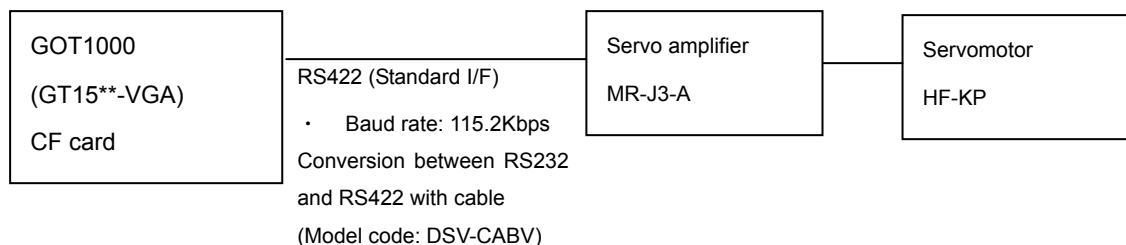


Servo Amplifier: MR-J3-A Sample Screen Instructions Ver.1

This document explains how to use the sample screen including parameter settings and monitoring data display by connecting GOT1000 and MR-J3-A servo amplifier via serial connection (RS422).

1. System configuration (1:1 connection)



2. Function descriptions

2. 1. Screen descriptions

1) Startup screen

Display the top screen when starting up GOT. Select a language to move to Main Menu screen.

2) Main Menu screen

Touch each button to display the relevant screen.

In addition, set the Station No. of the servo amplifier to control. (*1)

3) Parameter Setting screen

Set basic parameters, extension parameters, gain/filter parameters, and I/O parameters of the servo amplifier.

4) Monitor Display screen

Monitor the servo amplifier with the following items.

(Cumulative feedback pulses, servo motor speed, droop pulses, cumulative command pulse, command pulse frequency, analog speed command voltage, analog torque command voltage, regenerative load ratio, effective load ratio, peak load ratio, instantaneous torque, within on-revolution position, ABS counter, load inertia moment ratio, bus voltage)

5) Diagnosis screen

Monitor the input/output status of the servo amplifier.

6) Alarm screen

Display occurring alarms.

7) Historical Trend Graph screen

Display servo motor speed, peak load ratio, and bus voltage in Historical Trend Graph.

8) Manual Display (Help)

Display the servo amplifier manual.

(*1) Switch Station No.

Set Station No. of a servo amplifier to control. This sample uses 1:1 connection so that Station No. switching is not available. However, when using multi-drop connection configuration, Station No. can be switched. When connecting GOT1000 and a servo amplifier, Station No.0 should always be

used. If Station No.0 does not exist, communication error occurs and communication cannot be established.

2. 2. Historical Trend Graph screen

1) Servo motor speed (-7200 to 7200)

Display servo motor speed in a graph.

2) Peak load ratio (0 to 400)

Display peak load ratio in a graph.

3) Bus voltage (0 to 450)

Display bus voltage in a graph.

Restrictions:

The monitoring target is fixed to Station No.0.

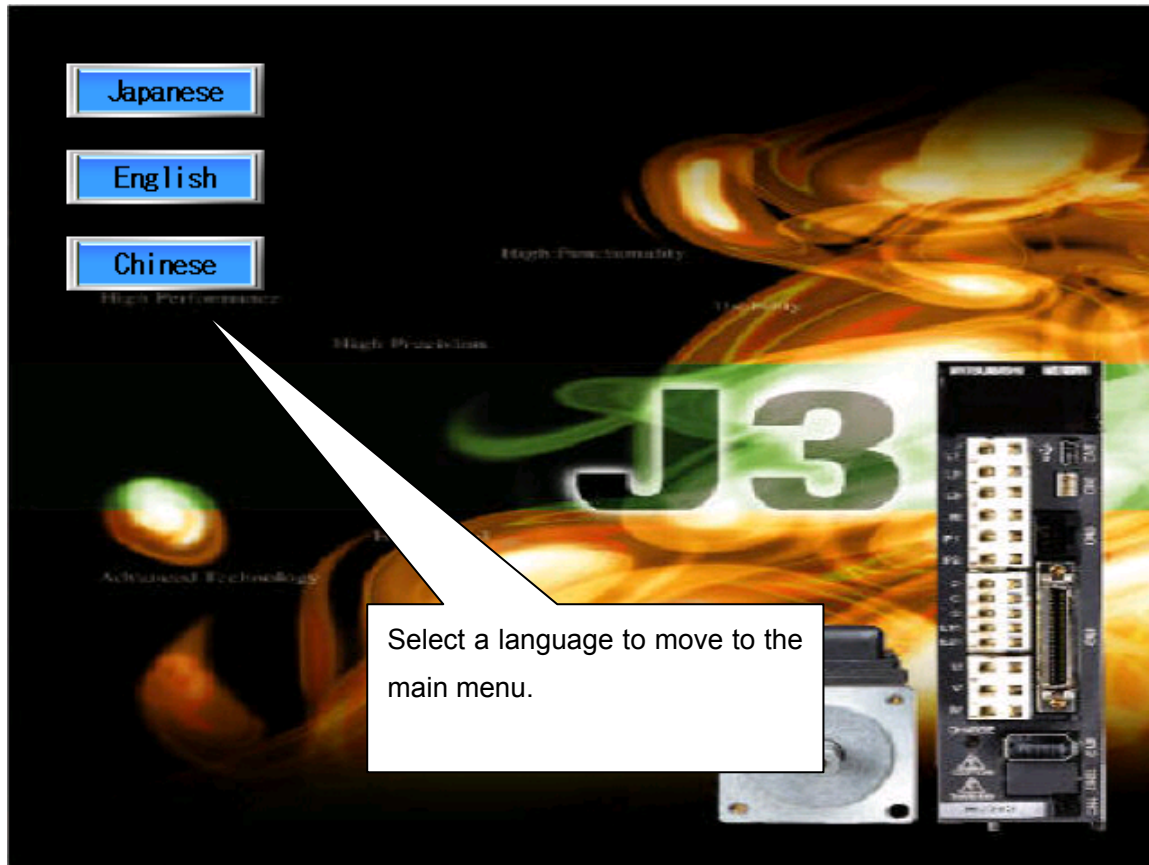
(Station numbers will not change along with the Station No. that is switched in Menu screen.)

2. 3. Precautions for use

- Station No.0 is always required regardless of the connection mode (1:1 or 1:n).
- To display two graphs with different ranges in a single graph, the standard range must be set and the scale conversion formula for other data is required.
- To display manuals on the Manual Display screen, the optional function OS (Document Display) must be installed on GOT. The optional function board (GT15-QFNB (*M) or GT15MESB48M) is also required.
- A CF card is required to save manual data for the Manual Display screen and the data (JPEG files) must be stored in a specified folder in the CF card. The DOCIMG folder is created when extracting the downloaded file; therefore copy the whole folder (including all sub-folders and files) to the root directory of a CF card from your computer. (If the folder and file structure is not the same then the data cannot be displayed correctly.) Be sure to format the CF card in FAT (FAT16).
- To use this sample data, install the communication driver (MELSERVO-J3, J2S/M).
- This sample data can be used with GT Designer2 Version2 2.62Q or later.

3. Screen contents descriptions

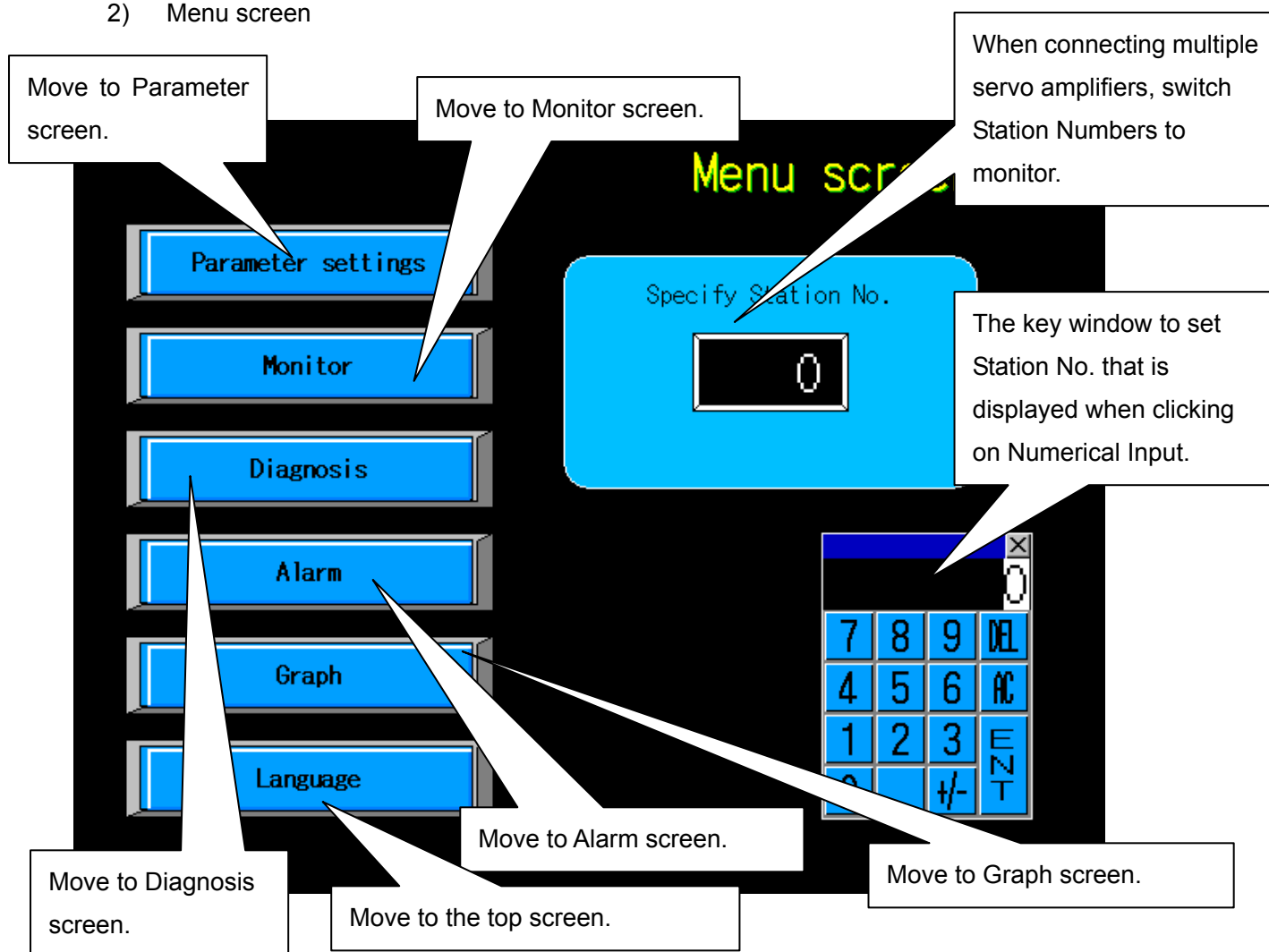
1) Startup screen



Key descriptions

The startup screen: Select a language to move to Menu screen.

2) Menu screen



Key descriptions

Parameter settings: Move to the screen to set servo amplifier parameters.

Monitor: Move to the screen to display monitoring data of the servo amplifier.

Diagnosis: Move to the screen to display DI/DO of connected servo amplifier.

DI/DO display means the display of the ON/OFF status of the external I/O signal.

Alarm: Move to the screen to display alarms that are occurring on the servo amplifier.

Graph: Move to Graph screen to display monitoring data of the servo amplifier.

3) Parameter setting screen

Display the
Station No. to

Display the page
No.

Move to Menu
screen.

Gain/filter parameter settings

Station No. 0 (1/2)
Menu

No	abbr.	Name	Set value	Unit
PB01	FILT	Adaptive tuning mode (Adaptive filter II)	0	h
PB02	VRFT	Vibration suppression control tuning mode (Advanced vibration suppression control)	0	h
PB03	PST	Position command acceleration/deceleration time constant (Position smoothing)	0	ms
PB04	FFC	Feed-forward gain	0	%
PB06	GD2	Load inertia moment ratio to servo motor	0.4	time
PB07	PG1	Model control gain	126	rad/
PB08	PG2	Position control gain	189	rad/
PB09	VG2	Speed control gain	968	rad/s
PB10	VIC	Speed integral compensation	6.6	ms
PB11	VDC	Speed differential compensation	980	
PB13	NH1	Machine resonance suppression filter1	4500	Hz
PB14	NHQ1	Notch type selection1	0	h
PB15	NH2	Machine resonance suppression filter2	4500	Hz
PB16	NHQ2	Notch type selection2	0	h
PB18	LPF	Low-pass filter selection	6910	r
PB19	VRF1	Vibration suppression control: Vibration frequency setting	100.0	Hz
PB20	VRF2	Vibration suppression control: Resonance frequency setting	100.0	Hz

Basic settings

Extension settings

I/O settings

*: Once data is written, the data becomes valid after turning on the amplifier power again.

Move to other parameter setting screens.

Key descriptions

Menu: Move to Menu screen.

(↑) (↓): Scroll up/down to the next screen to set other parameter items.

Basic settings: Move to the screen to set basic parameter PA.

Extension settings: Move to the screen to set parameter PC.

I/O settings: Move to the screen to set parameter PD.

4) Monitor screen

Monitor screen

Menu

Status display	Current value	Unit
Cumulative feedback pulses	-242325	pulse
Servo motor speed	0	r/min
Droop pulses	0	pulse
Cumulative command pulse	-9244	pulse
Command pulse frequency	0	kpps
Analog speed command voltage	-0.04	V
Analog torque command voltage	0.00	V
Regenerative load ratio	0	%
Effective load ratio	0	%
Peak load ratio	1	%
Instantaneous torque	0	%
Within one-revolution position (1 pulse unit)	247468	pulse
ABS counter	-19	rev
Load inertia moment ratio	0.4	times
Bus voltage	272	V

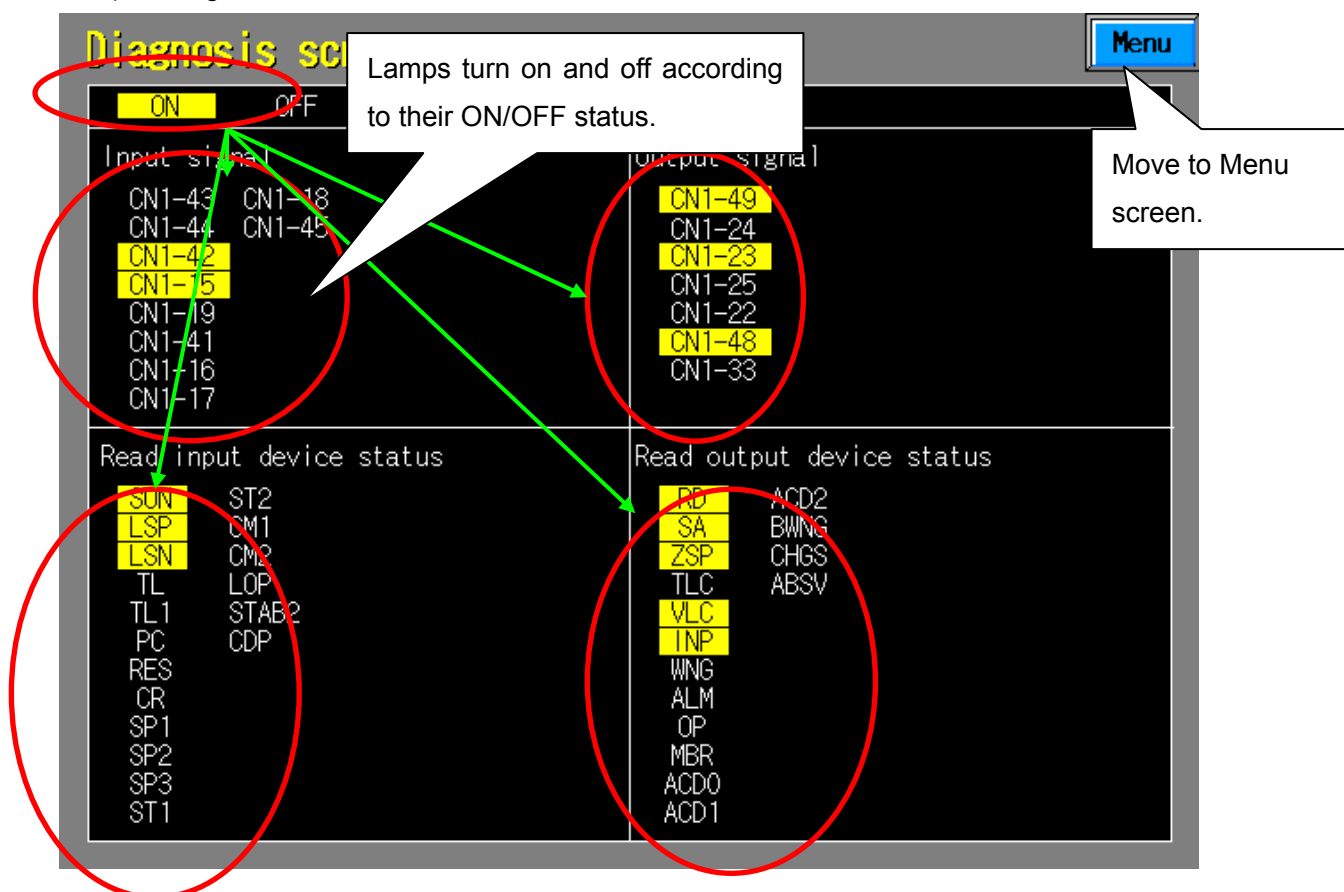
Move to Menu screen.

Current values are displayed.

Key descriptions

Menu: Move to Menu screen.

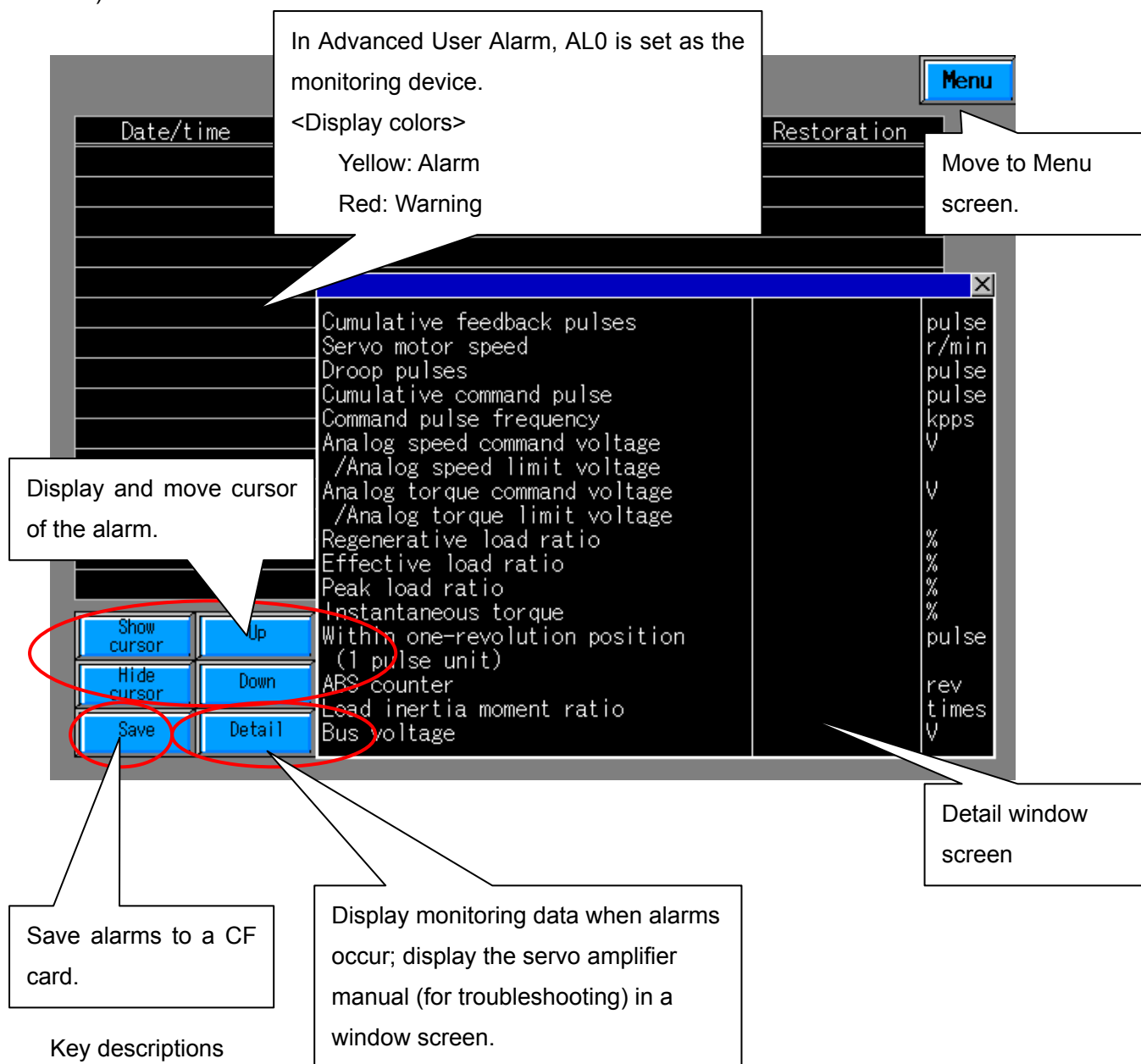
5) Diagnosis screen



Key descriptions

Menu: Move to Menu screen.

6) Alarm screen



Key descriptions

Menu: Move to Menu screen.

Show cursor: Display a cursor.

Hide cursor: Delete the cursor.

Up: Move the cursor upward.

Down: Move the cursor downward.

Delete: Delete selected alarms that are already restored. (Delete)

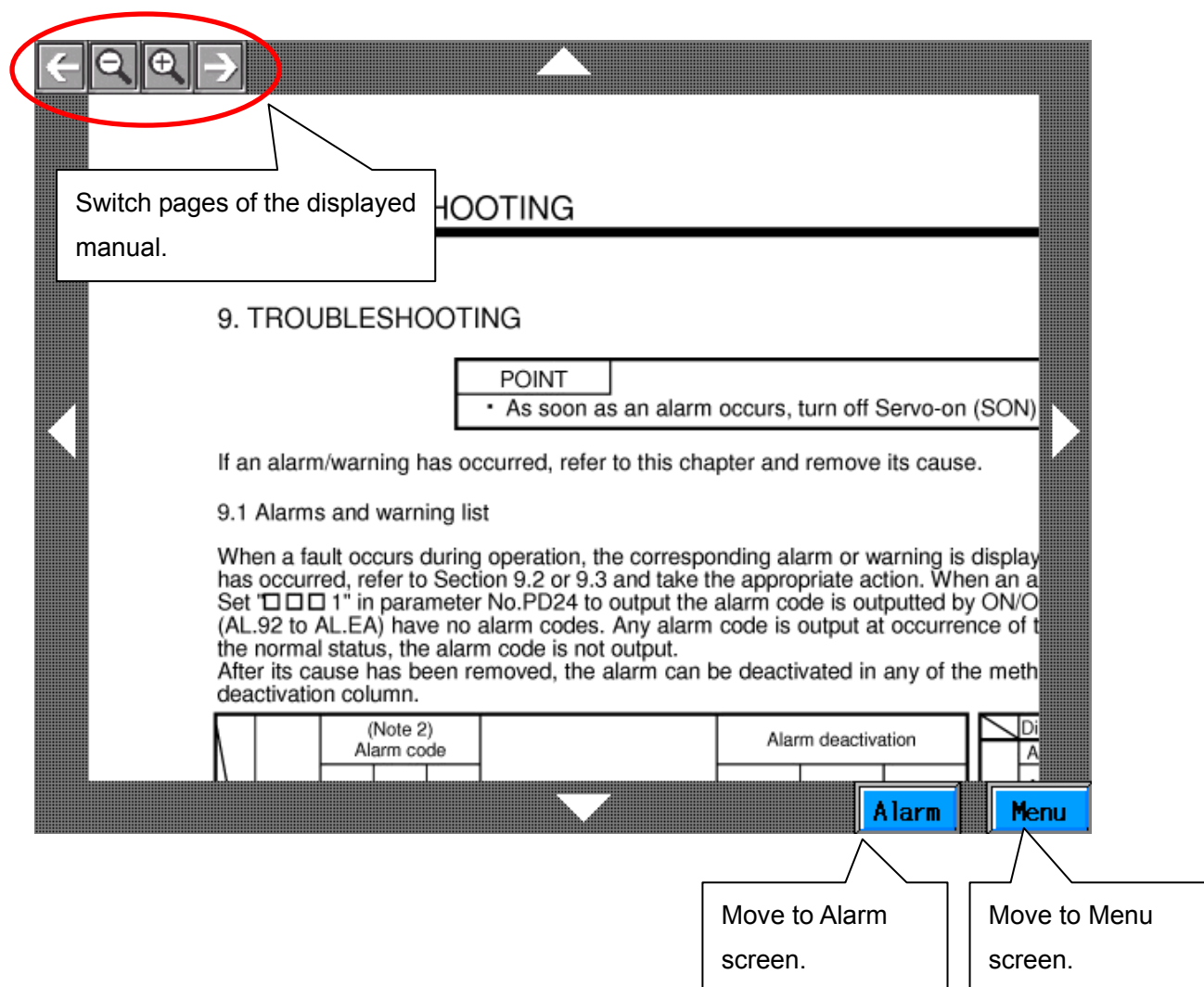
Delete all: Delete all restored alarms. (Delete all)

Save: Save alarm contents to a memory card.

Detail: Display detail monitoring data when alarms occur. (Window screen display)

Help: Display the servo amplifier manual. (Base screen switching)

7) Manual display screen



Key descriptions

Menu: Move to Menu screen.

Alarm: Move to Alarm screen.

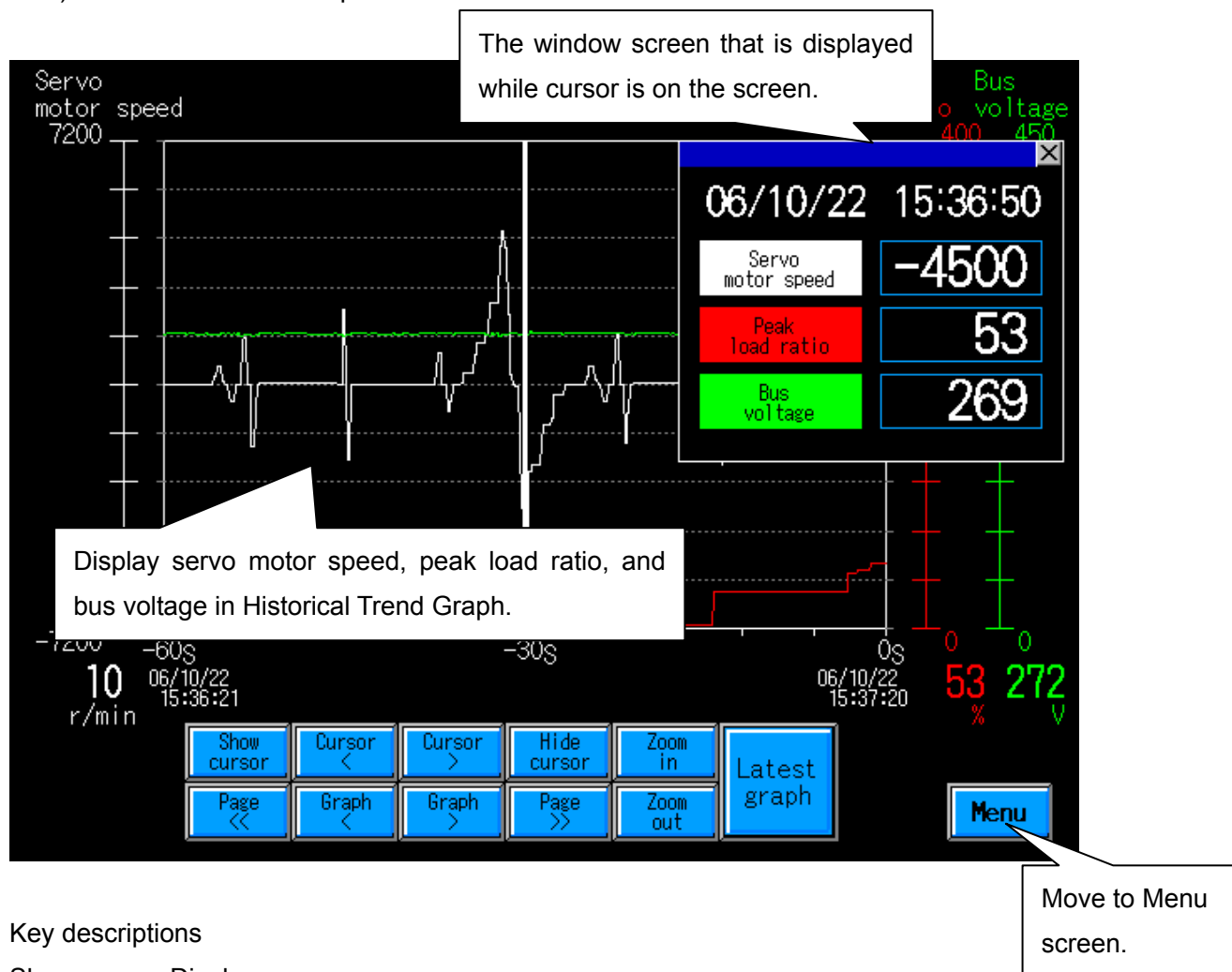
→: Display next page of the manual.

←: Display previous page of the manual.

(Enlarge/reduce): Enlarge/reduce the size of document display. (Large, medium, small)

▲/▼/◀/▶: Move the document display. (Up, down, left, right)

8) Historical Trend Graph screen



Key descriptions

Show cursor: Display a cursor.

While the cursor is on the graph, display the time and device values of the cursor position in a window screen.

Hide cursor: Delete a cursor.

Cursor <: Move a cursor. (Move forward)

Cursor >: Move a cursor. (Move backward)

Page <<: Scroll the graph to the next page. (Move forward)

Page >>: Scroll the graph to the previous page. (Move backward)

Graph <: Move to the next graph. (Move forward)

Graph >: Move to the previous graph. (Move backward)

Zoom in: Enlarge the time axis.

Zoom out: Reduce the time axis.

Latest graph: Display the latest data.

Delete the window screen, beginning position time and end position time simultaneously.