

NO. 2172353
 SHEET 0
 OF 8

DIAGNOSTIC TEST

TITLE METER VERIFICATION TEST - DT09
 MACH. TYPE 1620-I & II BY HNT APPR. DATE

ENGINEERING CHANGE HISTORY

E/C NO.	DATE	SHEETS AFFECTED
404980	5-7-64	1 - 8

E/C NO.	404980						
DATE	5-7-64						

DT09
1620-I & II METER VERIFICATION TEST

A. SCOPE

This diagnostic test verifies the correct operation and accuracy of meters on the 1620 system. It is compatible to both 1620 Mod I and Mod II systems. This test has no timeouts.

B. SETUP

1. Clear Core
2. Set CPU meter to customer operation
3. Load:
 - a. 1621 - place DT09 test tape in reader.
Insert 36 00300 00300 4900700 R-S. After tape has run in, NPRO the reader. Op register should contain #8.
 - b. 1622 - Place DT09 test deck in read hopper. Remove identifying header and trailer cards. Put 1620 in manual mode. Depress load button on 1622. After all cards have been run through the read feed, depress the NPRO key. OP register should contain #8.

C. TEST PROCEDURE

1. Enable I/O and assignable units as follows:
 - a. 1621 - load DT09 Test tape on reader and ready it. Use last two inches before EOL punch. (Ensure 1624 is not enabled)
 - b. 1622 - run blank cards into read feed with start key. (Ensure punch feed is not enabled)
 - c. 1311's and 1626 - transfer enable-disable switches to enable.
 - d. 1443 - feed in paper and install carriage tape. Depress 1443 start key.
2. Insert 36 19999 00100 4900568 R-S Type in † R-S
3. Record all meters on meter verification form.
4. With all four program switches off, depress CPU start key. CPU clock should run for 6 minutes. CPU and assignable unit meters should register one-tenth hour advance. I/O meters should not change.

- C. 5. Record all meters.
6. If 1621 is installed transfer program Switch #2 and depress CPU Start key. Restore Switch 2.
7. If 1622 is installed transfer program Switch #4 and depress CPU Start key. Restore Switch 4.
8. If 1443 is installed transfer program Switch #3 and depress CPU Start key. Restore Switch 3.
9. Record all meters.
10. Turn all program switches off and depress CPU start key. CPU clock should run for 6 minutes. All meters should register one-tenth hour advance.
11. Disable I/O and assignable units as follows:
- a. 1621 - physically remove paper tape from reader (do not use NPRO key).
 - b. 1622 - runout read feed with NPRO key.
 - c. 1443 - depress stop key (not carriage stop)
 - d. 1626 and 1311's - transfer enable-disable switch to disable.
12. Record all meters.
13. With all program switches off, depress CPU start key.
14. Record all meters - verify that CPU meter recorded one-tenth hour and all other meters did not advance.
15. Repeat steps 1 thru 10 substituting the CE meter for the customer meter to verify that the I/O and assignable units will not run with the CE meter selected. Set CPU meter back to customer operation.
16. Repeat steps 1 thru 13 enabling and disabling I/O units by the various additional methods possible as follows:

<u>Enable</u>	-	<u>Disable</u>
1621 Load Paper Tape in Reader	-	Transfer NPRO key
1624 Load Paper Tape in Punch	-	Transfer Tape Feed Switch
1622 Run Cards in Punch Feed	-	Run out Punch Feed with NPRO key.

C. (Continued)

16. Enable Disable
- 1443 Carriage Tape & Paper in Mach. - Turn Typebar Switch OFF
- 1443 Carriage Tape & Paper in Mach. - Depress Carriage Stop key
- To select 1624 Paper Tape Punch transfer program Switches #1 & 2, depress CPU start key. Restore Switch 1 & 2.
- To select 1622 Card Punch transfer program Switches #1, depress CPU start key. Restore Switch 1.
17. Complete meter verification form. Make non-billable entries in customer's log.

From Load Card

00700

Change
Add
Table

00712

Attempt
Add
Operation

00724

Compare
Add With
Known
Answer

00736

Restore
Add
Table

00748

Branch On
Unequal

00760

Change, Time
Constant for
Mod II

00772

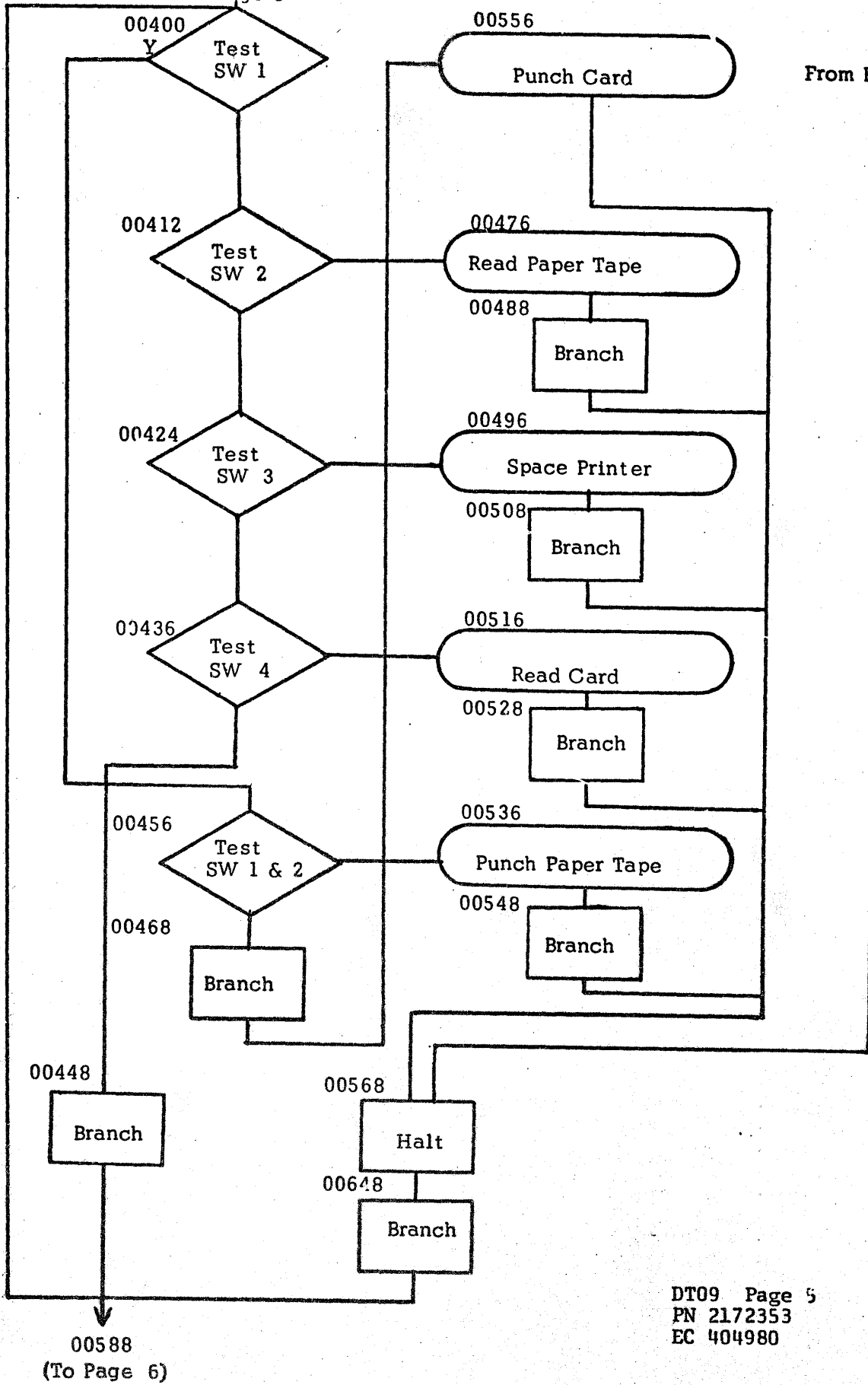
Branch

00568

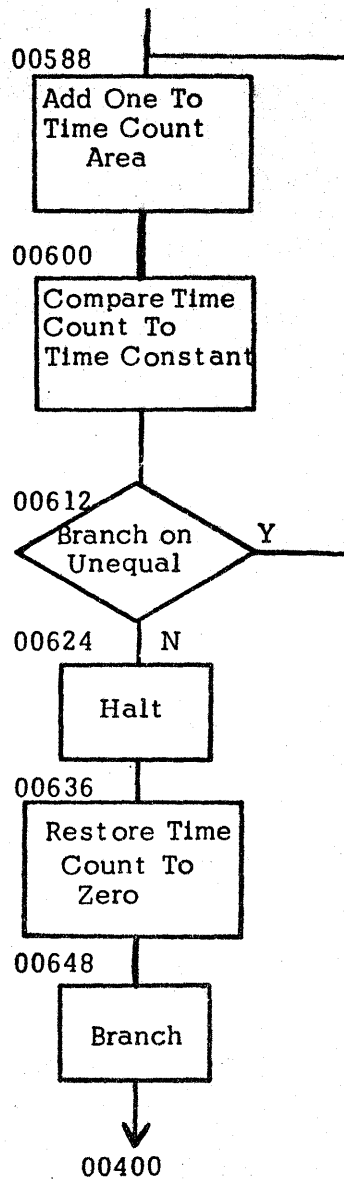
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VERIFICATION TEST 1620

00300 0123456789
00310 1234567890
00320 2345678901
00330 3456789012
00340 4567890123
00350 5678901234
00360 6789012345
00370 7890123456
00380 8901234567
00390 9012345678

ADD TABLE

00400 460045600100
00412 460047600200
00424 460049600300
00436 460051600400
00448 49005880
00456 460053600200
00468 49005560

SELECT I/O DEVICES

00476 361999900300
00488 49005680
00496 340000000951
00508 49005680
00516 361992000500
00528 49005680
00536 381999900200
00548 49005680
00556 381992000400
00568 480000000099
00580 49006360

CONDITION SELECTED I/O DEVICES

00588 110066100001
00600 240066900661
00612 470058801200
00624 480000000044
00636 260066100677
00648 4900400

TEST METER ACCURACY
(1/10 HOUR OR 6 MINUTES)

00655 00000000
00663 02195120
00671 00000000
00679 09729720

TIME COUNT AND TIME CONSTANT AREAS

00700 150032200006
00712 110072300002
00724 140072300004
00736 150032200004
00748 470056801200
00760 260066900685
00772 4900568

SELECT MOD I & MOD II

DT09 CARD LISTING

3603000050011000060007547000000090049007000000000000000000000000000001
01234567891234567890234567890134567890124567890123567890123467890123457890100002
23456890123456790123456784600456001004600476002004600496003004600516004004900003
0058804600536002004900556036199990030049005680340000009514900568036199200000004
5004900568038199990020049005680381992000400480000000994900636011006610000100005
2400669006614700588012004800000004426006610067749004000000000219512000000006
0000097297200000000000001500322000061100723000021400723000041500322000044700007
005680120026006690068549005680008