

COMMON SYSTEMS
"N1" CARRIER TELEPHONE
"E" LEAD GROUNDING CKT.
FOR PROVIDING "E" LEAD
GROUND DURING CARRIER FAILURE

CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

- D.1 Fig. 51 was not previously rated
"MFR. DISC."
 - D.2 Fig. 52 was added.
 - D.3 Notes 106 and 107 were added.
- All other headings, No Change.

BELL TELEPHONE LABORATORIES, INC.

DEPT. 2121-AK-FGE-PP

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D. DESCRIPTION OF CIRCUIT CHANGES

D.1 The rating of the drawing was changed from "A.T.&T.Co. Provisional" to "A.T.&T.Co. Standard".

All other headings, under changes, no change.

1. PURPOSE OF CIRCUIT

1.1 This circuit provides a method of grounding the "E" leads of an "N1" Carrier Telephone System under any of the following conditions:

1.11 When "Tone On" signaling is used, (3700 cycle signal is received during "talk" and "idle" conditions) to make the converter circuit busy during carrier failure.

1.12 When "Tone Off" signaling is used, to prevent the associated converter circuit from ringing out on the line during carrier failure.

1.13 When the circuit is arranged for dialing, to make it busy during carrier failure.

2. WORKING LIMITS

2.1 The minimum allowable applied potential to the (K7) relay winding is 40 volts.

3. FUNCTIONS

3.1 Provides for reapplying ground to the "E" signaling leads 10 seconds after a carrier failure.

4. CONNECTING CIRCUITS

4.1 Application Schematic - Carrier Terminal - SD-95121-01.

4.2 Application Schematic - V. F. Patching & Mon. Jacks - SD-59329-01.

4.3 V. F. Patching Jack Ckt. SD-64303-01.

DESCRIPTION OF OPERATION

5. GENERAL

5.1 A carrier failure applies ground to terminal 59 of the terminal strip on the "N" carrier terminal. This ground completes the circuit through winding "3-4" of relay (K7) which will operate in from 6 to 19 seconds. Relay (K7) operated, applies ground (contacts "1-2") to the winding of relay (K6) causing it to operate. Relay (K6) operated closes twelve pairs of contacts applying ground to the "E" leads of the channels of the system which has failed. Only the "E" leads of channels requiring this feature should be connected.

BELL TELEPHONE LABORATORIES, INC.

DEPT. 2210-CRB-PGE-WE