

10 Tesla One Page Manual

Startup:

1. 24 hours before you plan to cool down the magnet, attach a dry turbo pump to the vacuum port. Turn on the turbo pump and let pump down to 10^{-4} torr range then open the valve and pump for 24 hours before turning on the magnet.
2. Turn on the compressor to the magnet.
3. It takes 52 hours to cool down the magnet before operation.
4. While it is cooling down attach the magnet leads to the top of the magnet and attach the voltmeter cables to the 10 pin din connector to the A and B receptacles on the top of the magnet.
5. Turn on the voltmeter and start up the computer
6. Open the labview program.
 - a. Open Menu program
 - b. Press the play button on Menu.vi program
 - c. Select the browse folder
 - d. C:\cryogenicsltd\2857 Initialisation
 - e. Press confirm
 - f. Select PSU and Scanner

Operation is now done from the computer.

During Operation:

1. **The compressor should remain on at all times. If you turn off the compressor, you may damage the magnet if you have a field set or if you are ramping the field.**
2. To run the magnet, use the program by entering the field you would like to go to. To ramp from 0 to 10 T takes about 45 minutes. DO NOT change the ramp setting in the program for the magnet. You run the risk of damaging the magnet.
3. If for any reason the compressor stops running, ramp down the magnet field and contact someone on the sample environment staff.

Shutdown:

1. Set the field to zero.
2. Once the field is zero, turn off the compressor.
3. It takes 48 hours for the magnet to reach room temperature.