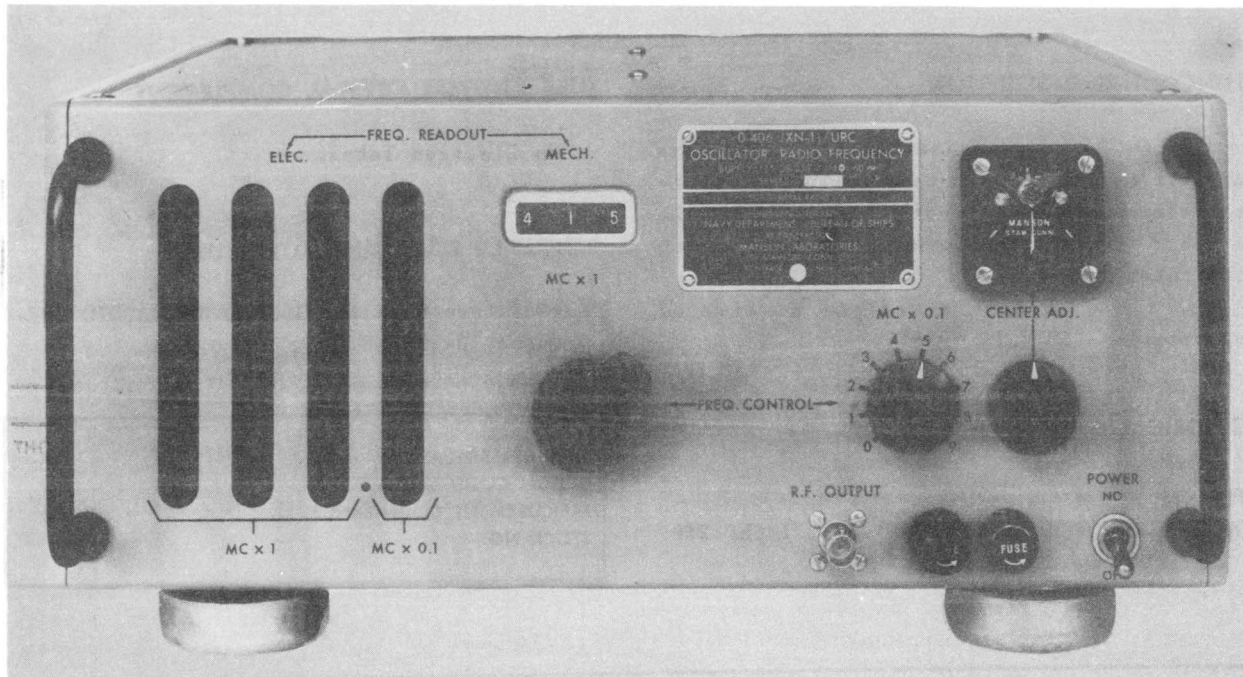


OSCILLATOR, RADIO FREQUENCY O-406(XN-1)/URC



Oscillator Radio Frequency O-406(XN-1)/URC

FUNCTIONAL DESCRIPTION

The O-406 (XN-1)/URC is a radio frequency crystal synthesizer. It is basically intended to serve as an exciter for a transmitter or a high frequency oscillator for a receiver. In its function as an exciter or high frequency oscillator, it can replace a complete crystal kit numbering over 1750 individual crystals. It has both a mechanical and electrical readout. The electrical readout is primarily designed as a memory box for a remote control system, it also may serve as a modern, easily read, exact indicator of frequency. The original design of this equipment was directed to operate in conjunction with the Navy Model TED transmitter and the AN/URR-13 receiver. It should be noted that the frequency indicators of the equipment (electrical and mechanical) are not the output frequency of the synthesizer. As a crystal replacement kit for the TED, the synthesizer range must be 1/12 of that of the output frequency of the transmitter, also when used in place of a VFO or set of crystals for a receiver, the frequency of the synthesizer must be set to the incoming frequency plus or minus the IF frequency.

The O-406 (XN-1)/URC may be used with the transmitters of the AN/URT-7 or TED and the

receivers of the AN/URR-13 or AN/URR-28.

No field changes in effect at time of preparation (18 June 1956).

ELECTRICAL AND MECHANICAL CHARACTERISTICS

FREQUENCY RANGE: 225 to 400 mc.

TRANSMITTER SETTING: 1/12 of the output of the transmitter.

RECEIVER SETTING: To the incoming frequency \pm the IF frequency.

WARM UP TIME: 15 minutes to stabilize.

POWER REQUIREMENTS: 115 or 230 v, 60 cps, single ph.

MANUFACTURER'S OR CONTRACTOR'S DATA

Manson Laboratories, Stamford, Connecticut
Contract NObsr-64716, dated 28 April 1955.

Approximate Cost: \$3826.32.

TUBE AND/OR CRYSTAL COMPLEMENT

(2) 5703WA	(1) 5726/6BE6
(1) 6CL6	(2) 6U8
(2) 6AU6WA	(1) 6AL5

(2) 5702WA (1) OB2WA
 (1) 5Y3WGT

Total Tubes: (13)

(2) Diode Crystals

Total Crystals: (2)

REFERENCE DATA AND LITERATURE

Technical Manual: for Oscillator, Radio
 Frequency O-406 (XN-1)/URC.

TYPE CLASSIFICATION DESIGN COGNIZANCE BUSHIPS PROCUREMENT COGNIZANCE SPEC. SHIPS-S-1807 STOCK NO.
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SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (Inches)	WEIGHT PACKED (lbs.)
1	Oscillator, Radio Frequency O-406 consisting of: Replacement Crystal Door TED Coaxial Cable and Connectors Instruction Books (2) Power Cable		60 lg.	
1	Set of Spare Maintenance parts			

EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (Inches)	WEIGHT (lbs.)
1	Oscillator, Radio Frequency O-406		
1	Replaceable Crystal Door TED		
1	Coaxial Cable and Connectors	60 lg.	
1	Power Cable		
2	Instruction Books		
1	Set of Spare Maintenance Parts		