TYPE 106

Date of design:- 1930.

Frequency:- 1080 cycles/sec.

In this type, which uses the lightweight double diaphragm oscillator (see page UA4), no D.C. field current is necessary.

A.C. supply is provided by a 3 kW motor alternator (27) with Z size automatic starter (14) (see page MA9) and motor and alternator field regulators (29)(38). Resistance (28) is fitted to bring the frequency of the alternator down to 480 cycles. A.C. output is adjusted to give 10 amperes to the two coils of the oscillator in parallel (5 amperes to each coil). This will occur at an A.C. voltage of about 150 volts.

D.C. supply is taken from the ring mains through a D.P. switch (44) and pair of fuses(46), and is used to energise the bobbins of the magnetic switches(16)(17)and magnetic key(15). Indicating lamps (30)(31), and control switches(33)(36)with condensers(34)(37)across them are connected in series with the bobbins of the magnetic switches.

A back shunt circuit is fitted to maintain the load as constant as possible so as to prevent variations of frequency. The back shunt coils (18)(19) are fitted, one for each oscillator and are of approximately the same inductance as the oscillator field coils (40)(41) and (42)(43). The magnetic switches (16)(17) complete one lead to each oscillator and its appropriate back shunt inductance(18) (19). Across the contacts of these switches 5,000 ohms resistances (3)(4) are fitted to prevent arcing.

The magnetic key (15) completes the second lead either to the oscillators or to the appropriate back shunt. Across the contacts of the magnetic key 1000 ohms resistances (5)(6)(7)(8) are fitted to prevent arcing.

As in earlier types a magnetic switch (35) short circuits or shunts the hydrophone telephones (39) when the key (23) is pressed, otherwise the noise would be deafening. The resistance (32) can be adjusted so that own transmission may be read.

A lamp (22) prevents a dead short across the mains.

Listening on the oscillators is not possible in this type.

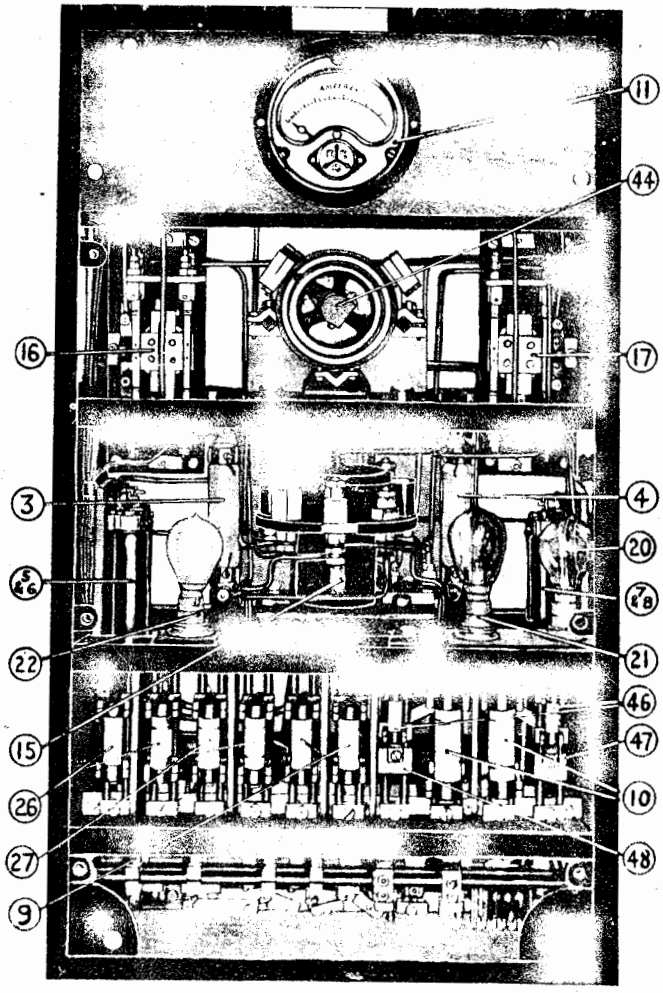


Fig 8

TYPE 106

UB9

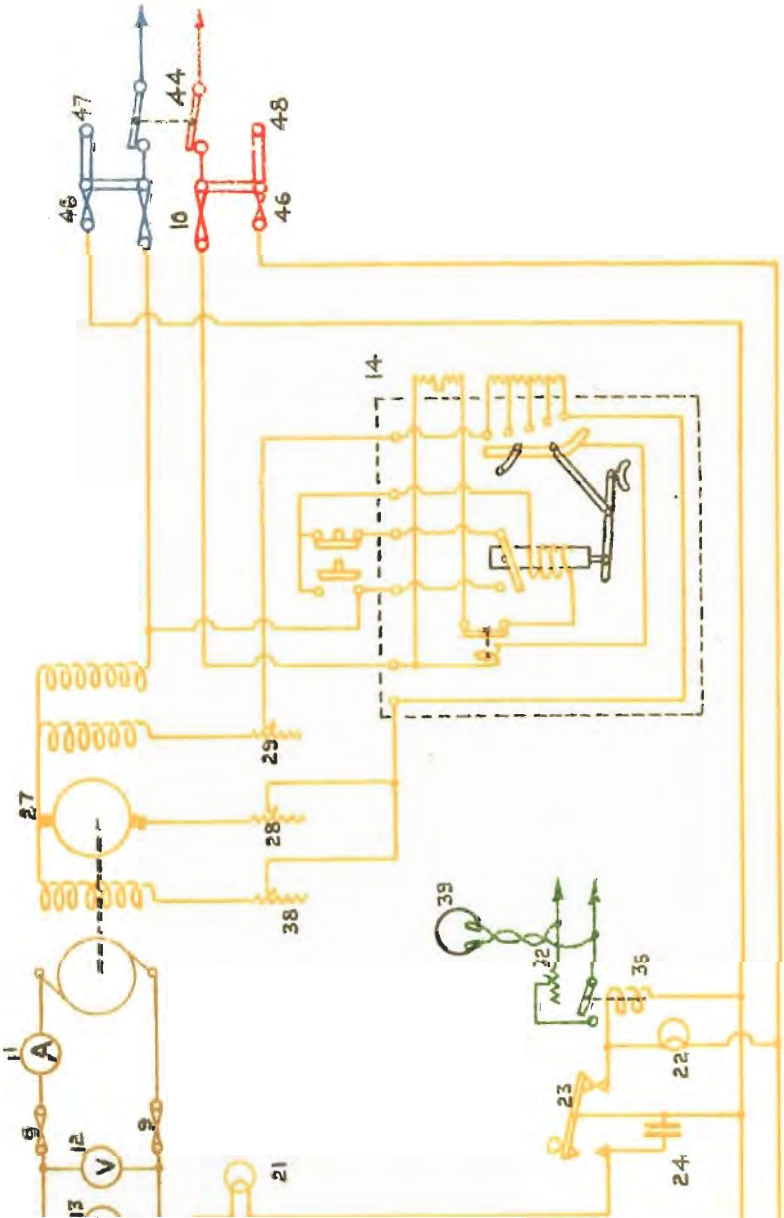
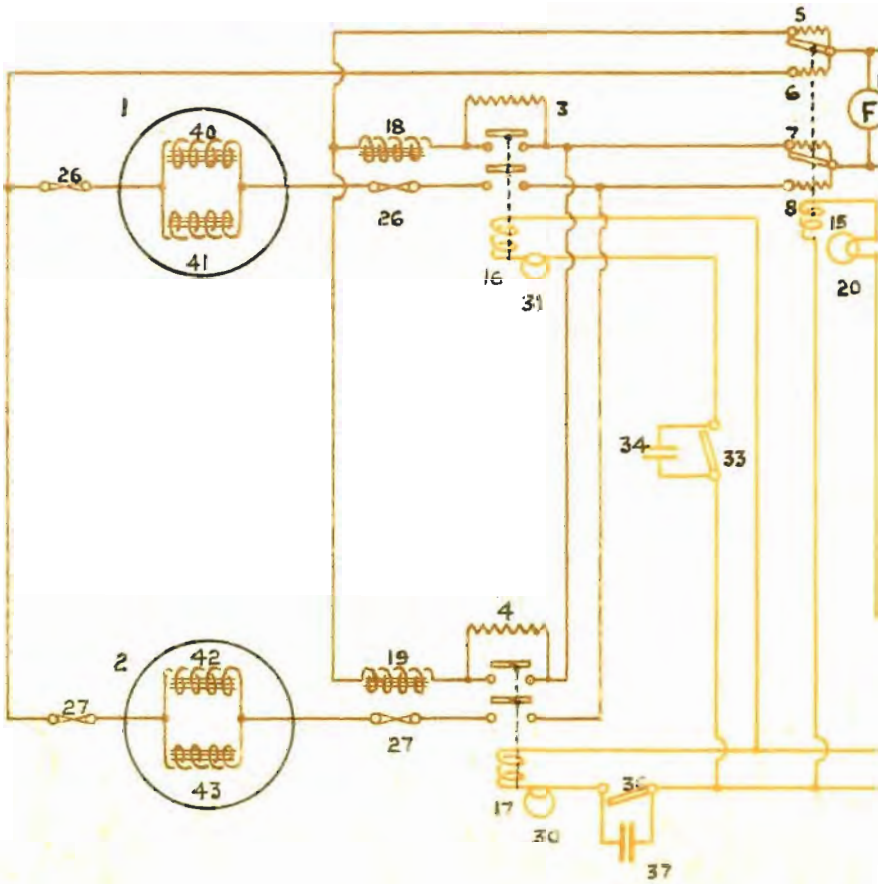


FIG. 6.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