

K2500

Musician's Guide Supplement

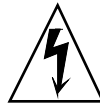
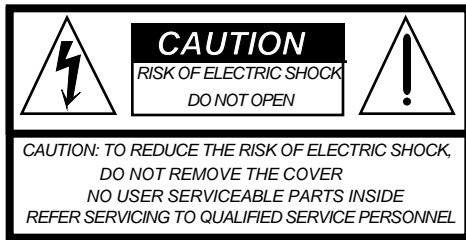
For System Software Versions 2.98 and 4.44

Second Edition, November 2000

KURZWEIL
Music Systems

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Part Number: 910354 Rev. B



The lightning flash with the arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

IMPORTANT SAFETY & INSTALLATION INSTRUCTIONS

INSTRUCTIONS PERTAINING TO THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

WARNING: When using electric products, basic precautions should always be followed, including the following:

1. Read all of the Safety and Installation Instructions and Explanation of Graphic Symbols before using the product.
2. This product must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a power supply cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet which is properly installed and grounded in accordance with all local codes and ordinances.
DANGER: Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician. Do not use an adaptor which defeats the function of the equipment-grounding conductor. If you are in doubt as to whether the product is properly grounded, check with a qualified serviceman or electrician.
3. **WARNING:** This product is equipped with an AC input voltage selector. The voltage selector has been factory set for the mains supply voltage in the country where this unit was sold. Changing the voltage selector may require the use of a different power supply cord or attachment plug, or both. To reduce the risk of fire or electric shock, refer servicing to qualified maintenance personnel.
4. Do not use this product near water - for example, near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, or the like.
5. This product should only be used with a stand or cart that is recommended by the manufacturer.
6. This product, either alone or in combination with an amplifier and speakers or headphones, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
7. The product should be located so that its location or position does not interfere with its proper ventilation.
8. The product should be located away from heat sources such as radiators, heat registers, or other products that produce heat.
9. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product.
10. This product may be equipped with a polarized line plug (one blade wider than the other). This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the plug.
11. The power supply cord of the product should be unplugged from the outlet when left unused for a long period of time. When unplugging the power supply cord, do not pull on the cord, but grasp it by the plug.
12. Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
13. The product should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged;
 - B. Objects have fallen, or liquid has been spilled into the product;
 - C. The product has been exposed to rain;
 - D. The product does not appear to be operating normally or exhibits a marked change in performance;
 - E. The product has been dropped, or the enclosure damaged.
14. Do not attempt to service the product beyond that described in the user maintenance instructions. All other servicing should be referred to qualified service personnel.
15. **WARNING:** Do not place objects on the product's power supply cord, or place the product in a position where anyone could trip over, walk on, or roll anything over cords of any type. Do not allow the product to rest on or be installed over cords of any type. Improper installations of this type create the possibility of a fire hazard and/or personal injury.

RADIO AND TELEVISION INTERFERENCE

WARNING: Changes or modifications to this instrument not expressly approved by Young Chang could void your authority to operate the instrument.

IMPORTANT: When connecting this product to accessories and/or other equipment use only high quality shielded cables.

NOTE: This instrument has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This instrument generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this instrument does cause harmful interference to radio or television reception, which can be determined by turning the instrument off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the instrument and the receiver.
- Connect the instrument into an outlet on a circuit other than the one to which the receiver is connected.
- If necessary consult your dealer or an experienced radio/television technician for additional suggestions.

NOTICE

This apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

AVIS

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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System Software Versions 2.98 and 4.44 (Disk Partitioning)

Overview

This supplement describes the hard-disk-partitioning features included in system software versions 2.98 (for K2500s without the KDFX option) and 4.44 (for K2500s with KDFX).

K2500s with earlier versions of system software could address a maximum 2 G (gigabytes) of space on a SCSI hard disk. Although you could format a disk of any size for use with the K2500, only the first partition—up to 2 G—would be available to the K2500.

The K2500 can now address up to 8 G of hard-disk space, in 2-G partitions. This is true for any hard disk formatted with the DOS-compatible FAT-16 format. Hard disks larger than 8 G can be formatted to make 8 G (in four partitions) accessible to the K2500.

When properly partitioned, the K2500 files on your hard disk should be accessible to both the K2500 and your personal computer, if you're using one. Using a personal computer makes it much easier to manage your K2500 files. It also enables you to use other disk management tools on your K2500 partitions—for example, disk defragmenters and system integrity checkers.

We strongly recommend that you partition your hard disk from the K2500, although it's possible to partition it from a PC (see page 4).



Note: *Keep in mind that if you partition a hard disk, K2500s with previous versions of system software (as well as K2000s, and K2600s with Version 1 system software) will be able to use only the first partition of that disk.*

The remainder of this chapter consists of the following sections:

- Partitioning Your Hard Disk 1
- Working With Partitions 5
- Disk Mode 9

Partitioning Your Hard Disk

Once you've connected a hard disk drive to one of the K2500's SCSI ports, you're ready to begin partitioning. If you need information about using your K2500 and a PC together in a SCSI chain, see the following sections in your *Musician's Guide* (Rev G):

- *Connecting a SCSI Device*
- *SCSI Termination*
- *Using your K2500 in a SCSI System*

Partitioning is part of the formatting procedure. When you format a disk from the K2500, you can choose whether to add partitions. When partitioning a disk, the K2500 creates as many 2-G partitions as possible, to a maximum of 8 G (even if your disk is larger than 8 G, the K2500 formats only the first 8 G).



Note: If you happen to have a 2-G hard disk, you might wonder whether it's worth the effort to partition it. If you want the disk to be fully DOS/Windows-compatible, you should partition it. If DOS/Windows compatibility isn't important, partitioning isn't necessary (for example, when you know you'll never use the hard disk with a computer).

The last partition includes whatever disk space (up to the 8-G limit) remains after the last full 2-G partition is formatted. The last partition is usually slightly less than 2 G, because each partition contains some data for disk management. For example, if you format a new 10-G hard disk from the K2500, you end up with three 2-G partitions, and a fourth partition of slightly under 2 G. The K2500 doesn't format the remaining 2 G. You may be able to use a personal computer to format the remaining space for use with that computer. See *Partitioning Large Disks* on page 5.



Note: There are two schools of thought about describing the size of storage devices. Some people think of a kilobyte as 1,000 bytes, and others think of it as 1,024 bytes (which is the actual number). If you consider a kilobyte to be 1,000 bytes, then a gigabyte is 1,000³, or a billion bytes. If you think of a kilobyte as 1,024 bytes (as we do), a gigabyte is 1,024³, or 1,073,741,824 bytes. So a 2-G partition stores about 2.15 billion bytes, which you might prefer to think of as 2.1 G.

Doing a Hard Format

There are two kinds of formatting: we'll call them normal formatting and "hard" formatting. Normal formatting is what usually happens when you format a disk. Although normal formatting makes an entire hard disk accessible for data storage, it doesn't actually *delete* files; instead, normal formatting deletes underlying system-level data about how and where the files are stored. Although this makes the files on the disk unusable, much of the files' contents remain on the disk (that's why you can often recover a file even after you've deleted it).

Hard formatting physically erases every bit of data on the disk. Once a disk is hard formatted, there's no data to recover; it's completely blank, and must be formatted normally before it can store data again. Hard formatting can sometimes make a corrupted disk usable, or make it easier to use a disk on a different operating system.

The *first* time you format a disk for use with the K2500—whether it's new or previously formatted with a computer—you should begin with a hard format, then format it normally with the K2500. (You should do this because any residual file data left by normal formatting could cause the K2500 to miscalculate partition boundaries.)

Any time you're using a PC or a Mac to format or reformat a disk for use with the K2500, you should start with a hard format to remove residual file data.

When using the K2500 to reformat a disk or partition that's been formatted *with the K2500*, you can probably skip the hard format, unless you're having problems saving and loading files.

The time required for hard formatting varies widely depending on the hard disk. Newer drives in the 10-G range will generally take from 30 to 60 minutes, although your results may differ.

1. Press the **Disk** mode button to enter Disk mode.
2. Select the Current Disk parameter, if necessary, then select the SCSI ID of the disk you want to format.
3. Press the **Chan/Bank** buttons simultaneously. You'll see several prompts asking you whether you want to do a hard format.
4. Answer **Yes** in each case. The display informs you when formatting begins. When it's finished, the display returns to Disk mode.

The Partitioning Procedure



Caution: This procedure destroys all data files on the disk. Before formatting, make sure to back up any data that you want to preserve.

1. If you haven't already done a hard format, do so now, as described in the preceding procedure. Doing a hard format is important for ensuring data integrity. When the hard format is complete, the K2500 returns to Disk mode, and you can proceed with Step 2.
2. Press one of the **more** soft buttons until you see the **Format** soft button. Press it. The display prompts you to decide whether to format the disk. Press **Yes**.
3. The display prompts you to choose whether to *partition* the disk. Press **Yes**.
4. The display prompts you with a reminder that formatting erases everything on the hard disk, and asks whether you want to continue. Press **Yes**.
5. The display shows **Formatting Drive X with N Partitions**. X is the SCSI ID of the disk, and N is the number of partitions that the disk will contain. This is the last chance to abort the formatting process. If you do a soft reset while this message is visible, you'll cancel the format. Each partition takes about 30 seconds to format.

When Disks Are Already Partitioned

If the hard disk you've selected for formatting is already partitioned, the display you see at Step 2 prompts you to decide whether to reformat the entire disk. Press **Yes** if you want to reformat the whole disk, then proceed with Step 3.

If you don't want to reformat the entire disk, press **No** at Step 2. The display prompts you to decide whether to format a single partition. Press **Yes**, and the display prompts you to select a partition to format. By the way, this is a quick method for deleting all the files in a single partition.

Partitioning With a Computer

You can partition disks for the K2500 using a DOS-capable computer that's compatible with the FAT-16 file format. This works well on DOS and Windows machines (consequently that's the focus of this description). We don't have any reliable recommendations for partitioning disks with a Macintosh.⁶ Nevertheless, there's some Mac-specific information beginning on page 8.

Partitioning with a PC gives you greater flexibility in defining the number and size of partitions on your hard disk. Unless this flexibility is extremely important to you, however, we strongly recommend that you use the K2500 to partition your hard disk for use with either a PC or a Mac. Our tests show that this provides the greatest cross-platform compatibility.

For example, partitions created by the K2500 are visible to any PC that's compatible with the FAT-16 file format. These partitions are also visible to any Mac running System 8.5 (or later), and version 3.0.2 (or later) of the File Exchange extension. On the other hand, partitions created on a PC are less likely to be accessible on older Macs.

Formatting from the PC requires **FDISK**, a disk-partitioning utility that's built into Windows 95 and Windows 98.

1. If you haven't already done a hard format, do so now, as described on page 3. Doing a hard format is important for ensuring data integrity. When the hard format is complete, the K2500 returns to Disk mode, and you can proceed with Step 2.
2. On the PC, start **FDISK** by typing **FDISK** at a DOS command prompt (or in the Run menu). **FDISK** prompts you to decide whether to enable support for large hard disks.
3. Respond with **N** (No), because you don't want support for large hard disks (although **FDISK** doesn't mention it by name, large-hard-disk format is *FAT-32*—answering **No** specifies *FAT-16* format, which is compatible with the K2500).
4. Use Menu Option 5 to select the drive to format.
5. Use Menu Option 1 to create a primary partition. Specify a size up to 2 G.
6. When the primary partition is complete, choose Option 2 to create an extended partition. At the prompt, select any size (up to the 8 G limit; including the primary partition), or select the default size to use the remainder of the drive for the extended partition. Press **Escape** to begin partitioning. When the partition is complete, you'll have the opportunity to create one or more logical drives within the extended partition (as described in Step 7). The K2500 recognizes each of these logical drives as a separate partition).
7. When the extended partition is complete, you'll see a prompt asking you to specify the size for a logical drive. Specify a size up to 2 G, then press **Escape**. When the logical drive is complete, the prompt returns. Repeat this step until you've used the remaining space in the extended partition. Each of these partitions (logical drives) gets a drive letter as you create it. Keep track of these, because you'll need to format each partition. At any time in this process, you can use **FDISK** Menu 3 to display the current list of partitions.
8. When you're finished partitioning, press escape several times to exit **FDISK**.
9. Restart the computer.
10. Format each of the new partitions (using the drive letters you created with Steps 5 through 7). You can do this from the DOS prompt, or from Windows Explorer.

Partitioning from a PC is more time-consuming, but gives you more control over the number and size of your partitions.

Partitioning Large Disks

The K2500 can address a maximum of 8 G of disk space, so there's not much point in connecting a larger disk to the K2500—unless you like to do a bit of hacking, in which case you may be able to use a personal computer to format the extra space for use with that computer.

There are several disk-formatting utilities available for the Mac and PC. You may be able to use one of these (including **FDISK** for the PC) to format a large hard disk with 8 G of space for the K2500, and additional space that's accessible to your computer.

Working With Partitions

Once your hard disk is formatted and partitioned, you should verify each partition before attempting to store files. The quickest way to do this is to execute a **Load** command for each partition. If the K2500 can read the disk (even though there are no files), the partition is OK. The display informs you if there's a problem addressing the partition.

Once you've verified each partition, you can start using the disk with your K2500, and optionally with a personal computer. If your disk is attached to the K2500 and nothing else, you'll interact with the hard disk exclusively through Disk mode. If you're in Disk mode and you can't get to a partition, try reformatting the partition (see *When Disks Are Already Partitioned* on page 3). If that doesn't work, do a hard format on the disk, then format and partition it again.

If your hard disk is also attached to a computer, the computer should be able to address each partition. PCs can address each partition as an individual drive (at a DOS prompt or via icons in Windows), while Macs display a file icon for each partition.

Having a computer hooked up to the hard disk gives you another way to verify the formatting and partitioning of the disk. Look at the disk from the K2500, then from the computer. If they don't have the same partition data (number of partitions, size of each partition), you could have a formatting problem. In this case, you should start over by doing a hard format, then proceeding to formatting and partitioning.

Managing a SCSI Chain that Includes a Computer

If you create a SCSI chain that contains both a K2500 and a computer, you'll need to use caution to prevent file corruption. We'll explain how this risk of file corruption occurs, then describe how to avoid it.

When you boot up your computer, it addresses the SCSI devices to which it's connected, and attempts to mount every SCSI device whose format it recognizes. While mounting a disk, the computer examines the disk's file allocation table (FAT). The FAT contains the locations of all the data on the disk. Consequently, the FAT gets updated every time you write data to the disk. Here's where the risk of file corruption occurs.

When you write to your hard disk from the K2500, the K2500 updates the disk's FAT. But there's no way to instruct the computer that the FAT has been changed, so the K2500 and the computer have different versions of the disk's FAT. If you write to the disk from the computer at this time, you run the risk of writing over the data you just stored from the K2500.

You can eliminate this risk by ensuring that the K2500 and the computer have the same version of the disk's FAT before writing from the computer. The most foolproof way to ensure this is to adopt the following rule: *Whenever* you write to the hard disk from the K2500, unmount and remount that disk before writing to it from your computer. If it's a removable-media drive, ejecting the disk and reinserting it will update the computer's version of the FAT.

You might be able to unmount and remount the hard disk from the desktop, or using a software utility—or you might have to restart the computer. If you're using Windows 95 or 98, you can probably designate the hard disk as a removable-media disk (as described below), which is convenient because Windows machines always read the FATs of removable-media disks before writing to them.

Designating a Disk as a Removable-Media Disk (Windows 95 and 98 only)

1. On your PC, run the Device Manager.
2. Expand the Disk Drives category.
3. Double click icon for the K2500's internal hard disk to bring up the Properties dialog.
4. Select the **Settings** tab.
5. Check the **Removable** checkbox.

Unfortunately, Microsoft removed this feature in Windows 2000—that is, it doesn't automatically read the FATs of removable-media disks before writing to them. Consequently, you have two choices regarding writing to your hard disk from the K2500. If you're content to continue using Windows 95 or 98, we recommend that you designate the hard disk as a removable-media drive, and unmount/mount the disk every time you write to it from the K2500. If you want to use Windows 2000, you'll have to use the following procedure every time you write to your hard disk:

1. Open the Device Manager.
2. Disable the drive that corresponds to your hard disk.
3. Enable the drive again, which causes the computer to read the FAT.

Configuring Device Drivers

PCs running Windows 95 or Windows 98 require a SCSI driver for every device in a SCSI chain. There is no SCSI driver for the K2500, because it's not required for normal SCSI operations. Consequently, the first time you boot up your PC after connecting it to the K2500 via SCSI, you'll need to do some configuring to enable the PC to recognize the K2500. This configuration isn't required, but it enables the PC and the K2500 to interact more smoothly.



***Note:** When this supplement was published, we hadn't tested the disk-partitioning feature with Windows 2000. If you're running Windows 2000, you may need to configure a device driver for the K2500 before your PC can recognize the K2500.*

A Bit of Background

When you start up your PC, Windows scans the PC's SCSI port(s) for connected devices. For each SCSI device it finds, Windows checks a set of entries in the Device Manager, to verify that the appropriate SCSI drivers are installed. Windows 95 and 98 require that the Device Manager contains an entry for each SCSI Logical Unit of each SCSI device. The K2500 has eight possible SCSI IDs (0–7), so your Device Manager should contain eight entries corresponding to the K2500. Each of these entries must specify a valid SCSI driver—otherwise Windows will report one or more unknown devices as it boots up.

The K2500 requires no SCSI drivers for disk operations, but Windows 95 and 98 require them nonetheless. You can satisfy this requirement by specifying a generic “Unsupported Device” Windows driver for each of the K2500’s entries in the Device Manager. The following procedure describes how.

The Configuration Procedure

We’ll assume you’ve already connected your K2500, your PC, and your hard disk in a SCSI chain (with whatever SCSI termination is required), and that everything is powered down.

1. Power up the hard disk. Wait until it’s fully up to speed.
2. Power up the K2500. Wait until it reaches Program mode.
3. Power up your PC. During the boot-up process, Windows detects the K2500 as an unknown SCSI device. The Update Device Driver Wizard appears, prompting you to specify a SCSI device driver to install.
4. Make sure that the PC’s floppy and CD-ROM drives are empty and click **Next**—that is, proceed without specifying a SCSI driver.
5. The PC displays a dialog informing you that Windows did not locate a driver for the SCSI device. Click **Finish** to proceed without installing a driver.
6. Repeat Steps 4 and 5 seven times—once for each of the K2500’s remaining SCSI Logical Units. When you finish the last dialog, Windows finishes booting up.
7. Start the Device Manager (in the Start menu, select **Settings**, then **Control Panels**).
8. Select the **System** icon in the Control Panels window.
9. Select the **Device Manager** tab in the System Properties window.
10. Click the icon for **Other Devices**. You’ll see the eight entries for the K2500. Note the exclamation marks, indicating problems with the corresponding device drivers.
11. Double-click on one of the entries. This opens the Properties window for that entry.
12. Click the **Drivers** tab. The status for this entry indicates that the driver isn’t working properly, and that the driver files either are not required or haven’t been loaded.
13. Click **Update Driver**. This opens the Update Device Driver Wizard, which asks whether Windows should search for the driver.
14. Select the option **No, select driver from list**, then click **Next**. A list of driver types appears. The default is **Other devices**.
15. Click **Next** to accept the default. A list of devices appears. The default is **Unsupported device**.
16. Click **Finish**. This “installs” the driver and returns to the Properties window for the current entry.
17. Click **Close**, which returns you to the Device Manager.
18. Repeat Steps 11 through 17 for the remaining entries.
19. Close the Device Manager and Control Panels window.

There's a page on our website where you can find more information about including a K2500 and a PC in a SCSI chain:

http://www.kurzweilmusicsystems.com/html/scsi_help.html

If a Partition is Inaccessible

On the PC

You're not likely to have problems addressing K2500 partitions from your PC, especially if you created those partitions on the K2500 itself. If you can't mount a partition on your PC, try reformatting the partition, using the K2500. If that doesn't work, do a hard format, then format and partition the disk again.

On the Mac

System 8.5 or later—when used with the File Exchange extension—supports DOS partitions, so you should be able to view partitions as file icons. If they aren't visible, try reformatting the partitions using the K2500

If you're running an operating system older than 8.5, your Mac will probably not be able to address the last partition on the disk. If you have the Formatter 5 utility from Software Architects, you may be able to make the last partition visible (we can't guarantee that this will work):

1. Start with a hard format (see the procedure on page 3).
2. Format the disk with Formatter 5 (see the Formatter 5 instructions).
3. Use Mac/PC manager (a utility provided with Formatter 5) or DOS Mounter 95 (also available from Software Architects) to view the partitions.

Other Macintosh Issues

There are several things to keep mind when attempting to use a Mac with disks formatted for the K2500.

First, we recommend using MacOS 8.5 or later, and version 3.0.2 (or later) of the File Exchange system extension. This combination has given the best results, especially for disks formatted with the K2500. With this configuration you can read most partitioned DOS disks, but you can't format them.

On Macs running operating systems prior to 8.5, you can use Formatter 5 (and its accompanying extension, Mac/PC manager). these work reasonably well for formatting and reading small disks. Results are unreliable for disks larger than 2 G, however. Formatter 5 often has trouble reading any partition but the first, even on disks formatted with the K2500. You might also try DOS Mounter 95, also available from Software Architects.

Disk Mode

Disk mode has changed slightly to accommodate support for partitions. The changes affect several operations to varying degrees. We've already discussed the changes to the formatting/partitioning procedure (see page 1); this section describes the changes to other Disk-mode operations.

Basic Operations

This is how the Disk mode page looks when you're viewing a hard disk. Note the partition ID (0, which indicates the first partition), which is included in the path information. The partition ID for unpartitioned disks is always 0. There's no real limit to the number of partitions your disk can contain; the K2500 should be able to read all of them. Nevertheless, 20 or so partitions is a reasonable maximum.

```

DiskMode Memory:478K
Path = \NPROGS\FILTERS

CurrentDisk:SCSI 1 Startup:Off
Direct Access, 10000MB Library:Off
MegaDisk 10 Verify :Off
J.02
<more> Rename Move Util NewDir more>

```

The K2500 records path information up to the disk level. In other words, the K2500 tracks your movement within directories and partitions (but not from disk to disk). As long as you're addressing the same disk, the K2500 has all the information it needs to load or save files (or any other Disk-mode command).

When you select a different disk, the first command you execute causes the K2500 to prompt you to select a partition. Once you do so, you won't see the prompt again until the next time you change disks and execute another command.

The following table summarizes the changes (if any) in the twelve disk operations:

<i>Load</i>	<i>Support for selecting different partitions; see Navigation on page 10.</i>
<i>Save</i>	<i>Support for selecting different partitions; see Navigation on page 10.</i>
<i>Macro</i>	<i>Macro IDs include partition IDs; supports multi-disk macro files. See page 11.</i>
<i>Delete</i>	<i>Support for selecting different partitions; see Navigation on page 10.</i>
<i>Backup</i>	<i>Support for backups across partitions, and between directories within partitions. See page 10.</i>
<i>Copy</i>	<i>Support for copies across partitions, and between directories within partitions. See page 10.</i>
<i>Sleep</i>	<i>Unchanged (puts current disk to sleep, or ejects removable media).</i>
<i>Format</i>	<i>Support for multiple partitions; see Partitioning Your Hard Disk on page 1.</i>
<i>Rename</i>	<i>Support for selecting different partitions; see Navigation on page 10.</i>
<i>Move</i>	<i>Unchanged (you can't move files across partitions; see Backups and Copies)</i>
<i>Util</i>	<i>Several changes; see Utilities on page 10</i>
<i>NewDir</i>	<i>Support for selecting different partitions; see Navigation on page 10</i>

Navigation

Many disk-operation dialogs (the Save dialog, for example) include file lists, where you select the file to save, delete, copy, or whatever. Any time you're navigating through the directories in a file list, you can select a different partition.

1. Press the **Root** soft button to select the root directory for the current partition. The path information in the top line of the display will look something like **Dir: 0**. The **0** (or some other numeral) is the partition ID, and the backslash (\) denotes the root directory. (You can also press **Parent** one or more times to get to the root directory.)
2. Press **Root** or **Parent** to display the partition selector, which prompts you to select a partition to mount.
3. Select a partition ID, then press **OK**.

The quickest way to get to the partition selector is to press **Root** twice in succession. This brings you to the partition selector from anywhere in the file list.

Backups and Copies

You can use the Backup and Copy operations to copy files to different partitions on the same disk, or even to some directories within the same partition (prior to version 2, Backup and Copy worked only from one SCSI device to another).

You can always back up or copy files to a different partition, regardless of location. If you're backing up or copying to the same partition, there's a restriction: you can't back up or copy to the same directory, or to a subdirectory of the current directory (you *can* back up and copy to parent directories, however).

For example, suppose you had several program files in the root directory of a partition, and you wanted to copy some of them to a directory called PROGS, also in the root directory. You couldn't use Backup or Copy to make copies of the programs in the PROGS directory, but you could use Move to *move* them into PROGS, then use Backup or Copy to make copies of them in the root directory.

Utilities

Pressing the **Util** soft button displays the DiskUtil page, which now includes a soft button labeled **Part'n** (if your hard disk is 2 G or smaller, you won't see the **Part'n** soft button). Pressing this button displays a prompt asking you to select a partition (like pressing **Root** or **Parent** when you're in the root directory).

Info

The disk report that you see when you press the **Info** soft button includes the total number of K2500 partitions on the disk, and which partition you're currently viewing. This information is on the last line of the second page of information.

Free

Pressing the **Free** soft button displays the free space on the current partition (not on the entire disk, as with earlier K2500 operating systems). There are three components to the free-space information: percentage used, kilobytes free, and total kilobytes.

If you change partitions while the free-space information is visible, the K2500 automatically calculates and displays the free-space information for the new partition. Exiting the DiskUtil page disables this automatic updating until the next time you use the Free utility.

List

The List utility is a convenient way to view the directories and files on your hard disk. It's also a time saver for disk operations. When you press **List**, the display shows a hierarchical listing of all the files and directories in the current partition (this can take a while, depending on the size and complexity of your directories). Directory names are followed by a backslash (\).

Use the **Up** and **Down** cursor buttons to select different objects in the list. The index number on the far right of the display's top line shows where you are in the list (each object is numbered according to its position in the directory hierarchy). Using the cursor buttons, you can quickly find files on the hard disk without having to change directories.

Changing partitions while using the List utility resets the index number to 1. In other words, no matter where you are in the list for the current partition, if you change partitions you'll start at the first entry in that partition's list.

You can use the alphanumeric buttonpad to navigate through the list. Press the index number you want to view, then press **Enter**.

Use the **Up** and **Down** *soft* buttons (not the cursor buttons) to navigate through the partition. Pressing **Down** when a directory is highlighted takes you into that directory (pressing **Down** when a file is highlighted doesn't do anything). Pressing **Up** always takes you to the parent directory of the current directory (if you're at the partition's root directory, the K2500 prompts you to select a partition.). As you've probably guessed, pressing **Root** takes to the root directory of the current partition.

Press the **Go To** button to change the current path to the highlighted directory (or to the directory that contains the highlighted file). You'll save a lot of time if you use the List utility to navigate to the desired directory before executing a command (instead of executing the command first, then navigating to the desired directory in the resulting dialog).

Macros

To support partitions, each macro entry now has a partition ID, which is recorded when you create the macro. The partition ID is part of the macro entry's name; it appears after the SCSI ID. You can view macro entries (if there's a current macro table) by pressing the **Macro** soft button while in Disk mode.

When editing a macro entry (using the Modify option on the MACRO function page in Disk mode), you can edit the partition ID along with other properties of the entry. If you change the partition ID of a macro entry, make sure it's a valid partition ID.

Support for Multiple Removable Disks

This convenient enhancement enables you to use a single macro to load files from different removable disks.

1. In Disk mode, press **Load** to begin the Load dialog. You'll see a prompt asking you to select a file to load.
2. Select the macro file to load, and press **OK**. The K2500 displays a prompt asking you to select a bank for loading the macro.

Disk Mode

3. Select a bank (or select **specified** or **Everything**), and press **OK**.
4. The K2500 begins loading files. When it tries to load a file that's not on the disk, the display shows you the name of the file that it couldn't find. Press **OK**.
5. Another prompt asks you if you want to retry loading after changing disks. Press **Yes**.
6. Change the removable disk, and press **OK**, as instructed by the prompt in the display. The K2500 resumes loading files according to the macro entries.
7. Repeat Steps 4 through 6 as often as necessary to load all the files specified by the macro. The display returns to the Disk-mode page when loading is complete.

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