

Notes:

1. Preregulator zener value is not critical.
2. TL431 set for 2.5 V. A zener diode may also be used.
3. R4, R5, and R7 should be selected for the desired power levels based on monitor photodiode sensitivity.
4. C5 uF value must be reduced for high speed modulation.
5. Laser diode current may be monitored as 100 mA/V across R9.
6. Circuit can be debugged and tweaked safely by substituting 3 or 4 LEDs in parallel for the laser diode and using a discrete photodiode instead of the one built into the laser assembly.

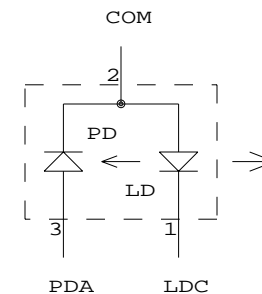
Once the circuit is working, replace with the laser diode assembly.

Laser diode connector (LD1):

- Pin 1: Laser diode cathode
- Pin 2: Common
- Pin 3: Photodiode anode

Input Connector (J1):

- Pin 1: Gnd
- Pin 2: Power Select (Modulation)
- Pin 3: Enable (high or open)
- Pin 4: NC
- Pin 5: Vcc (+6 to +12 V)



# Laser Diode Driver SG-LD1

Samuel M. Goldwasser		
sam@repairfaq.org		
Title		
Laser Diode Driver SG-LD1		
Size	Document Number	REV
A	SG-LD1-SCH	1.0
Date:	December 9, 2004	Sheet 1 of 1