

Easy! Smooth!
GP-3310T->GP4000 Series
Replacement Guidebook

Preface

This guidebook introduces the procedures to replace a unit in GP-3310T with a unit in GP4000 series.

Model in use	Model No.	Recommended Substitution
GP-3310T	AGP3310-T1-D24	GP-4401WW

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.

GP4000 Series Model Number

GP4000 series model number partly differs depending on a specification. Before placing an order, please make sure of the model number.

PFXGP4 * 0 * * * * *

A

B

C

D

E

F

A	2	GP-4200 series (3.5")
	3	GP-4300 series (5.7")
	4	GP-4400 series (7.5"/7.0"W)
	5	GP-4500 series (10.4")
	6	GP-4600 series (12.1")
B	01	RS-232C/422/485
	03	RS-485 (isolation)
C	T	TFT color LCD
	W	TFT color LCD (Wide Type)
D	A	Analog Resistive Film Touch Panel
	M	Matrix Resistive Film Touch Panel
E	A	AC Type Power Supply
	D	DC Type Power Supply
F	W	GP-4201TW/4301TW/4401WW/4501TW
	C	Coated model
	WC	Coated model of GP-4301TW

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Chapter 1 Specification Comparison

1.1 Specifications of GP-3310T and GP-4401WW

		GP-3310T	GP-4401WW
			
Display Type		TFT color LCD	
Display Colors, Levels		65,536 colors (without blink)/ 16,384 colors (with blink)	
Display Resolution		VGA (640x480 pixels)	NEW! WVGA (800x480 pixels) ->See 2.2
Panel Cutout Dimensions (mm)		156(W)×123.5(H)	204.5(W)×159.5(H) ->See 2.3
External Dimensions (mm)		167.5(W)×135(H)×59.5(D)	218(W)×173(H)×60(D)
Touch Panel Type		Resistive film (Analog)	
Memory	Application	8MB	UP! 16MB
	SRAM	320KB	128KB ->See 2.7

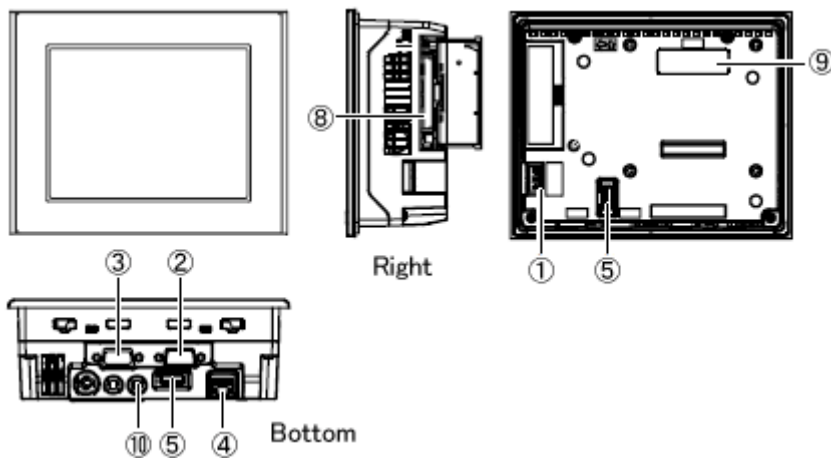
Backup Battery		Secondary Battery (Rechargeable Lithium battery)	NEW! Primary Battery (Replaceable Lithium battery) -> See 2.7
Rated Input Voltage		DC 24V	
Serial I/F	COM1	D-Sub 9 pin (plug) RS-232C/422/485	D-Sub 9 pin (plug) RS-232C -> See 2.5.1 and Chapter 4
	COM2	D-Sub 9 pin (socket) RS-422/485	D-Sub 9 pin (plug) RS-422/485 -> See 2.5.1 and Chapter 4
Ethernet I/F		10BASE-T/100BASE-TX	
CF Card I/F		✓	- -> See 2.5.2
SD Card I/F		-	NEW! ✓
USB I/F	Type A	✓ (2 ports)	✓ (1 port) -> See 2.4 and 2.5.3
	Type mini B	-	✓ -> See 2.4
Expansion Unit I/F		✓	- -> See 2.6.2
Sound Output I/F		✓	- -> See 2.5.3

Chapter 2 Compatibility of Hardware

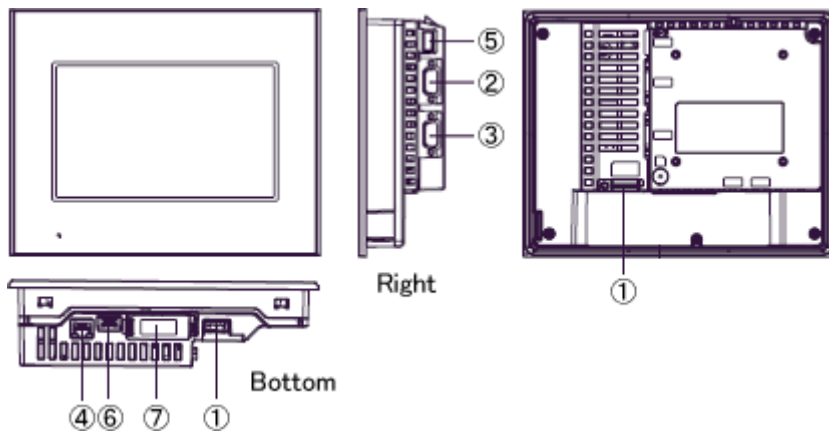
2.1 Locations of connector

Connector locations on GP-3310T and GP-4401WW are as follows:

GP-3310T



GP-4401WW



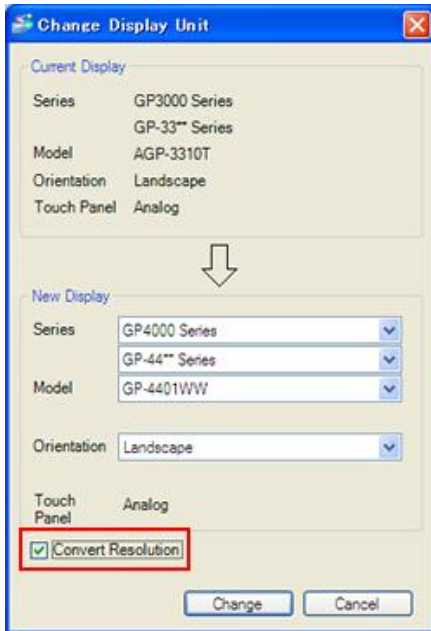
Interface names

	GP-3310T	GP-4401WW
1	Power Connector	
2	Serial Interface (COM1)	
3	Serial Interface (COM2)	
4	Ethernet Interface	
5	USB Interface (Type A)	
6	-	USB Interface (Type mini B)
7	-	SD Card Interface F
8	CF Card Interface	-
9	Expansion Unit Interface F	-
10	Sound Output Interface	-

2.2 Display Resolution

The display resolution of GP-3310T is different from that of GP-4401WW. For GP-4401WW, the screen area gets larger by 80 pixels right and left. If you draw on a full screen, please edit it with 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.



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

2.3 Panel Cutout Dimensions

For replacing GP-3310T with GP-4401WW, the panel cutout dimensions get larger. It's necessary to process the panel.

2.4 Transfer cable

To transfer screen data to GP-4401WW, use a USB transfer cable or Ethernet.

The USB cables that can be used for GP-4401WW are as follows:

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

Commercial Item	-		
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The same USB transfer cable (CA3-USBCB-01) as the one for GP-3310T can be used.

2.5 Interface

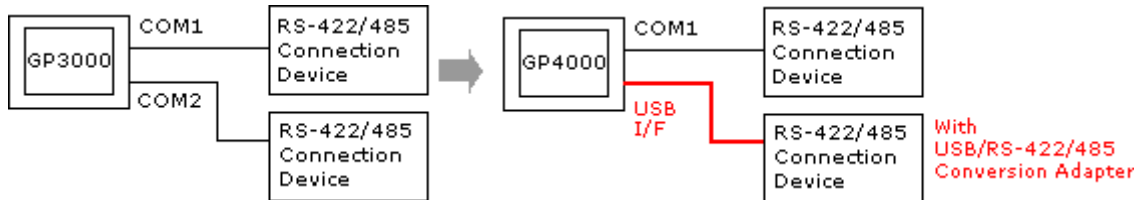
2.5.1 Serial Interface

For the COM ports of GP-3310T and GP-4401WW, the pin assignment and the shape of plug/socket connector are different. To know the details about them, see [\[4.2 Shapes of COM ports\]](#) and [\[4.3 Signals of COM ports\]](#).

Because of it, the existing PLC connection cables cannot be used as they are. If you use the existing connection cables, see [\[4.5 Cable Diagram at the time of replacemet\]](#).

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.

Using a USB/RS-422/485 Conversion Adapter (PFXZCBCBCVUSR41) allows you to use GP4000 series' USB interface as RS-422/485 serial interface for connection.



For more information, please refer to USB/RS-422/485 Conversion Adapter Installation Guide.

<http://www.pro-face.com/otasuke/download/manual/cgi/manual.cgi?mode=33&cat=3>)

IMPORTANT

When using USB/RS-422/485 Conversion Adapter (PFXZCBCBCVUSR41) with a display unit, the device/PLCs you can connect to its serial interface (RS-422/485) are limited. To check the connection configuration, please refer to GP-Pro EX Device/PLC Connection Manual.

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

If it's not possible to use USB/RS-422/485 Conversion Adapter (PFXZCBCBCVUSR41) for your connection, please contact our sales office in your region. (<http://www.pro-face.com/customer/contact.html>)

2.5.2 CF Card Interface

GP-4401WW is not equipped with a CF card slot. But a SD card slot and a USB interface are installed. In order to use the GP-3310T functions using the CF card, use a SD card or USB flash drive for GP-4401WW instead.

* When using a SD card with GP-4401WW, 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](#)].

2.5.3 USB Interface

GP-3310T has two USB ports (USB Type A) but GP-4401WW has only one. If devices are connected to both USB ports on GP-3310T, use an USB hub for GP-4401WW. Because of bus power limit on GP-4401WW USB port, it's recommended to use an USB hub supporting self-power supply and be sure to check the operation.

Also, several USB devices of the same category in the following table cannot be simultaneously used. Even if multiple USB devices of the same category are connected to the display unit, only the first USB device recognized by the display unit can be used.

USB Devices of the same category

Category	USB Device
1	Printer, USB-PIO converter
2	Keyboard, Numeric keys, Barcode reader
3	Mouse
4	USB storage (USB memory, CF/SD card reader, and so on)
5	USB transfer cable
6	USB-Serial (RS-232C) conversion cable, SUB/RS-422/485 Conversion Adapter

2.5.4 Sound Output Interface

GP-4401WW is not equipped with the sound output function. The sound output function for GP-3310T cannot be used.

2.6 Peripheral units and options

2.6.1 Barcode reader connection

Like GP-3310T, GP-4401WW allows you to connect a barcode reader on its USB interface (Type A) or its serial interface.

For the models GP-4401WW supports, see [OtasukePro!]

(http://www.pro-face.com/otasuke/qa/3000/0056_connect_e.html).

2.6.2 Printer Connection

Like GP-3310T, GP-4401WW allows you to connect a printer on its USB interface (Type A).

For the models GP-4401WW supports, see [OtasukePro!]

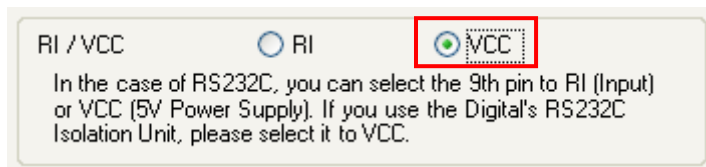
(http://www.pro-face.com/otasuke/qa/3000/0056_connect_e.html).

2.6.3 Expansion Unit

GP-4401WW is not equipped with an expansion unit interface. The expansion units (each kind of unit like CC-LINK Unit) for GP-3310T cannot be used.

2.6.4 Isolation Unit

RS-485 isolation unit for GP-3310T (CA3-ISO485-01) cannot be used for GP-4401WW. You can use the RS-232C isolation unit (CA3-ISO232-01) for GP-4401WW instead. In this case, select "VCC" from [System Settings] -> [Device/PLC] in the [Project] menu on GP-Pro EX.



2.7 Backup Battery

Unlike GP-3310T, GP-4401WW does not use rechargeable secondary batteries but replaceable primary ones. (For both a rechargeable type and a replaceable one, contents to be backed up are the same.)

When the time for replacement of backup batteries approaches, the message to urge you to replace the battery, "RAAA053: Running out of power in the backup battery. Please change the battery." appears. When the message appears, replace the battery referring to the GP4000 series hardware manual.

Replaceable Battery Model
PFXZCBBT1

2.8 Power Consumption

The power consumption of GP-3310T is different from that of GP-4401WW.

GP-3310T	26W or less
GP-4401WW	12W or less

For the detailed electric specifications, see the hardware manual.

2.9 Materials/Colors of the body

The materials and the colors of GP-3310T and GP-4401WW are as follows:

	GP-3310T	GP-4401WW
Color	Silver	Light Gray
Material	Aluminum alloy	Resin with glass

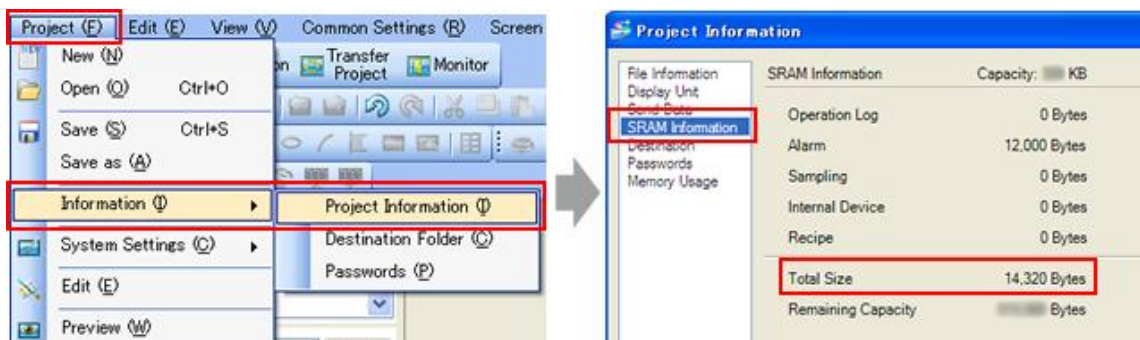
2.10 Backup Memory (SRAM)

When replacing GP-3310T with GP-4401WW, SRAM usage expands automatically because of GP-Pro EX new functions.

If SRAM size of your project file is more than 128KB after changing Display Unit type to GP-4401WW, replace GP-3310T with GP-4401T instead of GP-4401WW.

To check SRAM size, follow the steps below;

- (1) Double click and open the project file (*.prx) on GP-Pro EX.
- (2) Change the Display Unit type to "GP-4401WW". To know how to change the Display Unit type, see [\[3.4 Change the Display Unit Type\]](#).
- (3) Click [Project]->[Information]->[Project Information]. The Project Information window appears.
- (4) Click [SRAM Information] to see SRAM size.



2.11 About Ladder monitor

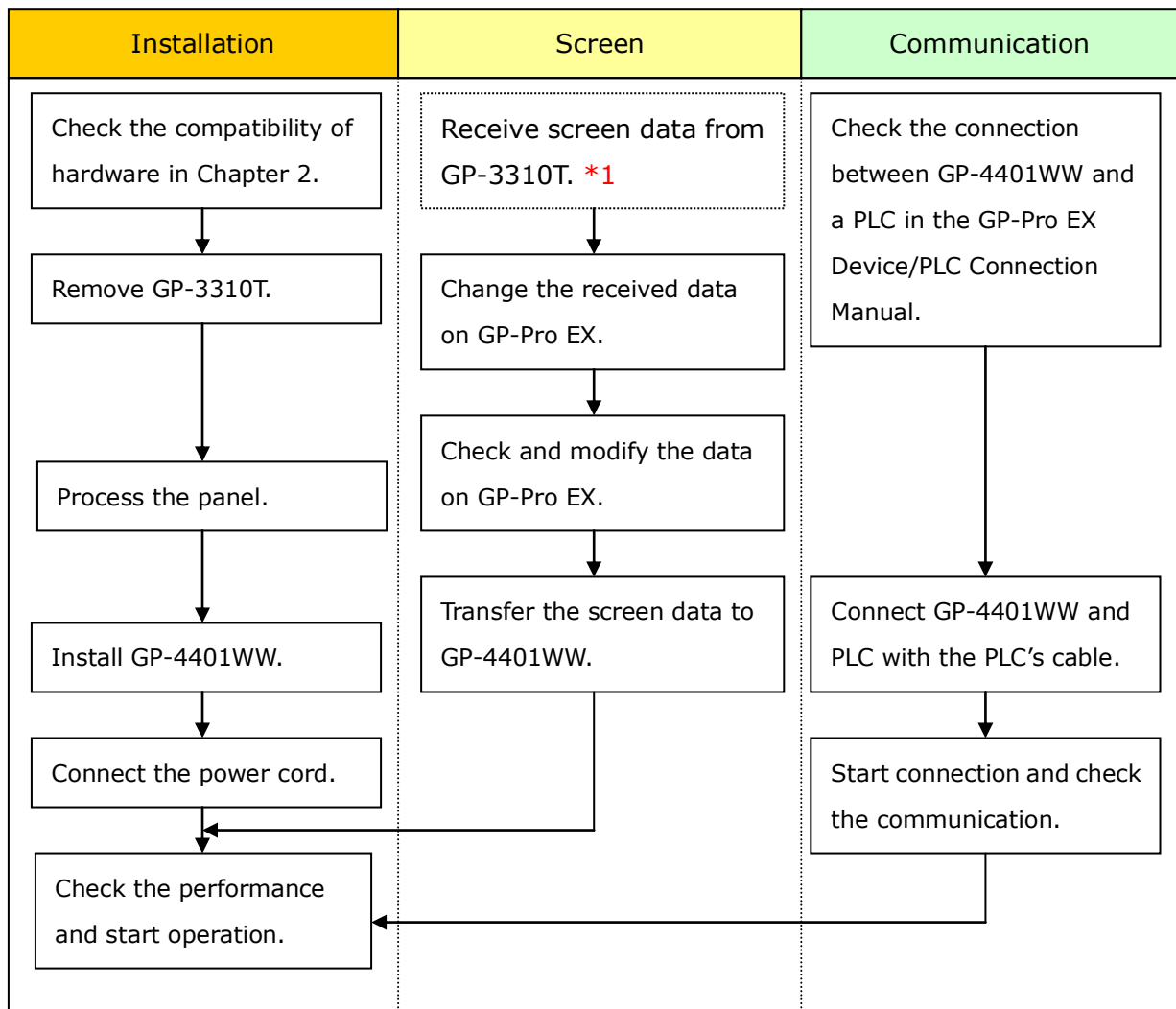
PLC Ladder monitor tool cannot be used for GP4000 series.

2.12 Other Notes

- Do not expose GP4000 series to direct sunlight.
- Do not use GP4000 series outdoors.
- Do not turn on GP4000 series if condensation has occurred inside the device.
- When you are continuously using GP4000 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 GP-3310T *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 with a CF card, a USB storage device, or via Ethernet.
Requirements for converting screen data of GP-3310T and transferring the converted data to GP-4401WW	PC in which GP-Pro EX Ver.3.01 or later is installed.
	Transfer Cable (The following three types of cables are available) <ul style="list-style-type: none"> • 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 with a SD card, a USB storage device, or via 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 GP-3310T. 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

3.3 Receive screen data from GP-3310T

You can transfer data to GP-3310T 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 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](#)].



PC



USB transfer cable
(CA3-USBCB-01)



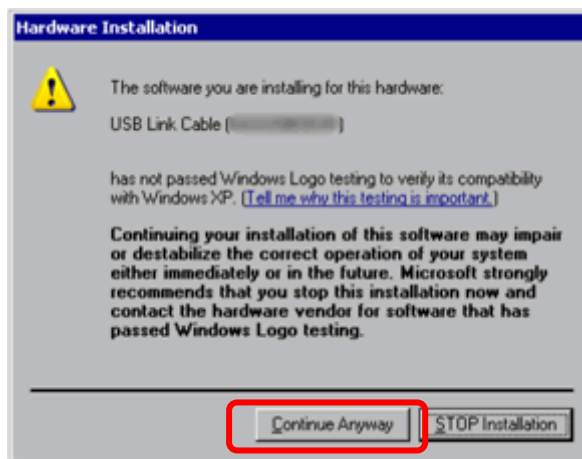
GP

(1) Connect your PC and GP-3310T 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.

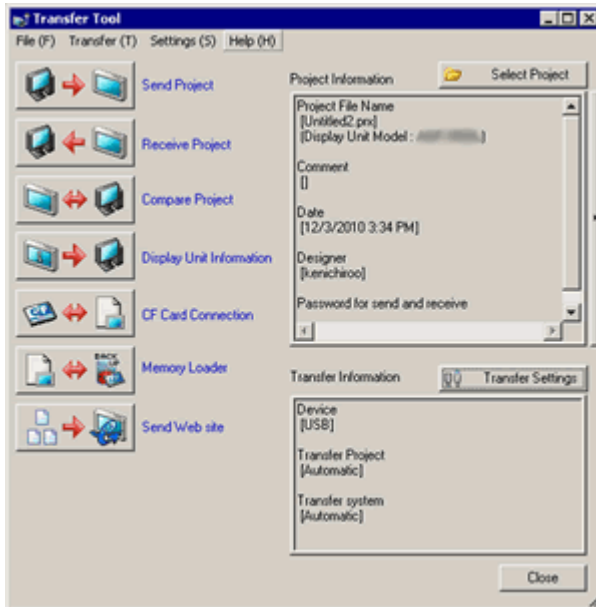
NOTE

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



- If the following symptoms appear on Microsoft Windows® 7, go to updating "USB Data Transfer Driver" on [OtasukePro!] for download (http://www.pro-face.com/otasuke/download/freesoft/gpproex_transfer.htm).
- An error occurs when GP-Pro EX or Transfer Tool is installed.
- An error occurs when data is transferred via a USB transfer cable (model: CA3-USBCB-01).

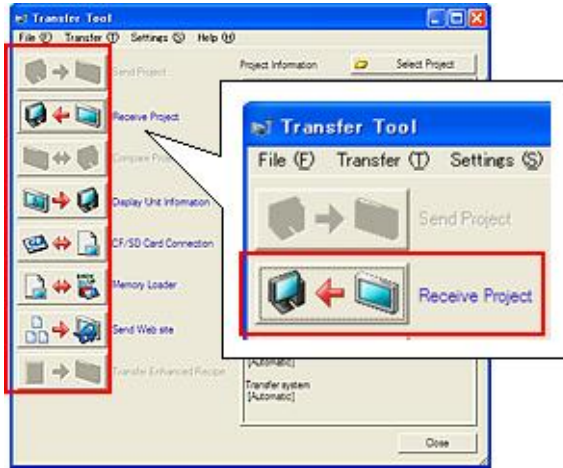
(2) Start the Transfer Tool of GP-Pro EX.



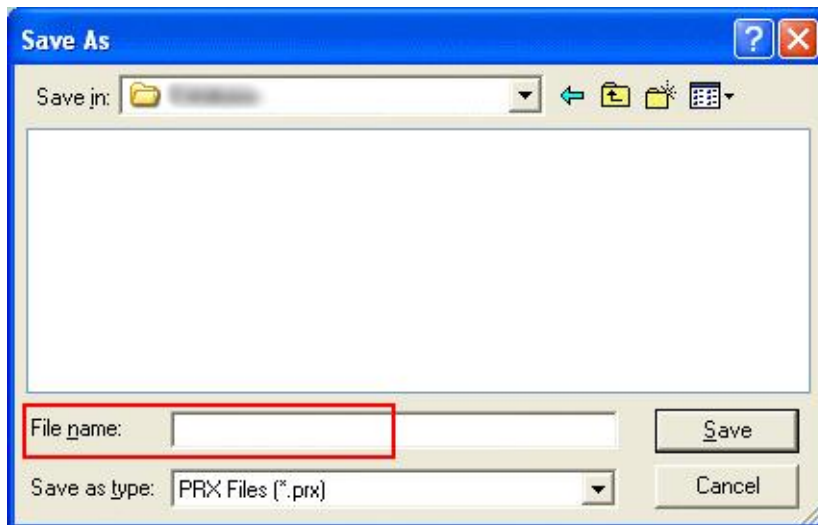
(3) Make sure that the [Device] in the "Transfer Settings Information" is set to [USB]. If not, click the [Transfer Setting] button to open the "Transfer Setting" dialog box. Select [USB] in the Communication Port Settings field and click [OK].



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

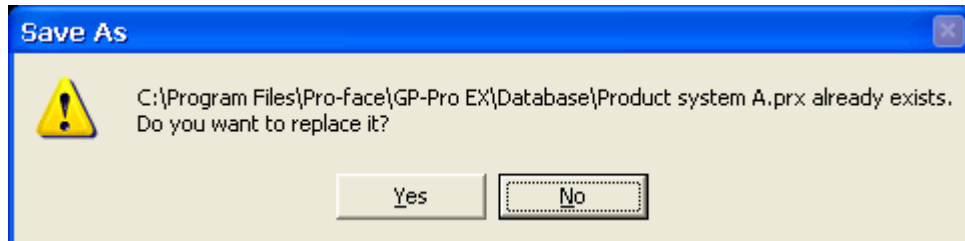


(5) Click [Receive Project], and the following dialog box will appear. Specify a place to save the received data in and a project file name, and then click [Save] to start transfer.

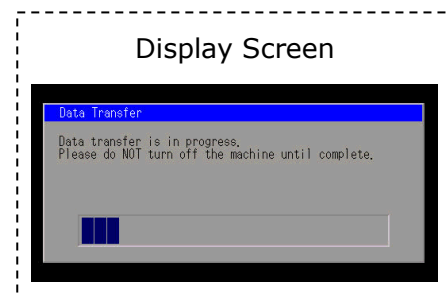
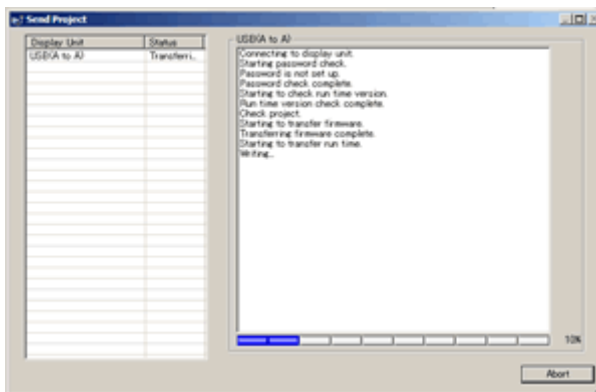


NOTE

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.)



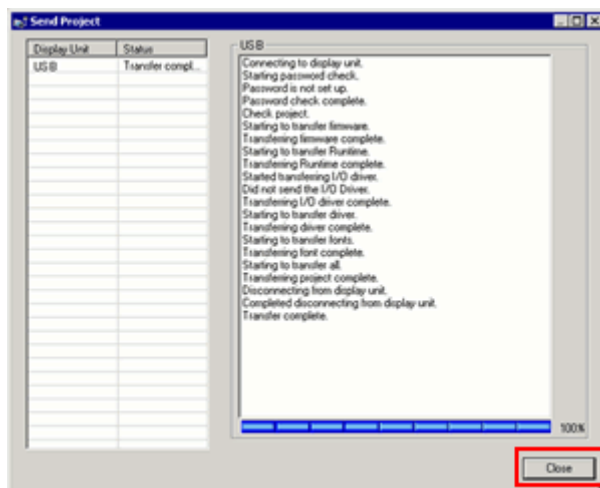
NOTE

- 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.



- GP-4401WW that is a replacement model is not equipped with a CF card slot. If the display unit type is changed to GP-4401WW, 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 GP-3310T on GP-Pro EX and change the display unit type to GP-4401WW.

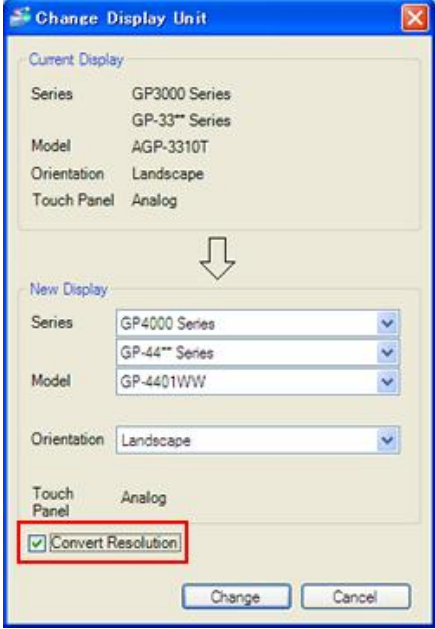
- (1) Open the received project file (*.prx) on GP-Pro EX.
- (2) Click [System Settings]->[Display]->[Change Display] in [Project] menu and change the Display Unit type to GP-4401WW.

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 data.

3.5 Transfer screen data to GP-4401WW

Transfer the project file after display unit type change to GP-4401WW.

You can transfer data to GP-4401WW 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).



PC



USB transfer cable
(CA3-USBCB-01)

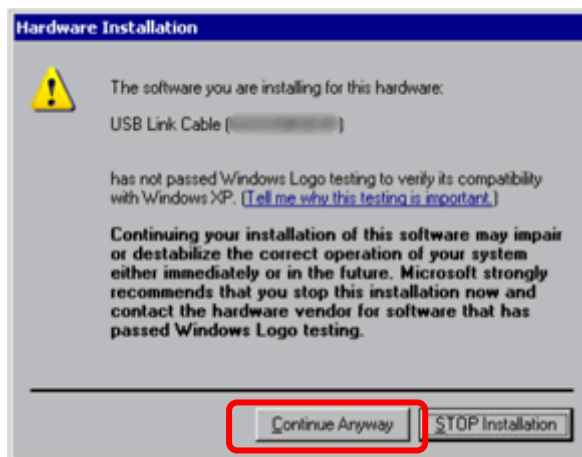


GP

- (1) Connect your PC and the GP unit of GP-4401WW with an 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® XP. Click [Continue Anyway] to start installing the driver. When installation is completed, click [Finish].

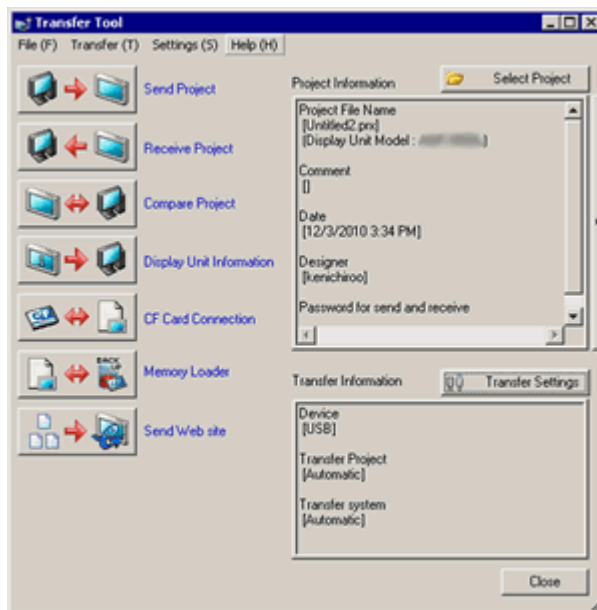


- If the following symptoms appear on Microsoft Windows® 7, go to updating "USB Data Transfer Driver" on [OtasukePro!] for download (http://www.pro-face.com/otasuke/download/freesoft/gpproex_transfer.htm).
- An error occurs when GP-Pro EX or Transfer Tool is installed
- An error occurs when data is transferred via a USB transfer cable (model: CA3-USBCB-01).

- (2) Turn on the power of GP-4401WW. 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.

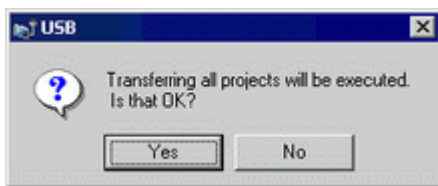


To transfer a different project file, click the [Select Project] button and select a project file.

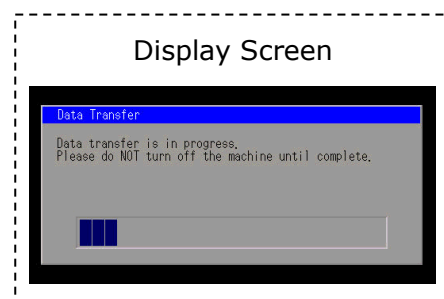
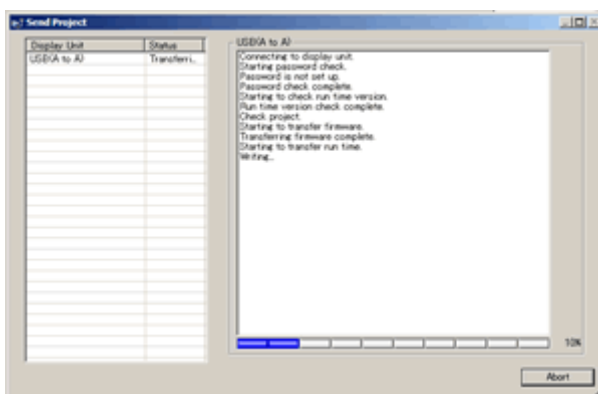
- (4) Make sure that the [Device] in the “Transfer Settings Information” is set to [USB]. If not, click the [Transfer Setting] button to open the “Transfer Setting” dialog box. Select [USB] in the Communication Port Settings field and click [OK].



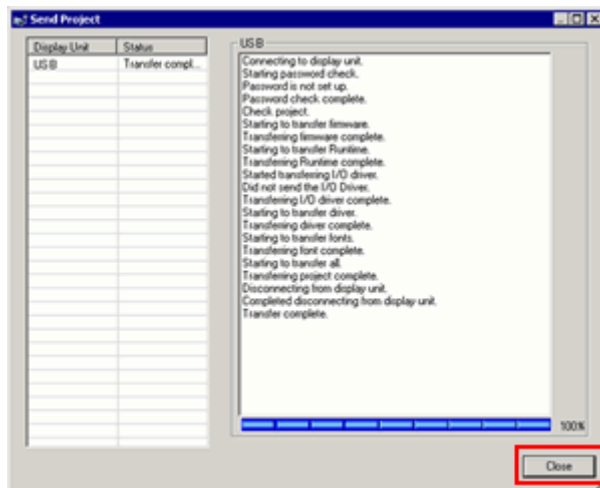
- (5) Click [Send Project] to start transfer. When the following dialog box appears, click [Yes]. This dialog box doesn't appear when the same project file is sent again.



- (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.)



- (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 GP-3310T are not supported by GP-4401WW. For details of the supported parts and functions, refer to [Supported Features] 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 Drivers

4.1.1 Connectable Devices

More connectable drivers will be added.

For the devices/PLC each driver supports, see [Connectable Devices] (<http://www.pro-face.com/product/soft/gpproex/driver/driver.html>).

4.1.2 Connecting to Multiple Device/PLCs

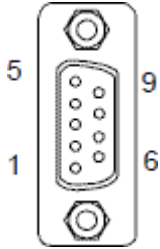
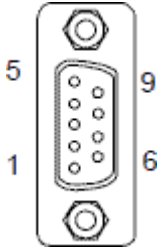
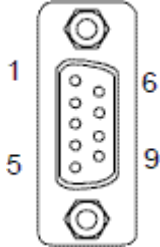
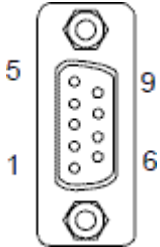
GP-3310T can communicate with multiple device/PLCs simultaneously with four drivers (COM1, COM2 and Ethernet), but GP-4401WW with two drivers only. Check out the table below to see which model is appropriate for replacement depending on the state of the connection with your Device/PLC.

Number of Device/PLC Drivers *1	GP-3310T Connection	Replacement Model
1	Any connection	GP-4401WW
2	COM1: RS-422/485 COM2: RS-422/485 Ethernet connection	GP-4401WW with USB/RS-422/485 Conversion Adapter (PFXZCBCBCVUSR41) *2
	All other connections	GP-4401WW
3 or more	COM1: RS-422/485 COM2: RS-422/485 Ethernet connection	GP-4401T with USB/RS-422/485 Conversion Adapter (PFXZCBCBCVUSR41) *2
	All other connections	GP-4401T

*1: To see the number of device/PLC drivers, click [System Settings] -> [Device/PLC] from the [Project] menu on GP-Pro EX.

*2: About "USB/RS-422/485 Conversion Adapter (PFXZCBCBCVUSR41)", be sure to read [[2.5.1 Serial Interface](#)] for details before use.

4.2 Shapes of COM ports

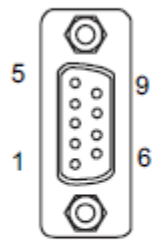
	GP-3310T	GP-4401WW
COM1	D-Sub 9 pin (plug) RS-232C/422/485	D-Sub 9 pin (plug) RS-232C
		
COM2	D-Sub 9 pin (socket) RS-422/485	D-Sub 9 pin (plug) RS-422/485
		

4.3 Signals of COM ports

4.3.1 Signals of COM1

For GP-3310T

RS-232C (plug)

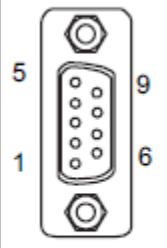
Pin Connection	Pin No.	RS-232C		
		Signal Name	Direction	Meaning
 <p>(GP unit side)</p>	1	CD	Input	Carrier Detect
	2	RD(RXD)	Input	Receive Data
	3	SD(TXD)	Output	Send Data
	4	ER(DTR)	Output	Data Terminal Ready
	5	SG	-	Signal Ground
	6	DR(DSR)	Input	Data Set Ready
	7	RS(RTS)	Output	Request to Send
	8	CS(CTS)	Input	Send possible
	9	CI(RI)/VCC	Input/-	Called Status Display +5V±5% Output 0.25A ^{*1}
	Shell	FG	-	Frame Ground (Common with SG)

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

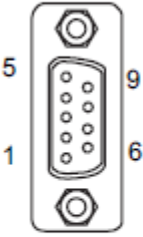
VCC Output is not protected from overcurrent.

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

RS-422/485 (plug)

Pin Connection	Pin No.	RS-422/RS-485		
		Signal Name	Direction	Meaning
 <p>(GP unit side)</p>	1	RDA	Input	Receive Data A (+)
	2	RDB	Input	Receive Data B (-)
	3	SDA	Output	Send Data A (+)
	4	ERA	Output	Data Terminal Ready A (+)
	5	SG	-	Signal Ground
	6	CSB	Input	Send Possible B (-)
	7	SDB	Output	Send Data B (-)
	8	CSA	Input	Send Possible A (+)
	9	ERB	Output	Data Terminal Ready B (-)
	Shell	FG	-	Frame Ground (Common with SG)

For GP-4401WW
RS-232C (plug)

Pin Connection	Pin No.	RS-232C		
		Signal Name	Direction	Meaning
 <p>(GP unit side)</p>	1	CD	Input	Carrier Detect
	2	RD(RXD)	Input	Receive Data
	3	SD(TXD)	Output	Send Data
	4	ER(DTR)	Output	Data Terminal Ready
	5	SG	-	Signal Ground
	6	DR(DSR)	Input	Data Set Ready
	7	RS(RTS)	Output	Request to Send
	8	CS(CTS)	Input	Send possible
	9	CI(RI)/VCC	Input/-	Called Status Display +5V±5% Output 0.25A ^{*1}
	Shell	FG	-	Frame Ground (Common with SG)

*1: RI and VCC 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.

4.3.2 Signals of COM2

For GP-3310T

RS-422/485 (socket)

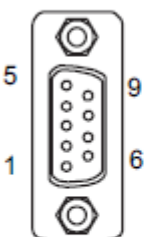
Pin Arrangement	Pin No.	RS422/RS485		
		Signal Name	Direction	Meaning
 (GP unit side)	1	TRMRX	-	Termination (Receiver side: 100Ω)
	2	RDA	Input	Receive Data A(+)
	3	SDA	Output	Send Data A(+)
	4	RS(RTS)	Output	Request for Send
	5	SG	-	Signal Ground
	6	VCC	-	+5V±5% Output 0.25A *1
	7	RDB	Input	Receive Data B(-)
	8	SDB	Output	Send Data B(-)
	9	TRMTX	-	Termination (Receiver side: 100Ω)
	Shell	FG	-	Frame Ground (Common with SG)

*1: VCC Output is not protected from overcurrent.

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

For GP-4401WW

RS-422/485 (plug)

Pin Connection	Pin No.	RS-422/RS-485		
		Signal Name	Direction	Meaning
 (GP unit side)	1	RDA	Input	Receive Data A (+)
	2	RDB	Input	Receive Data B (-)
	3	SDA	Output	Send Data A (+)
	4	ERA	Output	Data Terminal Ready A (+)
	5	SG	-	Signal Ground
	6	CSB	Input	Send Possible B (-)
	7	SDB	Output	Send Data B (-)
	8	CSA	Input	Send Possible A (+)
	9	ERB	Output	Data Terminal Ready B (-)
	Shell	FG	-	Frame Ground (Common with SG)

4.4 Multilink Connection

For the communication drivers that support serial multi-link, see [[Which drivers support serial multilink communication?](#)]

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

4.5 Cable Diagram at the time of replacement

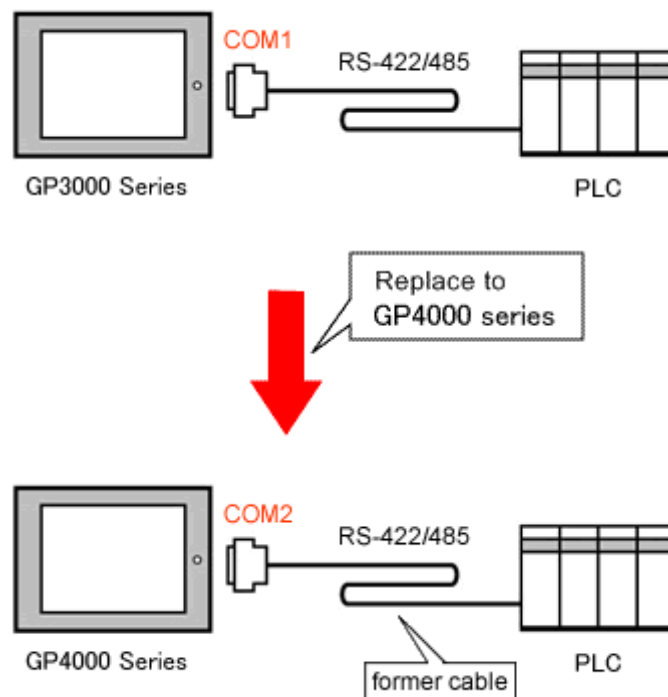
The connection cable for GP-3310T can be used for GP-4401WW.

But please note that **there are precautions and restrictions as described below.**

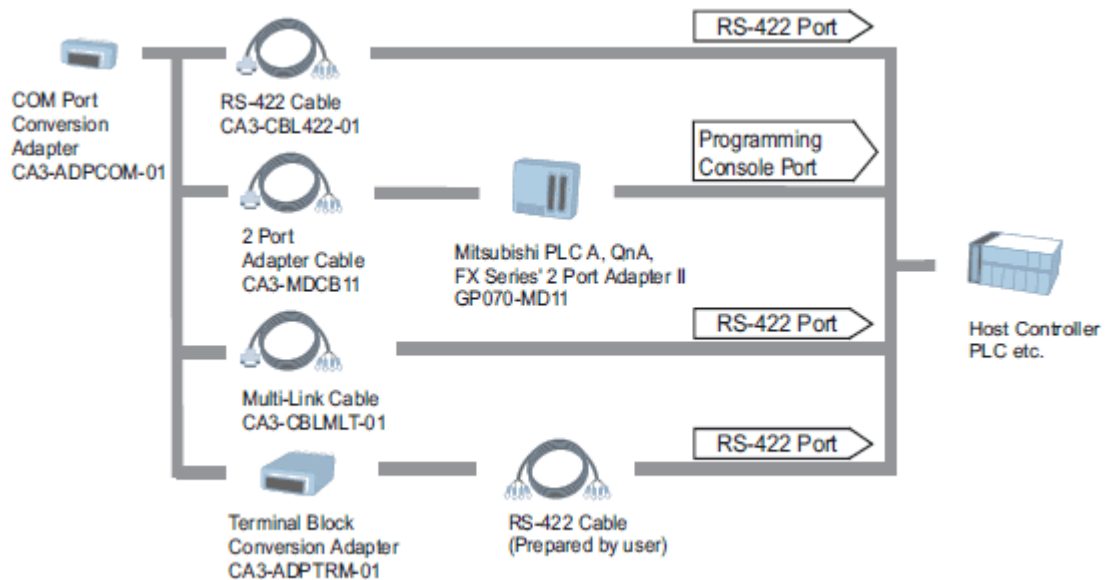
- When a RS-422/485 device is connected via the COM1 port, **it will be connected via the COM2 port of GP-4401WW.** (The cable diagram can be still used.)

Before GP-4401WW 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>)



- The cable used for connection to **GP-3310T via COM2** can be used for GP-4401WW with a COM Port Conversion Adapter (CA3-ADPCOM-01) added in the following cases;



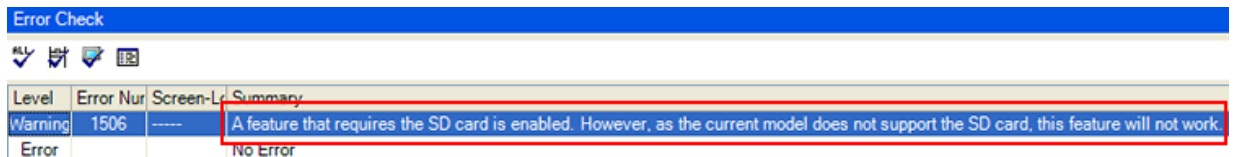
In all other cases, the operation is not guaranteed and it's recommended to prepare a new connection cable. To check the cable diagram, please refer to GP-Pro EX Device/PLC Connection Manual.

Chapter 5 Appendix

5.1 Changing the setting of the external media to use

If a CF card is used for GP-3310T, after the display unit type of the project file is changed to GP-4401WW, "a CF card" is automatically replaced with "a SD card" for the external media setting.

- (1) After conversion of the project file data, at GP-Pro EX Error Check, if the message, "The project contains features that require a SD card. However, the selected display does not support SD cards so these features will not run." appears,



Level	Error Num	Screen-L	Summary
Warning	1506	----	A feature that requires the SD card is enabled. However, as the current model does not support the SD card, this feature will not work.
Error			No Error

<Cause>

The model without a SD card slot has the setting that uses a SD card.

->[Solution 1](#)

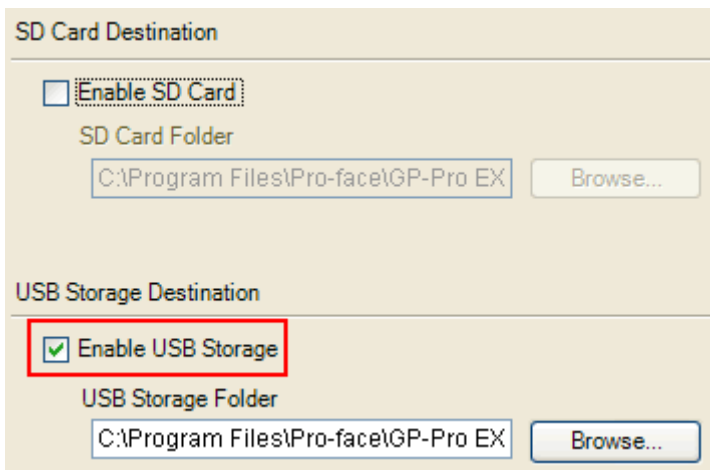
- (2) To use a USB storage device instead of a SD card->[Solution 1](#)
(3) To check or change the SD card's data output destination folder setting
->[Solution 2](#)

[Solution]

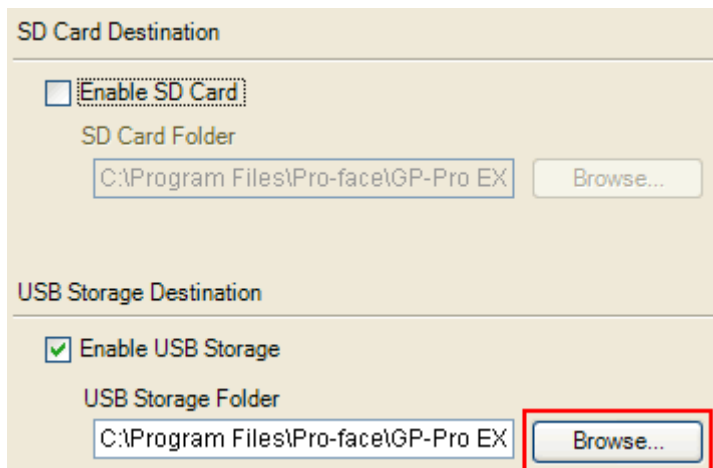
1. Change the SD card setting to the USB storage setting following the steps below.

<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].

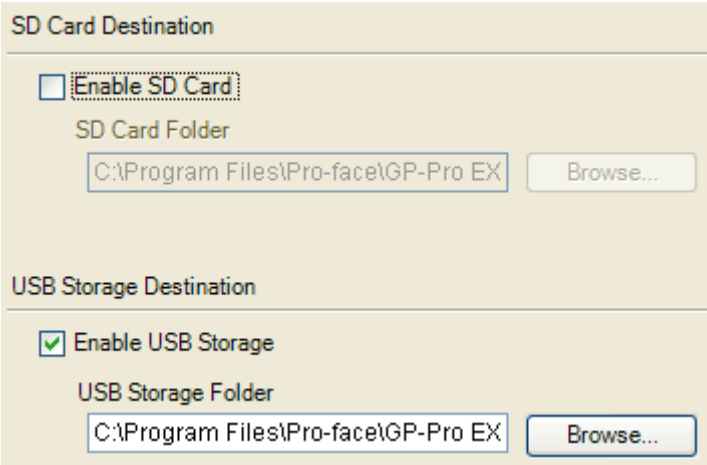
NOTE

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.



The screenshot shows a settings window with two sections. The top section is titled "SD Card Destination" and contains an unchecked checkbox labeled "Enable SD Card". Below it is the label "SD Card Folder" followed by a text box containing the path "C:\Program Files\Pro-face\GP-Pro EX" and a "Browse..." button. The bottom section is titled "USB Storage Destination" and contains a checked checkbox labeled "Enable USB Storage". Below it is the label "USB Storage Folder" followed by a text box containing the path "C:\Program Files\Pro-face\GP-Pro EX" and a "Browse..." button.

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

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