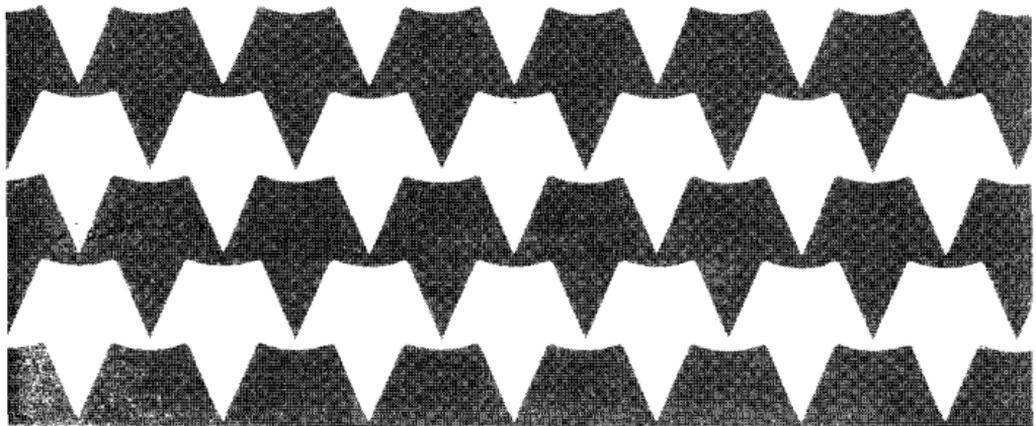


Cat. No. 25-4103

Tandy 3000

MS-DOS

Quick
Reference
Guide



TANDY®

Tandy 3000
MS-DOS Quick Reference Guide
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LOADING MS-DOS

1. Turn on your computer.
2. To boot from floppy diskette, insert the MS-DOS system diskette into Drive A. Turn the drive lever clockwise to close the disk drive.

To boot from an initialized Hard Disk Drive C, do not insert a diskette in Drive A. MS-DOS automatically boots from Drive C.

3. When the date prompt appears, either verify the displayed date by pressing , or change the date by entering it in the *mm/dd/yyyy* or *mm-dd-yyyy* format. (For example, type 9/7/86 or 09/07/1986 and press for September 9, 1986.)
4. When the time prompt appears, either verify the displayed time by pressing , or change the time by entering it in the *hh:mm:ss.cc*, 24-hour format. (For example, type 14:30 and press for 2:30 p.m.)

If you are booting from floppy diskette, MS-DOS displays the system prompt:

A>

If you are booting from hard disk, MS-DOS displays the system prompt:

C>

Your computer is now ready for use.

MS-DOS COMMANDS

Notation:

BOLD UPPERCASE indicates the command's name. (Type the name exactly as it appears.)
lowercase italics represent variable words, letters, characters, or values.

UPPERCASE indicates information you type exactly as it appears.

[] (square brackets) indicate optional parameters.

. . . (ellipsis) indicates that you can repeat a parameter.

| (vertical bar) indicates an either/or situation.

APPEND [;] [*pathname* [;*pathname*]. . .]

(External) Sets a data file path, which tells MS-DOS the drives and directories in which to search for data files. The command APPEND ; sets the NUL data path, which searches only the current directory. APPEND with no parameters displays the current data path.

```
APPEND B:\SALES\REGION1;A:
```

ASSIGN [*drive1* = *drive2*. . .]

(External) Reassigns the drive letter *drive1* to *drive2*. Use this command to run application programs from drives other than those for which they were written.

drive1 is the drive to which reads and writes are currently sent.

drive2 is the drive to which you want reads and writes sent.

```
ASSIGN A=C B=C
```

ATTRIB [+R|-R] [+A|-A] *pathname*

(External) Sets the read-only and archive attributes of the file specified by *pathname*. Displays the attributes if you omit the optional parameters.

- +R sets the read-only mode.
- R disables the read-only mode.
- +A sets the archive attribute.
- A clears the archive attribute.

```
ATTRIB +R B:\MYDIR\myfile.txt
ATTRIB *.*
```

BACKUP [*source pathname*] [*target drive*] [/S] [/M] [/A] [/P] [/D:*mm/dd/yy*] [/T:*hh:mm*] [/L:*filename*]

(External) Backs up one or more files from one disk to another formatted disk. BACKUP can copy between disks of different media, for example from hard disk drives to floppy disk drives. It can also copy from one floppy diskette to another, even if the diskettes have a different number of sides and sectors.

source pathname specifies the files to back up. It can be an entire drive, a directory name, or a filename.

target drive is the drive to receive the files. If the target is a floppy disk drive, BACKUP places the files in the ROOT directory. If it is a hard disk drive, BACKUP places the files in a subdirectory called BACKUP.

/S copies all files in the specified directory and in the directories below it.

/M copies only those files modified since the last backup.

/A adds the files to be backed up to those already on the target disk, instead of erasing the existing files.

/P packs as many files as possible on each disk, creating a subdirectory if necessary.

/D:*mm/dd/yy* copies only those files created on or after the specified date.

/T:*hh:mm* backs up only files modified at or after the specified time.

/L:filename creates a backup log entry in the specified file or — if you omit *filename* — in a file called BACKUP.LOG in the ROOT directory of the files being backed up.

```
BACKUP C:STORE\sales.dat A:/A
```

BREAK [ON | OFF]

(Internal) Turns the CTRL C check on or off. Displays the current setting of CTRL C if you omit ON and OFF.

```
BREAK OFF
```

CHDIR [*pathname*]

CD [*pathname*]

(Internal) Changes the current or home directory of the specified drive to the directory specified by *pathname*. Displays the pathname of your current directory if you omit *pathname*.

```
CHDIR \BIN\USER          CHDIR B:\USER
```

CHKDSK [*pathname*] [/F] [/V]

(External) Checks the MS-DOS disk in the current or specified drive for errors. You can redirect CHKDSK's output to a file by adding *>pathname2* to the end of the command.

pathname specifies either an entire drive or an individual file to be checked. If you specify a file, CHKDSK displays information about both the drive and the file.

/F fixes errors (if possible) and updates the disk. (Do not redirect CHKDSK's output if you use **/F**.)

/V displays messages and error details while CHKDSK is running.

```
CHKDSK A:\SALES\joe-sales  
      >B:\SALES\joe-errs
```

CLS

(Internal) Clears the screen.

CLS

COMMAND [*pathname*] [*device*] [/E:*size*] [/P]
[/*C string*]

(External) Starts a new command processor.

pathname specifies the drive and directories in which the command processor is to look for the COMMAND.COM file if it needs to reload the transient portion of the file into memory.

device specifies a different device for input and output. It can be:

AUX to specify an auxiliary device,
 usually RS232 Serial
 Port 1.
COM1 to specify RS232 Serial Port 1.
COM2 to specify RS232 Serial Port 2.
CON to specify the console (keyboard
 input, screen output).

/E:*size* specifies the environment size, in bytes. *size* is in the range 128 to 32768. The default is 128.

/P tells the command processor not to exit to a higher level.

/C *string* tells the command processor first to execute the command or commands specified by *string*, then to return. The /C switch is valid only as the last parameter.

COMMAND /C CHKDSK B:

COPY *source pathname* [*target pathname*] [/A] [/B]
[/*V*]

(Internal) Copies one or more files to the same directory as the *source* (giving them different filenames) or to another directory (giving them the same or different filenames). To leave the filename the same, omit the filename from the *target pathname*. If you omit /A and /B, COPY uses /B.

- /A source file: treats the file as an ASCII file (text or data file).
target file: adds an EOF character to the end of the file.
- /B source file: treats the file as a binary file (program file).
target file: does not add an EOF character to the end of the file.
- /V verifies the sectors written to disk.

```
COPY memos.txt /A B:corr.txt
```

COPY *target pathname + source pathname1*
[+ *source pathname2...*] [/A] [/B] [/V]

(Internal) Adds one or more files to the end of another existing file. If you omit /A and /B, COPY uses /A.

- /A source file: treats the file as an ASCII file (text or data file).
target file: adds an EOF character to the end of the file.
- /B source file: treats the file as a binary file (program file).
target file: does not add an EOF character to the end of the file.
- /V verifies the sectors written to disk.

```
COPY B:read.dat + write.dat +  
print.dat
```

COPY *source pathname1* [+ *source pathname2...*]
target pathname [/A] [/B] [/V]

(Internal) Combines any number of source files into a new target file. If you omit /A and /B, COPY uses /A.

- /A source file: treats the file as an ASCII file (text or data file).
target file: adds an EOF character to the end of the file.
- /B source file: treats the file as a binary file (program file).
target file: does not add an EOF character to the end of the file.
- /V verifies the sectors written to disk.

```
COPY B:memos.txt + B:letters.txt  
B:corr.txt
```

CTTY *device*

(Internal) Changes the I/O device to the device specified.

device can be:

AUX to specify RS232 Serial Port 1
COM1 to specify RS232 Serial Port 1
COM2 to specify RS232 Serial Port 2
CON to specify the console

```
CTTY AUX
```

DATE [*mm/dd/yyyy*]

(Internal) Enters or changes the system date. Displays the current date if you omit the date parameter.

mm/dd/yyyy specifies the month, day, and year to set as the date.

```
DATE 11/15/1986  
DATE 11/15/86
```

DEL

See ERASE.

DIR [*pathname*] [/P] [/W]

(Internal) Displays information about: (1) files in the current directory, or (2) files in the directory specified by *pathname*, or (3) the one file specified by *pathname*.

/P selects the "page" mode.

/W selects a wide display.

```
DIR B: DIR \USER\*.bat /P
```

DISKCOMP [*drive1*] [*drive2*] [/1] [/8]

(External) Compares the contents of two diskettes.

drive1 is the drive containing the source diskette.
drive2 is the drive containing the target diskette.

- /1 compares only the first side of two double-sided diskettes. If you omit /1, DISKCOMP compares both sides.
- /8 compares only the first 8 sectors of each track. If you omit /8, DISKCOMP automatically compares either 9 or 15 sectors, according to the format of the two diskettes.

DISKCOMP A: B:

DISKCOPY [*source drive*] [*target drive*]

(External) Copies the contents of the diskette in the *source drive* to the diskette in the *target drive*. The target diskette must be of the same density as the source diskette. If the target is unformatted or is formatted differently than the source diskette, DISKCOPY formats it with the same format as the source diskette.

DISKCOPY DISKCOPY A: B:

DISKTYPE [*drive*]

(External) Displays information about the size and capacity of the indicated disk. For a floppy diskette, DISKTYPE displays the number of sides, tracks, and sectors per track. For a hard disk, it displays the number of heads, cylinders, and sectors per track. Omit *drive* to display information about the current drive.

DISKTYPE C:

ECHO [ON | OFF | *message*]

(Internal) Turns the batch ECHO feature on or off, displays the specified message, or—if you omit all parameters—displays the current setting of ECHO.

ECHO OFF ECHO Insert disk.

ERASE [*pathname*]

DEL [*pathname*]

(Internal) Erases (deletes) one or more files from the current directory or the directory specified by *pathname*. Omitting the filename erases all files in the specified directory.

```
ERASE \BIN\USER\JD\jd.txt
DEL B:\SALES\joe
```

EXE2BIN *source pathname* [*target pathname*]

(External) Converts an executable (.exe) file to a binary (.bin) file format.

source pathname is the executable file.

target pathname is a new binary-format file to receive the converted file. If you omit *target pathname*, EXE2BIN assigns the new file the *source pathname* with a .bin extension.

```
EXE2BIN testfile.exe B:
```

EXIT

(Internal) Exits the command processor and returns to a previous level, if one exists.

```
EXIT
```

FC [/A] [/B] [/C] [/L] [/LB*number*] [/N] [/T] [/W]
[/*number*] *pathname1 pathname2*

(External) Compares the contents of two files, *pathname1* and *pathname2*, and sends the output to the screen. You can redirect FC's output to a file by adding *>target pathname* to the end of the command.

- /A abbreviates the output of an ASCII comparison, displaying only the lines that begin and end each set of differences.
- /B forces a binary comparison of the files. This switch is the default for .exe, .com, .sys, .obj, .lib, and .bin files.
- /C causes the matching process to ignore the case of letters, interpreting them as all uppercase.

- /L compares the files in ASCII mode. This is the default when you compare files that do not have the .exe, .com, .sys, .obj, .lib, or .bin extension.
- /L*number* sets the internal line buffer to the specified *number* of lines. The default is 100.
- /N displays the line numbers in an ASCII comparison.
- /T does not expand tabs to spaces. The default is to treat tabs as spaces to eight column positions.
- /W compresses tabs and spaces; use in source file comparisons only.
- /*number* specifies the number of lines that must match for the file to be considered as matching after FC finds a difference. *number* can be 1-9 (default = 2); use in source file comparisons only.

```
FC /B test1.src test2.src  
>test3.src
```

FDISK

(External) Creates, changes, deletes, or displays hard disk partitions.

```
FDISK
```

FIND [V] [C] [N] "string" [pathname...]

(External) Searches for the specified *string* of text in one or more files, specified by *pathname(s)*. Searches for *string* among the lines from the current console input device if you omit *pathname*.

- /V displays all lines that do not contain *string*.
- /C displays only the number of lines in each file that contain *string*.
- /N displays each line's relative line number in that file; do not use with /C.

```
FIND /N "mispell" *.txt
```

FMAT2000 *drive* [/S] [/V]

(External) Formats a standard (5 1/4-inch, double-sided) diskette for 720K bytes of data storage in the specified high-capacity floppy disk *drive*. If you use `FORMAT /4` instead of `FMAT2000`, the diskette is formatted for 360K bytes. On Tandy 3000 series computers, you can use a 720K-formatted diskette only in high-capacity drives. You can also use the diskette in a Tandy 2000, as long as you don't want to boot from the diskette.

/V prompts for a volume label, which can have a maximum of 11 characters.

/S copies the system files to the disk.

FOR %c IN (*set*) DO *command*

(regular command)

FOR %%c IN (*set*) DO *command*

(batch file command)

(Internal) Executes the specified *command* for each item in the *set*.

set is a list of items, separated by spaces, or one wildcard item.

c can be any 1-character variable except 0-9. If you include %c or %%c at the end of the command, MS-DOS sequentially substitutes each member of *set* in the command. If you do not include it, MS-DOS executes the command the appropriate number of times, but does not substitute the members of *set*.

```
FOR %f IN (taxfile autofile  
homefile) DO DEL %f
```

FORMAT [*drive*] [/1] [/4] [/8] [/B] [/V] [/S]

(External) Prepares the blank disk (either a floppy diskette or a hard disk) in the specified *drive* for use. When formatting a hard disk drive, you must first define the disk's tracks and sectors (using either the `HSECT` command or the `FORMAT HARD DISK` utility on your Utilities diskette), and then create an MS-DOS partition (using `FDISK`).

drive is the drive containing the disk to be formatted.

/1 formats a diskette for single-sided use. (The default is double-sided.)

/4 formats a double-sided standard diskette in a high-capacity drive.

/8 formats a diskette for 8 sectors per track. (The default is 9 sectors per track.)

/B formats a diskette for 8 sectors per track, and allocates space for the hidden system files.

This switch lets you later place any version of MS-DOS on the diskette, using the SYS command. (Do not use with /S or /V.)

/V prompts for a volume label, which can have a maximum of 11 characters.

/S copies the system files to the disk.

```
FORMAT          FORMAT B: /S/V
```

GOTO *label*

(Internal) Used in a batch file to transfer execution to the line following the line that contains *:label*.

label is a character string.

```
:G  
REM looping...  
GOTO G
```

GRAFTABL

(External) Loads character definitions for ASCII characters 128-255 into memory. If you have a color or graphics adapter, this table lets you display foreign language characters when the computer is in graphics mode.

```
GRAFTABL
```

GRAPHICS *p*type [/R] [/B] [/CR] [/LF]

(External) Enables you to reproduce a graphics screen in color on the Tandy CGP-220 Printer or in shades of gray on other printers. To reproduce the screen, press SHIFT PrtSc.

*p*type is one of these printer types:

- CGP220 specifies the Tandy CGP-220.
- DMP110 specifies the Tandy DMP-110.
- PCMODE specifies a Tandy printer with a DIP switch set for the PC mode. Also for other PC-compatible printers.
- TMODE specifies a Tandy printer with the DIP switch set for the Tandy mode.

STANDARD specifies any other Tandy printer.

- /R prints black as black and white as white. The default is black as white and white as black. (Do not use with a CGP-220 printer.)
- /B prints the background color as black. (Use only with a CGP-220.)
- /CR causes the end-of-line character to be a carriage return.
- /LF causes the end-of-line character to be a line feed only.

GRAPHICS STANDARD /R

SHIFT PrtSc

HSECT

(External) Formats track and sector information on a hard disk. HSECT prompts for the drive you want to format.

HSECT

IF [NOT] *condition command*

(Internal) Allows conditional execution of commands in batch file processing.

NOT executes the *command* only when the *condition* is false.

conditions are:

- ERRORLEVEL *number* executes the command only if the program previously executed by COMMAND.COM has an exit code of *number* or higher.

string1 = = *string2* executes the command only if *string1* and *string2* are identical after parameter substitution.

EXIST *filename* executes the command only if *filename* exists.

command is the command to execute only if *condition* is met.

```
IF EXIST memo.txt GOTO G
```

JOIN [*drive*] [*pathname*] [/D]

(External) Links the ROOT directory of *drive* to the *pathname* specified. Displays the current JOIN status if you omit all parameters.

drive is the drive you are joining.

pathname is the empty path, including the drive, to which *drive* is joined.

/D turns off a previous JOIN command.

```
JOIN D: C:\MEMOS
```

KEYBFR [/US]
KEYBGR [/US]
KEYBIT [/US]
KEYBSP [/US]
KEYBUK [/US]

(External) Replaces the current keyboard BIOS with an international keyboard program from France (FR), Germany (GR), Italy (IT), Spain (SP), or the United Kingdom (UK). To return to the US keyboard, press **CTRL** **ALT** **F1**.

/US converts character scan codes to US scan codes.

```
KEYBGR
```

```
KEYBUK /US
```

LABEL [*drive*][*label*]

(External) Creates, changes, or deletes a volume label. Omit the label to delete the existing label.

drive is the disk that has the label you want to modify. Be sure to include the colon in the *drive* specification, and do not put a space between the *drive* and the *label*. If you omit *drive*, LABEL uses the current drive.

label is the new volume label.

```
LABEL A:MYDISK
```

LF

(External) Suppresses the line feed after a carriage return in printer output.

```
LF
```

MKDIR *pathname*

MD *pathname*

(Internal) Creates a directory.

pathname tells MS-DOS the directory under which to create the new directory, and specifies the name to give the new directory.

```
MKDIR \USER           MD B:\LETTERS
```

MLFORMAT *drive*

(External) Formats a hard disk DOS2 partition created previously using MLPART. To access the partition, you need to install the MLPART.SYS device driver.

drive is the logical drive letter that refers to the DOS2 partition to format. This letter is automatically assigned and displayed when the MLPART.SYS device driver is installed during the boot procedure.

```
MLFORMAT E:
```

MLPART

(External) Creates, changes, deletes, or displays non-bootable DOS2 hard disk partitions. This command is for use with hard disks that have a capacity of more than 32 megabytes.

MLPART

MODE [*characters*] [*shift* [T]]

(External) Shifts the video screen left or right.

characters is the line width, in characters (40 or 80).

shift can be R (right) or L (left).

T produces a video test screen for evaluating the shift.

MODE 80 L T

MODE *linefeed*

(External) Sets the printer linefeed off or on. *linefeed* can be LFOFF or LFON. Before using this command, you must have loaded the LPDRVR.SYS device driver or executed the LF command.

MODE LFOFF

MODE *printer*

(External) Sets the printer type. *printer* can be DMP (dot matrix), DWP (daisy wheel), or NL (reset).

MODE DMP

MODE *trans*

(External) Sets MS-DOS to properly translate video characters for Tandy printers during screen print procedures. To use this command, you must first load the LPDRV.R.SYS device driver.

trans can be:

- DMPXLAT - Tandy DMP printers
- DWPKLAT - Tandy DWPII printers
- DWP10 - Tandy DWPIIB, DWP410, or DWP510 printers, 10 pitch
- DWP12 - Tandy DWPIIB, DWP410, or DWP510 printers, 12 pitch
- NOXLAT - no translation

MODE DMPXLAT

MODE [*video*] [*characters*]

(External) Sets the video mode and the characters-per-line.

video can be BW (black-and-white), CO (color), or MONO (changes to the monochrome adapter with 80 columns and 25 rows).

characters is the line width, in characters (40 or 80).

MODE MONO

MODE COM*number*: [*baud*] [*parity*][*databits*] [*stopbits*] [P]

(External) Sets RS232 communication parameters.

number is the RS232 serial port, either 1 or 2.

baud can be either 110, 150, 300, 600, 1200, 2400, 4800, 9600, or 1200/75. Setting the rate to 1200/75 initializes the international parallel/serial adapter.

parity can be N (no parity), O (odd parity), or E (even parity). The default is E.

databits can be either 7 or 8. The default is 7.

stopbits can be either 1 or 2. The default is 1.

P tells the printer driver to continuously try to output on timeout errors.

MODE COM1:1200 N 8 1 P

MODE [FAST | SLOW]

(External) Sets the CPU speed to 4 megahertz (SLOW) or 8 megahertz (FAST).

MODE SLOW

MODE LPT *number*:[*characters*][/*type*] [,P]

(External) Sets the characters-per-line for the specified printer.

number is the parallel port number (1, 2, or 3).
characters is the line width, in characters: 80 or 132.

type is the printer type: DMP for dot matrix printers or PC for PC-compatible printers. Precede the *type* with a slash. The default is DMP.

P instructs the driver to continuously retry to output on timeout errors.

MODE LPT1: 80/DMP P

MODE LPT*number*:*timeout*

(External) Sets the timeout delay for the printer (LPT) specified by *number*.

number is the parallel port number (1, 2, or 3).
timeout is the timeout delay: LONG (2 minutes) or SHORT (45 seconds).

MODE LPT1:LONG

MODE LPT*number*: = COM*serial*

(External) Redirects printer output from the specified parallel printer port to the specified RS232 channel. (Initialize the RS232 port with the MODE COM command before redirecting printer output.)

number is the parallel port number (1, 2, or 3).
serial is the RS232 port number (1 or 2).

MODE LPT1: = COM1

MORE

(External) Reads from standard input and displays one screen of information at a time, with the message -MORE- at the bottom. Press the space bar to see the next screen.

```
TYPE B:acctspay.dat | MORE
```

PATCH *pathname*,*address*,*data1*,*data2*

(External) Lets you make minor modifications to a disk file.

pathname is the file you want to change.

address is the starting byte of the data to be changed (in hexadecimal).

data1 is a list of the hexadecimal data values to be changed.

data2 is a list of the hexadecimal data values to replace *data1*.

```
PATCH B:progx.com,16A3,  
000A106C2F,010B116D30
```

PATH [;] [*pathname*][;*pathname*. . .]

(Internal) Sets a command path, which tells MS-DOS the directories or drives in which to search for external commands. The command PATH ; sets the path to No PATH, which causes MS-DOS to search only the current directory. Displays the current path setting if you omit *pathname*.

pathname specifies a directory or an entire drive.

```
PATH \BIN\USER\JOE;  
B:\BIN\USER\JOE
```

PAUSE [*message*]

(Internal) Suspends execution of the batch file.

message is a message to be displayed when execution pauses.

```
PAUSE Insert diskette.
```

PRINT [*pathname* [/D:*device*] [/B:*size*] [/Q:*value*] [/C] [/P]...] [/T]

(External) Puts files in the print queue for background printing.

pathname specifies the file(s) to print.

/D: *device* specifies the print device. LPT1 is the default.

/B: *size* sets the size (in bytes) of the internal buffer.

/Q: *value* selects the number of files (4-32) allowed in the print queue. The default is 10.

/C deletes (cancels) from the print queue the file that immediately precedes and all files that follow /C in the command line.

/P adds to the print queue (prints) the file that immediately precedes and all files that follow /P in the command line.

/T deletes (terminates) all files in the print queue. (Do not use /T with a *pathname*.)

```
PRINT /T
PRINT temp1.tst /C temp2.tst
      /P temp3.tst
```

PROMPT [*text*]

(Internal) Changes the system prompt to *text*. Sets the prompt to the current drive specification if you omit *text*.

text is a string of characters to set as the prompt. Special characters, which must be preceded by a dollar sign, include the following:

Specify this:	To set this:
\$	\$
t	the current time
d	the current date
p	the current directory
v	the version number
n	the default drive
g	>
l	<
b	
-	a return-line feed
s	a space
e	an escape code

```
PROMPT $p$g
```

RECOVER [*drive* | *pathname*]

(External) Recovers a file that contains bad sectors, specified by *pathname*, or recovers all files on a disk that contains bad sectors in its directory, specified by *drive*.

```
RECOVER oldbook.txt      RECOVER B:
```

REM [*remark*]

(Internal) Includes the specified *remark* in a batch file.

```
REM This file is called  
billfile.bat.
```

REN *pathname filename*

(Internal) Changes the name of the file specified by *pathname* to *filename*.

```
REN B:\SALES\REGION1\joe-sales  
ann-sales
```

REPLACE *source pathname* [*target pathname*] [/A] [/D] [/P] [/R] [/S] [/W]

(External) Updates previous versions of files.

source pathname is the drive or directory that contains the replacement files. It can also be a single file or a wildcard filename.

target pathname is the drive or directory that contains the files you want to replace.

/A adds files that exist in the source directory, but not in the *target* directory, to the target directory. Do not use /A with /D.

/D replaces files in the target directory with source files only if the source files are newer than the corresponding target files. Do not use /D with /A.

/P prompts before replacing a target file or adding a source file.

/R replaces read-only files as well as unprotected files.

/S searches all subdirectories of the target directory while replacing matching files. Do not use /S with /A.

/W causes REPLACE to wait for you to press any key before it replaces files.

```
REPLACE A:\phones.c11 C:\ /S
```

RESTORE *source drive target pathname*
[*pathname*] [/S] [/P] [/B:*date*] [/A:*date*] [/E:*time*]
[/L:*time*] [/M] [/N]

(External) Restores one or more files previously backed up using the BACKUP command. You can restore files from one type of disk to another, such as from a floppy diskette to a hard disk or from one type of floppy diskette to another.

source drive is the drive that contains the backed up files.

target pathname specifies the directory to which you want to restore the files.

pathname specifies the disk directories and/or file you want to restore.

/S restores the specified directory and its subdirectories.

/P prompts for permission before restoring hidden or read-only files and before restoring any files changed since the last backup.

/B: *date* restores only those files last modified on or before *date* (*mm/dd/yy*).

/A: *date* restores only those files last modified on or after *date* (*mm/dd/yy*).

/E: *time* restores only those files last modified at or before *time* (*hh:mm*).

/L: *time* restores only those files last modified at or after *time* (*hh:mm*).

/M restores only those files modified since the last backup.

/N restores only those files that no longer exist on the target drive.

```
RESTORE A: C:\ *.dat /N
```

RMDIR *pathname*

RD *pathname*

(Internal) Removes the subdirectory specified by *pathname* from the specified disk.

```
RMDIR \BIN\USER\JIM
```

SELECT *country* [*keyboard*[/US]]

(External) Changes the current country code, or creates an internationally configured backup MS-DOS diskette.

country is the country code that selects the date and time format, the currency symbol, and the decimal separator.

keyboard is a two-character identifier of the keyboard layout. If you specify a *keyboard* code, SELECT creates a new MS-DOS diskette.

/US specifies US scan codes, which are needed for application programs that are configured for a US keyboard. Use this switch **only** with the *keyboard* parameter.

The *keyboard* and *country* codes can be:

Country	Country Code	Keyboard Code
Australia	061	US
Belgium	032	FR
Canadian-French	002	US
Denmark	045	*
Finland	358	*
France	033	FR
Germany	049	GR
Italy	039	IT
Israel	972	US
Middle East	785	US
Netherlands	031	UK
Norway	047	*
Portugal	351	SP
Spain	034	SP
Sweden	046	*
Switzerland	041	*
United Kingdom	044	UK
United States	001	US

An asterisk (*) denotes keyboard programs provided separately.

SELECT 044 UK

SELECT 49 GR /US

SET [[*string1*]]=[*string2*]]

(Internal) Sets *string1* equal to *string2* in the environment for use in later programs and batch files. Displays the SET values if you omit all parameters. Including the *string1* parameter without the *string2* parameter removes the *string1* name from the environment.

string1 is any character string you want to replace.

string2 is any replacement character string.

```
SET drive=B:  
SET pathname=C:\SALES
```

SETUP

(External) Initializes the system configuration. Answer the prompts for date, time, floppy disk drive type, hard disk drive type, system base memory, expansion memory, and primary video adapter type.

```
SETUP
```

SHARE [/F:*space*] [/L:*locks*]

(External) Installs file sharing and locking for active networking.

/F: *space* allocates file space (in bytes) to record filesharing information.

/L: *locks* allocates the number of locks allowed.

```
SHARE
```

SHIFT

(Internal) Lets you use more than the usual 10 replaceable parameters (%0-%9). Each parameter definition shifts up one place.

```
SHIFT
```

SHIPTRAK

(External) Parks the heads of a hard disk in preparation for moving the drive unit.

```
SHIPTRAK
```

SORT [/R] [/+ *n*] [<*input pathname*]
[>*output pathname*]

(External) Reads input from the keyboard or a file specified by *input pathname*, sorts the data, and writes it to the screen or to the file specified by *output pathname*.

/R reverses the sort (sorts from Z to A).

/+ *n* begins the sort at Column *n*. The default is Column 1.

```
SORT /R <unsort.txt >sort.txt
```

SPOOLER [/printer] [/P] [/S] [/C] [/G]

(External) Lets you send commands to and get the status of the print spooler, assuming that you loaded the SPOOLER.SYS device driver in your CONFIG.SYS file.

printer specifies the parallel printer port for the printer you want to use. You must precede the number with a slash.

/P temporarily turns off (pauses) the spooler function. Using /P again turns on the spooler again.

/S stops printing the data in the buffer so that you can send data directly to the printer without waiting until the buffer is empty.

/C clears the spooler. Any data remaining in the buffer is not printed.

/G displays (gets) the status of the spooler (installed, pause on/off, buffering on/off, size of buffer, percentage of buffer full).

```
SPOOLER /2 /P
```

SUBST [*drive*] [*pathname*] [/D]

(External) Substitutes a virtual drive name for a pathname.

drive is the virtual drive name. The highest available drive letter is the one specified in CONFIG.SYS with the LASTDRIVE command. The default is Drive E.

pathname is the pathname you want to replace.
/D deletes the association between a virtual drive and pathname.

```
SUBST D: B:\SALES\REGION1
```

SYS *drive*

(External) Transfers the MS-DOS system files from the current disk to the disk in the specified *drive*.

```
SYS B:
```

TIME [*hh:mm:ss.cc*]

(Internal) Displays or sets the time.

hh:mm:ss.cc specifies the time in hours, minutes, seconds, and hundredths of a second. Omit the time to display the time.

```
TIME 14:30
```

TREE [*drive*] [/F]

(External) Displays all directories and subdirectories on the specified *drive*.

/F causes TREE to also display all files on the drive.

```
TREE B: /F
```

TYPE *pathname*

(Internal) Displays the contents of the specified file.

```
TYPE B:testfile
```

VER

(Internal) Displays the version number of your MS-DOS operating system.

VER

VERIFY [ON | OFF]

(Internal) Enables or disables disk write verify. Displays the current VERIFY setting if you omit ON and OFF.

VERIFY ON

VOL [drive]

(Internal) Displays the volume label of the disk in the current or specified *drive*.

VOL B: VOL

XCOPY *source pathname* [*target pathname*] [/A]
[D:mm/dd/yy] [/E] [/M] [/P] [/S] [/V] [/W]

(External) Copies files and directories, including subdirectories. You can use XCOPY to back up between different drive or media types.

source pathname specifies, the drive, directories, and/or files you want to copy.

target pathname specifies the drive, directories, and/or file you want to copy to. If you omit this parameter, XCOPY copies to the current directory. The default filename is *.*.

/A copies only those files that have the archive bit set, without modifying the archive bit.

/D:mm/dd/yy copies only files modified on or after the specified date.

/M copies only those files that have the archive bit set, and modifies the source files by turning off the archive bit.

/P prompts you with Y/N? before copying each source file.

/S copies directories and subdirectories, unless they are empty. If you omit /S, XCOPY works within a single directory.

/V verifies each target file as it is written to be sure it is identical to the source file.

/W causes XCOPY to wait before it copies the files. At the message, press any key to continue, or press **CTRL** **C** to cancel XCOPY.

```
XCOPY A: B: /S /E
```

CONTROL CHARACTER KEYS

Keys	Function
BACKSPACE or CTRL H	Backspace. Moves the cursor left one position, and erases the character in that position.
CTRL C	Cancel. Stops the execution of a command.
CTRL N	Echo. Toggles the echoing of output to the printer.
ESC	Escape. Voids the current line. The symbol \ appears on the screen.
ENTER	Execute command/carriage return. Processes the current command line, and moves to the next line.
CTRL J	Line feed. Ends the current line, and moves to the next line without processing the command line.
CTRL PrtSc or CTRL P	Printer. Sends all output to the printer and to the screen. Press again to stop.
SHIFT PrtSc	Print screen. Prints everything currently displayed on the screen.
CTRL ALT DELETE	Reset. Resets your computer.
CTRL NUMLOCK or CTRL S	Stop scroll. Stops the screen from scrolling. Press any key to continue.

MS-DOS EDITING KEYS

Keys	Function
ENTER	Enter line. Makes the new line the new template, and executes the command line.
INS	Insert character. Goes into the insert mode. (F3 ends the insert mode.)
DEL	Delete character. Erases the next character from the template.
+ or F1	Copy character. Copies the next character from the template, and displays it on the command line.
F2 <i>char</i>	Copy to <i>character</i> . Copies all characters up to the specified <i>character</i> , and displays them on the command line.
F3	Template. Redisplays the entire template.
F4 <i>char</i>	Delete to <i>character</i> . Deletes all characters up to the specified <i>character</i> from the template.
F5	Replace template. Makes the line you type the new template, but does not execute the command line.
F6 or CTRL Z	End-of-file. Puts an end-of-file character in the template.

EDLIN COMMANDS

Append Lines

[*number*]A

Adds the specified *number* of lines from disk to memory. If you omit *number*, EDLIN appends lines until available memory is 75% full.

100A

Copy Lines

[*line1*][*line2*],*line3* [,*count*]C

Copies all lines in the range *line1* to *line2*, and places them immediately ahead of *line3* for the number of times specified by *count*.

3,9,12C ,20,35C

Delete Lines

[*line1*][*line2*]D

Deletes all lines in the range *line1* to *line2*. Deletes the current line if you omit *line1* and *line2*.

5,25D 4D ,4D

Edit Line

[*line*]

Displays the specified *line* for editing.

4

End Edit

E

Ends the EDLIN program and saves the edited file.

E

Insert

[*line*]I

Inserts lines of text immediately before the specified *line*, or enters lines into a new file. Omit the *line* or include a period to use the current line. Include a number sign (#) to append the lines to the end of the file.

3I .I #I

List

[*line1*][,*line2*]L

Displays all lines in the range *line1* to *line2*.

2,5L 26L ,10L

Move Lines

[*line1*][,*line2*],*line3*M

Moves all lines in the range *line1* to *line2* to the line immediately preceding *line3*.

23,30,100M

Page

[*line1*][,*line2*]P

Pages through a file 23 lines at a time, or lists the specified block of lines.

10,15P 20P

Quit

Q

Quits the editing session without saving the file.

Q

Replace String

[*line1*][,*line2*][?]R[*string1*] [CTRL] [Z] [*string2*]

Replaces all occurrences of *string1* with *string2* in the lines between *line1* and *line2*. The question mark (?) prompts before each modification.

2,7?Rand [CTRL] [Z] or

Search Text

[*line1*][,*line2*][?]S[*string*]

Searches all lines in the range *line1* to *line2* for each occurrence of the text *string*. The question mark (?) prompts at each occurrence of *string*.

1,10Sand

Transfer Lines

[*line*]T[*drive:*]*filename*

Inserts the contents of the file specified by *filename* immediately ahead of the specified *line* or the current line of the file being edited.

10TB:myfile

Write Lines

`[number]W`

Writes a specified *number* of edited lines from memory to disk, beginning with Line 1. If you omit *number*, EDLIN writes until 25% of memory is freed.

`100W`

You can also use the special MS-DOS editing keys (ENTER, ESC, INS, DEL, →, CTRL Z, and F1-F6) to modify an EDLIN file. Refer to “MS-DOS Editing Keys.”

DEBUG COMMAND PARAMETERS

Parameter	Description
<i>address</i>	An alphabetic segment register and offset. CS:0100 A segment address and offset. 04BA:0100 An offset only. (The default segment is CS for G, L, T, U, and W commands, DS for all other commands.)
<i>byte</i>	A 1- or 2-character hexadecimal value placed in or read from an address or register.
<i>drive</i>	A 1-digit value for the drive to be used for accessing or writing data, as follows: 0 = Drive A 2 = Drive C 1 = Drive B 3 = Drive D
<i>filespec</i>	A drive specification, filename, and extension. (The complete filespec is optional; however, you must specify at least the drive or filename.)
<i>list</i>	A series of strings or byte values.
<i>portaddress</i>	A hexadecimal value (four characters maximum) that specifies a port number.
<i>range</i>	An area of memory specified by: <i>address1 address2</i> (<i>address2</i> must be an offset) <i>address L value</i> <i>value</i> = number of bytes to operate on (default = 80) Do not use the <i>address L value</i> format if another hexadecimal value follows the <i>range</i> parameter.

DEBUG Command Parameters

<i>registername</i>	One of the following registers: AX CS BP DI BX DS IP SI CX ES SP PC DX SS F
<i>sector</i>	A hexadecimal value (1-3 characters) indicating the relative sector number on the disk.
<i>sectorcount</i>	A hexadecimal value (1-3 characters) indicating the number of disk sectors to write or load.
<i>string</i>	Any number of characters, enclosed in quotation marks (" or ').
<i>value</i>	A hexadecimal value (four characters maximum).

DEBUG COMMANDS

Assemble

A[*address*]

Assembles statements directly into memory, starting at *address*.

```
A CS:0100
```

Compare

C *range address*

Compares the portion of memory specified by *range* to a portion of the same size beginning at the specified *address* and displays all differences.

```
C 100,1FF 300 C 100L100 300
```

Dump

D [*address*]

D [*range*]

Displays the contents of the specified memory *address* or *range*.

```
D CS:100 109
```

Enter

E *address [list]*

Enters byte values into memory at the specified *address*; replaces the contents of memory, beginning at *address*, with the *list* of values.

```
E DS:100 45 A1 "abc" 0F  
E CS:1004
```

Fill

F range list

Fills the memory locations in the specified *range* with the values in the *list*.

```
F 04BA:100 L 100 42 45 52 54 41
```

Go

G[= address1[address2...]]

Executes the program currently in memory, beginning at *address1* and stopping at each breakpoint (specified by *address2...*).

```
G CS:7550
```

Hex

H value1 value2

Displays the results of *value1* + *value2* and *value1* - *value2* (hexadecimal arithmetic).

```
H 19F 10A
```

Input

I portaddress

Inputs and displays one item from the specified port.

```
I 2F8
```

Load

L [address[drive sector sectorcount]]

Loads a file from the *drive* (0-3) into memory beginning at the specified *address*. Loads absolute sectors from the *drive*, beginning at *sector* and continuing until the number of sectors specified by *sectorcount* are loaded.

```
L 04BA:100 2 0F 6D
```

Move

M range address

Moves the block of memory specified by *range* to the location beginning at *address*.

```
M CS:100 110 CS:500
```

Name

N filespec1 [filespec2...]

Assigns program names for later LOAD or WRITE commands and assigns filespec parameters for the file being debugged.

```
N file1.exe  
N file2.dat file3.dat
```

Output

O portaddress byte

Sends the *byte* to the specified *portaddress*.

```
O 2F8 4F
```

Proceed

P [= address] [value]

Beginning at *address*, Proceed executes the number of instructions specified by *value*. The purpose of this is to execute all the instructions associated with CALL, INT, or LOOP—or to repeat string instructions—and then stop execution at the next instruction. After it executes each instruction, Proceed displays the register contents, flags, and next instruction. If you omit all parameters, Proceed causes the execution of the instruction pointed to by CS:IP.

```
P P=011A 10
```

Quit

Q

Quits the DEBUG program without saving the file.

Q

Register

R [*registername*]

Displays the contents of all registers and flags, or displays the one register or the flags specified by *registername*, and lets you change the settings.

R RAX RF

Search

S *range list*

Searches the location in the *range* for the *list* of bytes.

S CS:100 110 41

Trace

T [= *address*][*value*]

Executes one or more instructions (specified by *value*), beginning at *address*. The Trace command displays the register contents, flags, and the next instruction after each instruction executes.

T T=011A 10

Unassemble

U [*address*]

U [*range*]

Disassembles instructions beginning at *address* (or for the specified *range*), and displays their addresses, their hexadecimal values, and the source statements that correspond to them.

U 04BA:100 L 10

Write

W [*address* [*drive sector sectorcount*]]

Writes the data being debugged to a disk file on the specified *drive* (0-3), beginning at the specified *address*. Writes absolute sectors to the specified *drive*, beginning at *sector*, and continuing until the number of sectors specified by *sectorcount* are written.

W CS:100 1 37 2B

RADIO SHACK, A Division of Tandy Corporation

**U.S.A.: FORT WORTH, TEXAS 76102
CANADA: BARRIE, ONTARIO L4M 4W5**

AUSTRALIA	BELGIUM	FRANCE	U. K.
91 Kurrajong Avenue Mount Druitt, N.S.W. 2770	Rue des Pieds d'Alouette, 39 5140 Naninne (Namur)	BP 147-95022 Cergy Pontoise Cedex	Bilston Road Wednesbury West Midlands WS10 7JN