

Western Electric Co., Incorporated,
Engineering Dept.,
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METHOD OF OPERATION
TRUNK CIRCUIT

Incoming Ringdown - From Final Multiple - Special Chief Operator's Desk - Full Mechanical Power Driven System.

GENERAL DESCRIPTION

1. This circuit is the desk end of an incoming ringdown trunk between a full mechanical office and a special chief operator's desk. At the distributing frame this circuit will be cross connected to the final multiple and to an individual line switch or a line finder circuit.

2. When a selector at the mechanical office selects this trunk, ringing current is connected across the tip and ring of the trunk which lights the trunk lamps at the special chief operator's desk. When the chief operator operates the listening key associated with the trunk, the ringing current is automatically tripped and the trunk lamps are extinguished. A connection is held by operating the key to the holding position.

DETAILED DESCRIPTION

3. When a selector at the mechanical office selects this trunk circuit, ringing current is connected across the tip and ring of the trunk. The E28Z relay operates through its 700 ohm winding and locks through its 250 ohm winding under control of the E23 relay, lighting the trunk lamps. When the associated CIAF key is operated to its talking position, the ringing current is tripped by a bridge in the operator's telephone circuit and the 178-AA relay operates in turn operating the E23 relay. The 178-AA relay is made slow to release so that when the key is operated from its talking position to the holding position a bridge remains across the trunk, thus preventing a false disconnect signal at the outgoing end. The operation of the E23 relay releases the E28Z relay and extinguishes the lighted trunk lamps. When the key is restored to normal, the 178-AA relay is released, in turn allowing the E23 relay to release, restoring the circuit to normal. A connection is held by operating the CIAF key to the holding position. The circuit functions as before, in addition the 47-A retardation coil is bridged across the tip and ring of the trunk, holding the connection at the automatic end.

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CIRCUIT REQUIREMENTS

OPERATE

NON-OPERATE

RELEASE

E23 Test .028 amp.
 Readj. .016 amp. '

Test .011 amp.
Readj. .012 amp.

E283 Test .024 amp.
Inner Wdg. Readj. .022 amp.
(250 ohms)

Test .0038 amp.
Readj. .004 amp.

Outer Test .018 amp.
Wdg.
(700 ohms)

178-AA Test .032 amp.
 Readj. .030 amp.

Rather slowly:
Test .0038 amp.
Readj. .004 amp.

ENG. WB VL.
9-8-21.

CHK'D. WJT CWP.

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