

Instruction Manual for MODIR,
Fiber Optic Coupled Infrared Light Source with integrated optical shutter.

JT INGRAM
TECHNOLOGIES

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The MODIR Infrared light source is a high powered 1500 Kelvin black body source. This infrared source is coupled into an SMA fiber optic connector via an elliptical reflector. The source has integrated optical shutter that can be used to block the light source for taking dark signal references. The shutter can be continually modulated to provide chopped optical signals. The shutter can be controlled manually through the front control knobs or via a "TTL" level signal through the DB15 connector interface on the back of the light source.

The user controls for the IRLS consist of an on/off/on switch located on the right side. The switch on the left is used to control the shutter. The three position switch goes from position 1/External ttl Control/Position 2.

The silicon nitride emitter can be used continuously for two thousand hours.

Warnings:

- The silicone nitride light source inside the MODIR is very HOT, do not operate the unit unassembled
- Do not leave the unit operating without a fiber optic in place. .
- Be careful when removing and replacing fibers, as the light is very intense and could cause burns.
- Do not leave the MODIR operating unattended.
- The IRLS should not be used in proximity to combustible materials.

Connections

Pin 1 on the back of the LLS is used to externally control the shutter. This signal should be referenced to ground via pins 9 and 10. The polarity of this signal should be high for shutter open, and low for shutter off.

The switch on the left should be in the middle position so that the Cool Red is set to external TTL control



Interface connectors on unit:

Specifications

Lamp	
Material	Silicone Nitride (Si3N4)
Temperature	1500 °K
Life time	2,000 hours
Warm up time	12 seconds
Power	50 Watts
Shutter	
Shutter frequency	20hz
Additional Info	
Replacement lamps	CR-Lamp-50W \$129.00
Power supply requirements	
5 amps, 24 volts	
5.5mm OD/2.1mmID	
Universal input power supply included	

DB 15 Connections	
1	Shutter input
2	N/C
3	N/C
4	N/C
5	N/C
6	N/C
7	SCL for I2C EEPROM
8	SDA for I2C EEPROM
9	Ground
10	Ground
11	3.3V input for I2C EEPROM
12	N/C
13	N/C
14	N/C
15	N/C