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Don’t miss the index!

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2. Select “File – Print” or click on the printer icon. This will bring up the print dialog box.

3. Select the correct printer if necessary.

4. In the area marked “Print Range” click on the radio button marked “Pages from..”, then enter the first and last page numbers worked out in step 1 into the “from” and “to” boxes.

5. In the “Page Handling” area, next to “Page Scaling”, select “Fit to paper”. The press “OK”

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

Richard Hankins, VMARS Archivist, Summer 2004
WIRELESS SET C12

TECHNICAL HANDBOOK - FAULT FINDING AND REPAIR DATA

This Part 2 contains fault finding and repair data in tabular and diagrammatic form. Part 1 of this EMER contains a general description of this equipment. Tels H 143 and H 144 deal with repairs.

Note: This Part 2, Issue 2, together with Part 1, Issue 2, supersedes Issue 1, Pages 1-8 and 1001-1023, dated 9 Dec 55.

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<td>V12</td>
<td>CV 428 modulator output</td>
<td>C5</td>
</tr>
<tr>
<td>V13</td>
<td>CV 428 modulator output</td>
<td>C6</td>
</tr>
<tr>
<td>V14</td>
<td>CV 131 intercomm amplifier</td>
<td>C8</td>
</tr>
<tr>
<td>V15</td>
<td>CV 136 intercomm output</td>
<td>C8</td>
</tr>
<tr>
<td>V16</td>
<td>CV 287 voltage stabilizer</td>
<td>G2</td>
</tr>
<tr>
<td>V17</td>
<td>CV 2293 barretter</td>
<td>Q5</td>
</tr>
</tbody>
</table>
### Table 2001 - (cont)

<table>
<thead>
<tr>
<th>Circuit ref</th>
<th>Description or function</th>
<th>Location (Fig 2001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>i.f. transformer</td>
<td>H2</td>
</tr>
<tr>
<td>T2</td>
<td>i.f. transformer</td>
<td>N2</td>
</tr>
<tr>
<td>T3</td>
<td>i.f. transformer</td>
<td>P2</td>
</tr>
<tr>
<td>T4</td>
<td>a.f. output transformer</td>
<td>S1</td>
</tr>
<tr>
<td>T5</td>
<td>modulator output transformer</td>
<td>C5</td>
</tr>
<tr>
<td>T6</td>
<td>modulator input transformer</td>
<td>A5</td>
</tr>
<tr>
<td>T7</td>
<td>intercomm input transformer</td>
<td>A8</td>
</tr>
<tr>
<td>T8</td>
<td>intercomm output transformer</td>
<td>D7</td>
</tr>
</tbody>
</table>

### SWITCHES

<table>
<thead>
<tr>
<th>Switch Ref</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAAa,b</td>
<td>Frequency selector switch</td>
<td>J3, J2</td>
</tr>
<tr>
<td>SCba</td>
<td>Master oscillator/crystal switch (NOT IN USE)</td>
<td>J3 and 2</td>
</tr>
<tr>
<td>db</td>
<td>System switch</td>
<td>M5</td>
</tr>
<tr>
<td>fc</td>
<td>Meter switch</td>
<td>P6</td>
</tr>
<tr>
<td>SE</td>
<td>Standby switch</td>
<td>S5/6</td>
</tr>
</tbody>
</table>

### MISCELLANEOUS

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLC</td>
<td>Send/receive relay</td>
<td>S7</td>
</tr>
<tr>
<td>RLD/1</td>
<td>Aerial coupling changeover relay</td>
<td>R/R8</td>
</tr>
<tr>
<td>MR1</td>
<td>Rectifier, type W31/1</td>
<td>Q3</td>
</tr>
<tr>
<td>M4</td>
<td>Meter, 0-500μA</td>
<td>F6</td>
</tr>
<tr>
<td>PLD</td>
<td>Aerial plug</td>
<td>C3</td>
</tr>
<tr>
<td>PLB</td>
<td>D.c. control plug</td>
<td>R7</td>
</tr>
<tr>
<td>XL1</td>
<td>Crystal (NOT IN USE)</td>
<td>J3</td>
</tr>
<tr>
<td>XL2</td>
<td></td>
<td>K2</td>
</tr>
<tr>
<td>ILP2</td>
<td>Dial lamp, 12/14V 0.75W</td>
<td>Q8</td>
</tr>
<tr>
<td>ILP3</td>
<td>Dial lamp, 12/14V 0.75W</td>
<td>Q8</td>
</tr>
</tbody>
</table>
### Table 2002(a) - 12V p.s.u. - components

<table>
<thead>
<tr>
<th>Circuit ref</th>
<th>Value</th>
<th>Tolerance</th>
<th>Rating</th>
<th>Type</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>33Ω</td>
<td>±10%</td>
<td>1/2W</td>
<td>wirewound</td>
<td>B1</td>
</tr>
<tr>
<td>R2</td>
<td>100Ω</td>
<td>±5%</td>
<td>4.1/2W</td>
<td>wirewound</td>
<td>B2</td>
</tr>
<tr>
<td>R3</td>
<td>33Ω</td>
<td>±10%</td>
<td>1/2W</td>
<td>ins comp gde 2</td>
<td>B2</td>
</tr>
<tr>
<td>R4</td>
<td>0.20Ω</td>
<td>±20%</td>
<td>6W</td>
<td>wirewound</td>
<td>B3</td>
</tr>
<tr>
<td>R6</td>
<td>1.5Ω</td>
<td>±20%</td>
<td>4.1/2W</td>
<td>wirewound</td>
<td>B1</td>
</tr>
<tr>
<td>R7</td>
<td>0.30Ω</td>
<td>±20%</td>
<td>6W</td>
<td>wirewound</td>
<td>B3</td>
</tr>
<tr>
<td>R8</td>
<td>22Ω</td>
<td>±10%</td>
<td>1/2W</td>
<td>ins comp gde 2</td>
<td>G3</td>
</tr>
<tr>
<td>R9</td>
<td>0.75Ω</td>
<td>±20%</td>
<td>4.1/2W</td>
<td>wirewound</td>
<td>F2</td>
</tr>
<tr>
<td>R11</td>
<td>33Ω</td>
<td>±10%</td>
<td>1/4W</td>
<td>ins comp gde 2</td>
<td>G3</td>
</tr>
<tr>
<td>R13</td>
<td>0.47Ω</td>
<td>±20%</td>
<td>6W</td>
<td>wirewound</td>
<td>-</td>
</tr>
</tbody>
</table>

* Note: R1 is insulated composition grade 2 type on some early models.

Φ Note: On some early models R7 and R13 are wired in parallel and connected in series with the supply side of RLB1. They are shunted by RLA3.

### Capacitors

| C1          | 0.01µF | +80%–20% | 350V  | ceramic disc | A2       |
| C2          | 0.01µF | +80%–20% | 350V  | ceramic disc | -        |
| C3          | 25µF   | +100%–20%| 50V   | electrolytic | C2       |
| C4          | 0.5µF  | ±25%     | 75V   | paper        | B3       |
| C5          | 0.01µF | +80%–20% | 350V  | ceramic disc | C3       |
| C6          | 25µF   | +100%–20%| 50V   | electrolytic | C3       |
| C7          | 0.5µF  | ±25%     | 75V   | paper        | C3       |
| C8          | 0.01µF | +80%–20% | 350V  | ceramic disc | -        |
| C9          | 0.01µF | +80%–20% | 350V  | ceramic disc | C4       |
| C10         | 0.01µF | +80%–20% | 350V  | ceramic disc | D4       |
| C11         | 0.01µF | +80%–20% | 350V  | ceramic disc | D2       |
| C12         | 25µF   | +100%–20%| 50V   | electrolytic | D2       |
| C13         | 0.01µF | +80%–20% | 350V  | ceramic disc | E2       |
| C14         | 0.05µF | ±20%     | 1000V | paper        | E3       |
| C15         | 0.01µF | +80%–20% | 350V  | ceramic disc | E2       |
| C16         | 0.5µF  | ±20%     | 350V  | ceramic disc | P2       |
| C17         | 32µF   | +50%–20% | 450V  | electrolytic | E3       |
| C18         | 0.01µF | +80%–20% | 350V  | ceramic disc | E3       |
| C19         | 0.01µF | +80%–20% | 350V  | ceramic disc | P3       |
| C20         | 0.01µF | +80%–20% | 350V  | ceramic disc | P3       |
| C21,22      | 32µF/32µF | +50%–20% | 450V  | electrolytic | E/3      |
| C23         | 0.1µF  | ±25%     | 300V  | paper        | G3       |
| C24         | 25µF   | +100%–20%| 50V   | electrolytic | P3       |
Table 2002(a) - (cont)

<table>
<thead>
<tr>
<th>Circuit ref</th>
<th>Value</th>
<th>Tolerance</th>
<th>Rating</th>
<th>Type</th>
<th>Location (Fig 2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C25</td>
<td>0.5µF</td>
<td>±25%</td>
<td>75V</td>
<td>paper</td>
<td>G3</td>
</tr>
<tr>
<td>C26</td>
<td>0.1µF</td>
<td>±25%</td>
<td>300V</td>
<td>paper</td>
<td>A2</td>
</tr>
<tr>
<td>C27</td>
<td>0.01µF</td>
<td>+80%-20%</td>
<td>350V</td>
<td>ceramic disc</td>
<td>E3</td>
</tr>
</tbody>
</table>

*Note: These components may be found on earlier sets C2 is connected to earth from the junction of R4 and L1 C6 is connected to earth from the junction of RLBL and L3

<table>
<thead>
<tr>
<th>Circuit ref</th>
<th>Description or function</th>
<th>Location (Fig 2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>l.t. filter choke</td>
<td>B3</td>
</tr>
<tr>
<td>L2</td>
<td>l.t. filter choke</td>
<td>C3</td>
</tr>
<tr>
<td>L3</td>
<td>l.t. filter choke</td>
<td>C1</td>
</tr>
<tr>
<td>L4</td>
<td>h.t. filter choke</td>
<td>E1</td>
</tr>
<tr>
<td>L5</td>
<td>r.f. choke</td>
<td>E2</td>
</tr>
<tr>
<td>L6</td>
<td>r.f. choke</td>
<td>E3</td>
</tr>
<tr>
<td>L7</td>
<td>h.t. filter choke</td>
<td>E2</td>
</tr>
<tr>
<td>L8</td>
<td>h.t. filter choke</td>
<td>E3</td>
</tr>
<tr>
<td>L9</td>
<td>smoothing choke</td>
<td>F2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valve ref</th>
<th>Description</th>
<th>Location (Fig 2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V18</td>
<td>CV 493 half-wave rectifier</td>
<td>F3</td>
</tr>
<tr>
<td>V19</td>
<td>CV 493 half-wave rectifier</td>
<td>F2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fuse ref</th>
<th>Description</th>
<th>Location (Fig 2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FS1</td>
<td>5A l.t. fuse</td>
<td>A3</td>
</tr>
<tr>
<td>FS2</td>
<td>250mA HT2 fuse</td>
<td>F1</td>
</tr>
<tr>
<td>FS3</td>
<td>250mA HT1 fuse</td>
<td>G2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Miscellaneous</th>
<th>Description</th>
<th>Location (Fig 2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>vibrator transformer (can be used for either 12V or 24V input by alteration of tapping points)</td>
<td>D3</td>
</tr>
<tr>
<td>VB1</td>
<td>vibrator, non-synchronous, 12V input</td>
<td>D3</td>
</tr>
<tr>
<td>X1</td>
<td>Rotary converter, 12V input</td>
<td>D &amp; F2</td>
</tr>
<tr>
<td>SA</td>
<td>OFF/START/ON switch</td>
<td>A2</td>
</tr>
<tr>
<td>RLA/4</td>
<td>voltage control relay</td>
<td>A2 &amp; A4</td>
</tr>
<tr>
<td>RLB/1</td>
<td>send/receive relay</td>
<td>F1</td>
</tr>
<tr>
<td>AIF1</td>
<td>pilot lamp, 12V, 2.ZN</td>
<td>B2</td>
</tr>
</tbody>
</table>

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Table 2002(b) - 24V p.s.u. - components

The components of the 24V p.s.u. are the same as the 12V p.s.u. except as shown in this table.

<table>
<thead>
<tr>
<th>Circuit ref</th>
<th>Value</th>
<th>Tolerance</th>
<th>Rating</th>
<th>Type</th>
<th>Location (Fig 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>@R1</td>
<td>200Ω</td>
<td>±5%</td>
<td>1/2W</td>
<td>wirewound</td>
<td>C2</td>
</tr>
<tr>
<td>XR3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*R5</td>
<td>9.9Ω</td>
<td>-</td>
<td>-</td>
<td>wirewound</td>
<td>A1</td>
</tr>
<tr>
<td>*R10</td>
<td>5.5Ω</td>
<td>-</td>
<td>-</td>
<td>wirewound</td>
<td>C2</td>
</tr>
<tr>
<td>*R12</td>
<td>100Ω</td>
<td>±5%</td>
<td>1/2W</td>
<td>wirewound</td>
<td>C1</td>
</tr>
<tr>
<td>*R13</td>
<td>200Ω</td>
<td>±5%</td>
<td>1/2W</td>
<td>wirewound</td>
<td>B1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAPACITORS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Circuit ref</th>
<th>Description or function</th>
<th>Location (Fig 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>@C27</td>
<td>0.01μF</td>
<td>E3</td>
</tr>
<tr>
<td>*C28</td>
<td>0.01μF</td>
<td>C2</td>
</tr>
<tr>
<td>*C29</td>
<td>0.01μF</td>
<td>A2</td>
</tr>
<tr>
<td>*C30</td>
<td>0.01μF</td>
<td>A1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MISCELLANEOUS</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Circuit ref</th>
<th>Description or function</th>
<th>Location (Fig 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>@FS1</td>
<td>Fuse, LT3A</td>
<td>B3</td>
</tr>
<tr>
<td>@R10</td>
<td>fan filter choke</td>
<td>C1/2</td>
</tr>
<tr>
<td>@SB</td>
<td>fan microswitch</td>
<td>B2</td>
</tr>
<tr>
<td>@ILP1</td>
<td>pilot lamp, 12/14V, 0.75W</td>
<td>C2</td>
</tr>
<tr>
<td>@ILP2</td>
<td>pilot lamp, 12/14V, 0.75W</td>
<td>B1</td>
</tr>
<tr>
<td>@X1</td>
<td>rotary converter, 24V input</td>
<td>D2,E2</td>
</tr>
<tr>
<td>@X2</td>
<td>fan</td>
<td>C2</td>
</tr>
<tr>
<td>@VB1</td>
<td>vibrator, non-synchronous, 24V input</td>
<td>D3</td>
</tr>
<tr>
<td>@RLA/4</td>
<td>voltage control relay</td>
<td>A2</td>
</tr>
</tbody>
</table>

Notes: @ changed in value or location
@ deleted
* added
Table 2002(c) - 24V (yellow band) p.s.u. - components

The components of the 24V (yellow band) p.s.u. are the same as the 12V p.s.u. except as shown in this table.

### RESISTORS

<table>
<thead>
<tr>
<th>Circuit ref</th>
<th>Value</th>
<th>Tolerance</th>
<th>Rating</th>
<th>type</th>
<th>Location (Fig 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ØR1</td>
<td>200Ω</td>
<td>±5%</td>
<td>1/2W</td>
<td>wirewound</td>
<td>C2</td>
</tr>
<tr>
<td>XR3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>*R4</td>
<td>12Ω</td>
<td>-</td>
<td>-</td>
<td>wirewound</td>
<td>A1</td>
</tr>
<tr>
<td>*R10</td>
<td>6Ω</td>
<td>-</td>
<td>-</td>
<td>wirewound</td>
<td>G2</td>
</tr>
</tbody>
</table>

### MISCELLANEOUS

<table>
<thead>
<tr>
<th>Circuit ref</th>
<th>Description or function</th>
<th>Location (Fig 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ØX1</td>
<td>rotary converter, 24V input</td>
<td>D3</td>
</tr>
<tr>
<td>ØVB1</td>
<td>vibrator, non-synchronus, 24V input</td>
<td>A2</td>
</tr>
</tbody>
</table>

Notes: Ø changes in value or location
X deleted
* added

### Table 2003 - A.T.U. - components

<table>
<thead>
<tr>
<th>Circuit ref</th>
<th>Description or function</th>
<th>Location (Fig 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*R1</td>
<td>resistor, 220 ± 10% 1/4W composition</td>
<td>B2</td>
</tr>
<tr>
<td>*R2</td>
<td>resistor, 6.8kΩ ±10% 1/2W composition</td>
<td>C2</td>
</tr>
<tr>
<td>*C1</td>
<td>capacitor, 0.01µF ±80% -20% 350V ceramic disc</td>
<td>C2</td>
</tr>
<tr>
<td>*C2</td>
<td>capacitor, 0.01µF ±80% -20% 350V ceramic disc</td>
<td>E2</td>
</tr>
<tr>
<td>*V1</td>
<td>valve, crystal, CG 12-E</td>
<td>C2</td>
</tr>
<tr>
<td>*V2</td>
<td>valve, crystal, CV4,4,8</td>
<td>D2</td>
</tr>
<tr>
<td>RLF/2</td>
<td>A aerial relay</td>
<td>G5</td>
</tr>
<tr>
<td>RLE/2</td>
<td>B aerial relay</td>
<td>E5</td>
</tr>
<tr>
<td>ILP4</td>
<td>dial lamp, 12/14V, 0.75W</td>
<td>G5</td>
</tr>
<tr>
<td>ILP5</td>
<td>dial lamp, 12/14V, 0.75W</td>
<td>D5</td>
</tr>
<tr>
<td>L1</td>
<td>A aerial coil</td>
<td>A4</td>
</tr>
<tr>
<td>L2</td>
<td>B aerial coil</td>
<td>B4</td>
</tr>
<tr>
<td>T1</td>
<td>aerial current transformer</td>
<td>B2</td>
</tr>
<tr>
<td>PLD</td>
<td>r.f. input plug</td>
<td>B6</td>
</tr>
<tr>
<td>PLB</td>
<td>d.c. control plug</td>
<td>F4</td>
</tr>
</tbody>
</table>

*Note: These components are not separately provisioned as spares. In case of failure the entire transformer assembly must be changed.

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<table>
<thead>
<tr>
<th>Test</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum consumption</td>
<td>REC ONLY: 5A at 12V, 3.2A at 24V</td>
</tr>
<tr>
<td></td>
<td>REC, TRANSMIT &amp; I/C: 7.2A at 12V, 6A at 24V</td>
</tr>
<tr>
<td></td>
<td>As above but on 'Send' 17.2A at 12V, 10.5A at 24V</td>
</tr>
<tr>
<td>HTM limits</td>
<td>12V, 205 - 235V; 24V, 210 - 245V</td>
</tr>
<tr>
<td>HT2 limits</td>
<td>12V, 370 - 410V; 24V, 370 - 395V</td>
</tr>
<tr>
<td>Bias supply limits</td>
<td>1.5 - 2.0V</td>
</tr>
<tr>
<td>Receiver heater limits</td>
<td>12V, 11.6 - 12V; 24V, 12 - 14V</td>
</tr>
<tr>
<td>Sender heater limits</td>
<td>12V, 11.5 - 12V; 24V, 12 - 14V</td>
</tr>
<tr>
<td>R.F. sensitivity</td>
<td>Not less than 50mV output for 2.5μV input modulated 30% at 400o/s</td>
</tr>
<tr>
<td>I.F. bandwidth</td>
<td>5-8k/s at 3dB points. Not more than 30kc/s at 30dB points</td>
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<tr>
<td>H.F. band, calibration error</td>
<td>Frequency</td>
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<tr>
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<td>4Mc/s</td>
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<td>8Mc/s</td>
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<td>9Mc/s</td>
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<td>10Mc/s</td>
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<tr>
<td>L.F. band, calibration error</td>
<td>Frequency</td>
</tr>
<tr>
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<td>1.6Mc/s</td>
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<tr>
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<td>2.0Mc/s</td>
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<td>2.5Mc/s</td>
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<td>3.0Mc/s</td>
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<td>3.5Mc/s</td>
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<td>4.0Mc/s</td>
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<tr>
<td>Image rejection ratio</td>
<td>Frequency</td>
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<tr>
<td>L.F. band</td>
<td>2Mc/s</td>
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<td></td>
<td>3Mc/s</td>
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<tr>
<td></td>
<td>4Mc/s</td>
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<tr>
<td>H.F. band</td>
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<td>8Mc/s</td>
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<td>10Mc/s</td>
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### Table 2004 - (cont)

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<tr>
<th>Test</th>
<th>Frequency</th>
<th>I.F. rejection</th>
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<td>I.F. rejection ratio</td>
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<td>L.F. band</td>
<td>3Mc/s</td>
<td>70dB</td>
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<td>4Mc/s</td>
<td>80dB</td>
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<td>H.F. band</td>
<td>4Mc/s</td>
<td>80dB</td>
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<td>6Mc/s</td>
<td>80dB</td>
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<td>8Mc/s</td>
<td>80dB</td>
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<td>10Mc/s</td>
<td>80dB</td>
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<td>C.W. performance</td>
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<td>A.G.C. characteristic</td>
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<td>Signal/noise ratio</td>
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<td>2Mc/s</td>
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<tr>
<td>L.F. band</td>
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<tr>
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<td>4Mc/s</td>
<td>4μV</td>
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<tr>
<td>H.F. band</td>
<td>4Mc/s</td>
<td>4μV</td>
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<td>6Mc/s</td>
<td>4μV</td>
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<td>8Mc/s</td>
<td>3.5μV</td>
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<td>R.F. power output</td>
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<tr>
<td>Modulator sensitivity</td>
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</table>

With set adjusted to give 200mW a.f. for an r.f. input at 3Mc/s modulated 30% at 400c/s the a.f. output at a frequency not exceeding 1kc/s must be at least 60mV when the modulation is removed from the input and the set is switched to CW.

An increase of r.f. input from 500μV to 50mV must not cause a change in receiver a.f. output of more than 15 times (+12dB). A reduction of input from 500μV to 5μV must not cause a change in a.f. output of more than 5 times (-7dB).

Not less than 4.1W at 4Mc/s (H.F. and L.F. band).
Not less than 2.7W at 2Mc/s and 3.0W at 10Mc/s.

Not more than 1kc/s at 10Mc/s.

100% modulation must be obtained with not more than 15mW input at 1kc/s.
Fig 2002 – W.S. C12 – component layout above chassis
Fig 2003(a) - W.S. G12 - component layout below chassis
Fig 2003(b) - W.S. C12 - Tag board details
Fig 2004 - W.S. C12 - Frequency band switch (SA) - layout
Fig 2005 - W.S. 012 - System switch (SC) - layout
12V p.s.u. - circuit diagram
Fig 2007 - 12V p.s.u. - component layout above chassis
Fig 2008 - 12V p.s.u. - component layout below chassis
V p.s.u. - circuit diagram
Fig 2010 - 24V p.s.u. - component layout above chassis

Page 1024
Fig 2011 - 24V p.s.u. - component layout below chassis
Fig 2012 - A.T.U. - circuit diagram
Fig 2013 - A.T.U. - component layout

END
Fig 2006 - 12V p.s.u. - circuit diagram
Fig 2009 - 24V p.m.i. - circuit diagram