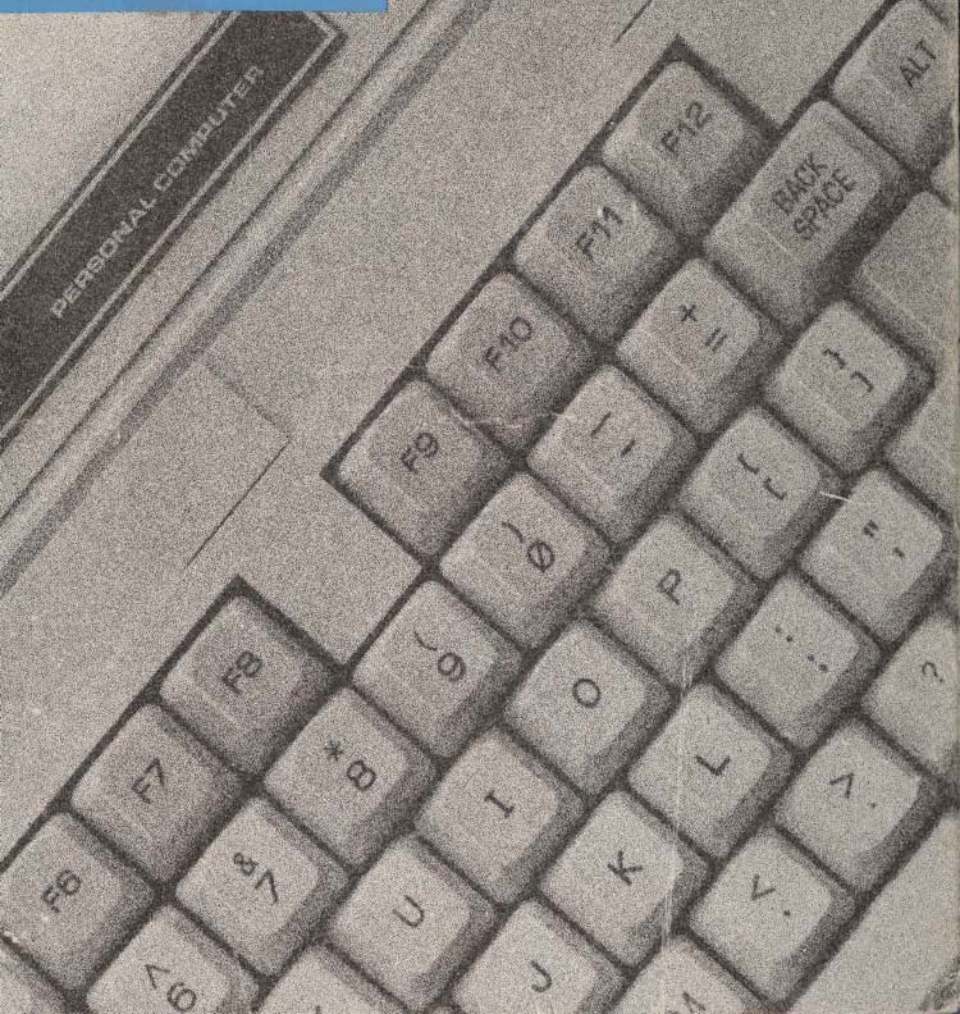




A Practical Guide
to the

TANDY® 1000 SX



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The FCC Wants You to Know

This equipment generates and uses radio frequency energy. If not installed and used properly, that is in strict accordance with the manufacturer's instructions, it may cause interference to radio and television reception.

It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

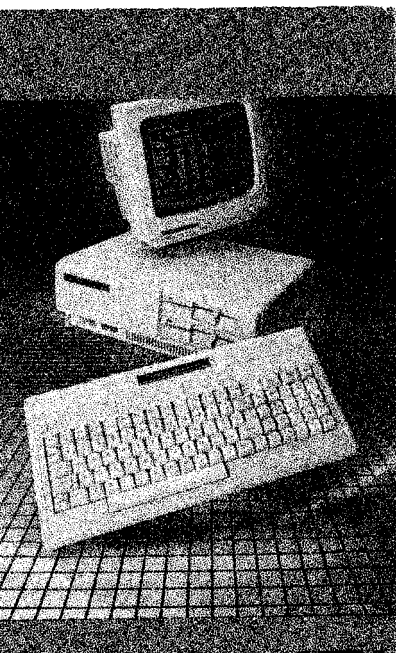
If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient the receiving antenna
- Relocate the computer with respect to the receiver
- Move the computer away from the receiver
- Plug the computer into a different outlet so that computer and receiver are on different branch circuits.

Warning

This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC Rules. Only peripherals (computer input/output devices, terminals, printers, etc.) certified to comply with the Class B limits may be attached to this computer. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

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A Practical Guide
to the

TANDY® 1000 SX



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ABOUT THIS BOOK

Your owner's manual, *A Practical Guide to the Tandy 1000 SX*, includes:

- *Introduction to the Tandy 1000 SX*

A general guide to your new computer, tells you everything you need to know to set up, operate, maintain, and expand your Tandy 1000 SX. Several illustrations are provided to help you visualize the procedures and configurations discussed.

Introduction to the Tandy 1000 SX includes all the computer hardware information you need to run application programs. If you require technical and/or more specific information about your hardware, consult the *Tandy 1000 SX Technical Reference Manual*, sold separately.

- *Introduction to MS-DOS*

A guide to the MS-DOS operating system for your computer, including instructions for starting and exiting the operating system as well as for preparing, using, and copying floppy diskettes. Information on some of the most commonly used MS-DOS commands is also included.

Introduction to MS-DOS is an overview of your operating system. It includes sufficient operating system information for running your application programs on a daily basis. If you require more specific information, refer to the *MS-DOS Reference Manual* (Cat. No. 25-1508).

- *DeskMate*

A complete reference and sample session for the DeskMate application programs that are included with your computer.

The *Tandy 1000 SX Quick Reference* provides you with condensed reference information for MS-DOS and DeskMate. A short listing of the major BASIC commands is also provided for your convenience. Refer to the *BASIC Reference Manual* (Cat. No. 25-1508) for more information on the BASIC programming language.

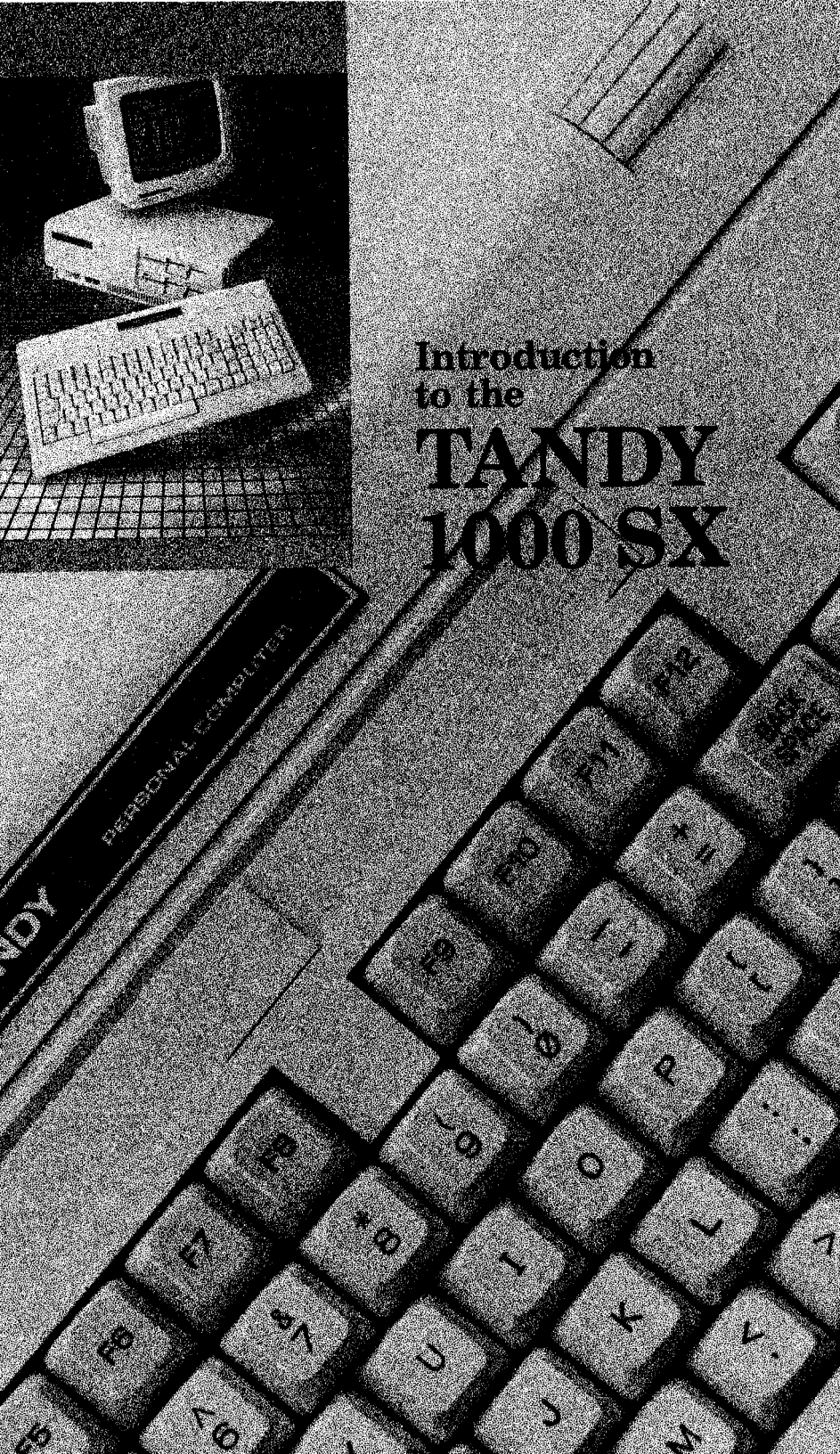
By combining the manuals in this manner, we provide you with all the information you need to get your computer "up and running" without having to wade through volumes of documentation.

PACKAGE CONTENTS

Your Tandy 1000 SX package includes:

- The main unit, the keyboard, and the main power cord.
- Four diskettes, including:
 - The MS-DOS operating system and BASIC language diskette.
 - The MS-DOS Supplemental Programs diskette.
 - Two DeskMate application diskettes.
- This manual, *A Practical Guide to the Tandy 1000 SX*.
- The *Tandy 1000 SX Quick Reference*.





Introduction
to the
TANDY
1000 SX

TANDY
PERSONAL COMPUTERS

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INTRODUCTION

Your Tandy® 1000 Personal Computer SX is a powerful, versatile, simple-to-use computer. You can connect a monitor to your computer and immediately put it to work for you. With the Tandy 1000 SX, there is no need to purchase an operating system, additional adapters, BASIC, or even productivity software! Everything you need to begin is included with your computer.

Features

- IBM® PC software compatibility.
- A dual-speed 7.16/4.77 megahertz, 16-bit Intel 8088 CPU chip. The dual-speed lets you choose the processing speed appropriate for your software application.
- 384 kilobytes (384K) of RAM memory, expandable to 640K on the main logic board. (A kilobyte equals 1,024 bytes or characters of information.)
- Two built-in standard 5 1/4-inch slim-line floppy disk drives that can read and write to standard, double-sided diskettes.
- Five IBM PC/XT™-compatible, 10-inch expansion slots for upgrade option boards.
- Built-in support for a printer, a monochrome or color graphics monitor, joysticks, and a light pen. You do not need extra adapter cards for these features.
- A hardware reset switch.
- A three-voice sound circuit and built-in speaker for sophisticated sound and music generation.
- A full-feature, 90-key keyboard, including a numeric keypad.
- MS-DOS® Version 3.2 operating system and Version 3.20 BASIC language diskette.
- DeskMate® application software with built-in word processing, spreadsheet analysis, electronic filing, telecommunications, electronic mail, and a calendar.

Monitors

You can connect your Tandy 1000 SX to any of the following monitors:

- A VM-4 Monochrome Monitor (Cat. No. 25-1020).
- A CM-5 RGBI Color Monitor (Cat. No. 25-1023).
- A CM-10 High-Resolution RGBI Color Monitor (Cat. No. 25-1022).

You can also connect your Tandy 1000 SX to a color television set for a 40 column x 25 row display. To connect your computer to a TV, you need:

- An RF Modulator (Cat. No. 15-1273).
- Two video/audio cables with RCA-type phono plugs at each end.
- A 75-ohm coaxial cable with a male "F" connector at each end.

If your TV is not cable-ready (with a 75-ohm connector), you also need a 300-ohm to 75-ohm transformer (Cat. No. 15-1140).

Note: Software packages that use 80-column displays require either a monochrome or color monitor.

Options

- A parallel printer. (A standard, 34-pin card edge to 36-pin plug parallel printer cable, such as Cat. No. 26-1401 or 26-1368, is required.)
- Joysticks (Cat. No. 26-3012).
- An external hard disk drive (such as Cat. No. 25-1025). You must install a Hard Disk Controller Board to connect an external hard disk drive to your computer.
- The Hard Disk Controller Board (Cat. No. 25-1007). This board lets you connect external hard disk drives for increased storage capacity.
- The 20 Megabyte Hard Disk Card (Cat. No. 25-1029), for increased storage capacity.

- A DIGI-Mouse® (Cat. No. 26-1197) to use with computer-aided design (CAD) programs and other software that supports mouse operations (Microsoft® Windows, GEM, and so forth). You must install a DIGI-Mouse Controller/Calendar Board to connect a DIGI-Mouse to your computer.
- The DIGI-Mouse Controller/Calendar Board (Cat. No. 25-1010). This board lets you connect a DIGI-Mouse for use with mouse software.
- A 256K Parity Memory Kit (Cat. No. 25-3062) you can install on the main logic board. The memory chips expand your computer's memory to 640K.
- An 8087 Math Co-Processor Chip Kit (Cat. No. 26-5143) you can install on the main logic board. The co-processor speeds internal numeric calculations and reduces computing time when used with compatible software.
- A Tandy internal modem board, either the 300-Baud PC Modem (Cat. No. 25-1003) or the 1200-Baud PC Modem (Cat. No. 25-1013), for communications.
- A PLUS RS-232C Option Board (Cat. No. 25-1014) to connect an external modem for communications or to connect a serial printer/plotter. (You must attach the RS-232C board to a PLUS Upgrade Adapter Card, Cat. No. 25-1016.)

Note: To take full advantage of the telecommunications features in DeskMate, you must install one of the internal modems or an RS-232C board/external modem combination.

- The Network 4 Interface (Cat. No. 25-1008) to set up a local area network.
- Any of the PLUS-type upgrade boards. (To use a PLUS-type upgrade board in your computer, you attach the upgrade board to a PLUS Upgrade Adapter Card, Cat. No. 25-1016.)

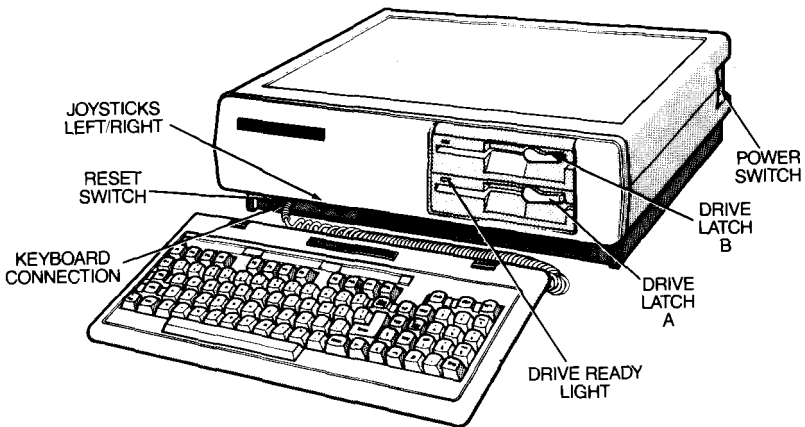
SETTING UP YOUR COMPUTER

Your computer includes built-in support for a color monitor, monochrome monitor, or a television, as well as for a printer, a light pen, and joysticks. To set up your computer, simply connect the main unit to the keyboard, to a monitor, to a printer (optional), and to an AC power source.

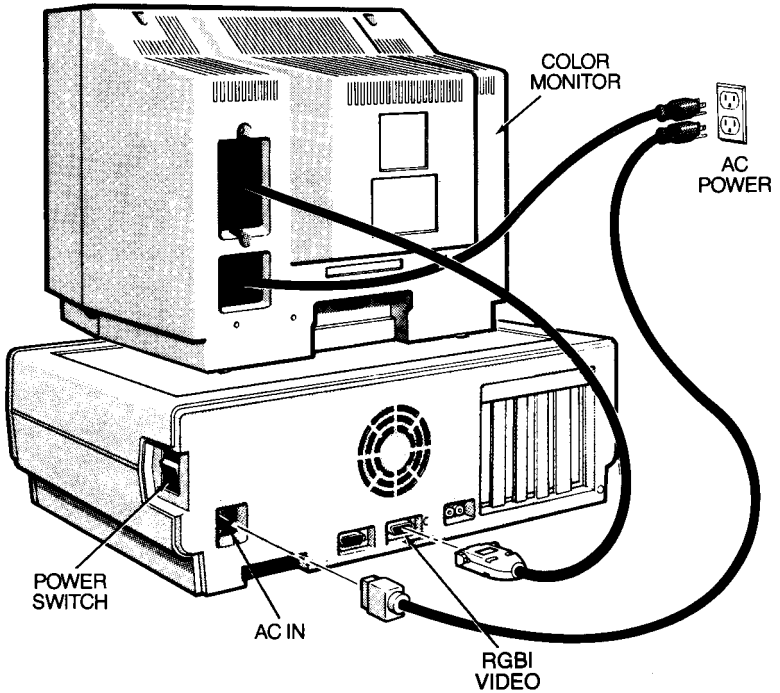
Note: If you are adding any internal options, refer to Chapter 5, "Internal Options," before you set up your computer.

Follow the steps below to set up your computer:

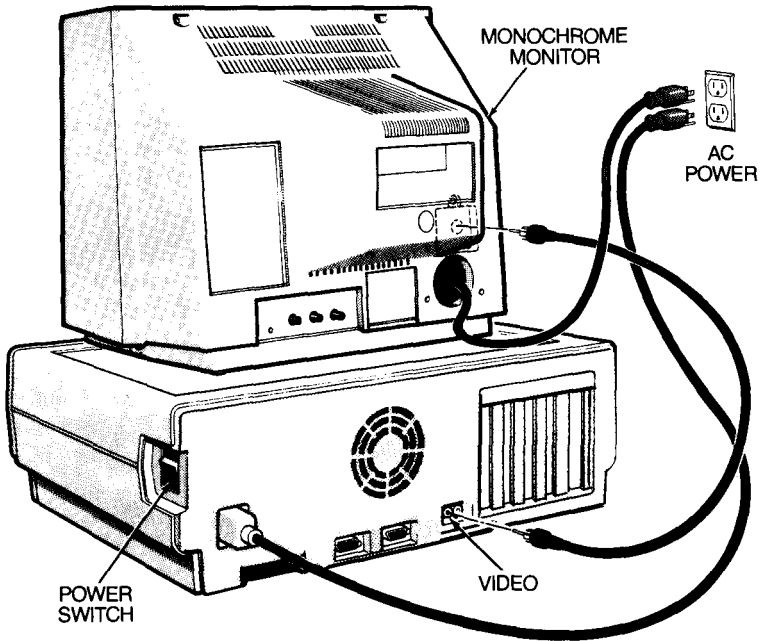
1. Set the computer on a flat surface. Turn the floppy disk drive levers counterclockwise to open the disk drives, and remove the cardboard shipping inserts from the drives.



- 2a. **Color Monitor Users:** With the back of the unit facing you, connect the monitor's computer cable to the RGBI Video connector on the back of your computer. Connect the monitor's power cord to an AC power source.



- 2b. **Monochrome Monitor Users:** With the back of the unit facing you, connect the monitor's computer cable to the composite Video connector on the back of your computer. Connect the monitor's power cord to an AC power source.

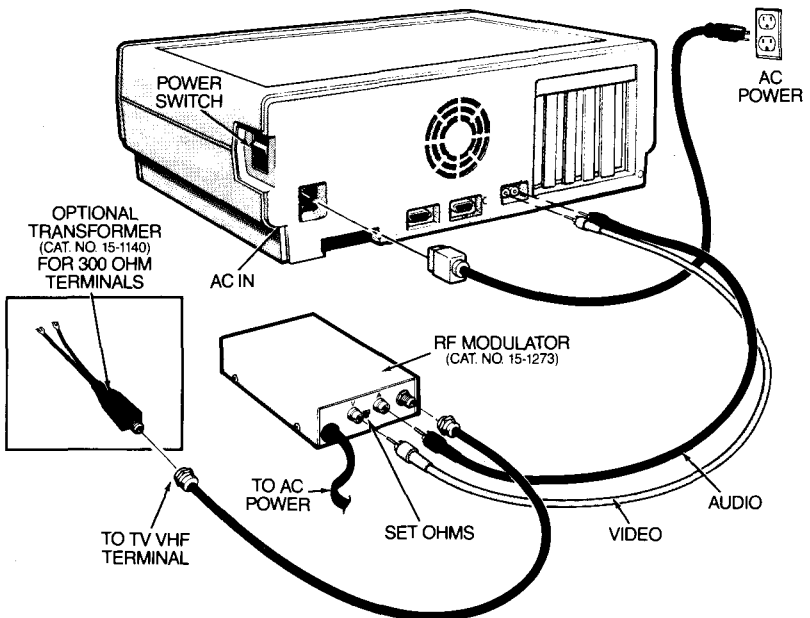


- 2c. **Color TV Monitor Users:** Plug one end of the video cable into the Video connector of the RF modulator, and plug the other end into the composite Video connector on the back of your computer. Plug one end of the audio cable into the Audio connector of the RF modulator, and plug the other end into the Audio connector on the back of your computer.

Now, connect one end of the 75-ohm coaxial cable to the coaxial connector on the RF Modulator, and connect the other end to the cable-ready connector on your TV. (If your TV is not cable-ready, connect the other end of the 75-ohm coaxial cable to a 75-ohm to 300-ohm transformer, and connect the 300-ohm twin lead of the transformer to your TV's VHF terminal.) Set the RF modulator switch to 75 for a cable-ready hookup or to 300 for a VHF antenna hookup.

Connect the TV and RF modulator power cords to an AC power source.

Note: You can also connect your color TV monitor to a VCR instead of an RF modulator.



3. Connect the computer's main power cord to the main system unit, and plug the cord into a grounded 110 VAC 3-prong outlet. (Voltage requirements vary by country. Refer to the label on your computer.)

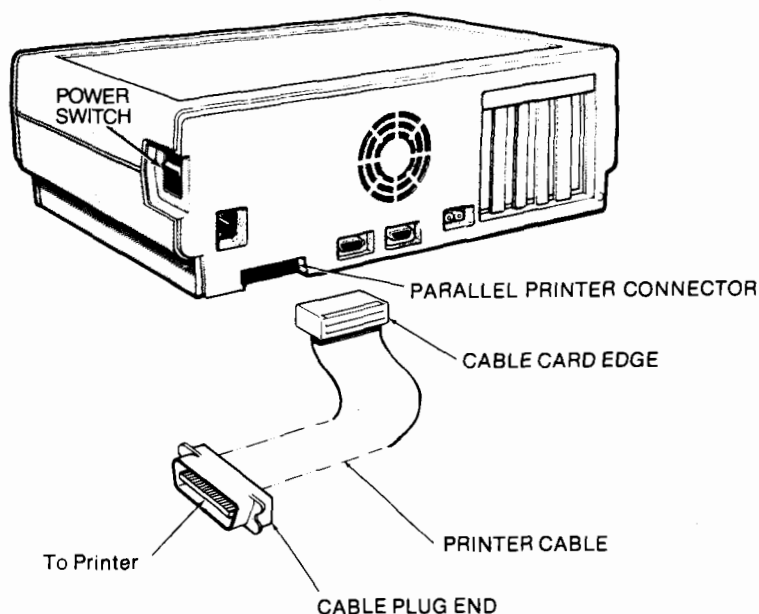
Note: Electrical interference and power surges can destroy data. Do not plug your computer into an outlet that also powers heavy equipment (copiers, office machines, and so forth). Also, if you must use an extension, use a grounded power line filter, such as Cat. No. 26-1244.

You turn your computer on and off with the power switch on the right side of the unit. Turn the computer off by toggling the switch down. Turn the computer on by toggling the switch up.

Connecting a Printer

The Tandy 1000 SX provides a printer connector for parallel printer connection. Use the following instructions to connect a parallel printer to your computer. Refer to the documentation provided with your printer for specific information, such as special printer switch settings.

1. Connect the plug end of the printer cable to the printer as described in the printer documentation.
2. Connect the cable's card edge, cable side down, to the Parallel Printer connector on the back of your computer.



3. Connect the printer's power cord to an AC power source.

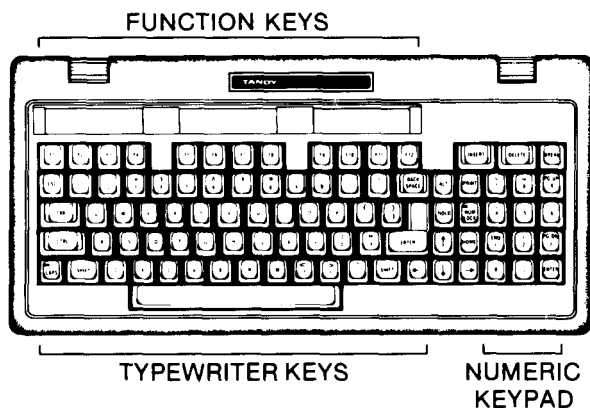
Before you start an application on your computer, you must set up the system for use with your printer. Refer to "Using a Printer With Your Programs" in *Introduction to MS-DOS* for instructions.

THE SYSTEM UNIT AND KEYBOARD

Now that your computer is set up, take a few moments to familiarize yourself with the computer's *system unit*. The system unit of the Tandy 1000 SX includes the central processing unit (CPU) and two floppy disk drives. The keyboard attaches to the front of the unit. This keyboard arrangement gives you flexibility in positioning your computer. You can place the computer on a desk or table, while using the keyboard from a different position.

The Keyboard

Your computer's keyboard consists of three sections: the function keys, the typewriter keys, and the numeric keypad.



Function Keys

The function keys at the top of the keyboard are *program-specific*. Their functions depend on the program you are running. Some of these keys perform special functions when you start the computer, as follows:



Mono Mode. Tells the computer to operate in the monochrome video mode instead of the normal color/graphics video mode.

Your computer has the capability to produce color or monochrome text and graphics. If you connect your computer to a monochrome monitor and run color-oriented software, the colors are loaded as black and white. If part of the screen display disappears or is hard to read, use the mono mode to load black, white, and high-intensity white. (You can also perform a `MODE MONO ON/OFF` command in MS-DOS to change between the color/graphics and mono video modes.)



TV Mode. Tells the computer to operate in the TV video mode instead of the normal color/graphics video mode.

The TV mode lets you connect a color television to your computer by changing to 200 scan lines of resolution in a 40-column, color format. The computer uses 225 scan lines and 80 columns in the normal color/graphics video mode. (You can also perform a `MODE TV` command in MS-DOS to change from the color/graphics video mode to the TV video mode.)



Swap Drives. Reverses the drive references of the floppy disk drives. The primary (bottom) drive becomes Drive B and the secondary (top) drive becomes Drive A. This feature lets you start your computer with a diskette in the secondary drive.



Slow Speed. Changes the CPU speed to 4.77 megahertz. The normal CPU speed is 7.16 megahertz.

Some PC-compatible software cannot operate at the faster CPU speed. Change the CPU speed to 4.77 MHz if you have trouble loading a program at 7.16 MHz. (You can also perform a MODE SLOW or MODE FAST command in MS-DOS to change the CPU speed.)

Press the appropriate function key immediately after the computer “beeps” while starting MS-DOS. Refer to *Introduction to MS-DOS* for more information on using a function key during startup.

Typewriter Keys

The left side of the keyboard, below the function keys, is similar to the keyboard of a standard typewriter. However, when you hold down a character or number key, the keystroke repeats automatically until you release the key. This section of the keyboard also contains some keys not found on a standard typewriter.



The function of the Escape key depends on the program you are running.

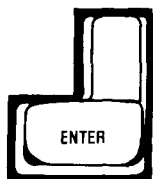


You use the Control key in combination with certain other keys to perform specific operations. The combinations available and their function are program-dependent. To use a Control-key combination, hold down the Control key, and press the other key. (For example, **CTRL** **C** performs a Break or program interrupt in many programs.)


Note: Some software manuals refer to **CTRL** as **CNTRL**.



When you press the Caps Lock key, the alphabet keys produce only capital letters. (**CAPS** does not affect any keys other than A-Z.) The light on the key indicates when the keyboard is in caps-only mode. Press the key once to activate caps-only mode. Press the key again to return to the normal keyboard mode.



The Enter key enters commands and data into the computer. After you press **ENTER**, the command you entered is processed by the program or operating system you are running.

Note: Some software manuals might refer to **ENTER** as **RETURN** or .



You use the Alternate key in combination with certain other keys to perform specific operations. The combinations available and their functions are program-dependent. To use an Alternate-key combination, hold down **ALT**, and press the other key.



The function of the Hold key depends on the program you are running. In some programs, **HOLD** pauses program execution.



Pressing one of the Arrow keys moves the blinking *cursor*, a position marker, in the direction of the arrow.



When you hold down **SHIFT** and press **PRINT**, many programs send all text currently on the screen to the printer.



The Number Lock key reverses the function of the keys on the numeric keypad on the right side of the keyboard. The light on the key indicates when number lock is on.

When number lock is on, the unshifted keys produce the numbers 0-9, a decimal, a plus (+), and a minus (-). When number lock is off, the unshifted keys have the functions described in the "Numeric Keypad" section, which follows.



The function of the Home key depends on the program you are running. In some programs, **HOME** moves the cursor to the upper left corner of the screen.

Numeric Keypad

The numeric keypad on the right side of the keyboard is arranged the same as a calculator keypad. Number keys are normally the shifted characters on the numeric keypad. (You hold down **SHIFT** and press a number.) Press the Number Lock key to use the keypad for extensive number entry. When number lock is on, you can type numbers without pressing the Shift key.

The shifted (number lock on) values of the keys on the numeric keypad are 0-9, decimal (.), plus (+), and minus (-). A duplicate Enter key and the Break key are also on the numeric keypad.

The unshifted functions of these keys are as follows:



The function of the Insert key depends on the program you are running. In some programs, **INSERT** changes the typing mode from the normal overstrike (type-over) mode to the insertion mode so you can insert data into a line of text. Pressing the key again returns the keyboard to the overstrike mode.



The function of the Delete key depends on the program you are running. In some programs, **DELETE** erases the character at the current cursor position.



The function of the Break key depends on the program you are running. In some programs, **BREAK** halts program execution.



This key displays a backward slash (\).



This key displays a "difference" symbol, similar to a tilde (~).




The function of the Page Up key depends on the program you are running.



This key displays a broken vertical line (¦). In MS-DOS, this key lets you *pipe* commands (give more than one command at the time) to the system.



The function of the End key depends on the program you are running. In some programs,  moves the cursor to the right of the last character in the current line.



This key displays a grave mark (`).



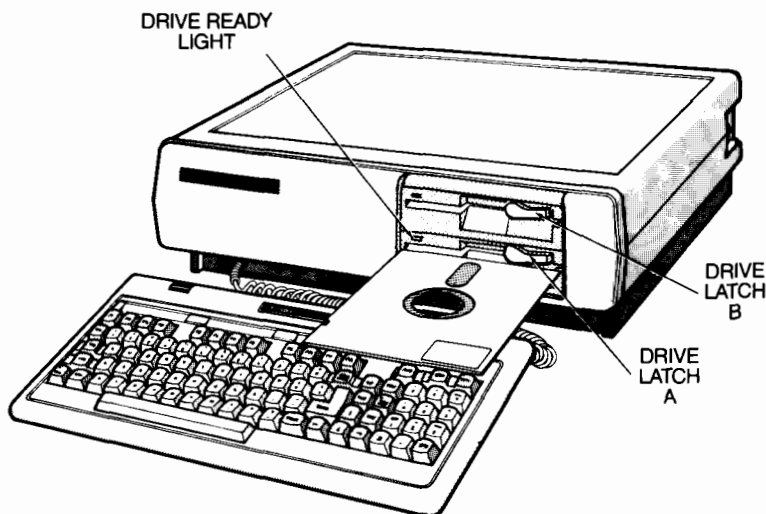
The function of the Page Down key depends on the program you are running.



The Enter key on the numeric keypad is a duplicate of the main Enter key.

The Floppy Disk Drives

You use the floppy disk drives to store programs and data on diskettes. The drive levers open and close the disk drives. Turn a lever counterclockwise to open a drive. To insert a diskette into an open disk drive, gently slide it, label side up, into the drive. Turn the drive lever clockwise to close the disk drive and activate it.

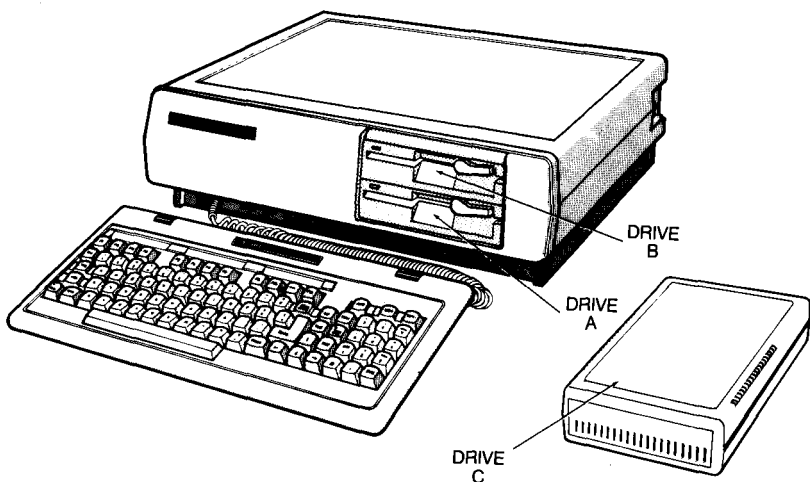


A drive's activity light is on whenever the floppy disk drive is reading from or writing to a diskette. **Removing a diskette from a drive when the drive's activity light is on can destroy the data on the diskette.**

To remove a diskette from a drive, be sure the drive activity light is off, turn the drive lever counterclockwise, and pull out the diskette.

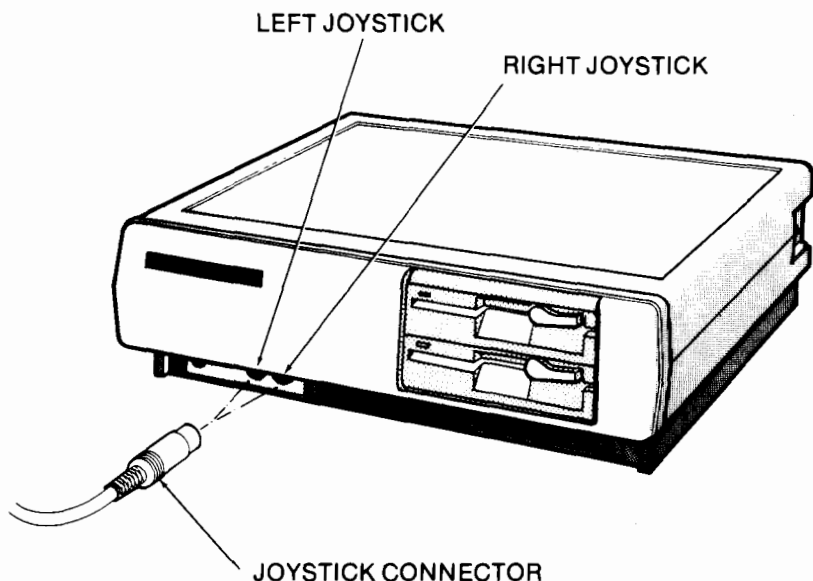
The bottom floppy disk drive is the *primary* drive, usually referred to as Drive A. The upper drive is the *secondary* floppy disk drive, usually referred to as Drive B. An optional external hard disk is referred to as Drive C. Unless you have a hard disk, the operating system and most application programs operate from the primary drive. The secondary drive is normally used for a data or utilities diskette.

Note: You can start the system from the diskette in the secondary drive (Drive B) if you use a special function key during startup. To start the system from the secondary drive, press **F3** while starting MS-DOS. The operating system tells the computer to *swap drives*, making the secondary drive **Drive A** and the primary drive **Drive B**. Refer to *Introduction to MS-DOS* for more information on swapping drives.



The Joystick Connectors

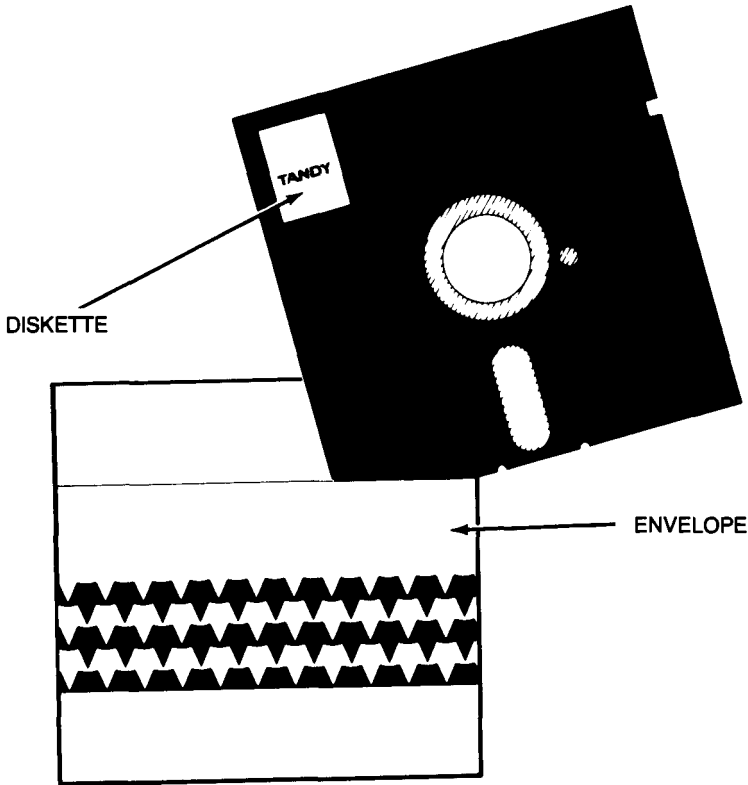
The Tandy 1000 SX provides support for games and other joystick applications programs. The two joystick connectors are on the front of the computer. Connect a joystick or other device to the left and/or right joystick connector.



Note: The Right and Left indications on the joystick connectors are for reference only. Some application programs use these connectors interchangeably. If you use joystick software, and the program does not appear to function correctly, reverse the joysticks.

THE DISKETTES

Care and Handling of Floppy Diskettes



The disk drives in the Tandy 1000 SX use double-sided, 5 1/4-inch, 40-track diskettes (Cat. No. 26-411 and 26-412). These diskettes can store approximately 360 kilobytes (more than 368,000 characters) of information.

Handle floppy diskettes carefully. A scratch, small indentation, or even a speck of dust can destroy data on a diskette. To protect your diskettes (and the information they contain) from damage, follow these guidelines:

- Store diskettes in their envelopes, making certain that there is no pressure on their sides.
- Keep diskettes away from magnetic fields (such as transformers, AC motors, magnets, TVs, and radios).
- Never lay a diskette on top of or next to the computer system's console.
- Don't bend diskettes.
- Never touch a diskette's shiny exposed surface. Never try to wipe or clean the shiny diskette surface. The diskette's surface scratches easily.
- Keep diskettes out of direct sunlight and away from heat.
- Keep diskettes away from cigarette ashes, dust, and other particles. In dusty areas, use filters to clean the air in the computer room.
- Don't write on the diskette label with a hard point pen or lead pencil. Use only a soft felt-tip pen.

Before you use any of the diskettes included with your computer, you should make *backups* (duplicates) of them. Refer to "Making Backups of Diskettes" in *Introduction to MS-DOS*.

The MS-DOS/BASIC Diskette

The MS-DOS/BASIC diskette provided with your computer contains the *disk operating system*, which is necessary to run application programs on your computer. The BASIC programming language for your computer is also on this diskette. You should make a backup of the system diskette **before** you use it to run your computer. Refer to *Introduction to MS-DOS* for instructions.

Refer to *Introduction to MS-DOS* and the “MS-DOS” section of the *Quick Reference* for information on using your MS-DOS system. Refer to the “BASIC” section of the *Quick Reference* for information on using the BASIC programming language.

The Supplemental Programs Diskette

The MS-DOS Supplemental Programs diskette contains several hard disk setup commands and other infrequently-used utility programs.

The DeskMate Diskettes

Two DeskMate diskettes are provided with your computer. These diskettes contain the DeskMate application programs for your computer. Refer to *DeskMate* for information on using these diskettes.

INTERNAL OPTIONS

You can add several internal options to your Tandy 1000 SX, including:

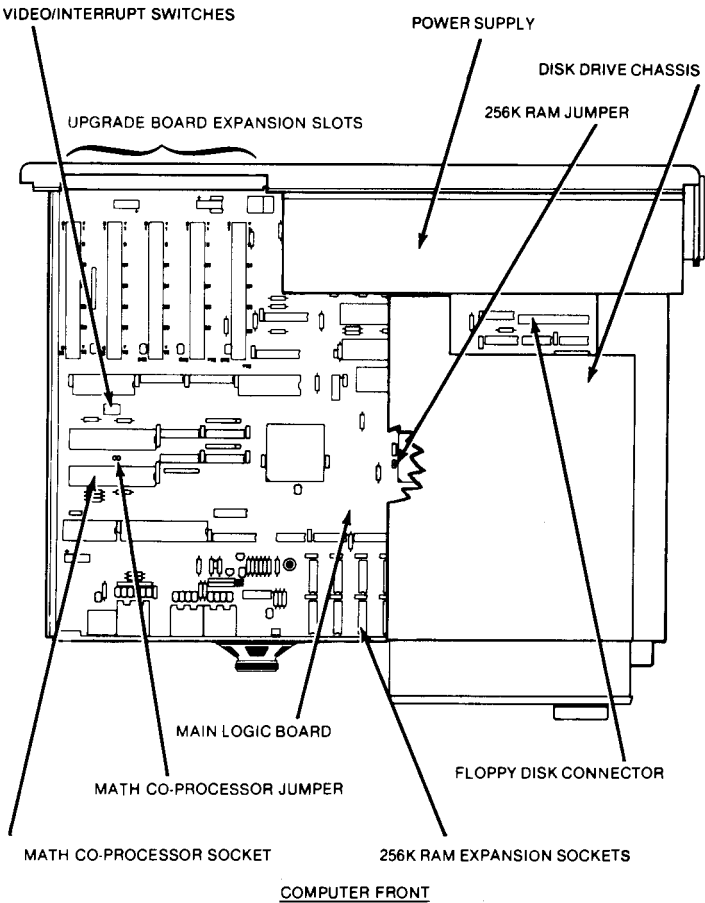
- An additional 256K bytes of on-board memory.
- A math co-processor.
- A hard disk controller board, to which you connect external hard disk drives.
- An internal modem board.
- An RS-232C board.
- A DIGI-Mouse board, to which you connect an external DIGI-Mouse.
- A network board.

You must remove the system unit cover to install any of the internal options.

Before installing or removing an option board in your computer, turn off the computer, and disconnect the power cord from the computer. Installing or removing a board with the power on can cause damage to the option board as well as to the main logic board.

The next page shows the System Unit Map of your computer's main logic board. Refer to this diagram for the locations of all internal options.

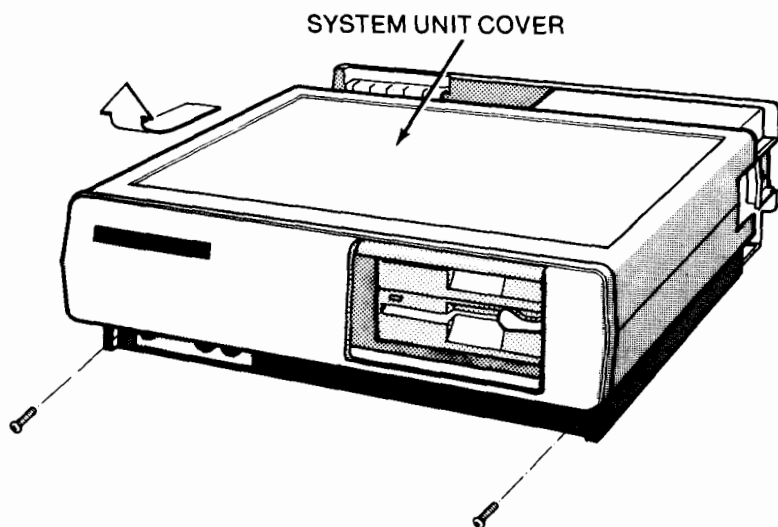
System Unit Map



Removing the Cover

Follow these steps to remove the system unit cover:

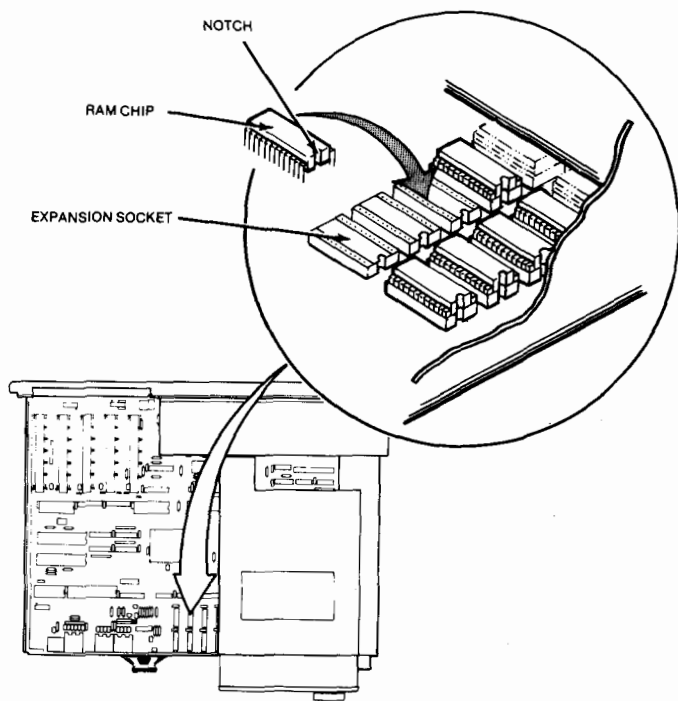
1. Remove the two screws on the front of the main unit.
2. Slide the cover toward the front of the unit, and gently lift the cover up and remove it, as shown.



You can now see the main logic board and option board expansion slots.

Adding Memory

You can upgrade your computer with an additional 256K of memory. Add eight of the memory chips to the RAM Expansion Sockets on the computer's main logic board for a total system memory of 640K. (Store the extra memory chip in a safe place.)

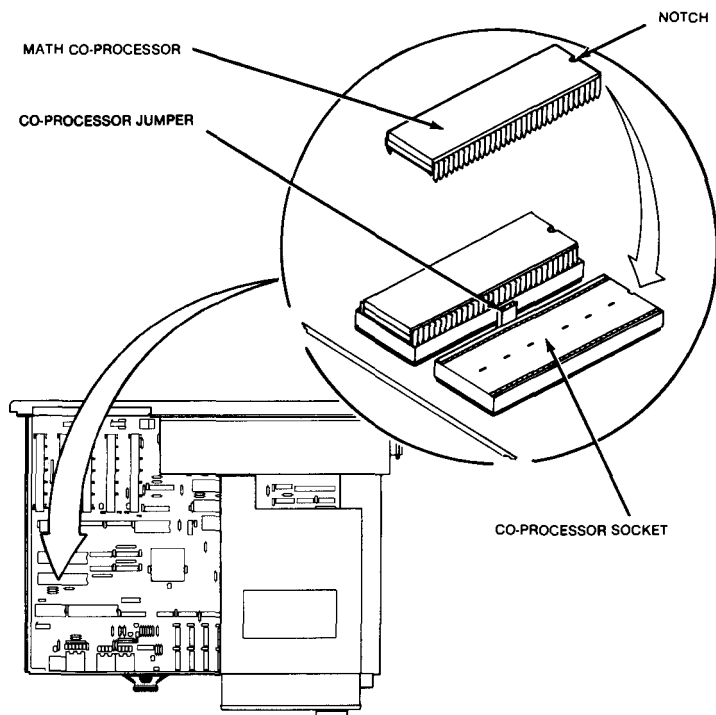


After you install the RAM chips, remove the jumper from staking pins E1 and E2. Removing this jumper lets the computer use the additional 256K of RAM. Refer to the System Unit Map for the location of the 256K RAM Jumper. Install any other internal options you are adding at this time, and replace the system unit cover.

For specific instructions on installing the RAM chips, refer to the documentation that comes with your 256K Memory Kit.

Adding a Math Co-Processor

You can upgrade your computer with a math co-processor to increase the speed of mathematical calculations. Add the co-processor chip to the 40-pin Math Co-Processor Socket on the computer's main logic board.



After you install the co-processor chip, remove the jumper from staking pins E3 and E4. Removing this jumper lets the computer use the Math Co-Processor. Refer to the System Unit Map for the location of the Math Co-Processor Jumper. Install any other internal options you are adding at this time, and replace the system unit cover.

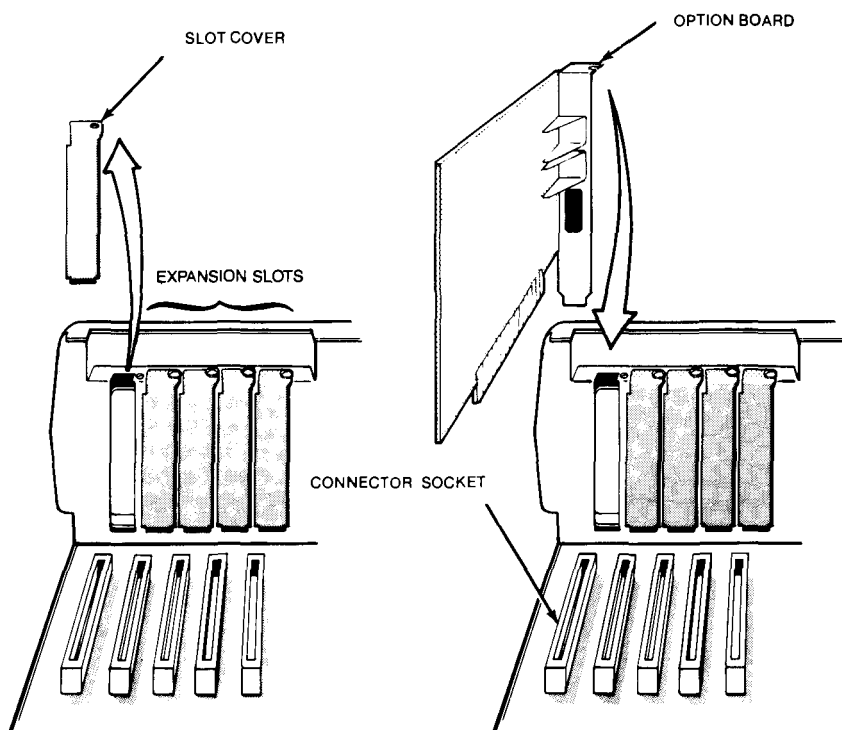
For specific instructions on installing the co-processor chip, refer to the documentation that comes with your 8087 Math Co-Processor Chip Kit.

Adding an Option Board

You can install as many as five 10-inch option boards in the expansion slots. Follow these steps to add an option board to your computer:

1. Select an empty slot for the board, and remove the screw from the metal slot cover.
2. Remove the slot cover by tilting it away from the slot opening and lifting it out.
3. Position the option board above the black edge-connector socket behind the uncovered slot, and insert the board's metal panel into the slot in the same way as the slot covers are mounted.
4. At the same time, apply even downward pressure to the board to seat the board's edge-connector in the socket.

Replace the slot cover's screw, and tighten it to secure the board in the slot. Do not overtighten the screw.



For specific installation instructions and any special settings, refer to the documentation that comes with the option board.

After installing all your option boards, replace the system unit cover. Then, connect the appropriate peripheral devices to the option board connectors.

Adding a PLUS-Type Option Board

You can also install any of the Tandy 1000 PLUS-type option boards in your computer. To install a PLUS-type option board, first attach the board to a PLUS Upgrade Adapter Card. Then, install the board combination in one of the computer's option slots, as you would a normal, 10-inch board. Refer to the option board's manual and the documentation that comes with the adapter card for more information.

The Built-In Video Hardware

The video hardware built into the Tandy 1000 SX functions as a Color Graphics Adapter (CGA). The internal CGA video hardware is compatible with most application programs.

Adding an Optional Video Board

You can also install an optional video board in your computer to operate instead of or along with the video hardware built into the main logic board. Any compatible 10-inch video board can be installed in an option slot.

If you install a CGA-type board, the internal video hardware is disabled, and the computer **always** uses the optional board.

If you install an optional Mono/Text-type board, the internal CGA remains active. As without an optional video board, the computer normally defaults to the built-in CGA video hardware. You must set the computer's Video switch to use the optional Mono/Text video board. Refer to the next section, "Video and Interrupt Switches," for instructions.

Also, certain application programs can display different information on two video monitors with the built-in CGA and optional Mono/Text adapter video configuration. Refer to your application documentation for information.

For specific installation instructions for an optional video board, refer to the documentation that comes with the option board.

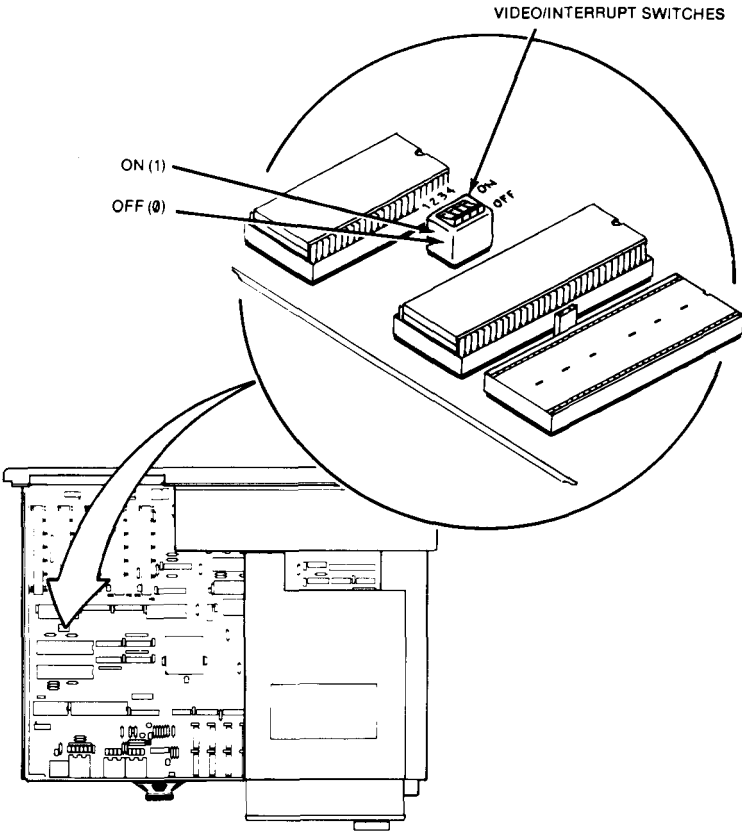
After installing all optional boards, replace the system unit cover.

Video and Interrupt Switches

The Video and Interrupt Switches are located in the S2 switch box, slightly below the Upgrade Board Expansion Slots. (Refer to the System Unit Map for the exact location.) All four switches are set at the factory in the ON position.

Switch 1 is the Video switch. This switch is set for CGA-type video hardware (either the internal hardware or an optional video board). Set this switch to OFF if you install and use an optional Mono/Text-type video board. If you have a Mono/Text-type board installed, Switch 1 must be ON any time you want to use either the internal CGA video hardware or an optional CGA-type video board. You can change the Video switch setting as often as you wish.

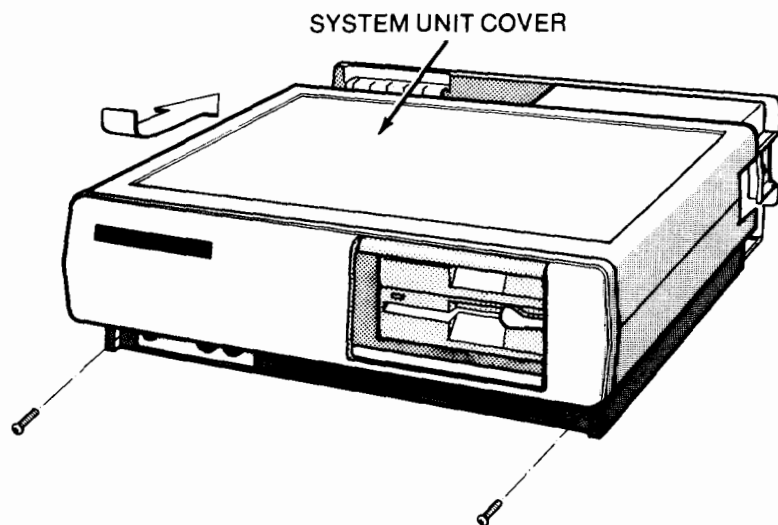
Switches 2-4 are the Interrupt switches. These switches are set to enable system board interrupts 5-7. You can disable any or all of these interrupts for compatibility with your application software or with a plug-in option card, if necessary. Set Switch 2 to OFF to disable Interrupt 5. Set Switch 3 to OFF to disable Interrupt 6. Set Switch 4 to OFF to disable Interrupt 7. You can change the Interrupt switch settings as often as you wish.



Replacing the Cover

Follow these steps to replace the system unit cover:

1. Hold the cover at a slight downward angle to the front of the unit, and guide the cover onto the tracks on the computer chassis.
2. Gently slide the cover toward the back of the unit, as shown.



3. Replace the two screws on the front of the main unit.

Now, connect the cables of all external options to the appropriate connectors on the back of the computer. Refer to the documentation that comes with the options for specific installation and operation instructions.

TROUBLESHOOTING

Video Problems

If you make all the proper monitor connections and still have trouble with your video, check for the following problems:

- Loose cables.
- An improperly seated optional video board or an incorrect switch setting. Refer to “Adding an Optional Video Board” in Chapter 5.
- Using color-oriented software with a monochrome monitor. Refer to “Function Keys” in Chapter 3.

Printer Problems

If you make all the proper printer connections and still have trouble, check for the following problems:

- Loose cables.
- The system is not set up for use with your printer. Refer to “Using a Printer With Your Programs” in *Introduction to MS-DOS*.
- The printer is not ready — off line, out of paper, out of ribbon, and so forth.

SPECIFICATIONS

System Unit

Processor: Intel 8088, 7.16 or 4.77 megahertz

Size:

Length:	354 mm (13.9 in.)
Width:	290 mm (11.4 in.)
Height:	97 mm (3.8 in.)

Weight: 5 kg (11 lb)

Power Requirements:

120 VAC, 60 Hz (U.S.)
120 VAC / 240 VAC, 50 Hz (International)
(67 watts)

Heat Output: 363 Btu/hr

Environment:

Air Temperature	
Operating	14° C - 30° C (55° F - 85° F)
Storage	- 40° C - 72° C (- 40° F - 160° F)
Humidity	
Operating	20% to 80% (non-condensing)
Storage	10% to 80% (non-condensing)

Floppy Disk Drives

Unformatted Capacity	500 kilobytes
Formatted Capacity	360 kilobytes
Number of Heads	2
Number of Cylinders	40
Average Access Time	93 ms (includes settling time)
Track to Track	6 ms
Motor Starting Time	400 ms
Rotation Speed	300 RPM
	standard 5 1/4-inch, double-sided
Media	40-track

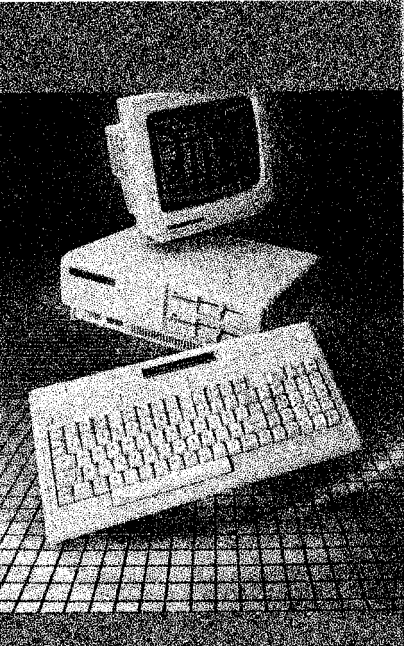
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Introduction to **MS-DOS[®]**



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INTRODUCTION

MS-DOS is a *Disk Operating System*. An operating system is a group of programs that act as an interpreter and manager for your computer, monitor, and peripherals. **Disk** operating system means that the operating system can also direct and interpret information to and from disk drives. A computer can do only what you instruct it to do. The MS-DOS operating system conveys your instructions to the computer.

How much you need to know about your MS-DOS operating system depends on how you plan to use your computer. If you use your computer only for running *application programs* (software written to perform specific tasks or solve specific problems), you need to know little about the operating system. On the other hand, if you plan to use advanced operating system features or create your own programs, you need to become quite familiar with the operating system. Further, there are many MS-DOS command features included specifically for use with the options available for your computer. If your computer system includes options, you should familiarize yourself with any features of MS-DOS that are specific to those options.

Regardless of how you intend to use your computer, there are some basic procedures you must know. These include:

- Starting and exiting MS-DOS.
- Entering MS-DOS instructions.
- Starting an application program.
- Preparing a diskette to store information.
- Copying the operating system, program, and data files to a diskette.
- Duplicating a diskette.

This manual presents this information and a few other items you might find helpful. If you want more information, refer to the *MS-DOS Reference Manual* (Cat. No. 25-1508), which discusses the MS-DOS operating system in detail.

Entering MS-DOS Instructions

The MS-DOS instructions you give to the computer are called *commands*. You type commands at a *system prompt* (usually A>), which indicates that MS-DOS is at the *command level* (ready to accept commands).

The disk drive that MS-DOS is set up to access when you enter commands is called the *current drive*. You can access information on a drive other than the current drive by including a drive reference when you enter a command. MS-DOS regards the *primary drive* (the lower drive) as the current drive unless you specify otherwise. Refer to "Changing the Current Drive" if you want to change the current drive.

Because your computer carries out the MS-DOS commands exactly as you give them, your entries must be precise and have perfect *syntax* (spelling and form). You can type your instructions to MS-DOS in either uppercase or lowercase letters. However, pay special attention when typing characters that are interchangeable on a typewriter keyboard. These characters are not interchangeable on the computer keyboard. For example, never type the letter O for 0 (zero) or the lowercase letter l for 1 (one). Be sure you type commands exactly as they are shown.

This manual uses a simple method of notation to distinguish between what you enter and what you see on the screen.

Example	Description
<code>BACKSPACE</code>	Boxed characters represent keys that you press. These are usually function or command keys. It is not necessary to press <code>ENTER</code> after you press one of these keys.
<code>CTRL</code> <code>C</code>	Two or more boxed keys together represent a <i>key sequence</i> that you press. For a key sequence, hold down the first key shown. Then, press the second key while still holding down the first key.

format

Text that you type (commands and so forth) is shown in a different typeface than the body of the manual. You must press after you type the text. In MS-DOS, you can type in both uppercase and lowercase letters.

A>

Text that appears on the screen, such as the system prompt, is also shown in a different typeface than the body of the manual.

HOW TO START AND EXIT YOUR SYSTEM

Starting MS-DOS

Starting your computer and initializing an operating system is called *booting*. The boot procedure prepares the computer for use.

To boot your system with MS-DOS, follow these instructions:

1. Turn on your computer, monitor, and any *peripherals*, such as a printer.
2. Remove the MS-DOS system diskette from its protective envelope.
3. Place the diskette, label side up, into Drive A. The square notch should be on the left as you insert the diskette. (If you cover this notch with a foil tab, the diskette is *write-protected* so that you cannot change or delete the information on it. Refer to "Floppy Disk Drives and Diskettes" for more information.)
4. Turn the drive lever clockwise to close the disk drive. The red light on the front of the disk drive indicates that the computer is accessing the diskette.
5. When the message asking for the date and time appears, follow the sample format on the screen to enter the information. If you do not want to change the date or time that is shown, press **ENTER** at each prompt.

MS-DOS completes the boot procedure and displays the system prompt. The system prompt is the current drive reference, followed by a greater than symbol (A>). You can now enter operating system commands to instruct MS-DOS to perform tasks and run application programs.

Note: You can change the drive references during bootup. *Swap drives* by pressing the **F3** function key immediately after you hear a beep when booting your system. The primary floppy drive becomes Drive B, and the secondary floppy drive becomes Drive A. You **must** swap drives to boot a diskette in the secondary drive.

Exiting MS-DOS

Many application programs let you terminate an operation by pressing **BREAK** or **CTRL C**. However, abruptly halting execution of a program in this manner can sometimes result in loss of data. Further, some operations must complete their functions before you can stop the operations. Be sure the software you are using supports **BREAK** or **CTRL C** before you use either.

To protect your data, we recommend that you exit your application program and return to MS-DOS before you turn off your computer. When the MS-DOS system prompt is on the screen, follow these steps:

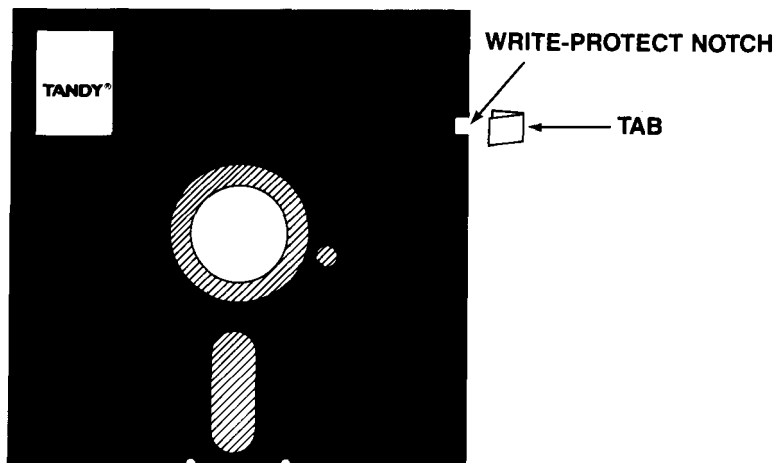
1. Remove your floppy diskettes from the disk drives, put them back in their protective envelopes, and store them in a safe place.
2. Turn off your computer, monitor, and any other equipment. If you plug your equipment into one power strip, you can use the power strip switch to turn off all equipment at one time.

Note: If your system has a hard disk, you should wait a minimum of 15 seconds before turning on the computer again.

FLOPPY DISK DRIVES AND DISKETTES

Floppy diskettes require careful handling. Be sure to read "Care and Handling of Floppy Diskettes" in the *Introduction to Your Tandy 1000 SX* manual.

Write Protection for Diskettes



Most diskettes have a square notch cut from one side. This is a *write-protect notch*. Fold one of the special adhesive tabs (supplied with diskettes) over this notch to write-protect the diskette. The computer can not write (store) data on a write-protected diskette. Leave the notch uncovered to *write-enable* the diskette for data storage. This feature protects diskettes from inadvertent destruction of data.

Making Backups of Diskettes

The magnetically stored information on diskettes can be destroyed by exposure to magnetic fields or by improper use or handling. You should make several *backups* (copies) of important diskettes. Should anything happen to a backup diskette, immediately make another.

Note: You should now make backups of your MS-DOS/ BASIC and DeskMate diskettes.

There are two ways to back up important diskettes. You can use the DISKCOPY command, or you can use the FORMAT and COPY commands.

The DISKCOPY command creates an exact duplicate of a diskette. DISKCOPY duplicates all information, all files, and the entire directory structure of a diskette onto a new diskette. Use DISKCOPY whenever you want to exactly duplicate an operating system or other diskette.

The FORMAT command organizes a blank diskette so that you can copy to it. Many application programs require that you format data diskettes to store the information they produce. You must format a diskette before you can copy to it with the COPY command.

The COPY command duplicates the files in the current or specified directory and stores them on a formatted diskette. (Format with the /s switch if you are copying an operating system diskette.) The copy is performed on a file-by-file basis. You can use COPY to back up an entire diskette or to duplicate selected files only. The COPY command does not copy system files, hidden files, or files outside the current or specified directory.

The backup procedures use two terms you need to understand. They are *target diskette* and *source diskette*. A target diskette is the diskette you select to **receive** a copy of another diskette. The source diskette is the diskette that contains the programs, system files, and/or data files that you want to copy.

Note: Some application programs you buy are *copy-protected*. You cannot make copies of these program diskettes. Check the program manual for information on protecting the data on copy-protected diskettes.

Using DISKCOPY

1. If your computer is off, turn it on, and boot MS-DOS as outlined at the beginning of Chapter 2.
2. At the system prompt (A>), type:

```
diskcopy a: b: 
```

3. The screen displays the following prompt:

```
Insert the source diskette in drive A
Insert the target diskette in drive B
Strike any key when ready
```

To back up the system diskette, leave it in Drive A. Otherwise, insert the diskette you wish to back up into Drive A.

Be sure the target diskette is not write-protected. Insert the target diskette into Drive B, and press .

4. The screen shows:

```
Copying 9 sectors per track, 2 side(s)
```

This message can differ according to the diskette you are copying.

DISKCOPY formats the target diskette and copies the information from the source diskette to it. When the DISKCOPY procedure is complete, this message appears:

```
Copy complete
Copy more diskettes? (Y/N)
```

5. If you wish to create more copies, press , and again follow the prompts. To ensure the safety of your operating system, make at least two copies of MS-DOS.

After you finish making copies, press at the Copy more diskettes? prompt. The DISKCOPY procedure ends, and the system prompt reappears.

6. Set aside one of the backup diskettes for daily use as your *working diskette*. Store the original diskette and all additional backups away from heat, magnetic sources, electric motors, and in a relatively dust-free environment.

Formatting a Diskette

1. If your computer is off, turn it on, and boot MS-DOS as outlined at the beginning of Chapter 2.
2. At the system prompt (A>), type:

```
format b: 
```

(To format the diskette so that it is bootable, type: Format b: /s . The /s switch tells MS-DOS to copy the hidden system files to the diskette after it is formatted.)

3. FORMAT asks you to insert the new (target) diskette. Insert the blank diskette you want to format into Drive B, and press .
4. When FORMAT is complete, a prompt appears giving you the option to format another diskette. To do so, press , and repeat Step 3. Otherwise, press .
5. Store formatted diskettes in a safe place until you are ready to use them.

Copying an Entire Diskette

Note: You must format a diskette before you can use the COPY command to copy information to it. (Be sure to format with the /s switch if you are duplicating an operating system or other bootable diskette.)

1. If your computer is off, turn it on, and boot MS-DOS as outlined at the beginning of Chapter 2.
2. Remove the system diskette from Drive A, and replace it with the source diskette (the diskette you are copying).
3. Insert the target diskette (the diskette to which you are copying) into Drive B.
4. At the system prompt (A>), type:

```
copy a:*. * b: 
```

The operating system immediately begins the copy. The COPY command duplicates the Drive A files and copies them to the Drive B diskette.

See Chapter 6 for more information on the COPY command.

Changing the Current Drive

The current drive is the one that MS-DOS and your application programs normally read from and write to. You can access information on a drive other than the current one by including a drive reference when you enter an MS-DOS command. MS-DOS regards Drive A as the current drive unless you specify otherwise. You can change the current drive to Drive B by typing:

```
b: 
```

The system prompt changes from A> to B>. Drive B is now the current drive. If you have a hard disk, but started your system from a floppy drive, you can change the current drive to Drive C in a similar manner.

To access a diskette in a drive other than the current one, you must include the drive name. For example, assume Drive B is the current drive. To execute a program named Myprog in Drive A, type:

```
a:myprog 
```

Note: Changing the current drive is not the same as swapping drives. When you **change the current drive**, you tell the computer which drive to access whenever you do not specify a drive in a command. When you **swap drives**, you reverse the names (references) of the floppy drives. (Drive A becomes B, and Drive B becomes A.) Remember that you **must** swap drives to boot from the secondary floppy disk drive.

HOW TO USE YOUR PROGRAMS

Using Application Programs With MS-DOS

Application programs are designed to perform specific tasks—word processing, spreadsheet analysis, and so forth. The DeskMate diskette, for example, contains several application programs. Many application programs (including DeskMate) require you to use the MS-DOS diskette to start up your computer. For these applications, you can start up with an operating system diskette, then switch to the application diskette. A few applications let you start up directly from the application diskette. Check your application program's documentation for the specific steps necessary to start your application.

When you are using an application program, the program's prompts and screens appear instead of the operating system prompt. Application programs use the operating system to help process information, and MS-DOS manages the computer's operations.

Using a Printer With Your Programs

If your application programs require the use of a printer, you must be sure the computer is set up to work with the printer you choose. Many printers automatically add a line feed after each carriage return. If your application program also adds a line feed after a carriage return, your text prints double-spaced.

First, determine whether you have an extra line feed by using your application program to run a printout test. If the text prints double-spaced, then turn off one of the line feeds by either setting the printer or setting the software.

Setting the Printer

Many printers (including most Radio Shack® dot matrix, DMP-series printers) have a hardware DIP switch that determines whether or not the printer adds a line feed after a carriage return. If your printer has a carriage return DIP switch, set it to CR=CR to turn off the line feed. Refer to the documentation that comes with your printer for specific information on DIP switch settings.

Setting the Software

If your printer does not include a carriage return DIP switch, you must set the software to turn off the extra line feed. Follow these steps to turn off the software's line feed:

1. At the MS-DOS system prompt, type:

```
lf 
```

2. Now, type:

```
mode lf off 
```

You can turn on the line feed again by typing: `mode lf on`. Any time you turn off or reset the computer, the system returns to the default setting, `lf on`.

HOW MS-DOS STORES INFORMATION

If you want to learn more about how your operating system works, you need to know how MS-DOS organizes and stores data. The information in this chapter applies both to floppy disk organization and hard disk organization. Hard disk organization is particularly important because of the greater storage capacity of a hard disk.

For the sake of simplicity, wherever the information applies to both floppy diskettes and hard disks, we refer to the media simply as *disks*.

About Files

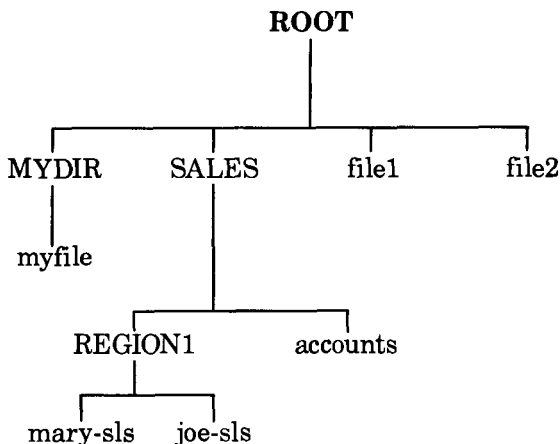
All information on disks is stored in *files*. A file is simply a collection of information. There are three main types of files:

- *System files* contain operating system information that manages the computer's operations.
- *Program files* contain information that causes the computer to perform a task or set of tasks.
- *Data files* contain information you enter, such as the documents and spreadsheets you create with your DeskMate software.

About Directories

All files on a disk reside in a *directory*. A directory is simply a storage space for the names of your files. When you format a disk, you create one directory called the *root* directory. On your MS-DOS system disk, the commands are contained in the root directory. When you boot your computer using MS-DOS, you are automatically in (operating from) the root directory. For many purposes, especially if you are using floppy disk drives only, you do not need additional directories.

Any new directories you create branch from the root directory as *subdirectories*. You can create several levels of directories, as shown in the following example:



The uppercase names in this illustration represent the example disk's directories. The lowercase names represent the files in the various directories. The distinctions are for the example only. You can enter directory names in either uppercase or lowercase. Also note that you can store files and subdirectories **only** in directories, not in files.

Multiple Directories

There is nothing wrong with storing all your files in the root directory. In fact, because you are always in the same directory as your files, using only the root directory makes it easy to access your files.

However, organizing a disk into multiple directories makes it easy to keep your data organized when you have many files. Because hard disks can store hundreds of individual files, such a multiple-directory organization is especially helpful when using hard disks.

About File and Directory Names

The following is a complete list of acceptable characters for directory names and filenames:

- Uppercase letters: A-Z
- Lowercase letters: a-z
- Decimal digits: 0-9
- Symbols: \$ & # % ' () - @ ^ { } !

When creating filenames, do not include more than eight characters. MS-DOS ignores any characters after the eighth. For example, MS-DOS regards both Accounts1 and Accounts2 as Accounts. If you save both files in the same directory, MS-DOS writes over the first file with the second, destroying the first file.

Other than the ones listed above, symbols are not allowed in filenames and directory names. There are also a few special *words* (MS-DOS device names) that you cannot use. These are:

aux	con	prn
nul	com1	com2
lpt1	lpt2	lpt3

Filename Extensions

Any filename can contain an *extension*, which further identifies the file. An extension appears at the end of a filename, preceded by a period.

Extensions can be a maximum of three characters and can include the same characters allowed in filenames. If you attempt to give extensions more than three characters, MS-DOS uses only the first three.

If you include an extension in a filename, you must use that extension whenever you specify the file.

Examples Of Filenames

Examples of valid filenames are:

mydata1	SAMFILE
1.tst	\$100GIFT
records.srt	'HELP'.fil
XXX.xx	File#1.txt
10%SALES	par@64.gam
PROG1.BAS	- Check.bal
PROG2.bas	myprog.sor

Examples of invalid filenames are:

his*hers	The asterisk is not a valid character for filenames.
.DATA	The period is valid in a filename only when separating the filename from its extension.
regionsales	Filenames have a maximum of eight characters. MS-DOS uses only the first eight characters of the filename (regionsa).
COST + INT	The plus symbol is not a valid character for filenames.
CON.dat	Con is a word reserved by MS-DOS.

MORE ON MS-DOS COMMANDS AND KEYS

The MS-DOS operating system includes both *internal* and *external* commands. MS-DOS stores its internal commands in memory when you load the operating system. Internal commands remain in memory until you reset or turn off the computer. These commands execute immediately when you enter them. COPY, DIR, PATH, TYPE, and VER are examples of internal MS-DOS commands. MS-DOS stores its external commands on disk as program files.

When you enter an external command, MS-DOS searches for the command in the current directory, then executes it. If the command is not in the current directory, MS-DOS searches any directories or drives you specified with the PATH command. You can also specify a path along with the external command. For example, to format a diskette in Drive B using the Format command that is in the BIN directory on Drive A, type:

```
a:\bin\format b: 
```

CHKDSK, DISKCOPY, and FORMAT are examples of external MS-DOS commands.

Typing Commands

- You can enter a command whenever the screen displays the system prompt.
- A command consists of one word, the command name. A *command line* consists of one or more command names and their associated *parameters* and *switches*. Parameters and switches are special information you include with a command. They provide data needed by a command, or they determine how the command operates.
- A command line can have a maximum of 127 characters, including any combination of uppercase or lowercase letters. To execute a command line, press . For example, to clear the screen, type:

```
cls 
```

Editing Commands

MS-DOS tries to carry out the commands you type. If you make a typing mistake that results in an invalid command, MS-DOS tells you so with an error message. If you make a typing mistake, but the resulting command is a valid one, MS-DOS carries out the command as you enter it.

If you notice a typing mistake before you press **ENTER**, you have two choices:

- Backspace to the mistake, and retype to the end of the line.
- Press **ESC** to exit the line you are typing, and start over.

If you use **ESC** to end a line, the system prompt does not reappear. Type the command line, and press **ENTER** to execute it.

Special Keys

The following keys and key sequences have special significance to MS-DOS.

space bar

Moves the *cursor* (the blinking underline character displayed on the screen) one space to the right and adds a space to a line.

CTRL

Lets you give complex commands to your computer by pressing only two or three keys. Hold down **CTRL**, and press the other keys.

BACKSPACE or

CTRL **H**

Backspace. Moves the cursor left one character and erases the character in that position.

CTRL **C** or

CTRL **BREAK**

Cancel. Stops the execution of an MS-DOS command or of a program that uses MS-DOS functions. If the program does not access MS-DOS, the program does not recognize this key sequence. (The computer might take a few moments before it recognizes the key sequence.)

PRINT,
CTRL **N**, or
CTRL **P**

Echo. Sends each character of output to the printer. Press the sequence again to stop echo.

ESC

Escape. Terminates the current line without processing it and clears the line buffer. Displays a backslash (\) and performs a carriage return. (The cursor moves down one line and returns to the left margin.) Although the system prompt does not display, the system is ready for a command.

ENTER

Execute command/carriage return. Begins processing the command line you type. **ENTER** also causes a carriage return. (The cursor moves down one line and returns to the left margin.)

CTRL **J**

Line feed. Ends the current line and moves the cursor to the next line without processing the line. Press **ENTER** to execute the command line when it is complete.

SHIFT **PRINT**

Print screen. Everything currently displayed on the screen is sent to the printer.

CTRL **ALT** **DELETE**

Reset. Resets your computer the same as if you turn it off, then on again.

HOLD or **CTRL** **S**

Stop scroll. Stops scrolling information on the screen to let you view it. Press **HOLD** or **CTRL** **Q** to resume scrolling.

Several keys and key sequences are available to edit an MS-DOS command line. These keys act on the command line in the *template*. (The template is a storage area that contains the last MS-DOS command you entered and executed.) Press **[F3]** to display the template. You can execute the command line again by pressing **[ENTER]**, or you can use the following keys to edit the command line in the template:

[ENTER]	Enter line. Makes the new line the new template and executes the command line.
[ESC]	Void line. Voids the new line, but does not affect the template.
[INSERT]	Insert character. Goes into the insert mode for you to insert characters into the template. Press [F3] to end characters into the template. Press [F3] to end the insert mode.
[DELETE]	Delete character. Erases the next character from the template. The character is skipped and is not copied to the command line.
[→] 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 in the template up to the specified character 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 character from the template. They are skipped and are not copied to the command line.
[F5]	Replace template. Makes the line you type the new template but does not execute the command.
[F6] or [CTRL] [Z]	End-of-file. Puts an end-of-file marker in the template.

Special Commands

You have learned about a number of MS-DOS commands that help you set up and use your computer system. There are many more commands available. This section contains information about a few of the most helpful commands. Learning these commands makes it easy for you to look up other commands and functions in the *MS-DOS Reference Manual*.

Viewing a Directory

To look at the directory (a list of files and directories) of a disk, use the **DIR** command. For example, to view the contents of the current directory, type:

```
dir 
```

If a disk contains more filenames than can appear on the screen at once, all but the last 22 scroll off the top of the screen. MS-DOS has three ways to overcome this problem:

- Press to stop the screen from scrolling. (Press again to restart the scrolling.)
- Use the */P switch* with the **DIR** command. A switch tells MS-DOS to execute a command in a certain manner. In this case, */P* pauses the directory listing when the screen is full. Press the space bar to resume the listing. To use the */P* switch, type:

```
dir /p 
```

- Use the */W* switch to display the disk files in five columns. This format usually allows all filenames to appear on the screen at once. The format for this command line is:

```
dir /w 
```

Use **DIR** to view any directory on a disk. For instance, to see which directories and files are in the **SALES** directory, specify the directory name along with the **DIR** command:

```
dir \sales 
```

If you want to look at a directory on a disk drive other than the current drive, specify a complete path for MS-DOS to follow, including the disk drive name. This route through drives and directories to a file is called a *pathname*. For example:

```
dir b:\sales\region1 
```

The first backslash represents the root directory of the specified drive (B). The second backslash separates the two directory names. Always use backslashes to separate the *branches* (directory names and/or a filename) of a pathname.

Creating a Directory

Before you can store data in a directory other than the root directory, you must use the MKDIR or MD command to create the directory. For instance, to create a directory named SALES on Drive B, type:

```
mkdir b:\sales 
```

Then, to create the REGION1 subdirectory within the SALES directory, type:

```
md b:\sales\region1 
```

Changing The Current Directory

You can change the current directory (the default directory) by using CHDIR or CD. If you are in the root directory of the current drive and want to operate from the SALES directory, you can type:

```
chdir \sales 
```

To change to a subdirectory **deeper** in the directory structure, such as REGION1 within the SALES directory, type:

```
cd \sales\region1 
```

Finding Files and Directories

Because of the many levels of directories possible with MS-DOS, you might forget exactly which directories and files are on a disk. You can use the TREE command to display a complete list of all directories and subdirectories on a disk.

```
tree [ENTER]
```

If there are more directories than you can display on one screen, press [CTRL] [S] to stop scrolling the display. Press [CTRL] [S] again to resume scrolling the display.

Make a note of any paths in which you are interested. Then, use the pathname to access the file you want.

Copying Files

It is easy to copy a file from one disk to another using the COPY command. The COPY command can copy files between different drive types. This command requires the following information:

- The name of the file you want to copy.
- The disk and directory where it resides.
- The name you want to give to the copy.
- The disk and directory where you want the new copy to reside.

For instance, to copy the joe-sls file from the SALES directory of Drive A to the Drive B diskette, type:

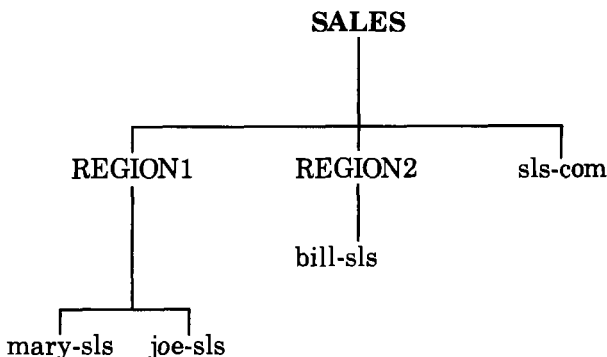
```
copy a:\sales\joe-sls b:joe-sls [ENTER]
```

The COPY command has other uses as well. For instance, you can use COPY to append files and to combine files. See the COPY command in the optional *MS-DOS Reference Manual* for more information on this versatile command.

Copying Directories

The XCOPY command lets you copy one or more files, one or more directories, or an entire diskette. The XCOPY command differs from the COPY command in that COPY performs a file-by-file copy and XCOPY copies by directory. Because of this, you can use XCOPY to copy not only between different drive types, but also to copy the entire directory structure of a diskette. Include both the /s and /e switches to copy all directories and subdirectories on the specified drive or all subdirectories in the specified directory.

For instance, suppose you want to copy the SALES directory, which has the following structure:



To copy the SALES directory, its subdirectories, and all files in the directories from a hard disk drive (C) to the formatted diskette in Drive A, type:

```
xcopy c:sales a:sales /s /e
```

This command copies the SALES directory; the REGION1 and REGION2 subdirectories; and the sls-com, bill-sls, mary-sls, and joe-sls files to a SALES directory on the target diskette.

If you omit /s and /e, the XCOPY command copies the specified directory and its files (SALES and sls-com), but not the associated subdirectories and their files.

Home Directories

MS-DOS remembers which directory is the current directory for any disk, even if you change the current drive. For instance, assume that Drive B is the current drive and REGION1 is the current directory. If you then set Drive A as the current drive, REGION1 becomes the *home directory* of Drive B. This means you can access a file in REGION1 without specifying the full pathname. Then, to access B:\SALES\REGION1\mary-sls, you can type:

```
dir b:mary-sls 
```

This feature is equally convenient for other commands, such as COPY. To copy a file from your current directory into the REGION1 directory on Drive B in our example, type:

```
copy thisfile b:thatfile 
```

COPY reproduces the data in the file named **Thisfile** in a new REGION1 file named **Thatfile**.

Renaming Files

MS-DOS also lets you change the names of files. Suppose you have a staff change in your company. Use RENAME to give your old file a new name. For example, to change Joe-sls to Sam-sls, type:

```
rename \sales\joe-sls \sales\sam-sls 
```

Establishing Paths

If you expect to use a particular pathname frequently but want to remain in your current directory, you can use the PATH command to expand the scope of MS-DOS's search for files. For instance, if you are in Drive B but want to easily access the commands in the root directory of Drive A, type:

```
path a:\ 
```

Now, to access a command in the root directory of Drive A, you only need to specify the command name, such as:

```
chkdsk b: /v
```

Looking Inside Files

TYPE is a command that lets you examine files that consist of text characters. For instance, to view the **Joe-sls** file in the **SALES** directory, type:

```
type \sales\joe-sls ENTER
```

The file contents appear on the screen. If there are too many lines in the file to fit on the screen, use **HOLD** or **CTRL S** to stop and start scrolling.

If you use **TYPE** to display a file that is not a text file, it displays meaningless data.

Deleting Directories

To delete a directory, follow these steps. (Note that MS-DOS does not allow you to delete a directory until it is empty.)

1. Use **DIR** to view the contents of the target directory.
2. Copy into another directory any files you want to keep.
3. Use **DEL** to delete all remaining files from the directory.
4. Use **RMDIR** or **RD** to remove (delete) the directory.

Using Other Commands

MS-DOS has more than 50 commands and functions. The guidelines you learned in this manual provide the background you need to make use of MS-DOS's capabilities.

By referring to the *MS-DOS Reference Manual* you can learn how to create and edit data files, create command files to accomplish numerous tasks in sequence, create directories, send information to your printer, and much more.

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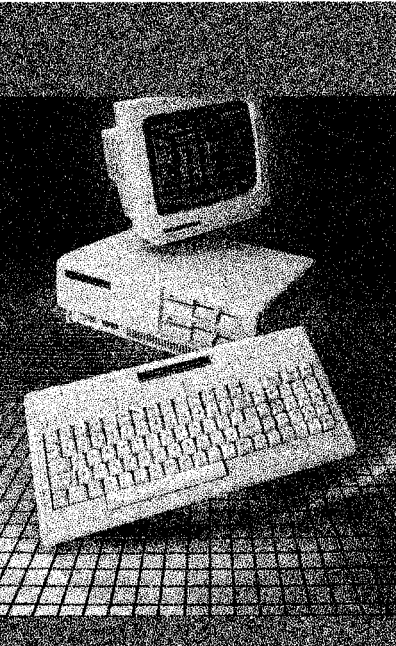
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DeskMate® II



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INTRODUCTION

Welcome to DeskMate®, a versatile, easy-to-use set of applications and functions combined to save you time, energy, and space. DeskMate is the software that helps you organize and streamline all those business details that keep you hopping day in and day out.

DeskMate replaces many of your manual productivity tools, including your typewriter, calculator, rolodex, calendar, notepad, and so on. It's faster to use and gives you quick, easy access to your information for timely updates and corrections. Many of the applications provide "at-a-glance" information, a real asset for quick decision making and question answering. You can print all DeskMate information as well as display it on your screen.

A special feature of DeskMate, DeskMate Plus, gives you maximum productivity by letting you use DeskMate and another unrelated software package on your computer at the same time, making the two packages function as an integrated system. At a simple keystroke, DeskMate becomes "invisible" and inactive while you use your other software, appearing only when you choose, jogging your memory about important details when you need them. All the work you do with one package is suspended while the other is on the screen, preserving your work and keeping it ready for your use when you choose.

For instance, you might be preparing a big report for an afternoon meeting and need to check your figures. Using DeskMate Plus, it's no problem. You need only press **ALT** **=** to switch from the software you're using for the report preparation to DeskMate, check your figures in the Worksheet application, and switch back to the report to finish it up. You never have to exit one program to access the other. With DeskMate Plus, you could also communicate with other computers by using either DeskMate's Telecom application or another communications package of your choice. DeskMate can conform to your every business need.

Features

DeskMate features six major applications and seven subfunctions that you can use anytime. In addition, you can use ten functions available at the Main Menu level. The applications are:

- **Text**, a text editor you can use to create, review, edit, and print documents.
- **Worksheet**, a spreadsheet application you can use to compute numbers in columns and rows. Available operations include addition, subtraction, multiplication, division, and exponentiation, as well as other set, statistical, and trigonometric operations.
- **Filer**, a card-file type filing system. You can store any number of *forms*, formats for holding your information. Filer files and lets you search for items according to criteria you choose.
- **Telecom**, which turns your computer into a telecommunications terminal. DeskMate goes into an interactive terminal mode to enable another system to transmit information and you to send information to the other system.
- **Calendar**, an event scheduling application. You can review events you enter at any time. The Main Menu displays your list of events for the day.
- **Mail**, a messaging system. You can create and store messages in files according to the person for whom the messages were written. General information messages reside in a common file, MESSAGES.

DeskMate's subfunctions are available at any time, from any application. The subfunctions are:

- **Help**, which displays helpful quick reference information about the Main Menu, the application you're using, or your current mode.
- **Calculator**, a quick-access function for performing simple addition, subtraction, multiplication, division, and percentage calculations.
- **Show Alarm**, for displaying events coming up of which you'll be reminded.
- **Alarm On/Off**, which lets you choose whether or not to have the computer remind you of scheduled events.
- **Phone**, for storing, reviewing, and calling (with an auto-dial modem) phone numbers.

- **Printer**, which lets you define the way you want your printed material to appear on paper.
- **Date**, for changing the system date and time without accessing the Main Menu.

The Main Menu, besides being a map to your DeskMate system, gives you access to ten functions of its own. These functions are:

- **Date**, which lets you change the system date and/or time.
- **Name**, for changing the names of data files.
- **Free**, which displays the amount of free space, in bytes, on a diskette you're using.
- **Alarm**, for reminding you of important scheduled events with an audible signal.
- **Host**, a telecommunications mode that lets you use DeskMate from a remote site. DeskMate locks out local operation while a remote terminal accesses the system.
- **Password**, your means of assigning a password to DeskMate for maximum security.
- **Select**, for selecting data files you want to delete.
- **Copy**, for duplicating data files.
- **Delete**, which lets you delete data files you select.
- **Swap**, a subfunction that activates a drive other than Drive A.

Equipment Requirements

To use DeskMate, you need:

- The Tandy® 1000 Personal Computer SX with either a monochrome monitor (Cat. No. 25-1020) or a color monitor (Cat. Nos. 25-1022 or 25-1023)
- For using DeskMate Plus, DeskMate's task-switching feature, enough additional memory for running the other software, beyond the 128K that DeskMate requires.

- For communication with another computer via Telecom, Host, or another software package you choose, the RS-232 Board with a modem, the 300 Baud Modem Board, or the 1200 Baud Modem Board. To use the automatic logon feature in Telecom or Host, or to use the dialing features throughout the other DeskMate applications, the modem you choose must be programmable (auto-dialing). Check the operating instructions of your modem for details.
- For producing permanent records of DeskMate tasks you accomplish and information you store, a printer.

Requirements for Using DeskMate Plus

Other than the memory requirement mentioned above, keep in mind a few other requirements for using DeskMate Plus:

- You cannot run DeskMate Plus at the same time as you run “always resident” programs, such as Microsoft® Windows, Sidekick®, and other similar packages. You **can**, however run DeskMate Plus and ViaNet® at the same time.
- You cannot use DeskMate Plus with other software that requires you to reset the computer in order to load.

About This Book

You'll discover several uses for DeskMate as you read this book. When you're finished, you'll have a good knowledge of the way DeskMate handles information and the way to set up your own information when you begin applying DeskMate to your “real-world” situation.

You'd do well to familiarize yourself with DeskMate by performing the procedures in the Sample Session first. After you've worked through the Sample Session, refer to the Reference part of this book for answers to specific questions you might have. The Reference part explains every DeskMate application and function in detail and is organized to help you find needed information quickly. In addition to the Reference part, you'll find the *Quick Reference Guide* useful for looking up quick summaries of functions when you need an occasional reminder.

The appendices contain information you'll need only occasionally and information of a more technical nature. The index contains detailed entries for every aspect of DeskMate explained throughout this book.

Of course, before you start using DeskMate, you'll have read the other books in this volume—*Introduction to MS-DOS* and *Introduction to the Tandy 1000 SX*. These books bring you up to speed on your Tandy Computer so that you can prepare it for using DeskMate and other available software packages.

First Things First

Before you begin using DeskMate, you need to take a few preliminary steps described in the next few sections of this chapter. These steps are procedures such as copying the DeskMate diskettes. If your computer setup includes a hard disk, refer to Appendix C for instructions on completing the preliminary steps. When you finish the preliminary procedures, you can start learning DeskMate using the Sample Session.

Copying the DeskMate Diskettes

First, make a copy of the original DeskMate diskettes. Use only the copies as you work with DeskMate, and keep the originals in a safe place, away from dust, magnetic fields, and other hazards that could destroy information on them. To copy the DeskMate diskettes, follow the instructions below for each diskette.

1. Turn on the computer as outlined in your *Introduction to the Tandy 1000 SX*.
2. With the MS-DOS diskette in Drive A (the lower drive) and the A> prompt on the screen, insert a blank diskette in Drive B (the upper drive).
3. Type **diskcopy a: b:** at the A> prompt. The screen shows:

```
Insert source diskette into Drive A.  
Insert formatted target diskette into Drive B.  
Strike any key when ready
```

4. Insert the DeskMate diskette in Drive A. The blank diskette is already in Drive B, so press the space bar to begin. If the target diskette (in Drive B) is not formatted, the system formats the disk as a part of the diskcopy procedure.

When the operating system finishes copying DeskMate onto the blank diskette, this message appears:

```
Copy Complete
Copy another (Y/N) ?
```

5. Press to continue making copies of diskettes or to end the session. When you press , the A> prompt reappears.

Building a Diskette to Practice Using DeskMate Plus

To practice using DeskMate Plus on your floppy-based setup, you need to copy two files to a formatted, blank diskette. Complete the following procedure. If you have a diskette that is formatted already, place it in Drive B, and begin with Step 4.

Note: To practice using DeskMate Plus on a hard-disk setup, complete the preparatory steps in Appendix C.

1. Insert your backup copy of your MS-DOS diskette in Drive A, and place a blank diskette in Drive B. Type the following command at the system prompt, A>:

format b:

A message appears on the screen:

```
Insert new diskette for drive B:
and strike ENTER when ready
```

2. The diskette you want to format is already in Drive B, so press . After a short time, the screen reports the completion of the format process and offers the following choice:

```
Format another (Y/N)?
```

3. Type N to return to the system prompt.

4. Insert your backup copy of the DeskMate Data diskette in Drive A. Drive B contains your formatted diskette. At the system prompt, A>, type:

copy a:*.dmp b:*.exe

The system copies the files onto your formatted diskette, and redisplay the system prompt when the transfer of files is complete.

5. Remove the diskette from Drive B, and label it "DMTUTOR."

As you continue the Sample Session, keep your DMTUTOR diskette handy. When instructed to do so, exchange the DMTUTOR diskette for the program diskette in Drive A.

Get Your Feet Wet!

After you make copies of the diskettes, you're ready to start the Sample Session. Don't be afraid to work through all the examples. You have nothing to lose by experimenting with "made-up" information, and you'll be ready to put DeskMate through its paces confidently, using **your** information.

DeskMate Sample Session

BEGINNING THE SAMPLE SESSION

During part of the sample session, you will be working with sample data involving Mr. Edwin Raymond's catering firm, Bon Appetit. The sample session is divided into mini-sessions, each covering a different application or subfunction.

Before you try out DeskMate's features, be sure to make copies of the DeskMate diskettes, following the instructions in Chapter 1. If you have a hard disk, install DeskMate as directed in Appendix C. **Never** run DeskMate with the original diskettes—use them **only** for making working copies. Use the copies when you want to run DeskMate.

To practice using DeskMate Plus, you'll need a working copy of each DeskMate diskette, along with the DeskMate Tutor diskette you prepared in Chapter 1, labeled DMTUTOR.

Starting Up

To get started with the Sample Session, follow these steps.

1. Insert a backup of the MS-DOS/BASIC diskette into Drive A. Press the RESET button. Enter the date as **02/25/87** and the time as **10:30**.
2. At the system prompt, **A>**, insert a copy of the DeskMate program diskette in Drive A and a copy of the data diskette in Drive B. Type **dmplus** ENTER.

The command you typed loaded DeskMate so that you could use its task-switching feature, DeskMate Plus. This divided your computer's memory into two *partitions*, or pieces. One partition runs DeskMate, and the other partition can run another software package.

Once you load DeskMate, its Main Menu appears.

DeskMate										02/25/87 10:30am									
FEB 1987 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28										Events for Today: Make appointment with accountant Mom's birthday - call florist Write confirmation letter to Wilson 05:30a Shop at fish and produce wholesale markets 07:30a Meet Bill at gym 08:30a Prepare food for Davis luncheon 11:45a Luncheon at Riverdale Country Club									
Text		Worksheet		Filer		Telecom		Calendar		Mail									
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]										
Date	Name	Free	Alarm	Host	Passwd	Select	Copy	Delete	Swap										

- The top line shows the program name and the date and time you entered when you started up the computer.
- February, 1987's calendar is at the left, with the 25th highlighted.
- Events scheduled for the 25th appear to the right of the calendar. These events can be special meetings and engagements or all-day events not associated with a particular time, such as birthdays. You'll use the Calendar application and the Alarm function to put a few events into the computer.
- The bottom half of the screen shows the DeskMate applications. The columns headed by the application names are empty right now. Later, they'll contain the names of DeskMate data files. These files are for your use during the Sample Session, and you'll bring them to the screen in the next chapter. (If you installed DeskMate on a hard disk, the files appear already.)
- The last two lines on the screen list the available functions for the application you are using. The Main Menu functions are on the screen because you are at the menu level. (Find out about the Main Menu functions that are currently on the screen by reading the chapter, "Main Menu.")

When you finish a particular chapter of the Sample Session (other than “Using DeskMate Plus” and “Text”) and want to exit DeskMate, press **[F12]** at the Main Menu. (“Using DeskMate Plus” and “Text” contain special instructions for exiting DeskMate.) To keep another copy of the work you’ve done during the Sample Session, make copies of the DeskMate diskettes you used, following the instructions in Chapter 1. It’s a good idea to make a habit of duplicating your working copies at the end of each day. After you make the copies, remove the diskettes, and turn off the computer system.

Special Keys

As you work through the Sample Session, you’ll make use of several keystrokes. This section introduces you to the various kinds of keys and combinations you’ll use.

Control Keys

The control keys you’ll use in DeskMate are **[ALT]**, **[CTRL]**, and **[SHIFT]**. Use these keys in conjunction with other keys to produce a *key sequence*. Control keys work in much the same way as the **SHIFT** key on a typewriter. To use a control key, hold down the control key while pressing the appropriate combination key.

Arrow Keys

You’ll use the arrow keys within applications and subfunctions to move the selection marker or cursor to a particular piece of information. (The selection marker marks a whole unit of information, such as a file or an application. A cursor marks a single character.) To move the selection marker or cursor farther and faster, use the arrow keys with **[SHIFT]** or **[CTRL]**. See the Reference part of this book for details on using the arrow keys.

Function Keys

Functions are specific to each application. Function keys (**[F1]**, **[F2]**, **[F3]**, and so on) and names appear on the last two lines (the *label lines*) of the screen when you are using an application. To select a function, press the appropriate function key. **[F1]** and **[F12]** act in specific ways throughout DeskMate. Their uses are:

F11 Toggles an alternate label line that displays a set of subfunctions you can choose at any time. Press **F11** now to see this label line. At the bottom of the screen, you see:

[ALT:F1]	[ALT:F2]	[ALT:F3]	[ALT:F4]	[ALT:F5]	[ALT:F6]	[ALT:F7]
Help	Calc	Show	Alarm	Alarm On/Off	Phone	Printer
						Date

It can be helpful (but is not necessary) to display the subfunction menu before you select a subfunction. To access a subfunction from anywhere in DeskMate, hold down **ALT** while you press the appropriate function key. The sample session chapters describe these subfunctions in more detail.

Press **F11** now to return to the Main Menu level of operation. The Main Menu label lines replace the subfunction menu.

F12 Returns you to the previous level of operation, to the Main Menu, or to the MS-DOS system prompt. Use **F12** if you choose an application or subfunction accidentally or if you finish your work in an application.

SHIFT F12 Also returns you to the previous level of operation, to the Main Menu, or back to the MS-DOS system prompt. You can also use **SHIFT F12** in the Text and Worksheet applications if you don't want to save a new file or changes you made to an existing file. DeskMate cancels the data you just entered or any changes you made to an existing file, and you return to the Main Menu.

Message for Color Monitor Users

If you're using a color monitor, you can change the color arrangement on the screen. Take a few minutes to experiment and choose the arrangement you prefer.

Press one of the function keys **F1**, **F2**, **F3**, or **F4** while you hold down the **CTRL** key to control screen color as follows:

CTRL	F1	Screen background
CTRL	F2	Screen foreground
CTRL	F3	Highlighted background
CTRL	F4	Highlighted foreground

For example, hold down **CTRL**, and press **F1**. The background changes to the first of eight color choices. Press **CTRL** **F1** several more times. Each time you press the function key, a different background color appears.

Screen Display

If you leave a particular screen displayed without doing anything for more than ten minutes, the contents of the screen disappear, and you see the title, *DeskMate*, scroll from left to right across the screen. Press the space bar, and the previous screen reappears.

USING DeskMate PLUS

This chapter shows you how to use DeskMate Plus, DeskMate's task-switching feature. During the session, you'll switch out of DeskMate and load another program. The alternate program, on the diskette labeled DMTUTOR, simply enables you to practice the task-switching procedure.

After you load the alternate program, you'll switch back to DeskMate and begin work in the Text application. Midway through the Text chapter, you return to the alternate program briefly and check to see that you have switched disks properly. Then, you exit the alternate program for the remainder of the Sample Session.

As you perform the steps in this chapter, follow the instructions very carefully. Pay particular attention to the instructions that let you know when to take diskettes from drives and replace them with others. If you are using a hard disk, refer to Appendix C for instructions on executing DeskMate Plus.

Displaying Data Files

In the previous chapter, you loaded DeskMate (by entering **dmplus**) and displayed the Main Menu. Next, you need to see the files that reside on the data diskette, which is in Drive B. To do this, look at the label lines at the bottom of the screen.

1. The Swap function lets you activate a drive other than Drive A. You can perform the function by pressing **F10**. Press **F10** now.
2. Type over the line at the bottom of the screen that reads **A:** with:

b: **ENTER**

The names of the data files on your sample data diskette appear in their appropriate columns. You're ready to move on and discover DeskMate Plus.

Switching Out of DeskMate

1. Right now, the Main Menu is on the screen. Switch out of DeskMate by holding down the **[ALT]** key and pressing **[=]**. You see this message:

Insert COMMAND.COM diskette in drive A:
Strike any key when ready

2. Open the drive doors and take out the DeskMate program and Sample data diskettes.

Loading Another Program

1. Insert in Drive A a copy of your MS-DOS/BASIC diskette. This is the COMMAND.COM diskette the screen is asking for.
2. Press the space bar. The **A>** prompt appears on the screen.
3. Remove the MS-DOS/BASIC diskette from Drive A, and replace it with the DeskMate Tutor diskette that you prepared, labeled DMTUTOR.
4. Load this alternate program by typing **dmtutor** **[ENTER]**. The screen displays a message, WELCOME TO DESKMATE PLUS, and a brief description of task switching.

Continuing Your Work

To continue the Sample Session, return to the partition in which DeskMate is loaded. When you do, the alternate program remains loaded in the DOS partition. The steps for switching partitions are displayed on the lower portion of the Tutorial screen:

1. Remove the DMTUTOR disk from Drive A, and insert the DeskMate diskettes in the drives.
2. Press **[ALT]** **[=]** to switch to DeskMate.

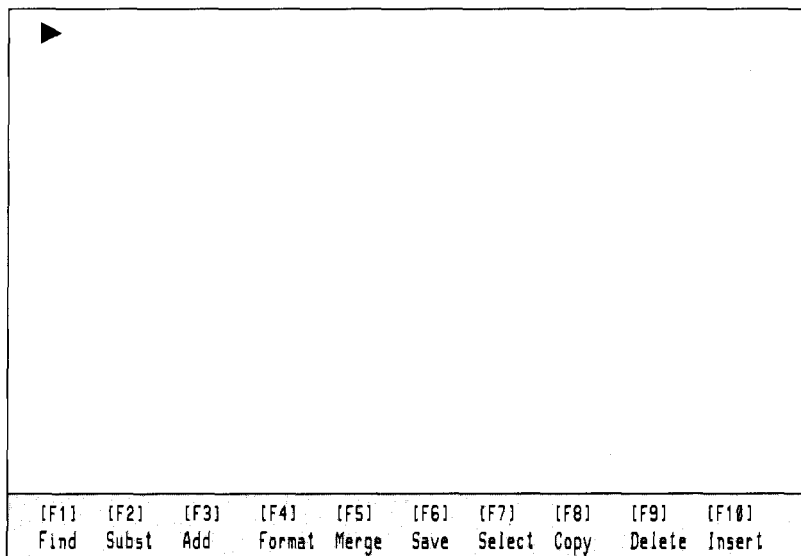
The DeskMate Main Menu reappears on the screen, exactly as you left it. Turn to the next chapter, and begin the tasks using the Text application.

TEXT

This chapter lets you gain some practice using the Text application while you work in the alternate DeskMate running on your computer. Again, pay special attention as you near the end of the chapter when the instructions tell you to switch diskettes. Follow the instructions very carefully.

Creating a File

1. Press **ENTER** to select Text. The Enter filename: prompt appears.
2. Type **Letter** **ENTER** to create a document file named "LETTER." A blank typing screen appears with label lines at the bottom showing you the functions available in Text.



3. Type the following letter, pressing **ENTER** where indicated. Don't worry about typing mistakes. Later, you'll learn how to correct errors by inserting, deleting, and overstriking.

Dear Mrs. Williams:

I am writing to confirm your agenda for the upcoming month. I have you scheduled for the following days:

3/3/87 Luncheon for eight at noon

3/12/87 Afternoon tea for six at 3:00

3/25/87 Dinner for 10 at 8:00

3/31/87 Wedding reception for 60 at 7:30

If any of the above information is incorrect, please let me know as soon as you can. (March appears to be a very busy month.) We also need to get together soon and arrange the menus.

Sincerely,

Edwin Raymond

Note: As you type, notice on the screen that ► indicates the end of the document and that ■ indicates the end of a line.

Adding Text

Add an event for March 1st to the list.

1. Move the cursor over the first 3 of 3/3/87 by holding down the key until you're on the line containing the March 3rd event.
2. You are typing in Add mode (the typing mode that Text automatically sets up for you), as you can see in the label lines at the bottom of the screen. This means that DeskMate **adds** anything you type at the cursor's position to any other text already on the screen, pushing the other text out of the way to make room for your addition. Type 3/1/87, press the space bar three times, and type **Bridal shower for 15 at 1:00** .

Note that the original text automatically moved to the right as you added (inserted) the new text and then moved down to the next line when you pressed .

Correcting Mistakes

Change the information for the March 25th event to March 26th for 12 people.

1. Move the cursor over the 5 of 25.
2. Change the typing mode to `Replace` by pressing `[F3]`. (Note that `Replace` now appears in the label lines.) In this typing mode, anything you type at the cursor's position **replaces** any other text already at that location on the screen.
3. Type **6** over the 5, move the cursor to the 0 of 10, and then type **2** over the 0.

Make one more correction. The word "and" in the last sentence should be changed to "to."

4. Move the cursor to the a in and and type **to**.
5. Press `[DELETE]` to erase the d and shift the rest of the sentence to the left one character.
6. Press `[F3]` to switch from `Replace` mode back to `Add` mode.

Note: If you made any mistakes while typing the letter, correct those errors now by using the `Add/Replace` typing modes and the `Delete` function. Then, continue with the rest of this chapter.

Copying Information from Other Files

Now you'll insert addresses from other Text files into the `LETTER` document. As you do this, you'll see how to use the `Find`, `Select`, `Copy`, and `Merge` functions.

1. Press `[F12]` to store the letter on diskette and return to the `Main Menu`.
2. Use `[↓]` to move the marker to the `ADDRESS` file, and press `[ENTER]`. The name/address information of Mr. Raymond's customers appears on the screen.
3. To look up Mrs. Williams' address, press `[F1]` for `Find`.
4. Type **Wil** `[ENTER]` (using just part of the name) as the *search string*. The cursor moves to the W of `Williams`.

Whenever you want to do something with a block of information (Copy, Buffer, Print, Insert, Delete), you must first tell DeskMate where that information begins and ends. Do this by using the Select function.

5. Move the cursor to the M of Mrs., and press **[F7]** to mark the beginning of the address block.
6. Press **[↓]** three times to select the three lines of Mrs. Williams' address.
7. Press **[F8]** for Copy to put the address block in a file by itself. The screen asks for a filename to which you want to copy the block. Type **Williams** **[ENTER]** as the filename. The address is now in its own file, although it remains a part of the ADDRESS file as well.
8. You're finished with the ADDRESS file, so press **[F12]** to return to the Main Menu.
9. Use the arrow keys to position the marker over LETTER, and press **[ENTER]**.
10. When the letter reappears, position the cursor at its beginning.
11. Press **[F6]** to merge a file into the letter.
12. For the filename, type **Williams** **[ENTER]** to merge the WILLIAMS file into the LETTER file. The address now appears at the beginning of the letter.

Add a blank line between the customer's address and the salutation.

13. Check the label line at the bottom of the screen to be sure that you're in Add mode. If Replace appears instead of Add, press **[F3]** to change typing modes.
14. Move the cursor to the D of Dear, and press **[ENTER]** to create a blank line.

Next, you'll place Mr. Raymond's return address above Mrs. Williams' address. A Text file called LHEAD contains the standard heading Mr. Raymond uses at the top of all his correspondence.

15. Press **[CTRL]** **[↑]** or **[HOME]** to move the cursor to the beginning of the letter.

16. To insert the Text file, LHEAD, at the top of the letter, press **[F6]** for Merge. Then, type **LHEAD** **[ENTER]** as the filename.
17. To add a blank line between the addresses, move the cursor to the M in Mrs., and press **[ENTER]**.

The address information appears at the beginning of the document, and now, although you can't see it all, the entire letter looks very similar to this:

Edwin Raymond
4000 Seville Avenue
Fort Worth, Texas 76126
Date

Mrs. Eliot Williams
1908 Florida Avenue
Denton, Texas 70912

Dear Mrs. Williams:

I am writing to confirm your agenda for the upcoming month. I have you scheduled for the following days:

3/1/87 Bridal shower for 15 at 1:00
3/3/87 Luncheon for eight at noon
3/12/87 Afternoon tea for six at 3:00
3/26/87 Dinner for 12 at 8:00
3/31/87 Wedding reception for 60 at 7:30

If any of the above information is incorrect, please let me know as soon as you can. (March appears to be a very busy month.) We also need to get together soon to arrange the menus.

Sincerely,

Edwin Raymond

18. Move the cursor to the D in the Date line.

19. Press **[F3]** to switch to Replace mode. Then, type **February 25, 1987** **[ENTER]**.

Note: With the addition of the two address blocks, the letter now contains more than 22 lines, the maximum number of text lines that can appear on the screen. Press **[CTRL]** **[↓]** or **[END]** to move the cursor to the end of the letter and see the lines that would not fit on the screen.

Returning to DeskMate Plus Tutorial

At this point, you have completed the first part of the Text Sample Session. By executing the task-switching command, you can return to the DeskMate Plus Tutorial still loaded in the other partition. The Text file remains open in the DeskMate partition while you change diskettes and switch partitions.

1. Insert your DMTUTOR diskette in Drive A in place of your DeskMate program diskette, and remove the data diskette.
2. Press **[ALT]** **[=]** to switch partitions. DMTUTOR appears on the screen, welcoming you once again to DeskMate Plus. This time, notice the instructions at the bottom of the screen:

o IF YOU COMPLETED THE FIRST PART OF THE TEXT
SAMPLE SESSION:

- BE SURE YOUR DMTUTOR DISK IS IN DRIVE A
- PRESS <ENTER> TO CONTINUE THE DMPLUS
TUTORIAL

3. In Step 1, you inserted the DMTUTOR diskette. After you verify that it is there, press **[ENTER]** to continue.

After you press **[ENTER]**, either of two screens appears. If, as directed, you switched diskettes when you switched partitions, you see the screen described in Step 4a. If there is some problem in switching tasks, the screen headed SORRY (described in Step 4b) appears instead.

- 4a. If you have proceeded correctly, the next screen begins:

```
*****  
***** CONGRATULATIONS *****  
*****
```

The text on the screen discusses the importance of exchanging diskettes before you switch tasks. If you press **[ALT] [=]** to switch tasks but fail to replace the diskettes from the previous application, you can overwrite or corrupt files when you attempt to execute the program in the other partition.

- 4b. A different message appears on the screen if you did not exchange diskettes properly. In part, the message reads:

```
*****  
***** SORRY *****  
*****
```

```
SORRY, you did not properly exchange  
diskettes. It is very important that you  
keep track of which diskettes are in your  
computer BEFORE you switch and continue  
running the application. Both the program  
and data disks for the application you wish  
to run must be in the drives.
```

The directions at the bottom of the screen remind you that you must have DMTUTOR in Drive A. If you have not yet placed DMTUTOR in the proper drive, do so now, removing the DeskMate program and data diskettes and closing the drive latch once DMTUTOR is in place. Press **[ENTER]** to try again.

If you are indeed using DMTUTOR in Drive A as directed and you have reached the screen headed SORRY, there is a chance that you have a bad diskette. Continue with Step 5 and exit DeskMate Plus. To complete the DeskMate Plus Tutorial successfully, you will need to try again to build the DMTUTOR diskette. The directions appeared in Chapter 1 in the section, "Building a Diskette to Practice Using DeskMate Plus."

5. As your screen directs, press **[Q]** to quit the DeskMate Plus Tutorial. The system prompt returns.
6. Although you have exited DMTUTOR, the second partition is still active. While it remains active, you are prevented from quitting DeskMate.

Place your DeskMate diskettes in the drives once again, and type the following command to close the second partition and return to DeskMate:

exit

DeskMate returns, displaying your Text file exactly as you left it when you switched tasks. You are ready to resume the Text portion of the Sample Session.

Printing Text

Before you print a document, it is a good idea to make the line width on the screen coincide with the line width that will print on a page. By using the Format function, you can get a rough idea of the way the document will look when you print it.

1. To change the displayed line width, press for **Format**.
2. The default width value is 79. You'll print the letter using a line width of 50, so type **50** to change the display.

The letter now looks like this:

Edwin Raymond
4000 Seville Avenue
Fort Worth, Texas 76126
February 25, 1987

Mrs. Eliot Williams
1908 Florida Avenue
Denton, Texas 70912

Dear Mrs. Williams:

I am writing to confirm your agenda for the upcoming month. I have you scheduled for the following days:

3/1/87 Bridal shower for 15 at 1:00
3/3/87 Luncheon for 8 at noon
3/12/87 Afternoon tea for 6 at 3:00
3/26/87 Dinner for 12 at 8:00
3/31/87 Wedding reception for 60 at 7:30

If any of the above information is incorrect, please let me know as soon as you can. (March appears to be a very busy month.) We also need to get together soon to arrange the menus.

Sincerely,

Edwin Raymond

Note: Use the arrow keys to see the entire letter.

3. Be sure your printer is properly connected and on-line. Use standard 8 1/2 by 11 inch paper (80-column computer paper), and align the paper in the printer so that the print head is on the sixth line, or about one inch from the top of the paper.
4. Press **[F1]** to display the subfunctions menu. At the bottom of the screen, you see:

[ALT:F1]	[ALT:F2]	[ALT:F3]	[ALT:F4]	[ALT:F5]	[ALT:F6]	[ALT:F7]
Help	Calc	Show Alarm	Alarm On/Off	Phone	Printer	Date

5. To display the printer settings, hold down **[ALT]**, and press **[F6]**. The screen shows the default values for the settings:

PRINTER SETTINGS

Left Margin:	0
Printed Line Width:	80
Total Lines per Page:	66
Printed Lines per Page:	60
Double Space (Y/N):	N
Pause Between Pages (Y/N):	Y
New Page after Print (Y/N):	Y

6. The built-in setting for the Left Margin is 0. Type 15 **[ENTER]** to make the left margin approximately 1 1/2 inches from the edge of the paper.
7. The next setting, Printed Line Width, is the number of characters you want a printed line to contain. To change the built-in line width of 80 to 50, type 50 **[ENTER]**.
8. Total Lines per Page refers to your paper's length, the number of lines on the entire page. The built-in value for Total Lines per Page, 66, serves well for both regular-sized paper (8 1/2 by 11 inches) and wide, 132-column computer paper (14 by 11 inches). Press **[ENTER]** to use the displayed value of 66.
9. Printed Lines per Page refers to the number of lines you want printed on the page. This value equals the number you enter for Total Lines per Page minus the total number of blank lines you want at both the top and bottom of a page. After you manually adjust the printer, aligning the paper to start printing on the line at the printer head position, double that line value, and then subtract that from the Total Lines per Page value.

To make the bottom margin contain six blank lines (and the top margins of any subsequent pages), subtract 12 from 66, and the result, 54, is the value for Printed Lines per Page. Type 54 **[ENTER]** to change the number of Printed Lines per Page.

10. At the Double Space prompt, press **ENTER** to keep lines single spaced.
11. If you are printing on single sheets, press **ENTER** to tell the computer to stop after printing each page. If you are printing on continuous form paper, type N **ENTER**.

The setting for Pause between Pages does not really matter in this example because the entire letter occupies fewer than 54 lines.

12. To automatically advance your paper to the top of the next sheet when the letter finishes printing, press **ENTER** at the New Page after Print prompt.
13. Press **PRINT** to start printing.
14. When the printer finishes, press **F12** to store the revised LETTER file on diskette and return to the Main Menu.

Substituting Text

One of the Text functions you haven't used yet is Substitute. The Substitute function lets you find a specific string of characters throughout a document and replace the string with different text. Uppercase and lowercase distinctions are ignored in search strings. For example, *STRING* and *string* are recognized as equal. Suppose that you want to change almost every occurrence of Fort Worth to Dallas. To do this:

1. At the Main Menu, press **↓** to move the cursor to the ADDRESS file, and press **ENTER**. The names and addresses of Mr. Raymond's customers reappear on the screen.
2. Press **F2** for Substitute. Then, type **Fort Worth** **ENTER** as the Search string.
3. As the Replacement string, type **Dallas** **ENTER**.
4. The cursor moves to the first occurrence of Fort Worth (in Cindy Beauchamp's address), and you see Replace? (Y/N).
5. Press **Y**. The replacement string, Dallas, replaces the search string, Fort Worth, and the cursor moves to the next occurrence of the search string (in Ellen McKinney's address).

6. Press **[N]** to keep this occurrence of Fort Worth. The cursor moves to the last address containing Fort Worth, and the screen asks you Replace? (Y/N).
7. Press **[Y]**. The replacement made, the screen displays the beginning of the document.
8. To change the addresses back to their original states, press **[F2]** for Substitute again.
9. This time, type **Dallas** **[ENTER]** as the search string and **Fort Worth** **[ENTER]** as the replacement string.
10. Press **[Y]** at the first occurrence, **[N]** at the second occurrence, and **[Y]** at the last occurrence. Now the ADDRESS file is the same as it was when you opened it.

Using the Calculator Within Text

You can select the Calculator subfunction while using any application. Before you exit Text and return to the Main Menu, experiment with Calculator. You don't have to view the subfunction menu before you select a subfunction. To access Calculator directly, press **[ALT] [F2]**. The Text label lines at the bottom of the screen disappear, replaced by the Calculator labels and a small window for displaying figures.

[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	0.00000000
Add	Sub	Mul	Div	Percent	CA	CE	+/-	+

Calculator works just as a hand-held calculator does, except that both the *accumulator* (the result of the last mathematical operation) and the *operand* (the number upon which the operation is performed) are always visible. With a hand-held calculator, you can usually enter and see only one number at a time.

1. To add 5 and 1, type **5** **[ENTER]** and **1** **[ENTER]**. The answer, **6.00000000** (the accumulator), appears on the top line.
2. To subtract 4 from 6, press **[F2]** for Sub. Then, type **4** **[ENTER]**. The top line changes to **2.00000000**.
3. To multiply 2 by 10.3, press **[F3]**, and type **10.3** **[ENTER]**. (To multiply, you can use the **[F3]** function or type *****.) The accumulator is now **20.6**.

4. To divide 20.6 by .4, press **[F4]**, and type **.4** **[ENTER]**. The answer, 51.5, appears on the top line. Note that the order in which you do things doesn't matter: you can type the operand or select the mathematical operation first. Either way, once you press **[ENTER]**, Calculator performs the operation and displays the answer.
5. Now, suppose that you want to know what 25 percent of 51.5 is. Type **%** (or press **[F5]**), and type **25** **[ENTER]**. The accumulator changes to 12.875. The Percent function takes the operand you enter and gives that percentage of the accumulator, displaying the result on the top line.
6. The CA (Clear All) function erases both the top and bottom lines and sets the operation to Add. Press **[F6]** for Clear All to start over.
7. If you make a mistake in typing an operand, press **[F7]** before you perform the operation. When you use the CE (Clear Entry) function, Calculator erases only the last number you typed (the operand). It still performs the original arithmetic operation.

Suppose that you want to take 30% of 51.5, and instead you accidentally type 25. Type **51.5** **[ENTER]**. Press **[F5]** for Percent; then type **25**. Press **[F7]** to erase the 25. Then, type **30** **[ENTER]**. The new result is 15.45.

8. **[F8]** changes the sign of the operand from positive to negative and vice versa. Divide 15.45 by negative 4. Press **[F4]** for Divide, then **[F8]** to change the sign of the operand to negative, and type **4** **[ENTER]**. The answer, shown on the top line, is -3.8625.
9. To quit using the Calculator and return to Text, press **[F12]**. The Text label lines reappear.

Exiting Text

To exit Text, press **[F12]** to return to the Main Menu. **[F12]** saves a newly created document you just typed or any editing changes made to an old document. When you press **[F12]**, DeskMate stores the Text file (and any revisions made to it) on diskette, you exit Text, and the Main Menu reappears.

FILER

Opening the Clients File

1. To select the CLIENTS file from the Main Menu, place the selection marker on CLIENTS (in the Filer column), and press **[ENTER]**. The screen soon displays this record:

FILER [CLIENTS]		First Record	02/25/87 10:30am						
Last Name . . . . .	.*:	Beauchamp						
First Name . . . . .	.*:	Cindy						
Address . . . . .	.*:	2209 Riverdale Road						
Address*:								
City . . . . .	.*:	Fort Worth						
State . . . . .	.*:	Tx						
Zip Code . . . . .	.*:	76107						
Phone . . . . .	.*:	817-555-1267						
Acct Bal (\$)	. . . . .*	0						
Remarks . . . . .	.*:	Prefers French cuisine, very dry wines. Allergic to almonds. Member of Riverdale Country Club.						
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]
Find	Call	Display	Print	Form	Merge	Select	Copy	Delete	Add

This form records client information. A form contains two parts: labels in the left column, and space in the right half of the screen for entering the actual data. For example, Last Name is a label, and Beauchamp is its data.

The number sign (#) next to the Account Bal (\$) label, indicates that this is a numeric field. An asterisk (*) in the label area indicates that the information in the label and data area will print or display if you choose those functions.

2. Press **[CTRL]** **[→]** to see the next record. The screen shows a completed form for Frederick Davis.

FILER [CLIENTS]		02/25/87 10:30am							
Last Name*	Davis								
First Name*	Frederick								
Address*	6601 Oak Boulevard								
Address*									
City*	Arlington								
State*	Tx								
Zip Code*	76109								
Phone*	817-555-9011								
Acct Bal (\$)*	217.33								
Remarks*	Outstanding bill for 1/15/87 dinner. Sent 1/31/87. Call if not paid by 2/28/87.								
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]
Find	Call	Display	Print	Form	Merge	Select	Copy	Delete	Add

Finding Records

Review all the records of clients who live in Fort Worth by following the instructions below.

1. Press **[F1]** for Find. A blank form appears. New label lines appear at the bottom of the screen, showing you the function keys you can use in Find mode.
2. You want to find records for clients who live in a certain **city**, so you can skip the first four data fields. Press **[↓]** or **[ENTER]** until the marker is on the data field for City. Type **Fort Worth** **[ENTER]**.
3. Press **[F12]** to return to the original Filer screen and display the first record containing Fort Worth, the city you wanted to find. Cindy Beauchamp's record appears on the screen.
4. Press **[CTRL]** **[→]** to see the next record that contains Fort Worth. The screen shows Laura Wordsworth's record.

Printing a List of Clients

Suppose that you want to print a list (containing only customer names and balances) of those customers who have outstanding balances in their accounts.

1. Press **[F1]** for Find and **[F5]** to reset the search criteria.
2. Press **[↓]** until the marker is on the Account Bal line.
3. Press **[F2]** to change the operator from “equal” to “greater than or equal to.” Then, type 1 **[ENTER]** for the amount.
4. Currently, all the labels and data fields will print or display, indicated by the asterisk on each label line. You must *unmark* any labels that you want to exclude from the display and/or printout.

Before you exit the Find screen, move the marker to the first address line, and press **[F7]** for Mark. The asterisk disappears, so that now the first Address label and information will not display or print.

5. Move the marker to the second address line, and press **[F7]** to switch from Mark to Unmark. Repeat this process for City, State, Zip Code, Phone, and Remarks.
6. When only the Last Name, First Name, and Account Balance labels have asterisks next to them, press **[F12]** to return to the original Filer screen. The first record containing an outstanding balance, that of Frederick Davis, appears.
7. The Display and Print functions list a group of records in a “report” format of sorts. To display a list of customers who have account balances greater than or equal to \$1.00, press **[F3]**. The screen soon displays the list of records that match the Find criteria. The labels and the file’s name appear on the top line, with the data of the matching records in the appropriate columns.

FILER - DISPLAY [CLIENTS]			Find Mode	02/25/87 10:30am					
Last Name	First Name	Acct Bal							

Davis	Frederick	217.33							
Helmer	John	650.51							
Williams	Eliot (Mrs.)	88.00							
End of List									
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]
Call		Print		Select		Copy			

8. To print this information, first be sure that your printer is on-line.
9. Next, check the printer settings by pressing **[F11]**, then **[ALT F6]**.
10. To change the printer settings to the values you need for printing this list, type **00** **[ENTER]** for Left Margin, **80** **[ENTER]** for Printed Line Width, **[ENTER]** to keep 66 for the Total Lines per Page, and **60** **[ENTER]** for Printed Lines per Page. Press **[ENTER]** to keep the Y response for New Page after Print.
11. Press **[F12]** to return to Filer. Then, press **[F4]** to print. The records print exactly as they appeared on the screen when you displayed them.
12. To exit the Display screen, press **[F12]**. The original label lines reappear.

Adding a Client

Follow these instructions to add a new client to the file.

1. Press **[F10]** for Add. A blank screen appears so that you can fill in the information for the new client.

2. For Last Name, type **McKinney** . For First Name, type **Ellen** . Type **3398 Ridgeway** in the first address line and **Apartment 500** in the second address line. For City, type **Fort Worth** . Then, for State, type **Tx** . Type **76103** for the Zip Code. For Phone, type **8175558166** . Type **0** for the Account Balance. For the last item, Remarks, type **Prefers Szechwanese cuisine — very spicy.**
3. To quit adding records, press .
4. Press for Find. Then, press to clear the current Find selections.
5. Press to return to the original Filer screen and the last record you viewed.

Calling a Client

Calling a client is as easy as looking up the client's record.

To call Cindy Beauchamp, press to look at the first record. Then, press until the marker is on the Phone line. If you were to actually make the phone call now, you would press for Call to have DeskMate automatically dial the number for you.

Creating a New Form

You can create a special form for storing information about the stores and companies Mr. Raymond uses.

1. Press until the Main Menu appears.
2. Select the Filer application, and type **Supplier** as the name of the new file you're creating. A blank screen appears, along with the Form function's label lines:

[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]
Order		Number						Delete	Add

3. For the first label, type **Company** . The rest of the space allocated for the label fills with spaces, a colon appears, and the cursor automatically moves to the first position in the data area.

4. Press **[ENTER]** to fill the data area of the line with dots. When you actually enter data for this label, you'll be able to use as many as 59 characters for typing a firm's name.
5. Press **[ENTER]** to return to the label area.
6. For the second label, type **Contact** **[ENTER]**.
7. Press **[ENTER]** again to display the dots in the data area.
8. Press **[ENTER]** to return to the label area, and type **Address** **[ENTER]** for the next label. Then, press **[ENTER]** twice.
9. To create an additional address line, type **Address**, and then press **[ENTER]** three times.
10. Type **City**, and press **[ENTER]** three times to define the next label and data area.
11. Next, type **State** **[ENTER]**. To limit the number of characters to two for the standard two-letter state abbreviation, press **[F10]** twice to add two dots, and then press **[ENTER]**. When you enter data for **State**, you will be able to enter only two letters in the data area.
12. Type **Zip Code** **[ENTER]** as the next label, press **[F10]** five times to allow five spaces for entering data, and then press **[ENTER]**. Press **[ENTER]** again to create a blank line below **Zip Code**.
13. Type **Phone** and press **[ENTER]**. To create a phone number format, press **[F10]** 12 times. Use the arrow keys to move back and type in dashes so that you see a --- - --- - --- format. Press **[ENTER]** twice to create a blank line below **Phone**.
14. For the next label, type **Amount Due** **[ENTER]**. To limit the number of digits that you can enter to seven plus a decimal point, press **[F10]** eight times, and then press **[ENTER]**.
15. Press **[ENTER]** to create another blank line. Then, for the last label, type **Remarks** **[ENTER]**. To create the maximum amount of space that a data field can contain (255 characters), press **[ENTER]**. Then, hold down **[F10]** to add space until the cursor stops.

Your form should look like this:

Company-----	:	-----
Contact-----	:	-----
Address-----	:	-----
Address-----	:	-----
City-----	:	-----
State-----	:	--
Zip Code-----	:	----
Phone-----	:	-----
Amount Due-----	:	-----
Remarks-----	:	-----

Inserting a Label

1. Press **ENTER** to move the marker to the label area.
2. To insert a label between Phone and Amount Due, move the marker to the beginning of the Amount Due line, and press **F10** to Add a label.
3. Type **Due Date** **ENTER** as the label. To create a **--/--/--** format for the date, press **F10** eight times. Use the arrow keys to go back and type two slashes. Then, press **ENTER**.

Making a Field Numeric

To specify a data field as one for holding numbers, use the Numeric function. With the marker on the Amount Due line, press **F3**. The dollar amounts will align on the right after you enter data for this label and store the record in the file.

Arranging Records

Use the Order function to arrange records in an order meaningful to you. For example, suppose that you want the records to sort and display in order of due date and company name. You'll specify **Due Date** as the first label by which to sort and **Company** as the second label by which to sort.

Filer then arranges the records so that the first record displayed has the earliest due date. If two records have the same due date, the record with the company name that comes first alphabetically will appear before the other.

1. To specify **Due Date/Company** order, move the marker to the **Due Date** label, and press **[F1]**.
2. Press **[1]** for the **Priority Number**. Notice that the priority number appears following the label.
3. Next, move the marker to the **Company** label, and press **[F1]**.
4. Press **[2]** for the next priority number.

Deleting Part of a Data Area

You need to make one more modification. Suppose that you decide you really don't need as much space as you thought to enter remarks.

1. To delete the last line in the **Remarks** data area, move the marker to the **Remarks** line, and press **[ENTER]** to move the marker to the data area.
2. Press **[↓]** to move the marker to the beginning of the last line, and then hold down **[F9]** for **Delete** until the entire line of spaces disappears. You now have four full lines for entering data.

Storing the Form

Now that the form is complete, press **[F12]** to exit the Form screen. A blank form appears so that you can now start adding records.

Adding New Records

1. Fill in the form with the following data, pressing after you type the information for each data field.

Company: ABC Exterminators
Contact: Roy Johnson
Address: 4000 Main Street
Address: P.O. Box 112
City: Fort Worth
State: Tx
Zip Code: 76101

Phone: 817-555-1212

Due Date: 03/05/87
Amount Due: 33.87

2. At the data field for Remarks, press to store this record and add another.
3. After you save a record using the Add function, a blank form reappears for adding a new record. Type the following data for the next two records, pressing after you type the information for each data field. Press to skip the second Address line, and press after you enter the Amount Due.

Company: LaFrance Bakery
Contact: Jacqueline Dominique
Address: 634 Trinity Avenue
Address:
City: Fort Worth
State: Tx
Zip Code: 76018

Phone: 817-555-5766

Due Date: 03/01/87
Amount Due: 45.14

Company: Petta Linen Service
Contact: Giorgio Petta
Address: 6501 Blackwood
Address:
City: Fort Worth
State: Tx
Zip Code: 73092

Phone: 817-555-7371

Due Date: 03/06/87
Amount Due: 17.16

4. Type the information below for the last record. When you reach the Remarks data field, type each line, and then press the space bar to move the cursor to the beginning of the next line. (Because words don't "wrap" around to the next line if they can't fit on the current line, always fill the end of a line with spaces whenever you want to start a new line in the same data area.)

Company: Young's Fish Market
Contact: Ann Young
Address: 554 2nd Avenue
Address:
City: Fort Worth
State: Tx
Zip Code: 77069

Phone: 817-555-2199

Due Date: 03/02/87
Amount Due: 78.44

Remarks: DAILY SPECIALS: Monday - Fresh lobster.
Tuesday - Shrimp. Wednesday - Red snapper. Thursday - Crab. Friday - Lake trout.
Saturday - Oysters and clams.

5. When you finish typing the Remarks information, press **F12** to store the last record and exit Add mode.

Scanning Records

You can see that Filer sorted the records according to Due Date/Company order. The record with the earliest due date, March 1, is LaFrance Bakery, and that record appears on the screen, even though the first record you entered was for ABC Exterminators.

1. Press **CTRL** **→** to see the record with the next due date. The record for Young's Fish Market appears, next according to Due Date, although it was the last record you entered.
2. To see the last record in the file according to the Order criteria, press **CTRL** **↓**. The record for Petta Linen Service appears because it has the last due date, March 6.

Exiting Filer

Press **F12** when you finish using Filer to return to the Main Menu.

WORKSHEET

Opening the Budget File

To open the BUDGET file and select the Worksheet application at the same time, position the selection marker on BUDGET, and press **ENTER**. The screen soon shows a worksheet for a simple home budget.

WORKSHEET [BUDGET]					02/25/87 10:30am	
1	2	3	4	5	6	7
1	BUDGET FOR JAN 1987					
2						
3	EXPENSE	BUDGET	ACTUAL	NET		
4	CATEGORIES	AMOUNT	AMOUNT	AMOUNT		
5						
6	Car Paymnt	250.00	250.00	.00		
7	Car Gas	80.00	60.00	20.00		
8	Home Gas	50.00	87.13	-37.13		
9	Electric	75.00	39.89	35.11		
10	Water	25.00	17.25	7.75		
11	Phone	50.00	61.10	-11.10		
12	Rent	400.00	400.00	.00		
13	Insurance	65.00	65.00	.00		
14	Grocery	150.00	113.57	36.43		
15	Fun	100.00	165.00	-65.00		
16						
17	TOTALS	1245.00	1258.94	-13.94		
Select Command:						
R 1 C 1						Free Memory XXXXX
[F1]	[Shift F1]	[F2]	[F3]	[F4]	[F5]	[F6]
Find	Calc	Text	Formula	Format	Buffer	Merge
[F7]	[F8]	[F9]	[F10]			
Select	Copy	Delete	Insert			

The filename, date, and time are on the top line of the screen. The visible part of the screen is just a small portion of the worksheet. A worksheet can have as many as 99 columns and 99 rows, while one screen of a worksheet (called a *window*) comprises 17 rows and seven columns. The highlighted rectangular box currently at Row 1, Column 1 (Cell 1,1) is called the *entry marker*.

The blank line above the Select Command prompt is the data entry line. As you type data, it appears both on the data entry line and in the cell in which the entry marker rests. When you press **ENTER** or an arrow key, Worksheet stores the data in the cell, and the data entry line becomes blank so that you can enter new data. Below the data entry line is the command line, which prompts you to select a command. Additional instructions sometimes appear on the command line to let you specify exactly what you want done.

Below the command line and just above the label lines is the cell status line that shows the cell currently highlighted by the entry marker (R1C1), the contents of the cell (which right now is empty), and the amount of free memory you have for entering data.

The budget on the screen compares budgeted amounts for expense categories with the actual amounts spent during the month of January. You are going to recreate this worksheet, step by step, to learn how to use Worksheet's basic functions.

Creating a Simple Worksheet

1. Press **[F12]** to return to the Main Menu.
2. Move the selection marker to **Worksheet**, and press **[ENTER]**. The screen presents you with a blank worksheet.
3. The command line prompts you to enter a filename for the worksheet you're about to create. Type **Example** **[ENTER]** as the filename.

Entering Labels and Text Data

Begin by entering the column and row headings.

1. Press **[CAPS]** once to enter the labels in capital letters.
2. In Cell 1,1 (Row 1, Column 1), the cell holding the marker, type **EXPENSE**. Note that Enter Text replaces Select Command to show the type of content the cell contains.
3. Press **[↓]** to move the marker to Cell 2,1 (Row 2, Column 1), and type **CATEGORIES**.

Note: If you make mistakes in typing, you can use **[BACKSPACE]** to delete the previous character.

4. Press **[→]** and **[↑]** to move the marker to Cell 1,2. Press the space bar four times, and type **BUDGET**.
5. Press **[↓]** once, and then press the space bar four times. Type **AMOUNT** to complete the Column 2 heading.
6. Move the marker to Cell 1,3, press the space bar four times, and type **ACTUAL**.

7. Press **[↓]**, and then press the space bar four times. Type **AMOUNT** to finish the Column 3 heading.
8. Move the marker to Cell 1,4, press the space bar four times, and type **NET**.
9. In Cell 2,4, press the space bar four times, and type **AMOUNT**.

Now enter the various expense categories.

10. Press **[CAPS]** so that you can type both upper- and lowercase letters.
11. Move the marker to Cell 4,1 to enter the first expense category. Type **Car Paymnt**.
12. Press **[↓]** to move the marker to Cell 5,1, and type **Car Gas**.
13. Type the rest of the expense categories in Column 1.

Type this: In this cell:

Home Gas	6,1
Electric	7,1
Water	8,1
Phone	9,1
Rent	10,1
Insurance	11,1
Grocery	12,1
Fun	13,1

14. Move the marker to Cell 15,1 to enter a label for Row 15. Press **[CAPS]**, and then type **TOTALS**.

This is the way the budget looks so far:

WORKSHEET [EXAMPLE]				02/25/87 10:30am						
1	2	3	4	5	6	7				
1 EXPENSE	BUDGET	ACTUAL	NET							
2 CATEGORIES	AMOUNT	AMOUNT	AMOUNT							
3										
4 Car Paymnt										
5 Car Gas										
6 Home Gas										
7 Electric										
8 Water										
9 Phone										
10 Rent										
11 Insurance										
12 Grocery										
13 Fun										
14										
15 TOTALS										
16										
17										
TOTALS										
Enter Text										
R15 C 1						Free Memory XXXXX				
[F1]	[SHIFT F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]
Find	Calc	Text	Formula	Format	Buffer	Merge	Select	Copy	Delete	Insert

Entering Budgeted Amounts

1. To enter the budgeted amount for the first expense category, Car Paymnt, move the marker to Cell 4,2, and type **250** **[ENTER]** to show a \$250.00 car payment. Note that Enter Number replaced Select Command to show the type of content the cell contains. Since the built-in display format for numbers is set up for financial data (the *dollar format*) with two decimal places, .00 automatically appeared after the 250 you entered. Also note that numbers align to the right within a cell, while alphabetic characters align to the left.
2. Press **[↓]** to move the marker to Cell 5,2. Type **80** **[ENTER]** to enter the budgeted amount of \$80.00 for gasoline.
3. Press **[↓]**, and type **50** **[ENTER]** as the budgeted amount for Home Gas.
4. Type the budgeted amounts for the rest of the expense categories in Column 2.

Type this:

In this cell:

75

7,2

25

8,2

50

9,2

400

10,2

65

11,2

150

12,2

100

13,2

Entering and Calculating Formulas

Next, enter a formula that adds these numbers and arrives at the total budget amount.

1. Move the marker to Cell 15,2, and press for Formula.
2. Type **SUM(R4)** . This formula tells Worksheet to add the numbers starting at Row 4 and continuing to Row 15, the row on which the entry marker currently rests. This formula is a short way of entering the formula:

$$R4 + R5 + R6 + R7 + R8 + R9 + R10 + R11 + R12 + R13$$

3. Press to calculate the formula. The calculated budget amount total, \$1245.00, soon appears in Cell 15,2.

Entering Actual Amounts

1. To enter the actual amount spent for the first expense category, Car Paymnt, move the marker to Cell 4,3, and type **250** .
2. Press to move the marker to Cell 5,3. Then, type **60** to enter \$60.00 for the amount actually spent for gasoline.
3. Type the actual amounts for the rest of the expense categories in Column 3.

Type this:

87.13
39.89
17.25
61.10
400
65
113.57
165

In this cell:

6,3
7,3
8,3
9,3
10,3
11,3
12,3
13,3

More Formulas and Calculations

Now enter a formula for calculating the total actual amount spent.

1. Move the marker to Cell 15,3, and press for Formula.
2. Type **SUM(R4)** .
3. Press to calculate the formula. The total actual amount, \$1,258.94, soon appears in Cell 15,3.

Enter another formula to calculate amounts in Column 4 that will show how much over or under budget you are in each expense category.

4. Move the entry marker to Cell 4,4, and press for Select.
5. Press 11 times to indicate that Rows 4 through 15 are a single block and that you want all values in Column 4 to calculate using the same formula.
6. Press , and type **C2-C3** . This formula takes each budgeted amount in Column 2 and subtracts the corresponding actual amount in Column 3. It calculates and displays the net amount for the particular expense category in Column 4.
7. Now, press to calculate the net amounts. The computed results appear row by row, expense category after expense category.

Finishing Touches

Give the worksheet a title as a finishing touch.

1. Press **CTRL** **I** and then **CTRL** **-** to move the entry marker to Cell 1,1.
2. To insert two blank rows, leaving room for the title at the top of the worksheet, press **CTRL** **-** to move the marker to the column containing the row number labels. Press **F10** twice to insert two rows.
3. Press **-** twice to move the marker to Cell 1,2.
4. Type **BUDGET FOR**.
5. Press **-**. Then, press the space bar once, and type **JAN 1987** **ENTER**.

Printing a Worksheet

Now that you've finished the budget worksheet, you're ready to print it.

1. Before you print the worksheet, be sure that your printer is on-line and that the paper is advanced so that printing will begin about an inch or so from the top of the paper (about six lines from the top).
2. Next, check the printer settings by pressing **ALT** **F6**.
3. You don't need to change any settings, so press **F12** to return to Worksheet.
4. Now, press **PRINT**. The printed copy looks like the one that follows.

1	2	3	4	5	6	7
1	BUDGET FOR JAN 1987					
2						
3	EXPENSE	BUDGET	ACTUAL	NET		
4	CATEGORIES	AMOUNT	AMOUNT	AMOUNT		
5						
6	Car Paymnt	250.00	250.00	.00		
7	Car Gas	80.00	60.00	20.00		
8	Home Gas	50.00	87.13	-37.13		
9	Electric	75.00	39.89	35.11		
10	Water	25.00	17.25	7.75		
11	Phone	50.00	61.10	-11.10		
12	Rent	400.00	400.00	.00		
13	Insurance	65.00	65.00	.00		
14	Grocery	150.00	113.57	36.43		
15	Fun	100.00	165.00	-65.00		
16						
17	TOTALS	1245.00	1258.94	-13.94		

5. After the printer stops, press **F12** to store the worksheet on diskette and return to the Main Menu.

Setting Up an Amortization Schedule

Now that you've constructed a simple worksheet, you might want to experiment with some of Worksheet's more sophisticated features. In the following example, you'll create a worksheet for an amortization schedule.

For each period, the fixed monthly payment is calculated and broken down into its two components, the interest and principal payments. There are three variables in this example: the original amount of the loan, the interest rate, and the number of periods over which the loan is amortized. The worksheet will contain two parts: the top part, for entering the values of the variables, and the bottom part, the actual amortization schedule.

Entering Labels

1. Move the selection marker to **Worksheet**, and press **ENTER**.
2. Type **Table** **ENTER** as the filename of the worksheet you are creating.
3. At Cell 1,1, type **LOAN AMT**.
4. Press **↓** to move the entry marker to Cell 2,1. Then type **INT RATE**.
5. Next, move the entry marker to Cell 3,1, and type **PERIODS**.

Now, instruct Worksheet to let you enter these values when you use the Calculate function.

6. Move the entry marker to Cell 1,2, next to **LOAN AMT**, press **F3** for Formula, and type **?LOAN** **ENTER**.
7. Move the entry marker to Cell 2,2, press **F3**, and type **?INTEREST** **ENTER**, so that later, Worksheet will prompt you to enter a constant value for the interest rate.
8. Move the entry marker to Cell 3,2, press **F3**, and type **?PERIODS** **ENTER**.

The next step is to enter headings for the seven columns.

9. Move the entry marker to Cell 5,1, and type **Period**.
10. Press **→**, and type **Balance**.
11. Press **→** to move the cursor to Cell 5,3, and type **Payment**.
12. In Cell 5,4, type **Interest**, and press **↓**. Then, just below **Interest** in Cell 6,4, type **Payment** to complete the heading for Column 4.
13. In Cell 5,5, type **Principal**, press **↓**, and type **Payment**.
14. Move the entry marker to Cell 5,6, and type **Cumulative**. Then, in Cell 6,6, type **Interest** to complete the Column 6 heading.
15. For Column 7, the last heading, type **Cumulative** in Cell 5,7, and type **Principal** in Cell 6,7.

Changing the Format

Before you enter formulas, format the worksheet differently so that columns 6 and 7 don't run together. To create more space between the columns, you are going to change the default width of all columns from 10 to 11.

1. Press **CTRL** **↑** to move the entry marker to the top row. Then, press **CTRL** **↑** again to move the entry marker to the line containing the column numbers.
2. Press **F4** for **Format**, and type **ALL,11** **ENTER** to change the column width to 11 characters.

Entering the Amortization Formulas

The next step is entering formulas for these seven columns. Column 1 is for entering all periods the loan covers. This is a schedule of a one-year loan, and thus has 12 periods.

1. Move the entry marker to Cell 8,1, and type 1 **ENTER**.
2. Move the entry marker to Cell 9,1, and press **F7** for **Select**.
3. Press **↓** ten times to indicate that Rows 9 through 19 constitute a single block and that you want all values in Column 1 to use the same formula for calculations.
4. Press **F3** for **Formula**, and type **R8+1** **ENTER**.

The formula tells Worksheet to take the value in the preceding row and the same column, add 1, and then display that value in the next row. For example, the value in the last row you selected, Row 19, will be the value in Row 18 plus 1. Thus, the original formula entered, **R8+1**, changes for each row so that when the value for Period 12 in Row 19 calculates, the formula is **R18+1**.

5. Press **SHIFT** **F1** to calculate.

Next you'll format Column 1 so that the period numbers don't run into the calculations that will appear in Column 2.

6. Move the entry marker to Cell 8,1, press **F7**, and then select Rows 8-19.

7. Press **[F4]** for **Format**, and type **LI** **[ENTER]**. **L** stands for left-justified, which means that the contents of all the selected cells will align to the left within the cell instead of the default right-alignment format for numbers and calculated values. You also specified an integer format with **I**, since the period numbers don't need to appear in dollar and cents format.

Column 2 shows the balance (the unpaid principal portion of the original loan amount).

8. Move the entry marker to Cell 8,2. The balance for Period 1 is the entire amount of the loan that you'll enter later as a constant value in Cell 1,2.
9. Press **[F3]**, and type **R1C2** **[ENTER]**.
10. Move the entry marker to Cell 9,2, press **[F7]** for **Select**, and use the arrow keys to highlight Rows 9-19.
11. Press **[F3]**, and type **R8C2-R8C5** **[ENTER]**. This formula takes the value in the preceding row and the same column (the balance of the previous period), subtracts the value in the preceding row in Column 5 (the principal payment of the previous period), and displays the result in the next row. So, the value in the last row you selected (the balance of Period 12), Row 19, equals the Period 11 balance in Row 18 less the principal payment paid in Period 11, shown in Cell 18,5. When the value in Cell 19,2 calculates, the formula will have become **R18C2-R18C5**. (You can move the entry marker to Cell 19,2 to see that this is true.)

All values in Column 3 are the same to show the fixed payment made each month on the loan.

12. Move the entry marker to Cell 8,3, press **[F7]**, and select Rows 8-19.
13. Press **[F3]**, and type:

#R1C2*#R2C2/(1-1/(1+#R2C2)!#R3C2) **[ENTER]**

The number sign (**#**) preceding a cell number indicates to **always** use the value in that particular cell. In other words, the original formula does **not** change for each row.

This formula written in normal fashion is:

Fixed payment = (Loan Amt. x Int. Rate) / (1 - 1 / (1 + Int. Rate)ⁿ) where Loan Amt. = original amount of entire loan, Int. Rate = interest rate per period, and n = number of periods.

This complicated-looking formula defines the numerator as the value in Cell 1,2 (LOAN AMT) multiplied (*) by the value in Cell 2,2 (the interest rate). The denominator is 1 minus 1 over 1 plus the value in Cell 2,2 (INT RATE) raised to the value in Cell 3,2. The number of PERIODS becomes an exponential power indicated by !.

Column 4 shows the interest portion of each payment, which is the balance for a period multiplied by the interest rate.

14. Move the entry marker to Cell 8,4, press **[F7]**, and select Rows 8-19.
15. Press **[F3]**, and type **#R2C2*C2 [ENTER]**. For any particular period, this formula takes the value in the same row in Column 2 (a period's balance) and multiplies it by the interest rate you enter in Cell 2,2.

The principal payment of each period, the part of the total payment that actually goes toward paying off the loan balance, appears in Column 5.

16. Move the entry marker to Cell 8,5, press **[F7]**, and select Rows 8-19.
17. Press **[F3]**, and type **C3-C4 [ENTER]**. This formula takes the total payment value in Column 3 and subtracts the corresponding interest payment in Column 4 to arrive at that period's principal payment.

Column 6 shows the cumulative interest (the interest paid-to-date for each period).

18. Move the entry marker to Cell 8,6, press **[F7]**, and select Rows 8-19.

19. Press **[F3]**, and type **CMT(#R8C4)** **[ENTER]**. This formula gives the accumulated totals for all 12 periods plus the final total of all the values in Column 4, starting with Row 8, and displays these values in Column 6. For example, the interest paid-to-date for Period 4 appears in Cell 11,6 and equals the values of Cells 8,4, 9,4, 10,4, and 11,4. **CMT** stands for *column summation*, and **#R8C4** tells Worksheet to always begin the cumulative summing at Cell 8,4 (the interest paid in Period 1).

The last column is for the cumulative principal, the principal paid-to-date for each period. (After all 12 periods have calculated, the last figure in this column, the cumulative principal for Period 12, will equal the original amount of the loan.)

20. Move the entry marker to Cell 8,7, press **[F7]**, and select Rows 8-19.
21. Press **[F3]**, and type **CMT(#R8C5)** **[ENTER]**. The increasing values in this column show how the loan is gradually paid off and retired.

Calculating and Reformatting a Worksheet

The worksheet is now completely set up, and you are ready to perform calculations.

1. Press **[CTRL]** **[↑]**, then **[CTRL]** **[←]** to move the entry marker to Cell 1,1. This example involves a one-year loan for \$1000.00 at an 18% interest rate.
2. Press **[SHIFT]** **[F1]** for Calculate. The screen asks you to enter the **LOAN AMT.**
3. Type **1000** **[ENTER]**.
4. Type **0.015** **[ENTER]** for the **INT RATE**. (Remember, you need to divide the annual interest rate by 12 to find the monthly interest rate.)
5. Type **12** **[ENTER]** for the number of **PERIODS**. After you enter a value for the last constant, the computed results appear row by row, period after period.

Note: The built-in display format for numbers is the \$ format with two decimal places. Although you cannot see the 0.015 that you entered for 1.5%, it is in memory, and Worksheet used it during calculations.

Finishing Touches

You need to give the worksheet a few final touches to make it look more professional. Although you want the data in the amortization schedule to appear in dollar and cents format, the interest rate cell needs to include as many as four decimal places for covering the most common interest rate possibilities.

1. Move the entry marker to Cell 2,2, and press **[F4]** for Format.
2. Type **D** **[ENTER]** so that you can change the default number of decimal places. Then, type **4** **[ENTER]**. Now you can see the .015 that you entered earlier.
3. To specify an integer (I) format for the number of periods, move the entry marker to Cell 3,2, press **[F4]**, and type **I** **[ENTER]**.
4. Move the entry marker to Cell 5,2, and press **[F7]**.
5. Press **[SHIFT]** **[→]** to select all the columns in the current window through Column 7.
6. Press **[↓]** to select the label lines.
7. Press **[F4]** for Format. Type **R** **[ENTER]** to right-align the contents of all the selected cells.

Entering Text

You can enter text on a worksheet in two ways: by cell or by block.

- For simple row and column labels that require no more than one or two cells, position the entry marker on the cell in which you want the text to appear, type the text, and press **[ENTER]** (as you did when entering the column and constant labels).
- To type a paragraph or block of text, use Select to define the area in which you want to type. Then use the Text function to type the text.

In this example, you'll add an explanatory note to the amortization schedule by using the block selection method.

1. Move the entry marker to Cell 21,1, and press **[F7]**.

2. Press **[↓]** once to include the next row. Then press **[→]** four times.
3. Press **[F2]** for **Text**.
4. Type **NOTE: Personal loan received 2/28/87 from Saginaw Credit Union**.
5. Exit the Text function by pressing **[F12]**.

Just as in the Text application, word wrapping is automatic, and you can use limited editing features, such as deleting, inserting, and formatting. See the Reference part of this book for details on editing text within the Worksheet application.

Printing a Large Worksheet

Before you print this worksheet, be sure that your printer is on-line and that the paper is advanced so that printing will begin about an inch or so from the top of the paper (about six lines from the top).

1. To check the printer settings, press **[F11]** and then **[ALT] [F6]**.
2. You have previously set the **Left Margin** at **00** and the **Printed Line Width** at **80**. If those are not the current values, change them now.
3. Press **[F12]** to return to the Worksheet screen.

Because the amortization schedule is larger than one window, you must select the area you want to print before you use the Print function.

1. To quickly move the entry marker to Cell 1,1, press **[F1]** for **Find**. You can use the Find function to search for a specific string of characters (or numbers) or for a specific cell.
2. Type **R1C1** **[ENTER]** to find Cell 1,1.
3. Press **[F7]** for **Select**.
4. Press **[SHIFT] [→]** to select Columns 1-7.
5. Press **[SHIFT] [↓]**. Next, press **[↓]** five times to select Rows 1-22.
6. Be sure that your printer is ready, and press **[PRINT]**.

Your printout should look like this. (Compare your figures to be sure that you entered all the formulas correctly.)

LOAN AMT 1000.00
INT RATE 0.0150
PERIODS 12

Period	Balance	Payment	Interest Payment	Principal Payment	Cumulative Interest	Cumulative Principal
1	1000.00	91.68	15.00	76.68	15.00	76.68
2	923.32	91.68	13.85	77.83	28.85	154.51
3	845.49	91.68	12.68	79.00	41.53	233.51
4	766.49	91.68	11.50	80.18	53.03	313.69
5	686.31	91.68	10.29	81.39	63.32	395.08
6	604.92	91.68	9.07	82.61	72.40	477.68
7	522.32	91.68	7.83	83.85	80.23	561.53
8	438.47	91.68	6.58	85.10	86.81	646.63
9	353.37	91.68	5.30	86.38	92.11	733.01
10	266.99	91.68	4.00	87.28	96.12	820.68
11	179.32	91.68	2.69	88.99	98.81	909.67
12	90.33	91.68	1.35	90.33	100.16	1000.00

NOTE: Personal loan received 2/28/87 from Saginaw
Credit Union.

Recalculating a Worksheet

1. To see Worksheet's powerful recalculation ability, press **[SHIFT] [F1]**.
2. Suppose that you're calculating a one-year loan for \$1000 at 15%. Because the previous value was also 1000, press **[ENTER]** when the screen asks for the LOAN AMT in Cell 2,1.
3. For the new interest rate, type **0.0125** **[ENTER]** (15% divided by 12).
4. For the number of periods, press **[ENTER]** to use 12, the same number as you used in the previous example. The lengthy, detailed calculations are performed almost instantly, saving you hours of calculating the formulas by hand. Note that due to the lower interest rate, the fixed payment shown in Column 3 decreases from \$91.68 to \$90.26.

Exiting Worksheet

You might want to experiment with some of the other functions available in Worksheet. See the Reference part for details on using other functions. When you finish using the Worksheet application, press **F12** to store the TABLE file on the sample data diskette and return to the Main Menu.

1. If the date displayed on the Main Menu is not 02/25/87, press **F1** to use the Main Menu Date function. Type **02/25/87** **ENTER** **10:30a** **ENTER**.
2. To select the Calendar file, Agenda, use the right and down arrow keys to highlight both Calendar and AGENDA.
3. Press **ENTER** to open the file. You see this message: Loading in Agenda.CAL. A calendar screen for February 25, 1987 soon appears.

CALENDAR [AGENDA]														02/25/87 10:30am						
121.2.3.4.5.6.7.8.9.1011121.2.3.4.5.6.7.8.9.1011														FEB 1987						
Sun													1	2	3	4	5	6	7
Mon													8	9	10	11	12	13	14
Tue													15	16	17	18	19	20	21
Wed	..**!*****													22	23	24	25	26	27	28
Thu																			
Fri																			
Sat																			
Date	Begin	End	Description																	
02/25/1987	00:00a	00:00a	Make appointment with accountant																	
02/25/1987	00:00a	00:00a	Mom's birthday - call florist																	
02/25/1987	00:00a	00:00a	Write confirmation letter to Wilson																	
02/25/1987	05:30a	06:15a	Shop at fish and produce wholesale markets																	
02/25/1987	07:30a	08:30a	Meet Bill at gym																	
02/25/1987	08:30a	11:15a	Prepare food for Davis luncheon																	
02/25/1987	11:45a	01:30p	Luncheon at Riverdale Country Club																	
02/25/1987	02:00p	02:30p	Meeting with Club President																	
02/25/1987	03:00p	05:30p	Prepare food for Roach dinner																	
02/25/1987	06:30p	10:00p	Dinner at 7400 Seventh Street																	
02/25/1987	10:30p	11:30p	Pick up cake and go to Mom's																	
03/01/1987	09:00a	10:00a	Meet Bill at gym																	
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]											
Find	Date	Events	Print	Alarm	Merge	Select	Copy	Delete	Add											

The name of the Calendar file with which you're working, AGENDA, is on the top line, along with the date you entered, February 25, 1987. The calendar block on the right highlights the 25th.

The top block on the left shows the schedule for the current week with the days of the week in the vertical column and the hours of the day in the horizontal line (starting with 12:00 a.m.). A period indicates a free time slot, that is, a time slot not yet scheduled for an event. For example, nothing is on the schedule for 7:00 a.m. or 6:00 p.m. on Wednesday.

An asterisk (*) indicates a time slot in which you've scheduled an event for the current week. For example, you can tell that Wednesday is the busiest day of the week because it is almost full of asterisks. An exclamation point (!) indicates a time conflict, two different events scheduled for the same time. Looking at today's schedule, you can see that two events conflict at 8:30 a.m.

The bottom half of the screen shows the itemized agenda of events starting with the current day, 02/25/1987. The next column, *Begin*, shows the time at which the event begins. The time at which the event ends appears in the *End* column. A *Description* of the event appears in the last column.

Changing Events

You can change events previously entered for the day's agenda. For example, the name in the third event listed should be "Williams" instead of "Wilson."

1. Press **[F3]** to move to the events area.
2. Press **[↓]** twice to move the marker to the third line, and press **[SHIFT]** **[→]** three times to skip the first three *fields*. (A field is a unit of information.)
3. Press **[←]** until the marker is over the *s* in *Wilson*, and then type **liams** **[ENTER]**. You are always in *replace* mode while using Calendar so that you can quickly correct mistakes by typing over them.

CALENDAR [AGENDA]												02/25/87 10:30am						
121.2.3.4.5.6.7.8.9.1011121.2.3.4.5.6.7.8.9.1011												FEB 1987						
Sun											1	2	3	4	5	6	7
Mon											8	9	10	11	12	13	14
Tue											15	16	17	18	19	20	21
Wed**..*!*****.*****											22	23	24	25	26	27	28
Thu																	
Fri																	
Sat																	
Date		Begin		End		Description												
02/25/1987		00:00a		00:00a		Write confirmation letter to Williams												
03/03/1987		12:00p		02:00p		Williams' luncheon for 8												
03/12/1987		03:00p		04:30p		Afternoon tea for Williams - 6 people												
03/15/1987		02:00p		05:00p		Bridge at Williams' house												
03/19/1987		09:00a		11:00a		Williams' business breakfast at Club												
03/26/1987		08:00p		10:30p		Williams' dinner for 10												
03/31/1987		07:30p		11:00p		Reception for Williams at Club - 60 people												
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]									
Find	Date	Events	Print	Alarm	Merge	Select	Copy	Delete	Add									

Note: Use the Date function ([F2]) to find and display all events that fall on or after a certain date. Use the Find function when you want to find and display events that match other search criteria, as in the previous example.

Adding Events

Add the same event to the AGENDA file as you inserted in the letter when you used the Text application.

1. Press [F3] to move to the calendar area.
2. Press [SHIFT] [→] and then [→] to move the marker to March 1, 1987.
3. Press [F10].
4. For Date, press [ENTER].
5. When the cursor moves to the Begin field, type 1p [ENTER] for 1:00 p.m.
6. For the End time, type 4:30p [ENTER].
7. For Description, type Bridal Shower for Williams - 15 people [ENTER].

Deleting Events

Cancel the two events scheduled for March 15th and 19th by deleting them. To delete the events, first use Select to mark the events. Then, use the Delete function.

1. Use **[↓]** to move the marker to the line on which the March 15th event is displayed.
2. Press **[F7]** for Select.
3. To include the next event, press **[↓]** so that you highlight both events. Press **[F9]** for Delete. The selected events disappear, and the events below move up automatically.

Printing a List of Events

Before printing the events that match the current Find criteria, be sure that your printer is on-line.

1. Press **[ALT] [F6]** to see the current printer settings.
2. Type **05 [ENTER]** for Left Margin and **78 [ENTER]** for Printed Line Width.
3. Press **[F12]** to return to the Calendar screen.
4. Press **[F4]** for Print.

Putting Events into the Alarm File

Update your schedule by putting the first half of March's planned events into the Alarm file (the first four events, through March 12th). To do this, you'll return to the full events list, select the events, and then use the Alarm function.

1. Press **[F1]** for Find, and then press **[F4]** to reset the Find criteria. Finally, press **[F12]** to display the main Calendar screen again.
2. Move the marker to the line containing the March 1st event, and press **[F7]**.
3. Press **[↓]** three times to select the March 1st, 3rd, and 12th events. then, press **[F5]** for Alarm. These four events are now in the Alarm file as well as in the original Calendar AGENDA file.

The reminder time for an event is 30 minutes prior to the scheduled **Begin** time you enter for the event. When Alarm is active and turned on to remind you of upcoming events, you hear a beep when an event's remind time occurs. (See the next chapter, "Alarm," for more details.)

Exiting Calendar

To return to the Main Menu, press **F12**.

ALARM

Opening the Alarm File

Select Alarm by pressing **[F4]** at the Main Menu. The screen soon shows the same February 25th events you saw in Calendar, plus the March events you merged into the Alarm file, except that the Remind@ time is included.

Alarm					02/25/1987 10:30am				
Remind@	Date	Begin	End	Description					
00:00a	02/25/1987	00:00a	00:00a	Make appointment with accountant					
00:00a	02/25/1987	00:00a	00:00a	Mom's birthday - call florist					
00:00a	02/25/1987	00:00a	00:00a	Write confirmation letter to Wilson					
05:00a	02/25/1987	05:30a	06:15a	Shop at fish and produce wholesale markets					
07:00a	02/25/1987	07:30a	08:30a	Meet Bill at gym					
08:00a	02/25/1987	08:30a	11:15a	Prepare food for Davis luncheon					
11:15a	02/25/1987	11:45a	01:30p	Luncheon at Riverdale Country Club					
01:30p	02/25/1987	02:00p	02:30p	Meeting with Club president					
02:30p	02/25/1987	03:00p	05:30p	Prepare food for Roach dinner					
05:45p	02/25/1987	06:30p	10:00p	Dinner at 7400 Seventh Street					
10:00p	02/25/1987	10:30p	12:00p	Pick up cake and go to Mom's					
08:30a	03/01/1987	09:00a	10:00a	Meet Bill at gym					
12:30p	03/01/1987	01:00p	04:30p	Bridal shower for Williams - 15 people					
11:30a	03/03/1987	12:00p	02:00p	Williams' luncheon for 8					
02:30p	03/12/1987	03:00p	04:30p	Afternoon tea for Williams - 6 people					
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]
					Merge	Select	Copy	Delete	Add

Events scheduled for the current date in the Alarm file appear on the Main Menu to remind you of special occasions. You can enter these events using either Alarm or Calendar. The only difference is that when you add events using Alarm, you manually enter the Remind@ time. The events displayed above were entered in Calendar and then placed in the Alarm file, so DeskMate automatically assigned their Remind@ times.

Changing Events

Just as you can in Calendar, you can change displayed events. To change information, move the marker to the desired field by pressing **[ENTER]**, and type over the existing characters.

Suppose that on February 25, you want to change the Remind@ time of the 3:00 event from 02:30 to 02:45.

1. Press **[↓]** to move the cursor to the 02:30p Remind@ time, and then type **02:45p** **[ENTER]**.
2. Change the name in the third event listed from "Wilson" to "Williams" using the same procedure as you did in Calendar.

Deleting and Adding Events

You decide to have a breakfast meeting with your attorney at 7:00 a.m. instead of meeting Bill at the gym.

1. Move the cursor to the event with the 7:00a Remind@ time, and press **[F9]** for Delete.
2. Press **[F10]** to Add an event.
3. Type **06:30a** **[ENTER]** as the Remind@ time.
4. At the Date prompt, press **[ENTER]** to use the displayed date (02/25/1987).
5. Type **7a** **[ENTER]** for Begin time, and then type **8a** **[ENTER]** for End time.
6. For the Description, type **Breakfast with Joan at Annie's** **[ENTER]**. After you enter all information for the event, Alarm automatically inserts it in the appropriate time slot.

Note: You could also have simply typed over the existing information for the previous 7:00 appointment.

Turning On the Alarm

1. Press **[F12]** to return to the Main Menu.
2. To turn on the Alarm, press **[ALT]** **[F4]** to change Alarm Off to Alarm On. When the Alarm is on and set to remind you of events, the Alarm's beep sounds when an event's Remind@ time matches the current time. Whenever you see the @ symbol next to the date/time information in the upper right corner of the screen, the Alarm is on.

When you turn the computer off, the Alarm automatically turns off. When you first start up the computer, remember to turn the Alarm on again.

When you hear a reminder beep, press **[ALT]** **[F3]** to display the event of which Alarm is reminding you as well as the next event. The event information temporarily replaces the label lines of the application you're using. Once you note the event, redisplay the original label lines by pressing **[F12]**.

Checking the Next Event

You can press **[ALT]** **[F3]** anytime to display the most recently expired event plus the next event for which you'll be beeped.

Press **[ALT]** **[F3]** now. The Main Menu label lines disappear, and you see:

```
02:45p 02/25/1987 03:00p 05:30p Prepare food for Roach Dinner
06:00p 02/25/1987 06:30p 10:00p Dinner at 7400 Seventh Street
```

Note: The events you see at the bottom of the screen will probably be different from those shown above, depending upon the time at which your computer is currently set.

Exiting Alarm

Press **[F12]** to redisplay the Main Menu label lines. You're ready to go on to the next chapter, "Main Menu."

MAIN MENU

At the bottom of the Main Menu, you see the following label lines:

[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]
Date	Name	Free	Alarm	Host	Passwd	Select	Copy	Delete	Swap

Changing the Date

1. Press **[F1]** to change the system date and time. At the top of the screen, you see the prompt:

date: mm/dd/yyyy:

2. Type today's date and the current time. For example, if today is May 5, 1987 and it's 1:30 p.m., type **05/05/1987** **[ENTER]**. At the time prompt, type **1:30p** **[ENTER]**.

Note: When you turn off the computer, the clock stops running. When you first start up the computer, change the time by using this Main Menu function so that DeskMate can accurately keep track of your Alarm events.

3. Change the date back to 2/25/87 by using the same procedure.

Renaming Files

Use the Name function to change the name of any DeskMate file.

1. To change the name of the ADDRESS file in Text to CUSTADDR (for Customer Address), press **[↓]** to highlight the ADDRESS file.
2. Press **[F2]** to change the name of the file.
3. Press **[ENTER]** to skip the old filename prompt.
4. Type **CUSTADDR** **[ENTER]**. Note that the new filename replaced the old one. (Filenames are always displayed in uppercase.)

Checking Free Space

The Free function tells you the approximate amount of additional room on the diskette that you can use for entering data.

Press **[F3]** to see the amount of free space on the data diskette. At the bottom of the screen, you'll see the number of bytes free.

Assigning a Password

Use the Passwd function to specify a **system** password for restricting access to DeskMate by a user at the DeskMate site or a remote site user. Once you assign a password, you must enter that password every time you start up the computer and load DeskMate. Every remote site user who calls the DeskMate telephone number must first enter the password to gain access to the system.

1. To specify a system password, press **[F6]**.
2. At the New password prompt, type **Fromage** **[ENTER]**.

Copying Files

Suppose you want two copies of the CUSTADDR file: one to use for customers and the other to edit for suppliers' addresses.

1. Move the selection marker to CUSTADDR, and press **[F8]** for Copy. At the bottom of the screen, you see the prompt:

```
From filename: CUSTADDR.DOC  
To filename:
```

2. The filename of the copy must be different from the original filename. Press **[ENTER]** since you want to copy the displayed file, CUSTADDR. Then, for the new filename, type **Supladdr** **[ENTER]**. Under the Text column, you now see the original CUSTADDR file plus a copy of that file, SUPLADDR.

Deleting Files

Use the Delete function to erase a file. For example, move the selection marker to the SUPLADDR file, and press **[F9]** to delete it. The filename appears. Press **[ENTER]**, and DeskMate erases the file from both the diskette and the DeskMate directory.

TELECOM

Telecom enables your computer to communicate with a host computer, an information service, or another terminal. You can get ready to communicate by setting up communications settings that match those of the host you plan to contact. With the automatic logon function, you can create an auto logon file containing the information needed to automatically dial and sign on to an information service such as Dow Jones. You can save, print, or store information you receive for later reference. You can also *upload* (send) files to other computers and terminals.

This sample session shows how to use Telecom with a telecommunications service. You'll need to modify the instructions to fit your situation. The instructions assume that you're using either a Modem II, a DC-1200, a DC-2212, the computer's 300-baud or 1200-baud internal modem board, or a Hayes-compatible modem.

Be sure that your computer is properly connected to a telephone via a modem or an acoustic coupler.

Getting Into Telecom

To select Telecom from the Main Menu, position the marker over Telecom, and press **[ENTER]**. The screen soon shows the built-in settings for communications.

TELECOM-STATUS		02/25/87 10:30am							
Current Status:									
Autodial Modem-----	No	Yes							
BAUD Rate-----	110	150	300 600 1200 2400 4800 9600						
Data Word Length -----	7 BITS	8 BITS							
Parity -----	EVEN	ODD NONE							
Number of Stop Bits -----	1 BIT	2 BITS							
XON/XOFF Flow Control ----	ON	OFF							
ASCII Character Filter ---	ON	OFF							
Line Feed Filter -----	ON	OFF							
Echo (Half Duplex) -----	ON	OFF							
Redial (# of Retries) ----	0								
FREE RAM: xxxxx									
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]
Reset	Select	Autolog	Editlog	Term	Clear	Save	Print	Load	Display

If you are using a non-auto dialing modem, you do not need to change the default response for the first setting or read the instructions for auto dialing modems. Proceed directly to "Specifying Communications Settings."

Defining Auto Dialing Modem Protocol

1. If you are using an auto dialing modem, press to move the marker to Yes, and press or to select that response. A screen appears on which you can define your modem's protocol.

DEFINE MODEM TYPE				02/25/87 10:30am	
MODEM II	DC-1200	INTERNAL	DC-2212	HAYES	
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]
Voice	Comp	Answer			Save
					Load
[F7]	[F8]	[F9]	[F10]		

2. If your modem is one of those listed on the screen, use the arrow keys to move the marker to the correct modem. Press **[F9]** and then **[ENTER]** to load that modem's voice dialing, computer dialing, and host answering modes. (If your modem does not appear on the screen, see the Reference part of this book for instructions on setting its Autodial Modem protocol.)
3. Press **[F12]** to return to the status screen.

Specifying Communications Settings

After you load or supply the necessary technical information on modem protocol, the status screen reappears. The communications parameters shown are preset to be compatible with CompuServe and the Dow Jones Information services.

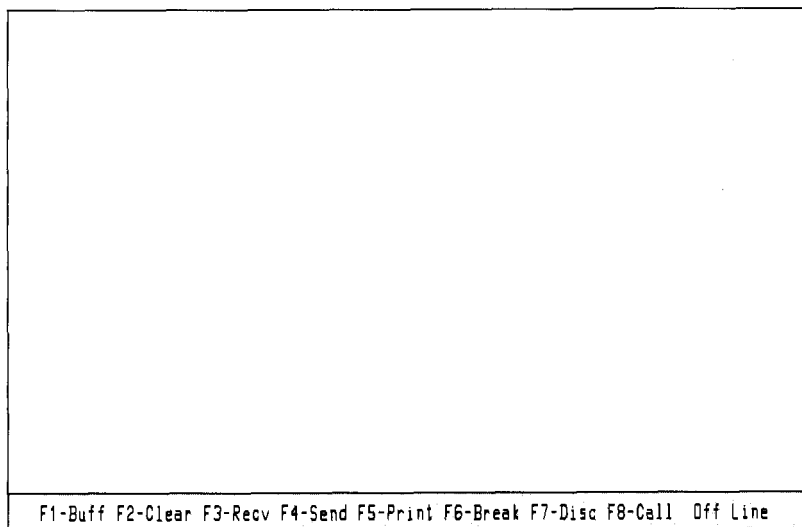
If you are using a different information service, consult your user's guide to determine the settings it requires for communications, and then change the required settings. Use the arrow keys to move the selection marker to the appropriate setting, and press **[F2]** or **[ENTER]** to select that setting.

You can change the last prompt, **Retries**, to make the computer dial again and try to connect to the service if the line was originally busy. For this example, type **3 [ENTER]** to have Telecom try to connect at least three times.

Manually Logging On

Now you are going to manually log on to a service while using the Buffer function in Terminal mode to store the logon sequence in memory. Later, after completing the logon procedure, you can either display or print the information temporarily stored in the RAM buffer. (The amount of used and free space in the RAM buffer appears on the current status screen of Telecom.)

1. Press **[F5]** to go into Terminal mode. The screen shows:



2. If you are using an auto dialing modem, press **[F8]** for Call, and then type the telecommunications service phone number you received from that service. Finish by pressing **[ENTER]**.

If you are using a non-auto dialing modem, dial your service's phone number. When you hear a high-pitched tone, hang up the phone, or insert the receiver into the acoustic coupler.

Once you enter or dial the phone number, you are connected but not yet logged on.

3. Press **[F1]** to open the RAM buffer. From this point on, Telecom will save the information that appears between the top highlighted line and bottom highlighted lines in memory.

4. Press **[F6]** if your service requires you to send a break.
5. Most services ask you to enter your user identification. Type the User ID you received with the package, and press **[ENTER]**.
6. Services also usually ask for your password. Type your password, and press **[ENTER]**. (To retain the secrecy of your password, it does not appear on the screen when you type it.)
7. You are now logged on and can begin using the telecommunications service.

Logging Off

1. Press **[F1]** to close the RAM buffer. Next, log off, and then press **[F7]** to disconnect from the service. Later, after you create an autolog file, you will log on to your service again and use some of the Terminal mode functions.
2. Press **[F12]** to return to the original Telecom screen.

Printing the Buffer's Contents

1. If you have a printer, be sure that it is properly connected to the computer and on-line. To print the contents of the buffer, press **[F8]**.

If you have no printer, press **[F10]** to display the contents of the buffer.

2. Once you display or print the information, press **[F6]** to clear the contents of the buffer.

Note: The printout of the buffer contents includes most, but not all, of the information you should include in an autolog file. For example, certain special characters, such as **[ENTER]** and your password, do not print.

Creating an Autolog File

1. Press **[F4]** for **EDITLOG** to create a file that lets you log on automatically to a host system. The screen shows:

AUTOLOG EDIT								02/25/87 10:30 am	
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]
Status	Call	Recv	Send	Pause	Break			Delete	Insert

Enter Log filename:

2. The screen asks you to enter a name for the autolog file you are editing or creating. Type a filename convenient for you, and press **[ENTER]**.
3. Press **[F1]** for Status. Then, press **[F12]** to include in the autolog file the communications parameters you previously defined.
4. If you are using an auto dialing modem, press **[F2]** for Call to tell Telecom that this entry is a telephone number you want it to dial for you. Then, type the service's telephone number, finishing by pressing **[ENTER]**.
5. Press **[F5]** for Pause, and type 2 to specify that Telecom should pause two seconds.
6. Press **[F4]** for Send, and then press **[F6]** for Break to tell Telecom to start the communication process with the service.
7. The logon sequence might require the User ID next. To tell the modem to wait for the response from the service, press **[F3]** for Receive. Then, type the prompt you usually receive from the service.

8. Press **[F4]** to tell Telecom to send your identification number to the service. For example, you might type **7333,221^M** **[ENTER]**. The **^M** represents a carriage return (**CTRL** **[M]**).
9. Next, suppose that the service prompts you to enter your password. Press **[F3]** to specify that the text you're about to enter will be received from the service, and then type the prompt you usually receive.
10. The next item in the autolog file is your response to the previous request for your password. Press **[F4]** to tell Telecom to transmit your password. Type the password, and press **[ENTER]**.

If you're using an auto dialing modem, your screen should look something like this:

AUTOLOG EDIT						02/25/87 10:30am			
STATUS: 30,0,N,1,Y,N,N,N,3									
CALL: 5551212									
PAUSE: 2									
SEND: ^C									
RECV: User ID:									
SEND: 73333,221^M									
RECV: Password:									
SEND: SECRET^M									
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]
Status	Call	Recv	Send	Pause	Break			Delete	Insert

(If you're using a non-auto dialing modem, your screen should be similar, except that you won't include the phone number.)

11. To store the autolog file and return to the original Telecom screen, press **[F12]** and then **[ENTER]**.

Executing an Autolog File

If you created an autolog file that includes your real ID and password, you can actually try and use it now to log on to your service.

- If you are using an auto dialing modem, press **[F3]** to execute your Autolog file, and then press **[ENTER]** to execute the autolog file currently in memory. If you entered the logon sequence correctly, Telecom dials your local access number to the service and then executes the rest of the autolog file automatically.
- If you are using a non-auto dialing modem, press **[F3]** for Autolog, and then dial your service's phone number. When the service picks up the phone and you hear a high-pitched tone, hang up the phone or insert the telephone into the acoustic coupler. Then, press **[ENTER]** to execute the autolog file.

Once you log on to the service, Telecom automatically goes into Terminal mode, and you can begin using the service with the Terminal mode functions displayed at the bottom of the screen:

F1-Buffer F2-Clear F3-Recv F4-Send F5-Print F6-Break F7-Disc F8-Call Off Line

Using the Terminal Mode Functions

You see the status of your connection to the right of the functions. If you lose your connection to the host, you see *Off Line*.

Try experimenting with your service using Telecom's features such as Buffer, Receive, and Printer. For example, in the same manner in which you saved the logon sequence in memory, you can save incoming information from the service to print or store on diskette.

1. Make a selection from the service's menu.
2. To save data in the RAM buffer, first open the buffer by pressing **[F1]**, and then select and display the data you wish.
3. After the data appears, press **[F1]** to close the buffer.

Hints

To cut down on your connect time and save on your account bill, you can immediately disconnect from the service, press **[F12]** to return to the original Telecom screen, and then save the data as a file.

An alternate way of saving information is to press **[F3]** while in Terminal mode to Receive a file, and then specify a filename. Then select the information you want to save, and press **[F3]** to close the file. If you do not specify an extension in the filename, Telecom automatically adds .DOC to the end of the filename so that you can read the information later using Text.

You can also print incoming information by using the Printer function. Press **[F5]**, select the desired information, and then press **[F5]** again to stop the printer.

Just as in Host, with which you'll experiment later, you can send and receive files between two computers, except that in Telecom, both computer users can play an active role and communicate with each other via their computer screens. (In Host, a DeskMate user can go elsewhere, leaving the computer in Host mode to allow another user access to the DeskMate system and files.)

If you have two computers with telephone hook-ups via a modem or some other device, try calling each other and then mutually sending and receiving information. If you have an auto dialing modem, use the Call function to call the other computer, and then use Send and Receive to transmit information back and forth.

Exiting Telecom

To exit Telecom and return to the Main Menu, press **[F12]** at the original Telecom screen.

PHONE

Accessing Phone Numbers

To select Phone, one of DeskMate's subfunctions, press **[ALT]** **[F5]**. The screen soon shows a list of phone numbers for customers and suppliers.

FIND:									
ABC	ABC Exterminators	817-555-1212	*	-----	-----	-----	-----	-----	-----
AL	Arnold's Liquors	817-555-1892	*	-----	-----	-----	-----	-----	-----
CB	Beauchamp, Cindy	817-555-1267	*	-----	-----	-----	-----	-----	-----
FD	Davis, Frederick	817-555-9011	*	-----	-----	-----	-----	-----	-----
JH	Helmer, John	817-555-8754	*	-----	-----	-----	-----	-----	-----
BJ	Jones, Bill	817-555-8060	*	-----	-----	-----	-----	-----	-----
LFB	LaFrance Bakery	817-555-5766	*	-----	-----	-----	-----	-----	-----
RM	Miller, Robert	214-555-4432	*	-----	-----	-----	-----	-----	-----
---	Mom	817-555-3188	*	-----	-----	-----	-----	-----	-----
LM	Moore, Lisa (CPA)	817-555-3358	*	-----	-----	-----	-----	-----	-----
PLS	Petta Linen Service	817-555-7371	*	-----	-----	-----	-----	-----	-----
RF	Riverdale Florist	817-555-0906	*	-----	-----	-----	-----	-----	-----
LR	Roach, Lewis	214-555-6680	*	-----	-----	-----	-----	-----	-----
CS	Sims, Chris	817-555-8442	*	-----	-----	-----	-----	-----	-----
S&P	Smith & Patterson	214-555-4285	*	-----	-----	-----	-----	-----	-----
EW	Williams, Mrs- Eliot	817-555-7728	*	-----	-----	-----	-----	-----	-----
LW	Wordsworth, Laura	817-555-8831	*	-----	-----	-----	-----	-----	-----
YFM	Young's Fish Market	817-555-2199	*	-----	-----	-----	-----	-----	-----

PREFIX 1: 9P----- PREFIX 2: 5551290P-- PREFIX 3: 8559012--- ACODE: 817									
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]
Status	Call	Prefix1	Prefix2	Prefix3	Sort	Print		Delete	Add

You can enter as many as 78 phone entries, each consisting of three parts you can use for identification and information purposes. The first field of an entry can contain three characters. You can use it to enter a person's or company's initials. Then, if you use the Find function to look for a particular phone number, you can simply enter the initials rather than a person's entire name as the Find criteria.

The second field, which can contain as many as 21 characters, is for the name. Enter the entry's actual phone number in the last field. The first three digits are for the area code, and the next three digits are for the local exchange, followed by the rest of the phone number.

Looking Up Numbers

Suppose that you want to look up Lisa Moore's phone number.

1. The line above the first entry is reserved for entering Find criteria. Type **LM** , and press for Find.

The selection marker moves to the first match the program finds in the phone list, JH (John Helmer) entry. (The Find function treats upper- and lowercase characters the same.)

2. Press to find the next occurrence of LM. The selection marker is now on Lisa Moore's phone entry.

Changing Numbers

1. To change Lisa's phone number, press , , and until the cursor is on the first digit of the actual telephone number.
2. To change any previously entered information, all you need do is type over the existing characters. For Lisa's new number, type **5558522** .

Adding Numbers

1. Move the marker to the line containing Robert Miller's entry.
2. Press for Add. Robert Miller's entry and all entries below his move down one line so that you can insert an entry at the cursor's position.
3. Type **EM** as the initials for the entry.
4. In the Name field, type **McKinney, Ellen** .
5. Type **8175558166** for the number.
6. Position the marker on the Young's Fish Market entry.
7. Press to add an entry.
8. Type **DP** for the initials.
9. Type **Dilardo's Produce** for the name.
10. Type **8175555412** for the phone number.

Putting Numbers in Order

You can list your entries in any order you want. For example, if most of your entries were all phone numbers for one company, you could list the entries according to department. Or, if you were using Phone to dial mostly long-distance numbers, you could order the entries according to area code.

To keep your phone list in alphabetical order, use the Sort function to let the program do it for you.

To put the last name you entered, Dilardo's Produce, in its proper position in the list, press **[F6]** for **Sort**. The program automatically inserts the entry above Helmer and pushes the entries after Dilardo's Produce down one line, so that now the last entry, Young's Fish Market, is the first entry in the second column.

Deleting Numbers

To delete an entry, move the marker to the desired entry, and select the Delete function.

1. To delete the entry for Chris Sims, position the marker on the line containing his entry.
2. Press **[F9]** for **Delete**. The program deletes that entry, and all entries after it move up one line. Note that the Young's Fish Market entry moved back into the first column of phone numbers.

Printing a List of Numbers

To print all phone number entries, first be sure that your printer is on-line and that you advance the paper so that printing will begin about an inch (six lines) from the top of the paper.

1. Press **[F12]** to exit Phone.
2. Press **[ALT] [F6]** to see the printer settings.
3. Type **01** **[ENTER]** for Left Margin and **79** **[ENTER]** for Printed Line Width.
4. Press **[F12]** and then **[ALT] [F5]** to return to the Phone screen.

5. Press **[F7]** to print. The entries print in the same format in which you entered them.

Using Prefixes and Dialing Numbers

At the bottom of the phone list and just above the label lines, you see a line containing three prefix numbers and an area code number:

```
PREFIX1:9P  PREFIX2:5551290P  PREFIX3:8559012  ACODE:817
```

ACODE is the area code from which you are calling. If the area code of a number you're calling is the same as your area code, the program ignores the local area code and simply dials the telephone number. If the area code of the number you're calling is different from the displayed ACODE, the program dials the area code plus the phone number.

You can enter as many as three prefix numbers to have the program automatically dial a prefix number before it dials the actual phone number. (Turn off the prefixes if you're calling a number containing fewer than seven digits.) For example, you can use PREFIX1 to dial 9 and get an outside line if you're calling from a business or dial 1 to precede a long distance phone number.

In this example, PREFIX1 is 9P, which tells the computer to dial 9 and then pause (P) for a dial tone before dialing the rest of the number. PREFIX2, 5551290P, is a fictitious local access number to a long distance carrier. PREFIX3, 8559012, is a private code number assigned by the long distance carrier.

You can use one or more prefixes by pressing the appropriate function key(s). For example, suppose you want to call Cindy Beauchamp and then Lewis Roach. First, be sure that your phone is connected to an auto dialing modem and that your voice dialing protocol is correctly set in Telecom.

1. Move the marker to the line containing the CB entry.
2. To get an outside line, press **[F3]**. (Note that PREFIX1 is now highlighted in the label line to let you know that it is turned on and that the program will dial it before the number.)

3. If you were to actually make the call now, you would press **[F2]** for **Call**. Next, the computer would dial 9, pause for a tone, and then dial 555-1267. Since Cindy's area code, 817, is the same as the displayed area code, the computer knows that it is unnecessary to dial the area code.
4. To call Lewis Roach, move the marker to the appropriate line.
5. Since this is a long distance number, you'll want to turn on **PREFIX2** and **PREFIX3** in addition to **PREFIX1** so that you can dial the number using the long distance carrier. Press **[F4]** and then **[F5]** to activate **PREFIX2** and **PREFIX3**.
6. To actually dial the phone number, you would press **[F2]** for **Call**. The computer would dial 9, pause for a tone, dial 555-1290 (the local access number), pause for another tone, and then dial the code number, 8559012, followed by Lewis Roach's number, 214-555-6680.
7.
 - a. If you are using tone dialing, pick up the phone a few seconds after you press **[F2]**.
 - b. If you are using rotary dialing, don't pick up the phone until after the modem dials the number. (The modem makes a clicking sound as it dials.)

If you have an auto dialing modem, try experimenting with the Phone subfunction. (You must first define the voice dialing protocol that your modem uses. If you followed the instructions in the "Telecom" chapter, you have already done this.) Enter the phone numbers of some friends using the Add function, and then use Call to try to reach them.

You might also want to try changing the prefixes and area code to fit your needs. Then, try calling some long distance numbers. Position the marker on the prefix/area code line, and type over the existing numbers and characters.

Note: You can use Phone anytime by pressing **[ALT] [F5]**. The phone list replaces the current screen. Move the marker to the number you want to call, and then press **[F2]** for Call. When you finish using Phone, press **[F12]** to return to the application you were using. The screen is exactly the way you left it before using Phone.

A message consists of the date and time the message was created, a brief description of the main subject of the message, and the message itself.

The message also identifies the sender and receiver of each message. Because the messages listed were to John and placed in the default MESSAGES file, a To name was not needed.

Finding Messages

1. Press **[F1]** to find a particular message. On the screen is the Find criteria you can use and a line on which you enter the criteria:

From Date Description

You can search for messages by specifying the sender, the date the message was sent, or any particular string in the description of the message.

2. To find all messages from Laura, type **Laura** **[ENTER]** at the From prompt.
3. Press **[ENTER]** twice to skip the Date and Description. The screen clears briefly, and then the summary listings of the two messages from Laura appear.

Note: In this case, it wasn't really necessary to use Find, since all messages in the MESSAGES file can appear on one screen. However, if there are several messages and you are looking for a particular one, Find is a useful function.

4. To display the first message from Laura (highlighted by the selection marker), press **[F3]**. The message appears on the screen:

Got a terrific raise and a great promotion. Can't wait to tell you about it when you get back home.

Laura

5. To exit this screen, press **[SHIFT] [F12]**. A message asks whether you want to cancel the edit. You weren't editing, only reading, so press **[Y]**.
6. To return to the original screen with all messages in the MESSAGES file displayed, press **[F12]**.

Printing Messages

You can see the contents of a message without resorting to the procedure you just used by using the Print function.

1. Be sure that your printer is on-line.
2. Press **[ALT] [F6]** to display the current printer settings.
3. Type **05 [ENTER]** for Left Margin and **70 [ENTER]** for Printed Line Width.
4. Press **[F12]** to return to Mail.
5. Press **[↓]** to move the marker to the message from Dave, and press **[F4]**. The following message prints:

The meeting with the sales force has been rescheduled for March 6, 8:30 a.m. in the conference room. Ann can't come but will be sending her assistant. She is still having problems with that distributor in Nacogdoches and needs to talk with someone in Personnel. When you get back, call her as soon as possible.

I'll be taking the Houston clients out tomorrow night and will let you know what transpires. They want to amend some contract clauses and discuss some changes in due dates. 2/28 @ 9:00 a.m. we'll be meeting with the legal dept. and if possible, I think you should go, too.

See you when you get back.

6. Since you have a printout of Dave's message, go ahead and delete it. To delete the message currently highlighted, press **[F9]**. Mail erases the message from the screen and deletes it from the diskette.
7. Print the other two messages, from Richard and Laura, one at a time. Move the marker to the message from Richard, be sure that the printer is ready, and press **[F4]**.

8. After the printer stops, press **[↓]** to move the cursor to the other message from Laura, and press **[F4]** again. When you're finished, you should have printouts of these two messages:

I'm afraid you're going to have a problem with trying to claim that deduction. I'm going over the new tax laws now with a fine tooth comb but since there's no precedent, it'll be hard to find evidence in similar cases. If you can't claim it as a deduction, we may be able to write it off as a loss.

Call me when you return.

Have to make a quick trip to Tulsa today. Will be back tomorrow around 4 p.m. See you then,

Laura

Creating Messages

Now that you've reviewed all your messages, you need to create two messages—one for Dave and one for Laura.

Note: If you want to change the date and time, press **[ALT]** **[F7]** and change the date and/or time before you create a message.

I've already talked to Ann and have decided that this has gone on long enough. I'm going directly to Nacogdoches and should be back in the office the morning of the 28th. Meet with Ann and get the necessary personnel papers ready. If you need to contact me, I'll be at the Holiday Inn.

5. After typing the message, press to exit the Text screen.

Note that this message doesn't appear on the list because it is in a file called DAVE—not in the current file, MESSAGES.

6. Press to create a message to leave for Laura.
7. Type **John** at the From prompt.
8. For Description, type **Trip to Nacogdoches** .
9. At To, type **Laura** .
10. Type the following paragraphs.

Received your messages - congratulations on your raise! By the way, what was going on in Tulsa?

I've got a sticky problem in Nacogdoches and am going directly there. Can you pick me up at the airport 2/27 at 10:30 pm?

John

11. After you type the message and everything is correct, press to exit the screen.

Note: You can re-enter the screen by using the Display function to edit or simply review a message. Press if you changed or edited the message, and then press to save the new message. If you change a message, both the old and new messages exist. (Only the creation date/time information differs.) To keep your files up to date, delete the duplicate, unnecessary message, old or new.

12. Press to return to the Main Menu. Note that under the Mail column, you can see the two new message files that you just created, DAVE and LAURA.

Read the next chapter, "Host," to see how a remote user can pick up the mail you just created.

HOST

The Host function lets a user access a computer running DeskMate from a remote terminal or computer. At the remote terminal, you can read messages from or place messages in a Mail file as well as send or receive a specific file to and from the DeskMate system.

At the host computer, you can turn on the Host function to allow a remote site user access to DeskMate, turn on the security option to prohibit anyone else at the host site from using DeskMate, or cancel the remote session by turning off Host.

Before using Host, be sure that the communications settings of both the host computer and remote terminal/computer match, just as you did in Telecom. If necessary, use the Telecom application now to set the communications parameters. For additional information, see the "Telecom" chapter and Appendix A to determine the settings necessary for communications.

The user at the host computer must first define the type of modem and its protocol (particularly for answer mode). If you followed the instructions in the "Telecom" chapter, you've already done this.

If you are using a Modem II, be sure that the POWER switch is ON and that the TEST switch is OFF. Set the DTR switch at the back of the modem to the OFF position and the MODE switches to AUTO and ANSWER.

If you have the proper equipment set up—a host computer with an auto answer modem, remote terminal or computer with a telephone hook-up via a modem, cables, and so on—and another person at the remote site to access the host computer, try the following experiment. There are two sets of instructions: one for the DeskMate user (Host) and one for the remote site user (Remote).

Note: Taking it from the point at which you stopped in Mail, assume that the remote site user is Laura. One of the messages Remote will pick up is the message you created in Mail and put in her mailbox (the LAURA file).

Host:

1. At the Main Menu, press **[F5]** to turn on the auto-answer Host function.

2. A message asks whether you want security. Press **N** for this example.

If you set up the equipment properly and turned on Host, the host computer screen should show:

HOST ACTIVE	02/25/87 10:30am
Press [F12] to exit Host Mode	

Remote:

1. Dial the telephone number of the host computer.
2. If you are not using an autodial modem, hang up the phone when the computer answers and you hear a tone, or insert the receiver in the acoustic coupler. If you **are** using an autodial modem, proceed to Step 3 after you hear two tones — yours and the host system's.
3. Press **ENTER** twice.
4. Type the password, **Fromage** **ENTER**. The Remote Menu appears.

```
REMOTE DESKMate
1) DIRECTORY
2) READ FILE FROM HOST
3) SEND FILE TO HOST
4) READ MAIL
5) SEND MAIL
6) LOG OFF
SELECT OPTION >
```

Note to Host: During the entire time the Host function is active, you will see what the Remote user types on the screen (the Remote user's commands) but will not see the information the Remote user sees on the screen in response to those commands. For example, you'll see the name of the file the remote user is sending or receiving, but not the contents of the file. For the entire session, the Remote user plays the active role, and you see only the requests Remote enters. At the end of the session, the Remote user will disconnect from the Host after sending you, the Host, a message.

5. Select Option 1 to see the Directory Menu. The screen shows:

DIRECTORY MENU

1) MAIL	5) WORKSHEET
2) CALENDAR	6) AUTOLOG
3) TEXT	7) ALL
4) FILER	8) SWAP

SELECT MENU OPTION >

Select Option 3 to see a list of the Text files currently in the DeskMate directory.

The screen shows:

REMOTE DIRECTORY:
CUSTADDR.DOC LHEAD.DOC

USE CONTROL Q TO CONTINUE

6. Press the space bar to indicate that you are finished looking over the information. Next, you are going to receive a file from the Host DeskMate.
7. To retrieve any type of file from DeskMate, use the second option on the Remote DeskMate Menu. To read the text file that contains the addresses of Edwin Raymond's customers, select Option 2, and type **CUSTADDR.DOC** ENTER for the Host file you want to read.

8. After the Host computer finds the file and is ready to transmit it, you see the following message:

PRESS CONTROL Q TO PROCEED,
CONTROL S TO PAUSE,
CONTROL C TO ESCAPE

9. Press your control key (**CTRL**) on all Tandy computers and terminals) and **Q** to start displaying the addresses in the CUSTADDR.DOC file.

The addresses you should see begin with Cindy Beauchamp's and end with Laura Wordsworth's. You can press **CTRL S** to temporarily stop the transmission and **CTRL Q** to restart the data transmission.

You'll generally use the Read File from Host option with a printer or RAM buffer option at the remote terminal. Toggle the printer or open the RAM buffer before receiving the file. Consult your terminal's operating instructions for specific information.

Note: If your remote site is another DeskMate, you can use Telecom in Terminal mode. (See "Telecom.") Telecom or another terminal program, such as VIDEOTEX, can provide you with options such as file saving and printing.

10. After Host transmits the entire file and you've seen it, press **CTRL C** to display the Remote Menu.
11. Select Option 3 to send a file to the Host computer. For the filename, type **TEST.DOC** **ENTER**, and then type the following sentences to be contained in the Text file, TEST.

This test is for checking the Host function, Send File to Host. After the remote session is through and the remote-site user has disconnected, the Host computer will read this file using the Text application.

12. After you type the sentences, press **CTRL C** to mark the end of the file and send it to DeskMate. Host sends the file directly to the DeskMate directory and diskette (not to the host computer's screen) so that the Host user can later access the file from the Main Menu. (You can, instead of typing the above message, send a file to the Host by using the Telecom Send function, **F4**.)

13. To read your messages, select Option 4 at the Remote Menu, and type **LAURA** . A list of messages in the LAURA Mail file appears.
14. Select . The first message appears:

Got the club room reserved on 3/5 @ 7 pm for our 30th anniversary. Remember - it's still planned as a surprise for your father.
Love - Mom
15. Press to return to the Remote Menu.
16. To place a message in the default MESSAGES file that collects all messages for John, select Option 5 to send mail, and type **MESSAGES**.
17. Type **Laura** at the From prompt.
18. Type **Response to 2/25 message** as the subject. (The host computer automatically assigns the date and time to the message.)
19. Type the short message that follows, and when you finish, press to end the message and send it to DeskMate.

Sure thing - I can pick you up. How'd you like a late night celebration at Cafe du Marseille?
20. To log off, select Option 6. You might want to read the CUSTADDR.DOC file you received using the Text application.

Host:

To exit the Host screen, press to return to the Main Menu. To see whether DeskMate received the TEST.DOC file, try to open that file using the Text application. Also check the MESSAGES Mail file to see whether DeskMate received the message from the remote site user.

Note: If you use a Modem II at the Host computer to automatically answer incoming phone calls from remote site users, you must manually turn off the power between phone calls. The Modem II stays on and does not hang up the phone because it does not know when the remote site user finishes the call and disconnects.

ENDING THE SAMPLE SESSION

You are now finished with the Sample Session. You can continue to experiment and try new things not covered in the Sample Session. For example, you can try using Host and Telecom together to transmit information between two computers, saving data received from an information service using Telecom, or copying data from an application like Calendar to a Text file. Use the Reference part of this book to look up information about the application and function you want to use.

When you're ready to start using DeskMate for your own purposes, create a new copy of your original DeskMate program diskette by following the instructions in the Introduction to this book. Create a new data diskette (if you want to store information on a diskette other than your program diskette) by formatting a blank diskette. Instructions for accomplishing this are also in the Introduction.

After you become thoroughly familiar with an application and no longer need the assistance of a help file, you can delete that file. We strongly recommend that you delete help files only from your copies. Leave the original diskette in its original form.

To delete a help file, press **[F9]** at the Main Menu, and type one of the following filenames:

TWTEXT.HLP	[ENTER]	for Text
TWORK.HLP	[ENTER]	for Worksheet
TWFILER.HLP	[ENTER]	for Filer
TWTELCOM.HLP	[ENTER]	for Telecom
TWCALEND.HLP	[ENTER]	for Calendar
TWMAIL.HLP	[ENTER]	for Mail
TWALARM.HLP	[ENTER]	for Alarm
TWMENU.HLP	[ENTER]	for the Main Menu

Again, we recommend that you make copies at the end of each day. By following this procedure, you'll be able to retrieve most of your data in case of a mishap.

If you performed the procedures in "Using DeskMate Plus" and "Text," when you exit DeskMate, the **B>** prompt will appear. To change back to using only Drive A, type **a:** **[ENTER]** at this prompt. The **A>** prompt then appears.

DeskMate Reference

LOADING, EXITING, AND GENERAL INFORMATION

Loading DeskMate

You have several options as you load DeskMate. You can load DeskMate to run alone or load DeskMate Plus to run DeskMate in conjunction with another package. If you load DeskMate Plus, you have even more options from which to choose. The next few sections tell you all about loading either DeskMate or DeskMate Plus.

Loading DeskMate to Run Alone

To use DeskMate by itself, insert a copy of your MS-DOS/BASIC diskette into Drive A, and press the RESET button. Type the date and time when the screen prompts you to do so, pressing **ENTER** after typing each response. At the **A>** prompt, insert a copy of the DeskMate program diskette in Drive A and a data diskette (if you like) in Drive B. (A data diskette is one that you've formatted and on which you aren't storing programs.) Type **desk** **ENTER**.

Loading DeskMate Plus

DeskMate Plus is a feature that divides your computer's memory into two parts: one part runs DeskMate, and the other part can run DOS and other applications. (The "other" application can even be DeskMate if you have a need for using it, as you've seen in the Sample Session.)

To use DeskMate Plus, type this command at the system prompt:

dmplus [/m#] [/s] **ENTER**

The **/m#** option lets you allot the amount of memory in "K bytes" that you want DeskMate to use. For **#**, substitute a number from 90 through 256. If you don't use this option, DeskMate Plus uses 90K for DeskMate. MS-DOS and DeskMate itself take additional memory, using a total of 128K of your computer's memory. The rest of the memory is available for your use in running another package.

Why allot a special amount of memory instead of letting DeskMate Plus use the default 128K? If you wanted to work with large files, you could allot more than 128K for DeskMate Plus to use. The larger the amount you allot, the larger your data files can be.

DeskMate Plus allows you to use serial communications in either DeskMate's Telecom application or in another software package, but not in both. DeskMate Plus automatically assumes that you'll use Telecom for serial communications unless you include the /s option as you load DeskMate Plus. This option lets you use serial communications from your other software. Note that if you use this option, Telecom, Host, and all phone dialing functions in DeskMate will not be functional.

Loading Your Other Software. After you load DeskMate Plus, follow these steps to load your other software package:

1. Press **[ALT] [=]**.
2.
 - a. **Floppy-drive users:** A message instructs you to insert your COMMAND.COM diskette in Drive A. Remove your DeskMate diskette, insert a copy of your MS-DOS/BASIC diskette, and press **[ENTER]**. The system prompt appears.
 - b. **Hard drive users:** COMMAND.COM loads automatically from the hard disk, and you see the system prompt on your screen.
3. Insert the program diskette for your other software. If you've installed it on hard disk, change to the directory that contains it by typing:

```
cd \subdirectory name [ENTER]
```

where *subdirectory name* is the subdirectory that contains the alternate program. Follow its loading instructions, and when it is on your screen, you can begin using it.

Switching Between DeskMate Plus and Other Software

To switch back and forth between your other software and DeskMate, press **[ALT] [=]**. When DeskMate is on the screen, your other software becomes inactive. When the other software is on the screen, DeskMate becomes inactive.

When you store information on diskette or access your floppy drives in any way, be sure that you have the correct diskette(s) in the drive(s) for the software you're currently using. For instance, be sure that the DeskMate program diskette is in Drive A and the DeskMate data diskette in Drive B when you save a document in the Text application. Likewise, be sure that your other software's program diskette is in Drive A and its data diskette (if there is one) in Drive B before you access the disk drives in any way.

If you return to DeskMate with a diskette for another program in a drive, a file from the diskette can be listed on the DeskMate Main Menu. This occurs if filename extensions in the alternate software match those employed in DeskMate. The result can be confusing because the non-DeskMate files appear on the menu but are not usable with DeskMate applications.

Do not switch between DeskMate and the other software while your drive is active (while diskette input/output is in progress). Wait until the drive is no longer running before you use

Using DeskMate in Both Partitions

If you run DeskMate in both parts of the computer's memory, do not access the same data file from both DeskMates. You can use the same application in both partitions but not the same data file.

A Hint About DeskMate Plus and ViaNet

When using ViaNet and DeskMate together, you can switch from ViaNet to DeskMate in the same way as you would any other package. However, when exiting ViaNet, do **not** turn off your network via the NONET command at the system prompt for the second partition. Exit DeskMate Plus completely before you exit the network.

The Main Menu

After you load DeskMate, the Main Menu appears:

DeskMate										02/25/87 10:30am			
<div>FEB 1987 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28</div>										<div>Events for Today: Make appointment with accountant Mom's birthday - call florist Write confirmation letter to Wilson 05:30a Shop at fish and produce wholesale markets 07:30a Meet Bill at gym 08:30a Prepare food for Davis luncheon 11:15a Luncheon at Riverdale Country Club</div>			
Text		Worksheet		Filer		Telecom		Calendar		Mail			
[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	[F9]	[F10]				
Date	Name	Free	Alarm	Host	Passwd	Select	Copy	Delete	Swap				

At the top left of the menu is a calendar for the current month. The date you entered when you started up the computer is highlighted on the calendar. In the Events for Today block are the next seven events for which the Remind@ time has not yet passed. The major part of the screen contains the names of the applications and their corresponding data files. The bottom two lines display the Main Menu functions and their corresponding function keys.

Creating, Opening, and Exiting an Application File

To create a new file for an application, use the left and right arrow keys to place the marker over the application name on the Main Menu, and press **ENTER**.

The following prompt appears at the bottom of the screen for all applications except Telecom and Mail:

Enter filename:

Type a name for the file, including a full pathname if you like, and press **[ENTER]**. (See “DeskMate Conventions” in this chapter.)

You can open the Telecom and Mail applications directly from the application name line. Mail uses data files, including a default file for general messages, **MESSAGES**, which appears when you select Mail from the applications.

To open an existing application data file, position the marker over the filename, and press **[ENTER]**. (Data files appear in the column under the application to which they correspond.)

The first screen in your chosen data file appears. Review, edit, or perform other available functions on the information in the data file.

Note: If more than ten data files exist for an application, use **[SHIFT]** **[↓]** to scroll to the next screen of data file names.

To exit an application file, press **[F12]**. The screen displays the Main Menu. Exiting in this way *saves*, or stores on the disk, the current contents of the file.








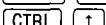




In some applications, you can exit by pressing **[SHIFT]** **[F12]**. This command exits the file, but does not save the file in its amended form. It remains stored in its pre-edited form.

DeskMate Conventions

Operations and key usage are very similar throughout DeskMate. You'll find a quick review of these DeskMate conventions helpful in using the system.







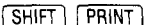
Arrow Keys

Use the arrow keys, **[↑]**, **[↓]**, **[←]**, and **[→]** (alone, with **[SHIFT]**, and with **[CTRL]**), to move the marker and display specific information throughout DeskMate. Arrow key usage varies slightly in each application. Refer to the tables in the corresponding application chapters for specific usage. General arrow key usage is:



Arrow Key Usage	
Press:	To move the marker:
	to the previous line
	to the next line
	to the left one position
	to the right one position
	to the top line on the screen
	to the bottom line on the screen
	to the left margin on the screen
	to the right margin on the screen
	to the first item in a file
	to the last item in a file
	to the previous item in a file
	to the next item in a file

Command Keys

Use command keys to perform functions that remain the same throughout DeskMate.

	Moves the cursor back over the previous character, erasing it.
	Toggles a pause in computer operation on and off.
	Cancels the current request, prompt, or command.
	Toggles the subfunction label lines on and off.
	Saves all data you enter and exits to the previous operation or menu.
	Cancels the current changes and exits to the previous operation or menu.
	Prints everything currently on the screen.

Function Keys

Functions are specific to each application. Function keys (, , and so on) and their functions appear on the last two lines of an application screen. To select a function, press the appropriate function key.

Control Keys

The control keys DeskMate uses are **ALT**, **CTRL**, and **SHIFT**. These keys work in combination with other keys to produce a *key sequence*. Control keys work in much the same way as the **SHIFT** key on a typewriter. To use a control key, hold down the control key while pressing the appropriate combination key.

Filenames

DeskMate does not distinguish between upper- and lowercase in filenames. It recognizes the names *FILE* and *file* as equal.

A valid filename begins with a letter, contains no spaces, punctuation, or other symbols, and is no longer than eight characters in length. Do not add a file extension (.DOC, and so on) when you create a new file. DeskMate automatically assigns the proper extension when it creates the file for you.

When DeskMate requests that you supply a filename, you can specify a file in a different directory or a file on a different disk altogether (in a different disk drive). To specify a different drive or directory, you need to indicate the full *pathname*. Along with the filename, the pathname includes the drive or the directory path (or both).

Suppose you want to copy a file from the Main Menu to a subdirectory of a diskette in Drive B. If Drive A is the current drive, you can specify the destination of the duplicate file as follows:

b:\projects\proposal.doc **ENTER**

This pathname designates a Text file in a subdirectory named **projects** on the diskette in Drive B.

Exiting DeskMate

If you are using DeskMate by itself, press **F12** at the Main Menu to exit DeskMate and display the system prompt.

If you are using DeskMate Plus, exit your other package. Then, at the system prompt, type **exit** **ENTER** to deactivate the part of memory reserved for running the package.

DeskMate appears on the screen. Exit DeskMate by pressing **F12**. Note that you cannot exit DeskMate without first exiting your other software. If you try to exit DeskMate first, you see this message:

Alternate program still running. Exit not allowed.

Switch to your other software, and use the procedure described earlier in this section to exit it. Then, return to DeskMate and exit it.

DeskMate SUBFUNCTIONS

The DeskMate subfunctions are handy, easy-to-use functions that are available to you throughout all applications and at the Main Menu. This chapter describes each subfunction in detail.

To display the subfunction label lines, press **[F11]**. The subfunction label lines replace the application or Main Menu label lines:

```
[ALT:F1] [ALT:F2] [ALT:F3] [ALT:F4] [ALT:F5] [ALT:F6] [ALT:F7]
Help    Calc    Show Alarm Alarm On/Off Phone    Printer Date
```

To restore the application or Main Menu label lines to the screen, press **[F11]** again.

You do not have to display the subfunction label lines to access one of the subfunctions. To select a subfunction, hold down the **[ALT]** key, and press the appropriate function key.

Press **[F12]** to exit a subfunction and return to the current application at the exact point at which you left it.

Help

The Help subfunction displays quick reference information about the Main Menu or the application/function you are using.

Press **[ALT] [F1]** to display the first help screen. If there is another help screen, the screen shows:

```
Press [ENTER] for next page of Help or
[F12] to exit Help
```

Press **[ENTER]** to display each successive help screen. The following message appears at the bottom of the final help screen:

```
Press [F12] to exit Help
```

Press **[F12]** to continue with the application or function you're using.

After you are thoroughly familiar with an application and no longer need assistance from a help screen, you can delete the help file. We strongly recommend that you delete help files only from your copies. Leave the master program diskette in its original form.

To delete a help file, press **[F9]** at the Main Menu, and type one of the following names:

TWTEXT.HLP	[ENTER]	for Text
TWORK.HLP	[ENTER]	for Worksheet
TWFILER.HLP	[ENTER]	for Filer
TWTELCOM.HLP	[ENTER]	for Telecom
TWCALEND.HLP	[ENTER]	for Calendar
TWMAIL.HLP	[ENTER]	for Mail
TWALARM.HLP	[ENTER]	for Alarm
TWMENU.HLP	[ENTER]	for Main Menu

Calculator

The Calculator subfunction lets you use your computer as a calculator. Calculator uses a ten-digit display (no commas) and a floating decimal point format. 9,999,999,999 is the largest number you can enter or accumulate, and 0.0000000001 is the smallest. If the accumulator *overflows* (when the accumulator tries to store a number greater than 9,999,999,999), the accumulator line displays asterisks.

Press **[ALT]** **[F2]** to select Calculator. The screen displays these label lines:

[F1]	[F2]	[F3]	[F4]	[F5]	[F6]	[F7]	[F8]	0.00000000
Add	Sub	Mul	Div	Percent	CA	CE	#/-	+

To perform a calculation, type the first number, or operand, in the *entry* (bottom) line. Each digit pushes the digit you are typing one position to the left. (Press **[F8]** to reverse the sign of a number you type, for instance to change 10 to -10. A minus sign displays in front of a negative number.)

The default operator is + (Add). Press **[ENTER]** to add the amount you typed on the entry line to the amount in the *accumulator* (top) line.

To perform an operation other than Add, type a logical operator (+, -, *, /), or an operator function key (F1 - F5). The functions and operators are:

F1	or	+	for addition
F2	or	-	for subtraction
F3	or	*	for multiplication
F4	or	/	for division
F5	or	%	for a percent
F6			to clear all amounts
F7			to clear the current entry (operand)
F8			to reverse the sign of the operand

Note: A percent is the **accumulated amount** * (operand amount/100). For example, to calculate 20% of the accumulator, type **20** as the operand, press F5 to display a percent sign, and then press ENTER.

Type the logical operator or function key anytime before you press ENTER to calculate the result. The calculated result appears on the accumulator line.

Enter new operands, changing the operator when necessary, until you complete your calculations.

Press F12 to exit Calculator and return to the application you were using.

Show Alarm

The Show Alarm subfunction displays Alarm event information. See Alarm in the "Main Menu" reference chapter for information about putting events into the Alarm file.

Press ALT F3 to select the Show Alarm subfunction and display Alarm event information. The last event for which an alarm sounded and the next Alarm event scheduled replace the label lines.

Press F12 to exit the Show Alarm subfunction and continue with the current application.

Alarm On/Off

Use Alarm On/Off to toggle the alarm on and off. Alarm On/Off must be on for the alarm to sound. When the Alarm is off, it gives you no signal of events in the Alarm file.

Press **[ALT] [F4]** to change the Alarm status. An @ appears next to the date and time on the Main Menu and application screens to let you know that the alarm is on.

Phone

Use Phone to record and quickly look up phone numbers. If you have an auto-dialing modem, DeskMate can dial a number in the Phone file for you.

Note: To automatically dial a number, you must have previously defined the Voice Dialing sequence in the Telecom application. See the “Telecom” chapter for details. If you’re using DeskMate Plus, remember that you can use serial communications from either DeskMate or your other software, but not from both. If you’re employing your other software for serial communications, the Call option, described below, is not functional.

To select Phone, press **[ALT] [F5]**. The screen shows:

PREFIX1-PREFIX3 are for entering special codes that precede phone numbers when you auto-dial. Examples include numbers to get an outside line on a PBX system, long distance codes, or access codes to other phone networks. Be sure to indicate any required pauses for a dial tone in your codes by using the letter P. (Use W if you have a Hayes or Hayes-compatible modem.)

To select all or any of the PREFIX fields for dialing, press the appropriate function key. See "The Phone Functions" for details.

ACODE is for entering your local area code. When you auto-dial a number, Phone checks for an area code. If you entered no area code or if the listed area code matches the one you entered for ACODE, the modem will not dial the area code. The modem dials only area codes that do not match ACODE.

The Phone Functions

To use the Phone functions at the bottom of the screen, press the appropriate function key. The Phone functions are:

Find Use Find to search for a specific phone number. Press **[SHIFT]** **[↑]** to move the cursor to the Find line. Type the phone information for which you wish to search, and press **[F1]**. If Phone finds the search information, the cursor moves to the matching line on the screen. Press **[F1]** again to find the next match.

Call Press **[F2]** to call (dial) the telephone number on which the cursor rests. If you do not have an auto-dialing modem, or if the number is invalid, Phone ignores your request. The function dials any PREFIX codes you enter and select (using **[F3]**, **[F4]**, or **[F5]**) in 1, 2, 3 order, except when you call numbers containing fewer than seven digits. In such cases, the function ignores prefixes. Call dials the area code if it is different from ACODE.

Prefix1 Press **[F3]** to select Prefix1 for automatic dialing.

Prefix2 Press **[F4]** to select Prefix2 for automatic dialing.

Prefix3 Press **[F5]** to select Prefix3 for automatic dialing.

Sort Press **[F6]** to sort all phone entries into alphabetical order by name.

- Print** Press **[F7]** to print a copy of the phone list. (To check printer settings first, see "Printer.")
- Delete** Press **[F9]** to delete the phone entry line on which the cursor rests.
- Add** Press **[F10]** to display a blank entry line at the current cursor location for adding a new phone number. Add new lines in the same way as you first entered numbers in the file.

Press **[F12]** to exit Phone and continue with the application you were using.

Printer

Use this subfunction to adjust printer settings for all DeskMate Print functions. Press **[ALT] [F6]**. The screen displays the current printer settings. Enter new values for each, or press **[ENTER]** to keep the current value. The settings are:

Left Margin: 0

Enter the number of spaces you want from the left edge of the paper to the left margin.

Printed Line Width: 80

Enter the number of characters that can print on one line of your paper. For example, although an 8 1/2-inch page is 85 characters wide (10 characters per inch), many printers can print only 80 columns. So, if you were using an 80-column printer, 80 would be the maximum line width you could use.

Note: When printing data in Worksheet or Calendar files, do not set the Printed Line Width below 80. Lower values result in additional line feeds in the printed copy.

Total Lines per Page: 66

Enter the length, in print lines, of the paper. Standard paper is 11 inches long; normal line spacing produces six lines per vertical inch. Therefore, 11-inch paper has 66 lines per page.

Printed Lines per Page: 60

Enter the maximum number of lines you want to appear on one printed page. The built-in setting is 60, which leaves you six total lines for top and bottom margins.

Double Space (Y/N): N

Press **[ENTER]** to keep lines single spaced. Press **[Y]** to use double spacing.

Pause between Pages (Y/N): Y

Press **[ENTER]** if you use single-sheet forms. (You'll have to pause after each page to insert another sheet of paper.) Press **[N]** if you use continuous forms.

New Page after Print (Y/N): Y

Press **[Y]** or **[ENTER]** to advance the paper in your printer to the top of the next page automatically when each printing job finishes. Press **[N]** to advance the paper only when the printer prints the number of lines you specify for Printed Lines per Page.

After you answer the last prompt, the application or Main Menu screen reappears. If you don't need to change all the settings, press **[F12]** when you finish changing settings to exit the subfunction and return to the application you were using.

Date

Use Date to change the date and time shown on the screen. Press **[ALT] [F7]**. On the line provided, type the new date in *mm/dd/yyyy* format (for example, **09/22/1987** for September 22, 1987), and press **[ENTER]**. Do not enter a year greater than 1999. Type the new time in 12-hour, *hhmmx* format (for example, **0245p** for 2:45 p.m.), and press **[ENTER]**.

MAIN MENU FUNCTIONS

In addition to letting you access the DeskMate applications, the Main Menu gives you access to ten functions. This chapter describes each Main Menu function in detail.

To select a Main Menu function, press the appropriate function key at the Main Menu, as explained below.

Date

Use Date to change the system date and/or time. Press **[F1]** to display a line on which you can enter a new date and time. Type the new date in *mm/dd/yyyy* format, and press **[ENTER]**. Do not enter a year greater than 1999. Type the new time in 12-hour, *hh:mmx* format. Be sure to include an **a** or **p** for a.m. or p.m., and press **[ENTER]**.

Name

Use Name to change the name of a data file. With the marker on the data file you want to rename, press **[F2]**. The screen shows:

```
Old filename:
New filename:
```

The name of the data file that you marked appears to the right of `Old filename:`. If you didn't place the marker on a filename, a blank appears. Type the correct filename, including its extension. The filename extensions are:

.DOC	for Text
.WKS	for Worksheet
.FIL	for Filer
.CAL	for Calendar
.MSG	for Mail

After you enter the correct filename, press **[ENTER]**. The cursor moves to `New filename:`.

The most recently changed filename appears to the right of this prompt. Type the correct filename and its extension. If you supply no extension, DeskMate uses the extension from the old filename. After you type the correct filename, press **ENTER**. The changed filename appears in its appropriate column on the Main Menu.

Free

Press **F3** to display the amount of free space (in bytes) on the current diskette.

Alarm

Use Alarm when you want the computer to remind you of important events. You must turn on the Alarm for it to sound a signal that indicates an event's occurrence. Alarm automatically turns itself off when you turn off the computer.

When the alarm is on, it sounds regardless of the application you're using. You can merge Calendar events into the Alarm file or add events directly to it. Alarm automatically sorts events in date/time order and deletes them when their occurrence time passes.

Press **F4** at the Main Menu to select Alarm.

When using Alarm, you are always in overstrike mode. Each character you type replaces the character at the cursor's position. Blank entry lines appear when you open the Alarm file for the first time. At this point, you can add an event by entering the appropriate information for each line.

After an Alarm file contains events, the screen displays those events (beginning with the current date) each time you open the file. To add an event to the Alarm file after it contains events, use the Add function. (See "The Alarm Functions.")

Enter all times in 12-hour, *hhmmx* format. Be sure to include an **a** or **p** for a.m. or p.m.. For example, type **1130a** **ENTER** to indicate 30 minutes before noon.

Enter dates in *mmddyyyy* format. For example, type **10221987** **ENTER** to indicate October 22, 1987.

Enter a description using a maximum of 44 characters. (Alarm does not distinguish between upper-/lowercase when it searches for events. *MEETING* and *meeting* are the same.)

The Help Screen

The help screen for Alarm contains brief summaries of the functions and ways to use them.

To view the help screen, press **[ALT]** **[F1]** while you are using the Alarm function. Press **[F12]** to return to the Alarm screen.

The Alarm Functions

The Alarm functions appear at the bottom of the screen. To select a function, press the appropriate function key.

Merge Press **[F6]** to merge a specific Calendar file into the Alarm file. The following prompt appears:

Merge From:

Enter the name of the Calendar file that you want to merge into the Alarm file. Merging in process appears. After the merge finishes, copies of all events in the Calendar file you specified appear in the Alarm file. Alarm sets the Remind@ time for 30 minutes prior to the Begin time of each event you merged.

Select Use Select to define an event or a block of events so that you can copy or delete it. Place the marker on the first event line you want to include in the block, and press **[F7]**. Use the arrow keys to place the marker on the last event you want to include in the block. All selected events become highlighted as you move the marker.

After you select the events, copy or delete them. Press **[BREAK]** before choosing Copy or Delete if you decide not to use the selected events. If you use another function or exit Alarm before you copy or delete the selected events, Alarm no longer treats them as selected.

Copy Press **[F8]** to copy the selected event block into a document file that you can use with the Text application. Press **[F8]** again. Copy To: appears.

Enter the name of the file in which you wish to store the selected events. The events copy into the document file.

Delete Press **[F9]** to delete all selected events. Alarm immediately deletes the events. If you selected no events, pressing **[F9]** deletes the event line on which the marker rests.

Add Press **[F10]** to add a new event. A blank line appears. Type the data (Remind@ time, Date, Begin and End times, and Description) for the event you are adding. Press **[ENTER]** when you complete each field.

The Arrow Keys

The screen displays a maximum of 20 event lines at one time. After you complete the twentieth line, the screen *scrolls*, or moves up line by line, so that you can continue. To see a line after it scrolls off the screen, press **[↑]** until the line appears. Press **[↓]** to return to the line you were typing or editing.

You can use the arrow keys to move the marker a character or line at a time. To move the marker more rapidly, you can press **[SHIFT]** or **[CTRL]** along with the arrow keys. See the following table.

Marker Movement Keys

Key	By Itself	With SHIFT	With CTRL
Moves the Marker:			
→	one character to the right	to the beginning of the first field to the right	not used
←	one character to the left	to the beginning of the first field to the left	not used
↑	one line up in the current column	to the first event line on the screen or previous page	to the beginning of the file
↓	one line down in the current column	to the last event line on the screen or next page	to the end of the file

Host

When you execute the Host function, your computer operates as a host computer. In Host mode, your computer receives commands and data from another terminal (such as the TRS-80® Model 100 Portable Computer) rather than from your keyboard. Its output is displayed at the remote site — and “echoes” on your screen if you choose.

At the remote site, you can receive a file from the host DeskMate, create a file and send it to the host, and create and read messages in DeskMate Mail files.

Depending upon the capabilities of the remote terminal, you might be able to perform more sophisticated operations. Refer to your terminal's operating instructions. If your remote site is another DeskMate, you can perform any of the operations available in Telecom while you are in Host mode. (See “Telecom” for more information.)

Note: If you're using DeskMate Plus, active telecommunications become inactive when you switch from DeskMate to another software package. Remember that you can use serial communications from either DeskMate or your other software, but not from both.

Setting the Modem Status and Switches

Before you use Host, set the communication parameters on the status screen in the Telecom application. Also define the Answer Mode in Telecom. Refer to the "Telecom" chapter for details.

Generally speaking, at the host, set your modem switches as follows: POWER ON, ANSWER, AUTO (for auto-dialing), and TEST OFF. Refer to the more specific instructions for modems and modem settings in Appendix A.

Local Operation

After you properly connect and set the host modem and the communication parameters, press **[F5]** to enter Host mode from the Main Menu. The screen shows:

SECURITY??? (Yes/No)

In the normal Host mode, all remote activity echoes (displays) on the host DeskMate screen. When you activate the security option of Host, no remote activity echoes to the host. (To exit the security option, you must enter the system password if one exists.)

Press **[N]** to use normal Host mode or **[Y]** to use security Host mode. DeskMate is now ready for access by the remote site. Host allows no other local activity.

If you have problems entering Host mode (if the SECURITY??? prompt does not appear when you press **[F5]**), press **[BREAK]**. The prompt appears. Answer with **[Y]** or **[N]**, and then press **[F12]**. Next, using the Telecom application, be sure that all your communications settings are correct—especially that the baud rate is set to 300. Then, enter Host mode again. (For more information, see the "Telecom" reference chapter.)

To exit Host at the DeskMate site, press **[F12]**. If a system password exists and you are using security Host mode, enter the password. (Note that the password never echoes on the screen.) The Main Menu returns to the screen.

Remote Site Setup

Properly connect the modem at the remote site. Next, set the remote site's modem status and communication parameters, using the remote site's terminal software and/or modem switches. Generally, all modem settings and parameters should be the same as the host except for the modem's ORIGINATE/ANSWER switch. Set this switch to ORIGINATE at the remote site.

For example, for a Model 100 using its own built-in modem, the settings are:

Baud Rate	=	M (built-in modem)
Word Length	=	(same as Host setting)
Parity	=	(same as Host setting)
Stop Bit	=	(same as Host setting)
Line Status	=	E (enable—XOFF)
Pulse Rate	=	10pps

Follow the instructions for the remote site's terminal software and modem. Also refer to the more specific instructions for modems and modem settings in Appendix A.

Remote Site Operation

Enter the interactive terminal mode, or display the proper screen for connecting with a host computer. Dial (or auto-dial if so equipped) the number of the telephone line to which the host computer is connected.

For example, using a Model 100 at the Model 100 Telecom Entry screen, find (or type) the number, and then call it.

Press **ENTER** twice to establish communication between your remote terminal and the host, DeskMate.

Note: **ENTER** in the previous paragraph refers to a carriage return. Some terminals use another label for this key, such as **RETURN** or **CR**. For the sake of simplicity, however, we use **ENTER** to refer to the carriage return key on both the host and remote terminals.

If a DeskMate password exists, **password:** appears on the remote screen (and echoes to the host if not in security mode). Type the DeskMate password, and press **ENTER**. (The password you type does not echo at the host.) If, after three tries, you fail to enter the correct password, Host disconnects the remote site.

After you correctly enter the password, the DeskMate Remote Menu appears:

REMOTE DESKMATE

- 1) DIRECTORY
 - 2) READ FILE FROM HOST
 - 3) SEND FILE TO HOST
 - 4) READ MAIL
 - 5) SEND MAIL
 - 6) LOG OFF
- SELECT OPTION >

Type the appropriate menu selection, and press **[ENTER]** to use a remote function. To redisplay the Remote Menu at any time, from any function, press **[CTRL] [C]**. Press **[CTRL] [S]** to pause during any remote function. Press **[CTRL] [Q]** to resume operation. The remote functions are:

Directory Select the first option to display a Directory Menu of the DeskMate file types available:

DIRECTORY MENU

- | | |
|-------------|--------------|
| 1) MAIL | 5) WORKSHEET |
| 2) CALENDAR | 6) AUTOLOG |
| 3) TEXT | 7) ALL |
| 4) FILER | 8) SWAP |

SELECT OPTION >

Enter the appropriate number to display a list of all the DeskMate files for a particular application. (Autolog displays the automatic logon files created in Telecom.) The filenames appear on the screen.

The ALL option displays all files in DeskMate, by application, in the order in which they are listed on the Directory Menu.

You can identify the files' corresponding applications by the filename extensions:

.MSG for Mail	.CAL for Calendar
.DOC for Text	.FIL for Filer
.WKS for Worksheet	.LOG for Autolog

The SWAP option lets you activate a drive or directory not currently in use. The `Current Directory:` prompt shows the drive and directory currently in use. You could, on the line beneath the prompt, type `c:` to use Drive C. To change directories, enter the desired directory name at the `New Directory:` prompt.

After displaying the files, press to redisplay the DeskMate Remote Menu.

Read File From Host

Select this option to read a host DeskMate file at the remote site. The screen shows:

```
READ FILE FUNCTION
ENTER HOST FILENAME >
```

Enter the filename exactly as it appears in the DeskMate directory, including the proper filename extension. (If you enter no extension, the program assumes .DOC.) The contents of the file display on the remote screen. The file displays one line at a time if you are not using automatic line feed at the remote terminal.

Generally, you'll use this function in conjunction with a printer or RAM buffer option at the remote terminal. Toggle the printer or open the RAM buffer before you receive the file. Consult your terminal's operating instructions for specific information.

pauses receiving/displaying a file at any time. continues.

If your terminal software supports it, you can edit a file saved into the RAM buffer and send it back to DeskMate, using the Send File function. Note that if you do not choose a different name for the edited file, the following prompt appears:

```
OVERWRITE FILE? Y/N
```

Press to replace the old file with the new file. If you press , the screen prompts you to enter a NEW FILENAME.

Send File To Host Select this option to send a file from the remote site to DeskMate. The screen shows:

```
SEND FILE FUNCTION  
ENTER HOST FILENAME >
```

Enter a filename for the file you are sending, including the proper filename extension. If the filename matches any existing filename in DeskMate, the `OVERWRITE FILE ?` prompt appears. Press `[Y]` or `[N]`, as appropriate.

Press `[F4]`, and enter the filename again. Be sure to include the extension as part of the filename.

`[CTRL] [S]` pauses sending/displaying a file at any time. `[CTRL] [Q]` continues. `[CTRL] [C]` ends the transmission.

Read Mail Select this option to read DeskMate mail at the remote site. The screen shows:

```
READ MAIL FUNCTION  
MAIL FOR >
```

Enter the name of the Mail file from which you want to read messages. You do not have to enter the `.MSG` extension. (For example, you can enter **MESSAGES** to read mail from the default file.)

The first screen of messages appears along with this prompt:

```
SELECT A-S, OR ENTER TO CONTINUE
```

Type the appropriate letter (A-S) to select a message. If there are more messages, press `[ENTER]` to view additional screens.

Press `[CTRL] [C]` to return to the DeskMate Remote Menu.

Send Mail Select this option to send a message to DeskMate from the remote site. The screen shows:

```
SEND MAIL FUNCTION  
TO >
```

Enter the name of the Mail file to which you want to send a message. You do not have to enter the .MSG extension. (For example, enter **MES-SAGES** to send mail to the default file.) The screen shows:

FROM >

Enter your name (using no more than eight characters). The screen shows:

SUBJECT >

Enter a description of the message (maximum 32 characters). The screen shows:

ENTER MESSAGE, USE CONTROL C
TO END MESSAGE

Type the message, using a carriage return to start a new line as necessary. Backspace is the only editing feature available in message creation. Press **CTRL C** to end the message and send it to the host. The DeskMate Remote Menu then reappears.

Log Off

Use this option to disconnect from the host site. The screen shows:

REMOTE LOG OFF

(Press **F12** at the Host screen in DeskMate after disconnecting communication from the remote site. The Main Menu reappears.)

Password

Press **F6** to assign a password that restricts access to DeskMate on initial entry into the system and on exiting the Host security mode. The screen shows:

Enter New Password

Type a password using a maximum of eight characters. A valid password begins with a letter and contains no punctuation, special symbols, or blanks. Press **ENTER**, and the Main Menu reappears.

Select

Use Select to define more than one data file for deletion. Position the marker on the first file you want to select. Press **[F7]**. Then, position the marker on the last file you want to select (in the same application column only), and use the Delete function.

Copy

Use Copy to duplicate a data file on diskette. Position the marker on the file you want to copy, and press **[F8]**. The screen shows:

```
From filename: XXXXX.XXX
To filename:
```

The From filename with its extension appears. If the filename is incorrect or blank, type the correct filename and extension. Press **[ENTER]**. Type a filename different from the original one as the To filename, and press **[ENTER]**.

Delete

Press **[F9]** to delete from the DeskMate diskette(s) the marked data file or all selected files in one application. The filename(s) of the marked data file(s) appears. Correct the filename(s) if needed, and press **[ENTER]** to continue. DeskMate deletes the file(s).

Swap

Press **[F10]** to change the current drive or current directory. The *current* drive or directory is the one currently active or in use. For example, at the Current: prompt, type **c:** **[ENTER]** to switch to using Drive C.

Likewise, you can change from the current directory to another existing directory by altering the pathname shown after the prompt. If, for example, the current directory is A:\, you can change to an existing subdirectory named projects by typing **a:\projects** **[ENTER]** at the Current: prompt.

TEXT

The Text application is an easy to use, yet powerful text editor. Use Text to prepare everything from quick memos to letters, articles, and proposals.

You can rearrange, delete, and insert text, as well as change the format of your document. You can print documents, combine documents, and save all or a portion of a document in ASCII format.

Using Text

To create a new document file, place the marker on **Text**, press **ENTER**, and enter a new filename. A blank screen appears so that you can start typing the document.

To open an existing document file, position the marker on the filename, and press **ENTER**. The first page of the document file you selected appears.

The first 22 lines of the screen hold your document. The Text functions appear on the next two lines. The bottom line indicates your location in a document by displaying the line number and page number.

After you fill the screen through the twenty-second line, the screen scrolls, or moves up line by line, to let you continue. To see a line after it scrolls off the screen, use the arrow keys as described in the marker movement table later in this chapter.

To end a page before you've typed a full page of text, type **.N** **ENTER** on a line by itself. The following line will begin the new page.

The Help Screens

The two Text help screens contain brief summaries of the functions and ways to use them. Within the Text application, press **ALT F1** to view the first help screen. To view the next help screen, press **ENTER**. Press **F12** to return to the Text screen.

The Arrow Keys

Use the arrow keys to move the marker a character or line at a time. Pressing **SHIFT** or **CTRL** along with an arrow key moves the marker more rapidly. Refer to the following table for exact marker movement.

Marker Movement Keys

Key	By Itself	With SHIFT Moves the Marker:	With CTRL
←	one character to the right	one word to the right	to the right margin of the current line
→	one character to the left	one word to the left	to the left margin of the current line
↑	one line up in the current column	to the top of the screen in the current column, or to the top of the previous screen if already at the top or press PG UP	to the beginning of the document or press HOME
↓	one line down in the current column	to the bottom of the screen in the current column, or to the bottom of the next screen if already at the bottom or press PG DN	to the end of the document or press END

The Text Functions

Use the Text functions shown at the bottom of the Text screen to manipulate the text within your document and from document to document. To select a function, press the appropriate function key.

Find

Press **[F1]** to search for and find a *string* (a sequence of characters) of as many as 40 characters. The following prompt appears at the bottom of the screen:

Search string:

Type the string you want to find, and press **[ENTER]**. Find ignores upper-/lowercase distinctions. For example, *STRING* and *string* are equal. If the function finds the string, the line containing the string appears at the top of your screen. To find the next occurrence of the string, press **[F1]** again, and then press **[ENTER]** to use the same search string.

Substitute

Press **[F2]** to search for a string and replace it with another string. The screen shows:

Search string:

Enter the string you want to replace. The screen shows:

Replacement string:

Enter the string you want to substitute. The first occurrence of the string appears. The screen shows:

Replace? (Y/N)

Press **[Y]** to replace this occurrence of the string. Press **[N]** to skip those occurrences you do not want to replace with the new string. Press **[BREAK]** anytime to cancel any further substitutions.

Add/Replace

Press **[F3]** to toggle between the Add and Replace modes. Add is the mode that Text automatically uses when you open a file. Everything you type is inserted (added) at the current marker position, and any text following the marker shifts to the right one space for each character you insert. In Add mode, **[BACKSPACE]** deletes the previous character, moves the cursor one space to the left, and closes up the text.

In Replace (overstrike) mode, each character you type overstrikes (replaces) the character under the marker. The text does not move. Note that you cannot replace a carriage return. You must skip over it when you use Replace mode, toggle to Add mode, and insert characters in front of it and/or use **DELETE** to remove it. In Replace mode, **BACKSPACE** erases the previous character, moves the cursor one space to the left, and leaves the space blank.

Format

You can format the screen to display any line width you choose, from 21 characters per line to 79. For example, you might want to use the same width as you plan to print so that you can see how the printed document will look.

Press **F4** to specify the screen format you want to use for your document. This prompt appears:

Line Width = 79

Enter the number of characters you want to appear across each line on the screen. The next time you display the document, it will appear in the width to which you previously set it.

Buffer

Press **F5** to place all selected text into a temporary storage area, or buffer. The Buffer function does not delete the text, but merely makes a duplicate of it. You can insert this duplicate elsewhere in your document as often as you like.

To insert duplicated text at another location, move the marker to the appropriate position, and press **F10**. The text then appears in that position (in addition to its original place).

Merge

Press **F6** to merge (combine) a copy of another document with the document on which you are currently working. This prompt appears:

Enter merge filename:

Type the name of the document file that you want to merge into your document, and press **ENTER**. Merge checks the length of the document file, and if there is enough room, it copies the document into your current document at the marker position.

The Merge function inserts text without overwriting or erasing any existing text in your document. If your document does not contain enough room for the entire Merge document file, Text cancels the merge, and the screen displays:

Not enough memory ENTER to continue

Select

Use Select to define a word or block of text so that you can use the Copy, Print, Buffer, or Delete functions on it. Position the marker on the first character you want to select, and press **[F7]**. Then, use the arrow keys to place the marker on the last character you want to include in the block. Text selects all highlighted text between the first and current marker positions.

After you select your text, copy, print, buffer, or delete it, as appropriate. Press **[F7]** before choosing another function if you decide not to use the text you selected. If you use any other Text operation except Find, or if you exit the Text application before you copy, print, buffer, or delete, Text no longer treats the block as being selected.

You can use the Find function to display text for selecting. Use Find to search for the first character, word, or string you want to include in your block. Then, select the block as usual.

Copy

Press **[F8]** to save a copy of your entire document or a selected block of text. The Copy function saves data in ASCII format in a new or existing Text file. After you choose the function, the following prompt appears:

Enter copy filename:

Enter the name of the file to which you wish to copy this document or block, and press **[ENTER]**. If you enter the name of an existing Text file, the Copy function overwrites the existing file contents.

If you do not enter a filename, Text uses the current document name and copies the file or block onto the diskette in Drive A or any drive you specify via the Main Menu Swap function. A block you copy remains part of the current document.

You can load a document file you copy into other MS-DOS applications, such as SCRIPSIT®, in ASCII format. See the user's manual for the application with which you wish to use a DeskMate document file for instructions on loading ASCII files.

Delete

Press **F9** or **DELETE** to delete all selected text. Text immediately deletes the selected block. If you select no text, Text deletes the character beneath the cursor.

Insert

Press **F10** or **INSERT** to insert text you previously buffered at the current marker position.

Print

Press **PRINT** to print the entire document. Be sure that you check the printer settings via the Printer subfunction (**ALT F6**) and that your printer is ready to print.

Note: To print part of a document, you can use one of two methods. Use the Find function or the arrow keys to display the text you want to print. Then, use the **SHIFT PRINT** command to print everything currently on the screen.

You can print a selected block of text by pressing **PRINT** after you select the block.

WORKSHEET

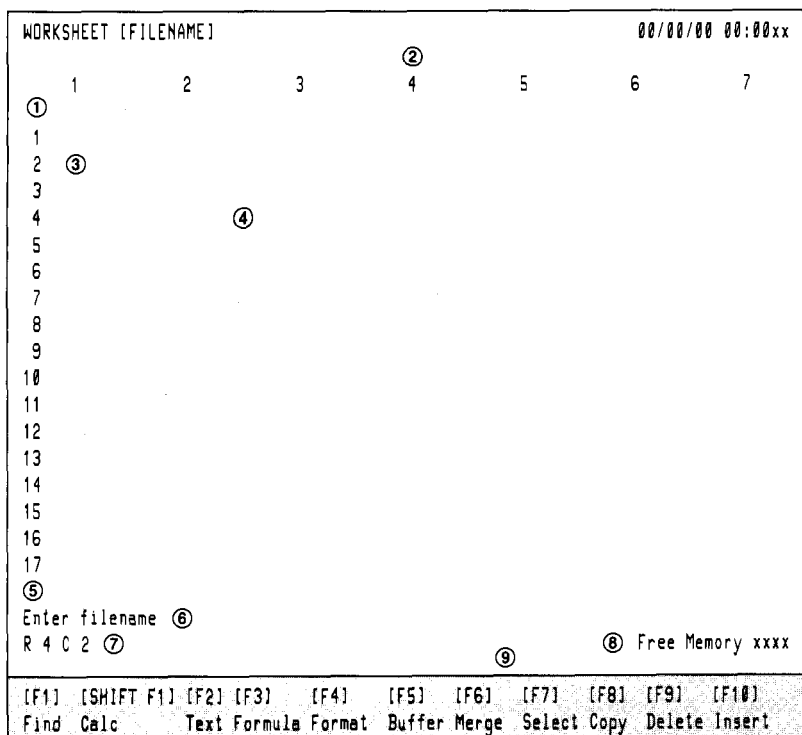
Using Worksheet, you can easily perform complex calculations for budgeting, forecasting, statistical analysis, engineering, and many other previously tedious tasks on a spreadsheet that you customize to meet your specific needs. You can find data quickly by either the cell location or contents. Using Worksheet functions, you can change column widths, insert or delete columns and rows, and define areas of the spreadsheet for text entry. Use the Print function to print all or part of a spreadsheet.

Other functions enable you to duplicate data from one file to another. The Merge function moves data from one Worksheet file into another. Using Copy, you can save selected data in a Text file in ASCII format.

Using Worksheet

To create a new Worksheet file, place the marker on `Worksheet`, press `[ENTER]`, and type a name for the new file. An empty worksheet screen appears.

To open an existing worksheet file, place the marker on the file-name, and press `[ENTER]`. The first worksheet screen for that file appears.



If you use the default column width (ten characters), no setup procedures are necessary. You can begin entering your worksheet data right away. There are four types of data you can enter: numeric data, formulas, cell text, and block text. See "The Worksheet Functions."

- ① Row numbers appear down the left side of the screen in the Row Label area.
- ② Column numbers appear across the top of the screen in the Column Label area.

Worksheet can display a *window* consisting of 17 rows and seven columns (more or less, depending upon the column width you set) on the screen at one time. You can use as many as 99 rows and 99 columns in each worksheet. To move from window to window in a worksheet, use the arrow keys or the Find function.

- ③ Each intersection of a row and a column is a *cell*.

- ④ The highlighted rectangle is the entry marker. Use the entry marker to select a cell for data entry.
- ⑤ To add data to the worksheet, position the entry marker on the correct cell, type the data on the data entry line, and press **ENTER**. The entry appears in the cell simultaneously.
- ⑥ The command line either prompts you to select a function or displays the function you are currently using. Error messages and warnings also appear on this line.
- ⑦ The cell status line shows the location of the cell that the entry marker is currently highlighting, in row number, column number format. The data contained in that cell appears to the right of the cell number.
- ⑧ The amount of free memory appears at the right end of the cell status line.
- ⑨ The Worksheet functions are on the last two lines of the screen.

To exit Worksheet, press **F12** (to save changes or new data) or **SHIFT F12** (to cancel changes). Press **Y** at the prompt to confirm the command.

The Help Screens

The Worksheet help screens contain brief summaries of the functions and ways to use them. Within the Worksheet application, press **ALT F1** to display the help screens. The screen most appropriate to your current situation on the worksheet appears. Press **F12** to return to the worksheet.

The Arrow Keys

Use the arrow keys to move the entry marker from cell to cell and to the row and column labels. The arrow keys move the marker a cell at a time, in the direction of the arrow. Press **SHIFT** or **CTRL** along with an arrow key to move the marker more rapidly. See the following table.

Marker Movement Keys

Key	By Itself	With SHIFT	With CTRL
Moves the Marker:			
→	one cell (or column label) to the right	to the last column on the screen, or to the last column on the next screen if the entry marker is in the last column	to Column 99 in the current row
←	one cell (or column label) to the left	to the first column on the screen, or to the first column on the previous screen if the entry marker is in the first column	to Column 1, or to the row label if the entry marker is in Column 1
↑	one cell (or row label) up	to the first row on the screen, or to the first row on the previous screen if the entry marker is in the last row	to Row 1, or to the column label if the entry marker is in Row 1
↓	one cell (or row label) down	to the last row on the screen, or to the last row on the next screen if the entry marker is in the last row	to Row 99 in the current column

The Worksheet Functions

The Worksheet functions appear at the bottom of the screen. To select a function, press the appropriate function key.

Find

Press **[F1]** to search for and find a string of characters or a specific cell. The following prompt appears:

Specify string or cell

Enter the cell contents that you want to find. The window containing that cell appears. The entry marker highlights the cell.

When searching for a specific cell, Worksheet recognizes only valid cell numbers. Type **R**, the row number, **C**, and the column number. The window containing that cell appears with the entry marker highlighting the cell. If you omit a row or column number, Worksheet uses the row or column number corresponding to the location of the entry marker.

Note that you cannot search for a string you entered using the Text function. Find searches for data by cell and therefore disregards text typed via the Text function (because the text is not cell oriented).

To find the next occurrence of the same search string, press **[F1]** again.

Calc

Press **[SHIFT] [F1]** to calculate the worksheet you set up. Also use Calc to recalculate a worksheet in which you make changes. Worksheet calculates data according to cell contents, from left to right and top to bottom, skipping any non-numeric data. Results of the calculations appear in cells in which you entered formulas.

Text

If you require more space for text than a single cell, or if you want a more formal worksheet, you can select a block of cells in which to enter text. The text boundaries are defined by the selected block as a whole, rather than by each individual cell in the block. The program creates a window for writing, editing, and manipulating text.

Press **[F2]** to enter (or edit existing) text in a selected area. (See "Select.") Word wrapping is automatic, and you can use limited editing features. If the block you choose does not currently appear on the screen, it comes into view as soon as you begin editing. When you finish, the block returns to its original position.

As you edit text on the data entry line, press **BACKSPACE** to delete the text character preceding the cursor. **DELETE** deletes the character highlighted by the cursor. **CTRL W** deletes text from the cursor to the start of the next word. **CTRL L** deletes text from the cursor to the next carriage return. **CTRL D** deletes text from the entry marker to the end of the text block.

You can reformat existing text blocks into larger or different shaped blocks in the same or slightly altered location. To do so, select a block of cells including at least one cell of the existing text block that you wish to reformat. Press **F2**. The text block reformats into the newly selected block.

To exit the Text function with current changes intact, press **ENTER** or **F12**. To restore the text to its pre-edited condition, or to cancel a new block selection for text, press **SHIFT F12**.

Formula

To type a formula in a cell, position the entry marker on that cell. Press **F3** to mark the cell for formula entry, and then enter the formula on the data entry line. As you enter the formula, you can move the marker to any cell in the worksheet whose coordinates you want to use in the formula. The cell's location appears on the data entry line. Type an operator or press **ENTER** to use the displayed coordinates.

To enter one formula that you want several cells to use in calculations, select the cells (using **F7** and the arrow keys). Next, mark them for formula entry, and then enter the formula.

To erase values in formula cells while leaving the formula intact, press **CTRL F**.

You can edit an existing formula after you press **F3**. At the data entry line, use the features described in the "Text" section of this chapter to edit the formula. To stop editing and cancel any changes you made to the formula, press **BREAK** or **SHIFT F12**. To end editing and save the changes, press **ENTER** or **F12**.

Within a formula, Worksheet performs mathematical operations left to right, performing parenthetical operations first, followed by multiplication and division, with addition and subtraction last. When you nest parentheses, Worksheet calculates the innermost operations first. The operations available for your use are in the following table.

Formula Operations

Between two cells:			
+	Addition	*	Multiplication
-	Subtraction	/	Division
		!	Power
For a row, column, or selected block:			
AVG	Average (mean of the values)	MIN	Minimum value
CMT	Cumulative sum of the column	RMT	Cumulative sum of the row
MAX	Maximum value	SUM	Sum of the values
For a cell:			
ABS	Absolute value	LOG	Logarithm
ATN	Arctangent	SGN	Sign
COS	Cosine	SIN	Sine
EXP	Exponential	SQR	Square root
INT	Integer truncation	TAN	Tangent

You can also use two special characters in a formula. A question mark (?) indicates a constant that you enter at the time of calculation, and a number sign (#) indicates a cell in a formula that Worksheet does not adjust for each successive row or column, but that remains constant. You must use the number sign in CMT and RMT formulas, but you'll find it useful in other formulas as well.

Following are examples of formulas using some of these operations.

? CONST A	Sets a cell up to receive a constant (labelled CONST A) to be entered at the time of calculation.
(R1 + R2)	Adds two cells in the same column.
(C3) - (R1C4)	Subtracts the value of the cell in Row 1, Column 4 from the value of the cell in Column 3 of the current row.
C1*C2	Multiplies two cells in the same row.
(R1C2)/100	Divides the value of the cell in Row 1, Column 2 by 100.
C6R3!3	Calculates the cube of the value of the cell in Row 3, Column 6.
ABS(R2C3)	Multiplies the value of the cell in Row 2, Column 3 by -1 if, and only if, it is a negative number (absolute value).
ATN(R3C5)	Displays the arctangent of the value of cell R3C5—the angle that has its tangent equal to the values of cell R3C5. (The result displays in radians; use ATN(R3C5)*57.29578 to display the arctangent in degrees.)
AVG(C1)	Adds all the values in the current row, beginning with Column 1, over to the current cell, skipping any non-numeric data, and divides by the number of numeric cells added.

CMT(#R4C3) Gives a cumulative total for Column 3, beginning with Row 4. For example:

	[3]	[4]
[4]	5.00	
[5]	10.00	
[6]	20.00	

If you select cells 4, 5, and 6 of Column 4 and enter the above formula, calculation produces these results:

	[3]	[4]
[4]	5.00	5.00
[5]	10.00	15.00
[6]	20.00	35.00

COS(R3C5) Displays the cosine of the value of cell R3C5. (Use **COS((R3C5)*.01745329)** if the value in cell R3C5 is in degrees instead of radians.)

EXP(R4C3) Displays e raised to the power of the value of cell R4C3 (Napierian, or natural exponential e^x). Do not raise a negative number to a fractional power.

INT(R4C2) Displays the truncated value of cell R4C2.

LOG(R2C4) Displays the logarithm to the base 10 of the value of cell R2C4.

MAX(C4) Displays the maximum value of the current row, beginning with Column 4, over to the current cell, skipping any non-numeric data.

MIN(R1) Displays the minimum value in the current column, beginning with Row 1, down to the current cell, skipping any non-numeric data.

RMT(#R4C3) Gives a cumulative total for Row 4, beginning with Column 3. For example:

	[3]	[4]	[5]
[4]	5.00	10.00	20.00
[5]			

If you select cells 3, 4, and 5 of Row 5 and enter the above formula, calculation produces the following results:

	[3]	[4]	[5]
[4]	5.00	10.00	20.00
[5]	5.00	15.00	35.00

SGN(R3C4) Displays the sign of the value in cell R3C4 (1.00 if the argument is positive or zero and -1.00 if the argument is negative).

SIN(R2C1) Displays the sine of the value of cell R2C1. (Use **SIN((R2C1)*.01745329)** if the value in cell R2C1 is in degrees instead of radians.)

SQR(R5C1) Displays the square root of the value of cell R5C1.

SUM(R5) Displays the sum of the value in the current column, beginning with Row 5, down to the current cell, skipping any non-numeric data.

TAN(R2C3) Displays the tangent of the value of cell R2C3. (Use **TAN((R2C3)*.01745329)** if the value of cell R2C3 is in degrees instead of radians.)

Format

Use Format to change column width, number, or alphanumeric data format. Press **CTRL** **↑** with the entry marker in Row 1. The marker moves up into the column label area. Move the marker onto a column label whose width you want to change, or position the marker on any column label to change the width of all columns. Then, press **F4** for Format. The following message appears on the command line:

Specify ALL, width or width

To change the width of all columns (1-99), type **ALL**, and the new width. Type only the new width to change the width of the current column.

To use Format to specify a certain type of format that you want existing cell data to follow, place the entry marker on the cell whose format type you want to change, or use the Select function to mark a group of cells for reformatting. Then, press **[F4]**. The screen shows:

Specify format types

At the data entry line, enter the letter for the format type you wish to use, as follows:

- L** = left-justified
- R** = right-justified
- D** = decimal (up to seven decimal places)
- I** = integer (whole number)
- \$** = dollar format (two digits after the decimal)

(When using the decimal format, you can enter more than seven digits after a decimal, but precision is lost after seven.)

Note to Color Monitor Users: You can designate a special color for a particular cell or text block while using Format. Type **,C=** and one of the following: **BLU**, **GRN**, **CYN**, **RED**, or **MAG**. Type **NOR** (normal) to reset to the original color arrangement. Worksheet saves the special color designation on diskette.

Buffer

Press **[F5]** to place a selected area in a temporary storage area, or buffer. If Worksheet encounters a text block (or a maximum of ten blocks) but you did not include the entire text block in your selection, Worksheet copies the text as individual cells. Use the Insert function to place the contents of the buffer in another area on the worksheet.

Each use of the Buffer function replaces (rather than adds to) the contents of the copy buffer. Pressing **[SHIFT] [F5]** clears the buffer, as does exiting the file.

Merge

Press **[F6]** to save a selected block on diskette or to insert data from a diskette file at the current marker position. If you selected nothing, only the second prompt appears:

SAVE: Enter filename.

or

LOAD: Enter filename.

At the data entry line, enter the name of the file in which you wish to save the selected block or from which you wish to load and insert at the current marker position. (If Worksheet encounters text but you did not include the entire text block in your selection, Worksheet copies the text as individual cells.)

Select

Use Select to highlight and define a block of the worksheet so that you can perform another function on it. Position the entry marker on the first cell you want to include, and press **[F7]**. Move the marker to the last cell you want to select. Worksheet highlights all the cells you selected.

After you select the block, use Formula, Text, Format, Merge, Buffer, Copy, Delete, or Print, as appropriate.

Copy

The Copy function enables you to save a copy of selected cells in an ASCII file. By saving selected cells in ASCII format, you can use the data in other MS-DOS applications. In most cases, however, the alternate application must provide a conversion process for adapting ASCII files.

First, use the Select function to specify the cells you want to copy. Then, press **[F8]**. You see this prompt:

ASCII SAVE: Enter filename

Enter a valid name for a Text application file. If you enter an existing Text filename, the function stores the currently selected data in place of the data already in the Text file. The cells you copy to the new file also remain on the screen as part of the current worksheet.

Delete

To delete an entire row or column, position the marker in a row or column label, and press **[F9]**. Worksheet adjusts all formulas to correctly reflect the row or column deletion. Text blocks do not shift. If the row/column deletion would cause a text block to “overlay” existing data, a message asks whether you want to delete that data or not. Press **[Y]** to delete or any other key to cancel the row/column deletion.

On the worksheet, press **[F9]** to delete the data in the current cell or all selected cells. If Worksheet encounters text (a maximum of ten blocks) but you did not include the entire block in your selection, the function skips the block, and deletion continues with the next non-text cell.

Insert

Press **[F10]** within a row or column label to insert a blank row or column at the current position. All formulas and text blocks adjust to correctly reflect the row or column width. Text blocks shift with the other information on the screen.

If the insertion would cause existing cells to fall beyond Row or Column 99 (and delete them), a message asks whether you want those cells to be deleted. Press **[Y]** to continue the insertion or any other key to cancel.

On the worksheet, press **[F10]** to insert the contents of the buffer at the current entry marker position. You can insert row data only into another row and column data only into another column.

If the destination area contains any text cells, or if the contents of the buffer will not fit, Worksheet ignores the command.

Print

Press **[PRINT]** to print a selected area of the worksheet or the current window if you’ve selected no cells. Be sure that the printer settings are correct (via the Printer subfunction) before you use the Print function. If you line width is less than 80 and you want single spacing, you must first select the area of the worksheet to be printed using the Select function, **[F7]**. Then, press **[PRINT]**.

FILER

The Filer application provides information storage and retrieval. Filer is easy to set up, maintain, and access. You can refer to the files you set up at any time.

Filer's flexibility enables you to set up a custom data entry form for each file so that you can include any information in any desired format. You can sort or search for a record using criteria from any of the fields that you set up on the Filer form. You can also automatically dial a phone number listed in your file, print records or list them to the screen, and add or delete records from the file.

The Merge and Copy functions enable you to transfer data from one file to another. Use Merge to combine the records of two files with identical forms. Using Copy, you can save selected data in ASCII format in a Text file.

Using Filer

To create a new file, place the marker on `Filer`, and press `ENTER`. Then, enter the new filename.

To open an existing file, position the marker on the filename, and press `ENTER`.

When you first create a file, no format is set up, and no records exist. A blank screen appears. Before you enter records into a file, you must set up a form for that file. Set up the labels and fields you want to include in your file. (See "The Filer Functions—Form" for more information.)

When you open an existing file (one for which you have defined a format), the first record appears. A blank Filer entry screen appears if a format exists but you haven't added records yet.

You can examine or change the displayed record or press `CTRL` `→` and display the next record. If no records are in the file, you can enter the data for your first record. (See "Adding Records.")

Note: If you ever have trouble using Filer, review the `CONFIG.SYS` file to see if it contains `ANSI.SYS` or `LPDRVR.SYS`. If it does, remove them. Ideally, boot up using a diskette that contains no `CONFIG.SYS` file.

The Help Screens

The Filer help screens contain brief summaries of the functions and ways to use them. The first two screens contain general information. The remaining screens deal with specific information concerning Find, Form, and Display.

Within the Filer application, press **[ALT] [F1]** to display the first help screen. After the first help screen appears, press **[ENTER]** to see the first of two remaining screens. Press **[F12]** to return to the main Filer screen.

To see help screens for Find, Form, and Display, press the function key that lets you access one of these functions, and then press **[ALT] [F1]**. Press **[F12]** to return to the appropriate function screen.

The Arrow Keys

Use the arrow keys to move the marker a character or line at a time. Press **[SHIFT]** or **[CTRL]** along with the arrow keys to move the marker more rapidly. See the following table.

Marker Movement Keys

Key	By Itself	With [SHIFT]	With [CTRL]
Moves the Marker:			
[→]	one character to the right	to the field area in Form	to the next Find match or to the next record
[←]	one character to the left	to the label area in Form	to the previous Find match or to the previous record
[↑]	one line up in the current column or to the first character in the previous field	to the first field on the screen	to the first Find match or to the last record on the file
[↓]	one line down in the current column or to the first character in the next field	to the last field on the screen	to the last Find match or to the last record on file

The Filer Functions

The Filer functions appear at the bottom of the screen. To select a function, press the appropriate function key.

Find

Press **[F1]** to search for and find a record or group of records. The Find function screen displays a blank form with the special Find functions (Equal, Greater, Less, Reset, Mark) at the bottom of the screen. The marker is on the primary key field (the first field by which Filer sorts and arranges records).

Type the search data for each field. You can include * and ? as *wildcard* indicators. Use wildcard indicators only if you use “equal” as the Find operator. Type * before or after data in a field to disregard all characters that appear before or after the data, respectively. The use of ? is similar, except that it causes Filer to ignore only one character. Press **ENTER** or **↓** to skip any field.

Press a function key, **F1**, **F2**, or **F3**, to set the Find criteria Equal To, Greater Than or Equal To, or Less Than or Equal To the information you typed in that field. The default is Equal. (Choose the function anytime the marker is on the appropriate field—before, during, or after you enter the data.)

Press **F12** to begin the search. If search criteria exist for more than one field, Find searches for records that match all the criteria. Filer finds all records that match the criteria and displays the first one. Use **CTRL** with the **←** and **→** keys to scroll forward or backward through the records.

Special Find functions are:

Reset Press **F5** to reset (clear) the Find criteria. Press **F12** to return to the main Filer screen.

Mark Press **F7** to *mark* or *unmark* fields. When you use the Display and Print functions, marked fields are visible—displayable or printable. An asterisk appears in the label area of all visible fields. Invisible fields do not display or print. The default is visible.

Call

Define Voice dialing using Telecom. See the “Telecom” reference chapter in this book for instructions. Press **F2** to dial any phone number currently highlighted. If you highlighted a valid sequence of numbers, Filer dials the number. Pick up the receiver for normal conversation. Filer operation resumes at the point at which you made the request.

Note: If you’re using DeskMate Plus, remember that you can use serial communications from either DeskMate or from your other software, but not from both. If you employ your other software for communications, the Call function is not operational.

Display

Press **[F3]** to display a list of all records that match the Find criteria.

A label line and your file's name appear at the top of the screen. The data for the records chosen appears horizontally. The data for each field appears under its corresponding label. The length of each field is determined by the longest item of data entered for that field. Filer inserts two spaces between each field on the list.

Wrapping. If the records take more than 80 characters across the screen, label lines and data lines wrap to the next line, indented five spaces.

Eliminating Fields from the Display. If you don't want to display certain fields, unmark those fields via the Find function.

Scrolling Through the Records. If Filer finds more records to display than can fit on one screen, use the arrow keys to scroll through the records. (See "The Arrow Keys" in this chapter.)

Press **[F12]** to return to the main Filer screen.

Print

Press **[F4]** to print a list of all records that match Find criteria. Be sure that you first set the printer settings by using the Printer subfunction.

The record list prints. A label line appears across the top of the paper. The data for the chosen records prints horizontally across the page. Each field appears under its corresponding label. The length of each field is determined by the longest item of data entered for that field. Filer inserts two spaces between each field on the list.

Wrapping. If the records take more characters than area available on one line, label lines and data lines wrap to the next line, indented five spaces.

Eliminating Fields from the Display. If you don't want to print certain fields, unmark those fields via the Find function.

Note: To print only one record, use the Print command, **[SHIFT] [PRINT]**, and print everything currently on the screen, including the label line. Use the Find function or the arrow keys to display the record you want to print.

Form

Press **[F5]** to display the Form screen. For each field you want to include in your records, you must set up a field using the Form function. One field on a form comprises a label and a field area. You can define a format using a maximum of 21 fields.

Defining a Label. Form reserves the left side of the screen for field labels. A label always begins at the left margin. Type one or more characters (a maximum of 15) on a line in this area to create a new field on that line. Press **[ENTER]** when you complete the label. The unused label area fills with a line of dots and a colon. The marker moves to a position farther right on the line to let you set up the data area.

Note: To leave blank lines between field lines, press **[ENTER]** or **[↓]** before you enter any characters in the label area.

Defining a Data Area. Press **[ENTER]** in the first position of the data area to display a line of *insert dots* that give you a maximum of 59 alphanumeric characters for data on this line. (See "Number" to set up a numeric field.) Press **[ENTER]** again to move to the next line.

You can enter a maximum of 255 insert dots. Press **[ENTER]** at the beginning of a line to fill the line with insert dots. If the field length is greater than 59, it wraps to the field area on the next line. The label area on that line remains blank.

You can enter fewer than 59 insert dots in a line or combine them with *edit characters*. To enter insert dots one-by-one, press **[F10]** to add each dot.

Edit characters convey a certain type of required entry in either alphanumeric or numeric data fields. A common use of edit characters is for formatting telephone numbers, for example:

(...) ...-....

The parentheses, the space, and the dash are edit characters. The cursor skips over them when you are entering data. To use edit characters, first display the total number of insert dots you want, and then use the arrow keys to back up and type the edit characters where you want them to appear.

When you set up your form, consider field lengths carefully before you proceed to enter your data. If you should later shorten any fields and the corresponding data, your printed report retains the original field size.

Special Form functions are:

Order In data entry, Filer sorts records in the order you set here. The ordered, or *key*, fields sort first, in ascending order. Then, the rest of the fields sort in their order of appearance on the screen. The priority numbers of ordered key fields appear in the label area on the screen.

Press **[F1]** to make the field under the marker a key field. The screen shows:

 >Priority Number:

Enter the priority for this key. If you press **[ENTER]** without entering a priority number, Filer gives the field the next available number (1 if you haven't ordered fields yet).

If you choose a field that is already a key, press **[ENTER]** to leave the priority unchanged, or enter a new priority. If you use an existing priority, the priority numbers shift to allow for it.

A priority of 0 removes the key status of a field and reorders the other key fields.

Number Press **[F3]** to specify the field under the marker as a numeric field. A number sign (#) appears in place of the colon to indicate a numeric field. (Press **[F3]** again to change the field back to alphanumeric.)

If you use the Number function before you set up the field, Filer sets it up for 12 digits, a decimal point, and two decimal places. You can edit the number of digits on either side of the decimal point by using Add or Delete. Data you enter in a numeric field aligns around the decimal.

If you've already defined the field, Number right-aligns any data you enter in the field for display and printing purposes.

Delete In the field area, press **[F9]** to delete the character under the marker.

In the label area, press **[F9]** to delete the entire field, including the label.

Add In the field area, press **[F10]** to add one character at the current marker position.

In the label area, press **[INS]** to add a new field at the current marker position. All fields below the marker move down one line.

To save the new form, press **[F12]**.

Merge

Press **[F6]** to merge another Filer file into the current file. At the prompt, enter the name of the file you want to merge into this file. If the file formats are **exactly** the same, copies of all the records in the "From" file merge into this file. If duplicate records exist in the two files, Filer does not merge the duplicate records into the current file.

Copying a Form to Use in Another File. When you merge two files, the formats of the files must be identical. Because a one-character difference makes the files incompatible, make a copy of this file after you set up your format, before you enter information and create any actual records. You can do this using the Main Menu's Copy function.

Select

Use Select to mark the contents of a record for copying to a Text application file on diskette. Place the marker on the first field whose data you want to select, and press **[F7]**. Move the marker to the last field you want to include. Filer highlights all selected data. You can now copy the selected area.

Copy

The Copy function enables you to save selected data in ASCII format. By saving data in ASCII format (in a Text file), you can use the data in other MS-DOS applications. In most cases, however, the alternate application must provide a conversion process for adapting the ASCII file.

First, highlight a block of data using the Select function. Then, press **[F8]**. You see the following prompt:

Copy To:

At the prompt, enter the name of the file to which you want to copy the selected data. Filer copies the data to the new Text file. If you specify an existing Text file, the Copy function overwrites its current contents.

Delete

Press **[F9]** to delete the record currently on the screen.

Add

After you set up a format, a blank form appears. (If you are opening an existing file, the first record in the file appears. You can edit the record or press **[F10]** to display a blank form.)

You always type in overstrike mode on an entry screen. Each character you type replaces the character at the marker position. Type the appropriate data for each field. Filer left-aligns alphanumeric fields. It aligns numeric fields around the decimal point or right-aligns data if there is no decimal point.

Press **[ENTER]** after you complete each field's entry. Use the arrow keys to move through the data fields as desired.

Press **[F10]** to add the record and display another blank form. Pressing **[F12]** adds the record and returns you to the main Filer screen.

As you add records, Filer automatically sorts them according to the primary key field. If you used the Order function in Form, records sort by the key fields first, then by the rest of the fields in descending order. Records sort correctly, regardless of the order in which you add them.

TELECOM

Telecom is a telecommunications application designed for communication between the DeskMate computer and another computer running a host program such as XENIX®. Telecom can transmit and receive any DeskMate type file. You can connect to the host computer directly or over telephone lines.

Note: If you're using DeskMate Plus, remember that you can use serial communications from either DeskMate or your other software, but not from both. If you use your other software for communications, Telecom is not functional.

Active telecommunications become inactive when you switch from DeskMate to another software package.

The Help Screens

Telecom has several help screens. They contain brief summaries of the functions and ways to use them. Within the Telecom application, press **[ALT] [F1]** to see a help screen appropriate to your situation. After a help screen appears, press **[ENTER]** to see any succeeding help screens. **[F12]** returns you to the appropriate Telecom screen.

Setting the Status

The first step in communicating with a host computer is connecting a modem to the DeskMate computer. Refer to your modem's operating instructions for details.

After you properly connect and set up the modem, place the marker on Telecom, and press **[ENTER]**. The screen shows the current Telecom status settings. The default settings are:

TELECOM STATUS		00/00/00 00:00xx	
Current Status:			
Autodial Modem	NO	YES	
BAUD Rate	110	150	300 600 1200 2400 4800 9600
Data Word Length	7 BITS	8 BITS	
Parity	EVEN	ODD	None
Number of Stop Bits	1 BIT	2 BITS	
XON/XOFF Flow Control	ON	OFF	
ASCII Character Filter	ON	OFF	
Line Feed Filter	ON	OFF	
Echo (Half Duplex)	ON	OFF	
Redial (% of Retries)	0		
FREE RAM: xxxxx			
[F1]	[F2]	[F3]	[F4]
Reset	Select	Autolog	Editlog
[F5]	[F6]	[F7]	[F8]
Term	Clear	Save	Print
[F9]	[F10]		
Load	Display		

To change a setting, use the arrow keys to move the marker to the value you want to use, and press **ENTER** or **F2** (Select). Telecom highlights the new setting.

If you are using an auto-dialing modem, change the status on the Autodial Modem line to YES.

Note: If you are directly connecting DeskMate as host to another computer, the Autodial Modem status **must** be NO.

The screen that lets you define modem types appears, listing modems whose protocols have been pre-defined for you. The functions that let you define voice dialing, computer dialing, and host answering mode are at the bottom of the screen, along with the Save and Load functions.

If the modem you're using appears on the screen, you can move the marker to it and use the Load function to automatically load pre-defined settings for voice dialing, computer dialing, and host answering mode. (See "Load.")

If your modem does not appear on the list, use the following instructions to set up voice dialing, computer dialing, and host answering mode.

Voice

Voice dialing definition defines the dialing sequence that your modem uses when auto dialing phone numbers in the Phone and Filer applications. Determine the specific sequence for your modem, and then press **[F1]** to display the voice dialing definition functions.

Press **[F1]** to indicate that you want to send the phone number to the DeskMate modem.

Press **[F2]** to indicate text received from the modem. At the prompt, type the text you expect to receive from the modem, and press **[ENTER]**.

Press **[F3]** to indicate that you want to send text to the modem. At the prompt, type the text to send, and press **[ENTER]**.

Press **[F4]** to pause during a command sequence. The message, PAUSE:, appears on the screen. Type the number of seconds to pause, and press **[ENTER]**.

Press **[F5]** (WaitNC) to wait for no carrier detected before continuing. WAITNC appears.

Press **[F6]** (WaitC) to wait for a carrier detected before continuing. WAITC appears.

Press **[F7]** to set a new delay time for transmitting programming data to your modem.

Press **[F9]** to delete the line beneath the marker.

Press **[F10]** to insert a blank line at the current marker position.

Press **[F12]** to save the completed voice dialing sequence and return to the Define Modem Type screen.

Comp

Computer dialing definition defines the dialing sequence your modem uses when executing auto logon sequences in terminal mode (the **dialing** sequence, not the **logon** sequence). Determine the specific dialing sequence for your modem, and press **[F2]** to display the computer dialing definition functions. These functions are the same as those described previously for voice dialing.

Press **[F12]** to save the completed computer dialing sequence and return to the Define Modem Type screen.

Answer

Answer Mode Definition defines the answer sequence your modem uses for answering the remote site when DeskMate is in Host mode. Determine the specific answer sequence for your modem, and then press **[F3]** to display the answer mode definition functions.

Press **[F2]** to indicate that you'll receive text from the remote modem. A **RECEIVE:** prompt appears. Type the text you expect to receive from the modem, and press **[ENTER]**.

Press **[F3]** to indicate that you want to send text to the remote modem. **SEND:** appears on the screen. Type the text to send, and press **[ENTER]**.

Press **[F4]** to pause during a command sequence. **PAUSE:** appears on the screen. Type the number of seconds to pause, and press **[ENTER]**.

Press **[F5]** (**WaitNC**) to wait for no carrier detected before continuing. **WAITNC** appears.

Press **[F6]** (**WaitC**) to wait for a carrier detected before continuing. **WAITC** appears on the screen.

Press **[F7]** to set a new delay time for the transmission of programming data to the modem.

Press **[F9]** to delete the line under the marker.

Press **[F10]** to insert a blank line at the current marker position.

Press **[F12]** to save the completed answer sequence and return to the Define Modem Type screen.

Cancel

Cancel Mode Definition defines the sequence certain modems require to cancel auto-answer after exiting a communication function. The functions are similar to Voice, Comp, and Answer. The 300 Baud Modem Board default settings are not necessary for all modems. If your modem does not require these settings, use Delete to erase them from the screen. See Appendix A for more detailed information.

Press **[F12]** to return to the Define Modem Type screen.

Save Press **[F7]** to save the settings you entered for Voice, Comp, and Answer in a special .mdm file. The screen asks you for a filename. Type an appropriate name containing eight or fewer characters, and press **[ENTER]**. (Do **not** include the .mdm extension as part of the name.) Telecom saves the file, and it will appear as one of the modems listed on the Define Modem Type screen from now on.

Load Press **[F9]** to load the Voice, Comp, and Answer settings for the highlighted modem. These settings will remain in effect until you change them. At the prompt that asks for a filename, either press **[ENTER]** to accept the displayed name, or type the name of another modem on the screen, and press **[ENTER]**.

Press **[F12]** to return to the status screen.

Refer to the host's requirements for baud rate, word length, parity, and number of stop bits settings. In most cases, you can use the default values for these parameters. Also check your modem's operating instructions for its maximum baud rate. (The 4800 and 9600 baud rates are for transmission between computers that are directly connected.) If you use XON/XOFF flow control, transmission to a host computer stops when the host sends an XOFF.

Transmission resumes when the host sends an XON. Telecom sends an XOFF to pause transmission from the host computer when data is coming in too fast for the input buffer. Telecom sends an XON to resume transmission.

The ASCII filter strips out all characters over 80 Hex and control characters except backspace, horizontal tab, line feed, form feed, carriage return, and escape.

Turn on the Line Feed Filter to add a line feed (0AH) to all carriage returns (0DH) received. Turn off the option to accept line feeds and carriage returns "as is."

Use the Echo (half duplex) option if the host does not echo the text you send. If the host echoes the text (full duplex), turn off the Echo.

The Redial option lets you enter the number of retries you want when you are dialing a computer phone number or executing an automatic logon dialing sequence.

The Telecom Functions

The Telecom status functions appear at the bottom of the screen. To select a function, press the appropriate function key.

Reset

Press **[F1]** to reset the Telecom parameters to the default settings. Current settings always appear highlighted.

Select

To select a setting on the status screen, position the marker on the correct value, and press **[F2]** (or **[ENTER]**).

Autolog

Press **[F3]** to execute an automatic logon sequence. The name of the auto logon file currently in RAM (if any) appears at the bottom of the screen. Press **[ENTER]** to use the current file, or enter the filename for the auto logon you wish to use. If you are using a manual-dial modem, the Telecom status setting is automatically used instead of the Autolog status setting.

If Telecom detects a carrier, it executes the auto logon sequence and goes into the interactive Terminal mode. If Telecom detects no carrier, it waits 5-10 seconds, then redials (retries if the `Retries` setting is greater than 0).

Editlog

Press **[F4]** to create or edit an automatic logon sequence. The name of the auto logon file currently in RAM (if any) displays at the bottom of the screen. Press **[ENTER]** to use the current file, or enter a filename for the auto logon you want to create or edit. To include embedded control characters in a logon sequence, precede the command with the `^` character. Special Editlog functions are:

- Status** Press **[F1]** to place the current status in the autolog sequence. The status screen appears. Set the parameters, and press **[F12]**. A summary of the status appears on the screen.
- Call** Press **[F2]** to place a dialing sequence in the autolog sequence. Type the dialing sequence, and press **[ENTER]**.
- Recv** Press **[F3]** to receive text from the host computer. At the prompt, type the text you expect to receive from the host, and press **[ENTER]**.
- Send** Press **[F4]** to send text to the host computer. At the prompt, type the text to send, and press **[ENTER]**.
- Pause** Press **[F5]** to pause during a command sequence. Type the number of seconds to pause, and press **[ENTER]**.
- Break** Press **[F6]** to send a break sequence from within your auto logon file.
- Delete** Press **[F9]** to delete the line beneath the marker.
- Insert** Press **[F10]** to insert a blank line at the current marker position.

Press **[F12]** to save the completed auto logon sequence and return to the status screen.

Terminal

Press **[F5]** to enter the interactive Terminal mode. In this mode, Telecom sends characters you type to the host program. Incoming characters appear as you receive them. If the host program echoes your transmissions, they appear as well. (If the host does not echo, you can use the self-echo option on the status screen to display your keyboard input.) Special Terminal mode functions are:

- Buffer** Press **[F1]** to open or close the RAM buffer for capturing the text of the Terminal session. You can examine the text later, using the Display or print function on the status screen. When you open the buffer, incoming text appends to the current buffer contents.
- Clear** Press **[F2]** to clear the contents of the RAM buffer. All data in the buffer is lost when you use this function.
- Recv** Press **[F3]** to receive a file from the host computer. At the prompt, type the filename, and press **[ENTER]**. There are no restrictions on file type.
- Note:** Use eight-bit transmission, and turn off all filters and character translation options when receiving binary data.
- Send** Press **[F4]** to send (transmit) a file to the host computer. At the prompt, type the name of the diskette file you want to send, and press **[ENTER]**.
- Printer** Press **[F5]** to turn the printer option on or off. When the option is on, Telecom sends the text of the Terminal session to the printer as it receives and displays it. (If the ASCII character filter is on, only codes 20-7F Hex, 08, 09, 0A, 0C, 0D, and 1B are sent.)
- When the printer option is on, transmission is much slower. If you are transmitting at a baud rate greater than the maximum character input rate of your printer, Telecom loses some characters as it sends them to the printer. Check your printer's specifications for its maximum character input rate.
- Break** Press **[F6]** to generate a break sequence (250ms null).
- Disc** Press **[F7]** to disconnect communication with the host.
- Call** Press **[F8]** to auto dial a phone number (for example, an information service number). At the prompt, type the dialing sequence, and press **[ENTER]**.

Press **[F12]** to return to the status screen.

Clear

Press **[F6]** to clear the RAM buffer. All buffer contents are lost when you clear the buffer.

Save

Press **[F7]** to save the contents of the RAM buffer on diskette as a Text application file. Enter a filename for the document. The status screen reappears after Telecom saves the file on diskette.

Print

Press **[F8]** to print the contents of the RAM buffer. The status screen reappears when the buffer print is complete.

Load

Press **[F9]** to load a file from diskette to the RAM buffer. Enter the name of the file you want to load. The status screen reappears after Telecom loads the file.

Display

Press **[F10]** to display the contents of the RAM buffer. Press **[HOLD]** to pause the display. Press any key to continue. Press any key to return to the status screen after you see the buffer contents.

Telecom and XENIX

You can use your computer as a terminal of a XENIX system via Telecom. If you are using Tandy XENIX, Telecom supports an existing termcap entry of dmterm, which includes the following functions: ten function keys, inserting/deleting characters and lines, the **[HOME]** key, the arrow keys, reverse video, and graphics characters. Have your system administrator set up your communications port to use this termcap entry.

To use one of the function keys in a XENIX application, press **[CTRL]** and then the function key.

Appendix B outlines the sequences generated by each special key on a Telecom terminal.

CALENDAR

The Calendar application is an event scheduler. You can use it as a general purpose calendar and planner to replace your desk calendar and date book. It records important events, their dates, and their times so that you can refer to them at any time. Beginning with the current day, Calendar provides you with a week-at-a-glance schedule.

You can search for an event by date, time, and description, print a list of entries, and set the alarm for selected events. Other functions enable you to add and delete events from the calendar.

Use the Copy and Merge functions to move data from file to file. Using Merge, you can add selected events to another Calendar file. Using Copy, you can save entries in ASCII format in a Text file.

Using Calendar

To create a new file, place the marker on `Calendar`, press `[ENTER]`, and enter a filename for the new file. A blank Calendar entry/edit screen appears.

To open an existing file, place the marker on the appropriate filename, and press `[ENTER]`. The entry/edit screen for that file appears.

In the upper left corner of the screen is the Weekly Time Chart. The days of the week appear down the left side of this area. The week depicted on the chart runs from Sunday through Saturday and includes the date indicated by the marker in the adjoining Monthly calendar. The times of day, beginning with 12:00 a.m., appear across the top.

Any events for the week in which the Calendar marker appears are marked with asterisks in their corresponding day and time slots. Wherever event times conflict with each other, exclamation points appear. Calendar updates the Time Chart whenever you move the marker in the Monthly calendar to a new week.

In the upper right corner of the screen is the Monthly Calendar, similar to a standard desk calendar. A small rectangle highlights the current date. You can determine the current date using your arrow keys.

In the bottom section of the screen is the Daily Events Calendar, in which you enter and display events. When you use Calendar, you are always in overstrike mode. Each character you type replaces the character at the current marker position.

Calendar automatically sorts events in date/time order, regardless of the order in which you add them to the file.

Using Calendar, you can define sections, or blocks, of events, duplicate them, and save them to a Text application file via the Copy function. You can merge events with another Calendar or Alarm file, or use the Delete function to erase them. Read the explanation of the Copy function in this chapter for details.

The Help Screens

The Calendar help screens contain brief summaries of the functions and ways to use them. Within the Calendar application, press **[ALT] [F1]** to see the help screens. After the first help screen appears, press **[ENTER]** to see the second screen. The third help screen explains the Find function. Press **[ENTER]** to see it. Press **[F12]** to return to the main Calendar screen.

The Arrow Keys

The marker moves in either of two regions, the Monthly Calendar or the Events List. Press **[F3]** to transfer the marker back and forth between the two areas.

In the Events List twelve event lines can appear on the screen at one time. After you complete the twelfth line, the events scroll, or move up line by line, to let you continue. To see a line after it scrolls off the screen, press **[↑]** until the line appears. Press **[↓]** to return to the last line you were typing or editing.

Use the arrow keys to move the marker a character or line at a time. Press **[SHIFT]** or **[CTRL]** along with the arrow keys to move the marker more rapidly. See the two tables that follow.

Marker Movement Keys—Events List

Key	By Itself	With SHIFT	With CTRL
Moves the Marker:			
→	one character to the right	to the beginning of the first field to the right	not used
←	one character to the left	to the beginning of the first field to the left	not used
↑	one line up in the current column	to the first entry on the current screen or previous page	to the first event on the list
↓	one line down in the current column	to the last entry on the current screen or next page	to the last event on the list

Marker Movement Keys—Calendar Area

Key	By Itself	With SHIFT	With CTRL
Moves the Marker:			
→	one day to the right	to Saturday of the same week	not used
←	one day to the left	to Saturday of the same week	not used
↑	to the same day of the previous week	to the same day of the week in the first week of the month	to the same date in the previous month
↓	to the same day of the next week	to the same day of the week in the last week of the month	to the same date in the next month

The Calendar Functions

The Calendar functions appear at the bottom of the screen. To use a function, press the appropriate function key.

Find

Press **[F1]** to search for and find an event. An event line containing the current (built-in) Find settings appears. (A blank line appears if you have never entered search criteria.) The Find functions, Equal, Greater, Less, and Reset, appear at the bottom of the screen.

To use the default settings, press **[F12]**. Calendar finds all events that match the criteria and displays the first twelve. If more than twelve events match the criteria, use the arrow keys to scroll forward or backward through the events.

If you enter no criteria or if you want to change the search criteria, enter the new search data.

* and ? are wildcard indicators. Type * before or after specific data you want Calendar to ignore. The function then disregards all characters that occur before or after the data (respectively). ? is similar to * except that Calendar disregards only one character.

Type the search data for each field, including wildcard characters if you like, and press **[ENTER]**. Press the appropriate function key—**[F1]** for Equal To, **[F2]** for Greater Than or Equal To, or **[F3]** for Less Than or Equal To—to set the Find criteria for the information you typed in that field. (You can choose the function anytime the marker is in the appropriate field, before, during, or after you enter the data.)

Press **[F12]** to begin the search. Calendar finds all events that match the criteria and displays the first twelve. If more than twelve events match the criteria, use the arrow keys to scroll forward or backward through the events.

Exiting Find Mode. To exit Find mode press **[F1]** to redisplay the Find functions. Press **[F4]** to reset the Find criteria. All fields return to their original settings. Then, press **[F12]** to display the complete events list again.

Date

Press **[F2]** to search for and display events that match a certain date. The screen shows:

➤Enter Date (mm/dd/yyyy):

Type a new date in the displayed format, and press **[ENTER]**. Calendar finds all events scheduled on the date you specified and displays the first twelve. If more than twelve events match the date, use the arrow keys to scroll forward and backward through the events.

Calendar/Events

Press **[F3]** to transfer the marker from the Calendar area of the screen to the Events area. When the label line displays **Calendar**, the marker is in the Events area, ready to return to the Calendar area when you next press **[F3]**. Similarly, when the label line shows **Events**, the marker is in the Calendar area, ready to move to the Events area.

Print

To print a list of all events found via the Find or Date functions, check the printer settings, and then press **[F4]**. Notice that the printer settings enable you to choose single or double spacing for your printed list of events. If, however, you indicate a **Printed Line Width** less than 72, the Print function inserts an additional line feed.

Note: To print only a few events on the screen, use the **[SHIFT] [PRINT]** command to print the current screen contents. Use the Find, Date, or Select functions or the arrow keys to display the events you want to print.

Alarm

Press **[F5]** to put selected events into the Alarm file. If you select no events, Calendar inserts the event on which the marker rests. Calendar sets the alarm for each event at 30 minutes prior to the event's scheduled **Begin** time. If the **Begin** time of an event is 00:00, Calendar does not set an alarm for that event. See the "Alarm" chapter in this manual for more information.

Merge

Press **[F6]** to merge all selected events into another Calendar file or to merge another Calendar file into this current one.

Merging Selected Events into Another File. If you've selected events, the screen shows:

Merge to:

Enter the name of the event file into which you wish to merge the selected events. Copies of all selected events in the current file merge into the file you specified.

Merging Another File into the Current File. If you've selected no events, the screen shows:

Merge from:

Enter the name of the event file that you want to merge into this file. Copies of all events in the file you specified merge into the current file.

Select

Use Select to define an event or a block of events on which you want to perform another function. Position the marker on the first event line you want to select, and press **[F7]**. (You can also use Find to search for events you want to select.) Use the arrow keys to place the marker on the last event you want to include in the block. All selected events become highlighted as you move the marker.

After you select the events, you can merge, copy, or delete them, or you can place them in the Alarm file. If you use any other function or exit the Calendar application before you perform one of these functions, Calendar no longer considers the events to be selected.

Copy

Use the Copy function to copy all selected events into a Text application file. The new file stores the events in ASCII format. You can use the file in other MS-DOS applications, although in most cases, the alternate application must provide a conversion process for adapting ASCII files.

First, highlight a block of events using the Select function. Then, press **F8**. The following prompt appears:

Copy to:

Enter the name of the file to which you want to copy the events. Calendar then copies the events to the Text file. If the file exists already, the Copy function overwrites its current contents.

Delete

Press **F9** or **DELETE** to delete all selected events. Calendar immediately deletes the events. If you select no events, Calendar deletes the event line on which the marker rests. (Note that, unlike Alarm, Calendar does not automatically delete events that are past. You must delete the events yourself.)

Add

Press **F10** with the marker in either the Calendar or Events area to add a new event. A blank event line appears. Type the date of the event in *mm/dd/yyyy* format if it is different from the date highlighted in the Calendar area, and press **ENTER**.

Type the time (in 12-hour, *hhmmx* format) that the event begins, and press **ENTER**. For example, you would type **730a** **ENTER** for 7:30 a.m.

Enter the time (in 12-hour, *hhmmx* format) at which the event ends, and press **ENTER**.

Enter a description of the event using a maximum of 44 characters, and press **ENTER**. (Calendar makes no distinction between upper- and lowercase when searching for events.)

Day Events. If you do not enter beginning and ending times for an event, Calendar considers it to be a *day* event (an event covering the entire day, such as a birthday) and does not put it into the Weekly Time Chart.

MAIL

The Mail application is a simple message handler. It records important messages along with their dates, times, and authors. You can write or read a message at any time, delete messages, or print a list of messages.

Using Mail

To open the default Mail file, MESSAGES, place the marker on Mail, and press **[ENTER]**.

To open an existing file, position the marker on the filename, and press **[ENTER]**. A list of the messages in that file appears in ascending date/time order.

Each line in the list includes the author's name, the date and time of the message, and a brief description of it. Use the arrow keys to scroll through the list if more than 20 messages are in the file.

To add a message to a Mail file or to create a new Mail file, use the Create function. (See "The Mail Functions" for information.)

The Help Screen

The Mail help screen contains brief summaries of the functions and ways to use them. Within the Mail application, press **[ALT]** **[F1]** to display the help screen. Pressing **[F12]** returns you to the Mail screen.

The Arrow Keys

Use the arrow keys to move the marker a character or line at a time. Pressing **[SHIFT]** or **[CTRL]** along with an arrow key moves the marker more rapidly. See the following table.

Note that when you are typing or editing a message, the arrow keys work in exactly the same way as they do in the Text application.

Marker Movement Keys

Key	By Itself	With SHIFT	With CTRL
Moves the Marker:			
→	not used	not used	to the next message
←	not used	not used	to the previous message
↑	one line up in the current column	to the top of the screen	to the beginning of the file
↓	one line down in the current column	to the bottom of the screen	to the end of the file

The Mail Functions

The Mail functions appear at the bottom of the message list screen. To select a function, press the appropriate function key.

Find

Press **F1** to search for a particular message. Type the author, date, or description of the message you want to find in the appropriate field. A list of all messages that match your specified criteria appears on the screen. Display, print, or delete the messages. (See the explanations of these functions later in this chapter.) Press **F12** to return to the complete message list.

Create

Press **F2** to create a message. The Create Mail screen appears. The date you entered when you started up the computer automatically determines the date on the message you create. Enter the name of the author at the **From** prompt. Next, enter a brief description of the message, using no more than 32 characters.

The last prompt, `T0`, is for typing the name of the intended receiver of the message. The name you enter here is the name of the data file in which you want to store this message. You can specify a full pathname if you like. If you enter no filename, Mail places the message in the currently open file.

After you complete the entries on this screen, a new screen appears on which you can type the actual message. Type the message, using the same functions and features of the Text application. The Text functions appear at the bottom of the screen. Use these functions as you type your message. See the "Text" reference chapter for information about using these functions.

You begin in Add (insertion) mode. Everything you type is inserted at the current marker position. Any text following the marker shifts to the right one space for every character you type.

The first 22 lines on the screen are for typing and editing your message. When you complete the twenty-second line, the screen scrolls up line by line to let you continue typing. Use the arrow keys to display lines already scrolled off the screen.

Press `[F12]` to save the message in the file you specified at the `T0` prompt. The list of messages reappears, now displaying your newly created message if you specified that you wanted to save it in the current file.

Display

With the message list on the screen, move the marker to the message you want to display, and press `[F3]`. The entry/edit screen for that message appears. Change the contents of the message if you like, and then press `[F12]` to end the display. The screen asks whether you want to save changes. Press `[Y]` or `[N]`, as appropriate. To return to the list of messages without saving changes at all, press `[SHIFT] [F12]`.

Note that after you save an edited message, Mail stores the edited version as a separate message. To eliminate the old version, use the Delete function.

Print

Press `[F4]` to print the message. Be sure that you set the printer settings to the parameters you want before you print (using the Printer subfunction).

Note: You can also print a message you're creating or editing by using the Text application's Print function. See the "Text" reference chapter for instructions.

To print part of a message, use the **SHIFT PRINT** command while you are using the Display function. This prints everything currently on the screen.

Delete

With the message list on the screen, move the marker to the message you want to delete, and press **F9** or **DELETE**. Mail immediately deletes the message.

MODEM INFORMATION

Following are modem definitions for the Modem II, DC-1200, DC-2212, 300-Baud Modem Board, and Hayes modems, including Hayes-compatible modems, such as the 1200-Baud Modem Board.

Note: If you are using a rotary phone, omit **T** wherever it appears in the definition for your modem.

Modem II

Computer Dialing		Voice Dialing		Answer Mode	
Press:	Enter:	Press:	Enter:	Press:	Enter:
DELAY	2	DELAY	2	DELAY	2
SEND	**ODT	SEND	**ODT		
RECEIVE	T	RECEIVE	T		
NUMBER		NUMBER			
SEND	X	SEND	PPPPX	SEND	**C
RECEIVE	X	RECEIVE	X	RECEIVE	C
WAITNC		WAITNC			
WAITC					

DC-1200

Computer Dialing		Voice Dialing		Answer Mode	
Press:	Enter:	Press:	Enter:	Press:	Enter:
DELAY	2	DELAY	2		
SEND	*FD	SEND	*FD	No definition	
RECEIVE	READY	RECEIVE	READY	required—	
SEND	T	SEND	T	always in	
RECEIVE	T	RECEIVE	T	answer mode	
NUMBER		NUMBER			
SEND	X	SEND	PPPPX		
RECEIVE	X	RECEIVE	X		
RECEIVE	ON LINE	PAUSE	4		

DC-2212

Computer Dialing		Voice Dialing		Answer Mode	
Press:	Enter:	Press:	Enter:	Press:	Enter:
DELAY	2	DELAY	2	DELAY	2
SEND	*C*.G@`^`FTD	SEND	*C*.G@`^`FTD	SEND	*C*.G@`^`AX
RECEIVE	D	RECEIVE	D	RECEIVE	AUTO
NUMBER		NUMBER			ANSWER
SEND	X	SEND	PPPPX		
RECEIVE	X				
RECEIVE ON LINE ORIG		RECEIVE	X		
		PAUSE	4		
		SEND	*		

Internal (300-Baud) Modem Board

Computer Dialing		Voice Dialing		Answer Mode	
Press:	Enter:	Press:	Enter:	Press:	Enter:
DELAY	2	DELAY	2	DELAY	2
SEND	*C*MG@`^`DT	SEND	*C*MG@`^`DT	SEND	*C*MG ^`AX
RECEIVE	T	RECEIVE	T	RECEIVE	X
NUMBER		NUMBER			
SEND	X	SEND	PPX		
RECEIVE	X	RECEIVE	X		
WAITC		PAUSE	2		
		SEND	*		

(If you are using rotary dialing, replace each T with an R.)

Hayes Modems (and Compatible Modems such as the 1200-Baud Modem Board)

Computer Dialing		Voice Dialing		Answer Mode	
Press:	Enter:	Press:	Enter:	Press:	Enter:
DELAY	0	DELAY	0	DELAY	0
SEND	ATDT	SEND	ATDT	SEND	AT S0=1`M
NUMBER		NUMBER			
SEND	`M	SEND	`M		
RECEIVE	CONNECT	PAUSE	4		
		SEND	+ + +		
		PAUSE	1		
		SEND	ATH`M		

TELECOM TERMINAL SEQUENCES

Telecom sends certain escape sequences generated from its keyboard and interprets certain incoming escape sequences as specific video commands. Following are the escape sequences Telecom generates and the way it interprets incoming sequences for your information when you're using your computer as a XENIX terminal.

On computers using Tandy XENIX, the system provides the dmterm termcap entry for use with Telecom. Have your system administrator set up your communications port to use this termcap entry.

Keyboard Escape Sequences

Escape Sequence	Sent by This Key
ESC A	↑
ESC B	↓
ESC C	→
ESC D	←
ESC E	END
ESC H	HOME
ESC Q	INSERT
ESC S	DELETE
ESC W	PG UP
ESC X	PG DN
ESC 1	CTRL F1
ESC 2	CTRL F2
ESC 3	CTRL F3
ESC 4	CTRL F4
ESC 5	CTRL F5
ESC 6	CTRL F6
ESC 7	CTRL F7
ESC 8	CTRL F8
ESC 9	CTRL F9
ESC 0	CTRL F10
ESC -	CTRL F11
ESC +	CTRL F12

Video Escape Sequences

Escape Sequence	Function
ESC J	clear to end of display
ESC K	clear to end of line
ESC [	clear screen
ESC [Y % + % +	position cursor
ESC [A	move cursor up one line
ESC [B	move cursor down one line
ESC [C	move cursor right one column
ESC [D	move cursor left one column
ESC [E	move cursor to lower left corner
ESC [H	home cursor
ESC [P	insert line
ESC [Q	insert character
ESC [R	delete line
ESC [S	delete character
ESC [G 5	cursor off
ESC [G 6	cursor on
ESC [G 4	start standout mode
ESC [G Q	end standout mode
ESC [G 1	start graphics mode

In graphics mode:

D	horizontal bar (bottom or top of box)
3	vertical bar (side of box)
?	upper right (corner of box)
Z	upper left (corner of box)
Y	lower right (corner of box)
@	lower left (corner of box)
E	cross (four corners superimposed)
A	up-facing "T" (both lower corners superimposed)
B	down-facing "T" (both upper corners superimposed)
4	left-facing "T" (both right corners superimposed)
C	right-facing "T" (both left corners superimposed)
Z	end of field marker (dot)
ESC G 2	end graphics mode
ESC t	turn on local print
ESC r	turn off local print

USING A HARD-DISK SETUP

If your setup includes a hard disk, you will probably find it convenient to install the DeskMate program on the hard disk. The benefits of doing so are numerous. You have easy access to files and can operate programs without inserting or changing diskettes in the diskette drive. In addition, your computer will function more rapidly than it does using the diskette drive.

Before beginning the procedure, you need to set up your computer, format the hard disk, and install MS-DOS. Instructions for the setup are included in your *Introduction to Your Tandy 1000 Personal Computer SX*. Format your hard disk according to the instructions supplied with your hard disk controller board. The documentation for your operating system, the *Introduction to MS-DOS*, contains installation instructions for MS-DOS.

Installing DeskMate

Using the procedure that follows, create a subdirectory within your root directory using the MKDIR command. Then, designate the new directory as the current directory. Finally, copy the application files from your diskettes to the hard disk.

1. Power up your system under hard disk control.
2. When the system prompt, `C>`, appears on the screen, type the following command:

```
mkdir \subdirectory name 
```

In place of *subdirectory name* in the command above, type any series of characters that meets requirements of a filename. The name **desk** would be a suitable choice. (For a more detailed explanation of creating and using subdirectories, see the *MS-DOS Reference Manual*.)

3. When the system prompt returns, change the current directory to the directory you created by typing:

```
cd \subdirectory name 
```

4. Insert the DeskMate program diskette in Drive A and close the drive latch. At the system prompt, type:

```
copy a:*. * 
```

5. When the system prompt returns, insert the second DeskMate diskette (containing sample data files) in Drive A in place of the program diskette. Repeat the command in the previous step to copy the files to your hard disk.

When the `C>` prompt reappears, the transfer of files is complete.

6. Before you begin the Sample Session, enter one additional command to prepare your files for the DeskMate Plus Tutorial. At the system prompt, type:

copy *.dmp *.exe

When the system prompt returns, you are ready to begin the Sample Session.

Starting Up: Hard Disk

With DeskMate installed on your hard disk, the procedure for starting up differs somewhat from the one described in the manual for floppy-based setups. To begin a session using DeskMate, follow these steps.

1. Power up your computer as outlined in the *Introduction to Your Tandy 1000 Personal Computer SX*.
2. When the system prompt, `C>`, is displayed, type:

cd \subdirectory name

where *subdirectory name* is the subdirectory in which you chose to install the DeskMate files.

3. When the system prompt returns, display the Main Menu for DeskMate by typing:

desk

If you are following the Sample Session, rejoin the directions in Chapter 2 of the manual at the Main Menu depicted there.

Using DeskMate Plus in the Sample Session

Task switching on your hard-disk setup is often simpler than it is on a floppy-based setup. If both DeskMate and the alternate program are installed on your hard disk, you can use DeskMate Plus without exchanging diskettes as you switch back and forth between tasks.

To use the DeskMate Plus Tutorial in the Sample Session, you will switch in and out of DeskMate a couple times as directed in the manual. With DeskMate on your hard disk, you do not need to exchange diskettes when instructed to do so in the Sample Session.

Making Backups Onto Diskette

When you use DeskMate programs, you accumulate and store data on the hard disk. To guard against damage or loss of important data due to power failure or equipment malfunction, make periodic backups of your DeskMate files.

Refer to your *Introduction to MS-DOS* for instructions on backing up your hard disk. You can back up the contents of your entire DeskMate subdirectory or an individual file.

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