A PROGRAM ABSTRACT FOR TRANSLATING INKPRINT INTO BRAILLE BY COMPUTER.

By

John R. Siems
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TRANSLATION PROGRAM INTO BRaille
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A PROGRAM ABSTRACT WHICH CORRESPONDS TO THE COMPUTER PROGRAM FOR BRaille TRANSLATION AT THE AMERICAN PRINTING HOUSE FOR THE BLIND PRESENTS AN APPROACH TO COMPUTER PROCESSING OF INPUT BRaille INCLUDING INPUT, OUTPUT, STORAGE AREAS, AND PROCESSING STEPS. THE PROGRAM RUNS ON A 709 DATA PROCESSING SYSTEM, REQUIRES APPROXIMATELY 9,400 36-HIT CARDS OF STORAGE, AND PROCEEDS AT THE RATE OF ABOUT 12 BRaille PAGES PER MINUTE. TABLES AND AN INDEX ARE INCLUDED. (AUTHOR)
A PROGRAM ABSTRACT

FOR

TRANSLATING IN PRINT INTO BRAILLE BY COMPUTER

AMERICAN PRINTING HOUSE FOR THE BLIND
LOUISVILLE, KENTUCKY
1969
A PROGRAM ABSTRACT

FOR

TRANSLATING INKPRINT INTO BRAILLE BY COMPUTER

DATA PROCESSING DEPARTMENT

ROBERT L. HAYNES, MANAGER

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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WRITTEN BY

JOHN R. SIEBS

AMERICAN PRINTING HOUSE FOR THE BLIND

LOUISVILLE, KENTUCKY

1969

THIS PROJECT WAS DONE UNDER
OFFICE OF EDUCATION GRANT 2-6061190-1578
THE PURPOSE OF THIS PROGRAM ABSTRACT IS TO PRESENT ONE APPROACH TO COMPUTER PROCESSING OF INKPRINT INTO BRAILLE. IN ESSENCE, THE ABSTRACT CORRESPONDS CLOSELY TO THE COMPUTER PROGRAM FOR BRAILLE TRANSLATION AT THE AMERICAN PRINTING HOUSE FOR THE BLIND. THE PROGRAM RUNS ON A 709 DATA PROCESSING SYSTEM WHICH IS MADE AVAILABLE WITHOUT CHARGE BY INTERNATIONAL BUSINESS MACHINES AND WHICH IS A PART OF THE BRAILLE PUBLISHING PROCESS AT APH.


ON THE 709, THE BRAILLE TRANSLATION OPERATION, AS IT IS OUTLINED HERE, REQUIRES APPROXIMATELY 9,400 36-BIT WORDS OF STORAGE AND PROCEEDS AT THE RATE OF ABOUT 12 BRAILLE PAGES PER MINUTE.

ALTHOUGH AN EFFORT HAS BEEN MADE TO ACHIEVE ACCURACY IN THIS PRESENTATION, LIABILITY FOR INACCURACIES IS NOT ASSUMED.
CONTENTS

INPUT

OUTPUT

STORAGE AREAS

PROCESSING STEPS

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INDEX
INPUT

THE INKPRINT TEXT TO BE TRANSLATED IS CONTAINED IN A FILE HAVING A RECORD LENGTH OF 72 CHARACTERS. IF LESS THAN THE 72 CHARACTERS OF A RECORD ARE USED FOR TEXT, A MINUS SIGN IS PLACED AFTER THE LAST TEXT CHARACTER IN THE RECORD.

INPUT IS PREPARED USING THE CHARACTER SET OF THE IBM 026 KEYPUNCH. SOME INKPRINT CHARACTERS REQUIRE MORE THAN ONE KEYPUNCH CHARACTER. THE FOLLOWING LIST GIVES THE SYMBOLS WHICH ARE USED.

<table>
<thead>
<tr>
<th>Character</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>$A</td>
<td>Accent</td>
</tr>
<tr>
<td>&amp;</td>
<td>Ampersand</td>
</tr>
<tr>
<td>$T</td>
<td>Ampersofhe</td>
</tr>
<tr>
<td>**</td>
<td>Asterisk</td>
</tr>
<tr>
<td>#</td>
<td>Capital</td>
</tr>
<tr>
<td>$</td>
<td>Clock</td>
</tr>
<tr>
<td>»</td>
<td>Dash</td>
</tr>
<tr>
<td>$DEC</td>
<td>Decimal Point</td>
</tr>
<tr>
<td>$DOL</td>
<td>Dollar Sign</td>
</tr>
<tr>
<td>$K</td>
<td>Double Capital</td>
</tr>
<tr>
<td>$</td>
<td>Double Dash</td>
</tr>
<tr>
<td>$$I</td>
<td>Double Italics</td>
</tr>
<tr>
<td>...</td>
<td>Ellipsis</td>
</tr>
<tr>
<td>$X</td>
<td>Exclamation Point</td>
</tr>
<tr>
<td>@</td>
<td>Hyphen</td>
</tr>
<tr>
<td>$H</td>
<td>Hyphen If Word May Not Be Divided At End Of Line</td>
</tr>
<tr>
<td>$N</td>
<td>Inkprint Number Sign</td>
</tr>
<tr>
<td>$I</td>
<td>Italics</td>
</tr>
<tr>
<td>$Z</td>
<td>Left Bracket</td>
</tr>
<tr>
<td>*</td>
<td>Left Double Quote</td>
</tr>
<tr>
<td>£</td>
<td>Left Single Quote</td>
</tr>
<tr>
<td>$LR</td>
<td>Letter Sign</td>
</tr>
<tr>
<td>$PC</td>
<td>Per Cent</td>
</tr>
<tr>
<td>$Q</td>
<td>Celestica Mark</td>
</tr>
<tr>
<td>$R</td>
<td>Right Bracket</td>
</tr>
<tr>
<td>$</td>
<td>Right Double Quote</td>
</tr>
<tr>
<td>£</td>
<td>Right Single Quote</td>
</tr>
<tr>
<td>$</td>
<td>Semicolon</td>
</tr>
<tr>
<td>$IC</td>
<td>Terminate Capitals</td>
</tr>
<tr>
<td>$TI</td>
<td>Terminate Italics</td>
</tr>
<tr>
<td>$V</td>
<td>Verse Number</td>
</tr>
</tbody>
</table>

- 3 -
Along with the text, input data contains control codes which may indicate the inkprint format or the desired braille format. The format codes, given next, are inserted as needed.

$SLIT$ followed by a space
use literary format.

$STEX$ followed by a space
use textbook format.

$STEXIL$ followed by a space
use textbook interline format.

$SMAGOD$ followed by a space
use magazine format numbering odd pages.

$SMAGEV$ followed by a space
use magazine format numbering even pages.

$SBLBRPS$ followed by a space
leave blank area for braille page number.

$SSOURCE$ followed by a number and a space
source number of text.

$STITLE$ followed by a number and a space
title number identifying text.

$SPGLNTH$ followed by a number and a space
number of lines to be put on a braille page.

$SRESLINE$ followed by a number and a space
number of cells in a full braille line.
SHLINE FOLLOWED BY A NUMBER AND A SPACE
NUMBER OF CELLS FOR A CENTERED LINE.

SCINCR FOLLOWED BY A NUMBER AND A SPACE
AMOUNT OF INCREMENT FOR BRAILLE CARD NUMBERS.

SVOL FOLLOWED BY A NUMBER AND A SPACE
VOLUME NUMBER.

SBRPG FOLLOWED BY A NUMBER AND A SPACE
BEGIN BRAILLE PAGE HAVING THE NUMBER SPECIFIED.

SBRLN FOLLOWED BY A NUMBER AND A SPACE
NUMBER OF NEXT BRAILLE LINE.

SBRCD FOLLOWED BY A NUMBER AND A SPACE
NUMBER OF NEXT BRAILLE CARD.

SRGHD FOLLOWED BY A SPACE
BEGINNING OF TITLE FOR RUNNING HEAD.

SREN FOLLOWED BY A SPACE
END OF RUNNING HEAD TITLE.

SCHAP FOLLOWED BY A NUMBER AND A SPACE
BEGIN CHAPTER TITLE. NUMBER REFERS TO NUMBER OF LINES IN THE TITLE.

SCHAP FOLLOWED BY A SPACE
BEGIN CHAPTER TITLE CONSISTING OF ONE LINE.

SECH FOLLOWED BY A SPACE
END OF CHAPTER TITLE.

SHEAD FOLLOWED BY A NUMBER AND A SPACE
BEGIN HEADING. NUMBER REFERS TO THE NUMBER OF LINES IN THE HEADING.

SHEAD FOLLOWED BY A SPACE
BEGIN ONE LINE HEADING.

SHEAD END FOLLOWED BY A SPACE
END HEADING.

SPAR FOLLOWED BY A SPACE
BEGINNING OF PARAGRAPH.

$BREAK FOLLOWED BY A SPACE
BLANK LINE INDICATING PAUSE OR BREAK IN THOUGHT.

$SKIP FOLLOWED BY A SPACE
BLANK LINE OTHER THAN PAUSE OR BREAK IN THOUGHT.
$BREAK* FOLLOWED BY A SPACE 
LINE OF ONE OR MORE ASTERISKS.

$IPD FOLLOWED BY A SPACE 
BEGIN POETRY FORMAT.

$IPDU FOLLOWED BY A SPACE 
END POETRY FORMAT.

$SEL FOLLOWED BY A SPACE 
END LINE.

$SEP FOLLOWED BY A SPACE 
END BRAILLE PAGE.

$SEPLATE FOLLOWED BY A SPACE 
END BRAILLE PAGE AND GO TO NEXT ODD-NUMBERED PAGE.

$STR FOLLOWED BY A SPACE 
BEGIN CENTERING.

$STRS FOLLOWED BY A SPACE 
END CENTERING.

$IND FOLLOWED BY A NUMBER AND A SPACE 
INDENT THIS LINE. NUMBER INDICATES THE NUMBER OF 
SPACES TO BE LEFT BLANK BEFORE BEGINNING TEXT.

$INDI FOLLOWED BY A SPACE 
BEGIN THIS LINE AT THE LEFT MARGIN.

$IDX FOLLOWED BY A NUMBER AND A SPACE 
BEGIN INDEX FORMAT. NUMBER INDICATES THE NUMBER 
OF SPACES WHICH ARE TO PRECEDE RUN-OVER LINES.

$IDXEV0 FOLLOWED BY A SPACE 
END INDEX FORMAT.

$LTRCL FOLLOWED BY A NUMBER AND A SPACE 
END OF TEXT. PART OF LETTER OF CORRESPONDENCE. 
NUMBER REFERS TO THE NUMBER OF LINES IN THE 
CLOSEING OF THE LETTER.

$BLOCK FOLLOWED BY A NUMBER AND A SPACE 
LEAVE A BLOCK OF BLANK LINES. NUMBER REFERS TO 
The NUMBER OF LINES DESIRED.

$COL FOLLOWED BY A SPACE 
BEGIN ARRANGING MATERIAL IN COLUMNS.

$COL FOLLOWED BY A NUMBER AND A SPACE 
The FOLLOWING ITEM IS LEFT ALIGNED IN A COLUMN. 
The NUMBER REFERS TO THE NUMBER OF THE COLUMN IN 
WHICH THE ITEM OCCURS.

- 4 -
$SCOLR$ followed by a number and a space
the following item is right aligned in a column.
the number refers to the number of the column in
which the item occurs.

$SECCL$ followed by a space
end column format.

$SONSP$ followed by a number and a space
Do not separate the following lines at the end of
a page. the number gives the number of lines
which are to be kept together.

$SMMRG$ followed by a space
align the next word or group of words at the right
margin. the word or group of words must be
followed by sel.

$SDOTS$ followed by a space
insert leader dots to word or number at right
margin. this symbol is used only preceding the
$SMMRG$ symbol.

$SALTRMRG$ followed by a number and a space
use a right margin which is set in from the normal
right margin. the number refers to the number of
the last cell to be used in the alternate length
line.

$SALTREN$ followed by a space
end use of alternate right margin.

$SIGI$ followed by a space
begin grade 1 translation.

$STGI$ followed by a space
end grade 1 translation.

$SCDOTS$ followed by a number and a space
insert centered line of dots. number refers to
number of dots to be placed in the line.

$SCLNSC$ followed by a space
insert centered colon line.

$SCLNSF$ followed by a space
insert full line of columns.

$CELL$ followed by a number and a space
begin next word in the cell number specified.
SPG followed by a space, a number, a period, and a space
beginning of next inkprint page. Number refers to
inkprint page number which may be either Arabic or
Roman.

SEND followed by a space
END OF RUN. This symbol should be followed by a
blank record.

The first records of input data for a particular job contain
control codes specifying first the type of book, such as literature
or textbook, and then title number, volume number, length of
Braille page, Braille line length, Braille page number, Braille
line number, Braille card number, and card number increment. If
a running head is to be used it is given enclosed by the symbols
for beginning and end of running head. Part or all of the
specifications may be changed at a later point in the input if
desired.

The SEND code for ending translation is placed at the
conclusion of the text material. A blank record follows the
record which contains this code.
THE RESULT OF TRANSLATION IS A SUCESSION OF DATA BLOCKS CONTAINING INFORMATION FOR OUTPUT RECORDS. DEPENDING UPON THE TYPE OF OUTPUT DESIRED, DIFFERENT SECTIONS OF THE DATA IN A BLOCK MAY BE TRANSFERRED TO A RECORD OF THE OUTPUT FILE. A BLOCK ALLOWS FOR 72 POSITIONS OF DATA. EACH POSITION CONSISTS OF 16 BINARY DIGITS.

POSITIONS 1 TO 7 OF THE BLOCK AND THE LOW ORDER 4 BITS OF POSITIONS 8 TO 72 CONTAIN INFORMATION FOR BRAILLE CARD IDENTIFICATION. BEGINNING WITH POSITION 8, THE HIGH ORDER 12 BITS OF EACH POSITION REPRESENT EITHER A BRAILLE TEXT CODE OR A CONTROL CODE. THE 6-BIT BRAILLE COMMUNICATIONS CODE IS IN BITS 5 TO 12. BITS 1 TO 4 SERVE TO DISTINGUISH AMONG BRAILLE CHARACTERS WHICH HAVE THE SAME DIGITS BUT DIFFERENT MEANINGS. BRAILLE DATA MAY CONTINUE THROUGH POSITION 72.

IN PUNCHING BRAILLE STEREEOGRAPH CARDS, CARD COLUMNS 1 TO 72 ARE USED. THE 72 COLUMNS CORRESPOND TO THE 72 POSITIONS OF THE DATA BLOCK. INFORMATION FROM THE LOW ORDER 12 BITS OF A POSITION IS PUNCHED INTO A CARD COLUMN.

THE DIAGRAM ON THE NEXT PAGE SHOWS THE SECTIONS OF THE DATA OUTPUT AREA. SECTIONS C AND D PROVIDE DATA FOR OUTPUT PRODUCED FOR THE PURPOSE OF CHECKING TRANSLATION ACCURACY. SECTIONS D, E, AND F ARE USED FOR OUTPUT IN THE FORM OF BRAILLE CARDS. IF ONLY THE BRAILLE COMMUNICATIONS CODE IS DESIRED, IT IS AVAILABLE IN SECTION D.
OUTPUT DATA BLOCK

BINARY DIGIT

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

DATA POSITION

1

2 A B

2

NOT

4

USED

DATA FOR BRAILLE CARD NUMBERS

5

6

7

C D E

8

9

10

DATA BRAILLE DATA

11 FOR COMMUNICATIONS CODE FOR

12 IDENTIFYING 8 7 6 5 4 3 2 1 BRAILLE

13

14

15

16

BRAILLE FOR-PAR-SIGNS MAT 1 TY DOT DOT DOT DOT DOT DOT IDENTIFICATION

BIT BIT 6 5 4 3 2 1

71

72

CORRESPONDING BRAILLE CARD ROWS

12 11 0 1 2 3 4 5 6 7 8 9

- 10 -
STORAGE AREAS

THE PRINCIPAL VARIABLE AND CONSTANT FIELDS EMPLOYED IN PROCESSING ARE LISTED BELOW:

IN THE TRANSLATION PROCEDURE A BRAILLE CHARACTER IS SPECIFIED BY 12 BINARY DIGITS. THE LOW ORDER 8 BITS CONTAIN THE BRAILLE COMMUNICATIONS CODE. THE HIGH ORDER 4 BITS AID IN FURTHER IDENTIFYING THE BRAILLE SIGN. THE 12 BITS ARE REPRESENTED BY A FIVE-DIGIT DECIMAL CODE AS FOLLOWS:

<table>
<thead>
<tr>
<th>DECIMAL DIGITS</th>
<th>FIRST TWO</th>
<th>THIRD</th>
<th>FOURTH</th>
<th>FIFTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>BINARY DIGITS</td>
<td>1 2 3 4</td>
<td>5 6</td>
<td>7 8 9</td>
<td>10 11 12</td>
</tr>
<tr>
<td>BRAILLE</td>
<td></td>
<td>8 7</td>
<td>6 5 4</td>
<td>3 2 1</td>
</tr>
<tr>
<td>COMMUNICATIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOTS OF</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRAILLE CELL</td>
<td>6 5 4</td>
<td>3 2 1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STORAGE AREAS FOR BRAILLE DATA, THEREFORE, CONTAIN 12 SIGNIFICANT BITS FOR EACH BRAILLE CHARACTER.

UNLESS OTHERWISE INDICATED, A DIGIT REFERS TO A DECIMAL DIGIT.

NAME                                      DESCRIPTION

INPUT RECORD                                AN AREA FOR STORING AN INPUT RECORD OF 72 CHARACTERS

END OF RECORD CHARACTER                    MINUS SIGN

LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT RECORD AN ADDRESS

TEXT                                        AN AREA FOR STORING 200 CHARACTERS OF INPUT TEXT

LOCATION FOR STORING NEXT CHARACTER IN TEXT AN ADDRESS
NUMBER OF CHARACTERS ADDED TO TEXT TWO DIGITS
LOCATION OF FIRST CHARACTER OF PRIMARY UNIT AN ADDRESS
LOCATION OF LAST CHARACTER OF PRIMARY UNIT AN ADDRESS
FIRST AND SECOND LOOK-UP CHARACTERS OF PRIMARY UNIT TWO CHARACTERS
LOCATION OF PRIMARY UNIT IN BRAILLE TABLE AN ADDRESS
LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT AN ADDRESS
LOCATION OF LAST CHARACTER OF TEMPORARY UNIT AN ADDRESS
FIRST AND SECOND LOOK-UP CHARACTERS OF TEMPORARY UNIT TWO CHARACTERS
LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE AN ADDRESS
LOCATION OF FIRST CHARACTER OF SECONDARY UNIT AN ADDRESS
LOCATION OF LAST CHARACTER OF SECONDARY UNIT AN ADDRESS
FIRST AND SECOND LOOK-UP CHARACTERS OF SECONDARY UNIT TWO CHARACTERS
LOCATION OF SECONDARY UNIT IN BRAILLE TABLE AN ADDRESS
BRAILLE TABLE LOCATION REFERENCE AN ADDRESS
LOCATION OF CHARACTER PRECEDING PRIMARY UNIT AN ADDRESS
LOCATION OF CHARACTER FOLLOWING PRIMARY UNIT AN ADDRESS
LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED AN ADDRESS
END MARK FOR INKPRINT PART OF BRAILLE TABLE ENTRY

A SPECIAL CHARACTER GREATER IN VALUE THAN ANY INPUT CHARACTER

TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT

TWO DIGITS

TYPE OF LAST UNIT BEFORE PRIMARY UNIT

TWO DIGITS

TYPE OF SECONDARY UNIT

TWO DIGITS

LETTER TYPE

01

SPACE TYPE

06

HYPHEN TYPE

05

COMPOSITION SIGN TYPE

04

BEGINNING PUNCTUATION TYPE

02

ENDING PUNCTUATION TYPE

03

APOSTROPHE TYPE

08

DASH TYPE

37

NUMBER TYPE

11

BY INTO TO TYPE

10

LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE

AN ADDRESS

DUMMY BRAILLE TABLE ENTRY

AN AREA OF THE SAME SIZE AS AN ENTRY IN THE BRAILLE TABLE

CONTRACTION IDENTIFICATION NUMBER

THREE DIGITS

LOCATION OF EXCEPTION TABLE ENTRY

AN ADDRESS

LOCATION OF PRECEDING CHARACTERS SUBSECTION

AN ADDRESS

LOCATION OF SUCCEEDING CHARACTERS SUBSECTION

AN ADDRESS
END MARK IN EXCEPTION TABLE

A SPECIAL CHARACTER GREATER IN VALUE THAN ANY INPUT CHARACTER

LOCATION OF NEXT EXCEPTION TABLE CHARACTER

AN ADDRESS

FORMAT SYMBOL FACTOR

SEVEN DIGITS

CENTERING SHIFT FACTOR

TWO DIGITS

INDEX AMOUNT

TWO DIGITS

INDEX AMOUNT REFERENCE

TWO DIGITS

INDENT FACTOR

TWO DIGITS

RIGHT MARGIN SHIFT FACTOR

TWO DIGITS

RUNNING HEAD SHIFT FACTOR

TWO DIGITS

LINES REQUIRED BEFORE END OF PAGE

TWO DIGITS

QUOTE LEVEL

ONE DIGIT

EFFECTIVE COLUMN SIGNAL CODE

AN AREA FOR STORING 1 BRAILLE CHARACTER

NEXT COLUMN SIGNAL CODE

AN AREA FOR STORING 1 BRAILLE CHARACTER

COLUMN NUMBER

TWO DIGITS

TEMPORARY COLUMN WIDTH

TWO DIGITS

PREVIOUS LINE LENGTH

TWO DIGITS

COLUMN LINE

AN AREA FOR STORING 50 BRAILLE CHARACTERS

LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN LINE

AN ADDRESS

COLUMN ADJUSTMENT FACTOR

TWO DIGITS

BRAILLE WORD

AN AREA FOR STORING 50 BRAILLE CHARACTERS

LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE WORD

AN ADDRESS
NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE

BRAILLE LINE

LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE

NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE

RUNNING HEAD

LOCATION FOR STORING NEXT BRAILLE CHARACTER IN RUNNING HEAD

NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD

STORED BRAILLE LINE

LOCATION OF NEXT BRAILLE CHARACTER IN STORED BRAILLE LINE

BRAILLE PAGE NUMBER TRANSLATED

NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED

INKPRINT PAGE NUMBER TRANSLATED

NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED

LOCATION FOR STORING NEXT BRAILLE CHARACTER IN INKPRINT PAGE NUMBER TRANSLATED

NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED

NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER

SOURCE NUMBER

TWO DIGITS

AN AREA FOR STORING 50 BRAILLE CHARACTERS

AN ADDRESS

TWO DIGITS

AN AREA FOR STORING 50 BRAILLE CHARACTERS

AN ADDRESS

TWO DIGITS

AN AREA FOR STORING 50 BRAILLE CHARACTERS

AN ADDRESS

TWO DIGITS

AN AREA FOR STORING 50 BRAILLE CHARACTERS

AN ADDRESS

TWO DIGITS

AN AREA FOR STORING 32 BRAILLE CHARACTERS

AN ADDRESS

TWO DIGITS

TWO DIGITS

TWO DIGITS

THREE DIGITS
<table>
<thead>
<tr>
<th><strong>Title Number</strong></th>
<th><strong>Four Digits</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Braille Volume Number</strong></td>
<td><strong>Two Digits</strong></td>
</tr>
<tr>
<td><strong>Braille Page Number</strong></td>
<td><strong>Five Digits</strong></td>
</tr>
<tr>
<td><strong>Braille Page Number Reference</strong></td>
<td><strong>Five Digits</strong></td>
</tr>
<tr>
<td><strong>For New Inkprint Page</strong></td>
<td><strong>Five Digits</strong></td>
</tr>
<tr>
<td><strong>Braille Line Number</strong></td>
<td><strong>Five Digits</strong></td>
</tr>
<tr>
<td><strong>Braille Card Number</strong></td>
<td><strong>Seven Digits</strong></td>
</tr>
<tr>
<td><strong>Increment For Braille Card Number</strong></td>
<td><strong>Four Digits</strong></td>
</tr>
<tr>
<td><strong>Maximum Number of Braille Characters In Full Line</strong></td>
<td><strong>Two Digits</strong></td>
</tr>
<tr>
<td><strong>Effective Maximum Number of Braille Characters In Braille Line</strong></td>
<td><strong>Two Digits</strong></td>
</tr>
<tr>
<td><strong>Maximum Number Of Braille Characters In Centered Line</strong></td>
<td><strong>Two Digits</strong></td>
</tr>
<tr>
<td><strong>Maximum Number Of Braille Characters In Alternate Line</strong></td>
<td><strong>Two Digits</strong></td>
</tr>
<tr>
<td><strong>Maximum Number Of Braille Characters In Next Line</strong></td>
<td><strong>Two Digits</strong></td>
</tr>
<tr>
<td><strong>Maximum Number Of Lines For Braille Page</strong></td>
<td><strong>Five Digits</strong></td>
</tr>
<tr>
<td><strong>Effective Maximum Number Of Lines For Braille Page</strong></td>
<td><strong>Five Digits</strong></td>
</tr>
<tr>
<td><strong>Decimal Number</strong></td>
<td><strong>Five Digits</strong></td>
</tr>
<tr>
<td><strong>4-Bit Digit List</strong></td>
<td><strong>An Area Of 10 Positions, Each Position Having 4 Binary Digits</strong></td>
</tr>
<tr>
<td><strong>Location Of Next Code To Be Added To Output</strong></td>
<td><strong>An Address</strong></td>
</tr>
<tr>
<td><strong>Output Data</strong></td>
<td><strong>An Area Of 72 Positions, Each Position Having 16 Binary Digits</strong></td>
</tr>
</tbody>
</table>
LOCATION OF NEXT POSITION IN OUTPUT DATA

END OF PAGE CODES

DATA FOR INTERLINE

BRaille END CHARACTER 00000
CODE FOR NUMBER SIGN 06074
CODE FOR LETTER SIGN 14060
CODE FOR DOT 5 12120
CODE FOR DOTS 3 AND 6 06044
CODE FOR SPACE 02300
CODE FOR HYphen 04044
CODE FOR SPECIAL SPACE 06300
CODE FOR NUMBER HYphen 12044
BIG NUMBER HYphen 10044
CODE FOR NUMBER COMMA 12102
CODE FOR CAPITAL 02140
CODE FOR PERIOD 06162
CODE FOR COLON 10022
CODE FOR ASTERISK 06026
CODE FOR 1 04101
CODE FOR A 02101
CODE FOR UNSPACED AND 12157
CODE FOR B 02003
CODE FOR SPECIAL B 12003
CODE FOR BE 04006
CODE FOR BY 12164

AN ADDRESS

TWO BRIALLE CHARACTERS 00303 00000
SEVEN BRIALLE CHARACTERS 02300 02300 02300
02300 02300 00201
00000

- 17 -
| CODE FOR SPECIAL C | 12011 |
| CODE FOR COM | 02044 |
| CODE FOR SPECIAL EN | 12042 |
| CODE FOR ENOUGH | 04042 |
| CODE FOR UNSPACED FOR | 12077 |
| CODE FOR SPECIAL H | 14123 |
| CODE FOR HIS | 02146 |
| CODE FOR SPECIAL I | 12012 |
| CODE FOR IN | 02024 |
| CODE FOR IN OF INTO | 00024 |
| CODE FOR O | 02125 |
| CODE FOR UNSPACED OF | 12167 |
| CODE FOR T | 02366 |
| CODE FOR TO | 12126 |
| CODE FOR TO OF INTO | 14126 |
| CODE FOR SPECIAL W | 12072 |
| CODE FOR WAS | 04164 |
| CODE FOR WERE | 04066 |
| CODE FOR UNSPACED WITH | 12175 |
| CODE FOR Y | 02175 |
| RIGHT MARGIN SIGNAL CODE | 06300 |
| COLUMN LEFT ALIGN SIGNAL CODE | 08300 |
| COLUMN RIGHT ALIGN SIGNAL CODE | 10300 |
| END OF LINE CODE | 00201 |
| END OF CARD CODE | 00204 |
| TEXTBOOK FORMAT INDICATOR | A BINARY DIGIT |
| INTERLINE FORMAT INDICATOR | A BINARY DIGIT |
IN THE STATEMENTS WHICH FOLLOW, NAMES OF ROUTINES AND NAMES OF THE PRINCIPAL STORAGE AREAS ARE ENCLODED BY HYPHENS.

MAIN PROGRAM
STEP 1 EXECUTE -INITIALIZE-
STEP 2 EXECUTE -SET NEXT PRIMARY UNIT-
STEP 3 GO TO -PERFORM OPERATION-
STEP 4 EXECUTE -SET ALTERNATE UNIT-
STEP 5 GO TO -PERFORM OPERATION-
STEP 6 EXECUTE -ADD TO BRAILLE WORD-
STEP 7 GO TO STEP 2

INITIALIZE
EXECUTE -INITIALIZE TEXT AREA-
EXECUTE -CLEAR OUTPUT DATA-
EXECUTE -SET BEGINNING STATUS-
EXIT

INITIALIZE TEXT AREA
SET -LOCATION FOR STORING NEXT CHARACTER IN TEXT- EQUAL TO LOCATION OF 3RD CHARACTER IN -TEXT-
SET -LOCATION OF LAST CHARACTER OF PRIMARY UNIT- EQUAL TO LOCATION OF 2ND CHARACTER IN -TEXT-
MOVE SPACES TO FIRST TWO CHARACTERS IN -TEXT-
FROM -TABLE OF ONE CHARACTER LOCATIONS IN BRAILLE TABLE-, SET THE LOCATION OF THE BRAILLE TABLE ENTRY FOR SPACE AND STORE THIS LOCATION IN -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE-
CLEAR -LOCATION OF FIRST CHARACTER OF SECONDARY UNIT-
STORE -SPACE TYPE- IN -TYPE OF LAST UNIT BEFORE PRIMARY UNIT-
SET -LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT RECORD- EQUAL TO LOCATION OF HYPOTHETICAL 3RD CHARACTER OF -INPUT RECORD-
EXIT

- 20 -
SET BEGINNING STATUS
STORE 1 IN -BRAILLE PAGE NUMBER-
STORE 1 IN -BRAILLE LINE NUMBER-
EXECUTE -TRANSLATE BRAILLE PAGE NUMBER-
STORE -CODE FOR NUMBER SIGN-, -CODE FOR 1-, AND -BRAILLE END CHARACTER- IN FIRST THREE POSITIONS OF -INKPRINT PAGE NUMBER TRANSLATED-
STORE 2 IN -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED-
SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN -BRAILLE LINE-
SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE WORD- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN -BRAILLE WORD-
MOVE -BRAILLE END CHARACTER- TC FIRST BRAILLE CHARACTER OF -BRAILLE LINE- AND TO FIRST BRAILLE CHARACTER OF -BRAILLE WORD-
STORE ZERO IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- AND IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
STORE 25 IN -MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE- AND IN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-
STORE 30 IN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- AND IN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
STORE 32 IN -MAXIMUM NUMBER OF ERAILLE CHARACTERS IN CENTERED LINE-
EXECUTE -RESET GENERAL FORMAT INDICATORS-
RESET -CENTERING INDICATOR-, -ALTERNATE RIGHT MARGIN INDICATOR-, -INSERT BRAILLE PAGE NUMBER INDICATOR-, AND -INSERT INKPRINT PAGE NUMBER INDICATOR-
RESET -ALIGN RIGHT MARGIN INDICATOR-, -INSERT LEADER DOTS INDICATOR-, -INSERT INKPRINT PAGE LINE INDICATOR-, -BY INTC TC INDICATOR-, -INDEX FORMAT INDICATOR-, AND -NUMBER HYPHEN INDICATOR-
RESET -ADD TO RUNNING HEAD INDICATOR-, -ADD TO INKPRINT PAGE NUMBER INDICATOR-, -GRADE 1 INDICATOR-, -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR-, AND -LEVEL 2 INVERTED QUOTES USED INDICATOR-
SET -INSERT RUNNING HEAD INDICATOR- AND -NEW LINE INDICATOR-
MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-
STORE -BRAILLE END CHARACTER- IN FIRST BRAILLE CHARACTER OF -RUNNING HEAD-
MOVE ZERO TO -QUOTE LEVEL-
STORE 1 IN -SOURCE NUMBER-, -BRAILLE VOLUME NUMBER-, AND -TITLE NUMBER-
STORE 10 IN -BRAILLE CARD NUMBER- AND IN -INCREMENT FOR BRAILLE CARD NUMBER-
EXIT
GET NEXT PRIMARY UNIT
MOVE - TYPE OF LAST UNIT BEFORE PRIMARY UNIT - TO TYPE OF
NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT -
J - TYPE OF LAST UNIT BEFORE PRIMARY UNIT - FROM RIGHT
END TYPE IN BRAILLE TABLE ENTRY FOR PRIMARY UNIT
SET - LOCATION OF FIRST CHARACTER OF PRIMARY UNIT - EQUAL
TO LOCATION OF CHARACTER FOLLOWING LAST CHARACTER OF
PRIMARY UNIT
IF - LOCATION OF FIRST CHARACTER OF PRIMARY UNIT - IS THE
SAME AS - LOCATION OF FIRST CHARACTER OF SECONDARY
UNIT-, GO TO STEP B
EXECUTE - ADD TO TEXT -
MOVE - LOCATION OF FIRST CHARACTER OF PRIMARY UNIT - TO
- LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT - AND
EXECUTE - GET TRANSLATION UNIT -
SET - FIRST AND SECOND LOOK-UP CHARACTERS OF PRIMARY
UNIT -, LOCATION OF PRIMARY UNIT IN BRAILLE TABLE -, AND
- LOCATION OF LAST CHARACTER OF PRIMARY UNIT - FROM
CORRESPONDING TEMPORARY UNIT DATA AND GO TO STEP D
STEP B - SET - FIRST AND SECOND LOOK-UP CHARACTERS OF PRIMARY UNIT-
AND - LOCATION OF PRIMARY UNIT IN BRAILLE TABLE - FROM
CORRESPONDING SECONDARY UNIT DATA
EXECUTE - ADD TO TEXT -
DERIVE - LOCATION OF LAST CHARACTER OF PRIMARY UNIT - FROM
- LOCATION OF FIRST CHARACTER OF PRIMARY UNIT - PLUS
- LOCATION OF LAST CHARACTER - OF SECONDARY UNIT - MINUS
- LOCATION OF FIRST CHARACTER OF SECONDARY UNIT -
STEP D - CLEAR - LOCATION OF FIRST CHARACTER OF SECONDARY UNIT -
EXIT

GET TRANSLATION UNIT
MOVE FIRST CHARACTER OF TEMPORARY UNIT AND THE TEXT
CHARACTER WHICH FOLLOWS IT TO - FIRST AND SECOND
LOOK-UP CHARACTERS OF TEMPORARY UNIT -
EXECUTE - TWO LETTER SEARCH -
IF - LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE - HAS BEEN
Cleared, EXECUTE - ONE LETTER SEARCH - AND GO TO EXIT
EXECUTE -GET MATCHING ENTRY -
EXIT

TWO LETTER SEARCH
SEARCH - BRAILLE TABLE - FOR ENTRY WHOSE FIRST TWO
CHARACTERS EQUAL - FIRST AND SECOND LOOK-UP CHARACTERS
OF TEMPORARY UNIT -
IF NO MATCHING ENTRY, CLEAR - LOCATION OF TEMPORARY UNIT
IN BRAILLE TABLE - AND GO TO EXIT
IF MATCHING ENTRY, STEP BACK IN TABLE TO LOCATE FIRST
MATCHING ENTRY, AND SAVE LOCATION IN - LOCATION OF
TEMPORARY UNIT IN BRAILLE TABLE -
EXIT
ONE LETTER SEARCH

GET -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- BY
LOOKING UP FIRST CHARACTER OF TEMPORARY UNIT IN -TABLE
OF ONE CHARACTER LOCATIONS IN BRAILLE TABLE-
SET -LOCATION OF LAST CHARACTER OF TEMPORARY UNIT- EQUAL
TO -LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT-
MOVE -END MARK FOR INKPRINT PART OF BRAILLE TABLE ENTRY-
TO SECOND LOOK-UP CHARACTER OF TEMPORARY UNIT
EXIT

GET MATCHING ENTRY

STEP B IF FIRST TWO CHARACTERS OF BRAILLE TABLE ENTRY SPECIFIED
BY -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- DO
NOT MATCH -FIRST AND SECOND LOOK-UP CHARACTERS OF
TEMPORARY UNIT-, EXECUTE -ONE LETTER SEARCH- AND GO TO
EXIT

COMPARE INKPRINT CHARACTERS OF BRAILLE TABLE ENTRY WITH
CHARACTERS OF TEXT BEGINNING WITH FIRST CHARACTER OF
TEMPORARY UNIT

IF SUCCESSIVE CHARACTERS IN BRAILLE TABLE ENTRY DO NOT
MATCH CHARACTERS OF TEXT, ADVANCE -LOCATION OF
TEMPORARY UNIT IN BRAILLE TABLE- BY ONE ENTRY AND GO
TO STEP B

IF CHARACTERS MATCH UNTIL -END MARK FOR INKPRINT PART OF
BRAILLE TABLE ENTRY- IS ENCOUNTERED, SET -LOCATION OF
LAST CHARACTER OF TEMPORARY UNIT- EQUAL TO LOCATION OF
LAST MATCHING TEXT CHARACTER
EXIT
ADD TO TEXT

IF -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- HAS
ADVANCED PAST THE 168TH POSITION OF -TEXT-, MOVE
CHARACTERS 149 TO 200 TO POSITIONS 1 TO 52 OF -TEXT-,
DECREASING -LOCATION OF FIRST CHARACTER OF PRIMARY
UNIT- AND -LOCATION FOR STORING NEXT CHARACTER IN
TEXT- BY 148 CHARACTER LENGTHS.

IF -LOCATION FOR STORING NEXT CHARACTER IN TEXT- MINUS
-LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- IS
GREATER THAN 29, GO TO EXIT.

STORE ZERO IN -NUMBER OF CHARACTERS ADDED TO TEXT-

STEP D IF -NUMBER OF CHARACTERS ADDED TO TEXT- IS GREATER THAN
39, OR IF -LOCATION FOR STORING NEXT CHARACTER IN
TEXT- IS GREATER THAN LOCATION OF 200TH CHARACTER OF
-TEXT-, GO TO EXIT.

IF NEXT CHARACTER TO BE MOVED FROM -INPUT RECORD- IS -END
OF RECORD CHARACTER-, OR IF -LOCATION OF TEXT
CHARACTER TO BE MOVED FROM INPUT RECORD- IS GREATER
THAN LOCATION OF 72ND CHARACTER OF -INPUT RECORD-, GO
TO STEP F.

MOVE CHARACTER TO -TEXT- FROM -INPUT RECORD- UPDATING
-LOCATION FOR STORING NEXT CHARACTER IN TEXT- AND
-LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT
RECORD- AND INCREASING BY 1 -NUMBER OF CHARACTERS
ADDED TO TEXT-

GO TO STEP D.

STEP F EXECUTE -READ INPUT-

SET -LOCATION OF NEXT CHARACTER TO BE MOVED FROM INPUT
RECORD- EQUAL TO LOCATION OF FIRST CHARACTER OF -INPUT
RECORD-

GO TO STEP D.

EXIT.

READ INPUT

READ DATA FROM INKPRINT INPUT FILE TO -INPUT RECORD-
EXIT.

GET ALTERNATE UNIT

GET -FIRST AND SECOND LOOK-UP CHARACTERS OF TEMPORARY
UNIT- AND -LOCATION OF FIRST CHARACTER OF TEMPORARY
UNIT- FROM CORRESPONDING PRIMARY UNIT DATA.

SET -LOCATION OF TEMPORARY UNIT IN BRAILLE TABLE- EQUAL
TO LOCATION OF NEXT ENTRY AFTER PRIMARY UNIT ENTRY
EXECUTE -GET MATCHING ENTRY-

GET -FIRST AND SECOND LOOK-UP CHARACTERS OF PRIMARY
UNIT-, -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE-,
AND -LOCATION OF LAST CHARACTER OF PRIMARY UNIT- FROM
CORRESPONDING TEMPORARY UNIT DATA
EXIT.

PERFORM OPERATION

GET OPERATION NUMBER FROM BRAILLE TABLE ENTRY FOR PRIMARY
UNIT.

GO TO ROUTINE CORRESPONDING TO OPERATION NUMBER.
OPERATION 0  ABSOLUTE UNIT
   GO TO -MAIN PROGRAM-  STEP 6

OPERATION 1  GENERAL CONTRACTION
   GO TO -CHECK EXCEPTIONS-

OPERATION 2  ONLY INDIVIDUAL WORD
   IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO -MAIN PROGRAM-  STEP 4
   EXECUTE -GET SECONDARY UNIT-
   IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE-, GO TO -MAIN PROGRAM-  STEP 4
   GO TO -CHECK EXCEPTIONS-

OPERATION 3  NON-BEGINNING CONTRACTION
   IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-
   IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -APOSTROPHE TYPE-, GO TO -MAIN PROGRAM-  STEP 4
   GO TO -CHECK EXCEPTIONS-

STEP B  IF -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-
   GO TO -MAIN PROGRAM-  STEP 4

OPERATION 4  NOT WORD BY ITSELF
   IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-
   EXECUTE -GET SECONDARY UNIT-
   IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-
   IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -HYPHEN TYPE- OR -APOSTROPHE TYPE-, GO TO -CHECK EXCEPTIONS-
   IF -TYPE OF SECONDARY UNIT- IS -HYPHEN TYPE- OR -APOSTROPHE TYPE-, GO TO -CHECK EXCEPTIONS-
   GO TO -MAIN PROGRAM-  STEP 4

OPERATION 6  BY, INTO, TO
   IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -LETTER TYPE- OR -HYPHEN TYPE-, GO TO -MAIN PROGRAM-  STEP 4
   EXECUTE -GET SECONDARY UNIT-
   IF -TYPE OF SECONDARY UNIT- IS -LETTER TYPE- OR -NUMBER TYPE-, GO TO -CHECK EXCEPTIONS-
   IF -TYPE OF SECONDARY UNIT- IS -COMPOSITION SIGN TYPE- AND -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS NOT -COMPOSITION SIGN TYPE-, GO TO -CHECK EXCEPTIONS-
   GO TO -MAIN PROGRAM-  STEP 4
OPERATION 7 IN
  INDIVIDUAL WORD NOT PUNCTUATED
  IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT - IS -SPACE TYPE-, GO TO -CHECK EXCEPTIONS-
  IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT - IS -COMPOSITION SIGN TYPE- AND -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT - IS -SPACE TYPE-, GO TO -CHECK EXCEPTIONS-
  GO TO -MAIN PROGRAM- STEP 4

OPERATION 8 BE
  IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT - IS -LETTER TYPE-, GO TO -MAIN PROGRAM- STEP 4
  EXECUTE -SET SECONDARY UNIT-
  IF -TYPE OF SECONDARY UNIT - IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-
  GO TO -MAIN PROGRAM- STEP 4

OPERATION 9 IN
  IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT - IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-
  EXECUTE -SET SECONDARY UNIT-
  IF -TYPE OF SECONDARY UNIT - IS -LETTER TYPE- OR -NUMBER TYPE-, GO TO -CHECK EXCEPTIONS-
  IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT - IS -APOSTROPHE TYPE- AND IF -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT - IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-
  GO TO -MAIN PROGRAM- STEP 4

OPERATION 10 BEGINNING CONTRACTION ONLY
  IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT - IS -LETTER TYPE-, GO TO -MAIN PROGRAM- STEP 4
  GO TO -CHECK EXCEPTIONS-

OPERATION 11 INTERIOR CONTRACTION
  IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT - IS -LETTER TYPE-, GO TO -MAIN PROGRAM- STEP 4
  GO TO -MAIN PROGRAM- STEP 4

STEP B EXECUTE -SET SECONDARY UNIT-
  IF -TYPE OF SECONDARY UNIT - IS -LETTER TYPE-, GO TO -CHECK EXCEPTIONS-
  GO TO -MAIN PROGRAM- STEP 4

OPERATION 12 FOR, OF, WITH, AND
  IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT - IS -LETTER TYPE-, GO TO -MAIN PROGRAM- STEP 4
  GO TO -CHECK EXCEPTIONS-
OPERATION 14  DASH
IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -BEGINNING
PUNCTUATION TYPE-, GC TO -MAIN PROGRAM- STEP 4
EXECUTE -GET SECONDARY UNIT-
IF -TYPE OF SECONDARY UNIT- IS -ENDING PUNCTUATION TYPE-, 
SO TO -MAIN PROGRAM- STEP 4
EXECUTE -ADD WORD TO BRAILLE LINE-
SO TO -MAIN PROGRAM- STEP 6

OPERATION 16  LOWER SIGN WORDS NOT CONTRACTED
IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -HYPHEN
TYPE-, OR -DASH TYPE-, OR -BY INTO TO TYPE-, GO TO 
STEP D
IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS 
-COMPOSITION SIGN TYPE-, GC TO STEP B
GO TO -MAIN PROGRAM- STEP 4
STEP B IF -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT- IS 
-HYPHEN TYPE-, OR -DASH TYPE-, OR -BY INTO TO TYPE-, 
GO TO -MAIN PROGRAM- STEP 4
GO TO -MAIN PROGRAM- STEP 6

OPERATION 17  APOSTROPHE
EXECUTE -GET SECONDARY UNIT-
IF -TYPE OF SECONDARY UNIT- IS -NUMBER TYPE-, GO TO -MAIN 
PROGRAM- STEP 4
GO TO -MAIN PROGRAM- STEP 6

OPERATION 18  ALPHABETIC COMMA
IF THE THREE CHARACTERS IN -TEXT- PRECEDING FIRST 
CHARACTER OF PRIMARY UNIT ARE NUMBERS, GO TO -MAIN 
PROGRAM- STEP 4
SO TO -MAIN PROGRAM- STEP 6

OPERATION 19  ALPHABETIC SLASH
IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -NUMBER 
TYPE-, GO TO -MAIN PROGRAM- STEP 4
GO TO -MAIN PROGRAM- STEP 6

OPERATION 20  NUMBER
IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -NUMBER 
TYPE-, GC TO -MAIN PROGRAM- STEP 6
IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -ENDING 
PUNCTUATION TYPE-, GO TO STEP B
SO TO -MAIN PROGRAM- STEP 6
STEP B IF -TYPE OF NEXT TO THE LAST UNIT BEFORE PRIMARY UNIT- IS 
-NUMBER TYPE-, GC TO -MAIN PROGRAM- STEP 6
GO TO -MAIN PROGRAM- STEP 4
OPERATION 21  ALPHABETIC HYPHEN
    IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS -NUMBER
    TYPE-, GO TO STEP B
    GO TO -MAIN PROGRAM- STEP 6

STEP B  EXECUTE -GET SECONDARY UNIT-
    IF -TYPE OF SECONDARY UNIT- IS -NUMBER TYPE-, GO TO -MAIN
    PROGRAM- STEP 4
    GO TO -MAIN PROGRAM- STEP 5

OPERATION 22  NUMBER HYPHEN
    SET -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-
    EQUAL TO -LOCATION OF LAST CHARACTER OF PRIMARY UNIT-

STEP B  INCREASE -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-
    BY LENGTH OF ONE CHARACTER
    IF NEXT TEXT CHARACTER IS A NUMBER, GO TO STEP B
    IF NEXT TEXT CHARACTER IS SLASH, GO TO -MAIN PROGRAM-
    STEP 4
    GO TO -MAIN PROGRAM- STEP 6

OPERATION 24  LEFT DOUBLE QUOTE
    IF -QUOTE LEVEL- IS 0 OR 1, SET -QUOTE LEVEL- TO 1 AND GO
    TO -USE CORRESPONDING QUOTES-
    IF -QUOTE LEVEL- IS 2 OR 3, SET -QUOTE LEVEL- TO 3 AND GO
    TO -USE CORRESPONDING QUOTES-
    IF -QUOTE LEVEL- IS 4, 5, OR 6, SET -QUOTE LEVEL- TO 5,
    SET -LEVEL 2 INVERTED QUOTES USED INDICATOR- AND GO TO
    -INVERT QUOTES-

OPERATION 25  LEFT SINGLE QUOTE
    IF -QUOTE LEVEL- IS 0, SET -QUOTE LEVEL- TO 4 AND GO TO
    -INVERT QUOTES-
    IF -QUOTE LEVEL- IS 1, 2, OR 3, SET -QUOTE level- TO 2,
    RESET -LEVEL 2 INVERTED QUOTES USED INDICATOR-, SET
    -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR- AND GO
    TO -USE CORRESPONDING QUOTES-
    IF -QUOTE LEVEL- IS 4, SET -QUOTE LEVEL- TO 4 AND GO TO
    -INVERT QUOTES-
    IF -QUOTE LEVEL- IS 5 OR 6, SET -QUOTE LEVEL- TO 6 AND GO
    TO -INVERT QUOTES-
OPERATION 26 RIGHT SINGLE QUOTE
IF -QUOTE LEVEL- IS 0, GO TO STEP B
IF -QUOTE LEVEL- IS 1, SET -QUOTE LEVEL- TO 0 AND GO TO
-USE CORRESPONDING QUOTES-
IF -QUOTE LEVEL- IS 2, SET -QUOTE LEVEL- TO 1 AND GO TO
-USE CORRESPONDING QUOTES-
IF -QUOTE LEVEL- IS 3, SET -QUOTE LEVEL- TO 0 AND GO TO
-USE CORRESPONDING QUOTES-
IF -QUOTE LEVEL- IS 4 OR 5, SET -QUOTE LEVEL- TO 0 AND GO TO
-INVQRT QUOTES-
IF -QUOTE LEVEL- IS 6, SET -QUOTE LEVEL- TO 5, RESET
-LEVEL 2 CORRESPONDING QUOTES USED INDICATOR-, SET
-LEVEL 2 INVERTED QUOTES USED INDICATOR- AND GO TO
-INVQRT QUOTES-
STEP B IF -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR- IS ON,
SET -QUOTE LEVEL- TO 1 AND GO TO -USE CORRESPONDING
QUOTES-
IF -LEVEL 2 CORRESPONDING QUOTES USED INDICATOR- IS OFF,
SET -QUOTE LEVEL- TO 0 AND GO TO -USE CORRESPONDING
QUOTES-

OPERATION 27 RIGHT DOUBLE QUOTE
IF -QUOTE LEVEL- IS 0, GO TO STEP B
IF -QUOTE LEVEL- IS 1 OR 2, SET -QUOTE LEVEL- TO 0 AND GO
TO -USE CORRESPONDING QUOTES-
IF -QUOTE LEVEL- IS 3, SET -QUOTE LEVEL- TO 2, RESET
-LEVEL 2 INVERTED QUOTES USED INDICATOR-, SET -LEVEL 2
CORRESPONDING QUOTES USED INDICATOR- AND GO TO -USE
CORRESPONDING QUOTES-
IF -QUOTE LEVEL- IS 4, SET -QUOTE LEVEL- TO 0 AND GO TO
-INVQRT QUOTES-
IF -QUOTE LEVEL- IS 5, SET -QUOTE LEVEL- TO 4 AND GO TO
-INVQRT QUOTES-
IF -QUOTE LEVEL- IS 6, SET -QUOTE LEVEL- TO 0 AND GO TO
-INVQRT QUOTES-
STEP B IF -LEVEL 2 INVERTED QUOTES USED INDICATOR- IS ON,
SET -QUOTE LEVEL- TO 4 AND GO TO -INVQRT QUOTES-
IF -LEVEL 2 INVERTED QUOTES USED INDICATOR- IS OFF, SET
QUOTE LEVEL- TO 0 AND GO TO -USE CORRESPONDING
QUOTES-

OPERATION 29 COMPOSITION SIGN
IF -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- IS
-COMPOSITION SIGN TYPE-, MOVE +TYPE OF NEXT TO THE
LAST UNIT BEFORE PRIMARY UNIT- TO -TYPE OF LAST UNIT
BEFORE PRIMARY UNIT-
GO TO -MAIN PROGRAM- STEP 6
GET SECONDARY UNIT
SET -LOCATION OF FIRST CHARACTER OF TEMPORARY UNIT- EQUAL TO LOCATION OF CHARACTER FOLLOWING LAST CHARACTER OF PRIMARY UNIT
EXECUTE -SET TRANSLATION UNIT-
TRANSFER TEMPORARY UNIT DATA TO -LOCATION OF FIRST CHARACTER OF SECONDARY UNIT-, -LOCATION OF LAST CHARACTER OF SECONDARY UNIT-, -LOCATION OF SECONDARY UNIT- IN BRAILLE TABLE-, AND -FIRST AND SECOND LOOK-UP CHARACTERS OF SECONDARY UNIT-
MOVE LEFT END TYPE FROM BRAILLE TABLE ENTRY FOR SECONDARY UNIT TO -TYPE OF SECONDARY UNIT-
EXIT

USE CORRESPONDING QUOTES
GO TO -MAIN PROGRAM- STEP 6

INVERT QUOTES
GO TO -MAIN PROGRAM- STEP 4

CHECK EXCEPTIONS
IF -GRADE 1 INDICATOR- IS ON, GO TO -MAIN PROGRAM- STEP 4
SET -CONTRACTION IDENTIFICATION NUMBER- FROM BRAILLE TABLE ENTRY FOR PRIMARY UNIT
LOOK UP -CONTRACTION IDENTIFICATION NUMBER- IN -TABLE OF EXCEPTION TABLE LOCATIONS- AND GET -LOCATION OF PRECEDING CHARACTERS SUBSECTION- AND -LOCATION OF SUCCEEDING CHARACTERS SUBSECTION-
IF -LOCATION OF PRECEDING CHARACTERS SUBSECTIONS- IS ZERO, GO TO STEP N
SET -LOCATION OF EXCEPTION TABLE ENTRY- EQUAL TO -LOCATION OF PRECEDING CHARACTERS SUBSECTION-
SET -LOCATION OF CHARACTER PRECEDING PRIMARY UNIT- EQUAL TO -LOCATION OF FIRST CHARACTER OF PRIMARY UNIT- MINUS ONE CHARACTER LENGTH
STEP B IF ENTRY LENGTH IN EXCEPTION TABLE ENTRY IS ZERO, GO TO STEP N
IF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY EQUALS CHARACTER PRECEDING PRIMARY UNIT, GO TO STEP D
IF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY IS GREATER THAN CHARACTER PRECEDING PRIMARY UNIT, GO TO STEP N
CREASE -LOCATION OF EXCEPTION TABLE ENTRY- BY ENTRY LENGTH GIVEN IN EXCEPTION TABLE ENTRY
GO TO STEP B
STEP D SET -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- EQUAL TO LOCATION OF SECOND INKPRINT CHARACTER IN EXCEPTION TABLE ENTRY
SET -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED- EQUAL TO -LOCATION OF CHARACTER PRECEDING PRIMARY UNIT- MINUS ONE CHARACTER LENGTH

- 30 -
STEP F  IF NEXT EXCEPTION TABLE CHARACTER IS -ONE MARK IN
EXCEPTION TABLE-, GO TO STEP J
IF EXCEPTION TABLE CHARACTER DOES NOT EQUAL TEXT
CHARACTER, GO TO STEP H
DECREASE -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-
BY LENGTH OF ONE CHARACTER
INCREASE -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- BY
ONE CHARACTER LENGTH
GO TO STEP F
STEP H  INCREASE -LOCATION OF EXCEPTION TABLE ENTRY- BY ENTRY
LENGTH GIVEN IN EXCEPTION TABLE ENTRY
GO TO STEP 6
STEP J  SET -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-
EQUAL TO -LOCATION OF LAST CHARACTER OF PRIMARY UNIT-
STEP L  INCREASE -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-
AND -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- BY
ONE CHARACTER LENGTH
IF NEXT EXCEPTION TABLE CHARACTER IS -END MARK IN
EXCEPTION TABLE-, GO TO STEP X
IF EXCEPTION TABLE CHARACTER EQUALS TEXT CHARACTER, GO TO
STEP L
GO TO STEP H
STEP N  IF -LOCATION OF SUCCEEDING CHARACTERS SUBSECTION- IS
ZERO, GO TO STEP Z
SET -LOCATION OF CHARACTER FOLLOWING PRIMARY UNIT- EQUAL
TO -LOCATION OF LAST CHARACTERS OF PRIMARY UNIT- PLUS
LENGTH OF ONE CHARACTER
SET -LOCATION OF EXCEPTION TABLE ENTRY- EQUAL TO
-LOCATION OF SUCCEEDING CHARACTERS SUBSECTION-
STEP P  IF ENTRY LENGTH IN EXCEPTION TABLE ENTRY IS ZERO, GO TO
STEP Z
IF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY
EQUALS CHARACTER FOLLOWING PRIMARY UNIT, GO TO STEP T
IF FIRST INKPRINT CHARACTER OF EXCEPTION TABLE ENTRY IS
GREATER THAN CHARACTER FOLLOWING PRIMARY UNIT, GO TO
STEP Z
STEP R  INCREASE -LOCATION OF EXCEPTION TABLE ENTRY- BY ENTRY
LENGTH GIVEN IN EXCEPTION TABLE ENTRY
GO TO STEP P
STEP T  SET -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED-
EQUAL TO -LOCATION OF CHARACTER FOLLOWING PRIMARY
UNIT-
SET -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- EQUAL TO
LOCATION OF FIRST INKPRINT CHARACTER OF EXCEPTION
TABLE ENTRY
STEP V INCREASE -LOCATION OF NEXT EXCEPTION TABLE CHARACTER- BY LENGTH OF ONE CHARACTER
IF NEXT EXCEPTION TABLE CHARACTER IS -END MARK IN EXCEPTION TABLE-, GO TO STEP X
INCREASE -LOCATION OF NEXT TEXT CHARACTER TO BE COMPARED- BY LENGTH OF ONE CHARACTER
IF EXCEPTION TABLE CHARACTER EQUALS TEXT CHARACTER, GO TO STEP V
GO TO STEP R
STEP X IF FIRST CHARACTER OF EXCEPTION TABLE ENTRY IS MINUS SIGN, GO TO -MAIN PROGRAM- STEP 4
IF FIRST CHARACTER OF EXCEPTION TABLE ENTRY IS PLUS SIGN, GO TO -MAIN PROGRAM- STEP 6
STEP 7 GO TO -MAIN PROGRAM- STEP 5
ADD TO BRAILLE WORD
STEP I IF -ADD TO RUNNING HEAD INDICATOR- IS ON, GO TO STEP J
IF -ADD TO INKPRINT PAGE NUMBER INDICATOR- IS ON, GO TO STEP R
SET -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN BRAILLE TABLE ENTRY FOR PRIMARY JUIT
IF -NEW LINE INDICATOR- IS ON, GO TO STEP H
STEP D IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE END CHARACTER-, GO TO STEP 5
STEP E IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR HYPHEN-, GO TO STEP J
IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR SPACE-, GO TO STEP H
IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR TO OR INTO-, OR -CODE FOR BY-, OR -CODE FOR TO-, GO TO STEP L
IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR UNSpaced WITH-, OR -CODE FOR UNSpaced OF-, OR -CODE FOR UNSpaced AND-, OR -CODE FOR UNSpaced FOR-, GO TO STEP J
IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR NUMBER COMP- OR -CODE FOR NUMBER HYPHEN-, GO TO STEP J
STEP F ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -BRAILLE WORD-
INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- BY 1
INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE- AND -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE WORD- BY LENGTH OF ONE BRAILLE CHARACTER
IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS LESS THAN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, GO TO STEP D
PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE CHARACTER ADDED TO -BRAILLE WORD-
EXECUTE -ADD WORD TO BRAILLE LINE-
GO TO STEP D
STEP G  PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE CHARACTER ADDED TO -BRAILLE WORD-
          GO TO STEP V
STEP H  IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- PLUS
          -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUALS
          -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
          BRAILLE LINE-, GO TO STEP K
STEP J  ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -BRAILLE WORD-
          INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
          BY 1
STEP K  PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE CHARACTER ADDED TO -BRAILLE WORD-
          EXECUTE -ADD WORD TO BRAILLE LINE-
          GO TO STEP V
STEP L  IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- PLUS
          -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- PLUS 1
          IS LESS THAN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, SET -BY INTO TO
          INDICATOR-
          GO TO STEP F
STEP M  IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE END CHARACTER-, GO TO STEP V
          IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR SPACE-, GO TO STEP V
          IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, EXECUTE
          -INSERT INKPRINT PAGE LINE- AND GO TO STEP B
          IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
          RUNNING HEAD- AND GO TO STEP B
          RESET -NEW LINE INDICATOR-
          GO TO STEP E
STEP N  SET -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE-
          EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN
          BRAILLE TABLE ENTRY FOR PRIMARY UNIT
STEP P  IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE END CHARACTER-, GO TO STEP Q
          ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -RUNNING HEAD-
          INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE
          TABLE- AND -LOCATION FOR STORING NEXT BRAILLE CHARACTER
          IN RUNNING HEAD- BY LENGTH OF ONE BRAILLE CHARACTER
          INCREASE -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-
          BY 1
          GO TO STEP P
STEP Q  PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE CHARACTER STORED IN RUNNING HEAD
          GO TO STEP V
STEP R  SET -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE-
          EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN
          BRAILLE TABLE ENTRY FOR PRIMARY UNIT
STEP S  IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -BRAILLE END CHARACTER-, GO TO STEP T
IF NEXT BRAILLE CHARACTER IN -BRAILLE TABLE- IS -CODE FOR PERIOD-, GO TO STEP U
ADD BRAILLE CHARACTER FROM -BRAILLE TABLE- TO -INKPRINT PAGE NUMBER TRANSLATED-
INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN BRAILLE TABLE- AND -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN -INKPRINT PAGE NUMBER TRANSLATED- BY LENGTH OF ONE BRAILLE CHARACTER
INCREASE -NUMBER OF BRAILLE CHARACTERS IN -INKPRINT PAGE NUMBER TRANSLATED- BY 1
GO TO STEP S
STEP T PLACE -BRAILLE END CHARACTER- AFTER LAST BRAILLE CHARACTER STORED IN -INKPRINT PAGE NUMBER TRANSLATED-
GO TO STEP V
STEP U RESET -ADD TO -INKPRINT PAGE NUMBER INDICATOR-
GO TO STEP T
STEP V EXIT

ADD WORD TO BRAILLE LINE

STEP B  IF FIRST BRAILLE CHARACTER OF -BRAILLE WORD- IS -BRAILLE END CHARACTER-, GO TO STEP V
IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- PLUS
 -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS
 GREATER THAN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, GO TO STEP E
IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- PLUS
 -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS
 EQUAL TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, GO TO STEP D

STEP C INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
BY -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
MOVE BRAILLE CHARACTERS OF -BRAILLE WORD- TO -BRAILLE LINE- UPDATING -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE-
MOVE -BRAILLE END CHARACTER- TO NEXT BRAILLE CHARACTER IN -BRAILLE LINE-
MOVE -BRAILLE END CHARACTER- TO FIRST CHARACTER OF -BRAILLE WORD-
MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE WORD- EQUAL TO -LOCATION OF FIRST CHARACTER IN -BRAILLE WORD-
GO TO STEP V
STEP D IF BRAILLE CHARACTER BEFORE END CHARACTER IN -BRAILLE WORD- IS NOT -CODE FOR NUMBER COMMA-, GO TO STEP C
STEP E IF -BY INTO TO INDICATOR- IS ON, GO TO STEP L
STEP F EXECUTE -END BRAILLE LINE-
EXAMINE FIRST BRAILLE CHARACTER IN -BRAILLE WORD- OR, IF CAPITAL, NEXT CHARACTER AFTER -CODE FOR CAPITAL-
IF WORD BEGINS WITH -CODE FOR SPECIAL H-, REPLACE WITH -CODE FOR HIS- AND GO TO STEP J
IF WORD BEGINS WITH -CODE FOR SPECIAL W- AND NEXT LETTER IS -CODE FOR A-, REPLACE WITH -CODE FOR WAS- AND GO TO STEP J
IF WORD BEGINS WITH -CODE FOR SPECIAL W-, REPLACE WITH -CODE FORere- AND GO TO STEP J
IF WORD BEGINS WITH -CODE FOR SPECIAL EN-, REPLACE WITH -CODE FOR ENOUGH- AND GO TO STEP J
IF WORD BEGINS WITH -CODE FOR SPECIAL I-, REPLACE WITH -CODE FOR IA- AND GO TO STEP K
IF WORD BEGINS WITH -CODE FOR SPECIAL C-, REPLACE WITH -CODE FOR CCR- AND GO TO STEP J
IF WORD BEGINS WITH -CODE FOR SPECIAL B-, REPLACE WITH -CODE FOR BE- AND GO TO STEP K

STEP G IF -NUMBER HYPER INDICATOR- IS ON, GO TO STEP U
STEP H IF -INDEX FORMAT INDICATOR- IS ON, EXECUTE -INSERT RUN- OVER-
IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT RUNNING HEAD-
RESET -NEW LINE INDICATOR-
GO TO STEP B

STEP J BYPASS NEXT TWO BRAILLE CHARACTERS AND SHIFT REMAINDER OF WORD AND END CHARACTER TWO POSITIONS TO THE LEFT
DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- BY 2
GO TO STEP G

STEP K BYPASS NEXT BRAILLE CHARACTER AND SHIFT REMAINDER OF WORD AND END CHARACTER ONE POSITION TO THE LEFT
DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- BY 1
GO TO STEP G

STEP L BEGIN SCANNING BRAILLE CHARACTERS OF -BRAILLE WORD-

STEP M IF NEXT BRAILLE CHARACTER OF -BRAILLE WORD- IS -CODE FOR 10 OF INTO- GO TO STEP N
IF NEXT BRAILLE CHARACTER OF -BRAILLE WORD- IS -CODE FOR BY- GO TO STEP O
IF NEXT BRAILLE CHARACTER OF -BRAILLE WORD- IS -CODE FOR TO- GO TO STEP P
MOVE NEXT BRAILLE CHARACTER OF -BRAILLE WORD- TO -BRAILLE LINE- INCREASING -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1 AND DECREASING -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- BY 1
INCREASE LOCATION FOR SCANNING -BRAILLE WORD- AND LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- BY BRAILLE CHARACTER LENGTH AND GO TO STEP M

STEP N REPLACE -CODE FOR IA OF INTO- IN -BRAILLE LINE- WITH -CODE FOR IA-

STEP P ADD -CODE FOR T- AND -CODE FOR U- TO -BRAILLE LINE- AND GO TO STEP R
STEP Q  ADD -CODE FOR B- AND -CODE FOR Y- TO -BRAILLE LINE-
STEP R  ADD -CODE FOR SPACE- AND -BRAILLE END CHARACTER- TO
         -BRAILLE LINE-
INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
         BY 2
DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
         BY 1
SHIFT REMAINING CHARACTERS OF -BRAILLE WORD- AND END
CHARACTER TO EXTREME LEFT OF -BRAILLE WORD-
RESET -BY INTO TO INDICATOR-
IF -BRAILLE WORD- CONTAINS -CODE FOR SPECIAL H-, REPLACE
         WITH -CODE FOR HIS- AND GO TO STEP S
IF -BRAILLE WORD- CONTAINS -CODE FOR SPECIAL EN- REPLACE
         WITH -CODE FOR ENOUGH- AND GO TO STEP S
IF -BRAILLE WORD- CONTAINS -CODE FOR SPECIAL B-, REPLACE
         WITH -CODE FOR BE- AND GO TO STEP T
GO TO STEP F
STEP S  BYPASS NEXT TWO BRAILLE CHARACTERS AND SHIFT REMAINDER OF
         WORD AND END CHARACTER TWO POSITIONS TO THE LEFT
DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
         BY 2
GO TO STEP F
STEP T  BYPASS NEXT BRAILLE CHARACTER AND SHIFT REMAINDER OF WORD
         AND END CHARACTER ONE POSITION TO THE LEFT
DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
         BY 1
GO TO STEP F
STEP U  SAVE -INDEX AMOUNT- IN -INDEX AMOUNT REFERENCE- AND MOVE
         1 TO -INDEX AMOUNT-
EXECUTE -INDENT RUNOVER-
RESTORE -INDEX AMOUNT- FROM -INDEX AMOUNT REFERENCE-
MOVE -CODE FOR NUMBER SIGN- TO FIRST BRAILLE CHARACTER IN
         -BRAILLE WORD-
RESET -NUMBER HYPHEN INDICATOR-
GO TO STEP H
STEP V  RESET -BY INTO TO INDICATOR-
EXIT

END BRAILLE LINE
IF FIRST BRAILLE CHARACTER OF -BRAILLE LINE- IS -BRAILLE
         END CHARACTER-, GO TO STEP P
IF CHARACTER BEFORE END CHARACTER IS NOT -CODE FOR NUMBER
         COMMA-, GO TO STEP B
ADD -BIG NUMBER HYPHEN- AND -BRAILLE END CHARACTER- AFTER
         -CODE FOR NUMBER COMMA- IN -BRAILLE LINE-, INCREASING
         -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1,
         AND GO TO STEP D
STEP B  IF CHARACTER BEFORE END CHARACTER IS -CODE FOR NUMBER
         HYPHEN-, SET -NUMBER HYPHEN INDICATOR-
STEP D  IF -CENTERING INDICATOR- IS ON, GO TO STEP H
IF -ALIGN RIGHT MARGIN INDICATOR- IS ON, GO TO STEP V
STEP F  IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- IS LESS THAN 6, ADD -CODE FOR SPACE- CHARACTERS UNTIL -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUALS 6 AND ADD -BRAILLE END CHARACTER-
  IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, EXECUTE
    -INSERT BRAILLE PAGE NUMBER INTO BRAILLE LINE-
  IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON, EXECUTE
    -INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE-
  IF CHARACTER BEFORE END CHARACTER IS -CODE FOR SPACE-, SHIFT -BRAILLE END CHARACTER- ONE POSITION TO THE LEFT AND DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1
  REPLACE -BRAILLE END CHARACTER- IN -BRAILLE LINE- WITH -END OF LINE CODE- AND ANNEX -BRAILLE END CHARACTER- TO THE RIGHT
  IF -INTERLINE FORMAT INDICATOR- IS ON, MOVE LOCATION OF FIRST CHARACTER CF -DATA FOR INTERLINE- TO -LOCATION OF NEXT CODE TO BE ADDED TO OUTPUT- AND EXECUTE -ADD TO OUTPUT DATA-
    MOVE LOCATION OF FIRST CHARACTER CF -BRAILLE LINE- TO -LOCATION OF NEXT CODE TO BE ADDED TO OUTPUT- AND EXECUTE -ADD TO OUTPUT DATA-
    STORE -BRAILLE END CHARACTER- IN FIRST CHARACTER IN -BRAILLE LINE-
  MOVE ZERO TO -NUMBER CF BRAILLE CHARACTERS IN BRAILLE LINE-
  MOVE LOCATION OF FIRST CHARACTER IN -BRAILLE LINE- TO -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE-
  INCREASE -BRAILLE LINE NUMBER- BY 1
  IF -BRAILLE LINE NUMBER- IS GREATER THAN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, EXECUTE
    -END BRAILLE PAGE BASIC- AND STORE 1 IN -BRAILLE LINE NUMBER-
  EXECUTE -SET BRAILLE LINE LENGTH-
  GO TO STEP P
STEP H  IF BRAILLE CHARACTER BEFORE END CHARACTER IS -CODE FOR SPACE-, SHIFT END CHARACTER ONE POSITION TO THE LEFT DECREASING -NUMBER CF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1
  SET -CENTERING SHIFT FACTOR- EQUAL TO ONE-HALF THE DIFFERENCE BETWEEN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- AND -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
  IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, MOVE
    -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED- TO -NUMBER CF BRAILLE CHARACTERS IN PAGE NUMBER- AND GO TO STEP L
  IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON, MOVE
    -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- TO -NUMBER CF BRAILLE CHARACTERS IN PAGE NUMBER- AND GO TO STEP L
STEP J  SHIFT CHARACTERS AND END CHARACTER IN -BRAILLE LINE- TO THE RIGHT THE NUMBER OF BRAILLE CHARACTERS SPECIFIED BY -CENTERING SHIFT FACTOR-
INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
BY -CENTERING SHIFT FACTOR-
FILL -BRAILLE LINE- TO THE LEFT OF SHIFTED CHARACTERS
WITH -CODE FOR SPACE- CHARACTERS
GO TO STEP F
STEP L  IF THE AMOUNT, -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS 3 MINUS -NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER- MINUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, IS LESS THAN -CENTERING SHIFT FACTOR-,
CHANGE -CENTERING SHIFT FACTOR- TO THE SMALLER AMOUNT
GO TO STEP J
STEP N  IF BRAILLE CHARACTER BEFORE END CHARACTER IS -CODE FOR SPACE-, SHIFT END CHARACTER ONE POSITION TO THE LEFT DECREASING -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1
SET -RIGHT MARGIN SHIFT FACTOR- EQUAL TO -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, DECREASE -RIGHT MARGIN SHIFT FACTOR- BY 3 AND BY -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED-
IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON, DECREASE -RIGHT MARGIN SHIFT FACTOR- BY 3 AND BY -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED-
BEGINNING WITH END CHARACTER IN -BRAILLE LINE- AND PROCESSING RIGHT TO LEFT SHIFT CHARACTERS TO THE RIGHT THE AMOUNT SPECIFIED BY -RIGHT MARGIN SHIFT FACTOR-
UNTIL -RIGHT MARGIN SIGNAL CODE- CHARACTER HAS BEEN SHIFTED
FILL AREA BETWEEN ORIGINAL -RIGHT MARGIN SIGNAL CODE- AND SHIFTED -RIGHT MARGIN SIGNAL CODE- WITH THE SAME SIGNAL CODE
INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
BY -RIGHT MARGIN SHIFT FACTOR-
IF -INSERT LEADER DOTS INDICATOR- IS OFF, GO TO STEP F
IF -RIGHT MARGIN SHIFT FACTOR- IS LESS THAN 3, GO TO STEP F
IN -BRAILLE LINE- REPLACE -RIGHT MARGIN SIGNAL CODE-
CHARACTERS, EXCEPT THE FIRST AND THE LAST, WITH -CODE FOR DOT 5-
GO TO STEP F
STEP P  RESET -ALIGN RIGHT MARGIN INDICATOR- AND -INSERT LEADER DOTS INDICATOR-
EXIT
INSERT BRAILLE PAGE NUMBER INTO BRAILLE LINE
EXECUTE -SPACE CUT BRAILLE LINE-
IF -LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER INDICATOR- IS ON, GO TO EXIT
MOVE -BRAILLE PAGE NUMBER TRANSLATED- TO -BRAILLE LINE- ALIGNED SO THAT LAST CHARACTER OF NUMBER REPLACES LAST SPACE OF LINE
EXIT

INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE
EXECUTE -SPACE CUT BRAILLE LINE-
MOVE -INKPRINT PAGE NUMBER TRANSLATED- TO -BRAILLE LINE- ALIGNED SO THAT LAST CHARACTER OF NUMBER REPLACES LAST SPACE OF LINE
EXECUTE -UPDATE INKPRINT PAGE NUMBER-
RESET -INSERT INKPRINT PAGE LINE INDICATOR-
EXIT

UPDATE INKPRINT PAGE NUMBER
SCAN -INKPRINT PAGE NUMBER TRANSLATED- FOR -CODE FOR HYPHEN- OR -CODE FOR NUMBER HYPHEN-
IF NUMBER CONTAINS A HYPHEN, GC TO STEP C

STEP B IF FIRST BRAILLE CHARACTER OF -INKPRINT PAGE NUMBER TRANSLATED- IS -CODE FOR NUMBER SIGN- OR -CODE FOR LETTER SIGN- GC TO STEP F
LOCATE FIRST CHARACTER OF -INKPRINT PAGE NUMBER TRANSLATED- IN -TABLE OF BRAILLE LETTERS- AND MOVE CODE FROM NEXT SUCCEEDING ENTRY TO FIRST CHARACTER OF -INKPRINT PAGE NUMBER TRANSLATED-
GO TO EXIT

STEP D DECREASE -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- BY NUMBER OF BRAILLE CHARACTERS TO THE LEFT OF THE HYPHEN
SHIFT SECOND PART OF NUMBER AND BRAILLE ENC CHARACTER TO THE LEFT SO THAT FIRST CHARACTER AFTER HYPHEN REPLACES SECOND CHARACTER OF -INKPRINT PAGE NUMBER TRANSLATED-
GO TO STEP B

STEP F SHIFT BRAILLE CHARACTERS AND BRAILLE ENC CHARACTER OF -INKPRINT PAGE NUMBER TRANSLATED- ONE BRAILLE CHARACTER TO THE RIGHT AND INCREASE -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- BY 1
MOVE -CODE FOR A- TO FIRST CHARACTER OF -INKPRINT PAGE NUMBER TRANSLATED-
EXIT

SPACE CUT BRAILLE LINE
BEGINNING WITH -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- STORE -CODE FOR SPACE- IN SUCCESSIVE POSITIONS IN -BRAILLE LINE- UNTIL -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUALS -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
PLACE -BRAILLE END CHARACTER- AFTER LAST SPACE STORED IN -BRAILLE LINE-
EXIT
INDENT RUN-OVER

SHIFT BRAILLE CHARACTERS OF -BRAILLE WORD- AND END
CHARACTER TO THE RIGHT THE NUMBER OF POSITIONS
SPECIFIED BY INDEX AMOUNT.

FILL AREA TO THE LEFT OF THE LAST SHIFTED CHARACTER WITH
-CODE FOR SPACE- CHARACTERS.

INCREASE NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
BY INDEX AMOUNT.

EXIT

SET BRAILLE LINE LENGTH

SET EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
BRAILLE LINE EQUAL TO MAXIMUM NUMBER OF BRAILLE
CHARACTERS IN FULL LINE.

RESET INSERT BRAILLE PAGE NUMBER INDICATOR-, INSERT
INKPRINT PAGE NUMBER INDICATOR-, AND INSERT RUNNING
HEAD INDICATOR-

IF TEXTBOOK FORMAT INDICATOR- IS ON, GO TO STEP D

IF MAGAZINE FORMAT NUMBERED ODD INDICATOR- IS ON, OR IF
MAGAZINE FORMAT NUMBERED EVEN INDICATOR- IS ON, GO TO
STEP U

IF BRAILLE PAGE NUMBER- IS ODD AND IF -BRAILLE LINE
NUMBER- IS 1, SET -INSERT RUNNING HEAD INDICATOR- AND
GO TO STEP W

STEP B IF CENTERING INDICATOR- IS ON, MOVE MAXIMUM NUMBER OF
BRAILLE CHARACTERS IN CENTERED LINE TO EFFECTIVE
MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
AND GO TO STEP W

IF ALTERNATE RIGHT MARGIN INDICATOR- IS ON, MOVE
MAXIMUM NUMBER OF BRAILLE CHARACTERS IN ALTERNATE
LINE TO EFFECTIVE MAXIMUM NUMBER OF BRAILLE
CHARACTERS IN BRAILLE LINE-

GO TO STEP W

STEP D IF BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP F

IF BRAILLE LINE NUMBER- IS 1, SET -INSERT RUNNING HEAD
INDICATOR- AND GO TO STEP W

IF BRAILLE LINE NUMBER- IS EQUAL TO EFFECTIVE MAXIMUM
NUMBER OF LINES FOR BRAILLE PAGE-, SET -INSERT BRAILLE
PAGE NUMBER INDICATOR- AND SET EFFECTIVE MAXIMUM
NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE EQUAL TO
MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
MINUS NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE
NUMBER TRANSLATED MINUS 3

GO TO STEP H

STEP F IF BRAILLE LINE NUMBER- IS 1, SET -INSERT INKPRINT PAGE
NUMBER INDICATOR- AND SET EFFECTIVE MAXIMUM NUMBER OF
BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL TO MAXIMUM
NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS
NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER
TRANSLATED MINUS 3

GO TO STEP H

STEP H IF CENTERING INDICATOR- IS ON, GO TO STEP J

IF ALTERNATE RIGHT MARGIN INDICATOR- IS ON, GO TO STEP P

GO TO STEP W

- 40 -
STEP J IF -INSERT IAKPRINT PAGE NUMBER INDICATOR- IS ON; MOVE -NUMBER OF BRAILLE CHARACTERS IN IAKPRINT PAGE NUMBER TRANSLATED- TO -NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER- AND GO TO STEP N

IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, MOVE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED- TO -NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER- AND GO TO STEP N

STEP L MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN CENTERED LINE- TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- AND GO TO STEP W

STEP N IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS THREE -NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER- MINUS 6 IS EQUAL TO OR GREATER THAN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN CENTERED LINE-, GO TO STEP L

SET -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL TO -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS -NUMBER OF BRAILLE CHARACTERS IN PAGE NUMBER- MINUS 3 MINUS ONE-HALF THE DIFFERENCE BETWEEN -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- AND -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN CENTERED LINE-

GO TO STEP W

STEP P IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, OR IF -INSERT IAKPRINT PAGE NUMBER INDICATOR- IS ON; GO TO STEP T

STEP R MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN ALTERNATE LINE- TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- AND GO TO STEP W

STEP T IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN ALTERNATE LINE- IS LESS THAN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-, GO TO STEP R

GO TO STEP W

STEP U IF -BRAILLE LINE NUMBER- IS NOT EQUAL TO -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, GO TO STEP B

IF -MAGAZINE FORMAT NUMBERED ODD INDICATOR- IS ON AND IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP B

IF -MAGAZINE FORMAT NUMBERED EVEN INDICATOR- IS ON AND IF -BRAILLE PAGE NUMBER- IS ODD, GO TO STEP B

SET -INSERT BRAILLE PAGE NUMBER INDICATOR- AND SET -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL TO -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- MINUS -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED- MINUS 3

GO TO STEP H

STEP W SET -NEW LINE INDICATOR-

EXIT
END BRAILLE PAGE BASIC
   IF -BRAILLE LINE NUMBER- IS 1, GO TO EXIT
   MOVE LOCATION OF -END OF PAGE CODE- TO -LOCATION OF NEXT
   CODE TO BE ADDED TO OUTPUT-
   EXECUTE -ADD TO OUTPUT DATA-
   EXECUTE -END OUTPUT RECORD-
   SET -BRAILLE LINE NUMBER- EQUAL TO 1
   INCREASE -BRAILLE PAGE NUMBER- BY 1 AND EXECUTE
   -TRANSLATE BRAILLE PAGE NUMBER-
   EXECUTE -SET BRAILLE PAGE LENGTH-
   EXIT

INSERT RUNNING HEAD
   SET -RUNNING HEAD SHIFT FACTOR- EQUAL TO ONE-HALF THE
   DIFFERENCE BETWEEN -MAXIMUM NUMBER OF BRAILLE
   CHARACTERS IN FULL LINE- AND -NUMBER OF BRAILLE
   CHARACTERS IN RUNNING HEAD-
   IF -TEXTBOOK FORMAT INDICATOR- IS ON, GO TO STEP B
   IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
   MINUS -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-
   MINUS -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE
   NUMBER TRANSLATED- MINUS 3 IS LESS THAN -RUNNING HEAD
   SHIFT FACTOR-, SET -RUNNING HEAD SHIFT FACTOR- EQUAL
   TO THE SMALLER AMOUNT
   EXECUTE -MOVE RUNNING HEAD-
   EXECUTE -INSERT BRAILLE PAGE NUMBER INTO BRAILLE LINE-
   GO TO STEP D

STEP B IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
   MINUS -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-
   MINUS -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE
   NUMBER TRANSLATED- MINUS 3 IS LESS THAN -RUNNING HEAD
   SHIFT FACTOR-, SET -RUNNING HEAD SHIFT FACTOR- EQUAL
   TO THE SMALLER AMOUNT
   EXECUTE -MOVE RUNNING HEAD-
   EXECUTE -INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE-

STEP D IF -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
   MINUS -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD-
   MINUS -NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE
   NUMBER TRANSLATED- MINUS 3 IS LESS THAN -RUNNING HEAD
   SHIFT FACTOR-, SET -RUNNING HEAD SHIFT FACTOR- EQUAL
   TO THE SMALLER AMOUNT
   EXECUTE -MOVE RUNNING HEAD-
   EXECUTE -INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE-
   RESET -INSERT RUNNING HEAD INDICATOR-
   REPLACE -BRAILLE END CHARACTER- IN -BRAILLE LINE- WITH
   -END OF LINE CODE-
   STORE -BRAILLE END CHARACTER- AFTER -END OF LINE CODE- IN
   -BRAILLE LINE-
   MOVE LOCATION OF FIRST CHARACTER OF -BRAILLE LINE- TO
   -LOCATION OF NEXT CODE TO BE ADDED TO OUTPUT-
   EXECUTE -ADD TO OUTPUT DATA-
   MOVE -BRAILLE END CHARACTER- TO FIRST BRAILLE CHARACTER
   OF -BRAILLE LINE-
   SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
   BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE
   CHARACTER IN -BRAILLE LINE-
   INCREASE -BRAILLE LINE NUMBER- BY 1
   MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE
   LINE-
   EXECUTE -SET BRAILLE LINE LENGTH-
   EXIT

   - 42 -
MOVE RUNNING HEAD
BEGINNING AT THE LEFT, MOVE TO -BRAILLE LINE- THE NUMBER OF BRAILLE SPACES SPECIFIED BY -RUNNING HEAD SHIFT FACTOR-
ADD BRAILLE CHARACTERS FROM -RUNNING HEAD- AND END CHARACTER TO -BRAILLE LINE-
SET -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- EQUAL TO -NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD- PLUS -RUNNING HEAD SHIFT FACTOR-
SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF END CHARACTER IN -BRAILLE LINE-
EXIT

SET BRAILLE PAGE LENGTH
STORE -MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE- IN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-
IF -INTERLINE FORMAT INDICATOR- IS OFF, GO TO EXIT
IF -BRAILLE PAGE NUMBER- IS EVEN, DECREASE -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE- BY 1
EXIT

TRANSLATE BRAILLE PAGE NUMBER
MOVE -CODE FOR NUMBER SIGN- TO FIRST BRAILLE CHARACTER OF -BRAILLE PAGE NUMBER TRANSLATED-
STORE 1 IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED-
BEGINNING WITH LEFTMOST SIGNIFICANT DIGIT OF -BRAILLE PAGE NUMBER-, OR WITH LOW ORDER DIGIT IF ALL ZEROS,
LOOK UP BRAILLE EQUIVALENTS IN -TABLE OF BRAILLE NUMBERS-, STORE EQUIVALENTS LEFT TO RIGHT IN -BRAILLE PAGE NUMBER TRANSLATED-, AND INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE PAGE NUMBER TRANSLATED- BY 1 FOR EACH EQUIVALENT STORED, UNTIL EQUIVALENT OF LOW ORDER DIGIT HAS BEEN STORED
STORE -BRAILLE END CHARACTER- FOLLOWING LAST BRAILLE CHARACTER OF -BRAILLE PAGE NUMBER TRANSLATED-
EXIT
INSERT INKPRINT PAGE LINE

IF -BRAILLE PAGE NUMBER- IS NOT THE SAME AS -BRAILLE PAGE NUMBER- REFERENCE FOR NEW INKPRINT PAGE-, GO TO STEP D

IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP D

IF -BRAILLE LINE NUMBER- EQUALS -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, GO TO STEP B

MOVE -CODE FOR DOTS 3 AND 6- TO SUCCESSIVE POSITIONS IN -BRAILLE LINE- UNTIL LINE LENGTH EQUALS -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-

STORE -BRAILLE END CHARACTER- AFTER LAST BRAILLE CHARACTER STORED IN -BRAILLE LINE-

MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE- TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-

EXECUTE -INSERT INKPRINT PAGE NUMBER INTO BRAILLE LINE-

EXECUTE -END BRAILLE LINE-

GO TO STEP D

STEP B

IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT RUNNING HEAD-

MOVE -CODE FOR SPACE- TO FIRST BRAILLE CHARACTER OF -BRAILLE LINE-

MOVE -BRAILLE END CHARACTER- TO SECOND BRAILLE CHARACTER OF -BRAILLE LINE-

MOVE 1 TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-

SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF SECOND BRAILLE CHARACTER IN -BRAILLE LINE-

EXECUTE -END BRAILLE LINE-

STEP D

RESET -INSERT INKPRINT PAGE LINE INDICATOR-

EXIT

INSERT BLANK LINE ABSOLUTE

IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT RUNNING HEAD-

IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, EXECUTE -INSERT INKPRINT PAGE LINE-

MOVE -CODE FOR SPACE- AND -BRAILLE END CHARACTER- TO FIRST TWO POSITIONS OF -BRAILLE LINE-

STORE 1 IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-

SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF SECOND BRAILLE CHARACTER IN -BRAILLE LINE-

EXECUTE -END BRAILLE LINE-

EXIT

END BRAILLE WORD AND LINE

EXECUTE -ADD WORD TO BRAILLE LINE-

EXECUTE -END BRAILLE LINE-

EXIT
END BRAILLE PAGE COMPLETE
EXECUTE -END BRAILLE WORD AND LINE-
IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP J
RESET -INSERT INKPRINT PAGE LINE INDICATOR-
IF -TEXTBOOK FORMAT INDICATOR- IS ON, GO TO STEP D
IF -MAGAZINE FORMAT NUMBERED CCD INDICATOR- IS ON, GO TO
STEP D
IF -MAGAZINE FORMAT NUMBERED EVEN INDICATOR- IS ON, GO TO
STEP H
STEP B EXECUTE -END BRAILLE PAGE BASIC-
STORE 1 IN -BRAILLE LINE NUMBER-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO STEP J
STEP D IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP B
STEP F IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP J
EXECUTE -INSERT BLANK LINE ABSOLUTE-
GO TO STEP F
STEP H IF -BRAILLE PAGE NUMBER- IS CCD, CCD TO STEP B
GO TO STEP F
STEP J EXIT

INDENT
EXECUTE -END BRAILLE WORD AND LINE-
IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
RUNNING HEAD-
IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, EXECUTE
-INSERT INKPRINT PAGE LINE-
IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
RUNNING HEAD-
MOVE -INDENT FACTOR- TO -NUMBER OF BRAILLE CHARACTERS IN
BRAILLE LINE-
STORE -CODE FOR SPACE- IN NUMBER OF SUCCESSIVE POSITIONS
OF -BRAILLE LINE- SPECIFIED BY -INDENT FACTOR-
STORE -BRAILLE END CHARACTER- AFTER LAST SPACE STORED IN
-BRAILLE LINE-
SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
BRAILLE LINE- EQUAL TO LOCATION WHERE END CHARACTER IS
STORED
RESET -NEW LINE INDICATOR-
EXIT

END OF PAGE TEST
IF -BRAILLE LINE NUMBER- PLUS -LINES REQUIRED BEFORE END
OF PAGE- MINUS 1 IS GREATER THAN -EFFECTIVE MAXIMUM
NUMBER OF LINES FOR BRAILLE PAGE-, EXECUTE -END
BRAILLE PAGE COMPLETE-
EXIT
STOP BRAILLE LINE
MOVE BRAILLE CHARACTERS AND END CHARACTER FROM -BRAILLE LI-
NE- TO -STORED BRAILLE LINE-
MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LI-
NE-
MOVE -BRAILLE END CHARACTER- TO FIRST POSITION OF
-BRAILLE LINE-
SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE
CHARACTER OF -BRAILLE LINE-
IF FIRST BRAILLE CHARACTER OF -STORED BRAILLE LINE- IS
-CODE FOR SPACE-, REPLACE WITH -CODE FOR SPECIAL
SPACE-
EXIT

MOVE STORED BRAILLE LINE
IF CHARACTER BEFORE END CHARACTER OF -STORED BRAILLE
LINE- IS NOT -CODE FOR SPACE-, SHIFT END CHARACTER ONE
POSITION TO THE RIGHT, AND INSERT -CODE FOR SPACE-
SAVE -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE- IN
-BRAILLE TABLE LOCATION REFERENCE-
SET -LOCATION OF NEXT BRAILLE CHARACTER IN STORED BRAILLE
LINE- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER OF
-STORED BRAILLE LINE-

STEP B IF NEXT BRAILLE CHARACTER IN -STORED BRAILLE LINE- IS
-BRAILLE END CHARACTER-, GO TO STEP D.
MOVE NEXT BRAILLE CHARACTER IN -STORED BRAILLE LINE- TO
FIRST BRAILLE CHARACTER OF -DUMMY BRAILLE TABLE ENTRY-
STORE -BRAILLE END CHARACTER- IN -DUMMY BRAILLE TABLE
ENTRY- AFTER BRAILLE CHARACTER MOVED FROM -STORED
BRAILLE LINE-
SET -LOCATION OF PRIMARY UNIT IN BRAILLE TABLE- EQUAL TO
LOCATION OF -DUMMY BRAILLE TABLE ENTRY-
INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN STORED
BRAILLE LINE- BY LENGTH OF ONE BRAILLE CHARACTER
EXECUTE -ADD TO BRAILLE WORD-
GO TO STEP B

STEP D MOVE -BRAILLE TABLE LOCATION REFERENCE- TO -LOCATION OF
PRIMARY UNIT IN BRAILLE TABLE-
EXIT

CENTER BRAILLE LINE
IF -CENTERING INDICATOR- IS OFF, GO TO STEP B
EXECUTE -END BRAILLE LINE-
GO TO STEP D

STEP B SET -CENTERING INDICATOR-
EXECUTE -SET BRAILLE LINE LENGTH-
EXECUTE -END BRAILLE LINE-
RESET -CENTERING INDICATOR-
EXECUTE -SET BRAILLE LINE LENGTH-

STEP D EXIT
GET FORMAT SYMBOL FACTOR
STORE ZERO IN FORMAT SYMBOL FACTOR-

STEP B INCREASE LOCATION OF LAST CHARACTER OF PRIMARY UNIT- BY LENGTH OF ONE CHARACTER
IF LAST CHARACTER OF PRIMARY UNIT IS SPACE; GO TO STEP B
SHIFT CHARACTERS OF FORMAT SYMBOL FACTOR- TO THE LEFT ONE DIGIT
MOVE LAST CHARACTER OF PRIMARY UNIT TO LOW ORDER DIGIT OF FORMAT SYMBOL FACTOR-
GO TO STEP B
EXIT
END COLUMN GROUP
EXECUTE -ADD WORD TO BRAILLE LINE-
IF LAST BRAILLE CHARACTER OF BRAILLE LINE- BEFORE END CHARACTER IS SPACE; GO TO STEP B
REPLACE END CHARACTER OF BRAILLE LINE- WITH CODE FOR SPACE- AND PLACE BRAILLE END CHARACTER- AFTER SPACE
INCREASE NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
BY 1
INCREASE LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- BY BRAILLE CHARACTER LENGTH
STEP B REPLACE CODE FOR SPACE- BEFORE EACH CHARACTER IN BRAILLE LINE- WITH EFFECTIVE COLUMN SIGNAL CODE-
SET TEMPORARY COLUMN WIDTH- EQUAL TO NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- MINUS PREVIOUS LINE LENGTH- MINUS 1
IF TEMPORARY COLUMN WIDTH- IS GREATER THAN WIDTH FOR COLUMN NUMBER- IN TABLE OF COLUMN WIDTHS-, REPLACE TABLE AMOUNT WITH AMOUNT OF TEMPORARY COLUMN WIDTH-
EXIT
BEGIN COLUMN GROUP
MOVE NEXT COLUMN SIGNAL CODE- TO EFFECTIVE COLUMN SIGNAL CODE-
MOVE NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- TO PREVIOUS LINE LENGTH-
INCREASE COLUMN NUMBER- BY 1
EXIT
STORE COLUMN LINE
MOVE BRAILLE LINE- TO COLUMN LINE-
WRITE COLUMN LINE- IN TEMPORARY FILE
MOVE ZERO TO NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
STORE BRAILLE END CHARACTER- IN FIRST CHARACTER OF BRAILLE LINE-
SET LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN BRAILLE LINE-
EXIT
INSERT SPACES BETWEEN COLUMNS
STEP B IF -COLUMN ADJUSTMENT FACTOR- IS LESS THAN 1, GO TO
STEP D
DECREASE -COLUMN ADJUSTMENT FACTOR- BY 1
MOVE -CODE FOR SPACE- TO NEXT BRAILLE CHARACTER OF
-BRAILLE WORD-
INCREASE -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
BRAILLE WORD- BY BRAILLE CHARACTER LENGTH
STORE -BRAILLE END CHARACTER- IN NEXT BRAILLE CHARACTER
OF -BRAILLE WORD-
INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
BY 1
GO TO STEP B
STEP D EXIT

MOVE COLUMN GROUP
DECREASE -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN
LINE- BY BRAILLE CHARACTER LENGTH MULTIPLIED BY
-TEMPORARY COLUMN WIDTH-
STEP B IF NEXT BRAILLE CHARACTER IN -COLUMN LINE- IS -COLUMN
LEFT ALIGN SIGNAL CODE- OR -COLUMN RIGHT ALIGN SIGNAL
CODE-, GO TO STEP D
MOVE NEXT BRAILLE CHARACTER IN -COLUMN LINE- TO NEXT
BRAILLE CHARACTER IN -BRAILLE WORD-
INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
BY 1
INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN
LINE- BY LENGTH OF ONE BRAILLE CHARACTER
INCREASE -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
BRAILLE WORD- BY LENGTH OF ONE BRAILLE CHARACTER
GO TO STEP B
STEP D INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN
LINE- BY BRAILLE CHARACTER LENGTH
STORE -BRAILLE END CHARACTER- AFTER LAST BRAILLE
CHARACTER STORED IN -BRAILLE WORD-
EXIT

RESET GENERAL FORMAT INDICATORS
RESET -MAGAZINE FORMAT NUMBERED EVEN INDICATOR-, -MAGAZINE FORMAT NUMBERED ODD INDICATOR-, -LEAVE BLANK
AREA FOR BRAILLE PAGE NUMBER INDICATOR-, -TEXTBOOK
FORMAT INDICATOR- AND -INTERLINE FORMAT INDICATOR-
EXIT

OPERATION 101 BEGIN LITERARY FORMAT
EXECUTE -RESET GENERAL FORMAT INDICATORS-
EXECUTE -SET BRAILLE PAGE LENGTH-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2
OPERATION 102 BEGIN TEXTBOOK FORMAT
EXECUTE -RESET GENERAL FORMAT INDICATORS-
SET -TEXTBOOK FORMAT INDICATOR-
EXECUTE -SET BRAILLE PAGE LENGTH-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 103 BEGIN TEXTBOOK INTERLINE FORMAT
EXECUTE -RESET GENERAL FORMAT INDICATORS-
SET -TEXTBOOK FORMAT INDICATOR-
SET -INTERLINE FORMAT INDICATOR-
EXECUTE -SET BRAILLE PAGE LENGTH-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 104 BEGIN MAGAZINE FORMAT NUMBERING ODD PAGES
EXECUTE -RESET GENERAL FORMAT INDICATORS-
SET -MAGAZINE FORMAT NUMBERED ODD INDICATOR-
EXECUTE -SET BRAILLE PAGE LENGTH-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 105 BEGIN MAGAZINE FORMAT NUMBERING EVEN PAGES
EXECUTE -RESET GENERAL FORMAT INDICATORS-
SET -MAGAZINE FORMAT NUMBERED EVEN INDICATOR-
EXECUTE -SET BRAILLE PAGE LENGTH-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 109 SPECIFY PAGE LENGTH
EXECUTE -GET FORMAT SYMBOL FACTOR-
STORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF LINES
FOR BRAILLE PAGE-
EXECUTE -SET BRAILLE PAGE LENGTH-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 110 SPECIFY FULL LINE LENGTH
EXECUTE -GET FORMAT SYMBOL FACTOR-
STORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF
BRAILLE CHARACTERS IN FULL LINE-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 111 SPECIFY CENTERED LINE LENGTH
EXECUTE -GET FORMAT SYMBOL FACTOR-
STORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF
BRAILLE CHARACTERS IN CENTERED LINE-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2
OPERATION 112  SPECIFY BRAILLE CARD NUMBER INCREMENT
EXECUTE -SET FORMAT SYMBOL FACTOR-
STORE FORMAT SYMBOL FACTOR IN INCREMENT FOR BRAILLE CARD NUMBER-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 116  SPECIFY SOURCE NUMBER
EXECUTE -GET FORMAT SYMBOL FACTOR-
STORE -FORMAT SYMBOL FACTOR- IN -SOURCE NUMBER-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 117  SPECIFY TITLE NUMBER
EXECUTE -GET FORMAT SYMBOL FACTOR-
STORE -FORMAT SYMBOL FACTOR- IN -TITLE NUMBER-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 118  SPECIFY BRAILLE VOLUME NUMBER
EXECUTE -SET FORMAT SYMBOL FACTOR-
EXECUTE -END BRAILLE PAGE COMPLET-
STORE -FORMAT SYMBOL FACTOR- IN -BRAILLE PAGE NUMBER-
EXECUTE -TRANSLATE BRAILLE PAGE NUMBER-
EXECUTE -SET BRAILLE PAGE LENGTH-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 120  ADVANCE TO SPECIFIED BRAILLE LINE
EXECUTE -END BRAILLE WORD AND LINE-
EXECUTE -SET FORMAT SYMBOL FACTOR-
STEP B IF -BRAILLE LINE NUMBER- EQUALS -FORMAT SYMBOL FACTOR-,
GO TO STEP D
EXECUTE -INSERT BLANK LINE ABSOLUTE-
GO TO STEP B
STEP D EXECUTE -END OUTPUT RECORD-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 121  SPECIFY BRAILLE CARD NUMBER
EXECUTE -SET FORMAT SYMBOL FACTOR-
STORE -FORMAT SYMBOL FACTOR- IN -BRAILLE CARD NUMBER-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 124  END RUN
EXECUTE -END BRAILLE WORD AND LINE-
EXECUTE -END BRAILLE PAGE COMPLETE-
CLOSE OUTPUT FILE
STOP
OPERATION 125  BEGIN NEW PARAGRAPH
   MOVE 2 TO -INDENT FACTOR-
   EXECUTE -END BRAILLE WORD AND LINE-
   EXECUTE -END OUTPUT RECORD-
   EXECUTE -INDENT-
   GO TO -MAIN PROGRAM- STEP 2

OPERATION 126  END LINE
   EXECUTE -END BRAILLE WORD AND LINE-
   GO TO -MAIN PROGRAM- STEP 2

OPERATION 127  ADVANCE TO NEXT BRAILLE PAGE
   EXECUTE -END BRAILLE PAGE COMPLETE-
   GO TO -MAIN PROGRAM- STEP 2

OPERATION 128  ADVANCE TO NEXT CCE-NUMBERED BRAILLE PAGE
   EXECUTE -END BRAILLE PAGE COMPLETE-
   IF -BRAILLE PAGE NUMBER- IS CCE, GO TO STEP B
   EXECUTE -INSERT BLANK LINE ABSOLUTE-
   EXECUTE -END BRAILLE PAGE COMPLETE-

STEP B  GO TO -MAIN PROGRAM- STEP 2

OPERATION 129  SKIP A LINE
   EXECUTE -END BRAILLE WORD AND LINE-
   IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON AND IF
   -INSERT RUNNING HEAD INDICATOR- IS OFF, GO TO STEP H
   IF -MAGAZINE FORMAT NUMBERED CCE INDICATOR- OR -MAGAZINE
   FORMAT NUMBERED EVEN INDICATOR- IS ON, GO TO STEP F
   IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP D

STEP B  EXECUTE -INSERT BLANK LINE ABSOLUTE-
   GO TO STEP H

STEP D  IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP H
   IF -BRAILLE LINE NUMBER- IS EQUAL TO -EFFECTIVE MAXIMUM
   NUMBER OF LINES FOR BRAILLE PAGE-, EXECUTE -INSERT
   BLANK LINE ABSOLUTE-
   GO TO STEP B

STEP F  IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP H
   GO TO STEP B

STEP H  GO TO -MAIN PROGRAM- STEP 2
OPERATION 130 BREAK
EXECUTE -ADD WORD TO BRAILLE LINE-
IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP F
IF -BRAILLE LINE NUMBER- IS LESS THAN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, MINUS 1, GO TO
STEP B
EXECUTE -STORE BRAILLE LINE-
EXECUTE -END BRAILLE PAGE COMPLETE-
EXECUTE -MOVE STORED BRAILLE LINE-
STEP B EXECUTE -END BRAILLE WORD AND LINE-
STEP D EXECUTE -INSERT BLANK LINE AB solute-
GO TO STEP J
STEP F IF -BRAILLE LINE NUMBER- IS 1 LESS THAN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE-, GO TO
STEP H
GO TO STEP D
STEP H EXECUTE -END BRAILLE WORD AND LINE-
EXECUTE -INSERT BLANK LINE AB solute-
GO TO STEP D
STEP J GO TO -MAIN PROGRAM- STEP 2

OPERATION 132 BEGIN CHAPTER TITLE
EXECUTE -GET FORMAT SYMBOL FACTOR-
ADD 4 TO -FORMAT SYMBOL FACTOR- AND STORE RESULT IN -LINES REQUIRED BEFORE END OF PAGE-
STEP B EXECUTE -END BRAILLE WORD AND LINE-
EXECUTE -END OF PAGE TEST-
SET -CENTERING INDICATOR-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO OPERATION 139

OPERATION 133 END CHAPTER TITLE
EXECUTE -END BRAILLE WORD AND LINE-
RESET -CENTERING INDICATOR-
EXECUTE -INSERT BLANK LINE AB solute-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 134 BEGIN HEADING
EXECUTE -SET FORMAT SYMBOL FACTOR-
ADD 2 TO -FORMAT SYMBOL FACTOR- AND STORE RESULT IN -LINES REQUIRED BEFORE END OF PAGE-
GO TO OPERATION 132 STEP B

OPERATION 135 END HEADING
GO TO OPERATION 137

OPERATION 136 BEGIN CENTERING
EXECUTE -END BRAILLE WORD AND LINE-
SET -CENTERING INDICATOR-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2
OPERATION 137 END CENTERING
EXECUTE -END BRAILLE WORD AND LINE-
RESET -CENTERING INDICATOR-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 138 BEGIN POETRY
EXECUTE -END BRAILLE WORD AND LINE-
SET -INDEX FORMAT INDICATOR-
STORE 2 IN -INDEX AMOUNT-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 140 END POETRY
GO TO OPERATION 143

OPERATION 141 INDENT THIS LINE
IF CHARACTER IN -TEXT- FOLLOWING LAST CHARACTER OF PRIMARY UNIT IS NOT A NUMBER, GO TO -MAIN PROGRAM-
STEP 4
EXECUTE -GET FORMAT SYMBOL FACTOR-
STORE -FORMAT SYMBOL FACTOR- IN -INDENT FACTOR-
EXECUTE -INDENT-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 142 BEGIN INDEX
EXECUTE -END BRAILLE WORD AND LINE-
SET -INDEX FORMAT INDICATOR-
EXECUTE -GET FORMAT SYMBOL FACTOR-
STORE -FORMAT SYMBOL FACTOR- IN -INDEX AMOUNT-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 143 END INDEX FORMAT
EXECUTE -END BRAILLE WORD AND LINE-
RESET -INDEX FORMAT INDICATOR-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 144 DO NOT SEPARATE LINES AT END OF PAGE
EXECUTE -END BRAILLE WORD AND LINE-
EXECUTE -SET FORMAT SYMBOL FACTOR-
STEP 8 STORE -FORMAT SYMBOL FACTOR- IN -LINES REQUIRED BEFORE END OF PAGE-
IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, INCREASE -LINES REQUIRED BEFORE END OF PAGE- BY 1
EXECUTE -END OF PAGE TEST-
GO TO -MAIN PROGRAM- STEP 2
OPERATION 145  LETTER CLOSING
EXECUTE -SET FORMAT SYMBOL FACTOR-
EXECUTE -ADD WORD TO BRAILLE LINE-
IF -BRAILLE LINE NUMBER- PLUS -FORMAT SYMBOL FACTOR- IS
GREATER THAN -EFFECTIVE MAXIMUM NUMBER OF LINES FOR
BRAILLE PAGE-, GO TO STEP B
EXECUTE -END BRAILLE LINE-
GO TO STEP D

STEP B  EXECUTE -STORE BRAILLE LINE-
EXECUTE -END BRAILLE PAGE COMPLETE-
EXECUTE -MOVE STORED BRAILLE LINE-
EXECUTE -END BRAILLE WORD AND LINE-

STEP D  GO TO -MAIN PROGRAM- STEP 2

OPERATION 148  ALIGN AT RIGHT MARGIN
SET -ALIGN RIGHT MARGIN INDICATOR-
EXECUTE -ADD WORD TO BRAILLE LINE-
IF LAST CHARACTER BEFORE END CHARACTER IN -BRAILLE LINE-
IS -CODE FOR SPACE-, GO TO STEP B
SHIFT END CHARACTER OF -BRAILLE LINE- ONE POSITION TO THE
RIGHT AND INSERT -CODE FOR SPACE- BEFORE END CHARACTER
INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
BY 1

STEP B  REPLACE SPACE BEFORE END CHARACTER IN -BRAILLE LINE- WITH
-RIGHT MARGIN SIGNAL CODE-
MOVE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
TO -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
BRAILLE LINE-
IF -INSERT BRAILLE PAGE NUMBER INDICATOR- IS ON, DECREASE
-EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
BRAILLE LINE- BY -NUMBER OF BRAILLE CHARACTERS IN
BRAILLE PAGE NUMBER TRANSLATED- PLUS 3
IF -INSERT INKPRINT PAGE NUMBER INDICATOR- IS ON,
DECREASE -EFFECTIVE MAXIMUM NUMBER OF BRAILLE
CHARACTERS IN BRAILLE LINE- BY -NUMBER OF BRAILLE
CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED- PLUS 3
GO TO -MAIN PROGRAM- STEP 2

OPERATION 149  INSERT LEADER DOTS
SET -INSERT LEADER DOTS INDICATOR-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 150  BEGIN RUNNING HEAD
STORE -BRAILLE END CHARACTER- IN FIRST BRAILLE CHARACTER
OF -RUNNING HEAD-
SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
RUNNING HEAD- EQUAL TO LOCATION OF FIRST BRAILLE
CHARACTER IN -RUNNING HEAD-
MOVE ZERO TO -NUMBER OF BRAILLE CHARACTERS IN RUNNING
HEAD-
SET -ADD TO RUNNING HEAD INDICATOR-
GO TO -MAIN PROGRAM- STEP 2
OPERATION 151  END RUNNING HEAD
RESET -ADD TO RUNNING HEAD INDICATOR-
IF LAST BRAILLE CHARACTER IN -RUNNING HEAD- BEFORE END
CHARACTER IS -CODE FOR SPACE-, SHIFT END CHARACTER ONE
POSITION TO THE LEFT IN -RUNNING HEAD- AND DECREASE
-NUMBER OF BRAILLE CHARACTERS IN RUNNING HEAD- BY 1
GO TO -MAIN PROGRAM- STEP 2

OPERATION 152  ASTERISK BREAK
EXECUTE -ADD WORD TO BRAILLE LINE-
IF -BRAILLE PAGE NUMBER- IS EVEN, GO TO STEP B
IF -BRAILLE LINE NUMBER- IS NOT EQUAL TO -EFFECTIVE
MAXIMUM NUMBER OF LINES FOR BRAILLE PAGE- GC TO STEP B
EXECUTE -STORE BRAILLE LINE-
EXECUTE -END BRAILLE PAGE COMPLETE-
EXECUTE -MOVE STORED BRAILLE LINE-
STEP B EXECUTE -END BRAILLE WORD AND LINE-
IF -INSERT RUNNING HEAD INDICATOR- IS ON, EXECUTE -INSERT
RUNNING HEAD-
STORE -CODE FOR ASTERISK- SUCCESSIVELY IN FIRST EIGHT
BRAILLE CHARACTERS OF -BRAILLE LINE-
STORE -CODE FOR SPACE- IN 3RD AND 6TH BRAILLE CHARACTERS
OF -BRAILLE LINE-
STORE -BRAILLE END CHARACTER- FOLLOWING LAST ASTERISK
STORE 8 IN -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
BRAILLE LINE- EQUAL TO LOCATION OF 9TH BRAILLE
CHARACTER IN -BRAILLE LINE-
EXECUTE -CENTER BRAILLE LINE-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 153  INSERT CENTERED COLON LINE
EXECUTE -END BRAILLE WORD AND LINE-
IF -BRAILLE LINE NUMBER- EQUALS 1, GC TO -MAIN PROGRAM-
STEP 2
STORE -CODE FOR COLON- SUCCESSIVELY IN FIRST TWELVE
BRAILLE CHARACTERS OF -BRAILLE LINE-
STORE -BRAILLE END CHARACTER- FOLLOWING LAST COLON
MOVE 12 TO -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
SET -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
BRAILLE LINE- EQUAL TO LOCATION OF 13TH BRAILLE
CHARACTER OF -BRAILLE LINE-
EXECUTE -CENTER BRAILLE LINE-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 156  BEGIN ALTERNATE RIGHT MARGIN
EXECUTE -GET FORMAT SYMBOL FACTOR-
STORE -FORMAT SYMBOL FACTOR- IN -MAXIMUM NUMBER OF
BRAILLE CHARACTERS IN ALTERNATE LINE-
SET -ALTERNATE RIGHT MARGIN INDICATOR-
EXECUTE -SET BRAILLE LINE LENGTH-
GO TO -MAIN PROGRAM- STEP 2
OPERATION 157  END ALTERNATE RIGHT MARGIN
RESET - ALTERNATE RIGHT MARGIN INDICATOR-
EXECUTE - SET BRAILLE LINE LENGTH-
GO TO - MAIN PROGRAM - STEP 2

OPERATION 158  BEGIN GRADE 1 TRANSLATION
SET - GRADE 1 INDICATOR -
GO TO - MAIN PROGRAM - STEP 2

OPERATION 159  END GRADE 1 TRANSLATION
RESET - GRADE 1 INDICATOR -
MOVE -TYPE OF LAST UNIT BEFORE PRIMARY UNIT- TO RIGHT END
TYPE IN - BRAILLE TABLE- ENTRY FOR PRIMARY UNIT
GO TO - MAIN PROGRAM - STEP 2

OPERATION 160  BEGINNING OF NEW INKPRINT PAGE
SET - INSERT INKPRINT PAGE LINE INDICATOR -
SET - ADD TO INKPRINT PAGE NUMBER INDICATOR -
EXECUTE - END BRAILLE WORD AND LINE -
MOVE ZERO TO - NUMBER OF BRAILLE CHARACTERS IN INKPRINT PAGE NUMBER TRANSLATED -
SET - LOCATION FOR STORING NEXT BRAILLE CHARACTER IN INKPRINT PAGE NUMBER TRANSLATED - EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN - INKPRINT PAGE NUMBER TRANSLATED -
MOVE - BRAILLE PAGE NUMBER - TO - BRAILLE PAGE NUMBER REFERENCE FOR NEW INKPRINT PAGE -
GO TO - MAIN PROGRAM - STEP 2

OPERATION 161  BEGIN ONE LINE CHAPTER TITLE
STORE 5 IN - LINES REQUIRED BEFORE END OF PAGE -
GO TO OPERATION 132 STEP B

OPERATION 162  BEGIN ONE LINE HEADING
STORE 3 IN - LINES REQUIRED BEFORE END OF PAGE -
GO TO OPERATION 132 STEP B

OPERATION 164  LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER
SET - LEAVE BLANK AREA FOR BRAILLE PAGE NUMBER INDICATOR -
GO TO - MAIN PROGRAM - STEP 2

OPERATION 166  INSERT FULL LINE OF COLONS
EXECUTE - END BRAILLE WORD AND LINE -
STORE - CODE FOR COLON- SUCCESSIVELY IN - BRAILLE LINE- THE AMOUNT OF TIMES SPECIFIED BY - EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE -
STORE - BRAILLE END CHARACTER- AFTER LAST COLON STORED
MOVE - EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- TO - NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE -
SET - LOCATION FOR STORING NEXT BRAILLE CHARACTER IN BRAILLE LINE- EQUAL TO LOCATION OF END CHARACTER
EXECUTE - END BRAILLE LINE -
GO TO - MAIN PROGRAM - STEP 2

- 56 -
OPERATION 167 INSERT CENTERED DOTS
EXECUTE -END BRAILLE WORD AND LINE-
EXECUTE -GET FORMAT SYMBOL FACTOR-
IF -BRAILLE LINE NUMBER- IS 1, GO TO STEP F
DOUBLK -FORMAT SYMBOL FACTOR-
DECREASE -FORMAT SYMBOL FACTOR- BY 1
GO TO STEP D

STEP B
STORE -CODE FOR SPACE- IN BRAILLE LINE INCREASING -NUMBER
OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1 AND
INCREASING -LOCATION FOR STORING NEXT BRAILLE
CHARACTER IN BRAILLE LINE- BY BRAILLE CHARACTER LENGTH

STEP D
STORE -CODE FOR DCT 5- IN -BRAILLE LINE- INCREASING
-NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- BY 1
AND INCREASING -LOCATION FOR STORING NEXT BRAILLE
CHARACTER IN BRAILLE LINE- BY BRAILLE CHARACTER LENGTH
STORE -BRAILLE END CHARACTER- AFTER DCT
IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- IS LESS
THAN -FORMAT SYMBOL FACTOR-, GO TO STEP B
EXECUTE -CENTER BRAILLE LINE-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 168 ADVANCE TO SPECIFIED BRAILLE CELL NUMBER
EXECUTE -GET FORMAT SYMBOL FACTOR-
EXECUTE -ADD WORD TO BRAILLE LINE-
DECREASE -FORMAT SYMBOL FACTOR- BY 1

STEP B
IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE- IS NOT
LESS THAN -FORMAT SYMBOL FACTOR-, GO TO STEP D
MOVE -CODE FOR SPACE- TO NEXT BRAILLE CHARACTER IN
BRAILLE LINE-
STORE -BRAILLE END CHARACTER- AFTER SPACE
INCREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE LINE-
BY 1
INCREASE -LOCATION FOR STORING NEXT BRAILLE CHARACTER IN
BRAILLE LINE- BY LENGTH OF ONE BRAILLE CHARACTER
GO TO STEP B

STEP D
GO TO -MAIN PROGRAM- STEP 2

OPERATION 169 RESERVE BLOCK OF BLANK LINES
EXECUTE -END BRAILLE WORD AND LINE-
EXECUTE -GET FORMAT SYMBOL FACTOR-
STORE -FORMAT SYMBOL FACTOR- IN -LINES REQUIRED BEFORE
END OF PAGE-
IF -INSERT INKPRINT PAGE LINE INDICATOR- IS ON, INCREASE
-LINES REQUIRED BEFORE END OF PAGE- BY 1
EXECUTE -END OF PAGE TEST-
EXECUTE -INSERT BLANK LINE ABSOLUTE- THE NUMBER OF TIMES
SPECIFIED BY -FORMAT SYMBOL FACTOR-
GO TO -MAIN PROGRAM- STEP 2
OPERATION 172 BEGIN COLUMN FORMAT
EXECUTE -END BRAILLE WORD AND LINE-
STORE -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
BRAILLE LINE- IN -MAXIMUM NUMBER OF BRAILLE CHARACTERS
IN NEXT LINE-
STORE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN FULL LINE-
IN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN
BRAILLE LINE-
OPEN TEMPORARY FILE
CLEAR ALL WIDTHS IN -TABLE OF COLUMN WIDTHS-
SET -COLUMN FIRST LINE INDICATOR-
STORE ZERO IN -INDENT FACTOR-
EXECUTE -INDENT-
GO TO -MAIN PROGRAM- STEP 2

OPERATION 173 LEFT ALIGN IN COLUMN
MOVE -COLUMN LEFT ALIGN SIGNAL CODE- TO -NEXT COLUMN
SIGNAL CODE-
GO TO OPERATION 174 STEP B

OPERATION 174 RIGHT ALIGN IN COLUMN
MOVE -COLUMN RIGHT ALIGN SIGNAL CODE- TO -NEXT COLUMN
SIGNAL CODE-
STEP B EXECUTE -SET FORMAT SYMBOL FACTOR-
IF -FORMAT SYMBOL FACTOR- IS 1, GO TO STEP D
EXECUTE -END COLUMN GROUP-
EXECUTE -BEGIN COLUMN GROUP-
GO TO STEP J
STEP D IF -COLUMN FIRST LINE INDICATOR- IS OFF, GO TO STEP H
RESET -COLUMN FIRST LINE INDICATOR-
STEP F STORE ZERO IN -COLUMN NUMBER-
EXECUTE -BEGIN COLUMN GROUP-
GO TO STEP J
STEP H EXECUTE -END COLUMN GROUP-
EXECUTE -STORE COLUMN LINE-
GO TO STEP F
STEP J GO TO -MAIN PROGRAM- STEP 2
OPERATION 175 END COLUMN FORMAT
EXECUTE -END COLUMN GROUP-
EXECUTE -STORE COLUMN LINE-
CLOSE TEMPORARY FILE
STORE -MAXIMUM NUMBER OF BRAILLE CHARACTERS IN NEXT LINE-
   IN -EFFECTIVE MAXIMUM NUMBER OF BRAILLE CHARACTERS IN-
   BRAILLE LINE-
RE-OPEN TEMPORARY FILE

STEP B IF ALL DATA HAS BEEN READ FROM TEMPORARY FILE, GO TO
   STEP V
GET -COLUMN LINE- FROM TEMPORARY FILE
STORE 1 IN -COLUMN NUMBER-
SET -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN LINE-
   EQUAL TO LOCATION OF FIRST BRAILLE CHARACTER IN
   -COLUMN LINE-

STEP D STORE ZERO IN -TEMPORARY COLUMN WIDTH-
STEP F IF NEXT BRAILLE CHARACTER IN -COLUMN LINE- IS -BRAILLE
   END CHARACTER-, GC TO STEP N
IF NEXT BRAILLE CHARACTER IN -COLUMN LINE- IS -COLUMN
   LEFT ALIGN SIGNAL CODE-, RESET -COLUMN RIGHT ALIGN
   INDICATOR- AND GC TO STEP H
IF NEXT BRAILLE CHARACTER IN -COLUMN LINE- IS -COLUMN
   RIGHT ALIGN SIGNAL CODE-, SET -COLUMN RIGHT ALIGN
   INDICATOR- AND GC TO STEP H
INCREASE -TEMPORARY COLUMN WIDTH- BY 1
INCREASE -LOCATION OF NEXT BRAILLE CHARACTER IN COLUMN
   LINE- BY BRAILLE CHARACTER LENGTH
GO TO STEP F

STEP H SUBTRACT -TEMPORARY COLUMN WIDTH- FROM WIDTH FOR -COLUMN
   NUMBER- IN -TABLE OF COLUMN WIDTHS- AND STORE
   DIFFERENCE IN -COLUMN ADJUSTMENT FACTOR-
   INCREASE -COLUMN NUMBER- BY 1
IF -COLUMN RIGHT ALIGN INDICATOR- IS ON, GO TO STEP L
EXECUTE -MOVE COLUMN GROUP-
EXECUTE -INSERT SPACES BETWEEN COLUMNS-

STEP J STORE 2 IN -COLUMN ADJUSTMENT FACTOR-
EXECUTE -INSERT SPACES BETWEEN COLUMNS-
GO TO STEP D

STEP L EXECUTE -INSERT SPACES BETWEEN COLUMNS-
EXECUTE -MOVE COLUMN GROUP-
GO TO STEP J

STEP N IF FIRST BRAILLE CHARACTER IN -BRAILLE WORD- IS -CODE FOR
   SPACE-, REPLACE THIS CHARACTER WITH -CODE FOR SPECIAL
   SPACE-
IF LAST BRAILLE CHARACTER IN -BRAILLE WORD- BEFORE END
   CHARACTER IS NOT -CODE FOR SPACE-, GO TO STEP P
SHIFT -BRAILLE END CHARACTER- IN -BRAILLE WORD- ONE
   POSITION TO THE LEFT
DECREASE -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-
   BY 1
IF -NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD- IS
   GREATER THAN 1, GC TO STEP N
STEP P  IF "NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-- IS LESS
THAN OR EQUAL TO "MAXIMUM NUMBER OF BRAILLE CHARACTERS
IN FULL LINE", GO TO STEP R
SHIFT "BRAILLE END CHARACTER" IN BRAILLE WORD ONE
POSITION TO THE LEFT
DECREASE "NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD--
BY 1"
GO TO STEP P
STEP R  IF "NUMBER OF BRAILLE CHARACTERS IN BRAILLE WORD-- IS LESS
THAN OR EQUAL TO "EFFECTIVE MAXIMUM NUMBER OF BRAILLE
CHARACTERS IN BRAILLE LINE", GO TO STEP T
EXECUTE "INSERT BLANK LINE ABSOLUTE--
GO TO STEP R
STEP T  IF "INSERT RUNNING HEAD INDICATOR-- IS ON, EXECUTE "INSERT
RUNNING HEAD--
EXECUTE "END BRAILLE WORD AND LINE--
GO TO STEP B
STEP V  GO TO "MAIN PROGRAM-- STEP 2"

OPERATION 176  BEGIN THIS LINE AT LEFT MARGIN
STORE ZERO IN "INDENT FACTOR--
EXECUTE "INDENT--
GO TO "MAIN PROGRAM-- STEP 2"

CLEAR OUTPUT DATA
STORE ZEROS IN ALL POSITIONS OF "OUTPUT DATA--
EXIT

SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER,
BEGINNING WITH LOW ORDER DIGIT LOOK UP DIGITS OF "DECIMAL
NUMBER-- IN "TABLE OF 8-BIT EQUIVALENTS-- AND STORE
VALUES SUCCESSIVELY IN "4-BIT DIGIT LIST-- USING TWO
LIST POSITIONS FOR EACH DECIMAL DIGIT AND STORING
FIRST THE LOW ORDER 4 BITS FROM THE TABLE ENTRY AND
THEN THE HIGH ORDER 4 BITS
EXIT
INSERT NUMBERS FOR BRAILLE CARD

MOVE -TITLE NUMBER- TO -DECIMAL NUMBER-
EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-
MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT
TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM
LIST TO LOW ORDER 4 BITS OF POSITIONS 33 TO 26 IN
-OUTPUT DATA-
MOVE -BRAILLE VOLUME NUMBER- TO -DECIMAL NUMBER-
EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-
MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT
TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM
LIST TO LOW ORDER 4 BITS OF POSITIONS 37 TO 34 IN
-OUTPUT DATA-
MOVE -BRAILLE PAGE NUMBER- TO -DECIMAL NUMBER-
EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-
MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT
TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM
LIST TO LOW ORDER 4 BITS OF POSITIONS 47 TO 38 IN
-OUTPUT DATA-
MOVE -BRAILLE LINE NUMBER- TO -DECIMAL NUMBER-
EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-
MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT
TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM
LIST TO LOW ORDER 4 BITS OF POSITIONS 53 TO 50 IN
-OUTPUT DATA-
MOVE -SOURCE NUMBER- TO -DECIMAL NUMBER-
EXECUTE -SET UP 4-BIT REPRESENTATION OF DECIMAL NUMBER-
MOVING LEFT TO RIGHT THROUGH -4-BIT DIGIT LIST- AND RIGHT
TO LEFT THROUGH -OUTPUT DATA-, MOVE 4-BIT DIGITS FROM
LIST TO LOW ORDER 4 BITS OF POSITIONS 61 TO 56 IN
-OUTPUT DATA-
LOOK UP DIGITS OF -BRAILLE CARD NUMBER- IN -TABLE OF
6-BIT EQUIVALENTS- AND STORE 6-BIT VALUES IN BITS 5-10
OF POSITIONS 1 TO 7 IN -OUTPUT DATA-
INCREASE -BRAILLE CARD NUMBER- BY -INCREMENT FOR BRAILLE
CARD NUMBER-
LOOK UP DIGITS OF -BRAILLE CARD NUMBER- IN -TABLE OF
6-BIT EQUIVALENTS- AND STORE 6-BIT VALUES IN LOW ORDER
6 BITS OF POSITIONS 1 TO 7 IN -OUTPUT DATA-
EXIT
ADD TO OUTPUT DATA
    IF FIRST POSITION IN OUTPUT DATA IS CLEARED, GO TO STEP D
STEP B IF NEXT CODE TO BE ADDED TO OUTPUT IS BRAILLE END CHARACTER, GO TO STEP F
    MOVE NEXT CODE TO BE ADDED TO OUTPUT TO HIGH ORDER 12 BITS OF NEXT POSITION IN OUTPUT DATA
    INCREASE LOCATION OF NEXT CODE TO BE ADDED TO OUTPUT DATA BY LENGTH OF ONE BRAILLE CHARACTER
    INCREASE LOCATION OF NEXT POSITION IN OUTPUT DATA BY LENGTH OF ONE OUTPUT DATA POSITION
    IF LOCATION OF NEXT POSITION IN OUTPUT DATA IS LESS THAN LOCATION OF 72ND POSITION IN OUTPUT DATA, GO TO STEP B
    EXECUTE END OUTPUT RECORD
    IF NEXT CODE TO BE ADDED TO OUTPUT IS BRAILLE END CHARACTER, GO TO STEP F
STEP D EXECUTE INSERT NUMBERS FOR BRAILLE CARD
    MOVE LOCATION OF 8TH POSITION IN OUTPUT DATA TO LOCATION OF NEXT POSITION IN OUTPUT DATA
    GO TO STEP B
STEP F EXIT
END OUTPUT RECORD
    IF FIRST POSITION IN OUTPUT DATA IS CLEARED, GO TO EXIT
    MOVE END OF CARD CODE TO HIGH ORDER 12 BITS OF NEXT POSITION IN OUTPUT DATA
    EXECUTE WRITE OUTPUT
    EXIT
WRITE OUTPUT
    TRANSFER BRAILLE DATA FROM OUTPUT DATA TO OUTPUT RECORD
    WRITE DATA FROM OUTPUT RECORD TO OUTPUT FILE
    EXECUTE CLEAR OUTPUT DATA
    EXIT
TABLES

BRAILLE TABLE

The Braille Table contains entries for each input character or character sequence which can be translated as a unit. A table entry may have six parts.

1. The first part of the entry contains one or more input text characters representing an inkprint character, or a series of inkprint characters, or a format code. The character or character series in the entry is followed by a special character, not used in the input; which has a greater logical value than any input character. The entries are sorted in ascending order. In the case of two entries beginning with the same characters, the special character causes the shorter entry to have a higher value and therefore to be preceded by the longer entry. In the listing given below, the special character is represented by a minus sign.

2. The second part of the entry is a number indicating the type of the translation unit viewed from the left.

3. Next there is an operation number identifying the procedure required to translate the unit.

4. The fourth part of the Braille Table entry is a number indicating the type of the translation unit viewed from the right. The numbers in parts 2 and 4 signify:

- Type 1 Letter
- Type 2 Beginning Punctuation
- Type 3 Ending Punctuation
- Type 4 Composition Sign
- Type 5 Hyphen
- Type 6 Space
- Type 7 Dash
- Type 8 Apostrophe
- Type 10 By Int to
- Type 11 Number

5. A contraction identification number is the fifth part of the entry. This number corresponds to a section of the exception table.

6. The sixth part of the entry contains the codes for the
BRaille Equivalent of the Inkprint Characters. An ending code of All zeros terminates this part of the entry.

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<td>C1 00 01</td>
</tr>
<tr>
<td>$TEXIL</td>
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</tr>
<tr>
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<td>C6 102 06</td>
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<td>C2 00 02</td>
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<td>03 00 02</td>
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<td>$S</td>
<td>11 00 11</td>
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<td>$SAID</td>
<td>01 01 01 140 06116 00131 00000</td>
</tr>
<tr>
<td>$SHALL</td>
<td>C1 02 01 142 04151 00000</td>
</tr>
<tr>
<td>Location</td>
<td>Location of First Braille Table Entry for N-</td>
</tr>
</tbody>
</table>
EXCEPTION TABLE

THE EXCEPTION TABLE GOVERNS THE TRANSLATION OF CONTRACTION SEQUENCES IN UNUSUAL SITUATIONS. A CONTRACTION SEQUENCE IS DEFINED AS A LETTER SERIES WHICH IN BRAILLE SOMETIMES IS REPRESENTED BY A CONTRACTION. THE EXCEPTION TABLE IS DIVIDED INTO SECTIONS CORRESPONDING TO THE VARIOUS CONTRACTION SEQUENCES.

AN EXCEPTION TABLE ENTRY IS ESSENTIALLY A CONTEXT OF CHARACTERS WHICH AFFECTS CONTRACTION USAGE. A SECTION OF THE TABLE MAY HAVE TWO SUBSECTIONS. ONE SUBSECTION, CALLED THE PRECEDING CHARACTERS SUBSECTION, HAS ENTRIES CONTAINING CHARACTERS WHICH PRECEDE THE CONTRACTION SEQUENCE IN THE TEXT, OR WHICH PRECEDE AND FOLLOW THE CONTRACTION SEQUENCE IN THE TEXT. THE OTHER SUBSECTION, CALLED THE SUCCEEDING CHARACTERS SUBSECTION, HAS ENTRIES CONTAINING ONLY CHARACTERS WHICH FOLLOW THE CONTRACTION SEQUENCE IN THE TEXT.

A TABLE ENTRY IN A PRECEDING CHARACTERS SUBSECTION HAS FOUR PARTS.

1. A PLUS OR MINUS SIGN CHARACTER INDICATES THAT THE CONTRACTION IS TO BE USED OR NOT TO BE USED IN THIS CONTEXT.

2. AN ENTRY LENGTH FACTOR POINTS TO THE BEGINNING OF THE NEXT TABLE ENTRY.

3. ONE OR MORE CHARACTERS OF CONTEXT TO THE LEFT OF THE CONTRACTION SEQUENCE ARE GIVEN. THE ORDER IS THE REVERSE OF THAT IN THE INPUT IF MORE THAN ONE CHARACTER IS GIVEN, SO THAT THE CHARACTER CLOSEST TO THE CONTRACTION SEQUENCE OCCURS FIRST IN THE ENTRY. THIS PART OF THE ENTRY IS TERMINATED BY AN END MARK WHICH IS A SPECIAL CHARACTER, NOT USED IN THE INPUT, HAVING A GREATER LOGICAL VALUE THAN ANY INPUT CHARACTER.


IN A SUCCEEDING CHARACTERS SUBSECTION OF THE EXCEPTION TABLE, EACH ENTRY HAS THREE PARTS.
1. A plus or minus sign character indicates that the contraction is to be used or not to be used in this context.

2. An entry length factor points to the beginning of the next table entry.

3. One or more characters of context to the right of the contraction sequence are given. This part of the entry is terminated by the special character which is used as an end mark.

Entries within each subsection are arranged in ascending order by the string of context characters and end mark characters. The end of a subsection is indicated by a special entry containing no context characters and having an entry length factor of zero.

In the listing which follows, the end mark for a group of context characters is represented by a minus sign.

The significance of the table may be illustrated by a few examples. The entry, MO9IMCA--, in the preceding characters subsection for the contraction, ever, controls the translation of ever in the sequence. Achiever. The entry begins with a minus indicating that the ever contraction is not used. In the preceding characters subsection for th, the entry, M12R0-S-ORN--, indicates that th is not contracted in short horn. The entry, MC651-, in the succeeding characters subsection for the contraction, be, means that when this contraction sequence is followed by the letters st, as in best, be is not contracted. A plus entry, PM7STR--, in the same subsection indicates that in such words as bestrew and bestride the be is contracted.

ABOLT
    succeeding characters subsection
MO5E-- P00

ABOVE
    succeeding characters subsection
MO8SAID-- P00

ACROSS
    preceding characters subsection
MO7L-E-- P00

AFTER
    preceding characters subsection
MO6R-- P00
    succeeding characters subsection
MO9CLAIM-- MO7EFF-- MO8IMAG-- MO6S--; P00

AGAIN
    preceding characters subsection
MO6N-- P00
EVER

PRECEDING CHARACTERS SUBSECTION
M07AS—POD-EUX—M070—P08EHC—M07EK—M06F—M091CE-R—M091HCA—M08IHT—M07IL—M07IR—M07IS—M08K-NE-
M095-S0N—PO75-S—MO95-US—MI1NOM-DI—POO.

SUCCEEDING CHARACTERS SUBSECTION
P06SH—P07SON—MO9S—P06TH—MO9T—POO

FATHER

PRECEDING CHARACTERS SUBSECTION
M06F—POO

FF

SUCCEEDING CHARACTERS SUBSECTION
M09A—M09A—M09A—P00

FIRST

SUCCEEDING CHARACTERS SUBSECTION
MO9LING—P00

FOR

PRECEDING CHARACTERS SUBSECTION
M09E-SIM—POO

FRIEND

SUCCEEDING CHARACTERS SUBSECTION
M05E—M051—POO

FUL

PRECEDING CHARACTERS SUBSECTION
M07HS—MOB11—M12REV0-FIL—M07,5—POO

SUCCEEDING CHARACTERS SUBSECTION
M08FILL—PO6LE—PO6LY—M05L—POO

GG

PRECEDING CHARACTERS SUBSECTION
M09N1-IT—M1000-ONE—M09RUB-R—POO

GH

PRECEDING CHARACTERS SUBSECTION
POO
SUCCEEDING CHARACTERS  SUBSECTION
MOTALE-  MOGLASS-  MO7RAD-  MOTRAT-  POO

INTO -
SUCCEEDING CHARACTERS  SUBSECTION
M07AS-  M07BY-  M07FOR-  M07FROM-  M07IF-  M07IS-  M07OF-
M07ON-  M07OR-  M07TU-  M08WITH-  POO

IT
PRECEDING CHARACTERS  SUBSECTION
M07,s--  POO

SUCCEEDING CHARACTERS  SUBSECTION
P07s,d-  P08s,LL-  P07s,s-  M06s,-  POO

ITSELF
SUCCEEDING CHARACTERS  SUBSECTION
M05e-  POO

ITY
PRECEDING CHARACTERS  SUBSECTION
M060--  M13TNA-POID-  MOBURF--  M07,s--  POO

JUST
SUCCEEDING CHARACTERS  SUBSECTION
M08s,VE-  POO

KNOW
PRECEDING CHARACTERS  SUBSECTION
M09CUL/---  POO

LESS
PRECEDING CHARACTERS  SUBSECTION
M07HE--  M09ITS--  M09NV-ON--  M07,s--  POO

LETTER
PRECEDING CHARACTERS  SUBSECTION
M1000DLB--  M104CS-ER-  M08NIF--  POO

SUCCEEDING CHARACTERS  SUBSECTION
POGED-  P0GER-  MOSE-  M07MAN-  POO

LIKE
SUCCEEDING CHARACTERS  SUBSECTION
M06s,-  POO

LITTLE
PRECEDING CHARACTERS  SUBSECTION
M10#-BURN-  M060--  POO

SUCCEEDING CHARACTERS  SUBSECTION
M09BERRY-  M09FIELD-  MO9HALES-  FORJ0HN-  M09NECK-  M09PAGE-
M07ION-.  M09WOOD-  M09WORTH-  POO

LORD
PRECEDING CHARACTERS  SUBSECTION
M12EHCA-DM-  POO

- 80 -
MEN

MORE

MOTHER

MUCH

MUST

MYSELF

NAME

NESS

NOT

OF

PRECEDING CHARACTERS SUBSECTION
M07Hs-- M08TS-- M11UH-HAL- M07-7-- P00
SUCCEEDING CHARACTERS SUBSECTION
M07I0N- P00

MOTHER

PRECEDING CHARACTERS SUBSECTION
M11EHC-AHY- P00

MUCH

PRECEDING CHARACTERS SUBSECTION
M10EY-YN- P00
SUCCEEDING CHARACTERS SUBSECTION
M05A- N05B- N05G- P00

MUST

SUCCEEDING CHARACTERS SUBSECTION
M05A- M05E- M05I- M05Y- P00

MYSELF

SUCCEEDING CHARACTERS SUBSECTION
M05E- P00

NAME

PRECEDING CHARACTERS SUBSECTION
M07Hs-M07E- M07EIV-SE- M07U-N- P00
SUCCEEDING CHARACTERS SUBSECTION
M07CAn- M0SNT- P00

NESS

PRECEDING CHARACTERS SUBSECTION
M07Hs-- M08TS-- M11CNI-ENTI- M12U-ENTIAl- M07,7-- P00

NOT

SUCCEEDING CHARACTERS SUBSECTION
M06S- P00

OF

PRECEDING CHARACTERS SUBSECTION
M07As-- M11BIR-LAV- M15DUESP-ATHER- M09CIN- M09RDYH--
M12ROTI-ARE- M0BP-A- M0BP-E- P09RP-IT- M08RP-I- M08RP-O--
M08RP-U- M10TER-L- M08S-AR- M08TCP-- M12TSIRC-OR-
M10CT-OLD- M08a-LL- P00
SUCCEEDING CHARACTERS SUBSECTION
MOBIELD- M06OR- P00
SUCCEEDING CHARACTERS SUBSECTION
M070R-- POO

PART
PRECEDING CHARACTERS SUBSECTION
M095#--AK-- P075A-- POO
SUCCEEDING CHARACTERS SUBSECTION
M05A-- M06CH-- M08ERRE-- P09HEID-- M06-- M07HIA-- M070K-- POO

PEOPLE
SUCCEEDING CHARACTERS SUBSECTION
P075$-- M065-- POO

SAID
PRECEDING CHARACTERS SUBSECTION
M10E0BA-- POO
SUCCEEDING CHARACTERS SUBSECTION
M05E-- M05Y-- POO

SH
PRECEDING CHARACTERS SUBSECTION
P10#-OLSE-- M10CC--ORRN-- M12HCA--UND-- M11RC--QLM-- P08INA--
P08IME-- P081ML-- P081MC-- P081RA-- P11PM--NASH-- P09IM--NA--
P08RT-- M07IM-- P121RKC--QLM-- M08I--AK-- M11MAR--ORN--
M08SA-- M09SALG-- M09SARG-- M10SA--CLE-- M09S0RC-- P08S-IP--
M12TRAH--ORN-- POO
SUCCEEDING CHARACTERS SUBSECTION
M07ART-- M07AWK-- M07CA-- M08EAR-- M09NEEST-- M07000--
M08ORSE-- M08BOUND-- M08DUSE-- POO

SHOULD
SUCCEEDING CHARACTERS SUBSECTION
M06ER-- POO

SION
PRECEDING CHARACTERS SUBSECTION
M07HS-- M08ITS-- M07$-- POO

SO
SUCCEEDING CHARACTERS SUBSECTION
P075$-- M065S-- POO

SOME
PRECEDING CHARACTERS SUBSECTION
P10DNARH-- M10I-TIIC-- M10CHORM-- M10ONAP-- P09SIL-- M065--
POO
SUCCEEDING CHARACTERS SUBSECTION
P07DAY-- M05D-- M05R-- M08TR-- M07TRY-- POO

ST
PRECEDING CHARACTERS SUBSECTION
M075-- M07$-- -- P08AE-- H-- M14G-1GHT-- M10AM--IDE-- M12EDVUB--AG--
P12E1RP--HOOD-- P09ERC--H-- P10E--HOLE-- P09E--IME-- M12HClER--AG--
M0910N1--- P101NOOB-- M0910NU-- M1010TUO-- P0910D--IC--
SUCCEEDING CHARACTERS SUBSECTION
POBHEAD - POBHOUSE - PIONHUMOUS - POSH - MOTIME - MOTION - MOTOWN - POO

STILL
SUCCEEDING CHARACTERS SUBSECTION
PO7s, s - MO6s - POO

TH
PRECEDING CHARACTERS SUBSECTION

SUCCEEDING CHARACTERS SUBSECTION
MO7AND - MO7ART - MO7EAD - MOBEA1 - MO7ERD - MO7ILL - PIOUSLEPIN - MO7ULE - MO7000 - MO70RSE - MOBORSE - MOBUSE - POO

THAT
SUCCEEDING CHARACTERS SUBSECTION
PO7s, d - PO8f, ll - P07s, s - MO6s - POO

THE
PRECEDING CHARACTERS SUBSECTION
MO9NA-AP - MO90F-RB - MO6S - MO9U0-0LD - POO
SUCCEEDING CHARACTERS SUBSECTION
MO6AD - MO7ART - MO7AST - MO6ES - MO91LUNG - MO7NCE - MO6ND - MO6RD - MO6TI - POO

THERE
PRECEDING CHARACTERS SUBSECTION
M10AEL-0RS - MO7AS - MO9ERB-N - MO6E - MO81C-A - M11IMS-EYS - MO8RUF - POO
SUCCEEDING CHARACTERS SUBSECTION
MO5D - MO6SA - MO6SE - MO6TI - POO

 THESE
SUCCEEDING CHARACTERS SUBSECTION
MO5S - MOGUS - POO

THIS
SUCCEEDING CHARACTERS SUBSECTION
MO6$ - POO

TIME
PRECEDING CHARACTERS SUBSECTION
MO8AL-R - M10A-TER - MO8NEC - MO7PO - MO9ROM-R - MO7SE - POO
SUCCEEDING CHARACTERS SUBSECTION
M07HRI- M0CNT- PCC

TION
PRECEDING CHARACTERS SUBSECTION
M08AH-- M08AYT-- M07A-- M08ITYI-- M07I-- P00

TO
SUCCEEDING CHARACTERS SUBSECTION
M07#I- M08ANG- M08ARE- M07AS- M08BUT- M07BY- M08FOR-
M09FROM- M07HE- M07IF- M07IN- M07IS- M07OF- M08ONCE-
M07GN- M0TER- M10SEEKED- M03SHE- M09TH-- M06TGO-
M07TU- M09HEN- M09WTH- POO

TOEAD
PRECEDING CHARACTERS SUBSECTION
M09YAD-- PCC

UNDER
PRECEDING CHARACTERS SUBSECTION
M06A-- M09L-BAR- M1K-RAPER- PO0
SUCCEEDING CHARACTERS SUBSECTION
M06IY-- M06G5- PO0

UPON
PRECEDING CHARACTERS SUBSECTION
M07AY-- M1CD-CHEL- M07D- T- M07UC-- PO0

US
SUCCEEDING CHARACTERS SUBSECTION
M08#LL- PO0

WH
PRECEDING CHARACTERS SUBSECTION
M07AR-- M11AS-ORSE- M1LEN-ATCH- M1LEN-AVEN- M1LEN-OUSE-
M12ERB-OUSE- PO0
SUCCEEDING CHARACTERS SUBSECTION
M07ERD- M07IDE- PO0

WHERE
SUCCEEDING CHARACTERS SUBSECTION
M07VER- PCC

WHICH
SUCCEEDING CHARACTERS SUBSECTION
M08#LL- PO0

WHOSE
SUCCEEDING CHARACTERS SUBSECTION
M07VER- PCC

WILL
SUCCEEDING CHARACTERS SUBSECTION
PCC7S- M065- PCC
TABLE OF EXCEPTION TABLE LOCATIONS

Each entry in the Table of Exception Table Locations contains a contraction identification number and an area for two storage locations.

001 ZER0 LOCATION
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION ABOUNT

002 ZER0 LOCATION
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION ABOVE

003 ZER0 LOCATION
ZER0 LOCATION

004 LOCATION OF PRECEDING CHARACTERS SUBSECTION ACROSS
ZER0 LOCATION

005 LOCATION OF PRECEDING CHARACTERS SUBSECTION AFTER
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION AFT3

006 ZER0 LOCATION
ZER0 LOCATION

007 ZER0 LOCATION
ZER0 LOCATION
035 ZERO LOCATION
ZERO LOCATION
036 LOCATION OF PRECEDING CHARACTERS SUBSECTION BY -
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION BY -
037 ZERO LOCATION
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION CAN
038 ZERO LOCATION
ZERO LOCATION
039 ZERO LOCATION
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION CC
040 LOCATION OF PRECEDING CHARACTERS SUBSECTION CH
ZERO LOCATION
041 ZERO LOCATION
ZERO LOCATION
042 ZERO LOCATION
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION CHILD
043 ZERO LOCATION
ZERO LOCATION
044 LOCATION OF PRECEDING CHARACTERS SUBSECTION COM
ZERO LOCATION
045 ZERO LOCATION
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION CON
046 ZERO LOCATION
ZERO LOCATION
047 ZERO LOCATION
ZERO LOCATION
048 ZERO LOCATION
ZERO LOCATION
049 LOCATION OF PRECEDING CHARACTERS SUBSECTION DAY
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION DAY
050 LOCATION OF PRECEDING CHARACTERS SUBSECTION DO
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION DD
051 ZERO LOCATION
ZERO LOCATION
052 ZERO LOCATION
ZERO LOCATION
053 ZERO LOCATION
ZERO LOCATION
054 ZERO LOCATION
ZERO LOCATION
055 ZERO LOCATION
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION DIS
056 ZERO LOCATION
ZERO LOCATION
057 LOCATION OF PRECEDING CHARACTERS SUBSECTION EA
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION EA
058 LOCATION OF PRECEDING CHARACTERS SUBSECTION ED
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION ED
059 ZERO LOCATION
ZERO LOCATION
060 LOCATION OF PRECEDING CHARACTERS SUBSECTION EV
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION EN
061 LOCATION OF PRECEDING CHARACTERS SUBSECTION EV CE
ZERO LOCATION

- 88 -
LOCATION OF PRECEDING CHARACTERS SUBSECTION
LOCATION OF SUCCEEDING CHARACTERS SUBSECTION
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116 ZERO LOCATION
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141 LOCATION OF PRECEDING CHARACTERS SUBSECTION
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142 ZERO LOCATION
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(1969)