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PRS VFD Mounting



Introduction

ShopBot Tools with spindles use a VFD to regulate input power and control rotation speed. There are two major body sizes, 10” and 16”, which are used depending on specific voltage and phases requirements. The supplied bracket will work for each size.

Part Name	Quantity	ShopBot Part Number	Notes
Yaskawa V1000 VFD	1		Part numbers vary based on the options available. Refer to paper work to determine model.
VFD Mounting Kit V1000	1	003065	
FHSCS 1/4-20x5/8	2	003064	
BHSCS 1/4-20x3/4	4	002135	
flat washer 1/4 USS Z G5	6	000534	
Nylock hex nut 1/4-20 Z	6	000454	
VFD mounting strap	2	003036	



Determining the VFD Model

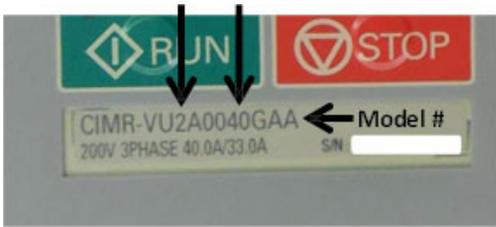


There are two main types of VFDs, a 10” model and a 16” model. These can be easily differentiated by their size and model numbers. Model numbers are found on the front of the VFD underneath the “RUN” and “STOP” buttons as shown on left.

There are five different amperage configurations. These will not impact installation, but it may be beneficial information for tech support.

Voltage Amperage (Determines Size)

An example model number is shown below.



The model number is CIMR-VU2A0040GAA.

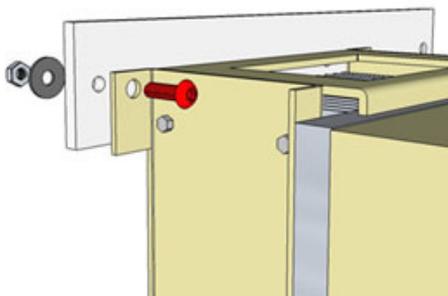
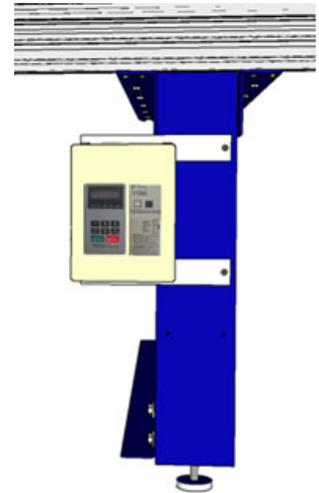
The first bold and underlined number in the written example is the voltage.

2 = 200-240 Vac, 3-phase

4 = 380-480 Vac, 3-phase

Mounting the 10" VFD

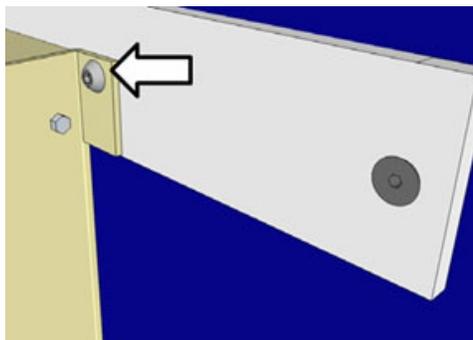
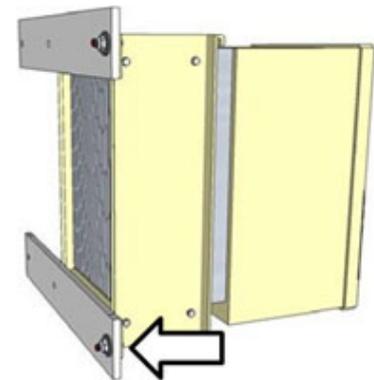
The 10" VFD mounts to the top and middle set of holes in the middle leg of the ShopBot gantry tools with the VFD 1000 mounting kit.



Mount VFD straps.

Use a 1/4-20x3/4" button head screw to attach the upper hole of the VFD to the left hole in the strap. Using the 1/4" flat washer and 1/4" nylock nut, securely fasten the VFD to the strap.

Repeat the above step for the other strap on the bottom of the VFD.



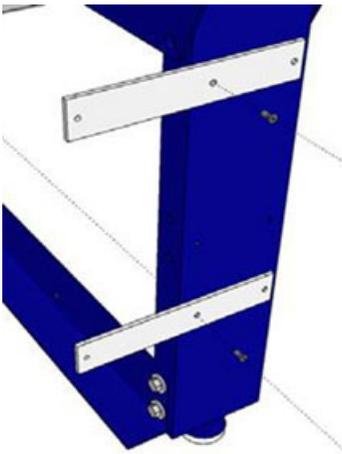
Use a 1/4-20x3/4" button head screw to attach the right upper hole of the VFD to the middle hole in the strap and upper left hole of the leg. Securely fasten the VFD and strap to the leg with 1/4" flat washer and 1/4" nylock nut. Repeat for the lower strap.



Refer to PRS Assembly Manual, Section 8, for proper wire routing.

Mounting the 16" VFD

The 16" VFD mounts to the top and bottom set of holes in the middle leg of the ShopBot gantry tools with the VFD 1000 mounting kit.



Mount the VFD straps.

Use a 1/4-20x3/4 flat head screw in the middle hole of the VFD mounting strap and the upper left hole on the front middle leg of the ShopBot. Attach securely with 1/4" flat washer and 1/4" nylock nut. Repeat this step on the lowest set of holes on the leg with the second strap.

Install two 1/4-20x3/4" button head screws button head screws, 1/4" flat washers and 1/4" nylock nuts on the bottom bracket.

Install the VFD.

Slide the VFD onto the bottom bracket screws, and install two 1/4-20x3/4" button head screws through the upper holes of the VFD. Secure VFD with two 1/4" flat washers and 1/4" nylock nuts. Secure all nuts.

Refer to PRS Assembly Manual, Section 8, for proper wire routing.

