

# ECO Spot™ LED B40/B60 User Manual

Thank you for choosing an ECO Spot™ Gobo projector. This manual covers both models, the ECO Spot LED B40 and ECO Spot LED B60.

Please read this manual before installing or operating this fixture, follow the safety precautions listed below and observe all warnings.

## **WARNING!**

**Some models are equipped with a voltage selector switch on the back plate of the unit. Select the correct Line Voltage before Operating.**

## **Package Contents**

- ✓ Projector with power cord
- ✓ Test Gobo
- ✓ Spare gobo retaining ring and spare drive belt
- ✓ Gobo adapter for D- to E-Size gobos with retaining ring

## **Safety Information**

- Place your fixture at a suitable place with good air flow.
- Keep flammable materials away from the fixture.
- Minimum distance to flammable material = 1 ft (0.3m).
- Provide a minimum clearance of 4 in (10cm) around air vents.
- Use only genuine spare parts for part replacement.
- Do not look directly into the lamp; it can result in eye damage.
- Always unplug the unit from the power mains before any service is done.
- Light fixtures should be installed and maintained only by qualified personnel with experience in lighting equipment and general electrical experience.

## **Electrical Safety**

- Disconnect the fixture from AC power before handling the fixture.
- Always ground (earth) the fixture electrically.
- Use only a power source that complies with local building and electrical codes and has both, overload and ground-fault protection.
- Do not use the fixture if the power cable or power plug is in any way damaged, defective or wet, or if they show signs of overheating.

## **Handling Instructions**

- Before the initial start-up, please unpack and carefully check for damage caused during transportation.
- Place your fixture at a suitable place with good air flow.
- Make sure there are no flammable materials close to the lamp.
- When suspending the fixture above ground level, verify that the structure can hold at least 10 times the weight of all installed devices.
- Verify that all external covers and rigging hardware are securely fastened and use an approved means of secondary attachment such as a safety cable.

## **Warranty**

One Year from Date of Purchase. Keep your receipt for reference and contact your dealer in case of warranty issues.

## **Projection Lenses**

The projector accommodates interchangeable projection lenses to allow optimizing the projection size and resulting brightness at varying distances. The more narrow the lens, the smaller and brighter the image will be at a given distance.

## **Focusing**

- Power up the projector by pressing the power switch in the back.
- Focus the projection by twisting the lens in and out until the image is well focused. When used for the first time, the lens will often need to be twisted outwards many rotations to reach the focusing point.
- Turn on the gobo rotator with the push-button in the back and switch it off when the gobo projects in the desired position.
- Re-adjust the focus if necessary.

## **Gobo Rotator**

The gobo rotator can be turned on/off with the push-button switch on the back plate. There are no controls for rotating speed or direction.

## **Multi-functional Yoke**

- The yoke can slide over the whole length of the fixture body to accommodate a wide range of pointing directions.
- The yoke serves as stand.
- The yoke can be screwed to a wall or ceiling or fastened with a C-clamp

### **Gobo Placement** (see *Specifications* for Gobo Dimensions)

The projector uses D-Size gobos or E-Size gobos with an adapter ring. See the Specifications for exact dimensions. For max. image size and brightness use the larger gobos. The recommended gobo image diameter for best focusing is up to 32mm. An image diameter of up to 40mm is possible with some loss in focusing quality.

- Unscrew the thumbscrews to remove the front cover with the projection lens.
- For E-Size gobos, use the screw-in adapter ring. For larger gobos, remove the adapter ring and use the larger retaining ring.
- Push the two pins of the gobo retaining ring together and pull out the retaining ring. Carefully remove the old gobo and replace it with the new gobo.
- If you have a glass gobo, place the more reflective side towards the light bulb.
- Replace the retaining ring and make sure it evenly pushes the gobo all the way back.
- Replace the front cover and adjust the focus by screwing the projection lens in or out.



**For D-Size gobos, remove the E-Size Adapter and leave it out:**



### Power Supply B40 (B60 in brackets)

If your model is equipped with a Line Voltage Selector in the back, select the correct line voltage:

#### US Setting (120V)

90-130V, 50/60Hz, 0.4A, 48W (72W)

#### International Setting (220V)

200-240V, 50/50Hz, 0.2A, 48W (72W)

If no Line Voltage Selector is present your model is autosensing:

90-240V, 50/60Hz, 48W (72W)

### Ambient Operating Temperature

-13 to 104°F (-25 to 40°C)

### Dimensions / Weight

#### Body without yoke:

10.5 x 6 x 3.75in (L x W x H)

(267 x 153 x 95mm)

The projection lens adds 0.5 to 2in (12 to 50mm) to the length.

Height with yoke: 7.75in (197mm)

Weight 7lbs (3kg)

### Gobo Dimensions D-Size

Metal or Glass Gobos and Dichroic filters

The projector takes D-Size gobos:

Outer Diameter (OD): 53mm

Image Diameter (ID): 32mm (max 38mm)

Max Thickness: 4mm

Larger ID up to 40mm is possible with some loss in focusing quality, for optimal focus stay within 32mm image size. An adapter for the smaller E-Size gobos is included.

### LED Lamp B40 (B60 in brackets)

- Power: 40W (60W)
- Rated luminous flux: 4,000lm (6,000lm)
- Effective luminous flux: 2,400lm (3,000lm)
- Rated Bulb life 40,000h
- Color Temperature 6,000k, +/- 500k

### Lens Options

The projector can be equipped with standard ECO Spot projection lenses.

A larger focal length (f) makes a smaller projection angle and therefore a smaller but brighter image. Currently these lenses are available:

- Wide f=50mm  
35°/25° for D/E-Size gobos
- Medium f=70mm  
28°/20° for D/E-Size gobos
- Semi-Narrow f=100mm  
21°/15° for D/E-Size gobos
- Narrow f=140mm  
14°/10° for D-Size gobos

ECO Spot™ Photometrics						ECO Spot is a Trademark of Colobex														
Model Gobo Size	Color Temp.	Lens	Beam Mult.	Effective Im	CD	Value	PROJECTION DISTANCE IN FEET (ft)													
							3	6	9	12	15	18	24	30	36	42	64	88		
ES-LED-B40 ES-LED-B40E D-Size	6000K +/- 500K	140mm (14°)	0.28	1922	30,828	Image Diam. (ft) Illumination (fc)														
		100mm (21°)	0.36	1797	17,290	Image Diam. (ft) Illumination (fc)	2.2	3.3	4.4	5.5	6.6	8.7	10.9	13.1	15	23				
		70mm (28°)	0.49	1900	10,080	Image Diam. (ft) Illumination (fc)	1.5	2.9	4.4	5.9	7.4	8.8	11.8	15	19	21				
		50mm (35°)	0.63	2378	7,632	Image Diam. (ft) Illumination (fc)	1.9	3.8	5.7	7.6	9.5	11.3	15	19	23	26				
ES-LED-B60 ES-LED-B60E D-Size	6000K +/- 500K	140mm (14°)	0.25	1952	39,168	Image Diam. (ft) Illumination (fc)														
		100mm (21°)	0.36	2306	22,176	Image Diam. (ft) Illumination (fc)	2.2	3.3	4.4	5.5	6.6	9.7	10.9	13.1	15	23				
		70mm (28°)	0.49	2361	12,528	Image Diam. (ft) Illumination (fc)	1.5	2.9	4.4	5.9	7.4	8.8	11.8	15	18	21	31			
		50mm (35°)	0.63	3006	9,848	Image Diam. (ft) Illumination (fc)	1.9	3.8	5.7	7.6	9.5	11.3	15	19	23	26				