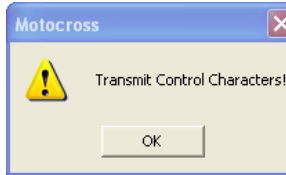


# Standard Procedure for Updating LISST-StreamSide Firmware

The following procedure is used to update the on-board firmware for the LISST-StreamSide. It includes instructions for replacing the DIAS\_C.ASC file which is required for firmware versions 2.5 and above.

- 1) Connect LISST-StreamSide to computer and open the MotoCross.EXE program. The MotoCross.EXE program is a terminal window program that talks directly to the datalogger of the LISST-StreamSide. To start the program double click on it from within Windows File manager. NOTE: For most reliable operations it is suggested to use a computer with a built-in serial port. Some USB-to-Serial adapters have had problems loading the firmware.
- 2) With the MotoCross program open the instrument should respond by printing text to the screen. Depending upon which version of the firmware that is currently loaded you will either see the text “*recv\_char =*” or “*Instrument is not in External Interface Mode*” when pressing Enter. In order to stop the running firmware type **Ctrl-C** (hold down the Ctrl key and press the C key). The instrument should then respond with a L100x> prompt each time the Return key is pressed. If the instrument does not respond to the Ctrl-C command try pressing the Shift and Ctrl keys until the dialog box that appears reads “Transmit Control Characters”. At the L100X> prompt type **XX** and press enter. A C:/ prompt will now appear. This is the low level prompt of the datalogger.
- 3) The later versions of the LISST-StreamSide firmware use a different version of the DIAS\_C.ASC file. Before the new firmware will work properly this file must be upgraded. It is easiest to do this before updating the firmware but it can be done afterwards if needed. At the C:/ prompt DOS style commands can be used to change directories and to delete files. We will need to change to the System directory and then delete the existing DIAS\_C.ASC file. We will then use MotoCross to upload the new file. Here is the procedure:
  - a) At the C:\ prompt type **CD System** and press enter. The prompt should now be C:\SYSTEM.
  - b) Type DIR and press enter to list the files saved in this directory. DIAS\_C.ASC should be listed. Check the date of the current file with the date of the provided file. If the date and size match, there is no need to reload the file and you can skip to Step 3e below.
  - c) Type DEL DIAS\_C.ASC and then issue another DIR command to make sure it has been deleted.
  - d) Then from the Transfer menu of MotoCross select Load. Set the Files of Type option to All Files. Navigate to the folder containing the provided DIAS\_C.ASC file and then select the new DIAS\_C.ASC file. Press Open to load the file onto the StreamSide.
  - e) Use DIR to list the files to confirm that the file loaded properly and then type **CD ..** and press enter to return to the C:\ directory. Pressing enter should now give a C:\ prompt.
- 4) After loading the new DIAS\_C.ASC file, select Load from the Transfer menu of MotoCross. Select the firmware file that was provided. The file should have an APP extension. The extension on the file may have been changed to XPP to allow it to pass through the email filters. If needed change the extension back to APP. Press Open to load the firmware onto the instrument. A transfer status window will appear as the program is loaded. When the loading is complete a C:\> G will appear. Press Enter to start the new firmware. The standard power up screen should appear and then the Main Menu should appear.
- 5) The new firmware is now loaded. The image to the right shows the commands and the typical responses.