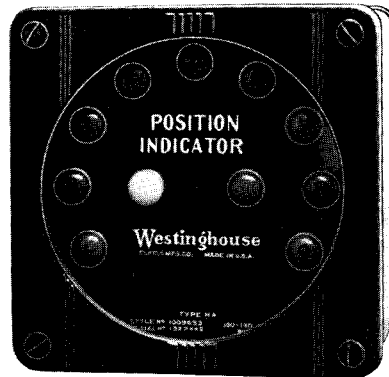


TYPE "HA" POSITION INDICATOR LAMP TYPE INSTRUCTIONS



GENERAL

The Westinghouse lamp type position indicator consists of a square case, in the front of which are mounted signal lamps behind numbered lenses to indicate the exact position of a tap changer such as used on Westinghouse step type regulators. There being no moving parts, no maintenance is required except the occasional replacement of lamps. Fig. 1 shows a 9 position indicator. The lights are controlled by a drum switch mounted on the tap changer.

CONSTRUCTION

The case is similar in construction to the cases on Westinghouse meters and relays, matching them in general appearance. Each position of the tap changer has a correspondingly numbered red lens, behind which a light glows whenever the tap changer is on that particular tap. There is also a white lens which indicates when the safety switch is opened for any reason, such as hand operation, and an unnumbered red lens which indicates whenever the tap changer is "off" position.

The lens are held by a brass tube holder which is held in place by friction.

INSTALLATION

It is only necessary to mount the indicator on the switchboard panel and make connections to the drum switch as shown on the transformer or regulator diagram. One lead is required for each position indicated, with an additional lead for the common return and 3 other leads to take care of the white and unnumbered red lenses.

After installing, operate the tap changer and check each position as shown on the tap changer operating mechanism dial plate with the tap number shown on the position indicator.

OPERATION

The circuits to the lamps are closed by a drum type switch rigidly connected to, mounted on and driven by the operating mechanism of the tap changer. There is one contact for each tap position. There is a slight over-lap of contacts so that when changing taps, the light indicating the new tap position comes on before the light indicating the old tap position has gone out. Therefore, if for any reason the tap changer stops between positions both lights will continue to burn.

The white light is connected whenever the type "W" control switch on

the tap changer operating mechanism is turned to the "off" or safety positions. The unnumbered red lens is lighted whenever the tap changer is "off" position, as in changing taps or stopping between positions. (Note the white light is used only with type UT or UTN tap changers.)

MAINTENANCE

Inspect the indicator occasionally to see that no lamps are burned out. If lamps fail to light and are not burned out inspect the contacts of the drum switch on the tap changer operating mechanism.

To replace a lamp, remove the four screws in the front cover of the indicator and remove cover. Pry up on the brass lens retainer to remove the lens and then remove the lamp.

ORDERING INFORMATION

The complete indicator or resistor should be ordered from Sharon Works. Parts only should be ordered from Newark Works by either identifying by style number or giving complete description of the desired part and the complete name plate reading of the indicator.

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