

Supplementary Manual

OPL initialize Controller initialize

This manual describes initialize settings (controller and OPL initialize) in the dedicated operation panel for the REX-B850.

Usually, these settings do not need to be changed during normal operation; unnecessary changes could cause malfunction and trouble. Therefore, do not change the settings unless required.

CAUTIONS

- After changing the OPL initialize or controller initialize setting, turn the power off once, then turn it on again. The set contents thus changed are enabled when the power is turned on again.
- When setting the controller initialize settings, it is necessary to change the dip switch position in the REX-B850 mainframe before and after making the settings. Always change the dip switch position after turning off the power for OPL-B and REX-B850.

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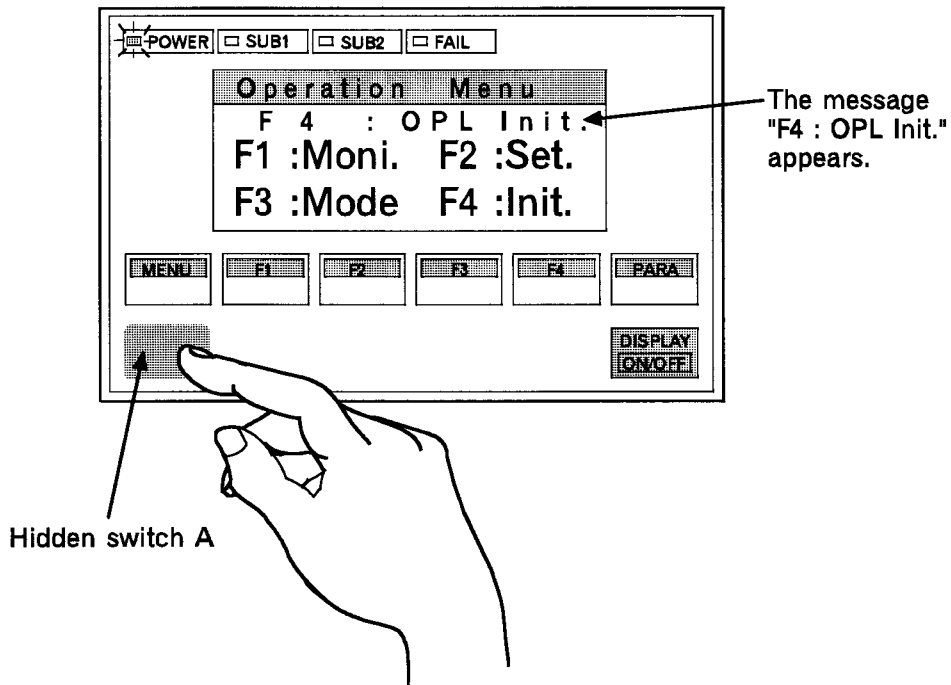
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1. OPL initialize

This is used for various settings related to the OPL-B (operation panel) itself.

1.1 Calling procedure

- ① Turn on the power for OPL-B and REX-B850.
- ② Select the Operation menu screen.
- ③ Press the A hidden switch more than 8 times in succession while the Operation menu screen is displayed to release the protection. After the protection is released, "F4: OPL Init." is displayed on the screen.

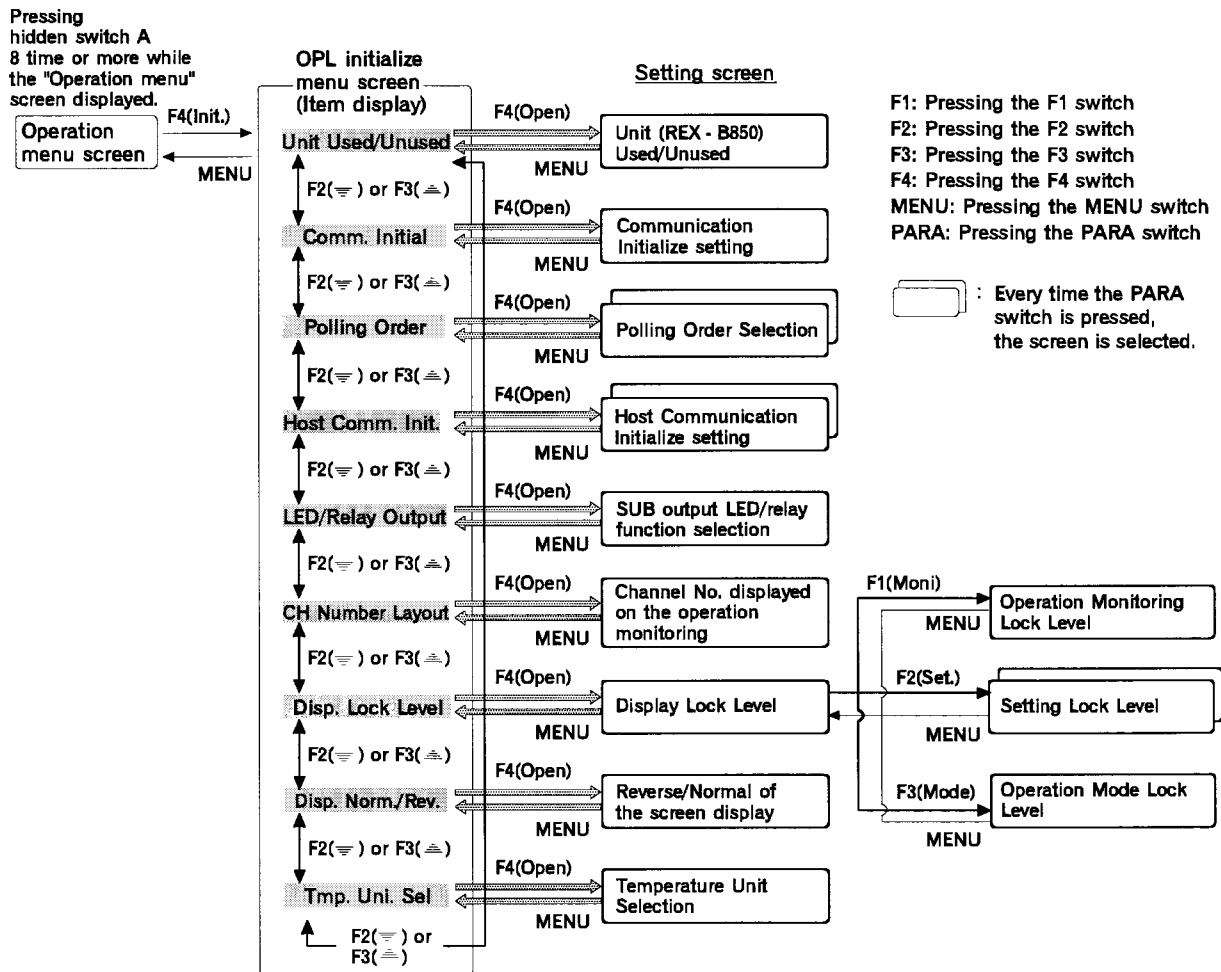


- ④ Press the F4 switch to select the OPL initialize menu screen.

1.2 Screen movement

CAUTION

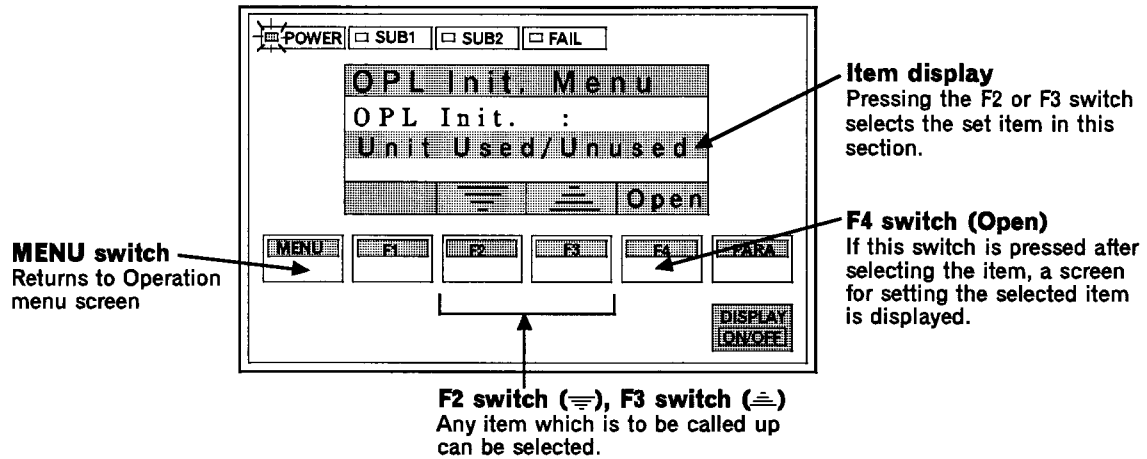
After changing the setting details, always turn the power on again. The changed setting details are enabled just as the power is turned on.



*As each item setting screen cannot be selected by pressing the PARA switch, when setting another item, press the MENU switch to return to the OPL initialize menu screen, then select the setting item. Next, select the screen.

1.3 OPL initialize menu screen

Every time the F2 or F3 switch is pressed, the initialize menu screen is displayed.
 Select the desired initialize menu, then display the initialize screen by pressing the F4 switch.

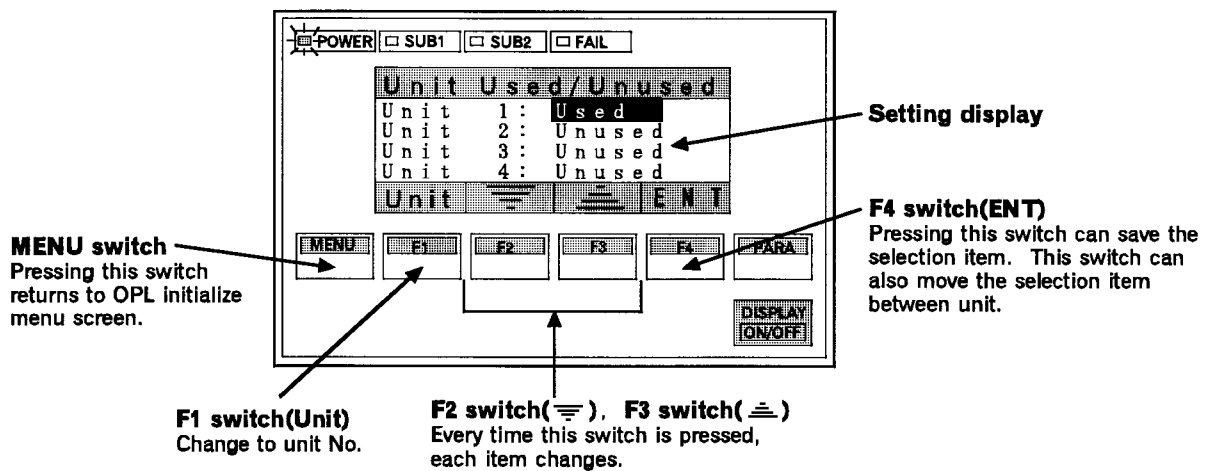


1.4 Unit (REX– B850) used/unused setting screen

This screen is used to select "Used/Unused" of the unit (REX– B850) when the unit is multi– drop– connected.

CAUTIONS

- If the existing Unit is set to "Unused", note that the data is not displayed on OPL– B.
- Prior to factory shipment, only Unit 1 is set to "Used". The others are set to "Unused".



* The setting becomes valid when the power supply is turned on again.

<Unit used/unused>

Unit 1 selection : Used / Unused

Unit 2 to 16 selection : Used / Unused

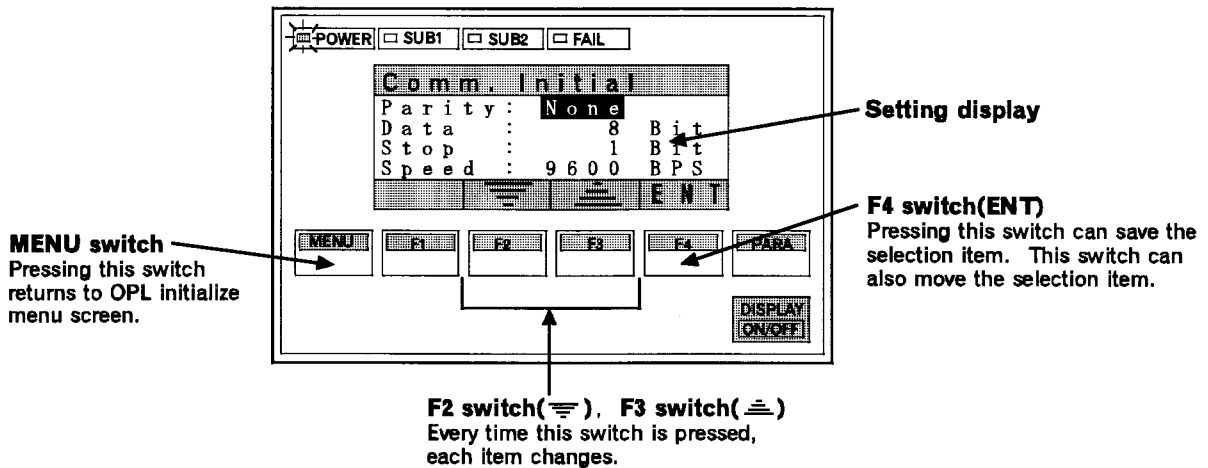
 : Setting prior to factory shipment

1.5 Communication initialize setting screen

This screen is used to perform settings related to communications between the operation panel and the unit (REX-B850). The bit format and communication speed are set.

CAUTION

As the values on this screen are fixed, do not change them.




* The setting becomes valid when the power supply is turned on again.

<1. Bit Format>

Parity bit selection : None / Even / Odd


Data bit selection : 8 / 7 (When "8" is selected: No parity bit)

Stop bit : 1 / 2

 : Setting prior to factory shipment

<2. Speed>

Communication : 2400 / 4800 / 9600 (bps)

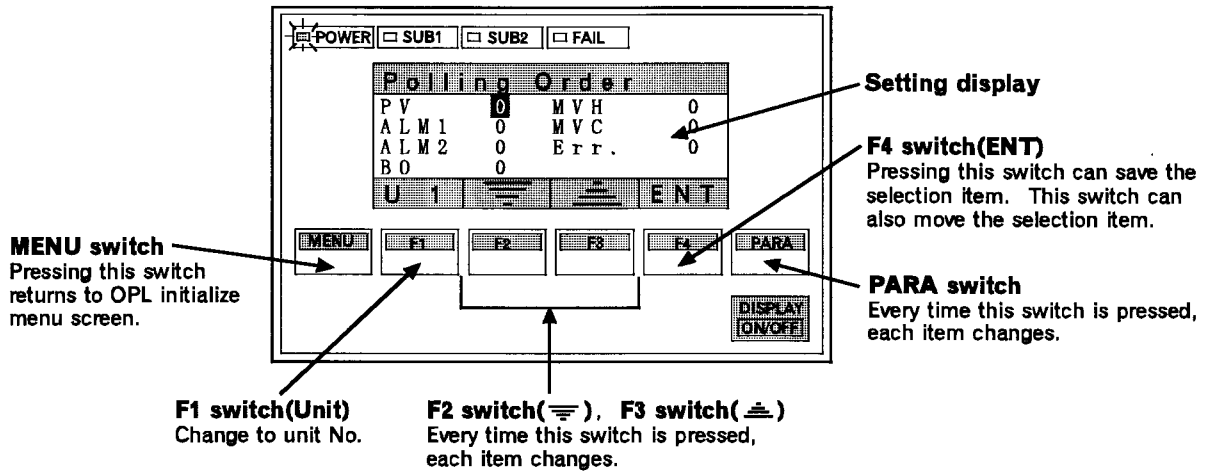
 : Setting prior to factory shipment

NOTES

- When the communication speed needs to be changed, always change it to the same value with the unit (REX-B850).
Both the operation panel and REX-B850 are set to "9600bps" prior to factory shipment .
- This setting is the communication setting with the REX-B850 to be used.
The communication setting with a host computer is set on the "1.7 Host communication initialize setting screen" (P. 10) screen.

1.6 Polling Order selection screen

This screen is used to call up (polling) data from the unit (REX-B850) for monitoring and set the priority order of each data type for each control unit.



- * This setting does not affect the order of control sampling.
- * The setting becomes valid when the power supply is turned on again.

<1. Details of polling order item>

	First screen	Second screen
Item details	PV	HBA
	ALM1	CT
	ALM2	Event
	BO	
	MVH	
	MVC	
	Err.	

<2. Polling order>

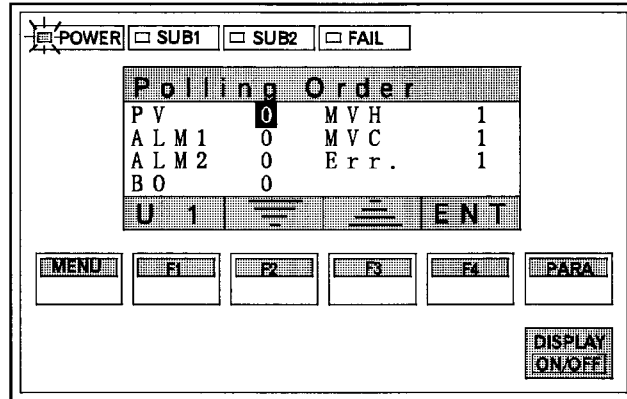
0 : Polling is performed every time.

1 : After polling with priority 0 is finished, polling with priority 1 is performed.

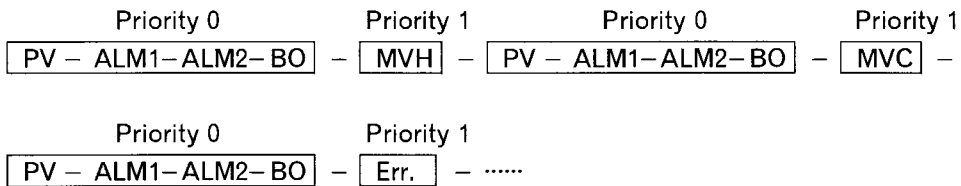
2 : No polling is performed.

▨ : Setting prior to factory shipment

Setting example:



For example if the setting is as shown above, the order of data capture by the operation panel becomes as follows.



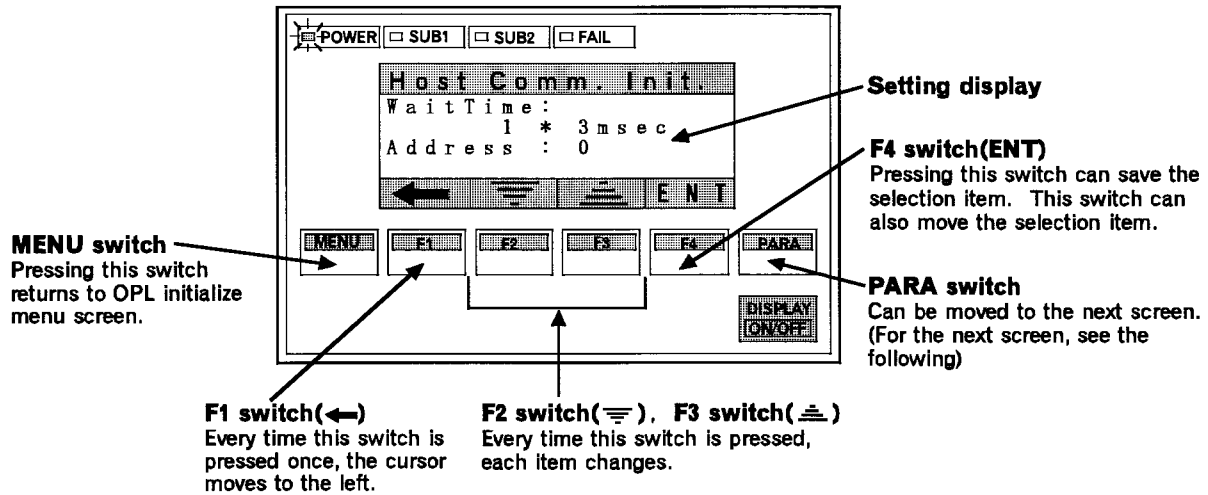
Thus, the data capture of the item set to priority order No.0, PV (measured-value), 1st alarm (ALM1), 2nd alarm (ALM2) or burnout (BO) has priority over others, and as a result the display of the above data is updated earlier than other data. Use this function when finer movement of only the specific data needs to be monitored compared with other data. (Values prior to factory shipment: All are set to 0.)

NOTE

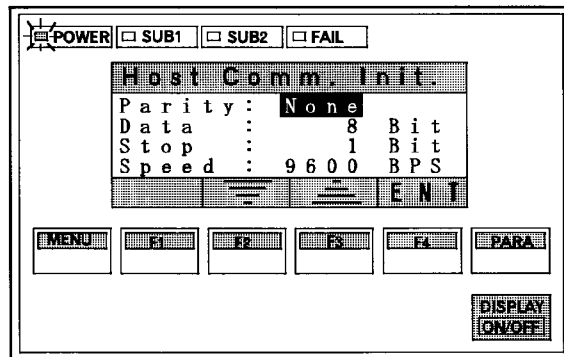
If the function which does not exist in the system is set to "2"(No-polling), the updating period of the display can be done faster. The display shows "----" for the item set to "2".

1.7 Host communication initialize setting screen

This screen is used to set the communication format when the operation panel is controlled by the host computer. The device address of the operation panel itself, bit format and communication speed are set.



<Next screen>



* The setting becomes valid when the power supply is turned on again.

<1. Sending selection time>

The sending selection time is set.

Sending selection time factor : 0 to 100 1

▒ : Setting prior to factory shipment

<2. Address>

The device address of the operation panel is selected and set.

Address selection : 0 to 15 (Address No. : 0 to 15)

▒ : Setting prior to factory shipment

<3. Bit Format >

The communication bit format of the operation panel is selected and set.

Parity bit selection : None / Even / Odd

Data bit selection : 8 / 7

Stop bit : 1 / 2

: Setting prior to factory shipment

<4. Speed>

Communication speed with the host computer is selected and set.

Communication speed selection : 2400 / 4800 / 9600 (bps)

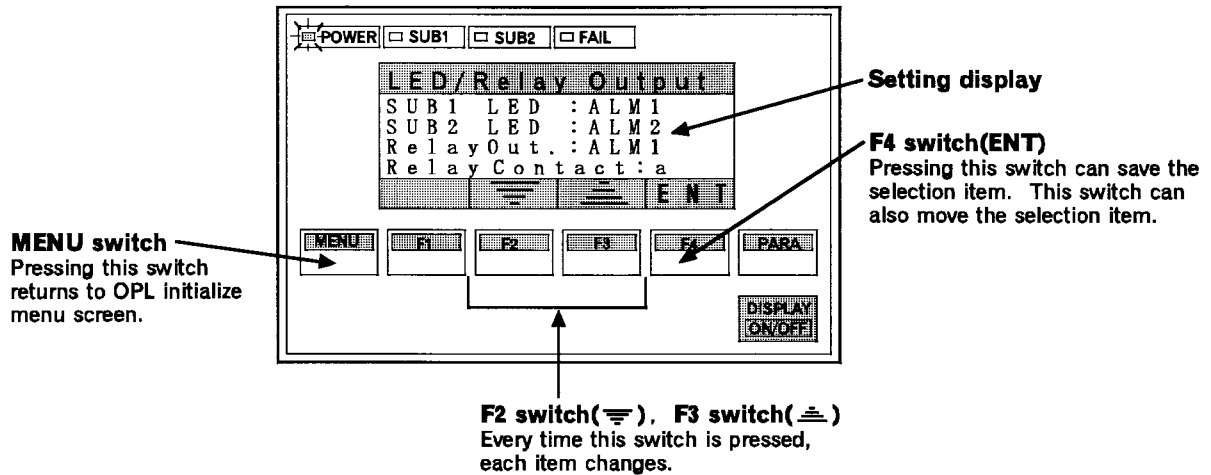
: Setting prior to factory shipment

NOTES

- Set host communications in the same way as external host computer settings.
- This setting is the communication setting with the host computer to be used.
The communication setting with the unit (REX-B850) is done on the screen "1.5 Communication initialize setting screen" (P. 7).

1.8 SUB output LED/relay function selection screen


This screen is used to allocate the output and relay contact types so that when an alarm occurs on the REX-B850 side, the alarm signal also is output from the OPL-B side as SUB output.



* The setting becomes valid when the power supply is turned on again.


<1. SUB 1 LED>

Selection: BO / HBA / ALM1 / ALM2 / SCI err / Unused

 : Setting prior to factory shipment


<2. SUB 2 LED>

Selection: BO / HBA / ALM1 / ALM2 / SCI err / Unused

 : Setting prior to factory shipment

<3. Relay output>


Selection: BO / HBA / ALM1 / ALM2 / SCI err / Unused

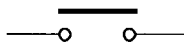

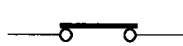
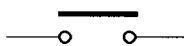
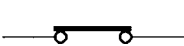
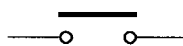
 : Setting prior to factory shipment

* When this function is not used, select Unused.

<4. Relay contact>

Choice : 'a' (Energized) / 'b' (De-energized)

 : Setting prior to factory shipment

Energized / De - energized	At power - OFF	At power - ON	
		Non - alarm state	Alarm state
Energized alarm Setting : 'a'			
De - energized alarm Setting : 'b'			

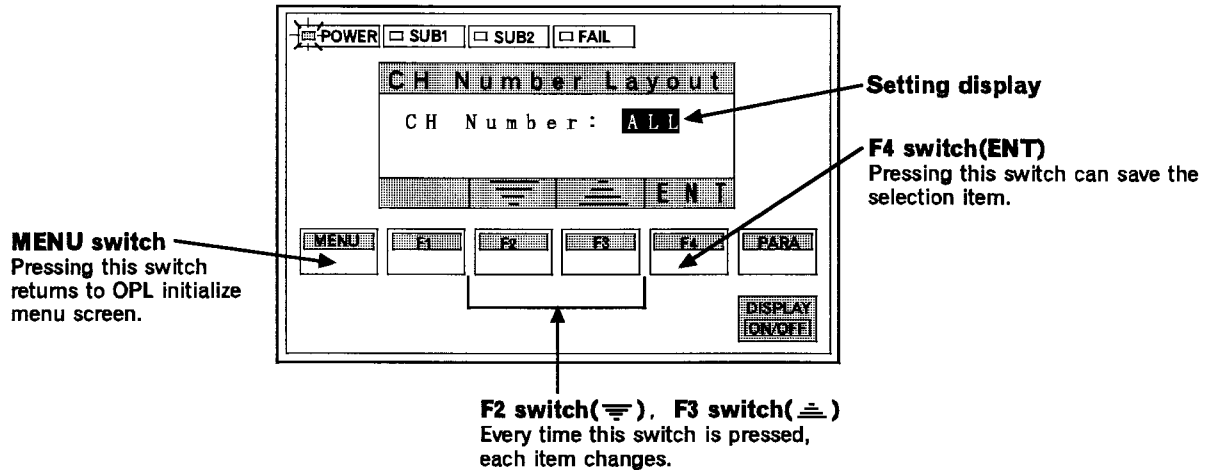
NOTE

When relay contact 'a' is selected in any of the following cases, the SUB output contact is closed.
When relay contact 'b' is selected, the SUB output contact opens.

- ① When any of ALM1, ALM2, HBA, BO, and LBA alarms occurs
- ② When the following error occurs
 - OPL parity (parity error)
 - OPL Framing (framing error)
 - OPL Over Run (overrun error)
 - OPL Time-out (no-response)

1.9 Channel No. displayed on the operation monitoring setting screen

This function is used to set the number of display channels on the operation monitoring screen.




* The setting becomes valid when the power supply is turned on again.

<Display of channel No.>

ALL : The 1, 2, 4 or 8 CH screen can be selected by the menu.

- 1 : Only the 1 CH screen is valid.
- 2 : Only the 2 CH screen is valid.
- 4 : Only the 4 CH screen is valid.
- 8 : Only the 8 CH screen is valid.

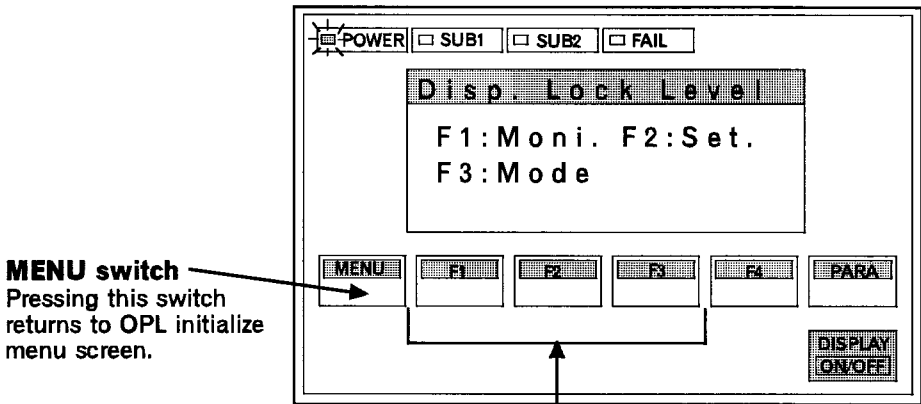
 : Setting prior to factory shipment

NOTE

If the number of display channels other than "ALL" is selected, no operation monitoring menu screen is displayed.

1.10 Display lock level setting screen

This function is used to select display/no-display of the screen regardless of whether the unit (REX-B850) is connected.

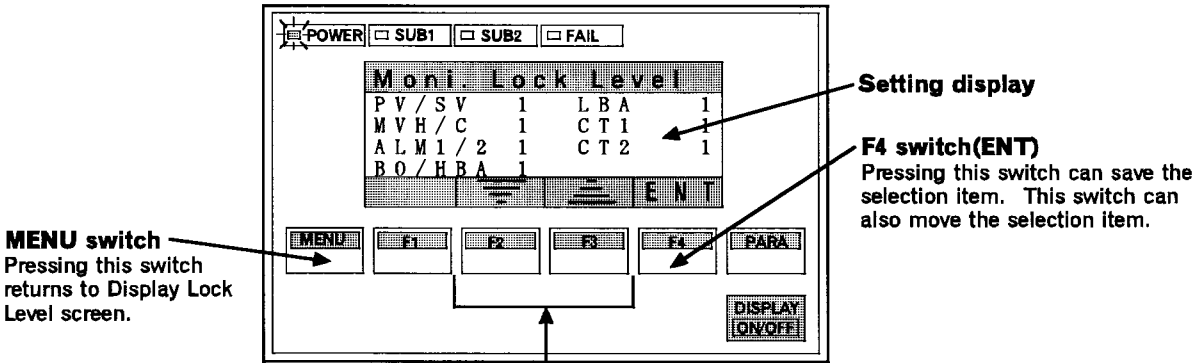


MENU switch
Pressing this switch returns to OPL initialize menu screen.

F1 switch, F2 switch, F3 switch
Select the screen by pressing the function switch.

- F1 switch:** Pressing this switch selects the "Operation Monitoring Lock Level" screen.
- F2 switch:** Pressing this switch selects the "Setting Lock Level" screen.
- F3 switch:** Pressing this switch selects the "Operation Mode Lock Level" screen.

Operation Monitoring Lock Level screen



MENU switch
Pressing this switch returns to Display Lock Level screen.

Setting display
F4 switch(ENT)
Pressing this switch can save the selection item. This switch can also move the selection item.

F2 switch(≡), F3 switch(≡)
Every time this switch is pressed, each item changes.

* The setting becomes valid when the power supply is turned on again.

<Presence or absence of screen display>

- 0 : Display invalid
- 1 : Display valid

: Setting prior to factory shipment

Setting Lock Level screen

<First screen>

MENU switch
Pressing this switch returns to Display Lock Level screen.

Setting display

F4 switch(ENT)
Pressing this switch can save the selection item. This switch can also move the selection item.

PARA switch
Can be moved to the second screen. (For the second screen, see the following)

F2 switch(≡), F3 switch(≡)
Every time this switch is pressed, each item changes.

POWER	SUB1	SUB2	FAIL
Set. Lock Level 1			
SV	1	PC	1
ALM 1	1	I	1
ALM 2	1	D	1
PH	1	OL/DB	1
ENT			
MENU	F1	F2	F3
F4			
PARA			
DISPLAY ON/OFF			

<Second screen>

POWER	SUB1	SUB2	FAIL
Set. Lock Level 2			
TH	1	O.M.T.	1
T.C	1		
HBA 1	1		
P.V.B.	1		
ENT			
MENU	F1	F2	F3
F4			
PARA			
DISPLAY ON/OFF			

* The setting becomes valid when the power supply is turned on again.

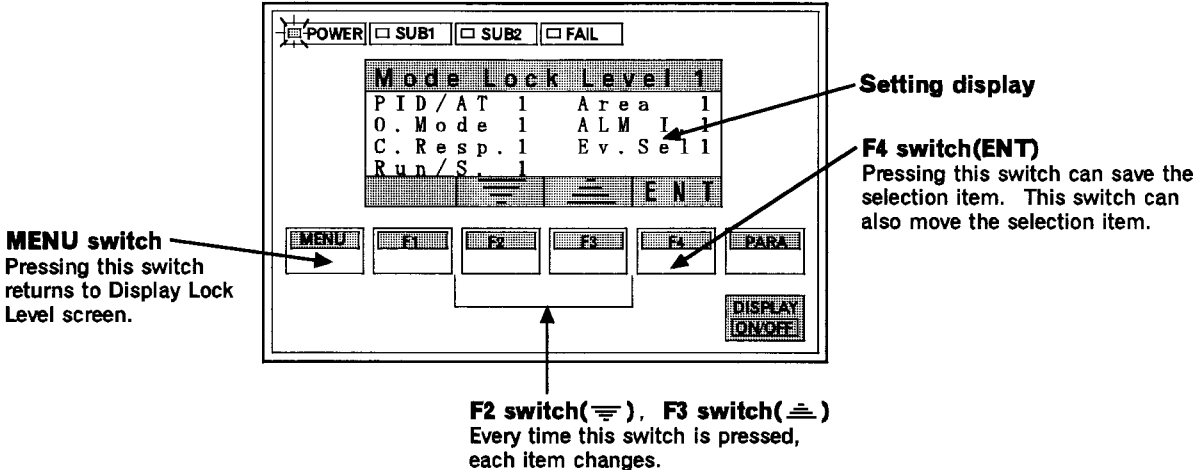
<Presence or absence of screen display>

0 : Display invalid

1 : Display valid

: Setting prior to factory shipment

Operation Mode Lock Level screen



* The setting becomes valid when the power supply is turned on again.

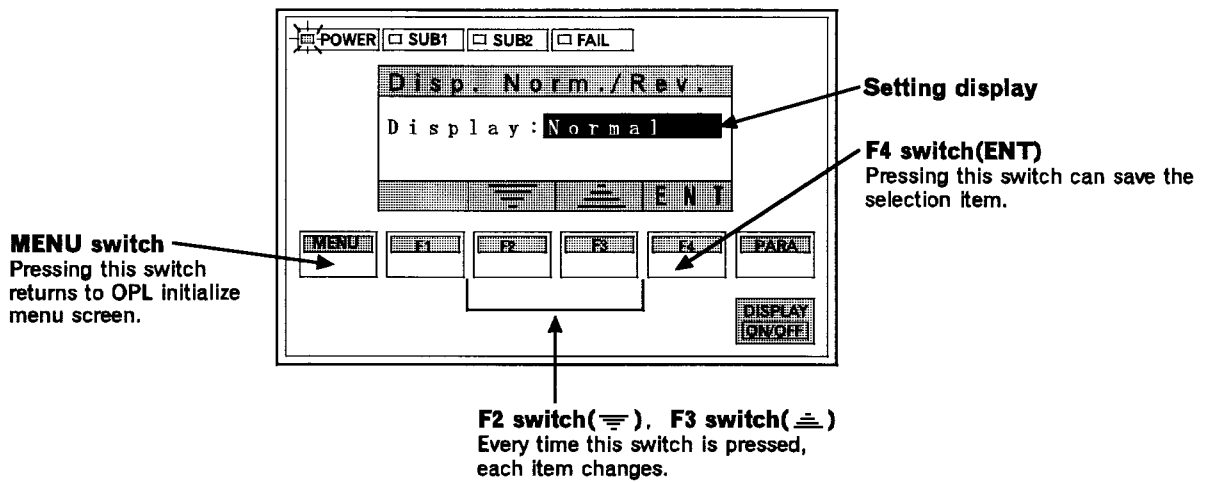
<Presence or absence of screen display>

- 0 : Display invalid
- 1 : Display valid

☐ : Setting prior to factory shipment

1.11 Reverse/normal of the screen display setting screen


This screen is used to set reverse/normal of the screen display.



* The setting becomes valid when the power supply is turned on again.

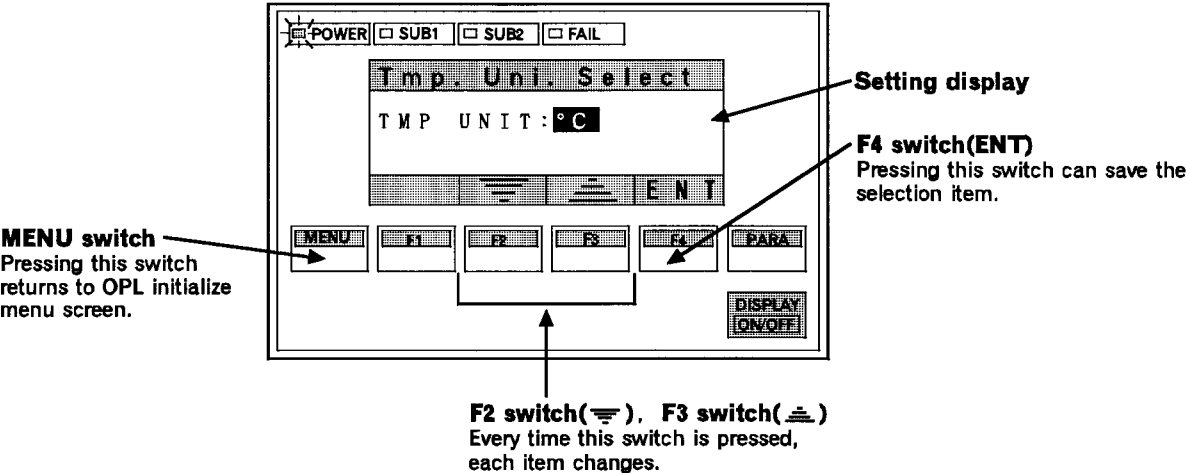
<Display of screen>

Normal : Normal display
Reverse : Reverse display

 : Setting prior to factory shipment

1.12 Temperature Unit Selection screen

This screen is used to set temperature unit.



* The setting becomes valid when the power supply is turned on again.

<Temperature Unit>

°C / °F

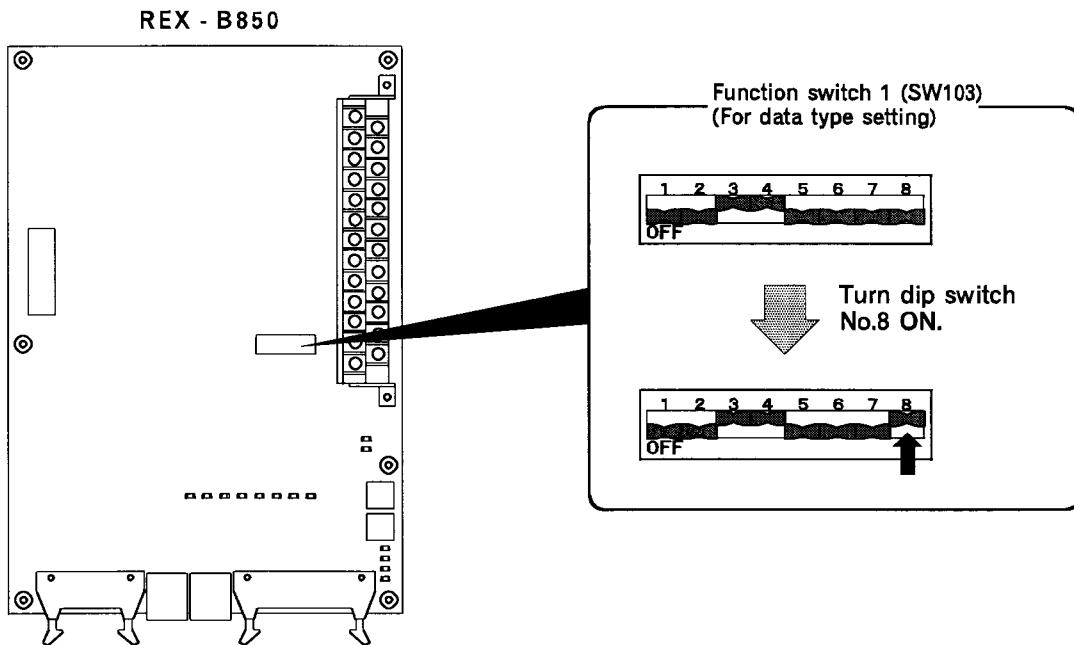
▨ : Setting prior to factory shipment

2. Controller initialize

This is used for various settings related to the REX-B850 itself.

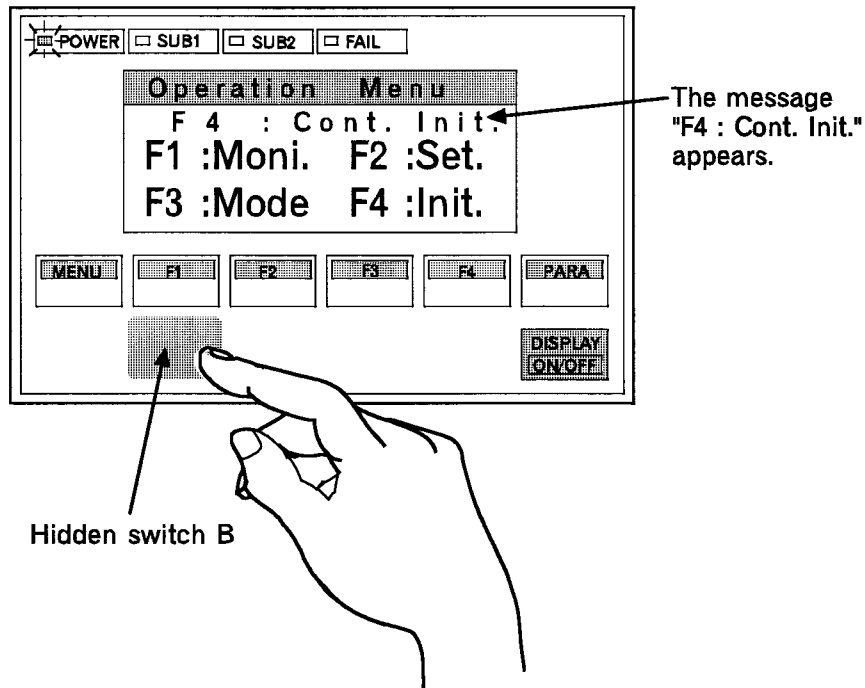
2.1 Calling procedure

- ① Turn off the power for OPL-B and REX-B850.
- ② Set dip switch No.8 of function switch 1 (SW103) in the REX-B850 mainframe to ON: Initial mode.



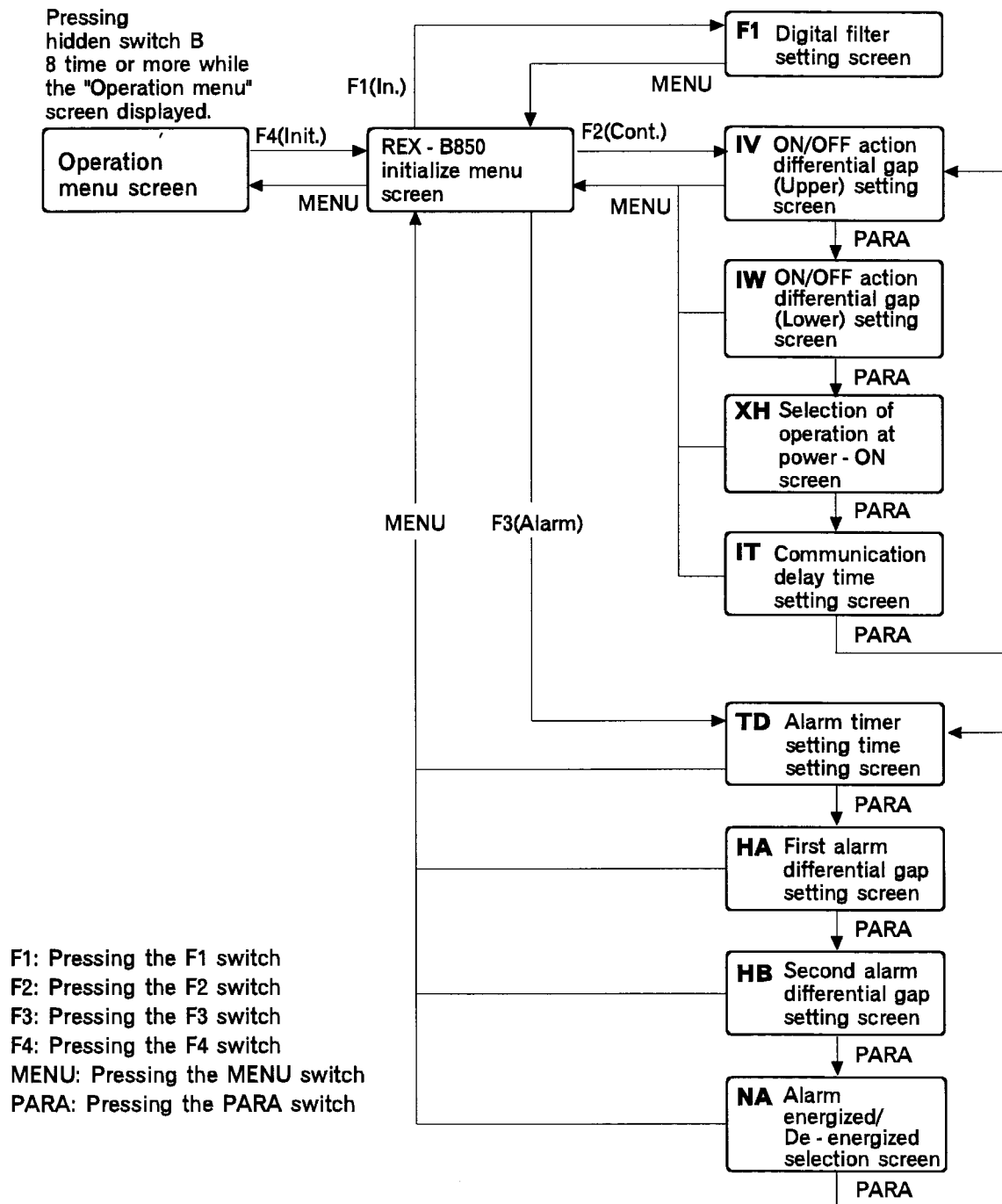
- ③ Turn on the power for OPL-B and REX-B850.
- ④ Select the Operation menu screen.

- ⑤ Press the B hidden switch more than 8 times in succession while the Operation menu screen is displayed to release the protection. After the protection is released, "F4: Cont. Init." is displayed on the screen.



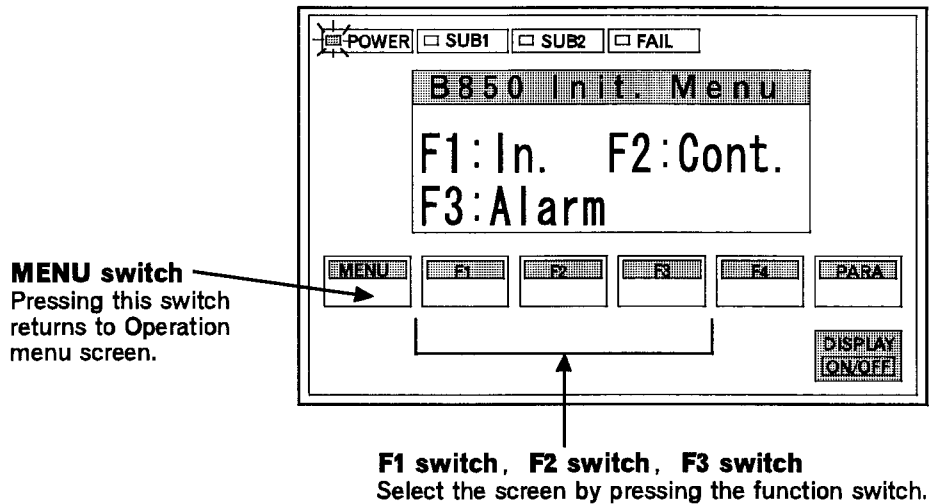
- ⑥ Press the F4 switch to select the REX-B850 initialize menu screen.
- ⑦ Pressing the F1 to F3 switches changes to each initialize setting screen from the REX-B850 initialize menu screen.

2.2 Screen movement



2.3 REX– B850 initialize menu screen

REX– B850 initialized settings are classified into the 3 groups of input (F1), control (F2) and alarm (F3). Pressing the desired function switch changes to the respective setting screen.



F1 switch: Pressing this switch selects the "Digital filter" screen.

F2 switch: Pressing this switch selects the "ON/OFF action differential gap (Upper)" screen.

F3 switch: Pressing this switch selects the "Alarm timer setting time" screen.

Input related screen (F1: In.)

"Digital filter setting" screen

Control related screen (F2: Cont.)

"ON/OFF action differential gap (Upper) setting" screen

"ON/OFF action differential gap (Lower) setting" screen

"Selection of operation at power– ON" screen

"Communication delay time setting" screen

* The respective screen is selected every time the PARA switch is pressed.

Alarm related screen (F3: Alarm)

"Alarm timer setting time setting" screen

"First alarm differential gap setting" screen

"Second alarm differential gap setting" screen

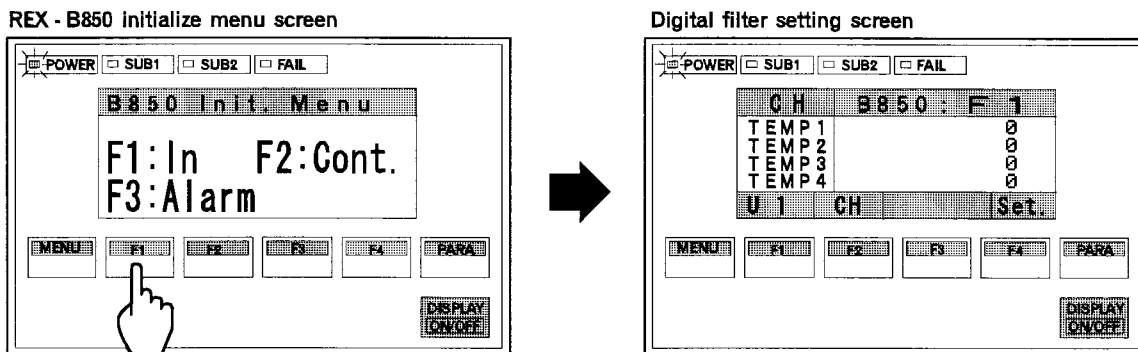
"Alarm energized/de– energized selection" screen

* The respective screen is selected every time the PARA switch is pressed.

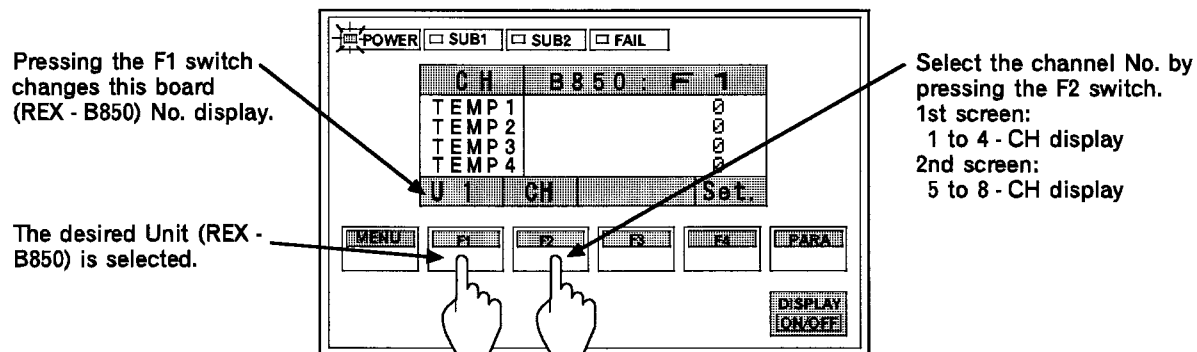
2.4 Setting method of each initialize screen

The setting method for the Input, Control and Alarm initialize setting screens is the same. Therefore, conduct the setting by referring to the following procedure. In the following, the setting of Digital filter of F1: Input is described as an example.

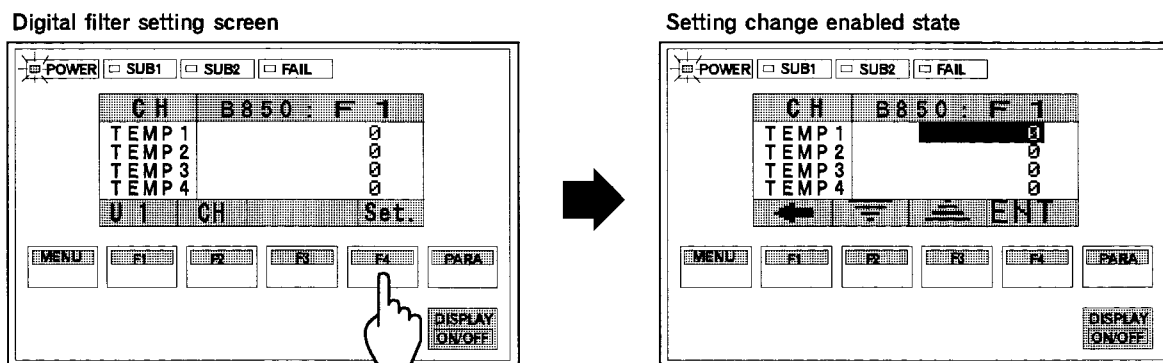
- Press the F1 switch while the REX-B850 Initialize menu screen is displayed to select the Digital filter setting screen.



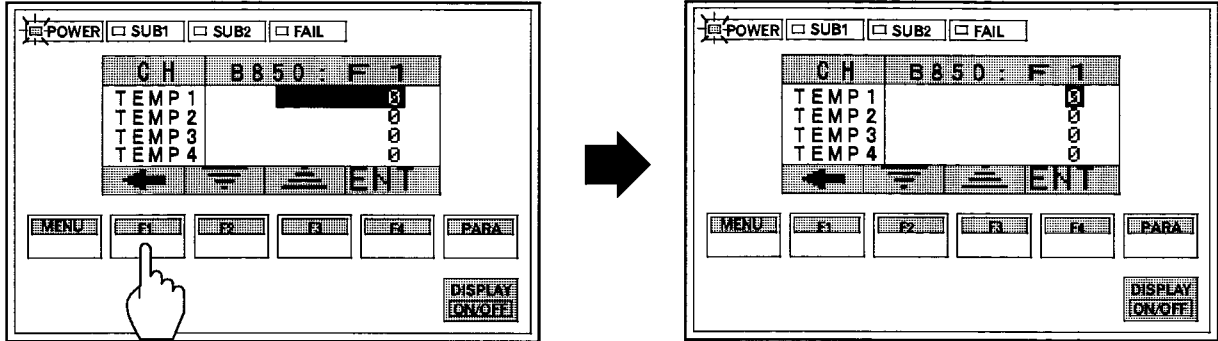
- Press the F1 switch (U1) to select the desired Unit (REX-B850), then select the desired channel No. by pressing the F2 switch.



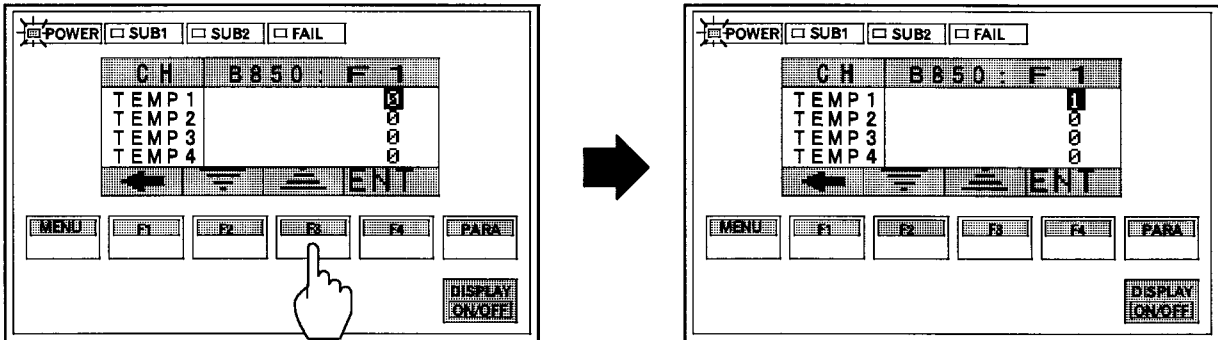
- Press the F4 switch while the Digital filter setting screen is displayed so that the settings can be changed.



④ Press the F1 switch (←) to move the cursor to the lowest digit.

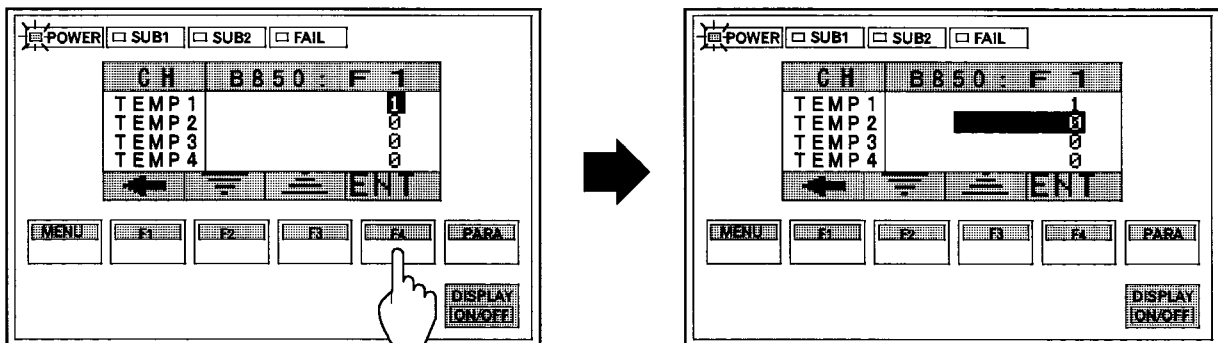


⑤ Press the F3 switch (≡) to change the numeric value from 0 to 1.



* Pressing the F2 switch (≡) returns the present numeric value to the previous numeric value.

⑥ Pressing the F4 switch (ENT) moves the cursor to the next channel, and thus the changed data is registered.



⑦ Set the digital filters corresponding to the number of required channels by repeating the operation procedures from ④ to ⑥.

⑧ After the above setting is finished, press the MENU switch twice to select the REX-B850 Initialize menu screen.

2.5 Input related screen

Digital filter setting screen

Digital filter display screen

Channel No. or name display

F1 switch (U1)
Every time this switch is pressed, the unit (REX - B850) display is selected.

MENU switch
Pressing this switch returns to the REX - B850 initialize menu screen.

F2 switch (CH)
Every time this switch is pressed, the channel Nos. currently displayed change in steps of 4 channels.

Identifier display

Setting display

F4 switch (Set.)
Pressing this switch changes to the following setting screen.

↓ Press the F4 switch (Set.).

Digital filter setting screen

Channel No. or name display

Setting display

MENU switch
Pressing this switch returns to the above display screen.

F4 switch (ENT)
Pressing this switch can save the set - value. The cursor moves to the next channel.

F1 switch (←)
Every time this switch is pressed once, the cursor move to the left.

F2 switch (≡)
Every time this switch is pressed, the set - value decrements.

F3 switch (≡)
Every time this switch is pressed, the set - value increments.

<Digital filter : F1>

Decreases noise contained sensor input by using a first-order lag filter with the preset time constant.

Setting range: 0 to 100 sec. (0 : Digital filter OFF)

Setting prior to factory shipment: 0

NOTE

For the function description, see the instruction manual for **REX-B850**.

2.6 Control related screen

ON/OFF action differential gap (Upper) setting screen

ON/OFF action differential gap (Lower) setting screen

Selection of operation at power- ON screen

Communication delay time setting screen

Ex.: ON/OFF action differential gap (Upper) display screen

Channel No. or name display

F1 switch (U1)
Every time this switch is pressed, the unit (REX - B850) display is selected.

MENU switch
Pressing this switch returns to the REX - B850 initialize menu screen.

F2 switch (CH)
Every time this switch is pressed, the channel Nos. currently displayed change in steps of 4 channels.

Identifier display
Every time the PARA switch is pressed, the display changes as follows:
IV → IW → XH → IT → IV

Setting display

PARA switch
Every time this switch is pressed, each item changes.

F4 switch (Set.)
Pressing this switch changes to the following setting screen.



Press the F4 switch (Set.).

Ex.: ON/OFF action differential gap (Upper) setting screen

Channel No. or name display

Setting display

MENU switch
Pressing this switch returns to the above display screen.

F4 switch (ENT)
Pressing this switch can save the set - value. The cursor moves to the next channel.

F1 switch (←)
Every time this switch is pressed once, the cursor move to the left.

F2 switch (≡)
Every time this switch is pressed, the set - value decrements.

F3 switch (≡)
Every time this switch is pressed, the set - value increments.

<ON/OFF action differential gap (Upper) : IV>

Sets the differential gap above ON/OFF action set- value.

Setting range: 0.00 to 10.00% of span

Setting prior to factory shipment: 0.10

<ON/OFF action differential gap (Lower) : IW>

Sets the differential gap below ON/OFF action set-value.

Setting range: 0.00 to 10.00% of span

Setting prior to factory shipment: 0.10

<Selection of operation at power-ON : XH>

Selects the control start state at power-ON.

One setting can be made per REX-B850.

Setting range: 0: Control start immediately at power-ON

1: Control stop until the start command is received from the host computer or operation panel

Setting prior to factory shipment: 0

<Communication delay time : IT>

Sets the interval time to attain the adequate timing of data send and receive in communication.

One setting can be made per REX-B850.

Setting range: 0 to 1000 ms

Setting prior to factory shipment: 0

NOTE

For the function description, see the instruction manual for **REX-B850**.

2.7 Alarm related screen

- Alarm timer setting time setting screen
- First alarm differential gap setting screen
- Second alarm differential gap setting screen
- Alarm energized/de-energized selection screen

Ex.: Alarm timer setting time display screen

Channel No. or name display

F1 switch (U1)
Every time this switch is pressed, the unit (REX - B850) display is selected.

MENU switch
Pressing this switch returns to the REX - B850 initialize menu screen.

F2 switch (CH)
Every time this switch is pressed, the channel Nos. currently displayed change in steps of 4 channels.

Identifier display
Every time the PARA switch is pressed, the display changes as follows:
TD → HA → HB → NA → TD

Setting display

PARA switch
Every time this switch is pressed, each item changes.

F4 switch (Set.)
Pressing this switch changes to the following setting screen.

↓ Press the F4 switch (Set.).

Ex.: Alarm timer setting time setting screen

Channel No. or name display

Setting display

MENU switch
Pressing this switch returns to the above display screen.

F4 switch (ENT)
Pressing this switch can save the set - value. The cursor moves to the next channel.

F1 switch (←)
Every time this switch is pressed once, the cursor move to the left.

F2 switch (≡)
Every time this switch is pressed, the set - value decrements.

F3 switch (≡)
Every time this switch is pressed, the set - value increments.

<Alarm timer setting time : TD>

Sets the alarm timer time. The alarm is turned ON if the measured-value remains the alarm range succession for more than the time set here.
 One setting can be made per REX-B850.
 Setting range: 0 to 9 sec. (0 : Alarm timer OFF)
 Setting prior to factory shipment: 0

<First alarm differential gap : HA>

Sets the first alarm differential gap.

Setting range: 0.00 to 10.00% of span

Setting prior to factory shipment: 0.10

<Second alarm differential gap : HB>

Sets the second alarm differential gap.

Setting range: 0.00 to 10.00% of span

Setting prior to factory shipment: 0.10

<Alarm energized/de-energized selection : NA>

Selects the energized alarm/de-energized alarm type of the alarm output relay.

One setting can be made per REX-B850.

Setting range: 0: Energized

1: De-energized

Setting prior to factory shipment: 0

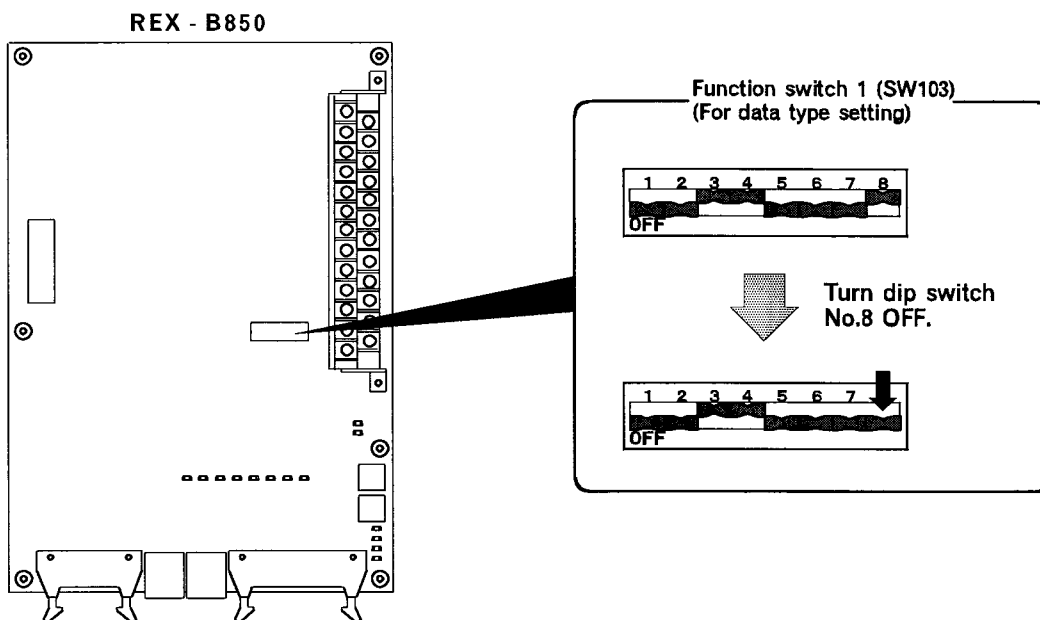
NOTE

For the function description, see the instruction manual for **REX-B850**.

2.8 Setting completion

After completing all of the initialize settings, return dip switch No.8 in the REX-B850 mainframe to the state before the REX-B850 initialize menu screen was selected according to the following procedure.

- ① Turn off the power for OPL-B and REX-B850.
- ② Set dip switch No.8 of function switch 1 (SW103) in the REX-B850 mainframe to OFF: Normal mode.



- ③ Turning on the power for OPL-B and REX-B850 sets the instrument to Normal mode.

NOTE

In Normal mode, the initialize setting data is not displayed even if each initialize screen is called up. "-----" is displayed on the screen.

MEMO



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