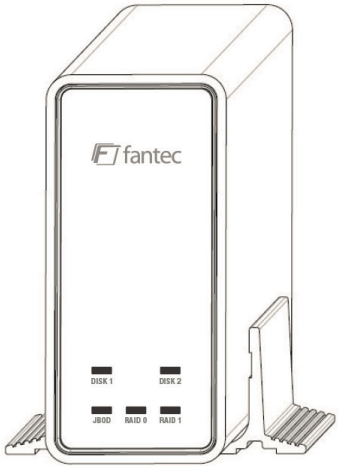
MANUAL



FANTEC mobiRAID X2

2x 2.5” HDD Enclosure

JBOD / RAID0 / RAID1

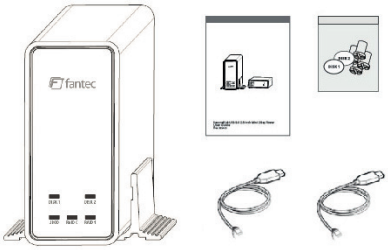
1. Introduction

Thank you for purchasing your new FANTEC mobiRAID X2 dual HDD RAID enclosure. This device provides extremely flexible RAID (Redundant Array of Independent Disks) configuration. Equipped with an USB 3.0 interface (USB 2.0 compatible), the device is able to transfer data with a maximum of 5.0 Gbit per second, and as an extra benefit no external power supply is needed. These feature make your new RAID device extraordinary flexible in terms of usage.

Please read this manual carefully before you start setup and installation.

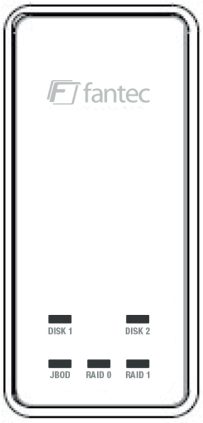
2. Content of delivery of your FANTEC mobiRAID X2

Your retail box contains below items:



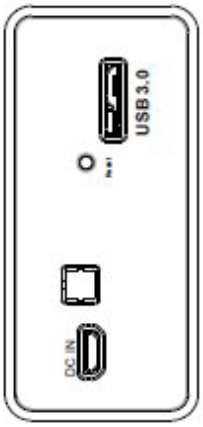
FANTEC mobiRAID X2 incl. stand
Manual
Tool bag (screws 4x, label 2x)
USB 3.0 cable for data transfer
USB cable for extra power

3. LED Indicators



Indication	HDD Status
Steady blue	Installed
Blinking blue	Access
Off	Standby / Not installed / Failure

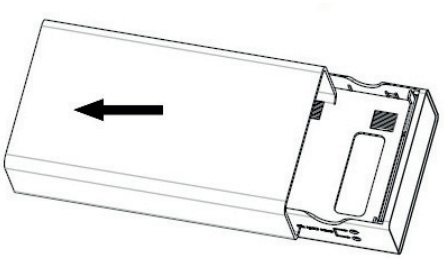
4. Interfaces



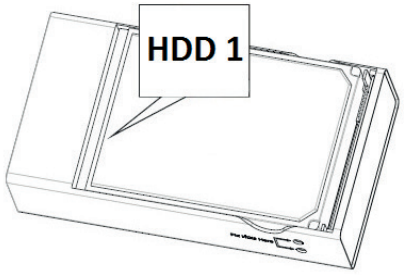
	No.	Interface	Description
1	1	USB 3.0	Connect to PC for data transfer
2	2	Reset button	Press to change RAID mode
	3	RAID switch	Configure RAID mode
3	4	DC IN	Connect to get extra power in case power by USB 3.0 is not enough
4			

5. HDD Installation

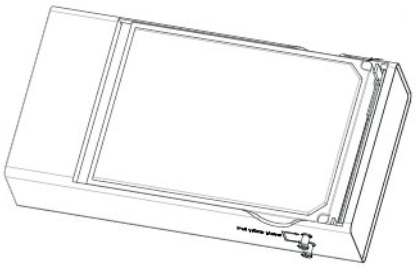
a) Remove the aluminium housing from the inner tray.



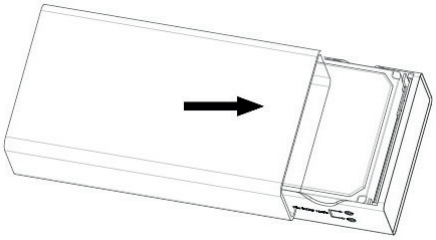
b) At first assemble HDD 2 and then HDD 1 into the inner tray. At this stage we suggest to fix the provided labels on each disk. In case of a failure it’s more easy to recognise, which of the disks is the faulty one.



c) Fix the HDDs with the **shorter** screws at the upper side of the inner tray. You will find the print **“Fix HDD here”** at this position.



d) Put the aluminium housing back to the inner tray and then fix the housing at the bottom side by the longer screws. After this, the installation of the HDDs is done.



6. RAID Mode illustration

The FANTEC mobiRAID X2 is supporting 3 different RAID modes. Before you store or copy your data on the device, please choose either JBOD, RAID0 or RAID1 mode depending on your favourite level of security or storage policy.

Important Note:

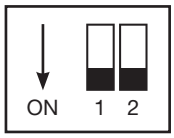
Once the RAID mode is set, it’s not possible to change it without data loss. Please backup your data before switching to another RAID mode. The disks have to be formatted after you have changed the RAID configuration.

To find a better decision which RAID mode is the best choice for your intended usage, please have a look at below drawing. It rates available capacity, protection level and transfer speed.

RAID mode	Capacity	Protection	Speed
JBOD	100%	★★☆☆	★★☆☆
RAID0	100%	★☆☆☆	★★★★
RAID1	50%	★★★★	★★☆☆

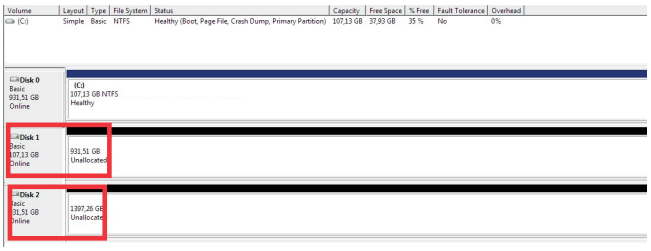
7. RAID mode setup

JBOD mode



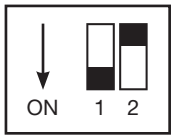
In order to set up the JBOD mode, please set both dip-switches to ON as shown on above drawing. In this mode both HDD are working separately and you will see 2 independent drives on the computer. Usually this mode is used, if 2 different disks or different capacities should come into operation.

Insert the two disks in the HDD1 and HDD2 rack and connect the device by the USB 3.0 cable to your PC. Switch the mode to JBOD and press the Reset button for about 10 seconds, the computer will automatically recognize the USB device and two new drives should appear. If no new drive shows up, you have to initialize and/or format the disks in the Disk Management (Attention, after formatting all data will be erased). Click the Windows Start button (Win8: right click), open “Run” and input “diskmgmt.msc”. The computer’s Disk Management should appear where you should find two new disks flagged as “Unknown” and/or “Unallocated”



Right-click the “Unknown” disk and select “Initialize Disk”, now you can format the disk by right-clicking the “Unallocated” Disk and choose “New Partition” or “Add New Volume”.

RAID 0 mode

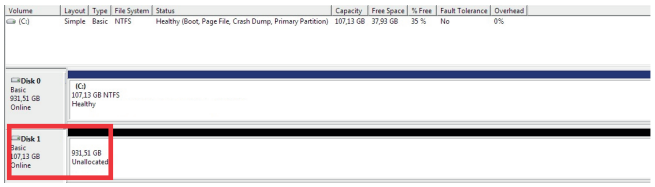


In order to set up the RAID 0 mode, please only set dip-switch 1 to ON as shown on above drawing. In this mode both HDDs are combined into a large single drive. The available capacity is two times the capacity of the smaller HDD (if using two different HDDs). You will see 1 single drive on the computer. Usually this mode is used, if the data transfer speed should be increased by striping. Striping is a method of concatenating multiple hard drives into one logical storage unit. It is the automated process of writing data across multiple drives simultaneously. Striping is used to increase the performance of disk reads. The multiple hard drives will write data in “column” effect.

Important Note:

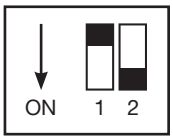
If one drive in a striped set fails, all of the data in the stripe set are lost.

Insert the two disks in the HDD1 and HDD2 rack and connect the device by the USB 3.0 cable to your PC. Switch the mode to RAID 0 and press the Reset button for about 10 seconds, the computer will automatically recognize the USB device and one new drive should appear. If no new drive shows up, you have to initialize and/or format the disk in the Disk Management (Attention, after formatting all data will be erased). Click the Windows Start button (Win8: right click) open “Run” and input “diskmgmt.msc”. The computer’s Disk Management should appear where you should find one new disk flagged as “Unknown” and/or “Unallocated”.



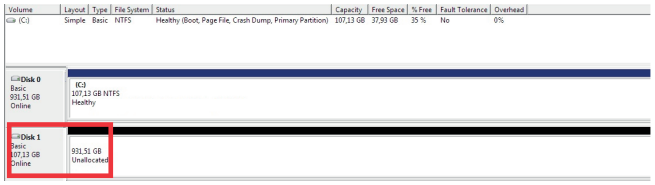
Right-click the “Unknown” disk and select “Initialize Disk”, now you can format the disk by right-clicking the “Unallocated” Disk and choose “New Partition” or “Add New Volume”.

RAID 1 mode



In order to set up the RAID 1 mode, please only set dip-switch 2 to ON as shown on above drawing. In this mode both HDDs are combined to a single drive. The available capacity is equal to the capacity of the smaller HDD (if using two different HDDs). You will see 1 single drive on the computer. Usually this mode is used, if data security by mirroring has highest priority. Mirroring is the automated process of writing data to multiple drives simultaneously. Mirroring is used to provide redundancy. If one drive fails, the redundant drive will continue to store the data and provide access to it. The failed drive can then be replaced and the drive set can be rebuilt.

Insert the two disks in the HDD1 and HDD2 rack and connect the device by the USB 3.0 cable to your PC. Switch the mode to RAID 1 and press the Reset button for about 10 seconds, the computer will automatically recognize the USB device and one new drive should appear. If no new drive shows up, you have to initialize and/or format the disk in the Disk Management (Attention, after formatting all data will be erased). Click the Windows Start button (Win8: right click) open “Run” and input “diskmgmt.msc”. The computer’s Disk Management should appear where you should find one new disk flagged as “Unknown” and/or “Unallocated”.



Right-click the “Unknown” disk and select “Initialize Disk”, now you can format the disk by right-clicking the “Unallocated” Disk and choose “New Partition” or “Add New Volume”.

8. General Notes

1. Changing the RAID mode will cause data lost.

2. Please refer to the instructions when switching the RAID mode, otherwise the execution might fail.

3. If power is too low or you hear a clicking sound of the disks, please use additional USB power cable.

4. HDDs with the same brand, model and capacity are recommended.

5. When using RAID function, more than one HDD partition is not recommended.

6. Windows Vista/7/8 users can enable GPT when initializing HDD with a total capacity of more than 2TB. Older OS may not recognize the device if you use a different operation system than Windows Vista/7/8.
For more detailed information about GTP, please visit:
http://www.microsoft.com/whdc/device/storage/GPT_FAQ.mspx

7. If you enable MBR by mistake, in order to clean the partition table, you have to switch another RAID mode and do the RAID mode switch all over again referring to Setup. Then go back to the RAID mode you want, repeat the previous actions and enable GPT when initializing HDD.

8. For Macintosh users: the total capacity of more than 2TB could be recognized only for the operation system is 10.4.11 Tiger or later.

9. FAQ

1: Under RAID 1 mode, if one of disk is crashed, can the device rebuild the data when I connect another new HDD?

Answer: Yes, the device would start RAID 1 rebuilding automatically when you connect another new HDD. No extra setup or configuration is needed. In order to start RAID 1 rebuild procedure, please execute following points step by step:

- Turn off the device and remove the crashed/faulty disk.

- Put a brand new HDD into the empty rack.

- Please turn on your PC, connect the USB3.0 cable at first to the PC and then connect the FANTEC mobiRAID X2 to the USB3.0 cable.

- Within a few seconds both Status LED of the device start blinking to indicate the rebuild process has been started.

- The speed of rebuilding is about 250GB/h, which means rebuilding a disk of a size of 500GB will last about 2h minimum, maybe more.

- If both status LED shine steady blue, the rebuild procedure is finished successfully.

Important Note:

- To rebuild your data securely, we recommend a new HDD that has same brand and model no. or a brand new HDD which is bigger than the crashed HDD.

- Don‘t disconnect the USB Cable during rebuilding.

2. Can I copy data to the disk during RAID 1rebuilding?
Answer: Yes, you can but it is not suggested doing that, and it would extend the time of rebuilding.

3: Under RAID 1 mode, if one disk crashes, can my PC read the other disk correctly?

Answer: Yes, the PC still can access to the healthy disk. If you want to be sure your data are safe, you make a backup before starting RAID 1 rebuild procedure.

4: How can I protect my data if the FANTEC mobiRAID X2 crashes?

Answer: If your device is running in JBOD or RAID 1 mode, you simply can remove the disks out of the device and connect them to some other external or internal interface in order to access you data. E.g. you can put the disks into an USB docking station to backup your data.

If your device is running in RAID 0 mode, you have to replace the crashed FANTEC mobiRAID X2 either by a new or repaired one. Take out both HDD and make sure to put the DISK1 or DISK2 labels on corresponding disks. In this way you avoid to mix them up at upcoming re-installation.

After your device is replaced, please connect the new (repaired) FANTEC mobiRAID X2 without any disks inside by USB3.0 cable to a running PC. Then set the FANTEC mobiRAID X2 to RAID 0 mode and press the Reset button for about 10 seconds.

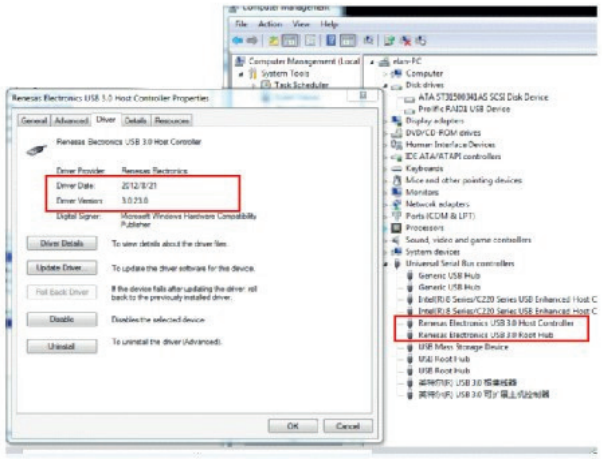
Now please disconnect the USB3.0 cable, put the DISK1 and DISK2 into corresponding slots and connect the USB3.0 cable once again.

Now you should be able to access to your data without any data loss.

5: What is the possible reason that my PC can’t recognize the FANTEC mobiRAID X2?

Answer:

a) Please check if your USB 3.0 Host driver or firmware is up to date; otherwise please try to upgrade it to the newest one if available.



b) Your disk(s) may consume high power. Please connect the additional USB cable to the USB DC-IN port of the device and to a free host port of your PC.

Please visit our website for more information:

www.fantec.de

If you have questions or need help with this device, please visit our Fantec Support Forum:

www.fantec-forum.de