

30 July 1962

Cog Service: USN FSN: 5820-725-4824

RADIO, TRANSMITTING SET AN/URT-18
Functional Class:

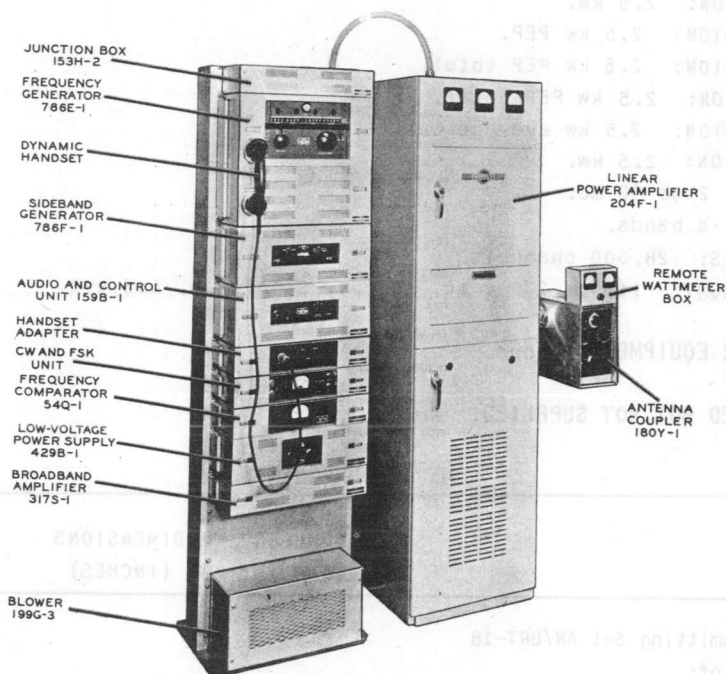
USA

USN

USAF

TYPE CLASS: Used by Used by

MANUFACTURER'S NAME/CODE NUMBER: Collins Radio Company, (13499).



Radio, Transmitting Set AN/URT-18

FUNCTIONAL DESCRIPTION:

The Radio, Transmitting Set AN/URT-18 is designed as a manually tuned single-sideband transmitter for operation in the 2 to 30 megacycle (MC) high-frequency range. It delivers 2.5 kilowatts peak envelope power or 2.5 kilowatts power-continuously. The AN/URT-18 incorporates provisions for including compatible AM (carrier reinserted), CW or FSK operation. The frequency range of 2 to 30 megacycles is covered in four bands; the desired operating frequency being set to one kilocycle increments on a direct-reading frequency counter.

No field changes in effect at time of preparation (15 March 1962).

TECHNICAL CHARACTERISTICS:

TYPES OF EMISSION: A1, A3a, A3b, A9, A9a, F1.
DISTORTION: 35 db below PEP output (3rd order distortion).
CARRIER SUPPRESSION: 45 db below PEP output.

AN/URT-18 RADIO, TRANSMITTING SET

UNDESIREB SIDEBAND SUPPRESSION: 40 db below PEP output.

AUDIO INPUTS

USB LINE: M38 to P8 dbm into 600 ohms balanced.

LSB LINE: M38 to P8 dbm into 600 ohms balanced.

MICROPHONE: Standard high-impedance dynamic with push-to-talk switch.

HANDSET: High-impedance dynamic, noise-cancelling type with push-to-talk switch.

R.F. OUTPUT IMPEDANCE: 50 ohms unbalanced.

POWER OUTPUT

A1 TYPE EMISSION: 2.5 kw.

A3a TYPE EMISSION: 2.5 kw PEP.

A3b TYPE EMISSION: 2.5 kw PEP total.

A9 TYPE EMISSION: 2.5 kw PEP total.

A9a TYPE EMISSION: 2.5 kw average carrier power.

F1 TYPE EMISSION: 2.5 kw.

FREQUENCY RANGE: 2 to 30 mc.

NUMBER OF BANDS: 4 bands.

NUMBER OF CHANNELS: 28,000 channels.

OPERATING POWER RQMT: 115 or 230 v ac, 60 cps, single ph, 6.5 kva.

RELATION TO OTHER EQUIPMENT: None.

EQUIPMENT REQUIRED BUT NOT SUPPLIED: None.

MAJOR COMPONENTS

QTY	ITEM	STOCK NUMBERS	DIMENSIONS (INCHES)	WEIGHT (LBS)
1	Radio, Transmitting Set AN/URT-18 consists of:			
1	Amplifier-Converter Modulator AM-2373/URT		6-7/8 x 6-7/8 x 19	
1	R.F. Amplifier AM-2374/URT		20 x 22-1/4 x 70	
1	R.F. Amplifier AM-2372/URT		3-1/2 x 7 x 19	
1	Amplifier-Control AM-2371/URT		6-7/8 x 7 x 19	
1	Control Power-Supply C-2691/URC		3-1/2 x 7 x 19	
1	Antenna Coupler CU-791/URT		8-7/8 x 11-5/8 x 16-11/16	
1	Converter-Monitor CU-730/URC		3-1/2 x 7 x 19	
1	Converter-Oscillator CV-731/URC		6-7/8 x 15-9/16 x 19	
1	Cooler, Air Electronic Equipment HD-347			
1	Handset H-169/U			
1	Interconnecting Box J-1007/U		3-1/2 x 7 x 19	
1	Maintenance Kit MK-447/URC-32			
1	Rack Electrical Equipment MT-2251/U		20 x 20-1/2 x 70	
1	Power Supply PP-2154/UR		5-1/8 x 7 x 19-7/8	

REFERENCE DATA AND LITERATURE:

NAVSHIPS 93541: Technical Manual for Radio, Transmitting Set AN/URT-18.

TUBE, CRYSTAL AND/OR SEMI-CONDUCTOR DATA:

TUBES: (3) DT4-17 (1) HD2123 (3) 2160 (8) J213 (1) 0B2WA (1) 12AT7WB (1) 12AU7
 (2) 4B32 (2) 4CX1000A (7) 5636 (3) 5654-6AK5W (1) 5670 (1) 5726-6AL5W
 (6) 5749-6BA6W (2) 5750-6BE6W (2) 5763 (3) 5814A (2) 5840 (4) 5899
 (2) 6CL6 (1) 6021 (2) 6146

CRYSTALS: None used.

SEMI-CONDUCTORS: (14) 1N1084 (2) 1N1086 (12) 1N1088 (1) T1650C0 (1) 1N1361A
 (1) 1N152 (6) 1N1695 (12) 1N198 (6) 1N251 (4) 1N315 (13) 1N457
 (2) 1N93 (2) 1N458 (2) 1N60

TRANSISTORS: (2) 2N1154 (7) 2N117 (5) 2N118 (8) 2N128 (1) 2N274 (3) 2N45
 (1) 2N527 (3) 2N540A

SHIPPING DATA

PKGS	VOLUME (CU FT)	WEIGHT (LBS)
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PROCUREMENT DATA

PROCURING SERVICE: USN DESIGN COG: USN, BuShips
 SPEC &/OR DWG: Collins Commercial Spec 204J-1

CONTRACTOR	LOCATION	CONTRACT OR ORDER NO.	APPROX. UNIT COST
Collins Radio Company	Cedar Rapids, Iowa	Nobsr-81039, 18 January 1960	