

## METHOD OF DENYING AND RESTORING SERVICE ON CUSTOMER LINES STEP-BY-STEP AND COMMUNITY DIAL OFFICES

### 1. GENERAL

**1.01** This section describes the methods of denying and restoring service on customer lines in step-by-step and community dial offices.

**1.02** This section is reissued to specify the proper tool and method of blocking wire spring type relays.

**1.03** These methods may be used for denying service for nonpayment, for seasonal absence of the customer, for protection of equipment or service, and for other reasons.

**1.04** For individual lines, methods for both one-way and two-way denial are outlined. One-way denial cuts off the outgoing service from the station but allows completion of calls to the station. Two-way denial cuts off the service both incoming and outgoing and provides for intercepting calls incoming to the station, except where intercepting service is not available.

**1.05** For party lines, the denial is made both ways by disconnecting the station loop and providing intercepting connections for the calls incoming to the station. However, where the line has only one station connected, denial may be made in the office in the manner described for individual lines.

**1.06** For individual lines or party lines served through a No. 1A concentrator, denial is made both ways.

### 2. APPARATUS

**2.01** B plastic sleeving (size 133) AT-7574 (or replaced KS-7851).

**2.02** Handset (dial hand test set) equipped with connecting clips.

**2.03** Test receiver, 716C receiver attached to a W2AB cord equipped with two 360A tools (2W21A cord), one KS-6278 connecting clip, and one 411A tool (test pick).

**2.04** Testing cord, 893 cord, 3 feet long, equipped with two 360A tools (1W13A cord) and two 624B tools (terminal connectors) to be used for making test connections to terminal strip punchings.

**2.05** 72A (green) insulating dummy heat coils.

**2.06** 441 tool (used to block R-type cutoff relays in line finder offices having no IDF or having line circuits cabled from the MDF to the VIDF).

**2.07** 608B tool (used to block EA-type cutoff relays in line finder offices having no IDF or having line circuits cabled from the MDF to the VIDF).

**2.08** #768A tool (used in blocking AF-, AG-, AJ-, AL-, AK-, and AM-type cutoff relays in line finder offices having no IDF or having line circuits cabled from the MDF to the VIDF).#

**2.09** 324 tool (blocking tool used in line switch offices having no IDF).

**2.10** 319C plug (used to open contacts of 444-type jacks in offices having jack-type MDF).

**2.11** Green protector unit cap (used to indicate a denied line on a 300-type connector).

**2.12** Green designation plate (used to indicate a denied line on a 300-type connector).

**2.13** Blocking tools, as required. Use tools and apply as covered in Section 069-020-801.

**2.14** Materials and method used for associating connector terminals with intercepting trunks are covered in Section 226-165-300.

### NOTICE

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**3. METHOD OF DENYING INDIVIDUAL LINES**

**Note:** If the line to be denied is served through a No. 1A concentrator, proceed as described in 3.07 through 3.09.

**One-Way Denial****3.01 Offices Where the Connector Multiple is Cabled from the MDF to the H1DF:**

Test the line for busy at the H1DF by connecting a test receiver or a handset from the sleeve terminal to battery. A loud click will be heard if the line is busy. When the line is not busy, disconnect the tip cross-connection of the line to be denied except PBX trunks, in which case the ring is also disconnected. Cut off the bare wire and place a piece of sleeving over the disconnected lead or leads and press the sleeving down between the terminal lugs.

**3.02 Offices Where There is no 1DF or Where the Line Circuits are Cabled From the MDF to the V1DF:**

- (a) In a line finder office equipped with R-type cutoff relays, block the CO relay partially operated with a 441A tool to open the line contacts. In order to replace the relay cover with the 441A tool in place, it may be necessary to cut off the end of the tool at the base of the hole in the outer end.
- (b) In a line finder office equipped with EA-type cutoff relays, open the normally closed contacts of the CO relay by inserting the 608B tool.
- (c) In a line switch office, block the BCO relay operated with a 324 tool.
- (d) In a line finder office equipped with AF-, AG-, etc, type wire spring relays, block the L (line) relay nonoperated with a 768A tool.

**Two-Way Denial**

**3.03** At VMDF or CDF, test the line for busy using the handset with the switch in the MON position. When the line is not busy, proceed as follows:

- (a) Where C-type protectors are used, replace the heat coils with 72A insulating dummy heat coils.

(b) Where the frame is equipped with 444-type jacks, insert a 319C plug into the jack.

(c) Where the frame is equipped with 300-type connectors (or replaced 121-type protector), remove the protector units, remove the heat coils from the units, replace the black caps with green caps, reinsert the protector unit and place in the open position (white line on cap in the vertical position). Place a green designation plate on the holder.

**Note:** If the CO, BCO or L relays were blocked as described in 3.02, remove the tool from the relay.

**3.04** At the H1DF or CDF, test the line for busy, as covered in 3.01. When the line is not busy, disconnect the tip, ring, and sleeve cross-connection from the connector terminals. Cut off the bare wire ends, and place one piece of sleeving over the three conductors. Then double the cross-connection wire back over the terminal strip and hook it around itself so that the sleeved ends will hold the cross-connection in place.

**3.05 Intercepting Trunks Arranged to Route Calls to the Operator:** Connect the connector terminal from which the cross-connection was removed to the intercepting trunk, connecting the tip, ring, and sleeve of the terminal to the tip, ring, and sleeve of the intercepting trunk, respectively.

**3.06 Intercepting Trunks Arranged to Route Calls Either to the Operator or to the Announcement Machine:** To route calls to the operator, connect the connector terminal from which the cross-connection was removed to the intercepting trunk as described in 3.05. To route calls to the announcement machine, connect the tip of the connector terminal to the ring of the intercepting trunk, the ring of the connector terminal to the tip of the intercepting trunk, and the sleeve of the connector terminal to the sleeve of the intercepting trunk.

**Denial of Lines Associated with No. 1A Concentrator**

**3.07** If the line to be denied is served through a No. 1A concentrator, proceed as described in 3.04 through 3.06 to cut off incoming service to the station.

**3.08** At the concentrator terminal strip on the unit, using an 893 cord, connect the A69 punching to the S punching associated with the line to be denied. Operate and hold operated the T0 or T1 key (T0 for lines 0 through 49, T1 for lines 50 through 99). The COK lamp should light. Restore the T0 or T1 key and the COK lamp extinguishes. Remove the test connection from the S punching.

**3.09** If the COK lamp does not light when the T0 or T1 key is operated, the line to be denied, although idle, may be cut through the concentrator with hold magnets magnetically latched. In this case, it is necessary to establish a "disconnect request" by blocking operated the DP0 relay (for lines 0 through 49) or the DP1 relay (for lines 50 through 99). This will release all lines cut through the concentrator that are not busy. Remove the blocking tool from the DP0/DP1 relay. Reoperate the T0/T1 key as just described.

#### **4. METHOD OF DENYING PARTY LINES**

**4.01** One-way denials are not normally made on party lines. Party-line customers are denied both ways.

**4.02** The station loop will ordinarily be disconnected at the bridging point nearest the station.

*Note:* If the party line station being denied is working alone on the cable conductors, two-way denial may be made as outlined for individual lines. The station loop need not be disconnected.

**4.03** If the line to be denied is served through a No. 1A concentrator, proceed as described in 4.06 through 4.08.

**4.04** On lines with multiple jacks in the DSA board, mark the jacks to indicate the party denied.

**4.05** If the MDF cross-connection (or the cross-connection from the protectors in the case of a CDF) is run to the terminals associated with the station being denied, test the line for busy using the handset with the switch in the MON position. When the line is not busy, transfer the cross-connection to a working party terminal. If the station associated with the terminal to which

the cross-connection is transferred is on the other side of the line, reverse the cross-connection.

**4.06** At the HIDF or CDF, disconnect the tip, ring, and sleeve cross-connections from the connector terminals. Cut off the bare wire ends and place one piece of sleeving over the three conductors. Then double the cross-connection wire back over the terminal strip and hook it around itself so that the sleeved ends will hold the cross-connection in place.

**4.07 *Intercepting Trunks Arranged to Route Calls to the Operator:*** Connect the connector terminal from which the cross-connection was removed to the intercepting trunk, connecting the tip, ring, and sleeve of the terminal to the tip, ring, and sleeve of the intercepting trunk, respectively. On 8-party and 10-party terminal-per-station lines, the ringing lead should be properly connected.

**4.08 *Intercepting Trunks Arranged to Route Calls Either to the Operator or to the Announcement Machine:*** To route calls to the operator, connect the connector terminal from which the cross-connection was removed to the intercepting trunk as described in 4.07. To route calls to the announcement machine, connect the tip of the connector terminal to the ring of the intercepting trunk, the ring of the connector terminal to the tip of the intercepting trunk, and the sleeve of the connector terminal to the sleeve of the intercepting trunk. On 8-party and 10-party terminal-per-station lines, the ringing lead should be properly connected.

#### **5. METHOD OF RESTORING SERVICE**

**5.01** If the line is connected to an intercepting trunk, remove the intercepting connections at the HIDF or CDF. Reconnect the regular cross-connections. Connect a receiver or handset to the tip and ring leads and check that dial tone is received. If dial tone is not heard, refer to 5.02.

*Note:* If, on a party line, a cross-connection was transferred on the MDF, it is not necessary to restore this cross-connection to the original terminal.

**5.02** If heat coils have been removed from protectors, replace them. If a 319C plug was used on jack-type verticals, remove the plug. If a blocking tool was used to block a CO or BCO

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relay, remove the blocking tool. If green-capped protector units were used on a 300-type connector, replace them with black-capped protector units complete with heat coils. The protector units shall be in a closed position (white stripe in the horizontal position). Remove the green designation plate from the holder. With a receiver or handset, connect to the line side springs at the VMDF or CDF and check that dial tone is leaving the office on the customer line.

**5.03** If a party-line station loop was disconnected, it should be reconnected.

**5.04** When restoring a line that has been denied on a No. 1A concentrator, a call must be terminated to the customer line. This is necessary to restore the concentrating equipment associated with the customer line and allow the customer to receive dial tone. It is not necessary to ring on the line.

**5.05** When the connections have been restored, report the line to the test center for test.