General Specifications

GS 05G01B12-01E

Model LL100
PC-based Parameters Setting Tool
(with Multi-monitoring Function)

NEW GREEN SERIES

General

The LL100 PC-based Parameters Setting Tool is a software package used to set the setup parameters, operating parameters, and program patterns of the GREEN Series controllers from a personal computer. This tool allows users to download, upload, print out parameters, and display PV trend data during PID tuning, etc.*

The multi-monitoring function can detect two or more controllers automatically, and can display or save trend data like PV, etc.

*: For program controllers only.

Parameters (Program) Setting Functions

Sets and changes the controller's parameters such as the controller mode (UT/UP mode), universal input/output selection, setup parameters, operating parameters, and program pattern parameters* (program/start conditions and patterns).

Note: Uploading/downloading/comparing parameters via Ethernet is impossible for the controller operated by custom computation function (UT mode 21 or UP mode 21). Use front communication or serial terminal communication.

*: For program controllers only.

Tuning Function:
This function is used to tune the PID parameters of the controllers. The PID parameters can be tuned and the auto-tuning function can be executed while the trend graphs of PV, SP, and control output are being displayed on a personal computer screen.

Downloading, Uploading, and Comparing Parameters:
When the controller operation is stopped, users can download the created parameter data to the controller and upload the parameter data from the controller. It is also possible to compare the parameter data created using this tool with the data in the controller.

File Management Function:
This function allows users to save the parameter data created using this tool and those uploaded from the controller to the hard disk of a personal computer or a floppy disk. It is also possible to compare the parameter data created using this tool with those in the parameter files created in the past.

Printout Function:
Parameter data can be printed out from a printer connected to a personal computer.

Multi-monitoring Function

This function allows users to display and collect PV, SP, control output and alarm generating state as trend data. It is possible to detect two or more controllers (a maximum of 16 loops) connected to the personal computer automatically, and to display trend graphs on a personal computer screen.

Tuning Function:
This function is used to tune the PID parameters of the controller. The PID parameters can be tuned, the auto-tuning function can be excuted for every connection loop and an operating mode can be changed while the trend graphs of PV, SP and control output are being displayed on a personal computer screen.

File Management Function:
The trend data collected by the monitoring function can be saved as a CSV format so that commercial spreadsheet software like Microsoft Excel can treat data. The saved trend data can be read and displayed as trend graph.

Parameter Setting Function for Ethernet Converter

Sets the parameters related to the Ethernet communication function of the Ethernet/RS485 converter, VJET.

Applicable Controllers

UT750 Digital Indicating Controller
UT551 Digital Indicating Controller
UT551-xA to xD Digital Indicating Controller
UT550/520 Digital Indicating Controller
UT450/420 Digital Indicating Controller
UT351/321 Digital Indicating Controller
UT351-xA Digital Indicating Controller
UT350/320 Digital Indicating Controller
UP750 Program Controller
UP550 Program Controller
UP351 Program Controller
UP350 Program Controller

Functions Restricted by Communication Method

Function \ Communication method	Front communication	Serial terminal communication	Ethernet communication
Paramerter setting	✓	✓	Cond.
Program pattern setting	✓	✓	Cond.
Multi-monitoring function	✓	✓	✓

✓: Available.

Cond.: Not available wthen operated by custom computation function (UT mode 21 or UP mode 21).

YOKOGAWA
Yokogawa Electric Corporation

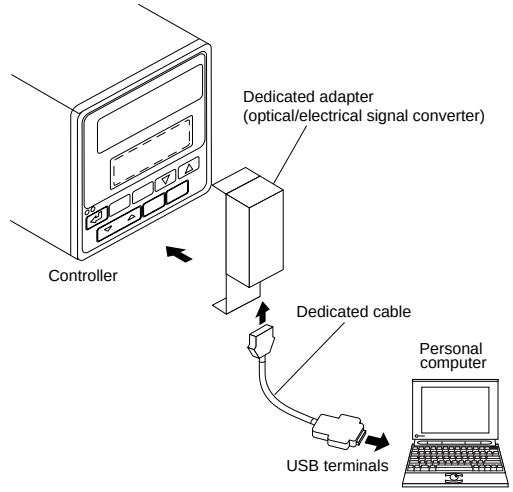
GS 05G01B12-01E

8th Edition Nov. 2006(KP)

■ Connection between the Controller and a Personal Computer

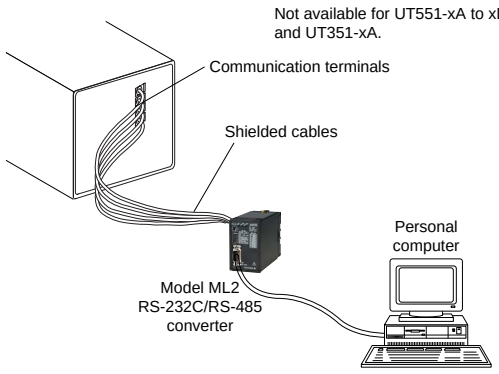
[Via Dedicated Adapter]
By attaching a dedicated adapter to the controller's front panel, users can upload and download parameter data to and from a personal computer.

To communicate via the dedicated adapter:

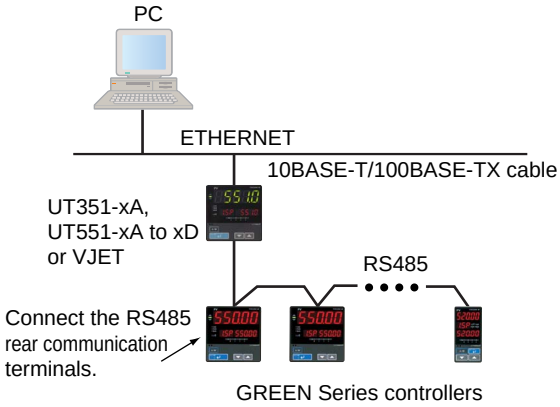


[Via RS-485 Communication Terminals]
Users can also upload and download parameter data to and from a personal computer via the rear communication terminals of the controller. This connection requires an RS-232C/RS-485 converter (ML2).

To communicate via the communication terminals:



[Via Ethernet Communication Terminal]
The UT351-xA/UT551-xA to xD controllers can communicate with a personal computer via the Ethernet communication terminal. Connect a personal computer and a communicable network using a cable that meets the 10BASE-T/100BASE-TX standards. Also, the UT351-xA/UT551-xA to xD controllers and VJET converter can use the Ethernet-serial gateway function to communicate with the GREEN Series controllers equipped with the communication functions via network. In this case, cross-connect the rear communication terminals of the UT351-xA/UT551-xA to xD/VJET and of the GREEN Series controllers.



■ Operating Environment

Personal Computer:

Windows 2000/XP-enabled IBM PC/AT compatible machine
Operating system: Windows 2000 (Professional)/XP (Home Edition/Professional)
CPU: 300-MHz Pentium processor or superior is recommended.
Main memory: 128 MB minimum is recommended.
Hard disk: Memory space required to store the tool's programs; 10 MB
Memory space required to store the parameter data; 2 MB minimum
Memory space required to store the driver for USB-Serial converter; 1 MB
CRT display: 800 × 600 pixels or superior
Smaller fonts should be used.
Should be capable of handling at least 256 colors.
USB communication port: One channel (COM1 to COM16), with SeriesA connector, compliant with USB Specification Rev1.1.
Network: 10BASE-T/100BASE-TX (required for Ethernet communication)
CD-ROM drive: Required for installation.
Printer: Required for printing. Windows 2000/XP-compatible A4-size printer

Dedicated Adapter

Communication method:
Controller side; optical, contactless, bidirectional serial communication
Personal computer side; compliant with USB Specification Rev1.1
Power supply: Supplied from USB bus power (no internal battery)
Input rating; 4.4 to 5.25 V DC, 100 mA (including a dedicated cable)
* No plug for external power source, no power switch
Ambient temperature range: 0 to 50°C
Ambient humidity range: 20 to 90% RH (no condensation)
Transport and storage conditions: -20 to 65°C, 10 to 90%RH (no condensation)
Dust- and water-proof construction: Not applied.
Standard: CE Marking (EMC only)

Dedicated Cable

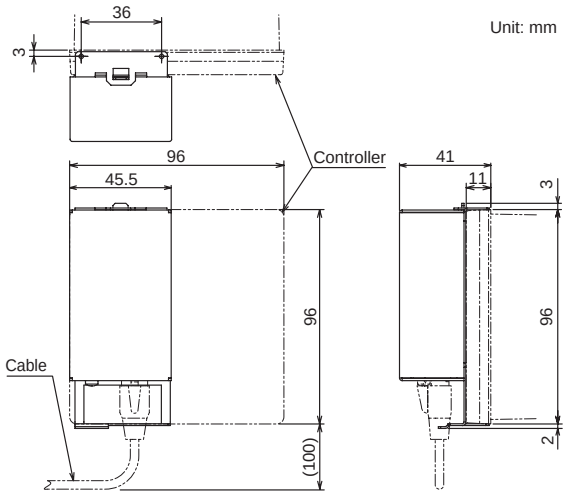
Built-in USB-Serial converter
Personal computer side: USB SeriesA plug
Adapter side: RJ45 (8-pin) plug
Cable length: Approx. 2.7 m

■ Packaged Contents

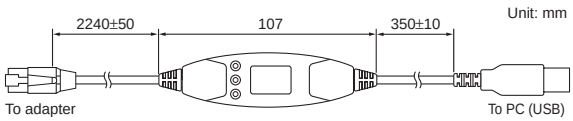
CD (2 disks):
LL100/USB converter driver software (1 disk)
User's Manual (Reference) (CD version) (1 disk)
Dedicated adapter and dedicated cable:
For connecting a personal computer to optical communication interface on the front of controller (1 set)

■ External Dimensions

Dedicated Adapter



Dedicated Cable



■ Model and Suffix Codes

Model	Suffix code	Description
LL100		PC-based Parameters Setting Tool
	-U10	Model for use with IBM PC/AT compatible machine (common to English and Japanese version), USB connection

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