This notice of alterations amending that must be made to the 1st edition of Calibration Management for Liquid Analyzers (IM 01R01A07-01EN).

B Overview

■ Direct access function with SA11

⚠ IMPORTANT

Communication errors may often occur depending on the specifications of the Bluetooth communication adapter when communicating with the IB100.
In that case, try the following settings for the Bluetooth adapter.

1. Open Windows Device Manager.
2. Open the properties of the Bluetooth adapter used to communicate with the IB100.
3. Uncheck the "Allow the computer to turn off this device to save power" checkbox on the [Power Management] tab.
4. Click the [OK] button to apply the settings.

C FieldMate Startup for "Calibration Management for Liquid Analyzers"

C-1 FieldMate Startup Window

● Start Window

FieldMate Startup Window is the first gate to commence FieldMate defined field work.

Select the desired field work from pre-defined work list.

Pin the selected button on Work History pane. Unable to erase the pinned button.

The short cuts of field work once selected

Remove the shortcut from Work History.

Communication setting quick view

Communication setting of the selected field work.

Commence selected field work

FieldMate

Work Selection

Work History

Setting and calibration of analyzer
FLXA402(RS-485)

Setting and calibration of analyzer
FLXA402(Bluetooth)

Setting and calibration of analyzer
SA11(Bluetooth)

Setting and calibration of analyzer
FLXA402(Ethernet)

Target :   FLXA402(RS-485)
COM Port : COM11
Address :   1
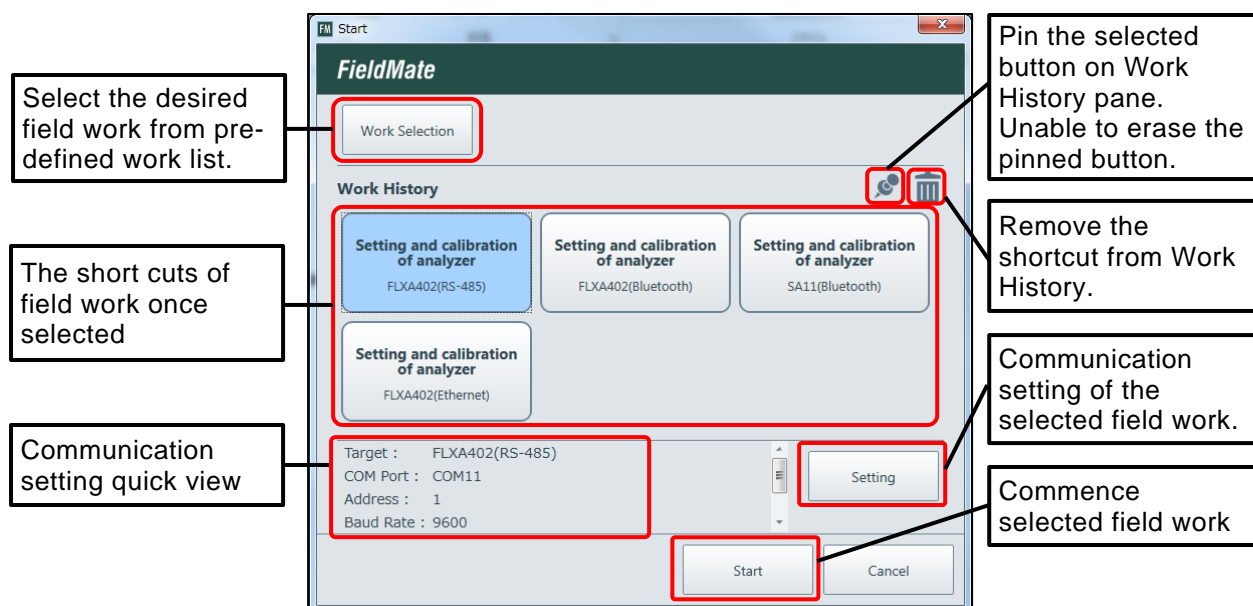Baud Rate : 9600

Setting

Start   Cancel

Figure C-1-1   Start Window

● Communication Selection Window

This window is to select the communication protocol for FLXA402 and SA11.
It will be displayed after selecting "Setting and Calibration of analyzer" on the Work Selection Window. The detail information about each of communication settings will be explained later sections.
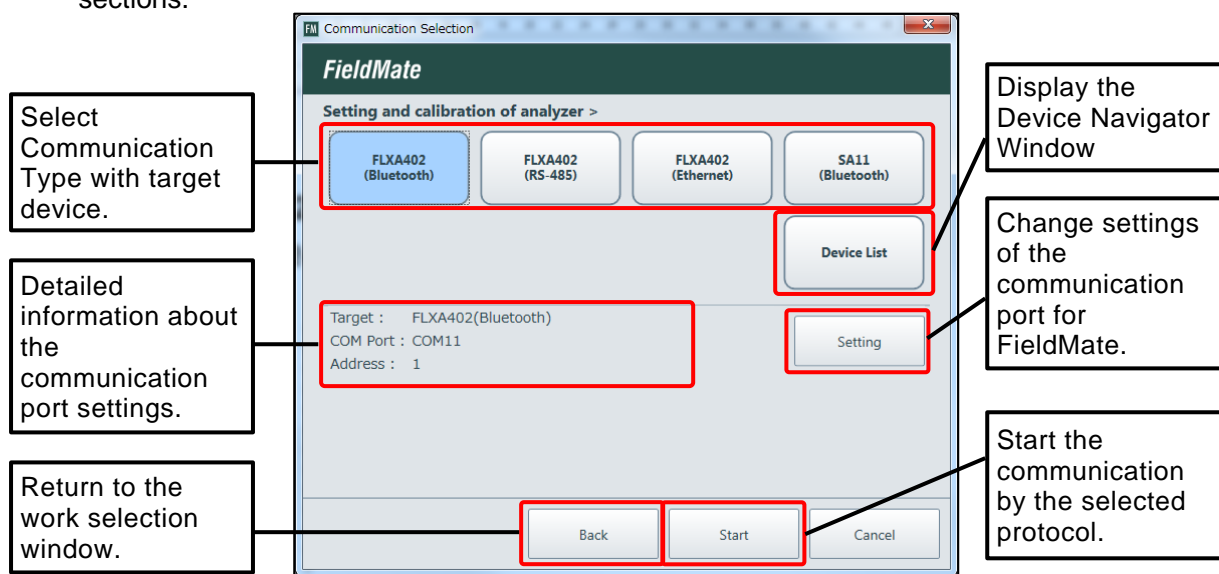
Select Communication Type with target device.

Display the Device Navigator Window

Detailed information about the communication port settings.

Change settings of the communication port for FieldMate.

Return to the work selection window.

Start the communication by the selected protocol.

FieldMate

Setting and calibration of analyzer >

FLXA402 (Bluetooth)

FLXA402 (RS-485)

FLXA402 (Ethernet)

SA11 (Bluetooth)

Device List

Target :   FLXA402(Bluetooth)
COM Port : COM11
Address :   1

Setting

Back   Start   Cancel

Figure C-1-3   Communication Selection Window

■ Communication Settings

● FLXA402 Bluetooth Settings

Table C-1-1   Display items of FLXA402 Bluetooth settings

Items	Detail
Select COM Port	All COM Port detected by PC are displayed. Select the COM Port to communicate with FLXA402.
Address	Enter the Address of FLXA402. In case of Bluetooth communication, this address is always 1. Therefore, no need to change this item.
Serial Number	Display the Serial Number of FLXA402 if the Connection Test is succeeded.
Message	Enter any message
Connection Test button	Start the Connection Test to confirm the communication to FLXA402 with the entered COM Port.
Add button	Add the entered COM Port information to the COM port list after succeeded Connection Test.
Delete button	Delete the registered COM Port information from the COM port list.
Select checkbox	Select COM port for communication with FLXA402.
Save button	Save the current settings and close the window.
Cancel button	Close the window without save the edited data.

TIPS

After pairing, confirm the COM port used for Bluetooth communication to FLXA402 by the following procedure.

1. Display [Show Bluetooth Devices] dialog.

2. Select FLXA402, and then select [Properties] from the right-click display menu.

3. Open the [Hardware] tab in the Properties dialog.

4. Confirm the COM port number displayed in the target Bluetooth driver.

● **SA11 Bluetooth Settings**

■ **Startup**

· Start from Login window->Setting and Calibration of analyzer-> SA11 Bluetooth ->Setting
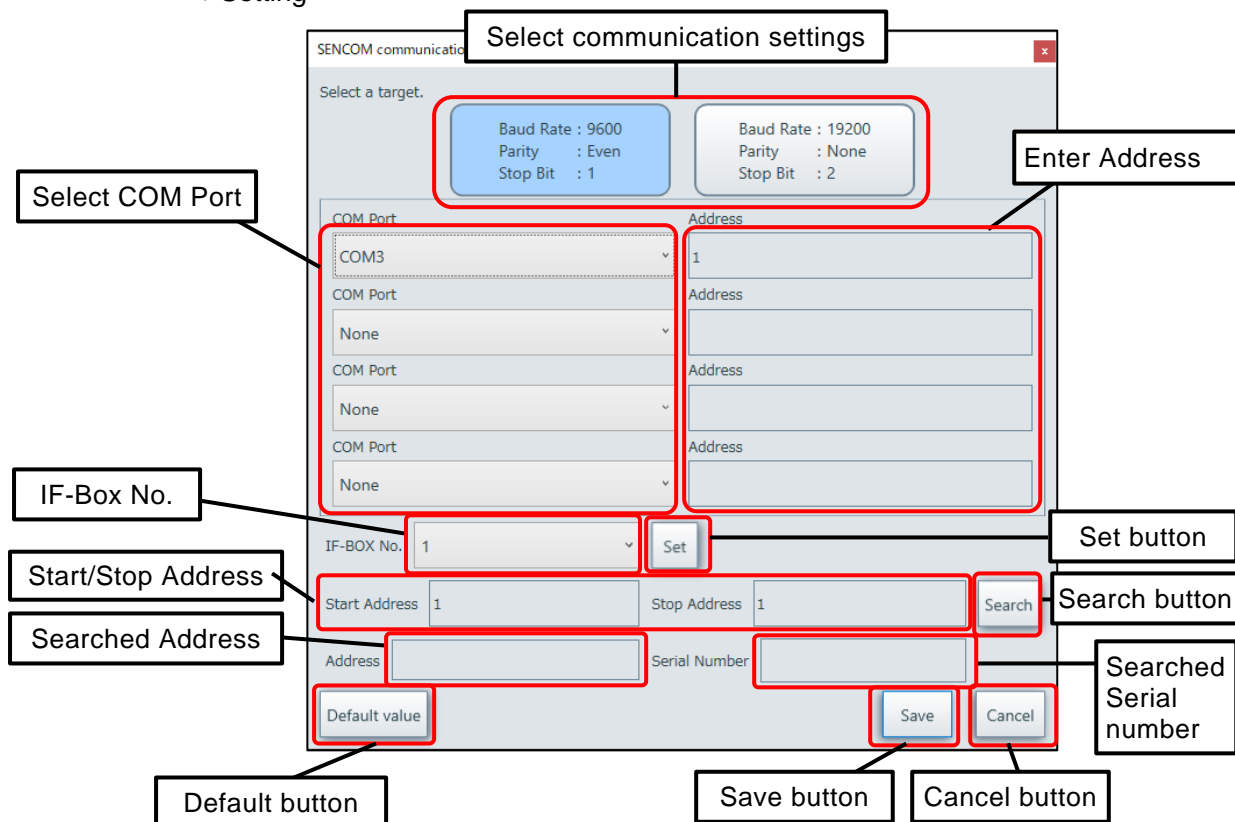

Figure C-1-4   SA11 Bluetooth Settings

TIPS

After pairing, confirm the COM port used for Bluetooth communication to IB100 by the following procedure.

1. Display [Show Bluetooth Devices] dialog.
2. Select IB100, and then select [Properties] from the right-click display menu.
3. Open the [Hardware] tab in the Properties dialog.
4. Confirm the COM port number displayed in the target Bluetooth driver.

D   Local Display functions
D-3   Converter status display

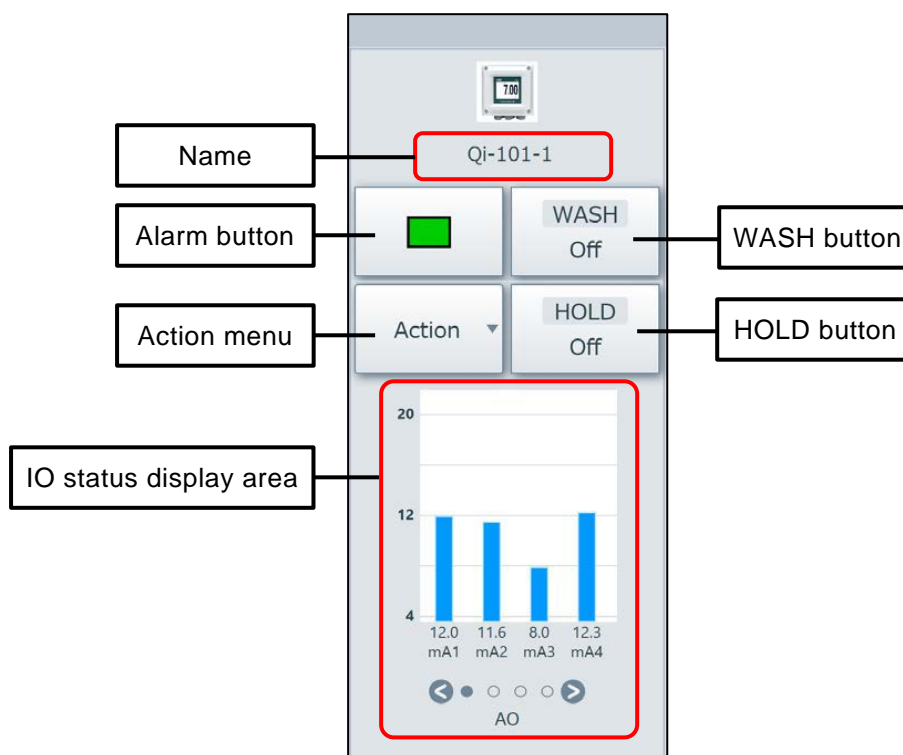"Converter status display" has following functions.

Figure D-3-1   The image of "Converter status display"

Table D-3-1   The items of "Converter status display"

Items	The outline of the function
Name	Display converter's "Name". This "Name" is the characters which set the Display name for "Sensor1-1".
Alarm button	Display the current Converter's Alarm status by icon. Select Alarm button, and Alarm Window is displayed.
Action menu	Action menu shows the command list for converter operations. The user can operate the sensors by selecting each of command in the menu.
WASH button	Display the current Wash status by icon. Select WASH button, and WASH Window is displayed.
HOLD button	Display the current Hold status by icon. Select Hold button, and Hold Window is displayed.
IO status display area	Display the current AO, Contact output, AI and Contact input status. This area does not support IO status operations. the user can switch the IO status page by selecting < and > button.

D-5 Sensor display area
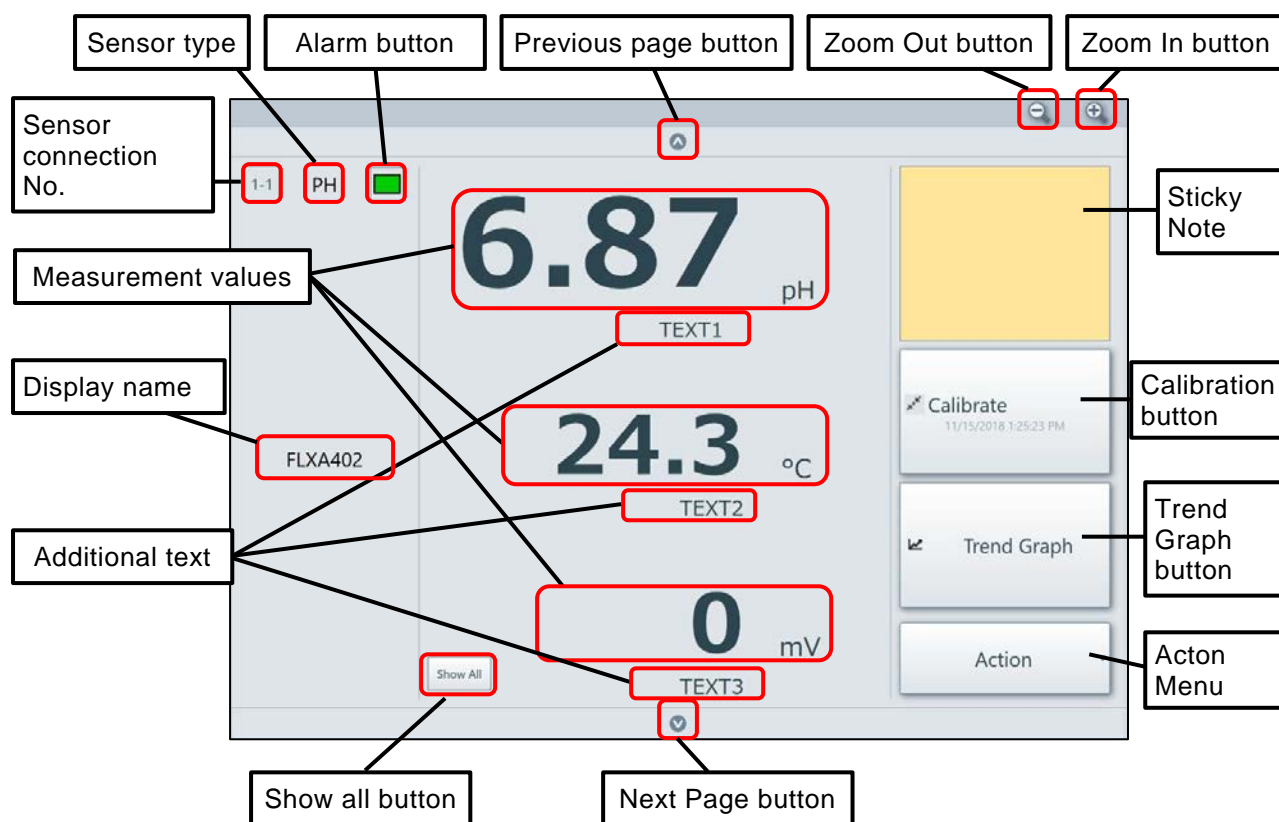
Sensor display area shows as following functions.

Figure D-5-1   Sensor display area

Table D-5-1   The display items of "Sensor display area"

Items	Details
Sensor connection No.	Display the sensor connection No. (1-1 to 2-4) selected as the display item. "C" is displayed when "Converter" is selected as the display item.
Sensor type	Display the sensor type (PH, SC, ISC, DO and DO70G). If FieldMate cannot receive the sensor type from SENCOM SA, "NONE" is displayed.
Alarm button	Display the Sensor's Alarm status. If the selected item is "Converter", this item is hidden. Select Alarm button, and Alarm Window is displayed.
Display name	Display the Name according to the converter's Display settings.
Measurement values	Display the 1st to 3rd Measurement Value according to the Converter's display settings. If its setting is "Empty", "----" is displayed.
Additional text	Display the 1st to 3rd Additional Text according to the Converter's display settings.
Sticky Note	Display and Edit "Memo" for the displayed sensor.

Calibration button	Start the Displayed Sensor's calibration. The Last calibrated date is displayed on this button (except 8 sensors display). If the selected item is "Converter", this item is not available.
Trend Graph button	Display the 1st to 3rd Measurement Value's trend graph.
Acton Menu	Action menu shows the command list for sensor operations. The user can operate the sensors by selecting each of command in the menu. If the selected item is "Converter", this item is not available.
Show all button	Display the Sensor Detail Window.
Previous page button	Display the previous sensor's information.
Next Page button	Display the next sensor's information.
Zoom Out button	Increase the number of sensors displayed their information on the Top window at once. (8 Sensors -> 4 Sensors -> 2 Sensors -> 1 Sensor)
Zoom In button	Decrease the number of sensors displayed their information on the Top window at once. (1 Sensor -> 2 Sensors -> 4 Sensors -> 8 Sensors)

The display items are changed as following table depending on the number of the sensors displayed their information on the Top window at once.

Table D-5-2   The Display items list and number of sensors on the Top Window

Items	1 Sensor	2 Sensors	4 Sensors	8 Sensors
Sensor connection No.	O	O	O	O
Sensor type	O	O	O	O
Alarm button	O	O	O	O
Display name	O	O	O	O
Measurement values	3	3	3	1
Additional text	O	O	O	—
Sticky Note	O	O	O	O
Calibration button	O	O	O	O
Trend Graph button	O	O	O	—*1
Acton Menu	O	O	O	O
Show all button	O	O	O	—*1
Previous page button	O	—	—	—
Next Page button	O	—	—	—
Zoom Out button	O	O	O	O
Zoom In button	O	O	O	O

O: Available, —: Not Available

*1: This function can call from Action Menu.

D-6   Action Menu

D-6-4 Sensor Setting

Table D-6-6   The list of Sensor Settings Menu (PH)

Menu	Setting items			Remarks	Refer to
Category	Index 1	Index 2	Items		*1
Configure sensor	Configure sensor		Sensor type (A)		3.1
			Temp. element (A)		
			Modbus address (S)		
			COM Settings (D)	*2	
Measure setting	Temperature settings		Unit	Read Only	3.2
	Temp. compensation		Compensation		
			Manual temp.		
			Reference temp.		
	Process Temp Compensation		Method (pH)		
			Temp coef (TC pH)		
			Matrix Temperature Compensation	Graphical Setting for Temperature Comp Table.	
			Method (ORP)		
			Temp coef1 (TC ORP)		
			Temp coef2 (TC ORP)		
	High and Low Limit Setting		Temp. warning high limit		
			Temp. warning low limit		
			pH warning high limit		
			pH warning low limit		
			ORP warning high limit		
			ORP warning low limit		
			rH warning high limit		
			rH warning low limit		
Calibration settings	Cal. set pH	Unit *	Zero unit		3.3
			Slope unit		
		Limits and timing	Zero high limit		
			Zero low limit		
			Slope high limit		
			Slope low limit		
			Step Range		
		Buffers (select set)	Select Buffer		
			Buffer table 1	Graphical Setting for Buffer Table.	
			Buffer table 2		
			Buffer table 3		
		Zero/Slope/ITP	Zero		
			Slope		
			ITP		
			Zero2	Read Only	
			Slope2	Read Only	
			Sample Offset	*3	
	Cal. set ORP/rH	Limits and timing	Zero high limit		
			Zero low limit		
			Slope high limit		
			Slope low limit		

			Step Range (ORP)		
			Step Range (rH)		
		Zero/Slope (ORP1)	Zero		
			Slope		
			Sample Offset	*3	
		Zero/Slope (ORP2)	Zero		
			Slope		
			Sample Offset	*3	
	Cal. set temperature		Temp offset		
	Cal. Set others		Stabilization time		
			Calibr. interval		
Wellness settings	Impedance settings		Impedance measure (A)		3.4
		Impedance 1	Impedance1		
			High limit		
			Low limit		
			Impedance1		
			FINE		
		Impedance 2	Impedance2		
			High limit		
			Low limit		
			Impedance2		
			FINE		
	Sensor diag. settings		Progress time		
			BAD Limit		
	Define heat cycle		Heat cycle		
			BAD Limit		
			Heat cycle temperature		
			Heat cycle time		
	Define SENCOM status		Sterilized temp.		
			Sterilized time		
			High temp.1		
			High temp.2		
			High pH value		
			Low pH value		

*1: "Refer to" means reference section No. in FLXA402 4-Wire Converter Operation of pH/ORP (IM 12A01F02-01EN)

*2:"COM Settings (D)" is only available for Direct Access Functions of FieldMate. This is the communication settings for SA11 and Read Only in the Local Display Functions. If the user selects "B19200_E_8_2", SA11 won't communicate with FieldMate.

*3: The settings about Sample calibrations are only available for Direct Access Functions of FieldMate.

These parameters are only displayed in Direct Access Functions.

E Direct Access Function with SA11

E-4 Sensor display area

E-4-2 Calibration Window

The calibration function of Direct Access is almost the same as the Local Display. However, Direct Access function does not support the following calibrations.

The Calibration types list for PH Sensor (pH): Sample Cal.
The Calibration types list for PH Sensor (ORP/rH): Sample Cal.
The Calibration types list for SC and ISC Sensor:
Air Calibration, Sample SC1(T.C.1) and Sample SC2(T.C.2)

SEE ALSO Refer to "D-5-3 Calibration" about the calibration function of Local Display.

■ The Calibration types list

Table E-4-7   The Calibration types list for PH Sensor (pH)

1st Item	2nd Item	Trend Graph on Calibration Window
Manual calibration	Manual zero (1point)	Available
	Manual zero/slope (2point)	
	Manual zero/slope/ITP (3point)	
	Manual zero/slope1,2 (3point)	
Automatic Calibration	Manual zero (1point)	Available
	Manual zero/slope (2point)	
	Manual zero/slope/ITP (3point)	
	Manual zero/slope1,2 (3point)	
Temperature Cal.	Temp offset	Not Available

Table E-4-8   The Calibration types list for PH Sensor (ORP/rH)

1st Item	2nd Item	Trend Graph on Calibration Window
Manual calibration	Manual zero (1point)	Available
	Manual zero/slope (2point)	
Temperature Cal.	Temp offset	Not Available

Table E-4-9   The Calibration types list for SC and ISC Sensor

1st Item	2nd Item	Trend Graph on Calibration Window
Manual calibration	SC1	Not Available
	SC2	
Automatic Calibration	C.C.	Not Available
Temp coef.	SC1(Temp.comp.1) (displayed only in case of Temp. Coef. = T.C.1)	Not Available
	SC2(Temp.comp.2) (displayed only in case of Temp. Coef. = T.C.2)	
Temperature Calibration	Temp offset	Not Available

Table E-4-10   The Calibration types list for DO Sensor

1st Item	2nd Item	Trend Graph on Calibration Window
Air Calibration	0%	Available
	100%	
	0% - 100%	
	100% - 0%	
Water Calibration	0%	Available
	100%	
	0% - 100%	
	100% - 0%	
Manual Offset Cal.	Slope	Available
	Zero	Not Available
Temperature Calibration	Temp offset	Not Available

Table E-4-11   The Calibration types list for DO70G Sensor

1st Item	2nd Item	Trend Graph on Calibration Window
Automatic Calibration	Zero Calibration	Available
	Air Calibration	
Manual Slope Cal.	Slope	Available

TIPS

Temperature calibration only works correctly when the sensors setting of "Measure setting" -> "Temp. Compensation"-> "Compensation" = Auto. In other case, it does not work correctly.

E-5   Action Menu

⚠️ **IMPORTANT**

In Sensor setting, the entered data might fail to be written because of unstable communication with SA11. In this case, Re-click "Download to Device" button, and FieldMate will try to reconnect with SA11 to recover the communication.

E-5-1 Error Configuration

The error which can be configurated the settings on this window is as follow.

Table E-5-2   The list of error which can be configurated on this window

Sensor Type	Error Name	Default settings
PH	Temperature too high Temperature too low pH too high pH too low ORP too high ORP too low rH too high rH too low Imped. (pH/ORP) too high Imped. (pH/ORP) too low Imped. (ref) too high Imped. (ref) too low pH Temperature Compensation Process Error SSA Temperature Out of Spec	All of them is OFF
SC	Temperature too high Temperature too low Conductivity too high Conductivity too low Temp comp1 warning Temp comp2 warning USP limit exceeded USP margin exceeded Measurement unstable Polarization detected Matrix1 error Matrix2 error Concentration table error SSA Temperature Out of Spec	All of them is OFF

F   Device Navigator

F-2   Device Maintenance Information

F-2-4 Device Maintenance Information (SENCOM Latest Status)

● **Each sensor type of the SENCOM Latest Status**

Each sensor type of the SENOCM Latest Status is as follow.

Table F-2-3   Each sensor type of the SENCOM Latest Status (Sensor and sensor module information)

Category	Display items	Analog Sensor Module DO70G	SA11
Sensor information	Model	(Empty)*1	Model of Sensor module
	Serial No.	(Empty)*1	Serial No. of Sensor Module
	Product date	(No area)	Product date of Sensor Module
Sensor Module Information	Device Type	ANALOG_SENSOR (DO70G is"DO70G")	Device type of SA11
	Model	Model of Analog sensor module/DO70G (PH/SC/ISC/DO)	Model of SA11 (PH/SC)
	Serial No.	Internal Serial No. of Analog Sensor Module/DO70G	Serial No. of SA11
	Software Revision	Software Rev. of Analog Sensor Module/DO70G	Software Rev. of SA11
	Hardware Rev.	Hardware Rev. of Analog Sensor Module/DO70G	Hardware Rev. of SA11

*1) Analog sensor module can set it from the display manually.

G   Tools for FLXA402

G-2   FLXA402 Parameter Editor

■ Operation

Switch tab:
Switch the parameter settings display (Converter/Sensor)

Update record selections:
The settings whether the parameters belong to the record will be updated or not to the actual FLXA402 settings.
Checked: Updated
Unchecked: Not updated

Import from master.:
Import the initial parameter settings prepared as the master settings.

Import from File :
Import the parameter settings from file.

Export to File:
Save the edited parameter to export the parameter settings to file.

Import from SD Card :
Import the parameter settings from SD Card.

Close button :
Close the window.

Export to SD card:
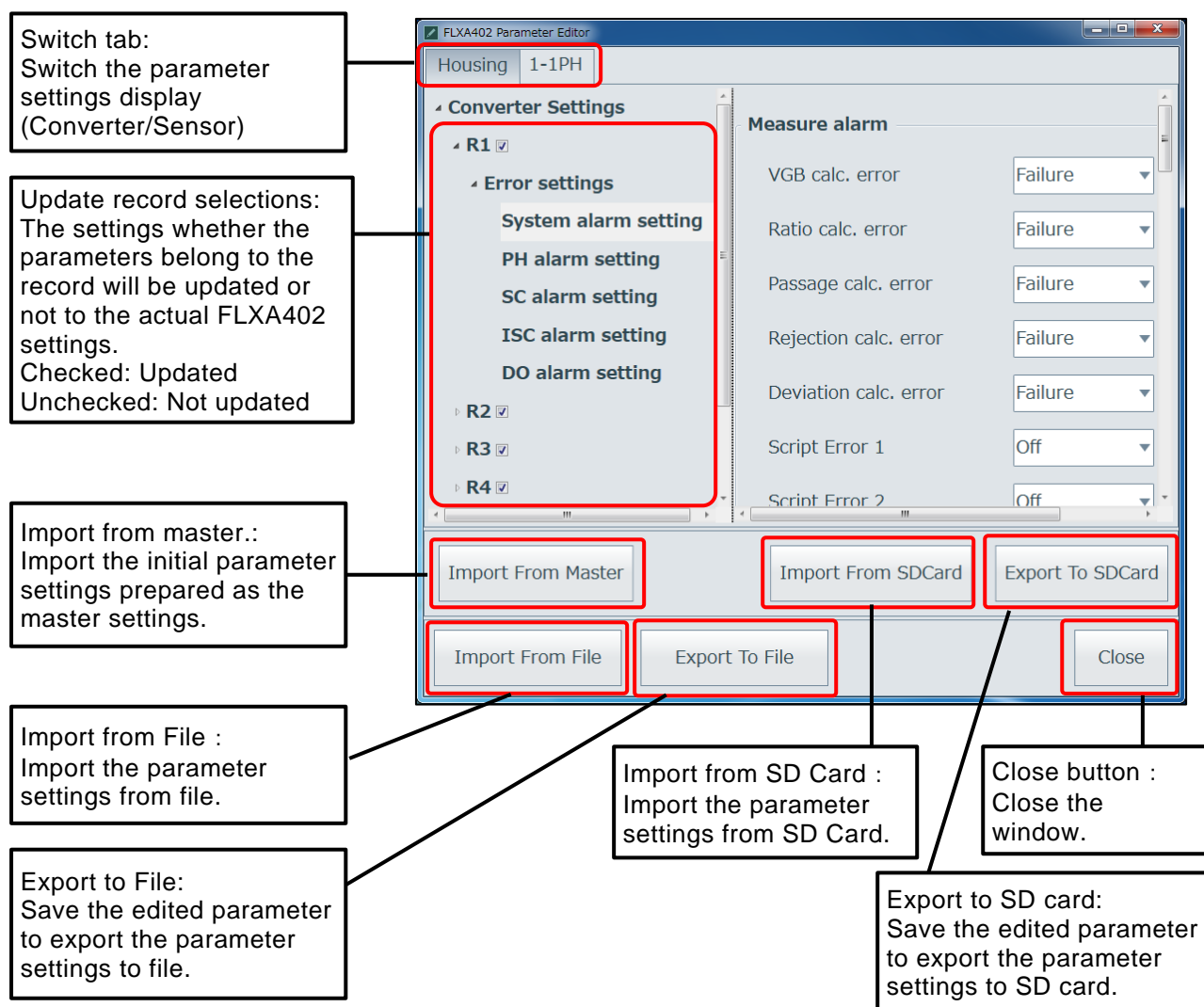Save the edited parameter to export the parameter settings to SD card.

Figure G-2-3   The image of FLXA402 Parameter Editor