

AP0 collection lens dummy load setup for the new power supply testing

Yun He, March 16, 2017

The dummy load will be installed in the vault near the lens stripline Can connection, with a setup similar to the one as recoded in a Pbar Target Station Elog in May 2006, shown in Fig. 1:

-- Wed May 3 15:34:55 comment by...Leveling --
Here are photos showing the present setup for the **dummy load**. The CT is tie wrapped to the board to prevent it from moving. Water lines are running to the orbump test stand water skid. The yellow board is attached to vertical cribbing with dry wall screws making the installation very sturdy.

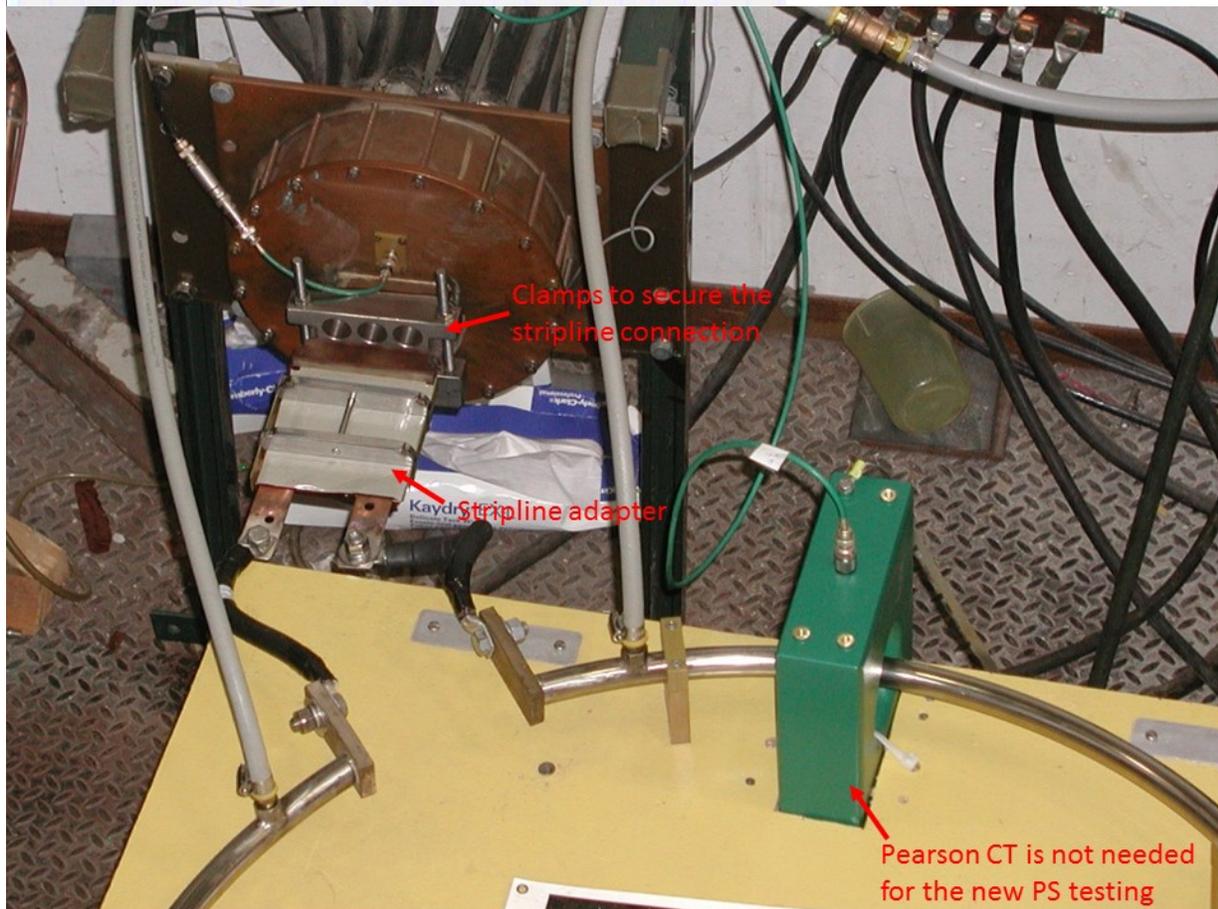


Figure 1: Lens dummy load setup in the vault in May 2006

Check-list for the dummy load installation:

- the dummy load securely anchored to prevent its movement during testing.
- the welding cables lugs used to connect the strip line to the dummy load are mechanically secure at both ends.
- The bolted clamp connections are tightened by experienced electrical workers or by mechanical workers using a torque specification.

The cooling to the dummy load will be connected to Lens Water Skid, which provides deionized water. This will be an opportunity for monitoring and adjusting the water system parameters with proper heat loads.

- Cooling was connected to test stand water skid in this setup
- But we are going to hook it up to Lens water skid instead

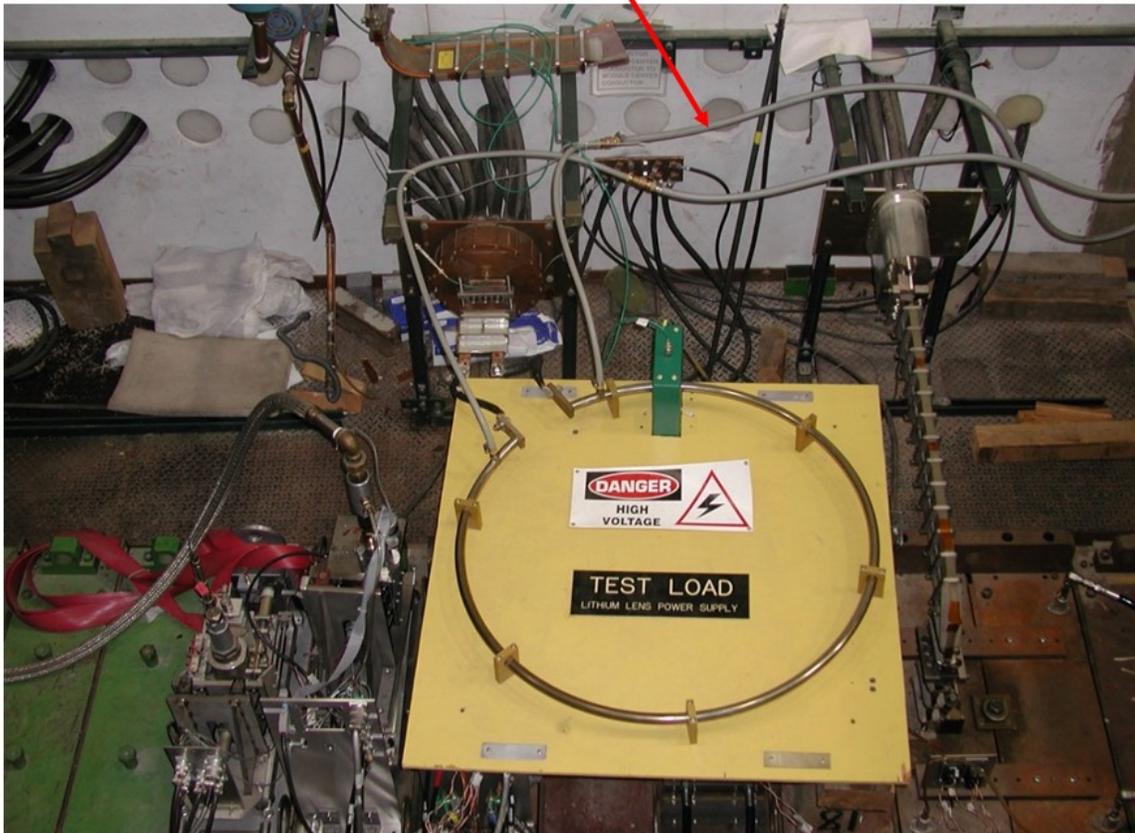


Figure 2: Water connection of lens dummy load in May 2006

Check-list for the power supply testing with lens dummy load:

- a written, approved LOTO procedure should be available and used to manage worker access to the dummy load.
- no workers should be allowed into the lower vault while power supply is running.
- the dummy load should be observed from the upper vault when testing begins to check for welding cable movement, dummy load movement, arcing, sparking, etc.
- monitor the lens water skid ACNET parameters, and adjust if needed.

When re-install the real stripline back to the lens after the test is completed, ensure that the stripline connection is using “Proton Mode” configuration, shown on bottom-right of Fig. 3:

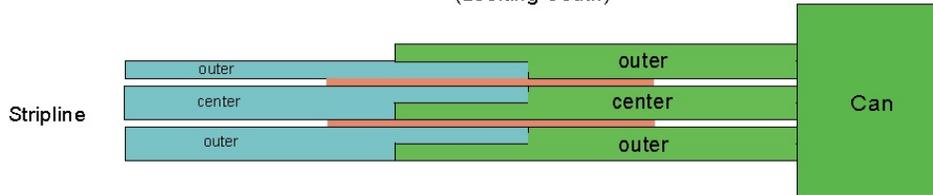
Collection Lens Stripline Connections

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12/30/03

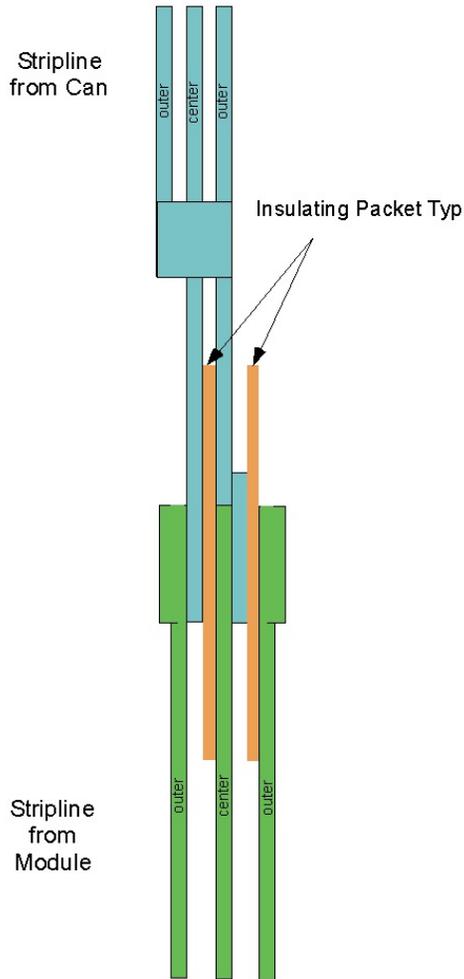
Can Connection

(Connection does not change)
(Looking South)



P-Bar Mode

Can center conductor to Module outer conductor
(Looking South)



Proton Mode

Can center conductor to Module center conductor
(Looking South)

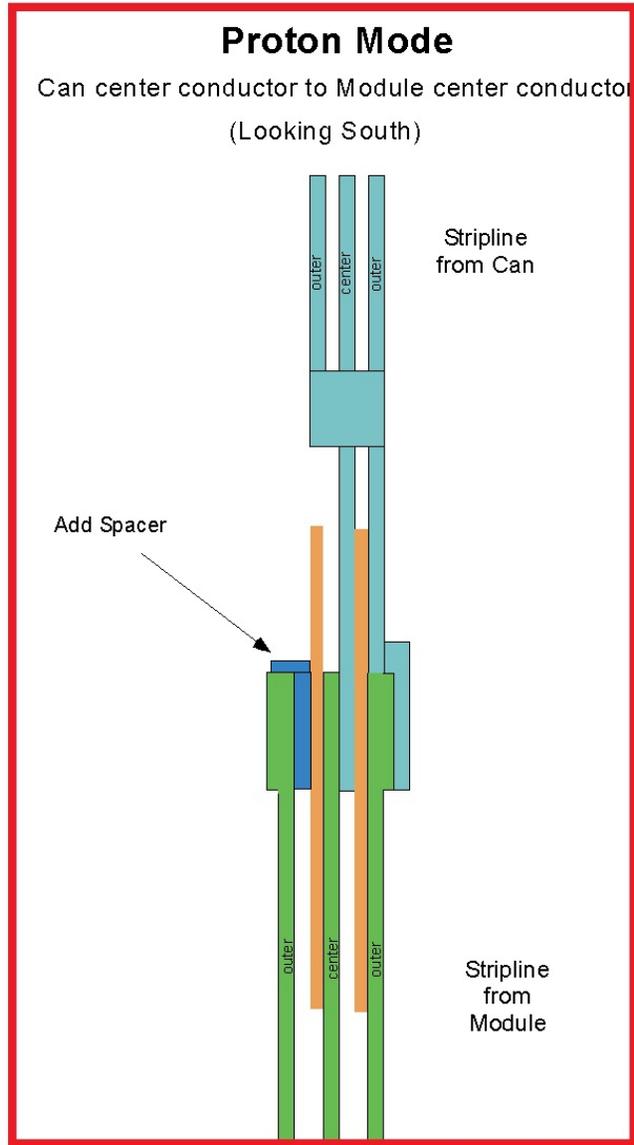


Figure 3: Configurations of the lens stripline connection

Shown in Fig. 4 is the present lens-stripline connection

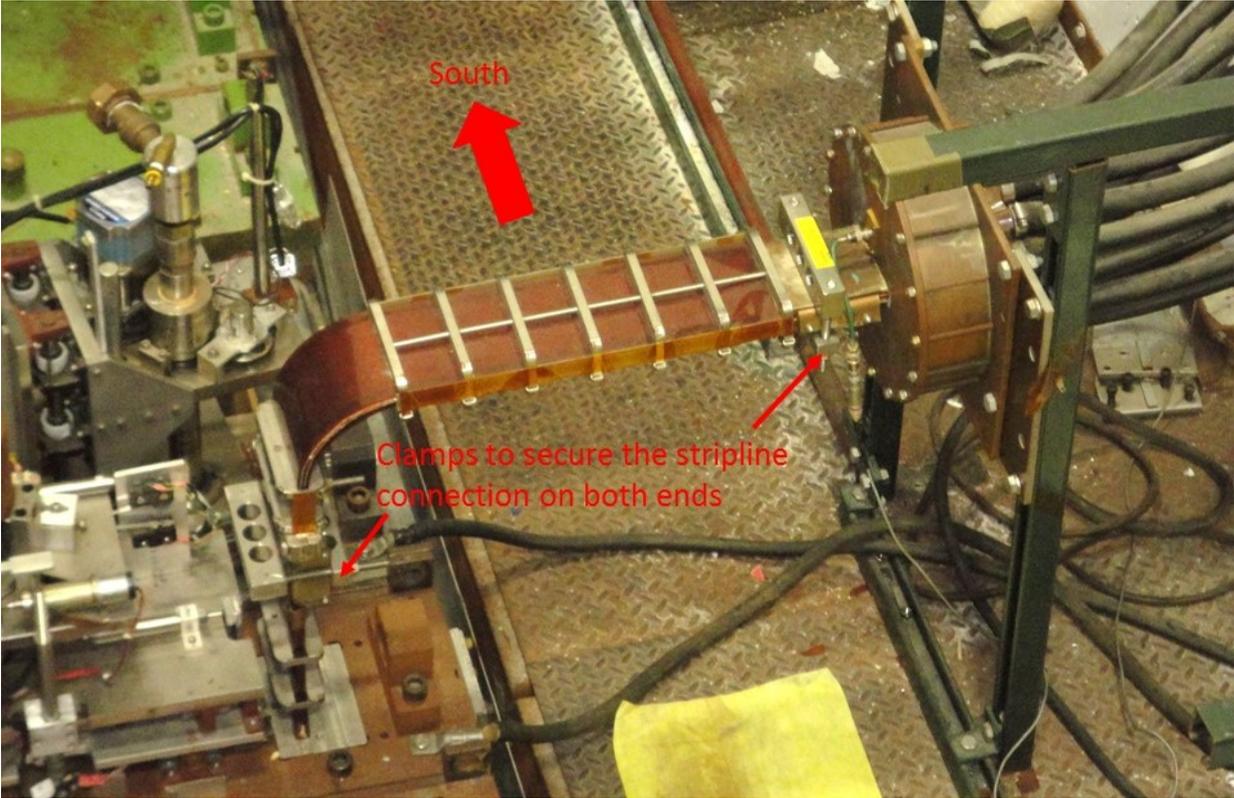


Figure 4: Present lens stripline connection in the Vault