CIRCUIT DESCRIPTION

CD-5E003-01
ISSUE 1
APPENDIX 2D
DWG ISSUE 3D

PBX SYSTEMS
NO. 756A
INWARD RESTRICTION CIRCUIT

CHANGES

D. Description of Changes

D.1 The rating of this circuit is changed from AT&TCo Standard to A&M Only.

BELL TELEPHONE LABORATORIES, INCORPORATED

DEPT 3224-WVS-RVL

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PBX SYSTEMS
NO. 756A
INWARD RESTRICTION CIRCUIT

CHANGES

D. Description of Changes

D.1 On sheet 01-5 color designations on leads of the local cable are removed on a Class D, No-Record basis.

D.2 A minor drafting error is corrected on sheet 01-6.

BELL TELEPHONE LABORATORIES, INCORPORATED

(WECo 7120HW-EWS-JGW)
DEPT 5337-RAV

PBX SYSTEMS
NO. 756A
INWARD RESTRICTION CIRCUIT

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SECTION I - GENERAL DESCRIPTION

1. PURPOSE OF CIRCUIT

1.01 The inward restriction circuit provides means which prevent the attendant from completing a central office class call to an inward restricted station.

2. GENERAL DESCRIPTION OF OPERATION

General

2.01 The inward restriction feature is associated with the marker circuit. In completing a central office class call to an inward restricted station, the marker operates the corresponding IR- line relay which prevents the call from being completed to the called station.

2.02 Connections between the marker and the inward restriction circuit are arranged to consider the restricted line as an unassigned one. The feature of hunting is also eliminated to prevent the call from being completed to a station in the same hunting group.

Attendant Action

2.03 The attendant completes a call to a restricted station by the usual call-completion procedure. The marker, finding the called line inward restricted, treats it as an unassigned line and completes the call to an attendant trunk. When the marker completes the call to an attendant trunk, the inward restriction circuit releases when marker relays R1A,B operate.

2.04 When the connection is established to an attendant trunk, the attendant answers the call by operating the pick-up key obtaining a single spurt of tone indicating that this call is intercepted.

2.05 In releasing the connection, the attendant first reoperates the pick-up key of the central office trunk and then operates the HOLD key.

SECTION II - DETAILED DESCRIPTION

1. SELECTION AND DIALING

General

1.01 The attendant in answering an incoming central office trunk call, operates the associated pick-up key in the cordless position circuit. This results in a talking connection between the attendant and the outside party.

1.02 In extending the call to the requested line, the attendant operates the HOLD key. This results in attachment of the marker and in marker action to attach a dial pulse register. At this time the central office trunk and marker circuit function as if the inward restriction feature were not provided.

1.03 In completing the call to an inward restricted station, the marker recognizes the restricted station and reroutes the call to the attendant as an intercepted call.

2. COMPLETING INWARD RESTRICTION CALL (SC1)

Activating Inward Restriction Circuit

2.01 When dialing is completed, the register recalls the marker. The marker functions to complete the call to the called station as usual. The sequential operation of the marker does not change regardless of the state of the called station i.e. idle, busy or busy and camped on.

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2.02 In the process of connecting the trunk to the called station, the marker operates the corresponding AU- relay performing the following functions:

(a) Locks operated via released marker relays RLA,B.

(b) Prepares a path for operating the corresponding line relay IR-.

(c) Prevents marker relays HCA,B from operating.

(d) Prepares a path for operating marker relays BSYAA,BA.

2.03 When marker relays COTA,B and corresponding TCS- operate, they operate the corresponding line IR- relay performing the following functions:

(a) Prevents the corresponding marker relay S- from operating and so provides the marker with the necessary signals to consider the called station as unassigned.

(b) Locks operated via released marker relays RLA,B.

2.04 The marker proceeds to complete the call to an attendant trunk. When the call is completed, the marker releases by the operation of marker relays RL(A,AA, AB,B,BA,BB). Relays RLA,B operated also release relays AU- and IR-.

3. ATTENDANT ANSWERS CALL

3.01 The attendant in response to an audible signal and flashing SL and TL lamps operates the pick-up key associated with the attendant trunk. A momentary spurt of tone is heard as a signal to the attendant that this is an intercepted call.

4. RELEASE OF INWARD RESTRICTION CONNECTION

4.01 In releasing the connection, the attendant first reoperates the pick-up key associated with the central office trunk and then momentarily operates the HOLD key in the cordless position circuit.

SECTION III - REFERENCE DATA

1. WORKING LIMITS

1.01 Voltage limits 45-52 volts.

2. FUNCTIONAL DESIGNATIONS

2.01

Designation	Meaning
AU-	Auxiliary Unit
IR-	Inward Restriction

3. FUNCTIONS

3.01 To recognize an inward restricted station.

3.02 To signal the marker to connect a central office trunk to an attendant trunk if the call is intended for an inward restricted station.

3.03 To inhibit the hunting feature of the marker.

3.04 To substitute for the nonoperation of marker relays HCA,B in the completion of an inward restricted call.

4. CONNECTING CIRCUITS

4.01 When this circuit is listed on a key sheet, the connecting information thereon shall be followed.

4.02 Typical connecting circuits:

(a) Line, Link and Marker Circuit - SD-65741-01.

(b) Busy Verification Auxiliary Trunk Circuit - SD-66911-01.

5. MANUFACTURING REQUIREMENTS

5.01 The inward restriction circuit shall be capable of performing all of the functions given in this circuit description; the relays with which it is equipped shall meet all requirements of the circuit requirement tables.

6. TAKING EQUIPMENT OUT OF SERVICE

6.01 When maintenance tests and adjustments are to be made, the inward restriction circuit can be taken out of service as follows:

(a) Block the AUO-9 relays nonoperated.

(b) Remove necessary lead providing inward restricted service to individual stations.

7. ALARM INFORMATION

7.01 An operated fuse supplying the inward restriction circuit results in visual and audible signals at the attendant position and in the alarm, transfer and test circuit. Also, if alarm sending is provided, a major alarm is transmitted to the plant service center.

7.02 Replacing the operated fuse silences the audible alarm and extinguishes the alarm lamps.

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(WECo 7760HW-GAM-JGW)
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