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

WIRELESS STATION NO. 31 A.F.V.

TECHNICAL HANDBOOK - DATA SUMMARY

Pote: This issue, Pages 1 and 2, supersedes Pages 1 and 2 of Issue 1, dated 27 Oct. 1952. It has been amended.

PURPOSE

Communication between Command or Control A.F. Vs and infantry.

DESCRIPTION

The Wireless station No. 31 A.F.V. is basically a Wireless set No. 31 (see Tels F 360) With minor modifications. Its power supply is obtained from the power supply and L.F. amplifier unit No. 3, which also provides:-

- (a) Operation from 12 or 24V supply (by interchangeable sub-chassis).
- (b) Control by Wireless set No. 19 harness, using Control units Nos. 16 and 17, or No. 33.
- (c) Additional A.F. amplification, which is required when working under A.F.V. conditions.

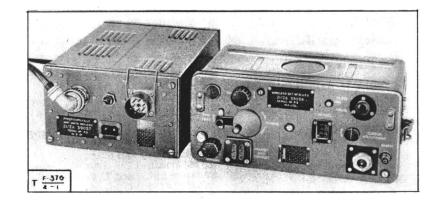


Fig 1 - General view of equipment

TELECOMMUNICATIONS F 370

RESTRICTED

ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS

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RANGE

	Weight Le	ngth Heigh	t Depth	3-4 miles, depending on local terrain			
W. S. 31 A. F. V.:	8 16 12	in 5番 i	n 6½ in	POWER REQUIREMENTS AND CONSUMPTION	ON		
Power supply and L.F. amplifier unit No. 3:	17 <u>1</u> 10 8	in 5 i	n 10½ in	Power Consumption: On send:	12 or 24V battery 12V 2.5A		
Control unit No. 16:	3 15 6	$\frac{1}{2}$ in 6 i	n 3½ in		24V 1.3A		
Control unit No. 17:	23 15 6	<u>i</u> in 6 1	n $3\frac{1}{4}$ in	and input tologe tallactons of II to and 22 00 co			
Control unit No. 33:	2至110 6	$\frac{1}{2}$ in 6 i	n 3½ in	the 12V and 24V units, respectively,	may be tolerated.		

FREQUENCY

AERIAL SYSTEM

No. 16.

Frequency coverage

40-48Mc/s in 41 channels,

200kc/s separation

5 ft 6 in vertical rod

Re-broadcast facilities are available on both Wireless

sets No. 19 and No. 31 A.F. V., using Control unit

Intermediate frequencies :

4.3 and 2.51Mc/s

PERFORMANCE -

SPECIAL FACILITIES

Receiver: sensitivity: output

7µV for 20db quieting 150mW nominally, from

Power supply and L.F.

amplifier unit No. 3 0.2W into 45Ω

Sender : Output

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VALVES

Circuit ref.	CV No.	Function	Circuit ref.	CV No.	Function
	•	W.S.31 A.F.V	V12-13 V14	CV 1758 CV 753	Limiters Discriminator
V1 .	CV 807	Power amplifier	V15 V16	CV 784 CV 784	Discriminator and A.F. amplifier Noise amplifier
vž	CV 807	Mixer and crystal oscillator	V17	CV 1758	D.C. amplifier
VЗ	CV 785	Doubler	V18	CV 784	Squelch oscillator
V4	CV 785	M.O. and 1st local oscillator		1	
¥5 V6 V7	CV 1758 Reactor and A.F.C. valve CV 785 R.F. amplifier CV 1758 1st mixer	Power supply and L.F. amplifier No. 3			
V8-9	CV 785	I.F. amplifiers		011 000	
V10	CV 782 CV 785	2nd mixer and crystal oscillator I.F. amplifier	V1 .V2	CV 807 CV 1758	Output amplifier: Microphone amplifier

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END