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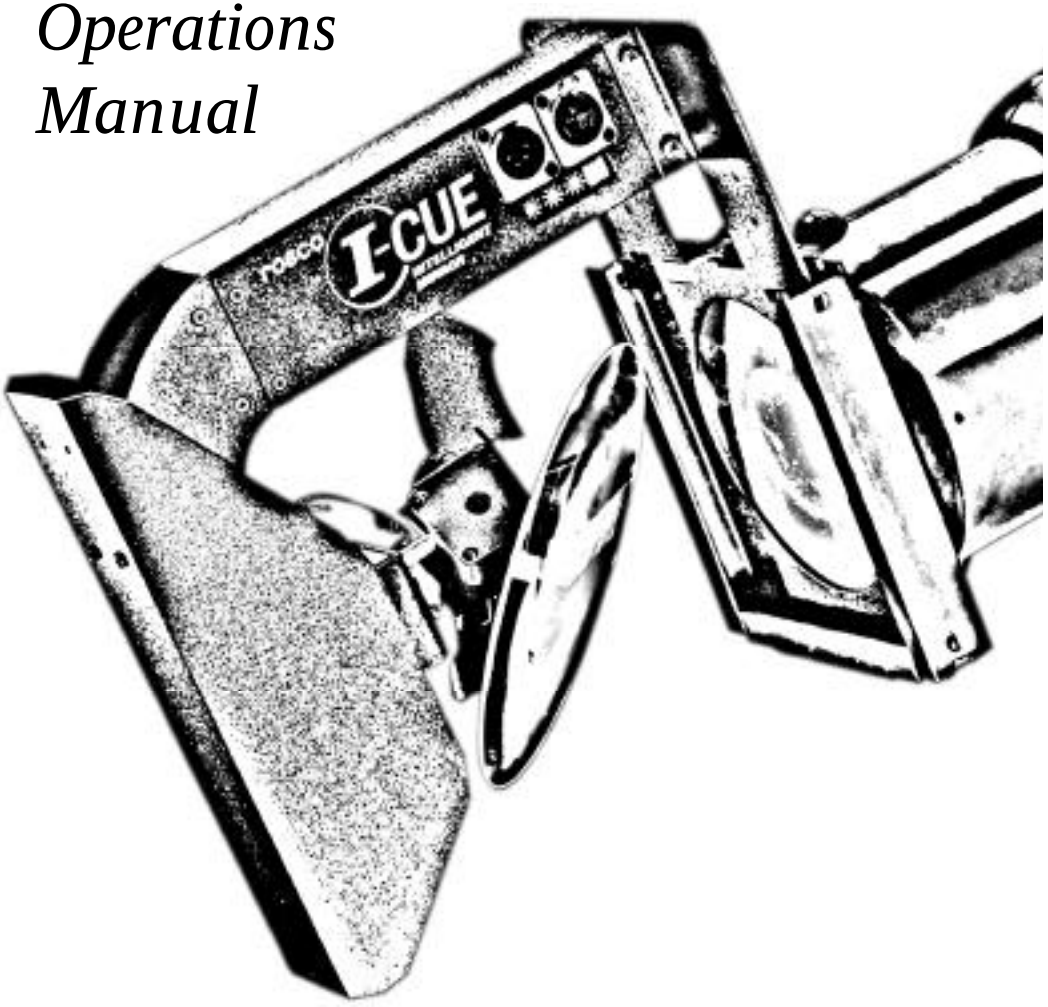
I-CUE INTELLIGENT MIRROR

Operations Manual



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Introduction

Rosco's I-Cue Mirror is a motorized mirror attachment that provides precise, DMX controlled direction to the light beam from an ellipsoidal reflector spotlight. It can be used to turn stationary light into a "moving light" by moving the beam around up and down, left and right. The I-Cue can also be used to direct the light beam to a specific spot. Since the I-Cue's DMX control can re-direct the beam to meet the needs of dozens of light cues, the number of instruments needed is minimized.

The I-Cue Mirror is lightweight, compact and quiet enough to use in any production setting. With the ability to integrate with color scrollers, it is possible to produce both motion and color changing from one ellipsoidal fixture. The I-Cue Mirror offers lighting designers a precision of movement usually found in high-end, high priced Moving Lights.

The unit is designed to work with the ETC Source Four, Altman Shakespeare, Strand SL, and Selecon Pacific series fixtures.

The I-Cue does not interfere with the positioning or focusing of the light fixture. Optimum operational characteristics are achieved when the device is used on fixtures with a beam angle of 36 degrees or less.

The Pan range is up to 230 degrees with the Tilt range up to 57.3 degrees. The light is reflected to the desired direction by a large 6" x 7" ellipsoidal glass mirror and the unit is suitable for operation in any position.

The unit comes in a basic configuration with universal mounting brackets for ellipsoidal spotlight fixtures. Modular power supplies and accessory cable are also available for the units.

Control And Power Requirements

The device requires 24-volt DC external power supply and operates on two or four channels of DMX 512 to control the movement of the mirror. Power and DMX signals are transmitted to the unit via a four conductor XLR scroller cable.

In the two-channel mode, one channel controls the pan and the other tilt with 8-bit resolution. In this mode the pan range is 230 degrees with 0.9 degrees of resolution and the tilt range is 57.3 degrees with 0.225-degree resolution.

In the four-channel mode the channels are respectively, Pan coarse, Pan fine, Tilt coarse, and Tilt fine with 16-bit resolution. In this mode the pan range resolution is 0.228 degrees and the tilt range resolution is 0.028. The user can choose 8 or 16-bit operating mode by means of Dipswitch #1. (See Addressing and Modes of Operation section.)

The scroller cable power pair is 14AWG and the data pair is 22AWG. The connectors are four pins XLR with the following Pin-out. Pin 1 is 0 volts DC and pin 4 is +24 volts DC and pin 2 is DMX (-) with pin 3 being DMX (+). *Care should be taken to confirm that the output of the power supply used conforms to the above as some scroller power supply manufacturers use reverse polarity in their units.* The device draws 0.7 amps at 24 volts.

Unpacking Of The Unit

The unit is shipped in a specially constructed shipping carton to provide protection to the unit. Carefully open the carton and remove the device by grasping the support arm in the middle and lifting the unit vertically out of the carton. Next, carefully remove the rubber restraint band used to stabilize the mirror unit during shipment.

The front light shield had been designed so that it can act as a shipping support and must be repositioned before using the device as a moving mirror. Loosen the two M4 wing screws on the front of the unit and reposition the light shield by moving the shield downward to the position necessary to prevent light leaks depending on the beam angle and focusing.

Addressing And Modes Of Operation

The unit has user-friendly rotary address switches and can be addressed to any location between 1 and 512 by dialling the number on the three decimal rotary switches.

The device is also equipped with additional binary switches for setting the following operating characteristics:

- Switch #1 selects between 8-bit resolution ("off" position) and 16-bit resolution operation ("on" position)
- Switch #2 allows the user to reverse the direction of pan motion when the configuration of the light fixture and device dictate. Normal operation mode is "off"; reverse mode is achieved in the "on" position.
- Switch #3 reverses the tilt mode of operation with normal operation being the "off" position and the reverse mode is achieved in the "on" position.

Non DMX Mode

The device is designed with the option of playing back a factory pre-recorded chase when no DMX signal is available. This mode of operation becomes activated when the rotary address switches are set at 600. The x1 address switch allows for four different Pan speeds corresponding to the numbers 0, 1, 2, and 3 where 0 is the fastest. The x10 address switch allows for four different Tilt speeds corresponding to the numbers 0, 1, 2 and 3 where 0 is the fastest.

Mounting On The Fixture

For proper operation, the device must be firmly attached to the light fixture it is mounted on. To achieve this, the mounting plate of the unit has two flat springs at the outer edge. This basic unit is designed to mount in the rear color frame slot of the ETC Source Four, Strand SL, Altman Shakespeare, and Selecon Pacific ellipsoidal fixtures.

The units back plate should be inserted in the rear color slot and gently pushed down until the unit is firmly seated in the bottom slot and latched in place. Next, input power and DMX should be brought to the unit by way of 4-pin XLR connector scroller cable. If daisy chaining is desired, scroller cable should be run from the output connector on the device to the next device.

When DMX is first applied to the unit, it will go through a homing sequence, which will cause the mirror to momentarily move rapidly in opposite directions, around the home position before following the chase sequence.

If the rear slot is not available for mounting of the device because of the use of a gel holder in this slot and it is not convenient to place the gel holder in the front color slot, the front slot can be used for mounting.

Achieving Both Color And Motion

The device has been designed to operate with theatrical scrollers. To achieve this mode of operation, an extension bracket is required.

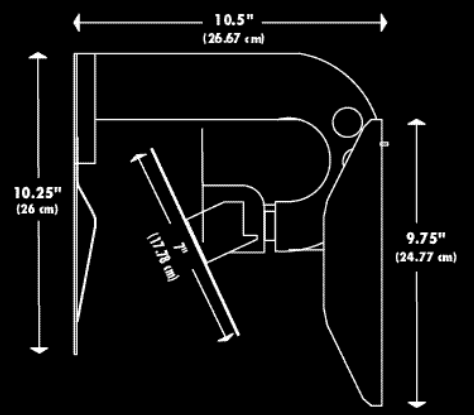
The scroller is mounted first in the front color frame for the light fixture after being properly addressed. The preferred orientation of the scroller is an orientation rotated 90 degrees from the normal vertical position.

The I-Cue Mirror with the extension bracket is then inserted in the rear color slot as before and connected to the input XLR cable. A short cable (length of scroller) is then run from the output XLR connector of the I-Cue Mirror to the input of the scroller to provide power and DMX control to the unit. The output of the scroller can be daisy-chained to other mirrors, scrollers or compatible accessory devices.

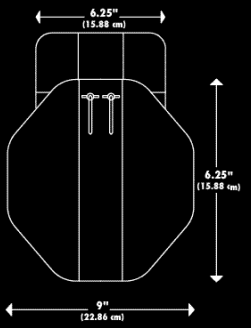
I-CUE Mirror Specifications

Dimensions	Length 9.5", Width 6.5", Height 9.5"
Weight	3.5 lbs.
Speed	2 seconds: 0 to100% Pan, 1 second: 0 to 100% Tilt
Resolution	0.9 degrees for Pan and 0.225 for Tilt in 8-bit mode 0.028 degrees for Pan & Tilt in 16-bit mode
Addressing	1 to 512 by setting three decimal rotary switches
Power Requirements	24V DC
Power Consumption	0.7 amps @ 24V DC
Body Material	Black powdered aluminum
Mounting plate	6.25"Width, 5.0" Aperture

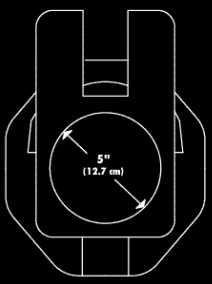
SPECS



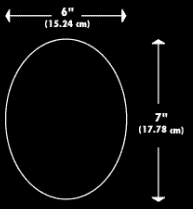
SIDE VIEW



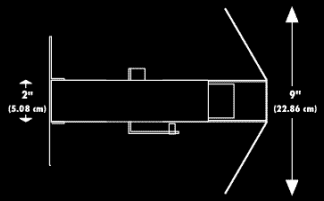
FRONT VIEW



REAR VIEW



MIRROR DETAIL



TOP VIEW

Troubleshooting

Symptoms	Possible Cause	Solution
At power-up the mirror doesn't go through the homing sequence	Missing or improper power	Check power control line Check power supply
	Damaged electronic card	Consult the distributor for service center
Doesn't respond to DMX at all	No DMX to the Power Supply	Check power supply/splitter for presence of DMX
	Faulty scroller cable	Confirm scroller cable is used and not mic cable/replace cable
	Improper address setting	Check setting
The mirror vibrates in one place when supposed to move	Broken motor cable	Contact distributor for service centre
	Popped out motor connector	Reconnect and check
Mirror panning/tilting in opposite direction	Pan/tilt reverse switch improper setting	Check and reset
The tilt doesn't respond to DMX	16-bit mode setting when 8-bit control is intended or vice versa	Check and reset

I-Cue Intelligent Mirror Parts List

Part	Number
IC-01 Mounting Plate Assembly	205 81001 0000
IC-02 Broadway Mounting Bracket	205 81002 0000
IC-03 XLR Connector Assembly	205 81003 0000
IC-04 Stepper Motor Lead (each)	205 81004 0000
IC-05 Safety Chain Assembly	205 81005 0000
IC-06 Mirror/Mounting Bracket Assembly	205 81006 0000
IC-07 Digital Control Card	205 81007 0000
IC-08 Stepper Motor (each)	205 81008 0000
IC-09 Mirror Back Plate	205 81009 0000
IC-10 Front Light Shield Assembly	205 8101 00000

Please call Rosco or your local Rosco dealer for pricing and availability.

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