COMMON SYSTEM
TONE TEST CIRCUIT
FOR USE WITH CALL THRU
TEST SET

1. PURPOSE OF CIRCUIT

1.1 This circuit is arranged for use in panel, crossbar, step-by-step or manual offices as a termination for call thru testing. It is arranged to trip machine ringing and provide a distinctive tone as a means of identification. Supervision and talking arrangements are not provided.

2. WORKING LIMITS

2.1 None.

3. FUNCTIONS

3.1 This circuit is selected via the final multiple in panel offices, the line link and controller circuit in crossbar offices, the connector multiple in step-by-step offices, and the subscriber's multiple in manual offices.

3.2 This circuit is arranged to trip machine ringing.

3.3 It automatically opens the tripping circuit upon removal of the ringing voltage to prevent charging.

3.4 Connects a high tone to the ring lead as a means of identification.

3.5 It is arranged to be connected as a line in a terminal hunting group in panel offices.

4. CONNECTING CIRCUITS

4.1 Subscriber's Line Circuit - Crossbar Office.

4.2 Final Selector Circuit - Panel Office.

4.3 Line Link and Controller Circuit - Crossbar Office.

4.4 Connector Circuit Step-by-Step Office.

4.5 Machine Ringing Trunk Circuit - Manual Office.

4.6 Ringing Circuit.

4.7 Tone Alternator.

5. DESCRIPTION OF OPERATION

5.1 This circuit when seized provides a tripping path for the machine ringing in the incoming selector panel, office, the incoming trunk crossbar or manual office and the connector in step-by-step office. The application of ringing voltage causes the cold cathode tube (A) to break down thus reducing the resistance of the circuit to a value which will cause the tripping relay in the machine ringing circuit to operate and disconnect the ringing. When the ringing voltage is removed the cold cathode tube is restored to its normal or high resistance state. The resistance of the tube circuit under this condition is so high that the supervisory relay in the associated trunk will not operate and consequently charging will not occur.

High tone thru condenser (A) is connected to the ring lead to notify the attendant at the call thru test set that the line desired has been connected.

BELL TELEPHONE LABORATORIES, INC.

DEPT. 332

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