



HOW TO REPLACE A PARKER INVERTER DRIVE WITH A YASKAWA V1000 INVERTER DRIVE

Important: Please read this document in its entirety before removing the Parker VFD drive and installing the Yaskawa V1000 drive. Please make sure the voltage for the inverter drive matches the voltage for the machine.

Kit contents: Yaskawa V1000 drive, one (1) yellow wire labeled **S6**, one (1) yellow jumper wire labeled **15**, four (4) #8 x 5/8 self-drilling screws, installation instructions

Tools required: Variable speed power drill, Phillips screwdriver, small flat head screwdriver, wire stripper, wire cutter, Exacto knife or blade, electrical tape

- Step 1 Ensure that the new Yaskawa V1000 drive unit is the proper voltage for your machine tool. Refer to the labels to view the voltage reading of the unit.
- Step 2 Disconnect all sources of electrical power from the machine tool.
- Step 3 Disconnect all wires from the Parker drive and remove the unit.

Caution:

Please note that wire labels may fall off while disconnecting old drive. It is important to ensure that wire labels DO NOT fall off the wires; otherwise, damage to the new drive may result due to improper wiring. Either place tape at the end each wire or tie the ends into knots to prevent the labels from falling off. If you feel that there's a possible problem with the electrical set up, please call the Kent USA technical support department at (714) 258-8526 or via email at www.kentusa.com prior to applying electrical power to the unit.

- Step 4 Determine an ideal location to mount the Yaskawa V1000 drive and set the drive in that location. Keep in mind that the location should allow for proper ventilation and have the appropriate distance for the wires to reach their respective terminal connections.
- Step 5 Use the power drill to drive the four #8 x 5/8 self-drilling screws through the unit's mounting holes and into the aluminum surface. Make sure not to strip the screws and verify that drive unit is securely fastened.

- Step 6 Unscrew and remove the plastic plate covers on the V1000 drive to access the connection terminals.
- Step 7 Remove the two black conduit rubber plugs located beneath the unit. Use an Exacto knife or blade to cut through the plugs using the + marking as a guide.
- Replace the plugs back into their original locations. See *Yaskawa Quick Start Guide* (Section 3.3, pg. 54) for more detailed explanation of cover removal/installation.
- Step 8 Route the green *ground* wire through a pre-punched conduit hole and connect it to the GND terminal on the Yaskawa V1000 drive.
- Step 9 Route the three black *power input* wires marked **R**, **S**, **T** through the black rubber plug on the right and connect them to the terminals on the Yaskawa V1000 drive marked **R/L1**, **S/L2**, **T/L3**, respectively.
- Step 10 Route the three black *motor* wires marked **U**, **V**, **W** through the black rubber plug on the right and connect them to the terminals on the Yaskawa V1000 drive marked **U/T1**, **V/T2**, **W/T3**, respectively.
- Step 11 Route the two white *brake resistor* wires that were previously connected to the **+B** and **LB** terminals on the Parker drive through the middle pre-punched conduit hole and connect them to the terminals on the Yaskawa V1000 marked **B1** and **B2**. The wires may not be marked and either wire can be connected to either terminal.
- Step 12 Verify that all the wire labels have not fallen off the small gauge blue and yellow *interface* wires.
- Step 13 Route wires labeled **4**, **6**, **7**, **8**, **15**, **16**, **22**, **32**, and **33** through the black rubber plug on the left (include labels) and connect/secure them to the V1000 drive accordingly:
- ³⁵₁₇ Connect wire labeled **15** to terminal labeled **SC**.
- ³⁵₁₇ Connect wire labeled **16** to terminal labeled **S1**.
- ³⁵₁₇ Connect wire labeled **22** to terminal labeled **S2**.
- ³⁵₁₇ Combine wires labeled **4** & **7** and connect to terminal labeled **A1**.
- ³⁵₁₇ Connect wire labeled **6** to terminal labeled **AC**.

Note:

*There are two terminals labeled **AC**. Although wires **6** and **33** can be interchanged, for consistency, connect wire **6** into the first **AC** terminal from the left and connect wire **33** into the second **AC** terminal.*

³⁵
¹⁷ Connect wire labeled **32** to terminal labeled **AM**.

³⁵
¹⁷ Connect wire labeled **33** to terminal labeled **AC**.

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¹⁷ Connect wire labeled **8** to terminal labeled **V+**.

- Step 14 Wires labeled **5**, **21**, and **31** are NOT used and should be removed. Trace out each wire and disconnect the ends from their respective terminals.

Note:

Wire 5 is connected to the bottom terminal located beneath Relay #1, 2nd terminal from left. Wire 21 is connected to the bottom terminal located above Relay #4, 3rd terminal from left. Wire 31 is connected to the bottom terminal located beneath Relay #3, 3rd terminal from left.

- Step 15 Remove both wires labeled **21** from the top of Relay #4 (bottom row, 3rd terminal from left). If it has not already been done from the previous step, trace out both wires and disconnect them from their respective terminals.
- Step 16 Locate the two wires labeled **15** located above Relay #4 (top row, 2nd terminal from left), now add/connect the supplied jumper wire labeled **15** to the same terminal and secure the other end of the yellow jumper wire labeled **15** to the terminal where wire **21** was removed from (bottom row, 3rd terminal from left). Refer to Figure 2 for visual details.
- Step 17 Remove the yellow jumper wire labeled **20** beneath Relay #4 (bottom row, 2nd terminal from left) but DO NOT remove the 2nd wire labeled **20**; tighten screw to secure this wire.
- Step 18 Connect one end of the yellow wire labeled **S6** to the terminal located beneath relay #4 (bottom row, 3rd terminal from left). Route and connect the other end of the wire to the terminal labeled **S6** on the Yaskawa V1000 drive. Refer to Figure 2 for visual.
- Step 19 Installation of the Yaskawa V1000 drive is now complete. The drive has already been programmed and ready for operation. Prior to powering on the machine for testing, verify that **all** connections are properly secured and terminated. After testing, power off machine and replace all covers that have been removed.

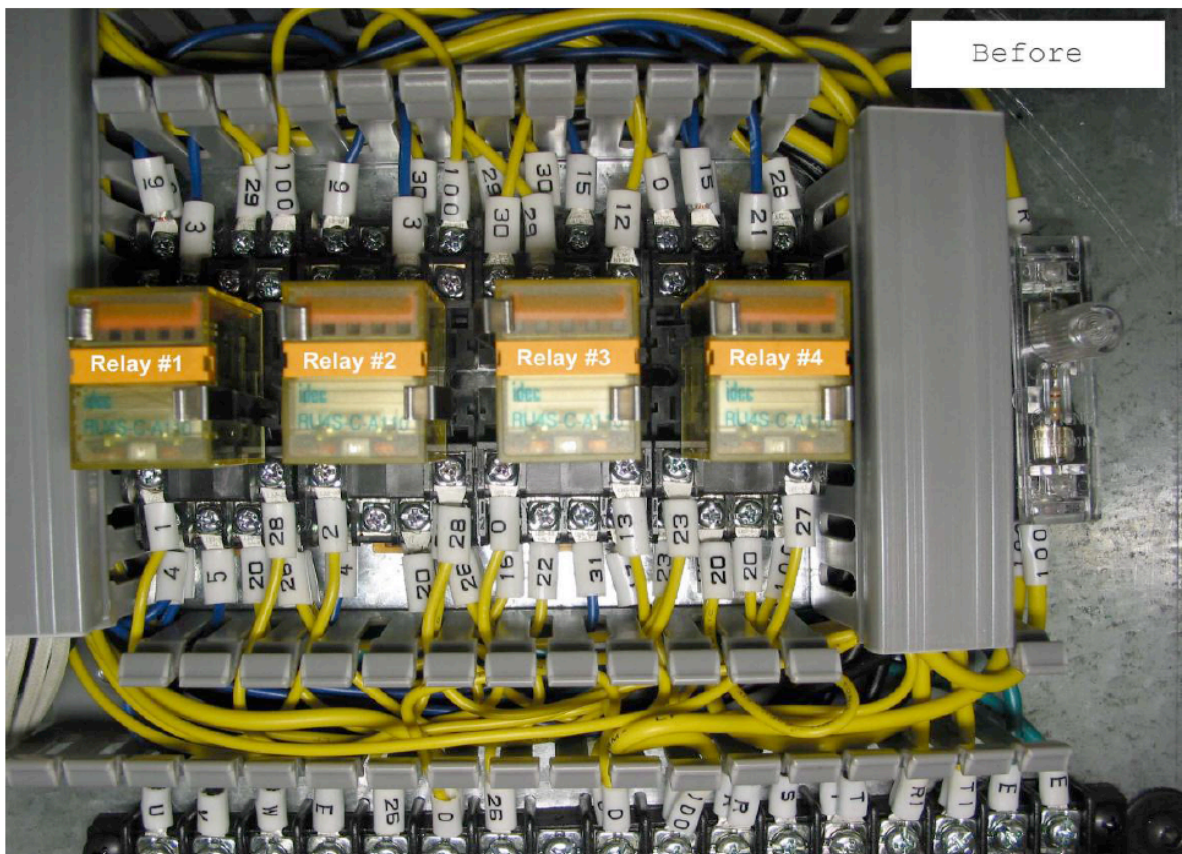


Figure 1

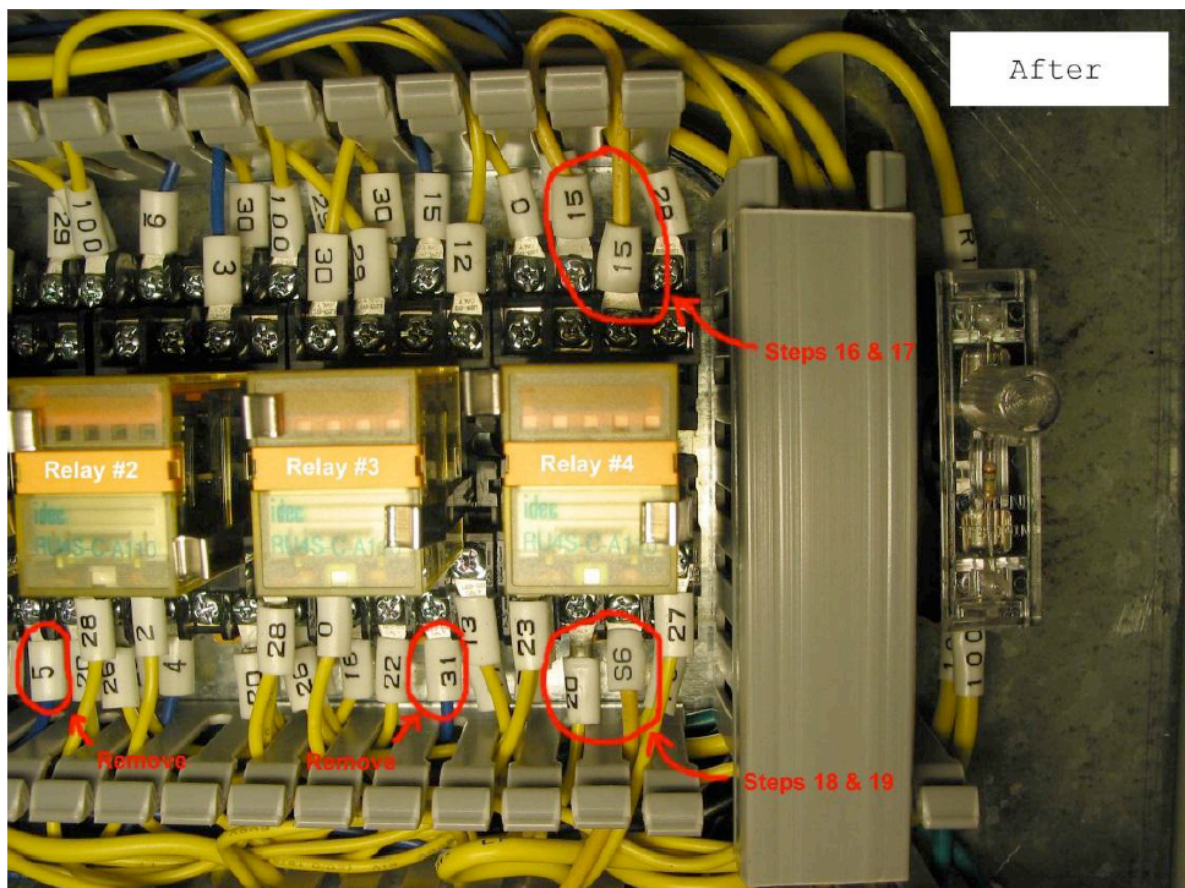


Figure 2