

1. ACKNOWLEDGING REPORTS

- a. Acknowledge a permanent signal report from the "A" operator by repeating the line number and any code as given.
- b. Listen for the "A" operator's acknowledgment of "RIGHT". If the "A" operator says, "NO", and gives the order again, repeat it as given and again listen for the acknowledgment.

2. TESTING LINES WHICH APPEAR IN THE MULTIPLE AT THE TROUBLE POSITION

- a. Select an idle plugging-up cord, see that the plugging-up key is in the normal position if the line is other than a prepayment coinbox line, then plug into the jack of the line reported. However, if it is a prepayment coinbox line see that the plugging-up key is in the operated position.

If the plugging-up cord signal lights, and if it is a line other than a prepayment coinbox line, understand that the trouble has probably cleared. Withdraw the plug and test the multiple jack for a few seconds with the test cord or with one of your subscribers' cords, if the position is equipped with them.

- (1) If the line continues to test clear, take no further action.
- (2) If the line tests busy, plug in and listen. If an "A" operator is on the line and is unable to obtain an answer from the customer, understand that the line signal is still permanent. Say to the "A" operator, "NEVER MIND THE SIGNAL", reinsert the plugging-up cord plug, and if the plugging-up cord signal again lights, operate the plugging-up cord key or restore it to normal as the case may require. This will retire the plugging-up cord signal.

- b. If all the plugging-up cords are in use, plug up the line with an emergency cord.
However, when a plugging-up cord becomes available, transfer the line to the plugging-up cord and proceed in the regular manner.
- c. If all the plugging-up cords and all the emergency cords are in use, report to the "A" operators, "NO CORD". Understand that the "A" operator will hold the line at her position for a short time and will report it again in case the permanent signal is not cleared. Report the condition to your supervisor. (Sr.1)
- d. If the plugging-up cord signal remains dark when you connect the plugging-up cord to the subscribers' line, or as in 2a(2) above the line tests busy with the plugging-up cord signal lighted, proceed as follows:

PERMANENT SIGNALS (Cont'd)

- (1) If it is any line other than a prepayment coinbox line insert the test cord in the jack of the plugging-up cord on which the line is being held, and operate the "RCCI" and "T" keys and listen.
If room sounds such as voices, music, pounding, etc., are heard, understand that a receiver is off the hook.

- (a) If the line is one of an underlined group, call the attendant on another trunk of the group and ask if a receiver has been left off, or a cord left connected to the trunk in trouble.

When the plugging-up cord signal lights indicating that the trouble has probably cleared, disconnect the test cord and plugging-up cord. Test the line with one of your subscribers' cords, and if the line tests clear take no further action.

Caution: Do not apply the howler to a line of an underlined group.

- (b) If the line is not one of an underlined group withdraw the test cord and restore the "RCCI" and "T" keys to normal. Insert the howler cord in the jack of the plugging-up cord on which the line is being held, throw the howler key to the listening position, (marked "T") and challenge with, "WE ARE TESTING THIS LINE. WILL YOU HANG UP, PLEASE?"

1. If no response is received, throw the howler key to the howler position (marked "H"), then operate the revolving key and allow it to come to rest once. Unless the howler is needed for another line, leave the howler cord connected with the plugging-up cord jack until the howler had been applied to the line as often as required.

Watch the supervisory signal on the howler cord closely to see if the trouble clears. If the supervisory signal lights, understand that the trouble has cleared. Remove the howler cord and, since the plugging-up cord signal will also light, take down the plugging-up cord.

2. If a response is received to your challenge, inform the party answering that the line is out of order and request him to hang up while you endeavor to clear it. If the party informs you that his receiver has been off the hook or if his hanging up clears the line, release the line. If the calling party hangs up and the line is not clear, proceed as in "d" following.

PERMANENT SIGNALS (Cont'd)

Note: Great care should be observed in applying the howler tone to a line to see that there is no one on the line at the time it is applied. The howler should never be applied without first challenging on the line.

- (c) Apply the howler as promptly as possible after the line has been plugged up.
 - (d) If the line is not clear within three minutes after the first application of the howler, apply it again. Continue to apply the howler in case the line is not clear at five-minute intervals, for a period of about ten minutes.
 - 1. If the line fails to clear after the howler has been applied four times hold the line for twenty minutes following the time of plugging up. If it is not then clear report the condition to the repair service.
 - 2. If your work permits during this period, apply the howler at about five-minute intervals.
To remove the howler tone at any time, restore the howler key to normal. While the howler is operating and as long as the receiver remains off the hook, the howler cord supervisory lamp will be out. However, should the receiver be hung up, the lamp will light, indicating that the line is clear. In that case the howler and plugging-up cords should be disconnected.
 - (e) If, due to an unusual number of permanent signals being reported, you are unable to properly apply the howler on all lines on which it is required, report the matter to your supervisor. (Sr.2)
- (2) If, when you inserted the test cord in the jack of the plugging-up cord and operated the "RCCI" and "T" keys, no room sounds were heard to indicate a receiver off the hook, make a voltmeter test as follows:
- (a) Restore the "RCCI" and "T" keys, and if it is a flat rate party line operate the "1000" key and observe the voltmeter. If the reading on the black scale exceeds _____ understand that a receiver may be off the hook. Proceed then as follows:
 - 1. With the "1000" key still in the operated position, operate the "REV" key and note that there is no change in the reading.
Restore the "REV." key and operate the "G" key. If the

PERMANENT SIGNALS (Cont'd)

reading then changes to a value between _____ and _____ on the black scale it is probable that a receiver is off the hook. Apply the howler as outlined above.

- (b) If it is a flat rate individual line, after restoring the "RCCI" and "T" keys, operate both the "1000" and "G" keys. Observe the voltmeter and if it reads between _____ and _____ on the black scale understand that the receiver is probably off the hook. Apply the howler in the usual way.
 - (c) If it is a postpayment individual or party line proceed in the same manner as for flat rate individual or party lines.
 - (d) If the line is one of an underlined group make tests exactly as for an individual line as outlined in "b" above. However, if tests indicate a receiver off, do not apply the howler, but proceed as follows:
 - 1. Call the attendant on another trunk of the group and ask if a receiver has been left off the hook or a cord left connected to the trunk in trouble.
When the plugging-up cord signal lights indicating that the trouble has probably cleared, disconnect the test cord and plugging-up cord. Test the line with one of your subscribers' cords, and if the line tests clear take no further action.
 - (e) As an exception, if it is a rural line do not make a voltmeter test. If there is no other indication that a receiver is off the hook hold the line for twenty minutes, and if not then clear report the condition to the repair service.
- (3) If it is a prepayment coinbox line and the plugging-up cord lamp remains dark when you connect the plugging-up cord to the prepayment coinbox line, understand that a coin may be stuck. With the "RCCI" and "T" keys in the normal position make a voltmeter test as follows:
- (a) Operate the "REV" and "1000" keys and if the voltmeter reads between _____ and _____ on the black scale understand that there is a coin stuck. Report the line to the repair service at once.
If the voltmeter test does not indicate a coin stuck, understand that the line is probably clear. In that case disconnect the plugging-up cord.

3. TESTING LINES WHICH DO NOT APPEAR IN THE MULTIPLE AT THE TROUBLE POSITION

- a. Pass an order to the "B" position at which the plugging-up cords are located, saying, "PLUGGING-UP CORD ON 6789", and listen for the plugging-up cord assignment.
After a plugging-up cord is assigned, if the cord signal lights, understand that the trouble has probably cleared. Request the "B" operator

PERMANENT SIGNALS (Cont'd)

to take down the plugging-up cord, saying, "PLUGGING-UP CORD 1-2 CLEAR", and take no further action. If, however, the same line is again reported permanent within two or three minutes; again order up a plugging-up cord, and if the signal then lights, operate the plugging-up cord key. This will retire the plugging-up cord signal.

- b. Having received a plugging-up cord assignment, proceed to test for receiver off the hook as outlined in above paragraphs.
- c. If the "B" operator replies "EMERGENCY CORD", understand that all the plugging-up cords are busy, and that she will plug up the line on an emergency cord.
- d. If the "B" operator replies "NO CORD", understand that all the plugging-up cords and all the emergency cords are in use. Report the condition to your supervisor. (Sr.1) Report, "NO CORD" to "A" operators on subsequent permanent signal reports until advised by your supervisor that plugging-up cords are again available or by occasionally passing an order to the "B" operator you find that cords are available. If permanent signals are being reported frequently, pass an order to the "B" operator at intervals of about five minutes.

4. MAKING A REPORT OF LINES PLUGGED UP

- a. Make a record of each line plugged up immediately after connecting the plugging-up cord. On Form FM-543, "Record of Permanent Signals", enter in the respective columns the following items:
 - (1) The number of the line plugged up.
 - (2) The time when the line is plugged up.
 - (3) The class of service of the line plugged up. For this purpose only the following codes should be used.
 - (a) The code "Pre" for a prepayment coinbox line.
 - (b) The code "R" for a rural line.
 - (c) The code "P" for a party line.
 - (d) The code "PBX" for a line of an underlined group.
 - (e) For any other class of service the space should be left blank.
 - (4) The number of the plugging-up cord used. If an emergency cord is used enter the code "E" on the left side of the column. When the emergency cord is later replaced by a plugging-up cord, enter the number of the plugging-up cord following the code "E".

PERMANENT SIGNALS (Cont'd)

- (5) Indicate with a check mark each howler attempt.
 - (6) The time when the line becomes clear, prior to being reported to the repair service.
 - (7) The time when the trouble is reported to the repair service.
- b. When there is an unusual amount of trouble, if you believe you will be unable to satisfactorily maintain a record on Form FM-543 report the matter to your supervisor. (Sr.3)

5. REPORTING LINES TO THE REPAIR SERVICE

- a. In those cases where lines are to be reported to the repair service pass the details to the repair service clerk over a repair service trunk, using one of your subscriber cords. Report the number of the line plugged up, the number of the plugging-up cord used and the time when the line was plugged up. Say, for example, "1234 PERMANENT, PLUGGING-UP CORD 1-2, 9:25 A.M." Acknowledge or correct the repair service clerk's repetition as required.
- b. During the time between 7:30 A.M. and 5:00 P.M. make reports as follows:
 - (1) Report a permanent signal on a prepayment coinbox line immediately when there is any indication that there is trouble on the line.
 - (2) Report a permanent signal except on a prepayment coinbox line after it has been held on a plugging-up cord for about twenty minutes without the trouble having cleared regardless of whether or not the howler was applied.
As an exception, where an emergency cord is used to plug up the line, report the case to the repair service immediately.
- c. During the time between 5:00 P.M. and 7:30 A.M. do not forward any reports. At 7:30 A.M., or as soon after that time as possible, report all cases of permanent signals which are being held on plugging-up cords and emergency cords, except those lines which have been reported within less than twenty minutes and which are being held for application of the howler.
- d. When permanent signals are being reported in rapid succession, indicating some unusual trouble condition, report the fact to your supervisor, (Sr.2)

6. USE OF TIGER CLIPS

- a. Immediately after reporting a line to the repair service attach a tiger clip to the plugging-up cord. Upon receipt of a signal on the plugging-up cord the tiger clip will indicate to you that further action should be taken before disconnecting the plugging-up cord as outlined in "7" following.

PERMANENT SIGNALS (Cont'd)

7. SIGNAL ON A PLUGGING-UP CORD LIGHTS AND REMAINS LIGHTED FOR ABOUT THIRTY SECONDS
 - a. Check the plugging-up cord and if no tiger clip is attached disconnect the plugging-up cord at once.
 - b. If a tiger clip is attached, refer to your record of permanent signals, Form FM-543, and note the class of service on the line involved.
 - (1) If it is a prepayment coinbox line plug into the jack of the plugging-up cord with a subscribers' cord and say, "OPERATOR?"
 - (a) If you find someone desiring to make a telephone call, proceed as follows:
 1. If it is between the hours of 8:00 A.M. and 5:00 P.M. and the party desires to place an A-B or long distance call, say, "THIS LINE IS OUT OF ORDER. WILL YOU USE ANOTHER TELEPHONE, PLEASE?" Do not disconnect the plugging-up cord.
If the party desires to place a local call complete the call in accordance with the calling party's request if the trouble position is on the local "A" board. Do not remove the plugging-up cord from the line, however.
If the trouble position is on the "B" board, say, "I WILL GIVE YOU YOUR OPERATOR. ONE MOMENT, PLEASE?" and then disconnect the plugging-up cord. If it is an emergency call test the calling line with a subscribers' cord at short intervals to determine if the "A" operator has answered. When the "A" operator has answered reach the test man through the out-trunk multiple with a test cord or subscribers' cord and advise him that plugging-up cord (number) has been taken down as the line indicated clear and the customer desired to place a call. Proceed in accordance with the test man's request.
 2. If it is between the hours of 5:00 P.M. and 8:00 A.M., say, "I WILL GIVE YOU YOUR OPERATOR. ONE MOMENT, PLEASE?" and then disconnect the plugging-up cord.

PERMANENT SIGNALS (Cont'd)

- (b) If you find no one on the line, restore the plugging-up key to normal.
 - (c) If you find a repairman on the line, be governed by his request. If he requests you to connect the plugging-up cord with a transfer test cord, proceed as outlined under "Handling Transfer Test Cords."
- (2) If it is any line other than a prepayment coinbox line and if it is between the hours of 5:00 P.M. and 8:00 A.M. disconnect the plugging-up cord at once.
However, if it is between the hours of 8:00 A.M. and 5:00 P.M. operate the plugging-up cord key and connect an idle transfer test cord to the jack of the plugging-up cord.
- (a) When the disconnect lamp on the transfer test cord lights, disconnect the transfer test cord immediately, but allow the plugging-up cord to remain up.
Disconnect the plugging-up cord only when instructed to do so by the test man.
 - (b) In disconnecting the plugging-up cord from a line which does not appear in the multiple at the trouble position, pass an order to the "B" operator handling the plugging-up cords, saying, "PLUGGING-UP CORD 1-2 CLEAR." Wait for the "B" operator's acknowledgment. If the "B" operator reports the cord, "NOT UP", closely observe the number of the plugging-up cord to make sure that you are passing the right number, then give the order again.

8. SIGNAL ON A PLUGGING-UP CORD FLASHES

- a. Insert a subscribers' cord in the plugging-up cord jack and challenge with "OPERATOR?"
 - (1) If you find someone desiring to make a telephone call proceed as outlined in paragraph 7b(1)(a) above where a steady signal is received on a plugging-up cord connected to a prepayment coinbox line.
 - (2) If there is a repairman on the line be governed by his request. If he requests you to connect the plugging-up cord with a transfer test cord, proceed as outlined under "Handling Transfer Test Cords".
 - (3) If you find no one on the line, continue to hold the line on the plugging-up cord unless the plugging-up cord signal lights and remains lighted for about thirty seconds. In that case, proceed

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as outlined in "7" above, "Signal on a Plugging-Up Cord Lights and Remains Lighted for about Thirty Seconds."

9. TEST MAN ORDERS A PLUGGING-UP CORD DISCONNECTED

- a. If at any time the test man orders a plugging-up cord disconnected, disconnect it immediately.

10. SECURING EMERGENCY CORDS

- a. If, judging from the number of plugging-up cords in use and the rate at which lines are being reported by the "A" operators, you consider it probable that you will soon have all plugging-up cords in use, report the matter to your supervisor (Sr.4) so that she may provide you with emergency cords.

11. TRANSFERRING LINES FROM EMERGENCY CORDS TO PLUGGING-UP CORDS

- a. Where lines are being held on emergency plugging-up cords at the trouble position and plugging-up cords become available, transfer the lines to plugging-up cords and be governed by the plugging-up cord signal in determining whether the line is still in trouble.

PERMANENT SIGNALS

1. TROUBLE OPERATOR REPORTS "NO CORD" TO CALLING OPERATOR
(Trouble Operators - 2c, 3d)
 - a. Report the condition to your Chief Operator and keep in close touch with the work of the trouble operator. Where there is an incomplete multiple at the trouble position and the "B" operator reports "NO CORD" to the trouble operator, understand that the "B" supervisor will advise you when either plugging-up cords or emergency cords are again available. When so advised, instruct the trouble operator on subsequent reports of permanent signals to request the "B" operator to plug them up.
2. TROUBLE OPERATOR STATES THAT THE LARGE NUMBER OF PERMANENT SIGNALS BEING REPORTED INDICATES SOME UNUSUAL TROUBLE CONDITION
(Trouble Operators - 2d(1) (e), 5d)
 - a. If this occurs at any time, either during the day, evening or night hours, inform your Chief Operator at once of the condition. It will probably be impracticable to apply the howler to any lines and if this appears to be the case instruct the trouble operator accordingly. If repair service is effective at the time see that the trouble operator reports all permanent signals immediately.
3. TROUBLE OPERATOR STATES THAT SHE WILL BE UNABLE TO MAINTAIN A COMPLETE RECORD DUE TO THE UNUSUAL AMOUNT OF TROUBLE BEING REPORTED
(Trouble Operators - 4b)
 - a. Assist the trouble operator all that you can, and if temporarily it is necessary to discontinue recording cases on the Record of Permanent Signals, see that the proper record is made as soon as possible, of all lines remaining plugged up.
4. TROUBLE OPERATOR REQUESTS YOU TO PROVIDE HER WITH EMERGENCY CORDS
(Trouble Operators - 10a)
 - a. If it appears that emergency cords will be needed, provide the trouble operator with a suitable number.