SWITCHBOARD CORD AND OPERATOR TELEPHONE CIRCUIT

TESTS

NO. 1 CROSSBAR OFFICES

1. GENERAL

1.01 This section describes: (1) the methods of making 1000-Hz transmission loss tests on cord circuits, operator telephone circuits, and supervision telephone circuits of DSA boards in No. 1 crossbar offices; (2) the methods of making current flow test of cord circuit supervisory relays in "A" switchboards in No. 1 crossbar offices.

1.02 This section is reissued to add Tests A, B, and C for 1000-Hz transmission loss of DSA board cord circuits, operator telephone circuits, and supervision telephone circuits which replace Tests C, D, and E of Section 216-769-501, Issue 3. This change requires that Tests A through H be relettered to D through K.

1.03 The tests covered are:

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<td>K. Current Flow Test of Calling Cord Supervisory Relays—High-Resistance Sleeve.</td>
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Offices Having Cord Testing Circuit SD-20444-01 or SD-90501-01

1.04 Tests D, E, F, and G are based on the use of cord testing circuit SD-20444-01 or SD-90501-01. In offices where a cord testing circuit has not been provided, use Tests H, I, J, and K instead of Tests D, E, F, and G.

1.05 The tests described in this section apply to cord circuits as follows except as noted in 1.04.
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CORD CIRCUIT          TESTS TO BE APPLIED
                      CALLING
Special Service           D          G          D L.S.
Intercepting — Non-          E          D
Completing
Intercepting — Completing      F          H.S.        D
Combined Intercepting and      E          H.S.        G H.S.        D L.S.
   Special Service — Non-         D L.S.        D L.S.
Combined Intercepting and      F          H.S.        G H.S.        D L.S.
   Special Service — Com-         D L.S.        D L.S.
Recording — Completing         D

Note: H.S. = High Resistance Sleeve
      L.S. = Low Resistance Sleeve

1.06 While testing cord circuit relays, check the various current values often enough to make sure that they have not changed due to voltage variations.

1.07 New current values are to be shown on the circuit requirement tables for the polarized relays in the calling cords. However, to care for those cases where the tables do not show these new values, the test values are as follows:

<table>
<thead>
<tr>
<th>Operate</th>
<th>Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>75</td>
<td>75</td>
</tr>
</tbody>
</table>

1.08 A typical answering cord test arrangement is illustrated in Fig. 1. A typical calling cord test arrangement is illustrated in Fig. 2.

1.09 Lettered Steps: A letter a, b, c, etc, added to a step number in Part 4 of this section indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column, and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

2. APPARATUS

Tests A, B, and C

2.01 23A transmission measuring set J94023A.

2.02 Patching cord, P3F cord, 6 feet long, equipped with a 309 plug and a 310 plug (3P12E cord).

Tests B and C

2.03 82A test set.

Tests D Through K

2.04 35-Type test set.

2.05 Patching cord, P2G cord, 10 feet long, equipped with two 309 plugs (2P7A cord) or patching cord, P2H cord, 10 feet long, equipped with two 310 plugs (2P8A cord).

Tests D and G

2.06 Patching cord, P3F cord, 8 feet long, equipped with a 309 plug and a 310 plug (3P12H cord) or patching cord, P3E cord, 8 feet long, equipped with two 310 plugs (3P6E cord).

Tests G and K

2.07 One filter consisting of one No. 18AS resistance (350Ω ±1%), one 18FS resistance (4250Ω ±1%), and one 137QA condenser (4.28 to 4.36 mf) connected in series, attached to the tip and ring of a cord equipped with a 310 plug. It is intended that this filter will be made up locally.

Test I

2.08 Testing cord, 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord) and two KS-6278 connecting clips.

Test J

2.09 Two testing cords, 893 cords, 6 feet long, equipped with two 360A tools (1W13B cord) and two KS-6278 connecting clips.
3. PREPARATION

STEP ACTION VERIFICATION

Tests A, B, and C

1 Calibrate 23A TMS if necessary.

Tests D and G

2 On 35-type test set—
Using insulated wire, strap binding posts L1 and S.

Tests D Through K

3 On 35-type test set—
Using insulated wire, strap binding posts GRD and L1.
4       Restore all keys to normal and move all resistance slides to extreme right position.

5       Using P2G or P2H, connect TEST—BATT & GRD jack to B-GRD jack of the “A” switchboard.

       Note: Connect to BATT & GRD jack first and disconnect from it last.

4. METHOD

STEP       ACTION

A. 1000-Hz Transmission Loss Test of DSA Board Cord Circuits

2       At position in which cords are to be tested—Using 3P12E cord, connect DIAL jack of
<table>
<thead>
<tr>
<th>STEP</th>
<th>ACTION</th>
<th>VERIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Connect back cord to MEAS jack of TMS (cord circuit TALK key normal).</td>
<td></td>
</tr>
<tr>
<td>4a</td>
<td>If two 600Ω milliwatt supply jacks are provided, one with high (500Ω) and one with low (34Ω) sleeve resistance— Connect front cord to low sleeve resistance milliwatt supply jack.</td>
<td></td>
</tr>
<tr>
<td>5b</td>
<td>If only one 600Ω milliwatt supply jack is provided— Connect front cord to milliwatt supply jack.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Place lever key of TMS in MEAS position.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Observe reading of meter.</td>
<td>This reading is the cord circuit loss which should be within requirements.</td>
</tr>
<tr>
<td>8c</td>
<td>If two 600Ω milliwatt supply jacks are provided and cord is arranged for both high- and low-sleeve resistances— Remove front cord from low-sleeve resistance jack and connect to high-sleeve resistance jack.</td>
<td></td>
</tr>
<tr>
<td>9c</td>
<td>Observe reading of meter.</td>
<td>This reading is the cord circuit loss which should be within requirements.</td>
</tr>
<tr>
<td>10d</td>
<td>If back cord is arranged for both high- and low-sleeve resistances— Remove patching cord from spare 34Ω sleeve jack and insert into a spare 500Ω sleeve jack.</td>
<td></td>
</tr>
<tr>
<td>11d</td>
<td>Observe reading of meter.</td>
<td>This reading is the cord circuit loss which should be within requirements.</td>
</tr>
<tr>
<td>12</td>
<td>For other cord circuits to be tested— Repeat Steps 2 and 4a through 11d.</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>If no further tests are to be made— Disconnect TMS and restore cord circuit to service.</td>
<td></td>
</tr>
</tbody>
</table>
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STEP ACTION

B. 1000-Hz Transmission Loss Test of DSA Board
Operator Telephone Circuit

Bridged Loss

2 Insert plug of a calling cord into MEAS jack of TMS.

3a If two 600Ω milliWatt supply jacks are provided, one with high (500Ω) and one with low (34Ω) sleeve resistance—Using 3P12E cord, connect MEAS jack of TMS to low sleeve resistance milliWatt supply jack.

4b If only one 600Ω milliWatt supply jack is provided—Using 3P12E cord, connect MEAS jack of TMS to milliWatt supply jack.

5 At 23A TMS—Place lever key in MEAS position.

6 Observe reading of meter.

7 Insert double plug of 82A test set into C and D jacks of operator telephone circuit.

8 Operate key of 82A test set to normal position.

9 Operate TALK key of cord circuit.

10 Observe reading of meter.

11 Restore TALK key and operate MON key.

12 Observe reading of meter.

13 Restore MON key.

Transmitting Loss

14 Disconnect patching cord from TMS and milliWatt supply jack.

This reading is the cord circuit loss which should be within requirements.

Note: This cord should be used when making the following tests.

This reading minus reading in Step 6 equals bridged loss which should be within requirements.

This reading minus reading in Step 6 equals bridged monitoring loss which should be within requirements.
STEP 15

Remove plug of calling cord from MEAS jack of TMS and insert into milliwatt supply jack previously used.

STEP 16

Insert 310 plug of 82A test set into MEAS jack of TMS.

STEP 17

Operate TALK key of cord circuit.

STEP 18

Operate key of 82A test set to T position.

STEP 19

Observe reading of meter.

Receiving Loss

STEP 20

Operate key of 82A test set to R position.

STEP 21

Observe reading of meter.

STEP 22

Restore TALK key and operate MON key.

STEP 23

Observe reading of meter.

STEP 24

Restore MON key.

STEP 25c

If operator telephone circuit is equipped with a repeating coil between jacks C-D and A-B—Remove double plug of 82A test set from C and D jacks, and insert into A and B jacks. Operate TALK key.

STEP 26c

Observe reading of meter.

STEP 27

For other telephone circuits to be tested—Repeat Steps 2 through 26c.

STEP 28e

If no further tests are to be made—Restore all keys and remove all patching cords.
C. 1000-Hz Transmission Loss Test of DSA Board Supervisor Telephone Circuit

**Bridged Loss**

2. At DSA switchboard position—
   Connect calling cord of cord circuit to 600Ω milliwatt supply jack.

3. Connect answering cord of cord circuit selected in Step 2 to X jack of TMS.

4. Operate DIAL key of TMS.

5. Using 3P12E cord, connect supervisor multiple jack (other than intercept call jack) to DIAL jack of TMS.

6. Observe reading of meter.

7. Insert double plug of 82A test set into TEL jacks of supervisor telephone circuit.

8. Operate key of 82A test set to normal position.

9. Remove plug of answering cord from X jack and insert into MEAS jack of TMS.

10. Remove plug of patching cord from DIAL jack and insert into second MEAS jack of TMS.

11. Operate MEAS key of TMS.

12. Observe reading of meter.

This reading is the cord circuit loss which should be within requirements.

**Transmitting Loss**

13. Remove plug of answering cord from MEAS jack and insert into X jack of TMS.

14. Remove plug of patching cord from second MEAS jack and insert into DIAL jack of TMS.

15. Insert 310 plug of 82A test set into MEAS jack of TMS.

16. Operate key of 82A test set to T position.

This reading minus reading in Step 6 equals bridged loss which should be within requirements.
STEP | ACTION | VERIFICATION
--- | --- | ---
17 | Observe reading of meter. | This reading minus reading in Step 6 equals transmitting loss which should be within requirements.
18 | For other telephone circuits to be tested—Repeat Steps 2 through 17. | 
19a | If no further tests are to be made—Disconnect all cords and testing equipment. | 

**Offices Having Cord Testing circuit SD-20444-01 or SD-90501-01**

**D. Current Flow Test of Answering and Calling Cord Supervisory Relays—Low-Resistance Sleeve**

6 | On 35-type test set—Operate BATT & GRD Co key. | 
7 | Open switch G and close switch L to 10. | 
8a | If testing answering cords arranged with flashing recall feature—On switchboard—Operate talking key of cord to be tested. | 
9 | On 35-type test set—Insert plug of cord to be tested into T & R jack. | Associated supervisory lamp lighted.
10 | Close locking lever of key 4 and set No. 4 resistances to obtain specified test release value for cord supervisory relay as indicated on MA meter. | 
11 | Depress key 3 and set No. 3 resistances to obtain specified test operate value for cord supervisory relay as indicated on MA meter. | 
12 | Release key 3. | 
13 | Depress keys 2 and 3 and set No. 2 resistances to obtain specified test soak value for cord supervisory relay as indicated on MA meter. | 
14 | Release keys 2 and 3. | 
15 | Using P3E or P3F cord, connect 3R jack to INT jack of cord testing circuit. | 
16 | Simultaneously depress keys 2 and 3. |
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<th>ACTION</th>
<th>VERIFICATION</th>
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</thead>
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<tr>
<td>17</td>
<td>After approximately one second—Release key 2.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>After supervisory lamp flashes three times at uniform intervals—Release key 3.</td>
<td>Supervisory lamp lighted steadily.</td>
</tr>
<tr>
<td></td>
<td>Note: If more flashes are desired, repeat Steps 16 through 18.</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Disconnect P3E or P3F cord from 3R jack and release key 4.</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>For other cords to be tested—Repeat Steps 8a through 19.</td>
<td></td>
</tr>
<tr>
<td>21b</td>
<td>If no further tests are to be made—Restore all keys and remove all patching cords.</td>
<td></td>
</tr>
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### E. Current Flow Test of Answering Cord Supervisory Relays—High-Resistance Sleeve—Cords Not Arranged for Completion of Intercepted Calls

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<tbody>
<tr>
<td>7 Close switch G and open switch L.</td>
<td></td>
</tr>
<tr>
<td>8 Insert plug of answering cord to be tested into T &amp; R jack.</td>
<td></td>
</tr>
<tr>
<td>9a If cord circuit arranged for flashing recall—Insert plug of associated calling cord into CON jack of cord testing circuit and operate talking key.</td>
<td>Supervisory lamp lighted.</td>
</tr>
<tr>
<td>10 Depress key 2 and set No. 2 resistances to obtain specified test operate value for secondary (P1) winding of the answering cord supervisory relay as indicated on MA meter.</td>
<td></td>
</tr>
<tr>
<td>11b If soak value is specified—Depress keys 1 and 2 and set No. 1 resistances to obtain soak value for the relay as indicated on MA meter.</td>
<td>Supervisory lamp extinguished.</td>
</tr>
<tr>
<td>12b Hold keys 1 and 2 for approximately one second after soak value is set up.</td>
<td></td>
</tr>
<tr>
<td>13b After approximately one second—Release keys 1 and 2.</td>
<td>Supervisory lamp lighted.</td>
</tr>
</tbody>
</table>
STEP  ACTION  VERIFICATION

14  Depress key 2.  Supervisory lamp extinguished.

15  Release key 2.  Supervisory lamp lighted.

16  For other cords to be tested—  Repeat Steps 8 through 15.

17c  If no further tests are to be made—  Restore all keys and remove all patching cords.

F. **Current Flow Test of Answering Cord Supervisory Relays—High-Resistance Sleeve—Cords Arranged for Completion of Intercepted Calls**

6  On 35-type test set—  Operate REV key.

7  Open switches G and L.

8  Insert plug of answering cord to be tested into T & R jack.  Back supervisory lamp lighted.

9  Insert plug of associated calling cord into CON jack of cord testing circuit.

10  After a minimum of 5 seconds—  Depress key 2 and set No. 2 resistances to obtain test *operate* value for primary winding of HL supervisory relay as indicated on MA meter.

11  Release key 2.

12a  If test *nonoperate* value is specified for primary winding of HL supervisory relay—  Depress key 1 and set No. 1 resistances to obtain *nonoperate* value as indicated on MA meter.

13a  Release key 1.

14  Remove plug of calling cord from CON jack.

15b  If test *release* value is specified for primary and secondary windings in series of HL supervisory relay—  Depress key 4 and set No. 4 resistances to obtain this value as indicated on MA meter.

16b  Release key 4.
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<th>ACTION</th>
<th>VERIFICATION</th>
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</thead>
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<tr>
<td>17b</td>
<td>Depress keys 3 and 4 and set No. 3 resistances to obtain test <em>operate</em> value for the two windings as indicated on MA meter.</td>
<td></td>
</tr>
<tr>
<td>18b</td>
<td>Release keys 3 and 4.</td>
<td></td>
</tr>
<tr>
<td>19c</td>
<td>If test <em>release</em> value is not specified for primary and secondary windings in series of HL supervisory relay—Depress key 3 and set No. 3 resistances to obtain specified test <em>operate</em> value for the two windings as indicated on MA meter.</td>
<td></td>
</tr>
<tr>
<td>20c</td>
<td>Release key 3.</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Insert plug of calling cord into CON jack.</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>After a minimum of 5 seconds—Depress key 2.</td>
<td>Back supervisory lamp extinguished.</td>
</tr>
<tr>
<td>23</td>
<td>Release key 2.</td>
<td>Back supervisory lamp lighted.</td>
</tr>
<tr>
<td>24a</td>
<td>If test <em>nonoperate</em> value is specified for primary winding of HL supervisory relay—Depress key 1.</td>
<td>Back supervisory lamp remains lighted.</td>
</tr>
<tr>
<td>25a</td>
<td>Release key 1.</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Remove plug of the calling cord from CON jack.</td>
<td></td>
</tr>
<tr>
<td>27b</td>
<td>If test <em>release</em> value is specified for primary and secondary windings in series of HL supervisory relay—Depress keys 3 and 4.</td>
<td>Back supervisory lamp extinguished.</td>
</tr>
<tr>
<td>30c</td>
<td>If test <em>release</em> value is not specified for primary and secondary windings in series HL supervisory relay—Depress key 3.</td>
<td>Back supervisory lamp extinguished.</td>
</tr>
<tr>
<td>32</td>
<td>For other cords to be tested—Repeat Steps 8 through 31c.</td>
<td></td>
</tr>
</tbody>
</table>
STEP ACTION

33d If no further tests are to be made—
    Restore all keys and remove all patching
    cords.

G. Current Flow Test of Calling Cord Supervisory
    Relays—High-Resistance Sleeve

6      On 35-type test set—
       Open switches G and L.

7      Insert plug associated with filter into upper
       T & R jack.

8      Insert plug of cord to be tested into lower
       T & R jack.

9      Depress key 1 and set No. 1 resistances to
       obtain operate soak value covered in 1.07
       for the polarized relay.

10     Release key 1.

11     Depress key 2 and set No. 2 resistances to
       obtain the operate value covered in 1.07.

12     Release key 2.

13     Depress key 3 and set No. 3 resistances to
       obtain the release soak value covered in 1.07.

14     Release key 3.

15     Using P3E or P3F cord, connect 3R jack to
       INT jack of cord testing circuit.

16     Depress key 1.

17     After approximately one second—
       Release key 1.

18     Operate REV key and immediately depress
       key 2.

19     Release key 2.

20     Depress key 3.

21     Release key 3.

22     Release REV key.

VERIFICATION

Front supervisory lamp lighted.

Front supervisory lamp extinguished.

Front supervisory lamp lighted.

Front supervisory lamp flashes three times at equal intervals.

Front supervisory lamp lights steadily.
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STEP ACTION VERIFICATION

23 For other cords to be tested— Repeat Steps 8 through 22.

24a If no further tests are to be made— Restore all keys and remove all patching cords.

Offices Not Having A Cord Testing Circuit

H. Current Flow Test of Answering and Calling Supervisory Relays—Low-Resistance Sleeve

6 On 35-type test set— Operate BATT & GRD CO key.

7 Open switch G and close switch L to 10.

8a If testing answering cords arranged with flashing recall feature— On switchboard— Operate talking key of cord to be tested.

9 On 35-type test set — Insert plug of cord to be tested into T & R jack.

10 Close locking lower of key 4 and set No. 4 resistance to obtain specified test release value for cord supervisory relay as indicated on MA meter.

11 Depress key 3 and set No. 3 resistances to obtain specified test operate value of cord supervisory relay as indicated on MA meter.

12 Release key 3.

13 Depress keys 2 and 3 and set No. 2 resistances to obtain specified test soak value of cord supervisory relay as indicated on MA meter.

14 Release keys 2 and 3.

15 Simultaneously depress keys 2 and 3.

16 After approximately one second— Release key 2, then immediately release and depress key 3 three times at a rate of approximately two times per second.

17 Release key 3.

Associated supervisory lamp lighted.

Associated supervisory lamp lighted steadily.

Associated supervisory lamp flashes three times in unison with the release and operation of key 3.
### Current Flow Test of Answering Cord Supervisory Relays—High-Resistance Sleeve—Cords Not Arranged for Completion

1. **Note:** If it is desired to obtain more flashes, repeat Steps 15 through 17.

2. For other cords to be tested—Repeat Steps 8a through 17.

3. If no further tests are to be made—Restore all keys and remove all patching cords.

### Steps

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<th>STEP</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>On 35-type test set—Operate BATT &amp; GRD CO and REV keys.</td>
</tr>
<tr>
<td>7</td>
<td>Open switch L and close switch G.</td>
</tr>
<tr>
<td>8</td>
<td>Insert plug of answering cord to be tested into T &amp; R jack. Supervisory lamp lighted.</td>
</tr>
<tr>
<td>9a</td>
<td>If cord circuit is arranged for flashing recall—Using 893 cord, connect ground to sleeve of associated calling cord.</td>
</tr>
<tr>
<td>10a</td>
<td>Operate associated talking key.</td>
</tr>
<tr>
<td>11</td>
<td>Depress key and set No. 2 resistances to obtain specified test operate value for secondary or P1 winding of the answering cord supervisory relay as indicated on MA meter.</td>
</tr>
<tr>
<td>12</td>
<td>Release key 2.</td>
</tr>
<tr>
<td>13b</td>
<td>If soak value is specified—Depress keys 1 and 2 and set No. 1 resistance to obtain soak value for secondary or P1 winding of the answering cord supervisory relay as indicated on MA meter.</td>
</tr>
<tr>
<td>14b</td>
<td>Hold keys 1 and 2 depressed for approximately one second after soak value is set up.</td>
</tr>
<tr>
<td>15b</td>
<td>After approximately one second—Release key 1 and 2. Supervisory lamp lighted.</td>
</tr>
<tr>
<td>16</td>
<td>Depress key 2. Supervisory lamp extinguished.</td>
</tr>
<tr>
<td>17</td>
<td>Release key 2. Supervisory lamp lighted.</td>
</tr>
</tbody>
</table>
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**STEP** | **ACTION** | **VERIFICATION**
--- | --- | ---
18 | For other cords to be tested— Repeat Steps 8 through 17. |  
19c | If no further tests are to be made— Restore all keys and remove all patching cords. |  

**J. Current Flow Test of Answering Cord Supervisory Relays—High-Resistance Sleeve—Cords Arranged for Completion of Intercepted Calls**

6 | On 35-type test set— Operate REV key. |  
7 | Open switches G and L. |  
8 | Insert plug of answering cord to be tested into T & R jack. | Back supervisory lamp lighted.  
9 | Using two 893 cords, connect ground to sleeve and to ring of associated calling cord. |  
10 | After a minimum of 5 seconds— Depress key 2 and set No. 2 resistances to obtain test *operate* value for primary winding of HL supervisory relay as indicated on MA meter. |  
11 | Release key 2. |  
12a | If test *nonoperate* value is specified for primary winding of HL supervisory relay— Depress key 1 and set No. 1 resistances to obtain this value as indicated on MA meter. |  
13a | Release key 1. |  
14 | Remove ground from sleeve and ring of calling cord. |  
15b | If test release value is specified for primary and secondary windings in series— Depress key 4 and set No. 4 resistances to obtain this value as indicated on MA meter. |  
16b | Release key 4. |  
17b | Depress keys 3 and 4 and set No. 3 resistances to obtain test *operate* value for the two windings as indicated on MA meter. |  
18b | Release keys 3 and 4. |
<table>
<thead>
<tr>
<th>STEP</th>
<th>ACTION</th>
<th>VERIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>19c</td>
<td>If test <em>release</em> value is not specified for primary and secondary windings in series of HL supervisory relay—Depress key 3 and set No. 3 resistances to obtain specified test <em>operate</em> value for the two windings as indicated on MA meter.</td>
<td></td>
</tr>
<tr>
<td>20c</td>
<td>Release key 3.</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Replace ground on sleeve and ring of calling cord.</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>After a minimum of 5 seconds—Depress key 2.</td>
<td>Back supervisory lamp extinguished.</td>
</tr>
<tr>
<td>23</td>
<td>Release key 2.</td>
<td>Back supervisory lamp lighted.</td>
</tr>
<tr>
<td>24a</td>
<td>If test <em>nonoperate</em> value is specified for primary winding of HL supervisory relay—Depress key 1.</td>
<td>Back supervisory lamp remains lighted.</td>
</tr>
<tr>
<td>25a</td>
<td>Release key 1.</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Remove ground from sleeve and ring of calling cord.</td>
<td></td>
</tr>
<tr>
<td>27b</td>
<td>If test <em>release</em> value is specified for primary and secondary windings in series of HL supervisory relay—Depress keys 3 and 4.</td>
<td>Back supervisory lamp extinguished.</td>
</tr>
<tr>
<td>30c</td>
<td>If test <em>release</em> value is not specified for primary and secondary windings in series of HL supervisory relay—Depress key 3.</td>
<td>Back supervisory lamp extinguished.</td>
</tr>
<tr>
<td>32</td>
<td>For other cords to be tested—Repeat Steps 8 through 31c.</td>
<td></td>
</tr>
<tr>
<td>33d</td>
<td>If no further tests are to be made—Restore all keys and remove all patching cords.</td>
<td></td>
</tr>
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SECTION 216-742-501

STEP ACTION VERIFICATION

K. Current Flow Test of Calling Supervisory Relays—High Resistance Sleeve

6 On 35-type test set—
   Open switches G and L.

7 Insert plug associated with filter into upper T & R jack.

8 Insert plug of cord to be tested into lower T & R jack. Front supervisory lamp lighted.

9 Depress key 1 and set No. 1 resistances to obtain the operate soak value covered in 1.07 for the polarized relay.

10 Release key 1.

11 Depress key 2 and set No. 2 resistances to obtain the operate value covered in 1.07.

12 Release key 2.

13 Depress key 3 and set No. 3 resistances to obtain the release soak value covered in 1.07.

14 Release key 3.

15 Depress key 1.

16 After approximately one second—
   Release key 1.

17 Operate REV key and immediately depress key 2. Front supervisory lamp extinguished.

18 Release key 2. Front supervisory lamp lighted.

19 Depress key 3.

20 After approximately one second—
   Release and depress key 3 three times. Front supervisory lamp flashes three times in unison with key 3.

21 Release key 3. Front supervisory lamp lighted steadily.

22 Release REV key.

23 For other cords to be tested—
   Repeat Steps 8 through 22.
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