



INVERTER

Front cover for plug-in option

FR-A7NP E kit cover SC

INSTRUCTION MANUAL

Thank you for choosing this Mitsubishi Electric Inverter plug-in option.

This Instruction Manual gives handling information and precautions for use of this equipment. Incorrect handling might cause an unexpected fault. Before using the equipment, please read this manual carefully to use the equipment to its optimum.

Please forward this manual to the end user.

SAFETY INSTRUCTIONS



While power is ON or for some time after power-OFF, do not touch the inverter as it will be extremely hot. Doing so can cause burns.



The product must be transported in correct method that corresponds to the weight. Failure to do so may lead to injuries. Special attention must be paid to the edges of the product.



Foreign conductive objects must be prevented from entering the inverter. That includes screws and metal fragments or other flammable substances such as oil.

1 PRE-OPERATION INSTRUCTIONS

1.1 Unpacking and Product Confirmation

Take the front cover for plug-in option out of the package and confirm that the product is as you ordered and intact. This product is a front cover for plug-in option dedicated for the FR-E700-SC series (Safety stop function model). This product is used to mount the plug-in option FR-A7NP (PROFIBUS-DP communication) to the inverter.

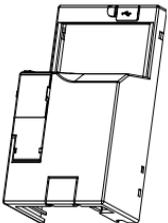
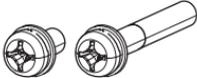
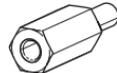
When mounting this product to the inverter, use the following items: the plug-in option FR-A7NP and the enclosed items of this product.

CAUTION

- Instead of the standard inverter front cover, fit this front cover of the plug-in option for the operation.
- The mounting screws and the LED display cover supplied with the plug-in option FR-A7NP are not used.

1.1.1 Packing confirmation

Check the enclosed items.

Front cover for plug-in option..... 1 (Refer to page 4, 7.) 	Junction connector..... 1 (Refer to page 4, 7.) 	M3 mounting screw (Long) (M3 × 20mm) 1 (Short) (M3 × 6mm)..... 1 (Refer to page 4, 7.) 
	Spacer for plug-in option mounting ... 1 (Refer to page 4, 7.) 	Hexagon spacer 1 (Refer to page 4, 7.) 

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2 INSTALLATION AND WIRING

2.1 Installation Procedure

The FR-E700-SC (safety stop function model) series has one connection connector for the plug-in option.

CAUTION

- Always perform wiring to the main circuit terminals and control circuit terminals before installing the plug-in option. Wiring cannot be performed after installing the plug-in option.
- When mounting the plug-in option, do not let wires get caught in the plug-in option or the spacer for plug-in option mounting. If a wire gets caught, the inverter and the plug-in option may be damaged.
- When the inverter cannot recognize that the plug-in option is mounted due to improper installation, etc., "E. I" (option alarm) is displayed.
- Take care not to drop a mounting screws during mounting and removal.
- Pull out the plug-in option straight to remove. Otherwise, the connector may be damaged.

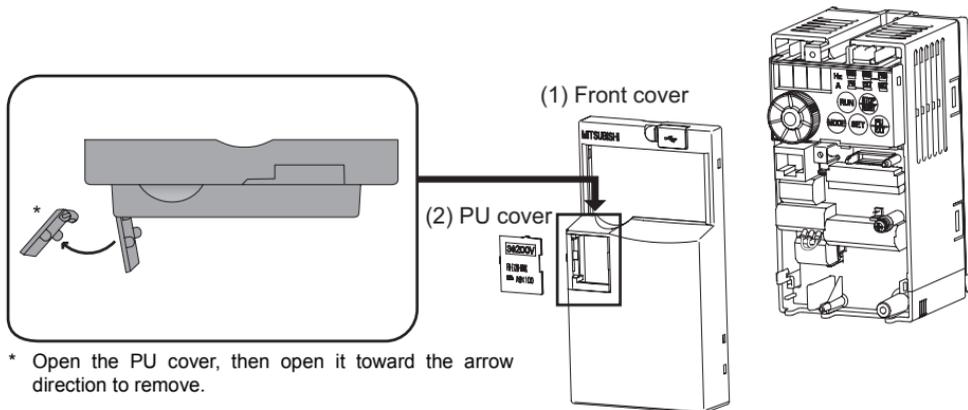
REMARKS

- Because the voltage class, model name and serial number (only voltage class is labeled for FR-E720-5.5K (FR-E720-240), FR-E740-5.5K (FR-E740-120) or more) are written on the PU cover, replace the PU cover of the plug-in option with the removed PU cover of the inverter.

7 INSTALLATION AND WIRING

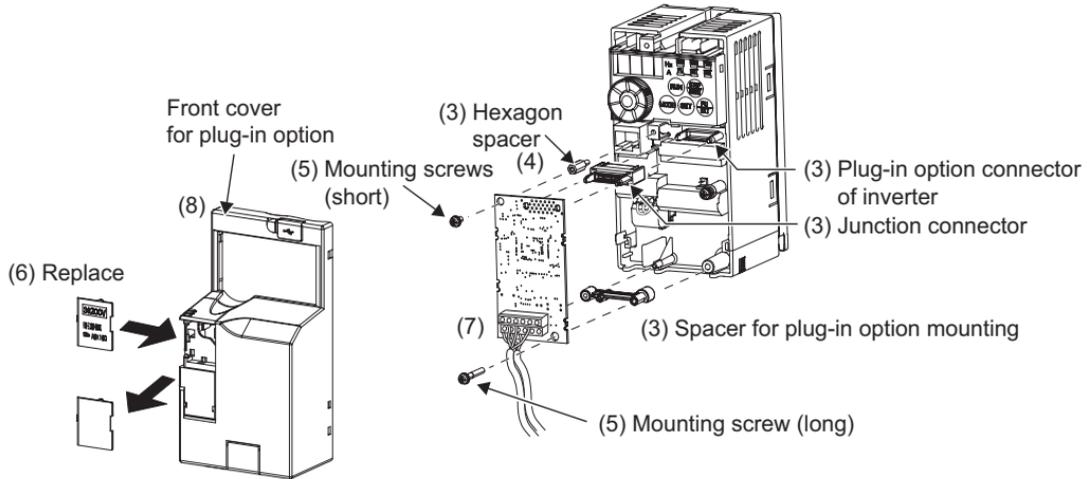
● For FR-E720-3.7K (FR-E720-175) or less and FR-E740-7.5K (FR-E740-170) or less

- (1) Remove the front cover from the inverter. (For removing the front cover, refer to the FR-E700 Instruction Manual.)
- (2) Remove the PU cover from the front cover. Open the PU cover with a driver, etc. and remove it in the direction of arrow as shown below.



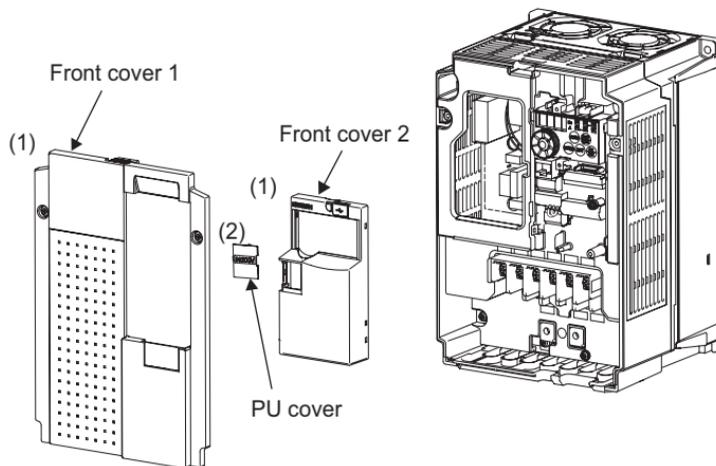
- (3) Mount the spacer for plug-in option mounting, the hexagon spacer, and the junction connector. Fit the junction connector to the guide of the connector at the inverter side, and insert the junction connector as far as it goes.
- (4) Fit the connector of the plug-in option to the guide of the junction connector, and insert the plug-in option as far as it goes.
- (5) Fix the plug-in option securely by using the supplied mounting screw (short) to the upper screw hole and the other supplied mounting screw (long) to the lower screw hole of the plug-in option. If the screw holes do not line up, the connector may not have been plugged properly. Check for loose plugging.
- (6) Remove the PU cover provided on the front cover for plug-in option and install the other PU cover, which was removed in (2).

- (7) Loosen the terminal screw and insert the cable into the terminal. Tighten each cable with fixing screws to the recommended tightening torque (0.22N·m to 0.25N·m).
- (8) Install the front cover for plug-in option to the inverter.



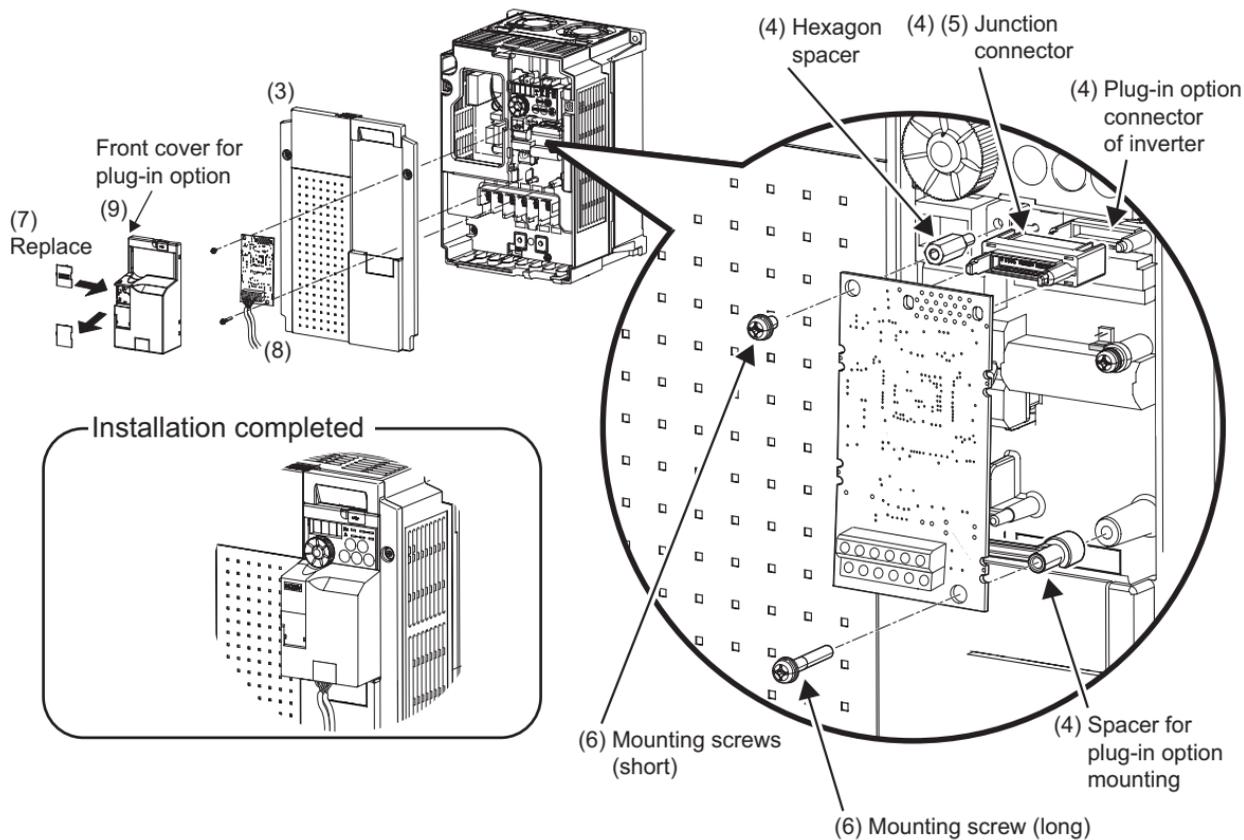
7 INSTALLATION AND WIRING

- For FR-E720-5.5K (FR-E720-240) or more and FR-E740-11K (FR-E740-230) or more
- (1) Remove the front cover 1 and 2 from the inverter. (For removing the front cover, refer to the FR-E700 Instruction Manual.)
 - (2) Remove the PU cover from the front cover 2. For removing the PU cover, refer to *page 4*.





- (3) Install the front cover 1 to the inverter.
- (4) Mount the spacer for plug-in option mounting, the hexagon spacer, and the junction connector. Fit the junction connector to the guide of the connector at the inverter side, and insert the junction connector as far as it goes.
- (5) Fit the connector of the plug-in option to the guide of the junction connector, and insert the plug-in option as far as it goes.
- (6) Fix the plug-in option securely by using the supplied mounting screw (short) to the upper screw hole and the other supplied mounting screw (long) to the lower screw hole of the plug-in option. If the screw holes do not line-up, the connector may not have been plugged properly. Check for loose plugging.
- (7) Remove the PU cover provided on the front cover for plug in option and install the other PU cover, which was removed in (2).
- (8) Loosen the terminal screw and insert the cable into the terminal. Tighten each cable with fixing screws to the recommended tightening torque (0.22N·m to 0.25N·m).
Pass the PROFIBUS communication cable over the front cover 1 of the inverter. (Refer to the finished installation figure in the next page.) If a PROFIBUS communication cable is passed through underneath the front cover 1, the bending radius of the cable shortens, stressing the cable.
- (9) Install the front cover for plug-in option to the inverter.



3 PROFIBUS-DP communication function

For the communication function, refer to the FR-A7NP Instruction Manual.

When using the FR-A7NP with the FR-E700-SC (safety stop function model) series, specifications of inverter status, run command, alarm, monitor, parameter etc. are different from those stated in the FR-A7NP manual.

Refer to the FR-E700-SC (safety stop function model) series manual for these specifications.

INVERTER

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IB(NA)-0600445ENG-A(1010) MEE

Printed in Japan

Specifications subject to change without notice.