

## 53-TYPE HEAD TELEPHONE SETS VISUAL INSPECTIONS AND ELECTRICAL TESTS

### 1. GENERAL

- 1.01** This section describes the method of making visual inspections and electrical tests of 53-type head telephone sets.
- 1.02** This section is reissued to revise and amplify Tests B, E, and F.
- 1.03** The tests covered are:
- A. Cord and Plug:** The following features are checked. (1) Cord. (2) Stay hook. (3) Cord tip (flexible tubing). (4) Wrist loop (stay cord sleeving). (5) Switch. (6) Plug.
  - B. Transmitter Arm Assembly:** The following features are checked. (1) Transmitter arm. (2) Transmitter case. (3) Transmitter cap. (4) Polyethylene disc. (5) Contact spring.
  - C. Handle Assembly:** The following features are checked. (1) Handle. (2) Cap. (3) Contact springs. (4) Mounting band.
  - D. Headband:** The following features are checked. (1) Headband. (2) Headband pad. (3) Yoke.
  - E. Electrical Tests Using Attendant Telephone Circuit:** The following features are checked. (1) Continuity. (2) Transmission.
  - F. Electrical Tests Using Test Set:** The following features are checked. (1) Continuity. (2) Transmission.
- 1.04** See Section 028-361-811 for piece-part data and replacement procedures.
- 1.05** Head telephone sets should be carried by some part other than the transmitter or transmitter arm. Exercise care not to scratch the thermoplastic parts.
- 1.06** Do not touch or press on the moisture-resistant membrane of the transmitter unit.
- 1.07** Before making electrical tests on the head telephone set, defective parts which affect transmission should be replaced as covered in Section 028-361-811.
- 1.08** Spare head telephone sets should be substituted for sets which are reported as being in trouble several times during a period of 30 days, and on which the tests and inspections covered herein have disclosed no defects. These sets should be referred to the supervisor for disposition.

### Large PBX

**1.09** Arrangements should be made locally between the Plant and Traffic Department or supervisor in charge to have sets available for inspection as required. A record of the sets received and inspected should be maintained in order to insure the inspection of all sets within the required period.

**1.10** Head telephone sets are usually identified by number. Where this practice is followed, any set received by the Plant Department which does not have a number should be returned to the Traffic Department or supervisor in charge to have a number assigned. After the number is assigned, the sets should be identified in accordance with local practices.

2. APPARATUS

Test E

2.01 Testing cord, 1 foot 8 inches long, equipped with one No. 2 test clip per AT-6928, and one KS-6780 connecting clip with one 108 cord tip (W1U cord) (for short-circuiting the capacitor in the receiver circuit of an attendant telephone circuit where battery and ground are across the receiver).

Test F

2.02 Testing equipment made up locally as shown in Fig. 1.

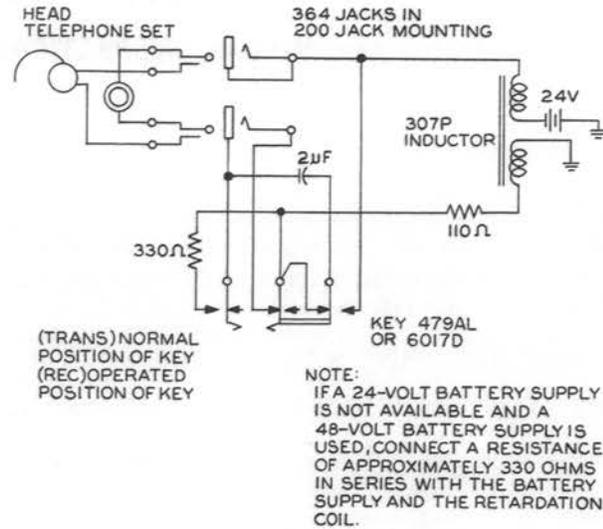


Fig. 1 - Testing Circuit

3. METHOD

STEP	ACTION	VERIFICATION
<b>A. Cord and Plug</b>		
1	Inspect cord.	Not frayed, knotted, or soiled. Spring portion of cord not defective.
2	Inspect wrist loop (stay cord sleeving).	Not frayed, worn, or broken.
3	Inspect cord tip (flexible insulating tubing).	Not missing, torn, worn, or otherwise defective.
4	Inspect stay hook.	Not missing, broken, distorted, or insecurely attached.
5	Inspect 225A switch, when provided.	Not defective. Clip securely fastened.
6	Inspect plug.	Not bent or dirty. Parts not loose, missing, or defective.
7	Gauge plug in accordance with Section 032-520-501.	Not worn beyond allowable limit.

**B. Transmitter Arm Assembly**

1 Remove transmitter cap.

STEP	ACTION	VERIFICATION
2	Remove transmitter unit. (See 1.06.)	
→ 3	Inspect transmitter case.	Not dirty, broken, or cracked. Threads not damaged. Case shall not rotate on arm. (Weld lines not to be confused with cracks.)
4	Inspect transmitter cap.	Not dirty, broken, cracked, or chipped. Threads not damaged.
5	Inspect polyethylene disc.	Not missing, dirty, torn, or defective.
6	Inspect contact springs.	Not damaged, defective, or loosely mounted.
→ 7	Inspect insulation of wires.	Not damaged.
8	Inspect transmitter arm.	Not loose in handle.
9	Place transmitter unit in case.	
10	Place polyethylene disc in cap.	
11	Place cap on transmitter case.	

#### C. Handle Assembly

1	Remove receiver cap.	
2	Remove receiver unit.	
3	Remove handle cover.	
4	Inspect handle.	Handle not dirty, broken, cracked, or chipped. Threads not damaged. Cord terminal screw not loose or missing. Contact springs not loose, defective, or missing. Transmitter arm mounting screws not loose or missing.
5	Inspect receiver cap.	Cap not dirty, broken, cracked, or chipped. Threads not damaged.
6	Inspect mounting band.	Not loose or missing. Friction sufficient to hold band in any position.
7	Remount receiver unit.	HC3 and HC4 units mounted so that code marking on unit is toward transmitter.

STEP	ACTION	VERIFICATION
8	Remount cap.	
9	Remount handle cover.	
<b>D. Headband</b>		
1	Inspect yoke.	Yoke holds receiver snugly. Yoke pin securely attached to yoke.
2	Inspect headband pad.	Not broken, torn, worn, or dirty. Fastener of replaceable foam rubber pad capable of being fastened together and both parts of fastener attached securely to respective parts of pad. Nonreplaceable pad held together securely by stitching and eyelets.
3	Inspect headband.	Headband wires not distorted, nicked, or worn. Headband wires friction tight in cradle.
4	Check movement of yoke pin in cradle.	Yoke pin does not bind in cradle, friction sufficient to hold receiver holder and associated transmitter arm and transmitter in adjusted position.

#### E. Electrical Tests Using Attendant Telephone Circuit

1	Insert telephone set plug in jack of attendant telephone circuit.	
2	Operate talking key of idle cord circuit.	
3	Hold transmitter in normal position.	
4	Operate 225A switch, when provided.	
5	Listen in receiver.	No frying sound heard.
6	Talk into and blow against transmitter.	Side tone heard. Transmitter not dead.
7	Short-circuit capacitor of receiver circuit, when required. (See 2.01.)	
8	Shake and gently pull and twist cord.	No click or scraping sound heard. Receiver not dead.
9	Tap plug.	No click heard.

STEP	ACTION	VERIFICATION
10	Disconnect short circuit from capacitor. (See Step 7.)	
11	Restore talking key to normal.	
12	Remove telephone set plug from jack of attendant telephone circuit.	

#### F. Electrical Tests Using Test Set

1	Insert telephone set plug in jack of test set.	
2	Operate key to TRANS.	
3	Operate 225A switch, when provided.	
4	Listen in receiver.	No frying sound heard.
5	Shake and gently pull and twist cord.	No click or scraping sound heard. Receiver not dead.
6	Talk into and blow against transmitter.	Side tone heard. Transmitter not dead.
7	Tap plug.	No click heard.
8	Remove telephone set plug from jack of test set.	