

# CRG Firmware Update Manual



June 2022

Contact information  
Agra-GPS Ltd.  
Box 2585  
Stony Plain, AB  
T7Z 1X9  
CANADA  
+1 (780) 990-4052 Phone  
www.agra-gps.com

## **Release Notice**

This is the June 2022 release of the Agra-GPS CRG Firmware Update Manual.

## **Disclaimer**

While every effort has been made to ensure the accuracy of this document, Agra-GPS Ltd assumes no responsibility for omissions or errors. Nor is any liability assumed for damages resulting from the use of information contained herein. Agra-GPS Ltd shall not be responsible or liable for incidental or consequential damages or a loss of anticipated benefits or profits, work stoppage or loss, or impairment of data arising out of the use, or inability to use, this system or any of its components.

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

## Introduction

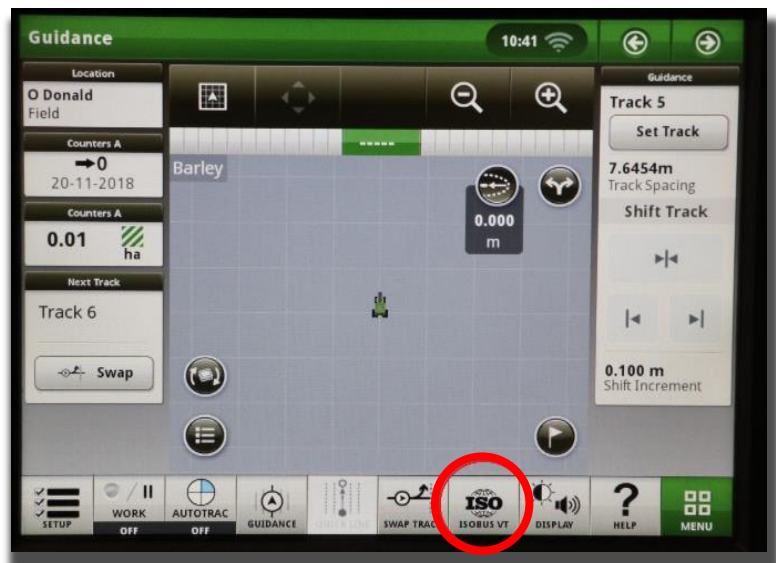
The CRG houses different devices that may require firmware update (not including the optional internal cellular modem). These devices have separate firmware update file.

- (A) CPU (Central Processing Unit)
  - contains CRG Receiver and Bridge Control firmware
- (B) Auxiliary Devices (Inertial Navigation System and Global Positioning System)

In addition, there may be additional files to update the ISObus VT applications (ISO apps). Obtain the firmware update files directly from Agra-GPS.

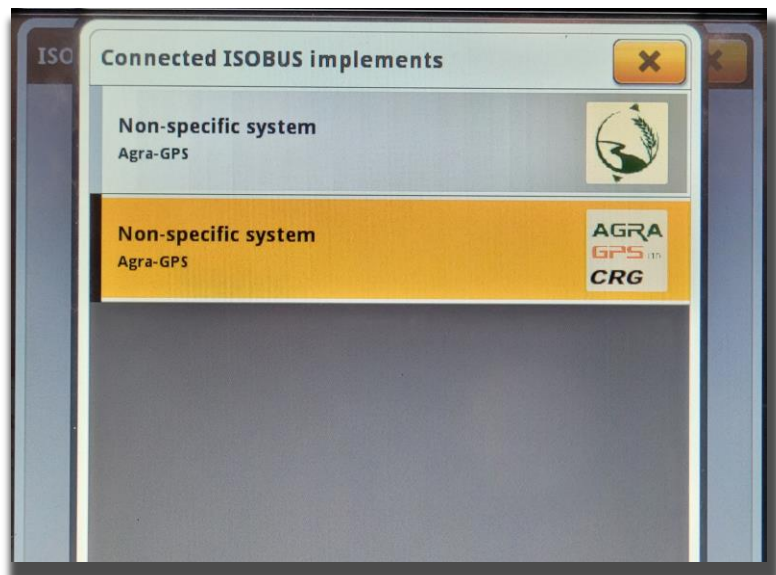
In each case, the ISO app must be opened. The various John Deere GPS monitor models are shown as follows:

### 4640/4240



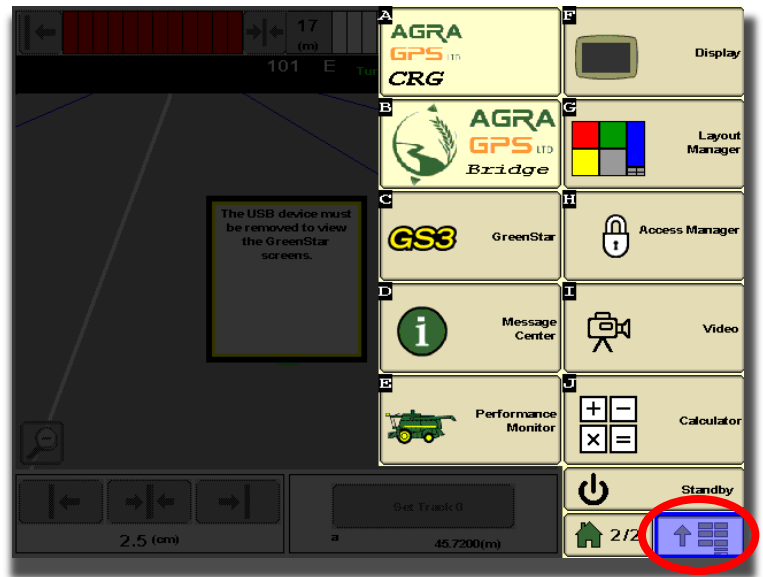
Load the ISO app with the circled button.

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



## 1800, 2600, & 2630

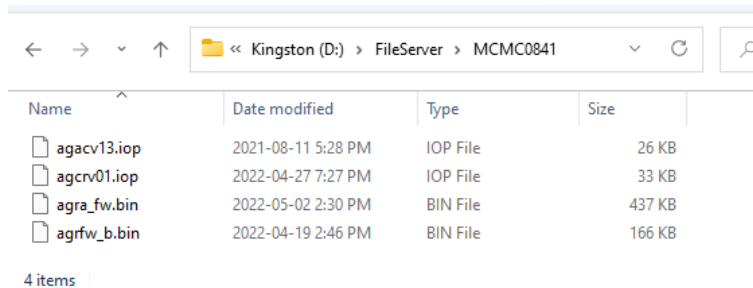
Load the ISO app with the circled button.



### (A) CPU Firmware Update

#### 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.

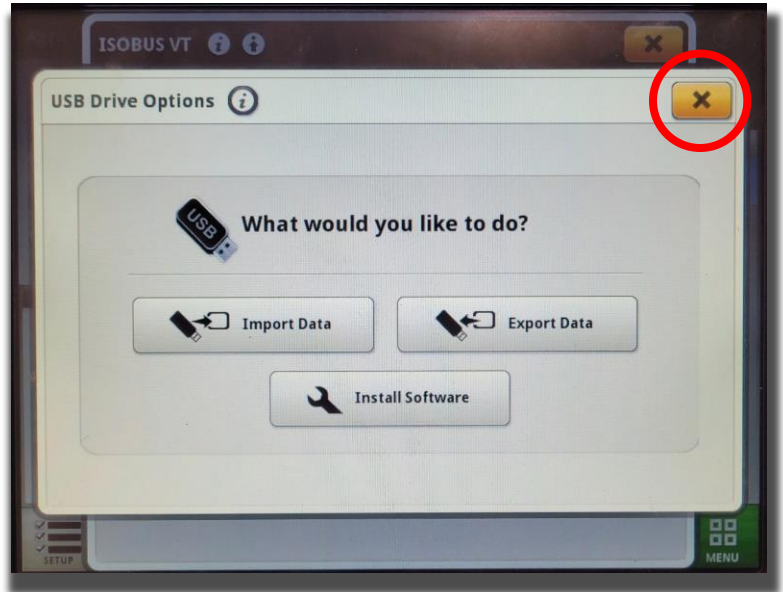


**Note:** Everything in the MCMC0841 folder will be transferred to the CRG. It is important that the MCMC0841 folder only contains the desired firmware and no other files. The \*.bin files update the devices within the CRG, and the \*.iop files are for updating the ISO apps. The primary firmware update file is “agra\_fw.bin”, and the auxiliary device files (which may or may not be supplied) may be found as “agrfw\_b.bin” or “agrfw\_c.bin”.

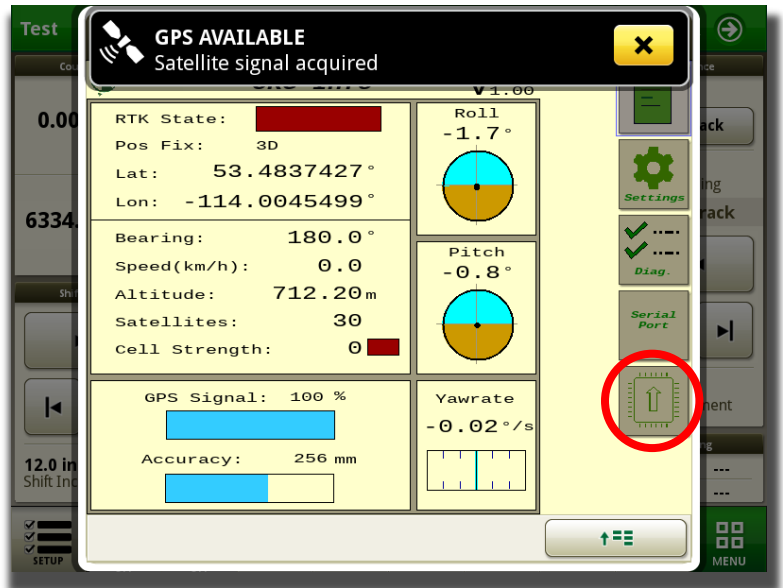
**The filenames must match what is shown for the CRG to accept the firmware properly** (upper/lower case doesn't matter).

## Step 2: Insert USB and Update Firmware

Insert the USB thumb drive into the John Deere monitor, then navigate to the CRG 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. Simply cancel this dialog by pressing the “X” and proceed to open the ISO app for the CRG Receiver.

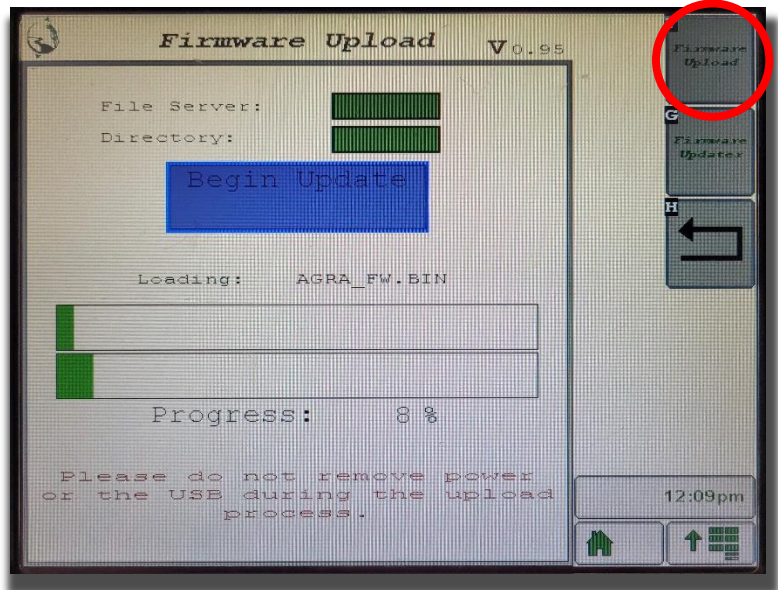


Inside of the ISO app, navigate to the firmware upload page.

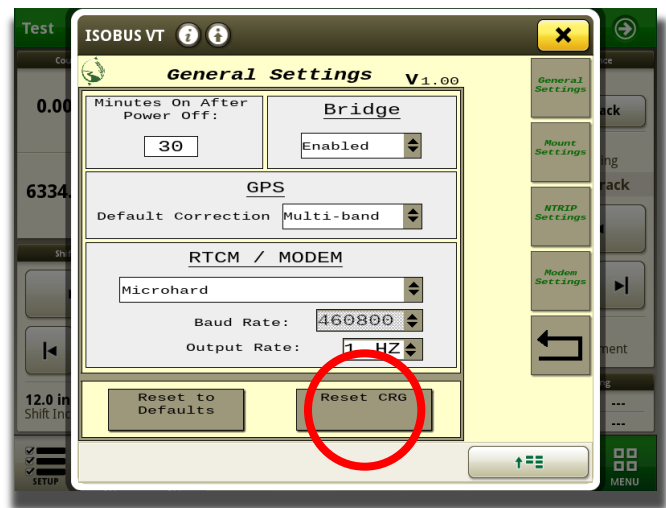
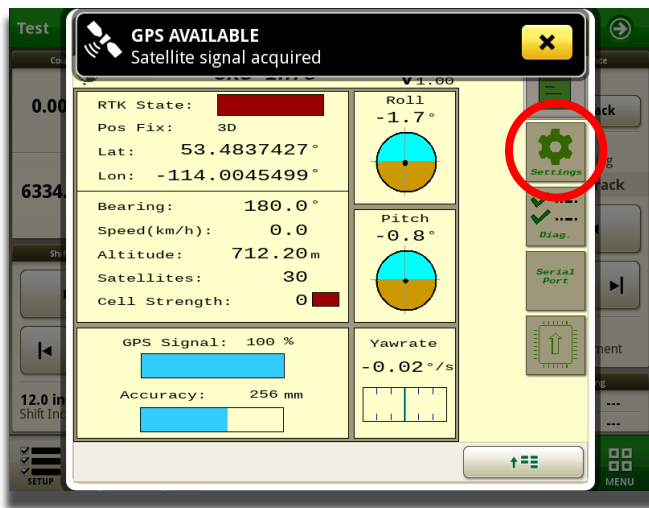


Check that both the 'File Server' and 'Directory' indicators are green. The 'File Server' indicator shows that the John Deere file server is currently running on the CAN bus. The 'Directory' indicator shows that the Agra-GPS specific directory is found on the USB that was inserted.

If both indicators are green, then the CRG 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.



**NOTE:** Once the transfer has completed the CRG requires a reset. Go to the General Settings screen, and press the CRG Reset button, then press "Yes".



**AFTER PRESSING "RESET CRG"**

**DO NOT TURN OFF POWER FOR 4 MINUTES!**

**DO NOT START**

**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 is not showing up, try removing and reinserting the USB. If that does not work, try removing all files on the USB except for the \FileServer\MCMC0841 folder.

### (B) Auxiliary Firmware Update

If auxiliary firmware files “agr\_fw\_b.bin” or “agr\_fw\_c.bin” were loaded in step A, an additional step is required to update the CRG’s auxiliary devices. After completing the initial Firmware Upload step, you can proceed to the “Firmware Updater” page. If there are update file(s) present, the “Firmware” indicator will be green. Press the begin update button to begin the update process, and ensure power remains while the update process takes place.

