

GENERAL INFORMATION

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LIST OF APPENDICES

◀ *A list of appendices appears at the end of the Group* ▶

General

1. This introduction to Sect. 5 is provided to give a guide to the way in which the section is broken down, to show how the section may be used and to give general information about modifications and servicing instructions which are common to all chapters and groups in Sect. 5.

THE AIRCRAFT

2. The four different variants of the Valiant are dealt with as follows:—

B Mk. 1—Basic bomber aircraft (Vickers-Armstrongs Type 706).

B/PR Mk. 1—Basic bomber aircraft with built-in fittings enabling it to receive

equipment for conversion to the P.R. roles (Vickers-Armstrongs Type 710).

B/K Mk. 1—Basic bomber aircraft modified for receiving fuel in flight and with built-in fittings to take equipment for conversion to an in-flight refuelling tanker (Vickers-Armstrongs Type 758).

B/K/PR Mk. 1—Basic bomber aircraft modified for receiving fuel in flight and with the necessary built-in fittings for conversion to the P.R. or tanker roles (Vickers-Armstrongs Type 733).

Note . . .

The first five pre-production aircraft (Vickers-Armstrongs Type 674) numbered WP199 to WP203 are not covered by this Air Publication.

WIRING SYSTEM

3. A single-pole wiring system is employed, using the metal structure of the aircraft for the negative return. Pren cable is used throughout with a few minor exceptions and connector blocks are of the S.B.A.C. pattern for the high-voltage system, the smaller Plessey connector blocks being used for the 28-volt system. Hellerman pressure seals are used where cables are taken unbroken through the pressure cabin bulkheads. Cable or conduit identification is by letters denoting the panels between which the cable runs; e.g., FB denotes a cable from panel F to panel B. Connector blocks are lettered and all terminals are numbered. A terminal referenced on a routing chart as A7, in a

RESTRICTED

column headed "Panel F", denotes terminal 7 of connector block A mounted on panel F.

GROUP SYSTEM

4. Sect. 5 is divided into nine chapters. Each chapter deals with all the circuits for a particular aircraft system, e.g., Fuel system, Airframe services, etc. There are two specialist chapters dealing with the conversion of the B/PR Mk. 1 and B/K/PR Mk. 1 aircraft to the photo-reconnaissance roles and the conversion of the B/K Mk. 1 and B/K/PR Mk. 1 aircraft to the air-to-air refuelling roles.

5. Each chapter is divided into groups, each group dealing with circuits of a specific subject within the chapter. A full description of the circuits, their operation and servicing instructions are given in each group, together with the necessary schematic diagrams and routing diagrams. Location diagrams for the complete chapter and not for individual groups, are contained in the last group of each chapter.

SCHEMATIC DIAGRAMS

6. Schematic or theoretical diagrams are given in the text. These circuits are drawn so that the contacts of the relays, contactors, etc., have their contacts shown separated from their coils. The circuits are thus simplified and can be followed easily with the relevant text. Every endeavour has been made to draw these circuits to read in terms of voltages from left to right and, except where impractical, no part of any circuit reads from right to left.

7. The relay coils are given arbitrary numbers R1, R2, R3, etc., in sequence, starting with R1 at the top of the page and working downwards. Below each coil number is given the number of associated sets of contacts that are used in the circuitry, thus $\frac{R1}{3}$ means that relay R1 has

3 set of contacts used (R1 may in fact have 4 sets of contacts but as only 3 are being used the number of contacts is given as 3). The sets of contacts are labelled R1/1, R1/2,

etc., denoting that the contact is No. 1 of relay R1 or contact No. 2 of Relay R1, etc. These contact references also run in sequence for each relay from the top of the page and working downwards.

8. In the case of contactors, having both trip and reset coils, each coil has a reference number and the associated contacts have two sets of reference numbers, e.g., the reset coil may be R1 and the trip coil R2, then the associated contacts will be labelled R1/1, R2/1. In the text these contacts are referred to as R1/1 or R2/1 according to whether the reset or trip coil circuit is being described.

9. The arbitrary relay numbers R1, R2, etc., will not be found on the aircraft, therefore, in the right-hand margin of any circuit diagram, the relay names are given as engraved on the aircraft panels. Sometimes, where a relay name is not engraved on an aircraft panel, an arbitrary name has been given in the schematic circuit which is repeated in both the routing chart and the detailed location diagram for the group or chapter concerned. Thus any relay can be safely identified on the aircraft.

10. Similarly, the relay contact numbers R1/1, R1/2, etc., will not be found on the aircraft, therefore, the actual contact terminal references for the relay are given below each contact and coil in the schematic diagram.

FUSES

11. Fuse numbers are not given in the schematic circuits, but, as the book is amended, the fuse panel references will be given. A comprehensive list of fuses is given in Chapter 1 and the fuse numbers can be obtained from there. To find a main feeder fuse (on the main supply panels J and Z) for a particular circuit, the individual circuit fuse number is obtained from the routing diagram, cross-checked against the list of fuses and reference is then made to the power distribution diagram, or to the appropriate positive supply distribution routing diagram in Chapter 1 and the circuit from

the particular fuse routed back to the main power panel fuse concerned.

Note . . .

H.R.C. fuses now being issued have both tropical and non-tropical ratings quoted. The fuse ratings quoted in this book are non-tropical, but these fuses are cleared for world wide operations with this aircraft.

ROUTING DIAGRAMS

12. Routing diagrams are given at the end of each group. These show how the circuits are wired in the aircraft giving full connector block and positional references. Fuse numbers are given on these diagrams where possible. Sometimes the fuse numbers vary between the different types of aircraft, in which case reference to the lists of fuses in Chapter 1 should be made. Where a fuse is otherwise not quoted, reference should again be made to the lists of fuses.

LOCATION DIAGRAMS

13. Location diagrams are given in the last group to each chapter and show the location of the equipment for all the groups in the Chapter concerned. The first diagrams show the aircraft as a whole and are not intended to show location in detail, but in the broad sense, positionally, in the complete airframe. These are followed by diagrams showing location in detail on the various panels or parts of the aircraft structure. Diagrams showing access panels to the relevant equipment are also included.

SERVICING

14. The following paragraphs are intended to assist in routine checking of wiring and in fault finding if a circuit fails to function correctly. Detailed servicing instructions in the various groups and chapters concerned with particular circuits, are intended to assist in the functional testing of those circuits, it being assumed that routine inspection and testing of the wiring and power distribution has been carried out.

15. It is important that tests shall not exceed safe working conditions for any item

of equipment and that limits imposed on ground test operation shall be observed.

16. It is of the utmost importance to ensure that the correct supply voltages are adhered to. Failure to comply with this instruction will result in damage or destruction of equipment and components.

17. Wiring faults are largely caused by strain on joints due to insufficient anchorage of cables, loose connections, tight cleats and abrasion by an excessive pressure on the insulation of conductors. These points should be borne in mind and looked for during inspection.

18. The presence of moisture in any item of equipment may cause corrosion, and, where this is evident, the equipment should be thoroughly cleaned and dried out.

19. All connector blocks should be examined at regular intervals for security of assembly and individual connections. This will reduce the development of high resistance conditions to a minimum. Junction-boxes and panels should be checked to ensure that they do not contain any loose wires, swarf or similar matter likely to cause short circuits.

Emergency procedure

20. In any emergency during ground testing of electrical circuits and equipment, pull out the external supply plugs. Switching off at the main switch on the ground supplies truck does NOT isolate the supplies to the equipment, as the batteries are held on line by the feed back in the in-situ charging circuit.

Detonator circuits

21. Before electrical tests of any kind are applied to the detonator circuits, or circuits associated with them, the detonators must be removed and their leads shorted together. Tests other than those prescribed or recommended must not be applied, nor should soldered joints be made with electric soldering irons.

Inertia switch circuits

22. Ensure that all inertia switches are at RE-SET before connecting or re-connecting, or switching on the aircraft or external electrical supplies after testing any of the inertia switch circuits.

Bonding

23. It is important that bonding is maintained in good condition. When components are fitted they should, if necessary, be cleaned of their protective coatings at bonding surfaces except when the protection is metallic such as cadmium, nickel, etc. Bonding tests should be made in accordance with A.P.1464, Vol. 1. The maximum resistance between the main earth point and the bonded surface must not be greater than 0.25 ohms.

Plugs and sockets

24. These should be inspected periodically for security, cleanliness and freedom from internal condensation. The correct cleaning fluid for the pins of Plessey plugs and sockets is ethyl alcohol.

25. When connecting plugs and sockets, the thread of the male portion should be coated very thinly with grease (D.T.D.825) to prevent binding of the threads. Great care must be taken to ensure that the grease does not come into contact with cables, pins or moulded inserts.

Plessey connector blocks

26. Cables are removed from these connector blocks by slackening the screw back about half a turn and withdrawing the cable. When fitting cables to connector blocks, the following precautions should be taken:—

- (1) Fit sleeves to cable tags. Each sleeve must be kept clear of the spade.
- (2) Ensure that the cable tags are fitted back-to-back, that the indentations are in line and the top tag is fitted directly above the lower tag. Failure to do so will cause the tags to slip out under vibration.

(3) Tags are to be set so that top and bottom entries are parallel.

(4) Finally check that the locking screws are positively tightened.

Repairs to cables and looms

27. Where cables are found to be damaged they should be replaced by inserting a new length of cable. Where possible, this should be done by inserting a new length of cable of the correct size and type between the nearest connector or terminal blocks. However, in large or difficult cable looms, it is permissible to insert new lengths of cable by the use of pre-insulated in-line connectors in order to avoid breaking down the whole loom. The use of these in-line crimps is subject to the recommended limitations laid out below:—

- (1) In-line connectors are not to be used for repairing 112-volt cables, for repairing cables in circuits directly associated with the powered flying controls and tailplane incidence control, or for repairing cables in thermo-couple circuits or cables run in high temperature zones. In-line connectors are not available for use with cables of and below 0.00047 sq. inches c.s.a. (i.e., 24 gauge).
- (2) Not more than four in-line connectors, over and above those called for on the relative circuit diagram, may be introduced for repair in any one circuit run.

Note . . .

A 'circuit run' is defined as a single electrical circuit from a point on a distribution bus-bar via components, switches, etc., to an earth connection or other phase bus-bar.

- (3) Not more than two in-line connectors may be used in any one cable run of six feet or less.
- (4) Not more than three in-line connectors may be used in any one cable run not exceeding twenty feet in length.
- (5) Where a repair is effected by means of in-line connectors in a loom or cabin

run which already incorporates in-line connectors to the limits set down under items (2), (3) and (4) above, the area of repair must be extended to the nearest connector or terminal block or to a point immediately beyond the nearest adjacent in-line connector which, on replacement, becomes the termination of the repair.

(6) Where more than eight in-line connectors are required to repair a loom, the total should be divided into groups so that, at each group, the ratio of connectors to unbroken cables is not more than 1 : 3; there should be a clear space of 2 inches along the cable run between groups of connectors to avoid undue bulk at the repair point. On completion of a loom repair, the cables should not be tied into the loom but supported by suitably insulated cable clips unless the point of repair is where the loom is run in a cable duct.

(7) All in-line connections must be made with the correct crimping tool in accordance with instructions laid down in A.P.4343, Vol. 1, Sect. 12, Chap. 5 for the use of these tools.

Note . . .

Only a limited number of these tools have been made available to Valiant Squadrons. Such Squadrons have been supplied with information for the use and care of these tools. Instructions will NOT be issued in A.P.4343.

(8) All in-line connections must be made with connectors of appropriate size as follows:—

(a) Pren. 4, Pren. 6, Davu, Nyvin 22, Nyvin 20, Nyvin 18 or similar gauge cables up to 0.0016 sq. inches c.s.a.
A.M.P. Cat. No.
320559 (red)

(b) Pren. 12, Pren. 18, Nyvin 16, Nyvin 14 or similar gauge cables up to 0.004 sq. inches c.s.a.
A.M.P. Cat. No.
320562 (blue)

(c) Pren. 24, Pren. 35, Nyvin 12,

Nyvin 10 or similar gauge up to 0.01 sq. inches c.s.a.
A.M.P. Cat. No.
320570 (yellow)

FAULT LOCATION

28. The first step to speedy fault location is to obtain, through the medium of the routing charts and descriptive text, a thorough knowledge of the nature and function of the defective circuit. The most common wiring faults fall under two headings, namely, open circuits and earth faults.

29. When carrying out fault location tests, the following points should be observed:—

- (1) Do not pull cables unnecessarily.
- (2) Do not disconnect cables at connecting points without a definite objective.
- (3) When testing for open circuits, use an external supply if available, and a low wattage test lamp (e.g., 6-watt) of the correct voltage.

Open circuits

30. The recommended procedure for tracing open circuits is as follows:—

- (1) Carry out a systematic point-to-point test of the wiring, commencing at the supply fuse where a test should be made by connecting the test lamp between each side of the fuse in turn and the nearest earth terminal.
- (2) When power supply and fuse continuity are proved, apply the test to each junction box or breakdown point in the circuit until the fault is located.
- (3) In the event of an individual lamp failure, the filament of the lamp in question should be tested before proceeding with wiring tests.

Earth faults

31. The method of tracing low resistance earth faults varies according to the nature of the fault. Due to the earth return system used, a fuse will normally 'blow' immediately an earth fault develops on the positive side of the equipment. In one instance this may happen without the con-

trolling switch being operated, denoting that the fault lies between the fuse and the switch. In another instance, the fuse may have 'blown' when the controlling switch was operated, thus denoting that the fault lies between the switch and the consuming equipment. The earth fault can be located by normal line test procedure with a lamp and battery between the faulty circuit and earth with the aircraft batteries and external supplies disconnected.

EARTH POINTS

32. The aircraft, being wired on the single-pole wiring principle, has a considerable number of earth points. The circuits and equipment are earthed in either of two ways, direct to local structure or via an earth connector block from each end of which a unipren 24 cable is taken to a nearby earth point on a panel or on local structure. All panels are bonded to the local structure either by way of their fixings or by means of bonding leads. Figures 1, 2 and 3 show all the earth connector blocks in diagrammatic form and figure 4 shows the location of the major earth points. Local earth points not shown in figure 4 can be readily found by inspection on the aircraft. All earth leads are of insulated cable terminating in suitable pre-insulated ring tags or lugs attached by crimping.

33. Earth connections to local structure should be made in accordance with A.P.1464, Vol. 1 together with the following recommendations:—

- (1) All 112-volt earths are to be kept separate from 28-volt earths and a.c. earths.
- (2) The structure around the earth bolt **MUST BE CLEANED** together with the cable lug or tag immediately prior to making the connection.
- (3) The lugs or tags **MUST** be bolted up to the structure **WITHIN 5 MINUTES** (certainly no later than 10 minutes) of cleaning the structure and lugs or tags otherwise oxidation will start to take place thereby providing an unsatisfactory earth. No inhibitor is necessary.

(4) After bolting up, the earth bolt, lugs or tags, etc., must be painted with an anti-corrosive coat of lanoline resin dyed BLUE.

PILOT'S HANDWHEEL WIRING

34. The assembly of the switches and cable runs in the handwheels is clearly shown in figures 5 and 6. The illustrations are considered to be sufficiently self explanatory and no further description will be given in the text. The method of carrying the cables from the handwheel to the control column requires careful attention and a full description is given in the following paragraphs.

Pre-Mod. 2729 (fig. 8)

Note . . .

35. (1) *All connections to handwheels pre-Mod. 2729 have been re-made and must be in accordance with S.T.I. Valiant 52.*

(2) *The following instructions MUST BE strictly adhered to otherwise damage to the insulation of the cables will occur resulting in possibly serious consequences with regard to the safety of the aircraft.*

When assembling a handwheel to the control column proceed as follows:—

(1) Check the insulation round the inside of the cable drum on the control column. This insulation consists of a coating of Thickol PR.611 (Ref. No. 33C/1370) covering the whole internal surface of the drum. If this coating is suspect, a further coat or coats of Thickol should be applied. If the drum has never been treated with Thickol proceed as follows:—

(a) Check that the pre-formed heads of the rivets are seating correctly and that there are no sharp edges in the drum. Particular attention should be paid to the perspex drum cover (secured to the handwheel) and to the counter-sunk screws securing the cover to the handwheel.

(b) Apply four coats of Thickol PR.611 (Ref. No. 33C/1370) to the whole

internal surface of the drum ensuring that no adhesive falls onto the splines or enters the bearing. Allow half-an-hour between each coat and two hours after the final coat; this last period will depend on the ambient temperature but the handwheel must not be fitted while the Thickol is still tacky. The perspex cover must be left uncovered as this forms an inspection panel.

(c) Bostik thinners 6822 (Ref. No. 33C/1366) can be used as a brush solvent for the Thickol PR.611.

(2) Ensure that there is $14.0 \begin{smallmatrix} + \\ -0 \end{smallmatrix} .25$ inches of cable between the grommet on the drum and the grommet on the drum cover (attached to the handwheel). This dimension can be achieved by loosening the cable clamps on the front face of the control column and carefully feeding the cables in the required direction paying attention that no sharp bends in the cable run result from this operation. In this condition there should be no twist in the cables, they should be lying parallel with one another.

(3) Keeping the handwheel away from the control column but with no tension on the cables, rotate the handwheel two complete turns thereby imparting twist to the cables between the grommets. Bind the cables at $1\frac{1}{2}$ inch spacings using P.V.C. covered nylon thread employing MARLIN HITCHES: the nylon thread must go through both grommets and be tied externally to the drum and then overtied with 10 turns of braided cord (Ref. No. 32A/94) which is then to be varnished.

(4) Refit the handwheels to the control column with the looms running anti-clockwise for the 2nd pilot's and clockwise for the 1st pilot's handwheel. Take care not to trap any of the cables whilst fitting the handwheel; after assembly free movement of the cables can be checked by viewing through the perspex window.

Post Mod. 2729

36. The cables from the handwheel are completely removed from the drum and are run in an open loop to the control column where they are clipped by two P.V.C. covered cable clips to the underside of the column. The forward clip is $\frac{7}{16}$ in. dia. and the rear clip is $\frac{1}{2}$ in. dia., the latter being used to secure the 11 m.m. P.V.C. sleeving which covers the cables. At the handwheel end, the P.V.C. sleeving is secured by a Hellermann sleeve to the cables; the cables are not secured to the base of the handwheel. The length of cable allowed between the base of the handwheel and the clips on the control column should be such that the full rotation of the handwheel can be obtained in both directions without causing tension on the cables either at the clips or in the handwheel itself. The cables are formed in an open loop in such a way that the cable flexing is primarily of a bending rather than a twisting nature particularly at the clips under the control column (see fig. 8).

37. After the cables between the handwheel and the control column have been correctly fitted and adjusted for length, the free ends of the cables are to be fitted to the forward face of the control column and clamped in position with the clamps provided. They can then be connected to the connector blocks mounted on the rear outboard face of the control column. The cables from these connector blocks are routed, through a short piece of conduit secured to the control column, to the appropriate connector blocks in the consoles as normal.

GENERAL MODIFICATIONS

◀37A. The method of showing mods. throughout Section 5, 6 and 7 was, until September, 1961, to include a pre and post mod. state wherever pre and post mod. information was required. This has now been superseded by a method whereby information on a modification is covered by an appendix to the relevant group or groups. Periodically,

the groups will be revised to eliminate pre-mod. information which is no longer applicable and to incorporate modifications covered by the appendices.▶

38. The following general modifications are applicable to most chapters or groups and are described here rather than repeatedly in each individual group.

Spare cables after fitting modifications

38A. Considerable trouble has been experienced when introducing modifications due to cables made redundant by previous mods. not being correctly disconnected and suitably marked. When introducing a modification which renders various cables redundant, the cables no longer required must be disconnected AT BOTH ENDS, suitably insulated, tied back and then identified as SPARE.

Modification 1785

39. Modification 1785, embodied on all the B/K/PR Mk. 1 and B/K Mk. 1 aircraft, deletes all the plug and socket break joints at the outer wing break panels N and T, and also deletes these panels; at the same time, new wing break connector block panels AA and AB as introduced in the leading edge compartment of the outer planes.

Modification 1835

40. Modification 1835 is introduced retro-

spectively to the B Mk. 1 and the B/PR Mk. 1 aircraft. In this case panels N and T are deleted, together with the plugs and sockets, but in order to avoid running new cables from the wing root panels P and K to the outer plane, the existing wiring, from which the plugs and sockets have been removed, is rejoined using in-line crimps. Panels AA and AB have not been added.

Modification 2076

41. Modification 2076 introduces A.M.P. tags 323800, 323801 and 323802 in lieu of Plessey tags Z.54994, Z.54995 and Z.54996 or Z.84502, Z.84503 and Z.84504 and the appropriate thimbles.

Amendment 1916

42. Amendment 1916 introduces fluorized magnetic indicators Ref. No. 5CZ/5073 and Ref. No. 5CZ/5074 in lieu of magnetic indicators Ref. No. 5CZ/4361 and Ref. No. 5CZ/4362.

Modification 2357

43. Modification 2357 introduces dust caps for the plugs and sockets on the wing/stalk junction box and panel in each outer plane.

Modification 2294

44. Modification 2294 introduces fuse test probes on all the fuse panels on the aircraft.

Each probe is connected to an indicator lamp and enables any fuse to be tested without removing it from the panel. For the 112-volt system fuses, a volt dropping resistance is connected in series with the indicator lamp which is fitted with a 28-volt filament.

Note . . .

The fuse test probe on panel D must not be used on fuses 122–125 as these are 115-volt a.c. and the indicator lamp is fitted with a 28-volt d.c. filament.

Modification 2762

45. Modification 2762 removes all the fuses associated with the underwing nacelle and store systems. It also removes all switch gear associated with these systems on aircraft not having Modification 2612, 2645, 2646 or 2725 incorporated (*see Chapter 3*).

46. In addition to the above, drawings have been prepared to record the redundant wiring for these obsolete circuits so that if required in the future the cables may be used for other circuits. These record drawings are reproduced in figures 11–17; wiring which has already been used for other circuits is clearly indicated and full cross references are given.

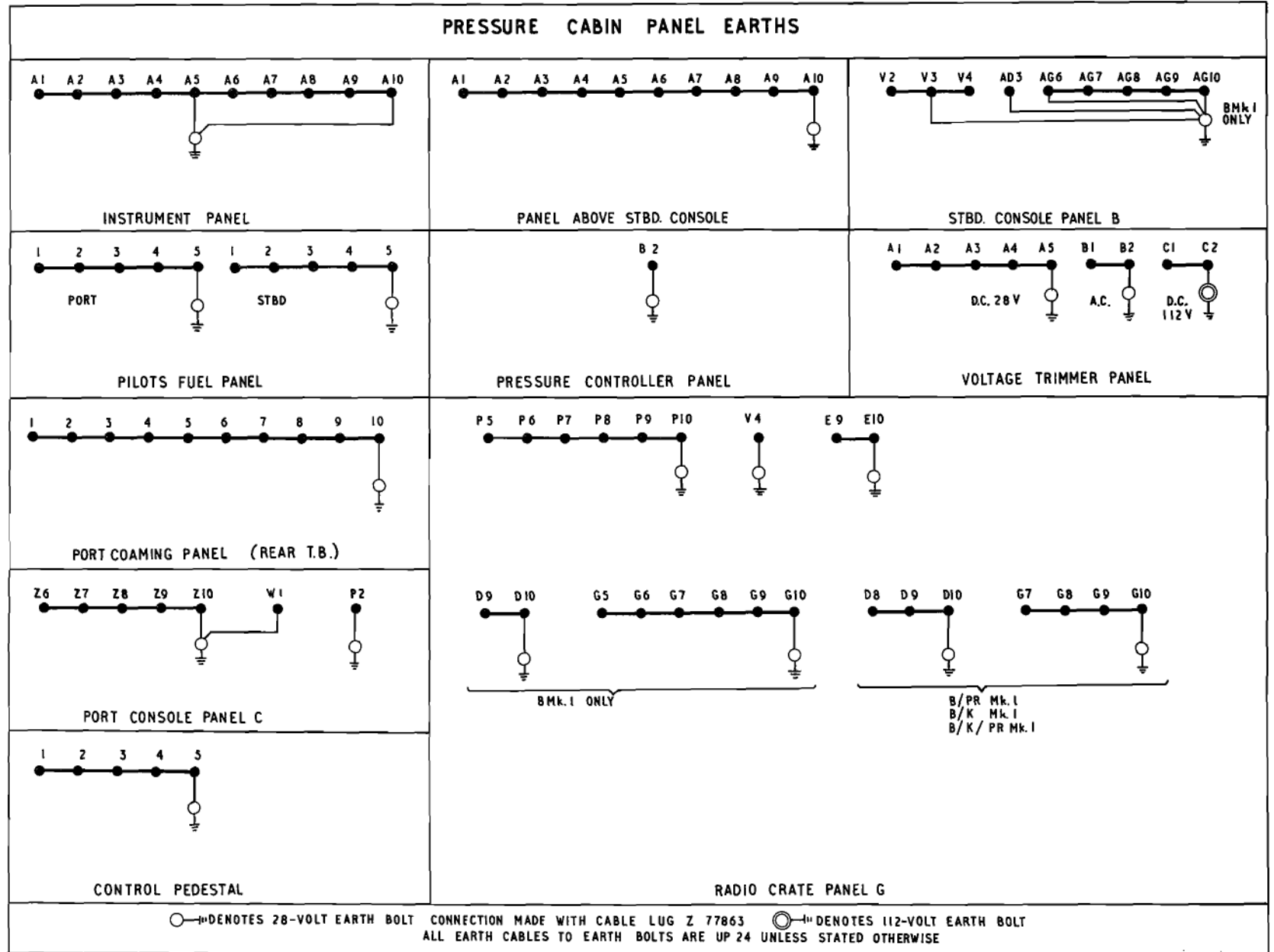


Fig. 1 Earthing details (1)

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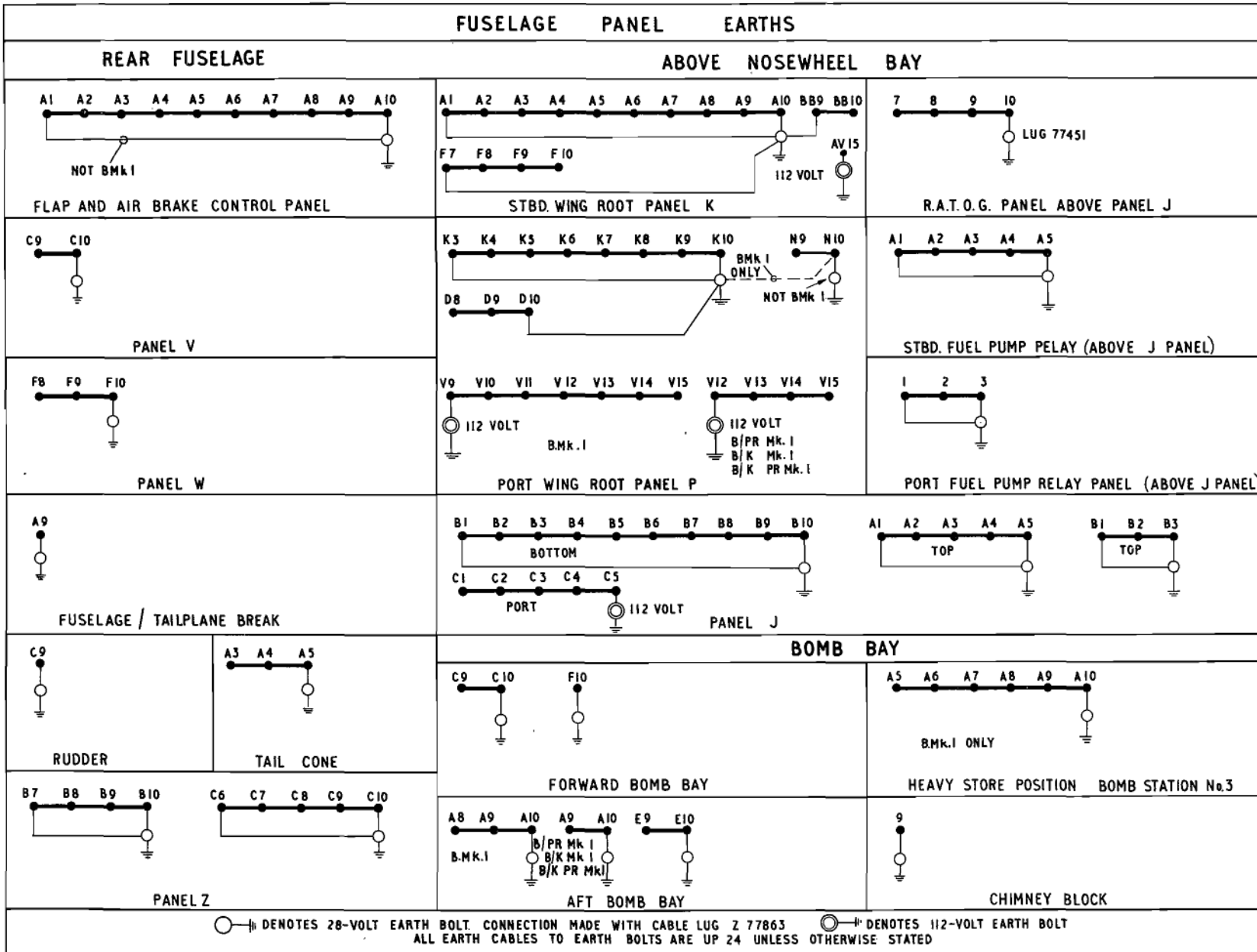


Fig.2 Earthing Details (2)

RESTRICTED

67436 SHT. 101 & 101A
75856 SHT 101 & 101A

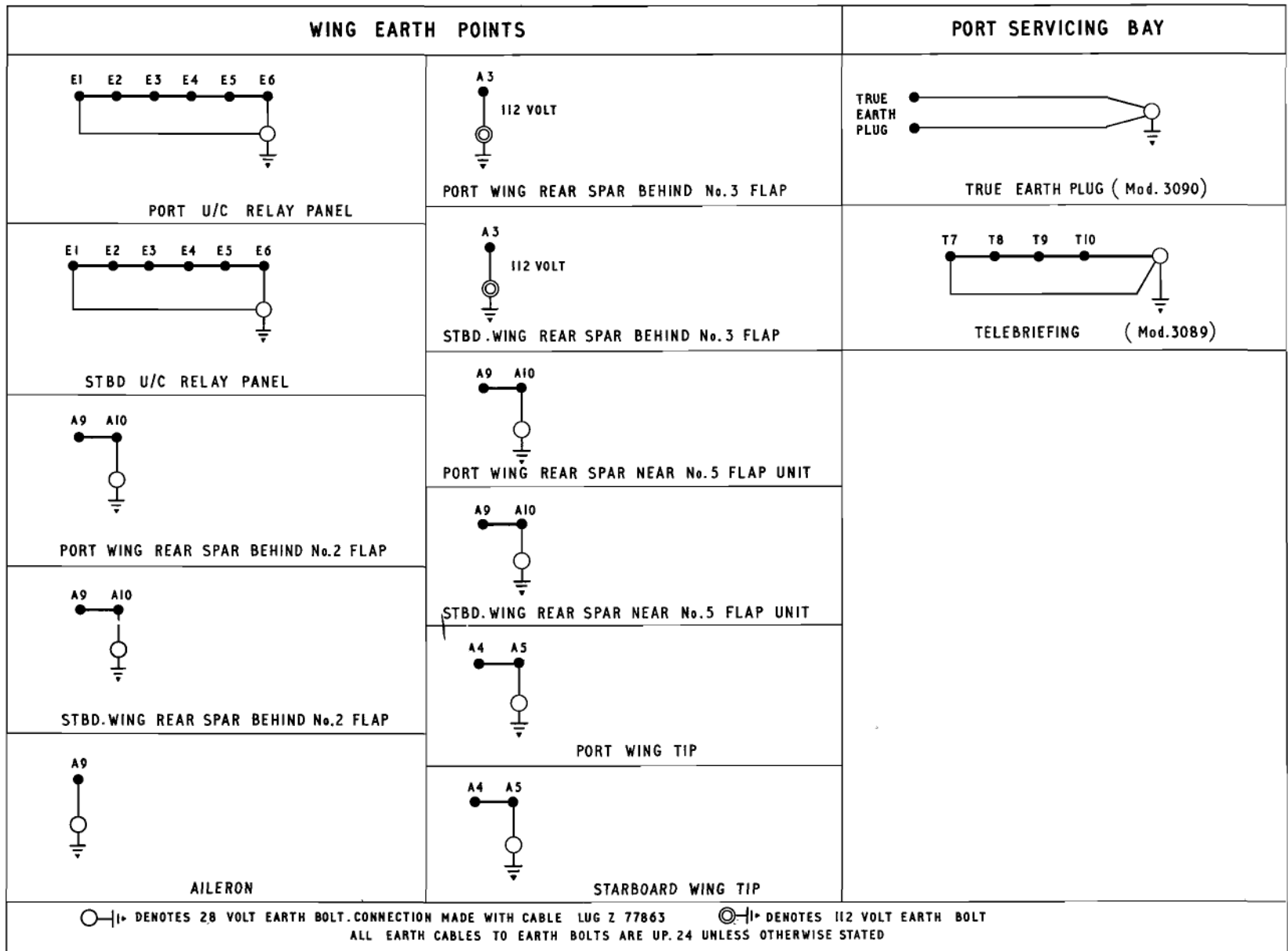


Fig.3 Earthing details (3)

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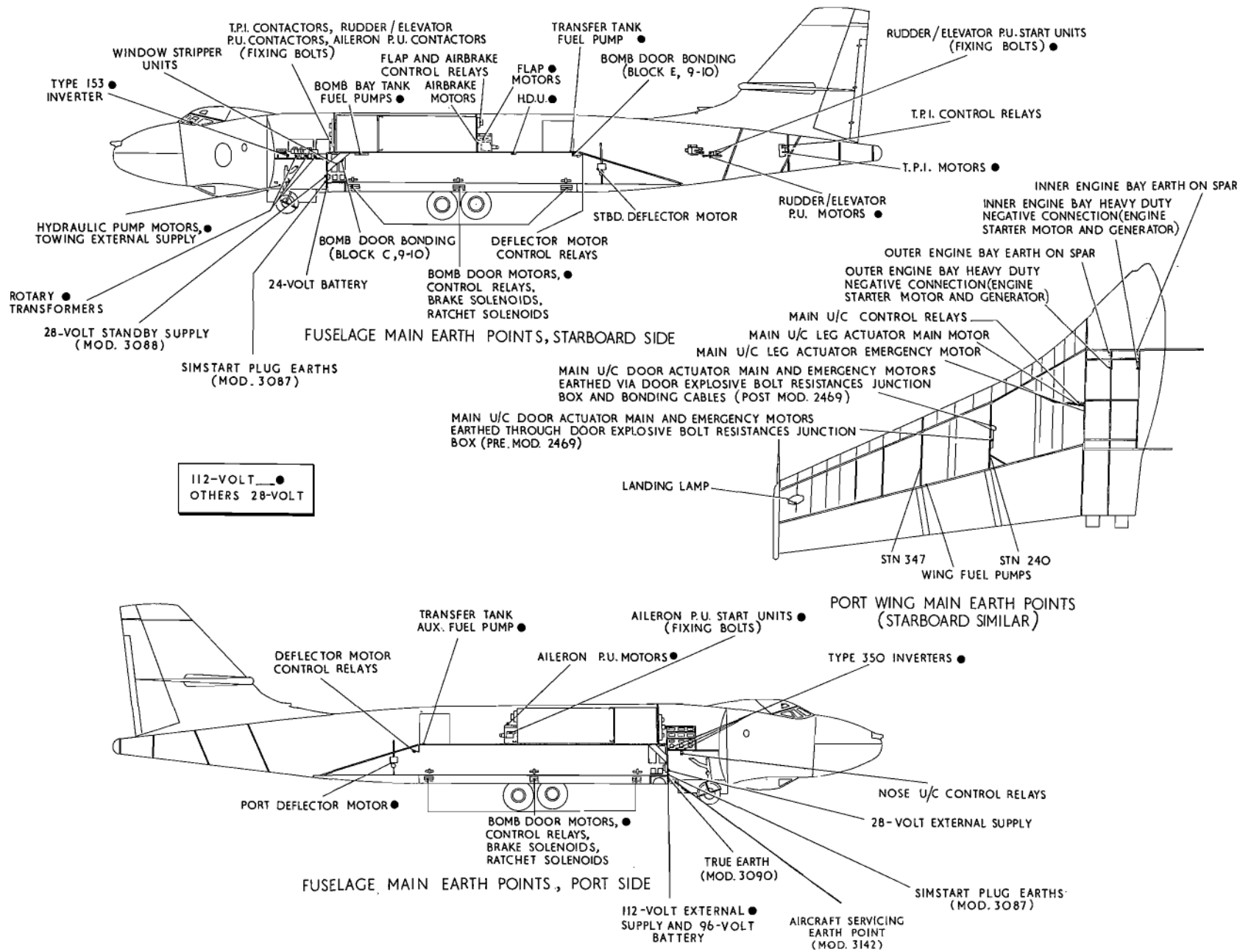
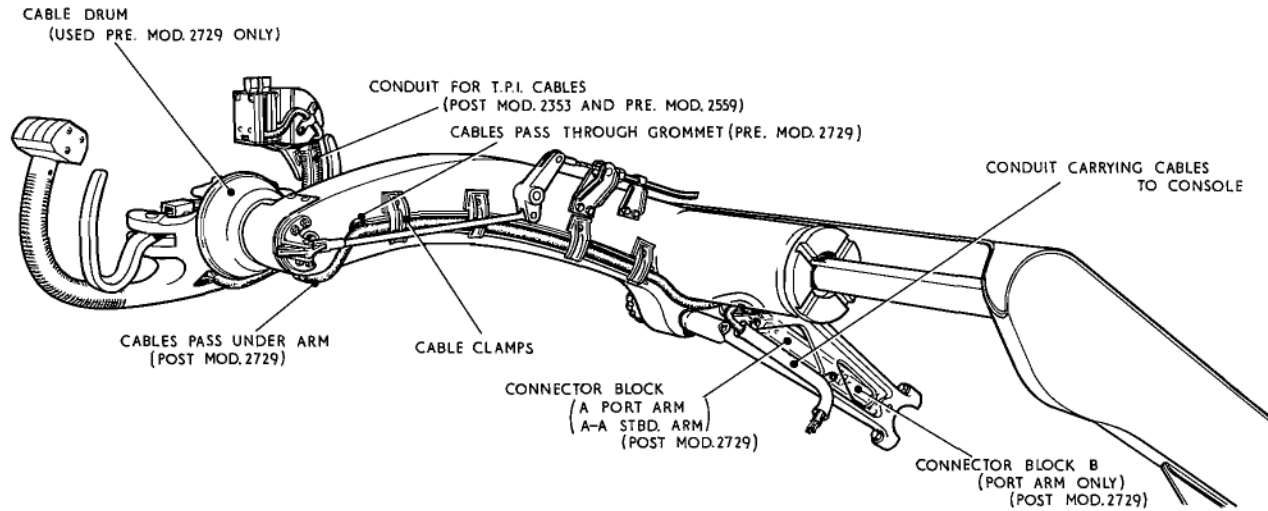


Fig.4 Location of main earth points
RESTRICTED

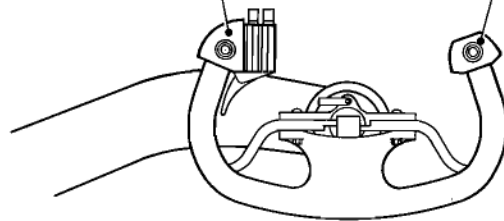


WIRING ON HANDWHEEL ARM
1st. PILOT'S SHOWN

SWITCH ASSEMBLY
SEE FIG. 6 PRE. MOD. 2559
FIG. 7 POST MOD. 2559

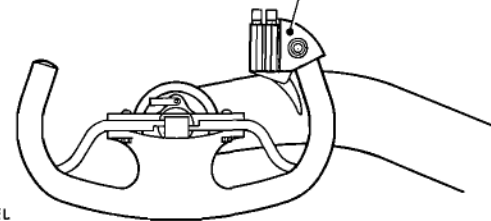
R.A.T.O.G. SWITCH ASSEMBLY
SEE FIG. 6

SWITCH ASSEMBLY
SEE FIG. 6 PRE. MOD. 2559
FIG. 7 POST MOD. 2559



1st. PILOT

ASSEMBLY OF HANDWHEEL
TO COLUMN
SEE FIG. 8



2nd. PILOT

Fig. 5 KEY DIAGRAM
RESTRICTED

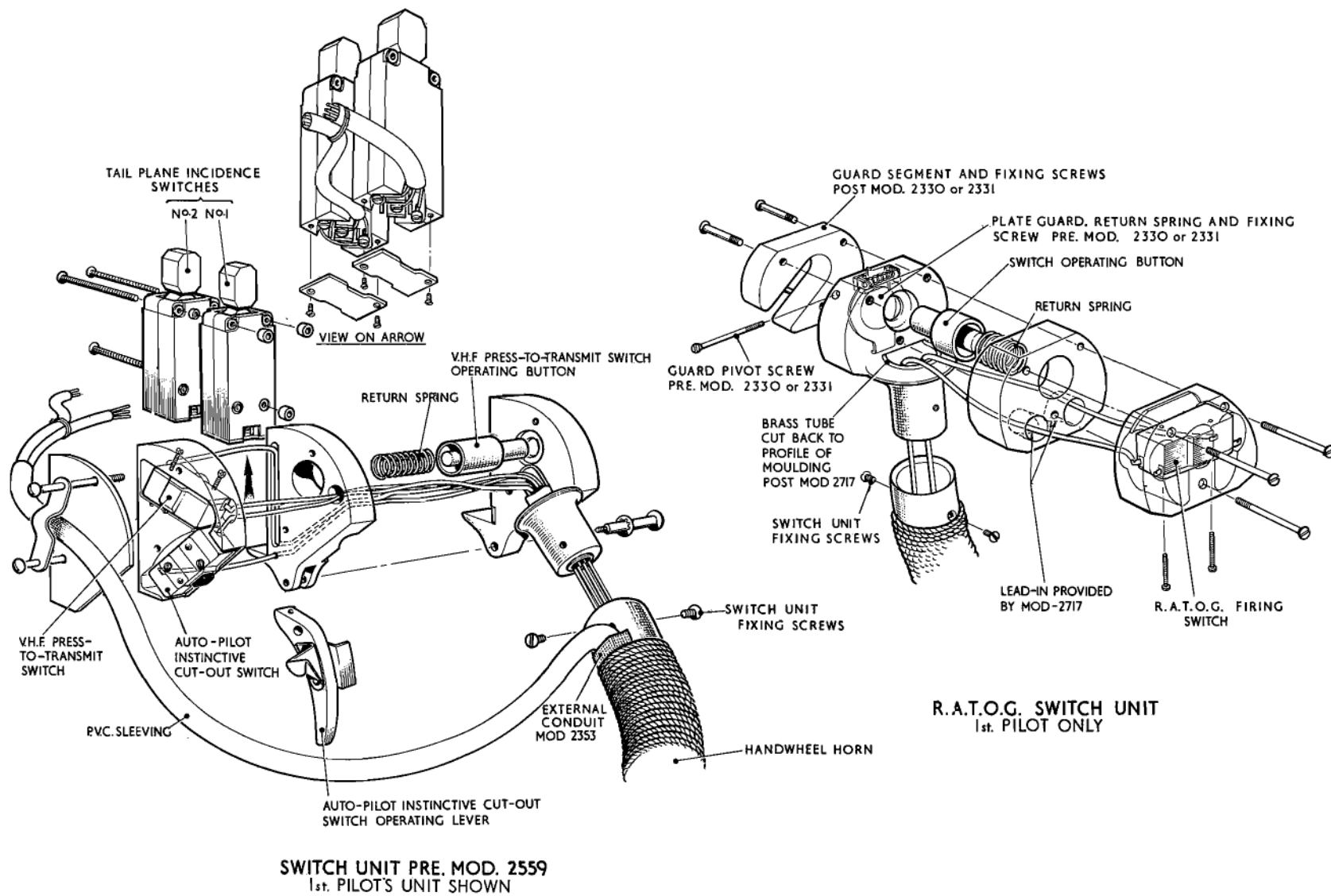


Fig. 6 Assembly of pilots' handwheel switches
RESTRICTED

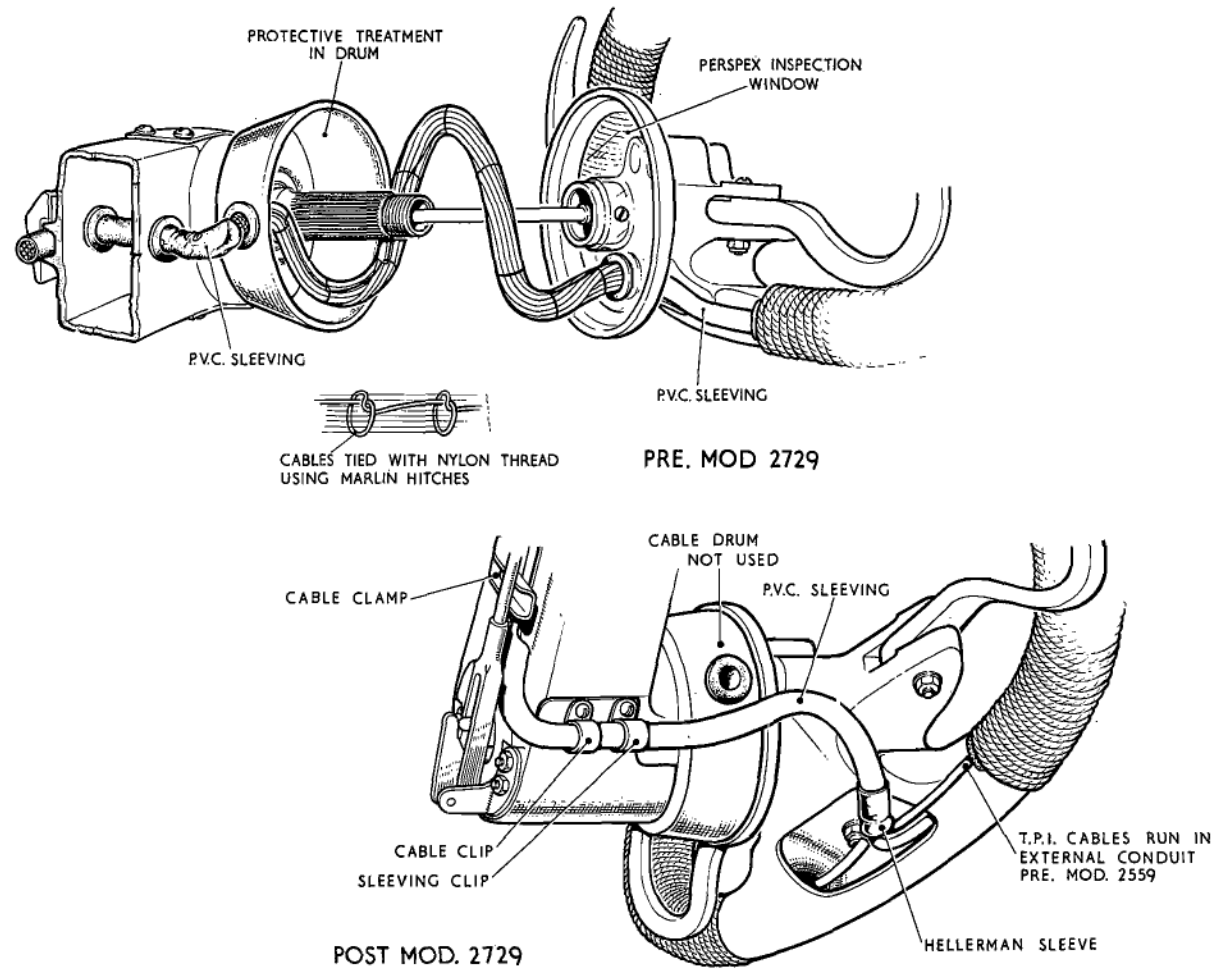


Fig. 8 Wiring between pilots' handwheels and control column
RESTRICTED

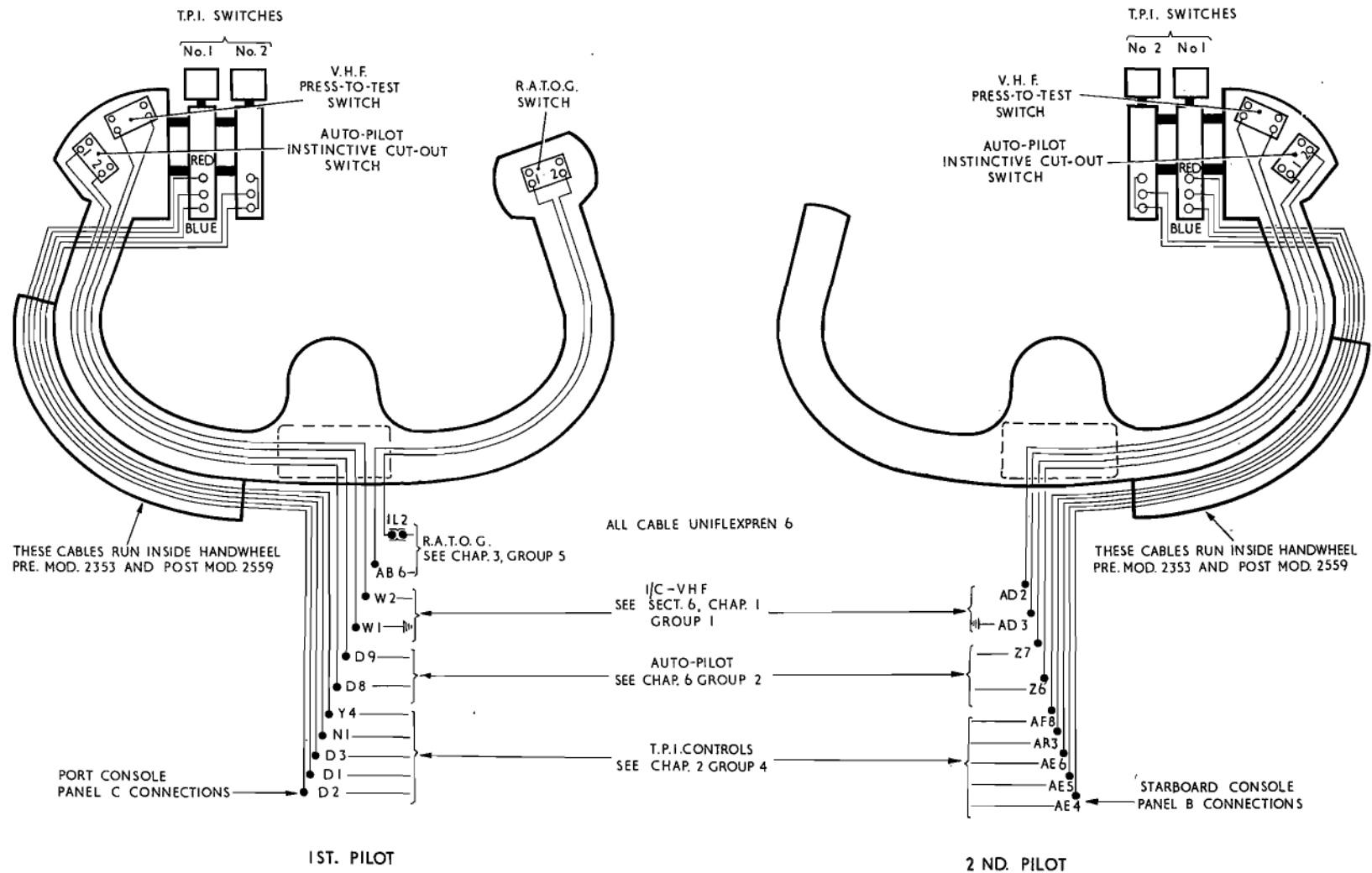


Fig.9 Pilots handwheel wiring diagram (Pre Mod. 2729)
RESTRICTED

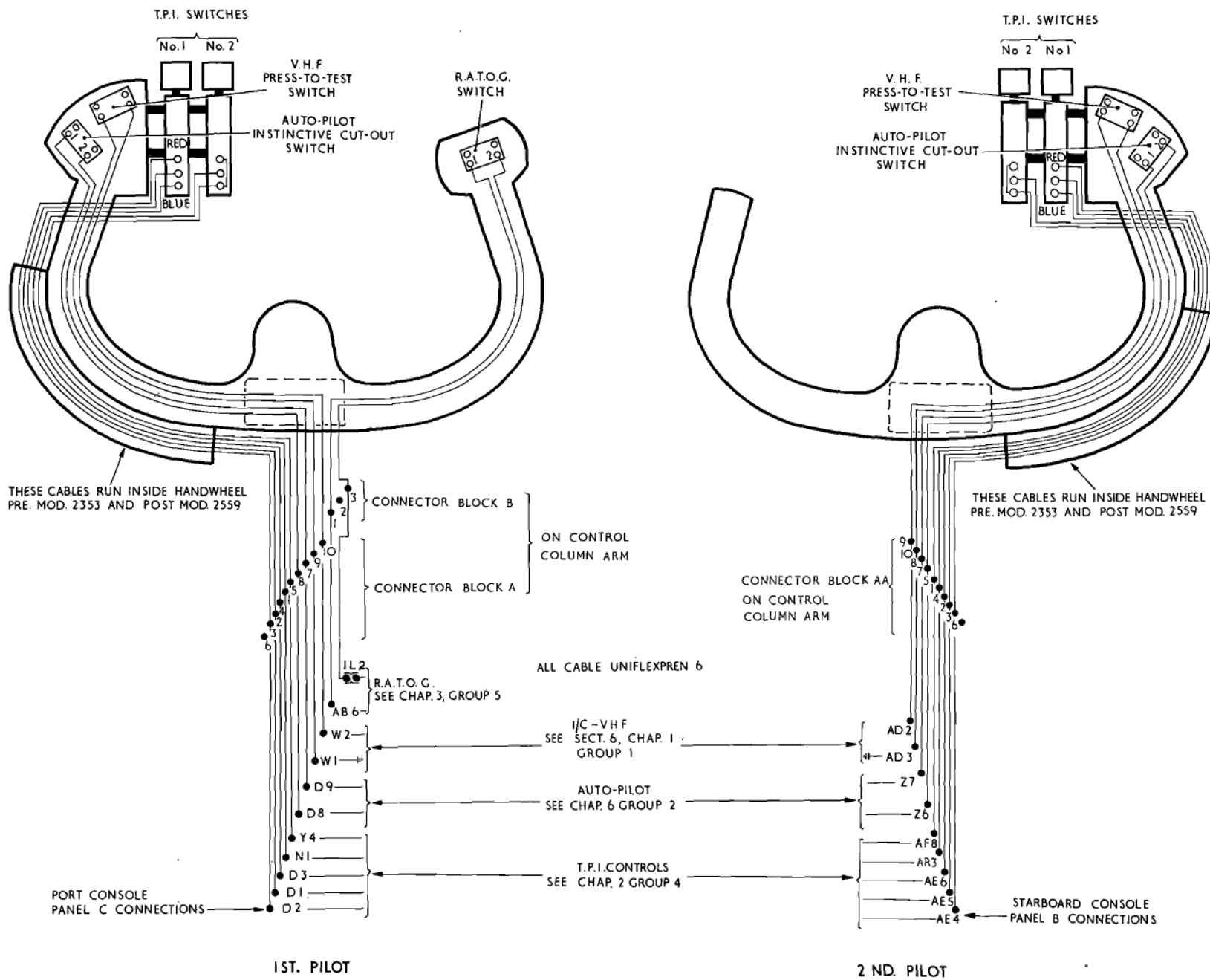


Fig. 10 Pilots handwheel wiring diagram (Post Mod. 2729)

RESTRICTED

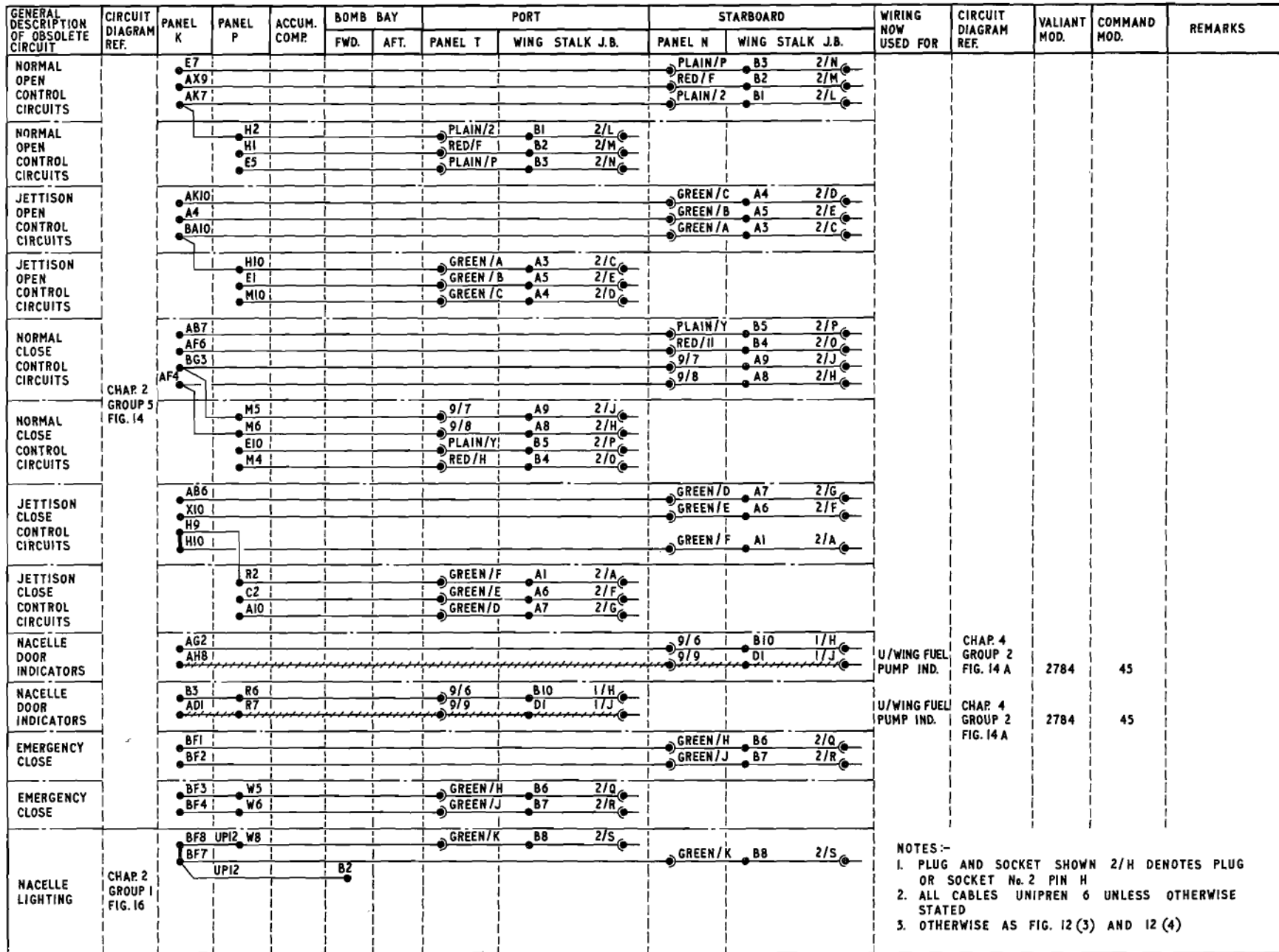


Fig. II(I) Spare cables B. Mk. I (pre Mod. 1835)

RESTRICTED

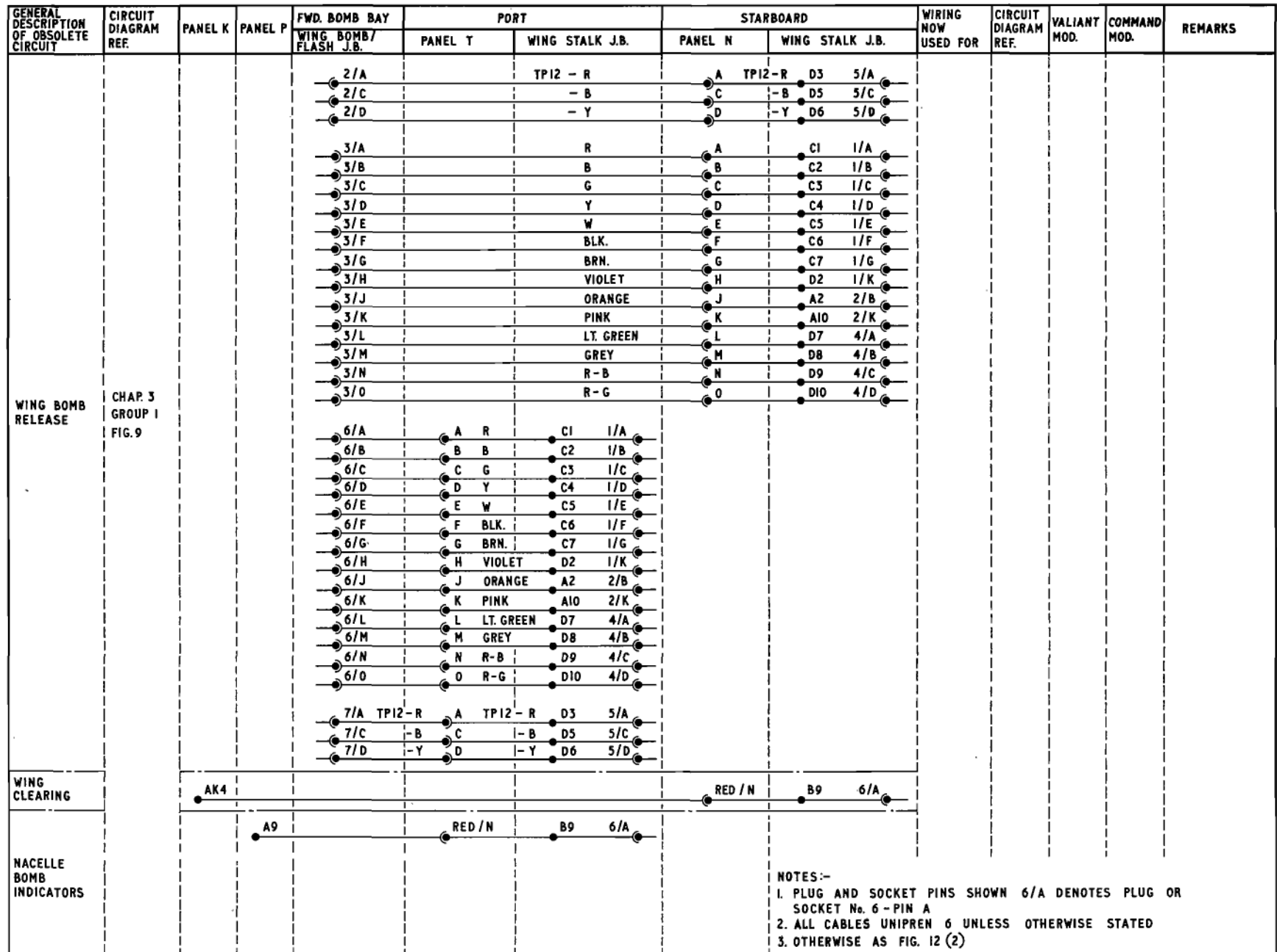


Fig. 11(2) Spare cables B. Mk. I (pre. Mod. 1835)

RESTRICTED

GENERAL DESCRIPTION OF OBSOLETE CIRCUIT	CIRCUIT DIA. REF.	PILOTS TOP PANEL	PANEL F		PANEL G		PRESS BLK. HD. PANEL H	PANEL Z	PANEL K	PANEL P	WING BOMB FLASH J.B.	FWD. BOMB BAY			AFT. BOMB BAY	PORT		STARBOARD		WIRING NOW USED FOR	CIRCUIT DIAGRAM REF.	VALIANT MOD	COMMAND MOD	REMARKS				
			CONNS	CONNS	CONNS	WING BOMB PRE. SEL. B						PRE-SELECTOR J.B.	PANEL T	WING STALK J.B.		PANEL N	WING STALK J.B.											
WING BOMB RELEASE	CHAP. 3 GROUP II FIG. 10										2/A		TP 12 - R					A1 D3	5/A	BLUE/WHITE LOOM								
											2/C		- B					B1 D5	5/C									
												2/D		- Y					C1 D6		5/D							
												3/A		R					A1 C1		1/A							
												3/B		B							B1 C2	1/B						
												3/C		G							C1 C3	1/C						
												3/D		Y							D1 C4	1/D						
												3/E		W							E1 C5	1/E						
												3/F		BLK							F1 C6	1/F						
												3/G		BRN							G1 C7	1/G						
												3/H		VIOLET						H1 D2	1/K							
												3/J		ORANGE						J1 A2	2/B							
												3/K		PINK						K1 A10	2/K							
												3/L		LT. GREEN						L1 D7	4/A							
												3/M		GREY						M1 D8	4/B							
												3/N		R - B						N1 D9	4/C							
												3/O		R - G						O1 D10	4/D							
												6/A		R						A1 C1	1/A							
												6/B		B						B1 C2	1/B							
												6/C		G						C1 C3	1/C							
												6/D		Y						D1 C4	1/D							
												6/E		W						E1 C5	1/E							
												6/F		BLK						F1 C6	1/F							
												6/G		BRN						G1 C7	1/G							
												6/H		VIOLET						H1 D2	1/K							
												6/J		ORANGE						J1 A2	2/B							
												6/K		PINK						K1 A10	2/K							
												6/L		LT. GREEN						L1 D7	4/A							
												6/M		GREY						M1 D8	4/B							
												6/N		R - B						N1 D9	4/C							
										6/O		R - G						O1 D10	4/D									
										7/A		TP 12 - R						A1 D3	5/A									
										7/B		- B						B1 D5	5/C									
										7/D		- Y						C1 D6	5/D									

NOTES :-

- PLUGS AND SOCKETS SHOWN 6/A DENOTE PLUG OR SOCKET No. 6 - PIN A
 - ENDS SHOWN * TO BE TAPED AND STOWED
 - ALL CABLES UNIPREN 6 UNLESS OTHERWISE STATED
 - PLUGS AND SOCKETS SHOWN ⊙ TO BE DISCONNECTED FROM EQUIPMENT AND STOWED IN POLYTHENE BAGS
 - FOR WIRING DIFFERENCES AT VARIOUS MOD. STANDARDS SEE FIG. 11 & 13
 - FUSE WAYS ARE SHOWN FOR REFERENCE ONLY FUSE LINKS TO BE WITHDRAWN ON INTRODUCTION OF MOD. 2762
 - TERMINALS B7 & B9 (A.B.B.B.) ARE CONNECTED IN THE BOMB DOOR CONTROL CIRCUIT (SEE CHAP 2 GROUP 5 FIG. 14) THEREFORE CONNECTION B7-AK8 (PANEL K) AND CONNECTION B9-BA9 (PANEL K) MUST BE REMOVED TO ENABLE TERMINALS AK8 BA9 AND ASSOCIATED WIRING TO BE USED AS SPARES
 - TERMINALS X2 (PANEL K) AND B7 (F.B.B.B.) ARE LINKED TO ADJACENT TERMINALS X1 & B8 (PRE-MOD. 2762) THEREFORE IT IS ESSENTIAL TO ENSURE THAT LINKS ARE REMOVED BEFORE USING TERMINALS X2 B7 AND ASSOCIATED WIRING AS SPARES
 - TERMINAL B2 (F.B.B.) IS LINKED TO TERMINAL B1 (EXTERNAL SUPPLY) THEREFORE LINK MUST BE REMOVED BEFORE USING TERMINAL B1 AND ASSOCIATED WIRING AS SPARES
- IMPORTANT :- IT IS ESSENTIAL THAT ONLY LINKS SHOWN ON THIS DRG. ARE FITTED TO ANY TERMINAL USED FOR FUTURE MODIFICATIONS

Fig. 12 (2) Spare cables B. MK.1 (post Mod 1835)

RESTRICTED.

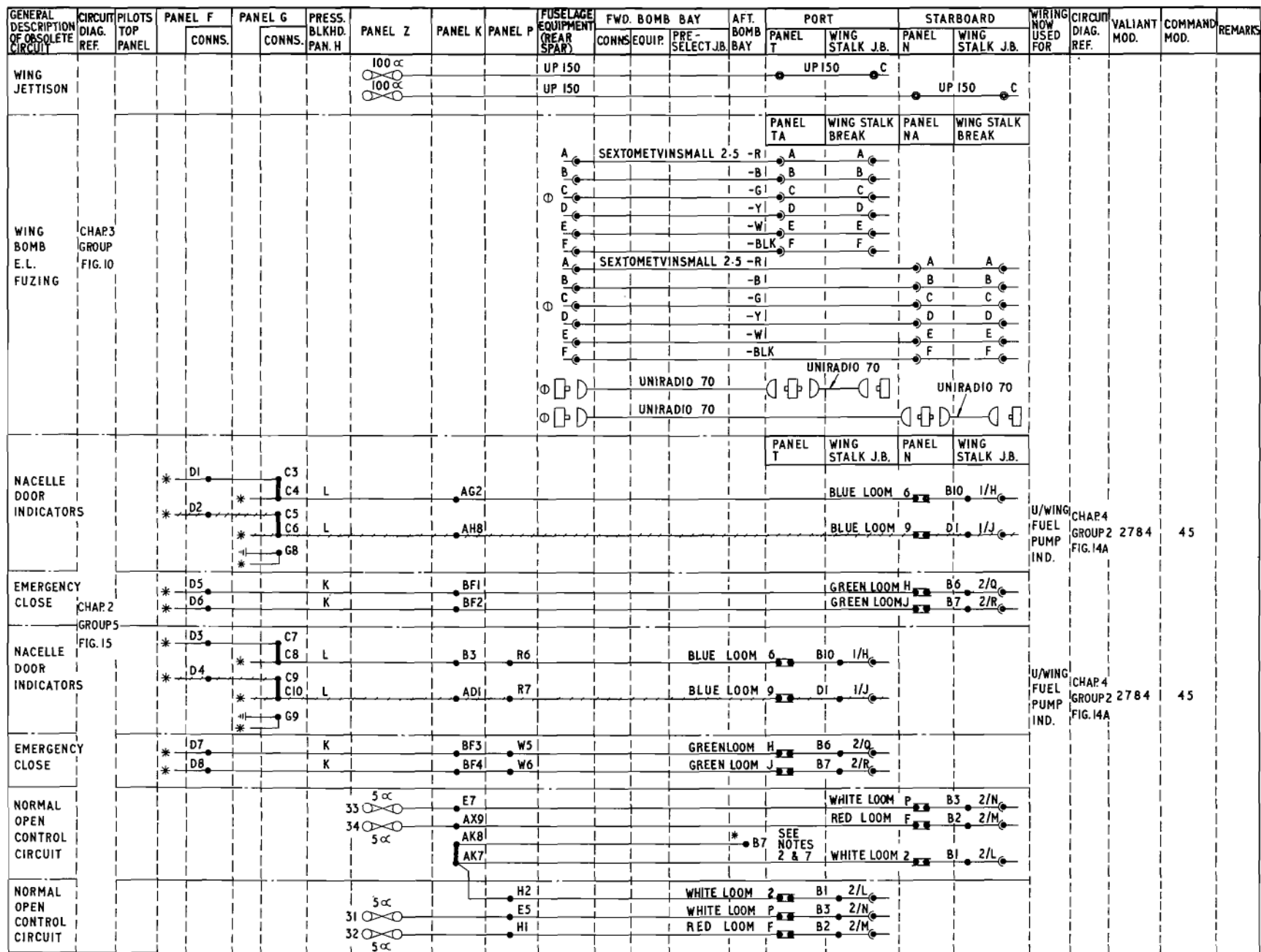
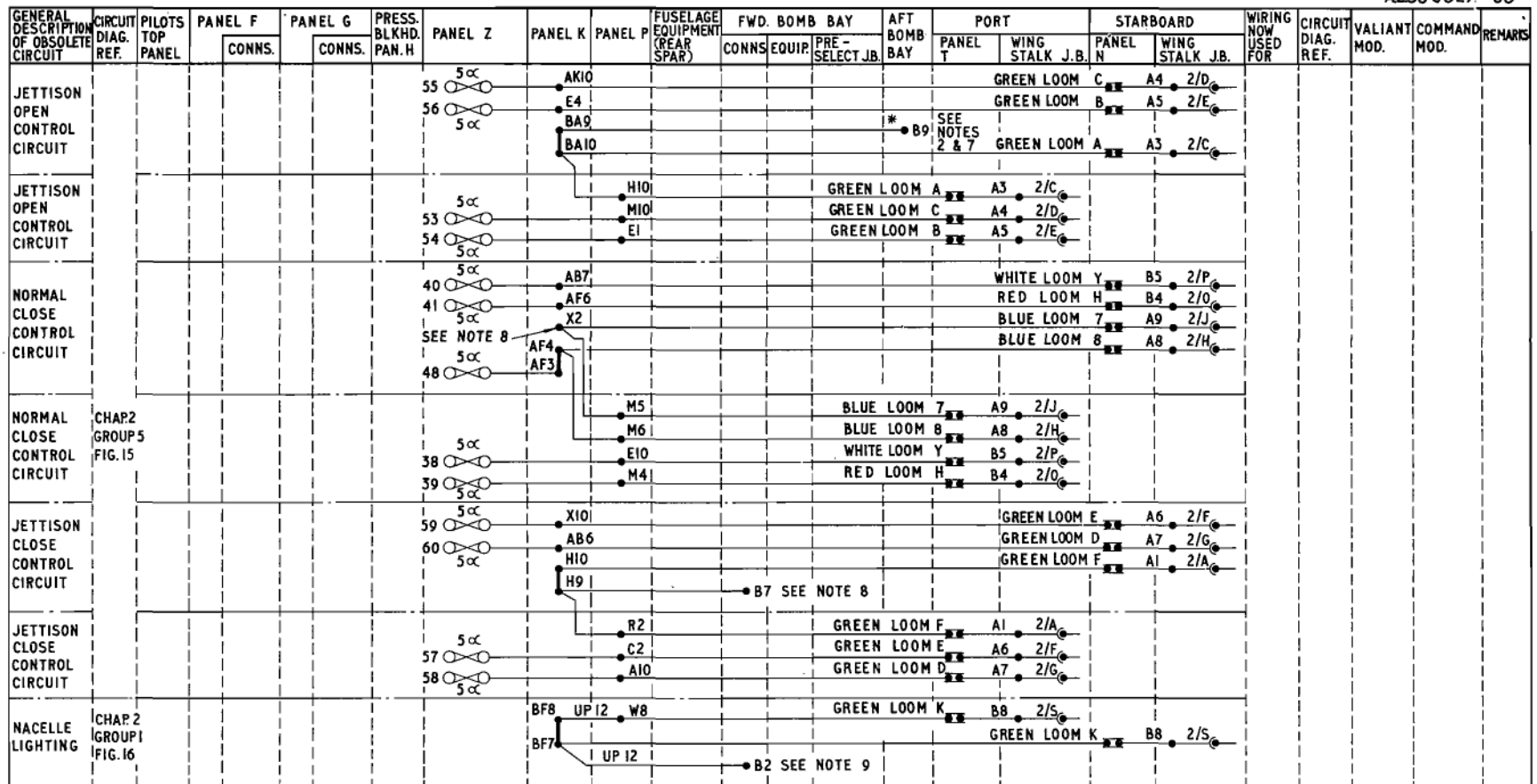


Fig. 12 (3) Spare cables B. Mk. 1 (post Mod 1835)

RESTRICTED



NOTES :-

1. PLUGS AND SOCKETS SHOWN 6/A DENOTE PLUG OR SOCKET No. 6 - PIN A
2. ENDS SHOWN * TO BE TAPED AND STOWED
3. ALL CABLES UNIPREN 6 UNLESS OTHERWISE STATED
4. PLUGS AND SOCKETS SHOWN ⊕ TO BE DISCONNECTED FROM EQUIPMENT AND STOWED IN POLYTHENE BAGS
5. FOR WIRING DIFFERENCES AT VARIOUS MOD. STANDARDS SEE FIG. 11 & 13
6. FUSE WAYS ARE SHOWN FOR REFERENCE ONLY. FUSE LINKS TO BE WITHDRAWN ON INTRODUCTION OF MOD. 2762
7. TERMINALS B7 & B9 (A.B.B.B) ARE CONNECTED

- IN THE BOMB DOOR CONTROL CIRCUIT (SEE CHAP. 2, GROUP 5, FIG. 14) THEREFORE CONNECTION B7-AK8 (PANEL K) AND CONNECTION B9-BA9 (PANEL K) MUST BE REMOVED TO ENABLE TERMINALS AK8 BA9 AND ASSOCIATED WIRING TO BE USED AS SPARES
8. TERMINALS X2 (PANEL K) AND B7 (F.B.B.B) ARE LINKED TO ADJACENT TERMINALS X1 AND B8 (PRE-MOD. 2762) THEREFORE IT IS ESSENTIAL TO ENSURE THAT LINKS ARE REMOVED BEFORE USING TERMINALS X2 B7 AND ASSOCIATED WIRING AS SPARES

9. TERMINAL B2 (F.B.B.) IS LINKED TO TERM B1 (EXTERNAL SUPPLY) THEREFORE LINK MUST BE REMOVED BEFORE USING TERMINAL B1 AND ASSOCIATED WIRING AS SPARES

IMPORTANT :-

IT IS ESSENTIAL THAT ONLY LINKS SHOWN ON THIS DRAWING ARE FITTED TO ANY TERMINAL USED FOR FUTURE MODIFICATIONS

Fig. 12 (4) Spare cables B. Mk. I (post Mod 1835)

RESTRICTED

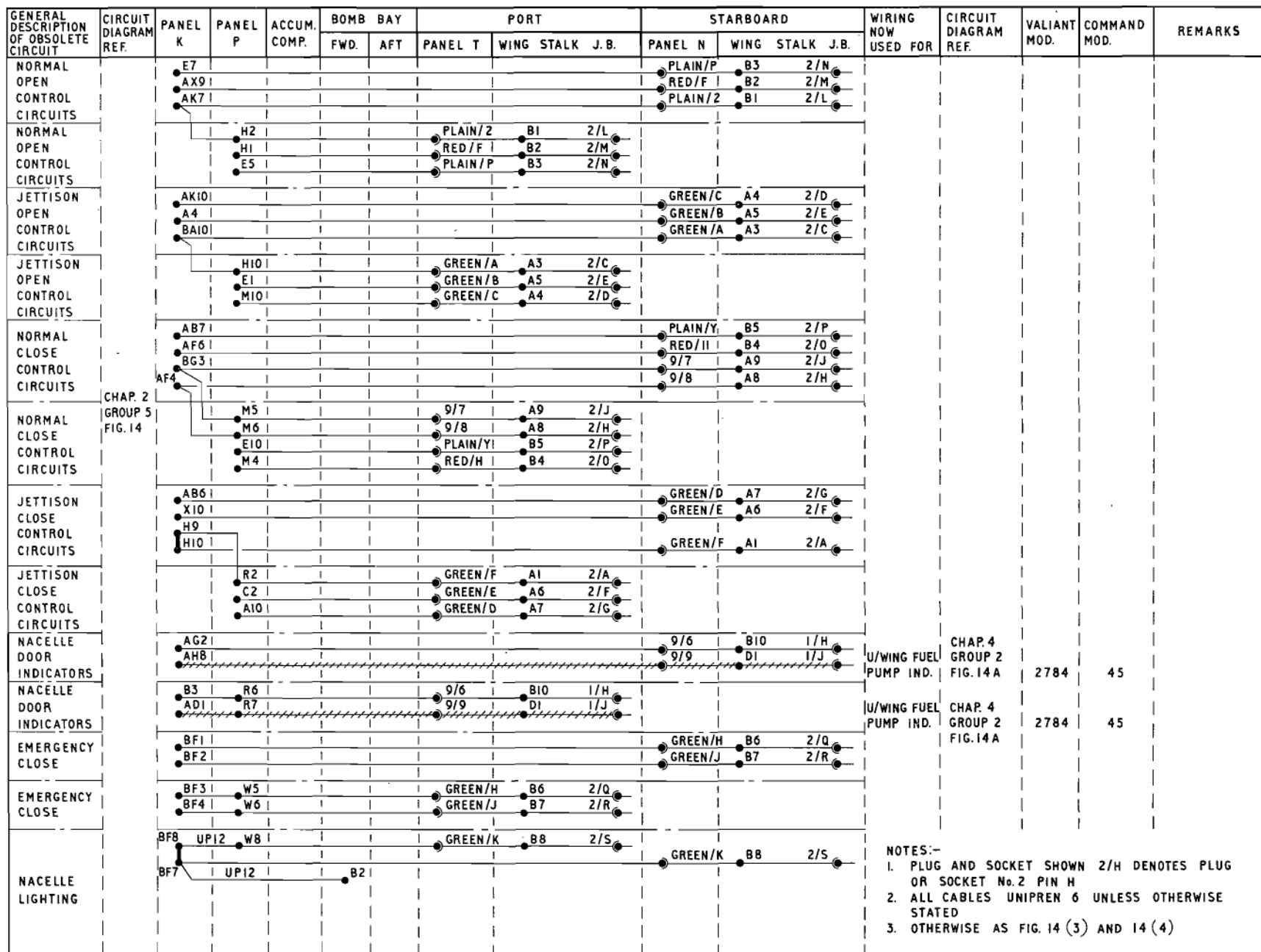


Fig. 13 (1) Spare cables B./PR. Mk.1 (pre Mod. 1785 or 1835)

RESTRICTED

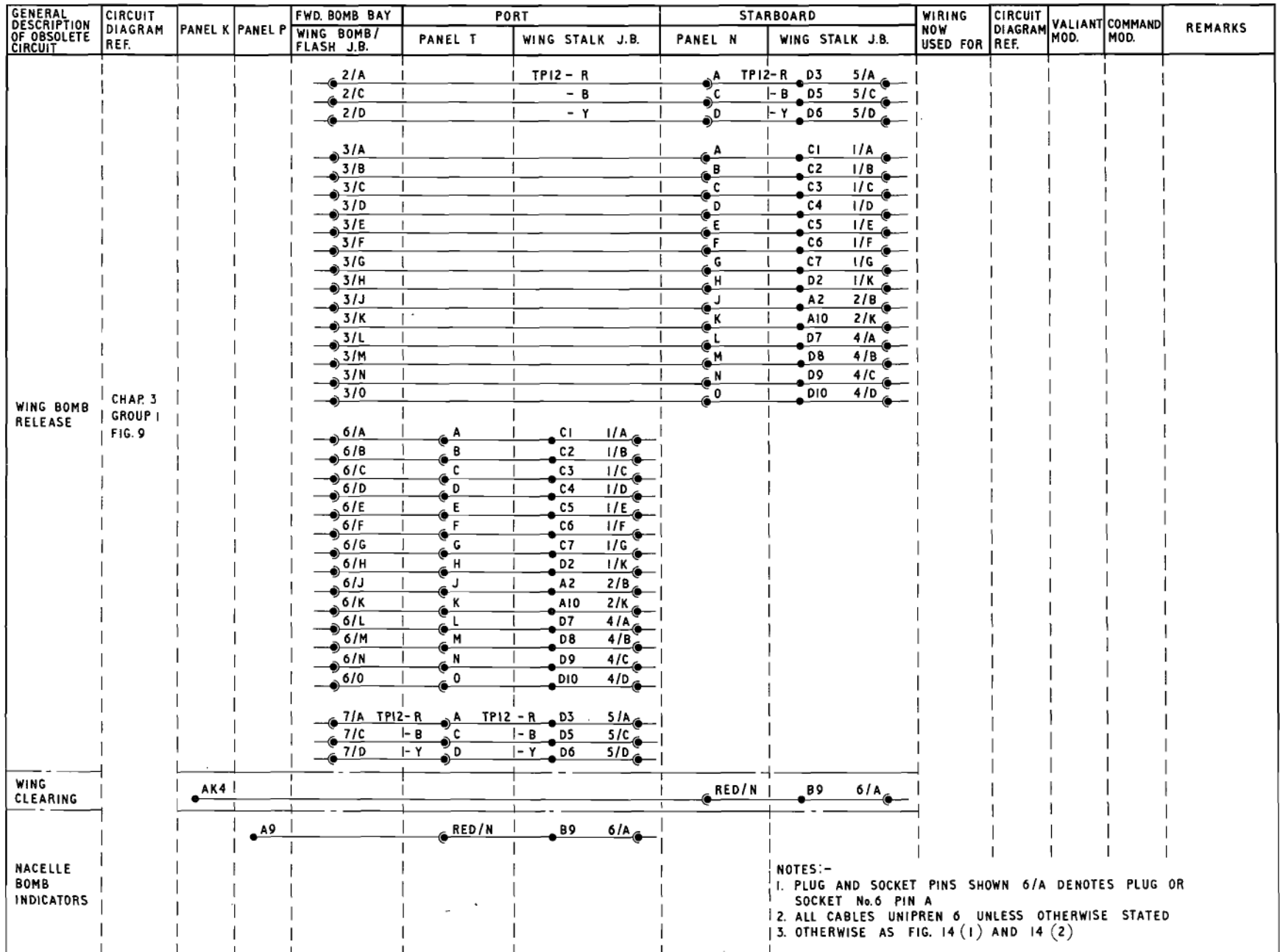


Fig. 13 (2) Spare cables B./PR. Mk.1 (pre Mod. 1785 or 1835)

RESTRICTED

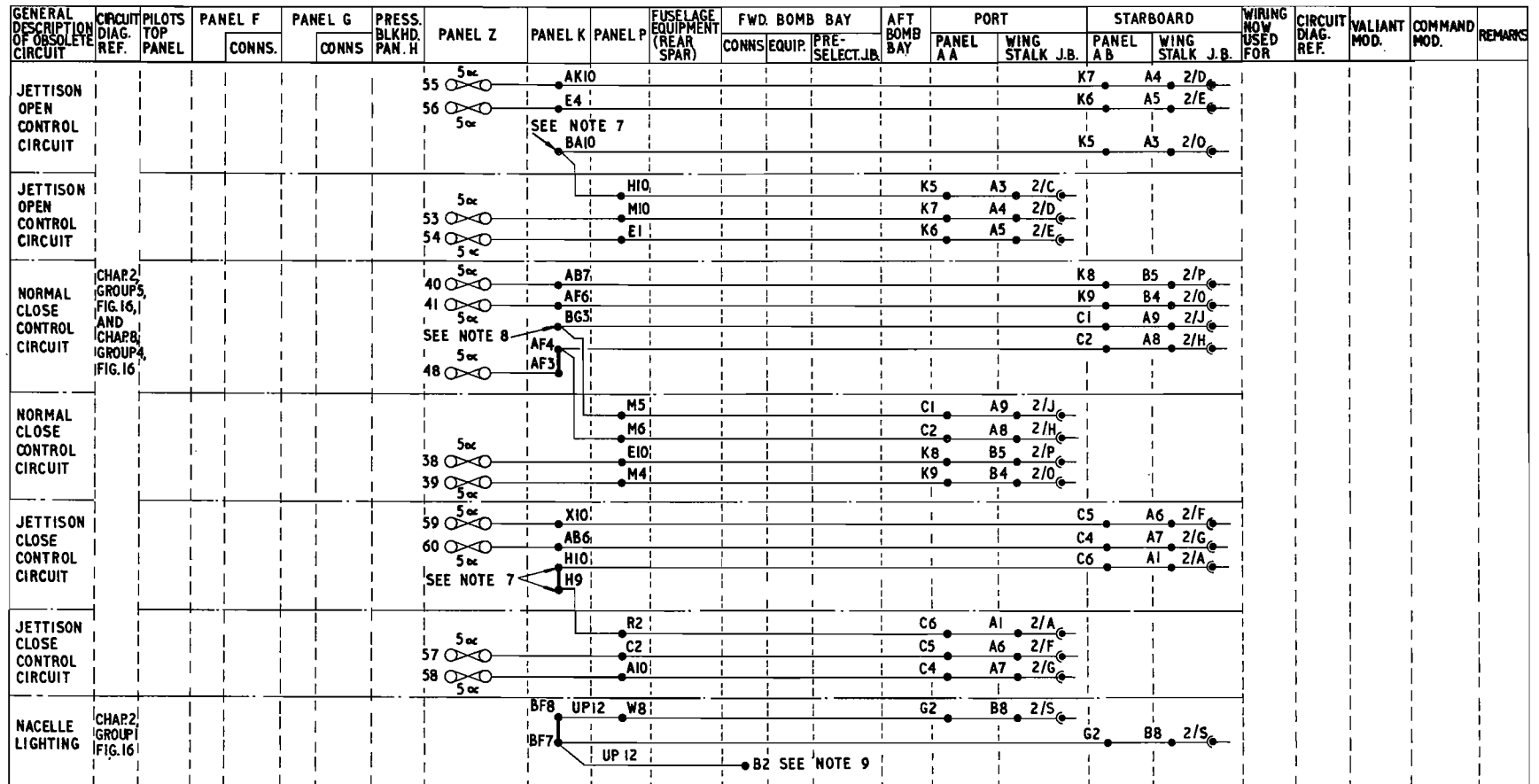
GENERAL DESCRIPTION OF OBSOLETE CIRCUIT	CIRCUIT DIAGRAM REF.	PILOTS TOP PANEL	PANEL F		PANEL G		PRESS. BLKHD. PANEL H	PANEL Z	PANEL K	PANEL P	WING BOMB / FLASH J.B.	FORWARD BOMB BAY			AFT BOMB BAY	PORT		STARBOARD		WIRING NOW USED FOR	CIRCUIT DIAGRAM REF.	VALIANT MOD.	COMMAND MOD.	REMARKS													
			CONNS.		CONNS.							WING BOMB PRE-SEL. B	PRE-SELECTOR J.B.	PANEL AA		WING STALK J.B.	PANEL AB	WING STALK J.B.																			
WING BOMB RELEASE	CHAP 3 GROUP 1 FIG. 9, 19A, 10										2/A			TP12-R			F8	D3	5/A																		
											2/B														F9	D5	5/C										
											2/D																	F10	D6	5/D							
											3/A																		B4	C1	1/A						
											3/B																			B5	C2	1/B					
											3/C																			B6	C3	1/C					
											3/D																			B7	C4	1/D					
											3/E																			B8	C5	1/E					
											3/F																			B9	C6	1/F					
											3/G																			B10	C7	1/G					
											3/H																			F1	D2	1/K					
											3/J																			F2	A2	2/B					
											3/K																			F3	A10	2/K					
											3/L																			F4	D7	4/A					
											3/M																			F5	D8	4/B					
											3/N																			F6	D9	4/C					
											3/O																			F7	D10	4/D					
											6/A																			B4	C1	1/A					
											6/B																			B5	C2	1/B					
											6/C																			B6	C3	1/C					
											6/D																			B7	C4	1/D					
											6/E																			B8	C5	1/E					
											6/F																			B9	C6	1/F					
											6/G																			B10	C7	1/G					
											6/H																			F1	D2	1/K					
											6/J																			F2	A2	2/B					
											6/K																			F3	A10	2/K					
											6/L																			F4	D7	4/A					
											6/M																			F5	D8	4/B					
											6/N																			F6	D9	4/C					
6/O																			F7	D10	4/D																
7/A																			F8	D3	5/A																
7/B																			F9	D5	5/C																
7/D																			F10	D6	5/D																

NOTES :-

- PLUGS AND SOCKETS SHOWN 6/A DENOTE PLUG OR SOCKET No. 6 - PIN A
- ENDS SHOWN * TO BE TAPED AND STOWED
- ALL CABLES UNIPREN 6 UNLESS OTHERWISE STATED
- PLUGS AND SOCKETS SHOWN ① TO BE DISCONNECTED FROM EQUIPMENT AND STORED IN POLYTHENE BAGS
- FOR WIRING DIFFERENCES AT VARIOUS MOD. STANDARDS SEE FIG.14
- FUSE WAYS SHOWN ARE FOR REFERENCE ONLY FUSE LINKS TO BE WITHDRAWN ON INTRODUCTION OF MOD. 2762
- TERMINALS AK7, BA10, H9 & H10 (PANEL K) ARE USED FOR FLASH CRATE DOOR CONTROL & JETTISON CIRCUITS (SEE CHAP. 8, GROUP 4, FIG. 14, 14A & 16) THEREFORE ASSOCIATED WIRING I.E. FROM TERMINALS H2-AK7, K4-AK7, H10-BA10, K5-BA10, C6-H10 & R2-H9 MUST BE DISCONNECTED BEFORE USING AS SPARES. FOR POST MOD. 2691 A/C THESE WIRES HAVE BEEN REMOVED AND STOWED IN ACCORDANCE WITH CHAP. 8, GROUP 4, FIG. 16
- TERMINAL BG3 (PANEL K) IS LINKED TO TERMINAL BG2 (PRE MOD. 2762) THEREFORE LINK MUST BE REMOVED BEFORE USING TERMINAL BG3 AND ASSOCIATED WIRING AS SPARES
- TERMINAL B2 F.B.B. IS LINKED TO TERMINAL B1 (EXTERNAL SUPPLY) THEREFORE LINK MUST BE REMOVED BEFORE USING TERMINAL B1 AND ASSOCIATED WIRING AS SPARES

IMPORTANT:- IT IS ESSENTIAL THAT ONLY LINKS SHOWN ON THIS DRG. ARE FITTED TO ANY TERMINAL USED FOR FUTURE MODIFICATIONS

Fig. 14 (2) Spare cables B/PR. Mk.I. (post Mod. 1785)
RESTRICTED



NOTES -

1. PLUGS AND SOCKETS SHOWN 6/A DENOTE PLUG OR SOCKET No. 6 - PIN A
2. ENDS SHOWN * TO BE TAPED AND STOWED
3. ALL CABLES UNIPREN 6 UNLESS OTHERWISE STATED
4. PLUGS AND SOCKETS SHOWN ⊕ TO BE DISCONNECTED FROM EQUIPMENT AND STORED IN POLYTHENE BAGS
5. FOR WIRING DIFFERENCES AT VARIOUS MOD. STANDARDS SEE FIG. 14
6. FUSE WAYS SHOWN ARE FOR REFERENCE ONLY FUSE LINKS TO BE WITHDRAWN ON INTRODUCTION OF MOD. 2762

7. TERMINALS AK7, BA10, H9 & H10 (PANEL K) ARE USED FOR FLASH CRATE DOOR CONT. & JETT. CIRCUITS (SEE CHAP. 8, GROUP 4 FIG. 14, 14 A & 16) THEREFORE ASSOCIATED WIRING I.E. FROM TERMINALS H2-AK7, K4-AK7, H10-BA10, K5-BA10, C6-H10 & R2-H9 MUST BE DISCONNECTED BEFORE USING AS SPARES, FOR POST MOD. 2691 A/C THESE WIRES HAVE BEEN REMOVED AND STOWED IN ACCORDANCE WITH CHAP. 8 GROUP 4 FIG. 16
8. TERMINAL BG 2 (PRE MOD 2762) THEREFORE LINK MUST BE REMOVED BEFORE USING TERMINAL BG3 AND ASSOCIATED WIRING AS SPARES

9. TERMINAL B2 (F.B.B.) IS LINKED TO TERMINAL B1 (EXTERNAL SUPPLY) THEREFORE LINK MUST BE REMOVED BEFORE USING TERMINAL B1 AND ASSOCIATED WIRING AS SPARES

IMPORTANT :-

IT IS ESSENTIAL THAT ONLY LINKS SHOWN ON THIS DRAWING ARE FITTED TO ANY TERMINAL USED FOR FUTURE MODIFICATIONS.

Fig. 14 (4) Spare cables B/PR Mk.1 (post Mod. 1785)

RESTRICTED

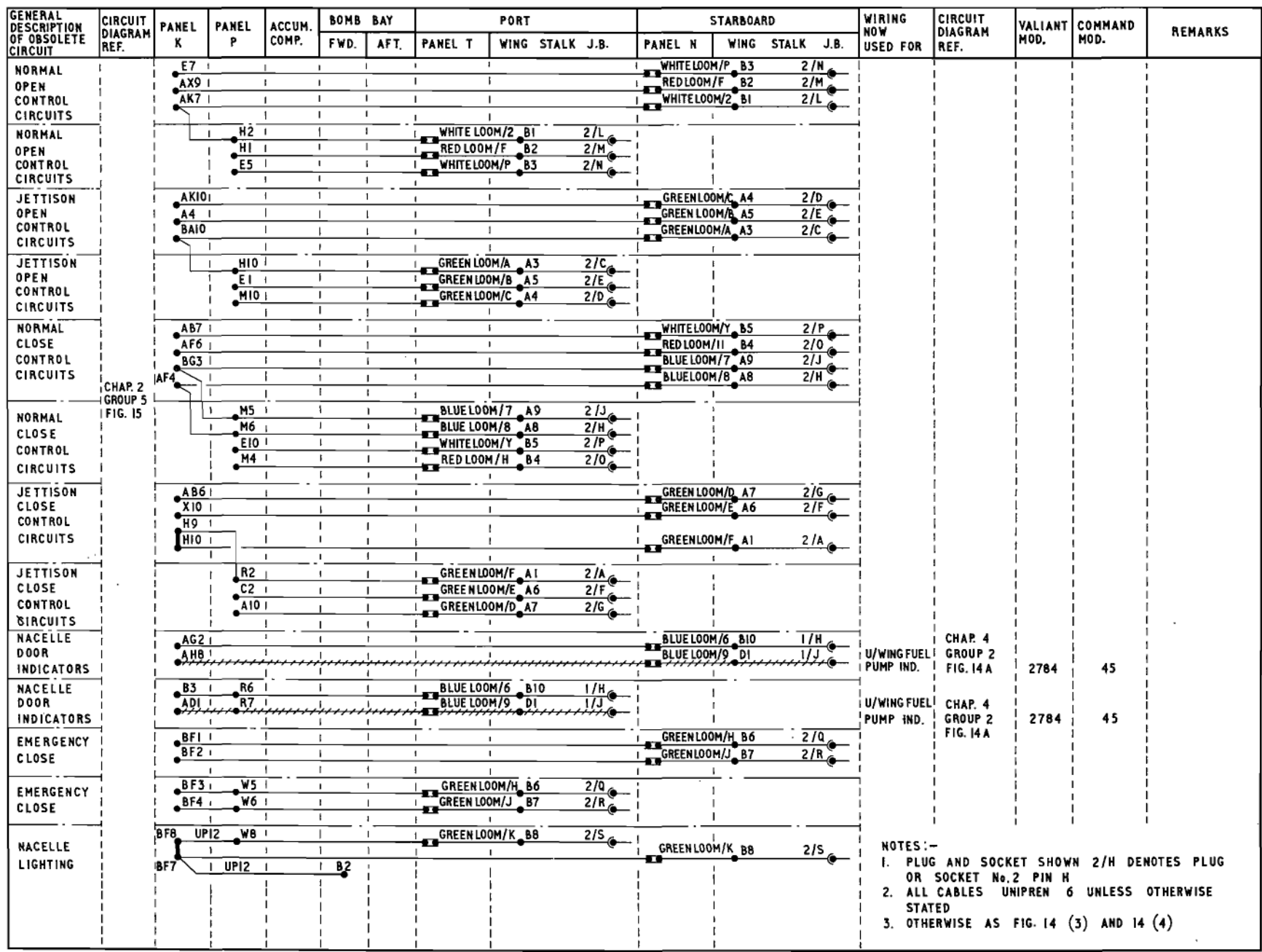


Fig. 15 (I) Spare cables B./PR. Mk.1 (post Mod. 1835)

RESTRICTED

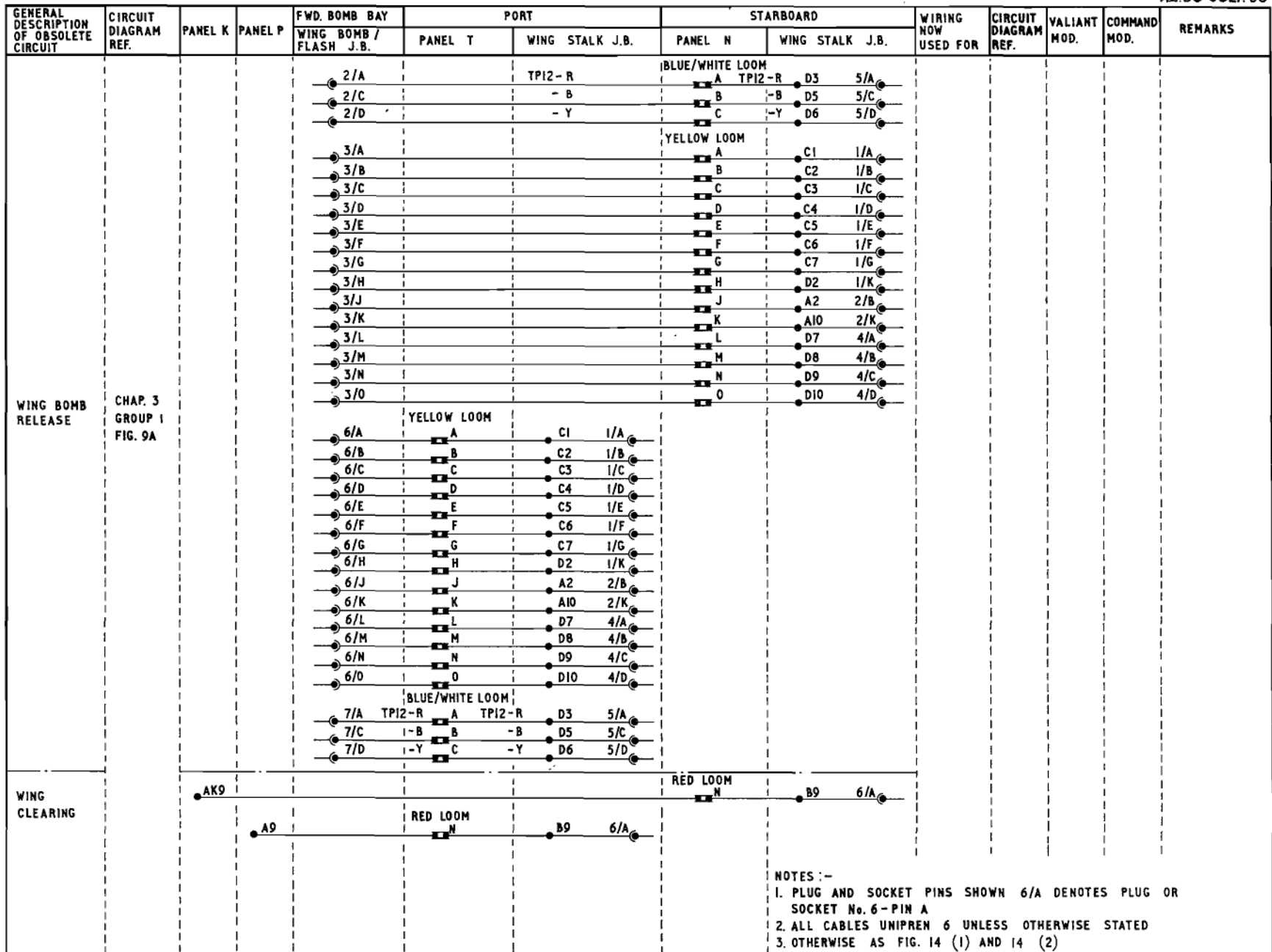


Fig. 15 (2) Spare cables B./PR. Mk. 1 (post Mod. 1835)

RESTRICTED

GENERAL DESCRIPTION OF OBSOLETE CIRCUIT	CIRCUIT DIA. REF.	PILOTS TOP PANEL	PANEL F		PANEL G		PRESS BLK. HD. PANEL H	PANEL Z	PANEL K	PANEL P	WING BOMB FLASH J.B.	FWD. BOMB BAY		AFT. BOMB BAY	PORT		STARBOARD		WIRING NOW USED FOR	CIRCUIT DIAGRAM REF	VALIANT MOD.	COMMAND MOD.	REMARKS				
			CONN	CONN	WING BOMB PRE. SEL. B.	PRE SELECTOR J.B.						PANEL AA	WING STALK JB.		PANEL A B	WING STALK JB.											
WING BOMB RELEASE	CHAP. 3 GROUP 11 FIG. 8 & 9 AND CHAP. 8 GROUP 4 FIG. 11																										
		2/A																									
		2/B																									
		2/D																									
		3/A																									
		3/B																									
		3/C																									
		3/D																									
		3/E																									
		3/F																									
		3/G																									
		3/H																									
		3/J																									
		3/K																									
		3/L																									
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		3/N																									
		3/O																									
		6/A																									
		6/B																									
		6/C																									
		6/D																									
		6/E																									
		6/F																									
		6/G																									
		6/H																									
		6/J																									
		6/K																									
		6/L																									
		6/M																									
6/N																											
6/O																											
7/A																											
7/B																											
7/D																											

1. PLUGS AND SOCKETS SHOWN 6/A DENOTE PLUG OR SOCKET No. 6 - PIN A
2. ENDS SHOWN * TO BE TAPED AND STOWED
3. ALL CABLES UNIPREN 6 UNLESS OTHERWISE STATED
4. PLUGS AND SOCKETS SHOWN ⊕ TO BE DISCONNECTED FROM EQUIPMENT AND STORED IN POLYTHENE BAGS
5. FUSE WAYS ARE SHOWN FOR REFERENCE ONLY. FUSE LINKS TO BE WITHDRAWN ON INTRODUCTION OF MOD. 2762
6. TERMINALS AK7, BA10, H9 & H10 (PANEL K) ARE USED FOR FLASH CRATE DOOR CONTROL AND JETTISON CIRCUITS (SEE CHAP. 8, GROUP 4, FIG. 14.14A & 16)

THEREFORE ASSOCIATED WIRING I.E. FROM TERMINALS H2-AK7, K4-AK7, H10-BA10, K5-BA10, C6-H10 & R2-H9 MUST BE DISCONNECTED BEFORE USING AS SPARES.
FOR POST MOD. 2691 A/C THESE WIRES HAVE BEEN REMOVED AND STOWED IN ACCORDANCE WITH CHAP. 8, GROUP 4, FIG. 16

7. TERMINAL BG3 (PANEL K) IS LINKED TO TERMINAL BG2 (PRE MOD. 2762) THEREFORE LINK MUST BE REMOVED BEFORE USING TERMINAL BG3 AND ASSOCIATED WIRING AS SPARES

8. TERMINAL B2 (F.B.B.) IS LINKED TO TERMINAL B1 (EXTERNAL SUPPLY) PRE MOD. 2762 THEREFORE LINK MUST BE REMOVED BEFORE USING TERMINAL B2 AND ASSOCIATED WIRING AS SPARES

IMPORTANT :-

IT IS ESSENTIAL THAT ONLY LINKS SHOWN ON THIS DRAWING ARE FITTED TO ANY TERMINAL USED FOR FUTURE MODIFICATIONS

Fig. 16 (2) Spare cables B/K./PR. Mk. I
RESTRICTED

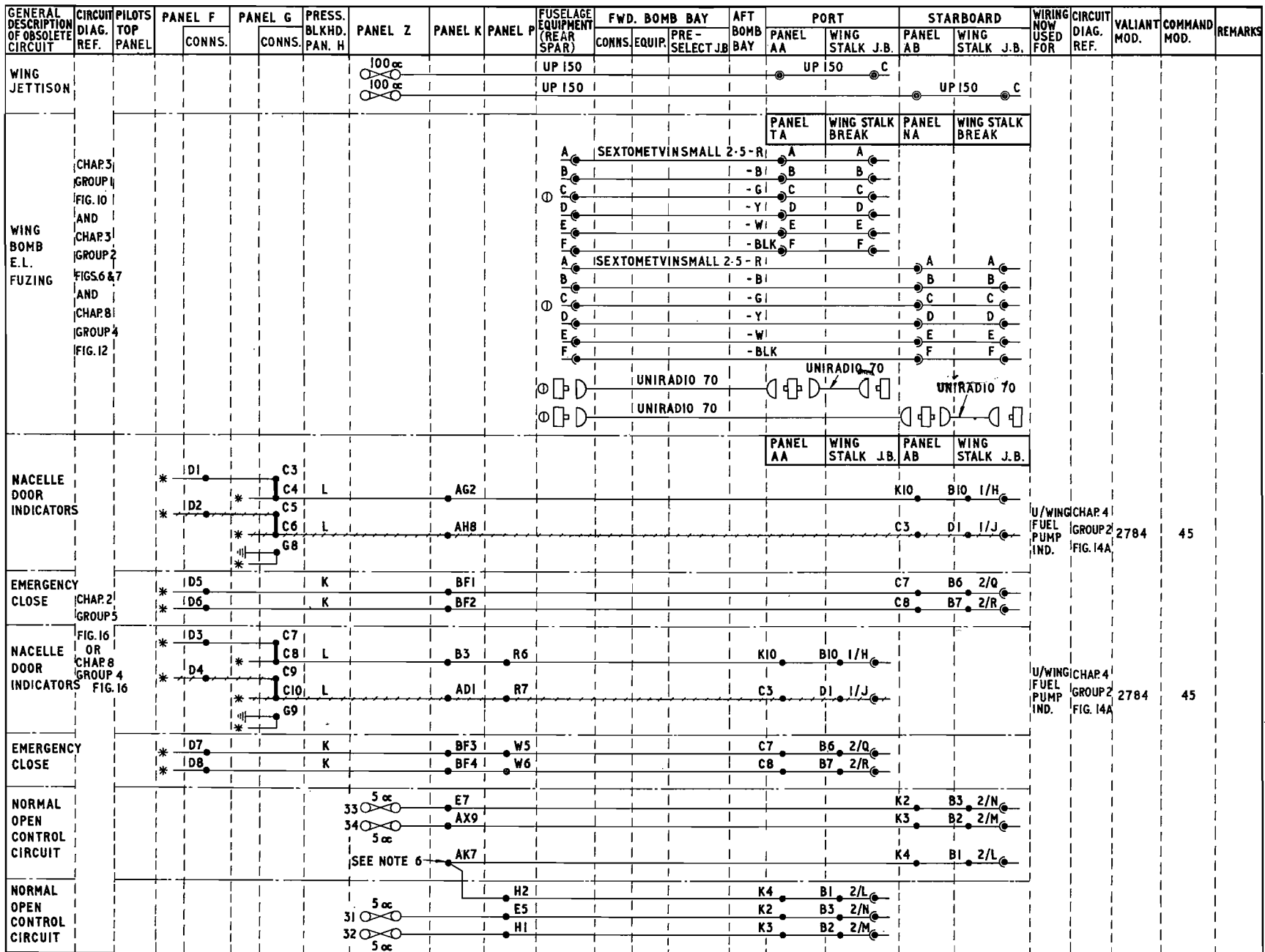
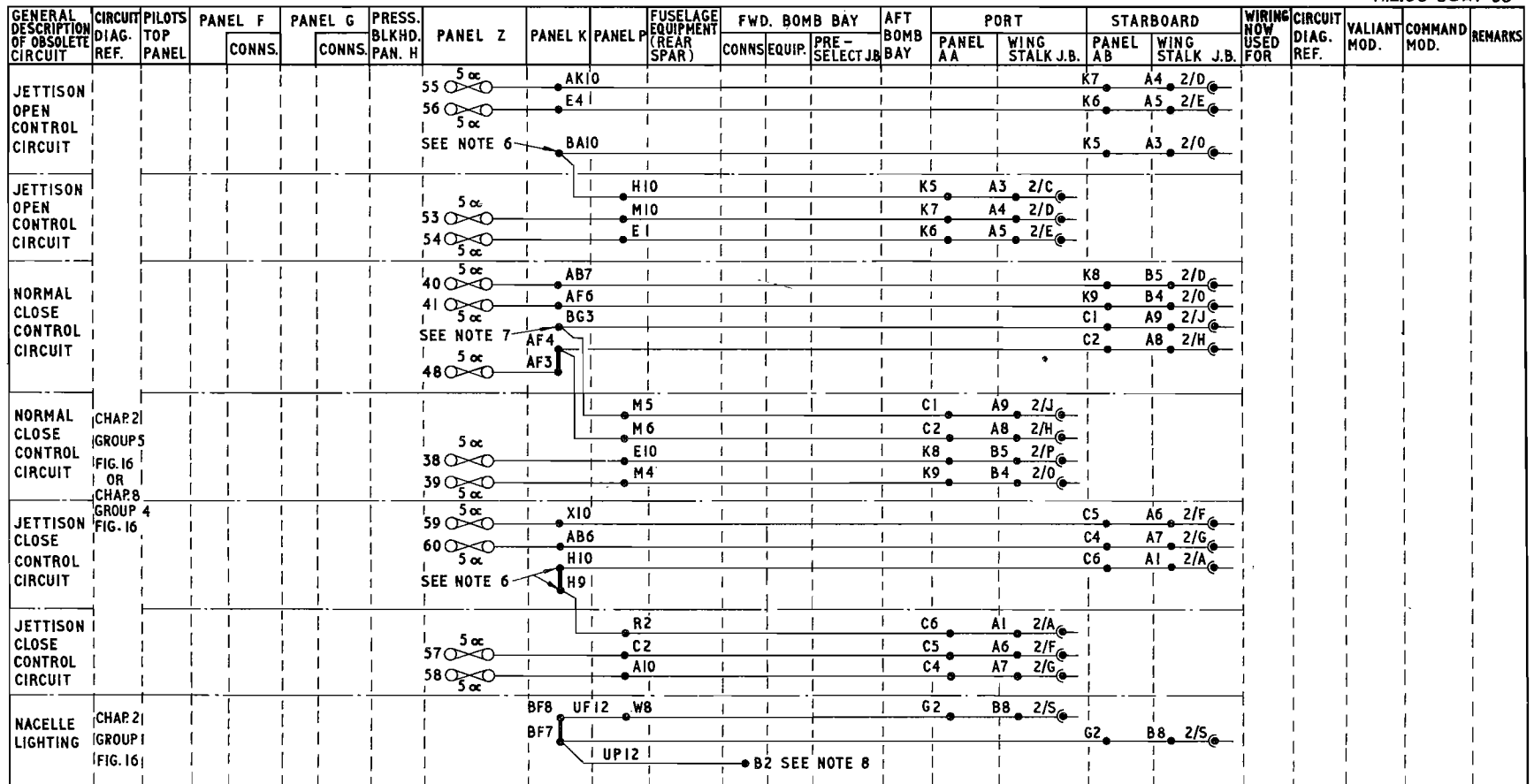


Fig. 16(3) Spare cables B/K/PR. Mk. I

RESTRICTED



NOTES :-

- PLUGS AND SOCKETS SHOWN 6/A DENOTE PLUG OR SOCKET No. 6 - PIN A
- ENDS SHOWN * TO BE TAPED AND STOWED
- ALL CABLES UNIPREN 6 UNLESS OTHERWISE STATED
- PLUGS AND SOCKETS SHOWN ⊙ TO BE DISCONNECTED FROM EQUIPMENT AND STORED IN POLYTHENE BAGS
- FUSE WAYS ARE SHOWN FOR REFERENCE ONLY. FUSE LINKS TO BE WITHDRAWN ON INTRODUCTION OF MOD. 2762
- TERMINALS AK7, BA10, H9 & H10 (PANEL K) ARE USED FOR FLASH CRATE DOOR CONTROL AND JETTISON CIRCUITS (SEE CHAP. 8. GROUP 4, FIG. 14.14A & 16)

THEREFORE ASSOCIATED WIRING I.E. FROM TERMINALS H2-AK7, K4-AK7, H10-BA10, K5-BA10, C6-H10 & R2-H9 MUST BE DISCONNECTED BEFORE USING AS SPARES.
FOR POST MOD. 2691 A/C THESE WIRES HAVE BEEN REMOVED AND STOWED IN ACCORDANCE WITH CHAP. 8, GROUP 4, FIG. 16

7. TERMINAL BG3 (PANEL K) IS LINKED TO TERMINAL BG2 (PRE MOD. 2762) THEREFORE LINK MUST BE REMOVED BEFORE USING TERMINAL BG3 AND ASSOCIATED WIRING AS SPARES

8. TERMINAL B2 (F.B.B.) IS LINKED TO TERMINAL B1 (EXTERNAL SUPPLY) PRE MOD. 2762 THEREFORE LINK MUST BE REMOVED BEFORE USING TERMINAL B2 AND ASSOCIATED WIRING AS SPARES

IMPORTANT :-

IT IS ESSENTIAL THAT ONLY LINKS SHOWN ON THIS DRAWING ARE FITTED TO ANY TERMINAL USED FOR FUTURE MODIFICATIONS

Fig. 16 (4) Spare cables B/K./PR. Mk. I
RESTRICTED

GENERAL DESCRIPTION OF OBSOLETE CIRCUIT	CIRCUIT DIAGRAM REF.	PILOTS TOP PANEL	PANEL F	PANEL CONNS.	PANEL G	PANEL CONNS.	PRESS. BLKHD. PANEL H	PANEL Z	PANEL K	PANEL P	WING BOMB / FLASH J.B.	FORWARD BOMB BAY		AFT BOMB BAY	PORT		STARBOARD		WIRING NOW USED FOR	CIRCUIT DIAGRAM REF.	VALIANT MOD.	COMMAND MOD.	REMARKS				
												CONNS.	WING BOMB PRE-SEL. B		PRE-SELECTOR J.B.	PANEL AA	WING STALK J.B.	PANEL AB						WING STALK J.B.			
WING BOMB RELEASE	CHAP. 3 GROUP 1 FIG. 9, 9A, 10											2/A	TP12 - R			F8	D3	5/A									
												2/B	- B			F9	D5	5/C									
													2/D	- Y			F10	D6	5/D								
													3/A	R			B4	C1	1/A								
													3/B	B			B5	C2	1/B								
													3/C	G			B6	C3	1/C								
													3/D	Y			B7	C4	1/D								
													3/E	W			B8	C5	1/E								
													3/F	BLK.			B9	C6	1/F								
													3/G	BRN.			B10	C7	1/G								
													3/H	VIOLET			F1	D2	1/K								
													3/J	ORANGE			F2	A2	2/B								
													3/K	PINK			F3	A10	2/K								
													3/L	LT. GREEN			F4	D7	4/A								
													3/M	GREY			F5	D8	4/B								
													3/N	R-B			F6	D9	4/C								
													3/O	R-G			F7	D10	4/D								
													6/A	R		B4	C1	1/A									
													6/B	B		B5	C2	1/B									
													6/C	G		B6	C3	1/C									
													6/D	Y		B7	C4	1/D									
													6/E	W		B8	C5	1/E									
													6/F	BLK.		B9	C6	1/F									
													6/G	BRN.		B10	C7	1/G									
													6/H	VIOLET		F1	D2	1/K									
													6/J	ORANGE		F2	A2	2/B									
													6/K	PINK		F3	A10	2/K									
													6/L	LT. GREEN		F4	D7	4/A									
													6/M	GREY		F5	D8	4/B									
													6/N	R-B		F6	D9	4/C									
													6/O	R-G		F7	D10	4/D									
													7/A	TP12 - R			F8	D3	5/A								
													7/B	- B			F9	D5	5/C								
											7/D	- Y			F10	D6	5/D										

NOTES :-

- PLUGS AND SOCKETS SHOWN 6/A DENOTE PLUG OR SOCKET No. 6 - PIN A
- ENDS SHOWN * TO BE TAPED AND STOWED
- ALL CABLES UNIPREN 6 UNLESS OTHERWISE STATED
- PLUGS AND SOCKETS SHOWN ⊕ TO BE DISCONNECTED FROM EQUIPMENT AND STOWED IN POLYTHENE BAGS
- FUSE WAYS ARE SHOWN FOR REFERENCE ONLY FUSE LINKS TO BE WITHDRAWN ON INTRODUCTION OF MOD. 2762
- TERMINALS B7 & B9 (A.B.B.) ARE CONNECTED IN THE BOMB DOOR CONTROL CIRCUIT (SEE CHAP. 2, GROUP 5, FIGS. 14 - 16) THEREFORE

- CONNECTION B7-AK8 (PANEL K) AND CONNECTION B9-BA9 (PANEL K) MUST BE REMOVED TO ENABLE TERMINALS AK8, BA9 AND ASSOCIATED WIRING TO BE USED AS SPARES
- TERMINALS X2 (PANEL K) AND B7 (F.B.B.) ARE LINKED TO ADJACENT TERMINALS X1 & B8 (PRE-MOD 2762) THEREFORE IT IS ESSENTIAL TO ENSURE THAT LINKS ARE REMOVED BEFORE USING TERMINALS X2, B7 AND ASSOCIATED WIRING AS SPARES
- TERMINAL B2 (F.B.B.) IS LINKED TO TERMINAL B1 EXT. SUPPLY (PRE-MOD 2762) THEREFORE LINK MUST BE REMOVED BEFORE USING TERMINAL B2 AND ASSOCIATED WIRING AS SPARES

IMPORTANT :

IT IS ESSENTIAL THAT ONLY LINKS SHOWN ON THIS DRAWING ARE FITTED TO ANY TERMINAL USED FOR FUTURE MODIFICATIONS

Fig. 17(2) Spare cables B/K. Mk.1
RESTRICTED

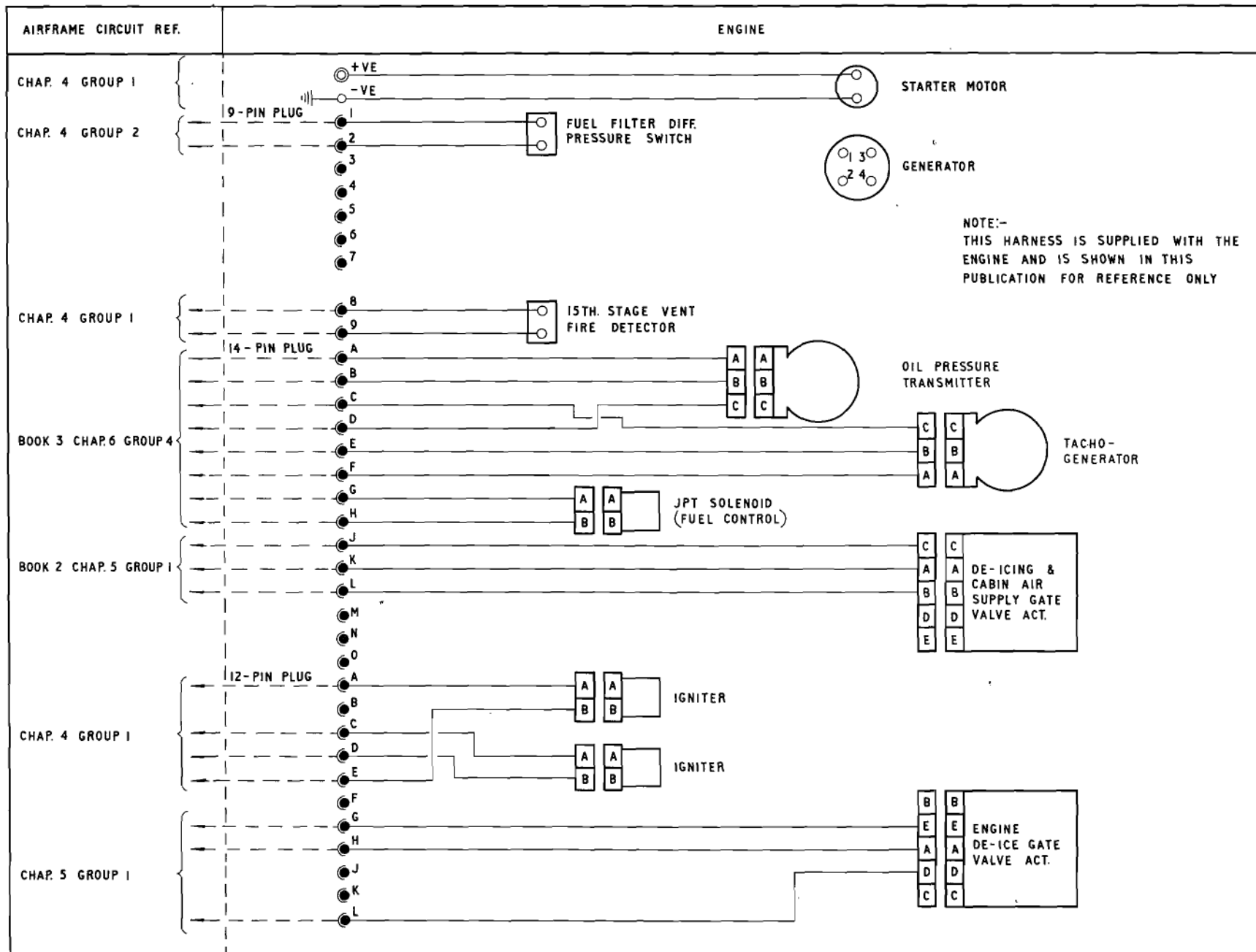


Fig. 18 Wiring on engine (Avon 20401)
RESTRICTED

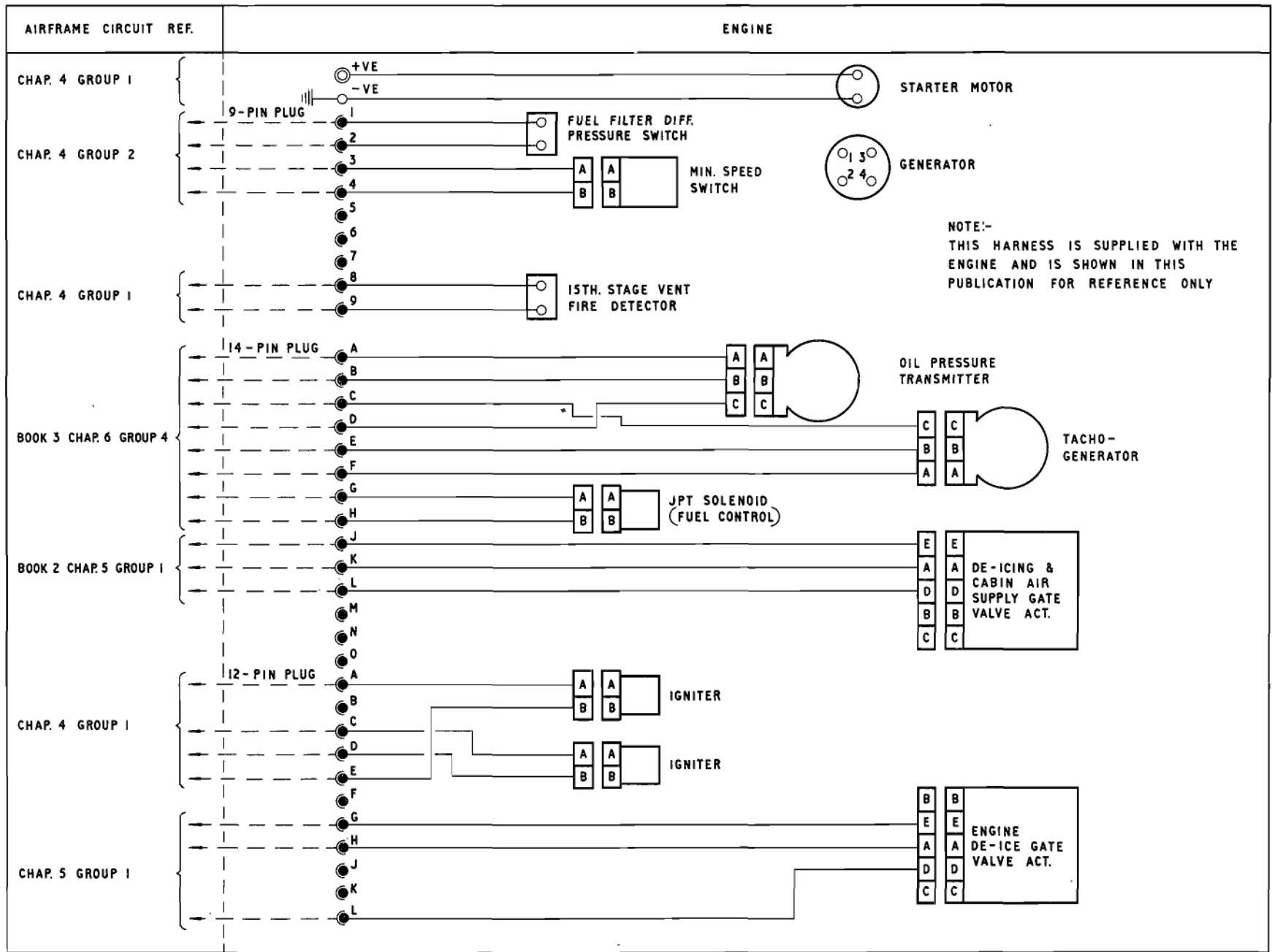


Fig. 19 Wiring on engine (Avon 20501)
RESTRICTED

LIST OF APPENDICES

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Appendix 1

MODIFICATIONS 3087, 3088, 3089 and 3090

Introduction

1. Modifications 3087, 3088, 3089 and 3090 are introduced on B. Mk. 1, B/K Mk. 1, B/PR/Mk. 1 and B/K/PR. Mk. 1 aircraft for Simstart operation (rapid take-off).

Mod. 3087 introduces four NATO plugs for engine starting (Sect. 5, Chap. 4, Group 1). Mod. 3088 introduces a 28-volt standby plug (Sect. 5, Chap. 1, Group 2).

Mod. 3089 introduces a telebriefing plug (Sect. 6, Chap. 1, Group 1).

Mod. 3090 introduces a true earth 2 pin plug (this appendix).

Detailed information concerning Mod's. 3087, 3088 and 3089 is given in the relevant appendices to the Groups noted above.

General

2. Located in the same box as the telebriefing plug (Sect. 6, Chap. 1, Group 1), the true earth plug (Mod. 3090) is earthed to

the airframe, via heavy-duty cables, to the rear wall of the port servicing bay. During a readiness period the plug is connected, via an external socket, to an earth point on the dispersal area, thereby maintaining the aircraft structure at true earth potential. In this way the possibility of hazards caused by static electricity is eliminated.

3. Details of earth connections are shown in Sect. 5, Gen. Inf., fig. 3 and 4.

Appendix 2

MOD. 3142

Introduction

1. Mod. 3142 introduces a special earthing point on the port side of the aircraft adjacent to the external supply plugs. It is used for the purpose of bonding equipment to the airframe during servicing, refuelling and bombing-up operations.

Description

2. The earth point consists of a steel base-plate and $\frac{5}{16}$ in. stud with a unified thread, a steel plain and double spring washer and a brass wing nut. The wing nut is prevented from coming off the stud by a steel split pin fitted through the end of the stud. The earth point is shown on the Location of main earth points illustration, Fig. 4.

Servicing

3. The earth point should be checked periodically for security, freedom of wing nut and cleanliness. Using a bonding tester, check that the resistance of the bolt to the airframe is not more than 0.05 Ohms.

RESTRICTED



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