Astech Micro-Z - Firmware, Firmware Release Notes, Firmware Upload Programs and how to use them

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Loading Firmware

1. The primary method for loading firmware when directly connected to a PC is with the Universal Program Loader (v3.20), v2.0 or later. Instructions (below) and UPL Documentation will detail how to properly load the latest firmware. **Note to Windows XP and Windows 2000 users**: With UPL version 2.32, it is mandatory to install UPL under 'Administrator' login. If UPL is intalled on WinXP or Win2000 under 'User' login, the installation will fail.

2. If the receiver is at a **remote** location, MicroManager (ver 2.0) should be used. The installation instructions and MM documentation details the procedures for uploading new firmware onto the receiver. The firmware version currently loaded in the receiver will determine what version of Micro Manager should be used. For firmware versions UFBX through UFBZ, MicroManager v1.1.00 should be used. For firmware versions before UFBX (UFB1 thru UFBP), an earlier version of MicroManager should be used. The rule is to load new firmware through the MicroManager version of software which came with the firmware version currently loaded in the receiver. Once upgrading the firmware version to CJ00, you should then upgrade the version of MicroManager on your PC to version 1.1.00. Failure to follow this method WILL result in no longer being able to communicate with the receiver file system or upload new firmware versions.

Firmware for the Micro-Z

- CN00.zip CN00 is the firmware shipping with all MicroZ CGRS receivers effective 1 January 2003 and all iCGRS receivers effective 11 December 2002. This firmware version requires a different Boot Card than the one originally installed in the MicroZ CGRS and, therefore, this firmware MUST NOT be loaded into a receiver with boot version 0A16. It is only compatible with boot version 1A01 or later. No other version of firmware can be loaded onto a receiver with the new boot card, only CN00. To determine which boot version is installed on a MicroZ CGRS, send the command $PASHQ,RID to the receiver. If the response looks like the one following, you will not be able to use this firmware without upgrading your Boot Card:
  $PASHR,RID,UZ,30,CJ00,---XM--3-------,0A16*5D
  See the CN00 relese notes (doc) for a complete description of the changes.

- CJ50.zip Firmware CJ50 fixes a bug of file system corruption on the MicroZ. A file system corruption problem was seen when a MicroZ (running CJ10) was interrupted during a download using ZMODEM. See the CJ50 Release notes (doc) for a complete description of the changes.

- ZC00.ZIP ZC00 is a no cost firmware update for all Z-Family and Z Xtreme receivers. See the ZC00 Release notes for a complete description of changes.

- CJ10.zip CJ10 was released as a beta version which fixed bugs found in CJ00. Some of the fixes include: resolved possible issue with the output of NMEA, raw data and BINEX data outputs from becoming contaminated, fixed the problem of not saving BINEX settings with the $PASHS,SAV command, resolved the issue of Z-modem downloading turning off real-time output on any port when activated. Now Z-modem downloading will only turn off real time output on the port you are downloading from when using the Z-modem protocol. See the CJ10 Release notes for a complete description of changes.

- CJ00.ZIP CJ00 was developed to be compatible with the uZ-CGRS, Z-Surveyor and Z-FX receiver hardware, but Z-Surveyor will not support the external frequency feature, and the PCMCIA data card can no longer be removed and directly read by an external PCMCIA card reader. Other new features include: ZMODEM protocol added (XMODEM is still available), file ring memory was added, session programming modified to handle 26 sessions instead of 10, new UNAVCO BINEX raw data output was added, and many more additions. Please see the CJ00 Release notes for a complete summary of changes.

- CD00.ZIP

Ashtech programs are designed to operate with industry standard personal computers. Use of computers, which are not 100% compatible with these standards, may cause abnormal program operation. For best results, Ashtech recommends that one use the highest quality serial ports available.

Loading firmware with Universal Program Loader Quick Reference

1. Place firmware in directory on hard drive.

2. Connect and power the receiver to the PC.

3. Start UPL, and then specify a full name (or names) for firmware files to load in the "Specify Locations of the file(s) to load" field or use the "Browse" button to locate the files.

4. Click on OPEN.

5. Select COM port and speed and click on NEXT.

6. Press the Load button.

7. If loading is successful, a congratulations message will pop up, along with a handshaking message.

8. If loading is unsuccessful, read the error messages sent to the screen and decipher problem.

Wait until firmware loading is complete before disconnecting receiver, failure to do so will result in an

un-communicative receiver.

Loading firmware with MicroManager Quick Reference

1. Place firmware in directory on hard drive

2. Connect and power the receiver to the PC. Start MicroManager and connect to receiver. For more information on this refer to the MicroManager manual, section "Connecting to the GPS Receiver".

3. Click on RECEIVER (Top left of MicroManager screen).

4. Click on UPLOAD FIRMWARE (From pull down menu of RECEIVER).

5. Click on BROWSE to select MZCODE.BIN file. Note that CRC32.DAT file must be in same directory as MZCODE.BIN but you should not select it.

6. Click on START UPLOAD (This loads the firmware file on the external memory card within the receiver).

7. After the firmware has been transferred to the external memory card in the receiver, MicroManager will ask you "Do you wish to ask the receiver to replace its firmware with the uploaded file". Click YES.

8. The receiver will check the uploaded file and then acknowledge it will load the new firmware. Click OK.

9. Depending on whether you are directly connected or remotely connected, MicroManager may ask if you would like to terminate. Regardless, you should terminate MicroManager at this point.

10. Wait 5 minutes and then reconnect to the receiver. Issue the command $PASHS,INI,5,5,5,5,3,0

NOTE: *In the last step, you should change the serial port baud rate in the INI command to match the port speed that you are connected to the receiver with. Failure to do this will cause the loss of connection between MicroManager and the receiver. You will then need to click on POLL RECEIVER BAUD from the drop down menu by clicking on FILE in the top left corner if you are directly connected to the receiver or by redialing the modem if you are remotely connected.*

Questions or problems with receiver firmware uploading may be directed to Thales Technical Suport at:
thalesnavigation.com

Online URL:
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