CUSTOMER ENGINEERING TESTS
FOR THE 1401 DATA PROCESSING SYSTEM

Block No. 3200A

MULTIPLY

Purpose of Test

To test the Multiply circuitry by multiplying one factor by another and comparing the positive or negative result with the Result Should Be Field. For unequal conditions 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 2)
1403 Printer (optional)

Operations Used	Code
Clear	(/)
Set Word Marks	(,)
Load	(L)
Test Character and Branch	(E------?)
Multiply	(@)
Compare	(C)
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 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 (11-47)
6. Detail Cards with a 5-digit multiplicand and a 4-digit multiplier (48-55)
7. Detail Cards with a 1-digit multiplicand and a 1-digit multiplier (56-62)

Four Sense Switches may be brought into play as follows:

Sense Switch B ON - permits scoping of the Multiply 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.