INTERNAL DVD ROM DRIVE
USER MANUAL

Rev 2.0   Aug 2009

SAFETY NOTICES

Please read carefully and keep this User's Manual for future reference.
Please carefully note the Cautions and Warnings.

1. Always install electrical equipment close to an electrical outlet and ensure that the outlet is easily accessible.
2. Place power cords where people will not step on or trip over them. Do not place any objects over the power cords.
3. Always install equipment on a stable surface to avoid damages and/or injuries.
4. Do not place computer equipment in direct sunlight, on top of any heating units, or near any electrical appliances that draw large amounts of current.
5. Computer equipment enclosures often have openings for air convection. To protect equipment from overheating, do not cover or block air convection openings.
6. Ensure that the equipment is connected to a power outlet with proper voltage.
7. If computer equipment is not is use for long period of time, it is recommended to disconnect it from the power outlet to avoid damage by transient power surges.
8. Protect electrical equipment from humidity.
9. Always disconnect computer equipment from the electrical outlet before cleaning. Do not use liquid or sprayed detergent for cleaning – use a moist cloth.
10. Never pour any liquid into computer equipment openings; internal contact with liquid could cause fire or electrical shock.
11. Keep the area around your computer equipment clear of dust, smoke, and other contaminants.
12. Never open this drive's enclosure. For safety reasons, the drive should be opened only by qualified service personnel.
13. Do not drop or jolt the drive.
14. If you see any of the following condition, contact a qualified service personnel:
    (a) The power cord or plug is damaged.
    (b) Liquid has penetrated into the equipment.
    (c) The equipment has been exposed to moisture.
    (d) The equipment has not worked well or you can not get it to work according to the user's manual.
    (e) The equipment was dropped and damaged.
    (f) The equipment has obvious signs of damage.
15. **DANGER:** Invisible laser radiation when opened. Avoid direct exposure to beam. Complies with FDA radiation performance standards, 21 CFR, subchapter J. Laser power: Wave Length: 783±3nm (CD); 658±3nm (DVD). Emission power: 0.7 mW. Laser diode: class 3b.
16. DO NOT STORE THIS EQUIPMENT IN AN ENVIRONMENT WITH TEMPERATURE ABOVE 60℃ (140℉). Excessive heat may damage the equipment.
17. The sound pressure level at the operator's position according to IEC704-1:1982 is equal to or less than 70 dB (A).

CAUTIONS

CAUTION: Do not attempt to open the drive for service. Removing the cover may cause exposure to harmful laser radiation and electrical shock. To obtain service, return the defective drive to the vendor where the drive was purchased.

- Always use the original package for transporting the drive. The original packaging was designed and tested to protect your drive under rough conditions.

- Keep your CDs and DVDs surfaces clean. Use a soft, dust-free cloth to clean the disc surface before use in the drive can help protect the drive.

- The copyright laws of each country govern the reproduction of copyrighted materials. The person using this drive may be liable making unauthorized copies of copyrighted works.

- **Do NOT use a damaged, cracked or low-quality disc as it may shatter during read or write operation when disc is spinning at high speed.**

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INTRODUCTION

This internal DVD/CD reader provides professional quality and performance reading DVD and CD media. It is compatible with Windows Plug & Play function. With an internet connection, you can download the latest firmware, then update this drive so it will support latest technologies.

NOTE: The drive's maximum read speeds are lised on the original package.

What You Can Do with the DVD/CD Reader

- Read DVD+R, DVD+RW, DVD-R, DVD-RW, CD-R and CD-RW discs
- Play music CDs
- Play VCD & DVD movies
- Access interactive reference materials stored on DVDs

DVD functions:
- Read DVD-ROM, DVD+R, DVD-R, DVD+RW, DVD-RW, DVD+R9 and DVD-R9 discs.
- Read DVD-RAM media

CD functions:
- Read CD-ROM and CD-R data media, and CD-RW and CD-DA (audio) media

Format Compatibility

DVD read: DVD-ROM single/dual layer (PTP, OPT), DVD-R, DVD+R, DVD+R9, DVD-R9, DVD-RW, DVD+RW, DVD-RAM (only for drives that support DVD-RAM reading), DVD-Video, DVD-Audio, DVD-CPRM.

CD read: CD-DA, CD-TEXT, CD ROM Mode-1, CD-ROM/XA Mode-2 Form-1 and Form-2, CD-I Ready, Video-CD, Karaoke-CD, Photo-CD, Enhance CD, CD extra, UDF(fixed/variable Packet mode), Multi-session, CD Plus, CD-R, and CD-RW.

SYSTEM REQUIREMENT

System Requirements

To ensure best performance, a Windows-based PC system with the following specification is recommended:
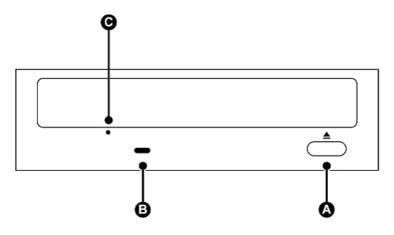
For ATAPI/E-IDE (PATA) Drives:

CPU	Pentium 4 1.3GHz or higher
Operating System	Microsoft Windows 2000/XP/Vista and Windows-7
Memory	128 MB RAM (512 MB recommended for Windows 7 and Vista)
Hard Drive	Minimum 6500 MB free spaces for software installation
Interface	Available IDE interface connector Available PATA power connector

For Serial ATA (SATA) Drives:

CPU	Pentium 4 1.3GHz or higher
Operating System	Microsoft Windows 2000/XP/Vista and Windows-7
Memory	128 MB RAM (512 MB recommended for Windows 7 and Vista)
Hard Drive	Minimum 6500 MB free spaces for software installation
Interface	Available Serial ATA (SATA) interface connector Available SATA power connector

FEATURES AND CONTROLS

Front View

Front view of the drive (location of each item may vary)

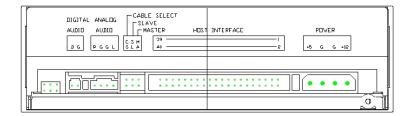|		
A	**Eject / Close Button**	Push button to eject or close the tray.
B	**Status LED**	Indicator of drive's status. A blinking LED means the drive is in writing or reading mode.
C	**Emergency Eject Hole**	Used when tray can not be ejected by pressing "Eject Button" or when the drive has no power.
		CAUTION: Always ensure the power to the drive is OFF when performing manual eject.

Rear View

For ATAPI/E-IDE Drives:

Figure: Rear view of ATAPI/E-IDE drive

Power Connector	Four-pin connector for PATA power input.
E-IDE Connector	40-pin connector for E-IDE interface.
Device Configuration Jumper	Six-pin jumper for selecting drive mode as Master (MA), Slave (SL), or Cable Select(CS).
Analog Audio Output Connector	Four-pin connector for analog audio output, used to connect to a sound card or motherboard connection *
Digital Audio Output Connector	Two-pin connector for digital audio output, used to connect to a sound card or motherboard that support digital audio *

* Note: Most computers and their operation systems retrieve audio signal through IDE connection at the same time as DATA. Check your computer's manual for details
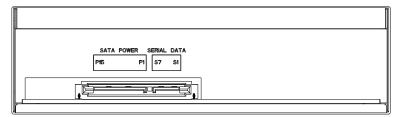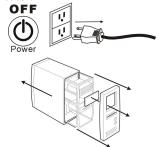
For Serial ATA (SATA) Drives:

Figure: Rear view of Serial ATA drive

SATA Power Connector	15-pin connector for SATA power input.
SATA Data Connector	7-pin connector for Serial ATA data interface.

INSTALLING ATAPI/E-IDE (PATA) DRIVES

1.   **Turn off the computer system and disconnect all power cords.**
2.   **Remove the computer cover.**

3.   **Set the Master/Slave jumper on the rear panel of the DVD-ROM drive, following the instructions below.**

NOTE: For maximum throughput, please avoid sharing an IDE cable with the hard disk drive (HDD)

Setting Configuration Jumper:

The configuration jumper can be used to set the DVD-ROM drive to Master (MA) , Slave (SL) or Cable Select(CS) settings, as shown below. (Please do NOT select more than one mode.)

Master Device
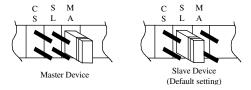
Slave Device
(Default setting)

Figure: Setting the Master/Slave jumper.

Note: If you choose the CS setting, the computer will determine if the drive's configuration automatically, according to which port the drive is connected to. This setting requires a Cable Select capable cable.

Study the configurations recommendation below, and choose what is best for you:

IDE Drive Configuration Recommendations:

Configuration (A):
If only one Hard Disk Drive (HDD) connected as Master device on the primary IDE port; nothing connected to the Secondary IDE port.
Then, set the DVD-ROM drive's jumper to Master and connect the DVD-ROM drive to the secondary IDE port as shown below
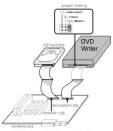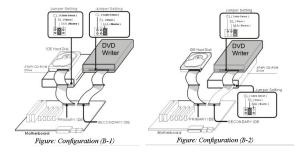
Figure: Configuration (A)

Configuration (B)

If HDD connected as Master device and another CD-ROM or DVD-ROM connected as Slave on the primary IDE port; nothing connected to the secondary IDE port.

Then you may either set the DVD-ROM drive's jumper to Master, and connect the DVD-ROM drive to the Secondary IDE port. (As shown in figure B-1)

Or, disconnect the CD-ROM or DVD-ROM from the primary IDE port, keep the jumper as Slave, and re-connect it to the secondary IDE port. Set the DVD-ROM drive's jumper to Master, and connect the DVD-ROM drive to the Secondary IDE port. (As shown in figure B-2)

Figure: Configuration (B-1)

Figure: Configuration (B-2)

4.   **Choose an available expansion bay, carefully slide the DVD writer horizontally into the bay and secure it to the PC chassis using proper mounting screws.**

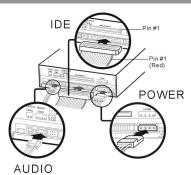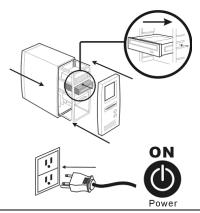5.   **Connect ALL the necessary cables to your DVD Writer.**

Figure: Connecting Cables

(A) IDE Cable: Plug one connector of the IDE cable into the IDE connector on the rear panel of the drive (the other end should already be connected to the motherboard).

(B) Power Cable: Connect a power cable from the computer to the power connector of the drive, as shown above.
Note: In most computers, you will find free power connectors that are ready for use. If there is no available power connector, purchase a *power cable splitter for an internal drive*.

(C) Audio Cables (Optional): If you are using a sound card in your system, connect an analog audio cable to the four-pin analog audio output connector at the back of the drive, and then connect to your sound card. Or if your sound board support digital audio input, connect a digital audio cable in the same way.

6. **Replace the computer cover, and reconnect the power cords, and the computer on.**

INSTALL SERIAL ATA DRIVES

1. **Turn off the computer system and disconnect all power cords**.
2. **Remove the computer's cover**.

3. **Choose an available expansion bay, carefully slide the DVD-ROM drive horizontally into the bay and secure it to the PC chassis using proper mounting screws**.
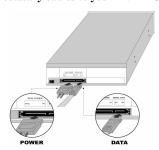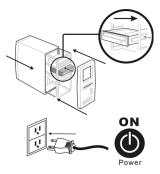4. **Connect ALL the necessary cables to your DVD-ROM drive**:

Figure: Rear Panel of Serial ATA Drive

5. **Replace the computer's cover, reconnect the power cords, and turn the computer on.**

OPERATION

Using the Drive and Installing Software

To use the drive:

As a CD-ROM drive: Most Windows Operating Systems (Windows 2000, Windows XP, Windows Vista and Window 7) supply a generic CD-ROM device driver that lets the DVD writer function as a standard CD-ROM drive as soon as it's installed. If you're using one of these operating systems, you do not need to install additional software to read or play CDs.

As a DVD-ROM drive: The same operating systems also let the DVD writer function as a DVD-ROM drive as soon as it's installed. If you're using one of these operating systems, you do not need to install additional software to read DVDs, however you will need special software to playback DVD video titles. Please install the bundle software application.

To Install Software:

Insert bundled utility software disc into the drive, the follow the on screen graphic user interface (GUI) screen to install required programs. If the installation program doesn't start by itself, open "My Computer" screen, double-click to enter the location where software CD is loaded, and manually start installation process by double-click on "setup" icon.

Insert and remove a disc

To insert a disc:
> **(1) While the DVD-ROM drive is powered up, press the Eject button on the front panel to eject the tray.**
>
> **(2) Place the disc, label side up, onto the tray.   Make sure the disc is seated properly into the bay on the tray.**
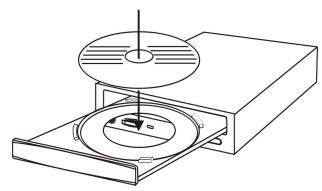
Figure: Insert a disc

> Note: Please be sure no foreign object or liquid substance gets onto the tray or into the drive.
>
> **(3) Press the Eject button again to retract the tray.**

To remove a disc:
> **(1) While the DVD-ROM is powered up, press the Eject button on the front panel to eject the tray.**
>
> **(2) Carefully lift disc off the tray.**
>
> **(3) Press the Eject button again to retract the tray**

Tips on handling the drive or the disc:
- Always handle disc by the edge, avoid contacting the data surface.
- Do not place disc face down on hard or rough surfaces
- Never use damaged or cracked disc.
- Always use eject button to operate the tray.
- Do NOT force the tray in or out

PLAYING CDs AND DVDs

Playing DVDs

To play DVD Video contents from this drive, you must have DVD playback software installed on your PC such as the one included in the bundled software.

Once software is installed, launch the utility, and follow the software instructions to enjoy DVD Video contents

Playing DVD Movie with Region Code:

Commercial Movie DVDs are encoded with Region Code, so it can only be distributed and played in a certain regions. The drive must be set to the same region code to play these discs.

The DVD-ROM drive is shipped without a preset region code. Instead, the first time a Movie disc with region setting is inserted into the drive; there will be a pop-up window prompt user to set the proper region code. This action will only happen once, until a movie disc with different region code is detected.

If you insert a movie disc with a different region code, a pop-up window will prompt user to confirm the region code change. If you do not accept the code change, the new title will not play on this drive. If you do accept the change, the drive's region code will be set to the new code, and you will need to switch back to old code if you want to play those titles.

NOTE: You may change the drive's region code up to 5 times only. After that, you will not be able to change your drive's code setting. (Your DVD playback software will warn you if you approach the 5-change limit.)

About Software & Manuals

The detailed user's manual for the playback software is automatically installed on your computer when you install the software.

TROUBLESHOOTING

If you have trouble during installation or use of your DVD writer, please refer to the following information.

Read Problems

Symptom	Possible Cause	Solution
No Action	No power	• Ensure that the power cord is connected securely (at all connections).
	IDE cable not properly connected	• Ensure that the IDE cable and connectors are not damaged (check the pins carefully), and that both sides are connected.
DVD-ROM drive can not be recognized	Power cable not properly connected	• Ensure that the power cord is connected securely (at all connections).
	IDE cable not properly connected	• Ensure that the IDE cable and connectors are not damaged (check the pins carefully), and that both sides are connected.
Excessive noise when reading a disc	Unbalanced disc loaded	• Replace the disc with another.
	Sticker or label attached to the surface	• Detach the sticker/label carefully, ensuring that you don't scratch the disc.
Cannot open the tray (Eject)	Drive locked by software	• Wait until the software activity is finished; or • Stop the software activity and then press eject.
	Disc set incorrectly in tray	• Turn off power to the drive, then use the emergency eject feature to open the tray.
Can NOT read disc	Media damaged	• Always check disc for scratch, or foreign contamination • Do not use irregular shaped disc • Check disc format is supported or not

FCC Compliance Statement

Note: 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 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.

FCC Caution: To assure continued compliance, (example – use only shielded interface cables when connecting to computer or peripheral devices). Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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