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INSTRUCTIONS
FOR
FITTING UP THE
STANDARD 12 K.W. MARCONI W.T.
INSTALLATION IN ROYAL FLEET
AUXILIARIES
1914.

INSTRUCTIONS

FOR

FITTING UP THE STANDARD $1\frac{1}{2}$ K.W. MARCONI W.T. INSTALLATION IN ROYAL FLEET AUXILIARIES.

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1914.

INTRODUCTORY.

The following instructions have been prepared for the guidance of officers responsible for the fitting up of the Standard $1\frac{1}{2}$ k.w. Marconi W.T. Installation in Royal Fleet Auxiliaries.

Though the installation is exactly the same as that supplied to merchant ships, additional instruments have been provided, so as to enable Royal Fleet Auxiliaries to communicate, if necessary, with H.M. Ships on a 1,000-metre wave. These additional instruments would only be joined up for use when actually required.

The arrangement of the W.T. office in Royal Fleet Auxiliaries differs from the arrangement of W.T. offices in merchant ships in the following respects:—

- (a) Reception takes place inside a silent cabinet, and all the transmitting instruments are placed on a bench outside the cabinet. In merchant ships the arrangement is just the reverse.
- (b) The rotary converter is placed in a convenient position below the waterline, leads being brought up from it to the W.T. office. In merchant ships the rotary converter is accommodated in the silent cabinet.

2. A general description of the instruments and their method of working is included, for the information of the wireless operator, together with instructions to assist him in making good possible defects when other assistance is not available.

3. Certain of the diagrams and some of the descriptions of instruments and circuits have been taken from "Handbook of Technical Instruction for Wireless Telegraphists," Hawkhead, with the concurrence of the Marconi Press Agency, Limited.

Adjusting the Primary Oscillatory Circuit.

(a) Short Wave (300 Metres or 1,000 Feet).

The transmitting condenser is connected up in the series position. The spark gap is adjusted to approximately 8 millimetres for full power, and the primary sliding inductance is adjusted in accordance with the instructions left by the engineer or officer who tuned the installation. As a rule this inductance will be at "short circuit."

Note.—The transformer secondaries must be in the series position.

(b) Long Wave (600 Metres or 2,000 Feet).

The transmitting condenser is connected up in the parallel position. The spark gap is adjusted to approximately 4 millimetres, and the primary sliding inductance is adjusted as directed by the officer who tuned the installation.

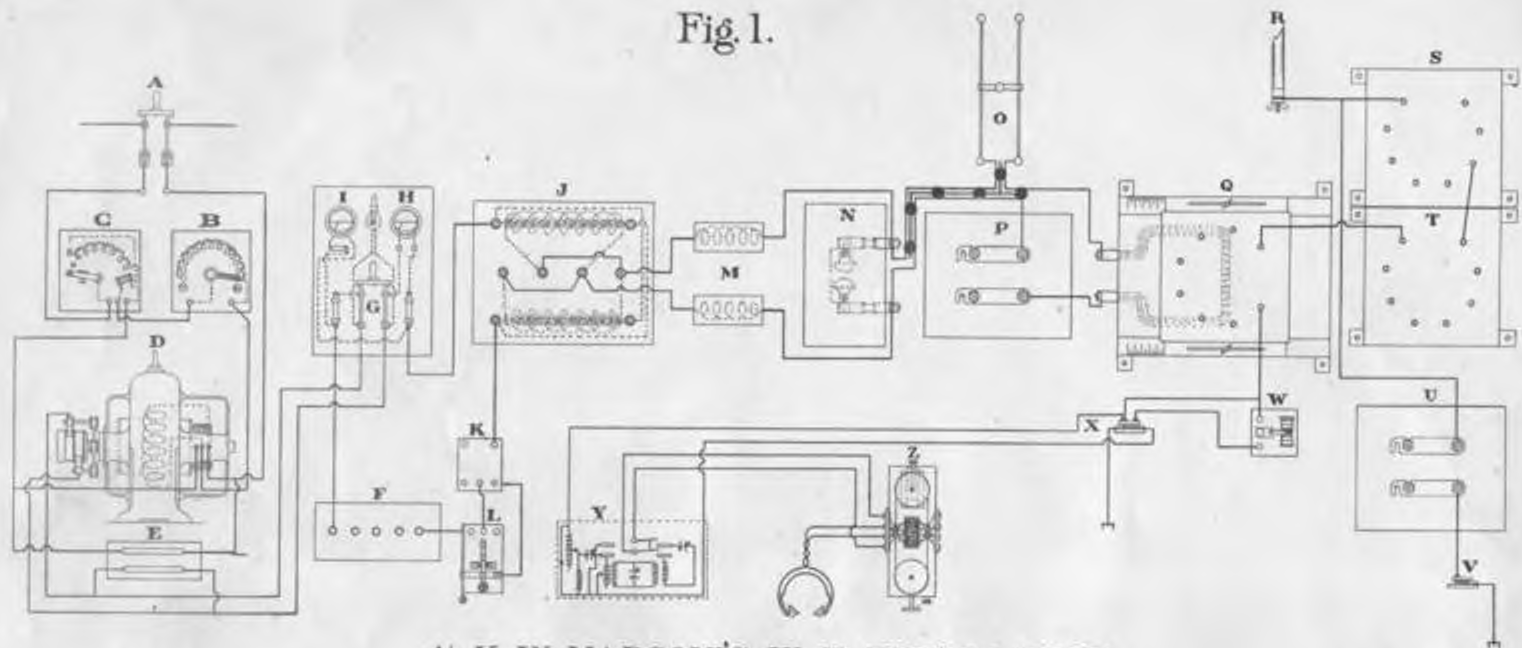
Note.—The transformer secondaries must be in the parallel position.

(c) 1,000 Metre Wave (approximately 3,300 Feet).

The transmitting condenser and spark gap are adjusted as for the 600-metre wave. The primary sliding inductance is replaced by the additional primary inductance, and the latter is adjusted as directed.

Note.—The transformer secondaries must be in the parallel position.

Fig. 1.



1½ K.W. MARCONI'S W. T. INSTALLATION.

A	MAIN SWITCH.	H	A.C. AMMETER.	O	ADJUSTABLE PRIMARY INDUCTANCE.	V	EARTH ARRESTER SPARK CAP N°2.
B	FIELD REGULATOR.	I	A.C. VOLTMETER.	P	TRANSMITTING CONDENSER.	W	TUNING LAMP.
C	STARTER.	J	TRANSFORMER.	Q	JIGGER.	X	EARTH ARRESTER SPARK CAP N°1.
D	ROTARY CONVERTER.	K	MAGNETIC RELAY KEY.	R	LEADING IN INSULATOR.	Y	MULTIPLE TUNER.
E	GUARD LAMPS.	L	MORSE KEY.	S	AERIAL TUNING INDUCTANCE N°1.	Z	MAGNETIC DETECTOR.
F	L. F. I. C. INDUCTANCE.	M	CHOKE COILS.	T	AERIAL TUNING INDUCTANCE N°2.		
G	A. C. SWITCH.	N	SPARK CAP.	U	SHORT WAVE CONDENSER.		