COMMON SYSTEMS
AUXILIARY LINE CIRCUIT
(SD-99415-01)

CONTENTS

1. GENERAL INFORMATION

1.1 Description of Circuit

1.11 This section describes the operational tests to be performed on the Auxiliary Line Circuit (SD-99415-01) which provides for one-way dial pulse into the local office with E & M lead supervision from a switched service network (SSN) office for use in No. 1 and No. 5 crossbar and Step-By-Step offices with line or auxiliary line circuits arranged for ground start.

1.12 The various facilities that may be connected together are shown in Note 302 of SD-99415-01.

1.13 This circuit should be cross connected to the appropriate line circuit before the tests in Paragraph 5 are performed.

1.2 Signaling

1.21 E & M signaling.

1.3 Sequence of Testing

1.31 Perform tests in the order indicated.

1.4 Method of Testing

1.41 The ITE-4011 Miscellaneous Trunk Test Set is used to simulate SSN office. The test setup is shown in Figure 1.

2. RECORDS AND REQUIREMENTS

2.1 Records

2.11 The results of these tests should be recorded on forms SD-4-1313 and SD-4-1315.

2.2 Requirements

2.21 The tests of this section are based on SD-CD-99415-01.

3. TEST EQUIPMENT

3.1 Test Set

AMT	CODE	DESCRIPTION
1	ITE-4011	Miscellaneous Trunk Test Set
1	ITE-4442A	Volt-Ohmmeter
1	ITE-9650	Head Telephone Set
1	ITE-4631	Test Receiver
1	ITE-5590	Fuse Alarm Verification Test Set

3.2 Accessories

NOTE	AMT	CODE OR ITE	DESCRIPTION
R	1	KS-3008	Stop Watch

NOTE: R - Requisition

4. FUSING

4.1 Remove the fuse associated with this circuit.

4.2 Using the ITE-4442A Volt-Ohmmeter or ITE-4631 Test Receiver, check the fuse post for absence of battery and ground.

4.3 Insert the ITE-5590 into the vacant fuse post. Verify that the fuse alarm sounds and the fuse alarm lamp lights. Verify that the aisle pilot lamp lights.

4.4 Remove the ITE-5590. Alarm silences and alarm lamps go out.

4.5 Install the correct size fuse and verify that -48 volts is at the terminal indicated.

TERMINAL STRIP	TERMINAL
(A) on Aux. Line Ckt.	21

4.6 Verify that ground is present on Terminal 23 of T.S.(A) on the Aux. Line Ckt.

5. TEST OPERATIONS

5.1 General

5.11 When E and M leads are used, the trunk tip and ring are used for transmission purpose only. Signaling is accomplished by conditions of battery and ground on the E and M leads which connect to an external signaling circuit under actual operating conditions.

5.2 Test Set-Up

5.21 Locate the ITE-4011 Test Set near the trunk lead appearance at the distributing frame or at the trunk unit location. If the trunk unit location is used, verify cable leads to the distributing frame separately.

(a) Short contact 12B to 12 and insulate contact 12M of MB relay.

(b) Insert Make Busy Plug into JM jack. Observe MB relay operated.

5.22 Connect and patch ITE-4011 as indicated on Figure 1. Lamps MB and MG light.

5.3 Test Operations

5.301 Temporarily connect terminals 16 to 17 and 26 to 27 on T.S.(A) in any convenient manner.

5.302 Operate ITE-4011 DDCW key, to put the telephone set on the office side (T and R).

5.303 Operate ITE-4011 STT key, lamp MB remains lit. Lamp MG extinguishes indicating circuit is idle.

5.304 Operate ITE-4011 DG key:

(a) Lamp MG momentarily lights and MB momentarily extinguishes indicating an off hook condition.

(b) Dial tone is heard in telephone set.

5.305 Dial a number to a telephone in the local office. Approximately ten (10) seconds after the last digit is dialed, lamp MB is extinguished and MG lights, indicating answer to SSN office. (Do not delay interdigital time more than ten (10) seconds. The circuit will time out if there is more than a 10 second delay between dialed digits.) Audible ringing is heard in telephone set.

5.306 Answer local office telephone and talk. Transmission should be satisfactory.

5.307 Restore ITE-4011 DG key. (Do not restore local office telephone.) *In approximately one second, the trunk* will time out and lamp MB lights and lamp MG extinguishes.

5.308 Restore local office telephone.

5.309 Repeat Paragraphs 5.304 through 5.306.

5.310 Restore local office telephone. (Do not restore ITE-4011 DG key.) Lamp MB lights and lamp MG extinguishes.

5.311 Restore the ITE-4011 DG key, circuit goes idle.

5.312 Restore ITE-4011 DDCW and STT keys. Lamp MB stays lighted and lamp MG lights.

5.313 Remove strapping and repeat for other circuits.

5.314 After completion of tests, restore circuit to normal and remove all associated cords, plugs, strapping, insulators and blocking tools if applicable.

6. TROUBLESHOOTING GUIDE

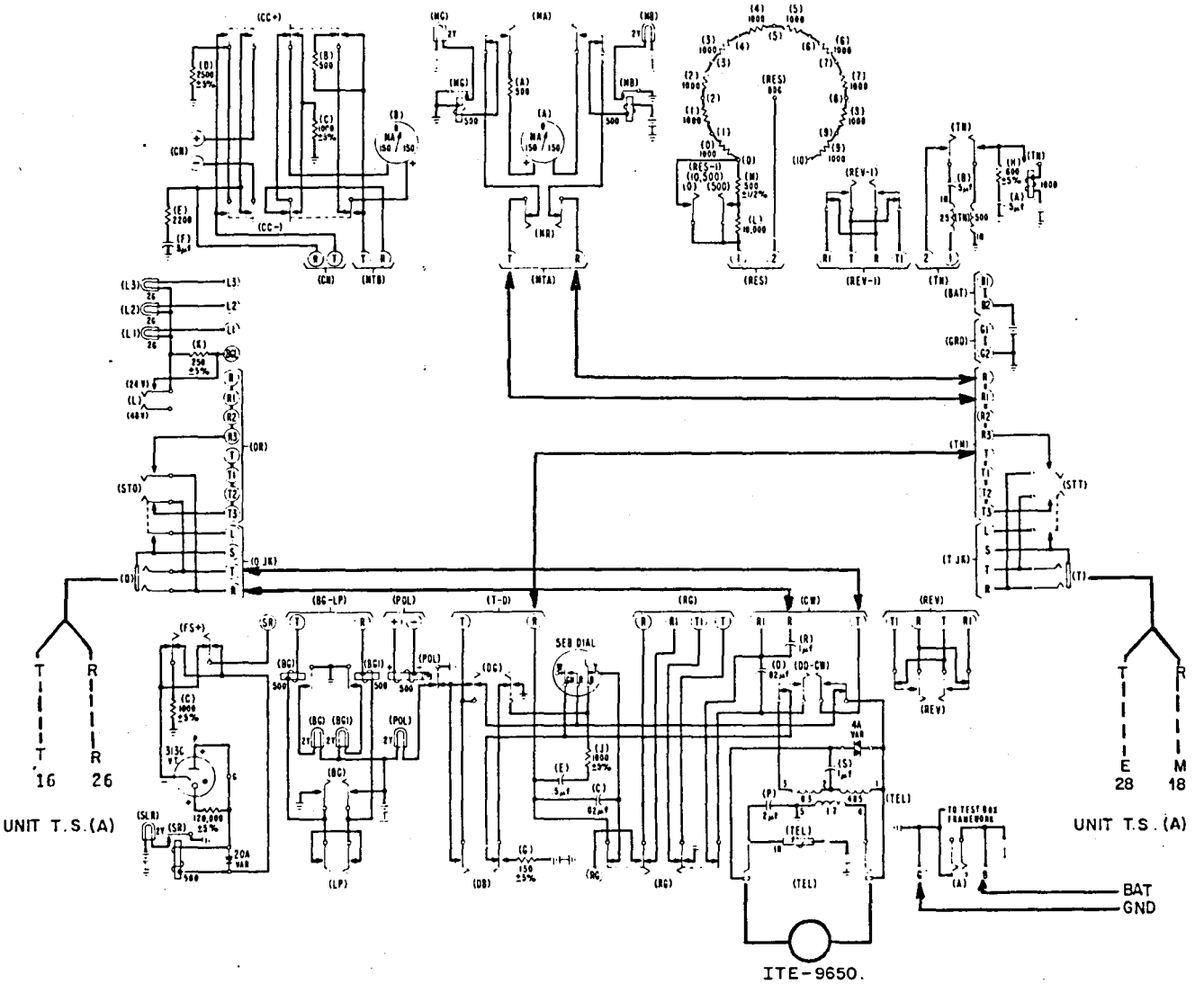
TROUBLE	ACTION
Sequence in Para. 5.304 & 5.404 fails to occur.	Check relays B1 and ST and TM Timer.
Para. 5.305 lamp MB fails to extinguish and lamp MG fails to light.	Check Timer TM and relays T and B1.

Lines presented in Script indicate new or changed information.

ATTACHMENT
Figure 1 on Page 3.

Manager, Product Engineering
Control Center

Reason for Reissue:
Minor Corrections.



NOTE ARROWS ON KEY CHART INDICATE KEYS OPERATED BEFORE START OF TEST

CIRCUIT REQUIREMENTS						
DESIG	CODE	RES %	TEST	SOAK MA	TEST MA	READJ MA
POL	250FH	5%	0	-15	8.8	9
			0	15		1
			80	15		1.8
POL	280J	10%	0	-12	-	*1.5
			80	-12	-	*1.2
			0	-12	5.2	5
			80	12	11.7	10
			0	12	9	1
TR	280C	5%	0	-	13	12
			80	-	10.5	11
BG, BG1	1	5%	0		12	11
			80		9	10
BG, BB	0-473	5%	0		9.5	8.3
			80			3.9
SR		5%	0		7	

*APPLIED WITH TENSION OF BIASING SPRING RELEASED

REQ	CORDS AND ACCESSORIES						WITH ITE
	ANT	ITE	LENGTH	CORS	END	END	
	0	9547	12'	1	2455	2455	
	1	9601	12'	3	310	310	
	1	9605	12'	3	310	308	
	2	9639	12'	3	310	3-2455	
	10	9548	9"	1	2455	2455	
	1	9596	12'	2	310	310	
	2	9314	12'	3	310	3-4089	
	6	0507	ALLIGATOR CLIPS				
	6	2455	PLUGS				
	8	4109	SPADE TIPS				
	2	4412	CONNECTOR 2-POINT				
	2	4413	CONNECTOR 4-POINT				

MISCELLANEOUS TRUBA TEST SET, ITE-4011

	CC-	LP	DD-CW	
STO	CC+	BG	REV	REV-1
	TN	MA	DB	
STT	RG	MR	DG	FS+

NOTE ALL RESISTOR VALUES ARE ±1% UNLESS OTHERWISE SPECIFIED

(24V), (48V) (L)

(10,500) (0) (500) (RES-1)

(5) (4) (6) (3) (7) (2) (8) (1) (9) (0) (10) (RES)

FIGURE 1 SD-99415-01 TEST SET UP