

Mitsubishi Inverter  
FR-F800 Series  
FR-F820-15K

Sample Screen Manual

Mitsubishi Electric Corporation

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## CONTENTS

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REVISIONS .....	4
1. OUTLINE.....	5
2. SYSTEM CONFIGURATION .....	5
3. GOT.....	5
3.1 System Applications That Are Automatically Selected .....	5
3.2 Controller Setting of Screen Design Software .....	5
3.3 Overlap Window Setting of Screen Design Software .....	6
4. INVERTER FR-F800 .....	6
4.1 Inverter FR-F800 Communication Settings .....	6
5. SCREEN SPECIFICATIONS .....	7
5.1 Display Language .....	7
5.2 Screen List/Transition .....	7
5.3 Explanation of Screens.....	9
5.3.1 Menu (B-30001).....	9
5.3.2 Operation and Monitoring (B-30002) .....	10
5.3.3 Parameters (B-30003) .....	12
5.3.4 Alarm 1 (B-30004).....	13
5.3.5 Alarm 2 (B-30005).....	14
5.3.6 Manual Display (B-30500) .....	16
5.3.7 Alarm Reset (W-30001) .....	18
5.3.8 Language Setting (W-30002).....	19
5.3.9 Clock Setting (W-30003).....	20
5.3.10 Batch Monitor Display (W-30004) .....	21
5.3.11 Life Display (W-30005) .....	22
5.4 Device List .....	23
5.5 Comment List .....	25
5.6 Script List.....	26
6. MANUAL DISPLAY .....	35
6.1 Preparing Document Data for Manual Display .....	35

## REVISIONS

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### Sample Screen Manual

Date	Control No.*	Description
2014/8	BCN-P5999-0425	First edition
2015/2	BCN-P5999-0425-2	Device Specification for Document ID

\* The Control No. is noted at the lower right of each page.

### Project Data

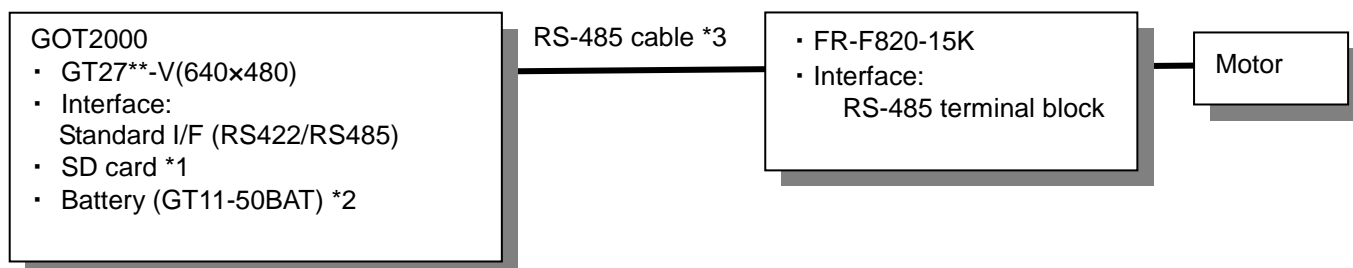
Date	Project data	GT Designer3*	Description
2014/8	mitsubishi_FR-F800_V_Ver1_E.GTX	1.117X	First edition
2015/2	mitsubishi_FR-F800_V_Ver2_E.GTX	1.126G	Device Specification for Document ID

\* The version number of screen design software used to create the project data is listed. Please use the screen design software with the listed version or later.

## 1. OUTLINE

This manual explains the sample screens of GOT2000 connected to a FR-F800 (FR-F820-15K) inverter in serial (RS-485) communication. The sample screens can be used to change the running speed and rotation direction, monitor the output frequency and output current, or give the inverter instructions to perform other operations.

## 2. SYSTEM CONFIGURATION



\*1: The SD card is used for the logging and document display functions.

\*2: The battery is used for the backup of the clock data and the logging data in the SRAM user area. (The battery is provided with the GOT as standard.)

\*3: For more details about the cable, please refer to the "GOT2000 Series Connection Manual (Mitsubishi Products)".

## 3. GOT

### 3.1 System Applications That Are Automatically Selected

Type	System application name		
Standard Function	Standard System Application		
	Standard Font		Japanese
Communication Driver	FREQROL 800		
Extended Function	Standard Font		Chinese (Simplified)
	Outline Font	Gothic	Alphanumeric/Kana
			Japanese (Kanji)
			Chinese (Simplified)
	Document Display		

### 3.2 Controller Setting of Screen Design Software

Detail Setting

Item	Set value	Remarks
Transmission Speed (BPS)	115200 bps	
Data Bit	8 bit	
Stop Bit	1 bit	
Parity	Odd	
Retry (Times)	1	(Initial value: 0)
Timeout Time (Sec)	3	
Host station address	0	
Delay Time (ms)	10	
Negotiation Time(Sec)	5	
Initialization Wait Time(Sec)	3	
Automatic Connection	ON	

### 3.3 Overlap Window Setting of Screen Design Software

[Close the window when switching base screens] of [Detail Setting] for overlap window in the [Screen Switching/Window] setting is enabled to close the window when switching base screens.

## 4. INVERTER FR-F800

### 4.1 Inverter FR-F800 Communication Settings

Item	Parameter	Set value	Remarks
Operation mode selection	Pr.79	0	External operation mode at power ON
RS-485 communication station number	Pr.331	0	Station number 0
Communication startup mode selection	Pr.340	2	Network operation mode (initial value: 0)
Protocol selection	Pr.549	0	Mitsubishi inverter protocol

## 5. SCREEN SPECIFICATIONS

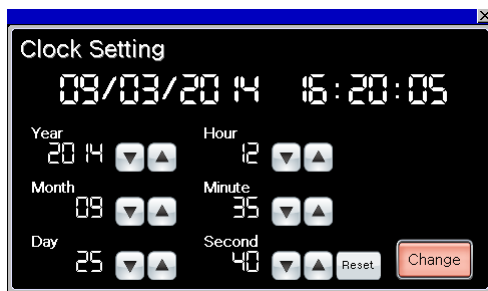
### 5.1 Display Language

The language of the text displayed on the screen can be switched between Japanese, English and Chinese (Simplified). The text strings in each language are registered in the columns No. 1 to No. 3 in the comment groups No. 499 and No. 500 as shown below. When the column No. is set in the language switching device, the language corresponding to the column No. will appear.

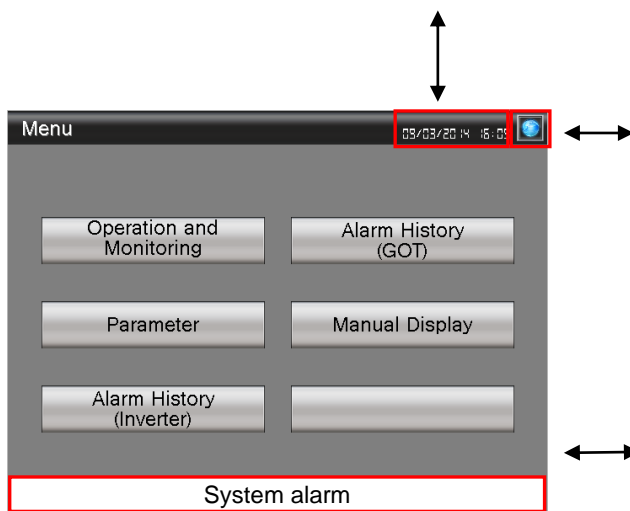
Column No.	Language
1	English
2	Japanese
3	Chinese (Simplified)

### 5.2 Screen List/Transition

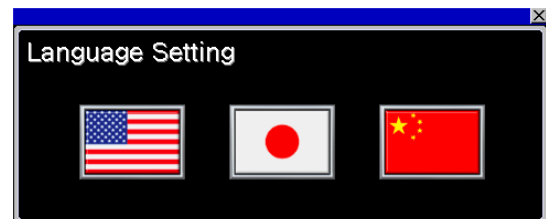
#### 5.2.1 Screen list/transition (common)



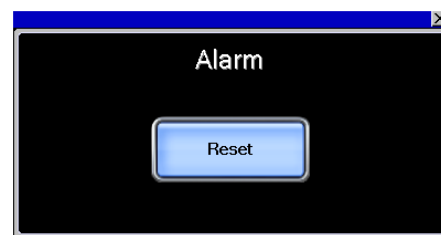
Window screen W-30003: Clock Setting



Base screen  
(B-30001 Menu and other base screens)

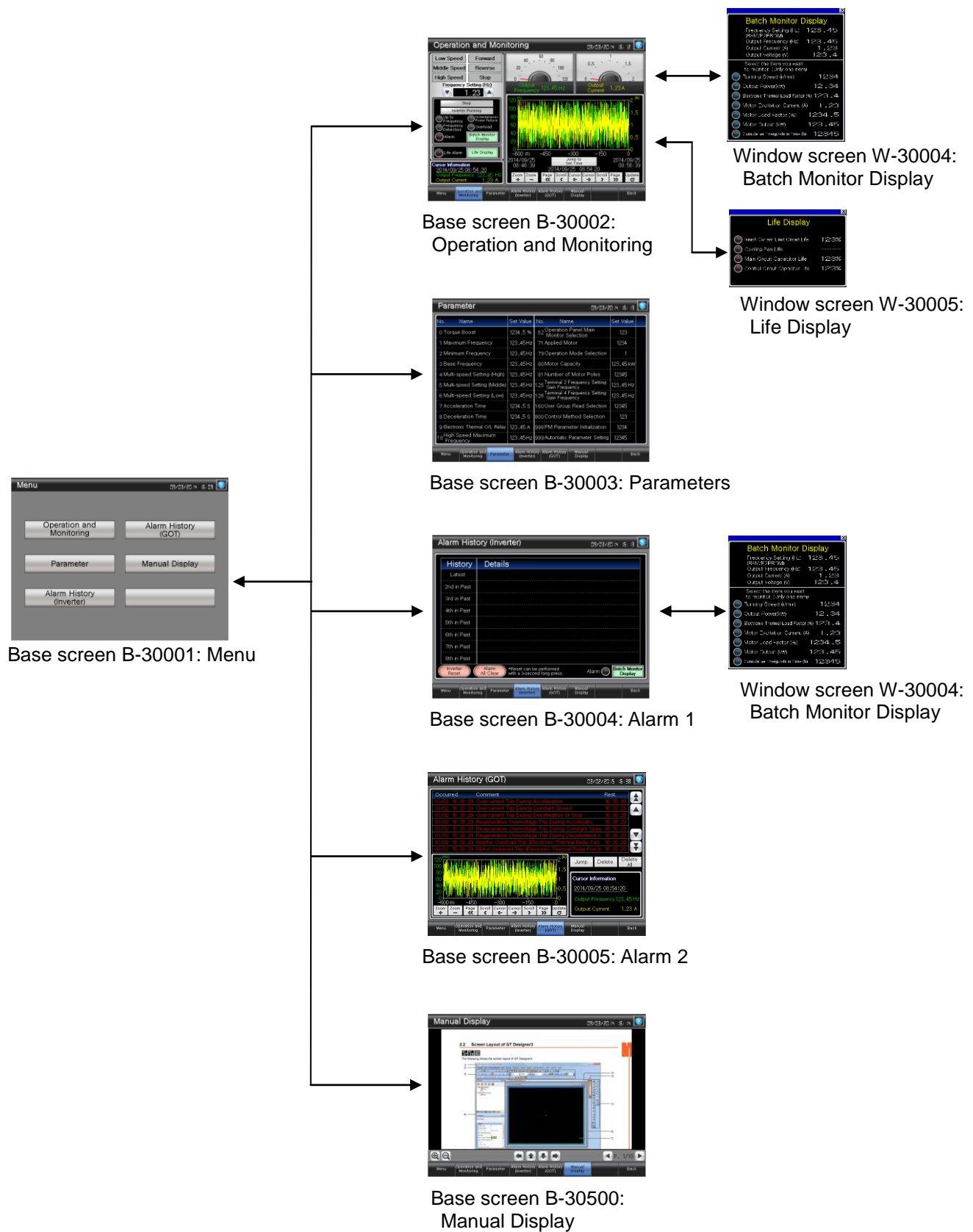


Window screen W-30002: Language Setting



Window screen W-30001: Alarm Reset

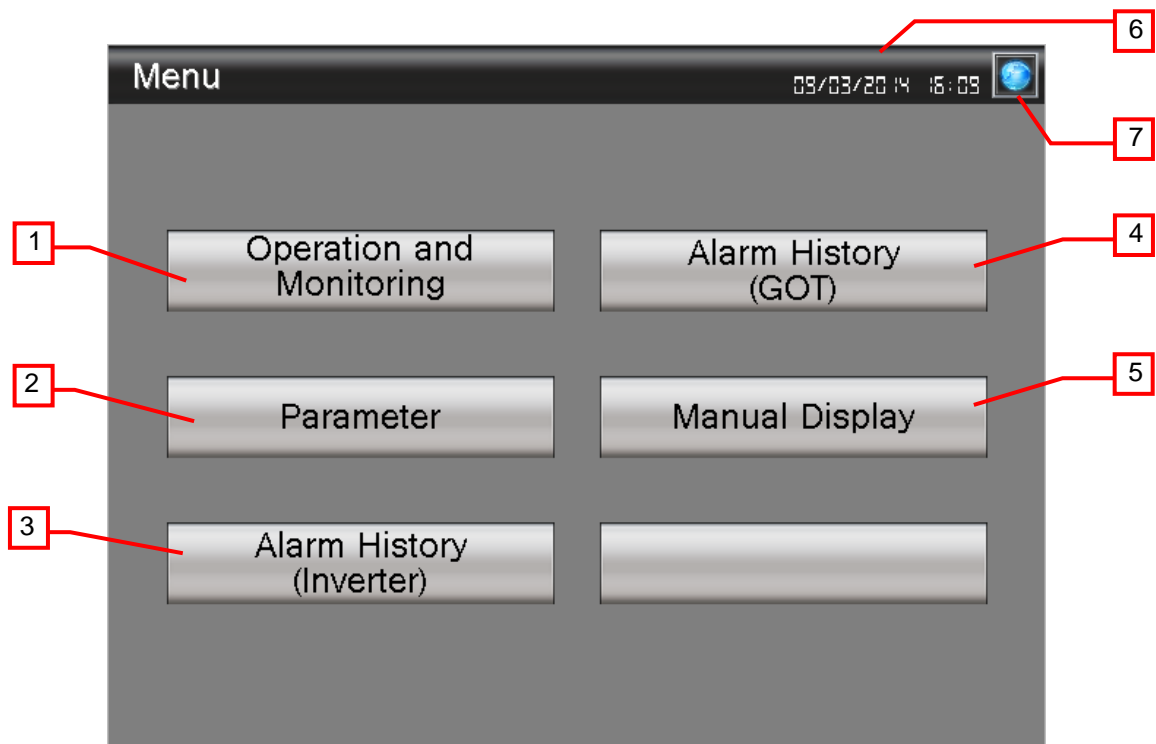
## 5.2.2 Screen list/transition (individual)





## 5.3 Explanation of Screens

### 5.3.1 Menu (B-30001)



#### Outline

This is the Menu screen.

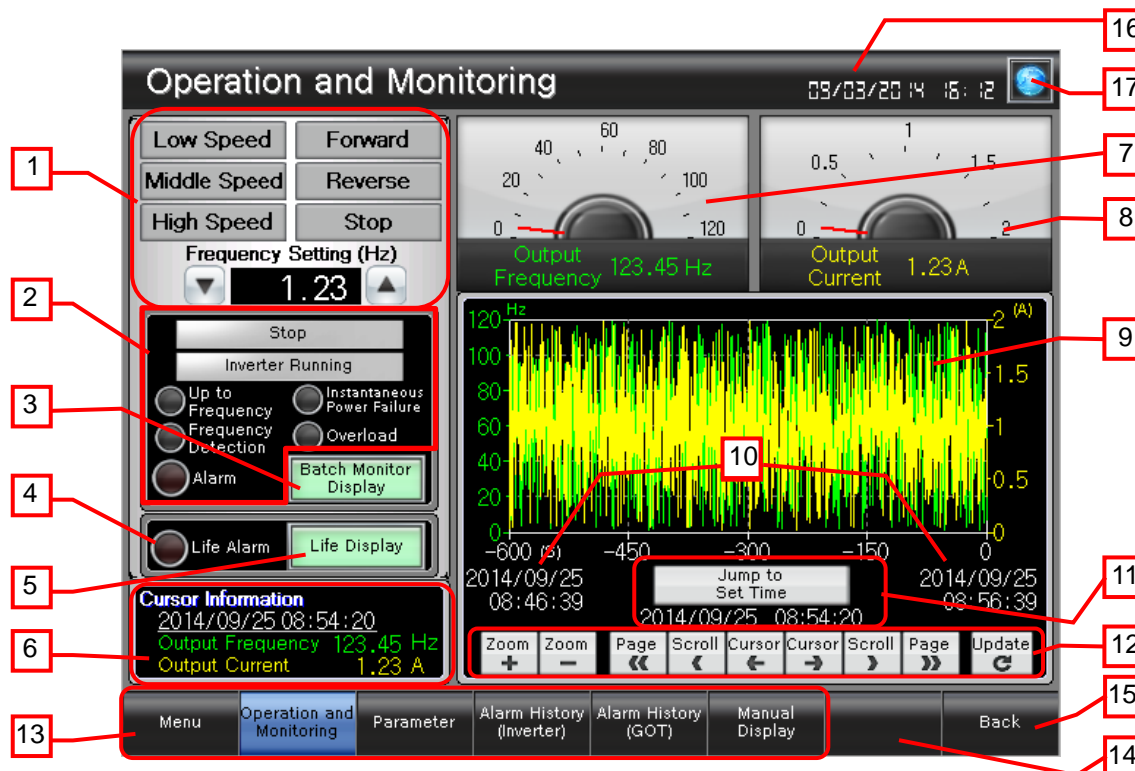
#### Description

1. Switches to the [Operation and Monitoring] screen.
2. Switches to the [Parameter] screen.
3. Switches to the [Alarm History (Inverter)] screen.
4. Switches to the [Alarm History (GOT)] screen.
5. Switches to the [Manual Display] screen.
6. Displays the current date and time. Touch the button to open the [Clock Setting] window.
7. Opens the [Language Setting] window.

#### Remarks

- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

### 5.3.2 Operation and Monitoring (B-30002)



#### Outline

This screen is used to issue the inverter operation commands, display various monitors, display life, and display a historical trend graph of the output frequency and output current data collected by the logging function.

#### Description

1. Sets the speed and rotation direction.
  - (1) Touch [Low Speed], [Medium Speed] or [High Speed]. Then, touch [Forward] or [Reverse]. The inverter will operate at the respective speed pre-set with the parameters. Touch [Stop] to stop the operation.
  - (2) Set the speed directly by inputting a numeric value. Then, touch [Forward] or [Reverse]. The touch switches to the left and right of the value input area will increment or decrement the speed by one. Touch [Stop] to stop the operation.
2. Displays inverter status with lamps.
 

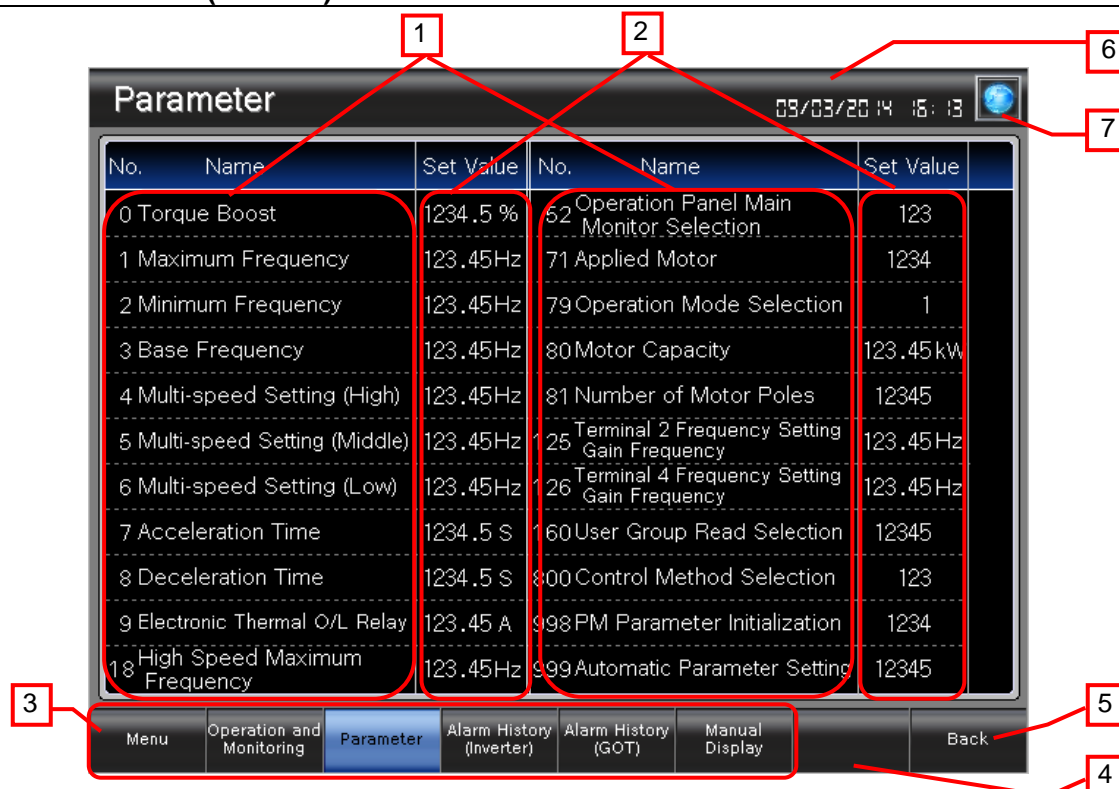
Stop/Forward/Reverse	: The rotation direction status is indicated with a light.
Inverter Running	: Lights while the inverter is running.
Up to Frequency	: Lights when the output frequency reaches the set frequency.
Frequency Detection	: Lights when the output frequency is detected.
Instantaneous Power Failure	: Lights during an instantaneous power failure.
Overload	: Lights while the stall prevention function is activated.
Alarm	: Blinks when an alarm is occurring.
3. Opens the [Batch Monitor Display] window.
4. Lights when the value reaches the life alarm output level.
5. Opens the [Life Display] window.
6. Displays the date, output frequency and output current at the cursor position.
7. Displays the output frequency with a panel meter and a numerical display.
8. Displays the output current with a panel meter and a numerical display.
9. Displays the output frequency and output current with a historical trend graph. Touch the graph to show the cursor. While touching the graph area, flicking the area will scroll the graph left and right. Pinching out and in will zoom in and out the graph based on the time axis.
10. Displays the historical trend graph's beginning position time and end position time.
11. Shows the specified date and time in the center of the graph when the date and time are entered and the [Jump to Set Time] switch is touched. The current date and time are stored when the screen is initially displayed.

12. Operates the historical trend graph.
  - Zoom In : Enlarges (×2) the graph's time axis based on the new data axis.
  - Zoom Out : Reduces (×1/2) the graph's time axis based on the new data axis.
  - Page << : Scrolls the page to the left.
  - Scroll < : Scrolls the graph to the left.
  - Cursor ← : Displays a cursor, and scrolls the cursor in the direction of the older data.
  - Cursor → : Displays a cursor, and scrolls the cursor in the direction of the newer data.
  - Scroll > : Scrolls the graph to the right.
  - Page >> : Scrolls the page to the right.
  - Update : Clears the cursor, and displays the latest data.
13. Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
14. Shows unused switches for base screen switching.
15. Switches to the previously opened screen.
16. Displays the current date and time. Touch the button to open the [Clock Setting] window.
17. Opens the [Language Setting] window.

#### Remarks

- Object scripts are set for the speed and rotation direction switches. For more details about scripts, please refer to "5.6 Script List".
- A screen script is set for the Jump to Set Time of the historical trend graph. For more details about scripts, please refer to "5.6 Script List".
- After the screen is changed, the inverter will retain the speed and rotation set with the [Operation and Monitoring] screen even when the screen is switched.
- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

### 5.3.3 Parameters (B-30003)



#### Outline

Displays and sets the inverter parameters.

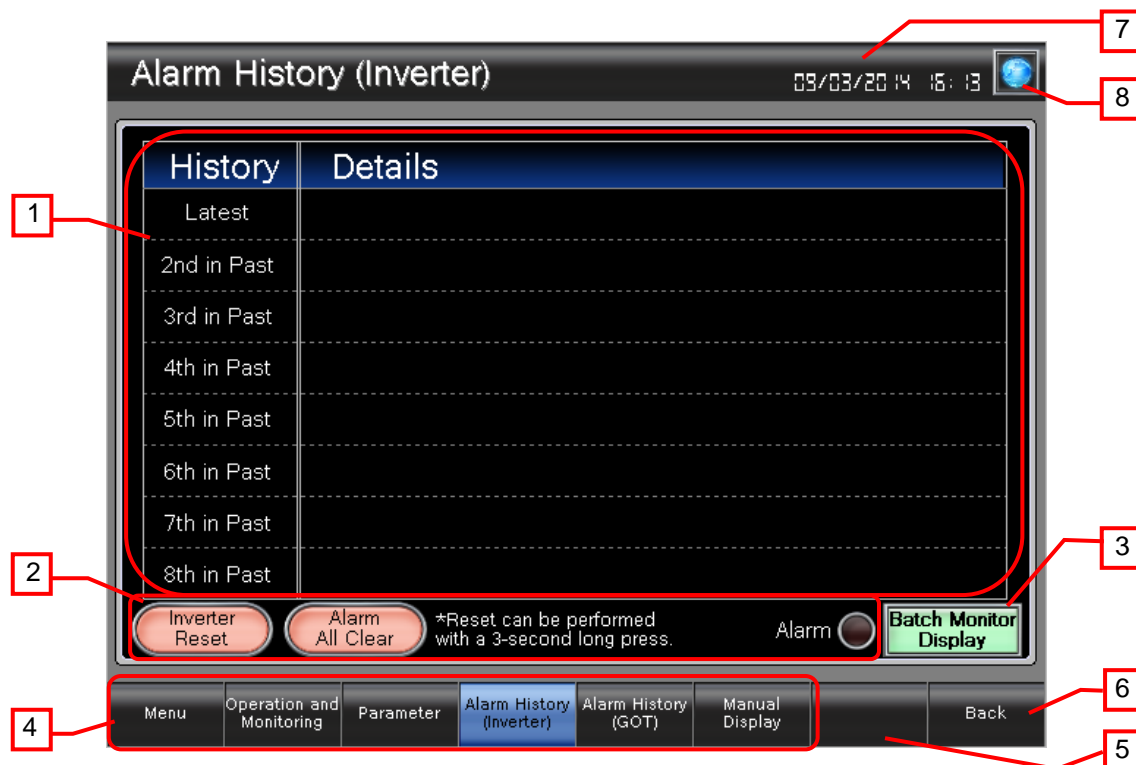
#### Description

1. Displays parameter data names.
2. Displays parameter setting values. The set values can be changed. On the GOT, a parameter set as 9999 with the inverter will be displayed as 65535, and a parameter set as 8888 will be displayed as 65520.
3. Switches to each screen. The blue switch indicates the currently display screen, thus selecting this switch will not switch the screen.
4. Shows unused switches for base screen switching.
5. Switches to the previously opened screen.
6. Displays the current date and time. Touch the button to open the [Clock Setting] window.
7. Opens the [Language Setting] window.

#### Remarks

- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

### 5.3.4 Alarm 1 (B-30004)



#### Outline

This screen displays the inverter's alarm history.

#### Description

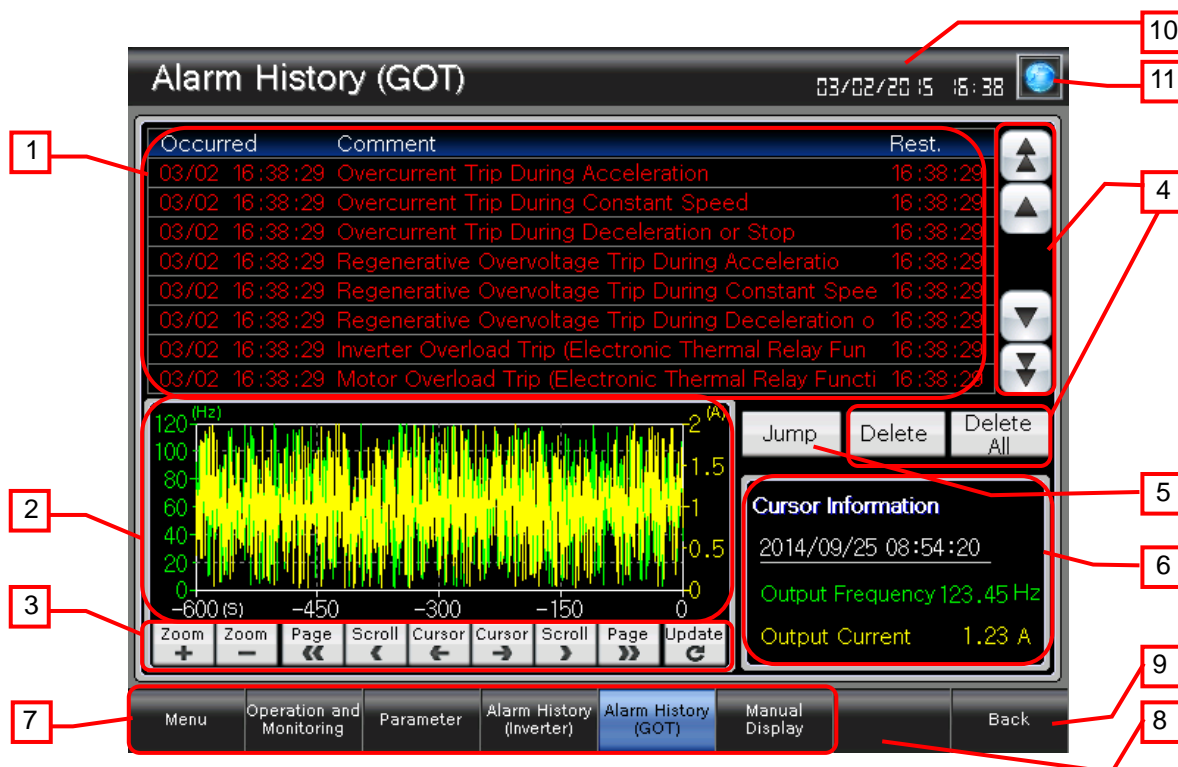
1. Displays the latest to eighth previous alarms.
2. These are switches and lamps related to the alarm.
  - Inverter Reset : Resets the inverter.
  - Alarm All Clear : Clears all alarm history.
  - Alarm : Blinks when an alarm occurs.

Press [Inverter Reset] and [Alarm All Clear] for 3 seconds to activate.
3. Opens the [Batch Monitor Display] window.
4. Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
5. Shows unused switches for base screen switching.
6. Switches to the previously opened screen.
7. Displays the current date and time. Touch the button to open the [Clock Setting] window.
8. Opens the [Language Setting] window.

#### Remarks

- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

### 5.3.5 Alarm 2 (B-30005)



#### Outline

This screen displays the output frequency and output current at the inverter's alarm occurrence.

#### Description

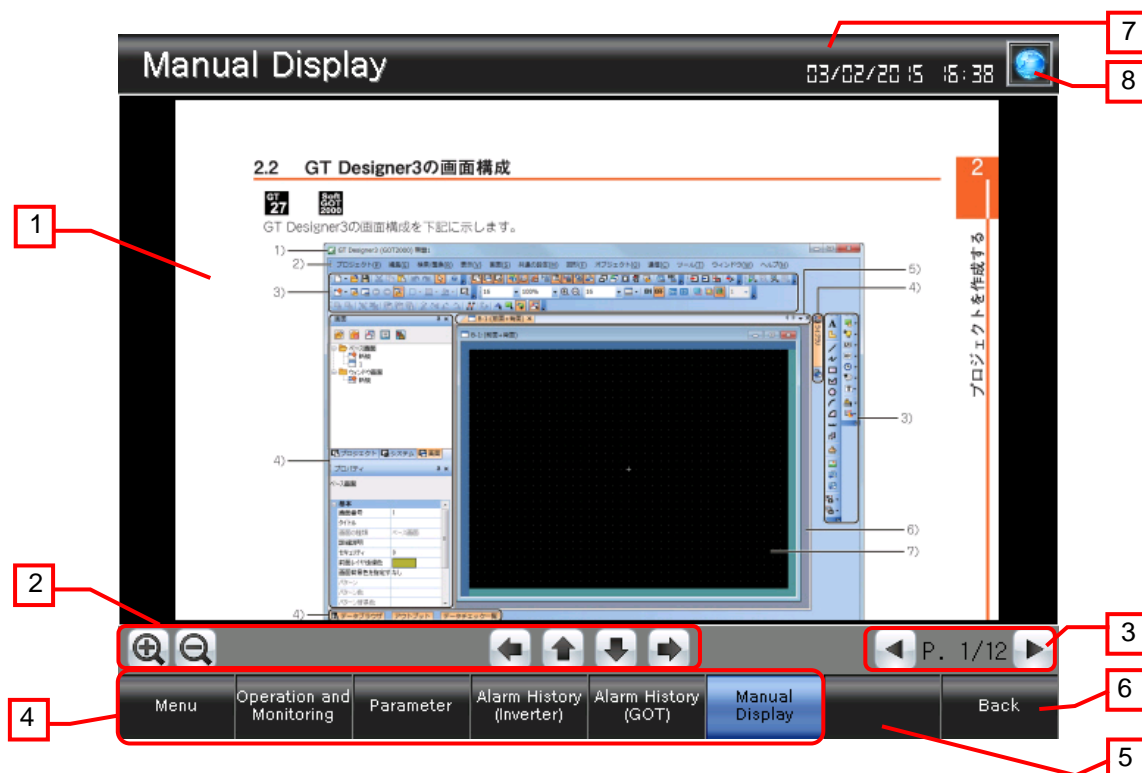
- Displays alarms. Touch an alarm to display/hide the cursor. While touching the alarm display area, flicking the area will scroll the alarms up and down. The current alarm messages are shown in red, and those of restored alarms are shown in green.
- Displays the output frequency and output current with a historical trend graph. Touch the graph to show the cursor. While touching the graph area, flicking the area will scroll the graph left and right. Pinching out and in will zoom in and out the graph based on the time axis.
- Operates the historical trend graph.
  - Zoom In : Enlarges (x2) the graph's time axis based on the new data axis.
  - Zoom Out : Reduces (x1/2) the graph's time axis based on the new data axis.
  - Page : Scrolls the page to the left.
  - Scroll : Scrolls the graph to the left.
  - Cursor ← : Displays a cursor, and scrolls the cursor in the direction of the older data.
  - Cursor → : Displays a cursor, and scrolls the cursor in the direction of the newer data.
  - Scroll > : Scrolls the graph to the right.
  - Page >> : Scrolls the page to the right.
  - Update : Clears the cursor, and displays the latest data.
- Operates the display of alarms.
  - Up/Down arrows : Scrolls the page up and down.
  - Up/Down arrow buttons : Scrolls alarms up and down line by line.
  - Delete : Deletes only the selected restored alarm.
  - Delete All : Deletes all the restored alarms.
- Displays the alarm of the selected date and time at the middle of the graph with a cursor. When the alarm cursor is not displayed, the data of the present date and time is shown at the rightmost of the graph with a cursor.
- Displays the date/time, output frequency and output current of the cursor position.
- Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
- Shows unused switches for base screen switching.
- Switches to the previously opened screen.
- Displays the current date and time. Touch the area to open the [Clock Setting] window.

11. Opens the [Language Setting] window.

**Remarks**

- A screen script is set for the Graph Jump of the selected alarm occurrence date and time. For more details about scripts, please refer to "5.6 Script List".
- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.
- This is the screen to display inverter alarms that occurred while the GOT is running. The screen cannot display the alarms that occur while the GOT power is off.

### 5.3.6 Manual Display (B-30500)



#### Outline

This screen displays the manual of the currently displayed language.

#### Description

1. Manual Display displays a document with document ID (201 to 203) according to the language. The page 1 is displayed when the screen is displayed initially. While touching the document, flicking to 8 directions will scroll the document to 8 directions. While displaying the edge of the document, flicking the document will switch pages. Pinching out and in will zoom in and out the document in 3 steps (large, middle, and small).
2. These switches operate the displayed document.
  - : Enlarges or reduces the displayed document.
  - : Enlarges or reduces the displayed document.
  - : Scrolls the displayed document to the left or right.
  - : Scrolls the displayed document to the left or right.
  - : Scrolls the displayed document up or down.
  - : Scrolls the displayed document up or down.
3. These switches operate the displayed document page.
  - : Displays the page number of the displayed document. Touch the value to change the page number.
  - : Switches to the previous or next page of the displayed document.
  - : Switches to the previous or next page of the displayed document.
4. Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
5. Shows unused switches for base screen switching.
6. Switches to the previously opened screen.
7. Displays the current date and time. Touch the button to open the [Clock Setting] window.
8. Opens the [Language Setting] window.



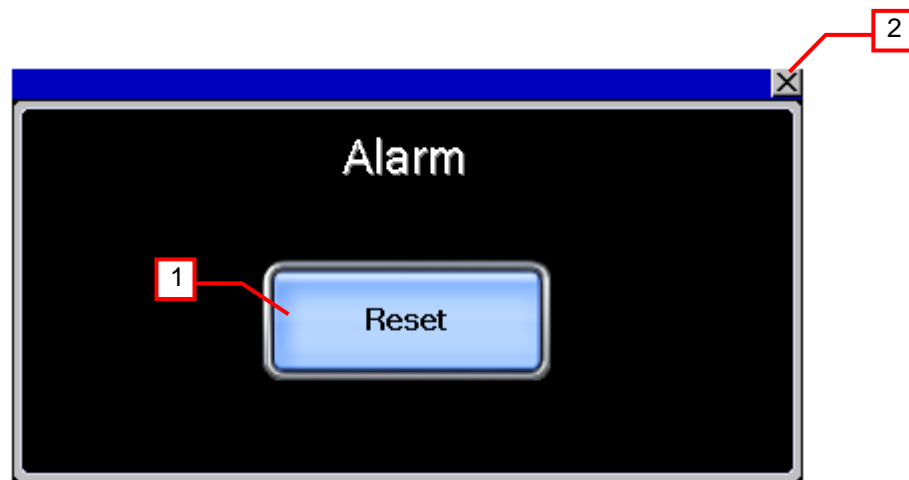
## Remarks

- The language setting reflect documents for Manual display. The relation of the column No. of the comment group No., languages and document (Document ID) is shown below.

Column No. of the comment group No	Language	Document ID
1	English	201
2	Japanese	202
3	Chinese (Simplified)	203

- When GOT is started, the document page is set to No. "1" and the Document ID is set to "201" with the project script. For more details about scripts, please refer to "5.6 Script List".
- The page feed switches are set not to exceed the total number of document pages by object script. For more details about scripts, please refer to "5.6 Script List".
- The document data for the manual display should be prepared by the customers. For more details, please refer to "6. MANUAL DISPLAY".
- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

### 5.3.7 Alarm Reset (W-30001)



#### Outline

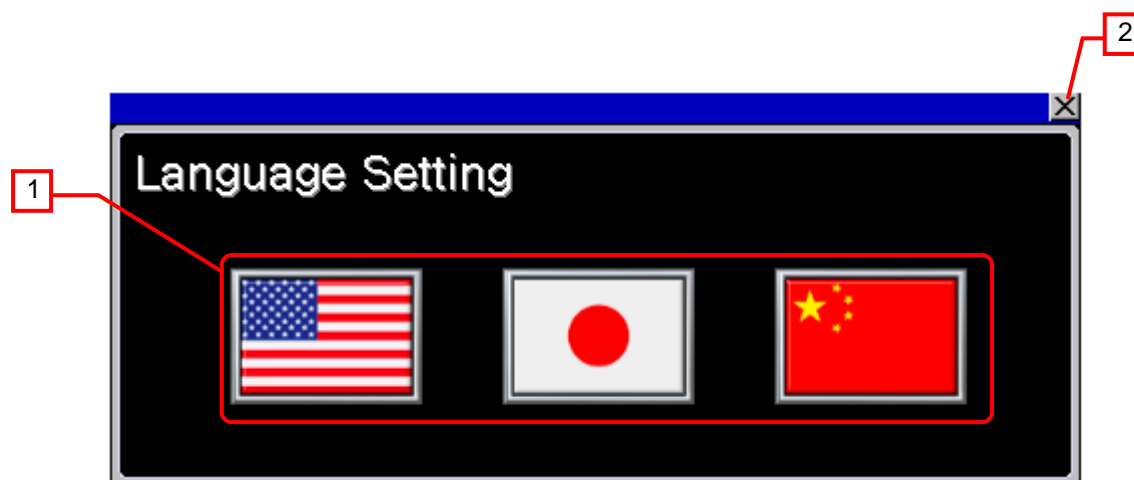
This window screen allows resetting the system alarm.

#### Description

1. Resets the system alarm, and closes the window screen after 1 second.
2. Closes the window screen.

#### Remarks

### 5.3.8 Language Setting (W-30002)



#### Outline

This window allows selecting the GOT language.

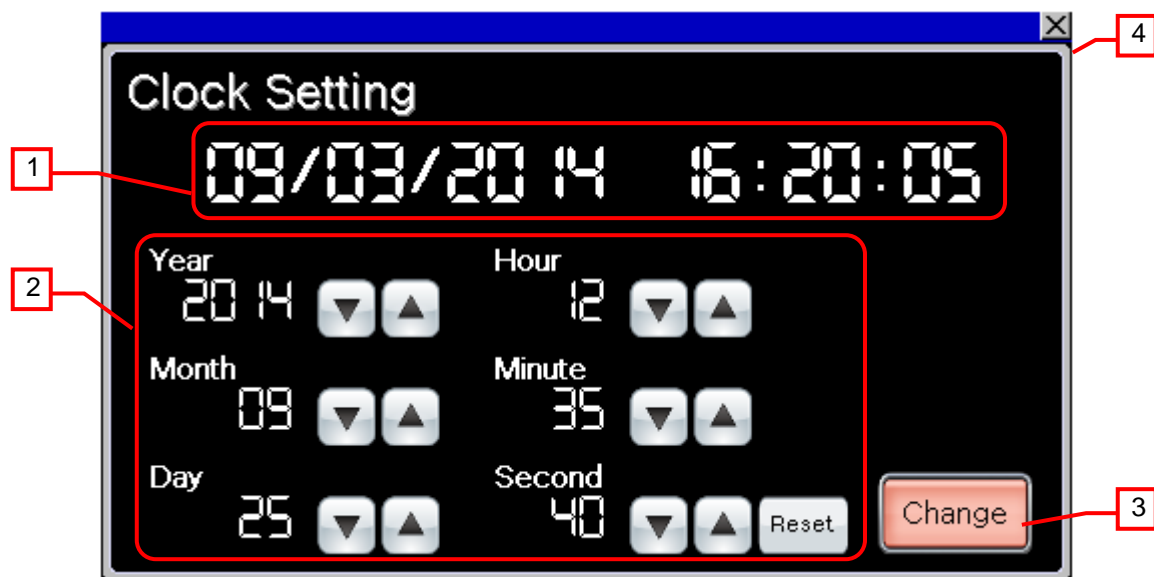
#### Description

1. Switches the language and closes the window screen.
2. Closes the window screen.

#### Remarks

- The system language and Document ID for manual display also switched corresponding to the display language.



### 5.3.9 Clock Setting (W-30003)



#### Outline

This window screen allows changing the GOT clock data.

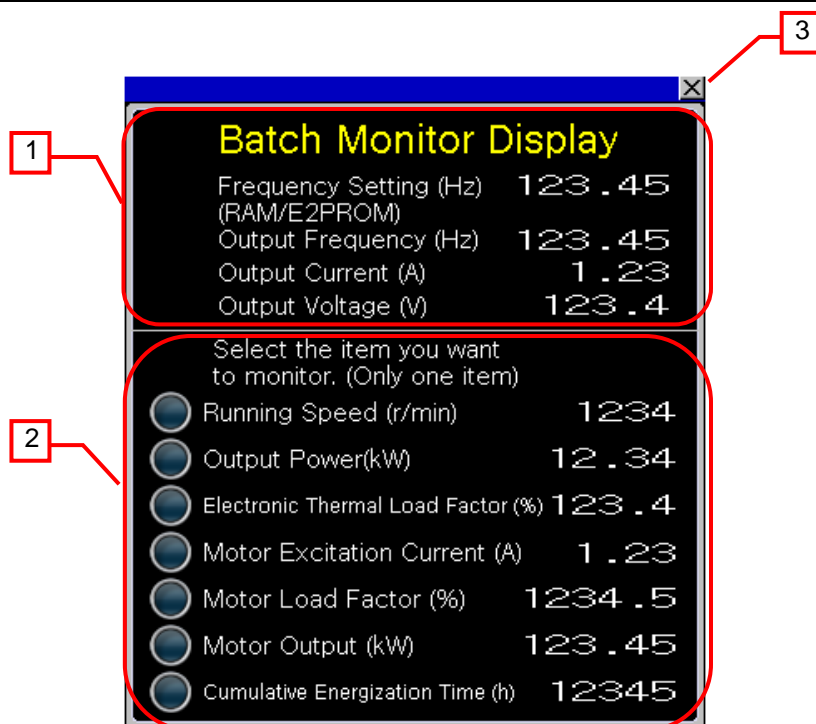
#### Description

1. Displays the current date and time.
2. Use   switches to change the date and time. Hold down the switches to increment or decrement the value continuously. The [Reset] switch resets the seconds.
3. Applies the set date and time to the GOT clock data, and closes the window screen after 1 second.
4. Closes the window screen.

#### Remarks

- The date and time at window opening are initially set as the clock data to be newly set.
- Object scripts are set for the numerical display of the year, month, date, hour, minute and second in the clock data to be newly set. For more details about scripts, please refer to "5.6 Script List".

### 5.3.10 Batch Monitor Display (W-30004)



#### Outline

This screen displays a batch monitor and a special monitor of data items.

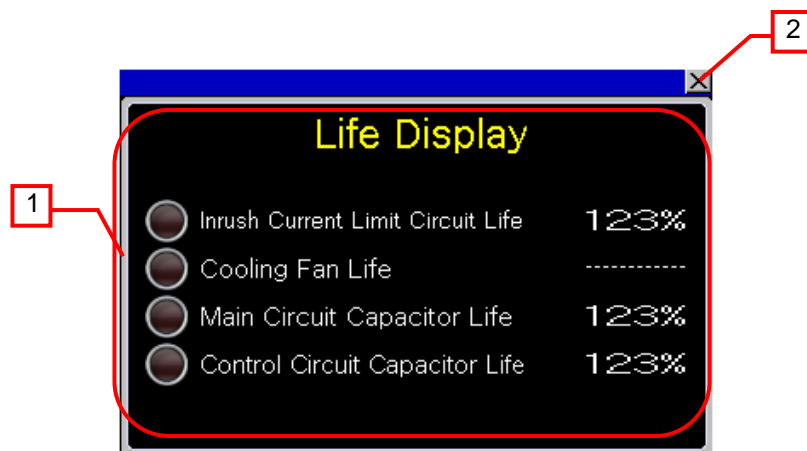
#### Description

1. Displays the frequency setting, output frequency, output current and output voltage values.
2. Displays the special monitor items of the inverter. Touch and select the item names to be monitored. When an item is selected, the indicator is lit and the numerical display appears. The numerical displays of non-selected items are deleted.
3. Closes the window screen.

#### Remarks

- Object scripts are set for numerical displays of the special monitor. For more details about scripts, please refer to "5.6 Script List".

### 5.3.11 Life Display (W-30005)



#### Outline

This screen displays the life statuses of data items.

#### Description

1. Displays the life status values of the inrush current limit circuit, cooling fan, main circuit capacitor, and control circuit capacitor.
2. Closes the window screen.

#### Remarks

## 5.4 Device List

Some of the devices specified to the on-screen switches and lamps, etc., are also used for common settings of functions such as scripts. Using [Batch Edit] is recommended to change these devices in a batch. For more details about using [Batch Edit], please refer to the "GT Designer3 (GOT2000) Help".

### 5.4.1 Devices of the controller

Type	Device No.	Application
Bit	RS0	Running
	RS1	Forward rotation
	RS2	Reverse rotation
	RS3	Up to frequency
	RS4	Overload
	RS5	Instantaneous power failure
	RS6	Frequency detection
	RS7	Alarm
Word	A0	2nd in past
	A1	Latest
	A2	4th in past
	A3	3rd in past
	A4	6th in past
	A5	5th in past
	A6	8th in past
	A7	7th in past
	Pr0	Torque boost
	Pr1	Maximum frequency
	Pr2	Minimum frequency
	Pr3	Base frequency
	Pr4	Multi-speed setting (high)
	Pr5	Multi-speed setting (medium)
	Pr6	Multi-speed setting (low)
	Pr7	Acceleration time
	Pr8	Deceleration time
	Pr9	Electronic thermal O/L relay
	Pr18	High Speed Maximum Frequency
	Pr52	Operation Panel Main Monitor Selection
	Pr71	Applied Motor
	Pr79	Operation Mode Selection
	Pr80	Motor Capacity
	Pr81	Number of Motor Poles
	Pr125	Terminal 2 Frequency Setting Gain Frequency
	Pr126	Terminal 4 Frequency Setting Gain Frequency
	Pr160	User Group Read Selection
	Pr.255	Life Alarm Status Display
	Pr.256	Inrush Current Limit Circuit Life Display
	Pr.257	Control Circuit Capacitor Life Display
	Pr.258	Main Circuit Capacitor Life Display
	Pr800	Control Method Selection
	Pr998	PM Parameter Initialization
	Pr999	Automatic Parameter Setting
	SP110	Setting frequency (RAM/EEPROM)
	SP111	Output frequency
	SP112	Output current
	SP113	Output voltage
	SP114	Special monitor
	SP115	Special monitor selection No.
	SP116	Alarm all clear
	SP122	Run command
	SP125	Inverter reset

#### 5.4.2 GOT internal devices

Type	Device No.	Application
Bit	GB40	Script trigger (Always ON)
	GB60131	Temporary bit for forward rotation switch script
	GB60132	Temporary bit for reverse rotation switch script
	GB60133	Temporary bit for low-speed script switch
	GB60134	Temporary bit for medium-speed script switch
	GB60135	Temporary bit for high-speed script switch
	GB60136	Script trigger (Forward rotation switch)
	GB60137	Script trigger (Reverse rotation switch)
	GB60138	Script trigger (Low-speed switch)
	GB60139	Script trigger (Medium-speed switch)
	GB60140	Script trigger (High-speed switch)
	GB61000	Alarm transfer flag (Script trigger)
	GB61001 to GB61053	Device used for user alarm observation (53 points)
	GB61100	Jump to set time flag (Script trigger)
	GD60031.b13	GOT error reset signal
	GS512.b0	Time change signal
Word	GD60000	Base Screen Switching
	GD60001	Overlap window 1 screen switching
	GD60004	Overlap window 2 screen switching
	GD60021	Language switching
	GD60022	System language switching
	GD60031, GD60041	System information
	GD60080 to GD60082	Document display
	GD61201 to GD61202	Graph information in historical trend graph
	GD61221 to GD61224	Cursor position time in historical trend graph
	GD61225 to GD61228	Beginning position time in historical trend graph
	GD61229 to GD61232	End position time in historical trend graph
	GD61233 to GD61235	Display position time specification in historical trend graph
	GD61240 to GD61243	Alarm display (user) external output occurrence date and time
	GD63990 to GD63995	Clock digital switch
	GS513 to GS516	Changed time
	GS650 to GS652	Current time
	TMP900 to TMP901	For script operation: Save alarm occurrence time
	TMP910 to TMP913	For script operation: Alarm occurrence time
	TMP950 to TMP996	For script operation



## 5.5 Comment List

Comment group No.	Comment No.	Where comments are used
499	No.1 to No.53	B-30004, B-30005 (User alarm observation ID 30001)
500	No.1	B-30001~30500
	No.2	B-30002
	No.3	B-30001~30500
	No.4	W-30001
	No.5	B-30004
	No.6	B-30005
	No.7	B-30001、B-30500
	No.8	B-30002~30500
	No.11~25	B-30002
	No.26	B-30002、B-30004
	No.27、28	B-30002
	No.29、30	B-30002~30500
	No.31	B-30001
	No.32、33	B-30002
	No.34	B-30002、B-30004
	No.35	B-30004
	No.36	B-30005
	No.42~51	B-30002、B-30005
	No.56	B-30002
	No.57	B-30005
	No.58	B-30002、W-30005
	No.59	B-30002
	No.60~63	W-30005
	No.65~67	B-30003
	No.71~92	B-30003
	No.121~130	B-30004
	No.132~134	B-30004
	No.151	W-30001、W-30003
	No.152	W-30002
	No.153~160	W-30003
	No.171~183	W-30004
	No.184~189	B-30005

## 5.6 Script List

Item	Settings
Project script	Specified
Screen script	B-30002, B-30005, B-30500
Object script	B-30002, B-30500, W-30003, W-30004

### 5.6.1 Project script

Script No.	30001	Script name	Script30001
Comment	Initial Setting		
Data type	Signed BIN16	Trigger type	Rise, GB40
[w:GD60080]=201; //Set Document ID to 201 [w:GD60081]=1; //Set Document page No. to 1			

### 5.6.2 Screen script

#### Base screen 30002

Script No.	30008	Script name	Script30008
Comment	Obtain Present Time		
Data type	Signed BIN16	Trigger type	Rise, GB40
//Store Year, Month, Day, Hour, Minute, Second When Screen Is Displayed [w:GD61233]=[w:GS650]; [w:GD61234]=[w:GS651]; [w:GD61235]=[w:GS652];			

#### Base screen 30005

Script No.	30003	Script name	Script30003
Comment	Alarm Reset		
Data type	Signed BIN16	Trigger type	Fall, 0-0 RS7
//Reset Error Status Flags rst([b:GB61001]); rst([b:GB61002]); rst([b:GB61003]); rst([b:GB61004]); rst([b:GB61005]); rst([b:GB61006]); rst([b:GB61007]); rst([b:GB61008]); rst([b:GB61009]); rst([b:GB61010]); rst([b:GB61011]); rst([b:GB61012]); rst([b:GB61013]); rst([b:GB61014]); rst([b:GB61015]); rst([b:GB61016]); rst([b:GB61017]); rst([b:GB61018]); rst([b:GB61019]); rst([b:GB61020]); rst([b:GB61021]); rst([b:GB61022]); rst([b:GB61023]); rst([b:GB61024]); rst([b:GB61025]); rst([b:GB61026]); rst([b:GB61027]); rst([b:GB61028]); rst([b:GB61029]);			

```

rst([b:GB61030]);
rst([b:GB61031]);
rst([b:GB61032]);
rst([b:GB61033]);
rst([b:GB61034]);
rst([b:GB61035]);
rst([b:GB61036]);
rst([b:GB61037]);
rst([b:GB61038]);
rst([b:GB61039]);
rst([b:GB61040]);
rst([b:GB61041]);
rst([b:GB61042]);
rst([b:GB61043]);
rst([b:GB61044]);
rst([b:GB61045]);
rst([b:GB61046]);
rst([b:GB61047]);
rst([b:GB61048]);
rst([b:GB61049]);
rst([b:GB61050]);
rst([b:GB61051]);
rst([b:GB61052]);
rst([b:GB61053]);

```

Script No.	30004	Script name	Script30004
Comment	Alarm Transfer		
Data type	Signed BIN16	Trigger type	Rise, GB61000

//Store Latest Error Statues in Error Status Flags

```

switch([w:0-0 A1]){
  case 16:
    set([b:GB61001]);
    break;
  case 17:
    set([b:GB61002]);
    break;
  case 18:
    set([b:GB61003]);
    break;
  case 32:
    set([b:GB61004]);
    break;
  case 33:
    set([b:GB61005]);
    break;
  case 34:
    set([b:GB61006]);
    break;
  case 48:
    set([b:GB61007]);
    break;
  case 49:
    set([b:GB61008]);
    break;
  case 64:
    set([b:GB61009]);
    break;
  case 80:
    set([b:GB61010]);
    break;
  case 81:
    set([b:GB61011]);
    break;
  case 82:

```

```
    set([b:GB61012]);  
    break;  
case 96:  
    set([b:GB61013]);  
    break;  
case 97:  
    set([b:GB61014]);  
    break;  
case 98:  
    set([b:GB61015]);  
    break;  
case 99:  
    set([b:GB61016]);  
    break;  
case 112:  
    set([b:GB61017]);  
    break;  
case 128:  
    set([b:GB61018]);  
    break;  
case 129:  
    set([b:GB61019]);  
    break;  
case 144:  
    set([b:GB61020]);  
    break;  
case 145:  
    set([b:GB61021]);  
    break;  
case 160:  
    set([b:GB61022]);  
    break;  
case 161:  
    set([b:GB61023]);  
    break;  
case 164:  
    set([b:GB61024]);  
    break;  
case 165:  
    set([b:GB61025]);  
    break;  
case 166:  
    set([b:GB61026]);  
    break;  
case 167:  
    set([b:GB61027]);  
    break;  
case 168:  
    set([b:GB61028]);  
    break;  
case 176:  
    set([b:GB61029]);  
    break;  
case 177:  
    set([b:GB61030]);  
    break;  
case 178:  
    set([b:GB61031]);  
    break;  
case 179:  
    set([b:GB61032]);  
    break;  
case 192:  
    set([b:GB61033]);
```

```

    break;
case 193:
    set([b:GB61034]);
    break;
case 194:
    set([b:GB61035]);
    break;
case 196:
    set([b:GB61036]);
    break;
case 197:
    set([b:GB61037]);
    break;
case 198:
    set([b:GB61038]);
    break;
case 199:
    set([b:GB61039]);
    break;
case 200:
    set([b:GB61040]);
    break;
case 201:
    set([b:GB61041]);
    break;
case 202:
    set([b:GB61042]);
    break;
case 208:
    set([b:GB61043]);
    break;
case 228:
    set([b:GB61044]);
    break;
case 229:
    set([b:GB61045]);
    break;
case 230:
    set([b:GB61046]);
    break;
case 241:
    set([b:GB61047]);
    break;
case 242:
    set([b:GB61048]);
    break;
case 243:
    set([b:GB61049]);
    break;
case 245:
    set([b:GB61050]);
    break;
case 246:
    set([b:GB61051]);
    break;
case 247:
    set([b:GB61052]);
    break;
case 253:
    set([b:GB61053]);
    break;
}
rst([b:GB61000]); //Alarm Transfer Flag OFF

```

Script No.	30005	Script name	Script30005
Comment	Alarm Interaction		
Data type	Signed BIN16	Trigger type	OFF, GB61100
<pre> if([w:GD61242] != [w:TMP900]){          //If (External Output - Occurrence Date) is different from the previous time, execute processing.     [b:GB61100]=1;                      //Jump to Set Time Flag ON     [w:TMP900]=[w:GD61242];             //Store Alarm Occurrence Time } </pre>			
Script No.	30006	Script name	Script30006
Comment	Jump to Set Time		
Data type	Signed BIN16	Trigger type	Rise, GB61100
<pre> //Reflect Alarm Occurrence Time to Jump to Set Time  [w:TMP910]=[w:GD61241]&amp;0x00FF; //Year(Mask) [w:TMP910]=[w:TMP910]&lt;&lt;8;      //Year(Left Shift) [w:TMP911]=[w:GD61240]&amp;0xFF00; //Month(Mask) [w:TMP911]=[w:TMP911]&gt;&gt;8;      //Month(Right Shift) [w:GD61233]=[w:TMP910][w:TMP911]; //Year, Month  [w:TMP912]=[w:GD61240]&amp;0x00FF; //Day(Mask) [w:TMP912]=[w:TMP912]&lt;&lt;8;      //Day(Left Shift) [w:TMP913]=[w:GD61243]&amp;0x00FF; //Hour(Mask) [w:GD61234]=[w:TMP912][w:TMP913]; //Day, Hour  [w:GD61235] = [w:GD61242];      //Minute, Second  [b:GB61100]=0;                  //Jump to Set Time Flag OFF </pre>			
Script No.	30007	Script name	Script30007
Comment	Alarm Transfer Flag Set		
Data type	Signed BIN16	Trigger type	Rise, 0-0 RS7
<pre> //Turn On Trigger Device of Alarm Transfer Script  set([b:GB61000]); //Alarm Transfer Flag ON </pre>			

#### Base screen 30500

Script No.	30002	Script name	Script30002
Comment	DocumentDisplayProcessOfLastPage		
Data type	Signed BIN16	Trigger type	Ordinary
<pre> //Check the total number of document pages is not 0. if([w:GD60082]!=0){     //Compare the current page number to the total number of document pages to see if the current page     number exceeds the total number.     if([w:GD60081]&gt;[w:GD60082]){         //Set the last page to display.         [w:GD60081]=[w:GD60082];     } } </pre>			

### 5.6.3 Object script

#### Base screen 30002

Object	Switch	Object ID *1	10016 to 10020
Script user ID	1 to 5		
Data type	Unsigned BIN16	Trigger type	Rise, GB60136 to GB60140
<pre> if([b:GB60131] == ON) &amp;&amp; ([b:GB60133] == ON){   [0-0:w:SP122] = 10; //Forward &amp; Low Speed Operation }  if([b:GB60131] == ON) &amp;&amp; ([b:GB60134] == ON){   [0-0:w:SP122] = 18; //Forward &amp; Medium Speed Operation }  if([b:GB60131] == ON) &amp;&amp; ([b:GB60135] == ON){   [0-0:w:SP122] = 34; //Forward &amp; High Speed Operation }  if([b:GB60132] == ON) &amp;&amp; ([b:GB60133] == ON){   [0-0:w:SP122] = 12; //Reverse &amp; Low Speed Operation }  if([b:GB60132] == ON) &amp;&amp; ([b:GB60134] == ON){   [0-0:w:SP122] = 20; //Reverse &amp; Medium Speed Operation }  if([b:GB60132] == ON) &amp;&amp; ([b:GB60135] == ON){   [0-0:w:SP122] = 36; //Reverse &amp; High Speed Operation } </pre>			

#### Base screen 30500

Object	Switch	Object ID *1	20029
Script user ID	1		
Data type	signed BIN16	Trigger type	Device Writing
<pre> //Prevents exceeding the total number of the document pages. if([u16:GD60081] &gt;= [u16:GD60082]){   [u16:GD60081] = [u16:GD60082] - 1; } </pre>			

#### Window screen 30003

Object	Numerical display	Object ID *1	10014
Script user ID	1		
Data type	Unsigned BIN16	Trigger type	Rise, GB40
<pre> //Obtain Today's Year &amp; Month from Clock Data [w:TMP950] = [w:GS650] &amp; 0xF000; //Obtain Tenths Digit of "Last 2-Digits of Year" from Clock Data for Setting [w:TMP960] = [w:TMP950] &gt;&gt; 12; //Decimal Alignment [w:TMP968] = [w:TMP960] * 10; //BCD-&gt;BIN [w:TMP951] = [w:GS650] &amp; 0x0F00; //Obtain Ones Digit of "Last 2-Digits of Year" from Clock Data for Setting [w:TMP961] = [w:TMP951] &gt;&gt; 8; //BCD-&gt;BIN [w:TMP973] = 2000 + [w:TMP968] + [w:TMP961]; //Set Year to TMP973 as BIN [w:GD63990] = [w:TMP973]; //Set Year  [w:TMP952] = [w:GS650] &amp; 0x00F0; //Obtain Tenths Digit of Month from Clock Data for Setting [w:TMP962] = [w:TMP952] &gt;&gt; 4; //Decimal Alignment [w:TMP969] = [w:TMP962] * 10; //BCD-&gt;BIN [w:TMP953] = [w:GS650] &amp; 0x000F; //Obtain Ones Digit of Month from Clock Data for Setting [w:TMP974] = [w:TMP969] + [w:TMP953]; //Set Month to TMP974 as BIN [w:GD63991] = [w:TMP974]; //Set Month  [w:TMP954] = [w:GS651] &amp; 0xF000; //Obtain Tenths Digit of "Last 2-Digits of Day" from Clock Data for Setting </pre>			

```

[w:TMP963] = [w:TMP954] >> 12; //Decimal Alignment
[w:TMP970] = [w:TMP963] * 10; //BCD->BIN
[w:TMP955] = [w:GS651] & 0x0F00; //Obtain Ones Digit of "Last 2-Digits of Day" from Clock Data for Setting
[w:TMP964] = [w:TMP955] >> 8; //BCD->BIN
[w:TMP975] = [w:TMP970] + [w:TMP964]; //Set Day to TMP975 as BIN
[w:GD63992] = [w:TMP975]; //Set Day

[w:TMP956] = [w:GS651] & 0x00F0; //Obtain Tenths Digit of Hour from Clock Data for Setting
[w:TMP965] = [w:TMP956] >> 4; //Decimal Alignment
[w:TMP971] = [w:TMP965] * 10; //BCD->BIN
[w:TMP957] = [w:GS651] & 0x000F; //Obtain Ones Digit of Hour from Clock Data for Setting
[w:TMP976] = [w:TMP971] + [w:TMP957]; //Set Hour to TMP976 as BIN
[w:GD63993] = [w:TMP976]; //Set Hour

[w:TMP958] = [w:GS652] & 0xF000; //Obtain Tenths Digit of "Last 2-Digits of Minute" from Clock Data for Setting
[w:TMP966] = [w:TMP958] >> 12; //Decimal Alignment
[w:TMP972] = [w:TMP966] * 10; //BCD->BIN
[w:TMP959] = [w:GS652] & 0x0F00; //Obtain Ones Digit of "Last 2-Digits of Minute" from Clock Data for Setting
[w:TMP967] = [w:TMP959] >> 8; //BCD->BIN
[w:TMP977] = [w:TMP972] + [w:TMP967]; //Set Minute to TMP977 as BIN
[w:GD63994] = [w:TMP977]; //Set Minute

[w:TMP993] = [w:GS652] & 0x00F0; //Obtain Tenths Digit of Second from Clock Data for Setting
[w:TMP995] = [w:TMP993] >> 4; //Decimal Alignment
[w:TMP996] = [w:TMP995] * 10; //BCD->BIN
[w:TMP994] = [w:GS652] & 0x000F; //Obtain Ones Digit of Second from Clock Data for Setting
[w:TMP978] = [w:TMP996] + [w:TMP994]; //Set Second to TMP978 as BIN
[w:GD63995] = [w:TMP978]; //Set Second

```

Object	Numerical display	Object ID *1	10015
Script user ID	2		
Data type	Unsigned BIN16	Trigger type	Ordinary

//BIN -> BCD Conversion

```

[w:TMP979] = [w:GD63990] - 2000; //Last 2-Digits of Year

```

```

[w:TMP980] = (([w:TMP979] / 10) << 4) + ([w:TMP979] % 10); //Year BIN -> BCD
[w:TMP981] = (([w:GD63991] / 10) << 4) + ([w:GD63991] % 10); //Month BIN -> BCD
[w:TMP982] = (([w:GD63992] / 10) << 4) + ([w:GD63992] % 10); //Day BIN -> BCD
[w:TMP983] = (([w:GD63993] / 10) << 4) + ([w:GD63993] % 10); //Hour BIN -> BCD
[w:TMP984] = (([w:GD63994] / 10) << 4) + ([w:GD63994] % 10); //Minute BIN -> BCD
[w:TMP985] = (([w:GD63995] / 10) << 4) + ([w:GD63995] % 10); //Second BIN -> BCD

```

Object	Numerical display	Object ID *1	10016
Script user ID	3		
Data type	Unsigned BIN16	Trigger type	Ordinary

//Year & Month Setting

```

[w:GS513] = ([w:TMP980] << 8) + [w:TMP981]; //Set Year & Month to Change Time Device

```

Object	Numerical display	Object ID *1	10017
Script user ID	4		
Data type	Unsigned BIN16	Trigger type	Ordinary

//Date & Time Setting

```

[w:GS514] = ([w:TMP982] << 8) + [w:TMP983]; //Set Date & Time to Change Time Device

```

Object	Numerical display	Object ID *1	10018
Script user ID	5		
Data type	Unsigned BIN16	Trigger type	Ordinary

//Minute & Second Setting

```

[w:GS515] = ([w:TMP984] << 8) + [w:TMP985]; //Set Minute & Second to Change Time Device

```



Object	Numerical display	Object ID *1	10019
Script user ID	6		
Data type	Unsigned BIN16	Trigger type	Ordinary
<pre>//Day of Week Setting  [w:TMP986] = [w:GD63990]; //Year (BIN) [w:TMP987] = [w:GD63991]; //Month (BIN) [w:TMP988] = [w:GD63992]; //Day (BIN)  if(([w:TMP987] == 1)    ([w:TMP987] == 2)){ //Correction Processing to Calculate January and February as 13th/14th Month     [w:TMP986] = [w:TMP986] - 1; //Subtract 1 from Year     [w:TMP987] = [w:TMP987] + 12; //Add 12 to Month }  [w:TMP989] = [w:TMP986]/4; //Create Items Required for Zeller's Congruence [w:TMP990] = [w:TMP986]/100; //Create Items Required for Zeller's Congruence [w:TMP991] = [w:TMP986]/400; //Create Items Required for Zeller's Congruence [w:TMP992] = (13*[w:TMP987]+8)/5; //Create Items Required for Zeller's Congruence  //Calculate Day of Week Using Zeller's Congruence and Set the Day to Change Time Device [w:GS516] = ([w:TMP986]+[w:TMP989]-[w:TMP990]+[w:TMP991]+[w:TMP992]+[w:TMP988])%7;</pre>			

#### Window screen 30004

Object	Numerical display	Object ID *1	10005
Script user ID	1		
Data type	Unsigned BIN16	Trigger type	Ordinary
<pre>if([0-0:w:SP115] == 6){ //Action Conditions Satisfied     my.active = 1; //Enable Updates     redraw_object(); //Update Objects }else{ //Action Conditions Not Satisfied     my.active=0; //Disable Updates     clear_object(); //Clear Objects }</pre>			
Object	Numerical display	Object ID *1	10006
Script user ID	2		
Data type	Unsigned BIN16	Trigger type	Ordinary
<pre>if([0-0:w:SP115] == 14){ //Action Conditions Satisfied     my.active = 1; //Enable Updates     redraw_object(); //Update Objects }else{ //Action Conditions Not Satisfied     my.active=0; //Disable Updates     clear_object(); //Clear Objects }</pre>			
Object	Numerical display	Object ID *1	10007
Script user ID	3		
Data type	Unsigned BIN16	Trigger type	Ordinary
<pre>if([0-0:w:SP115] == 10){ //Action Conditions Satisfied     my.active = 1; //Enable Updates     redraw_object(); //Update Objects }else{ //Action Conditions Not Satisfied     my.active=0; //Disable Updates     clear_object(); //Clear Objects }</pre>			
Object	Numerical display	Object ID *1	10008
Script user ID	4		
Data type	Unsigned BIN16	Trigger type	Ordinary
<pre>if([0-0:w:SP115] == 18){ //Action Conditions Satisfied     my.active = 1; //Enable Updates     redraw_object(); //Update Objects }else{ //Action Conditions Not Satisfied     my.active=0; //Disable Updates }</pre>			

clear_object();                   //Clear Objects }			
Object	Numerical display	Object ID *1	10009
Script user ID	5		
Data type	Unsigned BIN16	Trigger type	Ordinary
if([0-0:w:SP115] == 24){       //Action Conditions Satisfied my.active = 1;                //Enable Updates redraw_object();            //Update Objects }else{                        //Action Conditions Not Satisfied my.active=0;                //Disable Updates clear_object();            //Clear Objects }			
Object	Numerical display	Object ID *1	10011
Script user ID	6		
Data type	Unsigned BIN16	Trigger type	Ordinary
if([0-0:w:SP115] == 34){       //Action Conditions Satisfied my.active = 1;                //Enable Updates redraw_object();            //Update Objects }else{                        //Action Conditions Not Satisfied my.active=0;                //Disable Updates clear_object();            //Clear Objects }			
Object	Numerical display	Object ID *1	10010
Script user ID	7		
Data type	Unsigned BIN16	Trigger type	Ordinary
if([0-0:w:SP115] == 20){       //Action Conditions Satisfied my.active = 1;                //Enable Updates redraw_object();            //Update Objects }else{                        //Action Conditions Not Satisfied my.active=0;                //Disable Updates clear_object();            //Clear Objects }			

\*1 The Object ID might be changed when a screen is utilized.

## 6. MANUAL DISPLAY

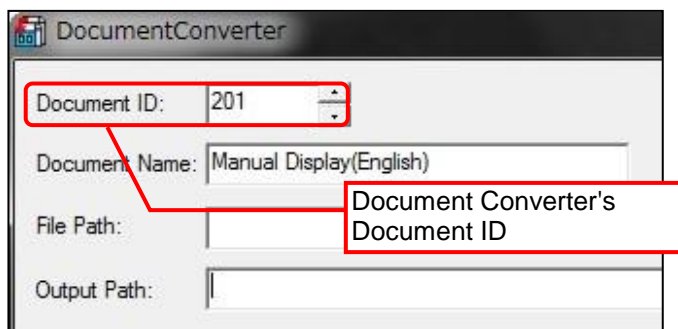
Manuals can be displayed using the document display function. For more details about the document display function, please refer to the "GT Designer3 (GOT2000) Help". Please note that the document display function does not support language switching. Therefore, in the sample screens, the language of document is switched by switching the document (Document ID) specified for a display language.

### 6.1 Preparing Document Data for Manual Display

Example Displaying a English manual (document) for Manual Display on the base screen B-30500

(1) Convert the manual (Word or Excel, etc.) to be displayed into the document data (JPEG file) that can be used with the document display function by using Document Converter. Set the Document Converter's [Document ID] to 201.

\*For details of the relation between Document ID and Display language, please refer to the table below.

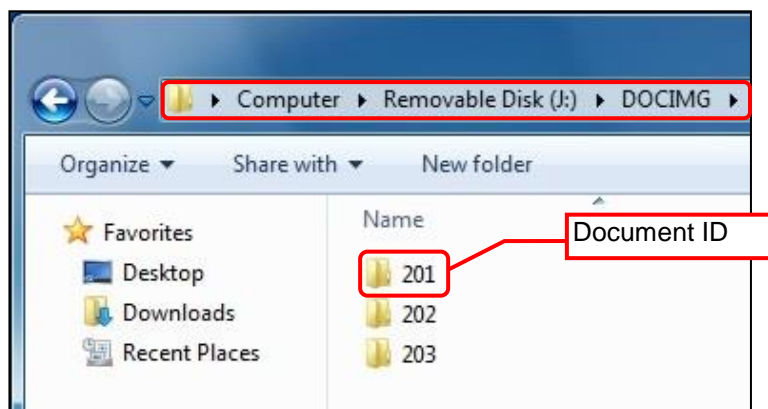


Column No. of the comment group No	Language	Document ID
1	English	201
2	Japanese	202
3	Chinese (Simplified)	203

\*Please use Document Converter 2.09k or later.

The total number pages and pages switches cannot work properly with 2.08 or older versions.

(2) The document data is generated in the 201 folder in the DOCIMG. Save the entire DOCIMG folder into the SD card root directory without changing the folder configuration inside the DOCIMG folder.



SD card folder configuration

Note: In case the total number of pages is 100 or more.

This sample is made with the assumption that the total number of pages is up to 99 pages. If it exceeds 99 pages, please modify the format of numerical input (the number of "#") that displays the total number of pages and the page number of the currently displayed page.