WIRELESS STATION MK 121 AND MK 122

TECHNICAL HANDBOOK - DATA SUMMARY

PURPOSE
Portable, low-power, c.w., h.f. transmitter-receiver for limited use. R.T. communication is possible with the W.S. Mk 122 using a separate modulator unit.

DESCRIPTION
The set is an amplitude modulated transmitter-receiver and operates from either a power pack, vibrator pack or a hand/pedal driven generator. The receiver is a three valve superheterodyne designed for c.w. reception. The transmitter is a class C amplifier driven by a crystal controlled oscillator. Crystals of fundamental frequency, half or one third of required frequency may be used.

PHYSICAL DATA

<table>
<thead>
<tr>
<th>Model</th>
<th>Depth</th>
<th>Width</th>
<th>Height</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3.3/8</td>
<td>13</td>
<td>9</td>
<td>12.1/4</td>
</tr>
<tr>
<td>B</td>
<td>3.3/8</td>
<td>13</td>
<td>9</td>
<td>12.1/4</td>
</tr>
<tr>
<td>C</td>
<td>3.3/8</td>
<td>13</td>
<td>9</td>
<td>12.1/4</td>
</tr>
<tr>
<td>D</td>
<td>3.3/8</td>
<td>13</td>
<td>9</td>
<td>12.1/4</td>
</tr>
</tbody>
</table>

Generating sets, a.c., 10.3/8 11.3/4 16 38
45W, 110V, hand/pedal driven, No 1, Mk 1 (including Charging set, 7A, No 1, Mk 1)

Spare box 3.3/8 13 9 11b

FREQUENCY

W.S. Mk 121 2.5 to 20Mc/s on 3 bands

<table>
<thead>
<tr>
<th>Model</th>
<th>Range Band</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2.9 to 6Mc/s</td>
<td>1 2.5 to 8Mc/s</td>
</tr>
<tr>
<td>B</td>
<td>4.4 to 9Mc/s</td>
<td>2 5 to 10Mc/s</td>
</tr>
<tr>
<td>C</td>
<td>6.6 to 14Mc/s</td>
<td>3 10 to 20Mc/s</td>
</tr>
<tr>
<td>D</td>
<td>8 to 17Mc/s</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>9.4 to 20Mc/s</td>
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</tbody>
</table>

Intermediate frequency: 470kc/s

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Distribution - Class 1190. Code special
Fig 1 - Complete station (MK 122)
PERFORMANCE
Power output: Transmitter: 10-13W
Receiver sensitivity: 1-5μV for 20dB signal-to-noise ratio

POWER REQUIREMENTS AND CONSUMPTION
Power pack: For a.c. mains only, 40-400c/s, 100-250V in 10V steps
Power consumption:
  Receive: 34W
  Transmit: 22-85W
Supply units, vibratory, No 14, 6V
Power consumption:
  Receive: 5A
  Transmit: 3.5A key up
  10A key down

Generating sets, a.c. 45W 110V, hand/pedal driven, No 1, Mk 1
Supplies up to 45W at 110V a.c. 200-250c/s, when operated at 75 rev/min

AERIAL SYSTEMS
(a) 50 ft reel aerial
(b) 100 ft wire aerial

VALVES
Transmitter: Type: CV 3889
  Qty: 1
  CV 3990
  NE 48
  1
Receiver: Type: CV 3888
  Qty: 2
  CV 3883
  CV 1833
  1

EME8c/847

END