AVERATEC

Black Crystal PC User's Guide













Regulations Information

FCC-B Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. 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 to correct the interference by one or more of the following measures:

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

NOTE

- ✓ The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- ✓ Shield interface cables and AC power cord, if any must be used in order to comply with the emission limits.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

CE

5 GHz wireless LAN IEEE 802.11a Indoor Use Only Only A, AND, B, CH, D, CY, CZ, DK, ES, EST, F, FIN, FL, FR, GB, GR, H, I, IRL, IS, L, LT, M, MC, N, NL, P, PL, RSM, S, SK, SLO, V

Caution: Exposure to Radio Frequency Radiation

To comply with RF exposure compliance requirements, for mobile configurations, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.



Optical Device Drive Notice

CAUTION

✓ This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT." To use this model properly, read the instruction manual carefully and keep this manual for your future reference. In case of any trouble with this model, please contact your nearest "AUTHORIZED service station." To prevent direct exposure to the laser beam, do not try to open the enclosure.

Macrovision Notice

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

Safety Instructions

- 1. Read the safety instructions carefully and thoroughly.
- 2. Save this User Guide for possible use later.
- 3. Keep this equipment away from humidity and high temperature.
- 4. Lay this equipment on a stable surface before setting it up.
- 5. The openings on the enclosure are used for air convection and to prevent the equipment from overheating. Do not cover the openings.
- 6. Make sure that the power voltage is within its safety range and has been adjusted properly to the value of 100-240V before connecting the equipment to the power inlet.
- 7. Place the power cord in a way that people are unlikely to step on it. Do not place anything on the power cord.
- 8. Always unplug the power cord before inserting any add-on card or module.
- 9. All cautions and warnings on the equipment should be noted.
- 10. If any of the following situations arises, get the equipment checked by a service personnel:
 - ✓ The power cord or plug is damaged.
 - ✓ Liquid has penetrated into the equipment.
 - ✓ The equipment has been exposed to moisture.
 - ✓ The equipment has not worked well or you can not get it work according to Users Manual.
 - ✓ The equipment was dropped and damaged.
 - ✓ The equipment has obvious signs of breakage.
- 11. Never pour any liquid into the opening that could damage the equipment or cause an electrical shock.
- 12. Do not leave the equipment in an unconditioned environment with a storage temperature of 60°C (140°F) or above, which may damage the equipment.
- 13. **CAUTION**: To prevent explosion caused by improper battery replacement, use the same or equivalent type of battery recommended by the manufacturer only.
- 14. This equipment is indoor use and all the communication wirings are limited to inside of the building.

WEEE Statement

(English) Under the European Union ("EU") Directive on Waste Electrical and Electronic Equipment, Directive 2002/96/EC, which takes effect on August 13, 2005, products of "electrical and electronic equipment" cannot be discarded as municipal waste anymore and manufacturers of covered electronic equipment will be obligated to take back such products at the end of their useful life.

(Deutsch) Gemäß der Richtlinie 2002/96/EG über Elektro- und Elektronik-Altgeräte dürfen Elektro- und Elektronik-Altgeräte nicht mehr als kommunale Abfälle entsorgt werden, die sich auf 13.August, 2005 wirken. Und der Hersteller von bedeckt Elektronik-Altgeräte gesetzlich zur gebrachten Produkte am Ende seines Baruchbarkeitsdauer zurückzunehmen.

(Français) Au sujet de la directive européenne (EU) relative aux déchets des équipement électriques et électroniques, directive 2002/96/EC, prenant effet le 13 août 2005, que les produits électriques et électroniques ne peuvent être déposés dans les décharges ou tout simplement mis à la poubelle. Les fabricants de ces équipements seront obligés de récupérer certains produits en fin de vie.

(English) As of this writing, the e-waste legislation is undergoing review in the United States Congress. "WEEE" legislation for the United States will be limited to the individual States.

(Русский) В соответствии с директивой Европейского Союза (ЕС) по предотвращению загрязнения окружающей среды использованным электрическим и электронным оборудованием (директива WEEE 2002/96/ЕС), вступающей в силу 13 августа 2005 года, изделия, относящиеся к электрическому и электронному оборудованию, не могут рассматриваться как бытовой мусор, поэтому производители вышеперечисленного электронного оборудования обязаны принимать его для переработки по окончании срока службы.

(Español) Bajo la directiva 2002/96/EC de la Unión Europea en materia de desechos y/o equipos electrónicos, con fecha de rigor desde el 13 de agosto de 2005, los productos clasificados como "eléctricos y equipos electrónicos" no pueden ser depositados en los contenedores habituales de su municipio, los fabricantes de equipos electrónicos, están obligados a hacerse cargo de dichos productos al termino de su período de vida.

(Nederlands) De richtlijn van de Europese Unie (EU) met betrekking tot Vervuiling van Electrische en Electronische producten (2002/96/EC), die op 13 Augustus 2005 in zal gaan kunnen niet meer beschouwd worden als vervuiling. Fabrikanten van dit soort producten worden verplicht om producten retour te nemen aan het eind van hun levenscyclus..

(Srpski) Po Direktivi Evropske unije ("EU") o odbačenoj ekektronskoj i električnoj opremi, Direktiva 2002/96/EC, koja stupa na snagu od 13. Avgusta 2005, proizvodi koji spadaju pod "elektronsku i električnu opremu" ne mogu više biti odbačeni kao običan otpad i proizvođači ove opreme biće prinuđeni da uzmu natrag ove proizvode na kraju njihovog uobičajenog veka trajanja. (Polski) Zgodnie z Dyrektywą Unii Europejskiej ("UE") dotyczącą odpadów produktów elektrycznych i elektronicznych (Dyrektywa 2002/96/EC), która wchodzi w życie 13 sierpnia 2005, tzw. "produkty oraz wyposażenie elektryczne i elektroniczne" nie mogą być traktowane jako śmieci komunalne, tak więc producenci tych produktów będą zobowiązani do odbierania ich w momencie gdy produkt jest wycofywany z użycia.

(TÜRKÇE) Avrupa Birliği (AB) Kararnamesi Elektrik ve Elektronik Malzeme Atığı, 2002/96/EC Kararnamesi altında 13 Ağustos 2005 tarihinden itibaren geçerli olmak üzere, elektrikli ve elektronik malzemeler diğer atıklar gibi çöpe atılamayacak ve bu elektonik cihazların üreticileri, cihazların kullanım süreleri bittikten sonra ürünleri geri toplamakla yükümlü olacaktır.

(ČESKY) Podle směrnice Evropské unie ("EU") o likvidací elektrických a elektronických výrobků 2002/96/EC platné od 13. srpna 2005 je zakázáno likvidovat "elektrické a elektronické výrobky" v běžném komunálním odpadu a výrobci elektronických výrobků, na které se tato směrnice vztahuje, budou povinní odebírat takové výrobky zpět po skončení jejich životnosti.

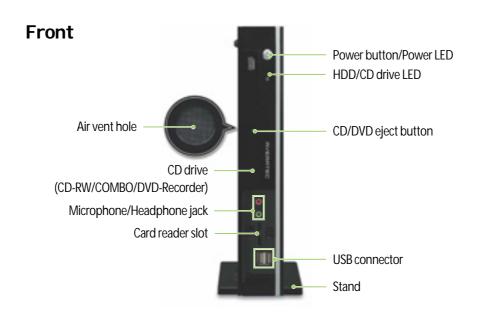
(MAGYAR) Az Európai Unió ("EU") 2005. augusztus 13-án hatályba lépő, az elektromos és elektronikus berendezések hulladékairól szóló 2002/96/EK irányelve szerint az elektromos és elektronikus berendezések többé nem kezelhetőek lakossági hulladékként, és az ilyen elektronikus berendezések gyártói kötelessé válnak az ilyen termékek visszavételére azok hasznos élettartama végén.

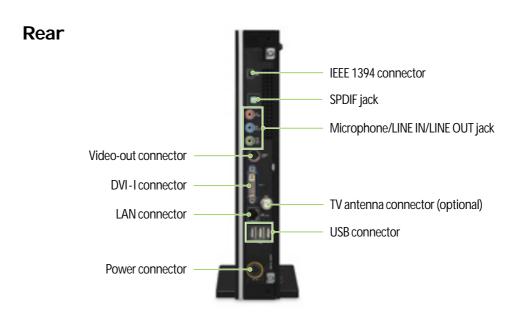
(Italiano) In base alla Direttiva dell'Unione Europea (EU) sullo Smaltimento dei Materiali Elettrici ed Elettronici, Direttiva 2002/96/EC in vigore dal 13 Agosto 2005, prodotti appartenenti alla categoria dei Materiali Elettrici ed Elettronici non possono più essere eliminati come rifiuti municipali: i produttori di detti materiali saranno obbligati a ritirare ogni prodotto alla fine del suo ciclo di vita..

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System Overview





Turning On and Off the Computer

Turning on the computer

To turn on your computer, follow these steps:

- 1. Connect the peripheral devices and power cord to your computer. For more information, see the Quick Start Guide.
- 2. Turn on any peripheral devices, such as printers or scanners.
- 3. Press the power button on the front panel of your computer.
- 4. If you are starting your computer for the first time, follow the on-screen instructions to set up your computer. For more information, see the Quick Start Guide.

Turning off the computer

To turn off your computer, follow these steps:

- 1. Before turning off your computer, save your information and close all application programs you use.
- 2. Click the Start button, then click Turn Off Computer. The Turn Off Computer dialog box appears.
- 3. Click Turn Off to shut down the computer.
- 4. Turn off the monitor and any other peripheral devices.

NOTE

✓ If for some reason you cannot turn off your computer in Windows, press and hold the power button for about three to five seconds to turn off your computer.

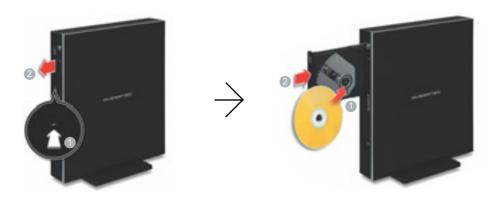
Using the Optical Drive

The AVERATEC Black Crystal PC is fitted with a slim tray-loading optical drive.

Insert a CD/DVD

To insert a CD/DVD into the optical drive, follow these steps:

- 1. Press the Eject button on the optical drive.
- 2. Place a CD/DVD in the tray with the print side facing right.
- 3. Press the tray of the optical drive.



Eject a CD/DVD

To eject a CD/DVD from the optical drive, follow these steps:

- 1. Press the Eject button on the optical drive.
- 2. Remove a CD/DVD from the tray.
- 3. Press the tray of the optical drive.



NOTE

✓ Your computer is fitted with a slim tray-loading optical drive.
CDs that are not of the standard size cannot be used in this product.



- ✓ If you can not eject a CD/DVD from the optical drive by pressing the Eject button, follow these steps:
 - 1. Click Start and then click Computer.
 - 2. Right-click on the optical drive that the CD/DVD is in and click Eject in the popup menu.



✓ Additional label(s) on the CD/DVD may cause noise when the optical drive is working. Remove the label(s) on the CD/DVD for safe use.

Connect to the Internet

1. Press the power button and the Windows Vista start screen will appear. Connect a LAN cable to the LAN connector as shown in the figure below.



- 2. Configure the communication settings for the system based on your communication environment. When connecting to the Internet via an internet service provider, contact the service provider for more information on required communication settings.
- 3. Launch Internet Explorer or other communication software.







Using the Multi-Card Reader

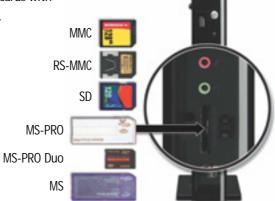
Averatec's Black Crystal PC accepts 6 types of multi-media cards into the multi-card reader slot on the front of the PC.

Multi-media card

SD (Secure Digital™), MS-PRO™, MS-PRO™ Duo, MS(Memory Stick™), MMC(MultiMediaCard™), RS-MMC

Inserting the multi-media card

To insert correctly, refer to the pictures. Insert cards with the label side facing toward the right of the PC.



Removing the multi-media card

Grip the tip of the card and take it out from the slot.

(Do not remove the card while you are using it, as you could corrupt the contents.)

NOTE

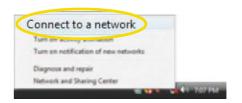
✓ Click Start and select Computer. On the Computer screen, right-click on the Combo Socket icon and select Eject. (This does not physically eject the media card. However, it does ensure all data is written to the media card prior to the physical removal of the card)



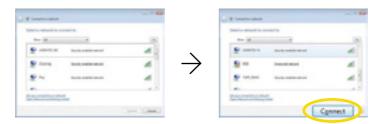
Using the Wireless LAN

To use a wireless network in an office environment where APs (Access Points) are installed, see the following instructions. (The example used here explains how to use the basic Windows configuration features to configure the system. You can also use the program that comes with the wireless LAN card to configure the network.)

1. Right-click on the Wireless Network icon on the status bar, and then select Connect to a network.



2. If there is an AP-enabled environment, a list of available APs will appear. Click the item you want to connect to, and click Connect.



3. A window will appear displaying Connecting to xxxxx (Where XXXXX is the name of your router/AP). If a Security key or password is set up, a window will appear where you can enter the security key or password. Enter the security key or password, and click Connect. (The window will not appear if no security key or password is set up.)



4. When the Successfully connected to xxxxx window appears, confirm the settings and then click Close.



Select the right items for your environment, and click ${\it Close}.$

5. Once connection is successfully established, the network icon on the status bar will change its shape.

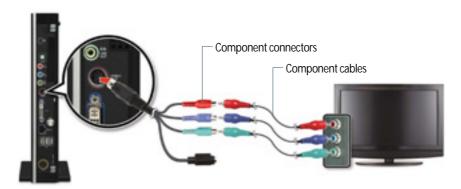


Connecting the TV

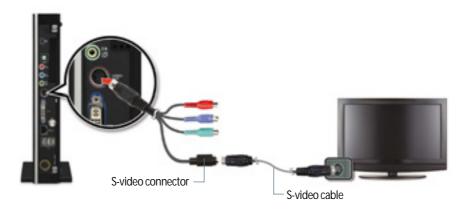
You can display the screen through the optional TV connection ports. To connect the TV, follow these steps:

- 1. Determine how you will connect the TV to your PC.
- 2. Connect the video cable or the DVI to HDMI convert adapter to your PC and connect the component cables, S-video cable or HDMI cable to the TV.

Component



S-video



HDMI



3. You should now be able to view the screen on the TV.

Watching TV (if equipped with optional TV tuner)

You can connect a TV antenna to the PC.

Connecting an external antenna cable directly to the system to watch $\ensuremath{\mathsf{TV}}$

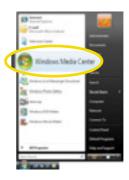
1. Connect an antenna cable to the TV tuner.



2. Click Start and then select Windows Media Center.

NOTE

✓ When the Start screen appears, on your first use, select Quick Installation and then click OK.



3. Click TV + Movies. To set up the TV, follow the instructions on the screens.







4. When the TV Signal screen appears, click Next.





5. When the Confirm Your Region screen appears, choose your region and then click Next.







6. When the Automatic TV Signal Setup screen appears, select how you would like to proceed and then click Next. (Choosing Configure my TV signal automatically is recommended here.)







7. If TV signals are configured normally, select Yes and then click Next. (If necessary, you can manually configure TV signals.)



8. When the Guide screen appears, follow the online instructions to install the program. (The installation method varies depending on the user environment.)



9. In the TV+Movies menu, move to live TV and click on it. Now you are set to watch TV.



System SETUP

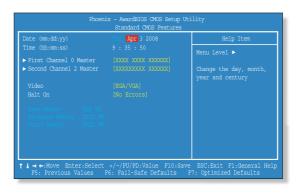
For System Setup, setup only the items that you need. Note that incorrect settings of Setup items could result in system malfunction. After powering on the system, press to enter the System Setup screen.

BIOS Action Keys

Function Key	Command	Description
ESC	Exit	Leaves a sub-menu to return to the previous menu OR exits the BIOS setup while saving changes.
Enter	Select	Shows the Sub Menu
F1	General Help	Shows the Help Screen
F10	Save and Exit	Saves changes and reboots the computer.
$\uparrow \downarrow \rightarrow \leftarrow$	Select an item	Selects the next item.
-/+	value	Selects the next value within a field.

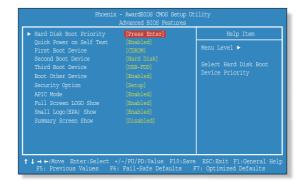
Standard CMOS Features

Sets most standard specifications for the system, such as the time, date and HDD settings.



Advanced Features

Sets up key items related to the system's performance, and options about booting.



Advanced Chipset Features

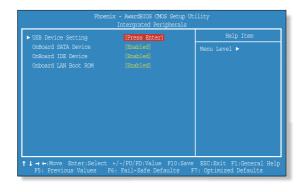
Configure on-chip Frame Buffer Size, DVMT Mode and Boot Display.



• 15

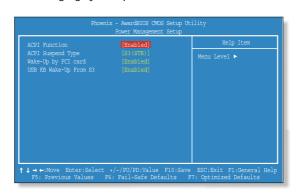
Integrated Peripherals

Sets up options about the chipset and internal speaker built into the main board.

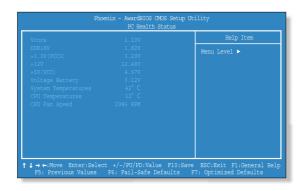


Power Management Setup

Sets up options for managing system power.

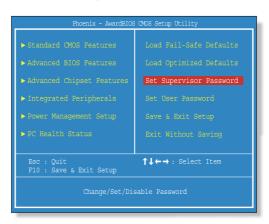


PC Health Status



Set Supervisor/User Password

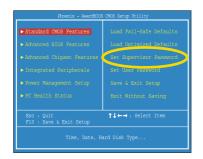
Sets up a password to prevent any unauthorized user from accessing the system.



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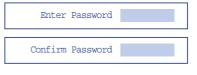
Setting a password

 On the initial System Setup screen, press <→/↓> to go to the Set Supervisor/User Password menu and then press <Enter>.



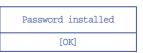
2. On the following screen, enter the password and then press <Enter>.

Then enter the same password again and press <Enter>.



3. If you entered the correct password, the following window will appear. Press <Enter>.

This completes setting up a password.



The Supervisor Password is at a higher level than the User Password.

Changing a password

You can change a password with the same way as "Setting a password."

Deleting a password

To delete a password, follow these steps:

- 1. Move to the Set Supervisor/User Password menu and press <Enter>.
- 2. On the following screen, press <Enter> without any input.



3. On the following screen, press <Enter>.

Expanding the Main Memory

There may come a time when you will want to expand the main memory capacity in your computer. When expanding the main memory, make sure that the specifications of any newly added memory and the currently installed memory are the same. The following instructions are provided to those who are familiar with system assembly/disassembly in order to help them to find the memory specification. If you are not familiar with system assembly/disassembly or do not know your memory specification, you should not perform the memory upgrade. Please contact customer support for assistance.

The motherboard has two SO-DIMM sockets, which can accommodate up to 4.0 GB of memory. If new memory is installed, its type, size and speed are automatically checked by the system BIOS.

Each of the SO-DIMM sockets supports the following memory specification: 200-pin DDR2 SDRAM Socket, Dual-Channel Support, 533/667 MHz DDR2 SDRAM Memory

The appearance of the SO-DIMM memory in the figure may not reflect the actual memory, depending on the system model.

1. Before proceeding, make sure that the system is turned off, that you are wearing an antistatic wrist strap (available in most computer shops), and that your workspace is dust and smoke-free.

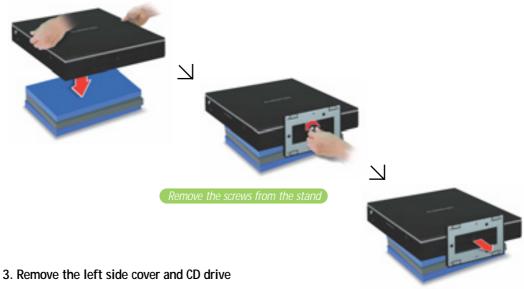
CAUTION

Interface.

✓ Your PC uses the SO-DIMM socket for memory. For expanding the memory, you must purchase the SO-DIMM memory for installing. You can't install the DIMM memory in your PC. The general desktop PC uses the DIMM socket for memory.

2. Removing the system stand

Place the system on the flat thing (such as the books) and remove the screws and system stand as shown in the figure.



1) Remove the screws and left side cover.



2) Remove the screws and lift up the CD drive.



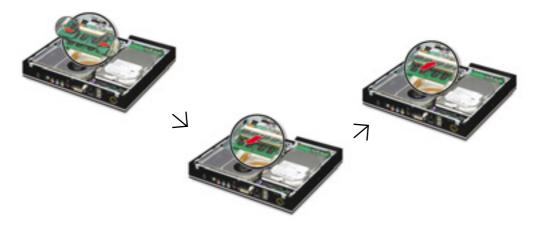
4. Installing the memory

You can install the memory into the empty socket. If there is no empty socket, you can replace the old memory with the new memory module.

To remove the memory, pull the latches on both edges of the socket away at the same time. The memory will pop up about 30 degrees. Remove it from the socket.



To install the memory, align the notch on the new DIMM with the notch on the memory socket, insert the memory into the socket at a slight angle (about 30 degrees) firmly, and gently press down the memory until both latches snap into place.



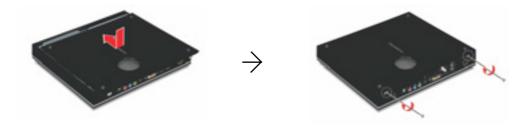
5. Replacing the CD drive

Replace the CD drive and then fasten the screws.



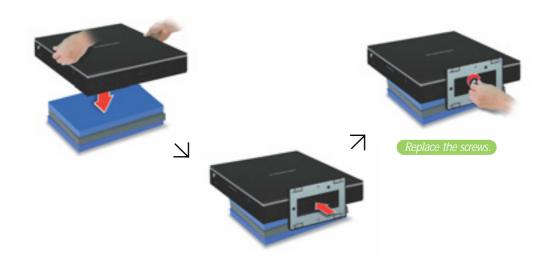
6. Replacing the left side cover

Fit the tabs on the left side cover to the holes of the system chassis and push the cover to front, and then replace the screws.



7. Replacing the stand

Place the system on the flat thing, such as the books, and attach the stand, and then replace the screws.



8. Checking memory capacity

Once the memory installation is complete, restart the system. If an error message related to the memory capacity appears upon booting, press the Del key to enter the system setup screen. Save the setting and exit.

Replacing the Hard Disk Drive

Before you replace the hard disk drive, don't forget to back up all your important data. The instructions on replacing hard disk drives are for those users who have an understanding of hard disks and are familiar with system assembly and disassembly. If you are not one of those users, please contact the service center and have them replace your hard disk drive for you.

1. Before proceeding, make sure that the system is turned off, you are wearing an anti-static wrist strap (available in most computer shops), and your workspace is dust and smoke-free.

CAUTION

✓ For replacing, use a 5.25" SATA hard disk drive.

2. Removing the system stand

Place the system on the flat things (such as the books) and remove the screws and stand as shown in the figure.



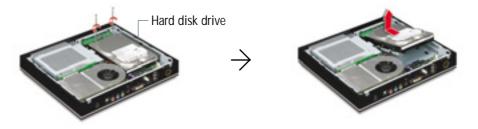
3. Removing the left side cover

Remove the screws and left side cover.



4. Removing the hard disk drive

Remove the screws, slide the hard disk drive to front about 0.7 cm for disconnecting, and lift up the hard disk drive.



5. Detaching the mounting bracket from the hard disk drive

Remove the screws that fix the hard disk drive, and then detach the hard disk drive.



6. Installing the mounting bracket to the new hard disk

Install the mounting bracket to the new hard disk drive and secure it with the screws.







7. Replacing the hard disk drive

To replace the hard disk drive, follow these steps:

1) Insert the front side of the hard disk drive into the chassis first and fit the holes on the mounting bracket to the tabs of the chassis.



2) Push the hard disk drive to the rear side of the system to connect.



3) Replace the screws.



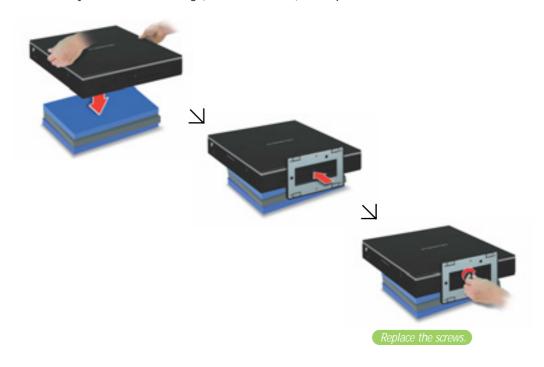
8. Replacing the left side cover

Fit the tabs on the left side cover to the holes of the system chassis and push the cover to front, and then replace the screws.



9. Replacing the stand

Place the system on the flat thing (such as the books) and replace the stand with the screws.



Replacing the CD Drive

When you replace the CD drive, make sure that the new one has specifications equivalent to the old one. (For instructions on replacing the CD drive, see the instructions on "Expanding the Main Memory." If you are unsure of the CD drive standard, contact the service center and have them replace the CD drive.)

1. Removing the stand, left side cover, and CD drive

Refer to the steps from 1 to 3 on "Expanding the Main Memory" for removing the stand, left side cover, and CD drive.



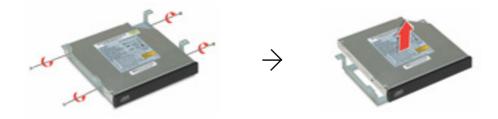
2. Removing the interface board from the CD drive

Remove the screws and detach the interface board from the CD drive.



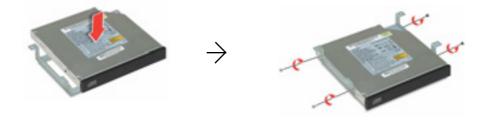
3. Removing the mounting bracket from the CD drive

Remove the screws that fix the CD drive and then detach the CD drive.



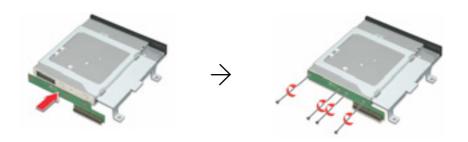
4. Attaching a new CD drive to the mounting bracket

After attaching a new CD drive, secure it with the screws to the mounting bracket.



5. Replacing the interface board to the CD drive

Replace the interface board with the screws to the CD drive.



6. Replacing the stand, left side cover, and CD drive

Refer to the steps from 5 to 7 on "Expanding the Main Memory" for replacing the stand, left side cover, and CD drive.

Installing the Optional MXM Video Card

If you purchase the model without the MXM video card, you can install the optional MXM video card for upgrading the video performance of your system.

CAUTION

✓ Please contact us for purchasing the optional MXM video card. Not all MXM video cards are compatible with the Black Crystal PC.

To install the optional MXM video card, follow these steps:

1. Removing the stand, left side cover, and CD drive

Refer to the steps from 1 to 3 on "Expanding the Main Memory" for removing the stand, left side cover, and CD drive.



2. Removing the CPU thermal module

Remove the screws and the CPU fan cable, and then remove the CPU thermal module.



3. Removing the dummy board from the MXM socket

Remove the screws that secure the dummy board and then remove the dummy board from the MXM socket. (Please do not discard this dummy board. If you don't want to use the MXM video card, you must install this dummy board in the MXM socket.)



4. Installing the MXM video card

Insert the MXM video card firmly and secure it with the screws as shown in the figure.



5. Replacing the CPU thermal module

Replace the CPU thermal module and the CPU fan cable, then replace the screws.



6. Replacing the stand, left side cover, and CD drive

Refer to the steps from 5 to 7 on "Expanding the Main Memory" for replacing the stand, left side cover, and CD drive.