OUTGOING SENDER GROUP-BUSY CIRCUIT
SD-27763-01

1. GENERAL INFORMATION

1.1 This section describes a method of testing the Outgoing Sender Group-Busy Circuit using the facilities of the Terminating Trouble Indicator, (TTI) SD-25284-01, and the Direct Inward Dialing (DID) Test Frame, SD-27766-01. Tests are performed by making all senders of a group busy at one time. Because the senders are removed from service, the tests of this method should be performed during a light traffic period.

1.2 If MF senders are to be tested per this section, they are made busy at the Outgoing Trunk Test Frame, SD-25177-01.

1.3 It may be to testers advantage to prepare a chart showing assignment of LLP line circuits to the various sender sub-groups for use with Paragraph 4.2.

1.4 Test records for recording results of test may be used according to Handbook 50, Section 3.

2. TEST EQUIPMENT

2.1 Accessories

Amount	Code or ITE	Description
1	R9572	Test Receiver
As Reqd.	KS16887-L1	Wedge (Blocking Tool)
As Reqd.	322A	Make-Busy Plugs

3. FUSE VERIFICATION

3.1 Test Procedure - General

CAUTION: To eliminate a fire hazard, verify that direct ground is not present on the alarm bar or stud on a fuse panel before installing its feeder fuse.

NOTE: Use ITE-4442 Volt-Ohmmeter. To avoid damaging the meter, first verify that battery is not present on the alarm bar by using the voltmeter portion of ITE-4442. If clear, switch to the ohmmeter portion for the resistance reading which should be either infinity or approximately 600 ohms.

3.11 Fuse verification is, ordinarily, only required on fuse panels wired by the installer.

3.12 On shop wired and fused fuse panels, inspect the panel for missing or operated fuses. If a fuse is missing or operated, test the fuse terminal for the absence of low resistance ground. Clear any grounded condition and install the proper fuse. At the completion of this test all fuse panels should be fully equipped with proper fuses. These may be either the proper specified type or a dummy.

3.13 The operation of relays in circuits when fuses or potentials are applied is normal in some circuits. Oscillation, chatter, and signs of overheating should be analyzed and cleared immediately.

3.14 ITE-4442 Volt-Ohmmeter should be used to verify all potentials at fused terminals to insure that polarity and voltages are correct. Many errors are caused by the use of the R-9572 Test Receiver on potentials other than -48 volts. Handbook 100, TMO-4442, provides full instructions for the use of the volt-ohmmeter.

3.15 When the R-9572 Test Receiver is used, avoid placing it directly on the ear.

3.2 Fusing Tests: Using fuses of the correct type, as indicated by the circuit drawing and fuse panel designations, install the fuses listed in Table A on at a time. Verify that each fuse is associated with the correct circuit and is free from cross with other unfused posts on the panel.

3.3 Check for presence of frame ground at punchings shown in Table B.

4. SENDER GROUP-BUSY (IMMEDIATE AND DELAYED ALARM)

4.1 At DID test frame, operate key DIA. Using 322A make-busy plugs, insert plug into MB jack of all senders within a group. Minor alarm sounds and associated SGB- or SGBI lamp lights at TTI frame.

4.2 Using the prepared test chart or office wiring lists, check that all LLP line circuits, assigned to sender group under test, has its "D" relay operated.

4.3 At the TTI, remove one of the make-busy plugs that was inserted in Paragraph 4.1. The alarm continues and lamp SGB- or SGBI remains lighted.

TABLE A

Battery				
SD	Fuse Designation	Potential	Amperage	Test Location
27763-01	A (1, 4, 7, 10, 13, 16)	-48v SIG	1 1/3	A16 (CB Unit)
	A (2, 5, 8, 11, 14, 17)	-48v SIG	1 1/3	A17 (CB Unit)
	A (3, 6, 9, 12, 15, 18)	-48v SIG	1 1/3	A18 (CB Unit)
	B	-48v SIG	1 1/3	B11 (CA Unit)
	C1	"	"	B12 (CA Unit)
	C2	"	"	B22
	C3	"	"	B32
	C4	"	"	B13
	C5	"	"	B23
	C6	"	"	B33
27763-01	D1-6	-48v SIG	1 1/3	A26 (CB Unit)

TABLE B

Ground			
SD	Terminal Strip	Punching	Unit
27763-01	B	51	CA
	B	52	CA
	A	51	CB
	A	52	CB
	A	53	CB
	A	55	CB
	A	56	CB
	A	57	CB
27763-01	A	58	CB

4.4 Momentarily operate key OSGB. Lamps SGB- or SGBI are extinguished and alarm is silenced.

4.5 Restore key DIA to normal.

4.6 At DID test frame, reinsert make-busy plug removed in Paragraph 4.3. Check that within 7 - 15 seconds, a minor alarm sounds and SGB- or SGBI lamp lights on TTI frame.

NOTE: If test of Paragraph 4.6 is repeated, allow two minutes between tests.

4.7 Remove all make-busy plugs used for test and momentarily operate key OSGB.

4.8 Repeat tests of Paragraphs 4.1, 4.2, and 4.7 on each sender group assigned within office.

5. FALSE SENDER BUSY

5.1 At sender group busy circuit, momentarily operate any SG- relay. Lamp FSB lights on unit and major alarm sounds. Also verify lamp FSB lights at TTI frame.

5.2 At group busy circuit momentarily operate key FSB. Check that alarm is silenced and FSB lamp on unit and at TTI are extinguished.

6. TRAFFIC REGISTER OPERATION

6.1 Make busy any Terminating Marker at TTI.

6.2 At associated Terminating Marker Applique Circuit, block operated all the following relays (as provided): PEG, ASB, DID, and AIS.

6.3 At outgoing sender group busy circuit, operate in turn, each SB and SBI relay. As each relay is operated, check that associated traffic register scores.

6.4 Remove blocking tools.

6.5 At Terminating Marker Applique Circuit, momentarily operate relay LLP. Verify relay LOF operates when relay LLP is operated.

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