

# OWNER'S MANUAL SET-TOP BOX

Please read this manual carefully before operating your product and retain it for future reference.

STB-2000



www.lgsolutions.com P/NO : MFL68080365 (1406-REV00)

# IMPORTANT SAFETY INSTRUCTIONS

Always comply with the following precautions to avoid dangerous situations and ensure peak performance of your product.



# WARNING/CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN



TO REDUCE THE RISK OF FLECTRIC SHOCK DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE, REFER TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

### WARNING

- TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

### CAUTION

- Do not attempt to modify this product in any way without written authorization from LG Electronics U.S.A., Inc. Unauthorized modification could void the user's authority to operate this product.

### **COMPLIANCE**

- The responsible party for this product's compliance is: LG Electronics U.S.A. Inc. 1000 Sylvan Avenue, Englewood Cliffs, NJ 07632. USA • Phone: 1-201-816-2000



### WARNING

If you ignore the warning message, you may be seriously injured or there is a possibility of accident or death.



### / CAUTION

If you ignore the caution message, you may be slightly injured or the product may be damaged.



### ■ NOTE

The note helps you understand and use the product safely. Please read the note carefully before using the product.

**WARNING**: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions
- Do not install near any heat sources, such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat
- Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits from the apparatus.
- Only use attachments/accessories specified by the manufacturer.
- Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination in order to avoid injury from tip-over.



- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Never touch this apparatus or antenna during a thunder or lighting storm.
- When mounting an STB on the wall, make sure not to install the STB by the hanging power and signal cables on the back of the
- Do not allow an impact shock or any objects to fall into the product.

Power Cord

Caution: It is recommended that appliances be placed upon a dedicated circuit; that is, a single outlet circuit which powers only that appliance and has no additional outlets or branch circuits. Check the specification page of this owner's manual to determine necessary power requirements for this set. Periodically examine the cord of your appliance, and if its appearance indicates damage or deterioration, unplug it, discontinue use of the appliance, and have the cord replaced with an exact replacement part by an authorized servicer. Protect the power cord from physical or mechanical abuse, such as twisting, kinking, or pinching or being closed in a door or walked upon. Pay particular attention to plugs, wall outlets, and the point where the cord exits the appliance. Do not use a damaged or loose power cord. Be sure to grasp the plug when unplugging the power cord. Do not pull on the power cord to unplug the STB.

Overloading

Do not connect too many appliances to the same AC power outlet as this could result in fire or electric shock. Do not overload wall outlets. Overloaded wall outlets, loose or damaged wall outlets, extension cords. frayed power cords, or damaged or cracked wire insulation are dangerous. Any of these conditions could result in fire or electric shock

Outdoor Use/Wet Location

Warning: To reduce the risk of fire or electrical shock, do not expose this product to rain, moisture or other liquids. Do not touch the STB with wet hands. Do not install this product near flammable objects such as gasoline or candles or expose the STB to direct air conditioning.

Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc., on or over the apparatus (e.g., on shelves above the unit). 20.

Disconnect Device

The mains plug is the disconnecting device. The plug must remain readily operable. As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if you turn off this unit by SWITCH.

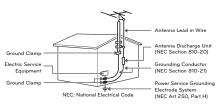
Outdoor Antenna Grounding
 If an outside antenna or cable system is connected to the product, follow the precautions below.

An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits or where it can come into contact with such power lines or circuits as death or serious injury can occur.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Article 810 of the National Electrical Code (NEC) in the U.S.A. provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

### Antenna grounding according to the National Electrical Code, ANSI/NFPA 70



### Cleaning

When cleaning, unplug the power cord and rub gently with a soft cloth to prevent scratching. Do not spray water or other liquids directly on the STB as electric shock may occur. Do not clean with chemicals such as alcohol, thinners, or benzene.

Transporting Product
 Make sure the product is turned Off and
 unplugged and that all cables have been
 removed. Do not press against or put stress
 on the STB.

Ventilation

Install the STB where there is proper ventilation. Do not install in a confined space such as a bookcase. Do not cover the product with cloth or other materials (e.g., plastic) while it is plugged in. Do not install in excessively dusty places.

- Do not touch the ventilation openings, as they may become hot while the STB is operating.
- If you smell smoke or other odors coming from the STB or hear strange sounds, unplug the power cord, and contact an authorized service center.
- Keep the product away from direct sunlight.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Keep the packing anti-moisture material or vinyl packing out of the reach of children. Anti-moisture material is harmful if swallowed. If swallowed by mistake, force the patient to vomit and visit the nearest hospital. Additionally, vinyl packing can cause suffocation. Keep it out of the reach of children.
- Do not stick metal objects or any other conductive material into the power cord. Do not touch the end of the power cord while it is plugged in.
- Do not expose to dripping or splashing and do not place objects filled with liquids, such as vases, cups, etc. on or over the apparatus. (e.g. on shelves above the unit).
- Grounding
   (Except for devices which are not grounded.)
   Ensure that you connect the earth ground
   wire to prevent possible electric shock
   (i.e. a TV with a three-prong grounded AC
   plug must be connected to a three-prong
   grounded AC outlet). If grounding methods
   are not possible, have a qualified electrician
   install a separate circuit breaker. Do not try to
   ground the unit by connecting it to telephone
   wires, lightening rods, or gas pipes.
- As long as this unit is connected to the AC wall outlet, it is not disconnected from the AC power source even if the unit is turned off.
- Do not attempt to modify this product in any way without written authorization from LG Electronics. Unauthorized modification could void the user's authority to operate this product.

### FCC NOTICE

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 the receiver.
- Connect the equipment to 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.

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 of the device. Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### NOTE TO CABLE/TV INSTALLER

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the National Electric Code (U.S.A.). The code provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of the cable entry as practical.

### LG RECYCLING POLICY

LG Electronics offers a customized e-waste take-back and recycling service that meets local needs and requirements in the countries where e-waste regulations are in place, and also provides product and packaging take-back and recycling service voluntarily in some countries. LG Electronics evaluates products' recyclability at the design step using LG's recyclability evaluation tool, with the goal of improving recyclability where practicable. Through these activities, LG seeks to contribute to conserving natural resources and protecting the environment.

For more information about the LG Recycling Policy, please visit our global site at http://www.lg.com/global/sustainability/environment/take-back-recycling.

# **LICENSES**

Supported licenses may differ by model. For more information about licenses, visit www.lg.com.



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# **OPEN SOURCE SOFTWARE NOTICE**

To obtain the source code under GPL, LGPL, MPL and other open source licenses, that is contained in this product, please visit http://opensource.lge.com. In addition to the source code, all referred license terms, warranty disclaimers and copyright notices are available for download.

LG Electronics will also provide open source code to you on CD-ROM for a charge covering the cost of performing such distribution (such as the cost of media, shipping and handling) upon email request to opensource@lge.com. This offer is valid for three (3) years from the date on which you purchased the product.



- Image shown may differ from your product.
- The available menus and options may differ from the input source or product model that you are using.
- New features may be added to this product in the future.

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# ASSEMBLING AND PREPARING

# Unpacking

Check your product box for the following items. If there are any missing accessories, contact the local dealer where you purchased your product. The illustrations in this manual may differ from the actual product and item.







STB-2000



Owner's Manual



AC/DC Adapter

MPI Cable



**HDMI Cable** 



TLM Cable



A/V Adapter Cable

Dual Lock™



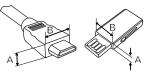
### CAUTION.

- Do not use any unapproved items to ensure the safety and product's lifespan.
- Any damages or injuries by using unapproved items are not covered by the warranty.



### NOTE

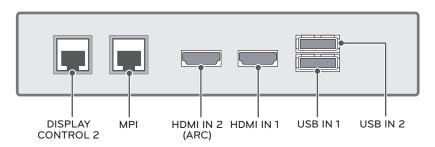
- The items supplied with your product may vary depending on the model.
- Product specifications or contents of this manual may be changed without prior notice due to upgrade of product functions.
- For an optimal connection, HDMI cables and USB devices should have bezels less than 10 mm (0.39 inches) thick and 18 mm (0.7 inches) width.
- Use an extension cable that supports USB 2.0 if the USB cable or USB memory stick does not fit into your TV's USB port.



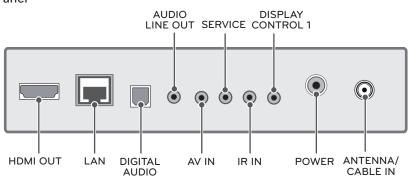
\*A ≦ 10 mm (0.39 inches) \*B ≦ 18 mm (0.7 inches)

# Parts and Components

### Front Panel



### Back Panel



# NOTE .

### ARC (Audio Return Channel)

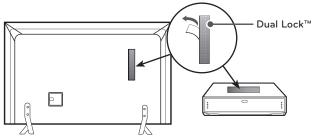
- When connected with a high-speed HDMI cable, digital audio can be sent to a compactible device without an additional optical audio cable.
- ARC is only supported on the HDMI input 2 port. An external audio device that supports ARC should be connected to HDMI IN 2 (ARC) if you wish to use ARC.

# How to use Dual Lock™ (Optional)

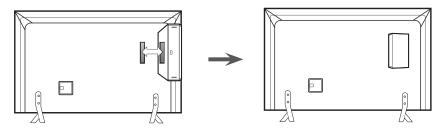
(Image shown may differ from your product.)

Fix the set-top box to the TV and use it when you want to.

1 After removing the protection paper from the Dual Lock, stick it to the TV and the set-top box as shown.



2 Attach the set-top box to the TV by pressing the Velcro strips together.





- Please make sure no foreign substances exist on the surface of the product, and then firmly attach the Dual Lock.
- Before attaching the set-top box to the TV set, let the attached Dual Lock dry for at least three days.

# MAKING CONNECTIONS

• Image shown may differ from your product.

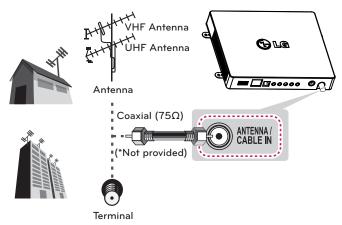
You can connect various external devices to the product. Supported external devices are: HD receivers, DVD players, VCRs, audio systems, USB storage devices, PC, gaming devices, and other external devices. For more information on external device's connection, refer to the manual provided with each device.



- If you record a TV program on a DVD recorder or VCR, make sure to connect the TV signal input cable to the STB through a DVD recorder or VCR. For more information about recording, refer to the manual provided with the connected device.
- The external device connections shown may differ slightly from illustrations in this manual.
- Connect external devices to the TV regardless about the order of the TV port.
- If you connect a gaming device to the STB, use the cable supplied with the gaming device.
- Refer to the external equipment's manual for operating instructions.
- Using a DVI to HDMI cable may cause compatibility issues.

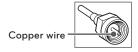
# Connecting to an Antenna or Cable

Connect an antenna, cable, or cable box to watch TV. The illustrations may differ from the actual items and an RF cable is optional.





 Make sure not to bend the copper wire of the RF cable.



 Complete all connections between devices, and then connect the power cord to the power outlet to prevent damage to your STB.

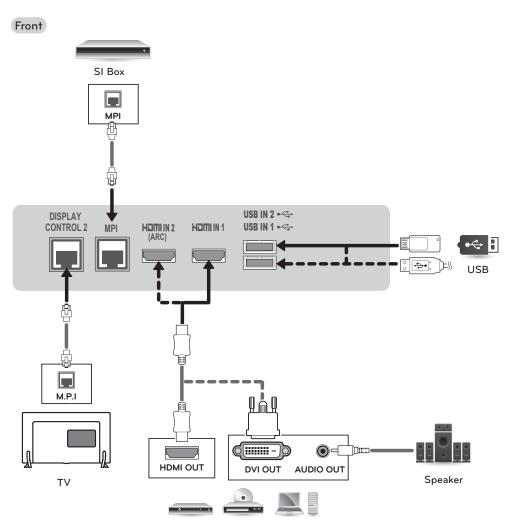


- Use a signal splitter to use 2 TVs or more.
- DTV Audio Supported Codec: MPEG, Dolby Digital

## Other Connections

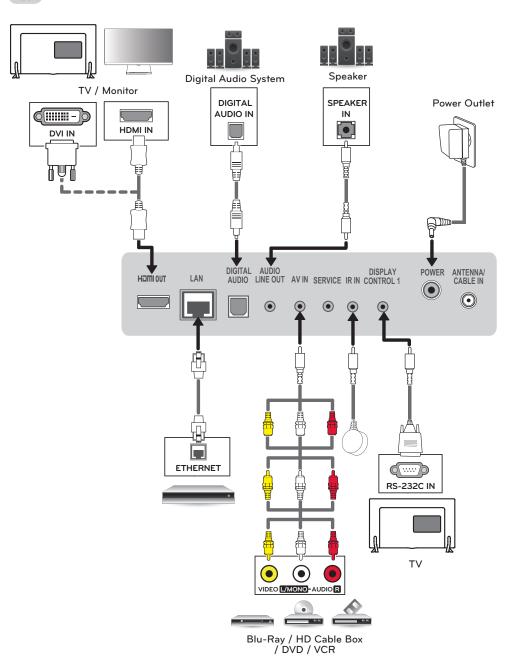
Connect your Set-Top Box to external devices. For the best picture and audio quality, connect digital devices using an HDMI cable.

- Image shown may differ from your product.
- Any separate cable is not provided.



Blu-Ray / HD Cable Box / HD STB / DVD / PC

## Back



# **MAINTENANCE**

# Cleaning your Set-Top Box

Clean your Set-Top Box regularly to keep it at peak performance and to extend the product's lifespan.

To remove dust or light dirt, wipe the surface with a dry, clean, and soft cloth.

To remove major dirt, wipe the surface with a soft cloth dampened in clean water or a diluted mild detergent. Then wipe immediately with a dry cloth.

Remove the accumulated dust or dirt on the AC/DC adapter regularly.

### . A CAUTION

- Before cleaning, turn the power off and disconnect the power cord and all other cables.
- When the Set-Top Box is left unattended or unused for a long time, disconnect the AC/DC adapter from the wall outlet to prevent possible damage from lightning or power surges.
- Do not push, rub, or hit the surface with your fingernail or a sharp object, as this may result in scratches on the product cover.
- Do not use any chemicals, such as waxes, benzene, alcohol, thinners, insecticides, air fresheners, or lubricants, as these may damage the product's finish and cause discoloration.
- Do not spray liquid onto the surface. If water enters the Set-Top Box, it may result in fire, electric shock, or malfunction.

# **TROUBLESHOOTING**

The software may be updated for improvement in performance. The customer is responsible to ensure the compatibility of their equipment with any LG Electronics software. If needed, please consult with LG Electronics and update new software versions according to the guidance provided by LG Electronics.

Problem	Solution
Cannot control the STB with the remote control.	Check if anything such as tape has been placed over the receiver.  Check if there is any obstacle between the product and the remote control.  Replace the batteries with new fresh ones.
STB does not output any video or audio.	Check if the product is turned on. Check if the power cord is connected to a wall outlet. Check if there is a problem in the wall outlet by connecting other products.
STB turns off suddenly.	<ul> <li>Check the power control settings. The power supply may be interrupted.</li> <li>Check if the auto off feature is activated in the Time settings.</li> </ul>
When connecting to the PC (HDMI/ DVI), 'No signal' or 'Invalid Format' is displayed.	<ul> <li>Turn the STB off/on using the remote control.</li> <li>Reconnect the HDMI/DVI cable.</li> <li>Restart the PC with the STB on.</li> </ul>

# **SPECIFICATIONS**

Product specifications may be changed without prior notice due to upgrade of product functions.

Television System		ATSC, NTSC-M, 64 & 256 QAM		
Program Coverage		VHF 2-13, UHF 14-69, DTV 2-69, CATV 1-135, CADTV 1-135		
External Antenna Impedance		75 Ω		
	Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)		
Environment	Operating Humidity	Less than 80 %		
condition	Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)		
	Storage Humidity	Less than 85 %		

MODELS	STB-2000		
Dimensions (M/v/L/v/D)	221 x 28.5 x 177.8 (mm)		
Dimensions (W x H x D)	8.7 x 1.1 x 7 (inches)		
Weight	0.5 kg (1.1 lbs)		
Power requirement	19 V <del></del> 2.1 A		
AC/DC Adapter	Manufacturer : Lien Chang Model : LCAP16B		

Wireless LAN module (WN8122E1) specification			
Standard	IEEE802.11a/b/g/n		
	2400 to 2483.5 MHz		
Frequency ragne	5150 to 5250 MHz		
	5725 to 5850 MHz		
	802.11a: 16.5 dBm		
	802.11b: 16 dBm		
Output power (Max.)	802.11g: 15.5 dBm		
	802.11n - 2.4GHz: 15.5 dBm		
	802.11n - 5GHz: 16.5 dBm		

- Because band channel used by the country could be different, the user can not change or adjust the
  operating frequency and this product is set for the regional frequency table.
- Contains FCC ID: BEJWN8122E1
- Contains IC: 2703H-WN8122E1

# HDMI (PC) supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
640 x 350	31.468	70.09
720 x 400	31.469	70.08
640 x 480	31.469	59.94
800 x 600	37.879	60.31
1024 x 768	48.363	60.00
1152 x 864	54.348	60.053
1360 x 768	47.712	60.015
1280 x 1024	63.981	60.02
1920 x 1080	67.50	60.00

# HDMI (DTV) supported mode

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)
720 v 400m	31.47	59.94
720 x 480p	31.50	60.00
1280 x 720p	44.96	59.94
1280 X 720p	45.00	60.00
1020 v 1000;	33.72	59.94
1920 x 1080i	33.75	60.00
	26.97	23.976
	27.00	24.00
1020 v 1000m	33.71	29.97
1920 x 1080p	33.75	30.00
	67.432	59.94
	67.50	60.00

# WARRANTY

Broadcast Products	Welcome to the LG family! We believe that you will be pleased with your new STB2000 HD Commercial Interface STB. Please read this warranty carefully, it is a "LIMITED WARRANTY" as defined under Federal Law. This warranty gives you specific legal rights, and you may also have other rights that vary from state-to-state within the U.S.A.		
LG's RESPONSIBILITY			
Warranty Term	One year parts and labor from date of purchase or delivery date.		
Parts	New or remanufactured replacements for factory-defective parts may be used. Such replacement parts are warranted for the remaining portion of the original warranty period.		
Warranty Service	Warranty service is provided at LG. Customer pays for shipping charges to LG; LG pays for return shipping charges to return STB2000 to customer. Call 1-888-865-3026 for further information.		
Not Covered	This warranty covers manufacturing defects and does not cover installation, adjustment of customer controls, installation or repair of antenna systems, cable converters or cable company-supplied equipment; it also does not cover damage due to misuse, abuse, negligence, acts of God or other causes beyond the control of LG. Any alteration of the product after manufacture voids this warranty in its entirety.  THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND LG SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES OF ANY KIND, INCLUDING LOST REVENUES OR PROFITS IN CONNECTION WITH THIS PRODUCT. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.		
OWNER'S RESPONSIBILITY			
Effective Warranty Date	Warranty begins on the date of delivery of the STB2000. For your convenience, keep the dealer's dated bill of sale or delivery ticket as evidence of the purchase date.		
Installation Guide	Read the Installation & Setup Guide carefully so that you will understand the operation of the STB2000 and how to adjust the controls.		
Antenna	Reception problems caused by inadequate antenna or faulty antenna connections are the owner's responsibility.		
Warranty Service	For warranty service information, call 1-888-865-3026. Parts and service labor that are LG's responsibility (see above) will be provided without charge. Other service is at the owner's expense. If you have any problem in obtaining satisfactory warranty service, call 1-888-865-3026. You must provide the model number, serial number and date of purchase or date of original installation.		

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### Declaration of Conformity

Trade Name: LG Model: STB-2000

Responsible Party: LG Electronics Inc. Address: 1000 Sylvan Ave.

Englewood Cliffs NJ 07632

U.S.A

TEL: 201-266-2534

# LG Customer Information Center

For inquires or comments, visit www.lg.com or call;

1-888-865-3026 USA, Commercial User

1-888-542-2623 CANADA

The model and serial number of the product are located on the back and on one side of the product. Record them below should you ever need service.



