CUSTOMER ENGINEERING TESTS
FOR THE 1401 DATA PROCESSING SYSTEM

Block No. 3320A

BRANCH EQUAL

Purpose of Test

To test the Branch Equal circuitry by comparing an A Field with a B Field for an EQUAL or UNEQUAL condition. The EQUAL or UNEQUAL condition is then checked for accuracy. For errors the machine either stops to permit console checking or prints the results depending upon the setting of Sense Switch E.

Units Required

1401 Processing Unit
1402 Card Reader or 729 Tape Drive (see procedure on page 3)
1403 Printer (optional)

Operations Used	Code
Clear	(/)
Set Word Marks	(,)
Load	(L)
Compare	(C)
Branch on Equal Compare B=A	(B---S)
Branch on High Compare B>A	(B---T)
Branch on Low Compare B<A	(B---U
Test Character & Branch	(B------?)
Print	(2)
Stop (error)	(.)

Method of Test

The complete test block consists of the following cards:

1. Title Card (0A)
2. Two Program Chaining Routine Cards (02-03)
3. Three Title and Headings Print Routine Cards (04-06)
4. Four special program cards to set up instructions that are effective only when tests are run from tape (07-10)
5. Program Instruction Cards (11-59)
6. Detail Cards (60-76)

Four Sense Switches may be brought into play as follows:

Sense Switch B ON - permits scoping of Compare and Br Equal operations as often as desired.
Sense Switch C OFF - no printing for correct results.
ON - prints for correct results.
Sense Switch D ON - repeats the program for an individual card as often as desired.
Sense Switch E OFF - prints for error results.
ON - stops for error results.