

Updating Z-Max firmware

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Step 1 - Download the New Firmware

New firmware is available for free download from ftp.magellangps.com in the /Land Survey/Z-Max/Firmware/ folder. The latest version of firmware has the highest letter designation, for example MD00. Copy the latest version to your PC and then to an SD card using a card reader.

Step 2 - Insert the SD Card into the Receiver

With the receiver powered off, insert the SD card containing the new firmware file into the Z-Max receiver's SD card slot. If the SD card slot in the receiver already contains a card for recording data, remember to replace the data SD card after firmware uploading is complete.

Step 3 - Connect Communication and Power Modules

Firmware upgrades also include both GPS firmware and firmware that operates the communication and power modules. If these modules are part of your system, attach them to the Z-Max receiver prior to uploading the firmware to ensure that all modules are at the same level of firmware. To do so:

- Power off the unit
- Attach the modules to it
- Insert the SD card in the receiver *with it still powered off*
- Proceed to the Step 4 below

If for some reason these modules are unavailable at this time, the new firmware can be loaded to the receiver now and reloaded a second time once the modules become available.

Step 4 - Initiate Firmware Upload

With the receiver powered off, initiate the firmware upgrade process by pushing the UP arrow key and the Power button at the same time. The unit will beep after about 3 seconds, release the key and wait. The receiver will check the SD card to ensure that the firmware file is on the card and that the file is not corrupted. If a good file is found on the SD card, the receiver will start the upgrade. Please go to Step 5.

If the firmware file is not found on the SD card, the front panel display will show the message "No firmware to upgrade" and all 4 indicator LEDs will blink red. Power cycle the receiver to clear this state, and then insert an SD card with valid firmware. If the firmware file is corrupted, the front panel display will show the message "Bad image checksum, will not upgrade" and all 4 indicator LEDs will blink red. Power cycle the receiver to clear this state, and then re-download the firmware from ftp.magellangps.com.

Step 5 - Monitor the Upgrade

The firmware upgrade is executed in five stages, and each stage will display a message on the front panel. As the upgrade proceeds, you should see the following messages:

- Loading Thales firmware stage #1
- Loading Thales firmware stage #2
- Loading Thales firmware stage #3
- Loading Thales firmware stage #4
- Loading Thales firmware stage #5

If the power module is not connected to the Z-Max receiver, Step 1 is skipped and the message “No answer from the BATT Module stage #1 skipped” is displayed. If a communication module is not attached, Step 2 is skipped and the message “No answer from comm module stage #2 skipped” is displayed.

The entire upload process should take around five minutes to complete. If all the active modules been upgraded successfully, the system will automatically reboot itself. If there is a problem with any stage of the upgrade, a warning message will appear on the front panel display in the form “Step X failed” and the 4 LEDs will blink red. Power cycle the system to clear this state and repeat Steps 4 and 5.

Step 6 - Verify the New Firmware Version

Verify that the correct version of firmware was loaded by going to the SYSINFO / VER submenu on the front panel display. If the new version is correct, then the firmware upload is complete. Repeat Steps 2-6 for all other Z-Max receivers in your possession. Once all receivers are upgraded, the firmware file should be deleted from the SD card, or else saved as a backup.