

# USING USA MOTORS AND WIRING A TOGGLE SWITCH FOR SHOPTASK AND SHOPMASTER

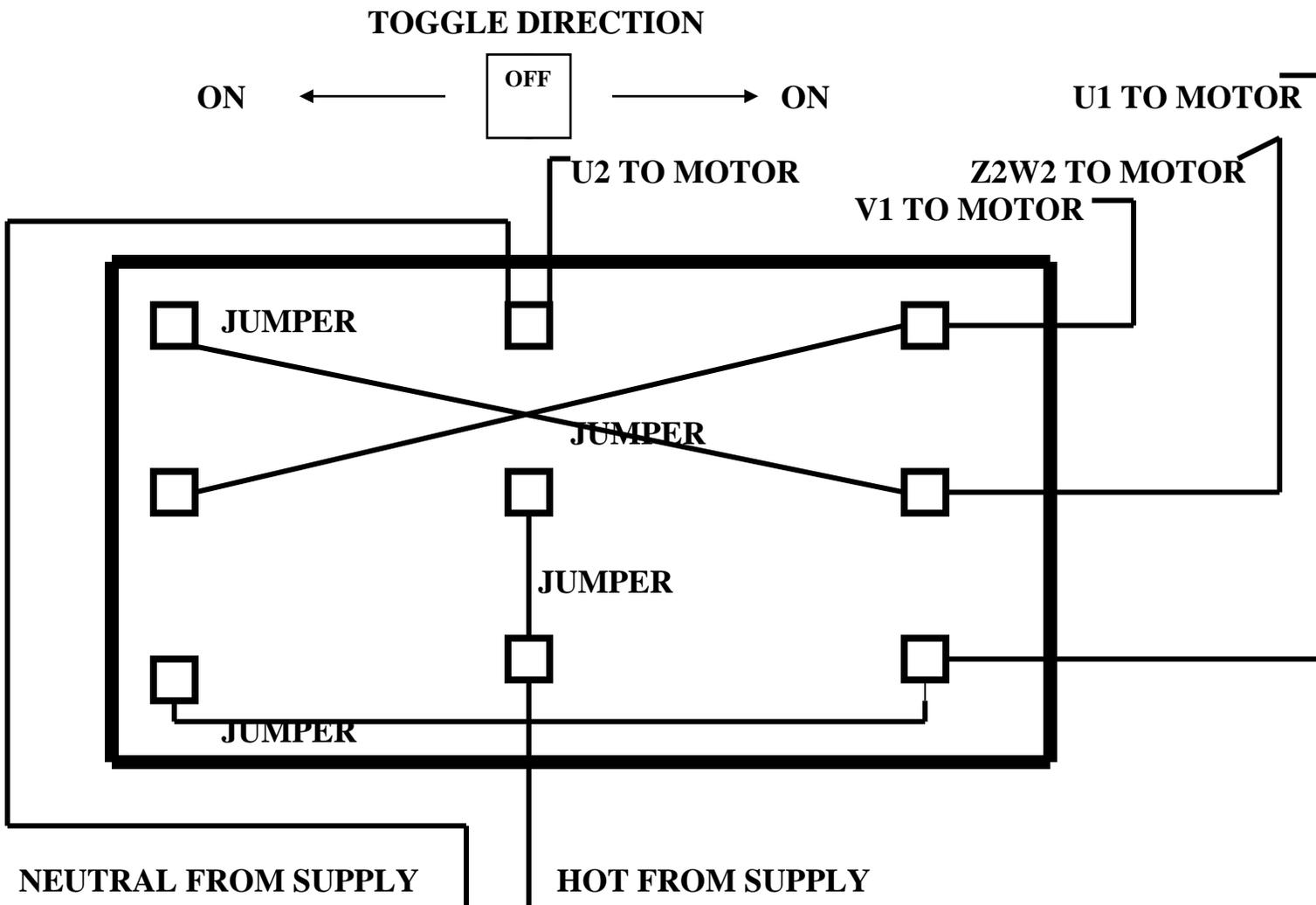
The early SHOPTASK and SHOPMASTER models used rotary style or push button switches , which are no longer available. An option is to use a toggle switch. For this you will need a

**3 POLE DOUBLE THROW** switch rated for 125 volts and at least 8 amps. This type of switch will have 9 terminals as shown in the diagram. The motor operates with 4 wires.

One wire ( U1 ) is the hot lead and is hot in either of the ON positions of the switch.

One wire ( U2 ) is the neutral wire and is neutral in either of the ON positions of the switch

The other 2 wires ( V1 and Z2W2 ) swap positions by way of jumpers so that in one ON position Z2W2 is hot and V1 is neutral and in the other ON position Z2W2 is neutral and V1 is hot. This is how the motor reverses direction. On the motor terminal block there are embossed markings showing place for each of these wires.



**On machines with rotary switches, your toggle switch will fit in the original mounting hole. For machines with push button switches you will need to make a plate to fill the rectangular hole and drill a hole for the toggle switch.**

**The original style motors may not be available either, but a US made motor can be adapted with some slight modifications. Usually, the US motors will have a narrower mounting frame, so you will need to drill 2 holes in your motor mount to bolt them up. Also, most US motors have a 5/8" shaft, so you will need to use a bushing to reduce the hole in your pulley to 5/8"**

**Suggested USA replacements motors.**

**You can search E-Bay and often find one at a reasonable price. If you want to go with an established distributor you can try the following sources:**

**GRAINGER PART # 1TMY5 about 250.00 TEFC style with 5/8" shaft**

**HARBOR FREIGHT # 67842 1.5HP ABOUT 150.00 Open drip proof with 7/8" shaft- best used on mill only**

**HARBOR FREIGHT # 68288 1.0 HP ABOUT 150.00 TEFC style with 5/8" shaft**

**Look in this section for wiring diagrams for the above motors so that they work with your existing switches.**