Chapter 1 ELECTRICAL SYSTEM

LIST OF GROUPS

Note . . .

A detailed list of contents appears at the beginning of each Group.

Introduction

1. This Chapter contains a description of the electrical system, giving details of the operation of each circuit, servicing information and the method of removing the circuit components from the aircraft where this is not readily apparent. When a description, and servicing information, of a component appears in a specialist Air Publication, reference is made to that Publication. A list of such references is given, where applicable, in the introduction to each group.

2. Related circuits are set out in groups as listed above. Each group bears an arbitrary code letter, the circuits in these groups having their own circuit coding in the form of one or two letters. These codings appear after the circuit title in the List of Contents above and in the List of Illustrations contained in each group.

GENERAL INFORMATION

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Power supplies

1. All the electrical services in the aircraft are supplied, whilst the engine is running, from a single Type 02 generator, the output of which is regulated between 27 and 28·5-volts d.c., having a power output of 3,000 watts. Two 12-volt, 40 ampere/hour, lead-acid batteries, connected in series, are charged by the generator, whilst one of two Type 100A inverters is excited by the generator to supply the a.c. instruments. Each inverter has a three-phase output of 115-volts, 400 c.p.s. and a power rating of 162 watts. The inverters circuit is so arranged that only one inverter can operate at a time. These systems are dealt with in Group A.

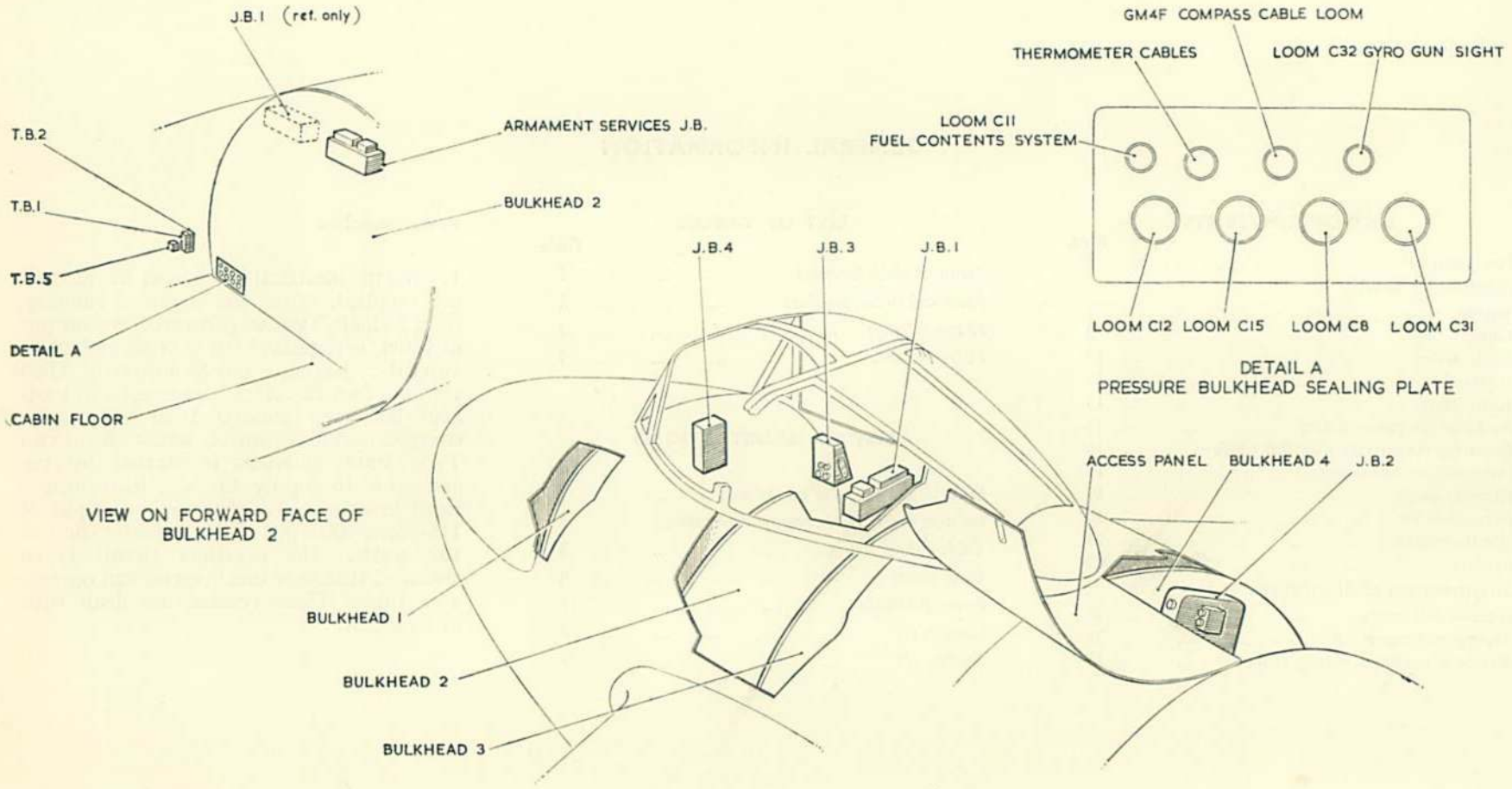
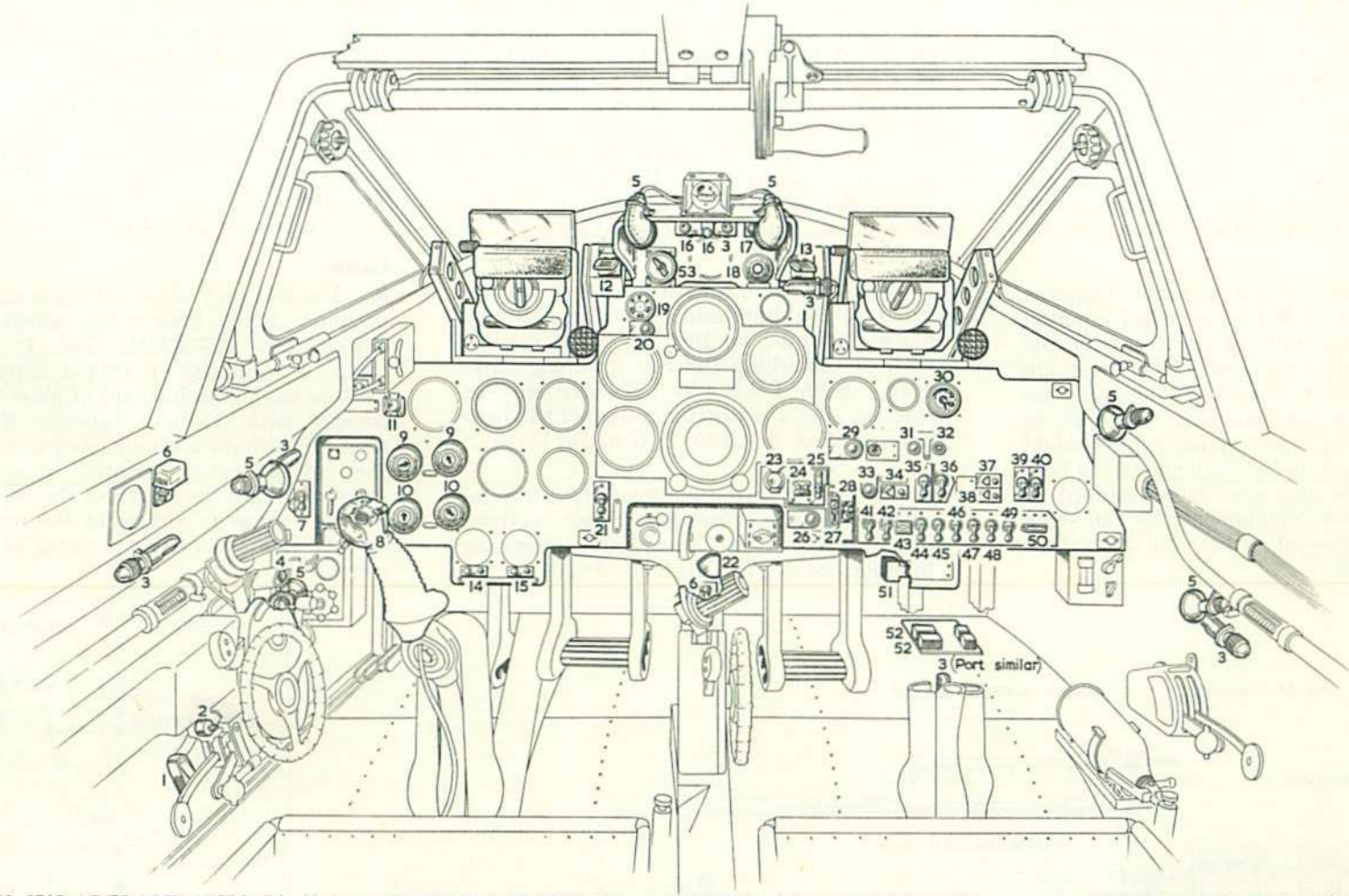


Fig. 1. Location and access of components



1 ALIGHTING GEAR LEVER LOCK MICRO SW.
2 ALIGHTING GEAR LEVER LOCK SOLENOID
3 CABIN RED LAMPS (7)
4 ENGINE RE-LIGHT PUSH-SWITCH
5 ULTRA-VIOLET LAMPS (6)
6 ALIGHTING GEAR OVER-RIDE SWITCHES (2)
7 EMERGENCY LAMPS SWITCH
8 ARMAMENT STORES SWITCHES
9 U/V LAMPS DIMMER SWITCHES (2)
10 CABIN RED LAMPS DIMMER SWITCHES (2)
11 CANOPY HATCH OPENER PUSH-SWITCH
12 PORT G.G.S. RETRACTION UNIT SWITCH
13 STBD G.G.S. RETRACTION UNIT SWITCH
14 No.1 INVERTER CIRCUIT BREAKER
15 No.2 INVERTER CIRCUIT BREAKER
16 EMERGENCY LAMPS (2)
17 FIRE WARNING LAMP TEST PUSH-SWITCH
18 FIRE WARNING & EXTINGUISHER PUSH-SW.
19 ALIGHTING GEAR POSITION INDICATOR
20 ALIGHTING GEAR WARNING LAMP
21 V.H.F. RADIO MUTING SWITCH
22 GROUND/FLIGHT SWITCH ACTUATING KNOB
23 ENGINE STARTER PUSH-SWITCH
24 ENGINE STARTER MASTER SWITCHES
25 TURN AND SLIP EMERGENCY SWITCH
26 CABIN PRESSURE WARNING LAMP
27 FUEL BOOSTER PUMP SWITCH
28 FUEL PUMP ISOLATING SWITCH
29 FUEL PRESSURE WARNING LAMP
30 VOLTMETER
31 No.1 INVERTER FAILURE INDICATOR
32 No.1 INVERTER RE-SET SWITCH
33 GENERATOR FAILURE WARNING LAMP
34 STARTER CIRCUIT BREAKER
35 FLIGHT INSTRUMENT SWITCH
36 DOWNWARD IDENTIFICATION LAMP SWITCH
37 PORT G.G.S. RETR. UNIT CIRCUIT BREAKER
38 STBD G.G.S. RETR. UNIT CIRCUIT BREAKER
39 CINE CAMERA MASTER SWITCH
40 CINE CAMERA EXPOSURE SWITCH
41 PRESSURE HEAD HEATER SWITCH
42 NAVIGATION LAMPS SWITCH
43 BOMBS/R.P. SWITCH
44 R.P. PAIRS/SALVO SWITCH
45 BOMB NOSE FUZING SWITCH
46 BOMB TAIL FUZING SWITCH
47 BOMB SELECTOR SWITCH, PORT
48 BOMB SELECTOR SWITCH, STARBOARD
49 BOMB DISTRIBUTOR SWITCH
50 CAMERA TEST SWITCHES
51 STARTER RELAY
52 RETRACTION UNIT RELAYS (2)
53 LANDING LAMP SWITCH

Fig. 2. Location of electrical components in cabin

INSTALLATION DETAILS

Wiring

2. The single-pole, negatively-earthed system of wiring is employed, the earth cables being grouped at common points throughout the aircraft. In the fuselage four junction boxes, called J.B.1, J.B.2, J.B.3, and J.B.4, form breakpoints for polyvinyl-covered cable looms. The looms contain loose pren cables secured at each end to multi-pin sockets, the sockets engaging with multi-pin plugs on the junction boxes and at pressure bulkhead connections.

3. The location of the junction boxes is shown in fig. 1. J.B.1 is the main junction box and houses most of the fuses for the aircraft electrical services. The fuses are contained in four fuse blocks mounted on the top of the junction box, which is, in turn, covered by a waterproof rubber shield secured by a fastener at each end of the box. The top of the box can be unfastened to provide access to components by removing seven bolts, two at either end and three along the front.

4. The cover of J.B.2 can be removed to provide access to the integral components by disconnecting both the R.P. resistance-and-relay units and the terminal block on the lid of the box, and loosening the four Dzus fasteners which secure the lid. J.B.3 is a sealed box being, in effect, a large bracket bolted to the cabin wall. Removal of the two bolts securing the aft end of the box will allow the box to be freed from the wall, affording access to the three terminal blocks housed within. The box is located by two base pegs at its forward end.

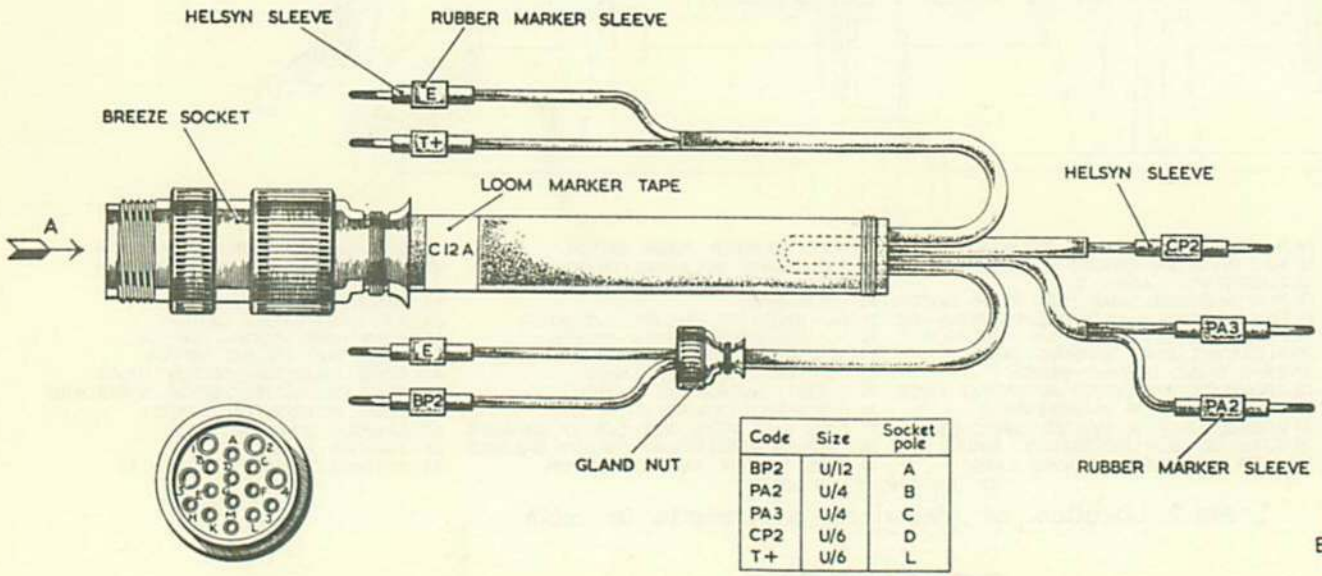
5. J.B.4 is again, in effect, only a bracket fitted to the bulkhead. The six terminal blocks mounted on this box are accessible without disturbing the box from the bulkhead. Both J.B.3 and J.B.4 can only be reached after the instrument panel has been lowered (*Sect.* 5, *Chap.* 2, *Gen. Inf.*).

6. A further two junction boxes are included in the fuselage wiring system, junction box K and an armament services junction box. The former, fitted to the cabin starboard wall, is a break point for the a.c. supply system wiring, its lid being removable to afford access to the internal components by loosening three screws in the lid. The armament services junction box is described in Group G.

7. The wiring in the mainplanes and the port boom is by cable looms. All looms are identified by a label at each socket or loom end, marked, for example, C1, C2 or C3. The plugs on the junction boxes and pressure bulkheads are similarly marked.

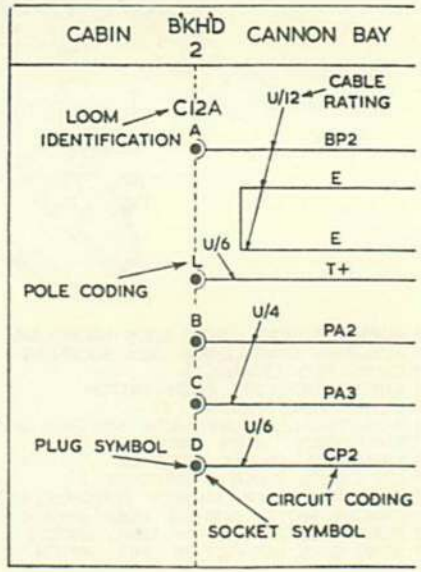
Cables

8. The majority of the wiring is in pren or prenmet cable. Pren cable, which is fully described in A.P.4343C, Vol. 1, Sect. 5, Chap. 4, consists of tinned copper conductors having an insulant of glass braiding covered with synthetic rubber. Most unipren cables have a blue outer covering with the current rating printed in yellow at intervals along the length of the cable. The prenmet range is similar to the pren, with the addition of an outer covering of braided metal.



Code	Size	Socket pole
BP2	U/12	A
PA2	U/4	B
PA3	U/4	C
CP2	U/6	D
T+	U/6	L

Fig. 3. Cable coding



METHOD OF SHOWING CABLE LOOM EMPLOYED ON THE ROUTING CHARTS

9. Multi-core cables, such as tripren, have the individual cores coloured to aid identification. The following cable ratings in the pren and prenmet range are used: 6, 12, 18, 24, 50 and 135 amp. A small quantity of metvinsmall cable is used in the gyro gun sight circuit, while vinmetsmall and uniradio 31 cable is used in the fuel contents system. All wiring in the engine bay which is situated in a heat zone is carried out in unifire red cable. The following abreviated cable references are used on the routing charts:

Reference	Cable
U	Unipren
D	Dupren
T	Tripren
Q	Quinpren
UM	Uniprenmet
DM	Duprenmet
TC	Tricel
QC	Quincel
3MVS	Trimetvinsmall
6MVS	Sextometvinsmall
12MVS	Twelvemetvinsmall
2VMS	Duvinmetsmall
3VMS	Trinvinmetsmall

Cable coding

10. An example of cable coding is given on fig. 3, cable loom C12A being used: the suffix A denotes that the loom is a continuation of loom C12, the break point being, in this case, the rear pressure bulkhead 2. As can be seen from the illustration the socket end of the loom has a marker tape bearing the identification. The opposite end of the loom flares out to the respective component or T.B. connection, the cable ends being finished to suit the particular connection required. In this case the ends are all finished in readiness for conventional components screw terminals.

11. At the cable ends the circuit coding is marked in indian ink upon yellow sleeves. The table on the illustration gives the socket pole reference for each individual cable, together with the circuit code and cable rating. A specimen is also included to show the method of depicting this information on the routing charts.

Terminal blocks

12. The T.B.'s are not numbered on the aircraft but are arbitrarily numbered on the various routing charts as a means of cross-reference. Table 1 lists all the T.B.'s except for the radio T.B.'s, and describes their position in the aircraft.

TABLE 1. Terminal block locations

T.B.	Location
1, 2	On starboard cabin wall (see fig. 1)
3	Inside J.B.1
4	Nose bay
5	On starboard cabin wall
6, 7	Nose bay, on bulkhead 1
8, 9, 10	Inside J.B.3
11, 12, 13, 14, 15, 16	Inside J.B.4
17, 18	On upper instrument panel
20	Beneath port throttle quadrant
21	Starboard cabin wall
22	Inside J.B.1
23, 24	Cannon bay roof
25, 26, 27, 28	Port wheel bay
29	Port main plane, landing lamp
30	Port wing tip
31	Port tail fin
32	Port tail boom, base of fin
33	Port tail boom, stub boom joint
34	Starboard cabin wall
35, 36	Engine bay, starboard wing rib 1
37	Port top engine bearer
38, 39, 40	Inside J.B.2
41, 42	Engine bay, bulkhead 4
43	Port top engine bearer
44, 45	Engine bay, starter panel
46, 47, 48	Starboard wheel bay
49	Starboard wing tip
50	Nose bay, camera
51, 52	Cabin floor, retraction unit relay panel
53, 54, 55	Inside armament services junction box
56, 57	Cabin floor, central, aft of control columns
58, 59	Cannon bay roofing
60, 61, 62	Armament services relay panel
63	ON J.B.2 lid
64	Rib 2, starboard wing, centre
65	Rib 2, port wing, centre
66	Inside J.B.K.
67	On starboard cabin wall
E1	On J.B.1.
E2	On J.B.3
E3	On armament services J.B.

Earth return

13. The negative side of the aircraft wiring is earthed, the locations of the earth points being shown in routing diagram form on fig. 4. All components in the electrical system are earthed directly to the airframe or to common earth terminal blocks, these being interconnected and eventually earthed to the airframe.

14. Three main earth points are used, one at bulkhead 1 for the batteries, one at bulkhead 2 for the generator regulator and the third at bulkhead 4 for the general services. All earth connections to the airframe must be thoroughly clean, and blue oil-base paint to D.T.D. spec. 827 must be applied to these points after the connections have been made.

Insulation resistance testing

15. The wiring in the aircraft should be regularly examined for deterioration of insulation, both visually and by use of a standard 250-volt insulation resistance tester. In the latter case all earth connections should be disconnected and the individual cables isolated. All closed circuits should be isolated and all supressor and capacitor circuits open-circuited, the connecting cables between components being individually checked. For Naval instructions on insulation resistance testing, reference is directed to N.A.M.O./General/L.47.

Rendering the aircraft electrically safe

16. The aircraft may be rendered electrically safe by moving the ground/flight switch operating knob, situated centrally below the main instrument panel, to its OUT position, and ensuring that no external supply is connected to the external supply socket. This must be done BEFORE any servicing on the electrical system is attempted.

Fuses and circuit breakers

17. The general services fuses are located in J.B.1 whilst the armament services fuses are situated in the armament services J.B. The fuses in the a.c. supply system are contained in J.B.K.

TABLE 2

Fuses and circuit breakers

Circuit	Circuit code	Fuse rating (amp.)	Fuse location
FUSES			
Batteries	GA10	120	
Generators	GA+	120	
◀Fire warning lamp	FA2+	5	)Forward stbd
Fire extingyisher bottle	FA+	20	)side of cockpit
			)floor ▶
Fuel pressure warning lamp	PA+	5	1)
Pressure head heater	P+	10	2)
Oil thermometer	OA+	5	3) 6-way fuse
Identification lamp	J+	10	4) block on
Landing lamp motor	LL+	5	5) J.B.1
Navigation lamps	N+	5	6)
A/G lever lock solenoid	UL+	5	7)
Z.B.X. relay, wireless	QG3+	5	8)
Ultra-violet lamps	UV+	5	9)
Cabin red lamps	T+	5	10)
Starter ignition units	SA3+	20	11)
Cabin pressure warning lamp	PW+	5	12)
A/G indicator	U+	5	13)
◀Spare		▶	14)
Flap position indicator	F+	5	15)
Fuel contents system	S+	5	16)
Fuel pump isolating solenoid	SV+	5	17) 12-way fuse
Fuel booster pump	BP+	10	18) block on
Generator failure warning lamp	GA3+	5	19) J.B.1
G.G.S. retraction unit, port	GS52	5	20)
G.G.S. retraction unit, stbd	GS53	5	21)
Generator-operated relay, No.1 inverter	GC21	5	22)
Turn and slip indicator, main	TB+	2.5	23)
Turn and slip indicator, standby	TB2+	2.5	24)
No.2 inverter relay	GC3+	10	25)
No.1 inverter relay	GC6+	10	26)
No.1 inverter failure indicator	GC5+	5	27)
Generator failure warning lamp	GA5+	5	28)
Voltmeter	VM+	5	29)
Spare			30)
V.H.F. transmitter/receiver, wireless	QG+	20	31)
Z.B.X., wireless	QG2+	20	32) 6-way fuse
I.F.F. Mk.3 GR, radar	QG4+	20	33) block on
Landing lamp filament	LL2+	20	34) J.B.1
◀Spare		▶	35)
Electro-pneumatic hatch opener	CP+	5	36)

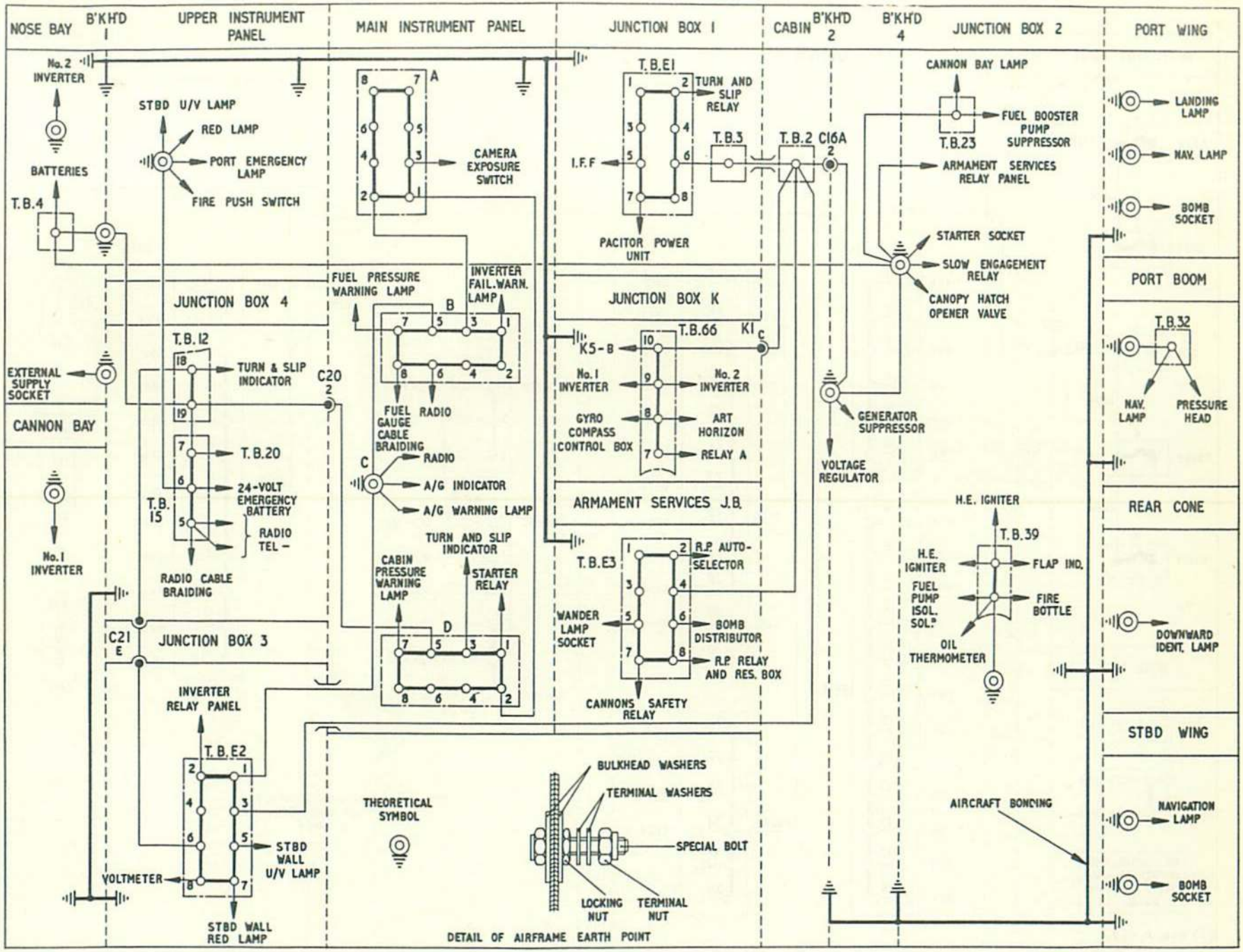


Fig. 4. Earth points

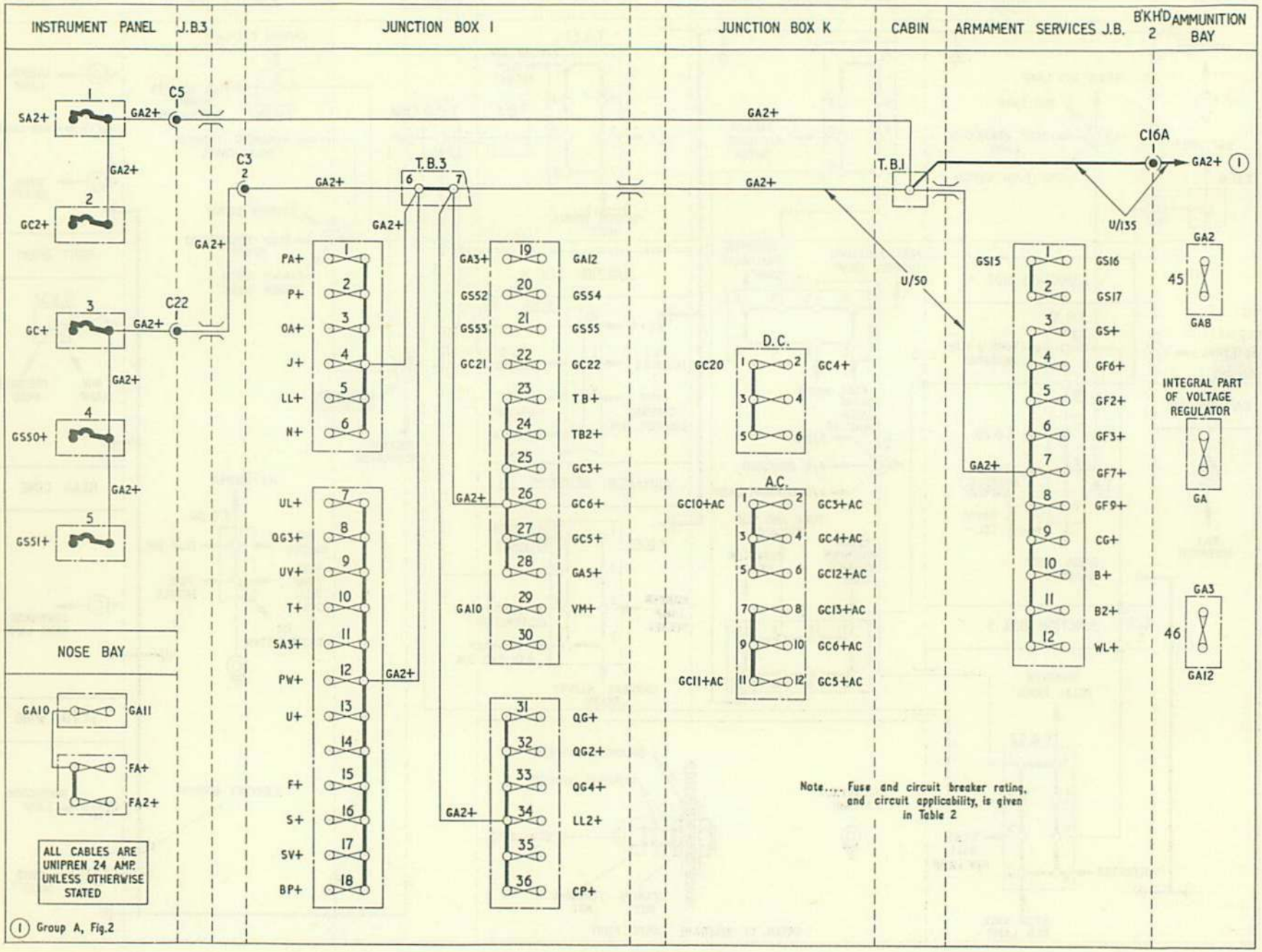


Fig. 5. Power distribution

18. The generator line main fuse is fitted in the regulator and cut-out unit whilst the batteries line main fuse is mounted in the nose bay, both these fuses being of 120 amp. rating. Five circuit breakers are fitted to the main instrument panel, and serve the starter motor, a.c. inverters and port and starboard gyro gun sight retraction unit circuits. Table 2 lists these fuses and circuit breakers, giving their respective circuit, rating and location data. Fig. 5 also shows these locations, in routing chart form.

TABLE 2 (*cont.*)

Circuit	Circuit code	Fuse Rating (amp.)	Fuse Location	
FUSES (*contd.*)				
Voltage test socket	GA2	5	45	2-way fuse block on aft face of bulkhead 2
Amp. test socket	GA3	5	46	
GM4F compass a.c., phase A	GC3+AC	2·5	AC. 1	6-way fuse block in J.B.K.
Artificial horizon a.c., phase A	GC4+AC	2·5	AC. 3	
Spare	GC12+AC	2·5	AC. 5	
Spare	GC13+AC	2·5	AC. 7	
Artificial horizon a.c., phase C	GC6+AC	2·5	AC. 9	
GM4F compass a.c., phase C	GC5+AC	2·5	AC.11	
GM4F compass d.c.	GC4+	2·5	DC. 1	3-way fuse block on J.B.K.
Spare			DC. 3	
Spare			DC. 5	
Gyro gun sight	GS16	5	AS. 1	12-way fuse block on armament services J.B.
Gyro gun sight	GS17	5	AS. 2	
G.G.S. retraction units	GS+	10	AS. 3	
Starboard outer cannon	GF6+	10	AS. 4	
Port inner cannon	GF2+	10	AS. 5	
Starboard inner cannon	GF3+	10	AS. 6	
Port outer cannon	GF7+	10	AS. 7	
Armament safety micro switch	GF9+	10	AS. 8	
Cine camera	CG+	10	AS. 9	
Bombs and R.P.'s	B+	10	AS.10	
Bomb fuzing	B2+	5	AS.11	
Wander lamp	WL+	5	AS.12	
CIRCUIT BREAKERS				
Starter	SA2+	10	1	On main instrument panel
No. 2 inverter	GC2+	15	2	
No. 1 inverter	GC+	15	3	
G.G.S. retraction unit, port	GS50+	10	4	
G.G.S. retraction unit, stbd.	GS51+	10	5	

Filament lamps

19. Table 3 list the filament lamps used, together with their Stores References, voltage and wattage.

TABLE 3

Filament lamps

Lamps	Stores Ref.	Voltage	Wattage
EXTERNAL			
Tail navigation	5L/9952276	24	10
Downward identification	5L/9952604	24	80
Landing	5L/9954717	26	240
Port and Starboard wing-tip navigation	5L/9952431	28	24
INTERNAL			
Generator failure warning	5L/9951110	6	0·24
Fuel pressure warning	5L/9951110	6	0·24
Ultra-violet (6)	5L/9952261	12	7
Gyro gun sight (2 in use : 2 spare)	5L/9951260	22	12
Red (cabin) (7)	5L/9951263	24	2·8
Cabin pressure warning	5L/9951230	24	2·8
Alighting gear warning	5L/9951230	24	2·8
Cannon bay inspection	5L/9952254	24	6
Alighting gear position indicator (9)	5L/9951272	28	3·5
Fire warning	5L/9951273	28	3·5
Emergency (cabin) (2)	5L/9951278	28	3·5

M cro switches

20. The micro switches used in the aircraft are listed in Table 4, together with a reference to the routing chart on which they appear, and their Stores Reference. The switches have been arbitrarily numbered in the Table and on the routing charts. The method of adjustment appears in the text relating to the circuit in which the switches are used.

TABLE 4

Micro switches

Number	Service	Group	Fig.	Stores Ref.
1	Starter	B	2	5CW/2126
2	Nose leg lock	F	2	5CW/4638
3	Nose door lock	F	2	5CW/4638
4	Nose up lock	F	2	5CW/4638
5	Nose down lock	F	2	5CW/4098
6	Starboard down lock	F	2	5CW/4638
7	Starboard door lock	F	2	5CW/4638
8	Starboard leg lock	F	2	5CW/4638
9	Starboard up lock	F	2	5CW/4638
10	Port down lock	F	2	5CW/4638
11	Port door lock	F	2	5CW/4638
12	Port up lock	F	2	5CW/4638
13	Port leg lock	F	2	5CW/4638
14	Alighting gear warning	F	2	5CW/2126
15	Alighting gear selector	F	4	5CW/1789
16	Port oleo leg	F	4	5CW/4638
17	Armament safety	G	2	5CW/4638

Weatherproofing

21. Corrosion can result either from condensation or penetration of moisture in airborne electrical equipment, especially in components installed in parts of the aircraft which at times are open to atmosphere, e.g., wheel bays. Various weatherproofing applications have therefore been devised to obviate this defect in the equipment, these applications being described in A.P.4343, Vol. 1, Sect. 12, Chap. 2.

Bonding

22. The main planes, booms and engine nacelle of the aircraft are made of metal, whilst the fuselage is of wood. All metal components in the fuselage are therefore bonded together to form an electrically continuous system of low and invarying resistance, and also to provide a large and constant capacity for the radio earth. Bonding in this form also reduces to a minimum the risk of an electrical fire, in that difference of potential between metallic components is eliminated.

23. Bonding of the moveable control surfaces is not necessary as the points of connection between these surfaces and the fixed structure of the aircraft are in themselves considered to be effective bonds. Four main strips are used as a basis for bonding in the fuselage, individual bonds being made with small strips of copper or with copper flex. The main planes are bonded to the fuselage, the whole aircraft being earthed, when standing on the ground, through the conductive nose wheel hub and tyre.

24. Where flexible bonding is used the length should not exceed six inches and care should be taken to prevent intermittent contact with metallic parts. When a bonding connection is being made the contacting faces must be scraped clean, and when a soldered connection is being made the flux used must be acid free, all traces of flux being removed after soldering.

25. The resistance between any selected point on the aircraft and the main earth terminals must not exceed 0·05 ohm. The electrical conductivity of the nose wheel tyre should be periodically checked with a 250 volt insulation resistance tester; its resistance should not exceed 10 megohms.

INTERPRETATION OF ILLUSTRATIONS

Location and access

26. A location and access illustration appears at the beginning of each group giving the structural location of, and method of access to, each component used in the circuits contained within the particular group. Information on the method of access is confined to showing the relevant access panels. The illustrations should be read in conjunction with the routing charts.

Routing and theoretical

27. Each circuit is shown individually on a combined routing and theoretical illustration. Where the circuit routing is complicated and the way in which the circuit operates is not readily apparent a separate theoretical diagram is included.

28. Each routing chart is divided vertically by dotted lines, the columns thus formed representing actual aircraft locations. These columns are headed with the particular location. The plug and socket references are given together with individual pole references, as is the presence of a rubber grommet.

29. Every circuit is shown as it would be with the aircraft standing on the ground, alighting gear locked down, all switches OFF and no external power supply connected.

30. Cable codings are given adjacent to each cable, whilst the cable rating is shown by arrowed annotations. The cable rating abbreviations used are listed in para. 9. It will be noted that the majority of the cable ratings are referred to in a block note on the individual routing charts, whilst any cross-reference to another circuit is annotated numerically, the key to the numbers being contained in one of the lower corners of the chart.

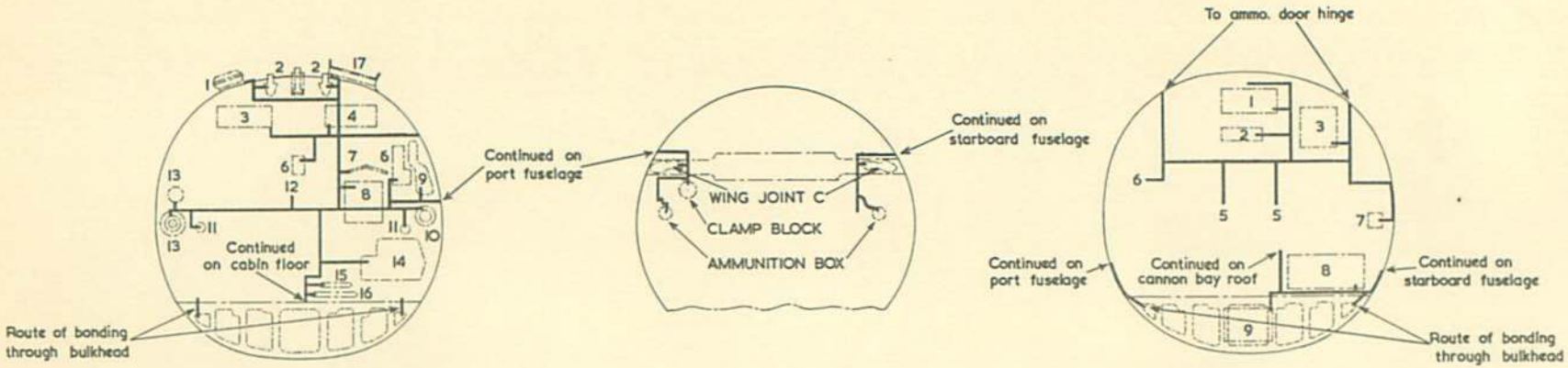
Method of reading a routing chart

31. An example of the manner in which a routing chart should be read is given in the following description of the pressure head heater circuit (*Group D, fig.* 1). The d.c. supply originates from the main supply T.B.3 inside J.B.1, being connected to the circuit's fuse, No. 2 of 10 amp. rating, by a unipren 24 amp. cable coded GA2+. The circuit side of the fuse is connected to pole A of plug C1 on the J.B. by a unipren 24 amp. cable coded P+.

32. Socket C1, pole A, connects the cable to plug C6, pole G, in J.B.3, the cable entering the J.B. via a rubber grommet. Socket C6, pole G, then connects to the PITOT HEAD switch on the instrument panel. These cables between the fuse and the switch are coded P+ and are of unipren 12 amp., as stated by the block note on the chart.

33. From the switch the cable is coded P2 and connects to pole H of socket C6 on J.B.3, pole H of plug C6 then connecting the cable to socket C3, pole B, of J.B.1, leaving J.B.3 via a rubber grommet. From inside J.B.1 cable P2 connects between plug C3, pole B, to bulkhead socket C15A, pole C, at bulkhead 2, leaving J.B.1 via a rubber grommet.

34. From the aft face of bulkhead 2 the cable passes via C15A, pole C, and C9 and C9A, pole G, through J.B.2 to T.B.33 in the port boom, the cable coding still being P2. From T.B.33 the cable connects first to T.B.32, then to T.B.31 and finally to the pressure head heater element in the port tail fin, the cable still being coded P2. From the heater element a cable coded E connects to the earth point in the port tail fin via T.B.31 and T.B.32. From T.B.32 a cross-reference is made, coded E No. 7, to Group H, fig. 4, which is the tail navigation lamp circuit. As all the cables used in the pressure head heater circuit from its fuse onwards is unipren 12 amp., this fact is stated in the black note on the chart for clarity.

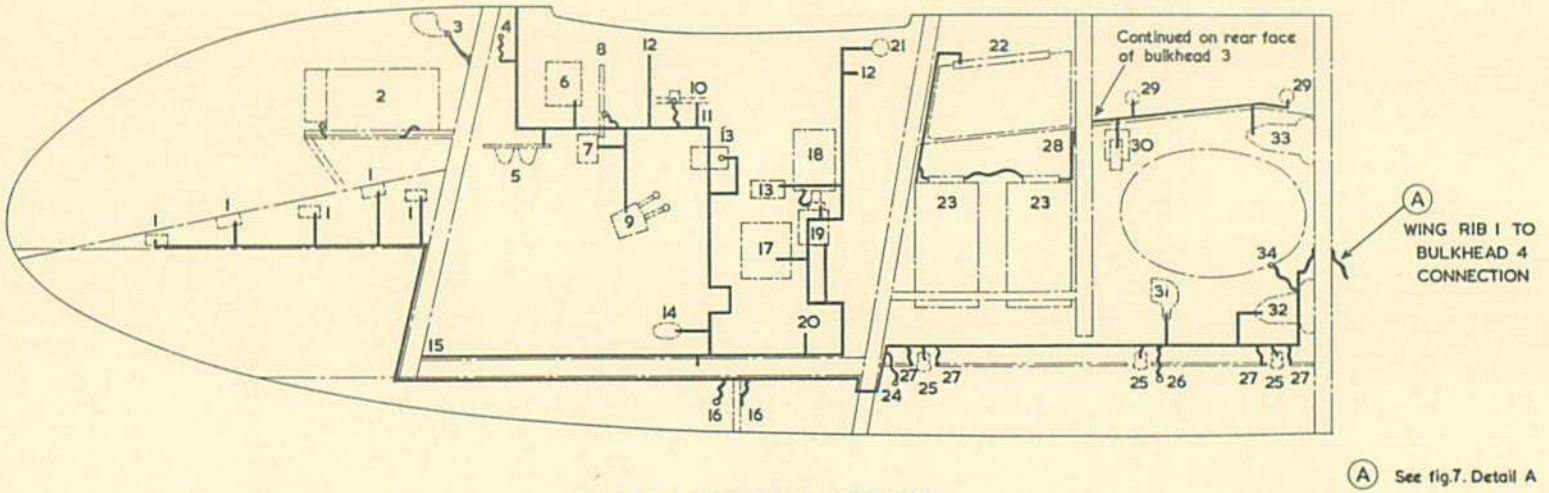


BULKHEAD 2, FORWARD FACE

BULKHEAD 3, REAR FACE

BULKHEAD 2, REAR FACE

VIEWS ON BULKHEADS



VIEW ON STARBOARD FUSELAGE

Fig. 6. Bonding (1)

KEY TO FIG. 6—BONDING (1)

VIEW ON STARBOARD FUSELAGE

1 ATTACHMENT FITTING
2 RADIO (V.H.F.)
3 NOSE TO BULKHEAD 1 BOND
4 G.G.S. RETRACTABLE MOUNTING
5 RUDDER PEDAL BRACKET
6 JUNCTION BOX 3
7 OXYGEN REGULATOR
8 INSTRUMENT PANEL
9 ALIGHTING GEAR AND FLAP CONTROLS
10 AIR PIPE
11 LADDER ANCHORAGE
12 CANOPY ATTACHMENT
13 I.F.F. CONTROL
14 SEAT PIVOT BRACKET
15 BULKHEAD 1 BOND TERMINAL
16 CANNON MOUNTING
17 MAP CASE
18 FUEL CONTENTS SYSTEM POWER UNIT
19 JUNCTION BOX K
20 'P' CLIP (ELECTRICAL CABLE)
21 SEAT SUPPORT BAR
22 AMMUNITION HATCH HINGE
23 AMMUNITION BOX
24 RUBBER RETAINING ANGLE
25 CANNON STIRRUP
26 CANNON HEATER PIPE
27 CANNON BAY ROOF
28 WING JOINT C
29 GENERATOR CABLE
30 FUEL TANK STRAP
31 PULLEY BRACKET
32 WING JOINT B
33 WING JOINT A
34 AIR INTAKE

VIEW ON BULKHEADS

Bulkhead 2, forward face

1 4-WAY AUTO-SELECTOR
2 CANOPY BRACKET
3 JUNCTION BOX 1
4 ARMAMENT SERVICES J.B.
6 CONTROLS BRACKET
7 GM4F AMPLIFIER SHIELD
8 GM4F AMPLIFIER MOUNTING
9 CONTROLS SEAL
10 AIR PIPE JUNCTION CAP
11 GM4F COMPASS CABLES
12 MIC/TEL CABLES
13 PLUG SEALING PLATE
14 CONTROL CABLES SEAL
15 OXYGEN ECONOMIZER
16 PIPES SEALING PLATE
17 FIRST AID KIT STOWAGE

Bulkhead 2, rear face

1 GENERATOR TEST SOCKETS
2 GENERATOR SUPPRESSOR
3 VOLTAGE REGULATOR
5 AMMUNITION BOX
6 FORWARD CONTROLS BRACKET GUARD
7 PULLEY BRACKET
8 PLUG SEALING PLATE
9 PNEUMATIC PANEL

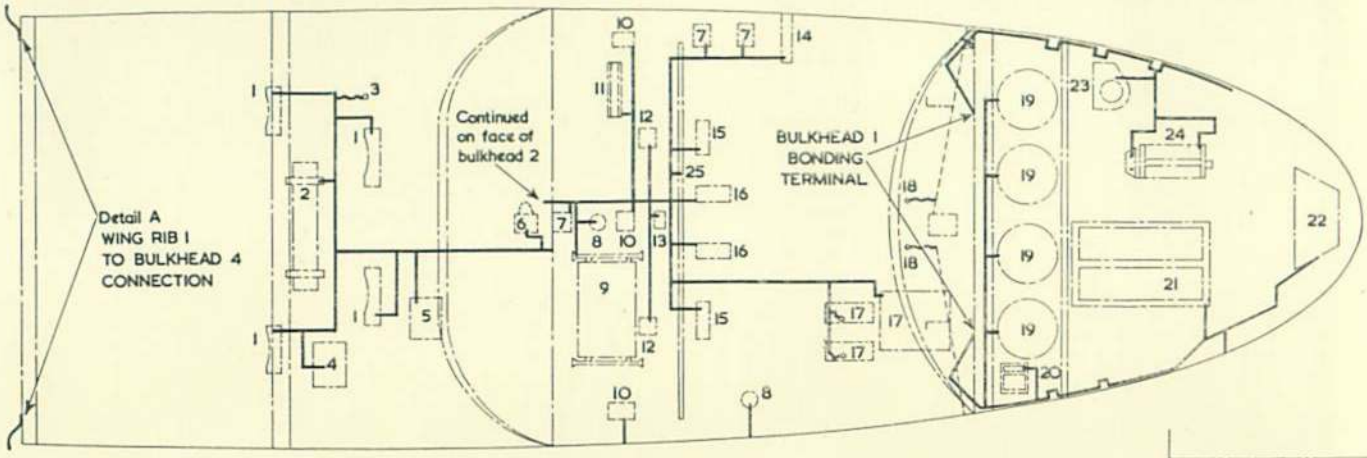
KEY TO FIG. 7—BONDING (2)

VIEW ON TOP FUSELAGE

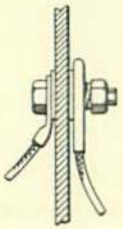
1 CANNON STIRRUPS
2 HYDRAULIC ACCUMULATOR
3 HYDRAULIC VALVE
4 FUEL PUMP SUPPRESSOR
5 FUEL GAUGE RECTIFIER
6 CANOPY HATCH OPENER VALVE
7 PULLEY BRACKET
8 OXYGEN PIPE CLIP
9 I.F.F. MOUNTING
10 SEAT PIVOT BRACKET
11 OXYGEN ECONOMIZER
12 SEAT BRACKET
13 TANK JETTISON BRACKET
14 LADDER ANCHORAGE
15 PEDESTAL
16 CONTROL COLUMN BRACKET
17 G.G.S. RELAY BRACKET
18 G.G.S. RETRACTABLE MOUNTING
19 OXYGEN BOTTLE CLAMP
20 EARTH POINT, BULKHEAD 1
21 BATTERIES TRAY
22 CAMERA MOUNTING
23 TANK FILLER PLATE
24 BALLAST WEIGHT CARRIER
25 FALSE FLOOR SUPPORT

VIEW ON PORT FUSELAGE

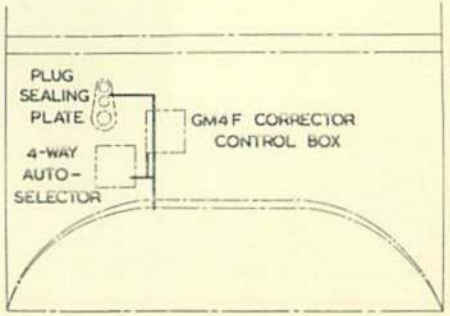
1 TANK FILLER CAP
2 CLAMP BLOCK
3 WING JOINT A
4 WING JOINT B
5 AIR INTAKE
6 FUEL TANK BAY
7 CANNON STIRRUP
8 PULLEY BRACKET
9 RUBBER RETAINING ANGLE
10 FUEL TANK STRAP
11 WING JOINT C
12 AMMUNITION BOX
13 AMMUNITION HATCH HINGE
14 CANOPY ATTACHMENT
15 SEAT SUPPORT BAR
16 LADDER ANCHORAGE
17 CABLE CLIP
18 SEAT PIVOT BRACKET
19 THROTTLE QUADRANT
20 CHAIN GUARD
21 OXYGEN REGULATOR
22 INSTRUMENT PANEL
23 RUDDER PEDAL BRACKET
24 G.G.S. RETRACTABLE MOUNTING
25 CANNON MOUNTING
26 G.G.S. AMPLIFIER
27 ATTACHMENT FITTING



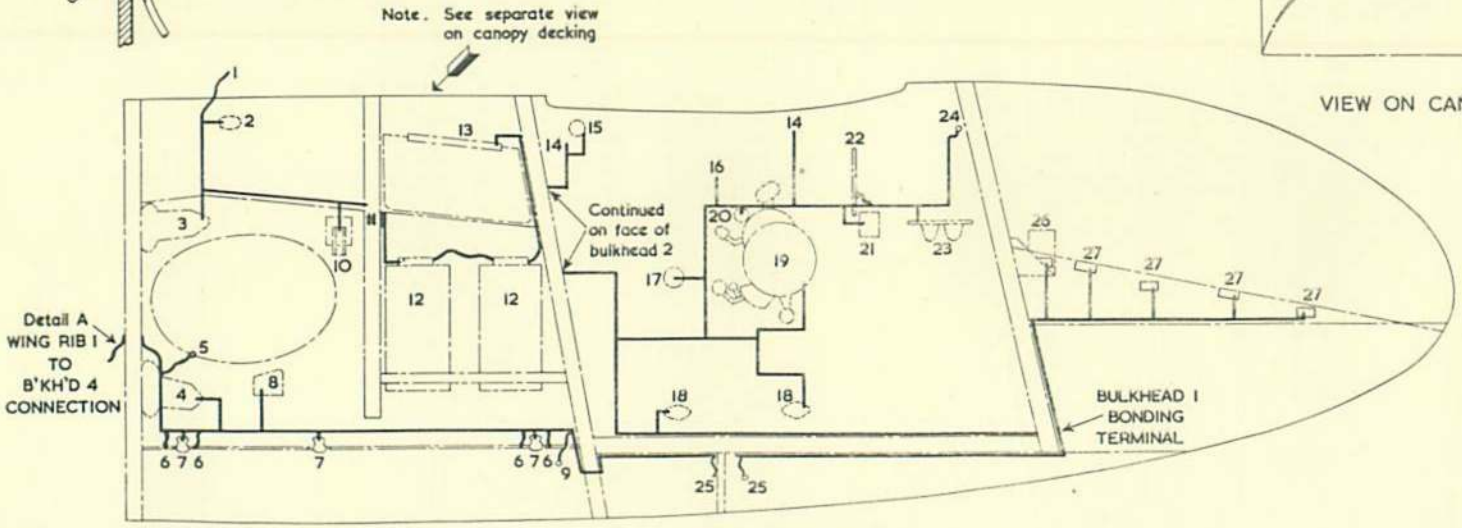
VIEW ON TOP OF FUSELAGE



DETAIL A
BONDING ATTACHMENT
AT BULKHEAD 4



VIEW ON CANOPY DECKING



VIEW ON PORT FUSELAGE

Fig.7. Bonding (2)

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