

Rapidlogger Systems

Troubleshooting LCD Display Problem on a Rapidlogger Unit

This tech note describes the troubleshooting process to correct issues with the LCD display on the Rapidlogger unit.

In order to do the Basic troubleshooting, there is no need to open the Rapidlogger Unit. However the Advanced troubleshooting steps require the unit to be opened and this should only be done by an electronic technician.

Basic troubleshooting

- a) Is the LCD visibly cracked or damaged

No: Proceed to next step

Yes: LCD is damaged. Proceed to Advanced LCD troubleshooting step.

- b) When you turn the powers on, Does the LCD show a light turn on behind the glass?

No: Then the unit fuse is blown and needs to be replaced

Yes: Then the unit fuse is intact and you should proceed to the next step

- c) When the LCD powers up, Does any text or image appear on the screen even for a second?

No: Proceed to next step

Yes: LCD is functioning. Proceed to adjust contrast by pressing the "HOME" key. Contrast can be increased or decreased by pressing the UP or DOWN arrow.

- d) Look at the LCD in room with no lights on and windows closed. When the LCD powers up, Does any text or image appear on the screen even for a second?

No: Proceed to next step

Yes: LCD is functioning. Proceed to adjust contrast by pressing the "HOME" key. Contrast can be increased or decreased by pressing the UP or DOWN arrow.

- e) Look at the LCD from a very low angle (from the side and not from the front). When the LCD powers up, Does any text or image appear on the screen even for a second?

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No: Proceed to next step

Yes: LCD is functioning. Proceed to adjust contrast by pressing the "HOME" key. Contrast can be increased or decreased by pressing the UP or DOWN arrow.

Advanced troubleshooting

Advanced troubleshooting steps require the unit to be opened and this should only be done by an electronic technician.



Figure 1: Open Unit

Open the lid to the unit. You should see something like Figure 1.



Figure 2: LCD Cables

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Now locate the two LCD cables. These are shown in figure 2 circled in red.

f) Does only one half of the LCD change color or show text?

No: Proceed to next step

Yes: Right side cable is not seated. Reseat it.

Power off the unit. Remove it from the installation and bring it inside to an electronics workbench / lab area. Lay the unit flat on the bench. Reseat the cable on the right. In order to do this you will have to remove the CPU module and then unscrew the LCD bracket from the main unit mounting plate. Place the bracket gently an inch above its original location. With your fingers feel the locking tabs on the LCD connector on the right. LCD connector is marked J18 on Rapidlogger old boards and J15 on the next generation boards. Pull the locking tab up with both fingers. It will only move about 1/16 of an inch. Pull the cable out gently and reinsert it in the connector. Hold the cable in place and then press the locking tab down in to the connector. Gently pull on the cable to ensure that it is seated and locked in.

g) Does the entire LCD remain blank

No: Proceed to next step

Yes: Left side cable may not be seated. Reseat it.

LCD connector is marked J14 on Rapidlogger old boards and J7 on the next generation boards. Pull the locking tab up with both fingers. It will only move about 1/16 of an inch. Pull the cable out gently and reinsert it in the connector. Hold the cable in place and then press the locking tab down in to the connector. Gently pull on the cable to ensure that it is seated and locked in.

h) LCD has failed. Replace LCD module.