

INVERTER

Enclosure surface operation panel

FR-PA07 INSTRUCTION MANUAL

Thank you for purchasing the enclosure surface operation panel (FR-PA07). This instruction manual gives handling information and precautions for use of this product. Incorrect handling might cause an unexpected fault. Before using this product, please read this manual carefully to use this product to its optimum performance.

Please forward this instruction manual to the end user.

This product is an option dedicated for the FR-E800 */E700/D700/F700PJ/E700EX/D700-G series.

Refer to the inverter unit's Instruction manual for details on the operation panel functions, operation methods and handling methods.

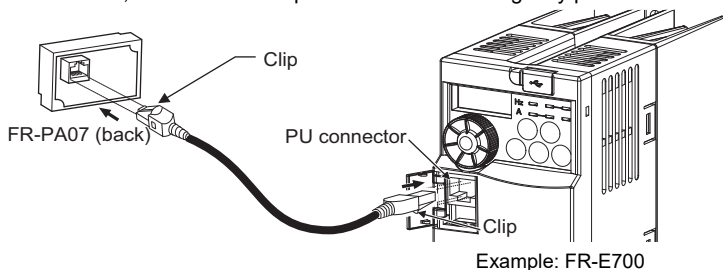
* Only the FR-E800 standard model is supported.

Safety precautions

- Do not touch the setting dial or keys with wet hands. Doing so may cause an electric shock.
- Do not install and operate the enclosure surface operation panel (FR-PA07) if it is damaged or has parts missing.
- Provide a safety backup device, such as an emergency brake, to protect machines and product from hazardous conditions if the enclosure surface operation panel (FR-PA07) becomes faulty.
- Static electricity in your body must be discharged before you touch the product. Otherwise the product may be damaged.
- If halogens (including fluorine, chlorine, bromine, and iodine) contained in fumigants for wood packages enter this product, the product may be damaged. Prevent the entry of fumigant residuals or use an alternative method such as heat disinfection. Note that sterilization or disinfection of wood packages should be performed before packing the product.

1. Connection

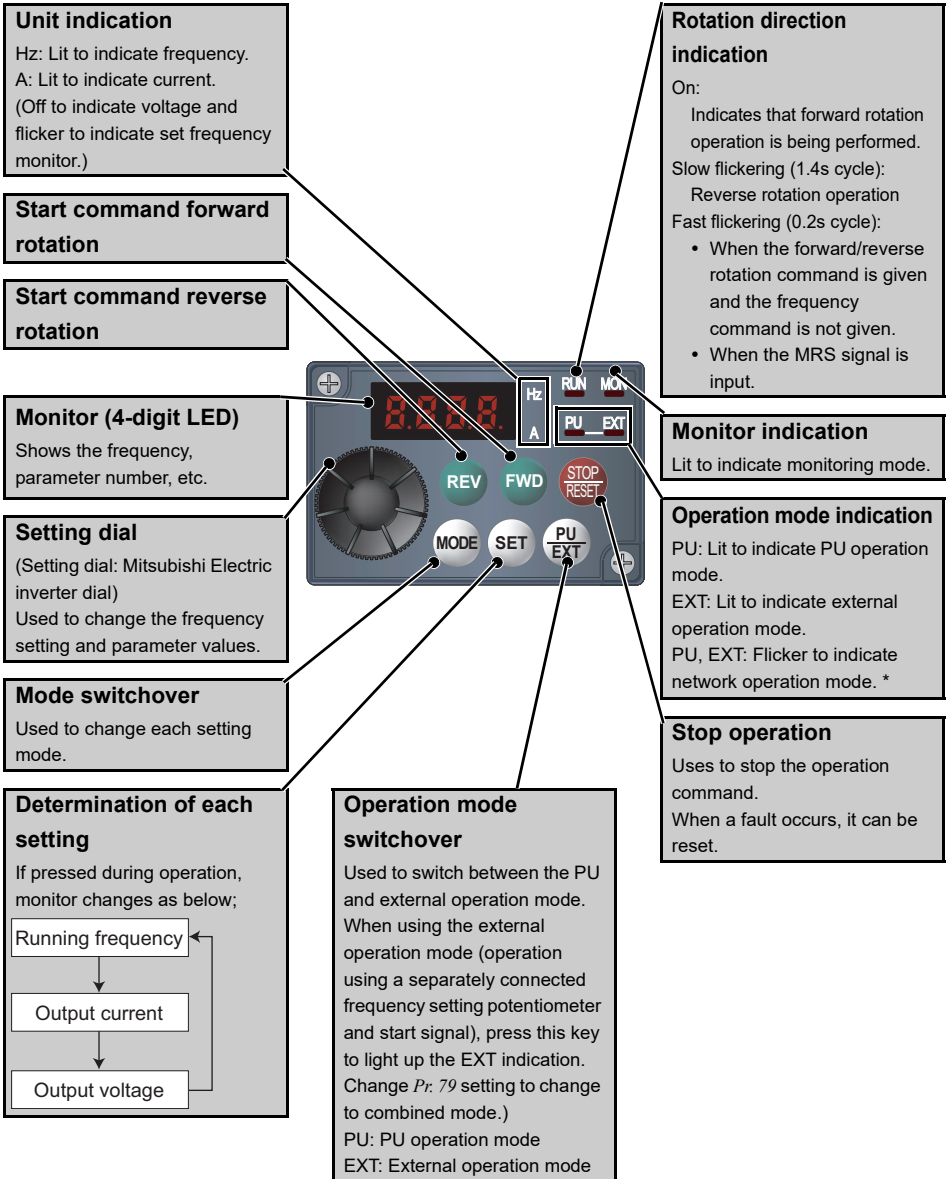
- Use the FR-CB20□ connection cable. Insert one end of the cable into the PU connector on the inverter, and the other end into the connection connector on the FR-PA07 along the guides until the clips click into place. (For the details of the FR-CB20□, refer to the Instruction Manual of the FR-CB20□.)
- To disconnect the cable, hold down the clip at the cable end and gently pull the connector.



NOTE

Do not start operation with the inverter front cover removed.

2. Names and functions of the operation panel (FR-PA07)



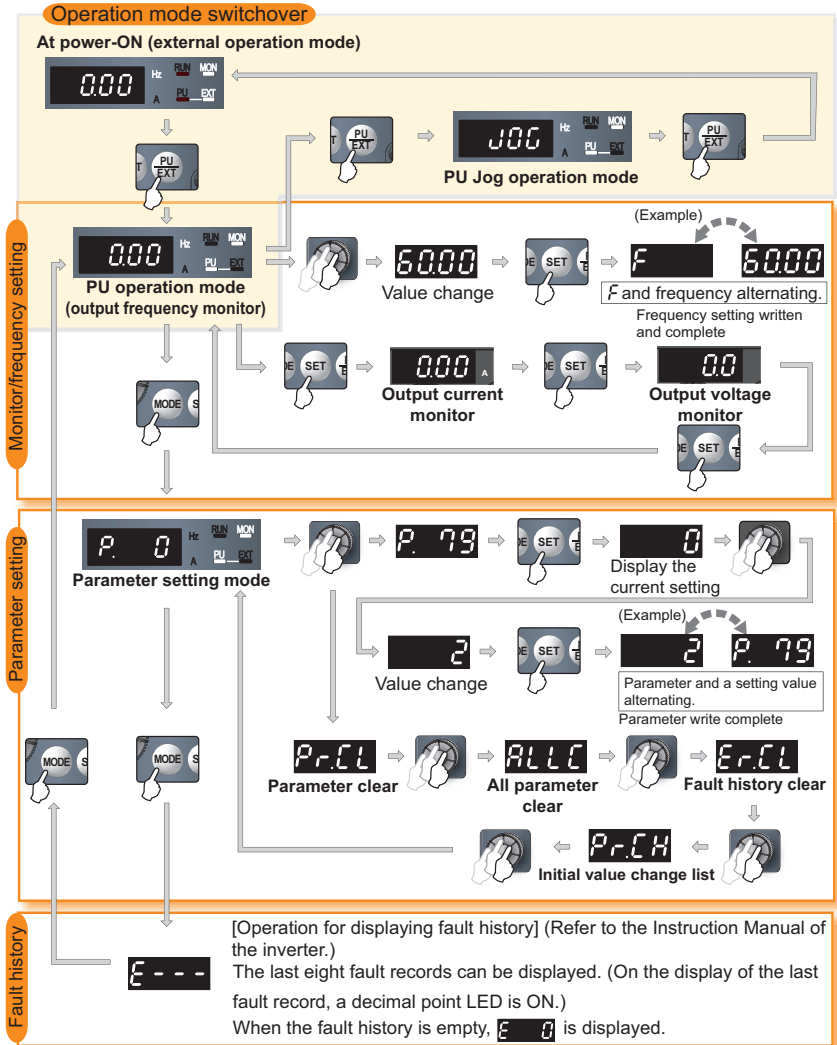
* Both PU and EXT are off on the inverters manufactured during or before the period shown by the serial numbers described on page 7.

3. Operation

3.1 Basic operation

Basic operation is as follows.

The parameter copy function is not available in this product.



REMARKS

- When Pr.551 PU mode operation command source selection = "9999 (initial value)", the priority of the command source in PU operation mode is defined as follows: USB connector > FR-PA07 > operation panel. (Whether a USB connector is provided depends on the inverter model. For details, refer to the Instruction Manual of the inverter to be used.)

3.2 Operation lock (Press [MODE] for a while (2 seconds))

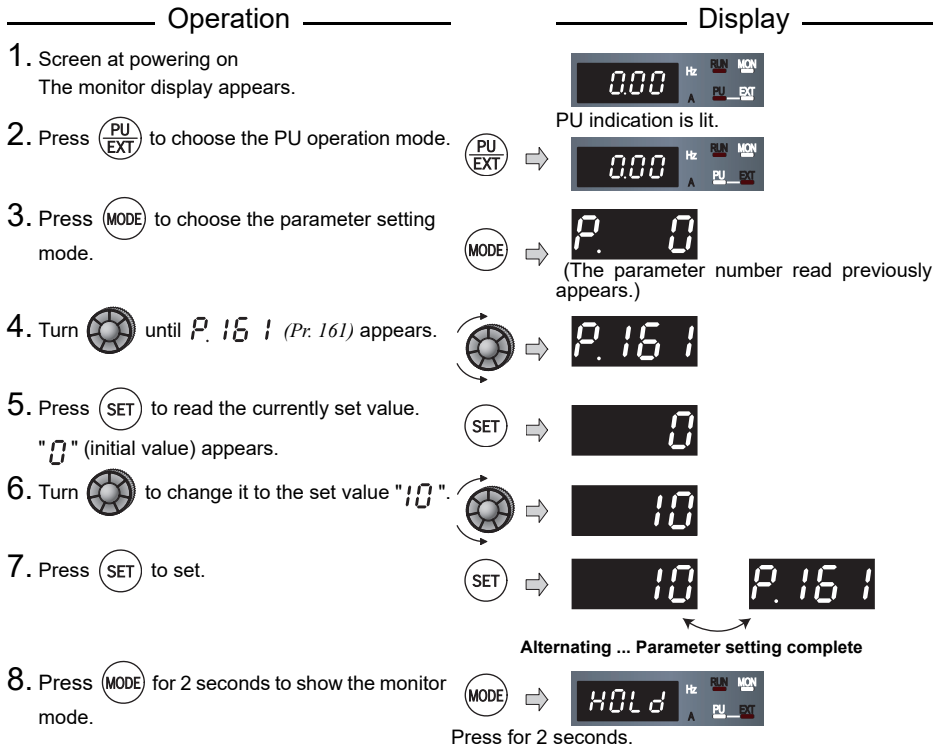
Operation using the setting dial and key of the FR-PA07 can be made invalid to prevent parameter change, and unexpected start or frequency setting.

- Set "10 or 11" in *Pr. 161*, then press **(MODE)** for 2 seconds to make the setting dial and key operation invalid.
- When the setting dial and key operation is made invalid, *HOLD* appears on the operation panel. When the setting dial and key operation is invalid, *HOLD* appears if the setting dial or key operation is performed. (When the setting dial or key operation is not performed for 2 seconds, the monitor display appears.)
- To make the setting dial and key operation valid again, press **(MODE)** for 2 seconds.



POINT

Set "10 or 11" (key lock mode valid) in *Pr. 161 Frequency setting/key lock operation selection*.



Functions valid even in the operation lock status

Stop and reset with **(STOP RESET)**.



Note

- Release the operation lock to release the PU stop by key operation.













3.3 Use the setting dial like a potentiometer to perform operation



POINT



Set "1" (setting dial potentiometer mode) in *Pr. 161 Frequency setting/key lock operation selection*.

Changing example Changing the frequency from 0 Hz to 60 Hz during operation

Operation	Display
<p>1. Screen at powering on The monitor display appears.</p>	
<p>2. Press  to choose the PU operation mode.</p>	<p>PU indication is lit.</p> 
<p>3. Change the <i>Pr. 161</i> setting to "1". (Refer to <i>page 4</i> for change of the setting.)</p> <p>Press  twice to return the monitor to frequency monitor.</p>	
<p>4. Press  to start the inverter.</p>	  
<p>5. Turn  until "60.00" (60.00 Hz) appears. The blinking frequency is the set frequency.</p> <p>You need not press .</p>	  <p>The frequency blinks for about 5s.</p>



REMARKS

- If blinking "60.00" turns to "0.00", the *Pr. 161 Frequency setting/key lock operation selection* setting may not be "1".
- Independently of whether the inverter is running or at a stop, the frequency can be set by merely turning the . (Use *Pr. 295 Magnitude of frequency change setting* to change the frequency setting increments of .)

4. Specifications

4.1 Standard specifications

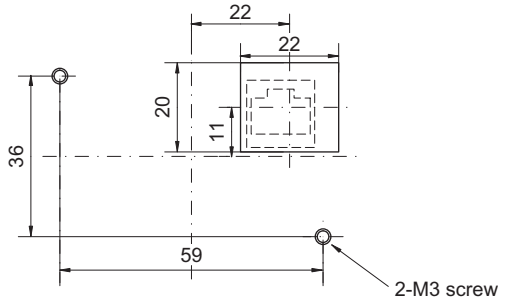
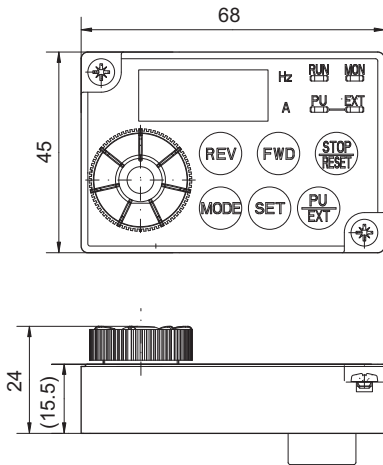
Item	Specifications
Surrounding air temperature	-10°C to +50°C (non-freezing)
Ambient humidity	90%RH or less (non-condensing)
Storage temperature	-20°C to +60°C*
Ambience	Indoors (free from corrosive gas, flammable gas, oil mist, dust and dirt)
Altitude, vibration	Maximum 1000m above sea level for standard operation. 5.9m/s ² or less at 10 to 55 Hz (directions of X, Y, Z axes)
Power supply	Power is supplied from the inverter.
Connection method	Connection using the parameter unit connection cable (FR-CB20□)

* Temperature applicable for a short time, for example, in transit.

4.2 Outline drawing and panel cutting drawing

<Outline drawing>

<Panel cutting drawing>



(Unit: mm)

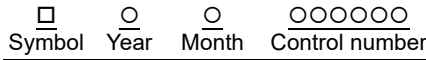
5. Instructions

• For the FR-E700 series inverters manufactured during or before the period shown by the following serial numbers, there are restrictions mentioned below.

- Parameter copy ($P\check{C}P\check{Y}$) is displayed, but parameter copy (reading, writing, or verification) does not function. Display turns into the reading indication, but reading is not executed. If writing or verification is executed, an error occurs.
- Initial value change list ($P\check{r}\check{C}H$) cannot be used.
- Easy setting mode (press MODE and PU/EXT simultaneously (0.5 seconds)) cannot be used to change the operation mode.
- SERIAL number check

Refer to the Instruction Manual of the inverter for the position of the rating plate.

Rating plate example



SERIAL (Serial No.)

The SERIAL consists of one symbol, two characters indicating production year and month, and six characters indicating control number.

The last digit of the production year is indicated as the Year, and the Month is indicated by 1 to 9, X (October), Y (November), or Z (December).

Type	SERIAL number
FR-E720-0.1K to 0.75K	J700000000
FR-E720-1.5K to 5.5K	K700000000
FR-E720-7.5K	L700000000
FR-E720-11K, 15K	G700000000

Type	SERIAL number
FR-E740-0.4K to 7.5K	D700000000

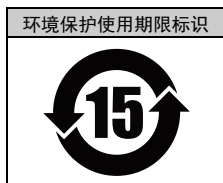
* The parameter copy menu ($P\check{C}P\check{Y}$) is not displayed on this product connected to FR-E700 series inverters manufactured after the above period.

- The parameter copy ($P\check{C}P\check{Y}$) is not displayed on this product when connected to FR-E800 series inverters.

6. Restricted Use of Hazardous Substances in Electronic and Electrical Products

The mark of restricted use of hazardous substances in electronic and electrical products is applied to the product as follows based on the "Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products" of the People's Republic of China.

电器电子产品有害物质限制使用标识要求



本产品中所含有的有害物质的名称、含量、含有部件如下表所示。

- 产品中所含有害物质的名称及含量

部件名称 ^{*2}	有害物质 ^{*1}					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
电路板组件 (包括印刷电路板及其构成的零部件, 如电阻、电容、集成电路、连接器等)、电子部件	×	○	×	○	○	○
金属壳体、金属部件	×	○	○	○	○	○
树脂壳体、树脂部件	○	○	○	○	○	○
螺丝、电线	○	○	○	○	○	○

上表依据SJ/T11364的规定编制。

○：表示该有害物质在该部件所有均质材料中的含量均在GB/T26572规定的限量要求以下。

×：表示该有害物质在该部件的至少一种均质材料中的含量超出GB/T26572规定的限量要求。

*1 即使表中记载为 ×，根据产品型号，也可能会有有害物质的含量为限制值以下的情况。

*2 根据产品型号，一部分部件可能不包含在产品中。

MITSUBISHI ELECTRIC CORPORATION

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