TRANSLATOR SD-99319-01
TESTS USING MASTER TEST FRAME
NO. 5 CROSSBAR OFFICES
ARRANGED FOR AIOD

1. GENERAL

1.01 This section describes a method of testing automatic identified outward dialing (AIOD) translator SD-99319-01 and AIOD translator connector SD-99320-01 circuits in No. 5 crossbar offices arranged for PBX AIOD using the master test frame (MTF).

1.02 This section is reissued for the following reason:

- To revise Test E, Step 7.

This reissue does not affect Equipment Test Lists.

1.03 The tests covered are:

1.04 Test G requires actions at the MTF, translator, and translator connector frame.

1.05 Test H requires actions at the MTF and station identification test circuit.

1.06 In Tests D and G, while the translator is made busy, the cautions indicated in each test should be observed.

1.07 ***Lettered Steps:*** A letter a, b, c, etc, added to a step number in Part 3 or 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.

1.08 The manner of selecting some circuits and test conditions at the MTF and its associated circuits varies depending on the apparatus options furnished with these circuits. Therefore, where varible means of selection are provided, precise instructions for the selection of circuits and test conditions are not given. Precise instructions for the use of these variable means are given in Section 218-106-301.

1.09 The location statement, At MTF—, is used to refer to all apparatus located on the four basic bays of the MTF.

2. APPARATUS

2.01 The apparatus required for each test is listed in Table A. The details of each item are covered in the paragraph indicated by the number in parentheses.

TABLE A

APPARATUS	TESTS					
	A, B, C	D	E	F	G	H
Master Test Control Circuit (2.02)	1	1			1	1
Station Identification Test Circuit (2.03)						1
Test Set (2.04)					1	
Cord (2.05)				1		
Cord (2.06)	1					
322A (make-busy) Plug		1			1	
Tools (2.07)			√		√	

√ As required.

2.02 Master test control circuit SD-25800-01.

2.03 Station identification test circuit SD-1C005-01, Type A1 or SD-1C235-01, Type A2.

2.04 67C test set, or equivalent, equipped with a KS-6278 connecting clip (for connection to battery or ground test points).

2.05 Testing cord, 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord), one KS-6278 connecting clip, and one 411A (test pick) tool (for use in applying momentary ground on terminal strip terminals).

2.06 Testing cord, 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord), one KS-6278 connecting clip, and one 419A tool (for connecting ground to relay contacts).

2.07 Blocking and insulating tools as required. Use tools and apply, as covered in Section 069-020-801.

3. PREPARATION

Note: The term, "translated trunk number" used in this section refers to the 4-digit number to which the PBX trunk line location has been converted by the transverter and AIOD translator.

3.01 ***Test A:*** Obtain from local records the PBX trunk line locations and associated translated trunk numbers for PBX trunks served by the translator under test. Select trunks that use at least one of each of the vertical files, one of each of the horizontal groups (switches), and one of each of the office indexes.

3.02 ***Tests B and D:*** Obtain from local records the trunk line location and the associated translated trunk number for any trunk served by the translator under test.

3.03 ***Test C:*** Obtain from local records the PBX trunk line locations and their associated translated trunk numbers for trunks served by the translator under test, selecting a trunk for each vertical group served by the translator.

3.04 ***Test D:*** Obtain from local records the listed directory number for any PBX trunk served by the translator under test.

3.05 ***Test H:*** Obtain from local records the test PBX trunk line location and the associated translated trunk number reserved for long loop-around tests.

3. PREPARATION (Cont)

STEP	ACTION	VERIFICATION
Tests A Through D, H		
	Note: Refer to 1.08 and 1.09.	
1	At MTF— Restore all keys and switches.	
2	Momentarily operate RL key.	All lamps extinguished.
3	Select transverter.	
4a	If office is arranged for LAMA— Select TVT (AMA) class of test.	
5b	If office is arranged for ANI— Select TVT (ANI) class of test.	
6b	Operate ATLV key.	TLV lamp lighted.
7a	If office is arranged for LAMA— Select any recorder.	
8a	Operate TLV, 4DG keys.	TLV lamp lighted.
9a	Select any message billing index.	
10c	If office is arranged for LAMA and two digits are required for local area office code— Select TT-CP2.	
11d	If office is arranged for LAMA and three digits are required for local area office code— Select TT-CP3.	
12	Operate TP key.	

STEP	ACTION	VERIFICATION
4. METHOD		
STEP	**ACTION**	**VERIFICATION**
A. Transposition of VF and SW Leads		
13	Select line location to correspond with trunk line location obtained in 3.01.	
14	Select office designation of selected trunk.	
15	Select A_ through D_ digits to correspond with numericals of translated trunk number.	
16e	If TSLT key is provided— Operate TSLT key.	
17	Select office index that corresponds with translated office number.	
18	Momentarily operate ST key.	MRL, TLVM, TVT lamps lighted.
19	Momentarily operate RL key.	MRL, TLVM, TVT lamps extinguished.
20f	If office is equipped with more than one transverter— Repeat Steps 18, 19 for each transverter.	
21	Repeat Steps 13 through 20f for each remaining trunk line location obtained in 3.01.	
22	Restore all keys and switches not required in next test.	
B. Vertical File Lead Cross Detection		
13	Select line location to correspond with trunk line location obtained in 3.02.	
14	Ground contact of KVF1 relay on MTF associated with a VF_ lead in Table B, corresponding to a VF_, other than that used in Step 13, which is assigned for PBX AIOD service.	
15	Select office designation of selected trunk.	
16	Select A_ through D_ digits to correspond with numericals of translated trunk number.	
17e	If TSLT key is provided— Operate TSLT key.	

STEP	ACTION	VERIFICATION

TABLE B

KVF1 CONTACTS	VF LEAD
5T	0
7T	1
9T	2
7B	3
5B	4

18	Select office index that corresponds with translated office number.	
19	Momentarily operate ST key.	TVT, TRL, TRR, aisle pilot lamps lighted. Minor alarm sounds. Trouble record taken. T1, MTPT, TLV, TV, TVT, two VF_, XVF designations perforated.
20	Momentarily operate RL, TRR-AR keys.	TVT, TRL, TRR, aisle pilot lamps extinguished. Minor alarm silenced.
21f	If office is equipped with more than one transverter— Repeat Steps 19, 20 for each transverter.	
22	Remove ground from KVF1 relay.	
23	Restore all keys and switches not required in next test.	

C. Translator Identification

13	Operate REC key.	
14	Select line location to correspond with one of the trunk line locations obtained in 3.03.	
15	Select office designation of selected trunk.	
16	Select A_ through D_ digits to correspond with numericals of translated trunk number.	
17e	If TSLT key is provided— Operate TSLT key.	
18	Select office index that corresponds with translated office number.	

STEP	ACTION	VERIFICATION
19	Momentarily operate ST key.	MRL, TLVM, TVT lamps lighted. Trouble record taken. MTPT, TLV, LVM, TV, DR_, TVT, TLR_ designations corresponding with number of translator being tested, G_, GA/GB relay for trunk location obtained in 3.03, TNK designations perforated.
20	Momentarily operate RL key.	MRL, TLVM, TVT lamps extinguished.
21	Repeat Steps 14 through 20 for each remaining trunk line location obtained in 3.03.	
22	Restore all keys and switches not required in next test.	

D. Make-Busy and Alternate Treatment

13	Select line location to correspond with trunk line location obtained in 3.02.	
14	Select office designation of selected trunk.	
15	Select A_ through D_ digits to correspond with numericals of listed directory number as obtained in 3.04.	
16e	If TSLT key is provided— Operate TSLT key.	
17	Select office index that corresponds with translated office number.	
18	Insert make-busy plug into AIODT-MB jack for translator being tested. ***Caution: Calls made by PBX stations will be completed by billing to the listed PBX directory number. This test should therefore be made as rapidly as possible to reduce to a minimum the number of calls billed in this manner.***	
19	Momentarily operate ST key.	TVT, TLVM, MRL lamps lighted.
20	Momentarily operate RL key.	TVT, TLVM, MRL lamps extinguished.
21f	If office is equipped with more than one transverter— Repeat Steps 19, 20 for each transverter.	

STEP	ACTION	VERIFICATION
22g	If transverter is arranged to override a manually made-busy translator— Operate CTMB key.	
23g	Select A_ through D_ digits to correspond with numericals of translated trunk number as obtained in 3.02.	
24g	Momentarily operate ST key.	MRL, TLVM, TVT lamps lighted.
25g	Momentarily operate RL key.	MRL, TLVM, TVT lamps extinguished.
26	Remove make-busy plug from AIODT-MB jack.	
27	Restore all keys and switches not required in next test.	
E. Transverter Preference Chain Transfer and Alarm		
1	At translator connector frame— Restore TR key, if operated.	TRT, TR_ relays released.
2	Insulate 8B of TRT relay.	CH relay momentarily operated. CH, aisle pilot lamps lighted. Minor alarm sounds.
3	Remove insulator from TRT relay.	
4	Momentarily operate (push-in) AR key.	CH, aisle pilot lamps extinguished. Minor alarm silenced.
5	Insulate 4B of TRT relay.	CH1 relay momentarily operated. CH, aisle pilot lamps lighted. Minor alarm sounds.
6	Repeat Steps 3, 4.	
7	Insulate 6B of TRT relay.	CH, CH1 relays momentarily operated. CH, aisle pilot lamps lighted. Minor alarm sounds.
8	Repeat Steps 3, 4.	
9	Operate TR key.	TRT, TR_ relays operated.
10	Restore TR key.	TRT, TR_ relays released.
F. TB Lead Ground Detection		
1	At translator connector frame— When frame is idle—	XTB, aisle pilot lamps lighted. Minor alarm sounds.

STEP	ACTION	VERIFICATION
	Momentarily connect ground to 12B of TMB0 relay.	
2	Momentarily operate RXTB key.	XTB, aisle pilot lamps extinguished. Minor alarm silenced.
G. Overlap		
1	At MTF— Insert make-busy plug into AIODT-MB jack for translator being tested. ***Caution: Calls made by PBX stations will be completed by billing to the listed PBX directory number. This test should therefore be made as rapidly as possible to reduce to a minimum the number of calls billed in this manner.***	
2	At translator frame— Momentarily operate CON relay.	CON relay in translator and CON1 relay in translator connector momentarily operated.
3	At translator connector frame— Block operated CON0 relay.	Battery absent on 1B through 12B of CON1 relay; 1B through 4B, 9B through 12B of CON0 relay.
4	Remove blocking tool from CON0 relay.	
5	At MTF— Remove make-busy plug from AIODT-MB jack.	
H. Long Loop-Around		
13	At station identification test circuit— Restore all keys and switches to OFF, O, or NORM as applicable.	
14e	If A1-type station identification test circuit is provided— Operate NT key to TEST.	
15e	Operate key associated with TH1 address register lamp to 0 or 1, as required, for thousands digit of translated trunk number as obtained in 3.05.	
16e	Operate keys associated with H_, T_, U_ address register lamps to 1, as required, for translated trunk number hundreds, tens, and units digits using code of Table C.	

STEP	ACTION	VERIFICATION
17e	Operate keys associated with TH_, H_, T_, U_ data register lamps to 1, as required, for station numbers TH0, H0, T0, U0 using code of Table C.	
18f	If an even number of keys associated with the data register are operated to 1— Operate key associated with P2 lamp to 1.	
19f	Momentarily operate CLR key.	
20f	Momentarily operate LD key.	Address and data register lamps lighted corresponding to keys operated to 1.
21f	Momentarily operate W0 key.	
22g	If A2-type station identification test circuit is provided— Operate SW0 key to 1.	
23g	Set DLN switch to 0.	
24g	Operate SW1 through SW20 keys associated with TH_, H_, T_, U_, trunk number lamps to 1, as required, on a 2-out-of-5 basis for translated trunk number thousands, hundreds, tens, and units digits.	
25g	Operate SW21 through SW40 keys associated with TH_, H_, T_, U_ station number lamps to 1, as required, on a 2-out-of-5 basis for station numbers TH0, H0, T0, U0.	
26g	Momentarily operate CLR key.	
27g	Momentarily operate LD key.	PLB lamps lighted. Trunk and station lamps lighted corresponding to keys operated to 1.
28g	Operate TST key to ON.	
29g	Operate PBX key to ON.	
30	At MTF— Select line location to correspond with test PBX trunk equipment location as obtained in 3.05.	
31	Select office designation of selected trunk.	
32	Select office index that corresponds with translated office number.	

STEP	ACTION	VERIFICATION
33	Operate TLLT key.	
34	Select A_ through D_ digits for same station number as in Step 17e or 25g, as applicable.	
35	Momentarily operate ST key.	TVT, TLVM, MRL lamps lighted.
36	Momentarily operate RL key.	All lamps extinguished.
37e	If A1-type station identification test circuit is provided— Repeat Steps 17e, 34 through 36 for TH_, H_, T_, U_ digits 1 through 9.	
38g	If A2-type station identification test circuit is provided— Repeat Steps 25g, 34 through 36 for TH_, H_, T_, U_ digits 1 through 9.	
39	Restore all keys and switches.	
40	At station identification test circuit— Restore all keys and switches.	

TABLE C

NUMERICAL DIGIT	ABBREVIATED CODE FOR ADDRESS AND DATA REGISTERS
0	4, 7
1	1
2	2
3	1, 2
4	4
5	1, 4
6	2, 4
7	7
8	1, 7
9	2, 7