



DX510 User's Guide

DX51011022010

Table of Contents

5 Chapter 1: Get Started with DX510

- 5 Package Contents
- 6 Hardware Specifications
- 6 Operating Requirements
- 7 Appearance
- 8 LED Behavior
- 9 Safety Instructions

11 Chapter 2: Set Up DX510

- 11 Tools and Parts for Hard Disk Installation
- 11 Install Hard Disks
- 14 Connect with Synology DiskStation
- 15 Work with Synology DiskStation
- 16 Learn More

Get Started with DX510

Congratulations on your purchase of Synology DX510. This product is specially designed for the storage expansion of Synology DiskStation DS1511+, DS1010+, and DS710+. This user's guide will guide you through the installation.

Package Contents

Before installation, please check the package contents to verify that you have received the items below.

Main Unit



AC power Cord



User's Guide



Screws for 3.5" Hard Drives x 24



Screws for 2.5" Hard Drives x 24



eSata Cable



Hardware Specifications

Internal HDD	5X SATA(II)
eSATA Port #	1
Max Capacity (Internal HDD)	5X 2TB
Hot Swappable HDD	Yes
Size (HxWxD) (mm)	157x248x233mm
Weight	4.10 kg
System Fan	2X (80x80mm)
Fan Speed	High / Middle / Low (Hibernation)
Noise Level (Fan-only)	30dB (2500rpm)
Power Recovery	Sync with server
AC Input Power Voltage	100V to 240V AC
Power Frequency	50 / 60Hz, Single Phase
HDD Temperature (Room: 27°C)	46°C ~ 47°C
HDD Temperature (Room: 40°C)	53°C ~ 55°C
Operating Temperature	5°C ~ 35°C (40°F ~ 95°F)
Storage Temperature	-10°C ~ 70°C (15°F ~ 155°F)
Relative Humidity	5% to 95% RH
Maximum Operating Altitude	10,000 feet
Certification	FCC Class B, CE Class B, BSMI Class B

Operating Requirements

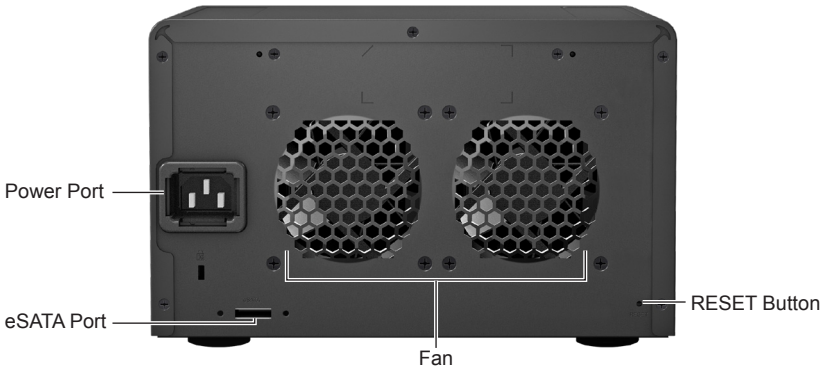
Synology DiskStation	DS1511+, DS1010+, or DS710+ with Synology DSM2.2-1032 and onwards
-----------------------------	---

Appearance

Front View



Back View



Article Name	Location	Description
POWER Button	Front	The POWER button is used to turn DX510 on or off. Press and hold the button for 7 seconds to shut down DX510. Note: DX510 will be turned on or off automatically when the connected Synology DiskStation powers on or off.
LED Indicators	Front	The LED indicators are used to display the status of the internal disks and the system. For complete details, please refer to the next table: LED Behavior .
Hard Drive Tray	Front	The hard drive tray is designed for loading the hard drives with DX510.

Article Name	Location	Description
Hard Drive Tray Lock	Front	Each hard drive tray is equipped with one tray lock to lock or unlock the tray to DX510.
eSATA Port	Back	The eSATA port is used to connect DX510 to DS1511+, DS1010+, or DS710+.
Fan	Back	The fan is built to exhaust waste heat out of DX510. If the fan is not working, DX510 will “beep” every few seconds.
RESET Button	Back	The RESET button is used to restore the settings to the factory default.
Power Port	Back	The power port is where you connect the power cord to DX510.

LED Behavior

LED	Behavior	Description
POWER	Solid Blue	Power is on
	Off	Power is off
eSATA	Solid Green	Synology DiskStation is connected
	Off	Synology DiskStation is disconnected
RAID	Solid Green	Volume is created
	Flashing Green	Volume is degraded
	Off	Volume is crashed or not created
STATUS	Solid Green	System is functioning
	Off	System is not working
ALERT	Solid Orange	Fan is not working
	Off	Fan is functioning
Hard Disk Status (on tray)	Solid Green	Disk is ready and idle
	Flashing Green	Disk is being accessed
	Solid Orange	Read/write or other errors are encountered
	Off	No internal disk is found

Safety Instructions

To use your Synology product safely, please follow these instructions and warnings at all time.



Keep away from direct sunlight and away from chemicals. Make sure the environment does not experience abrupt changes in temperature or humidity.



Keep Synology product upright. Do not lay it down horizontally.



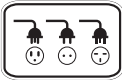
Do not place the Synology product close to any liquid.



Before cleaning, unplug the power cord first. Wipe Synology product with damp paper towels. Do not use chemical or aerosol cleaners to clean it.



Do not place the Synology product on a cart, table, or desk, which is not stable to avoid the product from falling over.



The power cord must plug in to the right supply voltage. Make sure that the supplied AC voltage is correct and stable.

Set Up DX510

Tools and Parts for Hard Disk Installation

- A screwdriver
- At least one 3.5" or 2.5" SATA hard disk
(Please visit www.synology.com for compatible hard disk models.)

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

Install Hard Disks

- 1 Slide the Lock switch upward to unlock the handle of one of the hard drive trays.



2 Press the lower part of the hard drive tray to pop out the handle.

Press to pop out the handle.

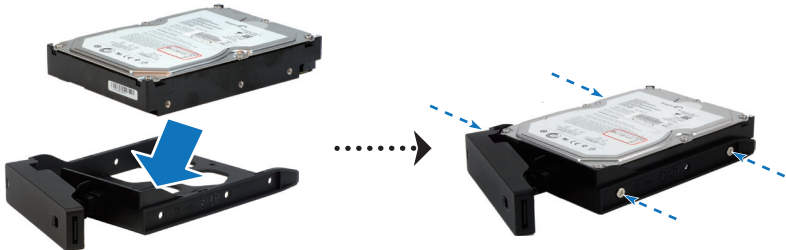


3 Pull the handle to remove the hard drive tray from DX510.

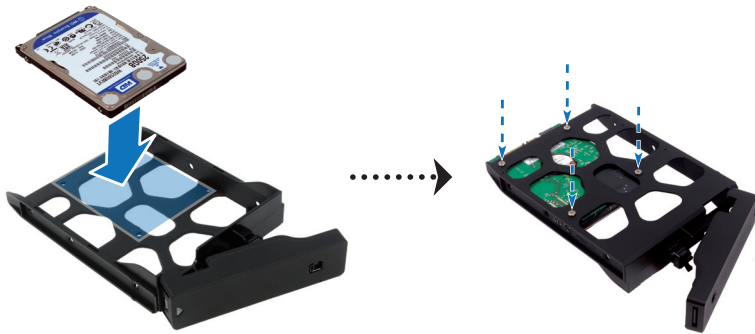


4 Load the hard disk in the hard drive tray.

- **For 3.5" Hard Disk:** Place the hard disk in the hard drive tray, and then tighten the screws to secure the hard disk.



- **For 2.5" Hard Disk:** Place the hard disk in the rectangular area (shown below) of the hard drive tray, turn the tray upside down, and then tighten the screws to secure the hard disk.



- 5 Insert the loaded hard drive tray into the empty hard drive bay.



Important: Make sure the tray is pushed in all the way. Otherwise, the hard disk might not be able to function properly.

- 6 Press the handle in flush with the front panel to hold the hard drive tray in place.

7 Slide the Lock switch downward to lock the handle of the hard drive tray.



8 Repeat the above steps to install all the other disks on your DX510.

Note: If you want to set up a RAID set, it is recommended that all installed hard disks are of the same size to make the best use of hard disk capacity.

Connect with Synology DiskStation

1 Connect one end of the power cord to the power port of DX510, and the other to the power outlet.



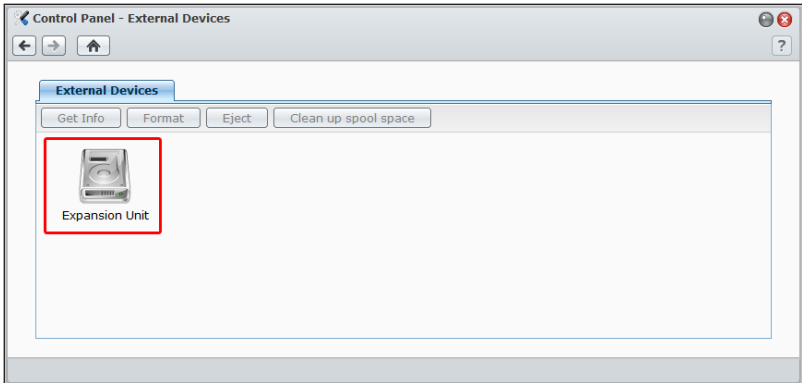
2 Connect the eSATA cable to the eSATA ports of DX510 and Synology DiskStation. You can connect up to 2 expansion units by eSATA ports to DS1511+.



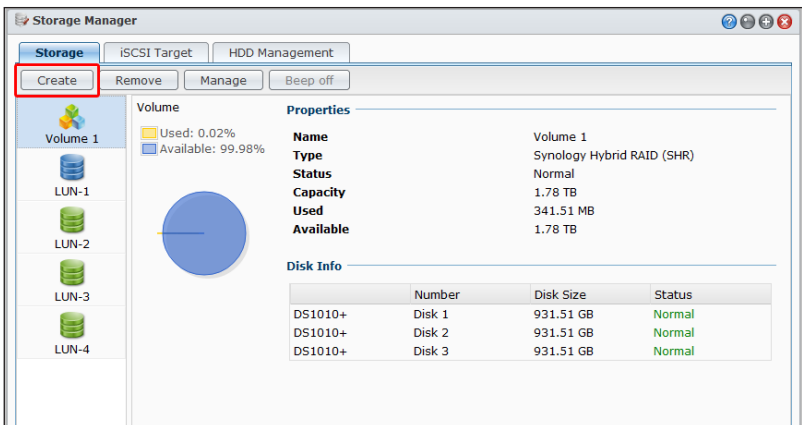
After the connection is complete, DX510 will be turned on or off automatically when the connected DiskStation powers on or off.

Work with Synology DiskStation

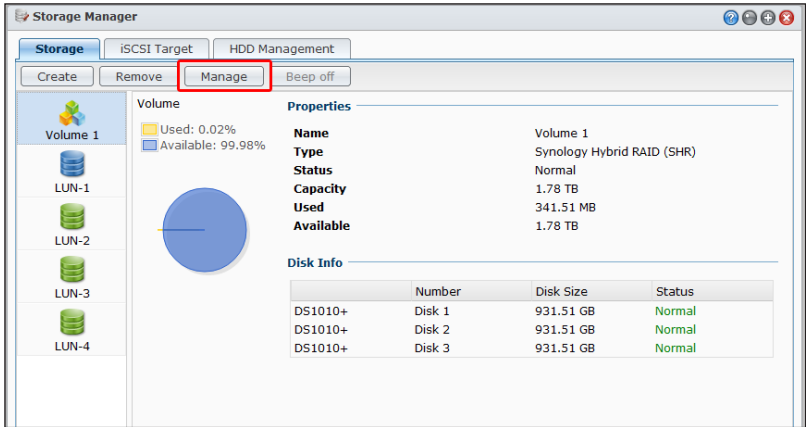
- 1 Open your DiskStation Manager with a web browser. Go to **Main Menu > Control Panel > External Devices** to confirm DX510 is connected to your DiskStation.



- 2 Go to **Main Menu > Storage Manager** to manage DX510 for storage creation or expansion.
 - **If you want to create a new volume with DX510**, click **Create** and follow the Volume Creation Wizard to complete the creation.



- **If you want to expand the existing volume with DX510**, select the volume you want to expand from the volume list, click **Manage**, and follow the Volume Manager Wizard to complete the expansion.



For detailed information about volume management, please go to **Main Menu > Storage Manager** and see the help page by clicking the help button at the top-right corner.

Important: Before starting to use DiskStation with DX510, please see the following limitations of DX510.

- DX510 can be paired with only one DiskStation.
- The data of applications (such as Photo Station and Audio Station) can be stored on DX510 only if you create an expanded volume with it. They will not be stored on DX510 if you create a new volume with it.
- Hard drives previously used in DiskStation will not be readable by directly inserting them into DX510, and vice versa.

Learn More

Congratulations! Your DX510 is set up now. For more information or online resources about DX510, please visit www.synology.com.

COPYRIGHT NOTICE

All title, copyright and other intellectual property rights in and to any Synology Products, the "Products" or "Product" (including but not limited to product design and appearance, firmware, and any relevant media, images, photographs, animations, video, audio, music, text, and applets incorporated into the Products), the accompanying manuals and other documents, and on-line or electronic documents, if any, are owned by Synology Inc. Unless otherwise expressly licensed by Synology Inc. in writing, any provision of the Products does not represent any license of any of the above rights.

Copyright © 2004-2010 Synology Inc.; All rights reserved.

TRADEMARK NOTICE

Synology and other names of Synology Products are proprietary marks or registered trademarks of Synology Inc. Microsoft, Windows series, and Internet Explorer are trademarks of Microsoft Corporation. Apple, Mac, Mac OS series are trademarks of Apple Computer, Inc., registered in the U.S. and other countries. Other products and company names mentioned herein are trademarks of their respective holders.

LIMITED WARRANTY AND LIABILITY

Synology provides a limited warranty for its Products only to the initial person or entity that originally purchased the Product from Synology or its authorized distributor or retailer. Synology warrants that every hardware portion of the Products will be free from physical defects in material and workmanship within warranty period, or the Product will be repaired or replaced as determined solely by Synology. The DS1010+, DS710+, DS509+, DS508, RS409RP+, RS409+, RS409, RS408-RP, RS408, RS407, DX510, DX5 and RX4 have three years warranty from the purchase date. All other models purchased before 2008/2/29 have one year warranty, and those purchased after 2008/3/1 have two years warranty from the purchase date. If the Product proves defective during this warranty period, you can contact the local dealer in order to obtain assistance. You must provide proof of purchase and a bar code number from the Product's packaging when asking for assistance. Synology Products are barebones devices so Synology makes no warranty of the hard disk installed, nor warranty on compatibility of all hard disks.

SYNOLOGY SHALL HAVE NO LIABILITY TO YOU UNDER THIS LIMITED WARRANTY IF THE PRODUCT IS INSTALLED AND USED IN A MANNER NOT SPECIFIED OR DESCRIBED IN THE PRODUCT SPECIFICATIONS OR DESCRIPTION, THE PRODUCT HAS BEEN MODIFIED OR ALTERED IN ANY WAY BY ANY PARTY OTHER THAN SYNOLOGY, OR THE FAILURE OF THE PRODUCT TO CONFORM TO ITS SPECIFICATIONS CAN BE ATTRIBUTED TO CAUSES THAT NOT THE RESPONSIBILITY OF SYNOLOGY.

SYNOLOGY MAKES NO WARRANTY OR REPRESENTATION, EXPRESSED, IMPLIED, OR STATUTORY, WITH RESPECT TO ITS PRODUCTS OR THE CONTENTS OR USE OF THIS DOCUMENTATION AND ALL ACCOMPANYING SOFTWARE, AND PARTICULARLY DISCLAIMS ITS QUALITY OR PERFORMANCE FOR ANY PARTICULAR PURPOSE.

SYNOLOGY MAKES NO GUARANTEE THAT ALL DATA STORED ON SYNOLOGY PRODUCTS IS ALWAYS SECURE WITHOUT ANY RISKS OF DATA LOSS. SYNOLOGY REMINDS YOU TO BACK UP THE DATA PERIODICALLY. UNDER NO CIRCUMSTANCES SHALL SYNOLOGY BE LIABLE IN ANY WAY TO THE USER FOR DAMAGES, INCLUDING ANY SAVINGS, LOST PROFITS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF, OR INABILITY TO USE SYNOLOGY PRODUCTS OR RESULTING LOSS OF DATA FROM SUCH USE.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE (OR JURISDICTION TO JURISDICTION). SYNOLOGY'S RESPONSIBILITY FOR MALFUNCTIONS AND DEFECTS IN HARDWARE IS LIMITED TO REPAIR OR REPLACEMENT AS SET FOR IN THIS WARRANTY STATEMENT. FOR CUSTOMERS, EXCEPT FOR THE EXPRESS WARRANTIES CONTAINED IN THIS WARRANTY STATEMENT, SYNOLOGY DISCLAIMS ALL OTHER WARRANTIES AND CONDITIONS, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, FOR THE PRODUCT, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NO OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED,

WILL APPLY AFTER THE LIMITED WARRANTY PERIOD HAS EXPIRED. SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF CERTAIN IMPLIED WARRANTIES OR CONDITIONS, OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY OR CONDITION LASTS, SO THIS LIMITATION MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY COVERAGE TERMINATES IF YOU SELL OR OTHERWISE TRANSFER THIS PRODUCT TO ANOTHER PARTY.

SYNOLOGY DOES NOT ACCEPT LIABILITY BEYOND THE REMEDIES PROVIDED FOR IN THIS LIMITED WARRANTY OR FOR SPECIAL, INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, ANY LIABILITY FOR THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES, FOR PRODUCTS NOT BEING AVAILABLE FOR USE, OR FOR LOST DATA OR LOST SOFTWARE. SYNOLOGY'S LIABILITY SHALL NOT EXCEED THE AMOUNT YOU PAID FOR THE PRODUCT THAT IS THE SUBJECT OF A CLAIM. THIS IS THE MAXIMUM AMOUNT FOR WHICH SYNOLOGY IS RESPONSIBLE.

SYNOLOGY INC. PRODUCTS ARE NOT INTENDED FOR USE IN MEDICAL, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS.

DISPUTE RESOLUTION

For the purposes of this provision, the term "Dispute" means any dispute, controversy, or claim arising out of or relating to (i) this Agreement, its interpretation, or the breach, termination, applicability or validity thereof, (ii) the related order for, purchase, delivery, receipt or use of any product or service from Synology, or (iii) any other dispute arising out of or relating to the relationship between You and Synology; the term "Synology" means Synology, Inc, its parents, subsidiaries, affiliates, directors, officers, employees, beneficiaries, agents, assigns, component suppliers (both hardware and software), and/or any third party who provides products or services purchased from or distributed by Synology; and the term "You" means the owner or purchaser of the Synology product, or those in privity with you, such as family members or beneficiaries. For US customers, you and Synology agree that any Dispute between You and Synology will be resolved exclusively and finally by arbitration under the current commercial rules of the American Arbitration Association, except as otherwise provided below. The arbitration will be conducted before a single arbitrator, and will be limited solely to the dispute between You and Synology. The arbitration, or any portion of it, will not be consolidated with any other arbitration and will not be conducted on a class-wide or class action basis. The arbitration shall be held in King County, Washington State, United States of America by submission of documents, by telephone, online or in person as determined by the arbitrator at the request of the parties. The prevailing party in any U.S. or non-U.S. arbitration or other legal action shall receive all costs and reasonable attorneys' fees, including any arbitration fee paid by the prevailing party. Any decision rendered in such arbitration proceedings will be final and binding on the parties, and judgment may be entered thereon in any court of competent jurisdiction. You understand that, in the absence of this provision, You would have had a right to litigate Disputes through a court, including the right to litigate claims on a class-wide or class-action basis, and that You have expressly and knowingly waived those rights and agreed to resolve any disputes through binding arbitration in accordance with the provisions of this paragraph. For non-US customers, any Dispute shall be finally resolved by arbitration conducted by three neutral arbitrators in accordance with the procedures of the R.O.C. Arbitration Law and related enforcement rules. The arbitration shall take place in Taipei, Taiwan, R.O.C., and the arbitration proceedings shall be conducted in English or, if both parties so agree, in Mandarin Chinese. The arbitration award shall be final and binding on the parties and may be enforced in any court having jurisdiction.

REVISIONS

Synology reserves all rights to revise or update its Products, other products, software, or related documentation without further notice.

Synology Inc. reserves the right to revise this publication and to make changes in the content hereof without the obligation to notify any person of such revision or changes.

