

ARCS PROCEDURE:  Author: C. Flynn	REMOVING MPLHR SPECTRAL PHYSICS LASER DIODE	PRO(MPLHR)-010.000  May 26, 1999 Page 1 of 2
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## Removing MPLHR Spectral Physics Laser Diode

### I. Purpose:

To describe the procedure for removing the MPLHR spectral physics laser diode and setting it out to dry.

### II. Cautions and Hazards:

None.

### III. Requirements:

- Small screwdrivers (slotted and Phillips).
- Large (standard) Phillips screwdriver.
- Plastic cap for fiber optic cable.

### IV. Procedure:

#### A. Steps:

1. Turn the system OFF.
  - On the handset, press the \* key until WATTS appears.
  - Press the down arrow until .00W appears on the display.
  - Press the button next to the 'EMISSION.' 'EMISSION' light should go off.
  - Turn OFF the Lidar Diode Supply by turning the key to the OFF position.
  - Turn OFF the Lidar Controller (the box above the diode supply).
  - Turn OFF the computer.
2. Remove the AC power cable at the lower left-hand corner of the back of the Laser Diode Supply.
3. Disconnect and remove the 9-pin connector located half-way between the middle of the left-hand side of the back of the Laser Diode Supply. To remove this connector, you must loosen the screws fastening it to the Laser Diode Supply. The screws are either slotted or Phillips fasteners. The other end of this cable attaches to the MPL transmitter box. Leave it attached to the transmitter box.
4. Disconnect the BNC connector at the upper right-hand corner of the back of the Laser Diode supply. The other end of this cable is

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Author: C. Flynn		May 26, 1999 Page 2 of 2

attached to the MPL transmitter box with a gold-plated connector. Leave it attached to the transmitter box.

5. There is a large (34-pin) connector attached near the middle of the Laser Diode Supply. Do not disconnect this large connector. Instead, follow the cable to the other end, at the aluminum Lidar Control Box. Disconnect the BNC connector at the Lidar Control Box.
6. Disconnect the fiber optic cable for the lower right-hand corner of the back of the Lidar Control Box. This fiber is delicate and must be handled very carefully. Unthread the fiber optic cable by grasping the metal portion of the connector, not the black plastic portion. Once the fiber optic cable is free, it must be protected from any contact. Cover the end of the fiber optic cable with the plastic cap. Also cap the exposed opening of the Laser Diode Supply. A metal cap for this purpose is attached to the Spectra Physics supply with a small chain near the fiber optic connector opening. (In fact, it is possible that the plastic cap for the fiber optic cable is also threaded into the metal cap or the plastic cap is a metal cap attached to the fiber optics cable.)
7. Use the large Phillips screwdriver to remove the four screws fastening the Laser Diode Supply to the MPL instrument rack. The screws are located on the front of the Laser Diode Supply.
8. Pull the Supply out of the rack and move the Laser Diode Supply to the D-Van. You will have the handset attached to the front and a cable attached on back of the supply. You will need to be careful moving the supply.
9. Remove the 4 screws on top of the Laser Diode Supply. Put the screws where you can find them again.
10. Remove the lid.
11. Check inside for water, previous signs of water, or any other type of damage. Report any damage to the tech on-call and system lead.
12. Tip the Laser Diode Supply on one end and lean the rest of the Laser Diode Supply against the wall. This will help it to dry out.

**V. References:** None.

**VI. Attachments:** None.