

XDRIVE

USER'S GUIDE

INNATOR CO., LTD

WWW.INNATOR.COM, WWW.USBXDRIVE.CO.KR

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This product is subject to change Without prior notice for the purposes of performance Enhancement. The actual installation and usage of the product may be slightly different From the description in this Guide.

For up-to-date information on Mobile Disk, visit our homepage:

<http://www.innator.com> / <http://www.usbxdrive.co.kr>

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1.Introduction of XDrive

This user's manual is synthesis manual for XDrive Plus, XDrive Plus Mobile.

XDrive Plus



1) XDrive Plus

You can retrieve or store files in the device as a hard disk. The read/write operation of the device is the same as that of a hard disk

Accessory: XDrive Plus, User's manual, Necklace, Install Driver CD.

XDrive Plus Mobile



2) XDrive Plus Mobile

It supports Mobile charging and Data communication besides XDrive Plus function. It is first new product in the world.

(Patent Pending)

Accessory: XDrive Plus Mobile, User's manual, Necklace, Install Driver CD

USER'S GUIDE



INNATOR CO.,LTD.

1.Features of XDrive

Introduction

Description for XDrive Plus & XDrive Plus Mobile (hereinafter referred to XDrive)
This user's manual is synthesis manual for XDrive Plus,XDrive Plus Mobile.

Safety Precautions

Please follow the safety precautions carefully before you use the xDrive device and the application software (the product). Make sure that you use the product correctly according to the procedures described in this guide.



Warnings

This mark indicates topics that could lead to serious injury of your body or damage of the product if ignored or handled incorrectly.



Warnings

Do not attempt to disassemble or alter any part of the product that is not described in this guide.

Do not allow the product to come into contact with water or other liquids. In the event that water or other liquids enter the interior, immediately unplug the product from the computer. Continued use of the product may result in fire or electrical shock. Please consult your product distributor or the closest support center.

Do not handle the product to do the plug and unplug operation if your hands are wet. Otherwise it will cause electrical shock.

Do not place the product near a heat source or expose them to direct flame or heat. Never place the product close to equipment generating strong electromagnetic fields. Exposure to strong magnetic fields may cause malfunctions or corrupt data.

System Requirements

There are minimum hardware and software requirements that must be satisfied to ensure the product to function properly.

Computer Model	IBM PC/AT Compatible, Power Macintosh, PowerBook, iMAC or iBook
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OS	Windows 98 Second Edition, Windows Millennium Edition (Windows ME), Windows 2000, Windows XP
----	--

Interface	USB
-----------	-----

Free Hard Disk Space	3 MB and more
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Windows 98 SE does not support default Mass Storage Driver. You have to install the driver bundled with the product.

The product can use the default driver in most of the OS. If you want to run the application software bundled with the product, install the vendor driver by the “xDrive2.0Tools2.0.exe” utility. Then, the application software will work properly.

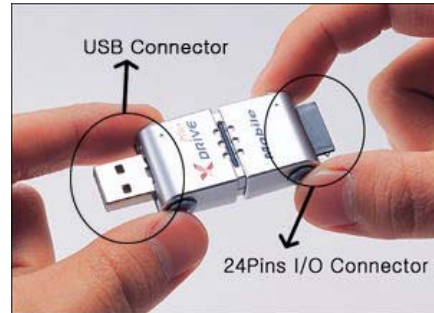
The application software only can run with Microsoft Windows OS.

However, the XDrive basic functions can be supported in all OS listed above.

Guide to Components



<XDrive Plus>



<XDrive Plus Mobile>

Accessory



< XDrive utility CD >



< Extension Cable >

USB Interface:

LED Display:



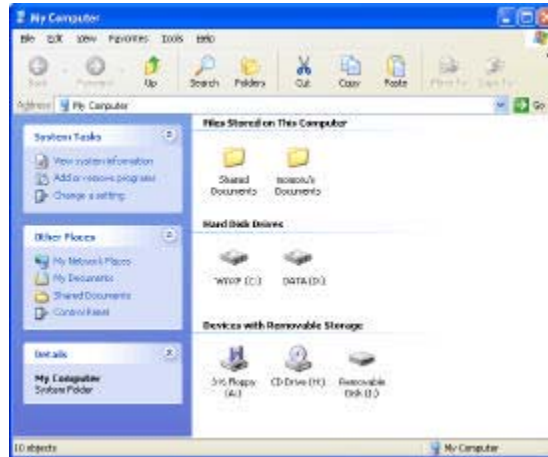
< Necklace >

The interface connects to the USB port of the computer.

This LED Display will show the status of the device. Once the device is in operation, the LED will be turned on.

Basic Functions

1. Plug and Play



When you plug the device into the USB port of your computer, you will see a “Removable Disk” icon in the file manager window.

In **Macintosh**, once you plug the xDrive into the USB port. You can see the disk icon in the “Desktop”.

In **Linux** OS, you can mount the device by the following instruction.

- . Execute `cd /etc/sysconfig/ (cat /etc/sysconfig/hwconf | more)`
- . Check the device information in `hwconf`, write down the mount point.
- . Make a directory in `/mnt` (ex: `mkdir /mnt/usbHD`)
- . Then, execute `mount /dev/sda1 /mnt/usbHD` (if mount point was `.dev/sda`)

2. Read and Write

You can retrieve or store files in the device as a hard disk. The read/write operation of the device is the same as that of a hard disk.

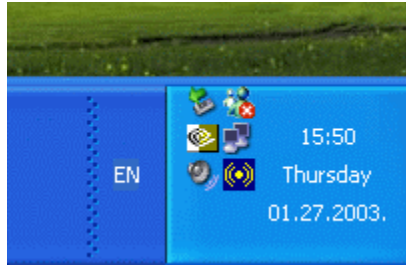
3. Write-Protect Switch

When you put the write-protect switch to “ON” position, you cannot write any file or data into the device. You still can view and read the files and data in the device. You can switch the “Write-Protect” switch even you do not disconnect the device. Due to Linux OS limitation, the write-protect switch will not work on-line.

4. Unplug

You can remove the device after you finish the action with the device. However, in

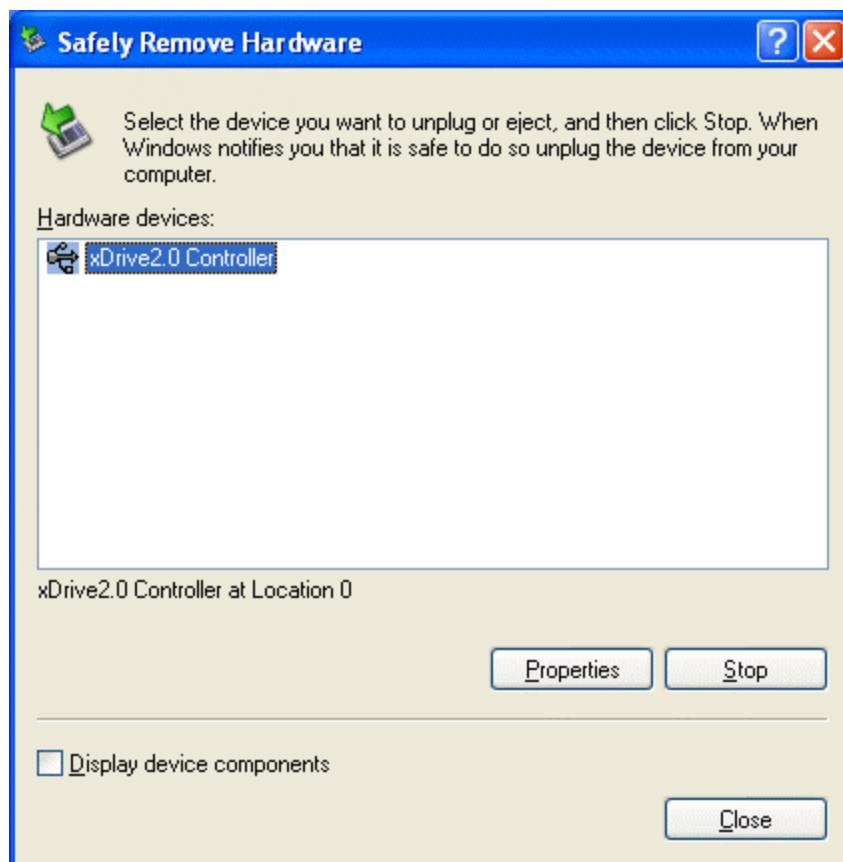
Windows ME and Windows 2000, please follow the safe removal procedure. You can find a safe removal icon in your computer's notification area.



Double click the “safe removal” icon; the “Unplug or Eject Hardware” window will be pop up. You can select the device you want to remove. Then, click the “Stop” button. After that you can unplug the device from the USB port of your computer.



Warning When you want to remove the XDrive2.0 device, make sure the LED is not flashing. When the LED flashes quickly, there are some traffic on going between the OS and the xDrive2.0 device. Don't remove the xDrive2.0 at this moment. Otherwise, it will cause some damages to the data or even the xDrive2.0 device itself.



**Warning**

If you do not follow the safe removal procedure in Windows ME and Windows 2000 systems, data loss caused by the “write cache” issue may happen.

In Macintosh systems, you can drag the removable disk icon and put into the trash. This action will perform the “Eject” function.

In Linux OS, please follow the “umount” command procedure to un-mount the device.

Partition Type

The xDrive2.0 may be partitioned into three types of disk. We will use the following terms in this guide,

1. Public Area



There is no “Security” function at all. You can do any basic functions, described in the “Basic Functions” section, in this area.

2. Security Area



This area cannot be viewed without the application software. Once you do the “Log In” action in the application software, you will switch view from “Public Area” to “Security Area”. After successful switch, you can do any basic functions, described in the “Basic Functions” section, in this area.

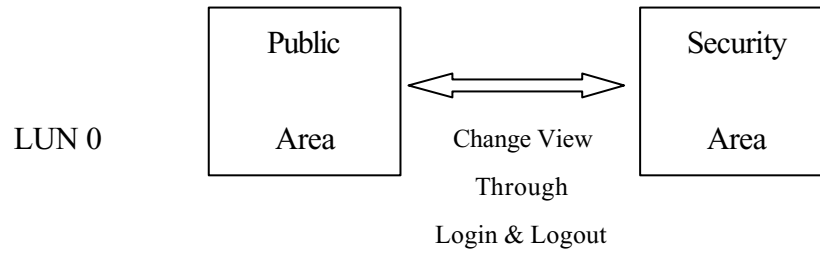
You can only view either “Public Area” or “Security Area” at the same time in the same disk logic unit number (LUN).

In xDrive2.0, you can select the following partition combinations:

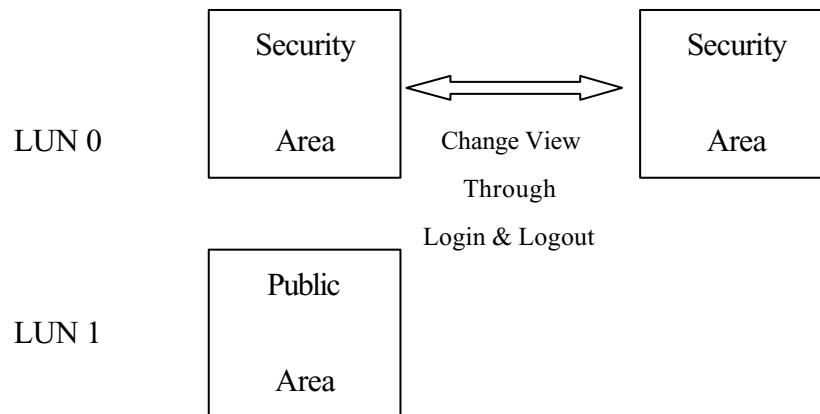
1. Single Public Area Make all the device area accessible by everybody.

2. Security Area Make the device area into two partitions in the same LUN, Public Area and Security Area. Everybody can access the Public Area. The Security Area can be accessed “Only” with a password.

3. Public Area Plus Security Area Make the device area into three partitions in two LUNs, Public Area and Security Area in LUN0, and Public Area in LUN1. You can access these partitions by the multiple-LUN driver. The partition status was shown in the following figure. The partitions in LUN 0 will perform as described in item 2. The partition in LUN 1 will perform as described in item1.



This figure shows detailed operations of single LUN



This figure shows detailed operations of multiple LUNs

Function Type	Security	Password	Disk Logical Unit Number	Disk Letters in OS
1. Public Area Only	No	No	1 (LUN0)	1
2. Security Area	Yes	Yes	1 (LUN0)	1
3. Public Area Plus Security Area	Yes	Yes	2 (LUN0 & LUN1)	2

This table describes the functions of the three partition types

Using the Software

On the Windows Platform

Installing/Uninstalling the Application Software:

Installing the software:

If you are installing the application software onto Windows OS, you must first log on as the administrator and then install the application software.

Precaution about the USB Interface

Please connect the device to the USB port of your computer when you install the application software.

If you do not connect the device to the USB port and install the application software in the Microsoft Windows XP, you have to install the xDrive2.0 driver again as you plug in the device.

In Windows 98 SE and Win Me, you need to unplug the xDrive2.0 and plug again after install the driver.

1. Find the “xDrive2.0Tools.exe” program.
You can find the program in the xDrive2.0, CD-ROM, or Floppy.
2. Double-click the [xDrive2.0Tools.exe] icon.
3. Follow the on-screen instructions to proceed.

Uninstalling the software:

To remove the installed software, you can click the windows [Start] menu and select [Setting], [Control Panel] and [Add/Remove Programs]. The application software can also be uninstalled by clicking the [Start] menu and selecting [Programs], [xDrive2.0], [Uninstall xDrive2.0].

Notes:

The USB driver will be required to install, as the device links the PC by the USB port at the first connection. After then, the drive installation is not required.

Do not cancel the installation during the procedure. The xDrive2.0 may not operate correctly if the installation is incomplete.

Read the “Troubleshooting” Section if the installation cancels itself during the procedure, if the installation did not proceed as described, or if you feel that the driver are not properly installed.

Installing the USB Driver:

For some Windows system, users should log on as the Administrator before installation. Once you have attached the xDrive2.0 to the computer. The OS will find the appropriate driver or the “Add New Hardware Wizard” dialog will appear after a moment. You can do the installation of the Driver manually. Or just find out the “Setup.exe” program to do the driver installation.

During the installation procedure, if the “Digital Signature Not Found” message displays, just click the [Yes] button in the showing window.

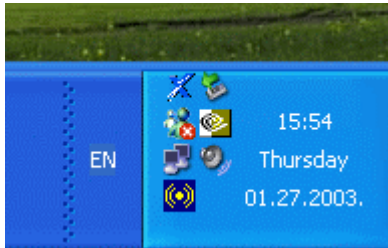
Using xDrive Utility.exe Program the First Time:



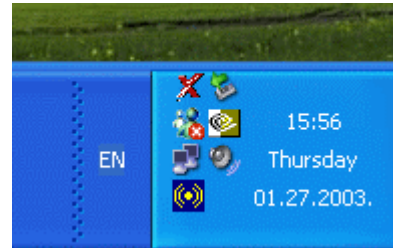
Warning

Due to the xDrive2.0Utility.exe can only handle one xDrive2.0 device at the same time. If you will not use the function of the xDrive2.0Utility.exe, like “Resize”, “Change Password”, or “Log In”, etc., you can insert more than two xDrive2.0 devices. If you want to use the function of the program, remove all other xDrive2.0 device. Otherwise, the xDrive2.0Utility.exe may not perform properly or even cause data loss.

After you install the software and driver correctly, the xDrive2.0 icon will appear at the notification area automatically.



Or

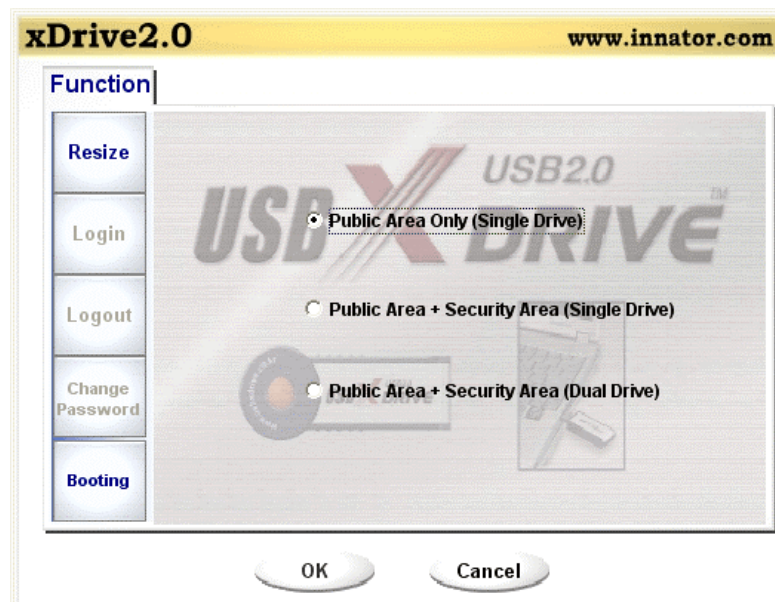


The display will depend on the status of the device.

You can use the right button of your mouse to pop up the selection menus as the following figures. Then, you can select the functions you want.



Or you can double click the icon in the notification window. The xDrive2.0 manager window will pop up as



By default, the device is non-security. So, the “Resize” function will be active when you run this software first time.

xDrive – Resize:

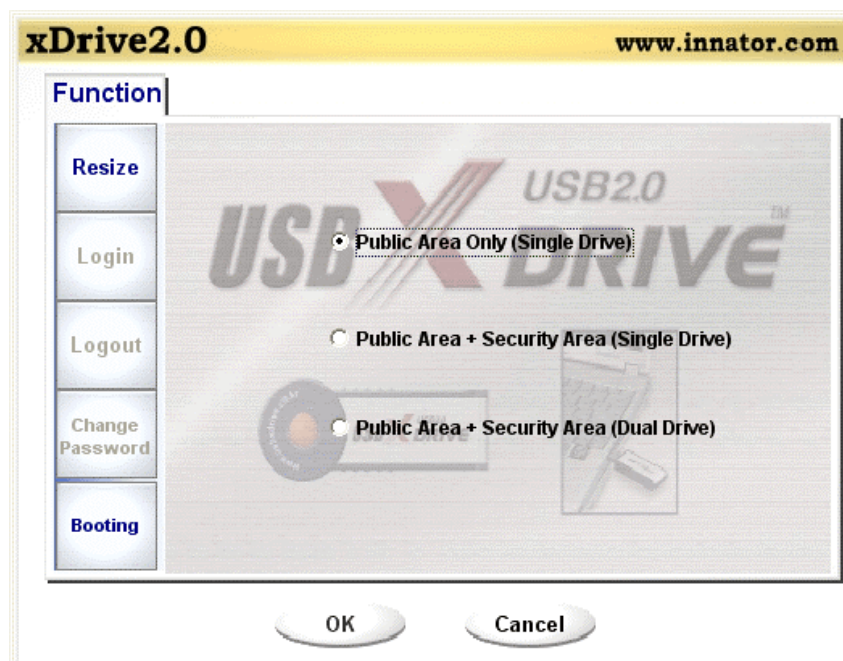
As described in the “Partition Type” section, you can do the “Resize” action to your xDrive2.0.



Warning

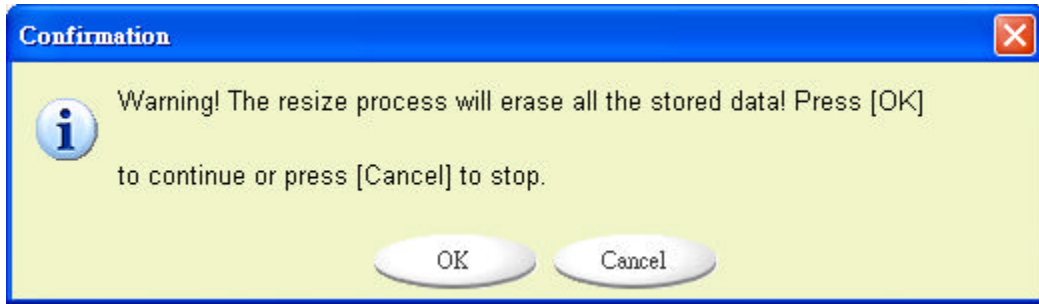
The “Resize” action will erase all the data or files existing in xDrive2.0. The action is not reversible. You have to backup all the important files or data. Also, please close all the active programs and windows on the screen of your computer.

Click the Resize button in the xDrive2.0 manager window. The following “Resize Partition” window will pop up.

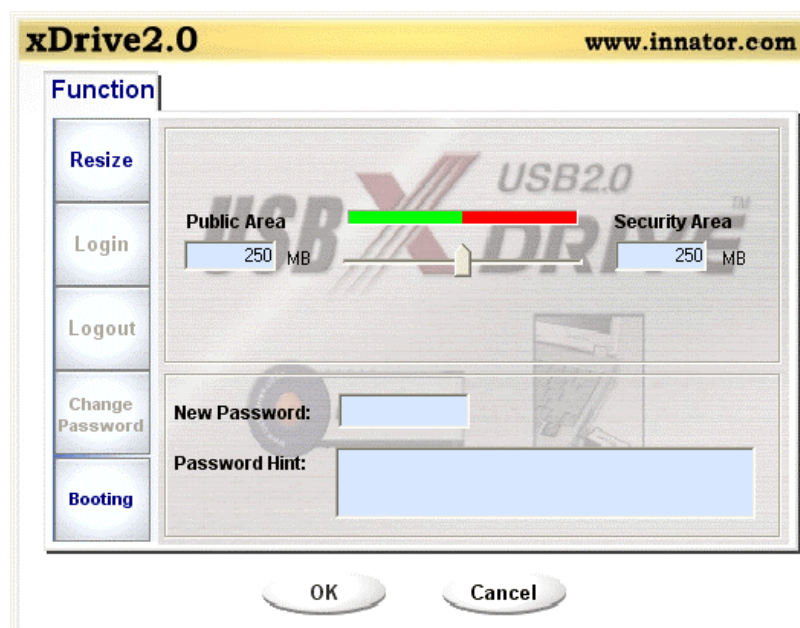


1. Select the partition type you want.

If you select the “Public Area Only”, then click the [OK] button. The “Confirmation” window will pop up. Please make sure you already backup all the important files or data.

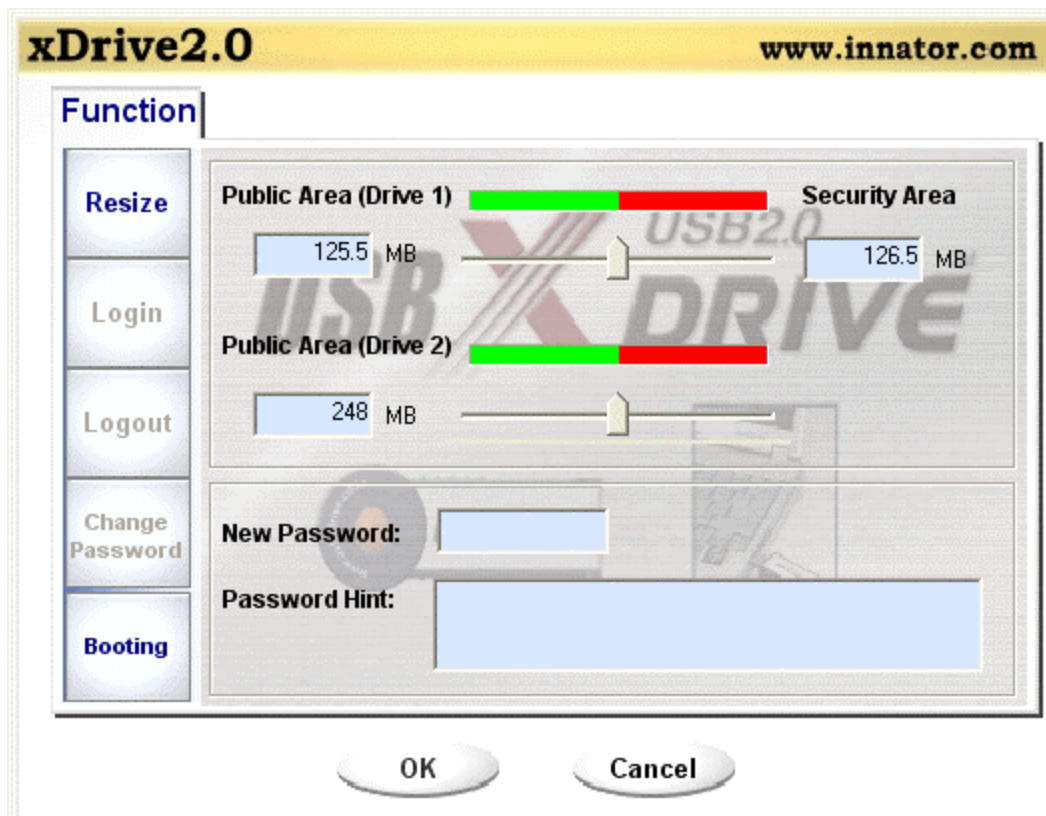


If you select the "Security Area", then the following "Security Area Resize" window will pop up. You can drag the scroll bar in the middle of the window to set the size of the "Public Area" and "Security Area". Or you can type in the size of each Zone you want in the "Size" window. You can set the password for accessing the security area in the "New Password" window. The maximum size of the password is 8 characters. You can key in the hint of your new password in the "Password Hint" window. This hint will be displayed when you click the "Hint" button in the "Unlock Protect" window. The maximum size of the Hint is 32 characters. After you finished the setting, click the [OK] button. The "Confirmation" window will pop up. Please make sure you already backup all the important files or data.

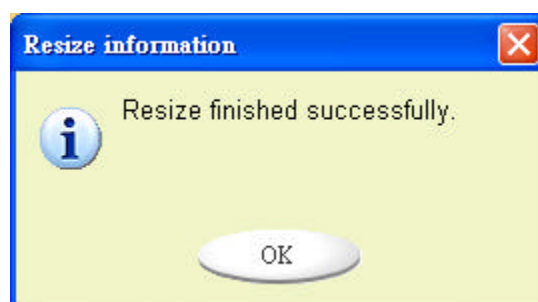


If you select the "Public Area + Security Area", then the following "Public/Security Area Resize" window will pop up. You can drag the scroll bar in the window to set the size of each area. First, please set the size of the "Public Area" of LUN1. The minimum size for each area is 1MB. The maximum size of the "Public Area" of LUN1 is 1/4 of the total size. Once the size of the "Public Area" of LUN1 was set, the scroll bar of the

“Public Area” and “Security Data Zone” of LUN0 will be set in the middle automatically. Or you can type in the size of each Zone you want in the “Size” window. You can set the password for accessing the security area in the “New Password” window. The maximum size of the password is 8 characters. You can key in the hint of your new password in the “Password Hint” window. This hint will be displayed when you click the “Hint” button in the “Unlock Protect” window. The maximum size of the Hint is 32 characters. After you finish the setting, click the [OK] button. The “Confirmation” window will pop up. Please make sure you already backup all the important files or data.



2. Once the resizing is finished, the following message will pop up.



After you finish the “Resize”, the “Setup.exe” program will be copied into the “Public Area” (in LUN 0) automatically. It’s removable. However, it is needed when you insert your device into another computer. It will install the xDrive2.0 software for you in the computer.

Login the Security Area:

If you partition the device with security, you can execute the following “Login” function to access the security Area.

Double click the xDrive2.0 icon in the notification window or click the [Login] button in the xDrive2.0 manager window. The “Unlock Protect” window will pop up.



Warning When you do the login and logout action with the device, please make sure there is no application or program running or document unclosed on the device. If so, it will cause data loss or damage.

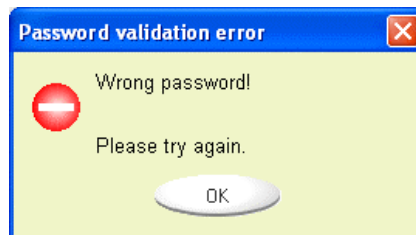
1. Key in the password in the “Password” area.

You can create the password hint in the “Resize” or “Change Password” functions.

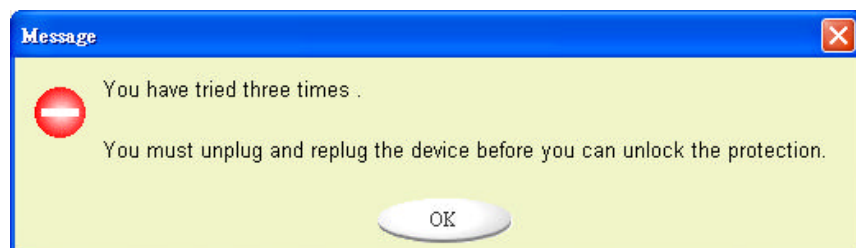
Once you create the password hint, you can click on the “Hint” button in the “Unlock Protect” window to prevent you from forgetting the password. The hint will be shown for three seconds.



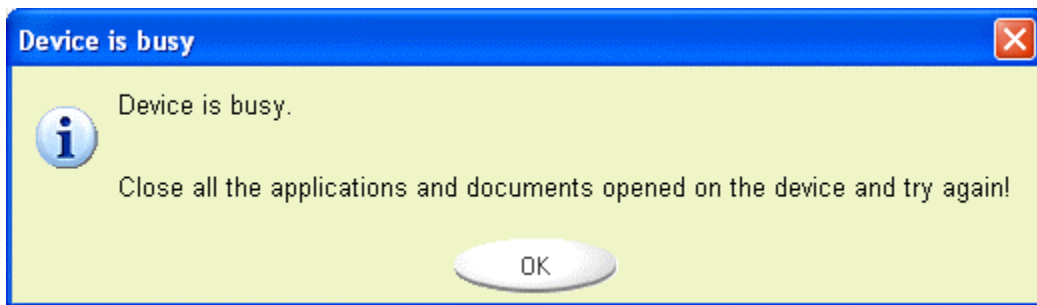
If you key in the wrong password, the following message will be shown.



You have three tries to input the password. After three tries, the following message will pop up. And you have to unplug and plug the device in order to do future actions.

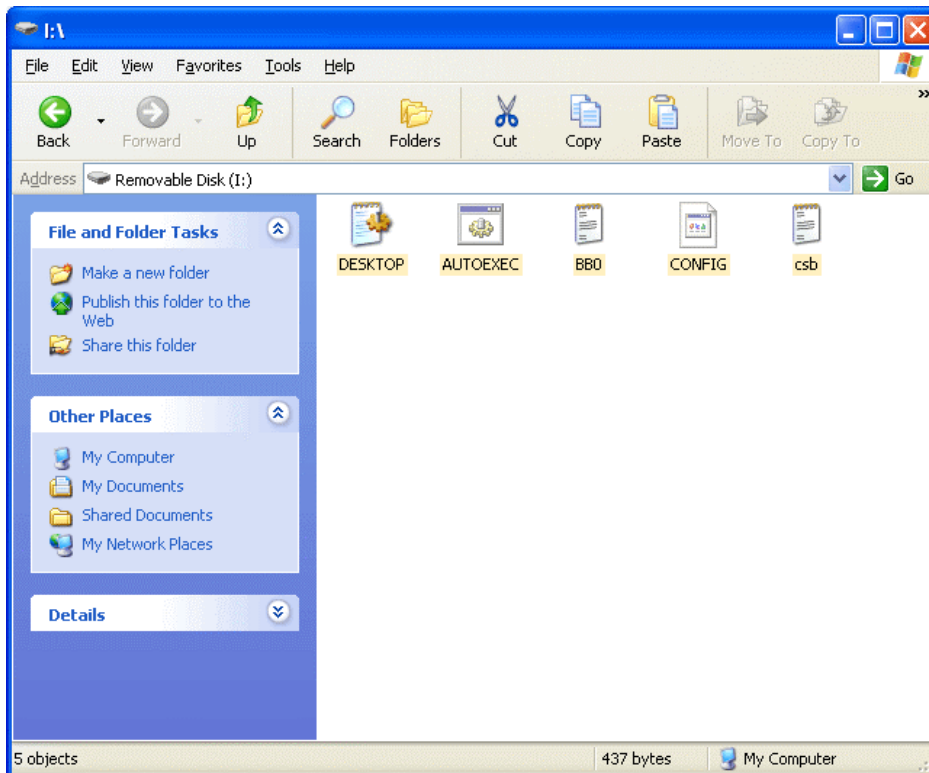


When you do the login or logout action, please make sure you close all the programs or documents open connection on the device. If there is some application programs running or documents unclosed on the device, the following message will pop up. In Win2000, even the “file manager” has accessed the device it will be treated as “busy”. You have to close the file manager in order to do the “Login”. However, not all the connection could be checked in all kind of OS.



2. Click on the [OK] button.

Once the file manager window contains the “Security Area” pops up, you can do the operation you want with the Security Area. The file manager window will be like the following figure. The background is colorful.



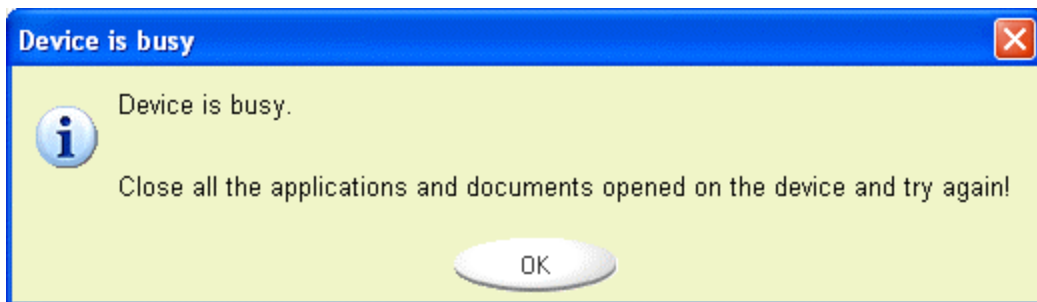
Logout the Security Data Zone:

Double click the xDrive2.0 icon in the notification window or select the [Logout] button in the xDrive2.0 manager window.



Warning When you do the login and logout action with the device, please make sure there is no applications running or documents unclosed on the device. If so, it will cause data lose or damage.

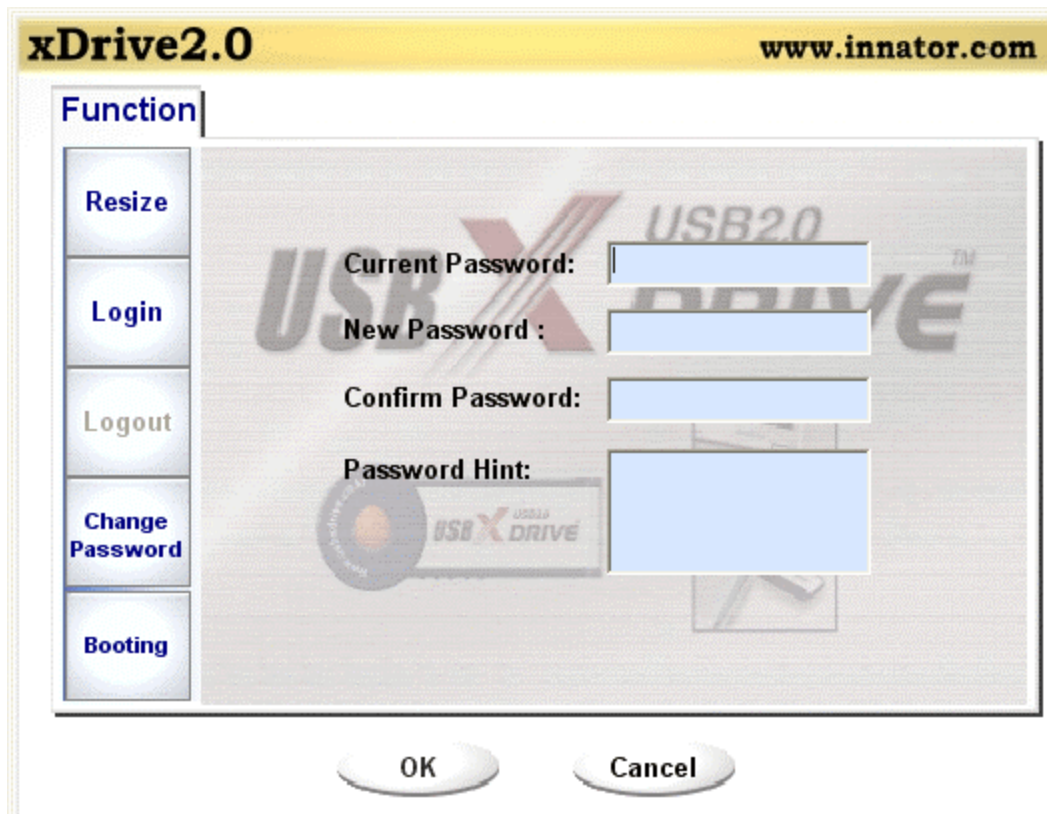
When you do the login or logout action, please make sure you have closed all the programs or documents on the device. If there are any programs running or documents unclosed on the device, the following message will pop up. In Win2000, even the “file manager” has accessed the device it will be treated as “busy”. You have to close the file manager in order to do the “Login”. However, not all the connection could be checked in all kind of OS.



Once the file manager window contains the “Public Area” pop up, you can do the operation you want with the Public Area.

Change Password:

User can change password and key in the password hint using the “Change Password” selection in the xDrive menu. You can only select this item in “Security AP Zone”.



The image shows a software window titled "xDrive2.0" with the website "www.innator.com" in the top right corner. On the left is a vertical menu labeled "Function" with five buttons: "Resize", "Login", "Logout", "Change Password" (which is highlighted with a blue border), and "Bootling". The main area of the window contains four input fields with labels: "Current Password:", "New Password:", "Confirm Password:", and "Password Hint:". Each label is followed by a light blue rectangular input box. At the bottom of the window are two oval buttons labeled "OK" and "Cancel". The background of the main area features a large, stylized "USB X DRIVE" logo with "USB2.0" and "TM" text.

1. Make sure the “Write Protect” switch is in “OFF” location.
 2. Key in your current password in the “Current Password” area.
- Then, key in your new password and confirm in the “Confirm Password” area.
The maximum size of the password is 8 characters.
You can key in the hint of your new password in the “Password Hint” window. This hint will be displayed when you click the “Hint” button in the “Unlock Protect” window.

Boot Up Function

The BootUp program in “Utility” manager window will build up the device as a bootable disk. Before you run the program, please do the following preparations, This program can run under Windows 98 SE, XP, and ME. (The program can’t be supported in Windows 2000.)

Please turn off the anti-virus program during the procedure.

Make sure your Windows system was located in C Disk.

Make sure the “write-protect” switch is in “OFF” position.

This program only deals with one device at the same time.

Make sure your xDrive2.0 is in “Public Area” if it is with “Security” function.

If you want to make your device as a bootable USB HDD, you can’t make the device as a “Security” one. This option is only supported in Windows 98 SE.



Warning



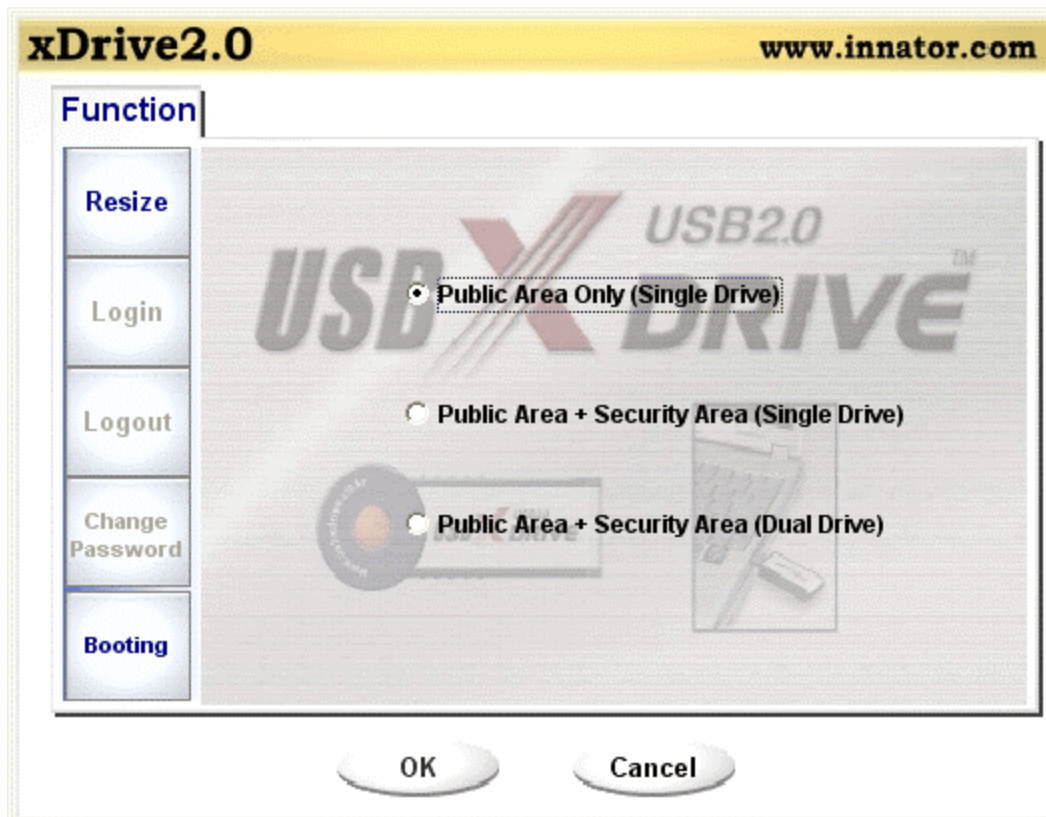
If you performed the “Log In” action with your xDrive2.0 and located in “Security Area” and run the BootUp function, it will do the “Log Out” and erase all the data in “Public Area”.

When you are ready to process, follow the following procedures, the procedures for Windows XP is different from Windows 98 and ME. This program cannot be run in Windows 2000.

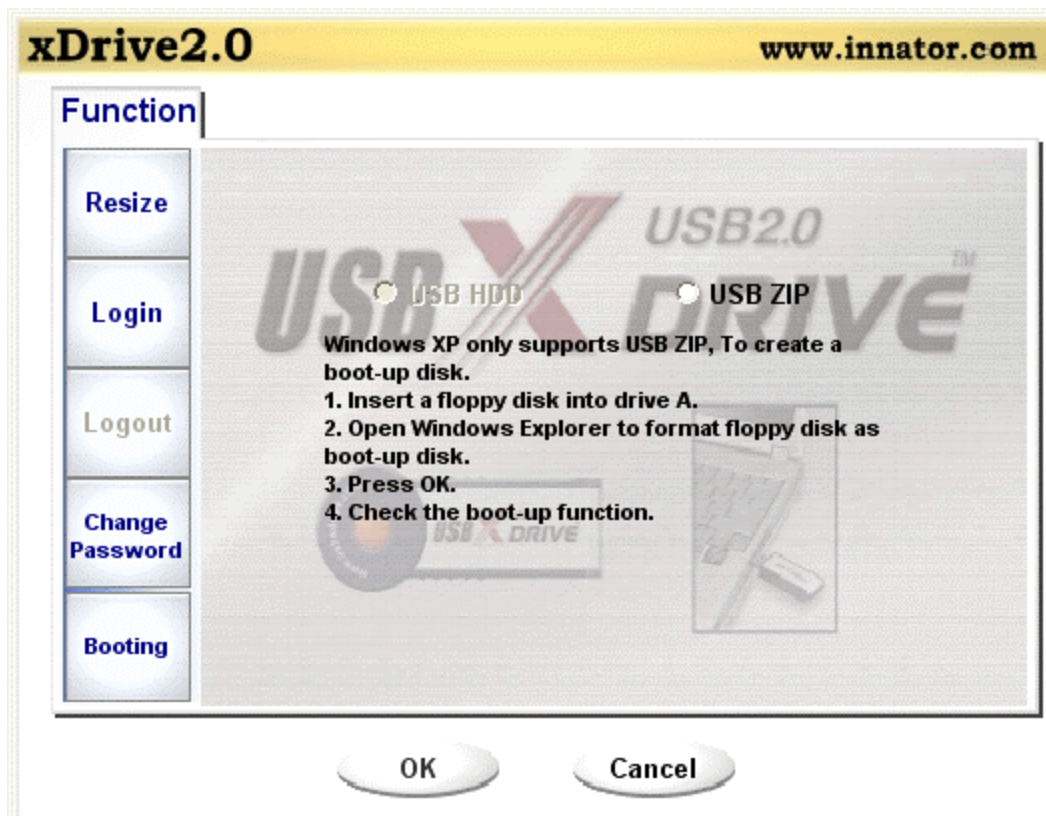
Windows 98 SE and Windows ME:

You can click the [Utility] button in the xDrive2.0 manager window to execute the BootUp utility.





- 1). The following window will be showed up.



You can select the type of the boot up method, USB ZIP or USB HDD. The USB HDD is only for Windows 98.

If you select “USB HDD”, the computer will get the **C : W>_** prompt after you boot from the xDrive2.0.

If you select “USB ZIP”, the computer will get the **A : W>_** prompt after you boot from the xDrive2.0.

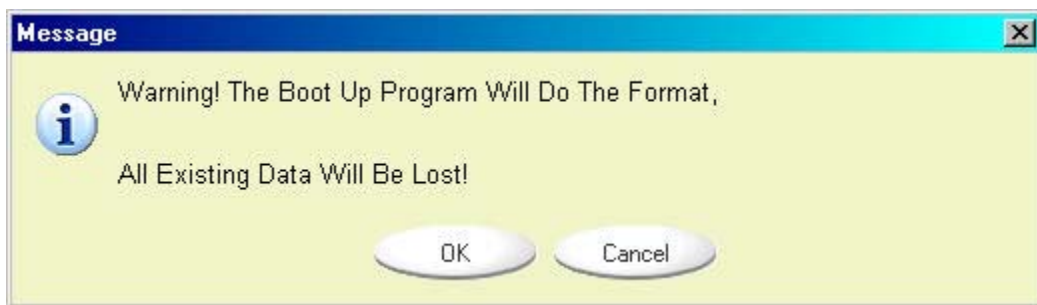
If your device is with “Security” function, only USB ZIP can be selected.

After the selection, click the [OK] button. The following warning message will be shown. The data in the “Public Area” will be lost. If it is OK, click the [OK] button to continue the process.

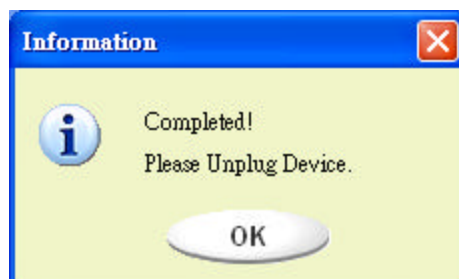


Warning

The program will do the format. The existing data in the “Public Area”, which you want to make, will be lost.



After the process is completed done, the finish message will be shown.

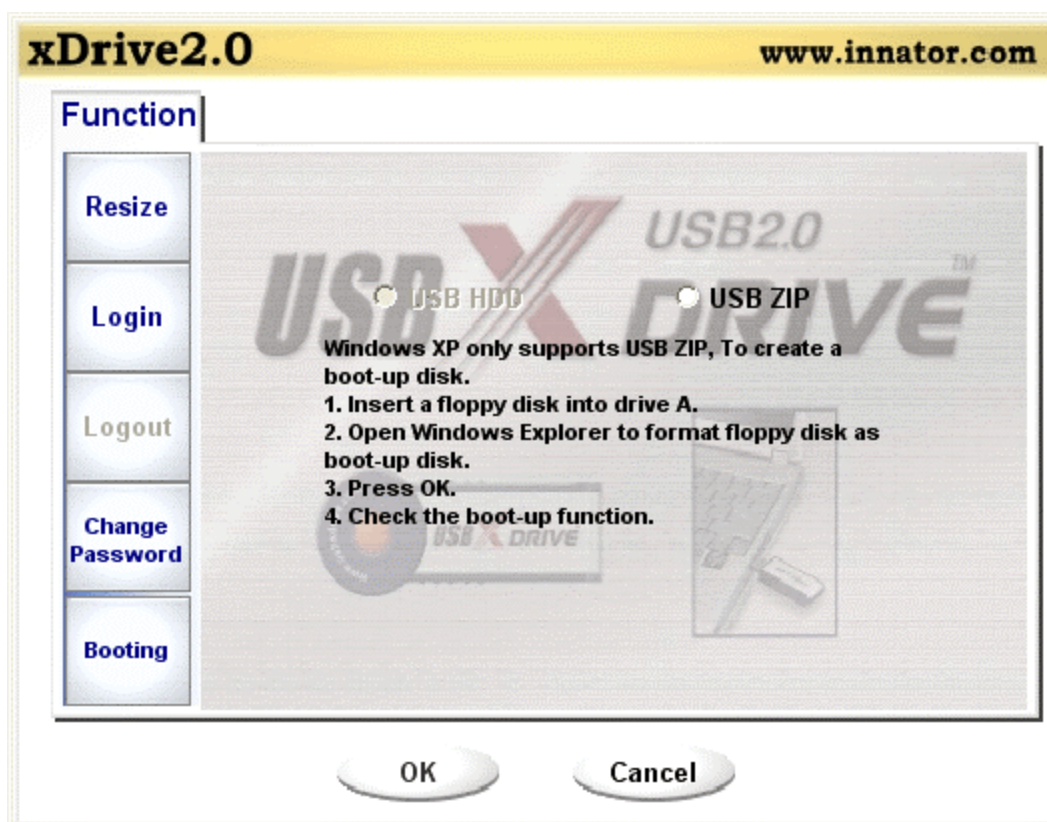


Windows XP:

Please make a bootable floppy first. You can insert a floppy into the floppy drive. Then, click on the icon of 3.5" floppy in the "My Computer" window by using the right button of the mice. Select the "Format" item.

Select the item for build up a bootable floppy in the format options. Then, click on the [Start] button.

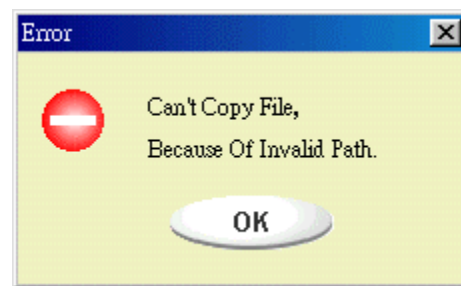
Click on the [Utility] button in the xDrive2.0 manager window. Then, select the USB ZIP. Click on the [OK] button.



- 1). After the process is completed, the finish message will be shown.



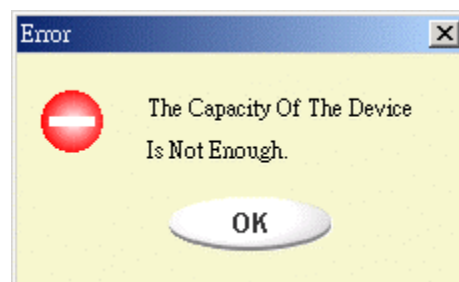
Error Messages:



When this message shows up, the possible reason is your Windows OS installation is not completed. (Please make sure the path `\\WINDOWS\\COMMAND\\EBD` in Windows 98, `\\WINDOWS\\COMMAND\\EBD` in Windows ME, or `\\XP_Bootable` in Windows XP is exists)



When this message shows up, please make sure the “Write-Protect” switch is at “OFF” position.



When this message shows up, please make sure the capacity of the “Public Area” is enough.

Notes:

After you finish the program, you will see different disk property when you select different disk type. For example, if you select it as “USB HDD”, you will see the hard disk icon in the file manager window. If you select it as “USB ZIP”, you will see the removable disk icon in the file manager window. However, only Windows 2000 and above can identify the difference. In Windows 98, you just can see the “Removable Disk”.

After you finish the program, the device contains the files necessary for boot up function. Please don't remove any file in this area. Otherwise it will cause failure when you do the boot up procedure of your computer.

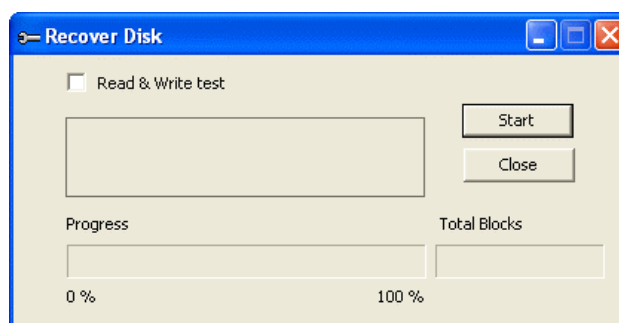
When you want to use the xDrive2.0 to boot up your computer, please select the appropriate setting of the BIOS. Please refer to the user manual of the motherboard. Since the BIOS design of each motherboard is quite different, we cannot guarantee the boot up device is suitable for every computer.

Since Award changed their BIOS spec. In March 2002, the boot up procedure is different from before. We cannot identify if the BIOS is new or old. So, this boot up utility is not suitable for Award's new BIOS if you use USB ZIP boot up option.

Recover Disk

Once your device is damaged, you can use this utility to recover the device. It will check if there are too many bad block in device and try to repair it.

After you double click on the RecoverDisk shortcut in start menu, the following window will be pop up.



Warning

The “Recover Disk” action will erase all the data or files existing in xDrive2.0. The action is not reversible. You have to backup all the important files or data.

There are two steps in Recover Disk, one is scan bad block and the other is

“Read/Write” testing for each block. It will take a long time to scan each block. It will take about 1.5 minutes for each 16 MB.

After you click the [Start] button in the window, the Recover process will be started. Once the job is finished, the complete message will be shown in the middle area, or else it will show error message.

Known Problems

Problem: The “Write-Protect” switch can not work on-line on Macintosh computer with Mac OS 10.1.4.



Warning If you switch the “Write-Protect” on-line with Mac OS 10.1.4, it will cause the computer system hang when you do the read or write operation.

Workaround: Disconnect the device when you need to switch the “Write-Protect” with Mac OS 10.1.4. We will solve the system hang-up problem in the near future. However, due to the OS operation issue, we don’t recommend you switch the “Write-Protect” on-line.

Disclaimer

We made every effort to ensure that the information and procedure in this guide is accurate and complete, no liability can be accepted for any errors or omissions. Ours Technology Inc. (OTI) reserves the right to make any changes without further notice to any products herein.

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2.Specification of XDrive Plus , XDrive Plus Mobile

Interface	USB 2.0 (USB 1.1 available)
Capacity (MB)	16/32/64/128/256/512MB/1GB
Retention	10years
Access speed	8MB/sec. (Reading) 6MB/sec. (Writing)
Charging signal	On Charging: Red light On / End Charging: Green light
Data Communication	CDMA2000 1X EVDO 2.4Mbps Program: PC Snys (Mobile manufacturer providing)
Weight	13g
Certification	FCC, CE, MIC
Connector	Korea TTA 2004S I/O Connector 24Pins standard
Power	USB Bus-power (4.4V ? 5.5V)
System	Windows 98/SE/ME/2000/XP Windows CE 3.0 Mac OS9/10.X higher, Linux 2.4 above

3.Description for XDrive Plus Mobile

(Only Korea TTA standard 2400S(24PIN I/O Connector))

- 1 Download and set up a PC Sync program from Mobile manufacturer's web site (refer to their user's manual).
- 2.Strongly recommend that you connect XDrive Plus Mobile to your mobile at first and then connect XDrive Plus Mobile to PC usb port together.
- 3.Refer to your mobile user's manual for using data communication.

MOBILE CHARGING & DATA COMMUNICATION

It supports Mobile charging by usb power and Data communication besides XDrive Plus function.

Basically Mobile Data communication & charging function and Data retrieve or store function can not work in same time.

It means that you can not use Data retrieve or store function while Mobile Data communication or charging function is under working.

But, While Mobile charging and Data communication are working in a same time, Only charging state is indicated as below colors.

LED Light Colors

Red Light: On Charging

Green Light: End Charging.

Caution

- Do not connect mobile while XDrive Plus Mobile is working
Because It can cause serious error.
- In case Green LED light is working or PC can not recognize mobile driver
Remove mobile from XDrive Plus mobile and reconnect mobile to XDrive Plus Mobile.

Recommend

- Strongly recommend, connect to PC usb port
after mobile connect to XDrive Plus Mobile at first.

FCC Information

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 interface, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correct the interference by one or more of the following measures:

- 1.1. Reorient or relocate the receiving antenna.
- 1.2. Increase the separation between the equipment and receiver.
- 1.3. Connect the equipment into an outlet on a circuit different from that to which receiver is connected.
- 1.4. Consult the dealer or experienced radio/TV technician for help.

WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

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