CIRCUIT DESCRIPTION SYSTEMS DEVELOPMENT DEPARTMENT PRINTED IN U.S.A. CD-21225-01 Issue 3-D September 30, 1936 (3 Pages) Page 1

PANEL SYSTEM MISCELLANEOUS CIRCUIT FOR 3 WIRE OFFICE SELECTOR FRAME

CHANGES

- B. CHANCES IN APPARATUS
- B.1 Replaced

Replaced by

2-221 type jacks, Fig. 4

2-223 type jacks, Fig. 4

- D. DESCRIPTION OF CIRCUIT CHANGES
- D.1 Note 107 is added to provide for use of the circuit in ground cut-off relay offices.
- D.2 The motor transfer alarm wiring has been removed.

All other headings under Changes, No change.

DEVELOPMENT

- 1. PURPOSE OF CIRCUIT
- 1.1 To provide fuse alarm, motor stop alarm, test battery and miscellaneous jacks for the 3 wire office selector frame.
- 2. WORKING LIMITS
- 2.1 None.

OPERATION

- 3. FUNCTIONS
- 3.1 To provide an alarm when a frame fuse operates.
- 3.2 To provide connections for the frame drive contacts to operate the motor stop alarm.
- 3.3 To provide a frame line for talking between frames and to the "A" switchboard or sender make busy frame.

3.4 To provide means for making overflow tests on test lines when no automatic office selector test frame is provided in an office.

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3.5 To provide miscellaneous jacks as specified on the drawing.

4. CONNECTING CIRCUITS

4.1 Floor alarm board circuits.

4.2 Local frame line circuit.

- 4.3 Miscellaneous circuit for miscellaneous interrupter frame.
- 4.4 Miscellaneous circuit for office selector test frame.
- 4.5 Automatic test circuit for office selectors.

DETAILED DESCRIPTION

5. FUSE ALARM (FIGS. 1 & 2)

When the 15 ampere fuse opens, the associated 1-1/3 ampere fuse operates. Operation of any 1-1/3 ampere fuse on the fuse panel lights lamp (FA) and causes continuous operation of the minor alarms. When the operated 1-1/3 ampere fuse is removed, the alarms are retired. Operation of the fuse alarm causes operation of the (AL) relay, lighting lamp (FP).

6. MOTOR STOP (FIG. 3)

When the frame motor slows down or stops, frame drive contact "S" closes, causing continuous operation of the minor alarms. When the motor speed is again normal, if the alarm release key at the floor alarm board has been operated, closure of contact "R" again operates the alarm as a signal to restore the key.

7. FRAME LINE BETWEEN FRAMES (FIG. 4)

Communication may be established with the "A" switchboard by inserting the plug of an "A" board cord in the "A" board jack and plugging an operator telephone set into the (TEL) jacks. Communication may be established with the sender make busy frame by operating the (TALK) key at the sender make busy frame and plugging an operator telephone set into the (TEL) jacks. Connection between two or more frames may be made by plugging operator telephone sets into the (TEL) jacks at the frames. Talking battery is supplied thru the connecting circuit. No signaling is provided.

8. FRAME TEST BATTERY (FIGS. 5 & 6)

One connecting block is furnished on each side of the frame to supply 24 volt battery, 48 volt battery, ground and ground thru 12000 ohms resistance for testing purposes. Jack (A) furnishes battery and ground for the portable test set. CD-21225-01 - Issue 3-D - Page 3

9. SPARE JACK (FIG. 7)

Jack (B) is provided to meet possible future requirements for miscellaneous jacks.

10. TEST LINE (FIGS. 8 & 10)

Jack (D) may be patched to a portable test circuit for testing office selectors. The tip is connected to the tip overflow terminal to give the OK signal to the test set. The sleeve is connected to the "L" conductor leading to the overflow test key to provide an indication if the sleeves of the test lines are made busy. To make overflow tests, the test man first ascertains that no other test circuit is using the test lines and then operates the (OFL) key. This grounds the sleeve terminals of the test lines, so that the office selector goes to overflow. When a pass overflow test is to be made, the (B-OFL) key is operated to ground the overflow terminal and to ground the sleeve terminals of the test lines. The office selector then passes out of the test group and stops on the first idle terminal of the next group.

11. REMOTE CONTROL LINE (FIG. 9)

Jack (E) or (F) is connected to the automatic test circuit in such a manner that a test set may be plugged into the jack to control advance of the test circuit, so that functioning of the selector may be observed under test conditions.

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