

**METHODS OF DENYING AND RESTORING SERVICE
ON CUSTOMERS' LINES
STEP-BY-STEP AND COMMUNITY DIAL OFFICES**

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1. GENERAL

1.01 This section describes ways to deny and restore service on subscriber lines (individual and party) in step-by-step (SXS) and community dial offices (CDOs).

1.02 It is reissued to:

- Add a method of denying service
- Conform with standard Bell System Practice (BSP) format and Pacific Company (PAC) specifications

- Include the appropriate legend on Page 1 in accordance with AT&Ts "Guidelines and Procedures for Safeguarding Information" and PAC's System Instruction (SI) 178.

Note: Marginal arrows used to denote changes are omitted.

1.03 The previous issue added a method of denying service to an individual subscriber line associated with AML or U1 subscriber carrier.

1.04 These methods may be used:

- To deny service for nonpayment (temporary disconnect)
- For customer request for vacation rate
- For emergency reasons
- For intentional receiver off hook (ROH) abuse.

Note: See Section 660-195-003PT for proper procedure.

1.05 *Temporary disconnect* (TD) means temporary discontinuance without termination of the service. This involves either partial or complete service denial by the company for nonpayment of bills.

(a) For toll terminals, individual lines (except coin), and PBX trunk lines, *outward service is denied*; inward service allowed.

(b) For party lines, *inward service is denied* and outward service allowed (see 1.08).

1.06 *Vacation Rate* (VR) means temporary discontinuance of incoming service. All outgoing service is allowed. Incoming calls are routed to intercept.

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1.07 For individual lines, methods for both one-way and 2-way denials are outlined. One-way denials may be made for either outgoing or incoming service as follows:

- Cut off outgoing calls from the subscriber, but allow incoming calls
- Cut off incoming calls, routing them to intercept, but allow outgoing calls.

Notes:

1. Two-way denial cuts off the incoming and outgoing service and routes incoming calls to intercept.
2. For individual lines served by a 1A line concentrator, one-way denials are not made for outgoing service. This type of denial would cause trouble in the concentrator.

1.08 For party lines, one-way denial can be made for incoming service only. To deny outgoing service, a 2-way denial must be made by disconnecting the station loop.

Note: If a party line is working alone, denials may be made the same as for an individual line.

1.09 When denying service, abide by the following general rules:

- (a) When incoming service *only* is denied, outgoing service shall continue to be given from the same line terminal as normally used. The same message register shall continue to be used on message rate service.
- (b) Leave the jumpers associated with message registers intact when temporarily disconnecting lines. When any change or work is done on message register jumpers, test the message register according to the "Line Message Register Tests" sections.
- (c) When relay covers must be removed to block or unblock relays, replace them without unnecessary delay.
- (d) Before working on lines, verify equipment assignments to ensure that other customers are not denied service.

(e) Run in and prepare any required new jumpers for connection before disconnecting any of the regular jumpers.

(f) Before opening line connections, monitor to see that the line is not in use.

(g) Do not remove jumpers when temporarily disconnecting stations or lines, except when changing the master station on party lines.

(h) Disconnect jumpers at one end only. The end to disconnect is specifically designated. Clip the bare wire ends even with the insulation and slip sleeving over the ends of the wires far enough to protect them.

(i) Loop or tie disconnected jumpers through the holes of the terminal strip so they will not interfere with working circuits or regular maintenance operations.

(j) For intercepting connection requirements, refer to Section 002-591-930PT.

(k) For offices with combined distributing frames, references herein to terminals on the Intermediate Distributing Frame (IDF) or Main Distributing Frame (MDF) shall be understood to refer to the corresponding Combined Distributing Frame (CDF) terminals, and references to tie cables between frames shall be disregarded.

1.10 The following apparatus is needed:

- (a) Handset — dial hand test set equipped with connecting clips.
- (b) Test Receiver — 716C receiver attached to a W2AB cord equipped with two 360A tools (2W21A cord), one KS-6278 connecting clip, and one 411A (test pick) tool.
- (c) Testing Cord — 893 cord, 3 feet long, equipped with two 360A tools (1W13A cord) and two 624B (terminal connector) tools. This is to be used for:
 - (1) Connecting a contact of a reed-type relay to a terminal on a 251-type terminal strip on a No. 1A concentrator.
 - (2) Making test connections to terminal strip punchings.

- (d) No. 8 red, impregnated, varnished sleeving per KS-7851 or equivalent, cut into required lengths.
- (e) 136B Tool (used in line finder offices where specified by local instructions).
- (f) 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).
- (g) 608B Tool used to block:
 - (1) EA-type cutoff relays in line finder offices having no IDF or having line circuits cabled from the MDF to the Vertical Intermediate Distributing Frame (VIDF).
 - (2) U680 relays in subscriber line circuits SD-31777-01 in 355A community dial offices.
- (h) 324 Tool (blocking tool used in line switch offices having no IDF).
- (i) Flat toothpicks, having pointed ends cut off (locally) to permit placement of relay cover with toothpick in place (used in offices having rotary line switches).
- (j) KS-16887, List 1, Wedge

2. METHODS OF DENYING INDIVIDUAL LINES

Denial of Outgoing Service (Temporary Disconnects)

- 2.01 See Section 069-020-801 for use of blocking tools.
- 2.02 If the line is connected to a plunger type primary line switch, block the BCO relay operated with a No. 324 tool.
- 2.03 In a line finder office equipped with R-type cutoff relays, block open the CO (cutoff) relay contacts controlling the line relay with 441A tool. 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.

- 2.04 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.
- 2.05 In a 355A CDO with subscriber line circuit SD-31777-01, place the 601B tool between contact springs 2 and 3 top and 1 and 2 bottom of the U680 relay line relay.
- 2.06 In some line finder offices, local instructions specify blocking the line relay nonoperated with a 136B tool.
- 2.07 If the line is connected to a rotary line switch, block the cut off relay operated against the latch by inserting the flat end of a toothpick between the armature and its back stop. Designate the line by placing a 1½-inch length of sleeving on the sleeve spring of the test jack of the line switch involved.
- 2.08 On lines associated with AML or U1 subscriber carrier, the temporary disconnect service order will indicate either physical or derived line.
 - (a) If the indication is physical:
 - (1) For a line connected to a plunger type primary line switch, block the A relay nonoperated with a KS-16887, List 1, wedge.
 - (2) In a line finder office, block the line relay nonoperated with a 136B tool.
 - (b) If the indication is derived, deny outgoing service as specified in 2.01 to 2.07.

- 2.09 Upon completion of any outgoing service denial, use a handset and verify that dial tone is not received on the T and R leads at the Vertical Main Distributing Frame (VMDF). Make the proper tests, using a #3 type test cabinet if available, to be sure an improperly placed blocking tool does not deny dial tone to adjacent line circuits.

Denial of Incoming Service (Such as Vacation Rates)

- 2.10 Procedures to be observed at the IDF are:
 - (a) At the Horizontal Intermediate Distributing Frame (HIDF), disconnect the tip and ring jumper wires from the terminals. If the S and M terminals are not strapped, remove the sleeve

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jumper wire also. If the S and M terminals are strapped, remove the strap and leave the sleeve jumper wire connected to the M terminal.

(b) Clip off the bare ends of the wire, and place one piece of sleeving over the conductors. Double the jumper back over the terminal strip, and hook it around itself so the sleeved end will hold it in place.

(c) Clean any surplus solder from the lugs and associate the connector terminals with an intercepting trunk.

2.11 If the office is arranged for Automatic Number Identification (ANI) and number networks are cabled to the connector sleeve terminals:

(a) Run a cross-connection from the sleeve of the group and terminal involved to the assigned miscellaneous number network. (See Fig. 1 for ANI-B [Type B] cross-connections).

(b) At the miscellaneous number network frame, cross-connect the assigned miscellaneous number network to the assigned tie pair of the number network frame where the connector terminal appears.

(c) At the number network frame, cross-connect the tie pair used in (b) to the number network of the connector terminal. Half-tap over the existing straps.

2.12 In offices with the connector multiple on the MDF:

(a) Run a cross-connection from the tip and ring of the assigned group and terminal to a tie pair to the MDF. Half-tap on the existing jumper at the assigned group and terminal.

(b) At the MDF, run a cross-connection from the cable and pair to the IDF tie pair used in (a). Lift the existing jumper at the cable and pair and connect the jumper from the IDF tie cable. (See Fig. 2 and 3.)

2.13 Always make proper tests. Be sure that the correct number is routed to intercept.

Denial of 2-Way Service

2.14 In some cases, temporary denials of service may specify denying both incoming and outgoing service. In these cases:

(a) Deny outgoing service as covered in 2.01 to 2.09.

(b) Deny incoming service as covered in 2.10.

Denial of Lines Associated with No. 1A Concentrator

2.15 If the line to be denied is served through a No. 1A concentrator, cut off incoming service as described in 2.10 and 2.11.

2.16 At the concentrator terminal strip on the unit using 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 to 49, T1 for lines 50 to 99). The COK lamp should light. Then restore the T0 or T1 key, and the COK lamp extinguishes. Remove the test connection from the S punching.

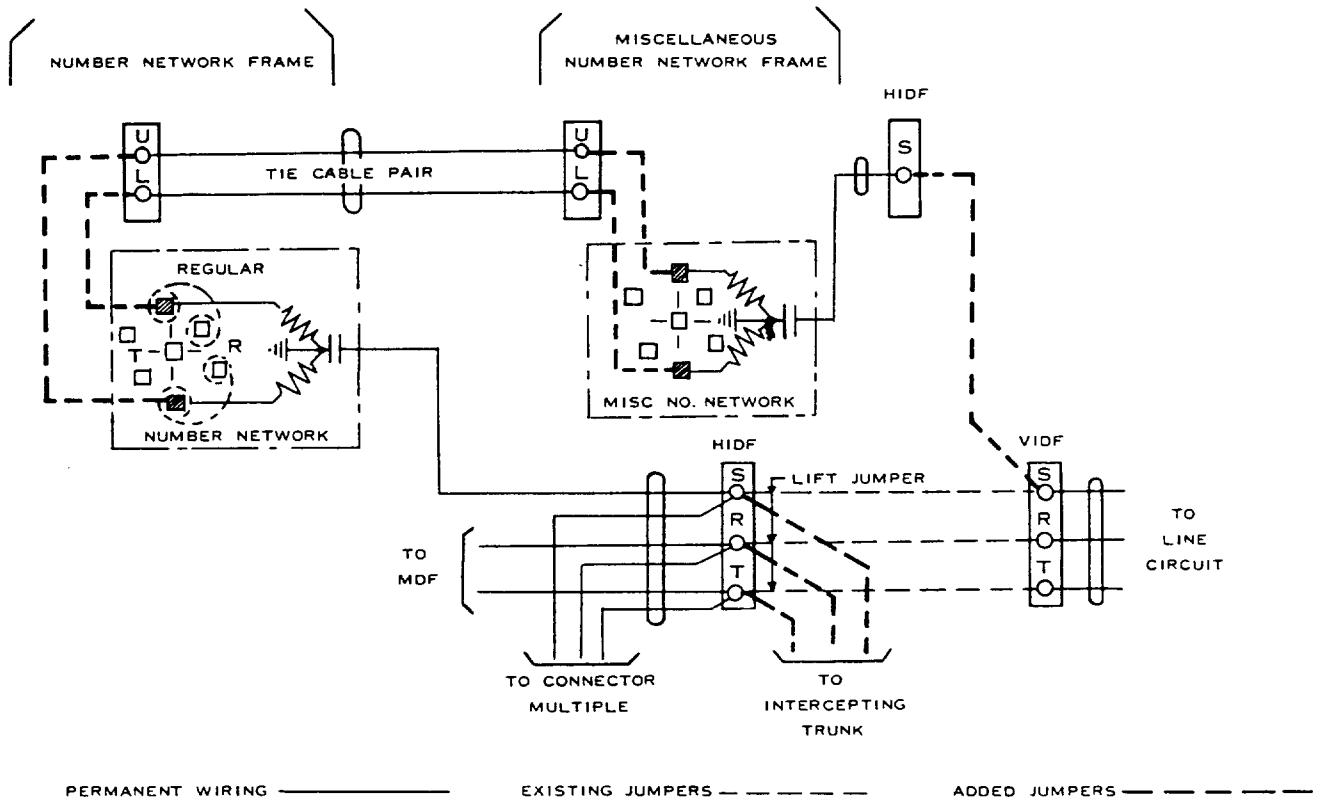
2.17 If the COK lamp does not light when the T0 or T1 key is operated, the line to be denied, though idle, may be cut through the concentrator with hold magnets latched. In this case it is necessary to establish a "disconnect request" by blocking operated the DP0 relay (for lines 0 to 49) or the DP1 relay (for lines 50 to 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 covered above.

3. METHODS OF DENYING PARTY LINES (SUCH AS TD AND VR)

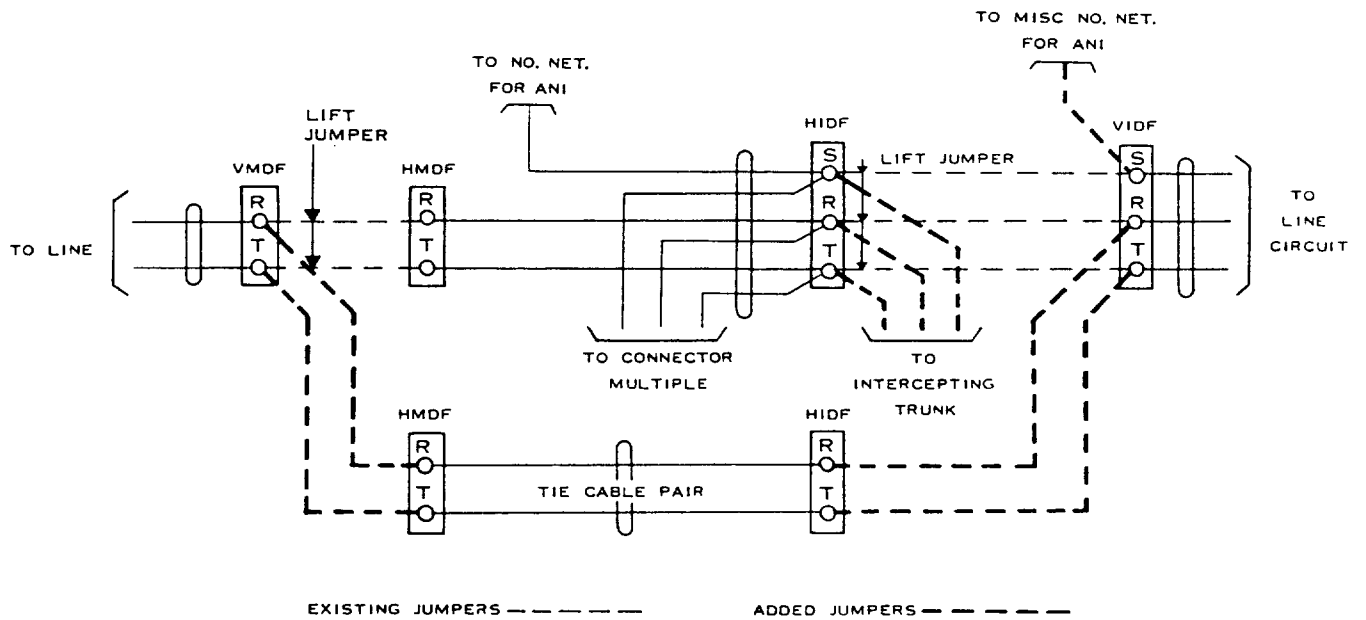
3.01 One-way denials can be made for incoming service only. If outgoing service is to be denied, a 2-way denial must be made by the outside forces disconnecting the station loop.

3.02 Procedures to be observed at the MDF are:

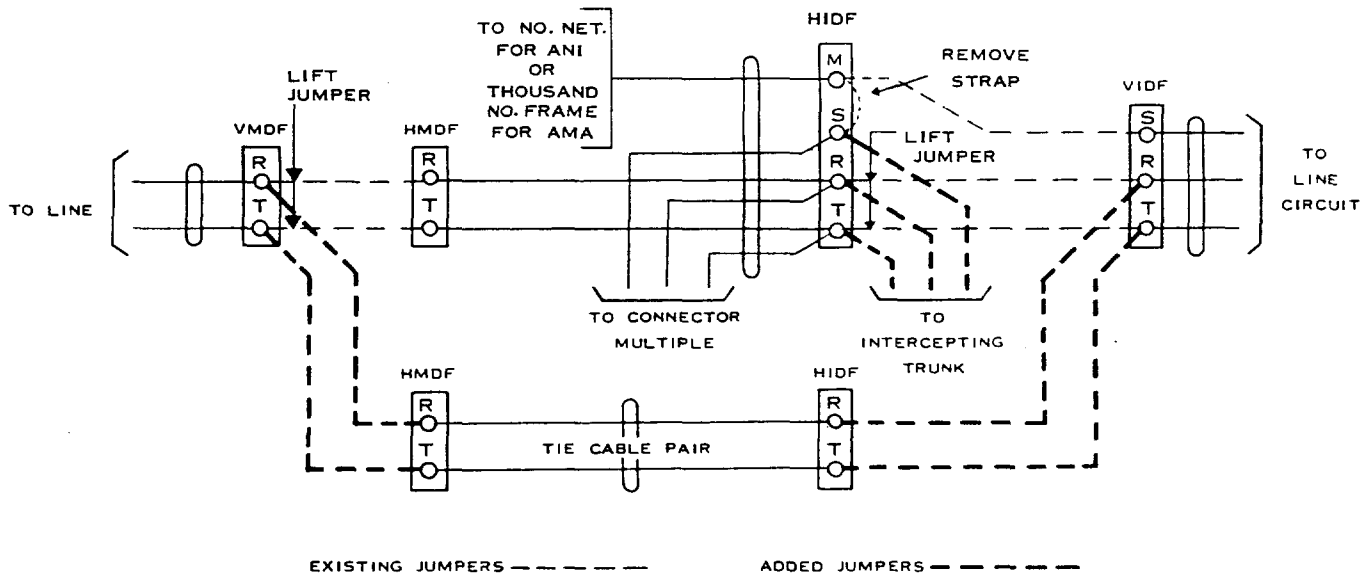
(a) In offices with the line circuits on the MDF, no change in main frame cross-connects is required.



ANI-B Cross-Connections Using Miscellaneous Number Networks
Fig. 1



Temporary Denial of Incoming Service
ANI-B Offices Where The Connector Multiple Appears
On The MDF And The Number Networks Are Cabled
To The Connector S Terminals
Fig. 2



**Temporary Denial of Incoming Service
Offices With The Connector Multiple On The MDF
AMA Offices, Also ANI-B Offices Where The Number
Networks Are Cabled To M Terminals**

Fig. 3

(b) In the offices with the connector multiple on the MDF:

(1) If the MDF jumper is run to the connector terminals of another party on the line, no change in main frame cross-connections will be required.

(2) If the MDF jumper is run to the connector terminals of the party to be denied service, and there are one or more parties on the line whose calls are not being intercepted, 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 position of the tip and ring jumper (Fig. 4 and 5).

Note: VIDF blocks in Fig. 4 and 5 are shown as typical examples.

(3) If the MDF jumper is run to the connector terminals of the party to be denied service and there is no other party on the line (or the calls to the other party are also being intercepted).

- Lift the existing jumper

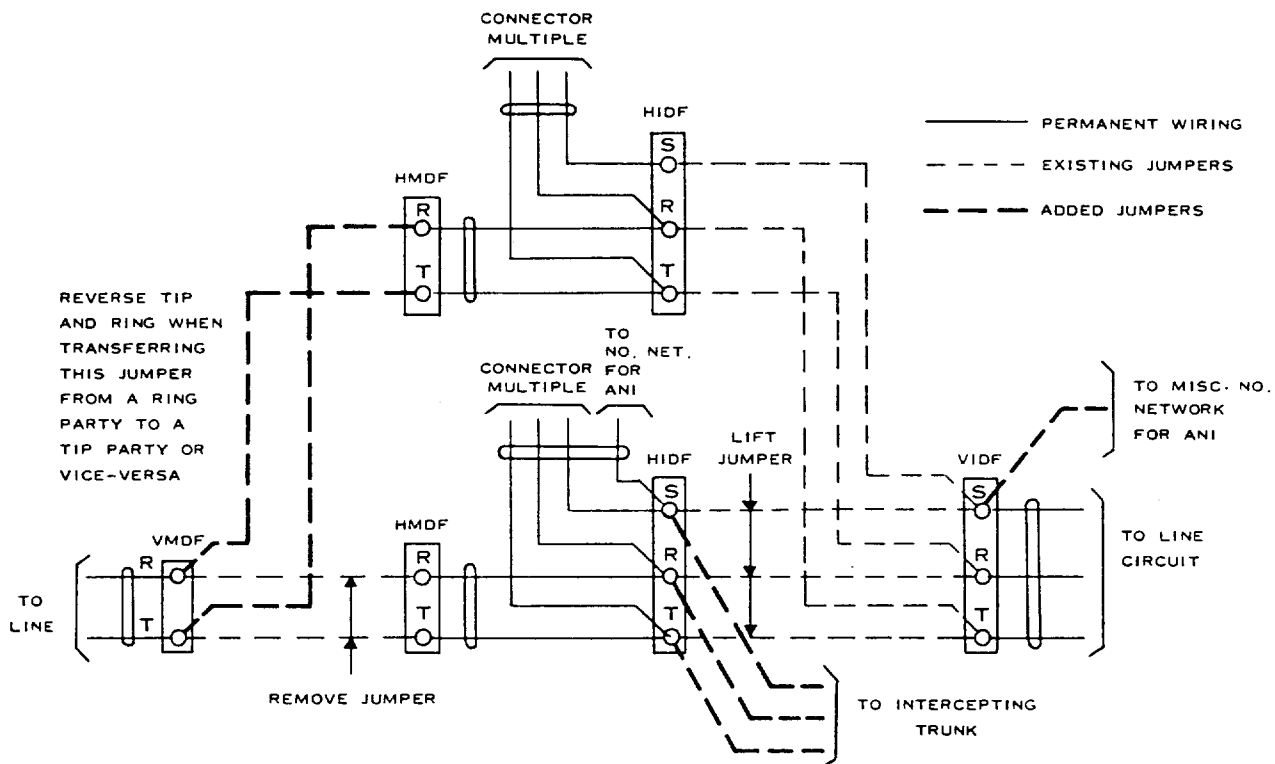
- Cross-connect the cable pair to the tip and ring line switch or line finder terminals normally associated with the line to be intercepted. Use a tie cable pair between the MDF and the IDF (Fig. 2).

3.03 Procedures to be observed at the IDF are:

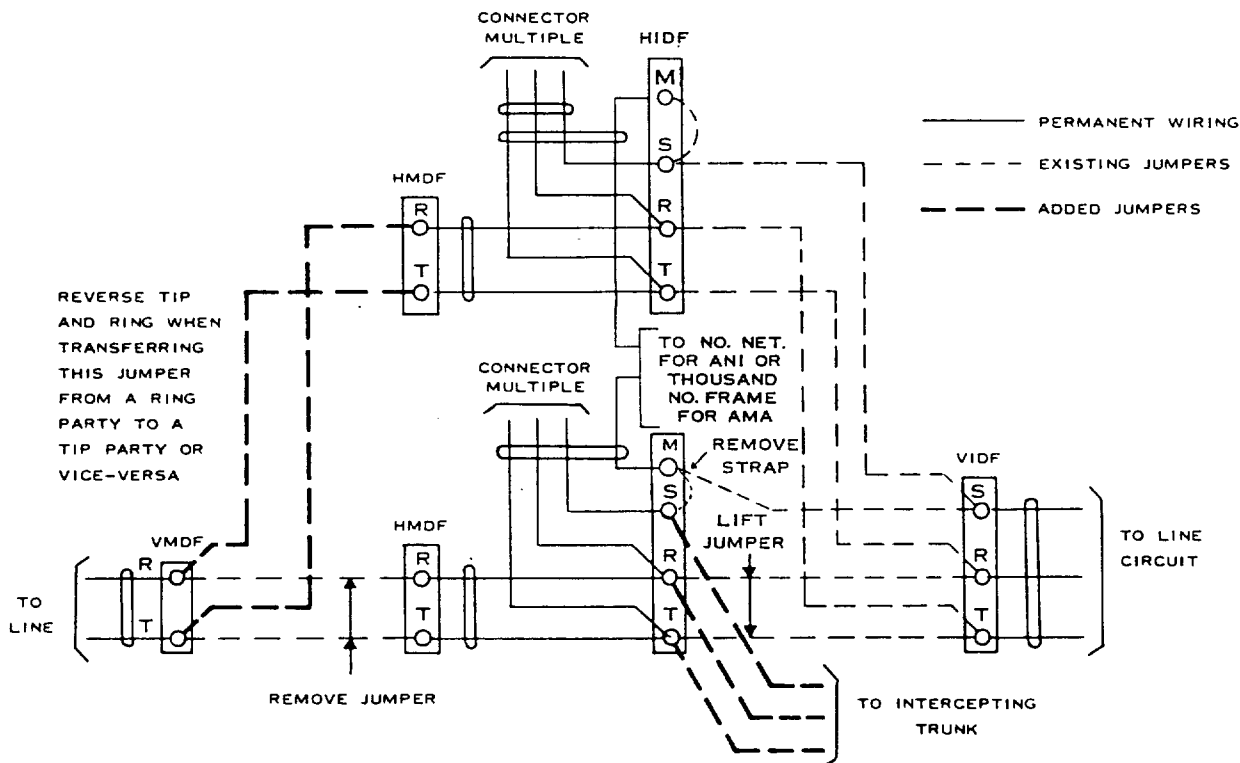
(a) At the HIDF, disconnect the tip and ring jumper wires from the terminals. If the S and M terminals are not strapped, remove the sleeve jumper wire also. If the S and M terminals are strapped, remove the strap and leave the sleeve connected to the M terminal (Fig. 4 and 5).

(b) Clip off the bare ends of the wire, and place one piece of sleeving over the conductors. Then double the jumper back over the terminal strip, and hook it around itself so the sleeved end will hold it in place.

(c) Clean any surplus solder from the lugs, and associate the connector terminals with an intercepting trunk.



**Denial Of Incoming Service To Master Station Of Party Line
Offices With The Connector Multiple On The MDF
ANI-B Office Where The Number Networks Are Cabled To The Connector S Terminals
Fig. 4**



**Denial of Incoming Service To Master Station Of Party Line
Offices With The Connector Multiple On the MDF
AMA Offices, Also ANI-B Offices Where The Number Networks Are Cabled To M Terminals
Fig. 5**

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3.04 If the office is arranged for ANI and number networks are cabled to the connector sleeve terminals:

- (a) Run a cross-connection from the sleeve of the group and terminal involved to the assigned miscellaneous number network. (See Fig. 1 for ANI-B cross-connections.)
- (b) At the miscellaneous number network frame, cross-connect the miscellaneous number network to the assigned tie pair to the number network frame where the connector terminal appears.
- (c) At the number network frame, cross-connect the tie pair used in (b) to the number network of the connector terminal. Half-tap over the existing straps.

3.05 Always make proper tests. Be sure that the correct number is routed to intercept.

4. METHODS OF RESTORING SERVICE

Temporary Restorals

4.01 Temporary restorals of disconnected lines may be requested when:

- (a) There is an emergency, or
- (b) A long distance operator is attempting to call back a temporarily disconnected or vacation rate station to complete a delayed toll call.

4.02 During regular working hours, all requests for restorals are controlled by the Plant Service Center (PSC).

4.03 If a chief operator or traffic supervisor requests the temporary restoration of service for the completion of delayed toll calls or for emergency reasons at other than normal working hours, the craftperson on duty for the office involved shall:

- (a) Complete the restoration.
- (b) Notify the chief operator or supervisor when the work is completed.

Note: Proper notification and follow-up shall be made during regular working hours to determine the length of any such emergency.

4.04 The craftperson on duty may occasionally receive requests from customers who want their service restored because of some emergency, such as serious illness. During business hours, refer these requests to the business office. If the business office is closed, refer them to the equipment supervisor on duty.

4.05 Upon receipt of a request to restore incoming service on a temporarily disconnected or vacation rate line, remove the intercepting trunk connections and tie down connections to the connector terminals.

4.06 Upon receipt of a request to restore outgoing service on a temporarily disconnected line for emergency or other reasons:

- (a) Remove temporary jumpers or straps. Lay them back so they can be tied down again when restoral period is over.
- (b) Reconnect original jumpers or straps.
- (c) Remove blocking tools where used.
- (d) Make proper tests. Use a handset to verify that dial tone is received on the tip and ring leads at the VMDF. Dial a "no charge" test call.

Note: For lines associated with 1A line concentrators, see 4.13.

4.07 The PSC shall be notified when the work is completed. The time shall be noted periodically, and if two or more hours have elapsed since the restoration was made, call it to the attention of the PSC. If such cases occur near the end of the working day, the interval shall be shortened to one hour. All possible effort shall be made to avoid leaving a temporarily disconnected or vacation rate line fully restored overnight.

4.08 When the temporary restoration period is over, restore the intercepting trunk connections and/or blocking tools, make all tests, and report the completion of the work to the PSC.

Note: For lines associated with 1A line concentrators, see 2.15 through 2.17.

Permanent Restorals

4.09 Remove any temporary connections and reconnect all original connections.

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

4.10 Remove any connectors or straps used to associate the connector terminals with an intercepting trunk. Restore the normal connections.

4.11 Remove any blocking tools.

4.12 Make all proper tests. Use a handset to verify that dial tone is received on the tip and ring leads at the VMDF. Dial a "no charge" test call.

4.13 When restoring a line that has been denied 2-way service on a No. 1A concentrator, terminate a call to the customer's line. This is necessary to restore the concentrating equipment associated with the customer's line and allow the customer to receive dial tone. It is not necessary for the customer to answer.

4.14 When the service has been restored and the proper tests made, report the completion of the work to the PSC.