

AVTECH **ELECTROSYSTEMS** LTD.

NANOSECOND WAVEFORM ELECTRONICS **SINCE 1975**

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FRONT PANEL REPLACEMENT INSTRUCTIONS

FOR AV-1030-B-AK1, SN 11710

Treat the instrument gently at all times. Take care not to scratch the engraved front-panel faceplate, since it is made of soft plastic. If there is any confusion, email mic@avtechpulse.com for assistance before continuing.

- 1. Turn off the instrument and disconnect all power cords and cables.
- 2. Locate the four screws that secure the top cover to the instrument. Remove these screws, and slide the cover towards the rear and off.



3. Locate the three screws that secure the top crossbar above the front panel. Remove these screws, and lift off the crossbar.



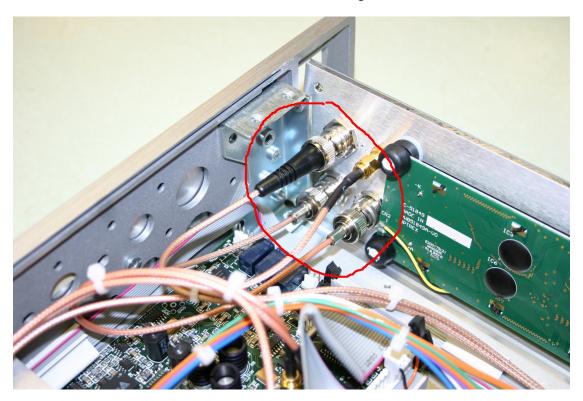
4. Flip the instrument over, upside down. Three screws secure the bottom crossbar before the front panel. Remove the middle screw only.



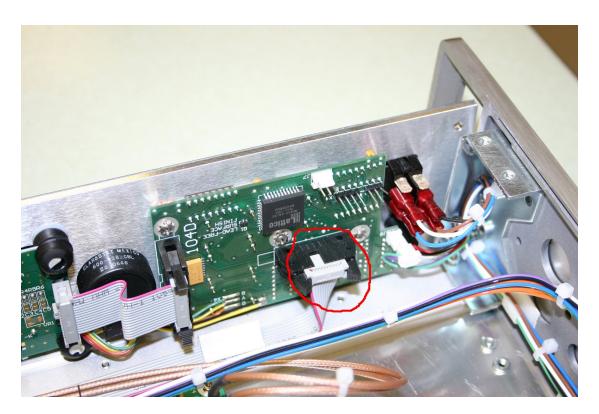
5. Flip the instrument over, right side up. There is a screw in each of the four corners of the front panel. Remove these. The front panel is now unsupported. Gently pull it forwards to permit easier access to the back side of the front panel.



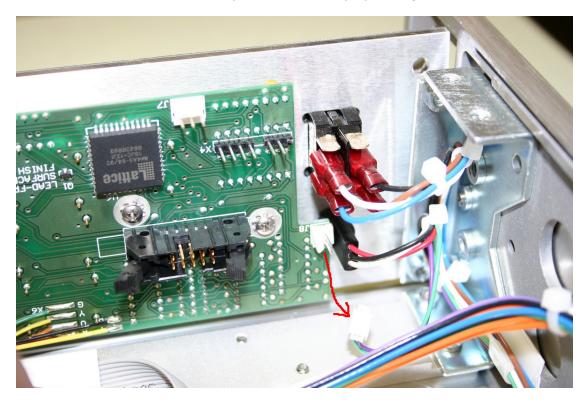
6. Three BNC cables and one SMA cable must be disconnected from the bulkhead connectors behind the "OUT" area of the front panel. Keep track of where each of the three BNC connectors is supposed to go. (The upper-most BNC cable has a black strain relief. The lower two do not.) The BNC cables can be disconnected from the front-panel bulkhead connectors by hand. The SMA cable needs to be disconnected using a small wrench.



7. A ten-wire ribbon cable goes to the back side of the keypad assembly. Disconnect this cable from the keypad board by pushing the ejector latches on the connector.



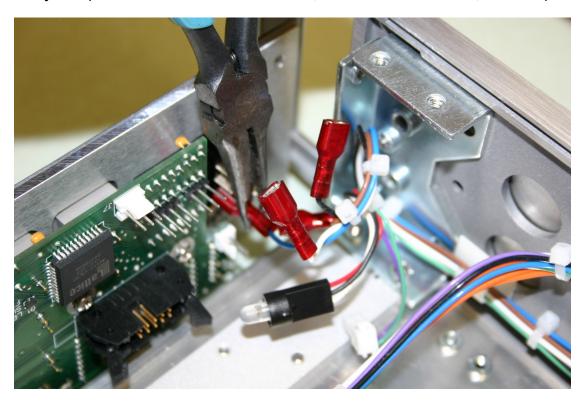
8. A two-wire (green and purple) cable mates to the back side of the keypad assembly. Disconnect this cable from the keypad board simply by pulling on it.



9. A three-wire (red, wire, and black) cable mates to the back side of the "Overload" LED. Pull the black header away from the front panel. The LED should remain in the black header at the end of the cable.



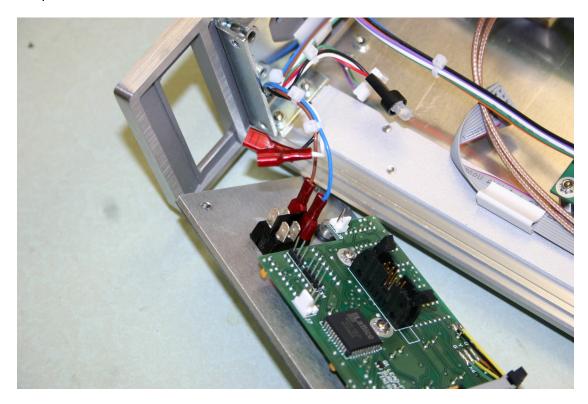
10. Lastly, use pliers to disconnect the four wires (black, white, blue, brown) from the power switch.



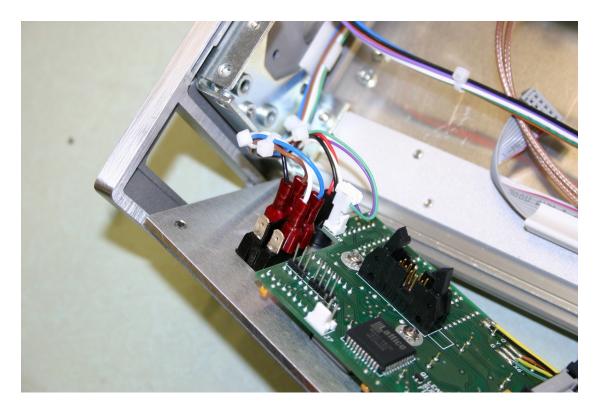
11. The front panel should now be totally disconnected from the rest of the instrument. Pull it away from the instrument, and get the replacement panel. Slide the replacement panel into position.



- 12. Install the replacement panel by reversing the order of the previous steps:
- 13. Use the pliers to re-connect the four power switch wires. Start with the blue and brown wires, in the positions shown below:

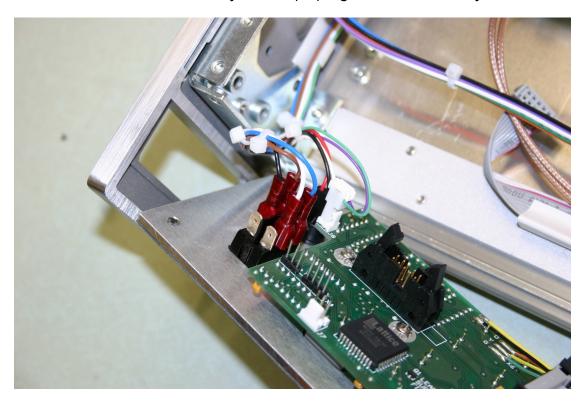


Then install the white and black wires, as shown below:

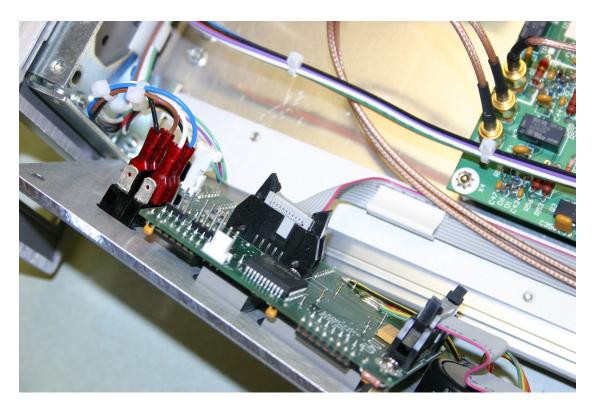


Make sure the four wires are in the correct positions. They carry the AC power to the instrument, so they must be correct!

14. Re-install the LED cable assembly and the purple/green cable assembly:



15. Re-install the ten-wire keypad cable assembly:



16. Re-install the SMA and BNC cables. Make sure the BNC cables go to the same connectors that they did before. (The upper-most BNC cable has a black strain relief. The lower two do not.)



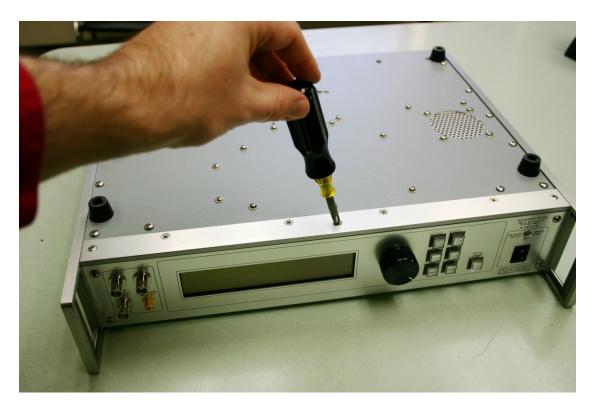
17. Gently push the panel back into its final position. Make sure that no internal cables are jammed between the panel and the other portions of the instrument chassis.



18. Re-install the four corner screws. Do not tighten completely.



19. Flip the instrument over, and re-install the lower crossbar screw. Do not tighten completely.



20. Flip the instrument over, and re-install the upper crossbar and its three screws. Tighten all of the re-installed screws, including those from the previous two steps.



21. Re-install the top cover, by sliding it on from the rear, and installing the four cover screws.



22. Test the instrument. Check that the BNC outputs are in the proper locations.

For additional assistance, email: mjc@avtechpulse.com

Manual Reference: /fileserver1/officefiles/instructword/av-1030/OBS/av-1030-b-ak1, sn11710 repair instructions.odt. Last modified October 5, 2007.
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