# HYDRUS INSTALLATION INSTRUCTION P/N: 3601-EOP AUTO REVERSE / AUTO STOP OPTION KIT

**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  $1\frac{1}{2}$ " SELF TAPPING SCREWS, (2) 8-32 X  $1\frac{1}{2}$ " SELF TAPPING SCREWS, (2) FLAT WASHER, (20) 4" CABLE TIES & (1) #25 DRILL BIT

TOOLS REQUIRED: (1) No. 1 PHILLIPS SCREWDRIVER, (1) <sup>1</sup>/<sub>4</sub>" 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 – The later model 2300 panel have most of the holes predrilled into the backplate (Figure 1). The only hole to be drilled is for the second din rail (Figure 2). If you have an earlier 2300 model, use Figure 2 to place timers & din rail in position for mounting, mark their position and remove.





Figure 1

Figure 2

DELAY ON MAKE TIMER – As shown in Figure 2, place the timers side by side. Take the left (Reverse) timer and place it in position on the back plate. Using the supplied drill bit, hold the timer in place and start drilling the mounting hole long enough to leave a mark in the back plate. Remove the timer and finish drilling the hole. Use the 8-32 X 1 1/2" self-tapping screw with the flat washer and mount the timer (Figure 3). Repeat these steps for the right (Forward) timer (Figure 4).







## **COMPONENT MOUNTING CONTINUED:**

**DIN RAIL** – The Din rail is used to mount the Phoenix relays and latching relay to the back plate. For later model 2300, use the 8-32 X  $\frac{1}{2}$ " self-tapping screw and fasten the top of din rail. Place a mark in the second slot (Figure 5), using the supplied drill bit, drill the second fastener hole. Use the second 8-32 X  $\frac{1}{2}$ " self-tapping screw for this hole. Mount relays as shown (Figure 7).

For earlier 2300 models, place the din rail below timers with the mounting slots vertical (Figure 2). Place tone mark (Figure 5), centered in each slot and drill a hole on each mark with the supplied drill bit. Mount the rail using the 8-32 X  $\frac{1}{2}$ " self-tapping screw. Mount relays as shown (Figure 7).



Figure 5

Figure 6



Figure 7

## 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 8) and terminal blocks #6 & #7. Install #12 Gray Wire as shown in Figure 9. Install #13 Red jumper wire as shown in Figure 10.



2. The Yellow/Red wire labeled #1 connects to the "AUTO/MAN" switch below the gray wire (Figure 11).



WIRE

Figure 11

### WIRING INSTRUCTIONS CONTINUED:

3. The Yellow wire labeled #2 connects to the "FOR/REV" switch (Figure 12). Remove the current yellow wire from the switch and terminal block #8. Connect the new wire to the switch.



Figure 12

4. The Brown wire labeled #3 connects to the "FOR/REV" switch (Figure 13). Remove the current brown wire from the switch and terminal block #9. Connect the new wire to the switch.



Figure 13

5. The Yellow wire labeled #4 connects to "FORWARD" terminal block #8 and the Brown wire labeled #5 connects to "REVERSE" terminal block #9 (Figure 14).



### WIRING INSTRUCTIONS CONTINUED:

6. The Yellow wire labeled #6 connects to the "REVERSE" contactor terminal "NO" lower position (Figure 15).



Figure 15

7. The Brown wire labeled #7 connects to the "FORWARD" contactor terminal "NO" lower position (Figure 15).

8. The Yellow wire labeled #8 connects to the "REVERSE" contactor terminal "NO" upper position (Figure 16).



Figure 16

9. The Brown wire labeled #9 connects to "FORWARD" contactor terminal "NO" upper position (Figure 16).

### 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 17).



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 14).

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