

Reversing Contactor Kit for Non-Regenerative MinPak Plus DC Drives

Model Numbers 14C217 and 14C218

Instruction Manual D2-3377



ATTENTION: Only qualified electrical personnel familiar with the construction and operation of this equipment and the hazards involved should install, adjust, operate, and/or service this equipment. Read and understand this manual and other applicable manuals in their entirety before proceeding. Failure to observe this precaution could result in severe bodily injury or loss of life.

Product Description

Installation of the Reversing Contactor enables a single-phase, non-regenerative MinPak™ Plus DC drive to provide both forward and reverse motor control. The standard factory-shipped drive offers unidirectional motor control only.

When the Reversing Contactor is installed, the drive's M-contactor is the forward contactor. Motor direction is manually selected using the forward/reverse switch on the local or remote operator's control station. Refer to your MinPak Plus DC drive instruction manual for information on the operator's control station.

The Reversing Contactor kit and drive horsepower rating must be compatible. Refer to table 1.

Table 1 – Reversing Contactor and Drive Horsepower Compatibility

Drive Model Number	Drive Horsepower	Kit Model Number
14C10, 14C20, 14C11, 14C21, 14C12, 14C22	1/4 to 3	14C217
14C13, 14C23	5	14C218

The Reversing Contactor is pre-assembled. All of the necessary jumper wires and mounting hardware are included with the kit. The contents of the kit are listed in table 2.

Table 2 – Contents of the Reversing Contactor Kit

Description	Quantity	Part Number	
		M/N14C217	M/N14C218
Reversing Contactor	1	69326-26R	69326-25R
Wire Harness 45/47	1	700867-67S	700867-67V
Wire Harness A1/A2	1	700867-67R	700867-67T
5-wire Control Harness with Connector	1	700867-63R	
Mounting Screw, 8-32 x 3/16	3	601741-62C	
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Installing the Reversing Contactor



ATTENTION: Do not install modification kits with power applied to the drive. Disconnect, lock out, and tag all sources of incoming AC power to the drive before attempting such installation. Verify that no voltage is present at the drive's AC input terminals, L1/181 and L2/182. Failure to observe this precaution could result in severe bodily injury or loss of life.

ATTENTION: The user is responsible for conforming with all applicable local, national, and international codes. Failure to observe this precaution could result in damage to, or destruction of, the equipment.

Important: If a Dynamic Braking kit will be installed, it is easier to mount the dynamic braking resistor in the drive chassis before installing the Reversing Contactor kit. The dynamic braking resistor must be connected between two corresponding normally-closed (NC) contacts on the M-contactor and the Reversing Contactor. Refer to the Dynamic Braking kit instruction manual.

Refer to your MinPak Plus DC drive instruction manual to identify drive terminals and connectors. A schematic of the is shown at the end of this manual in figure 2.

To install the Reversing Contactor in your non-regenerative MinPak Plus DC drive:

- Step 1. Disconnect, lock out, and tag input power to the drive.
- Step 2. Remove the drive cover.
- Step 3. Verify that no voltage is present at the drive's AC input terminals, L1/181 and L2/182.
- Step 4. Remove the two screws that fasten the mounting bracket for the terminal blocks and power on/off circuit breaker to the drive. Move this assembly out of the way.
- Step 5. Position the Reversing Contactor on the three mounting posts on the upper right side of the chassis, above the Regulator board. Fasten the Reversing Contactor in place with the three mounting screws supplied with the kit.
- Step 6. Route the red/yellow twisted pair wires (from the current feedback transformer) to the right of the Reversing Contactor. These wires are connected to the upper right of the drive's regulator board at pins 192 and 193 (FDBK).
- Step 7. Connect wire harness 45/47 from the Reversing Contactor's normally open (NO) contacts to the corresponding normally open (NO) contacts on the drive's M-contactor as shown in figure 1.

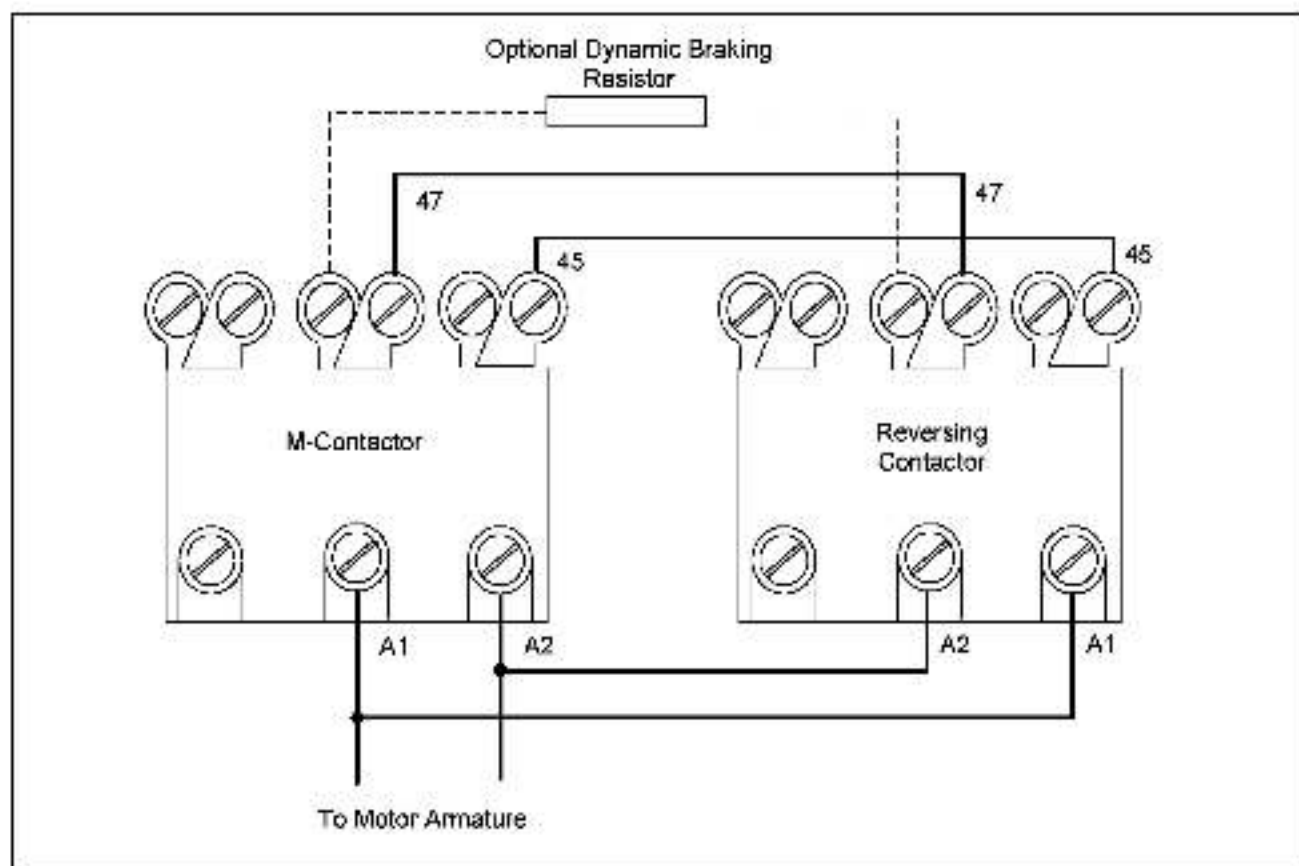


Figure 7 – Wiring Connections

- Step 8. Using a wire cutter, remove jumper J9, located below the "REV" connector, from the Regulator board.
 - Step 9. Connect wire harness A1/A2 from the Reversing Contactor to the M-contactor as shown in 7. Note that the polarity of the armature connections, A1 and A2, to the two contactors is reversed.
 - Step 10. Connect the Reversing Contactor's 5-wire control harness connector to the pins marked "REV" at the top center of the drive's Regulator board. Orient the harness so that the blue wire (66) in the harness connects to the pin labeled "BLU" on the Regulator board.
 - Step 11. Verify the wiring of the Reversing Contactor. Verify that all connectors are securely fastened.
 - Step 12. Reattach the terminal block/circuit breaker mounting bracket removed in step 4.
 - Step 13. Reattach the cover to the drive.
 - Step 14. Apply power and test the reversing capability of the drive.
- This completes the installation of the Reversing Contactor.

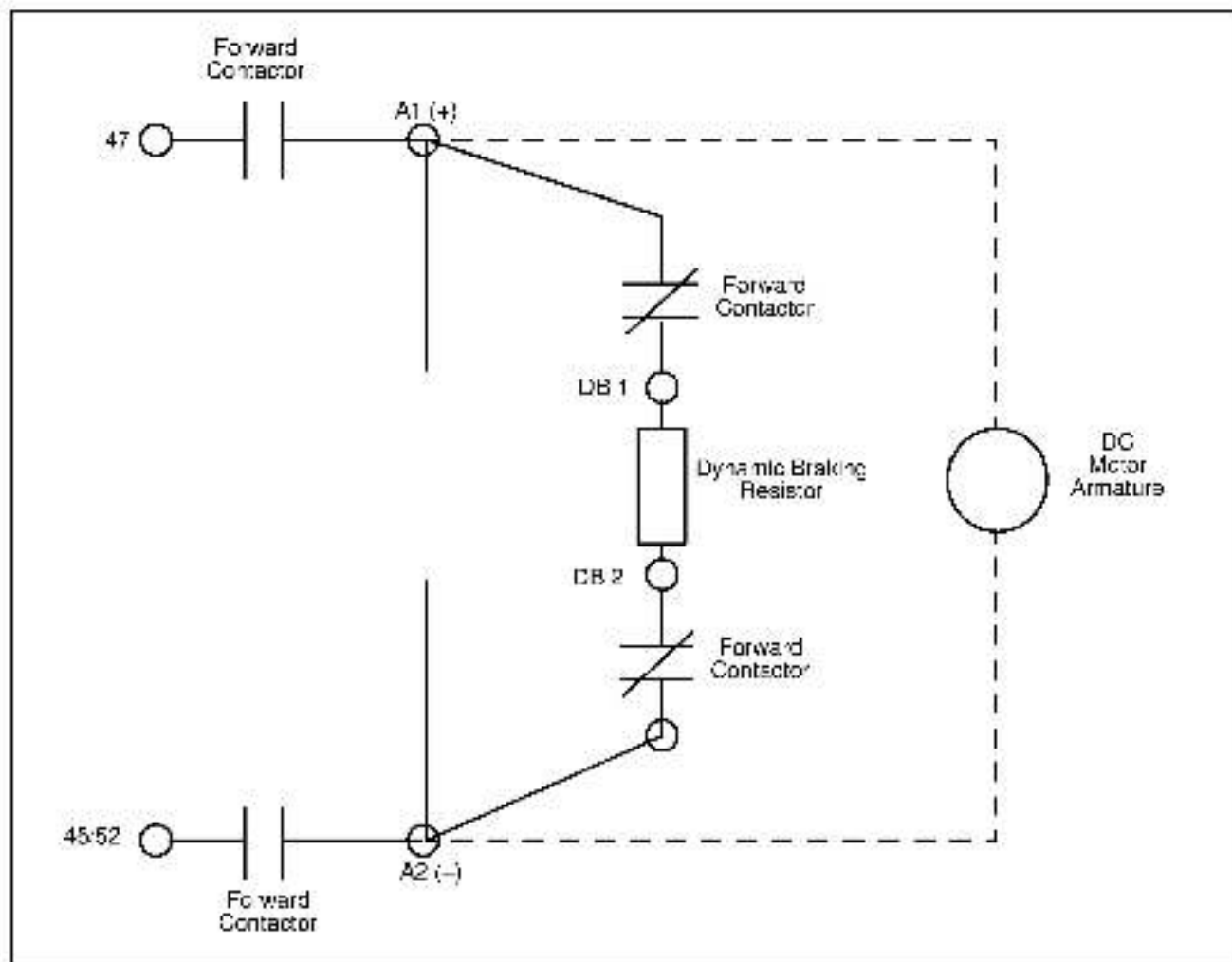


Figure 2 - Reversing Contactor Schematic

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