

A utility is a program that performs a basic task, such as copying a diskette, that is not specifically related to any particular application. Utilities are designed to serve a wide variety of users. The Tandy 4016 SX utilities enable you to:

- * Low-level format certain types of hard disks.
- * Copy the contents of a diskette to another diskette.
- * Park the drive heads on all hard disks before moving the computer.
- * Examine or update your system configuration.
- * Use extended memory as expanded memory.
- * Create and change passwords.
- * Change the CPU clock speed.
- * Select the video mode that is most compatible with your software.

Most of these utilities are accessible from the Utilities Menu. The utilities on the Utilities Menu are described in Basic Utilities. The other utilities, described in Advanced Utilities, are more specialized and are not included on the Utilities Menu. In general, advanced utilities should be used only by experienced operators. This section describes:

- * How to boot the system with the Utilities Diskette.
- * The Utilities Menu.
- * The basic utilities.
- * The advanced utilities.

How to use the Utilities:

Most of the utilities on the Utilities Diskette are accessible from the Utilities Menu. To use the Utilities Menu, you must insert the Utilities Diskette into Drive A and then power up or reset the computer.

Some utilities are accessible only in an MS-DOS environment. For your convenience, you can copy these utilities to a diskette or hard disk that contains the operating system files. Copying these utilities to another diskette or to a hard disk eliminates the need to insert the Utilities Diskette each time you want to use these utilities.

The Setup utility is probably the most commonly used utility on the Utilities Diskette. The computer automatically prompts you to run Setup any time the power-on self-tests detect a configuration error. Your system configuration is recorded in CMOS RAM. A configuration error occurs when the actual configuration and the recorded configuration do not match. For example, if you add or remove a disk drive, a configuration error results.

If the computer prompts you to run Setup, insert the Utilities Diskette into Drive A and press F1 to begin the Utilities session. The computer displays the Setup configuration screen. Refer to Setup for instructions on using this screen.

To begin a Utilities session when the computer has not prompted you to run Setup, insert the Utilities Diskette into Drive A and reset the computer. To reset the computer, press the RESET button or <CTRL>+<ALT>+. The computer displays the Utilities Menu.

Running Utilities from MS-DOS:

Use the MS-DOS copy command to copy utilities from the Utilities Diskette to your hard disk or to an MS-DOS diskette. For example, to copy the Setup utility to hard disk Drive C, type: copy a:setups16.com c: and press <ENTER>.

To run utilities from the MS-DOS diskette, insert the MS-DOS diskette into a diskette drive. Then, at the MS-DOS operating system prompt (such as A>), type the program name that corresponds to the desired utility. To run utilities from a hard disk, type the appropriate program name at the hard disk prompt (such as C>>). It is not necessary to enter the file extension, such as.com, to run a utility. The following utilities can be copied from the Utilities Diskette and run from the MS-DOS prompt:

Utility	Program Name
Setup	setups16.com
Keyboard password	kp.exe
CPU speed*	speeds16.com
Video mode control*	vga.exe
* Advanced utilities	

The Utilities Diskette also includes temms16.sys, an extended memory manager. Refer to Temms16 for more information about using the driver.

To copy temms16.sys and all the utilities in the preceding table to your hard disk, type: copy a:*. * c: and press <ENTER>.

The Utilities Menu:

The Utilities Menu is displayed when:

- * You use the Utilities Diskette to boot the system without a prompt from the computer.
- * You exit to the Utilities Menu from the Setup configuration screen.

The Utilities Menu provides easy access to the basic utilities. To choose an option from the Utilities Menu, type the number of the desired utility and then press <ENTER>.

SELECT AN OPTION:

- 1 PASSWORDS
 - 2 COPY DISKETTE
 - 3 PREPARE SYSTEM FOR MOVING
 - 4 SETUP
 - 5 FORMAT HARD DISK
 - 9 END UTILITIES
- SELECT THE ACTION DESIRED.
? _

Each basic utility is described briefly in the following list and in detail in Basic Utilities.

PASSWORDS--Enables you to specify a power-on password. Requiring passwords

can prevent unauthorized access to data and programs.

COPY DISKETTE--Copies the contents of one diskette to another diskette of the same diskette type.

PREPARE SYSTEM FOR MOVING--Parks the heads on all hard disks installed in your system. Use this utility before moving the computer.

SETUP--Records your system configuration in CMOS RAM. Setup is the most commonly used utility. Run it after any configuration change.

FORMAT HARD DISK--Performs a low-level format on certain types of hard disks. Do not use this utility on SmartDrives, ESDI hard disks, or SCSI hard disks.

END UTILITIES--Terminates a Utilities session and returns control to the operating system.

Basic Utilities:

This section explains how to use each utility on the Utilities Menu.

PASSWORDS:

Passwords help protect your computer from unauthorized users. If your computer supports two passwords:

- * **Power-On Password** Prevents unauthorized use of your computer when you are not present. When a power-on password is required, you must enter it each time you turn on the computer or press the RESET button.
- * **Keyboard Password** Enables you to temporarily lock and unlock your computer's keyboard (and mouse if you have one) without turning off the computer. The keyboard password is cleared when you turn off the computer.

Use the Passwords option on the Utilities Menu to specify a power-on password. Use kp.exe (described later) to specify or change a keyboard password.

Each password can have as many as seven characters consisting of any characters on the keyboard. The system does not distinguish between uppercase and lowercase letters. Try to create passwords that are easy to remember but difficult to guess. For example, do not use your name. Use a word or number that has special meaning to you.

The system records the exact keys you press as you enter your password. For example, if you use the 6 from the typewriter keys, you cannot substitute the 6 from the numeric keys.

Note: The first time you specify a password, the characters in the password are displayed on the screen as you type them. When you enter a password, or if you change a password, the characters in the password are not displayed on the screen as you type them.

If you forget the power-on password, you can disable it by disconnecting the battery. Disconnecting the battery will erase the power-on password.

If you disconnect the battery:

1. Wait 20 minutes before reconnecting the battery.
2. Run Setup after reconnecting the battery.
3. Create new passwords if desired.

The Passwords Menu:

The Passwords Menu enables you to specify a power-on password.

To display the Passwords Menu, type 1 and press <ENTER> at the Utilities Menu:

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PASSWORDS MENU
POWER-ON PASSWORD
RETURN TO MAIN MENU
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Specifying a Power on Password:

A power-on password enables you to restrict the use of the computer, keyboard, and mouse (if one is installed). If a user cannot supply the correct password, the computer will not accept input from the mouse or the keyboard. The computer must be reset or restarted before it will accept input, including another attempt at entering the password.

To specify a power-on password:

1. At the Passwords Menu, highlight POWER-ON PASSWORD and press <ENTER>.

Note: If a power-on password already exists, you cannot use this option to change the password. See Changing or Removing a Power-on Password for more information.

2. Type the password, using the <BACKSPACE> key to correct any errors.

After typing the complete password, press <ENTER>. The following prompt is displayed: Is this correct? (Y/N) _

3. If the password is correct, type Y and press <ENTER>. If the password is incorrect, type N, press <ENTER>, and enter the correct password.
4. To save the password, return to the Utilities Menu. From now on, you will be prompted to enter the correct password when you turn on the computer or press the RESET button.

Entering Power on Password:

If you have specified a power-on password, the following prompt is displayed when you turn on the computer: Enter Password: _

Type the complete password, and press <ENTER>.

The computer permits up to three attempts to enter the correct password. If the correct password is not entered in three tries, the computer will not accept any further input from the mouse or the keyboard. To try again, turn the computer off and then on again, or press the RESET button.

Changing or Removing a Power on Password:

When the computer displays the power-on password prompt, you can change or remove the existing password. You cannot use the Passwords Menu to change or remove a power-on password.

To change or remove the power-on password, follow these steps at the password prompt:

1. Type the current power-on password, but do not press <ENTER>.
2. Immediately following the current password, type a forward slash (/).
3. Immediately following the slash, type the new password and press <ENTER>. Or, to erase the current password without assigning a new one, simply press <ENTER> after the slash. For example, if the current password is old and you want to change it to new, type old/new and press ENTER. If you remove the power-on password, the password prompt is no longer displayed when you turn on the computer.

Keyboard Password:

A keyboard password enables you to lock the keyboard and mouse without turning off the computer. When the keyboard and mouse are locked, the computer will not process any input other than the current keyboard password.

Note: The keyboard password is cleared when you turn off the computer.

Locking and Unlocking the Keyboard:

Use kp.exe to lock or unlock the keyboard (and mouse if one is installed). By default, the keyboard password is the same as the power-on password. If you wish, you can use kp.exe to specify a keyboard password that is different from the power-on password. To further protect your data, you can use kp.exe to clear the screen before locking the keyboard.

Note: You can copy kp.exe to your system disk. Follow these steps to lock the keyboard:

1. Be sure you are in the drive and directory containing kp.exe. Also, be sure you are at the MS-DOS operating system prompt.
2. If you do not want to specify a keyboard password that is different from the power-on password, type kp and press <ENTER> to lock the keyboard. Or, type kp /b and press <ENTER> to clear the screen and lock the keyboard.

If you want to specify a keyboard password that is different from the power-on password, type kp /c and press <ENTER>. Or, type kp /b /c and press <ENTER> to clear the screen, enter a new password, and lock the keyboard. The system prompts you for a new password and then locks the keyboard.

3. Type the password, using the BACKSPACE key to correct any errors, and press <ENTER>. The following prompt appears: Is this correct? (Y/N) _
4. If the password is correct, type Y and press <ENTER>. If the password is not correct, type N and type the correct password.

To unlock the keyboard and mouse, type the keyboard password exactly and then press <ENTER>.

Copy Diskette:

The Copy Diskette utility copies all information on the source diskette,

including the operating system if present, to the target diskette. Copy Diskette formats the diskette while copying to it.

We recommend that you use the Copy Diskette utility to make a copy of the Utilities Diskette.

To use the Copy Diskette utility:

1. At the Utilities Menu, type 2 and press <ENTER>.
2. If the computer has two diskette drives, the utility prompts you to select the target and source drives. In response to these prompts, type the appropriate drive designation letter and press <ENTER>.

Note: If the computer has only one diskette drive, Copy Diskette automatically selects Drive A as both the source drive and the target drive.

3. After you select the drive(s) you wish to use, insert the source and target diskettes at the appropriate prompts.

Always use the same size and type of diskette for both the source and target diskettes. See the following chart:

Drive/Diskette Compatibility for the Copy Diskette Utility		
Source Drive	Target Drive	Use this type of diskette in both drives
Standard Standard High-Capacity High-Capacity High-Capacity	Standard High-Capacity Standard High-Capacity High-Capacity	Standard Standard Standard High-Capacity Standard
Note: The Copy Diskette utility cannot copy between non-matching media types. Use your operating system instead of this utility if you need to copy from one type of diskette to another. For example, use your operating system to make copies from a 5-inch diskette to a 3-inch diskette or from a high-density diskette to a standard-density diskette. See your operating system documentation for details.		

Prepare System for moving:

If you have a hard disk, use the Prepare System for Moving utility to park the drive heads before moving the computer. Normally, the hard disk drive heads are positioned over the data area of the disk media. This utility parks the hard disk drive heads away from the data area, reducing the chance of disk damage or data loss.

Note: The drive heads on some hard disks are automatically parked when you turn off the computer. Refer to your hard disk installation guide to determine whether it is necessary to use this utility on your hard disk.

To use the Prepare System for Moving utility:

* At the Utilities Menu, type 3 and press <ENTER>. Wait for the TURN SYSTEM OFF prompt. Then, turn off the computer.

When you turn on the computer again, the heads automatically return to an active position, and the hard disk drive is operational.