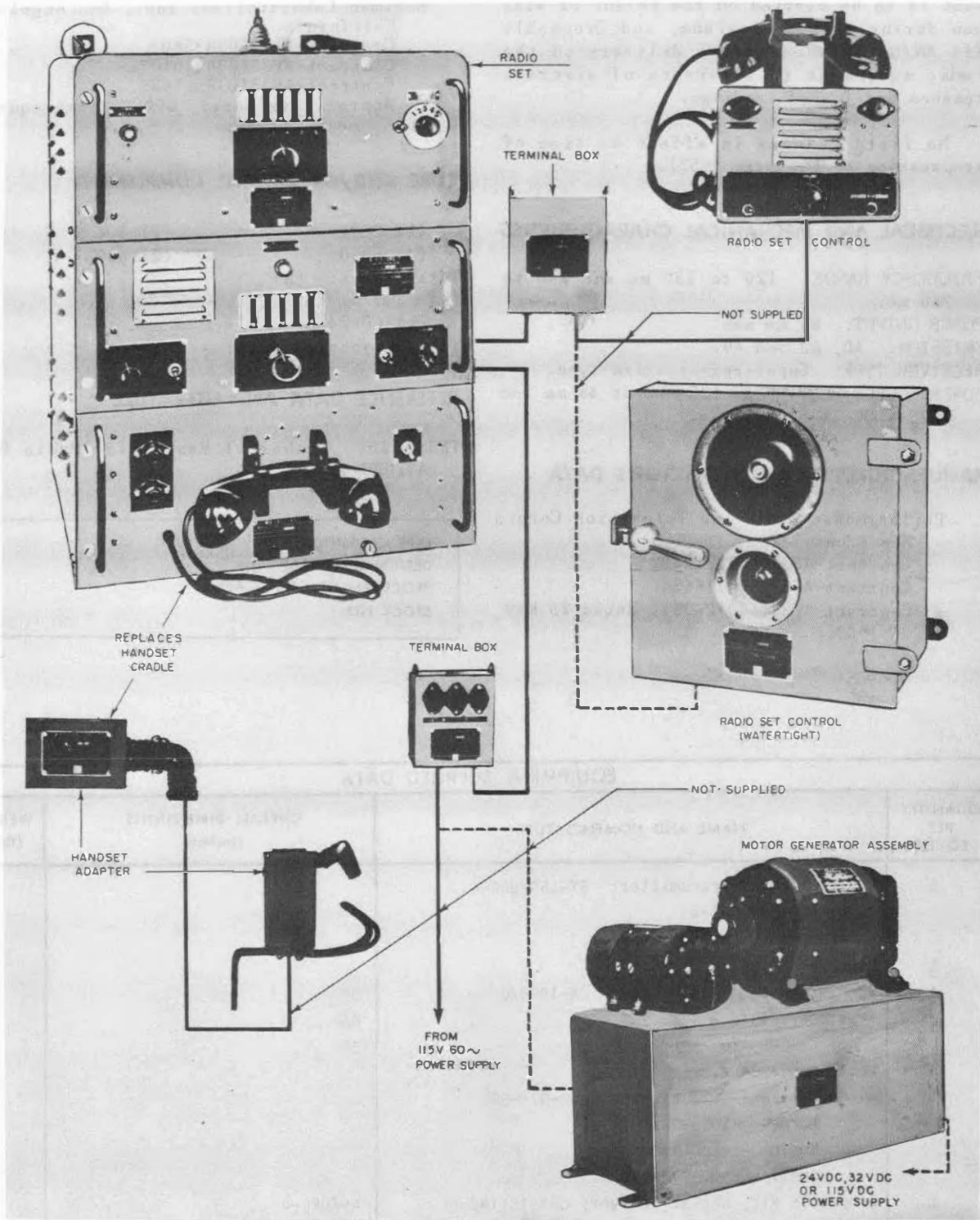


RAD O SET

Radio-Transceivers AN/URC-7,-7X,-7Y,-7Z



Radio Set AN/URC-7

Radio-Transceivers

AN/URC-7,-7X,-7Y,-7Z**RADIO SET**

April 1958

FUNCTIONAL DESCRIPTION

The AN/URC-7 series is designed for medium and short distance voice communication and provides all facilities for both transmission and reception of voice modulated signals within its frequency range. They have six pretuned crystal controlled channels in the 2000 to 7000 kilocycle frequency range. As shipped from the factory, they have been set up to tune from 2000 to 3800 kilocycles, but by modifying some of the switch wafer connections and jumpers, channels five and six can be made to tune in the 3800 to 6000 kilocycle band or 6000 to 7000 kilocycle band. Equipment furnished under contract Tcg-38557 is shipped modified for high frequency.

They are intended for use and installation on Coast Guard vessels as well as for use at various type shore stations.

They are similar in function, differing only in components required for operation from different power sources. The AN/URC-7 is for operation from a 115 volt alternating-current power source, the AN/URC-7X from 24 volts direct-current, the AN/URC-7Y from 32 volts direct-current, and the AN/URC-7Z from 115 volts direct current.

Data on this sheet reflects the following field changes: FC-1 (9 May 1958).

Equipment Required but not Supplied: (1) Antenna, Cables and Leads as Required.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 2000 to 7000 kc.

BAND DATA

BAND 1: 2000 to 3800 kc.

BAND 2: 3800 to 6000 kc or 6000 to 7000 kc.

CHANNELS: 6 in 2000 to 3800 kc band. 2 may be modified for 3800 to 6000 kc or 6000 to 7000 kc.

POWER OUTPUT: 25 W nom.

EMISSION: A3.

FREQUENCY CONTROL: Crystal oscillator.

MODULATION DATA

TYPE: Amplitude.

CAPABILITY: 95%.

RECEIVER DATA

TYPE: Superheterodyne.

RECEPTION: A3.

OUTPUT: 2 W to speaker.

IF: 455 kc.

SQUELCH: Opens with input signal of 3 uv.

AMBIENT TEMPERATURE RANGE: -10 to +50 deg C.

POWER REQUIREMENTS: 115 v, 60 cps, single ph or 24 v DC or 32 v DC or 115 v DC.

HEAT DISSIPATION

AN/URC-7: 343 W.

PU-222/URC-7: 244 W.

MANUFACTURER'S OR CONTRACTOR'S DATA

Radiomarine Corp of America, New York, New York.

Contract Tcg-37988, dated 26 October 1949 (AN/URC-7).

Contract Tcg-38301, dated 8 December 1950 (AN/URC-7).

Contract Tcg-38557, dated 26 June 1951 (AN/URC-7).

Contract Tcg-38807, dated 20 February 1952 (AN/URC-7).

Contract Tcg-39362 (AN/URC-7X, -7Y, -7Z).

TUBE AND/OR CRYSTAL COMPLEMENT

(5) 1624	(2) 6005/6A(J5W
(2) 5R4WGB	(1) 6X4WA
(4) 5749/6BA6W	(2) 6AV6
(1) 5750/6BE6W	
Total Tubes: (17)	
(2) 1N54	(12) HC-6/U
Total Crystals: (14)	

REFERENCE DATA AND LITERATURE

NAVSHIPS 91931: Technical Manual for Radio Set AN/URC-7.

Nomenclature Cards for Radio Set AN/URC-7X, AN/URC-7Y, AN/URC-7Z.

TYPE CLASSIFICATION	
DESIGN COGNIZANCE	USCG
PROCUREMENT COGNIZANCE	RTRS-35C-A
STOCK NO.	

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Radio Set including: Radio Set Control	31.2	34 x 37 x 43	350
1	Terminal Boxes (2) including Set of Equipment Spares	12.0	24 x 24 x 36	180

April 1958

RADIO SET

Radio-Transceivers
AN/URC-7,-7X,-7Y,-7Z

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	AN/URC-7 Cabinet CY-1027/URC-7 including: Radio Transmitter T-298/URC-7 Radio Receiver R-413/URC-7 Modulator-Power Supply MD-145/URC-7	20-1/2 x 23-25/32 x 27-3/8	165
1	Radio Set Control C-878/URC-7	4-1/16 x 9 x 10-1/4	7.75
1	Terminal Box J-401/URC-7	3-3/4 x 4-11/16 x 5-7/8	2.5
1	Terminal Box J-442/URC-7	3-1/8 x 4-11/16 x 5-7/8	2
1	Handset NT-51032		
1	AN/URC-7X Cabinet CY-1027/URC-7 including: Radio Transmitter T-298/URC-7 Radio Receiver R-413/URC-7 Modulator-Power Supply MD-221/URC-7X	20-1/2 x 23-25/32 x 27-3/8	165
1	Radio Set Control C-878/URC-7	4-1/16 x 9 x 10-1/4	7.75
1	Terminal Box J-612/URC-7	4-1/12 x 4-11/12 x 5-7/8	2.5
1	Terminal Box J-442/URC-7	3-1/8 x 4-11/16 x 5-7/8	2
1	Handset NT-51032		
1	AN/URC-7Y Cabinet CY-1027/URC-7 including: Radio Transmitter T-298/URC-7 Radio Receiver R-413/URC-7 Modulator-Power Supply MD-222/URC-7Y	20-1/2 x 23-25/32 x 27-3/8	165
1	Radio Set Control C-878/URC-7	4-1/16 x 9 x 10-1/4	7.75
1	Terminal Box J-612/URC-7	4-1/12 x 4-11/12 x 5-7/8	2.5
1	Terminal Box J-442/URC-7	3-1/8 x 4-11/16 x 5-7/8	2
1	Handset NT-51032		
1	AN/URC-7Z Cabinet CY-1027/URC-7 including: Radio Transmitter T-298/URC-7 Radio Receiver R-413/URC-7 Modulator-Power Supply MD-223/URC-7Z	20-1/2 x 23-25/32 x 27-3/8	165
1	Radio Set Control C-878/URC-7	4-1/16 x 9 x 10-1/4	7.75
1	Terminal Box J-612/URC-7	4-1/12 x 4-11/12 x 5-7/8	2.5
1	Terminal Box J-442/URC-7	3-1/8 x 4-11/16 x 5-7/8	2
1	Handset NT-51032		