

**BELL SYSTEM PRACTICES**  
**Station Installation and Maintenance**

**SECTION C63.101**  
**Issue 1, 8-16-32**  
**Standard**

**TESTS WITH TEST DESK**  
**COMMON BATTERY STATIONS**

**1. GENERAL**

1.01 This section covers the procedure to be followed by installers and repairmen when making final tests with the aid of a test deskman at manual or dial common battery stations, where test desk facilities are provided and test deskmen are on duty, to determine whether or not a station is in condition to render satisfactory service.

1.02 The tests outlined herein shall be made by installers upon completion of each new installation, reinstallation, reconnection of left-in station, inside move, regrade, conversion, etc., and by repairmen whenever a station is visited in connection with a trouble report or for inspection purposes. The tests shall include both main and, where provided, associated on-premise extension stations.

1.03 During periods of excessive troubles resulting from storms or other causes when these tests would operate to hinder the prompt clearing of troubles under peak load conditions, the tests may be omitted until normal conditions again prevail. The tests should not be omitted, however, except on approval of the proper supervisor.

1.04 The procedure outlined in standard instructions covering "Inspection Plans" shall be followed before tests outlined herein are made. This will avoid the necessity of making two tests as might otherwise be necessary in some cases.

1.05 At P.B.X. stations, local tests, such as ringer tests, signal operation tests, etc., should be made with the attendant, prior to making tests with the test desk.

1.06 Where test desk facilities are not available or test deskmen are not on duty, talking tests and signaling tests should be made with the operator, and dial speed tests and ringing tests should be made with the dial and ringer test circuit where provided. Where the test circuit is not available, make the dial speed test with a stroboscope and a ringing test with the operator.

**TESTS WITH  
TEST DESK  
COMMON  
BATTERY  
STATIONS**

## 2. ESTABLISHING TEST CONNECTION TO TEST DESK

### Stations Other Than P.B.X. Stations

**2.01 Manual and Dial:** Call the test desk from the station to be tested. If a manual station, call the operator and ask to be connected to a test trunk. If a dial station, dial the proper code to connect the station to a test trunk.

### P.B.X. Stations

**2.02 General:** When requesting the P.B.X. attendant to establish a night and through dial connection, caution the attendant to disregard the disconnect signals until request is made to have the connection disconnected.

### Manual P.B.X. Stations

**2.03 Manual Central Office—Manual and Attended Dial System P.B.X.** Call the P.B.X. attendant from the station to be tested, ask to be connected to a trunk (on cord boards by means of a night and through dial connection) and, when the operator answers, ask to be connected to a test trunk.

**2.04 Dial Central Office—Manual and Attended Dial System P.B.X.** Call the attendant from the station to be tested. Ask the attendant to select an idle trunk, dial the test desk code and then (on cord boards) to operate the night and through dial key of the cord circuit.

### Dial P.B.X. Stations

**2.05 Dial and Manual Central Office—Attended Dial System P.B.X.** Call the attendant from the station to be tested. Give station number and ask the attendant to establish a central office night connection and to ring the station when the connection is established. Hang up the receiver before the attendant starts to establish the connection. When the ring is received, remove the receiver from switchhook. In manual area, when the operator answers, ask to be connected to a test trunk. If in dial area, dial the proper code to connect the station with a test trunk.

**2.06 Dial Central Office—Manual P.B.X.** Call the P.B.X. attendant from the station to be tested and ask to be connected to a trunk (on cord boards by means of a night and through dial connection). Dial the proper code to connect the station with a test trunk.

**2.07 Manual and Dial Central Office—Unattended P.B.X.** Establish a central office connection. In manual area when the operator answers, ask to be connected to a test trunk. If in dial area, dial the proper code to connect the station with a test trunk.

### 3. TESTS

3.01 **Test Connection Established:** When the test deskman answers, cooperate with him in performing the following tests:

Voltmeter and Breakdown  
Ringing  
Transmission  
Noise  
Dial Speed and Bell Tapping  
Other

#### **Voltmeter and Breakdown Tests**

3.02 Voltmeter and breakdown tests cannot be made to stations on the following types of P.B.X.'s:

700C Without Manual Trunks  
701A Without Manual Trunks  
710  
711  
740  
750

#### **Ringing Tests**

3.03 Ringing tests cannot be made to stations on the following types of P.B.X.'s except under conditions indicated:

700C Only when test connection is established through night jack.  
701C Only when test connection is established through night jack.

710  
711  
750

3.04 When requested by the test deskman hang up receiver and wait for ring.

3.05 When station or ringer cut-off keys are installed, make ringer tests with the keys in all positions.

#### **Transmission Test**

3.06 In making this test observe the following:

(a) With desk stands, wall sets or coin collectors adjust the position of the transmitter so that it is tilted up as far as possible. In case of desk stands, make the test with the handle in a vertical position.

(b) Talk directly into the transmitter in a natural conversational tone, and not across or around it. The lips should be almost touching the mouthpiece.

3.07 During the conversation with the test deskman, note any difficulties in hearing or being heard and if trouble is encountered, the cause should be determined and corrected.

**TESTS WITH  
TEST DESK  
COMMON  
BATTERY  
STATIONS**

3.08 During this test installers should give the test deskman information such as, subscriber's address, type of transmitter and other information pertaining to the type of equipment. Repairmen should report the trouble found and work done.

### Noise Test

3.09 Listen for scraping noise with the cords and transmitter at rest.

Note: Scraping noise may be described as a scratching or frying noise, such as might come from two electrical contacts rubbing loosely together.

3.10 Test cords for scraping noise by shaking them, particularly where they enter the apparatus. If scraping noise is present and is changed in magnitude when a cord is shaken, it is an indication of a defective cord and, therefore, the cord should be replaced.

3.11 Test the transmitter for scraping noise by blowing gently into it. If scraping noise is present and is changed in magnitude when this test is made, it is an indication of a defective transmitter and, therefore, the transmitter should be replaced.

3.12 If a cord or transmitter is replaced, make a complete check again as covered in paragraphs 3.05, 3.06 and 3.07, since burning noise may occur in either the cords or transmitter.

### Dial Speed and Bell Tapping Test

3.13 Where station is operated on a dial basis, make a dial speed test with the cooperation of the test deskman as outlined in standard instructions covering the maintenance of dials. Make sure that bell does not tap while dialing.

### Other Tests

#### 3.14 At Two-Party Selective Message Rate—Dial Stations:

In addition to the ringing, transmission talking and dial speed and bell tapping tests, cooperate with the test deskman in testing with the receiver both on and off the switchhook to make certain that for the:

(a) **Tip Party:** the line is grounded through 1,000 ohm ringer when receiver is off switchhook and clear of ground when on switchhook.

(b) **Ring Party:** the line is not grounded under either condition.

Note: Make tests at both main and extension stations, where installed.

**3.15 Prepayment Multi-Coin Collector Stations:** In addition to the ringing, transmission, talking and at dial stations, the dial speed and bell tapping tests, cooperate with the test deskman in making a current flow test of the operation of the coin relay, as follows:

- (a) Remove the upper housing of the coin collector.
- (b) Connect the hand test set to terminals R or 2 and Y or L<sub>2</sub>, and then advise the test deskman as to the type of coin relay (60-volt, 70-volt or relay without marking).
- (c) Trip the coin trigger and disconnect the hand test set.
- (d) Observe that coin relay operates properly and in the proper direction.
- (e) Upon signal from the test deskman reconnect the hand test set as above and cooperate in completing the test.