IOCELL
NETWORKS
USER MANUALS

NetDISK
≡POWER

System Administration Guide
(Firmware version 3.1.2)

IOCELL Networks Corp.

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United States of America

Software Release Statement

User Manual for the NetDISK Power Storage System. Firmware version 3.1.2, released 2010. Document created in the U.S.A.

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Product Warranty

Please see the final chapter complete product warranty coverage.

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1 Introduction

NetDISK Power is a unified suite of technologies combined to make network storage easy to understand, quick to implement and now, available to everyone. NetDISK Power utilizes the state of the art Linux Volume Management and core operating system components previously employed only in the highest-end critical data storage centers of the world. We are proud to share in the work of de-mystifying the realm of **N**etwork **A**ccessible **S**torage by providing this unique system to our customers.

This manual provides instruction for all NetDISK Power storage configuration and administration tasks. System administrators and first time users should be able to configure storage space and accomplish necessary maintenance tasks very easily with the NetDISK Power systems.

Though designed for simplicity, setting up a Network Attached Storage device may be unfamiliar to many. Please look through this guide carefully, and do not hesitate to contact us if there is any question at all. Check the full manual on your CD or visit us on the Internet at any time.

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2 Locate and login on the network

All configuration of the storage space and user permissions are done through the NetDISK Power Web Administration Interface.

2.1 Opening the NetDISK Power Web Administration Interface

Follow the instructions below to locate the server on the network and login. Your NetDISK Power device quick installation guide should have instructions about setting the IP Address on your device. Use the product links on our home page to find the proper guide for your product if you are unsure how your device is connected.

2.1.1 Default Hostname:

The NetDISK Power server assumes a default hostname ending with the last four characters from the MAC address of the LAN 1 Ethernet port. You can find this MAC address on a sticker near the port. Example: If your LAN 1 MAC address were 00:BB:QQ:33:D2:A6, enter **http://netdisk-d2a6** in a web browser to open the management interface.

2.1.2 NetDISK Power Navigator Tool

Windows users can run the NetDISK Power Navigator tool.

This program can be installed from the CD or can be downloaded from our homepage. It will list the NetDISK Power devices currently installed on the LAN. From the product installation CD install the NetDISK Power Navigator tool. This will quickly allow you to locate the NetDISK Power servers.
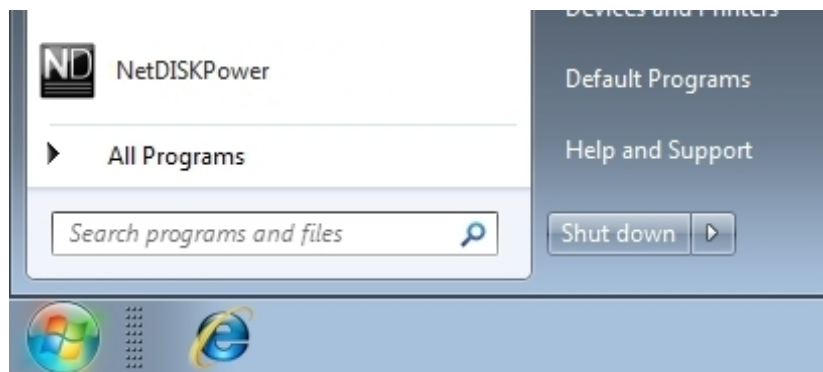
Note: If you are prompted to open the firewall port choose "Unblock."

    1. Click **"Search"** to locate NetDISK Power servers.
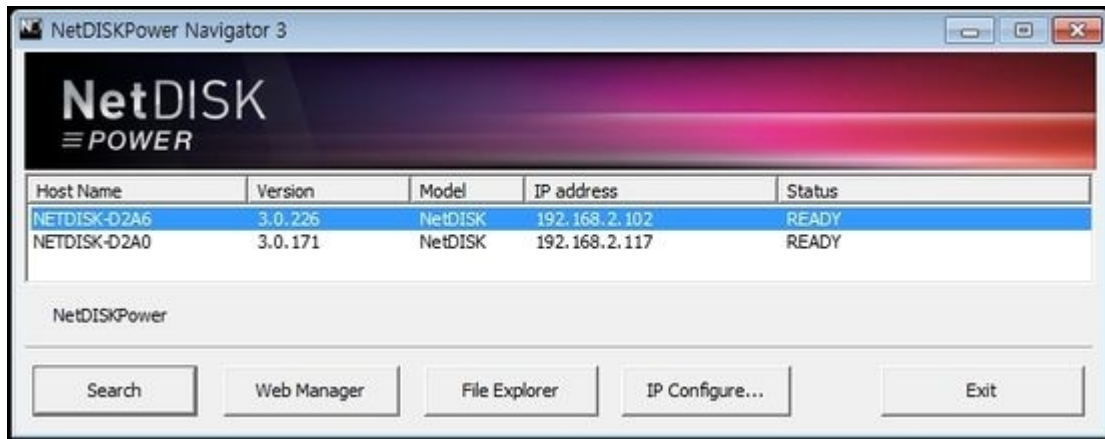
2. Select the NetDISK Power server you want to manage
3. Click on the **"Web Manager"** button to bring up the NetDISK Power Web Administration Interface.

2.1.3 Manual IP Address Discovery

Users not running Windows can discover the Dynamic IP Address manually.

Possible Methods:

- Connect a monitor to the NetDISK Power server VGA Port (if equipped). The current IP address will be listed on the last line of the boot messages.
- Query the DHCP server. Most DHCP servers provide a list of allocated addresses. Match the MAC address (printed near the network port) to the list and copy the IP address.

Once the Dynamic IP Address is known simply enter it into the web browser. example: **http://192.168.0.111**

2.2 Login

After locating the Web Management Console, you can log in as the system administrator.

2.2.1 First Login

Username: admin
Password: password

2.2.2 User Accounts

After the administrator creates different user accounts the end users may login here as well to change their password or other personal information. Read NetDISK Power User Accounts for more information.

2.2.3 Remember Me

Check the small box next to "Remember Me" if you want your login information saved to the computer you are currently working on.

3 Disk & Volume Management

3.1 Stand Alone Disk

Standalone disks are simple and familiar. You can create separate storage volumes on a single disk, but there is no chance for live backup. Always maintain copies of your data in other locations.

1. Click on "Disk & Volume" from the Home screen.
2. Click on Local Disk.
3. Check one available disk (available disks are grey.)
4. Click on "Configure."
5. Click Create
6. Click OK when the wizard is finished.
7. Click the new standalone drive if you want to see the properties.

3. Choose one disk for standalone

5. Single disks are considered RAID-0 by NetDISK Power

7. Click the SINGLE disk to see the status and health information.

Single disk properties

Single Disk is orange

3.2 RAID-1 Mirror using 2 hard drives

RAID-1 is very popular because it provides 100% redundancy of all data on two disks. If one drive fails, you can simply replace it with another of the same size and the configuration will rebuild itself automatically.

1. Click on "Disk & Volume" from the Home screen.

2. Click on Local Disk.

3. Check two available disks (available disks are grey.)

4. Click on the "Create RAID" button.

5. Choose Mirror RAID-1.

6. Click OK when the wizard is finished.

7. The RAID List window should display one RAID-1 Disk. (Click the RAID disk to see the synchronization status and information about disk health.)

3. Select 2 Disks for Mirror mode.	5. Choose RAID-1	7. Click the RAID-1 Disk to see more details.

7. Details for RAID-1	RAID-1 disks appear green in the Local Disk list.

3.3 RAID-5 using all available disks

RAID 5 is popular because it provides a level of protection against hard disk failure. If one drive fails you can replace it without losing data. However, total storage capacity is reduced by the size of one disk, and data write speed is slightly diminished. **Note:** This setup requires at least three hard disk drives installed in the NetDISK Power 400T.

1. Click on "Disk & Volume" from the Home screen.

2. Click on Local Disk.

3. Check at least 3 available disks (available disks are grey.)

4. Click on "Configure."

5. Check the button near RAID-5.

6. Click OK when the wizard is finished.

7. The RAID List window should display one RAID-5 Disk. (Click the RAID disk to

see the synchronization status and information about disk health.)

3. Minimum 3 available disks for RAID-5

5. Choose RAID-5

7. Click the RAID-5 Disk to see more details.

7. RAID-5 status & details

RAID-5 disks appear purple in the Local Disk list.

4 Group Management

5 User Management

6 Shared Volumes & Services

7 System Configuration

7.1 Firmware Upgrades

Firmware updates provided by IOCELL Networks may be released from time to time enhancing NetDISK Power functionality or addressing usability or security issues. The steps below will guide you through the upgrade process.

7.1.1 Firmware update notification

Registered user will receive a notice anytime there is a firmware release. Please visit http://www.iocellnetworks.com to register your NetDISK Power device if you would like to . Otherwise, you can compare the firmware version manually and decide to upgrade or not at this time.

7.1.2 Compare your current firmware version

You can find the version currently running on your server by opening the NetDISK Power Web Administration Interface. The currently installed version will be listed on the login screen.

Visit our home page to compare this version to the latest one available.

7.1.3 Read the change log for the latest firmware

Firmware upgrades may require additional steps to upgrade. You might not even consider the upgrade necessary at this time. (For instance, an upgrade may only include language changes that are not relevant to your system.) There may also be new

features added or other files needed to ensure complete compatibility with all your NetDISK Power system components. The version CHANGE_LOG file may also be found on our homepage along with the latest firmware image.

7.1.4 Upload and install the latest firmware

After downloading the latest firmware image, and unzipping the archive you should find a new folder **NetDISK Power Firmware v3.1.2**. Enter this folder and verify the .img file matches **NetDISK_Power_Firmware v3.1.2.img**. Follow the steps below to install the firmware image.

1. Click System Configuration from the Home screen
2. Click Firmware Upgrade
3. Your current version firmware is listed on the top
4. Click the Browse button and locate the file **NetDISK_Power_Firmware v3.1.2.img**.
5. Click Upgrade.
6. Click OK to confirm the upgrade.
7. Click Restart to shutdown and restart the server or Home if you will reboot later.

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For the most recent list of FAQs, please visit http://www.iocellnetworks.com

15.1 General

1. **What can NDAS devices be used for?**

NDAS devices can be used with a variety of applications. It is ideal for all users that cannot afford NAS systems, such as small to medium businesses, SOHO (Small Office Home Office), work-groups, departments, schools and public institutions. NDAS technology's convenience and low cost provides the best storage solution for home / office networking.

- Use as storage for Personal Computers and Home Networking (storing and sharing files, backup / archiving, etc.)
- Expanding storage requirements.
- Business primary or secondary network storage.
- Public institution's storage for data archives, disclosed data, backups, and data conservation.
- Multimedia storage device (MP3s, Digital Photos, Digital Video).
- Multi-platform networking (Simultaneous read-only use from Macintosh and Windows)
- Non-PC / Non-Computing applications (security, CCTV, technograph recording, MRI, entertainment).

2. **How is NDAS different from NAS or SAN?**

NDAS is a better alternative to NAS or SAN. NDAS is much more cost-effective, efficient and easy to use. It is for users looking for lower costs and storage associated with backup / archiving. Although both NDAS and NAS are storage devices that are implemented over a network, NDAS takes up less space than NAS or SAN products. NDAS utilizes NDAS technology allowing it to connect the hard disk directly to a network without a server. In NAS, the hard disk must be connected to a storage server, which must also be connected to the network.

3. **For NDAS mode, do I need drivers installed on each computer using NDAS device?**

Yes, the drivers need to be installed on each computer that wants access to NDAS device. However, if you are using Windows Sharing, only one computer will need the software installed (Computer must be on as a "Host" computer). The other computers will not need it.

15.2 Windows Troubleshooting

1. **When I try to copy something to my NDAS device, a message says "The disk is write-protected..."**

   You do not have Read/Write access. Click on the NDAS device Icon in your bottom-right system tray. Go to your NDAS device and then click on "Dismount". Now click on the system tray icon and go to your NDAS device and click on "Mount Read/Write."

   If the option to mount Read/Write is grayed out, click on Properties to see if the Write key is present or not. Add the Write Key if it is missing through the "Add Write Key" button.

2. **I keep seeing a Auto Play window when I mount the NDAS device.**

   Click on the NDAS Device Management tool and choose Options. Select the Advanced Tab and choose "Disable Auto Play for all fixed hard drives.

3. **I** **keep seeing a**
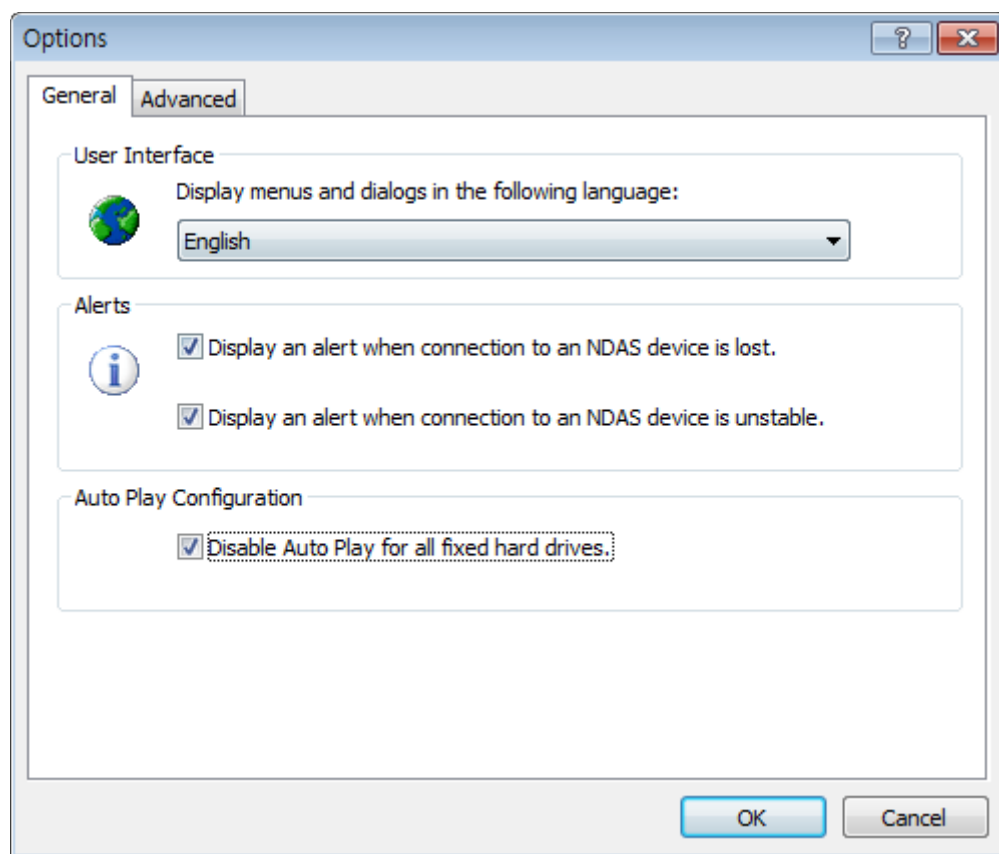
   message "Invalid Device ID. The NDAS ID is composed of 20 alphanumeric characters..." when I try to register the device.

   This only happens when incorrect characters are entered in the boxes. There are no letter "O"s; please verify that you have used the number "0" (zero) for anything resembling an "O." The Letter I is also not used so put a one in those places.

Some other characters that have been confused are B and 8, S and 5, A and 4, H and 4, X and Y, G and 6, two V's and W.

4. **My NDAS drive does not show up in "My Computer." What should I do?**
   Click on the NDAS device Management in your System tray and make sure NDAS device is mounted. The status icon should be either Blue (Read/Write) or Green (Read Only). If it is a black colored dot, then please go to the FAQ: "I've installed my NDAS device and it shows up as a Black Dot."

   If the NDAS device is mounted, open "Computer Management" by right-clicking on "My Computer." Go to "Manage," then click on "Disk Management." Dismount and remount the drive to clearly identify the device. Make sure the drive is formatted. If it says "Not Intialized" or if you see "Unallocated" near the device, follow the steps in Chapter 8 to format the drive.

   If the drive is formatted, make sure it is using a structure that is recognized by your computer. NTFS is standard for Windows computers, but another type of operating system may have formatted the drive.

   Be Careful! Formatting/Repartitioning will erase any data on the drive.

5. **My NDAS Device suddenly became un-readable. Windows ask if I want to format the drive! What happened?**
   It might just be a case of file system corruption. Mount the NDAS device to only one Computer. Then open up Command Prompt and run "chkdsk" for the NDAS device drive. Go to Start - Run - type in "cmd" without the quotation marks. Then, if, for example your drive were mounted as Drive F, you would type in:

   > chkdsk F: /R

   And press the enter key. Then allow chkdsk to try and fix any corruption.

6. **I keep seeing a message that says the Recycle Bin on the NDAS Drive is corrupted. How can I make it stop?**
   This happens when multiple computers access the same bin. It remains a mystery why this happens only to a small minority of NDAS users. Try disabling the recycle bin so that the computers delete files immediately rather than storing them in the Recycle Bin. This seems to happen most where there are XP computers using the same drive as Vista or Windows 7 computers. If you do not have much data on the drive, you can delete the original partition and reformat the drive from the newest computer. This will adjust the permissions to the proper UAC levels.

7. **Many files and folders suddenly show a "write protected" error and cannot write to the disk.**
   The permissions scheme may need to be reset. This kind of thing happened more often on drives that were formatted by XP at some time then accessed by newer computers running Windows 7 or Vista.

8. **I see an error stating "Communication to the NDAS Service Failed."**

    Please look at the services on your computer and see if you can start it manually, restart it or even set it to automatic so that NDASsvc.exe will run when the computer boots up.
    Instructions:
    From XP: click the start button, choose Run, then type services.msc in the box and click OK.
    Vista or Win7: Click the start button, then type services.msc in the search box and hit enter.
    Find the NDAS Service, right click and choose Start.

9. **My NDAS Drive has been stuck mounting for ever! What is wrong?**

    When mounting takes a while, it is often caused by the mistaken installation of the ndasscsi disk driver.
    Right Click on My Computer and choose manage.
    Then open the Device Manager from the left side menu
    Look for a yellow exclamation mark near the NDAS SCSI Controller
    Right click on the device and choose to update the driver.
    The driver should already be on the system, so it should load automatically.
    Reboot the computer and it should be able to restore the mapping.

10. **My NDAS device only shows "Offline" with a Black Dot.**

    This problem has many possible causes.

    Note: If you are using the NDAS device via USB or eSATA, then no software installation is required, therefore, please ignore the Black Dot. If you are connecting via LAN please check the following:

    A. You are using the latest version of our software which can be found at http://www.iocellnetworks.com

    B. Power cable is plugged in tightly, and NDAS device hard drive is spinning.

    C. There is a link light on the port where it is connected to (switch), and the dip switches (if any) are in the down position.

    D. Disable any firewall / antivirus / registry guard / anti-spy programs before installing NDAS Connection Software. Then connect the NDAS Device directly to the computer's Ethernet port, if possible and try the connection.

    E. You might also need to enable the LPX protocol and programs to run in your Antivirus/Firewall program as well.

    F. If using Wireless, then please make sure that you are connected to the wireless router and that your signal is good. Try going to your wireless router's website and check for the latest firmware and also check for the latest drivers for your wireless card as well.

    G. If you are using VPN software, please try unchecking the box for Deterministic Network Enhancer or any other VPN protocol in your NIC Properties.

H. Make sure that your network adapter and router are compatible with the NDAS connection. The NDAS connection uses a "layer 2" type protocol.

I. Power-cycle your switch/router.

J. If your NDAS Device uses the IDE or PATA style hard drive, make sure the jumper pin is set to the Master Setting.

K. Can you remember if the NDAS PnP hint was the same as your NDAS ID? If you entered the wrong ID you will not be able to connect to the drive.

L. Open your Network Adapter Properties and make sure the LPX Protocol is installed and checked.

M. Allow the NDAS Device's MAC address through your Wireless Routers filter.
N. Don't rule out a bad hard drive. It happens. If the drive does not show up by USB as well, it may be a failed disk.

For further help, please contact support@iocellnetworks.com.

For European support, please visit http://www.iocellnetworks.com/support.

11. **My computer takes too long to shutdown and boot up when the NDAS Software is installed.**

Now and then, some background processes take hold of the NDAS device and do not allow shutdown or dismounting. They may also cause the computer to boot slowly as they resume their activity on the external drive. Some of the settings below have helped other users when this kind of thing happened.

-Anti-Virus program is accessing the drive (run Process Explorer to find it.)
-In Windows Device Manager Expand Disk Drives, Right Click the NDAS Drive and choose properties, Select Policies tab, choose "Optimize for quick removal"
-Remove the NDAS drive from System Recovery restore points (Control Panel; System Properties; System Protection)
-Remove the NDAS drive from search indexing

(Control Panel; Indexing Options; remove N drive)

Some of these options may help, but there may be other things using the drive that are not known to you even though you do not see any programs running. NDAS software version 3.7x will force the drive to dismount if you click the retry button 6 time.

12. **"Dismounting the NDAS Device Failed. Applications are using the NDAS device.." But there is nothing using the drive.**

When you get this type of error message it means something is grabbing a hold of your NDAS Drive in the background. A way to find out which program is causing it is with a program called Process Explorer.

http://technet.microsoft.com/en-us/sysinternals/bb896653.aspx

Download this and double click this program then do a search by handle, (click the little binoculars) and type in your NDAS drive letter follow by a ":"

Hit enter and Process Explorer will give you a list of programs that are accessing your drive. Kill those processes and you should be able to dismount.

If you are sure you will not lose any data you can also force the drive to dismount if you click the retry button 6 times or by using the command line tools mentioned in chapter 10.

13. **My wireless connect often says "Connection to the NDAS Device is unstable." What is wrong?**

Try connecting via Ethernet cable. You can even plug the Ethernet wire direct to the computer to see if it remains stable. If it runs smoothly on the LAN then your wireless hardware is having a problem with the NDAS connection protocol. It happens now and then with USB Wifi Adapters and with some combinations of hardware. Try updating the firmware on the router and the wifi adapters. Lastly, see if any friend with a laptop can maintain a steady connection by wireless. That can help rule out trouble with the router.

14. **Can I set the "My Documents" folder to point to my NDAS device instead of a place on my local hard drive?**

We do not recommend doing this, as your computer will be dependent on this location during software installation and removal. You may receive Windows Error Messages looking for a non-existing location.

15. **My computer is moving very slowly when my NDAS device is enabled, and the ACT light on my NDAS device is solid yellow. What is going on?**

This is a result of a bad connection between the computer and the NDAS device. Please make sure that you are using only network switches and routers, and that you are not using any network hubs. Also, if you have any software firewalls installed on your computer (i.e. Norton Internet Security, McAfee Personal Firewall, etc.), make sure to add ndasmgmt.exe and ndassvc.exe into their list of programs to Allow with full access. You can also try disabling your Antivirus software to see if that makes a difference. Please also try power cycling your NDAS device and switch as well.

16. **Sometimes when I transfer files to my NDAS device, why is the speed so slow?**

Try updating your Network Card's drivers to the latest from the manufacturer. If you network card has the option of changing the transmit and receive buffers to both 128 (in the card's properties in device manager), please try doing that. If you have an nForce chipset, try updating your Nvidia nForce drivers to the latest Unified Drivers from Nvidia's website. Please also make sure that you are using 100/1000 MB switch as well.

17. **I used Windows file sharing to share my NDAS drive, but after rebooting, the share gets lost. Is there any work around?**

   Create a batch file and place it in your startup folder. To create batch file:

   Open up notepad - type in "net share sharename=DriveLetter:path" (For example net share NDAS device =F:)

   Save the file as a .bat extension. For example, the file name would be called "NDAS.bat".

18. **I just installed the NDAS device but it shows up with a red icon.**

   Try unplugging your NDAS device's power cord, wait about 10 seconds, and plug it back in. If this does not work, restart your computer. Please disable your firewall/antivirus software (you may need to configure the software to allow your NDAS device to run). If this does not work, plug NDAS device via USB to see if it is recognized. If so, recover the data and reformat the drive. While in USB, delete the partition and bring the NDAS device back to the Ethernet and format the NDAS device. **Formatting will erase any data on the drive.**

19. **Why can't my computer go into hibernation or standby?**

   By default, the suspend/sleep mode on windows PC's is disabled when NDAS connection software is installed. This is done because the computer treats the NDAS drive as an internal disk, but if the connection is severed by a hibernation then restored in a different location, where the NetDISK is inaccessible, you may experience strange behaviour. Another reason is that if one PC changes the contents of the drive while another is sleeping, the sleeping PC will have a surprise when it wakes up.

   There is a way to allow or deny the suspend / hibernate process from the NDAS software in Windows.
       Click on the NDAS manager icon in the taskbar.
       Choose options.
       Select the advanced tab in the window that pops up.
       Look for Suspend/Hibernation support
       Choose the way you would like the feature to operate.

   If you will start the computer in another such place, please dismount the drive before removing the computer from the network.

20. **My XP and Vista Machines worked great with NDAS, but now Windows 7 is too unstable? What is wrong?**

   Overall the NDAS connection software worked well in Win7 since the beta release stage. There were some unusual incidents when it was fully released. Below are some things that helped in the unusual incidents.
   Permission Update: This helped when the external drive was originally used in Windows XP. Users either reformatted the drive from the Windows 7 machine or made the Administrators group owner of everything on the drive.

BIOS and Component Firmware / Driver updates: Even a so-called "fresh install" may not provide the best driver for all on-board devices and components. Video cards, network adapters and other devices can share hardware interrupts. If you installed Windows 7 on existing hardware, there is a possibility that some of them are working with generic drivers or incompatible firmware. Check the manufacturer's home page for upgrades to Network Card, Video Card, and mother board BIOS.

NDAS Driver Downgrade: Some NDAS device users had to connect to their device with earlier NDAS software versions. Driver versions from 3.4x were tested and working on Windows 7 during the release stages. This solution was effective for users with NDAS device not created by Ximeta. There were changes to the LPX protocol in newer NDAS Software versions which were unsupported by the manufacturers of some early NDAS devices. If your device is not made by Ximeta or IOCELL Networks, you might try this as a workaround.

15.3   USB / eSATA

1. **I have plugged in NDAS device to my USB or eSATA port and cannot see NDAS device in My Computer.**

   Make sure both dip switches on the back of the NDAS device (if any) are in the position (Power off NDAS device completely before doing so). Or, plug NDAS device into a different USB port on your PC. Or try using a different USB cable. With Windows ME/2000/XP and MAC, NDAS device uses the Operating Systems built-in USB drivers, therefore, no software is necessary. If you are using Windows 98SE, please check our website for the latest USB drivers at http://www.iocellnetworks.com. If using Windows98SE/ME, and MAC, make sure that NDAS device is formatted to the supported files system. Windows Me requires FAT32. Mac has its own file system, but also supports FAT32. It is up to you to choose the appropriate one.

2. **My NDAS device shows up as a Black dot when used with USB or eSATA.**

   When used with USB mode, the software is not needed, therefore you will see a black dot (disconnected) in the system tray as that is an indicator for NDAS (Ethernet) mode.

16   Regulatory Statements

United States (FCC)

The computer equipment described in this manual generates and uses radio frequency (RF) energy. If the equipment is not installed and operated in strict accordance with the manufacturer's instructions, interference to radio and television reception might result.

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Part 15, Class B, of the FCC Rules, is designed to provide reasonable protection against radio and television interference in a residential installation. Although the equipment has been tested and found to comply with the allowed RF emission limits, as specified in the above cited Rules, there is no guarantee that interference will not occur in a particular installation. Interference can be determined by turning the equipment off and on while monitoring radio or television reception. The user may be able to eliminate any interference by implementing one or more of the following measures:

- Reorient the affected device and/or its receiving antenna.
- Increase the distance between the affected device and the computer equipment.
- Plug the computer and its peripherals into a different branch circuit from that used by the affected device.
- If necessary, consult an experienced radio/television technician for additional suggestions.

European Community (CE)

This product conforms to the following European Directive(s) and Standard(s):

Application of Council Directives:

EC directive 89/336/EEC.

Importer's Name: IOCELL Networks Corp.

Type of Equipment: Information Technology Equipment.

TRANSLATION: Storfestigkeit nach EN 50082-1 (89/336/EEC) wird erfullt.

IOCELL Networks Corp.

17   Product Warranty

IOCELL Networks provides a warranty for its product only if the buyer originally purchased the product from:

IOCELL Networks, or an authorized Reseller / Distributor.

Limited Hardware Warranty: IOCELL Networks warrants that the hardware portion of the IOCELL Networks products ("Hardware") described below will be free from material defects in workmanship and materials from the date of original retail purchase of the Hardware, for the period set forth ("Warranty Period").

Limited Warranty for the Product(s) is defined as follows:

Hardware (NDAS device unit, excluding power supplies)

IOCELL Networks' sole obligation shall be to repair or replace the defective device at no charge to the original purchaser. Such repair or replacement will be rendered by IOCELL Networks at an Authorized IOCELL Networks Service Office. The replacement Hardware need not be new or of an identical make, model or part; IOCELL Networks may in its discretion replace the defective hardware (or any part thereof) with any reconditioned product that IOCELL Networks reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. If a material defect is incapable of correction, or if IOCELL Networks determines in its sole discretion that it is not practical to repair or replace the defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by IOCELL Networks upon receipt of the defective Hardware. All Hardware (or any part thereof) that is replaced by IOCELL Networks, or for which the purchase price is refunded, shall become the property of IOCELL Networks upon replacement or refund.

Limited Software Warranty: IOCELL Networks warrants that, during the Warranty Period, the magnetic media on which IOCELL Networks delivers the Software will be free of physical defects. IOCELL Networks' sole obligation shall be to replace the non-conforming Software (or defective media) with Software that substantially conforms to IOCELL Networks' functional specifications for the Software. Except as otherwise agreed by IOCELL Networks in writing, the replacement Software is delivered. If a material non-conformance is incapable of correction, or if IOCELL Networks determines in its sole discretion that it is not practical to replace the non-conforming Software, the price paid by the original license for the non-conforming Software will be refunded by IOCELL Networks; provided that the non-conforming Software (and all copies thereof) is first returned to IOCELL Networks. The license granted respecting any Software for which a refund is given automatically terminates.

What You Must Do For Warranty Service:

Registration is conducted via a link on our website (http://www.iocellnetworks.com/support/rma). Each product purchased must be individually registered for warranty service within ninety (90) days after it is purchased and/or licensed.

FAILURE TO PROPERLY TO REGISTER MAY AFFECT THE WARRANTY FOR THE PRODUCT.

Submitting a Claim:

Any claim under this limited warranty must be submitted in writing before the end of the Warranty Period to an Authorized IOCELL Networks Service Office.

The customer must submit as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow IOCELL Networks to confirm the same.

The original product owner must obtain a Return Material Authorization (RMA) number from the Authorized IOCELL Networks Service Office and if requested, provide written proof of purchase of the product (such as a copy of the date purchase invoice for the product) before the warranty service is provided.

After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package.

The customer is responsible for all shipping charges to and from IOCELL Networks (No CODs allowed). Products sent COD will become the property of IOCELL Networks. Products should be fully insured by the customer and shipped to:

IOCELL Networks Corp.

5 Market Street STE 520

Plainsboro, NJ 08536

United States of America

IOCELL Networks may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay IOCELL Networks reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by IOCELL Networks not to be defective or non-conforming.

What is not covered:

This limited warranty provided by IOCELL Networks does not cover: Products that have been subject to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tempered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, failures due to power surge, and cosmetic damage; and Any hardware, software, firmware or other products or services provided by anyone other than IOCELL Networks.

Disclaimer of Other Warranties:

EXCEPT FOR THE 1-YEAR LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO NINETY (90) DAYS. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

Limitation of Liability:

TO THE MAXIMUM EXTENT PERMITTED BY LAW. IOCELL Networks IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO IOCELL Networks FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF IOCELL Networks HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT.

GOVERNING LAW:

The applicable laws, that govern, interpret and enforce rights, duties, and obligations of each party arising from, or relating in any manner to, the subject matter of this Statement, without regard to conflict of laws principles, as well as Country-unique terms and competent court for this Statement are those of the country in which the warranty service is being provided.

Consumers in the EUROPEAN UNION have legal rights under the applicable national legislation governing the sale of consumer goods. Such rights are not affected by the warranties provided in this Statement of Limited Warranty.

WARRANTY PERIOD

Unless otherwise provided by mandatory law the warranty period is one year.

THE FOLLOWING TERMS APPLY TO THE COUNTRIES SPECIFIED:

AUSTRIA, BELGIUM, DENMARK, FINLAND, FRANCE, GREECE, ITALY, NETHERLANDS, NORWAY, PORTUGAL, SPAIN, SWEDEN AND SWITZERLAND

Except as otherwise provided by mandatory law:

1. IOCELL Networks liability to any damages and losses that may arise as a consequence of the fulfillment of its obligations under or in connection with this Statement of Limited Warranty or due to any other cause related to this Statement of Limited Warranty is limited to the compensation of only those damages and losses proved and actually arising as an immediate and direct consequence of the non-fulfillment of such obligations (if IOCELL Networks is at fault) or of such cause, to a maximum amount equal to the charges the buyer paid for the product.

The above limitation shall not apply to damages for bodily injuries (including death) and damages to real property and tangible personal property for which IOCELL Networks is legally liable.

2. UNDER NO CIRCUMSTANCES IS IOCELL Networks, ITS SUPPLIERS OR RESELLERS LIABLE FOR ANY OF THE FOLLOWING, EVEN IF INFORMED OF THEIR POSSIBILITY: 1) LOSS OF, OR DAMAGE TO, DATA; 2) INCIDENTAL OR INDIRECT DAMAGES, OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES; 3) LOST PROFITS, EVEN IF THEY ARISE AS AN IMMEDIATE CONSEQUENCE OF THE EVENT THAT GENERATED THE DAMAGES; OR 4) LOSS OF BUSINESS, REVENUE, GOODWILL, OR ANTICIPATED SAVINGS.

GERMANY

The warranty for an IOCELL Networks Product covers the functionality of the Product for its normal use and the Product's conformity to its Specifications.

In case IOCELL Networks or your reseller is unable to repair an IOCELL Networks Product, you can alternatively ask for a partial refund as far as justified by the reduced value of the unrepaired Product or ask for a cancellation of the respective agreement for such Product and get your money refunded.

During the warranty period, transportation for delivery of the failing Product to IOCELL Networks will be at IOCELL Networks' expense.

The limitations and exclusions specified in the Statement of Limited Warranty will not apply to damages caused by IOCELL Networks with fraud or gross negligence and for express warranty.

IRELAND

Except as expressly provided in these terms and conditions, all statutory conditions, including all warranties implied, but without prejudice to the generality of the foregoing all warranties implied by the Sale of Goods Act 1893 or the Sale of Goods and Supply of Services Act 1980 are hereby excluded.

IOCELL Networks is liable to no more than

1. Death or personal injury or physical damage to the owners real property solely caused by IOCELL Networks' negligence;

2. the amount of any other actual direct damages, up to 125 percent of the charges (if recurring, the 12 months' charges apply) for the Product that is the subject of the claim or which otherwise gives rise to the claim.

ITALY

Unless otherwise provided by mandatory law IOCELL Networks' liability, will be limited to the total amount the owner paid for the Product that is the subject of the claim.

Unless otherwise provided by mandatory law, IOCELL Networks and your reseller are not liable for any indirect damages, even if IOCELL Networks or your reseller is informed of their possibility.

UNITED KINGDOM

IOCELL Networks is liable to no more than

1. Death or personal injury or physical damage to the owners real property solely caused by IOCELL Networks' negligence;

2. The amount of any other actual direct damages, up to 125 percent of the charges (if recurring, the 12 months' charges apply) for the Product that is the subject of the claim or which otherwise gives rise to the claim;

3. Breach of IOCELL Networks' obligations implied by Section 12 of the Sale of Goods Act 1979 or Section 2 of the Supply of Goods and Services Act 1982.

NOTICE:

These Statements has been executed in English and translated into different languages. In any case the English version shall prevail.

18   Additional Information and Assistance

For additional information, frequently asked questions or troubleshooting help, please see the Quick Installation Guides provided with your device. Also, do not forget to browse the contents of the CD.

Assistance is also available by contacting IOCELL Networks whenever you contact IOCELL Networks for technical support; please have the following information available:

- Product Name
- Model
- Serial Number
- Software Version

How to Contact IOCELL Networks:

Tel : 609.799.0533

Fax : 609.799.0533

Email support for : http://www.iocellnetworks.com/support

Technical Support on the Internet:

For the latest information on NDAS device, visit our website at http://www.iocellnetworks.com.