

**STATION APPARATUS**  
**TROUBLE LOCATING**

**1. GENERAL**

- 1.01 This practice provides a station apparatus and trouble locating guide for installation, maintenance and repair.
- 1.02 The tests described in the following paragraphs and tables should be performed upon completion of all installation procedures and used as a guide during inspections, checks and adjustments, removal and replacement of parts, and trouble shooting.

**2. TESTS WITH TROUBLE DESK – COMMON BATTERY STATIONS**

- 2.01 The test should be made with the aid of a test desk man on the dial set or the manual set in accordance with local procedures. For tests at P.B.X. stations, check for the following conditions:
- a. Dial the proper test code or call the test desk man to make the telephone set ring. If the ringer does not ring or the bell taps, refer to Table I for remedial measures.
  - b. Lift the handset off hook and hold it in a vertical position. Contact and talk to the test desk man. Talk directly into the transmitter in a normal conversational tone. The lips should be almost touching the transmitter cap. Check for normal sidetone during this test. Check for difficult reception. Ask the test desk man if transmission is clear. If trouble is encountered in either case, refer to Table I for corrective procedures.
  - c. Perform the dial speed test with the test desk man or in accordance with other local procedures.
  - d. With the handset held firmly at the ear and mouth, shake the mounting cord and then the handset cord. If excessive noise is heard and it changes in magnitude as a cord is shaken, check the cord and replace it if necessary. Test the transmitter for excessive noise by blowing gently into it. If the noise changes in magnitude during the test, then the transmitter unit is defective and should be replaced. If either a cord or the transmitter is replaced, repeat tests a through c.

**3. AUTOMATIC NUMBER IDENTIFICATION**

- 3.01 Where automatic number identification is used, make all tests in accordance with local procedures.

**4. SUBSCRIBER INSTRUCTION**

- 4.01 The installer shall instruct the subscriber in the proper manner of using the telephone set, before leaving the premises, and shall thoroughly acquaint the customer in the services available as a telephone subscriber.

TABLE 1

DIALING TROUBLES		
TROUBLE		CORRECTIVE ACTION
No Dial Tone	<p>Open in mounting or handset cord.</p> <p>Open or shorted receiver unit.</p> <p>Dial pulse contacts open or off-normal contacts closed.</p> <p>Open winding in network coils.</p> <p>Cradle switch contacts not functioning correctly.</p>	<p>Replace cord.</p> <p>Replace receiver unit.</p> <p>Adjust or replace dial.</p> <p>Replace network.</p> <p>Check for misplaced plastic cover. Adjust contacts or replace switch assembly.</p>
Can't Break Dial Tone	<p>Dial pulse contacts not opening.</p> <p>Filter or ringer capacitor shorted.</p>	<p>Adjust or replace dial.</p> <p>Replace network or ringer capacitor.</p>
Reaching Wrong Numbers	<p>Dial pulse contacts wrongly functioning.</p> <p>Incorrect dial speed (For most conditions, dial speed must be considerably in error to cause trouble).</p> <p>Leaky filter or ringer capacitor.</p>	<p>Adjust contacts or replace dial.</p> <p>Adjust dial speed or replace dial.</p> <p>Replace network or ringer capacitor.</p>
Dial Clicks In Receiver	Dial off-normal contacts not closing.	Adjust contacts or replace dial.
TRANSMISSION TROUBLES		
TROUBLE		CORRECTIVE ACTION
Cannot Hear	<p>Open receiver unit or handset cord.</p> <p>Dial off-normal contacts not opening.</p> <p>Open winding in network coils.</p>	<p>Replace receiver unit or handset cord.</p> <p>Adjust contacts or replace dial.</p> <p>Replace network.</p>

TRANSMISSION TROUBLES		
TROUBLE		CORRECTIVE ACTION
Cannot Hear	Cradle switch contacts not opening correctly.	Check for misplaced plastic cover. Adjust contacts or replace switch assembly.
	Shorted receiver or receiver varistor.	Replace receiver unit.
Other Party Cannot Hear	Shorted transmitter unit or handset cord.	Replace transmitter unit or handset cord.
	Shorted varistor in network.	Replace network.
High Sidetone Level	Defective balancing in network.	Replace network.
Distortion and/or Clicks	Faulty receiver unit or receiver-varistor.	Replace receiver unit.
	Faulty transmitter unit.	Replace transmitter unit.
	Loose connections.	Retighten connections as necessary.
Radio interference	Pick up of local radio station in receiver.	Refer to CSP <del>410-600-404</del> 480-122-401
RINGING TROUBLES		
TROUBLE		CORRECTIVE ACTION
Rings When Other Party Called	Wrong ringer.	Replace with correct type.
	Wrong ringer or line connections.	Check connections and rewire as necessary.
	Incorrect ringing frequency	Check ringing generator frequency.
	Frequency selective ringer incorrectly tuned.	Retune or replace ringer.
	Wrong capacitor for frequency selective ringer.	Replace capacitor or complete ringer assembly.
Unable to Trip Ringing	Open dial pulse contacts.	Adjust contacts or replace dial.

RINGING TROUBLES		
TROUBLE		CORRECTIVE ACTION
Unable to Trip Ringing	<p>Open coil winding or varistor in network.</p> <p>Loose or open connection.</p> <p>Cradle switch contacts not making.</p>	<p>Replace network.</p> <p>Check connections and remake as necessary.</p> <p>Check for misplaced plastic cover. Adjust contacts or replace switch assembly.</p>
Trips Ring, Cannot Converse	<p>Open handset cord, transmitter or receiver unit.</p> <p>Dial off-normal contacts not open.</p> <p>Receiver 'shorting' contacts of cradle switch not open.</p> <p>Faulty coil winding or open capacitors in network.</p>	<p>Replace faulty item.</p> <p>Readjust dial contacts or replace dial.</p> <p>Check for misplaced plastic cover. Adjust contacts or replace switch assembly.</p> <p>Replace network.</p>
No Ring	<p>Wrong ringer type. (Most likely to be observed on new installation).</p> <p>Ringer disconnected or wrongly wired.</p> <p>Ringer wired for silencing.</p> <p>No ground (party line) connection.</p> <p>Control wheel (biased ringer) in cut-off position.</p> <p>Obstruction between magnet and armature or gongs and clapper.</p> <p>Open ringer coil.</p> <p>Open ringer capacitor.</p>	<p>Check ringer type and replace if incorrect.</p> <p>Check ringer wiring. Correct as necessary.</p> <p>Rewire for ringer operation.</p> <p>Connect ground per local practices.</p> <p>Reset wheel to ring position and disable cut-off position if desired.</p> <p>Remove obstruction and readjust ringer if necessary.</p> <p>Replace ringer.</p> <p>Replace network or ringer capacitor.</p>

RINGING TROUBLES		
TROUBLE		CORRECTIVE ACTION
Volume Too High Or. Too Low	Control wheel in wrong position.	Reset wheel. Instruct customer if required.
	One or both gongs loose.	Tighten mounting screws and readjust.
	Obstruction between gongs and clapper or against armature or clapper stem.	Remove obstruction and readjust ringer if necessary.
	Telephone or extension ringer on sound absorbing material.	Relocate telephone or extension ringer in accordance with wishes of customer.
Bell Taps While Dialing	Wrongly connected ringer.	Check and reconnect as necessary.
	Bias spring in low notch (biased ringer).	Check ringer and set bias spring in high notch if necessary.