





Troubleshooting the Probe on the MASSO Touch Control

How to Troubleshoot the Probe on the MASSO Touch Control If your probe has been dropped or bumped, the three prongs inside of the probe may have been knocked out of their proper alignment. We have had this happen to the Drewtronic probe in our showroom several times (customers handling it).

These instructions are for a Drewtronics probe connected to the MASSO Touch Control. If you are using a different probe, the inner workings of your probe may vary.

- 1. If you haven't already watched this video, here is a link: <u>Accu-Pro VMC Mill Setting up and Using a Touch Probe YouTube</u>.
- 2. To check you probe and the cable, do the following:
 - A. Disconnect the control cable from the probe.
 - B. Go to the F1 screen so you can see input #24.
 - C. Take a wire paperclip and bend it in half. Connect both ends of the paperclip into the control cable connection. When you do this, you should see a change from "High to Low" or "Low to High," depending on how your Input 24 is set (see Figures 1 and 2).



FIGURE 1—Jumper wire in.



FIGURE 2—Jumper wire out. The status of the input has changed from "Low" to "High" in this instance.

- D. If there is a change in the "Low/High" status, then the control cable is good. This means that the problem is probably with the probe.
- E. Remove the three socket head cap screws (3 SHCS) from the top (shaft side) of the probe.

NOTE: There is a spring inside the probe and it is compressed by the cap.

- F. Remove the cap while holding the probe upright.
- G. Look down inside the probe and you will see three pins that are attached to the probe tip housing. Each of the pins should be resting between two steel balls. These are the contact balls.
- H. When the probe is dropped, these pins are forced out of alignment with the mating balls. The pins should be between the two balls so they are touching both balls when the probe tip is in the unactuated position (see Figure 3).



FIGURE 3—Pins out of position.

I. To realign the pins, push the probe tip up, then turn the probe tip so the three pins align with the steel balls, then pull down the probe tip to set the pins in place (see Figure 4).



FIGURE 4—Pins in the correct position.

- J. Now place the probe cap over the spring, push the cap down to hold the probe tip pins in place, and tighten the three SHCS.
- K. Put the probe back onto the headstock spindle and plug in the cable to the control.
- L. To change the input from "High" to "Low," touch Input 24. Then touch the space bar. The input should change to Low.

NOTE: On the MASSO control, you want the Input #24 setting to be "Low."



FIGURE 5—Change from "High" to "Low."

M. With the Input 24 changed to "Low" and the probe connected, the light on the side of the probe should be off (see Figure 6).



FIGURE 6— The status light on the probe should be off.

N. When you push on the probe, one of the three pins inside will stop making contact with one or more of the steel balls. The light on the side of the probe will come on, and the input value will change from "Low to High" (see Figure 7).



FIGURE 7—*The status light on the probe should be on.* Thank you, Sherline Products Inc.