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-CB20Ω 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-CB20Ω, refer to the Instruction Manual of the FR-CB20Ω.)
- 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)

- **Unit indication**
  - Hz: Lit to indicate frequency.
  - A: Lit to indicate current.
  - (Off to indicate voltage and flicker to indicate set frequency monitor.)

- **Start command forward rotation**

- **Start command reverse rotation**

- **Monitor (4-digit LED)**
  - Shows the frequency, parameter number, etc.

- **Setting dial**
  - (Setting dial: Mitsubishi Electric inverter dial)
  - Used to change the frequency setting and parameter values.

- **Mode switchover**
  - Used to change each setting mode.

- **Operation mode switchover**
  - Used to switch between the PU and external operation mode.
  - When using the external operation mode (operation using a separately connected frequency setting potentiometer and start signal), press this key to light up the EXT indication.
  - Change Pr. 79 setting to change to combined mode.)
  - PU: PU operation mode
  - EXT: External operation mode

- **Operation mode indication**
  - PU: Lit to indicate PU operation mode.
  - EXT: Lit to indicate external operation mode.
  - PU, EXT: Flicker to indicate network operation mode.

- **Rotation direction indication**
  - On:
    - Indicates that forward rotation operation is being performed.
  - Slow flickering (1.4s cycle):
    - Reverse rotation operation
  - Fast flickering (0.2s cycle):
    - When the forward/reverse rotation command is given and the frequency command is not given.
    - When the MRS signal is input.

- **Monitor indication**
  - Lit to indicate monitoring mode.

- **Stop operation**
  - Uses to stop the operation command.
  - When a fault occurs, it can be reset.

* 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, \( \text{Hold} \) appears on the operation panel. When the setting dial and key operation is invalid, \( \text{Hold} \) 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.

---

**Operation**

1. Screen at powering on
   The monitor display appears.

2. Press \( \text{PU} \) to choose the PU operation mode.

3. Press \( \text{MODE} \) to choose the parameter setting mode.

4. Turn \( \text{PU} \) until \( P.161 \) (Pr. 161) appears.

5. Press \( \text{SET} \) to read the currently set value.

6. Turn \( \text{PU} \) to change it to the set value "10".

7. Press \( \text{SET} \) to set.

8. Press \( \text{MODE} \) for 2 seconds to show the monitor mode.

---

**Display**

- PU indication is lit.

- (The parameter number read previously appears.)

- Alternating ... Parameter setting complete

---

Functions valid even in the operation lock status
Stop and reset with \( \text{STOP} \).
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

<table>
<thead>
<tr>
<th>Operation</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Screen at powering on&lt;br&gt;The monitor display appears.</td>
<td><img src="image" alt="Screen at powering on" /></td>
</tr>
<tr>
<td>2. Press PU to choose the PU operation mode.</td>
<td><img src="image" alt="PU indication is lit" /></td>
</tr>
<tr>
<td>3. Change the Pr. 161 setting to &quot;1&quot;.&lt;br&gt;(Refer to page 4 for change of the setting.)&lt;br&gt;Press MODE twice to return the monitor to frequency monitor.</td>
<td><img src="image" alt="PU indication is lit" /></td>
</tr>
<tr>
<td>4. Press FWD/REV to start the inverter.</td>
<td><img src="image" alt="FWD/REV to start the inverter" /></td>
</tr>
<tr>
<td>5. Turn until &quot;60.00&quot; (60.00 Hz) appears. The blinking frequency is the set frequency.&lt;br&gt;You need not press SET.</td>
<td><img src="image" alt="The frequency blinks for about 5s" /></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Item</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surrounding air temperature</td>
<td>-10°C to +50°C (non-freezing)</td>
</tr>
<tr>
<td>Ambient humidity</td>
<td>90%RH or less (non-condensing)</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20°C to +60°C*</td>
</tr>
<tr>
<td>Ambience</td>
<td>Indoors (free from corrosive gas, flammable gas, oil mist, dust and dirt)</td>
</tr>
<tr>
<td>Altitude, vibration</td>
<td>Maximum 1000m above sea level for standard operation. 5.9m/s² or less at 10 to 55 Hz (directions of X, Y, Z axes)</td>
</tr>
<tr>
<td>Power supply</td>
<td>Power is supplied from the inverter.</td>
</tr>
<tr>
<td>Connection method</td>
<td>Connection using the parameter unit connection cable (FR-CB20[ ])</td>
</tr>
</tbody>
</table>

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

4.2 Outline drawing and 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 (PYPY) 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 (PRH) cannot be used.
  - Easy setting mode (press & 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

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Year</th>
<th>Month</th>
<th>Control number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERIAL (Serial No.)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>SERIAL number</th>
</tr>
</thead>
<tbody>
<tr>
<td>FR-E720-0.1K to 0.75K</td>
<td>J700000000</td>
</tr>
<tr>
<td>FR-E720-1.5K to 5.5K</td>
<td>K700000000</td>
</tr>
<tr>
<td>FR-E720-7.5K</td>
<td>L700000000</td>
</tr>
<tr>
<td>FR-E720-11K, 15K</td>
<td>G700000000</td>
</tr>
<tr>
<td>FR-E740-0.4K to 7.5K</td>
<td>D700000000</td>
</tr>
</tbody>
</table>

- The parameter copy menu (PYPY) is not displayed on this product connected to FR-E700 series inverters manufactured after the above period.
- The parameter copy (PYPY) 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

- **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。**

<table>
<thead>
<tr>
<th>部件名称</th>
<th>有害物质</th>
</tr>
</thead>
<tbody>
<tr>
<td>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）</td>
<td>铅 (Pb)</td>
</tr>
<tr>
<td>金属壳体、金属部件</td>
<td>×</td>
</tr>
<tr>
<td>树脂壳体、树脂部件</td>
<td>○</td>
</tr>
<tr>
<td>螺丝、电线</td>
<td>○</td>
</tr>
</tbody>
</table>

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。

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**Specifications subject to change without notice.**