

Easy! Smooth!
GP2000 Series
Replacement Booklet



Preface

This manual introduces the procedures to replace the unit in the GP2000 series (GP-2600T, GP-2601T, GP-2500T, GP-2501S, GP-2400T, GP-2300T/L) with the GP3000 series (GP-3600T, GP-3500T, GP-3500S, GP-3400T, GP-3300T/L). The recommended replacement models are as follows.

| | |
|----------|----------|
| GP-2600T | GP-3600T |
| GP-2601T | |
| GP-2500T | GP-3500T |
| GP-2501S | GP-3500S |
| GP-2400T | GP-3400T |
| GP-2300L | GP-3300T |
| GP-2300L | GP-3300L |

- ▶ For the replacement of GP-2601T, GP-2501S, please refer to this manual.

First Edition: October 2008



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Chapter 1. Specification Comparison



1.1 Specifications of GP-2600T and GP-3600T

| | | GP2600T | GP3600T |
|----------------------------------|--------------------|---|---|
| | |  |  |
| Display Type | | TFT color LCD | |
| Display Colors | | 256 colors | UP! 65536 colors |
| Display Resolution | | SVGA (800 × 600 pixels) | |
| Panel Cut Dimensions (mm) | | 301.5 (W) × 227.5 (H) | |
| External Dimensions (mm) | | 317 (W) × 243 (H)×58(D) | 313 (W) × 239 (H)×56(D) |
| Touch Panel Type | | Matrix | Resistive Film (Analog) NEW! → See 2.3 |
| Serial Interface | COM1 | D-Sub 25 pin (female) RS-232C/422 | NEW! D-Sub 9 pin (male) RS-232C/485 (422) Compatible |
| | COM2 | D-Sub 9 pin (male) RS-232C | NEW! D-Sub 9 pin (female) RS-485 (422) Compatible |
| Memory | Application | 4MB | UP! 8MB |
| | SRAM | 256KB | UP! 320KB |
| Ethernet Interface | | 10BASE-T | UP! 10BASE-T/ 100BASE-TX |
| CF Card Interface | | ✓ | |
| Printer Interface | | Compliant with Centronics (parallel) | NEW! USB |
| USB Host Interface | | - | NEW! ✓ |



1.2 Specifications of GP-2601T and GP-3600T

| | | GP2601T | GP3600T |
|----------------------------------|--------------------|---|---|
| | |  |  |
| Display Type | | TFT color LCD | |
| Display Colors | | 256 colors | UP! 65536 colors |
| Display Resolution | | SVGA (800 × 600 pixels) | |
| Panel Cut Dimensions (mm) | | 301.5 (W) × 227.5 (H) | |
| External Dimensions (mm) | | 317 (W) × 243 (H) × 58(D) | 313 (W) × 239 (H) × 56(D) |
| Touch Panel Type | | Matrix | Resistive Film (Analog) NEW! → See 2.3 |
| Serial Interface | COM1 | D-Sub 25 pin (female) RS-232C/422 | NEW! D-Sub 9 pin (male) RS-232C/485 (422) Compatible |
| | COM2 | - | NEW! D-Sub 9 pin (female) RS-485 (422) Compatible |
| Memory | Application | 4MB | UP! 8MB |
| | SRAM | 128KB | UP! 320KB |
| Ethernet Interface | | - | UP! 10BASE-T/ 100BASE-TX |
| CF Card Interface | | ✓ | |
| Printer Interface | | Compliant with Centronics (parallel) | NEW! USB |
| USB Host Interface | | - | NEW! ✓ |



1.3 Specifications of GP-2500T and GP-3500T

| | | GP2500T | GP3500T |
|----------------------------------|--------------------|---|---|
| | |  |  |
| Display Type | | TFT color LCD | |
| Display Colors | | 256 colors | UP! 65536 colors |
| Display Resolution | | VGA (640 × 480 pixels) | |
| Panel Cut Dimensions (mm) | | 301.5 (W) × 227.5 (H) | |
| External Dimensions (mm) | | 317 (W) × 243 (H)×58(D) | 270.5 (W) × 212.5 (H)×57(D) NEW! → See 2.2 |
| Touch Panel Type | | Matrix | Resistive Film (Analog) NEW! → See 2.3 |
| Serial Interface | COM1 | D-Sub 25 pin (female) RS-232C/422 | NEW! D-Sub 9 pin (male) RS-232C/485 (422) Compatible |
| | COM2 | D-Sub 9 pin (male) RS-232C | NEW! D-Sub 9 pin (female) RS-485 (422) Compatible |
| Memory | Application | 4MB | UP! 8MB |
| | SRAM | 256KB | UP! 320KB |
| Ethernet Interface | | 10BASE-T | UP! 10BASE-T/ 100BASE-TX |
| CF Card Interface | | ✓ | |
| Printer Interface | | Compliant with Centronics (parallel) | NEW! USB |
| USB Host Interface | | - | NEW! ✓ |



1.4 Specifications of GP-2400T and GP-3400T

| | | GP2501S | GP3500S |
|----------------------------------|--------------------|---|---|
| | |  |  |
| Display Type | | STNcolor LCD | |
| Display Colors | | 64 colors | UP! 4096 colors |
| Display Resolution | | VGA (640 × 480 pixels) | |
| Panel Cut Dimensions (mm) | | 301.5 (W) × 227.5 (H) | |
| External Dimensions (mm) | | 317 (W) × 243 (H) × 58(D) | 313 (W) × 239 (H) × 56(D) |
| Touch Panel Type | | Matrix | Resistive Film (Analog) NEW! → See 2.3 |
| Serial Interface | COM1 | D-Sub 25 pin (female) RS-232C/422 | NEW! D-Sub 9 pin (male) RS-232C/485 (422) Compatible |
| | COM2 | - | NEW! D-Sub 9 pin (female) RS-485 (422) Compatible |
| Memory | Application | 2MB | UP! 8MB |
| | SRAM | 128KB | UP! 320KB |
| Ethernet Interface | | - | UP! 10BASE-T/ 100BASE-TX |
| CF Card Interface | | ✓ | |
| Printer Interface | | Compliant with Centronics (parallel) | NEW! USB |
| USB Host Interface | | - | NEW! ✓ |

1.5 Specifications of GP-2400T and GP-3400T

| | | GP2400T | GP3400T |
|----------------------------------|--------------------|---|---|
| | |  |  |
| Display Type | | TFT color LCD | |
| Display Colors | | 256 colors | UP! 65536 colors |
| Display Resolution | | VGA (640 × 480 pixels) | |
| Panel Cut Dimensions (mm) | | 204.5 (W) × 159.5 (H) | |
| External Dimensions (mm) | | 215 (W) × 170 (H) × 60 (D) | |
| Touch Panel Type | | Matrix | Resistive Film (Analog) NEW! → See 2.3 |
| Serial Interface | COM1 | D-Sub 25 pin (female) RS-232C/422 | NEW! D-Sub 9 pin (male) RS-232C/485 (422) Compatible |
| | COM2 | D-Sub 9 pin (male) RS-232C | NEW! D-Sub 9 pin (female) RS-485 (422) Compatible |
| Memory | Application | 4MB | UP! 8MB |
| | SRAM | 256KB | UP! 320KB |
| Ethernet Interface | | 10BASE-T | 10BASE-T/ UP! 100BASE-TX |
| CF Card Interface | | ✓ | |
| Printer Interface | | Compliant with Centronics (parallel) | NEW! USB |
| USB Host Interface | | - | NEW! ✓ |

1.6 Specifications of GP2300T/2300L and GP3300T/3300L

| | | GP2300T/2300L | GP3300T/3300L |
|----------------------------------|--------------------|---|---|
| | |  |  |
| Display Type | 2300T | TFT color LCD | |
| | 2300L | Monochrome LCD | |
| Display Colors | 2300T | 256 colors | UP! 65536 colors |
| | 2300L | Monochrome 2 levels Monochrome 8 levels | UP! Monochrome 16 levels |
| Display Resolution | | QVGA (320 × 240 pixels) | |
| Panel Cut Dimensions (mm) | | 156 (W) × 123.5 (H) | |
| External Dimensions (mm) | | 171 (W) × 138 (H) × 60 (D) | 167.5 (W) × 135 (H) × 59.5 (D) |
| Touch Panel Type | | Matrix | Resistive Film (Analog) NEW! → See 2.3 |
| Serial Interface | COM1 | D-Sub 25 pin (female) RS-232C/422 | NEW! D-Sub 9 pin (male) RS-232C/485 (422) Compatible |
| | COM2 | D-Sub 9 pin (male) RS-232C | NEW! D-Sub 9 pin (female) RS-485 (422) Compatible |
| Memory | Application | 2MB | UP! 6MB |
| | SRAM | 256KB | UP! 320KB |
| Ethernet Interface | | 10BASE-T | 10BASE-T/ UP! 100BASE-TX |
| CF Card Interface | | ✓ | |
| Printer Interface | | Compliant with Centronics (parallel) | NEW! USB |
| USB Host Interface | | - | NEW! ✓ |

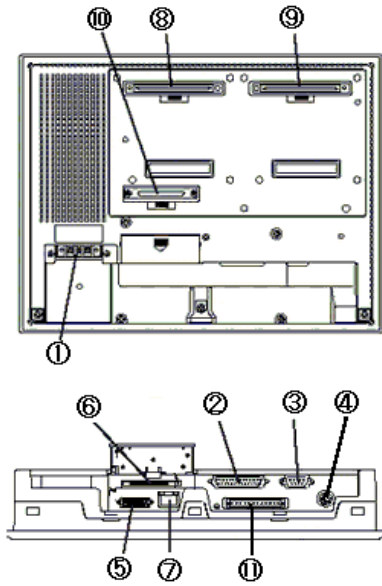
Chapter 2. Compatibility of Hardware

2.1 Locations of connectors

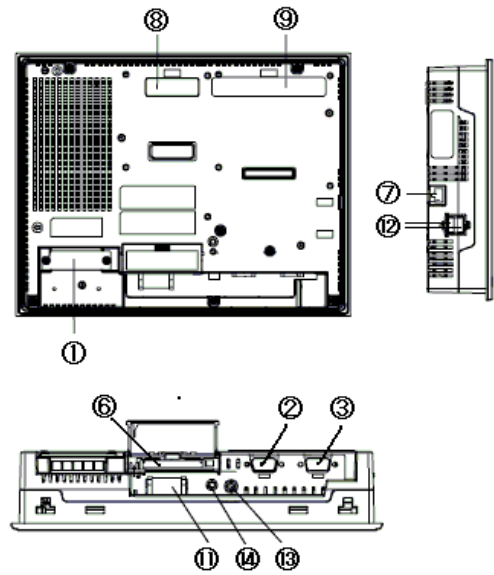
Connector locations on the GP2000 series and the GP3000 series are as follows.

[Rear of GP-2600/2500 and GP-3600/3500] *

GP-2600/2500



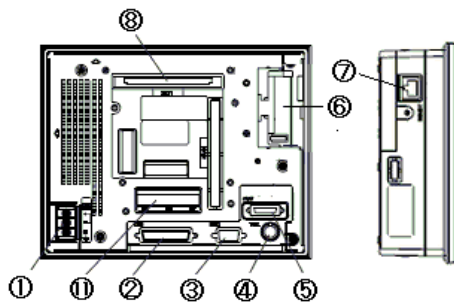
GP-3600/3500



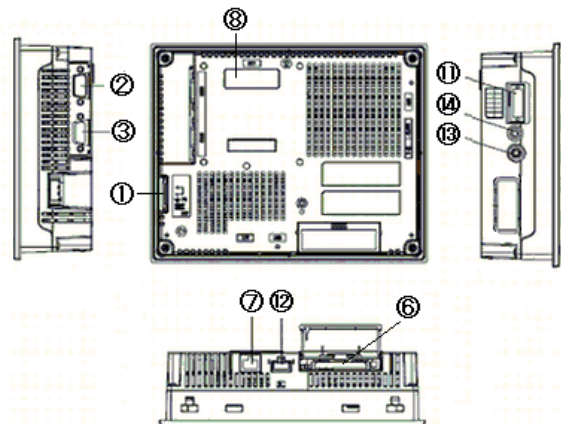
* GP-2601T and GP-2501S doesn't have 3, 7, 9 and 10.

[Rear of GP2400 and GP3400]

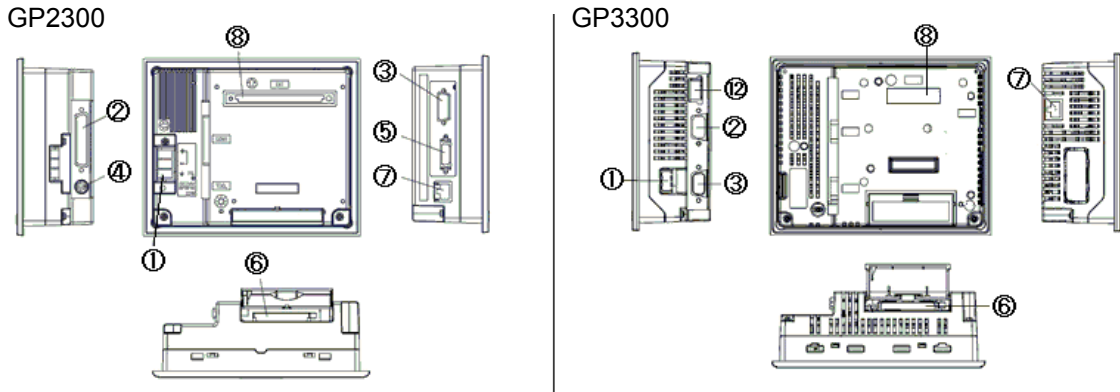
GP2400



GP3400



[Rear of GP2300 and GP3300]



Interface names (applicable to all models)

| | GP2000 Series | GP3000 Series |
|----|--|--|
| 1 | Power Input Terminal Block | Power Input Terminal Block (AC type) Power Plug Connector (DC type) |
| 2 | Serial Interface (COM1) | |
| 3 | Expansion Serial Interface (COM2) * | Serial Interface (COM2) * |
| 4 | Tool Connector | - |
| 5 | Printer Interface * | - |
| 6 | CF Card Interface | |
| 7 | Ethernet Interface (*1) | |
| 8 | Expansion Unit Interface 1 | |
| 9 | Expansion Unit Interface 2 (*2) | |
| 10 | Expansion CF Card Interface (*3) | - |
| 11 | Auxiliary Input/Output Interface (AUX) (*4) | Auxiliary Input/Output (AUX) Voice Output Interface (*5) |
| 12 | - | USB Host Interface |
| 13 | - | Video Input Interface (M class only) |
| 14 | - | Audio Input Interface (M class only) |

*1 GP2601T and 2501S doesn't have a ethernet Interface.

*2 GP2601T, 2501S, 2400T, 2300T/L, 3400T, 3300T/L don't have an expansion Unit Interface 2.

*3 GP2601T, 2501S, 2400T, 2300T/L don't have an expansion CF Card Interface.

*4 GP2300T doesn't have an auxiliary Input/Output Interface (AUX).

*5 GP3300T/L doesn't have an auxiliary Input/Output (AUX) and a voice Output Interface.

2.2 About panel cut dimensions

GP-3500T is designed smaller for space savings. The panel cut dimensions of GP-3500T are different from those of GP-2500T. Please prepare an attachment (model: CA4-ATM10-01) for installation of GP-3500T.

Those of GP-3600T, 3400T, and 3300T/L are the same as those of the GP2000 series.

2.3 Touch panel specifications

The touch panel type for the GP3000 series is “Resistive Film (Analog) Type”. The resistive film (Analog) type doesn’t recognize the touch input even if you touch two points at the same time. Please do not touch two points at the same time. If you applied the two-point touch input on the GP2000 series, we recommend you to change to the one-point touch input using the switch delay function. For the settings, see “Compatibility of Software”.

2.4 About transfer cable

To transfer screen data to the GP3000 series, use a USB transfer cable for the GP3000 series (model: CA3-USBCB-01). Please note that any commercial USB cable cannot be used. The tool port and a transfer cable for the GP2000 series (*1) are used for screen data transfer to the GP2000 series, but they are not available with the GP3000 series.

*1: Models of transfer cable for the GP2000 series: GPW-CB02, GPW-CB03, GP430-CU02-M, etc.

2.5 About interfaces

2.5.1 Serial interface

The COM1 port on the GP3000 series is D-sub 9 pin male and the COM2 port is D-sub 9 pin female. The COM1 port on the GP2000 series is D-sub 25 pin female and the COM2 port is D-sub 9 pin male. The pin assignment and the shape of male/female connector are different from those of the GP3000 series. Check if you can use the cable with the GP3000 series on Otasuke Pro! “Connectable Controllers for GP3000 Series.”

<http://www.pro-face.com/otasuke/qa/gp3000/replace/connect/connect.php?rm=2>

2.5.2 AUX output

The GP3000 series is equipped with AUX (external output), but the shape of the AUX (external output) connector is different from that of GP-2600T, 2601T, 2501S, 2500T, and 2400T. Please check wiring for the AUX interface before you replace the models.

2.6 Peripheral units and option units

2.6.1 Barcode reader connection

The GP3000 series is not equipped with a tool port. A barcode reader connected from the tool port on the GP2000 series cannot be used. However, the GP3000 series allows you to connect a barcode reader on its USB interface or its serial interface.

2.6.2 Printer connection

The GP3000 series is not equipped with the Centronics (parallel) interface for the printer. Please prepare a conversion cable to convert the USB of the GP3000 series to the Centronics interface if you connect the printer to the GP3000 series, which was connected to the Centronics interface on the GP2000 series. The GP3000 series allows you to connect a printer on its Ethernet port as well as on its USB port.

2.6.3 Amplifier connection

The GP-3000 series doesn't have the line output function. If you connected from the line output on the AUX interface of GP2600T/2500T/2400T to an amplifier, replace your speaker to one with a built-in amplifier and use the speaker output.

2.6.4 Expansion unit

The expansion bus unit for the GP3000 series is different from the one for the GP2000 series. Please note that the expansion unit used with the GP2000 series cannot be used.

For the details of the expansion bus unit for the GP3000 series, refer to

<http://www.pro-face.com/product/gp/gp3000/option/>

2.6.5 Front maintenance unit

The front maintenance unit (GP077-CFFM10) for the GP2000 series is not available with the GP3000 series. Please use a CF card with the CF cart interface equipped on the GP unit.

2.6.4 About isolation unit

The isolation unit for the GP2000 series (CA2-ISOALL232-01/CA2-ISOALL422-01) cannot be used with the GP3000 series. Prepare an isolation unit for the GP3000 series. (232C type: CA3-ISO232-01, 422 type: CA3-ISO422-01)

2.7 About body material and color

The body material of the GP3000 series is aluminum. That of the GP2000 series is resin. Please note that the material characteristic and the color are different.

2.8 About power connector

The power connector for the DC type on the GP3000 series is a screw lock terminal block. If you replace from the GP2000 series, change the power cable.

The power connector for the AC type is the same as that on the GP2000 series, however, the position of FG has been changed.

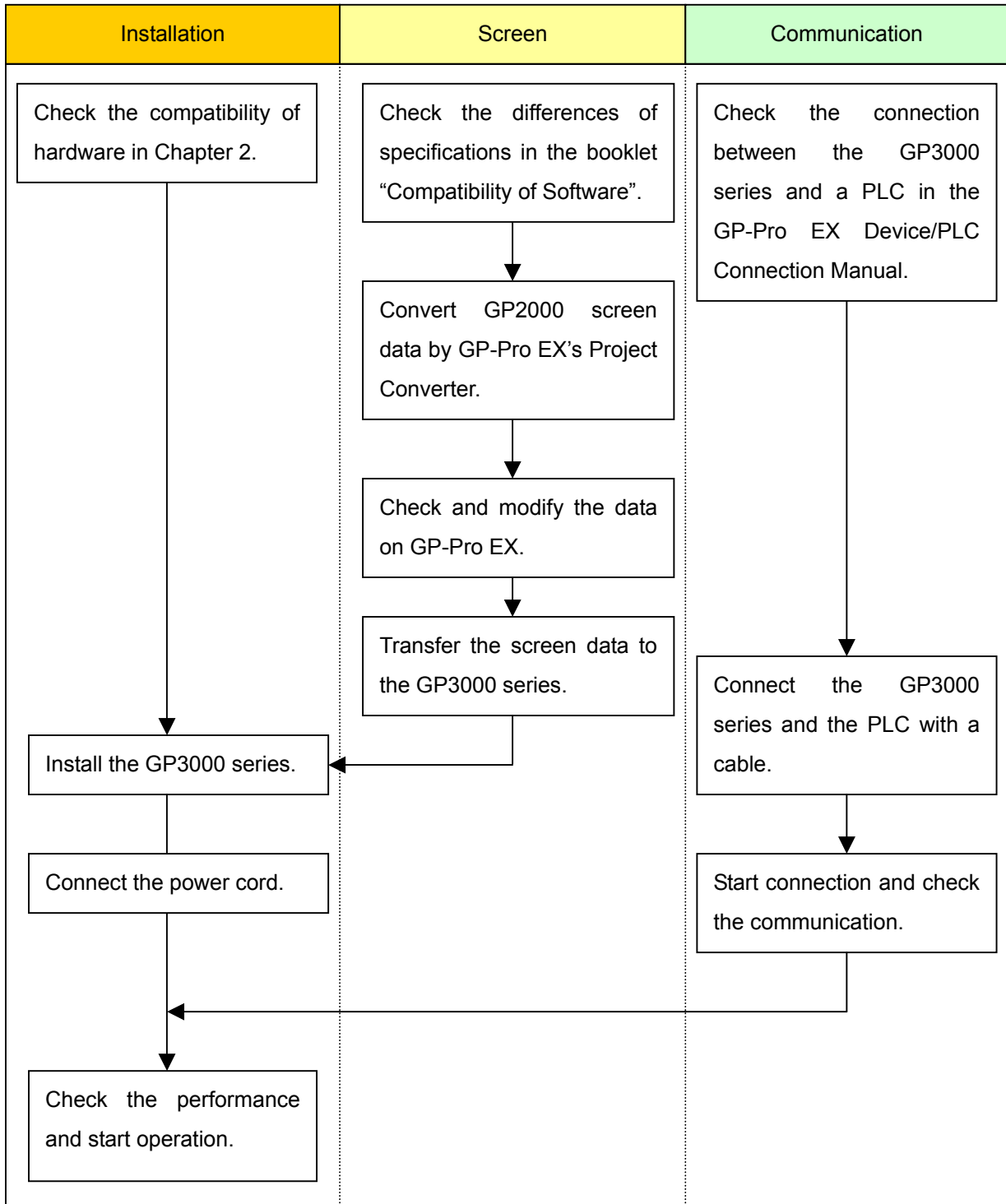
2.9 About power consumption

Only as for the AC type, the power consumption of the GP3000 series and that of the GP2000 series are different. Please check the power supply capacity that is supplied to the main body.

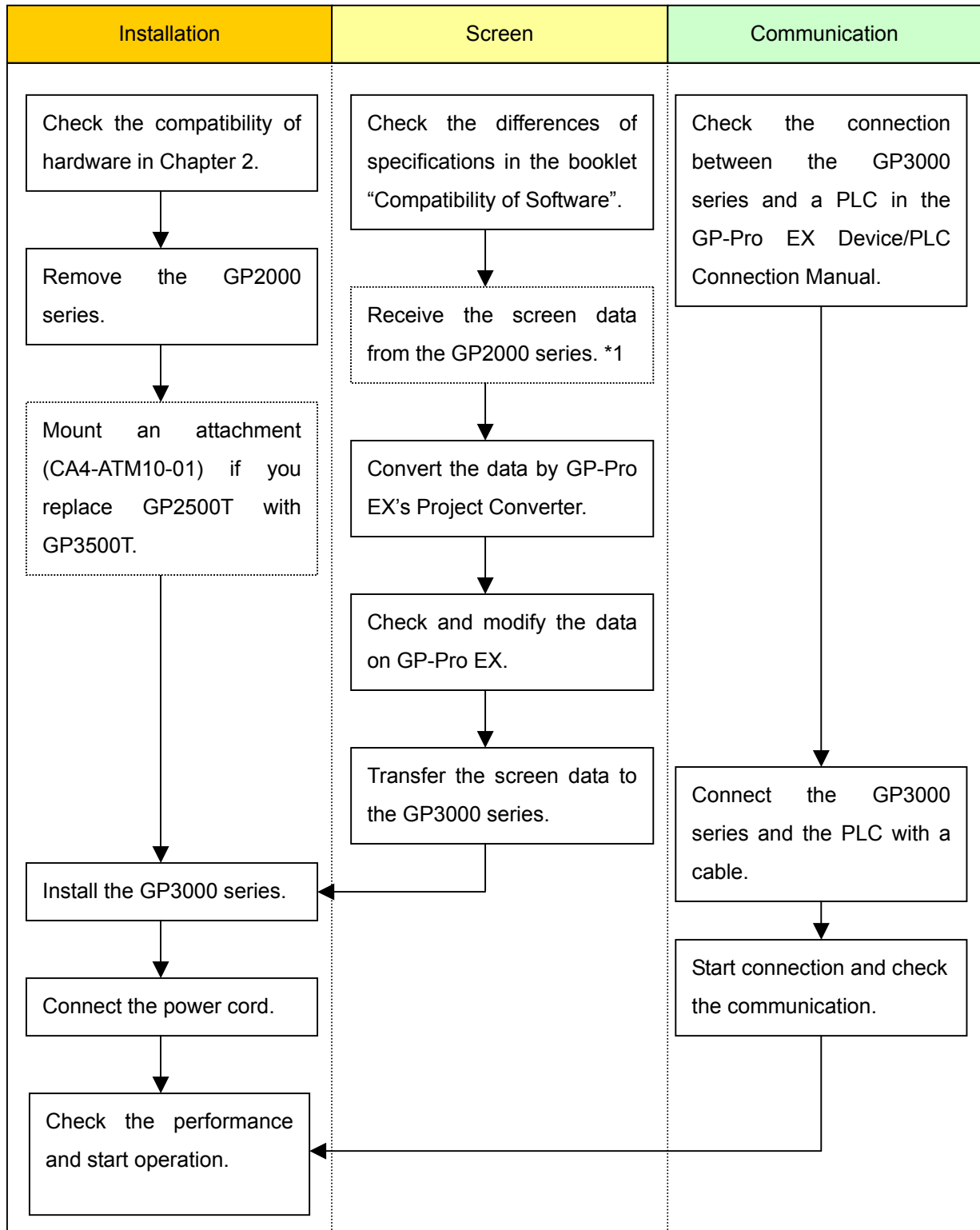
Chapter 3. Replacement Procedure

3.1 Work Flow

► To change the equipment designed for the GP2000 series to the GP3000 series



► To replace the GP2000 series mounted to the equipment to the GP3000 series



*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 the GP2000 series (*1) | PC in which the following version or higher of C-package GP-PRO/PB3 is installed (*2) | | | | | |
| | <table border="1"> <tr> <td>2600T, 2500T, 2400T</td> <td>V5.0 or higher</td> </tr> <tr> <td>2300T, 2501S</td> <td>V6.0 or higher</td> </tr> <tr> <td>2601T</td> <td>V6.2(SP1) or higher</td> </tr> </table> | 2600T, 2500T, 2400T | V5.0 or higher | 2300T, 2501S | V6.0 or higher | 2601T |
| 2600T, 2500T, 2400T | V5.0 or higher | | | | | |
| 2300T, 2501S | V6.0 or higher | | | | | |
| 2601T | V6.2(SP1) or higher | | | | | |
| Requirements for converting screen data of the GP2000 series and transferring to the GP3000 series | <p>Transfer cable (The following three types of cable are available.)</p> <ul style="list-style-type: none"> • GPW-CB02 (D-sub 9-pin to the PC) • GPW-CB03 (USB to the PC) (*3) • GP430-CU02-M or GPW-SET <p>The GP2000 series allows you to transfer screen data via CF card.</p> | | | | | |
| | <p>PC in which GP-Pro EX is installed</p> <p>Transfer cable (model: CA3-USBCB-01)</p> <p>The GP3000 series allows you to transfer screen data via Ethernet, CF card or USB flash drive.</p> | | | | | |

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

*2: The software version must be the same or higher than the version that you used when creating screen data for the GP2000 series.

We recommend you to upgrade to the latest version, which is C-Package 03 GP-PRO/PB3 for Windows Ver.7.29.

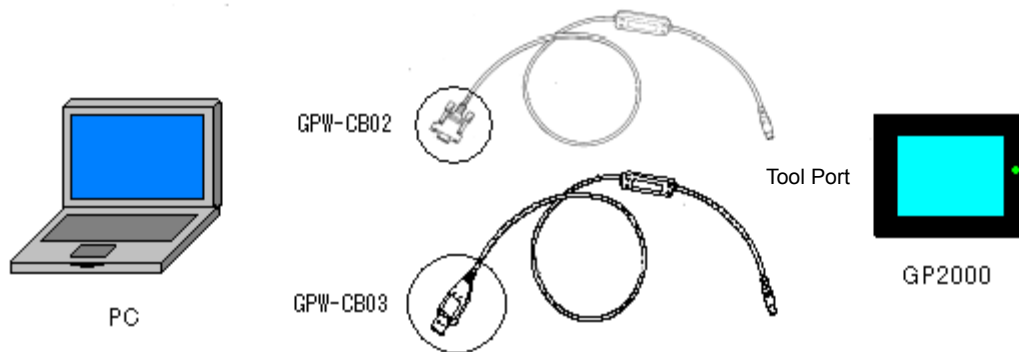
If the version of the software that you currently use is C-Package 03 GP-PRO/PB3 for Windows Ver.7.0, upgrade it on our website Otasuke Pro!

*3: GPW-CB03 is compliant with GP-PRO/PBIII for Windows Ver. 6.23 (C-Package02 SP2) or later. Also, to use it, you may need to [install the driver](#).

3.3 Receive screen data from the GP2000 series

This section explains, as an example, how to receive screen data from the GP unit using a transfer cable GPW-CB02 or GPW-CB03. If you have backed up screen data, this step is unnecessary; skip to the next section “3.4 Convert screen data with the Project Converter.”

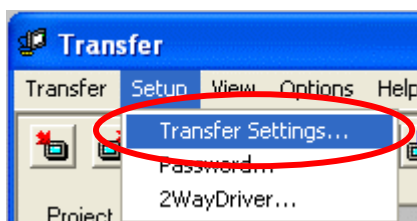
1. Connect a transfer cable to the GP2000 series.



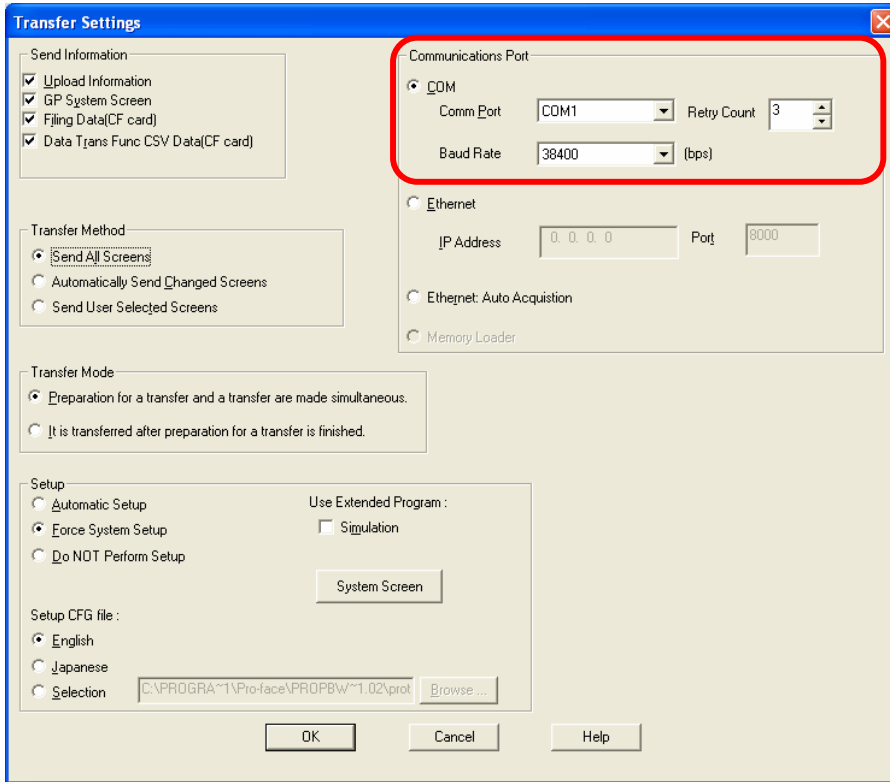
2. Start up GP-Pro/PBIII C-Package and click the [Transfer] icon on the Project Manager. (Specify a desired project file.)



3. On the [Transfer] window, select the [Setup] menu and click [Transfer Settings...].

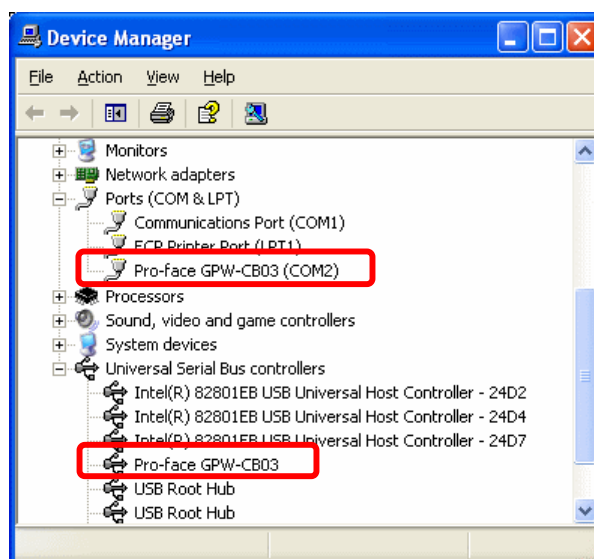


4. In the Communication Port field, select [COM], specify the COM port to which the cable is connected, and click [OK].

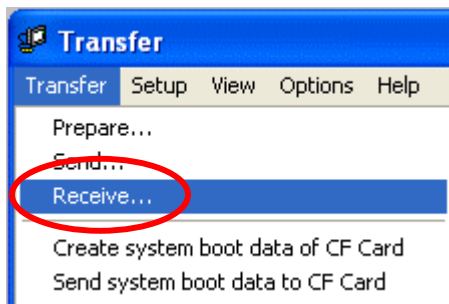


If you use a USB transfer cable (GPW-CB03)...

You can check the COM port for the USB transfer cable (GPW-CB03), which is assigned to the PC with the Device Manager of Windows.



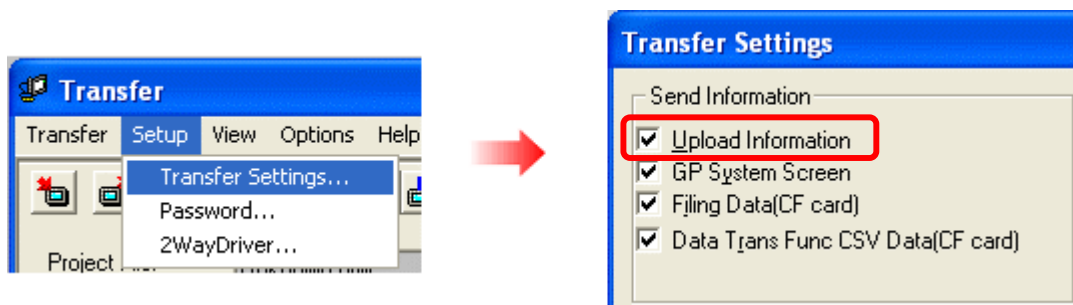
5. Select the [Transfer] menu and click [Receive...].



6. Specify the location to save the received screen data in and the project file name and save.

In case there is no Upload Information...

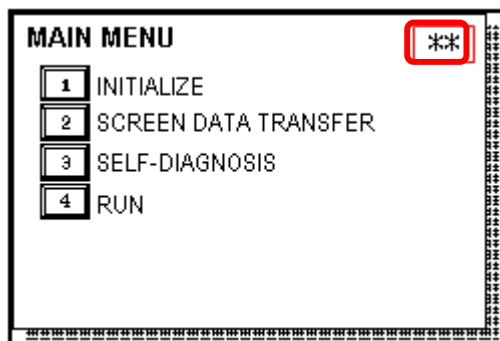
“Upload Information” is the necessary information to receive screen data from the display unit. It needs to be included in screen data when transferring screen data to the display unit beforehand. The Upload Information is sent to the display unit by default, however, you may check off the box of Upload Information to prevent screen reception by a third party.



In this case, a message, which indicates there is no Upload Information,” appears and you cannot receive the data.

You can check if the Upload Information has been sent or not in the following way.

Enter into the GP’s Offline mode. If there are 2 asterisk (*) marks in the Main menu as below, the Upload Information has been sent. If not, there is no Upload Information sent.

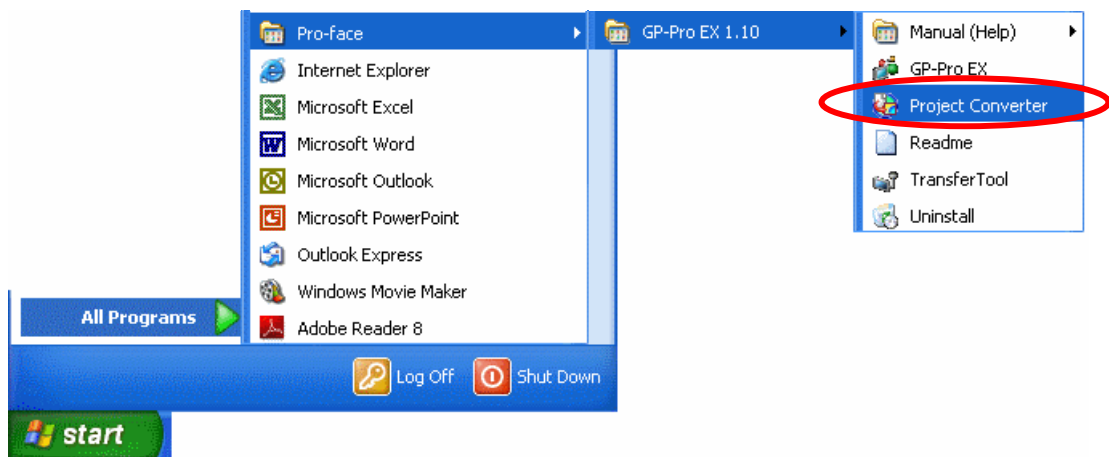


3.4 Convert screen data with the Project Converter

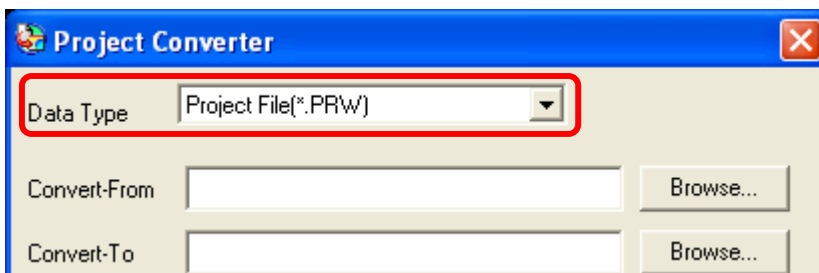
Convert a project file (*.prw) for the GP2000 series with the GP-Pro EX's Project Converter.

* Only in the case of using GP-2501S, it's necessary to change the model with C-Package before this conversion. For details, refer to P28 "[For the GP-2501S users](#)".

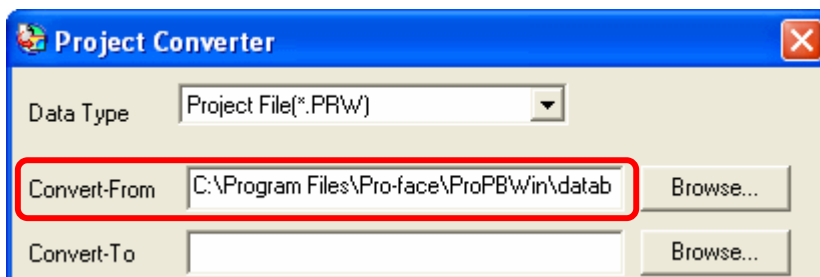
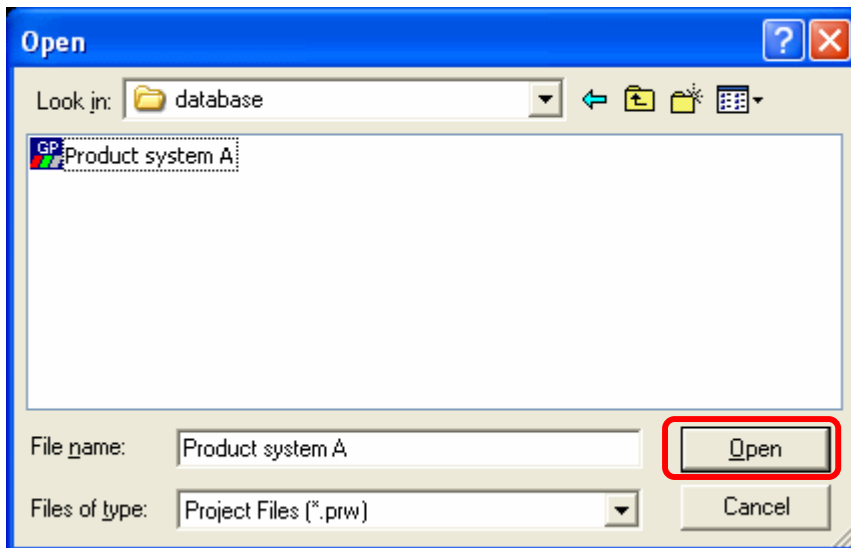
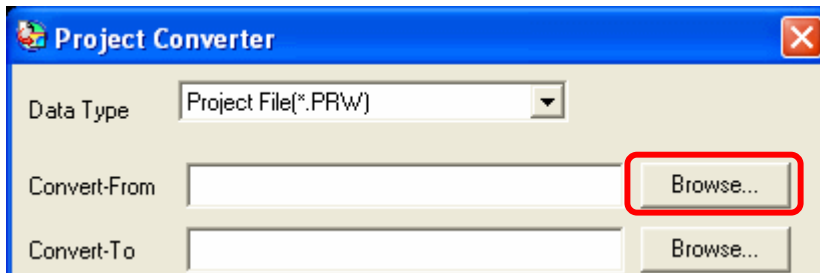
1. Click the [Start] button, select the [All Programs] ([Programs] on Windows® 2000 menu → [Pro-face] → [GP-Pro EX*. **]. (The version of the software you use will be shown in *.**.)



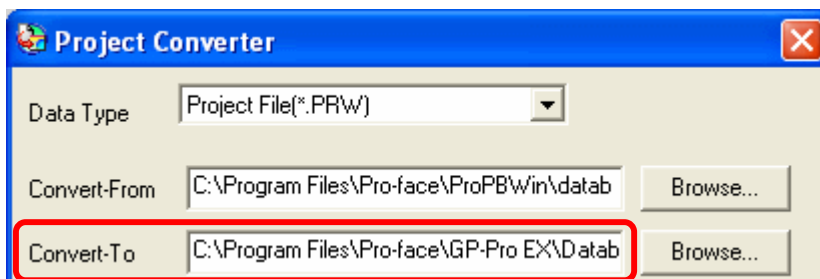
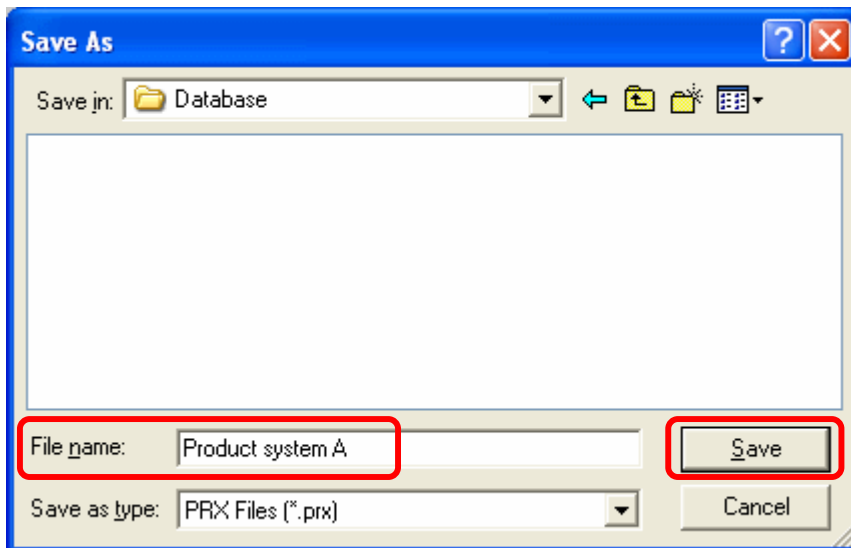
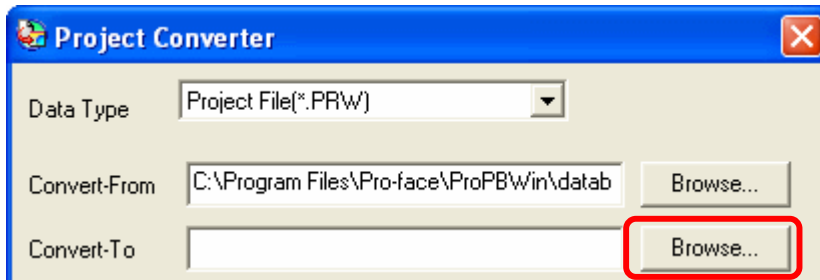
2. The Project Converter starts up and the [Project Converter] dialog box opens. Select [Project File (*.PRW)] in the [Data Type].



3. Designate a GP-PRO/PBIII for Windows' project file (*.prw) in [Convert-From]. Click the [Browse...] button and select a project file (e.g.: "Project system A.prw"). Click [Open], and the file will be set in [Convert-From].



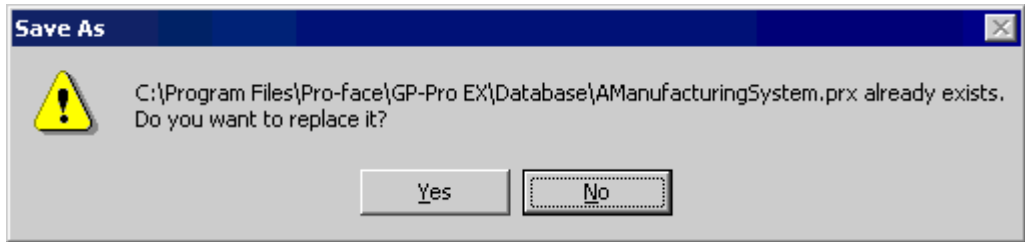
4. In [Convert-To], designate a GP-Pro EX's project file (*.prx). Click the [Browse...] button and enter a new [File Name] (e.g.: "Product system A.prx"). Click [Save], and a new project file will be set to [Convert-To].



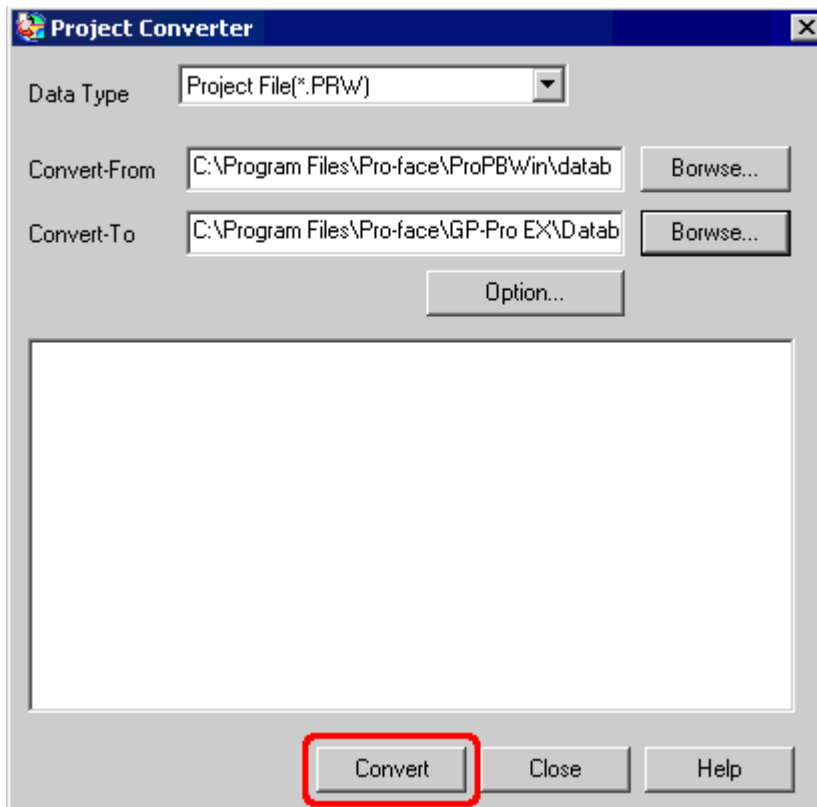
NOTE

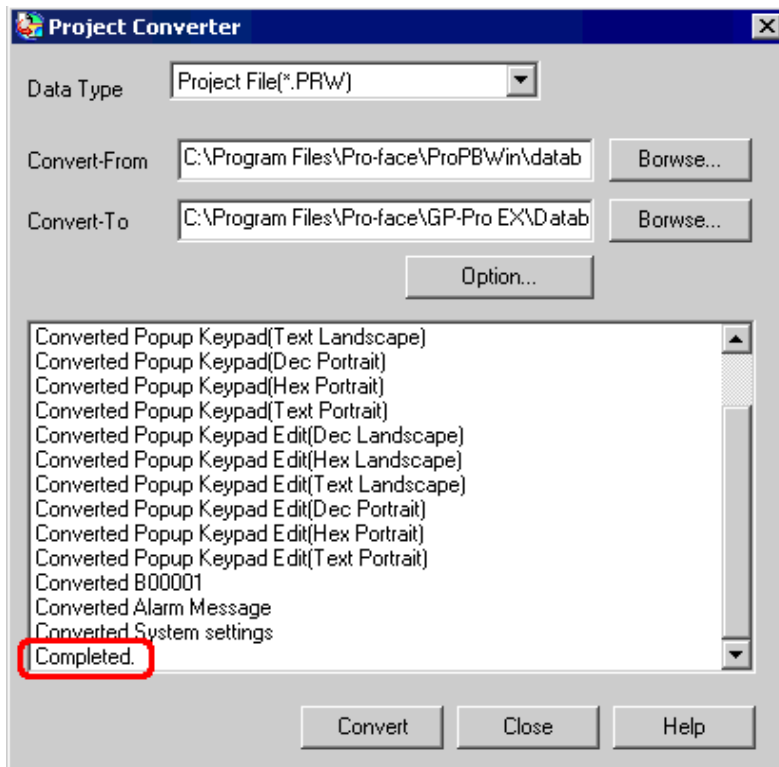
- Depending on the model you are converting from, the [Convert-From Type] dialog box may display where you can select the type and the model.

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



5. Click [convert] and start the conversion.

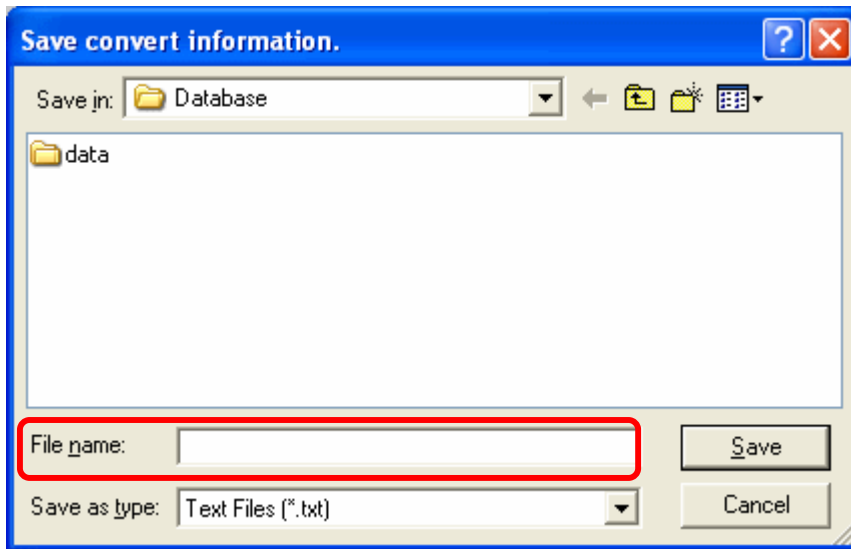




NOTE

- Depending on the model you are converting from, the [Convert Destination] dialog box may appear and you can select the type and the model.
- If the following dialog box appears, set a CF card output folder.
 - [See the next page](#)
 - ◆ [Convert GP-PRO/PBIII for Windows' "Destination CF Card Folder"](#)

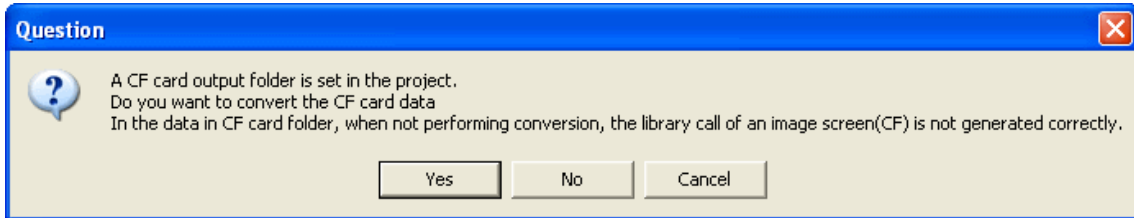
- After conversion, the [Save convert information] dialog box appears. If you click [Save], you can save the conversion information in a text file.



7. Click [Close] to close the [Project Converter] dialog box.

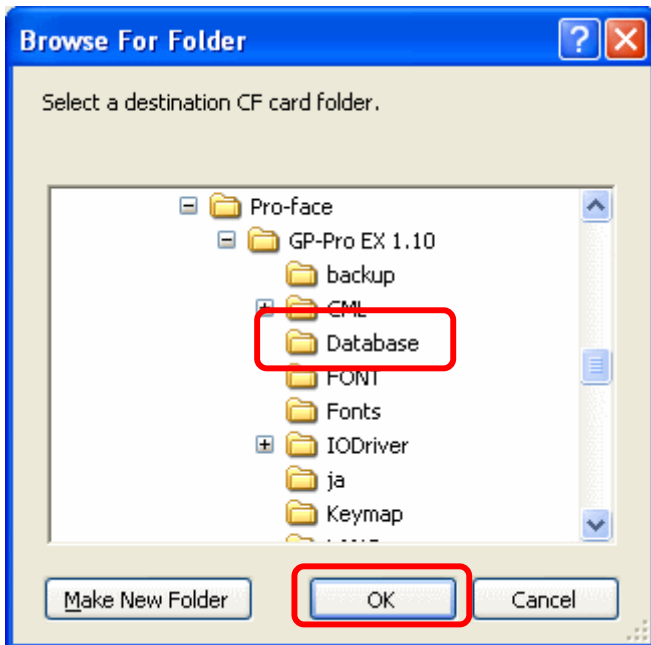
◆ **Convert GP-PRO/PBill for Windows' "Destination CF Card Folder"**

If you convert a project file (*.prw) with a destination CF card folder designated in the step 5, the Question dialog box whether or not to designate the destination CF card folder for the convert destination appears again.



Select a folder (e.g.: "Database") and click [OK].

If you click the [Make New Folder] button, you can create a new folder at any location.



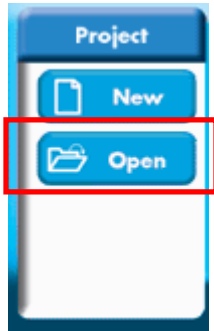
IMPORTANT

In the [Question] dialog box, be sure to select [Yes] and specify the destination folder. If you select [No], images will not be called correctly.

-For the GP-2501S users (in the case of GP-Pro EX V2.2 or lower)

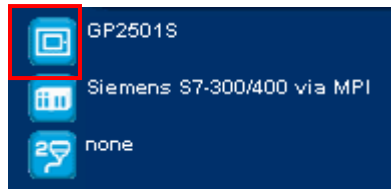
When converting screen data of GP2501S with Project Converter of GP-Pro EX V2.2 or lower, be sure to change the model with C-Package GP-PRO/PB3 before converting them with Project Converter.

1. Start C-Package GP-PRO/PB3 and select [Open].

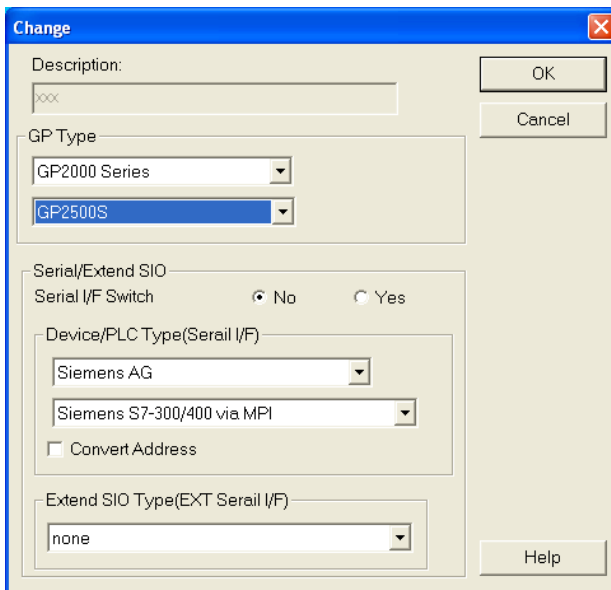


2. Select the screen data of 2501S and click [Open].

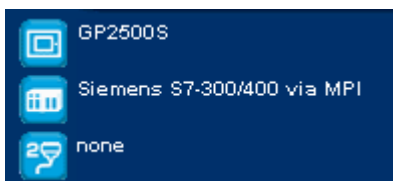
3. Click the icon on the left of [GP2501S].



4. Select [GP2500S] and click [OK].



5. The model has been changed. Go to [3.4 Convert with Project Converter]



NOTE

If screen data are converted with Project Converter without changing the GP's model from GP-2501S, they will be converted into not GP-3500S but GP-3501C. Since GP-3501C has 16-color type, the number of colors will be decreased if they are converted from the 64-color 2501S. Please be cautious.

3.5 Transfer screen data to the GP3000 series

Transfer the converted project file to the GP3000 series. You can transfer data to the GP3000 series via USB transfer cable, Ethernet cable, CF card or USB flash drive. Here, this section explains, as an example, how to transfer screen data by USB transfer cable (model: CA3-USBCB-01).



PC



CA3-USBCB-01



GP3000

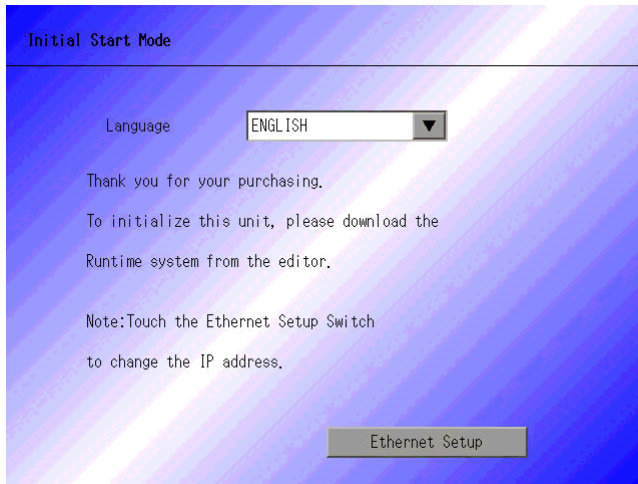
1. Connect your PC and the GP3000 series with a USB transfer cable. If the driver of the cable has not been installed on your PC, a dialog box will appear. Please follow the instructions.

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 for CA3-USBCB-01. When installation is completed, click [Finish].

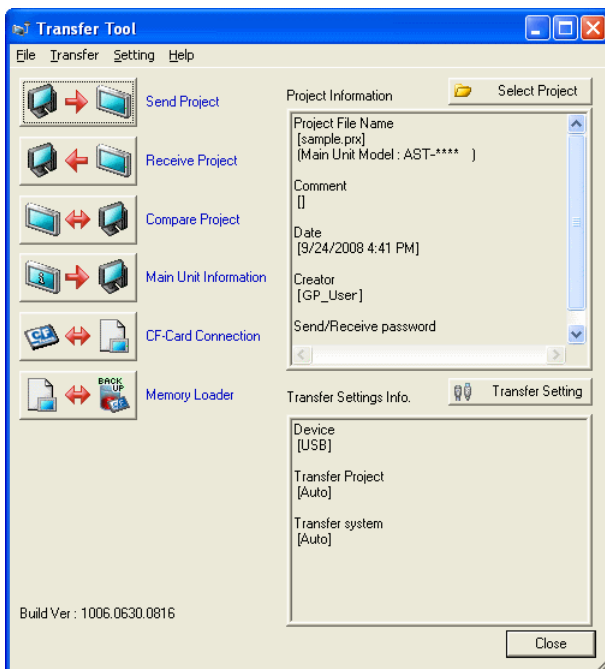


2. Turn on the display unit's power. The "Initial Start Mode" screen will appear on the display unit.



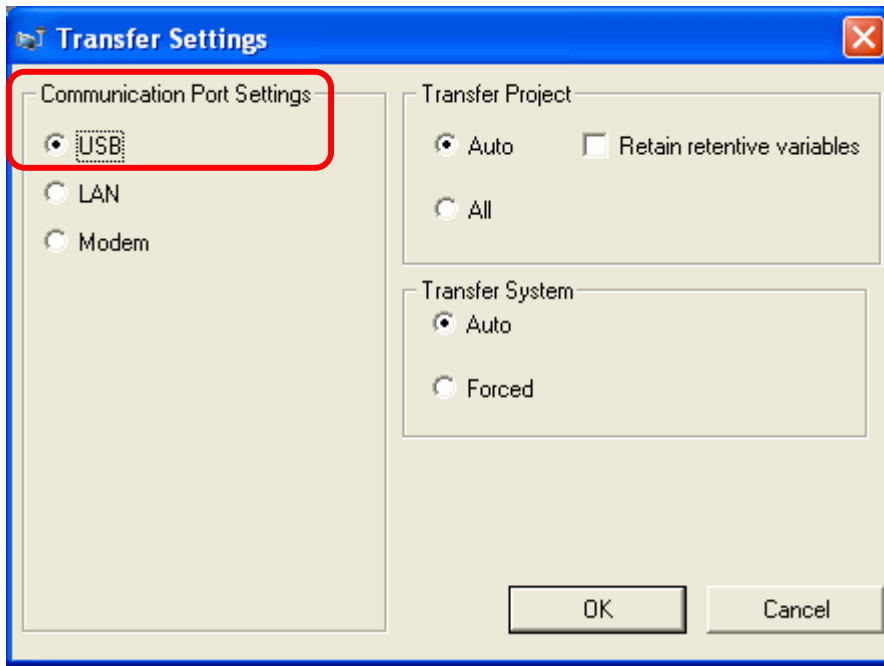
This screen will appear when you first connect the display unit's power code. After transferring a project file once, this screen will not appear again.

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

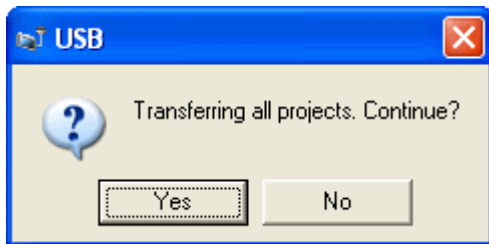


4. Check the project file name and other data to be transferred in the Project Information. To transfer a different project file, click the [Select Project] button and select a project file.

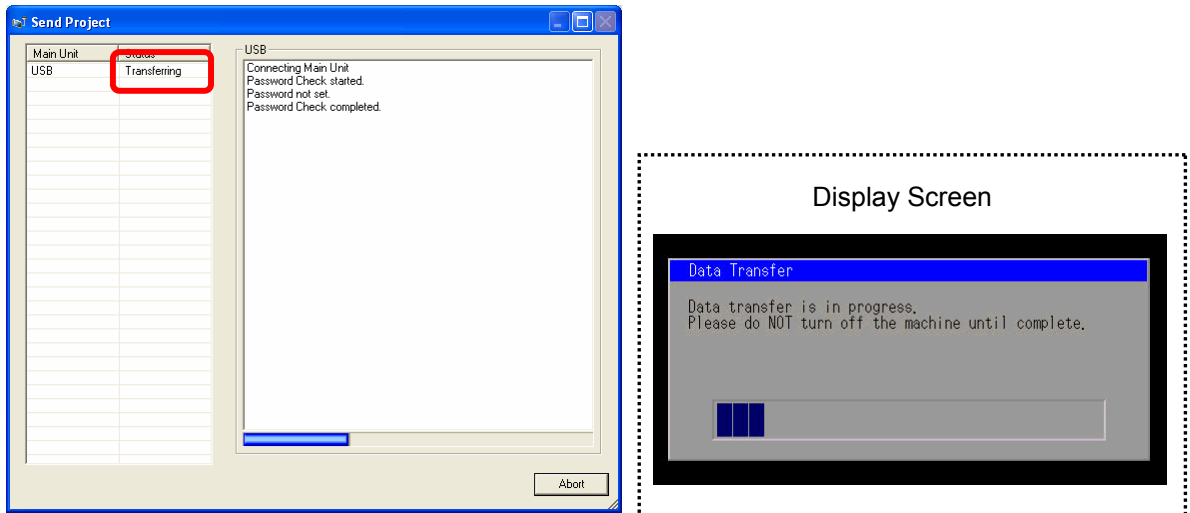
5. Make sure that the [Device] is set to [USB] in the “Transfer Settings Info.” If not, click the [Transfer Setting] button to open the “Transfer Settings” dialog box. Select [USB] in the Communication Port Settings field and click [OK].



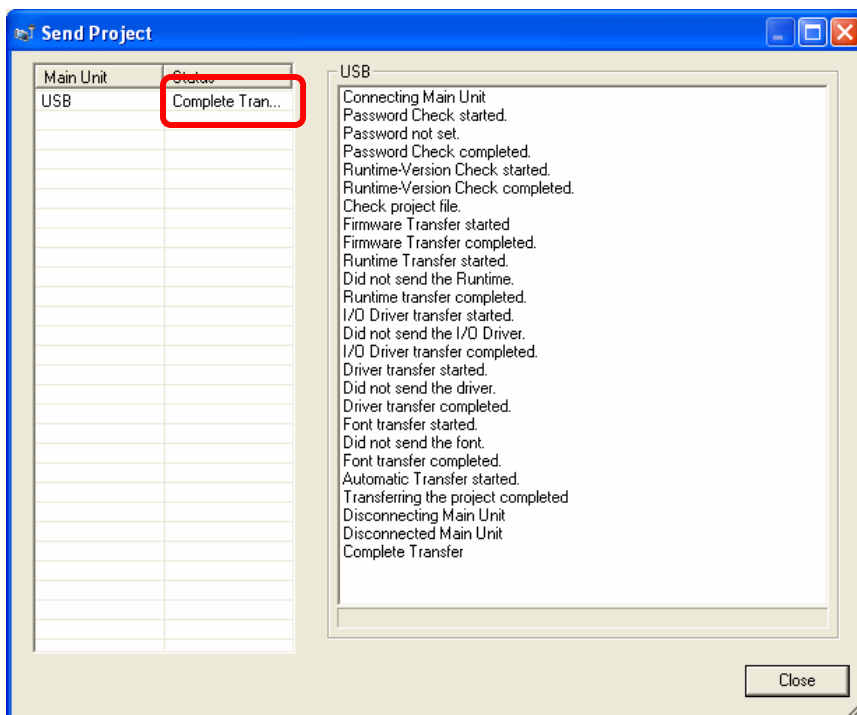
6. Click [Send Project] to start transfer. When the following dialog box appears, click [Yes]. This dialog box doesn't appear when the same project file is sent again.



- 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.)



- 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.)



- Close the Transfer Tool.

3.6 Differences of software after conversion

Check the differences of screen data after conversion.

For the details of each item, refer to the booklet “Compatibility of Software” or visit our website

<http://www.pro-face.com/otasuke/ga/gp3000/replace/soft.htm>.

| | |
|----|--|
| 1 | Touch Panel Type |
| 2 | Compatibility of Bit Switch |
| 3 | Compatibility of Trend Graph |
| 4 | Compatibility of K Tag (Input Order) |
| 5 | Compatibility of K Tag (Difference of Writing) |
| 6 | Compatibility of K Tag (Indirect Setting) |
| 7 | Compatibility of N Tag |
| 8 | Precautions for using the switch for [History Data Display] of Trend Graph on the window |
| 9 | About the performance when a window is overlapping on a momentary switch |
| 10 | About the performance when display area of the system window is overlapping |
| 11 | Change of Tag Process |
| 12 | Compatibility of Text |
| 13 | Compatibility of Fill |
| 14 | Compatibility of CF Card |
| 15 | Precautions for conversion when filing data is saved in a CF card |
| 16 | Precautions for setting “Color Settings” to [256 Colors without blinking] |
| 17 | Precautions for loading a part with “L Tag (Library Display)” |
| 18 | Compatibility of MRK files and CPW files |
| 19 | Compatibility of VM Unit Settings |
| 20 | Compatibility of Extended SIO Script |
| 21 | Compatibility of Sound Data |
| 22 | Compatibility of Device Monitor |
| 23 | Compatibility of J Tag and R Tag |

Chapter 4. Communication between GP3000 series and Device/PLC

This chapter explains about cables and wiring for communication between the GP3000/ /ST3000 series and a connection device such as PLC.

4.1 Driver list

NOTE

The followings are information as of October 2008.

More connectable drivers will be added. Please check our website “Otasuke Pro!” for the latest information.

| Manufacturer | Series | PLC | |
|---------------------------------|--------------------------------|--------|--------|
| | | GP3000 | ST3000 |
| Mitsubishi Electric Corporation | A Series CPU Direct | ✓ | ✓ |
| | A Series Ethernet | ✓ | - |
| | A Series Computer Link | ✓ | ✓ |
| | FX Series CPU Direct | ✓ | ✓ |
| | FX Series Computer Link | ✓ | ✓ |
| | Q Series CPU Direct | ✓ | ✓ |
| | Q Series QnU CPU Ethernet *1 | ✓ | - |
| | Q/QnA Serial Communication | ✓ | ✓ |
| | Q/QnA Series Ethernet | ✓ | - |
| | QnA Series CPU Direct | ✓ | ✓ |
| | QUTE Series CPU Direct | ✓ | ✓ |
| OMRON Corporation | C/CV Series HOST Link | ✓ | ✓ |
| | CS/CJ Series Ethernet | ✓ | - |
| | CS/CJ Series HOST Link | ✓ | ✓ |
| YASKAWA Electric Corporation | MEMOBUS SIO | ✓ | ✓ |
| | MEMOBUS Ethernet | ✓ | - |
| | MP Series SIO (Extension) | ✓ | ✓ |
| | MP Series Ethernet (Extension) | ✓ | - |
| Hitachi IES Co., Ltd. | H Series Ethernet | ✓ | - |
| | H Series SIO | ✓ | ✓ |
| Matsushita Electric Works, Ltd. | FP Series Computer Link SIO | ✓ | ✓ |
| YOKOGAWA Electric Corporation | Personal Computer Link SIO | ✓ | ✓ |

| | | | |
|---|----------------------------------|---|---|
| | Personal Computer Link Ethernet | ✓ | - |
| JTEKT Corporation (Former name: Toyoda Machine Works) | TOYOPUC CMP-LINK SIO | ✓ | ✓ |
| | TOYOPUC CMP-LINK Ethernet | ✓ | - |
| Fuji Electric Co., Ltd. | MICREX-F Series SIO | ✓ | ✓ |
| | MICREX-SX Series SIO | ✓ | ✓ |
| | MICREX-SX Series Ethernet | ✓ | - |
| GE Fanuc Automation | Series 90 Ethernet | ✓ | - |
| | Series 90-30/70 SNP | ✓ | ✓ |
| | Series 90-30/70 SNP-X | ✓ | ✓ |
| Siemens AG | SIMATIC S7 3964 (R) /RK512 | ✓ | ✓ |
| | SIMATIC S7 MPI Direct | ✓ | ✓ |
| | SIMATIC S7 Ethernet | ✓ | - |
| | SIMATIC S5 CPU Direct | ✓ | ✓ |
| Rockwell Automation, Inc. | DF1 | ✓ | ✓ |
| | EtherNet/IP | ✓ | - |
| | DH-485 | ✓ | ✓ |
| KEYENCE Corporation | KV-700/1000/3000/5000 CPU Direct | ✓ | ✓ |
| | KV-700/1000/3000/5000 Ethernet | ✓ | - |
| | KV Series CPU Direct | ✓ | ✓ |
| | KZ10_80R/Tseries CPU Direct *1 | ✓ | ✓ |
| Schneider Electric Industries | MODBUS SIO Master | ✓ | ✓ |
| | MODBUS TCP Master | ✓ | - |
| | Uni-Telway | ✓ | ✓ |
| | MODBUS Slave | ✓ | ✓ |
| SHARP MS Corporation | JW Series Computer Link SIO | ✓ | ✓ |
| | JW Series Computer Link Ethernet | ✓ | - |
| LS Industrial System | MASTER-K Series Cnet | ✓ | ✓ |
| | XGT Series FEnet | ✓ | - |
| | XGT Series Cnet | ✓ | ✓ |
| Mitsubishi Heavy Industries, Ltd. | DIASYS Netmation MODBUS TCP | ✓ | - |
| | MHI STEP3 Ethernet | ✓ | - |
| Saia-Burgess Controls Ltd. | SAIA S-Bus SIO | ✓ | ✓ |
| MEIDENSHA Corporation | UNISEQUE Series Ethernet | ✓ | - |

| | | | |
|------------------------------|-------------------------------|---|---|
| FUNUC Ltd | Power Mate Series | ✓ | ✓ |
| Hitachi, Ltd. | S10V Series Ethernet | ✓ | - |
| | S10 Series SIO | ✓ | ✓ |
| TOSHIBA Machine Co., Ltd. | PROVISOR TC200 | ✓ | ✓ |
| TOSHIBA Corporation | Computer Link SIO | ✓ | ✓ |
| | Computer Link Ethernet | ✓ | - |
| Koyo Electronics Co., Ltd. | KOSTAC/DL Series CCM SIO | ✓ | ✓ |
| | KOSTAC/DL Series MODBUS TCP | ✓ | - |
| FATEC AUTOMATION Corporation | FB Series SIO | ✓ | ✓ |
| MODBUS IDA | General MODBUS RTU SIO Master | ✓ | ✓ |

| Temperature Controller | | | |
|---------------------------------|--------------------------------|--------|--------|
| Manufacturer | Series | GP3000 | ST3000 |
| Yamatake Corporation | Digital Controller SIO | ✓ | ✓ |
| RKC Instrument Inc. | Temp. Controller MODBUS SIO | ✓ | ✓ |
| | Temperature Controller | ✓ | ✓ |
| OMRON Corporation | Temp. Controller CompoWay/F | ✓ | ✓ |
| Shinko Technos Co., Ltd. | Controller SIO | ✓ | ✓ |
| YOKOGAWA Electric Corporation | Personal Computer Link SIO | ✓ | ✓ |
| CHINO Corporation | Temp. Controller MODBUS SIO | ✓ | ✓ |
| Fuji Electric Systems Co., Ltd. | Temp. Controller MODBUS SIO *1 | ✓ | ✓ |

| Inverter/ Servo | | | |
|---------------------------------|------------------------|--------|--------|
| Manufacturer | Series | GP3000 | ST3000 |
| Mitsubishi Electric Corporation | FREQROL Inverter *2 | ✓ | ✓ |
| Sanmei Electric Co., Ltd. | Si/CutyAxisSeries SIO | ✓ | ✓ |
| YASKAWA Electric Corporation | Inverter SIO *2 | ✓ | ✓ |
| Hitachi IES Co., Ltd. | Inverter ASCII SIO ※ 1 | ✓ | ✓ |
| | InverterModbus RTU ※ 1 | ✓ | ✓ |

| Fieldbus | | | |
|-----------------------------|----------------------------|--------|--------|
| Manufacturer | Series | GP3000 | ST3000 |
| PROFIBUS International | PROFIBUS DP Slave | ✓*3 | - |
| ODVA | DeviceNet Slave | ✓*3 | - |
| CC-Link Partner Association | CC-Link Intelligent Device | ✓*3 | - |

| Industrial Robot | | | |
|--------------------------|--------------------------|--------|--------|
| Manufacturer | Series | GP3000 | ST3000 |
| Hyundai Heavy Industries | Hi4 Robot | ✓ | ✓ |
| IAI Corporation | ROBO CYLINDER MODBUS SIO | ✓ | ✓ |
| | X-SEL Controller | ✓ | ✓ |

| Other Devices | | | |
|---------------------------------|------------------------------|--------|--------|
| Manufacturer | Series | GP3000 | ST3000 |
| Digital Electronics Corporation | Memory Link *4 | ✓ | ✓ |
| | General SIO *1 *5 | ✓ | ✓ |
| | General Ethernet *5 | ✓ | - |
| MODBUS IDA | General MODBUS TCP Master *1 | ✓ | - |

*1 These drivers are under development as of October 2008.

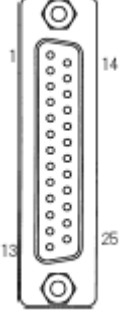
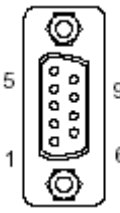
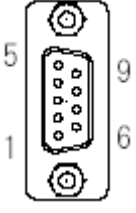
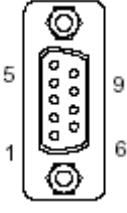
*2 GP-Pro EX V2.2 doesn't have these drivers. Please download from our web site "Otasuke Pro!"

*3 GP3000H doesn't support this connection.

*4 The product doesn't need to choose a host controller like PC, Microcomputer board, etc. It communicates via the storage space built into the main unit.

*5 A program driver for the send/receive command process by D-Script.

4.2 Shapes of COM ports

| | GP2000 Series | GP3000 Series |
|------|---|---|
| COM1 | D-Sub 25 pin (female) RS-232C/422 | D-Sub 9 pin (male) RS-232C/485 (422) compatible |
| |  |  |
| COM2 | D-Sub 9 pin (male) RS-232C | D-Sub 9 pin (female) RS-485 (422) compatible |
| |  * 2601T,2501S don't have COM2. |  |

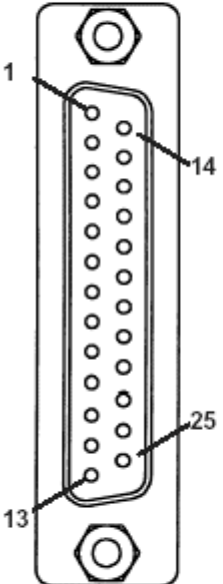
NOTE

The number of pins and signals of Serial Interface differ between GP2000 series and GP3000 Series. A wiring method at the time of replacement varies depending on a used connection device/PLC. Please check with [Connectable Controllers for GP3000 Series] of our support web site, [Otasuke Pro!];

<http://www.pro-face.com/otasuke/qa/gp3000/replace/connect/connect.php?rm=2>

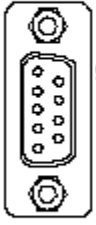
4.2.1 Signals on COM1

► GP2000 series (RS232C or 422)

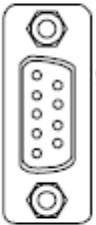
| Pin Assignments | Pin # | Signal Name | Condition |
|---|-------|-------------|---------------------------|
| <p>(D-Sub 25pin female)</p> <p>SIO</p>  | 1 | FG | Frame ground |
| | 2 | SD | Send data (RS-232C) |
| | 3 | RD | Receive data (RS-232C) |
| | 4 | RS | Request send (RS-232C) |
| | 5 | CS | Clear send (RS-232C) |
| | 6 | DR | Data Set Ready (RS-232C) |
| | 7 | SG | Signal ground |
| | 8 | CD | Carrier detect (RS-232C) |
| | 9 | TRMX | Termination (RS-422) |
| | 10 | RDA | Receive data A (RS-422) |
| | 11 | SDA | Send data A (RS-422) |
| | 12 | NC | No connection (Reserved) |
| | 13 | NC | No connection (Reserved) |
| | 14 | VCC | 5V±5% output 0.25A |
| | 15 | SDB | Send data B (RS-422) |
| | 16 | RDB | Receive data B (RS-422) |
| | 17 | RI | Ring Indicate (RS-232C) |
| | 18 | CSB | Clear send B (RS-422) |
| | 19 | ERB | Enable receive B (RS-422) |
| | 20 | ER | Enable receive (RS-232C) |
| | 21 | CSA | Clear send A (RS-422) |
| | 22 | ERA | Enable receive A (RS-422) |
| | 23 | NC | No connection (Reserved) |
| | 24 | NC | No connection (Reserved) |
| | 25 | NC | No connection (Reserved) |

► GP3000 series

RS232C

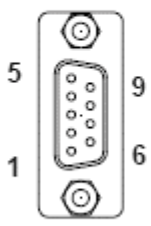
| Pin Arrangement | Pin No. | RS232C | | |
|---|---------|-------------|-----------|---|
| | | Signal Name | Direction | Meaning |
|  <p>(GP unit side)</p> | 1 | CD | Input | Carrier Detect |
| | 2 | RD(RXD) | Input | Receive Data |
| | 3 | SD(TXD) | Output | Send Data |
| | 4 | ER(DTR) | Output | Data 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 ² |
| | Shell | FG | - | Frame Ground (Common with SG) |

RS485 (422)

| Pin Arrangement | Pin No. | RS422/RS485 | | |
|---|---------|-------------|-----------|----------------------------------|
| | | 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) |

4.2.2 Signals on COM2

- GP2000 series (RS232C) * 2601T,2501S don't have COM2.

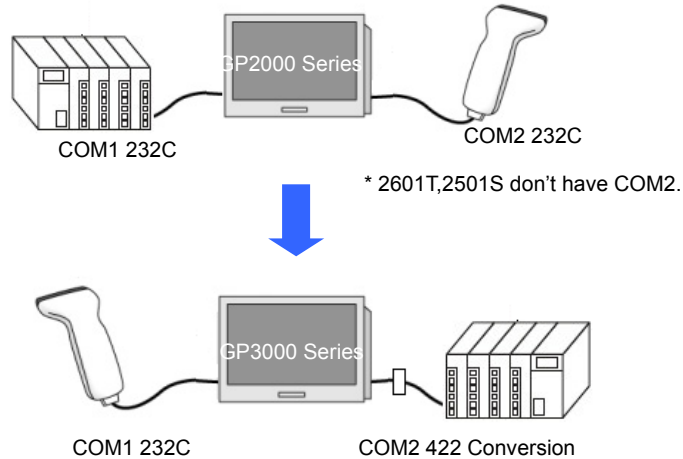
| Pin Assignments | Pin No. | Signal Name | Signal Direction | Condition |
|--|---------|-------------|------------------|---|
|  (D-Sub 9pin male) | 1 | CD | Input | Carrier detect (RS-232C) |
| | 2 | RD | Input | Receive data (RS-232C) |
| | 3 | SD | Output | Send data (RS-232C) |
| | 4 | ER | Output | Enable receive (RS-232C) |
| | 5 | SG | — | Signal Ground |
| | 6 | DR | Input | Data Set Ready (RS-232C) |
| | 7 | RS | Output | Request Send (RS-232C) |
| | 8 | CS | Input | Clear send (RS-232C) |
| | 9 | R/VCC | Input/Output | Ring Indicate (RS-232C) +5V±5% 0.25A |

- GP3000 series (RS485 (422))

| 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 DataB(-) |
| | 8 | SDB | Output | Send Data B(-) |
| | 9 | TRMTX | - | Termination (Receiver side: 100Ω) |
| | Shell | FG | - | Frame Ground (Common with SG) |

When connecting 2 devices whose connection interfaces are 232C to the GP2000 series...

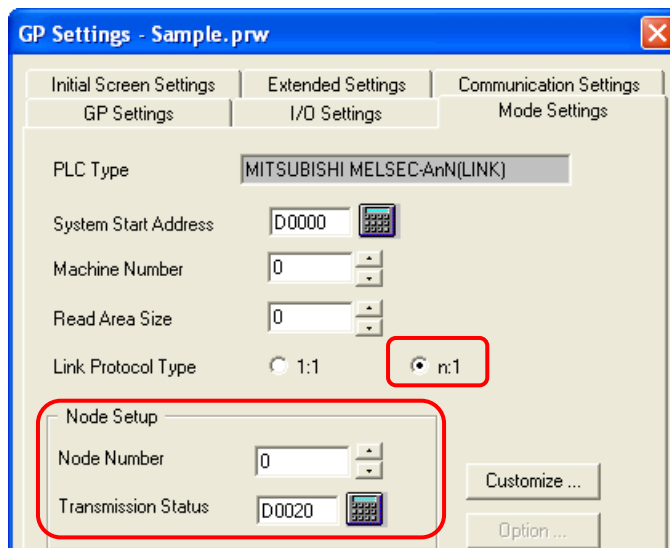
If you connected a device/PLC, whose connection interface is RS-232C, to the COM1 port on the GP2000 series and another device such as a barcode reader, whose connection interface is also RS-232C, to the COM2 port, connect the devices to the GP3000 series as below after conversion.



4.3 Multilink Connection

The GP3000 series does not support multilink connection via RS-422. If you convert a project file with the “n to 1” setting, it will be converted to the “1 to 1 connection” automatically.

- Settings on GP-PRO/PBIII for Windows



For the information on how to replace units with multilink connection, please contact the nearest Pro-face office.