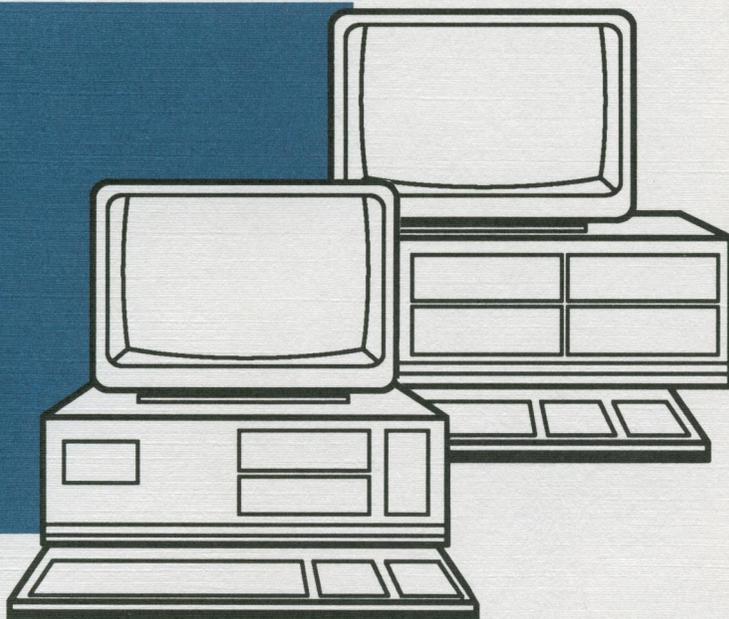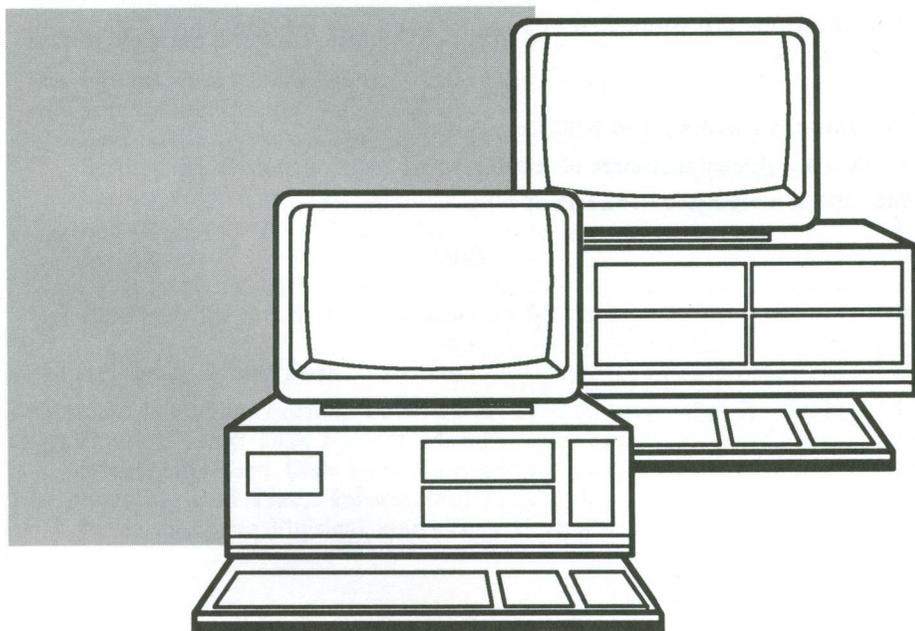*PowerMate™ 1 (8/10)*
PowerMate 1 Plus
PowerMate 2

Hardware System Setup Guide

NEC

NEC Information Systems, Inc.

PowerMate™ 1 (8/10)
PowerMate 1 Plus
PowerMate 2

Hardware System
Setup Guide

NEC

NEC Information Systems, Inc.

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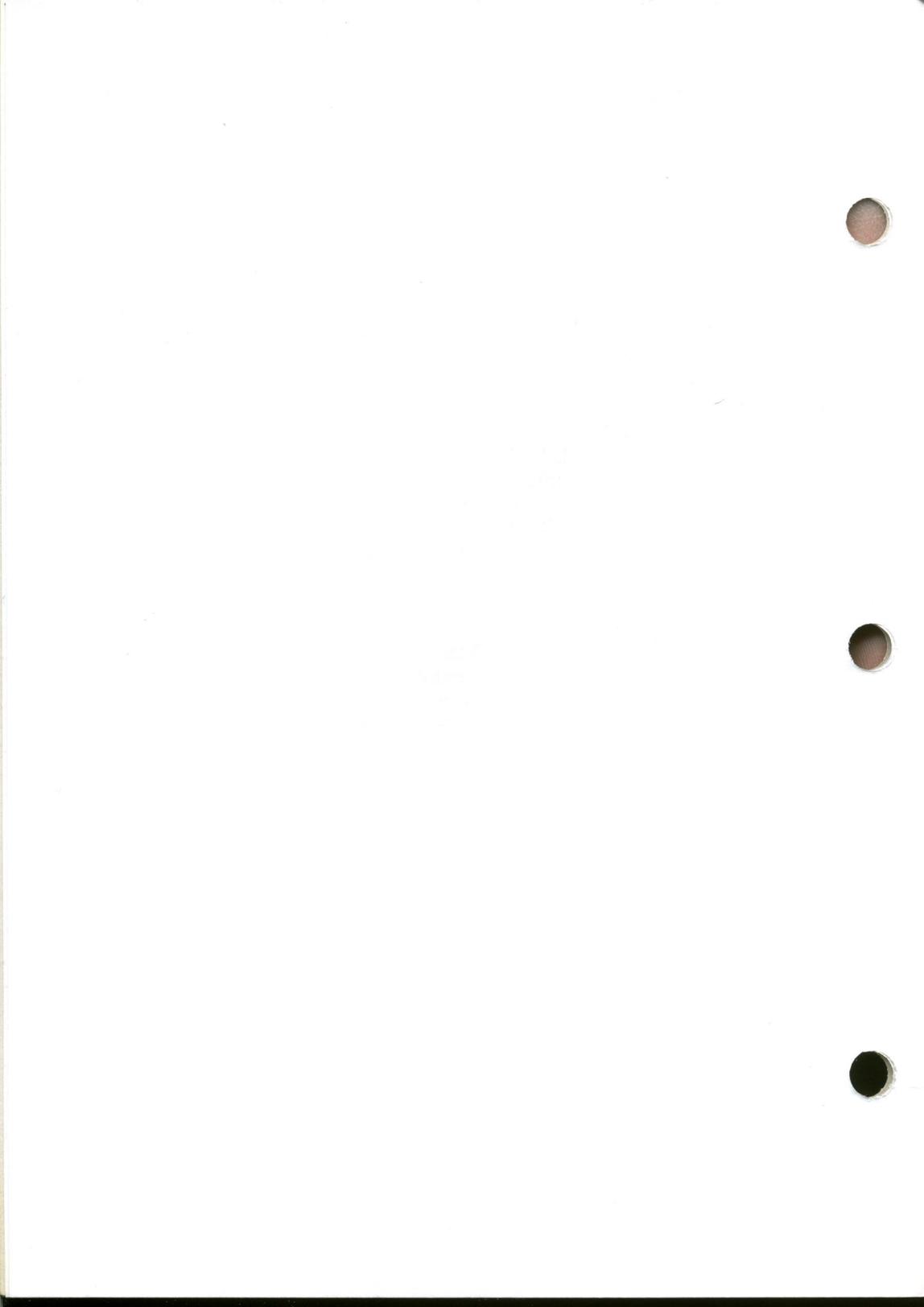MS–DOS is a registered trademark of Microsoft Corporation.

Contents

The System Setup Utility

The Hardware System Setup diskette included in your system unit package contains the software needed to boot up and prepare your system. You must run the Setup utility when you set up your PowerMate™ for the first time, and every time you change your system's configuration.

With the Setup utility, you may do the following.

- Check/set system parameters specified in the permanent memory (CMOS) of the system.
- Perform a physical format on a hard disk.

The system parameters must be set correctly for software, which relies on these parameters, to function properly.

The Setup utility is a stand–alone application; it does not require any operating system software (such as MS–DOS®, OS/2, or UNIX®) to run. Therefore, when you exit the Setup utility, you must reboot the system to run another program.

When you first turn on your PowerMate, the system automatically identifies its hardware components. For example, it determines how much memory is present, whether the system clock/calendar is set, and which communication ports and display adapters are installed. This process is called the Power–On Self–Test (POST).

The system compares the hardware it finds with the setup information stored in its permanent memory (CMOS). Any discrepancies must be corrected before you can operate your PowerMate. The Setup utility enables you to correct the information in permanent memory.

During this Initial Setup process you may perform any of the following tasks.

- Set the system clock to the correct time.
- Set the system calendar to the correct date.

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- Tell the system the quantity and type of diskette drives installed.

- Tell the system the quantity and type of hard (fixed) disk drives installed.

- Set the memory information to agree with the amount of memory installed in the PowerMate.

- Tell the system the type of display adapters installed, and set one for use as the primary display adapter.

- Check information concerning the configuration of the communication ports, printer ports, etc.

The Setup utility also enables you to perform a physical format of your hard disk(s).

Preparing a hard disk for use involves three steps:

1. physical formatting
2. partitioning
3. operating system formatting

Physical formatting sets the size and location of disk tracks and the sectors in each track. Bad tracks are marked to prohibit their use.

Partitioning divides the disk space into separately accessible sections that can be used by one or more operating systems. You must partition your hard disk, even if it will have only one partition, in order to specify a particular operating system for that partition.

Operating system formatting organizes the disk, as required by a particular operating system, and places information (such as a bootup program and system files) on the disk.

The Setup utility performs the physical formatting of a hard disk. Partitioning and operating system formatting must be performed with the partitioning and formatting utilities of a particular operating system.

Using the Setup Utility

To use the Setup utility, follow these steps:

1. Make sure all options (such as disk drives, video controller boards, and math co–processors) have been installed, and that all hard disk bad track information lists have been retrieved from inside the system unit and are at hand.

2. Boot (start up) your PowerMate using the Setup diskette. (Refer to the PowerMate owner's guide for information on how to start up your system and load a diskette.)

    The system performs a Power–On Self–Test to check the accuracy of setup information stored in permanent memory in the Power-Mate.

3. If discrepancies are found during the Power–On Self–Test, the following message is displayed:

    > Invalid configuration information – please run Setup program.
    > Strike F1 key to continue

    Press the **F1** key and the system will continue to boot.

    After the system boots, it automatically starts the Setup utility, and the Main menu appears on your screen. Refer to the subsection entitled "THE MAIN MENU" for information on how to fix discrepancies found during the booting process.

In each of the menus, the available options are listed near the middle of the screen, with the topmost selection highlighted. To make a selection, perform the following steps:

1. Press the up or down arrow key to move the highlighting cursor to another choice.

2. When the highlighting cursor is positioned on the desired selection, press **Enter**.

The Setup utility will proceed with the operation you selected.

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As specific choices are highlighted in each menu, a line of descriptive text appears near the bottom of the screen. This text describes the specific action that will occur for the highlighted selection.

Optionally, you can return from each submenu to the preceding menu.

You can also return to the previous menu by pressing **Esc**. When exiting the Setup utility, you must reboot the system to run other software.

THE MAIN MENU

The Main menu appears on your screen when you begin using the Setup utility.

```
===================== Main SETUP Menu ======================



         Display/Change System Parameters
         Perform Physical Disk Format
         Exit Setup Program



 Check and/or change clock calendar or other Permanent Memory.

              Use UP and DOWN arrows to move cursor.
        Press ENTER to select option, or press ESC to cancel.
```

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In the Main menu, three options are displayed:

1. Display/Change System Parameters — This option provides a menu that lets you check and modify information contained in the Power-Mate's permanent memory. It is used to inform the PowerMate user about the options that are installed in the computer, to set the system parameters, such as the system clock and system calendar. (This option is explained in "THE SYSTEM PARAMETERS MENU.")

2. Perform Physical Disk Format — This option provides a menu that lets you specify any bad tracks on your hard disk(s) and perform physical hard disk formatting.

3. Exit Setup Program — Since the Setup utility is a stand–alone application, you are asked to reboot the system when exiting in order to run any other software.

Setting System Parameters

THE SYSTEM PARAMETERS MENU

When you select the Display/Change System Parameters option from the Main menu, a screen similar to the following appears.

```
─────────────────── SYSTEM  PARAMETERS ───────────────────
       TIME:                    18:19
       DATE:                    12/07/1987
       DISKETTE DRIVE A:        1.2 MByte (5 1/4")
       DISKETTE DRIVE B:        360 KByte (5 1/4")
       HARD DISK 1:             Type 39 — NEC 20Mb
       HARD DISK 2:             Not Installed
       BASE MEMORY:             640K
       EXTENDED MEMORY:         Not Installed
       MATH CO-PROCESSOR:       Not Installed
       PRIMARY DISPLAY:         AGB, AGB+ or Other Graphics Board


            CHANGE  SYSTEM  PARAMETERS
         DISPLAY SYSTEM BOARD SWITCH SETTINGS
              RETURN TO PREVIOUS MENU
  Change the current settings of the System Parameters.

           Use UP and DOWN arrows to move cursor.
   Press ENTER to select option, or press ESC to cancel.
```

This screen displays the system parameters that are stored in permanent battery–backed memory (CMOS). These are the parameters that you can change with this program.

One of the options on this screen, Display System Board Switch Settings, displays the current switch settings on the PowerMate system board. Consult your PowerMate owner's guide for information on how to change these settings.

At this point, you can

- choose to change any or all values of the system parameters, or
- accept any or all values as they appear.

To indicate that all values are correct and return to the previous menu, press **Esc** or select the Return to Main Menu option.

If you are setting up your system for the first time, or if you need to change any values, select the Display/Change System Parameters option. Instructions for updating the system parameters will appear as shown below.

```
───────────── SYSTEM  PARAMETERS ─────────────────
        TIME                    18:19
        DATE:                   12/07/1987
        DISKETTE DRIVE A:       1.2 MByte (5 1/4")
        DISKETTE DRIVE B:       360 KByte (5 1/4")
        HARD DISK 1:            Type 39 - NEC 20Mb
        HARD DISK 2:            Not Installed
        BASE MEMORY:            640K
        EXTENDED MEMORY:        Not Installed
        MATH CO-PROCESSOR:      Not Installed
        PRIMARY DISPLAY:        AGB, AGB+ or Other Graphics Board
        EXIT



        Change the Time set on the System Clock.
           Use UP and DOWN arrows to move cursor.
      Press ENTER to select option, or press ESC to cancel.
```

The Time selection is highlighted initially, indicating the location of the cursor. You can move the cursor to various system parameters by pressing either the up arrow or the down arrow key.

To change an item that is currently highlighted, press **Enter**. The cursor moves to the lower part of the screen where additional instructions for modifying that parameter are displayed. (The following sections provide instructions for modifying any of the system parameters.)

When all the system parameters are correct, select the Exit option at the bottom of the menu.

Setting the Time

To change the time on the system clock, move the cursor to the TIME selection and press **Enter**.

The syntax for TIME is

    hh:mm [am/pm]

where hh is the hour
    mm is the minute
    am indicates 12–hour format (morning)
    pm indicates 12–hour format (afternoon).

The Setup utility uses a 24–hour format. For example, 1:00 pm is shown as 13:00. However, you can enter the time in either a 12–hour format (1:00 pm) or 24–hour format (13:00).

Press **Enter** to enter the new time or press **Esc** to leave the time unchanged.

Setting the System Date

To change the system date, move the cursor to the word DATE and press **Enter**.

The syntax for entering the DATE is

    mm/dd/yyyy

where mm is the month
    dd is the date
    yyyy is the year
    / separates the month, date, and year entries.

For example, February 24, 1986 is entered as 02/24/1986.

Press **Enter** to accept the new date you entered, or press **Esc** to leave the date unchanged.

Setting the Diskette Drive Information

The options for diskette drives are

- 360 KB (5 1/4″ double–sided)
- 1.2 MB (5 1/4″ high–capacity)
- 720 KB (3 1/2″ double–sided)
- 1.44 MB (3 1/2″ high–capacity)
- Not installed.

Please note that the 1.44–MB (3 1/2–inch high–capacity) diskette drive cannot be selected for the PowerMate 2. Also note that the PowerMate 1 (8/10 MHz) requires MS–DOS 3.3 and a ROM BIOS version of 3.10 or higher to support the 1.44–MB (3 1/2–inch high–capacity) diskette drive.

If diskette drive B is not installed in your PowerMate, you must indicate this by selecting the Not Installed option.

When you choose either of the two diskette drives, a submenu with the following drive options appears at the lower part of the screen.

```
===================== SYSTEM PARAMETERS =====================
            TIME:                 19:11:22
            DATE:                 03/15/1988
            DISKETTE DRIVE A:     1.2 MByte (5 1/4")
            DISKETTE DRIVE B:     360 KByte (5 1/4")
            HARD DISK 1:          Type 43 - NEC 66Mb
            HARD DISK 2:          Not Installed
            BASE MEMORY:          640K
            EXTENDED MEMORY:      512K
            MATH CO-PROCESSOR:    Not Installed
            PRIMARY DISPLAY:      AGB, AGB+ or other Graphics Board
            EXIT


                 Select type for Diskette Drive B
                         360Kb (5 1/4")
                         1.2Mb (5 1/4")
                         720Kb (3 1/2")
                         1.4Mb (3 1/2")
                         Not Installed
                 Use UP and DOWN arrows to move cursor.
          Press ENTER to select option, or press ESC to cancel.
```

Setting Hard Disk Information

Both the PowerMate 1 and PowerMate 2 can contain up to two hard disk drives. The hard disks supplied by NEC are 20–MB, 40–MB, 42–MB, 66–MB, 80–MB, 130–MB, 140–MB and 300–MB drives. Some of these hard drives use the ST506 controller board, while others use the ESDI controller board. The type of hard disks supported by each controller are listed below.

Controller Board	Hard Disks Supported
ST506	20–MB, 40–MB, 42–MB, and 66–MB
ESDI	
(in Non–translate Mode)	80–MB and 130–MB
(in Translate Mode)	140–MB and 300–MB

Since the ST506 and ESDI controller boards are not compatible, they cannot be installed in the system unit at the same time. Therefore, when setting parameters for any hard drive, be sure that the drive is supported by the type of controller installed in your system unit.

NOTE

The 66–MB, 130–MB, and 300–MB hard drives cannot be used in either the Power-Mate 1 (8/10 MHz) or PowerMate 1 Plus.

Hard drives supported by the ESDI controller set in Non–translate Mode cannot be mixed with drives supported by the ESDI controller set in Translate Mode.

The PowerMate 2 must have a ROM BIOS of 3.10 or higher to support an ESDI hard disk drive and controller. The ROM BIOS version can be found on the PowerMate 2 power–on screen.

The PowerMate 1 (8/10 MHz) must have a ROM BIOS version of 3.10 or higher to support the 42–MB (ST506) or 140–MB (ESDI) hard disk drives.

If you select the Hard Disk parameter from the System Parameters menu, the following options appear at the lower part of the screen.

```
┌────────────────────────────────────────────────────────────────┐
│                                                                │
│                                                                │
│ ─────────────────── SYSTEM  PARAMETERS ──────────────────────  │
│               TIME:                 18:19                       │
│               DATE:                 12/07/1987                  │
│               DISKETTE DRIVE A:     1.2 MByte [5 1/4"]          │
│               DISKETTE DRIVE B:     360 KByte [5 1/4"]          │
│               HARD DISK 1:          Type 39 - NEC 20Mb          │
│               HARD DISK 2:          Not Installed              │
│               BASE MEMORY:          640K                        │
│               EXTENDED MEMORY:      Not Installed              │
│               MATH CO-PROCESSOR:    Not Installed              │
│               PRIMARY DISPLAY:      AGB, AGB+ or Other Graphics Board │
│               EXIT                                              │
│                                                                │
│                                                                │
│                 Select type for Hard Disk 1                    │
│                 ----------------------                         │
│                      Not Installed                             │
│                      NEC 20Mb                                  │
│                      NEC 40Mb                                  │
│                      NEC 66Mb                                  │
│                 -------- more ---------                        │
│                 Use UP and DOWN arrows to move cursor.         │
│         Press ENTER to select option, or press ESC to cancel.  │
│                                                                │
│                                                                │
└────────────────────────────────────────────────────────────────┘
```

To change the Hard Disk parameter, move the highlighting cursor to the appropriate selection. Note that only four hard–disk options are displayed at one time. The symbol —more— at the top or bottom of the list means that additional options can be scrolled into view by pressing the up or down arrow key. Press **Enter** to accept your selection, or press **Esc** to cancel, leaving the setting unchanged.

If your hard disk drive is not one of the standard 20–MB, 40–MB, 42–MB, 66–MB, 80–MB, 130–MB, 140–MB, or 300–MB drives supplied by NEC, select the Other option from the menu and enter the hard disk type number. You can determine this number for your particular drive by using the information in Table A–1.

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Table A–1 provides a hard disk type number based on the following parameters:

CYLINDERS: The number of cylinders on the disk.

HEADS: The number of read/write heads in the drive.

PRE–COMP: The pre–compensation cylinder number.

LAND ZONE: The cylinder number designating the safe landing zone for the drive head(s) when the heads are parked or retracted.

SECTOR: The number of sectors per track.

SIZE: Total unformatted disk capacity in megabytes.

Table A–1 Hard Disk Type Numbers

Type	Cylinders	Heads	Pre-Comp	Land Zone	Sectors	Size (MB)
1	306	4	128	305	17	10.1
2	615	4	300	615	17	20.4
3	615	6	300	615	17	30.6
4	940	8	512	940	17	62.4
5	940	6	512	940	17	46.8
6	615	4	-1	615	17	20.4
7	462	8	256	511	17	30.6
8	733	5	-1	733	17	30.4
9	900	15	-1	901	17	112.0
10	820	3	-1	820	17	20.4
11	855	5	-1	855	17	35.4
12	855	7	-1	855	17	49.6
13	306	8	128	319	17	20.3
14	733	7	-1	733	17	42.5
16	612	4	0	663	17	20.3
17	977	5	300	977	17	40.5
18	977	7	-1	977	17	56.7
19	1024	7	512	1023	17	59.5
20	733	5	300	732	17	30.4
21	733	7	300	732	17	42.5
22	733	5	300	733	17	30.4
23	306	4	0	336	17	10.1
24	286	16	-1	-1	63	140.7 †††
25	615	4	0	615	17	20.4
26	1024	4	-1	1023	17	34.0
27	1024	5	-1	1023	17	42.5
28	1024	8	-1	1023	17	68.0
29	512	8	256	512	17	34.0

Table A-1 Hard Disk Type Numbers (cont'd)

Type	Cylinders	Heads	Pre-Comp	Land Zone	Sectors	Size (MB)
30	615	2	615	615	17	10.2
31	823	6	−1	823	34	81.9 †
32	1020	15	−1	1024	17	127.0
33	611	16	−1	−1	63	300.7 †† ††
34	823	10	−1	823	34	136.6 ††
35	1024	9	1024	1024	17	76.5
36	1024	5	512	1024	17	42.5
37	830	10	−1	830	17	68.8
38	823	10	256	824	17	68.3
39	615	4	128	664	17	20.4 *
40	615	8	128	664	17	40.8 ***
41	917	15	−1	918	17	114.1
42	1023	15	−1	1024	17	127.3
43	823	10	512	823	17	68.3 ****
44	820	6	−1	820	17	40.8
45	642	8	256	664	17	42.6 ***
45	823	12	−1	823	17	81.9
46	925	9	−1	925	17	69.1
47	699	7	256	700	17	40.6

*	NEC 20 MB	†	NEC 80 MB
**	NEC 40 MB	††	NEC 130 MB
***	NEC 42 MB	†† †	NEC 140 MB
****	NEC 66 MB	†† ††	NEC 300 MB

Locate your specific hard disk type by matching its characteristics with those in Table A-1. Enter the corresponding type number at the prompt for the hard disk type number.

For example, to specify a hard disk drive of type 3:

1. Select the Other option.

2. Type **3** when the prompt appears.

3. Press **Enter**.

Setting Memory Configuration

The base memory of the PowerMate is 640 KB. This memory is supplied at the factory and cannot be changed. If this parameter is set to anything other than 640 KB, an error will result at boot time.
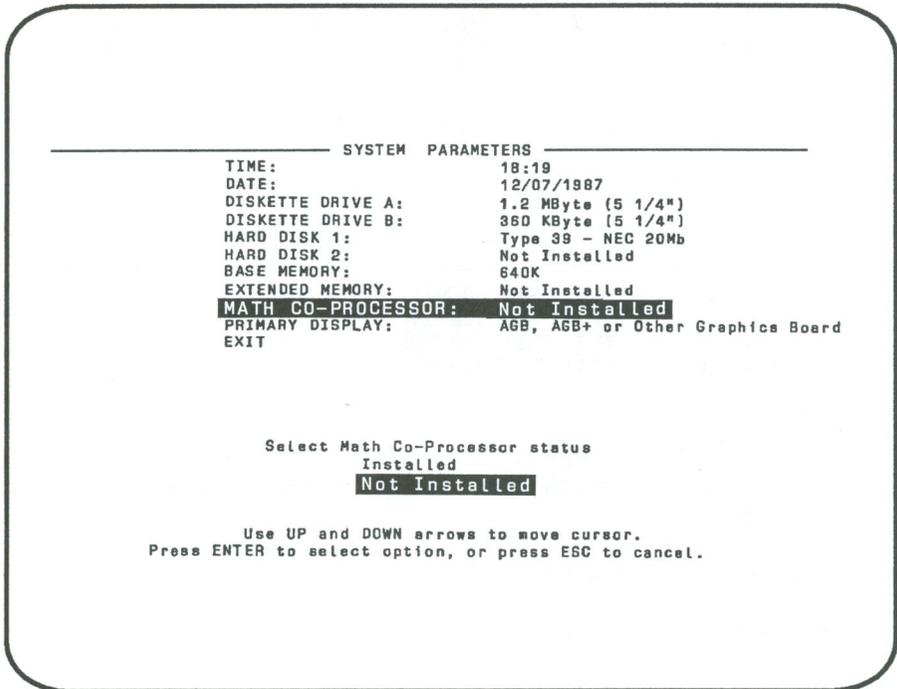
The PowerMate supports extended memory ranging from 0 megabytes (MB) to 15360 KB (15 MB).

After selecting the Extended Memory option from the Initial Setup menu, you are prompted to enter the amount of extended memory (in kilobytes) installed in your PowerMate.

Setting Math Co-processor Status

The setting for this parameter indicates whether an 80287 math co-processor is installed in your PowerMate. After you select the Math co-processor option from the Initial Setup menu, the following screen appears.

```
————————————————— SYSTEM  PARAMETERS —————————————————
           TIME:                  18:19
           DATE:                  12/07/1987
           DISKETTE DRIVE A:      1.2 MByte (5 1/4")
           DISKETTE DRIVE B:      360 KByte (5 1/4")
           HARD DISK 1:           Type 39 - NEC 20Mb
           HARD DISK 2:           Not Installed
           BASE MEMORY:           640K
           EXTENDED MEMORY:       Not Installed
           MATH CO-PROCESSOR:     Not Installed
           PRIMARY DISPLAY:       AGB, AGB+ or Other Graphics Board
           EXIT



           Select Math Co-Processor status
                      Installed
                    Not Installed

            Use UP and DOWN arrows to move cursor.
     Press ENTER to select option, or press ESC to cancel.
```
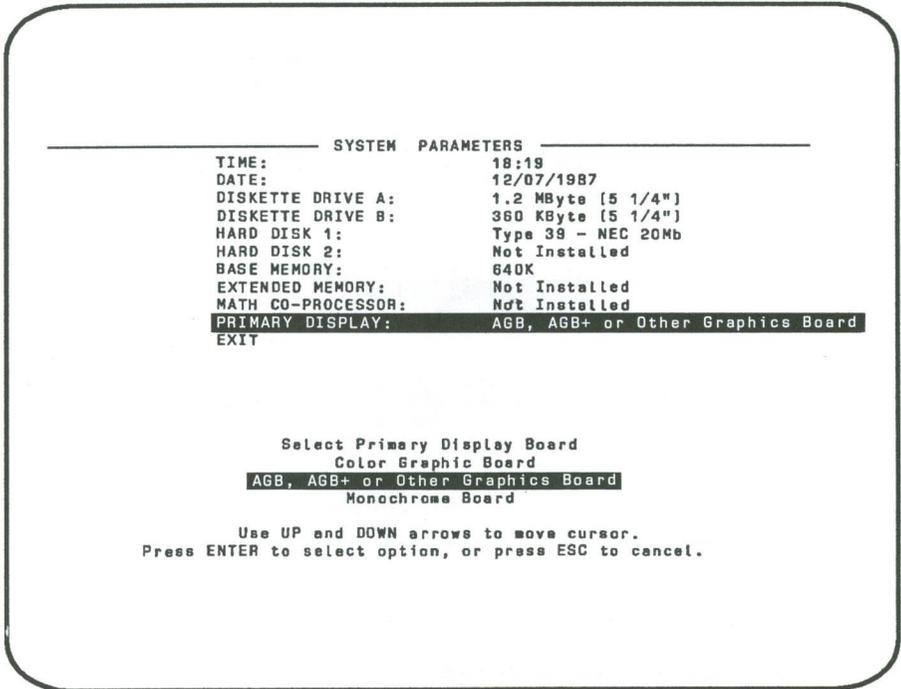
To make the selection appropriate for your PowerMate:

1. Move the cursor to the appropriate response for your system configuration: Installed or Not Installed.

2. Press **Enter** to accept your selection, or press **Esc** to leave the option unchanged.

Setting the Primary Display

When you select this option, you are prompted to confirm the Primary Display setting. This setting is determined by a DIP switch located on the system mother board. This switch is described in your PowerMate owner's guide (refer to the section on system board switch settings).
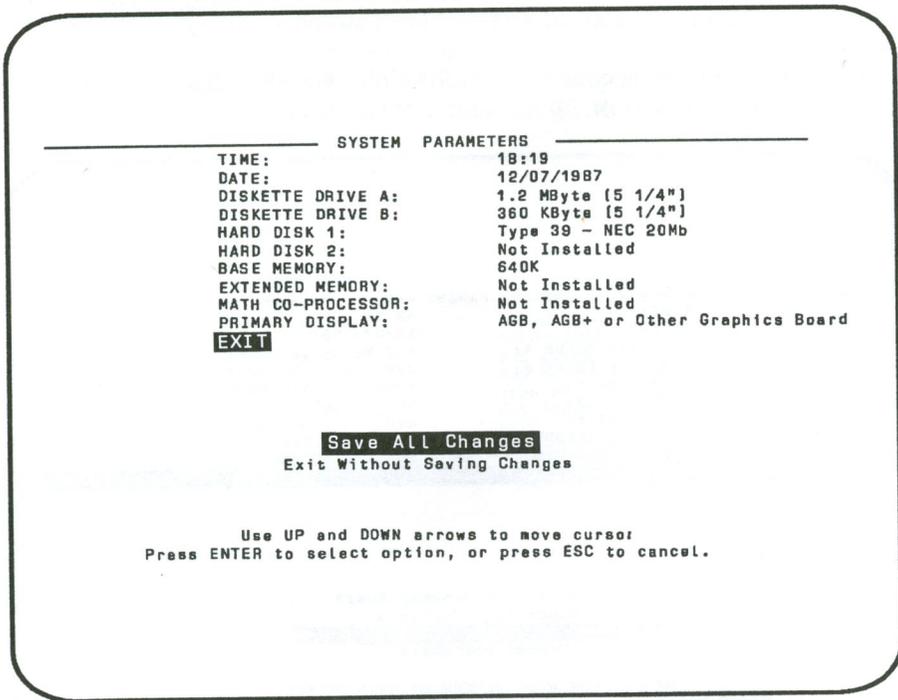
If the primary display is connected to the Color Graphics Board (CGB), you can select either a 40– or 80–column display mode.

```
———————————————— SYSTEM  PARAMETERS ————————————————
            TIME:                      18:19
            DATE:                      12/07/1987
            DISKETTE DRIVE A:          1.2 MByte [5 1/4"]
            DISKETTE DRIVE B:          360 KByte [5 1/4"]
            HARD DISK 1:               Type 39 – NEC 20Mb
            HARD DISK 2:               Not Installed
            BASE MEMORY:               640K
            EXTENDED MEMORY:           Not Installed
            MATH CO-PROCESSOR:         Not Installed
            PRIMARY DISPLAY:           AGB, AGB+ or Other Graphics Board
            EXIT



                    Select Primary Display Board
                        Color Graphic Board
                AGB, AGB+ or Other Graphics Board
                        Monochrome Board

                Use UP and DOWN arrows to move cursor.
        Press ENTER to select option, or press ESC to cancel.
```

Move the highlighted cursor to the correct selection. Press **Enter** to change the option from its current setting. Or press **Esc** to leave the setting unchanged.

Exiting from the System Parameters Menu

After you have correctly set all system parameters, select the Exit option. If you changed any of the parameters, the system displays the following.

```
                     ─────── SYSTEM  PARAMETERS ───────
               TIME:                   18:19
               DATE:                   12/07/1987
               DISKETTE DRIVE A:       1.2 MByte (5 1/4")
               DISKETTE DRIVE B:       360 KByte (5 1/4")
               HARD DISK 1:            Type 39 - NEC 20Mb
               HARD DISK 2:            Not Installed
               BASE MEMORY:            640K
               EXTENDED MEMORY:        Not Installed
               MATH CO-PROCESSOR:      Not Installed
               PRIMARY DISPLAY:        AGB, AGB+ or Other Graphics Board
               EXIT


                          Save ALL Changes
                       Exit Without Saving Changes


                   Use UP and DOWN arrows to move cursor
            Press ENTER to select option, or press ESC to cancel.
```

If you select the Save All Changes option the following message is displayed:

> The System Parameters have been set.
> Insert System Disk, and press any key to reboot the system.

If you select the Exit Without Saving Changes option, you are returned to the Initial Setup menu, and all of the original system parameters are displayed.

Preparing the Hard Disk

PHYSICAL HARD DISK FORMAT

Physical Hard Disk Format prepares a hard disk for subsequent operating system partitioning and formatting. You should perform Physical formatting on a hard disk if one or more of the following conditions exist:

- The hard disk is new and has never been physical–formatted.

NOTE

All NEC hard disks provided with Power-Mate personal computers and option kits are pre–physical–formatted at the factory and do not have to be physical–formatted during system preparation. If you have an NEC hard disk skip to "Partition Hard Disk."

- You do not know whether the hard disk has ever been formatted, and the disk does not contain any data or programs that you want to preserve.

- The hard disk has been formatted by some other program, or on some other kind of computer (i.e., not an NEC PowerMate), and you want to use it with your PowerMate.

- Your hard disk develops a bad spot, causing retries or data loss during operation.

CAUTION

Physical Hard Disk Format destroys all data on the formatted disk. Be sure to back up all valuable data onto diskettes or other media before performing a physical format of your hard disk.

THE PHYSICAL DISK FORMAT MENU

From the Main menu, select the Perform Physical Disk Format option. If your PowerMate has only one hard disk, the following screen is displayed.

```
================= Physical Disk Format Menu =================

    You must perform a Physical format operation prior to
    partitioning and system formatting your hard disk(s).

                     Specify Bad Tracks
                     Perform Physical Format
                     Return to Previous Menu




    Input Bad Track information for this particular disk unit.

          Use UP and DOWN arrow keys to move cursor.
    Press ENTER to select option, or press ESC to cancel.
```

If your PowerMate has two hard disks installed, the following screen is displayed.

```
================= Physical Disk Format Menu =================

You must perform a Physical format operation prior to
partitioning and system formatting your hard disk(s).

              Select Disk Unit Number <1>
              Specify Bad Tracks
              Perform Physical Format
              Return to Previous Menu




         Specify whether to format Hard Disk Unit 1 or 2.

         Use UP and DOWN arrow keys to move cursor.
    Press ENTER to select option, or press ESC to cancel.
```

Specifying Hard Disk Unit Number

On a PowerMate with only one hard disk installed, hard disk Unit 1 is the only unit available. You cannot change the unit number.

However, on a PowerMate with two hard disks installed, you may choose which unit to perform a physical format on, and the menu will display the additional option. The default unit to be formatted is Unit 1.

If you want to format Unit 2, select the Select Disk Unit Number option and specify Unit 2. If you do not, Unit 1 will be formatted when you continue with the formatting process and all the data on hard disk Unit 1 will be lost.

If you choose Select Disk Unit Number, the following prompt is displayed:

> Select Hard Disk Unit Number to Physical Format:
> Unit 1
> Unit 2

Using the up or down arrow key, move the cursor to Unit 1 or 2 and press **Enter**. Your new selection will be displayed in the < > brackets following the Select Disk Unit Number option.

To return to the menu without changing the value, press **Esc**.

Entering Bad Track Information

Included with each hard disk is a list of any and all bad tracks on that disk. You must provide this information as input to the Physical Disk Format program so that it can mark the bad tracks to prevent their use.

Check the list of bad tracks to see if your disk has any bad tracks to enter. If there are one or more bad tracks listed, select the Specify Bad Tracks option. The following screen is displayed.

```
───────────────── Enter Bad Track Location(s) ─────────────────

Please refer to Bad Track information for Hard Disk Unit 1
and enter the location of all Bad Tracks listed.

Press ENTER after each entry to complete the entry.
Press ENTER alone to return the Initial Format menu.

Enter next <Cylinder Number> / <Head Number> : ___ / ___

Acceptable cylinder range: 0-614

  ┌─Cyl/Hd──┬─Cyl/Hd──┬─Cyl/Hd──┬─Cyl/Hd──┬─Cyl/Hd──┐
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  └─────────┴─────────┴─────────┴─────────┴─────────┘
```

Near the top of the screen a prompt is displayed. You are asked to enter the location of each bad track from the list. Carefully enter the cylinder and head values for each bad track. If all the bad tracks entered cannot be displayed, use the cursor keys to scroll the list up and down.

The bad–track location is appended to the bad–track chart which is displayed near the bottom of the screen, and you are prompted to enter the location of the next bad track.

When you have entered all of the hard disk's bad tracks, press **Enter** without entering a location; this will return you to the Perform Physical Disk Format menu.

If you discover that you have entered an incorrect value, you must return to the Initial Hard Disk Format menu and reselect the Specify Bad Tracks option. You can then reenter the bad track table item–by–item.

Performing the Physical Hard Disk Format

Once you have specified all of the necessary information, you can perform the Physical Format of the hard disk.

Select Perform Physical Format from the menu to begin the physical formatting. You will then be asked to confirm that you want to format the selected hard disk unit. Once you have confirmed the selection, the format process begins.

If you elect to continue with the format, you will be asked to wait while the format progresses. You will not be permitted to interrupt a format operation once it starts.

When the format operation is completed, you are returned to the Physical Disk Format menu. You can then perform other hard disk format operations (i.e., format the other hard disk unit in a PowerMate with two hard disks), or you can return to the Main menu.

Once you have successfully completed the Hardware System Setup operation, you can go on to the next step — Operating System Setup. Refer to your operating system user's guide.

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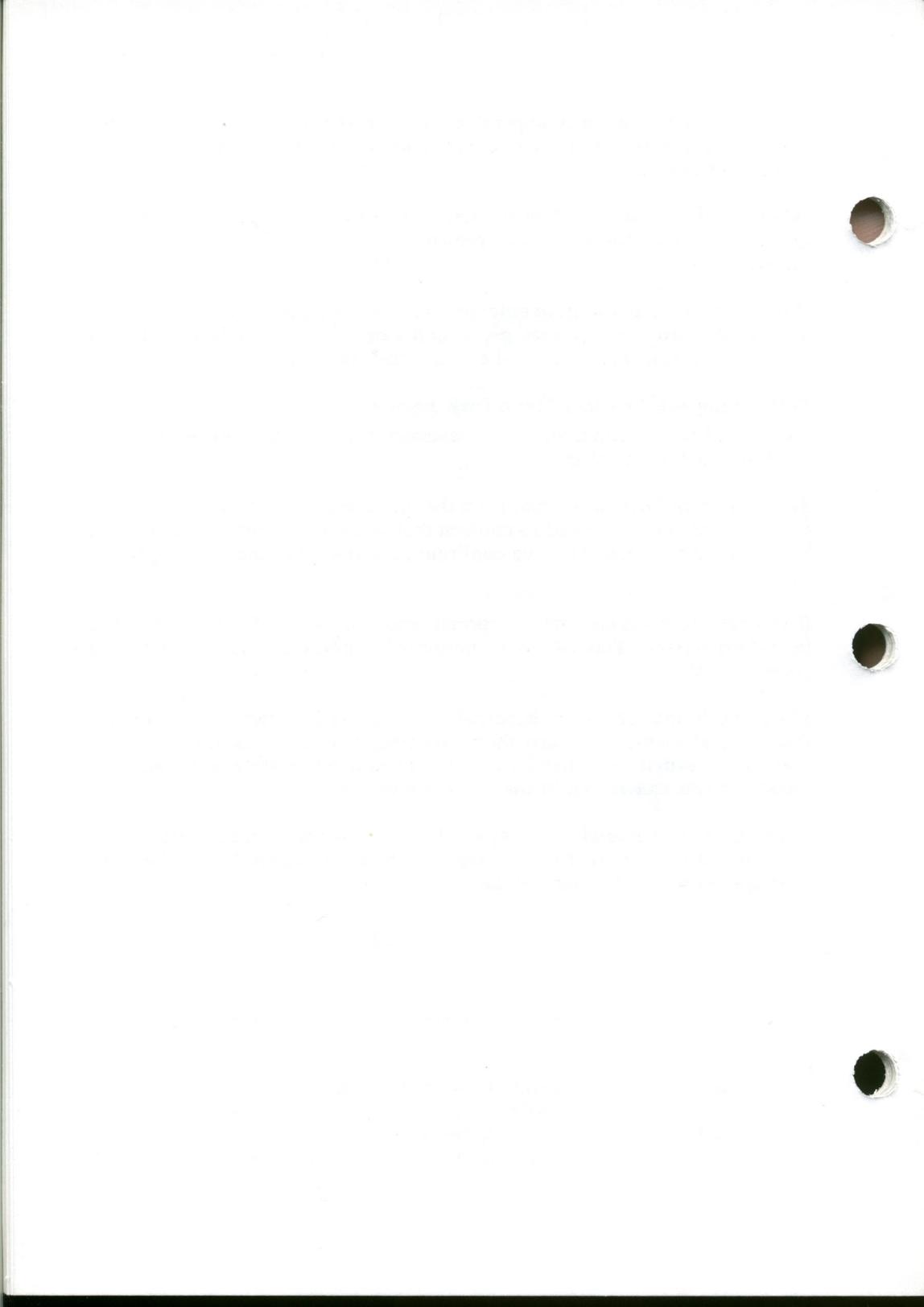
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USER'S COMMENTS FORM

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/PowerMate 2
Document No.: 819–180093–000 Rev. 00

Please suggest improvements to this manual.

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