

TYPE G12U
SUMMARY OF DATA

PURPOSE

A medium power (2 kW) L.F./M.F. transmitter fitted in Royal Naval Shore Wireless Stations.

TYPES OF TRANSMISSION

Voice, with a band-width of 100 to 3000 c/s.
M.C.W. and C.W. with maximum keying speed of 100 bauds.

FREQUENCY RANGE

110 to 1200 kc/s covered in four bands.

POWER OUTPUT

C.W.	2 kW	Voice or M.C.W.	½ kW
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Note: On C.W. only, the output may be reduced to one half, one quarter or one sixteenth of full power.

BRIEF TECHNICAL DESCRIPTION

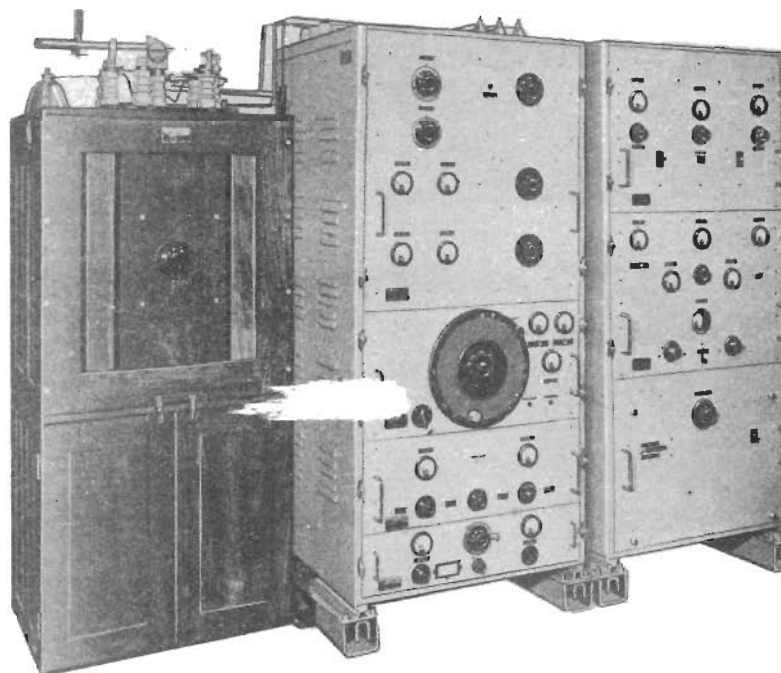
Radio frequency excitation is obtained from a variable frequency oscillator over the entire frequency range of the transmitter, or alternatively from a crystal controlled oscillator between 150 and 1200 kc/s.

Modulation on voice and M.C.W. service is performed at low level, the output stage operating as a Class B linear R.F. amplifier.

Keying is effected by returning the control grids of the buffer amplifier and driver valves to earth for "mark" periods and at the same time removing the negative bias potential normally applied to them.

Comprehensive metering and modulation monitoring facilities are incorporated and all requisite power supplies are derived from the power supply bay.

The voice or tone input is at 50 ohms impedance, 4 mV being required for full modulation with moving coil microphone, or 0.4V using carbon microphone.



TRANSMITTER G12U

MAJOR UNITS

The units comprising the transmitter and its power supply are rack mounted in two separate cabinets. The long wave coil assembly is fitted in a teak cabinet with the aerial changeover switch mounted on top. The blower unit is fitted at rear of transmitter.

A.P. No.	Description	PHYSICAL DATA			
		Height	Width	Depth	Weight
102743	Cabinet, Transmitter Bay G12U)			
102744	Power Amplifier Unit, Redifon A1108)			
102745	Master Oscillator Unit, Redifon A1679) 5' 5"	2' 7½"	2' 4"	778 lb
102746	Modulator Unit, Redifon A1101)			
102747	Crystal Unit, Redifon A1105)			
102748	Cabinet Assembly, Power Bay G12U)			
102749	Rectifier Unit, Redifon A1106) 5' 5"	2' 7½"	2' 4"	979 lb
102750	Power-Control Unit, Redifon A1104)			
102751	Aerial Coupling Unit, Redifon A1240 and WD699	5' 5"	2' 6½"	2' 4½"	255 lb
103016	Fan, 10" Keith Blackman, Type 9 modified to 82268/1 (Redifon)	1' 8"	1' 6½"	1' 5"	95 lb

The total weight is 2107 lb.

POWER REQUIREMENTS

230 volts 50 c/s, single phase. The consumption, at full power, approximates to 4.5 kW at power factor of 0.85.

AERIAL

Double topped "T" aerial, approximately 350 ft. in length and 150 ft. high.

EARTH

Counterpoise.

HANDBOOK

B.R.1459.

ESTABLISHMENT LIST

E.1089.

INSTALLATION SPECIFICATION

B.