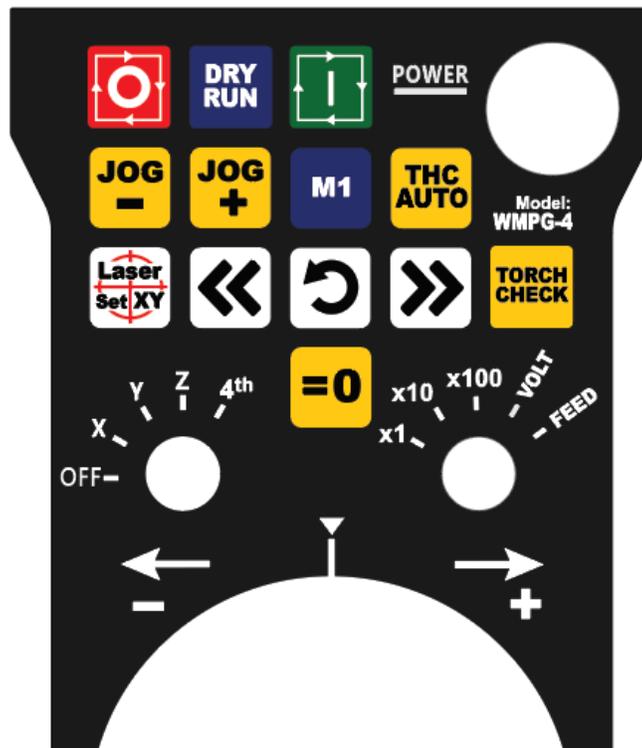


## Acorn CNC12 v4.80 Mill, Lathe, Router, Plasma Release Notes

1. Added support for XY Jogging in the VCP and Wizard for Mill, Router, Plasma. (Note: this feature works with Lathe as XZ jogging but is not implemented in the Wizard, simple hand edit VCP to enable for Lathe).

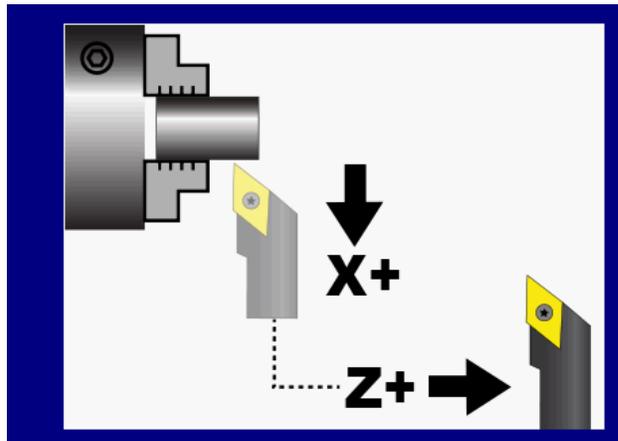


2. Improved G code backplot graphics speed, now much faster G code job display graphics.
3. Added support for WMPG-4 Plasma specific overlay skin in Plasma Wizard.



4. Fixed Lathe Offset Tool Measurement bug.
5. Fixed Keyboard Jogging bug when "PC Keyboard" was selected and Z axis would not jog with Keyboard arrow keys
6. Added Smart Sense functionality user choice in THC config menu. 1.) Sense voltage only at beginning of job. Or 2.) Sense voltage at beginning of every cut.

7. Added support for time based “marking” in Acorn Plasma. (M64)  
Added SpindleOK delay timer in Wizard for inverters that are not quick to send a Spindle Ok signal.
8. Added choice of spindle speed display type, Actual = Actual Encoder reporting speed, Programmed Spindle Speed = G code S function command value, or Display Both.
9. Added Communications Stress test file “stressTest.cnc” in \NCFILES. Run the G code file to stress test the Acorn to CNCPC communications link. This helps debug communications issues above and beyond a simple ping test.
10. Added Live Torch Voltage Oscilloscope feature to Plasma. A handy debug tool for the commissioning of Plasma systems.
11. Added a dedicated Virtual Control Panel Preferences menu to the Wizard.
12. Fixed issue with Windows Global font size messing up text in the Wizard.
13. Added ability to export tool height offset and diameter to both txt and csv for the mill tool library
14. Added GetFullPathJobNameCurrent, and GetCurrentLineInfo functions to the skinning api
15. Added Gecko Drive Type in Wizard for Gecko G203V
16. Lowered the cpu usage of the PLC Diagnostics app, and VCP for better system performance.
17. Added to Wizard Homing menu option to not use homing at all upon start up.
18. Added automatic current CNC12 installation directory backup to the CNC12 installer
19. Added a parameter to set the precision of DRO, now user can set how many decimal points are displayed in the DRO
20. The vcp will now not crash if the options.xml file is corrupt. It will create a new file with default values.
21. Added axes labels U and V to the Wizard and added vcp U V buttons for axes labels
22. Added GetJogState function to the skinning api
23. Added new system variables for the “get amount” of communication errors
24. Added message to status menu if there is more than 5 communication error messages within an hour
25. Defaulted RTG all machine types to to have no trail when real time graphing a job
26. Increased the responsiveness of the WMPG-4 for improved performance.
27. Added KL5056E Drive Preset for Acorn Wizard
28. Improved Lathe Homing images



29. Added new functions to skinning api. The functions are for getting all the tools in tool library, getting tool description, and setting tool tool description
30. Added skinning function to get if the software has a pro, ultimate or free license
31. Added machine parameter 440 (Stop For Jogging Continue Bit) for which values 1-255 indicate the SV\_SKIN\_EVENT\_x to check for continuation during execution of an M0/M200/M201 command, along with CYCLE\_START and TOOL\_CHECK. A value of 256 will wait for the Skinning API call Job.ContinueExecution.

32. Added machine parameter 180 (Clear Limit Switch Distance). This parameter specifies the distance to move before generating an error when looking for the limit switch to be cleared during a homing (M91/M92) command. A value of zero will result in a default setting of using a distance of 0.5 inches or one motor revolution, whichever is greater. This distance only applies to a linear axis. If the axis is rotary, a distance of 45 degrees is used regardless of the parameter value.
33. Corrected Plasma issue causing SV\_STOP to be reset even when there was an active THCErrror
34. Fixed minimum S text box being multiplied by 10 when returning to the PWM setup menu.
35. Fixed issue with spindlebenchtest job freezing cnc12 when graphed with rtg
36. Fixed simple plc cnc12 diagnostics showing INP number for outputs when there is no outputs

Free CNC support.

<https://centroidcncforum.com/viewforum.php?f=60&sid=16a1a2ff05cc2cdf3073d120d4ba0078>

Download and Unzip then click on .exe to run the installer.

Update Instructions.

Installation instructions for updating an existing installation of Acorn CNC12 to this version.

1.) Make screen shots of each Wizard menu of the existing installation so you have a visual record of the current Wizard settings. (Store copies of the report and screen shots in a safe place (even on another computer as an extra precaution would be a good idea as well)). Windows "Snipping Tool" is very handy for this. To find this program type in "snip" in the Windows search bar.

2.) Download and unzip the .zip" file

EXTRACT the zip file, open extracted folder and with the Acorn up and running with a heartbeat, Double click on the .exe and follow the instructions to install CNC12. You may run into a Windows warning notification: Click "More Info" then click "Run Anyway" to continue.

3.) With the Acorn up and running with a heartbeat double click on the CNC12 Icon to start CNC12. CNC12 will update the firmware on the Acorn BBG. Follow the instructions on the screen.

4.) Install the Acorn License file from the Acorn Utility menu, "Options" , then "Import License". Note: Mill, Lathe, Router License files used with older software will work with this version of Mill, Lathe and Router CNC12. If installing the new Acorn CNC12 Plasma a new Plasma Pro license file is required.

5.) Open the Wizard and re-enter the information and settings from the screen shots made in step 1 and press "Write settings to CNC control" and follow the instructions on the screen.

6.) For Plasma, continue the setup process in the Plasma installation manual. Start with Step 4

[https://www.centroidcnc.com/centroid\\_di...manual.pdf](https://www.centroidcnc.com/centroid_di...manual.pdf)

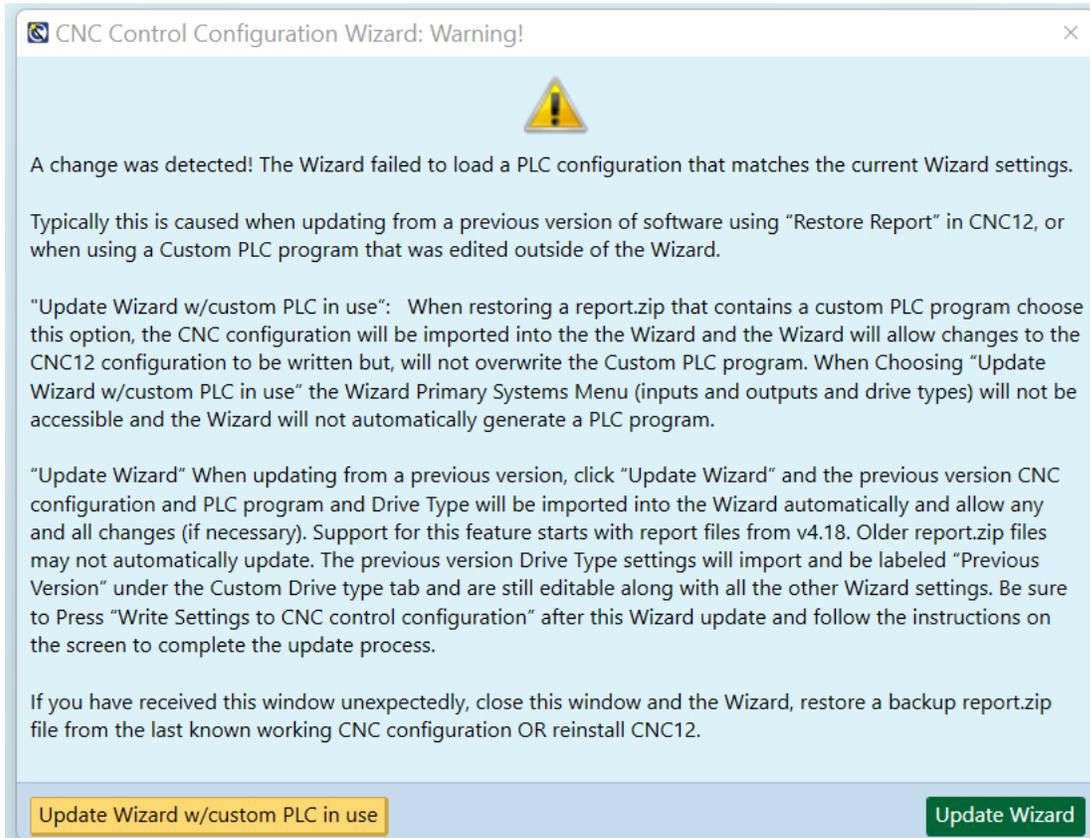
New CNC12 installation instructions.

[https://www.centroidcnc.com/centroid\\_di...manual.pdf](https://www.centroidcnc.com/centroid_di...manual.pdf)

If you have any custom macros or VCP buttons copy them over from the old install to the new install. same with tool libraries, custom home programs and wcs positions.

Alternatively the “restore report” feature can be used to copy files from the old install to the new install automatically.

- 1.) Run the Acorn CNC12 v4.80 installer.exe with Acorn powered up with heartbeat and connected to the CNCPC.
- 2.) Start CNC12 navigate to the Utility menu.
- 3.) Open the Acorn Wizard. Click on “Update Wizard”



4.) Click on "Write Settings to CNC Control" and follow the instructions on the screen.



This is a critical step as the Wizard will create a new PLC program that works with v4.80 based on the previous Wizard settings avoiding the having to hand adjust all the settings in the Wizard and enabling new features not available in the previous version.

Pitfalls of this method:

- Using "restore report" in CNC12 without opening the Acorn Wizard and pressing "Write settings to CNC control configuration" will result in a mix mash of files that will not function properly.

- If a custom PLC program is in use in the previous version the recommended update method is to let the Wizard create a new v4.80 PLC program and then hand edit/insert the old PLC program customizations into the NEW v4.80 plc program. The reason for this is that the v4.80 has new features that the old PLC program does not have and by editing the new v4.80 Wizard generated PLC program you will get both customizations and the new features of v4.80.