MILL**PWR**^{G2}
SOFTWARE
UPDATE

ACU-RITE®

February 8, 2016

MILL**PWR**^{G2} **2 & 3 Axis**

(Version R4SP1**)**

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

If a special PLC for AMI functions was created for your MILLPWR system this may need to be reinstalled after completing the R4SP1 update.

AMI or users of auxiliary machine function interface will need to first check two configuration settings in their current system.
Make note of the values so that they can be restored manually after the R4SP1 update, via the Machine Functions menu.
The special password provided or setup by your authorized dealer to access the Advanced Configuration from Installation Setup is required in order to view these settings:

System -> PLC -> CfgOemBool -> NP_MG_guard_inactive – [value]
        If the setting is FALSE, then in R4SP1 they should set "Guards" to "Enabled"

Axes -> ParameterSets -> PS_1 -> CfgAxisAnalog – [unipolar]
        If the setting is "off", then in R4SP1 they should set "Polarity" to "Bipolar"

To verify your software version, from the **DRO** screen press SETUP. If one of your soft keys is labeled More Commands, you have release 1 (R1) software. If one of your soft keys is labeled Install Setup, press this key. Enter the password 8891 and press Enter. The installed software version will be displayed at the bottom left of your screen.

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

<u>**Version (**</u>2 or 3 axis) - The version number was updated to R4SP1.

You can download the software release update from our web site at www.acu-rite.com. 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 MILLPWR^{G2} system:
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.

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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.
- The software update will now be done automatically, taking approximately 10 - 20 minutes.

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.

A confirmation box will appear. If necessary, use the LEFT or RIGHT ARROW keys to select Yes, and then press ENTER

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.

- On first NC startup, confirm the firmware update, accept the changes, RUN UPDATE softkey

- On second NC startup, confirm the firmware change, ACCEPT the changes softkey

- *(Note: This particular NC startup screen can take several minutes to display. Please be patient. Do not shutdown control and reboot.)*

- After the system has restarted, it will start up normally to the control software.
- Confirm that your count directions are correct.
- Press the SETUP hard key, then the "Install Setup" soft key, enter passcode 8891, press ENTER
- In the "Installation" dialogue, scroll down to the last option "Machine Functions" and press ENTER
- Configure the dialog to match your machine Note:(only required if special machine function options are installed like demo, ami, guards, etc.)
- Press the USE hard key, then press the "Save Changes" soft key
- After a moment, you will get a reboot prompt
- Acknowledge the reboot and you are all done at the next startup

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These enhancements/changes were made:

-Corrected an imperfection in which the previously loaded program's graphical depiction would be displayed in the graphics window briefly prior to updating to the newly loaded program's graphical depiction.

-Corrected an issue in which the View -> Tool Path feature was inadvertently always being forced to OFF when switching to either 2D or 3D Line views.

Graphics Contour View - The corner radius on mirrored rectangle steps (pocket and frame) are now being drawn correctly.

-1. The following steps now maintain cutting convention when mirrored - Rect Pocket, Rect Frame, Rect Slot, Circ Pocket, Circ Frame, Ring, Helix, Radial Slot. 2. The following steps now maintain cutting convention when mirrored and the mirror step is exploded - Circ Pocket, Circ Frame, Ring, Helix. 3. The following steps now run the bottom pass using the finish direction (CW/CCW) - Rect Slot, Ring.

-If the change sign key is used to toggle the sign of the initial field value, pressing a calculator function key (+, -, *, or /) prevents the key from being applied to the next numeric value. Example: Initial field value is "1.000". Press "+/-". Press "+". Field should show "-1.0000+".

-Corrected a possible issue in which attempting to start running a program could fail.

1.Blockform extents are now being calculated correctly for radial slots or partial bolt hole patterns. 2. For steps which do not follow a Set Tool step, the extents are calculated based on current tool size. Current tool size is now correct when program and tool units do not match.

-Corrected an issue in which the system would crash on startup if the previously loaded G/NC program file was no longer present (removed USB drive, for example). Now, a clean 'New Program' will be loaded if the program (G/NC or MPT) is not found during startup. It is still highly recommended and documented to copy programs from removable drives to local storage, rather than running directly from them.

-The Engrave Arc cycle did not guard against passing an out-of-range value into the arcsine math function. This can occur if the arc radius is too small. When the condition was not caught by the cycle, the GeoChain would generate a confusing "Kinematics configuration faulty" message.

-Corrected an issue in which math operations did not work in the Peck fields (number of passes or distance).

-The Rect Frame, Circ Frame, and Face steps default to a single roughing pass in the Z axis if Z Pass is not specified in the program step.

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-Corrected an issue for AMI Spindle Control systems, in which the spindle would turn off when setting the datum, when using Move Table, and when running a Single Cycle. *On AMI systems prior to R4-SP1, if you set the datum, or used Move Table, or ran a Single Cycle, the spindle and coolant would be forced off. Now, they correctly remain on if they were already on before starting the task.*

Improved the visibility of the contour in solid model graphics as well as block highlighting in all views. Also visually improved the zero point marker.

-Improved the clarity and information of the error message for a 'spindle overload fault' condition.

-1. Custom Pockets in 2X mode - Allow bottom and side finish operations as in 3X mode. 2. Canned cycle pockets in 2X mode - Allow bottom finish operations. *The problem was that in 2X mode, the finish allowance was forced to 0. The custom pocket sub-cycles would display an error if finish allowance was 0. This was resolved by allowing the pocket in 2X mode to run the same as in 3X but with manual Z prompts.*
-A message is now displayed in the bottom left corner of the screen, indicating if the control is starting up, shutting down, or performing a firmware update.

Version (2 or 3 axis) - The version number was updated to R4SP1.

If any issues are encountered, please contact your service representative for assistance or contact technical support at millpwrservice@heidenhain.com if you have any questions.
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