Reversing The Jet Mini Lathe 1014VS

(Brandon Mackie's version of Bruce Perry's instructions)

Thanks to Bruce Perry for thinking of this, and sharing it with others! I tried his instructions for reversing the Jet Mini Lathe (1014VS) and I made a modification to the way he did it. To understand my instructions, you will need to read his first, which can be found on the Front Range Woodturners website at www.FrontRangeWoodturners.com.

I am the most electricity "illiterate" person there is, and with the aid of Bruce's instructions and illustration, I was able to do this. It's easy! My goal is to make it even easier for someone who is like me and doesn't know the first thing about electricity.

The modification I made was to mount the new forward/reverse switch onto the existing box that the on/off switch is located (see picture #3). Saves space and money.

I also took pictures of the different steps as I went. I left the pictures large in this file so that you can see the detail.

Here is a list of the parts I used, where I got them and the price:

1. About eight inches of "three wire" round 18 gauge flexible cable (get one foot to be sure to have enough) (Home Depot) ($.38 + tax)
2. One DPDT Heavy-Duty Center-Off Toggle Switch with contacts rated 10A at 125VAC, 6A at 250VAC (Radio Shack) ($3.99 + tax)
3. Female Disconnects – The package says "Listed Wire Ranges: 1#16, 1#14" and is part #70072 (Home Depot) ($.75 + tax / Qty.6)
4. Male Connectors that will fit into the above mentioned Female Disconnects (about $.75 + tax / Qty.6)

All together, to reverse my Jet Mini Lathe, I paid less than $6.50 and it took less than an hour!

If you need help with any of this, contact Bruce Perry or me at brandon@brandonmackie.com and either of us would be happy to help you.

Step 1

Take the box that the on/off switch is mounted to, off of the lathe and take the back plate off with the 4 screws in each corner. Then unscrew the green wires from the plate.

Step 2

Cut about four inches of the cable off, and cut the black casing off so that you have 3 wires. (I'm not sure why I had you buy the 3 wire cable, but this is how I did it….) Throw away the green wire. Now you have a black wire and a white wire. Strip both ends of each wire and crimp a Female Disconnect on 1 end of each wire. Disconnect the 2 wires on the circuit board that come from the power. The female connector of each wire connects where you just disconnected the 2 wires. The other end of each of these wires goes to the center prongs of the switch. (See illustration #1 and Picture #1)

Step 3

Cut about 1.5 inches of the cable off, and cut the black casing off so that you have 3 wires (again). Throw away the green wire (again). Strip a small amount off each end of both the white and black wire. These are connected to the switch, as shown in the illustration. (See illustration #1 and Picture #1)

Step 4

Cut about 2.5 inches of the cable off, and cut the black casing off so that you have 3 wires (again). Throw away the green wire (again). Strip a small amount off each end of both the white and black wire. Crimp a male connector on 1 end of each wire, and the connectors are connected to the wires going to the motor and the other end of each wire go to the switch as shown in the illustration. (See illustration #1 and Picture #1)

Step 5

Drill a hole in the top of the black box, just big enough for the switch to fit through. (I think it's 1/2", but I didn't pay attention to which bit I used.) I also removed the sticker that has the speed ranges on it, I don't use it anyway.) (See Picture #2 and #3)

Step 6

Screw the green wires back onto the plate and put everything back together. It should work now!

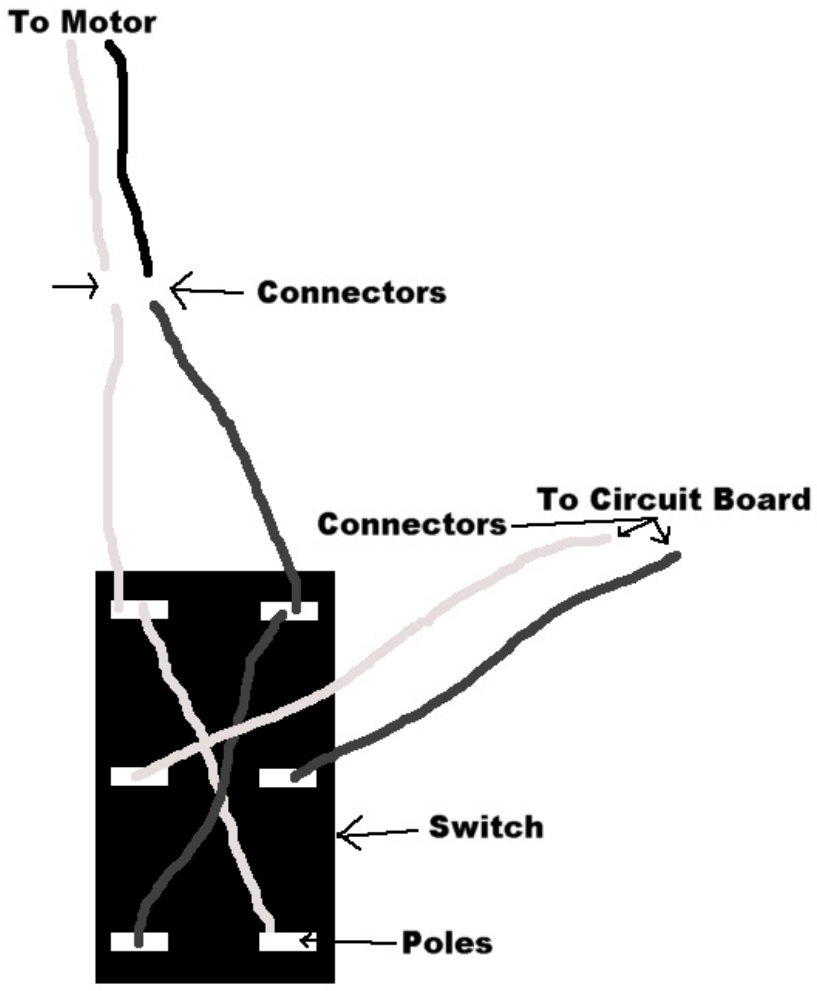
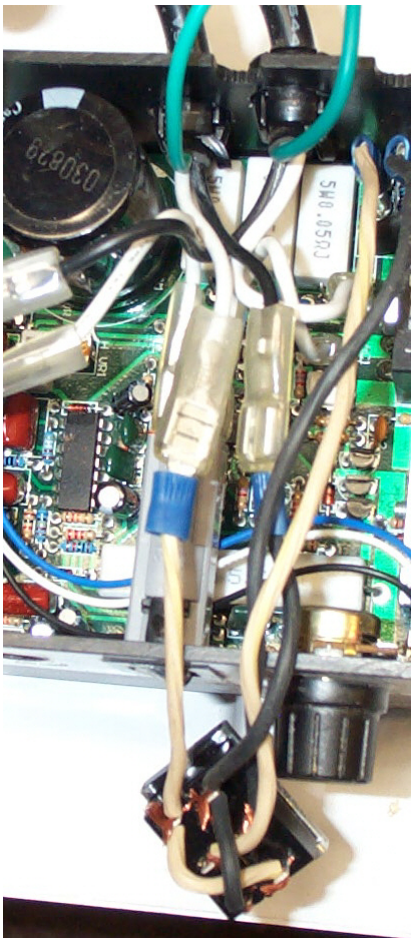
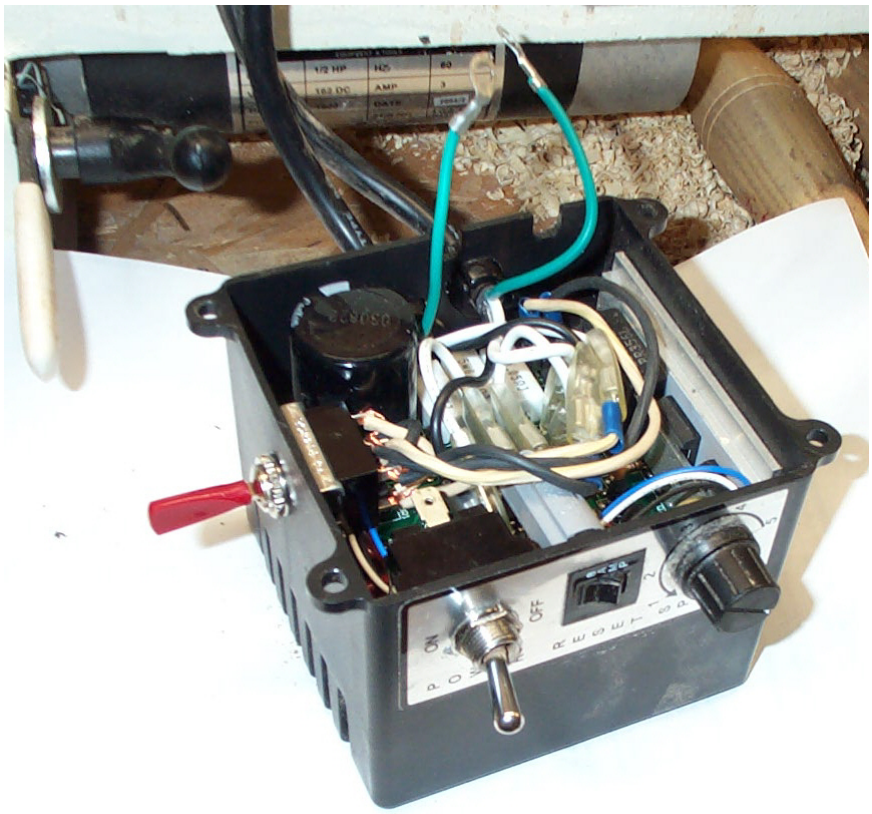


Illustration #1 (Switch wiring)



Picture #1 (Showing switch wiring)



Picture #2 (New switch mounted & wired)

Picture #3 (Everything put back together & finished!)