

Safeguards and Precautions



This Safety Notice has been included to emphasize the **DANGER OF HAZARDOUS VOLTAGES** in the Stroboscope. **USE EXTREME CAUTION WHEN INSTALLING OR SERVICING** your instrument. Please read the warnings below before attempting to install or service your instrument.

Before any connections are made to the recorder, ensure the protective earth terminal is connected via the ground prong on the plug provided on the fixed cable. If the plug is removed ensure the ground wire (green or green/white) is properly connected to a secure earth point.



WARNING

This warning sign on the unit cautions the user to read this manual to determine the nature of the hazard and any precautions which should be taken.

Any interruption of the protective conductor inside or outside the recorder, or disconnection of the protective earth terminal is likely to make the unit dangerous under some fault conditions. Intentional interruption is prohibited.

1. Read and follow all instructions in this manual carefully, and retain this manual for future reference.
2. Do not use this instrument in any manner inconsistent with these operating instructions or under any conditions that exceed the environmental specifications stated.
3. Use of this product may induce an epileptic seizure in persons prone to this type of attack.
4. Objects viewed with this product may appear to be stationary when in fact they are moving at high speeds. Always keep a safe distance from moving machinery and do not touch the target.
5. There are lethal voltages present inside this product. Refer to the section on Lamp Replacement before attempting to open this product. This AC Stroboscopes has a three wire mains cable that must have the earth wire connected to a suitable Earth point.
6. Do not allow liquids or metallic objects to enter the ventilation holes on the stroboscope as this may cause permanent damage and void the warranty.
7. Do not block the vents at the front or rear of the device - allow sufficient space around the stroboscope for air circulation - at least 4 inches (10cm)
8. Do not allow cables extending from unit to come into contact with rotating machinery, as serious damage to the equipment, or severe personal injury or death may occur as a result.
9. Do not direct strobe flash toward certain data collectors, as it may temporarily interrupt data collector operation, and could result in loss of stored data.
10. This instrument may not be safe for use in certain hazardous environments, and serious personal injury or death could occur as a result of improper use. Please refer to your facility's safety program for proper precautions.
11. This instrument is not user serviceable. For technical assistance, contact the sales organization from which you purchased the product or Monarch Instrument directly.



In order to comply with EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE): This product may contain material which could be hazardous to human health and the environment. DO NOT DISPOSE of this product as unsorted municipal waste. This product needs to be RECYCLED in accordance with local regulations, contact your local authorities for more information. This product may be returnable to your distributor for recycling - contact the distributor for details.

Monarch Instrument's Limited Warranty applies. See www.monarchinstrument.com for details. Warranty Registration and Extended Warranty coverage available online at www.monarchinstrument.com. Safeguards and Precautions

Machine Vision Strobe

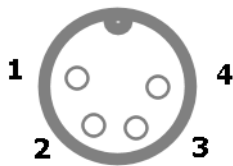
The MV Strobe is an AC powered stroboscope that requires an external trigger signal to operate. The strobe is designed for continuous operation and has a fan for forced air cooling. DO NOT BLOCK THE FAN OR THE INLETS AROUND THE EDGES OF THE FRONT LENS. There is a 1/4-20 bushing at the bottom of the housing to easily mount the unit. The unit MUST NOT be mounted with the reflector facing vertically up as heat from the lamp may damage the lens. The focus can be adjusted by loosening the four screws at the top and bottom of the housing and adjusting the reflector forward or backward to suit. Ensure that the lamp is centered in the reflector. Do not allow the reflector to touch the lamp as this will cause misfiring. CAUTION - the product may be hot.

There is an LED on the rear panel which indicates power on (green) or high temp condition (amber) which will inhibit the strobe from flashing.

There is a trimmer alongside the led which can be used to adjust the flash pulse width from around 25 to 100 usec depending on the application. Clockwise is wider.

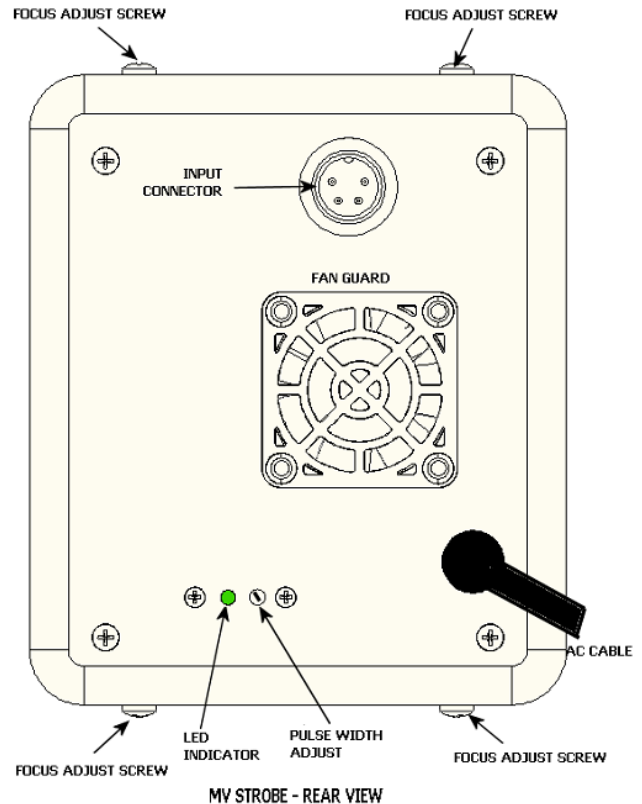
The strobe provides an auxiliary 5V output (75mA max) to power external sensors or controllers

The signal connection is via an industrial DIN connector socket - connections are shown below:



Din Connector

- | | |
|---|--|
| 1 | +5V Out to power external device (Max 75mA) |
| 2 | Signal Input. 3 to 12V positive going pulse at least 10usec wide |
| 3 | Common |
| 4 | No Connection |



Replacing the Lamp - ENSURE THAT THE UNIT IS DISCONNECTED FROM THE MAINS SUPPLY. THERE ARE LETHAL VOLTAGES INSIDE THE UNIT. ALLOW THE UNIT TO COOLD DOWN IF IT IS HOT.

To replace the lamp remove the four adjusting screws used to focus the lamp and pull the reflector assembly out of the unit. Use a soft cloth to handle the flash tubes. Remove the old tube and replace with the new tube. DO NOTE HANDLE THE TUBE WITH BARE FINGERS - use a lint free cloth. Note the orientation. Ensure the flash tube is firmly seated and replace the reflector assembly. Ensure the lamp is centered in the reflector opening.

SPECIFICATIONS:

- Operating Temperature 32 - 104°F [0 - 40 °C] ambient. NOTE: Safety thermal feature will shutdown unit (stops flashing) in the event of internal overheating - indicated by red power led.
- Humidity Maximum relative humidity 80% for temperature up to 88 °F [31 °C] decreasing linearly to 50% relative humidity at 104 °F [40 °C]
- Trigger to Flash Delay 5 µsec typical
- Adjustable Flash Duration 25 to 100 usec typically
- Input Power AC powered: 115 Vac OR 230 Vac, 45VA - Factory configured
- Light Output Average Power: 20 Watts
- Instantaneous Power (per flash): 450mJoule to 4000 FPM
- Max Flash rate: Configuration Dependent - typically 10,000 FPM
- Run Time Continuous within temperature limitations. Vents and Fan must not be restricted. Do not run with light source facing directly up.
- Dimensions: 6.0 x 4.25 x 5.0 inches (L x W x H). Weight - 1.6 lbs