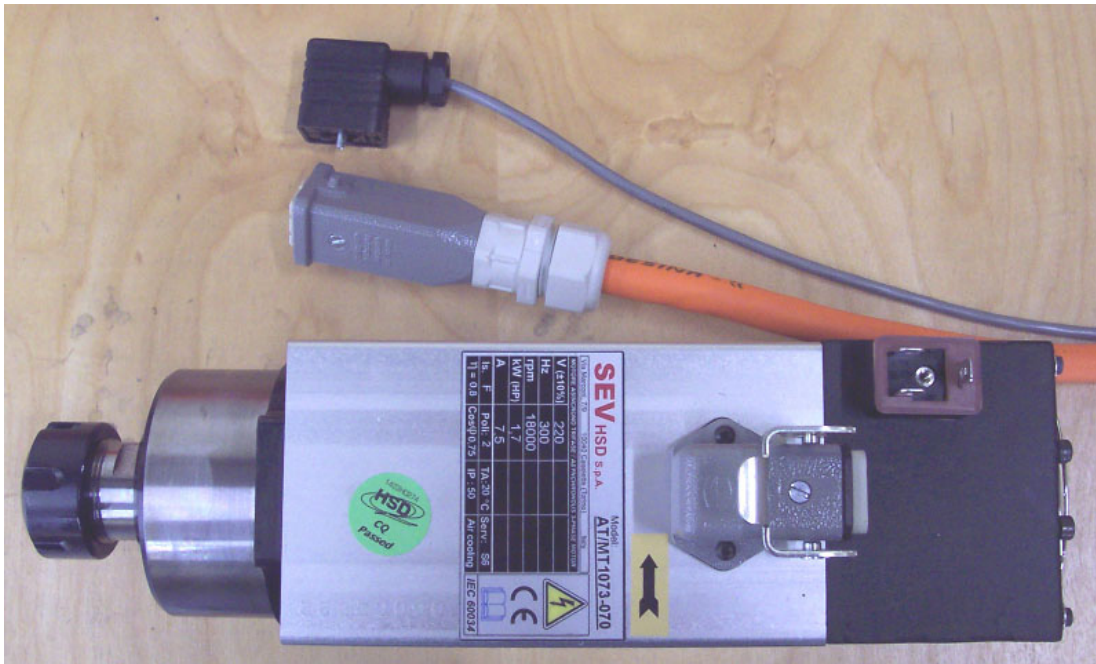


Installing an HSD Spindle: PRS Standard Tools



This document applies to HSD Spindles with Yaskawa V1000 variable frequency drives.

NOTE: If installing this spindle on a PRT Standard Tool (Built before 2007), please contact tech support for proper installation document.

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Connecting HSD Spindle Variable Frequency Drive to Control Box

RISK OF ELECTRIC SHOCK: Use extreme caution when working near live electrical circuits. Dangerous voltages exist inside the power supply that can cause serious injury or death. These instructions are intended for use by a licensed electrician.

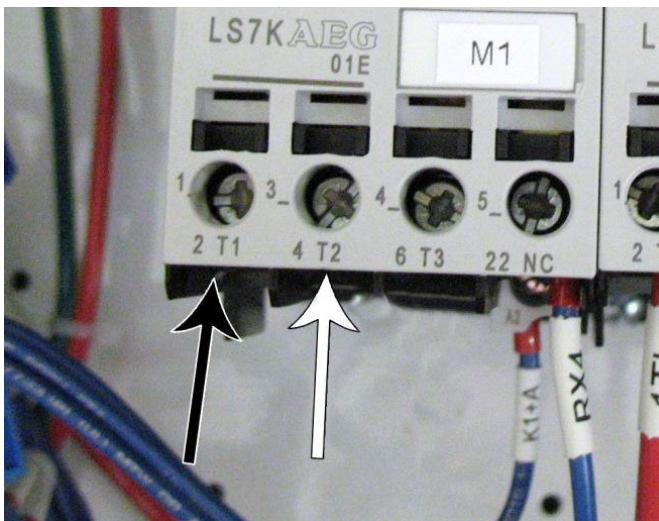
Run Power from Control Box to Variable Frequency Drive (VFD)

In order for the emergency stop switch to work correctly, power to the VFD must be connected to the proper contactor in the control box, rather than directly to an outlet or panel box.

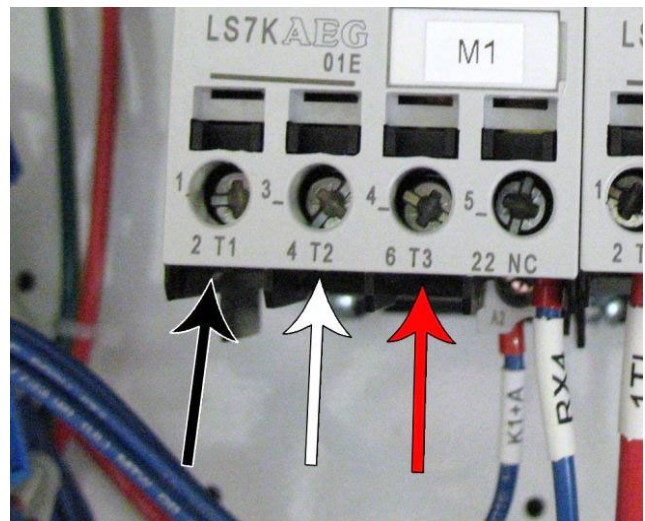
After the control box and VFD are mounted in place (see **Assembly Guide for PRSAlpha and PRS-standard Tools** document), run the black power cable from the VFD to the unused cord grip on the lower left side of the control box.

Insert the cable from the VFD into the cord grip, pushing enough wire into the control box to reach the spindle contactor(s) and the ground bus bar.

Connect the power cable from the VFD to the bottom of the contactor as shown here.



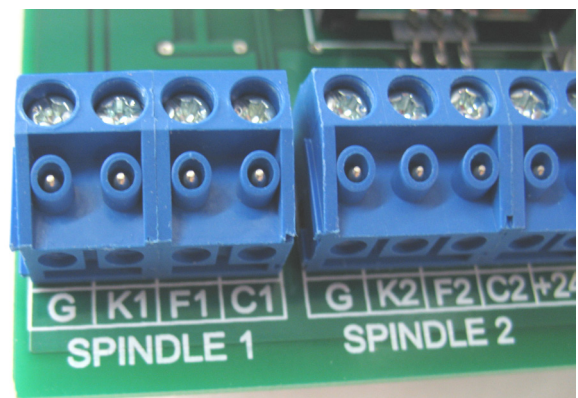
Single Phase Spindles
 2T1 - Black Wire
 4T2 - White Wire



3-Phase Spindles
 2T1 - Black Wire
 4T2 - White Wire
 6T3 - Red Wire

Connect VFD to Control Box

Run the brown cable from the VFD into the control box. Connect the black wire to F1 on Spindle 1 terminal block, and white wire to C1.



Attach Fan Connection Plug to Spindle

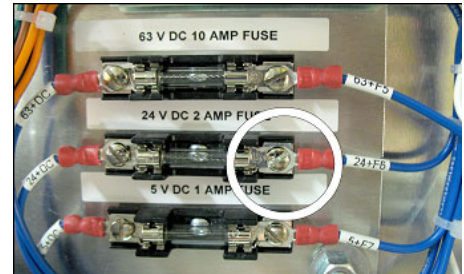


Attach the Fan Connection plug (with attached 36ft. cable) to the front face of the HSD spindle and tighten the screw inside the plug.

Attach Fan Connection Cable to 24V Power Supply

Route the gray fan cable into control box.

Loosen screw on fuse shown. Bend the red wire around screw to 24v line and bend the black wire around screw on any open ground terminal on control board. Tighten screws.



Connect VFD Power Cable to Spindle

Plug the electrical connector into the HSD spindle power plug, then lock the plug into place using the metal clip.



Testing the Spindle Fan

Before running the first test cut, verify that the spindle fan is running properly.

To test, turn on control box. The spindle fan should be running. If not, please contact tech support for assistance.

Running the Spindle

Please note that the spindle lockout switch is located on the front of the control box (All PRS models built after 2012). In order for the spindle to run this must be set to ENGAGED, using the key that came attached to the collet wrench. To change bits, turn the key to DISENGAGED and remove it. If the spindle is wired through the control box properly, this prevents any chance of the spindle powering on while changing the bit.

