

functions

lamp installation

Disconnect the unit from power. To remove the lamp housing, turn the top and bottom release knobs until the threads of both screws clear the side protrusions on the lamp housing. Pull the housing straight out by the handle.

The lamp socket assembly includes a medium two pin socket mounted to a heat sink plate. Push the lamp firmly into the socket until it stops, then push again harder and the lamp will ease in an additional $\frac{1}{16}$ ". A properly seated lamp will require a substantial tug to remove. Proper lamp installation is important to insure maximum lamp and socket life.

Reinsert the lamp housing by lining up the side protrusions on the housing with the bosses on the inside of the reflector housing, and pushing in until the housings meet. Tighten both knobs until they are flush with the outside surface. Make sure the threads securely hold the lamp housing protrusions.

Note that the lamp housing is symmetrical and may be inserted in any orientation.



Performance Chart

Model	Customer Ordering Code	Manufacturer	ASST Code	Color Temp.	Life (hrs)
1000	174-000	General	400	3000K	500
1100	174-000	GE	400	3000K	500
1200	174-000	General	400	3000K	500
1300	174-000	General	400	3000K	500
1400	174-000	General	400	3000K	500
1500	174-000	General	400	3000K	500
1600	174-000	General	400	3000K	500
1700	174-000	General	400	3000K	500
1800	174-000	General	400	3000K	500
1900	174-000	General	400	3000K	500

As lamp elements vary from manufacturer to manufacturer, we recommend the above lamps and models only for optimum performance.

focusing

Loosen, but do not remove the focus locking knob on the top front of the unit. The lens tube can now be moved in and out for desired focus. Soft focus should be typically attained by moving the lens tube out past sharp focus. Inward soft focus positions will produce a wider (flooded) field of diminished uniformity. Tighten the knob to maintain a desired focus position.



lamp alignment

Proper lamp alignment will compensate for lamp manufacturing tolerances. For peak focus (maximum intensity) turn the finned cylindrical joystick knob counterclockwise until a bright spot appears in the field. Center the spot in the field by sliding the knob in the appropriate direction. This condition can be useful for area blending and highlighting. Intentional lamp misalignment can be useful for unusual beam shaping and highlighting.

For flat focus, turn the knob clockwise. The hot spot will gradually disappear and the field edge will grow sharper. Flat focus is useful for single isolated areas and pattern projection.

The patented joystick will retain the alignment position. Note that the alignment function requires no tools and can be completed in seconds.



beam shaping

Beam shaping components include: the framing shutters, a pattern projection slot and an optional iris.

Each framing shutter blade travels in its own plane and is capable of over 60° of angulation. This provides great versatility in creating unusual three and four sided figures. Each blade has a heat resistant handle with a convenient finger hole.

A customer installed iris is available as an accessory. If all components are used concurrently, a soft edge on either the iris or the shutter can be expected.

Beam size and shape may also be altered by profile pattern projection (see pattern projection).



lenses

Berkey Colortran ellipsoidal spotlights feature a unique (pat. pending) lens system which permits the use of variable locations of the same lenses to create different field angles; e.g. the lenses used in the 30° model (cat. #213-065) may be repositioned to work as either a 40° model (cat. #213-055) or a 20° model (cat. #213-075).

To change lenses: remove the focus knob, at the top front of the unit, pull out the lens tube assembly, and remove the four phillips head screws that hold it together.

The tube contains six lens retaining grooves. See figure 1 for the lens placements to obtain various field spreads.

Note: Some spread combinations require a corrective field stop. For optimum sharpness, make sure the correct stop is in place in the designated groove. The extra stops required are packaged in the carton.

When reassembling, make sure the three plastic lens mounts have been replaced on 120° centers. The lenses must not touch metal. Also be sure that the sliding locking nut is in place in the groove formed by the top joint of the castings.



front gate

FIELD ANGLE	LENS SIZE	LENS POSITION	FIELD STOP POSITION
20°	8 x 8	1	1
30°	4.5 x 9	2	2
40°	4.5 x 9	2	N/A

Note: 40° plate lens required for 40°

figure 1

color

Gelatin® filters, consisting of 60 colors in both 20" x 24" sheets and 24" x 50' rolls, are available and recommended for every color application.

