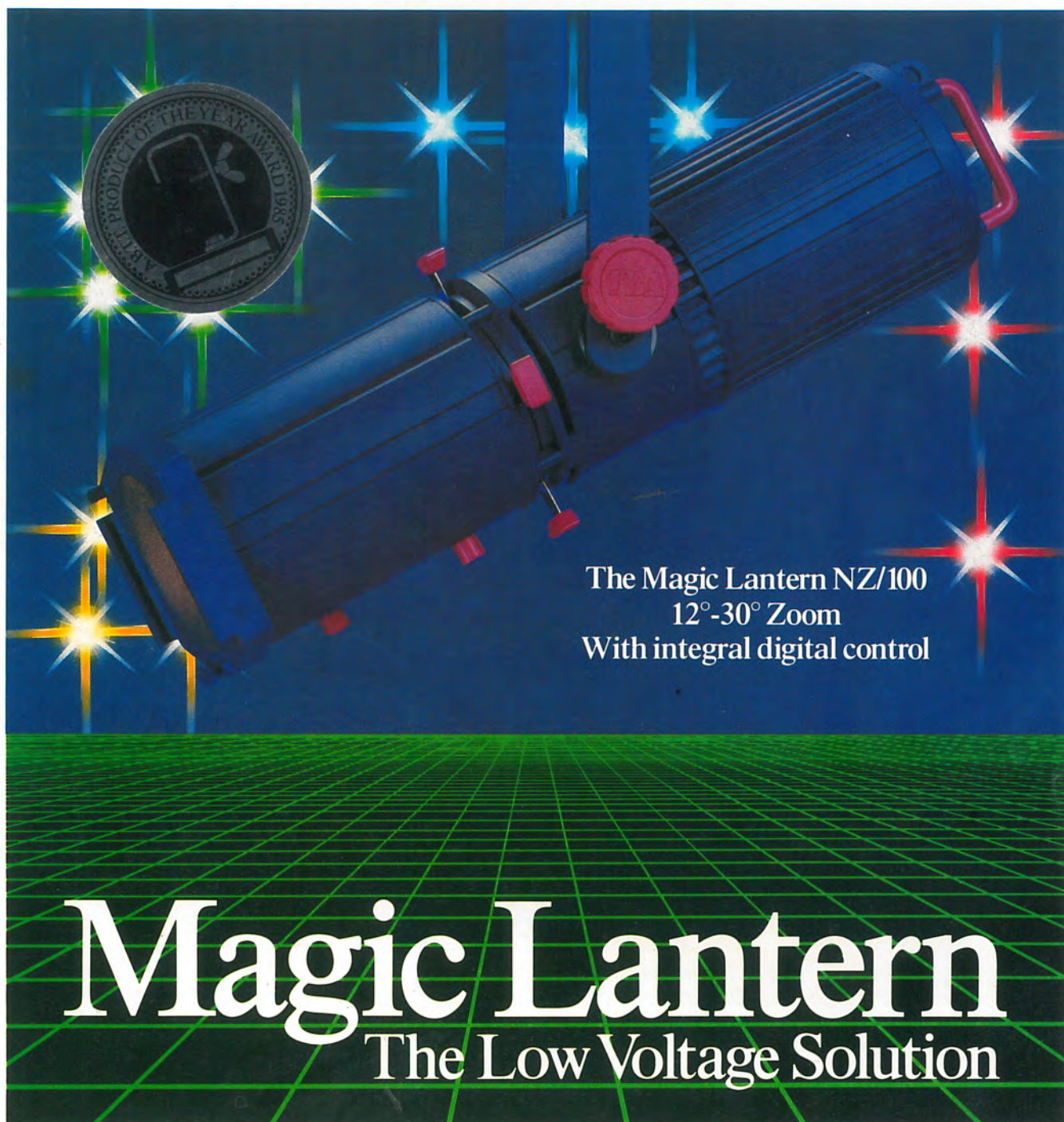


TBA Technology-Science for Art's Sake



The Magic Lantern NZ/100
12°-30° Zoom
With integral digital control

Magic Lantern

The Low Voltage Solution

A New Definition of Stage Lighting

TBA
TECHNOLOGY
A division of Tim Burnham Associates Ltd

Magic Lantern

The Low Voltage Solution

Magic Lantern – the dream becomes reality. After two years of intensive development, and the creation of an entirely new set of industry standards, TBA's Low Voltage Technology is here. First.

For the new definition of stage lighting, take a deep breath and read on . . .

Why Low Voltage?

Low voltage means high efficiency and low capital and running costs, but it has to be done right . . .

Optical Efficiency Magic Lantern outperforms 1000 watt units!

Networking Integral digital dimming, from any control system.

Brightness Control Boosts output by up to 30%!

Electronic No power transformers, so no inductive load problems.

Energy Saving Power savings in excess of 60%!

Lamp Replacement Around ONE THIRD the cost of a comparable 1000 watt lamp.

Installation Magic Lantern means less wiring and less time. Less Cost.

Cool No burnt fingers, lower air conditioning costs.

Silent Magic Lanterns are acceptable in any size auditorium.

Beautiful Well, modesty forbids . . .

Optics

Magic Lantern – the ultimate in optical efficiency. Designed around a widely available projector lamp, with a small and precise filament, these designs are the state-of-the-art in stage lighting optics. Color temperature is 3200°K, and rises to 3400°K on boost.

Our Zoom is unique, with a two-element condenser and two manually adjustable lenses, on smooth brass runners. Beam angle range is 12 to 30 degrees. Pattern projection and beam

quality and distribution have to be seen to be believed. Because of this extremely high field distribution quality, our beam angle range should realistically be compared with the *useful* light emitted from conventional 15 to 40 degree luminaires.

Fresnel and Pebble Convex Magic Lanterns bring the benefits of low voltage to the whole rig, with high quality lenses and reflectors making the most of a sensational lightsource.

Networking

Permanently installed or on the road, Networking Magic Lanterns are the ultimate in stage lighting technology. External dimmers are not required, nor is dedicated wiring to every lamp. Simply feed ac power to each Magic Lantern, in whichever way suits you best, and then link them together with a simple data cable, that's all there is to it!

Magic Lanterns will run directly from the output of many popular memory controls using an RS422-based protocol, and

TBA Technology's low-cost converter allows Magic Lanterns to interface to systems with analog or multiplexed analog outputs. Used with a soft patching control system, Magic Lantern offers the last word in dimmer-per-lamp flexibility, with channel grouping and Brightness Control settings controlled from the lighting desk.

Dimmer Follow

Magic Lantern is also available without the Networking option. Dimmer Follow brings all the advantages of low voltage to an existing rig, without using heavy transformers. Magic Lantern hooks up to any kind of dimmer, and our patented electronics elegantly convert the dimmer's output to a smooth low voltage curve, even at barely perceptible light levels.

The Brightness Control pot on the back panel can be used as a manual dimmer, when Magic Lantern is connected directly to mains ac power.

Dimmer Follow Magic Lanterns are future safe – Networking can be added later, with a simple upgrade kit.

Brightness Control

In both Networking and Dimmer Follow versions, TBA's unique Brightness Control proportionately masters lamp voltage to produce a light output range of 0-130%, compared with our published data. At 100%, Magic Lanterns perform as specified, better than most 1000 watt lights. But the user can trade

brightness against lamp life, and adjust either for extra economy (below 100%) or punch (up to 130%). With Magic Lantern, economical is *very* economical, and bright is *BRIGHT!*

Economy

Magic Lantern saves you money every step of the way. The purchase price is a lot less than you might think, but that's only the start. Compare the true cost of installing a Networking Magic Lantern with that of any premium 1000 watt light, with its dedicated wiring and dimmer, and it's already paid for itself.

Then think about the size of power service you're going to need – less than half! *Running costs are down a massive 60% against conventional lighting, not only in electricity used, but also in lamp replacement costs.*

You just can't ignore figures like that!

And Magic Lantern is beautiful. Hang it anywhere, in a theatre, gallery or display, its discreet styling will complement its surroundings, and compliment your own good taste.

The Anatomy of Innovation



Innovation Heat-proof shutter handles are moulded to fit snugly into the gate "waistline", eliminating snagging and bending when not in use. Angulation of the stainless steel shutter blades is superb - 45 degrees at beam centre, and their "feel" is light and positive.

Innovation Iris/Gobo slot is spring-loaded for safety. The drop-in plate is held under constant pressure, and cannot fall out, even when the lantern is inverted.

Innovation Four captive springs keep the whole shutter assembly under optimum pressure for smooth and positive setting and grip.

Gel Frame/Barndoor Safety

Innovation Retractable safety boss retains gel frame and barndoor.

Innovation Spring-loaded control slider - pull back to retract safety boss. (Photograph shows a Fresnel Magic Lantern)

Extruded lens tube door - the whole top section of the lens tube is hinged, for ease of access.

Detachable gel frame runner, for ease of maintenance.

Innovation High quality lenses with anti-reflective coating, for ultimate light transmission.

The heatproof focus knobs are light and positive, and will not jam!

Innovation The lens assemblies slide smoothly on brass runners, embedded in the lens tube extrusion.

Accessories

Each Magic Lantern is provided with a 1 metre (36" USA) power cable and one gel frame.

Gobos

The DHA Lighting range of patterns is available in Magic Lantern size, and DHA also offer a suitable gobo holder. DHA gobos are available from Rosco dealers worldwide, or from your TBA Stockist.

Drop-in Iris

A high quality drop-in Iris is available from your TBA Stockist.

Barndoor

A four-leaf rotatable barndoor is available to fit any Magic Lantern.

Gel Frame

Spare Gel Frames are available from your TBA Stockist.

Replacement Lamps

The Osram HLX 64663 400 watt 36 volt lamp is available from most photographic lamp dealers worldwide, or from your TBA Stockist.

Spare Parts

We care! TBA Technology spares will *not* be a problem!

Extruded lamphouse door - the whole top section of the lamp housing is hinged, for ease of access.

A large heatproof locking knob is provided, for safe and positive locking, without tools.

Lightweight plastic impeller blade imposes virtually no strain on motor bearings, for long, noise-free operational life.

Innovation Mineral Fibre bulkhead keeps rear housing cool.

The top of the electronics housing extrusion is an elegantly styled heatsink, which efficiently dissipates any heat generated by the electronics.

A safety chain locating ring is incorporated into the body of every TBA Technology luminaire.

A moulded heatproof handle is provided for user convenience.

Innovation Magic Lantern's power electronics will run on the output of any kind of dimmer, or on ac mains, and have none of the inductive load problems associated with transformers. The "Dimmer Follow" version needs no independent power source, but runs off a dimmer, just like a conventional lamp. The high speed devices are protected by a fast current limiting circuit, and a fuse is included, very much as a last resort!

Innovation The back casting houses Magic Lantern's control panel (see inset below).

Innovation Mineral Fibre blanket insulates electronics and damps any slight resonances from fan motor.

RFI baffle plate encloses high frequency emissions from power electronics.

Highly efficient polished aluminium reflector.

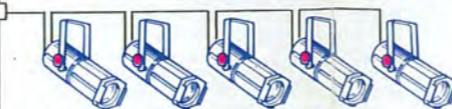
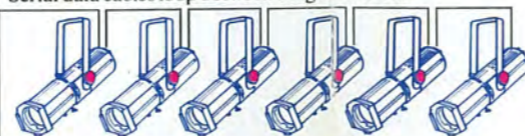
Silent Running Motor with high temperature lifetime-lubricated bearings. The fan cuts in only when required, at higher lamp intensities. The motor is inherently noise free, and is housed between two layers of insulating material, for a long and quiet life!

Innovation Magic Lanterns are modular, assembled on four simple tie rods. Any Magic Lantern may be completely stripped down or re-assembled in a minute or two, with virtually no tools, so routine service or damage repair is simplicity itself.

Innovation Twin-element condenser optics collect every particle of available light, and concentrate a perfect "light patch" at the gate. Our lenses are of very high quality, and are optically coated to prevent losses from reflection.

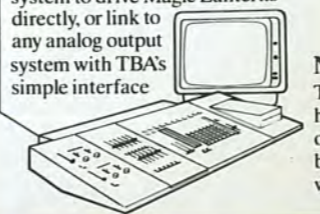
Innovation The zoom lens mounts have ingeniously designed L-shaped bases for stability and smoothness of operation.

Serial data cables loop between Magic Lanterns



Serial data link (up to 512 channels)

Use any compatible memory control system to drive Magic Lanterns directly, or link to any analog output system with TBA's simple interface



Digital to Analog Decoder

Dimmer Rack

Networking

This diagram shows how an unlimited number of Magic Lanterns may be driven, in conjunction with an existing dimming system

The illustration shows the Network Control Panel, which includes power and data connections and all controls. In Dimmer Follow versions, a simple rotary potentiometer is provided, with a scale of 0-130% Brightness. A tactile "blip" locates the default setting of 100%.

The Network Control Panel has four push-buttons and a three digit led display, which shows either the Lantern address, or a locally set intensity level. The user can select a new address by using the UP, DOWN and FAST keys, and the address is then stored in battery supported memory (well over a month, with power down).

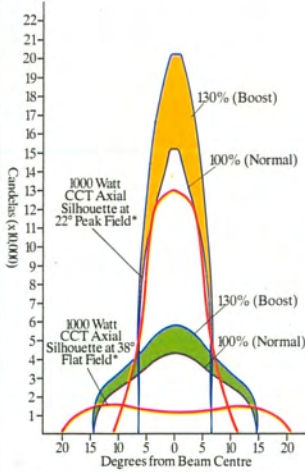
Magic Lantern can be toggled between LOCAL and CENTRAL control, and when LOCAL is selected, an intensity level can be set, using the UP and DOWN keys. This level can be in either a normal setting of 00-100%, or a boost setting, up to 130%. The LOCAL intensity level is also held in memory, thus if Magic Lantern is powered down while in LOCAL mode, the last set level will be automatically restored when power returns. DATA IN and DATA OUT sockets are provided, and Network continuity is unaffected by failure or power loss in individual Magic Lanterns.



Magic Lantern Zoom Profile

Networking NZ/100 Dimmer Follow DZ/100

Photometric Comparison

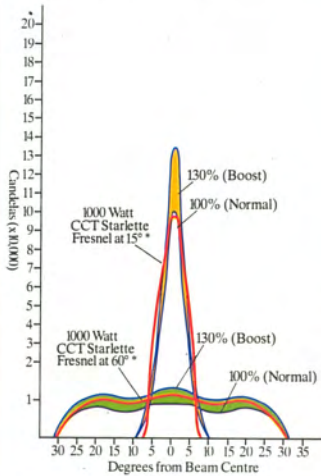


Beam Angle 12° – 30°
 Dimensions length 654mm (25.75")
 width 213mm (8.5")
 height 160mm (6.25")
 Weight 8 Kg (17.5 lb)

Magic Lantern Fresnel

Networking NF/100 Dimmer Follow DF/100

Photometric Comparison

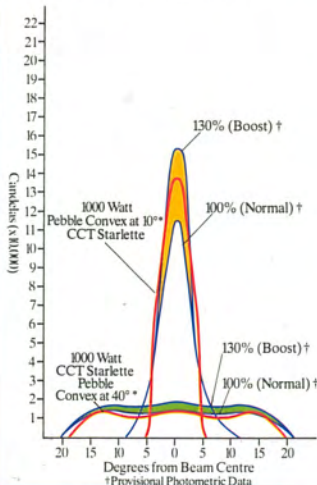


Beam Angle 14° – 65°
 Dimensions length 500mm (19.75")
 width 213mm (8.5")
 height 160mm (6.25")
 Weight 6.5 Kg (14.3 lb)

Magic Lantern Pebble Convex

Networking NP/100 Dimmer Follow DP/100

Photometric Comparison



Beam Angle 9° – 40°
 Dimensions length 500mm (19.75")
 width 213mm (8.5")
 height 160mm (6.25")
 Weight 6.7 Kg (14.75 lb)

*Values calculated from CCT Theatre Lighting Ltd Published Data

Due to continuous development, TBA Technology reserve the right to change the specification without notice.



Science for Art's Sake

TBA Technology redefines the parameters of Stage Lighting

- Magic Lantern, the world's first low voltage stage lighting range.
- TBA 65 Series, a new dimension of quality at 500/650 watts.
- Image, Imagine and Imagination, liberating creativity in lighting control.

TBA Technology – Innovation becomes reality

The genesis of a total range of advanced technology products, dedicating science to the advancement of art.

TBA
TECHNOLOGY

Europe

31 Corsica Street, London N5 1JT
Tel 01-359 3599 Telex 25960 EuroTl G

USA

PO Box 302, Walnut Creek, California 94596
Tel (415) 932 8134 Telex 176340