STEP BY STEP AUXILIARY TRUNK CIRCUIT ARRANGED FOR INTERCEPT AND/OR MEASURED RATE SERVICE (SD35072-01)

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1. GENERAL

1.1 Description

1.11 This circuit provides for vacant level intercept and/or measured rate service for Direct Inward Dialing to a Radio Common Carrier or Private Branch Exchange.

1.12 An Auxiliary Trunk Unit is arranged for 10 circuits. Each trunk is equipped by adding an SH12 circuit pack.

1.13 The rocker switches on circuit pack SH13 must be programmed for intercept per SD35072-01, Notes 400-406 when instructed in the section.

1.14 Each Auxiliary Trunk Circuit must be connected to its associated Auxiliary Line Circuit and OG Repeater.

1.2 Precautions

1.21 Connect leads R1- to R- and T1- to T- before removal of CP SH12, to retain continuity from OG repeater to distant office.

2. RECORDS AND REQUIREMENTS

2.1 Records

2.11 The results of these tests should be recorded on forms SD-97-1313 and SD-97-1315. For further information on test records, see Handbook 3, Section 6B.

2.2 Requirements

2.21 The tests of this section are based on CD and SD35072-01.

4. TEST SETUP

4.1 Connect an ITE-4208A Handset to the T2- and R2- leads, T.S. (A) terminals 57 and 47. Set the switch to the MON position.

4.2 Connect a test receiver or second handset to T1 and R1 leads, T.S. (A) terminals 38 and 48. This receiver will be used to monitor the intercept message or tone.

4.3 Set the rocker switches on SH13 circuit pack to intercept digits 11, 22, 44 and 88.

4.4 The second trunk is assigned to the (A) T.S. as follows:

T1	term 34
R1	24
T2	53
R2	43

4.5 Trunks are associated with the terminal strips as follows:

TRK	1	2	3	4	5	6	7	8	9	10
T.S.	A	A	B	B	C	C	D	D	E	E

5. TEST OPERATIONS

5.1 Power Application

5.11 Using the ITE-4442A volt-ohmmeter check each fuse post for absence of battery and ground.

5.12 Insert the proper size fuses, one at a time, and verify that the correct potential is at the terminal indicated.

-48V	A	11(F)T.S.
-48V	A	21(F)T.S.
-48V	B	51(F)T.S.
-12V	132	CP SH14

NOTE: When power is applied the ALM LED will light. Operate the AR switch to reset the alarm.

5.13 Verify ground is present on T.S.(F) terminals 54, 44, 34, 24, 14, 53, 43, 33, 23 and 13.

5.14 Check that 20VAC is measured across terminals 55 and 45 T.S.(F).

5.2 Seizure and Answer

5.21 Operate the handset to the TALK position. The SZ- register in the Auxiliary Line Circuit will advance one count.

5.22 Manually operate the D or S1 relay in the associated OG repeater. The MR- register in the Auxiliary Line Circuit will advance one count.

5.23 Release the D or S1 relay in the OG Repeater and set the handset switch to the MON position.

5.24 Repeat Paragraphs 5.21-5.23 for each trunk assigned.

5.3 Decoding

5.31 Seize the first trunk and dial digits 11. An intercept message (Z option) or tone (Y option) is heard in the other handset or test receiver.

5.32 Set the handset switch to MON position.

5.33 Repeat Paragraphs 5.31 and 5.32 for digit combinations 22, 44, 88.

5.34 Reset the switches on CP13 for the digit combinations that will be intercepted. Repeat Paragraphs 5.31 and 5.32 for these combinations.

5.4 All Trunks Busy

5.41 Remove all SH12 circuit packs except the first one.

NOTE: Refer to Paragraph 1.2.

An alternate method of making trunks busy is grounding the S- leads.

5.42 Operate the handset switch to TALK position and dial 2 digits that will not be intercepted. The ATB register in the Auxiliary Line Circuit (SD99439-01) will advance one count.

5.43 Operate the handset switch to the MON position and remove the make busy conditions.

5.5 Alarms

5.51 Momentarily ground terminal 024 circuit pack SH13. The FL (fail low) LED on SH14 will light. Operate AR switch to extinguish LED.

5.52 Momentarily connect -12V to terminal 024 circuit pack SH13. The -12V is obtained from terminal 132 SH13. The FH (fail high) LED on SH14 will light. Operate AR switch to extinguish LED.

6. TROUBLESHOOTING GUIDE

6.1 The following table explains why the LED's on SH14 normally light and possible trouble if they light incorrectly.

LED	NORMALLY LIGHTS	POSSIBLE TROUBLE
FL	The data leads DA1-DA8 and DB1-DB8 are forced low each scan. FL lights when data leads are not forced low on test scan.	1. Defective SH13 or SH14. 2. Check that data leads are free of battery and ground.
FH	The data leads are forced high each scan. FH lights when data leads are not forced high on test scan.	Same
ALM	If FL or FH LED's light or clock circuit fails, always depress AR switch to reset alarm.	Defective SH14

6.2 Although it is not possible to visually check operation of the relays on circuit packs SH12 and SH14 their operate conditions may be useful in locating faults.

	CP	RELAY	OPERATE CONDITION
1.	SH12	K4 momentarily operates	Trunk Seizure
2.	SH12	K1 operates	Intercept
3.	SH12	K2 operates K3 momentarily operates	Answer
4.	SH14	K2 operates K3 momentarily operates	All Trunks Busy
5.	SH14	K1 operates	Alarm Condition

6.3 This is a list of possible trouble indications and the action to be taken to correct them.

TROUBLE	ACTION
1. Trunk not seized	1. Defective SH12 or SH14. 2. Check S- and P- leads to OG Repeater.
2. Answer not detected	1. Defective SH12. 2. Verify grd on R2 and Bat on T2 (tip and ring reversal).
3. Intercept not detected	1. Check switch settings on SH13. 2. Defective SH12 or SH13 or SH14. 3. Verify data leads are free of battery and ground and shorts.

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