

Dobson Packing Instructions

*Climate Monitoring and
Diagnostics Laboratory*

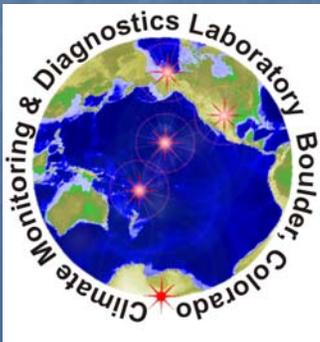
World Dobson Calibration Center

325 Broadway

R/CMDL1

Boulder, CO

80305



Important Reminders

- The Dobson MUST be packed correctly so there is no damage done in shipping
- The box must be filled completely to reduce vibration inside the instrument
 - Use only foam and bubble wrap to pack. Packing Peanuts provide too much waste and are difficult to discard of



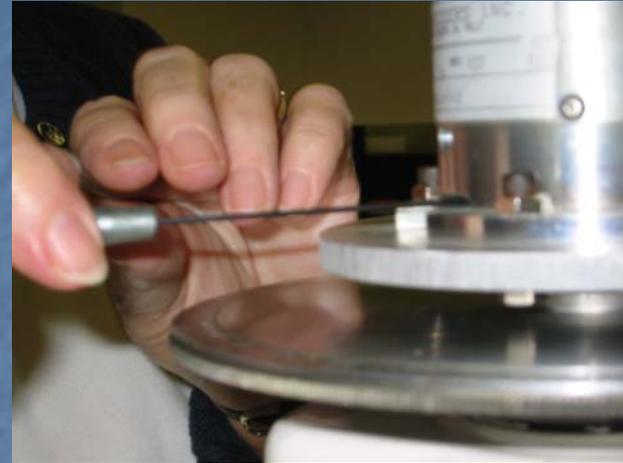
Dobson packed in securely with foam

Where to start

- Locate each of these items and make a checklist so that everything is packed into the box that needs to be sent to Boulder:
 1. Sun director
 2. Paper copy of the current Q-Table sheet
 3. Encoder with plate and screws that secure it
 4. Counter
 5. Standard lamp holder and cords
 6. Standard lamps
 7. Microammeter
 8. R-dial
 9. C-stops
 10. Power cord for Dobson
 - Should be placed inside one of the Dobson's large holes

Packing Preparation

- Locate lots of bubble wrap and foam packing material
 - NO PACKING PEANUTS
- Gather a full pack of Allen Wrenches
- One large flat head screw driver
- Packing tape
- Plastic sandwich bags to put screws and C-stops into



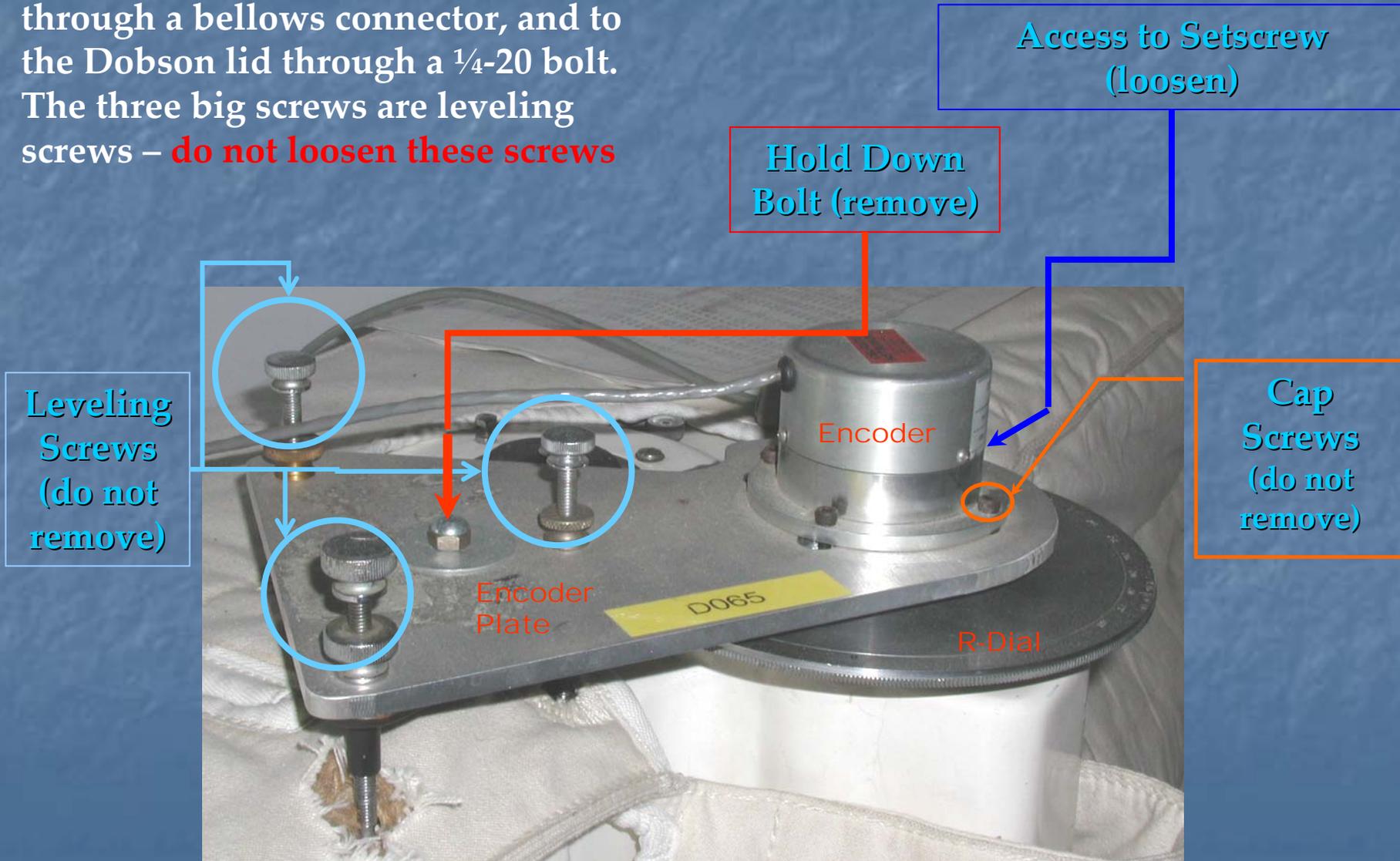
Allen wrench for removing set screw on encoder



Dobson completely taped with wrapped accessories

Removing the Encoder

The encoder connects to the R-dial through a bellows connector, and to the Dobson lid through a 1/4-20 bolt. The three big screws are leveling screws – **do not loosen these screws**



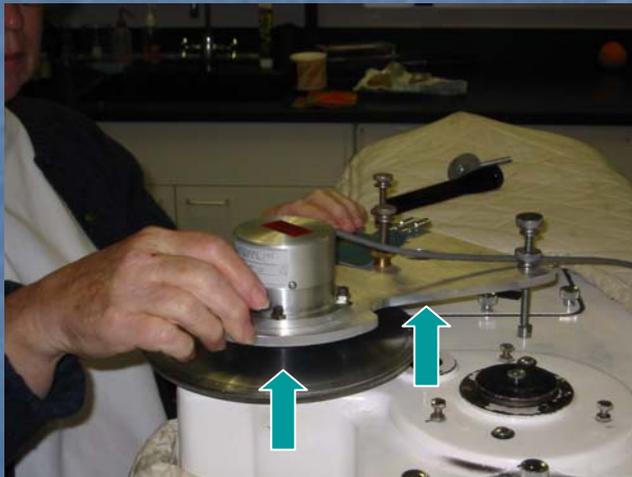
Removing the Encoder



Use Allen wrench to loosen set screw (may be two screws)



Once set screw is loose, use a flat head screw driver to remove large bolt that attaches the encoder to the Dobson



Once large bolt has been removed, carefully lift the encoder straight off the Dobson

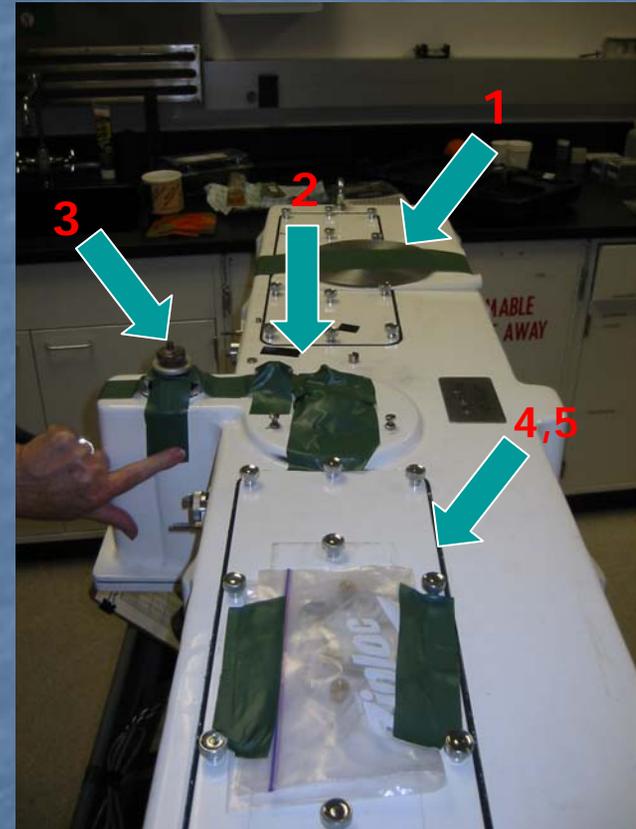


After removing the encoder, loosen and remove the screw that holds the R-dial on. Remove R-dial

Taping up the Dobson

Certain areas on the Dobson need to be protected when shipping

- When packing you need to tape:
 1. The R-dial on top of the Dobson, using a paper towel to cushion (NUMBERS DOWN)
 2. The inlet hole and surroundings
 3. The R-dial unit. Tape both directions, and then replace the large set screw on top of the tape job
 4. All bolts and or other removed parts from the Dobson
 5. The C-stops (if available)



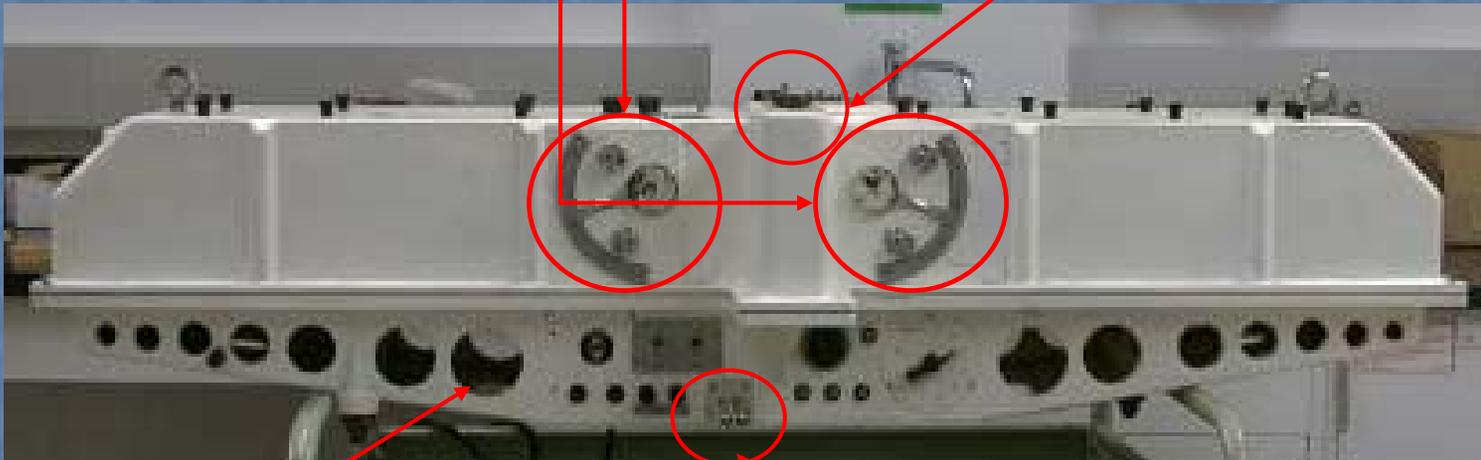
Final Preparation

- Before placing the Dobson in the shipping box, make sure that the Long Rod is pushed all the way in
- Q-levers are all the way down, and C-stops are removed
- The thermometer stays inside the instrument
- The power cord has been inserted inside the holes under the instrument

Preparing the Dobson

Q-levers in the
down position

Tape the R-dial shaft so it
will not move



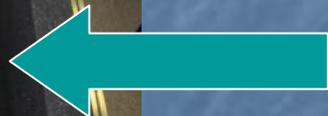
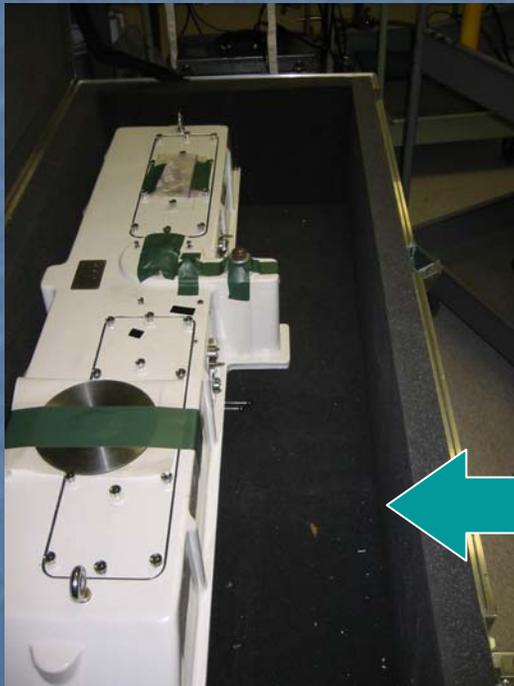
Power Cord goes
here

Long Rod in all
the way!

Thermometer remains in the instrument

Packing the Dobson

- Place the Dobson in the box so that the back of the instrument touches the back of the box.



Area for packing the meter, sun director, encoder, counter, lamps, lamp holder, etc.

Wrapping Dobson Accessories



Wrap up all cords as well as accessories



Tape down any loose parts, like the shield on the lamp holder



Pack all items so that the Dobson box is completely full

- With bubble wrap or foam, securely wrap all Dobson accessories
- Keep track of items before putting them into the shipping container
- After all items are wrapped, place in front of the Dobson occupying as much space as possible to reduce vibration inside the box

Final Preparation



Dobson filled with foam and
Dobson Quilt



Final large piece of foam that covers
the instrument and all accessories

- Fill in all remaining space with foam or bubble wrap
- The Dobson box should be filled completely with foam to the level of the top lid
- Once packed completely, the large solid piece of foam should be placed over the entire Dobson unit before closing the box

Shipping

- Close the lid and use cable-ties to secure the locks into place
- Send back the instrument collect to:

**World Dobson Calibration Center
c/o Brooke Walsh or Bob Evans
325 Broadway
R/CMDL1
Boulder, CO 80305**

- Tell the shippers to “Convert to GBL at Destination”
- Send an email to Brooke.Walsh@noaa.gov or Robert.D.Evans@noaa.gov with the details of the shipment