
KLIEGL NEWS

Bulletin No. 3

KLIEGL BROS UNIVERSAL ELECTRIC STAGE LIGHTING CO., INC.

321 WEST 50TH ST., NEW YORK, N. Y.



Fig. 1 View of Kliegl Spotlight No. 72, with cover of magnet-casing removed showing electro-magnets and mechanism for control of the color frames.

ELECTRO-MAGNETIC OPERATION of Color Frames on Kliegl Spotlights has made available the many desirable advantages of Remote Control.

COMPLETE and entire operation of Mazda-type Kliegl Spotlights—including the control of four or more color frames—can now be accomplished from any desired point. The Spotlight itself may be located wherever requirements dictate—frequently in concealed and inaccessible places—and the electric control may be positioned wherever it is most convenient for the operator. And a group of Spotlights can be simultaneously operated just as easily as one.

New Features

Well known advantages of Mazda-type Spotlights are: they do not require an attendant as is the case with arc-type spotlights; they can be operated by

a distant switch; and they can be used with dimmers. But heretofore there has been no way of changing at will, the color of the light beam, except by the manual removal and insertion of different

color frames. Now—with the perfection of this new device wherein the operation of the color frames is controlled electro-magnetically—the entire service of the Spotlight in respect to white lighting, color lighting, and dimming, can all be controlled from a distant point.



Fig. 2 Front view of Spotlight with all color frames in their normal position to one side of the lens, as used when white-lighting is required—also showing interior of the Spotlight with mirrored-glass reflector back of the lamp.

Fewer Spotlights Needed

In many instances where color lighting was desired it has been the practice to install several groups of Spotlights. One group for each of the colors desired, for example, a group of Spotlights fitted with red color filters, another with blue, another with amber or green and still another group for clear white or unmodified lighting—usually operating one group at a time. It is now possible to install a single group of Spotlights that will give all the color variations obtained with the several groups aforementioned—or install the same number of spotlights, obtaining four or five times as much light for each color.

Color Blending

Also since each color frame is independently operated, two or more color frames may be used at one time, obtaining a blending of colors; as, amber and red for producing orange—thus further extending the wide range of colors available.

Instantaneous Group Control

Though each Spotlight and color frame may be individually controlled they also may be, and usually are, so wired that all the spotlights installed, or any selected group, may be changed instantly from one

color to another, or all color frames removed giving the maximum intensity of white lighting—the operation being performed through the medium of a selective control board with master switches. In fact the possibilities of arrangements in controls, for obtaining color effects, are practically unlimited.

Many Applications

In theatres, where the direction of illumination is fixed, these new Kliegl Spotlights are splendid units for spotlighting or floodlighting the stage—from the balcony rail; from a recess in the ceiling; or from concealed locations in other parts of the house. The bright beams are thrown directly upon the performers, thus eliminating all facial shadows and distortions caused by footlights and overhead lighting. They also provide excellent facilities for lighting front drops with varied color schemes during overtures, and for flood-lighting the orchestra.

They are also adaptable for use in ballrooms, dancing academies, cabarets, restaurants, lodge rooms, sales display rooms, show windows, exhibitions, spectacular sign lighting, and countless other applications.

The Spotlight

This new Kliegl Spotlight is designed for use with a 1000-watt G40 or a 2000-watt G48 concentrated filament lamp. It projects a brilliant spot of light any distance up to 100 ft. and when used for flood-lighting gives a wide-spread of evenly-diffused light. The mogul-screw-base receptacle is mounted on a sliding base with an extension wing nut for focusing. A concave mirrored-glass reflector is mounted back of the lamp utilizing all the available candle-power of the lamp and giving the greatest possible illumination at the maximum efficiency. The housing, of aluminum and rustless iron, is substantially constructed, light in weight, well ventilated, and light-tight. The top of the housing is hinged and permits access to the interior for changing lamps. The front is fitted with a 6-inch condensing lens, mounted in an aluminum frame and held in place with a split ring, allowing unrestricted expansion.

Control Magnets

The color-frame-control-magnets are mounted in a casing on the side of the Spotlight. They are of the plunger type, and actuate concentric shafts which extend along the side of the spotlight. At the extreme end of each shaft a color frame is attached. A

separate magnet controls each color frame. Springs hold the color frames back out of position in front of the lens, but when current flows in one of the magnets, the plunger is drawn down, and the color frame is thrown into position in front of the lens, where it remains as long as current flows in the magnet. Upon opening the circuit the retrieve spring throws the color frame out of position. Special shock absorbers take up the rebound. The operation is noiseless. The magnets, which are wound for 115 volts, and consume but 44 watts, are liberally designed, are not affected by normal variations in voltage, do not over-heat, and last indefinitely. The cover of the magnet-control casing can readily be removed for making electrical connections or for purposes of inspection.

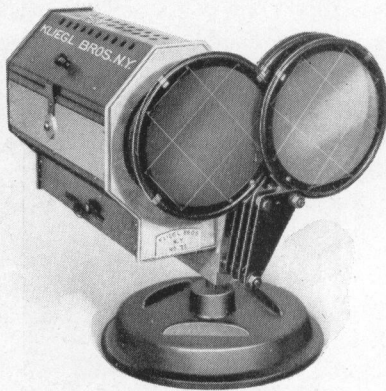


Fig. 3 The above illustration shows one of the color frames in position in front of the lens as when used for color lighting.

Color Frames

The color frames are light, circular, metal frames made in two sections and provided with spring clasps. To insert or replace gelatin color filters, is simply a matter of removing the clips and inserting the gelatin between the two sections, trimming to size and replacing the clips. Guard wires protect the gelatin.

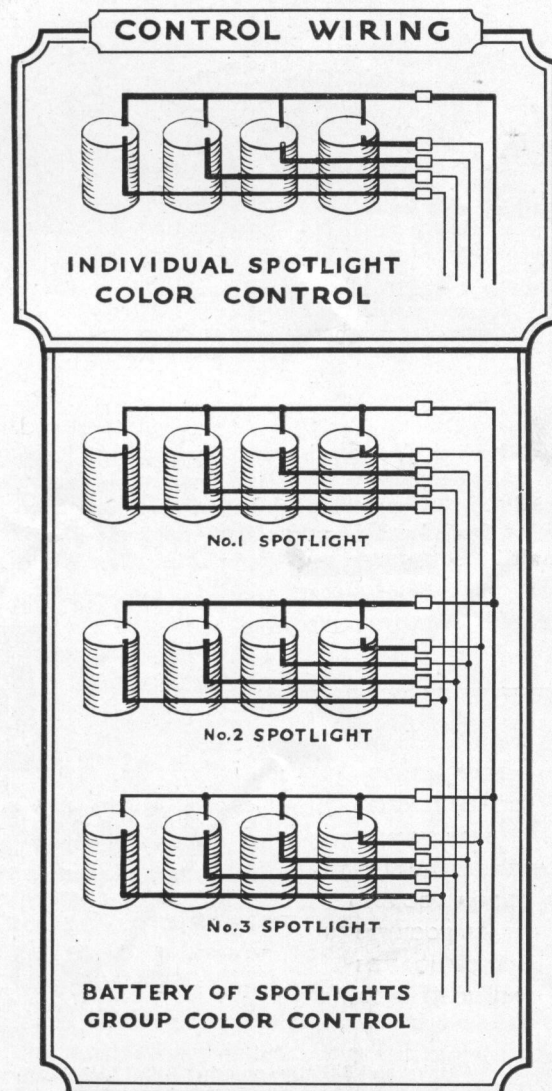
Mounting

The Spotlight is perfectly balanced, and mounted on a substantial pivot bearing which permits it to be adjusted to any angle desired. It is set on a short stand with a heavy cast iron base that provides a firm foundation for the lamp, free of vibration, and cannot be easily upset. It can also be furnished mounted on a tall pedestal stand where a greater

height is needed; on a horizontal iron pipe, or any other type of mounting that may be required.

Wiring

The terminals of electro-magnets are brought out to a small junction block at the end of the magnet casing, and cable outlets are provided. Where a number of spotlights are installed they may be wired so that each spotlight and each color frame is independently controlled, or wired in multiple so that a group of spotlights and color frames can be operated simultaneously. There are an unlimited number of combinations that can be devised to suit individual requirements.



Furnished Complete

The spotlight is furnished complete with magnet control, color frames, mirrored-glass reflector, asbestos covered lead wires from the lamp receptacle, and pedestal base. The lamp is not included, and the control board or switch box is usually built to meet individual specifications.

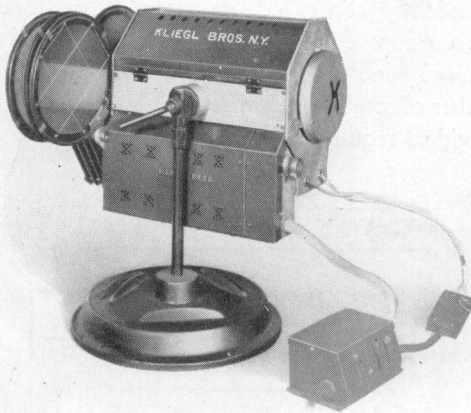


Fig. 4 Klieg Spotlight No. 72 as furnished, mounted on a short pedestal stand—and in phantom, a switch box, that may be supplied on order, for controlling the color frames of a single or individual Spotlight.

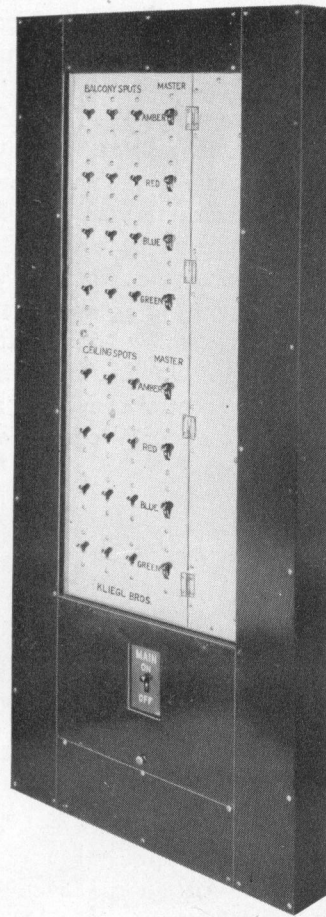


Fig. 5 A typical Klieg Spotlight-control panel, with selective and master switches, for operating a group of Spotlights equipped with electro-magnetic color-frame control—for obtaining a variety of beautiful lighting effects.

No. 72 Klieg Mazda Spotlight with Electro-magnetic Color-frame Control; for 1000-watt G40 or 2000-watt G48 concentrated filament lamp; with 6-inch lens, automatic color-frame control, four color frames, mirrored-glass reflector, and short pedestal stand. **PRICE \$150.00**, **WEIGHT 54 lbs.**; **CODE WORD, Chlies.**

PRICE \$150.00
WITH CONNECTORS



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- BORDERLIGHTS
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- aisle & STEP LIGHTS
- FLOOR POCKETS
- WALL POCKETS
- PANEL BOARDS
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KLIEGL BROS

UNIVERSAL ELECTRIC STAGE LIGHTING CO., INC.
ESTABLISHED 1896

THEATRICAL · DECORATIVE · SPECTACULAR
LIGHTING

321 WEST 50th STREET
NEW YORK, N. Y.

- SPOTLIGHTS
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