



# NS

## NS-RAID USB3.0 Series

### User Manual



Take you to explore the newest storage fun.

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# I Product overview

## 1.1 The manual of ORICO NS disk station

The series of disk stations are ORICO high-end storage products, with aluminum-magnesium alloy body and anodizing surface, a kind of great products with excellent design; Unique magnetic opening type provides you a nice installation experience; USB3.0 interface with USB3.0 To SATA3.0 program, supporting USB3.0 5Gbps high speed transmission and UASP Acceleration Protocol. ORICO disk station will bring you a different product experience with a new design.

## 1.2 Notice

To avoid loss of data of your hard drive, reading this manual, trying to use a hard drive that does not have a saved file, so that you can safely familiarize yourself with the use of this product.

## 1.3 Features

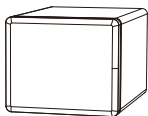
### 1.3.1 Product Functions

- (1) Support multiple enterprise-level RAID modes, improve the performance and security of hard drives.
- (2) Support SATA1, SATA2, SATA3, speed up to 6Gbps.
- (3) Some models have built-in silent cooling fan, strong cooling function.
- (4) Support UASP Acceleration Protocol.
- (5) External high-power power supply to protect the hard drive's stable operation.
- (6) Support hot-swappable, plug and play.

### 1.3.2 Structural design, appearance characteristics

- (1) Unique magnetic opening type of the front panel, the lid can be closed exactly and easily.
- (2) Many cooling holes in rear panel to meet the metal body heat dissipation.
- (3) Aluminum ridge plus arc chamfer design of the periphery of the product, simple and stable.
- (4) Sandblasted anodized surface, black and white color choices.

## 1.4 What's in the box



NS Disk Station



power adapter  
and Data cable



Data cable



Manual



Thanks card

Due to the need to update the product, the appearance of the product and the packaging or accessories may change, please take the real object you received, thank for your support! If you have any questions, please contact your dealer.

## 1.5 About the manual

This manual is compatible for the NS products with USB3.0 interface and RAID. The corresponding products are as follow.

Model	NS200RU3, NS400RU3, NS500RU3
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## II Usage manual

### 2.1 Appearance



① Power Button

② USB3.0 Interface

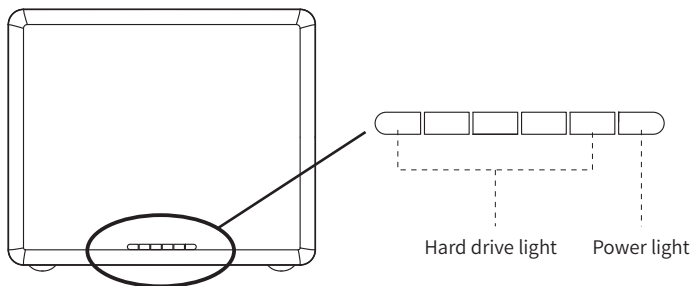
③ Power Interface

④ Front Lid

⑤ Hard Drive Indicator

NO.	Name	Instruction
①	Power Button	Power switch
②	USB3.0 Interface	Data transfer interface, the insertion
③	Power Interface	12V power input interface (always use the original power adapter)
④	Front Lid	Magnetic opening type
⑤	Hard Drive Indicator	The right one is power light, other lights are hard drive light

## 2.2 Hard drive indicator



The status of LED indicator	Details
Power	Power light always is blue
Insert hard drive	Hard drive light always is blue; no hard disk, the hard drive light does not shine
Read	The hard drive light blinks blue
Malfunction	The hard drive light always is red
Hibernation	The hard drive light does not shine

## 2.3 Product parameter

Catalog	Parameter
Series	Products with USB3.0 Interface and RAID
Interface	USB3.0
Speed	5Gbps (Non-RAID)
Disk supported	3.5 Inch SATA HDD
Indicator	Yes
Installation	Magnetic opening type, tool-free
Texture	Aluminum alloy +ABS
System supported	Windows / Mac OS / Linux

Model	Size	RAID
NS200RU3	223(L)×71(W)×134(H)mm 8.8 × 2.8 × 5.28 Inch	RAID 0,1 , JBOD
NS400RU3	223.5(L)×129(W)×135(H)mm 8.8× 6.3× 5.31 Inch	RAID0 / 1 / 3 / 5 / 10 /JBOD/ CLONE
NS500RU3	223.5(L)×159.6(W)×136(H)mm 8.8×6.28×5.35 Inch	RAID0 / 1 / 3 / 5 / 10 / JBOD/ CLONE

## 2.4 Instructions

### 2.4.1 Hard drive Installation



Step1: Open the disk station, hold the product by hand, and pull out the magnetic lid directly with another hand.



Step2: Put the hard drive into the disk station, use the hard drive to open the shrapnel, insert one end of hard drive with interface into the disk channel.

Note: Insert the hard disk, with the front side of the hard disk (with sticker) to the left.



Step3: Close the lid, the lid will be automatically adsorbed by the disk station for the magnetic opening type.

### 2.4.2 Connect with computer

After inserting the hard drive, insert the original power adapter into the power port, use the data cable to connect the product data port, and the other end is connected to the computer's USB port.



### 2.4.3 Remove Devices

(1) Remove it from the Windows system

First, stop the read and write operations of the hard drive, and then click the USB small icon on the taskbar, select the disk drive that is needed to be uninstalled to complete uninstall.



(2) Remove it from MAC

First, stop the read and write operations of the hard drive, and then drag the disk drive to the Recycle Bin to complete the uninstall.

## III Set Up RAID via ORICO HW RAID Manager

### 3.1 About RAID mode3.1 About RAID mode

**RAID10:** Security and the promotion of transmission performance are combined into RAID1 and RAID0, but the use ratio of hard drive is only 50% and higher demand on data safety is recommended.

**CLONE:** CLONE consists of at least two drives storing duplicate copies of the same data. In this mode, the data is simultaneously written to two or more disks. Thus, the storage capacity of the disk array is limited to the size of the smallest disk.

**RAID0 :** It has the fastest data read speed but had no protection that all data will be lost due to one damaged hard drive, which is applicable to temporary storage and high-speed transmission for data,such as video editing and other scenes.

**RAID1 :** Data storage is the most safe and not to be worried to lose data even if one hard drive is damaged. However, the use ratio for hard drive is just 50% ,thus it is

suitable for demanding high-security scenes to store data.

**RAID5:** With the both consideration of safety and maximum utilization of capacity for the data storage, only one hard drive is consumed in capacity and it is used most as RAID mode.

**JBOD:** JBOD (Just a Bunch of Disks) excellently bind multiple hard drives with different capacity hard drive but all data will be lost due to one damaged hard drive, thus it is not recommended.

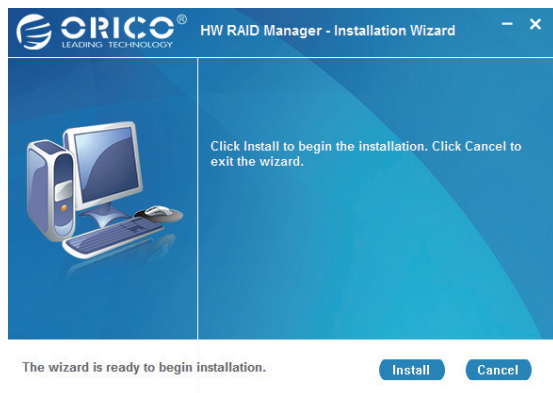
**Momai:** Each hard drive is ejected separately and the data stored hard drive can be more convenient to directly use.

### 3.2 Install the software

After downloading the software, enter the installation interface, click the "Install" button.

(1) Load ORICO HW RAID Manager Utility from Download it from ORICO Website ([www.orico.com.cn](http://www.orico.com.cn)). Utility for both Windows, Mac OS and Linux are included, Please ensure you are loading the Right Utility for your Computer.

(2) Run "Setup.exe" in Folder of ORICO HW RAID Manager for Windows and Click "Install" to Install the ORICO HW RAID Manager.

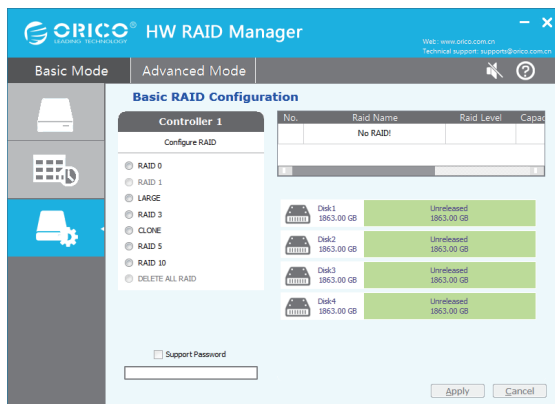


(3) Click "Finish" when the Installation is Finished.

Note. A Restart of your Computer may needed when the Installation is Finished.



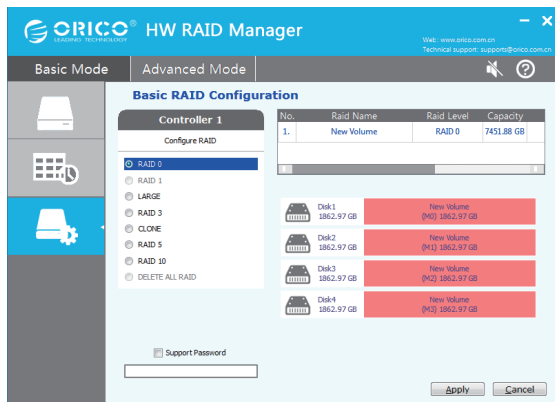
(4) Turn ON the ORICO Enclosure with Drives and run ORICO HW RAID Manager.



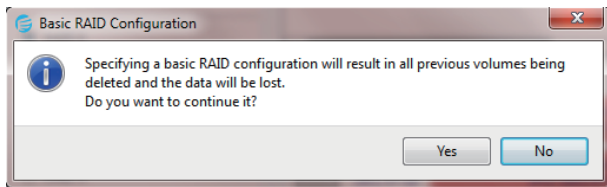
### 3.3 Create RAID mode: (Let's take RAID 0 as an example)

Noto: Please Backup your Files in Drives Mounted to the Enclosure before Set Up your RAID.

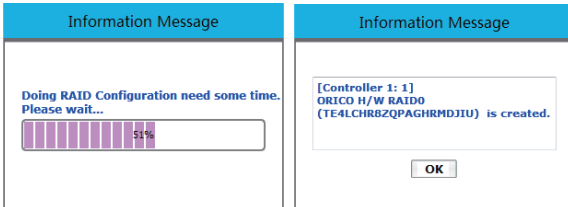
(1) "Basic RAID Configuration" Under "Basic Mode" will show the Information of your RAID and help you Set Up your RAID. Available RAID Levels will show here too. Select the RAID Level you Preferred and Click "Apply" Button at Bottom-Right will set up your RAID.



(2) The Following Popup with a Remind will come up when Applied your RAID Level. Please ensure you do have Read it and Click "Yes" if you do wish to Set Up the RAID. Click "No" will end the Processing.



(3) The RAID will under Configuration when Clicked yes on Step 7.The Configuration will Finish Automatically in Minute. The Following Popup will come up when the RAID is Setted Up. Click "OK" will Close it.



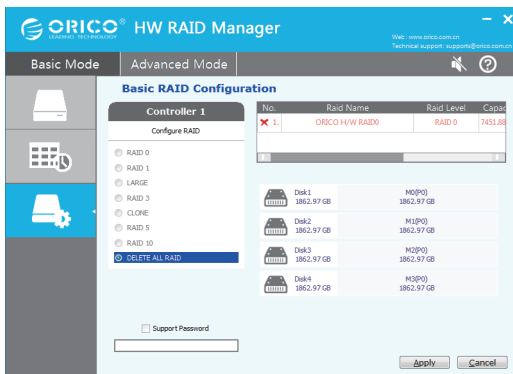
(4) RAID or Drives will show up in Computer soon after the RAID is Setted Up. Then Initialize and Format New Drives or RAID will get them work for you.

Note. Please Restart the Enclosure with Drives and your Computer if the RAID and Drives will not show up.

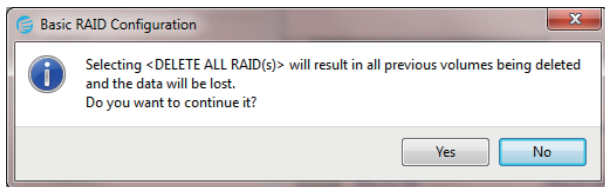
### 3.4 Delete the RAID information

Noto: Please Backup your Files in Drives Mounted to the Enclosure before Set Up your RAID.

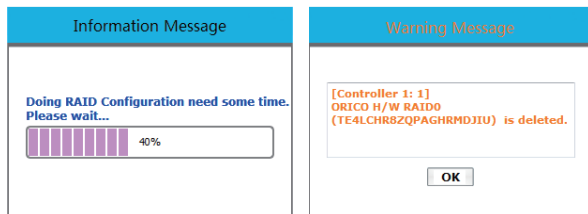
(1) First select "delete RAID information", on the right will display HDD information as shown below:



(2) Click "Apply" button to prompt, delete the RAID group will pop up this dialog box, prompting the user all the information will be lost, if the user disk has important information, please backup, if there is no data need to back up, click "Yes".

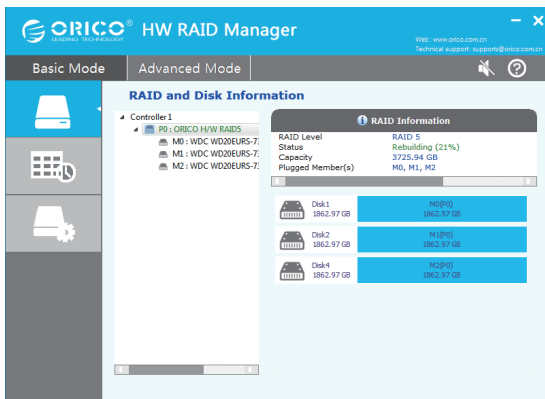


(3) Pop-up combination of the progress of the bar window that is being deleted, delete, do not move the device not to power off and other non-normal operation, just quietly waiting for the combination to complete the pop-up to complete the dialog box, click "OK", then enter the Disk Manager Disk to initialize the disk can be used to delete RAID.



### 3.5 RAID mode reorganization operation

When there is a hard disk in the product is broken, the hard disk indicator light will go out, but also beep ticking the call, press the back of the "SET" button, the buzzer will stop ticking Di Di , This time by the hard drive indicator instructions, the replacement of the damaged hard drive products can be automatically reorganized function;



### 3.6 RAID Reassembly Considerations

1. Replace the hard disk has a capacity limit; (The capacity of the new hard disk should be greater than or equal to the capacity of the damaged hard disk)
2. According to the hard disk indicator light red light to determine the damage to the hard disk;
3. HW RAID Manager will also show the progress of the RAID re-assembly, the rest of the process, the user do not carry out any other operation, please be patient;
4. Blinking red - RAID reassembly is in progress. Blue light - reorganization is complete
5. The RAID mode can not be changed during reassembly of the RAID, otherwise the reassembly operation can not be completed;

#### Warm Prompt

- (1) Please follow the Direction of User's Manual and DO NOT Force Remove Devices while Application. Force Remove may cause Error or Damage to the DATA and Devices.
- (2) ORICO Technologies Co.,Ltd will not be Liable for Compensation or Maintenance to the following Damage or Issues about DATA and Devices.

- A. Improper Operation not in Accordance with the Direction of User's Manual.
- B. Unauthorized Demolition.

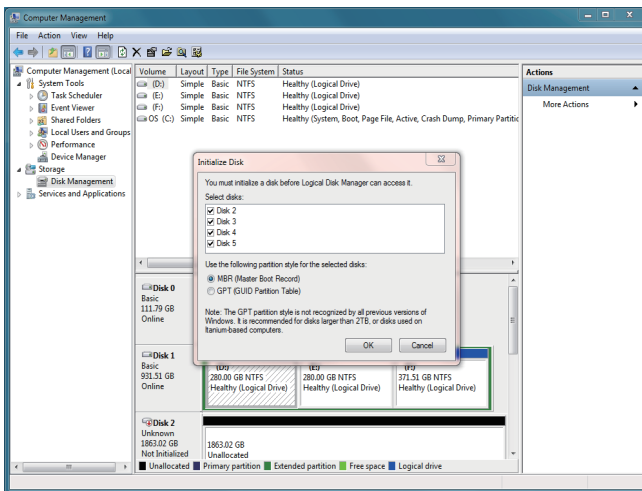
(3) The Item, Package and Accessories may Changed because of Production and not Exactly Match with what the Manual or Package shows. Please take the Practicality as standard. We sincerely Apologize for that and Deeply Appreciate your Understanding.

## IV Initialize and Format New Drives under Microsoft Windows

New drive need to be initialized and formatted or it won't work. Please follow the following direction to initialize and format your drive if you are mounting a new drive.

(1) Please ensure you have mounted drive to ORICO dock properly and attach the orico dock to computer.

(2) Right click on computer, Select "Manage", Open "Disk Management" in "Storage" of opened windows. a popup will come up here suggest a new drive need to be initialized. please select the disks and click ok will get it initialized.





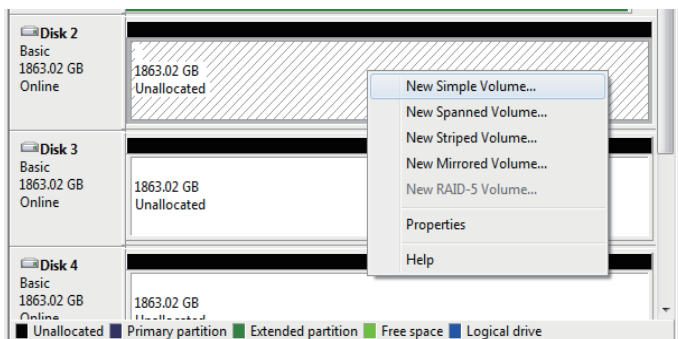
Note:

A. If you are mounting a drive which not larger than 2TB and may using on a windows vista or eariler computer, initialize with partition style MBR is recommended.

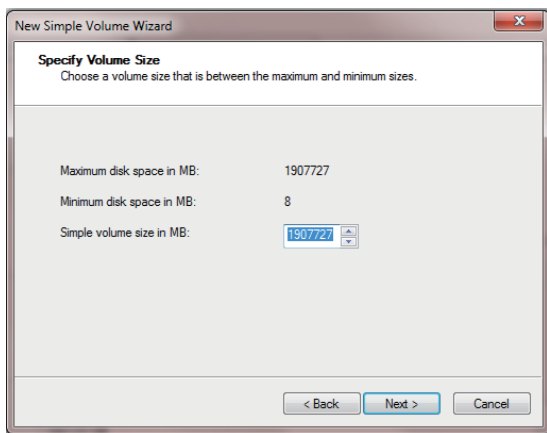
B. If you are mount a drive larger than 2TB, initialize with partition style GPT is recommend-  
ed. or you will get 2TB of the drive applicable and the rest will be unable to initialize.

C. If you closed this windows by mistake or the windows have never come up, right click on the "Disk Number" and select "Initialize Disk" will get the windows come up.

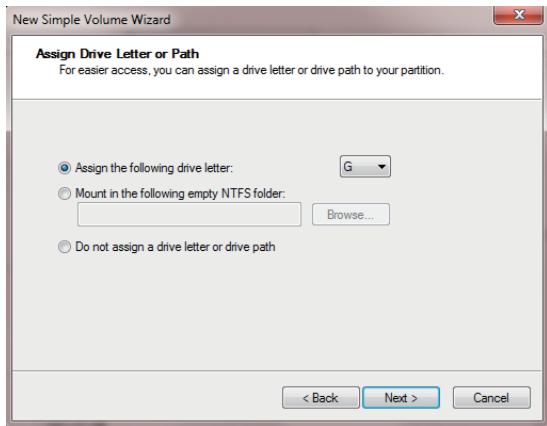
(3) Right click on unallocated new drive, select "New Simple Volume" will start to add new volume and format it.



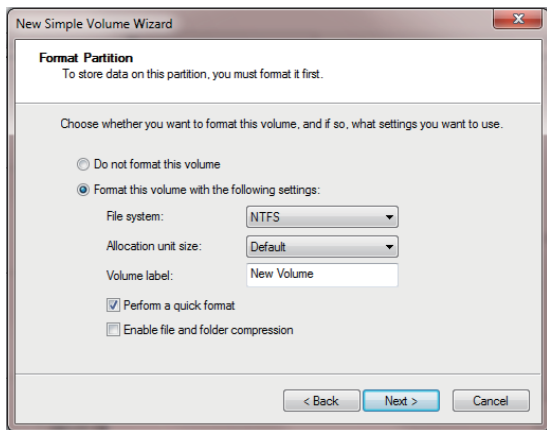
(4) set the volume size of your new volume. You can customize the size your expected. Or you can set the size of the volume at maximum disk space to set the drive to one volume.



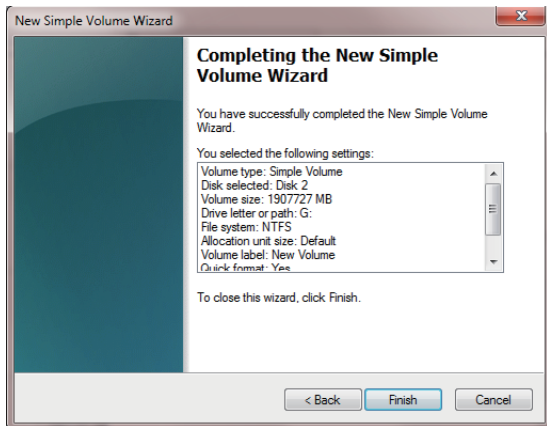
- (5) Assign new drive letter for the new volume. drive letter such as C, D, E, F, G will shown in computer and explorer for application.



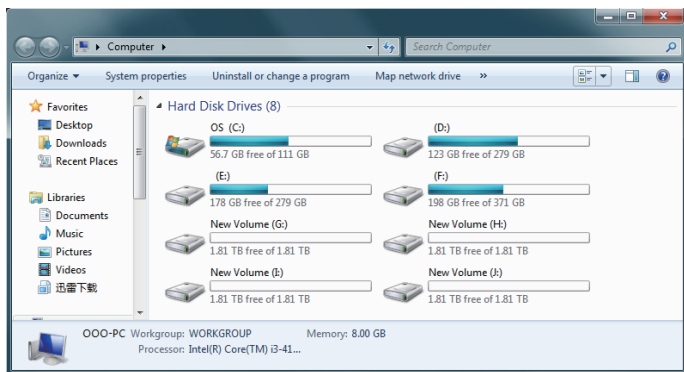
- (6) Format your new volume. You can set the file system (NTFS or FAT32), allocation unit size and volume label here. Perform a quick format is recommended. Please click "Next" when everything is configured.



- (7) Click "Finish" will Start to Format the Volume.



(8) The formatting will take 5 to 30 seconds. When the formatting is done, the new volume will be ready for any application.



## V Others

### 5.1 Trouble Shoting:

- (1) Please check if usb hosts of computer are working properly. Attach ORICO device and drive to rear usb hosts is recommended if you are using a desktop computer.
- (2) Mount one drive for test is recommended. please check if the ORICO device will works well when one drive mounted to HDD slot 1.
- (3) Please ensure the cable and power adapter attached properly.
- (4) Please ensure the drive have been formatted properly. Right click on computer, select "Manage", Open "Disk Management" in "Storage" of opened windows will shows any drive mounted to your computer and if they are formatted or not. please follow the direction of "Initialize and Format New Drives under Microsoft Windows" if your are mounting new drives.
- (5) Please test the ORICO device and drive via other USB3.0 or 2.0 hosts or another computer if available.

(6) Please test the ORICO device and drive with other USB3.0 cable or USB2.0 cable for printer if available.

If the issue remains, please contact ORICO customer care center and let us know the detailed info of your drive and computer with a screen shot of "Disk Management" & "Disk Drives" under "Device Manager". ORICO customer care center will be here to help.

ORICO Customer Care Center

Website: <http://www.oricoonline.us/download.aspx>

ORICO customer care team: [supports@orico.com.cn](mailto:supports@orico.com.cn)

Tel: 86-755-25196059

## **5.2 Declaration**

ORICO Technologies Co., Ltd., all rights reserved.

Thank you so much for purchase ORICO product. Please refer to this manual when using orico product or experienced issues. Additionally, please kindly contact ORICO customer care team if any concern.

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This manual is for reference only and it's not a guarantee.

ORICO Technologies Co., Ltd. reserve all rights of maintenance to this manual and shall not liable for any lost or damage resulting from this manual. Please kindly contact orico customer care team when any concern.

ORICO Technologies Co., Ltd shall not liable for compensation and maintenance of the following conditions.

1. Any special, incidental, indirect and secondary lost or damage.
2. Profit and revenue lost or damage.

3. Files, data, drive and device lost or damage.

Note: Compensation for lost or damage resulting from This manual or orico product shall not exceed the payment of your purchase to this product.

## **FCC**

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:(1) This device may not cause harmful interference, and (2)this device must accept any interference received, including interference that may cause undesired operation.





[www.orico.cc](http://www.orico.cc)

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