Shimaden Com Instruction Manual

Thank you for purchasing a Shimaden product. After making sure the product fits the expected description, you should carefully read the instruction manual and get a good understanding of the contents before attempting to operate the product.

Request

The instruction manual (hereinafter referred to as "manual") should be kept in a handy place where the end user can refer to it when necessary.

Preface

The manual describes how to use the **Shimaden Com**.
The manual does not contain precautions for handling, mounting method, wiring, description of functions or operation method for Shimaden devices. For information on those topics you should refer to Communication Setting of the main instruction manual of each devices.

⚠ WARNING!

You should provide protective/safety circuits, etc., to ensure safety of the system in the unlikely event of product failure or malfunction, or in the case there is a defect in the program you created. By doing so, you minimize accidents that could potentially result in injury, death or serious disaster.

The contents of this document are subject to change without prior notification.

Attention has been paid to ensure accuracy of the contents. Shimaden shall, however, bear no responsibility whatsoever for damages of any type, including indirect damage, incurred as a result of clerical errors, incomplete information, or use of information contained herein.

The product may not operate properly according to the way it is used and/or usage environment (system, etc.).

Operation is not guaranteed on PCs that are not constructed by a commercial manufacturer (self-constructed PC, etc.).
■Recommended operation environment
Supported operating system: Windows 10 and Windows 11
Hard disk open space: 500 MB
Memory capacity: Windows recommended
* Windows, Windows 10, and Windows 11 are trademarks or registered trademarks of Microsoft Corporation in the U.S. and other countries.

SHIMADEN CO.,LTD.

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Contents

1. Shimaden Com

Shimaden Com is software that offers functions such as easy setup, remote monitoring, parameter modification and data logging of Shimaden devices with communication functions (controllers and indicators).

1-1. Features
▪ Automatic recognition of Shimaden devices on PC/serial port located by search.
▪ Easy navigation and operation of devices by software without programming.
▪ **Shimaden Groups** enables up to 6 devices to be displayed simultaneously on a single screen.
▪ Data logging can be accomplished by simply saving in CSV format. Can be edited by applications such as Excel.
▪ Available parameters are displayed on the tool bar so the settings can be modified.
▪ The display section (image) of Shimaden products is reproduced.

2. Install and uninstall

2-1. Install
Use the following procedure to install the parameter setting tool on your PC.

(1) Download the **Shimaden Com** parameter setting tool from our website (https://www.shimaden.co.jp/).
(2) Click the Setup.exe file in the downloaded folder to start installation.
    Install in accordance with guidance displayed on the screen.

2-2. Uninstall
Use the following procedure to uninstall the parameter setting tool from your PC.

(1) Launch "Add or Remove Programs" from the Control Panel, select and delete **Shimaden Com**.

3. Launching and quitting

3-1. Launch
After installing **Shimaden Com**, you can launch the application by double-clicking Shimaden Com.exe on the desktop.
The first time you launch **Shimaden Com**, it finds and recognizes devices connected on the serial port of the PC.
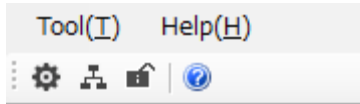
The first time you launch **Shimaden Com**, it is necessary to start Search-device for recognizing each device on the
  serial port of the PC.

3-2. Quit
To quit the application, click the ✕ in the top right corner of the screen.
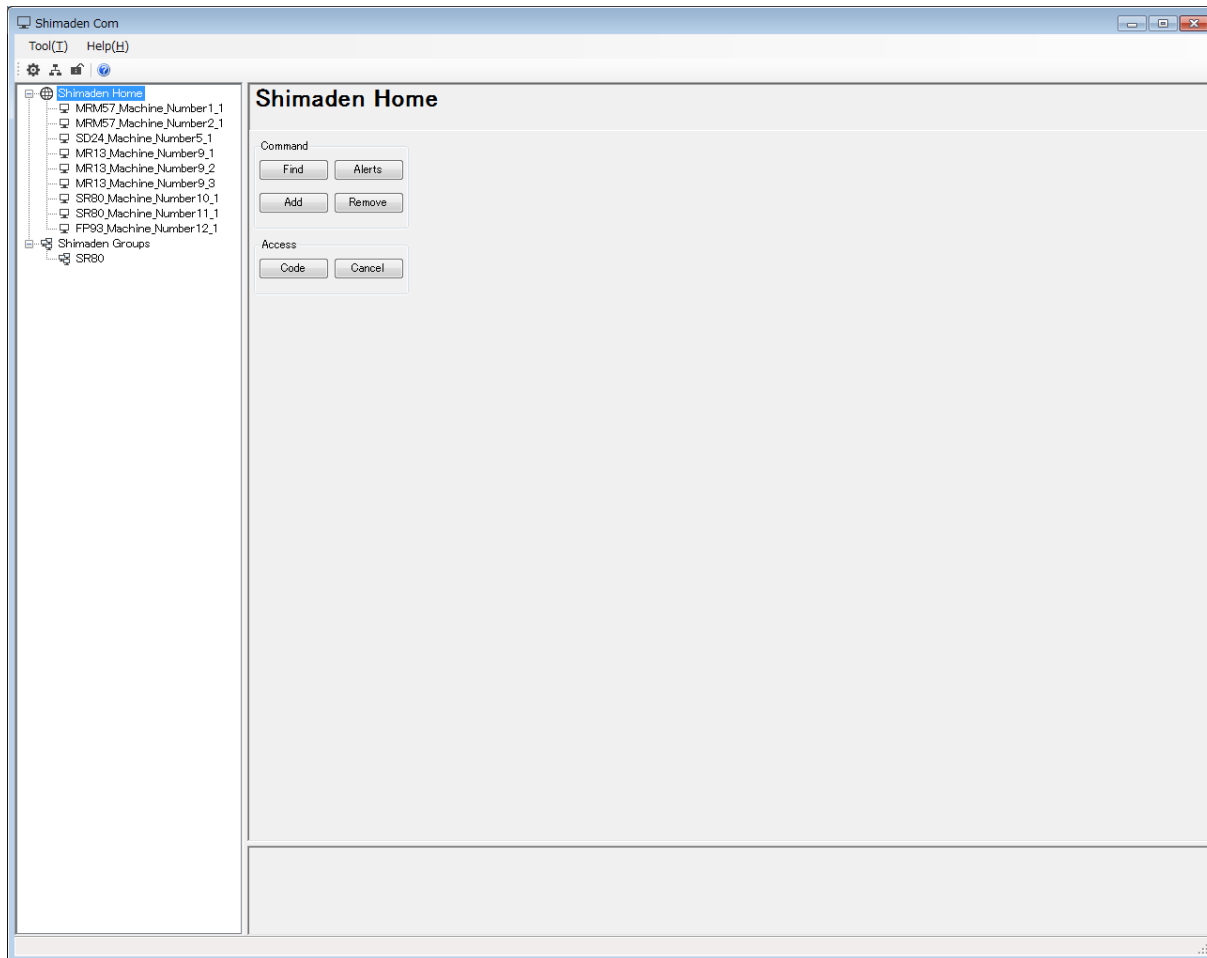
4. Toolbar

The functions of the toolbar are as follows:

⚙ : Sets **Shimaden Com** communication settings and CSV data log (record) settings.

🔧 : **Shimaden Com** searches for and recognizes devices connected on the serial port of the PC after launching the search device.

🔓 : Sets password (access).

🔵 : Refer to the manual.

5. Shimaden Home screen

Name and address of each device are displayed on **Shimaden Home** on the left side of the screen.
Clicking the displayed part enables you to display the control screen and set the monitoring parameters.

Link (blue characters) of **Shimaden Home** screen displays the various setting buttons.

Command:
Find : Displays search device screen.
Alerts : Displays alarm notification screen.

| Add | : Displays add device screen. |
| Remove | : Displays delete device screen. |

Access:

| Code | : Displays the password input screen to unlock **Shimaden Com**. |
| Cancel | : Locks access to **Shimaden Com** settings and device settings. |

5-1. Search device (Find)

Starting the search device enables devices connected on the PC serial port to be recognized.
Before starting Search-device, check 9. Communication settings and communication parameters/ wiring of each device.

Step 1: Start search

* You can set addresses to be searched for (1–255).
 Clicking the [Start search] button starts search device.

Step 2: Searching

Step 3: Search completion

Clicking the ┆Completion┆ button adds devices to **Shimaden Home** so they can be monitored.

5-2. Alarm notification screen (Alerts)

Date	Time	No	Controller	Event	Message
2017/10/25	15:58:23	5	SD24_Machine_Number5_1	AL1	Ev1 Alert
2017/10/25	15:58:37	12	FP93_Machine_Number12_1	EV3	Ev3 Alert

* Alarm notification screen displays date/time alarm occurred, device address No., device name, alarm No., and message.
A list is displayed in descending order in device address sequence. Double-clicking each line displays the controller screen
for that device.
Alarm notification screen is updated every minute.

5-3. Add device screen (Add)
You can add device of address selected in the combo box.

* Address specified when device is added; cannot be added when communication is impossible.

5-4. Delete device screen (Remove)
You can select and delete devices by device title.

Controller
MRM57_Machine_Number1_1
MRM57_Machine_Number2_1
SD24_Machine_Number5_1
MR13_Machine_Number9_1
MR13_Machine_Number9_2
MR13_Machine_Number9_3
SR80_Machine_Number10_1
SR80_Machine_Number11_1
FP93_Machine_Number12_1
FP33_Machine_Number38_1

- 6 -

| Remove | : Deletes selected device. |
| Remove All | : Deletes all devices. |

5-5. Password (access) setting
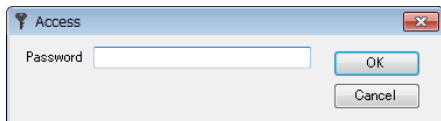
Setting a password (code) enhances security of **Shimaden Com**.

Code: Password (access code) input
Cancel: Locks access. After clicking, **Shimaden Com** settings and device settings are protected by password.

Password input

Password input by **Shimaden Home** screen Code button.

Password setting

Select ⬚ (passwords) from toolbar at top of window.

Controller Button: Protects controller button by password.
Program Setup: Protects **Shimaden Com** settings by password.
Program Close: Requires password to quit program.
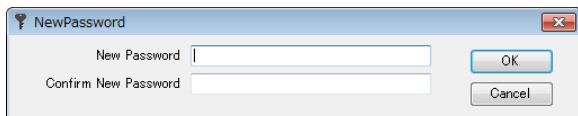
* If you place a check in the box next to "Use Password to close" when the program finishes, the next time
  Shimaden Com is launched, it will be password protected. The controller button or program setup password input will be
  required at this time.

Initial password

Controller Button	sr25
Program Setup	setup
Program Close	systemclose

New Password: Click to input new password. (Old password is not required.)

6. Shimaden Groups screen
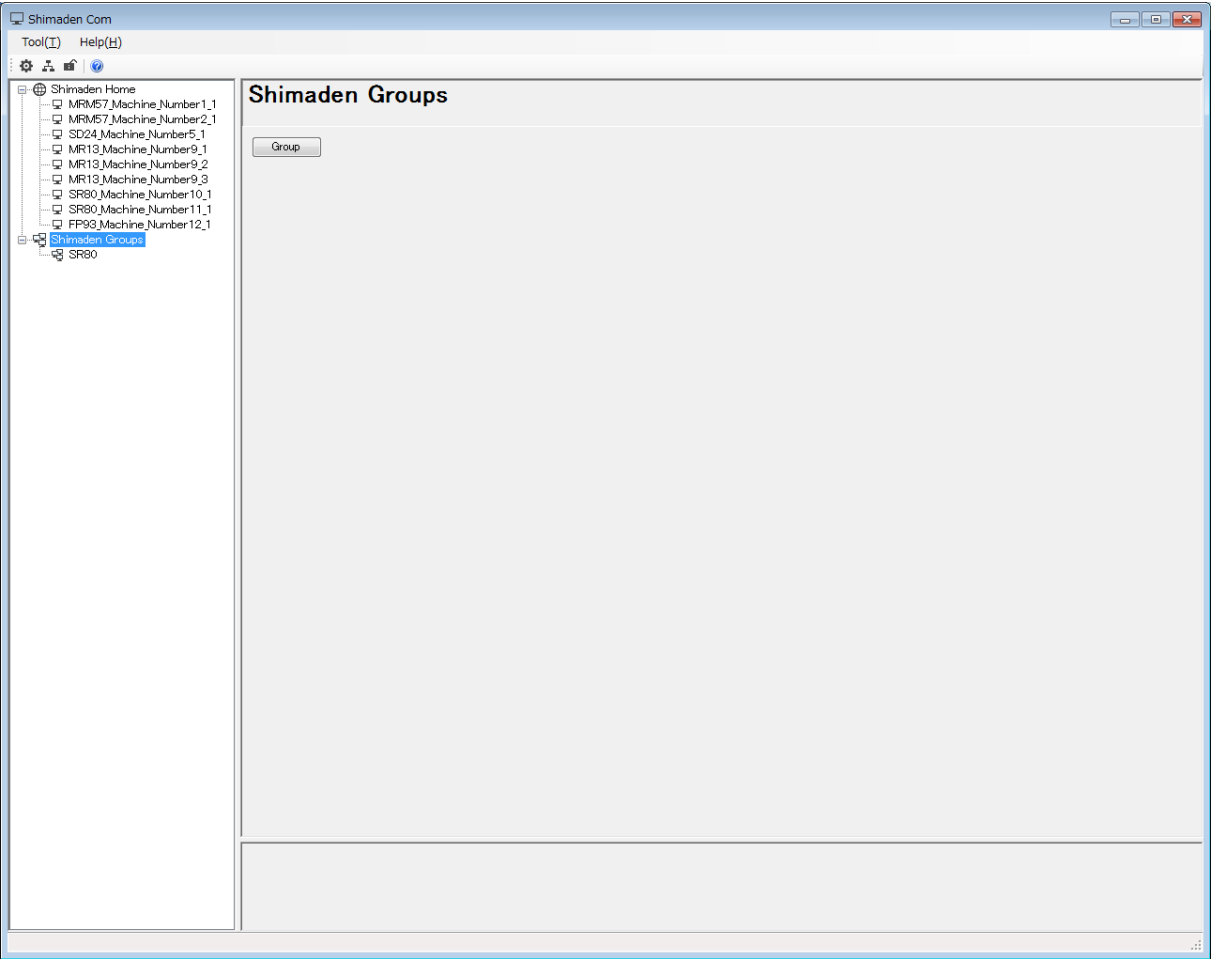
Groups set by the user are displayed on **Shimaden Groups** on the left side of the screen.

Link (blue characters) of **Shimaden Groups** screen displays the Group button.

Group : Adds/deletes group.
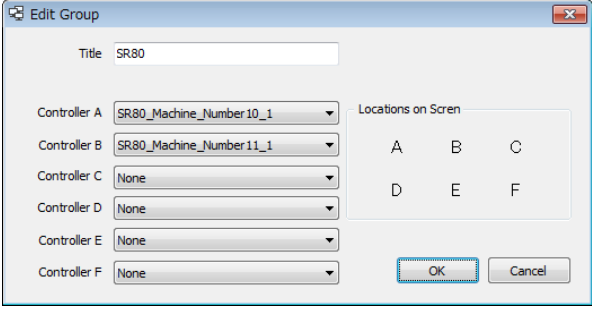
6-1. Add/delete group
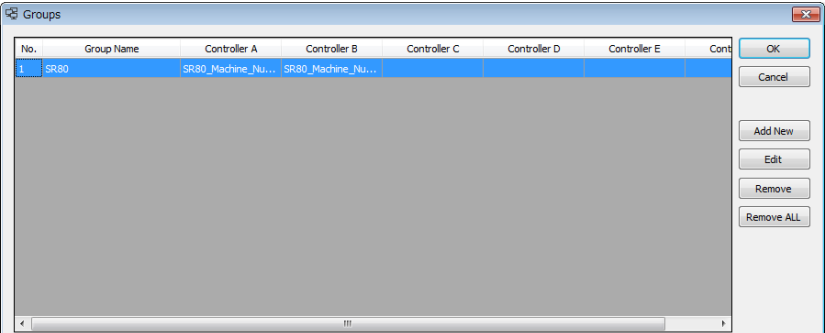
Add New	: Creates group.
Edit	: Edits selected group.
Remove	: Deletes selected group.
Remove ALL	: Deletes all groups.

6-2. Edit group

Give a title for the group and select device from pull-down list according to group display position (A, B, C, D, E, F).

7. Controller screen

The Shimaden device screen, PV/SV values transition graphs and parameter setting buttons that can be used for all devices on the software, are displayed on the controller screen.
Device parameter read/write is enabled by the controller buttons at the bottom. You can go back to the **Shimaden Home** screen by clicking **Shimaden Home** on the left side of the Window.

| Display Details | : Sets device name, display unit and graph settings.
| Com Mode | : Sets communication mode/local mode settings.
| Default Set | : Sets device parameters to default values by communication.

7-1. Display Details (device name, display unit, graph)

| Alert | : Sets alarm notification settings.
| Type | : Sets device code selection settings.
| Clear Graph | : Clear the graph display.

▪ Title (device name)
▪ Unit
▪ Decimal point position (available device only: automatic reading)
▪ Graph Display (Y axis higher limit (Top of Graph) [initial value: 100]/lower limit (Bottom of Graph) [initial value: 0] position)
▪ Clear graph display (Clear Graph)
  Clears all graphs and reopens graphs by same setting.
▪ Graph update cycle (Record Rate) (update cycle/ display scale: 2 sec./ 8 min., 15 sec./ 1 hour, 1 min./ 4 hours)

 If graph display cycle is changed, all graphs created up to that point are cleared.

* Graph setting values are effective for graph display. Graph setting values have no effect on CSV log data.

7-1-1. Alarm notification settings (Alert)
You can check alarms displayed on the alarm notification screen, and set alarm messages to be displayed as you like.

7-1-2. Device code selection settings (Type)
Select device code from the pull-down list. Set as given in the device code selection table.
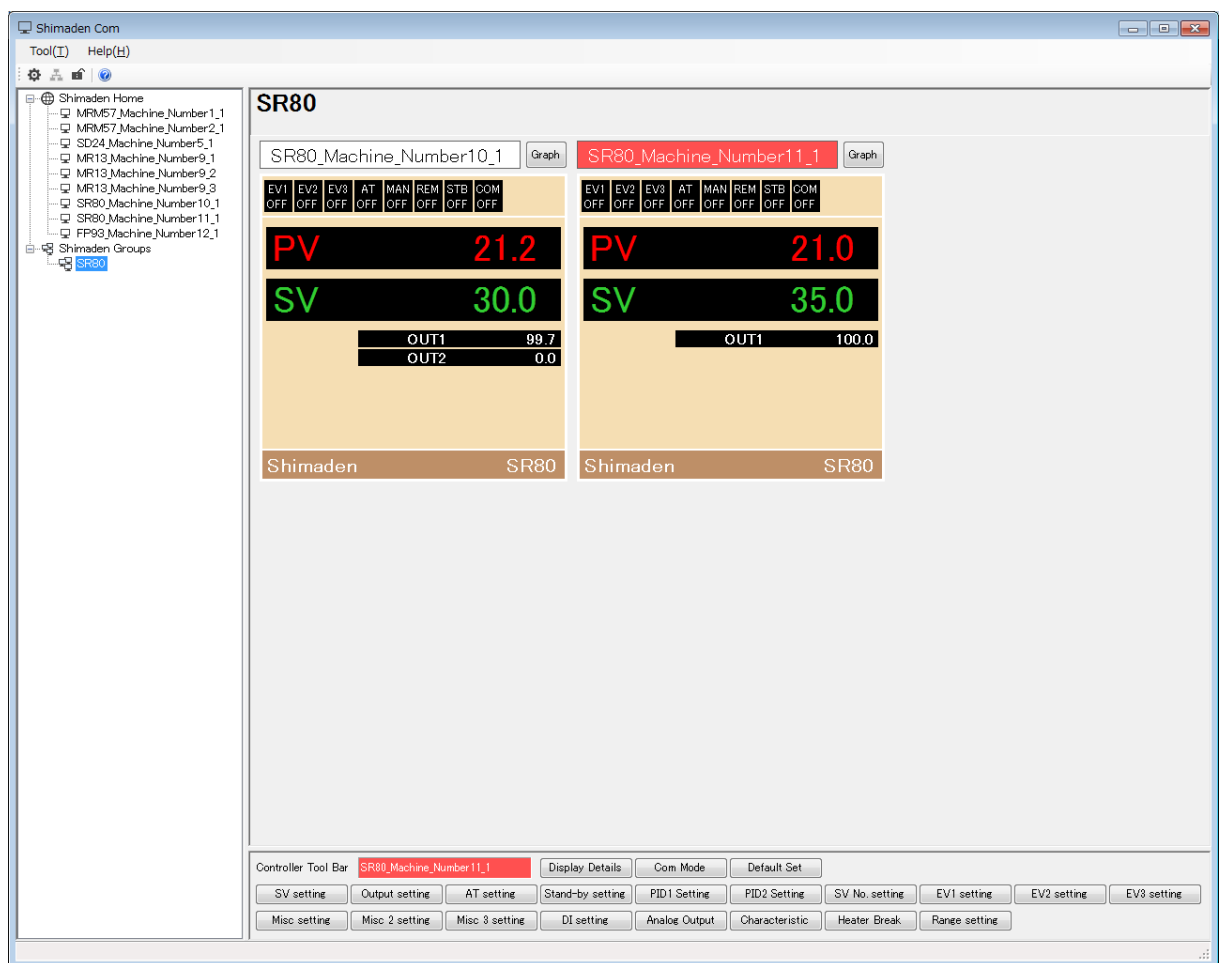
8. Group screen

A total of 6 devices can be displayed in the **Shimaden Groups** screen at one time.

You can set up to a total of 100 groups.

By selecting the device for which settings are to be modified, the device title turns red.

Toolbar of device displayed in red (controller buttons) is displayed at the bottom of the screen.

Clicking the Graph button to the right of the device title enables you to switch to the controller screen (graph) for that device.

9. Communication settings

Click the ⚙ button on the toolbar or select "Communication settings" from the "Tools" menu.

9-1. Communication settings
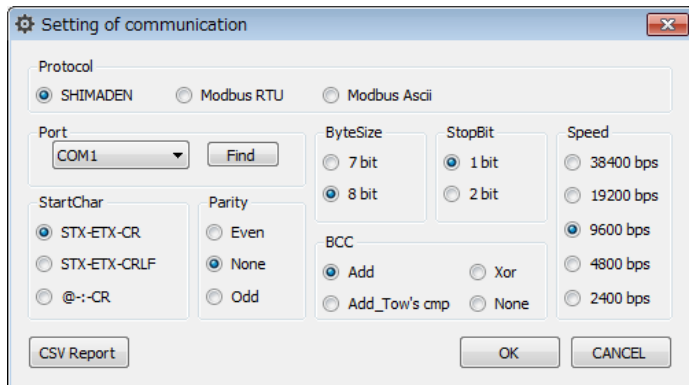
* Set communication settings for each device according to communication settings of **Shimaden Com**.

CSV Report : Displays CSV Report screen.

Find : Displays Port Search screen.

9-2. Save measurement data

You can save parameters, PV/SV information, etc. of each device, to a file on the CSV Report screen.
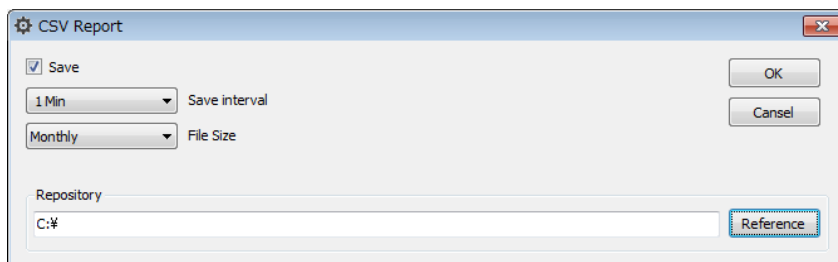
▪ Start logging data

Place a check in the "Save" box and click the OK button to start logging data.

▪ Data save interval

You can select from among Fast/1 min./5 min./10 min./15 min./30 min.

*If you select Fast, recording will be done approx. every 1 second.

▪ File size

You can select "Daily" or "Monthly."

▪ Data save location

Click the Reference button to select location where data is to be saved.

9-3. Port search

Starting the port search enables PC serial ports to be recognized.

Step 1: Port search start
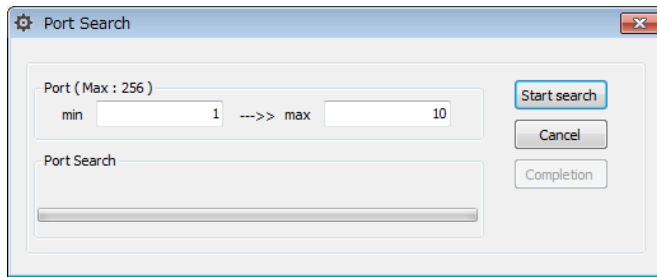
You can set ports to be searched for (1–256).
Click the Start search button to search for ports.

Step 2: Port search in progress
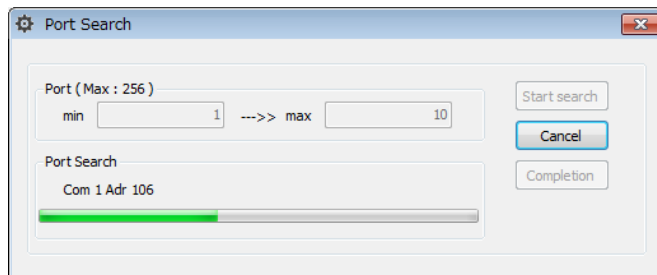
Step 3: Port search completion

Click the Completion button and the ports located are reflected in the communication settings screen.

10. Device setting screen

Parameters setting range is displayed on the left side of the status bar at the bottom of the window.
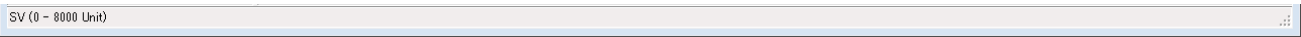
10-1. SRP33 Dialog Boxes
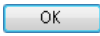
Toolbar
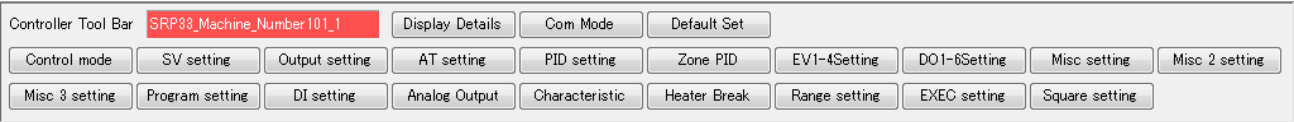
Control mode
Program run (RUN), reset (RST) and FIX settings
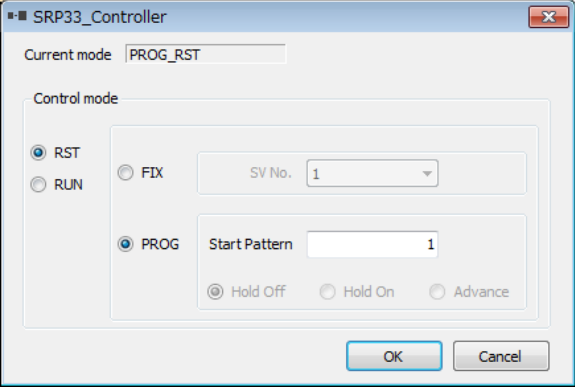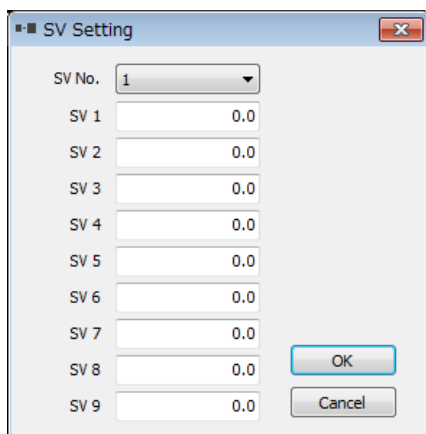
Program starts by RUN and [OK] button.
Program stops by RST and [OK] button.
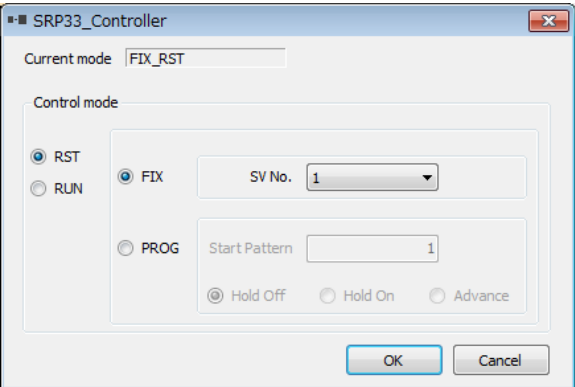
Fixed position control starts by RUN and [OK] button.
Fixed position control stops by RST and [OK] button.
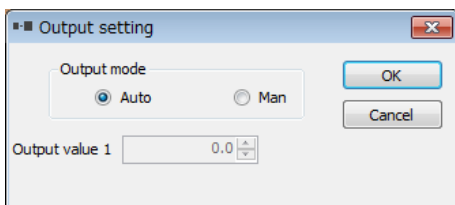
SV settings

SV value and PID No. settings in FIX mode
Click the [OK] button to export data to device.
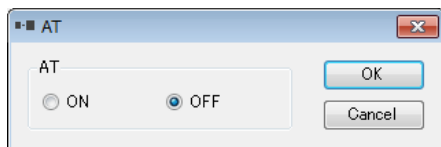
Output setting (toggles between automatic and manual output)

Place a check in the box next to AUTO for automatic output, or in the box next to Man for manual output.
Click the [OK] button to export data to device.
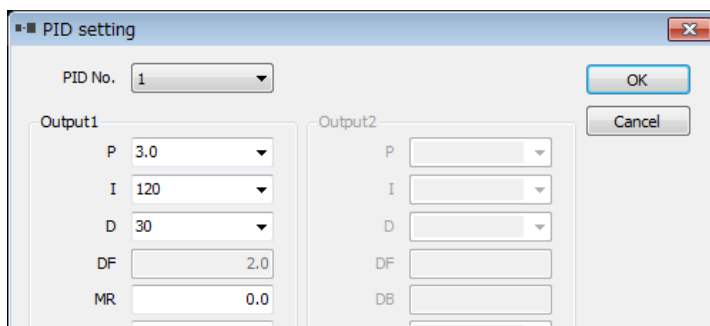
AT setting

ON sets auto tuning, and OFF cancels it.
Click the [OK] button to export data to device.
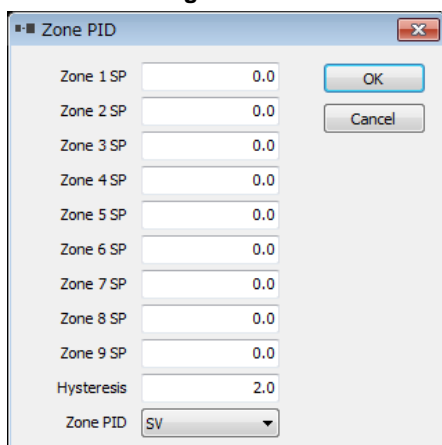
PID settings

Select PID No., set PID parameters and click the [OK] button to export data to device.

Zone PID settings

Set zone PID parameters and click the [OK] button to export data to device.

Event settings

Set event parameters and click the [OK] button to export data to device.

DO settings

Set DO parameters and click the [OK] button to export data to device.

Various settings

PV slope, PV bias, PV filter, SV lower limit value, SV higher limit value settings.
Click the [OK] button to export data to device.

Various 2 settings

Set various 2 parameters and click the [OK] button to export data to device.

Various 3 settings

Set various 3 parameters and click the [OK] button to export data to device.

Program settings

Pattern 1 : Creates/edits pattern 1.
Pattern 2 : Creates/edits pattern 2.
Pattern 3 : Creates/edits pattern 3.
Pattern 4 : Creates/edits pattern 4.
Pattern 5 : Creates/edits pattern 5.
Pattern 6 : Creates/edits pattern 6.
Pattern 7 : Creates/edits pattern 7.
Pattern 8 : Creates/edits pattern 8.
Pattern 9 : Creates/edits pattern 9.
Setting confirmation : Displays list of data entered.

Set program parameters and click the [OK] button to export data to device.

* You should note the more steps there are in the program, the longer it takes to read/write the program.

Pattern 1 to 9 settings

Click the [OK] button to update input data.
Click the [Event] button to set event.

Pattern/event settings
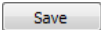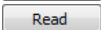
Click the [OK] button to update input data.
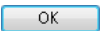
Program/parameter settings
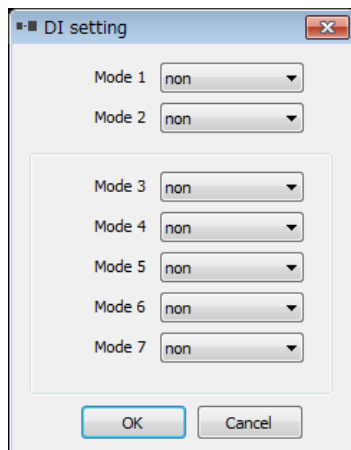
Click the [Save] button to save the program parameters to a file.
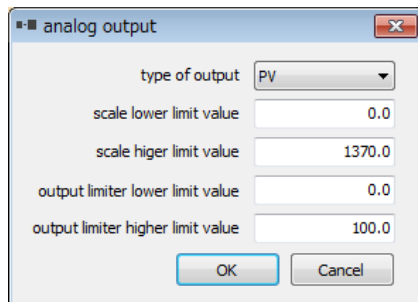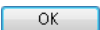Click the [Read] button to import the program parameter file that was saved.

DI settings

Set DI parameters and click the [OK] button to export data to device.
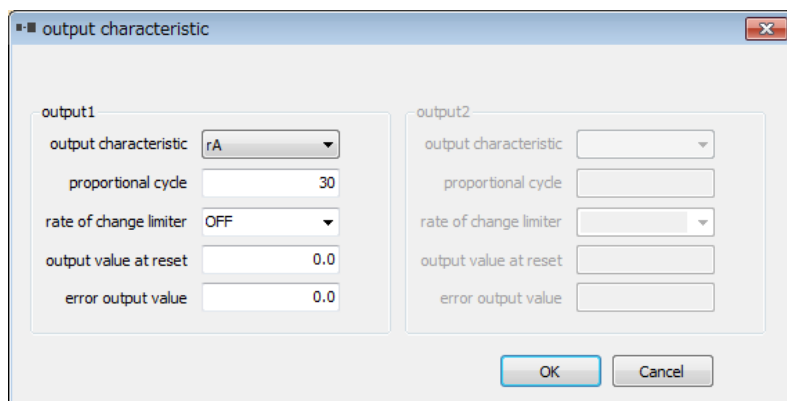
Analog output settings

Set analog output parameters and click the [OK] button to export data to device.
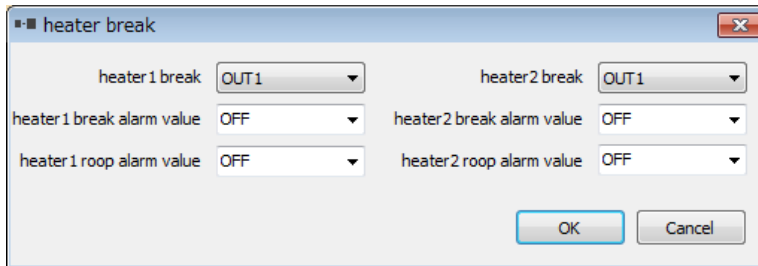
Output characteristics settings

Set output characteristics parameters and click the [OK] button to export data to device.

Heater break settings
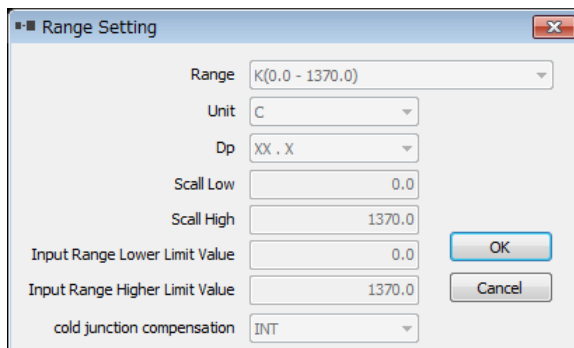
Set heater break parameters and click the [OK] button to export data to device.

Range settings

Range parameters check

* Cannot be entered

Pattern link settings

Set pattern link parameters and click the [OK] button to export data to device.

Square root extraction/10-segment operation settings

Set square root extraction/10-segment operation settings and click the [OK] button to export data to device.

10-2. SD24 Dialog Boxes

Toolbar

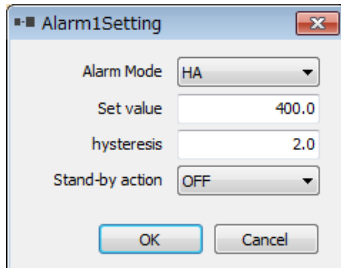| Controller Tool Bar	SD24_Machine_Number5_1		Display Details	Com Mode	Default Set			
Alarm setting	Alarm 1 setting	Alarm 2 setting	Alarm 3 setting	Alarm 4 setting	DI setting	Misc setting	Range setting	Square setting

Alarm 1, 2, 3, 4 settings

Alarm1Setting

Alarm Mode	HA
Set value	400.0
hysteresis	2.0
Stand-by action	OFF
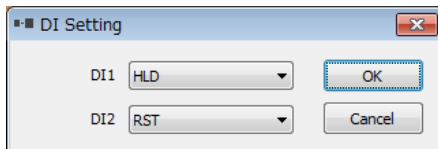
OK   Cancel

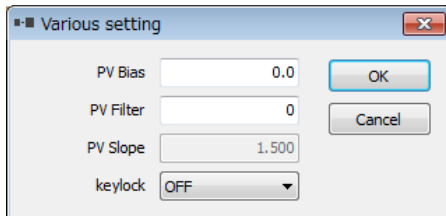Set alarm parameters and click the [OK] button to export data to device.

DI settings

DI Setting

DI1	HLD	OK
DI2	RST	Cancel

Set DI parameters and click the [OK] button to export data to device.

Various settings

Various setting
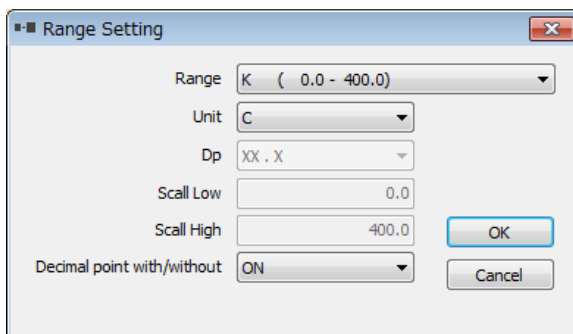
PV Bias	0.0	OK
PV Filter	0	Cancel
PV Slope	1.500	
keylock	OFF	

Click the [OK] button to export PV bias, PV filter and PV slope settings to device.

Range settings

Range Setting

Range	K (0.0 - 400.0)	
Unit	C	
Dp	XX . X	
Scall Low	0.0	
Scall High	400.0	OK
Decimal point with/without	ON	Cancel

Set range parameters and click the [OK] button to export data to device.

Square root extraction/10-segment operation settings

square root/ten segment linearizer approximation

square root extraction
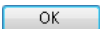
ON   low cut 0.2

ten segment linearizer approximation

mode ON

ten segment linearizer input		ten segment linearizer input	
A1		B1	
A2		B2	
A3		B3	
A4		B4	
A5		B5	
A6		B6	
A7		B7	
A8		B8	
A9		B9	
A10		B10	
A11		B11	

OK   Cancel

Set square root extraction/10-segment operation settings and click the [OK] button to export data to device.

* With regard to the technical details of products, please contact your nearest Shimaden dealer.

The contents of this manual are subject to change without notice.