Group F.1
CABIN LIGHTING (CODE M)

(Completely revised)

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Introduction

1. This group contains a description of the cabin lighting circuit together with information on the servicing required to maintain the equipment in an efficient condition. Detailed information on the standard items of equipment used in these circuits will be found in the Air Publications listed in Table 1.

DESCRIPTION

Cabin lighting

General

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

Ultra-violet lamps

3. Two ultra-violet lamps, connected in series and controlled by a dimmer switch are positioned one on each side of the cabin, 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 mounted at the top of a bracket attached to the fuselage skin above the cabin starboard shelf, just forward of frame 10.

Instrument panel red lamps

4. Five red lamps illuminate the instrument panels; they are connected in parallel and positioned two on each side of the cabin, just forward of the ultra-violet lamps, and one on the starboard forward face of frame 10. These lamps are switched on and dimmed, as required, by a dimmer switch mounted below the ultra-violet lamps switch on the starboard side of the cabin.

Cabin shelf red lamps

5. Another four red lamps, also connected in parallel, are located two on each side of the cabin on frames 10 and 11, to illuminate the cabin shelves. These lamps are switched on and dimmed, as required, by a dimmer switch mounted below the instrument panel red lamps switch. When Mod. 1320 (*Tacan*) and Mod. 968 (*UHF*) are embodied the control unit lamps for these equipments are connected into the cabin shelf lighting circuit and are also controlled by this dimmer switch.

Standby lamps

6. Should the normal cabin lighting fail, two red standby lamps may be brought into operation. These lamps are mounted one on each side of the cabin below the light deflector screens, adjacent to the instrument panel red lamps. The lamps are not connected to the normal electrical system,

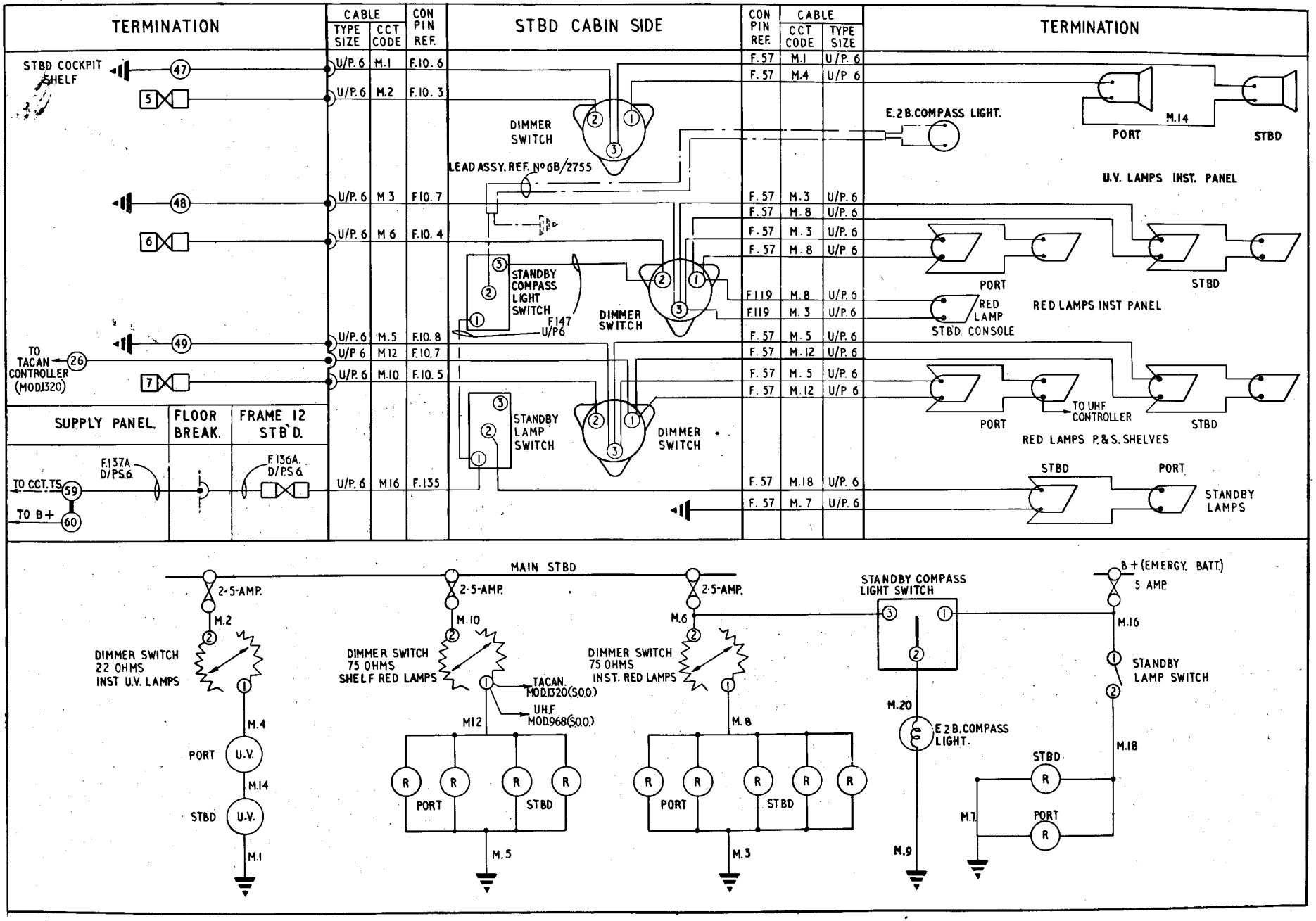

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Fig. 1 Cabin lighting

but obtain their supply from the standby batteries mounted in a battery box in the radio bay (*Group B.1*). A single pole ON/OFF switch, located on frame 9 above the cabin starboard shelf and labelled CABIN STANDBY LIGHTS, controls the installation. This switch is provided with a luminous dolly to make it readily distinguishable in darkness.

Standby compass lamp

7. The lamp in the Type E.2.B standby compass incorporates a miniature non-magnetic filament. The control switch for this light is a centre-off change-over switch marked NORMAL–OFF–STANDBY, with a luminous dolly. The switch is mounted on the same bracket as the cabin standby lights switch (*para. 6*). When the switch is in the NORMAL position the lamp is supplied from the main supply line of the aircraft's electrical system, but when in the STANDBY position, the lamp is supplied from the standby batteries (*Group B.1 of this chapter*). The compass can thus be illuminated should the aircraft's normal electrical system fail.

Operation

8. The operation of the circuits should be obvious once reference is made to the theoretical diagrams, given in fig. 1 of this group.

SERVICING

General

9. For general servicing of the electrical system as a whole, reference should be made to Group A.1 of this chapter, which also contains 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

General

10. The removal and assembly of the components forming the cabin lighting circuit should present no unusual difficulties. The location and access to all the components is indicated in Group A.3 of this chapter.

TABLE 1

Equipment type and Air Publication reference

Equipment Type	Air Publication
Dimmer switches, Type R.22 and 75 ohms Emergency lights and emergency compass light switches, single pole, change-over centre off (*Ref. 5CW/11752*)	A.P.4343C, Vol. 1, Book 1, Sect. 1
Cabin lamps, Type C, No. 2 Ultra-violet lamps, Type B, No. 1	A.P.4343E, Vol. 1, Book 1, Sect. 7