

## ***Chapter 3***

# ***OPERATIONS***

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# 3. OPERATIONS

## 3.1 Preparations before operation

Before carrying out the operation, re-check each of the items that have been explained so far according to the procedure given below in order to allow the operation to be carried out in safety.

### 1. Check of usage environment

↓ Refer to *Chapter 2* : "2.1 Cautions for mounting" (P. 2-2).

### 2. Check of mounting and wiring

↓ Refer to *Chapter 2* : "MOUNTING AND WIRING" (P. 2-1).

### 3. Check of power supply voltage

↓ Check whether the specified power supply voltage is used.  
Use the instrument at a power supply voltage of 100 to 240V AC.

### 4. Setting of communication between REX-B850 and OPL-B (REX-B850 side)

↓ Set the communication settings on the REX-B850 side.  
Refer to *Chapter 3* : "3.2 Initialize settings prior to operation (REX-B850 side)" (P. 3-3), or the instruction manual for REX-B850.

### 5. Power-ON

↓ Refer to *Chapter 3* : "3.3 When power-on for the first time" (P. 3-6).

### 6. Setting of communication between REX-B850 and OPL-B (OPL-B side)

↓ Set the communication settings on the OPL-B side.  
Refer to *Chapter 3* : "3.4 Initialize settings after power-ON (OPL-B side)" (P. 3-7), or the supplementary manual for "OPL initialize".

### 7. Re-start of OPL-B

↓

### 8. Setting of each set-value \*1

↓ Refer to *Chapter 4* : "OPERATING PROCEDURE" (P. 4-1), or the supplementary manual for "OPL initialize/Control initialize".

### 9. Operation

Refer to *Chapter 4* : "OPERATING PROCEDURE" (P. 4-1).

\*1 After changing the OPL initialize or controller initialize setting, always re-start REX-B850 and OPL-B.

\*2 When an error is suspected, refer to *Chapter 5* : "MEASURES TAKEN AT ERROR OCCURRENCE" (P. 5-1) in this manual.

### 3.2 Initialize settings prior to operation (REX– B850 side)

Always match the communication settings of REX– B850 and OPL– B. Set the communication settings to match the customers specification. REX– B850 used with the following communication settings is described here as an example.

#### Communication settings

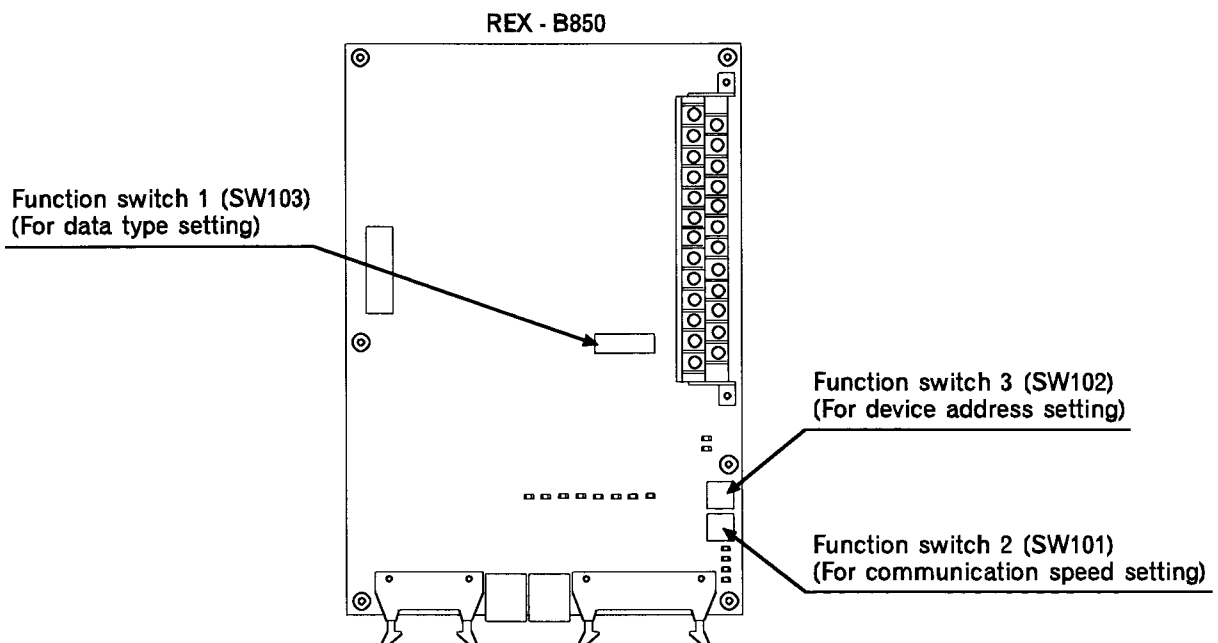
Data bit: 8 bit  
Parity bit: Used (Even number)  
Stop bit: 1 bit

#### (1) Communication settings on REX– B850 side

#### **CAUTIONS**

- Prior to conducting the setting, always turn OFF the power. Otherwise the instrument does not operate normally.
- Do not change the setting of any function switch marked "Unused" among the function switches (SW101, SW102 and SW103). Otherwise instrument damage or malfunction may result.
- Any setting which does not meet the specification may cause malfunction.

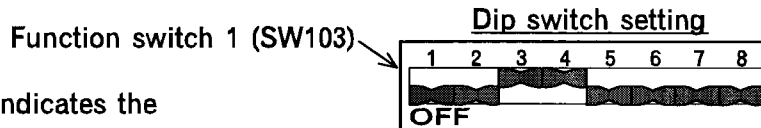
#### ■ Function switch position



■ **Data Type Setting**

The data format is set by function switch 1 (SW103).

Set the desired data format by switching ON or OFF of the dip switch using a fine screwdriver.



\* Each shaded section indicates the selected setting details.

Dip switch 1	Data bit	7 bit	ON				
		8 bit	OFF				
Dip switch 2	Parity bit	No parity	ON				
		Parity	OFF				
Dip switch 3	Selection of odd or even number	Even number	ON				
		Odd number	OFF				
Dip switch 4	Stop bit	1 bit		ON			
		2 bit		OFF			
Dip switch 5 to 7	Unused (Setting cannot be changed)					OFF only	
Dip switch 8	Mode change	Initial mode					ON
		Normal mode					

\* For the initial values prior to factory shipment, see the instruction manual for **REX-B850** (IM850B01-E □).

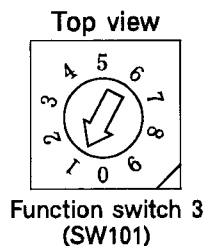
■ **Communication Speed Setting**

The communication speed is set by function switch 3 (SW101).

Match the rotary switch No. to the desired communication speed setting No. using a fine screwdriver.

**CAUTION**

Nos. 4 to 9 cannot be set. If set, normal communication cannot be made.



Setting	Communication speed
0	19200 bps
1	9600 bps
2	4800 bps
3	2400 bps

\* As OPL-B does not correspond to a communication speed of 19200 bps, do not set 19200 bps for OPL-B.

\* For the initial values prior to factory shipment, see the instruction manual for **REX-B850** (IM850B01-E □).

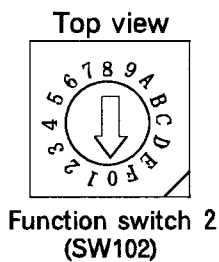
### ■ Device Address Setting

The device address is set by function switch 2 (SW102).

Match the rotary switch No. to the desired device address setting No. using a fine screwdriver.

#### CAUTION

**Set the device address such that is different to the other address on the same line. Otherwise, problems or malfunction may result.**



Setting	Device address	Setting	Device address
0	Device address 00	8	Device address 08
1	Device address 01	9	Device address 09
2	Device address 02	A	Device address 10
3	Device address 03	B	Device address 11
4	Device address 04	C	Device address 12
5	Device address 05	D	Device address 13
6	Device address 06	E	Device address 14
7	Device address 07	F	Device address 15

\* For the initial values prior to factory shipment, see the instruction manual for **REX-B850 (IM850B01-E □)**.

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### 3.3 When power– on for the first time

#### **Checking before power– ON**

First, check the following items, then turn on the power for the Operation Panel [OPL– B].

- Check that the operating environment meets the precautions in Chapter 2 : *MOUNTING AND WIRING*.
- Check that no abnormality is found in the wiring and connection.

#### **Power– ON method**

There are two methods of turning on the power, either of which can be used.

- First, turn on the power for REX– B850, then for OPL– B.
- Simultaneously turn on the power for REX– B850 and OPL– B.

<b>NOTE</b>
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If the power for OPL– B is turned on first, turn on the power for REX– B850 within 1 sec. Otherwise, a time– out error (OPL Time– Out) may occur.

#### **Checking after power– ON**

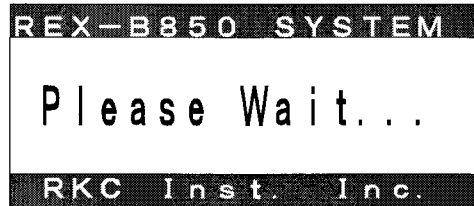
When REX– B850 is multidrop– connected, check that REX– B850 usage is not set to Unused. The data in REX– B850 that is set to Unused is not shown on the screen of the Operation Panel.

For the setting procedure, see "1.4 Unit (REX– B850) used/unused setting screen" in the Supplementary Manual for OPL initialize/controller initialize.

### 3.4 Initialize settings after power- ON (OPL- B side)

#### (1) Start- up screen

- ① After the power is turned on, the start- up screen appears.



Start- up screen

- ② After the start- up screen appears, it changes to the error screen (no- response) under any of the following conditions:

If the communication settings of REX- B850 and OPL- B are not the same,

If the power for REX- B850 is not turned on,

If REX- B850 is not connected to OPL- B,

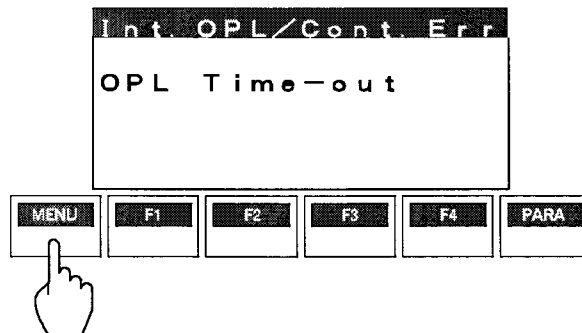
If the modular cable connecting REX- B850 and OPL- B is abnormal,\*1

If the REX- B850 mainframe is abnormal \*1

\*1 If the error is thought to be caused by \*1 above, contact your nearest RKC sales agent where you bought the instrument or RKC sales office.

If this error screen appears, press the MENU switch twice to select the Operation menu screen.

(Other than the error caused by \*1)



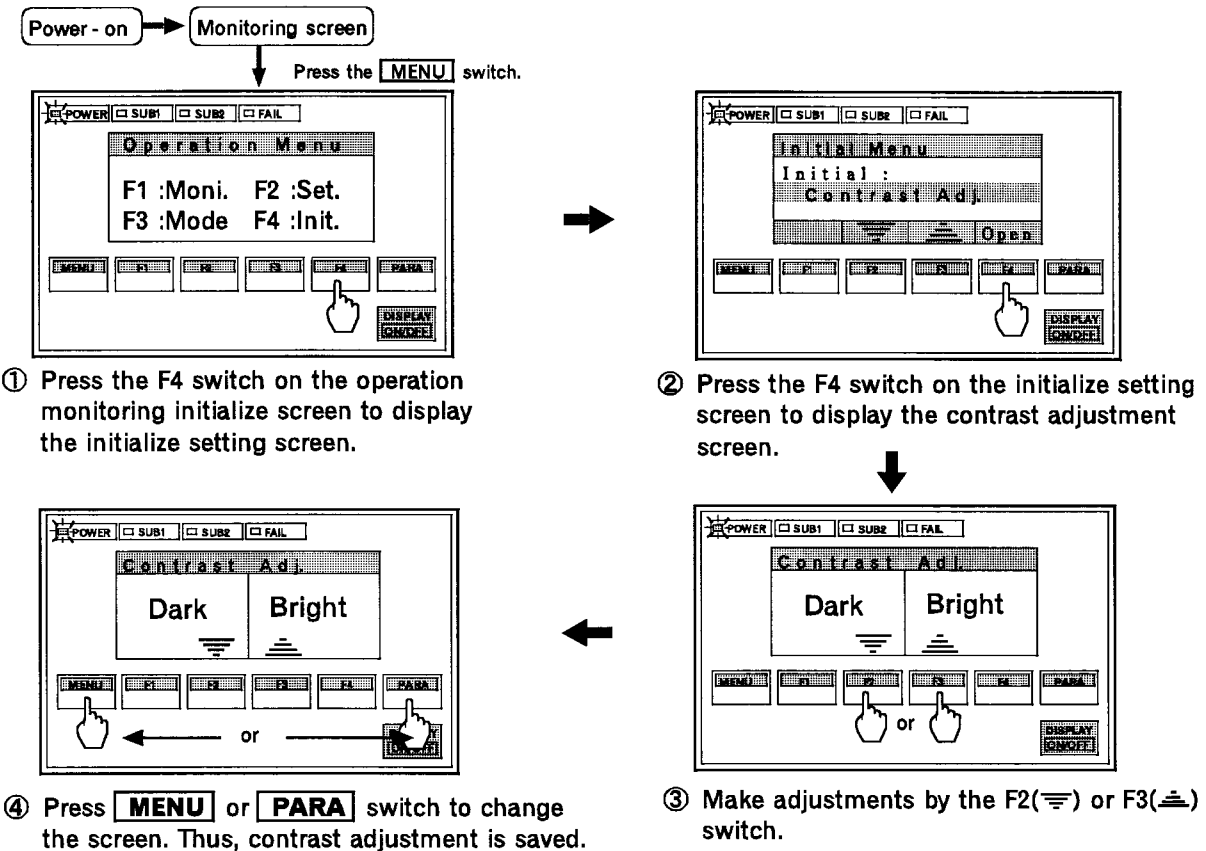
Error message screen

**(2) Contrast adjustment**

In addition to the special characteristics of the LCD, the screen display may be difficult to see according to the position that the operation panel screen is viewed from and the surrounding brightness.

In this situation, an adjustment of the display contrast should be carried out to adjust the screen to the brightness that allows the easiest confirmation of the display.

**<Adjustment procedure>**



**NOTES**

- The Operation monitoring menu screen is not displayed when the number of display channels is specified. In this case, the Operation monitoring screen corresponding to the specified number of display channels appears. For the number of display channels, see "1.9 Channel No. displayed on the operation monitoring setting screen" in the Supplementary Manual for OPL initialize/controller initialize.
- The contrast adjustment settings will remain memorized even when the power is turned off.

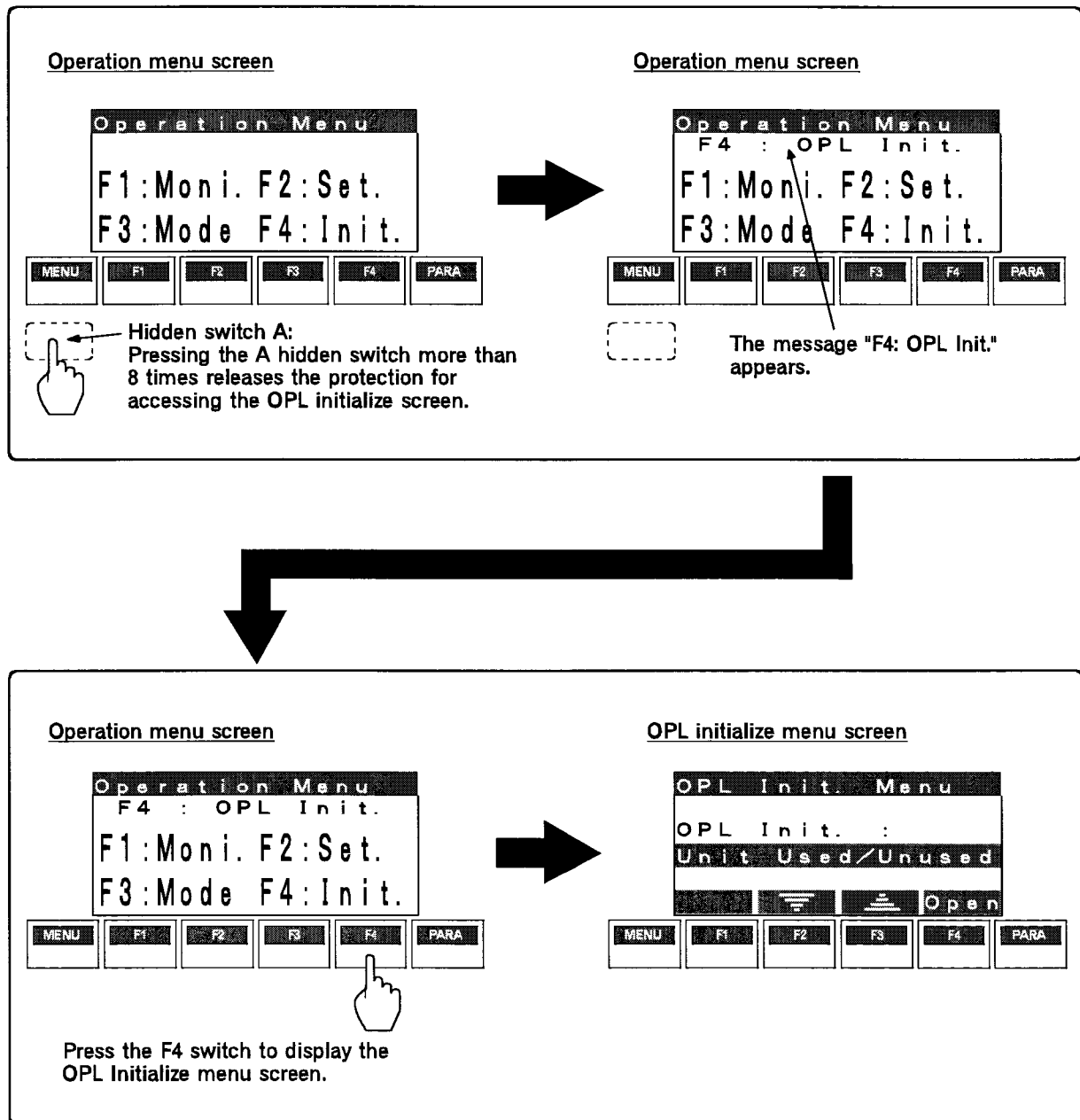


### (3) Communication settings on OPL-B side

- ① Change the Operation menu screen to the OPL initialize menu screen.

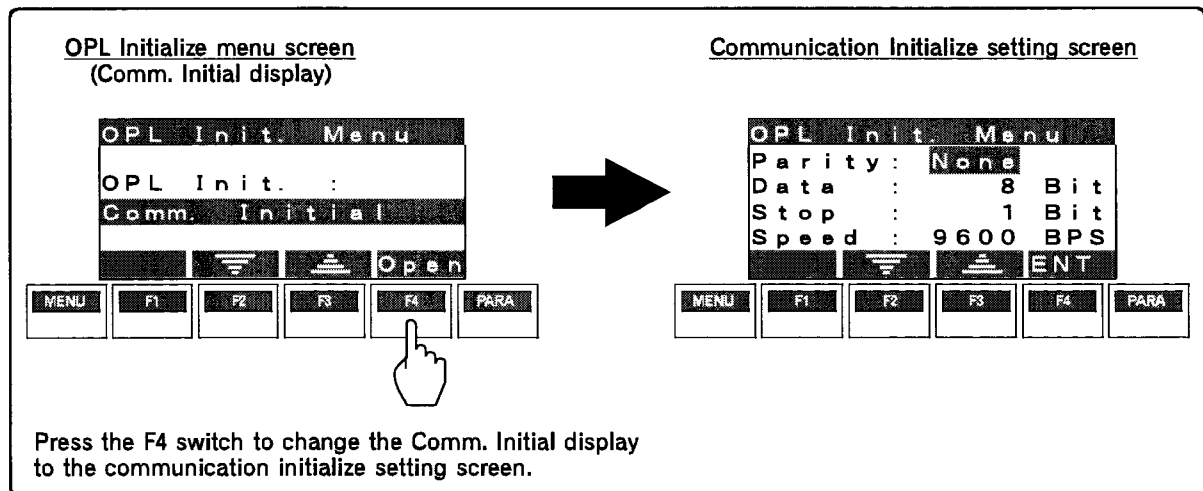
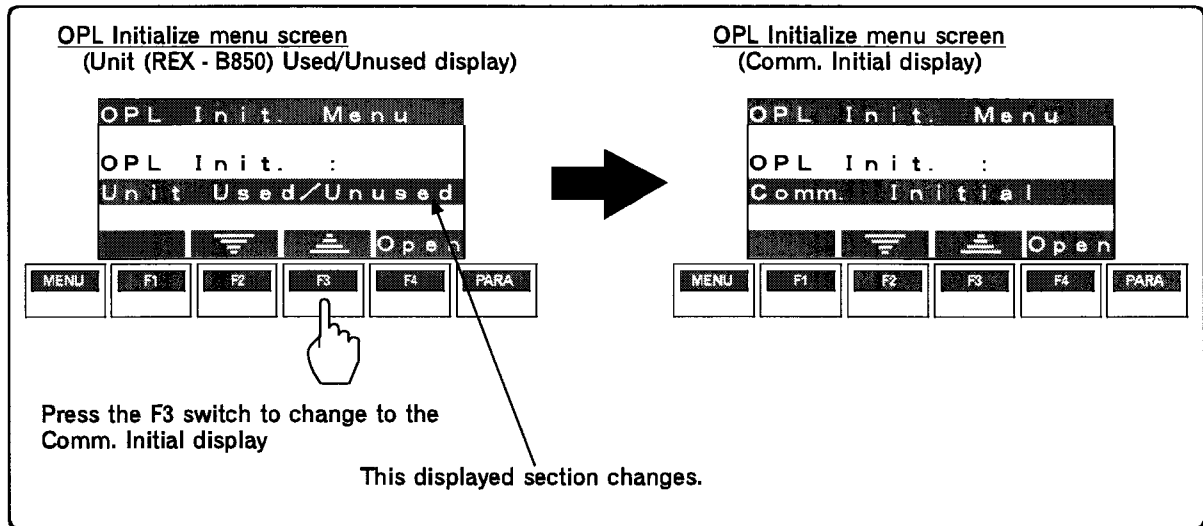
To do this, press the A hidden switch 8 times with the Operation menu screen displayed until the "F4: OPL Init." message is displayed on the Operation menu screen. From the display of the "F4: OPL Init." message, it can be checked that OPL initialize protection has been released.

After the "F4: OPL Init." is displayed, press the F4 switch to change to the OPL initialize menu screen.



- ② Select the Comm. Initial display from the Unit (REX-B850) Used/Unused display appearing on the OPL Initialize menu screen, then select the communication initialize setting screen from the Comm. Initial display.

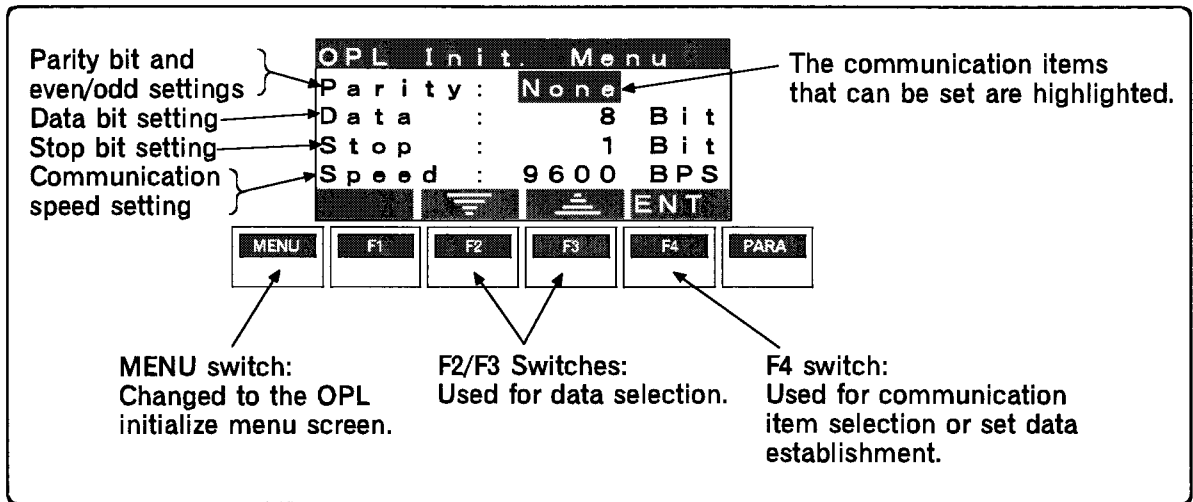
To do this, press the F3 switch once while Unit (REX-B850) Used/Unused is displayed to change to the Comm. Initial display. However, no setting can be changed under this condition. Therefore, press the F4 switch once to change to the communication initialize setting screen.



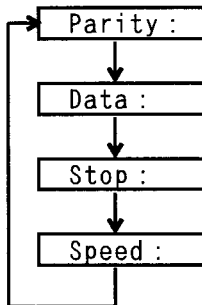
③ Each of data bit, parity bit, even/odd, stop bit and communication speed items is set.

<Setting procedure>

**Communication initialize setting screen**



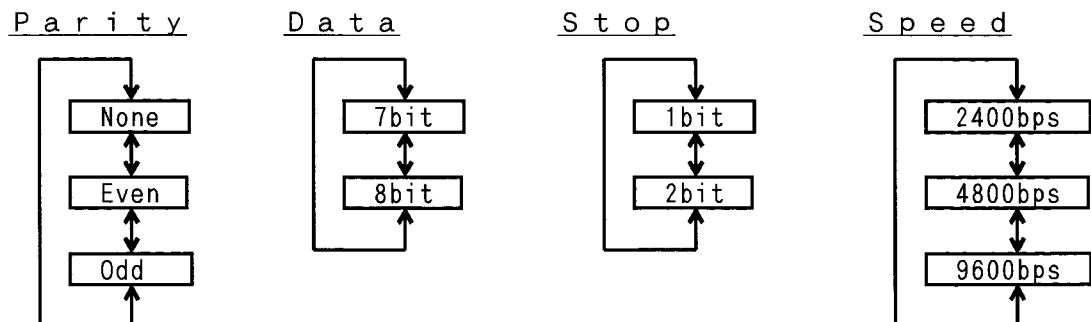
**Communication item changes**



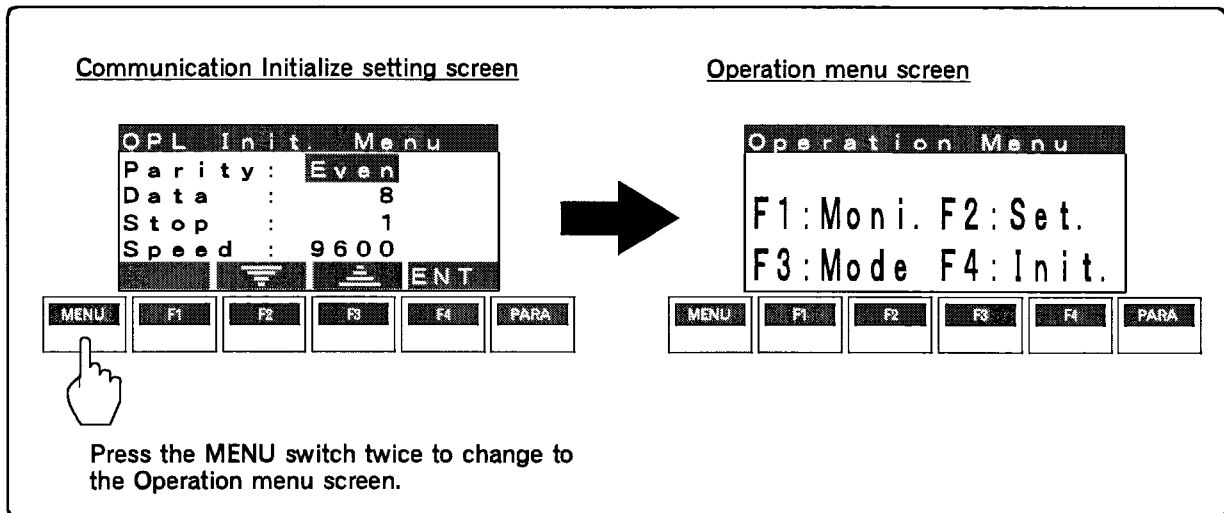
Every time the F4 switch is pressed, the communication item changes in the order of Parity, Data, Stop and Speed. Select the desired communication item. (Each communication item changes in the order shown on the left.)

**Data change and establishment**

Each relevant value can be changed by pressing the F2 or F3 switch. After setting the desired data, press the F4 switch to move to the next communication item, thus establishing the data. (Each relevant data item changes in the following order.)



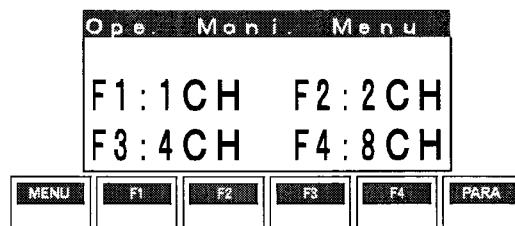
- ④ After changing the communication items, press the MENU switch twice to change to the Operation menu screen.



- ⑤ After selecting the operation menu screen, turn off the power for OPL-B and REX-B850 once, then turn it on again. If the Operation monitoring menu screen appears without the error screen (No-response: OPL Time-out) being displayed, the settings have been finished.

**CAUTIONS**

- After changing a communication item, always re-start OPL-B and REX-B850.
- When re-starting, simultaneously start REX-B850 and OPL-B, or first start REX-B850, then OPL-B.



Operation monitoring menu screen

**NOTE**

The Operation monitoring menu screen is not displayed when the number of display channels is specified. In this case, the Operation monitoring screen corresponding to the specified number of display channels appears. For the number of display channels, see "1.9 Channel No. displayed on the operation monitoring setting screen" in the Supplementary Manual for OPL initialize/controller initialize.

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**(4) Settings of communication with host computer (Option)**

Always match the communication settings of the host computer and OPL-B. Set the communication settings to match the customers specification.

Each communication item on the OPL-B side is set on the Host communication initialize setting screen in the OPL Initialize. For the setting method, see "1.7 Host communication initialize setting screen" in the Supplementary Manual for OPL initialize/controller initialize.

**MEMO**