

ATTENDANT LOOP CIRCUIT SD-65813-01
AND POSITION CIRCUIT SD-65814-01
OPERATION TESTS
USING JACK MOUNTING ED-60613-30, G5
STEP-BY-STEP TYPE PBX

1. GENERAL

1.01 This section describes a method of testing the attendant loop circuit and position circuit associated with a telephone console in a step-by-step PBX arranged for switched loop operation. The local installation of jack mounting ED-60613-30, G5 is required, with a PBX attendant trunk SD-65815-01 wired to the jacks and lamp socket as per Fig. 1. The jack mounting shall be installed at a location convenient to the attendant loop circuits. The attendant trunk should be chosen as to its availability for testing purposes. The TST jack, part of ED-60613-30, G5 mounting will be wired to a spare station line if available.

1.02 This section is reissued to include the 1- and 2-type telephone console, to make minor revisions, and to bring the section up to date.

1.03 The tests covered are:

A. *Position Circuit Operation:* The following features are checked. (1) Position available. (2) Position busy. (3) Supervisor assistance. (4) Station line. (5) Sender seizure. (6) Audible signal. (7) Volume control. (8) Calls waiting. (9) Busy verification.

B. *Attendant Loop Circuit:* The following features are checked. (1) Seizure. (2) Split. (3) Sender seizure. (4) Completion to idle extension. (5) Hold. (6) Calling station transfer. (7) Called station transfer. (8) Release forward. (9) Completion to busy extension. (10) Camp-on. (11) Flash. (12) Ring-back. (13) Release.

C. *Position Chain Circuit:* This test checks that succeeding attendant loops will be chosen on successive calls to a position and the attendant loop previously picked will not be available until all loops have been chosen.

1.04 Tests A and B require that the telephone console associated with the circuits under test and the attendant trunk wired to the test circuit be removed from service.

1.05 Test C is made with all other positions made busy to the call distributor except the one under test.

1.06 Tests A and C require action and verification at the telephone console.

1.07 Test B requires action and verification at the telephone console, telephone set, and hand test set connected to the jack mounting test circuit.

1.08 Removal of the attendant headset from headset jacks C and D on a telephone console will make that position busy to the call distributor.

1.09 The ATT RDY lamp on the telephone console is associated with the illuminated RLS key.

1.10 On all tests where the action step requires a key to be depressed, the key is nonlocking and should be depressed momentarily, then released.

1.11 Dialing Procedure for DC Pushbutton Type Dial:

(1) Attendant depresses and holds START key until RDY lamp becomes steadily lighted.

- Γ (2) Attendant releases START key.
- (3) Attendant pushbutton dials the required number.
- (4) Attendant depresses and releases END key signaling dialing completed.

Note: A fluttering RDY lamp at the attendant position is a warning to the attendant of a stop dial indication. This fluttering is a normal condition when the dialing speed of the attendant is too fast and on dial 9 central office trunk calls. The attendant waits for a steady RDY light before continuing to dial. A flashing (120 ipm) RDY lamp indicates a trouble condition to the attendant. To clear the position the attendant depresses the RLS DEST key. The attendant then redials in the normal manner.

1.12 If this test is to be performed while the night closing circuit is activated (night service), the ringing machine must be started manually to provide interrupter signals for the console. To manually start the ringing machine, operate the MS or RM-ST key or ground the motor start (MS) lead using a W1U cord, as applicable.

1.13 The designations in parentheses in Part 4 are used with the 621-type telephone set L (8A telephone console).

1.14 **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.

3. PREPARATION

STEP

ACTION

VERIFICATION

Tests A and B

- | | | |
|---|---|-------------------------------------|
| 1 | Block operated L1 relay of attendant trunk wired to jacks on jack mounting. | Busy lamp lighted on jack mounting. |
|---|---|-------------------------------------|

Note: If L1 relay is already operated, trunk is in use. Wait until trunk is released.

2. APPARATUS

All Tests

2.01 Two attendant headsets.

Tests A and B

2.02 One jack mounting and associated apparatus per ED-60613-30, G5 relay rack mounted and wired per Fig 1.

2.03 Test cord, W2W cord, 6 feet long, equipped with a 310 plug at one end and a 360B and a 360C tool at the other end (2W17A cord) (for connecting attendant loop to attendant trunk).

2.04 Two test cords, W3M cord, 6 feet long, equipped with a 310 plug at one end and a 360A, 360B, and 360C tool at the other end (3W4A cord) (for connecting attendant loop to attendant trunk).

Test B

2.05 One 500-type telephone set, or equivalent.

2.06 Test cord, W2DL cord, 5-1/2 feet long, equipped with a 310 plug at one end and two spaded tips at the other end (2W42A cord) (for connecting telephone sets to attendant trunk).

2.07 One 1011G handset (dial hand test set), equipped with a 2W39A cord assembly, consisting of a W2CL cord, 471A jack, and 240A plug.

2.08 Eight 624B tools, for connecting 360-type tool to wire-wrap terminals.

2.09 Blocking tools as required. Use tools and apply as covered in Section 069-020-801.

STEP	ACTION	VERIFICATION
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|---|--|--|
| 2 | Block nonoperated GT relay of attendant trunk wired to jacks on jack mounting. | |
| 3 | Connect B, C, D jacks on jack mounting to desired attendant loop as shown in Fig. 1. | |

Test B

- | | | |
|---|---|--|
| 4 | Insert plugs of telephone set and hand test set into A, E jacks as shown in Fig. 1. | |
| 5 | Connect terminals of spare station line to 11B connecting block as shown in Fig. 1. | |

4. METHOD

STEP	ACTION	VERIFICATION
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A. Position Circuit Operation

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|------|---|--|
| → 4 | At telephone console associated with circuit under test —
Insert attendant headset into C, D, headset jacks. | PA RLS (ATT RDY) lamp lighted. |
| 5 | Operate audible signal key to ON position. | |
| → 6 | Turn POS BSY key (see 1.10). | POS BSY lamp lighted.
PA RLS (ATT RDY) lamp extinguished. |
| → 7 | Turn POS BSY key. | POS BSY lamp extinguished.
PA RLS (ATT RDY) lamp lighted. |
| 8 | Depress SUPV key. | SUPV lamp lighted. |
| 9 | Insert second attendant handset into A, B headset jacks. | SUPV lamp extinguished. |
| 10 | Remove attendant headset from A, B headset jacks. | |
| ↗ 11 | Depress OUTLINE (LINE) key. | PBX dial tone heard.
Outline (LINE) lamp lighted. |
| 12 | Depress START key.
Refer to 1.11. | RDY (RL) lamp lighted. |
| ↘ 13 | Key "O" operator, depress END key. | At completion of pulsing —
RDY (RL), PA RLS (ATT RDY) lamp extinguished.
SRC (TRK) lamp flashed at 120 ipm.
Audible signal heard.
After 3 to 5 seconds —
CW lamp lighted. |

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STEP	ACTION	VERIFICATION
↗ 14	Depress pickup (trunk) key associated with flashing lamp.	KEY, SRC (TRK) lamps lighted steadily. CW lamp extinguished. Audible signal removed.
15	Depress PA RLS (RLS) key.	KEY, SRC (TRK) lamps extinguished. PA RLS (ATT RDY) lamp lighted. Attendant connected to OUTLINE (LINE) circuit.
16	Depress PA RLS (RLS) key.	Attendant released from OUTLINE (LINE) circuit. Outline (LINE) lamp extinguished.
17	Turn POS BSY key.	PA RLS (ATT RDY) lamp extinguished. BV lamp lighted on all positions.
18	Depress START key.	RDY (RL) lamp lighted.
19	Key number of test line, then depress END key.	At completion of pulsing — RDY (RL) lamp extinguished. BV lamp flashed at 60 ipm at position under test.
↘ 20	Depress PA RLS (RLS) key.	BV lamps extinguished on all positions. PA RLS (ATT RDY) lamp lighted.
21a	If no further tests are to be made — Remove cords from attendant loop and attendant trunk circuit.	
22a	Remove blocking tools from L1, GT relays of attendant trunk.	

B. Attendant Loop Circuit

Note: Verifications preceded by a parenthesis need not be checked unless the other required verifications are not received.

→ 6	At telephone set — Take receiver off hook.	At telephone console — Audible signal heard. SRC (TRK) lamp flashed at 120 ipm. PA RLS (ATT RDY) lamp extinguished. After 3 to 5 seconds — CW lamp lighted.
→ 7	Depress pickup (trunk) key associated with flashing SRC (TRK) lamp.	Audible signal removed. KEY, SRC (TRK) lamps lighted steadily. CW lamp extinguished. (At attendant loop — (AT, AT1, L1 relays operated. (AV relay released.

STEP	ACTION	VERIFICATION
↗ 8	Depress EXCL SRC (SPLIT) key.	EXCL SRC (SPLIT) lamp lighted. Attendant excluded from the telephone set. (At attendant loop — (SP relay operated.
9	Depress START key.	RDY (RL) lamp lighted. (At attendant loop — (SA, SC relays operated.
10	Key station number wired to E jack of jack mounting, then depress END key.	At completion of pulsing — RDY (RL) lamp extinguished. Destination (station) lamp flashed at 30 ipm. (At attendant loop — (SA relay released.
11	At hand test set — Operate switch to TALK.	(At attendant loop — (AS, AS1 relays operated. Ringing tone removed. At telephone console — Destination (station) lamp lighted steadily. Attendant connected to hand test set.
↵ 12	Depress pickup (trunk) key.	EXCL SRC (SPLIT) lamp extinguished. Attendant connected to telephone set and hand test set. (At attendant loop — (SP relay released.
13	Depress HOLD key.	KEY lamp flashed at 30 ipm. (At attendant loop — (AV, H relays operated.
→ 14	Depress PA RLS (RLS) key.	PA RLS (ATT RDY) lamp lighted. Attendant removed from connection. (At attendant loop — (AT, AT1 relays released.
15	At telephone set — Depress switch hook momentarily.	(At attendant loop — (RT relay operated. (L relay released and reoperated. At telephone console — SRC (TRK) lamp flashed at 120 ipm. PA RLS (ATT RDY) lamp extinguished. Audible signal heard.
→ 16	Depress pickup (trunk) key.	KEY, SRC (TRK) lamps lighted steadily. Audible signal removed. Attendant connected to connection. (At attendant loop — (AV, H, RT relays released. (AT, AT1 relays operated.

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STEP	ACTION	VERIFICATION
17	Depress HOLD key.	KEY lamp flashed at 30 ipm. (At attendant loop — (AV, H relays operated.
↗ 18	Depress PA RLS (RLS) key.	PA RLS (ATT RDY) lamp lighted. Attendant removed from connection. (At attendant loop — (AT, AT1 relays released.
19	At hand test set — Operate switch to MON, TALK.	(At attendant loop — (RS relay operated. (AS, AS1 relays released, reoperated. At telephone console — Destination (station) lamp flashed at 120 ipm. PA RLS (ATT RDY) lamp extinguished. Audible signal heard.
20	Depress pickup (trunk) key.	KEY, destination (station) lamps lighted steadily. Audible signal removed. Attendant connected to connection. (At attendant loop — (AV, H, RS relays released. (AT, AT1 relays operated.
↳ 21	Depress RLS DEST (RLS FWD) key.	Destination (station) lamp extinguished. (At attendant loop — (AS, AS1, SC relays released. (CT relay released, reoperated. At hand test set — No dial tone heard.
22	Depress HOLD key.	KEY lamp flashed at 30 ipm. (At attendant loop — (H relay operated.
→ 23	At telephone set — Place receiver on hook.	(At attendant loop — (L relay released. At telephone console — SRC (TRK) lamp extinguished.
→ 24	Depress START key.	RDY (RL) lamp lighted. (At attendant loop — (SA, SC relays operated.
25a	If camp-on is not provided — At hand test set — Operate switch to MON.	

STEP	ACTION	VERIFICATION
→ 26	At telephone console — Key station number wired to E jack of jack mounting, then depress END key.	At completion of pulsing — RDY (RL) lamp extinguished. <i>If camp-on is not provided —</i> Destination (station) lamp flashed at 30 ipm. At hand test set — Ringing tone heard in receiver. <i>If camp-on is provided —</i> Destination (station) lamp flashed at 60 ipm. Attendant hears busy tone.
27b	If camp-on is provided — Depress CAMP-ON key.	Busy tone removed. At hand test set — 1-1/2-second camp-on indication tone heard. (At attendant loop — (CB relay operated, released.
28b	Operate switch to MON.	Ringing tone heard in receiver. At telephone console — Destination (station) lamp flashed at 30 ipm.
29	At hand test set — Operate switch to TALK.	(At attendant loop — (AS, AS1 relays operated. Ringing tone removed. At telephone console — Destination (station) lamp lighted steadily.
30	Depress, release SIG DEST (FL) key approximately twice a second.	(At attendant loop — (SA relay operated, released. At hand test set — Clicks heard in receiver.
31	At telephone console — Depress pickup (trunk) key.	KEY lamp lighted steadily. (At attendant loop — (H relay released.
32	Depress SIG SRC (RING) key approximately 2 seconds, then release.	(At attendant loop — (RB, RB1 relays operated, released. At telephone set — Bell rings on telephone set.
33	Take receiver off hook.	(At attendant loop — (L relay operated. At telephone console — SRC (TRK) lamp lighted steadily.
↳ 34	Depress PA RLS (RLS) key.	KEY, SRC (TRK), destination (station) lamps extinguished. PA RLS (ATT RDY) lamp lighted. Attendant removed from connection. (At attendant loop — (AT, AT1, CT, CT1, AS, AS1, L, L1, SC (relays released.

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STEP	ACTION	VERIFICATION
35	At telephone set — Place receiver on hook.	
36	At hand test set — Operate switch to MON.	
37c	If no other attendant loop circuits are to be tested — Remove cords from attendant loop and attendant trunk circuit.	
38c	Remove blocking tools from L1, GT relays of attendant trunk.	
39c	Disconnect spare extension from 11B connecting block.	
C. Position Chain Circuit		
1	Make busy all other positions except one under test (see 1.05, 1.08).	
↗ 2	Insert attendant headset into C, D, headset jacks.	PA RLS (ATT RDY) lamp lighted.
3	Depress OUTLINE (LINE) key (see 1.10).	PBX dial tone heard.
4	Depress START key.	RDY (RL) lamp lighted.
5	Key "O" operator, then depress END key.	At completion of pulsing, RDY (RL), PA RLS (ATT RDY) lamps extinguished. SRC (TRK) lamp flashed at 120 ipm. Audible signal heard. After 3 to 5 seconds — CW lamp lighted.
6	Depress SRC (TRK) key associated with flashing lamp.	KEY, SRC (TRK) lamps lighted steadily. CW lamp extinguished. Audible signal removed.
7	Depress PA RLS (RLS) key.	KEY, SRC (TRK) lamps extinguished. ATT RDY lamp lighted. Attendant reconnected to OUTLINE (LINE) circuit.
↘ 8	Depress PA RLS (RLS) key.	Attendant released from OUTLINE (LINE) circuit.
9	Repeat Steps 3 through 8 until all attendant loops have been seized.	Note: On each successive call, the succeeding attendant loop is seized.
10a	If no further tests are to be performed — Restore all positions to service.	

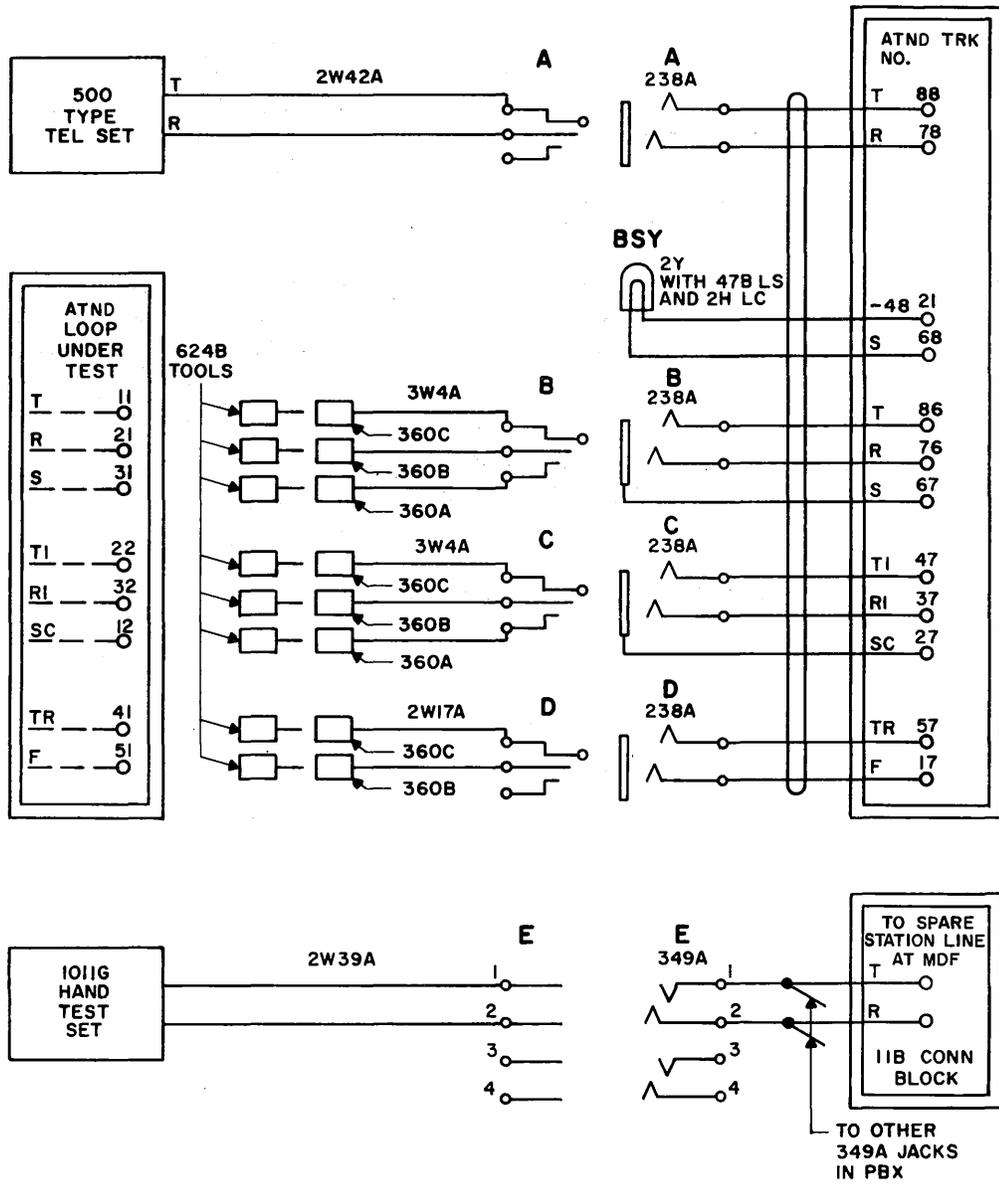


Fig. 1 — Wiring of Attendant Trunk to Jacks and Lamp on ED-60613-30, G5 Jack Mounting