Installation Engineering Handbook 282
Western Electric Company, Inc.
Denver Works

Section 85080
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Replacing Section 8715
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DIMENSION® 400 PBX

AUTOMATIC IDENTIFIED OUTWARD DIALING
(AIOD)

CONTENTS

1. GENERAL INFORMATION

1.1 Description

1.11 This section describes the tests to be performed whenever AIOD (Automatic Identified Outward Dialing) is provided.

1.12 This feature provides a means of automatically identifying the station and trunk on any outgoing call.

2. RECORDS AND REQUIREMENTS

2.1 Records

2.11 Form SD-97-1313 is required for recording the results of these tests.

3. TEST EQUIPMENT

3.1 Handsets

AMT	ITE	DESCRIPTION
1	4208A	Telephone Handset

3.2 Test Sets

AMT	ITE	DESCRIPTION
1	5630	ANI Data Link Test Set

3.3 Cords

AMT	ITE	DESCRIPTION
1	9091	Test Set Cord

Printed in U.S.A.

4. PROCEDURE

4.1 Preliminary

4.101 Interconnect the ITE - 9091 Test Cord between the LC32 circuit pack and the ITE - 5630 ANI DATA LINK TEST SET.
NOTE: The Tip and Ring from the test set shall be connected to the channel 9 terminals at the LC32 circuit pack.

4.102 Plug the test set line cord into an 117VAC outlet.

4.103 Set the ANI Test Set switches as follows:

SWITCH	SET TO
Self-Check Data - ON/OFF	OFF
Display - TRUNK/STATION	STATION
Display - ERROR/VERIFY MODE	ERROR MODE
Alarm - ON/OFF	ON
Mode - DATA LINK/ANI OR SLF-CH	ANI OR SLF-CH
Power - ON/OFF	ON

4.104 With the switches set as in step 4.103 the STATION AIOD code will be displayed and if an error on either the station or trunk code is detected the audible alarm will sound. To display the TRUNK AIOD code operate the Display - TRUNK/STATION switch to TRUNK.

4.105 When terminals (test points) 6 and 7 are interconnected at the LC32 circuit pack, via the ITE - 9091 Test Cord, data will not be sent to the Central Office, but will be sent via test point 8 (AMD lead).

4.106 All station numbers must be identified with a four digit code. PBX's that have 2 or 3 digit station access numbering configurations require an additional thousandth digit for a 3 digit numbering configuration and 2 additional (thousandth and hundredth) digits for a 2 digit numbering configuration. The codes assigned to these configurations may be found in the System and Feature Summary section of the Customer Order Document and may be verified by invoking PROC 21, Word 3.

4.107 PBX stations may be assigned to an auxiliary ANI number. Those stations that have been assigned to the auxiliary ANI number will have the STATION AIOD code sent as the auxiliary ANI number. To determine if an auxiliary ANI number exists and which stations are assigned refer to the System and Feature Summary and to the Station Line Assignments section of the Customer Order Document.

4.108   References are made in this section to Outgoing CO Trunks, if the PBX is equipped with 2-way CO Trunks, these trunks shall also be tested when the testing of Outgoing CO Trunks is specified.

4.109   When Central Office trunks are tested the Tip and Ring from the test set shall be connected to the Channel 9 test points on the LC32. When the CCSA trunks are tested the Tip and Ring from the test set shall be connected to the Channel 8 test points on the LC32.

4.110   The data link connections to the Central Office shall be performed prior to any testing in this section.

4.2   Test Procedure

OUTGOING CO TRUNK AIOD TESTS

4.201   From the Trunk Assignments section of the Customer Order Document, make a list of the trunk access codes for each Outgoing and 2-way CO trunk group with assigned AIOD numbers, the equipment location of each trunk within the group and its associated AIOD number. See Example Below:

TRUNK GROUP _____

ACCESS CODE	EQUIPMENT CARRIER	LOCATION SLOT	CKT	AIOD NBR
9	00	05	3	4132

4.202   From the Misc. Trks. Rest. Grp., the Class of Service and the Station Line Assignments sections of the Customer Order Document pick a station that is allowed access to the trunk groups listed in step 4.201. Note: It may be necessary to pick more than one station. See Example Below:

STATION CODE	AIOD NBR	ALLOWABLE DIAL ACCESS CODES
323	4323	9, 81, 82
450	4450	85, 87

4.203   Utilizing the 249A Adapter connect the handset to the circuit pack test line associated with the station that is allowed access to the trunk group to be tested.

4.204   Utilizing the MAAP panel and PROC 62 enter the following information:

a)   The equipment location of the test line associated with the station chosen in step 4.203.

b)   A "O" into the TEST MODE field.

c)   The TRUNK DIAL ACCESS CODE for the trunk group under test.
Note: After the above information has been entered, momentarily operate the MAAP panel EXECUTE key. The MAAP panel will display the equipment location of the first CO trunk to be tested.

4.205   Go off-hook with the handset, verify PBX dial tone, and then dial the access code of the Outgoing (or 2-way) CO trunk under test. After dial completion verify:

a)   That Central Office dial tone is received at the handset.
Note: The CO trunk shall be connected to the Central Office.

b)   That the STATION AIOD number is displayed at the ANI Test Set.

4.206   At the ANI Test Set, operate the Display - TRUNK/STATION switch to TRUNK. Verify:

a)   That the TRUNK AIOD number is displayed at the ANI Test Set.
Note: The number displayed shall correspond to the listing made in step 4.201.

4.207   Go on-hook with the handset.

4.208   At the MAAP panel, momentarily operate the STEP key. If the MAAP panel STATE = 5 all Outgoing (or 2-way) trunks within the group have been tested, otherwise a new trunk equipment location will be displayed. If the STATE does not equal 5 go to step 4.209, otherwise go to step 4.210.

4.209   Repeat steps 4.205 through 4.208 until all Outgoing CO trunks within the same trunk group have been tested.

4.210   Repeat steps 4.203 through 4.209 until all Outgoing (or 2-way) CO trunks have been tested.

4.211   Disconnect the wire between the ANI Test Set and test point 6 of the LC32 circuit pack.

4.212   Notify the Central Office that an AIOD test is to be made and to check the AIOD number to be sent.

4.213   Verify also that the data link connections are completed so that a test can be made.

4.214   Go off-hook with the handset, verify dial tone, and then dial the access code of an Outgoing (or 2-way) CO trunk. After dial completion verify:

a)   That Central Office dial tone is received.

b)   That the STATION and TRUNK AIOD numbers displayed on the ANI Test Set agree with those received at the Central Office.

4.215   Notify the Central Office that the test has been completed and reconnect the lead disconnected in step 4.211 to Test Point 6 at the LC32 circuit pack.

STATION AIOD TESTS

4.216   From the System and Feature Summary section of the Customer Order Document determine if an Auxiliary ANI Number assignment has been made. If an assignment has been made go to step 4.217, otherwise go to step 4.223.

4.217   Utilizing the MAAP panel and PROC 21, Word 3 verify the Auxiliary ANI Number assignments as determined in step 4.216.

4.218   From the Station Line Assignments section of the Customer Order Document determine (or make a list) the stations that are assigned to the Auxiliary ANI number.

4.219   Utilizing the MAAP panel and PROC 00, Word 1 verify the Auxiliary ANI Number assignments for the stations as determined in step 4.218.

4.220   Utilizing the 249A Adapter connect the handset to a circuit pack test line associated with a station that is assigned to the Auxiliary ANI Number and is allowed access to an Outgoing (or 2-way) CO trunk.

4.221   At the ANI Test Set, operate the Display - TRUNK/STATION switch to STATION.

4.222   Go off-hook with the handset, verify dial tone, and then dial the access code of an Outgoing (or 2-way) CO trunk that the test station is allowed. After dial completion verify:

a)   That the handset receives Central Office dial tone.

b)   That the ANI Test Set displays the Auxiliary ANI Number.

4.223   The object of the remaining station tests is to test all the possible Station digits (units, tens, hundreds and thousands) within the numbering that are not assigned to the Auxiliary ANI Number and are allowed to dial Outgoing Trunks (CO or CCSA).

4.224   From the Station Line Assignments section of the Customer Order Document make a list of the station numbers that are not assigned to the Auxiliary ANI Number. For instance, if the numbering plan was from 200 to 290 and from 400 to 450, the stations that could be used for test would be 200 through 210, 220, 230, 240, 250, 260, 270, 280, 290 and 400. These stations would test all the units, tens, hundreds and thousands digits within the numbering plan. Note: The thousands digit would be determined from the System and Feature Summary section of the Customer Order Document. The following format may be used to make the listing:

STATION CODE	AIOD NBR	ALLOWABLE TRUNK ACCESS CODES

4.225   Utilizing the information obtained in step 4.224 connect the handset via the 249A Adapter to the circuit pack test line associated with the station to be used for test.

4.226   Go off-hook with the handset, verify dial tone and then dial the Outgoing (or 2-way) CO trunk access code that the station under test is allowed. Note: If the station under test is allowed to dial CCSA trunks, dial the CCSA trunk access code. After dial completion verify:

a)   That the handset receives Central Office dial tone.

b)   That the ANI Test Set displays the STATION AIOD code associated with the station being tested.

4.227   Repeat steps 4.225 and 4.226 until all the stations listed in step 4.224 have been tested.

ATTENDANT AIOD TESTS

4.228   From the System and Feature Summary section of the Customer Order Document determine the AIOD number assigned to the attendant (first LDN).

4.229   At the console, momentarily operate a LOOP key. Verify:

a)   That the ATND lamp lights steadily.

4.230   At the console, momentarily operate the START key. Verify:

a)   That PBX dial tone is received at the console receiver.

4.231   At the console, dial an Outgoing (or 2-way) CO trunk access code. Verify:

      a)   That Central Office dial tone is received at the console receiver.

      b)   That the ATTENDANT AIOD code is displayed on the ANI Test Set. Note: The Display - TRUNK/STATION switch shall be set to STATION.

TIE TRUNK AIOD TESTS

4.232   If the system is not equipped with Tie Trunks go to step 4.237, otherwise go to step 4.233.

4.233   From the Trunk Assignments and the Tandem Tie Trunk Restrictions Assignments sections of the Customer Order Document make a list of all the tie trunk equipment locations, their associated AIOD numbers and their allowed CO trunk or CCSA trunk access codes. The following is a sample format:

TIE TRK EQ. LOC.	AIOD NBR	ALLOWABLE TRUNK DIAL ACCESS CODE

4.234   Verify that the ANI Test Set Display - TRUNK/STATION switch is set to STATION.

4.235   Perform a Tie Trunk to CO Trunk call on the Tie Trunk to be tested and disconnect after one minute. Verify:

      a)   That the TIE TRUNK AIOD number is displayed on the ANI Test Set and that it is in accordance with the information obtained in step 4.233.

4.236   Repeat step 4.235 until all Tie Trunks listed in step 4.233 have been tested.

CCSA TRUNK AIOD TESTS

4.237   From the Trunk Assignments section of the Customer Order Document make a list of the CCSA trunk access codes, their associated AIOD number and their associated equipment location. The following is a sample format:

TRUNK GROUP _____

ACCESS CODE	EQUIPMENT LOCATION			AIOD NBR
	CARRIER	SLOT	CKT	

4.238   From the Misc. Trk. Rest. Grp., the Class of Service and the Station Line
         Assignments sections of the Customer Order Document pick a station that
         is allowed access to the trunk groups listed in step 4.237. Note: It may be
         necessary to pick more than one station. The following is a sample format:

STATION CODE	AIOD NBR	ALLOWABLE CCSA DIAL ACCESS CODE(s)

4.239   Utilizing the 249A Adapter connect the handset to the circuit pack test line
         associated with the station that is allowed access to the CCSA trunk group
         to be tested. See step 4.238.

4.240   Utilizing the MAAP panel and PROC 62 enter in the information to select
         the CCSA trunk to be tested.

4.241   At the ANI Test Set, set the Display - TRUNK/STATION switch to TRUNK.

4.242   Go off-hook with the handset, verify PBX dial tone and then dial the access
         code of the CCSA trunk to be tested. After dial completion, verify:

         a)   That Central Office dial tone is received at the handset. Note: The
               CCSA trunk shall be connected to Central Office.

         b)   That the CCSA TRUNK AIOD number is displayed at the ANI Test Set
               and that it is in accordance with the information obtained in step
               4.237.

4.243   Go on-hook with the handset and at the MAAP panel momentarily operate
         the STEP key. If the STATE = 5 all the CCSA trunks within the same group
         have been tested, otherwise a new trunk equipment location will be displayed.
         If the STATE does not equal 5 go to step 4.244. Otherwise, go to step 4.245.

4.244   Repeat steps 4.242 through 4.243 until all CCSA trunks within the same
         group have been tested.

4.245   Repeat steps 4.239 through 4.244 until all CCSA trunk groups have been tested.

4.246   Disconnect the wire between the ANI Test Set and test point 6 of the LC32 circuit
         pack.

4.247   Notify the Central Office that an AIOD Test is to be made and to check the
         AIOD number to be sent.

4.248 Go off-hook with the handset, verify dial tone and then dial the access code of a CCSA trunk. After dial completion, verify:

a) That Central Office dial tone is received at the handset receiver.

b) That the STATION and TRUNK AIOD numbers displayed on the ANI Test Set agree with those received at the Central Office.

4.249 Notify the Central Office that the test has been completed.

4.250 Disconnect the handset, 249A Adapter from the test line and disconnect the ANI Test Set and cord from the LC32 circuit pack.

4.251 This completes the AIOD tests per this section.

Reason for Issue:
New Section

Manager, Denver PBX PECC