

# ***MICROH***

## ***COBRA-50 MKII***

50 mw Green Scanning  
Laser System

**USER MANUAL**

## Instructions:

Thank you for purchasing the **MICROH COBRA-50 MKII** 50 mw Green Laser System. For the consideration of your safety and a better understanding of how to use this product, please read this user's manual carefully and adhere to the guidelines to protect the user and others from the laser emission.

The **COBRA-50 MKII** Green Laser System utilizes advanced design and uses components manufactured in the USA. It features a highly efficient optical system and a very sophisticated drive system. The system also features a stand-alone function, wired remote control with selectable auto or manual methods to choose the available patterns. When the auto method is ON, it will generate 3D images that will react with sound, and change patterns using a real time calculation function. When the manual method is ON, the user can choose the image patterns manually, i.e.: to generate liquid sky effects and tunnel effects. All aerial images look best with the use of atmosphere, generated by a smoke machine or hazer.

## SPECIFICATIONS:

- Voltage: 120VAC
- AC Frequency: 60 Hz
- Power consumption: 100Watts
- Fuse: 2A/250V
- Laser Diode: USA Made semiconductor unit (50 mw output)
- Resistance: >2 MΩ
- Control Signal: **MICROH COBRA-50 MKII** remote control
- Pattern Trigger: Auto/Sound activated
- Strobe Flash: Yes
- Beam Angle: Wide Angle
- Size: 13" x 4.5" conical
- Net Weight: 6 lbs

## **SAFETY INSTRUCTIONS:**

- Only qualified service technicians are authorized to do repairs on this unit. There are no user serviceable parts inside this unit.
- Correct primary voltages must be used (120VAC)
- Do not block any of the ventilation of this laser system while it is in operation. Do not use or store any flammable or explosive products (i.e.: pyrotechnics) near this laser equipment. Do not place your hand directly in front of the laser beam.
- Minimum distance between laser output and any object is 1 meter.
- To avoid serious eye injury, do not look directly into the laser beam. Point the laser effect in a safe manner towards the desired location.

## **PACKAGE CONTENTS:**

- **COBRA-50 MKII** Green Laser Light
- **COBRA-50 MKII** Wired Remote Control
- AC Power cable (120VAC)
- User manual

## **INSTALLATION INSTRUCTIONS:**

- This laser product is suitable for indoor use only. The normal operating temperatures (ambient) must be below 35C.
- A qualified technician should be familiar with all safety aspects and user functions before installing and using this product. Safe hanging procedures should be followed.
- Inspect all the equipment and verify that there has not been any damaged caused by transportation.
- Connect the AC power plug into the connector on the back of the laser. Connect the wired remote cable into the 5-pin XLR (input) connector on the back of the laser. The laser may now be plugged into an appropriate AC power source. Do not plug in or remove the remote connector while the laser is powered ON.
- Install the laser system in a well-ventilated area, make certain none of the vents are blocked on the laser.
- Only replace the fuse with the same type and rating (2A/250V)

## OPERATING INSTRUCTIONS:

**WARNING: ONLY A 5-pin XLR to XLR cable can be used to extend the wired remote cable. The wiring is of pin-to-pin type.**

- Use the wired remote cable and connect the 5 pin XLR to the laser controller input. Multiple lasers can be used with one remote control. To do this, a 5 pin XLR-XLR cable is required. Simply connect the next laser from the output of the first laser system, and so on, until they are all connected. A maximum of 8 laser units can be daisy chained with one remote control.
- Every time the unit is powered on, it will undergo a “reset” and home. The laser system will be ready for use once this reset is complete.
- Do not shake the laser while it is in operation.

## APPENDIX: WIRED REMOTE INSTRUCTIONS

The **COBRA-50 MKII** Laser System Wired Remote control is only intended to be used with the **COBRA-50 MKII** Laser System. Multiple units may be connected together and the patterns can be accessed from the single remote. The laser system may also be used separately to change patterns manually, or by sound activated control.

- There are 5 buttons on this controller:
  - AUTO/MANUAL
  - PAGE DOWN
  - BLACKOUT
  - PATTERN SELECT
  - ENTER
  - SHOW PATTERN (Numerical LED display)

Make certain the wired remote is connected to the laser system and there is AC power connected to the laser.

- When the power is ON, “H” will be shown on the LED display, then the laser will react by music (via the internal microphone) and start drawing aerial images.
- Press the AUTO/MANUAL button to select between the AUTO or MANUAL function.

- Press the AUTO/MANUAL button (to select MANUAL mode), “0” will be shown on the LED display, the MANUAL function is engaged. Then press the PATTERN SELECT key to choose patterns.
- To select a different pattern, use the PATTERN SELECT button and scroll through the available built in patterns. The LED display will flash with the corresponding pattern number. Press the ENTER button to select the new pattern, the LED display will stop flashing the pattern number, and the new pattern will be displayed from the laser.
- When a pattern is running, using the BLACKOUT button will black out the laser. (no laser image will be displayed)
- There are two available banks of patterns. Press the BANK DOWN button to select the next available bank of patterns. Once the BANK DOWN button has been pressed, a red dot will be displayed on the bottom right corner of the LED display. Press the ENTER button to confirm the change.

