VPM-6248T

USB 2.0 5.25-inch
External Enclosure
with MobileRACK

User's Manual

PROPRIETARY NOTICE

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USB 2.0 5.25" External Enclosure with MobileRACK
VPM-6248T User's Manual

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Contents

1. Introduction

Congratulations on your purchase of the VPM-6248T USB 2.0 5.25-inch External Enclosure with MobileRACK. Enabling portability and high-speed USB 2.0 interface compatibility with IDE and ATAPI devices, the VPM-6248T is the perfect solution for data backup, transporting data, and adding more storage space to USB-equipped computers.

Its hot-swapping and Plug-n-Play features give you a great convenience on the road, where it can be connected and disconnected without powering down your system. It is USB 2.0/1.1 compatible and works with any USB-equipped PC, notebook or Mac computer.

The VPM-6248T USB 2.0 5.25-inch External Enclosure is factory configured with a MobileRACK. It enables convenient, portable, hot-swapping of any 3.5-inch IDE or ATAPI device (mounted in the MobileRACK drive tray) to interface with any USB-equipped computer.

Note:

In order to reach USB 2.0 480 Mbps speed, your computer must have a host adapter card with USB 2. 0 support. The VPM-6248T will auto detect the speed of your USB port and adjust between USB 1.0 and USB 2.0 speed.

1-1 Features and Specifications

VPM-6248T External Enclosure

- Provides a high-speed serial data connection between IDE devices and USB 2.0 equipped computers

- Fully compatible with both USB 2.0 and USB 1.1 standard specifications

- Compatible with 5.25-inch IDE devices and all ViPowER VP-10 and VP-410 series MobileRACKs

- Supports USB 2.0 transfer rates up to 480 Mbps. (Your system must have USB 2.0 host port(s) and USB 2.0 driver installed for the VPM-6248T to perform at USB high speed)
- USB 2.0/IDE compliant
  - Integrated USB transceiver
  - High-speed (480 Mbps) and full speed (12 Mbps) support
  - USB suspend/resume, remote wake up support
- Supports ATA PIO modes 0-4: ATA interface operation mode is automatically selected during device initialization or manually programmed with configuration data
- Supports Ultra DMA modes 0-4
- Supports 48-bit LBA (large HDD), when the VPM-6248T connects with one 3.5" HDD installed in the mobileRACK
- Power and drive activity LEDs
- Drive enclosure made of metal to aide in heat dissipation
- Built-in cooling fan
- Adjustable temperature control sensor to reduce fan noise
- Works with USB-equipped PC, Notebook and Mac computers

MobileRACK

- Enables portable use of 3.5-inch hard disk, MO, TR-4 tape, zip and other IDE and ATAPI devices
- Convenient pull-out handle
- Safety latch-lock feature
- LED indicators for power and drive activity
- Includes MobileRACK docking case and drive tray

Operating Systems

- Windows Me/2000/XP – no drivers required (software drivers for Windows 98SE included)
- Mac OS 9.0 or later (software drivers included)

1-2 Package Checklist

The USB 2.0, 5.25" External Enclosure VPM-6248T package contains the following items:
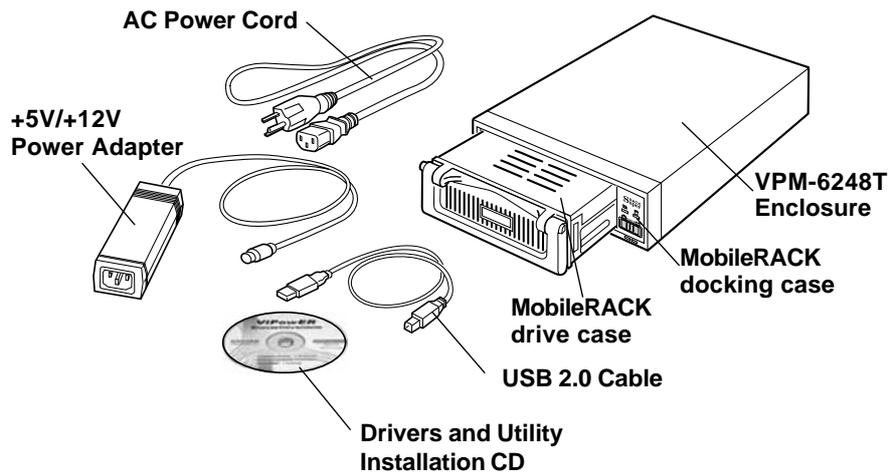
Package Contents

1. VPM-6248T Enclosure assembled with one MobileRACK docking case

2. One MobileRACK drive case

3. One USB 2.0 cable

4. One +5V/+12V power adapter

5. One power adapter power cord

6. Package of screws

7. One "Drivers and Utility Installation" CD and User's Manual

   If any of these items are missing or damaged, please contact your dealer or sales representative for assistance.

2. Hardware Installation
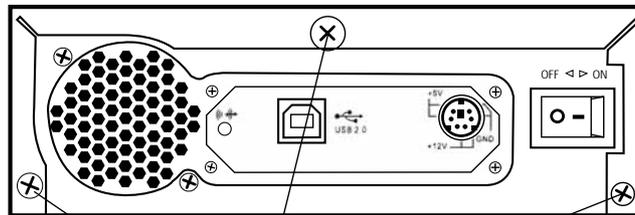
2-1 Temperature Control Jumper Settings

Jumpers JP7 and JP8, located on the rear PCB panel of the VPM-6248T, are used to set the cooling fan for controlling the operating temperature. *The default setting is JP8 pins 1-2 ON, JP7 OFF. This sets the cooling fan to always run continuously to disperse heat when power to the VPM-6248T is ON.*

The default setting means that when the power to *only* the MobileRACK is switched OFF, the cooling fan will still continue to run. There will always be the continual noise from the cooling fan that is mounted in the VPM-6248T enclosure.

To provide a quieter working environment, the VPM-6248T is designed with a built-in adjustable temperature control sensor which can be set through jumpers. When the operating temperature set by the jumper is reached, the fan will automatically turn OFF.
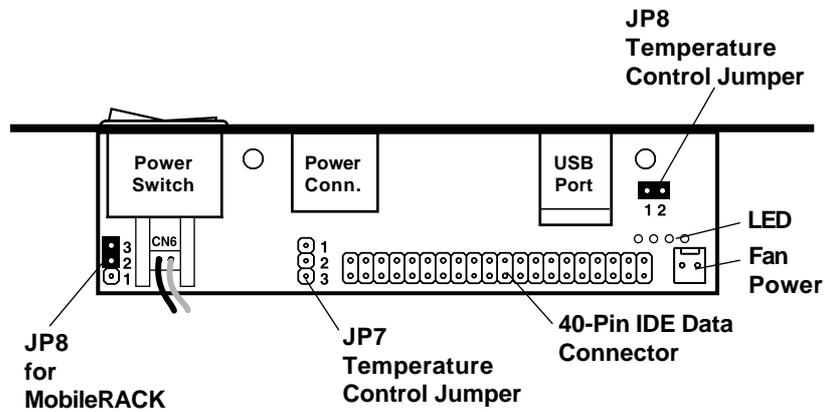
To access the jumpers, remove three screws on the back of the enclosure and slide the cover off.

Replace the cover after setting the jumpers.

Three Mounting Screws

Remove Mounting Screws to Remove Cover

JP8
Temperature
Control Jumper

Power Switch	Power Conn.	USB Port	

LED
Fan
Power

JP8
for
MobileRACK

JP7
Temperature
Control Jumper

40-Pin IDE Data
Connector

Temperature Control Jumper Locations

The following identifies the jumper options for setting the operating temperature for the cooling fan.

Note: Only one jumper can be set at the same time.

| JP7	JP8	Temperature
(Clear) ○1 ○2 ○3	**1-2 :ON** ▦ 1 2	**(Default)**
1-2 :ON ▦ 1 2 3	**(Clear)** ○○ 1 2	**50˚C**
2-3 :ON ○1 ▦ 2 3	**(Clear)** ○○ 1 2	**40˚C**
(Clear) ○1 ○2 ○3	**(Clear)** ○○ 1 2	**60˚C**

2-2 Configuration with the MobileRACK

The following information is for reference only. The VPM-6248T is factory configured with the MobileRACK docking case installed with these settings.

Jumper JP6, and CN6 with a 2-wire red-black cable connector, are located on the rear PCB panel of the enclosure. These enable operation of the MobileRACK with the VPM-6248T enclosure.
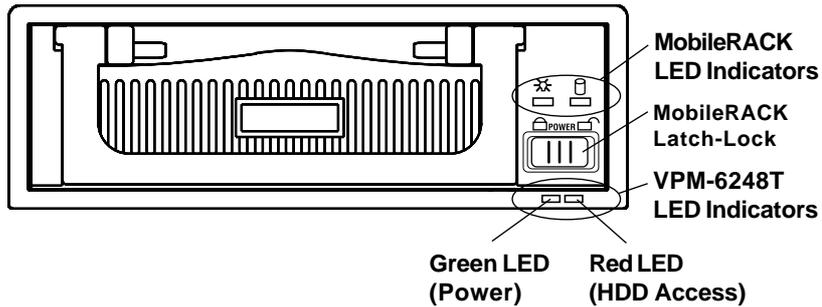
The default jumper setting for JP6: pins 2-3 ON.
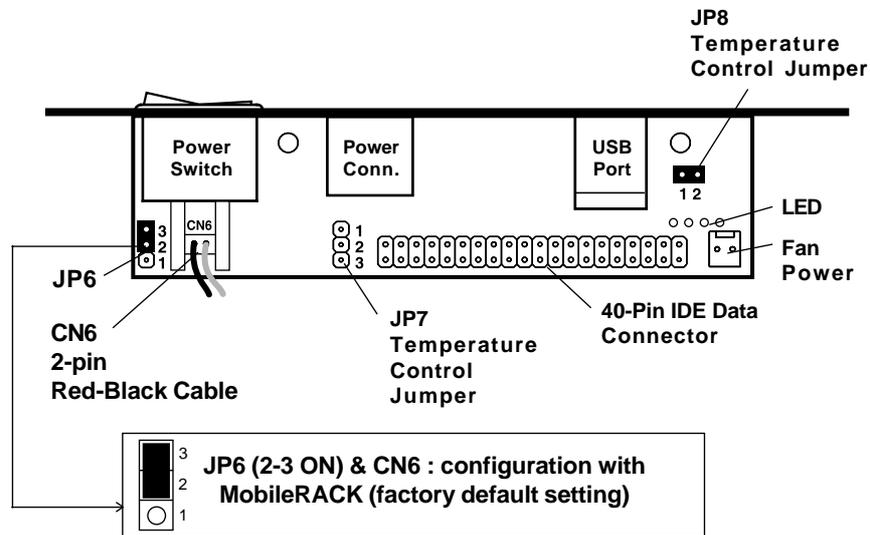
Factory Configuration with MobileRACK

2-3 LED Indicators

Red and green indicators are located on the front panel of the VPM-6248T External Enclosure. The *green* LED is lit when the power is ON. The *red* activity LED will flash when a HDD installed in the MobileRACK is being accessed.

VPM-6248T Front Panel with the MobileRACK

2-4 Mounting a 3.5-inch Drive in the MobileRACK

The VPM-6248T External Enclosure is factory configured with the MobileRACK already installed.

Although these instructions specify a hard disk installation, the steps are typical for mounting any device in the MobileRACK drive case.

Step 1.

Separate the MobileRACK drive tray from the drive case installed in the VPM-6248T External Enclosure by lifting the handle and pulling the drive tray out.

Remove the MobileRACK Drive Tray
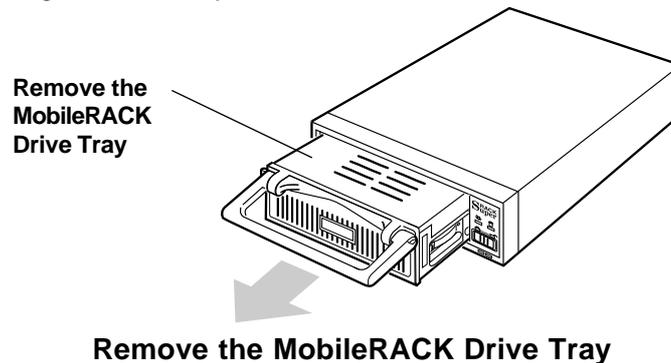
Step 2.

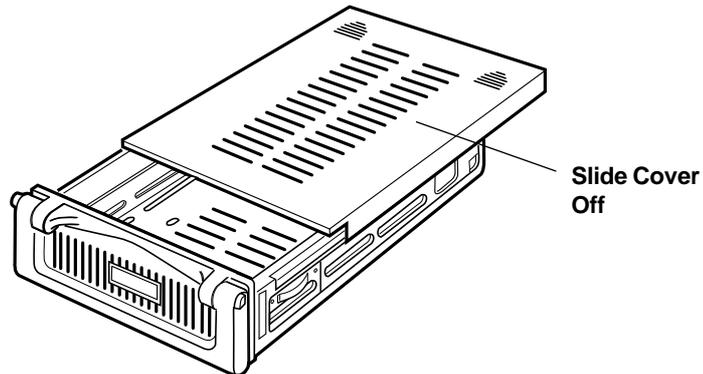Remove the drive tray cover by sliding it towards the back of the unit.

**Slide Cover
Off**

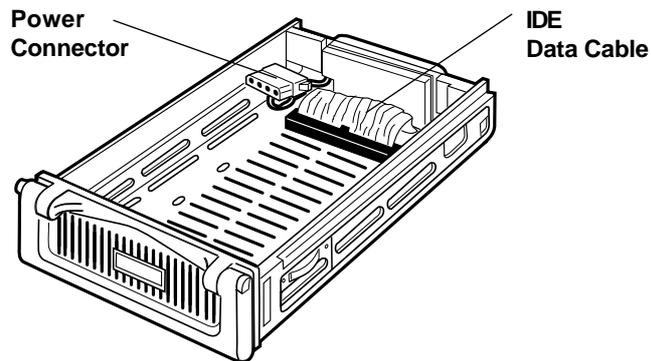**Remove the MobileRACK Drive Tray Cover**

Step 3.

If you plan to install a drive that features removable media such as a zip, TR-4 tape, MO, LS-120 drive, or ATA Flash memory reader, remove the center part of the front panel.

**Center Part
of Front Panel
Removed**
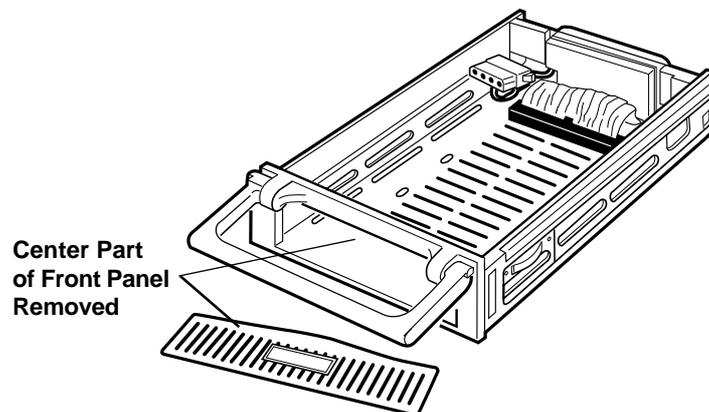
Remove Front Panel for Removable Media Drives

Step 4.

Connect the cables from the MobileRACK drive tray to the appropriate pin connectors of the 3.5" HDD. Attach the power and IDE cables from the MobileRACK tray to the 3.5" HDD. The colored stripe on the IDE cable should be closest to the power connector.

MobileRACK Drive Tray with Cover Removed

Step 5.

Carefully position the 3.5" HDD inside the MobileRACK drive tray. Secure the HDD in place using the supplied mounting screws. Use the mounting holes on the sides or bottom, depending on the design of the HDD.
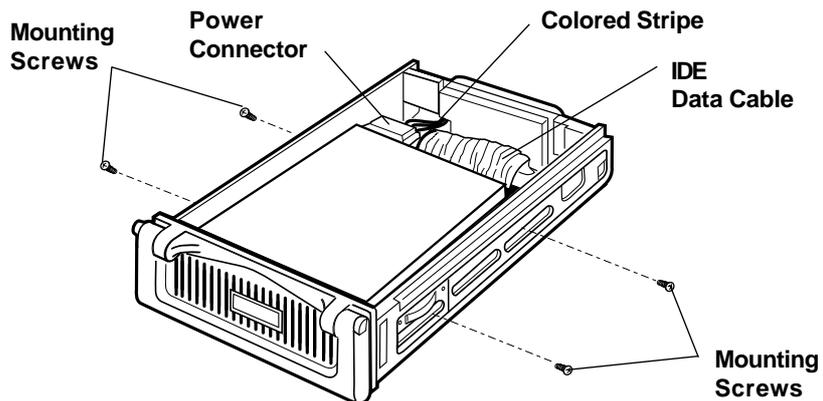
Mount the Drive in the MobileRACK Drive Tray

Step 6.

Replace the drive tray cover by sliding it back on.
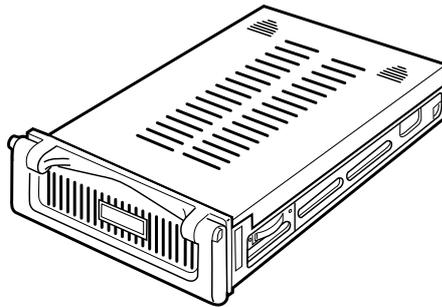
Replace the MobileRACK Drive Tray Cover

2-5 Connecting the VPM-6248T to a Computer

Computer Requirements

- USB or USB 2.0 equipped notebook or desktop computer
- Windows 98SE/Me/2000/XP, or Mac OS 9.0 or above

Proceed with the following steps to connect the VPM-6248T to your computer.

Step 1.

Insert the MobileRACK drive tray (with the 3.5" drive installed) into the MobileRACK docking case in the VPM-6248T External Enclosure. Push firmly until the tray is seated.
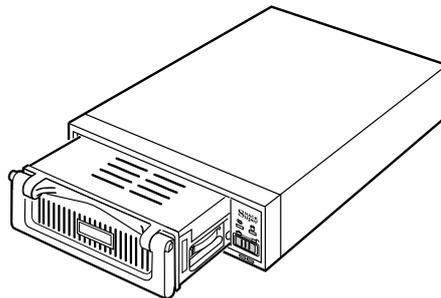
Insert Drive Tray into VPM-6248T Enclosure

Step 2.

Slide the latch-lock switch on the MobileRACK docking case **LEFT**, to **LOCK**.

**RIGHT
Unlock/OFF
Position**

**LEFT
Lock/ON
Position**

Slide the Latch-switch LEFT to LOCK
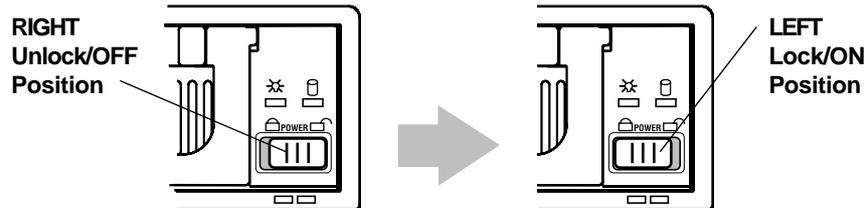
The latch-lock switch supports hot-swapping. The power to your computer can be ON when the MobileRACK drive tray is inserted or removed. Use the latch-lock switch to turn power to the MobileRACK ON (LEFT position) after inserting the drive tray, and OFF (RIGHT position) before removing it.

Notes

- **DO NOT remove the drive tray while the VPM-6248T external enclosure is working. Damage to data may result.**

- **The Latch-Lock switch located in the MobileRACK must be in the Lock (LEFT) position when in use. This prevents removal while working.**
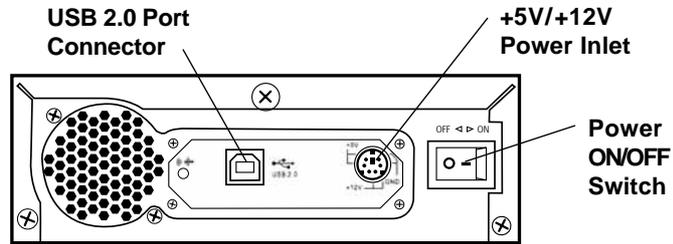
Step 3:

Turn your computer ON.

Step 4:

Connect the smaller USB connector end of the USB cable into the USB Port on the VPM-6248T External Enclosure.

Step 5:

Connect the Power Adapter Power Cord to the +5V/+12V Power Adapter. Then, plug one end of the power cord into an AC power outlet, and the other end to the power inlet of the VPM-6248T External Enclosure.

USB 2.0 Port Connector

+5V/+12V Power Inlet

Power ON/OFF Switch

VPM-6248T External Connector Locations

Power Adapter Power Cord

+5V/+12V Power Adapter

USB 2.0 Cable

Plug into AC Power Outlet

Plug into USB Port on Computer
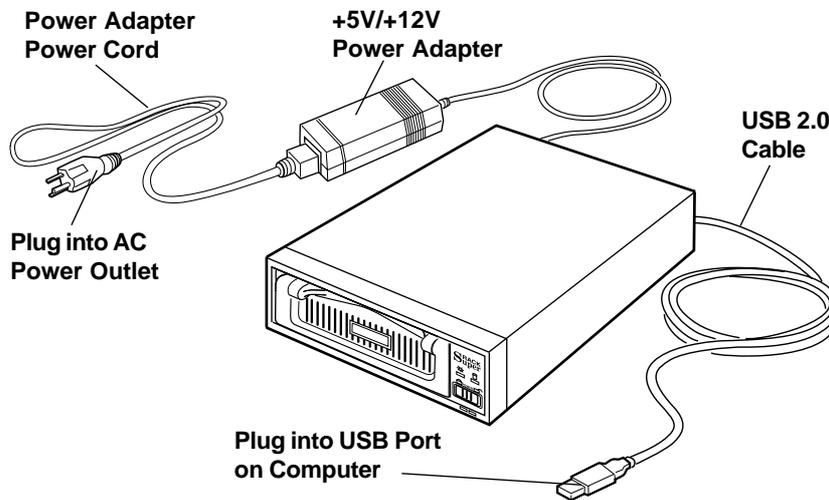
VPM-6248T Connections

Step 6:

Power ON your VPM-6248T External Enclosure. The LED indicators on the MobileRACK and external enclosure should light after a slight delay.

Step 7:

Plug the second USB connector end of the USB cable into a USB port on our computer. The VPM-6248T is ready to use.

Note:

This device will auto-detect the speed of your USB port and adjust between USB 1.0 and USB 2.0 speed once the driver is installed.

3. Driver Installation

After completing the hardware installation, refer to the following driver installation instructions for the operating system you are using.

3-1 Windows 98SE

If this is the first time using your VPM-6248T USB 2.0 External Enclosure, you must first run the [SETUP.EXE] from the USB 2.0 "Drivers and Utility Installation" CD after connecting it to your computer. Then proceed with the following:

Step 1.
Connect your VPM-6248T External Enclosure to an available USB port on your computer.

Step 2.
An "Add New Hardware Wizard" screen will appear.
Click [Next].

Step 3.
Select "Display a list of all drivers" then click [Next].

Step 4. Click [Browse].

Step 5.
Double click on the ViPowER CD icon of the [My Computer] directory.

Step 6.
Select "Win98" under the "Drivers" directory, then click [OK].
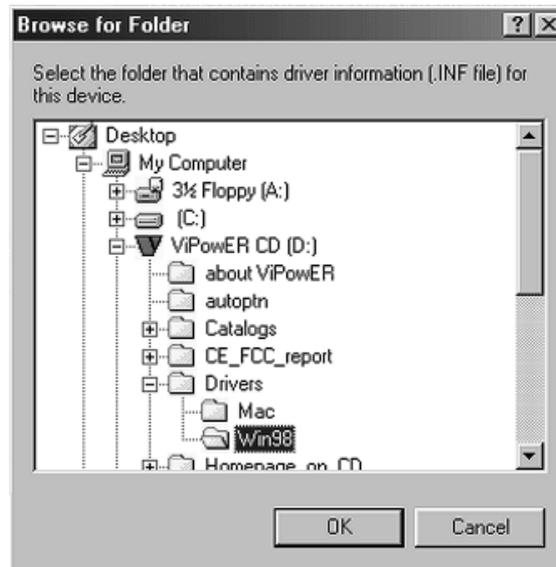
Step 7. Click [Next].

Step 8. Click [Next].

Step 9.
The system will request you to restart your computer. Click [FINISH].

Step 10.
After system restart, the installation is complete. You can now connect your VPM-6248T Enclosure to the computer. Double-click on [My Computer]. A new drive [Usbdisk] icon should have been added. This identifies the USB 2.0 External Drive you just installed.

Step 11.

A green *Unplug* or *Eject* hardware icon will also be added in the system tray.

Note:

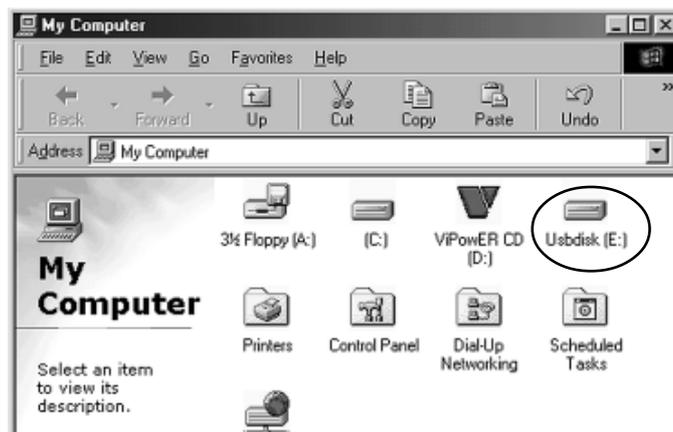**If a new drive does not appear in [My Computer], it means this USB 2.0 External Drive is a brand new hard disk drive which does not contain a partition. Please refer to Chapter 5 "Partitioning an External USB 2.0 Hard Disk" to prepare your USB 2.0 External Disk.**

3-2 Windows Me/2000/XP

When you plug the USB External Drive into your computer for the first time, the system will detect a USB 2.0 Storage Device and install the [USB Mass Storage Device] driver from system files automatically.

After the USB Mass Storage Device driver is installed, double-click on [MyComputer]. A new drive [Usbdisk] icon for the USB 2.0 External Drive should have been added.

Notes:

- **This USB 2.0 External Drive is supported by the Mass Storage Device Driver in Windows Me/2000/XP operating systems. You do not need to install any drivers.**
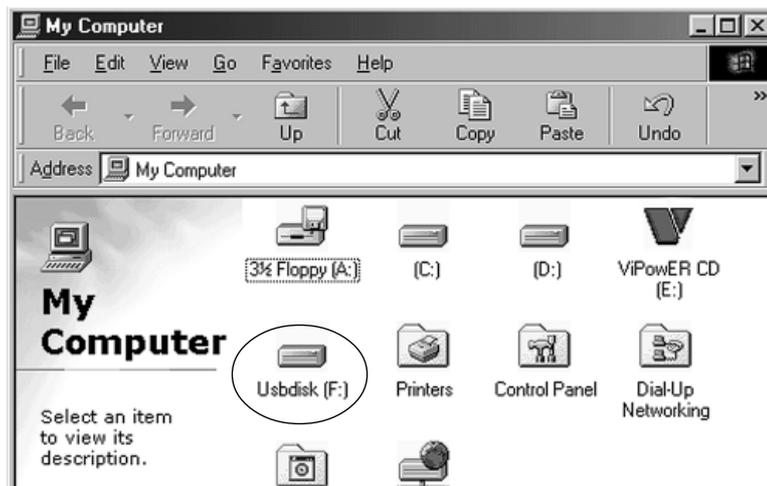
- **If the new drive does not appear in [My Computer], it means this USB 2.0 External Drive is a new hard disk drive which does not contain a partition. Please refer to Chapter 5 "Partitioning an External USB 2.0 Hard Disk" to prepare your USB 2.0 External Disk.**

3-3 Mac OS

The VPM-6248T USB 2.0 External Drive is supported by Mac OS 9.X or above Mass Storage Support.

When you plug the VPM-6248T USB 2.0 external drive into a USB port of your Mac computer, the mass storage volume should automatically appear on the desktop in a few seconds.

4. Using the VPM-6248T External Enclosure

After the first installation of the driver, you can thereafter connect or disconnect the VPM-6248T External Enclosure without powering off the computer.

Please follow the steps below when using the VPM-6248T.

These steps assume that the MobileRACK drive tray (with drive installed) is already inserted in the VPM-6248T enclosure and the latch-lock is in the lock position.

4-1 Connecting the VPM-6248T to Computer

Step 1:
Turn your computer ON.

Step 2:
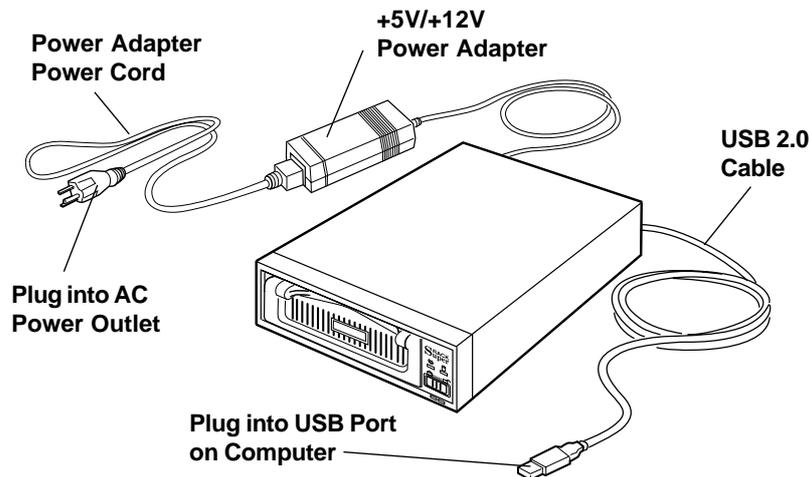Connect the USB cable to the VPM-6248T and your computer.

Step 3:
Connect the power cord/power adapter to the VPM-6248T and AC power outlet.

Step 4:
Turn the power of the VPM-6248T ON. The VPM-6248T External Drive is ready to use.

Power Adapter Power Cord

+5V/+12V Power Adapter

USB 2.0 Cable

Plug into AC Power Outlet

Plug into USB Port on Computer

VPM-6248T Connections

4-2 Disconnecting the VPM-6248T from Computer

Windows 98:

Step 1:

Double-click the green *Unplug* or *Eject* hardware icon in the system tray and click the drive that you want to remove [USB Mass Storage Device] and click on [STOP].

Step 2:

When the system prompts 'Confirm device to be stopped', click [OK]. When the green arrow icon disappears, you may safely unplug the VPM-6248T External Drive from the computer.

Step 3:

Switch the power on the VPM-6248T External Drive OFF.

Windows Me/2000/XP

Step 1:

Double-click on the *Unplug* or *Eject* hardware icon in the system tray. A dialog box appears.

Step 2:

Highlight the [USB Mass Storage Device] in the dialog box, click [STOP]. Choose the USB 2.0, 5.25" External Enclosure VPM-6248(T) that you want to disconnect, then click [STOP] again on the next screen.

Step 3:

When the system prompts "You may safely remove this device", disconnect the VPM-6248T External Drive from the computer and switch the power OFF.

Mac OS

When disconnecting your VPM-6248T USB 2.0 External Drive from a Mac computer, first close all windows and quit all running applications that are stored on the VPM-6248T External Drive. Next, drag the USB 2.0 External Drive's icon into the "Trash" to dismount it from the Desktop. You can now safely disconnect the USB 2.0 External Drive from the USB port.

CAUTION!!

Do not unplug the USB 2.0 External Drive from the USB port of your computer or HUB while copying files to/from the device or while files or applications stored on the USB 2.0 External Drive are in use.

DOING SO MAY RESULT IN LOSS OF DATA.

4-3 Using the MobileRACK Drive Tray

The VPM-6248T External Enclosure enables convenient plug-n-play hot-swapping of 3.5-inch IDE or ATAPI devices (mounted in MobileRACK drive trays) with any USB-equipped computer. Multiple drive trays with different devices installed can be used interchangeably as needed.

Refer to the following rules for inserting/removing drive trays:

- The power to your computer can be ON when any MobileRACK drive tray is inserted or removed

- Slide the latch-lock switch LEFT to lock/ power-on the MobileRACK after inserting the drive tray

- Slide the latch-lock switch RIGHT to unlock/power-off the MobileRACK before removing the drive tray
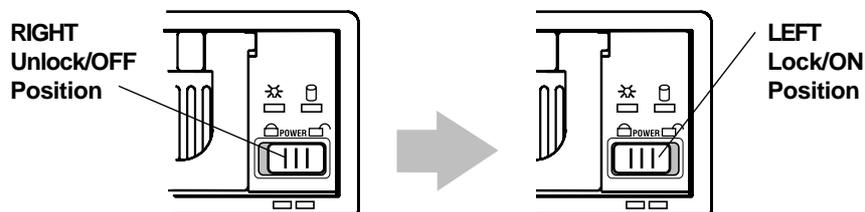
Latch-lock Switch Positions

5. Partitioning the External USB 2.0 Hard Disk

5-1 Partitioning Under Windows 98/ME

Boot-up the computer into Windows 98/ME. Next, with the power ON, connect your VPM-6248T External Hard Disk Drive to the USB port.

There are two methods of partitioning and formatting your hard drive.

Method 1

Step 1:
Click on [Start], select [Control Panel] in [Settings], double-click [System] and open [Hard disk controllers].

Step 2:
You should see the VPM-6248T USB 2.0 Hard Disk you just connected. Highlight the USB 2.0 Hard Disk and choose [Properties], select [Settings]. Set the USB 2.0 Hard Disk to [Removable] and reboot the system.

Step 3:
After restarting the system, a removable HDD is added to [My Computer]. Choose the removable HDD and click the *right* mouse button. Select [Format] to format the USB 2.0 Hard Disk Drive.

You can only set the USB 2.0 Hard Disk Drive to one partition using this method.

Method 2

Step 1:
Go into MS-DOS mode by clicking on [Start], then choose the [MS-DOS Prompt] in [Programs].

Step 2:
At the DOS prompt, type [FDISK] and press [Enter].

Step 3:
If FDISK quits without any message, go back to the Windows 98 screen, disconnect the VPM-6248T USB 2.0 Hard Disk and reboot the computer. Reconnect the USB 2.0 HDD and go back to Step 1 to proceed.

Step 4:
For the first screen of FDISK, answer the question:
   Do you want to enable large disk support?
   [Y] if you want to build a partition larger than 2GB.
   [N] if you want to build a partition small than 2GB.

Step 5:
The next screen is [FDISK OPTIONS]. Type [5] to select the disk.

IMPORTANT:

You must type [5] in this screen to change the current fixed disk drive to build a partition. The *default* fixed drive set by FDISK is your internal hard disk drive.

WARNING!!

If you don't change the fixed disk drive to the USB 2.0 Hard Disk, the data of your internal hard disk will be destroyed!

Step 6:
In the [Change Current Fixed Disk Drive], type the disk drive number that is assigned to the USB 2.0 Hard Disk.

Step 7:
Go back to the [FDISK OPTIONS] screen. Now you can create or delete a partition of the USB 2.0 Hard Disk.

Step 8:
After you finish FDISK, go back to the Windows screen, disconnect and then reconnect the USB 2.0 Hard Disk again to activate these changes. Double-click on [My Computer]. The USB 2.0 Hard Disk Drive icon that you have now partitioned should be seen.

5-2 Partitioning under Windows 2000/XP

Step 1:

To partition the VPM-6248T USB 2.0 Hard Disk Drive under Windows 2000, connect the VPM-6248T drive to the USB port on your computer. Next, click [Start], select [Control Panel], [Settings], open [Administrative Tools] and double-click [Computer Management].
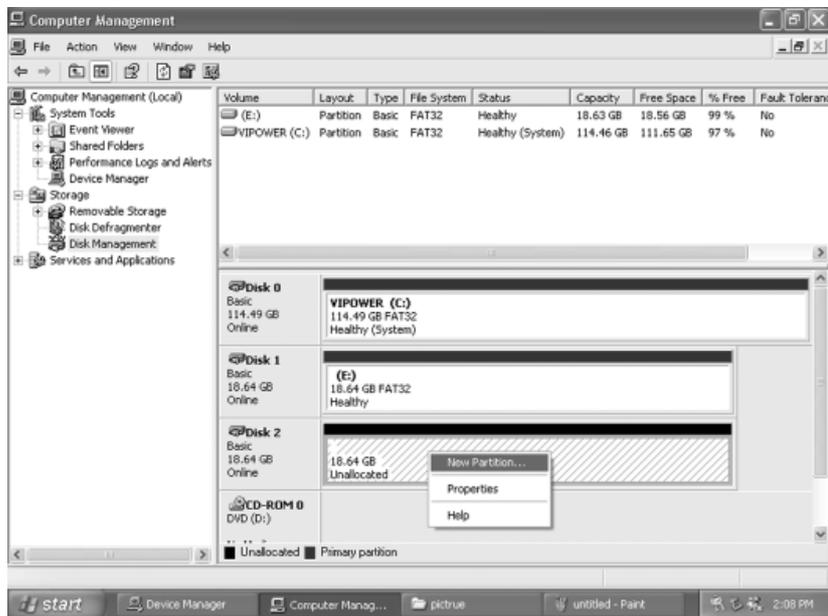
Step 2:

Click on [Disk Management]. All connected disk drives will be listed. Find the USB 2.0 Hard Disk that you added and to the right of the disk, view the status of the partitions of this disk drive. You can create a new or delete an existing partition by right-clicking on this area.
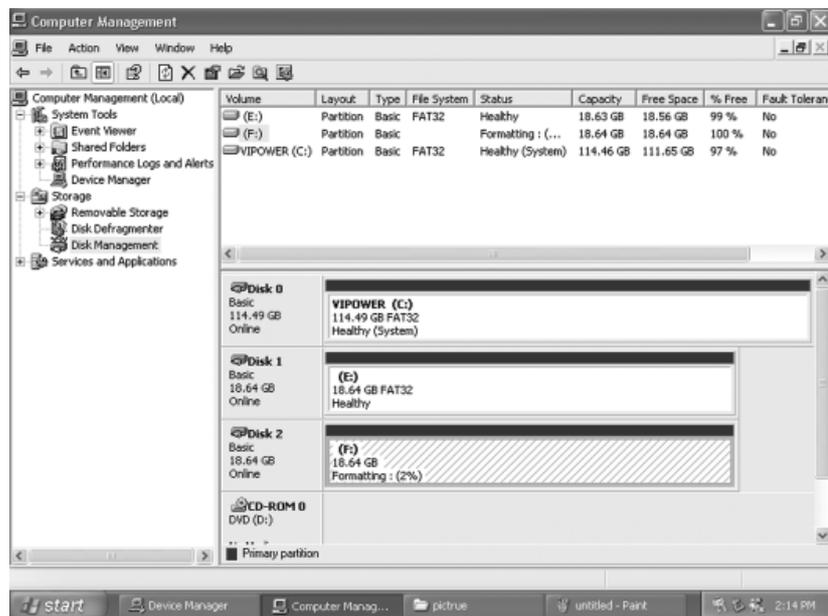
Step 3:

Right-click on the partition status area of the USB 2.0 Hard Disk Drive. Click on [Create Partition….] and the "Create partition wizard" will appear.
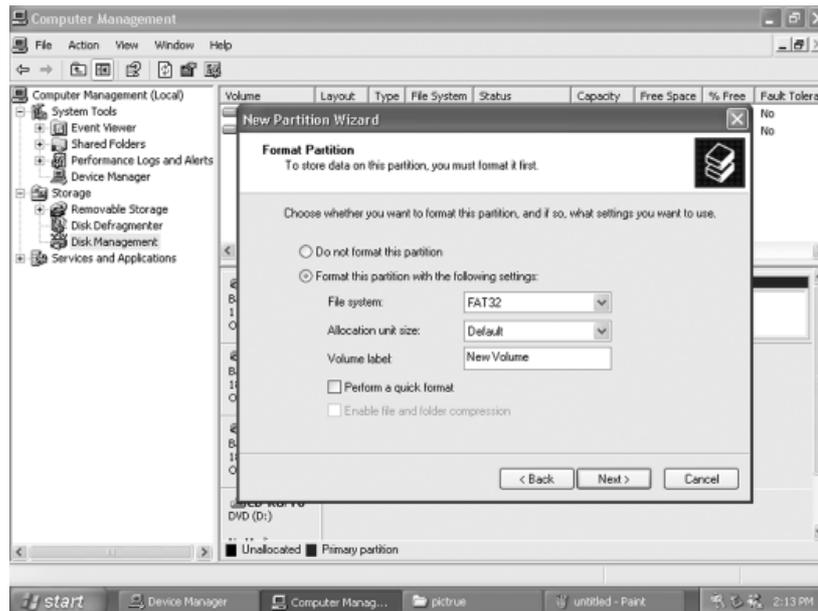
Step 4:

Follow the instructions of the wizard to partition and format your USB 2.0 Hard Disk Drive.

After you have completed the partitioning and formatting of the USB 2.0 Hard Disk Drive, you can write data to it.

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