

INVERTER

Control Circuit Terminal Block Intercompatibility Attachment <FR-A8TAT>

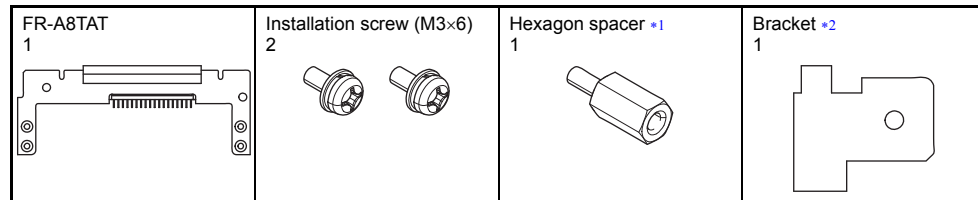
Thank you for choosing this Mitsubishi Electric inverter option unit. This Instruction Manual provides handling information and precautions for use of the equipment. Incorrect handling might cause an unexpected fault. Before using this product, always read this Instruction Manual carefully to use this product correctly. Please forward this Instruction Manual to the end user.

Warning

- While the inverter power is ON, do not remove the front cover or the wiring cover. Do not operate the inverter with any cover or wiring cover removed, as accidental contact with exposed high-voltage terminals and internal components may occur, resulting in an electrical shock.
- Even if power is OFF, do not remove the front cover except for wiring or periodic inspection as you may accidentally touch the charged inverter circuits and get an electric shock.
- Before wiring or inspection, check that the display of the operation panel is OFF. Any person who is involved in wiring or inspection shall wait for at least 10 minutes after the power supply has been switched OFF and check that there are no residual voltage using a tester or the like. The capacitor is charged with high voltage for some time after power OFF, and it is dangerous.
- Any person who is involved in wiring or inspection of this equipment shall be fully competent to do the work.
- Do not touch the printed circuit board or handle the cables with wet hands. Doing so may cause an electric shock.
- Do not subject the cables to scratches, excessive stress, heavy loads or pinching. Doing so may cause an electric shock.

1 Unpacking and checking the product

Take the product out of the package, and confirm that the product is as you ordered and intact. The product is an option for the FR-A800/F800 series.



*1 Used with the FR-A820-01250 (22K) or lower, FR-A840-00620 (22K) or lower, FR-F820-01250(30K) or lower, and FR-F840-00620(30K) or lower.

*2 Used with the FR-A820-01540(30K) or higher, FR-A840-00770(30K) or higher, FR-F820-01540(37K) or higher, and FR-F840-00770(37K) or higher.

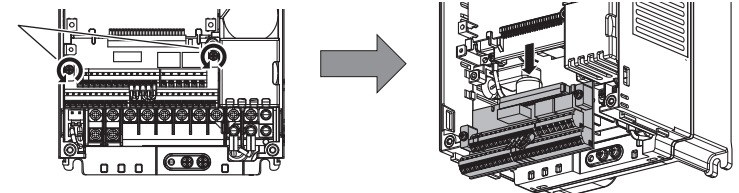
- Applicable control circuit terminal blocks
- FR-A800 series
 - FR-A700 series
 - FR-A500 series

- FR-F800 series
 - FR-F700(P) series
 - FR-F500 series

2 Installation procedure

- (1) Loosen the two installation screws at the both sides of the control circuit terminal block of FR-A800/F800 series inverter. (These screws cannot be removed.)
Slide down the control circuit terminal block to remove it.

Loosen the screws.

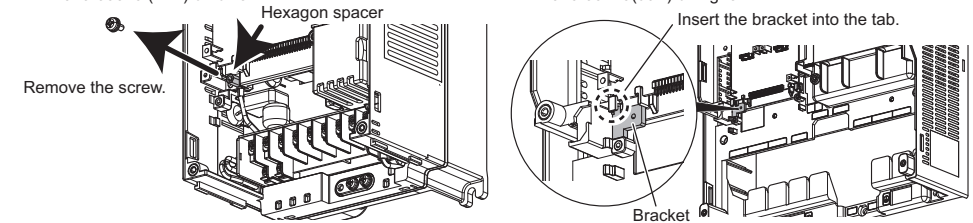


For the FR-A820-01250(22K) or lower, the FR-A840-00620(22K) or lower, FR-F820-01250(30K) or lower, or FR-F840-00620(30K) or lower inverter, remove the fixing screw for earthing (grounding) cable, and instead attach the provided hexagon spacer. (Tightening torque: 0.33 to 0.4 N•m)

For the FR-A820-01540(30K) or higher, the FR-A840-00770(30K) or higher, FR-F820-01540(37K) or higher, or FR-F840-00770(37K) or higher inverter, fit the bracket to the inverter, into the place shown in the figure below.

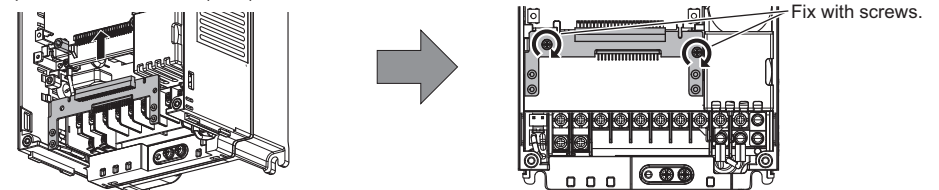
FR-A820-01250 (22K) or lower
FR-A840-00620 (22K) or lower

FR-A820-01540(30K) or higher
FR-A840-00770(30K) or higher

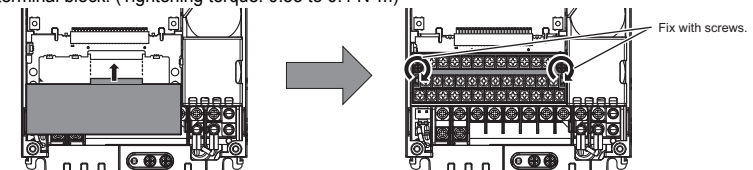


- (2) Install the A8TAT. Be careful not to bend the pins of inverter control circuit connector.
- (3) For the FR-A820-01250(22K) or lower, the FR-A840-00620(22K) or lower, FR-F820-01250(30K) or lower, or FR-F840-00620(30K) or lower inverter, fix the A8TAT to the inverter and the hexagon spacer using the provided installation screws. (Tightening torque: 0.33 to 0.4 N•m)
For the FR-A820-01540(30K) or higher, the FR-A840-00770(30K) or higher, FR-F820-01540(37K) or higher, or FR-F840-00770(37K) or higher inverter, fix the A8TAT to the inverter and the bracket using the provided screws. (Tightening torque: 0.33 to 0.4 N•m)

Example of FR-A820-00105 (1.5K)



- (4) Install the control circuit terminal block of the FR-A700/F700(P)/A500/F500 series inverter. Be careful not to bend the pins of A8TAT control circuit connector. Fix the control circuit terminal block using the installation screws of the control circuit terminal block. (Tightening torque: 0.33 to 0.4 N•m)

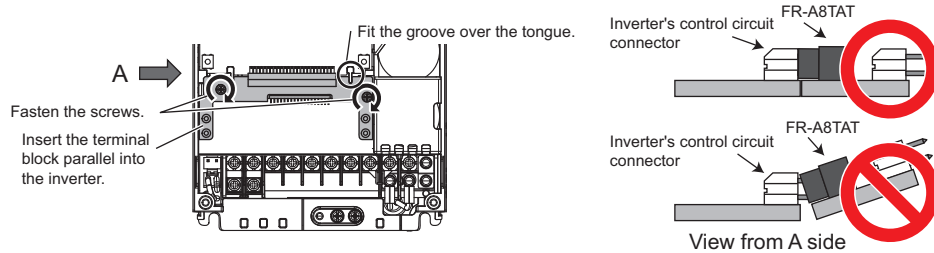


3 Precautions for removal and reinstallation of the A8TAT

The following are the precautions to remove or reinstall the A8TAT.

Observe the following for proper handling to avoid malfunctions or failures of the inverter.

- To remove or reinstall the A8TAT, keep it upright so that it is parallel with the inverter.
- To install the A8TAT, slide it upward so that the groove on the terminal block fits over the tongue on the inverter. Adjust the A8TAT position for alignment with the screw fixing bases.
- Check that the A8TAT is parallel with the inverter and the pins of the inverter's control circuit connector are not bent. After checking the proper connection, fix the terminal block with two screws.



NOTE

- Do not tilt the A8TAT while tightening the screws or removing it from the inverter. (Otherwise, a stress applied to the A8TAT or the control circuit connector may cause damage to them.)

4 Restrictions for using the inverter with the A8TAT

- For using the control circuit terminal block of the FR-A500/F500 series, open or remove the cover of the control circuit terminal block. Otherwise, the front cover of the inverter may not close properly.
- Since the specifications of the control circuit terminals of the FR-A700/F700(P)/A500/F500 series are different from those of the FR-A800 series, certain functions of the inverter are restricted (refer to the table below).

	Relay output 2 terminals	24 V external power supply input terminal	Safety stop signal terminals
FR-A500/F500 series	×	×	×
FR-A700/F700(P) series	○	×	×

○...Available ×...Not available

- The FR-A800/F800 plug-in option FR-A8NC or FR-A8NCE, or the FR-A800 plug-in option FR-A8NS cannot be installed.
- When using a plug-in option, connect the plug-in option using a cable that can be routed through the space between the front cover and the control circuit terminal block (FR-A700/F700(P) series: 7 mm, FR-A500/F500 series: 0.8 mm).

5 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

环境保护使用期限标识



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。

REVISIONS

Print date	* Manual number	Revision
May 2014	IB(NA)-0600541ENG-A	First edition
Dec 2017	IB(NA)-0600541ENG-B	Addition • Compatibility with the FR-F800 series inverters • Precautions for removal and reinstallation of the A8TAT • Restricted Use of Hazardous Substances in Electronic and Electrical Products

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