

**GROUP A.G. - MISCELLANEOUS REPAIRS**

**LIST OF CONTENTS**

|  | <i>Leaflet Number</i> |
|--|-----------------------|
| <i>Blue Steel butt connectors and cable loam assemblies ... ..</i> | <i>A.G.1/1</i>        |



procedures for removal, replacement, and renewal of the cable loom assemblies and re-furbishing of the butt-connectors, and should be read in conjunction with A.P. 4505B, Vol.2, Leaflet Mod.2046, and A.P.4505B, Vol.4, Part 2.

#### General

3. The cable looms and butt-connector sub-assemblies consist of five groups. These are No.1, No.2 and No.4, which terminate in 157-way butt connectors, Type RA5/81/5355TT, and No.5 and No.6, which terminate in 18-way butt connectors, Type RA5/81/7175. Each group is further broken down into separate cable looms. Tables 2 to 20 show the end connections, cable loom identification and cable length of each sub-assembly.

4. Before removal of cable assemblies, ensure that all electrical power supplies to the aircraft are switched off and disconnected. Electrical supplies are to be re-connected only when the tradesman responsible for embodying or inspecting the completed repair scheme is satisfied that all the action necessary to make the aircraft safe for re-connection has been carried out.

5. No special tools or equipment are required to complete the following operations. Whenever plugs or sockets are disconnected from aircraft junction boxes or bulkheads, blanking caps or masking tape are to be used to prevent ingress of moisture or foreign matter. To gain access to the bomb bay, the bomb doors should be lowered.

#### Cable loom core identification

6. Tables 2 to 20 give the make up of the separate looms. The core identification consists of two parts; a letter, which is the pin reference on the end A fitting, and a number which is the pin reference on the end B fitting. Hence, the core

identification E/97 would be given to the cable which connects pin E on the end A fitting to pin 97 on the end B fitting.

#### REMOVAL OF BUTT CONNECTOR NO.1

7.
  - (1) Locate No.1 butt connector (fig.1)
  - (2) Remove and discard the split pin securing the lanyard to the release spindle of the butt connector.
  - (3) Remove the two bolts securing the cradle assembly to the fairing door structure.
  - (4) Remove the cradle assembly Type D11295 and retain with the fixing bolts.
  - (5) Disconnect the rubber seal from the butt connector and withdraw the butt connector.
  - (6) On the fairing doors, unfasten the strap clips and remove the cable cover in order to release the butt connector assembly.
  - (7) Disconnect the cable assemblies at plugs 955, 847, 848, 957 and 670 on junction box 85P.

#### REMOVAL OF BUTT CONNECTOR NO.2

8.
  - (1) Locate No.2 butt connector (fig.1)
  - (2) Repeat para.7(2) to 7(6).
  - (3) Disconnect the cable assemblies at plugs 846, 956, 849 and 671 on junction box 85P.
  - (4) Remove the cable assemblies from the cable loom running on the aft face of bomb arch 151.919A to the butt connector position by releasing eighteen cable clips.

#### REMOVAL OF BUTT CONNECTOR NO.4

9.
  - (1) Locate No.4 butt connector (fig.1)
  - (2) Repeat para.7(2) to 7(6).
  - (3) Locate the plug and socket break on the front spar, starboard side.
  - (4) Disconnect the front spar plug breaks Nos. 981, 983, 984, 980, 982, 985 and 986.
  - (5) Disconnect the cable, Ref.3093, from the earth point at the front spar.
  - (6) Release eight cable clips on the fairing doors and remove the cable assembly.

#### REMOVAL OF BUTT CONNECTOR NO.5

10.
  - (1) Locate No.5 butt connector (fig.1)
  - (2) Repeat para.7(2) to 7(6). Note cradle assembly Type D11296.
  - (3) Disconnect plug 854 on junction box 97P.
  - (4) Remove the cable assembly from the cable loom running on the aft face of bomb arch 151.919A to the butt connector position on the fairing doors by releasing eighteen cable clips.

#### REMOVAL OF BUTT CONNECTOR NO.6

11.
  - (1) Locate No.6 butt connector (fig.1)
  - (2) Repeat para.7(2) to 7(6). Note cradle, Type D11296.

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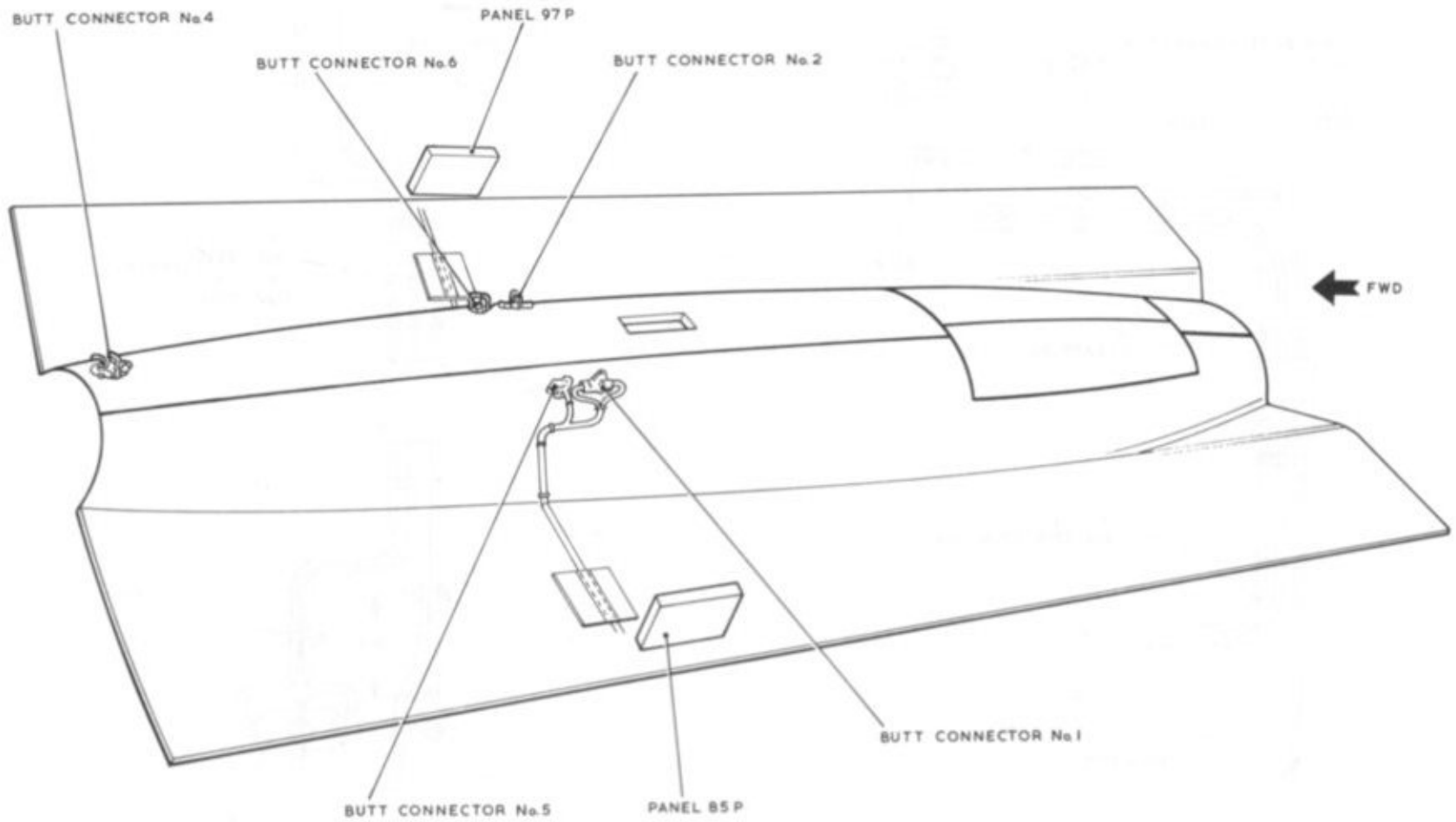


Fig.1 View on inside face of fairing doors

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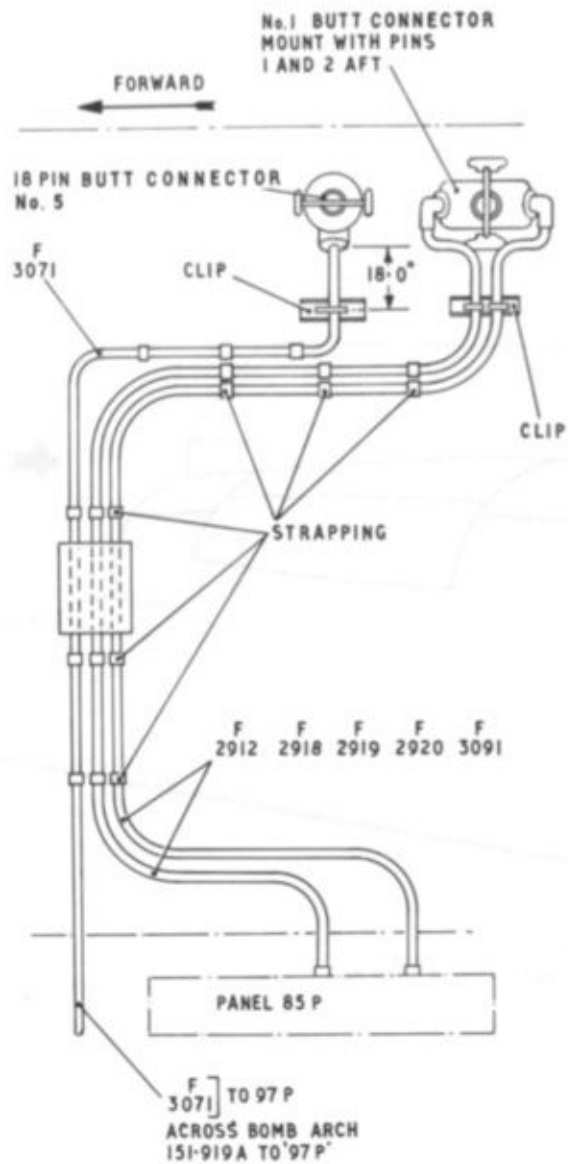


Fig.2 No.1 and 5 butt connector cable assemblies

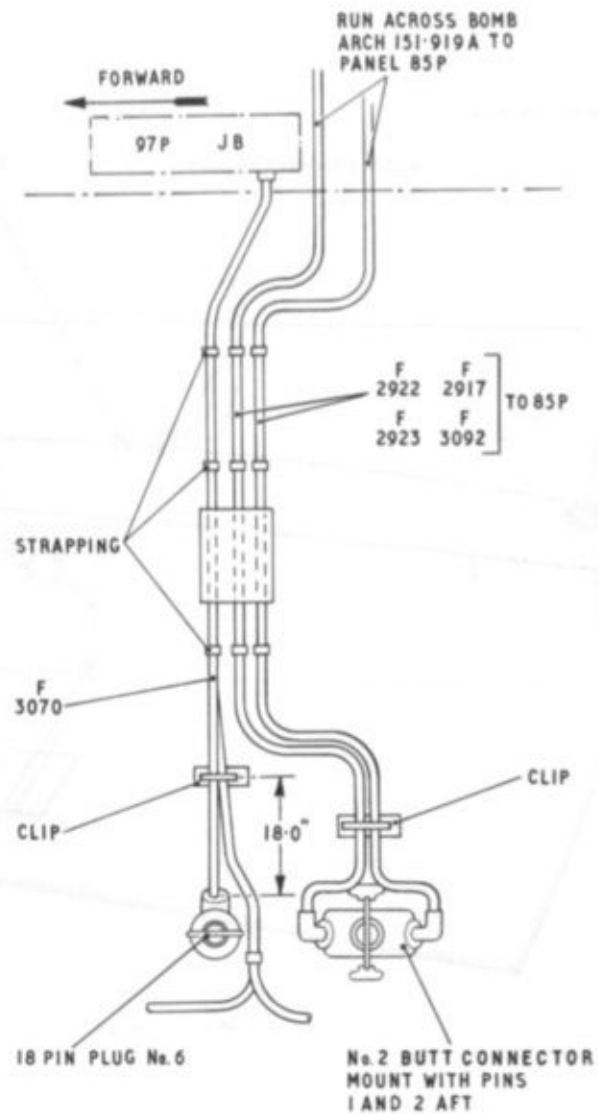


Fig.3 No.2 and 6 butt connector cable assemblies

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- (3) Disconnect plug 855 on junction box 97P.
- (4) Remove the cable assembly from the cable loom running from the aft face of bomb arch 151.919A to the butt connector position on the fairing doors by releasing eighteen cable clips.

### SERVICING

#### CLEANING

12. Cable assemblies and sockets may be cleaned using white spirit applied sparingly to a clean cloth. Do not allow the white spirit to contaminate the inner cables or contact pins.

#### EXAMINATION

13. Examine each cable and butt connector as follows:-

- (1) Check the cable outer sheathing for damage, chafing, oil saturation, perishing, and for security of connection.
- (2) Check the condition of the socket mouldings, pin inserts, and face plates of the butt connectors. If scored or damaged replace.
- (3) Check the sockets and knurled nuts for damage and condition of the mating threads. If damaged replace.

#### CONTINUITY TEST

14. Carry out a continuity test on each sub-assembly, with reference to the appropriate table.

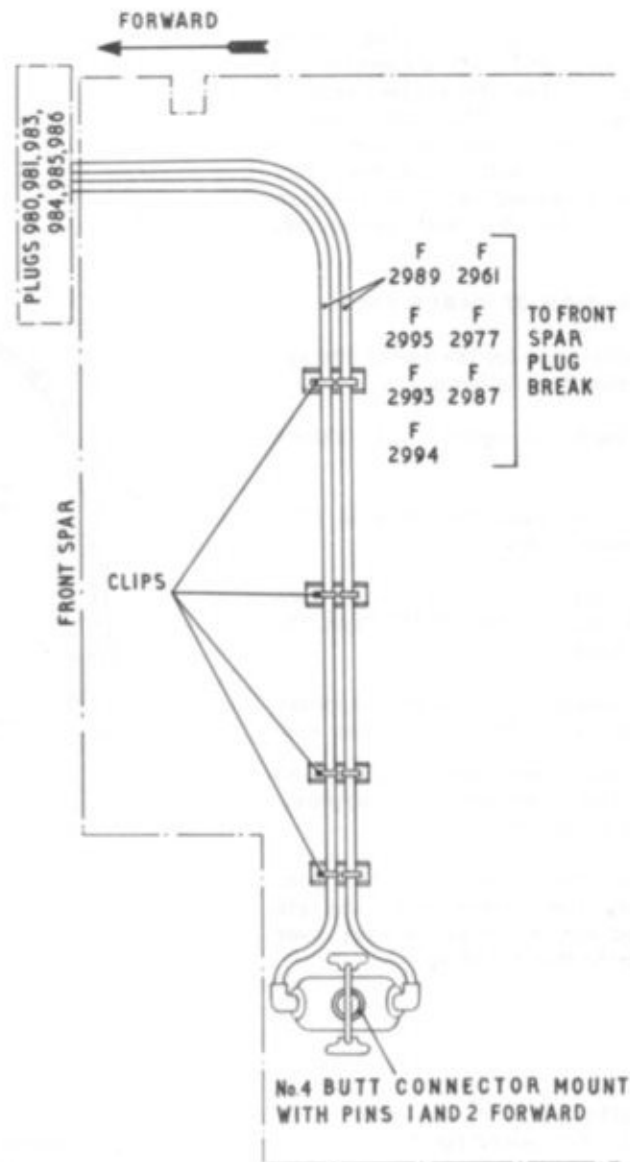


Fig.4 No.4 butt connector cable assembly

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## REPLACEMENT OF INDIVIDUAL CABLES IN A LOOM

15. Tables 2 to 20 give the plug/socket pin identification and butt connector pin identification to allow the replacement of individual cables. The cable length given in the tables is from the face of the plug/socket to the butt connector entry and should be increased by 12 in. to allow for connection in the butt connector.

### PREPARATION OF CABLE ENDS

16. The cable ends for the end B fittings are to be prepared as follows:-

- (1) Strip back the outer P.V.C. sheath 4 in.
- (2) Paint the braid with Bostik 1751 and leave to dry.
- (3) When dry, trim the braid back 0.625 in. DO NOT push the braid back.
- (4) Fit a yellow helsyn sleeve approximately  $\frac{3}{4}$  in. from the cable end.
- (5) Trim back the inner insulation to bare the conductor for approximately 0.187 in.
- (6) Solder the cable to the pin. Identify the sleeve with the pin number and slide the sleeve over the pin to the moulding.

### DISMANTLING NO.1 AND NO.2 BUTT CONNECTORS

- 17.
- (1) Remove the Raychem boots from No.1 and No.2 bung housing assemblies.

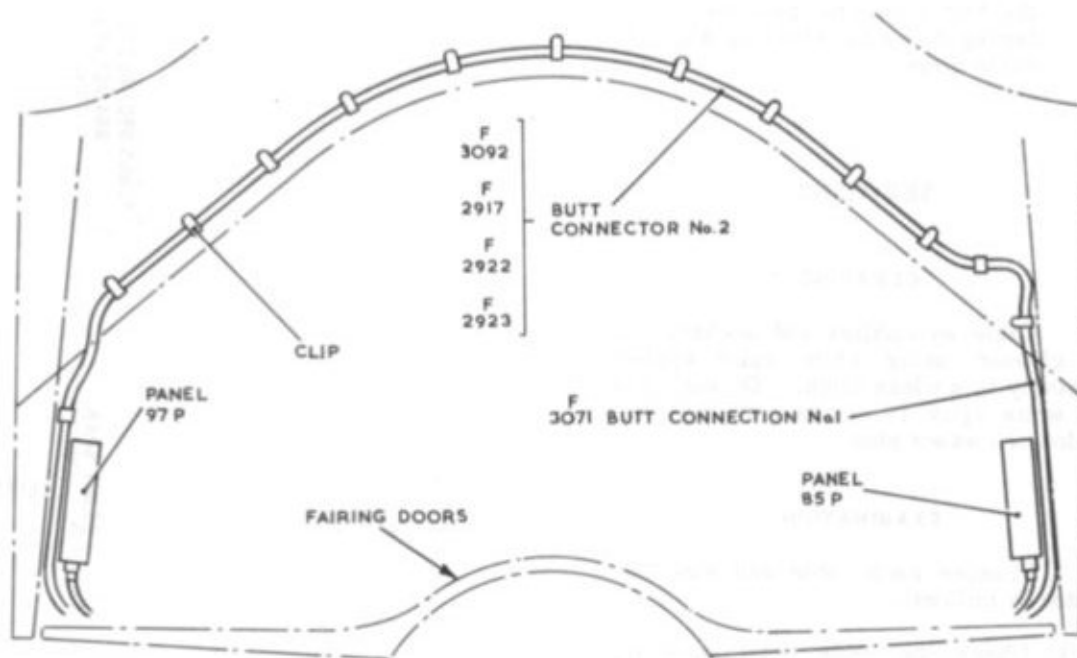


Fig.5 View looking aft on bomb arch 151.919A

### REPAIR

- (2) Unscrew the top half of each bung housing assembly and slide the assembly, with the Hallprene 66 sleeving, up the cable assemblies.
- (3) Remove the release unit assembly.
- (4) Carefully withdraw the cable bung from each bung housing.
- (5) Remove the retaining screws and special bolt to release the contact face moulding. Retain the screws and bolt.

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- (6) Slide the connector shell from the contact face moulding sufficiently to remove the end A fittings.
- (7) Slide new Raychem boots, Part No. 222A/074/3, over the free cable ends.
- (8) Examine the pins for damage, corrosion, or distortion, cable terminations for security, and the contact face moulding for cracks.

**CONTINUITY CHECK**

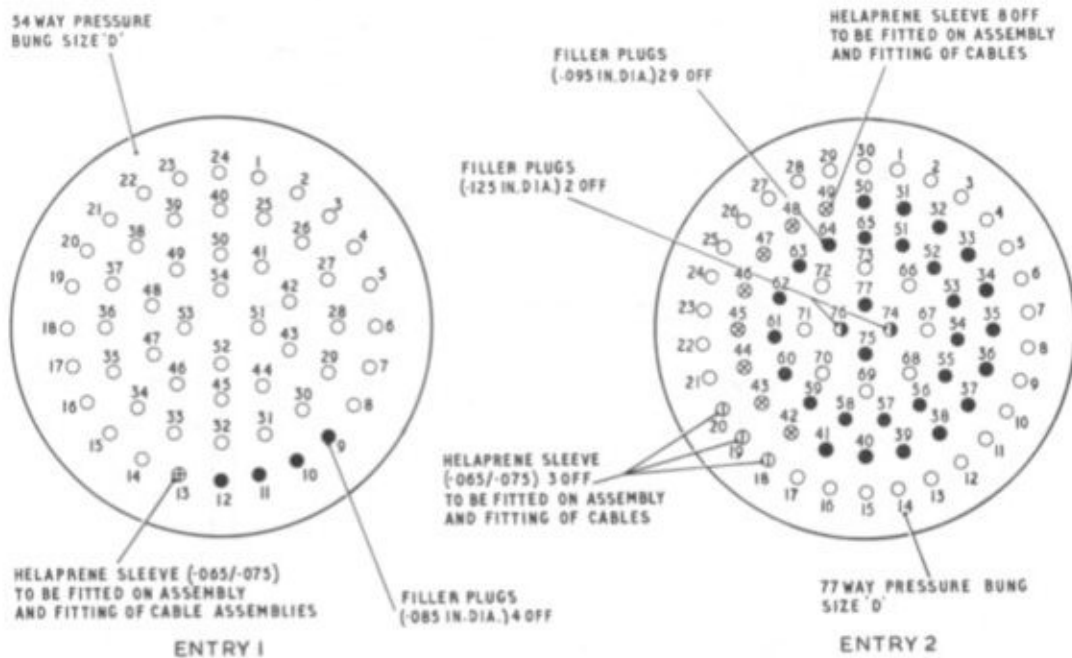
18. Carry out a continuity check to ensure correct pin identification on the butt-connector assembly to the correct pin on the end A fitting. When correctly identified, re-assemble the end A fittings and solder the pin connections on the end B fittings.

**DISMANTLING THE RELEASE UNIT ASSEMBLY**

19.
  - (1) Remove the circlip and washer and examine for damage.
  - (2) Remove the knurled nut.
  - (3) Release and remove the grub screw.
  - (4) Unscrew and remove the operating Pip-pin head assembly and examine for corrosion and damage.
  - (5) Remove two retaining screws from the solenoid housing.
  - (6) Remove the release spindle. Examine for damage or corrosion.
  - (7) Re-assemble the release unit and lock the grub screw with LOCTITE.

**ASSEMBLING NO.1 AND NO.2 BUTT CONNECTORS**

20.
  - (1) Fit the contact face moulding using

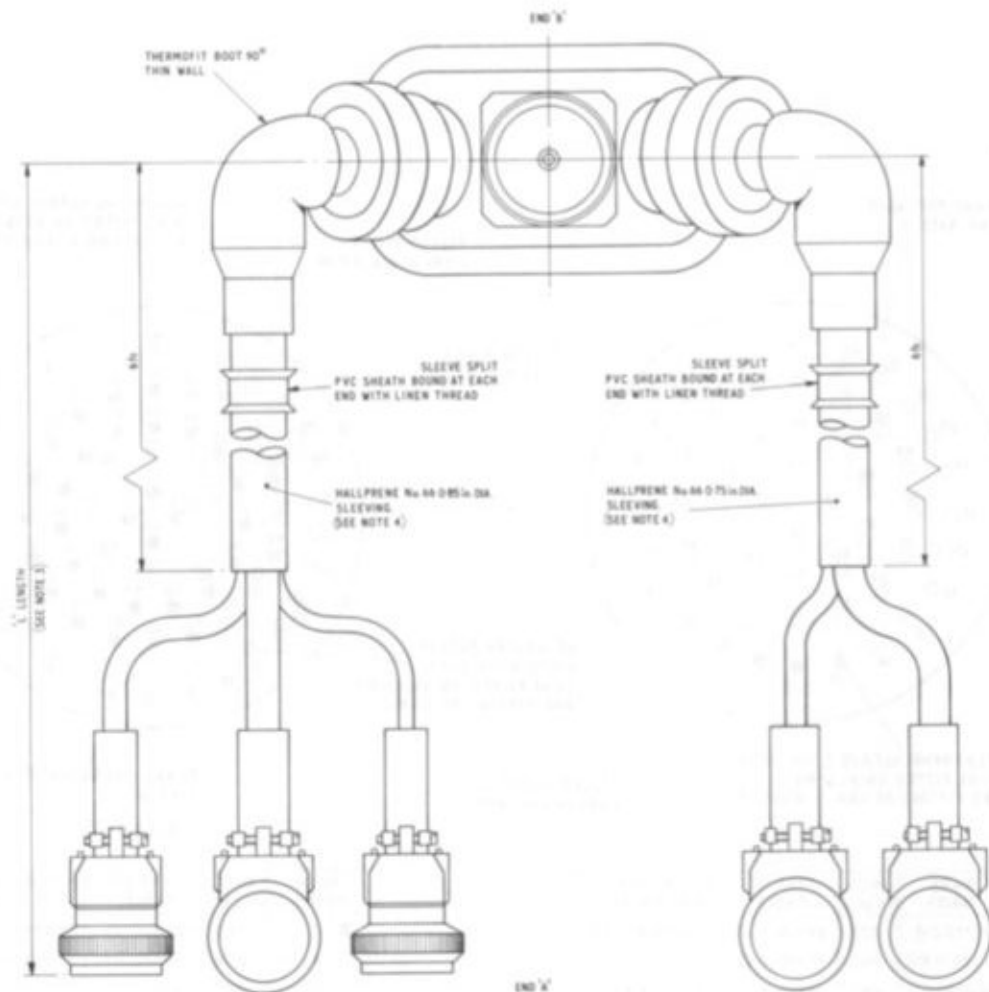


| No. OF HOLES  | HOLE (IN.) DIA. | TYPE OF CABLE | ACTUAL CABLES TO BE FITTED |
|---------------|-----------------|---------------|----------------------------|
| 24 (1 TO 24)  | -076            | NYVIN 'A' 20  | 19 NYVIN 'A' 20            |
| 16 (25 TO 40) | -067            | NYVIN 'A' 22  | 31 NYVIN 'A' 22            |
| 10 (41 TO 50) | -067            | NYVIN 'A' 22  |                            |
| 4 (51 TO 54)  | -067            | NYVIN 'A' 22  |                            |

| No. OF HOLES | HOLE (IN.) DIA. | TYPE OF CABLE | ACTUAL CABLES TO BE FITTED |
|--------------|-----------------|---------------|----------------------------|
| 2            | -110            | TERSIL 16     | 35 NYVIN 'A' 20            |
| 8            | -076            | TERSIL 22     | 11 NYVIN 'A' 22            |
| 15           | -086            | TERSIL 20     |                            |
| 20           | -086            | TERSIL 20     |                            |
| 2            | -086            | TERSIL 20     |                            |
| 30           | -076            | TERSIL 22     |                            |

Fig.6 Pressure bung assembly - No.1 butt connector

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- NOTES
1. DRAWING SHOWS BUTT CONNECTOR LAYOUT ONLY FOR INDIVIDUAL PIN CONNECTIONS SEE SEPARATE CABLE ITEMS LISTED IN TABLE
  2. ENSURE THAT EACH INDIVIDUAL CORE HAS THE MINIMUM AMOUNT OF CROSS OVERS INSIDE CONNECTOR
  3. THE ITEMS LISTED ON THIS DRG TO BE INCREASED IN LENGTH BY 1/2" TO ALLOW FOR CONNECTING INTO BUTT CONNECTOR
  4. AT BUTT CONNECTOR ENTRIES ALL OF HALLPRENE No. 66 SLEEVING 0.0625 in. WALL THICKNESS TO BE FITTED OVER ALL CORES
  5. MOLDED RUBBER BOOT (ITEM 222A0747) TO BE SHRUNK ONTO CABLE ENTRY AND CABLES AS SHOWN IN ACCORDANCE WITH STANDARD PROCEDURE

Fig.7 Assembly of cables - No.1 butt connector

the screws and bolt retained in para.17(5).

- (2) Slide the cable bung back into the bung housing.
- (3) Fit the top half of the bung housing and the Hallprene 66 sleeving back into the collar of the housing.
- (4) Carry out a continuity check between the pins on end B and end A fittings.
- (5) Using a 250V insulation resistance tester, test the insulation resistance between pins, and pins to case. The minimum reading obtained should be not less than 20 megohm.
- (6) Apply glue S-1006 to the metal shoulder of the top half of the bung housings and refit the Raychem boots. Heat shrink the boots on to the housing.
- (7) Fit the release unit assembly to the connector.
- (8) Mask all plugs and sockets to prevent the ingress of moisture.

#### DISMANTLING NO.4 BUTT CONNECTOR

21. (1) Remove the Raychem boots from No.1 and No.2 bung housing assemblies.
- (2) Unscrew the top half of each bung housing assembly and slide it with the Hallprene 66 sleeving up the cable assemblies.
- (3) Remove the release unit assembly and service as in para.19.
- (4) Carefully withdraw the cable bung from each bung housing.

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- (5) Remove the retaining screws and special bolt to release the contact face moulding. Retain the screws and bolt.
- (6) Carefully remove the potting compound by chipping out with a suitable tool.
- (7) Remove the bonding clips applicable to the damaged cables.
- (8) Remove the sockets from end A.
- (9) Examine the butt connector pins for damage, corrosion and distortion, the cable terminations for security, and the contact face moulding for cracks. Replace any damaged cables, pins, or the contact face moulding.

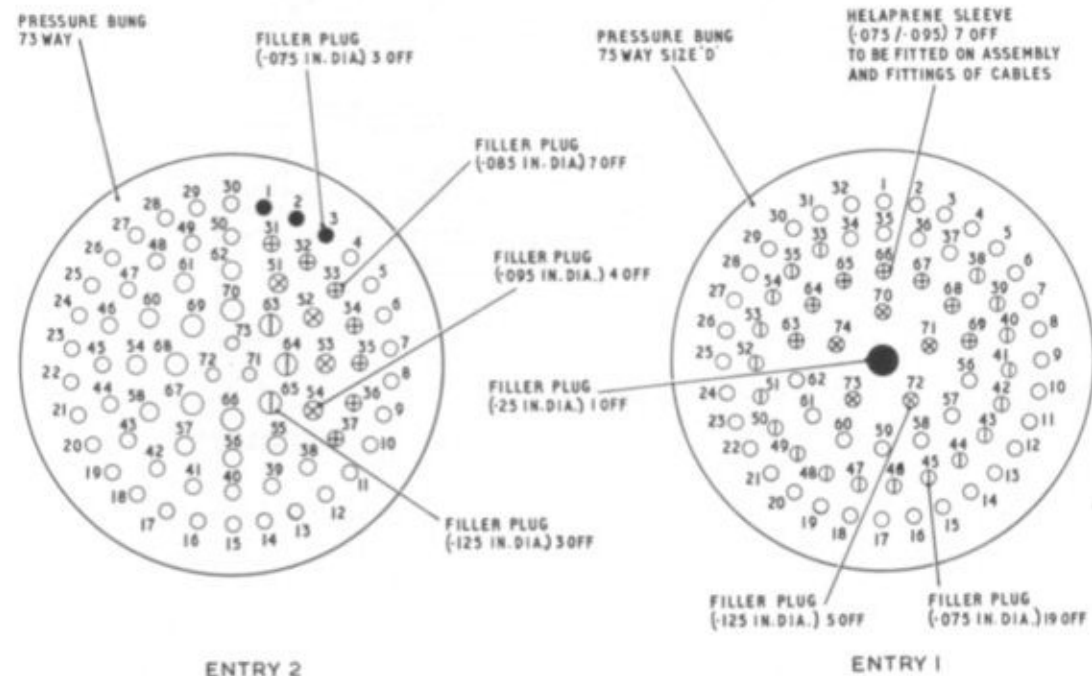
**NOTE...**

If a damaged cable is removed, the replacement cable must be sleeved with Raychem sleeving of the same length as that fitted to the damaged cable. This is necessary to prevent shorting to earth and to give the correct diameter to fill the cable bung assembly.

**SHELL HOUSING - PROTECTIVE COATING**

22. Examine the shell housing protective coating for damage. If damaged, the following treatment should be applied:-

- (1) Remove the two screws securing the solenoid assembly to the plug shell and carefully remove the solenoid assembly complete.
- (2) Disconnect the cable ends from the 2-way terminal block inside the shell and remove the terminal block.



| No. OF HOLES  | HOLE (IN.) DIA. | TYPE OF CABLE | ACTUAL CABLES TO BE FITTED |
|---------------|-----------------|---------------|----------------------------|
| 30 (1 TO 30)  | -067            | NYVIN 'A' 22  | 16 NYVIN 'A' 20            |
| 20 (31 TO 50) | -076            | NYVIN 'A' 20  | 27 NYVIN 'A' 22            |
| 12 (51 TO 62) | -094            | NYVIN 'A' 16  | 8 NYVIN 'A' 16             |
| 8 (63 TO 70)  | -112            | NYVIN 'A' 20  | 5 NYVIN 'A' 20             |
| 3 (71 TO 73)  | -076            | NYVIN 'A' 20  |                            |

| No. OF HOLES  | HOLE (IN.) DIA. | TYPE OF CABLE | ACTUAL CABLES TO BE FITTED |
|---------------|-----------------|---------------|----------------------------|
| 37 (1 TO 37)  | -067            | NYVIN 'A' 22  | 18 NYVIN 'A' 22            |
| 25 (38 TO 62) | -076            | NYVIN 'A' 20  | 33 NYVIN 'A' 20            |
| 7 (63 TO 69)  | -086            | NYVIN 'A' 18  |                            |
| 5 (70 TO 74)  | -110            | NYVIN 'A' 14  |                            |
| 1 (75)        | -173            | NYVIN 'A' 10  |                            |

Fig.8 Pressure bung assembly - No.2 butt connector

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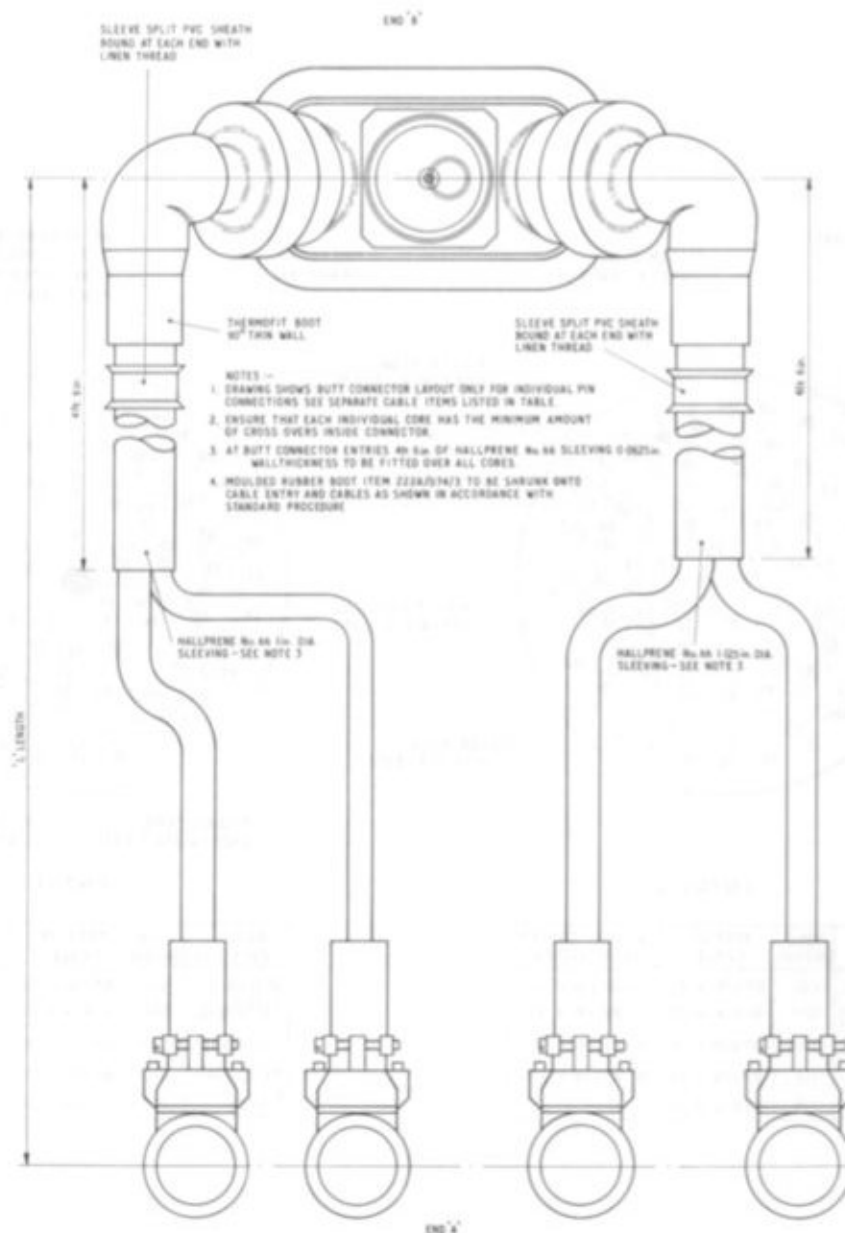


Fig.9 Assembly of cables - No.2 butt connector

- (3) Sleeve the solenoid wires and pillars with 5/16 in. i/d. P.V.C. and take each wire out through the nearest cable outlet and secure.
- (4) Mask the counterbore of the solenoid housing, all the tapped holes, and the sides of the shell from the level of the four mounting lugs down to the outer edge of the shell. Mask the outlet threads and the whole of the outer area from which the solenoid has been removed (fig.10).
- (5) Spray the interior with one coat of grey primer (Ref.No.33B/9428774), and allow to dry.

#### Preparation of varnish

23. Spray the interior of the shell housing with varnish prepared from the following:-

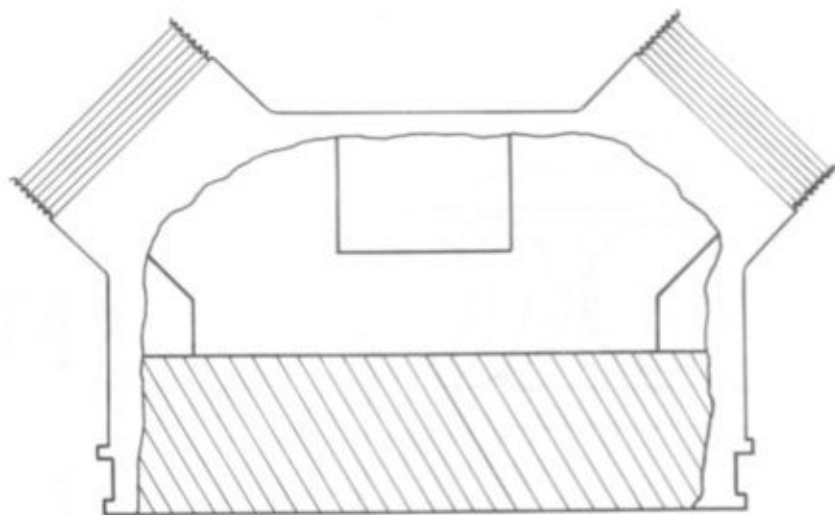
- (1) 1 gallon Shellac varnish, Ref.No. 37A/9428870.
- (2) 3 lb. 5 oz. Mica powder, 200 mesh, 50 grammes, Ref.No.33C/.

24. Mix thoroughly and spray two coats, allowing the first coat to air dry before applying the second. Ensure the finish is smooth and even.

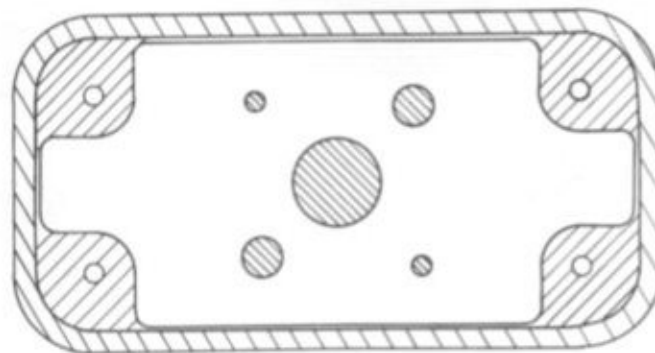
25. Refit the solenoid assembly and terminal block ensuring that the thin strip of insulating material is fitted between the base of the block and the casting. Seal the edges of the block at the base with varnish. Reconnect the solenoid.

#### ASSEMBLING NO. 4 BUTT CONNECTOR

26. (1) Slide new Raychem boots, Part No. 220/W014/3, over the free end A cable ends and leave free.



POTTING TO BE  
LEVEL WITH  
PLUG FIXING BOSSES



ALL SHADED AREAS ARE TO BE MASKED BEFORE SPRAYING

Fig.10 Potting No.4 butt connector

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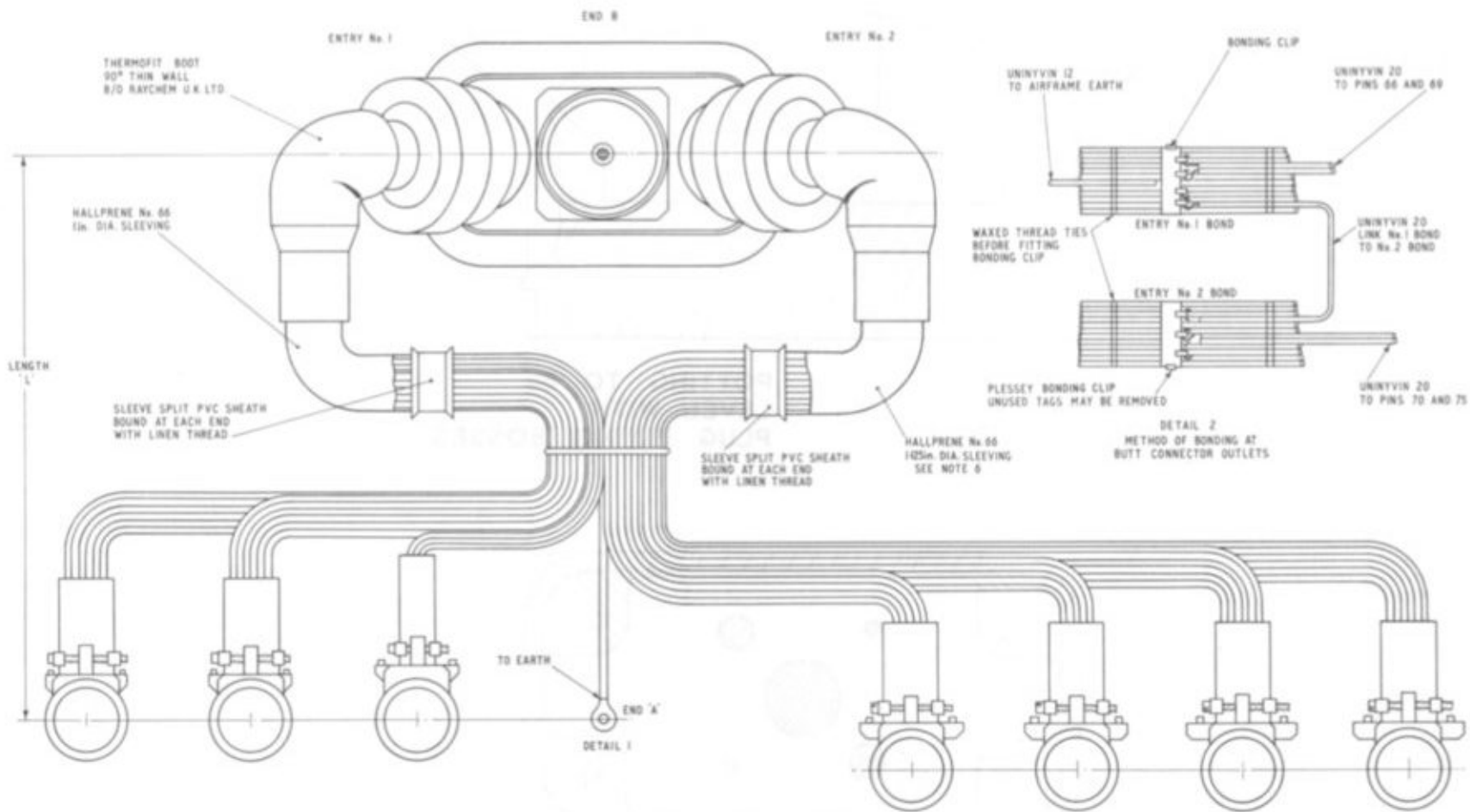


Fig.11 Assembly of cables - No.4 butt connector

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- (2) Using the appropriate tables for reference, solder the cable ends to the end A fitting ensuring correct continuity between the butt connector and end A.
- (3) Solder the pin connections on end B.

#### POTTING NO.4 BUTT CONNECTOR

27.
  - (1) Clean the outer top edge around the pins and fixing bosses with cleaning solvent M.E.K.
  - (2) Paint the cleaned area with primer PR 1005L.
  - (3) Construct a cardboard mould to contain the potting compound to the level shown in fig.10, grease thoroughly with silicone grease 'Releasil 7', and fix as a retaining collar round the end B fitting.
28. The potting material is a two part compound comprising polysulphide rubber and accelerator (PR 1201Q). Care must be taken to ensure that the compound is free from foreign matter. The compound has a pot life of up to thirty minutes at 20 deg.C, but this may be reduced if the ambient temperature or humidity is increased.
29. The following potting procedure must be strictly adhered to:-
  - (1) Ensure that the plug surface is clean.
  - (2) Wrap 1 in.wide cellophane adhesive tape round the plug mouldings to seal the aperture between the upper and lower contact face mouldings.
  - (3) Inject the potting compound carefully, ensuring that all spaces between the cables are filled up

to the level of the plug fixing bosses (fig.10).

- (4) Allow the potted assembly to harden undisturbed for eighteen hours.
- (5) Cure for 10 hours at a temperature of 50°C.

NOTE...  
Do not exceed this temperature.

#### BONDING OF SCREENING WIRES

30. If bonding clips have been removed for cable repairs, the following operations are to be applied:-
  - (1) Bonds are to be made with Plessey bonding clips, Part No.250780, and are to be made within the outlet necks of the plug as shown in fig.11.
  - (2) Cables are to be bunched tightly each side of the bond by means of waxed thread prior to fitting the bonding clip.
  - (3) Pins 66 and 69 are to be connected to the forward bond using uninyvin 20 cable.
  - (4) The two bonds are to be interconnected within the shell using uninyvin 20 cable.
  - (5) Using uninyvin 12 cable, connect No.1 bond via the appropriate outlet to the airframe earth.

#### FINAL ASSEMBLY OF NO.4 BUTT CONNECTOR

31.
  - (1) Re-fit the contact face moulding using the screws and bolt retained in para.21(5).

- (2) Slide the cable bungs back into the bung housing.

- (3) Re-fit the top half of the bung housing and the Hallprene 66 sleeving back into the collar of No.1 and 2 cable assembly housings.

#### Continuity check

32. Carry out a continuity check between the pins on end B fittings and end A fittings using table.

#### Insulation check

33. Carry out an insulation check between pins, and pins to frame, using a 500V insulation resistance tester. Ensure that there is no flashover.

#### Raychem boots

34. Apply glue, S1006, to the metal shoulder of the top half of No.1 and 2 bung housings. Re-fit the Raychem boots and heat shrink onto the bung housing.

#### Release unit

35. Service the release unit assembly in accordance with para.19 and re-fit to No.4 butt connector. Replace any bonding clips that have been removed, and mask all plugs and sockets to prevent the ingress of moisture. No.1, 2 and 4 butt connectors.

#### DISMANTLING NO.5 AND 6 BUTT CONNECTORS

36. No.5 and 6 butt connectors are physically identical. The servicing operations detailed apply to both butt connectors except that the cable lengths and pin terminations vary.

37.
  - (1) Unscrew the plug bung assembly and slide it up the cable loom.

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- (2) Remove the release unit and retain the securing screws.
- (3) Remove and retain the two screws and special bolt to release the contact face moulding from the housing.
- (4) Examine the cables for damage, the pins for distortion, and for cracks in the pin face mouldings.
- (5) Replace damaged pins or cables.

#### Dismantling the release unit

38.

- (1) Remove the circlip and knurled nut.
- (2) Remove the operating head to

release the spacer and spring. Examine and replace if necessary.

- (3) Release the centre spindle and examine for corrosion or damage. Smear liberally with silicone grease XG315 before replacing.
- (4) Re-assemble the release unit.

#### ASSEMBLING NO.5 AND 6 BUTT CONNECTORS

39.

- (1) Replace the contact face moulding using the two screws and special bolt retained in para.37 (3).
- (2) Replace the release unit.

- (3) Re-position the plug bung assembly and secure.

#### Continuity check

40. Carry out a continuity check between pins of end A and end B fittings.

#### Insulation check

41. Using a 250V insulation resistance tester, test the insulation resistance between pins and pins to frame. The minimum reading obtained should be not less than 20 megohm.

42. Mask all plugs and sockets with special to type protective covers or adhesive masking tape to prevent the ingress of moisture or foreign matter.

**TABLE 1**  
**Cable loom identification**

| Cable loom | Position in aircraft      |                     |
|------------|---------------------------|---------------------|
|            | End A                     | End B               |
| F2912      | Panel 85P plug 955        | No.1 butt connector |
| F2918      | Panel 85P plug 847        |                     |
| F2919      | Panel 85P plug 848        |                     |
| F2920      | Panel 85P plug 957        |                     |
| F3091      | Panel 85P plug 670        |                     |
| F2917      | Panel 85P plug 846        | No.2 butt connector |
| F2923      | Panel 85P plug 849        |                     |
| F2922      | Panel 85P plug 956        |                     |
| F3092      | Panel 85P plug 671        |                     |
| F2961      | Front spar break plug 981 | No.4 butt connector |
| F2977      | Front spar break plug 983 |                     |
| F2987      | Front spar break plug 848 |                     |
| F2989      | Front spar break plug 980 |                     |
| F2993      | Front spar break plug 982 |                     |
| F2994      | Front spar break plug 985 |                     |
| F2995      | Front spar break plug 986 | No.5 butt connector |
| F3093      | Earth/No.1 bond           |                     |
| F3071      | Panel 97P plug 854        |                     |
| F3070      | Panel 97P plug 855        | No.6 butt connector |

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TABLE 2

Cable loom assembly F2912

End A fitting: Cannon socket, MS3106E-28-15S

End B fitting: No.1 butt connector, Part No.26DC/15024

Cable length: 9ft. 1 in.

Cable type : Uninyvin type A

| Cable size | Core ident. | Service                            | Cable size                          | Core ident.   | Service                             |                                       |
|------------|-------------|------------------------------------|-------------------------------------|---|-------------------------------------|---------------------------------------|
| 20         | A/con 6     | Fuel system control -<br>New store | 22                                  | b/con 78  | Fuel system monitoring<br>New store |                                       |
| 20         | B/con 24    |                                    | 22                                  | c/con 81  |                                     |                                       |
| 22         | C/con 114   |                                    | 22                                  | d/con 82  |                                     |                                       |
| 20         | D/con 117   |                                    | 22                                  | e/con 83  |                                     |                                       |
| 22         | E/con 22    |                                    | 22                                  | f/con 84  |                                     |                                       |
| 22         | F/con 10    |                                    | 20                                  | g/con 154   |                                     |                                       |
| 22         | G/con 115   |                                    | 20                                  | h/con 155   |                                     |                                       |
| 20         | H/con 17    |                                    | 20                                  | j/con 156   |                                     |                                       |
| 20         | J/con 20    |                                    | 20                                  | k/con 157   |                                     |                                       |
| 20         | K/con 21    |                                    | 22                                  | l/con 110   |                                     | A.P.U. start and control<br>New store |
| 20         | L/con 96    |                                    | 22                                  | m/con 109   |                                     |                                       |
| 20         | M/con 95    |                                    |                                     |   |                                     |                                       |
| 20         | N/con 97    |                                    |                                     |   |                                     |                                       |
| 22         | P/con 26    |                                    |                                     |   |                                     |                                       |
| 22         | R/con 111   |                                    |                                     |   |                                     |                                       |
| 20         | S/con 18    |                                    |                                     |   |                                     |                                       |
| 20         | T/con 19    |                                    |                                     |   |                                     |                                       |
| 22         | U/con 71    |                                    | Fuel system monitoring<br>New store | Using UNYV 20 cable, link the following pins on the end B fitting |                                     |                                       |
| 22         | V/con 72    |                                    |                                     | Pin 5 to pin 12   |                                     |                                       |
| 22         | W/con 73    | Pin 7 to pin 16                    |                                     |   |                                     |                                       |
| 22         | X/con 74    | Pin 11 to pin 23                   |                                     |   |                                     |                                       |
| 22         | Y/con 75    | Pin 13 to pin 25                   |                                     |   |                                     |                                       |
| 22         | Z/con 76    | Pin 112 to pin 116                 |                                     |   |                                     |                                       |
| 22         | a/con 77    | Pin 113 to pin 118                 |                                     |   |                                     |                                       |

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TABLE 3

## Cable loom assembly F2917

End A fitting: Cannon socket, Part No. MS3106E-24-55  
 End B fitting: No.2 butt connector, Part No.26DC/15025  
 Cable length: 27 ft. 10 in.  
 Cable type : Uninyvin Type A

| Cable size | Core ident. | Service              |
|------------|-------------|----------------------|
| 22         | A/39        | Fire detector system |
| 22         | B/40        |                      |
| 22         | C/41        |                      |
| 22         | E/43        | A.P.U.               |
| 22         | F/44        |                      |
| 22         | G/45        |                      |
| 20         | D/54        | E.P.C.U. starting    |
| 20         | H/46        |                      |
| 20         | J/47        |                      |
| 20         | K/48        |                      |
| 20         | L/49        |                      |
| 20         | M/56        |                      |
| 20         | N/55        |                      |
| 20         | P/52        |                      |
| 20         | R/57        |                      |

TABLE 4

## Cable loom assembly F2918

End A fitting: Cannon socket, Part No. MS3106E-24-75  
 End B fitting: No.1 butt connector, Part No.26DC/15024  
 Cable length: 11 ft. 9 in.  
 Cable type : Uninyvin type A

| Cable size | Core ident | Service              |
|------------|------------|----------------------|
| 22         | A/54       | Fire detector system |
| 22         | B/55       |                      |
| 22         | C/56       |                      |
| 20         | D/42       | Safety circuits      |
| 20         | E/39       |                      |
| 20         | F/40       |                      |
| 20         | G/41       |                      |
| 22         | H/61       | Spare cables         |
| 22         | I/64       |                      |
| 22         | J/65       |                      |
| 22         | K/66       |                      |
| 22         | L/67       |                      |
| 22         | M/68       |                      |
| 22         | N/69       |                      |
| 22         | O/70       |                      |

TABLE 5

Cable loom assembly F2919

End A fitting: Cannon socket, Part No. MS3106E-18-85  
 End B fitting: No.1 butt connector, Part No. 26DC/15024  
 Cable length: 8 ft. 8 in.  
 Cable type : Uninyvin type A

| Cable size     | Core ident. | Service                                 |
|----------------|-------------|---|
| 22             | (R) A/98    | A.P.U. start and control -<br>New store |
| 3 core twisted | (Y) B/99    |   |
|                | (B) C/100   |   |
|                | (R) D/101   |   |
| 22             | (B) E/102   |   |
| 2 core twisted |             |   |

TABLE 6

Cable loom assembly F2920

End A fitting: Cannon socket, Part No. MS3106E-20-29S  
 End B fitting: No.1 butt connector, Part No. 26DC/15024  
 Cable length: 8 ft. 8 in.  
 Cable type : Uninyvin type A

| Cable size | Core ident. | Service                                     |
|------------|-------------|---|
| 20         | A/29        | Fin folding control                         |
| 20         | B/28        |   |
| 20         | C/33        |   |
| 20         | D/35        |   |
| 20         | E/36        |   |
| 20         | F/30        |   |
| 20         | G/32        |   |
| 20         | H/31        |   |
| 20         | J/34        |   |
| 20         | S/27        |   |
| 22         | K/103       | HTP-APU and HTP tank<br>temperature warning |
| 22         | L/104       |   |
| 22         | M/105       |   |
| 22         | N/106       |   |
| 22         | P/107       |   |
| 22         | R/108       |   |

TABLE 7

## Cable loom assembly F2922

End A fitting: Cannon socket, Part No. MS3106E-28-21SW

End B fitting: No.2 butt connector, Part No.26DC/15025

Cable length: 25 ft. 2 in.

Cable type : Uninyvin type A

| Cable size | Core ident. | Service                            | Cable size                        | Core ident. | Service                       |                                       |
|------------|-------------|------------------------------------|-----------------------------------|-------------|-------------------------------|---------------------------------------|
| 20         | A/29        | Fin folding control -<br>New store | 20                                | V/5         | Store heating -<br>New store  |                                       |
| 20         | B/28        |                                    | 20                                | W/6         |                               |                                       |
| 20         | C/33        |                                    | 20                                | X/7         |                               |                                       |
| 20         | D/35        |                                    | 20                                | Z/10        |                               |                                       |
| 20         | E/36        |                                    | 20                                | a/12        |                               |                                       |
| 20         | F/30        |                                    | 20                                | b/11        |                               |                                       |
| 20         | G/32        |                                    | 22                                | c/103       |                               | Engine and store bay<br>temperature - |
| 20         | H/31        |                                    | 22                                | d/104       |                               |                                       |
| 20         | J/34        |                                    | 22                                | e/98        |                               |                                       |
| 20         | K/13        |                                    | A.P.U. start control<br>New store | 22          |                               | f/99                                  |
| 20         | L/16        | 20                                 |                                   | g/88        |                               |                                       |
| 22         | M/17        | 20                                 |                                   | h/89        |                               |                                       |
| 22         | N/18        | 20                                 |                                   | j/90        |                               |                                       |
| 22         | P/20        | 20                                 |                                   | k/91        |                               |                                       |
| 22         | R/21        | Hydraulic monitoring<br>New store  | 22                                | m/95        | Release system -<br>New store |                                       |
| 20         | S/22        |                                    | 22                                | n/96        |                               |                                       |
| 22         | T/101       | New store                          | 16                                | p/SOL       | Spare                         |                                       |
| 22         | U/102       |                                    | 16                                | r/SOL       |                               |                                       |
|            |             |                                    |                                   | s           |                               |                                       |

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TABLE 8

Cable loom assembly F2923

End A fitting: Cannon socket Part No. MS3106E-28-15SW

End B fitting: No.2 butt connector, Part No. 26DC/15025

Cable length: 25 ft. 2 in.

Cable type : Uninyvin type A

| Cable size | Core ident. | Service                               | Cable size                           | Core ident. | Service  |
|------------|-------------|---------------------------------------|--------------------------------------|-------------|--|
| 22         | A/71        | Fuel system monitoring -<br>New store | 22                                   | d/107       | HTP and APU tank<br>temperature warning<br>New store |
| 22         | B/72        |                                       | 22                                   | e/106       |  |
| 22         | C/73        |                                       | 22                                   | f/109       |  |
| 22         | D/74        |                                       | 22                                   | g/108       |  |
| 22         | E/75        |                                       | 22                                   | h/111       |  |
| 22         | F/76        |                                       | 22                                   | j/110       |  |
| 22         | G/77        |                                       | 22                                   | k/19        |  |
| 22         | H/78        |                                       | 22                                   | l/100       |  |
| 22         | J/81        |                                       |                                      |             |  |
| 22         | K/82        |                                       |                                      |             |  |
| 22         | L/83        |                                       |                                      |             |  |
| 22         | M/84        |                                       |                                      |             |  |
| 22         | N/122       |                                       | Auto pilot monitoring -<br>New store |             |  |
| 22         | P/113       |                                       |                                      |             |  |
| 22         | R/97        |                                       |                                      |             |  |
| 20         | S/23        |                                       |                                      |             |  |
| 22         | T/25        |                                       |                                      |             |  |
| 20         | U/24        |                                       |                                      |             |  |
| 20         | V/26        |                                       |                                      |             |  |
| 22         | W/27        |                                       |                                      |             |  |
| 22         | X/115       |                                       |                                      |             |  |
| 22         | Y/114       |                                       |                                      |             |  |
| 20         | Z/154       |                                       |                                      |             |  |
| 20         | a/155       |                                       |                                      |             |  |
| 20         | b/156       |                                       |                                      |             |  |
| 20         | c/157       |                                       |                                      |             |  |

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TABLE 9

## Cable loom assembly F2961

End A fitting: Cannon socket, Part No.MS3108E-28-12SW

End B fitting: No.4 butt connector, Part No.26DC/15030

Cable length: 9ft. 2 in.

Cable type : 5E/3041

| Cable size | Core ident. | Service      | Cable size | Core ident. | Service |
|------------|-------------|--------------|------------|-------------|---------|
| 18         | A/115       | Inertia nav. | 18         | N/129       |         |
| 18         | B/116       |              | 18         | P/131       |         |
| 18         | C/117       |              | 18         | R/133       |         |
| 18         | D/118       |              | 18         | S/134       |         |
| 18         | E/119       |              | 18         | T/135       |         |
| 18         | F/120       |              | 18         | U/136       |         |
| 18         | G/121       |              | 18         | V/137       |         |
| 18         | H/122       |              | 18         | W/138       |         |
| 18         | J/123       |              | 18         | X/139       |         |
| 18         | K/126       |              | 18         | Y/100       |         |
| 18         | L/127       |              | 18         | Z/109       |         |
| 18         | M/128       |              | 18         | a/130       |         |
|            |             |              |            | 18          | b/132   |
|            |             |              | 18         | d           |         |

## NOTE...

At end A, cable screens are to be taken to pin d.

RESTRICTED

TABLE 10

Cable loom assembly F2977

End A fitting: Cannon socket, Part No.MS3108E-28-12SX

End B fitting: No.4 butt connector, Part No.26DC/15030

Cable length: 9ft. 2 in.

Cable type : 5E/3041

| Cable size | Core ident. | Service      | Cable size | Core ident. | Service |
|------------|-------------|--------------|------------|-------------|---------|
| 18         | A/1         | Inertia nav. | 18         | N/13        |         |
| 18         | B/2         |              | 18         | P/15        |         |
| 18         | C/3         |              | 18         | R/17        |         |
| 18         | D/4         |              | 18         | S/81        |         |
| 18         | E/5         |              | 18         | T/82        |         |
| 18         | F/6         |              | 18         | U/83        |         |
| 18         | G/86        |              | 18         | V/84        |         |
| 18         | H/87        |              | 18         | W/98        |         |
| 18         | J/88        |              | 18         | X/99        |         |
| 18         | K/10        |              | 18         | Y/89        |         |
| 18         | L/11        |              | 18         | Z/25        |         |
| 18         | M/12        |              | 18         | a /14       |         |
|            |             |              | 18         | b /16       |         |
|            |             |              | 18         | d           |         |

NOTE...

At end A, cable screens are to be taken to pin d

RESTRICTED

TABLE 11

## Cable loom assembly F2987

End A fitting: Cannon socket, Part No.MS3108E-28-125

End B fitting: No.4 butt connector, Part No.26DC/15030

Cable length: 9ft. 5in.

Cable type : SE/3041

| Cable size | Core ident. | Service      | Cable size | Core ident. | Service |
|------------|-------------|--------------|------------|-------------|---------|
| 18         | A/111       | Inertia nav. | 18         | P/P8        |         |
| 18         | B/112       |              | 18         | R/R7        |         |
| 18         | C/113       |              | 18         | S/9         |         |
| 18         | D/140       |              | 18         | T/23        |         |
| 18         | E/141       |              | 18         | U/26        |         |
| 18         | F/142       |              | 18         | V           |         |
| 18         | G/105       |              | 18         | W/28        |         |
| 18         | H/114       |              | 18         | X/29        |         |
| 18         | J/50        |              | 18         | Y/30        |         |
| 18         | K/33        |              | 18         | Z/31        |         |
| 18         | L/35        |              | 18         | a           |         |
| 18         | M/37        |              | 18         | b           |         |
| 18         | N/39        |              | 18         | d           |         |

## NOTE...

On Cannon socket at end A, cable screens are to be taken to pin d.

RESTRICTED

TABLE 12

## Cable loom assembly F2989

End A fitting: Cannon socket, Part No. MS3108E-22-14SW  
 End B fitting: No.4 butt connector, Part No. 26DC/15030  
 Cable length: 10ft.  
 Cable type : 5E/3041

| Cable size | Core ident. | Service      |
|------------|-------------|--------------|
| 18         | A/51        | Inertia nav. |
| 18         | B/52        |              |
| 18         | C/55        |              |
| 18         | D/54        |              |
| 18         | E/101       |              |
| 18         | F/102       |              |
| 18         | G/103       |              |
| 18         | H/104       |              |
| 18         | J/53        |              |
| 18         | K/106       |              |
| 18         | L/107       |              |
| 18         | M/108       |              |
| 18         | N/56        |              |
| 18         | P/58        |              |
| 18         | R/60        |              |
| 18         | S/61        |              |
| 18         | T/57        |              |
| 18         | U/59        |              |
| 18         | V           |              |

NOTE...

At end A, cable screens are to be taken to pin V.

TABLE 13

## Cable loom assembly F2993

End A fitting: Cannon socket, Part No. MS3108E-22-14S  
 End B fitting: No.4 butt connector, Part No. 26DC/15030  
 Cable length: 10ft. 1 in.  
 Cable type : 5E/3041

| Cable size | Core ident. | Service      |
|------------|-------------|--------------|
| 18         | A/63        | Inertia nav. |
| 18         | B/64        |              |
| 18         | C/65        |              |
| 18         | D/143       |              |
| 18         | E/144       |              |
| 18         | F/145       |              |
| 18         | G/146       |              |
| 18         | H/147       |              |
| 18         | J/62        |              |
| 18         | K/149       |              |
| 18         | L/41        |              |
| 18         | M/151       |              |
| 18         | N/152       |              |
| 18         | P/67        |              |
| 18         | R/71        |              |
| 18         | S/72        |              |
| 18         | T/153       |              |
| 18         | U/68        |              |
| 18         | V           |              |

NOTE...

At end A, cable screens are to be taken to pin V. The angular setting of end A is to be O.

RESTRICTED

TABLE 14

## Cable loom assembly F2994

End A fitting: Cannon socket, Part No. MS3108E-28-12S

End B fitting: No.4 butt connector, Part No. 26DC/15030

Cable length: 9ft. 11 in.

Cable type : 5E/3041

| Cable size | Core ident. | Service      | Cable size | Core ident. | Service |
|------------|-------------|--------------|------------|-------------|---------|
| 18         | A/42        | Inertia nav. | 18         | a/80        |         |
| 18         | B/43        |              | 18         | b/46        |         |
| 18         | C/44        |              | 18         | d/47        |         |
| 18         | D/154       |              | 18         | R/48        |         |
| 18         | E/155       |              | 18         | S/48        |         |
| 18         | F/156       |              | 18         | T/90        |         |
| 18         | G/73        |              | 18         | U/91        |         |
| 18         | H/74        |              | 18         | V/92        |         |
| 18         | J/45        |              | 18         | W/93        |         |
| 18         | K/76        |              | 18         | X/94        |         |
| 18         | L/77        |              | 18         | Y/95        |         |
| 18         | M/78        |              | 18         | Z/96        |         |
| 18         | N/79        |              | 18         | P           |         |

## NOTE...

End A screens are to be insulated from the shell. Angular setting is to be 0.

RESTRICTED

TABLE 15

## Cable loom assembly F2995

End A fitting: Cannon socket, Part No. MS3108E-18-20S  
 End B fitting: No.4 butt connector, Part No. 26DC/15030  
 Cable length: 10 ft. 3 in.  
 Cable type : 5E/3041

| Cable size | Core ident. | Service      |
|------------|-------------|--------------|
| 18         | A/24        | Inertia nav. |
| 18         | B/22        |              |
| 18         | C/20        |              |
| 18         | D/18        |              |
| 18         | E           |              |

## NOTE...

At end A, cable screens are to be taken to pin E. Angular setting at end A is to be 0.

TABLE 16

## Cable loom assembly F3070

End A fitting: Cannon socket, MS3106E-32-8SW  
 End B fitting: No.5 butt connector  
 Cable length: 7 ft. 3 in. (Quoted from face of socket to butt connector entry)  
 Cable type : Uninyvin type A

| Cable size | Core ident. | Service                        |
|------------|-------------|--------------------------------|
| 20         | A/CON 1     | Fuzing and arming<br>New store |
| 20         | B/CON 2     |                                |
| 20         | C/CON 3     |                                |
| 20         | D/CON 4     |                                |
| 20         | E/CON 5     |                                |
| 20         | F/CON 6     |                                |
| 20         | G/CON 7     |                                |
| 20         | H/CON 8     |                                |
| 20         | I/CON 9     |                                |
| 20         | J/CON 10    |                                |
| 20         | K/CON 11    |                                |
| 20         | L/CON 12    |                                |
| 20         | T/CON 13    |                                |
| 20         | U/CON 14    |                                |
| 20         | V/CON 15    |                                |
| 20         | W/CON 16    |                                |
| 20         | X/CON 17    |                                |
| 20         | Y/CON 18    |                                |

TABLE 17

Cable loom assembly F3071

End A fitting: Cannon socket, MS3106E-32-7SW  
 End B fitting: No.5 butt connector  
 Cable length: 27 ft. 0 in. (Quoted from face of plug to butt connector entry)  
 Cable type : Uninyvin type A

| Cable size | Core ident. | Service                        |
|------------|-------------|--------------------------------|
| 20         | A/CON 1     | Fuzing and arming<br>New store |
| 20         | B/CON 2     |                                |
| 20         | C/CON 3     |                                |
| 20         | D/CON 4     |                                |
| 20         | E/CON 5     |                                |
| 20         | F/CON 6     |                                |
| 20         | G/CON 7     |                                |
| 20         | H/CON 8     |                                |
| 20         | I/CON 9     |                                |
| 20         | J/CON 10    |                                |
| 20         | K/CON 11    |                                |
| 20         | L/CON 12    |                                |
| 20         | M/CON 13    |                                |
| 20         | N/CON 14    |                                |
| 20         | Z/CON 15    |                                |
| 20         | W/CON 16    |                                |
| 20         | X/CON 17    |                                |
| 20         | Y/CON 18    |                                |

TABLE 18

Cable loom assembly F3091

End A fitting: Cannon socket, Part No. MS3106E-28-12SY  
 End B fitting: No.1 butt connector, Part No.26DC/15024  
 Cable length: 9 ft. 3 in.  
 Cable type : Uninyvin type A

| Cable size | Core ident | Service                            |
|------------|------------|------------------------------------|
| 20         | A/120      | Telemetry switching and monitoring |
| 20         | B/121      |                                    |
| 20         | C/122      |                                    |
| 20         | D/123      |                                    |
| 20         | E/124      |                                    |
| 20         | F/125      |                                    |
| 20         | G/126      |                                    |
| 20         | H/127      |                                    |
| 20         | J/128      |                                    |
| 20         | K/129      |                                    |
| 20         | L/130      |                                    |
| 20         | M/131      |                                    |
| 20         | N/132      |                                    |
| 20         | P/133      |                                    |
| 20         | R/134      |                                    |
| 20         | S/135      |                                    |
| 20         | T/136      |                                    |
| 20         | U/137      |                                    |
| 20         | V/138      |                                    |
| 20         | W/139      |                                    |
| 20         | X/147      |                                    |
| 20         | Y/140      |                                    |
| 20         | Z/141      |                                    |
| 20         | a/145      |                                    |
| 20         | b/146      |                                    |

TABLE 19

## Cable loom assembly F3092

End A fitting: Cannon socket, Part No. MS3106E-28-12S

End B fitting: No.2 butt connector Part No. 26DC/15025

Cable length: 26 ft. 10 in.

| Cable size                | Core ident. | Service   |
|---------------------------|-------------|-----------|
| UNYV<br>TYPE A            | 20          | A/129     |
|                           | 20          | B/130     |
|                           | 20          | C/131     |
|                           | 20          | D/132     |
|                           | 16          | E/133     |
|                           | 16          | F/134     |
|                           | 16          | G/135     |
|                           | 16          | H/136     |
|                           | 20          | J/137     |
|                           | 20          | K/138     |
| UNYVMSN                   | 20          | L/139     |
|                           | 20          | M/140     |
|                           | 20          | N/141     |
|                           | 20          | P/145     |
|                           | 20          | R/146     |
| 3 core<br>twisted<br>UNYV | 20          | S/147     |
|                           | 20          | (R) T/124 |
|                           | 20          | (Y) U/125 |
| UNYV<br>TYPE A            | 20          | (B) V/126 |
|                           | 20          | W/127     |
|                           | 20          | X/128     |
|                           | 16          | Y/120     |
|                           | 16          | Z/121     |
|                           | 16          | a/122     |
|                           | 16          | b/123     |

Telemetry switching  
and monitoring

TABLE 20

## Cable loom assembly F3093

End A fitting: Part No. P30/HC312

End B fitting: Earth strap (soldered connection)

Cable length: 10 ft. 6 in.

Cable type : Uninyvin 12, type A

Service : Inertia Nav.

Core ident. : ETH/No. 1 Bond

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