Western Mectric Company, Inc. Engineering Dept. . New York.

(1 Page) Page #1. Issue 5 - BT-431330. Appendix 1. June 27, 1922.

METHOD OF OPERATION LINE CIRCUIT

Intercepting - Incoming from Final Multiple-Arranged For Use As Blank Final Line - Special "A" Switchboard - Full Mechanical Power Driven System.

Om page 2:

The following requirements should be added for the E648 relay:

×190-99

CIRCUIT REQUIREMENTS

THE READJUST REQUIREMENTS SHOWN BELOW ARE FOR MAINTENANCE USE ONLY

OPERATE

NON-OPERATE

RELEASE

Special requirements to meet circuit conditions. E648 Readj...040 amp. Readj. .025 amp.

(SL) Test .090 amp. Wdgs.

Test .023 amp.

in Parallel Aiding "Y" wiring

ENG. -- CHMCC-BH. 3/13/23.

CHK'D. -- RAP-CWP. APPROVED - C.L. SLUYTER, G.M.L.

Western Electric Co., Incorporated, Engineering Dept., New York. (2 Pages) Page #1. Issue 5 - BT-431330. Replacing all previous issues. February 8, 1921.

METHOD OF OPERATION LINE CIRCUIT

lutorcepting - Incoming From Final Multiple - Arranged For Use As Blank Final Line - Special "A" Switchboard - Full Mechanical Power Driven System.

CENERAL DESCRIPTION

- 1. This circuit is used for connecting calls for blank lines with an operator at a special "A" switchboard. In the event of a subscriber dialing a blank number, the final selector connects with this circuit, lighting a lamp at the switchboard. The call is answered by the insertion of the plug of a calling cord in the answering jack, extinguishing the lamp.
- 2. This circuit may be used to function either with individual or grouped blank lines having one or more intercepting trunk lines associated with the group. At the incoming end it is used with the special A operator's cord circuit whose sleeves are connected to battery through a maximum resistance of 210 chms.

DEPARLED DESCRIPTION

OPERATION

Figure 1 and 2, X Wiring:

3. When a final selector seizes a blank line in the final selector multiplo battery through 210 chms in the electer of the final selector circuit is connected to the lead S, break contact of the CO relay, windings of the SL relay in series, to ground, operating the SL relay, which lights the line lamp at the intercepting operator's position. When the plug of an enswering cord is inserted in the enswering jack, the GO relay operates. The GO relay operated, (a) opens the circuit through the line lamp, extinguishing the lamp, (b) looks through its 500 ohm winding, under control of the SL relay, and (c) closes a circuit through its make contact looking the SL relay.

DYSCONNEGT

4. When the receiver is replaced on the switchhook at the calling station, this circuit is disconnected at the final selector multiple, releasing the SL relay. The SL relay released, connects battery through 600 ohm resistance, to lead S as a busy condition and opens the circuit through the locking winding of the GO relay. The withdrawal of the plug of the answering cord from the jack releases the CO relay and restores the circuit to normal.

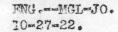
Figure 1 and 2, Y Wiring:

5. With this arrangement the circuit functions in the manner desc. bed above except that the (SL) relay is connected in parallel aiding instead of series aiding and battery to the lead g is connected through 2200 ohms instead of 600 ohms.

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February 8, 1921.

CIRCLIT REQUIREMENTS

| | CPERATE | NON-OPERATE | RELEASE |
|--|---------------------------------|---------------------------------|----------------------------------|
| P647 (CO) 50 chm | Test .070 amp. Readj060 amp. | | Test .011 amp. Readj012 amp. |
| winding | | | |
| 500 ohm winding | Hold .040 amp. | | |
| E658 (CO) Inner winding | Test .026 amp. Readj023 amp. | | Mest .0038 amp. Readj004 amp. |
| Outer winding | Test .035 amp. | | |
| E648 (SL) Wdgs. in series alding | Test .033 amp. Readj017 amp. | Test .010 amp. Readj011 amp. | |



CHK'D .-- RAP.

APPROVED - S. L. SLUYTER, G.M.L.