

Korean Magnet

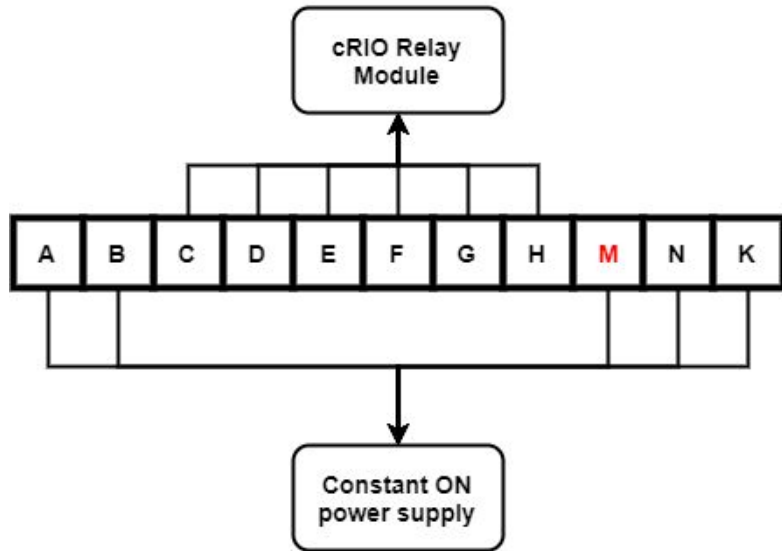
Accidental opening of the main coil switch

kw.park

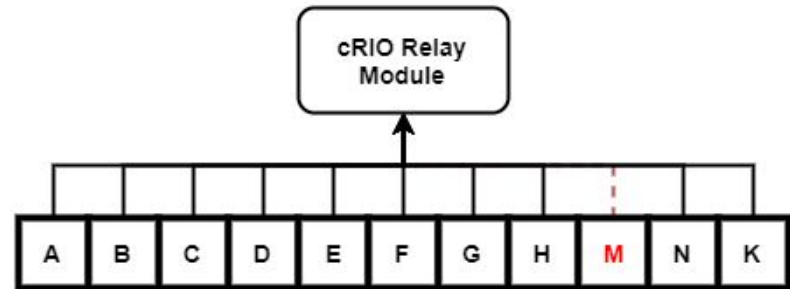
What was wrong

There was cabling error (during Shimming for 5 T).

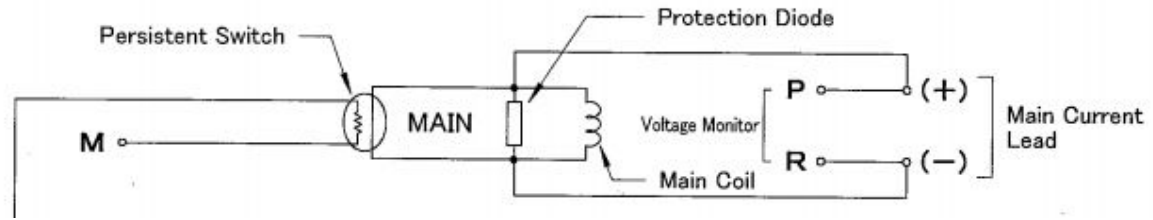
Energization



Shimming



What happened?



- I opened main coil switch heater during the shimming at 5 T.
- Sudden blow of vapor and opening of safety valve few seconds after.
- Negative value(1.1 V) on the voltage monitor
- There was still $> 3\text{T}$ field after 10 minutes.
- After 1 Hour, safety valve closed and 0 V at the voltage monitor.
The maximum field was 300 mT
→ Sign of remaining current in the magnet.

So?

- De-shimming all the shim coils.
- Opened the main coil switch heater and wait for 50 minutes.
 - There was negative voltage(-0.x V) and it decayed.
 - Field: 8 mT
- Opened the main coil and shim coil switch heater and wait 30 minutes.
 - Field: 5 mT

The Consequence

- No current in the magnet.
- LHe level
 - Before the accident: 79 %
 - After the accident: 70 %
 - After the De-energizing: 64 %
 - Now: 100 %
- LN2: 62 %

and Then?

- Re-energize to 5T
- Modify control program not to change the connection manually.
- Keep measure the axis.