Pro-face™

by Schneider Electric

Easy! Smooth!

# GP4100(Monochrome) -> GP4100(Color) Replacement Guidebook



2nd Edition Sep 2025

Update History

| Date | Version | Page | Descriptoin |
|---|---|---|---|
| 2016/3 | 1 | - | Newly created |
| 2025/9/4 | 2 | 2 | Added “Update History” |
| | | 10, 14, 15, 16, 19, 20 | The description regarding the USB transfer cable has been amended.<br>The USB transfer cables compatible with both GP4100 (Monochrome) and GP4100 (Color) models are as follows:<br>・ USB data transfer cable (Model: PFXZC9USCBMB1)<br>・ Commercially available USB cable (USB Type A/mini B) |

# Preface

This guidebook introduces the procedures to replace a unit in GP4100(Monochrome) with a unit in GP4100(Color) series.

| Model in use | Model No. | Recommended Substitution |
|---|---|---|
| GP-4104G | PFXGP4104G1D | GP-4114T |
| GP-4104W | PFXGP4104W1D | |
| GP-4105G | PFXGP4105G1D | GP-4115T |
| GP-4105W | PFXGP4105W1D | |
| GP-4106G | PFXGP4106G1D | GP-4116T |
| GP-4106W | PFXGP4106W1D | |

The backlight color of GP410xG : Grean/Orange/Red
The backlight color of GP410xW : White/Pink/Red

## 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.

# Contents

# Chapter 1 Specification Comparison

## 1.1 Specifications of GP4100(Monochrome) and GP4100(Color)

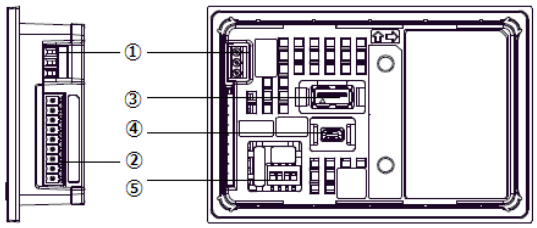
| | | GP4100(Monochrome) | GP4100(Color) |
|---|---|---|---|
| | |  |  |
| **Display Size** | | 3.5″ | 4.3″ **UP!** |
| **Display Type** | | STN monochrome LCD | TFT color LCD **UP!** |
| **Display Colors** | | 256 colors (without blink) | 65,536 colors (without blink)<br>**UP!** ->See 2.3 |
| **Display Resolution** | | 200 x 80 pixels | 480 x 272 pixels<br>**UP!** ->See 2.4 |
| **Panel Cutout Dimensions (mm)** | | W 105mm x H 66mm | W 112.5mm x H 77.5mm<br>-> See 2.2 |
| **External Dimensions (mm)** | | W 116.5mm x H 77.5mm x D 28.8mm | W 124.9mm × H 90.4mm × D 38.8mm<br>→ See 2.2 |
| **Touch Panel Type** | | Resistive film (Analog) | |
| **Application Memory** | | 2.2MB | **UP!** 8MB |
| **Backup Memory** | | FLASH EPROM 128KB | |
| **Backup Battery** | | None | **UP!** Option<br>RTC Battery Set (PFXZGPRTC1) |
| **Serial I/F** | **RS-232C** | Only GP4105<br>9-pin, 2-piece terminal block | Only GP4115T<br>9-pin, 2-piece terminal block |
| | **RS-422/485** | Only GP4106<br>9-pin, 2-piece terminal block | Only GP4116T<br>9-pin, 2-piece terminal block |
| **Ethernet Interface** | | Only GP4104<br>10BASE-T/100BASE-TX | Only GP4114T<br>10BASE-T/100BASE-TX |
| **USB I/F** | **Type A** | ✔ ->See 2.5 | |
| | **Type mini B** | ✔ ->See 2.5 | |

# Chapter 2 Compatibility of Hardware

## 2.1 Locations of connector

Connector locations on GP4100 (Monochrome) and GP4100 (Color) are as follows:

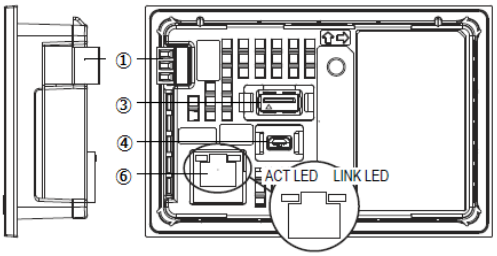
**GP4100 (Monochrome)**




Right

GP4105/GP4106

Back

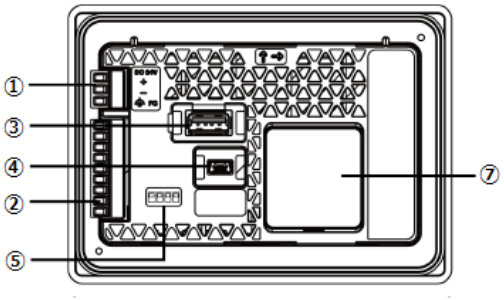



Right

GP4104

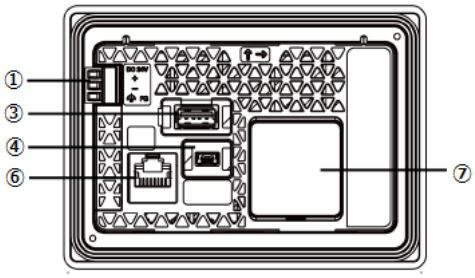
Back

**GP4100 (Color)**




GP4115T/GP4116T

Back




GP4114T

Back

Interface names

| | GP4100(Monochrome) | GP4100(Color) |
|---|---|---|
| 1 | Power Supply Connector | |
| 2 | Serial Interface (COM1) | |
| 3 | USB Interface (Type A)Ethernet Interface | |
| 4 | USB Interface (Type mini B) | |
| 5 | DIP switch (Only GP4106/GP4116) | |
| 6 | Ethernet I/F | |
| 7 | - | RTC Battery Set Cover |

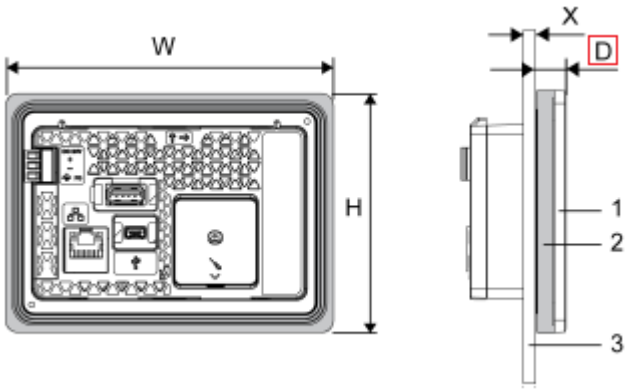
## 2.2 External Dimensions and Panel cutout

GP4100(Color) is larger than GP4100(Monochrome).

The Panel Cutout Adapter (model number: PFXZCFAD31) is required for replacement.

However, when attached Panel Cutout Adapter (model number: PFXZCFAD31), GP4100 (Color) protrudes forward 11.3mm.

**External Dimensions with Panel Cutout Adapter**




**1** GP4100 (Color) panel

**2** Panel cutout adapter

**3** Installation panel

W and H are the same as the external dimensions of GP4100(Monochrome)

W: 124.9 mm

H: 90.4 mm

D: 11.3 mm

X: 1.5...6 mm

## 2.3 Display Colors

The display color of GP4104/GP4105/GP4106 is monochrome, but GP4114/GP4115/GP4116 has a TFT color LCD. After replacement, the display color changes from monochrome to color.

When the setting of the display unit type is changed from a monochrome model to a color one on GP-Pro EX, the data may be displayed in colors depending on the GP-Pro EX version or settings of the drawing/the parts on the screens.

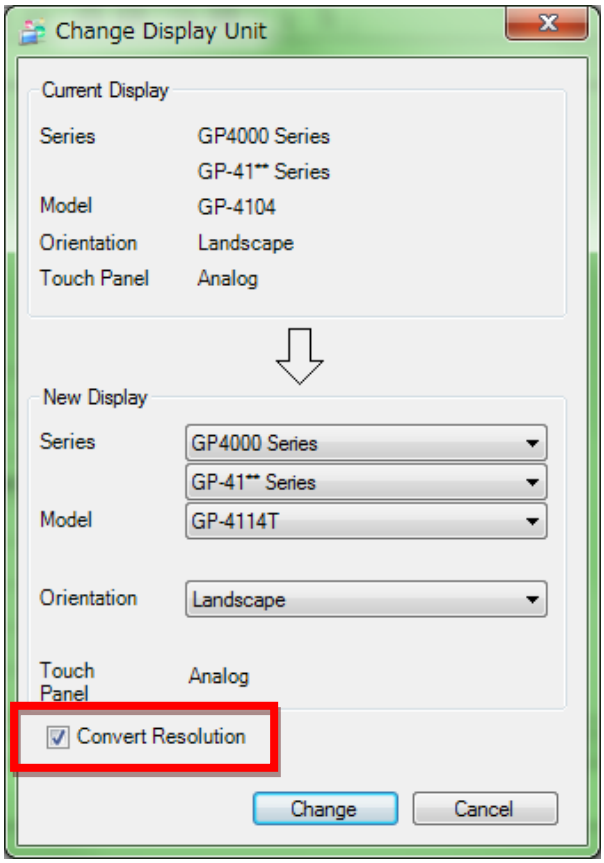
After changing the display unit type, please confirm the display colors of the drawing or the parts on the screens just in case.

## 2.4 Resolution

The display resolution of GP4100 (Monochrome) is different from that of GP4100 (Color).
For GP4100 (Color), the screen area gets larger.
When the setting of the display unit type is changed from GP410x to GP411x on GP-Pro EX, 'Convert Resolution' can be selected.

'Convert Resolution' is the function for adjusting the size and layout of each object automatically.

(But some objects can be adjusted automatically. After changing the display unit type, please confirm the size/layout of the drawing or the parts on the screens just in case.)



### 2.5 Transfer cable

To transfer screen data to GP4100 (Color), use a USB transfer cable or Ethernet.
The USB cables that can be used for GP4100 (Color) are as follows;

| | Model | Connector Type | Connector on GP |
|---|---|---|---|
| Option | PFXZC9USCBMB1 |  | USB (Type mini B) |
| Commercial Item | - | | |

The same USB transfer cable as the one for GP4100 (Monochrome) can be used.

### 2.6 GP-Pro EX Trial version

GP-Pro EX Trial version supports to edit and transfer to GP4100 (Monochrome) .
But for GP4100 (Color), it supports to edit only.
If you want to transfer to GP4100 (Color), please purchase the lisence of GP-Pro EX.

### 2.7 Peripheral units and options

2.7.1 Barcode reader connection

Like GP4100 (Monochrome), GP4100 (Color) allows you to connect a barcode reader on its USB interface (TypeA) or its serial interface. However,
The models GP4100 (Color) supports will be announced at Pro-face support web. (http://www.pro-face.com/otasuke/qa/3000/0056_connect_e.html).

2.7.2 Printer Connection

Like GP4100 (Monochrome), GP4100 (Color) allows you to connect a printer on its USB interface (Type A).
The models GP4100 (Color) supports will be announced at Pro-face support web. (http://www.pro-face.com/otasuke/qa/3000/0056_connect_e.html).

## 2.8 Power Consumption

The power consumption of GP4100 (Monochrome) is different from that of GP4100 (Color).

| power consumption | GP4100 (Monochrome) | | | GP4100 (Color) | | |
|---|---|---|---|---|---|---|
| | GP4104 | GP4105 | GP4106 | GP4114 | GP4115 | GP4116 |
| When power is not supplied to USB devices | 2.7W or less | 3.0W or less | 3.0W or less | 3.9W or less | 3.4W or less | 3.6W or less |
| When power is supplied to USB devices | 6.0W or less | 6.2W or less | 6.2W or less | 8.1W or less | 7.5W or less | 7.7W or less |

For the detailed electric specifications, see the hardware manual.

## 2.9 Colors of the body

The colors of GP4100 (Monochrome) and GP4100 (Color) are as follows:

| | GP4100 (Monochrome) | GP4100 (Color) |
|---|---|---|
| Color | White | Light Glay |

### 2.10 Changing Backlight Color

GP4100(Color) doesn't support the function of changing backlight color.
Please substitute another function as follows.

| How to change | GP4100 (Monochrome) | GP4100(Color) |
|---|---|---|
| Set the backlight attributes for each screen | Set [Backlight color] at [Screen attributes] | Substitute [Background color] at [Screen attributes] |
| Switch the backlight attributes from D-Script | Write data to System variable "#H_BackLightColor" | Substitute Scrolling alarm message or Lamp |

**FAQ: How can I switch the backlight of GP4100(Monochrome)?**

http://global.pro-face.com/faq/index.html?page=content&id=FA61008&actp=search&viewlocale=en_US&searchid=1456907989927&answerid=16777216&searchid=&locale=en_US&redirect=true

### 2.11 Backup Battery

Turning OFF or resetting GP4100(Monochrome) initializes the clock.

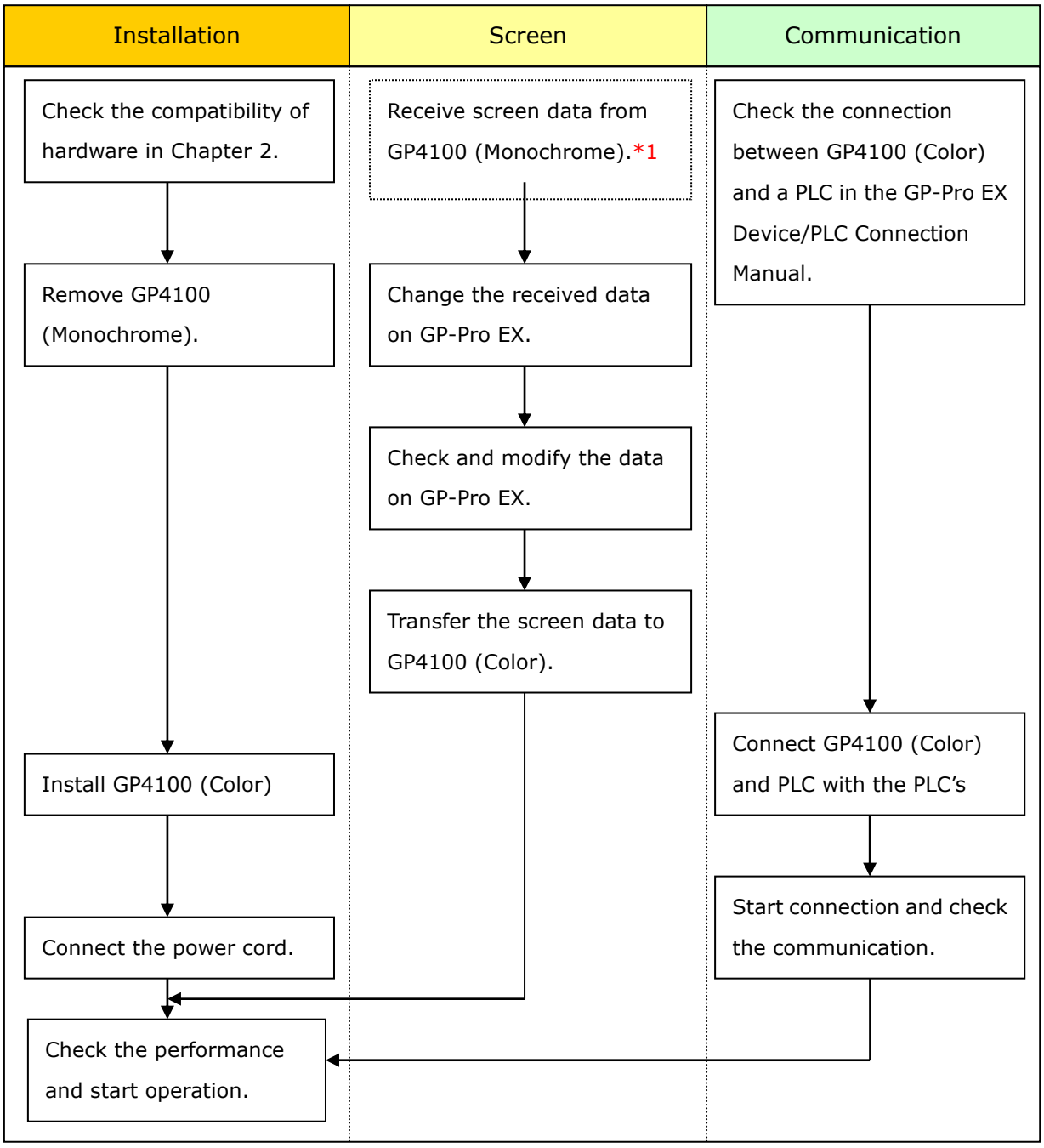
But if you use RTC Battery Set (model number PFXZGPRTC1) in GP4100(Color), you can backup clock data.

### 2.12 Other Notes

- Do not expose GP4100 (Color) to direct sunlight.
- Do not use GP4100 (Color) outdoors.
- Do not turn on GP4100 (Color) if condensation has occurred inside the device.
- When you are continuously using GP4100 (Color) 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 GP4100 (Monochrome).*1 | GP4105/4016 GP-Pro EX Ver. 2.6 or later<br>GP4107 GP-Pro EX Ver. 2.7 or later<br>(Available GP-Pro EX trial version /Transfer Tool) *2 |
| | Transfer Cable<br>(The following two types of cables are available)<br>・USB data transfer cable (model: PFXZC9USCBMB1)<br>・A commercial USB cable (USB Type A/mini B)<br>* Possible to send/receive a screen data via an USB storage or Ethernet (GP-4104 only). |
| Requirements for converting screen data of GP4100 (Monochrome) and transferring the converted data to GP4100 (Color) | PC in which GP-Pro EX Ver.4.05 or later is installed. |
| | Transfer Cable<br>(The following two types of cables are available)<br>・An USB data transfer cable (model: PFXZC9USCBMB1)<br>・A commercial USB cable (USB Type A/mini B)<br>* Possible to send/receive a screen data via an USB storage or Ethernet (GP-4114 only). |

*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 GP4100 (Monochrome). 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 Pro-face Support web. (http://www.pro-face.com/otasuke/download/freesoft/gpproex_transfer.htm)

### 3.3 Receive screen data from GP4100 (Monochrome)

You can transfer data to GP4100 (Monochrome) via;

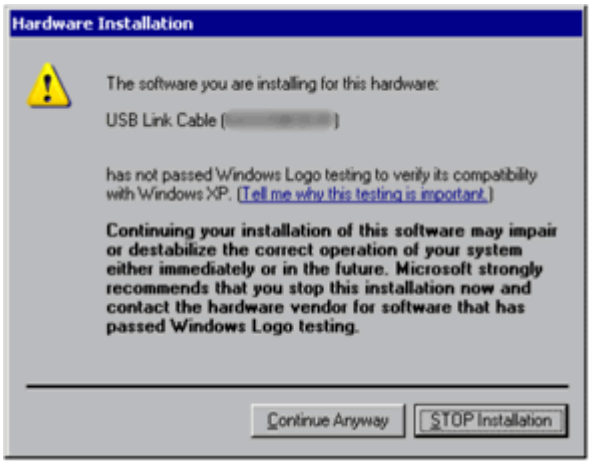
- USB data transfer cable (model: PFXZC9USCBMB1)
- A commercial USB cable (USB Type A/mini B)
- An USB storage device
- Via Ethernet (for GP-4104 only)

But this section explains, as an example, how to receive screen data from GP4100 (Monochrome) using an USB data transfer cable (model: PFXZC9USCBMB1).
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 GP4100 (Monochrome) 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.

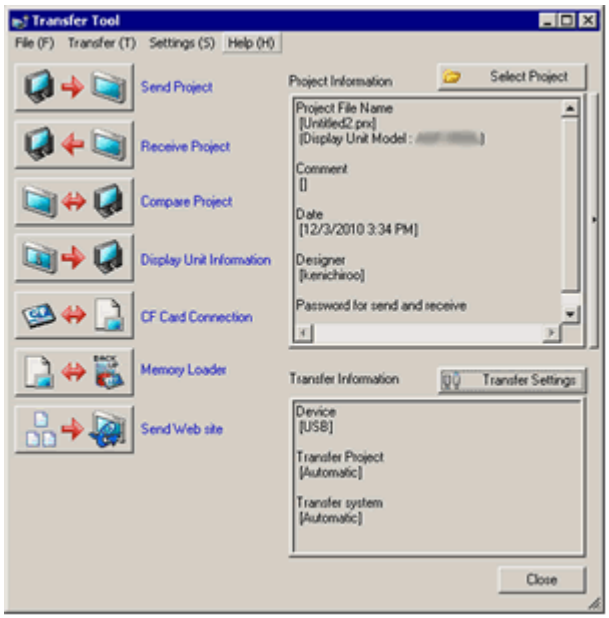
**NOTE**

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

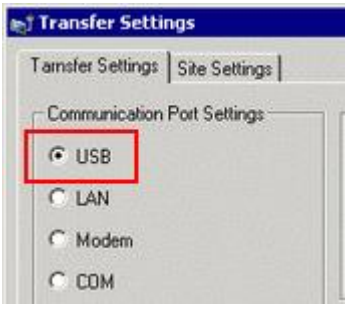



- If the following symptoms appear on Microsoft Windows® 7, go to updating "USB Data Transfer Driver" on [OtasukePro!] for download.
(http://www.pro-face.com/otasuke/download/freesoft/gpproex_transfer.htm)
  - An error occurs when GP-Pro EX or Transfer Tool is installed
  - An error occurs when data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

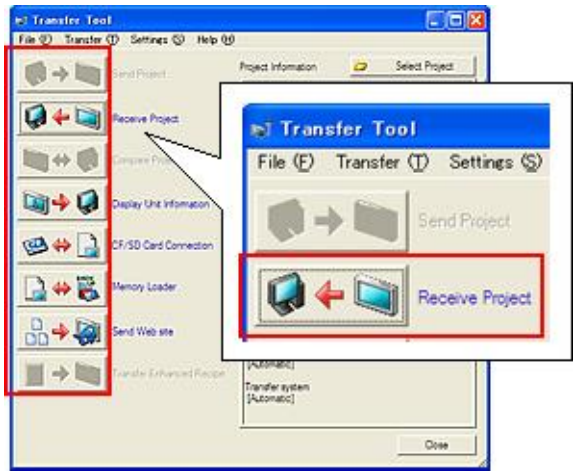
(2) Start the Transfer Tool of GP-Pro EX.



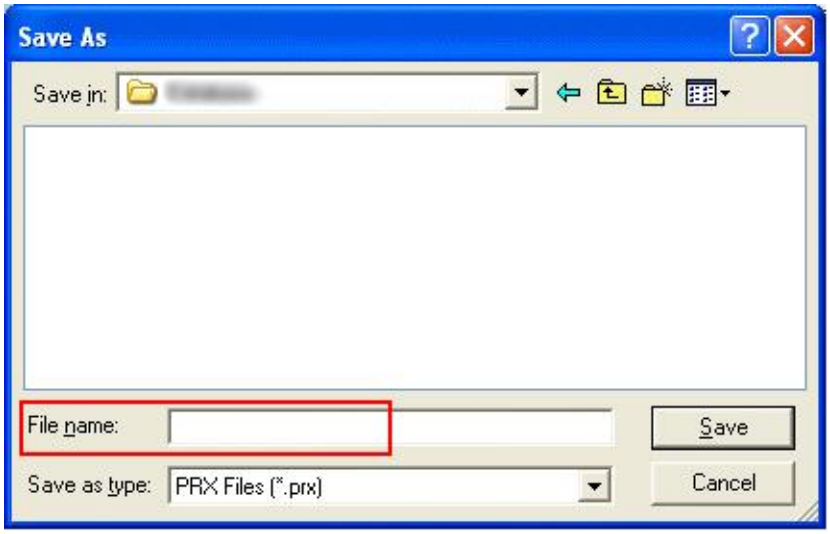

(3) Make sure that the [Device] in the "Transfer Settings Information" is set to [USB]. If not, click the [Transfer Setting] button to open the "Transfer Setting" dialog box. Select [USB] in the Communication Port Settings field and click [OK].



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

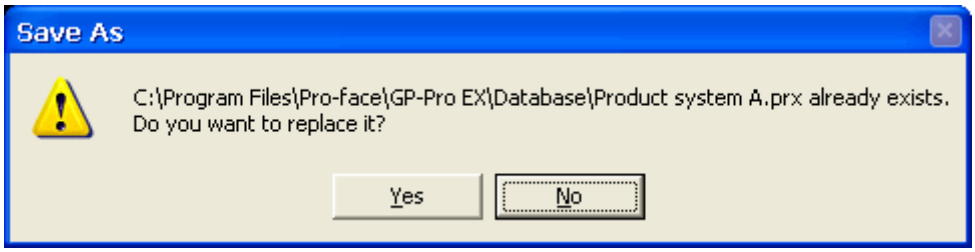



(5) Click [Receive Project], and the following dialog box will appear. Specify a place to save the received data in and a project file name, and then click [Save] to start transfer.

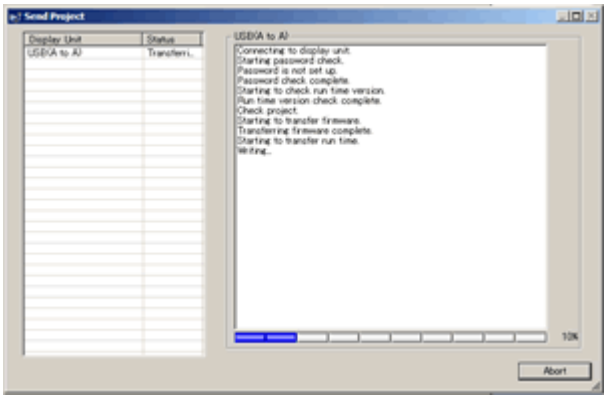


**NOTE**

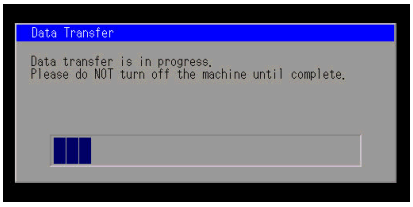
When a file exists, the window that confirms whether or not to overwrite the file is displayed.



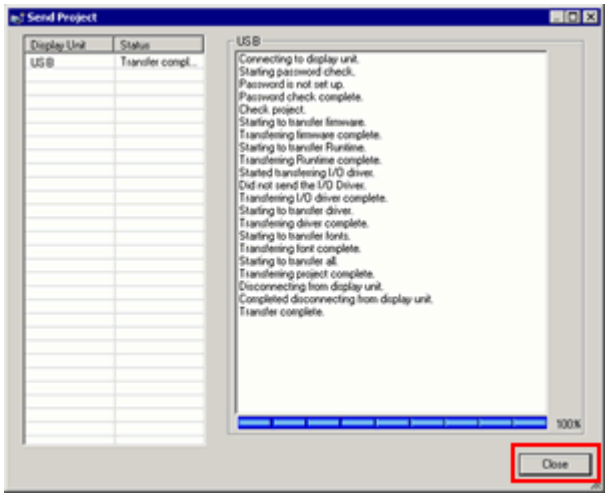

(6) The following dialog box appears during transfer and you can check the communication status. (The display unit enters the Transferring mode and communication with the device such as a PLC is terminated.)




Display Screen



(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.



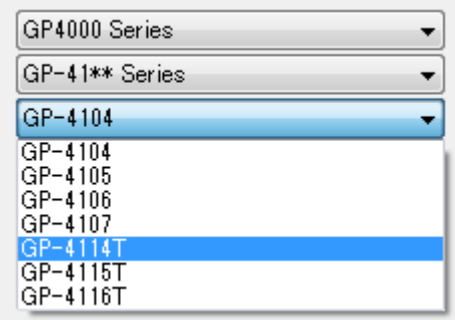

(8) Close the Transfer Tool.

### 3.4 Change the Display Unit Type

Open the received project file (*.prx) of GP4100 (Monochrome) on GP-Pro EX and change the display unit type to GP4100 (Color).

(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.




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

### 3.5 Transfer screen data to GP4100 (Color)

Transfer the project file after display unit type change to GP4100 (Color).
You can transfer data to GP4100 (Color) via;

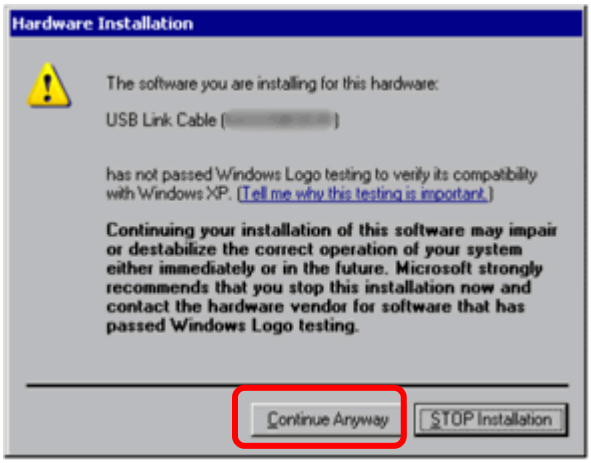
- USB data transfer cable (model: PFXZC9USCBMB1)
- A commercial USB cable (USB Type A/mini B)
- An USB storage device
- Ethernet

But this section explains, as an example, how to transfer screen data via USB data transfer cable (model: PFXZC9USCBMB1).

(1) Connect your PC and the GP unit of GP4100 (Color) 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**

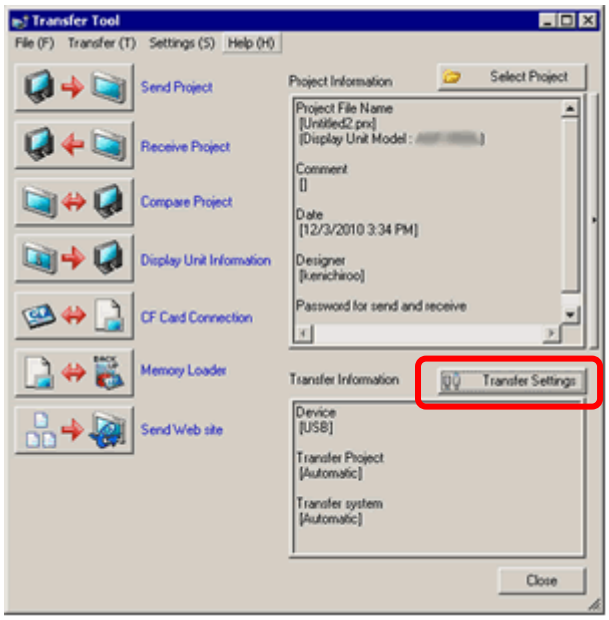
- The "Hardware Installation" dialog box as follows may appear during installing the driver of a USB depending on the security level of Windows® XP. Click [Continue Anyway] to start installing the driver. When installation is completed, click [Finish].




- 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.

(2) Turn on the power of GP4100 (Color). The “Initial Start Mode” screen will appear on the display unit. After transferring a project file once, this screen will not appear again.

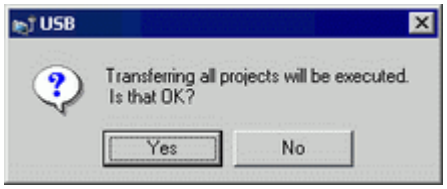

(3) On the GP-Pro EX’s State Toolbar, click the [Transfer Project] icon to open the Transfer Tool.



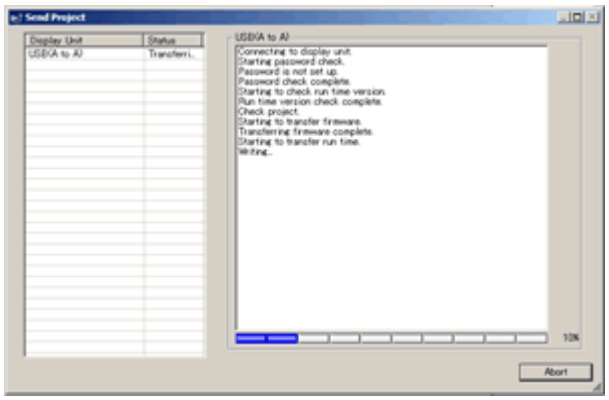

To transfer a different project file, click the [Select Project] button and select a project file.

(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].

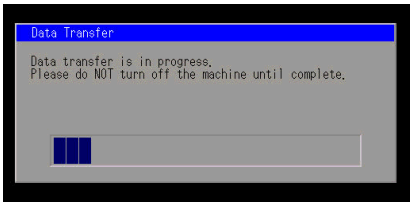

(5) Click [Send Project] to start transfer. When the following dialog box appears, click [Yes]. This dialog box doesn't appear when the same project file is sent again.



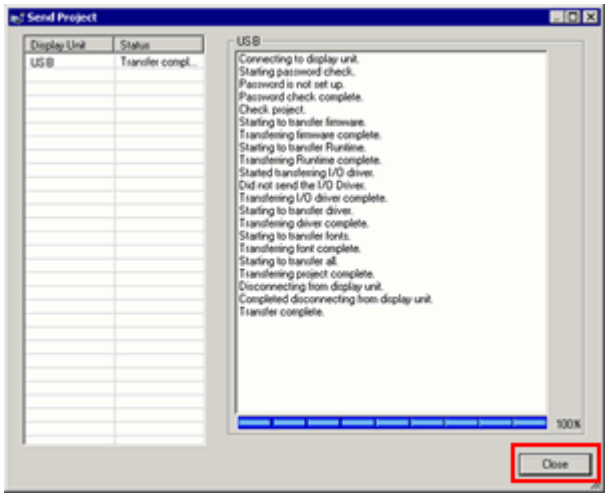

(6) The following dialog box appears during transfer and you can check the communication status. (The display unit enters the Transferring mode and communication with the device such as a PLC is terminated.)




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 GP4100 (Monochrome) are not supported by GP4100 (Color). 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 Drivers

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).

## 4.2 Specification of Serial Interface

The specification (signal and shape) of GP4100 (Color) is same as GP4100 (Monochroome).

The same connection cable as the one for GP4100 (Monochrome) can be used.