HYDRUS

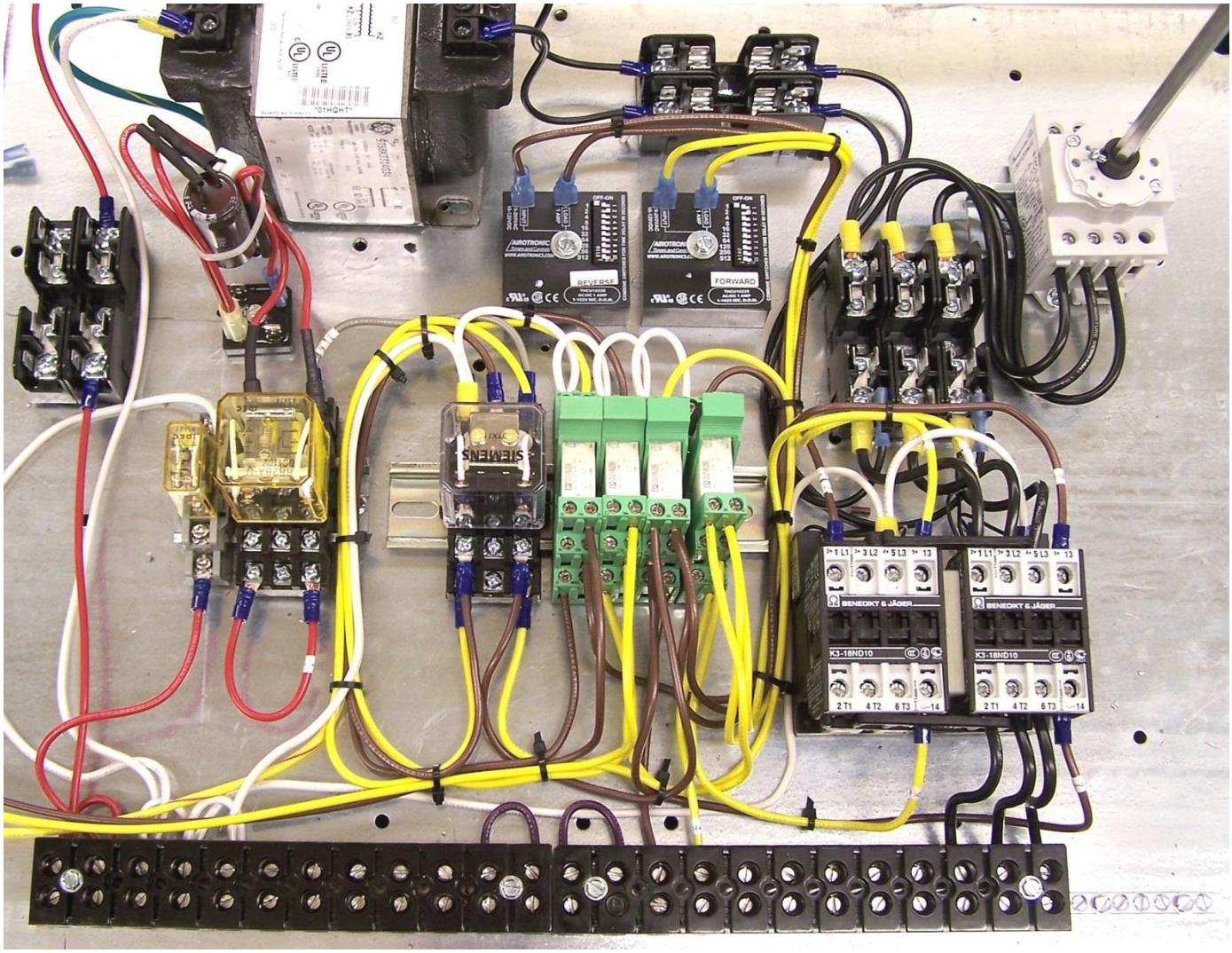
INSTALLATION INSTRUCTION
P/N: 3801-EOP
AUTO REVERSE / AUTO STOP OPTION KIT
FOR HYDRUS 2000 MAIN PANEL

BILL OF MATERIALS:

(1) P/N: 4372 - LATCHING RELAY, (1) P/N: 5322 – RELAY SOCKET, (4) P/N: 3700-74 – PHOENIX RELAY, (2) P/N: 129 – DELAY ON MAKE TIMER, (1) P/N: 3700-47 – 6" DIN RAIL, (2) 8-32 X 1 ½" SELF TAPPING SCREWS, (2) 8-32 X ½" SELF TAPPING SCREWS, (2) FLAT WASHER, (20) 4" CABLE TIES & (1) #25 DRILL BIT

TOOLS REQUIRED: (1) No. 1 PHILLIPS SCREWDRIVER, (1) ¼" NUT DRIVER, (1) WIRE CUTTER & (1) DRILL

NOTE: This option kit is sent with all wires installed on the components for ease of installation. If the any of the wires are removed or become disconnected, refer to the supplied wiring diagram for correct reconnection



COMPONENT MOUNTING:

COMPONENT LAYOUT – Figure 1 show the current configuration of the HYDRUS 2000 panel back plate. To make room for the auto reverse option, The bridge rectifier, safety relay & safety override relay are shifted to the left.

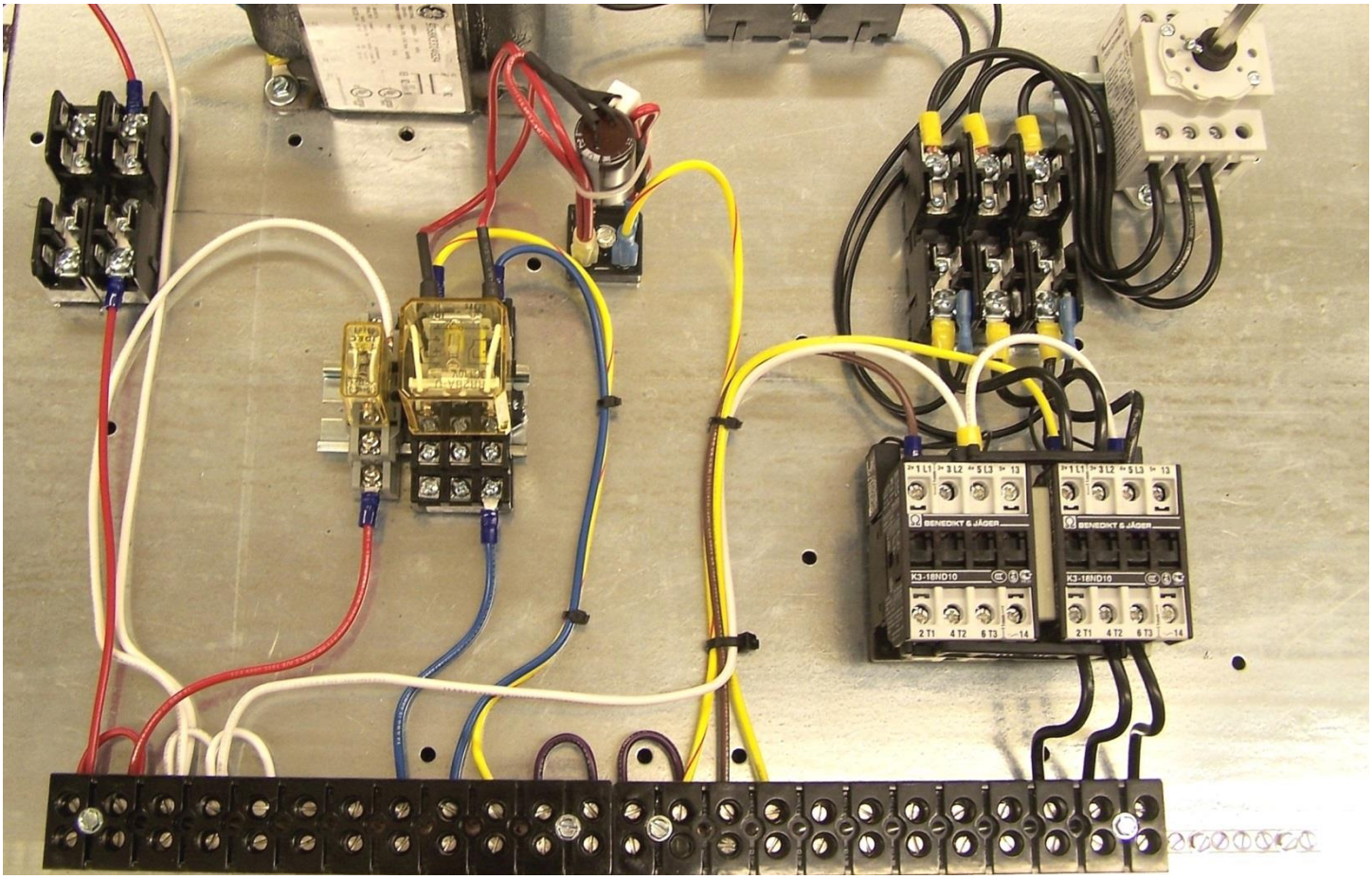


Figure 1

1. **Remove the two blue wires from the terminal strip and relay. These will not be used.**
2. **Cut all wire ties wires.**
3. **Remove the yellow & brown wires the reversing contactor and terminal strip.**
4. **Disconnect the coil wires from safety relay and remove both relays from the din rail.**

COMPONENT MOUNTING CONTINUED:

5. **Remove the screws from the din rail and shifted to the left as shown in Figure 2. Use the supplied drill bit to create new holes to mount the din rail.**
6. **Remove the bridge rectifier and shifted to the left as shown in Figure 2. Again use the supplied drill bit to create the new mounting hole.**

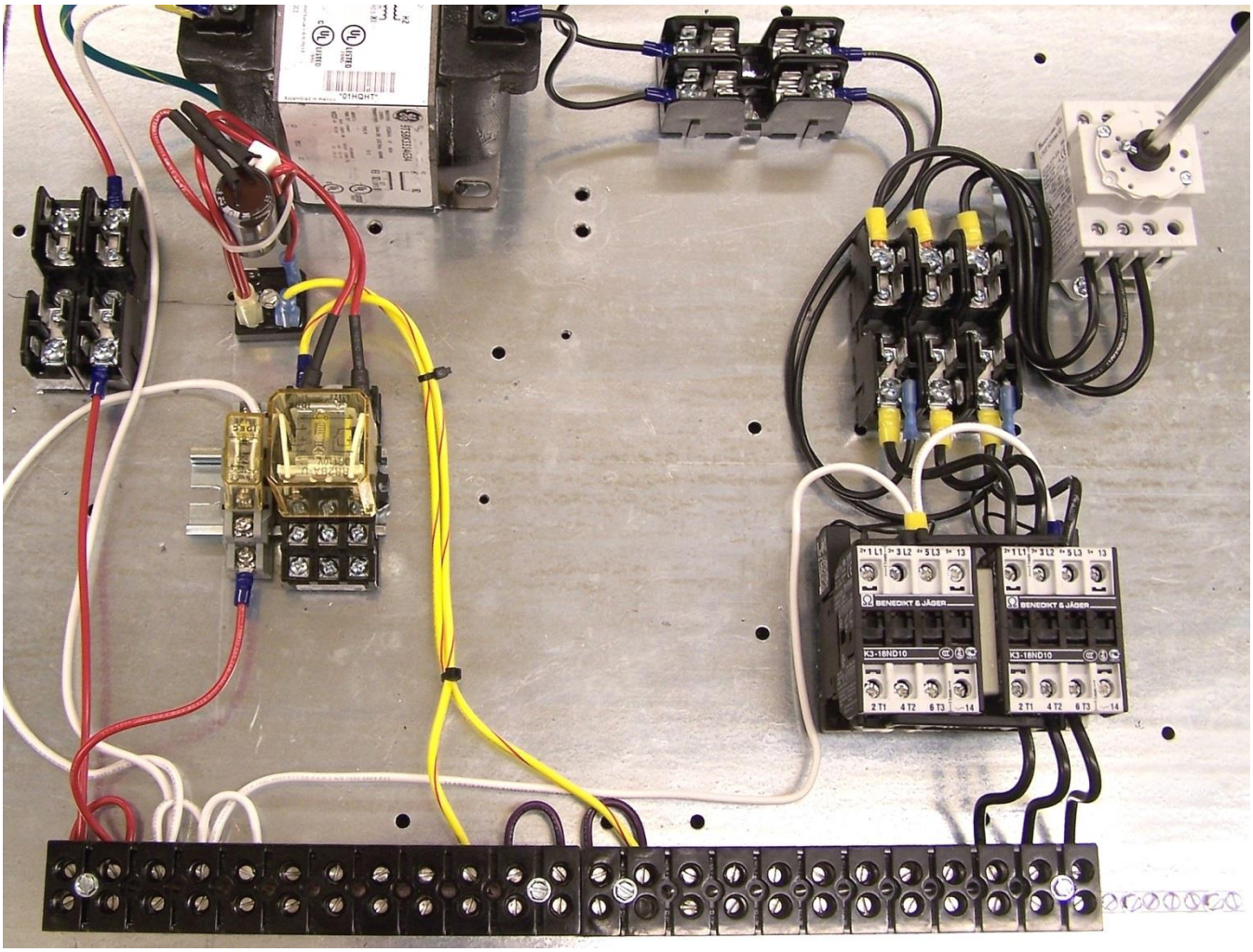


Figure 2

COMPONENT MOUNTING CONTINUED:

7. **Place the supplied 6″ din rail to the right of the safety relay (Figure 3). Mark where the two mounting holes are to be and drill the holes.**
8. **Mount the two delay on make timers as shown in Figure 3. Forward is on the right and Reverse is on the left. Use the supplied drill bit to make the holes.**

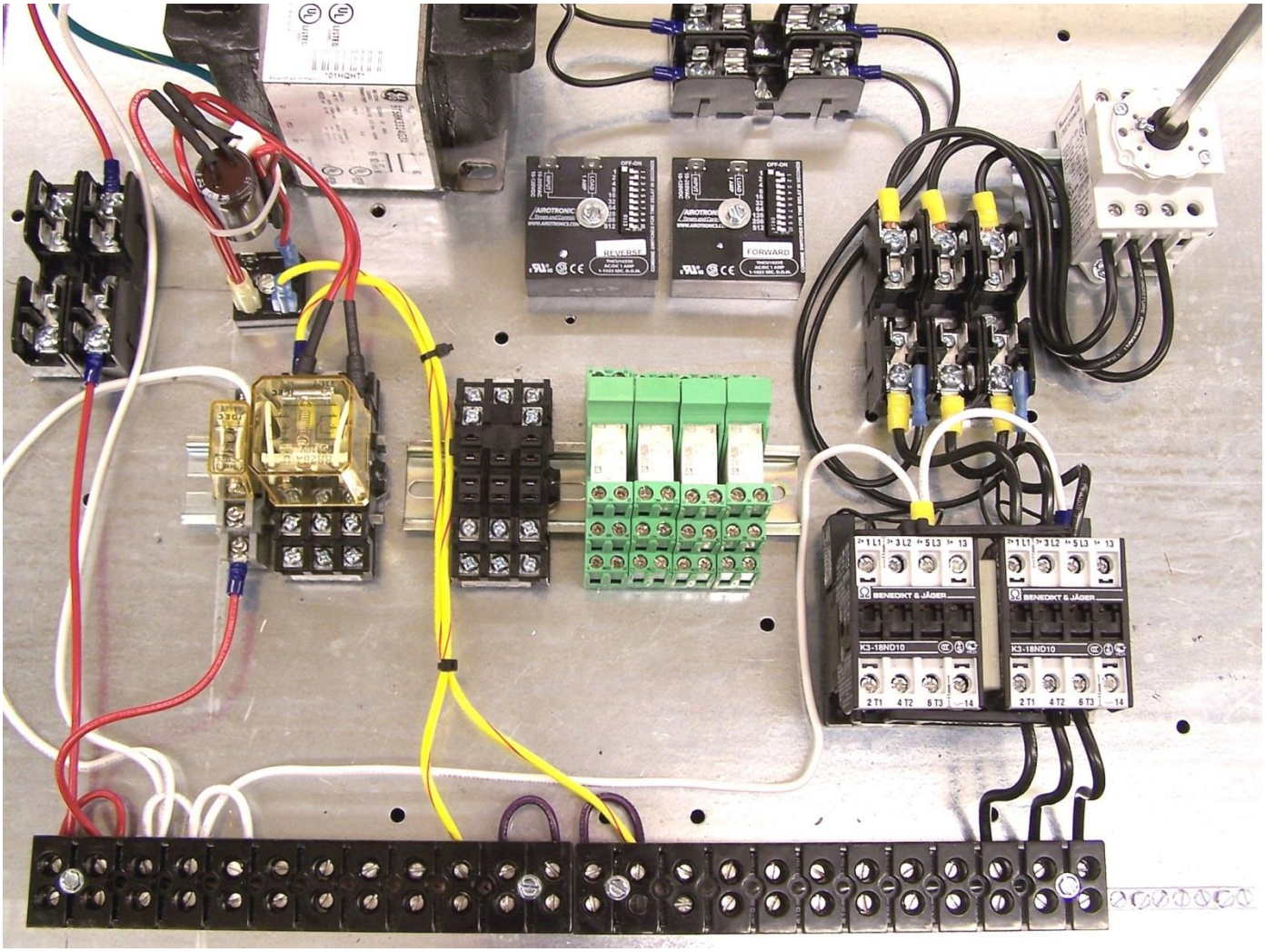


Figure3

WIRING INSTRUCTIONS:

NOTE: This option kit is sent with all wires installed on the components for ease of installation. If the any of the wires are removed of become disconnected, refer to the supplied wiring diagram for correct reconnection. The wires that connect to components in the panel are numbered to ease final installation.

1. **Remove the upper and lower blue wires from the Safety Relay (Figure 4) and terminal blocks #6 & #7. Install #12 Gray Wire as shown in Figure 5. Install #13 Red jumper wire as shown in Figure 6.**

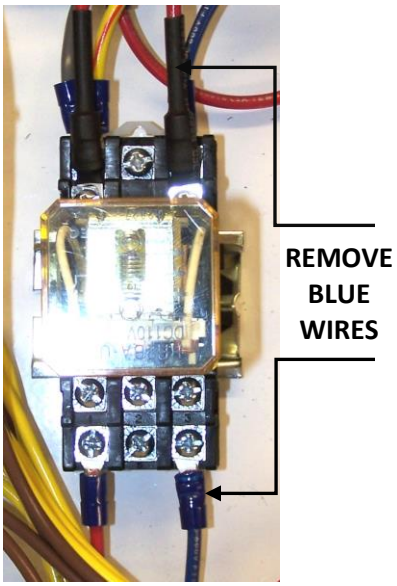


Figure 4

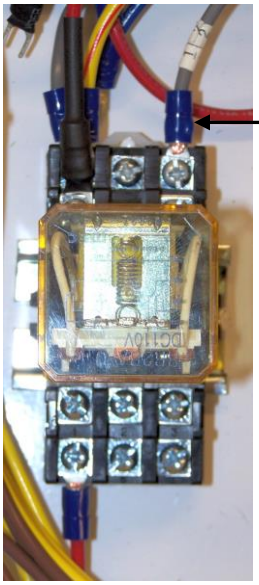


Figure 5

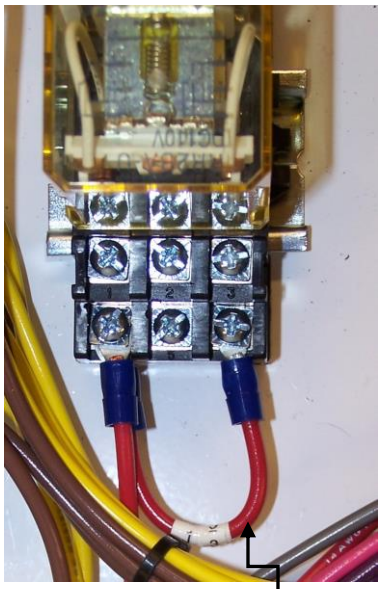


Figure 6

2. **The Yellow/Red wire labeled #1 connects to the "AUTO/MAN" switch below the gray wire (Figure 7).**

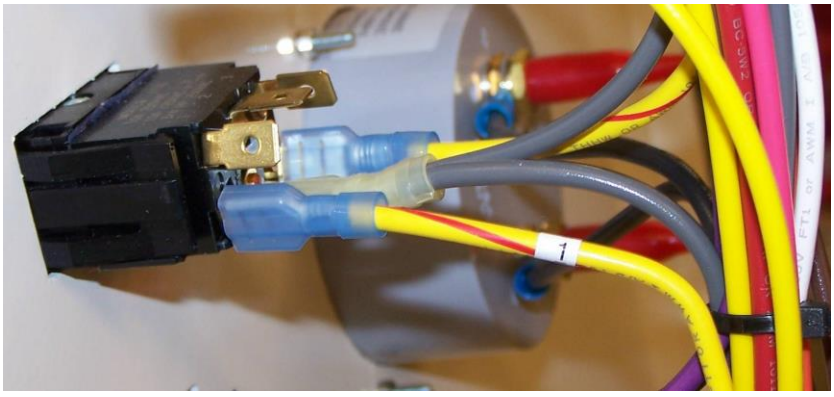


Figure 7

WIRING INSTRUCTIONS CONTINUED:

3. **The Yellow wire labeled #2 connects to the "FOR/REV" switch (Figure 8). Remove the current yellow wire from the switch and terminal block #15. Connect the new wire to the switch.**

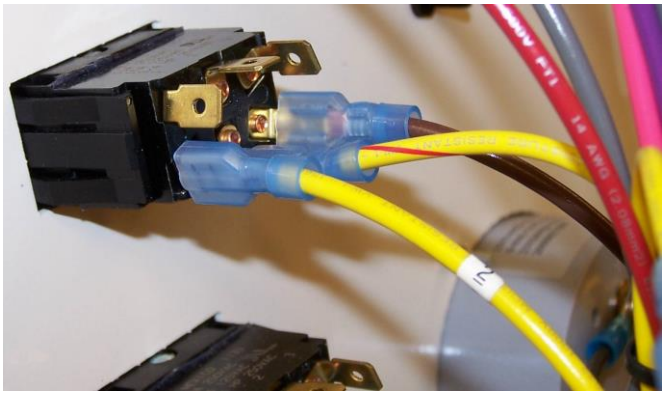


Figure 8

4. **The Brown wire labeled #3 connects to the "FOR/REV" switch (Figure 9). Remove the current brown wire from the switch and terminal block #16. Connect the new wire to the switch.**

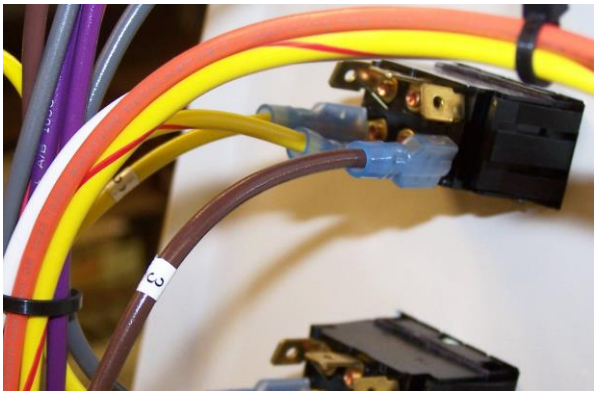


Figure 9

5. **The Yellow wire labeled #4 connects to "FORWARD" terminal strip position #15 and the Brown wire labeled #5 connects to "REVERSE" terminal strip position#16 (Figure 10).**

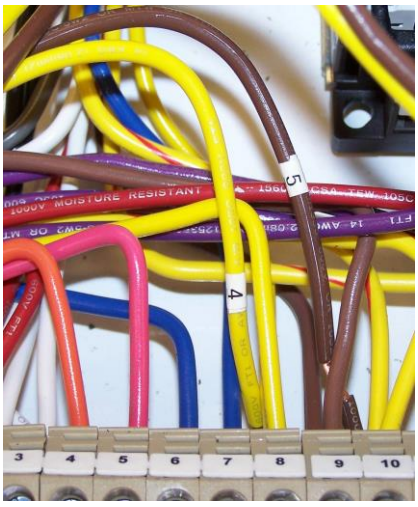


Figure 10

WIRING INSTRUCTIONS CONTINUED:

6. **The Yellow wire labeled #6 connects to the "REVERSE" contactor terminal "NO" lower position (Figure 11).**

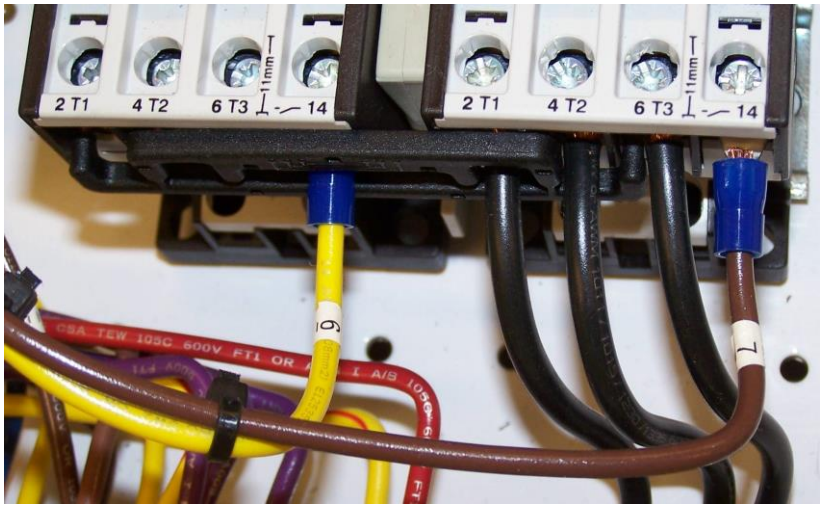


Figure 11

7. The Brown wire labeled #7 connects to the "FORWARD" contactor terminal "NO" lower position (Figure 11).

8. The Yellow wire labeled #8 connects to the "REVERSE" contactor terminal "NO" upper position (Figure 162).

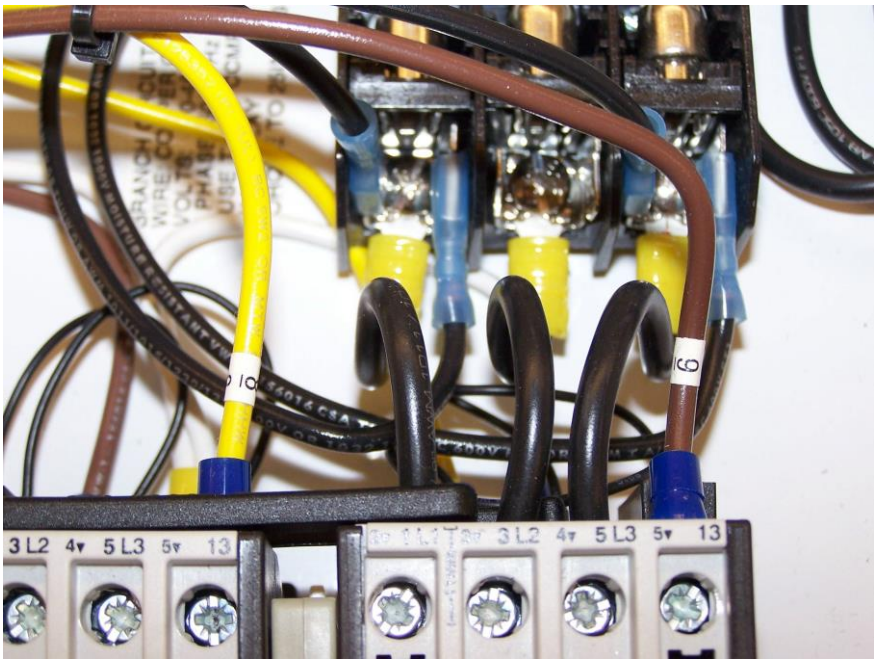


Figure 12

9. The Brown wire labeled #9 connects to "FORWARD" contactor terminal "NO" upper position (Figure 12).

WIRING INSTRUCTIONS CONTINUED:

10. The Yellow wire labeled #10 connects to the "FORWARD" contactor coil. Remove the existing yellow wire from the contactor coil and "FORWARD" terminal block #8. Connect the new wire to the "FORWARD" contactor coil (Figure 13).

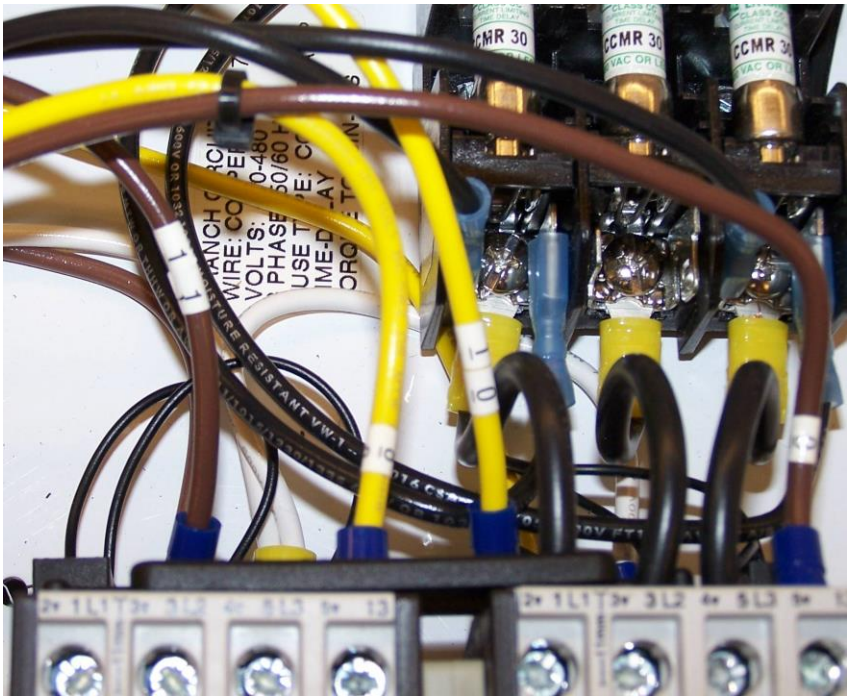


Figure 13

11. The Brown wire labeled #11 connects to the "REVERSE" contactor coil. Remove the existing brown wire from the contactor coil and "REVERSE" terminal block #9. Connect the new wire to the "REVERSE" contactor coil (Figure 13).

12. Use the supplied cable ties to replace the ones removed and secure the new wires.