

WIRELESS SET A40

TECHNICAL HANDBOOK - DATA SUMMARY

PURPOSE

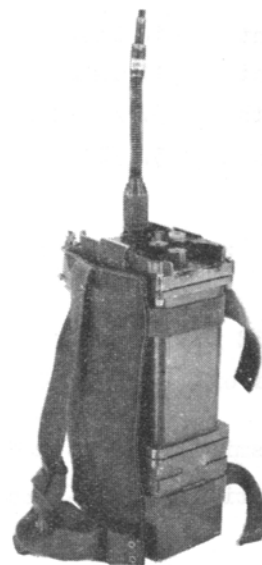
Manpack station for forward area
Infantry use.

DESCRIPTION

A lightweight, sub-miniature, portable
F.M. transceiver. Operates on six alterna-
tive crystal-controlled channels around
50 Mc/s. Construction employs plug-in sub-
assemblies and circuit stages.

A superheterodyne receiver is used,
the line up being: R.F., mixer, crystal-
controlled local oscillator, four double
tuned I.F. stages, limiter, discriminator
and A.F. amplifier. The sender has P.A.,
M.O., Ferrite reactor modulator, and is
held on frequency by an A.F.C. circuit
referred to the receiver crystal oscillator.

T	F-400
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Distribution - Class 870 Code No. 3

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PHYSICAL DATA (including battery)

Weight 10 lbs.
Height 11 ins.
Length 5.1/4 ins.
Width 3.1/2"

FREQUENCY

R.F. : Six selected channels in band 47-55.4Mc/s
I.F. : 4.3Mc/s

PERFORMANCE

Receiver : 2 μ V input for 20db signal/noise, with 15kc/s deviation at
1kc/s and 6mW output
Transmitter : 300mW R.F. output
Deviation : \pm 15kc/s peak

POWER REQUIREMENTS AND CONSUMPTION

Dry battery	: volts	1.25	45	90	-2.5 bias
Current receive	: mA	550	14	5	-
Current send	: mA	900	8	35	-
Battery end point	: volts	1.05	34	68	-

AERIAL SYSTEMS

- (i) 4-foot vertical rod
- (ii) 4-foot wire
- (iii) 4-foot vertical rod with earthed counterpoise wire
- (iv) A remote half-wave aerial including matching unit
- (v) A portable homing loop

SPECIAL FACILITIES

A test socket is provided which, together with a Wireless set A40 functional tester, allows of the re-alignment and testing of the wireless set.

A number of sub-units and components are interchangeable with Canadian parts from CFR-26, full details are contained in EMER Tels F402.

VALVES

Circuit reference	CV No.	Function
V1	2237	Modulator
V2	2240	Master oscillator
V3	2240	Power amplifier
V4	2237	R.F. amplifier
V5	2254	Mixer
V6	2254	I.F. amplifier
V7	2254	I.F. amplifier
V8	2254	I.F. amplifier
V9	2254	I.F. amplifier

Circuit reference	CV No.	Function
V10	2254	Limiter
V11	2238	A.F. amplifier
V12	2237	A.F.C. driver
V13	2237	Crystal oscillator
MR1	448)	A.F.
MR2	448)	discriminator
MR3	448)	A.F.C.
MR4	448)	discriminator

REMARKS

Has similar operational characteristics to the Canadian radio set CIRC-26.

Electro-Acoustic equipment: Inserts, standard, microphone, carbon No. 1
Inserts, standard, receiver, E.M., No. 1

END