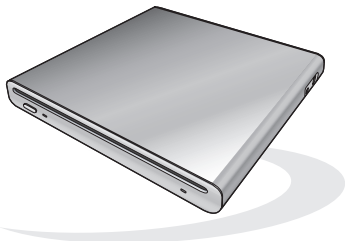


# Panasonic®



## Operating Instructions

DVD Burner

Model No. **VW-BN1**

Before connecting, operating or adjusting this product, please read the instructions completely.



For USA assistance, please call: 1-800-211-PANA(7262) or, contact us via the web at:  
<http://www.panasonic.com/contactinfo>

For Canadian assistance, please call: 1-800-561-5505 or visit us at [www.panasonic.ca](http://www.panasonic.ca)

## Things You Should Know

### Thank you for choosing Panasonic!

You have purchased one of the most sophisticated and reliable products on the market today. Used properly, we're sure it will bring you and your family years of enjoyment. Please take time to fill in the information on the right.

The serial number is on the tag located on the underside of your DVD Burner. Be sure to **retain this manual** as your convenient unit information source.

Date of Purchase \_\_\_\_\_

Dealer Purchased From \_\_\_\_\_

Dealer Address \_\_\_\_\_

Dealer Phone No. \_\_\_\_\_

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

## ◇ Information for your safety

### WARNING:

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK OR PRODUCT DAMAGE,

- DO NOT EXPOSE THIS APPARATUS TO RAIN, MOISTURE, DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.
- USE ONLY THE RECOMMENDED ACCESSORIES.
- DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

### CAUTION!

DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT-IN CABINET OR IN ANOTHER CONFINED SPACE. ENSURE THE UNIT IS WELL VENTILATED. TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING, ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION VENTS.

THE SOCKET OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

### CAUTION!

THIS PRODUCT UTILIZES A LASER.

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

## THE FOLLOWING APPLIES ONLY IN THE U.S.A.

### FCC 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 experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, follow the attached installation instructions and use only shielded interface cable when connecting to 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.

#### Declaration of Conformity

Trade Name: Panasonic

Model No.: VW-BN1

#### Responsible Party:

Panasonic Corporation of North America

One Panasonic Way

Secaucus, NJ 07094

#### Support Contact:

Panasonic Consumer Electronics Company

Telephone No.: 1-800-211-PANA (7262)



## AC adaptor

This AC adaptor operates on AC between 110 V and 240 V.

But

- In the U.S.A. and Canada, the AC adaptor must be connected to a 120 V AC power supply only.
- When connecting to an AC supply outside of the U.S.A. or Canada, use a plug adaptor to suit the AC outlet configuration.
- When connecting to a supply of greater than AC 125 V, ensure the cord you use is suited to the voltage of the AC supply and the rated current of the AC adaptor.
- Contact an electrical parts distributor for assistance in selecting a suitable AC plug adaptor or AC cord set.

Product Identification Marking is located on the bottom of units.

## -If you see this symbol-

### Information on Disposal in other Countries outside the European Union



This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

CLASS 1 LASER PRODUCT KLASS 1 LASER APPARAT	LASER KLASSE 1 APPAREIL À LASER DE CLASSE 1	LUOKAN 1 LASERLAITE LASERIN LAITTE	EN60825-1 1 类激光产品
CAUTION ATTENTION VORSICHT ADVARSEL ADVARSEL VARNING VARO	- CLASS 2M LASER RADIATION WHEN OPEN. DO NOT STARE INTO THE BEAM OR VIEW DIRECTLY WITH OPTICAL INSTRUMENTS. - RAYONNEMENT LASER, CLASSE 2M, EN CAS D'OUVERTURE. NE PAS REGARDER DANS LE FAISCEAU DIRECTEMENT À L'AIDE D'INSTRUMENTS D'OPTIQUE. - LASERSTRÅLING KLASSE 2M, VENN ABEDECKUNG GEÖFFNET. NICHT IN DEN STRAHL, BLICKEN ODER DIREKT MIT OPTISCHEN INSTRUMENTEN BETRACHTEN. - KLASSE 2M LASERSTRÅLING VED ÅBNING. SE IKKE IND I STRÅLEN. HELLER IKKE MED OPTISKA INSTRUMENTER. - KLASSE 2M LASERSTRÅLING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN ELLER SE DIREKTE MED OPTISKE INSTRUMENTER. - LASERSTRÅLING KLASS 2M VID ÖPPEN LUCKA. STIRRA INTE IN I STRÅLEN VARNEN DIREKT ELLER GENOM OPTIK. - AVATTAESSA OLET ALTTIIN LUOKAN 2M LASERSÄTEILYLLÄ. ÄLÄ TUKOTA SÄTEESEEN TAI KATSO OPTISELLÄ LAITTEELLA SUORAAN SÄTEESEEN.		
注意	- 打开时有激光辐射。避免光束照射。		
CAUTION ATTENTION VORSICHT ADVARSEL ADVARSEL VARNING VARO	- CLASS 3B INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO THE BEAM. - RAYONNEMENT LASER INVISIBLE, CLASSE 3B, EN CAS D'OUVERTURE. ÉVITER UNE EXPOSITION AU FAISCEAU. - UNSICHTBARE LASERSTRÅLING KLASSE 3B, VENN ABEDECKUNG GEÖFFNET, NICHT DEM STRAHL AUSSETZEN. - KLASSE 3B USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ LØDSÆTTELSE FOR STRÅLING. - KLASSE 3B USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN. - ØSYNLIG LASERSTRÅLING KLASS 3B VID ÖPPEN LUCKA. UNNGÅ EKSPONERING FÖR LASERSTRÅLINGEN. - AVATTAESSA OLET ALTTIIN LUOKAN 3B NÄKYMÄTÖNTÄ LASERSÄTEILYÄ. VARO AL TISTUMISTA SÄTEELLE.		
注意	- 打开时有不可见激光辐射。避免光束照射。		
CAUTION DANGER	- Laser radiation when open. DO NOT STARE INTO BEAM. - In-visible Laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.		FDA 21 CFR / Class II FDA 21 CFR / Class III

(Inside of product)

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## ◆ Features

- This is a portable device with a thin, lightweight and compact design. If you connect this unit and a compatible Panasonic Camcorder, then the motion video/pictures recorded on the connected Camcorder can be easily copied to a DVD disc even at your travel destination.
  - You can also play back DVD discs created on this unit if you connect this unit and a compatible Panasonic Camcorder.
  - If you connect this unit and a PC using the supplied USB cable with a compatible Panasonic Camcorder, you can copy motion video/pictures edited on a PC etc. to a DVD disc.
- Operation is not guaranteed for any kind of uses other than these mentioned above.

## ◆ Before use

### ■ Handling this unit

This unit is a high-precision device that is not built to withstand vibration, shock or dust. Depending on the environment and handling of the unit, some content may be damaged and in the worst case reading the disc may no longer be possible. In particular, do not subject this unit to vibration and/or shock or disconnect the AC cable during use.

- Panasonic will not be liable for any damages sustained directly or indirectly from the use or failure of this product. Panasonic will also not be liable for any losses of data caused by this product.
- **Injury or material damage resulting from any kind of use that is not in accordance with the operating instructions are the sole responsibility of the user.**

### ■ When placing this unit

Place this unit on a flat, level surface while using it.

- **You cannot use this unit if it is placed vertically.**

### ■ Carefully observe copyright laws

The materials that you record and create can be used for your personal entertainment only. Under copyright laws, other materials cannot be used without obtaining permission from the holders of the copyrights.

### ■ Pages for reference

Pages that you should refer to are shown as (P00).

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- Microsoft®, Windows®, Windows Vista™ and DirectX® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- IBM and PC/AT are registered trademarks of International Business Machines Corporation of the U.S.
- Intel®, Pentium® and Celeron® are registered trademarks or trademarks of Intel Corporation in the United States and other countries.
- Microsoft product screen shot(s) reprinted with permission from Microsoft Corporation.
- Other names of systems and products mentioned in these instructions are usually the registered trademarks or trademarks of the manufacturers who developed the system or product concerned.

## ◆ About the disc

### ■ Discs that can be used on this unit

Discs that can be used for copying when you connect this unit to a compatible Panasonic Camcorder are 12 cm (5") non-cartridge type DVD-RAM, DVD-RW, DVD-R, DVD-R DL (dual layer on single side), CD-RW and CD-R.

- **The discs that can be used with this unit will differ depending on the Camcorder that is connected. Read the operating instructions of the Camcorder for details.**

### Important Notice

**If you copy motion video recorded in AVCHD format to a disc, do not insert this disc in the devices which do not support AVCHD format. In some cases the disc may get stuck in the device. The disc will not play back on the devices that do not support AVCHD format.**

- You cannot record or play continuously from one side of the disc to the other when using a double sided disc. You will need to eject the disc and turn it over.
- Discs inserted in a holder, cartridge, or caddy case cannot be used. Always remove bare discs from these containers prior to use.



- It is recommended that you use Panasonic discs. Usually discs compatible with the DVD standard can be used for recording and playback with no problems. However, some commercially available discs do not meet the DVD standard for quality and performance. If you use one of these discs, you may not be able to record or playback normally.

- Discs recorded on this unit may not be playable on other products. In such cases, play back the disc on this unit instead.

- When using DVD-RW, DVD-R or DVD-R DL do not perform the following as it may make the disc unusable.

- Record on a disc with other products after recording on it with this unit.
- Record on a disc with this unit after recording on it with other products.
- Insert an un-finalized disc in any other products.

### ■ About DVD-R DL (dual layer on single side)

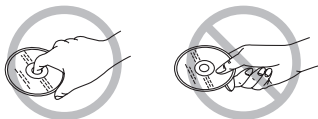
DVD-R DL (dual layer on single side) discs have two layers of recording and playback surface on one side. If a scene does not fit on the first layer (L0), recording continues on the second layer (L1) so one scene is recorded across two layers. This unit automatically switches layers during disc playback so you can play the whole disc continuously like a normal disc. However, the image or the sound may momentarily stop at the point where the layers switch.

### ■ Examples of discs that cannot be used on this unit

- Discs other than those with a 12 cm (5") diameter (You cannot use 8 cm (3") discs even if you insert them in a commercially available adaptor.)
- 6X–12X high speed recording compatible DVD-RAM
- +RW
- BD-RE
- HD DVD-RAM
- LD
- iD
- +R
- BD-R
- HD DVD-RW
- MO
- Floppy disk
- +R DL
- BD-ROM
- HD DVD-R
- MD

### ■ How to hold a disc

Do not touch the recorded surface.



### ■ When inserting/removing a disc

Do not allow fingerprints or dirt to get on the recording/playback side of the disc.

- If there are scratches or dirt (e.g. dust or fingerprints) on the recording/playback side of the disc, normal recording/playback may not be possible and the following may occur:
  - Recording/playback is not possible.
  - The image or the sound is interrupted or stops momentarily.
  - Noise may appear on the image and/or the sound.

### ■ If there is dirt on the disc

- Clean it with the commercially available disc cleaning cloth. Wipe the disc from the center to the outer edge to remove the dirt. Do not use force when wiping the disc as it may scratch it. Also, do not use solvents (thinner, water, antistatic agent, detergent etc.).



### ■ Handling precautions

- Be careful about scratches and dirt.
- Do not attach labels or stickers to discs. (This may cause disc warping and un-balanced rotation, rendering it unusable.)
- Write on the label side of the disc only with a soft, oil-based felt pen. Do not use ballpoint pens or other hard writing implements.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Do not use scratch-proof protectors or covers.
- Do not drop, stack, or impact discs. Do not place objects on them.
- Do not use the following discs:
  - Discs with exposed adhesive from removed stickers or labels.

- Discs that are badly warped or cracked.
- Irregularly shaped discs, such as heart shapes.



- Do not place in the following areas:
  - In direct sunlight.
  - In very dusty or humid areas.
  - Near a heater.
  - Locations susceptible to significant difference in temperature (condensation can occur).
  - Where static electricity or electromagnetic waves occur.
- To protect discs, return them to their cases when you are not using them.

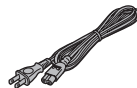
## ◆ Accessories

Check the accessories before using this unit.

**AC adaptor**  
VSK0691



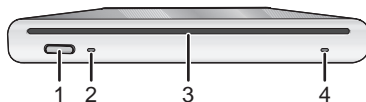
**AC cable**  
K2CA2CA00029



**Mini AB USB  
Connection Cable**  
K2KZ59B00002



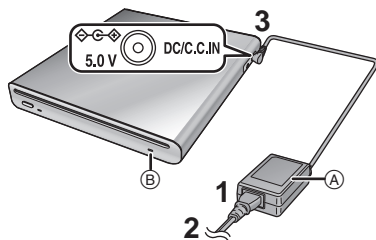
## ◆ Parts identification and handling



- 1 Eject button** [▲]
- 2 Access lamp** [ACCESS] (P10)
- 3 Disc insertion slot**
- 4 Power lamp** [POWER]
- 5 USB terminal** [↔]
- 6 DC input terminal** [DC/C.C.IN 5.0 V]
  - Do not use any other AC adaptors except the supplied one.



## ◆ Power supply



**1** Connect the AC cable to the AC adaptor (A).

**2** Connect the AC cable to the AC outlet.

**3** Connect the AC adaptor to this unit's DC input terminal [DC/C.C.IN 5.0 V].

- The power lamp (B) lights up.
- The AC cable is for use with this unit only. Do not use it with any other devices.
- The unit and the disc heat up during use. This is not a malfunction.

## ◆ Inserting/removing a disc

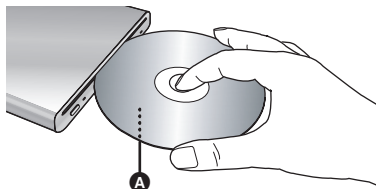
- When inserting or removing the disc, connect the AC adaptor to the unit. You cannot insert or remove a disc unless the unit is powered.

**1** Connect this unit to the AC adaptor.

**2** *Inserting disc*

Insert the disc in the disc insertion slot.

The disc is automatically loaded.



**A** Recording/playback side

*Removing disc*

Press the [▲] button.



- Be careful not to touch the recording/playback side of the disc when inserting/removing it.

## ■ About the access lamp

When the unit accesses a disc, the access lamp lights up.



- Do not do the following operations when the access lamp is lit. The disc or the recorded data on the disc may be damaged and this unit may malfunction.
  - Disconnect the AC adaptor.
  - Disconnect the USB cable.
  - Subject this unit to a strong shock or vibration.

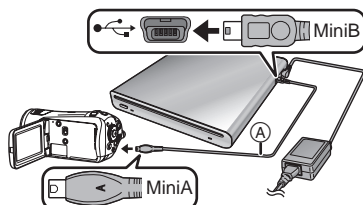
## ◇ Copying from a Camcorder to a DVD disc

Connect this unit to a compatible Panasonic Camcorder and copy the motion video/pictures to a DVD disc.

- Use the Mini AB USB Connection Cable to connect this unit to a compatible Panasonic Camcorder.
- This function does not work if the Camcorder is not compatible with this unit.
- Refer to the operating instructions of the Camcorder about the available data for copying.

### • Connect this unit to the AC adaptor.

#### 1 Connect this unit to the Camcorder.



#### Ⓐ Mini AB USB Connection Cable (supplied)

- Connect the miniA terminal to the Camcorder and the miniB terminal to this unit.
  - Insert the plugs as far as they will go. The unit and the Camcorder will not operate properly if they are not inserted fully.
  - Do not use any other USB connection cables except the supplied one.
- #### 2 Start copying from the Camcorder.
- Read the operating instructions of the Camcorder for information about how to copy.
  - You can copy the still pictures to a CD-R and/or CD-RW media, if the media is compatible with Panasonic Camcorder. Read the operating instructions of the Camcorder for details.

## ◇ **Playing back a copied DVD disc on a Camcorder**

If you connect this unit and a compatible Panasonic Camcorder, you can play back the DVD disc that you copied motion video/pictures to.

- To play back the disc, connect the same Camcorder that you connected when copying to it.
- Use the Mini AB USB Connection Cable to connect this unit and the compatible Panasonic Camcorder.
- **Connect this unit to the AC adaptor.**

### **1 Connect this unit and the Camcorder using the supplied Mini AB USB Connection Cable.**

- Connect the miniA terminal to the Camcorder and the miniB terminal to this unit.
- Insert the plugs as far as they will go. The unit and the Camcorder will not operate properly if they are not inserted fully.
- Do not use any other USB connection cables except the supplied one.

### **2 Start playback of the disc on the Camcorder.**

- Read the operating instructions of the Camcorder for information about how to play back.

## ◇ **Connecting to a PC**

You can copy motion video/pictures recorded on a Panasonic Camcorder and edited on a PC to a DVD disc.

Use the software supplied with the Panasonic Camcorder to copy the motion video/pictures. You can also play back the DVD disc that you copied the motion video/pictures to using the same software.

- Use the USB cable supplied with a Panasonic Camcorder compatible with this unit to connect this unit and a PC.
- Depending on the software, the available data for copying may vary.

## **If using Windows**

---

### **■ Operating environment**

#### **Personal computer**

IBM PC/AT compatible personal computer

#### **OS**

The compatible OS will differ depending on the software supplied with the Camcorder. Please see the operating environment of the software.

#### **Interface**

USB port

#### **Other requirements**

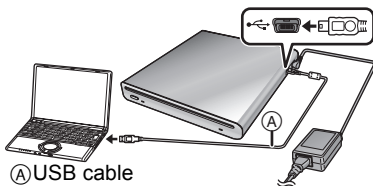
Mouse or equivalent pointing device

- Even if the system requirements mentioned in these operating instructions are fulfilled, some personal computers cannot be used.
- Operation is not guaranteed on an upgraded OS.
- Operation on an OS other than the one pre-installed is not guaranteed.
- When 2 or more USB devices are connected to a PC, or when devices are connected through USB hubs or by using extension cables, proper operation is not guaranteed.

## ■ Connection and recognition procedures

- Connect this unit to the AC adaptor.

### 1 Connect this unit to the PC.



A USB cable

(supplied with the Camcorder)

- This unit is recognized as a [DVD-RAM Drive] on [My Computer].
  - Insert the plugs as far as they will go. The unit and PC will not operate properly if they are not inserted fully.
  - Be sure to use the USB cable supplied with the Camcorder. (We cannot guarantee operation if you use a USB cable other than the one supplied with the Panasonic Camcorder.)
- ### 2 Start copying/playback.
- Use the software supplied with a Panasonic Camcorder to copy/play back the motion video/pictures.
  - Read the operating instructions of the software for information about how to copy/play back.

## ■ To disconnect the USB cable safely

If the USB cable is disconnected while the access lamp is lit, this unit may malfunction and the data may be lost.

### 1 Check that the access lamp is not lit.

### 2 Double click the ( ) icon in task tray.

- Hardware disconnect dialogue appears.
- Depending on your PC's settings, this icon may not be displayed.

### 3 Select [USB Mass Storage Device] and click [Stop].

### 4 Click [OK].

- Click [OK], and you can safely disconnect the cable.

## ◇ Cautions for Use

### ■ About this unit

The unit and disc become warm after long operation, but this is not a malfunction.

**Keep the unit as far away as possible from electromagnetic equipment (such as microwave ovens, TVs, video games etc.).**

- If you use the unit on top of or near a TV, the motion video/pictures and sound on the unit may be disrupted by electromagnetic wave radiation.
- Do not use the unit near cell phones because doing so may result in noise adversely affecting the motion video/pictures and sound.
- Recorded data may be damaged, or motion video/pictures may be distorted, by strong magnetic fields created by speakers or large motors.
- Electromagnetic wave radiation generated by microprocessors may adversely affect the unit, disturbing the motion video/pictures and sound.
- If this unit is adversely affected by electromagnetic equipment and stops functioning properly, disconnect the AC adaptor and then connect it again.

**Do not use the unit near radio transmitters or high-voltage lines.**

- If you record near radio transmitters or high-voltage lines, the recorded motion video/pictures and sound may be adversely affected.

**Make sure to use the supplied cords and cables.**

**Do not extend the cords and the cables.**

**Do not spray insecticides or volatile chemicals onto the unit.**

- If the unit is sprayed with such chemicals, its body may be marred and the surface finish may peel off.
- Do not leave rubber or plastic products in contact with the unit for a long time.

**Do not subject this unit to vibrations or impacts, shake, drop or bump it, place objects on top of it or drop objects on it.**

- A strong impact can break the unit's casing, causing it to malfunction.

In particular, do not place a Camcorder etc. on top of this unit during use. If this unit is subjected to vibration during disc reading or writing, the operation of the Camcorder may be affected or the Camcorder may fall.

**Do not use benzene, paint thinner or alcohol for cleaning the unit.**

- Before cleaning, pull out the AC cable from the AC Jack.
- If you use a solvent, the casing may be discolored and the surface finish may peel off.
- Wipe the unit with a soft dry cloth to remove dust and fingerprints. To remove stubborn stains, thoroughly wring a cloth that has been soaked in a neutral detergent diluted with water and wipe the unit with it. Afterwards, wipe it with a dry cloth.
- Do not use a chemical dust cloth.

**When you are not going to use the unit for an extended time**

- When storing the unit in a cupboard or cabinet, it is recommended that you put a desiccant (silica gel) in with it.

### ■ About the AC adaptor

- Be sure to use the supplied AC adaptor.
- If you use the AC adaptor near a radio, radio reception may be disturbed. Keep the AC adaptor 1 m (3.3 feet) or more away from the radio.
- When using the AC adaptor, it may generate whirring sounds. However, this is normal.
- After use, be sure to disconnect the AC adaptor. (If it is left connected, about 0.3 W of current is consumed at most.)
- Always keep the electrodes of the AC adaptor clean.

Put this unit near the outlet to make it easy for the interrupting device (plug) to reach it.

### ■ About the disc

- If there is dust, a scratch, or dirt on disc or if it is warped, the following phenomena may occur:
  - Block noise in playback image
  - Momentary stop of playback image
  - Sound interrupted during playback, or abnormal sound
  - Disc cannot correctly be recognized
  - Delay between video and audio

**When the ACCESS lamp is illuminated (while accessing a disc), do not disconnect the AC adaptor or the USB cable or subject this unit to vibration and shock.**

### DVD-R/DVD-R DL

- For optimum recording on DVD-R or DVD-R DL discs, this unit writes control data to a DVD-R or DVD-R DL used for recording when it is being inserted and ejected. If the disc has no area for control data to be written, recording may not be possible. To prevent this, do not insert a DVD-R or DVD-R DL which has been recorded on more than 50 times.
- Do not insert a DVD-R or DVD-R DL recorded on this unit that has not been finalized into a recordable device, such as a DVD recorder. The recorded data may be damaged.

### ■ About condensation

Using this unit when condensation has occurred may cause it to malfunction. Make every effort to ensure that condensation does not form. If it does form, take the actions described below.

### Causes of condensation

**Condensation takes place when the ambient temperature or humidity is changed as follows.**

- When this unit is brought inside from the cold to a warm room.
- When this unit is moved from an air-conditioned car to outside.
- When a cold room has been warmed up quickly.
- When cool wind from an air conditioner is directly blown onto this unit.
- After summer afternoon showers of rain.
- When this unit is in a very humid place where the air is thick with steam.

**When this unit is taken to a location with a significant temperature difference such as from a cold place to a hot place.**



Place the unit inside a plastic bag, remove as much of the air from inside the bag as possible, then seal the bag. Leave the unit for about an hour in the room so the temperature of the unit is close to the ambient temperature of the room, then use it.

### What to do when condensation forms

Disconnect the AC adaptor and leave the unit for about 1 hour. Check that the condensation disappeared naturally when the unit became close to the ambient temperature and then use the unit.

## ◇ Troubleshooting

Problem	Check points
This unit cannot be turned on.	<ul style="list-style-type: none"> <li>● Is the AC adaptor connected? → Connect the AC adaptor and the AC cable correctly. (P9)</li> </ul>
<p>This unit cannot be operated even when powered up.</p> <p>This unit does not operate normally.</p>	<ul style="list-style-type: none"> <li>● Disconnect the AC adaptor and then about 1 minute later connect it again. (Conducting the above operation when the access lamp is on may destroy the data on the disc.) If normal conditions are not restored, detach from the connected power source and consult the dealer who you purchased this unit from.</li> </ul>
The [▲] button does not work.	<ul style="list-style-type: none"> <li>● The disc will not eject unless this unit is powered. → Connect the AC adaptor.</li> <li>● The [▲] button may not work when copying from a connected Camcorder to a disc is in progress. → Wait until the copying is finished.</li> <li>● In cases other than the above, detach from the connected power source and consult the dealer who you purchased this unit from.</li> </ul>
<p>The disc cannot be read.</p> <p>Copying stops.</p> <p>The playback motion video/pictures breaks up for a moment.</p>	<ul style="list-style-type: none"> <li>● Is the disc scratched or dirty? → Wipe off the dirt on the disc. (P7) If the disc is scratched, insert a new one.</li> <li>● The internal temperature of this unit is high. Disconnect the AC adaptor, wait a short while and then you will be able to use this unit again.</li> <li>● Discs recorded on other devices may not be correctly read or played back on this device.</li> </ul>
Cannot copy although power is supplied to this unit and the disc is correctly inserted.	<ul style="list-style-type: none"> <li>● Has the DVD-RW, DVD-R or DVD-R DL been finalized? → After finalizing, the discs become play-only and cannot record. If you un-finalize a DVD-RW, it can be used for recording. (If you un-finalize a DVD-RW and then use it again when copying from a compatible Panasonic Camcorder, the recorded scenes may be deleted.)</li> <li>● Is the memory of the disc full? → If there is no more available memory, delete unnecessary scenes with the PC or use a new disc.</li> </ul>

Problem	Check points
<p><b>Even if connected by the USB cable, this unit is not recognized by the PC.</b></p>	<ul style="list-style-type: none"> <li>● Select another USB terminal on the PC.</li> <li>● Check the operating environment. (P11)</li> <li>● Disconnect the AC adaptor and the USB cable and then connect them again.</li> </ul>
<p><b>When the USB cable is disconnected, an error message will appear on PC.</b></p>	<ul style="list-style-type: none"> <li>● To disconnect the USB cable safely, double-click the  icon in the task tray and follow the instructions on the screen. </li> </ul>
<p><b>The PC will not start up.</b></p>	<ul style="list-style-type: none"> <li>● Did you connect this unit to the PC with the USB cable before turning on the power to the PC? → Start up the PC and then connect this unit to it.</li> </ul>
<p><b>A region code setting screen appears when trying to play a DVD video.</b></p>	<ul style="list-style-type: none"> <li>● The region code is not set when this unit is purchased. Check the setting contents and then click [OK]. Playback of the DVD video will start after the setting is changed to the new region code. You can change the setting 5 times. Be aware that you cannot change the setting after the fifth time and the region code is fixed to the last setting.</li> </ul>



## ◇ Specifications

### DVD Burner: Information for your safety

<b>Power source:</b>	DC 5.0 V
<b>Power consumption:</b>	7.5 W (When writing to a disc)

<b>Compatible media</b>	12 cm (5") DVD-RAM Ver.2.1 12 cm (5") DVD-RW Ver.1.1/2X-SPEED (2X/1X) 12 cm (5") DVD-R for General Ver.2.0 12 cm (5") DVD-R for DL Ver.3.0 12 cm (5") CD-R 12 cm (5") CD-RW	
<b>Interface</b>	Hi-Speed USB compliant (USB 2.0), USB terminal Type miniB	
<b>Buffer capacity</b>	2 MB	
<b>Dimensions</b>	139 mm (W)×16.8 mm (H)×138.1 mm (D) 5.472" (W)×0.661" (H)×5.437" (D) (excluding the projecting parts)	
<b>Mass (Weight)</b>	Approx. 390 g (0.86 lbs.) (DVD burner only)	
<b>Operating temperature</b>	5 °C to 35 °C (41 °F to 95 °F)	
<b>Operating humidity</b>	10% to 80%	
<b>Data writing rate</b>	DVD-RAM: Maximum 3X-SPEED DVD-RW: Maximum 4X-SPEED DVD-R: Maximum 8X-SPEED	DVD-R DL: Maximum 4X-SPEED CD-R: Maximum 24X-SPEED CD-RW: Maximum 16X-SPEED
<b>Data reading rate</b>	DVD-RAM: Maximum 3X-SPEED DVD-RW: Maximum 6X-SPEED DVD-R: Maximum 8X-SPEED	DVD-R DL: Maximum 6X-SPEED CD-R: Maximum 24X-SPEED CD-RW: Maximum 24X-SPEED

### AC adaptor: Information for your safety

<b>Power source:</b>	AC 110 V to 240 V, 50/60 Hz
<b>Input capacitance:</b>	0.22 A
<b>DC output:</b>	DC 5.0 V    1.6 A

## ◇ Limited Warranty (For USA Only)

PANASONIC CONSUMER ELECTRONICS COMPANY, DIVISION OF PANASONIC CORPORATION OF NORTH AMERICA  
One Panasonic Way, Secaucus, New Jersey 07094

PANASONIC PUERTO RICO, INC.  
Ave. 65 de Infantería, Km. 9.5 San Gabriel Industrial Park, Carolina, Puerto Rico 00985

### PANASONIC Video Products Limited Warranty

#### Limited Warranty Coverage

If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company or Panasonic Puerto Rico, Inc. (collectively referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

Product	Parts	Labor	Service	Contact Number
Camcorder, DVD Burner	One (1) Year (except CCD Image Sensor) CCD Image Sensor - 6 (Six) Months	Ninety (90) Days Ninety (90) Days	Carry-In or Mail-In	1-800-211-PANA(7262)
DVD/VCR Deck, A/V Mixer	One (1) Year	Ninety (90) Days	Carry-In or Mail-In	1-800-211-PANA(7262)
TV/VCR, TV/DVD, TV/DVD/VCR Combination	One (1) Year (except CRT) CRT - Two (2) Years	Ninety (90) Days Ninety (90) Days	Carry-In: 21" CRT and Smaller In-Home or Carry-In: 22" CRT and Larger	1-800-211-PANA(7262)
TV/HDR Combination	One (1) Year (except CRT) CRT - Two (2) Years	Ninety (90) Days Ninety (90) Days	In-Home or Carry-In	1-888-843-9788
Rechargeable Batteries (in exchange for defective item)	Ten (10) Days	Not Applicable	Carry-In or Mail-In	1-800-211-PANA(7262)
Tape (in exchange for defective item)	Five (5) Days	Not Applicable	Carry-In or Mail-In	1-800-211-PANA(7262)
Memory Cards (in exchange for defective item)	Ninety (90) Days	Not Applicable	Carry-In or Mail-In	1-800-211-PANA(7262)

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must carry-in or mail-in (prepaid) your product or arrange for in-home service, as applicable, during the warranty period. If non-rechargeable batteries are included, they are not warranted. This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is".

A purchase receipt or other proof of the original purchase date is required for warranty service.

### **Carry-In, Mail-in (Prepaid) or In-Home Service**

For Carry-In, Mail-In (prepaid) or In-Home Service (as applicable) in the United States call toll free contact number listed above or visit

Panasonic Web Site: <http://www.panasonic.com>

For assistance in Puerto Rico call Panasonic Puerto Rico, Inc. (787)-750-4300 or fax (787)-768-2910.

In-Home service, if applicable, requires clear, complete and easy access to the product by the authorized servicer and does not include removal or re-installation of an installed product. It is possible that certain in-home repairs will not be completed in-home, but will require that the product, or parts of the product, be removed for shop diagnosis and/or repair and then returned.

### **Limited Warranty Limits And Exclusions**

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage, nor does it cover markings or retained images on the picture tube resulting from viewing fixed images (including, among other things, letterbox pictures on standard 4:3 screen TV's, or non-expanded standard 4:3 pictures on wide screen TV's, or onscreen data in a stationary and fixed location). The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, bug infestation, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or commercial use (such as in a hotel, office, restaurant, or other business), rental use of the product, service by anyone other than a Factory Service Center or other Authorized Servicer, or damage that is attributable to acts of God.

**THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANYBREACH OF THIS WARRANTY.**

(As examples, this excludes damages for lost time, cost of having someone remove or re-install an installed unit if applicable, or travel to and from the servicer, loss of media or images, data or other memory or recorded content. The items listed are not exclusive, but are for illustration only.)

**ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.**

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Service Center. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

**PARTS AND SERVICE (INCLUDING COST OF AN IN-HOME SERVICE CALL, WHERE APPLICABLE) WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBILITY.**

## ◇ Customer Services Directory (For USA Only)

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Service Center; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:

<http://www.panasonic.com/consumersupport>

or, contact us via the web at:

<http://www.panasonic.com/contactinfo>

You may also contact us directly at:

1-800-211-PANA (7262),

Monday-Friday 9 am-9 pm; Saturday-Sunday 10 am-7 pm, EST

For hearing or speech impaired TTY users, TTY : 1-877-833-8855

### Accessory Purchases

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:

<http://www.pstc.panasonic.com>

or, send your request by E-mail to:

[npcparts@us.panasonic.com](mailto:npcparts@us.panasonic.com)

You may also contact us directly at:

1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only) (Monday – Friday 9 am to 9 pm, EST.)

Panasonic Service and Technology Company

20421 84th Avenue South,

Kent, WA 98032

(We Accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

For hearing or speech impaired TTY users, TTY : 1-866-605-1277

### Product Repairs

#### Centralized Factory Service Center

MAIL TO:

Panasonic Camera and Digital Service Center

1590 Touhy Ave.

Elk Grove Village, IL 60007

Please carefully pack and ship, prepaid and insured, to the Elk Grove Village Centralized Factory Service Center.

Customer's in Puerto Rico, please ship or carry in to location below ("Service in Puerto Rico").

#### Service in Puerto Rico

**Panasonic Puerto Rico, Inc.**

**Ave. 65 de Infantería, Km. 9.5, San Gabriel Industrial Park,**

**Carolina, Puerto Rico 00985**

**Phone (787)750-4300, Fax (787)768-2910**

As of January 2007

## ◇ Request for Service Notice (For USA Only)

Please photocopy this form when making a request for service notice, in the unlikely event this product needs service.

### Request for Service Notice:

- Please include your **proof of purchase**.  
(Failure to do so will delay your repair.)
  - To further speed your repair, please provide an explanation of what is wrong with the unit and any symptom it is exhibiting.
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Mail this completed form and your Proof of Purchase along with your unit to:  
Panasonic Camera and Digital Service Center  
1590 Touhy Ave.  
Elk Grove Village, IL 60007

## ◇ Warranty (For Canadian Customers)

### Panasonic Canada Inc.

5770 Ambler Drive, Mississauga, Ontario L4W 2T3

### PANASONIC PRODUCT – LIMITED WARRANTY

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship and agrees to remedy any such defect for a period as stated below from the date of original purchase.

#### Camcorder Peripherals – One (1) year, parts and labour

#### **LIMITATIONS AND EXCLUSIONS**

This warranty does not apply to products purchased outside Canada or to any product which has been improperly installed, subjected to usage for which the product was not designed, misused or abused, damaged during shipping, or which has been altered or repaired in any way that affects the reliability or detracts from the performance, nor does it cover any product which is used commercially. Dry cell batteries are also excluded from coverage under this warranty.

This warranty is extended to the original end user purchaser only. A purchase receipt or other proof of date of original purchase is required before warranty service is performed.

**THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL PANASONIC CANADA INC. BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.**

In certain instances, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or the exclusion of implied warranties, so the above limitations and exclusions may not be applicable.

#### **WARRANTY SERVICE**

**FOR PRODUCT OPERATION ASSISTANCE**, please contact:

Our Customer Care Centre: Telephone #: (905) 624-5505

1-800 #: 1-800-561-5505

Fax #: (905) 238-2360

Email link: "Customer support" on [www.panasonic.ca](http://www.panasonic.ca)

**FOR PRODUCT REPAIRS**, please locate your nearest Authorized Servicentre at

[www.panasonic.ca](http://www.panasonic.ca) :

Link: "Servicentres™ locator" under "Customer support"

### IF YOU SHIP THE PRODUCT TO A SERVICENTRE

Carefully pack and send prepaid, adequately insured and preferably in the original carton. Include details of the defect claimed, and proof of date of original purchase.



**Panasonic Consumer Electronics Company,**  
**Division of Panasonic Corporation of North America**  
One Panasonic Way, Secaucus, NJ 07094

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Ave. 65 de Infantería, Km. 9.5, San Gabriel Industrial Park,  
Carolina, Puerto Rico 00985

**Panasonic Canada Inc.**  
5770 Ambler Drive, Mississauga, Ontario, L4W 2T3

