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01                ;                                        RCSL:      43-GL2451
02                ;                                        AUTHOR:    HKM
03                ;                                        EDITED:    76.02.20
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27                ;                        FD302
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53                ; KEYWORD: MUS, DRIVER, FLEXIBLE DISC, FLOPPY, DISCETTE, LISTING.
54                ; ABSTRACT: DRIVER FOR FLEXIBLE DISC RC3650, UNIT 1.
55                ;           ASCII  PAPER TAPE  RCSL:  43-GL2452
56                ;           BINARY PAPER TAPE  RCSL:  43-GL2453
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!0002 FD302
01                      ;     *****   START OF FLOPPY DISC DRIVER, SECONDARY UNIT    *****
02                      ;                                                VERSION:  76.03.17/1
                        .TITL FD302
04                      .NREL
05              000012  .RDX 10
06              000001  .TXTM 1
07                      ;
08  00000'140001 FD00:          1B0+1B1+1       ; SPECIFICATION
09  00001'000007'                FD01            ; START OF PROGRAM
10  00002'000000                 0               ; CHAIN
11  00003'000024                 DE0-FD00        ; SIZE OF PROGRAM
12  00004'043104 .TXT            .FD1<0><0>.     ; NAME
13          030400
14          000000
15
16
17
18  00007'024071 FD01: LDA    1   PROGRAM       ; START OF SECOND DRIVER:
19  00010'030410       LDA    2   .FD0          ;
20  00011'006010       SEARCHITEM               ;  SEARCHITEM(FD0,PROGRAM,RESULT);
21  00012'151005       MOV    2,2 SNR          ;  IF RESULT = 0 THEN
22  00013'000774       JMP        FD01          ;    SEARCH AGAIN;
23  00014'035001       LDA    3   PSTART,2     ;  STARTADDR.:=
24  00015'030040       LDA    2   CUR          ;    STARTADDR. OF !MOTHER!;
25  00016'055016       STA    3   BREAD,2      ;  BREAKADDR.:= STARTADDR.;
26  00017'001400       JMP        +0,3          ;  GOTO STARTADDR. OF !MOTHER!;
27                                              ; END OF SECOND DRIVER;
28
29                      ;
30  00020'000021'.FD0:           .+1             ;
31  00021'043104 .TXT            .FD0<0><0>.     ; NAME OF !MOTHER!
32          030000
33          000000
34
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```
!0003 FD302
01                ; PROCESS DESRIPTOR
02        000064 DEVNO=     52                ; DEVICE NUMBER
03
04 00024'000000 DE0:        0                 ; NEXT PROCESS IN THE QUEUE
05 00025'000000             0                 ; PREV. PROCESS
06 00026'000000             0                 ; NEXT PROCESS IN CHAIN
07 00027'000100             FD02-DE0          ; PROCESS DESCRIPTOR SIZE
08 00030'043104 .TXT        .FD1<0><0>.       ; NAME OF PROCESS
09        030400
10        000000
11 00033'000033'            DE0+EVENT         ; FIRST EVENT
12 00034'000033'            DE0+EVENT         ; LAST EVENT
13 00035'000000             0                 ; FIRST MESSAGE BUFFER
14 00036'000000'            FD00              ; PROGRAM ADDRESS
15 00037'000000             0                 ; PROCESS STATE
16 00040'000000             0                 ; TIMER COUNT
17 00041'100000             1B0               ; PRIORITY:= DRIVER
18 00042'000007'            FD01              ; BREAK ADDRESS
19 00043'000000             0                 ; SAVED AC0
20 00044'000000             0                 ; SAVED AC1
21 00045'000024'            DE0               ; SAVED AC2
22 00046'000024'            DE0               ; SAVED AC3
23 00047'000016"            FD01*2            ; PROCESS STATUS WORD (PSW)
24 00050'000000             0         ;SAVE   ; WORK USED BY MONITOR UTILITIES
25                ; OPTIONAL WORDS
26 00051'000000             0         ;BUF    ; MESSAGE BUFFER ADDRESS
27 00052'000000             0         ;ADDRESS ; CURRENT BYTE ADDRESS OF SHARE
28 00053'000000             0         ;COUNT  ; CURRENT VALUE OF COUNT
29 00054'000000             0         ;RESERVER; RESERVER
30 00055'000000             0         ;CONVT  ; CONVERTION TABLE ADDRESS
31 00056'100166             CLEAR             ; STANDARD INTERRUPT CLEAR ADDRESS
32
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!0004 FD302
01                  ; OTHER OPTIONAL WORDS
02          000033 TR.SYNC=   .-DE0
03 00057'000000               0          ;CUR+27; LAST READ(TRACK<8+SYNC.BYTE)
04          000034 FDSOFT=    .-DE0
05 00060'000000               0          ;CUR+28; UNMODIFIED STATUS
06          000035 DEVICE=    .-DE0
07 00061'000064               DEVNO              ; DEVICE ADDRESS
08          000036 FDMODE=    .-DE0
09 00062'000000               0                  ; CURRENT MODE BITS
10          000037 FDCOMMAND=.-DE0
11 00063'000000               0                  ; IO-COMMAND EXCL. (FDUNIT)
12          000040 SECTOR=    .-DE0
13 00064'000000               0                  ; CALC. SECTOR NO.
14          000041 TRACK=     .-DE0
15 00065'177777               -1                 ; CALC. TRACK NO.;-1 -> UNDEFINED
16          000042 BLOCK=     .-DE0
17 00066'000000               0                  ; LOGICAL BLOCKCOUNT (=MESS3.BUF - 1)
18          000043 FDBLOCK=   .-DE0
19 00067'000000               0                  ; PHYSICAL BLOCKCOUNT (INTERNAL)
20          000044 SLICE=     .-DE0
21 00070'000000               0                  ; SLICE SIZE = BYTES//128
22          000045 FDSLICE=   .-DE0
23 00071'000000               0                  ; SLICE COUNT: FOR EACH PHYSICAL BLOCK
24                                               ;    DECREMENT FROM SLICESIZE TO ZERO
25          000046 I.TLINK=   .-DE0
26 00072'000000               0                  ; RETURN(LOCAL TRANSPUT)
27          000047 I.SLINK=   .-DE0
28 00073'000000               0                  ; RETURN(SLICE COUNT TEST)
29          000050 POLINK=    .-DE0
30 00074'000000               0                  ; RETURN(POSITION)
31          000051 STALINK=   .-DE0
32 00075'000000               0                  ; RETURN(TEST STATUS)
33          000052 WRLINK=    .-DE0
34 00076'000000               0                  ; RETURN(WRITE,ERASE)
35          000053 RELINK=    .-DE0
36 00077'000000               0                  ; RETURN(READBLOCK,WRITE/READ)
37          000054 RESEM=     .-DE0
38 00100'000000               0                  ; COMMAND SPECIFICATION;
39                                               ;  USED BY "STACHECK";
40                                               ;  IF -1 THEN LAST COMMAND=READ BLOCK
41                                               ;  ELSE ANY OTHER COMMAND;
42          000055 FDDISP=    .-DE0
43 00101'000000               0                  ; TRACK DISPLACEMENT, USED FOR
44                                               ;  DISCETTES WITH DELETED TRACKS;
45
```

```
10005 FD302
01                ; ROUTINES INPUT/OUTPUT:
02                ;
03         000056 IODOAS=    .-DE0              ; CONTROL COMMAND:
04  00102'061164          DOAS    0    DEVNO     ;  START DEVICE(COMMAND);
05  00103'001400          JMP          +0,3      ;  RETURN(LINK);
06                ;
07         000060 IODOB=     .-DE0              ; OUTCHAR:
08  00104'062064          DOB     0    DEVNO     ;  OUTCHAR(CHAR,DEVNO);
09  00105'001400          JMP          +0,3      ;  RETURN(LINK);
10                ;
11         000062 IODOC=     .-DE0              ; OUTSYNC:
12  00106'063064          DOC     0    DEVNO     ;  OUTSYNC(FIELD SYNC. BYTE,DEVNO);
13  00107'001400          JMP          +0,3      ;  RETURN(LINK);
14                ;
15         000064 IODIC=     .-DE0              ; INSYNC:
16  00110'062464          DIC     0    DEVNO     ;  INSYNC(TRACK<8 + SYNC. BYTE,DEVNO);
17  00111'041033          STA     0    TR.SYNC,2 ;  SAVE, FOR SERVICE ONLY;
18  00112'001400          JMP          +0,3      ;  RETURN(LINK);
19                ;
20         000067 IODIB=     .-DE0              ; INCHAR:
21  00113'061464          DIB     0    DEVNO     ;  INCHAR(CHAR,DEVNO);
22  00114'001400          JMP          +0,3      ;  RETURN(LINK);
23                ;
24         000071 IODIA=     .-DE0              ; SENSE NORMAL:
25  00115'064464          DIA     1    DEVNO     ;  SENSE(STATUS);
26  00116'001400          JMP          +0,3      ;  RETURN(LINK);
27                ;
28         000073 IOSPEC=    .-DE0              ; REDEFINE TRACK ADDRESS:
29  00117'061064          DOA     0    DEVNO     ;  LOAD THE TRACK ADDRESS;
30  00120'001400          JMP          +0,3      ;  RETURN(LINK);
31                ;
32         000075 IOCLEAR=   .-DE0              ; CLEAR ALL:
33  00121'060264          NIOC         DEVNO     ;  CLEAR(DONE,BUSY);
34                ;
35         000076 IONIOP=    .-DE0              ; PULSE:
36  00122'060364          NIOP         DEVNO     ;  CLEAR BUFFER;
37  00123'001400          JMP          +0,3      ;  RETURN(LINK);
38                ;
39                FD02:                          ; END OF PROCESS DESCRIPTOR;
40
41                ;    *****   END OF FLOPPY DISC DRIVER   *****
42
43                .END DE0
```