

# Device/PLC Connection Manuals

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## About the Device/PLC Connection Manuals

Prior to reading these manuals and setting up your device, be sure to read the "Important: Prior to reading the Device/PLC Connection manual" information. Also, be sure to download the "Preface for Trademark Rights, List of Units Supported, How to Read Manuals and Documentation Conventions" PDF file. Furthermore, be sure to keep all manual-related data in a safe, easy-to-find location.

# PREFACE

Thank you for purchasing the GP Screen Editor Software, "GP-PRO/PB III for Windows Ver. 7.0" for use with Pro-face's GP series operator interfaces.

Please read this manual carefully in order to use this software properly, and be sure to keep this manual handy for future reference.

## NOTES

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Trademark / Trade Name	Right Holder
Microsoft, MS, MS-DOS, Windows, Windows 95, Windows 98, Windows Me, Windows XP, Windows NT, Windows 2000, Windows Explorer, Microsoft Excel	Microsoft Corporation, USA
Intel, Pentium	Intel Corporation, USA
Pro-face	Digital Electronics Corporation (in Japan and other countries)
Ethernet	Western Digital Electric Corporation, USA
IBM, VGA, IBM Compatible	International Business Machines Corporation (IBM), USA

The following terms differ from the above mentioned formal trade names and trademarks.

Term used in this manual	Formal Trade Name or Trademark
Windows 95	Microsoft® Windows®95 Operating System
Windows 98	Microsoft® Windows®98 Operating System
Windows Me	Microsoft® Windows®Me Operating System
Windows XP	Microsoft® Windows®XP Operating System
Windows NT	Microsoft® Windows NT® Operating System
Windows 2000	Microsoft® Windows®2000 Operating System
MS-DOS	Microsoft® MS-DOS® Operating System

# LIST OF SUPPORTED MODELS

The following table lists the models compatible with GP-PRO/PB III for Windows Ver.7.0. The following series names or product names are used in the descriptions contained in this manual.

## ■ List of Supported GPs

Series	Product Name	Model	GP Type	
GP70 series	GP-H70 series	GP-H70L	GP370L	
		GP-H70S	GP370S	
	GP-270 series	GP-270L	GP270-LG11-24V	GP270L
			GP270-LG21-24VP	
		GP-270S	GP270-LG31-24V	GP270S
			GP270-SC11-24V	
	GP-370 series	GP-370L	GP270-SC21-24VP	GP370L
			GP270-SC31-24V	
			GP370-LG11-24V	
		GP-370S	GP370-LG21-24VP	GP-370S
			GP370-LG31-24V	
			GP370-LG41-24VP	
	GP-470 series	GP-470E	GP370-SC11-24V	GP470
			GP370-SC21-24VP	
	GP-570 series	GP-570S	GP370-SC31-24V	GP570
			GP370-SC41-24VP	
			GP570-SC11	
		GP-570T	GP570-SC21-24VP	GP570VM
			GP570-SC31-24V	
		GP-570VM	GP570-TC11	GP571T
GP-571 series		GP-571T	GP570-TV11	GP675
	GP571-TC11			
GP-675 series	GP-675S	GP675-SC11	GP870VM	
		GP675-TC11		
GP-870 series	GP-675T	GP675-TC41-24VP	GP377L	
		GP870-PV11		
GP77 series	GP-377 series	GP377-LG11-24V	GP377S	
		GP377-LG41-24V		
	GP-377S	GP377-SC11-24V	GP37W2	
GP-37W2 series	GP377-SC41-24V	GP377R		
	GP-37W2B		TP37W2-BG41-24V	
GP77R series	GP-377R series	GP377R-TC11-24V	GP477R	
		GP377R-TC41-24V		
	GP-477R series	GP477R-EG11	GP577R	
		GP477R-EG41-24VP		
	GP-577R series	GP577R-SC11	GP577R	
GP577R-SC41-24VP				
GP577R-TC11				
	GP-577RT	GP577R-TC41-24VP		

Series		Product Name	Model	GP Type
GP2000H series	GP-2301H series	GP-2301HL	GP2301H-LG41-24V	GP2301HL
		GP-2301HS	GP2301H-SC41-24V	GP2301HS
	GP-2401H series	GP-2401HT	GP2401H-TC41-24V	GP2401H
GP2000 series	GP-2300 series	GP-2300L	GP2300-LG41-24V	GP2300L
		GP-2300S	GP2300-SC41-24V	GP2300S
		GP-2300T	GP2300-TC41-24V	GP2300
	GP-2301 series	GP-2301L	GP2301-LG41-24V	GP2301L
		GP-2301S	GP2301-SC41-24V	GP2301S
		GP-2301T	GP2301-TC41-24V	GP2301
	GP-2400 series	GP-2400T	GP2400-TC41-24V	GP2400
	GP-2401 series	GP-2401T	GP2401-TC41-24V	GP2401
	GP-2500 series	GP-2500L	GP2500-LG41-24V	GP2500L
		GP-2500S	GP2500-SC41-24V	GP2500S
		GP-2500T	GP2500-TC11 GP2500-TC41-24V	GP2500
	GP-2501 series	GP-2501L	GP2501-LG41-24V	GP2501L
		GP-2501S	GP2501-SC11	GP2501S
		GP-2501T	GP2501-TC11	GP2501
	GP-2600 series	GP-2600T	GP2600-TC11 GP2600-TC41-24V	GP2600
	GP-2601 series	GP-2601T	GP2601-TC11	GP2601

### ■ List of Supported GLCs

Series		Product Name	Model	GP Type
GLC100 series	GLC100 series	GLC100L	GLC100-LG41-24V	GLC100L
		GLC100S	GLC100-SC41-24V	GLC100S
GLC300 series	GLC300 series	GLC300T	GLC300-TC41-24V	GLC300T
GLC2000 series	GLC2300 series	GLC2300L	GLC2300-LG41-24V	GLC2300L
		GLS2300T	GLC2300-TC41-24V	GLC2300
	GLC2400 series	GLC2400T	GLC2400-TC41-24V	GLC2400*1
	GLC2500 series	GLC2500T	GLC2500-TC41-24V	GLC2500
			GLC2500-TC41-200V	
GLC2600 series	GLC2600T	GLC2600-TC41-24V	GLC2600*1	
		GLC2600-TC41-200V		

\*1 When selecting the GP Type from the Project Manager, be sure to check the Revision Seal on the back of your GLC unit for the Revision Code. If there is no code or the code is "1", select "Rev.\* None, 1". If your revision code is 2 or higher, select "Rev.\* Above 2". For details, refer to your GLC Series User Manual.

### ■ List of Supported STs

Series	Product name	Model	GP Type
ST400 series	ST 400	ST 400-AG41-24V	ST 400
	ST 401	ST 401-AG41-24V	ST 401
	ST 402	ST 402-AG41-24V	ST 402

### ■ List of Supported LTs

	Series	Type	Model	GP Type
LT series	LT Type A series	LT Type A1	GLC 150-BG41-XY32SK-24V	LT TypeA
		LTC Type A1	GLC 150-SC41-XY32SK-24V	LTC TypeA
		LT Type A2	GLC 150-BG41-XY32SC-24V	LT TypeA
	LT Type B/B+ series	LT Type B	GLC 150-BG41-FLEX-24V	LT TypeB/B+
		LT Type B+	GLC 150-BG41-XY32KF-24V	
		LTC Type B+	GLC 150-SC41-XY32KF-24V	LTC TypeB+
	LT Type C series	LT Type C	GLC 150-BG41-RSFL-24V	LT TypeC
	LT Type H series	LT Type H1	GLC 150-BG41-ADK-24V	LT TypeH
			GLC 150-BG41-ADPK-24V	
			GLC 150-BG41-ADTK-24V	
		LTC Type H1	GLC 150-SC41-ADK-24V	LTC TypeH
			GLC 150-SC41-ADPK-24V	
			GLC 150-SC41-ADTK-24V	
		LT Type H2	GLC 150-BG41-ADC-24V	LT TypeH
			GLC 150-BG41-ADPC-24V	
GLC 150-BG41-ADTC-24V				

### ■ List of Supported Factory Gateway

Product name	Model	GP Type
Factory Gateway	FGW_SE41_24V	Factory Gateway FGW-SE



**Note:** To use the GPWeb and GPViewer functions with the Factory Gateway, you must have GPPRO/PB III C-Package02 or later installed.

# HOW TO USE THIS MANUAL

## ■ Structure of this Manual

The "Tag Reference manual" is the second of four manuals for this product, and explains how to use the "GP-PRO/PB III for Windows Ver. 7.0" software (hereafter referred to as "this product"). Please refer to all of these manuals when using this product.

In addition to these manuals, data files containing supplemental information on updated functions are also provided.

To read these files, click on the [Start] button in your Windows OS main screen and select the [Programs]→[Pro-face]→[ProPB3Win] menu. Then click on the [Read Me] selection.

For detailed information about GP series products, please refer to each GP's "User Manual". (Optionally available)

<b>Vol. 1</b>	<b>Operation Manual</b>	Describes this product's operation procedures and all standard functions. (provided as PDF data)
<b>Vol. 2</b>	<b>Tag Reference Manual (This Manual)</b>	Describes the functions and detailed settings for all GP-PRO/PBIII Tags. (provided as PDF data)
<b>Vol. 3</b>	<b>Parts List</b>	Describes this product's pre-made Parts and symbols. (provided as PDF data)
<b>Vol. 4</b>	<b>Device/PLC Connection Manual</b>	Describes the methods for connecting the GP to other, supported manufacturer Device/PLCs. (provided as PDF data)

Screen Data Layout Sheets are useful for designing tag address settings, etc. and example sheets are installed as part of the GP-PRO/PBIII for Windows standard installation.

The following two layout sheets, "Device Allocation Table" and "Tag Layout Sheet", are in Microsoft Excel format and are located in the PDF Manual CD-ROM.

The following folder and file names are used.

<b>Folder Name</b>	<b>File Name</b>	<b>Contents</b>
Pro-face\ propbwin\sheet	Device1E.xls	Device Allocation Table
	TAG1E.xls	Tag Layout Sheet
	TAG2E.xls	
	TAG3E.xls	
	TAG4E.xls	

For information on the use of Microsoft Excel, please refer to the Excel software's User Manual.

## ■ Designation of Supported Models

The functions and settings supported by each model may vary depending on the supported models. In this manual, explanations given are based on the variation of the "Series" and "Product name" described in the "List of Supported Models".

## WHEN USING GLC2000 SERIES UNITS

- GLC2000 Series units are equipped with the same features as GP2000 units, with the addition of control-related features. As a result, please change the word “GP” to “GLC” when reading this manual. However, please remember that GLC Series units cannot use AUX output or Sound output. Be sure to understand this manual thoroughly before using your GLC unit.
- For information concerning Logic Program creation and editing, refer to Pro-Control editor's manuals and online help.

## WHEN USING ST SERIES UNITS

ST Series units are functionally equivalent to GP2301L Series units. In this manual, you can use the terms “ST” and “GP” interchangeably. When GP2000 Series usage restrictions are noted, change the term “GP2000 Series” to “ST” series. When detailed GP- 2301L restrictions are noted, change the term “GP- 2301L” to “ST”. However, ST units have certain restrictions owing to hardware specification differences with GP-2301L units. Be sure to understand this manual thoroughly before using your ST unit. For information about features not available with your ST unit, **▼Reference▲** *Operation Manual [GENERAL GP RESTRICTIONS] section, Operation Manual 2.11.2 Restrictions*

## WHEN USING LT SERIES UNITS

- 64-color-type LT Series units are functionally equivalent to GP70 Series GP-377S Series units, and Monochrome-type LT Series units are functionally equivalent to GP-377L Series units. When GP70 Series usage restrictions are noted, interchange the term “GP70 Series” with “LT”. When detailed GP-377S/ GP-377L restrictions are noted, 64-color-type LT Series units can be read as GP70 Series GP-377S Series units and Monochrome-type LT Series units can be read as GP-377L Series units.
- Only LT Type C Series units can be connected to a Temperature Controller, Servo, Inverter or Analyzer. (Using the serial-type interface. See LT Series Unit User Manual.)  
For a complete list of all connectable Devices (Temperature Controllers, Servos, Inverters or Analyzers) **▼Reference▲** *GP-PRO/PBIII for Windows Device Connection Manual*.
- For information concerning Logic Program creation and editing, refer to Pro-Control editor's manuals and online help.



# MANUAL SYMBOLS AND TERMINOLOGY






This manual uses the following symbols and terminology.

If you have any questions about the contents of this manual, please contact your local GP distributor.

Also, If you have any question about your personal computer or Windows, please contact your PC distributor or manufacturer.



## ■ Safety Symbols and Terms

This manual uses the following symbols and terms to identify important information related to the correct and safe operation of this product.

Symbol	Description
 <i>Warning</i>	Indicates a potentially hazardous situation that could result in serious injury or death.
 <i>Caution</i>	Indicates a potentially hazardous situation that could result in minor injury or equipment damage.
 <i>Important</i>	Indicates a potentially damaging action or dangerous situation that could result in abnormal equipment operation or data loss.
 <i>Careful!</i>	Indicates instructions or procedures that must be performed to ensure correct product use.
	Indicates instructions or procedures that must not be performed.

## ■ General Information Symbols and Terms

This manual uses the following symbols and terms for general information.

Symbol	Description
	Provides hints on correct product use, or supplementary information.
	Indicates an item's related information (manual name, chapter, section, sub-section).
 	Refers to keys on the computer keyboard. ■ <i>Keyboard Compatibility List</i>
<b>IBM Compatible</b>	Indicates a PC that can run the Windows® operating system.
<b>PLC</b>	PLC (Programmable Logic Controller, sequencer), including thermoregulator, inverter, etc.
<b>GP</b>	Generic name for the "GP Series" of programmable operator interface made by the Digital Electronics Corporation. For a list of compatible GP products please see "Compatible Products and Environmental Specifications". <i>LIST OF SUPPORTED MODELS ■ List of Supported GPs</i>
<b>GLC</b>	Generic name for the GLC Series of Graphic Logic Controllers made by Digital Electronics Corporation. <i>LIST OF SUPPORTED MODELS ■ List of Supported GLCs</i>
<b>ST</b>	Generic name for the ST Series of Programmable Operator Interface made by Digital Electronics Corporation. <i>LIST OF SUPPORTED MODELS ■ List of Supportetd STs</i>
<b>LT</b>	Generic name for the LT Series of Graphic Logic Controllers made by Digital Electronics Corporation. <i>LIST OF SUPPORTED MODELS ■ List of Supported LTs</i>

The meaning of symbols used in the section titled "Supported Devices" in Chapter 2 and Chapter 5 are described below.

	Setup the address as Octal
	Word address' bottom column bit can only be set to 0
	Word address can only be set to multiples of 16
	Word address can only be set to multiples of 16 + 1
	Word address can only be set to even numbers
	Word address can only be set to multiples of 8
	Bit setup possible. After the word address, set the bit position, from 0-15
	Bit setup possible. After the word address, set the bit position, from 0-F
	Bit setup possible. After the word address, set the bit position, from 0-7
	Bit setup possible. After the word address, set the bit position, from 0-31
	When using 2 words (32 bit data), the relationship between the top and bottom data is: <div style="display: flex; align-items: center; margin-left: 20px;"> <div style="margin-right: 5px;">0</div> <div style="border: 1px solid black; padding: 2px;">L (low pos.)</div> </div> <div style="display: flex; align-items: center; margin-left: 20px;"> <div style="margin-right: 5px;">1</div> <div style="border: 1px solid black; padding: 2px;">H (high pos.)</div> </div>
	When using 2 words (32 bit data), the relationship between the top and bottom data is: <div style="display: flex; align-items: center; margin-left: 20px;"> <div style="margin-right: 5px;">0</div> <div style="border: 1px solid black; padding: 2px;">H (high pos.)</div> </div> <div style="display: flex; align-items: center; margin-left: 20px;"> <div style="margin-right: 5px;">1</div> <div style="border: 1px solid black; padding: 2px;">L (low pos.)</div> </div>

The device ranges listed in the sections titled "Supported Devices" are the maximum setup ranges. The ranges may be smaller than illustrated, depending on your PLC type. For further details, refer to the corresponding PLC manual.

Setup the System Area in the devices that are shaded.

**Reference** *For information on System Area, refer to "1.1 Communication Method"*