



SIMPLE MANUAL

Wi-Fi SOUND BAR

SP9YA

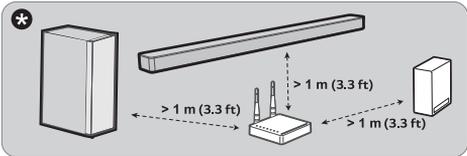
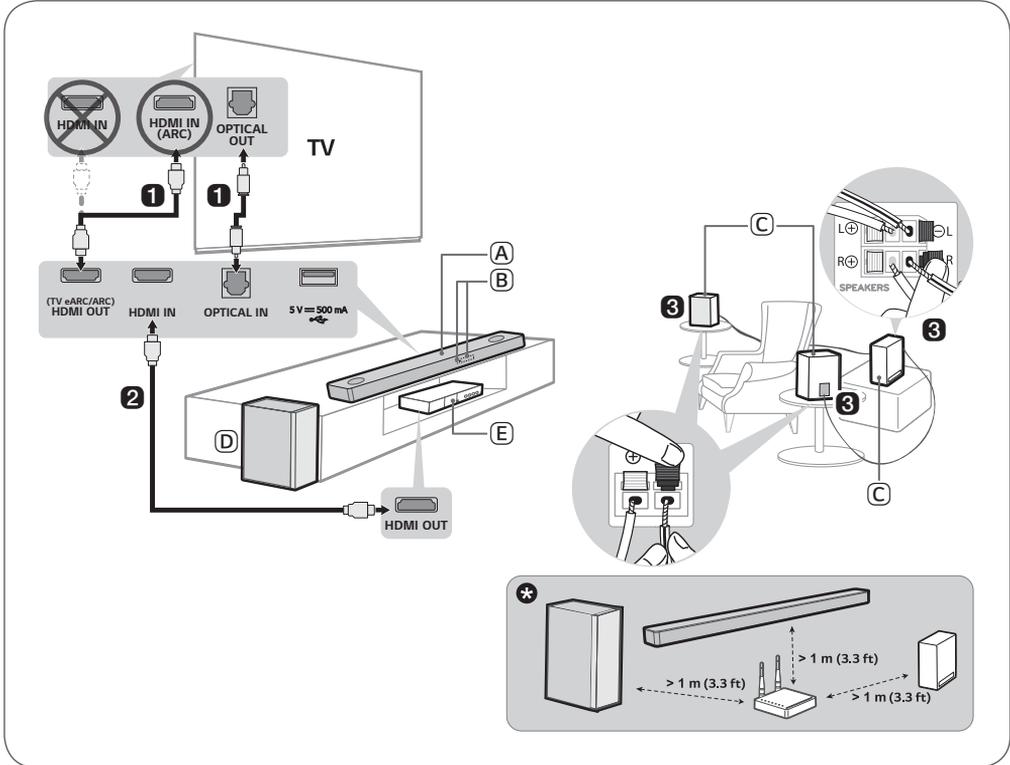
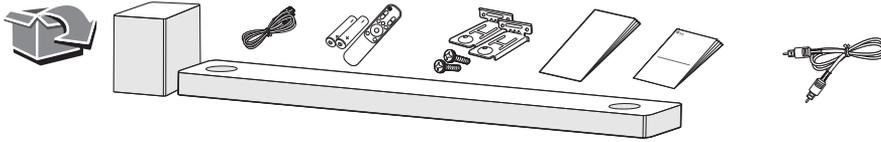


MFL71796935
2104_Rev02

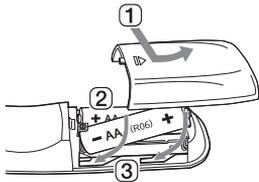


www.lg.com

Copyright © 2021 LG Electronics Inc. All Rights Reserved.



Replacement of Battery



HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

Please read this manual carefully before operating your set and retain it for future reference.
To view the instructions of advanced features, visit <http://www.lg.com> or scan QR code and then download Owner's Manual. Some of the content in this manual may differ from your product.



- (A) Sound bar
 (B) Remote Control Receiver / Status Display
 (C) Rear Speakers / Wireless Receiver (Sold separately, SPK8-S)
 (D) Wireless Subwoofer - Install it close to the sound bar.
 (E) External Device - (Blu-ray player, game console, etc.)

- 1 Connect the sound bar to your TV via an optical cable or an HDMI cable.
- 2 If you are using an external device (ex. Blu-ray player, game console, etc.), connect it to the sound bar via an HDMI cable.
- 3 If you purchased the rear speakers and wireless receiver separately, connect the rear speakers to the wireless receiver via a speaker cable. When connecting the rear speakers to the wireless receiver, connect the black striped cable to the negative terminal of each speaker and the remaining cable to the positive terminal of each speaker.
- 4 Connect to power in the following order: wireless subwoofer → wireless receiver → sound bar. Then, turn on the sound bar. When the connection is automatically established with the sound bar, the LEDs on the wireless subwoofer and the wireless receiver will light up in green.
- 5 Using the product with your TV
 - 1 Press the **Function** (Ⓜ) button repeatedly until "OPT/HDMI ARC" appears on the status display.
 - 2 On your TV's settings, set the output speaker to [HDMI ARC], [Optical], or [External Speaker].
 - 3 When the TV is properly connected to the product, "OPT", "ARC", or "E-ARC" will appear on the status display with a sound.
- 6 Connecting the product to your smartphone via Wi-Fi
 - 1 Connect your smartphone to Wi-Fi.
 - 2 Install the LG Sound Bar app on Google Play or the App Store.
 - 3 Run the LG Sound Bar app and follow the instructions.
 - 4 The product will connect to your smartphone and you can control the product with LG Sound Bar app.
- 7 Connecting the product to your smartphone via Bluetooth
 - 1 Tap the **Settings** (⚙) button on your smartphone and select **Bluetooth**. Turn on the **Bluetooth** function. (Off > On)
 - 2 Press the **Bluetooth pair** (🔗) button. After a moment, you will see "BT READY" on the status display.
 - 3 Find and tap "LG_Speaker_SP9YA_XXXX" or the name you registered on the Google Home app.
 - 4 When the product is connected to your smartphone via **Bluetooth**, you can see the status display change from "PAIRED" → "Connected Bluetooth device name" → "BT".



If you see a red LED on the back of the wireless subwoofer or on the front of the wireless receiver, it means that the sound bar is not connected to the speakers. If this is the case, connect them in the following order.

- 1 Press the **Power** (⏻) button on the sound bar to turn it off.
 - 2 Press the **PAIRING (Pairing)** button on the back of the disconnected wireless subwoofer or wireless receiver. Check if each LED blinks green.
 - If you still see a red LED on the back of the wireless subwoofer, press and hold the button on the back of the subwoofer again.
 - 3 Press the **Power** (⏻) button on the sound bar to turn it on.
 - 4 When the connection is established, you will see a green LED light on the back of the wireless subwoofer or on the front of the wireless receiver light up in green.
- * Keep the sound bar, the subwoofer and wireless receiver away from the device (ex. wireless router, microwave oven, etc.) over 1 m (3.3 ft) to prevent wireless interference.
 - Some speakers may not make sound depend on the input source. Select CINEMA sound mode to listen through all speakers.

- Design and specifications are subject to change without notice.
- Google Play is a trademark of Google LLC.

ENGLISH

Specification

Power requirements

- Refer to the main label.

Power consumption

- Refer to the main label.

Dimensions (W x H x D): Approx. 1220.0 mm x 57.0 mm x 145.0 mm (48.0 inch x 2.2 inch x 5.7 inch)

Bus Power Supply (USB): 5 V  500 mA

Amplifier (Total RMS Output power): 520 W RMS

OPEN SOURCE SOFTWARE NOTICE INFORMATION

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 a period of three years after our last shipment of this product. This offer is valid to anyone in receipt of this information.

FCC Compliance Statement

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. 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.

FCC RF Radiation Exposure Statement: This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment should be installed and operated with minimum distance 20 cm (7.8 inches) between the antenna and your body. Users must follow the specific operating instructions for satisfying RF exposure compliance.

FCC Radio Frequency Interference Requirements:

High power radars are allocated as primary users of the 5.25 to 5.35 GHz and 5.65 to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device. This device cannot be co-located with any other transmitter.

Supplier's Declaration of Conformity

Trade Name	LG
Responsible Party	LG Electronics USA, Inc.
Address	111 Sylvan Avenue, North Building Englewood Cliffs, New Jersey 07632
Email	lg.environmental@lge.com



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This 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 product.



WARNING:

- TO PREVENT FIRE OR ELECTRIC SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.
- Do not install this equipment in a confined space such as a book case or similar unit.

CAUTION:

- Do not use high voltage products around this product. (ex. Electrical swatter) This product may malfunction due to electrical shock.
- No naked flame sources, such as lighted candles, should be placed on the apparatus.
- Do not block any ventilation openings. Install in accordance with the manufacturer's instructions. Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from over heating. The openings should never be blocked by placing the product on a bed, sofa, rug or other similar surface. This product shall not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instruction has been adhered to.
- The Power Plug is the disconnecting device. In case of an emergency, the Power Plug must remain readily accessible.
- The apparatus should not be exposed to water (dripping or splashing) and no objects filled with liquids, such as vases, should be placed on the apparatus.
- For safety marking information including product identification and supply ratings, please refer to the main label on the bottom or the other surface of the product.

For models using an adapter

Only use the AC adapter supplied with this device. Do not use a power supply from another device or another manufacturer. Using any other power cable or power supply may cause damage to the device and void your warranty.

For models using a Laser device



This product employs a Laser System. To ensure proper use of this product, please read this owner's manual carefully and retain it for future reference. Shall the unit require maintenance, contact an authorized service center.

Use of controls, adjustments or the performance of procedures other than those specified herein may result in hazardous radiation exposure. To prevent direct exposure to laser beam, do not try to open the enclosure.

For models using a battery

This device is equipped with a portable battery or accumulator.

CAUTION: Risk of fire or explosion if the battery is replaced by an incorrect type.

How to Safely remove the batteries or the battery pack from the equipment: To Remove the old batteries or battery pack, follow the assembly steps in reverse order. To prevent contamination of the environment and bring on possible threat to human and/or animal health, the old batteries or the battery pack must be put in an appropriate container at designated collection points. Do not dispose of batteries or battery pack together with other waste. It is recommended that you use local, free reimbursement systems batteries or battery packs, (may not be available in your area). The batteries or the battery pack should not be exposed to excessive heat such as sunshine, fire or the like.

For models using a built-in battery

Do not store or transport at pressures lower than 11.6 kPa (0.116 bar) and at above 15,000 m (9.32 miles) altitude.

- replacement of a battery with an incorrect type that can defeat a safeguard (for example, in the case of some lithium battery types);
- disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion;
- leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas; and
- a battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. 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.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Only use attachments/accessories specified by the manufacturer.

12. 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 to avoid injury from tip-over.



13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. 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.

Symbols

~	Refers to alternating current (AC).
—	Refers to direct current (DC).
⊠	Refers to class II equipment.
⏻	Refers to stand-by.
I	Refers to "ON" (power).
⚡	Refers to dangerous voltage.

USA/Canada Only (Product with embedded rechargeable battery ONLY)

USA: In case rechargeable battery is included in this product, the entire device should be recycled in compliance with rechargeable battery recycling standards because of the internal battery. To dispose of properly, call (800) 822-8837 or visit www.call2recycle.org.

CANADA: In case rechargeable battery is included in this product, the rechargeable battery should be recycled in compliance with rechargeable battery recycling standards. To dispose of properly, call 1.800.822.8837 or visit www.call2recycle.ca.

LGE Open Source Software Notice

This product from LG Electronics, Inc. contains the open source software detailed below. Please refer to the indicated open source licenses (as are included following this notice) for the terms and conditions of their use.

Open Source	License	Copyright
alsa-lib 1.1.2	LGPL-2.1	
alsa-lib 1.1.1	LGPL-2.1	Copyright (c) 2000, Abramo Bagnara <abramo@alsa-project.org> Copyright (c) 1998-2006, Jaroslav Kysela <perex@perex.cz>
alsa-lib 1.0.29	LGPL-2.1	Copyright (c) 2000 by Abramo Bagnara <abramo@alsa-project.org>, Jaroslav Kysela <perex@perex.cz>
bash 3.2.57	GPL-2.0	Copyright (c) 1987-2005 Free Software Foundation, Inc.
Bellagio OpenMAX IL	LGPL-2.1	
coreutils 6.9	GPL-2.0	Copyright (c) 2005, 2006 Free Software Foundation, Inc.
dibbler 0.8.0	GPL-2.0	
DirectFB 1.2.7	LGPL-2.1	Copyright (c) 2001-2008 The world wide DirectFB Open Source Community (directfb.org) Copyright (c) 2000-2004 Convergence (integrated media) GmbH Written by Denis Oliver Kropp <dok@directfb.org>, Andreas Hundt <andi@fischlustig.de>, en Neumann <neo@directfb.org>, Ville Syrjälä <syrjala@sci.fi> and audio Ciccani <klan@users.sf.net>.
e2fsprogs 1.41.14	GPL-2.0 LGPL-2.1 MIT-like License (e2fsprogs)	Copyright (c) 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010 by Theodore Ts'o Copyright (c) 1987, 1988, 1989 Massachusetts Institute of Technology Student Information Processing Board
fdk-aac 2.0.1	Software License for The Fraunhofer FDK AAC Codec Library for Android	Copyright (c) 1995 - 2018 Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.
ffmpeg 3.4.2	LGPL-2.1	Copyright (c) 2002-2013, Michael Niedermayer <michaelni@gmx.at> Copyright (c) 2000-2003, Fabrice Bellard Copyright (c) 2012-2017, Paul B Mahol Copyright (c) 2008-2012, Mans Rullgard <mans@mansr.com> Copyright (c) 2012, MIPS Technologies, Inc., California. Copyright (c) 2003-2006, Roman Shaposhnik Copyright (c) 2006, Daniel Maas <dmaas@maasdigital.com>
findutils 4.2.31	GPL-2.0	Copyright (c) 2001, 2003, 2005, 2006 Free Software Foundation, Inc.
gawk 3.1.5	GPL-2.0	Copyright (c) 2008 Free Software Foundation, Inc.
gdb 6.6	GPL-2.0	
GLib 2.54.2	LGPL-2.1	Copyright (c) 2007-2011 The GNOME Project Copyright (C) 1995-1997 Peter Mattis, Spencer Kimball and Josh MacDonald Copyright (C) 2006-2007 Red Hat, Inc.
glibc 1.0.0	GPL-2.0 LGPL-2.1	
glibc 2.18	LGPL-2.1	
grep 2.5.1a	GPL-2.0	Copyright (c) 1996-2014 Free Software Foundation Inc.
gst-libav 1.12.5	GPL-2.0 LGPL-2.1	Copyright (c) 2002-2004 Michael Niedermayer <michaelni@gmx.at> Copyright (c) 2009 Robert Swain (rob opendot cl) Copyright (c) 2002 Jindrich Makovicka Copyright (c) 2011 Stefano Sabatini Copyright (c) 2000, 2001 Fabrice Bellard Copyright (c) 2015 Paul B Mahol

Open Source	License	Copyright
gst-plugins-bad 1.12.5	GPL-2.0 LGPL-2.1	Copyright (c) 2012,2015, Matthew Waters Copyright (c) 2008, Filippo Argiolas Copyright (c) 2008-2016, Julien Isorce Copyright (c) 1999, Erik Walthinsen Copyright (c) 2007, Alessandro Decina Copyright (c) 2010, Ole André Vadla Ravnås Copyright (c) 2008-2009, Sebastian Dröge
gst-plugins-base 1.12.5	LGPL-2.1	Copyright (c) Erik Walthinsen <omega@temple-baptist.com> Copyright (c) Matt Howell <mhowell@users.sourceforge.net> Copyright (c) Brent Bradburn <bbradburn@users.sourceforge.net> Copyright (c) Wim Taymans <wim.taymans@gmail.com> Copyright (c) Richard Boulton <richard@tartarus.org> Copyright (c) Zaheer Abbas Merali <zaheerabbas at merali dot org> Copyright (c) David I. Lehn <dlehni@users.sourceforge.net> Copyright (c) Chris Emerson <chris@tartarus.org> Copyright (c) Jens Thiele <karme@unforgettable.com> Copyright (c) Thomas Nyberg <thomas@codefactory.se> Copyright (c) Bastien Nocera <hadess@hadess.net> Copyright (c) Christian Fredrik Kalager Schaller <Uraeus@linuxrising.org> Copyright (c) Thomas Vander Stichele <thomas@apestaart.org> Copyright (c) Andy Wingo <wingo@pobox.com> Copyright (c) Cameron Hutchison <camh@xdna.net> Copyright (c) David Schleeff <ds@schleeff.org> Copyright (c) Benjamin Otte <in7y118@public.uni-hamburg.de> Copyright (c) Ronald Bultje <rbultje@ronald.bitfreak.net> Copyright (c) Julien MOUTTE <julien@moutte.net> Copyright (c) Jan Schmidt <thaytan@mad.scientist.com> Copyright (c) Arwed v. Merkatz <v.merkatz@gmx.net> Copyright (c) Tim-Philipp Müller <tim at centricular dot net> Copyright (c) Mark Borgerding <mark at borgerding dot net> (kissfft, used in libgstfft)
gst-plugins-good 1.12.5	LGPL-2.1	Copyright (C) 1999 Erik Walthinsen <omega@cse.ogi.edu> Copyright (c) 2005-2007, Wim Taymans Copyright (c) 2003, iOS-Software
gst-plugins-ugly 1.12.5	LGPL-2.1	Copyright (c) 1999, Erik Walthinsen Copyright (C) 2006 Tim-Philipp Müller <tim centricular net> Copyright (c) 2005-2007, Wim Taymans Copyright (C) <2009> Sebastian Dröge <sebastian.droege@collabora.co.uk>
Gstreamer 1.12.5	LGPL-2.1	Copyright (C) 1999,2000 Erik Walthinsen <omega@cse.ogi.edu> Copyright (C) 2000 Wim Taymans <wtay@chello.be> Copyright (C) <2005> Thomas Vander Stichele <thomas at apestaart dot org> Copyright (C) 2001, 2002 Arien Malec Copyright (C) 2005 Andy Wingo <wingo@pobox.com> Copyright (C) 2003 Benjamin Otte <in7y118@public.uni-hamburg.de> Copyright (C) 2007 Tim-Philipp Müller <tim centricular net> Copyright (C) 2008 Sebastian Dröge <sebastian.droege@collabora.co.uk>.
gzip 1.3.12	GPL-2.0	Copyright (c) 1999, 2001 Free Software Foundation, Inc. Copyright (c) 1992, 1993 Jean-loup Gailly
inetutils 1.4.2	GPL-2.0	Copyright (c) 2007 Free Software Foundation, Inc.,
iproute2 2.6.38	GPL-2.0	
iputils s20101006	GPL-2.0	Copyright (c)2002,2003,2004,2005,2007 YOSHIFUJI Hideaki
libgrypt 1.8.5	GPL-2.0 LGPL-2.1	Copyright (c) 2013-2016 Jussi Kivilinna <jussi.kivilinna@iki.fi> Copyright (c) 2012-2017 g10 Code GmbH Copyright (c) 2012, Intel Corporation Copyright (c) 2013 Stephan Mueller <smueller@chronox.de>
libgpg-error 1.36	LGPL-2.1	Copyright (c) 2003-2007, 2013-2017 g10 Code GmbH
libmms 0.6.4	LGPL-2.1	
libmtp 1.1.6	LGPL-2.1	Copyright (c) Richard Low <richard@wentnet.com> Copyright (c) Linus Walleij <triad@dfth.se> Copyright (C) 2011-2012 Sajid Anwar <sajidanwar94@gmail.com>

Open Source	License	Copyright
libnl 1.1	LGPL-2.1	Copyright (c) 2003-2008 Thomas Graf <tgraf@suug.ch> Copyright (c) 2007 Secure Computing Corporation Copyright (c) 2007 Philip Craig <philipc@snapgear.com> Copyright (c) 2005-2006 Siemens AG Oesterreich Copyright (c) 2005-2006 Petr Gotthard <petr.gotthard@siemens.com> Copyright (c) 2003-2006 Thomas Graf <tgraf@suug.ch> Baruch Even <baruch@ev-en.org>, Mediatrix Telecom, inc. <erictb@mediatrix.com>
libsoup 2.50.0	LGPL-2.1	Copyright (c) 2007-2012, Red Hat, Inc. Copyright (c) 2000-2003, Ximian, Inc. Copyright (c) 2005, 2007 Novell, Inc. Copyright (c) 2009-2010, 2012, Igalia S.L. Copyright (c) 2009, 2011-2012, Collabora Ltd.
libusb 1.0.9	LGPL-2.1	Copyright (C) 2007-2009 Daniel Drake <dsd@gentoo.org> Copyright (c) 2001 Johannes Erdfelt <johannes@erdfelt.com> Copyright (C) 2008-2012 Nathan Hjelm <hjelm@users.sourceforge.net> Copyright (C) 2009-2012 Pete Batard <pete@akeo.ie> Copyright (C) 2010 Michael Plante <michael.plante@gmail.com> Copyright (C) 2010-2012 Peter Stuge <peter@stuge.se> Copyright (C) 2011-2012 Hans de Goede <hdegoede@redhat.com> Copyright (C) 2012 Martin Pieuchot <mpi@openbsd.org>
Linux Kernel 4.9.134	GPL-2.0	-
linux-fusion 8.2.0	GPL-2.0	
live555	LGPL-2.1	Copyright (c) 1996-2016 Live Networks, Inc.
module-init-tools 3.12	GPL-2.0	
mpg123 1.22.4	LGPL-2.1	Copyright (c) 1995-2013 by Michael Hipp and others
mtd-utils 1.2.0	GPL-2.0	
net-tools 1.60	GPL-2.0	Copyright (c) 1988-1994 MicroWalt Corporation Copyright (c) 1995-1996 Bernd Eckenfels Copyright (c) 1997-2000 Andi Kleen Copyright (c) 1997-2000 Donald Becker Copyright (c) 2008-2009 Luk Claes, Mart'n Ferrari Copyright (c) 2000-2007 Bernd Eckenfels Copyright (c) 2000 Anthony Towns
procps 3.2.8	GPL-2.0 LGPL-2.1	
psmisc 22.13	GPL-2.0	
SaWMan 1.4.0	LGPL-2.1	
sbcc 1.4	GPL-2.0	Copyright (c) 2008-2010 Nokia Corporation Copyright (c) 2004-2010 Marcel Holtmann <marcel@holtmann.org> Copyright (c) 2004-2005 Henryk Plöetz <henryk@ploetzli.ch> Copyright (c) 2005-2008 Brad Midgley <bmidgley@xmission.com>
sed 4.1.5	GPL-2.0	
sysvinit 2.88dsf	GPL-2.0	Copyright (c) 1991-2004 Miquel van Smoorenburg
sysvinit 2.88	GPL-2.0	Copyright (c) 1991-2004 Miquel van Smoorenburg
tar 1.17	GPL-2.0	
U-Boot 2009.08	GPL-2.0	Copyright (c) 2000 - 2008, Wolfgang Denk, DENX Software Engineering
udhcp 0.99	GPL-2.0	
Util-Linux-ng 2.18	GPL-2.0	
Wireless Tools 29	GPL-2.0	Copyright (c) 1996-2008 Jean Tourrilhes

The source code for the above may be obtained free of charge from LG Electronics, Inc. at <https://opensource.lge.com>. LG Electronics, Inc. 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 a period of three years after our last shipment of this product. This offer is valid to anyone in receipt of this information.

Please be informed that LG Electronics, Inc. product may contain open source software listed in the tables below.

Open Source	License	Copyright
AVS Device SDK 1.19.1	Apache-2.0	Copyright (c) 2016-2019 Amazon.com, Inc. or its affiliates.
Boost 1.66.0	BSL-1.0	Copyright (c) 2003-2017 Christopher M. Kohlhoff Copyright (c) 2013-2017 Louis Dionne Copyright (c) 2001-2011 Joel de Guzman
c-ares 1.12.0	MIT-like License (c-ares)	Copyright (c) 2007 - 2016, Daniel Stenberg. Copyright (c) 1998, the Massachusetts Institute of Technology.
c-ares	MIT-like License (c-ares)	Copyright (c) 2007 - 2016, Daniel Stenberg. Copyright (c) 1998, the Massachusetts Institute of Technology.
civetweb 1.6	MIT	Copyright (c) 2013-2014 The CivetWeb developers ([CREDITS.md](https://github.com/civetweb/civetweb/blob/master/CREDITS.md)) Copyright (c) 2004-2013 Sergey Lyubka Copyright (c) 2013 No Face Press, LLC (Thomas Davis) Copyright (c) 2013 F-Secure Corporation
cJSON 1.7.11	MIT	Copyright (c) 2009-2017 Dave Gamble and cJSON contributors
cpplint	BSD-3-Clause	Copyright (c) 2009 Google Inc.
curl 7.66.0	curl	Copyright (c) 1998 - 2017, Daniel Stenberg
curl	curl	Copyright (c) 1996 - 2008, Daniel Stenberg, <daniel@haxx.se>.
dbus 1.4.16	AFL-2.1	
dbus 1.12.2	AFL-2.1	Copyright (C) 2003 CodeFactory AB Copyright (C) 2002, 2003, 2004 Red Hat Inc. Copyright (C) 2007 Ralf Habacker <ralfhabacker@freenet.de> Copyright (C) 2003 Philip Blundell <philb@gnu.org> Copyright (C) 2006 Thiago Macieira <thiago@kde.org> Copyright (C) 2011 Nokia Corporation Copyright (C) 2005 Novell, Inc.
expat 2.2.5	MIT	Copyright (c) 1998-2000 Thai Open Source Software Center Ltd and Clark Cooper Copyright (c) 2001-2017 Expat maintainers
FreeBSD	BSD-2-Clause-FreeBSD	Copyright (c) 1992-2017 The FreeBSD Project.
freetype 2.9	FTL	Copyright (c) 2006-2018 David Turner, Robert Wilhelm, and Werner Lemberg.
HarfBuzz	MIT-like License (HarfBuzz)	
jpeg 7	IJG	copyright (C) 1991-1998, Thomas G. Lane.
libffi 3.2.1	MIT	Copyright (c) 1996-2014 Anthony Green, Red Hat, Inc and others. Copyright (c) 2011 Anthony Green Copyright (c) 2008 Red Hat, Inc. Copyright (c) 2006 Free Software Foundation, Inc. Copyright (c) 2003-2004 Randolph Chung <tausq@debian.org>
libogg 1.3.3	BSD-3-Clause	Copyright (c) 2002, Xiph.org Foundation
libvorbis 1.3.6	BSD-3-Clause	Copyright (c) 2002-2018 Xiph.org Foundation
libvorbis	BSD-3-Clause	Copyright (c) 2002-2008 Xiph.org Foundation
libxml2 2.9.9	MIT	Copyright (c) 1998-2012 Daniel Veillard
libxml2 2.9.8	MIT	Copyright (c) 1998-2012 Daniel Veillard
Mbed TLS 2.16.5	Apache-2.0	Copyright (c) 2006-2015, ARM Limited
mDNSResponder 878.270.2	Apache-2.0 BSD-3-Clause NICTA Public Software Licence 1.0	Copyright (c) 1997-2018, Apple Computer, Inc. Copyright (c) 2004, National ICT Australia Ltd
Mongoose	MIT	Copyright (c) 2004-2010 Sergey Lyubka
ncurses 5.7	MIT-like License (ncurses)	
nghttp2 1.39.1	MIT	Copyright (c) 2012, 2014, 2015, 2016 Tatsuhiro Tsujikawa Copyright (c) 2012, 2014, 2015, 2016 nghttp2 contributors
nghttp2 1.21.1	MIT	Copyright (c) 2012, 2014, 2015, Tatsuhiro Tsujikawa Copyright (c) 2012, 2014, 2015, nghttp2 contributors
ntp 4.3.77	BSD-2-Clause NTP	Copyright (c) Network Time Foundation 2011-2015 Copyright (c) University of Delaware 1992-2015

Open Source	License	Copyright
ogay-sha2	BSD-3-Clause	Copyright (c) 2005, 2007 Olivier Gay <olivier.gay@a3.epfl.ch>
openssl 1.1.0m	OpenSSL	Copyright (c) 1998-2019 The OpenSSL Project Copyright (c) 1995-1998 Eric A. Young, Tim J. Hudson
openssl 1.1.0	OpenSSL	Copyright (c) 1998-2016 The OpenSSL Project. Copyright (c) 1995-1998 Eric Young (eay@cryptsoft.com)
openssl 1.0.2p	OpenSSL	Copyright (c) 1998-2015 The OpenSSL Project Copyright (c) 1995-1998 Eric A. Young, Tim J. Hudson
Opus 1.3	BSD-3-Clause	Copyright (c) 2001-2011 Xiph.Org, Skype Limited, Octasic Copyright (c) 2001-2011 Jean-Marc Valin, Timothy B. Terriberry Copyright (c) 2001-2011 CSIRO, Gregory Maxwell, Mark Borgerding Copyright (c) 2001-2011 Erik de Castro Lopo
Opus 1.1.4	BSD-3-Clause	Copyright (c) 2001-2011 Xiph.Org, Skype Limited, Octasic Copyright (c) 2001-2011 Jean-Marc Valin, Timothy B. Terriberry Copyright (c) 2001-2011 CSIRO, Gregory Maxwell, Mark Borgerding Copyright (c) 2001-2011 Erik de Castro Lopo
PortAudio 19.6.0	MIT	Copyright (c) 1999-2008 Phil Burk and Ross Bencina
PuTTY 0.60	MIT	Copyright (c) 1997-2014 Simon Tatham
strace 4.5.20	BSD-3-Clause	Copyright (c) 1991, 1992 Paul Kranenburg <pk@cs.few.eur.nl> Copyright (c) 1993 Branko Lankester <branko@hacktic.nl> Copyright (c) 1993 Ulrich Pegelow <pegelow@moorea.uni-muenster.de> Copyright (c) 1995, 1996 Michael Elizabeth Chastain <mec@duracef.shout.net> Copyright (c) 1993, 1994, 1995, 1996 Rick Sladkey <jrs@world.std.com>
tinyalsa	BSD-3-Clause	Copyright (c) 2011, The Android Open Source Project
tremor	BSD-3-Clause	Copyright (c) 2002, Xiph.org Foundation
Unicode Bidirectional Algorithm	Unicode-TOU	Copyright (c) 2016, Unicode, Inc.
uriparser 0.7.5	BSD-3-Clause	Copyright (c) 2007, Weijia Song <songweijia@gmail.com> Copyright (c) 2007, Sebastian Pipping <webmaster@hartwork.org>
Uthash 1.9.9	BSD-1-Clause	Copyright (c) 2005-2014, Troy D. Hanson
wpa_supplicant 2.0	BSD-3-Clause	Copyright (c) 2002-2015, Jouni Malinen <j@w1.fi> and contributors
Xerces C++ 3.1.1	Apache-2.0	Copyright (c) 1999-2015 Apache Software Foundation Copyright (c) 1999 IBM Corporation.
zlib 1.2.8	Zlib	Copyright (c) 1995-2013 Jean-loup Gailly and Mark Adler
zlib 1.2.3	Zlib	Copyright (c) 1995-2013 Jean-loup Gailly and Mark Adler
zlib 1.2.11	Zlib	Copyright (c) 1995-2017 Jean-loup Gailly and Mark Adler

IJG Attribution

This software is based in part on the work of the Independent JPEG Group.

OpenSSL Attribution

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (<http://www.openssl.org/>)

GPL-2.0

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991

Copyright (C) 1989, 1991 Free Software Foundation, Inc.

51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.
- b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.
- c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

- a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,
- c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for

noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty, and each file should have at least the "copyright" line and a pointer to where the full notice is found.

one line to give the program's name and an idea of what it does. Copyright (C) yyyy name of author

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA. Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

Gnomovision version 69, Copyright (C) year name of author Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'. This is free software, and you are welcome to redistribute it under certain conditions; type `show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the program `Gnomovision' (which makes passes at compilers) written by James Hacker.

signature of Ty Coon, 1 April 1989 Ty Coon, President of Vice

LGPL-2.1

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc.
51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also

provides other free software developers less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you."

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

(For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy.

This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1

and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.

e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty, and each file should have at least the "copyright" line and a pointer to where the full notice is found.

one line to give the library's name and an idea of what it does.

Copyright (C) year name of author

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in
the library 'Frob' (a library for tweaking knobs) written
by James Random Hacker.

signature of Ty Coon, 1 April 1990

Ty Coon, President of Vice
That's all there is to it!

License URLs

- AFL-2.1 : <https://opensource.lge.com/license/AFL-2.1.html>
- Apache-2.0 : <https://opensource.lge.com/license/Apache-2.0.html>
- BSD-1-Clause : <https://opensource.lge.com/license/BSD-1-Clause.html>
- BSD-2-Clause : <https://opensource.lge.com/license/BSD-2-Clause.html>
- BSD-2-Clause-FreeBSD : <https://opensource.lge.com/license/BSD-2-Clause-FreeBSD.html>
- BSD-3-Clause : <https://opensource.lge.com/license/BSD-3-Clause.html>
- BSL-1.0 : <https://opensource.lge.com/license/BSL-1.0.html>
- FTL : <https://opensource.lge.com/license/FTL.html>
- GPL-2.0 : <https://opensource.lge.com/license/GPL-2.0.html>
- IJG : <https://opensource.lge.com/license/IJG.html>
- LGPL-2.1 : <https://opensource.lge.com/license/LGPL-2.1.html>
- MIT : <https://opensource.lge.com/license/MIT.html>
- MIT-like License (HarfBuzz) : [https://opensource.lge.com/license/MIT-like_License_\(HarfBuzz\).html](https://opensource.lge.com/license/MIT-like_License_(HarfBuzz).html)
- MIT-like License (c-ares) : [https://opensource.lge.com/license/MIT-like_License_\(c-ares\).html](https://opensource.lge.com/license/MIT-like_License_(c-ares).html)
- MIT-like License (e2fsprogs) : [https://opensource.lge.com/license/MIT-like_License_\(e2fsprogs\).html](https://opensource.lge.com/license/MIT-like_License_(e2fsprogs).html)
- MIT-like License (ncurses) : [https://opensource.lge.com/license/MIT-like_License_\(ncurses\).html](https://opensource.lge.com/license/MIT-like_License_(ncurses).html)
- NICTA Public Software Licence 1.0 : https://opensource.lge.com/license/NICTA_Public_Software_Licence_1.0.html
- NTP : <https://opensource.lge.com/license/NTP.html>
- OpenSSL : <https://opensource.lge.com/license/OpenSSL.html>
- Software License for The Fraunhofer FDK AAC Codec Library for Android : https://opensource.lge.com/license/Software_License_for_The_Fraunhofer_FDK_AAC_Codec_Library_for_Android.html
- Unicode-TOU : <https://opensource.lge.com/license/Unicode-TOU.html>
- Zlib : <https://opensource.lge.com/license/Zlib.html>
- curl : <https://opensource.lge.com/license/curl.html>

LG Electronics, Inc. Limited Warranty - USA

Should your LG Electronics product ("Product") fail due to a defect in material or workmanship under normal use, during the warranty period ("Warranty Period") set forth below, LG Electronics ("LG") will, at its option either repair or replace the Product upon receipt of original Proof of Purchase ("POP"). This limited warranty is valid only to the original retail purchaser of the Product ("Customer" or "You") and applies only when purchased and used within the continental United States, Alaska, Hawaii, and U.S. Territories.

<p>WARRANTY PERIOD:</p> <p>Parts: One (1) Year from Original Purchase Date</p> <p>Labor: One (1) Year from Original Purchase Date</p> <p>Replacement products or repair parts may be new or remanufactured, and are warranted for the remaining portion of the original Product's warranty period.</p> <p>NOTE: If the original date of purchase cannot be verified, the warranty will begin on the 1st day of the manufacture month.</p>	<p>HOW SERVICE IS HANDLED:</p> <p>Visit www.lg.com or Call 1-800-243-0000 for troubleshooting assistance or, if necessary, for instruction on Product repair or replacement.</p> <p>In-bound and out-bound shipping will be paid by LG during the Warranty Period.</p> <p>For any service related inquiries, or to get use and maintenance tips for your Product, please contact LG Customer Service.</p>
---	---

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THE PRODUCT IS LIMITED IN DURATION TO THE DURATION OF THE ABOVE LIMITED WARRANTY. UNDER NO CIRCUMSTANCE SHALL LG BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING, WITHOUT LIMITATION, LOST GOODWILL, LOST REVENUE OR PROFITS, WORK STOPPAGE, PRODUCT FAILURE, IMPAIRMENT OF OTHER GOODS, LOSS OR CORRUPTION OF PROGRAMMING OR DATA, LOSS OF USE, INJURY TO PERSONS OR PROPERTY ARISING OUT OF OR RELATED TO THE PRODUCT. LG'S TOTAL LIABILITY, IF ANY, DAMAGES OR OTHERWISE, SHALL NOT EXCEED THE INVOICE VALUE PAID BY CUSTOMER FOR THE PRODUCT FURNISHED, WHICH IS THE SUBJECT OF A CLAIM OR DISPUTE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO CUSTOMER. THIS LIMITED WARRANTY GIVES CUSTOMER SPECIFIC LEGAL RIGHTS. CUSTOMER MAY ALSO HAVE OTHER RIGHTS THAT VARY FROM STATE TO STATE.

THIS LIMITED WARRANTY DOES NOT APPLY TO:

- Service trips to deliver, pick up, install, educate on how to operate, correct wiring or for unauthorized repairs.
- Damage to or failure of the Product to perform during power failures, interruptions, or inadequate electrical service.
- Damage or failure resulting from operating or using the Product in any way contrary to the instructions, for other than the Product's intended purpose, or in conditions contrary to those recommended or outlined in the Product's Owner's Manual.
- Damage (including cosmetic damage), deterioration, malfunction, loss or personal injury due to misuse, abuse, negligence, improper maintenance or storage, or to acts of nature or other causes beyond our control. (Causes beyond our control include, but are not limited to, pest or vermin, lightning strike, wind, fire, power surges, water damage, or flood.)
- Damage or failure resulting from improper installation, repair, maintenance, or foreign objects placed in or connected to the Product. Improper repair to include use of parts not approved or specified by LG.
- Damage or failure caused by unauthorized modification, alteration, adjustment of user controls, calibration, accessories or separate system components, or due to use with incompatible mobile devices.
- Damage or failure caused by reception problems due to inadequate home antenna or faulty antenna connections, or computer software.
- Damage or failure caused by incorrect electrical current, voltage, components or consumable cleaning products that are not approved by LG.
- Damage or failure caused by transportation and/or handling, including scratches, dents, chips, and/or other damage to the finish of your Product, unless such damage results from defects in materials or workmanship, and is reported within one (1) week of delivery.
- Damage to or failure of any display, open box, discounted, or refurbished Product.
- Product with original serial numbers that have been removed, altered, or cannot be readily determined.
- Increases in utility costs and additional utility expenses.
- Any accessories and software not approved or specified by LG.
- Damage or failure that results from Institutional or commercial use.

The cost of repair or replacement under the above mentioned excluded circumstances shall be borne by the customer.

<p>For the nearest Authorized Service Center, Where to buy, or Product Use & Maintenance Assistance</p>	<p>Visit www.lg.com or call 1-800-243-0000 and select the appropriate product support from available options.</p> <p>To contact LG by mail, write to: LG Customer Interactive Center PO Box 240007, 201 James Record Road, Huntsville, Alabama 35813</p>
--	--

LG Electronics U.S.A., Inc.
111 Sylvan Avenue
Englewood Cliffs, NJ07632 USA





LG Customer Information Center

1-800-243-0000	USA, Consumer
1-888-865-3026	USA, Commercial

Register your product Online!

www.lg.com

Printed in China