

DIMENSION[®] 2000 AND CUSTOM PBX
POWER DOWN TEST
(MEMORY HOLDOVER)

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1. GENERAL

- 1.1 This section provides information for testing memory holdover. Memory holdover in the common control power supply (rectifier) is provided by nickel - cadmium batteries, KS-20390 L8, which are specified to hold the memory voltages within operating limits for at least 90 seconds when the nickel - cadmium batteries are fully charged. This interval is intended to be sufficient to prevent memory reload (tape to memory) in case of short power failure or a power failure where the customer has backup power generators.
- 1.2 The outputs with holdover of regulated ferroresonant rectifier (J87432D and DD units) are the +12 VM output, the +5.1 VM output, and the -5.1 volt output.

2. RECORD

- 2.1 Form SD-97-1313 should be used to record the result of these results.

3. DRAWINGS

- 3.1 SD-82386-04 or SD-823686-08
CD-82386-04 CD-82386-08

PRIVATE

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

4. TOOLS

- 4.1 1 ITE-5632 Digital Volt meter
or
ITE-5250
or
ITE-5356
- 1 ITE-4208A Telephone Handset
- 1 ITE-9153L Cord Assembly
- 3 500 Type Telephone Set
or
2500 Type
- 3 249A Adapter

5. TEST SET-UP

- 5.1 The battery pack(s), KS 20390 L-8, should be charged at least for 24 hours before performing this test (Note: Insure that the battery pack(s) is connected to rectifier via PSC1A and PSC1B connectors. The nickel batteries will automatically start charging when the associated rectifier is turned on).
- 5.2 Set up two station-to-station calls, preferably between two modules on a multi-module system.
- 5.3 Place EMERGENCY TRANSFER SELECT switch in NORMAL position.
- 5.4 For the duplicated common control system, place SYSTEM CONTROL SELECT switch in NORMAL position and place Common Control 0 on-line (For those systems equipped with Issue L8 or higher generic tape, use PROC 521 TEST 3 to switch processor). At this time, both processors should be functioning properly.
- 5.5 Connecting the MAAP to ON-LINE connector and calling in PROC 520, zero all maintenance data in the following manner:
 - 5.51 With the PROC 520 displayed on the MAAP panel, depress CHANGE FIELD, 1 and ENTER keys.
 - 5.511 Verify that Field 1 is blanked.
 - 5.52 Depress 9, ENTER, CLEAR DATA, and EXECUTE keys.
 - 5.521 Verify that INIT NO. 0 contains all zero.
 - 5.6 For the duplicated common control system, repeat steps 5.5 thru 5.521 to zero all maintenance data of the off-line processor (Common Control 1). Verify that no alarms is indicated on both common controls.

5.7 Wait for tape cartridge of the on-line Common Control at the park (beginning of tape) position.

6. TEST PROCEDURE

6.1 Turn-off the Circuit Breaker at the AC Module Box which associated with the ON-LINE Common Control (for duplicated common control system, also turn off the circuit breaker for the Common Control 1) for 20 seconds. The Circuit Breaker(s) are designated 0, 1, 2, 3, 4 or 5 and are located at the AC Module Box, ED1E376-70, (Note: the Circuit Breakers 0 thru 5 are not the AC INPUT circuit breaker at the power rectifier).

6.11 Verify that the two station calls are not disturbed.

6.2 After 20 seconds, turn on the Circuit Breaker of the Common Control (for duplicated common control system, turn-on the on-line CC first, then the off-line CC).

6.21 The green PASS LED(s) should resume flashing (some delay* for the on-line CC). For duplicated system, verify that previous on-line CC is still on-line and off-line CC is still off-line. * Average of stop call processing from 6 to 40 seconds.

6.22 Tape(s) should not wind or reload.

6.23 The two station calls are not disturbed.

6.24 Only a short power failure indication (CAUSE 1) should be shown in PROC 520, Initialization causes (for duplicated common control system, CAUSE 1 should be shown on both on-line and off-line common controls).

6.25 After the interrogation of PROC 520, zero the short power failure (on both CC for duplicated CC system).

6.26 Insure that no alarm is indicated on the alarm panel, and the system is up and ready to process traffic.

6.3 For the duplicated common control system place Common Control 1 on-line. Repeat the power down test again per steps 5.5 thru 6.26.

7. SUPPLEMENTARY INFORMATION

7.1 Wiring information between battery pack and rectifier:

<u>TB 1 of RECTIFIER</u>	<u>TERM No. OF PSC 1A - PCS 1B CONN.</u>	<u>COLOR CODE</u>	<u>VOLTAGE *</u>
5	1	White	+ 10.0V
-	2	-	-
4	3	Black	+ 0.0V
6	4	Red	+ 20.0V
-	5	-	-
3	6	Black	+ 0.0V

0-1-1-9-0-1

7.2 The minimum capacity of a fully charged nickel-cadium battery is 1.2 amper-hour.

7.3 DC outputs rating during power failure for J87432D and DD ractifier are:

<u>OUTPUT*</u>	<u>AMPERES DC</u>	<u>TIME DURATION</u>
+12 VM	4.1	90 Sec.
+5.1VM	4	90 Sec.
-5.1VM	0.15	90 Sec.

* Turn off the AC INPUT circuit breaker of common control rectifier first if the AC power is to be removed from the cabinet during trouble shooting because this will prevent the battery from being discharged.

8. TROUBLE LOCATING AIDS

8.1 Check for proper voltages on the battery pack.

8.2 Check for proper ground on the alarm panel. On the duplicated Common Control system, a 16 gauge ground wire should be connected between TB 1 of the alarm panel and terminal 7 of Ground Block (which is located adjacent to ACTS 3 Terminal Strip of J58882PA Unit).

8.3 Check for possible defective LC 132, LC 147 and LC 146 V5 (on duplicated common control system).

Reason for Issue:
New Section

Manager, PBX PECC