SUPPLEMENTARY OUTWARD POSITION CABINET

NO. 1 TOLL SWITCHBOARD

1. GENERAL

1.01 This section describes tests of the various circuits associated with the supplementary outward position cabinets, using test circuits SD-61423-01, SD-62140-01, SD-62140-02, SD-62148-01, SD-62148-02, SD-62218-01, SD-62359-01 or SD-64468-01.

1.02 The tests are as follows:

(A) Operation Tests
(B) Supervisory Lamps
(C) Ringing Keys
(D) A-C Continuity
(E) Splitting Keys
(F) Grouping Circuit

1.03 Tests (A) to (E) apply to the cord circuits associated with the supplementary outward position cabinets.

1.04 Test (F) applies to the grouping circuits.

1.05 The tests require the services of two testers, one at the supplementary outward position cabinet under test and the other at the associated outward No. 1 toll switchboard position.

1.06 The tests covered in this section presume that the associated cord circuits in the toll switchboard positions meet the test requirements imposed by the office testing equipment.

1.07 Most of the key designations of the supplementary outward position cabinets are shown on the rear of the key fronts only. Fig. 1 shows a front view of the cabinet with key and lamp designations added.

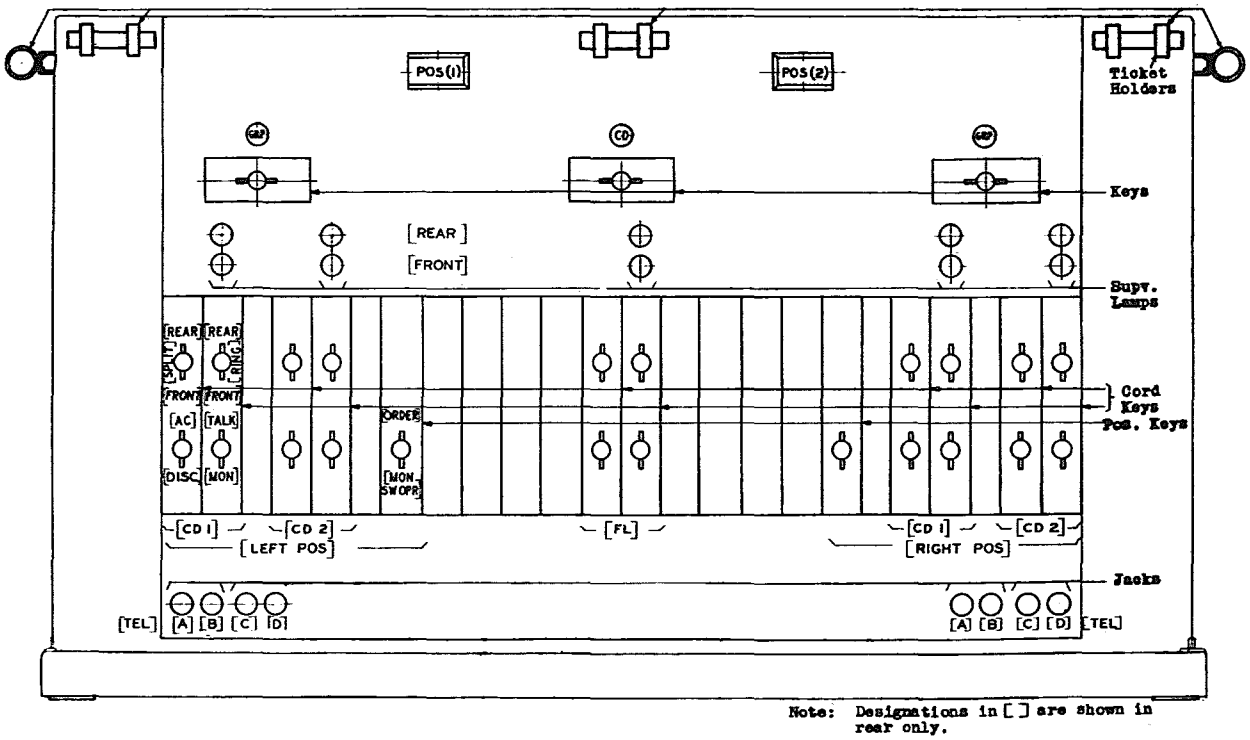
2. APPARATUS

Tests (B) to (E)

2.01 Test circuit per SD-61423-01, SD-62140-01, SD-62140-02, SD-62148-01, SD-62148-02, SD-62218-01, SD-62359-01 or SD-64468-01 and associated testing facilities normally used for testing the cord circuits of the toll switchboard.

Tests (A) to (F)

2.02 Operator's telephone sets as required at the toll switchboard position and the cabinet position.



Note: Designations in [ ] are shown in rear only.

Fig. 1 - Front View - Supplementary Outward Position Cabinet

3. PREPARATION

Test (B)

3.01 Prepare the test circuit as required for making the d-c and a-c supervisory relay tests in accordance with the section in the A200 division on No. 1 toll cord circuits.

4. METHOD

(A) Operation Tests

4.01 Connect an operator's telephone set to the C and D jacks of the cabinet position at which the cord circuits are to be tested.

4.02 Operate the talking (TALK) key of the cord circuit to be tested. Operate the order (ORDER) key.

Note: When this test is applied to the floating cord, operate the floating cord transfer key CD in the direction of the position being used, then repeat these tests from the other cabinet position with the CD key operated in the opposite direction.

Toll Switchboard Position

4.03 Connect an operator's telephone set to the position at which the cord circuits are to be tested.

4.04 Operate the TR position key of the transfer circuit for transferring the cord circuits to the cabinet.

4.05 Observe that the front supervisory lamp associated with the cord under test flashes at 120 IPM.

4.06 Operate the associated talking key.

Supplementary Cabinet Position

4.07 Observe that a satisfactory talking circuit to the toll switchboard position is established.

4.08 Restore the order key and operate the await call (AC) key.

Toll Switchboard Position

4.09 Observe that the front supervisory lamp lights steadily. Where a type "A" cord is involved, connect cord A to the TK jack.

Supplementary Cabinet Position

4.10 Observe that the talking circuit to the toll switchboard is still maintained. Restore the await call key and operate the monitor switching operator (MON SW OPR) key. Observe that the tester at the toll switchboard position can be heard but that it is not possible to talk to him.

Toll Switchboard Position

4.11 Observe that the toll supervisory lamp is extinguished.

Supplementary Cabinet Position

4.12 Restore the monitor switching operator key and operate the monitoring (MON) key. Observe that the tester at the toll switchboard position can still be heard but that it is not possible to talk to him.

4.13 Restore the monitoring key and operate the disconnect (DISC) key.

Toll Switchboard Position

4.14 Observe that the rear supervisory lamp lights steadily.

Supplementary Cabinet Position

4.15 Restore the disconnect and the CD key if operated. Disconnect the operator's telephone set from the position unless other tests are to be made at this time.

Toll Switchboard Position

4.16 Restore the talking key and in the case of type "A" cord circuits, disconnect the cord from the TK jack. Remove the operator's telephone set from the position unless other tests are to be made at this time.

(B) Supervisory Lamps

Toll Switchboard Position

4.17 Arrange the test circuit for making the a-c and d-c supervisory relay tests in accordance with the section in the A200 division on No. 1 cord circuits.

4.18 Connect an operator's telephone set to the toll switchboard position and operate the TR key of the transfer circuit.

4.19 Connect the cord circuit to be tested to the test circuit or test set as required to operate the d-c and a-c supervisory relays associated with the cord circuit.

Supplementary Cabinet Positions

4.20 Connect an operator's telephone set to the cabinet position at which the cord circuits are to be tested.

4.21 Observe that one of the supervisory lamps associated with the cord circuit under test flashes or lights followed by the flashing or lighting of the other supervisory lamp.

4.22 Operate the associated talking key to extinguish the lower supervisory lamp. Operate the order key when it is desired to signal the tester at the toll switchboard position. When this test is being applied to the floating cord, operate the floating cord transfer key CD in the direction of the position in use at the time.

Toll Switchboard Position

4.23 When the front cord supervisory lamp flashes at 120 IPM, operate the associated talking key to establish communication with the cabinet position.

4.24 Restore all keys and remove all connections set up for this test unless other tests are to be made at this time.

Supplementary Cabinet Position

4.25 Restore all keys and disconnect the operators telephone set unless other tests are to be made at this time.

(C) Ringing Keys

Toll Switchboard Position

4.26 Arrange the test circuit for making ringing key tests in accordance with the section in the A200 division on No. 1 cord circuits.

4.27 Connect an operator's telephone set to the position and operate the TR key of the transfer circuit.

Supplementary Cabinet Position

4.28 Connect an operator's telephone set to the position and operate the order key and the talking key of the cord circuit to be tested.

Toll Switchboard Position

4.29 When the front supervisory lamp of the cord circuit flashes at 120 IPM, operate the associated talking key. Connect the cord circuit to the jacks of the test circuit. Restore the talking key.

Supplementary Cabinet Position

4.30 Operate and then release the ringing key of the cord circuit under test to the lower position (RING FRONT). Observe that the lower supervisory lamp lights steadily.

Note: Disregard any flickering of the upper supervisory lamp which may occur.

4.31 Operate and then restore the associated talking key. Observe that the supervisory lamp is extinguished.

4.32 Operate and then release the ringing key to the upper position (RING REAR). Observe that the lower supervisory lamp lights steadily. (See note in 4.30)

4.33 Operate and then restore the talking key. Observe that the supervisory lamp goes out.

4.34 Restore all keys and disconnect the operator's telephone set unless other tests are to be made at this time.

Toll Switchboard Position

4.35 Restore all keys and remove all connections set up for this test unless other tests are to be made at this time.

(D) A-C Continuity

Toll Switchboard Position

4.36 Arrange the test circuit and control set for making the a-c continuity test in accordance with the section in the A200. division on No. 1 cord circuits.

4.37 Operate the TR key of the transfer circuit and connect an operator's telephone set to the position.

Supplementary Cabinet Position

4.38 Connect an operator's telephone set to a cabinet position adjacent to the position at which the cord circuits are to be tested.

4.39 Operate the order key and the talking key of a cord circuit of the position to establish communication with the tester at the toll switchboard position.

Toll Switchboard Position

4.40 When the front supervisory lamp of a cord circuit flashes at 120 IPM, operate the associated talking key, establishing communication with the tester at the cabinet position.

4.41 Connect the cord circuit to be tested to the jacks of the test circuit.

4.42 Listen in the test receiver for tone. Turn the knob of the potentiometer until a minimum tone is heard. This condition should exist when the pointer is approximately at "0" indicating a balanced condition. If at any time, the tone increases appreciably it is an indication of a loose connection or an unbalance in the cabinet circuit.

Note: Slight clicks may be heard when the talking key or monitoring key at the cabinet is operated. Unusually loud clicks from this source should

4.42 (Continued)

be investigated as a possible indication of trouble.

Supplementary Cabinet Position

4.43 When this test is applied to the floating cord, perform the operations described in 4.44 to 4.48 with the floating cord transfer key CD operated so as to connect the cord to a position other than that used for communication. Repeat the test for each position of the CD key.

4.44 Apply slight pressure sidewise in each direction to the ringing and splitting keys. Tap lightly on the key top of these keys to detect loose connections and defective key contacts.

4.45 Operate the monitoring key and then operate the talking key of the cord circuit under test. Apply slight pressure sidewise to the CD key if operated, to the talking key and to the grouping key of the position and tap lightly on the keytop of these keys. Operate the grouping key to the left and then to the right, applying slight pressure sidewise and tapping the keytop lightly for each position of the key.

4.46 Operate the ringing key slowly to the upper position, then allow this key to snap back to its normal position.

4.47 Operate the ringing key slowly to the lower position, then allow this key to snap back to its normal position.

4.48 Restore the talking key of the cord circuit under test.

Toll Switchboard Position

4.49 Operate the G key in the control set.

Supplementary Cabinet Position

4.50 Repeat the operations described in 4.44 to 4.48.

4.51 Restore all keys and disconnect the operator's telephone set unless other tests are to be made at this time.

Toll Switchboard Position

4.52 Restore all keys and remove all connections set up for this test unless other tests are to be made at this time.

(E) Splitting Keys

Toll Switchboard Position

4.53 Arrange the test circuit for making the splitting key test in accordance with the sections in the A200. division on No. 1 toll cord circuits.

4.54 Connect an operator's telephone set to the position. Operate the TR key of the transfer circuit.

Supplementary Cabinet Position

4.55 Establish a talking circuit to the toll switchboard position as described in 4.38 and 4.39.

Toll Switchboard Position

4.56 When the front supervisory lamp of a cord circuit flashes at 120 IPM, operate the associated talking key. Connect the cord circuit to the test circuit in such a manner that tone will be sent over the rear cord.

Note: With most test circuits the tone originates from the TRK or T jack. With test circuits SD-61423-01 and SD-62218-01, the tone originates from the TOLL jack.

Supplementary Cabinet Position

4.57 Connect an operator's telephone set to the position associated with the cord under test. When this test is being applied to the floating cord, operate the transfer key CD in the direction of the position used for the test.

4.58 Operate the talking key of the cord circuit under test. Observe that tone is heard.

4.59 Operate the associated splitting key to the upper position (SPLIT REAR). Observe that tone is still heard.

4.60 Operate the splitting key to the lower position (SPLIT FRONT). Observe that tone is no longer heard.

4.61 Restore the splitting key.

Toll Switchboard Position

4.62 Transpose the front and rear cords of the cord circuit with respect to their positions in the jacks of the test circuit.

Supplementary Cabinet Position

4.63 Observe that tone is heard. Operate the splitting key to the lower position. Observe that tone is still heard.

4.64 Operate the splitting key to the upper position. Observe that tone is no longer heard.

4.65 Restore all keys and operator's telephone sets unless other tests are to be made at this time.

Toll Switchboard Position

4.66 Restore all keys and remove all connections set up for this test unless other tests are to be made at this time.

(F) Grouping Circuit

Supplementary Cabinet Position

4.67 Operate the GRP key of the grouping circuit to be tested to the left position (assuming that there is a cabinet position at the left).

4.68 Connect an operator's telephone set to the cabinet position at the left of the operated grouping key.

4.69 Operate the talking and await call keys of one of the cord circuits (not a floating cord) at the position normally associated with the grouping key under test.

Toll Switchboard Position

4.70 Operate the TR key of the transfer circuit, observe that the toll supervisory lamp of a cord circuit lights steadily.

4.71 Connect an operator's telephone set to the position and operate the associated talking key. Where a type "A" cord is involved in the test, connect cord A to the TK jack.

Supplementary Cabinet Position

4.72 Observe that a satisfactory talking circuit to the toll switchboard position is established.

4.73 Restore the await call key and operate the monitoring key of the same cord. Observe that the tester at the switchboard position can be heard but that it is not possible to talk to him.

Toll Switchboard Position

4.74 Observe that the toll supervisory lamp is extinguished.

Supplementary Cabinet Position

4.75 Operate the GRP key under test to the right position (assuming that there is a cabinet position to the right).

4.76 Transfer the operator's telephone set to the cabinet position at the right of the operated grouping key. Repeat the tests covered in 4.69 to 4.74.

4.77 Restore the monitoring key and disconnect the operator's telephone set.

Toll Switchboard Position

4.78 Restore all keys and connections to normal.

5. REPORTS

5.01 The required record of these tests should be entered on the proper form.