GROUP F1 CABIN LIGHTING (CODE M)

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Introduction

1. A brief description of the cabin lighting circuit is given in this group, together with the necessary servicing information required to maintain the equipment in an efficient condition. For detailed information on the standard components used, reference should be made to the appropriate volumes of A.P.4343 series, while a general description of the electrical system as a whole, including system wiring details, referencing of components and general servicing, will be found in Group A1 of this chapter. The removal of major items of electrical equipment is covered in Group A2, and the location, including means of access, in Group A3.

DESCRIPTION

GENERAL

2. The cabin lighting installation consists of four separately controlled circuits supplying lamps to illuminate the instrument panels and cockpit shelves. The following paragraphs describe each of these circuits in turn and routing and theoretical diagrams of the circuits are given in fig. 1.

ULTRA-VIOLET LAMPS

3. Two Type B, No. 1, ultra-violet lamps, connected in series and controlled by a Type R, 22-ohms dimmer switch, are positioned one on each side of the cockpit just forward of frame 10 and below the light deflector screens, so that their beams fall on the fluorescent instruments on the instrument panels. The dimmer switch is situated above the red lamp dimmer switches on a bracket attached to the fuselage skin above the cockpit starboard shelf just forward of frame 10.

INSTRUMENT PANEL RED LAMPS

4. Four Type C, No. 2, red lamps, connected in parallel and mounted two on each side of the cockpit, just forward of the ultra-violet lamps, illuminate the instrument panels. These lamps are switched on and dimmed, as required, by a Type R, 75-ohms dimmer switch mounted below the ultra-violet lamps dimmer switch on the starboard side of the cockpit.

COCKPIT SHELF RED LAMPS

5. Another four Type C, No. 2, red lamps, also connected in parallel, are mounted two on each side of the cockpit on frames 10 and 11, to illuminate the cockpit shelves. These lamps are also switched on and dimmed, as required, by a Type R, 75-ohms dimmer switch, which is situated adjacent to the instrument panel red lamps dimmer switch.

STAND-BY LAMPS

6. Should the normal cabin lighting fail, two Type C, No. 2, red stand-by lamps may be brought into operation. These lamps are mounted one on each side of the cockpit, below the light deflector screens adjacent to the instrument panel red lamps. The lamps are not connected to the normal electrical system, but obtain their supply from a small 2·4-volt, 1·2-amp. battery mounted in the cockpit on the starboard side of frame 12. A Rotax D.5404/1 single-pole ON/OFF switch, situated on frame 9 above the cockpit starboard shelf, controls the installation.

OPERATION

7. The operation of the circuits should be clear from reference to the theoretical diagrams (*fig.* 1).

SERVICING

8. For general servicing of the electrical system as a whole, reference should be made to Group A1 of this chapter, which also includes a table giving the types of filament lamps used in this circuit. Apart from keeping all the components clean and checking the filament lamps for serviceability, no further servicing should be necessary.

REMOVAL AND ASSEMBLY

9. The removal and assembly of the electrical equipment forming the cabin lighting circuit should present no unusual difficulties. The location and access to all the components is indicated in Group A3 of this chapter.

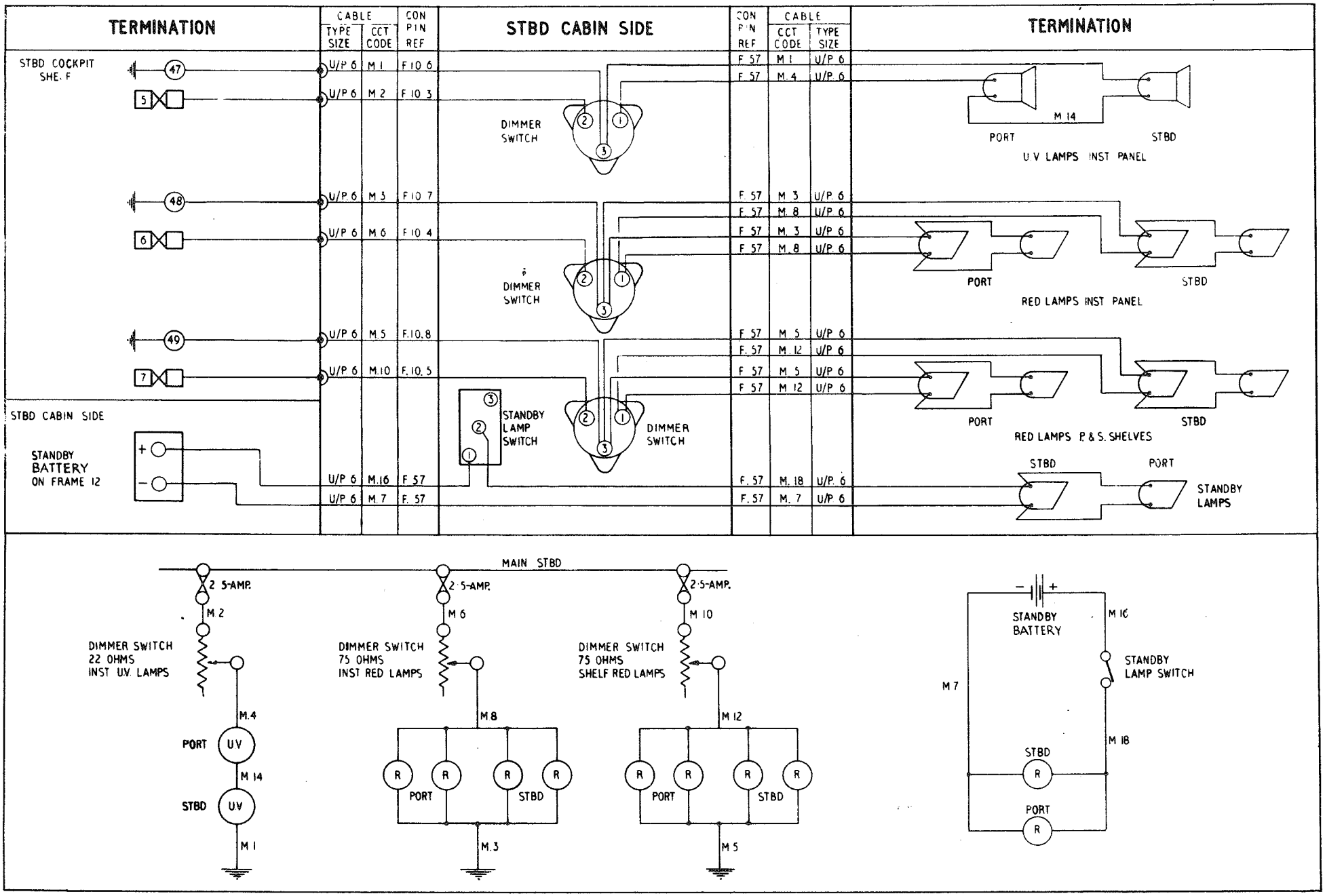

FIG. 1 CABIN LIGHTING

(A.L.11, Nov., 54)

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