Section B

Plates B-3500, B-3510 and B-3515

SIGNALS

Style "ES-10" and "ES-20" Color Light Electric Switch Lamps

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Union Switch & Signal Co. Swissvale, Pa.

UNION SWITCH & SIGNAL CO.

STYLE "ES-10" and "ES-20" SWITCH LAMPS

Style "ES-10" and Style "ES-20" Switch Lamps are commonly used to indicate the position of power operated switches at classification and car storage yards. Their use, however, is not restricted to these applications as their design permits their use as a "light repeater" of switch position wherever electric energy is available for lighting purposes.

Style "ES-10"

The Style "ES-10" Switch Lamp shown on Plate B-3500 employs a total of four lamps, two being used for each indication (one for each direction). The four lensing combinations each consist of a $5\frac{3}{8}$ " diameter (colored) lens and a 20° (clear) deflecting cover glass between which is inserted a wire screen. The signal is available in varying combinations as will be found in the catalog plate.

Style "ES-20"

The Style "ES-20" Switch Lamp differs mainly from the Style "ES-10" lamp in that only one lamp for each front and back indication is required. The front and back lenses for each indication are so placed that the lamp when mounted between them, is in the focal point of each lens. Each lensing combination consists of a $3\frac{1}{2}$ " diameter clear lens and a 30° colored spreader glass to give horizontal spread in either direction. Between the lens and cover glass is a wire screen which tends to protect against phantom indications. The Style "ES-20" lamp is made in two designs; one in which the



indications are selected over contacts in an external switch circuit controller; the other, in which the circuit controller for selection of indications, is an integral part of the switch lamp. The operating crank for the latter type of circuit controller is provided with a standard ball arrangement which may be adjusted in the slot of the crank to accommodate various strokes of switch points from $3\frac{1}{2}$ " to $5\frac{1}{2}$ ".

General

Variation in the type of lamp bulb, receptacle, and color of lenses, may be arranged for to suit special requirements.