

GROUP H — LIGHTING

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Introduction

I. The information contained in this group deals with both the internal and external

lighting arrangements. The components used are described in the specialist Air Publications, listed below.

Equipment	Air Publication
Ultra-violet lamp, Type B2	4343E, Vol. 1, Sect. 7, Chap. 21
Dimmer switch, Type R (5CW/2530)	4343C, Vol. 1, Sect. 1, Chap. 16
Cabin red lamp, Type C	4343E, Vol. 1, Sect. 7, Chap. 19
Inspection lamp, Type 1A	4343E, Vol. 1, Sect. 7, Chap. 15
Dimmer switch, Type R (5CW/2525)	4343C, Vol. 1, Sect. 1, Chap. 16
Tail navigation lamp, Type A	4343E, Vol. 1, Sect. 7, Chap. 13
Side navigation lamp, Type B	4343E, Vol. 1, Sect. 7 at a later date
Downward identification lamp, Type C	4343E, Vol. 1, Sect. 7, Chap. 7
Switch, Type D.5402	4343C, Vol. 1, Sect. 1, Chap. 28
Landing lamp, Type J	4343E, Vol. 1, Sect. 7, Chap. 3
Switch, Type B, three-way	4343C, Vol. 1, Sect. 1, Chap. 2

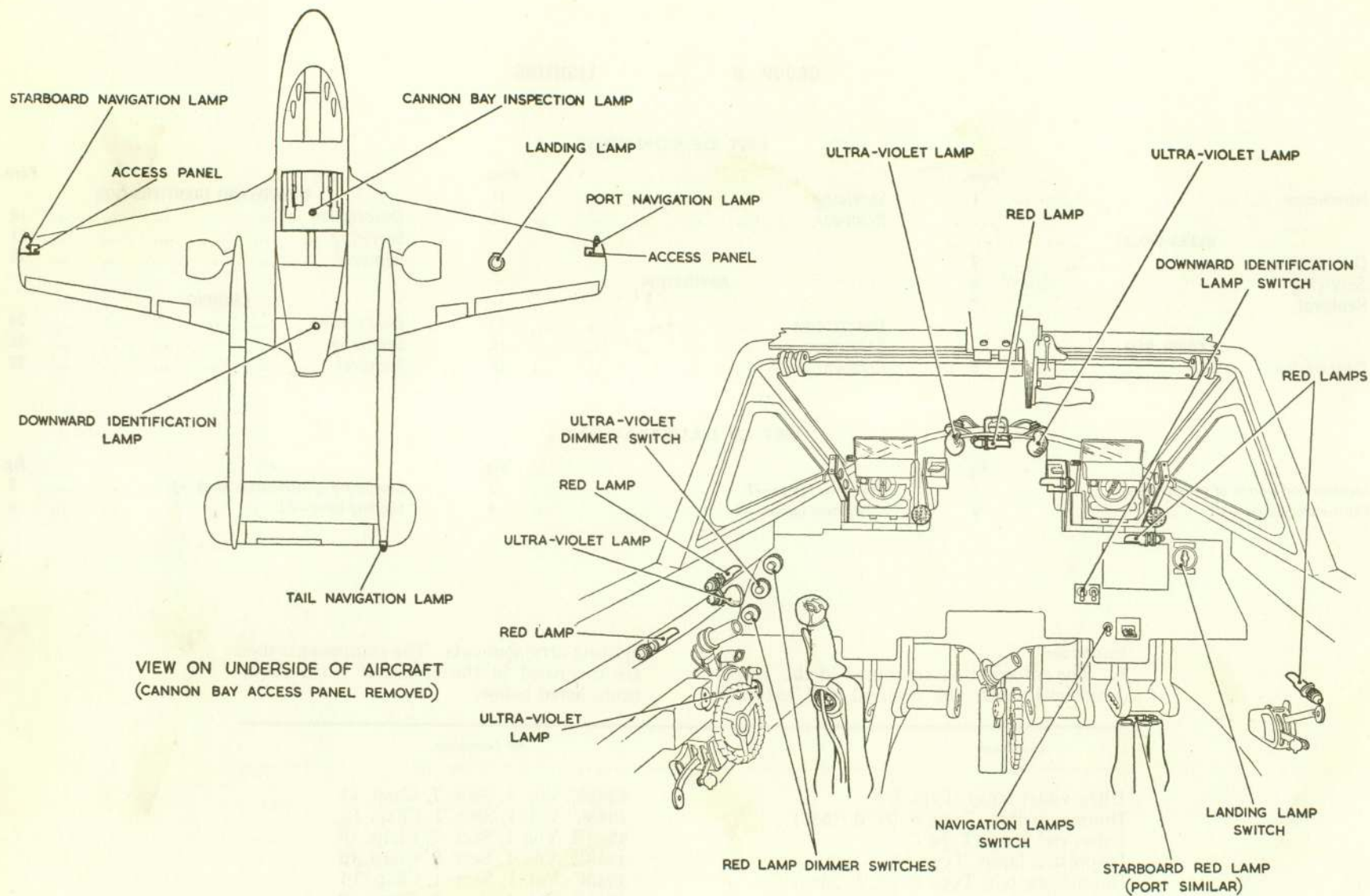


Fig. 1. Location and access of components

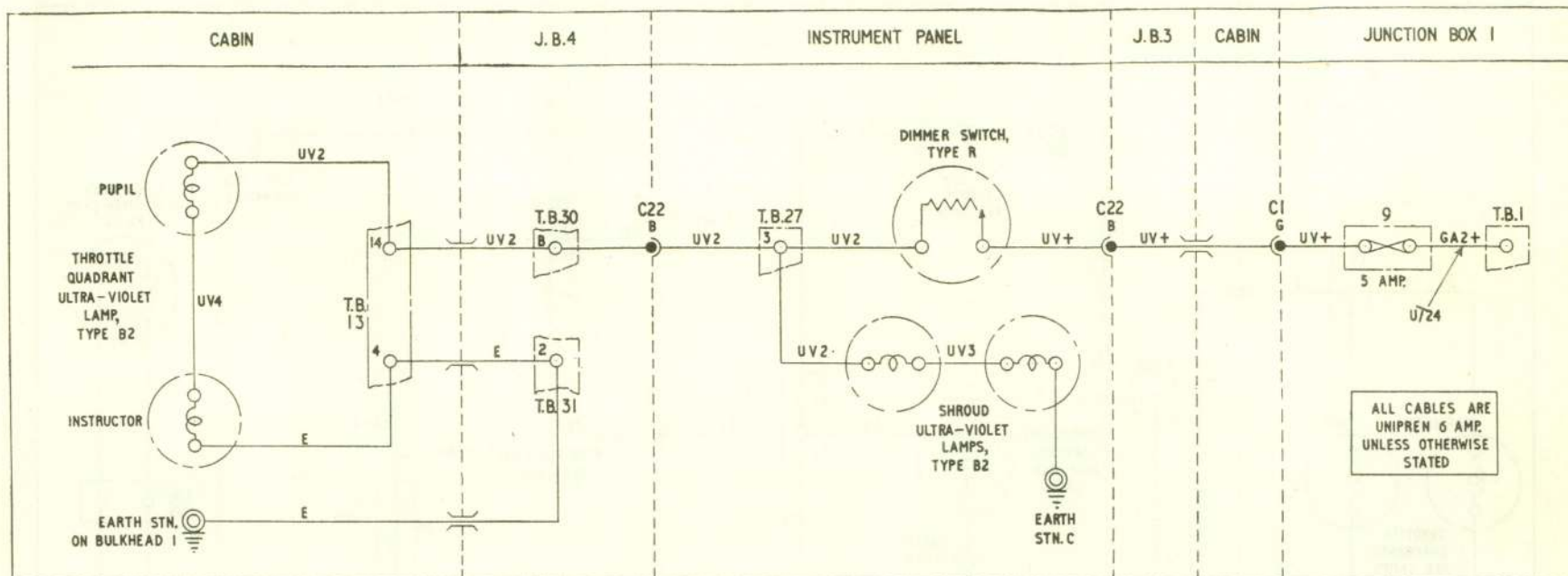


Fig. 2. Ultra-violet lamps—UV

ULTRA-VIOLET

Description

2. Four ultra-violet lamps are mounted one at each throttle box and one either side beneath the coaming at the top of the instrument panel, and are positioned so that they illuminate all the instruments.

3. As explained in Chapter 2, Appendix 1, General Information, of this Section, the instrument dials and pointers have been fluorized so that, due to the action of the ultra-violet rays emitted by the lamps, the dial markings and pointers can be read in the dark.

4. The degree of brilliancy of the dials and pointers depends upon the strength of ultra-violet radiation produced by the lamps. This strength is controlled by a rheostat, in the form of an ON/OFF dimmer switch, fitted to the instrument panel.

5. The four lamps are wired in series-parallel and are directly controlled by the dimmer switch.

Servicing

6. The circuit components are described in the specialist Air Publications listed in para. 1.

Removal

7. The manner in which the lamps and dimmer switch should be removed will be readily apparent when the equipment is seen on the aircraft.

CABIN RED

Description

8. Eight cabin red lamps are controlled by two separate dimmer switches fitted to the instrument panel. The uppermost switch controls the starboard instrument panel, the

starboard G.G.S. retraction unit, the starboard cabin wall and the instrument panel coaming red lamps.

9. The lower dimmer switch controls both control column and both throttle box red lamps.

10. An inspection lamp is fitted to the centre roofing of the cannon bay to facilitate re-arming of the cannons, and is controlled by its own integrally fitted push-switch.

Servicing

11. The circuit components are described in the specialist Air Publications listed in para. 1.

Removal

12. The method of removing the lamps and switches will be readily apparent when viewed on the aircraft.

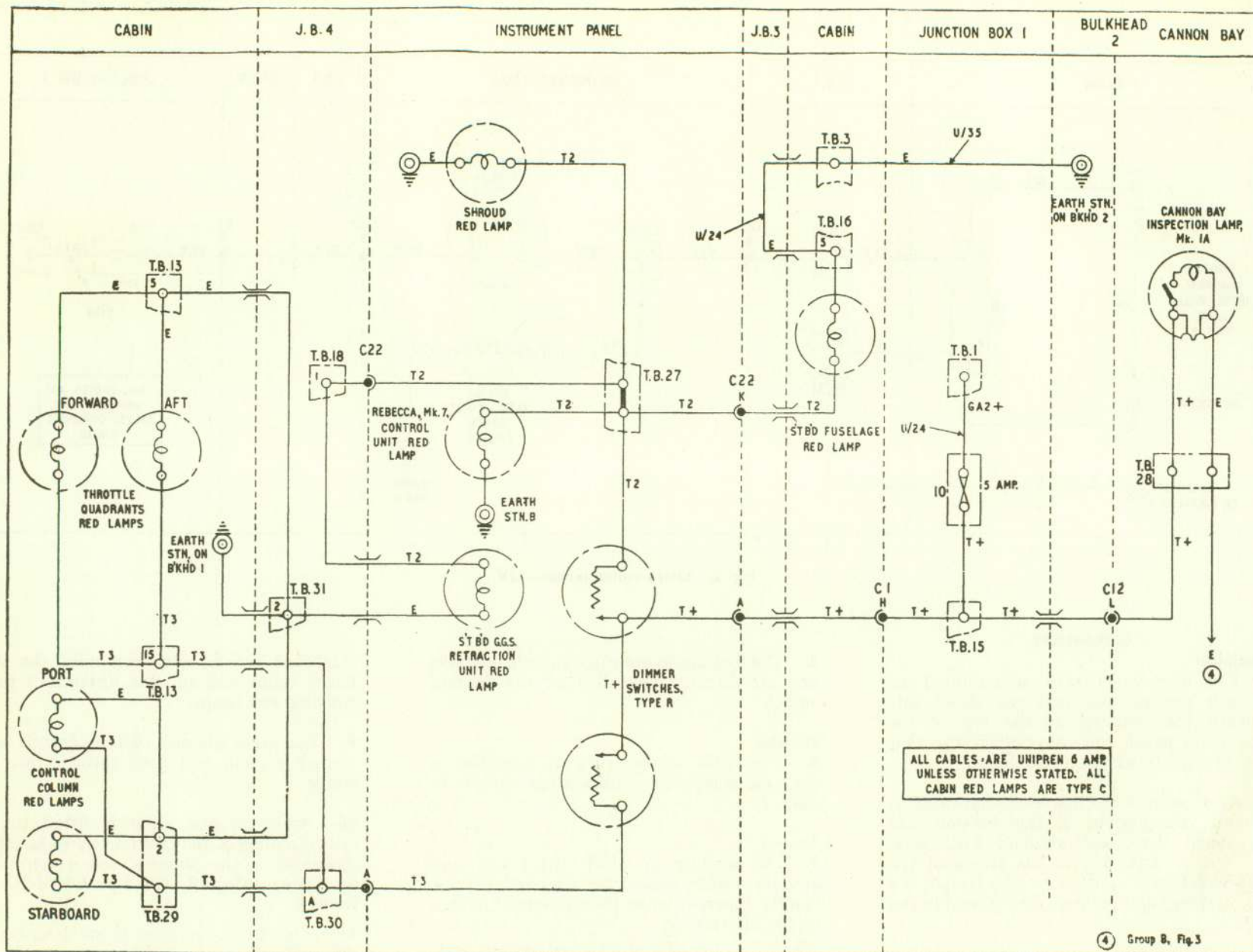


Fig. 3. Cabin red lamps—T

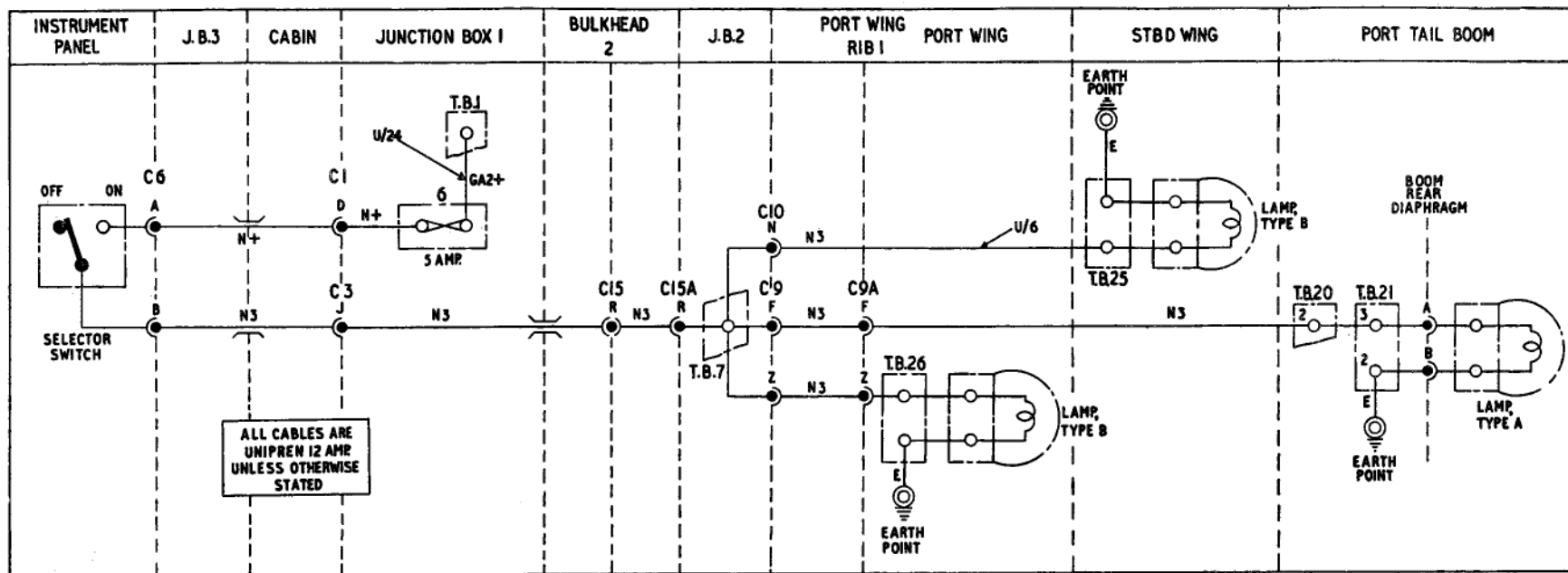


Fig. 4. Navigation lamps—N

NAVIGATION

Description

13. Three navigation lamps are wired in parallel and controlled by a single-pole switch fitted to the instrument panel.

14. The lamps are located conventionally one at each wing tip leading edge and one at the rear extremity of the port tail bullet fairing.

Servicing

15. The lamps are described in the specialist Air Publication listed in para. 1. The lamp glasses must be kept clean at all times.

Removal

16. The tail navigation lamp is readily removed after the covering fairing has been removed. This fairing is secured in place by

six csk/hd. screws.

17. Each wing-tip lamp may be removed by first disconnecting the electrical cables from the T.B., access to which is gained via the panel in the lower wing skin. Next, remove the lamp cover and the four screws securing the lamp to its fairing. The lamp housing may now be removed from the fairing.

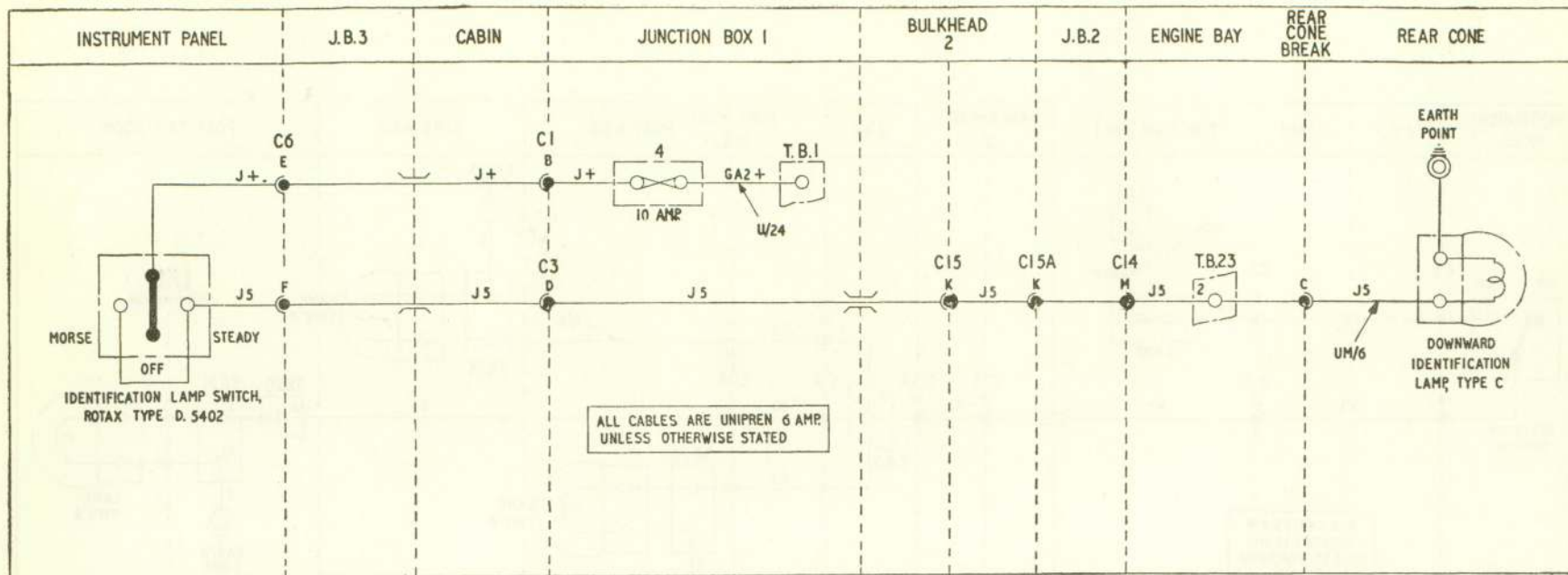


Fig. 5. Downward identification lamp—J

DOWNWARD IDENTIFICATION

Description

18. A single downward identification lamp is installed in the lower surface of the engine rear cone, having a clear glass cover.

19. The lamp is controlled by a three-position switch having a centre OFF position. Operation of the switch toggle to the upper position renders the lamp permanently ON.

20. The down position of the switch toggle,

however, is spring-loaded, such that the toggle must be held down to light the lamp. This allows the crew to send MORSE on the lamp.

Servicing

21. The downward identification lamp circuit components are described in the specialist Air Publication listed in para. 1.

22. The lamp glass must be kept clean and free from the engine fuel and oil at all times,

particular attention being given to the actual lamp housing itself inside the rear cone.

Removal

23. The lamp is mounted to a bracket inside the rear cone by three 2 B.A. bolts and washers. The lamp is covered externally by a perspex window screwed to the rear cone skinning. To remove the lamp, the rear cone must first be removed from the aircraft.

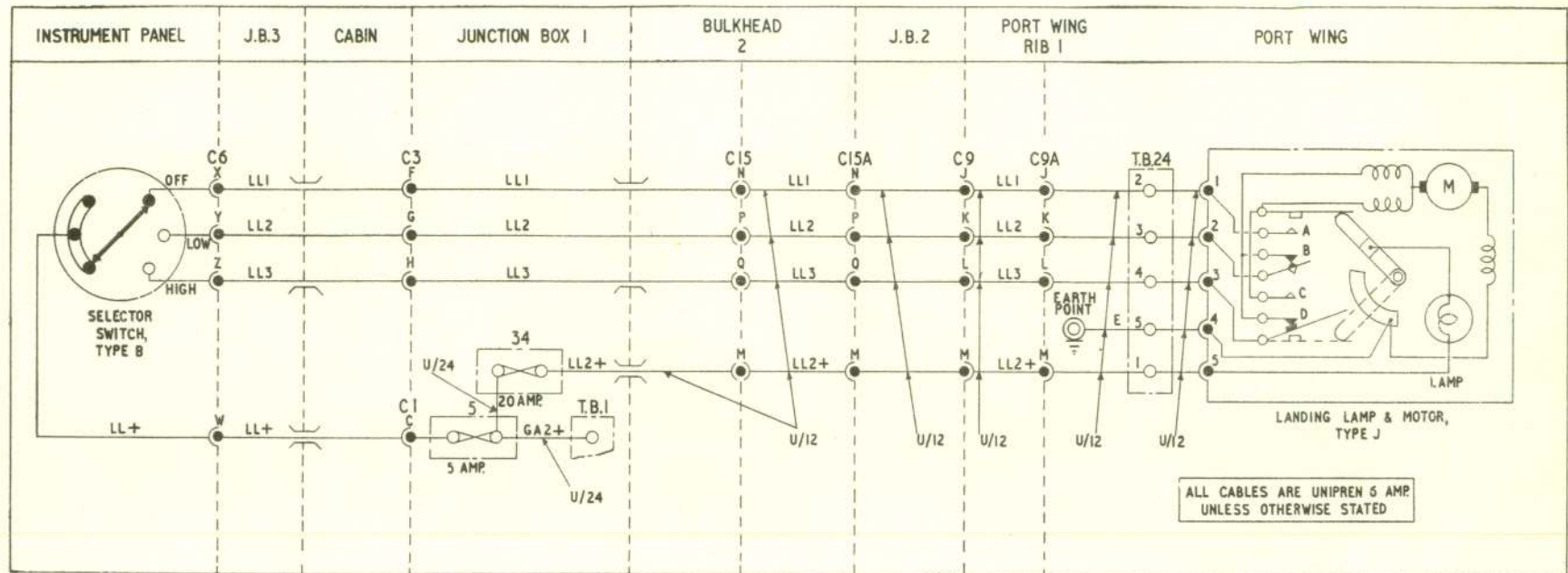


Fig. 6. Landing lamp—LL

LANDING

Description

24. A retractable landing lamp is installed in the lower port main plane skin. The retracting motor is controlled by a three-position switch fitted to the instrument panel, this switch having an OFF position and the choice of two operating angle positions for the lamp relative to the aircraft longitudinal datum.

25. The lamp filament is supplied from a

separate fuse to that which supplies the motor, the lamp circuit being completed by the motor action whilst moving the lamp from its retracted (OFF) position to its intermediate angle position.

Servicing

26. The circuit components are described in the specialist Air Publications listed in para. 1. The glass should be kept clean at all times.

Removal

27. The lamp has its own flange mounting which is secured to the main plane skin by twelve countersunk screws. These screws, when removed, allow the lamp to be withdrawn from the main plane; disconnection of the electrical plug and socket connection then being required before the lamp can be removed from the aircraft.

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