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# Chapter 6

# D.C. SUPPLIES AND DISTRIBUTION

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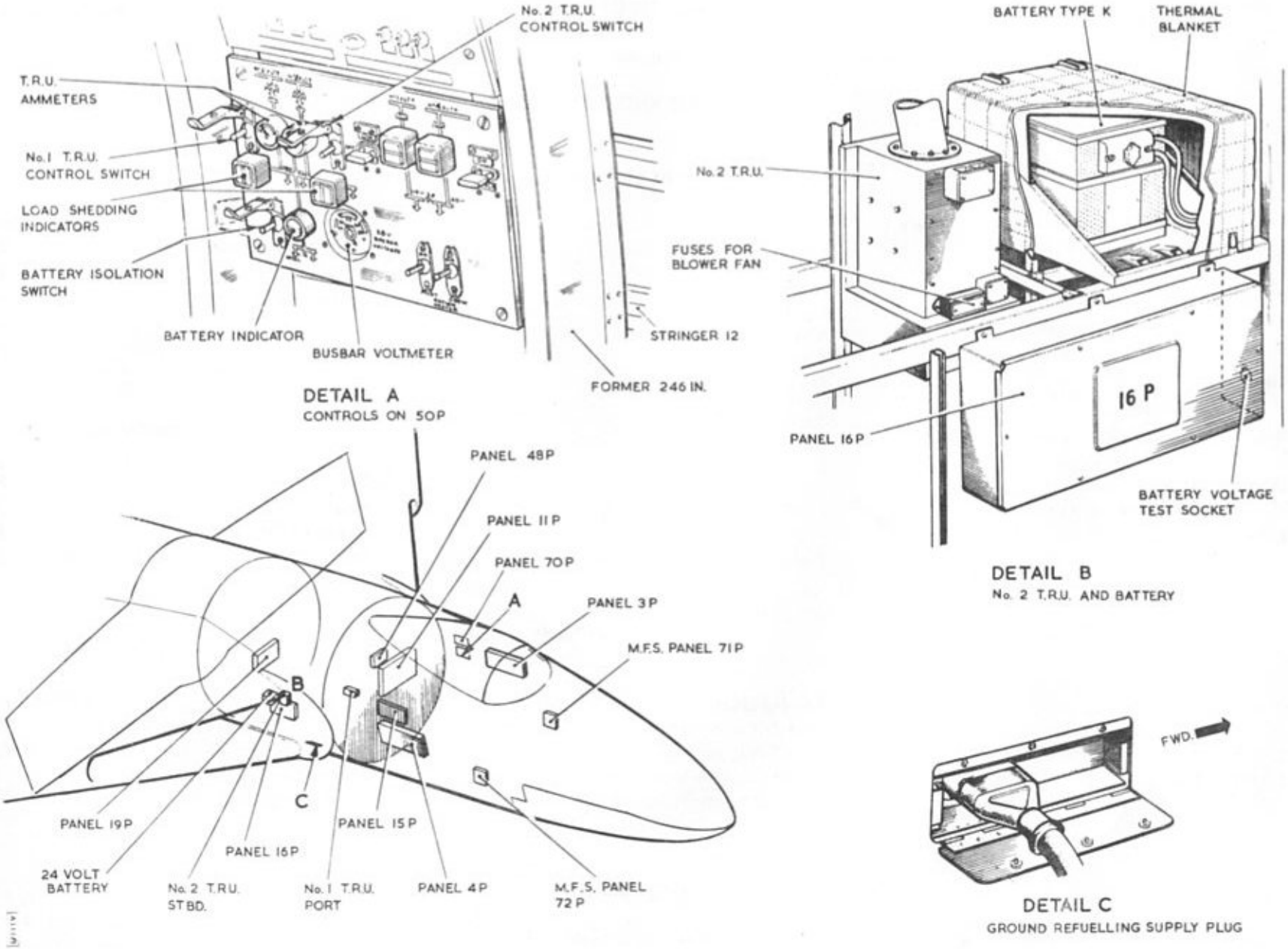



Fig. 1 Component location

► *Battery annotation amended* ◄

**Introduction**

1. This chapter deals with the installation and general functioning of the d.c. supplies and associated distribution system. The main components and distribution panels are illustrated in fig.1 and 2. Routing charts for the complete system will be found at the end of the text.

2. A complete index of the d.c. distribution and consumer circuit fuses and circuit breakers is given in Tables 1 and 2. Circuit breakers and fuse types are as follows:-

| Type | Details |
|---|---|
| C.B., Type L.G.A. | B.T.H. pattern |
| Fuses, Type S | H.R.C. pattern identical in size to glass bodied old S type. |
| Fuses, Type S.1 | H.R.C. pattern special to artificial feel units only. |
| Fuses, Type E.O. | H.R.C. end-on pattern. |
| Fuses, Type H1, H2, H3 | Horizontal pattern. |

Consumer categories are referred to as VITAL, ESSENTIAL or NON-ESSENTIAL, and are shown in the tables as:-

| | | |
|---|---|---|
| V | – | Vital |
| E | – | Essential |
| N.E. | – | Non-essential |

Further information on fuse types and their ratings will be found in Chap.1.

2A. The following modifications are incorporated in this chapter:-

Mod.199 - To introduce fixed fittings for carriage of new store.

Mod.200 - To introduce removable fittings for carriage of new store.

Mod.925 - To introduce Track Control Unit 6A/5484 in lieu of Variation Setting Control Unit 6B/2833 which converts M.F.S. Mk.1A to Mk.1B.

Mod.1074 - Blue Steel installation – To introduce a plug with associated wiring.

Mod.1139 - To make provision for and introduce a bomb release safety lock facility.

▶ Mod.1417 - Rapid take-off – To reposition the ground supply plugs to suit quick disconnect ground coupling.

Mod.1418 - Rapid take-off – To reposition the connector to suit quick disconnect ground coupling. ◀

Mod.1451 - E.C.M. cooling system – To introduce water/glycol temperature gauge.

Mod.1509 - Bomb bay fuel tanks – To introduce fuel contents gauge installation (fixed fittings).

Mod.1925 - To make provision for a 2nd fatigue meter Ref. No. 6A/6485 and to introduce a switching facility for this meter, and for the V.G. recorder.

Mod.1962 - To make provision for new change of role panel Pt.No. 1/V13200.

Mod.2017 - To introduce A.R.I. 5952 in lieu of A.R.I. 5919.

Mod.2024 - To make provision for and introduce A.R.I. 18146.

Mod.2047 - Bomb bay heating – To provide independent fusing for safety purposes.

Mod.2074 - To introduce a G.P.U. start switch (Ref. No. 5CW/9438526).

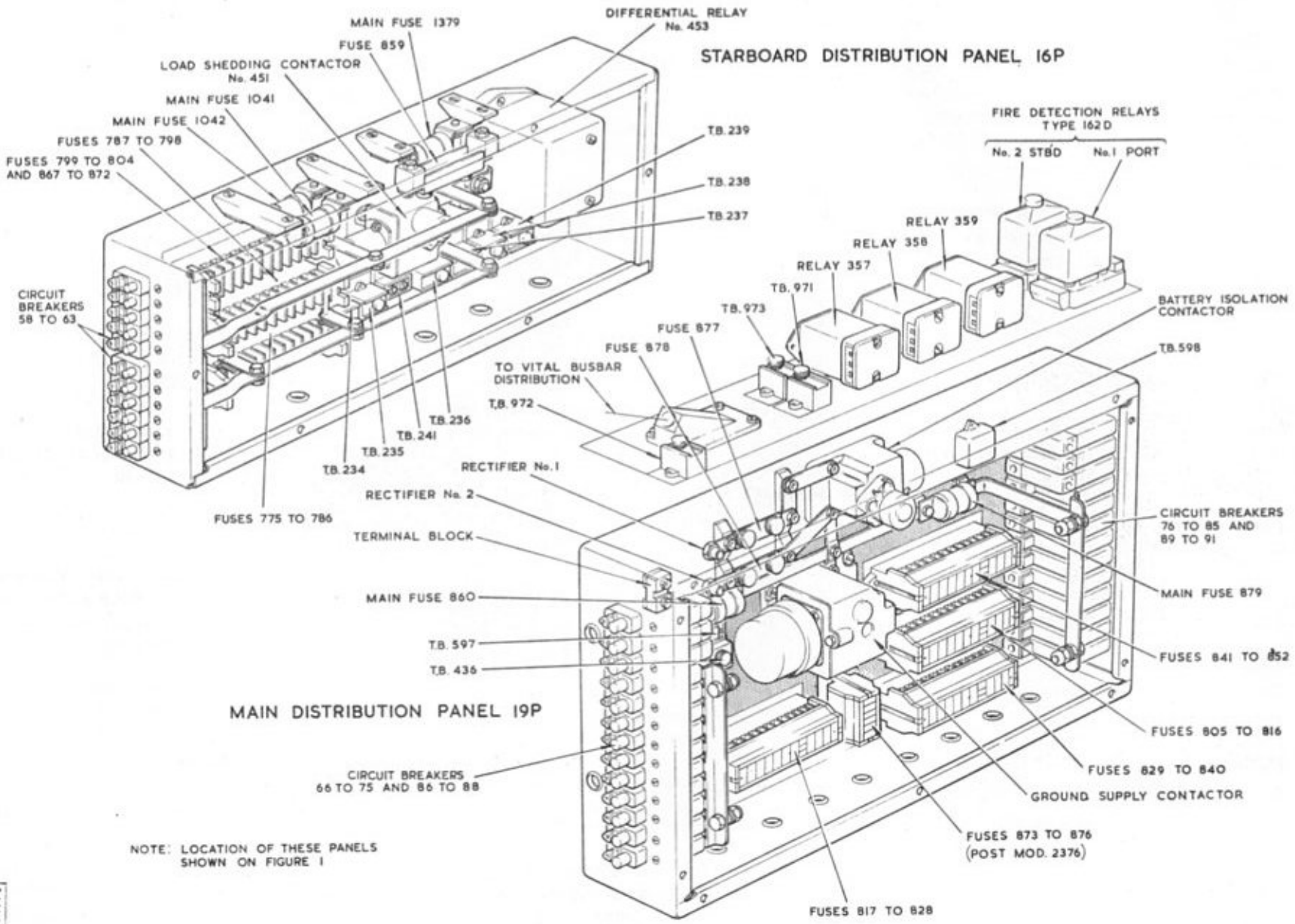
Mod.2155 - To introduce A.R.I. 23134/5 IFF/SSR (Cossor 1520) in lieu of A.R.I. 5848.

Mod.2195 - To introduce two, Page milliammeters Pt. No. B3300/004 and two Page shunts Pt. No. C10770/300 in lieu of Dowty magnetic indicators Pt. No. C5185Y Mk.3.

Mod.2212 - To transfer engine fire warning test switch from the non-essential to the essential bus-bar.

Mod.2223 - To introduce a second fatigue meter Mk.18A Ref. No. 6A/10214.

Mod.2255 - To provide a facility for the transfer of refuelling valves from the non-essential bus-bar during flight refuelling.




NOTE: LOCATION OF THESE PANELS SHOWN ON FIGURE 1

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Fig. 2 Panels 16P and 19P

Mod.2258 - To alter circuit for the R.P.M. governors to feed fuses from the essential busbar to prevent increase in thrust on the two remaining engines in the event of a two engine failure.

Mod.2284 - To make provision for selector unit No.1 Mk.1 Pt. No. 7B/2584 to operate the 2.5 cartridge installation from the Red Steer Mk.2 Control Unit action button.

Mod.2292 - Height encoding facilities – To introduce Mk.29B and Mk.30A encoding altimeters in lieu of the Mk.19F and Mk.22 altimeters at the 1st and 2nd pilot's panel.

Mod.2300 - To introduce HF/SSB (A.R.I. 23090) in lieu of H.F. S.T.R. 18B (A.R.I. 5874).

Mod.2304 - To introduce A.R.I. 18228/1 in lieu of A.R.I. 18105.

Mod.2363 - To introduce SFOM gunsight in lieu of low level bombsight screen.

Mod.2374 - To introduce a seventh seat rear crew escape indicator lamp at the 1st pilot's position.

Mod.2376 - To introduce an individual fusing system for the engine high energy ignition units.

Mod.2377 - To render the T.4 bombsight system inoperable.

Mod.2381 - To transfer the anti-collision and navigation lamp supplies from the non-essential to the essential busbar.

Mod.2390 - To introduce air monitoring (S.O.O.).

Mod.2392 - To introduce Vacanair pump Type SC1 and Rotheroe and Mitchell pump L.60.

Mod.2396 - Heading Reference System – To introduce an undervoltage phase sequence unit and indicator.

Mod.2410 - To delete provision for, and delete flood flow valve actuator.

▶ Mod.2436 - To rearrange the armament services supplied from the essential busbar.

Mod.2455 - To introduce manually operated controls for the independent operation of the wing and fuselage fire extinguishers.

Mod.2471 - To introduce ARI-23180 (Loran).

Mod.2482 - To introduce Sangamo Western T.R.U. ammeter Part No.5532-1-112 in lieu of Page Eng. T.R.U. ammeter Part No. B3300-0024.

Mod.2487 – To rearrange the supplies to the abandon aircraft, pressurization and decompression, and emergency door opening circuits.

Mod.2504 - To provide automatic illumination of the cabin light when the abandon aircraft switch is operated.

Mod.2514 - To introduce additional supplies and revised wiring to the cabin decompression and abandon aircraft warning circuits. ◀

## DESCRIPTION AND OPERATION

**General**

3. D.C. supplies at 28-volts for the various low voltage consumer circuits are obtained from two 7.5 kW transformer-rectifier units (T.R.U.) which are operated from the main 200-volt, 400 Hz 3-phase supply.

4. The rectified d.c. output from each T.R.U. is directed to a distribution panel (15P for No.1 T.R.U. (port) and 16P for No.2 (stbd.)).

These panels are fitted in the nose wheel bay and contain the main supply contactors, differential relays, load shedding contactors and control relays.

5. From panels 15P and 16P the supply is fed to the main d.c. power supply panel 19P located on the forward face of the aft bulkhead in the nose wheel bay. This panel houses the main distribution circuit breakers and fuses together with the battery isolation and ground supply contactors.

6. From panel 19P the supplies are routed to each sub distribution panel by means of triple or quadruple feeders protected at each end by circuit breakers.

7. A 24-volt Type K battery is provided for those vital d.c. consumers which must remain

supplied in the event of a crash or total power failure. These vital consumers are connected directly to the battery, i.e. from the vital busbar. The battery is normally connected to the busbar, via a battery isolation contactor and charged during flight. When the T.R.U.'s and the battery are connected to the busbar the battery provides a means of regulating the T.R.U. voltage. Two 28-volt external supply plugs are provided, one for normal ground servicing purposes the other for ground refuelling operations only.

8. Arrangements are made in the control circuit for automatic load shedding of all non-essential services during certain emergency conditions.

9. D.C. supplies from 15P and 16P are fed to the main d.c. distribution panel 19P, located on the forward face of the aft bulkhead in the nosewheel bay. This panel houses the main distribution circuit breakers and fuses, the battery isolation contactor, and the ground supply contactor.

*T.R.U. cooling*

10. Each T.R.U. is cooled by ram air ducted by suitable piping from small air intakes adjacent to the engine air intakes. Axial-flow blower fans are situated in each cooling duct to assist the main air flow, and to provide a means of cooling the T.R.U.'s during ground operating periods. Each cooling fan, Ref. 5UD/6512, is driven by a 3-phase induction motor. Supply to each fan is obtained from the main 200-volt a.c. supply via fuses provided on the T.R.U. input terminal blocks.

**Switching arrangements**

11. The bulk of the control switches and indicators for the T.R.U's and the d.c. distribution system are located on the secondary supplies panel 50P, adjacent to 10P at the A.E.O.'s station. It should be noted that the a.c. secondary supplies portion of this is dealt with fully in Chap.4.

*Layout of 50P*

12. The various control switches and magnetic indicators on the panel are laid out in a plan-form mimic diagram of the d.c. system busbars, so that the operator can see at a glance the busbar circuit conditions.

13. An illustration of 50P is provided in fig.1, and the panel layout arrangements outlined in the following paragraphs should be read in conjunction with this illustration.

14. Referring to fig.1 it will be seen that on the panel the 200-volt supply busbar to each T.R.U. is monitored by an ammeter. The T.R.U. control switches labelled ON-OFF RESET, are positioned adjacent to each ammeter.

15. Two magnetic indicators are positioned between the essential and non-essential portions of the mimic busbar diagram. These are the load shedding indicators, which are normally energized, thus making a continuous busbar line. The load shedding indicators are controlled by the operation of the load shedding

contactors, which can be tripped by the operation of the non-essential loads switch (10P) to TRIP or by ejection of the R.A.T. (Chap.5).

16. The third lower indicator on the d.c. portion of the panel is interposed in the vital busbar line, and represents the battery isolation contactor. This indicator will be energised to show the vital busbar connected to the essential busbar when the BATTERY ISOLATION switch (adjacent to the indicator) is set to ON.

17. Adjacent to the mimic vital busbar on 50P is a voltmeter, scaled 0.35 volts, which serves to indicate the d.c. busbar voltage. This instrument, Type 3231-3-285, is dealt with in AP 113F-1001-1. The magnetic indicators, Type C5165Y Mk.3 are described in A.P.113F-0615-1.

**Battery**

18. As stated previously, a 24-volt 35 A.H. Type K battery is provided for the vital consumer circuits. The battery is installed in a thermal blanket type container, adjacent to the No.2 T.R.U. on the starboard side of the nosewheel bay. A 3-pin test socket for checking the battery voltage is provided on the inboard side of 16P. Descriptive and servicing information for the battery is contained in A.P.113C-0303-1.

**Ground supply plugs and earths**

19. A 3-pin plug for 28-volt d.c., and a 6-pin plug for 200-volt a.c. supplies are situated on the quick disconnect panel located below the port rear fuselage. A true earth point for ground earthing is also provided at this position. The connectors are accessible through a small hinge door (fig.4A). A further 28-volt d.c. 3-pin plug is provided exclusively for ground refuelling operations and is positioned behind a small hinged panel, forward of the nosewheel bay on the starboard side of the aircraft. An earth bolt is provided in the forward end of the nosewheel bay, on the starboard wall, for ground earthing of the aircraft during refuelling, arming and servicing operations.

**Circuit operation**

20. The circuit operation contained in the following paragraphs should be read in conjunction with fig.3. It should be noted that the ground handling drill laid down for the electrical system (A.P.101B-1902-12) must be strictly adhered to. Readers are therefore advised to ensure that an understanding of this drill has been established before following the circuit operation given here.

*Preparation*

21. Before the T.R.U.'s can be switched on to supply the 28-volt d.c. busbar, a suitable 200 volt a.c. ground supply must be connected to the 200-volt a.c. ground supply plug at the aft end of the main power compartment and the battery isolation switch held momentarily to ON, to enable the ground supply interlock circuit to operate. The battery isolation switch is spring loaded to centre from the ON and OFF positions. Referring to Fig.3, the battery will be connected to the busbar by the following circuit actions:-

(1) A supply from the battery, via fuse 600 will be directed by means of the isolation switch terminals to the 'close' coil of the isolation contactor (B.I.C.) which will be energised.

(2) Operation of contacts B.I.C./1 will connect the battery to the 28-volt busbar.

(3) Closure of contacts B.I.C./2 will energise the battery isolation indicator.

22. The whole of the 28-volt d.c. busbar including the 200-volt ground supply interlock circuit will be fed from the battery. The 200-volt ground supply unit may now be started up and switched on (Chapter 2 and 5).

*T.R.U. operation*

23. The No.1 and 2 T.R.U.'s may now be switched on to supply the 28 volt load; circuit operation is as follows:-

(1) When the No.1 T.R.U. control switch is placed to the ON position a supply via fuses 927 V and 921 E (Mod.1407), will be fed to terminal 4 on the differential relay No.476.

(2) From terminal 4, the supply will be directed via the normally closed reset contacts to terminal 5, and thence to the coil of the No.1 T.R.U. main contactor No.477. At the same time, the supply will be fed to the coil of the main relay within the differential relay, and closing of the main contacts will connect the output side of the T.R.U. to the 28-volt busbar.

(3) Meanwhile, closing of contacts 477/2, 477/3 and 477/4 will connect the T.R.U. to the 200-volt busbar, and the ammeter will indicate that the T.R.U. is connected to the d.c. busbar.

The No.2 T.R.U will be connected to the

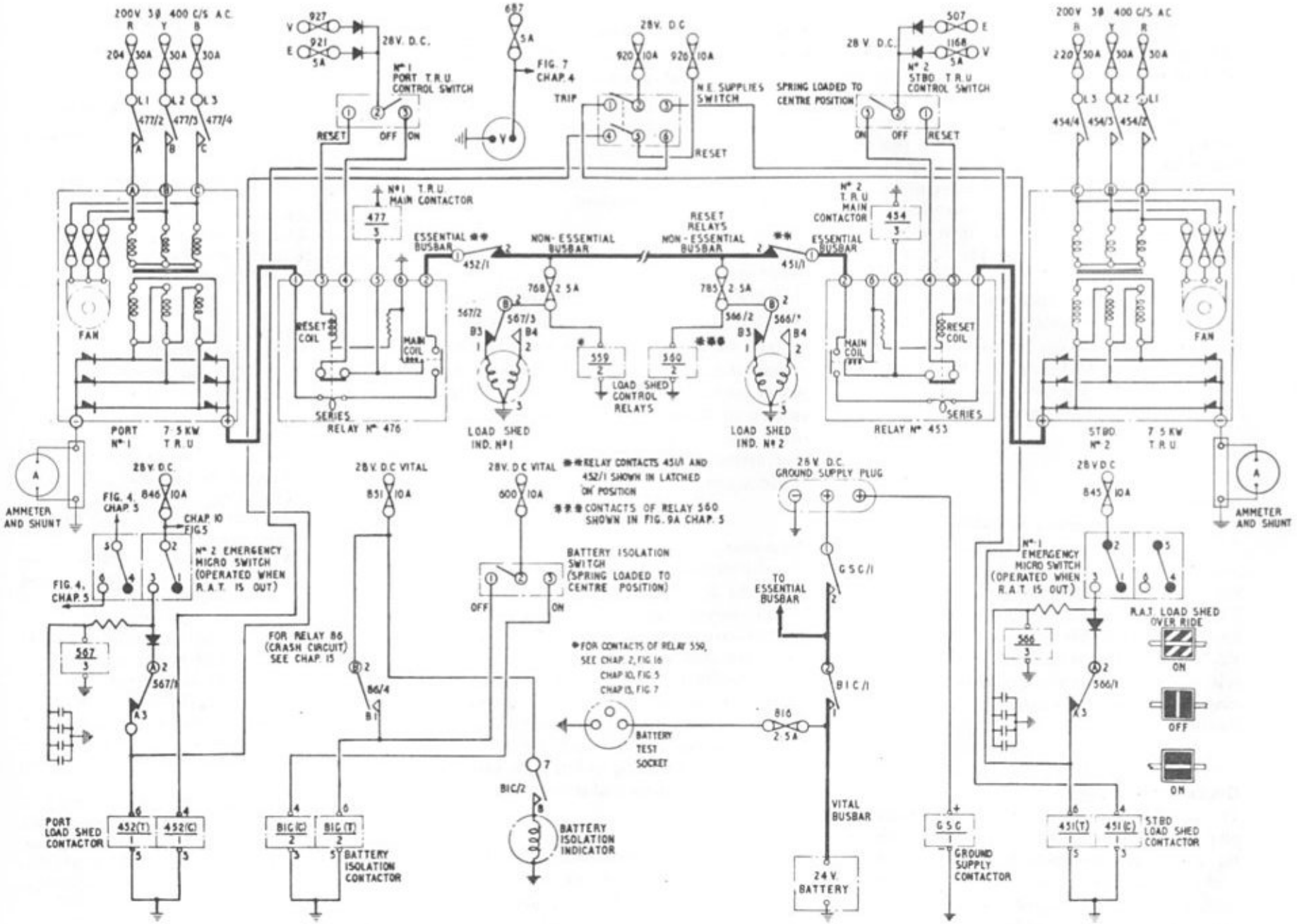


Fig 3 D.C. supply and control

▶ *Title amended* ◀

bus-bar in a similar manner to the No.1 when the No.2 control switch is placed to ON.

24. The load shedding control relays (No.559 and 560) will be energised also the load shedding indicators via relays 566 and 567. The d.c. bus-bar (vital, essential and non-essential) will be fed from the No.1 and 2 T.R.U.'s. The battery will be connected to the bus-bar and receive a charging current.

25. The blower fan motor on each T.R.U. should now be running to provide sufficient cooling air for ground running. Each blower motor must be checked for correct operation if the ground running of the T.R.U.'s is likely to be prolonged.

*Protection*

26. In the event of a line to earth fault on the output side of, say, the No.1 T.R.U. without the main contactor (No.477) being de-energised, a reverse current of 50-70 amps through the series coil of the differential relay No.476 will operate the reset contacts and thus isolate the supply to the main coil and to contactor 477; this action will isolate the No.1 T.R.U. from the bus-bar. A similar circuit operation will take place should the No.2 T.R.U. be affected in this manner. In the event of a line to earth fault on both T.R.U.'s, a reverse current from the battery will pass through the series coil of each differential relay (No.476 and 453) thus isolating the T.R.U.'s from the bus-bar.

*Reset operation*

27. Due to the fact that the differential relays are equipped with polarized armatures, reset operation will be necessary before the T.R.U.'s can be brought back on line. This is achieved by holding the appropriate T.R.U. control switch to the RESET position. This action will connect a d.c. supply to the reset coil within the differential relay, thus tripping the reset contacts ready for normal ON selection.

**Load shedding**

28. As previously stated, in the event of the failure of the four main alternators, the ram air turbine (R.A.T.) is lowered into the slip stream (Chap.2 and 5). This action will automatically isolate all the 28-volt d.c. non-essential loads. Circuit action is as follows:-

(1) When the R.A.T. is lowered both its No.1 and No.2 micro switches are operated to make contacts 2-3.

(2) In the case of the port circuit this action will connect a 28-volt d.c. supply via fuse 846, the No.2 micro switch contacts and relay contacts 567/1 to energise the trip coil of the port load shed contactor No.452.

(3) Opening of contacts 452/1 will disconnect the port non-essential bus-bar from the T.R. U. output (essential bus-bar) thus shedding the non-essential loads.

(4) At the same time the supply via fuse 846 and the No.2 micro switch will be fed via a resistance and capacitor network to the coil of relay 567.

(5) After a slight delay, which allows the No.452 contactor to trip, relay 567 will be energised. Contacts 567/1 will open to isolate the supply to trip coil of contactor No.452.

(6) Due to the non-essential bus-bar being no longer 'live' the supply to the No.1 load shed indicator will be cut off and the indicator displays a vertical bar.

*NOTE . . .*
*That at the same time a similar circuit action will have taken place for the starboard (No.2) circuit, and all non-essential loads will be shed simultaneously.*

**Non-essential loads reset**

29 When the main power has been restored the non-essential loads may be re-connected to the bus-bars by operation of the N.E. LOADS, TRIP - RESET switch on panel 10P.

30. In the case of the port loads, by holding the spring loaded toggle to RESET a 28-volt d.c. supply via fuse 926 will be fed directly to the close coil of the port load shed contactor (No.452). Contacts 452/1 close to connect the essential to the non-essential bus-bars. The No.1 load shed indicator will be re-energised via relay contacts 567/3 (relay 567 still energised via fuse 846 and the No.2 micro switch) to show a horizontal bar together with diagonal bars (R.A.T. load shed overriden).

31. If due to some fault the R.A.T. fails to eject or the micro switches do not operate, the non-essential loads may be shed by operating the N.E. LOADS, TRIP-RESET switch to TRIP. In the case of the port loads the supply is via fuse 926 direct to the trip coil of the load shed contactor No.452. In this case the load shed indicator will present a vertical bar showing that the non-essential loads have been shed.

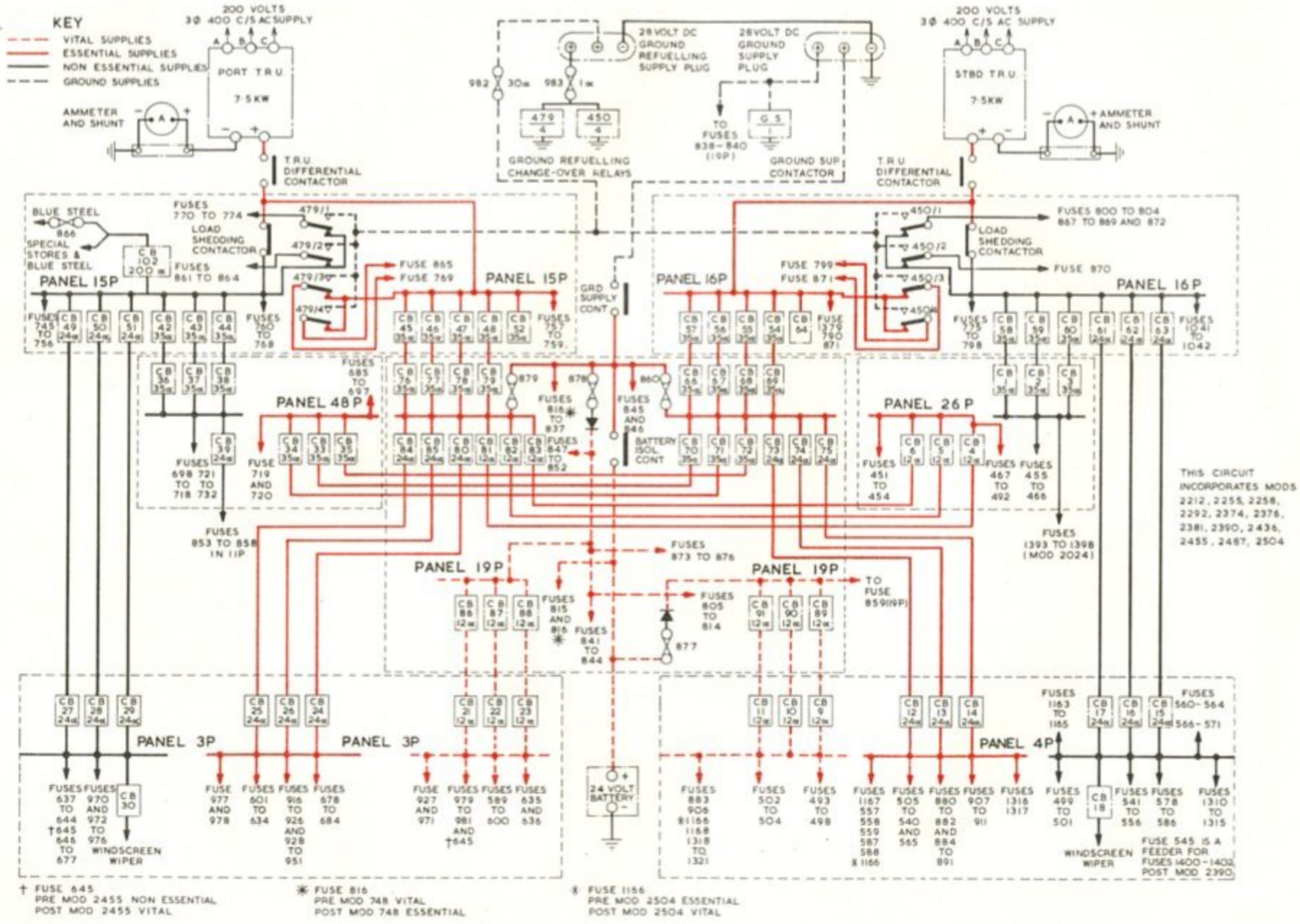


Fig. 4 Distribution diagram

► *Mod state clarified* ◄

**Battery isolation**

32. When the battery isolation switch is operated to the OFF position, a supply from fuse 600 will be fed via the isolation switch to the trip coil of the battery isolation contactor to open contacts B1C/1 and disconnect the battery from the essential busbar. Opening of contacts B1C/2 will de-energise the battery isolation indicator.

33. In the event of a crash or heavy landing when both the No.1 and 6 inertia switches have operated, relay 86 will be energised (Chapter 15). This action will close contacts B2-B1 of relay 86, and automatically isolate the battery from the essential busbar. Circuit operation (fig.3) for this feature is similar to that outlined in para.32 for normal battery isolation.

**28 volt ground supply and battery charging**

34. For ground servicing it is necessary to connect a 28-volt d.c. supply to the appropriate ▶ plug located under the port rear fuselage (fig.4A). With the 28-volt ground supply connected, the ground supply contactor will be energized to close contacts GSC/1, thus connecting the essential and non-essential busbars to the ground supply. When the battery isolation switch is pressed to ON, the vital busbar and the battery will also be connected to the busbar line and ground supply (para 21), and the battery will receive a charging current. Note that the T.R.U's should not be switched on when a 28-volt ground supply is connected to the aircraft.

**Ground refuelling**

35. Referring to the d.c. distribution diagram, fig.4, it will be seen that for normal ground ◀

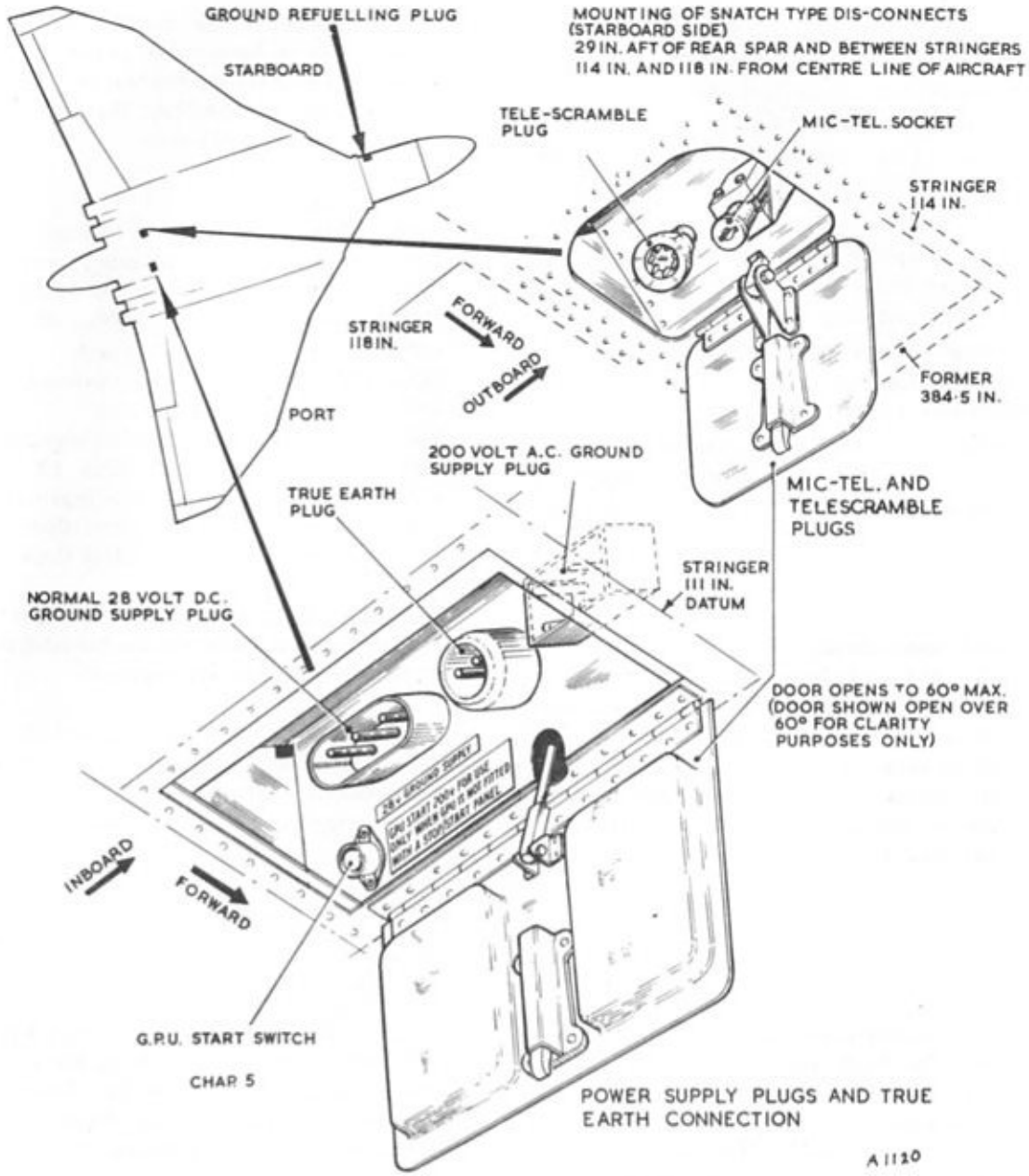


Fig.4A Power supply and tele-scramble plugs
▶ *Mod and ref numbers deleted* ◀

refuelling operations, supplies are taken from both the essential and non-essential busbars to the refuelling circuit fuses via paralleled contacts of relays No.479 (15P) and 450 (16P). Details of these fuses and their supply categories appear in Table 2.

36. A separate 28 volt ground refuelling plug is fitted to the starboard side of the fuselage (fig.4A) providing a facility for refuelling the aircraft without energising the main busbars. With a supply connected to this plug, relays 479 and 450 are energized via fuse 483. The relay changeover action connects all refuelling circuit fuses to the ground refuelling supply via fuse 482.

**Distribution details**

37. A d.c. distribution diagram is provided in fig.4, which shows in block form the whole of the vital, essential and non-essential bus-bar distribution throughout the aircraft. The distribution of the 28-volt d.c. supplies to the various consumers is made by main and sub-distribution panels, located at various stations throughout the aircraft. Each panel houses banks of fuses and/or circuit breakers which are fed from the bus-bars in 15P, 16P and 19P in the nosewheel bay. The distribution panels are located as follows:-

| Panel | Supply Category | Location |
|---|---|---|
| 3P | V E N.E. | Crew's cabin - port |
| 4P | V E N.E. | Crew's cabin - starboard |
| 11P | - - N.E. | Crew's cabin - aft |
| 15P | - E N.E. | N.W.B. - port |
| 16P | V E N.E. | N.W.B. - starboard |
| 19P | V E - | N.W.B. - aft |
| 26P | - E N.E. | Aft power compartment |
| 48P | - E N.E. | Crew's cabin - aft |
| 62P | V - - | A.A.P.P. compartment |
| 71P | - E - | Under pilots' floor |
| 72P | - E - | Under pilots' floor |

38. Referring to fig.4, it will be seen that for ease of reference the various bus-bar categories are shown by the following method:-

| | | |
|---|---|---|
| Vital bus-bars | - | broken red line |
| Essential bus-bars | - | solid red line |
| None-essential bus-bars | - | solid black line |
| Ground supplies | - | broken black line |

The non-essential bus-bars in each sub-distribution panel are fed from either 15P (port consumers) or 16P (starboard consumers). The essential bus-bar feeders from these two panels are fed to panel 19P, and thence to the various sub-distribution panels throughout the aircraft. The vital bus-bar from the battery is also fed into 19P, so that this panel forms the main distribution source for the vital and essential bus-bars.

39. In most cases, the distribution feeders are in triplicate, or quadruplicate, and each individual feeder is protected at both ends by a circuit breaker. Each half of the main bus-bar in 19P is protected by a 125 amp. H.R.C. fuse, so that in the event of bus-bar earth fault, only a proportion of the loads would be lost. A component detail illustration of 19P is contained in fig.2.

*NOTE . . .*

*Reference to fig.4 will show that fuses 805 to 814, 841 to 844, 847 to 852 and 873 to 876 are fed from the essential busbar via fuse 878 and from the vital busbar via fuse 877.*

## SERVICING

**Transformer-rectifier units**

40. The No.1 and 2 T.R.U.'s should be inspected at the intervals laid down in 4 of this publication for security of mounting and connections. Further information on servicing the units will be found in A.P.113D-0426-1. It is important to note that the T.R.U.'s are not regulated, and must not be operated on low loads without the battery being connected to the bus-bar. Failure to observe this precaution may cause filament lamps and valves in the consumer circuits to be burnt out.

*Functional checks*

41. The correct operation of the indicators, relays and contactors employed in the T.R.U. circuit should be checked at the periods laid down in 4 of this publication. The following procedure should be adopted.

(1) Hold the battery and the normal and essential supplies switches momentarily to the ON and RESET positions respectively and check that:-

(a) The battery (vital) busbar indicator on 50P has operated.

(b) The battery isolation contactor in 19P has operated.

(c) The load shedding control relays (559 and 560) on 15P have operated.

(d) The load shedding (non-essential) busbar indicators on 50P have operated.

(2) Connect and switch on the 200-volt 3-phase ground supply truck (Chap.2).

(3) Switch ON the No.1 T.R.U., and check that:

(a) The No.1 T.R.U. (essential) busbar indicator has operated.

(b) The blower fan in the No.1 T.R.U. cooling inlet pipe is operating.

(c) The main contactor No.477 and the differential relay 476 have operated.

(4) Switch ON the No.2 T.R.U., and repeat the checks outlined in sub-para (3).

*Load checks*

42. At the appropriate inspection periods or if there is evidence of incorrect voltage outputs, the T.R.U.'s should be removed from the aircraft and load tested in accordance with A.P. 113D-0426-1.

**Battery checks**

43. The Type K 24-volt battery should be checked frequently for security and cleanliness of connections. Prior to each flight, the voltage of the battery must be checked in the following manner:-

(1) Connect a suitable portable voltmeter to the test socket provided on 16P.

(2) Operate the battery isolation switch to the ON position.

(3) Switch on a 40 amp. load for 30 seconds (both V.H F.sets), and check that the battery voltage remains at 25 volts.

Further details for the battery, Type K, will be found in A.P.113C 0303-1.

**Distribution system**

44. All heavy duty cables in the distribution system should be examined periodically for signs of chafing, loose connections and general security. In particular, the heavy duty fuses and circuit breakers should be examined for signs of overheating. Careful checking of the system wiring and components will reduce fault conditions to a minimum

*Feeders*

45. In those cases where double, triple, or quadruple feeders are employed between main and sub-distribution panels, the circuit breakers protecting these feeders must be checked frequently to ensure that they are not tripped. A circuit breaker observed in the tripped condition must not be reset until that particular feeder has been insulation tested.

## REMOVAL AND INSTALLATION

**General**

46. For the most part the removal of the various components used in the power supply services presents no serious difficulties. Points to be borne in mind are:-

(1) Before removing any item of electrical equipment, ensure that the circuit is electrically 'safe'.

(2) Always stow and insulate all disconnected cables.

(3) Before re-connecting cables, check with the appropriate routing chart for correct terminal and cable numbers.

47. Where it is necessary to remove major items of equipment from the aircraft, it is essential that use should be made of the proper ground equipment available for these tasks, if damage to the equipment is to be avoided.

**Removal of T R.U.'s**

48. No special equipment is necessary for this operation apart from a 'Safety-Raiser' or any other suitable ajustable trestle. To provide clear

removal space for the port T.R.U., the port nosewheel door jack must first be disconnected at the top end and moved out of position. Removal procedure should be carried out as follows:-

Port T.R.U.

(1) Position the 'Safety-Raiser' under the nosewheel bay and raise the platform to a convenient level.

(2) Release the bolt securing the port nosewheel door jack to the bracket at the top of the nosewheel bay, and support the jack away from the vicinity of the T.R.U.

(3) Disconnect all electrical connections from the T.R.U. Insulate and stow the leads.

(4) Disconnect the cooling duct at each side of the T.R.U. by removing the bolts securing each flanged end.

(5) Remove the four bolts securing the T.R.U. to the structure.

(6) Slide the T.R.U. away from the structure and place it on the 'Safety-Raiser' platform. The 'Safety-Raiser' may now be lowered and the unit lifted off.

Starboard T.R.U.

(1) Position the 'Safety-Raiser' in the nosewheel bay at the appropriate level.

(2) Disconnect all electrical connections from the T.R.U. Insulate and stow the leads.

(3) Disconnect the cooling duct at the top of the T.R.U. by removing the bolts securing the flanged end.

(4) Remove the four bolts securing the T.R.U. to the structure, and lift the unit on to the platform of the 'Safety-Raiser'. The 'Safety-Raiser' may now be lowered.

In order to replace the T.R.U.'s the operation should be carried out in reverse to the removal procedure.

**Removal of battery**

49. Instructions for removal of the battery are as follows:-

(1) Ensure that the battery isolation contactor is open and that all battery loads are switched OFF.

(2) Position a 'Safety-Raiser' or similar trestle under the nosewheel bay, and raise to the required level.

(3) Unfasten the upper portion of the battery container and remove by lifting upwards.

(4) Release the battery connector by turning the connector knob.

(5) Release the two rods securing the battery and lift the battery on to the platform of the 'Safety-Raiser'. Lower the 'Safety-Raiser'.

When refitting the battery, again ensure that all battery loads are switched OFF before connection is made.

**Replacement of d.c. voltmeter**

50. In order to ensure correct scale marking and calibration, the following procedure must be carried out on a replacement d.c. voltmeter Type S231 3-285 before installation:-

Sangamo Weston meter

(1) Break main seal on voltmeter, remove screw and serrated cup washer and further two securing screws.

(2) Withdraw movement from case, taking care not to twist the movement relative to the case.

(3) View the zero adjuster from the inside of the case. Locate the forked adjustment arm; bend this fork end towards the centre portion. (Bending this fork end nullifies the action of the zero adjustment screw and trimming of the zero position is only able to be effected during calibration.)

(4) Connect a variable 30-volt d.c. supply to the movement. Check the calibration, using a master voltmeter (0-30 volts), at 20 volts, 25 volts and 30 volts.

(5) Inject a voltage of 24 volts and of 27 volts. Mark the dial, in both cases, with a white line, using waterproof drawing ink (SO 42-38) to protrude above and below the coloured band.

◀ (6) Re-assemble the meter and subject to an SST, law A.P.113F-1001-1.

Page Engineering meter

(1) Locate meter seal, situated between two of the case fixing screws, and remove. From under the meter seal remove the small locking pin, then remove three fixing screws.

(2) Withdraw movement from case, taking care not to twist the movement relative to the case.

(3) View the adjuster from inside of the case; locate the pin which engages with the meter zeroing arm. Remove this pin.

(4) Carry out operations (4) and (5) as for the Sangamo Weston meter.

(5) Re-assemble the meter and subject to an SST, law A.P.113F-1006-1. ▶

## TABLE 1

## 28-VOLT D.C. SUPPLY

### DISTRIBUTION CIRCUIT BREAKERS

| C.B. No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 1 | 35 | Triple feeder from 16P to fuses 455 to 468 in 26P | 26P | LGA | NE |
| 2 | 35 | | 26P | LGA | NE |
| 3 | 35 | | 26P | LGA | NE |
| 4 | 12 | Triple feeder from 19P to fuses 451 to 454 and 469 to 492 in 26P | 26P | LGA | E |
| 5 | 12 | | 26P | LGA | E |
| 6 | 12 | | 26P | LGA | E |
| 7 | - | | | | |
| 8 | - | | | | |
| 9 | 12 | Triple feeder from 19P to fuses 493 to 498, 502 to 504, 883, 906 (post Mod 2455) 1166 (post Mod 2504) 1168 and 1318 to 1321 in 4P | 4P | LGA | V |
| 10 | 12 | | 4P | LGA | V |
| 11 | 12 | | 4P | LGA | V |
| 12 | 24 | Triple feeder from 19P to fuses 505 to 540, 557, to 559. 565, 587, 588, 880, to 882, 884 to 891, 907 to 911, (1166 pre Mod 2504) 1167 and 1317 AP. | 4P | LGA | E |
| 13 | 24 | | 4P | LGA | E |
| 14 | 24 | | 4P | LGA | E |
| 15 | 24 | Triple feeder from 16P to fuses 499 to 501, 541 to 556, 560 to 564, 566 to 571, 578 to 586, 1163 to 1165, 1310 to 1315 and CB18 in 4P | 4P | LGA | NE |
| 16 | 24 | | 4P | LGA | NE |
| 17 | 24 | | 4P | LGA | NE |
| 18 | 24 | Pilots' windscreen wipers - supply | 4P | LGA | NE |
| 19 | - | Spare | 4P | - | - |
| 20 | - | Spare | 4P | - | - |
| 21 | 12 | Triple feeder from 19P to fuses 589 to 600, 927, 635, 636, 645 (post Mod 2455), 971 and 979 to 981 in 3P | 3P | LGA | V |
| 22 | 12 | | 3P | LGA | V |
| 23 | 12 | | 3P | LGA | V |
| 24 | 24 | Triple feeder from 19P to fuses 601 to 634, 678 to 684, 916 to 926, 928 to 951, 977 and 978 in 3P | 3P | LGA | E |
| 25 | 24 | | 3P | LGA | E |
| 26 | 24 | | 3P | LGA | E |
| 27 | 24 | Triple feeder from 19P to fuses 637 to 644, 645 (pre Mod 2455) 646 to 677,972 to 976 and CB30 in 3P | 3P | LGA | NE |
| 28 | 24 | | 3P | LGA | NE |
| 29 | 24 | | 3P | LGA | NE |
| 30 | 24 | Pilots' windscreen wipers - supply | 3P | LGA | NE |
| 31 | - | Spare | 3P | - | - |
| 32 | - | Spare | 3P | - | - |

TABLE 1 (cont'd.)

28-VOLT D.C. SUPPLY

DISTRIBUTION CIRCUIT BREAKERS

| C.B. No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 33 | 35 | Triple feeder from 19P to fuses 685 to 697 and 720 in 48P | 48P | LGA | E |
| 34 | 35 | | 48P | LGA | E |
| 35 | 35 | | 48P | LGA | E |
| 36 | 35 | Triple feeder from 15P to fuses 698 to 719 and 721 to 732 in 48P | 48P | LGA | NE |
| 37 | 35 | | 48P | LGA | NE |
| 38 | 35 | | 48P | LGA | NE |
| 39 | 24 | Feeder to fuses 853 to 855 in 11P | 48P | LGA | NE |
| 40 | | | | | |
| 41 | | | | | |
| 42 | 35 | Triple feeder from 15P to C.B.36, 37 and 38 in 48P | 15P | LGA | NE |
| 43 | 35 | | 15P | LGA | NE |
| 44 | 35 | | 15P | LGA | NE |
| 45 | 35 | Quadruple feeder from 15P to C.B.76, 77, 78 and 79 in 19P | 15P | LGA | E |
| 46 | 35 | | 15P | LGA | E |
| 47 | 35 | | 15P | LGA | E |
| 48 | 35 | | 15P | LGA | E |
| 49 | 24 | Triple feeder from 15P to C.B.27, 28 and 29 in 3P | 15P | LGA | NE |
| 50 | 24 | | 15P | LGA | NE |
| 51 | 24 | | 15P | LGA | NE |
| 52 | 35 | A.R.I.5874 | | | |
| 53 | | | | | |
| 54 | 35 | Quadruple feeder from 16P to C.B.66, 67, 68 and 69 in 19P | 16P | LGA | E |
| 55 | 35 | | 16P | LGA | E |
| 56 | 35 | | 16P | LGA | E |
| 57 | 35 | | 16P | LGA | E |
| 58 | 35 | Triple feeder from 16P to C.B.1, 2 and 3 in 26P | 16P | LGA | NE |
| 59 | 35 | | 16P | LGA | NE |
| 60 | 35 | | 16P | LGA | NE |
| 61 | 24 | Triple feeder from 16P to C.B.15, 16 and 17 in 4P | 16P | LGA | NE |
| 62 | 24 | | 16P | LGA | NE |
| 63 | 24 | | 16P | LGA | NE |
| 64 | 35 | Bomb jettison | 16P | LGA | E |
| 65 | | | | | |

TABLE 1 (cont'd.)

28-VOLT D.C. SUPPLY

DISTRIBUTION CIRCUIT BREAKERS

| C.B. No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 66 | 35 | Quadruple feeder from C.B.54, 55, 56 and 57 in 16P | 19P | LGA | E |
| 67 | 35 | | 19P | LGA | E |
| 68 | 35 | | 19P | LGA | E |
| 69 | 35 | | 19P | LGA | E |
| 70 | 35 | With C.B.72 - Triple feeder to C.B.33, 34 and 35 in 48P | 19P | LGA | E |
| 71 | 35 | | 19P | LGA | E |
| 72 | 35 | Part of triple feeder with C.B.70 and 71 to C.B.33, 34 and 35 in 48P | 19P | LGA | E |
| 73 | 24 | Triple feeder from 19P to C.B.12, 13 and 14 in 4P | 19P | LGA | E |
| 74 | 24 | | 19P | LGA | E |
| 75 | 24 | | 19P | LGA | E |
| 76 | 35 | Quadruple feeder from 19P to C.B.45, 46, 47 and 48 in 15P | 19P | LGA | E |
| 77 | 35 | | 19P | LGA | E |
| 78 | 35 | | 19P | LGA | E |
| 79 | 35 | | 19P | LGA | E |
| 80 | 24 | With C.B.84 and 85 - Triple feeder to C.B.24, 25 and 26 in 3P | 19P | LGA | E |
| 81 | 12 | Triple feeder from 19P to C.B.4, 5 and 6 in 26P | 19P | LGA | E |
| 82 | 12 | | 19P | LGA | E |
| 83 | 12 | | 19P | LGA | E |
| 84 | 24 | With C.B.80 - Triple feeder from 19P to C.B.24, 25 and 26 in 3P | 19P | LGA | E |
| 85 | 24 | | 19P | LGA | E |
| 86 | 12 | Triple feeder from 19P to C.B.21, 22 and 23 in 3P | 19P | LGA | V |
| 87 | 12 | | 19P | LGA | V |
| 88 | 12 | | 19P | LGA | V |
| 89 | 12 | Triple feeder from 19P to C.B.9, 10 and 11 in 4P | 19P | LGA | V |
| 90 | 12 | | 19P | LGA | V |
| 91 | 12 | | 19P | LGA | V |
| 100 | | | | | |
| 101 | | | | | |
| 102 | 200 | Main breaker to special stores | 15P | D.6544 | NE |

TABLE 2

28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 401 | - | Spare | 72P | S | E |
| 402 | - | Spare | 72P | S | E |
| 403 | - | Spare | 72P | S | E |
| 404 | 2.5 | Military flight system - computor starboard | 72P | S | E |
| 405 | 2.5 | Military flight system - compass starboard | 72P | S | E |
| 406 | 2.5 | Military flight system - gyro vertical starboard | 72P | S | E |
| 407 | | Not allocated | | | |
| 408 | | | | | |
| 409 | | | | | |
| 410 | | | | | |
| 411 | | | | | |
| 412 | | | | | |
| 413 | | | | | |
| 414 | | | | | |
| 415 | - | Spare | 71P | S | E |
| 416 | - | Spare | 71P | S | E |
| 417 | - | Spare | 71P | S | E |
| 418 | - | Dummy fuse fitted (Post Mod.925) | 71P | - | - |
| 419 | 2.5 | Military flight system - gyro vertical port | 71P | S | E |
| 420 | 2.5 | Military flight system - compass port | 71P | S | E |
| 421 | | Not allocated | | | |
| 422 | | | | | |
| 423 | | | | | |
| 424 | | | | | |
| 425 | | | | | |
| 427 | | | | | |
| 427 | | | | | |
| 428 | | | | | |
| 429 | | | | | |
| 430 | | | | | |
| 431 | | | | | |
| 432 | | | | | |
| 433 | | | | | |
| 434 | | | | | |
| 435 | | | | | |
| 436 | | | | | |

TABLE 2 (cont'd.)
28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 437 | | | | | |
| 438 | | | | | |
| 439 | | | | | |
| 440 | | | | | |
| 441 | | | | | |
| 442 | | | | | |
| 443 | | | | | |
| 444 | | | | | |
| 445 | | | | | |
| 446 | | Not allocated | | | |
| 447 | | | | | |
| 448 | | | | | |
| 449 | | | | | |
| 450 | | | | | |
| 451 | 5 | Artificial feel - elevons outboard - warning | 26P | S | E |
| 452 | 5 | Artificial feel - reminder indicator | 26P | S | E |
| 453 | 5 | Artificial feel - elevons inboard - warning | 26P | S | E |
| 454 | 5 | Artificial feel - rudder - warning | 26P | S | E |
| 455 | - | Spare | 26P | | |
| 456 | 2.5 | A.R.I.18228 P.S.U. | 26P | S | NE |
| 457 | 2.5 | Lighting - aft power compartment | 26P | S | NE |
| 458 | 2.5 | Tail to ground warning | 26P | S | E |
| 459 | 5 | ◀ A.R.I.5952 Scanner cooling ▶ | 26P | S | NE |
| 460 | 2.5 | Tail to ground warning | 26P | S | NE |
| 461 | 5 | Bomb bay fuel tanks port - L.P. warning | 26P | S | NE |
| 462 | 5 | Bomb bay fuel tanks starboard - L.P. warning | 26P | S | NE |
| 463 | 30 | A.R.I.18051 | 26P | H2 | NE |
| 464 | 30 | A.R.I.18051 | 26P | H2 | NE |
| 465 | 30 | A.R.I.18051 | 26P | H2 | NE |
| 466 | 30 | A.R.I.18051 | 26P | H2 | NE |
| 467 | 10 | Bomb bay heating (Mod.2047) | 26P | H2 | E |
| 468 | - | Spare | 26P | | |
| 469 | 2.5 | Powered flying controls - No.8 elevon position indicator | 26P | S | E |
| 470 | 2.5 | Powered flying controls - No.7 elevon position indicator | 26P | S | E |
| 471 | 2.5 | Powered flying controls - No.6 elevon position indicator | 26P | S | E |
| 472 | 2.5 | Powered flying controls - No.5 elevon position indicator | 26P | S | E |
| 473 | 2.5 | Powered flying controls - Rudder position indicator | 26P | S | E |

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TABLE 2 (cont'd.)

28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 474 | 2.5 | Powered flying controls - No.4 elevon position indicator | 26P | S | E |
| 475 | 2.5 | Powered flying controls - No.3 elevon position indicator | 26P | S | E |
| 476 | 2.5 | Powered flying controls - No.2 elevon position indicator | 26P | S | E |
| 477 | 2.5 | Powered flying controls - No.1 elevon position indicator | 26P | S | E |
| 478 | 10 | Powered flying controls - Start time switches | 26P | S | E |
| 479 | 2.5 | Alternator failure indication | 26P | S | E |
| 480 | 2.5 | Bomb doors closed indicator | 26P | S | E |
| 481 | 10 | Heavy stores ejector switch | 26P | S | E |
| 482 | 15 | Alternator interlocks | 26P | S | E |
| 483 | 5 | A.C. ground supply control | 26P | S | E |
| 484 | 10 | A.A.P.P. transformer-rectifier unit | 26P | S | E |
| 485 | 10 | Alternator control - synchronising supply | 26P | S | E |
| 486 | 5 | Bomb doors indicator | 26P | S | E |
| 487 | 5 | Feeder for fuse 1010 - Artificial feel rudder | 26P | S | E |
| 488 | 5 | Feeder for fuse 1009 - Artificial feel elevator | 26P | S | E |
| 489 | 10 | No.4 alternator - reset | 26P | S | E |
| 490 | 10 | No.1 alternator - reset | 26P | S | E |
| 491 | 10 | No.2 alternator - reset | 26P | S | E |
| 492 | 10 | No.3 alternator - reset | 26P | S | E |
| 493 | 10 | Fire extinguishers No.3 engine | 4P | S | V |
| 494 | 10 | Fire extinguishers No.4 engine | 4P | S | V |
| 495 | 5 | Low pressure fuel cock - No.3 engine | 4P | S | V |
| 496 | 5 | Low pressure fuel cock - No.4 engine | 4P | S | V |
| 497 | 20 | No.3 alternator - crash switch | 4P | S | V |
| 498 | 20 | No.4 alternator - crash switch | 4P | S | V |
| 499 | 5 | Bomb bay fuel pump - No.1 starboard forward | 4P | S | NE |
| 500 | 5 | Bomb bay fuel pump - No.1 starboard aft | 4P | S | NE |
| 501 | 5 | Bomb bay fuel pump - No.3 starboard aft | 4P | S | NE |
| 502 | 5 | Bomb fuzing and release - special store | 4P | S | V |
| 503 | 5 | Bomb fuzing and release - special store | 4P | S | V |
| 504 | 20 | Bomb fuzing and release - special store | 4P | S | V |
| 505 | 2.5 | Oxygen regulator - second pilot | 4P | S | E |
| 506 | 5 | Artificial feel relief - elevons outboard | 4P | S | E |
| 507 | 5 | Artificial feel relief - rudder | 4P | S | E |
| 508 | 5 | Artificial feel relief - elevons inboard | 4P | S | E |
| 509 | 5 | Artificial feel - engage | 4P | S | E |
| 510 | 2.5 | Fuel pressure indication - No.3 engine | 4P | S | E |
| 511 | 2.5 | Fuel pressure indication - No.4 engine | 4P | S | E |
| 512 | 5 | Ram air valve | 4P | S | E |

TABLE 2 (Cont'd)
28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 513 | 2.5 | Canopy lock warning | 4P | S | E |
| 514 | 2.5 | Windscreen de-icing control - bomb aimer | 4P | S | E |
| 515 | 2.5 | Gold film windscreen | 4P | S | E |
| 516 | 5 | Fuel pump control - No.1 (starboard) | 4P | S | E |
| 517 | 5 | Fuel pump control - No.2 (starboard) | 4P | S | E |
| 518 | 5 | Windscreen wiper, port | 4P | S | E |
| 519 | 5 | Engine speed governor control | 4P | S | E |
| 520 | 5 | Cross-feed fuel cock (starboard) | 4P | S | E |
| 521 | 5 | Emergency trim control - inboard elevons | 4P | S | E |
| 522 | 5 | Pitot head heater control (starboard) | 4P | S | E |
| 523 | 5 | Emergency trim control - rudder | 4P | S | E |
| 524 | 5 | Emergency trim control - outboard elevons | 4P | S | E |
| 525 | 5 | Emergency trim switch | 4P | S | E |
| 526 | 5 | Intercommunication system | 4P | S | E |
| 527 | 5 | 28-volt d.c. control - starboard | 4P | S | E |
| 528 | 2.5 | Pressurisation - decompression warning horn | 4P | S | E |
| 529 | 2.5 | Pressurisation - decompression, pressure control and warning lamps | 4P | S | E |
| 530 | 2.5 | Pressurisation - decompression, entrance door | 4P | S | E |
| 531 | 5 | Windscreen wiper - starboard | 4P | S | E |
| 532 | 5 | Lighting - cabin lamps | 4P | S | E |
| 533 | 5 | Autostabilisation - yaw damper No.2 | 4P | S | E |
| 534 | 2.5 | Lighting - red floodlamps - starboard console | 4P | S | E |
| 535 | 2.5 | Lighting - red floodlamps - wander lamp | 4P | S | E |
| 536 | 5 | Pressurisation - cabin air isolation - starboard | 4P | S | E |
| 537 | 2.5 | Lighting - red floodlamps - centre console port | 4P | S | E |
| 538 | 2.5 | Jet pipe temperature override | 4P | S | E |
| 539 | 2.5 | Jet pipe temperature override | 4P | S | E |
| 540 | 2.5 | Lighting - red floodlamps - centre console starboard | 4P | S | E |
| 541 | 5 | Sextant head heater - starboard | 4P | S | NE |
| 542 | 2.5 | Lighting - in 4P | 4P | S | NE |
| 543 | 5 | Bomb bay fuel pump - No.3 starboard forward | 4P | S | NE |
| 544 | 5 | Bomb fuzing and release - alternative bombing | 4P | S | NE |
| 545 | 15 | Bus-bar feeder (S.O.O. Mod.2390) | 4P | S | NE |
| 546 | 2.5 | Face blower unit control | 4P | S | NE |
| 547 | 5 | Bomb fuzing and release | 4P | S | NE |
| 548 | 5 | E.C.M. lighting | 4P | S | NE |
| 549 | 5 | Fuel pump control - No.3 (starboard) | 4P | S | NE |
| 550 | 5 | Fuel pump control - No.6 (starboard) | 4P | S | NE |
| 551 | 5 | Air brakes control - starboard | 4P | S | NE |

TABLE 2 (cont'd.)

28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 552 | 5 | Fuel pump control - No.4 (starboard) | 4P | S | NE |
| 553 | 5 | Fuel pump control - No.5 (starboard) | 4P | S | NE |
| 554 | 5 | Fuel pump control - No.7 (starboard) | 4P | S | NE |
| 555 | 2.5 | V.H.F. simulated bombing tone | 4P | S | NE |
| 556 | 7.5 | De-icing control starboard wing | 4P | S | NE |
| 557 | 2.5 | Engine fire ext., fire warning test | 4P | S | E |
| 558 | 5 | Air isolation cock - No.1 engine | 4P | S | E |
| 559 | 5 | Air isolation cock - No.2 engine | 4P | S | E |
| 560 | 5 | Fuel pump sequence timer control - No.4 group | 4P | S | NE |
| 561 | 5 | Fuel pump sequence timer control - No.3 group | 4P | S | NE |
| 562 | 5 | Pressurisation - decompression warning | 4P | S | NE |
| 563 | 5 | Pressurisation - cabin temperature control overheat | 4P | S | NE |
| 564 | 5 | Flight refuelling - nitrogen purge control | 4P | S | NE |
| ▶ 565 | 2.5 | Flight refuelling | 4P | S | E |
| 566 | 20 | Lighting - exterior lighting master switch to fuses 572-576 | 4P | S | NE |
| 567 | 10 | Ventilated suits control | 4P | S | NE |
| 568 | 5 | Pressurisation - cabin temperature control | 4P | S | NE |
| 569 | 5 | F95 camera event marker (spare pre Mod 2505) | 4P | S | NE |
| 570 | 5 | Flight refuelling - centre of gravity control | 4P | S | NE |
| 571 | 7.5 | Bomb fuzing and release - alternative bombing | 4P | S | NE |
| 572 | 2.5 | Probe lighting, port | 4P | S | NE |
| 573 | 5 | Lighting - landing lamp starboard | 4P | S | NE |
| 574 | 5 | Lighting - landing lamp port | 4P | S | NE |
| 575 | 2.5 | Probe lighting, stbd. | 4P | S | NE |
| 576 | 5 | Lighting - downward identification lamp | 4P | S | NE |
| 577 | 15 | Navigation lamps | 4P | S | E ◀ |
| 578 | 2.5 | De-icing temperature - port wing | 4P | S | NE |
| 579 | 2.5 | De-icing temperature - starboard wing | 4P | S | NE |
| 580 | 2.5 | De-icing temperature - fin | 4P | S | NE |
| 581 | 7.5 | De-icing control - port wing | 4P | S | NE |
| 582 | 5 | N.B.C. isolation | 4P | S | NE |
| 583 | 5 | Auxiliary A.V.S. change-over switch (2nd Pilot) | 4P | S | NE |
| 584 | 2.5 | Lighting - cabin lamps - starboard sextant and 8P | 4P | S | NE |
| 585 | 2.5 | Lighting - cabin lamps - anglepoise lamps | 4P | S | NE |
| 586 | 5 | De-icing control - fin | 4P | S | NE |
| 587 | 5 | Air isolation cock - No.3 engine | 4P | S | E |
| 588 | 5 | Air isolation cock - No.4 engine | 4P | S | E |
| 589 | 10 | Fire extinguishers - No.1 engine | 3P | S | V |
| 590 | 10 | Fire extinguishers - No.2 engine | 3P | S | V |

TABLE 2 (cont'd.)

28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 591 | 5 | Low pressure fuel cock - No.1 engine | 3P | S | V |
| 592 | 5 | Low pressure fuel cock - No.2 engine | 3P | S | V |
| 593 | 20 | Fuel tanks crash switch | 3P | S | V |
| 594 | 20 | No.1 alternator crash switch | 3P | S | V |
| 595 | 20 | No.2 alternator crash switch | 3P | S | V |
| 596 | 5 | Relight control - No.4 engine | 3P | S | V |
| 597 | 5 | Relight control - No.2 engine | 3P | S | V |
| 598 | 5 | Relight control - No.3 engine | 3P | S | V |
| 599 | 5 | Relight control - No.1 engine | 3P | S | V |
| 600 | 10 | Battery isolation control | 3P | S | V |
| 601 | 5 | Powered flying controls - start control | 3P | S | E |
| 602 | 2.5 | Bomb doors selection - (Fin gap doors, Mod.200) | 3P | S | E |
| 603 | 5 | Powered flying controls - No.1 elevon stop | 3P | S | E |
| 604 | 5 | Powered flying controls - No.2 elevon stop | 3P | S | E |
| 605 | 5 | Intercomm. | 3P | S | E |
| 606 | 5 | Fuel pump control - No.2 (port) | 3P | S | E |
| 607 | 5 | Powered flying controls - auxiliary rudder stop | 3P | S | E |
| 608 | 5 | Pitot head heater control | 3P | S | E |
| 609 | 5 | Powered flying controls - No.3 elevon stop | 3P | S | E |
| 610 | 5 | Powered flying controls - No.4 elevon stop | 3P | S | E |
| 611 | 5 | Fuel pump control - No.1 (port) | 3P | S | E |
| 612 | 5 | Artificial feel - aileron | 3P | S | E |
| ▶ 613 | 5 | Oxygen regulator - navigator plotter and port sextant oxygen regulators. | 3P | S | E |
| 614 | 5 | 115-volt control - port | 3P | S | E |
| 615 | 5 | Artificial feel relief - nosewheel steering | 3P | S | E |
| 616 | 7.5 | In flight lock control | 3P | S | E ◀ |
| 617 | 2.5 | Fuel pressure warning - No.1 engine | 3P | S | E |
| 618 | 2.5 | Fuel pressure warning - No.2 engine | 3P | S | E |
| 619 | 5 | Alighting gear - indication | 3P | S | E |
| 620 | 5 | Brake parachute control | 3P | S | E |
| 621 | 2.5 | Watt/VAR meter | 3P | S | E |
| 622 | 5 | Cross-feed fuel cock - port | 3P | S | E |
| 623 | 5 | Cross-feed fuel cock - centre | 3P | S | E |
| 624 | 2.5 | Oxygen regulator - first pilot | 3P | S | E |
| 625 | 2.5 | Oxygen regulator - air electronics officer | 3P | S | E |
| 626 | 5 | Cabin air isolation cock - port | 3P | S | E |
| 627 | 5 | Alighting gear - actuation | 3P | S | E |
| 628 | 2.5 | Lighting - red floodlamps - coaming port | 3P | S | E |
| 629 | 2.5 | Red floodlamps - port console | 3P | S | E |

TABLE 2 (cont'd.)
28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 630 | 2.5 | Hydraulic brake pressure control | 3P | S | E |
| 631 | 2.5 | Hydraulic brake pressure control | 3P | S | E |
| 632 | 2.5 | Hydraulic brake pressure control | 3P | S | E |
| 633 | 2.5 | Lighting - pilots' pillar lamps | 3P | S | E |
| 634 | 5 | Intercomm | 3P | S | E |
| 635 | 2.5 | Abandon aircraft warning lamps | 3P | S | V |
| 636 | 2.5 | Pressurization - emergency decompression | 3P | S | V |
| 637 | 5 | Sextant head heater - port | 3P | S | NE |
| 638 | | Spare | 3P | | |
| 639 | 5 | Emergency hydraulic power pack | 3P | S | NE |
| 640 | 5 | Air brakes control - port | 3P | S | NE |
| 641 | 20 | Bomb fuzing and release | 3P | S | NE |
| 642 | - | (Loran 2.5A - post Mod 2471) | 3P | (S) | (NE) |
| 643 | 5 | Fuel pump control No.3 (port) | 3P | S | NE |
| 644 | 5 | Fuel pump control No.6 (port) | 3P | S | NE |
| 645 | 10 | Port wing and fuselage tanks - fire extinguisher (post Mod 2455) | 3P | S | V |
| 646 | 5 | Fuel pump control - No.4 (port) | 3P | S | NE |
| 647 | 5 | Fuel pump control - No.5 (port) | 3P | S | NE |
| 648 | 5 | Fuel pump control - No.7 (port) | 3P | S | NE |
| 649 | 2.5 | Fuel flowmeters | 3P | S | NE |
| 650 | 5 | Fuel sequence timer control - No.1 group | 3P | S | NE |
| 651 | 5 | Fuel sequence timer control - No.2 group | 3P | S | NE |
| 652 | 2.5 | Auxiliary A.V.S. change-over switch (1st Pilot) | 3P | S | NE |
| 653 | 2.5 | R.B.W. lighting | 3P | S | NE |
| 654 | 2.5 | Windscreen de-mister and 2nd pilot's I.L.S. warning indicator | 3P | S | NE |
| 655 | 5 | E.C.M. unit lighting | 3P | S | NE |
| 656 | 5 | Radio altimeter Mk.7 | 3P | S | NE |
| 657 | 5 | Radio altimeter Mk.7 | 3P | S | NE |
| 658 | 2.5 | Radio altimeter Mk.7 | 3P | S | NE |
| 659 | 2.5 | Radio altimeter Mk.7 | 3P | S | NE |
| 660 | 2.5 | Lighting oxygen regulator panels - ultra violet | 3P | S | NE |
| 661 | 5 | Bomb bay fuel pumps control - No.3 port aft | 3P | S | NE |
| 662 | 5 | Bomb bay fuel pump control - No.1 port forward | 3P | S | NE |
| 663 | 5 | Bomb bay fuel pump control - No.1 port aft | 3P | S | NE |
| 664 | 10 | A.R.I.18146 (Post Mod.2024) | 3P | S | NE |
| 664 | 7.5 | Cabin air sampling (Post Mod.2392) | 3P | S | NE |
| 665 | 5 | Bomb bay fuel pumps control - No.3 port forward | 3P | S | NE |
| 666 | | Spare | 3P | | NE |
| 667 | | Spare | 3P | | NE |
| 668 | | Spare | 3P | | NE |

TABLE 2 (cont'd.)
28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 669 | - | Spare | 3P | S | NE |
| 670 | 7.5 | A.D.F. | 3P | S | NE |
| 671 | 5 | Bomb bay tanks fuel contents | 3P | S | NE |
| 672 | 2.5 | Escape indication test and 1st pilots I.L.S. warning indicator | 3P | S | NE |
| 673 | 7.5 | Air cross feed cock actuator | 3P | S | NE |
| 674 | 20 | Engine starting | 3P | S | NE |
| 675 | 2.5 | Lighting on panel 3P | 3P | S | NE |
| 676 | 20 | A.R.I.18011 | 3P | S | NE |
| 677 | 2.5 | Lighting - cabin lamps - port sextant | 3P | S | NE |
| 678 | 5 | Engine speed governor control | 3P | S | E |
| 679 | 5 | Autostabilisation - No.1 pitch channel | 3P | S | E |
| 680 | 5 | Autostabilisation - No.2 pitch channel | 3P | S | E |
| 681 | 5 | Autostabilisation - No.3 pitch channel | 3P | S | E |
| 682 | 5 | Autostabilisation - No.4 pitch channel | 3P | S | E |
| 683 | - | Spare | 3P | S | E |
| 684 | 2.5 | Anglepoise lamp, A.E.O. | 3P | S | E |
| 685 | 5 | Lighting - navigation panel | 48P | S | E |
| 686 | 2.5 | Oxygen regulator - radar navigator and air bomber | 48P | S | E |
| 687 | 5 | 115-volt supply changeover control | 48P | S | E |
| 688 | 5 | Gold film windscreen | 48P | S | E |
| 689 | 5 | 115-volt supply - starboard | 48P | S | E |
| 690 | 5 | Intercommunication system | 48P | S | E |
| 691 | - | Spare | 48P | S | E |
| 692 | 5 | Gold film windscreen | 48P | S | E |
| 693 | 2.5 | A.R.I.23134/5/4 | 48P | S | E |
| 694 | 2 5 | H.R.U. - Power failure indicator lamp | 48P | S | E |
| 695 | - | Spare | 48P | S | E |
| 696 | 10 | A.R.I.23090 | 48P | S | E |
| 697 | 2.5 | A.R.I.5874 | 48P | S | E |
| 698 | 2.5 | Outside air temperature thermometer | 48P | S | NE |
| 699 | 5 | Automatic pilot | 48P | S | NE |
| 700 | 2.5 | A.R.I.18235 (Post Mod.2496) | 48P | S | NE |
| 701 | 10 | E.C.M. cooling control | 48P | S | NE |
| 702 | 2.5 | E.C.M. cooling and air intake de-icing control | 48P | S | NE |
| 703 | 5 | A.R.I.18076 No.1 | 48P | S | NE |
| 704 | 5 | A.R.I.18076 No.2 | 48P | S | NE |
| 705 | 5 | A.R.I.18076 No.3 | 48P | S | NE |
| 706 | 7.5 | E.C.M. - A.R.I.5952 | 48P | S | NE |

TABLE 2 (cont'd.)

28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 707 | 2.5 | E.C.M. - airborne warning (Removed post Mod.2304) | 48P | S | NE |
| 708 | - | Spare | 48P | S | NE |
| 709 | 2.5 | A.R.I.18051, port | 48P | S | NE |
| 710 | 7.5 | Ration heaters - pilots | 48P | S | NE |
| 711 | 10 | Ration heaters - crew | 48P | S | NE |
| 712 | 2.5 | Bomb bay temperature indicator | 48P | S | NE |
| 713 | 5 | No.1 frequency changer control | 48P | S | NE |
| 714 | 5 | No.2 frequency changer control | 48P | S | NE |
| 715 | 5 | Gold film windscreen | 48P | S | NE |
| 716 | 2.5 | H.R.S. - electronics unit | 48P | S | NE |
| 717 | 2.5 | Indicator - E.C.M. cooling (Mod.1451) | 48P | S | NE |
| 718 | 2.5 | A.R.I.18090 | 48P | S | NE |
| 719 | 5 | High speed audio warning | 48P | S | E |
| 720 | 5 | Gold film windscreen | 48P | S | E |
| 721 | 2.5 | N.B.S. air supply | 48P | S | NE |
| 722 | 2.5 | H.R.S. - navigator's compass repeater | 48P | S | NE |
| 723 | - | Spare | 48P | S | NE |
| 724 | 2.5 | Automatic pilot - torque switch | 48P | S | NE |
| 725 | 5 | True airspeed unit | 48P | S | NE |
| 726 | 2.5 | A.R.I.5972 | 48P | S | NE |
| 727 | 5 | H.2.S. scanner | 48P | S | NE |
| 728 | 5 | N.B.S. transformer supply changeover | 48P | S | NE |
| 729 | 5 | N.B.C. supply control | 48P | S | NE |
| 730 | 2.5 | H.2.S. air valve | 48P | S | NE |
| 731 | 2.5 | 115-volt, 1,600 c/s changeover control | 48P | S | NE |
| 732 | 2.5 | A.R.I.18051 - starboard | 48P | S | NE |
| 733 to 744 | | Not allocated | | | |
| 745 | - | Spare | 15P | S | NE |
| 746 | 7.5 | No.1 frequency changer | 15P | S | NE |
| 747 | 7.5 | No.2 frequency changer | 15P | S | NE |
| 748 | 5 | Bomb bay fuel tanks - refuelling control | 15P | S | NE |
| 749 | 5 | Emergency hydraulic power pack | 15P | S | NE |
| 750 | 5 | De-icing - No.1 engine | 15P | S | NE |
| 751 | 5 | De-icing - No.2 engine | 15P | S | NE |
| 752 | 5 | De-icing - port wing extractor | 15P | S | NE |
| 753 | 2.5 | Contents amplifier c/o | 15P | S | NE |
| 754 | 2.5 | Fuel transfer control (port) | 15P | S | NE |
| 755 | 2.5 | Fuel transfer control (port) | 15P | S | NE |

TABLE 2 (cont'd.)
28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 756 | 5 | Alternator cooling control - No.2 | 15P | S | NE |
| 757 | 20 | Feeder to 85P | 15P | S | E |
| 758 | 20 | Feeder to 85P | 15P | S | E |
| 759 | 20 | Feeder to 85P | 15P | S | E |
| 760 | 2.5 | V.G. recorder | 15P | S | NE |
| 761 | 2.5 | Fatigue meter | 15P | S | NE |
| 762 | 2.5 | No.1 group fuel tanks pressure indicator | 15P | S | NE |
| 763 | 2.5 | No.2 group fuel tanks pressure indicator | 15P | S | NE |
| 764 | 20 | Lighting - landing lamp supply (port) | 15P | S | NE |
| 765 | 2.5 | No.3 group fuel tanks pressure indicator | 15P | S | NE |
| 766 | 2.5 | No.4 group fuel tanks pressure indicator | 15P | S | NE |
| 767 | 5 | Alternator cooling control No.1 | 15P | S | NE |
| 768 | 2.5 | Load shedding indicator No.1 | 15P | S | NE |
| 769 | 5 | Fuel system - refuelling No.2 group and power pack | 15P | S | E |
| 770 | 5 | Fuel system - fuel contents No.1 group | 15P | S | NE |
| 771 | 2.5 | Fuel system - No.1 tank fuel contents (port) | 15P | S | NE |
| 772 | 2.5 | Fuel system - No.4 tank fuel contents (port) | 15P | S | NE |
| 773 | 2.5 | Fuel system - No.5 tank fuel contents (port) | 15P | S | NE |
| 774 | 2.5 | Fuel system - No.7 tank fuel contents (port) | 15P | S | NE |
| 775 | 5 | Alternator cooling No.4 | 16P | S | NE |
| 776 | 5 | De-icing extractor - starboard | 16P | S | NE |
| 777 | 5 | Bomb fuzing and release | 16P | S | NE |
| 778 | 5 | Bomb fuzing and release | 16P | S | NE |
| 779 | 5 | De-icing control No.3 engine | 16P | S | NE |
| 780 | 5 | De-icing control No.4 engine | 16P | S | NE |
| 781 | 2.5 | R.A.T.O.G. - release indicator port | 16P | S | NE |
| 782 | 2.5 | R.A.T.O.G. - release indicator starboard | 16P | S | NE |
| 783 | 2.5 | Fuel transfer control (starboard) | 16P | S | NE |
| 784 | 2.5 | Fuel transfer control (starboard) | 16P | S | NE |
| 785 | 2.5 | Load shedding indicator No.2 | 16P | S | NE |
| 786 | 2.5 | Pressurisation - underheat control | 16P | S | NE |
| 787 | 5 | Alternator cooling No.3 | 16P | S | NE |
| 788 | 10 | Bomb fuzing and release - alternative bombing | 16P | S | NE |
| 789 | 10 | Bomb fuzing and release - alternative bombing | 16P | S | NE |
| 790 | 10 | Bomb fuzing and release - alternative bombing | 16P | S | NE |
| 791 | 10 | Bomb fuzing and release - alternative bombing | 16P | S | NE |
| 792 | 5 | Pressurisation - underheat control | 16P | S | NE |
| 793 | 2.5 | Pressurisation - cabin temperature control valve | 16P | S | NE |
| 794 | 7.5 | Bomb bay heating | 16P | S | NE |

TABLE 2 (cont'd.)

28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 795 | 20 | Lighting - landing lamp supply (starboard) | 16P | S | NE |
| 796 | 7.5 | Bomb bay heating (Mod.2047) | 16P | S | NE |
| 797 | 20 | Bomb fuzing and release - alternative bombing | 16P | S | NE |
| 798 | 10 | Bomb fuzing and release - alternative bombing | 16P | S | NE |
| 799 | 5 | Fuel system - refuelling No.3 group | 16P | S | E |
| 800 | 5 | Fuel system - fuel contents No.4 group | 16P | S | NE |
| 801 | 2.5 | Fuel system - No.1 tank fuel contents (starboard) | 16P | S | NE |
| 802 | 2.5 | Fuel system - No.4 tank fuel contents (starboard) | 16P | S | NE |
| 803 | 2.5 | Fuel system - No.5 tank fuel contents (starboard) | 16P | S | NE |
| 804 | 2.5 | Fuel system - No.7 tank fuel contents (starboard) | 16P | S | NE |
| 805 | 15 | Bomb bay tanks - fire extinguishers | 19P | S | V |
| 806 | 15 | Bomb bay tanks - fire extinguishers | 19P | S | V |
| 807 | 10 | Fire extinguishers - No.1 and 2 tanks port | 19P | S | V |
| 808 | 10 | Fire extinguishers - No.1 and 2 tanks starboard | 19P | S | V |
| 809 | 15 | Fire extinguishers - wing tanks starboard | 19P | S | V |
| 810 | 15 | Fire extinguishers - wing tanks starboard | 19P | S | V |
| 811 | 15 | Fire extinguisher - wing tanks - starboard (Spare Post Mod.2455) | 19P | S | V |
| 812 | 15 | Fire extinguishers - wing tanks - starboard | 19P | S | V |
| 813 | 10 | R.A.T. - field flashing | 19P | S | V |
| 814 | 2.5 | Fire detectors - bomb bay tanks | 19P | S | V |
| 815 | 2.5 | Battery test socket | 19P | S | V |
| 816 | - | Spare * Pre Mod.748 - vital. Post Mod.748 - essential | 19P | S | V/E * |
| 817 | 5 | Artificial feel - rudder | 19P | S | E |
| 818 | 5 | No.1 frequency changer | 19P | S | E |
| 819 | 10 | Engine fire warning - port | 19P | S | E |
| 820 | 5 | Autostabiliser supply - pitch and yaw - starboard | 19P | S | E |
| 821 | 5 | Autostabiliser supply - pitch and yaw - starboard | 19P | S | E |
| 822 | 10 | A.R.I.18124 | 19P | S | E |
| 823 | 10 | A.A.P.P. start - air valve actuators | 19P | S | E |
| 824 | 5 | Artificial feel - inboard elevons | 19P | S | E |
| 825 | 5 | Autostabilisation - mach trim | 19P | S | E |
| 826 | 2.5 | Ram air valve - indicator | 19P | S | E |
| 827 | 5 | Autostabilisation - mach trim | 19P | S | E |
| 828 | 2.5 | A.R.I.23134/5/4 | 19P | S | E |
| 829 | 5 | No.2 frequency changer | 19P | S | E |
| 830 | 10 | Engine fire warning - starboard | 19P | S | E |
| 831 | - | Spare | 19P | S | E |
| 832 | 5 | Pressure ratio switch | 19P | S | E |

TABLE 2 (cont'd.)
28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 833 | 5 | Autostabiliser supply - pitch and yaw - port | 19P | S | E |
| 834 | 5 | Autostabiliser supply - pitch and yaw - port | 19P | S | E |
| 835 | 10 | Bomb fuzing and release | 19P | S | E |
| 836 | 5 | IFF test socket | 19P | S | E |
| 837 | 20 | Feeder to 62P | 19P | S | E |
| 838 | 7.5 | Ground service lighting | 19P | S | NE |
| 839 | 15 | Ground service lighting | 19P | S | NE |
| 840 | 5 | Ground service lighting | 19P | S | NE |
| 841 | 15 | Fire extinguishers - wing tanks - port | 19P | S | V |
| 842 | 15 | Fire extinguishers - wing tanks - port | 19P | S | V |
| 843 | 15 | Fire extinguishers - wing tanks - port (Spare Post Mod.2455) | 19P | S | V |
| 844 | 15 | Fire extinguishers - wing tanks - port | 19P | S | V |
| 845 | 10 | Load shedding - starboard | 19P | S | E |
| 846 | 10 | Load shedding - port | 19P | S | E |
| 847 | 5 | H.E. ignition No.1 engine R.H. | 19P | S | V |
| 848 | 5 | H.E. ignition No.1 engine L.H. | 19P | S | V |
| 849 | 5 | H.E. ignition No.3 engine R.H. | 19P | S | V |
| 850 | 5 | H.E. ignition No.3 engine L.H. | 19P | S | V |
| 851 | 10 | Battery isolation - crash switch | 19P | S | V |
| 852 | 7.5 | Power pack ground control (Mod.1074) | 19P | S | V |
| 853 | 5 | H.2.S | 11P | S | NE |
| 854 | 5 | H.2.S. camera | 11P | S | NE |
| 855 | 20 | N.B.C. | 11P | S | NE |
| 856 | - | Spare | 11P | | |
| 857 | - | Spare | 11P | | |
| 858 | - | Spare | 11P | | |
| 859 | 150 | A.A.P.P. starting supply | 16P | H3 | V |
| 860 | 125 | Essential busbar protection | 19P | H2 | E |
| 861 | 5 | Fuel system - fuel contents No.2 group | 15P | S | NE |
| 862 | 2.5 | Fuel system - No.2 tank fuel contents - port | 15P | S | NE |
| 863 | 2.5 | Fuel system - No.3 tank fuel contents - port | 15P | S | NE |
| 864 | 2.5 | Fuel system - No.6 tank fuel contents - port | 15P | S | NE |
| 865 | 5 | Fuel system - refuelling control No.1 group | 15P | S | E |
| 866 | 20 | Feeder to 85P | 15P | S | NE |
| 867 | 5 | Fuel system - fuel contents No.3 group | 16P | S | NE |
| 868 | 2.5 | Fuel system - No.2 tank fuel contents - starboard | 16P | S | NE |
| 869 | 2.5 | Fuel system - No.3 tank fuel contents - starboard | 16P | S | NE |

TABLE 2 (cont'd.)

28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| C.B. No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 870 | 2.5 | Fuel system - No.6 tank fuel contents - starboard | 16P | S | NE |
| 871 | 5 | Fuel system - refuelling control No.4 group | 16P | S | E |
| 872 | 5 | A.R.I.18107/13 | 16P | S | NE |
| 873 | 5 | H.E. ignition No.2 engine L.H. | 19P | S | V |
| 874 | 5 | H.E. ignition No.2 engine R.H. | 19P | S | V |
| 875 | 5 | H.E. ignition No.4 engine L.H. | 19P | S | V |
| 876 | 5 | H.E. ignition No.4 engine R.H. | 19P | S | V |
| 877 | 30 | Vital busbar protection | 19P | H2 | V |
| 878 | 30 | Vital busbar protection | 19P | H2 | V |
| 879 | 25 | Essential busbar protection | 19P | H2 | E |
| 880 | 2.5 | Lighting - red floodlamps second pilot | 4P | S | E |
| 881 | 2.5 | Lighting - E.2.B compass starboard | 4P | S | E |
| 882 | 2.5 | Lighting - red floodlamps - coaming starboard | 4P | S | E |
| 883 | 2.5 | Pressurization - emergency decompression | 4P | S | V |
| 884 | 5 | Artificial feel relief and nosewheel steering | 4P | S | E |
| 885 | 5 | Powered flying controls - No.7 elevon stop | 4P | S | E |
| 886 | 5 | Powered flying controls - No.8 elevon stop | 4P | S | E |
| 887 | 5 | Powered flying controls - No.5 elevon stop | 4P | S | E |
| 888 | 5 | Powered flying controls - No.6 elevon stop | 4P | S | E |
| 889 | 5 | Powered flying controls - main rudder stop | 4P | S | E |
| 890 | 15 | Feeder to 72P | 4P | S | E |
| 891 | 2.5 | Military flight system - compass isolation - starboard | 4P | S | E |
| 892 | | | | | |
| 893 | | | | | |
| 894 | | | | | |
| 895 | | Not allocated | | | |
| 896 | | | | | |
| 897 | | | | | |
| 898 | | | | | |
| 899 | | | | | |
| 900 | 5 | Ventilated suit - air bomber | 4P | S | NE |
| 901 | 5 | Ventilated suit - prone air bomber | 4P | S | NE |
| 902 | 5 | Ventilated suit - second pilot | 4P | S | NE |
| 903 | 5 | Ventilated suit - radar navigator | 4P | S | NE |
| 904 | 5 | Ventilated suit - first pilot | 4P | S | NE |
| 905 | 5 | Ventilated suit - air electronics officer | 4P | S | NE |
| 906 | 10 | Stbd. wing and fuselage tanks - fire extinguisher (Post Mod.2455) | 4P | S | V |
| 907 | 2.5 | Oxygen regulator - prone air bomber | 4P | S | E |

TABLE 2 (cont'd.)

28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 908 | 10 | A.R.I.5959 probe heater | 4P | S | E |
| 909 | 2.5 | Lighting - anglepoise - nav. plotter | 4P | S | E |
| 910 | 5 | Lighting - anti-dazzle control - pilot | 4P | S | E |
| 911 | 5 | Parachute stream and jettison No.2 | 4P | S | E |
| 912 | | | | | |
| 913 | | | | | |
| 914 | | Not allocated | | | |
| 915 | | | | | |
| 916 | 2.5 | Lighting - E.2.B compass - port | 3P | S | E |
| 917 | 5 | A.A.P.P. control | 3P | S | E |
| 918 | 5 | Intercommunication system | 3P | S | E |
| 919 | 5 | C.S.D.U. Thermo. No.1 | 3P | S | E |
| 920 | 10 | Load shedding control - starboard | 3P | S | E |
| 921 | 5 | 28-volt d.c. control - port | 3P | S | E |
| 922 | 2.5 | Bomb jettison override (Pre Mod.200) | 3P | S | E |
| 923 | 2.5 | Artificial feel locking | 3P | S | E |
| 924 | 2.5 | A.A.P.P. oil pressure indication | 3P | S | E |
| 925 | 5 | Lighting - anti-dazzle control - navigator | 3P | S | E |
| 926 | 10 | Load shedding control - port | 3P | S | E |
| 927 | 5 | 28-volt d.c. control - (port) | 3P | S | V |
| 928 | 5 | Normal trim controls - elevons | 3P | S | E |
| 929 | 5 | Normal trim controls - elevons | 3P | S | E |
| 930 | 5 | Normal trim controls - rudder | 3P | S | E |
| 931 | 5 | Autostabilisation - automach trim reset | 3P | S | E |
| 932 | 5 | Autostabilisation - No.3 pitch control | 3P | S | E |
| 933 | 2.5 | A.R.I.18124/2 changeover | 3P | S | E |
| 934 | 5 | Autostabilisation - No.4 pitch control | 3P | S | E |
| 935 | 5 | Autostabilisation - mach trim | 3P | S | E |
| 936 | 5 | Autostabilisation - mach trim | 3P | S | E |
| 937 | 7.5 | Cabin air sampling (post Mod.2392) | 3P | S | E |
| 938 | - | ◀ Spare ▶ | 3P | | |
| 939 | 5 | Military flight system T.C.U. lighting | 3P | S | E |
| 940 | 5 | Autostabilisation - mach trim | 3P | S | E |
| 941 | 15 | Feeder to 71P | 3P | S | E |
| 942 | 2.5 | Military flight system - compass isolation - port | 3P | S | E |
| 943 | 5 | Autostabilisation - reminder indicator | 3P | S | E |
| 944 | 5 | Autostabilisers - yaw damper 1 | 3P | S | E |
| 945 | 5 | Autostabilisers - pitch damper 1 | 3P | S | E |

TABLE 2 (cont'd.)
28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 946 | 5 | Autostabilisers - pitch damper 2 | 3P | S | E |
| 947 | 5 | Autostabilisers - pitch damper 1 | 3P | S | E |
| 948 | 5 | Autostabilisers - pitch damper 2 | 3P | S | E |
| 949 | 5 | C.S.D.U. Thermo No.2 | 3P | S | E |
| 950 | 5 | C.S.D.U. Thermo No.3 | 3P | S | E |
| 951 | 5 | C.S.D.U. Thermo No.4 | 3P | S | E |
| 952 | 5 | A.A.P.P. - fire detector system | 62P | S | E |
| 953 | 5 | A.A.P.P. - sump heaters | 62P | S | E |
| 954 | 15 | A.A.P.P. - indication and trip | 62P | S | E |
| 955 | 7.5 | A.A.P.P. - cartridge heaters | 62P | S | E |
| 956 | 5 | A.A.P.P. - fuel level indicator | 62P | S | E |
| 957 | 2.5 | A.A.P.P. - jet pipe temperature | 62P | S | E |
| 958 | 2.5 | A.A.P.P. - sump oil temperature | 62P | S | E |
| 959 | 5 | A.A.P.P. - oil cooler | 62P | S | V |
| 960 | - | Spare | 62P | | |
| 961 | 10 | A.A.P.P. - fire extinguishers | 62P | S | V |
| 962 | - | Spare | 62P | | |
| 963 | 20 | A.A.P.P. - motorised air pump | 62P | S | V |
| 964 | | | | | |
| 965 | | | | | |
| 966 | | Not allocated | | | |
| 967 | | | | | |
| 968 | | | | | |
| 969 | | | | | |
| 970 | 5 | Bomb fuzing and release | 3P | S | NE |
| 971 | 2.5 | Escape indication - 7th seat crew member (Post Mod.2374) | 3P | S | V |
| 972 | 5 | 2nd fatigue meter and V.G. recorder (Mod.1925 S.O.O. and Mod.2223 S.O.O.) | 3P | S | NE |
| 973 | 15 | Bomb fuzing and control unit | 3P | S | NE |
| 974 | 5 | A.R.I.18107/13 | 3P | S | NE |
| 975 | 5 | A.R.I.18107/13 | 3P | S | NE |
| 976 | 2.5 | Auxiliary A.V.S. control | 3P | S | NE |
| 977 | 5 | Altimeter height encoding (Mod.2292) | 3P | S | E |
| 978 | 2.5 | Artificial feel relief locking | 3P | S | E |
| 979 | 15 | A.A.P.P. - control | 3P | S | V |
| 980 | 5 | A.A.P.P.- low pressure fuel cock | 3P | S | V |
| 981 | 10 | A.A.P.P. - fire extinguishers | 3P | S | V |
| 982 | 30 | Refuelling - ground supply | N.W. Bay | H2 | - |
| 983 | 1 | Refuelling - ground supply relay ground supply fuses | N.W. Bay | H1 | - |

TABLE 2 (cont'd)

28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 984 | | | | | |
| 985 | | | | | |
| 986 | | | | | |
| 987 | | | | | |
| 988 | | | | | |
| 989 | | Not allocated | | | |
| 1000 | | | | | |
| 1001 | | | | | |
| 1002 | | | | | |
| 1003 | | | | | |
| 1004 | | | | | |
| 1005 | | | | | |
| 1006 | | | | | |
| 1007 | | | | | |
| 1008 | 1 | Artificial feel - aileron | Feel box | EO | E |
| 1009 | 1 | Artificial feel - elevator | Feel box | EO | E |
| 1010 | 1 | Artificial feel - rudder | Feel box | EO | E |
| | | The following fuses 1011 to 1040 are for special stores only, and are supplied with the replacement bomb control panel 9P. | | | |
| 1011 | 5 | Heavy store and ejector selector switch | 9P | S | NE |
| 1012 | 5 | E.P. power supply emergency override switch | 9P | S | NE |
| 1013 | - | Spare | 9P | S | NE |
| 1014 | 5 | Protective relay unit | 9P | S | NE |
| 1015 | 10 | Protective relay unit | 9P | S | NE |
| 1016 | 5 | Protective relay unit | 9P | S | NE |
| 1017 | 10 | E.Y. control unit | 9P | S | NE |
| 1018 | 5 | Fuzing control unit | 9P | S | NE |
| 1019 | 20 | No.2 special store fuzing | 9P | S | NE |
| 1020 | - | Spare | 9P | S | NE |
| 1021 | - | Spare | 9P | S | NE |
| 1022 | - | Spare | 9P | S | NE |
| 1023 | 5 | Heavy store and ejector selector switch | 9P | S | NE |
| 1024 | 5 | E.P. power supply emergency override switch | 9P | S | NE |

TABLE 2 (cont'd.)

28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 1025 | 5 | Protective relay unit | 9P | S | NE |
| 1026 | 5 | Protective relay unit | 9P | S | NE |
| 1027 | 10 | E.Y. control unit | 9P | S | NE |
| 1028 | 10 | Protective relay unit | 9P | S | NE |
| 1029 | 5 | Ejectors armed indicator | 9P | S | NE |
| 1030 | 5 | Fuzing control unit | 9P | S | NE |
| 1031 | 20 | No.2 special store fuzing | 9P | S | NE |
| 1032 | - | Spare | 9P | S | NE |
| 1033 | - | Spare | 9P | S | NE |
| 1034 | - | Spare | 9P | S | NE |
| 1035 | 10 | Heavy store and ejector selector switch | 9P | S | NE |
| 1036 | 20 | Bomb slip heater switch | 9P | S | NE |
| 1037 | 5 | No.1 special store indication | 9P | S | NE |
| 1038 | 5 | No.1 special store fuzing | 9P | S | NE |
| 1039 | - | Spare | 9P | S | NE |
| 1040 | - | Spare | 9P | S | NE |
| 1041 | 60 | 28-volt feeder to 9P (special) | 16P | H3 | NE |
| 1042 | 60 | 28-volt feeder to 9P (special) | 16P | H3 | NE |
| 1043 | | Not allocated | | | |
| 1044 | | | | | |
| 1045 | | | | | |
| 1046 | | | | | |
| 1047 | | | | | |
| 1048 | | | | | |
| 1049 | | | | | |
| 1050 | | | | | |

◀ Fuses 1051 to 1110, fitted on the replacement panel 9P, and fuses 1121 to 1144 and 1157 to 1162 fitted on panel 85P were for Blue Steel aircraft only. As the aircraft have now been reverted to the free fall role all references to these fuses are now deleted from this table. ▶

TABLE 2 (cont'd.)
28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| 1163 | 2.5 | Probe fuel pressure | 4P | S | NE |
| 1164 | 2.5 | Fuel C. of G. | 4P | S | NE |
| 1165 | 2.5 | Tank pressurisation | 4P | S | NE |
| ▶ 1166 | 5 | Abandon aircraft cabin light | 4P | S | V ◀ |
| 1167 | 7.5 | Release unit safety lock (Mod.1139) | 4P | S | E |
| 1168 | 5 | 28-volt d.c. control (stbd.) | 4P | S | V |
| 1310 | 2.5 | A.A.P.P. air bleed cabin conditioning | 4P | S | NE |
| 1311 | 5 | Bomb bay fuel tanks pressurisation (Mod.1509) | 4P | S | NE |
| 1312 | 5 | T.F.R. supply (Mod.2057) | 4P | S | NE |
| 1313 | 2.5 | Air sampler control unit (S.O.O. Mod.2390) | 4P | S | NE |
| 1314 | 2.5 | S.F.O.M. gunsight lighting (Mod.2363) | 4P | S | NE |
| ▶ 1315 | 10 | F95 camera | 4P | S | NE |
| 1316 | 5 | Throttle detent solenoids | 4P | S | E |
| 1317 | 2.5 | T.F.R. warning indication | 4P | S | E |
| 1318 | 2.5 | Escape indicator - prone bomber | 4P | S | V |
| 1319 | 2.5 | Escape indicator - radar nav. | 4P | S | V |
| 1320 | 2.5 | Escape indicator - A.E.O. | 4P | S | V |
| 1321 | 2.5 | Escape indicator - A.E.O. | 4P | S | V |
| 1334 | 15 | Window | Nav. stn. | S | NE |
| 1335 | 15 | Window | Nav. stn. | S | NE |
| 1336 | 15 | Window | Nav. stn. | S | NE |
| 1337 | 15 | Window | Nav. stn. | S | NE |
| 1338 | - | Spare | Nav. stn. | S | NE ◀ |
| 1340 | 10 | Window | Power comp. | S | NE |
| 1341 | 10 | Window | Power comp. | S | NE |
| 1342 | 10 | Window | Power comp. | S | NE |
| 1343 | 10 | Window | Power comp. | S | NE |

TABLE 2 (cont'd.)

28-VOLT D.C. SUPPLY

DISTRIBUTION FUSES

| Fuse No. | Rating (amp.) | Service | Location | Type | Category |
|---|---|---|---|---|---|
| | | The following fuses 1352 to 1375 are for the 600/950 lb. store role only, and are supplied with the replacement bomb control panel 9P. | | | |
| 1352 | 5 | Release circuit | 9P | S | NE |
| 1353 | 10 | Bomb selector switch | 9P | S | NE |
| 1354 | 2.5 | Fuzing control unit | 9P | S | NE |
| 1355 | - | Spare | 9P | S | NE |
| 1356 | 5 | Bomb and store on indicators | 9P | S | NE |
| 1357 | 5 | Store cocking | 9P | S | NE |
| 1358 | - | Spare | 9P | S | NE |
| 1359 | - | Spare | 9P | S | NE |
| 1360 | - | Spare | 9P | S | NE |
| 1361 | - | Spare | 9P | S | NE |
| 1362 | - | Spare | 9P | S | NE |
| 1363 | - | Spare | 9P | S | NE |
| 1364 | - | Spare | 9P | S | NE |
| 1365 | 15 | Fuzing control unit (S.O.O. Mod.1962) | 9P | S | NE |
| 1366 | - | Spare | 9P | S | NE |
| 1367 | - | Spare | 9P | S | NE |
| 1368 | - | Spare | 9P | S | NE |
| 1369 | - | Spare | 9P | S | NE |
| 1370 | - | Spare | 9P | S | NE |
| 1371 | - | Spare | 9P | S | NE |
| 1372 | - | Spare | 9P | S | NE |
| 1373 | - | Spare | 9P | S | NE |
| 1374 | - | Spare | 9P | S | NE |
| 1375 | - | Spare | 9P | S | NE |
| 1379 | - | A.R.I.23143/1 V.H.F./U.H.F. | 16P | H2 | E |
| 1392 | 10 | A.R.I.18146 (Mod.2024) * In line (earth) | 109P | EO | * |
| 1393 | 5 | A.R.I.18146 (Mod.2024) | 26P | S | NE |
| 1394 | - | Spare | 26P | S | NE |
| 1395 | - | Spare | 26P | S | NE |
| 1396 | - | Spare | 26P | S | NE |
| 1397 | - | Spare | 26P | S | NE |
| 1398 | - | Spare | 26P | S | NE |
| 1400 | 5 | Air sampler control unit } (S.O.O. Mod.2390) { | 4P | S | NE |
| 1401 | 5 | Air sampler control unit } (S.O.O. Mod.2390) { | 4P | S | NE |
| 1402 | 2.5 | Air sampler control panel } (S.O.O. Mod.2390) { | 4P | S | NE |

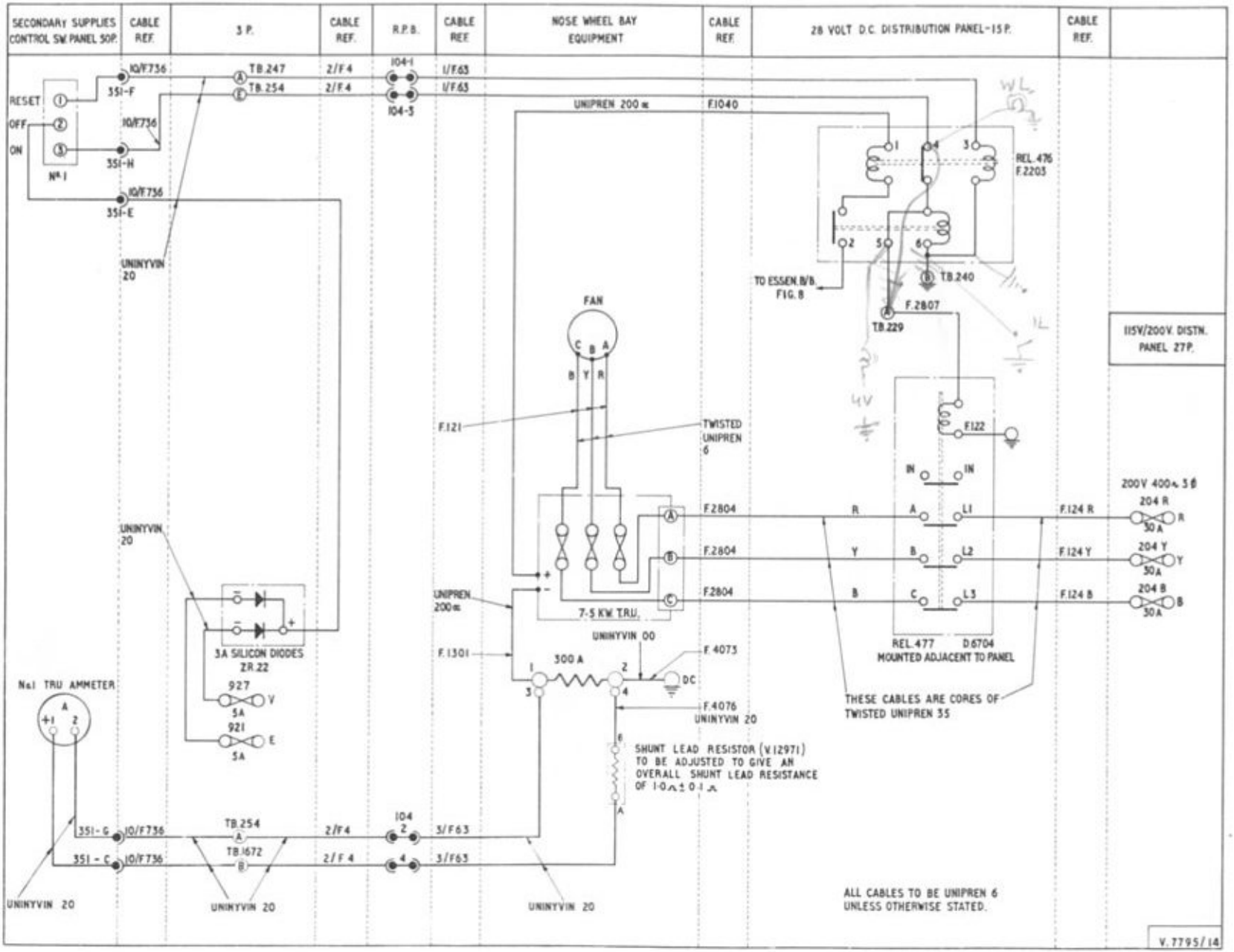


Fig.5 No 1 T.R.U controls
(◀ Connections changed at ammeter ▶)

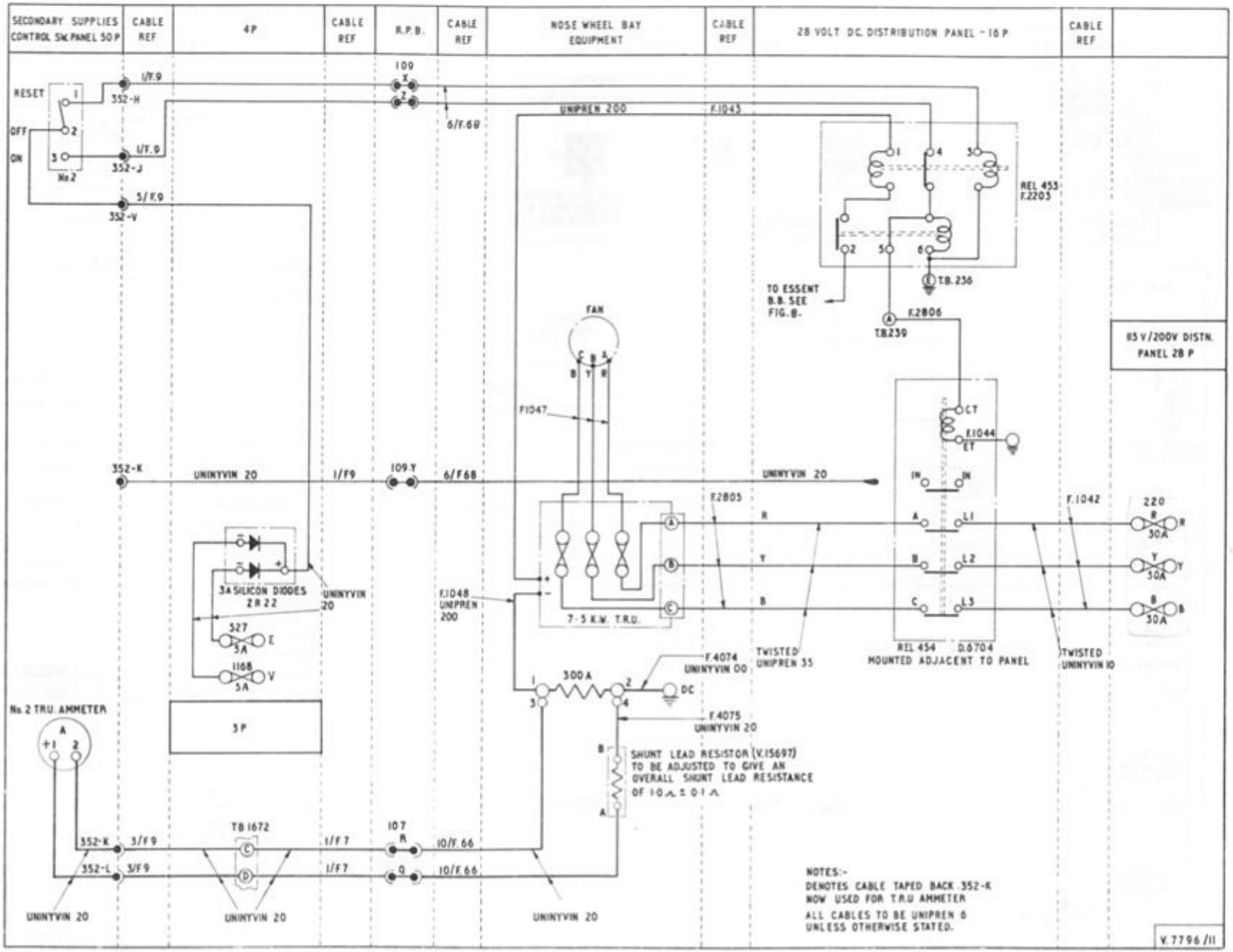


Fig 6 No. 2 T.R.U. controls

*Connections change at ammeter*

RESTRICTED

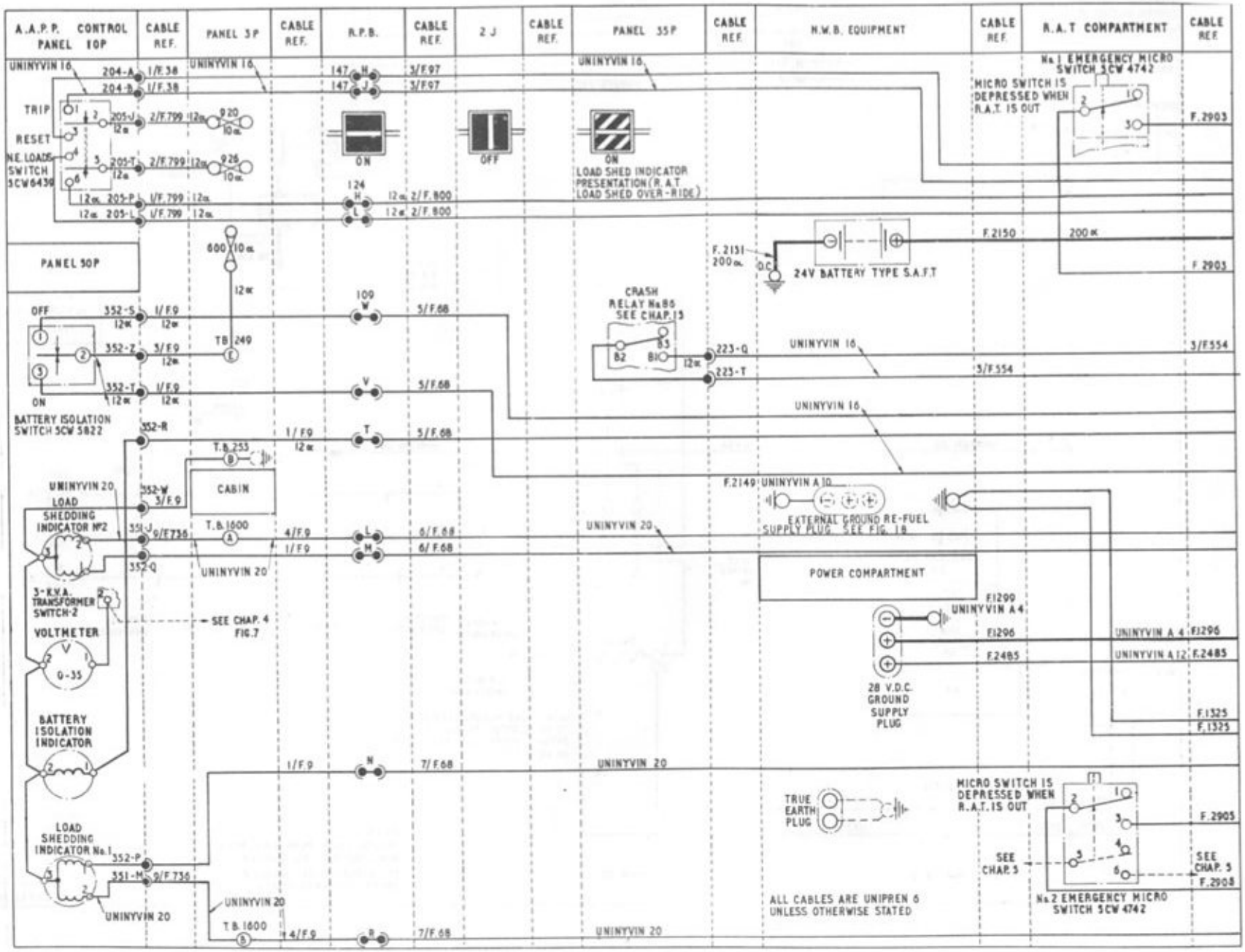


Fig.7(1) 28-volt D.C. supply and control

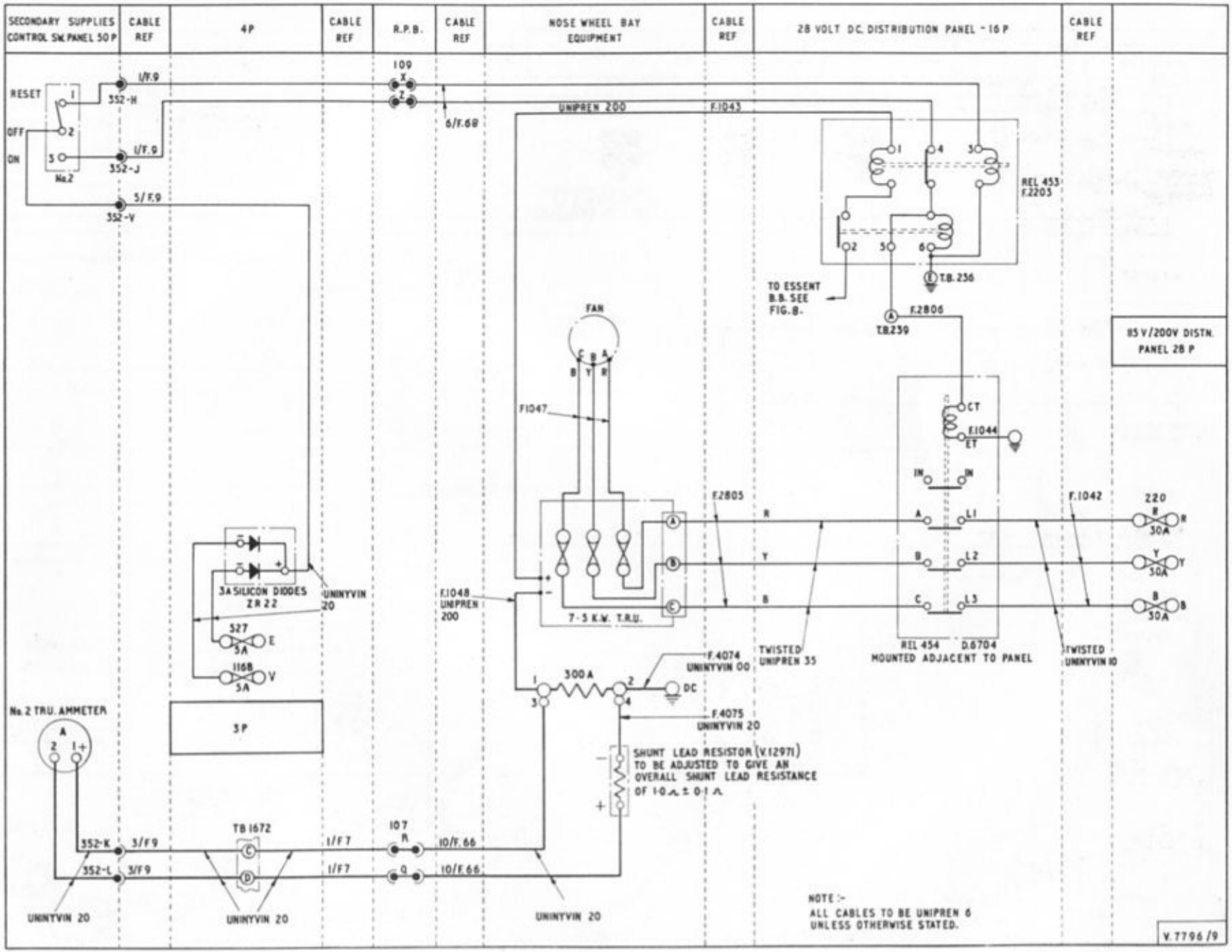


Fig.6 No.2 T.R.U. controls
(Mod.2195 incorporated)

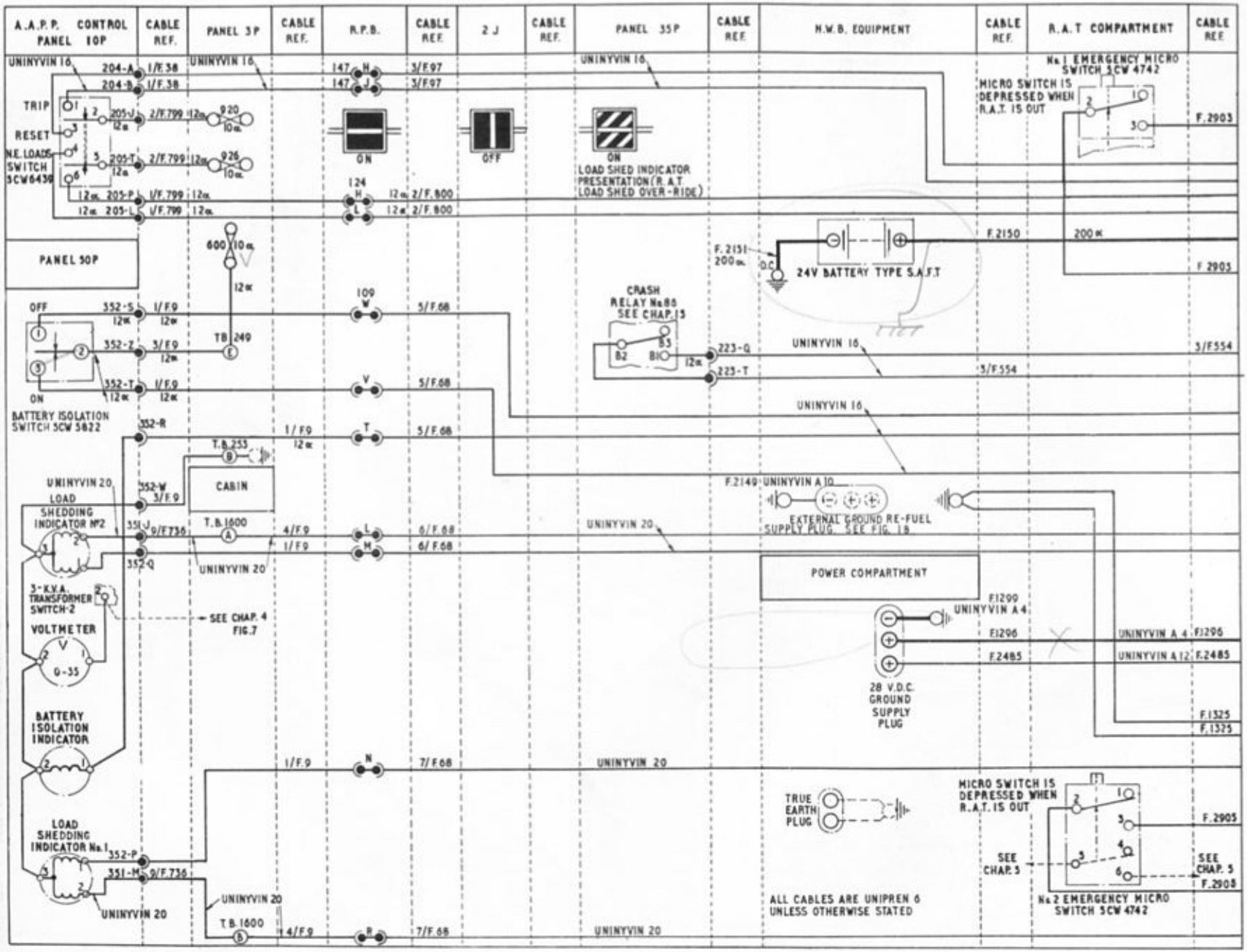


Fig.7(1) 28-volt D.C. supply and control

*(link at Load Shedding indicator removed post Mod.2195)*

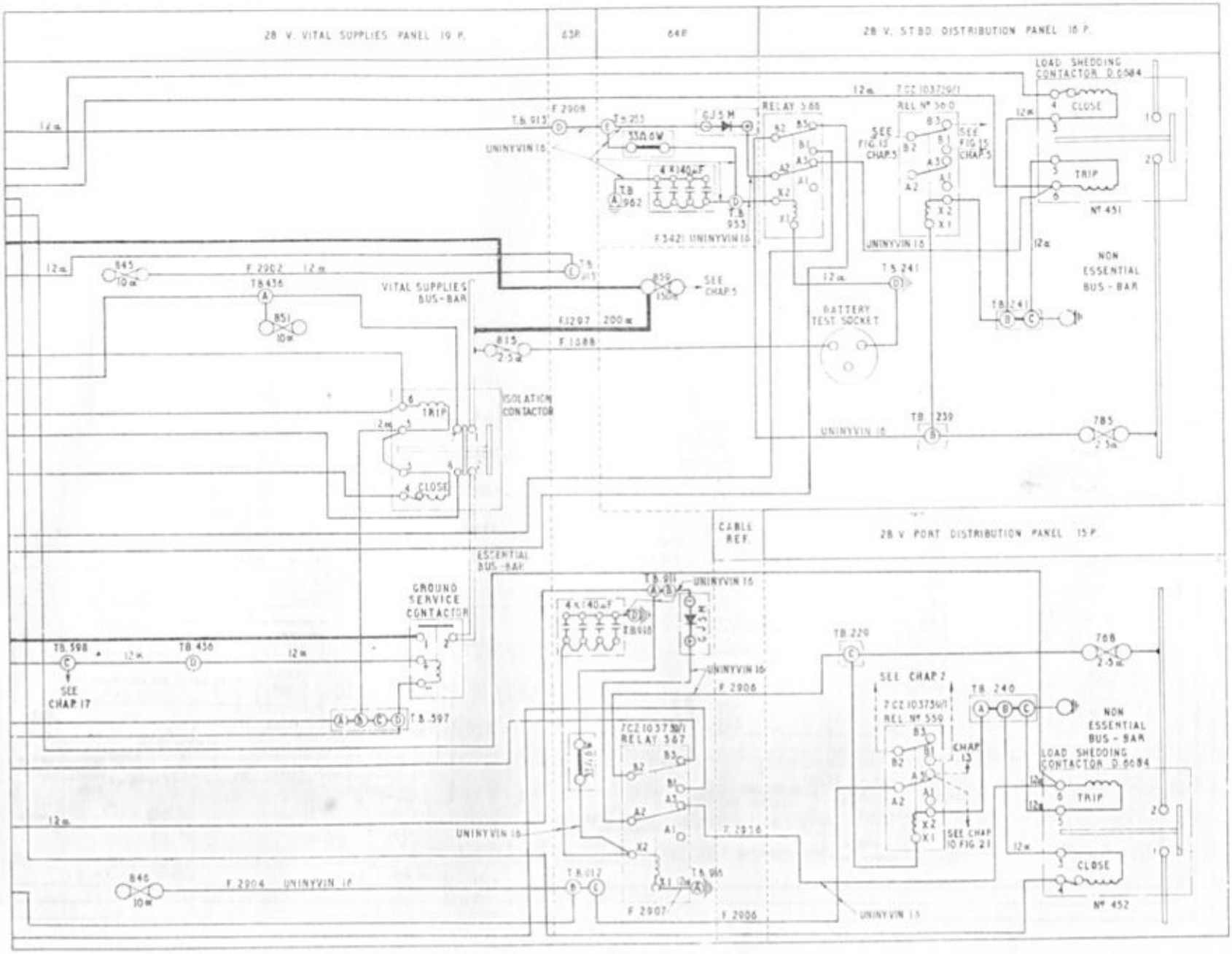


Fig. 7(2) 28 volt D.C. supply and control

▶ *Fig. No. cross references amended* ◀

Incorporating Local Amendment WAD/4/81. Reference STC/13702/33/EE ART dated Jul 81, file WAD/7050/6/Eng.

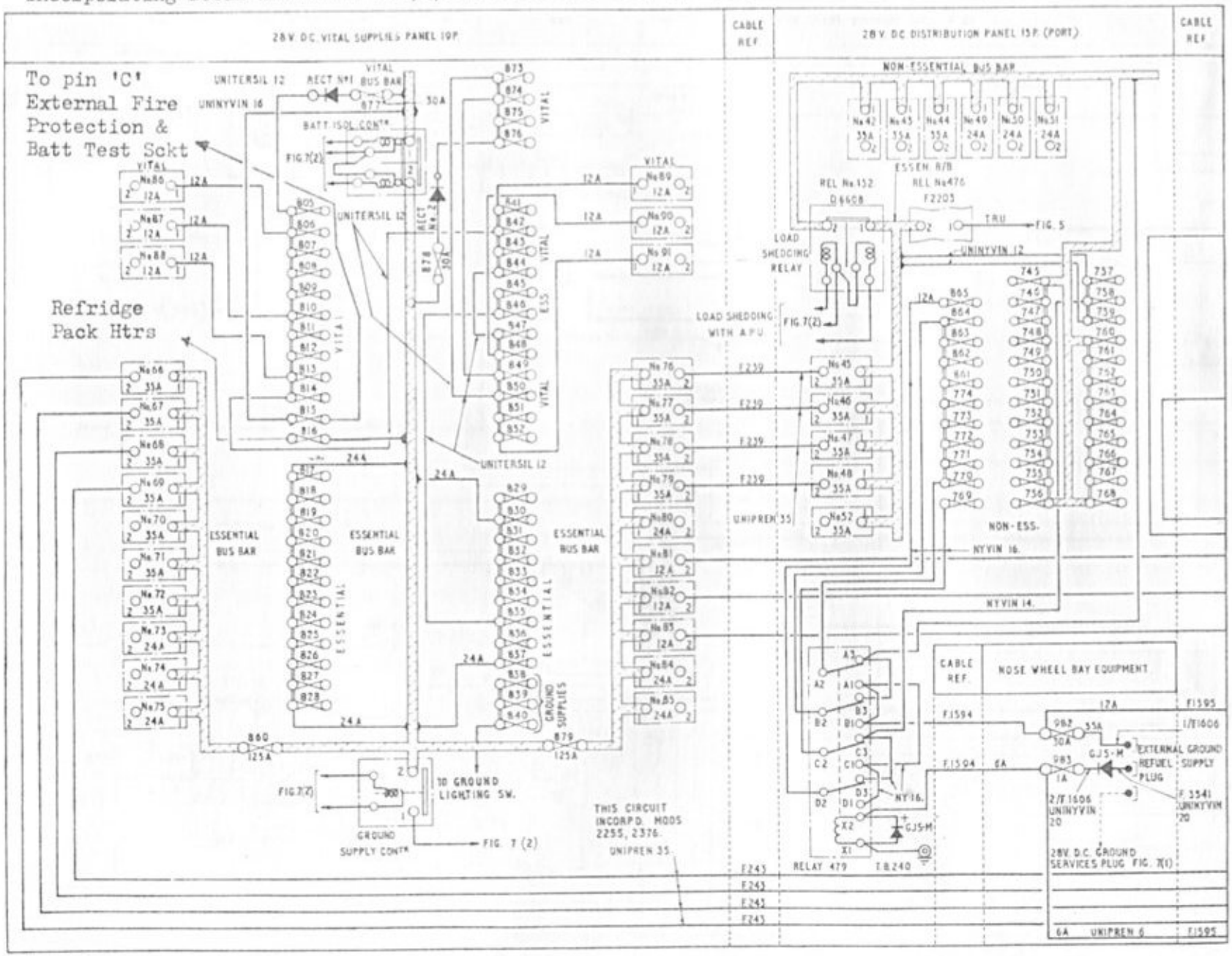


Fig 8(1a) 28 - Volt D.C. distribution aft of R.P.B. Post CM 23c/37 and Post Mod 1709

*Fig no changed and mod state clarified*

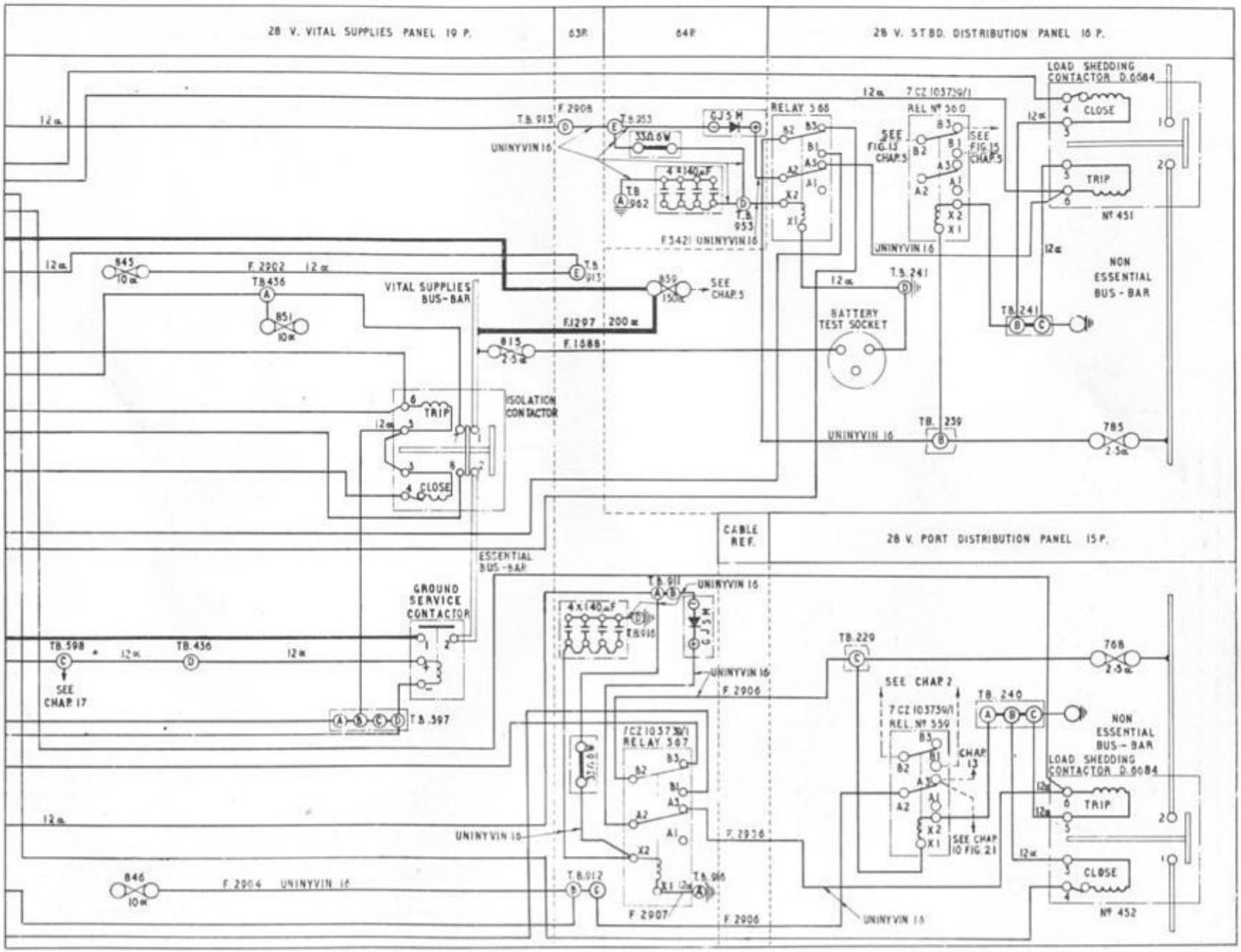


Fig. 7 (2) 28 volt D.C. supply and control

▶ *Fig No. cross references amended* ◀

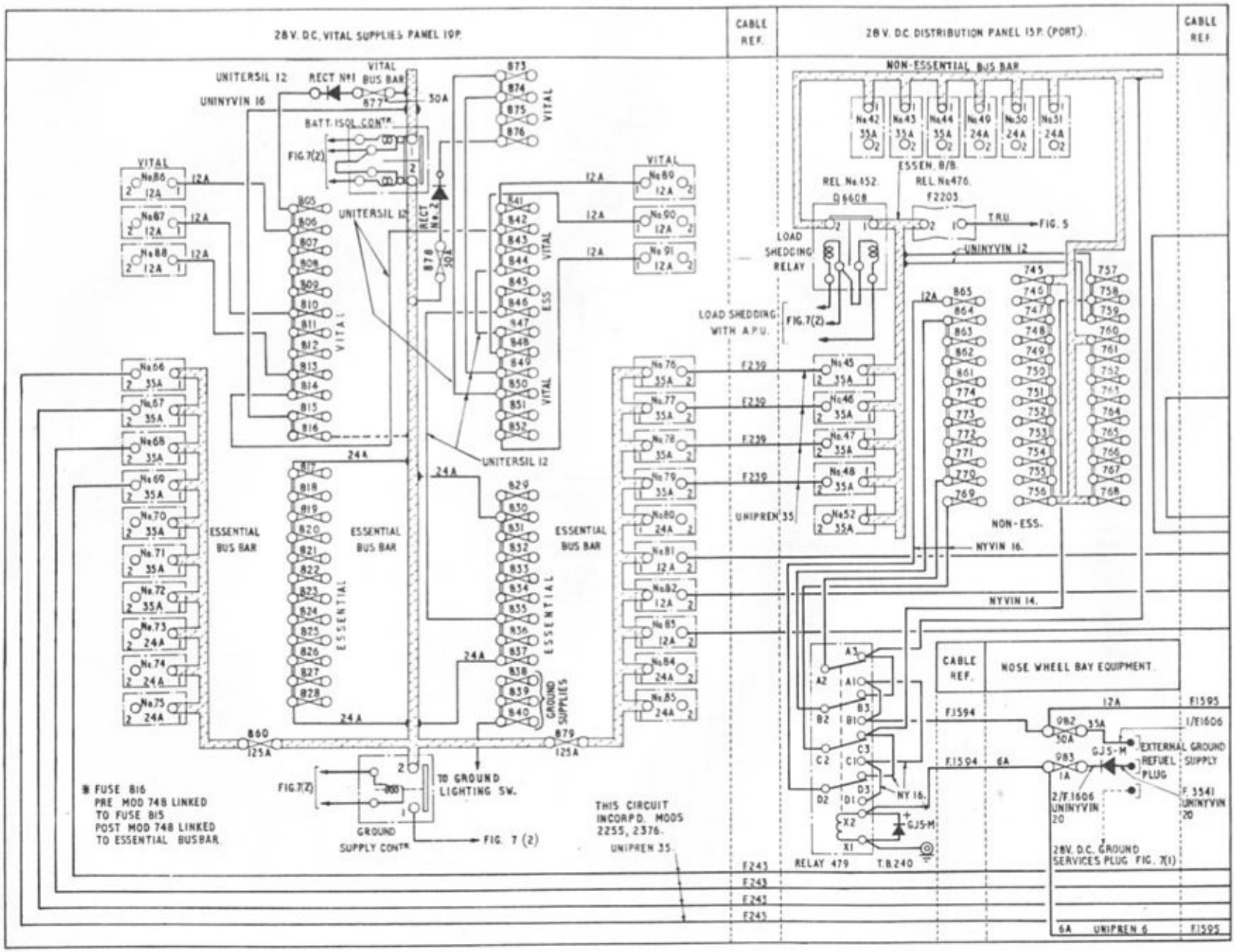


Fig 8 (1) 28 - Volt D.C. distribution aft of R.P.B.

*Fig No changed and mod state clarified*

Incorporating Local Amendment WAD/4/81. Reference STC/13702/33/EE ART dated Jul 81, file WAD/7050/6/Eng.

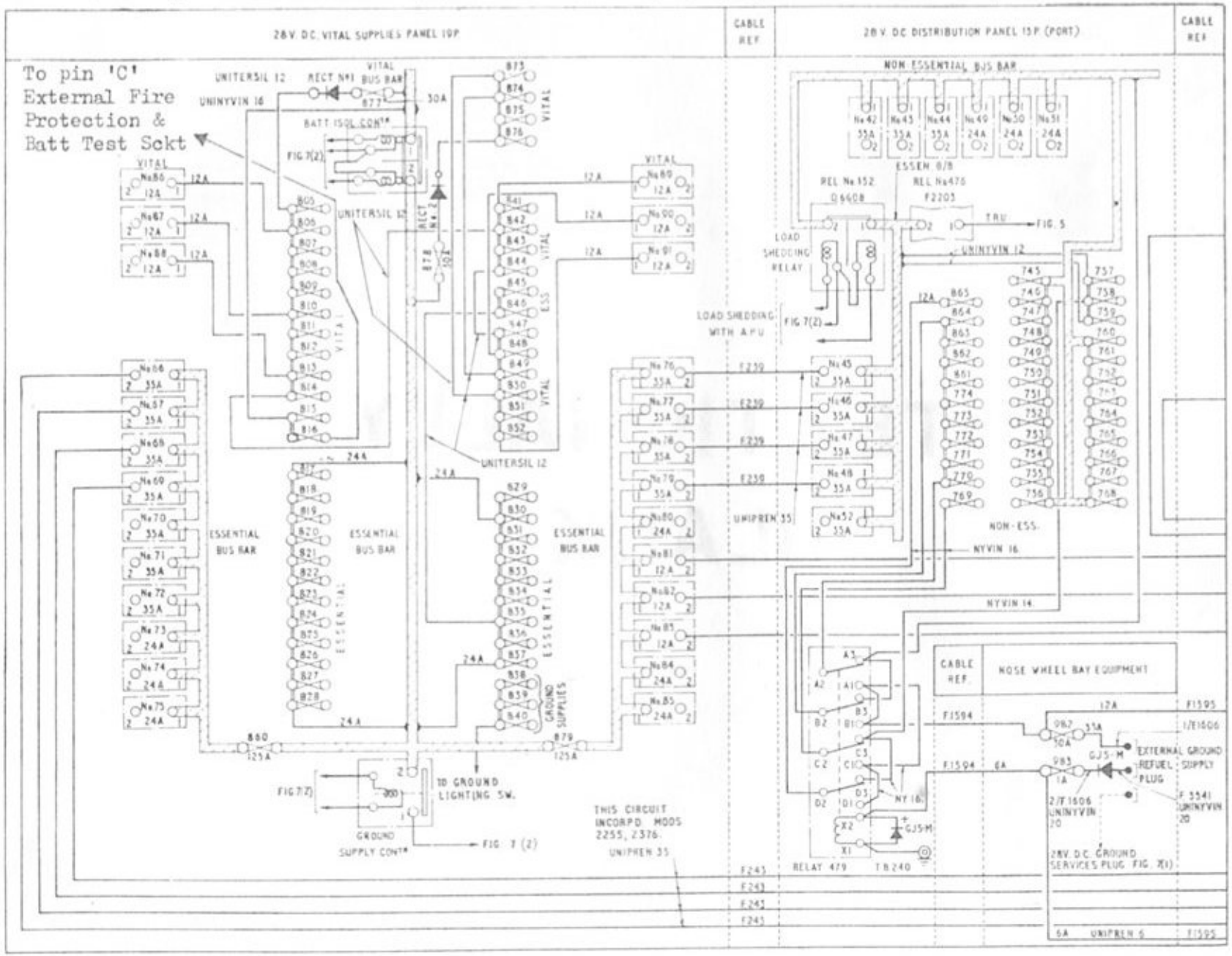


Fig 8(1b) 28 - Volt D.C. distribution aft of R.P.B. Post CM 23c/37 and Pre Mod 1709

*Fig No changed and mod state clarified*

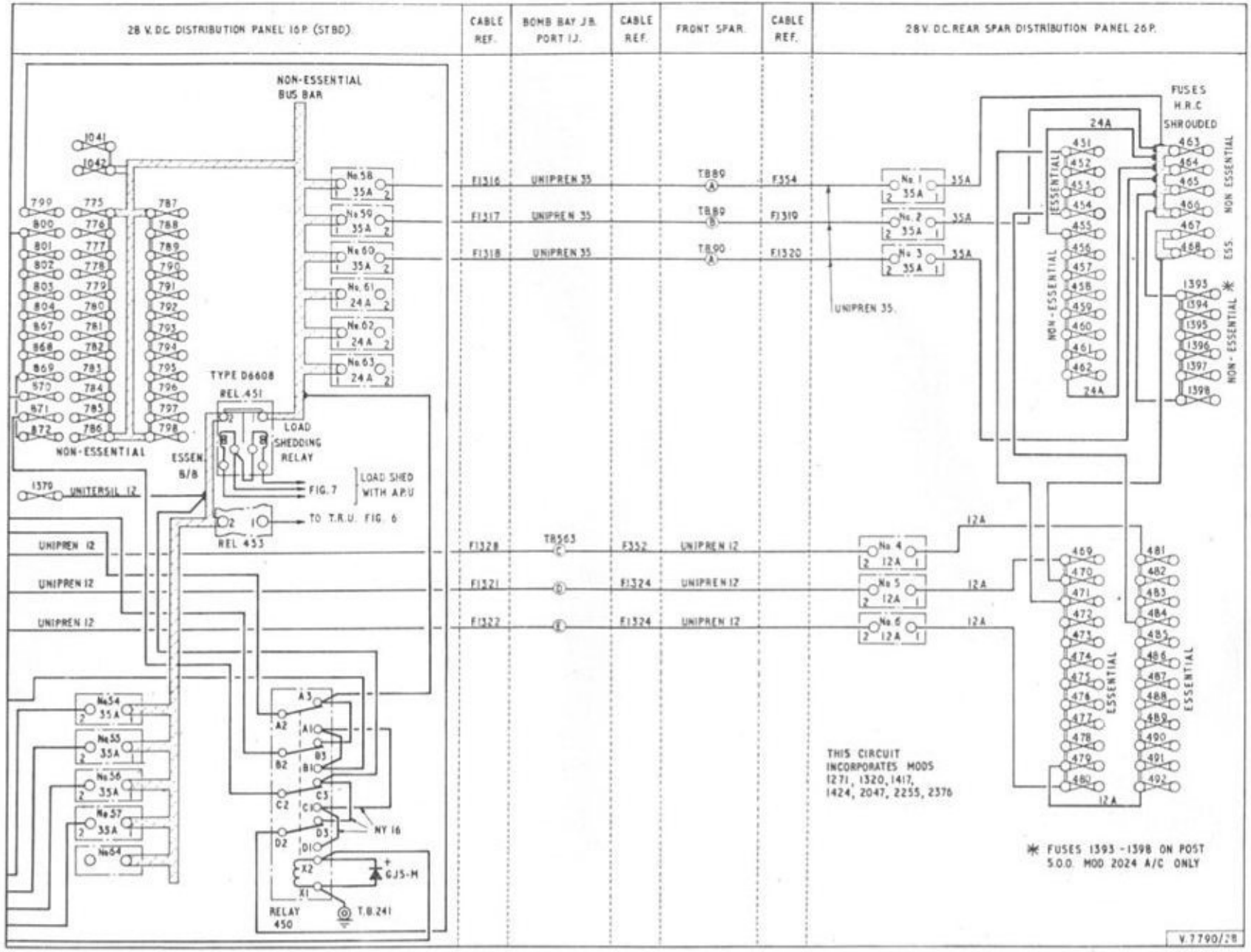


Fig 8 (2) 28-Volt D.C. distribution aft of R.P.B.

*▶Title changed and mod state clarified◀*

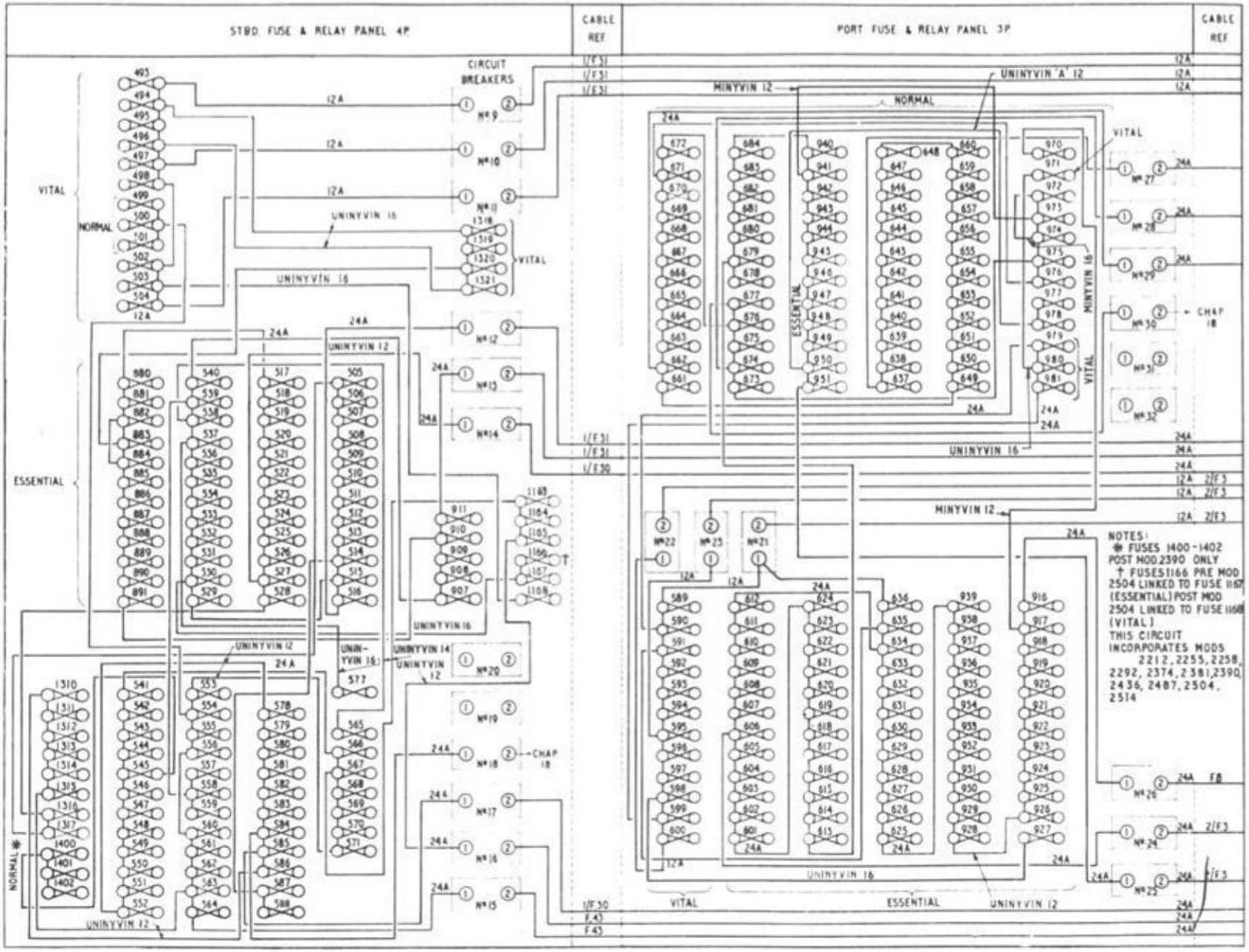


Fig 9 (1) 28-Volt DC distribution forward of R.P.B. - Pre Mod 2455

► *Title changed and mod state clarified* ◄

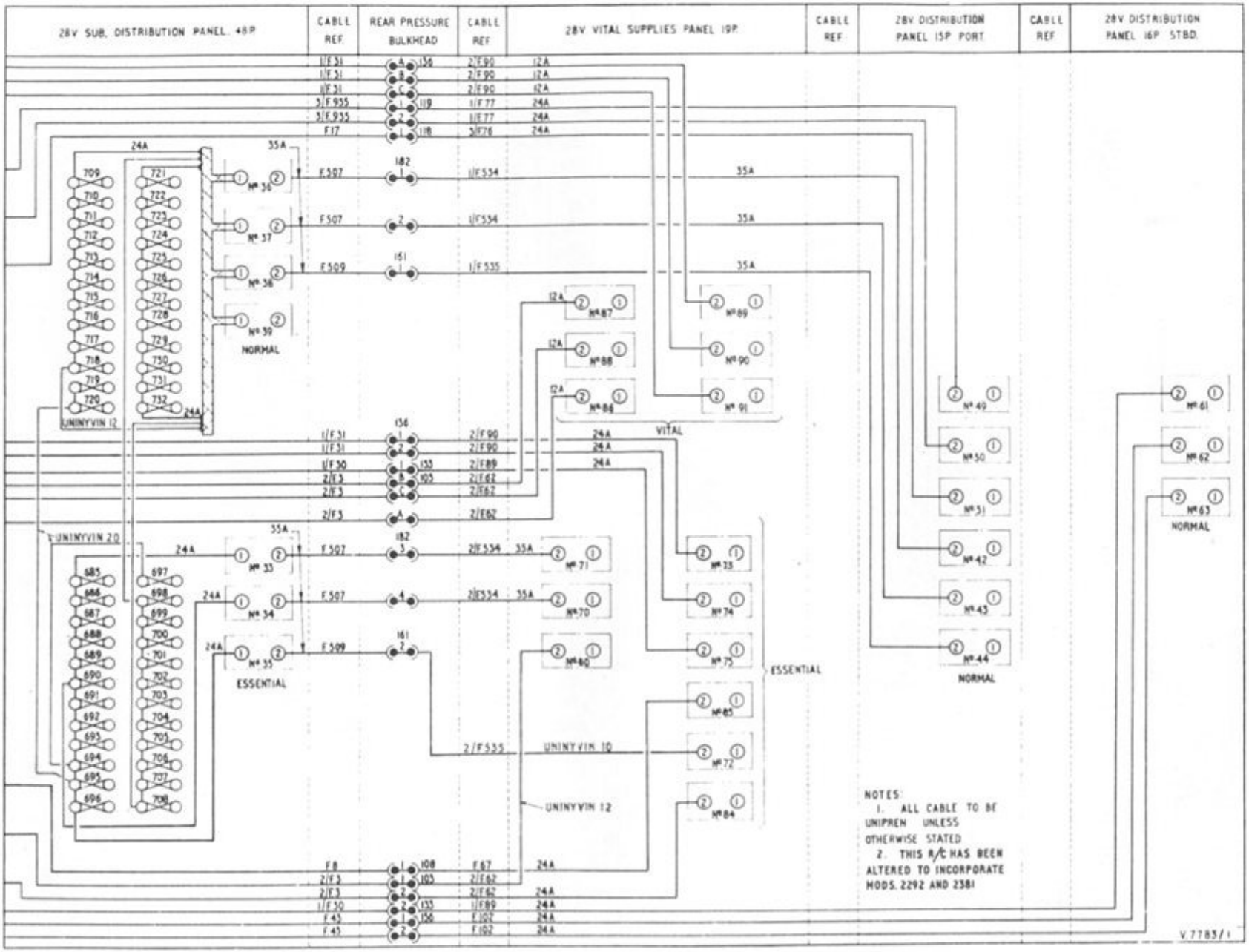


Fig 9 (2) 28-Volt DC distribution forward of R.P.B. Pre Mod 2455

*► Title changed and mod state clarified ◄*

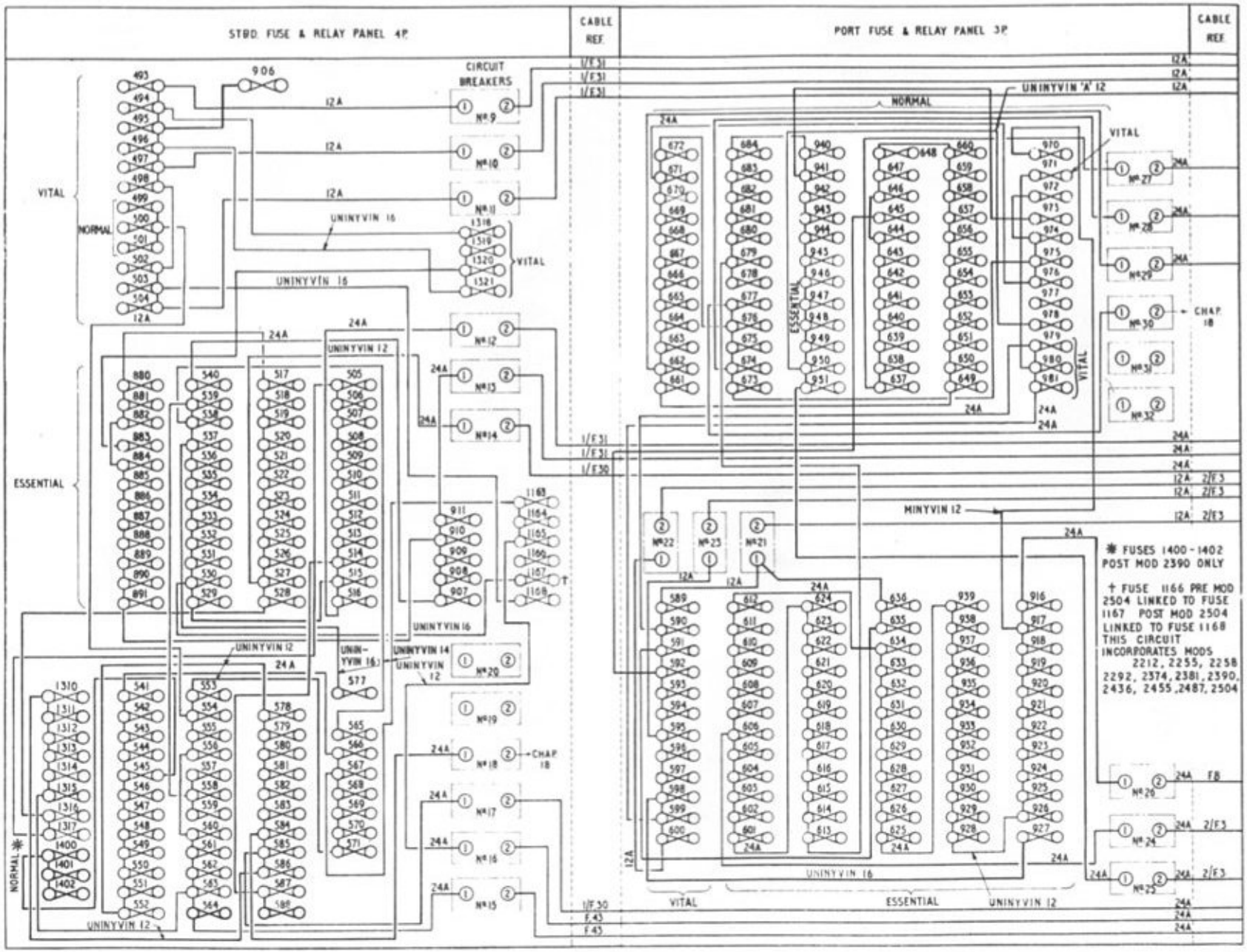


Fig 10 (1) 28 – Volt DC distribution forward of R.P.B. Post Mod 2455

*► Title changed and mod state clarified ◄*

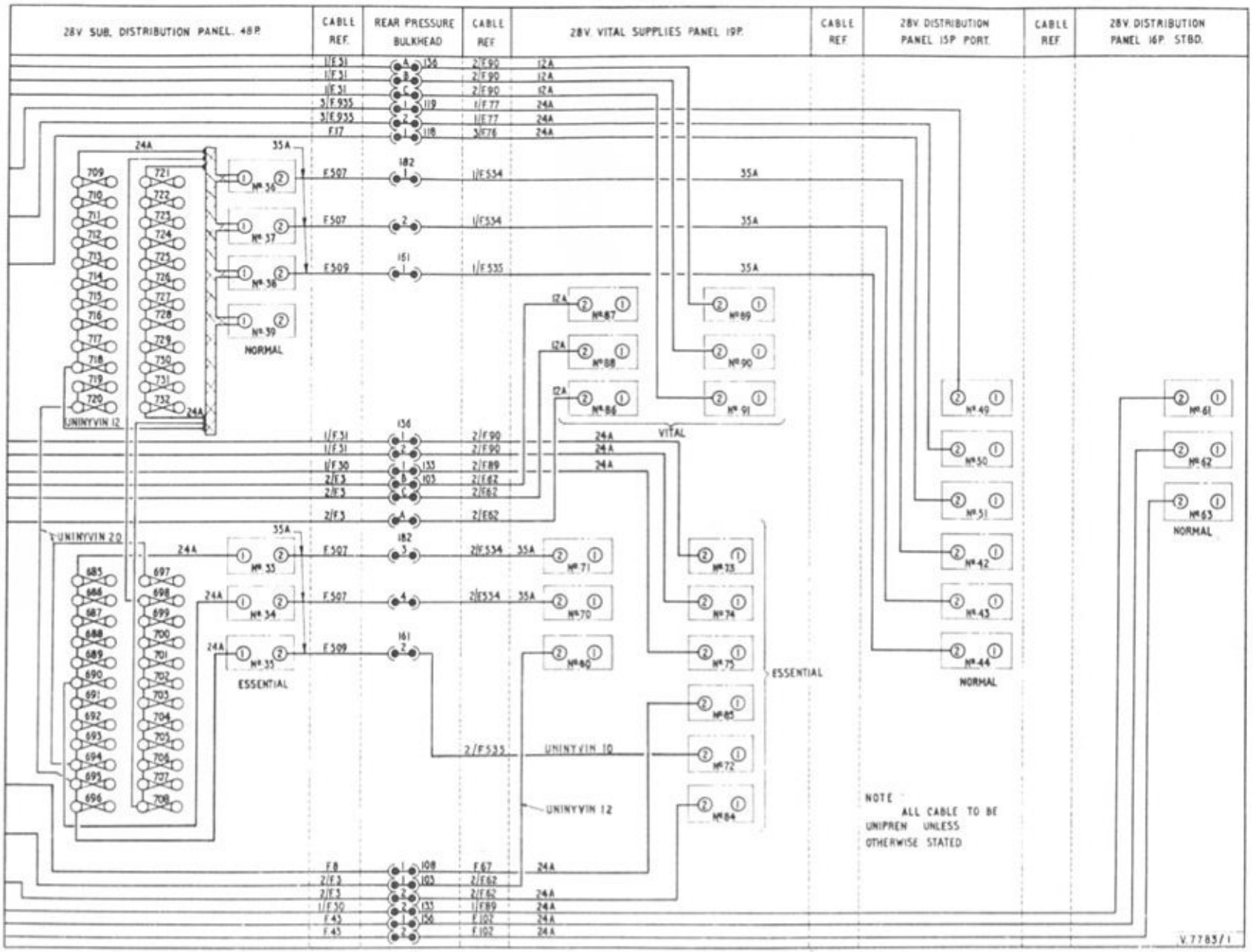


Fig 10 (2) 28-Volt DC distribution forward of R.P.B. Post Mod 2455

► *Title changed and mod state clarified* ◄