

REPLACEMENT OF ALARM PILOT AND SIGNAL LAMPS
 WITH SUBSTITUTE LAMPS

1. GENERAL

1.01 Because of wartime restrictions, certain of the alarm pilot and signal lamps used in central offices are not available, and accordingly it is necessary to employ substitutes. This section lists those lamps for which substitutes are necessary due to war restrictions and certain other lamps that have been superseded by another type.

1.02 Not all alarm and signal lamps used in central offices are included in the lamp summary under Part 3. It should be presumed that in the case of lamps not included in the summary, the particular lamp called for on the associated circuit drawing is available. Ordering information for substitute lamps and for other lamps not requiring substitutes is included in the Supply Catalog.

1.03 Since wartime restrictions do not permit the manufacturer to furnish most lamps with bulbs other than "clear," color coatings will be applied by the Western Electric Company as called for on the orders.

2. PROCEDURE

48-Volt Offices

2.01 In dial central offices and combined dial and toll offices, a 5-watt, 55-60 volt, medium screw base, S-14 bulb lamp, in various colors, is used for aisle and exit pilots. The substitute lamp is the same as the above lamp, except it is rated 10-watts and 64-volts. Because of the higher wattage rating, a considerable greater load is imposed on the alarm relay contacts. Where only one lamp is lighted from a single pair of contacts, contact impairment is expected to be negligible, especially in view of the relatively small number of operations. In the few cases where more than one lamp is lighted by the same set of contacts, the existing 5-watt lamps should be used in so far as possible and the use of 10-watt substitute lamps should be confined to circuits employing a single lamp.

2.02 To facilitate the replacement of the 10-watt 64-volt lamps with the standard 5-watt lamps after the emergency, the substitute lamp will be given a distinctive marking in the center of the voltage and wattage rating marking.

24-Volt Offices

2.03 The 5-watt, 28-32 volt, medium screw base, S-14 bulb, aisle pilot lamp used in toll offices, will continue to be available but with the voltage rating changed to 30-volts.

2.04 No distinctive marking will be applied to the substitute 5-watt, 30-volt lamps, since they are considered the equivalent to the standard 5-watt, 28-32 volt lamps. It is not

contemplated that the substitute lamps will be replaced after the emergency.

A. E. Company Step-by-Step Offices

2.05 The .09-.11 ampere, 48-volt, switchboard type clear lamp is used in the alarm circuits of the early step-by-step offices of Automatic Electric Company manufacture. This is a relatively high drain lamp which operates in series with a relay. Most of the early circuits show the code D9453 lamp superseded by the D9497 lamp. These codes are Automatic Electric Company codes. For maintenance replacement purposes, however, the G.E. Company 48B switchboard lamp has been furnished in the past. The 48B switchboard lamp not being available, the corresponding Sylvania 48B2 switchboard lamp should be substituted.

2.06 Carbon filament lamps rated 8 C.P., 55-volt, candelabra base, T6 bulb (clear or colored) used in the early step-by-step offices will be available. For A. E. Company circuits specifying codes D9474 (clear) and D9478 (red) lamps, 25-watt, 110-volt, candelabra base, T8 bulb, Tungsten filament (clear or red), will be available until present stocks are exhausted. No substitute has yet been determined.

3. LAMP SUMMARY

3.01 The following tabulation covers the description of the standard lamps involved, the description of the substitute lamp for each, and includes superseded lamps, if any.

<u>Present Standard Lamp</u>	<u>Present Substitute Lamp</u>	<u>Superseded Lamp</u>
5-Watt, 28-32 Volt, Medium Screw Base, S-14 Bulb, Tungsten Filament, Green, Red, Clear	5-Watt, 30-Volt, Medium Screw Base, S-14 Bulb, Tungsten Filament, Green, Red, Clear	None
5-Watt, 55-60 Volt, Medium Screw Base, S-14 Bulb, Tungsten Filament, Amber, Red, Yellow, Green, White	10-Watt, 64-Volt Medium Screw Base, S-14 Bulb, Tungsten Filament, Amber, Red, Yellow, Green, White	None
Switchboard, G. E. Co. 48B	Switchboard, Sylvania 48B2	A. E. Co. D9453 and D9497
8 C.P., 55-Volt Candelabra Base, T6 Bulb, Carbon Filament, Clear, Red, Blue, Green, White, Frosted	No substitute required.	A. E. Co., D9465, D9467, D9468 & D9479
25-Watt, 110-Volt Candelabra Base, T8 Bulb, Tungsten Filament, Clear, Red	No substitute yet determined. (Sec. 2.06)	A. E. Co. D9474 and D9478