

52-TYPE TYPE HEAD TELEPHONE SETS VISUAL INSPECTIONS AND ELECTRICAL TESTS

I. GENERAL

1.01 This section describes the method of making visual inspections and electrical tests of 52-type head telephone sets.

1.02 This section, replacing B203.004, has been revised to make it applicable for general use in the Plant Series. Later, when the A Series sections are converted to the Plant Series, Section A203.004 will also be replaced by this section.

1.03 The tests covered are:

A. **Cord and Plug:** The following features are checked. (1) Cord. (2) Tie cord. (3) Stay hook. (4) Stay cord. (5) Cord tip (flexible tubing). (6) Wrist loop (stay cord sleeving). (7) Cord fastener. (8) Connecting block. (9) Switch. (10) 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. (6) Terminal block.

C. **Receiver Holder:** The following features are checked. (1) Receiver case. (2) Receiver cap. (3) Contact springs. (4) Stay cord. (5) Clamping screw. (6) Cord terminal screws.

D. **Headband:** The following features are checked. (1) Headband. (2) Yoke. (3) Headband pad.

E. **Electrical Tests Using Attendants Telephone Circuit:** The following features are checked. (1) Continuity. (2) Transmission.

F. **Electrical Tests Using Test Set Per Fig. 1:** The following features are checked. (1) Continuity. (2) Transmission.

1.04 See Section A504.004 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 A504.004.

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.

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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 One WIU cord (for short-circuiting secondary capacitors).

↳ Test F (Central Office)

2.02 Patching cord test set per SD-90430-01, SD-21502-01, SD-21338-01, SD-95665-01, ES-239451, or equivalent testing equipment as shown in Fig. 1.

Note: If none of this testing equipment is available, use two WIU or equivalent cords, three No. 6 dry cells connected in series or other suitable battery supply, or an operators telephone circuit at a vacant switchboard position or desk.

↳ Test F (PBX)

2.03 Testing circuit per Fig. 1.

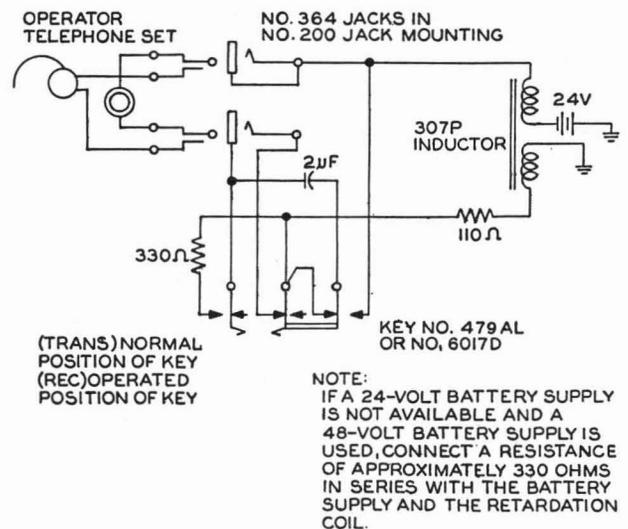


Fig. 1—Testing Circuit

3. METHOD

STEP	ACTION	VERIFICATION
A. Cord and Plug		
1	Inspect cord	Should not be frayed, knotted, badly worn , or badly soiled Retractable portion of supervisor cord should not be defective Tie cord or stay cord should not be broken or missing
2	Inspect wrist loop (stay cord sleeving)	Should not be frayed, worn, or broken
3	Inspect cord fastener (leather strap)	Should not be missing, torn, badly worn , or otherwise defective
4	Inspect cord tip (flexible insulating tubing)	Should not be missing, torn, badly worn , or otherwise defective
5	Inspect stay hook	Should not be missing, broken, distorted, or insecurely attached
6	Inspect connecting block	Should not be damaged nor defective

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<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
7	Inspect KS-8010 switch	Should grip cord securely and should not be defective
8	Inspect plug	Should not have loose, missing, or defective parts and should not be bent or dirty
9	Gauge plug in accordance with Section A203.007	Should not be worn beyond allowable limit

B. Transmitter Arm Assembly

1	Remove transmitter cap	
2	Remove transmitter unit	
3	Inspect transmitter case	Should not be dirty, broken, cracked, or have damaged threads Case should be friction tight on arm
4	Inspect transmitter cap	Should not be dirty, broken, cracked, chipped, or have damaged threads (Weld lines should not be confused with cracks)
5	Inspect polyethylene disc	Should not be missing, dirty, torn, or defective
6	Inspect collar (when arm assembly is equipped with a collar)	Collar clamping screws should not be loose or missing
7	Inspect contact springs	Should not be damaged, defective, or loosely mounted
8	Inspect bushing and cap assembly at free end of transmitter arm	Should not be loose or missing
→ 9	Inspect transmitter arm terminal block	Terminal block screws should not be loose or missing. If old type terminal block (about size of U.S. 5-cent coin), is provided— Heads of screw should be covered with insulating material.
10	Place transmitter unit in case	
11	Place polyethylene disc in cap	
12	Place cap on transmitter case	

C. Receiver Holder

- 1 Remove receiver cap
- 2 Remove receiver unit

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
3	Inspect receiver case	Case should not be dirty, broken, cracked, or badly chipped Threads should not be badly damaged Stay cord clamping screw and cord terminal screw should not be loose or missing Contact springs should not be loose, defective, or missing
4	Inspect receiver cap	Cap should not be dirty, broken, cracked, or badly chipped Threads should not be badly damaged (Weld lines should not be confused with cracks)
5	Inspect receiver holder clamp	Should not be broken or cracked
6	Check friction of transmitter arm in receiver holder	Friction should be sufficient to hold the arm in any position
7	Remount receiver unit	HC1 and HC2 units should be mounted so that receiver terminals are in position nearer ends of contact springs HC3 and HC4 units should be mounted so that code marking on unit is on opposite side of case from binding posts
8	Remount cap	

D. Headband

1	Inspect yoke	Yoke should hold receiver snugly
2	Inspect headband pad	Should not be broken, torn, badly worn, or dirty
3	Inspect headband	Headband wires should not be distorted, nicked, or badly worn Headband wires should be friction tight in cradle Yoke pin should not bind in cradle Yoke pin should be securely attached to yoke

E. Electrical Tests Using Attendant Telephone Circuit

- 1 Insert telephone set plug in jack of attendants telephone circuit
- 2 Operate the talking key of idle cord circuit
- 3 Hold transmitter in normal position

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>	<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
4	Talk into and blow against transmitter	Side tone should be heard Frying sound should not be heard Transmitter should not be dead	2	Operate key to (TRANS)	
5	Short-circuit secondary capacitor of receiver circuit		3	Listen in receiver	
6	Shake, gently pull, and twist cord	Click or scraping sound should not be heard Receiver should not be dead	4	Shake, gently pull, and twist cord	Click or scraping sound should not be heard Receiver should not be dead
7	Tap plug	Click should not be heard	5	Talk into and blow against transmitter	Side tone should be heard Frying sound should not be heard Transmitter should not be dead
8	Disconnect short-circuit from secondary capacitor		6	Tap plug	Click should not be heard
9	Restore talking key to normal		7	Operate key to (REC)	
10	Remove telephone set plug from jack of attendants telephone circuit		8	Ground transmitter arm	
<u>F. Electrical Tests Using Test Set Per Fig. 1</u>			9	Rotate transmitter case from one extreme position to other several times	Click should not be heard
1	Insert telephone set plug in jack of test set		10	Remove telephone set plug from jack of test set	