

# **BigBite Timing Hodoscope: Manual for JLab Hall A Shifter Workers**

A condensed set of instructions for operation and maintenance of the BigBite Timing Hodoscope detector. For questions, please contact an expert, either Rachel Montgomery at [rachel.montgomery@glasgow.ac.uk](mailto:rachel.montgomery@glasgow.ac.uk) or email Ralph Marinaro at [r.marinaro.1@research.gla.ac.uk](mailto:r.marinaro.1@research.gla.ac.uk).

Created by Rachel Montgomery and Ralph Marinaro.

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Updates will be made in accordance with changes made to the detector and data acquisition system as the SBS experiment run groups progress.

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## **A.1 How to Turn On the High Voltage:**

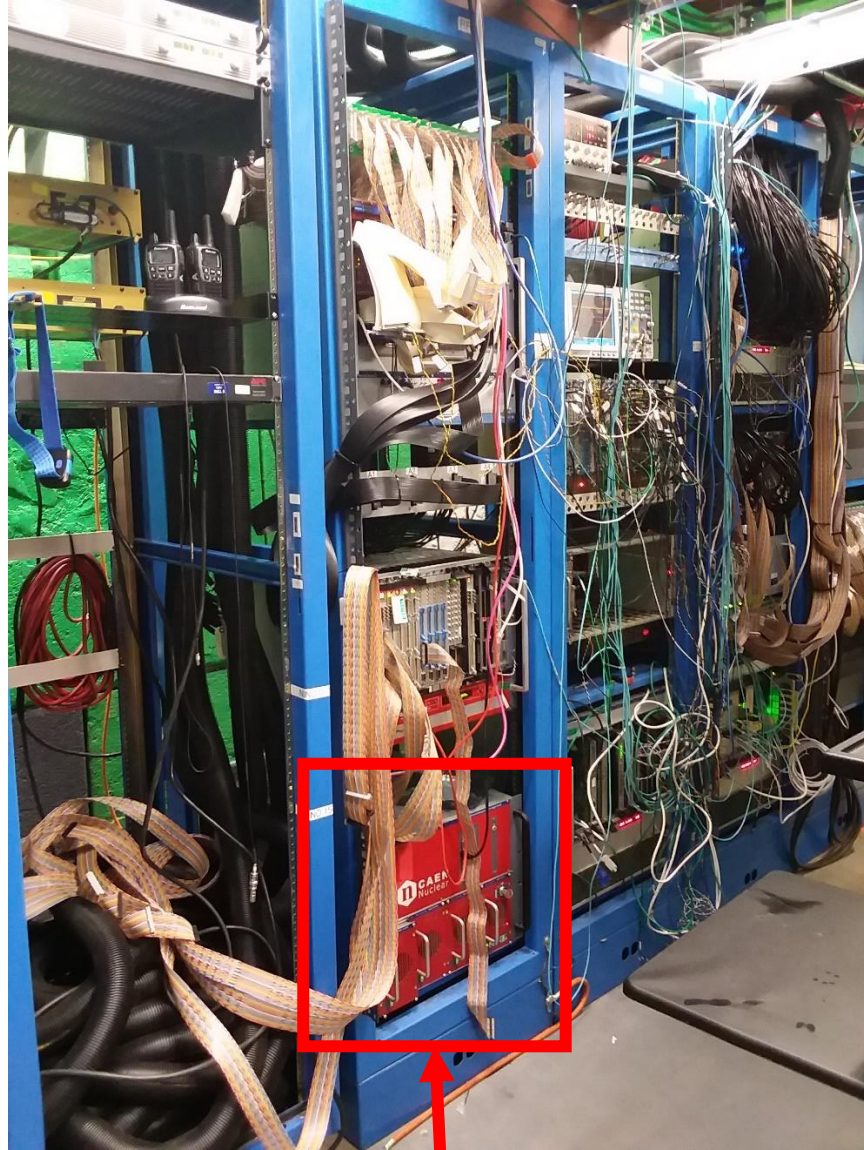
### **1. Manually Turning On High Voltage Main Frame:**

- Locate the SBS detector electronics bunker in Hall A



**TIMING HODOSCOPE ELECTRONICS RACK**

- Locate the electronics rack housing the high voltage main frame



**HIGH VOLTAGE MAIN FRAME**

- Turn the power key from “OFF” position to the right so the power key is in the “LOCAL” position



**LED LIGHTS**

**POWER KEY**

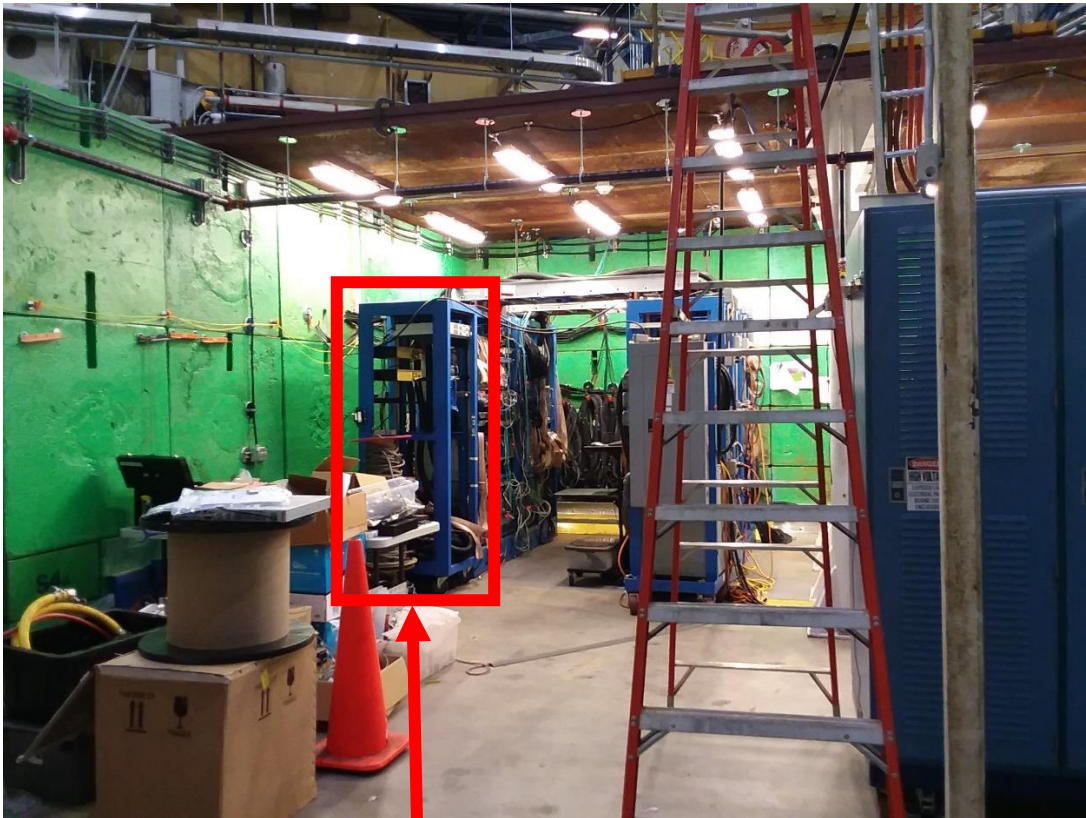
- “MAIN”, “OK”, “5+”, “12+”, and “12-” LEDs should turn on, as well as LEDs for “48+” corresponding to the high voltage channels being used
- If the high voltage main frame does not turn on, or if one of the LEDs is not turned on, then please contact an expert for help.



## A.2 How to Turn Off the High Voltage:

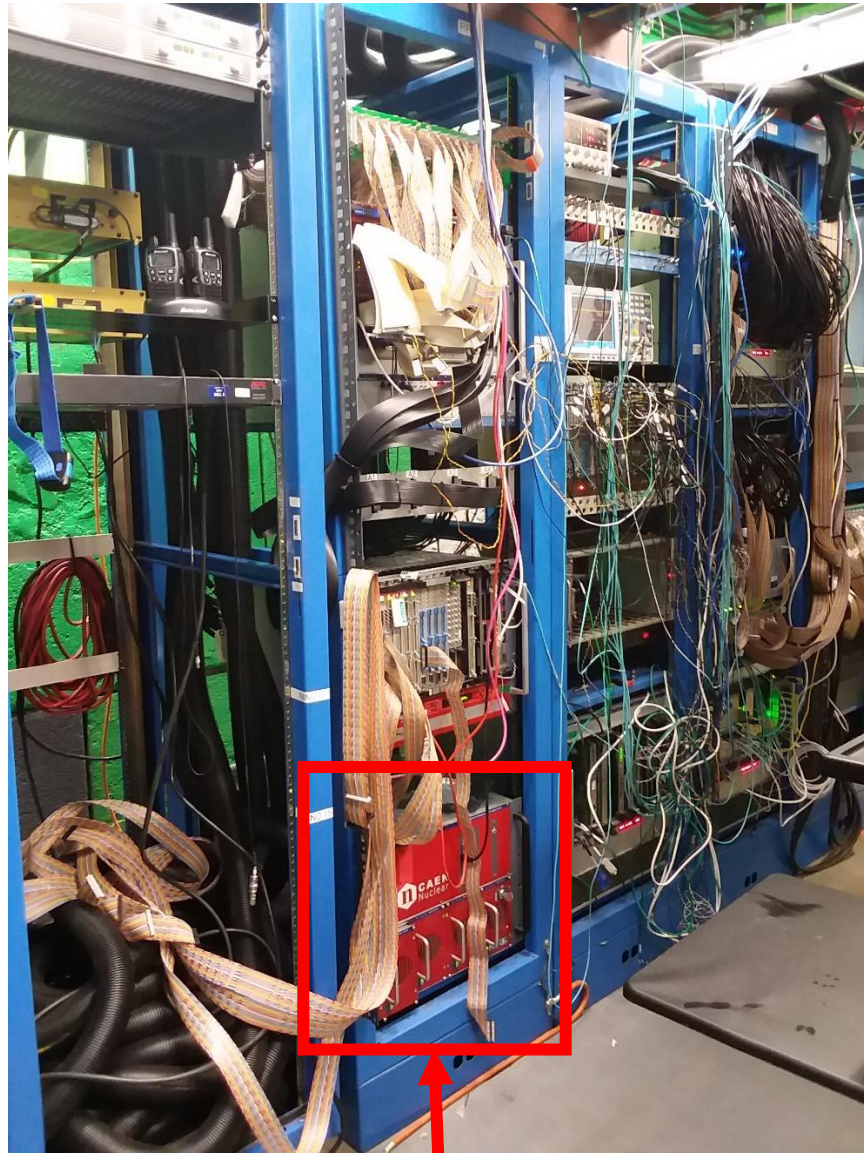
### 1. Manually Turning Off the High Voltage Main Frame:

- Locate the SBS detector electronics bunker in Hall A



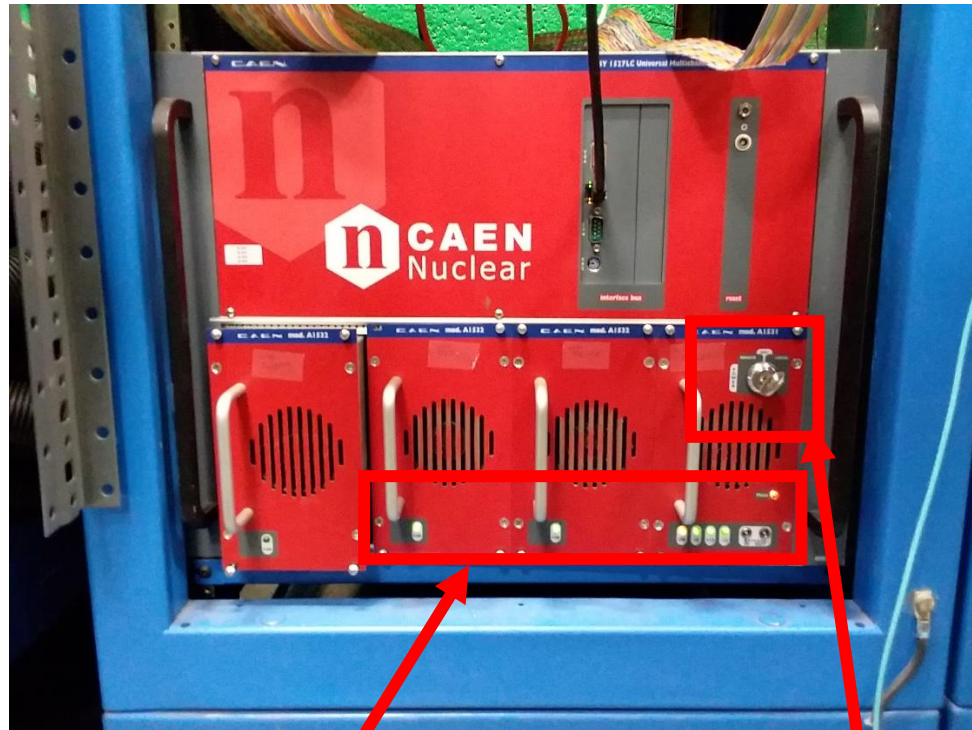
**TIMING HODOSCOPE ELECTRONICS RACK**

- Locate the electronics rack housing the high voltage main frame



**HIGH VOLTAGE MAIN FRAME**

- The power key should be in the “LOCAL” position, turn the power key to the left so the power key is in the “OFF” position.



**LED LIGHTS**

**POWER KEY**

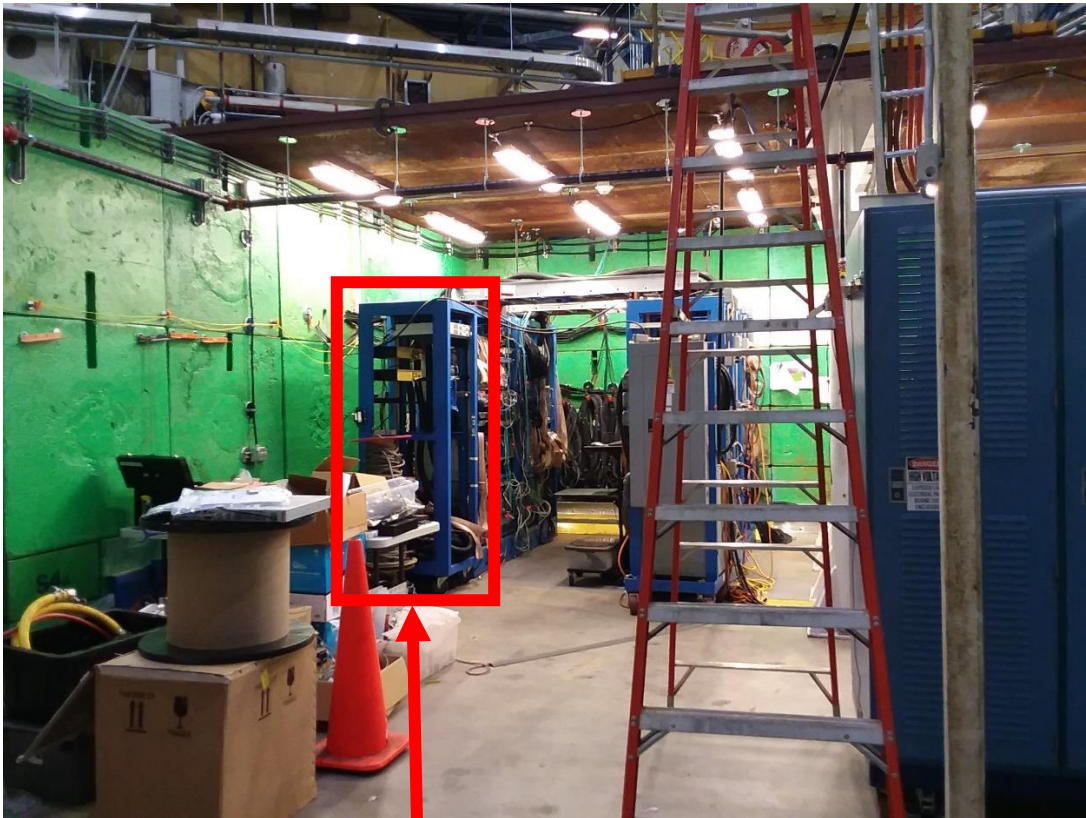
- “MAIN”, “OK”, “5+”, “12+”, and “12-” LEDs should turn off, as well as LEDs for “48+” corresponding to the high voltage channels being used
- If the high voltage main frame does not turn off, or if one of the LEDs is not turned off, then please contact an expert for help.



## A.3 How to Turn On the Low Voltage:

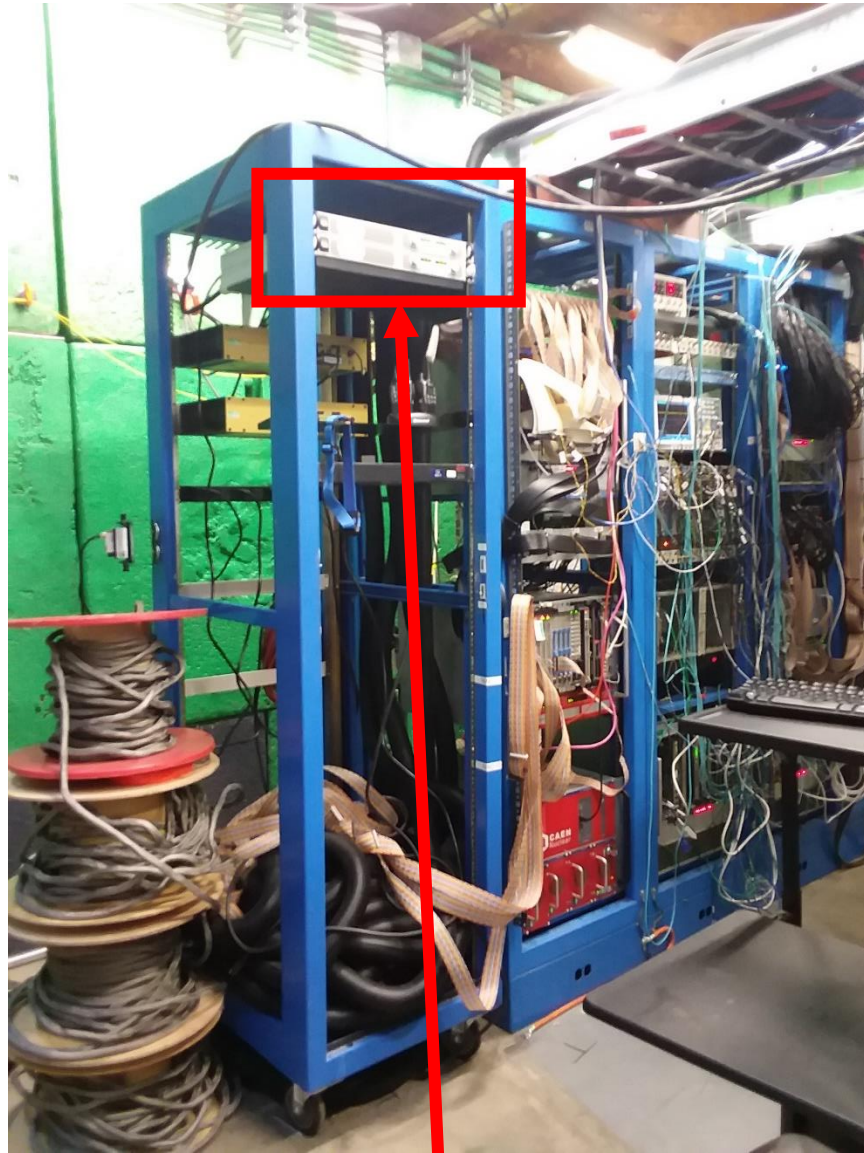
### 1. Manually Turning On Low Voltage Power Supply:

- Locate the SBS detector electronics bunker in Hall A



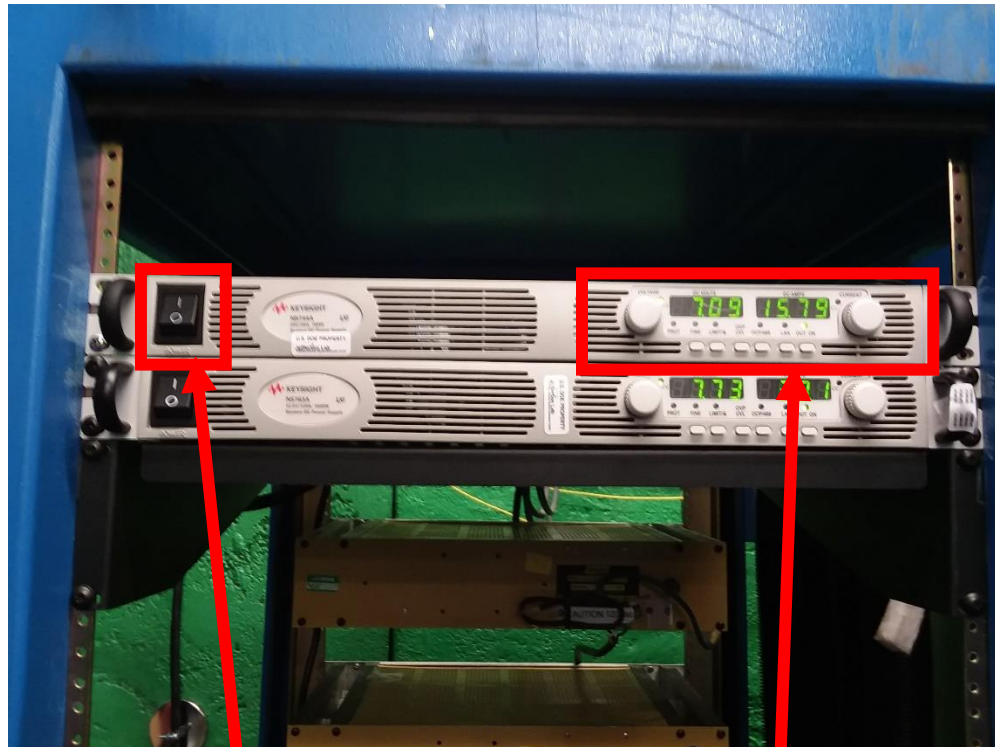
**TIMING HODOSCOPE ELECTRONICS RACK**

- Locate the electronics rack housing the low voltage power supply



**LOW VOLTAGE POWER SUPPLY**

- The power switch should be in the off position, flip the power switch to the on position. Adjust the voltage or current controls until the supply reads ~7.1 volts and ~15.79 amps.



**POWER SWITCH**

**SUPPLY CONTROLS**

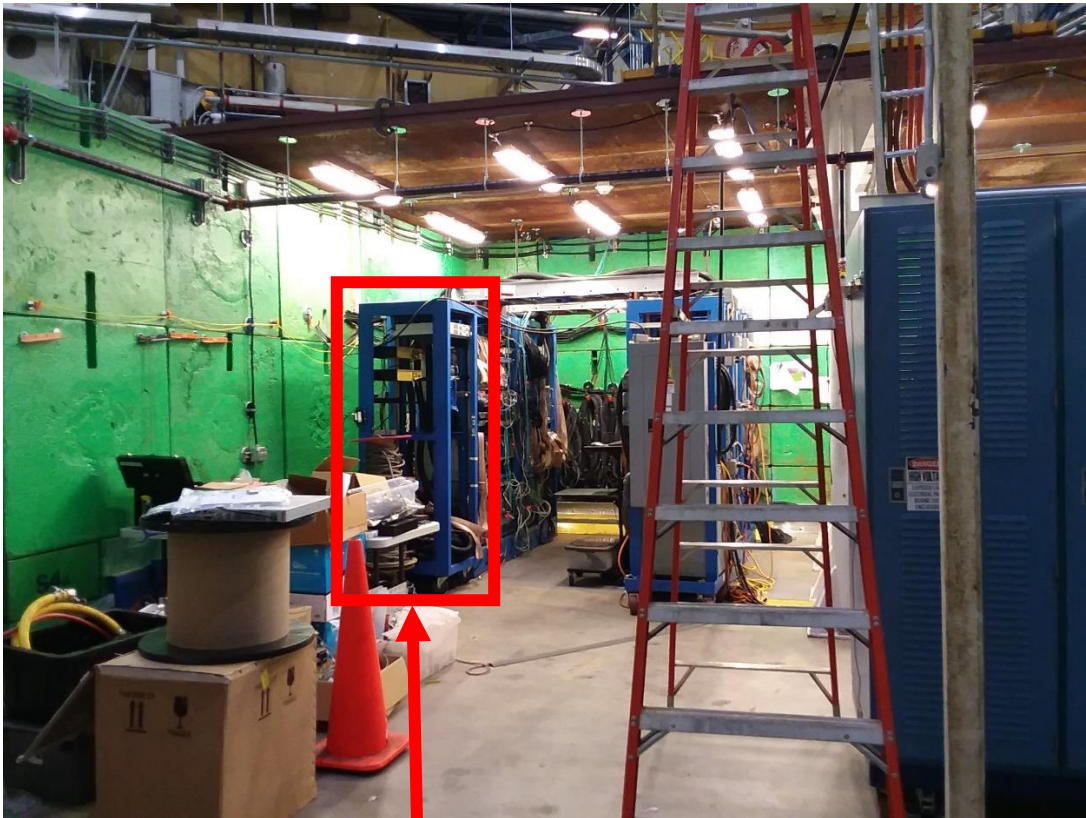
- If the low voltage power supply does not turn on, or if one of the supply controls do not work properly, then please contact an expert for help.



## A.3 How to Turn Off the Low Voltage:

### 1. Manually Turning Off Low Voltage Power Supply:

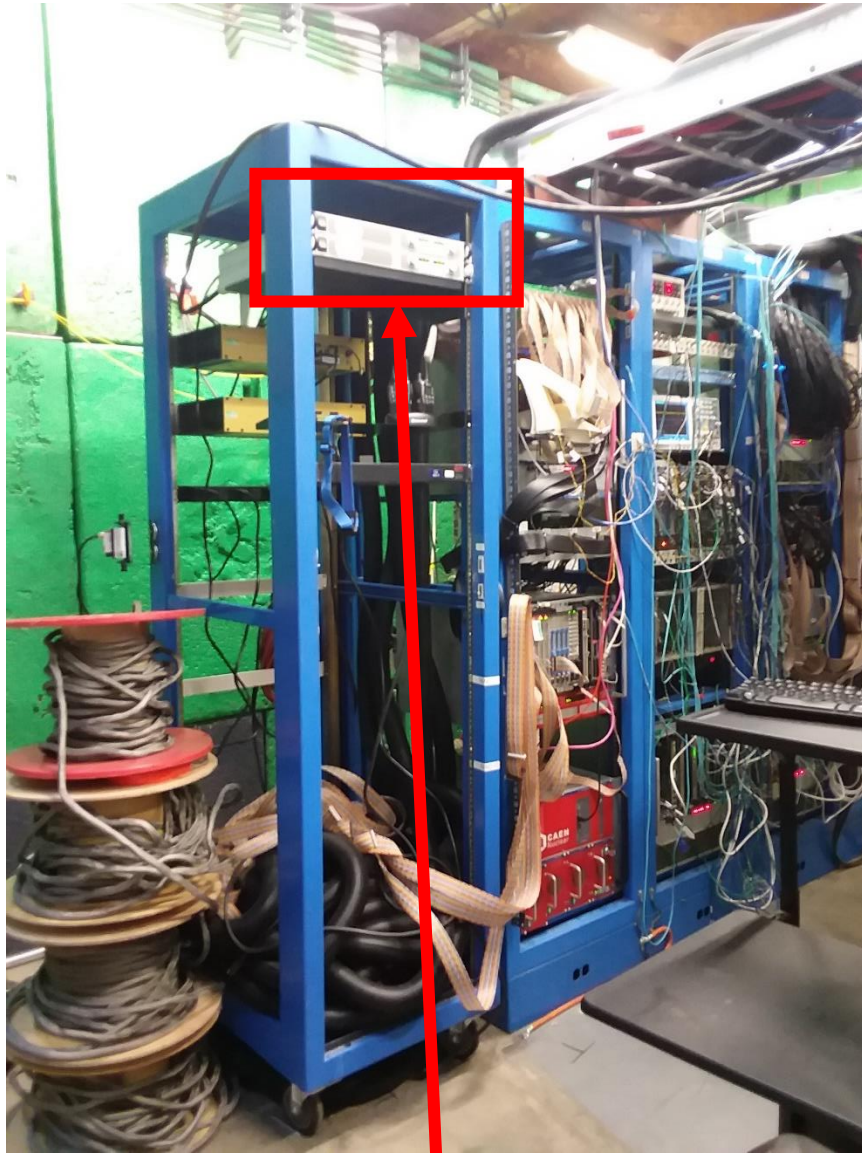
- Locate the SBS detector electronics bunker in Hall A



**TIMING HODOSCOPE ELECTRONICS RACK**

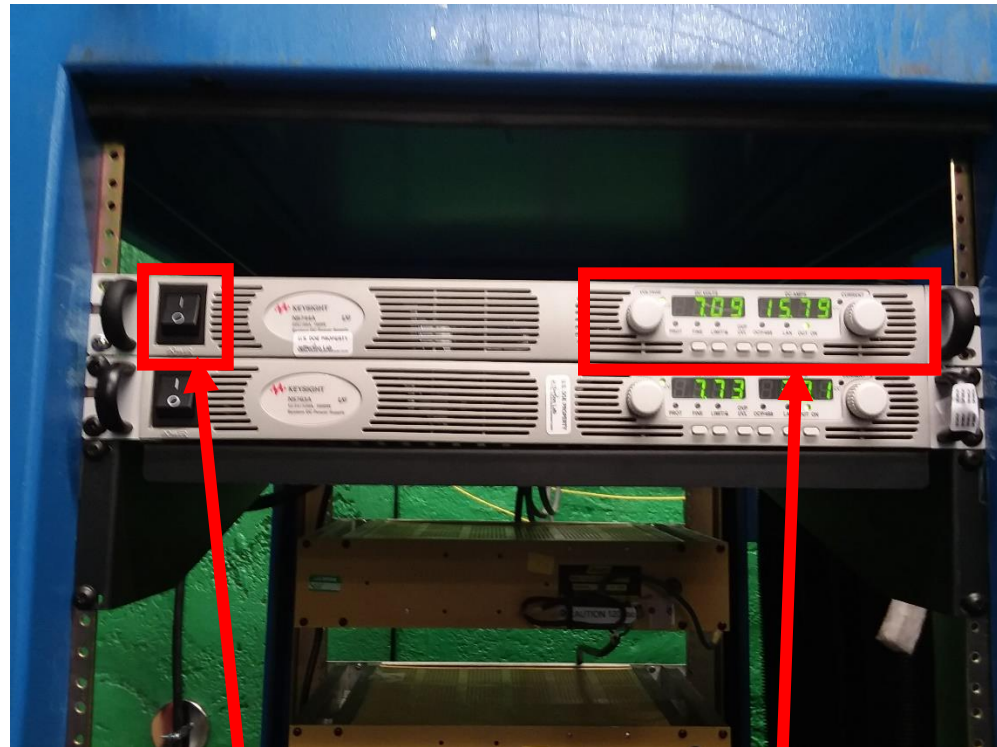


- Locate the electronics rack housing the low voltage power supply



**LOW VOLTAGE POWER SUPPLY**

- The power switch should be in the on position. Adjust the voltage or current controls until the supply reads ~0.0 volts and ~0.0 amps, then flip the power switch to the off position.



**POWER SWITCH**

**SUPPLY CONTROLS**

- If the low voltage power supply does not turn off, or if one of the supply controls do not work properly, then please contact an expert for help.