

WIRELESS STATION A 510

DATA SUMMARY

1. This lightweight man-pack HF transmitter-receiver with voice and CW facilities is designed primarily for use by long range infantry patrols on the move, or as a ground station. For the latter role improved aerial systems are provided to achieve greater range.

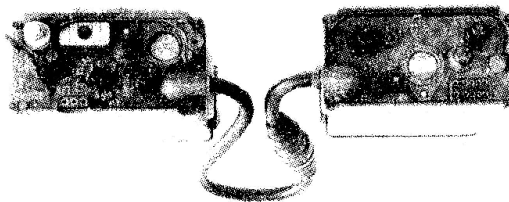


FIG 1

2. The receiver and transmitter are separated physically but are inter-dependant in operation. The transmitter is crystal controlled. The units are hermetically sealed and incorporate separate sealed compartments for the carriage of batteries, dial lamps and crystals.

3. PHYSICAL DATA

Receiver: 3 1/2 ins length x 6 1/2 ins width x 8 1/2 ins height; 9 lb  
Transmitter: 3 1/2 ins length x 6 1/2 ins width x 8 1/2 ins height; 10 lb

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3. PHYSICAL DATA (Contd)

Man-pack station: 20 lb 9 oz  
Complete station with transit case: (16 lb) 41 lb 4 oz

4. FREQUENCY

Coverage: 2 Mc/s-10 Mc/s

5. RANGES

Table 1 shows the approximate range in miles to be obtained with the various aerial systems provided.

TABLE 1

Ground Wave Operation			Sky Wave Operation		
System	Voice	C.W.	System	Voice	C.W.
Rod aerial to rod aerial - Set on move on man, or in vehicle	2	4	End fed aerial	25	75
Set on ground	3	6	Dipole (inclined) aerial	30	90
Wire aerial to wire aerial	6-8	12-16	Dipole (horizontal) aerial to ditto	40	120

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6. PERFORMANCE

- (a) Receiver sensitivity: 5 uW input for 200 uW output (0.141 V)  
(b) Sender power output: CW - 0.76 W or 101 mA in 75 Ω  
VOICE - 0.138 to 0.245 W in 75 Ω

7. POWER REQUIREMENTS

Two dry batteries: "A" - 1.5 V for both units, carried within the receiver unit;  
"B" - 90 V carried within the transmitter unit.  
The "B" battery incorporates a separate  $7\frac{1}{2}$  V "C" battery.  
The operating life of batteries is approximately 14 hours  
under normal conditions.

8. VALVES CV 785 (1T4) Qty 4 CV 782 (1R5) Qty 1  
CV 784 (1S5) Qty 1 CV 807 (3A4) Qty 3

9. CAT NO AND CES NO Cat No: Wireless Station A510 - TSE(W)8  
Transmitter - TSE(W)8-297  
Receiver - TSE(W)8-519  
CES No: 1636/2

10. ASSOCIATED PUBLICATIONS Maintenance Scale (Aust)/TC/297/1  
Identification List No 7610-010-0546  
User Handbook No 7610-010-0284

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