

BRIDGE

Firmware Update Manual

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Release Notice

This is the August release of the Agra-GPS BRIDGE Firmware Update Manual.

Disclaimer

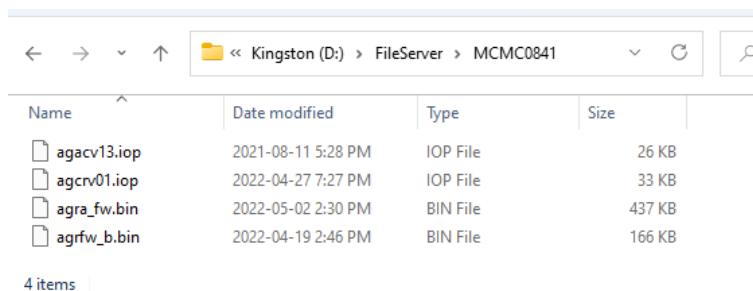
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DO NOT USE THE “BRIDGE” IF YOU DISAGREE WITH THE DISCLAIMER.

Firmware Update Option A: USB Stick

Step 1: Load the USB with Firmware

First, the new firmware needs to be loaded onto a USB thumb drive with a specific file structure. Firmware must be placed inside of a folder titled “MCMC0841”, and that folder must be inside of a folder titled “FileServer” (e.g. USB\FileServer\MCMC0841\). The result should look similar the following.



Everything in the MCMC0841 folder will be transferred to the BRIDGE. It is important that the MCMC0841 folder only contains the desired firmware and no other files. The *.bin files update the devices within the BRIDGE, and the *.iop files are for updating the ISO apps.

The filenames must not be altered from those provided by Agra-GPS, in order for the BRIDGE to accept the firmware properly (however upper/lower case doesn't matter).

*NOTE: The 2600 display differs from other monitors in that firmware may only be loaded via the Compact Flash card accessed from the side (the USB port on the back is not usable for this purpose). Refer to page 6 for additional instructions for the 2600.

*NOTE: Storage devices must be formatted with the FAT32 file system (this is standard for new USB drives). Other formats such as NTFS or ext4 will not work.

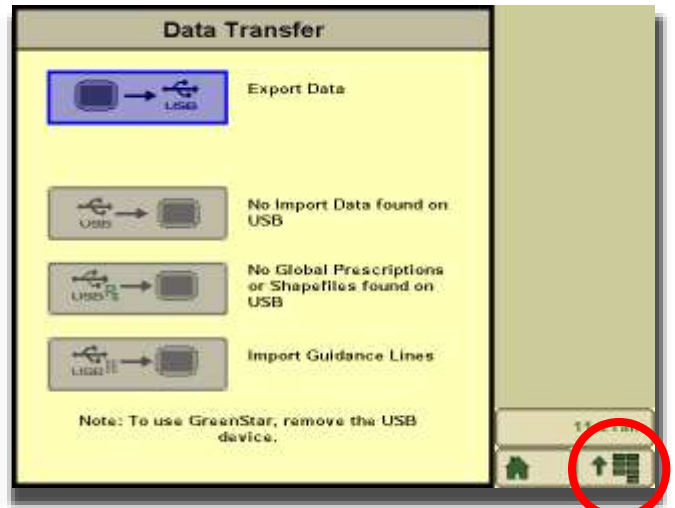
Step 2: Insert USB and Update Firmware

Insert the USB thumb drive into the John Deere monitor, then navigate to the BRIDGE ISO app that will be loaded onto the John Deere monitor.

When the USB is first inserted into the monitor, a dialog box is presented asking for the next action. For the GreenStar 4 series, cancel this dialog by pressing the “X” and proceed to open the ISO app for the BRIDGE Receiver. For previous GreenStar monitors, also ignore the Data Transfer options by simply accessing the main menu.



(4620/4640)



(2630)

In each case, the ISO app must be opened. The various John Deere GPS monitor models are shown as follows:

4640/4240

Load the ISO app with the circled button.



Two different Agra-GPS ISO apps are installed. Choose the one that brings you to the BRIDGE-Receiver app page (shown in yellow). The other is for the BRIDGE-Bridge app, which is not used for the firmware update process.



1800, 2600, & 2630

Load the ISO app with the circled button.



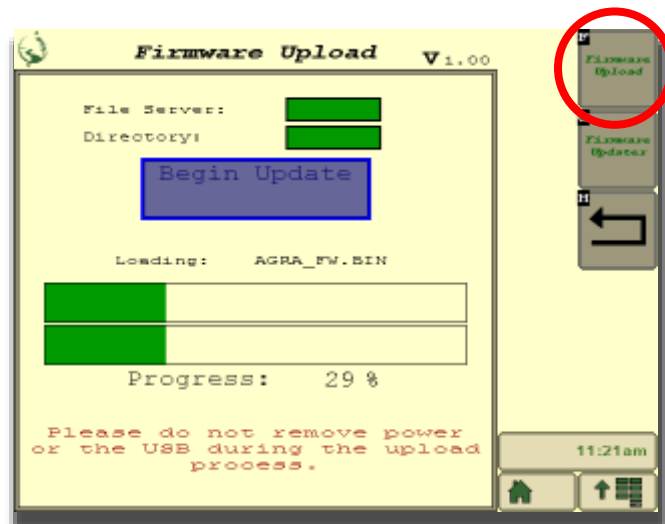
ISO App

Open the Firmware Upload page.



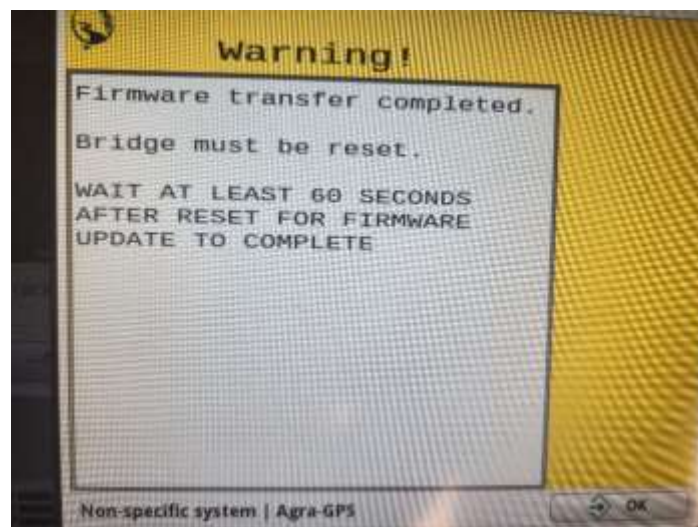
Check that both the 'File Server' and 'Directory' indicators are green. The 'File Server' indicator shows that the John Deere file server is currently running on the CAN bus. The 'Directory' indicator shows that the Agra-GPS specific directory is found on the USB that was inserted.

If both indicators are green, then the BRIDGE is ready to begin updating. Simply press the 'Begin Update' button and wait for the transfer to complete. Do not power off or remove the USB during the update process.



Firmware has been successfully transferred if the following message is shown →

COMPLETION: Once the transfer has completed the BRIDGE requires a reset to complete the update process. This can be done by cycling power (key off, then key on)



AFTER CYCLING POWER

DO NOT TURN OFF POWER FOR 4 MINUTES!

DO NOT START THE MACHINE

WAIT AT LEAST 4 MINUTES AFTER CRG RESET BEFORE STARTING MACHINE

Troubleshooting

The ‘File Server’ indicator shows red: This means that the John Deere file server is not detected on the CAN bus. To make sure the JD file server is enabled navigate to the ‘Multiple Monitor’ section of the JD monitor and verify that the file server control function is enabled.

The ‘Directory’ indicator shows red: This means that the Agra-GPS manufacturer directory (MCMC0841) with firmware is not found. Verify that the file structure on the USB is correct and that the proper firmware is on the USB.

If everything is correct and the directory indicator remains red, try removing and reinserting the USB. If that does not work, try removing all files on the USB except for the \\FileServer\MCMC0841 folder. Ensure the USB device is formatted with FAT or FAT32. You might also try removing the plug from the monitor and plugging it back in to fully reboot the monitor.

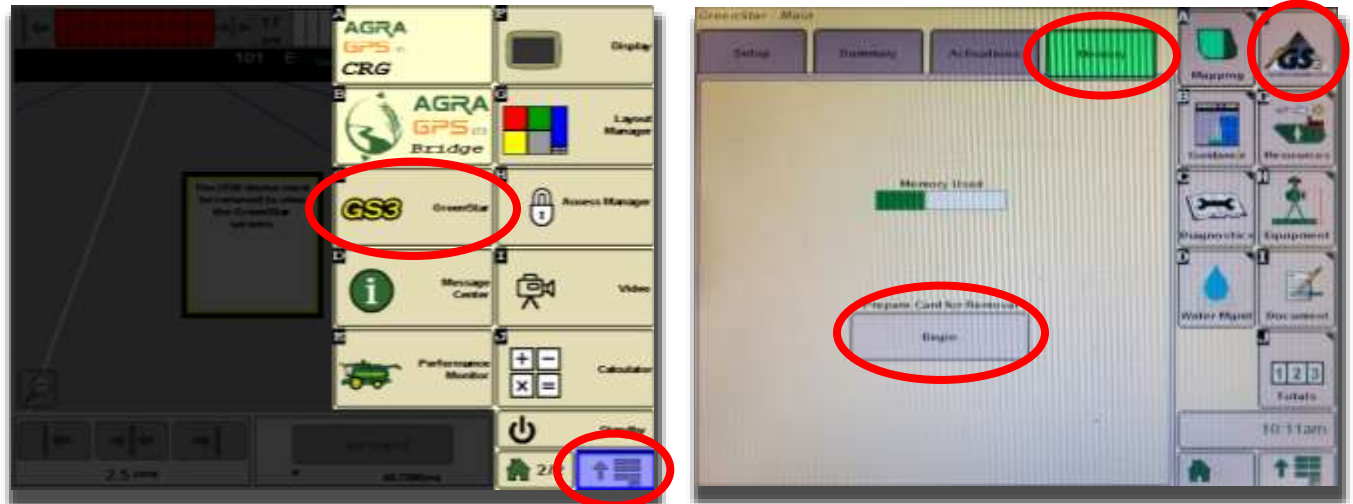
If the firmware update process fails, the BRIDGE will attempt to restore from its internal backup. Once it has restored the previous firmware, the transfer and update can be attempted again.

Known issue: if a .txt file is included in the firmware download folder, it will cause the BRIDGE to lose its settings.

JD 2600 Monitor

The 2600 display differs from the others in that firmware may only be loaded via the Compact Flash (CF) card accessed from the side (the USB port on the back is not functional for this purpose). The CF card requires an external card access device to load firmware files onto it from your personal computer.

To remove the Compact Flash card, first you must safely shut it down. Do this via the following screens:



After pressing “Prepare Card for Removal”, the 2600 must first save data to the CF card. This may take 30 seconds or more to complete. Do not remove the card until the message appears: “Compact Flash Eject OK”.

Known issue: After re-inserting the CF card, the “Begin Update” button has to be pressed twice.

Firmware Update Option B: USB Cable to Bridge

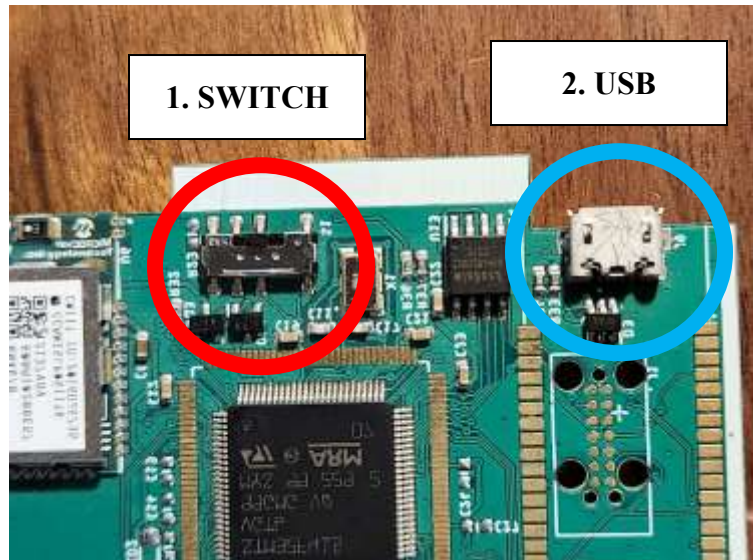
The Bridge may also be updated by connecting the Bridge to a computer using a Micro-USB cable. Open the enclosure to gain access to the USB port of the bridge.

To apply the firmware update, move the switch on the board to the middle position.

Connect the Micro-USB cable to the bridge. When connected to a computer it should appear as a USB drive.

Drag and drop all files from the “FileServer” folder (shown in step 1) onto the drive.

The LED indicator on the Bridge will turn from blue to violet as the files are transferring.



After the files have been transferred, move the switch back into the original position (Towards the USB connection). The LED indicator will cycle through multiple colors and should then start blinking yellow, followed by a period of blinking white. After it has finished blinking white the indicator should appear green for a moment, before returning to normal operation.

Do not remove the USB while the indicator is blinking white. Removing the USB could interfere with the firmware update, preventing the Bridge from operating correctly.