Built-in Braking Resistor "TK□□W□□"

Thank you for purchasing the built-in braking resistor "TK□□W□□." This resistor increases the regenerative braking capability of the FRENIC-Mini series of inverters.

Compared to an external braking resistor, the internal braking resistor does not require additional wiring or special installation hardware. This allows for a reduction in total mounting space.

1. Check the following items:

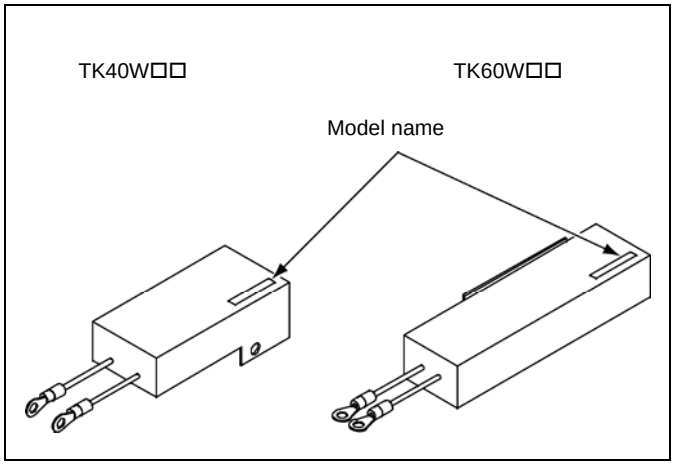
(1) The built-in braking resistor is contained in the package.

(2) The resistor has not been damaged during transportation—there should be no visible damage or parts missing.

(3) The built-in braking resistor is the model you ordered. Check the model name (see the table below) on the resistor as shown at right.

(4) One screw (M4x12) is also contained in the package.

If you suspect the product is not working properly or if you have any questions about the product, contact your local distributor or your local FUJI Electric branch office.



2. Built-in Braking Resistor Models and Applicable Inverter Models

Built-in Braking Resistor Models	Applicable Inverter Models	Applicable Inverter Models (US Version)
TK40W60	FRN1.5C1S/U-2□ FRN2.2C1S/U-2□	FRN002C1S-2U FRN003C1S-2U
	FRN1.5C1S/U-7□	FRN002C1S-7U
TK40W240	FRN1.5C1S/U-4□ FRN2.2C1S/U-4□	FRN002C1S-4U FRN003C1S-4U
TK60W40	FRN3.7C1S/U-2□	FRN005C1S-2U
	FRN2.2C1S/U-7□	FRN003C1S-7U
	FRN1.5C1E/M-2□ FRN2.2C1E/M-2□	FRN002C1E-2U FRN003C1E-2U
	FRN3.7C1E/M-2□	FRN005C1E-2U
	FRN1.5C1E/M-7□ FRN2.2C1E/M-7□	FRN002C1E-7U FRN003C1E-7U
TK60W160	FRN3.7C1S/U-4□	FRN005C1S-4U
	FRN1.5C1E/M-4□ FRN2.2C1E/M-4□	FRN002C1E-4U FRN003C1E-4U
	FRN3.7C1E/M-4□	FRN005C1E-4U

NOTE: A box (□) in the above table replaces A, C, E, or J depending on shipping destination.

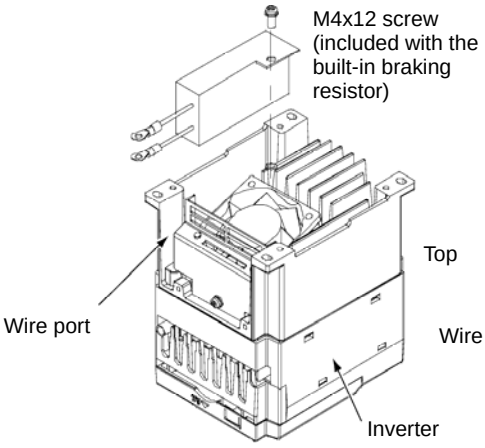
3. Installation Procedure

(1) Place the inverter with the keypad facing down as shown below.

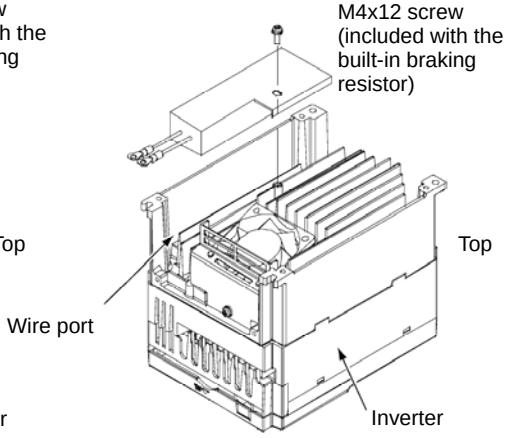
(2) Install the built-in resistor to the rear side of the inverter with the included screw (M4x12).

(3) Pull the wiring of the resistor towards the keypad through the wire port.

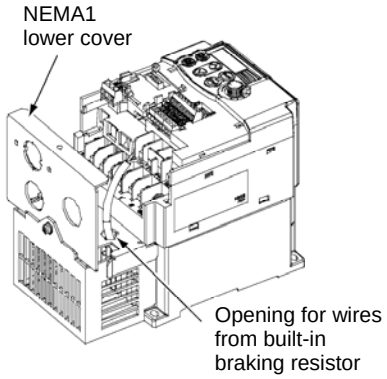
For inverters equipped with a NEMA1 kit, pass the wiring of the resistor through the opening provided in the NEMA1 lower cover as shown below at right.



FRN1.5/2.2C1S-2☐, FRN002/003C1S-2U
FRN1.5/2.2C1S-4☐, FRN002/003C1S-4U



FRN3.7C1S-2☐, FRN005C1S-2U
FRN3.7C1S-4☐, FRN005C1S-4U



Inverter Equipped with NEMA1 Kit

NOTE: A box (☐) in above model names replaces A, C, E, or J depending on shipping destination.

4. Wiring Procedure

(1) Remove the screws from terminals P1 and P(+), along with the jumper bar*.

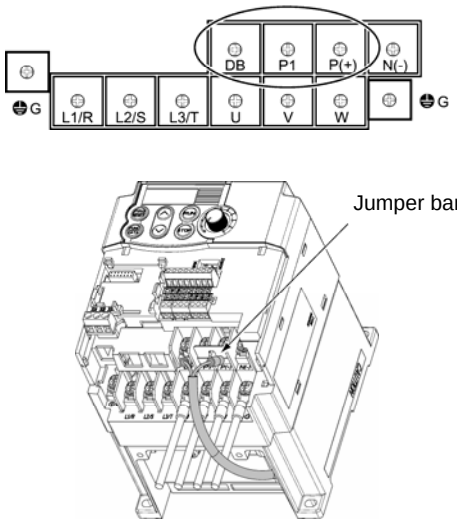
(2) Put either wire of the built-in braking resistor and the jumper bar* on terminal P(+) in this order, then secure them with the screw removed in (1) above.

(3) Secure the jumper bar* on terminal P1 with the screw removed in (1) above.

(4) Remove the screw from terminal DB and connect the remaining wire of the built-in braking resistor to terminal DB. Secure the wire to terminal DB with the screw.

* When a DC reactor is connected to the inverter, the jumper bar is already removed. Do not use the jumper bar.

NOTE: You may connect the two wires of the built-in braking resistor to either terminal P(+) or DB. (Not polarity sensitive.)



Built-in Braking Resistor Connection
(This example shows FRN1.5C1S-2☐21, FRN002C1S-2U)

5. Setting Function Codes

Set function codes F50 and F51 (Electronic thermal overload relay for braking resistor) to the following values:

F50 = 0 (Factory default: 999)

F51 = 0.000 (Factory default: 0.000. Check for no change from the factory default.)

For notes about installation and wiring of the built-in braking resistor, refer to the FRENIC-Mini Instruction Manual.

Fuji Electric FA Components & System Co., Ltd.

http://www.fujielectric.co.jp

Fuji Electric Corp. of America

http://www.fujielectric.com

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