

เอกสารอ้างอิง

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ภาคผนวก

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

00010
00020
00030
00040
00050
00060 00000000 RW 00
00070
00080
00090
00100
00110
00120
00130
00140
00150
00160
00170
00180
00190
00200
00210
00220
00230
00240
00250
00260
00270
00280
00290
00300
00310
00320
00330
00340
00350
00360
00370
00380
00390
00400
00410
00420
00430
00440
00450
00460
00470
00480
00490
00500
00510
00520
00530
00540
00550 00000100
00560

```

```

L      :FTLMC,3,3,3,3
M      :FTLMC 006
* ***
* *** LOCATION 0 RESERVED FOR LOADER BASE PARAMETER
* ***

```

```

000      DCW      =1C00
          SFX
          ADMODE 3
VCRWC   J CEQU   =1C52
VCPCJ   J CEQU   =1C41
VCSÉT   J CEQU   =1C27
VCHON   J CEQU   =1C26
VCCOMP  J CEQU   =1C10
VCERR   J CEQU   =1C41
VTRWC   J CEQU   =1C52
VTPCJ   J CEQU   =1C40
VTBS    J CEQU   =1C00
VTRD    J CEQU   =1C60
VTCOMP  J CEQU   =1C00
VTERR   J CEQU   =1C40
TWOC4   J CEQU   =1C20
THRECH  J CEQU   =1C00
FOURCH  J CEQU   =1C60
VONE    J CEQU   =1C01
V07     J CEQU   =1C07
VARR    J CEQU   =1C51
VESS    J CEQU   =1C62
VASTER  J CEQU   =1C54
VZERO   J CEQU   =1C00
V17     J CEQU   =1C17
VAC     J CEQU   =1C67
VBC     J CEQU   =1C70
VARI70  J CEQU   =1C70
VARI77  J CEQU   =1C77
V24     J CEQU   =1C24
VRWC    J CEQU   =1C02
VRDNR   J CEQU   =1C61
VLDNNI  J CEQU   =1C51
VLDWIW  J CEQU   =1C37
VRDNNW  J CEQU   =1C21
VLDWI1  J CEQU   =1C17
VBEGA   J CEQU   =1C42
VBGEJA  J CEQU   =1C46
VBNOTA  J CEQU   =1C45
PXXZ11  J CEQU   =1C03
PXXZ01  J CEQU   =1C05
PXXZ00  J CEQU   =1C04
PXXZX1  J CEQU   =1C01
PWXXXX  J CEQU   =1C10
PXXZ1X  J CEQU   =1C02
          SFX

```

```

* -----
* LOADER COMMUNICATION AREA
* -----
* ORG      64
* -----

```

התחנה



ERRORS CRD # BEGADD AL MACHINE CHARACTERS. R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

00570 *
00580 00000100 RR 00 * L INP DCW F1B0
00590 *
00600 * REVISION NUMBER OF UNIT LAST LOADED.
00610 00000101 RW 151515 * REVNO DCW F3
00620 *
00630 * PROGRAM AND SEGMENT NAME
00640 * NOTE: CONSOLE CALL CARD IS READ DIRECTLY
00650 * INTO FIELDS PROG THROUGH CDID.
00660 00000104 R *
00670 00000112 RW 0002 * PROG RESV 6
00680 * SEG DCW J02J
00690 *
00700 00000114 RW * A DRIVE BRT TAPE DRIVE NUMBER.
00710 * RESV 1
00720 *
00730 * LOADER HALTS AFTER LOADING UNIT WITH
00740 00000115 W 151515151515 * FOLLOWING NAME.
00750 * DCW F7
00760 *
00770 * CONSOLE CALL CARD ID. ASTERISK EXPECTED
00780 00000124 R * CDID RESV 2
00790 *
00800 * LOADER FIXED START LOCATIONS.
00810 * F0 -- SEARCH BY PROG AND SEG NAME.
00820 * F1 THROUGH F3 -- NOT ASSIGNED.
00830 00000126 R * F0 RESV 1
00840 00000127 * RESV 3 (B FOENT)
00850 00000132 LW 65000000 * F1 B 0
00860 00000136 LW 65000000 * F2 B 0
00870 00000142 LW 65000000 * F3 B 0
00880 *
00890 * OWNCOPE EXIT BRANCH SHOULD BE SET HERE.
00900 00000146 LW * A OWNCOD RESV 4 (B LOAD)
00910 *
00920 * DIRECTION OF SEARCH.
00930 * 22=FORWARD.
00940 * 23=BACKWARD.
00950 00000152 RW 22 * DIR DCW F1C22
00960 *
00970 * RELOCATION AUGMENT.
00980 00000153 RW 000000 * RELOC DCW F3B0
00990 *
01000 * RELATIVE POSITION FOR SEARCH.
01010 00000156 RW 01 * N DCW F1B1
01020 *
01030 * SEARCH MODE
01040 * 20=PROG AND SEG NAME.
01050 * 01=VISIBILITY AND RELATIVE POSITION.
01060 * 60= PROG, SEG, AND VISIBILITY
01070 * 00=SEG WITHIN CURRENT PROG.
01080 * 40=SEG WITHIN CURRENT PROG, BY VIS.
01090 00000157 RW 20 * SRCH DCW F1C20
01100 *
01110 * STARTING MODE.
* N=START AT NORMAL

```

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

01130 *
01140 *
01150 00000160 RW 45 * STTYP DCW IN:
01160 *
01170 * VISIBILITY MASK.
01180 00000161 RW * A VIS RESV 6
01190 *
01200 * SPECIAL STARTING LOCATION.
01210 00000167 RW 000000 * SPECST DSA 0
01220 *
01230 * OWNCODE ROUTINE RETURNS HERE FOR NOR
01240 * LOADER PROCESSING OF CURRENT RECORD.
01250 00000172 LW 65001743 * RET1 B LOAD
01260 *
01270 * OWNCODE ROUTINE RETURNS HERE TO BYPASS
01280 * DISTRIBUTION PROCESS.
01290 00000176 LW 65001557 * RET2 B BTREC1
01300 *
01310 * CALLING UNIT BRANCHES TO THIS LOCATION.
01320 00000202 R * ENTRNC RESV 1
01330 00000203 003222 * N DSA $TLOC
01340 00000206 70 * DC F1C70
01350 00000207 W 65001230 * B FIND
01360 *
01370 * GENERAL RETURN ADDRESS.
01380 00000213 RW 001112 * GENRET DSA FOENT
01390 *
01400 * CURRENT DATE
01410 00000216 RW 15151515 * DATE DCW F5
01420 *
01430 * VARIANT FOR CAM INSTRUCTION TO BE
01440 * EXECUTED AFTER LOADING.
01450 00000223 RW 00 * CAMCH DCW =1C00
01460 *
01470 * ADDRESSES FOR ENTRY TO SEARCH ROUTINE,
01480 * BYPASSING PARAMETER RESET AND HALT.
01490 00000224 RW 001144 * NOHLT DSA FOENTA
01500 *
01510 * ECD FIELD
01520 00000227 W 41410052 * DCW =4C41410052
01530 *
01540 * TYPEWRITER ADDRESS
01550 00000233 RI 00 * B TYJA DCW !0:
01560 *
01570 * *** RESERVED FOR LOADER ***
01580 * ADDRESS MODE CONVERSION
01590 00000234 LW 4260 * RESVLI CAM FOURCH
01600 * ADMODE 4
01610 00000236 W 250000000077 * LCR DETADR,VARI77
01620 * 4 CHAR GENERAL RETURN ADDRESS
01630 00000244 RW 00001112 * GRA4 DSA FOENT
01640 *
01650 * ENTRANCE FOR NORMAL CALL-4 CHAR MODE
01660 00000250 RW 00000000 * NCAL4 DSA NORM4S
01670 *
01680 * *** RESERVED FOR LOADER ***

```


ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

02250
 02260
 02270
 02280
 02290
 02300 00005205 LW 45
 02310 00005206 W 000000017070
 02320 00005214 LW 15006512000030
 02330 00005223 LW 33000000500000
 02340 00005232 W 6500526242
 02350 00005237 W 5500520550000077
 02360 00005247 W 34006420000030
 02370 00005256 W 65005223
 02380 00005262 LW 14006445000155
 02390 00005271 W 14600000
 02400 00005275 W 35005134000155
 02410
 02420 00005304 LW 4220
 02430
 02440 00005306 W 106425640651
 02450 00005314 W 656257
 02460 00005317 W 2223630125
 02470 00005324 W 2023630125
 02480 00005331 W 320114543207
 02490 00005337 W 320114546307
 02500 00005345 W 320114610507
 02510 00005353 W 320114633407
 02520 00005361 W 320114635307
 02530 00005367 W 320114544007
 02540 00005375 W 1564270030
 02550 00005402 W 225507
 02560 00005405 W 350125
 02570 00005410 W 23
 02580 00005411 W 1555070126
 02590
 02600
 02610
 02620
 02630
 02640
 02650
 02660 00005416 LW 4220
 02670 00005420 W 1464466373
 02680 00005425 LW 661771524060
 02690 00005433 LW 645433524000
 02700 00005441 W 24645002
 02710 00005445 W 3364506455
 02720 00005452 W 65542546
 02730 00005456 LW 646327004040
 02740
 02750 00005464 LW 1417766371
 02760 00005471 W 221777
 02770 00005474 W 1564270024
 02780 00005501 W 3417770024
 02790
 02800

*
 * LOOK UP RELOCATBLE ADDRESS OF LOADER IN TABLE
 * AS COMPUTED FROM PARAMETER ENTERED
 * INTO LOCATION 0.
 *

PARHLT J H
 DC F6C000000017070
 LDTA3 J LCA TABDSA,X6
 CKZER J C LOCO,0+X6
 BCT FDREL,VBEGA
 BCE PARHLT,0+X6,VARI77
 BA ONE,X6
 B CKZER
 FDREL J MCW \$AVE77,RELOC
 MCW 0+X6
 BS ENDING,RELOC

*
 FIND J CAM TWOCH
 ADMODE 2
 EXM HLOCL,CLFRM,VLDNNI
 B CLEARZ
 SW BUFF+250,CDID
 SI BUFF+250,CDID
 SST DRIVE,DR1,V07
 SST DRIVE,DR2,V07
 SST DRIVE,DR3,V07
 SST DRIVE,DR4,V07
 SST DRIVE,DR5,V07
 SST DRIVE,DR6,V07
 LCA LOCBUF,X6
 SW \$W2
 BS CDID
 CW
 LCA \$W2,F0

*
 * -----
 * ENTER HERE TO READ FORWARD NEXT BRT
 * RECORD AND CHECK FOR ERROR. IGNORE
 * RECORDS HAVING LESS THAN 8 CHARACTERS.
 * REREAD ERROR RECORDS 64 TIMES.
 * -----
 *

RECGT1 J ADMODE 6
 CAM TWOCH
 MCW K64,ERCNT
 TPRD J PDT BUFF,VTRWC,VTPCU,VTRD
 COMPRD J PCB *,VTRWC,VTPCU,VTCOMP
 SCR RWC,VRWC
 C RWC,NOISE
 B TPRD,VBGEQA
 TPERR J PCB TPBS2,VZERO,VTPCU,VTERR

*
 * -----
 * LOC5 J MCW HRSN,SRSN
 * SW HNCC
 * LCA LOCBUF,X5
 * BA HNCC,X5
 * -----
 * SW2 IS LOAD-SEARCH SWITCH. IT HAS

I 15512496

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

03370
03380
03390 00005754 LW 221771
03400 00005757 W 341771
03410 00005762 W 545773177101
03420 00005770 W 656055
03430
03440
03450
03460
03470
03480 00005773 LW 3101662020
03490 00006000 W 3320100111
03500 00006005 W 65605545
03510 00006011 W 3320120113
03520 00006016 W 65605545
03530 00006022 W 3320206441
03540 00006027 W 65605542
03550
03560
03570
03580
03590
03600 00006033 LW 1420120113
03610 00006040 W 14
03620 00006041 W 14
03630 00006042 W 1464206371
03640 00006047 W 235507
03650 00006052 W 655512
03660
03670
03680
03690
03700 00006055 LW 3317746453
03710 00006062 W 65541645
03720
03730 00006066 W 4200
03740 00006070 W 45
03750 00006071 000000014012
03760
03770 00006077 RW 64006077000020
03780 00006106 W 65005416
03790
03800
03810
03820
03830
03840
03850
03860
03870 00006112 LW 4200
03880 00006114 W 34000155006405
03890
03900
03910
03920 00006123 LW 34000155000131

```

* IS A SEGMENT HEADER.
* -----

```

LOC5A J SW  B BAN
      BA  B BAN
      BCC TEST, BAN, PXXZX1
      B    WRHALT

```

* DETERMINE WHETHER CURRENT BRT RECORD
* IS SEGMENT HEADER OF REQUESTED LOADING
* UNIT.
* -----

```

TEST J EXT VIS, BVIS
      C  BPROG, PROG
      B  WRHALT, VBNOTA
      C  BSEG, SEG
      B  WRHALT, VBNOTA
      C  BVIS, ZER6
      B  WRHALT, VBESA

```

* LOADER BRANCHES TO SUCC IF THIS IS
* REQUESTED UNIT. STORE UNIT NAME AND
* VISIBILITY; SET LOAD-SEARCH SWITCH --SW2--
* TO LOAD
* -----

```

SUCC J MCW  BSEG, SEG
      MCW
      MCW
      MCW  ONE, SRSN
      CW   SW2
      B    LOAD

```

* CHECK FOR END OF TAPE-IF FOUND
* THEN HALT INDICATING THAT REQUESTED
* LOADER WAS NOT FOUND
* -----

```

WRHALT J C  B BAN3, EF
        BCT RECGT1, VBNOTA
        ADMODE 3
        CAM  THRECH
        H
        DC   =6C000000014012

```

* REWIND TAPE AND RESUME SEARCH

```

DR3 J PCB *, VTBS, VTBS, TWOCH
    B  RECGT1

```

* -----
* LOADER BRANCHES HERE, AFTER LOADING.
* INTERPRET START MODE PARAMETER.
* EXECUTE EXIT BRANCH IN 3 OR 4 CHARACTER
* MODE, DEPENDING ON STARTING ADDRESS.
* -----

```

LOC12 J CAM  THRECH
      BA  RELOC, STLOC

```

* RELOCATE ADDRESSES IN COMMUNICATION AREA
* FOR 3 CHARACTER LOADER
* -----

```

CCCW J BA  RELOC, FOADDR

```

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

03930 00006132 W 34000155000151
03940 00006141 W 34000155000175
03950 00006150 W 34000155000201
03960 00006157 W 34000155000205
03970 00006166 W 34000155000212
03980 00006175 W 34000155000215
03990 00006204 W 34000155000226
04000 00006213 W 34000155000256
04010 00006222 W 34000155000272
04020 00006231 W 34000155000275
04030 00006240 W 35000166
04040 00006244 W 14007043000161
04050 00006253 W 65006513
04060
04070
04080
04090
04100
04110 00006257 LW 24632670
04120 00006263 W 1464106300
04130
04140 00006270 LW 4200
04150 00006272 LW 1000641400000017
04160 00006302 W 34006420006300
04170
04180 00006311 W 4220
04190 00006313 W 3363006413
04200 00006320 W 65627046
04210 00006324 LW 650000
04220
04230
04240
04250
04260
04270
04280 00006327 LW 661771524000
04290 00006335 LW 3564206373
04300 00006342 W 556353637300
04310 00006350 W 655425
04320
04330 00006353 LW 4200
04340 00006355 W 45
04350 00006356 000000010010
04360 00006364 W 65005416
04370
04380
04390
04400 00006370 RW 0000
04410 00006372 RW 00
04420 00006373 RW 00
04430 00006374 RW 00000000
04440
04450 00006400 LW 4200
04460 00006402 RW 65001112
04470 00006406 LW 000000
04480 00006411 RW 000000

```

```

BA RELOC;LOC151
BA RELOC;LOC125
BA RELOC;LOC201
BA RELOC;LOC205
BA RELOC;LOC212
BA RELOC;GENRET
BA RELOC;NOHLT
BA RELOC;LOC266
BA RELOC;BOSCA
BA RELOC;BOSA
BS VIS
MCW SWITCH,VIS-5
B BEGREL

```

*
*
*
*

CLEARING SUBROUTINE

```

CLEARZ J ADMODE 2
      SCR CL4,VBC
      MCW FROM;CLAD
CL1 J ADMODE 3
CAM THRECH
CL2 J EXM CLCH;0,VLDWI1
BA ONE;CLAD
      ADMODE 2
      CAM TWOCH
      C CLAD;CLTO
      B CL1;VBGEQA
CL3 J B 0

```

*
*
*
*
*

LOADER BRANCHES HERE FOR READ ERROR
ON BR1. TRIES TO REREAD 64 TIMES. IF
ERROR IS STILL UNCORRECTABLE, COMES
TO A DEAD END HALT.

```

TPBS2 J PDT BUFF;VTRWC,VTPCU,VTBS
LOC4 J BS ONE;ERCNT
      BCE HALT5;ERCNT,VZERO
      B TPRD
      ADMODE 3
HALT5 J CAM THRECH
      H
      DC F6C00000010010
      B RECGT1

```

*
*
*

END OF LOADER INSTRUCTIONS.
BEGIN CONS

```

SRSN J DCW F2B0
CC J DCW F1B0
ERCNT J DCW F1B0
MLOC J DCW F4B0
      ADMODE 3
STPROG J CAM THRECH
      STLOC J B $START
      CLFRM J DCW F3B0
      CLTO J DCW F3B0

```

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

04490 00006414 R 00
 04500
 04510
 04520 00006415 RW 000000
 04530 00006420 RW 01
 04540 00006421 W 20
 04550 00006422 RW 45
 04560 00006423 RW 0145
 04570
 04580 00006425 RW 001771
 04590 00006430 RW 002362
 04600 00006433 RR 15
 04610 00006434 RW 000000000000
 04620 00006442 RW 04
 04630 00006443 RW 10
 04640 00006444 RW 7777
 04650 00006446 RW 77
 04660 00006447 RW 0000
 04670 00006451 RW 255131
 04680 00006454 RW 0003
 04690 00006456 RW 212121444645
 04700
 04710 00006464 RW 1777
 04720
 04730
 04740
 04750
 04760
 04770
 04780 00006466 RW 02
 04790 00006467 W 03
 04800 00006470 W 04
 04810 00006471 W 05
 04820 00006472 W 06
 04830 00006473 W 07
 04840 00006474 W 11
 04850 00006475 W 13
 04860 00006476 W 15
 04870 00006477 W 17
 04880 00006500 W 23
 04890 00006501 W 27
 04900 00006502 W 33
 04910 00006503 W 37
 04920 00006504 W 47
 04930 00006505 W 57
 04940 00006506 W 67
 04950 00006507 W 77
 04960
 04970
 04980 00006510 RW 006466
 04990
 05000 00000000 L
 05010 00000001 L
 05020 00000203 L
 05030 00001771 L
 05040 00000065 L

CLCH J DC F1B0
 *
 *
 ZER3 J DCW F3B0
 ONE J DCW F1C01
 DCW F1C20
 ENN J DCW FN:
 TECRS J DCW FN:
 ADMODE 3
 LOCBJF J DSA BUFF
 BUFFEND J DSA BUFF+249
 L BLANK J DCW F1
 ZER6 J DCW F6B0
 FOJR J DCW F1C04
 EIGHT J DCW F1C10
 SAVE77 J DCW F2C7777
 K64 J DCW F1C77
 RWC J DCW F2B0
 EF J DCW FERI:
 THR J DCW F2B3
 AAMON J DCW FAAMON!
 ADMODE 2
 NOISE J DSA BUFF+6
 ADMODE 3

BASE ADDRESS TABLE FOR RELOCATABLE PLUS LOADER

BTABLE J DCW F1C02 12K
 DCW F1C03 16K
 DCW F1C04 20K
 DCW F1C05 24K
 DCW F1C06 28K
 DCW F1C07 32K
 DCW F1C11 40K
 DCW F1C13 49K
 DCW F1C15 57K
 DCW F1C17 65K
 DCW F1C23 81K
 DCW F1C27 98K
 DCW F1C33 114K
 DCW F1C37 131K
 DCW F1C47 163K
 DCW F1C57 196K
 DCW F1C67 229K
 DCW F1C77 262K

TABDSA J DSA BTABLE
 *
 *
 *
 LOCO J EQU 00
 LOC1 J EQU 001
 LOC131 J EQU 131
 BUFF J EQU 1017
 PC J EQU 23

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

05050	00005431	L	PC2	J	EQU	TPRD+4
05060	00005437	L	PC3	J	EQU	COMPRD+4
05070	00005462	L	PC4	J	EQU	TPERR+4
05080	00006333	L	PC5	J	EQU	TPBS2+4
05090	00006362	L	PC6	J	EQU	HALT5+7
05100	00000104	L	CDINP	J	EQU	PROG-5
05110	00006425	L	BLOCL	J	EQU	LOCBUF-2
05120	00005432	L	DR1	J	EQU	TPRD+5
05130	00005463	L	DR2	J	EQU	TPERR+5
05140	00006334	L	DR4	J	EQU	TPBS2+5
05150	00006363	L	DR5	J	EQU	HALT5+8
05160	00005440	L	DR6	J	EQU	COMPRD+5
05170	00000020	L	X4	J	EQU	016
05180	00000024	L	X5	J	EQU	20
05190	00000030	L	X6	J	EQU	24
05200	00000151	L	LOC151	J	EQU	105
05210	00000201	L	LOC201	J	EQU	129
05220	00000205	L	LOC205	J	EQU	133
05230	00000212	L	LOC212	J	EQU	138
05240	00000266	L	LOC266	J	EQU	182
05250	00000257	L	LOC175	J	EQU	175
05260	00000234	L	LOC156	J	EQU	156
05270	00000175	L	LOC125	J	EQU	125
05280	00000131	L	F0ADDR	J	EQU	089
05290	00001772	L	BBAN1	J	EQU	HUFF+1
05300	00001774	L	BBAN3	J	EQU	HUFF+3
05310	00001776	L	BRSN	J	EQU	HUFF+5
05320	00001777	L	BNCC	J	EQU	HUFF+6
05330	00006300	L	CLAD	J	EQU	CL2+6
05340	00006375	L	ML1	J	EQU	MLOC-2
05350	00001771	L	BBAN	J	EQU	HUFF
05360	00002020	L	BVIS	J	EQU	HUFF+23
05370	00002010	L	BPROG	J	EQU	HUFF+15
05380	00002012	L	BSEG	J	EQU	HUFF+17
05390	00005431	L	CJ1	J	EQU	DR1-1
05400	00006402	L	STL1	J	EQU	\$TLOC-3
05410	00006403	L	STL2	J	EQU	\$TLOC-2
05420	00006326	L	CL4	J	EQU	CL3+2
05430	00006410	L	FROM	J	EQU	CLFRM+2
05440	00000237	L	LOC159	J	EQU	159
05450	00000242	L	LOC242	J	EQU	162
05460					SKIP	H

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

05470
05480 00006513 LW 4200
05490
05500
05510
05520
05530 00006515 LW 15000155000020
05540 00006524 W 34006706000020
05550 00006533 W 144000000007403
05560 00006542 W 34007403000020
05570 00006551 W 144000000007406
05580 00006560 W 34000155007406
05590 00006567 W 34007403000020
05600 00006576 W 14400000007411
05610 00006605 W 34000155007411
05620 00006614 LW 33000020007406
05630 00006623 W 6500670742
05640
05650
05660
05670 00006630 W 34007403000020
05680 00006637 W 34000155400000
05690 00006646 W 5400666240000210
05700 00006656 W 65006614
05710
05720
05730
05740 00006662 LW 14400001007403
05750 00006671 W 34007416000020
05760 00006700 W 65006614
05770 00006704 RW 001000
05780
05790
05800
05810
05820
05830
05840
05850
05860
05870
05880
05890
05900
05910
05920
05930
05940
05950
05960 00006707 LW 34007416000020
05970 00006716 W 65006744
05980 00006722 LW 34007416000020
05990 00006731 W 14007414007415
06000 00006740 W 23007044
06010 00006744 LW 14000020000014
06020 00006753 W 5400736040000110
    
```

```

ADM0DE B
BEGREL J CAM THRECH
SFX N
*
* INITIALIZATION AND RELOCATION OF DSA AREA
*
INIT N LCA DELTA;X4
BA THOU;X4
MCW Q+X4;ADM SET AD MODE OF PROG IN DCW
BA ADM;X4 MOVES X4 TO DSA SIZE FIELD
MCW 0+X4;DSASZ SAVE SIZE OF DSA AREA
BA DELTA;DSASZ
BA ADM;X4 MOVES X4 TO INST SIZE FIELD
MCW 0+X4;INSTSZ SAVE SIZE OF INST AREA
BA DELTA;INSTSZ
CHKDSA N C X4;DSASZ CHECK FOR END OF DSA AREA
BCT ONCE;42 BRANCH TO RELOCATE INSTR
*
* RELOCATE DSA
*
BA ADM;X4 SET X4 TO RIGHT OF DSA
BA DELTA;0+X4 ADD DELTA TO RELOC DSA
BCC CHGM;2+X4;10
B CHKDSA PROCESS NEXT DSA
*
* ADDRESS MODE CHANGE IN DSA AREA
*
CHGM N MCW 1+X4;ADM RESET ADM FOR NEW ADMODE
BA ONE;X4 ADJUST X4
B CHKDSA PROCESS NEXT DSA
THOU N DSA 212
*
* RELOCATE INSTRUCTION ADDRESSES BY CONVENTION
*
ONCE N BA ONE;X4
B SETIND
INST N BA ONE;X4 SET X4 TO OP CODE
MCW ZEROS;CHECK
CW $WITCH+1
SETIND N MCW X4;X3 LEAVE INDICATOR AT OP CODE
BCC END;1+X4;10 SKIP IF NEXT CHAR HAS W/M
    
```

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE UPERANDS, VARIANTS AND CONTROL CHARACTERS

06030 00006763 W 5500717240000042
06040 00006773 W 5500727440000043
06050
06060
06070
06080
06090 00007003 LW 40
06100 00007004 RW 3240000100741570
06110 00007014 W 34007403000020
06120 00007023 W 5500714300741500
06130 00007033 RW 5500714300741570
06140
06150
06160
06170
06180 00007043 LW 40
06190 00007044 65007120
06200
06210
06220
06230 00007050 LW 5400736040000110
06240 00007060 LW 5400734540000210
06250
06260
06270
06280 00007070 W 5500712030000066
06290 00007100 W 5500712030000064
06300
06310
06320
06330 00007110 W 22007044
06340 00007114 W 65007003
06350
06360
06370
06380 00007120 LW 5400736040000110
06390 00007130 W 34007416000020
06400 00007137 W 65007120
06410
06420
06430
06440 00007143 LW 334000000007402
06450 00007152 W 6500704344
06460 00007157 W 34000155400000
06470 00007166 W 65007043
06480
06490
06500
06510
06520
06530
06540
06550
06560
06570 00007172 LW 3240000100741560
06580 00007202 W 5500724300741560

BCE CAM,0+X4,42 CHECK FOR CAM
BCE HALT,0+X4,45 CHECK FOR HALT
* IF NEXT CHAR NOT W/M, AND Op CODE IS NOT CAM OR
* HALT, THEN INST MUST HAVE (A) ADDRESS
*
RELOC N NOP 1+X4,CHECK,70 MOVE ADDRESS DESIGNATOR BIT
CHG1 N SST BA ADM,X4 SET X4 TO LOW CHAR OF ADDR
BCE ALTER,CHECK,00 RELOCATE IF DIRECT ADDR
CHG3 N BCE ALTER,CHECK,70 RELOCATE IF INDIRECT ADDR
* IF ADDRESS IS NOT DIRECT OR INDIRECT (INDEXED) ,
* IT IS NOT RELOCATED
*
SWITCH N NOP
B CHKV
* CHECK FOR (B) ADDRESS
*
AONLY N BCC END,1+X4,10 SKIP IF NEXT CHAR HAS W/M
AV N BCC JUMP,2+X4,10
* NEXT FIELD COULD BE A SERIES OF VARIANTS OR (B) ADDR
*
BCE CHKV,0+X3,66 SKIP IF OP CODE IS PDT
BCE CHKV,0+X3,64 SKIP IF OP CODE IS PCB
* IF NOT PDT OR PCB, THEN FIELD MUST BE (B) ADDRESS
*
SW SWITCH+1
B RELOC
* STEP PAST ANY VARIANT CHARACTERS
*
CHKV N BCC END,1+X4,10 SKIP IF NEXT CHAR HAS W/M
BA ONE,X4 MOVE X4 TO NEXT CHAR
B CHKV KEEP LOOKING FOR W/M
* RELOCATION OF INSTRUCTION ADDRESS
*
ALTER N C 0+X4,DSA190
BCT SWITCH,44
BA DELTA,0+X4
B SWITCH
* CAM INSTRUCTION
*
A CAM INSTRUCTION ENCOUNTERED IN THE INSTRUCTION
* AREA CHANGES THE RELOCATION MODE OF ALL INSTRUCTIONS
* THAT FOLLOW, THEREFORE ALL ADMODE STATEMENTS MUST
* BE FOLLOWED BY CAMS
*
CAM N SST 1+X4,CHECK,60
BCE MODE4,CHECK,60

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

06590	00007212	W	14007420007403			MCW	THREE;ADM
06600	00007221	W	14007422007013			MCW	MASK3;CHG1
06610	00007230	W	14007424007042			MCW	IND3;CHG3
06620	00007237	W	65007120			B	CHKV
06630	00007243	LW	14007421007403	MODE4	N	MCW	FOURRR;ADM
06640	00007252	W	14007423007013			MCW	MASK4;CHG1
06650	00007261	W	14007425007042			MCW	IND4;CHG3
06660	00007270	W	65007120			B	CHKV
06670							
06680							
06690							
06700							
06710	00007274	LW	34007403007311			N BA	ADM;CHG2-1
06720	00007303	RW	5400733240000140			N BCC	NORELC,1+X4,40 BRANCH IF NO PUNC
06730	00007313	W	35007403007311			RS	ADM;CHG2-1
06740	00007322	W	22007044			SW	SWITCH+1
06750	00007326	W	65007003			B	RELOC
06760	00007332	LW	35007403007311			N BS	ADM;CHG2-1
06770	00007341	W	65007120			B	CHKV
06780	00007345	LW	34007416000020			N BA	ONE,X4
06790	00007354	W	65007360			B	END
06800							
06810							
06820							
06830	00007360	LW	33007411000020			N C	INSTSZ,X4 CHECK FOR END OF INST AREA
06840	00007367	RW	6500640046			N BCT	STPROG,46
06850	00007374	W	65006722			B	INST PROCESS NEXT INSTRUCTION
06860							
06870							
06880							
06890	00007400	RW	000276			N DCW	F3C000276
06900	00000155	L				N EQU	RELOCJ
06910	00007403	RW	00			N DCW	=1C00
06920	00007404	RW	000000			N DCW	!000!
06930	00007407	RW	000000			N DCW	!000!
06940	00007412	RW	000000			N DCW	!0!
06950	00007415	RW	00			N DCW	=1C01
06960	00007416	RW	01			N DCW	=1C02
06970	00007417	RW	02			N DCW	=1C03
06980	00007420	RW	03			N DCW	=1C04
06990	00007421	RW	04			N DCW	=1C70
07000	00007422	RW	70			N DCW	=1C36
07010	00007423	RW	36			N DCW	=1C70
07020	00007424	RW	70			N DCW	=1C40
07030	00007425	RW	40			N EQU	012
07040	00000014	L				N EQU	016
07050	00000020	L				N EQU	0
07060	00000000	L				N EQU	0
07070	00000000	L				SFX	
07080							
07090						EX	ENTRY0
07100	00005135						

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

07110	L			VCRWC	CEQU	=1C52
07120	L			VCPCJ	CEQU	=1C41
07130	L			VCS&T	CEQU	=1C27
07140	L			VCHON	CEQU	=1C26
07150	L			VCPUN	CEQU	=1C42
07160	L			VCERR	CEQU	=1C41
07170	L			VTRWC	CEQU	=1C52
07180	L			VTPCJ	CEQU	=1C40
07190	L			VTBS	CEQU	=1C00
07200	L			VTRD	CEQU	=1C60
07210	L			VTERR	CEQU	=1C40
07220	L			TWOC4	CEQU	=1C20
07230	L			VONE	CEQU	=1C01
07240	L			V07	CEQU	=1C07
07250	L			VARR	CEQU	=1C51
07260	L			VESS	CEQU	=1C62
07270	L			VZERO	CEQU	=1C00
07280	L			V17	CEQU	=1C17
07290	L			VAC	CEQU	=1C67
07300	L			VBC	CEQU	=1C70
07310	L			VRWC	CEQU	=1C02
07320	L			VBEQA	CEQU	=1C42
07330	L			T&JS	CEQU	=1C10
07340	L			TRET	CEQU	=1C01
07350	L			TRWC	CEQU	=1C52
07360	L			TRD	CEQU	=1C40
07370	L			TWR	CEQU	=1C00
07380	L			CLC2	CEQU	=1C02
07390	L			SLC2	CEQU	=1C12
07400	00001000			ORG		b12
07410				ADMODE	3	
07420	00001000	W	03	DCW	3	
07430	00001001	W	001017	DSA	NOISE	
07440	00001004	W	003143	DSA	FINAL	
07450	00001007	RW	003264	BUFLOC	DSA	BUFF
07460	00001012	RW	003656	ENDBJF	DSA	BUFF+250
07470	00001015	RW	003272	NOISE	DSA	BUFF+6
07480						
07490	00001020	LW	2400106770	SETLBI	SCR	WHERTO,VBC
07500	00001025	W	23001707		CW	SPSW
07510	00001031	W	14003146003154		MCW	ZER3,LBI
07520	00001040	W	5500104000010054		BCE	*,INP,*
07530	00001050	W	14003166003154		MCW	ASTER,LBI
07540	00001057	W	40		NOP	
07550	00001060	LW	65001070	RWC&W	B	.TSTC2
07560	00001064	RW	65000000	WHERTO	B	U
07570	00001070	LW	23001060	TSTC2	CW	RWC&W
07580	00001074	W	6400107452		PCB	*,VTRWC
07590	00001101	W	2400325502		SCR	HCLC2,CLC2
07600	00001106	W	65001064		B	WHERTO-3
07610	00001112	LW	14003166003154	FOENT	MCW	ASTER,LBI
07620	00001121	W	65001020		B	SETLBI
07630	00001125	W	1000315100016061		EXM	ENN,STYP,VRDNNR
07640	00001135	W	45		H	
07650	00001136		000100017002	FOENTA	DC	F6C000100017002
07660	00001144	LW	65001020		B	SETLBI

CARR. RETURN V3 PDT
 READ V2 PDT
 WRITE V2 PDT
 ADMODE DCW FOR RELOCATE FUNCTION
 END OF RELOCATABLE DSA'S

TURN SW ON
 TEST RWC
 SAVE CLC

CONSOLE CALL

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

07670 00001150 W 5500123000010001
 07680
 07690
 07700
 07710
 07720
 07730 00001160 LW 6400116052412726
 07740 00001170 RW 660001045241
 07750 00001176 W 64001176524110
 07760 00001205 W 64001544524141
 07770 00001214 W 5500123000012554
 07780 00001224 W 65001160
 07790
 07800
 07810
 07820
 07830 00001230 LW 65001020
 07840 00001234 W 3200011400125207
 07850 00001244 LW 64001244004000
 07860 00001253 W 14001011003225
 07870 00001262 W 14001014003230
 07880 00001271 W 320032320323177
 07890 00001301 W 65002765
 07900 00001305 W 22003656
 07910 00001311 W 20003656
 07920 00001315 W 3200011400157407
 07930 00001325 W 3200011400163307
 07940 00001335 W 3200011400147507
 07950 00001345 W 3200011400306107
 07960 00001355 W 3200011400160307
 07970 00001365 W 3200011400146607
 07980 00001375 W 3200011400311307
 07990 00001405 W 15001011000030
 08000 00001414 LW 14000152001423
 08010 00001423 LW 22001440
 08020 00001427 W 22001702
 08030 00001433 W 23002671
 08040
 08050
 08060
 08070
 08080
 08090
 08100
 08110 00001437 LW 40
 08120 00001440 LW 65001557
 08130 00001444 W 33003146003200
 08140 00001453 W 6500152542
 08150 00001460 LW 64001460004000
 08160 00001467 LW 66003264524000
 08170 00001476 W 35003147003200
 08180 00001505 W 33003146003200
 08190 00001514 W 6500155742
 08200 00001521 W 65001460
 08210
 08220

BCE FIND,INP,01
 *
 * SET CARD READER FOR SPECILL -NEAC- CODE.
 * SERCH FOR CONSOL CARD,
 * TESTING FOR HALE COUNT ERROR.
 *
 LOC2 PCB *,VCRWC,VCPCU,VCSET,VCHON
 RDCRD PDT EDINP,VCRWC,VCPCU
 PCB *,VCRWC,VCPCU,VCCOMP
 PCB HALT2,VCRWC,VCPCU,VCERR
 BCE FIND,CDID,MASTER
 B LOC2
 *
 * CLEAR LOADER BUFFER, SET TAPE ADDRESSES,
 * AND BEGIN SEARCH FOR LOADING UNIT.
 *
 FIND B SETLBI
 SST DRIVE,DR1,V07
 FINDCK PCB *,00,40,00
 MCW BUFLOC,FROM
 MCW ENDBUF,CLTO
 SST BLANK,CLCH,77
 B CLEAR0
 SW BUFF+250
 SI BUFF+250
 SST DRIVE,DR1,V07
 SST DRIVE,DR2,V07
 SST DRIVE,DR3,V07
 SST DRIVE,DR4,V07
 SST DRIVE,DR6,V07
 SST DRIVE,DR7,V07
 SST DRIVE,DR5,V07
 LCA BUFLOC,X6
 L152 MCW DIR,FINDA
 FINDA SW \$W1
 SW \$W2
 CW HALT4
 *
 * ENTER HERE TO GET NEXT BRT RECORD,
 * DURING SEARCH, IF SEARCHING BACKWARD,
 * BACKSPACE SRSN RECORDS BEFORE READING,
 * NOTE -- WHEN SEARCHING FORWARD, SW1
 * WILL HAVE A WORD MARK.
 *
 *
 GTRECO NOP
 SW1 B GTREC1
 C ZER3,SRSN
 B LOC3,VBEQA
 TPBS1A PCB *,00,40,00
 TPBS1 PDT BUFF,VTRWC,VTPCU,VTBS
 BS ONE,SRSN
 C ZER3,SRSN
 B GTREC1,VBE3A
 B TPBS1A
 *
 * LOADER BRANCHES HERE WHEN IT REACHES



ERRORS CRD # BFGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

08230 *
08240 *
08250 *
08260 00001525 LW 22001440 LOC3 SW PW1
08270 00001531 W 45 H
08280 00001532 000000014010 DC #6C000000014010 NOT FOUND BACKWARD SEARCH
08290 00001540 W 65001437 B GTRECO
08300 *
08310 *
08320 *
08330 *
08340 00001544 LW 45 HALT2 H
08350 00001545 000000010110 DC #6C000000010110 ILLEGAL PUNCH ON CONSOLE CALL CARD
08360 00001553 W 65001160 B LOC2
08370 *
08380 *
08390 *
08400 *
08410 *
08420 *
08430 00001557 LW 14003244003206 STRECI MCW #64,ERCNT
08440 00001566 LW 66003264524060 TPRD BUFF,VTRWC,VTPCU,VTRD
08450 00001575 LW 64001575524000 RDCOMP PCB *,VTRWC,VTPCU,VTCOMP
08460 00001604 W 2400325202 SCR RWC,VRWC
08470 00001611 W 33003252001017 C RWC,NOISE
08480 00001620 W 6500156646 B TPRD,VBGEQA
08490 00001625 LW 64003053004040 TPERR PCB TPBS2,VZERO,VTPCU,VTERR
08500 *
08510 *
08520 *
08530 00001634 W 33003267003261 C #BAN3,EF
08540 00001643 W 6500312042 B EOFR,VBGEQA
08550 00001650 LW 14003271003200 LOC5 MCW BRSN,SRSN
08560 00001657 LW 22003272 SETBNC SW HNCC
08570 00001663 W 15001011000024 LCA BUFLOC,X5
08580 00001672 W 34003272000024 BA HNCC,X5
08590 *
08600 *
08610 *
08620 *
08630 *
08640 00001701 W 40 NOP
08650 00001702 LW 65002263 SW2 B LOC5A
08660 *
08670 *
08680 *
08690 *
08700 *
08710 *
08720 *
08730 *
08740 *
08750 00001706 LW 40 OWNEX NOP
08760 00001707 LW 65001743 SPSW B LOAD
08770 00001713 W 33000111003176 C PROG,AAAMON
08780 00001722 W 6500173342 BCT SPSWON,VBGEQA

```

ERRORS CRD # BEGADD AL MACHINE CHARACTERS

R T M LOC

S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

09350

09360

09370 00002307 LW 31000166003313

09380 00002316 W 5500247000015701

09390 00002326 W 33003303000111

09400 00002335 W 6500252745

09410 00002342 W 33003305000113

09420 00002351 W 6500143745

09430 00002356 W 33003313003240

09440 00002365 W 6500257642

09450

09460

09470

09480

09490

09500

09510 00002372 LW 14003305000113

09520 00002401 W 14

09530 00002402 W 14

09540 00002403 W 14003147003200

09550 00002412 W 23001702

09560 00002416 W 14003167003165

09570 00002425 W 5400244400144010

09580 00002435 W 14003170003165

09590 00002444 LW 33003305000124

09600 00002453 W 6500170645

09610 00002460 W 22002671

09620 00002464 W 65001706

09630 00002470 LW 33003313003240

09640 00002477 W 6500143742

09650 00002504 W 35003147000156

09660 00002513 W 5500237200015600

09670 00002523 W 65001437

09680 00002527 LW 5400143700015701

09690 00002537 W 5400255700144010

09700 00002547 W 22001440

09710 00002553 W 65002563

09720 00002557 LW 23001440

09730 00002563 LW 45

09740 00002564 000000014012

09750 00002572 W 65001437

09760 00002576 LW 5400143700015702

09770 00002606 W 65002372

09780

09790

09800

09810

09820

09830

09840 00002612 LW 3200022300273117

09850 00002622 W 5500266000016051

09860 00002632 W 5500275200016062

09870 00002642 W 14500003003222

09880 00002651 W 34000155003222

09890 00002660 LW 1000314700015661

09900

UNIT.

TEST

EXT VIS, BVIS
BCE LOC17, SRCH, VONE
C BPROG, PROG
B LOC18, VBNOTA
C HSEG, SEG
B GTRECO, VBNOTA
C BVIS, ZER6
B LOC19, VBEQA

LOADER BRANCHES TO SUCC IF THIS IS
REQUESTED UNIT. STORE UNIT NAME AND
VISIBILITY, SET LOAD-SEARCH SWITCH --SW2--
TO LOAD AND CHECK HALTNAME.

SUCC

MCW HSEG, SEG

MCW

MCW ONE, SRSN

CW SW2

MCW FORSCH, SDI

BCC HNMCK, SW1, 10

MCW BCKSCH, SDI

HNMCK

C BSEG, HLTNAM

B OWNEX, VBNOTA

SW HALT4

B OWNEX

LOC17

C BVIS, ZER6

B GTRECO, VBEQA

BS ONE, N

BCE SUCC, N, VZERO

B GTRECO

LOC18

BCC GTRECO, SRCH, PXXZX1

BCC LOC18A, SW1, PWXXXX

SW SW1

B HALT6

LOC18A

CW SW1

HALT6

H =6C000000014012

CALLED NOT FOUND IN PROG

B GTRECO

LOC19

BCC GTRECO, SRCH, PXXZ1X

B SUCC

*

LOADER BRANCHES HERE, AFTER LOADING.
INTERPRET START MODE PARAMETER.
EXECUTE EXIT BRANCH IN 3 OR 4 CHARACTER
MODE, DEPENDING ON STARTING ADDRESS.

LOC12

SST GAMCH, CAM3, 17

BCE LOC14, STTYP, VARR

BCE LOC15, STTYP, VESS

MCW 3+X5, STLOC

BA RELOC, STLOC

LOC14

EXM ONE, N, VRDNNR

*

I.904
.I.904
I.904
C.904

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE QPERANDS, VARIANTS AND CONTROL CHARACTERS

08790	00001727	W	65000146			B	DWNCOD	
08800	00001733	LW	22001707			SPSWON	SW	\$PSW
08810	00001737	W	65000146				B	DWNCOD
08820	00001743	LW	14500000003201			LOAD	MCW	0+X5,CC
08830	00001752	W	5400207600320103				BCC	LOC6,CC,PXXZ11
08840	00001762	W	3200320100200417				SST	CC,HIAD,V17
08850	00001772	W	14000030003212				MCW	X6,MLOC
08860	00002001	RW	22500000			HIAD	SW	0+X5
08870	00002005	W	1050000150000037				EXM	1+X5,0+X6,VLDWIW
08880	00002015	W	2400003070				SCR	X6,VBC
08890	00002022	W	2400002457				SCR	X5,VAC
08900	00002027	W	23577777577777				CW	0=1+X5,0-1+X6
08910	00002036	W	22703210				SW	{ML1}
08920	00002042	W	5400174300320105				BCC	LOAD,CC,PXXZ01
08930	00002052	W	5400206600320104				BCC	CWMK,CC,PXXZ00
08940	00002062	W	20703210			CWMK	SI	{ML1}
08950	00002066	LW	23703210				CW	{ML1}
08960	00002072	W	65001743				B	LOAD
08970	00002076	LW	5500155700320177			LOC6	BCE	GTREC1,CC,77
08980	00002106	W	5500216500320160				BCE	LOC11;CC,60
08990	00002116	W	550022612000320161				BCE	LOC12;CC,61
09000	00002126	W	5500221600320162				BCE	LOC13;CC,62
09010	00002136	W	3200320100214602				SST	CC,SETMK,02
09020	00002146	LW	22677777			SETMK	SW	0=1+X6
09030	00002152	LW	34003147000024			JPX5	BA	ONE,X5
09040	00002161	W	65001743				B	LOAD
09050								
09060								
09070								
09080								
09090	00002165	LW	34003242000024			LOC11	BA	FOUR,X5
09100	00002174	W	14577777000030				MCW	0-1+X5,X6
09110	00002203	W	34000155000030				BA	RELOC,X6
09120	00002212	W	65001743				B	LOAD
09130								
09140								
09150								
09160								
09170	00002216	LW	34003243000024			LOC13	BA	EIGHT,X5
09180	00002225	W	14577777003231				MCW	0-1+X5,CLCH
09190	00002234	W	14				MCW	
09200	00002235	W	34000155003230				BA	RELOC,CLTO
09210	00002244	W	34000155003225				BA	RELOC,CLFRM+2
09220	00002253	W	65002765				B	CLEAR0
09230	00002257	W	65001743				B	LOAD
09240								
09250								
09260								
09270								
09280	00002263	LW	22003264			LOC5A	SW	HBAN
09290	00002267	W	34003264				BA	HBAN
09300	00002273	W	5400230700326401				BCC	TEST,BBAN,PXXZX1
09310	00002303	W	65001437				B	GTRECO
09320								
09330								
09340								

 INTERPRET CONTROL CHARACTER 60 --
 SET DISTRIBUTION COUNTER.

 INTERPRET CONTROL CHARACTER 62 --
 CLEAR A GIVEN MEMORY AREA.

 DETERMINE WHETHER CURRENT BRT REC
 IS A SEGMENT HEADER.

 DETERMINE WHETHER CURRENT BRT RECORD
 IS SEGMENT HEADER OF REQUESTED LOADING

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

09910 *
09920 *
09930 00002670 W 40
09940 00002671 LW 45
09950 00002672 000000014000
09960 00002700 LW 2500325502
09970 00002705 W 22001060
09980 00002711 W 5500304000315554
09990 00002721 W 14003146003154
10000 00002730 LW 4200
10010 00002732 W 65703220
10020 00002736 LW 1000315300016021
10030 00002746 W 65001230
10040 00002752 LW 14000171003222
10050 00002761 W 65002660
10060 *
10070 *
10080 *
10090 *
10100 *
10110 00002765 LW 2400303770
10120 00002772 RW 14003225003007
10130 00003001 RW 1000323100000017
10140 00003011 W 34003147003007
10150 00003020 W 33003007003230
10160 00003027 W 6500300146
10170 00003034 RW 65000000
10180 *
10190 00003040 LW 14003222003153
10200 00003047 W 65703156
10210 *
10220 *
10230 *
10240 *
10250 *
10260 00003053 LW 66003264524000
10270 00003062 LW 35003147003206
10280 00003071 W 5500310500320600
10290 00003101 W 65001566
10300 00003105 LW 45
10310 00003106 L 000000010010
10320 00003114 W 65001557
10330 *
10340 *
10350 *
10360 *
10370 *
10380 00003120 LW 23001440
10390 00003124 W 14003263003200
10400 00003133 W 65001437
10410 *
10420 *
10430 *
10440 00003137 LR 65001743
10450 *
10460 00003143 LW 22

```

* HALT, IF THIS IS UNIT NAMED IN HLTNAM.
 * -----
 NOP
 H
 HALT4 H
 DC =6C000000014000 HALT NAME FOUND
 LCR HCLC2,CLC2 RESTORE CLC
 RUNIT SW RWCSW TURN SW OFF
 BCE INTON,ICI,*
 MCW ZER3,LBI
 STMO03 CAM THRECH
 B (STL2)
 EC1RET EXM RSTECI,STTYP,VRDNNW
 B FIND
 LOC15 MCW SPECST,STLOC
 B LOC14
 * -----
 * CLEARING SUBROUTINE.
 * MOVE CHARACTER CLCH TO EACH LOCATION
 * FROM CLFRM THROUGH CLTO.
 * -----
 CLEAR0 SCR CL3,VBC
 CLX MCW FROM,CL2-1
 CL2 EXM CLCH,0,VLDWI1
 BA ONE,CL2-1
 C CL2-1,CLTO
 B CLX+1,VBGEQA
 CL3 B 0
 * -----
 * INTON MCW STLOC,BPSA
 B (ICSA-3+1)
 * LOADER BRANCHES HERE FOR READ ERROR
 * ON BRT. TRIES TO REREAD 64 TIMES. IF
 * ERROR IS STILL UNCORRECTABLE, COMES
 * TO A DEAD END HALT.
 * -----
 * TPBS2 PDT BUFF,VTRWC,VTPCU,VTBS
 LOC4 BS ONE,ERCNT
 BCE HALT5,ERCNT,VZERO
 B TPRD
 HALT5 H
 HRE DC =6C000000010010 READ ERROR
 B GTRECI
 * -----
 * LOADER BRANCHES HERE UPON READING
 * END-OF-FILE RECORD ON BRT. HALTS, THEN
 * SEARCHES BACKWARD IF STARTED
 * -----
 * EOFR CW SW1
 MCW THR,SRSN
 B GTRECO
 * -----
 * L LAST B LOAD
 ADMODE 3
 * FINAL SW

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

10470	00003144	RW	000000	ZER3	DCW	=3B0
10480	00003147	RW	01	ONE	DCW	=1C01
10490	00003150	W	20		DCW	=1C20
10500	00003151	RW	45	ENN	DCW	!N!
10510	00003152	RW	0145	RSTECI	DCW	!IN!
10520				*		BEGIN CONS
10530	00003154	RW	00	LBI	DCW	=1B0
10540	00003155	RW	00	ICI	DCW	=1B0
10550	00003156	RW	000000	ICSA	DCW	=3B0
10560	00003161	RW	000000	BPSA	DCW	=3B0
10570	00003164	RW	52	IRW	DCW	=1C52
10580	00003165	RW	22	SDI	DCW	=1C22
10590	00003166	RW	54	ASTER	DCW	=1C54
10600	00003167	RW	22	FORSCH	DCW	=1C22
10610	00003170	RW	23	BCKSCH	DCW	=1C23
10620	00003171	RW	212121444645	AAAMON	DCW	!AAAMON!
10630	00003177	RW	0000	SRSN	DCW	=2B0
10640	00003201	RW	00	CC	DCW	=1B0
10650	00003202	RW	00	MYOWNB	DCW	=1B0
10660	00003203	RW	000000	MYOWNC	DCW	=3B000
10670	00003206	RW	00	ERCNT	DCW	=1B0
10680	00003207	RW	00000000	MLOC	DCW	=4B0
10690	00003213	RW	00100000	K32K	DCW	=4C00100000
10700	00003217	W	00		DCW	=1B0
10710	00003220	RW	000000	STLOC	DCW	=3B0
10720	00003223	LW	000000	CLFRM	DCW	=3B0
10730	00003226	RW	000000	CLTO	DCW	=3B0
10740	00003231	R	00	CLCH	DC	=1B0
10750	00003232	R	15	BLANK	DC	=1
10760	00003233	RW	000000000000	ZER6	DCW	=6B0
10770	00003241	RR	76	L THING	DCW	=1C76
10780	00003242	RW	04	FOJR	DCW	=1C04
10790	00003243	RW	10	EIGHT	DCW	=1C10
10800	00003244	RW	77	K64	DCW	=1C77
10810	00003245	RW	000237	L159	DCW	=3C000237
10820	00003250	RW	000000	RWC	DCW	=3B0
10830	00003253	RW	151515	HCLC2	DCW	=3
10840	00003256	RW	01255131	EF	DCW	!ERI!
10850	00003262	RW	0003	THR	DCW	=2B3
10860	00003264	L		BJFF	RESV	250
10870	00003656	R	40	L		NOP
10880				*		
10890				*		
10900	00000104	L		COINP	EQJ	PROG-5
10910	00000124	L		HLTNAM	EQJ	COID-1
10920	00001007	L		BLOCL	EQJ	HJFLOC-2
10930	00001574	L		DR1	EQJ	TPRD+3+3
10940	00001633	L		DR2	EQJ	TPERR+3+3
10950	00001475	L		DR3	EQJ	TPBS1+3+3
10960	00003061	L		DR4	EQJ	TPBS2+3+3
10970	00001603	L		DR6	EQJ	RDCOMP+3+3
10980	00001466	L		DR7	EQJ	TPRS1A+3+3
10990	00001573	L		POTCJ1	EQJ	DR1-1
11000	00001632	L		POTCJ2	EQJ	DR2-1
11010	00001474	L		POTCJ3	EQJ	DR3-1
11020	00003060	L		POTCJ4	EQJ	DR4-1

LOADER BUSY INDICATOR
 INTERRUPT CONTROL INDICATOR
 INTERRUPT START ADDRESS
 BACKGROUND PROGRAM START ADDRESS
 TAPE RWC FOR INTERRUPT CONTROL D
 SERCH DIRECTION JUST LOADED PROGRAM 1.904

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

11030	00003113	L			DR5	EQU	HRE+3+3-1
11040	00003112	L			POTCJ5	EQU	DR5-1
11050	00003265	L			BBAN1	EQU	BUFF+1
11060	00003267	L			BBAN3	EQU	BUFF+3
11070	00003271	L			BRSN	EQU	BUFF+5
11080	00003272	L			BNCC	EQU	BUFF+6
11090	00003210	L			ML1	EQU	MLOC+1-3
11100	00003264	L			BBAN	EQU	BUFF
11110	00003313	L			BVIS	EQU	BUFF+23
11120	00003303	L			BPROG	EQU	BUFF+15
11130	00003305	L			BSEG	EQU	BUFF+17
11140	00002731	L			CAMB	EQU	\$TMOB+1
11150	00003217	L			STL1	EQU	\$TLOC-3
11160	00003220	L			STL2	EQU	\$TLOC-2
11170	00003225	L			FROM	EQU	CLFRM+2
11180	00000024	L			X5	EQU	20
11190	00000030	L			X6	EQU	24
11200	00000237	L			DETK	EQU	159
11210	00001112	L			START	EQU	FOENT
11220				*			-----
11230	00003657	RI 15		R	I GT	DCW	=1
11240				N		IFTLMC	
11250	00000000					END	
ERRORS					HASH TOTAL		321360

≠<

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

00010
00020
00030 00003720
00040
00050 L
00060 L
00070
00080 00000016 RW 000000
00090 00003720 LW 4200
00100
00110
00120
00130 00003722 W 14000275000020
00140 00003731 W 35004640000020
00150 00003740 W 14000020000275
00160 00003747 W 14000020000155
00170 00003756 W 14000020004627
00180 00003765 W 14004656000160
00190 00003774 W 14004660000113
00200 00004003 W 65000202
00210 00004007 W 34004644000020
00220 00004016 W 144000000004632
00230 00004025 W 34004627004632
00240 00004034 W 34004644000020
00250 00004043 W 144000000004635
00260 00004052 W 34004627004635
00270 00004061 LW 33000020004632
00280 00004070 W 6500415142
00290
00300
00310
00320 00004075 W 34004644000020
00330 00004104 W 34004627400000
00340 00004113 W 5400412740000250
00350 00004123 W 65004061
00360
00370
00380
00390 00004127 LW 14400001004644
00400 00004136 W 34004646000020
00410 00004145 W 65004061
00420
00430
00440
00450
00460
00470
00480
00490
00500
00510
00520
00530
00540
00550
00560

```

```

L
M
!PINM 3,B,,,
IPINH 006
ORG 2000
ADMODE 3
AMODE3 CEJU F1C00
AMODE4 CEJU F1C60
SFX X
016 X DCW F3C000000
G00000 X CAM AMODE3

```

* * INITIALIZATION AND RELOCATION OF DSA AREA * *

```

MCW BASE,X4
BS SIZE,X4
MCW X4,BASE
MCW X4,109
MCW X4,DELTA
MCW RET,112
MCW SEG2,075
B 130
BA ADM,X4 MOVES X4 TO DSA SIZE FIELD
MCW Q+X4,DSASZ SAVE SIZE OF DSA AREA
BA DELTA,DSASZ
BA ADM,X4 MOVES X4 TO INST SIZE FIELD
MCW 0+X4,INSTSZ SAVE SIZE OF INST AREA
BA DELTA,INSTSZ
CHKDSA X C X4,DSASZ CHECK FOR END OF DSA AREA
BCT ONCE,42 BRANCH TO RELOCATE INSTR

```

* * RELOCATE DSA * *

```

BA ADM,X4 SET X4 TO RIGHT OF DSA
BA DELTA,0+X4 ADD DELTA TO RELOC DSA
BCC CHGM,2+X4,50 CHECK FOR ADMODE CHANGE
B CHKDSA PROCESS NEXT DSA

```

* * ADDRESS MODE CHANGE IN DSA AREA * *

```

CHGM X MCW 1+X4,ADM RESET ADM FOR NEW ADMODE
BA ONE,X4 ADJUST X4
B CHKDSA PROCESS NEXT DSA

```

* * RELOCATE INSTRUCTION ADDRESSES BY CONVENTION * *

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

00570
00580
00590
00600 00004151 LW 34004646000020 ONCE X BA ONE,X4
00610 00004160 W 14000020004617 X4,START-1 SET START ADDRESS
00620 00004167 W 65004215 B SETIND
00630 00004173 LW 34004646000020 INST X BA ONE,X4 SET X4 TO OP CODE
00640 00004202 W 14004643004645 MCW ZEROS,CHECK
00650 00004211 W 23004325 CW SWXTCH+1
00660 00004215 LW 14000020000014 SETIND X MCW X4,X3 LEAVE INDICATOR AT OP CODE
00670 00004224 W 5400460540000150 BCC END,1+X4,50 SKIP IF NEXT CHAR HAS W/M
00680 00004234 W 5500443740000042 BCE CAM,0+X4,42 CHECK FOR CAM
00690 00004244 W 5500454140000045 BCE HALT,0+X4,45 CHECK FOR HALT
00700 00004254 W 5500440140000046 BCE CHKV,0+X4,46 CHECK FOR SVI
00710
00720
00730
00740
00750 00004264 LW 40 RELOC X NOP
00760 00004265 RW 3240000100464570 CHG1 X SST 1+X4,CHECK,70 MOVE ADDRESS DESIGNATOR BIT
00770 00004275 W 34004644000020 BA ADM,X4 SET X4 TO LOW CHAR OF ADDR
00780 00004304 W 5500442400464500 BCE ALTER,CHECK,00 RELOCATE IF DIRECT ADDR
00790 00004314 RW 5500442400464570 CHG3 X BCE ALTER,CHECK,70 RELOCATE IF INDIRECT ADDR
00800
00810
00820
00830
00840 00004324 LW 40 SWXTCH X NOP
00850 00004325 W 65004401 B CHKV
00860
00870
00880
00890 00004331 LW 5400460540000150 AONLY X BCC END,1+X4,50 SKIP IF NEXT CHAR HAS W/M
00900 00004341 LW 5400457240000250 AV X BCC JUMP,2+X4,50 SKIP IF NEXT CHAR IS VAR
00910
00920
00930
00940 00004351 W 5500440130000066 BCE CHKV,0+X3,66 SKIP IF OP CODE IS PDT
00950 00004361 W 5500440130000064 BCE CHKV,0+X3,64 SKIP IF OP CODE IS PCB
00960
00970
00980
00990 00004371 W 22004325 SW SWXTCH+1
01000 00004375 W 65004264 B RELOC
01010
01020
01030
01040 00004401 LW 5400460540000150 CHKV X BCC END,1+X4,50 CHECK NEXT CHAR FOR W/M
01050 00004411 W 34004646000020 BA ONE,X4 MOVE X4 TO NEXT CHAR
01060 00004420 W 65004401 B CHKV KEEP LOOKING FOR W/M
01070
01080
01090
01100 00004424 LW 34004627400000 ALTER X BA DELTA,0+X4
01110 00004433 W 65004324 B SWXTCH
01120

```

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

01130
01140
01150
01160
01170
01180
01190
01200
01210 00004437 LW 3240000100464560
01220 00004447 W 5500451000464560
01230 00004457 W 14004650004644
01240 00004466 W 14004652004274
01250 00004475 W 14004654004323
01260 00004504 W 65004401
01270 00004510 LW 14004651004644
01280 00004517 W 14004653004274
01290 00004526 W 14004655004323
01300 00004535 W 65004401
01310
01320
01330
01340
01350 00004541 LW 34004644000020
01360 00004550 W 34004627400000
01370 00004557 W 34004644000020
01380 00004566 W 65004173
01390 00004572 LW 34004646000020
01400 00004601 W 65004605
01410
01420
01430
01440 00004605 LW 33004635000020
01450 00004614 RW 6500000046
01460 00004621 W 65004173
01470
01480
01490
01500 00004625 RW 000000
01510 00004630 RW 000000
01520 00004633 RW 000000
01530 00004636 RW 003151
01540 00004641 RW 000000
01550 00004644 RW 03
01560 00004645 RW 00
01570 00004646 RW 01
01580 00004647 RW 02
01590 00004650 RW 03
01600 00004651 RW 04
01610 00004652 RW 70
01620 00004653 RW 36
01630 00004654 RW 70
01640 00004655 RW 40
01650 00000014 L
01660 00000020 L
01670 00000275 L
01680 00004656 RW 51

```

* CAM INSTRUCTION

A CAM INSTRUCTION ENCOUNTERED IN THE INSTRUCTION AREA CHANGES THE RELOCATION MODE OF ALL INSTRUCTIONS THAT FOLLOW, THEREFORE ALL ADMODE STATEMENTS MUST BE FOLLOWED BY CAMS

```

CAM X SST 1*X4,CHECK,60
      BCE MODE4,CHECK,60
      MCW THREE,ADM
      MCW MASK3,CHG1
      MCW IND3,CHG3
      B CHKV
MODE4 X MCW FOUR,ADM
      MCW MASK4,CHG1
      MCW IND4,CHG3
      B CHKV

```

* HALT INSTRUCTION HAS (A) RELOCATED AND (B) IS NOT RELOCATED.

```

HALT X BA ADM,X4
      BA DELTA,0+X4
      BA ADM,X4
      B INST
JUMP X BA ONE,X4
      B END

```

* CHECK FOR END OF INSTRUCTION AREA

```

END X C INSTSZ,X4 CHECK FOR END OF INST AREA
START X BCT 000,46
      B INST PROCESS NEXT INSTRUCTION

```

* CONSTANT AND DSA AREA

```

DELTA X DSA 0
DSASZ X DCW ?000:
INSTSZ X DCW ?000:
SIZE X DSA ENDMON-BEGMON
ZEROS X DCW ?000:
ADM X DCW ?1C03
CHECK X DCW ?0:
ONE X DCW ?1C01
TWO X DCW ?1C02
THREE X DCW ?1C03
FOUR X DCW ?1C04
MASK3 X DCW ?1C70
MASK4 X DCW ?1C36
IND3 X DCW ?1C70
IND4 X DCW ?1C40
X3 X EQU 012
X4 X EQU 016
BASE X EQU 189
RET X DCW ?R:

```

PINM3 01 REV 001

SPT NO 00001

ASSEMBLY C REV 011

PAGE 004

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

01690 00004657 RW 0002
01700 00003720

SEG2 X DCW 1021
EX 000000

ERRORS CRD * BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

ADDRESS	CHARACTER	OPERANDS	CONTROL CHARACTERS
01710		SFX	Z
01720		ADMODE	B
01730	L	VIREG	Z CEQU #1C66
01740	L	VAREG	Z CEQU #1C67
01750	L	VBREG	Z CEQU #1C70
01760	L	VCSREG	Z CEQU #1C64
01770	L	V4X	Z CEQU #1C40
01780	L	V6X	Z CEQU #1C60
01790	L	VSC	Z CEQU #1C77
01800	L	V61	Z CEQU #1C61
01810	L	VRARM	Z CEQU #1C67
01820	L	VRAM	Z CEQU #1C67
01830	L	VBGEA	Z CEQU #1C46
01840	L	VBGA	Z CEQU #1C44
01850	L	VNEQ	Z CEQU #1C45
01860	L	VEQ	Z CEQU #1C42
01870	L	FOJRCH	Z CEQU #1C60
01880	L	BANCHR	Z CEQU #1C01
01890	L	VWM	Z CEQU #1C50
01900	L	VTRWC	Z CEQU #1C52
01910	L	VTRDB	Z CEQU #1C20
01920	L	V02	Z CEQU #1C02
01930	L	V04	Z CEQU #1C04
01940	L	V21	Z CEQU #1C21
01950	L	V23	Z CEQU #1C23
01960	L	V31	Z CEQU #1C31
01970	L	V12	Z CEQU #1C12
01980	L	V43	Z CEQU #1C43
01990	L	V77	Z CEQU #1C77
02000	L	THRECH	Z CEQU #1C00
02010	L	V15	Z CEQU #1C15
02020	L	V55	Z CEQU #1C55
02030	L	ONECHR	Z CEQU #1C11
02040	L	V27	Z CEQU #1C27
02050	L	V37	Z CEQU #1C37
02060	*	*****	
02070	*	* INTERRUPT CONTROL ROUTINE SPECIALIZED *	
02080	*	* FOR THREE CHARACTER ADDRESS MODE WITH *	
02090	*	* EXTERNAL INTERRUPT BUTTON *	
02100	*	*****	
02110	*	*****	
02120	*	* DEFINITION OF SWITCHES *	
02130	*	*****	
02140	*	*****	
02150	*	SWITCH#	
02160	*	ONE	
02170	*	ON	= INTERRUPT MODE
02180	*	OFF	= NORMAL MODE
02190	*	TWO	
02200	*	ON	= FOREGROUND PROGRAM ACTIVE
02210	*	OFF	= NO FOREGROUND PROGRAM ACTIVE
02220	*	THREE	
02230	*		
02240	*		
02250	*		
02260	*		

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

02270
02280
02290
02300
02310
02320
02330
02340
02350
02360
02370
02380
02390
02400
02410
02420
02430
02440
02450
02460
02470
02480
02490
02500
02510
02520
02530 00000000
02540 00000000 RW 03
02550 00000001 RW 000033
02560 00000004 RW 002345
02570
02580
02590
02600
02610 00000007 RW 000606
02620 00000012 RW 000516
02630 00000015 RW 002545
02640 00000020 RW 002565
02650 00000023 RW 001550
02660 00000026 RW 001235
02670 00000031 RW 002514
02680
02690
02700
02710 00000034 LW 4200
02720 00000036 W 20002340
02730
02740
02750 00000042 W 2500001156
02760 00000047 W 14000022000033
02770
02780
02790 00000056 W 40
      00000057 W
02800 00000140 W 40
02810 00000141 W 23000253000501
    
```

```

*
* ON = EXTERNAL INTERRUPT BUTTON
* OFF = NO EXTERNAL INTERRUPT BUTTON
*
* SIX
* ON = RESTORE LOADER COMMUNICATION AREA
* OFF = DO NOT RESTORE LOADER
* COMMUNICATION AREA
*
* ***SWITCH SETTINGS***
*
* ON NO WORD MARK
* OFF WORD MARK
*
* NOTE:
* IF SWITCH THREE IS ON, THEN
* SWITCHES FOUR AND FIVE WILL
* ALWAYS BE OFF.
*
* IF SWITCHES FOUR AND/OR FIVE
* ARE ON, THEN SWITCH THREE
* WILL ALWAYS BE OFF.
*
* ***INITIALIZATION***
*
*
* BEGMON Z DSA 0
* SAVPT Z DSA 3
* INTREG Z DSA LAST
*
*
* RELOCATABLE DSA'S
* IENTER Z DSA INTENT
* PROPR Z DSA RVIN
* BREG Z DSA HACKRG
* COMDSA Z DSA ENDIND
* BACKLD Z DSA LDBACK
* BACK-IR Z DSA BAKHER
* FREG Z DSA FOREG
*
*
* BEGIN Z CAM THRECH
* SI NOPX1
*
*
* SET UP INTERRUPT REGISTER
* LCR IENTER,VIREG
* MCW COMDSA,SAVPT
* GO TO PLUS LOADER TO LOAD BACKGROUND PROGRAM
* REP 30
* NOP
*
*
* NOP
* CW SWITCH,CLEAR
    
```

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE UPERANDS, VARIANTS AND CONTROL CHARACTERS

02820	00000150	W	65001364			B	GOLOAD	
02830						REP	46	
02840	00000154	W	40			NOP		
	00000155	W					REPD ENT.	
02850					*			
02860					*			
02870					*		!PSEG ENTRY POINT	
02880					*			
02890	00000232	W	40			NOP		
02900	00000233	W	2400235670			SCR	SEGSAB,VBREG	
02910	00000240	W	65001442			B	EORSEG	
02920					*			
02930					*		COMMUNICATIONS ENTRY POINT	
02940					*			
02950	00000244	W	40			NOP		
02960	00000245	W	2500001477			LCR	PROPR;77	
02970					*			
02980					*		BACKGROUND PROGRAM ENTRY POINT	
02990					*			
03000	00000252	LW	40			FORENT Z	NOP	
03010					*			
03020					*		BACKGROUND PROGRAM EXITS TO 1 + X1	
03030					*			
03040	00000253	LW	65001056			SWITCH Z	B EXIT WORD MARK CLEARED IN INIT	
03050	00000257	W	2400071070			SCR	GOFOR+ADM,VBREG	
03060	00000264	W	2400002254			SCR	COMDSA,VCSREG	
03070	00000271	W	33000710002570			C	GOFOR+ADM,TAGX1+ADM-1	
03080	00000300	W	6500040542			BCT	TSTIGI,VEQ	
03090	00000305	W	65002140			B	SAVEF	
03100	00000311	LW	5500103300260754			HLDF Z	BCE \$TCHK,LDCHK,*	
03110	00000321	LW	40			CHK1 Z	NOP	
03120	00000322	LW	65000375			SW1 Z	B CHK2 BRANCH IF OFF	
03130					*		TURN OFF SWITCH 1	
03140	00000326	W	22000322			SW	SW1	
03150	00000332	W	40			NOP		
03160	00000333	LW	65001102			SW6 Z	B RESTOR BRANCH IF OFF	
03170					*		RESTORE LOADER COMMUNICATION AREA	
03180	00000337	W	1000023170242667			EXM	COMSAV,(LOC146),VRARM	
03190	00000347	W	20702351			SI	(LOC85)	
03200	00000353	LW	2500236402			LDRWC Z	LCR RWC,02	
03210	00000360	LW	2500236712			LDRWS Z	LCR RWS,12	
03220					*		TURN OFF SWITCH 6	
03230	00000365	W	22000333			SW	SW6	
03240	00000371	W	65001102			B	RESTOR	
03250					*			
03260	00000375	LW	23000660			CHK2 Z	CW SW2	
03270					*		GO TO PLUS LOADER TO LOAD BACKGROUND PROGR	
03280	00000401	W	65001364			B	GOLOAD	
03290	00000405	LW	22000660			TSTIGI Z	SW SW2	
03300	00000411	LW	14002433002607			FINISH Z	MCW ZERO,LDCHK	
03310	00000420	W	14702577002576			MCW	(LOC177),TAG	
03320	00000427	W	14002433702574			MCW	ZERO,(TAGID)	
03330	00000436	W	34002605002576			BA	UNO,TAG	
03340	00000445	W	14002433702574			MCW	ZERO,(TAGID)	
03350	00000454	W	5500101200003454			BCE	BKGCAL,BEGIN,*	
03360	00000464	W	65000337			B	SW6+2+ADJ	

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

03370
03380
03390 00000470 LW 3270237670237677
03400 00000500 W 40
03410 00000501 LW 2500267256
03420 00000506 W 23000501
03430 00000512 W 65000561
03440 00000516 LW 2400261270
03450 00000523 W 34002613002612
03460 00000532 W 33702610002602
03470 00000541 W 6500056142
03480 00000546 W 65002140
03490 00000552 W 14702610000710
03500 00000561 LW 2500255157
03510 00000566 W 2500255570
03520 00000573 W 2500256154
03530 00000600 W 6700256215
03540 00000605 W 41
03550
03560
03570 00000606 LW 4655
03580 00000610 RW 15151515
03590 00000614 W 2400236156
03600 00000621 W 2400255157
03610 00000626 W 2400255570
03620 00000633 W 2400256154
03630 00000640 W 14000613002565
03640 00000647 W 65000731
03650
03660
03670 00000653 W 23000322
03680 00000657 W 40
03690 00000660 LW 65000711
03700
03710 00000664 W 65002070
03720 00000670 W 65002240
03730
03740 00000674 W 2500002254
03750 00000701 LW 35002434
03760
03770 00000705 LW 65000000
03780
03790 00000711 R
03800 00000711 W 5500047070240454
03810 00000721 W 23000660
03820 00000725 W 65001117
03830 00000731 LW 2400077570
03840 00000736 W 5400077200066010
03850 00000746 W 1000256500274301
03860 00000756 W 34002743
03870 00000762 W 5400077600274301
03880 00000772 LW 65000000
03890 00000776 LW 5500101270234654
03900 00001006 W 65000772
03910 00001012 LW 3200243370234677
03920 00001022 W 2500272556

```

```

*
* RESUME NORMAL MODE
RESUME Z SST (HOLDST),(HOLDST),77
NOP
CLEAR Z LCR HGGO+ADJ,VIREG
CW CLEAR
B AROUND
RVIN Z SCR PRIMST,70
BA ADDR$;PRIMST
C ($PRIMST-ADJ),LOCO
BCT AROUND,VEQ
B $SAVEF
MCW ($PRIMST-ADJ),GOFOR+ADM
AROUND Z LCR $AVA,VAREG
LCR $AVB,VBREG
LCR $AVCS;VCSREG
RVI $AVIND,V15
RNM

*
* INTERRUPT ENTRY POINT
INTENT Z SVI V55
STIND Z DCW #4
SCR LOADER,VIREG
SCR $AVA,VAREG
SCR $AVB,VBREG
SCR $AVCS;VCSREG
MCW STIND;ENDIND
B CKEIR

*
* SAVE BACKGROUND INDEX REGISTERS
TURN ON SWITCH 1
CW SW1
NOP
SW2 Z B CHK3 BRANCH IF OFF
* RESTORE FOREGROUND INDEX REGISTERS
B $SAVEB
B RESTF
* RESTORE FOREGROUND PROGRAM I REGISTER
LCR COMDSA,VCSREG
TRYMR Z BS ERRCNT
* SERVICE FOREGROUND PROGRAM
GOFOR Z B 0
* TURN ON SWITCH 2
CHK3 Z RELV 0
BCE RESUME,(LOC25),*
CW SW2
B GOCOM
CKEIR Z SCR RETNIT+ADM,70
BCC RETNIT,SW2,10
EXM ENDIND,TSTINT,01
BA TSTINT
BCC TSTAST,TSTINT,01
RETNIT Z B 000
TSTAST Z BCE BKGCAL,(LOC100),*
B RETNIT
BKGCAL Z SST ZERO,(LOC100),77
LCR LOC12A,66

```

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

```

03930 00001027 W 65000561
03940 00001033 LW 3200260770234677
03950 00001043 W 14002433002607
03960 00001052 W 65000311
03970
03980
03990
04000
04010 00001056 LW 22000660
04020 00001062 W 5500041100260754
04030 00001072 W 5500101270234654
04040 00001102 LW 65002120
04050 00001106 W 2500256154
04060 00001113 W 65000470
04070
04080
04090
04100
04110
04120
04130
04140
04150
04160 00001117 LW 65002070
04170 00001123 W 21702351
04180 00001127 W 1070242600023167
04190 00001137 W 20702351
04200
04210 00001143 LW 23000322000660
04220 00001152 W 23000333
04230 00001156 W 1000234570256667
04240 00001166 LW 14702577002576
04250 00001175 W 34002605002576
04260 00001204 W 14002461702574
04270 00001213 W 34002606002576
04280 00001222 W 14000030702574
04290 00001231 W 65001364
04300 00001235 LW 34002606002576
04310 00001244 W 14702574002400
04320 00001253 W 14702577002576
04330 00001262 W 14002433702574
04340 00001271 W 34002605002576
04350 00001300 W 14002605702574
04360 00001307 W 21702351
04370 00001313 W 1070242600314567
04380 00001323 W 1000023170242667
04390 00001333 W 20702351
04400 00001337 LW 3200243300237670
04410 00001347 W 3270237670237677
04420 00001357 W 2500240077
04430 00001364 LW 5500141770234654
04440 00001374 LW 6400137452
04450 00001401 LW 2400236402
04460 00001406 LW 2400236712
04470
04480 00001413 LW 65702401

```

B AROUND
 STCHK Z SST LDCHK;(LOC100);77
 MCW ZERO;LDCHK *
 B HLDLF
 *
 * FOREGROUND PROGRAM EXIT POINT
 *
 * TURN OFF SWITCH 2
 EXIT Z SW SW2
 BCE FINISH;LDCHK; *
 BCE BKGCAL;(LOC100); *
 RESTOR Z B RESTB
 LCR SAVCS;VCSREG
 B RESUME
 * ANOTHER FOREGROUND PROGRAM TO BE LOADED
 * IF LOADER IS IN PROCESS OF LOADING A PROGRAM,
 * AND IF THE INTERRUPT WAS CAUSED BY THE
 * EXTERNAL BUTTON, IGNORE INTERRUPT AND
 * ALLOW LOADER TO CONTINUE.
 *
 *
 * SAVE LOADER COMMUNICATION AREA
 GOCOM Z B \$AVEB
 CI (LOC85)
 EXM (LOC146);COMSAV;VRARM
 SI (LOC85)
 * TURN ON SWITCHES 1,2, AND 6
 CLRSW Z CW \$W1;SW2
 CW \$W6
 EXM X1CON;(TAGX1);VRARM
 SKPPOS Z MCW (LOC177);TAG
 BA UNO;TAG TO RETURN CONTROL TO
 MCW AST;(TAGID) BAKHER AFTER LOADING
 BA THREE;TAG FOREGROUND PROG.
 MCW BACKHR;(TAGID)
 B GOLOAD GO TO LOAD F.G. PROG.
 BAKHER Z BA THREE;TAG GET F.G. STARTING
 MCW (TAGID);HOLDST+ADJ
 MCW (LOC177);TAG
 MCW ZERO;(TAGID) CLEAR LOADER BUSY FLAG
 BA UNO;TAG UNSET LOADER RETURN FLAG
 MCW UNO;(TAGID)
 CI (LOC85) SAVE F.G. LOADER
 EXM (LOC146);HLDCOM;VRAM COMM. AREA
 EXM COMSAV;(LOC146);VRAM
 SI (LOC85)
 BGINFG Z SST ZERO;HOLDST;70
 SST (HOLDST);(HOLDST);77
 LCR HOLDST+ADJ;VSC
 GOLOAD Z BCE SAVLOP;(LOC100); *
 CHKRW Z PCB *,52
 SVRWC Z SCR RWC;02
 SVRWS Z SCR RWS;12
 * GO TO PLUS LOADER TO LOAD FOREGROUND PROGRAM
 GOLOAD Z B (LOC139)

1.904

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

04490 00001417 LW 3200260770234677
04500 00001427 W 14002461002607
04510 00001436 W 65001374

SAVLOP Z SST LDCHK; (LOC100); 77
MCW AST; LDCHK *
B CHKRC

04520

*

04530

*

04540

*

04550

*

04560 00001442 LW 14702577002576

04570

*

04580 00001451 W 5500146570257454

04590 00001461 W 65001640

04600 00001465 LW 34002605002576

04610 00001474 W 14002461702574

04620 00001503 W 34002606002576

04630 00001512 W 14000025702574

04640 00001521 W 65002140

04650 00001525 W 65002120

04660 00001531 W 2500255157

04670 00001536 W 2500255570

04680 00001543 W 2500236177

04690 00001550 LW 4200

04700 00001552 W 34002606002576

04710 00001561 W 14702574002672

04720 00001570 W 22000501

04730 00001574 W 14702577002576

04740 00001603 W 14002433702574

04750 00001612 W 34002605002576

04760 00001621 W 14002433702574

04770 00001630 W 65002070

04780 00001634 W 65002240

04790 00001640 R

04800 00001640 LW 21702351

04810 00001644 W 107024260023167

04820 00001654 W 1000314570242667

04830 00001664 W 20702351

04840 00001670 W 14002701702737

04850 00001677 LW 34002605002356

04860 00001706 W 14002356001720

04870 00001715 LW 140000000702415

04880 00001724 W 14002703702734

04890 00001733 W 14702346002462

04900 00001742 W 3200243370234677

04910

*

04920 00001752 W 14002744703146

04930 00001761 W 65702731

04940 00001765 W 3200246270234677

04950 00001775 W 21702351

04960 00002001 W 1070242600314567

04970 00002011 W 14702745002400

04980 00002020 W 34702423002400

04990 00002027 LW 1000023170242667

05000 00002037 W 20702351

05010 00002043 W 3200243300237670

05020 00002053 W 3270237670237677

05030 00002063 W 2500240077

05040

*

PREPARE FOR LOADING OF NEW FOREGROUND SEGMENT

FORSEG Z MCW (LOC177); TAG

TEST FIRST TO SEE IF LOADER
IS ALREADY BUSY LOADING A
BACKGROUND PROGRAM
NO... CARRY ON
SET UP TO GO ON BACK TO
LOADER TO FINISH LOADING THE
BACKGROUND PROGRAM

BCE SETFLG; (TAGID); *

B GOPOS

SETFLG Z BA UNO; TAG

MCW AST; (TAGID)

BA THREE; TAG

MCW BACKLD; (TAGID)

B SAVEF

B RESTB

LCR \$AVA; VAREG

LCR \$AVB; VBREG

LCR LOADER; 77

LDBACK Z CAM THRECH

BA THREE; TAG

MCW (TAGID); BGGO+ADJ

SW CLEAR

MCW (LOC177); TAG

MCW ZERO; (TAGID)

BA UNO; TAG

MCW ZERO; (TAGID)

B SAVEB

B RESTF

GOPOS Z RESV U

FORGO Z CI (LOC85)

EXM (LOC146); COMSAV; VRAM

EXM HLD100; (LOC146); VRAM

CI (LOC85)

MCW FORWRD; (LOC106)

HOLD3C Z BA UNO; SEGS AV

MCW SEGS AV; SETSEG+ADM

SETSEG Z MCW U; (LOC75)

MCW FORCHR; (LOC111)

MCW (LOC100); HLD100

SST ZERO; (LOC100); 77

SET TO SEARCH FORWARD

PROG. SEG AND VIS.
SET START MODE TO R
BRANCH TO LOADER

MCW R; (LOC112)

B (LOC130)

SST HLD100; (LOC100); 77

CI (LOC85)

EXM (LOC146); HLD100; VRAM

MCW (START); HOLDST+ADJ

BA (LOC155); HOLDST+ADJ

XTRACT Z EXM COMSAV; (LOC146); VRAM

SI (LOC85)

SST ZERO; HOLDST; 70

SST (HOLDST); (HOLDST); 77

LCR HOLDST+ADJ; VSC

SAVE BACKGROUND INDEX REGISTERS

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

05050	00002070	LW	2400221070	SAVE3	Z SCR	FOUT+ADM,VBREG
05060	00002075	W	14000017002162		MCW	BREG,MOVE1+ADM+ADM
05070	00002104	W	22702602		SW	{LOC0}
05080	00002110	W	20702602		SI	{LOC0}
05090	00002114	W	65002154		B	MOVE1
05100				*		RESTORE BACKGROJND REGISTERS
05110	00002120	LW	2400231070	RESTB	Z SCR	FRET+ADM,VBREG
05120	00002125	W	14000017002257		MCW	BREG,MOVE2+ADM
05130	00002134	W	65002254		B	MOVE2
05140	00002140	LW	2400221070	SAVEF	Z SCR	FOUT+ADM,VBREG
05150	00002145	W	14000033002162		MCW	FREG,MOVE1+ADM+ADM
05160	00002154	LW	1070257100000067	MOVE1	Z EXM	(X6),0,VRARM
05170	00002164	LW	2400221557	FSTORE	Z SCR	FEXM+ADM,VAREG
05180	00002171	W	2400222070		SCR	FEXM+ADM+ADM,VBREG
05190	00002176	LW	33002215002432	FCOMP	Z C	FEXM+ADM,CON77
05200	00002205	LW	6500000042	FOUT	Z BCT	0,VEQ
05210	00002212	LW	1000000000000067	FEXM	Z EXM	0,0,VRARM
05220	00002222	W	2400221557		SCR	FEXM+ADM,VAREG
05230	00002227	W	2400222070		SCR	FEXM+ADM+ADM,VBREG
05240	00002234	W	65002176		B	FCOMP
05250				*		RESTORE FOREGROJND REGISTERS
05260	00002240	LW	2400231070	RESTF	Z SCR	FRET+ADM,VBREG
05270	00002245	W	14000033002257		MCW	FREG,MOVE2+ADM
05280	00002254	LW	1000000070257167	MOVE2	Z EXM	0,(X6),VRARM
05290	00002264	LW	2400231557	FSAVAB	Z SCR	FMOV+ADM,VAREG
05300	00002271	W	2400232070		SCR	FMOV+ADM+ADM,VBREG
05310	00002276	LW	33002320002432	BCOMP	Z C	FMOV+ADM+ADM,CON77
05320	00002305	LW	6500000042	FRET	Z BCT	0,VEQ
05330	00002312	LW	1000000000000067	FMOV	Z EXM	0,0,VRARM
05340	00002322	W	2400231557		SCR	FMOV+ADM,VAREG
05350	00002327	W	2400232070		SCR	FMOV+ADM+ADM,VBREG
05360	00002334	W	65002276		B	BCOMP
05370	00002340	LW	40	NOPX1	Z NOP	
05380	00002341	LW	65000252	BRX1	Z B	FORENT
05390	00002345	LW	40	X1CON	Z NOP	
05400				*		NON-RELOCATABLE DSA'S
05410	00002346	LW	000100	LOC100Z	DSA	064
05420	00002351	LW	000125	LOC85	Z DSA	85
05430	00002354	RW	000000	SEGSAV	Z DSA	0
05440	00002357	RW	000000	LOADER	Z DSA	0
05450	00002362	RW	000000	RWC	Z DSA	0
05460	00002365	RW	000000	RWS	Z DSA	0
05470	00002370	RW	000000	RWCP	Z DSA	0
05480	00002373	RW	000000	RWSP	Z DSA	0
05490	00002376	LW	000000	HOLDSTZ	DSA	0
05500	00002401	LW	700213	LOC139Z	DSA	{139}
05510	00002404	LW	700270	LOC25	Z DSA	{184}
05520	00002407	LW	000257	LOC175Z	DSA	175
05530	0000254	L		LOC172	Z EQU	172
05540	00000223	L		LOC147	Z EQU	147
05550	00002412	LW	000104	LOC68	Z DSA	68
05560	00002415	LW	000113	LOC75	Z DSA	75
05570	00002420	LW	000166	LOC118Z	DSA	118
05580	00002423	LW	000155	LOC155Z	DSA	109
05590	00002426	LW	000275	LOC146Z	DSA	189
05600				*		CONSTANTS

ERRORS CPD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

05610	00002431	RW	01	ONE	Z	DCW	=1C01	
05620	00002432	RW	77	CON77	Z	DCW	=1C77	
05630	00002433	RW	00	ZERO	Z	DCW	=1C00	
05640	00002434	RW	00	ERRCNT	Z	DCW	=1C00	
05650	00002435	L	3604001500001551241525	R	F	ERRMSGZ	DCW	! 40 00 RD ER
			5115761515					
05660	00002455	L	00	R	F	INPJZ	Z DCW	=1C00
05670	00002456	RW	27	G	Z	DCW	!G:	
05680	00002457	RW	43	L	Z	DCW	!L:	
05690	00002460	RW	23	C	Z	DCW	!C:	
05700	00002461	RW	54	AST	Z	DCW	=1C54	
05710	00002462	RW	00	HLD100	Z	DCW	=1C00	
05720	00002463	RW	10	EIGHT	Z	DCW	=1C10	
05730	00002464	RR		C FOREG	Z	RESV	25	
05740	00002515	RR		C BACKRG	Z	RESV	25	
05750	00002546	R	00000000	SAVA	Z	DC	!0000!	
05760	00002552	R	00000000	SAVB	Z	DC	!0000!	
05770	00002556	R	00000000	SAVCS	Z	DC	!0000!	
05780	00002562	L	151515	SAVINDZ	DC		=3	
05790	00002565	R	15	ENDIND	Z	DC	=1	
05800	00000003	L		ADM	Z	EQJ	3	
05810	00002566	LW	000005	TAGX1	Z	DSA	5	
05820				*		SAVE	INDEX REGS 1-6 FOR THREE CHAR MODE.	
05830	00002571	LW	000030	X6	Z	DSA	24	
05840	00002574	RW	000000	TAG	Z	DCW	=3C000000	
05850	00002574	L		TAGID	Z	EQJ	TAG-2	
05860	00002577	LW	000272	LOC177Z	DSA		186	
05870	00002602	LW	000000	LOC0	Z	DSA	0	
05880	00002605	RW	01	JNO	Z	DCW	=1C01	
05890	00002606	RW	03	THREE	Z	DCW	=1C03	
05900	00002607	RW	00	LDCHK	Z	DCW	=1C00	
05910	00002610	RW	000000	PRIMST	Z	DSA	0	
05920	00002613	RW	02	ADDRS	Z	DCW	=1C02	
05930	00002614	RW	60	SIXTY	Z	DCW	=1C60	
05940	00000231	L		COMSAV	Z	EQJ	BEGIN+125	
05950	00002345	L		LAST	Z	EQJ	X1CON	
05960	00002705	L		FLGL0C	Z	EQJ	SAVPRG-13	
05970	00002615	RW	20	TWENTY	Z	DCW	=1C20	
05980	00002616	RW	00	GETC2	Z	DCW	=1C00	
05990	00002617	RW	151515	R..C1	Z	DCW	=3	
06000	00002622	RW	151515	RWS1	Z	DCW	=3	
06010	00002625	W	77	R	M	DCW	=1C77	
06020	00002626	LW		R	M	RECSETZ	RESV, 26	
06030	00002660	RW	00	GETC3	Z	DCW	=1C00	
06040	00002661	RW	40	FORTY	Z	DCW	=1C40	
06050	00002662	LW	577750	BANNERZ	DSA		0-24*X5	
06060	00002665	LW	000176	LOC126Z	DSA		126	
06070	00002670	LW	000000	RGGO	Z	DSA	0	
06080	00002673	RW	01254626	EF	Z	DCW	!1EOF!	
06090	00002677	RW	00	HAVEOF	Z	DCW	=1B0	
06100	00002700	R	15	RDRFG	Z	DC	=1	
06110	00002701	RW	22	FORWRD	Z	DCW	=1C22	
06120	00002702	RW	23	BCKWRD	Z	DCW	=1C23	
06130	00002703	RW	60	FORCHR	Z	DCW	=1C60	
06140	00002704	RW	11	NINE	Z	DCW	=109	
06150	00002705	RW	15151515151515151515	SAVPRG	Z	DCW	=14	

ERRORS CRD # BEGADD AL MACHINE CHARACTERS R T M LOC S OPCODE OPERANDS, VARIANTS AND CONTROL CHARACTERS

06160	00002723	RW	000126	LOC12A	Z	DSA	86
06170	00002726	LW	000151	LOC105Z	Z	DSA	105
06180	00002731	LW	000202	LOC130Z	Z	DSA	130
06190	00002734	LW	000157	LOC111Z	Z	DSA	111
06200	00002737	LW	000152	LOC106Z	Z	DSA	106
06210	00002563	L		BKADMD	Z	EQU	SAVIND+1
06220	00002742	RW	0000	TSTINT	Z	DCW	=2C0000
06230	00000004	L		X1	Z	EQU	4
06240	00002744	RW	51	R	Z	DCW	!R:
06250	00000024	L		X5	Z	EQU	20
06260	00002745	LW	500003	START	Z	DSA	3*X5
06270	00000002	L		ADJ	Z	EQU	3-1
06280	00002750	R		HLDCOM	Z	RESV,	126
06290	00003146	LW	000160	LOC112Z	Z	DSA	112
06300	00003151	LW	40	ENDMON	Z	NOP	

06310
 06320
 06330
 06340 00000000
 ERRORS

*
*
N

HASH TOTAL 222167

:PINM
END

BAX

ภาคผนวก ข.

บัตรควบคุม

1. บัตรควบคุมการร่างห้องสมุด
- | | | | | |
|-----------|-------|--------|----------|--|
| คอลัมน์ 1 | 15 | 18 | 21 | |
| AAGMERGEO | | * | | |
| OE | | | | |
| 1HDR H | | | SPTMERGE | |
| DUP 1 | MERGE | @FTLMC | | |
| 1EOF | | | | |
2. บัตรควบคุมสำหรับการใช้ระบบห้องสมุด
- | | | | | |
|-----------|------|--------|-----------|----|
| คอลัมน์ 1 | 15 | 18 | 21 | 35 |
| AACLIBO10 | | * | | |
| 6E | | | | |
| 1HDR H | | | EASYCODER | E |
| INS | PROG | FTLMC3 | | |
| 1EOF | | | | |
3. บัตรควบคุมการแปลโปรแกรม
- | | | | |
|------------|----|---|--|
| คอลัมน์ 1 | 18 | | |
| AABEZCSOO | | * | |
| 2E | | | |
| blank card | | | |

4. บัทรควบคุมการอัปเดต

คอลัมน์ 1

15 18 21

AABEZCSOO

*

3E

1HDR H

UPDATE SEL

1NSP FILMC3

AAAMON AAAMON

1EOF

1	50 ₂	54 ₂
2		
3	XXXXXX ₂	
4		
5	XXXX ₂	
6		
7	80 ₂	
8		
9	XXX	
10		
11	NNNNNN	
16		
17	NN	
18		
19	7 40 00 00 00 00 00	
24		
25		
	1	
	250 (Max. No of Chars.)	

SEGMENT HEADER RECORD

1	41 ₂ , or 44 ₂	
2		
3	XXXXXX ₂	
4		
5	XXXX ₂	
6		
7	0 ₂	
8		
	1	
	250 (Max. No of Chars.)	

NON-HEADER RECORD

Banner Character
 No. of Characters In Record (Octal)
 Record Sequence No. (Octal)
 No. of Char. in ID & Control Fields
 Revision Number
 Six-Character Program Name
 Two-Character Segment Name
 Octal Visibility Key

14 Records
 As Required
 As Required
 As Required
 As Required

1	IHDR△
2	22 ₂
3	42 ₂
4	
5	50 ₂
6	41 ₂
7	
8	44 ₂
9	50 ₂
10	41 ₂
11	
12	44 ₂
13	54 ₂
14	54 ₂
15	50 ₂
16	41 ₂
17	
18	44 ₂
19	
20	1EOF△
21	1ERI△
22	1EKI△
23	
24	
25	
26	

BINARY RUN TAPE

Header Label Record
 Tape Bootstrap Routine
 Loader-Monitor Program
 First Unit
 Second Unit
 Third Unit
 Fourth Unit
 Additional Unit
 Trailer Label Record
 End of Reserved Information Records

First Unit
 Second Unit
 Third Unit
 Fourth Unit

1	50 ₂	
2-4	XXXXXX ₂	
5-6	0000 ₂	
1	41 ₂	
2-4	XXXXXX ₂	
5-6	0002 ₂	
1	41 ₂	
2-4	XXXXXX ₂	
5-6	0004 ₂	
1	54 ₂	
2-4	XXXXXX ₂	
5-6	0005 ₂	
1	54 ₂	
2-4	XXXXXX ₂	
5-6	0002 ₂	
1	50 ₂	
2-4	XXXXXX ₂	
5,6	0002 ₂	
1	41 ₂	
2-4	XXXXXX ₂	
5,6	0002 ₂	

First Segment Header Record
 Second Record
 Third Record
 Fourth Record
 Second Segment Header Record
 Third Segment Header Record
 Fourth Segment Header Record
 Second Record of Fourth Unit
 Remaining Record of Fourth Unit

ASSIGNMENT OF RECORD SEQUENCE NUMBERS FOR FOUR BRT UNITS SHOWN, ASSUMING FIRST UNIT HAS FOUR RECORDS.

01742220 2

Formal of a Binary RUN Tape (BRT)

Identification and Control Fields of BRT Program Unit
Records

Record Type	Character		Function
	Location	Name	
Segment- header and non-header records (50 ₈ , 54 ₈ , 41 ₈ , 44 ₈)	1	Banner	Identifies record type (octal designations below): 50 ₈ ^Q - segment header record, not last record of a unit; 54 ₈ [*] - segment header record, last record of a unit; 41 ₈ ^J - not segment header record, not last record of a unit; 44 ₈ ^M - not segment header record, last record of a unit.
	2-4	Record Length	Designates number of characters in record in octal.
	5-6	Record Sequence Number	Specifies number of backspaces (in octal) to position BRT for reading previous segment header record.
	7	Length of ID and Control Fields	Designates the number of characters in the identification and control fields; octal 30 for segment-header records, 7 for non-header records.
Segment- header (50 ₈ , 54 ₈)	8-10	Revision Number	Three-character number assigned by the programmer in his symbolic program. If unassigned, the assembly program assigns zero.
	11-16	Program Name	Six-character program name assigned by programmer.
	17-18	Segment Name	Two-character segment name assigned by programmer.
	19-24	Visibility Key (octal)	Six-character loading key assigned by the programmer and used by the Loader-Monitor when searching for a unit. (It may be used to correlate two or more units as a system subset to be run together or to distinguish between different versions of the same program.)

Data Field Control Characters

Control Character			Meaning
No.	Octal	Binary	
1	Variable from 01 to 17	00nnnn	Interpret the nnnn digits as a binary number. Move the following nnnn characters to successive locations, placing the leftmost character in the location specified by the current setting of the distribution counter (<u>in X6</u>), Clear punctuation in locations into which the characters are moved. Advance the distribution counter by nnnn.
2	Variable from 21 to 37	0lnnnn	Perform same functions as control character no.1, and set a word mark in the leftmost character location loaded.
3	Variable from 41 to 57	10nnnn	Perform same functions as control character no. 1, and set an item mark in the leftmost character location loaded.
4	60	110000	Place the following three characters into the distribution counter. (The next string will be loaded with its leftmost character at this address.)
5	61	110001	Terminate loading. Interpret the following three characters as the normal starting location for the unit just loaded.
6	62	110010	Clear an area of memory, using the following seven characters to identify the area to be cleared and the character with which to clear it. (Characters 1 through 3 are interpreted as the lowest address of the area to be cleared; characters 4 through 6 are interpreted as the highest address; and character seven is transferred to every location in the cleared areas with punctuation marks cleared.)
7	63	110011	Set a word mark in the location whose address is one less than the current setting of the distribution counter.
8	64	110100	Set an item mark in the location whose address is one less than the current setting of the distribution counter.
9	77	111111	Read the next record.

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