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IDENTIFICATION

Self-loading Binary Punch Routine, MU BPU4

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PURPOSE

To punch binary information from successive core memory locations onto 704 binary cards with 24 words per card.

RESTRICTIONS

This program overwrites core memory locations $0 - 23_{10}$ $(0 - 27)_8$. The contents of all index registers are destroyed.

USAGE

This is a one card self-loading program which produces a program stop (HPR 7777_8) from 4_8 when loaded. Then manually enter into the MQ register: n = total number of words desired to be punched as decrement and R = memory location of the first word as address. The computer will proceed to punch on START. When n words have been punched, control returns to the aforementioned stop at 4_8. Another n and R may be entered into MQ. Pressing START initiates the punching of these words.

CODING INFORMATION

Timing: The punch operates at its full speed.

```
       REM BPU4 MURA BINARY PUNCH 24 WORDS/CARD                    MU   BPU4
BPU4   LXA 0,4              SET X4 TO 0                          BPU4  0001
       CPY 2,4              SELF-LOADING COPY LOOP               BPU4  0002
       TXI BPU4+1,4,-1      RETURN TO COPY                       BPU4  0003
       HTR 1                                                     BPU4  0004
       HPR 8191             STOP FOR MQ ENTRIES                  BPU4  0005
       STQ BPU4+19          STORE ENTRIES                        BPU4  0006
       LLS 35               FIRST ADDRESS TO AC                  BPU4  0007
       COM                  2* COMPLEMENT TO X2                  BPU4  0008
       PAX 0,2              X                                    BPU4  0009
       TXI BPU4+10,2,1      X                                    BPU4  0010
       LXD BPU4+19,1        N=NO. OF WORDS TO X1                 BPU4  0011
       WPU                                                       BPU4  0012
       LXA BPU4+4,4                                              BPU4  0013
       TXL BPU4+4,1,0       DOES N=0                             BPU4  0014
       CPY 0,2              PUNCH WORD                           BPU4  0015
       TXI BPU4+16,2,-1     INCREASE ADDRESS                     BPU4  0016
       TXI BPU4+17,1,-1     DECREASE N                           BPU4  0017
       TIX BPU4+13,4,342    RETURN FOR NEXT WORD                 BPU4  0018
       TRA BPU4+11          READY NEXT CARD                      BPU4  0019
```