USER's MANUAL

DAI — DOS 1541

OPERATING SYSTEM

FOR

DISK DRIVE VC1541
DIGITAL RECORDER
PARALLEL PRINTER
HIGH SPEED LOADER

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1. GENERAL:

This manual describes the operation of the Commodore VC1541 floppy disk drive, connected to the DAI personal computer.

Up to 4 VC1541 disk drives are supported by the operating system, together with 4 digital MDCR recorders and 2 audio-cassette recorders.

The operating system is contained in one 2764 EPROM, using the address areas F000-F7FF and F900-F9FF. The address area FA00-FAFF is used for an additional 6116 RAM.

The software is fully compatible with the existing DAI BASIC versions V1.0 and V1.1. No addresses in the RAM area 0000-BFFF are used for the disk operating system, except the ones already used by the MDCR software.
For addressing purposes, the DCE-RWC concept is used.

The Memocom MDCR software is also compatible, as long as it is used from BASIC, or under UTILITY is addressed only via the entrypoints as given in the MDCR manual.

Not directly compatible might be the following programs:

- Object code programs using the area #0297-#02EB.
  See under 'useful hints' how to adapt these programs.
- Programs with direct access to MDCR subroutines.
- Programs which change the 8255 mode.
- Programs using a modified RST6 vector.
- Programs which are protected by many tricks.

Also software for driving a parallel printer and a high speed data loader is implemented, together with several additional commands.

2. MEMORY MAP:

The address range F000-F7FF is used by several switched ROM banks:

Bank 0: General routines for the floppy disk drive (FDD), the digital cassette recorder (DCR), the parallel printer, the extra commands and all housekeeping routines.
All UTILITY calls to FDD and DCR routines must be made via this bank. Each routine, executed in another bank, returns automatically to bank 0.

Bank 1: The floppy disk operating system.

Bank 2: The operating systems for the digital recorder and the High Speed Data Loader.

Bank 3: Free for own use, except F100-F1FF.

The addresses F900-F9FF are used for several general purpose routines. This address range is located in bank 3 of the EPROM.

3. CONNECTION:

For the installation of the EPROM-card and the connection of the interface, refer to the additional installation scheme.

For computers of Rev.7 and higher, the jumper on pins 21 and 22 of the X-bus has to be removed.

A parallel printer can be connected to the 26 pins connector on the interface. The high speed data loader must be connected directly to a connector on the flat cable.

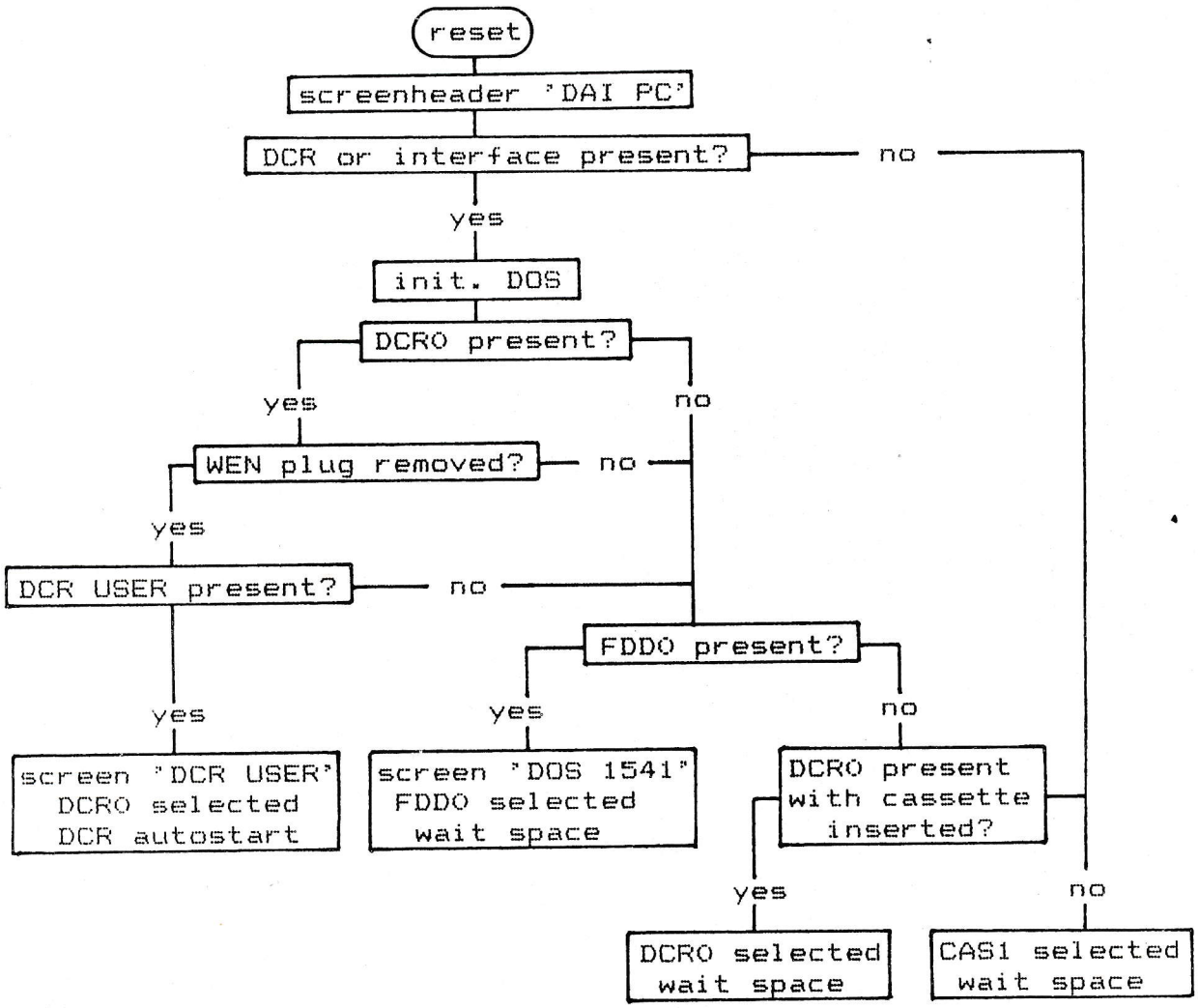
4. POWER-ON:

The equipment should be switched-on in the following sequence:

Peripherals (TV/monitor, etc) - Disk drive - Computer.

In this order, the computer delivers a 'reset' to the disk drive for correct initialisation.

When the DAI is switched on, or when the 'reset'-button is pressed, the following happens:



When the DOS is initialised, the vector address of the RST6 interrupt is changed.

If no interface or no DCR is connected, the DOS can be initialised with: CALLM #F3F3. Now CAS1 is selected as the external memory device.

5. COMMANDS:

5.1. DAI commands:

All DAI commands for writing and reading like LOAD, SAVE, LOADA, SAVEA and UTILITY W(rite) and R(ead) are valid for DCR and FDD. Only the command 'CHECK' does not work on the FDD (the result will be a SYNTAX ERROR).

See the DAI manual for the correct formatting.

For saving and loading on the disk drive, the following remarks have to be taken into account:

During 'read'-operations on the disk drive, the cursor will remain flashing. This does not mean that loading does not occur, as it does for loading from tape.

All files must be saved to disk with a filename. A simple 'LOAD' or 'SAVE' will result in a SYNTAX ERROR.

When using filenames, max. 16 characters are allowed. Longer names will be truncated.

The use of the characters ':' and ',' in filenames is not allowed !! The characters '#' and '$' are not allowed as the first characters of a filename.

The characters '*' and '?' can be used in filenames only as so-called 'wild cards'. See the explanation in the VC1541 manual.

Existing files can be overwritten by using: "%:FILENAME" (to the VC1541 "@:FILENAME" is sent).
If no file with this name exists on the diskette, the file is stored as a new file.

Be careful when entering the filename under UTILITY. If a typing error is made and the <CHARDEL> key is used, the backspace will remain - invisible - in the name. This will cause problems reading the file again. It is better to save with an incorrect name, and correct it afterwards with the 'RENAME' command.

The UTILITY commands Z2 and Z3 reset the RST6 vector address to the default value. To restore this vector, a Z2- or Z3-command must be followed by: >GF3F3, or changed by the V6-command: >V6 D578-F93E.

Command table begin #F18F

5.2. DCR commands:

They are equivalent to the commands described in the MDCR manual, except that only the short versions are supported:

F277 - DCR X : Selects DCR 0-3 as back-up memory. If no number is given, DCR 0 is selected.
F27C - REW : Rewinds to the beginning of the tape.
- REW X : Rewinds X files.
F2D1 - SKIP : Skips to after the last file.
- SKIP X : Skips X files.
F295 - DEL : Erases to the end of the tape.
F28B - LAST : Marks the previous file as the last one.
F286 - VER : Checks the previous file.
F290 - LOOK : Displays the name of the next file.

For REW and SKIP, X can be max. 9 files.

If a DCR is selected as back-up memory, all FDD commands are disabled (DEVICE MISMATCH error).

For saving, loading and verifying on the DCR, an 'on-error' possibility exists.

For further explanation, see the MDCR manual.

The DCE-bus addresses for the DCR's are #0x, in which 'x' is 3,7,B or F (DCR 0-3).

5.3. FDD commands:

For a complete explanation of these commands, refer to the VC1541 User manual. Only the formats are given here.

- FDD X : Selects disk drive 0-3 as back-up memory. The disk drives must be set hardwarewise to the addresses 08-0B. If no number is given, disk drive 0 is selected.
#F2AE

If more than one disk drive has to be used, they must be daisy-chained to each other as described in the VC1541 manual.

DCR commands are disabled and will result in a DEVICE MISMATCH error.

The DCE-bus address for the FDD interface is #20.

- FORMAT : FORMAT"DISKETTENAME,ID".
#F2B3 Formats a new diskette. Each diskette should have a name of max.16 characters and a unique identity code of 2 characters.

- SCRATCH: SCRATCH"FILENAME1,FILENAME2,.....".
#F2B8 Removes indicated files from the diskette.

- RENAME : RENAME"NEWNAME=OLDNAME".
  #F2C0 Changes the name of a file on the diskette.

- COPY : COPY"NEWFILE=OLDFILE1,OLDFILE2,....".
  #F2C5 Merges several files together in a new file. This command is not very useful for the DAI file types, except for copying one file into another with a different name.

  Note: For SCRATCH, RENAME and COPY, the max. string length is 40 characters.

- INIT : INITializes the disk drive to the power-up
  #F2CA state.

- VALID : The VALIDate command re-organizes the dis-
  #F2CF kette to get the max. free space available.

- DIR : Reads the DIRectory from the diskette into
  #F2D4 the screen memory. No programs in memory are destroyed. Listed are:

  - Number of blocks (each 256 bytes).
  - Filename.
  - Filetype: PRG - BASIC files (DAI type 0)
    USR - UTILITY files (DAI type 1)
    SEQ - All others (DAI <> 0,1)
    REL - Relative files.

  By means of the cursor keys, a BASIC or a UTILITY program can be loaded directly from the directory:

  - cursor up/down : select program
  - cursor right+shift : load indicated program
  - cursor left : exit from directory
  - space : next page (if present)

  PRG-files will run automatically when loaded from the directory.
  For USR-files, the UTILITY mode is entered ('Z3' is not performed automatically).

- FVER : FVER"FILENAME".
  #F2D8 Verifies the recording of the indicated file by means of a checksum test. The filename must be identical to the directory entry.
  This command is a replacement for the DAI 'CHECK' command.
  REL-files can not be verified, due to the different format.

Because all files are opened and closed automatically, no additional 'OPEN' and 'CLOSE' commands are required.

If due to an error a file remains open (the red LED on the on the disk drive remains on), it can always be closed by CALLM #F2ED.

The VC1541 options for relative files and for direct access commands are not supported by the DAI-DOS 1541. They can be used only in special designed user programs.

5.4. Other commands:

- BOOT : BOOT"OBJECTname,BASICname".
#F95B Loads an object code program, followed by a BASIC program. The heap pointer is updated accordingly. The program starts running automatically. This command is a replacement for the DBL bootstrap loader.
The command is useable for: FDD, DCR and CAS.

- UBL : UBL"FILENAME".
#F4B3 As 'BOOT',but for files consisting of a BASIC and a object code part, stored with the same filename with the following suffixes:

  - FILENAME/O object code part
  - FILENAME/B BASIC part

- CAS X : Selects an audio-cassette recorder as back-up memory. If no number is given, recorder 1 is selected.

  - CAS 0 : No recorder selected.
  - CAS 1/2 : Recorder 1 or 2 selected.
  - CAS 3 : Both recorders selected.

  DCR and FDD commands will cause a DEVICE MISMATCH error.

- HSL X : Reads data from EPROM 0-3 in the High Speed
#F29F data Loader. If the data loader is not connected, or the selected EPROM is not present a NOT AVAILABLE message is printed.

  The DCE-bus addresses for the high speed data loader are #1x, in which 'x' is 0,4,8 or C (EPROM 0-3).

- USR : Calls a USER defined object code subroutine
#DA52/2 via the I/O table address #02DA.
As default, a RET-command is written on this address. It can be changed into: 'C3-lo-hi', in which 'hi' and 'lo' are the high and the low bytes of the start address of the required subroutine.

  Note: Each FDDx/DCRx/CASx select command will return this pointer to the default state !

- LNON : Switches on the AUTO-LINENUMBER function. If
#F3E4 in the direct mode the first input is a space then automatically a linenumber is generated.

  The first linenumber is 10, the step size is 10 too.

  Each time a linenumber is generated, it is incremented with the step size.
  The default value of 10 will be restored by CALLM #F3F3.

The values of linenumber and step size can be changed by:

- A%=<linenr> : CALLM #F55F,A%
- A%=<stepsize>: CALLM #F56F,A%

- LNOFF : Switches off the AUTO-LINENUMBER function.
#F3EC

- <TAB> : The <TAB>-key can be used in direct mode to clear the screen.

- /C : The default cursor - flashing underline - is selected.
#F423

- /D : Output to the screen only. Short command for POKE #131,1. The baudrate for the RS232 input is set to the value in BDIN (default is 9600 baud - user changeable). The baudrate pointer for the RS232 output (BDOUT) remains unchanged.
#F3D6

Note: In BASIC V1.1, a 'break' sets the output switch always back to screen + RS232.

- /E : Input from the edit buffer. Short command for POKE #135,2.
#F41B

- /F : Sets Implicit Floating Point. Short command for IMP FPT.
#F438

- /H : 'HELP'. Displays several important I/O directions:
#F57F

F670 >
- EXT: selected back-up memory:
  CAS - (EXTDEV=1) FDD - (EXTDEV=3)
  DCR - (EXTDEV=2) HSL - (EXTDEV=4)
- IN : input source:
  KEYB - keyboard (INSW=0/2 - even)
  DINC - user defined (INSW=1/3 - odd)
  default RS232
- OUT: output direction:
  SCRN - screen only (OTSW=1)
  RS232 - screen + RS232 (OTSW=0)
  EDIT - edit buffer (OTSW=2)
  DOUTC - user defined or (OTSW>=3)
  parallel printer (OTSW=#80)
- IMP: number type:
  INT - integer
  FPT - floating point
  STR - string

-F6C0
After a DEVICE MISMATCH error, the HELP command will indicate the device incorrectly addressed.

- /I : Sets Implicit Integer. Short command for IMP INT.
#F43F

- /M : Short command for MODE 0.
#F401

- /P : Output to parallel printer. Short command for POKE #131,#80.
#F36A

Every time an output is required, the character is sent to the screen and to the parallel printer.

If no printer is connected, or the printer is is not switched on, the output will be to the screen only.

For the parallel printer, a 'carriage return' character is not followed by a 'line feed'. Adapt the dip-switch setting in the printer accordingly.

Connections of the parallel printer:

DCE	signal	26 pins conn.	Centronics
PC1 :	$\overline{\text{Strobe}}$	1	1
PA0 :	)	3	2
PA1 :	)	5	3
PA2 :	)	7	4
PA3 :	) Databus	9	5
PA4 :	)	11	6
PA5 :	)	13	7
PA6 :	)	15	8
PA7 :	)	17	9
PC4 :	Busy	21	11
PC5 :	$\overline{\text{Error}}$	25	32

All even pins on the 26 pins connector are connected to ground.

The DCE-bus address for the parallel printer interface is #40.

Because the parallel printer interface needs a different setting of the 8255 mode, and due to the fact that not two ROM-banks can be addressed simultanuously, it is not possible to use the parallel printer in combination with DCR, FDD and HSL commands.
Therefore, if the parallel printer was selected, the output switch is set to the 'screen only' mode if any DCR - FDD - HSL command is given!

Also direct commands are not printed due to the way the DAI handles the DOUTC routine.

- /S : Output to screen and RS232 output. Short command for POKE #131,0. Each character sent to the screen is also sent to the RS232 outlet.

#F451

The baudrate for the RS232 output is set to the contents of the pointer BDOUT (default 9600 baud, but user changeable).
The baudrate pointer for the RS232 input (BDIN) remains unchanged.

After a reset, the DAI always defaults to this situation.

- /T : Sets default text colours. The COLORT registers are loaded with 8-0-0-0.
#F430

- /0 : Defaults various DAI pointers. It is a combination of: select mode 0, clear screen, set default text colours, set default cursor and select IMP INT.
#F408

--- : READ LINENUMBER: It is possible to read DATA statements on a given program line via:

```
10   A%=<linenumber>: CALLM #F33A,A%
20   READ ....
```

--- : The command table can be extended in the following way:
Make your own command table, with the format:

- <length>	e.g:	4
- <command string>		TEST
- address of routine		00-03 (#300)
- 3x NOP		end of table

Store the startaddress of the command table in EXTTAB (#FA1A/1B - lo/hi byte).
Note: This address is cleared by reset or by CALLM #F3F3 !!

6. ERROR MESSAGES:

For both the DCR and the FDD, the standard DAI loading error messages are used.

The FDD reports several error messages itself. They can be found in the VC1541 manual.

In addition, the following DOS error messages may occur:

F6D1 >

- DCR DOOR OPEN : The cassette door of the DCR is opened during writing.

- END OF TAPE : The end of the DCR tape is reached during writing.

- FILE TYPE MISMATCH: The filename sent to the disk drive is correct, but the file is not of the expected type.

- FDD NOT AVAILABLE : The selected disk drive is not connected, or not switched on.

- OUT OF TIME ERROR : The drive doesnot respond to handshake signals.

- HSL OR EPROM NOT AVAILABLE : An attempt is made to read from a non existant EPROM in the data loader, or the data loader is not connected.

- DEVICE MISMATCH : A command is given to a memory device which is not selected.

-F719

After one of these DOS errors, the output switch #131 is set to 1 (output to screen only).
After a DAI error, this switch is always set to 0 (output to screen and RS232).

For the DCR LOAD(A), SAVE(A) and VERify routines and the FDD FVERify routine, an 'on-error goto' possibility exists:

CALLM #F003,ERROR%	Set pointer to the variable where to store the errorcode.

The variable ERROR must be an integer variable.
In the program, a check must be incorporated by means of: ON ERROR% GOTO xx, yy, zz.

CALLM #F006	Disables the on error feature

For additional explanation, refer to the MDCR manual.

7. USE OF DOS COMMANDS FROM BASIC:

All DOS commands are valid in direct mode only. To enable the use of these commands from BASIC, a special construction has to be used. It is already described in extension in the MDCR manual.

The commands must be placed in a 'REM'-statement, which follows a CALLM #F000 statement.
E.g. if one of these commands must be used from a BASIC program, it is programmed as follows:

```
10  CALLM #F000: REM FDD0:DIR
20  CALLM #F000: REM SKIP3:LOOK
30  CALLM #F000: REM CAS2
```

Also the following format is possible:

```
40  A$="FILENAME1": CALLM #F000: REM SCRATCH A$
50  B$="FILENAME3=FILENAME2": CALLM #F000: REM RENAME B$
```

8. USEFUL HINTS:

If for whatever reason access to the additional commands is no longer possible, then use: CALLM #F91A.
This will force the bankswitch back to the default value and enables access to the input routines.

By CALLM #F3F3, the DOS is initialised again to the default state.

If due to whatever reason the red LED on the disk drive remains flashing, it indicates some error which is not read automatically. The VC1541 error channel can be read by means of CALLM #F2E8.

More than one DOS command can be placed in one program line. However, commands which move the cursor to the next line (like LOOK, VER, DIR) cannot be followed by another command. DOS commands cannot follow a DAI command on the same line.

Object code programs covering the address range #0297-#02EB can be transferred from audio-cassette to FDD or DCR in one of the following ways:

Example: Program is on #29B-#CFF.

```
*CASx: UT
>Z3
>R1000
>B
*FDDx: UT  (or DCRx)
>M2C5 2EB 12C5
>M129B 1CFF 29B
>W29B CFF <filename>
```

```
*CASx: UT
>Z3
>S296 02-00
>R
>GF3F3
>B
*FDDx: UT  (or DCRx)
>W29B CFF <filename>
```

The method described in the right column replaces the one described in the MDCR manual.

Some programs need a slight modification to enable operation of the DAI-DOS 1541. The following corrections are known:

FWP	#0605	11-86-F7	into	11-8E-F1
	#0637	CD-A7-F0	into	CD-D7-F0
SPL	#B2B3	CD-CD-F0	into	CD-FD-F0
DNA/DCR	#10E7	86-F7	into	8E-F1

9. UTILITY ENTRY-POINTS:

The following entry-points can be used from object code programs:

- FDD entrypoints:

```
F2A9 - Select FDD0
F2B3 - Format   (*)
F2B8 - Scratch  (*)
F2C0 - Rename   (*)
F2C5 - Copy     (*)
F2CA - Initialise
F2CF - Validate
F2D4 - Read directory
F2DE - Verify   (*)
F2E8 - Read error channel
F2ED - Close file
```

- Other entrypoints:

```
F000 - Execute REM statement
F003 - Initialise on error
F006 - Disable on error
F00F - Select CAS1
F18E - Start command table
F29F - Select dataloader
F45E - Boot     (*)
```

- DCR entrypoints:

```
F009 - Open DCR
F00C - Select DCR0
F012 - Rewind
F015 - Skip
F018 - Verify
F01B - Last
F01E - Look
```

Entry-points, marked with (*) are not so very useful, because always a string must follow the command.

- Used RAM pointers:

DAI RAM:

```
011F      - DCRSL   - Selected DCR.
0120/21   - ERRCO   - Pointer  error code  storage address.
                      If 00, then  normal error  reporting.
                      If <> 00, the error code is stored at
                      ((ERRCO)).
01B0      - FILES   - Number after DCR/FDD/HSL/CAS command.
0297/98   - TABPTR  - Pointer to command table.
0299/9A   - RSP     - Rescued stack pointer.
```

DOS RAM:

```
FA00      - USRFLG  - Flag for DCR USER bootstrap:
                         Set = 01, cleared = 00.
FA01      - NEWBNK  - F-bank to be selected.
FA02      - MEMBNK  - Selected F-bank.
FA03/04   - MEMHL   - Temp. storage HL.
FA05/06   - MEMPSW  - Temp. storage PSW.
FA07/08   - USERST  - Start address DCR USER routine.
FA09      - EXTNR   - Serial number ext. memory device.
FA0A      - EXTMEM  - Flag for ext. memory device:
                         01 = CAS        03 = FDD
                         02 = DCR        04 = HSL
FA0B/0C   - UTST    - Start address Utility program when
                         loaded from directory.
FA0D/0E   - MEMCUR  - Temp. storage cursor information.
FA0F      - RSTFLG  - Flag for reset routine:
                         Set = 00, cleared <> 00.
FA10      - FDDSL   - Selected FDD (primary addresses 08-0B).
FA11      - BUSBUF  - Character buffer for FDD operation.
FA12      - SEKAD   - Secondary address FDD. For DAI files
                         always channel 2 is used. Channel 15
                         is the command/error channel.
FA13      - FILTYP  - File type:
                         50 if PRG, 53 if SEQ, 55 if USR.
FA14      - RWFLG   - Read/write flag:
                         52 if READ, 57 if WRITE.
FA15      - STAFLG  - Status flag FDD:
                         b7=1: FDD not present.
                         b6=1: EOF (end of file).
                         b1=1: Time out (read).
                         b0=1: Time out (write).
FA16      - BUSFLG  - Flag for FDD bus operation:
                         Set: b7=1.
FA17      - ERRFLG  - Error flag FDD: Set is <> 0.
FA18      - EOIFLG  - End-or-identify flag FDD:
                         Set: b7=1.
FA19      -         - Must always be 0 !
FA1A/1B   - EXTTAB  - Pointer to external command table.
                         Default value: 0000.
FA1C      - SCRNBD  - Baudrate for screen output. Default
                         value: C0 (9600 baud).
FA1D      - SERBD   - Baudrate for serial printer. Default
                         value: C0 (9600 baud).
FA1E-4F   - FILBUF  - I/O buffer for FDD operations.
FA50-6F   - UTNAM   - Name UTILITY program during 'boot'.
FA70-8F   - BASNAM  - Name BASIC program during 'boot'.
```

```
FA90      - LNAUTO - Flag auto-linenumber:
                       Active = FF,   disabled = 00.
FA91/92   - LNNUM  - Current linenumber for auto-function:
                       Default start value: 0A.
FA93/94   - LNSTEP - Step size for auto-linenumber:
                       Default value: 0A.
FA95-FF   -        - Free for own use.
F725-3F   -        -  "    "   "   "
FFFE      - BNKSL  - Bankswitch F-bank 0/1/2/3.
```

10. WARRANTY:

The DAI-DOS 1541 is sold subject to the understanding that if any defects in manufacture or material shall appear in it within 3 months of date of sale, it will be arranged for such defects to be rectified without charge.
Tempering with the DAI-DOS 1541 or unauthorized repair will render the warranty nil and void.
No responsibility is taken by the manufacturers for damage caused by the DAI-DOS 1541 or by its use.

11. LITERATURE:

1. User's manual VC1541 floppy disk drive - Commodore.

2. Das grosse Floppy Buch - English/Szczepanowski - Data Becker/Duesseldorf.
   This book is a 'must' for every VC1541 user !!

3. 64 Intern - Angerhausen/Brueckmann/English/Gerits - Data Becker/Duesseldorf.

4. Floppy Disk fuer den MC65 - Schoen - articles in 'MC', April + May, 1984.

5. Manual PET/CBM - Commodore.

6. Manual Memocom MDCR-D - Wegman - Memocom/Rotterdam.

7. DAI firmware manual - Boerrigter - Micro Service/Sweikhuizen.

8. DAI pC user's manual - INDATA/Brussels.

9. MCS-80/85 family user's manual - INTEL.

INSTALLATION OF THE DAI-DOS 1541 SYSTEM

Preparation:

Disconnect all cables from the DAI. Remove the four black plugs with a flat screwdriver and remove the top cover carefully. For Rev.7 and higher: Remove the ground wire from cover to main board.

Locate the 50-pins X-bus connector on the right, just below the transformer cage. MDCR owners find already an EPROM card mounted on this connector. This card must be removed.

If the main board is fixed to the bottom part of the case, remove all bolts. Lift the main board from the bottom part of the case and turn it over on a clean flat surface or a piece of plastic foam with the bottom side up and the keyboard facing you.

Installation of a reset wire to the X-bus:

Locate the soldering points of the X-bus connector. The bottom row of pins has from right to left 11 soldering points connected together. Above this connector (towards the transformer), are two additional rows of each 20 pins. These are the connections of the 8255 chip.

Starting at the right side of the X-bus connector, locate the 9th pin on the top row. This soldering point (pin 18) is free. Mark this point (not with pencil). The reset wire must be connected to this soldering point.

The reset signal is taken from pin 35 of the 8255 chip. This pin can be found as follows:
Locate the right side of the X-bus connector. Locate the two rows of 20 pins above this connector. Take the top row, and locate the 6th pin from the right. This is the reset pin.

Solder an insulated wire between pin 35 of the 8255 and pin 18 of the X-bus. Be careful not to make a short-circuit with any other pin. Use a soldering iron with a small tip and of low power (no soldering gun !!!).

Installation EPROM card:

Turn the main board over again and place it in the bottom part of the case. Eventually, mount the bolts again.

Place the EPROM card containing the DOS 1541 on the X-bus connector, with the IC's towards the keyboard.

Re-assembling:

Replace the top cover (Rev.7: don't forget the wire between cover and ground !) and insert the 4 black plugs. Connect the power cable and the TV or the monitor.

Installation interface:

Connect the interface with a flat cable to the DCE-bus. Take care of the correct mounting !!! Connect the floppy disk drive to the interface with its own cable and switch on the power of the disk drive.

Test:

Switch on the DAI. The screen will display 'DAI PERSONAL COMPUTER', and about a second later 'DAI COMPUTER DOS 1541'. Press the reset switch and check if this is repeated. By pressing any key, the BASIC monitor is entered.

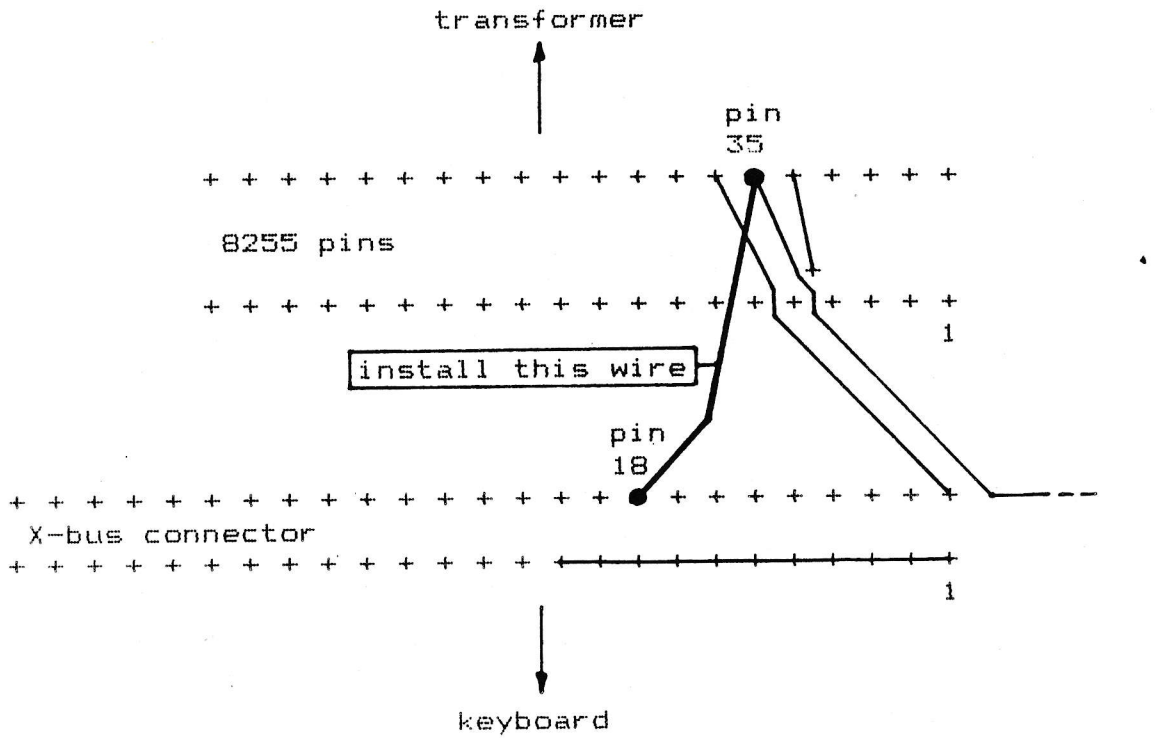
Insert the diskette which is delivered together with the disk drive. Type 'DIR'. Now on the screen the contents of this diskette will be displayed.
(These programs cannot be runned on the DAI, because they are stored in CBM64 format).

Now insert a new diskette, and start FORMATting it as described in the manual. Now writing and reading can be performed.

Note:

The X-bus card and the interface are tested before shipping. No responsibility is taken for any faulty connection and/or installation made by the user, nor for any damage as a result of it.

BOTTOM (SOLDERING) SIDE OF THE MAIN BOARD PRINT:



DAI-DOS 1541

ADDITIONAL INFORMATION

1. Corrections manual:

1.1. Page 8: Parallel printer:

The connection of the $\overline{\text{ERROR}}$ signal of the parallel printer to the 26 pins connector is not pin 23, but pin 25.

1.2. Page 9: Address Extension table:

The address of the pointer to the extension table is not #FA19/1A, but #FA1A/1B.

2. Updates required in other programs:

2.1. FWP V1.4:

The addresses given on page 11 of the DAI-DOS 1541 manual are valid for FWP V1.4. Other - pre-production - versions of FWP have these instructions on other (unknown) addresses.

To operate a parallel printer via FWP V1.4, the following update is required:

03B6: CD-94-DD into: CD-EF-F4

2.2. SPL V1.1:

In order to operate a parallel printer via SPL V1.1, the following corrections must be made:

A88C: EF-03-C3-94-DD into: 00-00-C3-EF-F4

2.3. Loading from the directory:

Some programs loaded directly from the directory (or via USER from the MDCR) may have an incorrect handling of the GETC routine. This can be avoided when the BASIC program begins with:

10 POKE #118,#FF.

08.07.1985 - B.J.Boerrigter