

miniStack® NAS



User Manual

Introduction

Thank you for purchasing the Newer Technology miniStack NAS! This guide will walk you through the setup process step by step and get you up and running with your new storage device quickly.

Setup of the Newer Technology miniStack NAS is straightforward, but you do need to follow this guide for proper setup. We do suggest reading through the whole manual before hooking up the miniStack NAS.

Tools required:

A Phillips #1 screwdriver is required to install your hard drive mechanism inside the miniStack NAS enclosure.

If you do not have the tools required to perform this installation, we highly recommend the Newer Technology 7 Piece Tool Set. This set includes the tools required to get into any basic computer. <http://newertech.com/products/7pctoolset.php>

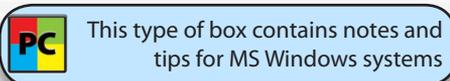
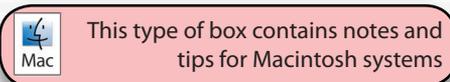
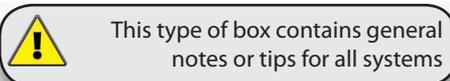


ATTENTION!

You will be working in close proximity to static sensitive components. Take precautions to not build up static electricity.

Notes

Throughout this manual, you will see note boxes along the left margin. These note boxes contain notes, tips, or special information that may be pertinent to your setup.



System Requirements

Macintosh Requirements

- Minimum Apple G3 Processor, 64MB RAM
- Mac OS 9.2 or later for use via USB 1.1
- Mac OS X 10.2 or later & USB 2.0 Mac for use via USB 2.0
- Mac OS X 10.3 or later & 100Mbps or 10/100Mbps Ethernet connection for use as a network disk.

PC Requirements

Minimum Intel Processor II 350MHz, 64MB RAM

- WinME, Win2000 or WinXP & USB 1.1 Hardware for use via USB 1.1
- WinME, Win2000 or WinXP & USB 2.0 Hardware for use via USB 2.0
- Win 98SE, WinME, Win2000 or WinXP & 100Mbps or 10/100Mbps Fast Ethernet connection for network disk use.

Detailed Information

Front LED Status Lights

Red = HDD Access & Power

Amber = Network Access

Green = 100 Mbps connection

Back Panel



1 2 3 4 5 6

1. Power Switch
2. Power Receptacle
3. Fan Speed Settings (Auto/Low/High)
4. 100Base-TX port (RJ-45)
5. USB 2.0 port
6. Security Slot



Fan settings:

A = Auto

M = Manual

H = High Speed

L = Low Speed



Your miniStack NAS may come with a hard drive pre-installed. For pre-configured units, these instructions are provided for informational purposes only. Opening the enclosure of a pre-configured unit will void its warranty.



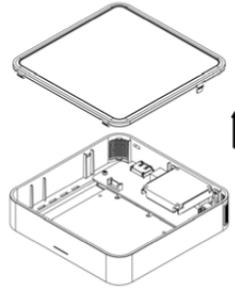
Make sure the hard drive's ID jumper settings are set to "Master"



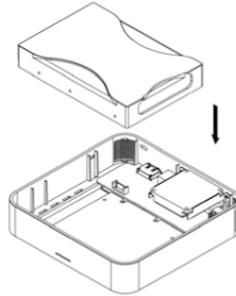
Be careful not to damage any cables or components and double check the connection between the cables, the bridge board and your hard drive before you closing the case.

Installing the Hard Drive

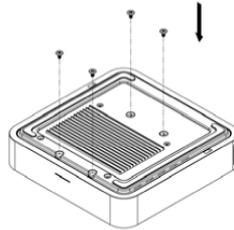
1. Lift the top cover off the body.



2. Connect the cables to your drive and install.

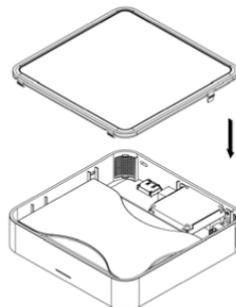


3. Turn the enclosure around and fasten the four screws.



4. Attach the thermal probe with the tape provided to the top of the drive, somewhere near the spindle motor.

5. Align the top cover with the body and push lightly into place.





The miniStack NAS can only be accessed from the internal LAN. It is not possible to connect remotely.



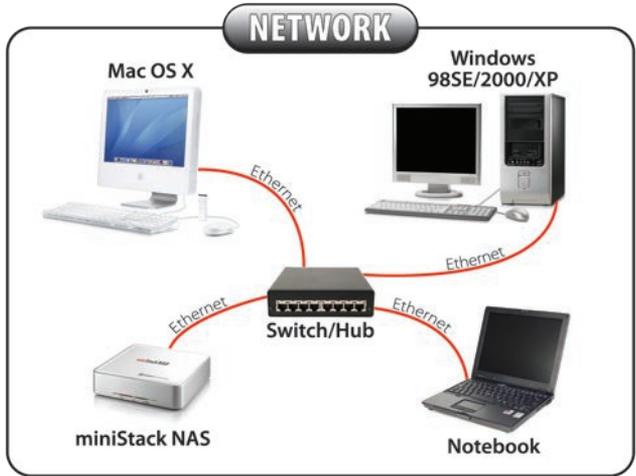
Do not connect the USB and Ethernet cables simultaneously!



To ensure the best performance on the network, only use network switches and routers.

System Set Up

In NDAS mode, the miniStack NAS is directly attached to a 100MB/s full duplex Ethernet switch. Each user on the network can use the NDAS disk as if it were a local drive.



In USB 2.0 High Speed mode, the miniStack NAS is directly attached to a single computer using the USB port.



A few tips on how to connect your miniStack NAS:

- Make sure all computers sharing the disk are using the same driver revision.
- Do not cover the Enclosure and leave enough room around it for ventilation.
- Do not expose your miniStack NAS to water or humid conditions.
- Always check for visible damage and defects of power and interface cables before using it.
- We recommend using the supplied cables.

Installation on a PC using USB 2.0

To connect the miniStack NAS via USB 2.0 to a single computer, perform the following steps:

1. Turn on your Computer and start Windows.
2. Make sure the Ethernet cable is disconnected.
3. Connect the miniStack NAS via USB 2.0 and turn it on.
4. Let Windows search for and install the driver automatically.
5. Open "My Computer" to see your external hard drive.

For factory new drives and more info about formatting, see the chapter on "Formatting the HDD."



If the system doesn't recognize the drive, turn on the power before connecting the USB cable.

Unplug Procedure

For the safe removal of your drive and to ensure that no data is lost, always follow the correct unplug procedure. Otherwise, there is a risk of data corruption, and you will get an error message.

1. Click on the taskbar icon for external hardware.
2. Choose the miniStack NAS and confirm removal.



3. Turn off the miniStack NAS.



Installation on a Mac using USB 2.0

To connect the device via USB 2.0 High Speed to a single computer, see following instructions:

1. Turn on your computer and start Mac OS.
2. Make sure the Ethernet cable is disconnected.
3. Connect the miniStack NAS and turn it on.
4. No driver installation required.
5. The external drive will mount and show up on your desktop.

For factory new drives and more info about formatting, see the chapter on "Formatting the HDD."



If the system doesn't recognize the drive, turn on the power before connecting the USB cable.

Unplug Procedure

For the safe removal of your drive and to ensure that no data is lost, always follow the correct unplug procedure. Otherwise, there is a risk of data corruption, and you will get an error message.

1. Drag the external hard drive icon into the trash bin.



2. Turn off your device.

Chapter 4 - NDAS Setup

Driver Installation

Driver installation on a PC

1. Insert the driver CD and select your Operating System.
2. If installation does not start automatically, browse and double-click on the 'NDASSetup' file.
3. Follow the installation wizard and install the driver.
4. Accept any warning of missing signature or logo testing.
5. Restart your system when prompted to do so.

Driver installation on a Mac

1. Insert the driver CD.
2. Browse for the Install Package for your OS version and double-click it.
3. Follow the Installer steps to install the driver.
4. After finishing the installation, restart your computer.

Registering a new device

Registering a new device on a PC

1. Click on the NDAS Device Management icon on the taskbar.
2. Select 'Register a New Device'.
3. Depending on your setup under Options/Advanced/Menu, you can use the registration wizard or do it manually.
4. Enter a name for your miniStack NAS or use the default name.
5. Add your NDAS device ID and if you also want to write to the disk, enter the Write Key (last 5 digits).

Register a new NDAS Device

NDAS Device Name
NDAS Device 1

NDAS Device ID
TOPSC RR93E CEBMG 3PRCE

Write Key
.....
Write Key must be entered if you want to use the device as Read/Write Mode

Activate this device after registration

Register Cancel



Write down your ID number and do not lose it. If for some reason, you can not find your ID number, write down the serial number and contact your vendor.



The device ID and Write Key do not contain the letter O. Please use the number 0 for all 0's.



Without the Write Key, the miniStack NAS can only be accessed as "Read Only."



After adding a new device, the Found New Hardware Wizard may appear. Let it search for and install the drivers automatically.

Registering a new device on a Mac

1. Locate the 'NDAS Utility' found inside your Applications folder under Utilities and open it.
2. Under Management, select 'Register a New Device'.
3. Enter a name for your miniStack NAS or use the default name.
4. Add your NDAS device ID and if you also want to be able to write to the disk, enter the Write Key (last 5 digits).



Mounting and using your miniStack NAS



Read & Write mode will be disabled if the Write Key was not entered during the registration process.

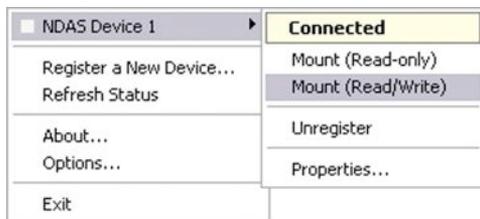


If a Mac is connected using the Read & Write mode, other computers can only connect using the Read Only mode.

If a PC is connected using the Read & Write mode, the Mac can only connect using the Read Only mode.

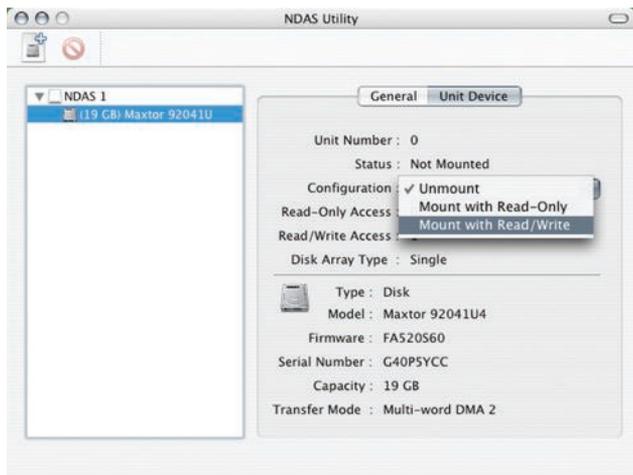
Mounting the miniStack NAS on a PC

1. Click on the NDAS Device Management icon on the taskbar.
2. Select your miniStack NAS, which should now be listed.
3. Mount the drive using either Read Only or Read & Write.
4. The drive is now available under My Computer.



Mounting the miniStack NAS on a Mac

1. Open the NDAS Utility and select your miniStack NAS.
2. Under 'Configuration', mount the drive using either the Read Only or Read & Write mode.
3. The drive will now appear on your desktop.





If the disk is connected directly to the computer using USB, full access is granted, regardless of the driver setup used on the network.



If a Mac is connected using the Read & Write mode, other computers can only connect using the Read Only mode.
If a PC is connected using the Read & Write mode, the Mac can only connect using the Read Only mode.

Using and sharing miniStack NAS disk on the network

Now that you have successfully installed the miniStack NAS, you can use it like any other hard drive on your system. It will behave very similarly to a standard USB disk in comparison.

You may drag and drop files into the miniStack NAS, you can create new folders, copy, paste, move or delete files or use it as your backup device. To share and access the drive, you have the following options to limit or allow the access.

- **Read Only:**
Users can only read from the disk.
- **Read & Write:**
Users can read and write to the disk and can also delete any files created by someone else.
- **No ID number:**
Without driver and without an ID number, the device can neither be found nor accessed on the network.
- **No Write Key:**
Without the Write Key, the disk can only be mounted using the Read Only mode.

Unmount:

To eject the disk, close all open folders and files, then select Unmount to eject it. The device will still be registered and you can mount it again anytime you need it.

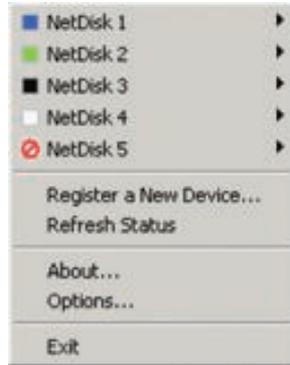
Changing Modes:

To change from Read & Write mode to Read Only as an example, first Unmount the device, then mount it again using the new mode.

Tip: For best performance, use only network switches and routers but no hubs. When you write to the disk, limit the access for as few users as possible, to speed up the transfer rate.

NDAS Device Management on a PC

Click on the NDAS Device Management icon located on the taskbar. All registered NDAS devices will be displayed on the menu.



If you want to use suspend or hibernation mode with a connected NDAS device, enable it first under Options and Advanced.



To change a device name or remove the Write Key, select your NDAS device and go to Properties for further commands.



To deactivate your device or reset the connection, select your NDAS device, go to Properties and select the Advanced tab for further commands.

Register a New Device:

Registers a new NDAS device to your computer.

Refresh Status:

Updates status of your NDAS devices.

About:

Displays NDAS software version information.

Options:

Advanced options for language settings, error messages, menu dialogs and support for suspend and hibernation.

Device Functions:

To view the present status and function of a certain device, place the cursor on your NDAS disk. You will be able to see the current state such as Disconnected, Connected, Mounted (RW), Mounted (RO) or Deactivated.

Mounted (RW) stands for Read & Write mode, Mounted (RO) stands for Read Only mode.



To uninstall the entire Device Management tool, first eject and remove all NDAS devices, then use the Add or Remove Programs utility in your Control Panel to remove the NDAS Software.

Device Status Modes

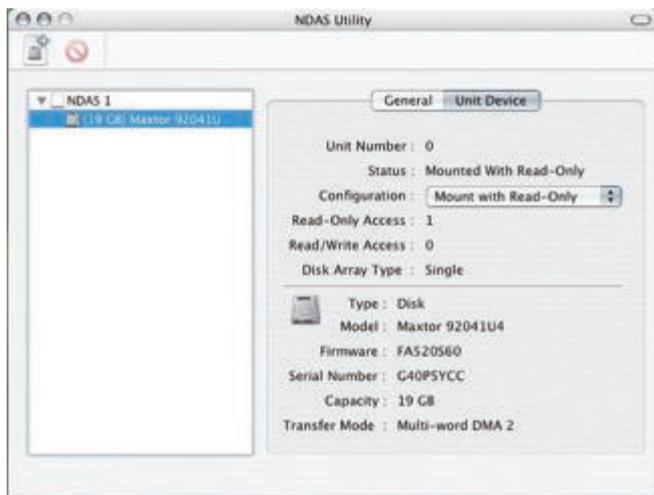
Color	Icon	Disk Icon	Mode/Meaning
Green			Read Only [Mounted (RO)] Users can only read from disk.
Blue			Read & Write [Mounted (RW)] Users can read and write to disk
White			Connected Disk is ready to be mounted
Black			Disconnected Device is registered but not connected or mounted.
Red			Deactivated Device is registered but no attempts will be made to communicate with your device
Yellow			Bound Non-Primary Used for bound NDAS devices except the primary device

NDAS Utility for Mac OS X

Locate the 'NDAS Utility' found inside your Applications folder under Utilities and open it. All registered NDAS devices will be listed here.



To access the Configuration and mount a device, select the hard disk itself, as shown in this screenshot.





To uninstall the NDAS Utility, first eject all devices and remove them, then insert the driver CD, open the corresponding folder for your OS and start the 'NDAS Uninstaller'.



To remove the Write Key, select the NDAS device itself, as shown in this screenshot.



Without the Write Key, the Read & Write mode will be disabled.

Configuration:

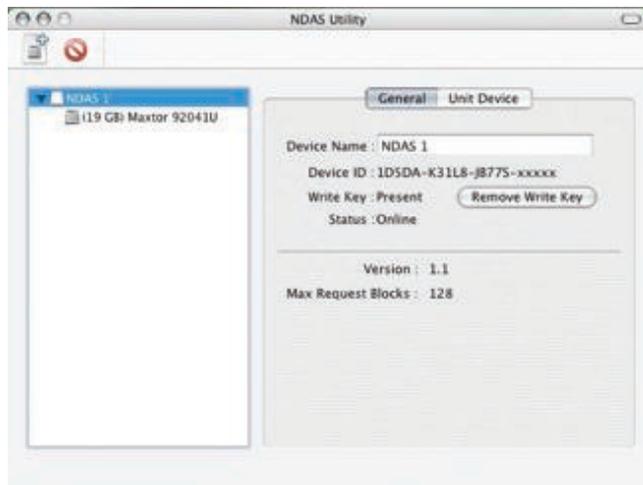
Selection to Mount and Unmount the device using either Read Only or Read & Write mode.

+ Sign:

Register a New Device.

Management:

Both the above can be done using the Management menu on top of your screen.



Device Name:

NDAS device name

Remove Write Key:

If there is an existing Write Key, it can be removed by clicking this button. The device can then only be mounted using the Read Only mode.

Driver Upgrade

It is recommended that all users use the same driver revision. Before upgrading the driver, please follow these guidelines:

1. If possible, first backup all your data.
2. Disable all NDAS devices.
3. Uninstall the present driver.
4. Install the new driver.
5. Register the NDAS devices again.
6. Mount the NDAS devices.
7. You should now be able to use the NDAS devices again.

PC Command Line Utility

For advanced users on a PC, there is an option to run the NDAS software from a command line interface.

1. Open the command line and type following: `cd C:\Program Files\NDAS\System` (Folder may vary depending on driver being used)
2. Type `ndascmd.exe`, which will load the command line interface for the NDAS software

The Syntax for the interface should be as follows:

```
ndascmd <command> [parameters]
```

The supported commands are following:

- `register <name> <device id without dash> [write key]`
- `unregister <device number>`
- `list devices`
- `list logicaldevices`
- `mount <logical device number> [ro|rw]`
- `unplug <logical device number>`
- `unmount <logical device number>`
- `activate <device number>`
- `deactivate <device number>`



DO NOT format the drive when other computers have the NDAS device mounted.

Chapter 5 - Formatting the HDD

BE AWARE THAT THIS WILL DESTROY ALL YOUR EXISTING DATA ON THE DRIVE!

PC running Win98SE or WinME

MS-DOS command "fdisk" (press Enter to confirm)

1. Type "fdisk" and press Enter
2. Select "Y" and press Enter
3. Enter "5" to change the drive
4. Select the drive you want to format
5. Choose "1" and follow the on-screen instructions



For best compatibility between different Operating Systems, use the FAT32 file system. FAT32 can be accessed on most systems but the file size for a single file is limited to 4GB.



It is recommended to format the hard drive using the interface you will most likely be accessing the drive with.





For Win2000 and WinXP, the NTFS file format is recommended.

PC running Win2000 or WinXP

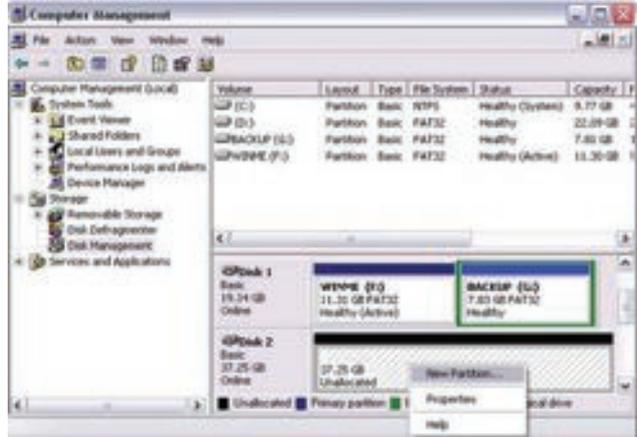
Disk Management Program

1. Right click on "My Computer" and choose "Manage"
2. Select "Disk Management"
3. Choose the drive you want to format and right click on it for further commands (Choose New Partition)
4. Follow the Partition Wizard to setup your disk



If the NTFS file system is used, the drive will only be recognized on Win2000 and WinXP.

Mac OS X can see the drive and read data from it but can not write to it.



It is recommended that you format the hard drive using the interface you will most likely be accessing the drive with.

Note: DO NOT perform disk operations (format, partition, chkdsk) when other computers have the miniStack NAS mounted.

It is important that your miniStack NAS is listed as a Basic Disk and not a Dynamic Disk.



Formatting on Win2000/XP using FAT32, the biggest single partition you can create will be 32GB. To create larger partitions, use the DOS command under WinME or use third-party software.

Mac OS

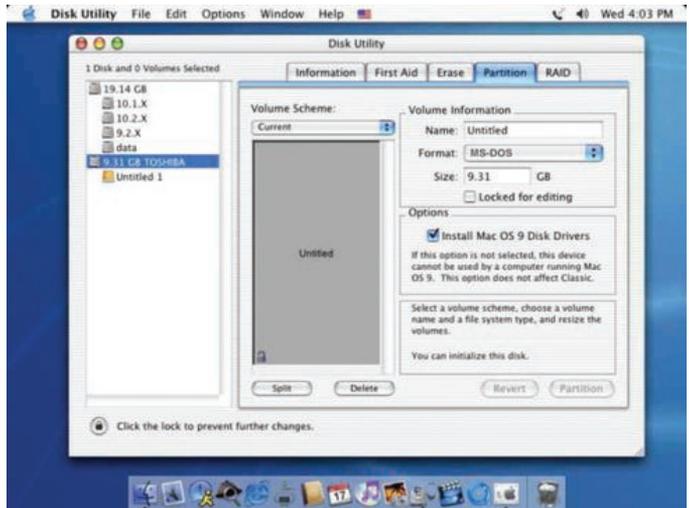
Mac OS 9 does not support creating multiple partitions on an external drive. To do that, you would need to purchase additional third-party software, connect the drive to the internal IDE bus or upgrade to OS X.

For Mac OS X, use the Disk Utility to format and create partitions on your external disk.

1. Open Disk Utility (located in Applications > Utilities)
2. Choose your external drive and setup your disk from the list on the left, and format using either the "Erase" tab or the "Partition" tab.



If you can not see the drive, make sure the jumper settings of your hard drive are correct, there are no extension conflicts and the power is turned on!



If native Mac file system is used, the drive will only be recognised on Mac systems.

To access the drive on both PC and Mac, format the drive using MS-DOS (FAT32)

It is recommended that you format the hard drive using the interface you will most likely be accessing the drive with.

Note: DO NOT perform disk operations (format, partition, etc.) when other computers have the miniStack NAS mounted.

Appendix

Technical Questions

For RMA and other questions, please contact your vendor or check out their online support area!

If you lose your device ID number, please write down the serial number and contact your vendor.

For NDAS mode, the drivers need to be loaded on each computer that wants access to the miniStack NAS. However, if you are using Windows Sharing, only one computer needs the software installed. The other computers will not need it.

To disconnect the miniStack NAS, we always recommend using the option in your Device Management (Device Utility for Mac) if connected via Ethernet. You can use the "Unplug or Eject Hardware" icon in your taskbar (Eject for Mac) to stop the disk before disconnecting it from the Device Management. Close all windows that may be accessing the miniStack NAS.

Fan Setting

There are 3 modes available for you to select the desired cooling. Automatic (Auto), Manual Low (M/L), Manual High (M/H).

We recommend you leave your unit on the Auto setting. When this mode is selected, the miniStack NAS automatically adjusts the fan speed up and down as necessary to keep the hard disk cool.

NWTMANNASPOWER

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Revision 1a, 5/7/07 - MCS