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Find the *Newport / ILX Lightwave LDM-4984* at our website: *Click HERE*

LDM-4982 and LDM-4984 Quick Set-Up Guide

FIXTURING TECH NOTE

OVERVIEW

The LDM-4980 series mounts are equipped with configurable pin headers. This allows for quick and easy set up for different pin configurations. This guide is an overview for configuring the LDM-4980 pin connections to match the laser diode pin settings.

LDM-4980 General Wiring Instruction

The LDM-4980 Series Mounts are equipped with configurable pin headers. These headers are accessed by unscrewing the rubber feet on the bottom of the mount and removing the bottom cover or by removing the bottom plate if the mount is configured with the TE-550 case temperature control temperature option.

A drawing of the inside of an LDM-4980 mount is shown in Figure 1. Holding the mount upside down, notice the configuration headers on the left and right of the printed circuit board and pedestal. The pin headers are connected to the laser socket(s) via the printed circuit board. The numbers next to the headers designate the laser pin number. There are up to three 9-pin D-sub connectors on the mount for the laser current control, laser internal temperature control, and laser case temperature control. The pair of 9-pin connectors are the laser current control and laser temperature control. Color coded wires are soldered to the 9-pin D-connectors on one end, and un-terminated on the other end. The connectors mate with the current and temperature control cables from ILX Lightwave laser current source and temperature controllers.

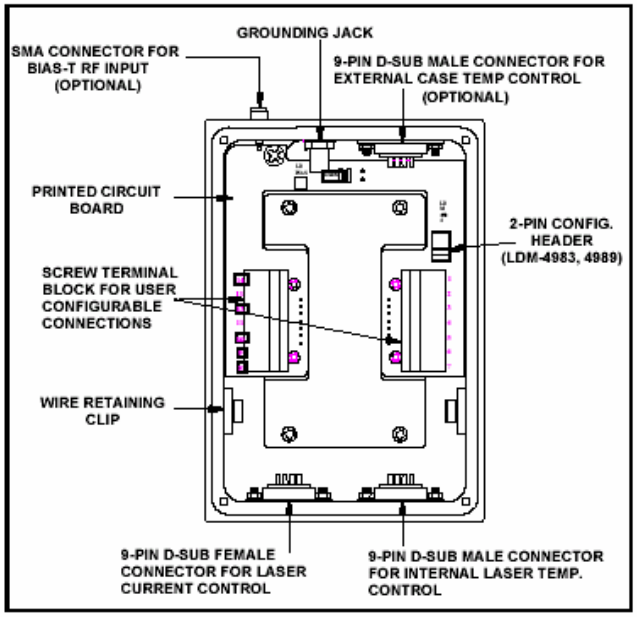


Figure 1
Bottom view of a typical LDM-4980 Mount (Bottom cover removed)

The mount is configured for your laser diode by connecting the color coded wires from the 9-pin connector to the corresponding pin on the configurable header. Insert the wire into the header and tighten the clamping screw. The connector pin designations and wire color codes for most LDM-4980 Series Laser Diode Mounts are shown in Figure 2.

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LDM-4982 and LDM-4984 Quick Set-Up Guide Example

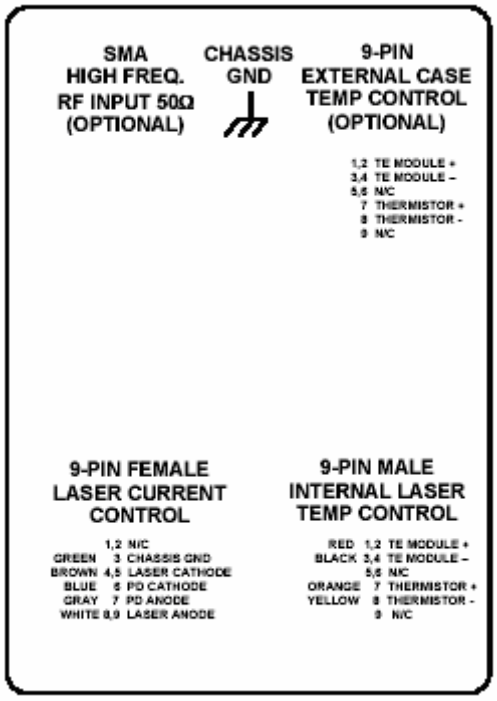


Figure 2: LDM-4980 Series Mount Bottom Cover

An **EXAMPLE** for a laser with internal TEC is given below in table 1.

Connections

Pin #	Description	Pin #	Description
1	Peltier cooler (+)	8	Not connected
2	Thermistor	9	Not connected
3	Monitor anode (-)	10	Laser anode (+)
4	Monitor cathode (+)	11	Laser cathode (-)
5	Thermistor	12	Not connected
6	Not connected	13	Case ground
7	Not connected	14	Peltier cooler (-)

Table 1: Laser Diode Pin Configuration with Internal TEC

Example:

1. Starting with pin 1, Peltier cooler (+), connect the red wire from the 9-pin male Internal Laser Temp Control connector to pin 1 of the configurable header.
2. Pin 2 of the laser is the thermistor, connect the orange wire from the 9-pin male Internal Laser Temp Control connector to pin 2 of the configurable header.
3. Pin 3, monitor anode, connect the gray wire from the 9-pin Female Laser Current Control connector to pin 3 of the configurable header.
4. Pin 4, monitor cathode, connect the blue wire from the 9-pin Female Laser Current Control connector to pin 4 of the configurable header.
5. Pin 5, thermistor, connect the yellow wire from the 9-pin male Internal Laser Temp Control connector to pin 5 of the configurable header.
6. There are no connections for pin 6,7,8 and 9.
7. Pin 10, laser anode, connect the white wire from the 9-pin Female Laser Current Control connector to pin 10 of the configurable header.
8. For pin 11, laser cathode, connect the brown wire from the 9-pin Female Laser Current Control connector to pin 11 of the configurable header.
9. There are no connections for pin 12 and 13.
10. Pin 14, peltier cooler (-), connect the black wire from the 9-pin male Internal Laser Temp Control connector to pin 14 of the configurable header.

It is always a good idea to double check your work before powering up the laser diode to make sure the connections are correct.

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