Instructions for Changing the EPROM
LAI-2000 Plant Canopy Analyzer

1. Power ON to verify that the unit works and the batteries are OK. FCT 09 to power OFF.

2. Disconnect all connectors from the console, and remove the console from its carrying pouch. Turn it over, and remove the four screws from the back of the case.

3. Lift off the back of the case to expose the analog board. Unplug the following connectors:
   a) Battery, on the upper left of the board.
   b) X,Y ribbon cables, at the bottom of the board. They slide off toward the bottom.
   c) The connector at the bottom right that has two heavy black wires that come from the BNC connectors on the front of the case.
   d) The RS-232C ribbon cable connector at the top of the board.

4. Remove the four phillips head screws in the corners of the analog board. The analog board is connected to the digital board below it by a connector in the middle, about 1/3 of the way down. To remove the analog board, hook a finger over either side of the board at the top, and pull upward, rocking the board gently from side to side to work it out of the connector. Lay the analog board aside once it is removed.

5. The EPROM is a 28-pin chip on the left side of the digital board, and there is probably a label on it. (There is a label on the very left edge of the board that says "27C256 U5" for this location). To remove the EPROM, use a chip puller, or pry the chip up gently and *evenly* using a small screwdriver: The right edge can be pried easily, but the left end is more difficult. A right-angle screwdriver is handy; otherwise use a tiny screwdriver and pry the left end at either side between the legs of the chip.

6. Place the new EPROM on the socket. Make sure the notched end is at the right, toward the middle of the board. Also make sure that each leg is going to go into the socket. *Don't let a leg get bent underneath.* When everything looks OK, press the chip into the socket.

7. Place the analog board back in the box. The most difficult step is reconnecting the two boards: Put the top end of the board in first, short of the screw holes, and slide the board up until the pins bump against the side of the connector. The two screw holes in the top corners will be just short of lining up. Lift the board a bit, and slide it forward so that the pins get up over the side of the connector, and then push it down to seat them. The screw holes should now line up.

8. Attach the battery connector, then press the reset button on the right side of the analog board. The button is mounted sideways, so you'll need a small screwdriver to press it.

9. Turn the case shell over to view the display. There is a 50/50 chance that pressing the reset button will have powered the unit on, but if it is off, press the ON key. The messages "Resetting Bank 1" thru "Resetting Bank 4" will be displayed, followed by the normal power-up display of the software revision number.

10. If nothing happens for step 9, check that the analog board is correctly seated on its connector; if not, take it off and reseat it.

11. If step 9 was satisfactory, do FCT 09 to power OFF, and turn the case over.

12. Put the 4 screws back into the corners of the board, and reconnect all the connectors to the analog board.

13. Put the bottom back on, and tighten the 4 screws.

14. Connect a sensor head, power ON, and verify that all 5 channels are functioning.

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