WIRELESS STATION NO. 31 AFV

TECHNICAL HANDBOOK - UNIT REPAIRS

SUBJECT INDEX

INDEX TO TABLES

GENERAL

1. Regular and careful maintenance is essential for keeping the sets in good working order. The Regulator unit is carefully adjusted before issue; any maladjustment of this by the operator will impair the efficiency of the station. It is most important, therefore, that the interior of the equipment should not be tampered with.

VALVES

2. When withdrawing valves pull them vertically with no sideways movement, otherwise they will be damaged. Take similar precautions when inserting new valves. The Extractor, Valve, wireless should be used at all times when withdrawing miniature valves.

3. Valve location drawings for all valves are shown in Tels F 372, Figs 1008 - 1010.

UNIT MAINTENANCE

4. (a) Check that all plugs and sockets are correctly mated.

(b) Check that all valves are plugged firmly in position and retainers are in position.

(c) Check that all switches are positive in action.

(d) Check that aerial plugs and connections are in good condition and mating correctly.

(e) Check that the relay is operating correctly.

(f) Check voltage adjustment as in para 5.

INSTALLATION ADJUSTMENT

5. Before installing the equipment in a vehicle it is necessary to check that the L.T. voltage from the Power supply and L.F. amplifier unit No. 3 is 3.9V when connected to the Wireless station No. 31 AFV with which it is to be installed. To do this, remove the case from the power supply unit, connect to the Wireless station No. 31 AFV and the necessary batteries, switch on and run for 15 minutes to allow the carbon pile regulator to warm up. Measure the L.T. voltage with an Avometer, universal, 40-range between the chassis and the socket SKA-D. If the voltage is not 3.9V exactly, adjust RV1 accordingly.

H.T. AND L.T. VOLTAGE CHECKS

6. Switch on the supply, check that it is 12 or 24V and adjust RV1 to give 3.9V across SKA-D and earth.

7. Leave the supply switched on for 15 minutes and, if necessary, readjust RV1 so that the L.T. voltage is still 3.9V. Check the input current and filament voltages which should be within the limits shown in Table 1.

<table>
<tr><td rowspan="2">Power supply and
L.F. amplifier No. 3</td><td colspan="3">Filament voltages: V1 - Min 2.4V Max 2.8V
V2 - Min 1.2V Max 1.4V</td></tr>
<tr><td colspan="3">Input current:
12V model
Send: 4.2A
Receive: 3.5A
24V model
Send: 3.0A
Receive: 2.5A</td></tr>
<tr><td rowspan="3">Wireless station</td><td></td><td>Filament current</td><td>H.T. current</td></tr>
<tr><td>Send</td><td>600mA</td><td>47mA</td></tr>
<tr><td>Receive</td><td>600mA</td><td>28mA</td></tr>
</table>

Table 1 - Voltages and currents of W.S. 31 AFV

Valve	Pin No.	Voltage
V1	1	1.1V
	2	67V
	3	80V
	6	67V
	7	3.9V
V2	2	11V
	3	80V
	5	E
	7	1.4V

Table 2 - Valve base voltages

END