

U s e r ' s G u i d e

Connecting External HDD Disk Case (FHD-353)

HardBox

Portable Hard Disk Drive



※ **INSTALLATION MANUAL**

We strongly recommend reading the **MANUAL** before using the product

INFORMATION TO THE USER (Part 15.105(b))

For Class B digital device

INFORMATION TO THE USER

Τησ εθυιπμεντ ηασ βεεν τεστεδ ανδ φουνδ το χομπλψ ωιτη τηε λιμιτς φορ α Χλασσ Β διγιταλ δεπιχε, πυρσυαντ το παρτ 15 οφ τηε ΦΧΧ Ρυλεσ. Τηεσε λιμιτς αρε δεσιγνεδ το προπιδε ρεασοναβλε προτεχτιον αγαινστ ηαρμφυλ ιντερφερενχε ιν α ρεσιδεντιαλ ινσταλλατιον. Τηισ εθυιπμεντ γενερατεσ, υσεσ ανδ χαν ραδιατε ραδιο φρεθυενχψ ενεργψ ανδ, ιφ νοτ ινσταλλεδ ανδ υσεδ ιν αχχορδανχε ωιτη τηε ινστρυκτιονσ, μαψ χασε ηαρμφυλ ιντερφερενχε το ραδιο χομμυνιχατιονσ. Ηοωεωερ, τηερε ισ νο γυαραντεε τηατ ιντερφερενχε ωιλλ νοτ οχχυρ ιν α παρτιχυλαρ ινσταλλατιον. Ιφ τηισ εθυιπμεντ δοεσ χασε ηαρμφυλ ιντερφερενχε το ραδιο ορ τελεωισιον ρεχεπτιον, ωηιχη χαν βε δετερμινεδ βψ τυρνινγ τηε εθυιπμεντ οφφ ανδ ον, τηε υσερ ισ ενχουραγεδ το τρψ το χορρεχτ τηε ιντερφερενχε βψ ονε μορε οφ τηε φολλοωινγ μεασυρεσ:

Ρεοριεντ ορ ρελοχατε τηε ρεχειπιινγ αντεννα.

Ινχρεασε τηε σεπαρατιον βετωεεν τηε εθυιπμεντ ανδ ρεχειπιερ.

Χοννεχτ τηε εθυιπμεντ ιντο αν ουτλετ ον α χιρχυιτ διφφερεντ φορμ τηατ το ωηιχη τηε ρεχειπιερ ισ χοννεχτεδ.

Χονσυлт τηε δεαλερ ορ αν εξπεριενχεδ ραδιο/Τς τεχνηνιχιαν φορ ηελπ.

WARNING (Part 15.21)

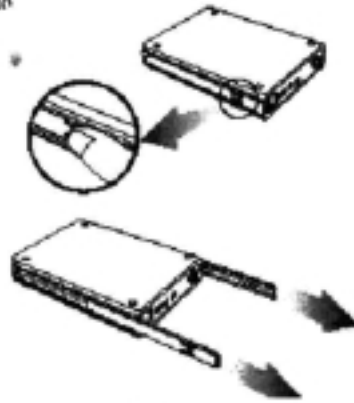
Χηανγεσ ορ μοδιφιχατιονσ νοτ εξπρεσσλψ αππροωεδ βψ τηε σαροτεχη χουλδ ποιδ τηε υσερ'σ αυτηοριτη το οπερατε τηε εθυιπμεντ.

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1 How to install the Drive (HDD)

1. Ready for the FHD-353 case and HDD (3.5" IDE Type for usual PC).
Make "Single" if it is the HDD of Master and Western Digital Co.
(The location will be different each product. Usually it is made for "Master" condition).
2. Pushing down the Hook and pulling the slide bar to the back to draw the slide bar.

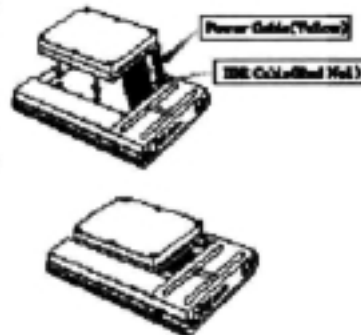


3. Separate the upper case with the below case.



4. Connect the 40pin IDE cable of PCB and 4pin of power cable, each to the 40pin IDE connector of HDD and 4pin of power connector.

At that time, make sure that the red lines of 40pin ribbon cable have to be No.1 pin. Then, putting down the 4 fixing pins of FHD-353 and fixing hole of above No.3 and No.2 harmoniously.



5. Set up again above 2 and 3 inverse

★ **Caution** : When the operation for Service and change of HDD, Please turn off the power

2 Contents of FHD-353

- | | |
|-------------------------|-------------------------------|
| 1. Main body of FHD-353 | 2. Installation CD for Driver |
| 3. Slide Bar | 4. Interface cable |
| 5. AC power cable | 6. Manual |
| 7. Support Beam | |

3 Caution for using the product

1. If the USB2.0 product is connected to USB1.1 Host Adapter, it will be worked for USB1.1 speed.
2. If you want to use USB2.0 product, you should use USB2.0 Host Adapter which has USB2.0 controller.

4 Conditions for using

- Over the PC for 586 Pentium or Mac.
- Possible condition for using USB port or IEEE1394 port.
- Possible condition for CD-ROM drive within it or can be down loaded the Driver from internet.

★ Caution for handling

- As it is very sensitive for slight impact, be careful not to have any impact.
- It can be out of order if it is kept in high temperature place for a long time.
- Keep it in the low humidity.

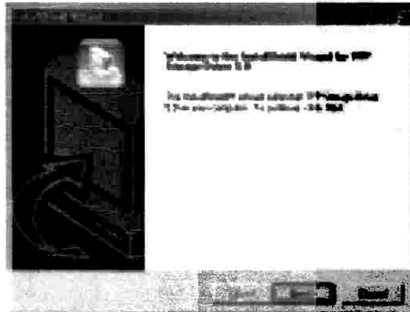
5 Installation of driver

5-1 Installation of USB2.0 Driver

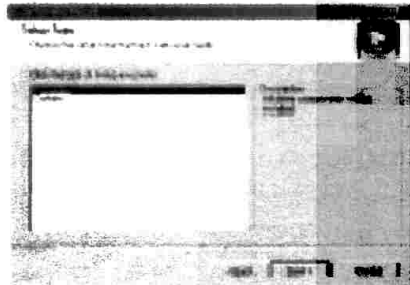
- ★ **Caution:** 1. Carry out "Tppinst.exe" before connecting the product.
- 2. The troubles can be occurred like loss of data if it is used with below 2GB hard disk. We recommend you to use over 2GB hard disk.

1. Installation for Windows 98/ ME/ 2000

- 1) Insert offered CD to the CD-ROM drive in computer before connecting the product.
- 2) Carry out "Tppinst.exe" which is in the USB folder under the Windows folder in CD-ROM and then Click "Next".



- 3) Check if the "Complete" is selected in set up type and click "Next". Then, The driver will be installed successfully.



- 4) Connect the AC power cable to the outlet and FHD-353, and then put the power switch of FHD-353 "ON".
- 5) Connect the FHD-353 to USB port of computer.
- 6) Find the USB device => Model of HDD.
 - ex) SAMSUNG SV4002H USB DISK.

- 7) Coming out to the "USB Disk", the drive icon will be created in "My Computer".



- ★ **Caution:** For the new hard disk, which doesn't have FDISK and Format can not be recognized in "My Computer".
So following the process of "No.6 the way of partition and format" to create the drive in "My Computer".

2. Installation in Windows XP

- 1) Booting the Windows XP.
2) After connecting the AC power cable to the outlet and FHD-353, put the power switch of FHD-353 "ON".



- 3) Connect the FHD-353 to USB port in computer.

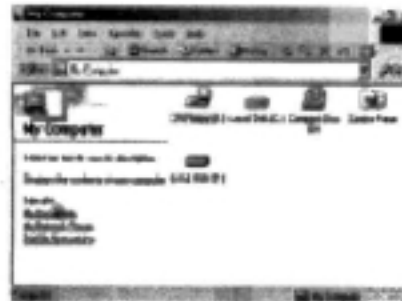


4) "USB big capacity keeping equipment" will be created automatically.

5) Find the USB DEVICE => Model of HDD

ex) SAMSUNG SV4002H USB DISK

6) Coming out to the "USB DISK", the drive icon will be created in "My Computer".



★ **Caution:** For the new hard disk which doesn't have FDISK and Format can not be recognized in "My Computer", so following the process of "No.6 the way of Partition and Format" to create the drive in "My Computer".

3. Installation in Mac OS

★ **Caution:** 1. The hard disk that doesn't have FDISK and Format can not be recognized.
2. If you want to make recognition in the Mac and IBM computer, make FDISK and Format in IBM computer.
3. For USB2.0, it will be supported when it is over Mac OS X.

■ **Using Mac OS 8.6 version.**

- 1) Booting the Mac OS before connecting the product.
- 2) Install the drive at the below position in offered driver CD.
Carry out "Mac OS/ USB/ OS 8.6/ Installation ISD Storage Driver".

■ **Using Mac OS 9.x Version.**

- 1) Booting Mac OS before connecting the product.
- 2) Install the driver at the below position in offered driver CD.
Re-booting the computer and connect the FHD-353U2(I).

■ Using Mac X.1 version

- 1) Booting Mac OS before connecting the product.
- 2) Install the driver at the below position in offered driver CD.
Carry out "Mac OS/ USB/ OS X.1/ Press USB Storage".
- 3) Re-booting the computer and connect the FHD-353U2(I).

4. Confirmation for Installation of Driver

Make sure if the drive is installed correctly on the OS position.

1) Windows 98/ ME

Control Panel=> System=> Device Manager=> Universal Serial Bus Controller.



2) Windows 2000

Control Panel=> System=> Hardware=> Device Manager=> Common Series Bus Controller.



3) Windows XP

Control Panel=> System=> Hardware=> Device Manager=> Common Series Bus Controller.



5. How to stop using the product

If you want to separate the product in use, following bellows;

- 1) Click "Tray icon" under the "Working Start Marking line", then Can find the below picture.



- 2) Select it, then can find the below message.



At that time, separate the product from USB port.

5-2 Installation IEEE1394 Driver

- ★ **Caution:** To sufficient the Plug & Play function of Windows, turn on the power and then connect to the IEEE1394 port in PC.

1. Installation in Windows 98SE

- ★ **Caution:** Please ready "Windows 98SE CD-ROM" to install the FHD-353 before Starting the installation.

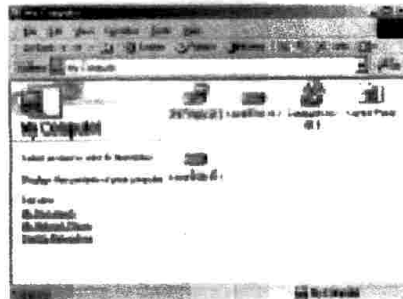
(FHD-353 can be installed in the future version of Windows 98SE).

- 1) Booting the Windows 98SE.
- 2) After connect the AC power cable to the outlet and FHD-353, put the power switch of FHD-353 "ON".

A. Connect the IEEE1394 cable to FHD-353 and IEEE1394 part.

B. Finding the message "Insert the Disk"=> Insert the "Windows 98SE CD-ROM" in CD-ROM drive=> Click "Confirmation"=> the driver will be installed automatically.

C. Make sure if the hard disk icon is created in "My Computer".



★ **Caution:** For the new hard disk, which doesn't have FDISK and Format, can not Be recognized in "My Computer".

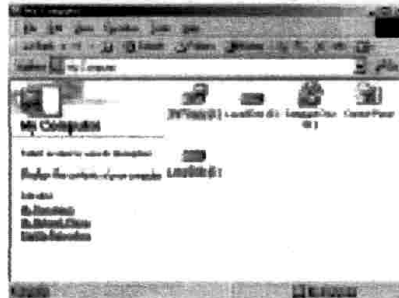
So following the process of "No.6 the way of Partition and Format" to create the drive in "My Computer".

■ **Confirmation of Installation**

Finishing the installation=> Control Panel=> System=> Device Manager=> hard disk model in disk drive and control panel=> System=> Device Manager=> Storage Equipment=> check "1394/ USB Disk".

2. Installation in Windows ME

- 1) Booting Windows ME
- 2) After connecting the AC power cable to the outlet and FHD-353, put the power switch of FHD-353 "ON".
- 3) Connect the IEEE1394 cable to FHD-353 and IEEE1394 port.
- 4) Make sure if the hard disk icon is created in "My Computer".



★ **Caution:** For the new hard disk which doesn't have FDISK and Format can not be recognized in "My Computer".

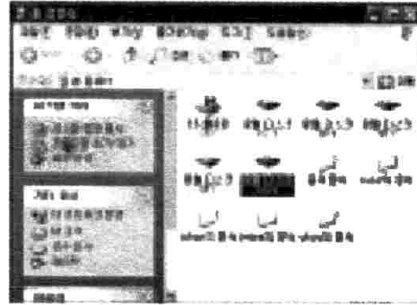
So following the process of "No.6 the way of Partition and Format" to create the drive in "My Computer".

■ **Confirmation of Installation**

Finishing the installation=> Control Panel=> System=> Device Manager=> hard disk model in disk drive and control panel=> System=> Device Manager=> Storage equipment=> 1394/USB Disk and Control Panel=> System=> Device Manager=> SBP2=> Check "SBP2 Compliant IEEE1394 Device".

3. Installation in Window 2000/ XP

- 1) Booting Windows 2000
- 2) After connecting the AC power cable to the outlet and FHD-353, put th power switch of FHD-353 "ON".
- 3) Connect the IEEE1394 cable to the FHD-353 and IEEE1394 port.
- 4) Make sure if the hard disk icon is created in "My Computer"



★ **Caution:** For the new hard disk, which doesn't have FDISK and Format, process of "No.6 the way of Partition and Format" to create the of installation.

■ **Confirmation of Installation.**

Finishing the installation => Control Panel => System => Hard ware=> Device Manager => Disk Drive => Check
Sarotech Co., Ltd., FLEX HDD IEEE 1394 SBP2 Device.

4. Installation in MAC OS

- ★ **Caution:**
1. Should be over MAC OS 8.6
 - 2.The hard disk that doesn't have FDISK and Format can not be recognized.
Install the driver, first then make initialized.
 3. If you want to make recognition in MAC and IBM computer
Please make sure FDISK Format in IBM computer

- 1) Booting MAC OS
- 2) After connecting the AC power cable to the outlet and FHD-353, put the power switch of FHD-353 "ON".
- 3) Connect the IEEE 1394 cable to FHD-353 and IEEE 1394 port in Computer.
- 4) The drive icon will be created on "Base Screen".

5-3. Installation of USB2.0 + IEEE 1394 combo driver

If you want to use USB2.0, please refer to "6-1 Installation of USB2.0 driver" and want to use IEEE1394, please refer to "6-2. Installation of IEEE 1394 driver".

6 The way of PARTITION and FORMAT

★ **Caution:** Install the driver before you make Partition and format(Export for IEEE 1394).

1. Window 98/ME

■ **The way to FDISK and Format with new hard disk(with one drive).**

- 1) Install the driver before connecting the product to computer.
- 2) Connect the product to USB port (IEEE 1394 port) in computer after install the driver.
- 3) Connect the USB cable (IEEE 1394 cable) - Start - Program - Select English MS-DOS and click.
- 4) Type "FDISK" - Enter
- 5) "Will you use the big disk support capability" ? - Type "Y" - Enter
- 6) Choose the "MOS. Change the present hard disk drive" among the disk option.
- 7) Choose the last number in "change the hard drive" and then write the number of hard disk that has to be FD
- 8) Press "ESC" -Select "NO.1 designate the logic Dos drive or division domain" in FDISK option item - Type."NO.1" - Enter.
- 9) After finishing the Hard test - "will you use the possible biggest size in basic Dos division domain" - Type "Y" - Enter.
- 10) Press "Enter" after write the necessary size and capacity or %
- 11) After finishing Hard test again, find the message "designate the basic Dos, division domain, the drive letter is changed or added" =>then press "ESC" =>return to the FDISK option.
- 12) Press "ESC" - find the message "Re - start the computer " - press "ESC" again.
- 13) Finding C:\WINDOWS> - Press "EXIT" - return to windows.
- 14) Separated the FHD-353 from the computer.
- 15) Connect the FHD-353 to USB port (IEEE 1394 port) in computer, again.
 - i. The drive letter will be created in "My Computer"
 - ii. Select the drive and make Format(M) to press the right side button of mouse.

2) Windows 2000/XP

For windows 2000/XP, Click "My Computer" in basic Screen with the right side button of mouse - management - disk management.

■ The way of FDISK and Format with new hard disk (with one drive)

- 1) Install the drive before connecting the product to computer.
- 2) Connect the product to the USB port (IEEE 1394 port) in computer after install the driver.
- 3) " Not allocation" (Ex: DISK 1) with click the right button of the mouse and initialized.
Coming out the disk from the signature (reset) - check - Click "NEXT" - finishing the signature (reset)
- 4) Click the drive right button of mouse in "Disk management" - "Not allocation" with the carry out the "Making Partition"
- 5) Carry out the "magician" in making Partition - click "NEXT".
- 6) Check if the "Main Partition(P)" is selected among the kinds of Partition - Click "NEXT"
- 7) Type the necessary size at "using disk space" in the size of Partition - Click "NEXT"
- 8) Click "NEXT" after allotment of drive letter.
- 9) select one among the "Using file system (NTFS, FAT32) in Partition Format - Click "NEXT"

- ★ **Caution:**
1. Selecting the file system with NTFS, only the window 2000/XP can be recognized.
So for using together with window 98/ME , please make it FAT32 system.
 2. With one drive and FAT32 system in window 2000/XP, the biggest capacity is 32GB.
 3. Be careful, for FORMAT over 2GB hard disk, not to exceed the capacity of 32GB.

- 10) Click "finish" after Completing the magician of making Partition.

7 Checking for troubles

1. Loss of data

If it is selected for "precision" when the inspection of error or assemble the disk blocks, the data can be lost.

Do not try this.

2. Jumper setting of Hard disk

Make "Single" for the hard disk of Western digital Co.

And make "Master(MA)" for other hard disk to be recognized.

Specification

Model	FHD-353		
Interface	USB 1.1	USB 2.0	IEEE 1394
Max Data transfer	12Mbps	480Mbps	400Mbps
Size	150 x 210 x 35.6mm		
Weight	700g(Without Hard)		
Power	AC 90- 240V(Free Voltage)		
OS supported	Widows 98/ME/2000/XP, Mac OS 8.6 or higher		
Application	With USB port or IEEE 1394 port in Desktop PC, Notebook PC and etc		