

Installation

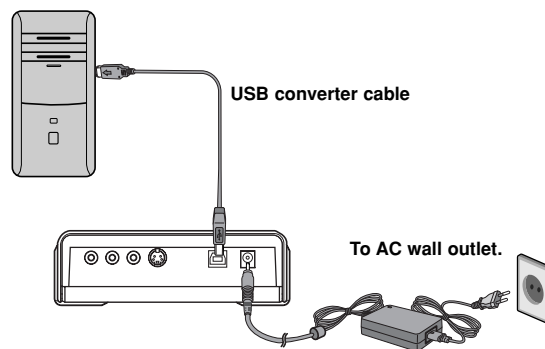
Hardware Installation

- 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 Audio/Video cables or S-video cable (not supplied.) as shown in figure.

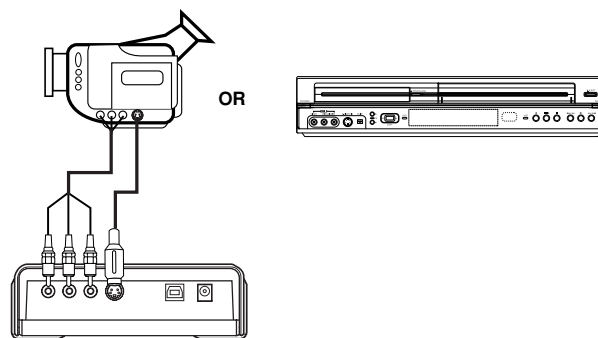
A. Connecting to computer

- 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

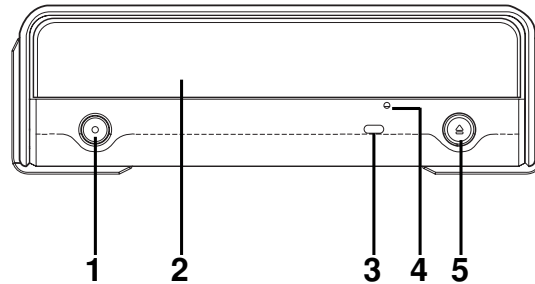
- If your Video device is equipped with S-Video output, you can connect an RCA cable from the audio output of the video device to the audio input of the drive, and S-Video cable from the S-Video output of the video device to the S-Video input of the drive.

Location and function of controls

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

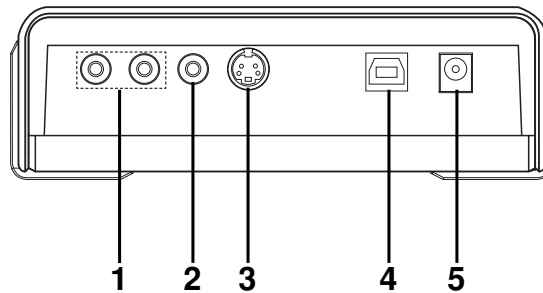
Front

- 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**



Rear

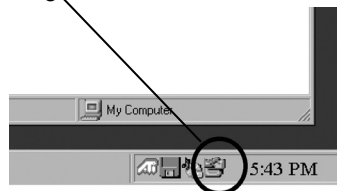
- 1. Audio In jack (L/R)**
Connect the Audio cable(not supplied) when connecting the External Super Multi DVD Rewriter to a video device such as a Video camera, VCR or TV.
- 2. Video In jack**
Connect the Video cable(not supplied) when connecting the External Super Multi DVD Rewriter to a video device such as a Video camera, VCR or TV.
- 3. 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.
- 4. USB Connector**
This connector is used to connect to the USB converter cable.
- 5. Power Connector**
This connector is used to connect to the AC Power adapter cord.



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.

LG Quick Set-up Guide

External Super Multi DVD Rewriter

GSA-E20N
GSA-E20L

To install of your product, please read this guide manual carefully and completely. For the detailed owner's manual of the drive, please refer to the CD manual.

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.

	GSA-E20L	GSA-E20N
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Package Items

Item	Quantity
- External Super Multi DVD Rewriter	1
- USB 2.0 converter cable	1
- AC Power Adapter (with Power supply cable)	1
- Software CD (DVD Writer Soulltion, One touch DVD)	2
- Quick Setup Guide	1

System Environment

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 2.0 port
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+R, DVD+RW, DVD±R DL, DVD-RAM discs	CD-R : LG, Mitsubishi Kagaku Media, Verbatim, Taiyo Yuden, TDK, Ritek or HP discs are recommended. CD-RW : LG, Mitsubishi Kagaku Media, Verbatim discs are recommended. DVD-R : Mitsubishi Kagaku Media, Verbatim, Taiyo Yuden are recommended. DVD-RW : JVC, Mitsubishi Kagaku Media, TDK are recommended. DVD+R : Mitsubishi Kagaku Media, Verbatim are recommended. DVD+RW : TDK, FujiFilm, Ricoh, HP are recommended. DVD±R DL : Mitsubishi Kagaku Media, Verbatim are recommended. DVD-RAM : Maxell, Mitsubishi Kagaku Media are recommended.

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

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 XAReady, 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
Dimensions (WxHxD)	160x50x230mm
Weight	About 1365g
Read/Write Speed	<p>Write : CD-R: 16X, 24X, 40X, 48X CD-RW: 4X, 10X, 16X, 24X, 32X DVD-R: 2X, 4X, 8X, 12X, 16X DVD-RW : 1X, 2X, 4X, 6X DVD+R: 2.4X, 4X, 8X, 12X, 16X 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</p> <p>Read : CD-ROM/R: 48X max CD-RW: 40X max DVD-ROM (Single/Dual):16X/12X max DVD+/-RW: 12X max DVD+/-R: 16X max DVD-VIDEO: 8X max DVD-RAM: 2X, 3X, 5X max (Ver.2.2) DVD+R DL: 12X max DVD-R DL: 12X max</p>

* The drive's appearance and specifications may change without prior notice.

- The maximum data transfer rate varies according to the performance capabilities of the PC.
- 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.

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 : 200msec (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

Software

Install the supplied CD/DVD Recording Authoring Software before using this unit.

* Please uninstall any previous CD burning software you may have loaded on your PC in order to prevent possible compatibility issues.

Once you have installed the supplied software, you may (if you wish) begin to reinstall previous software, taking note for errors.

We recommend using the drive with the latest software as some problems encountered when using the drive can be solved by updating the software.

Please visit www.lgservice.com and install the program, "LG ODD Online F/W update." By using the program, you can automatically check the latest information about FirmWares and update the FirmWare.

Worldwide support ; <http://www.LGservice.com>

Worldwide corporate site : <http://www.LGE.com>

Safety Instructions

⚠ CAUTION: The laser used in the External Super Multi DVD Rewriter 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.

⚠ VORSICHT: Der in diesem External Super Multi DVD -Laufwerk benutzte Laser kann Ihre Augen schädigen. Versuchen Sie keinesfalls, die Abdeckung zu öffnen. Um die Gefahr eines elektrischen Schocks zu reduzieren, sollten Sie die Abdeckung (oder Rückseite) keinesfalls entfernen. Im Inneren des Geräts befinden sich keine Teile, die vom Benutzer selbst gewartet werden können. Überlassen Sie die Wartung qualifizierten Kundendiensttechnikern. Beachten Sie bei der Benutzung von Bedienelementen und der Durchführung von Prozeduren unbedingt die Anweisungen dieses Handbuchs, da andernfalls gefährliche Strahlung freigesetzt werden kann.

⚠ WARNUNG: Setzen Sie das Laufwerk keinesfalls Regen oder Feuchtigkeit aus, um die Gefahr eines Brandes oder elektrischen Schocks zu reduzieren.

⚠ ATTENTION: l'exposition au laser utilisé dans le super graveur multi-DVD présente un danger pour les yeux. N'essayez pas d'ouvrir le capot. Afin de réduire les risques de chocs électriques, ne retirez pas le capot (ni l'arrière du dispositif). Aucune pièce interne ne peut être remplacée par l'utilisateur. Pour la maintenance de l'appareil, adressez-vous au personnel qualifié du service de maintenance. L'utilisation de commandes ou de procédures différentes de celles spécifiées ci-après peut entraîner une exposition à des rayons dangereux.

⚠ AVERTISSEMENT: Ne pas exposer ce matériel à la pluie ou à l'humidité (risques d'incendie et d'électrocution).

⚠ PERICOLO: Il dispositivo di lettura e scrittura utilizzato in questo masterizzatore utilizza un raggio laser che, se osservato da vicino, può danneggiare la vista. Evitare di smontare il coperchio dell'apparecchio. Al fine di prevenire eventuali folgorazioni, evitare di smontare l'apparecchio. All'interno dell'apparecchio non sono presenti parti che richiedono manutenzione da parte dell'utente. In caso di difetti o guasti, rivolgersi ad un Centro di Assistenza Tecnica. L'esecuzione di procedure diverse da quella espressamente indicate in questo manuale può provocare pericolose esposizioni alle radiazioni laser.

⚠ ATTENZIONE: Al fine di evitare cortocircuiti o principi di incendio, evitare di esporre questo apparecchio alla pioggia o ad una eccessiva umidità ambientale.

⚠ PRECAUCION: El láser utilizado en la unidad External Super Multi DVD puede dañar sus ojos. No intente abrir la tapa. Para reducir el riesgo de descarga eléctrica, no quite la tapa (ni la parte posterior). No hay piezas internas que deba mantener el usuario. El servicio de mantenimiento debe efectuarlo personal técnico cualificado. El uso de controles o la ejecución de procedimientos distintos de los especificados en este manual pueden ser causa de exposición a radiación peligrosa.

⚠ ADVERTENCIA: Para reducir el riesgo de fuego o descarga eléctrica, no exponga este aparato a la lluvia ni a la humedad.

⚠ CUIDADO: O laser utilizado na unidade Super Multi DVD pode causar lesões oculares. Não tente abrir a tampa. Para reduzir o risco de choques elétricos, não retire a tampa (quer frontal quer superior). A unidade não contém peças que possam ser reparadas pelo utilizador. Deixe a manutenção para um técnico da assistência qualificada. A utilização de controlos ou a execução de procedimentos que não sejam os especificados neste manual podem causar a exposição a radiações perigosas.

⚠ AVISO: Para reduzir o risco de incêndio ou choque elétrico não exponha este aparelho à chuva ou humidade.

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

Dieses Produkt erfüllt die Funkstörungsanforderungen folgender Normen: 89/336/EEC, 93/68/EEC und 73/23/EEC.

Ce produit a été fabriqué conformément aux prescriptions EEC DIRECTIVE 89/336/EEC, 93/68/EEC et 73/23/EEC.

Questo prodotto risponde alle direttive CEE 89/336, 93/68 e 73/23, relative alla compatibilità elettromagnetica.

Este producto ha sido fabricado cumpliendo los requisitos sobre interferencias de radio de la DIRECTIVAS CEE 89/336/CEE, 93/68/CEE y 73/23/CEE.

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

CAUTION: CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO THE BEAM.

ADVARSEL: KLASSE 3B SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.

ADVARSEL: KLASSE 3B SYNLING OG USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPENS. UNNGÅ EKSPONERING FOR STRÅLEN.

WARNING: KLASSE 3B SYNLING OCH OSYNLIG LASERSTRÅLNING NÅR DENNAN DEL ÄR ÖPPNAD. STRÅLEN ÄR FARLIG.

VARO! KURSSI 3B NÄKYVÄ JA NÄKYMÄTÖN AVATTAESSA OLET ALTTIINA LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEN.

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

Industry Canada requirement

This class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 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 Rewriter is for use only with UL listed personal computers that have installation instructions detailing user-installation of card cage accessory.

- Microsoft® and Windows® are trademarks registered in the United States and other countries by the Microsoft Corporation.
- The company names and product names written in this manual are trademarks or registered trademarks of the respective companies.