

MILLPWR^{G2} SOFTWARE UPDATE

ACU-RITE[®]

October 10, 2017
MILLPWR^{G2} 2 & 3 Axis
Release of Version R6

For Use with Consoles (ID#1113777-NN) ONLY

This is our sixth major release of software and it includes some very exciting and anticipated features. Please read below for the list of enhancements.

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

- Prior to updating to R6, confirm that R5 SP1 is installed and that you have resized the hard drive partitions. Due to the enhanced features since release 5, restructure the console's hard drive is required. USB Recovery Drive ID# 680480-04 includes an option for resizing the control's hard drive partitions. This can only be performed on consoles ID#1113777-NN that are running software release 4 service pack 4 (R4 SP4) or R5. Please insure the console is updated to one of these releases prior to restructuring the drive and installing release 6 (R6).
- R5 cannot be installed unless you have R4SP4 installed first. If you have previous version of software such as R1, R2, or R3 SPx (release 1, release 2, or release 3 with any service pack) download and install R4 SP4 then proceed to update to R5.
- Recovery Drive Kit ID# 1127022-01 can be purchased from your local ACU-RITE distributor.

If a special PLC for AMI functions was created for your MILLPWR system. The PLC for R6 may need to be modified in the same manner. Any OEM/User customizations to the PLC will need to be reintegrated into the new PLC project.

All users can verify your software version from the **DRO** screen by pressing 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.

You can download the software release update free of charge from our web site at www.acu-rite.com. If you wish to purchase the software and operation manual from ACU-RITE, contact your authorized dealer 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. When a USB memory device is placed in a USB port prior to boot up with the update

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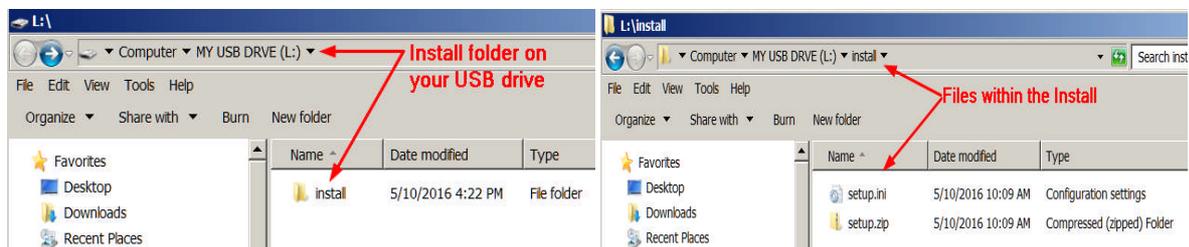
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files setup.zip, and setup.ini located within a folder named “install”, at boot up your G2 control will detect the upgrade software files and proceed to install.

Procedure for downloading the update files and placing them on a USB drive.

Download the update from <http://www.acu-rite.com/software-updates.html> found under the Controls Tab.

- Unzip the downloaded archive insuring the target is the root level of your USB drive.
- Insure the files setup.zip and setup.ini are transferred to a folder at the root level of your USB drive named install, //MY USB DRIVE/install/



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.

! 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. 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.

! After installation and upon restart, you may receive a message prompt to confirm a firmware update, accept the changes and RUN UPDATE.

- *(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. *(These values should not change when upgrading software.)*
- If special machine functions were active, Press the SETUP hard key, then the “Install Setup” soft key, enter passcode 8891, press ENTER
- In the “Installation” dialogue, arrow down to the last option “Machine Functions” and press ENTER

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- 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.

MILLPWR^{G2} Recovery Drive Compatibility

- Due to hardware differences the original MILLPWR^{G2} console and the current console require different software upgrade paths.
- Consoles can easily be identified by the color of the front bezel. The current design has a darker grey color than the original design.
 - The current G2 console will proceed to release 6 (R6) and all its service packs.
 - The original G2 console will remain with release 4 (R4) and all of its service packs.

Console ID# and Software Revision	 Recovery Drive ID# 1114023-01	 Recovery Drive Kit ID# 1201909-01 USB ID# 680480-03	 Recovery Drive Kit ID# 1127022-01 USB ID# 680480-04
745604-NN	Yes	Yes	No
R1	Yes	Yes	No
R2	Yes	Yes	No
R3	Yes	Yes	No
R4	Yes	Yes	No
R4 SP6	Yes	Yes	No
1113777-NN	No	Yes	Yes
R1	No	Yes	Yes
R2	No	Yes	Yes
R3	No	Yes	Yes
R4	No	Yes	Yes
R4 SP4	No	Yes	Yes
R5	No	No	Yes
Post R5	No	No	Yes

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Console ID # 745604-NN



Console ID # 1113777-NN



G2 consoles (ID#745604-NN)

- These consoles **cannot be upgraded to R6** and will continue to receive service packs under the R4 release. Please do not attempt to install release 5 (R5) or R6 onto these consoles.
- System drive restructuring on this original design consoles will cause the console to become un-operational and require in house service to correct the issue. **Do not restructure the drive on these consoles.**
- **Not all software enhancements will be included in future R4 releases**. We will continue to support console ID# 745604-NN with service packs through the R4 released software that will mainly include minor enhancements or fixes.
- USB Recovery Drive Kit 1201909-01 includes a compatible USB Recovery Drive ID# 680480-03 for original G2 consoles (ID#745604-NN) and should be ordered when replacing a recovery drive for these consoles. This drive does not include the restructuring option, so the unit cannot be restructured accidentally.

G2 consoles (ID#1113777-NN)

- **R6 cannot be installed unless you have R5SP1 installed first**. If you have previous version of software such as R1, R2, or R3 SPx (release 1, release 2, or release 3 with any service pack) download and install R4 SP4 prior to updating to R5.
- Due to the enhanced features of release 5, it has become necessary to restructure the console's hard drive. USB Recovery Drive ID# 680480-04 is now included in Recovery Drive Kit ID# 1127022-01 which supports all G2 consoles and all software versions to date or planned for the near future. This new recovery drive includes an option for resizing the control's hard drive partitions. This must only be performed on current consoles (ID#1113777-NN) that are running software release 4 service pack 4 (R4 SP4). Please insure the console is updated to this release prior to restructuring the drive and installing release 5 (R5). Hard drive restructuring is required on these consoles prior to the upgrade to release 5 (R5).

These enhancements/changes were made:

- New and improved program simulation graphics. Resolution has been increased so three dimensional solid models more closely resemble a CAD/CAM solid model.
- Reference mark indication is now available in the System Monitor section of Diagnostics.

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- New off-line programming software for Windows computers. The software is now the same as the actual hardware. The new format operates within an included Oracle VirtualBox platform.
- Additional Languages have been added.
- A new 2D Solid View now greatly enhances two dimensional representation and toolpath simulation.
- Solid tool representation is now possible in 2D and 3D Line View graphics to aid visually when multiple depth passes are made, as well as to more easily verify correct tool compensation offsets. The new "Tool" feature in the VIEW dialogue will show or hide the solid tool in any available view mode.
- An even spacing option has been added to the FACE cycle. It can be run as "shortest path" or "even spacing". The cycle can start from any corner by specifying positive or negative values for the sizes.
- When a Position/Drill is programmed, the Z information and other data will be cleared. It will not fetch any information from the previous steps.
- A Recycle Bin has been added to store deleted files and folders and can be either recovered or permanently deleted from the bin.
- Multiple line engraving is now possible for both Line and Arc engraving. Up to 5 lines can be engraved within a single step at a capacity of 80 characters per line. New soft keys are available to navigate and edit engraving text.
- The 'Goto Tool Number' soft key in the tool table can now be used to directly jump to the specific row for a tool number.
- Added a shortcut softkey to Installation Setup, for access to the system screensaver.
- The amount of motion allowed in the W-Axis while running a program or Single Cycle is now configurable.
- Added G code support for multiple M and S variables within a single block (i.e. M3 M8 S1000).
- Modal parameters are now set to the state corresponding to the mid-program start in G code. This applies to G0/1/2/3, G20/21, G70/71 and G90/91.

These corrections are solved:

- "Software Travel Limit" is now used, in place of 'Table Limit' or 'Software Limit'.
- Tools now retracts to Z begin between passes for Rectangle pocket, Rectangle slot and Circle pocket.
- Arc Slot now allows slot definition using an end position and sweep angle.
- Bottom Finish will now default to zero (none) if it is not specified. Previously, if Bottom Finish was blank, it would use the same value as the Side Finish field.
- Under certain conditions, the tool path fails to correctly cut around an ARC.
- Corrected a Z Pass calculation issue when switching between number and distance.
- Corrected a rare potential issue in which the system could start up with the wrong tool data.
- Corrected an issue in which in certain situations, one could get axis faults when pressing the e-stop button.
- Prevented a possible error in PGM mode with intensive G2 programs or when switching back from the geometry calculator.
- To avoid potential problems when running without a defined tool, a Set Tool step will now appear within the program before a custom pocket step that uses advanced cycles (i.e. Pilot Drill).

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.