        * 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 or 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. Advanced
utilities should only be used by experienced operators. Incorrect use of
these utilities can cause loss of data.

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
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 hard disk eliminates the need to insert the Utilities Diskette
each time you want to use these utilities.

The Setup Utility is the most commonly used utility on the Utilities
Diskette. The computer automatically prompts you to run Setup any time
the power-on self-tests (POST) detect a configuration error. Your system
configuration in 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.

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 + DEL. The
computer displays the Utilities Menu.

RUNNING UTILITIES FROM MS-DOS

To run utilities from the MS-DOS diskette, insert the MS-DOS diskette into
a diskette drive. Them, at the MS-DOS operating system prompt (such as A>
or C>), type the program name that corresponds to the desired utility. 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	SETUPL33.COM

Keyboard Password	KP.EXE
CPU Speed*	SPEEDL33.COM
Video Mode control*	VGA.EXE
Cache Control*	MEMCACHE.COM
*Advanced Utilities	

The Utilities Diskette also includes TEMMLX.SYS, an extended memory manager.

THE UTILITIES MENU

The Utilities Menu is displayed when:

  * You use the Utilities Diskette to boot the system with a prompt
    from the computer.

  * You exit to the Utilities Diskette from the Setup configuration
     screen.

The Utilities Menu provided 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.
    ?_
```

Passwords - Enable you to specify a power-on password. Requiring
        passwords can prevent unauthorized access to the data and
        programs.

Copy Diskette - Copied the contents of one diskette to another diskette.

Prepare System for Moving - Park 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, other IDE hard
        disks, or SCSI hard disks.

End Utilities - Terminate a Utilities session and restarts the computer.

BASIC UTILITIES

This section explains how to use each utility on the utilities menu.

PASSWORDS

Passwords help protect the computer from unauthorized users. The 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. Use
    the PassWords option on the Utilities Menu to create a power-on
    password.

*   Keyboard Password - Enables you to temporarily lock and unlock your
    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 KP.EXE utility 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 lower case letters. The password utilities record the exact
key you press as you enter the password. For example, if you use the 6
from the typewriter keys, you cannot substitute the 6 from the numeric
keys.

NOTE: When you create a password, the characters in the password are
displayed on the screen as you type them. This enables you to verify the
password as you type it. When you change a password or enter a password
to access the computer or keyboard, the characters are not displayed on
the screen as you type it. This protects the privacy of your password.

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

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:

        PASSWORDS MENU
        POWER-ON PASSWORD
        RETURN TO MAIN MENU

CREATING 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 create 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".

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, choose the Return to Main Menu option from the Passwords 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 A 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 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 again, or press the RESET button.

CHANGING OR REMOVING A POWER-ON PASSWORD

When the computer displays the power-on password prompt, 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 password, the password prompt is no longer displayed when you turn on the computer.

CREATING A 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 erased when you turn off the computer. See also power-on password.

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 ca use KP.EXE to specify a different keyboard password. To further protect your data, you can use the KP.EXE to clear the screen before locking the keyboard.

Note: You can copy KP.EXE to your system disk.

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 change the keyboard 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 change the password, type KP /C and press ENTER to clear the screen, enter a new password, and lock the keyboard.

    After you enter one of these commands, the system prompts you to enter a password.

3. Type the password, using the BACKSPACE key to correct any errors, and press ENTER. The following prompt appears:
        Is this correct? (Y/N/ESC)

4. If the password is correct, type Y and press ENTER.

    If the password is not correct, type N, press ENTER, and type the correct password.

    To cancel the utility and return to MS-DOS, press ESC.

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 utilities 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 drive
    automatically selects Drive A as both the source and target drive.
3. After you select the drive(s) you wish to use, insert the the source
    and target diskettes at the appropriate prompts.

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

Source drive	Target drive	Use this type of diskette in both drives
Standard	Standard	Standard
Standard	High-capacity	Standard
High-Capacity	Standard	Standard
High-Capacity	High-capacity	High-Capacity
High-Capacity	High-Capacity	Standard

Note: The Copy Diskette utility cannot copy between different types of
diskettes. Use the 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 5.25 inch
diskette to a 3.5 inch diskette. or from a high-density diskette to a
standard-density diskette.

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
parts the hard disk drive heads away from the data area, reducing the
change of disk damage or loss.

Note: The drive heads of some drives are automatically parked when you
turn off the computer. Refer to your hard disk drive 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 the computer off.

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

SETUP

See the documentation on SETUPL33.

FORMAT HARD DISK

The Format Hard Disk utility enables you to low-level format certain types
of hard drives. Refer to your hard disk drive installation guide to
determine whether a low-level format is required. If a low-level format
utility is shipped with your hard disk, (or is included in your operating
system), use that utility instead of the Format Hard Disk Utility.

CAUTION: DO NOT use the Format Hard Disk utility on SmartDrives (IDE hard
disks) or SCSI hard disks.

SmartDrives and SCSI drives are already low-level formatted. You must
low-level format some ST-506 hard disks. Hard disks must be low-level
formatted, partitioned, and high-level formatted before they can be used.

Refer to your operating system documentation for instructions on
partitioning a hard disk and high-level formatting each partition.

To use the Format Disk utility:

1. At the Utilities Menu, type 5 and press ENTER. The following prompt
    is displayed:

        Which hard drive do you
        want to format (C/D)
        ? _

2. To format the primary hard disk drive, type C and press ENTER.

    To format the secondary hard disk drive, type D and press ENTER.

    After you make the selection, the following warning is displayed:

        All data on drive x will be DESTROYED!!
        Do you want to continue (Y/N)
        ? _

    The purpose of this warning is to prevent you from accidentally
    erasing information on the hard disk. If you are formatting a
    new hard disk, you can continue safely. If you are reformatting
    a hard disk, be sure you have made a copy of any information on
    the disk that you want to keep.

3. If you do not want to continue, type N and press ENTER. The utilities
    Menu will be displayed again.

    If you want to continue, type N and press ENTER.

    Note: If you answer Y and later decide not to continue, you can reset
    the computer to terminate the Format Hard Disk utility. However, if
    you changed your configuration and did not save it, you must update
    the configuration again after you reset the computer.

    If you continue, the utility displays the following information:

        Hard drive x is type x
        Number of heads = x
        Number of cylinders = x
        Is this correct (Y/N)
        ? _

4. If this information is correct, type Y and press ENTER.

    If this information is not correct, reset the computer and run Setup.

    If you want to change the interleave factor, type N and press ENTER.

    CAUTION: The default interleave factor is 3. Contact your Radio
    Shack Service Center for information and assistance if you think you
    need to change the interleave factor.

    After you verify or change the hard disk information, the following
    prompt is displayed:

        Do you want to flag defective tracks (Y/N)
        ? _

5. To identify defective tracks, refer to the media error map that came
    with the hard disk drive.

    If the map lists no defective tracks, type N and press ENTER.

    If the map lists any defective tracks, type Y and press ENTER. The
    following prompt is displayed:

        Enter next head, cylinder pair or press ENTER to quit.
        ? _

6. Enter the defective track information. For example, if the error map
    lists Head 4, cylinder 100 and Head 5, cylinder 100, type:

        4,100 ENTER
        5,100 ENTER

    After entering all the defective heads and tracks noted on the media
    error map, press ENTER to begin the formatting procedure.

    CAUTION: Do not interrupt the program while it is formatting the
    drive. If formatting is interrupted, restart the Format Hard Disk
    utility from the Utilities Menu.

You are now ready to install your operating system(s) on the hard disk
drive. See your operating system documentation for details.

END UTILITIES

Type 9 and press ENTER at the Utilities Menu to end a Utilities session.
The following prompt is displayed:

     UTILITIES ENDED
     PRESS <ENTER> TO REBOOT THE SYSTEM
     or <CTRL-C> TO RETURN TO MAIN MENU.

After you press ENTER, the computer reboots, using the operating system
installed on the hard disk or on a diskette in the diskette drive. If you
do not have an operating system installed, you can install it now. Check
the operating system documentation for the procedures required to install
the operating system.

ADVANCED UTILITIES

The Utilities Diskette contains the following advanced utilities:

*   SPREEDL33
*   TEMMLX
*   MEMCACHE
*   VGA

SpeedL33 selects a CPU clock speed. TemmLx uses extended memory to
emulate expanded memory. Vga selects the video mode for your computer.
Refer to the "VGA ADAPTER" documentation.

SPEEDL33

Your CPU supports two CPU clock speed settings, fast (33 MHz) and
slow (8 MHz). Use the SpeedL33 utility to choose either setting.

To set the CPU speed, type either of the following at the
MS-DOS system prompt:

     SpeedL33 fast
     SpeedL33 slow

Then, press ENTER.

The CPU speed changes immediately, but the new speed is not recorded in
CMOS memory. If you turn off the system or press the RESET button, the
speed defaults to the setting saved in CMOS memory. If, however, you
press CTRL+ALT+DEL, the new setting remains in effect. To change the
default setting in CMOS memory, run Setup.

MEMCACHE

See the documentation on MEMCACHE and MEMORY.

TEMMLX

See the documentation on TEMMLX and MEMORY.

(smc-09/13/93)