



External

Super Multi DVD Rewriter

Owner's Manual

English

To enjoy fully all the features and functions of your product, please read this owner's manual carefully and completely.



GSA-5169D

⚠ CAUTION : The laser used in the External Super Multi DVD can damage your eyes. Do not attempt to open the cover.
To reduce the risk of electric shock, do not remove the cover (or back). There are no user-serviceable parts inside.
Refer servicing to qualified service personnel.
Use of controls or performance of procedures other than those specified herein may result in hazardous radiation exposure.

⚠ WARNING : To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture

Industry Canada requirement

This class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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 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 Authorized Service Center for help.

• **FCC WARNING**

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

- This External Super Multi DVD is for use only with UL listed personal computers that have installation instructions detailing user-installation of card cage accessory.

This product is manufactured to comply with the radio interference requirements of EEC DIRECTIVE 89/336/EEC, 93/68/EEC and 73/23/EEC.

▲ CAUTION - VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN.
AVOID EXPOSURE TO THE BEAM.

▲ VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD
STRÅLEN ÄR FARLIG.

CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT
CLASE 1	PRODUCTO LÁSER
CLASSE 1	PRODOTTO LASER

The appliance is not intended for use by young children or infirm persons without supervision.

WARNING: Only drives bearing the logo *Compact Disc ReWritable Ultra Speed* can write or erase Ultra Speed CD-RW media.

Ultra Speed CD-RW Media may be recognized by the same *Compact Disc ReWritable Ultra Speed* logo on the disc label or packaging material.

Attempting to write to Ultra Speed CD-RW media using CD-RW drives NOT bearing the logo *Compact Disc ReWritable Ultra Speed* may result in data loss.

DVD+R Double Layer media may have compatibility problem with other drives.

For DVD-R Dual Layer: DVD-R Dual Layer is a write once media format with the capacity to write up 8.5 GB.



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- DVD Logo is a trademark of DVD Format/Logo Licensing Corp., registered in U.S., Japan and other countries.
- The company names and product names written in this manual are trademarks or registered trademarks of the respective companies.



Introduction

Thank you for purchasing the LG External Super Multi DVD Rewriter.

Features

- Universal Serial Bus (USB) 2.0 interface for high-speed data transfer.
- Buffer Under Run error protection technology.
- Emergency eject support.
- Combination of CD-R/RW, DVD-R/RW, DVD+R/RW, DVD+R DL, DVD-R DL and DVD-RAM drive functions into one drive.
- Supports region playback control Phase II.
- A video capture DVD Rewriter with USB 2.0 interface for computers, S-video and analog audio/video input terminals for video device.

Package contents

Item	Quantity
A. External Super Multi DVD Rewriter	1
B. USB 2.0 converter cable	1
C. AC Power Adapter (with Power supply cable)	1
D. Software CD (DVD Writer Soutlion, One touch DVD)	2
E. Quick Setup Guide	1

Cautions

System meeting the following requirements is needed in order to use USB 2.0 operation with this drive.

- Computer that is equipped with a USB 2.0 – compliant USB connector or PCI adapter card, and on which the USB 2.0 EHCI (Enhanced Host Controller Interface) driver software ¹⁾ has been installed.

¹⁾ The USB 2.0 EHCI driver software is supplied with currently available PCI adapter cards that conform to USB 2.0. Further, Microsoft has released the USB 2.0 EHCI driver software for Windows XP, therefore it is also possible to use this driver software with Windows XP.

For more information, please contact your USB 2.0 adapter dealer, your PC manufacturer, or the Microsoft Corporation Web site.

- To achieve maximum Record & Write speed your system may require data to be copied first to the computer's hard drive rather than directly from another source disc or drive.

System requirements

Computer

This unit can be operated in the system environment explained here.

System requirements	CPU: Pentium III 800MHz, Memory: 256MB (Recommended for optimal performance : Pentium IV 2.4GHz, Memory: 512MB or greater) Pentium IV 1.6GHz or faster is required for AV Capture.
VGA Card Memory	32MB or greater. (Recommended: 64MB)
Hard disk	10GB or more free space. (The free space needed for writing depends on the quantity of data.) (DVD±DL:16GB)
Interface	USB port 2.0
CD-ROM drive	For Software installation
Software Required OS	Windows XP(Home Edition/ Professional/SP1,SP2), Direct X 9.0 or Higher is required.
CD-R, CD-RW, DVD-R, DVD-RW, DVD+R, DVD+RW, DVD-RAM, DVD±R DL discs	CD-R : LG, Mitsubishi Kagaku Media, Verbatim, Taiyo Yuden, TDK, Ritek or HP discs are recommended. CD-RW : LG, Ricoh, Mitsubishi Kagaku Media, Verbatim discs are recommended. DVD-R : Mitsubishi Kagaku Media, Verbatim, Taiyo Yuden are recommended. DVD-RW : JVC, Mitsubishi Kagaku Media, TDK, RITEK are recommended. DVD+R : Mitsubishi Kagaku Media, Verbatim are recommended. DVD+RW : TDK, FujiFilm, Ricoh, CMC, Mitsubishi Kagaku Media are recommended. DVD-RAM : Maxell, Panasonic are recommended. DVD±R DL : Mitsubishi Kagaku Media, Verbatim are recommended.

* Compatibility problem in write/read function may occur with some media depending on the media manufacturing quality.

Important precautions

Follow these precautions when handling the drive or discs.

Precautions

Please note that the manufacturer of this equipment does not offer any warranty against data loss due to inappropriate installation, handling, direct or indirect damages. Please note that the manufacturer will bear no responsibility for direct or indirect damages (including lost data) caused by the use of this product or its malfunction.

Please backup(copy) all important data as protection against data loss.

Installation

Avoid placing the drive in a location subject to:

- high humidity
- high temperature
- excessive dust
- mechanical vibration
- direct sunlight

Operation

Don't move the drive suddenly from a cold place to warm one.

Condensation may cause abnormal operation.

Make sure to remove the disc before moving the drive to prevent the possible damage to the disc.

Prevent foreign objects, such as liquids or metal, from entering the drive and in the case a foreign object enters the drive, please consult the dealer where the drive was purchased.

Don't interrupt the electric power while the drive is operating.

While drive is operating, don't move the drive or give a shock to the drive, since it can cause damage to the disc.

AC Adapter

Don't plug in or remove the AC adapter using wet hands.

Don't damage the AC adapter by scratching, modifying, or bending its prongs.

Use only supplied AC adapter.

Don't disassemble the AC adapter.

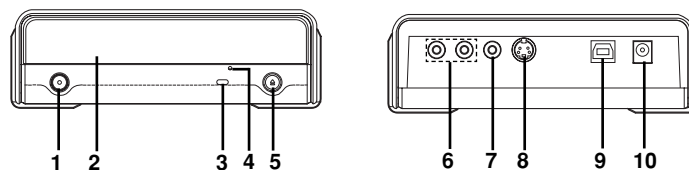
Operation through a USB hub cannot be guaranteed.

When connecting with USB1.1 interface, picture and sound may be disrupted while watching DVD Video due to lack of data transfer speed.

For smoother playback of DVDs, high-speed USB 2.0 should be used.

Location and function of controls

This following is the general figure of the design of the drive. The drive's appearance and specifications may change without prior notice.



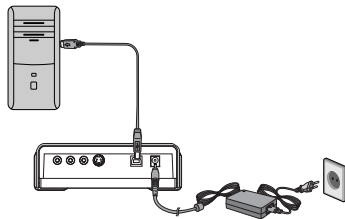
- 1. One touch button/indicator**
Select the one touch recording mode.
- 2. Disc Tray**
- 3. Drive activity indicator**
The LED used to indicate the operation of External Super Multi DVD Rewriter.
- 4. Emergency Eject Hole**
- 5. Stop/Eject Button**
- 6. Audio In jack (L/R)**
Connect the Audio cable(not supplied) when connecting the External Super Multi DVD Rewriter to a video device such as a Video camera, VCR or TV.
- 7. Video In jack**
Connect the Video cable(not supplied) when connecting the External Super Multi DVD Rewriter to a video device such as a Video camera, VCR or TV.
- 8. S-Video In jack**
Connect the S-Video cable(not supplied) when connecting the External Super Multi DVD Rewriter to a video device such as a Video camera, VCR or TV.
- 9. USB Connector**
This connector is used to connect to the USB converter cable.
- 10. Power Connector**
This connector is used to connect to the AC Power adapter cord.



Installation

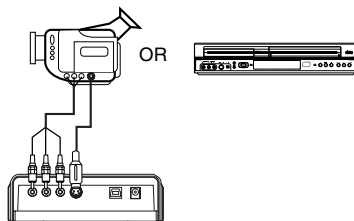
Hardware Installation

- Make sure you have a personal computer with an open USB port before connecting the drive to your computer.
- Power for all devices should be turned off before attaching the cables.
Connect the drive to the computer and to a camcorder, VCR or video device with with Audio/Video cables or S-video cable(not supplied.) as shown in figure.



A. Connecting to Computer

1. Connect the USB converter cable to the External Super Multi DVD Rewriter.
2. Connect the other end of the USB converter cable to your computer.
3. Connect the AC adapter plug to the power connector at the rear of the drive.
Attach the AC adapter to the AC wall outlet.
4. When the computer is ready, confirm that the drive is detected. And then, insert the supplied software CD into the External Super Multi DVD Rewriter and install the software.



B. Connecting to Camcorder or Video Device


1. Connect the Camcorder or Video device.
Refer to the manual supplied with the device to be connected.

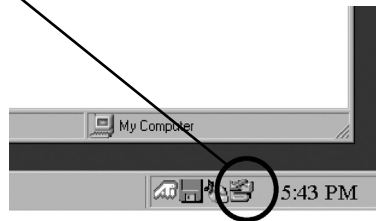
NOTE

If your Video device is equipped with S-Video output, you can connect an RCA cable from the audio output of the video device to the audio input of the drive, and S-Video cable from the S-Video output of the video device to the S-Video input of the drive.

Removing the USB converter cable

The drive supports the plug and play(not swap) function of Windows, and can be removed and inserted by performing the following operation.

1. Stop the application software being currently used.
2. Click the icon “” of the taskbar located on your screen’s bottom right side.



3. Click “Safely Remove USB Mass Storage Device-Drive[x:]”.
4. Click “Ok” and then remove the USB converter cable.

NOTE

Don't remove the USB converter cable when the busy indicator on the drive blinks, or during computer startup.



Operation

Loading and ejecting a disc

Remember - AC adapter must be connected.
Make sure the power is turned on.

Loading a disc

1. Push the Eject Button to open the Disc tray.
2. Load a disc. (Label facing up.)
3. Close the Disc tray.

Ejecting a disc

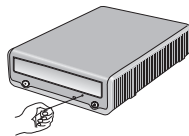
1. Push the Eject Button to open the Disc tray.
2. Removing the disc.
3. Close the Disc tray after removing the disc.

Emergency Eject

This drive has a feature that allows the CD to be ejected manually in case of a drive failure or a power outage.

NOTE: Don't use this feature **except** in an emergency.

- 1) Turn the power OFF.
- 2) Poke a fine-tipped object (such as a straightened heavy duty paper clip) into the small hole above the eject button. The front door will pop open and the disk tray will come partway out.
- 3) Pull the front door to open it all the way, then grip the disc tray between thumb and forefinger and gently pull it straight out.



NOTE: Use this feature for an emergency purpose only. Using it excessively will cause malfunction.

* If you cannot get a good grip on the disc tray with your fingers, use a steel binder clip or spring clamp to pull it out.

Recording

One touch recording (One touch easy wizard mode)

- Make sure that you have installed the software CDs before recording.
You can record videos on the External Super Multi DVD Rewriter from your video device.
1. Connect a playback device to the drive.
 2. Turn on and set-up the connected video device.
 3. Turn on the drive, and insert a blank/recordable DVD disc.
 4. Press the One touch button on the drive to Start recording.
The drive transfer Wizard software will start.
(Maximum Recording time: 4.7GB Single layer:2hrs,
8.5GB Double layer: 3hrs 30min)
Follow the remaining instructions on the screen.



NOTE

For more setting options, please click “setting” on the screen.

Manual recording (for advanced user)

- You can capture, edit and burn the movies manually.
Capture: DVD, SVCD, VCD and AVI formats
Edit: Cut, Merge and transition effects.
Burn: Authoring, create DVD
Refer to the “Guide for honestech One touch DVD” for detailed instructions.

Playing a music CD

Listening to sound

When connected to a computer, you can play audio CD's through your computer's audio system after setting Digital Audio mode.

Check your Windows or "Windows Media Player" manual for detail.

Playing DVD video and MPEG2 movie video

The drive must be connected to a computer, and basic installation already done. Install the 'PowerDVD' software to your PC.

Inserting the disc will automatically start installation. Follow the wizard. After installation, remove the PowerDVD software and put it away for safekeeping.

Inserting a DVD Video disc into the drive and it will play automatically.

NOTES

- **DVD video region code:**

Each region around the world has a different region number on the DVD video movies being sold in a region.

The region code can be changed to other regions up to 5 times by using the software decoder (PowerDVD).

If you change the region code 5 times, the drive will lock onto the last (5th change) region code, and cannot change the drive to another region code. This limitation is a requirement as licensees of DVD drive technology.

- **When connecting with USB1.1 interface, due to it's slow transfer time, picture and sound may be disrupted when trying to view a DVD movie.**



Appendix

Troubleshooting

If you are experiencing problems with the drive, verify the following items. Since the problem may be caused by a device other than the drive, check other things such as system settings or other software being used, etc. If you cannot resolve the problem after verifying these items, contact your dealer or our customer service department.

Problem	Possible Cause	Possible Solution
Cannot play a DVD or CD in the drive or certain types of discs cannot be read in the drive.	<ol style="list-style-type: none">1. The disc is not inserted correctly.2. The disc is dirty.3. The pick-up lens is dirty.4. The disc is scratched or warped.5. The disc uses a region code that cannot be played on the drive.	<ol style="list-style-type: none">1. Reinsert the disc correctly.2. Clean the disc surface.3. Clean the pick-up lens.4. Change the disc.5. Refer to your system manual for help.
Disc tray cannot be opened	<ol style="list-style-type: none">1. AC Plug is not connected to AC outlet.	<ol style="list-style-type: none">1. Connect the AC plug tightly.
Drive is not detected by the system.	<ol style="list-style-type: none">1. The USB 2.0 converter cable is not properly connected.2. Cables are loose.	<ol style="list-style-type: none">1. Make sure USB 2.0 converter cable is connected properly and re-install the device driver.2. Tighten connections or replace cable.
Drive will not play media or certain types of CD or DVD media	<ol style="list-style-type: none">1. The disc doesn't match your system. Is the media disc the correct format for the type of system that you are using.2. Virus possibility.	<ol style="list-style-type: none">1. Check the disc format. (on a PC an ISO 9660 IBM compatible PC format as opposed to Apple/Mac HFS disc or UNIX disc formats will not function)2. Has the Windows DVD-ROM software driver program been corrupted by a virus? Run a Virus Scan program and repair if possible.

Specifications

Supported Discs	DVD-ROM(Single/Dual), DVD-RW, DVD-R, DVD+RW, DVD+R, DVD+R Double layer, DVD-R Dual layer, DVD- RAM, CD-Digital Audio & CD-Extra, CD-Plus, CD-ROM, CD-ROM XA-Ready, CD-I FMV, CD-TEXT, CD-Bridge, CD-R, CD-RW, Photo-CD (Single & Multi-Session), Video CD, DVD-VIDEO	
Capture Recording Supported Discs	CD-R, CD-RW(VCD/SVCD), DVD±R, DVD±RW, DVD±R DL(DVD)	
Interface	USB 2.0	
Video Standards	NTSC, PAL	
Read/Write Speed	Write CD-R: 16X, 24X, 40X, 48X CD-RW: 4X, 10X, 16X, 24X, 32X DVD-R: 2X, 4X, 8X, 12X, 16X(±2%) DVD-RW : 1X, 2X, 4X, 6X DVD+R: 2.4X, 4X, 8X, 12X, 16X(±2%) DVD+RW: 2.4X, 4X, 8X DVD-RAM: 2X, 3X, 5X(Ver.2.2) DVD+R DL: 2.4X, 4X, 6X, 8X DVD-R DL: 4X	Read CD-ROM/R: 48X max CD-RW: 32X max DVD-ROM (Single/Dual): 16X(±2%)/8X max DVD+/-RW: 8X max DVD+/-R: 16X max(±2%) DVD-VIDEO: 8X max DVD-RAM: 2X, 3X, 5X max (Ver.2.2) DVD+R DL: 8X max DVD-R DL: 8X max
Data transfer rate	Sustained CD-ROM : 7200 Kbytes/s (48X max) DVD-ROM : 22160 Kbytes/s (16X max)	
Average Access Time (1/3 Stroke)	CD-ROM : 120msec (Typical) DVD-ROM : 140msec (Typical) DVD-RAM : 250msec (Typical)	
Buffer capacity	2 Mbytes	
MTBF	125000 Power On Hours (Duty Cycle 10%)	
Read/Write	CD-R, CD-RW, DVD-RW, DVD+RW, DVD-RAM, DVD±R DL	
Writing Methods	CD:Disc-at-once, Track-at once, Session at once, Packet Write DVD:Random write, Sequential write	
Power Requirement	AC Adapter Input 100-240Vac, 0.6A 47-63 Hz Output 12Vdc 2A (max 2.5A)	
Operating Environment	Temperature 5 to 35 degC Humidity 20 to 80 %	
Storage Environment	Temperature -20 to 55 degC Humidity 15% to 85% RH	

- The maximum data transfer rate varies according to the performance capabilities of the PC and media.
- For the sake of periodic improvements, specifications and appearance are subject to change without notice.
- We have taken all possible measures to assure the quality of our products, but we cannot be responsible for the consequences if defect occurs.

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Please visit www.lgservice.com and install the automatic firmware download program, "LG ODD Online F/W update." This program will automatically check for new firmware releases and download them.

Caution!

The disc rotates at high speed in the drive unit. Use of worn, damaged, or non-standard CD-ROM discs can adversely affect the drive and cause the disc to shatter or crush while in use. Disc crush can only occur when you use a damaged CD-ROM disc in the drive. It is an extremely rare occurrence, but there are steps which can be taken to prevent it.

Always check your discs before inserting them into the drive.

- 1. Take care not to use worn, cracked, damaged, warped or poor quality CD-ROMs, as this may cause damage to your drive.**
- 2. Check the clear plastic on the center of the disc, cracks here are the main cause of disc crush.**
- 3. Do not play CD-ROMs which are a non-standard (i.e. non-circular) shape, such as heart shaped discs, or discs in the shape of a business card.**

How can you keep your discs from becoming damaged?

- 1. When not in use, remove discs from the drive.**
- 2. Keep discs in the packaging supplied with them and out of direct sunlight and away from heat sources.**

Excessive vibration or a sudden jolt to the drive during operation may cause a malfunction. Avoid exposing the drive to sudden changes in temperature as it may cause condensation to collect inside the drive.