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COMMON SYSTEMS
LOCAL TEST DESK NO. 14
TEST TRUNK CIRCUIT
TO M.D.F. OR M.D.F. AND I.D.F.
FOR DETECTING INTERMITTENT TROUBLE

CHANGES

D. DESCRIPTION OF CIRCUIT CHANGES

D.1 The rating is changed from AT&TCo.
Standard to Mfr. Disc. and this cir-
cuit is replaced by SD95764-01.

All other headings, no change.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT. 2321-GAB-AAB-E7

COMMON SYSTEMS
LOCAL TEST DESK NO. 14
TEST TRUNK CIRCUIT
TO M.D.F. OR M.D.F. AND I.D.F.
FOR DETECTING INTERMITTENT TROUBLE

1. PURPOSE OF CIRCUIT

- 1.1 This circuit is used for establishing test connections between the local test desk and the M.D.F. so that subscriber line intermittent trouble can be detected.
- 1.2 In order to establish the above connection this circuit must be associated with a Test Trunk Circuit at the M.D.F. that is designed for the particular type of system.

2. WORKING LIMITS

- 2.1 The (BY) and (LS) relays of this circuit will function over a max. external circuit resistance of 750 ohms with an earth potential of ± 20 volts.
- 2.2 The (BY) and (LS) relays will function with a min. insulation resistance of 60,000 ohms.

3. FUNCTIONS

- 3.1 This circuit is arranged to function with an M.D.F. located in the same building or in a different building.
- 3.2 Incoming signals are flashing lamps with auxiliary signal until answered by the test man when they become steady lights and the "Aux. Sig. Ckt." is disconnected.
- 3.3 Circuit arranged to lock steady lamp condition in, after the test call is answered.

4. CONNECTING CIRCUITS

- 4.1 Test Trunk Circuit at M.D.F. or M.D.F. and I.D.F. arranged for detecting intermittent trouble on subscriber lines.
- 4.2 Aux. Signal Circuit.
- 4.3 Flashing Circuit.
- 4.4 Miscellaneous circuit for misc. int. frame - for panel offices.

- 4.5 Int. frame Circuit - for Crossbar offices.
- 4.6 Pri. and Sec. Test Circuit.

DESCRIPTION OF OPERATION

5. ESTABLISHMENT OF TEST CONNECTION

In order to set up a connection from the local test desk, through the equipment of the Test Trunk at the M.D.F. of the terminating office, and this circuit, to a line requiring test, the maintenance man in the terminating office receives the necessary directions over a separate talking path from the test desk, and then proceeds to complete the connection by means of the arrangement shown on the Test Trunk Circuit at the M.D.F. and I.D.F. of the terminating office. The Test man at the Local test desk will control the Test Trunk at the M.D.F. and I.D.F. by means of keys of the test cord circuit. The tip and ring line conductors and the tip and ring leads extending toward the switchboard equipment or the line finder equipment, are connected to the tip and ring of this circuit by the control over the sleeve from the test desk.

6. ORIGINATING CALLS

When the subscriber whose line is under test originates a call, (LS) relay will operate, this will ground the "A" or "A1" lead to the aux. signal circuit and cause the (SUP) lamp to flash and when the cut-off relay of the line under test operates, (BY) relay will operate, this will also ground the "A" or "A1" lead to the aux. signal circuit and cause the (BY) lamp to flash. When the test man completes the connection to the test cord circuit the (JC) relay will operate and change the above flashing lamp signals to steady signals and disconnect the "Aux. Sig. Ckt.". The (JC) relay operates to local contact of jack, and locks thru front contacts of (LS) and (BY) relays.

7. TERMINATING CALLS

When the subscriber line is called, and the cut-off relay operates, the (BY) lamp only will flash until the test man completes the connection to the test cord circuit operating the (JC) relay to change the (BY) lamp from flashing to steady, and disconnect the "Aux. Sig. Ckt.".

8. DISCONNECTION

When a call, either originating or terminating is released the (LS) and (BY) relays will release in turn extinguishing

the (BY) and (SUP) lamps and unlocking (JC) relay and the circuit is ready for another call.

BELL TELEPHONE LABORATORIES, INC.

DEPT.

REP)
FJS) GU