



## **Audio setup guide**

for

ONEbox.micro

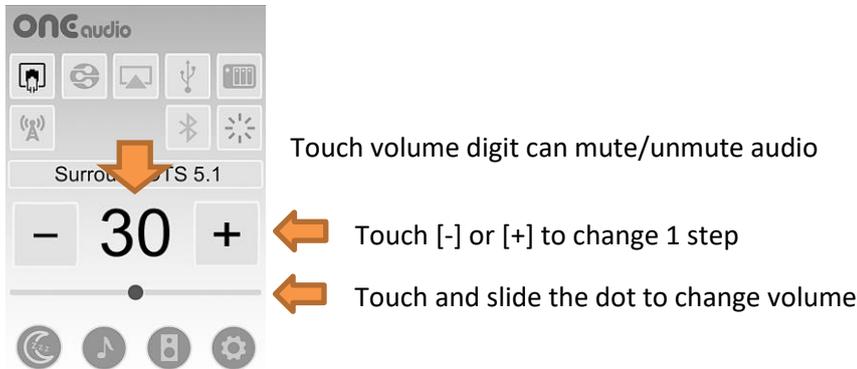
ONEbox.mini

ONEbox.cube

## Understand the volume setting

### Master volume :

Volume control of all speakers and subwoofer. Each step is 1dB change of volume level.



### Speaker group volume :

You can change each speaker volume (usually main, rear, center) to fit your speaker placement position. Go to speaker setup page, touch speaker position icon, then you will get into speaker group setting. You can change speaker group volume and speaker group tweeter gain.



### Speaker group left to right balance

You can change left right balance on speaker setting. *ONEbox can't support this function.*

By speaker key access and speaker is in standby mode :

Long press [+] to enter menu, press [+] few time to "Left right tone balance", press [-] to enter page, press [+] key to change balance level, press [-] key to confirm changes.

**Remark :** Never do same changes on both 2 speakers, otherwise balance level will be cancel out.

### About player volume (volume setting on your smart phone)

- iTunes volume on iPhone is linked volume with ONEbox, both smartphone and ONEbox access is the same
- DLNA volume is linked volume with ONEbox, both smartphone and ONEbox access is the same
- iTunes on MacBook (USB mode) has speaker volume and player volume : speaker volume is linked volume; player volume is signal attenuator, always put it at max, low player volume will get low resolution sound
- Groove on WIN10 (USB mode) has speaker volume and player volume : speaker volume is linked volume; player volume is signal attenuator, always put it at max, low player volume will get low resolution sound

# Setup the 5.1 surround & calibrate the surround sound

## a. Set your room size in rear speaker

4 selections in rear speaker setup page :

- Small room, listen area about 10m<sup>2</sup> and assume sitting close to the rear wall
- Medium room, listen area about 15m<sup>2</sup> and assume sitting in 2/3 of room length
- Large room, listen area about 25m<sup>2</sup> and assume sitting in 2/3 of room length
- Open area, a very large room, no reflection wall



## b. Set subwoofer delay time

4 selections of subwoofer delay time, delay time is depend on subwoofer placement

- Off, no delay, subwoofer is placed behind main speaker
- 5mS, subwoofer is placed near main speaker, at the corner or in between main speakers
- 10mS, subwoofer is place 1.5~2.0m away from main speaker, near your sitting place
- 20mS, subwoofer is place 4~5m away from main speaker, usually at rear corner



Set filter cut off frequency here, default is factory pre-set value which is tuned for the subwoofer

**c. Set center speaker placement (phase control)**

3 selections in center speaker setup page :

- Behind, center speaker is placed behind main speaker pair (typical behind 30cm)
- On line, center speaker is placed on the line of main speaker pair
- Front, center speaker is placed in front of main speaker pair (typical in front 30cm)



**d. Manage the surround signal source**



Audio mode report show 5.1 surround ready, turn on all surround speaker will have surround.  
For 2.1 system, rear and channel audio will route to main speaker automatically



Audio mode report signal source is 2.0 :  
\* TV broadcast and YouTube are correct  
\* BluRay 5.1 movie is incorrect, make sure your player channel down mixing is disable, or the Blu-Ray disc audio setup is surround 5.1  
If your TV digital audio output Dolby, means your TV setting is correct.



Audio mode report signal source is LPCM 48/16 (TV stereo) :  
\* make sure your BluRay player digital audio output format is 'Auto' or 'Bit stream', don't use LPCM output.  
\* make sure your TV digital audio output format is 'Auto', 'bypass' or 'bitstream', don't use LPCM output  
If your BluRay player connect to TV and TV output digital audio to ONEbox, some BluRay player need to set audio output priority to 'Optical' to get access to select optical digital output format.

## AirPlay audio for iPhone, iPad and iMac

- iPhone or iPad AirPlay connect to ONEbox
  - Your iPhone and ONEbox is connected to your home network, or use WiFi direct mode connect your  iPhone to  WiFi SSID : ONEbox\*\*\*\* at IP 192.168.101.1
  - Switch ONEbox input mode to AirPlay or Standby
  - Pull out iPhone control menu, music icon on top right, touch music icon top right corner to get into audio play device select, select [ONEbox\\*\\*\\*\\*](#)
- iMac or MacBook wireless connect to ONEbox
  - Your iMac or MacBook and ONEbox is connected to your home network, or use WiFi direct mode connect your  iPhone to  WiFi SSID : ONEbox\*\*\*\* at IP 192.168.101.1
  - Switch ONEbox input mode to AirPlay or Standby
  - Open iTunes, playback device button on header right of volume bar, select [ONEbox\\*\\*\\*\\*](#)

AirPlay data rate is 44.1KHz/16bit. ONEbox will enhance sound quality to HD, sampling rate will up-sampling to 96KHz 24bit. You can select interpolation filter to change sound natural in sound setting page. 4 type of interpolation filter : Constant, Poly-phase, Linear, Cubic.

Audio interruption will happen due to crowded WiFi 2.4G network. You can change buffer length to avoid disturbance, but will induce latency result audio is lagged behind video. Buffer size setting is in sound setup page, you can select : **0.125 sec, 0.25 sec, 0.5 sec and 1.0 sec**. Factory default is 0.25S.

## DLNA audio WiFi wireless connection

- Android phone DLNA connect to ONEbox
  - Your iPhone and ONEbox is connected to your home network, or use WiFi direct mode connect your phone to WiFi SSID : ONEbox\*\*\*\* at IP 192.168.101.1
  - Switch ONEbox input mode to DLNA  or Standby 
  - Install DLNA APPS in your Android phone, recommend **Hi-Fi Cast** (better sound) and **BubbleUPnP** (more features)
  - Open DLNA APPS, select Playback device as [ONEbox\\*\\*\\*\\*](#)
- WIN10 wireless connect to ONEbox
  - Your WIN10 notebook and ONEbox is connected to your home network, or use WiFi direct mode
  - Switch ONEbox input mode to DLNA  or Standby 
  - Enable WIN10 media share center, allow [ONEbox\\*\\*\\*\\*](#) to access (can set in Window Media Player)
  - In file explorer, select song, press right mouse button, select "CAST to" [ONEbox\\*\\*\\*\\*](#)
- Use DLNA in iPhone to play high quality audio wirelessly
  - Install APPS **Sesam Music** or **MCONNECT** (more DLNA APPS available in App Store)
  - Open MCONNECT, on left header button to select music source (internal storage or external NAS storage), on right header button to select audio destination as [ONEbox\\*\\*\\*\\*](#)

Remark : ONEbox can't support file format AIFF (standard song format in iPhone)

DLNA is file streaming protocol. The song file is sent to ONEbox and ONEbox is a renderer to encode file. ONEbox support WAV 44.1/16, WAV 96/24, FLAC 48/24, FLAC 192/24 and MP3.

[ONEbox usually has high sound quality in DLNA mode.](#)

## USB audio

USB audio input is on micro USB port. The micro USB port is shared with power supply to ONEbox and USB audio input. Use a high current 2A USB data cable (4-wires) to ensure ONEbox work at stable condition.

- iMac/MacBook wire connect to ONEbox by USB
  - Use micro USB cable connect ONEbox to computer USB port
  - Switch ONEbox input mode to USB  or Standby 
  - Open utility **Audio MIDI Setup**, set output to [ONEbox stereo](#)  
[Tips : Set audio format sampling rate 96KHz 24bit to get better sound](#)  
[Player : iTunes is iMac default player, it is a high sound quality player.](#)
- WIN10 wire connect to ONEbox by USB
  - Use micro USB cable connect ONEbox to computer USB port
  - Switch ONEbox input mode to USB  or Standby 
  - In footer right icon “speaker”, right tick to go to playback device select, set [ONEbox stereo](#) as default audio player
  - Then go to play device configure to manage sound setting :
    - set sampling rate to 96/24
    - disable sound effect (will get natural sound)
    - **enable full range speaker** (WIN default is small size speaker)[Players : Suggest to use Groove as player to have better sound.](#)
- USB audio from set-top-box
  - Use micro USB cable connect ONEbox to set-top-box USB port
  - Enable set-top-box USB audio output
  - ONEbox will self-detect USB format, either 48/16 or 48/24

Remark : USB cable quality will affect sound quality. Don't use poor quality cable.

## Network player

ONEbox use DLNA protocol in networking your home media server. Most of home media server support DLNA, e.g. Plex, Synology, WIN, Linux. You can plug-in a 3~32G USB ram (formatted FAT32) in ONEbox USB host port as a DMS network mini storage.

Most server supplier go with APPs to access their server, e.g. DS audio for Synology, Plex for Plex server. Make sure your mobile phone, media server and ONEbox are in the same network, select play device to ONEbox\*\*\*\* in server APPs can get easy access.

Recommended DLNA network APPs :

Android	→	HiFi Cast, BubbleuPnP
iPhone	→	Mconnect, Sesam Music
WIN10	→	WIN10 build-in file cast function, Window Media Player
MacBook, iMac	→	foobar

## Plug-in USB ram as a local music server

ONEbox support 4~32GB USB ram of FAT32 format. FAT32 is default format of WIN, remember to select FAT32 format in iOS.

Use DLNA APPs to read remote library ONEbox\*\*\*\*, then select play device as ONEbox\*\*\*\*.

Support audio decoder : WAV, MP3, FLAC, AIFF

## Optical audio

Optical port can support 3 audio format :

- Surround mode : Dolby 5.1, DTS 5.1
- TV mode : Dolby 2.0, DTS 2.0, LPCM 48/16
- CD mode : LPCM 44.1/16

Different sound mode has different sound setting, you can set in sound setup page :

Surround mode	-	Vivid sound effect LFE boost (low frequency effect channel +6dB gain) Bass filling to manage small satellite speaker weak bass
TV mode	-	Vivid sound effect Center speaker
CD mode	-	Up-sampling interpolation filter Subwoofer bass effect Speaker sound profile