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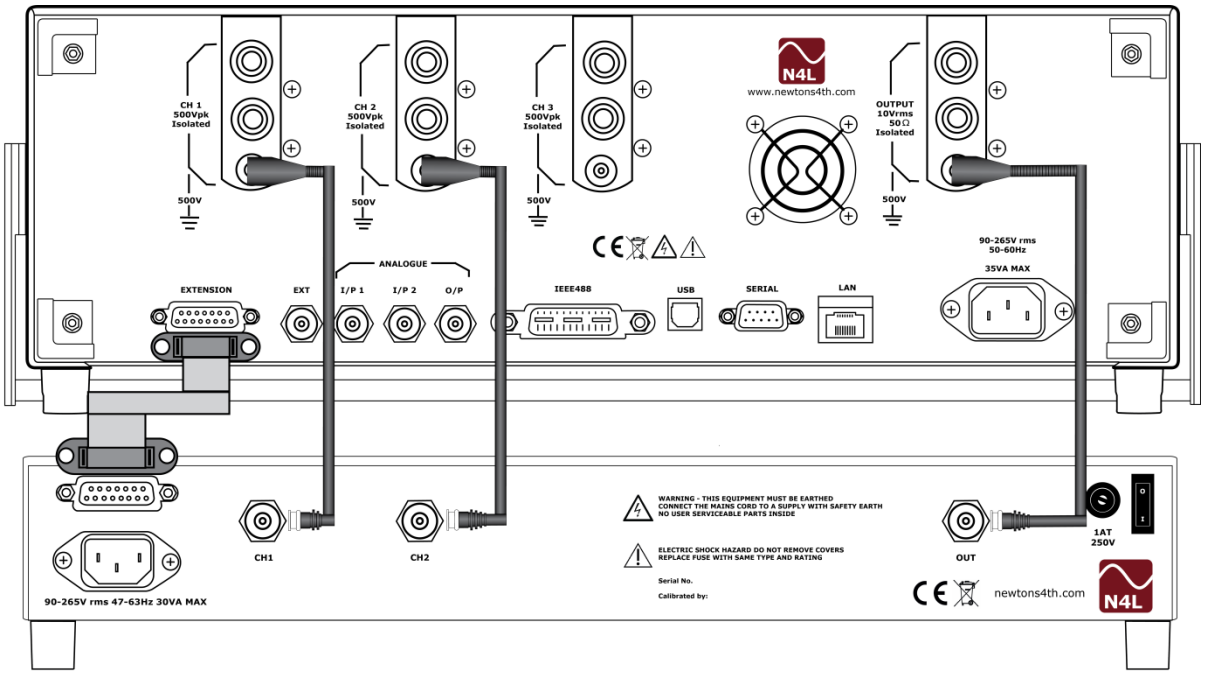
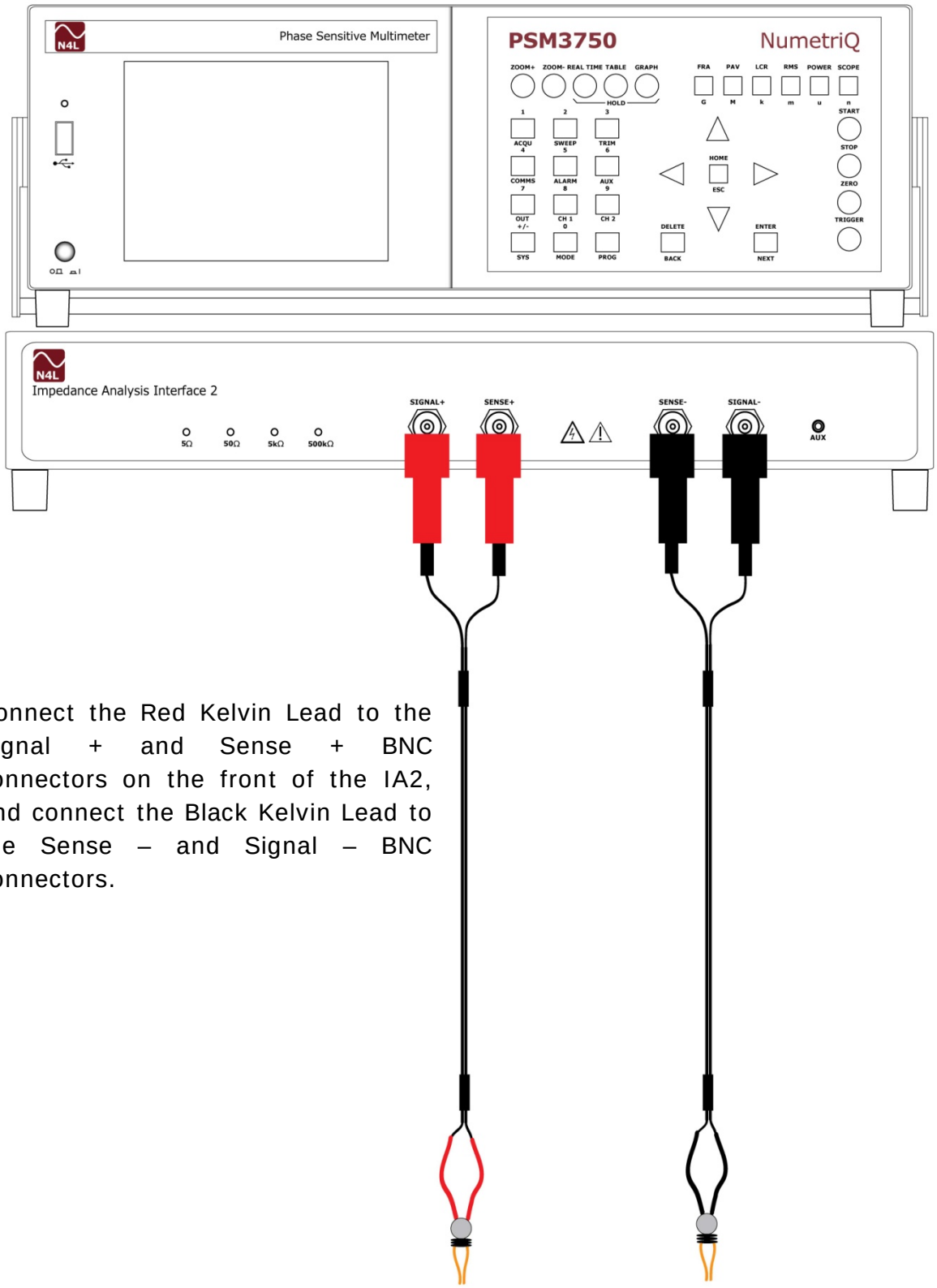
PSM3750 + IAI2

The PSM3750 has the ability to be connected to an IAI2 – Impedance Analyzer Interface for LCR measurements. The IAI2 provides a 4 wire Kelvin connection to the component under test and is fitted with 4 shunts selectable from the “AUX” menu on the PSM3750 and buffers the signals to minimise the effects of stray capacitance and inductance

Site the IAI2 under the PSM3750; connect the 3 short BNC leads from the BNC connectors on the rear of the IAI2 (OUT, CH1, and CH2) to the corresponding isolated BNC connectors on the PSM3750 above it. Connect the ribbon cable from the extension port on the rear of the IAI2 to the extension port on the rear of the PSM3750 as shown in the diagram below.



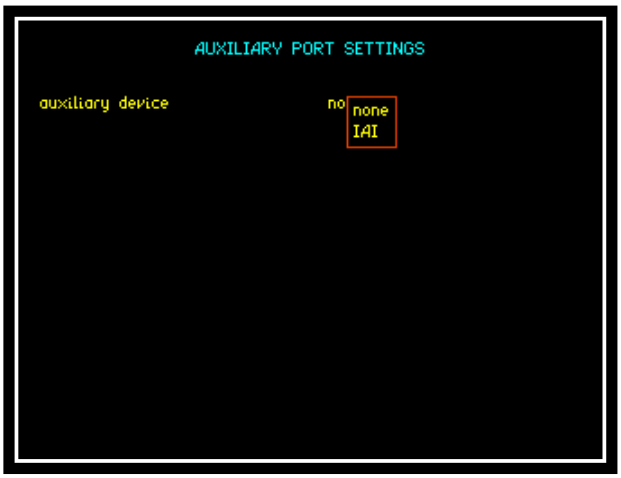
Front View



Connect the Red Kelvin Lead to the Signal + and Sense + BNC connectors on the front of the IA2, and connect the Black Kelvin Lead to the Sense – and Signal – BNC connectors.

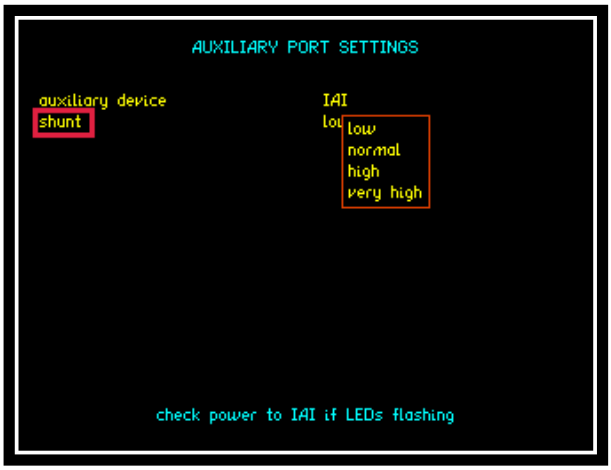
Switch on the IAI2 and the PSM3750. All 4 led's on the front of the IAI2 should illuminate. The display on the front of the PSM3750 should illuminate with the model name and the firmware version for a few seconds whilst it performs some initial tests. It will then default into the RMS Voltmeter display unless some other program has been stored within PROG 1

To connect the IAI2 and PSM3750 instruments together

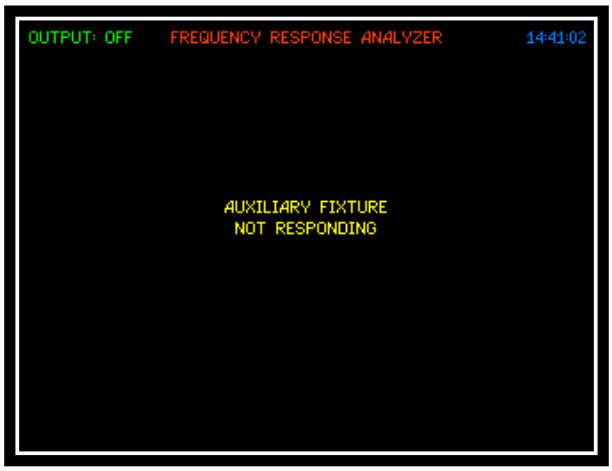


Press "AUX" key on the PSM3750. Auxiliary device will appear as shown in Fig 24; from the dropdown menu select IAI and press "ENTER" to confirm

Once the IAI has been confirmed a second parameter will appear asking for the user to select an appropriate shunt from the drop down list use the ▼ key until the red box surround "Normal" and press "ENTER" Only the normal LED should now be illuminated on the front of the IAI2



If the PSM3750 displays the following message:



Then check that the extension port cable has not been damaged and has been correctly fitted between the IAI2 and the PSM3750

If the message does not appear but all 4 led's remain illuminated and flashing then check that the IAI2 is correctly connected to the supply, switched on at the rear and the fuse is intact

To test that the IAI2 is responding connect across the Kelvin leads an appropriate test component, for example a 220Ω resistor and switch on the PSM's generator from the "OUT" menu. Press the "LCR" key and make sure that the test component is measured correctly as in (Fig 24)

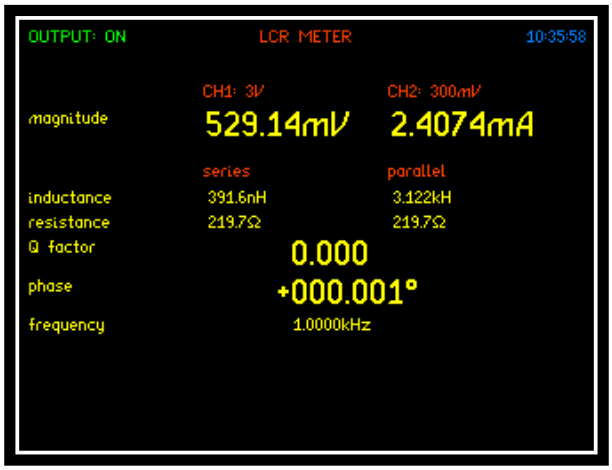


Fig 24