



Production Support

ShopBot ATC Maintenance Schedule:

Daily before cutting:

- 1) **Verify that there is proper air supplied to tool.**
- 2) **Warm up spindle for 6-9 minutes with [C][5] routine. Verify spindle speed changes. Confirm operation of spindle cooling fan and air.**
- 3) **Check bit, collet, collet nut and tool holders** for wear and debris. Collets are good for 400-500 hours *MAXIMUM* use if they are kept clean and no “event” occurs such as a broken bit inside the collet or a plunge that bottoms out on the collet. **Remove corrosion from tool holders** with a Scotchbrite pad. **Verify that pull studs are tight** into tool holders.
- 4) **Check rack/pinion/motor/shaft** relationship by rapidly pushing and pulling the carriages near each motor. X1, X2, Y and Z. Adjust motor mount and/or tighten set screws. A slight clicking sound should be heard, but no movement (over a few thousandths) should be present. Adjust if needed.
- 5) **Move the machine around the table** in both jog and move speeds, or make a short warm up routine to automate the process.
- 6) **Run the [C][3] file** to home the tool (3 axes) using the prox switches.
- 7) **Verify that tool in holder and tool# match.**
- 8) **Run the [C][2] file** to zero your bit, if material surface zero is required.
- 9) **Verify that your bit has been zeroed** properly by using a "MZ,0" command over the surface you have zeroed the bit to. Repeat zeroing ([C][3] for table, [C][2] for material) if not correct.
- 10) **Cycle the dustfoot gate [ALT]+[3]** open and closed to verify operation.
- 11) **Perform a visual inspection of the machine**, wiring, air and dust collection hoses and table surface. Inspect tool holder forks for damage. Verify proper operation of vacuum pump and dust collector (if present).

Every 40 hrs of use:

- 1) Clean rack and pinions for X,Y and Z (2nd Z if present) with small brush and re-grease. Add a BB size blob of light grease every 6” and run the tool to its extents in all axes about 10 times. Wipe off any excess grease and recheck X & Y with push/pull test.
- 2) Clean the Utilitrack (C channel rails on sides of PRS Z extrusion) with a solvent/lube like WD-40 and Scotchbrite pad. In high dust environments plastic rail wipers may have to be removed for proper cleaning of buildup. Wipe with light grease or machine oil.
- 3) Scrub all hardened V rails with Scotchbrite pad saturated with WD-40. Wipe with clean rag. Remove dust covers and check V rollers for buildup and clean with small brass brush if needed.
- 4) Add light machine oil to felt oilers inside of the 8 wheel covers and z-axis sweeps.
- 5) Check rack/pinion/motor/shaft relationship by rapid push-pull. X1, X2, Y and Z. Adjust motor mount or tighten set screws.



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ShopBot ATC Maintenance Schedule:

Quarterly (40hrs/week) to Semi-Annual (20hrs/week)

All of the above weekly items PLUS:

- 1) With motors removed, or at least disengaged from the racks, move each axis thru its full extents of motion and check for looseness or binds.
- 2) With motors removed, spin test each of the V rollers for free movement.
- 3) Tighten all pinion set screws. Check for signs of movement. Replace pinions and damaged key stock (if present) if movement was apparent.
- 4) Using provided flat wrench, adjust V roller bearing eccentrics on Z axis.
- 5) Check spindle square and alignment.
- 6) Remove lower YZ car V roller dust covers and adjust eccentrics.
- 7) Update software and firmware
- 8) If you have had a Production Support Visit a folder named "SB BKUP" has been installed on your C: drive. A copy of the SB3 software that is installed on your machine is located there in case you need to reinstall it. There is also a copy of your machine settings there that can be used to reset erroneous or unexpected machine actions after a software crash or electrical storm. Type command [U][R] and navigate to the C:\SB BKUP folder. Your machine settings will be visible there. If you have made any changes to your settings, Make your own backup of those settings by using the [U][S] command, navigating to the SB BKUP folder and overwrite the exiting file.

There is also a copy of your C:\SbParts\Custom folder copied there. This folder holds any custom files that have been modified for your machine or machining preferences and all the user modified settings peculiar to your machine. If needed, these can be copied and pasted into the active C:\SbParts\Custom folder using Windows Explorer.

ShopBot Link Users have a copy of their settings located in the SB BKUP folder that they can retrieve by pressing the [Import] button and navigating to the SB BKUP folder.

Semi-Annual (40hrs/week) to Annual (20hrs/week)

All of the above weekly and Quarterly items PLUS:

- 1.) Replace all pinions.
- 2.) Remove, clean, inspect, reassemble, lube and adjust complete Z extrusion assembly.
- 3.) Replace Collets (and possibly collet nut(s) if damaged).

Current ShopBot Production Support customers have a full set of software and electronics diagnostics, software upgrades, all of the above maintenance items plus operational testing, tuning and adjustments performed on their machines at each visit.
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