## 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 V 1 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.

## TOGGLE DIRECTION



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 $5 / 8^{\prime \prime}$
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 $\mathbf{2 5 0 . 0 0}$ TEFC style with $\mathbf{5 / 8}$ 'shaft
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.

