



LDX SERIES LASER DIODE SOURCE AND CONTROL MODULE

Quick Start Set-Up Guide



Manufactured for Laser Lab Source by: **KVANT***

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INTEGRATED NICHIA LASER DIODE

laser diode mounted to TEC
temperature controlled mount;
collimated beam output



INCLUDES CURRENT & TEMPERATURE CONTROL UNIT

controller unit has pre-set limits to keep laser diode in safe
operating range; user adjustable output power knob

INTRODUCTION

Through collaborations with many of the industries leading laser diode module manufacturers, Laser Lab Source offers a wide variety of high quality laser diode modules for R&D applications. These Scientific Series laser modules are designed to deliver very high stability and excellent beam quality for research laboratory environments. All LDX Laser modules include integrated LASORB ESD absorbing components to protect against both positive and negative ESD.

The LDX series laser diode sources are microprocessor controlled laser diode source and control instruments that provide user adjustable laser power at user specified wavelengths. These sources are well suited for laboratory and production automated test and measurement applications. These include fluorescence, excitation and sensing applications. Instrument features include user adjustable laser power output and modulation. High output stability for all options is achieved by proven laser diode current and temperature control technology

SAFETY INFORMATION

The Safety and Warranty Information section provides details about cautionary symbols, safety markings used on the instrument, and information about the Warranty including Customer Service contact information.

Safety Information

The words *Caution* and *Warning* indicate potential danger or hazardous situations which, if not avoided, could result in death, serious or minor injury, or damage to the product. Specifically:



Caution indicates a potentially hazardous situation which can result in minor or moderate injury or damage to the product or equipment.



Warning indicates a potentially dangerous situation which can result in serious injury or death.



WARNING

Visible and/or invisible laser radiation, avoid direct exposure to the beam.

General Safety Considerations

If any of the following conditions exist, or are even suspected, do not use the laser diode module instrument until safe operation can be verified by trained service personnel:

- Visible damage
- Severe transport stress

WARRANTY

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Laser Lab Source warrants this instrument to be free from defects in material and workmanship for a period of one year from date of shipment. During the warranty period, Laser Lab Source will repair or replace the unit, at our option, without charge.

Limitations

This warranty does not apply to defects caused by abuse, modifications, or use of the product in ways for which it was not intended.

This warranty is in lieu of all other warranties, expressed or implied, including any implied warranty of merchantability or fitness for any particular purpose. Laser Lab Source shall not be liable for any incidental, special, or consequential damages.

If a problem occurs, please contact Laser Lab Source with the instrument's serial number, and thoroughly describe the nature of the problem.

Claims for Shipping Damage

When you receive the instrument, inspect it immediately for any damage or shortages on the packing list. If the instrument is damaged, file a claim with the carrier. The factory will supply you with a quotation for estimated costs of repair. You must negotiate and settle with the carrier for the amount of damage.

OEM CONTROL UNIT SET-UP

OEM Control Unit General Set-Up and Operating Information

1. Connect the the interconnect cable from the power supply to the current control unit
2. Connect the included power supply to an AC port in your lab
3. **NOTE: The control unit and the laser module will turn ON when the AC power cable is connected to the control unit**
4. Use the trim potentiometer knob on the front panel of the control unit to adjust the laser output power
5. The integrated laser diode temperature is being actively and automatically controlled and held at 25C by the control unit.



WARNING

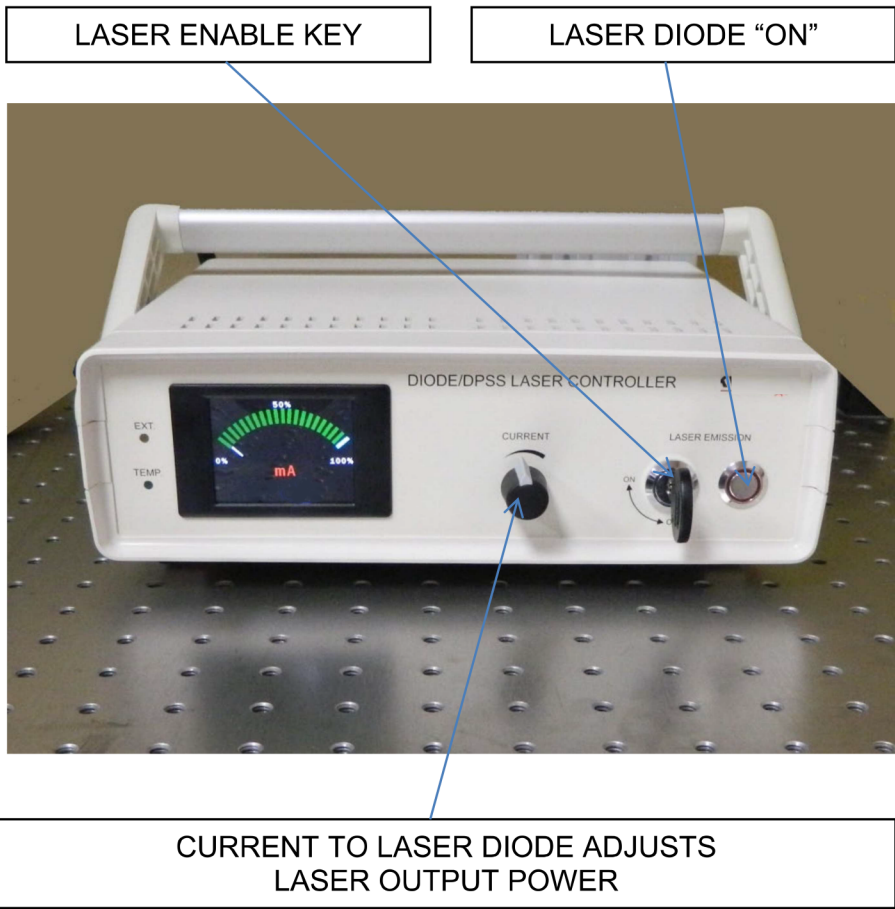
Visible and/or invisible laser radiation, avoid direct exposure to the beam.

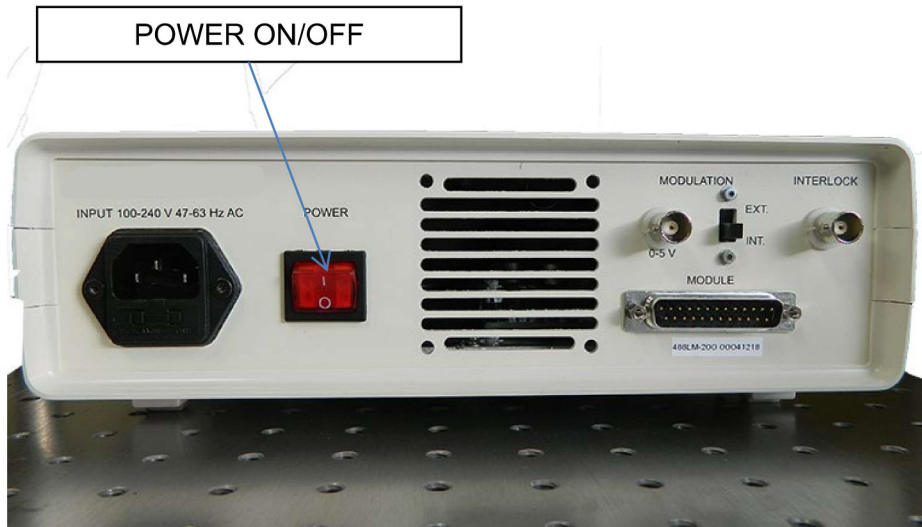


BENCHTOP CONTROLLER SET-UP

Benchtop Power Supply General Set-Up and Operating Information

1. CONNECTING THE LASER DIODE MODULE TO THE BENCHTOP CONTROLLER:
With the rear panel power switch turned OFF, the user should connect the d-Sub connectors from the laser diode housing (laser head) to the controller unit.
2. The user should check that the Current adjustment knob on the front panel is turned all the way to the left.
3. After the interconnect cable is in place, turn the rear panel power switch ON.
4. If desired, the modulation signal can be applied to the BNC on the rear panel.
5. To allow power to the laser diode, turn the front panel enable key to the ON position.
6. To apply power to the laser diode and turn the laser ON, press the laser emission button on the front panel.
7. The laser diode will emit optical output power relative to the drive current potentiometer knob, and will increase from 0 to full scale power in a linear fashion with the current adjustment.





SUPPORT:

If you have questions, please contact Laser Lab Source at:
contact@laserlabsource.com
or call 800-887-5065