

## SENDER MONITOR POSITION — NON-COIN METHOD OF OPERATION LINK TYPE PANEL OFFICES

### 1. GENERAL

1.01 This section outlines the procedure to be followed by the sender monitor in answering the various signals (non-coin) that appear at the sender monitor position, and is applicable to subscriber link type offices having the sender supervisory lamps and make-busy jacks located at a sender monitor board in the switch room. The section is arranged as follows:

1. GENERAL
2. APPARATUS
3. METHOD OF OPERATING THE TALKING CORD
4. METHOD OF OPERATING HOWLER CORD
5. METHOD OF OPERATING EMERGENCY COMPLETING CORD
6. METHOD OF HANDLING EMERGENCY CALLS
7. METHOD OF ANSWERING SUBSCRIBER SENDER SUPERVISORY LAMP SIGNALS
8. METHOD OF ANSWERING ON PERMANENT SIGNAL HOLDING TRUNKS
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14. TALKING TRUNKS
15. TEST CORDS FROM LOCAL TEST DESKS
16. REPAIR SERVICE LINES
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1.02 This section has been reissued to cover new methods of handling permanent signals and 30 to 60 minute holding of them.

1.03 The general duties of the sender monitor are: to answer and take any action necessary on signals which appear on the subscriber sender lamps; to answer and take any action necessary on permanent sig-

nal holding lines and plugging-up lines; to dispose of troubles which are due to subscriber irregularities by courteously instructing the subscriber as to the proper procedure; to promptly report troubles which appear to be equipment troubles; to observe and report alarm conditions.

1.04 The sender monitor in talking with a subscriber should always appreciate the importance of properly instructing the subscriber and should always be courteous, tactful and concise in order that the subscriber will be thoroughly satisfied with the service given.

1.05 It is very important that prompt service be given to subscribers at all times. Accordingly, whenever a position is vacated, the sender monitor should see to it that some other employee is available for answering signals.

1.06 A buzzer signal is provided for the sender supervisory lamps and a bell signal is provided for other lamps such as plugging-up lines, permanent signals, etc., which may be used for night service. When the TMA key is operated, the buzzer signal is disconnected and when the NA key is operated, the bell signal is disconnected.

### 2. APPARATUS

- 2.01 No. 184 Make-Busy Plugs.
- 2.02 No. 19 type Shields as required.
- 2.03 No. 258 or No. 165 type Plugs (Dummy Plugs).

### 3. METHOD OF OPERATING THE TALKING CORD

#### (A) Talking

3.01 If it should be desired to talk on a connection, insert the plug of a talking cord into the talking jack associated with the line on which the conversation is to be held, and operate the associated T key. This will connect the sender monitor's telephone set to the talking cord.

#### (B) Voltmeter Testing

3.02 If it should be desired to make a voltmeter test on a subscriber line which is connected to one of the circuits appearing before the sender monitor, insert the plug of the talking cord into the jack associated with the line, operate the VM

key and observe the voltmeter reading. An excessive voltmeter reading indicates a trouble condition on the ring side of the line, the needle coming to rest at a point below 100 for a grounded line and above 100 if the line is crossed with battery.

3.03 Operate the REV key and again observe the voltmeter reading. An excessive voltmeter reading in this case indicates trouble on the tip side of the line, the needle coming to rest at a point below 100 for a grounded line and at a point over 100 for a line crossed with battery.

3.04 If no trouble condition was indicated on the above tests, operate the G key and again observe the voltmeter reading. An excessive voltmeter reading on this test indicates a short-circuited line, probably caused by a receiver off the hook or cord in a trunk jack at a P.B.X.

3.05 Restore the VM, REV and G keys.

3.06 If the above tests indicated that both sides of the line were grounded, make a resistance test by operating the VM and AM keys. The AM key connects 24-volt battery through the millimeter winding of the voltmeter to the talking cord and if a reading of between 10 and 23 milliamperes is obtained, the indications are that there is a receiver off the hook at one of the stations on a two-party selective or four-party semi-selective line.

#### (C) Ringing on Line

3.07 If it is desired to apply ringing current to a subscriber line, insert the plug of the talking cord into the proper jack and operate the ringing key to either its  $\pm R$  or  $\pm T$  position thus applying ringing current to the ring or tip side of the line, respectively.

3.08 If it is desired to ring a station on a two-party selective or four-party semi-selective party line on which a receiver is off the hook, operate the RG key before operating either the  $\pm R$  or  $\pm T$  keys.

#### (D) Flashing

3.09 Should the sender monitor desire to flash on an incoming connection established by an operator, slowly operate and release the F key a number of times. This will cause the supervisory lamp to flash.

#### (E) Disconnecting

3.10 Should the talking cord be connected to a line with the receiver off the hook, the supervisory lamp of the talking cord will be extinguished. With the receiver on the hook, the supervisory lamp will be lighted, giving a disconnect sig-

nal. The withdrawal of the plug restores the cord circuit to normal and extinguishes the supervisory lamp.

#### (F) Priming Senders

3.11 Should it be desired to release a stuck sender, momentarily insert the plug of the talking cord into the make-busy jack associated with the stuck sender lamp signal. The insertion of the plug into the make-busy jack primes the sender, causing it to restore to normal except in the case of certain trouble conditions. When a sender is successfully primed, the sender lamp is extinguished.

### 4. METHOD OF OPERATING HOWLER CORD

4.01 A howler cord is provided, which will connect a graduated howler tone to a subscriber line, for the purpose of attracting the subscriber's attention to the fact that the receiver has been left off the hook.

Caution: Do not apply the howler tone to P.B.X. trunks.

4.02 To apply the howler tone, insert the plug of the howler cord into the proper jack and operate the key associated with the howler cord, to the T position. If no answer is received in response to the usual request for the called number, operate the key to the HLR position. This will connect the howler tone to the line for approximately 30 seconds and as long as the tone is applied, it will be indicated by the associated supervisory lamp flashing. If the subscriber replaces the receiver on the hook, the supervisory lamp stops flashing and the howler tone is cut off. During the period that the howler is not being applied, the usual cord supervisory signals are obtained. To remove the howler tone at any time, restore the HLR key to normal.

### 5. METHOD OF OPERATING EMERGENCY COMPLETING CORD

5.01 An emergency completing cord is provided by means of which the sender monitor can transfer certain emergency calls, as outlined below, to the "A" switchboard.

5.02 To transfer an emergency call, insert the plug of the emergency completing cord into the jack associated with the line to be transferred. This will light the lamp associated with the answering jack of the emergency completing cord circuit at the "A" switchboard. The special service operator will then handle the call. When the special service operator disconnects, the associated supervisory lamp at the sender monitor board will light, serving as a disconnect signal.

6. METHOD OF HANDLING EMERGENCY CALLS

- 6.01 The sender monitor is responsible for properly handling calls of an emergency nature with accuracy and dispatch, and these calls should be given preference over any other duties. Whenever a subscriber reports an emergency, obtain the calling subscriber's telephone number and address, and tell him that you will report the emergency. Make a memorandum of this information and then call the proper station, such as the fire or police department, either by dialing over a final terminal line or by means of a trunk to the special service operator. As soon as the station answers, report the details of the emergency.
- 6.02 If, however, the subscriber desires to talk directly to the fire department, police department or doctor, etc., do not ask for the subscriber's telephone number, address or similar information, but advise the subscriber that he will be connected with an operator who will handle the call. Then, immediately substitute the emergency completing cord for the talking cord. On these calls, operate the L key, if provided, and monitor on the connection until the operator answers.
- 6.03 Where sounds indicating an emergency are heard on permanent signal holding trunks, immediately refer the condition for tracing, after which proceed in accordance with local instructions.
- 6.04 Notify the chief switchman or person in charge of the office, of all emergency calls, as soon as possible in order that the proper record may be filed.
- 6.05 In case the call is received on a trunk marked as a coin trunk, depress the return key before disconnecting from the trunk.

7. METHOD OF ANSWERING SUBSCRIBER SENDER SUPERVISORY LAMP SIGNALS

- 7.01 A lighted subscriber sender supervisory lamp may be caused by one of two conditions: a flashing lamp signal indicating that the subscriber has failed to complete dialing or that some irregularity has prevented the sender from completing the call, and a steady lamp signal usually indicating that the calling party has failed to dial.
- 7.02 Upon receiving a flashing or a steady lamp signal, insert the plug of the talking cord into the associated talking jack, operate the talking key and answer by saying, "What number did you call, please?" While answering, also score a call on the proper peg count register, when required.

(A) Answer Received From Subscriber

- 7.03 If it appears that the calling party is attempting to dial a number which is located at a toll point, say, "That is a toll call. Will you please dial the operator and give her the call?" Disconnect as soon as the supervisory lamp lights. If, however, the calling party starts to dial without first replacing the receiver on the hook, say, "Will you please hang up for a moment before dialing?" Disconnect in the usual manner.
- 7.04 If there appears to be no indication of any subscriber's irregularity, assume that the signal was due to equipment trouble. Say, "I am sorry, but you have been connected with the operator. Will you please hang up for a moment and then make the call again?" Disconnect in the usual manner.
- 7.05 If it appears that the subscriber has dialed correctly and if you recognize that the same party is repeatedly causing the same type of signal to appear, and it seems apparent that there is some equipment trouble, say, "I am sorry, but apparently there is some trouble on your line, I will report it. What is your number, please?" Repeat the number and add, "Thank you." Disconnect in the usual manner and report the trouble to the repair service clerk.

(B) No Answer Received - Cord Supervisory Lamp Extinguished

- 7.06 If no answer is received and the cord supervisory lamp is extinguished, remove the talking cord from the talking jack, and momentarily insert it into the corresponding make-busy jack, thus priming the sender. This should restore the sender to normal and the lamp signal should be retired. If the sender does not release when primed, check the connection to determine whether a subscriber line is being held, as described in the next paragraph.
- 7.07 To check for a subscriber line on the connection, insert the plug of the voltmeter cord into the associated talking jack and operate the G key. While observing the voltmeter, operate the VM key. If the needle of the meter moves a considerable amount and then returns to nearly zero, it indicates that a subscriber line is being held on the connection. Little or no movement of the voltmeter needle indicates that a line is not connected.
- 7.08 If a subscriber line is being held notify a switchman immediately, otherwise, make out a trouble ticket, insert a white shield in the talking jack and report the trouble.

(C) No Answer Received - Cord Supervisory Lamp Lighted

- 7.09 If no answer is received and the cord supervisory lamp indicates that the

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subscriber has replaced the receiver on the hook, disconnect from the talking jack, and if the sender lamp signal retires, take no further action.

7.10 If the sender lamp signal does not retire, check for a subscriber line according to 7.07. If the check indicates that a subscriber line is being held, notify a switchman immediately. If a line is not held, make out a trouble ticket, insert a white shield in the talking jack, and have the connection traced.

Note: In determining the number of senders which may be held for tracing, the sender monitor should recognize that a sufficient number of senders in each group should be kept in service to adequately handle the traffic. If an all-senders-busy alarm indicates an overload in any group, all the stuck senders in this group should be released by priming; (i.e. by inserting the talking cord into the make-busy jack).

### 8. METHOD OF ANSWERING ON PERMANENT SIGNAL HOLDING TRUNKS

8.01 A subscriber line is connected to a permanent signal holding trunk causing the associated trunk lamp to flash slowly under the following conditions:

- (1) If a receiver is left off the hook for a period of 30 to 60 seconds without dialing.
- (2) If a P.B.X. cord is plugged into an outgoing trunk jack and the P.B.X. attendant delays dialing for a period of 30 to 60 seconds.
- (3) If a short circuit or a ring conductor ground occurs on a line.
- (4) If there is a certain type of equipment trouble.

8.02 Upon observing a slowly flashing signal on a permanent signal holding trunk, operate the listening key and plug the talking cord into the associated answering jack. This will change the flashing signal to a steady signal. Answer with, "What number, please?" or "What number are you calling, please?" as locally instructed. If an abnormal number of signals on which no reply is obtained are received simultaneously or within a few minutes, immediately notify the chief switchman.

#### (A) Answer Received - Talking Cord Arranged for Voltmeter Testing

##### Emergency Calls

8.03 If the calling party wishes to report a fire, summon the police, or indi-

cates that the call is of an emergency nature, proceed as provided in part 6, Method of Handling Emergency Calls.

##### Subscriber on Line

8.04 If it appears that the calling party is waiting for an operator to answer, or if the calling party has delayed dialing unnecessarily, say, "Will you try the call again please." If it appears that the calling party does not understand how to dial the desired number, say, "Will you please dial 'Operator'? She will be glad to assist you."

8.05 If the calling party is attempting to call a number in the local service area, say, "Will you hang up for a moment, please, and then make your call again?" If the calling party is attempting to call a number at an "A" board toll point, say, "Will you dial the operator, please, and give your call to her?" If the calling party is attempting to make a call which should be handled by long distance, say, "Will you dial 211 please, and give your call to the long distance operator?"

8.06 In case the calling party reports that his telephone does not operate satisfactorily, say, "I am sorry, what trouble are you having, please?" Having obtained the details of the trouble, request the calling party's number and say, "I will report it." When the calling party hangs up, report the trouble to repair service.

8.07 If the subscriber states that his bell just rang, say, "There is no one on the line now. Will your excuse it, please?"

8.08 If the subscriber reports being cut-off, say, "Will you please dial the operator? She will be glad to assist you."

Note: If in any of the above cases (8.03 to 8.08) the trunk is marked as a coin trunk depress the return key before disconnecting.

8.09 If a P.B.X. attendant states that she is not calling but is getting a steady signal on the trunk, obtain the number of the P.B.X. trunk and report the trouble to repair service.

##### Two Subscribers Talking

8.10 If you hear conversation, interrupt at the first opportunity and attempt to obtain the line numbers of both telephones by saying, "This is the operator. There is some trouble on this connection. May I have your numbers, please?" When the numbers are obtained, say, "Thank you" and proceed as follows:

- (a) If the conversation is found to be between extension stations or main

and extension stations, leave the cord in the answering jack and notify your supervisor.

(b) In any other case, say, "I will report the trouble for you." Insert a make-busy plug in the holding jack, if provided, disconnect and report the trouble to the switchroom specifying the numbers obtained from the parties to the conversation, and the trunk number. Insert a white shield in the answering jack.

If the numbers are not obtained, insert a make-busy plug in the holding jack, if provided, and report the trouble to the switchroom. Remove the cord used in answering and substitute a white shield.

#### Repairman on Line

8.11 If a repairman answers and requests the number of the line, say, "One moment, please?" and insert a make-busy plug in the holding jack, if provided. Then remove the answering cord and insert a dummy plug in the answering jack. Report the case immediately, requesting that the line be traced. When the line number is obtained, remove the dummy plug, insert the talking cord in the answering jack and report the line number to the repairman. Hold or release the line as requested by the repairman. If he requests the line be released and the trunk signal remains lighted after disconnecting, insert a white shield in the jack and report the trouble to repair service specifying the line number.

#### Disconnection

8.12 When the party on the line hangs up remove the cord from the jack. If the trunk signal remains steadily lighted follow the procedure outlined in 8.27.

#### (B) No Response Received - Talking Cord Arranged for Voltmeter Testing

#### Emergency Call

8.13 If sounds are heard which indicate that assistance of an emergency nature may be required, insert a make-busy plug into the holding jack, if provided, and proceed as provided under part 6, Method of Handling Emergency Calls.

#### Coin Trunks

8.14 Depress the collect key. If the signal remains lighted, ring on the line intermittently for one minute, restoring the ringing key at intervals and listening in to determine if a reply is received.

8.15 If a reply is received, but no order is given, attempt to clear the line by having the customer hang up the receive-

er. If from the nature of the reply, however, further assistance is required, proceed as outlined in (A) Answer Received.

8.16 If a reply is not received, disconnect and if the trunk signal remains lighted, take down the cord, insert a white shield in the answering jack and report the trouble to the switchroom, specifying that the line concerned is a coin line.

#### Non-Coin, Not Non-P.B.X. Trunks (Cord Supervisory Lamp Lighted)

8.17 If the trunk is marked as a non-coin trunk but not as a non-P.B.X. trunk, observe the supervisory signal of the cord used in answering. If the supervisory signal is lighted, indicating probable plant trouble, remove the plug and again note the condition of the trunk lamp. If the trunk lamp is extinguished, take no further action.

8.18 If the trunk lamp remains lighted, plug into the trunk jack and ring on the line intermittently for one minute, restoring the ringing key at intervals and listening in to determine if a reply is received. (In four-party semi-selective areas ring both the one-bell and two-bell codes alternately.) If a reply is received, say, "This is the operator. There is some trouble on this line. May I have your number, please?" When the number is obtained, repeat it and add, "Thank you. I will report the trouble." When the subscriber hangs up, disconnect. If the trunk signal remains lighted, insert a white shield in the answering jack and report the trouble to repair service, specifying the line number. If a reply is not received, disconnect. If the trunk signal remains lighted, insert a white shield in the answering jack and report the trouble to the switchroom.

#### Non-Coin, Not Non-P.B.X. Trunks (Cord Supervisory Lamp Not Lighted)

8.19 If the supervisory signal is not lighted, operate the G, REV and VM keys. If the voltmeter shows a very low reading, indicating probable plant trouble, ring on the line intermittently for one minute, restoring the key at intervals and listening in to determine if a reply is received. (In four-party semi-selective areas ring both the one-bell and the two-bell codes alternately.) If a reply is received, say, "This is the operator. There is some trouble on this line. May I have your number please?" When the number is obtained, repeat it and add, "Thank you. I will report the trouble." When the subscriber hangs up, disconnect. If the trunk signal remains lighted, insert a white shield in the answering jack and report the trouble to repair service, specifying the line number. If a reply is not received, disconnect. Then insert a white shield in the answering jack and report the trouble to the switchroom.

8.20 If the voltmeter shows approximately full scale deflection, ring on the line the same as in 8.19. If a reply is received, but no order given, attempt to clear the line by having the subscriber hang up the receiver. If from the nature of the reply, however, further assistance is required, proceed as provided in (A) Answer Received. If a reply is not received, proceed as follows:

(a) In offices having individual line ringing only or individual and four-party selective ringing only, disconnect. If the trunk signal remains lighted, take no further action at the time.

(b) In offices having either two-party selective or four-party semi-selective ringing, or both, operate the RG key and again ring for one minute, alternating between the one-bell and two-bell codes if there are any four-party lines in the offices. Restore the key at intervals and listen in to determine if a reply is received. If a reply is received, but no order given, attempt to clear the line by having the subscriber hang up the receiver. If from the nature of the reply, however, further assistance is required, proceed as provided in (A) Answer Received. If a reply is not received, restore the keys and disconnect. If the trunk signal remains lighted, take no further action at the time.

#### Non-Coin, Non-P.B.X. Trunks

8.21 On trunks marked as non-coin and non-P.B.X. proceed as outlined in 8.17 to 8.20 except that in the case covered in 8.20 when no reply is received, the howler should be applied to the line, as outlined in (F) Applying the Howler. If the line clears, disconnect.

8.22 If a reply is received, but no order given, attempt to clear the line by having the subscriber hang up the receiver. If from the nature of the reply, however, further assistance from you is required, proceed as provided in (A) Answer Received. If a reply is not received and the line does not clear, disconnect the howler cord, restoring the cord keys to normal. If the trunk signal remains lighted when you disconnect, take no further action at the time.

#### Trunk Clears

8.23 If the trunk signal associated with any jack in which you have placed a shield or dummy plug goes out, immediately remove the shield or dummy plug from the answering jack.

#### (C) Supervision of Trunk Signals

8.24 At each thirty-minute interval (for example, 9:00, 9:30, 10:00, etc.) observe each trunk signal.

##### Signal Lighted, No Shield or Dummy Plug in Jack

8.25 If a trunk signal is lighted and no shield or dummy plug is found in the answering jack, plug into the answering jack and challenge with "Operator?"

8.26 If a reply is received and the party on the line does not immediately hang up, question him as may be necessary, saying for example, "This is the operator. Do you wish to make a call?" If he indicates that he wishes to make a call, say, "May I have the number of your telephone, please?" When the number is obtained, repeat it and add "Thank you." Then say, "This line has been out of order. Will you hang up for a moment, please, and then make your call?" When the calling party hangs up, disconnect and observe the trunk signal. If the trunk signal goes out, take no further action.

8.27 If the trunk signal remains lighted plug in again, and listen on the trunk a few moments for the probable return of the calling party to the line. If the calling party returns to the line, explain that there is still trouble on the line, and try to get him to hang up, saying for example, "I am sorry, the line is still out of order. I will report the trouble for you." When the calling party hangs up, disconnect and insert a white shield in the answering jack and report the trouble to repair service, specifying the line number. If the calling party does not return to the line, insert a white shield in the answering jack and report the trouble to repair service, specifying the line number.

8.28 If a reply is not received, disconnect. If the trunk signal remains lighted, insert a red shield in the answering jack and take no further action at the time.

##### Signal Lighted, Red Shield In Jack

8.29 If a trunk signal is lighted and a red shield is found in the answering jack, substitute for it a dummy plug, report the trouble to the switchroom, and ask to have the connection traced. As soon as you have received the line number and class of service, proceed as provided in (E) Procedure After Having Had a Connection Traced.

##### Signal Lighted, White Shield or Dummy Plug in Jack

8.30 If a trunk signal is lighted and a white shield or a dummy plug is found in the answering jack, take no action.

## Signal Not Lighted, Shield or Dummy Plug In Jack

8.31 If a shield or dummy plug is found in the answering jack of any trunk and the trunk signal is not lighted, immediately remove the shield or dummy plug.

(D) Holding and Releasing Connections

8.32 In case it is desired to hold a connection on a trunk equipped with a holding jack, insert a make-busy plug before disconnecting from the answering jack. On trunks equipped with disconnect keys the connection is held until the key is depressed.

8.33 If the lamp of a trunk which is being held, flashes rapidly, plug in and challenge with "Operator?" If a plant man answers on the line, carry out his instructions with regard to disposing of the line being held.

8.34 If a connection has been held according to these practices or at the request of a switchman, do not release it until requested to do so by him or by your supervisor. If, however, the line is still being held at the end of ten minutes notify the chief switchman.

(E) Procedure After Having Had A Connection Traced

8.35 When the switchroom reports the number and the class of service of a line, acknowledge the report and proceed according to the following paragraphs.

Dummy Plug in Jack

8.36 If there is a dummy plug in the answering jack and the trunk signal is out remove the dummy plug and take no further action.

8.37 If there is a dummy plug in the answering jack and the trunk signal is flashing, understand that a line other than the one involved when the signal was reported is connected to the trunk. Remove the dummy plug and proceed as on a new call.

8.38 If there is a dummy plug in the answering jack and the trunk signal is lighted, proceed as follows:

- (a) If the line was reported as a P.B.X. line, attempt to reach the P.B.X. attendant over another trunk and request her to clear the P.B.X. trunk concerned. If the trunk clears, remove the dummy plug. If the trunk does not clear, substitute a white shield for the dummy plug in the answering jack and report the trouble to repair service, specifying the line number and the class of service.

(b) If the line was reported as other than a P.B.X. line, remove the dummy plug and apply the howler; proceeding as provided in (F) Applying The Howler. If the line clears, disconnect. If a reply is received, proceed as provided in 8.26 and 8.27. If a reply is not received and the line does not clear, remove the howler cord, restoring the cord keys to normal and insert a white shield in the answering jack. Report the case to repair service, specifying the line number.

Shield in Jack

8.39 If there is a shield in the answering jack, understand that a line other than the one involved when the signal was reported is connected to the trunk and be governed by the requirements indicated by the color of the shield and the condition of the trunk signal.

Neither Dummy Plug Nor Shield in Jack

8.40 If there is neither a dummy plug nor a shield in the answering jack understand that the line reported to you from the switchroom is no longer connected to the trunk and be governed by the condition of the trunk signal.

(F) Applying The Howler

8.41 Plug the howler cord into the answering jack and challenge with "Operator?"

Reply Not Received

8.42 If a reply is not received, operate the H key and observe the howler cord supervisory signal. Refer to part 4, Method of Operating Howler Cord. If the supervisory signal becomes steadily lighted, immediately disconnect the howler cord. If the supervisory signal goes out and the line does not clear, restore the H key, challenge again and reoperate it. Continue to apply the howler at five-minute intervals for about fifteen minutes. Then disconnect and observe the trunk signal.

8.43 If the trunk signal goes out, take no further action. If the trunk signal remains lighted, insert a white shield in the answering jack and report the case to repair service if the connection has previously been traced and you know the number, or to the switchroom if you do not know the number.

Reply Received

8.44 If a reply is received, proceed as provided in 8.26 and 8.27.

Howler Requested From Test Desk

8.45 If a request is received from the test desk to apply the howler to a

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designated trouble observation and test trunk, proceed as when applying the howler to a permanent signal holding trunk, being governed by instructions from the test desk as to the number of times the howler is to be applied.

### (G) Examples of Phrases to be Used When Reporting Trouble

8.46 In order to assist in the proper disposition of permanent signal reports, phrases similar to the following examples should be used for reporting troubles.

- (a) "P.S. trunk 94 - frame 104 - conversation heard, Adams 1234, Beacon 5678."
- (b) "P.S. trunk 94 - frame 104 - line number Adams 1234."
- (c) "P.S. trunk 96 - frame 101 - P.B.X. line, Adams 1234."
- (d) "P.S. trunk 96 - frame 204 - coin line."
- (e) "P.S. trunk 96 - frame 101 - steady signal."
- (f) "P.S. trunk 95 - frame 201 - party line."
- (g) "P.S. trunk 95 - frame 101 - trace."

Phrase (a), (b), or (c) is used when the operator has received an answer to her challenge on a connection or line and has obtained the numbers of the stations involved. Phrases (b) and (c) are used also to report for final disposition lines which have been previously traced and on which the efforts of the operator have been unsuccessful. Phrase (d) is used to report a coin line for immediate action to restore it to service. Phrase (e) is used to report a line on which a trouble condition is indicated by the condition of the cord lamp or by the voltmeter. Phrase (f) is used in reporting for final disposition a line, located in a non-P.B.X. group, on which all of the efforts of the operator including use of the howler have been unsuccessful. Any of the foregoing phrases are accompanied by insertion of a white shield in the jack. Phrase (g) is used in reporting a connection for tracing in order to determine whether or not a P.B.X. line is involved. This information is a guide to further efforts to clear the trouble. Use of this phrase is accompanied by insertion of a dummy plug in the jack. Phrases (b) and (c) are used in reporting to repair service. The other phrases are used in reporting to the switchroom.

### (H) Request from Test Desk for Connection of a Test Cord

8.47 If a request is received from the test desk to connect a test cord to a

permanent signal holding trunk, proceed as follows:

(a) If the trunk jack to which you are asked to connect is plugged with a white shield and the lamp is steady, remove the shield and plug the designated test cord into the jack.

(b) If the trunk jack is plugged with a white shield or a dummy plug and the line is being held, remove the shield or dummy plug and connect the designated test cord to the jack whether or not the lamp is flashing rapidly.

(c) Whether or not there is a shield or dummy plug in the jack, if the lamp is out, advise the employee making the request that the trouble has disappeared.

(d) Whether or not there is a shield or dummy plug in the jack, if the lamp is flashing slowly and the line is not being held, advise the employee making the request that a line other than the one previously reported is connected to the jack.

(e) If there is a red shield or no shield in the answering jack, and the trunk lamp is steady, advise the employee making the request that a line other than the one previously reported is connected to the jack.

8.48 If the supervisory signal associated with a test cord lights, or if you receive an order from the test desk to disconnect a test cord, remove the plug of the cord from the jack and if the trunk lamp remains lighted, insert a white shield in the trunk jack.

## 9. METHOD OF ANSWERING ON PLUGGING-UP LINES

9.01 Whenever a subscriber line is connected to a plugging-up line at the main distributing frame, a steady green light appears on the plugging-up line circuit at the sender monitor position. The following apparatus is associated with each plugging-up line circuit; a white lamp which lights whenever a subscriber line connected to the plugging-up circuit is called; a red lamp which indicates that the outside trouble conditions have become clear; a transfer key which should be pushed in for trouble causing permanent signals and should be pulled out for lines which are open; a jack associated with the red lamp, known as the trouble observation jack; a jack associated with the white lamp, known as the trouble intercepting jack. A record of the lines connected to the plugging-up circuits, should be kept on the proper form.

### (A) Answering Outgoing Calls

9.02 Upon receiving a red lamp signal, insert the plug of the talking cord in-

to the trouble observation jack, operate the talking key, answer by saying, "Operator" and proceed as follows:

Note: This signal is usually a steady lamp signal. A flashing lamp signal usually indicates that the subscriber is attempting to dial or that a repairman is working on the line.

9.03 If a subscriber is found on the line and desires to make a call other than an emergency call, say, "I am sorry, but this line is out of order and I am unable to complete calls over it." The lighting of the red lamp in this case indicates a change in the line condition, and a check test by the test desk is desirable. Therefore, when the calling party hangs up, insert the plug of a test cord from the local test desk into the trouble observation jack. This will light a lamp associated with the test cord at the test desk. If the deskman does not meet a subscriber or repairman on the line, he will obtain the line number by calling the sender monitor over the call circuit.

9.04 Upon receiving a call of an emergency nature, proceed as outlined under part 6, Method of Handling Emergency Calls.

9.05 If a repairman is found on the line and states that he is working on the line, disconnect and place a dummy plug in the trouble observation jack. For the time being pay no attention to the lighted red lamp.

9.06 If no answer is received or if a repairman is found on the line and he requests a connection to the test desk, remove the talking cord and insert the plug of a test cord from the local test desk into the trouble observation jack. This will light a lamp at the test desk.

#### (B) Answering Incoming Calls

9.07 Upon receiving a white lamp signal, insert the plug of a talking cord into the trouble intercepting jack, operate the talking key and answer by saying, "What number did you call, please?"

9.08 If the number given by the calling party does not correspond with the number of the line assigned to the particular plugging-up circuit, say, "I am sorry, but you have been connected with the operator. Will you please call (called number) again?"

9.09 If the number given by the calling party corresponds to the number of the line assigned to the plugging-up circuit, say, (repeating called number), "The line is out of order." If the calling party asks to be called when the line comes O.K., say, "I will call you." Disconnect when the cord supervisory lamp lights and

make a note of the calling and called numbers. When the trouble is cleared, call the calling number and say, "On your call to (called number), the line is clear now." If the call is from an operator who says, for example, "Call Main 1234 when (called number) is O.K.," acknowledge the request and when the trouble is cleared, call the calling number as above. Disconnect when the supervisory lamp lights and cancel the memorandum. If the line does not become clear within one hour, call the calling party and say, "On your call to (called number) the line is still out of order." If the calling party still wishes to be called, make a subsequent report at the end of another hour, or before, if the line becomes clear, and then cancel the memorandum.

9.10 If arrangements have been made to transfer calls temporarily, the temporary number should be given to the calling party by saying, "Calls for (called number) are being temporarily taken by (number). Will you please call (number)?"

### 10. METHOD OF HANDLING MISCELLANEOUS SIGNALS ON SENDER LAMPS

#### (A) Sender Supervisory Signals Caused By Routine Test Sets

10.01 If a tone is received upon answering a signal which appears on a sender lamp, assume that either the automatic sender test set, the link test set, or the automatic district selector test set is blocked on this particular sender on account of trouble. Insert a dummy plug in the talking jack to indicate that the signal has been answered, and that no further action is required. Remove the plug as soon as the lamp is extinguished.

#### (B) Sender Supervisory Signals on Calls Under Service Observation

10.02 If upon answering a signal which appears on a sender lamp, it is found that the service observer is connected to this particular sender, remove the talking cord from the talking jack, and insert a dummy plug in the talking jack, to indicate that the signal has been answered and that no further action is required. Remove the plug as soon as the lamp is extinguished.

### 11. METHOD OF HANDLING ALARMS

#### (A) Subscriber All-Senders-Busy Alarm

11.01 When an all-senders-busy alarm appears, observe which sender group lamp is lighted and operate the release key. Then note whether or not the alarm is retired.

Note: With the earlier type circuits, the sender group lamp is extinguished as soon as the condition

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causing the alarm is cleared, but the pilot lamp remains lighted until the release key is operated.

11.02 If the alarm lamps remain lighted, check whether there are any senders being held in the group, which can be released. If so, release the senders by priming (see 3.11).

11.03 If the alarm persists or if a momentary alarm is accompanied by a permanent signal overflow alarm, call the matter to the attention of the chief switchman or the person in charge of the office, at once.

11.04 Record the appearance of the alarm on the proper form.

### (B) Semi-Mechanical Local All-Senders-Busy Alarm

11.05 Upon receiving an alarm signal that all semi-mechanical local senders are busy, immediately call it to the attention of the proper switchman.

### (C) Trip Circuit Alarm

11.06 When a trip circuit alarm appears, note the number of the line group and then operate the trip circuit alarm release key. Record the line group number on the proper form.

11.07 If the alarm lamps have been extinguished no further action is necessary.

11.08 If the alarm lamps remain lighted, make out a trouble ticket giving the line group number and call it to the attention of a switchman.

### (D) All Other Alarms

11.09 On all other alarms, the initial action is to be taken by the switchman or apparatusman. However, the sender monitor should observe that no alarm is left unattended for any considerable length of time.

## 12. METHOD OF MAKING SENDERS BUSY

12.01 When called upon to make a sender circuit busy, insert a No. 184 plug into the make-busy jack. The sender monitor is responsible for supervising circuits which have been made busy, and should take whatever action is necessary to have these circuits restored to service as soon as possible.

## 13. METHOD OF OPERATING INCOMING CALL CIRCUIT

13.01 An incoming call circuit is provided to enable a deskman, sender test switchman, or service observer to communicate with the sender monitor. If the send-

er monitor is busy by reason of the operation of any of the talking keys, the incoming call circuit will be disconnected and a tone will be connected thereto. Under this condition, a pilot lamp will light if a deskman, or service observer wishes to communicate with the sender monitor.

13.02 Upon observing a call circuit pilot lamp, restore any talking key that is operated, as soon as practicable.

## 14. TALKING TRUNKS

14.01 Talking lines are usually provided to the special service operator, the repair service desk, local stations, supervisor's lines, etc.

14.02 To make an outgoing call on any of these lines, operate the talking key associated with the particular trunk and when necessary, ring on the line by operating the associated ringing key.

14.03 To answer an incoming call on any of these trunks (indicated by a flashing lamp), operate the talking key associated with the particular trunk and say, "Sender Monitor."

## 15. TEST CORDS FROM LOCAL TEST DESKS

15.01 The test cords from the local test desk to the sender monitor position are provided to enable the deskman to obtain access to the plugging-up circuits or permanent signal holding trunks for the purpose of making tests. These test cords, which consist of a cord with a plug and an associated disconnect lamp located at the sender monitor position, are connected at the request of a deskman or repairman or when a line is to be referred for test.

## 16. REPAIR SERVICE LINES

16.01 At times when the repair service desk is unattended such as during the evening, Sundays and holidays, the repair service lines may be transferred to the sender monitor position.

16.02 The sender monitor upon receiving a signal on the repair service lines should operate the talking key associated with the signal and say, "(see note)," obtaining the information and making a record, if the calling party is reporting a trouble.

Note: The phrase used by the repair service clerk in answering subscribers, should be used by the sender monitor on these connections.

## 17. REPORTS

17.01 The required records of the sender monitor duties should be entered on the proper forms, as outlined above.