

Installation Instructions for Model No. 890 Electronic F-B-R Kit

Control Serial Number _____

Purchase Date _____

Installed By _____

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The Model 890 F-B-R Kit may be used with FPM chassis Models 810, 830, 850, and encased Models 815, 835, and 855.

CAUTION

This manual provides instructions for installing the Model No. 890 Electronic F-B-R Kit with Bodine

FPM SCR Speed Controls. Please read the instruction manual provided with your control first. It will direct you to this supplement when necessary. Follow the instructions in their proper sequence.

The electronic Forward-Brake-Reverse (F-B-R) Board controls the motor's direction of rotation through an isolated low-voltage signal from the Model 888 Analog Interface Board. The signal can also come from a personal computer or a programmable controller, provided that the signal is *isolated*. A low power 2-pole, 3-position rotary switch can be used in place of the signal. When the direction signal is changed, the motor will decelerate, approach 0 speed, reverse direction, and then accelerate to the selected speed. This protects the motor, gearing, and other drive components from damage from high reversing torques.

WARNING

Always disconnect the 115 VAC line power to the control before installing the F-B-R Kit.

- 1. Select Braking Resistor**—A 100 Ohm 25 Watt resistor is connected to the board for use with control Models 810 and 815. For control Models 830 and 835, the 100 Ohm resistor should be replaced with the 50 Ohm 25 Watt resistor. For control Models 850 and 855, the 100 Ohm resistor should be replaced with the 25 Ohm 25 Watt resistor included in the kit. Simply remove the two screws and nuts holding the 100 Ohm resistor to the board (**Figure 1**) and fasten the proper resistor in its place, using the same screws and nuts.

For Model 888 Analog Interface Board only. Remove the four white nylon mounting screws which fasten down the analog board (**Figure 2**), and move the board out of the way to get to the driver board.

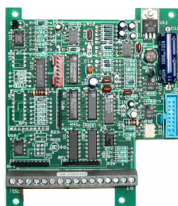


FIGURE 1. Top view of electronic Forward-Brake-Reverse Board showing components and connections to speed potentiometer and F-B-R Switch

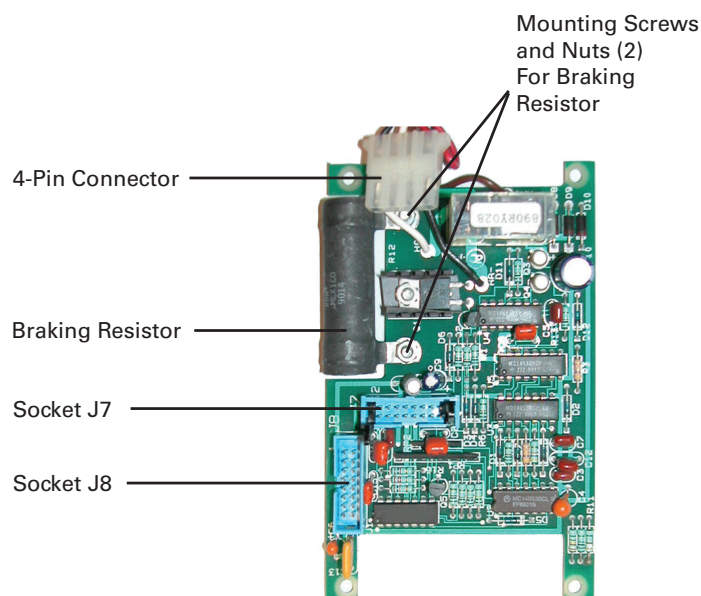
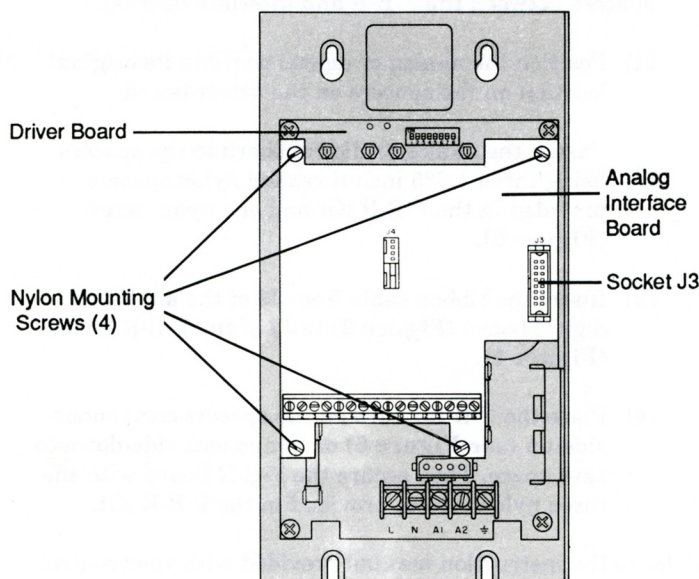


FIGURE 2. Top view of FPM Control with Model 888 Analog Interface Board



2. Remove the jumper assembly at J2 on the driver board (**Figure 3**).

For Models 810, 815, 830, 835, 850, and 855 only. Fasten the three 1.5-inch nylon “spacers” to the driver board with the nylon hex nuts provided (**Figure 4**). Access holes for a 1/4-inch nut driver are provided on the bottom of the mounting bracket. Hold a nylon hex nut in place with a nut driver and thread a long spacer onto the hex nut with your other hand (finger tight only).

3. Insert the 4-pin connector from the F-B-R Board into connector J2 on the driver board (**Figures 1 and 3**).

4. Insert the ribbon cable provided in your F-B-R Kit into J1 on the driver board (**Figure 3**) and J8 on the F-B-R Board (**Figure 1**).

5A. For Models 810, 815, 830, 835, 850, and 855 only.

(1) Identify the wired connector for the speed pot and F-B-R Switch or speed and direction input signals (**Figure 1**). Refer to Manual No. 07400156 for instructions for making electrical connections. After connections have been made, insert the connector into J7 on the F-B-R Board.

(2) On chassis controls, place the F-B-R Board on the spacers component-side-up (**see Figure 4**) or component-side-down to save space. On encased controls, the F-B-R Board must be mounted component-side-down. Next, secure the F-B-R Board with three nylon hex nuts provided in the F-B-R Kit.

5B. For Model 888 Analog Interface Board only.

The instructions below describe how to assemble a 3-board control as shown in **Figure 5**. *Alternately*, to provide better access to TB2, the interface board may be mounted above the F-B-R Board (use 1.625 inch spacers between the driver board and F-B-R Board, and 1.5 inch spacers between the F-B-R and interface boards).

(1) Position the analog board in its original location on the spacers on the driver board.

(2) Fasten the analog board to the spacers using three 1.625 inch threaded nylon spacers provided in the F-B-R Kit and one nylon screw (**Figure 5**).

(3) Insert the ribbon cable from J3 of the analog board (**Figure 2**) to J7 of the F-B-R Board (**Figure 1**).

(4) Place the F-B-R Board on the spacers component-side-up (**see Figure 5**) or component-side-down to save space. Then secure the F-B-R Board with the three nylon screws provided in the F-B-R Kit.

Refer to the instruction manual provided with your control for operating instructions.

FIGURE 3. Top view of FPM Control with Driver Board only

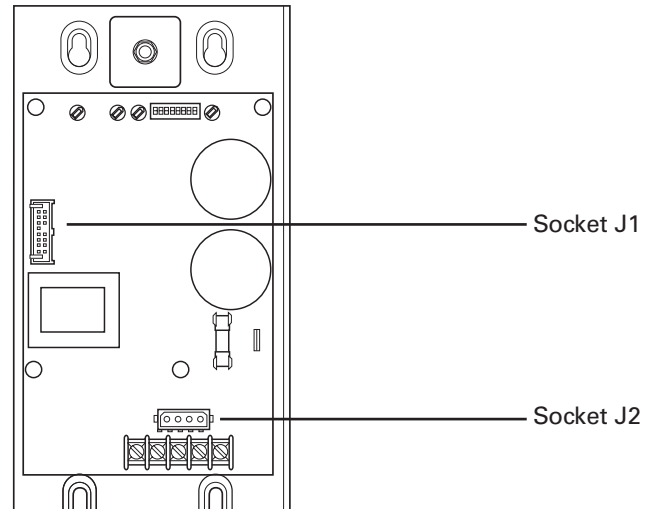


FIGURE 4. Assembling the electronic F-B-R Board to the Driver Board

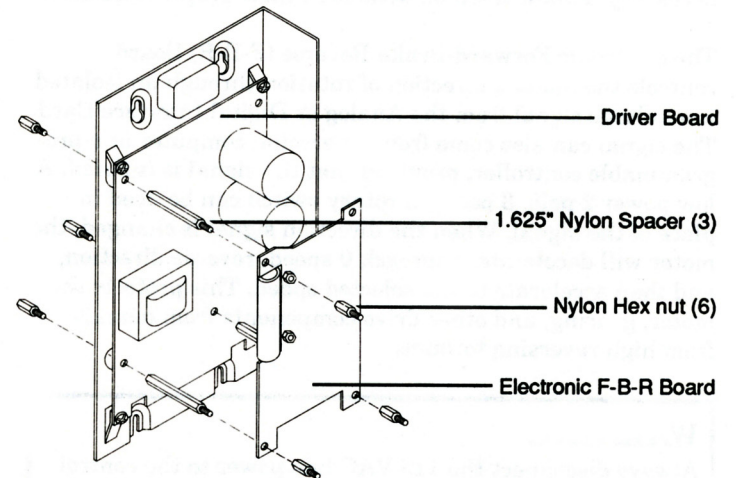


FIGURE 5. Assembling the electronic F-B-R Board to the Model 888 Analog Interface Board

