DIAGRAM NOTES (issue 1)
concerning
DIAGRAM GBW.11080
titled
EXCHANGE CLOCKS

1. General

This diagram shows the clock B.P.O. No. 36 and the method of distributing pulses to various circuits and to the time of day clocks.

2. Facility Schedule

Provision is made for:-

(1) Distributing pulses of 1 sec., 6 secs and 30 seconds.

(2) Distributing 30 second pulses to Time of Day clocks.

(3) Production of 6 second special pulses to C.T.C. from Clock No. 46.

3. Circuit Description

The Clock No. 36 operates its pendulum controlled drive magnet via resistor YA (110 ohms) in fig. 2, and battery via resistor YC (500 ohms) supplies the operating circuit for relays AR, BR, CR and DR via the spring sets closed at 1, 6 and 30 seconds.

Relay AR operates at 1 second intervals.

AR1) provide earth pulses to the distribution relays
AR2) on the A.E.R.

Relay BR operates at 6 second intervals.

BR1) provide earth pulses to the distribution relays
BR2) on the A.E.R.

Relay CR operates at 30 second intervals.

CR1) provide earth pulses to the distribution relays
CR2) on the A.E.R.

Spark quenches are provided for all of the above contacts.

Relay DR operates from the 30 second pulse via the "Retard" key on the Clock No. 36, but it can be pulsed at a higher rate (6 seconds) if the "Advance" key be thrown instead.

DR1 provides pulses via resistor YD and battery to the "Time of Day" clocks in accordance with note 4.

DR2 provides pulses via resistor YB and battery to the Time dial associated with the Clock No. 36.

Relay DP

In the case where the "Time of Day" clocks exceed 10 in number, contact DR1 is connected direct to relay DP in which case,

DP1) provide the pulses to the 2 sets of time clocks.
DP2)

In each case a spark quench is included across the pulsing contact.

Clock No. 46 is used to provide a set of 3 pulses (0.150 seconds on and 0.085 seconds off) during each period of 6 second ("Tone Control") with a pulse of 0.500 seconds each 6 seconds ("6 second pulse") for use on chargeable time clock circuits.

END

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