

VOLUMIO[®]
THE AUDIOPHILE MUSIC PLAYER

VOLUMIO[®] PRIMO



Audiophile Music Network Player and Streamer

USER MANUAL
ENGLISH

INTRODUCTION

Congratulations on your purchase! Volumio Primo is an integrated Audiophile Music Network Player and Streamer designed with 3 key principles in mind: ease of use, universal compatibility with music sources and sound quality. To achieve its best potential, please read this manual carefully. If needed, our support team is there to assist for any doubt or question regarding our products at support@volumio.org

QUICK START GUIDE

Primo is a ready to play device. From Unboxing, the unit is ready to play in less than 5 minutes. In order to get started please follow those steps:

Step 1: Unbox your Primo

Step 2: Connect your Audio system via RCA, SPDIF or USB

Step 3: Screw the included Wireless Antenna

Step 4: Plug one end of the Power Supply into the wall and the other end into Primo.

Step 5: Wait 5 minutes for Primo to do first start initialization.

Step 6: Connect to the wireless network called Volumio (password volumio2)

Step 7: Complete the first setup wizard

Step 8: Done.

WHAT IT'S IN THE PACKAGE

- Volumio Primo Audiophile Music Player and Streamer
- Wireless Antenna
- 5V 3A Switching Power Supply*
- User Manual

(*) Power Adaptor is optional, depending on the region and local seller's policy.

I/O OVERVIEW



GIGABIT NETWORK: Wired Network interface. This is the suggested network connection for playing Hi-Resolution material. Connect this interface to your router via an Ethernet cable.

USB 2.0: Those ports can be used to attach USB Accessories such as Thumb Drives, USB Hard Drives and SSD, Keyboard\Mouse, Smart Remotes and USB CD-ROM Drives. Additionally, USB DAC can be used as output audio device if connected to one of the 4 available USB ports.

5V DC IN: Connect the Power Jack of the provided Power Supply Unit (or a compatible 5V 3A power supply). By connecting Power the unit will turn on. To turn off the device, simply disconnect the Power Supply (WARNING: To avoid data loss, remove the power supply after selecting "Shutdown" from the settings menu. Do not remove power while updating or restoring factory settings).

S/PDIF Digital Output: This output can be used to stream Digital Audio to a S/PDIF DAC.

Analog Audio Output: RCA Output connection that will output 2V Analog Audio. This is the suggested connection for achieving optimal Sound Quality thanks to Primo's integrated Hi-Res DAC.

HDMI Output: This output allows to connect a TV or monitor and it will display the User Interface. It can be used as an alternative to the small screen of a mobile device. In order to control the unit, the attached screen must be a touchscreen, unless a mouse and/or keyboard is connected.

Wi-fi Antenna: To ensure optimal Wireless performances, screw the provided wireless Antenna. Please note that Wireless connection performances might not be optimal for Streaming Hi Resolution Audio, especially if Router is not located near the Primo or if operated in a very crowded neighbourhood.

CONNECTION TO THE UNIT

Volumio PRIMO works best when it is connected to your network, since it is meant to be used as a headless device: no monitor connected, and controlled via another device (PC, smartphone, tablet etc).

Volumio PRIMO can be controlled via a Web User Interface, it means that the controlling device can be a mobile phone, a tablet, a PC, a Smart TV and more generally, anything with a browser. For an optimal experience, Google Chrome is suggested.

To reach Volumio's User Interface, first discover the IP address of your Primo. To do so, an easy way is to use FING Android App or Net Analyzer for iOS.

Volumio also provides Android and iOS apps. They are not mandatory to use Volumio Primo, but strongly recommended as they will automatically discover the Primo on your Network.

Another easy way to connect to Volumio Primo, especially on first setup, is to connect in Hotspot Mode. If no wireless network is configured, Primo will create a network called "Volumio". Simply connect to it (password: volumio2) and the User Interface will automatically pop up.

FIRST SETUP

When first turned on, the Primo will initialize for a slightly longer time. Make sure to not remove power and do not operate it for at least 5 minutes on first power up.

Once the system is operational and you have connected to it through your network or via the hotspot, you will reach Volumio's web-UI. The first time, a helper will assist you to configure Volumio. Any configuration done in this phase can be later reverted.

Those are the first configuration steps:

LANGUAGE: Select your desired operational language.

NAME: Give your Primo a unique name like "Living Room", "Studio" etc. This will be useful to identify your Primo in case you have more than one.

OUTPUT: Select the desired audio output: Analog Audio Out, S/PDIF, HDMI or USB DAC (if connected).

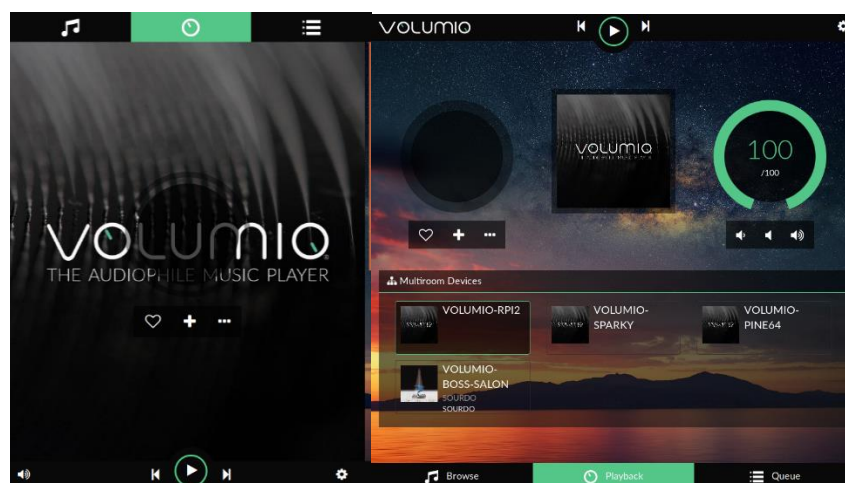
NETWORK: If you wish to configure your Primo to connect to your Wireless Network, here you will be able to see all available wireless network and connect to them. In case of Hotspot operation, Primo will connect to the wireless network after the Setup Wizard has been terminated. In this case, you must find its IP address again (see Connection to the Unit section).

MUSIC: You can configure a Network Attached Storage for music retrieval or connect a USB Drive with your music.

Once the first setup has been completed, your Primo is ready.

FIRST STEPS WITH VOLUMIO

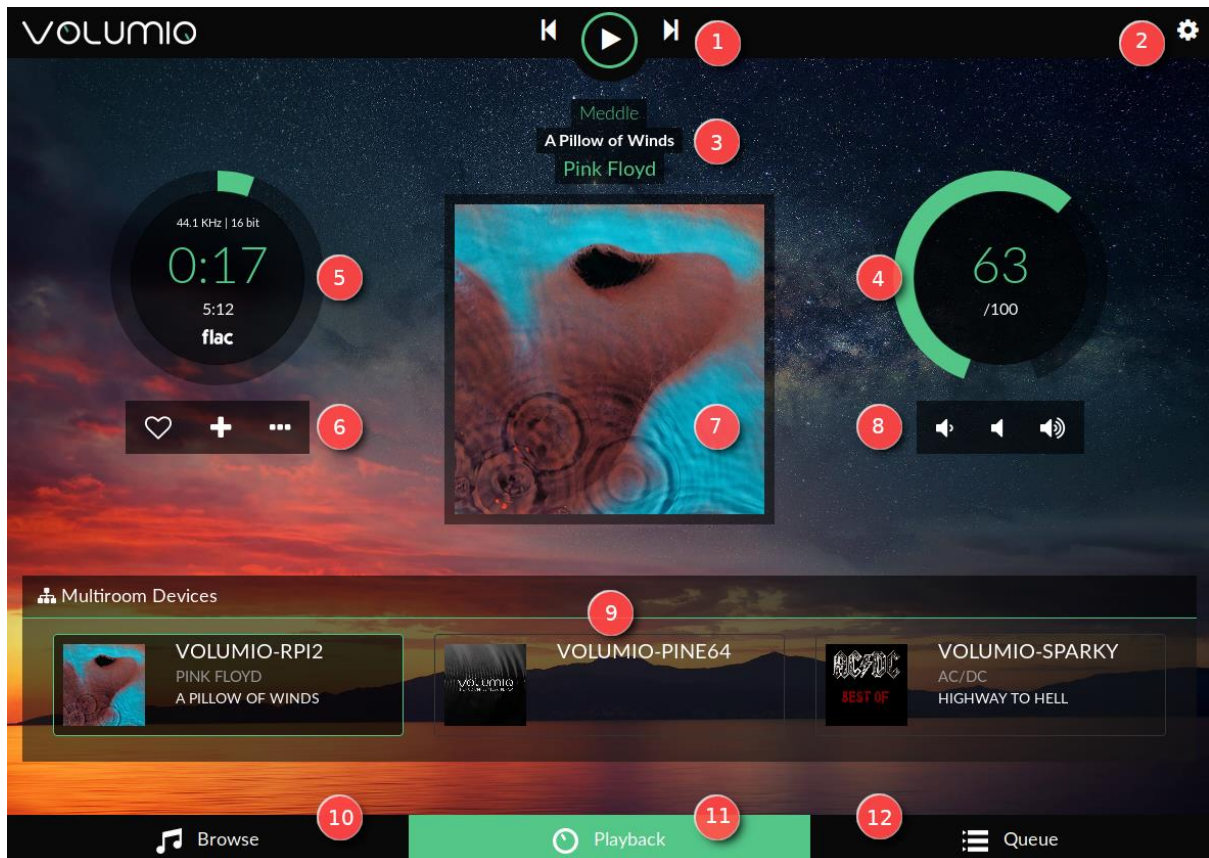
Depending on the device used to connect to Primo, a desktop or mobile version of the User Interface is shown. Both provide same features, but ergonomic is different to best fit with the use (mobile or desktop).



Volumio's User Interface is made up by 4 main components:

- Playback Page tab
- Browser Page tab
- Play Queue tab
- Settings pages

PLAYBACK PAGE



1 - Command buttons

Play/Stop

Previous : jump to previous track

Next : jump to next track

2 - Settings gears

Here you'll find all settings for Volumio such as :

My Volumio : Here you access to your account

My Music : Music sources (nas usb, and album art management)

Playback : Output device settings (dac,

mixer, resampling)

Appearance : To select your language, image background or color

Network : Set your wifi, ethernet, dns

System : Name your device, have version number and update if available, reset your system, and see credits for Volumio

Plugins : To add features to Volumio such Streaming service (Spotify...), gpio management; equalizer, Internet radio ...

Alarm : You love to wake up with your favorite music ? It's here!

Sleep : You love listening music before sleeping ? It's Here!

Shutdown : To stop or reboot your device properly

Help : Link to the online help (here!)

Volumio Shop : A link to the Volumio shop where you'll find compatible and well sounding hardware

3 - Track text information

First line : Album name

Second line : Track title

Third line : Artist name

4 - Volume Settings

Inside value : Current volume level

External circle : Graphic volume level. Change the volume by moving it.

5 - Timer zone

Miscellaneous info about the played track

First line : Sample rate / bit resolution

Second line : Ellapsed time

Third line : Total duration

Fourth line : Track source

6 - Track management

Left : Add to favorite

Middle : Add to playlist

Right : Go to - Artist/Album - Twitter

7 - Album art Display

Display album art for the played track or radio if available.

8 - Volume control

Left : Lower volume

Middle : Mute

Right : Higher volume

9 - Multiroom zone

Here appear all available Volumio devices on your network. In the picture, the device called VOLUMIO-RPI2 is the current remoted device. To remote an other, clic on it.

10 - Browse page

Clicking here, you access to all available music on your system (Nas, Usb disk, radio, Spotify, Youtube etc depending on plugins/options installed).

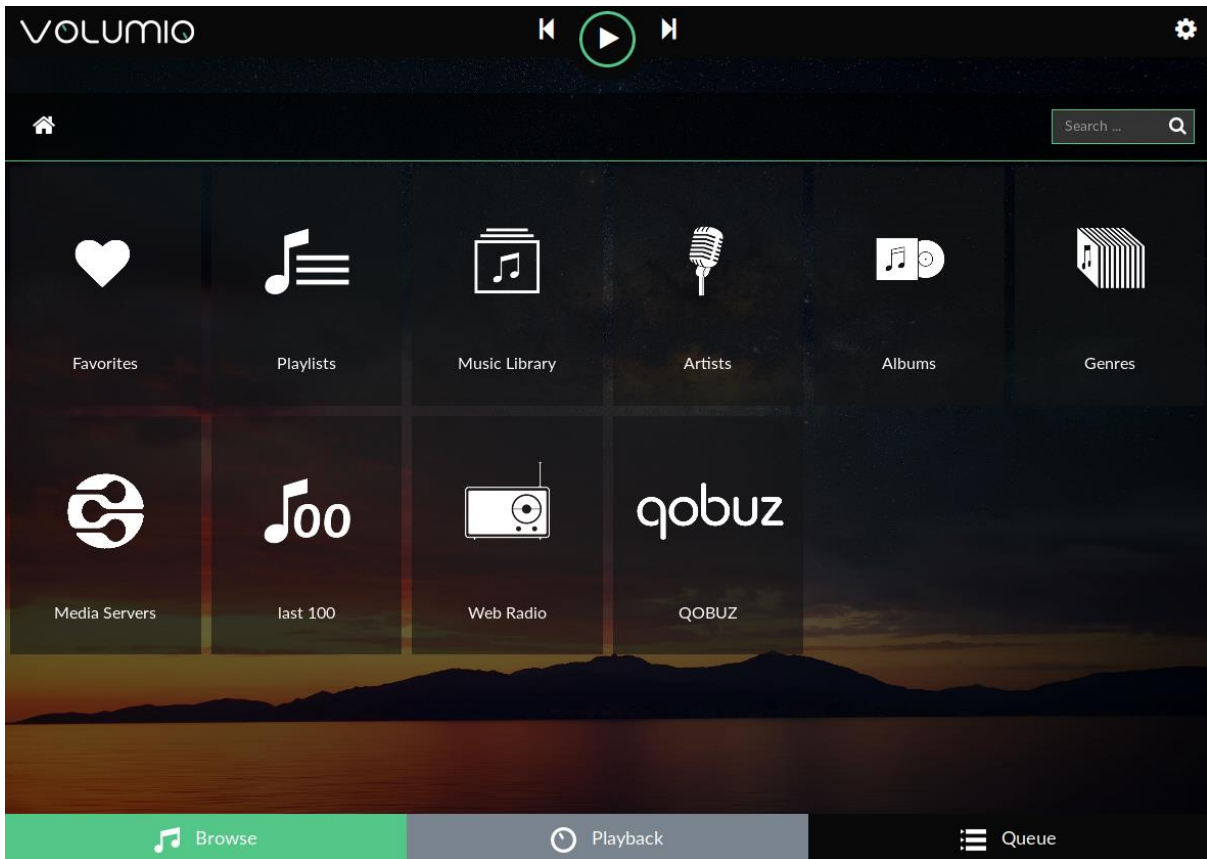
11- Playback

The current page

12 - Queue

Here you access to the current queue with all tracks in it.

BROWSE PAGE



Clicking on Browse tab will allow to access all available music sources on your system.

1 – Favorites

Access your favorites tracks

2 – Playlists

Access your Playlists

3 - Music Library

Access your library in files/folder mode

4 – Artists

Access your library by artist

5 – Albums

Access your library by Albums

6 – Genres

Access your library by genres

7 - Media server

Access your media server if any

8 - Last 100

List the last 100 tracks played

9 – Web Radios

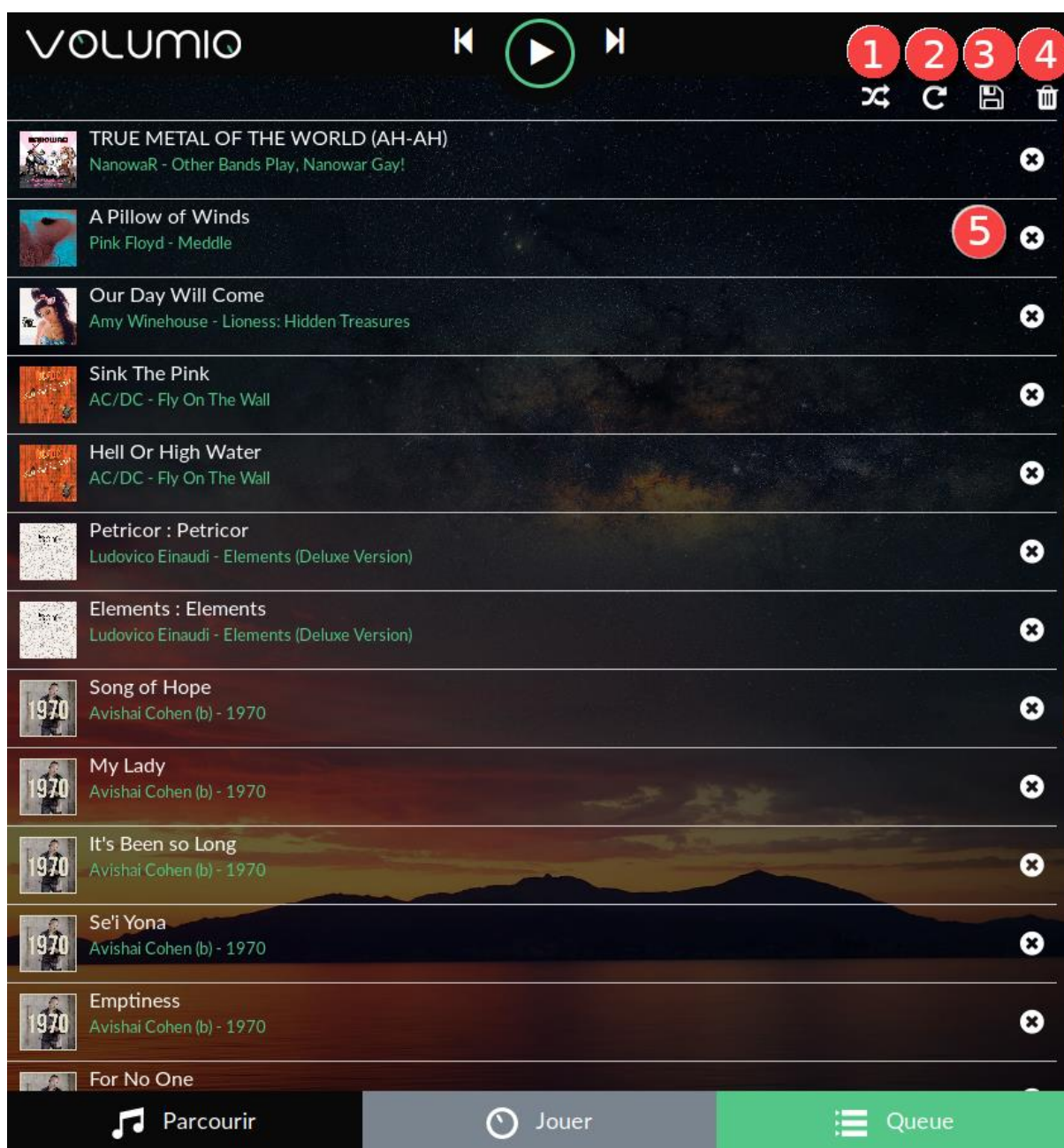
Access web radios.

To add your personal webradios, click on the 3 dots in "My Web Radios". Then fill the fields with the Radio Name and Radio Stream and click add.

10 – Other

Depending on plugins/options you have installed, you may have other tab such Spotify, Qobuz...

QUEUE PAGE



Clicking on Queue tab will allow to access to the queue of the tracks that are going to be played.

1 – Random

Randomize the order tracks are played

2 – Repeat

Repeat the track

3 – Save

Save the current queue as a playlist. A name is asked for this Playlist

4 - Clear queue

Clear the current queue

5 - Remove track

Remove track from the queue

More features

You can change the order of each track by clicking and moving it up or down.

SOFTWARE UPDATES

Volumio features an OTA (Over The Air) updater, meant to allow seamless and reliable way to update to new system versions. It's strongly suggested to check for updates periodically to ensure that your system is always at the latest version.

How to check for Updates

- Verify that your Volumio Primo is connected to the Internet
- Click on the cog-wheel in the top right part of the UI
- Select system
- Click on "Check Updates"
- If an update is available, you'll be presented with the new features.
- Click on "Update Now"
- System update will start, and depending on the update size it might take up to 20 minutes
- Once Update has finished, you'll be asked to reboot. Do it
- The system will now restart, and the new version will be applied
- **IMPORTANT:** Do not remove power in this phase, as it might damage the unit.

RESTORE TO FACTORY SETTINGS

Volumio Primo can be reset to factory settings (the software version will be reverted to the one applied in production) and all settings and music stored on the device will be deleted.

There are two ways to perform a Factory Reset: one from the UI and one with a USB Thumb Drive (in case the unit is not operational due to software error).

Factory Reset Via User Interface

- Click on the cog-wheel in the top right part of the UI
- Select system
- Click on "Factory Reset" and confirm the Warning Dialog
- The Unit will restart in about 5 minutes.
- **WARNING:** All settings and user data will be permanently deleted
- **IMPORTANT:** Do not remove power in this phase, as it might damage the unit.

Factory Reset Via USB Thumb Drive

- Get a USB Thumb Drive
- Format it as "FAT32"
- Download the factory reset file from http://repo.volumio.org/Primo/factory_reset
- Copy the file on the thumb drive and make sure it's called exactly "factory_reset"
- Remove power from Primo
- Plug the thumb drive to one of the USB ports
- Apply power to Primo
- **IMPORTANT:** During this phase the unit might restart multiple times and this factory reset will take about 10 minutes.

SPECIFICATIONS

Analog output: ES9028Q2M DAC via I2S, PCM 24 bits 192kHz, DSD128 via DoP

S/PDIF output: PCM 24 bits 192kHz

USB output: 4X USB 2.0, PCM 32 bits 768kHz

CPU: Quad core 1.8 GHz ARM Cortex-A17 with passive heatsink

RAM: 2GB

Internal Memory: 16GB EMMC

Video Output: HDMI, up to 4K resolution

LAN: Gigabit

Wireless Networking: 802.11 b/g/n Wi-Fi & Bluetooth 4.0 + EDR with External Antenna

Dimensions: 170x45x120mm

Weight: 300gr

* Specifications subject to change without notice.

IMPORTANT SAFETY INFORMATIONS

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water or liquids of any sort.
- Clean only with dry soft cloth. Household cleaners or solvents can damage the finish of the components. Please clean and handle the product only after disconnecting from mains power for at least 5 minutes.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
- Protect the power cable from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- Only use original attachments/accessories.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cable 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.
- The Mains plug should be readily available to disconnect the equipment.
- Warning: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- Do not expose apparatus to dripping or splashing and do not place objects filled with liquids, such as vases, on or near the apparatus.
- AC outlet voltages vary from country to country. Before connecting to the mains, make sure that the voltage in your area meets the voltage requirements printed on the power supply.
- The power supply is used to disconnect the unit from the mains. Make sure that the power supply is easily accessible at all times. Never handle the device or the power supply while your hands are wet or damp.

- Avoid letting liquids enter the device or the power supply. Never place any item containing liquid, such as a flower vase on or near the device. Never spill any liquid on or near the device or the power supply.
- Never place any naked flame sources, such as lighted candles on or near the device. The product shall not be used in damp or wet locations, next to a bathtub, sink, swimming pool or any other similar conditions.
- For optimal performance please place the unit on a well vented spot.

WARRANTY

The manufacturer accepts no responsibility for damage caused by not adhering to these instructions for use. Modification or changes to any part of the product by unauthorized persons release the manufacturer from any liability over and above the lawful rights of the customer.

The Volumio Warranty is valid for all new products purchased from an officially authorized Volumio retailer or from our online store (volumio.org). This warranty is non-transferrable and does not apply to third-party or private sales of Volumio products.

All parts defective in material and workmanship are covered under warranty for two (2) years from the date of original purchase by the original owner. Software defects are not covered by Warranty.

We guarantee your total satisfaction with Volumio products. New, sealed in the box items can be returned within 30 days for a full refund. Used products must be returned within 14 days of delivery for a store credit. Defective items will be replaced with an identical or similarly priced model after inspection by a qualified technician.

New, unused products must be returned in the condition you received it and with the original box and/or packaging, including manufacturer tags where applicable.

Used and undamaged products will be issued store credit in the form of credits to be used via coupon in the online store. We will not accept the return of products damaged due to negligence or abuse. Please include all packaging and accessories prior to shipping.

Please take the time to carefully package your returns. It is the responsibility of the customer to pay costs related to the repair of returned items damaged in shipping due to improper packaging. The customer is responsible for all return shipping costs for new or used products.

If you feel that your product is eligible for a warranty evaluation due to defect in its materials, operation or workmanship on arrival, please contact our team at: support@volumio.org to receive an RMA and return shipping label.

OPEN SOURCE SOFTWARE USED IN THIS PRODUCT

The software included in this product contains copyrighted software that is licensed under the GPL. A copy of that license is included in the "Credits" section of the software, accessible via the System settings menu.

If you would like a copy of the GPL v2.0 source code contained in this product shipped on a DVD, you may obtain the complete Corresponding Source code from us for a period of three years after our last shipment of this product for a charge of 20\$ no more than the cost of preparing and mailing a DVD to you. Please contact foss@volumio.org . This offer is valid to anyone in receipt of this information.

Additionally, complete source code of open source components included in this product is available at: <http://sources.volumio.org>

DISPOSAL INFORMATION



For private households:

Information on Disposal for Users of WEEE This symbol on the product(s) and / or accompanying documents means that used electrical and electronic equipment (WEEE) should not be mixed with general household waste. For proper treatment, recovery and recycling, please take this product(s) to designated collection points where it will be accepted free of charge. Alternatively, in some countries, you may be able to return your products to your local retailer upon purchase of an

equivalent new product. Disposing of this product correctly will help save valuable resources and prevent any potential negative effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point. Penalties may be applicable for incorrect disposal of this waste, in accordance with you national legislation.

For professional users in the European Union

If you wish to discard electrical and electronic equipment (EEE), please contact your dealer or supplier for further information. For disposal in countries outside of the European Union This symbol is only valid in the European Union (EU). If you wish to discard this product please contact your local authorities or dealer and ask for the correct method of disposal.

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The information in this user manual was correct at the time of going to press. The manufacturer reserves the right to make changes to the technical specification without prior notice as deemed necessary to uphold the ongoing process of technical development.

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INTUITU di Michelangelo Guarise
Via dei Pepi, 76R
50122 Firenze
ITALIA

Volumio.org

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Revision 1.1



Contains FCC ID: TX2-RTL8723BS

FCC Warning

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

Note 1: This equipment includes the ASUS Tinkerboard S single board computer that 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.

Note 2: 1.Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

2. The minimum separation generally be used is at least 20 cm.

EU DECLARATION OF CONFORMITY



Model Name: Volumio Primo

EU DIRECTIVES

2014/53/EU, Radio Equipment

2011/65/EU, RoHS

EU DECLARATION OF CONFORMITY

1. Model No. :

Volumio Primo

2. This declaration of conformity is issued under the sole responsibility of the manufacturer:

INTUITU Di Michelangelo Guarise
Borgo Pinti, 20
50122 Firenze
ITALY

3. Object of the declaration:

Audiophile music player

4. The object of the declaration described above is in conformity with:

2014/53/UE and 2011/65/EU

5. Where applicable, references to the relevant harmonised standards used or references to the technical specifications in relation to which conformity is declared:

EN 60950-1 :2006/A2 :2013
EN 62311:2008
EN 55022:2010_+ AC:2011
EN 55024:2010+A1:2015
EN 61000-3-2
EN 61000-3-3
EN 301 489-1 V2.1.1 (2017-02)
EN 301 489-17 V3.1.1 (2017-02)
EN 300 328 V2.1.1 (2016-11)

6. Where applicable, the notified body (name and number), description of intervention and certificate

Not applicable, the declaration of conformity is compliant with annex II of the European Directive 2014/53/EU, so the notified body it's not necessary.



(EU conformity marking)

Signed for and on behalf of INTUITU Di Michelangelo Guarise

Firenze, 01/11/2018

Michelangelo Guarise