

October 23, 2014

MILLPWR^{G2} 2 & 3 Axis

(Version R2)

NOTE: HEIDENHAIN Corporation recommends making a backup of the control with the included USB Recovery Drive (684138-xx) before updating the control software. Please refer to the manual included with the drive for the backup procedure.

Screen captures of what you may see while doing the update. Answer **Yes** to Installation of NC software.



Select **RUN UPDATE** if prompted with firmware update message.



Select **Yes** if prompted with Tool is Inconsistent.



These enhancements/changes were made:

Add support for Geometry Calculator. The calculator is only available from PGM mode. Coordinate fields do not support INC referencing.

RPM and Chip Load Calculators - Chip Load calculator to be implemented in a future release.



Allow rectangle step definitions by center, size, and angle.

- Added the ability to edit and save g-code programs.

The folder contents within the program manager are update every 5 seconds to accommodate files added or removed externally.

Support angle format of DMS

The "Change Steps" step function now allows you to change the drill type among drill steps.

Improvements for the R2 version of the filemanager:

- File text preview window is now focusable via a mouse, also the mouse wheel now works to scroll the preview.

- File text preview now can have a horizontal scroll bar with matching softkeys.

- Displaying the number of items in the current folder and the free space of the current drive.

- Folder window losing focus no longer causes a size change that alters the number of items displayed in each column.

- Greatly improved the speed at which the folder view is populated with items. i.e. when going to a new directory or changing the filter type. (~2 second before to now nearly instant)

Now disabling softkeys when the current context means the softkeys normal operation will do nothing.

The explode step function will now work on the engrave arc and engrave line steps.

- The tool step can now be defined with a plunge angle.

- The Circle, Rectangle, Ring, and Slot Pockets will now ramp in or plunge in on both the roughing and finishing passes depending upon the tools plunge angle. (Range: 1 - 90, 90 is a straight plunge.)

- If one of the pocket's XY dimensions are too small for a helix then the ramp will be a zigzag pattern in the other dimension. If both dimensions are too small then it will do a plunge.

- The custom pockets now acts the same as the other pockets.

Implemented the MillPWR Installation Setup dialog.

Allow tool to be specified by number in Set Tool dialog



Auxiliary Functions Step and MFSK

1. Add support for the Auxiliary Function step for controlling coolant and auxiliary outputs (4).

- Spindle settings are now hidden until it's fully implemented.

- Added a new compensations dialog to allow choosing and defining both linear and non-linear compensations.

- The save and cancel softkeys are now disabled if there are no pending changes.
- Added the Date/Time and Network tools, not available in the offline version.

Hide 3X specific fields in step dialogs when in 2X mode

Modified the view softkeys to display the currently selected entry for the view type (2D line, 3D line or 3D solid) and adjust view type (zoom, pan or rotate).

Zero the INC position after setting the datum.

- 1. Zero INC after setting the datum. This applies to each axis independently.
- 2. Zero INC after finding home.

The program list view and geo calc list view now display a footer that contains the current line number and total number of lines.

Job Setup now has a max feedrate override field to allow the potentiometer's last click to be set between 150% and 200%

Make zBegin depth optional in custom pockets. If not specified, custom pocket should run in 2X mode and use the zRetract height as the "safety" height.

The PLC project was updated to now be based on the basic NCK PLC v5-01.

Several improvements were made to the graphics; specifically faster program simulation times, more synchronized tool update rate in NC mode, smoother tool motion in NC and simulation graphics, consistent tool color (blue) in solid model view, as well as many other minor optimizations.

In line graphics views, the zero point marker now resizes proportional to the block form size. In addition, the machine zero (red) and program zero (violet) are now indicated independently.

Remove Diameter and Length Wear columns from tool table.



Previously an error marker on a step would be removed at the end of the next successful simulation or run; we are now removing it at the start to reduce confusion during long program simulations and runs.

Hide 3X specific fields in step function dialog when in 2X mode

The default settings for axis configurations have changed in R2. Existing systems updating to R2 will remain as-is at this time. Most notable is the "Triangle @ 24Hz" position filtering setting (global, applies to all axes), which is better optimized for knee-mill, bed-mill, and small VMC applications.

The recovery method in place to recover from a corrupt MPT program is now expanded to also recover from possible corrupt gcode programs and geometry calculator program.

W motion should not halt program in 2X mode. W motion will be allowed during a Set Tool step.

- Lookahead is now set via the run options softkeys.

- Lookahead now works for all cases except contour steps, this remains as it was in R1: Paths of only 3 steps do not detect collision properly.

• Additional erroneous error were corrected



Version (2 or 3 axis) - The version number was updated to R2.

You can download the software release update from our web site at <u>www.acu-rite.com</u>. If you wish to purchase the software and operation manual from ACU-RITE contact Customer Service to place an order.

Installing the software onto your MILL**PWR^{G2}** system:

HEIDENHAIN Corporation recommends making a backup of the control with the included USB Recovery Drive (684138-xx) before updating the control software. Please refer to the manual included with the drive for the backup procedure.

Use a blank USB memory stick (1 GB or larger) to update the software. Do not use any memory stick with a smaller storage capacity. The software installation files are required for updating the software. These files will automatically be recognized by the installation program of the control and must be contained in a folder named "**install**" on the USB memory device with typical files called setup.zip, and setup.ini.

Procedure for updating the software

- Shut down the control software using the normal method of pressing the Shutdown soft key and then confirming the shutdown by pressing Yes.
- Wait for the screen message which indicates that it is safe to switch off power, or restart.
- Insert the USB memory device containing the folder named "install" on the USB memory device.
- Press ENTER to restart the system.
- After starting, the MILLPWR^{G2} Software Update screen will appear with a confirmation box. If necessary, use the UP/DOWN ARROW keys to select the language (e.g. English) and press ENTER.
- A confirmation box will appear. If necessary, use the LEFT or RIGHT ARROW keys to select Yes, and then press ENTER.
- The software update will now be done automatically, taking approximately 10 20 minutes.
- When the update is complete, it will prompt you to remove the USB drive and restart. At this time, remove the USB drive and press ENTER to restart.
- After the system has restarted, it will start up normally to the control software.

If any issues are encountered, please contact your service representative for assistance.

If the USB memory stick used for installation is not removed, then the prompt to install the software will continue to appear on subsequent power cycles.