

Tandy 1000 MS-DOS/BASIC

Version 3.20 Upgrade

Cat. No. 25-1170

This package includes the diskettes you need to upgrade MS-DOS and BASIC to Version 3.20 from the previous 2.11.xx versions.

Note: Your computer must have a minimum memory size of 256 kilobytes for MS-DOS Version 3.20 to operate.

The 3.20 version of MS-DOS/BASIC includes many enhancements to previous versions, such as:

- Support for 3½-inch floppy disk drives on the Tandy 1000 EX.
- Complete support for hard disk drives, including these additional features:

Support for hard disk drives larger than 32 megabytes (MLFORMAT and MLPART commands and MLPART.SYS device driver).

Packed data format and backup log capability (BACKUP command).

File restore by date or time and restore for only those files that do not exist on the target diskette (RESTORE command).

- File sharing and locking for active networking (SHARE command).
- Disk request routing to a reassigned drive (ASSIGN command).
- The ability to establish a data file path (APPEND command).
- The ability to display and change disk file attributes (ATTRIB command).
- Enhanced file comparison capabilities (FC command).

- The ability to update hard disk files with new versions from another disk and to add only those files that do not exist on the target diskette (REPLACE command).
- Support for international languages (KEYTXX and SELECT commands).
- The ability to substitute a virtual drive name for a pathname (SUBST command).
- Basic support for networks and improved compatibility with other interpreters.

Refer to the MS-DOS and BASIC reference manuals (Cat. No. 25-1508) for more detailed information on MS-DOS/BASIC Version 3.20 features and commands.

Upgrading an Application Diskette

To upgrade a bootable application diskette, use the SYS command to transfer the hidden system files from the new Version 3.20 MS-DOS/BASIC system diskette to the application diskette. Then, use the COPY command to transfer the COMMAND.COM file. Finally, use the COPY command to transfer the appropriate MS-DOS utility files and BASIC files from the MS-DOS/BASIC and Supplemental Programs diskettes to the application diskette.

For instance, to prepare an application diskette for booting under MS-DOS 3.2 using two drives, place the application diskette in Drive B. With your MS-DOS 3.20 diskette in Drive A, type:

sys b: [ENTER]

When SYS is complete, type:

copy command.com b: [ENTER]

Also use COPY to transfer any other files you need with your application.

Be sure to use a backup of the new Version 3.20 MS-DOS/BASIC diskette to boot your system if your application diskettes are not bootable.

Upgrading a Hard Disk Without Reformatting

If your hard disk already contains files, you can upgrade to the 3.20 version of MS-DOS and BASIC without affecting any of the application files on the hard disk. To do this, use the SYS command to transfer the hidden system files from the new Version 3.20 MS-DOS diskette to the hard disk. Then, use the COPY command to transfer the appropriate MS-DOS utility files and BASIC files from the MS-DOS/BASIC and Supplemental Programs diskette to the hard disk.

For instance, if the hard disk you want to upgrade is Drive C, place the 3.20 MS-DOS diskette in Drive A and boot your system. When the MS-DOS A> prompt appears, type:

sys c: [ENTER]

When the A> prompt reappears, type:

copy *.* c: [ENTER]

MS-DOS displays the names of all the files on your system diskette as it copies them to your hard disk.

When the A> prompt reappears, you can copy the files from the MS-DOS 3.20 Supplemental Programs diskette. To do so, insert it in Drive A in place of the MS-DOS diskette. Press **[F3][ENTER]**. MS-DOS displays the filenames on the screen as it copies them.

Reformatting With Version 3.20 MS-DOS

To improve the performance of your hard disk, reformat it before installing MS-DOS Version 3.20. Chapter 4 of the *MS-DOS Handbook* tells you how to format a hard disk. Appendix D of the *MS-DOS Reference Manual* supplies additional technical information on hard disk setup.

Formatting destroys all files existing on a disk. Make certain you back up any files you want to keep before formatting. (See the section, "If Your Hard Disk Contains Files.")

Note: If you have already used HSECT to hard format your disk drive and FDISK to partition your disk drive, you do not need to perform these procedures again. Instead, use only the FORMAT command to erase all old files and prepare the disk for the new system.

If Your Hard Disk is Newly Formatted

After preparing your hard disk, use the SYS command to transfer the hidden system files from the new VERSION 3.20 MS-DOS/BASIC diskette to the hard disk. Then, use the COPY command to transfer the appropriate MS-DOS utility and BASIC files from your MS-DOS/BASIC and Supplemental Programs diskettes. Finally, follow the instructions in your application manuals to transfer the application files.

For instance, if the hard disk you want to upgrade is Drive C, place the 3.20 MS-DOS diskette in Drive A and boot your system. When the MS-DOS A> prompt appears, type:

```
sys c: [ENTER]
```

When the A> prompt reappears, type:

```
copy *.* c: [ENTER]
```

MS-DOS displays the filenames on the screen as it copies them to your hard disk.

When the **A>** prompt reappears, you can copy the files from the MS-DOS 3.20 Supplemental Programs diskette. To do so, insert it in Drive A in place of the MS-DOS diskette. Press **[F3][ENTER]**. MS-DOS displays the filenames on the screen as it copies them.

If Your Disk Contains Files

If your hard disk contains files, use the **BACKUP** command to save them on floppy diskettes. Then, reformat your hard disk and transfer the new Version 3.20 MS-DOS and BASIC files to it. Finally, use the **RESTORE** command to transfer the backed up application files to the hard disk.

Note: Make certain that you use the **/s** switch with the **FORMAT** command and the **/n** switch with the **RESTORE** command. The format **/s** command ensures that your system files are located properly on the hard disk. The restore **/n** command makes certain that the old 2.11.xx system and utility files do not overwrite the new MS-DOS 3.2 files during restore.

The following steps suggest how to prepare hard Disk Drive C for the new system.

1. Prepare (format) enough floppy diskettes to hold all the files that currently exist on your hard disk. **It is important that you reformat any previously formatted diskettes you plan to use for backup.** If a flaw has occurred on a diskette since it was last formatted, **BACKUP** does not detect it. Reformatting **does** detect any flaws and deallocates them from the useable diskette space.
2. Place a formatted diskette in Drive A, and at the system prompt, type:

backup c: a: /s [ENTER]

3. Insert formatted diskettes in Drive A as requested until BACKUP is complete. Make certain you label the diskettes you use for backup, and number them in the order in which you insert them. You need to know the order of the diskettes so that you can later restore their files to your hard disk.
4. Store the backup diskettes in a safe place. Prepare your hard disk for the new system by placing the MS-DOS Version 3.20 diskette in Drive A and pressing **[CTRL][ALT][DEL]** simultaneously. This resets your computer and boots MS-DOS 3.20.
5. Answer the date and time prompts. Then, when the system prompt **A>** appears, format your hard disk by typing:

format c: /s [ENTER]

6. When the format is complete, copy the MS-DOS utility files to the hard disk. To do so, leave the system diskette in Drive A and type:

copy *.* c: [ENTER]

The system displays the filenames as it copies them.

7. When COPY finishes, replace the MS-DOS diskette with the Supplemental Programs diskette. Press **[F3][ENTER]**. MS-DOS displays the supplemental programs as it copies them to Drive C.
8. Reboot your system from Drive C. Do so by removing the diskette from Drive A and pressing **[CTRL][ALT][DEL]** simultaneously. Answer any date and time prompts .
9. At the **C>** prompt, restore your backed up files to hard disk by placing the first diskette in Drive A and typing:

restore a: c:\ /s /n [ENTER]

Place the backup diskettes in Drive A as prompted.

Note: When you copy Version 3.20 of the MS-DOS operating system over the previous version, some of the old files might remain on the disk. After you complete the upgrade to

Version 3.20, check to see whether the following files are on the disk:

MODE.EXE	XCOPY.COM
DISKCOMP.EXE	ONEDISK.EXE
BACKUP.EXE	RESTORE.EXE
README.DOC	LPINST.EXE
HFORMAT.COM	

Delete any of these files that remain on the newly upgraded disk.

Mode Fast and Mode Slow Commands

The MS-DOS Version 3.20 MODE FAST and MODE SLOW commands are designed to choose the processing speed of the Tandy 1000 EX or Tandy 1000 SX computer. These commands are not appropriate for use with a computer that does not have the 7.16/4.77 MHz dual-speed processor.

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