

MobileMapper Pro Receiver FAQ

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I have an older MobileMapper that does not include the post-processed differential correction option. How do I obtain this option?

This option is available for purchase from your MobileMapper dealer or from the Magellan Professional website at https://pro.magellangps.com/en/contact/product_cd.asp (in North, Central and South America only).

How does the option allow MobileMapper data to be post-processed for sub-meter accuracy?

The MobileMapper differential correction feature is initiated by inputting an activation code into the receiver. (You only have to do this once.) This activation allows the receiver to record the L1 GPS code and carrier phase measurements that are required by MobileMapper Office for post-processed differential correction.

Can I open a new job file, log data and download the job to MobileMapper Office without the receiver containing an SD card.

Yes, but to securely collect and save data, an SD card must be inserted into the receiver.

Can I use my own SD cards with MobileMapper Pro?

You can use any brand of card as long as the card is “commercial grade” (able to withstand higher temperatures) and formatted for FAT file system. However, the quality of the cards varies from brand to brand. Magellan Professional uses SanDisk cards because of their consistently high quality. Before using your own SD card, we recommend you format it inside the MobileMapper Pro receiver by pressing the **MENU** button, selecting the **Card Utilities** option and then the **Format Card** option.

Can I use SD cards of any size with MobileMapper Pro?

As with any device that logs data to SD cards, MobileMapper Pro’s logging performance decreases with the amount of memory on the SD card. The “largest” card we recommend is 128 MB. We find that 64 MB cards offer a good mix of high performance with high memory. Smaller size cards are even faster and, because the cards are easily interchangeable, many customers take multiple lower memory cards into the field.

What is the processor speed of a MobileMapper Pro receiver?

The MobileMapper Pro processor runs at various speeds, depending on load. The maximum speed is 32 MHz.



What is the battery life of a MobileMapper Pro receiver?

MobileMapper Pro ships with two AA, Li-ion batteries providing 16 hours of continuous use without backlight or 8 hours with full backlight. You can easily replace these batteries in the field. A cigarette lighter adapter option is available for operating the MobileMapper Pro receiver from a vehicle.

How rugged is the MobileMapper Pro receiver?

It is not just water resistant but waterproof and buoyant. The MobileMapper Pro receiver can also survive a 1.5-meter drop onto concrete, and it will operate from -10 to +60 C.

My country has recently updated its national grid system. How can I update the system parameters in the receiver?

Until Magellan Professional releases software with the new parameters, you can input the updated parameters using the user-defined grid utility in the receiver and office software. But definitely let our Technical Support staff know about any updated coordinate system parameters.

I displayed a job file that has waypoints associated with it. But when I opened a new job in the same location, the old waypoints are displayed together with the new job. How can I make them go away?

The default is to leave the waypoints on the display in case you want to still use them. You can clear the waypoints from the map display by pressing the Menu button, selecting Setup>Map Setup>Display, highlighting the Waypoints option and pressing the Enter button.

How do I display data in US State Plane coordinates in my receiver?

If you want to display your coordinates in US State Plane coordinates, you must use the User Grid feature. Instructions for doing this for all zones in all states are available in a separate FAQ on the Magellan Professional tech support ftp site (<ftp:magellangps.com>). Note that after you create the US State Plane coordinate system as a user grid, you should select NAD83 as the datum to use. However, if you use the default WGS84-lat/lon system in the field, you can always display your job files and background maps in US State Plane using MobileMapper Office's more comprehensive coordinate system display software.

When I record a text description for a feature, is there a limit to the number of characters I can record?

The MobileMapper Pro receiver allows only 20 characters in a text field. Any characters beyond the 20th are truncated upon export.

Is there any difference between uploading files to the receiver via the serial cable or by placing the SD card in a reader attached to my PC?

Using the serial cable is more convenient. Using the SD card in a peripheral reader is faster. If you are transferring very large jobs or maps between the receiver and the PC, we recommend you take advantage of the SD card reader's USB communications standard. USB is much faster than RS232 serial connections. You upload MobileMapper jobs and background maps to the receiver by clicking on **File > Upload to GPS** and then clicking on **Job** or **Background Map**. (See the separate FAQ for more on Background Maps.) You are then given a choice of uploading the file (1) directly to the receiver via the serial cable, (2) to the receiver's SD card when it is placed in an SD card reader or (3) to a location on your PC's hard drive. If you select the SD card reader option, leave the card in the reader for approximately 30 seconds after MobileMapper Office indicates that the transfer is complete. Some card readers require this extra time to save the uploaded file to the card even though the transfer is complete.

How can I safely remove the SD card from the card reader?

You are strongly advised to use the Windows "Eject Hardware" utility in order to safely remove the SD card. Move your cursor over the icons in the bottom right of your screen until you find the one whose pop-up window reads "Unplug or Eject Hardware." Click on this icon and select the SD card reader. You can also do this by clicking on the Start button and then **Settings > Control Panel > Add/Remove Hardware**.

If the receiver is tracking more than one WAAS or EGNOS satellite, does it use corrections from both? If it uses corrections from only one, which signal is used?

If the receiver tracks two WAAS/EGNOS satellite, it will generate ionospheric corrections using data from both satellites. The "fast and slow" corrections are calculated using information from only the satellite with the greatest signal strength.

I work outside the United States and Europe in an area where my receiver picks up WAAS/EGNOS corrections but they hurt rather than help my accuracy. How can I turn off WAAS/EGNOS reception in my receiver?

Turn off the receiver and simultaneously depress the **NAV** and **PWR** buttons for two seconds. This turns the receiver on and displays a small box with two zeroes in it. Use the up arrow to display the number 03 and press **ENTER** to go to a satellite information screen. The receiver will display **ON** in red. Press **ENTER** to switch from **ON** to **OFF** and power down. When you turn the receiver back on, WAAS/EGNOS will be disabled. To turn WAAS/EGNOS back on at a later date, use the same procedure to switch from **OFF** to **ON**.

I bought the post-processing option for my MobileMapper. Do I need to turn off WAAS/EGNOS corrections in my receiver?

When post-processing rover data, MobileMapper Office uses only the GPS measurements recorded by the receiver. These measurements are not affected by any real-time correction method you may be using. The post-processing utility ignores all the positions calculated in the field and so it makes no difference if they were differentially corrected in real-time or not. So leave WAAS/EGNOS corrections on if they improve your accuracy in real-time. Turn them off if they hurt your accuracy in real-time.

If the arrival alarm goes off as I approach a target feature, can I reset the alarm so it will go off when I get even closer?

No. Even if you then reset the alarm circle to a shorter distance, the arrival alarm will not sound again. You must reset the alarm distance, select another target and then reselect the desired target for the shorter arrival alarm radius to take effect.

I have defined a user grid to use as a secondary coordinate system. When I navigate to a control point using the receiver's Position screen, the coordinates displayed in my user grid are off. What should I do?

All GPS receivers calculate positions in WGS84 lat/lon coordinates. The MobileMapper receiver includes software to transform these coordinates to other systems including user-defined grid systems. However, there is a defect in the receiver's secondary coordinate system transformation software. Until this is fixed, please enter user grids as the primary coordinate system.

When I downloaded my job to MobileMapper Office, the *.mmj file was given a *.j.M-file extension. Is this file corrupted?

On rare occasions when using older versions of receiver firmware, when you downloaded a job that had *exactly* eight characters in its name, the file extension is written as some combination of periods and letters instead of the standard *.mmj. This defect has been fixed. You should go to ftp.magellangps.com and look in the /Mobile Mapping/MM Pro/Firmware/ folder to make sure you are using the latest version of receiver firmware. You can sometimes fix a file with a corrupted file extension by using Windows Explore to change the file extension to .mmj. However, these files were often corrupted and the data could not be processed in MobileMapper Office for export to your GIS.

When I downloaded my job to MobileMapper Office, some of the point features are missing. How can I get them back?

MobileMapper receiver firmware needs two or three seconds to open a feature, record at least one epoch and close the file successfully. While this is easy to do when recording line and area features, it is possible to open a point feature and close it in one second or less. When you do this, data is recorded but there is not enough data for MobileMapper Office to create a point feature out of it – even if you can see a point feature on the receiver's screen. So when you open a point feature, please record for two or three

seconds before closing the feature. To improved accuracy of point features, we recommend recording for 30 seconds – or even longer for optimal accuracy.

I recently upgraded my receiver’s firmware and noticed it records some files with new file extensions. What do these new files do?

MobileMapper Pro receiver firmware version 6.55 was the first version to create two types of “helper” files in addition to the main job file (*.MMJ) and the GPS raw measurements file (*.Rxx). These helper files are given the same name as the main job file, but with new file extensions, namely *.Gxx and *.Mxx (where “xx” is a number incremented each time a job is reopened and data is appended to it). The G-files are created each time any data is recorded in a job. If the job is created in the receiver, the first G-file is named *.G00. G-files help MobileMapper Office recover data from a file that might have been corrupted due to power failure in the receiver. The M-files are created each time data is appended to an existing job. The first M-file is named *.M01. M-files help MobileMapper Office recover data from a file that might have been corrupted while appending data to it.

Do I have to handle these files differently using MobileMapper Office?

No. Handling these helper files with MobileMapper Office is transparent to the user. When downloading data from the unit using MobileMapper Transfer, only the main job file (*.MMJ) appears in the left pane of the Transfer utility; when to opening or importing a job in MobileMapper Office, only the *.MMJ file is displayed in the browsing window. However, if the user decides to manipulate job files using Windows Explore (e.g., to move a job from the SD card or from one PC folder to another), the whole data set (i.e., <JOBNAME>.*) is displayed and all of the files must be transferred to the same target directory.

Note: R-files are compressed files containing GPS raw measurement files used in post-processed differential correction. The only way to open an R-file and extract the contents is by moving the R-file from one location to another with MobileMapper Transfer.