AUTOMATIC IDENTIFIED OUTWARD DIALING, TYPE A2

ALARM TESTS AND OPERATION TESTS USING STATION IDENTIFICATION

TEST CIRCUIT SD-1C235-01

1. GENERAL

1.01 This section describes a method of making operational tests of automatic identified outward dialing, type A2 (AIOD-A2) equipment using station identification test (SIT) circuit SD-1C235-01. Operational tests of the alarms are covered and do not require the use of the SIT circuit.

1.02 This section is reissued for the following reasons:

(a) To add information to paragraph 1.03 indicating that Test D is not performed if the station identification store and control circuit is equipped with a shift register memory

(b) To add information to paragraph 3.01

(c) To add or delete information to all tests except Test K

(d) To delete Table C.

Revision arrows have been used to denote the more significant changes. The Equipment Test List is not affected.

1.03 The tests covered are:

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1.04 When the tests are performed on a system which is in service, care should be exercised to guard against the loss of a number change which may be in the memory. Upon completion of any test which clears the memory, required number change entries should be initiated by means of the SIT circuit as described in Test C.

1.05 Consult trouble locating manual TLM-1C235 if any trouble lamps are displayed as a result of these tests. The TLM outlines procedures for the analysis and repair of circuit failures in the AIOD-A2 equipment.

1.06 When the system is operative and the LCO switch is operated, the SYC lamp should be lighted at all times. It will flicker briefly as calls enter the system. If the SYC lamp remains extinguished, consult TLM-1C235.

1.07 The tests should be performed during a period of light traffic. Test K requires shutdown of the system and will cause conditions which distort the data memory. *It is important that at the conclusion of this test, the memory be cleared and any trunk number changes effective at this time be placed back into memory.*

1.08 Before and after performing alarm tests, notify personnel responsible for responding to these alarms. If a regular alarm should originate during these tests, the tests should be discontinued immediately and the responsible personnel notified.

1.09 Local instructions should be followed for recording and reporting any register operation caused by performing these tests.

1.10 Maintenance centers referred to in Part 4 are as follows:

(1) Crossbar No. 1—originating sender test frame

(2) Crossbar No. 5—master test frame

(3) Panel or SXS with ANI-B—outpulser identifier test frame

(4) SXS with ANI-C—miscellaneous circuit, outpulser and test frame.

1.11 *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.

2. APPARATUS

All Tests

2.01 SIT circuit, SD-1C235-01.

Tests D, E, F, G, H, and I

2.02 Two 3P7B patching cords.

Test G

2.03 One 258-type dummy plug.

Test J

2.04 One W1AF cord, 8 feet 6 inches long, equipped with two 360A tools, one KS-6278 connecting clip, and one 411B tool.

Test L

2.05 One 1W13A cord, 3 feet long, equipped with two 360A tools and two 624B tools.

3. PREPARATION

3.01 Before starting any test, operate LCO switch to ON. ▶The SYC lamp should light if circuit is idle and be extinguished if circuit is serving a call. If it is not lighted, refer to paragraph 1.06.◀

4. METHOD

STEP	ACTION	VERIFICATION

A. Simulated PBX Message

1 Set switch DLN to position 0 or a position representing a nonworking data link number, or as specified for test.

2 Set switch SW0 to position 1.

3 Set switches SW1 through SW20 to position 1 on a two-out-of-five basis (Table A) to represent the 4-digit trunk number.

Caution: The trunk number used must be of a group of numbers set aside for test purposes. Consult office records to determine the test trunk number. Wrong billing can result

STEP	ACTION	VERIFICATION

from the use of a trunk number assigned to a working PBX data link.

TABLE A

DIGIT	0	1	2	4	7
0				X	X
1	X	X			
2	X		X		
3		X	X		
4	X			X	
5		X		X	
6			X	X	
7	X				X
8		X			X
9			X		X

STEP	ACTION	VERIFICATION
4	Set switches SW21 through SW40 to position 1 on a two-out-of-five basis to represent the 4-digit station number.	
5	Momentarily operate LD key.	PLB lamp lighted. Trunk number TH_, H_, T_, U_, station number TH_, H_, T_, U_ lamps corresponding to set switches SW1 through SW40 lighted.
6a	If error is indicated in verification of preceding step— Momentarily operate CLR key.	All lamps except SYC extinguished.
7a	Correct setting of SW1 through SW40 switches as required.	
8a	Repeat Step 5.	
9	Set switch ATTN according to desired attenuation in output of data transmitter. *Note:* ON position provides –16.0 dB loss. OFF position provides –4.0±1.5 dB loss.	
10	Operate TST switch.	A, A1 lamps lighted.
11	Operate PBX switch.	If a match has been made of a trunk number circulating in memory and a complete 45-bit

STEP	ACTION	VERIFICATION
		word is present— Trunk, data link, and station number previously in memory will be displayed. PBX, RC, CRF, CRFA, TN, DN, SN, LP, WR, WER, SYC lamps lighted. Trunk number only will be displayed if data link number and station number have been removed as a result of an NIR request or a trap function. DN and SN lamps extinguished. If no match has been made of a trunk number circulating in memory— Trunk number, data link number, and station number lamps extinguished. TN, DN, SN lamps extinguished.
12	Restore PBX switch.	
13	Momentarily operate CLR key.	All lamps extinguished except SYC, A, A1.
14b	▶If same test is to be repeated— Repeat Steps 5 and 11 through 13.	
15c	If additional test, requiring test number change, is to be made— Repeat Steps 1 through 9 and 11 through 13.	
16d	If the automatic repeat test feature is to be used— Operate RT switch.	Test will block and lamps remain lighted only when a failure occurs.
17d	Restore RT switch.	
18d	Repeat Step 13.	
19	Restore all switches to normal.	All lamps extinguished.◀

B. Simulated Central Office Request

STEP	ACTION	VERIFICATION
1	Perform Test A, Steps 1 through 13. *Note:* Set DLN switch to position 0 in Step 1.	
2	Operate NIR switch.	NIR, CRF, CRFA, LP, WR, WER, 2/5K, B, B1 lamps lighted. Lamps corresponding to station number used in Step 1 lighted. Office index T_ and U_ lamps corresponding to OI cross-connection strapped for DN0 lighted.
3	Restore NIR switch.	

STEP	ACTION	VERIFICATION
4	Momentarily operate CLR key.	All lamps except SYC, A, A1 extinguished.
5	Restore all switches.	All lamps extinguished.

C. Simulated Central Office Request With Trunk Number Change

STEP	ACTION	VERIFICATION
1	Set DLN switch to 0, and SW0 switch to position 1.	
2	Set SW1 through SW20 switches to position 1 on a 2/5 basis to represent the new trunk number.	
3	Set SW21 through SW40 switches to position 1 on a 2/5 basis to represent the old trunk number.	
4	Momentarily operate LD key.	PLB lamp lighted. Trunk number TH_, H_, T_, U_, station number TH_, H_, T_, U_ lamps corresponding to set switches SW1 through SW40 lighted.
5a	If error is indicated in verification of preceding step— Momentarily operate CLR key.	All lamps except SYC extinguished.
6a	Correct setting of SW1 through SW40 switches as required.	
7a	Repeat Step 4.	
8	Operate TST switch.	A, A1 lamps lighted.
9	Operate NCH switch.	If new trunk number is being entered in memory for first time— PBX, RC, CRF, CRFA, LP, WR, WER lamps lighted. Trunk number, station number, data link number lamps all remain extinguished.
10	Restore NCH switch.	
11	Momentarily operate CLR key.	All lamps except SYC, A, A1 extinguished.
12	Repeat Steps 4 and 9.	PBX, RC, CRF, CRFA, TN, SN, LP, WR, WER lamps lighted. DN lamp extinguished. Trunk number lamps display new trunk number. All five DLN lamps lighted. Station number lamps display old trunk number.

STEP	ACTION	VERIFICATION
13	Repeat Step 11.	
14	Restore NCH switch.	
15	Perform Test A, Steps 1 through 12, using old trunk number and any station number.	
16	Repeat Step 11.	
17	Perform Test B, Step 2, using the new trunk number which was placed in memory in Step 2 of this test.	
18	Operate NIR switch.	NIR, CRF, CRFA, LP, WR, WER, 2/5K, NC, NS, B, BI, lamps lighted. Station number lamps display station number placed in memory in Step 15.
19	Repeat Step 11.	
20	Restore all switches to normal.	All lamps extinguished.

D. Memory Check Test

Note: This test should be made with the delay line at its operating temperature (110°-125°F). The system will be out of service during this test. ◆This test is not performed if the SI store and control circuit is equipped with a shift register memory (CP-R76, LOC.17B22).◆

1	Operate SYD switch.	SYD lamp lighted.
2	At data trunk jack and lamp panel— Patch TST jack to DRT jack.	
3	At display and test control panel— Operate MCK and MCK1 switches.	Disregard lighted lamps.
4a	If any trouble lamps are lighted— Momentarily operate CLR key.	All lamps except SYC extinguished. MLF lamp may remain lighted.
5b	If MJA lamp is lighted— At miscellaneous jack, key, and lamp panel— Momentarily operate RS key.	MJA lamp extinguished.
6	Perform Test A, Steps 1 through 10. Any trunk, data link, and station number may be used.	

STEP	ACTION	VERIFICATION
7	Operate PBX switch.	MLF, PBX, RC, CRF, CRFA, LP lamps lighted. SYC lamp extinguished.
8	Restore TST and PBX switches to normal.	A, A1 lamps extinguished.
9	Momentarily operate CLR key.	RC and MLF lamps extinguished. PBX, CRF, CRFA, LP, ▶SYD◀ lamps remain lighted.

Note: If MLF lamp is not extinguished, the delay line memory is out of synchronization with the 1-MHz clock and requires adjustment. Adjustment procedures are outlined in CD-1C235-01, Section II, under Memory Check Test. If MLF lamp is extinguished, readjustment may be made to determine that it is properly set.

STEP	ACTION	VERIFICATION
10	Restore switches MCK and MCK1 to normal. (Disregard lighted lamps.)	
11	Momentarily simultaneously operate RES and MR keys. (Disregard lighted lamps.)	
12	Momentarily operate CLR key.	All lamps except SYC ▶and SYD◀ extinguished.
13	Repeat Step 5b.	
14	Perform a few simulated PBX message tests and simulated central office request tests (Test A and Test B).	Data entered in memory and read out of memory correctly.
15	Repeat Steps 11 through 13.	
16	Remove patch cord from TST and DRT jacks.	
17	Restore SYD switch to normal.	SYD lamp extinguished.
18	Restore all switches.	All lamps extinguished.

E. Test of Data Link Connector

STEP	ACTION	VERIFICATION
1a	If DR_ jack is associated with a working data trunk— Set DLN switch to position corresponding to DR_ jack number.	
2a	Connect one patch cord to DR0 jack and another to TST jack.	

STEP	ACTION	VERIFICATION
3a	Connect TST jack to DR_ jack under test and connect DR0 jack to DT_ jack under test. *Note:* PBX-ANI will be out of service while performing this step.	Data trunk associated with DR_jack will now be served by data trunk access "0". Lamp DL0 lighted momentarily when a PBX request is being served.
4b	If any trouble or call progress lamps are lighted— Momentarily operate CLR key.	All lamps except SYC extinguished.
5c	If MJA lamp is lighted— At miscellaneous jack, key, and lamp panel— Momentarily operate RS key.	MJA lamp extinguished.
6d	If DR_ jack is unassigned— Connect a patch cord to DR_ jack and then to TST jack. *Note:* Failure to follow this patching sequence can result in a false service request which may clear the memory.	
7	Perform Test A, Steps 2 through 13.	
8a	If DR_ jack is associated with a working data trunk— Remove patching cord from DT_ jack, then from DR0 jack. *Note:* PBX-ANI will be out of service until this step is performed.	
9d	If DR_ jack is unassigned— Remove patching cord from TST jack, then from DR_ jack.	
10	Repeat Steps 4b and 5c if required.	
11	Restore all switches to normal.	▶All lamps extinguished.◀

F. Test of Station Identification Store and Control Circuit

STEP	ACTION	VERIFICATION
	Caution: This test should be performed at the initialization of the system or during light traffic when the system can be taken out of service.	
1	Operate SYD switch.	SYD lamp lighted.
2	Patch TST jack to DRT jack.	

STEP	ACTION	VERIFICATION
3	Momentarily simultaneously operate MR and RES keys.	◗CLM, MJA lamps lighted.◖
4	Momentarily operate CLR key.	CLM lamp extinguished.
5	At miscellaneous jack, key, and lamp panel— Momentarily operate RS key.	◗MJA lamp extinguished.◖
6	Perform Test A, Steps 1 through 10, using first test number in Table B.	

TABLE B

TRUNK NUMBER	DATA LINK NUMBER	STATION NUMBER
1111	6	6666
2222	7	7777
3333	8	8888
4444	9	9999
6666	1	1111
7777	2	2222
8888	3	3333
9999	4	4444
1121	5	1121
1211	0	1211

STEP	ACTION	VERIFICATION
7	Operate PBX switch.	PBX, RC, CRF, CRFA, LP, WR, WER lamps lighted. No lamp displayed in trunk number, data link number, or station number.
8	Restore PBX switch.	
9	Momentarily operate CLR key.	All lamps except SYC, ◗A, A1, and SYD◖ extinguished.
10	Momentarily operate LD key.	PLB lamp lighted. Trunk number and station number lamps lighted correspond to operated SW1 through SW40 switches.
11	Operate PBX switch.	PBX, RC, CRF, CRFA, TN, DN, SN, LP, WR, WER lamps lighted. Trunk number, data link number (DLN), and station number lamps displayed as in Table B.
12	Restore PBX switch.	

STEP	ACTION	VERIFICATION
13	Momentarily operate CLR key.	All lamps except SYC, ♦A, A1, and SYD♦ extinguished.
14	Repeat Steps 6 through 13 using remaining test numbers in Table B.	
15	Restore TST switch.	♦A, A1 lamps extinguished.♦
16	Repeat Steps 3 through 5.	
17	Remove patch cord from TST and DRT jacks.	
18	Restore SYD switch to normal.	SYD lamp extinguished.
19	Restore all switches.	All lamps extinguished.

G. Data Link Number to Office Index Translation Test

Note: If system is not in service, cross-connections between the DN_ and OI_ terminals (see SD-1C234-01) should be DN 0-9 to OI 00-09 respectively. If system is in service and test is made to verify existing cross-connections, set DLN switch to desired position and perform Steps 4 through 7 using an unassigned trunk number set aside for test purposes.

STEP	ACTION	VERIFICATION
1	Insert a dummy plug in DRT jack.	
2	Patch TST jack to DR0 jack.	
3	Set DLN switch to position 0.	
4	Perform Test A, Steps 2 through 13, using any trunk number and any station number.	
5	Operate NIR switch.	♦SYC, NIR, CRF, CRFA, LP, WR, WER, 2/5 K, B, B1, and station lamps lighted.♦ Office Index T_ and U_ lamps lighted correspond to number of DR_ jack used (DR0-9 to OI 00-09).
6	Restore NIR switch.	
7	Momentarily operate CLR key.	All lamps except SYC, A, A1 extinguished.
8	Successively patch TST jack to jacks DR1-9 and repeat Steps 4 through 7 after each change.	
9	Remove patch cord from TST and DR_ jacks.	

STEP	ACTION	VERIFICATION
10	Remove dummy plug from DRT jack.	
11	Change cross-connections between DN_ and OI_ terminals to connect DN 0-9 to OI 10-19 respectively.	
12	Repeat Steps 3 through 7.	In Step 5, Office Index lamps lighted correspond to DLN switch position (DLN 0-9 to OI 10-19 or 20-29).
13	Successively change DLN switch to positions 1-9 and repeat Steps 4 through 7 after each change.	Same as Step 12 verification.
14	Change cross-connections between DN_ and OI_ terminals to connect DN 0-9 to OI 20-29 respectively.	
15	Repeat Steps 12 and 13 ♦until all cross-connections have been tested.♦	
16	Restore all switches to normal.	All lamps extinguished.

H. Test of SI Store and Control Circuit Trap Functions

STEP	ACTION	VERIFICATION
1	Operate SYD switch.	SYD lamp lighted.
2	Patch TST jack to DRT jack.	
3a	If test of trap using data link number when a trunk number check failure occurs, is to be made— Perform a series of 5 or more simulated PBX message tests, Test A, Steps 1 through 13 using different unassigned trunk numbers and any station number.	
4a	Perform Test A, Steps 3 through 12 using last trunk number in Step 3a except that only one of the trunk number switches in the units position (SW16-S20) is operated.	Trunk station and data link numbers dislayed DKF, PBX, RC, CRF, CRFA, DN, SN, LP, WER, SYC, SYD lamps lighted. TN lamp extinguished.
5a	Momentarily operate CLR key.	All lamps except SYC, SYD, A, A1 extinguished.
6a	Perform Test B, Steps 2, 3, and 4 using same trunk numbers as in Step 3a, repeating Steps 2, 3, and 4 after each trunk number change.	After Step 2, Test B— Valid trunk number and data link number displayed. No lamps displayed in station number positions DKMA, NIR, CRF, CRFA, TN, DN, LP, WR, WER, TRL, SYC, SYD lamps lighted. SN, 2/5K lamps extinguished.

STEP	ACTION	VERIFICATION
7b	If test of trap using trunk number when a data link number check failure occurs, is to be made— Perform Test A, Steps 1 through 12 using an unassigned trunk number and any station number.	
8b	Momentarily operate CLR key.	All lamps except SYC, SYD, A, A1 extinguished.
9b	Perform Test A, Steps 5, 11, and 12 using same test number as in Step 7b except that the DLN switch is set to OFF.	Trunk and station number displayed. No lamps displayed in data link number. DKF, PBX, RC, CRF, CRFA, TN, SN, LP, WER, SYC, SYD lamps lighted. DN lamp extinguished.
10b	Repeat Step 8b.	
11b	Perform Test B, Steps 2 and 3 using same trunk number as in Step 9b.	No lamps displayed in data link and station number positions. DKMA, NIR, CRF, CRFA, TN, LP, WR, WER, TRL, SYC, SYD lamps lighted. DN, SN, 2/5K lamps extinguished.
12b	Repeat Step 8b.	
13c	If test for entering information into memory as received is to be made (if only station number check failure occurs)— Perform Test A, Steps 1 through 12 using an unassigned trunk and any station number (except that only one of the station number switches in the units position [SW36-SW40] is operated).	Valid trunk and data link numbers displayed. Only one lamp in the station number units position displayed. DKF, PBX, RC, CRF, CRFA, TN, DN, LP, WR, WER, SYC, SYD lamps lighted. SN lamp extinguished.
14c	Momentarily operate CLR key.	All lamps except SYC, SYD, A, A1 extinguished.
15c	Perform Test B, Steps 2 and 3 using same trunk number as in Step 13c.	Valid trunk and data link numbers displayed. Only one lamp in station number units position displayed. DKMA, NIR, CRF, CRFA, TN, DN, LP, WR, WER, TRL, SYC, SYD lamps lighted. SN, 2/5K lamps extinguished.
16c	Repeat Step 14c.	
17d	If test to check for clearing of memory if both trunk and data link number check failures occur, is to be made— Perform Test A, Step 2 through 12 using any trunk number and any station number (except that only one of the trunk number switches in the thousands position (SW1-SW5)	Trunk and station number displayed. DKF, CLM, PBX, RC, CRF, CRFA, SN, SYC, SYD lamps lighted.

STEP	ACTION	VERIFICATION
	is operated and the DLN switch is set to OFF).	

Caution: Memory is now cleared. Any trunk number changes in memory before starting test must be placed back in memory after Step 20d.

STEP	ACTION	VERIFICATION
18d	Momentarily operate CLR key.	All lamps except SYC, SYD, A, A1 extinguished.
19d	Perform Test B, Steps 2 and 3 using same trunk number as in Step 17d but with a valid thousands digit.	Trunk number displayed. DKMA, MAF, NIR, CRF, CRFA, TN, LP, TRL, SYC, SYD lamps lighted.
20d	Repeat Step 18d.	
21	Remove patch cord from TST and DRT jacks.	
22	Restore SYD switch to normal.	SYD lamp extinguished.
23	Restore all switches to normal.	All lamps extinguished.

I.   Initialization Test

STEP	ACTION	VERIFICATION
1	Operate SYD key.	SYD lamp lighted.

Note: All other keys and switches except LCO should be in normal position.

STEP	ACTION	VERIFICATION
2	Operate switches as required to place power on system. See CD-81928-01, or CD-82350-01.	
3	Patch TST jack to DRT jack.	
4	Simultaneously operate MR and RES keys. Disregard lighted lamps.	
5	Momentarily operate CLR key.	
6	At miscellaneous jack, key, and lamp panel— Momentarily operate RS key.	All lamps except SYD, and SYC extinguished.

Note: TL (v opt.) lamp lighted indicates delay line oven temperature is too low. If MLF lamp remains lighted, disregard it.

STEP	ACTION	VERIFICATION
7a	If TL lamp is lighted— Repeat Steps 5 and 6 at 5-minute intervals until lamp is extinguished.	
8b	If delay line memory is equipped— In 10 minutes, perform Test D, Steps 3 through 13.	

STEP	ACTION	VERIFICATION
9	Perform Tests F, G, H, E, A, B, and C as required.	
	Note: Tests A, B, and C may be performed with SYD key operated and TST jack patched to DRT jack.	
10	Before system is placed in service— Momentarily simultaneously operate MR and RES keys. Disregard lighted lamps.	
11	Momentarily operate CLR key.	All lamps except SYC and SYD extinguished.
12	At miscellaneous jack, key, and lamp panel— Momentarily operate RS key.	
13	Restore ▶LCO and◀ SYD switches to normal.	▶SYC and◀ SYD lamps extinguished.
14	Use Test C to restore any number change information previously in memory.	

J. Fuse Alarm

STEP	ACTION	VERIFICATION
1	At -48 volt fuse panel— Using W1AF cord, connect battery to fuse alarm bus bar associated with -48V SIG, -48V TALK, E, F, G, and H fuses.	FA lamp lighted. Central office major alarm operated. Central office MJ-AIOD lamp lighted at maintenance center.
2	Remove W1AF cord.	FA lamp extinguished. Central office major alarm retired. Central office MJ-AIOD lamp extinguished at maintenance center.

K. Converter Alarm and Alarm Fail-Safe Circuits

STEP	ACTION	VERIFICATION
1	At display and test control panel— Operate SYD key.	SYD lamp lighted.
2	At -48V fuse panel— Remove 10-ampere FE fuse.	At miscellaneous panel— PWF lamp lighted. Central office major alarm operated. Central office MJ-AIOD lamp lighted at maintenance center.
3	At miscellaneous panel— Operate CRRS key.	CRRS lamp lighted. Central office MJ-AIOD lamp extinguished at maintenance center.
4	At -48V fuse panel— Replace FE fuse.	At miscellaneous panel— PWF lamp extinguished. Central office major alarm retired.

STEP	ACTION	VERIFICATION
5	At miscellaneous panel— Restore CRRS key.	CRRS lamp extinguished.
6	At –48V fuse panel— Remove 2-ampere AF fuse.	Same as Step 2.
7	Replace AF fuse.	At miscellaneous panel— PWF lamp extinguished. Central office major alarm retired. Central office MJ-AIOD lamp extinguished at maintenance center.
8	At converter unit— Operate INPUT switch to OFF position.	24V FAIL, 12V FAIL, 6V FAIL, and INVR FAIL lamps lighted. Central office major alarm operated. Central office MJ-AIOD lamp lighted at maintenance center.
9	Momentarily operate ST-RLS KEY.	All trouble lamps extinguished. Central office major alarm retired.
10	Slide inverter unit out of converter as far as necessary to disconnect it from its rear connector.	
11	With ST-RLS KEY held operated— Operate INPUT switch to ON position.	
12	Release ST RLS KEY.	At miscellaneous panel— PWF lamp lighted. Central office major alarm operated. Central office MJ-AIOD lamp lighted at maintenance center.
13	At miscellaneous panel— Operate CRRS key.	CRRS lamp lighted. Central office MJ-AIOD lamp extinguished at maintenance center.
14	At converter unit— Operate INPUT switch to OFF position.	24V FAIL, 12V FAIL, 6V FAIL, and INVR FAIL lamps lighted. Central office major alarm operated. Central office MJ-AIOD lamp lighted at maintenance center.
15	Momentarily operate ST-RLS KEY.	All trouble lamps extinguished. Central office major alarm retired.
16	Reconnect inverter unit to its connector.	
17	With ST-RLS KEY held operated— Operate INPUT switch to ON position.	

STEP	ACTION	VERIFICATION
18	Release ST-RLS KEY.	
19	Repeat Steps 8 through 18, disconnecting and reconnecting 6V, 12V, and 24V rectifier units in sequence.	
20	Perform initialization test (Test I) and replace system in service.	

L. Major and Minor Alarm Interface Circuit

STEP	ACTION	VERIFICATION
1	At SIT circuit, CP74, location 01A07— Connect pin 29 to pin 2.	At miscellaneous panel— MJA and MAPF lamps lighted. Central office major alarm operated. Central office MJ-AIOD lamp lighted at maintenance center.
2	Disconnect pin 2 from pin 29.	
3	Momentarily operate CLR switch and RS key.	MJA and MAPF lamps extinguished. Central office major alarm retired. Central office MJ-AIOD lamp extinguished at maintenance center.
4	Repeat Steps 1 and 2.	
5	Momentarily operate CLR switch at SIT frame and RS-AIOD key at maintenance center.	Same as Step 3.
6	At SIT circuit, CP74, location 01A07— Connect pin 29 to pin 17.	Same as Step 1.
7	Disconnect pin 17 from pin 29.	Same as Step 2.
8	Momentarily operate CLR switch and RS key.	MJA and MAPF lamps extinguished. Central office major alarm retired. Central office MJ-AIOD lamp extinguished at maintenance center.
9	At SIT circuit, CP R49C, location 05C10— Connect pin 1 to pin 14.	At miscellaneous panel— MNA lamp lighted. Central office minor alarm operated. Central office MN-AIOD lamp lighted at maintenance center.
10	At miscellaneous panel— Operate CRRS key.	CRRS lamp lighted. Central office MN-AIOD lamp extinguished at maintenance center.
11	Momentarily operate ACO key.	ACO lamp lighted. Central office minor alarm silenced.

STEP	ACTION	VERIFICATION
12	At SIT circuit, CP R49C, location 05C10—Disconnect pin 14 from pin 1.	MNA lamp extinguished. Central office minor alarm retired.
13	Restore CRRS key.	CRRS lamp extinguished.
14	Operate AC switch.	
15	Set DLN switch to position 0.	
16	Perform Steps 2 through 13, Test A.	
17	Set DLN switch to position 1.	
18	Perform Steps 2 through 10, Test A.	
19	Operate TST switch.	DLN lamps 4 and 7 lighted at display panel and at maintenance center.
20	Restore PBX and TST switches to normal.	
21	Momentarily operate CLR key.	All lamps extinguished except SYC.
22	Set DLN switch to position 2.	
23	Perform Steps 2 through 10, Test A.	
24	Operate TST switch.	DLN lamps 0 and 1 lighted at display panel and at maintenance center.
25	Repeat Steps 20 and 21.	
26	Set DLN switch to position 0.	
27	Perform Steps 2 through 10, Test A.	
28	Operate TST switch.	DLN lamps 0 and 2 lighted at display panel and at maintenance center.
29	Repeat Steps 20 and 21.	
30	Restore all switches to normal.	◆All lamps extinguished.◆