

MusicCAST²

MCX-RC100

Network Music Commander

MCX-A300/MCX-P200

Network Music Player

Thank you for purchasing this Yamaha product.
For complete description of MusicCAST2 products,
please check the following website.

MusicCAST2 website:

www.yamaha.com/musiccast

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■ About this manual

This manual is printed prior to production. Design and specifications are subject to change in part as a result of improvements, etc. In case of differences between the manual and product, the product has priority.

This manual explains safety precautions and specifications of your products.
Complete description of MusicCAST2 products is available on the following website.
To access the MusicCAST2 website, please enter the following URL on your browser.

MusicCAST2 website:
www.yamaha.com/musiccast

Safety instructions

FCC INFORMATION (for US customers)

1 IMPORTANT NOTICE : DO NOT MODIFY THIS UNIT!

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

2 IMPORTANT : When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

3 NOTE : This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices.

This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices.

Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to coaxial type cable. If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Electronics Corp., U.S.A. 6660 Orangethorpe Ave, Buena Park, CA 90620. The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.

COMPLIANCE INFORMATION STATEMENT

(DECLARATION OF CONFORMITY PROCEDURE)

Responsible Party: Yamaha Electronics Corporation,
U.S.A.
Address: 6660 Orangethorpe Avenue Buena
Park, CA 90620
Telephone: 714-522-9105
Fax: 714-670-0108
Type of Equipment: NETWORK MUSIC COMMANDER,
NETWORK MUSIC PLAYER
Model Name: MCX-RC100,
MCX-A300, MCX-P200

This device complies with Part 15 of FCC Rules and RSS-Gen of IC 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.

See user manual instructions if interference to radio reception is suspected.

Yamaha Canada Music Ltd.

135 Milner Ave., Scarborough, Ontario, M1S 3R1, Canada

FCC WARNING

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

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 receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

(MCX-A300/MCX-P200 only)

This equipment complies with FCC/IC radiation exposure limits set forth for uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE). But it is desirable that it should be installed and operated with at least 20 cm and more between the radiator and person's body (excluding extremities: hands, wrists, feet and ankles).

(MCX-RC100 only)

The available scientific evidence does not show that any health problems are associated with using low power wireless devices. There is no proof, however, that these low power wireless devices are absolutely safe. Low power Wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low-level RF that does not produce heating effects causes no known adverse health effects. Many studies of low-level RF exposures have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research. MCX-RC100 has been tested and found to comply with FCC/IC radiation exposure limits set forth for uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules.



This symbol mark is according to the EU directive 2002/96/EC. This symbol mark means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste. Please act according to your local rules and do not dispose of your old products with your normal household waste.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

■ Precautions

Read this before using this unit.

To assure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.

- 1 Install this unit in a cool, dry, clean place away from direct sunlight, heat sources, and sources of excessive vibration, dust, moisture, and/or cold. (Do not use/keep this unit in a car etc.)
- 2 Locate this unit away from other electrical appliances, motors, or transformers to avoid humming sounds.
- 3 Do not expose this unit to sudden temperature changes from cold to hot, and do not locate this unit in an environment with high humidity (i.e. a room with a humidifier) to prevent condensation inside this unit, which may cause an electrical shock, fire, damage to this unit, and/or personal injury.
- 4 Do not clean this unit with chemical solvents; this might damage the finish. Use a clean, dry cloth.
- 5 Do not attempt to modify or fix this unit. Contact qualified Yamaha service personnel when any service is needed. The cabinet should never be opened for any reason.
- 6 Be sure to read the “Troubleshooting” section (online manual) regarding common operating errors before concluding that the unit is faulty.
- 7 Before moving this unit, disconnect all AC plugs from the wall outlets.
- 8 Be sure to use the AC adapters supplied with this unit. Using an AC adapter other than those provided may cause fire or damage to this unit.
- 9 Install this unit near the wall outlet and where the AC plugs can be reached easily.
- 10 For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.

■ Notes on the internal battery

- **Do not attempt to replace the internal battery by yourself. If you need a battery change, please contact the nearest authorized Yamaha dealer or service center.**
- Danger of explosion may occur if battery/device is incorrectly replaced. Replace only with the same or equivalent type battery recommended by the manufacturer.
- Do not dispose of batteries/device in a fire. They may explode. Check with local authorities for disposal instructions.
- Do not use or leave the battery pack/device near a heat source. Heat can melt the insulation and damage other safety features, possibly leading it to leak acid, overheat, emit smoke, burst and/or ignite.
- Do not immerse the battery pack/device in water or allow it to get wet. Its protective features can be damaged. Abnormal chemical reactions may occur, possibly leading it to leak acid, overheat, emit smoke, burst and/or ignite.
- Do not crush, disassemble, puncture, or incinerate the short external contacts of a battery pack/device.
- Do not connect the positive (+) and negative (-) terminals with a metal object such as wire. Short-circuiting may occur leading the battery pack/device to leak acid, overheat, emit smoke, burst and/or ignite.

The user shall not reverse engineer, decompile, alter, translate or disassemble the software used in this unit, whether in part or in whole. For corporate users, employees of the corporation itself as well as its business partners shall observe the contractual bans stipulated within this clause. If the stipulations of this clause and this contract cannot be observed, the user shall immediately discontinue using the software.

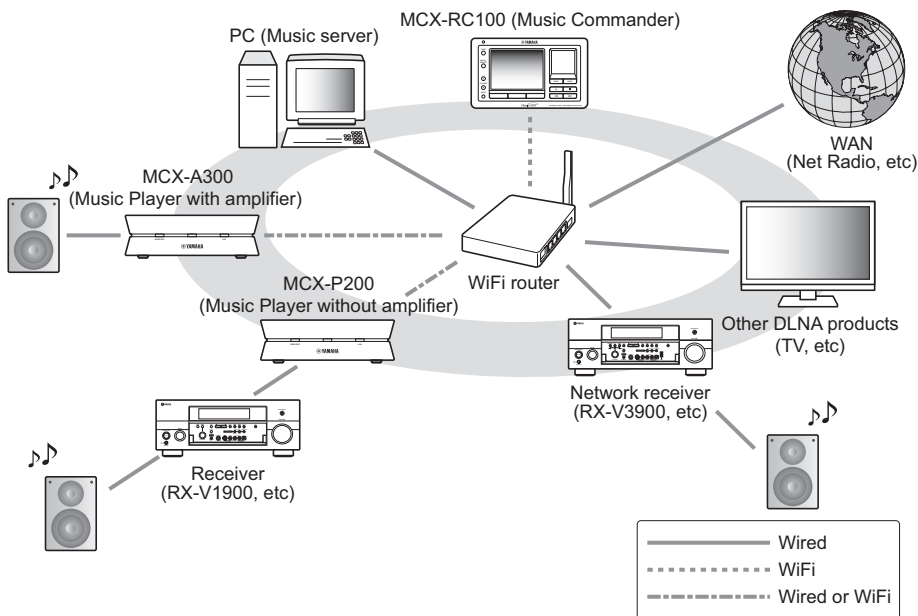
If there should be color blotching or noise when used near a TV, move this unit away from the TV when using it.

Do not use this unit within 22 cm (9 inches) of persons with a heart pacemaker implant or defibrillator implant.

This unit is not disconnected from the AC power source as long as it is connected to the wall outlet, even if this unit itself is turned off. In this state, this unit is designed to consume a very small quantity of power.

Overview

Yamaha MusicCAST2 system enables you to enjoy listening to music contents stored on your music servers or Internet radio programs anywhere in the home. In addition, with the Music Commander, you can control the playback of devices (USB storage device, iPod, etc) connected to your Network Music Player, network receiver (such as RX-V3900) and other DLNA products.



■ Checking the package contents

MCX-RC100 (Network Music Commander)

- Main unit x 1
- Cradle (MCX-RC100BC) x 1
- AC adapter x 1
- Owner's Manual (this manual) x 1
- Getting Started x 1
- TwonkyMedia Server License Key sheet x 1
- Warranty card x 1

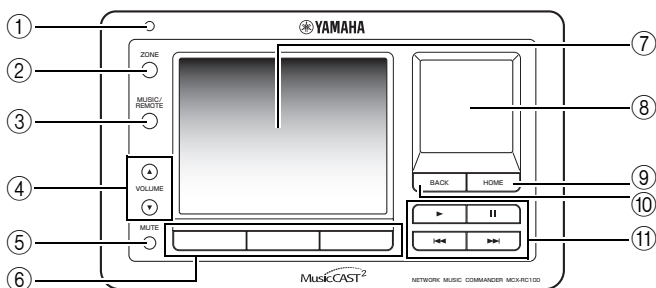
MCX-A300/MCX-P200 (Network Music Player)

- Main unit x 1
- AC adapter x 1
- Power cable x 1
- IR flasher x 2 (MCX-P200 only)
- Owner's Manual (this manual) x 1
- Getting Started x 1
- Warranty card x 1

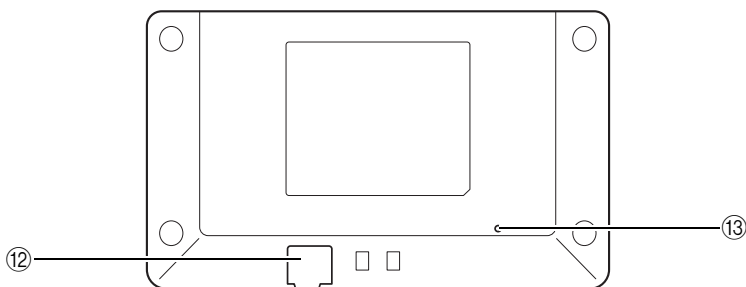
Controls and functions

■ MCX-RC100 (Network Music Commander)

Front



Back



① Light sensor

Detects light to automatically adjust the brightness of the LCD display.

② ZONE

Displays the menu to select a playback zone.

③ MUSIC/REMOTE

- Displays the menu to browse music contents.
- Press repeatedly to switch to the remote control mode (for MCX-P200)

④ VOLUME Δ / ∇

Adjusts the volume level.

⑤ MUTE

Turns on/off the audio mute.

⑥ Function keys

Select a corresponding menu displayed in the LCD display.

⑦ LCD display

Displays menu screen or playback information.

⑧ Control pad

- Move your finger across the control pad to move the selection from side to side or up and down.
- Press to enter the highlighted menu or confirm the selection.

⑨ HOME

Returns to the top menu screen.

⑩ BACK

Returns to the previous menu screen.

⑪ Playback control keys

- ▶ Start playback
- || Pause (stop) playback
- ◀▶ Skip backward/forward

⑫ Adapter connector

For directly connecting the AC adapter.

⑬ Reset button

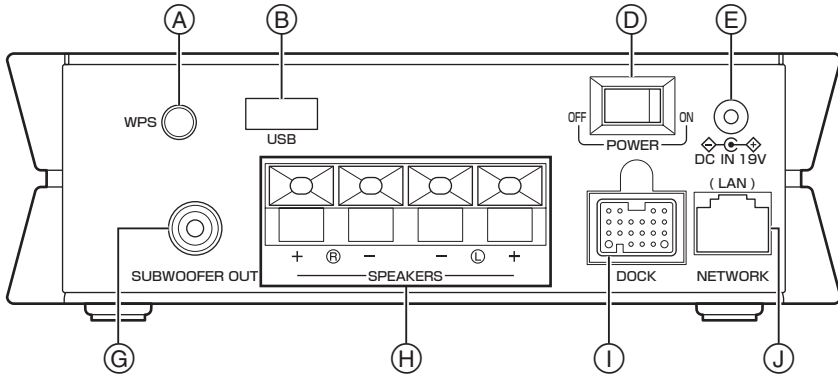
Press to forcibly reset the Music Commander.

Note

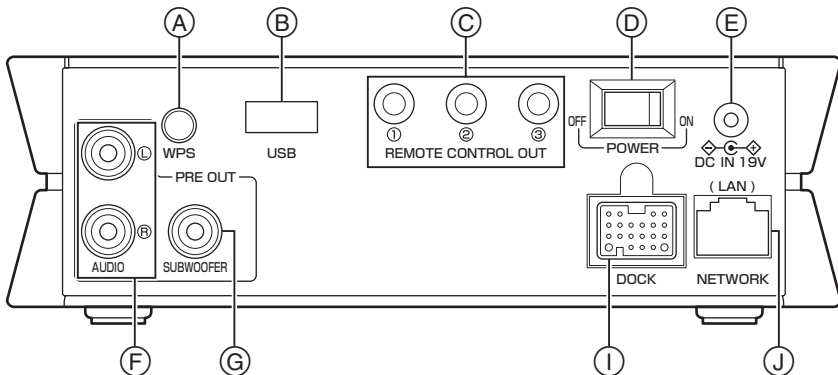
Do not use the reset button normally. In case you need to initialize the Music Commander settings, use "Initialize" in the "Setup" menu. For details, refer to the online manual on the MusicCAST2 website.

■ MCX-A300/MCX-P200 (Network Music Player)

Back (MCX-A300)



Back (MCX-P200)



Ⓐ WPS setup button

Press to set the Music Player to the WPS setup mode.

Ⓑ USB port

For connecting a USB storage device.

Ⓒ REMOTE CONTROL OUT jacks (MCX-P200 only)

For connecting IR flashers.

Ⓓ POWER switch

Turns on/off the Music Player.

Ⓔ Adapter connector (DC IN 19V)

For connecting the AC adapter.

Ⓕ AUDIO (L/R) jacks (MCX-P200 only)

For connecting an external amplifier (RX-V1900, etc).

Ⓖ SUBWOOFER (OUT) jack

For connecting a subwoofer.

Ⓗ SPEAKERS terminal (MCX-A300 only)

For connecting front right and left speakers.

Cautions

- Never connect the speaker outputs to another amplifier, as this may cause a malfunction, seriously damage the MCX-A300 or amplifier, or cause a fire.
- Be sure to use speakers with impedance of 6 ohms or over.

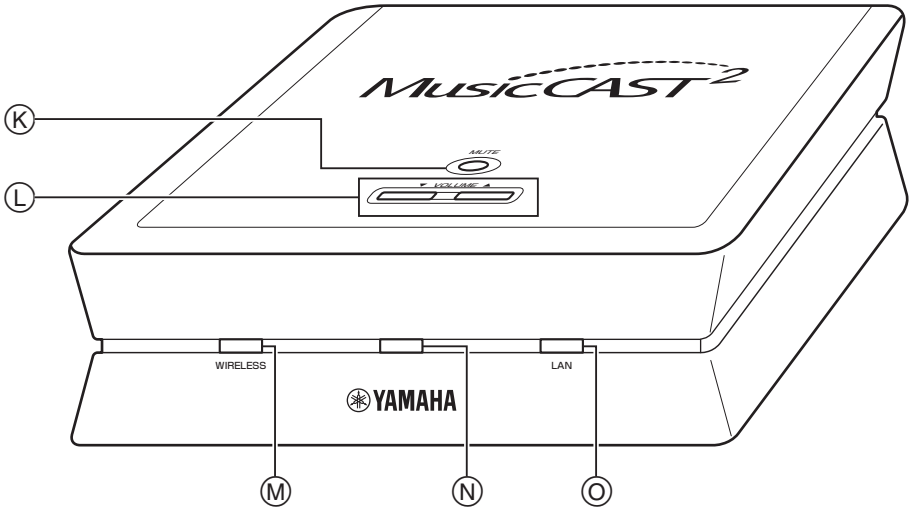
Ⓘ DOCK terminal

For connecting an optional iPod universal dock (YDS-11, etc) or Bluetooth wireless audio receiver (YBA-10, etc).

Ⓙ NETWORK port

For connecting the Music Player to the network using a network cable (CAT-5 or higher straight cable).

Front and top



Ⓚ MUTE

Turns on/off the audio mute.

Ⓛ VOLUME Δ / ∇

Adjusts the volume level.

Ⓜ WIRELESS LED

Shows the current status of the WiFi connection.

| | |
|---------------------------|--|
| Lights in green | Connecting to a network via the WiFi infrastructure mode |
| Blinks in green | Under the WPS setup mode |
| Lights in amber | Connecting to the Music Commander via the AdHoc mode |
| Blinks in amber | Under WiFi setup process (by the Music Commander) |
| Blinks in green and amber | An error occurred during WiFi setup |

Ⓝ Power LED

Shows the current status of the Music Player.

| | |
|-----------------------------|--------------------------------|
| Lights in blue | Power on |
| Blinks slowly in blue | Audio mute is on |
| Blinks slowly in light blue | Standby mode |
| Blinks rapidly in blue | Target Music Player indication |

Ⓞ LAN LED

Lights in green when the Music Player is connected to a network via the network cable.

Note

If the WIRELESS LED, Power LED, and LAN LED blink simultaneously, the Music Player is in the protection mode due to a system error. In this case, turn off the Music Player and check the all cable connections and power status.

Specifications

■ MCX-RC100

USER INTERFACE AND BATTERY

- Wireless Connectivity.....WiFi (IEEE802.11b/g)
- LCD Display.....3.5" (320 x 240 pixels), 16.7M colors
- Battery
 - Charging Time
 -135 min to fully charge (75 min to 77% charge)
 - Battery Duration (Full Charge)
 - About 48 hours (in general use)

GENERAL

- Power Supply.....120 V AC, 60 Hz
- Power Consumption 8 W
- Dimensions (W x H x D).....150 x 90 x 15.5 mm
(5-7/8" x 3-1/2" x 5/8")
- Weight.....180 g (6.3 oz.)

■ MCX-A300

INPUT/OUTPUT

- DOCK.....YDS-10, YDS-11, YBA-10 supported
- USB (USB1.1 Full Speed)
 - Device Type.....USB mass storage class
 - Audio Format.....MP3, WMA, WAV, MPEG4-AAC, FLAC
- NETWORK
 - Wireless ConnectivityWiFi (IEEE802.11b/g)
 - Ethernet Connection.....100Base-TX/10Base-T
 - Audio Format (Rhapsody, Net Radio).....MP3, WMA
 - Audio Format (PC Contents)
 -MP3, WMA, WAV, MPEG4-AAC, FLAC
- SPEAKERS (BTL).....2ch (L/R)
- SUBWOOFER OUT1 (Mono subwoofer)

AUDIO SECTION

- Rated Output Voltage/Output Impedance
 - SUBWOOFER OUT1.0 V/1.2 kΩ
- Tone Control
 - Bass Boost/Cut.....±6 dB/20 Hz
 - Treble Boost/Cut.....±6 dB/20 kHz
- Filter Characteristics (fc=200 Hz)
 - SUBWOOFER OUT12 dB/oct.

GENERAL

- Power Supply.....120 V AC, 60 Hz
- Power Consumption13 W
- No Signal Power Consumption6 W
- Dimensions (W x H x D).....150 x 49 x 150 mm
(5-7/8" x 1-7/8" x 5-7/8")
- Weight.....450 g (15.9 oz.)

■ MCX-P200

INPUT/OUTPUT

- DOCK.....YDS-10, YDS-11, YBA-10 supported
- USB (USB1.1 Full Speed)
 - Device Type.....USB mass storage class
 - Audio Format
 -MP3, WMA, WAV, MPEG4-AAC, FLAC
- NETWORK
 - Wireless ConnectivityWiFi (IEEE802.11b/g)
 - Ethernet Connection100Base-TX/10Base-T
 - Audio Format (Rhapsody, Net Radio).....MP3, WMA
 - Audio Format (PC Contents)
 -MP3, WMA, WAV, MPEG4-AAC, FLAC
- AUDIO (L/R).....2ch
- SUBWOOFER.....1 (Mono subwoofer)
- REMOTE CONTROL OUT3

AUDIO SECTION

- Rated Output Voltage/Output Impedance
 - AUDIO (L/R)/SUBWOOFER1.0 V/1.2 kΩ
- Tone Control
 - Bass Boost/Cut.....±6 dB/20 Hz
 - Treble Boost/Cut.....±6 dB/20 kHz
- Filter Characteristics (fc=200 Hz)
 - SUBWOOFER.....12 dB/oct.

GENERAL

- Power Supply.....120 V AC, 60 Hz
- Power Consumption6 W
- No Signal Power Consumption5 W
- Dimensions (W x H x D).....150 x 49 x 150 mm
(5-7/8" x 1-7/8" x 5-7/8")
- Weight410 g (14.5 oz.)

* Please note that all specifications are subject to change without notice.

We Want You Listening For A Lifetime

Yamaha and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion - and, most importantly, without affecting your sensitive hearing. Since hearing damage from loud sounds is often undetectable until it is too late, Yamaha and the Electronic Industries Association's Consumer Electronics Group recommend you to avoid prolonged exposure from excessive volume levels. Operate this unit by the following procedure.



Logo and trademarks



The Wi-Fi CERTIFIED Logo is a certification mark of the Wi-Fi Alliance.

The Wi-Fi Protected Setup Mark is a mark of the Wi-Fi Alliance.

iPod™

“iPod” is a trademark of Apple Inc., registered in the U.S. and other countries.



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Notice for Windows Media DRM

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Note on source code distribution

This product includes software code subject to the GNU General Public License (GPL) or the GNU Lesser General Public License (LGPL). The copy, distribution, or change of this software code is licensed under the terms of the GPL or the LGPL. The source code is available at the following website:

<http://www.global.yamaha.com/download/>

The source code is also available on a physical media (such as a CD-ROM) at actual cost.

Contact: AV products division, YAMAHA CORPORATION, 10-1 Nakazawa-cho, Naka-ku, Hamamatsu 430-8650, Japan

In principle, the source code is offered for 3 years from the day of purchase.

Information about software

This product uses the following software.

For information (copyright, etc) about each software, read the original sentences stated below.

■ About curl

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■ About shhttp

"THE BEER-WARE LICENSE" (Revision 42):

Sergey Lyubka wrote this software. As long as you retain this notice you can do whatever you want with this stuff. If we meet some day, and you think this stuff is worth it, you can buy me a beer in return.

■ About csha1

100% free public domain implementation of the SHA-1 algorithm by Dominik Reichl <dominik.reichl@t-online.de>
Web: <http://www.dominik-reichl.de/>

■ About AES (<http://www.codeproject.com/KB/security/aes.aspx>)

Under Microsoft Public License (Ms-PL)

■ About scsw

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

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59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

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[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.

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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.

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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.

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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.

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If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions

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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.

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That's all there is to it!

■ About MedialInfo_DLL

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Version 3, 29 June 2007

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- Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
- Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
- Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.
- Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

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