The VMARS Archive

VMARS is a not-for-profit organisation specialising in all types of vintage communications electronics. We maintain an archive of documentation to help our members understand, research, repair and enjoy their vintage radio equipment. Access by non-members is extended as a gesture of goodwill, but not as a right.

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Please refer anyone else wanting a copy back to VMARS – either to our website at http://www.vmars.org.uk/ or by email to the Archivist at archivist@vmarsmanuals.co.uk. If you want to know more about our copyright, please see the FAQ below.

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

WIRELESS STATION A510

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

Production changes and reporting of defects

1. Certain changes have been made in the design and construction of this equipment since it was first introduced. These changes, the corresponding modification record plate figures struck out, and the serial numbers of equipments incorporating them are listed below. Modification and miscellaneous instructions will be issued for unmodified equipments when the necessary stores are available.

2. It is essential, when reporting defects, to quote the serial numbers of equipments affected. This enables the effectiveness of the changes, which were introduced to cure certain weaknesses inherent in the early sets, to be assessed.

3. The list of modifications is as follows:-

(a) Increase of sidetone oscillator keying speed from 8 to 20 w.p.m.

(b) Improvement of netting facility by reduction of spurious responses

(c) Improved wavechange switch assembly

(d) Improved type of Cone, lock, on interconnecting cables

(e) Improved type of Cover, cable entry, front panel

(f) Improved tuning control drive-shaft worm, to reduce backlash

Modification	Equipments incorporating changes and mod record plate figures struck off			
	Receivers		Transmitters	
	Serial Nos	Figure struck off	Serial Nos	Figure struck off
(a)	B151 onwards	1	B151 onwards	1
(b)	B151 onwards	2	-	-
(c)	B401 onwards	3	-	-
(d)	B200 onwards	4	B200 onwards	2
(e)	B650 onwards	5	B501 onwards	3
(f)	B650 onwards	6	-	-

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END

ELECTRICAL AND MECHANICAL
ENGINEERING REGULATIONS
(By Command of the Defence Council)

TELECOMMUNICATIONS
F 569 Misc Instr No 2

STATION, RADIO, A510

TECHNICAL HANDBOOK - MISCELLANEOUS INSTRUCTION

SUB-TITLE: Interconnecting cables

SUMMARY

1. It has been found that the lives of the connectors linking the transmitter and receiver of Station, radio, A510, via the 17-point plug PL1 and socket SKT1 are very short (2-3 months) due to the practice by operators of using them as carrying handles. The treatment as stated eventually results in the cable braids being pulled out of the locking cones in the respective cable covers (elbows) and breakage of cable conductors soon follows due to the excessive strain to which these items become subjected. Additionally, air leaks in the equipment may also occur due to strain imposed on the terminal blocks by the pull of the leads. This regulation details action to strengthen the anchorage of the braids to the cable covers of both transmitter and receiver.

ACTION

2. (a) Unscrew the cable connector nut from the cable cover and slide it along the sleeve away from the end.

(b) Unscrew the four screws securing the cable cover and lift it.

(c) Unsolder and identify the cable leads from the terminal block on the set. Slide off the cable cover.

(d) Roll back the rubber sleeve to expose the cable end.

(e) Withdraw the locking cone from between the cable braid and the plastic sleeving.

(f) Prepare a small quantity of Araldite (Araldite HV100-H1(b)/8040-99-220-2423 and Hardener for HV100-H1(b)/8040-99-220-2434).

(g) Insert Araldite (as prepared at (f)) between the plastic sleeving and braid of the cable, using a nail or similar instrument for this purpose. Force the locking cone back between the plastic sleeving and the braid.

(h) Replace the braid wire over the conical surface of the locking cone.

(j) Roll back the rubber sleeve to its original position and slide the nut back to shoulder on the rubber sleeve.

(k) Replace the cable cover on to the cable, resolder the connections to the terminal block, screw the cable cover back on to the front panel and re-fit the cable connector nut.

(l) Paint a red stripe on the cable cover.

(m) The action at sub-para (a) to (l) is to be carried out to the cables on both transmitter and receiver.

END