displayed as full screen.

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.
To know its details and how to change the Display Unit type, see [3.4 Change Display Unit Type].

2.9 Panel Cutout Dimensions and External Dimensions

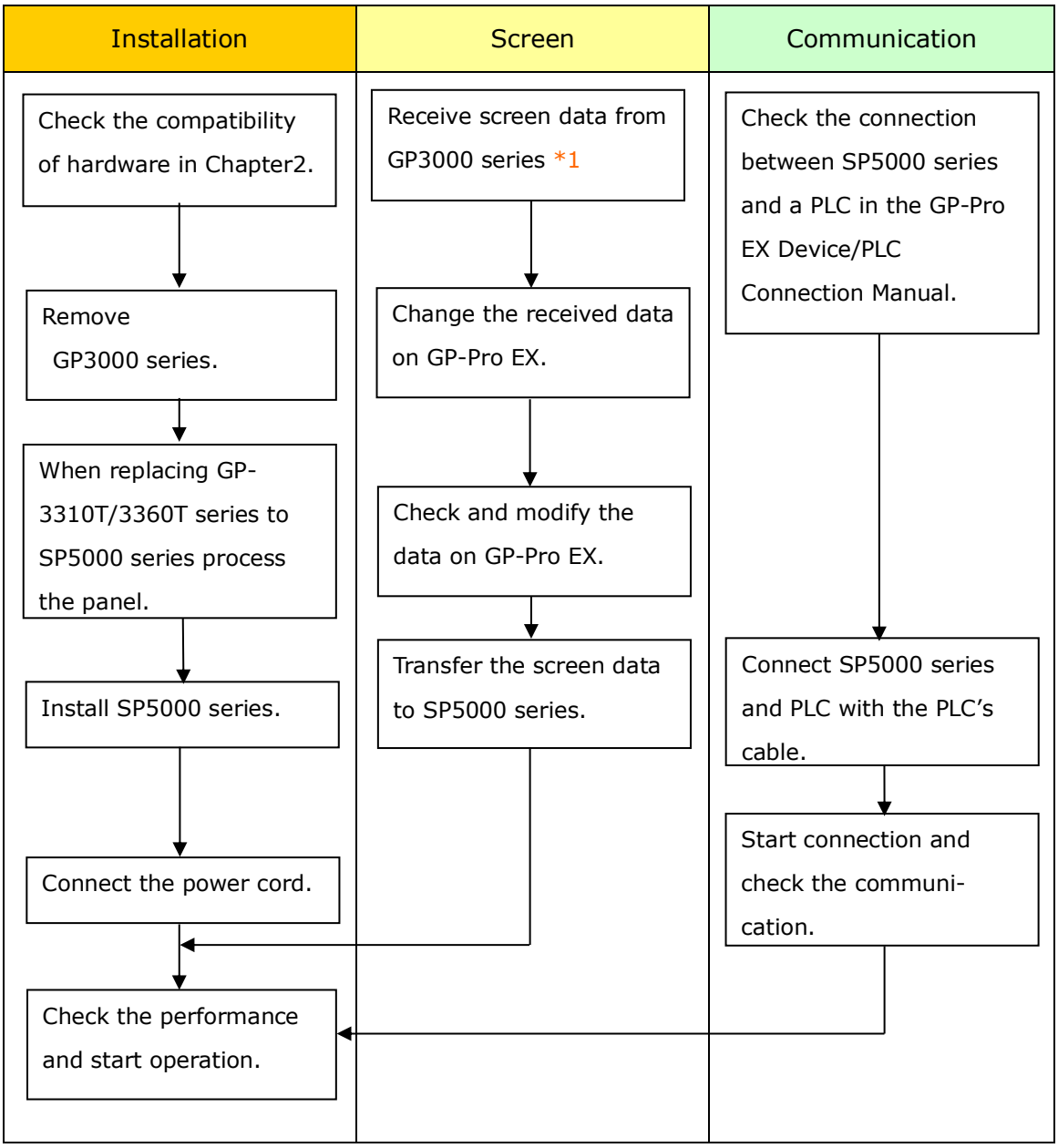
For replacing GP-3300T/3310T/3360T with SP-5400WA+SP-5B10/SP-5B00, the panel cutout dimensions and External Dimensions get larger. It's necessary to process the panel.

2.10 Other Notes

- Do not expose SP5000 series to direct sunlight.
- Do not use SP5000 series outdoors.
- Do not turn on SP5000 series if condensation has occurred inside the device.
- When you are continuously using SP5000 series without oxygen, the brightness might decrease. Please ventilate the control panel periodically.

Chapter 3 Replacement Procedure

3.1 Work Flow



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

3.2 Preparation

Requirements for receiving screen data from GP3000 series*1	PC in which GP-Pro EX Transfer Tool is installed. *2
	USB Transfer Cable (model: CA3-USBCB-01) * Possible to send/receive a screen via a CF card, a USB storage device or Ethernet.
Requirements for converting screen data of GP3000 series and transferring the converted data to SP5000 series.	PC with GP-Pro EX installed. *Ver4.02 or later is required for SP-5B10*3 *Ver4.08.200 or later is required for SP-5B00
	Transfer Cable (The following three types of cables are available) ・ A USB transfer cable (model: CA3-USBCB-01) ・ A USB data-transfer cable (model: ZC9USCBMB1) ・ A commercial USB cable (USB Type A/mini B) * Possible to send/receive a screen via a SD card, a USB storage device or Ethernet.

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

*2: Please use the same version or later as or than that of the software used during creating screens on GP3000 series. If you don't know the version, we recommend you to use the newest version. For the newest version, you can download the transfer tool from our web site called [OtasukePro!] (http://www.pro-face.com/otasuke/download/freesoft/gpproex_transfer.htm) .

*3: GP-Pro EX V2.6 or later is required for hardware unit with Rev.4 or later.

3.3 Receive screen data from GP3000 series
You can transfer data to GP3000 series via;

- A USB transfer cable (model: CA3-USBCB-01)
- A CF card/USB storage device
- Ethernet

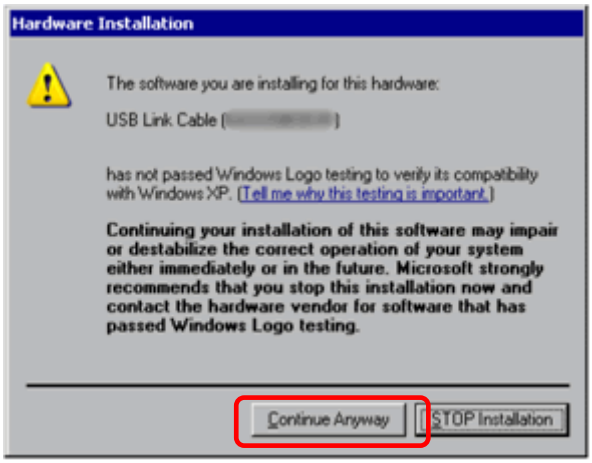
But this section explains, as an example, how to receive screen data from GP-3310T/3360T using a USB transfer cable (model: CA3-USBCB-01) .

If you have backed up screen data, this step is unnecessary, skip to the next section [3.4 Change the Display Unit Type].

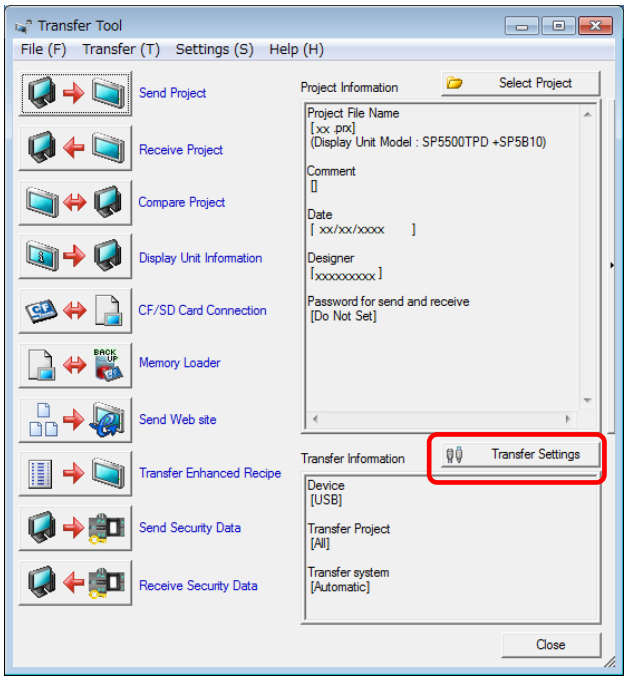
(1) Connect your PC and GP3000 series with a USB transfer cable.
If the driver of the cable has not been installed on your PC yet, a dialog box will appear. Please follow the instructions.

NOTE

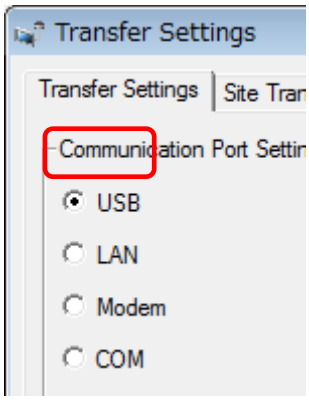
- The "Hardware Installation" dialog box as shown below may appear during installing the USB driver depending on the security level of Windows®. Click [Continue Anyway] to start installing the driver. When installation is completed, click [Finish].



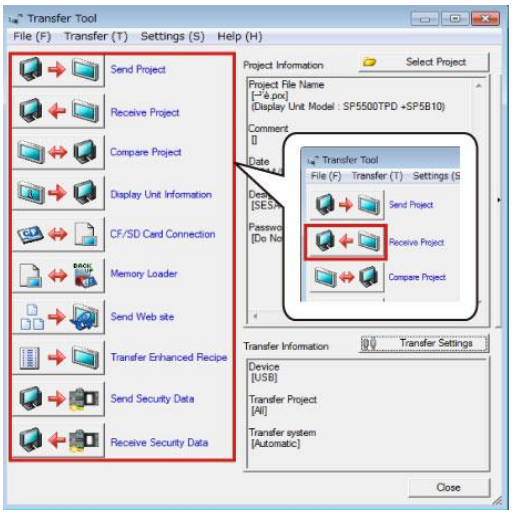
(2) Start the Transfer Tool of GP-Pro EX.



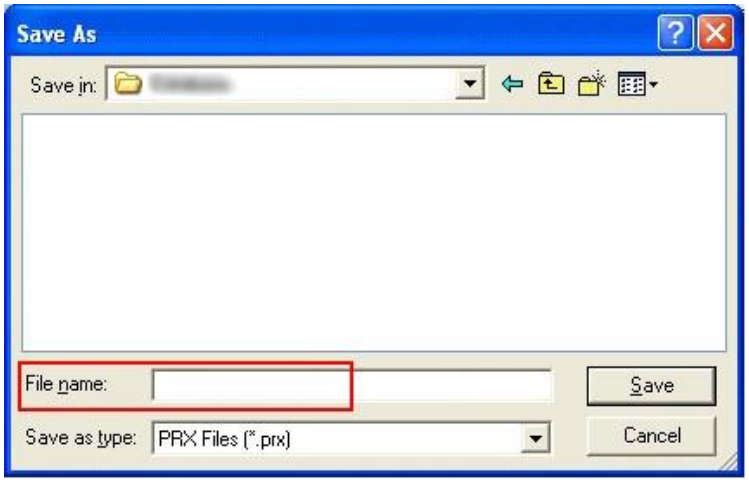
(3) Make sure that the [Device] in the "Transfer Settings Information" is set to [USB]. If not, click the [Transfer Setting] button to open the "Transfer Setting" dialog box. Select [USB] in the Communication Port Settings field and click [OK].



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

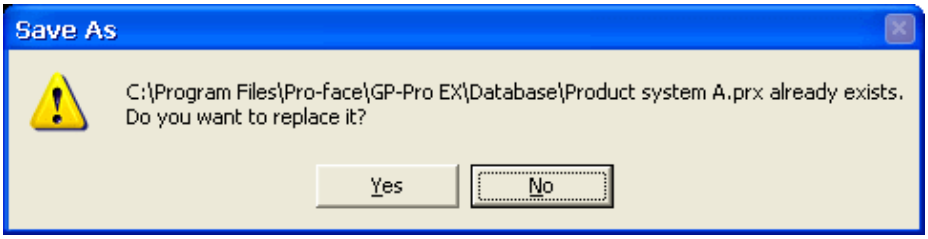


(5) Click [Receive Project], and the following dialog box will appear. Specify a place to save the received data in and a project file name, and then click [Save] to start transfer.

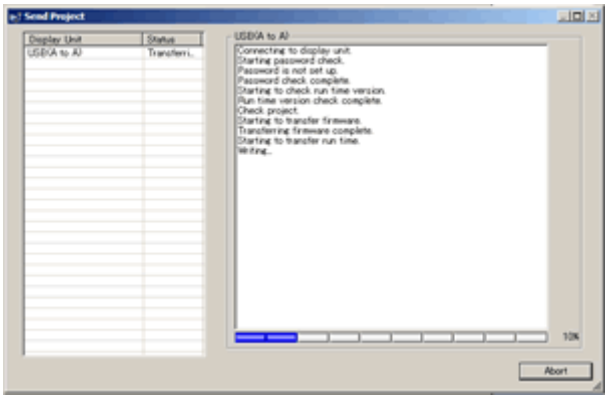


NOTE

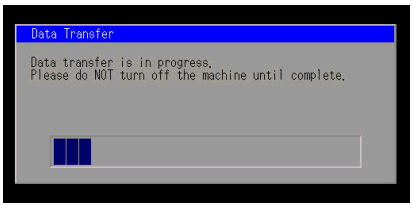
When a file exists, the window that confirms whether or not to overwrite the file is displayed.



(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.)



Display Screen

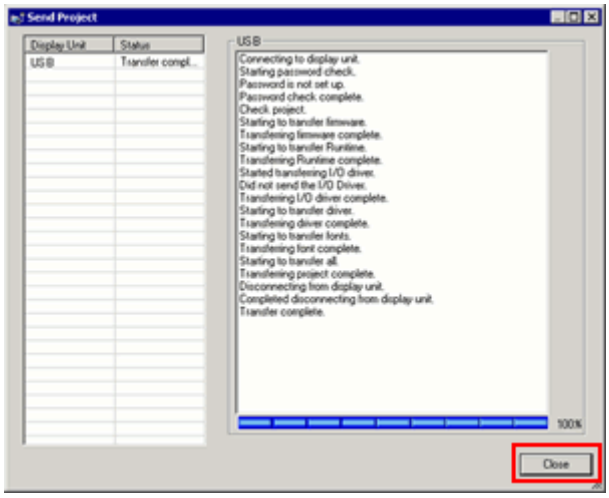


NOTE

- If you receive the project files that use CF card data such as Recipe Function (CSV data) , the following dialog box will appear during transfer. Specify a place to save the CF card data in. Click [OK], and the [Receive Project] dialog box will return and transfer will be completed.

- SP5000 series that is a replacement model is not equipped with a CF card slot. If the display unit type is changed to SP5000 series, the CF card setting will be replaced with the SD card setting automatically. To check or change the destination folder setting, see [5.1 Changing the setting of the external media to use].

(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.

3.4 Change the Display Unit Type

Open the received project file (*.prx) of GP3000 series on GP-Pro EX and change the display unit type to SP5000 series.

(1) Open the received project file (*.prx) on GP-Pro EX.

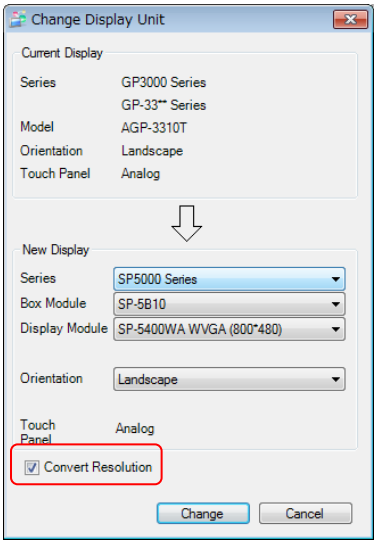
(2) Click [System Settings]->[Display]->[Change Display] in [Project] menu and change the Display Unit type to the replacement model.

Note

When changing the Display Unit type,

If you check on [Convert Resolution]:

Horizontal width of the part and the text relative to the display resolution becomes 1.25 times larger.



If you uncheck [Convert Resolution]:

(* This is the default setting.)

Size of the part and the text relative to the display resolution doesn't change but the empty space (80 pixels) appears on both right and left side of the screen area.

After changing the Display Unit type, confirm size and location of the part/text

and edit the screens if necessary.

(3) Click [Project]->[Save As] and save the changed project file.

3.5 Transfer the screen data to SP5000 series

Transfer the project file after the display unit type change to SP5000 series.

You can transfer data to SP5000 series via;

- An USB transfer cable (model: CA3-USBCB-01)
- An USB data transfer cable (model: ZC9USCBMB1)
- A commercial USB cable (USB Type A/mini B)
- A SD card/USB storage device
- Ethernet

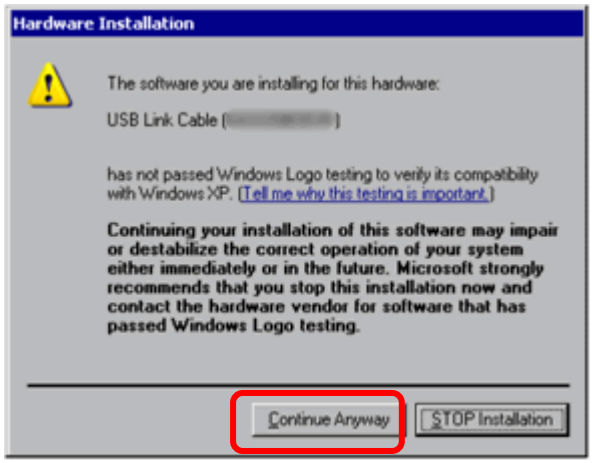
But, this section explains, as an example, how to transfer screen data with an USB transfer cable (model: CA3-USBCB-01) .

(1) Connect your PC and the GP unit of SP5000 series with a USB transfer cable. If the driver of the cable has not been installed on you PC, a dialog box will appear. Please follow the instructions.

NOTE

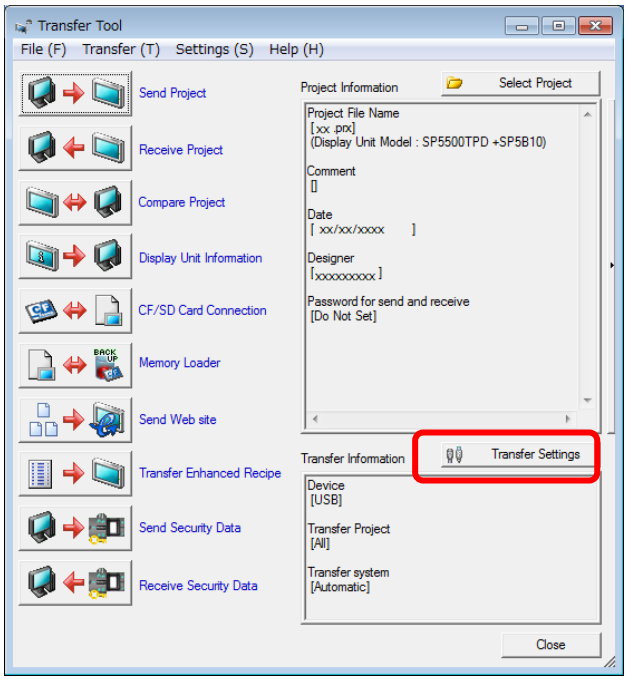
・The "Hardware Installation" dialog box as shown below may appear during installing the USB driver depending on the security level of Windows®.

Click [Continue Anyway] to start installing the driver. When installation is completed, click [Finish].



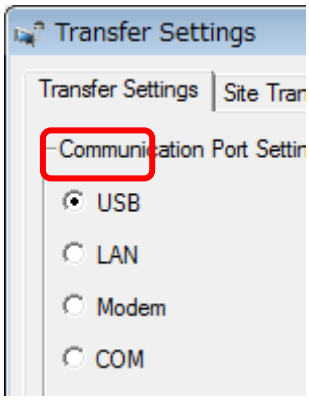
(2) Trun on the power of SP5000 series. The "Initial Start Mode" screen will appear on the display unit. After transferring a project file once, this screen will not appear again.

(3) On the GP-Pro EX's State Toolbar, click the [Transfer Project] icon to open the Transfer Tool.



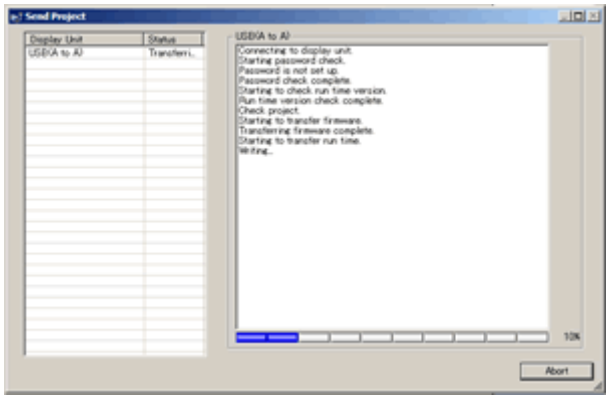
To transfer a different project file, click the [Select Project] button and select a project file.

(4) 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].

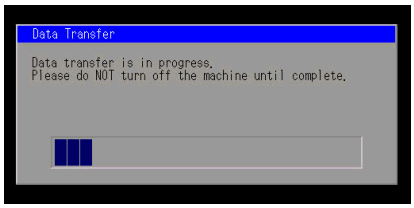


(5) Click [Send Project] to start transfer.
When the following dialog box appears, click [Yes]. This dialog box doesn't appear when the same project file is sent again.

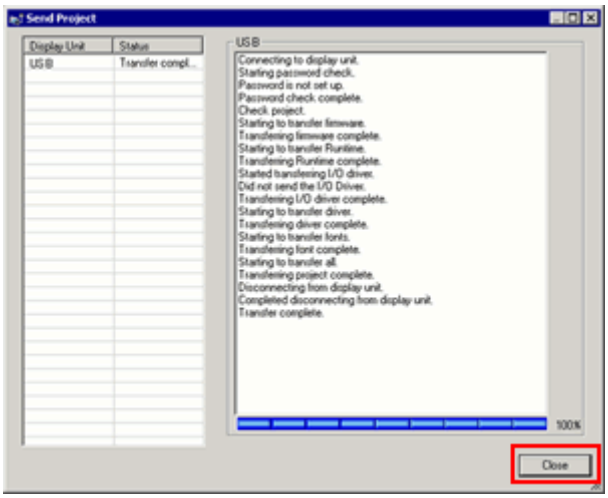
(6) The following dialog box appears during transfer and you can check the communication status. (The display unit enters the Transferring mode and communication with the device such as a PLC is terminated.)



Display Screen



(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.



The display unit will be reset and a screen of the transferred project file will be displayed.

(8) Close the Transfer Tool.

(9) Click the [X] mark on top right of the screen or [Project]->[Exit] to close GP-Pro EX.

3.6 Differences of software

Some functions supported by GP3000 series are not supported by SP5000 series. For details of the supported parts and functions, refer to [Supported Featuers] of GP-Pro EX Reference Manual (http://www.pro-face.com/otasuke/files/manual/gpproex/new/refer/gpproex.htm) .

Chapter 4 Communication with Device/PLC

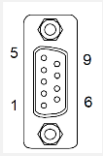
4.1 Shapes and Communication method of COM ports

	GP-3300T GP-3310T GP-3360T	SP-5B10 (Power box)	SP-5B00 (Standard box)
COM1	D-Sub9 (plug) RS-232C/422/485		D-sub9 (Plug) RS232C
COM2	D-Sub9 (socket) RS-422/485	D-Sub9 (plug) RS-232C/422/485	D-Sub9 (Plug) RS-422/485

When both the COM1 port and the COM2 port have the RS-422/485 setting, RS-422/485 cannot be used for COM1 with SP-5B00(Standard Box). In this case, replacement to SP-5B10(Power box) is required.

4.2 Signals of COM ports

At the time of RS-422/485 communication, the signal and the pin array differ between the COM2 port on GP3000 series and the COM2 port on SP5000 series (Power box/Standard box).

Pin Arrangement	Pin No.	GP-3300T GP-3310T GP-3360T			SP-5B10(Power box)/ SP-5B00(Standard box)		
		Signal Name	Direction	Meaning	Signal Name	Direction	Meaning
	1	TRMRX	-	Termination (Receive side:100Ω)	RDA	Input	Receive Data A (+)
	2	RDA	Input	Receive Data A (+)	RDB	Input	Receive Data B (-)
	3	SDA	Output	Send Data A (+)	SDA	Output	Send Data A (+)
	4	RS (RTS)	Output	Request for Send	ERA	Output	Data Terminal Ready A (+)
	5	SG	-	Signal Ground	SG	-	Signal Ground
	6	VCC *1	-	+5V±5% output 0.25A	CSB	Input	Send Possible B (-)
	7	RDB	Input	Receive Data B (-)	SDB	Output	Send Data B (-)
	8	SDB	Output	Send Data B (-)	CSA	Input	Send possible A (+)
	9	TRMTX	-	Termination (Receiver side: 100Ω)	ERB	Output	Data Terminal Ready B (-)
	Shell	FG	-	Frame Ground (Common with SG)	FG	-	Frame Ground (Common with SG)

*1: RI and VICC of Pin 9 are switched on the software.

VCC Output is not protected from overcurrent.

Please follow the current rating to avoid false operation or breakdown.

4.3 Cable Diagram at the time of replacement

◆GP-3300T/3310T/3360T's COM1 cable

It can be used for the COM1 or COM2 on SP-5B10(Power box) as it is.

For RS-232C connection, it can be used for the COM1 on SP-5B00(Standard Box) as it is.

When a RS-422/485 device is connected via the COM1 port, if GP-3300T/3310T/2260T is replaced with SP-5B00(Standard box), it will be connected via the COM2 port of SP-5B00(Standard box). (The cable diagram can be still used.)

Before SP-5B00(Standard box) is connected, be sure to change the port setting to COM2 on the Device/PLC setting.

Also, please check the communication settings with GP-Pro EX Device/PLC Connection Manual just in case.

(http://www.pro-face.com/otasuke/files/manual/gpproex/new/device/index.htm)

◆GP-3300T/3310T/3360T's COM2 cable

For the following case only, it can be used for the COM1/COM2 on SP-5B10 (Power box), COM2 on SP-5B00(Standard BOX) if the "COM Port Conversion Adapter (CA3-ADPCOM-01) " is added to the GP's side.

When an online adapter (CA4-ADPONL-01) is attached to the GP- 3300T/ 3310T/ 3360T's cable, detach it.

- RS-422 cable (CA3-CBL422-01)
- 2-port adapter cable (CA3-MDCB11) +2-port adapter II (GP070-MD11)
- Multi-link cable (CA3-CBLMLT-01 (5m))
- Connector terminal conversion adapter (CA3-ADPTRM-01) +RS-422 cable (homemade cable)
- MPI cable (GP3000-MPI21-PFE)
- SIEMENS COM port conversion adapter (CA3-ADPSEI-01) +CA3-MPI-PGN-PFE or CA3-MPI-PG1-PFE

In all other cases, the operation is not guaranteed and it's recommended to prepare a new connection cable. To check the cable diagram, please refer to GP-Pro EX Device/PLC Connection Manual.

(http://www.proface.com/otasuke/files/manual/gpproex/new/device/index.htm)

Chapter 5 Appendix

5.1 Changing the setting of the external media to use

If a CF card is used for GP3000 series, after the display unit type of the project file is changed to SP5000 series, "a CF card" is automatically replaced with "a SD card" for the external media setting.

(1) To use a USB flash drive instead of a SD card ->Solution 1

(2) To check or change the SD card's data output destination folder setting ->Solution 2

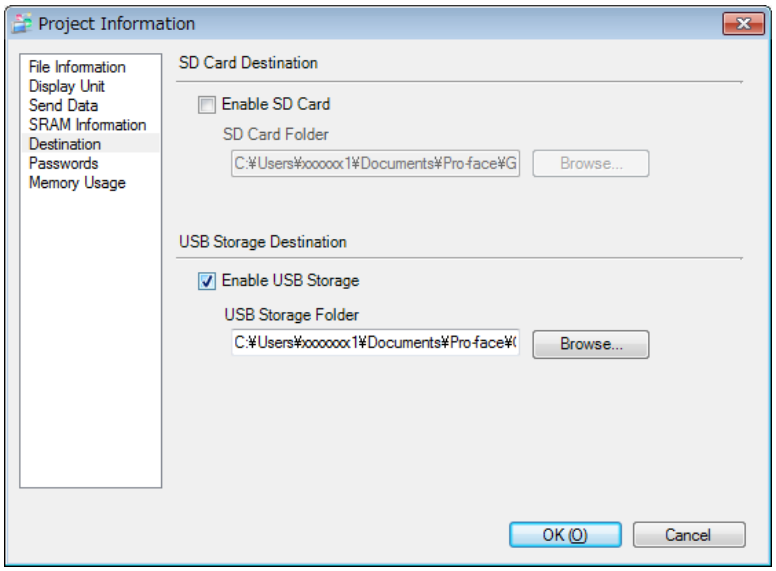
[Solution]

1. Change the SD Card setting to the USB storage setting following the steps below.

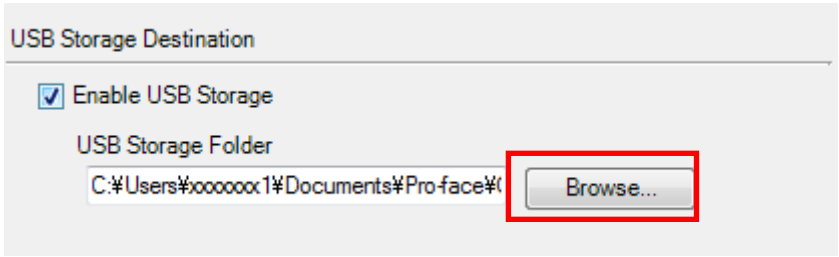
<Procedure>

i. Click [Project]->[Information]->[Destination Folder].

ii. Uncheck "Enable SD Card" and check "Enable USB Storage.



iii. Click the [Browse] button and specify a destination folder.



iv. Click [OK] to confirm the setting.

v. Click [Project]->[Save] to save changes.

vi. Check each function that uses the CF card and replace the setting of [SD Card] with

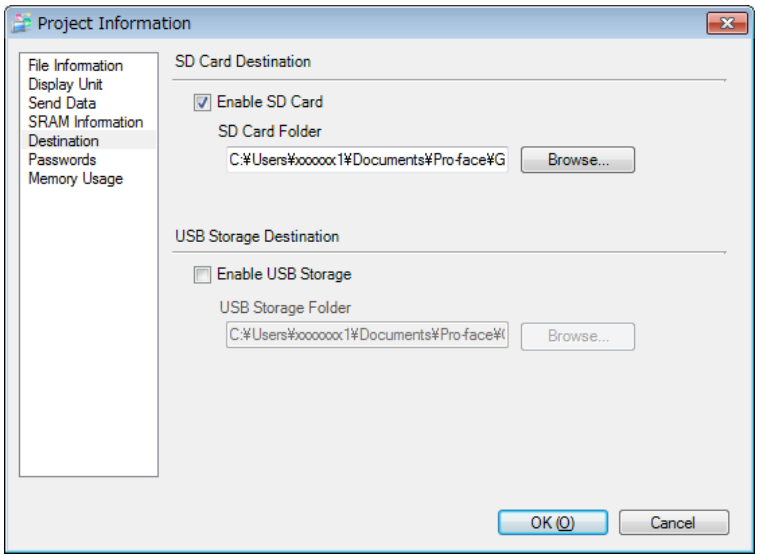
the one of [USB Storage].

NOTE
To check each function setting of GP-Pro EX, refer to GP-Pro EX Reference Manual.

2. Check and change the destination folder setting following the steps below.

i. Click [Project]->[Information]->[Destination Folder].

ii. The current setting is displayed.



iii. After changing it, click [OK] to confirm the setting.

iv. Click [Project]->[Save] to save changes.