
INSTALLATION OF
INCLINED
COVER GLASSES
WITH
PHANKILL UNITS

ON EXISTING COLOR LIGHT SIGNALS



INSTRUCTION
PAMPHLET

U-5429

REPRINTED
OCTOBER, 1951

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COLOR LIGHT SIGNAL UNITS

Inclined cover glasses with Phankill units are shipped out as shown in Figure 1, and consist of cover glass "B" mounted in inclined ring "C", ring "D" containing the Phankill screen and close-up indication prism, and ring "E" all clamped together with screws "F".

Installation

A. Styles L, M, P, R, and H-2 or H-5 High Signals:

(1) Remove the lens retaining ring "J", Fig. 3, and discard the ring and the two 14-24 screws "H".

(2) Install in its place ring "E", Fig. 1, with the two bosses "R" on the horizontal center line of signal.

(3) Referring to Fig. 1, after ring "E" is in place, install the Phankill unit, inclined cover glass and holder on the signal, and fasten with the two long No. 14-24 fillister head screws "F" furnished with the assembly. These screws fit into

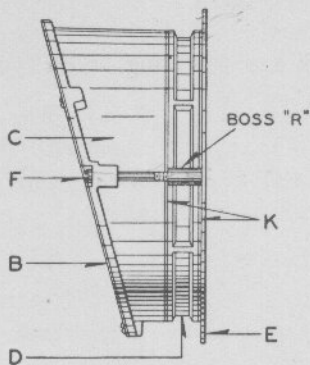


FIG. 1

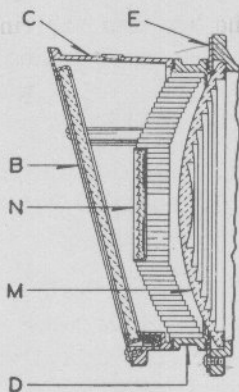


FIG. 2

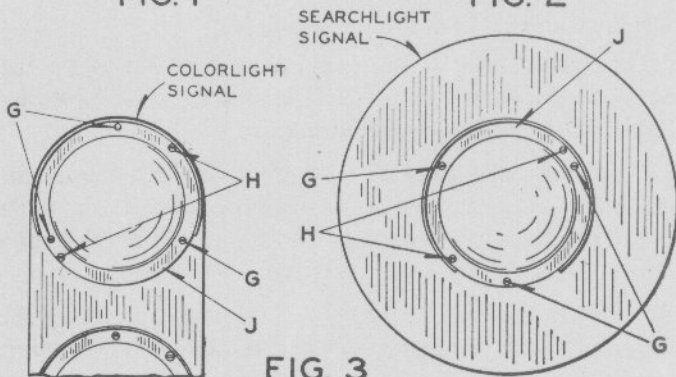


FIG. 3

the two tapped holes in bosses "R" on ring "E". Make sure that the two cork gaskets "K", Fig. 1, cemented to the Phankill unit rim are properly seated against the lens ring "E" in back, and inclined cover glass holder "C" in front.

**B. Style "H" Searchlight High and Dwarf Signals
(8 $\frac{3}{8}$ " Lens):**

- (1) Remove and discard the following parts where used:

- (a) The lens retaining ring "J", Fig. 3.
- (b) The convex deflecting assembly.
- (c) Lens "M", Fig. 2, when it has deflecting bull's eye.
- (d) The two 14-24 screws, "H".

(2) Plain center lens, Pce. 178811, is furnished with the inclined cover glass and Phankill unit for this signal, and is to be installed in place of lens mentioned above.

(3) Install ring "E" in place of ring "J".

(4) Install remainder of assembly per A-3. A 10° cover glass should be installed in dwarf signals as described for H-2 and H-5 dwarf signals, see C-2.

C. Style H-2 and H-5 Dwarf Signals:

Assemblies of cover glass and Phankill unit will be furnished per Fig. 1 for all dwarf signals that are now in service. For application observe the following:

(1) Remove and discard close-up prism "P" Fig. 4 and the entire assembly of cover glass with its cast iron ring holder and ring "J" and apply lens ring "E" Fig. 1. This will apply in cases of either convex or flat inclined cover glasses.

(2) Apply the remainder of the assembly per A-3 using in all cases a 10° deflecting cover glass with painted risers on the steps, assembled to deflect light upward and with the prism steps on the outside, away from the lens.

D. HC-33 Marker Light:

(1) Install ring "E", which is furnished for this assembly, to the front of the background, using the three No. 14-24 screws "G" which hold the background in place. Discard the two dummy screws "H".

(2) Install the remainder of the assembly per A-3.

Close-Up Indication

A close-up prism "N", Fig 2, is attached to the center of the front of all these "Phankill" units, and can be adjusted by rotation of the entire "Phankill" unit.

(1) The close-up prisms which must be removed from the signals, are located just behind the front lens in the H-2 and H-5 as indicated by "P", in Fig. 4, held by spring clips, and can be removed through the hand hole.

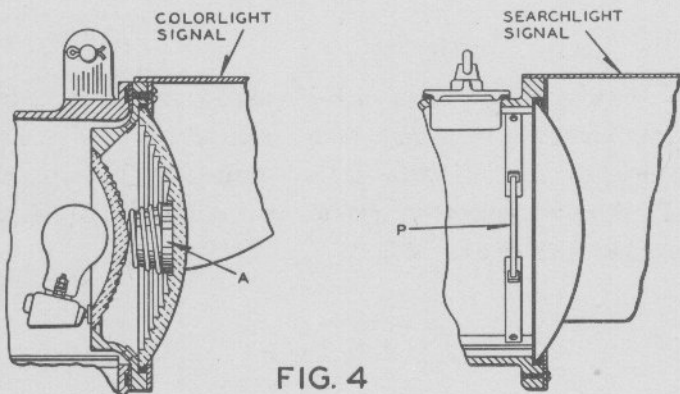


FIG. 4

In other color light signals and marker lights it is located between the front and back lens and held in place by a spring holder, as indicated by "A" in Fig. 4. Remove the back lens and detach the close-up prism and holder. In replacing the back lens, make sure that the yellow line on the lens coincides with yellow line on the housing. In case these lines have been obliterated, mark the lens and housing before removing it so that it can be replaced in its original position.

(2) To adjust the close-up prism in the Phankill, loosen, but do not remove, the two screws "F" which fasten the cover glass holder in place. Rotate the entire Phankill unit and its metal shell "D", Fig. 1, until the close-up indication is observed at the desired point. There is an arrow moulded in the glass of this prism which indicates the direction in which the beam is deflected.

(3) After this adjustment is completed, tighten the two screws "F" securely.

Deflecting Cover Glass

The cover glasses available and their application to signals on curves are the same as described in Instruction Pamphlet U-5452.