

NOISE MEASUREMENTS ON 2-WIRE SUBSCRIBER LOOPS

METHODS AND REQUIREMENTS—AT NO. 5 CROSSBAR CENTRAL OFFICES

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1. GENERAL

1.01 This section provides methods and requirements for making noise measurements on 2-wire subscriber loops in No. 5 crossbar offices. Methods and requirements for other types of offices are provided in other sections of this series.

1.02 This section is reissued to provide information for 3A and 3B noise measuring sets (NMS). Where the text and test apparatus list specify the use of a cord, if different cords are to be used for each NMS, the cord applicable to the 3C NMS is listed first, followed by a slash and then the cord applicable to 3A or 3B NMS. This reissue does not affect Equipment Test Lists.

1.03 Measurements are made to on-hook stations using the 3-type NMS from the central office at test locations given in Part 3. To ensure that the noise on the subscriber loop is all that is measured, the test locations are chosen so that central office battery noise is not a factor. All test locations must be in the same building as the frame termination of the subscriber loop being measured. Assistance at the station end of the loop is not required.

1.04 Measurements may be made at any central office location listed in Part 3. The test location selected will depend on test equipment and test appearance availability. Loops equipped with bridge lifters must be tested individually at the main distributing frame (MDF) with heat coils of each loop removed. Noise trouble investigation on loops should be made at the MDF. If the measurements are being made for a noise survey, bridged loops without bridge lifters need not be separated; just dial and measure in the normal manner.

1.05 If these measurements are being made to locate trouble, the form shown in Fig. 3 may be reproduced locally and the appropriate part used as a data sheet for recording the results. If these measurements are being made for the subscriber loop noise survey, refer to Section 301-320-500 for the procedure on recording results.

2. TEST APPARATUS

| APPARATUS | NOTES |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| (A) APPARATUS REQUIRED AT ALL LOCATIONS | |
| 3C Noise Measuring Set (NMS), or equivalent, equipped with 497A network (or equivalent) | See Section 103-611-101 for 3C NMS and Section 103-611-100 for 3A or 3B NMS. |
| (B) ADDITIONAL APPARATUS REQUIRED AT THE FOLLOWING LOCATIONS | |
| (1) NO. 14 TEST DESK OR EQUIVALENT | |
| 2AB AUXILIARY TRANSMISSION MEASURING SET | |
| 3P7B/3P17A Cord | Used to connect 2AB to NMS. |
| 3P7B Cord | Used to connect 2AB to test trunk. |
| SPECIAL JACK ARRANGEMENT SIMILAR TO FIG. 1 | |
| 3P7B/3P17A Cord | Used to connect jack arrangement to NMS. |
| 3P7B Cord | Used to connect jack arrangement to test trunk. |
| (2) MASTER OR OFFICE TEST FRAME | |
| 3P7B/3P17A Cord | Used to connect NMS to MTF NM jacks (see 3.12). |
| 2W16A/2W24A Cord | Used to connect NMS to MTF test circuit (see 3.13). |
| (3) MAIN OR INTERMEDIATE DISTRIBUTING FRAME | |
| 4W7A Cord | For use with 444-type jacks. |
| 1011Q OR 1014A HANDSET | Used to monitor loop. |
| 2W37A Cord | For use with the 1014A or 1011Q handset. |
| SPECIAL JACK ARRANGEMENT SIMILAR TO FIG. 2 | |
| W4BR Cord | Used to adapt standard main frame test cords to use with NMS. |
| W4BR Cord | Used to connect special jack arrangement (Fig. 2) to cable pair at MDF 302-type protector mounting. |
| 4W6A Cord | Used to connect special jack arrangement (Fig. 2) to cable pair at MDF C-type protector mounting. |
| 4W11A Cord | Used to connect special jack arrangement (Fig. 2) to cable pair at 300-type protector mounting. |
| 3P17A/3P13A Cord | Used to connect input of NMS to special jack arrangement (Fig. 2). |

3. TEST PROCEDURES

A. Equipment Modifications for Testing

3.01 Special modifications may be required for specific test procedures at specific test locations. Select the procedure and location depending on available equipment. Modifications which may be required include the following:

- (a) Special jack arrangement (SJA) similar to Fig. 1. This arrangement can be bay-mounted or portable.
- (b) Installation of a jack for making subscriber loop noise measurements from the master or office test frame in a No. 5 crossbar office.

Note: This jack is required only if the VMT1 jack is not provided.

- (1) An unassigned 2-wire jack will be required in the MTF test panel. This jack must not have other appearances or be used for other purposes that allow office noise to be introduced into the wiring.
- (2) Using a paired jumper wire or other appropriate wiring, bridge the tip of the unassigned jack to the top lug on the left side of the T1 REV key. There should be an existing red-white wire on this lug. Bridge the ring of the spare jack on the bottom lug on the left side of the T1 reverse key. An existing red wire should be on this lug.

Note: The red and red-white wires on the key connect to the number 2 top and bottom punchings of the C relay.

- (3) Designate this jack NM.

- (c) SJA similar to the Fig. 2 jack box.

B. Calibration, Setup, and Reading the Noise Measuring Set

3.02 Procedure:

- (a) Calibrate the NMS as described in Section 103-611-101. (For the 3A or 3B NMS, see Section 103-611-100.)

- (b) Set the FUNCTION switch to N_M 600/900. (On the 3A or 3B NMS, set switch to N_M-900.)

- (c) Insert 497A weighting network for C-MESSAGE.

- (d) Set DAMP switch to NORMAL.

- (e) Connect GND terminal of NMS to frame or the central office ground as appropriate.

Note: When using 3C NMS, it may be necessary to remove the strap between the GRD and S posts when sleeve conditions require that the sleeve of the NMS be isolated from the connected circuitry.

- (f) Check for pickup from external magnetic and electrostatic fields. With no input connected to the set, adjust the DBRN switch to 0. If there is a deflection on the meter, orient or position the NMS to minimize the deflection. Make sure that the GRD post is connected to a ground.

- (g) Set the DBRN switch to 85.

3.03 When the loop is connected, adjust the DBRN switch in a counterclockwise direction until a suitable deflection on the indicating meter is obtained. The most accurate readings will be obtained when the meter reads between +2 and +9. Since noise readings generally vary over a range of several dB, the following procedure is recommended when observing the meter of the NMS to establish a reading. Observe the meter for 10 to 30 seconds to establish the point where the needle appears most of the time, disregarding the highest occasional peaks.

3.04 For those loops having noise measurements greater than 10 dB_{rnc}, listen to the noise on the loop with the monitoring headphone and note the character of noise in descriptive terms, such as:

Crosstalk

Tone

Teletype impulses

Data impulses

- Hum
- Static
- Frying
- Hissing
- Singing.

C. Procedures at No. 14 Test Desk or Equivalent

3.05 There are a number of methods for making noise measurements on 2-wire subscriber loops from a No. 14 test desk. Any of these methods accomplishes two things:

- (a) The dialing of the selected telephone number from the No. 14 test desk primary (PRI) cord and position dial circuit;
- (b) The provision of sleeve continuity from the test desk PRI cord to the test distributor trunk.

3.06 The methods described in 3.07 or 3.08 may be used.

3.07 Procedure Using 2AB Auxiliary Transmission Measuring Set:

- (a) Calibrate and set up the NMS as described in 3.02.
- (b) Using a 3P7B/3P17A cord or equivalent, insert one plug into the IN jack of the NMS and insert the other plug into the TMS jack of the 2AB set. Set the TEST switch of the 2AB to REC 900Ω. The 2-DB PAD key of the 2AB should be in the OUT position.
- (c) Insert the test desk PRI cord into the 310 DIAL jack of the 2AB.
- (d) Insert one plug of a 3P7B cord or equivalent into the 310 MEAS jack of the 2AB. Insert the other plug into the test jack of the test desk trunk, and operate the 2AB DIAL-SLV key to DIAL.
- (e) Operate the test desk PRI cord DIAL key, and dial the number of the loop to be tested.

(f) Restore the DIAL key to normal and monitor the line for conversation, intercept tone, or trouble indication.

(g) If the line is idle, restore the DIAL-SLV key of the 2AB to normal, and adjust the DBRN switch of the NMS for reading between +2 and +9 on the NMS meter.

(h) Record the character of noise and the on-hook noise measurement, which is the total of the meter reading plus the DBRN switch setting of the NMS. Add 0.5 dB to the result for 2AB loss.

(i) Check the results against the requirements given in Part 4 of this section to see whether any further action is required.

(j) If additional loops are to be measured, operate the orange DIS key associated with the test trunk jack and repeat Steps (e) through (j).

(k) If no other loops are to be measured, remove the cord from the test trunk jack and operate the orange DIS key associated with the test trunk jack.

3.08 Procedure Using a Special Jack Arrangement Similar to That Shown in Fig. 1: This arrangement may be bay-mounted or portable, or any similar arrangement having the same electrical configuration may be used.

- (a) Calibrate and set up the NMS as described in 3.02.
- (b) Using a 3P7B/3P17A cord or equivalent, insert one plug into the IN jack of the NMS, and insert the other plug into the NMS jack of the SJA.
- (c) Insert the PRI cord plug of the test desk into the PRI jack of the SJA.
- (d) Operate the DIAL-MEAS key of the SJA to DIAL.
- (e) Operate the test desk PRI cord DIAL key to DIAL.

(f) Using a 3P7B cord or equivalent, insert one plug into the line jack of the SJA and the other plug into the test trunk jack.

(g) When the supervisory lamp is extinguished, dial the telephone number of the loop to be measured.

Note: If the supervisory lamp lights before dialing is complete, the test connector or trunk is busy. If the supervisory lamp lights after dialing is complete, the loop is busy.

- (h) Restore the test desk DIAL key to normal.
- (i) Operate the DIAL-MEAS key of the SJA to MEAS.
- (j) Adjust the DBRN switch of the NMS to obtain a reading between +2 and +9 on the meter of the NMS.
- (k) Record the character of noise and the on-hook noise measurement, which is the total of the meter reading plus the DBRN switch setting on the NMS.
- (l) Check the result against the requirements given in Part 4 of this section to see whether any further action is required.
- (m) If additional loops are to be measured, operate the orange DIS key associated with the test trunk jack and repeat Steps (d), (e), and (g) through (m).
- (n) If no other loops are to be measured, remove the cord from the test trunk jack and operate the orange DIS key associated with the test trunk jack.

D. Procedure at a No. 3 Test Cabinet Permanently Mounted, With Jack Field, in a No. 5 Crossbar Office (Using Test Trunk Similar to SD-96229)

3.09 Any of the following methods may be used to make noise measurements on 2-wire subscriber loops from a No. 3 test cabinet in a No. 5 crossbar office. These methods must accomplish two things:

(a) The dialing of the selected loop telephone number by using the dialing capability of the No. 3 test cabinet;

(b) The maintenance of sleeve continuity from the test cabinet to the test trunk.

3.10 Procedure Using the 2AB Auxiliary Transmission Measuring Set:

(a) Calibrate and set up the NMS as described in 3.02.

(b) Using a 3P7B/3P17A cord or equivalent, insert one plug into the IN jack of the NMS and insert the other plug into the 310 TMS jack of the 2AB set. Set the TEST switch of the 2AB to REC 900Ω.

(c) Using the 3P7D cord associated with the No. 3 test jack cabinet, insert one plug into the T1 jack (test jack) of the cabinet and the other plug into the 310 DIAL jack of the 2AB.

(d) Operate the test cabinet DIAL key.

(e) Using another 3P7D cord, insert one plug into the 310 MEAS jack of the 2AB. Insert the other plug into the test trunk on the No. 3 test cabinet.

(f) Dial the number of the loop to be tested.

(g) On trunks equipped with the no-test feature, restore the test cabinet DIAL key and determine whether the loop is busy by observing the test cabinet voltmeter or by operating the DIAL-MON key to MON. If the test trunk is not equipped with the no-test feature, a busy tone will be heard when the DIAL key is restored.

(h) If the loop is idle, restore the DIAL-SLV key of the 2AB to normal and adjust the DBRN switch of the NMS for a reading between +2 and +9 on the NMS meter.

(i) Record the character of noise and on-hook noise measurement, which is the total of the meter reading plus the DBRN switch setting on the NMS. Add 0.5 dB to the result for 2AB loss.

(j) Check the result against the requirements given in Part 4 of this section to see whether any further action is required.

- (k) If additional loops are to be measured, operate the orange DIS key associated with the test trunk jack and repeat Steps (d) through (k).
- (l) If no other loops are to be measured, remove the cord from the test trunk jack and operate the orange DIS key associated with the test trunk jack.

3.11 Procedure Using the Special Jack Arrangement (SJA) Similar to Fig. 1:

- (a) Calibrate and set up the NMS as described in 3.02.
- (b) Using a 3P7B/3P17A cord or equivalent, insert one plug into the IN jack of the NMS and insert the other plug into the NMS jack of the SJA.
- (c) Using the 3P7D cord associated with the No. 3 test cabinet, insert one plug into the T1 jack (test jack) of the cabinet and the other plug into the PRI jack of the SJA.
- (d) Operate the DIAL-MEAS key on the SJA to the DIAL position.
- (e) Using another 3P7D cord insert one plug into the line jack of the SJA. Insert the other plug into the test trunk on the No. 3 test cabinet.
- (f) Operate the test cabinet DIAL key and, using the test cabinet dial, establish a call to the loop under test.
- (g) If the trunk is equipped with a no-test feature, restore the DIAL key and determine whether the loop is busy by observing the test cabinet voltmeter or by operating the MON key and monitoring the line. If the trunk is not equipped with a no-test feature, a busy tone will be heard when the DIAL key is restored. The voltmeter will indicate a short if the line is busy.
- (h) If the loop is idle, operate the DIAL-MEAS key of the SJA to MEAS, and adjust the DBRN switch of the 3-type NMS for a reading between +2 and +9 on the NMS meter.

- (i) Record the character of noise and the on-hook noise measurement, which is the total of the meter reading plus the DBRN switch setting on the NMS.
- (j) Check the result against the requirements given in Part 4 of this section to see whether any further action is required.
- (k) If additional loops are to be measured, operate the orange DIS key associated with the test trunk jack and repeat Steps (d) and (f) through (k).
- (l) If no other loops are to be measured, remove the cord from the test trunk jack and operate the orange DIS key associated with the test trunk jack.

E. Procedures at Master Test Frame (MTF) or Office Test Frame (OTF) in No. 5 Crossbar Offices

3.12 Procedure Using VMT1 Jack or NM (Unassigned) Jack Wired per 3.01(b) of This Section:

- (a) Calibrate and set up the NMS as described in 3.02.
- (b) Operate the proper MTF or OTF keys to pulse the telephone number and seize the loop to be tested without ringing.
- (c) When the line is seized (and not busy), patch the IN jack of the NMS to the NM jack on the MTF or OTF using a 3P7B/3P17A cord. If the NM jack (spare jack) is other than a type to be used with a 310-type plug, substitute the proper cord for the 3P7B/3P17A.
- (d) Adjust the DBRN switch on the NMS to obtain a reading between +2 and +9 on the scale of the meter.
- (e) Record the character of noise and the on-hook noise measurement, which is the total of the meter reading plus the DBRN switch setting on the NMS.
- (f) Check the results against Part 4 to see whether any further action is required.
- (g) When testing is complete, release the loop by properly operating the MTF keys.

- (h) Repeat Steps (b) through (g) for the remaining loops to be tested.

3.13 Procedure if NM Jack (Spare Jack) Is Not Provided at the MTF or OTF:

- (a) Using a 2W16A/2W24A cord or equivalent, connect one of the 59 cord tips to the top lug on the left side of the T1 REV key (a red wire with white marker is soldered to the lug) at the voltmeter test panel. Connect the other 59 cord tips to the bottom lug on the left side of the T1 REV key (a red wire is soldered to this lug) on the voltmeter test panel.
- (b) Insert the other plug of the 2W16A/2W24A cord into the IN jack of the NMS.
- (c) Proceed with Steps (d) through (h) of 3.12.

F. Procedures at Main or Intermediate Distributing Frames

3.14 Where the following procedures outline the use of the 4W6A, 4W7A, and 4W11A test cords, it will be necessary to provide a jack box per Fig. 2 of this section to adapt the cords for connection to the NMS.

3.15 Procedure at an MDF Equipped With C-Type Protector Mountings:

- (a) Calibrate and set up the NMS as described in 3.02.
- (b) Using a 1011Q or 1014A handset equipped with a 2W37A cord, and with the TALK-MON switch in the MON position, connect to the office side cross-punchings of the loop to be tested and monitor the loop.
- (c) If a loop is idle, operate the TALK-MON switch to TALK. Dial the number of the balance termination or short-circuit termination to avoid a permanent signal. This will hold the loop for the time required to make the noise measurement.
- (d) Remove the heat coils from the loop to be tested.
- (e) Using a 4W6A cord, insert the 252A and 252B plugs in place of the heat coils.

- (f) Insert the 289B plug of this cord into the MDF test cord jack (Fig. 2 jack box).

(g) Insert one end of a 3P17A/3P13A cord into the NMS jack of the Fig. 2 jack box and the other end into the IN jack of the NMS. If patch cords are used, the line equipment is held busy by the jack termination; therefore, the handset can be removed. If alligator clips are used to connect the NMS directly to the cable pair and the heat coils are removed, the handset must remain connected and in the TALK condition for the duration of the tests.

(h) Adjust the DBRN switch of the NMS to obtain a reading between +2 and +9 on the scale of the NMS meter.

(i) Record the character of noise and the on-hook noise measurement, which is the total of the meter reading plus the DBRN switch setting on the NMS.

(j) Check the result against the requirements given in Part 4 of this section to see whether any further action is required.

(k) When testing is complete, remove the test cords, replace the heat coils, and return the loop to service.

(l) Repeat Steps (b) through (k) for other loops to be tested.

3.16 Procedure at an MDF Using a 300-Type Connector:

Note: The 300-type connector supersedes a similar arrangement, coded the 121-type protector. All references in this section to the 300-type connector also apply to the 121-type protector.

(a) Calibrate and set up the NMS as described in 3.02.

(b) Using a 1011Q or 1014A handset equipped with a 2W37A cord, and with the TALK-MON switch in the MON position, connect to the office side cross-punchings of the loop to be tested and monitor the loop.

(c) If the loop is idle, operate the TALK-MON switch to TALK. Dial the number of the

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balance termination or short-circuit termination to avoid a permanent signal. This will hold the loop for the time required to make the noise measurement.

- (d) Remove the protector units.
- (e) Using a 4W11A cord, insert the 412A and 412B plugs in place of the protector units.
- (f) Insert the 289B plug of this cord into the MDF test cord jack (Fig. 2 jack box).
- (g) Insert one end of a 3P17A/3P13A cord into the NMS jack of the Fig. 2 jack box and the other end into the IN jack of the NMS. If patch cords are used, the line equipment is held busy by the jack termination; therefore, the handset can be removed. If alligator clips are used to connect the NMS directly to the cable pair and the protector units are removed, the handset must remain connected and in the TALK condition for the duration of the tests.
- (h) Adjust the DBRN switch of the NMS to obtain a reading between +2 and +9 on the scale of the NMS meter.
- (i) Record the character of noise and the on-hook noise measurement, which is the total of the meter reading plus the DBRN switch setting of the NMS.
- (j) Check the result against the requirements given in Part 4 of this section to see whether any further action is required.
- (k) When testing is complete, remove the test cords, replace the protector units, and return the loop to service.
- (l) Repeat Steps (b) through (k) for the other loops to be tested.

3.17 Procedure at an MDF Equipped With 444-Type Jacks, Such as the 301-Type Connector:

- (a) Calibrate and set up the NMS as described in 3.02.
- (b) Using a 1011Q or 1014A handset equipped with a 2W37A cord, and with the TALK-MON switch in the MON position, connect to the office

side cross-punchings of the loop to be tested and monitor the loop.

- (c) If the loop is idle, operate the TALK-MON switch to TALK. Dial the number of the balance termination or short-circuit termination to avoid a permanent signal. This will hold the loop for the time required to make the noise measurement.
- (d) Using a 4W7A cord, insert the 301-type plug into the 444-type jack of the loop to be tested.
- (e) Insert the 289B plug of this cord into the MDF test cord jack (Fig. 2 jack box).
- (f) Insert one end of a 3P17A/3P13A cord into the NMS jack of the Fig. 2 jack box and the other end into the IN jack of the NMS. If patch cords are used, the line equipment is held busy by the jack termination; therefore, the handset can be removed. If alligator clips are used to connect the NMS directly to the cable pair, the office side of the 444-type jack must be insulated from the cable pair. The handset must remain connected and in the TALK condition for the duration of the tests.
- (g) Adjust the DBRN switch of the NMS to obtain a reading between +2 and +9 on the scale of the NMS meter.
- (h) Record the character of noise and the on-hook noise measurement, which is the total of the meter reading plus the DBRN switch setting of the NMS.
- (i) Check the result against the requirements given in Part 4 of this section to see whether any further action is required.
- (j) When testing is complete, remove the test cord and return the loop to service.
- (k) Repeat Steps (b) through (j) for the other loops to be tested.

3.18 Procedure at an MDF Equipped With 302-Type Protector Mountings:

- (a) Calibrate and set up the NMS as described in 3.02.

- (b) Using a 1014A or 1011Q handset equipped with a 2W37A cord and with the TALK-MON switch in the MON position, connect the clips to the cross-connect punching of the loop to be tested at the MDF. If the loop is idle, dial the number of the balance termination or short-circuit termination to hold the line while the tests are being made.
- (c) At the protector frame, remove the protector unit from the cable pair. Using a W4BR cord, insert the 463A plug into the connector and the 464A plug into the MDF TEST CORD jack of the SJA (Fig. 2).
- (d) Remove the handset at the MDF.
- (e) Using a 3P17A/3P13A cord, insert one end into the NMS jack of the SJA. Insert the other end of this cord into the IN jack of the NMS.
- (f) Adjust the DBRN switch of the NMS to obtain a reading between +2 and +9 on the scale of the NMS meter.
- (g) Record the character of noise and the on-hook noise measurement, which is the total of the meter reading plus the DBRN switch setting on the NMS.
- (h) Check the result against the requirement given in Part 4 of this section to see whether any further action is required.
- (i) When the testing is complete, remove all cords at the protector frame and replace the protector unit in the mounting. Check to

be sure that the protector unit is fully inserted and not in the detent position.

- (j) Repeat Steps (b) through (i) for additional loops to be measured.

4. REQUIREMENTS

NMS READING

IN dBrnc

ACTION TO BE INITIATED

10 or less

OK—No further action necessary.

11 to 20

Check for possible trouble and/or refer to supervisor for review.

Greater than 20

Make measurements at station per Section 331-850-501 for possible trouble and/or refer to supervisor immediately for appropriate action to be initiated. If the measurements are being made for a subscriber loop noise survey, refer to Section 301-320-500 for the procedure for recording results. For analysis of survey results see Section 301-302-500.

5. REPORTS

5.01 The form shown in Fig. 3, attached, entitled "3-Type Noise Measurements on Subscriber Loops," may be used as a data sheet and may be reproduced locally as required.

5.02 The results of the measurements should be forwarded through lines of organization for analysis and appropriate action.

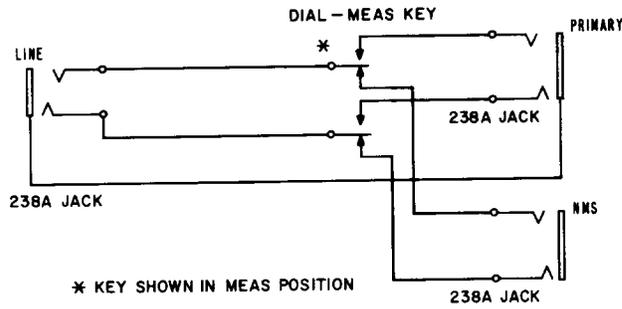
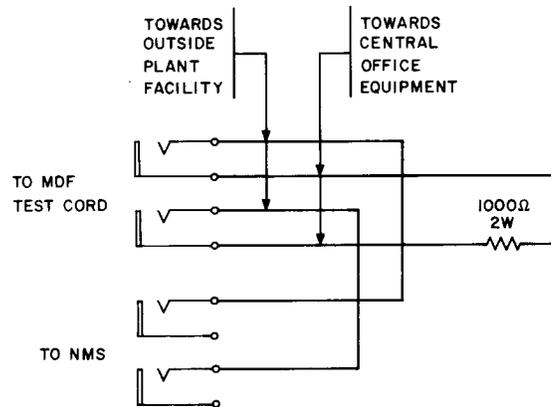


Fig. 1—Special Jack Arrangements



NOTE:
 THIS JACK ARRANGEMENT IS USED TO ISOLATE THE NMS SLEEVE GROUND FROM THE MDF TEST CORD, TO PROVIDE A TERMINATION TOWARDS THE CENTRAL OFFICE, AND TO HOLD THE LINE BUSY ON INCOMING CALLS WHILE THE TEST IS MADE.

Fig. 2—223-Type Jacks in a 270A-Type Mounting

| 3-TYPE NOISE MEASUREMENTS ON SUBSCRIBER LOOPS | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------------------|----------------------------------|--------------------|---------|-------|--------------------------|------------|------------|---------------------------|------------|------------|------------------------------------|-------------------------------|---------------------------------|----------------------------------|-----------------------------------|------------------------------|------------------------------------|----------------------------------|---------------------------------|----------------------------------|-----------------------------------|------------------------------|---------------------------------|----------------------------------|
| Cable No. | Pair No. | B.P. | | | | | | | | | | | | | | | | | | | | | | | | |
| Terminal Loc. _____ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Telephone No. | Panel & Jack or Dial Equiv. | | | | | | | | | | | | | | | | | | | | | | | | | |
| Customer Name _____ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address _____ | | Zone Code _____ | | | | | | | | | | | | | | | | | | | | | | | | |
| Class of Service _____ | | Type of Station Set _____ | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Noise Measurement at Central Office</p> <p>Test Location _____</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">3-Type NMS Reading</td> <td style="width: 25%;">Initial</td> <td style="width: 25%;">Final</td> </tr> <tr> <td>To ON-Hook Station _____</td> <td>dBrc _____</td> <td>dBrc _____</td> </tr> <tr> <td>To OFF-Hook Station _____</td> <td>dBrc _____</td> <td>dBrc _____</td> </tr> </table> <p>Character Of Noise</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>Crosstalk <input type="checkbox"/></td> <td>Tone <input type="checkbox"/></td> <td>Static <input type="checkbox"/></td> <td>Hissing <input type="checkbox"/></td> </tr> <tr> <td>Impulses <input type="checkbox"/></td> <td>Hum <input type="checkbox"/></td> <td>Frying <input type="checkbox"/></td> <td>Singing <input type="checkbox"/></td> </tr> </table> <p>Corrective Action Initiated _____</p> <p>_____</p> <p>Date _____ Time _____ Measured by _____</p> | | | | 3-Type NMS Reading | Initial | Final | To ON-Hook Station _____ | dBrc _____ | dBrc _____ | To OFF-Hook Station _____ | dBrc _____ | dBrc _____ | Crosstalk <input type="checkbox"/> | Tone <input type="checkbox"/> | Static <input type="checkbox"/> | Hissing <input type="checkbox"/> | Impulses <input type="checkbox"/> | Hum <input type="checkbox"/> | Frying <input type="checkbox"/> | Singing <input type="checkbox"/> | | | | | | |
| 3-Type NMS Reading | Initial | Final | | | | | | | | | | | | | | | | | | | | | | | | |
| To ON-Hook Station _____ | dBrc _____ | dBrc _____ | | | | | | | | | | | | | | | | | | | | | | | | |
| To OFF-Hook Station _____ | dBrc _____ | dBrc _____ | | | | | | | | | | | | | | | | | | | | | | | | |
| Crosstalk <input type="checkbox"/> | Tone <input type="checkbox"/> | Static <input type="checkbox"/> | Hissing <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | |
| Impulses <input type="checkbox"/> | Hum <input type="checkbox"/> | Frying <input type="checkbox"/> | Singing <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Noise Measurement at Station</p> <p>Test Location _____</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">3-Type NMS Reading</td> <td style="width: 25%;">Initial</td> <td style="width: 25%;">Final</td> </tr> <tr> <td>1000-Cycle Check _____</td> <td>dBrc _____</td> <td>dBrc _____</td> </tr> <tr> <td>Noise Metallic _____</td> <td>dBrc _____</td> <td>dBrc _____</td> </tr> </table> <p>Noise-to-Ground</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">C-Message Weighting _____</td> <td style="width: 25%;">dBrc _____</td> <td style="width: 25%;">dBrc _____</td> </tr> <tr> <td>3kHz Flat Weighting _____</td> <td>dBrc 3kHz _____</td> <td>dBrc 3kHz _____</td> </tr> </table> <p>Character Of Noise</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td>Crosstalk <input type="checkbox"/></td> <td>Tone <input type="checkbox"/></td> <td>Static <input type="checkbox"/></td> <td>Hissing <input type="checkbox"/></td> </tr> <tr> <td>Impulses <input type="checkbox"/></td> <td>Hum <input type="checkbox"/></td> <td>Frying <input type="checkbox"/></td> <td>Singing <input type="checkbox"/></td> </tr> </table> <p>Corrective Action Initiated _____</p> <p>_____</p> <p>Date _____ Time _____ Measured by _____</p> | | | | 3-Type NMS Reading | Initial | Final | 1000-Cycle Check _____ | dBrc _____ | dBrc _____ | Noise Metallic _____ | dBrc _____ | dBrc _____ | C-Message Weighting _____ | dBrc _____ | dBrc _____ | 3kHz Flat Weighting _____ | dBrc 3kHz _____ | dBrc 3kHz _____ | Crosstalk <input type="checkbox"/> | Tone <input type="checkbox"/> | Static <input type="checkbox"/> | Hissing <input type="checkbox"/> | Impulses <input type="checkbox"/> | Hum <input type="checkbox"/> | Frying <input type="checkbox"/> | Singing <input type="checkbox"/> |
| 3-Type NMS Reading | Initial | Final | | | | | | | | | | | | | | | | | | | | | | | | |
| 1000-Cycle Check _____ | dBrc _____ | dBrc _____ | | | | | | | | | | | | | | | | | | | | | | | | |
| Noise Metallic _____ | dBrc _____ | dBrc _____ | | | | | | | | | | | | | | | | | | | | | | | | |
| C-Message Weighting _____ | dBrc _____ | dBrc _____ | | | | | | | | | | | | | | | | | | | | | | | | |
| 3kHz Flat Weighting _____ | dBrc 3kHz _____ | dBrc 3kHz _____ | | | | | | | | | | | | | | | | | | | | | | | | |
| Crosstalk <input type="checkbox"/> | Tone <input type="checkbox"/> | Static <input type="checkbox"/> | Hissing <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | |
| Impulses <input type="checkbox"/> | Hum <input type="checkbox"/> | Frying <input type="checkbox"/> | Singing <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | | | |

Fig. 3—Form for Noise Measurements on Subscriber Loops