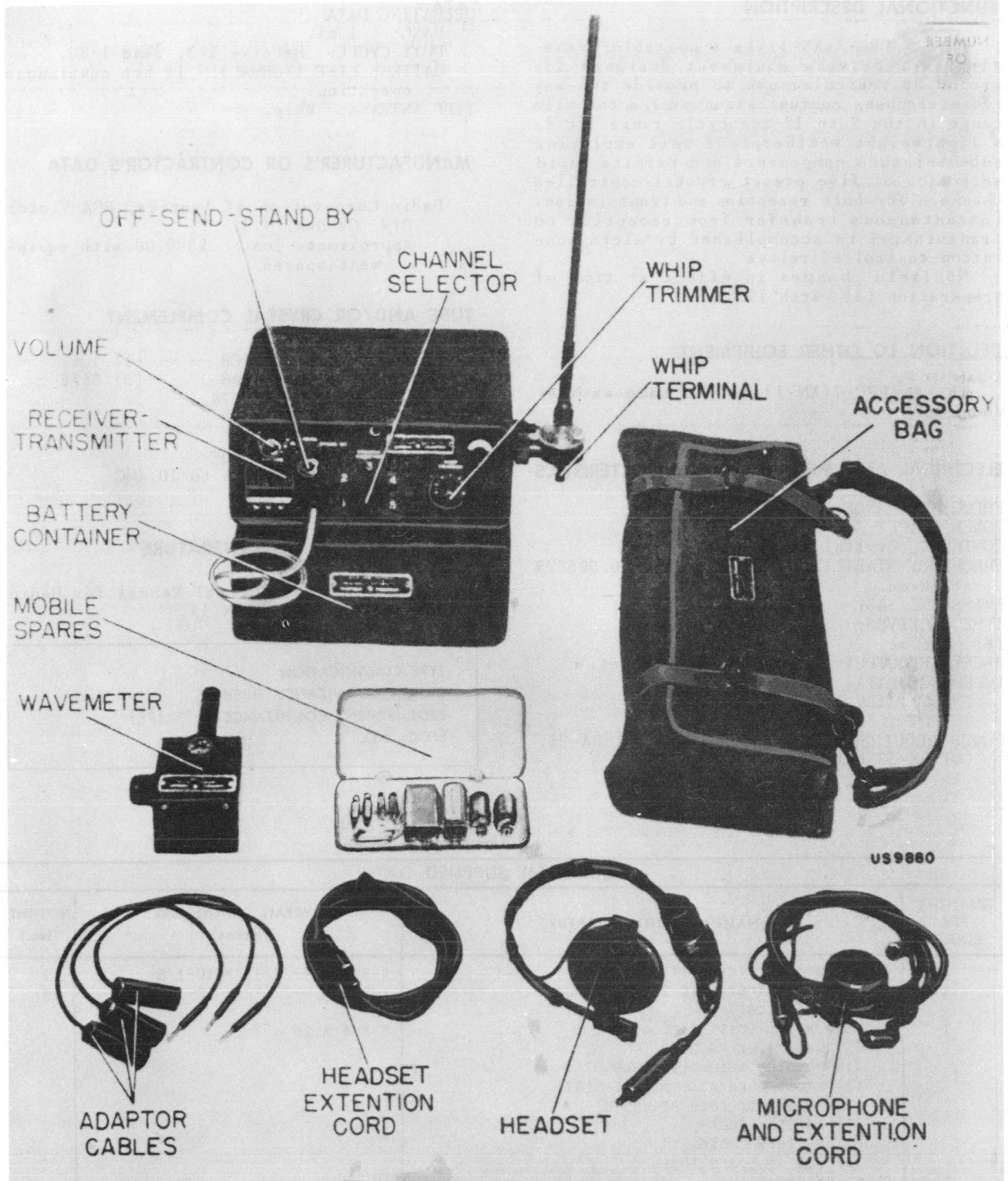


RADIO EQUIPMENT



Radio Equipment AN/PRC-7(XN-1)

Radio-Transceivers

AN/PRC-7(XN-1)

RADIO EQUIPMENT

FUNCTIONAL DESCRIPTION

The AN/PRC-7(XN-1) is a portable transmitting-receiving equipment designed for ground or vehicular use to provide two-way radiotelephone communication over a one mile range in the 2 to 12 megacycle range. It is a lightweight weatherproof unit employing sub-miniature components and permits rapid selection of five preset crystal-controlled channels for both reception and transmission. Instantaneous transfer from reception to transmission is accomplished by microphone button-controlled relays.

No field changes in effect at time of preparation (31 March 1958).

RELATION TO OTHER EQUIPMENT

The AN/PRC-7(XN-1) is the same as Navy Model MBN.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 2 to 12 mc.
 POWER OUTPUT: 0.8 W.
 CONTROL: Crystal.
 FREQUENCY STABILITY: 0.017% at 2 mc, 0.00567% at 12 mc.
 EMISSION: A3.
 TYPE RECEIVER: Superheterodyne.
 IF: 1.6 mc.
 RECEIVER OUTPUT: 75 mw max to headset.
IMPEDANCE DATA
 INPUT: 100 ohms.
 OUTPUT: 300 ohms.
 POWER REQUIREMENTS: (1) BA-34, (2) BA-35, (6) BA-53 batteries.

OPERATING DATA

RANGE: 1 mi.
 DUTY CYCLE: Receive 2/3, send 1/3.
 BATTERY LIFE (NORMAL): 12 hrs continuous operation.
 TYPE ANTENNA: Whip.

MANUFACTURER'S OR CONTRACTOR'S DATA

Radio Corporation of America, RCA Victor Div, Camden, N.J.
 Approximate Cost: \$390.00 with equipment spares.

TUBE AND/OR CRYSTAL COMPLEMENT

(1) 1AD4	(2) 1C8	(1) 1Q6
(1) 3A4	(2) 3A5	(3) 5672
(1) 5676	(4) 5678	
Total Tubes: (15)		
(1) 1N47	(5) 400C	
(1) 1600KC	(5) 3.6 to 10.4MC	
Total Crystals: (12)		

REFERENCE DATA AND LITERATURE

NAVSHIPS 91389: Technical Manual for Radio Equipment AN/PRC-7(XN-1).

TYPE CLASSIFICATION
DESIGN COGNIZANCE BUSHIPS
PROCUREMENT COGNIZANCE 16T34(RE)
STOCK NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Radio Receiver-Transmitter Unit 1	4-3/8 X 9-27/32 X 10-1/8	9
1	Battery Container Unit 2 including: Set of Batteries	4-3/8 X 9-27/32 X 10-1/8	15
1	Accessory Bag Unit 3 including: (1) Wavemeter FR-20/U (1) Headset Assembly NT-49507 (1) Microphone Assembly NT-51071 (1) Extension Cord NT-49576 (3) Adapter Cable (1) Battery Cable (1) Set of Spare Tubes	5 X 6 X 16	
1	Shipping Chest		

RADIO SET

FUNCTIONAL DESCRIPTION

The AN/PRC-is designed as a portable transmitting and receiving unit, for ground or vehicular use to provide two-way radio-telephone communication over a one mile range, in the 2 to 12 megacycle (MC) frequency range. It is a lightweight weather-proof unit employing subminiature components and permits rapid selection of five presets crystal controlled channels for both reception and transmission. Instantaneous transfer from reception to transmission is accomplished by microphone button-controlled relays.

No field changes in effect at time of preparation (15 March 1960).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

TYPE OF RECEIVER: Superhetrodyne.
TYPE OF CONTROL: Crystal.
TYPE OF ANTENNA: Whip.
FREQUENCY STABILITY: 0.01 7% at 2 mc, 0.00567% at 12 mc.
TYPE OF EMISSION: A3.
POWER OUTPUT: 0.8 W.
RECEIVER OUTPUT: 75 mw max to headset.
IMPEDANCE
INPUT: 100 ohms.
OUTPUT: 300 ohms.
INTERMEDIATE FREQUENCY: 1.6 mc.
OPERATING DATA
RANGE: 1 mile.
DUTY CYCLE: Receive 2/3, Send 1/3.
BATTERY LIFE (NORMAL): 12 hrs continuous operation.
OPERATING POWER RQMT: (2) BA-48 type batteries or (2) BA-48R type batteries.

MANUFACTURER'S OR CONTRACTOR'S DATA

Radio Corp. of America, RCA Victor Division, Camden, New Jersey.

TUBE AND/OR CRYSTAL COMPLEMENT

(1) 1A4	(1) 3A4	(1) 5676
(2) 1C8	(2) 3A5	(4) 5678
(1) 106	(3) 5672	

Total Tubes: (15)

Crystals

(1) 1N47	(1) 1600KC
(5) 400C	(5) 3.6 to 10.4MC

Total Crystals: (12)

REFERENCE DATA AND LITERATURE

Nomenclature Card AN/PRC-7 for Radio Set.
NAVSHIPS 91389: Technical Manual for AN/PRC-7(XN-1) Radio Set.

TYPE CLASSIFICATION (NAVY)
DESIGN COGNIZANCE NAVY 16T34(RE)
PROCUREMENT COGNIZANCE NAVY 16T34CRE
STOCK NO.
R.D.B. IDENT. NO.

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
1	Radio Receiver-Transmitter	4-3/8 X 9-27/32 X 10-1/8	9
1	Battery Container including Set of batteries	4-3/8 X 9-27/32 X 10-1/8	15
1	Accessory Bag	5 X 6 X 16	
1	Shipping Chest		