SGADVANCE

& SGSample

For equipment (controller) connection

Quick Manual

SIGMA KOKI CO,.LTD.

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１．RS232C connection

①Setting of Device (controller)

Set the memory switch for RS232C.

■SHOT-XXX

Memory switch item	Setting value
INTERFACE	RS232C
BAUDRATE	4800/9600/19200/38400 ··· Select one
DELIMIT	CR/LF/CRLF ··· Select one

Fixed parameters：DataBits=8、Parity=None、StopBits=1、FlowControl=Hardware

■HIT-M/PGC-04(U)/HSC-103

Memory switch item	Setting value
INTERFACE	RS232C
RS232C_FLOW	ON/OFF ··· Select one
Baudrate	4800/9600/19200/38400/57600 ··· Select one

Fixed parameters：DataBits =8、Parity=None、StopBits=1、Derimiter=CRLF

■GIP-101B

Memory switch item	Setting value
BAUDRATE	4800/9600/19200/38400 ··· Select one

Fixed parameters：DataBits =8、Parity=None、StopBits=1、FlowControl=Hardware、Derimiter =CRLF

■GIP-101/101A

There is no memory switch, Budrate and Delimiter can change the DIP switch of the main body, except for themAll parameters are fixed.

Fixed parameters：DataBits =8、Parity=None、StopBits=1、FlowControl=Hardware

■GSC-01/GSC-02

There is no memory switch, all parameters other than Baudrate are fixed parameters.

Fixed parameters：DataBits =8、Parity=None、StopBits=1、FlowControl=Hardware、Derimiter =CRLF

GSC-01 ··· You can change Baudrate with the setting program (4800/9600/19200/38400)

※"Setting program" for GSC - 01 can be downloaded from the Web.

GSC-02···Baudrate can be changed with the DIP switch on the main unit.

(2400/4800/9600/19200)

※□ is the default value

②Setting of PC

In the Device Manager of Control Panel, check the available COM ports.

⊟-🖳 Port　(COM　LPT)
　　　📠 ECP Printer Port　　　(LPT1)
　　　📠 USB Serial Port (COM4)
　　　📠 Comm..Port　(COM1)
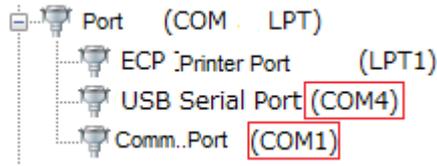
　　　　※In the above figure, COM1 and COM4 can be used.

When there is no RS232C terminal on the PC, use the RS232C by using "USB serial converter"
In that case, you can use the device driver attached to "USB serial converter"
Please install and confirm the usable COM port as shown above.
※Since PGC - 04, HSC - 103, and GIP - 101 B perform USB serial conversion inside the main body,
You need to download and install the device driver from the web.

③Setting of Software
　【SGSample】
After selecting the controller and stage in Step 1 and Step 2, make communication settings in Step 3.
Select the COM port to be used as the connection destination, set the communication speed and delimiter to the same settings as the controller to be used.
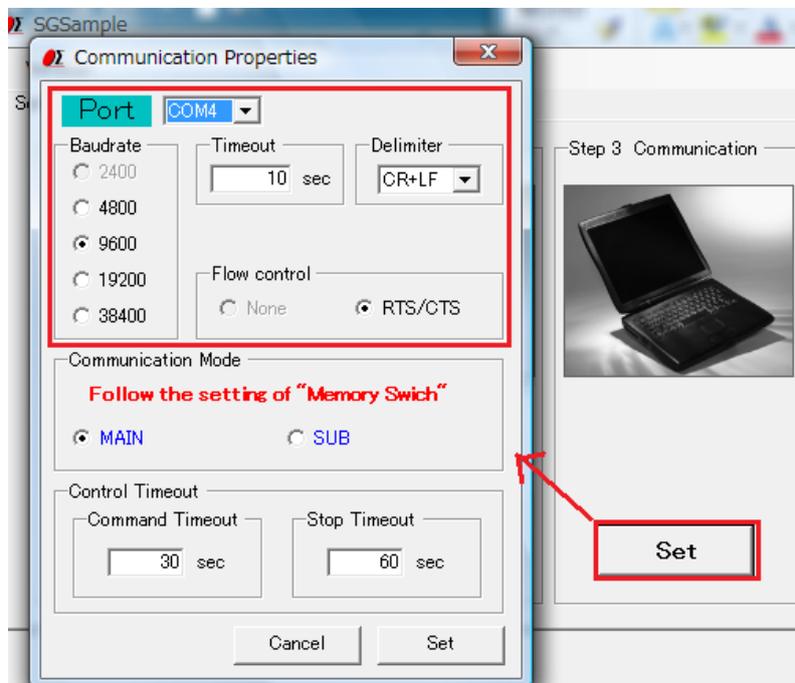
* Usually, "Timed out time" is not necessary to change in particular.

After completing communication setup, perform communication test in step 4.
In the communication test, if you click "Connect" button and "Result" becomes "OK", connection is completed.
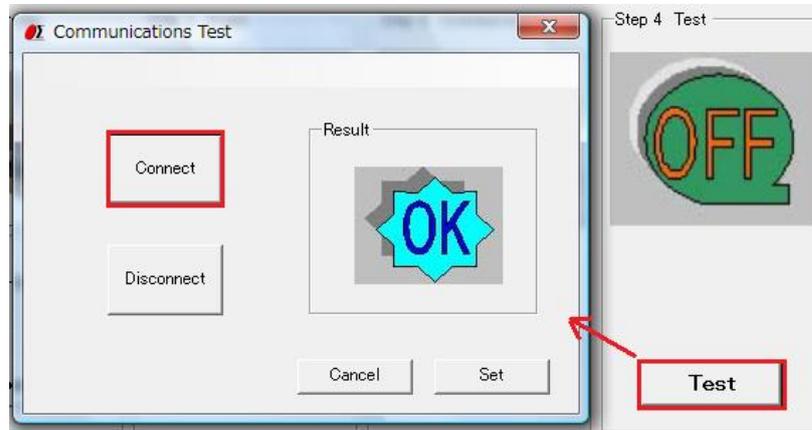
【SGADVANCE】

Select the registered controller and click the "Setting" button to display the "Device Settings" screen open.
In "Device setting", select "RS232C" for the interface and use COM Select the port and click the "Communication " button.
In the "RS232C_Settings" screen, make the same setting as the controller that uses the communication conditions.
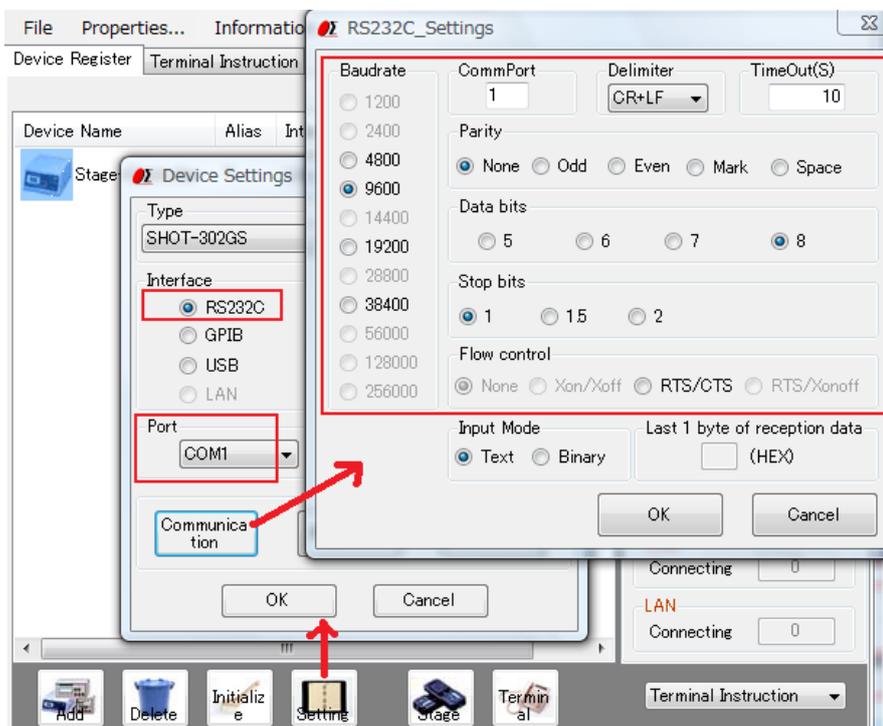
※Usually "Timeout (S)" need not be changed.

After communication setting is completed, click "Communication Test" button on the "Device Settings" screen to open the "Communication Test" screen.
For "Communication Test", enter "!:" In "Sent character string" and click "Test (Connect)" button. If "R", "0, 0, 0, 0" etc. are displayed in the reception result and "Test result" becomes "OK", connection is completed.
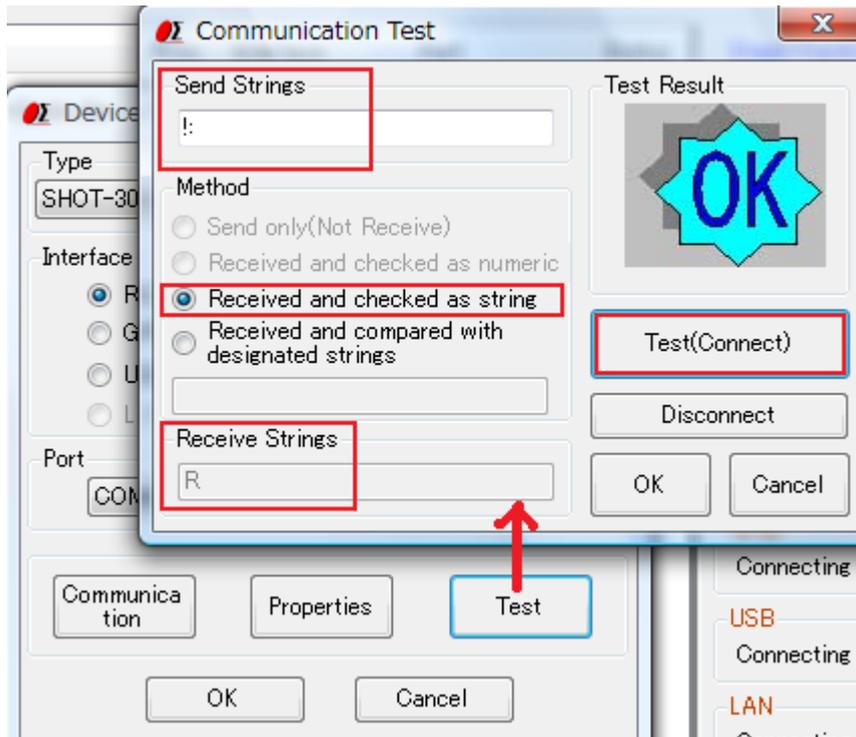
２．GPIB connection

①Setting of Device (controller)

Set the memory switch for GPIB.

■SHOT-XXX

Memory switch item	Setting value	
INTERFACE	GPIB	
DELIMIT	CR/LF/CRLF/EOI	··· Select one
GP-IB ADDR	1～30	··· Select one

※   is the default value

②Setting of PC

In the device manager of the control panel, check whether GPIB is usable.
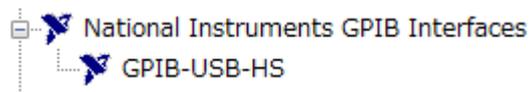
※In the above figure, GPIB-USB-HS can be used.

The GPIB interface available for SGADVANCE is made by **National Instruments**.
To use GPIB, install the National Instruments device driver and make sure that GPIB is available as shown above.

③Setting of Software

【SGSample】

GPIB can not be used with SGSample.

【SGADVANCE】

Select the registered controller and click the "Setting" button to open the "Device Settings" screen.

In "Device Settings" select interface "GPIB", select the address to use for the connection destination, and click the "Communication " button.

On the "GPIB_Settings" screen, make the same setting as the controller that uses the communication conditions.

※Make the delimiter the same setting as the controller. When EOI is selected, set "EOI" to "Enable".

　You do not need to change other settings in particular.
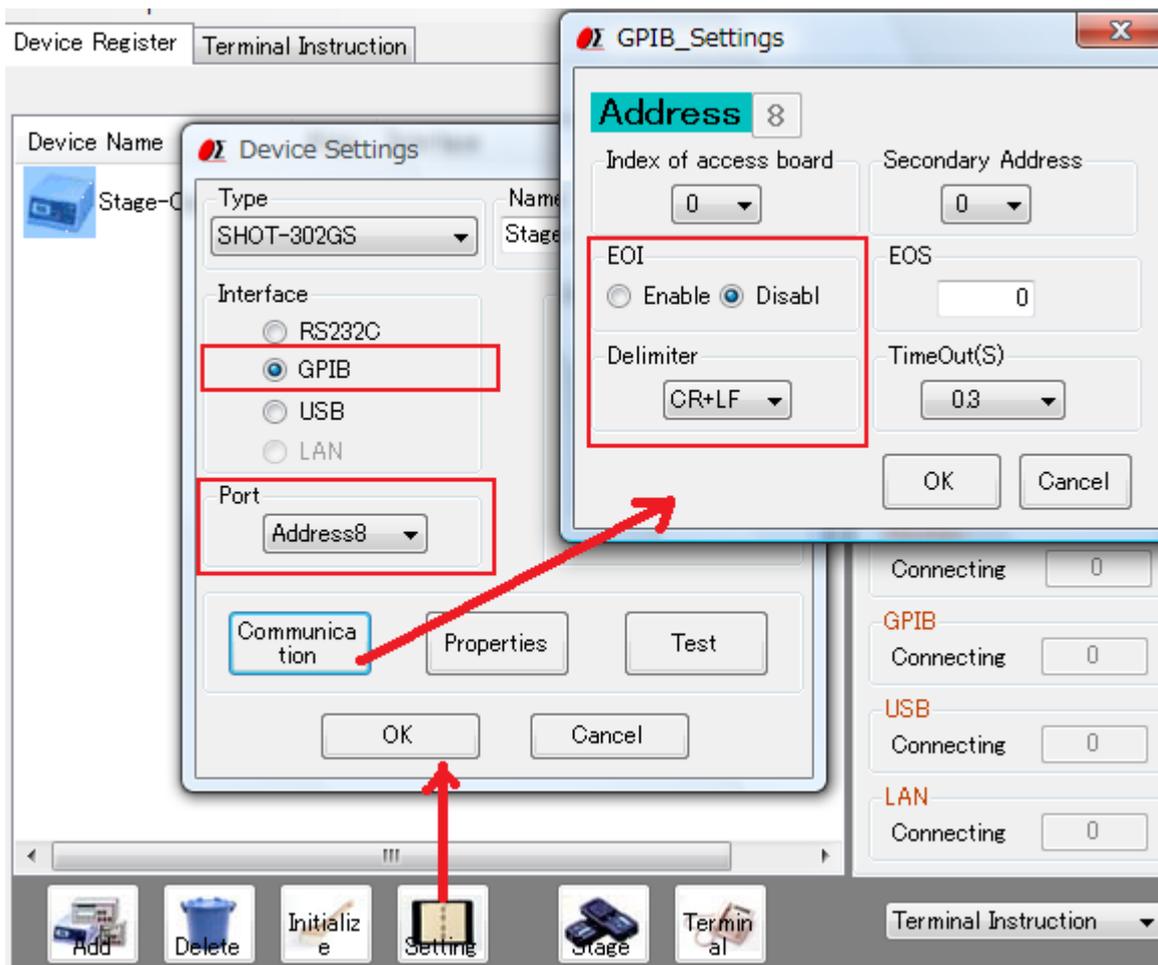
After communication setting is completed, click " est" button on the "Device Settings" screen to open the "Communication Test" screen.

In "Communication Test", enter "!:" In "Sent character string" and click "Test (Connect)" button.

If "R" is displayed in the reception result and "Test result" becomes "OK", connection is completed.
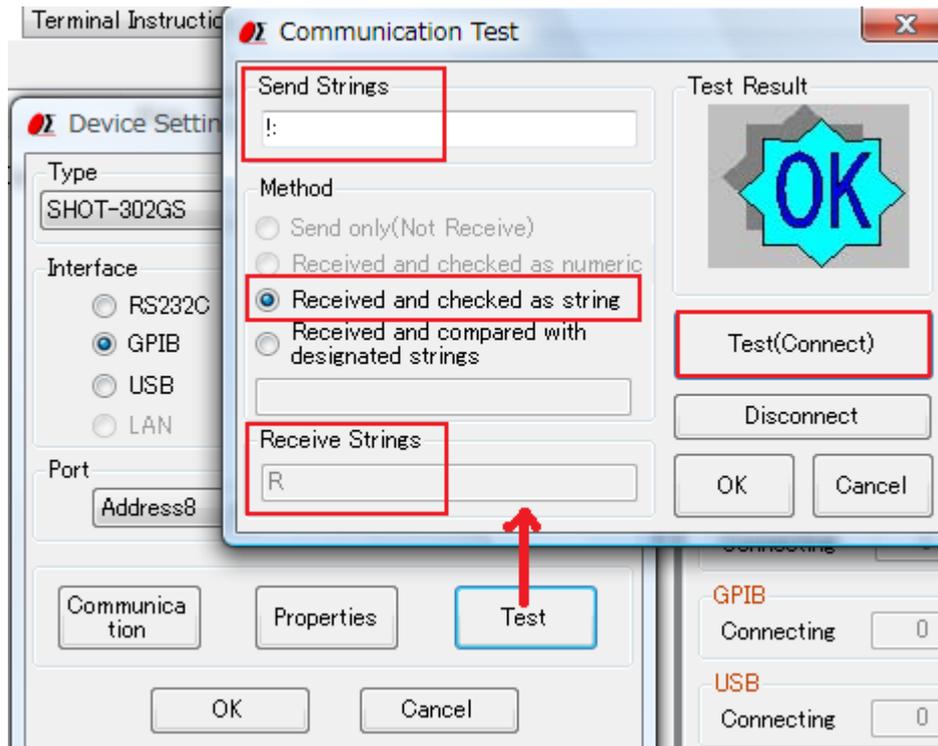
３．TCP/IP connection

①Setting of Device (controller)

Set the memory switch for TCP/IP.

■HIT-M/PGC-04(U)/HSC-103

Memory switch item	Setting value
INTERFACE	Etrnet

The IP address defaults to 192.168.0.1 (IP address can not be changed by memory switch)

Set the IP address of the main unit with **SGSample**.

※If you use the default IP address (192.168.0.1), you do not need to change it with SGSample.

※"SGSample" can be downloaded from the website of Sigma Koki.

※When setting the IP address, the segment of the IP address of the main unit and the segment of the IP address of the PC must be the same (communication can not be made unless it is the same segment).
Since the default IP address of the main unit is **192.168.0.1**, the IP address of the PC to be used must be **192.168.0.□** (□ is 2 to 255 and not used elsewhere).
If the IP address of the PC is other than **192.168.0.□**, first set the PC in ②.

Start **SGSample**, select "LAN" on the communication setting screen and click the "Settings" button.
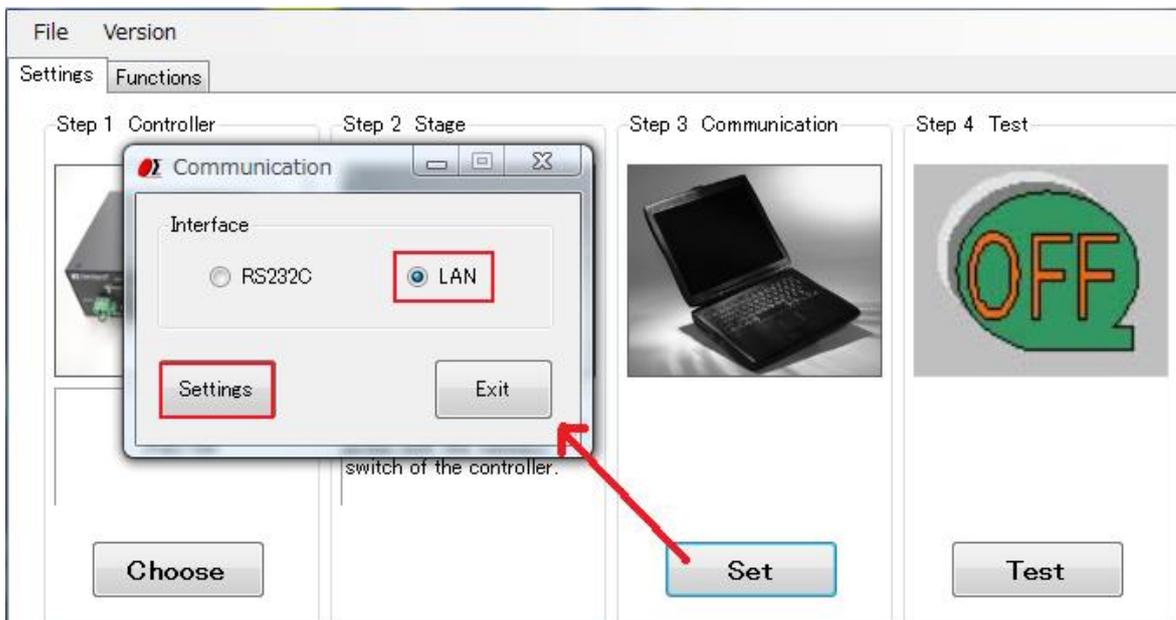
Set the current IP address to "Host name" and click " setting" button.
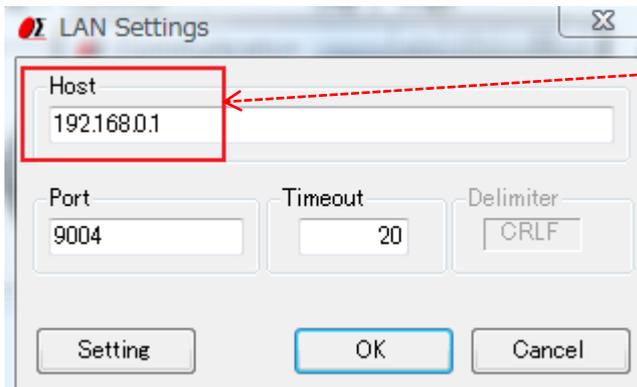
Set the controller's current IP address.

Please note that it is not an address to change.

In the setting change screen, enter the IP address to change and click "OK".
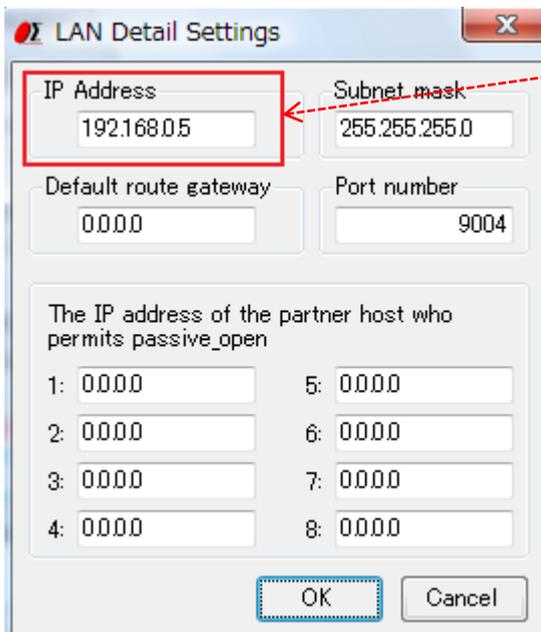
Set the IP address to be changed.

②Setting of PC

Display the Ethernet status on the control panel network and the Internet.
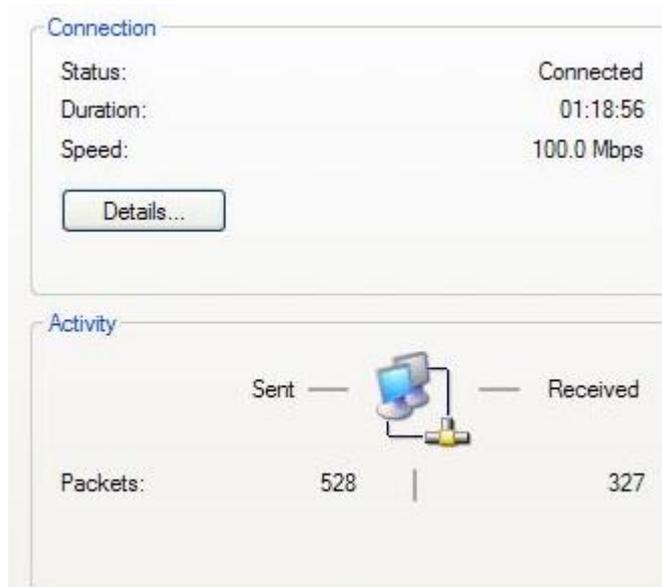
When you click the "details" button, details of the network continuation are displayed and the current IP address is displayed in "IPv4 address", so confirm.
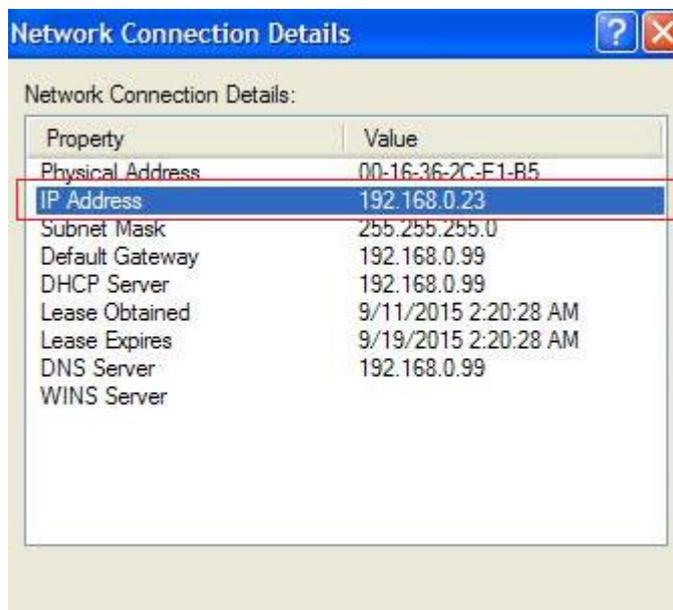
If the segment of the PC's IP address (192.168.0. □) is the same as the controller, there is no need to change it, but if it is different, change it.

When you click "Properties" on the "Ethernet status" screen, the "Ethernet Properties" screen will be displayed. Select "Internet Protocol Version 4 (TCP / IPv4)" and click "Properties".

This connection uses the following items:

☑ ⌐ NWLink NetBIOS
☑ ⌐ NWLink IPX/SPX/NetBIOS Compatible Transport Prot
☑ ⌐ Internet Protocol (TCP/IPv4)

Install...   Uninstall   Properties
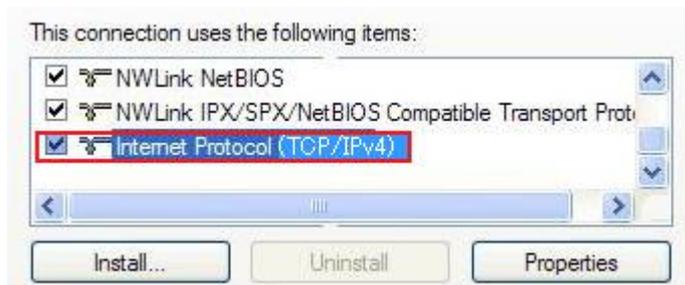
To set the IP address to 192.168.0.2, set as shown below.

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically
⦿ Use the following IP address:

IP address: 192 . 168 . 0 . 2
Subnet mask: 255 . 255 . 255 . 0
Default gateway: .   .   .

○ Obtain DNS server address automatically
⦿ Use the following DNS server addresses:

Preferred DNS server: .   .   .
Alternate DNS server: .   .   .

Advanced...

OK   Cancel

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Display the command prompt window, enter the address of the controller of the connection destination with the ping command, and confirm that there is a response. If there is a response, the connection is OK.

③Setting of Softwere
【SGSample】
Perform communication test in step 4.
In the communication test, if you click "Connect" button and "Result" becomes "OK", connection is completed.
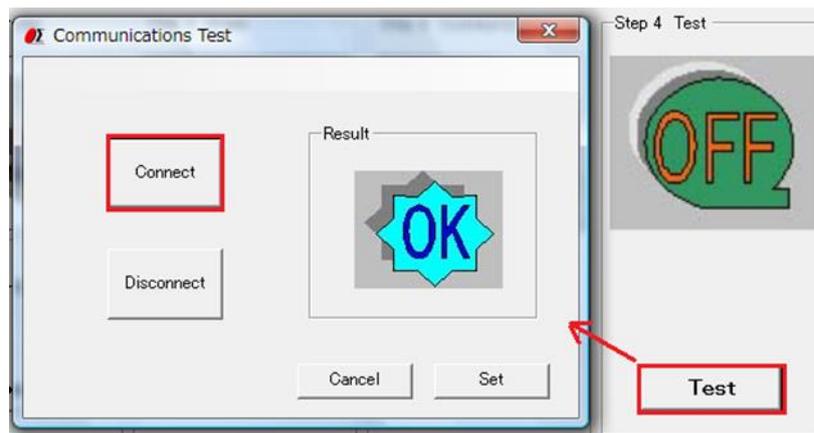
※ If you changed the IP address using SGSample version 1.1.8 or later,
Change history is automatically generated in the folder where SGSample is installed.
HIT-M -> IP_HIT.txt
PGC-04 -> IP_PGC04.txt

【SGADVANCE】

Select the registered controller and click the "Setting" button to open the "Device Settings" screen.

In "Device Settings" select interface "LAN" and click "Communication " button.

On the "LAN_Settings" screen, set the IP address of the controller to be used.

※As multiple devices can not be connected via TCP / IP connection, "Connection destination" is always LAN1.
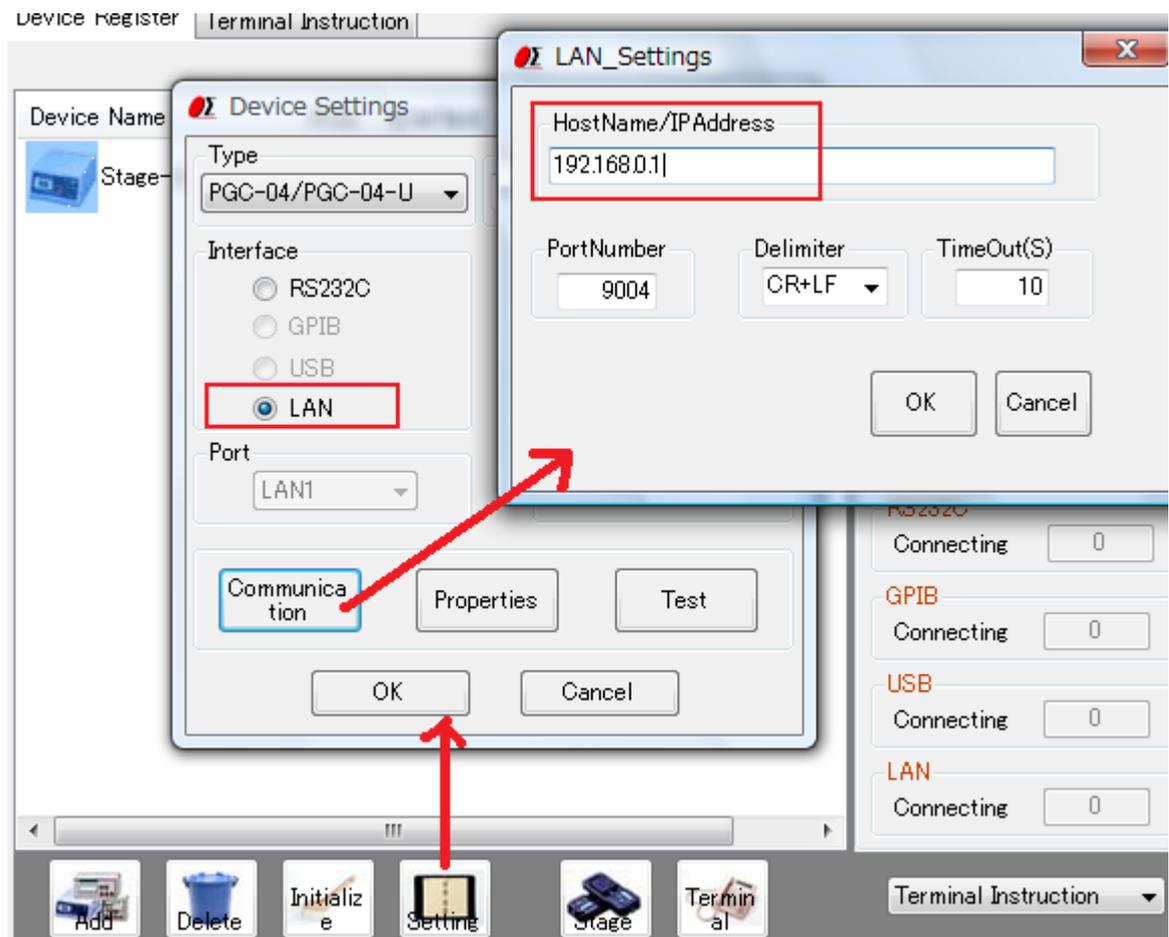
After the communication setting is completed, Click the " Test" button on the "Device Settings" screen to open the "Communication Test" screen.
In "Communication test", enter "!:" In "Sent character string" and click "Test (Connect)" button.
If "0, 0, 0, 0" etc. are displayed in the reception result and "Test result" becomes "OK", connection is completed.
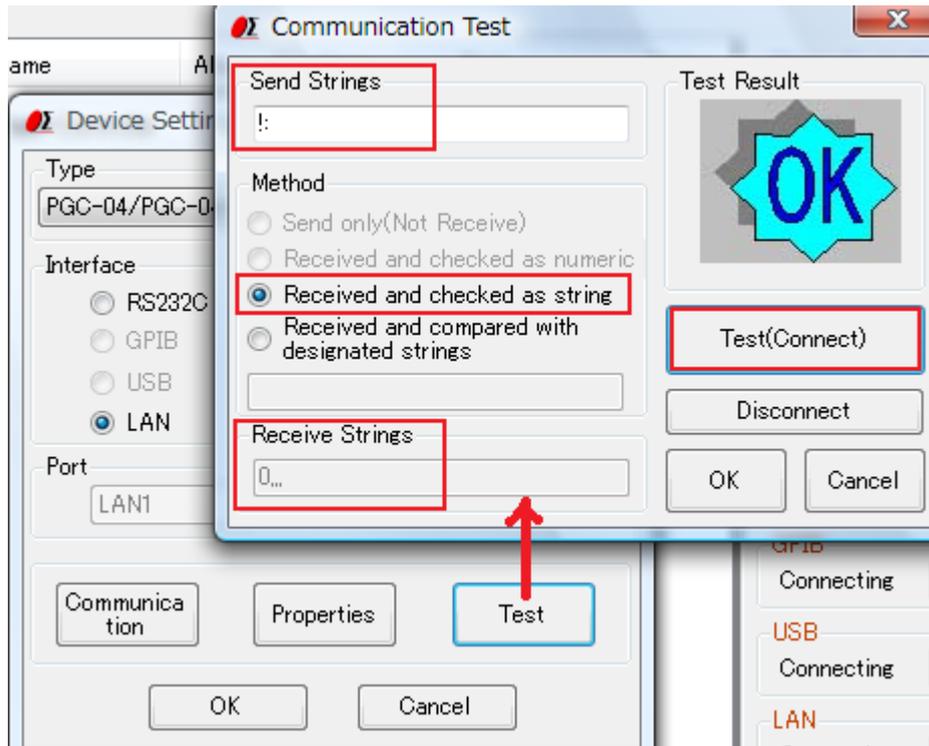
４．USB connection

①Setting of Device (controller)

Set the memory switch for USB.

■SHOT-XXX

Memory switch item	Setting value
INTERFACE	USB

■HIT-M/PGC-04(U)/HSC-103

Memory switch item	Setting value
INTERFACE	USB

②Setting of PC

Install the USB device driver.

⇒Refer to "USB driver installation manual" for the installation method.

In the device manager of the control panel, check the USB status.

Jungo
    SHOT-USB1221   For HIT / PGC / HSC,
    WinDriver1221 ←-------------- HIT - USB1221
                                  is displayed.

③Setting of Software

【SGSample】＊USB only supports HIT - M.

After selecting the controller in step 1, select "USB" in the communication setting in step 3.
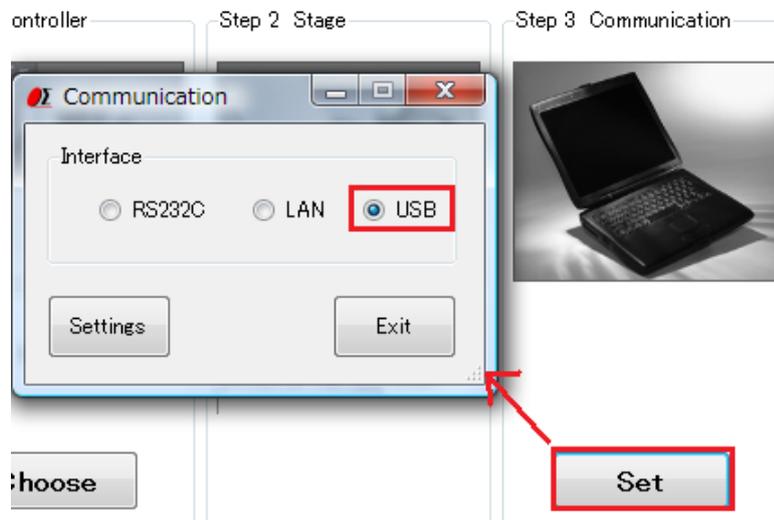
After completing communication setup, perform communication test in step 4.

In the communication test, if you click "Connect" button and "Result" becomes "OK", connection is completed.
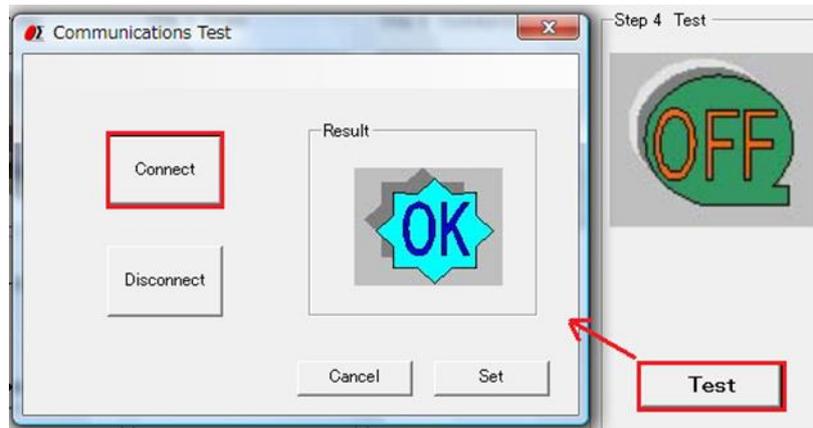
【SGADVANCE】

Select the registered controller and click the "Setting" button to open the
"Device Settings" screen.

In "Device Settings", select the interface "USB" and select the ID of the connection
destination.

※Select the ID of the controller to communicate with for "Connection destination".

※"ID" is a number for identifying the controller, and it is allocated in the order identified by
turning on the power supply of the controller. When there is only one controller, the ID is
always 1.
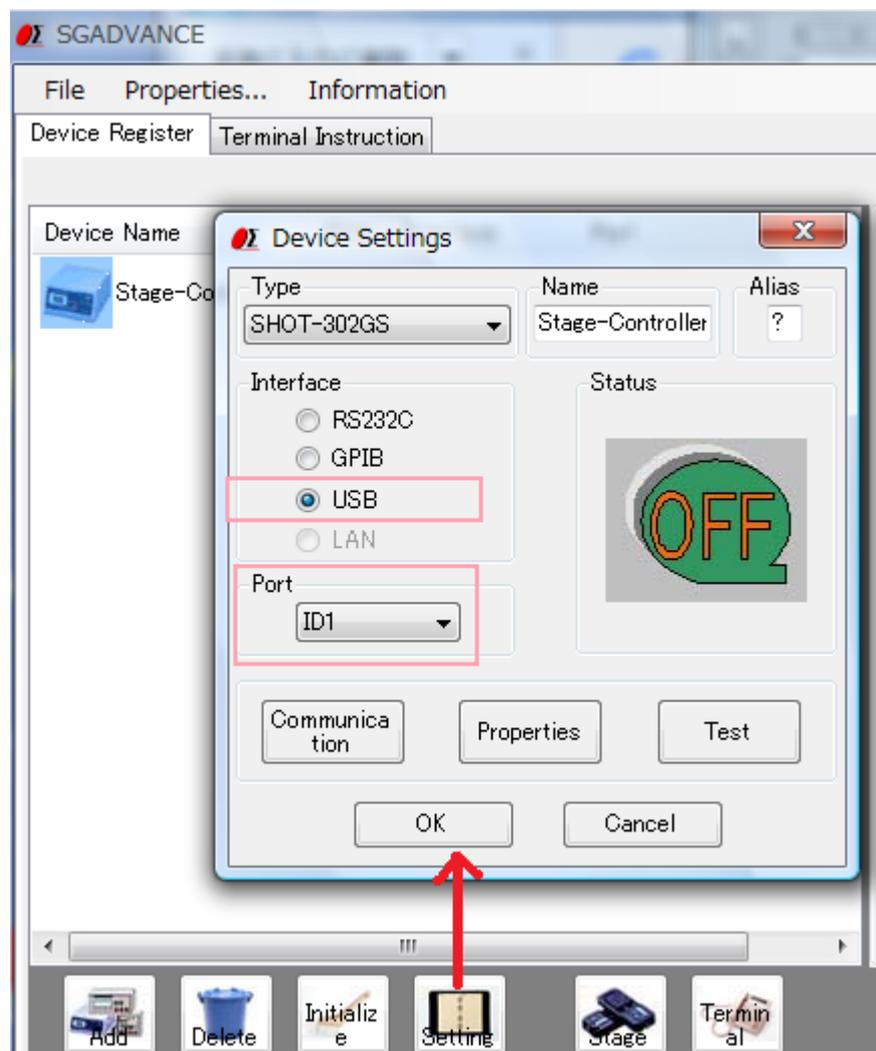
After the communication setting is completed, click the "Test" button on the "Device settings" screen to open the "Communication test" screen.
In "Communication Test", enter "!:" In "Sent character string" and click "Test (Connect)" button.
If "R", "0, 0, 0, 0" etc. are displayed in the reception result and "test result" becomes "OK", the connection is completed.