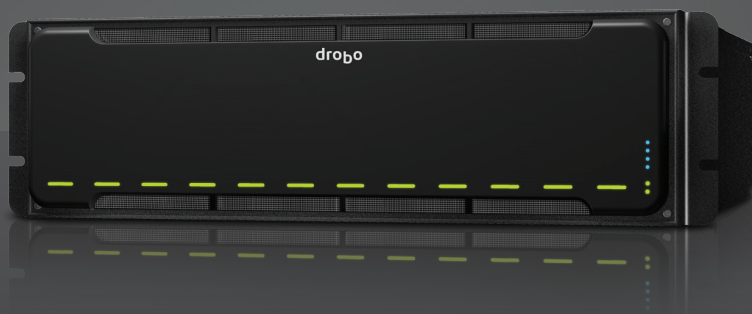


# drobo



## Getting Started Guide

Drobo Model B1200i

# drobo

**Drobo, Inc. supports lawful use of technology and does not endorse or encourage the use of its products for purposes other than those permitted by copyright law.**

Copyright 2011 Drobo, Inc. Data Robotics, Drobo, DroboElite, DroboPro, Drobo, BeyondRAID, and Smart Volumes are trademarks of Drobo, Inc., which may be registered in some jurisdictions. All other trademarks used are owned by their respective owners. All rights reserved.

Information supplied by Drobo, Inc. is believed to be accurate and reliable at the time of printing, but Drobo, Inc. assumes no responsibility for any errors that may appear in this document. Drobo, Inc. reserves the right, without notice, to make changes in product design or specifications. Information is subject to change without notice.

2460 North First Street, Suite 100, San Jose, CA 95131, U.S.A.

For more info, visit: <http://www.drobo.com>

**Part # 070-00042-001**  
Rev 03

# Table of Contents

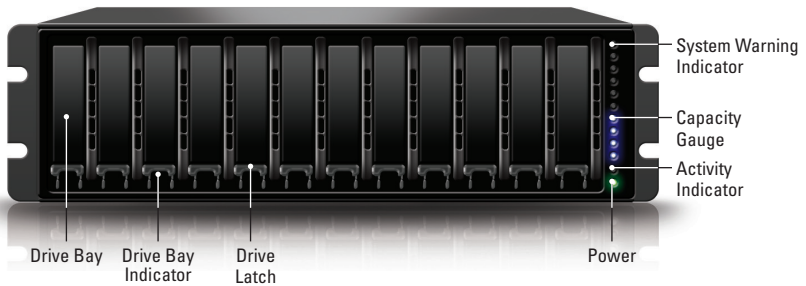
<b>BEFORE YOU BEGIN</b>	<b>3</b>
Product Features at a Glance	3
Checking Box Contents	4
Drobo Model B1200i	4
Checking System Requirements	4
Operating Systems Supported for iSCSI Connectivity	4
Operating Systems Supported for the Drobo Dashboard Management Application	5
Connectivity Interfaces Supported	5
Checking the Hardware You Need	6
Selecting Hard Drives	6
Determining How Much Hard Drive Space You Need	7
Selecting Ethernet Cables	7
Using a Switch	7
Working with Field Replaceable Units	8
Using Power Protection	8
<b>SETTING UP IN JUST A FEW STEPS!</b>	<b>9</b>
Rack Mounting Your Drobo B1200i	9
Inserting the Hard Drives	11
Configuration Options for Your Drobo B1200i	12
Connecting the Cables and Turning On Your Drobo Device	12
Connecting the Management Port	13
Connecting the iSCSI Data Ports	13
Connecting to a Power Source	13
Turning On Your Drobo Device	13
Installing Drobo Dashboard	14
Installing Drobo Dashboard from the Resource CD	14
Installing Drobo Dashboard from the Website	17
Setting the Administrator Username and Password	18
Configuring iSCSI Settings for Your Drobo B1200i	19
Creating and Formatting Volumes for the Drobo B1200i	21
Selecting a File System and Volume Size	21
Creating Volumes with Windows and Mac OS X	23
Creating Volumes with Other Operating System Platforms	27
<b>WHERE TO GO FROM HERE</b>	<b>29</b>
Using Best Practices	29
Keeping Your Software Up to Date	29
Safely Shutting Down Your Drobo B1200i	30
Safely Shutting Down your Drobo Device Using Drobo Dashboard	31
Safely Shutting Down your Drobo Device Manually	31
Using the Online User Guide	32
Using Context-Sensitive Help	32
Using the Knowledge Base	32
Getting Support	32
<b>INDEX</b>	<b>33</b>

## Before You Begin

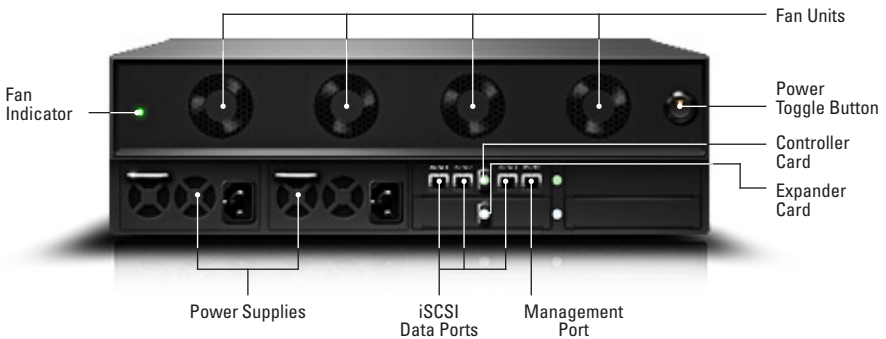
Congratulations on your new Drobo! This Getting Started Guide will help you get Drobo set up in just a few steps. Before you begin, it's a good idea to check your system and hardware requirements. In this chapter, you will:

- View product features at a glance
- Check box contents
- Check system requirements
- Ensure that you have the hardware you need for the Drobo device

## Product Features at a Glance



*Figure 1: Front of the Drobo B1200i with the Front Bezel removed.*



*Figure 2: Back of the Drobo B1200i with the Rear Bezel removed.*

## Checking Box Contents

Check the product's box to ensure it contains all the components listed below.

### Drobo Model B1200i

- Drobo 12-bay SAN Storage for Business, model B1200i
- Front bezel
- Rear bezel
- Four 6' power cords for Europe, and two 6' power cords for all other regions.
- Rack mount installation tool (a small metal shelf used to aid installation)
- Rack mount screws (8)
- Rack mount nuts (8)
- Getting Started Guide (this document, printed)
- Drobo Resource CD, which includes the Drobo Dashboard application

## Checking System Requirements

Check to ensure your operating system and cable interfaces are supported.

### Operating Systems Supported for iSCSI Connectivity

The following is the list of operating systems that Drobo B1200i supports for iSCSI connectivity (servers which use the storage space on the Drobo B1200i).

- Windows Server 2008 R2 SP1 – 64 bit
- Windows Server 2003 R2 SP1 – 32 bit
- Mac OS X 10.7.x Server – 32 and 64 bit
- Mac OS X 10.6.x Server – 32 and 64 bit
- VMware vSphere (ESXi) 5.0.x
- VMware vSphere (ESXi) 4.1.x
- Citrix XenServer 5.6
- Citrix XenServer 5.6 FP1
- RedHat Enterprise Linux 6 (Intel only)

**Note:** For the most current list of supported operating systems, navigate to [www.drobo.com/products/index.php](http://www.drobo.com/products/index.php), click **Drobo B1200i** and then click the **Tech Specs** tab.

## Operating Systems Supported for the Drobo Dashboard Management Application

Drobo Dashboard is the software companion to the Drobo B1200i. It can be installed on client computers which connect to the Drobo B1200i via a network in order to set up, manage, and use the Drobo B1200i. The following is the list of operating systems that support Drobo Dashboard on the client computer(s).

- Windows Server 2008 R2 SP1 – 64 bit
- Windows Server 2003 R2 SP1 – 32 bit
- Windows 7 SP1 – 32 and 64 bit
- Windows XP SP3 – 32 bit
- Mac OSX 10.7 (including Server) – 32 and 64 bit
- Mac OSX 10.6 – 32 bit
- Mac OSX 10.6 Server – 32 and 64 bit

**Note:** For the most current list of supported operating systems, navigate to [www.drobo.com/products/index.php](http://www.drobo.com/products/index.php), click **Drobo B1200i** and then click the **Tech Specs** tab.

## Connectivity Interfaces Supported

Drobo B1200i has four Gigabit Ethernet ports available: one dedicated management port and three iSCSI data ports.

### iSCSI Data Port



iSCSI (Internet Small Computer System Interface) is an Internet Protocol (IP)-based networking standard for connecting storage devices to computers.

With three iSCSI data ports on the Drobo B1200i, you have the flexibility to configure each port to a different network, giving all three networks access to Drobo B1200i. You can also connect two of the iSCSI data ports to the same network, creating greater bandwidth and failover protection. You can also connect one or more iSCSI ports directly to servers. For more details, see “Configuration Options for Drobo B1200i,” on page 14.

Drobo B1200i’s management (“MGMT”) port is used to configure network settings and perform other administrative tasks. The MGMT port can be connected to your Local Area Network (LAN) or directly to a computer.

**Notes:**

- While the MGMT port is dedicated to management traffic (out-of-band), Drobo B1200i can also be managed by a connected server through an iSCSI data port (in-band).
- Drobo B1200i's iSCSI connection supports Gigabit (1000 Mbit/s) Ethernet connections for optimal performance. Although these Ethernet connections can negotiate at 100 Mbit/s speeds, it is recommended to use a Gigabit switch for iSCSI traffic.
- You can purchase an add-on Gigabit Ethernet adapter card for your computer if needed. Note, however, that Drobo does not support iSCSI-specific cards, or HBA (host bus adapter) cards.

## Checking the Hardware You Need

This section helps you:

- Select the hard drives to use with Drobo B1200i
- Choose the amount of drive space (capacity) to have available on those drives to ensure your data is protected
- Know the requirements for Ethernet cables
- Know the requirements for your switch
- Work with field replaceable units, such as the fan unit
- Work with your power supply(ies)
- Know the requirements for power protection

### Selecting Hard Drives

By default, Drobo B1200i is set to run in Dual Disk Redundancy mode, which protects your data against two simultaneous hard drive failures. Therefore, you will need at least three hard drives. If, however, you decide to disable Dual Disk Redundancy, you will need at least two hard drives.

**Note:** For Drobo B1200i, we recommend that you use at least five high-performance drives (7200 RPM or faster enterprise-grade drives). This provides more data drives, better striping performance, and also helps distribute loads more effectively.

You can use hard drives from any manufacturer and with any capacity with the Drobo device. Drobo B1200i supports both the standard 3.5" internal SAS and SATA drives.

**Important:** You cannot mix SATA and SAS drives at the same time in the same disk pack with Drobo B1200i. (The set of hard drives you load into the Drobo device is together called a disk pack.) You will need to select either SATA or SAS drives. Drobo devices are not compatible with IDE, parallel SCSI, or SATA hard drives.

**Warning:** Any pre-existing data on the drives will be erased when inserted into the Drobo B1200i. If you wish to keep the data, copy it to another drive or medium before using with the Drobo device.

# Determining How Much Hard Drive Space You Need

The best way to determine how much usable, protected storage space you will have available for your data, based on the number and capacity of your drives, is to use our Capacity Calculator at [www.drobo.com/calculator](http://www.drobo.com/calculator).

A shortcut to estimating the capacity available for your data is to omit the largest drive and then add the capacity of the remaining drives. For Dual Disk Redundancy, omit the largest two drives. For example:

Dual Disk Redundancy (Default)

# Drives	Drive Capacities	Usable Protected Capacity*
4	3TB + 3TB + 3TB + 3TB	= 6TB
5	250GB + 250GB + 500GB + 500GB + 750GB	= 1TB
5	250GB + 500GB + 750GB + 1TB + 2TB	= 1.5TB

Single Disk Redundancy

# Drives	Drive Capacities	Usable Protected Capacity*
3	3TB + 3TB + 3TB	= 6TB
4	250GB + 250GB + 500GB + 750GB	= 1TB
4	250GB + 500GB + 1TB + 2TB	= 1.75TB

### Notes:

- Actual capacity could be less than what is shown in the examples above. This has nothing to do with Drobo devices.
- This is because different disc vendors have slightly differing capacities, and has nothing to do with Drobo devices..

## Selecting Ethernet Cables

Since Drobo B1200i has four Gigabit Ethernet ports, you might need two or up to four Ethernet cables, depending on how you plan to configure and use Drobo B1200i.

**Tip:** For best performance, we recommend using Category 6 (CAT6) copper Ethernet cables with RJ45 connectors.

## Using a Switch

If you plan to share Drobo B1200i with more than three servers, you will need to use a switch; otherwise, a switch is not necessary. Note that when connecting Drobo B1200i to a switch, the switch must support Gigabit Ethernet connections (1000 Mbit/s) for optimal performance.



## **Working with Field Replaceable Units**

All of the following components are replaceable and can be purchased up-front for quick replacement in the event of a component failure.

### **The Fan Unit**

Drobo B1200i comes with a removable, hot-swappable fan unit, containing eight fans, already assembled. There is nothing you need to do at this time.

In the event that one or more fans fail, a warning light will illuminate and you may need to replace your fan unit.

### **The Power Supply Units**

Drobo B1200i comes with a redundant system of two power supply units already installed. There is nothing you need to do at this time.

If a single power supply happens to fail, Drobo B1200i can operate normally on a single power supply.

### **Controller Card**

The controller card in Drobo B1200i is replaceable.

### **Expander Card**

The expander card in Drobo B1200i is replaceable.

## **Using Power Protection**

We highly recommend you plug one of Drobo B1200i power supplies into an uninterruptible power supply (UPS), which protects against sudden losses in power. We also recommend a power surge protector, although this only protects against power surges.

## Setting Up in Just a Few Steps!

Once you have ensured you meet all system and hardware requirements, it's time to set up Drobo B1200i for use. This can be done in just a few steps.

1. Rack mount Drobo B1200i.
2. Insert the hard drives.
3. Consider configuration options for Drobo B1200i.
4. Connect cables for the Ethernet management port, the iSCSI data ports you plan to use and the power source.
5. Turn on Drobo B1200i.
6. Install Drobo Dashboard.
7. Set the administrator username and password.
8. Configure iSCSI settings.
9. Create and format volumes.

### Notes:

- If you plan to use Drobo B1200i in a multi-host (clustered), virtual environment, you then also need to provision storage to the virtual machine (VM) using your virtualization management software. For more information, see this topic in the Drobo B1200i Online User Guide, found at [www.drobo.com/support/documentation.php](http://www.drobo.com/support/documentation.php).
- For more information on connecting with iSCSI, refer to "Connecting the iSCSI Data Ports" on page 15.

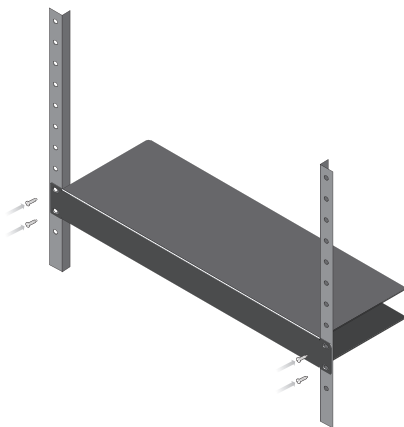
## Rack Mounting the Drobo B1200i

Before inserting hard drives or connecting cables, you will need to mount Drobo B1200i into a 2-post or 4-post rack/cabinet. Drobo B1200i comes with rack mount ears already assembled for easy mounting. Also included is a rack mount installation tool (a small metal shelf) to aid with installation.

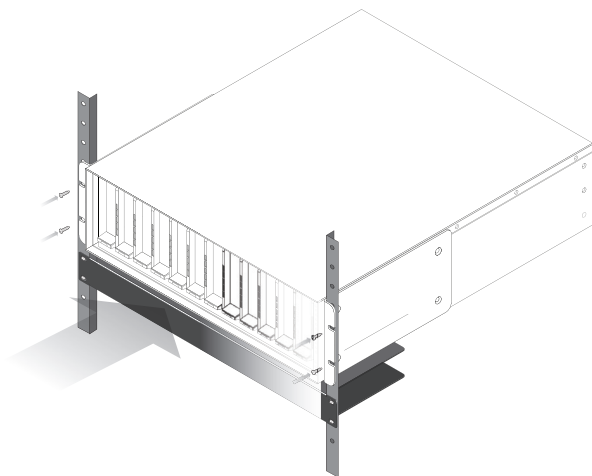
Drobo B1200i mounts to two rack rails only. If you have a 4-post rack/cabinet, you do not need to mount anything to the rear two rails.

**Note:** We recommend that installation be performed by two adults due to the weight of a Drobo B1200i chassis.

1. Place the installation tool below the rack unit where you would like to mount the Drobo B1200i, and use four screws (and optional cage nuts) to mount it in place. See the image below.



2. Place the Drobo B1200i onto the installation tool, slide it into place, and use four screws (and optional cage nuts) to secure it to the rack. For this step, it is recommended that one person stabilize the rear of the Drobo B1200i while the other person in the front secures the screws. See the image below.



3. *Optional:* Once the Drobo B1200i is mounted, you can remove the installation tool (the small metal shelf).

## Inserting the Hard Drives

After rack mounting the Drobo B1200i, you are ready to insert hard drives into it. For more information on hard drive requirements, see “Checking the Hardware You Need” on page 8.

**Warning:** Any pre-existing data on the hard drives will be erased, as the drives will be automatically formatted. If you wish to keep the data, copy it to another drive or medium before using with the Drobo device.

**Note:** Once you insert the drives into the Drobo device, they function as a unit or “pack.” To access the data on them, you will need the entire pack.

1. With one hand, hold the hard drive so that the drive label points to the right.



2. With your other hand, use your thumb to depress and hold open one of the drive locks to a selected drive bay. Refer to Figure 1 on page 5, if needed.
3. Slide the hard drive into the drive bay, release the drive lock and push the drive into place until you feel it connect.

The drive lock will snap behind the drive, securing it into place.

4. Insert additional drives in the same manner, following steps 2 through 4.
5. When finished, place the front bezel on Drobo B1200i right side up, so that when the Drobo device is turned on, you will be able to see the indicator lights.

You are now ready to connect cables and power on the Drobo device. Before connecting cables, however, it is a good idea to consider the configuration options for Drobo B1200i.

## Configuration Options for Drobo B1200i

Before connecting cables, it is important to know how you plan to set up the Drobo B1200i in your environment.

With three iSCSI data ports on the Drobo B1200i, you have the flexibility to configure the ports to optimally meet your specific needs.

For more information and recommended examples of how to configure Drobo B1200i in your networked environment, see <http://www.drobo.com/resources/iscsi.php>.

**Note:** For best practices and better performance, we recommend that you do not connect Drobo B1200i via any of its iSCSI data ports to your existing Local Area Network (LAN); instead connect it to a separate, isolated Storage Area Network (SAN).

Specifically, you can connect the Drobo B1200i via its iSCSI data ports in any one of these three ways:

1. Connecting directly to a host computer/server.
2. Connecting to a dedicated switch, which is then connected to a host computer/server. (This is the typical method of configuring a SAN.)
3. Connecting to your existing LAN, which is then connected to your host computer/server, sharing a common network for iSCSI and regular data traffic. (This option is not recommended for maximum performance.)

For all options, you will need to manually set a static IP address for each iSCSI data port you use. To do this, you configure network settings using Drobo Dashboard, the software companion to the Drobo device.

But first, you need to connect the cables and turn on Drobo B1200i.

### Connecting the Cables and Turning On Drobo B1200i

After rack mounting the Drobo B1200i and inserting the hard drives, you are ready to connect the cables.

You first connect Drobo B1200i via its management port to your LAN. This port is used to configure network settings for the iSCSI data ports and perform other administrative tasks.

Next, you connect Ethernet cables to the iSCSI data ports you plan to use. The other end of these cables plug into a server or switch, depending on how you plan to set up Drobo B1200i. For configuration options, guidelines and important notes, see the previous section, “Configuration Options for Drobo B1200i” on page 14.

Finally, you connect the power cables and turn on the Drobo device.

As you follow the steps, refer to Figure 2 on page 3, which shows the back of a Drobo B1200i.

## **Connecting the Management Port**

1. Plug one end of the Ethernet cable into the MGMT port on the back of Drobo B1200i.
2. Plug the other end into a router or switch on your LAN.

## **Connecting the iSCSI Data Ports**

1. Plug one end of the Ethernet cable into one of the iSCSI data ports on the back of Drobo B1200i.
2. Plug the other end into a server, router or switch, depending on how you plan to set up Drobo B1200i. For configuration options, see the previous section, “Configuration Options for Drobo B1200i” on page 14.
3. Repeat steps one and two for each iSCSI data port you plan to use.

## **Connecting to a Power Source**

1. Connect the power supply to the power connection at the back of the Drobo device. (Connect both power supplies for redundant power protection.)
2. Connect the other end of the power supply(ies) to a power source.

**Note:** We recommend plugging one power supply into an uninterruptible power supply (UPS). For more information, see “Using Power Protection” on page 8.

You are now ready to turn on the Drobo device.

## **Turning On The Drobo Device**

- Press the power toggle button on the back of Drobo B1200i once to power it on.

The next step in setting up Drobo B1200i is to install the Drobo Dashboard application.

## Installing Drobo Dashboard

Drobo Dashboard is the management software companion to the Drobo device, enabling you to easily set up and manage Drobo B1200i. Drobo Dashboard can also manage more than one Drobo device at a time.

You first install Drobo Dashboard on a client computer on the LAN to which you connected Drobo B1200i via its management port. You will use this connection to configure network settings for the iSCSI data ports on Drobo B1200i.

Install Drobo Dashboard from the Resource CD that came with your product. During the installation process, you can set Drobo Dashboard to automatically check for version updates, which we highly recommend.

Drobo software and firmware updates can also be installed from [www.drobo.com/support/updates](http://www.drobo.com/support/updates).

**Note:** You need to have administrator rights on the computer on which you install Drobo Dashboard.

### Installing Drobo Dashboard from the Resource CD

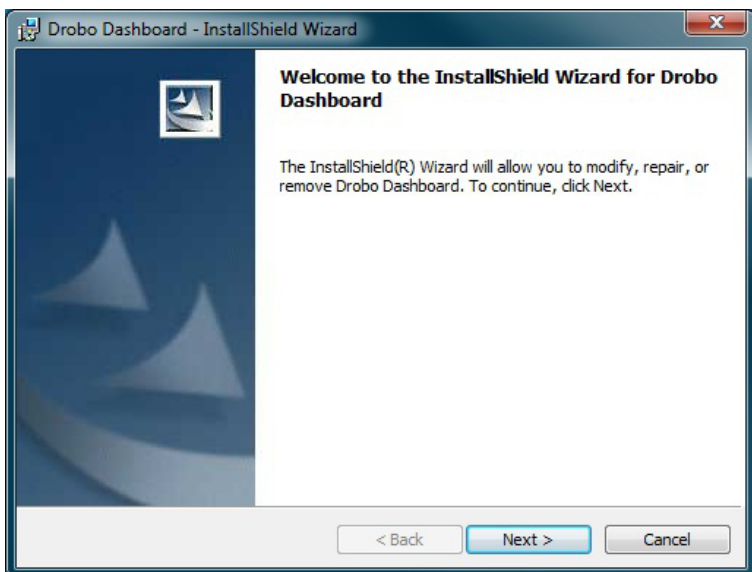
1. Place the Resource CD in your computer's CD/DVD drive.

Depending on your operating system, one of the following occurs:

- The Drobo window or the Install Drobo Dashboard window opens.
- An AutoPlay dialog box opens, giving you the option to run CDWindow.exe. Select this option. The Drobo window opens.
- You can open the Resource CD to view its contents, and from there double-click on CDWindow.exe. The Drobo window opens.

2. Double-click the **Install Drobo Dashboard** button.

The Drobo Dashboard Installation Wizard opens, preparing to install.



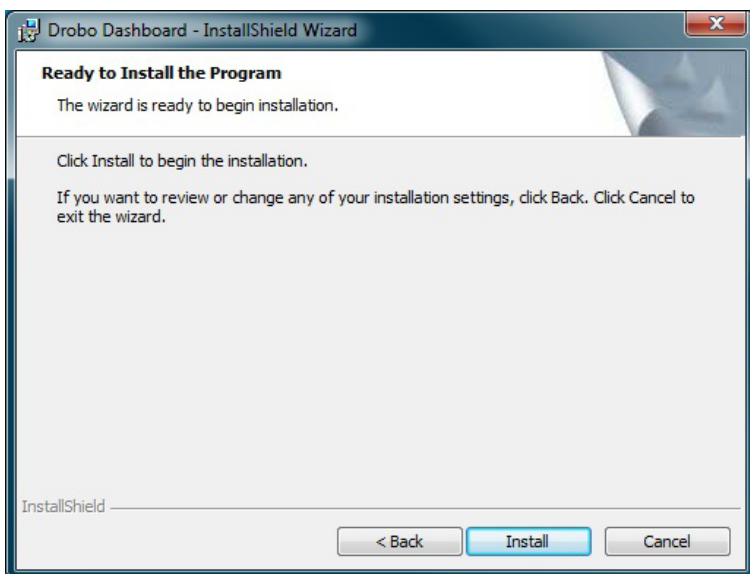
3. Click the **Next** button (Windows) or the **Continue** button (Mac), as appropriate.

**Note:** If the Microsoft iSCSI Initiator window opens, click the **Yes** button. Follow the instructions to install the Microsoft iSCSI Initiator, clicking the **Next** button as needed. When finished, you are returned to the InstallShield Wizard to continue installation.

4. Follow the directions of the Installation Wizard, clicking the **Next** or **Continue** button after each page, as appropriate.



5. When you reach the ready to install page, click the **Install** button.



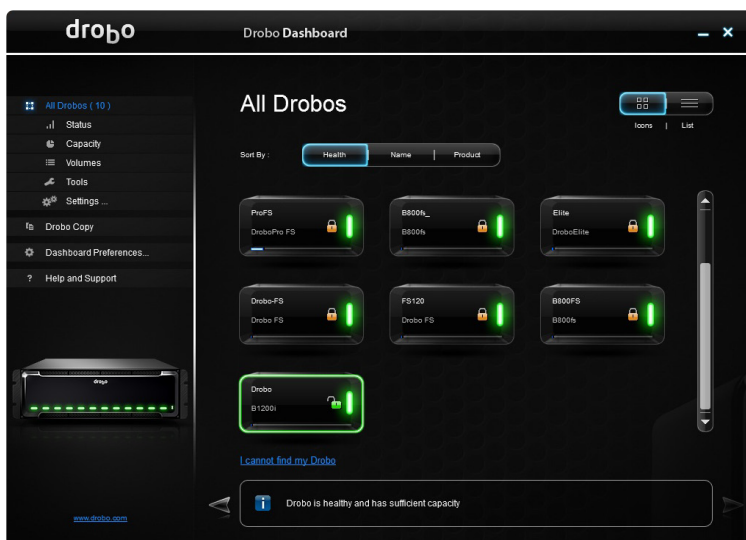
Depending on your operating system, one of the following may result:

- In some Windows operating systems, a Windows Access Control dialog box opens, asking if you want to allow changes to your computer. Click the **Allow** or **Yes** button, as appropriate.
- In the Mac, you will be prompted for your administrator password. Enter it and click the appropriate button.

Drobo Dashboard installs on your computer.

6. If you are on a Mac, you will be prompted to restart your computer in order to complete installation. Do this.
7. After installation is complete, leave the Launch Drobo Dashboard check box selected and click the **Finish** button.

The Drobo Dashboard application opens and now takes a few moments to “discover” the Drobo B1200i and display it on the All Drobos page.



The next step is to set the administrator username and password for Drobo B1200i. Please refer to "Setting the Administrator Username and Password" on page 20.

## Installing Drobo Dashboard from the Website

You can install Drobo Dashboard from [www.drobo.com/support/updates](http://www.drobo.com/support/updates).

**Note:** If warning messages appear during the installation process, asking if you are sure you want to open and/or install the file or program, click the **OK** or **Run** button, as appropriate, to continue with the installation.

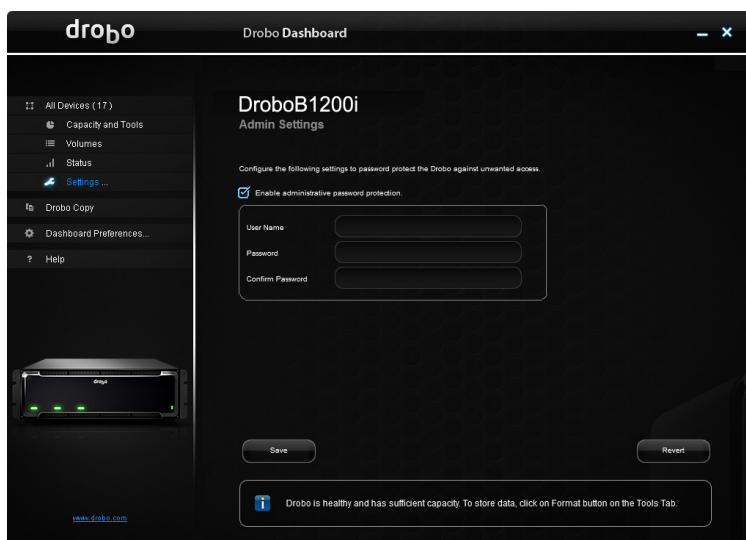
When finished, the Drobo Dashboard application launches and “discovers” the Drobo B1200i, displaying it on the All Drobos page.

The next step is to set the administrator username and password for Drobo B1200i. Please refer to "Setting the Administrator Username and Password" on page 20.

## Setting the Administrator Username and Password

1. In Drobo Dashboard, make sure the Drobo B1200i is selected from the All Drobos page.
2. Click the **Tools** option on the Navigation menu.
3. Click the link that reads: **Click here to password protect this Drobo device.**

The Admin Settings page opens.



4. Ensure that the **Enable administrative password protection** check box is selected.
5. In the Username text box, enter a username for the administrator. "Admin" is the default.
6. In the Password text box, select the default text that appears there, press the **Delete** key and enter a password for the administrator.
7. In the Confirm Password text box, select the default text that appears there, press the **Delete** key and re-enter the password you just typed.
8. Click the **OK** button.

You are returned to the main page in Drobo Dashboard, showing that you are now connected to Drobo B1200i with the username you entered.

You are now ready to configure network settings for the iSCSI data ports, as applicable.

## Configuring iSCSI Settings for the Drobo B1200i

Before using Drobo B1200i, you will need to configure the settings for its iSCSI data ports.

Network settings include IP addresses for the three iSCSI data ports available on Drobo B1200i, as well as the related subnet mask. Network settings also include the ability to modify the Maximum Transfer Unit (MTU) for each iSCSI data port. (This is the maximum number of bytes that can be transferred at a time, in one frame.)

You can modify the MTU settings in order to support the use of jumbo frames. Jumbo frames are those that maintain data transfer rates of more than 1,500 bytes per frame, and can carry up to 9,000 bytes per frame. Use of jumbo frames minimizes transaction loads, and can dramatically improve network performance by raising effective bandwidth.

You can also choose to modify settings for the management port.

Before configuring network settings, it is important to know how you plan to set up Drobo B1200i in your environment. If you haven't already done so, review options in "Configuration Options for Drobo B1200i" on page 12.

1. In Drobo Dashboard, make sure Drobo B1200i is selected from the All Drobos page.
2. Click the **Device Settings** option on the Navigation menu, and click **Network**.

The Network Settings page opens.



3. Click on one of the iSCSI port icons for which you would like to set or modify network settings, as needed.

4. In the IP Settings area, enter or modify the information as needed.

**Notes:**

- If you are setting up Drobo B1200i on a network with a DHCP server, ensure you assign a static address that is outside the pool used by the DHCP server. (This is not a concern when setting up on a dedicated SAN.)
- If you choose to modify the Frame size (MTU) to support jumbo frames, ensure that the size you enter is supported by your computer and router or switch. There needs to be end-to-end matching of MTU settings, from Drobo B1200i to your switch or router to the host computer/server.
- If you will be using Drobo B1200i in a multi-host, virtual environment, or in Linux, make note of the iSCSI settings, as you will need to add them to the iSCSI initiator software that comes with your VM operating system.

5. Repeat steps 3 and 4 for the other two iSCSI data ports, as needed.

6. If you would like to modify the settings for the management port, click the **MGMT port** icon at the top.

The MGMT port settings of the Network Settings page opens.

The screenshot shows the 'Network Settings' window for a Drobo B1200i. At the top, it says 'Select the interface you would like to configure'. Below this are four icons representing different ports: iSCSI 1, iSCSI 2, iSCSI 3, and MGMT. The MGMT port icon is highlighted with a blue border. To the right of these icons is the text 'Click on a port to select it' and 'The ports are located on the rear of your Drobo'. Below the port selection area, there are two radio buttons: 'Automatically assign IP settings (DHCP)' (which is selected) and 'Manually assign an IP address (Advanced Users)'. Under the 'Manually assign IP address' option, there is a section titled 'IP Settings ( Management Port )' containing input fields for 'IP Address', 'Subnet Mask', 'Default Gateway', 'DNS Server1', 'DNS Server2', and 'MacAddress'. At the bottom left, there is a 'Frame size (MTU)' field with a value of '(1500 - 9000)' and a 'Reset to defaults' link. At the bottom right, there are 'OK' and 'Cancel' buttons.

7. Set or modify the settings for the MGMT port as needed.

8. Click the **OK** button.

You are now ready to create volumes on Drobo B1200i.

# Creating and Formatting Volumes for Drobo B1200i

Once Drobo B1200i is connected via its iSCSI connections, you will then need to create and format volumes.

Before doing the steps for this, however, it is important to know the number of volumes, or Logical Unit Numbers (LUNs), you would like to create, the sizes of those volumes and the file system format you will choose when you format them.

## Selecting a File System and Volume Size

When you create and format volumes for Drobo B1200i, you will need to choose a particular file system for each volume. What file system formats are available to you depend on the operating system platform running on your host computer(s)/server(s). (See Figure 3.)

**Note:** Drobo Dashboard must be running on the host to format the volume for the host. You will do this in the next section, which includes the step-by-steps for creating and formatting volumes.

You will also need to choose a size for each volume. The largest volume size allowed depends on the file system format you choose and the total capacity of the drives in the Drobo device. The following table (Figure 3) shows the maximum volume size allowed for each file system format.

File System Format	Operating System Platform	Max Volume Size
HFS+	Mac OS X	16TB
NTFS	Windows	16TB
Multi-Host	Virtualization, Multi-Host support	16TB*

\* Drobo recommends 2TB LUN sizes for vSphere 4.1 and earlier versions, and for XenServer.

Figure 3: Table of file system formats and maximum volume sizes

**Important Notes:**

- Volume size does not represent how much actual storage space is available on Drobo B1200i. It represents virtual storage space because Drobo devices include thin provisioning technology. For instance, Drobo B1200i may be loaded with 8TB of hard drive space, but you can create a volume (or multiple volumes) of 16TB. This enables you to add more capacity to Drobo B1200i (by inserting an additional drive or replacing a smaller capacity drive with a larger capacity one) without having to format an additional volume. The additional capacity becomes part of the same volume you formatted originally.
- Your operating system will show the virtual space you have available on the Drobo device, as defined by the volume size.
- You can create and manage multiple volumes, each with its own size and supported file format. After creating volumes, each will display uniquely, rather than as a single volume. On the Drobo B1200i, you can create up to 256 volumes of up to 16TB each.
- If you are using Drobo B1200i in a virtual environment, you can create up to 128 volumes of up to 16TB each. (For vSphere 4.1 and earlier versions, or XenServer, 2TB volumes are recommended.)
- You can also set a Challenge Handshake Authentication Protocol (CHAP) password for any volume you would like to protect.

**Tip:** For most environments, we recommend choosing the largest volume size available for the selected file system. Note, however, that smaller volume sizes can be more efficient and manageable in certain situations, such as when indexing, scanning or searching volumes.

## Creating Volumes with Windows and Mac OS X

With Drobo B1200i connected via iSCSI, you are ready to create and format volumes. Drobo Dashboard automates this process for a Windows or Mac operating system running on your host computer (server). To take advantage, you need to install Drobo Dashboard on the host server that is connected to Drobo B1200i via one of its iSCSI data ports (either directly or through your SAN).

If you are running VMware, XenServer or Linux on the host server, see the next section, “Creating Volumes with Other Operating System Platforms” on page 29.

1. Install and launch Drobo Dashboard on the host server.

Drobo Dashboard launches and takes a few moments to “discover” Drobo B1200i.

2. In Drobo Dashboard, make sure Drobo B1200i is selected on the All Drobos page and click the **Volumes** option on the Navigation menu.

The Volumes page opens.

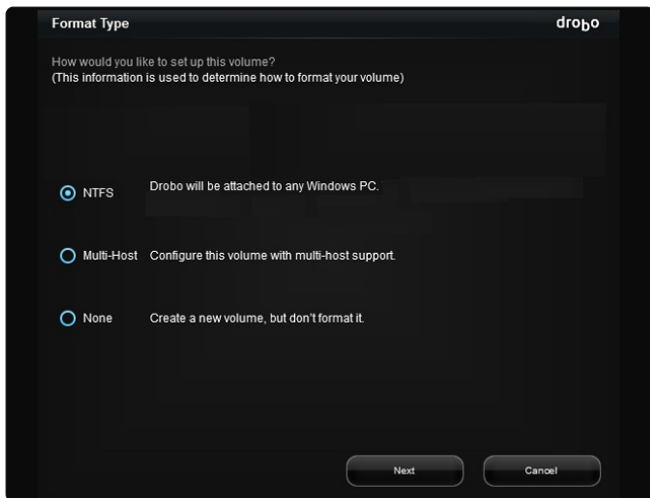


3. Click the **Create** button to create a new volume.

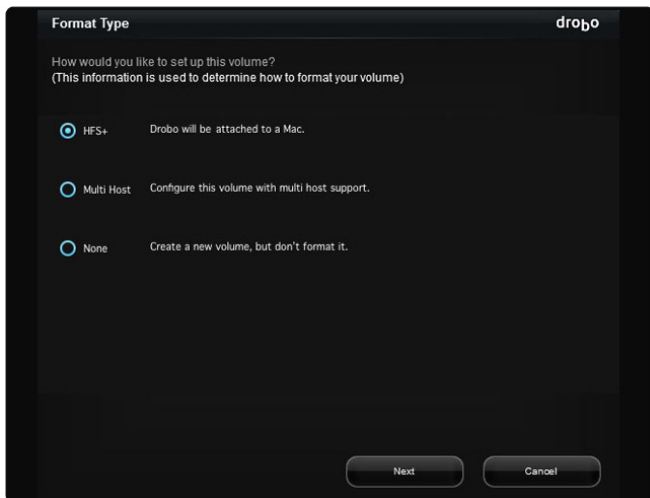


Depending on your operating system the window displays different options:

- For Windows, the following window opens:



- For Mac, the following window opens:

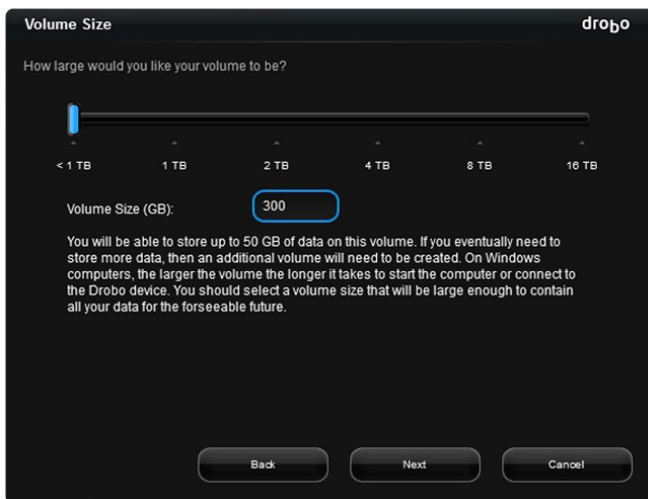


4. Select the appropriate file format for your operating system.

**Important Note:** If you plan to use Drobo B1200i in a virtual environment, you must select the Multi Host option. Otherwise, only one server in that environment/cluster will be able to see the volumes (or LUNs).

5. Afterwards, click the **Next** button.

The Volume Size page opens.

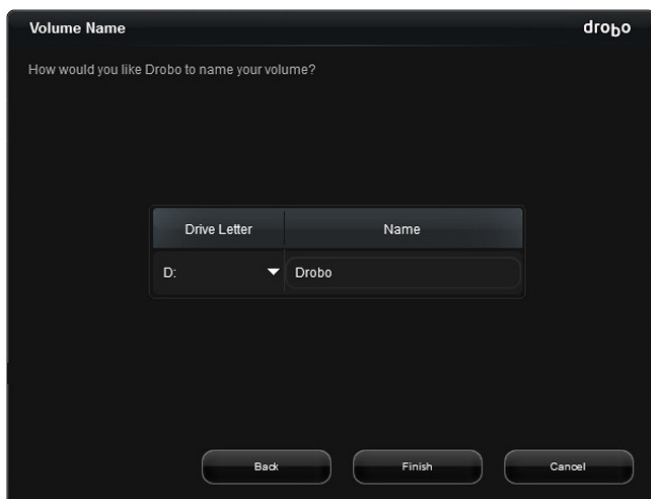


The screenshot shows the 'Volume Size' window from the Drobo software. At the top, it says 'Volume Size' and 'drobo'. Below that, it asks 'How large would you like your volume to be?'. There is a horizontal slider with a blue bar indicating the selected size. Below the slider, there are radio button options for '< 1 TB', '1 TB', '2 TB', '4 TB', '8 TB', and '16 TB'. The '2 TB' option is selected. Below these options, there is a text box labeled 'Volume Size (GB):' with the number '300' entered. A blue circle highlights the '300' in the text box. Below the text box, there is a paragraph of text: 'You will be able to store up to 50 GB of data on this volume. If you eventually need to store more data, then an additional volume will need to be created. On Windows computers, the larger the volume the longer it takes to start the computer or connect to the Drobo device. You should select a volume size that will be large enough to contain all your data for the foreseeable future.' At the bottom, there are three buttons: 'Back', 'Next', and 'Cancel'.

6. Click and drag to slide the pointer to the size of the volume you would like to create. If you would like to create a volume that is less than 1TB, click and drag to slide the pointer to < 1TB, and then enter an amount in gigabytes in the Volume size text box. When finished, click the **Next** button.

**Tip:** We recommend that you select the largest size available, enabling you to increase the number and capacity of your drives without having to format an additional volume.

The Volume Name page opens.

The image shows a 'Volume Name' dialog box with a dark background. At the top left is the title 'Volume Name' and at the top right is the 'drobo' logo. Below the title is the question 'How would you like Drobo to name your volume?'. In the center, there is a table with two columns: 'Drive Letter' and 'Name'. Under 'Drive Letter', there is a dropdown menu showing 'D:' with a small downward arrow. Under 'Name', there is a text input field containing the word 'Drobo'. At the bottom of the dialog, there are three buttons: 'Back', 'Finish', and 'Cancel'.

**Note:** If you are on a Mac, the Drive Letter drop-down list does not display.

7. If you are on a Windows computer, then from the **Drive Letter** drop-down list, select the letter for the drive to which you will assign the volume.
8. In the Name text box, modify the default name for the volume, and then click the **Finish** button.

**Tip:** We recommend including the word “volume” in the name so as not to confuse the volume name with the Drobo device’s name.

The Volumes page opens, displaying the volume you just created.

**Note:** The volume will not format until you click the **Apply** button.

9. You can create additional volumes by repeating steps 3 through 8.
10. When finished, click the **Apply** button.

The Confirm dialog box opens, asking if you want to apply volume changes.

11. Click the **Yes** button.

The volume(s) are formatted.

**Note:** Some Windows and Mac operating systems will also prompt you to format the drives. If so, click **Cancel** or **Ignore**, as appropriate.

A message box displays when formatting is complete.

12. Click the **OK** button.

You are returned to the Volumes page.

You can now set a CHAP password to protect one or more volumes, if desired. See this topic in the Online User Guide.

Now that Drobo B1200i is set up, you can easily mount the volumes you just created by checking the mount box in Drobo Dashboard. You can also add Drobo B1200i to your virtual environment. For more information on these topics, see the Online User Guide.

## Creating Volumes with Other Operating System Platforms

Follow these general steps to create and format volumes if you are running VMware, XenServer or Linux on the host server, or if you do not wish to use Drobo Dashboard on the host server to format volumes.

1. In Drobo Dashboard on your management client computer (which is on the LAN that connects to the Drobo B1200i via the MGMT port), make sure Drobo B1200i is selected on the All Drobos page and click the Volumes option on the Navigation menu.

The Volumes page opens.



2. Click the **Create** button to create a new volume.

**Note:** As you are on the MGMT port, file system options are limited and you will not be able to format the volumes you create here.

3. Follow the directions on the screen, clicking the **Next** or **Finish** button as appropriate to create a volume. Repeat steps 2 and 3 to create additional volumes.
4. While still in Drobo Dashboard, click **Settings** from the Navigation menu, and then click **Network** to view network settings for the iSCSI data ports. Copy down the IP addresses, as you will need them for your iSCSI initiator software.
5. To format this volume, you first need to configure the iSCSI initiator on the host server to access Drobo B1200i, by providing the IP address.
6. Give the host server access to the newly created volume(s). Based on the initiator you are using (Microsoft, VMware, etc.), you will be requested to provide the IP address and CHAP settings for the Drobo B1200i.
7. Format the volume(s) with the appropriate file system format(s).

Now that Drobo B1200i is set up, you can add Drobo B1200i to your virtual environment. For more information, see the Online User Guide.

## Where to Go from Here

After you've set up the Drobo B1200i, you're ready to use it to store and back up data. Next steps include:

- Implementing best practices to maximize the safety of your data
- Ensuring optimal performance by keeping your software (Drobo Dashboard and the Drobo device's firmware) up to date
- Knowing how to safely shut down the Drobo device
- Using the Online User Guide and context-sensitive help to learn more about how to manage and use the Drobo device
- Using our knowledge base to answer almost any additional question
- Getting the support you may need

## Using Best Practices

Although the Drobo device provides redundancy and automatically protects your data against a hard drive failure, it should only be one part of an overall, digital asset management strategy.

To better safeguard your valuable data, we strongly encourage you to review our guide on best practices, which can be found at [www.drobo.com/support/best\\_practices](http://www.drobo.com/support/best_practices).

Our guide offers strategies to protect data beyond hard drive failures. Following best practices will help maximize the safety of your data.

## Keeping Your Software Up to Date

To ensure optimal performance, we highly recommend that you set Drobo Dashboard to automatically check for software updates. (You may have already done this during the initial setup.) This feature keeps both Drobo Dashboard and your product's firmware current.

You can also install updates from [www.drobo.com/support/updates](http://www.drobo.com/support/updates).

1. If it's not already running, launch Drobo Dashboard from the host computer and select the Drobo device on the All Drobos page.
2. From the Navigation menu, click **Dashboard Preferences**.

The Dashboard Preferences page appears.

**Dashboard Preferences**

**Discovery Settings**  
By default, Drobo Dashboard automatically discovers all Drobos in the local subnet. If you want to access a device in a different subnet or disable Automatic Discovery, use the "Discovery Settings".  
[Discovery Settings](#)

**Update Settings**  
By default, Drobo Dashboard automatically downloads updates for DroboDashboard and Drobo firmware.  
☒ Enable Auto Updates

**On-screen Alert & Email Settings** [Email Settings](#)

Drobo Dashboard should send alerts

- ☒ On all useful information
- ☐ When a situation is important
- ☐ On critical situations only
- ☐ Don't show on-screen alerts

Send Email Alerts

- ☐ On all useful information
- ☒ When a situation is important
- ☐ On critical situations only
- ☐ Don't send DroboDashboard emails

**Other Settings**  
☒ Enable System Tray

Drobo is healthy and has sufficient capacity

3. Ensure that the **Enable Auto Updates** check box is selected, and then click the **OK** button.

When one or more software updates are available, a message appears, asking if you would like to install the update(s). If so, click the **Yes** button and follow the prompts to install them.

## Safely Shutting Down Drobo B1200i

If you plan to shut down the Drobo device for any reason, it is very important that you always do so safely. Incorrectly shutting down a Drobo device may cause file corruption and/or data loss.

It is a good idea to shut down the Drobo device before any of the following situations:

- You are not going to be using the Drobo device for an extended period
- You are going to disconnect the cable(s) or power cord
- You want to move the Drobo device to another location
- You are going to remove the entire disk pack

## Safely Shutting Down the Drobo Device Using Drobo Dashboard

This is the recommended method for safely shutting down the Drobo device.

1. Ensure that no data is actively being transferred to or from the Drobo device.

**Note:** If data is actively being transferred, the activity light on the front will be blinking green.

2. Also check to ensure the drive bay action indicator lights are not blinking alternately between yellow and green. This indicates that the Drobo device is busy working to protect your data. Wait until these lights are a solid green.

3. In Drobo Dashboard, select the Drobo device on the All Drobos page.

4. Click the **Tools** option on the Navigation menu, and click the **Shutdown** icon.

It can take up to two minutes for the Drobo device to power down. Later, the power light turns off, indicating the Drobo device has shut down.

## Safely Shutting Down the Drobo Device Manually

You can also safely shut down the Drobo device manually.

1. Ensure that no data is actively being transferred to or from the Drobo device.

**Note:** If data is actively being transferred, the activity light on the front will be blinking green.

2. Also check to ensure the drive bay action indicator lights are not blinking alternately between yellow and green. This indicates that the Drobo device is busy working to protect your data. Wait until these lights are a solid green.

3. Press and hold the **power toggle button** on the back of the Drobo device for three full seconds.


It can take up to two minutes for the Drobo device to power down. Later, the power light turns off, indicating the Drobo device has shut down.



## Using the Online User Guide

After you've set up the Drobo device, you're ready to use it to store and back up data. To learn how to manage and use the Drobo device, refer to the Online User Guide for your product, which can be found within Drobo Dashboard by clicking the Help & Support option on the Navigation menu, and clicking the View Drobo User Guide icon. The latest version can also be found at [www.drobo.com/support/documentation.php](http://www.drobo.com/support/documentation.php).

## Using Context-Sensitive Help

When using Drobo Dashboard, you can click the Help  button in the upper-right corner of the window to display context-sensitive help. The Help window appears in your Internet browser, providing information particular to the page from which you clicked for help.

## Using the Knowledge Base

Our searchable knowledge base provides answers to almost any question related to the Drobo device that you can't find in the Online User Guide.

From within Drobo Dashboard, you can access our knowledge base by clicking the Help & Support option on the Navigation menu, and clicking the Search Knowledge Base icon. You can also access the knowledge base at <http://support.drobo.com/app/answers/list>.

## Getting Support

To get support, first be sure to register your product at [www.drobo.com/registration](http://www.drobo.com/registration), if you haven't already done so. You can then go to [www.drobo.com/support](http://www.drobo.com/support) for details on how to contact support.

You can also obtain additional hardware and phone support by purchasing DroboCare. The DroboCare support program extends your peace of mind beyond the standard warranty term and phone support included with your Drobo product purchase. To learn more about DroboCare visit: [www.drobo.com/drobocare](http://www.drobo.com/drobocare). Also see our DroboCare FAQ at: [http://support.datarobotics.com/app/answers/detail/a\\_id/343](http://support.datarobotics.com/app/answers/detail/a_id/343).

# Index

- administrator password, 18
- administrator username, 18
- best practices, 30
- capacity, 7
  - increasing, 7
- Capacity Calculator, 7
- CHAP, Challenge Handshake Authentication Protocol, 24
- drive bay, 3, 12
- drive bay indicator lights, 3, 12
- drive lock, 12
- Drobo Dashboard, 14, 17
- Dual Disk Redundancy, 7
- Ethernet, 6
- fan unit, 9
- file system format, 21, 22
- firmware, 14, 30
- hard drives
  - inserting, 11
  - SAS, 6
  - SATA, 6
  - selecting, 6, 7
- increasing capacity, 7
- inserting hard drives, 11
- installation tool, rack mounting, 4, 10
- installing Drobo Dashboard, 14
- installing software updates, 30
- iSCSI, 6, 12
- setting up Drobo B1200i with, 19
- jumbo frames, 19
- knowledge base, 32
- Local Area Network (LAN), 12, 13
- LUN, Logical Unit Number, 21
- management (MGMT) port, 4, 6, 13
- MTU, Maximum Transfer Unit, 19
- multi-host, 10
- Online User Guide, 32
- operating systems supported, 5
- password, administrator, 18
- power supply units, 8
- power surge protector, 8, 13
- power toggle button, 13, 31
- rack mount installation tool, 4
- rack mounting, 9, 10
- SAS hard drives, 6
- SATA hard drives, 6
- shutting down your Drobo device, 30, 31
- Single Disk Redundancy, 7
- software updates, 14, 30
- support, 32
- switch, 7
- system requirements, 5
- uninterruptible power supply, 8, 13
- updates, software, 14, 30
- username, administrator, 18
- virtual environment, 27
- volume, 21
  - creating, 21, 22, 23

# Safety and Warranty

# Safety and Warranty

## Safety

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operational precautions of which you should be particularly aware.

Please read these instructions before operating Drobo, DroboPro, DroboElite, DroboFS, ProFS, B800i, B800fs or B1200i and save them for future reference.

1. Read all instructions: All safety & operating instructions should be read and understood before operation.
2. Retain instructions: The safety and operating instructions should be retained for future reference.
3. Heed Warnings: All warnings on the appliance and in the operating instructions should be followed.
4. Follow Instructions: All operating and usage instructions should be followed.
5. Drobo, DroboPro, DroboElite, Drobo FS, Pro FS, B800i, B800fs and B1200i are to be used with UL Listed ITE Equipment only.
6. Avoid Water and Moisture: Drobo, DroboPro, DroboElite, Drobo FS, Pro FS, B800i, B800fs, and B1200i should not be used near water (for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool).
7. Provide Adequate Ventilation: Drobo, DroboPro, DroboElite, Drobo FS, Pro FS, B800i, B800fs and B1200i should each be situated so that its location or position does not interfere with its proper ventilation. For example, Drobo should not be situated against a surface that may block the ventilation openings or placed in a built-in installation such as a bookcase or cabinet that may impede the flow of air through the ventilation openings. Additionally, no other device other than a Drobo should be placed on top of DroboShare.
8. Protect from Heat: Drobo, DroboPro, DroboElite, Drobo FS, Pro FS, B800i, B800fs and B1200i should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
9. Protect Power Cords: Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point at which they exit from the product.
10. Avoid Object and Liquid Entry: Never push objects of any kind into Drobo, DroboPro, DroboElite, Drobo FS, Pro FS, B800i, B800fs and B1200i ventilation slots except drives compliant with the User Guide as they may touch dangerous voltage points or short the parts, resulting in the risk of fire or electric shock. Never spill liquid of any kind onto Drobo.
11. TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF ELECTRICAL PLUG TO WIDE SLOT AND INSERT FULLY.
12. DROBO, DROBOPRO, DROBOELITE, PRO FS, B800i, B800fs AND B1200i CONTAIN A LITHIUM BATTERY WHICH CAN EXPLODE IF MISHANDLED. BATTERY IS NOT FIELD OR USER-SERVICEABLE. Please dispose of battery in a manner consistent with local jurisdictions.
13. DRIVES IN DROBO, DROBOPRO, DROBOELITE, DROBO FS, PRO FS, B800i, B800fs AND B1200i WILL RETAIN HEAT AFTER USE. PLEASE USE CAUTION WHEN REMOVING DRIVES FROM DROBO, DROBOPRO, DROBOELITE, DROBOFS, ProFS, B800i, B800fs OR B1200i. TO SAFELY REMOVE DRIVES, PRESS THE DRIVE LATCH TO RELEASE THE DRIVE AND ALLOW THE DRIVE TO COOL IN THE DATA BAY FOR 10 MINUTES BEFORE COMPLETELY REMOVING THE DRIVE FROM DROBO, DROBOPRO, DROBOELITE, DROBOFS, ProFS, B800i, B800fs OR B1200i. FAILURE TO FOLLOW THIS PROCEDURE MAY RESULT IN INJURY FROM HOT DRIVES.
14. Damage Requiring Service: Drobo, DroboPro, DroboElite, Drobo FS, Pro FS, B800i, B800fs and B1200i should be serviced by an employee of Data Robotics, Inc. or a Data Robotics, Inc. Authorized Reseller ("qualified service personnel"), and should be serviced when:
  - A. THE POWER SUPPLY CORD OR PLUG IS DAMAGED OR FRAYED;
  - B. LIQUID HAS SPILLED INTO DROBO, DROBOPRO, DROBOELITE, DROBO FS, PRO FS, B800i, B800fs OR B1200i;
  - C. DROBO, DROBOPRO, DROBOELITE, DROBO FS, PRO FS, B800i, B800fs OR B1200i HAS BEEN EXPOSED TO RAIN OR WATER;
  - D. DROBO, DROBOPRO, DROBOELITE, DROBO FS, PRO FS, B800i, B800fs OR B1200i DOES NOT OPERATE NORMALLY WHEN YOU FOLLOW THE OPERATING INSTRUCTIONS;
  - E. DROBO, DROBOPRO, DROBOELITE, DROBO FS, PRO FS, B800i, B800fs OR B1200i HAS BEEN DROPPED OR THE CHASSIS DAMAGED;
  - F. DROBO, DROBOPRO, DROBOELITE, DROBO FS, PRO FS, B800i, B800fs OR B1200i SHARE EXHIBITS A DISTINCT CHANGE IN PERFORMANCE.
15. Use only the supplied USB 2.0, USB 3.0, FireWire 800, Ethernet, and power cables when operating Drobo, DroboPro, DroboElite, Drobo FS, ProFS, B800i, B800fs or B1200i.

**Servicing** – The user should not attempt to service Drobo, DroboPro, DroboElite, Drobo FS, Pro FS, B800i, B800fs or B1200i beyond that described as user service items in the FAQ section of this manual, the Troubleshooting sections of the Help Files, or the support Knowledge Base. All other servicing should be referred to qualified service personnel.

**Cleaning** – Unplug Drobo, DroboPro, DroboElite, Drobo FS, Pro FS, B800i, B800fs or B1200i from the wall outlet before cleaning. Do not use liquid or aerosol cleaners; use a damp cloth. If Drobo, DroboPro, DroboElite, Drobo FS, Pro FS, B800i, B800fs or B1200i comes in contact with any liquid, unplug the power adaptor and let Drobo dry thoroughly before plugging back in.

**Power Source** – Drobo, DroboPro, DroboElite, Drobo FS, Pro FS, B800i, B800fs or B1200i should be operated only from the type of power source indicated on the marking label or in this User Guide. If you are not sure of the type of power supplied to your home or business, consult your local power company.

**Overloaded Power Outlets** – Do not overload wall outlets and extension cords, this can result in risk of fire or electric shock.

**Electric Shock** – To reduce the risk of electric shock, do not disassemble Drobo, DroboPro, DroboElite, DroboFS, ProFS, B800i, B800fs or B1200i. Doing so will void the warranty. Take it to a qualified service person when service or repair work is required. Opening or removing covers may expose you to dangerous voltage or other risks. Incorrect reassembly can cause electric shock when Drobo is used.

**Moving** – Avoid moving Drobo, DroboPro, DroboElite, DroboFS, ProFS, B800i, B800fs or B1200i while it is plugged in to avoid shock and vibration damage to the installed hard disk drives.

**Electrostatic Discharge** – The components inside your Drobo and disk drives are sensitive to static electricity, also known as electrostatic discharge. Before you install any disk drive, we recommend that you do the following: 1) Avoid static-causing surfaces such as carpeted floors, plastic, and packing foam; 2) Discharge yourself by touching an unpainted metal surface such as a desk or rack mount; 3) Remove disk drives from their antistatic bags only when you are ready to use them. Be sure to follow any additional recommendations that the disk drive manufacturers provides.

**Repair Technician Warning!** – Before opening the DroboPro or DroboElite unit or removing the power supply assembly, the AC cord MUST be unplugged from the outside of the unit and the unit must be unpowered. The System Earthing connections of the internal AC cable must not be removed if the system is powered on for service access.

**Drobo Specifications & Systems Requirements** – Power Supply: AC Input: 100-240VAC-2.5A, 50-60Hz; DC Output: 12-17VDC 6.6A & 80W Max.; Drobo Power Consumption: 4A @ 12V (48W); Operating Temperature: 10°C-35°C (50°-95°F); Non-operating (storage): -10°-60°C (14°-140°F); Operating Humidity: 5% - 80%; Dimensions: 6.0" wide x 6.3" tall x 10.7" long (152.4mm wide x 160mm tall x 271.8mm long); Weight: 6 lb 11.3 oz (without power supply); Storage: Accepts up to four 3.5" SATA I or II internal desktop hard drives; Interfaces: USB 2.0 and FireWire 800 (2nd Generation Only); Drobo Dashboard Application (optional): Microsoft® Windows® Operating Systems, Apple® Macintosh® OS-X v10.4+; File system support: NTFS, HFS+, FAT32, and EXT3 (via DroboShare).

**Drobo S Specifications & Systems Requirements** – Power Supply: AC Input: 100-240VAC-2.5A, 50-60Hz; DC Output: 12-17VDC 6.6A & 80W Max.; Drobo Power Consumption: 4A @ 12V (48W); Operating Temperature: 10°C-35°C (50°-95°F); Non-operating (storage): -10°-60°C (14°-140°F); Operating Humidity: 5% - 80%; Dimensions: 5.9" wide x 7.3" tall x 10.3" long (150.3mm wide x 185.4mm tall x 262.3mm long); Weight: 8 lbs (without power supply); Storage: Accepts up to five 3.5" SATA I or II internal desktop hard drives; Interfaces: USB 2.0, FireWire 800, eSATA; Drobo Dashboard Application (recommended): Microsoft® Windows® Operating Systems XP SP3+, Apple® Macintosh® OS-X v10.5+; File system support: NTFS, HFS+, FAT32, and EXT3.

**DroboPro Specifications & Systems Requirements** – Power Supply: AC Input: 100/240 VAC, 1.8/0.75 A, 50/60 Hz; Operating Temperature: 10°C-35°C (50°-95°F); Non-operating (storage): -10°-60°C (14°-140°F); Operating Humidity: 5% - 80%; Dimensions: 12.17" wide x 5.46" tall x 14.1" long (309mm wide x 138.9mm tall x 357.4mm long); Weight: 16 lb 3 oz; Storage: Accepts up to eight 3.5" SATA I or II internal desktop hard drives; Interfaces: USB 2.0, FireWire 800, and iSCSI; Drobo Dashboard Application (required for iSCSI): Microsoft® Windows® Operating Systems, Apple® Macintosh® OS-X v10.4+ (10.5.6+ required for iSCSI); File system support: NTFS, HFS+, FAT32, and EXT3.

**Drobo FS Specifications & Systems Requirements** – Power Supply: AC Input: 100-240VAC-2.5A, 50-60Hz; DC Output: 12-17VDC 8.33A & 100W Max.; Drobo Power Consumption: 5A @ 12V (60W); Operating Temperature: 10°C-35°C (50°-95°F); Non-operating (storage): -10°-60°C (14°-140°F); Operating Humidity: 5% - 80%; Dimensions: 5.9" wide x 7.3" tall x 10.3" long (150.3mm wide x 185.4mm tall x 262.3mm long); Weight: 8 lbs. (without power supply); Storage: Accepts up to five 3.5" SATA-compliant internal desktop hard drives; Interface: Ethernet; Drobo Dashboard Application (recommended): Microsoft® Windows® Operating Systems XP SP3+, Apple® Macintosh® OS-X v10.5+; File system support: EXT3.

**DroboPro FS Specifications & Systems Requirements** – Power Supply: AC Input: 100/240 VAC, 1.8/0.75 A, 50/60 Hz; Operating Temperature: 10°C-35°C (50°-95°F); Non-operating (storage): -10°-60°C (14°-140°F); Operating Humidity: 5% - 80%; Dimensions: 12.17" wide x 5.46" tall x 14.1" long (309mm wide x 138.9mm tall x 357.4mm long); Weight: 16 lb 3 oz; Storage: Accepts up to eight 3.5" SATA I or II internal desktop hard drives; Interfaces: Ethernet; Drobo Dashboard Application (recommended): Microsoft® Windows® Operating Systems XP SP3+, Apple® Macintosh® OS-X v10.5+; File system support: EXT3.

**DroboElite Specifications & Systems Requirements** – Power Supply: AC Input: 100/240 VAC, 1.8/0.75 A, 50/60 Hz; Operating Temperature: 10°C-35°C (50°-95°F); Non-operating (storage): -10°-60°C (14°-140°F); Operating Humidity: 5% - 80%; Dimensions: 12.17" wide x 5.46" tall x 14.1" long (309mm wide x 138.9mm tall x 357.4mm long); Weight: 16 lb 3 oz; Storage: Accepts up to eight 3.5" SATA I or II internal desktop hard drives; Interfaces: USB 2.0 (Admin only), and iSCSI; Drobo Dashboard Application (required for iSCSI): Microsoft® Windows® Operating Systems, Apple® Macintosh® OS-X v10.5+; File system support: NTFS, HFS+, FAT32, and EXT3.

**B800i Specifications & Systems Requirements** – Power Supply: AC Input: 100/240 VAC, 1.8/0.75 A, 50/60 Hz; Operating Temperature: 10°C-35°C (50°-95°F); Non-operating (storage): -10°-60°C (14°-140°F); Operating Humidity: 5% - 80%; Dimensions: 12.17" wide x 5.46" tall x 14.1" long (309mm wide x 138.9mm tall x 357.4mm long); Weight: 16 lb 3 oz; Storage: Accepts up to eight 3.5" SATA I or II internal desktop hard drives; Interfaces: USB 2.0 (Admin only), and iSCSI; Drobo Dashboard Application (required for iSCSI): Microsoft® Windows® Operating Systems, Apple® Macintosh® OS-X v10.5+; File system support: NTFS, HFS+, FAT32, and EXT3.

**B800fs Specifications & Systems Requirements** – Power Supply: AC Input: 100/240 VAC, 1.8/0.75 A, 50/60 Hz; Operating Temperature: 10°C-35°C (50°-95°F); Non-operating (storage): -10°-60°C (14°-140°F); Operating Humidity: 5% - 80%; Dimensions: 12.17" wide x 5.46" tall x 14.1" long (309mm wide x 138.9mm tall x 357.4mm long); Weight: 16 lbs 3 ozs.; Storage: Accepts up to eight 3.5" SATA I or II internal desktop hard drives; Interfaces: Ethernet; Drobo Dashboard Application (recommended): Microsoft® Windows® Operating Systems XP SP3+, Apple® Macintosh® OS-X v10.5+; File system support: EXT3.

**FCC Compliance & Advisory Statement** – This equipment 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 equipment 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 equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) Reorient or relocate the receiving antenna. 2) Increase the separation between the equipment and receiver. 3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. 4) Consult the dealer or an experienced radio/TV technician for help. Any changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the device. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.

This Class B digital apparatus meets all requirements of the Canadian interference-Causing Equipment Regulations. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada. Please see <http://www.drobo.com> for additional compliancy information.

## Industry Canada Statement

Complies with the Canadian ICES-003 Class B specifications. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. This device complies with RSS 210 of Industry Canada.

This Class B device meets all requirements of the Canadian interference-causing equipment regulations.

Cet appareil numérique de la Class B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

## VCCI Class B Statement

VCCI クラスB 基準について

情報処理装置等電波障害自主規制について この装置は、情報処理装置等電波障害自主規制協議会 (VCCI)の基準にもとづくクラスB情報技術装置です。

この装置は家庭環境で使用されることを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

説明書に従って正しい取扱いをしてください。

**B1200i Specifications & Systems Requirements** – Power Supply: AC Input: 100/240 VAC, 8A/5A, 50/60 Hz; Operating Temperature: 10°C-35°C (50°-95°F); Non-operating (storage): -10°-60°C (14°-140°F); Operating Humidity: 20% - 80%; Dimensions: 17.17" wide x 5.20" tall x 21.85" long (436.1 mm wide x 132.1 mm tall x 555.0 mm long); Weight: 47 lbs (21.3 kgs); Storage: Accepts up to twelve 3.5" SATA II, SATA III, or SAS drives; Interfaces: Three Gigabit iSCSI and one Gigabit Ethernet for management; Drobo Dashboard Application (recommended); Microsoft® Windows® Operating Systems, Apple® Macintosh® OS-X v10.5+; File system support: NTFS, HFS+, and EXT3.

**FCC Compliance & Advisory Statement** – This equipment has been tested and found to comply with the limits for a Class A 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 equipment 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 equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) Reorient or relocate the receiving antenna. 2) Increase the separation between the equipment and receiver. 3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. 4) Consult the dealer or an experienced radio/TV technician for help. Any changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the device. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.

## Industry Canada Statement

Complies with the Canadian ICES-003 Class A specifications. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada. This device complies with RSS 210 of Industry Canada.

This Class A device meets all requirements of the Canadian interference-causing equipment regulations.

Cet appareil numérique de la Class A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

## VCCI Class A Statement

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対応を講ずるよう要求されることがあります。

#### Europe–EU Declaration of Conformity

The equipment complies with the EU directives 89/336/EEC, 73/23/EEC, and 93/68/EEC. This equipment is in conformity with the essential requirements of EU directives: EN 55022: 1998 plus A1:2000 & A2:2003, EN 55024: 1998 plus A1:2001 & A2:2003, EN 61000-3-2: 2000 plus A2:2005, EN 61000-3-3: 1995 plus A1:2001 & A2:2005, and EN 60950-1: 2000+A11:2004.

Hereby, Data Robotics, Inc., declares that this Disk Storage Array and Network Attached Storage link appliance are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.



#### Disposal and Recycling Information

When this product reaches its end of life, dispose of the product and batteries used with it according to your local environmental laws and guidelines. For information about Data Robotics' recycling program, go to [www.drobo.com/support/weee/](http://www.drobo.com/support/weee/).

#### European Union



The symbol above means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

#### Battery Disposal

Your Drobo, DroboPro, DroboElite, DroboShare, Drobo FS, DroboPro FS, B800i, B800fs and B1200i have internal batteries that preserve settings when the unit is off. Do not attempt to change the battery. Only a Data Robotics, Inc. certified technician can change the battery. When the product has reached the end of its useful life, please dispose of it according to your local environmental laws and guidelines.

本製品の寿命が尽きたときは、お住まいの地域の環境法と廃棄基準に従って本製品と電池を廃棄して下さい。  
Drobo, Inc. のリサイクルプログラムについては、次のwebサイトを参照してください。

# LIMITED WARRANTY – NORTH AMERICA AND ASIA PACIFIC COVERAGE

The warranty obligations of Drobo, Inc. (formerly known as Data Robotics, Inc.) are limited to the terms set forth herein. This Limited Warranty applies only to: (i) product manufactured by or for Drobo; and (ii) replacement components sold by Drobo, of the product manufactured by or for Drobo; that can be identified by the "Data Robotics" or "Drobo" trademark, trade name, or logo affixed to them (collectively, "Product") and is provided only to the original end-user purchaser of the Product ("You" or "Your"). Drobo warrants against defects in materials and workmanship under normal use for a period of: (i) ONE (1) YEAR, for Product sold outside of Europe; and (ii) TWO (2) YEARS for Product sold in Europe; from the date of retail purchase by the original end-user purchaser ("Warranty Period").

Subject to applicable law, Drobo may require that You furnish proof of purchase details and/or comply with registration requirements before receiving any portion of these warranty services. Please refer to the online product documentation at <http://www.drobo.com/support> for more details on this and other matters on obtaining warranty service.

Subject to the terms and conditions herein, if a Product hardware defect arises and a valid claim is received within the applicable Warranty Period, at its option, Drobo will at its option either: (1) repair such defect at no charge, using new or refurbished replacement parts; or (2) replace the defective Product with a Product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original Product; or (3) refund the purchase price of the Product, provided the Product for which the refund is provided is returned to Drobo and such Product shall become Drobo's property.

## EXCLUSIONS AND LIMITATIONS

The Limited Warranty does not apply to any non-Product or any software, even if packaged or sold with Product. Manufacturers, suppliers, or publishers, other than Drobo may provide their own warranties to You, but Drobo, to the extent permitted by law, provides such manufacturer's products "as is". SOFTWARE DISTRIBUTED BY DROBO WITH OR WITHOUT THE OR DROBO BRAND NAME (INCLUDING, BUT NOT LIMITED TO SYSTEM SOFTWARE) IS NOT COVERED UNDER THIS LIMITED WARRANTY. REFER TO THE LICENSING AGREEMENT ACCOMPANYING THE SOFTWARE FOR DETAILS OF YOUR RIGHTS WITH RESPECT TO ITS USE.

DROBO DOES NOT WARRANT THAT THE OPERATION OF THE PRODUCT WILL BE UNINTERRUPTED OR ERROR-FREE. DROBO IS NOT RESPONSIBLE FOR DAMAGE ARISING FROM FAILURE TO FOLLOW INSTRUCTIONS RELATING TO THE PRODUCT'S USE AND/OR STORAGE.

In no event does this limited warranty apply: (a) to damage caused by use with non-Products; (b) to damage caused by accident, abuse, misuse, flood, fire, earthquake or other external causes; (c) to damage caused by operating the Product outside the permitted or intended uses described by Drobo; (d) to damage caused by service (including upgrades and expansions) performed by a party other than an authorized representative of Drobo or a Drobo Authorized Reseller; (e) to a Product or Product part that has been modified to significantly alter functionality or capability without the written permission of Drobo; (f) to consumable parts, such as batteries, unless damage has occurred due to a defect in materials or workmanship; or (g) if any Drobo serial number has been removed or defaced.

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, STATUTORY, EXPRESS OR IMPLIED, AND DROBO SPECIFICALLY DISCLAIMS ANY AND ALL STATUTORY OR IMPLIED WARRANTIES OR CONDITIONS, INCLUDING, WITHOUT LIMITATION, WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS. IF DROBO CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES OR CONDITIONS, THEN TO THE EXTENT PERMITTED BY LAW, ALL SUCH WARRANTIES AND CONDITIONS SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS EXPRESS WARRANTY AND TO REPAIR, REPLACEMENT OR REFUND SERVICE AS DETERMINED BY DROBO IN ITS SOLE DISCRETION. No Drobo reseller, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE EXTENT PERMITTED BY LAW, DROBO IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE; LOSS OF REVENUE; LOSS OF ACTUAL OR ANTICIPATED PROFITS (INCLUDING LOSS OF PROFITS ON CONTRACTS); LOSS OF THE USE OF MONEY; LOSS OF ANTICIPATED SAVINGS; LOSS OF BUSINESS; LOSS OF OPPORTUNITY; LOSS OF GOODWILL; LOSS OF REPUTATION; LOSS OF, DAMAGE TO OR CORRUPTION OF DATA; OR ANY INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE HOWSOEVER CAUSED INCLUDING THE REPLACEMENT OF EQUIPMENT AND PROPERTY, ANY COSTS OF RECOVERING, PROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED OR USED WITH DROBO PRODUCTS AND ANY FAILURE TO MAINTAIN THE CONFIDENTIALITY OF DATA STORED ON THE PRODUCT.

THE FOREGOING LIMITATION SHALL NOT APPLY TO DEATH OR PERSONAL INJURY CLAIMS. DROBO DISCLAIMS ANY REPRESENTATION THAT IT WILL BE ABLE TO REPAIR ANY PRODUCT UNDER THIS WARRANTY OR MAKE A PRODUCT EXCHANGE WITHOUT RISK TO OR LOSS OF THE PROGRAMS OR DATA.

## CONSUMER PROTECTION LAWS

IF YOU ARE COVERED BY CONSUMER PROTECTION LAWS OR REGULATIONS IN YOUR COUNTRY OR REGION OF PURCHASE, THE BENEFITS CONFERRED BY THIS WARRANTY ARE IN ADDITION TO ALL RIGHTS AND REMEDIES CONVEYED BY SUCH CONSUMER PROTECTION LAWS AND REGULATIONS. Some countries, states and provinces do not allow the exclusion or limitation of incidental or consequential damages or exclusions or limitations on the duration of implied warranties or conditions, so the above limitations or exclusions may not apply to You. This warranty gives You specific legal rights, and You may also have other rights that vary by country, state or province. This Limited Warranty is governed by and construed under the laws of the country in which the product purchase took place. Drobo, the warrantor under this Limited Warranty, is identified at the end of this document according to the country or region in which the product purchase took place.

## OBTAINING WARRANTY SERVICE

Product Replacement: No Product may be returned directly to Drobo without first contacting Drobo for a Return Material Authorization ("RMA") number. If it is determined that the Product may be defective, You will be given an RMA number and instructions for Product return. An unauthorized return, i.e. one for which an RMA number has not been issued, and/or one that does not conform to the instructions given for Product return, will be returned to You at Your expense. You are responsible for the costs incurred related to returning the Product to Drobo pursuant to the Product return instructions. Drobo is responsible for the costs incurred related to shipping the Product back to You. In the event the Product is to be repaired or replaced, upon receipt of the Product for which You were issued an RMA in accordance with the Product return instructions, Drobo shall ship to you a replacement Product by standard ground shipping. In the event the Product is to be repaired or replaced, if You choose to provide Your credit card information to Drobo at the time You are issued an RMA, Drobo will Advance Ship to You a replacement Product, and You agree to promptly return Your Product at issue within seven (7) days of issuance of the RMA number. In the event Drobo does not receive the Product for which You were issued an RMA within such seven (7) days, Your credit card will be charged the manufacturer's suggested retail price of the replacement Product. "Advance Ship" means if Your credit card information is received: (i) before 1 pm local time, ship the same day; or (ii) after 1 pm local time, ship the next business day.



**Technical Support:** During the Warranty Period, You, as part of this limited warranty coverage, are entitled to access Drobo's online help resources to address any question about the Product ("Online Help Resources"). For a period of ninety days from purchase by You ("Technical Support Access Period"), as part of this limited warranty coverage, if the Online Help Resources don't address the support issue, You are entitled to initiate a support request online at [www.drobo.com/support](http://www.drobo.com/support). After the Technical Support Access Period, support requests may be made at an additional fee. In response to support requests, during local business hours (of the location from which the Product was originally purchased), a Drobo representative or Drobo Authorized Reseller will help determine whether Your Product requires service and, if it does, will inform you how Drobo will provide it. Drobo or its Drobo Authorized Resellers will provide warranty service on Products that are tendered or presented for service during the Warranty Period, as permitted by law. Warranty service will be provided from the country from which the Product was originally purchased to the extent reasonably possible. Service options, parts availability and response times will vary according to country.

**Data Protection:** You should make periodic backup copies of the data and programs contained on the Product's hard drive to protect Your data and as a precaution against possible operational failures. Before You deliver your Product for warranty service it is Your responsibility to keep a separate backup copy of the system software, application software and data, and disable any security passwords. You will be responsible for reinstalling all such software, data and passwords. DROBO AND ITS AUTHORIZED RESELLERS ARE NOT LIABLE FOR ANY DAMAGE TO OR LOSS OF ANY PROGRAMS, DATA, OR OTHER INFORMATION STORED ON ANY MEDIA, OR ANY NON-DROBO PRODUCT OR PART NOT COVERED BY THIS WARRANTY. RECOVERY AND REINSTALLATION OF SYSTEM, APPLICATION SOFTWARE, AND USER DATA ARE NOT COVERED UNDER THIS LIMITED WARRANTY.

#### **DROBOCARE**

You may be eligible to purchase DroboCare, a support product which enhances the standard warranty, and is available for an additional fee. Please see the DroboCare terms and conditions at <http://www.drobo.com/droboCare>.

#### **GENERAL INFORMATION**

The information contained herein is subject to change without notice. The only warranties for Drobo products and services are set forth in the warranty statements accompanying the products and services. Nothing herein should be construed as constituting an additional warranty. Drobo shall not be liable for technical or editorial errors or omissions contained herein.

# LIMITED WARRANTY - EMEA

## WHAT THIS DOCUMENT IS ABOUT

This document gives you additional legal protection for faulty Drobo products. It is in addition to and not in substitution for your statutory rights as a consumer against Drobo, where you bought the product direct from our online store or the retailer who you bought the product from relating to faulty or misdescribed goods or services.

Drobo's obligations over and above your normal legal rights to repair or replace faulty product are set out in this document. So please read this document carefully and keep a copy safe.

This Limited Warranty applies only to Drobo products – that means products manufactured by or for Drobo, and replacement components sold by Drobo and manufactured by or for Drobo. These can be identified because they all have the "Data Robotics" or "Drobo" name, or logo on them. In this Limited Warranty document, we call these products "Products". This Limited Warranty does not apply, for instance, to the hard drives manufactured by other companies which may be in the same package as our Product. This Limited Warranty is provided only to the original end-user purchaser of the Product, who we call "You".

**IMPORTANT:** You need to produce the original receipt for the Product or other proof of the original retail purchase from Drobo or one of its authorised resellers satisfactory to us in order to benefit from this Limited Warranty.

We warrant Products against defects in materials and workmanship under normal use as set out in this table:

Name of Product	Where You bought the product (for online orders, this is the delivery address)	Length of limited warranty protection <sup>1</sup>
All Products	In the European Union	Two years
All Products	Outside the European Union	One year

<sup>1</sup> from date of retail purchase by the original purchaser

We call the period set out in the right-hand column above the "Warranty Period". If a Product hardware defect arises and a valid claim is received within the applicable Warranty Period, at our option, we will either: (1) repair such defect at no charge, using new or refurbished replacement parts; or (2) exchange the defective Product with a Product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original Product; or (3) refund the purchase price of the Product. If we decide to refund You the purchase price, You must first provide us with proof of purchase and return the defective Product to us. Contact support to obtain a Return Material Authorization ("RMA") number. Telephone numbers and details how to submit a request online are at <http://www.drobo.com/support/contact-support.php>. You must pack the Product in appropriate protective packaging and return the unit at your own cost. The returned Product will become our property.

### IMPORTANT EXCLUSIONS AND LIMITATIONS

We don't manufacture the data drives on which your data and content is stored, and so we are not responsible under this Limited Warranty for any issues, including defects and performance problems, in those drives. When you return Products to us under this Limited Warranty, you must take the drives out of the Product first because problems with a drive should be dealt with under the warranty provided by its manufacturer, including where even if the drive is bought together with a Product. Please note the instruction manuals' warnings including the advice not to turn your Product off whilst data is being copied across drives (in 'relayout') as you risk losing data. For these reasons, we do not accept any responsibility under this Limited Warranty for any data, including any lost or corrupted data, no matter how and why this may occur.

**Back-ups:** You should make periodic backup copies of the data and programs contained on the Product's hard drive to protect Your data and as a precaution against possible operational failures. Before You deliver your Product for warranty service it is Your responsibility to keep a separate backup copy of the system software, application software and data, and disable any security passwords. You will be responsible for reinstalling all such software, data and passwords.

The Limited Warranty does not apply to any hardware or equipment that is not a Product (see "What this document is about" above) or any software, even if packaged or sold with Product. Manufacturers, suppliers, or publishers, other than Drobo may provide their own warranties to You. **DROBO IS NOT RESPONSIBLE FOR DAMAGE ARISING FROM FAILURE TO FOLLOW INSTRUCTIONS RELATING TO THE PRODUCT'S USE AND/OR STORAGE.**

In no event does this limited warranty apply: (a) to damage caused by use with equipment or hardware that is not a Product (see "What this document is about" above); (b) to damage caused by accident, abuse, misuse, flood, fire, earthquake or other external causes; (c) to damage caused by operating the Product outside the permitted or intended uses described by Drobo; (d) to damage caused by service (including upgrades and expansions) performed by a party other than an authorized representative of Drobo or a Drobo Authorized Reseller; (e) to a Product or Product part that has been modified to significantly alter functionality or capability without the written permission of Drobo; (f) to consumable parts, such as batteries, unless damage has occurred due to a defect in materials or workmanship in the Product; or (g) if any Drobo serial number has been removed or defaced.

No Drobo reseller, agent, or employee is authorized to make any modification, extension, or addition to this warranty on behalf of Drobo.

### Consumer users

Where you have bought the Product primarily for domestic and non-commercial use, the following limitation on Drobo's liability under this Limited Warranty apply: **DROBO IS NOT RESPONSIBLE TO YOU FOR ANY BUSINESS LOSS OR DAMAGE (SUCH AS LOSS OF PROFIT) OR FOR ANY LOSS THAT IS NOT A REASONABLY FORSEEABLE CONSEQUENCE OF YOUR USE OF THE PRODUCT. THE FOREGOING LIMITATION SHALL NOT APPLY TO DEATH OR PERSONAL INJURY CLAIMS, TO FRAUD, AND PRODUCT LIABILITY CLAIMS WHERE PRODUCTS ARE UNSAFE.**

## Business users

Where you have bought the Product primarily for business use, the following limitation on Drobo's liability under this Limited Warranty apply:

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, STATUTORY, EXPRESS OR IMPLIED, AND DROBO SPECIFICALLY DISCLAIMS ANY AND ALL STATUTORY OR IMPLIED WARRANTIES OR CONDITIONS, INCLUDING, WITHOUT LIMITATION, WARRANTIES OR CONDITIONS OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS. IF DROBO CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES OR CONDITIONS, THEN TO THE EXTENT PERMITTED BY LAW, ALL SUCH WARRANTIES AND CONDITIONS SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS EXPRESS WARRANTY AND TO REPAIR OR REPLACEMENT SERVICE AS DETERMINED BY DROBO IN ITS SOLE DISCRETION.

EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE EXTENT PERMITTED BY LAW, DROBO IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE; LOSS OF REVENUE; LOSS OF ACTUAL OR ANTICIPATED PROFITS (INCLUDING LOSS OF PROFITS ON CONTRACTS); LOSS OF THE USE OF MONEY; LOSS OF ANTICIPATED SAVINGS; LOSS OF BUSINESS; LOSS OF OPPORTUNITY; LOSS OF GOODWILL; LOSS OF REPUTATION; LOSS OF, DAMAGE TO OR CORRUPTION OF DATA; OR ANY INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE HOWSOEVER CAUSED INCLUDING THE REPLACEMENT OF EQUIPMENT AND PROPERTY, ANY COSTS OF RECOVERING, PROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED OR USED WITH DROBO PRODUCTS AND ANY FAILURE TO MAINTAIN THE CONFIDENTIALITY OF DATA STORED ON THE PRODUCT.

DROBO DISCLAIMS ANY REPRESENTATION THAT IT WILL BE ABLE TO REPAIR ANY PRODUCT UNDER THIS WARRANTY OR MAKE A PRODUCT EXCHANGE WITHOUT RISK TO OR LOSS OF THE PROGRAMS OR DATA.

DROBO AND ITS AUTHORIZED RESELLERS ARE NOT LIABLE FOR ANY DAMAGE TO OR LOSS OF ANY PROGRAMS, DATA, OR OTHER INFORMATION STORED ON ANY MEDIA, OR ANY NON-DROBO PRODUCT OR PART NOT COVERED BY THIS WARRANTY. RECOVERY AND REINSTALLATION OF SYSTEM, APPLICATION SOFTWARE, AND USER DATA ARE NOT COVERED UNDER THIS LIMITED WARRANTY.

## CONSUMER PROTECTION LAWS

IF YOU ARE COVERED BY CONSUMER PROTECTION LAWS OR REGULATIONS IN YOUR COUNTRY OR REGION OF PURCHASE, THE BENEFITS CONFERRED BY THIS WARRANTY ARE IN ADDITION TO ALL RIGHTS AND REMEDIES CONVEYED BY SUCH CONSUMER PROTECTION LAWS AND REGULATIONS. This warranty gives You specific legal rights, and You may also have other rights that vary by country, state or province. Drobo, the warrantor under this Limited Warranty, is identified at the end of this document according to the country or region in which the product purchase took place.

## OBTAINING WARRANTY SERVICE

Product Replacement: No Product may be returned directly to Drobo without first contacting Drobo for a RMA number. You can contact us to request an RMA number by contacting technical support. Telephone numbers and details how to submit a request online are at <http://www.drobo.com/support/contact-support.php>.

If it is determined that the Product may be defective, You will be given an RMA number and instructions to return the Product. An unauthorized return, i.e. one for which an RMA number has not been issued, and/or one that does not conform to the instructions given for Product return, will be returned to You at Your expense. You are responsible for the costs incurred related to returning the Product to Drobo pursuant to the Product return instructions. Drobo is responsible for the costs incurred related to shipping the Product back to You. In the event the Product is to be repaired or replaced, upon receipt of the Product for which You were issued an RMA in accordance with the Product return instructions, Drobo shall ship to you a replacement Product by standard ground shipping. In the event the Product is to be repaired or replaced, if You choose to provide Your credit card information to Drobo at the time You are issued an RMA, Drobo will Advance Ship to You a replacement Product, and You agree to promptly return Your Product at issue within seven (7) days of issuance of the RMA number. In the event Drobo does not receive the Product for which You were issued an RMA within such seven (7) days, Your credit card will be charged the manufacturer's suggested retail price of the replacement Product. "Advance Ship" means, if Your credit card information is received: (i) before 1 pm local time, ship the same day; or (ii) after 1 pm local time, ship the next business day; for express delivery.

Technical Support: During the Warranty Period, You, as part of this limited warranty coverage, are entitled to access Drobo's online help resources to address any question about the Product ("Online Help Resources"). For a period of ninety days from retail purchase by You (we call this ninety days the "Technical Support Access Period"), as part of this limited warranty coverage, if the Online Help Resources don't address the support issue, You are entitled to initiate a support request online at <http://www.drobo.com/support>. After the Technical Support Access Period, support requests may be made at an additional fee available on request. In response to support requests, during local business hours, a Drobo representative or Drobo Authorized Reseller will help determine whether Your Product requires service and, if it does, will inform you how Drobo will provide it. Drobo or its Drobo Authorized Resellers will provide warranty service on Products that are tendered or presented for service during the Warranty Period. Warranty service will be provided from the country from which the Product was originally purchased to the extent reasonably possible. Service options, parts availability and response times will vary according to country. In accordance with applicable law, Drobo may require that You furnish proof of purchase details and/or comply with registration requirements before receiving warranty service. Please refer to the online product documentation at <http://www.drobo.com/support> for more details on this and other matters on obtaining warranty service.

## DROBOCARE

You may be eligible to purchase DroboCare, a support product which enhances the standard warranty, and is available for an additional fee. Please see the DroboCare terms and conditions at <http://www.drobo.com/droboicare>.

GENERAL INFORMATION This limited warranty shall be, in all respects, governed by and construed under the laws of California, without regard to its conflict of laws provisions, and the parties submit to the exclusive jurisdiction of the courts of Santa Clara County, California. The information contained herein is subject to change without notice in respect of subsequent Products you may purchase. The only warranties for Drobo products and services are set forth in the warranty statements accompanying the products and services. Nothing herein should be construed as constituting an additional warranty. Drobo shall not be liable for technical or editorial errors or omissions contained herein.

Drobo, Inc  
2460 North First St., Suite 100 San Jose, CA 95131 USA

## NOTES