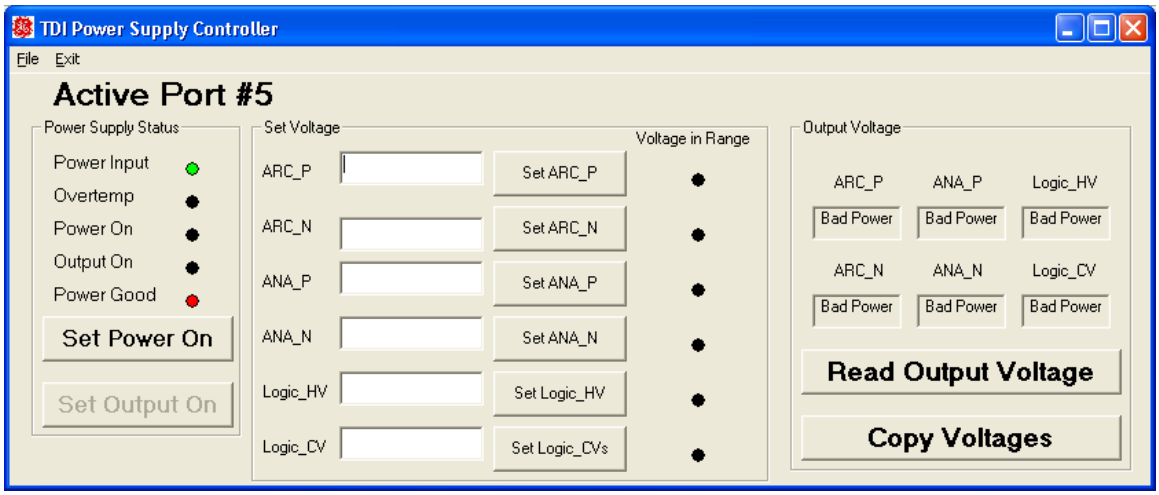
Setting Voltages on Detectors using TDI power supply controller software

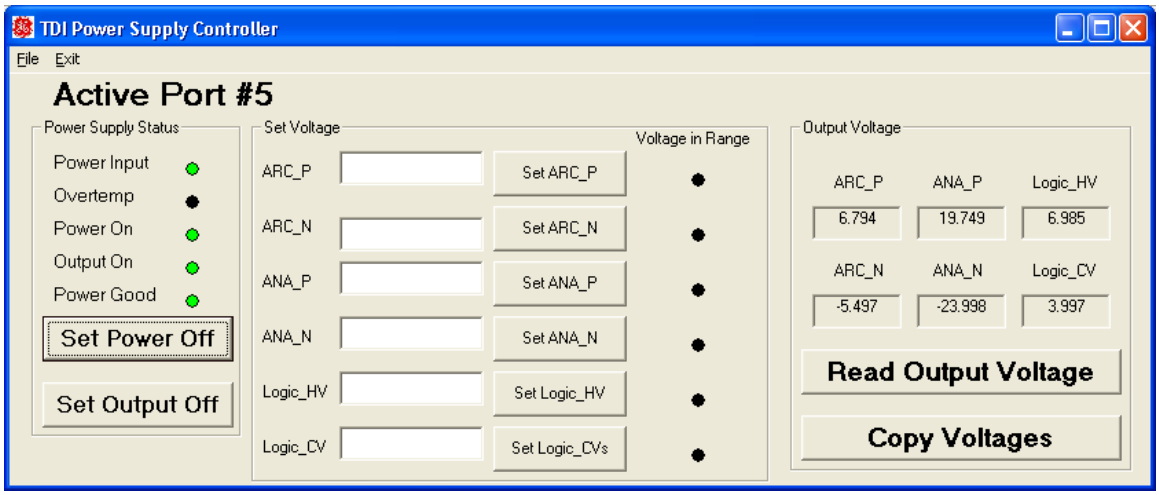
Use the table for reference to set incoming voltage at the detector

Plug in power supply to PC USB port

Connect power to the detector
Leave
Open the program

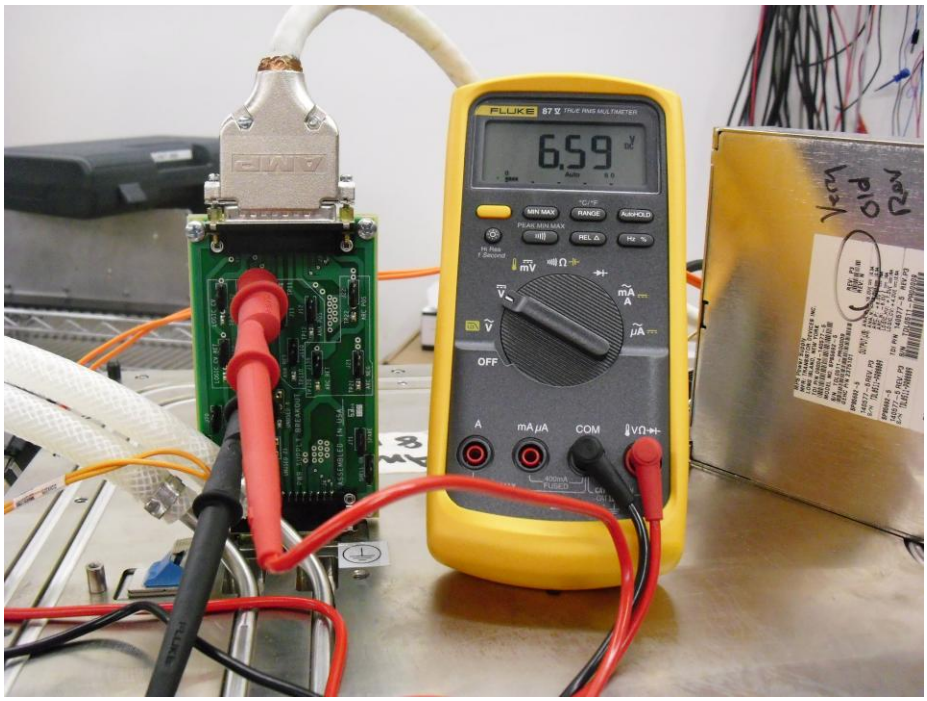


Set power on



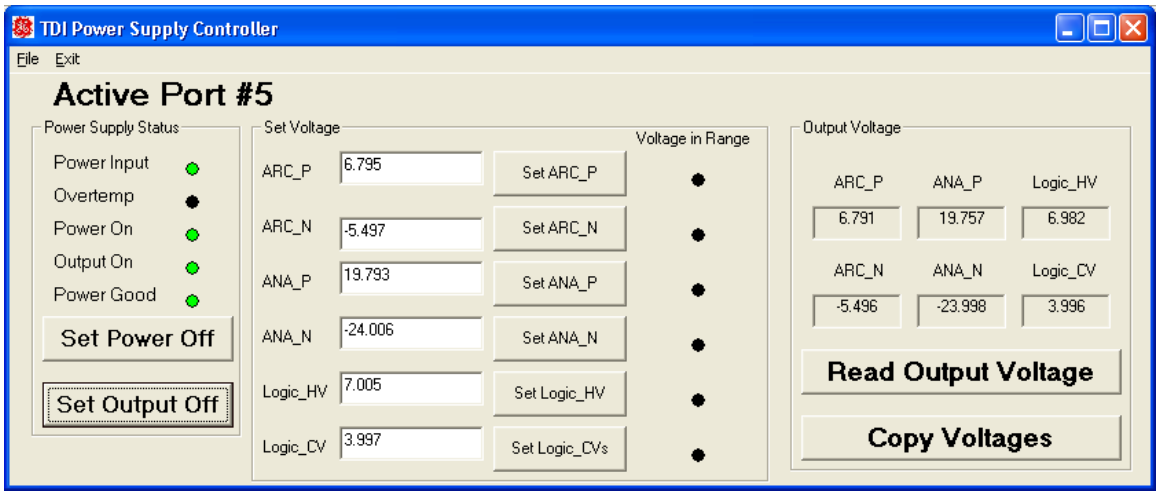
Plug in fiber connector
Detector is booted now
Note voltages in output boxes, this is read from last setup from supply

Measure at breakout on detector

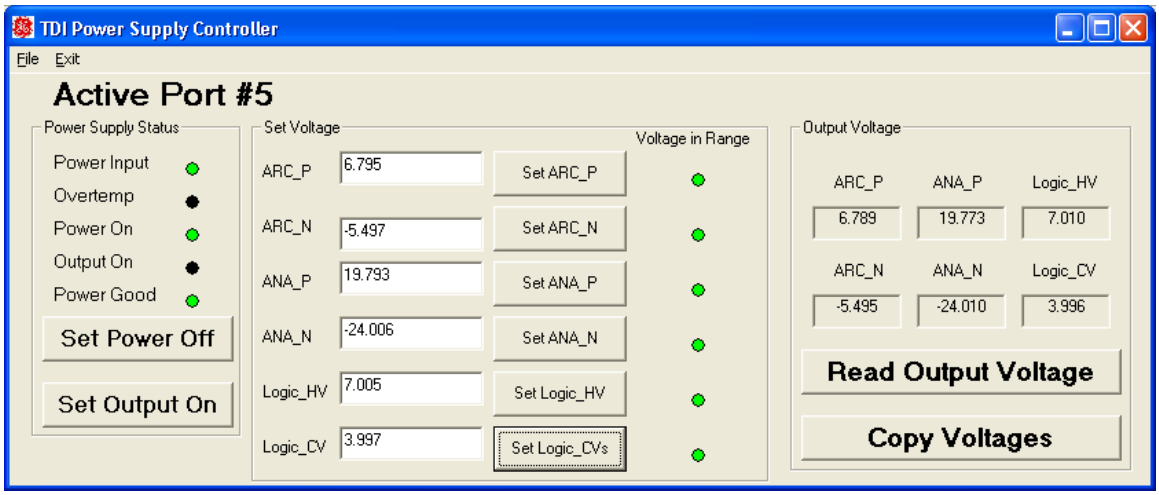


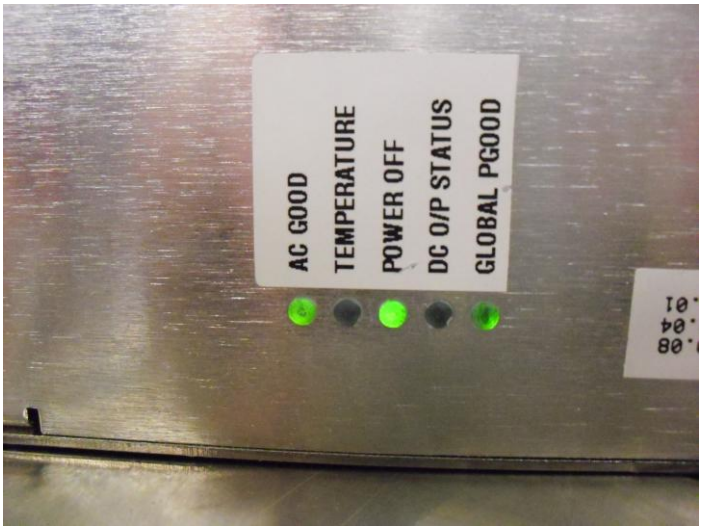
Load values from file or copy voltages that are displayed in the Output voltage to the set voltage boxes, these can be modified and saved. (e.g. save a config file as 20ft_cable.cfg)

Make changes in set voltage box



Press set power off to send changes to supply and click each set voltage you wish to change





Green lights under Voltage in Range show it is within acceptable limits.

Adjust the voltage to a level above the minimum required for the following settings. Best to use a value between Min and Mean.

Detector Voltage Requirements					
Supply	ARC+	ARC-	ANA+	ANA-	Logic
Mean	5.40	- 4.35	19.00	- 24.0	6.00
Minimum at detector:	5.15	- 4.10	18.00	- 23.0	5.75
Maximum at detector:	5.65	- 4.60	20.00	- 25.0	6.25

Comments and fixes... (Mark Alexander confirms the statements below...

From: Jonathan Almer [mailto:almer@aps.anl.gov]
Sent: Friday, January 21, 2011 4:14 PM
To: Alexander, Mark (GE Healthcare)
Cc: Ali Mashayekhi; Antonino Miceli; John Okasinski
Subject: Re: HYDRA operation with long cables
Mark,
Just to update, Ali and I managed to get all four computers running with the long cables today. We needed to turn up only the logic HV values (all others kept at default values). We tested in increments of 0.1V, and found for two systems the minimum value to apply in software was 6.5V and for the other two it was 6.6V. Measuring at the detector, these software values of 6.5-6.6V give a value of 6V.
Note that for the shorter lengths, the default software value of 6V gives a reading at the detector of 6.36V.
So, I'm assuming from Mark's comments below that we try to aim for a little extra 'insurance' and set these in software to approximately 6.9 V, which yields a similar value as for the short cables. Mark do you agree?
A minor but important note; on the document you sent us (attached) we believe on page four it should read 'set output off' not 'set power off', and in the spirit of giving full instructions include a 'set output on' as the last step. Please advise if you agree.
Go bears (please don't advise if you agree).