



# Accu-Pro Lathe Instructions for Unpacking and Set-up

## Receiving Your New Accu-Pro Turn Lathe

Check the container for damage. If the container is damaged, close the container and take pictures.

1. We use high density spray in foam to secure the machine and to protect it from shipping damage. This foam works very well. 90% of the time, external container damage will not cause damage to the machine.
2. If the container damage is minimal, remove the machine as instructed in these instructions and check for damage.
3. If the machine is damaged, take pictures of the damage.
4. Send pictures of any damage to Sherline Products so we can file a claim with the shipping company.

## Removing Your Machine from the Container

1. The lathe comes in a 48" box or container. This box weight is approximately 100 lbs. You will need someone to help you move it!
2. The machine in the box has been encapsulated with high density spray in foam. The foam is sprayed into individual bags so it can be removed without damaging the machine.
3. First open the top of the box.
4. At this time, remove any loose bags of foam from the top of the machine.

**NOTE:** Many of the accessories such as the monitor mount, accessory boxes, brass Z-axis cover tube, etc. have been packed into the top of the machine area. Look for these parts as you remove the foam bags. They will be wrapped in plastic or in individual boxes. Do not throw out any of the foam bags until you have checked them thoroughly.

**DO NOT** attempt to remove the Touch control box from the container at this time. It is hard wired to the machine.

5. After you have opened the top of the container, start removing the top foam bags and any accessories. Only remove the foam bags that are easily removed.
6. The touch control is in a separate box and is laying above the machine. There should be enough cable length to allow you to move the control (still in its box) to the top edge of the container. Leave the control in its box until you have placed your machine on your work area. This will ensure that the control is not damaged

if it should happen to fall during the placement of your machine.

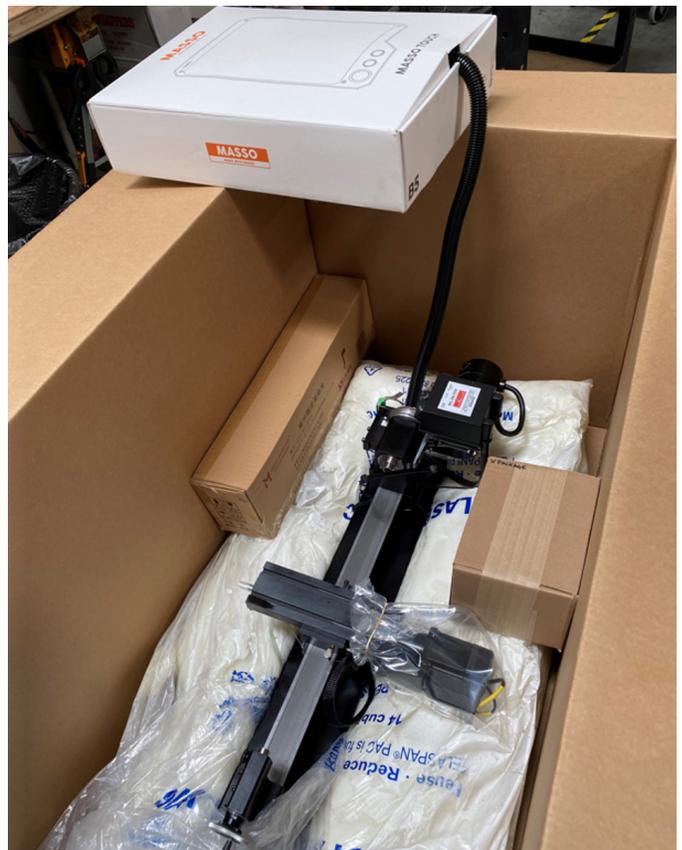


FIGURE 1

7. With the touch control removed along with all of the accessory boxes and top foam, you should be able to lift the machine out of the container.

**NOTE:** This will take two people to remove the machine from the controller. One person to hold the controller, and one person to lift the machine out of the container.

There is a looped zip tie near the headstock. Grab the machine by the tailstock body with one hand so you can balance the weight of the machine (side to side movement), and grab the zip tie loop at the headstock end of the machine with your other hand. Lift the machine from the container and place it and the MASSO controller on the dedicated work surface.

8. Once you have placed the machine on the work surface,

place the controller (still in the box) next to the machine. Now remove all of the plastic bags and wraps from the stepper motors and exposed ball screw areas.

9. Even with all of the foam packaging, some of the components on the lathe may have moved. First check the Homing Sensor “Triggers”. These are small flexible parts that can move during the shipping process.

### Homing Sensor Trigger Check

Before you power on the machine and attempt to home it out, check the homing sensor “triggers” for damage or misalignment. If they have been moved during the shipping or uncrating process, you will need to adjust them to be sure that they align with the center of the homing sensor. You can easily adjust (or bend slightly) these trigger to acquire the proper alignment. The X-axis trigger should be fine. The Z-axis will need to be checked.

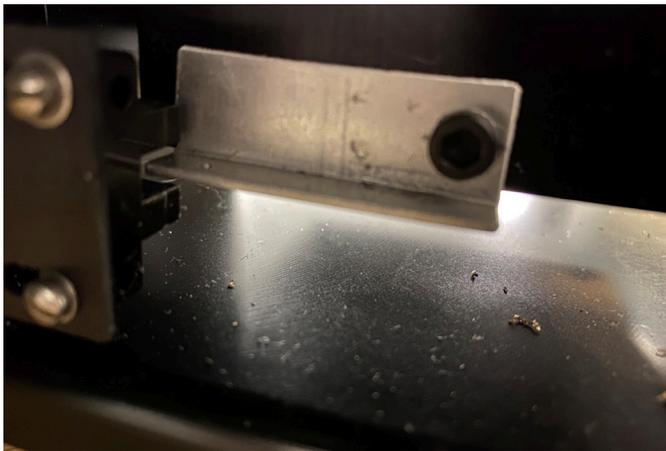


FIGURE 2—Z-axis trigger.

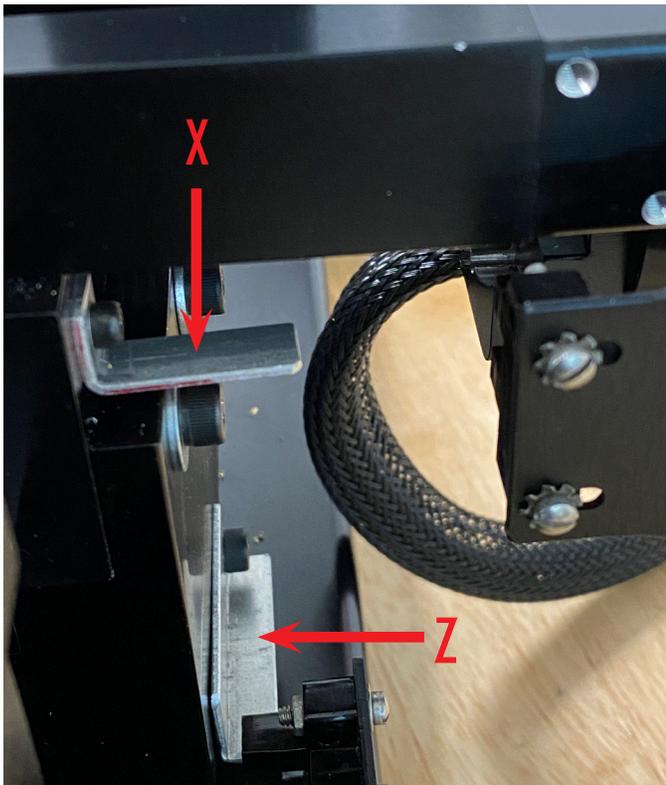


FIGURE 3—X & Z-axis trigger.

You should be able to turn the Z-axis ball screw by hand. Move the axis towards the homing sensor and adjust the triggers as needed. The trigger only needs to align with the open area of the homing sensor. It does not need to be perfectly centered on the homing sensor opening.

### Checking the Optical Encoder

The other component that may need to be adjusted is the optical encoder. In the bag of miscellaneous parts, there is the .129" Optical Encoder Gauge (P/N 87813, see Figure 4). You can check or reset the gap between the optical encoder and the tach sticker by following the *Sherline/MASSO CNC Controller Initial Start Instructions* beginning on page 8 ([https://sherline.com/wp-content/uploads/2019/07/sher-masso\\_cnc\\_initial\\_inst.pdf](https://sherline.com/wp-content/uploads/2019/07/sher-masso_cnc_initial_inst.pdf)).

**NOTICE:** Make sure that the power is **OFF** before you disconnect, or connect the encoder connector. Also, make sure that the connector is plugged in correctly (all 5 pins of the connector are in the 5 connector slots). **Failure to do so will result in damage to your encoder!**

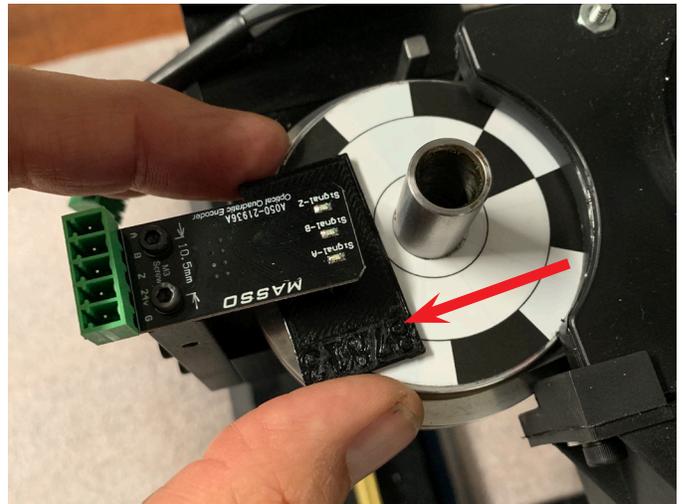


FIGURE 4—The red arrow is pointing to P/N 87813.

### Mounting Your Machine to a Base

**NOTICE:** This machine is well supported by the base. However, if you have the 13" crossslide it may tip over when your axis is at the end of travel in the X+ direction. If you want it rigid mounted. There are mounting holes at each corner of the base. These mounting holes will accept 1/4" or smaller mounting screws so you can mount it to your work surface.

The most ideal mounting surface is wood or a wood substitute. If you mount them to a metal surface, and machine vibration that is created during the machining process, will be amplified.

There are four machine feet mounted to the base of the machine. In the additional parts package there are (4) abrasion resistant rubber washers. Place one of these washers under each of the machine feet before you mount the machine to the work surface. This will reduce any machine vibration that may transfer through to your work surface.

**TIP:** Before you drill all of your four mounting holes, we suggest that you only drill one mounting hole in a corner

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of the machine opposite of the X-axis stepper motor. Then use the machine for a while to see if that is the best position for your machine. This one mounting screw will be enough to keep your machine from tipping or moving.

#### **Additional Parts Package**

Your machine comes with an additional parts package. Inside this package you will find the following:

1. Gib removal/adjustment tool (P/N 40992).
2. (4) Oil-resistant rubber washers (3/4" OD x 1/4" ID x 1/8" thick). These are to be placed between the machine feet and the work surface if you hard mount your machine to a work table. They will reduce any machine vibration/noise transfer from the machine to the work surface.
3. .129" optical encoder gauge (P/N 87813).
4. Oiler cap (for mills only, P/N 50930).
5. USB drive containing software, settings, sample program, and operation PDF.

**NOTE:** See our machine lubrication instructions ([https://sherline.com/wp-content/uploads/2016/01/lube\\_inst\\_2021.pdf](https://sherline.com/wp-content/uploads/2016/01/lube_inst_2021.pdf)).

#### **Instructional Video Support**

Before you go any further, we highly recommend that you look at our *Accu-Pro/ MASSO G3 Touch Controller Instructional Videos* (<https://www.sherline.com/sherline-videos/masso-g3-touch-controller-videos/>). These videos will show you everything that you need to know about your new machine and the Touch Controller.

Thank you,  
Sherline Products Inc.