

CHAPTER I.

GENERAL.

The Type 12 W/T installation has been designed as an auxiliary set for use in Flotilla Leaders, and these instructions are based on the supposition that the set is thus fitted. If this set should be fitted in other ships the arrangement should be as nearly as possible similar to that in Flotilla Leaders.

The set has an aerial of its own separate from the main aerial, and in order that there may be as little interference as possible between the two sets the type 12 office should be as far from the main office as practicable.

Where type 2 is fitted as a main set and type 12 as an auxiliary, which is the normal state of affairs, porcelain rigging insulators are fitted.

If for any reason the type 12 office should be below the upper deck an aerial trunk is fitted. This trunk is similar in all respects to that fitted for type 9.

The work of fitting out is done partly by the Dockyard or Contractors and partly by the ship's staff. The work done by the Dockyard or Contractors is carried out in accordance with the Fitting Out Specifications and Drawings which are issued by the Admiralty.

The following Work is done by the Dockyard :—

Building and erecting the office, fitting the cabinet, instrument board, all furniture and additional fittings such as naphones, electric radiators, circulators, &c.

Fitting the deck and cupboard insulators.

Securing the transformer, impedance coil, rotary converter, starter, and field regulator in place.

Placing and securing all instruments on the instrument board and outside the cupboard. This includes all lamps and accessories.

Fitting radiation meter and shunt.

Carrying out all wiring except the wiring of the receiving instruments, the leads from the high-tension terminals of the transformer, and the connection of the leads from the synchronous disc to the transmitter.

The wiring of the concentric cable from the earth-ring fitting to the key.

Fitting hooks, &c., for securing the aerial coil.

Fitting trunk where required.

Work done by Ship's Staff :—

- Wiring all receiving gear.
- Running high-tension leads from transformer to protecting coils and transmitter.
- Securing and connecting up the transmitter.
- Connecting leads from synchronous disc to transmitter.
- Fitting up protecting coils.

The Office.

The minimum size of office is 4 feet 6 inches by 4 feet. Wherever it is possible these dimensions are increased. The office is built in two carcasses, the inner one being separated from the outer by a lining of felt.

The transmitting instruments are contained in a cupboard at one end of the table. The cupboard may be on either side, according to which side of the W/T office the deck insulator is fitted. This cupboard is sound-tight, and also screened electrically from the receiving instruments. The door is fitted with a window to allow examination of the instruments during operation.

The door is hung on special hinges with easily removable pins to give greater access to the instruments in the cupboard.

The interior of the cupboard and the inner faces of the door and frame are covered with lead sheeting.

Two cupboard insulators are fitted in the roof of the cupboard to take the high-tension wires to the transmitting circuit.

The cupboard is also fitted with a safety switch, which is included in the primary circuit described later. It is fitted in such a way that it will be opened and closed automatically by the opening and closing of the door. The frame carrying the spring contacts (*see* Fig. 10) of the switch is fitted to the top of the cupboard with the terminals uppermost. It is secured in place with a small steel angle bracket. The chopper contact is fitted to a steel plate secured to the top corner of the cupboard door.
