AMARS
ANI B IDENTIFIER
IDENTIFICATION OF CALLING CUSTOMERS
DIRECTORY NUMBER FOR TOLL CALLS

CONTENTS

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1. GENERAL INFORMATION

1.1 Description

1.11 This section describes the service tests to be performed on the ANI B Identifier to insure its proper operation on toll calls before releasing it for service.

1.12 This section uses the J1C081G identifier test set to monitor toll traffic for possible identification errors.

1.13 Circuit pack functions which are solely used on toll service calls are tested in this section. This includes tests of circuit packs JW137, JW138, JW148, JW149 and JW150.

1.2 Sequence of Operation

1.21 Before performing the operations per this section, the tests of the following sections of Handbook 95 shall have been performed:

SECTION
115A
115B
115C
115D

1.3 General Precautions

1.31 Before engaging or disengaging any circuit pack, refer to Paragraph 4 of Section 115C. This describes a power-down procedure which is required on some circuit packs to prevent damage to the integrated circuits.

1.32 Trouble locating precautions and procedures are described in Paragraph 5 of Section 115C.

2. RECORDS AND REQUIREMENTS

2.1 Records

2.11 Results of this section shall be recorded on SD-97-1313 and SD-97-1315.

3. TEST EQUIPMENT

3.1 Test Sets

3.11 The following equipment is required to perform the tests per this section:

AMT	ITE	DESCRIPTION
1	4509	Vacuum Tube Volt-Ohmmeter
1	5221A	Storage Oscilloscope
1	5282	Logic Probe
1	(J1C081G)	Identifier Test Set

4. MAKE BUSY

4.1 Verify a logical "1" is present at 3B7-211(B1) and 3B14-211(B2) for Identifier 0 or 3B7-210(B1) and 3B14-210(B2) for Identifier 1. If this condition is met, skip the following and proceed to Paragraph 5.

4.2 If the MB1 relay is not operated proceed to Trouble Locating Chart A.

4.3 If the MB1 relay is operated proceed to Trouble Locating Chart AA.

5. TEST SET-UP

5.1 Mount the Identifier Test Set J1C081G in the upper right hand corner of the J1C081A unit nest. The -48V F1 fuse should be removed prior to inserting or removing the test set.

5.2 An explanation of the idications and switch functions of the Identifier Test Set is given in Section 115A of this handbook.

5.3 Set up the Identifier Test Set to monitor toll calls (master count 34), in the Match mode, with the Automatic Clear key normal (down).

5.4 In Paragraph 6 the make busy plug will be momentarily removed to check service calls are handled satisfactorily.

5.5 Temporarily ground pins 204 and 20 of 3B7 when testing the first modified Identifier (ID-0). When testing ID-1, remove the straps.

6. SERVICE CALLS

6.1 The test set up is described in Paragraph 5.

6.2 The make busy plug at the Miscellaneous Circuit for the Trouble Ticketer Frame will be removed to admit some service calls to the Identifier Under Test. If trouble is encountered, the Identifier should be made busy during trouble analysis.

6.3 The objective of this paragraph is to obtain the office and calling number display of a toll service call on the Identifier Test Set. When the proper display is obtained, release the display with the MDC key and in this manner verify several toll service calls are properly displayed.

(a) When the above result is obtained proceed to Paragraph 7.

(b) When trouble is encountered, perform the trouble locating tests of the following paragraph, as required.

6.4 OFF-NORMAL

(a) On the the Identifier Test Set verify the "ID-ON" 0 or 1 and "OND" indicators light. If these conditions are met, skip the following and proceed to the next paragraph.

(b) If the OND indicator does not light proceed to Chart B of the Trouble Locating Charts.

(c) If the OND indicator is lit but the "ID-ON" indicator 0 or 1 does not light proceed to Chart BA of the Trouble Locating Charts.

6.5 START

(a) On the Identifier Test Set verify the ST indicator lights. If this condition is met, skip the following and proceed to the next paragraph.

(b) If the ST indicator does not light proceed to Chart C of the Trouble Locating Charts.

6.6 Secondary Clock Start

6.61 If the office and calling number are still not displayed on the Identifier Test Set, proceed with the following:

(a) Obtain an Office A scan as described in Section 115A and verify the 17th pulse is extended.

(b) If the 17th pulse is not extended proceed to Chart D of the Trouble Locating Charts.

(c) If the 17th pulse is extended the Identifier has probably relapsed and is failing in a prior test of Section 115C. Return to this section to shoot the trouble.

7. OFFICE MONITOR

7.1 The test set up is described in Paragraph 5.3 except the Automatic Clear key is in the up position.

7.2 The objective of this paragraph is to monitor the office toll service traffic to verify the office is trouble free.

7.3 Remove the make busy plug at the Miscellaneous circuit for the Trouble Ticketer Frame.

7.4 Make busy the identifier that is not under test for a 24 hour period and note the 1st attempt failures, 1st trial failures, and 2nd trial failures as recorded on the -AF, -TR and 2TR registers at the Trouble Ticketer. Although the 1st attempt failures will read higher than that of the old identifier, the 1st and 2nd trials failures should be comparable to those readings prior to installation.

ATTACHMENTS
Chart A, AA, B, BA, C & D ON Pgs. 4 thru 7

Manager, Product Engineering
Control Center

TROUBLE LOCATING CHARTS

CHART A

MB 1 relay is not operated

CHECK	CORRECTIVE ACTION
Verify a logical "0" is present at 2A1-8(B22).	1. Check a make busy plug is in the I-B jack in the Misc Ckt for the Trouble Ticketer Frame (FS18). 2. Verify a ground is applied to the MB lead at the Misc Ckt for the Trouble Ticketer Frame when the make busy plug is inserted. 3. Correct MB wiring.
Verify -22 volts is present at 2A1-7(B22).	1. If -48V is present, replace JW149. 2. If no voltage is present, (a) Check MBB wiring to JW133. (b) Verify -48 volt is present at 2B12-103(B4). (c) Replace JW133.
Verify a logical "0" is present at 2A1-106(B22).	Correct ground wiring at 2A1-106(B22).
Verify a logical "0" is present at 2A1-14(B22).	Replace JW149.
Verify a logical "0" is present at U terminal of MB1 winding.	Correct wiring to MB1 relay.
Verify -48 volt is present at L terminal of MB1 winding.	Replace MB1 relay.

CHART AA

No Make Busy Indication - MB1 relay operated

CHECK	CORRECTIVE ACTION
Verify a logical "0" is present at 2A1-18(B22).	Correct wiring of contact 12 make of relay MB1 (FS18).
Verify a logical "1" is present at 2A1-17(B22).	Replace JW149.
Verify a logical "1" is present at 1B7-32(B24).	Correct MB1 wiring.
Verify a logical "0" is present at 1B7-19(B23).	See Chart BA, Section 115C.
Verify a logical "1" is present at 1B7-30(B24).	Replace JW148.

CHART AA (Cont'd)

No Make Busy Indication - MB1 relay operated

CHECK	CORRECTIVE ACTION
Verify a logical "1" is present at 3B7-211(B1) and 3B14-211(B2) for Identifier 0 or as 2A3-201, 202, 215(B24) and 3B7-210(B1) and 3B14-210(B2) for Identifier 1.	Identifier 0: Correct MB0 wiring. Identifier 1: 1. Correct MB1 wiring. 2. Replace JW140.

CHART B

OND indicator does not light

CHECK	CORRECTIVE ACTION
Verify a logical "1" appears at 1B7-21(B24).	1. Replace JW148. 2. Refer to OFF-Normal test paragraph of Section 115C.
Verify a logical "1" appears at 3B7-203(B1) and 3B14-203(B2) for Identifier 0 or at 2A3-12, 36, 1 (B24), 3B7-204(B1) and 3B14-204 (B2) for Identifier 1.	Identifier 0: 1. Correct TSX0 wiring. Identifier 1: 1. Correct TSX1 wiring. 2. Replace JW140.
Verify a logical "1" appears at 3B7-212(B1) for Identifier 0 or at 3B14-212(B2) for Identifier 1.	Replace associated JW137.
For Identifier 0: Verify a logical "1" appears at 1B7-20(B23). For Identifier 1: Verify a logical "1" appears at: 1. 1B8-19(B2) on ID0. 2. 1B8-18(B2) and a logical "0" appears at 1B-17(B2) on ID0. 3. 1B-3(B2) and a logical 0 appears at 1B-4(B2) on ID1. 4. 1B-8(B2) on ID1. 5. 1B1-20(B23).	Correct ONDC0 wiring. 1. Correct ONDC wiring. 2. Replace JW93. 3. Check wiring between JW93, JW94. 4. Replace JW94. 5. Check ONDC1 wiring.
Verify a logical "1" appears at 1B7-34(B23).	Replace JW148.

CHART BA

ID-ON indicator 0 or 1 is not lit, OND indicator is lit

CHECK	CORRECTIVE ACTION
Identifier 0: Verify a logical "1" appears at 3B7-206(B1) and 3B14-206(B2). Identifier 1: Verify a logical "1" appears at 3B7-209(B1) and 3B14-209(B2).	Replace associated JW137.
1. Identifier 0: Verify a logical "1" appears at 3B4-8, 9 (B29). 2. Identifier 1: Verify a logical "1" appears at 3A15-8, 9 (B29).	1. Correct ON00, ON01 wiring. 2. Correct ON10, ON11 wiring.
Identifier 0: Verify a logical "1" appears at 3B4-15(B29). Identifier 1: Verify a logical "1" appears at 3A15-15(B29). Verify a logical "1" appears at 1B7-19(B23). Verify a logical "1" appears at 1B7-18(B23).	Replace associated JW150. Correct ONA- wiring. Replace JW148.

CHART C

ST indicator does not light.

CHECK	CORRECTIVE ACTION
Verify a logical "1" appears at 2B14-5(B25)	Replace JW138.
Identifier 0: Verify a logical "1" appears at 2B7-213(B1) and 3B14-213(B2).	Correct PTY CK (0) wiring via contact 3B of ICOA relay.

CHART C (Cont'd)

ST indicator does not light.

CHECK	CORRECTIVE ACTION
Identifier 1: Verify a logical "1" appears at: 1. 2A3-19, 20 (B1). 2. 2A3-40(B1). 3. 3B7-208(B) and 3B14-208(B2). Verify a logical "1" appears at 3B7-214(B1) and 3B14-214(B2) for Identifier 0 or at 3B7-207(B1) and 3B14-207(B2) for Identifier 1.	 1. Correct wiring between JW138 and JW140. 2. Replace JW140. 3. Correct PTY CK (1) wiring via contact 3B of IC1A relay. Replace associated JW137.
1. Identifier 0: Verify a logical "1" appears at 3B4-6, 7 (B29). 2 Identifier 1: Verify a logical "1" appears at 3A15-6, 7 (B29).	1. Correct ST00, ST01 wiring. 2. Correct ST10, ST11 wiring.
Identifier 0: Verify a logical "1" appears at 3B4-14(B29). Identifier 1: Verify a logical "1" appears at 3A15-14(B29). Verify a logical "1" appears at 1B7-33(B23). Verify a logical "1" appears at 1B7-2(B29).	 Replace associated JW150. Correct STA- wiring. Replace JW148.

CHART D

Secondary clock not started

CHECK	CORRECTIVE ACTION
Verify a logical "1" appears at 3B7-202(B) for ID0 or at 3B14-205 (B2) for ID1.	Replace the asociated JW137.
Verify a logical "1" appears at 1B7-6(B23).	Correct TRM- wiring.
Verify a logical "1" appears at 1B7-5(B23).	Replace JW148.