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FAQ on copyright of VMARS documents

- Q** How can you copyright a document that is already in the public domain?
- A.** *Plainly the original copyright of the content has expired, or we have obtained permission to copy them. What we copyright is our own edition of the document.*
- Q.** Surely your “own edition” is identical to the original document, so cannot be copyrighted?
- A.** *Our editions are **not** identical to the original document. You will find that full advantage has been taken of electronic publishing facilities, so pages are cleaned up where possible (rendering them better than originals in some cases!), and large diagrams are prepared for both on-screen viewing and for easy printing at A4 format.*
- Q.** Why do you not just give your manuals away, as so many do via the internet these days?
- A.** *We do make all our manuals available free of charge (in soft copy) to VMARS members. These members have already covered the costs of running the archive via their subscriptions. The only time members are charged for copies is when they request them on paper, in which case charges are restricted to the cost of paper, ink and postage.*

The VMARS archive is not a “shoe-string” operation. Money is spent on computing facilities to make copies available, and on shipping original documents securely (usually costing several pounds per shipment) to carry out the scanning. As members have already contributed to these costs, it is only reasonable that non-members should do likewise – and thus a very moderate charge is levied for copies provided to non-members. With typical commercial photocopying charges starting at 5 pence per A4 side, it will be evident that paying 4 pence for our equivalent on paper is excellent value (amounts current at Spring 2004). We also think “you get what you pay for” – we invite you to make the comparison and draw your own conclusions!

Despite the above, we will be making copies of essential technical information (circuit diagram, parts list, layout) freely available to all via our website from late 2004 onwards. This will be done to try and encourage and enable the maintenance of our remaining stock of vintage electronic equipment.

Guidance on using this electronic document

Acrobat Reader version

You need to view this document with Acrobat Reader **version 5.0** or later. It is possible that the document might open with an earlier version of the Acrobat Reader (thus allowing you to get this far!), but is also likely that some pages will not be shown correctly. You can upgrade your Acrobat Reader by direct download from the internet at <http://www.adobe.com/products/acrobat/readermain.html> or going to <http://www.adobe.com/> and navigating from there.

Printing the document on A4 paper

You should note first that virtually all original documents are in double-sided format, i.e. printed on both sides of the paper. Accordingly, our copies are similarly double-sided., and the best results are obtained if the document is printed double-sided. You can print out on one side only, but you will find that you get a number of blank sheets (which can just be removed and reused), and where margins vary in width between left-hand and right-hand pages, there is a danger of the text disappearing into the binding of your printed copy.

This document is of fairly simple format in that it can be made to print out using an A4 format printer (this is the common paper size available in UK and Europe, which measures 29.7cm by 21.0cm). By “simple” I mean that there are no large diagrams on fold out sheets, which will require multiple A4 pages to print out at full size.

Original document sizes do vary a lot – from the small manuals, which approximate to A5 size (21.0 x 14.8 cm) up to the now obsolete foolscap size (21.6 x 33.0 cm). US documents tend to use their “letter” size paper (21.6 x 27.9 cm). All these sizes can be printed on A4 paper by simply getting Acrobat to shrink or enlarge the pages as necessary. This is done as follows:

1. Select “File – Print” or click on the printer icon. This will bring up the print dialog box.
2. Select the correct printer if necessary.
3. Select the pages you want to print – even if you want to print all of the document, you will probably not want to print this notice and help page, so start the printing at page 3.
4. In the “Page Handling” area, next to “Page Scaling”, select “Fit to paper”. The press “OK”

Printing the document on an US Letter format printer

Since A4 and US Letter sizes are similar, it is expected that this document should print satisfactorily on the latter format paper. This has not been tested however, and is not guaranteed. Follow the steps as for A4 printing, and make doubly sure that “Fit to paper” is selected (step 4).

Any other problems?

Please get in touch with me at archivist@vmarsmanuals.co.uk.

Richard Hankins, VMARS Archivist, Summer 2004

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STATION, RADIO, UK/PRC316

TECHNICAL HANDBOOK - UNIT REPAIRS

SCOPE OF UNIT REPAIRS

1. The PRC316 is a sealed equipment and must not be opened at unit level. The equipment is to be backloaded for all electrical repairs. The following mechanical repairs and adjustments may be carried out at unit level.

MECHANICAL ADJUSTMENTS

2. The only adjustments are made to the Key Telegraph, ie key travel adjustment and key side play and tension adjustment. The travel may be adjusted by removing the protective plug (Item 1 Fig 1) and adjusting the nut (Item 2 Fig 1) until the desired travel is achieved. The side play and tension may be adjusted by slackening the grub screws (Item 3 Fig 1) and adjusting pivot screw (Item 4 Fig 1) for desired tension. These grub screws should be removed and the threads coated with Varnish Insulating, Anti-track, Air Drying, (H1/8010-99-942-8917), before carrying out any adjustments. They should be screwed down until the pivot screw (Item 4 Fig 1) is locked in position.

MECHANICAL REPAIRS

Transmitter-receiver

3.
 - a. Remove any dirt and moisture from the plugs, sockets, terminals dials and knobs.
 - b. Examine the set for any sign of physical damage.
 - c. Broken knobs (excluding those used for frequency selection) should be replaced. The knobs are secured in position by the screws located on their face. When replacing damaged knobs care must be taken that they are correctly orientated before they are secured, and not 180° displaced.
 - d. Distortion of the battery case should be straightened by hand or hand tools wrapped in cloth. On no account is the case to be hammered as this may cause permanent damage to the internal crystals. Broken battery securing clips should not be replaced at unit level. Sets with badly damaged battery cases must be backloaded for repair.

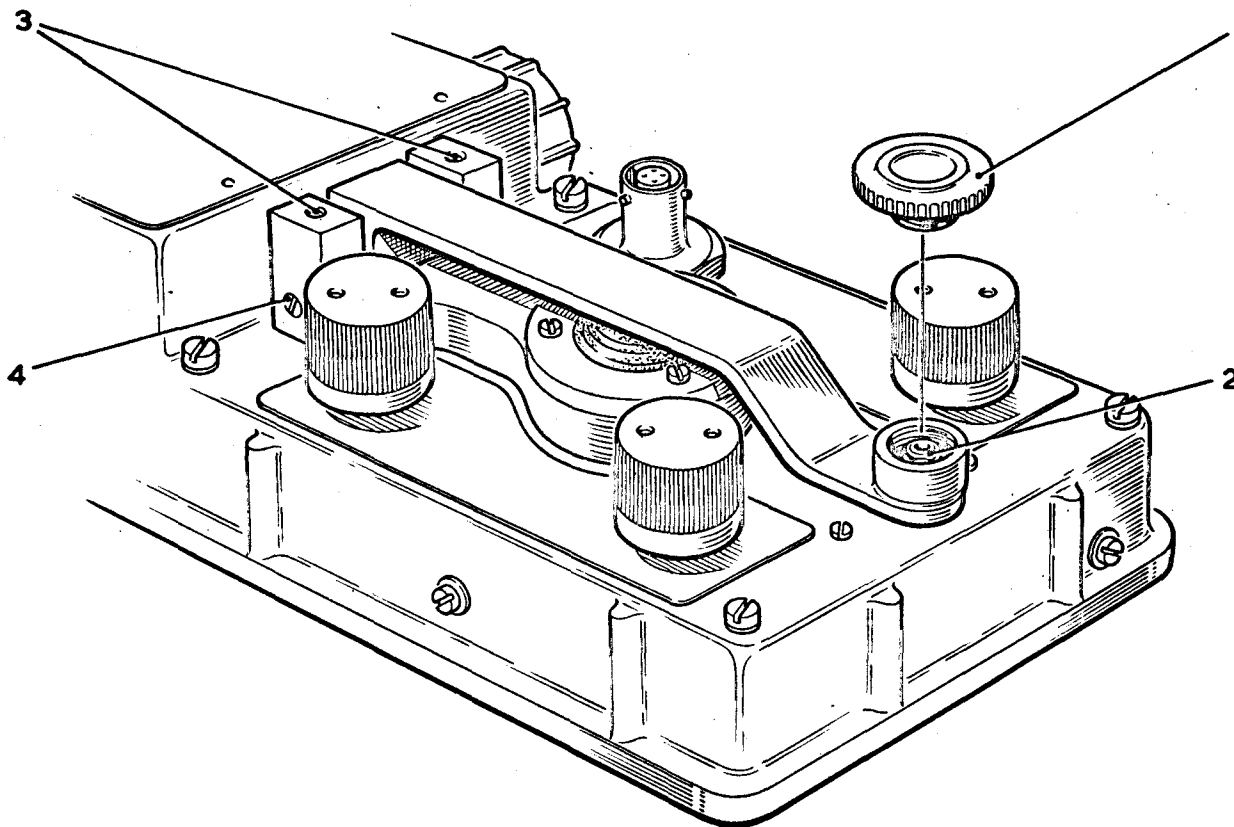


Fig 1 - Telegraph key adjustments

Adaptor unit AN/GRA71 - UK/PRC316

4. No repairs to this item may be carried out at unit level.

Adaptor unit, battery remote

5. a. Repairs on this item are limited to fuse replacement, ie Fuse (Z32/5920-99-940-2448) and replacement of the fuse cap part of fuse carrier assembly (Z32/5920-99-059-1061).

b. To test that the adaptor is functioning correctly carry out the following tests:-

(1) Apply 12V to the adaptor input socket (the raised socket on the side of the adaptor). The voltage present at the two small inner holes of the output socket must not be less than 11.5V.

(2) Reverse the polarity of the applied voltage; there must be no output.

(3) Apply in turn 6V and 24V to the input socket; the output must be 0V.

Headset, electrical

6. This may be repaired as necessary. However, the Plug Electrical and the Outlet Set, Angle, Electrical are permanently bonded together; therefore it is only possible to replace the complete cable assembly special purpose.

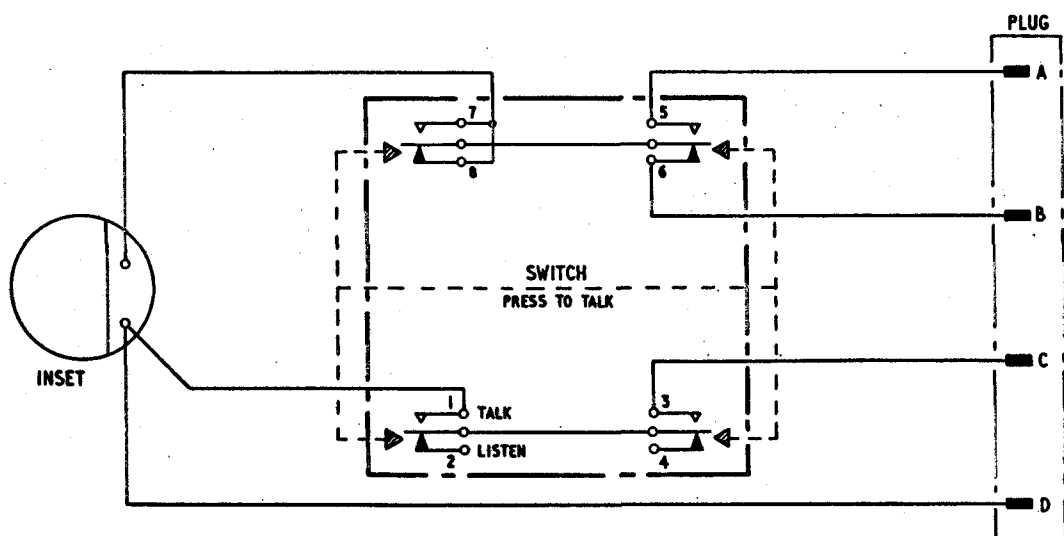
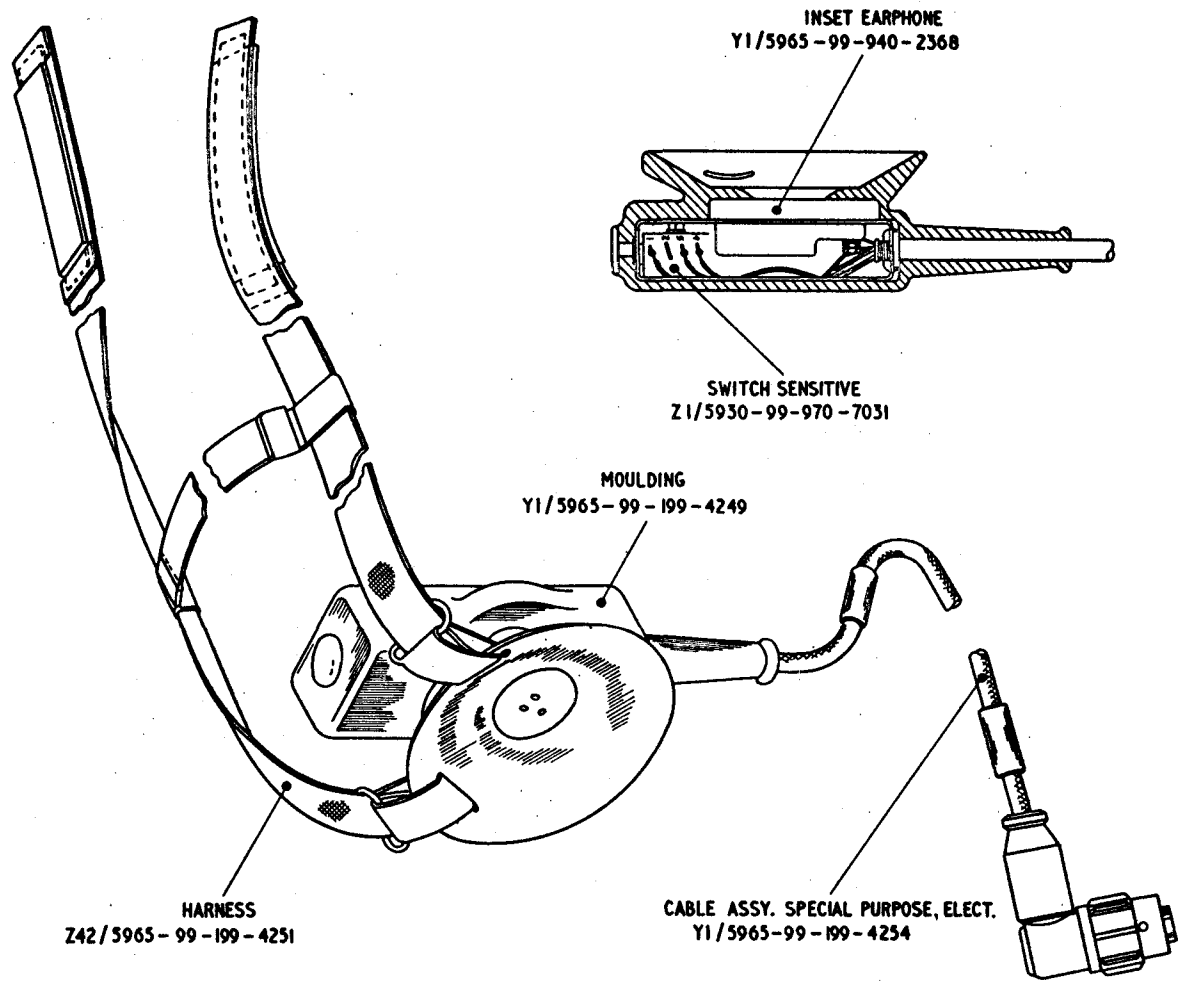


Fig 2 - Headset, circuit and detail

7. To gain access to the insert, earphone and/or switch, sensitive the following procedure should be adopted:-

- a. The headset should be held as indicated in Fig 3.
- b. The moulding should be 'rolled' back to the position indicated in Fig 4.
- c. The special purpose cable assembly should be eased through the moulding with pliers wrapped in cloth in the manner and to the position indicated in Fig 5.
- d. The moulding should now be removed as in Fig 6.

8. To assemble the headset the reverse procedure should be followed. When starting to assemble the headset take care that the support is fully engaged into the moulding as in Fig 7. After the cable assembly has been fed through the moulding, the headset should be held as in Fig 8 before the moulding is finally rolled on.

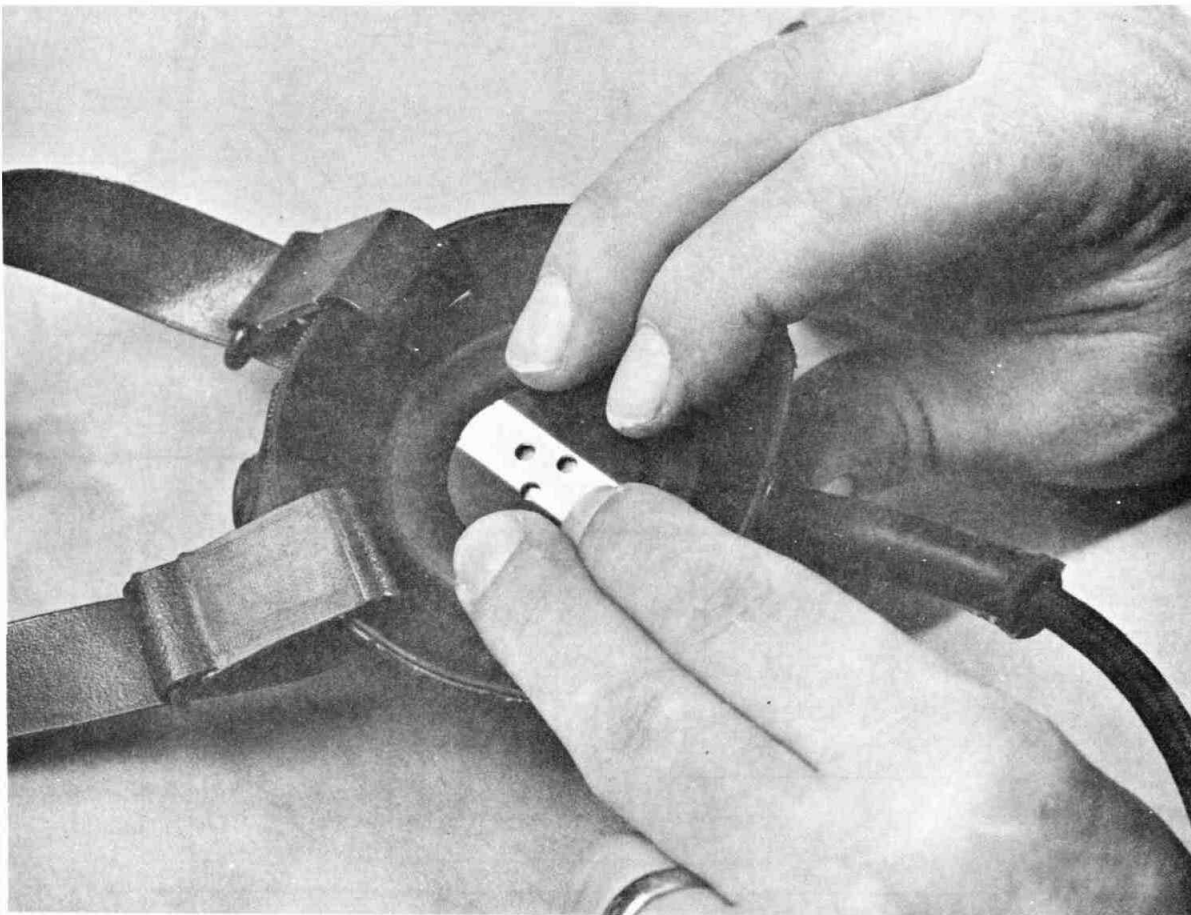


Fig 3 - Removing the moulding (1)

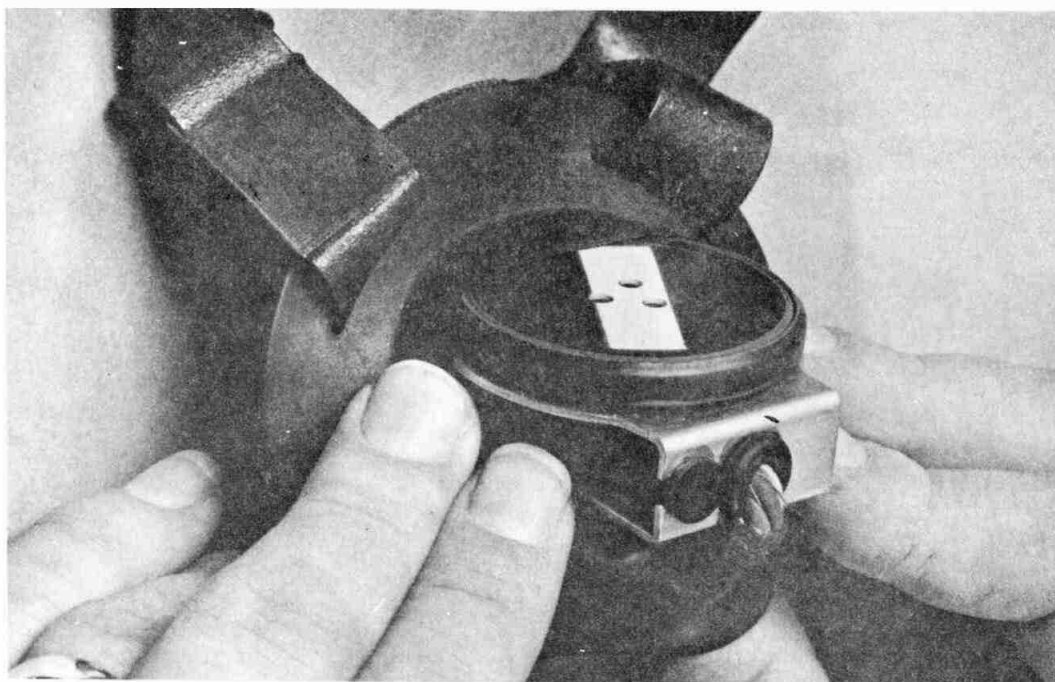


Fig 4 - Removing the moulding (2)

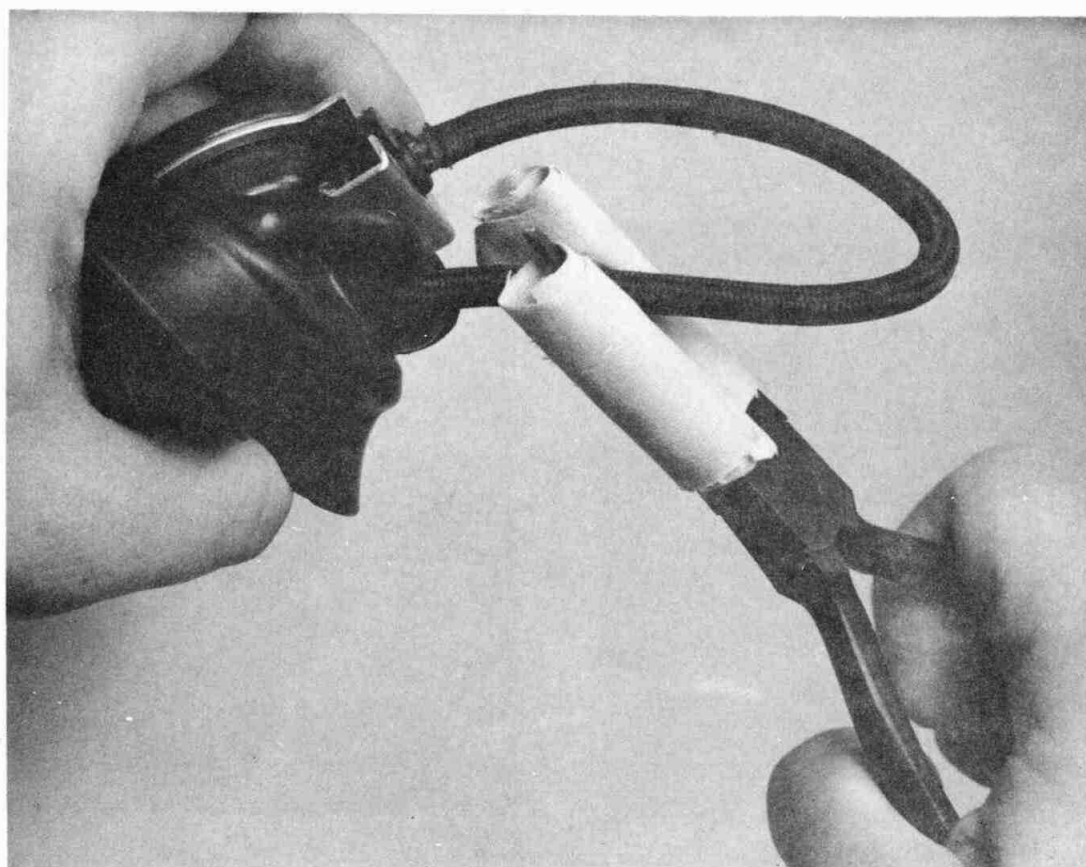


Fig 5 - Removing the moulding (3)

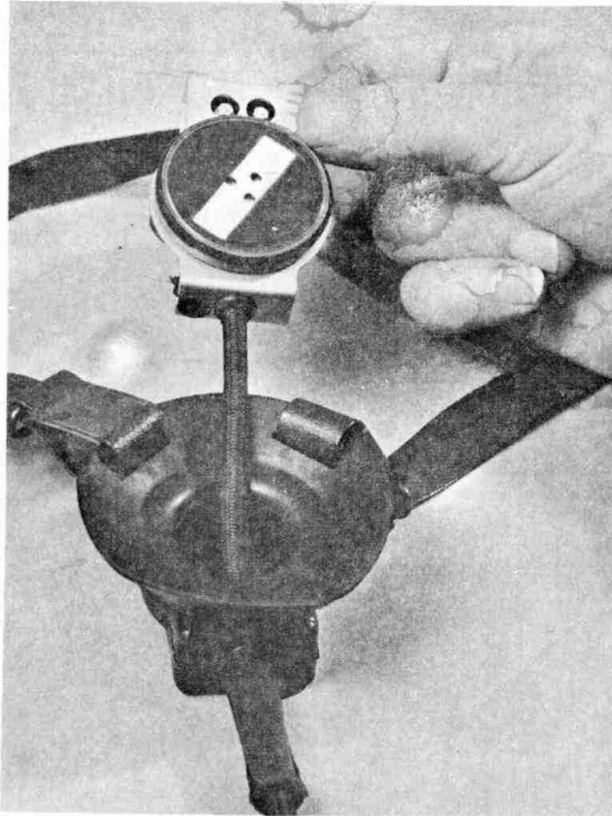


Fig 6 - Removing the moulding (4)

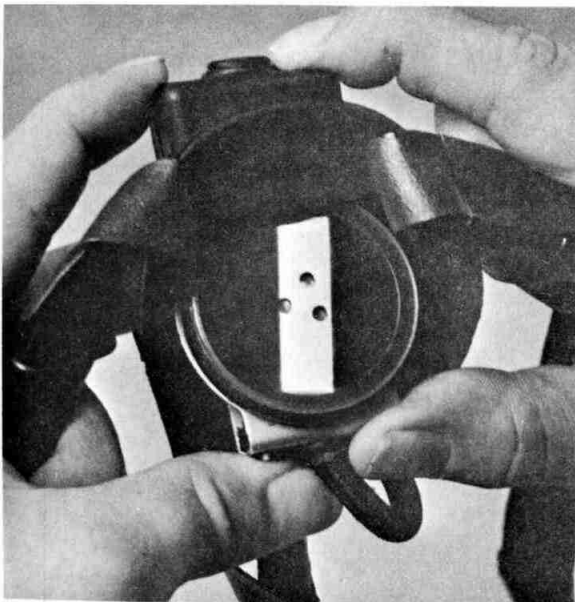


Fig 7 - Replacing the moulding (1)

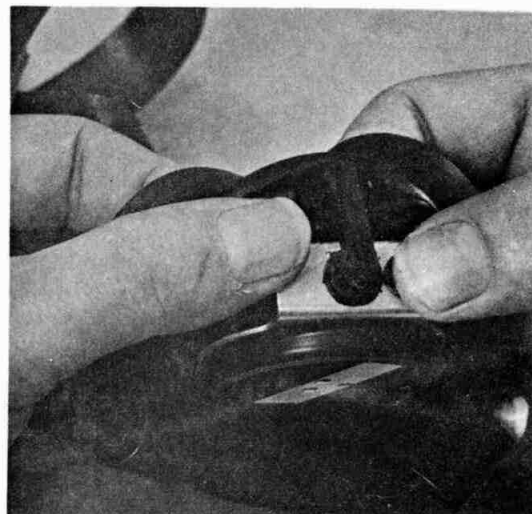


Fig 8 - Replacing the moulding (2)

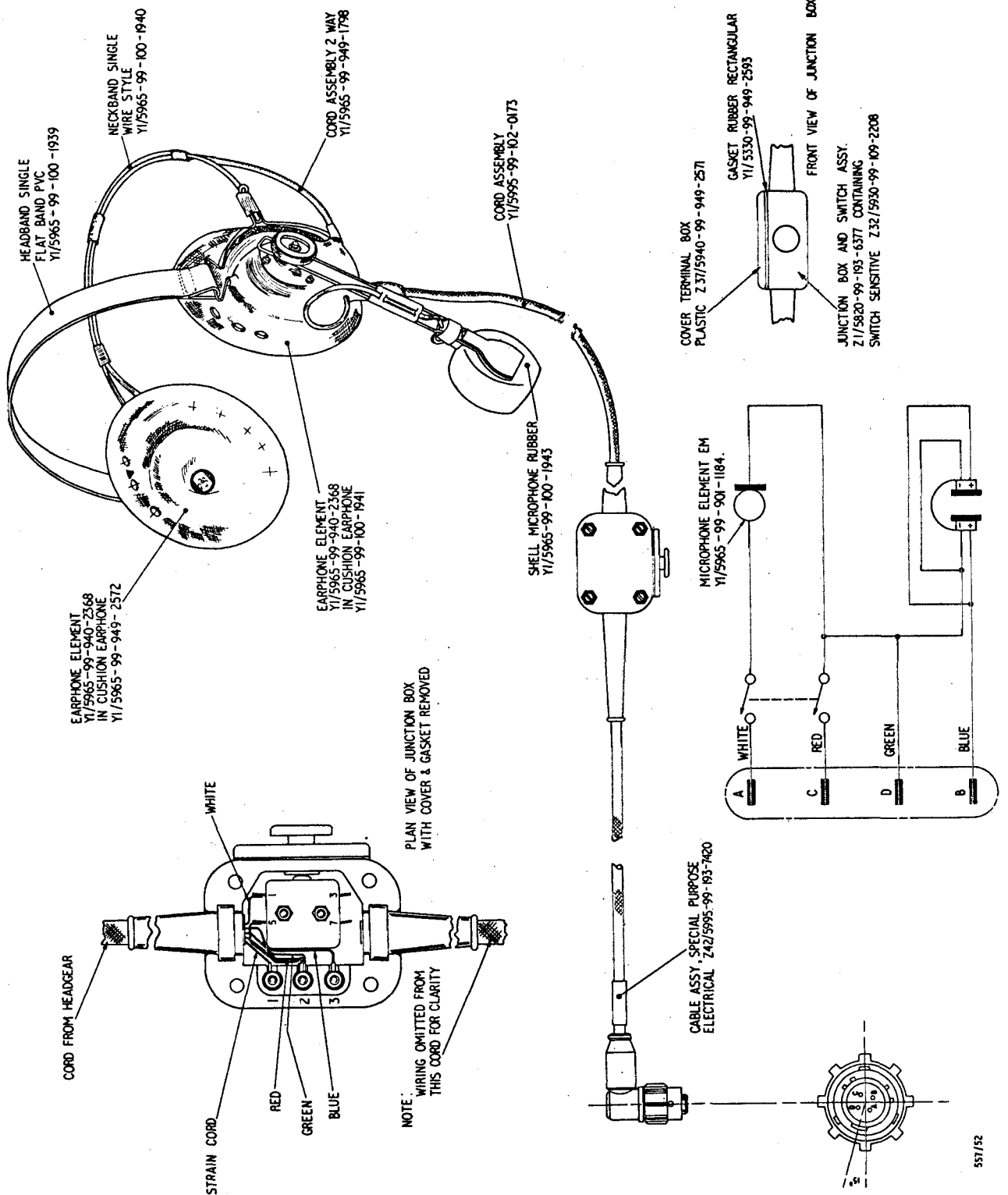


Fig 9 - Headset microphone

Headset, microphone

9. All necessary repairs may be carried out but, as in the case of the headset, the plug and the outlet are bonded together and only the complete cable assembly may be replaced.

Antenna

10. Severed antenna braids may be temporarily repaired by knotting together and then electrically connecting the broken ends. The joint should be covered with insulating tape. It must be noted that such repair will shorten the antenna and may render the frequency markers inaccurate.

EME 8/3060/Tels

END