

# WALLYSKATER v2.1

## INSTRUCTIONS

### The WallySkater:

- Is the only measuring tool that allows the user to determine the optimum anti-skating force to be applied to the tonearm for proper vinyl playback
- Allows calibration of the tonearm's anti-skating system
- Ensures even stylus wear over time
- Reduces likelihood of mis-tracking distortion and record groove damage
- Allows you to determine the inherent mechanical resistance (bearings, wires, air supply tubes, etc.) in any tonearm – pivoted or linear

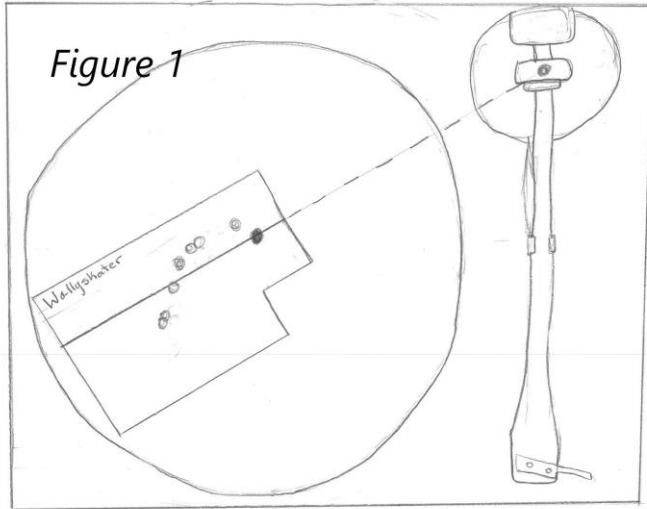
1. Make SURE the Vertical Tracking Force (VTF) is properly set
2. If you have a mat of any type (felt, cork, etc.) remove it while using the WallySkater. Place the WallySkater Base directly on the platter with the spindle located through the hole marked "Spindle". Aim the line that runs through the center of the Base so it is pointed at the tonearm's pivot point. *See Figure 1*
3. The peg at the bottom of the Post has been inserted at a very slight angle. For this reason, the lettering on the Post should face the tonearm once assembled.
4. Place one O-ring on the cylindrical Upper Beam and insert into the hole at the top of the vertical Post. Place a second O-ring onto the Upper Beam to secure it in place by pushing the two O-rings up against the Post. *See Figure 2*
5. Place the Lower Beam into the *angled* notch at the bottom of the Post. The Lower Beam will sit at a 45° angle when properly inserted. *See Figure 3*
  - 5.1. Some Lower Beams fit tightly and others fall right into place. This variation is due to laser cutting tolerances increasing on deep cuts – as the Post is.
  - 5.2. If your Lower Beam has a tight fit, it may be necessary to remove it using two fingers straddling the post in order to avoid breakage. *See Figure 4*
6. Insert the post into one of the three "Outer Groove Area Mounts" according to your arm length. Round to nearest:
  - 6.1. 9" arms (229mm) use the left-most hole
  - 6.2. 10.5" (267mm) arms use the second hole
  - 6.3. 12" (305mm) arms use the third hole
7. Roughly align the lower beam so it is parallel with the line beneath it that is radiating from the mount hole the Post is inserted into
8. Unwrap the plumb bob and tonearm suspension threads from the Hanger
9. Place the Hanger on the Upper Beam and adjust the plumb bob so that the tip of it is hovering just above the top surface of the Lower Beam. Do not allow it to touch the beam.
  - 9.1. Adjustments to length should be done with the thread pinched in the slit in the hangar directly underneath the hole for the beam. When adjusting length, ensure the thread is free from the locking slit. *See Figure 5*
10. With the tonearm's armrest up, move cartridge near the outer edge of the platter. You may need to twist the Post in the Base so that the Lower Beam gets as close as possible to the front of the cartridge – but not touching it.
11. Place the yellow thread loop on the head shell finger-lift and adjust the length of the string so that the stylus hovers approximately 2-3mm above the platter when the armrest is dropped. The tonearm should be allowed to swing freely

without the stylus touching the platter and without the tonearm touching the Lower Beam of the WallySkater.

- 11.1. If you do not have a finger lift, please use a small strip of firm-holding tape to attach the string to the headshell at a point that is close as possible to the location directly over the stylus (Safer option: loosen one cartridge mounting screw and place the thread under the head of the screw.)
12. Slide the Hangar so that the stylus is located at the outside edge of the platter.
13. At this point, if the line in the Base is pointing at the tonearm pivot and the Post is turned so that the Lower Beam is as close as possible to the cartridge, the Lower Beam and the stylus-pivot line will be at or very near 90 degrees.
14. Adjust the anti-skating device on the tonearm so that the distance between the plumb bob and the string supporting the tonearm is between 9-11 percent. Shorter arms should approach 11% and long arms closer to 9%. (Each hash mark on the lower horizontal bar of the WallySkater equals one percent.) Rock the arm a couple times once the anti-skate has been set to confirm the arm returns to, and comes to rest at, the same position.
15. Lift the armrest to protect the cantilever while you pull the Post out of its mount hole on the Base and move it into one of the two “Inner Groove Area Mounts” according to your arm length.
  - 15.1. 11” to 12” arms use the right-most hole
  - 15.2. 9” to 10” arms use the second-from-right hole
16. Move the hangar towards the center of the platter, keeping the aiming line in the Base pointed at the tonearm pivot and turning the vertical Post so that the Lower Beam is as close as possible to the cartridge without touching it. Drop the armrest and take another readout of the distance between the plumb bob and the string supporting the tonearm. Lift armrest.
  - 16.1. Some anti-skating devices will provide slightly higher percentages at this location and some lower. If you find a large discrepancy of values after moving the hangar toward the center of the platter (+-4%), contact WAM Engineering to discuss the problem.
17. Determine mechanical resistance of the tonearm
  - 17.1. Disengage the tonearm’s anti-skating device completely and move hanger so the stylus is at the center of the record platter.
  - 17.2. With the cartridge at the resting point, swing the cartridge about 2 inches one way or the other and let it go. Arms with very low mechanical resistance will swing back and forth many times over before finally coming to rest. You might need to hold the plumb bob out of the way so it does not come into contact with the swinging yellow thread.
  - 17.3. Bring the tonearm to motionless state and slowly move the Hangar from right to left and again left to right, observing the distance between the plumb bob and the string holding the tonearm. The resistance generated by the tonearm wires, bearings, etc. should be no higher than 2 to 3 percent. Should the resistance of the tonearm measure higher than this, contact the manufacturer.
  - 17.4. Repeat this process with the post in the center (unmarked) hole in the Base and again at the appropriate hole for the cartridge to be at the outer area of the platter. This three-part process ensures freedom of movement across the entire playing area of the record surface.

18. Adjust Azimuth and calibrate platter RPMs using the WallyAnalog Shop.

Figure 1



O-ring

O-ring

Printed surface

Figure 2

Figure 3

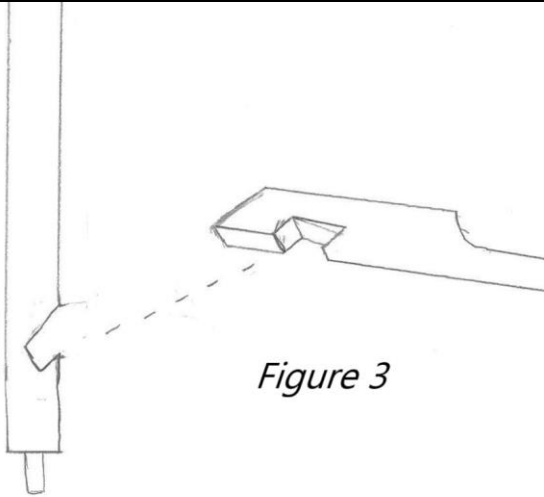
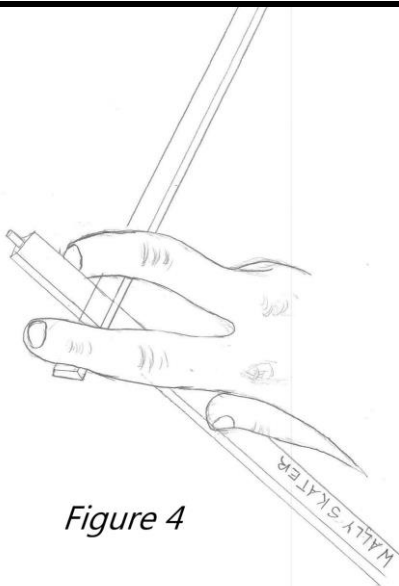


Figure 4

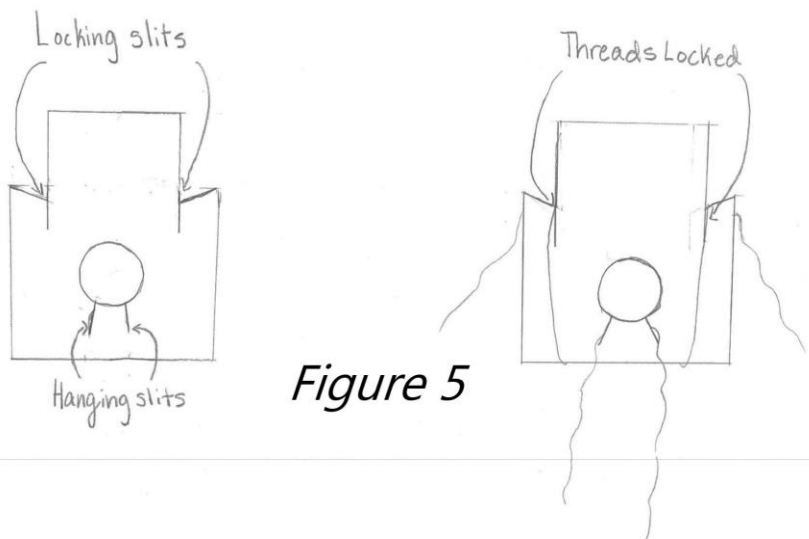


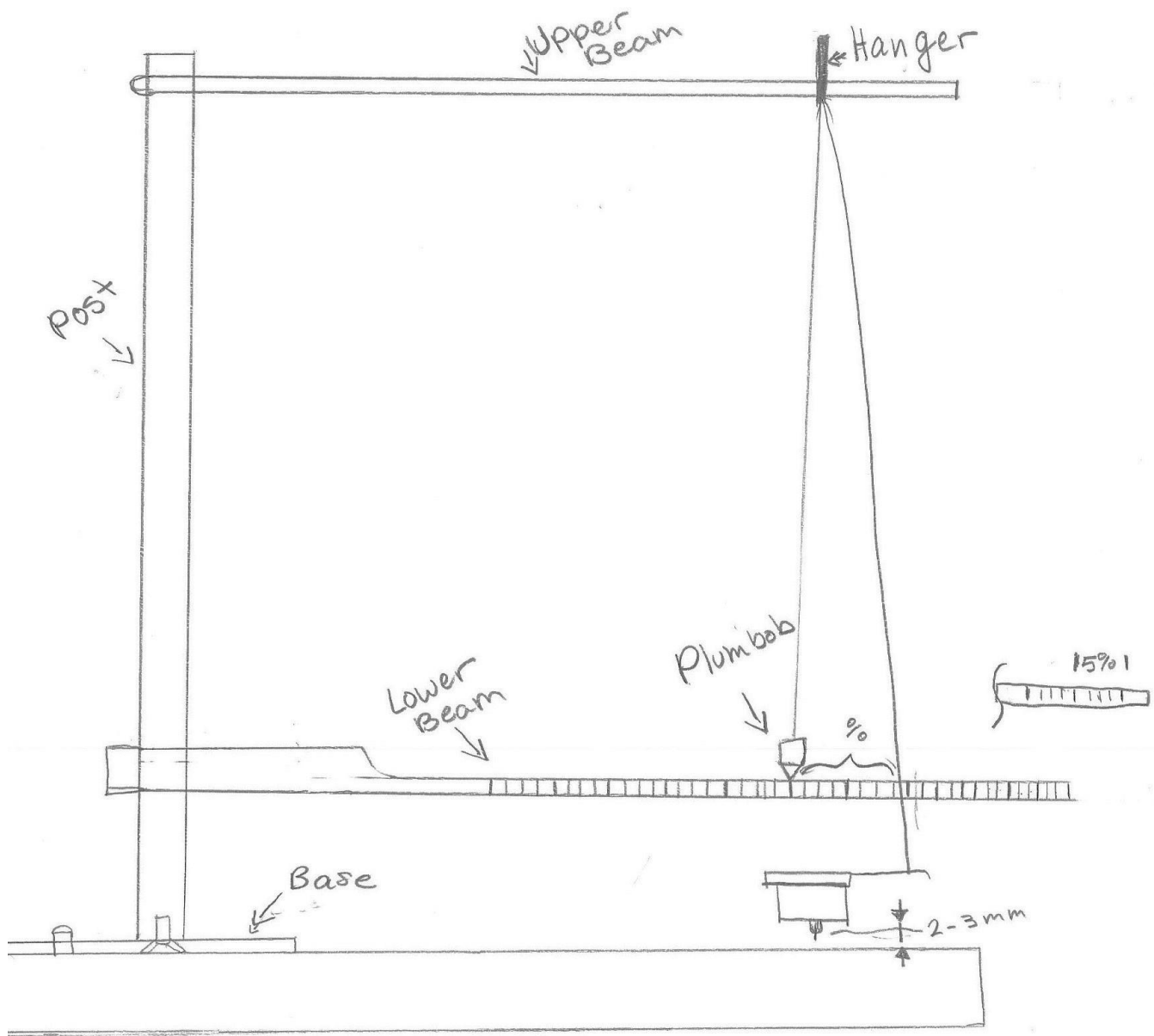
Locking slits

Hanging slits

Threads Locked

Figure 5





**ENJOY ANALOG FOREVER!!!** - Wally Malewicz

[wallyanalog.com](http://wallyanalog.com) / [wallyanalogtools@gmail.com](mailto:wallyanalogtools@gmail.com)