

Troubleshooting the Macro Series Logger

When an instrument is initially connected to the computer and the Wizard program is started, if no response is received, an error message will be displayed: *The instrument is not responding, check connection.*

Although not all of these problems can be solved in the field, there are some short procedures which can be used to quickly resolve the occasional problems of a Macro Series instrument.

1. a) The first thing to do is to check the physical cable connections. Disconnect and reconnect all cables to see if there was a bad connection.
- b) Try using a different computer and/or a different instrument to see if the problem is a bad serial port.
- c) Make sure that the batteries are supplying sufficient power to the instrument (at least 3 volts per stack of 'D' cells) and that the battery stacks are all making electrical contact.
- d) There could be a problem with the wiring in the external bulkhead connector. To check this, first disconnect the Bulkhead Adapter from the Interface Cable. Next, remove the instrument from its case, unscrew and remove the white plastic cover on the logger, & plug the Interface Cable directly into the COM1 phone jack (bottom row, second from the right). Retry Connecting to the instrument.

If these initial steps produce no results, you should use the built in communication program in the Wizard software to continue troubleshooting.

2. From the main menu of Wizard, select Utility and then Connect. Along the bottom of the Connect screen, the communication parameters are displayed. In most cases, the settings should be: Com1, 19200 Baud, No Parity, 8 bits, 1 stop bit. To change any of these communication parameters, press the [F2] key, and the Communication menu will be displayed. Select and change any settings that may be incorrect. Use the up/down arrow keys to select changes and the [Enter] key to make them. Press the [Esc] key when finished to get back to the Connect screen.
3. After parameter verification, you should have one of three outcomes:
 - a) *10678 CL8>* prompt is the normal response. (#s correspond with the serial number)
 - b) *10000 CL8>* prompt means that the parameter files have been lost, but, if data is in the logger, it may still be recoverable.
 - c) a blinking cursor means that the instrument has become deprogrammed and any data that may have been taken may or may not be recoverable.
4. If there is a *10678 CL8>* prompt and the instrument is still not responding, (which is unlikely), the problem is probably with the serial port of the PC. Try another computer.
5. If there is a *10000 CL8>* prompt, and you have data which needs to be recovered, first type *!C*

mm/dd/yyyy hh:mm:ss (the current month/day/year[space]hour:minute:second) and press [Enter]. Then type *!G*. First, you will see "*First make sure the logger clock is set,*" which you just did. Then when the screen asks if you want to restore parameters, press [Y]. You should see the *10678 CL8>* prompt. If not, press [Alt-W] to wake up the instrument and the prompt should appear. [Esc]ape from the Connect screen and Read the data as you normally would.

6. If there is a *10000 CL8>* prompt and there is no data to recover, the instrument's parameter files have been lost, and the instrument needs to be Recalibrated. Follow above Step 5 directions. If there is still no response, see following instructions: "Recalibrating the Macro Series Logger."
7. If there is merely a blinking cursor,
 - a) First, press [F2], arrow down to the Baud settings, press [Enter], arrow down to 9600 and press [Enter] again to change the baud rate. Press [Esc] to return to the Connect screen.
 - b) If a *TOM8>* prompt appears, press [G], then [Enter]. The screen will say that it's "*jumping to address #####*" and then a line of "gibberish" will appear. Change the Baud rate back to 19200. A *10000 CL8>* prompt should then appear. Follow above Step 5 directions, or following instructions "Recalibrating the Macro Series Logger."
 - c) If the *TOM8>* prompt does not appear, change the baud rate back to 19200, and go to the following step 8.
8. If there is still no response from the logger, it can easily be reprogrammed according to the following directions. Note that if the instrument has a compact flash card, data may still be recoverable. If there is no additional flash memory in the instrument, the data is lost.
 - a) Disconnect the main battery supply by disconnecting either the modular phone plug on the battery board or the Power phone plug on the bottom right hand corner of the logger.
 - b) Remove one of the small 1/3N batteries from the logger board. Be very careful while doing this as the battery holders are very delicately connected to the logger board.
 - c) Wait approximately ten seconds, then reconnect the main batteries by reconnecting the modular plug. Next, reinsert the 1/3N battery onto the logger board.
 - d) Go to the Connect screen.
 - If there is no compact flash in the instrument, the *10000 CL8>* prompt should appear. Follow above Step 5 directions or recalibrate the instrument with following instructions: "Recalibrating the Macro Series Logger."
 - If the instrument has a compact flash, it might take a minute before the *10000 CL8>* prompt appears. Follow above step 5 to retrieve data from the compact flash.
9. If none of the above steps restores communications, the remaining options would be:
 - a) Coastal could possibly send an exchange set of electronics.
 - b) To be absolutely sure the problem is solved, consider sending the entire system back for checkout and service.

Recalibrating the Macro Series Logger

From the directory in which you will start the WIZARD program, (example, C:\), enter the following to start WIZARD in the Programming & Calibration mode:

(ex. C:\) Wizard -PROgram [Enter]

The title page will appear showing information such as WIZARD version and the start time of this session, but most importantly it indicates that the Wizard Programming and Calibration Utility is in use.

[Hit any key to continue]

A four item Main menu will appear. Arrow down until the Calibrate option is highlighted. Press [Enter] to select this option.

Select from files matching: prm.prm*

press [Enter]

A list of parameter files will be displayed. Use the up/down arrow keys to highlight the correct serial number. Press [enter] to checkmark the file and hold the [ctrl] and [enter] down together to send the parameter file to the instrument.

WARNING! This discards stored data. Calibrate instrument? N

Press [Y] to continue

Note! M8 deployment will start in 1 month. To alter, reinit after cal.

This message means the instrument will start to take data one month after calibration is complete. (You should, after quitting the Programming & Calibration mode of WIZARD, run WIZARD and Initialize the instrument with real deployment settings.)

[Hit any key to continue]

The instrument's attention will be requested, and the parameter file will be sent to the instrument. It will then digest the parameters. The program will then request the instrument's attention and load the settings from the instrument.

The four item Main Menu will appear. Select Quit and quit the Programming & Calibration utility of Wizard.

Start WIZARD as you normally would, (type: *Wizard* [Enter]) and Initialize the instrument.

