# 52436

CIRCUIT DESCRIPTION SWITCHING SYSTEMS DEVELOPMENT DEPARTMENT

CD-21318-01 Issue 6-D Appendix 1-D Dwg. Issue 9-D

PANEL SYSTEMS ALARM CIRCUIT FOR DECODER EQUIPMENT FLOOR ALARM BOARD

CHANGES

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B. CHANGES IN APPARATUS

B.1 Superseded Superseded By

E1626 Relay E652 Relay

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 The use of relay El626 is rated "Mfr. Disc. to show realistic ratings for obsolescent apparatus.

D.2 Note 105 is added.

All other headings, no change.

BELL TELEPHONE LABORATORIES

DEPT. 3440-MMS-EWO-F1

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### CIRCUIT DESCRIPTION SYSTEMS DEVELOPMENT DEPARTMENT

CD-21318-01 Issue 6-D Dwg. Iss. 8-D

#### PANEL SYSTEMS ALARM CIRCUIT FOR DECODER EQUIPMENT FLOOR ALARM BOARD

#### CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

D.l Sub-title "Link down drive alarm" for Fig. 6 is changed to read "Link down drive alarm or sender load alarm."

D.2 A table of options used is added.

All other headings under "Changes," no change.

1. PURPOSE OF CIRCUIT

1.1 The purpose of this circuit is to provide miscellaneous alarm signals at the floor alarm board for decoder equipment.

2. WORKING LIMITS

2.1 None.

3. FUNCTIONS

3.1 To provide visual alarms at the floor alarm board for decoder equipment.

3.2 To provide a means for giving an alarm if any motor driving the sender frames slows down excessively or stops.

3.3 To provide a means for making the associated senders busy when the driving motor slows down excessively or stops.

3.4 To provide a means for giving an alarm when a motor starts after the corresponding (MS) key has been operated.

3.5 To provide a means for giving an alarm when a fuse operates on the sender make busy frame.

3.6 To provide a means for giving an alarm when the link down drive register operates.

3.7 To provide a means for giving an alarm when the sender load register operates. 4. CONNECTING CIRCUITS

- 4.1 Miscellaneous circuits for decoder test frame, SD-21250-01.
- 4.2 Miscellaneous circuits for trouble indicator frame, SD-21251-01.
- 4.3 Miscellaneous alarm circuit, SD-21203-01.
- 4.4 Miscellaneous circuits for decoder sender frame, SD-21234-01.
- 4.5 Miscellaneous circuits for sender make busy frame, SD-21236-01.

DESCRIPTION OF OPERATION

5. DECODER TEST FRAME ALARMS (FIG. 1)

When any of the leads from the decoder test frame circuit or when the lead from the trouble indicator frame circuit becomes grounded, the lamp associated with the grounded lead lights thus providing a visual signal at the floor alarm board. When the ground is removed, the lamp is extinguished.

6. DECODER SENDER MOTOR STOP (FIG. 2)

When a sender motor slows down excessively or stops, ground is connected to lead "SP" by the associated motor stop contact thus operating relays (MS) and (MS1). Relay (MS) operated lights the alarm lamp and rings the alarm bells. Relay (MS1) operated, causes relays of the sender frame circuit to function which in turn makes the affected senders busy. The (MS) key is manually operated thus releasing the (MS) relay and thereby extinguishing the alarm lamp, silencing the bells and lighting the guard lamp. When the motor starts again the (MS1) relay releases thereby causing the busy condition to be removed from the associ-ated senders. At the same time the (MS) relay operates from the ground supplied to lead "RN" from the motor governor contact. This causes the alarm lamp to light again and also rings the alarm bells. When the (MS) key is restored, the (MS) relay releases thus restoring the circuit to normal.

7. FUSE ALARM (FIG. 3)

When a fuse of the associated sender

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make busy frame circuit operates, battery is connected to lead "FA" thus causing the (A) relay to operate which in turn connects ground to lead "P". This causes the alarm circuit to function. When the operated fuse is removed the alarm circuit is opened. Similar operation occurs if the fuse of Fig. 5 operates. In this case, however, current for operating relay (A) is supplied through resistance (FAL).

8. DECODER TEST FRAME MOTOR STOP (FIG. 4)

When the frame motor slows down or stops the (MS) relay is operated over lead "SP". The (MS) relay lights a lamp and rings a "DC" bell at the floor alarm board and at the decoder test frame. Operation of the (MS) key silences the alarms and lights a guard lamp. When the motor again runs at its required speed the (MS) relay reoperates bringing in the alarms which will be retired by restoring the (MS) key.

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When a fuse of the associated sender

9. DECODER TEST FRAME MOTOR TRANSFER (FIG. 5)

When the decoder test frame motor is required to run from the storage battery a circuit is closed to light the (MOTOR TRANSFER) lamp. The lamp is extinguished when the motor again runs from its normal source.

10. LINK DOWN DRIVE ALARM OR SENDER LOAD ALARM (FIG. 6)

When the link down drive alarm relay or the sender load alarm relay on the sender make busy frame operates, relay (GA) operates, lighting the aisle pilot lamp over lead "GP", causing operation over lead "F", of the (F) relay which operates the aisle pilot audible alarm for the sender alarm group, lighting lamp (FGA) and causing operation of the floor alarm board ringer.

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