

DIMENSION® 2000 AND CUSTOM PBX
(CSS 201L)
X-RAY TEST 45
(LC105 SELF TEST)

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1. GENERAL INFORMATION

1.1 Description

1.11 This section describes the procedures to be followed to perform X-Ray Test 45.

1.12 X-Ray Test 45 checks the LC105 maintenance boards and all common amplifiers. This test takes approximately 1 second to perform.

1.2 Test Description

1.21 X-Ray Test 45 executes the PAM-TST subroutine, which locates and tests LC105 circuit packs, then uses them to test common amplifiers. The principal parts of this X-Ray are:

- a) Check network digital shift register.
- b) Check power return flip-flop.
- c) Verify receiver can be cleared.
- d) Verify high and low frequency self tests.
- e) Verify time division bus 0 amplifier paths to every carrier.
- f) Verify bus 1 paths to every carrier.

2. RECORDS

2.1 Form SD-97-1313 is required for recording the results of this test.

3. TEST EQUIPMENT

3.1 Test Sets - See Section 400 of Handbook 281.

PRIVATE

THE INFORMATION CONTAINED HEREIN SHOULD NOT BE DISCLOSED TO UNAUTHORIZED PERSONS. IT IS MEANT SOLELY FOR USE BY AUTHORIZED BELL SYSTEM EMPLOYEES.

4. TEST PROCEDURES

4.1 Preliminary

4.11 Before executing this test, X-Ray Test 05 should have passed.

4.2 Test Execution

4.21 To execute X-Ray Test 45, momentarily operate the EXECUTE, 4, 5 keys at the MAAP.

4.3 Test Pass Indication

4.31 The SEE NOTE MAAP LED lighting (or the Alarm Panel - PASS lamp lighting) indicates that X-Ray Test 45 has passed.

4.32 At the MAAP, momentarily operate the DISPLAY, 0, NEXT DATA keys, verify the displayed LC105 Board Count and LC100 Board Count against the actual equipment configuration.

4.4 This completes the x-ray testing per X-Ray Test 45.

5. MINIMUM CIRCUIT PACK REQUIREMENTS (8K Memory, Low Speed, MD)

X-RAY Test 45

Basic Control Carrier
J58882AA

<u>CARRIER SLOT</u>	<u>CIRCUIT PACK CODE</u>	<u>FUNCTION</u>
00	LC35	RAM Bit Swap
01	LC28B or C	RAM (0-1FFF*)
02	LC28B or C	RAM (2000-3FFF*)
03	LC28B or C	RAM (4000-5FFF*)
04	LC28B or C	RAM (6000-7FFF*)
05	LC28B or C	RAM (8000-9FFF*)
06	LC28B or C	RAM (A000-BFFF*)
07	LC28B or C	RAM (C000-DFFF*)
08	LC28B or C	RAM (E000-FFFF*)
09	LC28B or C	RAM (10000-11FFF*)
10	LC28B or C	RAM (12000-13FFF*)
11	LC28B or C	RAM (14000-15FFF*)
12	LC28B or C	RAM (16000-17FFF*)
13	LC28B or C	RAM (18000-19FFF*)
14	None Required	
15	None Required	
16	None Required	
17	LC36	RAM Data Buffer
18	LC37	RAM Control
19	LC147	Alarm Control
20	LC143	Processor
21	LC143	Processor
22	LC142	ROM
23	None Required	
24	LC133	I/O Memory Decode
25	LC132	I/O Buffer
26	LC29B	Tape Controller II
27	LC30B	Tape Controller I
28	None Required	
29	None Required	
30	LC34B or LC172	Data Link**
31	None Required	
32	None Required	
33	None Required	
34	None Required	
35	None Required	
36	None Required	
37	None Required	
38	None Required	
39	LC130	4 MHZ Channel Control
40	LC131	4 MHZ Subchannel
41	None Required	

*Memory locations

**The tape will load and the processor x-ray will run without this circuit pack; however, MAAP I/O is not possible.

5. MINIMUM CIRCUIT PACK REQUIREMENTS (8K Memory, High Speed)

X-RAY Test 45

Basic Control Carrier
J58882AA

<u>CARRIER SLOT</u>	<u>CIRCUIT PACK CODE</u>	<u>FUNCTION</u>
00	LC135	RAM Bit Swap
01	LC28C	RAM (0-1FFF*)
02	LC28C	RAM (2000-3FFF*)
03	LC28C	RAM (4000-5FFF*)
04	LC28C	RAM (6000-7FFF*)
05	LC28C	RAM (8000-9FFF*)
06	LC28C	RAM (A000-BFFF*)
07	LC28C	RAM (C000-DFFF*)
08	LC28C	RAM (E000-FFFF*)
09	LC28C	RAM (10000-11FFF*)
10	LC28C	RAM (12000-13FFF*)
11	LC28C	RAM (14000-15FFF*)
12	LC28C	RAM (16000-17FFF*)
13	LC28C	RAM (18000-19FFF*)
14	None Required	
15	None Required	
16	None Required	
17	LC136	RAM Data Buffer
18	LC137	RAM Control
19	LC147	Alarm Control
20	LC143	Processor
21	LC143	Processor
22	LC142	ROM
23	None Required	
24	LC133	I/O Memory Decode
25	LC134	I/O Buffer
26	LC29B	Tape Controller II
27	LC30B	Tape Controller I
28	None Required	
29	None Required	
30	LC34B or LC172	Data Link**
31	None Required	
32	None Required	
33	None Required	
34	None Required	
35	None Required	
36	None Required	
37	None Required	
38	None Required	
39	LC130	4 MHZ Channel Control
40	LC131	4 MHZ Subchannel
41	None Required	

*Memory locations

**The tape will load and the processor x-ray will run without this circuit pack;
however, MAAP I/O is not possible.

5. MINIMUM CIRCUIT PACK REQUIREMENTS (16K Memory, High Speed)

X-RAY Test 45

Basic Control Carrier
J58882AA

<u>CARRIER SLOT</u>	<u>CIRCUIT PACK CODE</u>	<u>FUNCTION</u>
00	LC135	RAM Bit Swap
01	LC128B	RAM (0-3FFF*)
02	LC128B	RAM (4000-7FFF*)
03	LC128B	RAM (8000-BFFF*)
04	LC128B	RAM (C000-FFFF*)
05	LC128B	RAM (10000-13FFF*)
06	LC128B	RAM (14000-17FFF*)
07	LC128B	RAM (18000-1BFFF*)
08	None Required	
09	None Required	
10	None Required	
11	None Required	
12	None Required	
13	None Required	
14	None Required	
15	None Required	
16	None Required	
17	LC136	RAM Data Buffer
18	LC138	RAM Control
19	LC147	Alarm Control
20	LC143	Processor
21	LC143	Processor
22	LC142	ROM
23	None Required	
24	LC133	I/O Memory Decode
25	LC134	I/O Buffer
26	LC29B	Tape Controller II
27	LC30B	Tape Controller I
28	None Required	
29	None Required	
30	LC34B or LC172	Data Link**
31	None Required	
32	None Required	
33	None Required	
34	None Required	
35	None Required	
36	None Required	
37	None Required	
38	None Required	
39	LC130	4 MHZ Channel Control
40	LC131	4 MHZ Subchannel
41	None Required	

*Memory locations

**The tape will load and the processor x-ray will run without this circuit pack;
however, MAAP I/O is not possible.

5. MINIMUM CIRCUIT PACK REQUIREMENTS

X-RAY Test 45

Module Control Carrier
J58882BA

<u>CARRIER SLOT</u>	<u>CIRCUIT PACK CODE</u>	<u>FUNCTION</u>
00	None Required	
01	LC103	Central L/T PAM Amplifier
02	LC104	Link Central PAM Amplifier
03	None Required	
04	None Required	
05	None Required	
06	None Required	
07	None Required	
08	None Required	
09	None Required	
10	None Required	
11	None Required	
12	None Required	
13	None Required	
14	None Required	
15	None Required	
16	None Required	
17	None Required	
18	None Required	
19	None Required	
20	None Required	
21	None Required	
22	None Required	
23	None Required	
24	None Required	
25	None Required	
26	None Required	
27	LC121	Network Clock
28	None Required	
29	None Required	
30	None Required	
31	None Required	

5. MINIMUM CIRCUIT PACK REQUIREMENTS

X-RAY Test 45

Line Group Control Carrier
J58882BB

<u>CARRIER SLOT</u>	<u>CIRCUIT PACK CODE</u>	<u>FUNCTION</u>
01	LC105	Maintenance
02	None Required	
03	None Required	
04	LC101	Carrier PAM Amplifier
05	None Required	
06	None Required	
07	None Required	
08	None Required	
09	None Required	
10	None Required	
11	None Required	
12	None Required	
13	None Required	
14	None Required	
15	None Required	
16	None Required	
17	None Required	
18	None Required	
19	LC122	Network Control
20	LC46	Scanner
21	LC123	Network I/O
22	LC124	Network Data

Reason for Issue:
New Section

Manager, Denver PBX PECC