

Full Cold START UP Checklist

– Mount Bigelow Schmidt

ver. 4.0 - Last Update: 09/01/2019

This is for a NORMAL Start up from a Lightning Safe Condition.

Note that CSS cables that MUST be disconnected for shutdown are marked with RED tape. Cables that should NOT be disconnected are marked with WHITE tape. KEEP AN EYE OPEN FOR ANY CABLES MARKED WITH WHITE TAPE THAT HAVE BEEN DISCONNECTED! Reconnect them if you can identify where the connections should be made. **Call for assistance if you cannot identify ANY cables!**

NOTE: THIS CHECKLIST DESCRIBES THE CORRECT PROCESS, **IN THE PROPER ORDER**, TO BRING THE TELESCOPE OUT OF A FULL COLD SHUT DOWN.

Computer Nodes, Network & Initial Telescope Connections

1. Location: “Warm Room”

1. Plug the **UPS power cord** into the wall outlet. The connection is now on the west (left) side of the pier.
2. If it is necessary to keep the temperature from getting too high in the warm room, turn the wall mounted **air conditioner** “ON” and select the appropriate amount of cooling.

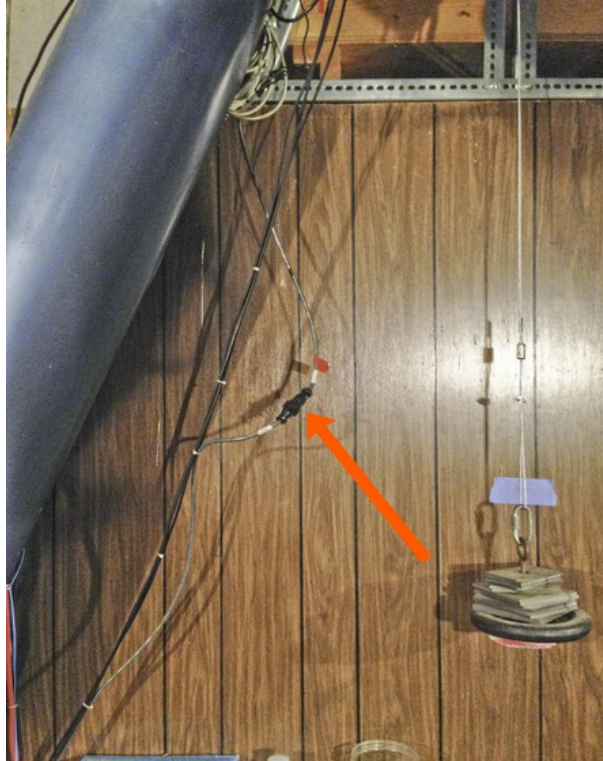


3. Step around to the front of the computer cluster and press the power button on the front of the **UPS**.

4. Press the power button on each computer in turn to start the booting process.

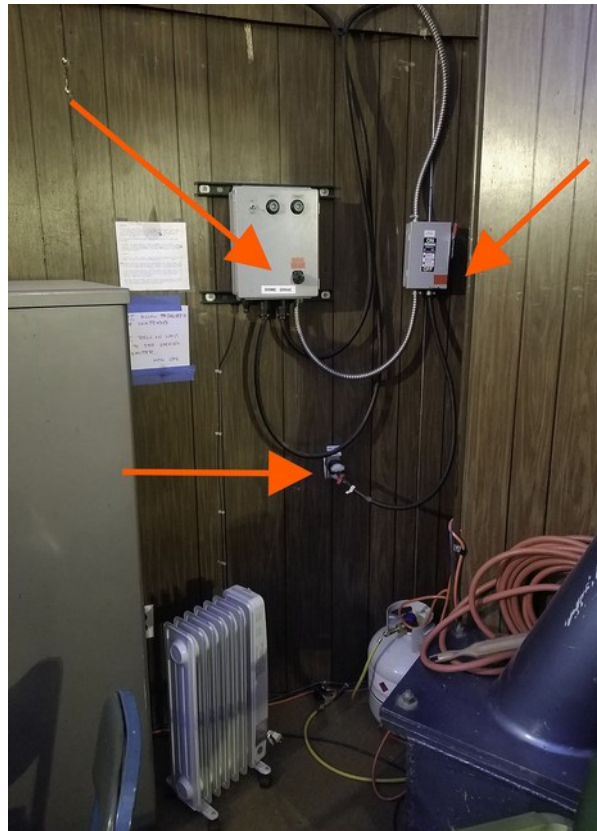
2. Location: “Dome Floor”

Make the **dome encoder connection** under the North Pier. Ensure that it is properly and fully seated.



1. Plug the “**DOME POWER**” cord into its outlet. It is connected to the bottom of the “**Service Disconnect**” box.
2. Confirm that the connections on the bottom of the control box are properly and fully seated.
3. Place the knife switch on the box to the right in the “ON” position.

4. Turn ON the “DOME POWER” on the Dome Control box.



5. CONNECT the CSM cable on the harness along the Mounting Yoke.



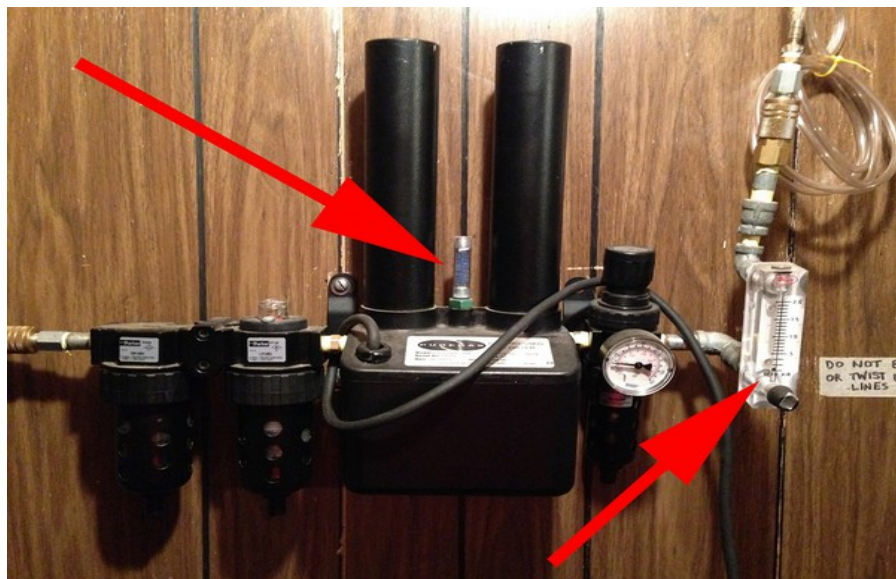
3. Location: “Tiger Cage”

1. Plug in the “UPS” power cable into the wall outlet marked “UPS POWER”.
2. The Air Compressor and the Air Dryer power cords are now ganged on a power strip. This power strip should NOT be unplugged during shutdown as we want to be constantly filling the telescope tube with



dry air. If the power strip has been unplugged, plug it in now.

3. Check the small, clear “tower” on the top of the dryer unit. Blue colored crystals indicate the dryer needs maintenance. Check the Wiki for instructions.

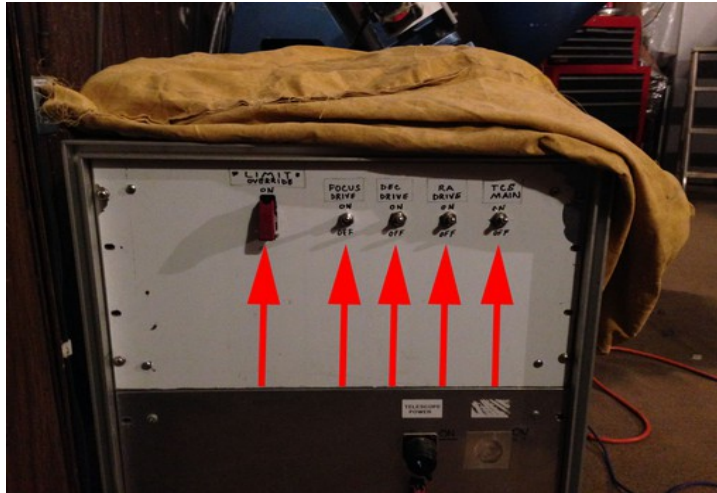


4. CONFIRM that air is flowing through the dryer and into the tubing by checking the flow meter on the right side. The flow indicated 1.0 (One) cubic feet per minute. If this is not the rate, adjust using the knob.
5. Turn “ON” the UPS.
6. Reach inside the open door of the **Cryotiger & power supply “Service Module” (CSM)** to turn it on. The switch is just inside near the top. Refer to the photo of the 1.5-m CSM if necessary.
7. Turn “ON” the CHILLER unit, using the switch on the front panel, marked with the red tape. Refer to the wide shot of the Tiger Cage if necessary
8. During the WINTER, the Cryotiger system **REQUIRES** the ambient temperature in the cage be greater than 40F to start up and operate properly. The radiator should be plugged in at all times and let at its lowest setting! This will keep the space warmer so the cooling units can immediate be turned on and start operating properly. In addition, the heat generated by the Cryotiger units is insufficient to warm up the space! However, the heat generated by the Cryotiger IS sufficient to keep the cage warm **AFTER** the camera has reached operating temperature.



4. Location: “Dome Floor”

1. Before returning to the Warm Room, between the door and the south pier, located on the TCS control box, turn ON the switches on the front of the box labeled TCS MAIN, then Focus Drive, DEC Drive and RA Drive. Confirm that the “LIMIT OVERRIDE” switch is OFF and the red cover in the DOWN position.



2. Turn OFF the lights.
3. Close the door.

5. Location: “Warm Room”

1. Start “Control” on the control computer.
2. Initialize the camera and start the cooling.
3. Start the other programs as needed before that start of observing.

The telescope should now be fully operational and the camera should be cooling.