

AMI Magnet Cheatsheet

1. Magnet Switch Resistance: Pins J-K, 78.7 Ohms at 293K
2. Current Lead Resistance : Pins L-M, 20.1 Ohms at 293K, 18.4 Ohms at 77K, ~ 0.2 at 4.2K.
3. Magnet Dewar Insulating jacket should be pumped to atleast 10^{-5} Torr level.
4. **Do not pump** Insulating jacket when there is LHe in the Dewar.
5. Never Pump on the helium reservoir unless the cryostat insulating vacuum space is evacuated, otherwise major damage (collapse) to the cryostat and/or magnet could occur.
6. Precool takes about 70 L of LN2 to cover coils.
7. Leave coils submerged for several hours before blowing out.
8. During cooldown there will be strong venting of LN2 gas. Once Magnet is cooled, there will be almost no venting from magnet reservoir.
9. Blow-out must be done with pressure less than 5 psig. Do not overpressure.
10. Allow the magnet to sit for 1 hour after blowing out LN2 to ensure any trapped liquid evaporates before LHe fill. Alternately, rough pump the reservoir. A pause in pumping pressure at the nitrogen triple point (65.1K, 80-100 Torr) will indicate LN2 is still present.
11. Should take about 86 L of LHe to cooldown the magnet from 77K and fill the belly. If the process takes much more than an hour, or if it uses much more LHe, then this is an indication that there is still LN2 in the magnet space. It must be warmed up and removed.