

INTRODUCTION

The Intellabeam lighting system is one of the most advanced of its kind. Each luminaire has two on-board microprocessors; one to handle communications data, and one to manage the myriad of other chores such as beam positioning, color and gobo changing, etc.. The stepper motors are micro-stepped for precise and accurate positioning which can be smooth and fluid, or quick and responsive. Each of the eleven beautiful dichroic colors were manufactured by Lightwave Research in their own optical coating laboratory and tested for accurate color transmission. The iris was custom fabricated from a design that was engineered in-house by top researchers. The optics consist of a finely tuned system of precision ground glass lenses, a high quality infrared filter and a spun aluminum reflector. The lamp is powered by a hybrid supply that combines the reliability of a magnetic power supply with the performance of an electronic switching supply, including dimming to 60%. Besides the eleven colors, twelve gobos, iris, strobe, and dimming effects, additional effects can be achieved by spinning the color wheel and/or the gobo wheel at eight different speeds in either direction.

The lamp source is an MSR 400 short-arc lamp utilizing Medium Source Rare-earth elements that help to improve the spectral distribution. It has a high color temperature (5600 degrees Kelvin) and a long life (500 hours average). The highly efficient power supply circuit draws a mere 6 amps at 120 volts or 3 amps at 240 volts. Both the voltage and the frequency are user selectable for operation on any commercial electrical grid in the world.

All of these features combine to make the Intellabeam the most powerful luminaire of its kind. But the real heart of the system is the microprocessor based controller. It has much to offer, both as a programmable memory driven system, and as a real time, operator driven controller.

Each of the nine memories in the controller contains 99 pages of information, or scenes. The 24 address keys also function as 24 presets that can be accessed instantaneously. Each of the 891 pages of memory is user programmable, providing storage for pan, tilt, color, gobo, iris, strobe, and dimming information. It also allows for the storage of information concerning the speed of the beam from one page to the next, how long of a delay each page will have before proceeding to the next page, and the manner in which one page will crossfade into the next. The pages can be stepped through manually, automatically with a variable rate, or they can be triggered from a music source. Loops can be created within the memory for repetitive motions. There are also a number of modulation effects that can augment a program or provide synchronization to music.

Aside from standard features, there are a number of programming features such as page copying and home positioning that aid in making the job of lighting design quicker and more efficient. The design and development of this system represents an enormous amount of thought and effort as well as trial and error in order to bring the project to completion. It has many powerful capabilities that were designed to give the lighting designer a rich palette of tools, both from a hardware and a software point of view. A little time invested in reading this manual will pay big dividends by saving you programming time and effort. With a little patience and creativity, it won't be long before you can achieve maximum performance from your system.

THE INTELLABEAM FIXTURE

DESCRIPTION

FEATURES

- COLOR - 11 dichroic colors plus an open aperture for white on an indexed bi-directional wheel.
- GOBO - 12 gobo patterns etched on an indexed bi-directional wheel (see figure 10. Gobo Wheel).
- IRIS - variable iris for beam sizing.
- GATE - variable speed gate for strobe and lamp dousing.
- DIMMING - with MSR lamp, dimming capability of 40%
- PAN - 170 degree mirror movement.
- TILT - 110 degree mirror movement.

MIRROR ASSEMBLY - contains pan and tilt motors, and mounts to fixture body with 4 allen screws. Electrical connections are made with two plug-in connectors. The lens and retaining thumbscrew protrude into the mirror assembly (see Figure 2. Fixture Top View and Figure 6. Fixture Front View).

FIXTURE BODY - contains all mechanical, optical, electronic, and electrical components pertaining to the fixture, excluding mirror assembly (see Figure 2. Fixture Top View).

TOP ACCESS DOOR - located on top of fixture body. Removable door allows easy access to virtually every mechanical and optical component of the fixture. It is secured to the body with a self retaining thumbscrew (see Figure 2. Fixture Top View).

CAUTION: TIGHTEN DOOR SECURELY ON CLOSURE. THE SAFETY INTERLOCK SWITCH WILL INTERRUPT POWER IF THE DOOR IS NOT COMPLETELY SHUT.