



## ioSafe 216 Hardware Guide

Powered by Synology DSM

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**Did you purchase your 216 preloaded with Hard Drives?**  
Skip to “[Initial Setup of Disk Station Manager](#)” on [page 13](#).

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# Introduction

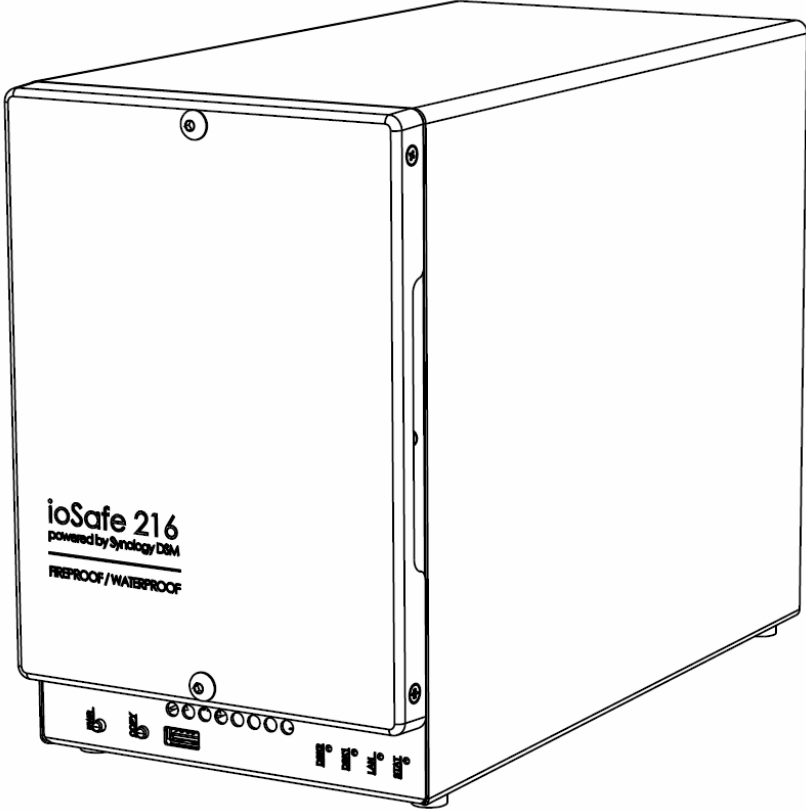







Congratulations on your purchase of the ioSafe 216 powered by Synology DSM. The ioSafe 216, based on Synology's DS216 motherboard, is designed as a powerful way to protect your private cloud networked data from loss due to natural disasters such as fires and floods. Please read this Quick Start Guide and the User's Guide carefully to understand how to operate this device both during normal operation and during a disaster event.

**Important Note:** The ioSafe 216 is based on the Synology DS216 Motherboard and Synology DSM OS. Certain configuration settings may require you to select "Synology DS216", "DS216" or "Synology" as an option.

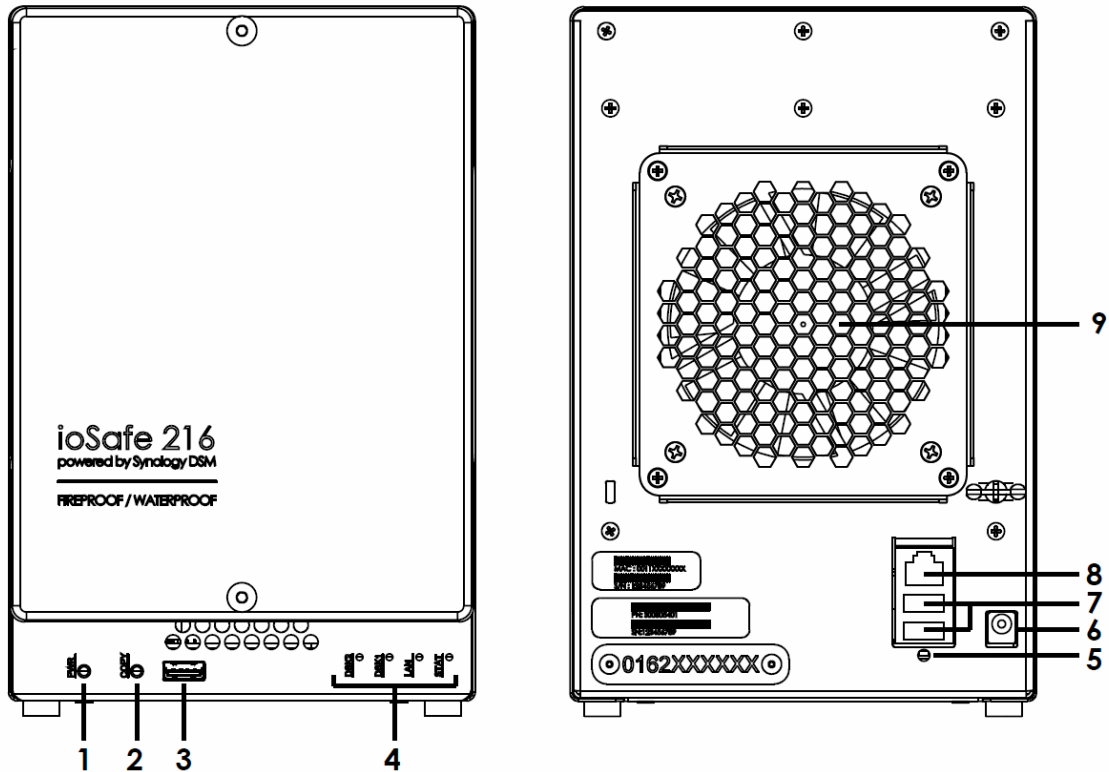
# Before You Start

Before you start setting up ioSafe 216, please check the package contents to verify that you have received the items below. Please also read the safety instructions carefully before use to prevent your ioSafe 216 from any damages.

## Package Contents




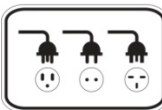
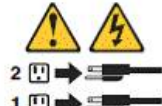



Main Unit x 1	AC Power Cord x1
	
	AC Power Adapter x1
	
	RJ-45 LAN cable x1
	
	Drive Screws x8
	
	Cord Retention Clip x1
	
	3mm Hex Tool x1
	
Magnet x1	
 <p data-bbox="1084 1780 1360 1829"><b>Note:</b> For storing the Hex Tool on the back of the device</p>	

## ioSafe 216 at a Glance



No.	Article Name	Location	Description
1)	Power Button	Front Panel	The power button is used to turn the ioSafe 216 on or off. To turn the 216 on, press and release the power button. The LEDs will start flashing. The system is ready when you hear a beep. To turn off the ioSafe 216, press the power button and hold it until you hear a beep sound and the Power LED starts blinking.
2)	Copy Button	Front Panel	The Copy button lights up when you connect a USB Device to the USB port on the front panel. Pressing the button will copy the data from the connected USB device to ioSafe 216's internal HDD.
3)	USB 2.0 Port	Front Panel	USB ports for adding additional external hard drives, USB printers, or other USB devices.
4)	LED Indicators	Front Panel	The LED indicators are used to display the status of the internal disk and the system. For more information, see "LED Indication Table" on Page 30.
5)	RESET Button	Back Panel	1. To restore IP, DNS, passwords for the <b>admin</b> account to default value. 2. To reinstall the ioSafe 216.
6)	Power Port	Back Panel	Connect the AC adapter to this port.
7)	USB 3.0 Ports	Back Panel	USB ports for adding additional external hard drives, USB printers, or other USB devices.
8)	LAN Port	Back Panel	The LAN port for connecting network (RJ-45) cable to the ioSafe 216.
9)	Fan	Back Panel	To maximize cooling, please do not block the fan exhaust. If the fan is malfunctioning, the system will beep.

## Safety Instructions

	<p>For optimized cooling during normal operation, keep out of from direct sunlight. During a high temperature event such as a fire, the internal HDD's are protected from data loss (1550°F, 30 minutes per ASTM E-119) when the Front Cover is properly installed on the device. Please contact ioSafe (<a href="http://iosafe.com">http://iosafe.com</a>) for assistance during any data recovery event.</p>
	<p>During normal operation, do not place the ioSafe product close to any liquid. During a flood or water exposure (10' depth, full immersion, 3 days) the internal HDDs are protected from data loss when the Waterproof Drive Cover is sufficiently tightened to the internal HDD chassis. Please contact ioSafe (<a href="http://iosafe.com">http://iosafe.com</a>) for assistance during any data recovery event.</p>
	<p>Before cleaning, properly shut down by pressing and holding the front power button then unplug the power cord. Wipe ioSafe product with moist cloth. Avoid chemical or aerosol cleaners for cleaning as they may affect the finish.</p>
	<p>The power cord must plug in to the right supply voltage. Make sure that the supplied AC voltage is correct and stable.</p>
	<p>To remove all electrical current from the device, ensure that all power cords are disconnected from the power source.</p>
 <p>ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES</p>	<p>Observe electrostatic discharge (ESD) precautions during the entire installation process to eliminate possible ESD damage to the equipment. Wear an approved ESD wrist strap that is grounded when you handle an ESD-sensitive device.</p>
	<p>CAUTION: Risk of Explosion if battery is replaced by an incorrect type.</p>
	<p>Dispose of used batteries according to their instructions</p>

# Hard Drive Installation *(For Diskless Version Only)*

This section shows how to install hard drives into a 216

**Did you purchase your 216 preloaded with Hard Drives?**

Skip to “[Initial Setup of Disk Station Manager](#)” on [page 13](#).

## Tools and Parts for Hard Drive Installation

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Needed:

- A Phillips screwdriver
- 3mm Hex Tool (included with the ioSafe 216)
- At least one 3.5” SATA hard drive  
(Please visit <http://iosafe.com/support-2baynas> for compatible hard drive models.)

**Note:** For a RAID1 set, it is recommended that all installed drives be the same size to make the best use of hard disk capacity.

**Warning:** If you install a hard drive that contains data, the 216 will format the hard drive and erase all data. If you need the data in the future, please back it up before installation.

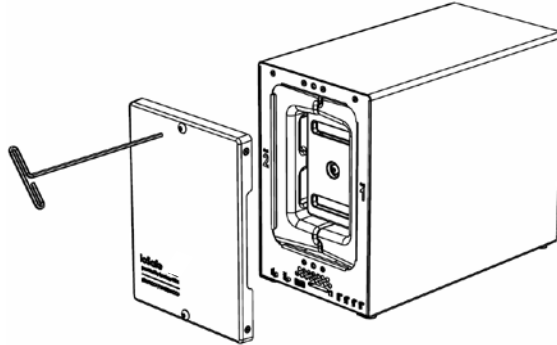


## Install Hard Drives

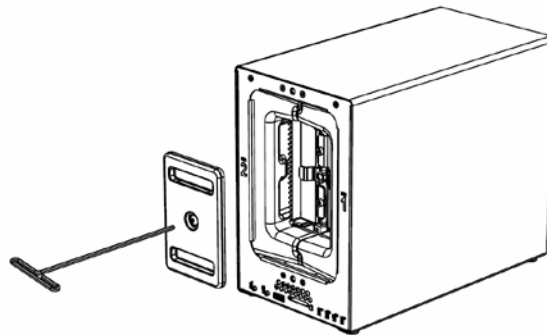
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1 Remove the Front Cover using the included 3mm Hex Tool.

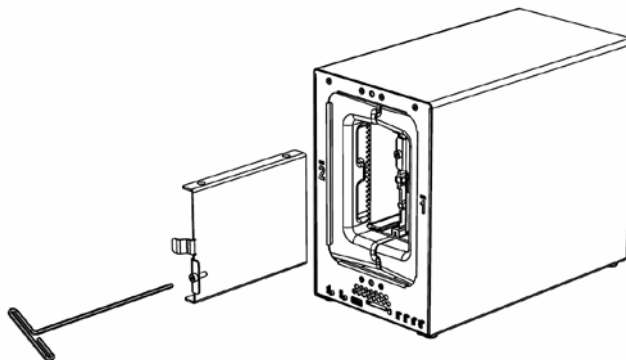
**NOTE:** All hex screws used in the 216 are designed to be captive to avoid accidental loss.



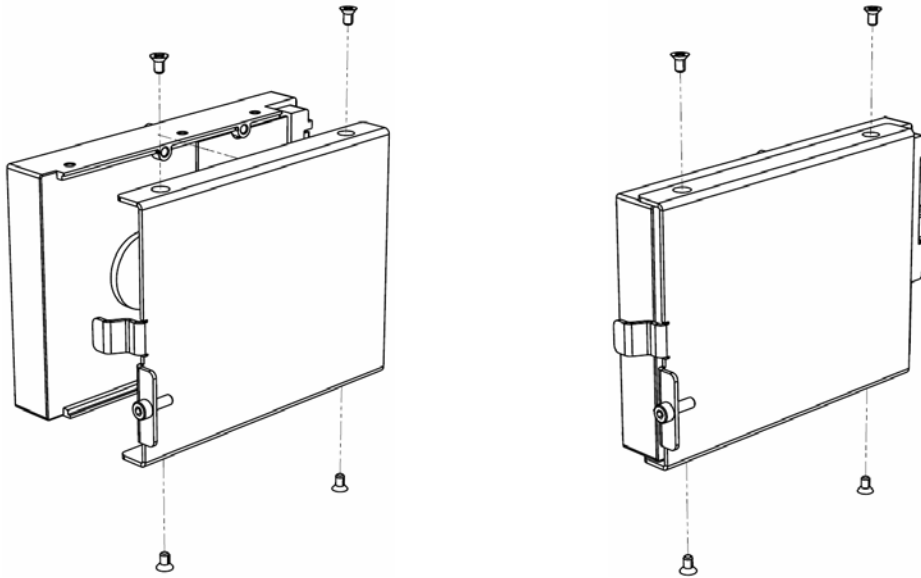
2 Remove Waterproof Drive Cover using the 3mm Hex Tool.



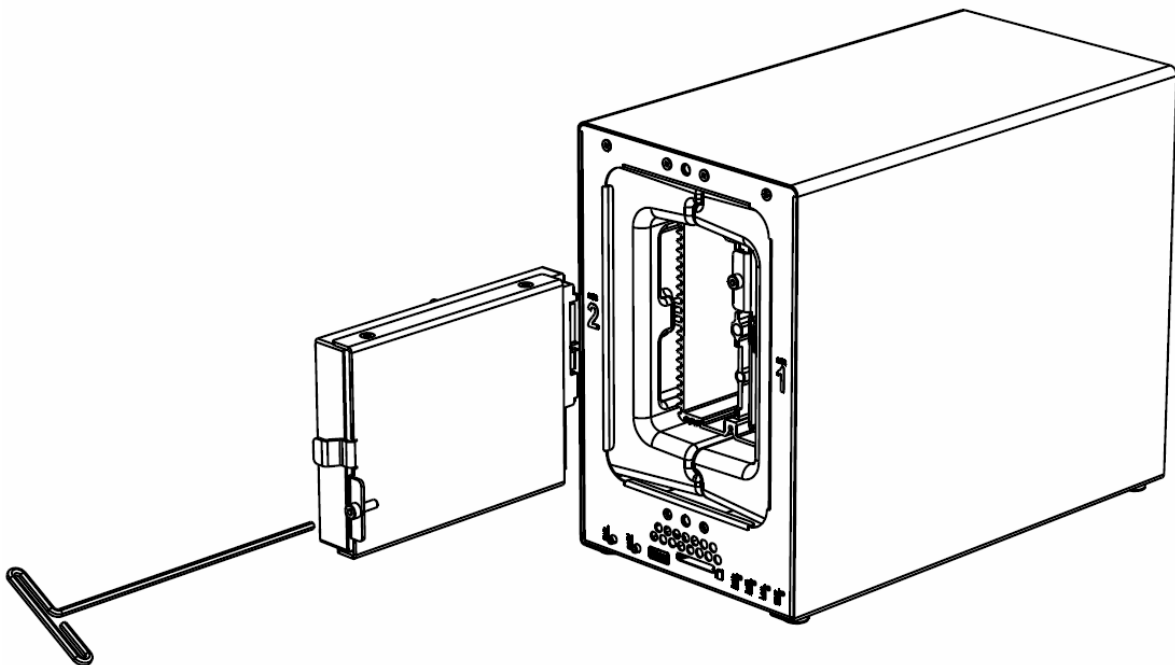
3 Remove both of the Drive Trays using the provided 3mm Hex Tool.



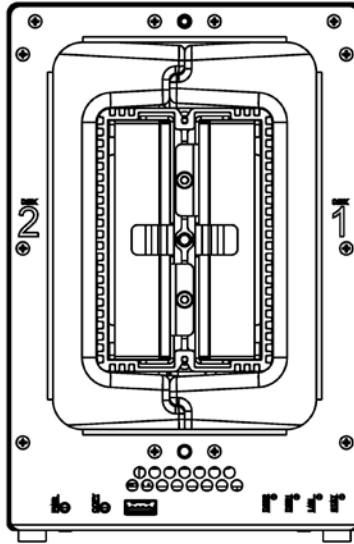
- 4 Install a compatible Hard Drive into the each Drive Tray using (4x) Drive Screws and a Phillips screwdriver. (Please visit <http://iosafe.com/support-2baynas> for compatible hard drive models.)



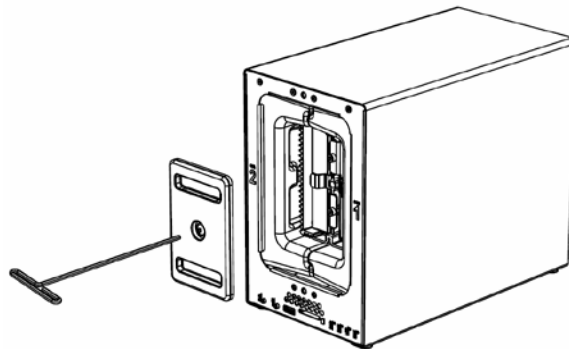
- 5 Insert the Hard Drives into the empty hard drive bay and tighten the screws using the 3mm Hex Tool  
**Note:** Each Hard Drive will only fit in one orientation.



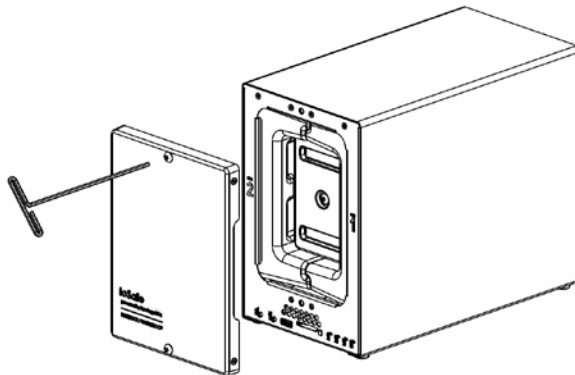
**Note:** If Drive replacement is required notice that Drive #2 is on the left and Drive #1 is on the right.



- 6 Replace the Waterproof Drive Cover and securely tighten using the supplied 3mm Hex Tool.  
**WARNING: BE SURE TO TIGHTEN THIS SCREW USING THE HEX TOOL. THE HEX TOOL IS DESIGNED TO FLEX SLIGHTLY WHEN THE SCREW IS SUFFICIENTLY TIGHT AND THE WATERPROOF GASKET IS COMPRESSED PROPERLY. AVOID USING TOOLS OTHER THAN THE SUPPLIED HEX TOOL AS YOU COULD UNDER TIGHTEN OR BREAK THE SCREW.**



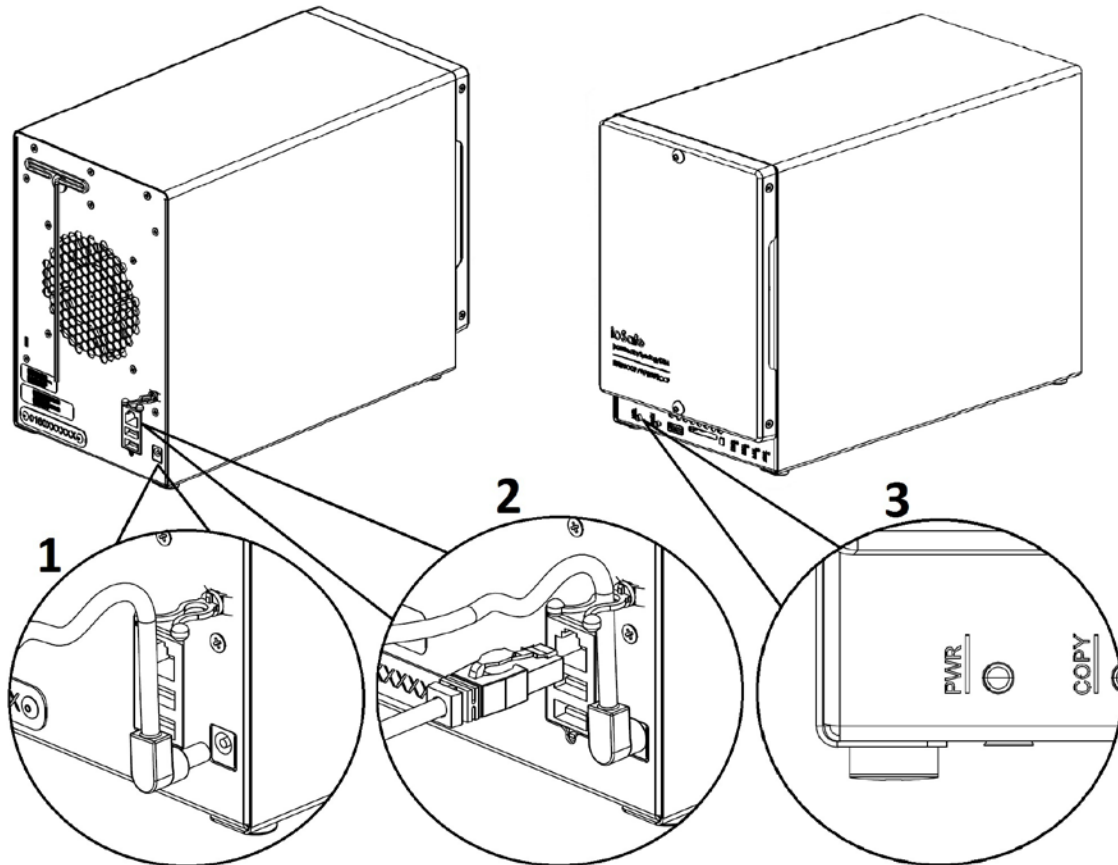
- 7 Install the Front Cover to finish the installation and protect the drives from fire. Keep the hex tool nearby for future use.



## Connect the ioSafe 216 to your Network

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- 1 Use the LAN cable to connect the ioSafe 216 to your switch/router/hub.
- 2 Connect the AC adapter to the power port of the ioSafe 216. Connect one end of the AC power cord to the AC power adapter, and the other to the power outlet. Insert the plastic cable holder into the slot to retain the power cord.
- 3 Press and hold the power button to turn on your DiskStation.



Your ioSafe 216 should now be online and detectable from a network computer.

# Initial Setup of Disk Station Manager

After hardware setup is finished, please install Synology's DiskStation Manager (DSM). Synology's DiskStation Manager (DSM) is a browser-based operating system which provides tools to access and manage your ioSafe. When installation is complete, you will be able to log into DSM and start enjoying all the features of your ioSafe powered by Synology. To get started, please see the steps below.

**Note:** Before beginning the installation process below, make sure that the 216 is connected to your router/switch with the network cable and that the power cord plugged in and the 216 is powered on.

## Connecting to the ioSafe using Web Assistant

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Your ioSafe comes equipped with a built-in tool called Web Assistant that helps you download the latest version of DSM from the internet and install it on your ioSafe. Before installing DSM with Web Assistant, please check the following:

- Your computer and your ioSafe must be connected to the same local network.
- In order to download the latest version of DSM, Internet access must be available during installation.

**After confirming, please follow the steps below:**

- 1 Power on your ioSafe.
- 2 Open a web browser on your computer connected to the same network as the ioSafe.
- 3 Enter either of the following into the address bar of your browser:
  - a) [find.synology.com](http://find.synology.com)
  - b) [Diskstation:5000](http://Diskstation:5000)

**Note:** Web Assistant is optimized for Chrome and Firefox web browsers.

- 4 Web Assistant will be launched in your web browser. It will search for and find the DiskStation within the local network. The status of the DiskStation should be **Not installed**.

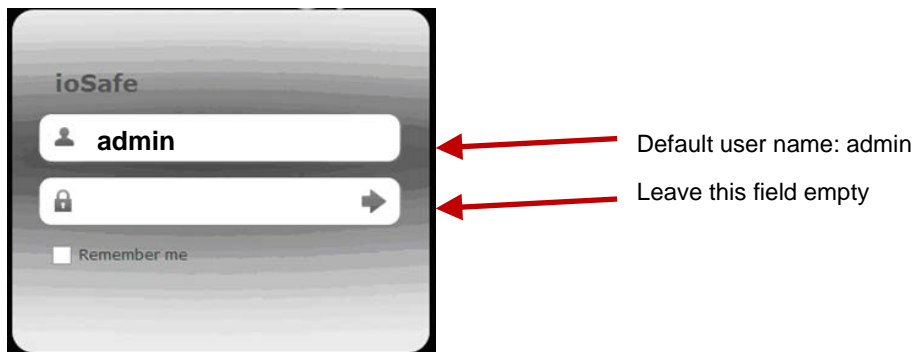


5 Click **Connect** to start the setup process. Follow the onscreen instructions to complete the setup process.

**Note:**

1. ioSafe uses an unmodified version of Synology's DSM. The software interface will sometimes refer to the Synology Product the ioSafe is based on; Synology DS216
2. Suggested browsers: Chrome, Firefox.
3. Both the 216 and the computer should be in the same local network.
4. Internet connection must be available during DSM installation with Web Assistant.

6 A web browser should open showing the 216 Login screen. Enter 'admin' as the username and leave the password field blank as shown below.



# Specifications

Item	ioSafe 216
Fire Protection	Protects data from loss up to 1550°F for 1/2 hour per ASTM E119
Water Protection	Protects data from loss up to 10ft for 72 hours.
Internal HDD	3.5" / 2.5" SATA III / SATA II x 2
Max. Capacity	16TB (2 x 8TB hard drives)
Hot Swappable HDD	Yes
External HDD Interface	<ul style="list-style-type: none"> <li>• USB 3.0 x 2</li> <li>• USB 2.0 x 1</li> </ul>
LAN Port	1 Gigabit (RJ-45) x 1
USBCopy	Yes
Size (HxWxD)	231mm x 150mm x 305mm (9.1" x 5.9" x 12.0")
Weight	14 kg (31 lbs)
Supported Clients	<ul style="list-style-type: none"> <li>• Windows XP onward</li> <li>• Mac OS X 10.7 onward</li> <li>• Ubuntu 12 onward</li> </ul>
Max. User Accounts	2048
Max. Group Accounts	256
Max. Shared Folders	256
Max. Concurrent Connections	128
Max. Supported IP Cameras	8
File System	• EXT 4, EXT3, FAT, NTFS, HFS+ (External disk only)
Supported RAID Types	<ul style="list-style-type: none"> <li>• Basic • JBOD • RAID 0 • RAID 1</li> <li>• Synology Hybrid RAID (1-Disk Fault Tolerance)</li> </ul>
Agency Certifications	• FCC Class B • CE Class B • BSMI Class B
HDD Hibernation	Yes
Scheduled Power On/Off	Yes
Wake on LAN/WAN	Yes
Language Localization	<ul style="list-style-type: none"> <li>• English • Deutsch • Français • Italiano • Español • Dansk • Norsk • Svensk</li> <li>• Nederlands • Русский • Polski • Magyar • Português do Brasil • Português Europeu</li> <li>• Türkçe • Český • 日本語 • 한국어 • 繁體中文 • 简体中文</li> </ul>
Power Consumption And Environment Requirements	<ul style="list-style-type: none"> <li>• Line voltage: 100V to 240V AC</li> <li>• Frequency: 50/60Hz</li> <li>• Operating Temperature: 40 to 95°F (5 to 35°C)</li> <li>• Storage Temperature: -5 to 140°F (-20 to 60°C)</li> <li>• Relative Humidity: 5% to 95% RH</li> <li>• Maximum Operating Altitude: 6500 feet (2000 m)</li> </ul>

# LED Indication Table

LED Indication	Color	Status	Description
STATUS	Green	Static	Volume normal
		Slow on/off cycle	HDD Hibernation (All the other LED indicators will be off)
	Orange	Blinking	Volume degraded or crashed
			No volume
			DSM not installed
LAN	Green	Static	Network connected
		Blinking	Network active
	Off	No network	
DISK 1-2	Green	Static	Drive is ready and idle
		Blinking	Drive is being accessed
	Orange	Static	Drive error / Port disabled
	Off	No internal disk	
Copy	Green	Static	Device detected
		Blinking	Copying data
	Off	No device detected	
Power	Blue	Static	Powered On
		Blinking	Booting up / Shutting down
	Off	Powered off	