



WS66i

Whole Home Audio Distribution Network Controller Matrix Amplifier with Streamer & App Control















- Product Overview -

The WS66i (AMP only) allow to you control by the supported APP without using the keypads or IR remote control. This whole-home audio system brings you the advanced Generation D technology, it is a functional, easy-to-install, highly compatible, expandable and usedfriendly audio distribution system. With few simple steps to install, it provides up to W power by class D amplifier and distribute at most to 18 zones which all can be controlled by APP.

Simply connecting the WS66i to the local Ethernet network, it let you access a wide variety of music from the Built-in streaming services or stored on the Smartphones. Two USB ports on the front panel for playing music files from USB storage devices. An Optical digital input to manage the sound of a TV or a CD player to have high resolution of sound quality in each zone.

Please take the time to read this entire manual to maximize your WS66i audio system.

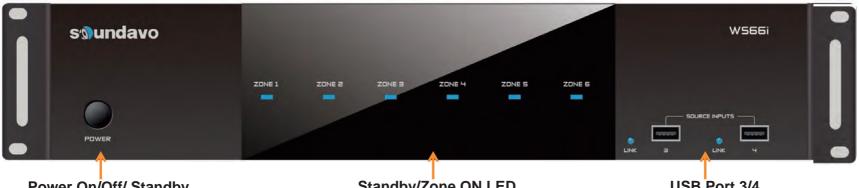
The WS66i (AMP Version) includes the following parts:

- 1. 1 x WS66i Master Controller/Amplifier
- 2. 1 x Rack Mounting Kit
- 3. 1 x Installation Quick Start Guide
- 4. 1 x 110V AC Power Cable

Optional WS66i accessories (as KIT Package)

- 1. WS66i-KIT Includes 6 keypads, keypad hub, IR remote control & expansion cable.
- 2. 1 x WS66i-EXP (expansion cable)
- 3. 1 x WS66i-R1 (IR remote control)
- 4. 1 x WS66i-H1 (keypad hub)
- 5. 6 x WS66i-K2 (white keypad plate)

WS66i MASTER CONTROLLER/AMPLIFIER FRONT PANEL



Power On/Off/ Standby

Depress the power button to turn on the system. Press it again to release the latch and power the unit off. Note that even the Master Controller is powered on, each zone will remain in Standby mode until the zone keypad is activated.

Standby/Zone ON LED

All zones will be in standby until a zone keypad is enabled. The standby LED color is BLUE. Once a zone keypad is enabled the ON LED color will change to WHITE.

USB Port 3/4

Two USB ports correspond to the built-in Wi- Fi Streamers, as source input 3 and 4. Playing audio source from USB Flash Drives.

WS66i MASTER CONTROLLER/AMPLIFIER REAR PANEL

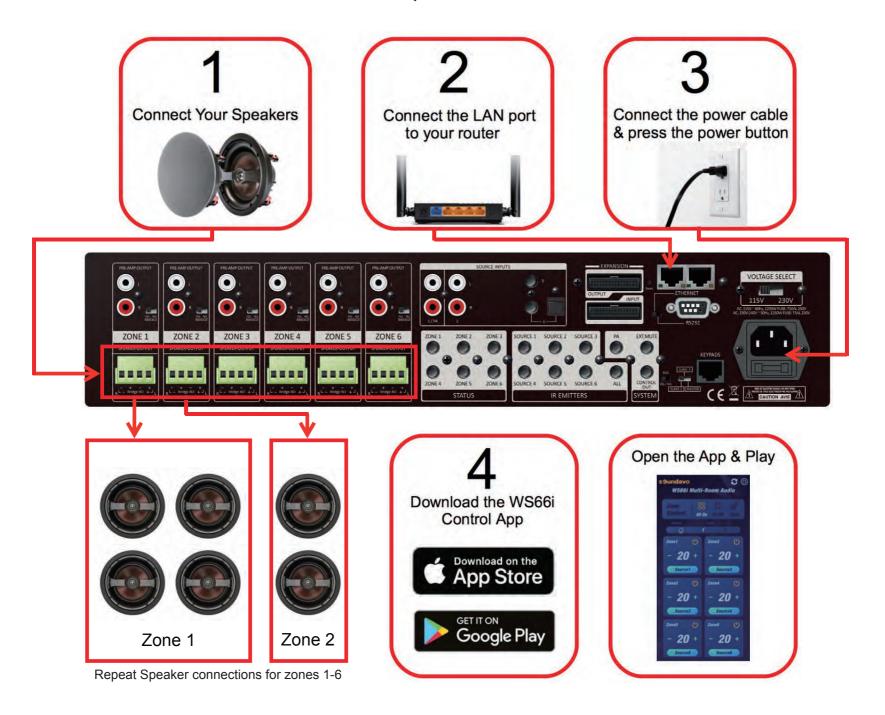
ETHERNET: When the amplifier Input 1/PA **Pre-Amp Output Ethernet Ports** connects to Ethernet. Paging capability for Input 1 Stereo Line level output on each zone. Direct Ethernet connection RS232: When the amplifier Connect to powered Sub-woofers, or to broadcast to all zones when for ultra reliable Wi-Fi control control by PC or Control an additional higher output, 70/100V 12VDC is applied to the PA - IN of the WS66i and the built-in Device via RS-232. commercial power amplifier. jack. Wi-Fi streamers. **Source Inputs Voltage Select** 6 Stereo Analog/Digital inputs. Please set to correctly Stereo/Bridge Switch **Expansion In/Out Port** Two Wi-Fi Streamers are input 3 and 4. input voltage before 6 x Stereo or Bridge Expandable to 18 Zones turn on the amplifier. Mono mode switches. with M66- EXT systems. **VOLTAGE SELECT** ZONE 1 ZONE 2 ZONE 3 **ZONE 4** ZONE 5 ZONE 6 SOURCE 1 SOURCE 2 SOURCE 3 SPEAKER-OUTPL SPEAKER-OUTPUT CE A GAUTION AVIS IR EMITTERS SYSTEM **Speaker Outputs Status** IR Emitters Master/ **AC Input** When the zone is activated. 12 high quality amplifiers with 50 watts output IR Outputs 6 Slave power @ 4 ohm or 100 watts @ 8ohm in the corresponding jack will routed & 1 Switch Bridge Mono mode with removable terminal output 12VDC to trigger other **Keypad Connector** common. block connectors. device. Single RJ45 jack connects to the **EXT. Mute/Control Out** H1 keypad hub Mute the entire system with the 12Vdc for 6 keypads. MUTE IN. Use the 12Vdc master output to **AGC** trigger source equipment or home theatre Automatic Gain Control equipment.

Ethernet/RS-232 Switch

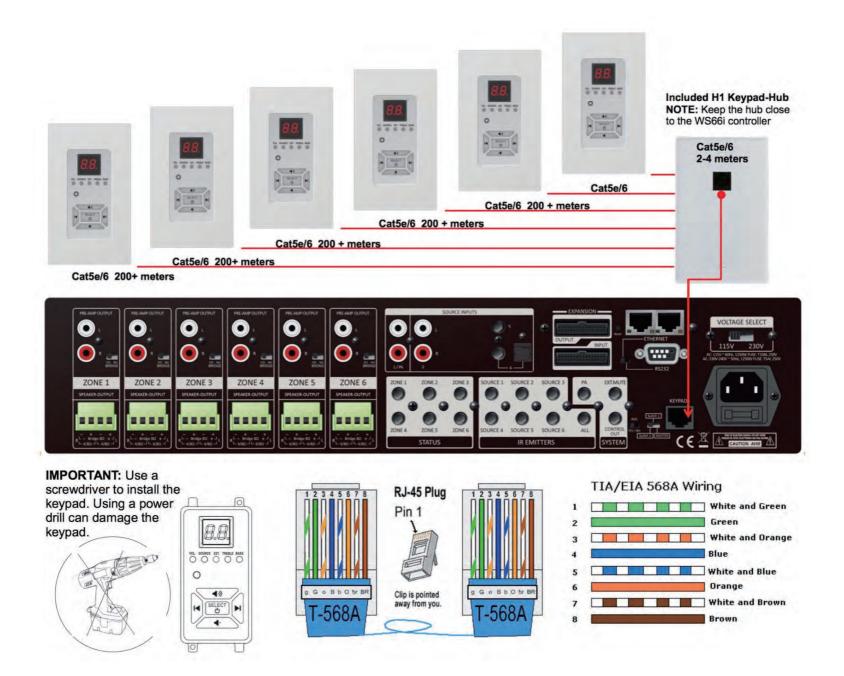
protects against amp

overload.

- WS66i Quick Start Guide -

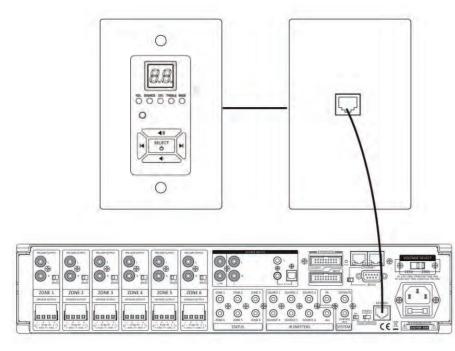


- WS66i Keypad (optional accessories) Installation Instriuctions -



- Keypad Connection & Setup -

The WS66i can be controlled via 6 POE enabled keypads (optional). This allows for source control from each specific zone as well as IR routing to the appropriate source devices once selected. The WS66i also comes with optional hub that allows for all 6 keypads to be connected to the amp via Cat5e/6.



*Use good quality cat5e or cat6 cable and RJ45 connectors for all K2 keypads

*The WS66i-KIT PACKAGE includes a central keypad hub (model H1). All K2 keypads will be home run back the H1 keypad hub. Keep the H1 keypad hub close the WS66i controller.

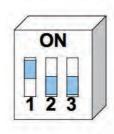
*Wire all cat5e/cat6 cables exactly the same using TIA/EIA568A wiring. Do not use crossover cables.

*Each WS66i-K2 keypad shows a handy mode selection chart on the back of the keypad as follows:

*Switch in the up position is ON. Switch in the down position is OFF.

IMPORTANT: All the WS66i keypads must have their mode dip switches set properly before powering the system on.

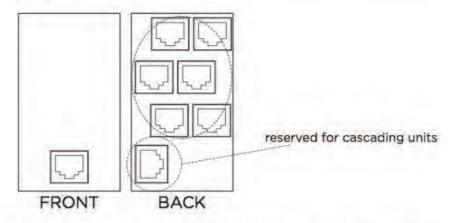
Failure to set the keypad mode dip switches correctly will result in no communication between the WS66i controller and the K2 keypads. The keypad mode switches are located on the back panel of each keypad. The dip switches set the zone location and communication of each individual keypad.



ZONE-1		ZONE-2			ZONE-3		
ON	OFF	ON	OFF	ON	ON	OFF	OFF
2	3	1	2	3	1	2	3
INC	E-4	Z	ONE	E-5	ZC	NE	-6
ON	ON	OFF	ON	OFF	OFF	OFF	ON
2	3	1	2	3	1	2	3
	ON 2 ONI ON	ON OFF 2 3 ONE-4 ON ON	ON OFF ON 2 3 1 ONE-4 ZO ON ON OFF	ON OFF ON OFF ON OFF ON ON OFF ON	ON OFF ON OFF ON 2 3 1 2 3 ONE-4 ZONE-5 ON ON OFF ON OFF	ON OFF ON OFF ON ON 2 3 1 2 3 1 ONE-4 ZONE-5 ZOONE OFF ON OFF ON OFF ON OFF	ON OFF ON OFF ON ON OFF 2 3 1 2 3 1 2 ONE-4 ZONE-5 ZONE ON ON OFF ON OFF OFF OFF

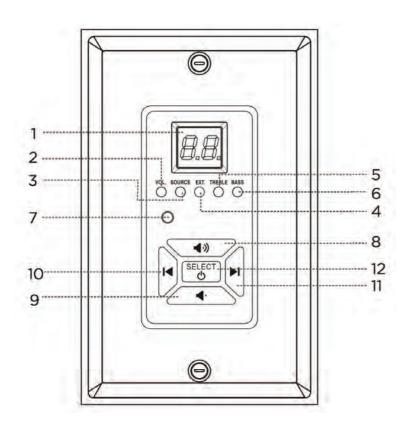
The **WS66i-KIT PACKAGE** includes a central keypad hub (model H1). All K2 keypads will be home run back the H1 keypad hub. Keep the H1 keypad hub close the WS66i controller.

Connect the other end of the Cat5e/6 to the lone RJ45 port found on the front side of the Keypad Hub. The front is what fits into the provide decora plate. Note that the Cat5e/6 between the unit and the hub should only be between 7-10ft. The RJ45 ports on the back of the Keypad Hub are not assigned but the single RJ45 port isolated on the bottom of the hub is reserved for cascading units.



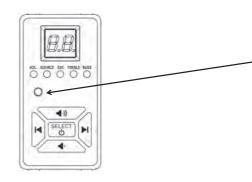
Connect the other end of the terminated Cat5e/6 to the RJ 45 port on the back of the assigned keypad and installation is complete. Complete zone and source control as well as IR and power are provided through the single Cat5e/6.

- WS66i K2 Keypad Features (optional accessories) -



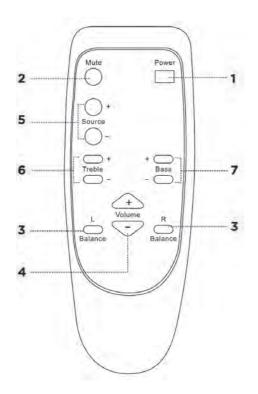
- **1. Numeric LED Display:** The digital LED display show the number of the source device, as well as the volume, treble, and bass level.
- **2. VOL. LED:** When illuminated, this LED indicates that the Numeric LED is displaying the volume level. Use the Up and Down buttons to increase and decrease the volume level.
- **3. Source LED:** When illuminated, this LED indicates that the Numeric LED is displaying the source selection.
- **4. EXT. LED:** When illuminated, this LED indicates that the Mute function is enabled or that a PA broadcast is in progress
- **5. Treble Mode LED:** When illuminated, this LED indicates that the Numeric LED is displaying the treble level. Use the Up and Down buttons to increase and decrease the treble level.
- **6. Bass Mode LED:** When illuminated, this LED indicates that the Numeric LED is displaying the bass level. Use the Up and Down buttons to increase and decrease the bass level.
- **7. Infrared (IR) receiver:** The IR "eye" receiver the infrared remote control signals. Signals sent from the include remote control are used to control the wall plate keypad.
- **8. Volume Up Button:** Use this button to increase the volume, treble, or bass levels (depending on which mode is selected). If the zone is muted, pressing this button will unmute it.
- **9. Volume Down Button:** Use this button to decrease the volume, treble, or bass levels (depending on which mode is selected). If the zone is muted, pressing this button will unmute it.
- **10. Previous Source Button:** Use this button to cycle backwards through the list of available source. (For example, if source 3 is currently selected, pressing this button will change to source 2)
- **11. Next Source Button:** Use this button to cycle forwards through the list of available source. (For example, if source 3 is currently selected, pressing this button will change to source 4)
- **12. Select-Power Button:** Press and hold this button for about 3 seconds to turn the zone on or off. (When the zone is on, pressing the button will cycle through the availale adjustment modes)

- Remote Controller (model R1) Features (optional accessories) -



The WS66i-R1 Infrared remote control provides complete zone control through the (IR) receiver located in the center of the WS66i keypad.

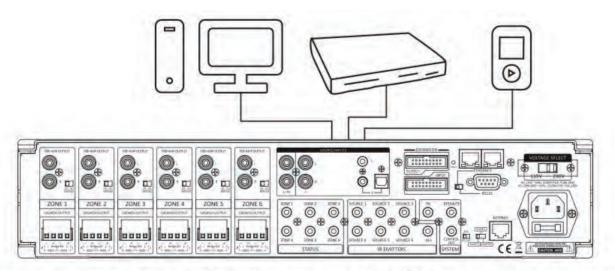




All keypad functions can be accessed with the R1. In addition to this the R1 provides a handy MUTE button to temporarily mute audio in the zone and left/right balance adjustment. Once the MUTE function is activated the keypad numeric LED display will flash indicating the mute status. Press the MUTE button again to return to playing music. Pressing the volume up/down buttons on the keypad will also un-mute the zone and return to playing music.

- 1. Power: switches power (On/Off) for the certain Zone
- 2. Mute: alllows you to mute a certain zone
- **3. Balance:** these L & R buttons can adjust the balance of L/R channel in Stereo mode
- 4. **Volume**: volume adjustment
- 5. Source: used to select input source signal
- 6. **Treble**: this allows you to enhance or reduce Treble of audio source in individual zone
- 7. Bass: this allows you to adjust the Bass for the indivdual zone

- Connecting The External Audio Source Device -



Some sources such as MP3 players and Cell Phones may require a 3.5mm Stereo to RCA Cables in order to connect to the AMP

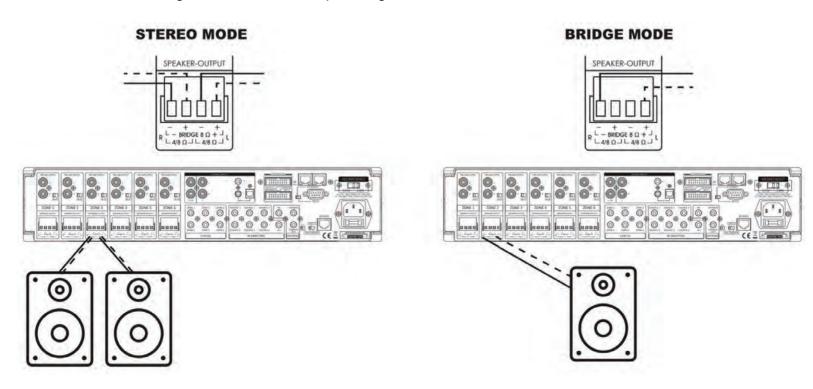


NOTE: Input 1 can be used as a global input for all zones when a source is connected to Input 1 and the 12VDC is applied to the PA-IN jack (tip is positive) then source 1 will broadcast to all zones. If no 12VDC is applied, then the first input will be operating under normal conditions.

- Connecting The Speakers -

The WS66i amplifiers are capable of driving 4-8 ohm speaker loads in stereo mode and 8 ohm loads in bridge mono mode.

- *Never connect more than two 8 ohm speakers wired in parallel to a single amplifier channel in stereo mode.
- *Never connect more than one 8 ohm speaker to a single channel in bridge mono mode.
- *Never connect the Left & Right channels of the amplifier together.



Connecting 4-8 ohm speakers to the WS66i in STEREO MODE

Use good quality 12-14 awg stranded copper speaker wire, connect the speaker wires to the unit with the removeable supplied Euroblock plug and commercially-available speaker wires.

- 1. Loosen Terminal Screws
- 2. Insert Speaker Wires
- 3. Securely tighten terminal screws
- 4. Insert the Euroblock plug into the speakers terminals of the unit

Connecting 8 ohm speakers to the WS66i in BRIDGE MODE

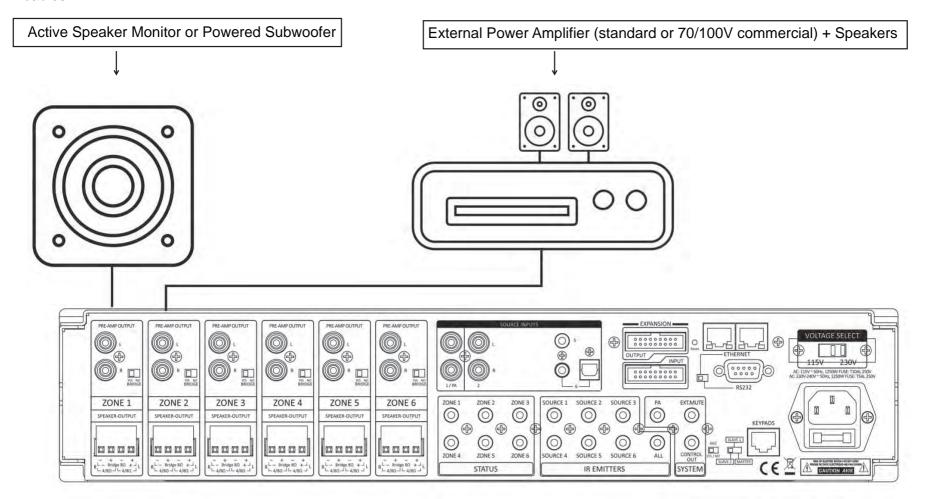
Setting the amplifier mode switch to Bridge mode will double the amplifier power output to 100W, effectively combining the LEFT and RIGHT amplifiers into one larger mono amplifier, so the LEFT and RIGHT input signals will be summed to Mono. The minimum speaker impedance in Bridge mode is **8 ohm**.

NOTE: Unplug the WS66i's power cord from the AC wall outlet before changeing the BRIDGE switch to "YES" position

- Using the WS66i Preamp Output -

The WS66i provides 6 x stereo unbalanced line level PRE-AMP outputs which correspond to the 6 x zone outputs. PRE-AMP outputs can be used to connect powered subwoofers to a zone or additional amplifiers to expand the available power in a large zone or multiple zones.

The WS66i can also be used as the master controller in large commercial audio systems where constant voltage 70/100V amplifiers can be connected to the PRE-AMP outputs. The PRE-AMP output levels are variable and can be controlled from the App, zone keypad, infrared or RS232. Keep the PRE-AMP output cable runs under 25 feet to avoid RF interference and use good quality shielded RCA cables.



- Using the WS66i 12VDC Trigger Inputs and Outputs -

The WS66i provides 6 x 12VDC trigger outputs which correspond to the 6 x WS66i zones. When a zone is powered ON by pressing and holding the SELECT button on the WS66i keypad for 3 seconds the corresponding zone sends 12VDC to the trigger output jack.

When the zone is powered OFF the routed 12VDC signal is disengaged. Triggers can be used to automatically power peripheral equipment ON/ OFF with the WS66i zones. The WS66i also provides a master control 12VDC trigger output which sends 12VDC to the CONTROLOUT jack when any zone is powered ON. The 12VDC CONTROLOUT signal is disengaged when all zones are powered OFF.

WS66i Trigger Outputs:

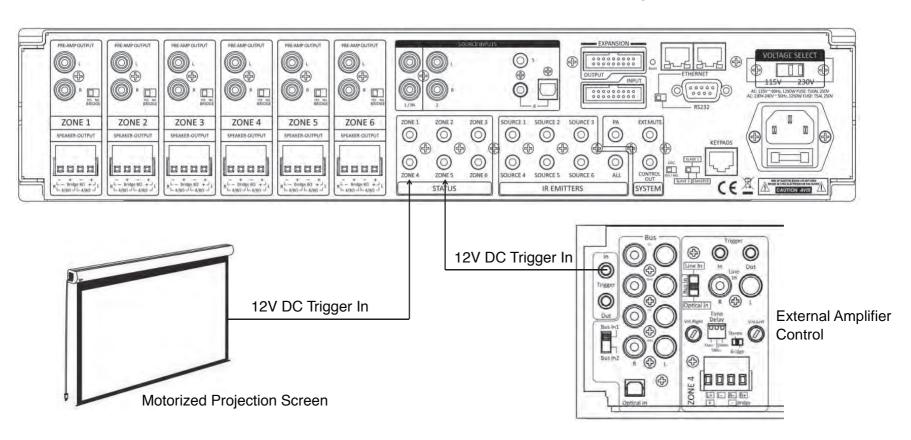
ZONE 1-6: Zone ON 12VDC applied to output jack Zone OFF 12VDC disengaged **CONTROL:** Any zone ON 12VDC applied to output jack Zone OFF 12VDC disengaged

WS66i Trigger Inputs:

PA- IN- Insert 12VDC and Input 1 takes priority over all other inputs and broadcasts to all 6 zones.

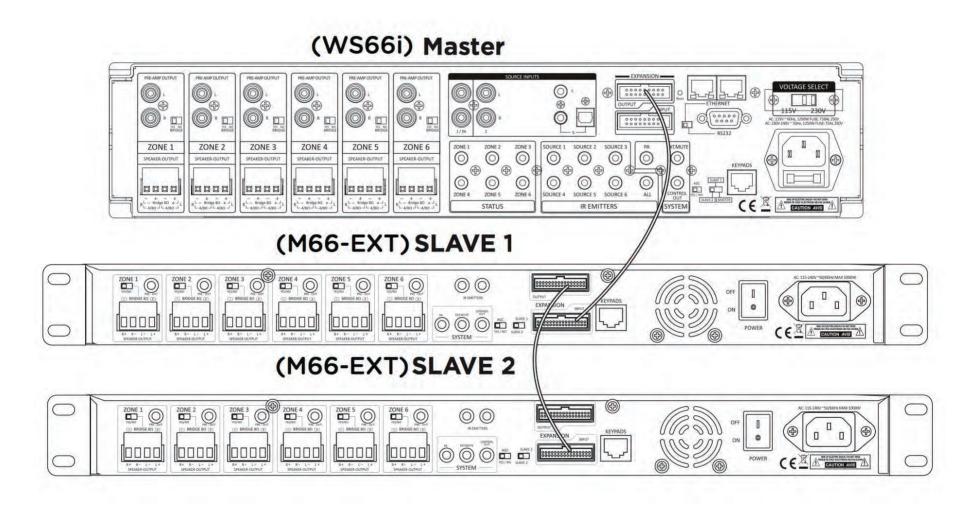
MUTE - IN- Insert 12VDC and all zones will be muted. (no sound)

WIRING: 3.5mm Mono Plug (Tip + / Sleeve -)

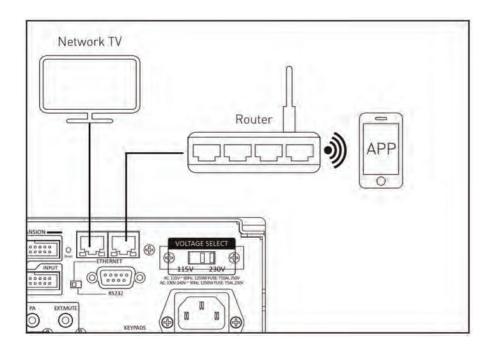


- WS66i Zone Expansion -

The WS66i provides an 18 pin expansion cable with the WS66i-KIT, the WS66i can be expanded up to 18 zones using additional 2 x M66-EXT expansion amplifer (optional). Connect the expansion cable from the lowest unit output and cascade the units from output to input.



- Ethernet Connection -



There are two RJ-45 jacks on the rear panel of this amplifier for the connection to Ethernet, please use a good quality Cat5e/5 cable, and follow the connecting diagram below.

- (1) Connect the LAN1 port on the rear panel of controller to the local Wi-Fi Router. The Ethernet connection mainly for Wi-Fi control via APP or other control devices.
- (2) Connect the LAN2 port on the rear panel of control to the smart TV or other Network devices.

The port simply works as SWITCH function as long as the LAN1 port enabled to Ethernet.

Note: When controlling via ETHERNET, please make sure the ETHERNET/RS232 switch is set at "ETHERNET" position.

- (3) Please make sure the CAT-5 cable is connected to the LAN port from your WiFi router (not the KEYPAD port)
- (4) The unit has set to "MASTER" position (not Slave 1 or Slave 2) switches
- **(5)** Make sure both WS66i and your cellphone device with APP must connected to the **SAME network**, means the WS66i amp needs to connect to the LAN port on your internet router by CAT5/RJ45 cable, and your cell phone device with APP need to connect with the WiFi with your WiFi network
- **(6)** Simply use the **Auto Device IP** from the WS66i Control App, and the WS66i can be connected to your network with control device (IOS or Android) within 60 seconds.

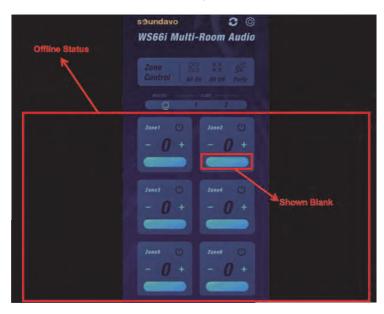
- Integrate Network & Controlling The WS66i Via APP -

The Ethernet connection of the WS66i is used for configuration and programming as well as for enabling control via the WS66I control APP, and the "Soundavo Player" for the built-in streaming services and for playing any music stored on connected network. By using the **Advanced_IP_Scanner software** (or any high rating IP Scanner App) can be used to search for the WS66i matrix amp device in the local area network, IP address and status. Connect an Ethernet cable from an open network port on the rear of the WS66I, the LED beside the ethernet port of will turns flash green when the network connection is successfully established.

Connect the WS66i with local network under control device via 'Auto Device IP" connection —>



- 1. The control device (cellphone/tablet) need to be the **same network** as WS66i (ethernet cable to WiFi router), **you CAN'T use the Cellular service from your phone to control the WS66i.**
- 2. Please make sure the switch between RS-232 and Ethernet that you select to "ETHERNET" position.
- 3. Please make sure the CAT-5 cable is connected to the **LAN** port from your WiFi router (NOT the KEYPAD port)
- 4. The unit has set to "MASTER" position (NOT Slave 1 or Slave 2) switches
- 5. Once the WS66i switches and connecting has been set correctly, please use the "**Auto Device IP**" Search Function from the WS66i Control App, and the WS66i can be connected to your network with control device (IOS or Android) within 60 seconds.



WS66i Control App Offline Status



"WS66i Control App Online Status"

- Manual Connection Option -

Once you use the IP scanner App, you will see 3 different MAC ID address once the WS66i has been connected to your internet router:

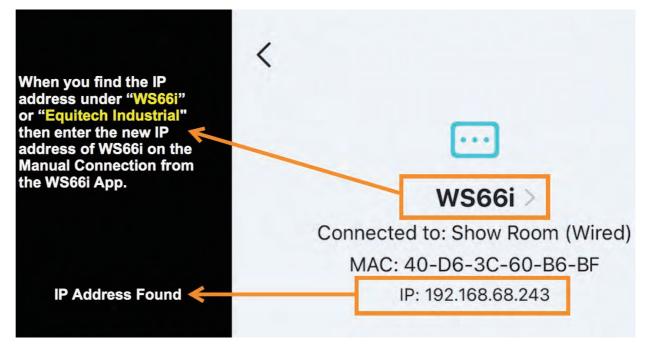
One for the built-in Streaming Module 1 on Source 3, will shown something like WS66i_XXXX One for the built-in Streaming Module 2

on Source 4, will shown something like WS66i_XXXX, other one for the Ethernet Module inside the WS66i, will shown as "WS66i" or "Equitech Industrial" - > this one will needs to work with WS66i control APP

When you find the IP address under "WS66i" or "Equitech Industrial", then enter the new IP address of WS66i on the Manual Connection from the WS66i App.



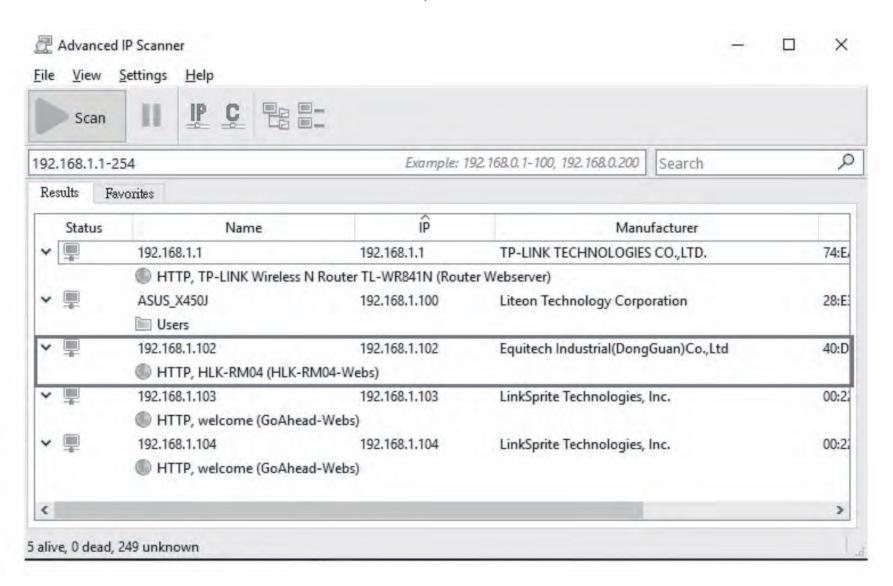
For the WS66i network connection, you can either choose the Manual setup, or the Auto Scan option



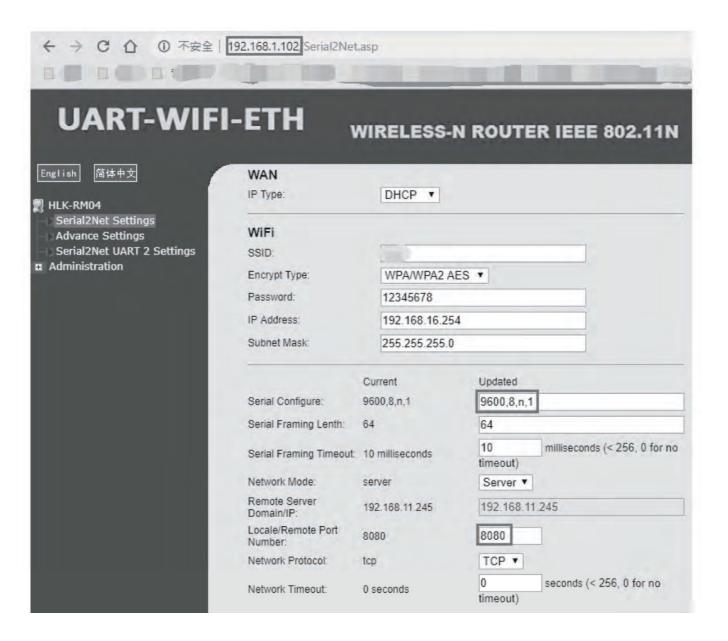
- Advance IP Address Scan -

1. Using "Advanced_IP_Scanner" software to find the "HLK-RM04 or WS66i" IP address.

Please visit www.advanced-ip-scanner.com for free download.

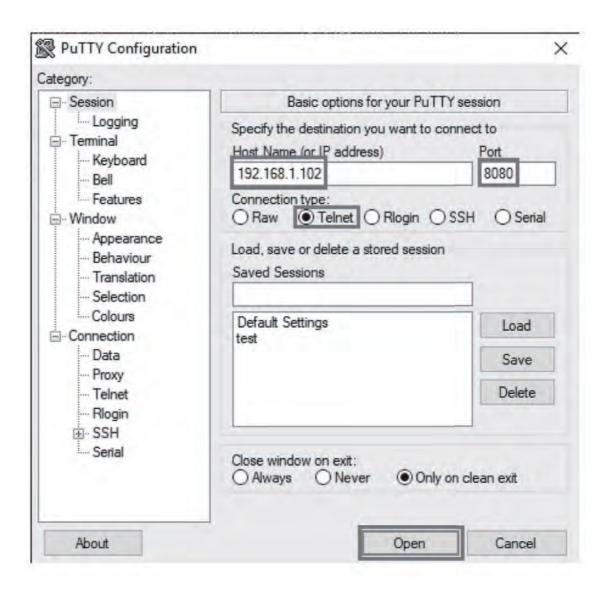


2. Then enter the IP address of WS66I to the IE browser (shown as below), ensure the Serial Configure is 9600,n,8,1. After finishing this step, WS66I could be controlled through the local Network.



Download free software "PuTTY" Tool from the internet to control the device.

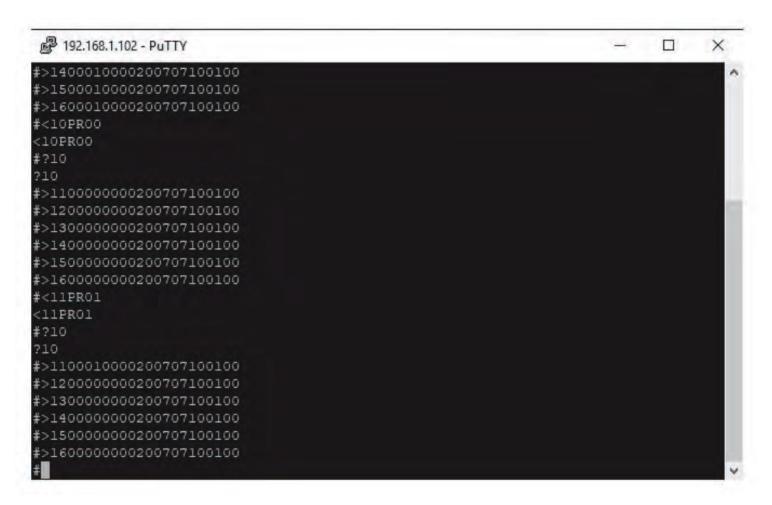
Operation diagram as below:



Click Telnet, enter the IP address of WS66I and port: 8080.

Click Open.

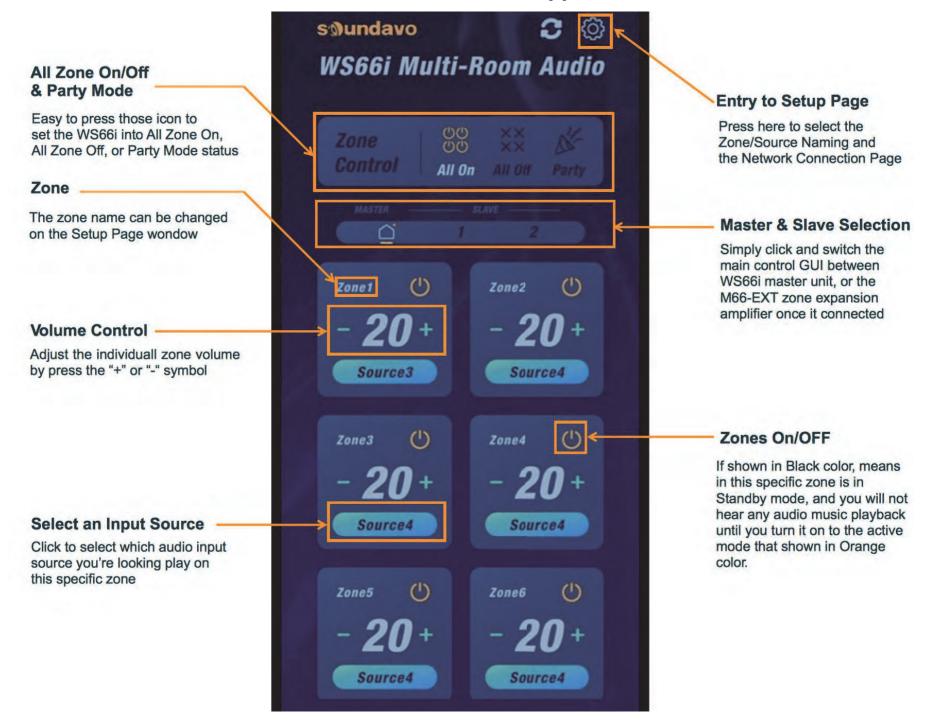
When the IP address connected, the operation diagram shows as below:



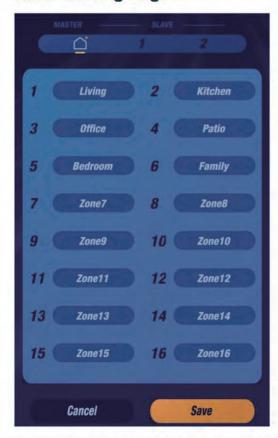
Key in the command code to control WS66I.

For the detail of command codes, please find the RS-232 command codes in this instruction manual.

- WS66i Quick Start Guide App Screen -



Zone Naming Page



When the WS66i installed, the zones are numbered. You can give them names that you recognize (e.g. Living, Kitchen, Office, Parto, etc.) in the blue oval boxes, enter the names for the zones, and click Save



Source Naming Page



When the WS66i installed, the sources are numbered. You can custom (e.g. CD, MP3, TV, Stream, etc) in the blue oval boxes, enter the names for the source, and click Save

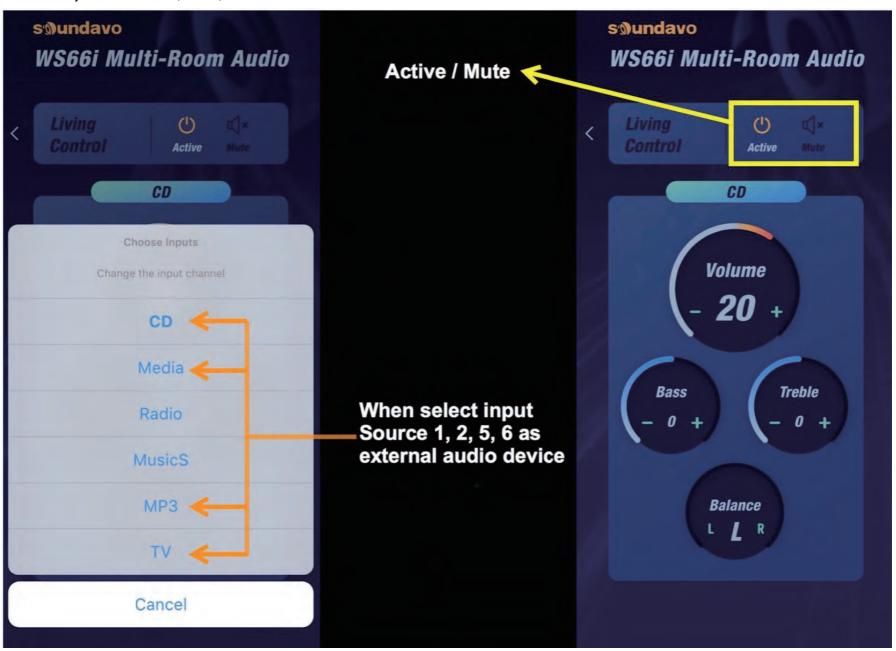
Connecting the Network



For the WS66i network connection, you can either choose the Manual setup, or the Auto Scan option

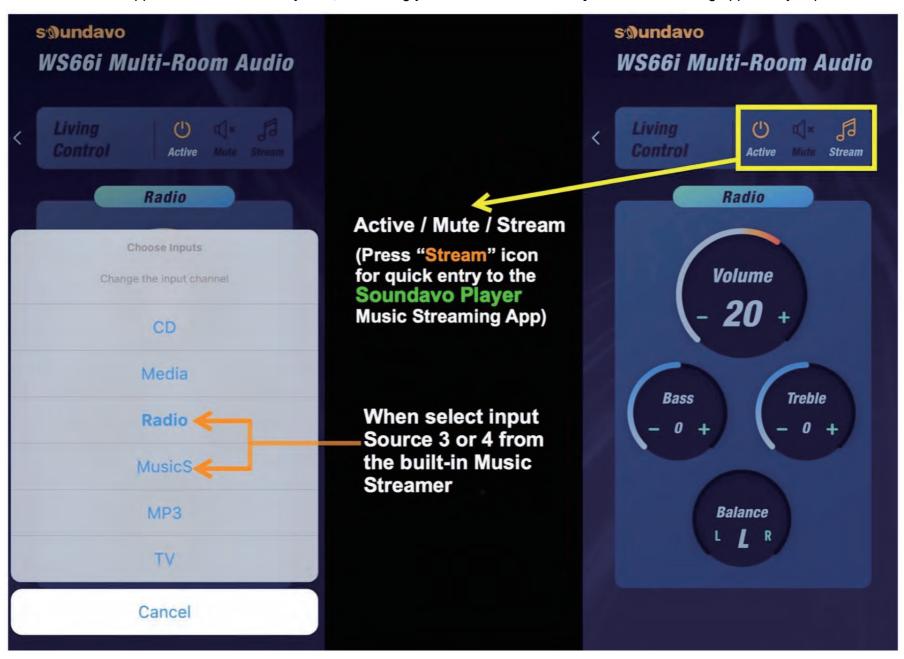
- Play the Music From The External Audio Device -

When you select the input source 1, 2, 5 or 6 as the external audio device, you can set this specific zone for Active or Mute function, you also can adjust the Volume, Bass, Treble and Balance.



- Play the Music From The Built-In WiFi Streamers-

Once the input has been selected to source 3 or 4 from the built-in music streamer input for the audio playback, you will see the special "Stream" icon will appear beside the mute symbol, it will bring you to the **Soundavo Player** music streaming app once you press it.



- Download The "Soundavo Player" APP -

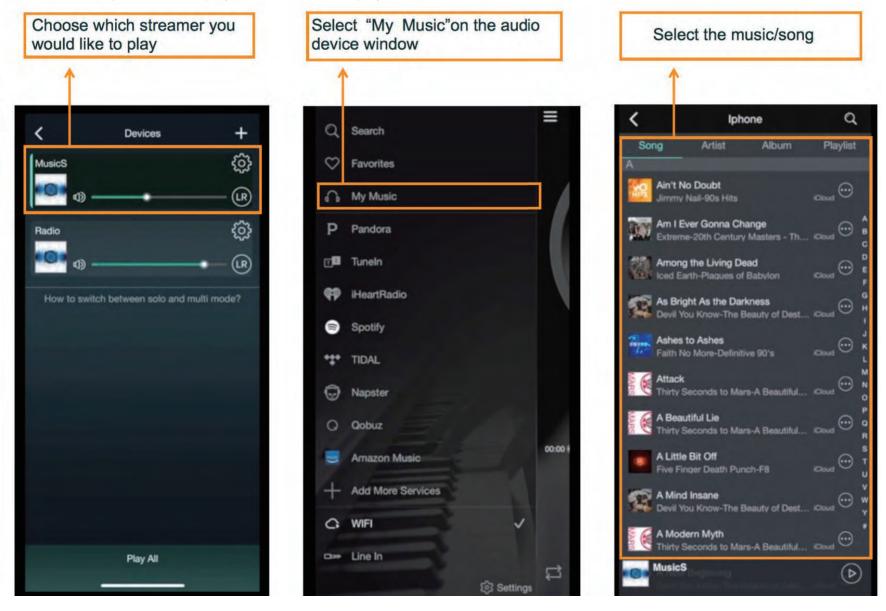
The "Soundavo Player" App is required to connect and control the WS66i Matrix Amplifier 's Built-In Streamer (on Input source 3 and 4) with Wi-Fi, the "Soundavo Player" App is available for Apple iPhone/ iPad and Android smart phone/Pad, can be dowloaded from the Google Play and Apple App Store



- 1. Select a smartphone or tablet that can be connected to a Wi-Fi ® connection.
- 2. Please search "Soundavo Player" on Google Play and Apple App Store to download and install the App
- 3. Search for "Soundavo Player" and locate the app.

- Play The Audio File From Your Music Libery Of Device Thru The WS66i Built-In WiFi Streamers -

Once the WS66I matrix amplfier's built-in streamer S3 (input source 3) and S4 (input source 4) are connected to the same local network and the "Soundavo Player" App is opened on the smartphone or tablet then the opening screen will be the Device List "Soundavo Player" App Device List screen). The "Soundavo Player" App allows up to 2 built-in streamers of the WS66I to be connected simultaneously. Each connected speaker will display as a "Device" and play the different audio to select zone.



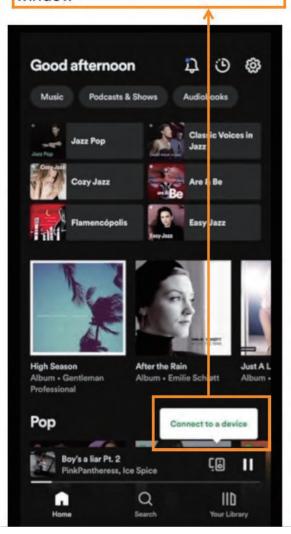
- Play The Audio File From Spotify Thru The WS66i Built-In WiFi Streamer -

Spotify is one of the audio apps on the "Soundavo Player" App Dashboard. The App has millions of tracks to select from with a friendly search function. Also a user can browse music collections of friends, artists and celebrities, or create a radio station based on specific artists. **A Premium Spotify account** is required when using the WS66i connected to WiFi ® . However, a free Spotify account can be used when using the WS66i Airplay

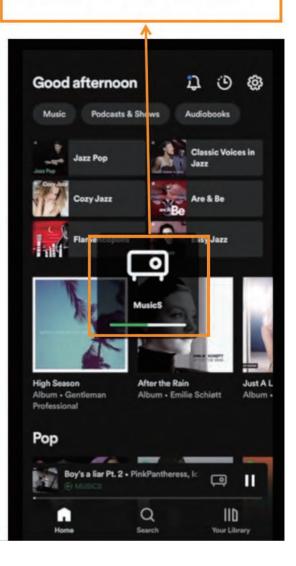
Press the [Devices Available] located at the bottom of the music player – Spotify Menu Screen window

Select which streamer from the WS66i you would like to do the audio playback

The Selected streamer linked

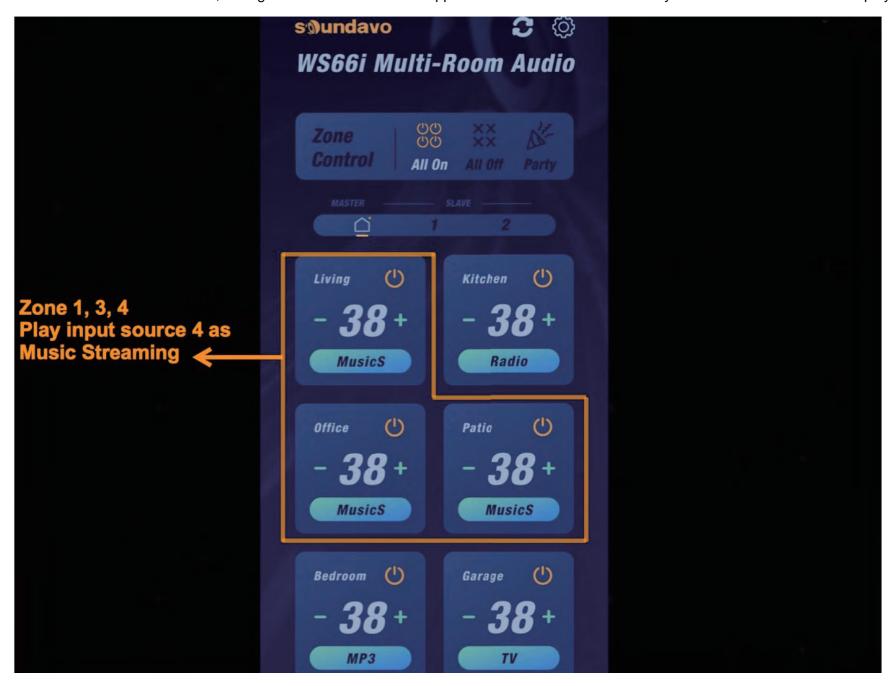






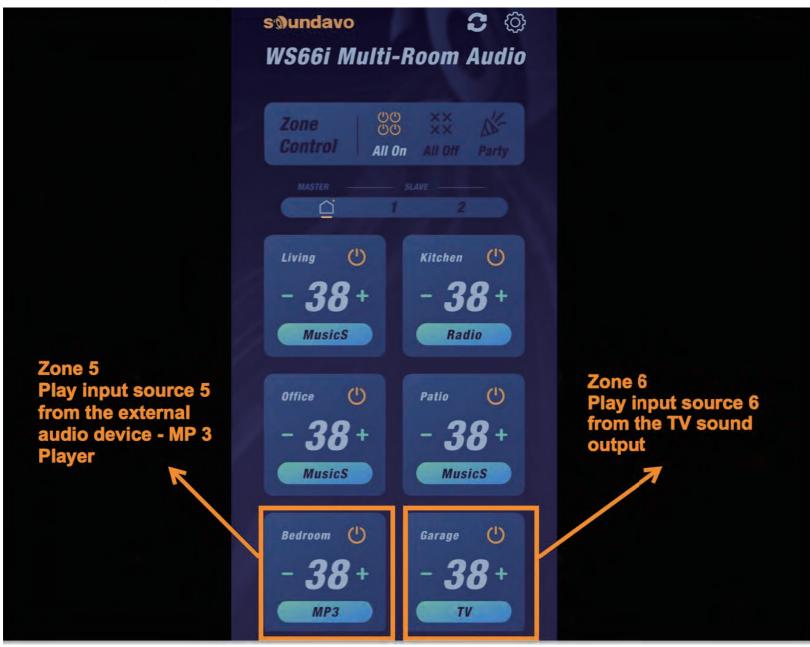
- Select The Specific Zone For the Music Playback From the Streamer -

Once the selected streamer linked, then go back to WS66i control App main window to set which zone you would like to do the audio playback



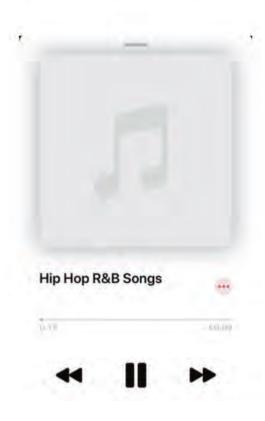
- Select The Specific Zone For the Music Playback From the Streamer -

Beside the built-in streamers are located in the input source 3 & 4, you can also setup which zone you would like to play from the external audio devices (such as the CD Player, MP3 or TV) that connected to the input source 1 & 2 (RCA), input source 5 (Mini Jack TRS) and input source 6 (Optical) - Please see below example setup for reference



- Listening To AirPlay Streaming -

The WS66i supports Apple's AirPlay technology. AirPlay enables you to listen to your iTunes library or other audio content from any AirPlay-enabled Apple device through the WS66i . With AirPlay, your iOS device becomes anextension of your audio system. Using AirPlay will instantly turn on the WS66i and start playing music from your phone, tablet, or computer. When AirPlay is selected from iTunes or an iOS mobile device and music is sent to the WS66i, the WS66i will activate and select the internal streamer as the source. When the WS66i is actively streaming AirPlay, the volume control on the WS66i and the AirPlay-enabled device are linked, which means a change in volume on the AirPlay-enabled device will also change the volume level of the WS66i and vice versa.



- WS66i Installation Instructions RS-232 Control -

The WS66i provides an RS-232 serial port connection located on the back panel of the WS66i and uses a DB-9 cable connection. The WS66i supports bi-directional RS-232 communication with third party automation systems. All keypad and remote control operations can be controlled via RS-232 in addition to system expansion up to 18 zones or 3 master controller units linked together using the included 18 pin expansion cable. (Baud Rate 9600, 8, N, 1, DB9 Connector Pin out, Tx, Rx, GND)

```
WS66i RS-232 CONTROL
'CR':Carriage Return (0x0D)
No case capitalization/ lowercase
                                                            CH: Source Channel control
                                                            CH (01-06): Source control
Control order structure <xxPPuu'CR'
                                                            Inquiry command structure (1) ?xx'CR'
Reply control order frame >xxPPuu'CR'
xx: stands for control object code
                                                            xx: stands for control object code
10 :All Zone of Main unit 1.
                                                            10 : All Zone of Main unit 1.
20 :All Zone of Main unit 2.
                                                            20 : All Zone of Main unit 2.
30 :All Zone of Main unit 3.
                                                             30 : All Zone of Main unit 3.
:Zonel of Main unit 1.
                                                            : Zonel of Main unit 1
:Zone2 of Main unit 1.
                                                             : Zone2 of Main unit 1
:Zone3 of Main unit 1.
                                                             : Zone3 of Main unit 1
                                                            : Zonel of Main unit 2
. . . . . . . . . . . . . . . .
PP: Stands for control action code.
                                                             : Zone2 of Main unit 2
PR: Power control
                                                            : Zone3 of Main unit 2
PR00: Power off PR01: Power on
                                                             . . . . . . . . . . . . . . . .
MII: Mute control
                                                            Reply command: >xxaabbccddeeffgghhiijj'CR'
MU00: Mute off MU01: Mute on
                                                            aa: PA control status
DT:Do Not Disturb control
                                                            bb: Power control status ([5]:Backup Zone Power
DT00:DT control off
                                                            Status
DT01:DT control on
                                                             (only on zone)
VO: Volume control
                                                            cc: Mute control status
VO(00-38): Volume control
                                                            dd: DT control status
TR: Treble control
                                                             ee: Volume control status
TR(00-14): Treble control
                                                            ff: Treble control status
BS:Bass control
                                                            gg: Bass control status
BS(00-14):Bass control
```

BL:Balance control

BL(00-20):Balance control

hh: Balance control status

ii: Source control status

jj: keypad connecting status

(00:disconnect 01:connected)

Inquiry command structure (2) ?xxPP'CR'

xx: stands for control object code

10 : All Zone of Main unit 1.

20 : All Zone of Main unit 2.

30 : All Zone of Main unit 3.

11 : Zonel of Main unit 1

12 : Zone2 of Main unit 1

13 : Zone3 of Main unit 1

14 : Zone4 of Main unit 1

15 : Zone5 of Main unit 1

16 : Zone6 of Main unit 1

PP: Stands for control action code.

PA: PA control

PR: Power control

MU: Mute control

DT: DT control

VO: Volume control

TR: Treble control

BS: Bass control

BL: Balance control

CH: Source control

LS: keypad connecting status

Reply command: >xxPPuu'CR'

Key in 1<******** 'CR' change Source 1 Name display; ******needs to be 8 valid ASCII codes. Key in 2<*******CR' change Source 2 Name display 3<******* 'CR' change Source 3 Name Key in display Key in 4<******* 'CR' change Source 4 Name display Key in 5<******* 'CR' change Source 5 Name display 6<*******CR' change Source 6 Name Key in display

Key in M<********CR' change the name display on keypad when turn on.

Key in <9600'CR' change RS232 speed rate to 9600
Key in <19200'CR' change RS232 speed rate to
19200</pre>

Key in <38400'CR' change RS232 speed rate to 38400

Key in <57600'CR' change RS232 speed rate to
57600</pre>

Key in <115200'CR' change RS232 speed rate to 115200

Key in <230400'CR' change RS232 speed rate to 230400

When unplugging and re-plugging the AC power cord, the baud speed rate returns to 9600.

ee: Volume control status

ff: Treble control status

gg: Bass control status

hh: Balance control status

ii: Source control status

jj: keypad connect status

(00:disconnect 01:connected)
Inquiry command structure (2) ?xxPP'CR'
xx: stands for control object code
10 : All Zone of Main unit 1.
20 : All Zone of Main unit 2.
30 : All Zone of Main unit 3.
11 : Zone1 of Main unit 1
12 : Zone2 of Main unit 1
13 : Zone3 of Main unit 1
14 : Zone4 of Main unit 1
15 : Zone5 of Main unit 1
16 : Zone6 of Main unit 1

PP: Stands for control action code.

PA: PA control
PR: Power control
MU: Mute control
DT: DT control

VO: Volume control

TR: Treble control

BS: Bass control

BL: Balance control

CH: Source control

LS: keypad connecting status Reply command: >xxPPuu'CR'

Reply command: >xxPPuu'CR'
;******needs to be 8 ASCII codes.

Key in 1<******'CR' change Source 1 Name display

Key in 2<******'CR' change Source 2 Name display

Key in 3<******'CR' change Source 3 Name display

Key in 4<******'CR' change Source 4 Name display

Key in 5<*****'CR' change Source 5 Name display

Key in 6<******'CR' change Source 6 Name display

Key in M<********CR' change the name in the display On the keypad when the keypad is turned on.

Key in <9600'CR' change RS232 speed rate to 9600

Key in <19200'CR' change RS232 speed rate to 19200

Key in <38400'CR' change RS232 speed rate to 38400

Key in <57600'CR' change RS232 speed rate to 57600

Key in <115200'CR' change RS232 speed rate to 115200

Key in <230400'CR' change RS232 speed rate to 115200

When unplugging and re-plugging the AC power cord, the Baud speed rate will return to 9600.

- TROUBLESHOOTING -

Problem	Possible Causes	Solution		
WS66I Control doesn't get response	WS66I is power off or didn't connected with network, or the WS66I's mac address has been used with other WiFi devices	Please make sure the WS66I matrix amplifier is powered on Make sure the WS66I has been connected to the same network account with smartphone or tablet IP address on the same WiFi network		
Device Not Found on the Soundavo App	WS66i is powered off, or doesn't connected to the same network with your smartphone/tablet	Please make sure the WS66I matrix amplifier is powered on Make sure the WS66I has been connected to the same network account with your smartphone or tablet		
Soundavo Player App Fails to Respond	Soundavo Player App is Not Properly Operating.	Shut OFF the Soundavo Player App then Restart the Smartphone or Tablet with Soundavo Player App		
Soundavo Player App's Search Speed for Music Stored on the Smartphone or Tablet is Slow or Non-Responsive.	A Large Number of Other Operating Apps on the Smartphone or Tablet.	Turn OFF the Other Nonessential Operating Apps.		
	Soundavo Player App is Not Properly Operating.	Restart the Smartphone or Tablet and Reopen Soundavo Player App.		
iHeartRadio App Fails to Load	iHeartRadio App is not properly operating	Restart the Soundavo Player App and Reopen the iHeartRadio App.		
Spotify App Fails to Play Audio.	Spotify App is Not Properly Operating.	Unblock the Wi-Fi ® Connection on the Smartphone or Tablet. Ensure the Smartphone or Tablet is Connected to the Soundavo Player App by Wi-Fi ® . Also Setup a Premium Spotify Account.		
WS66I Control App doesn't link with network, and unit doesn't get response via the App	WS66i is powered off	Turn ON the WS66I martix amp open the WS66I Control APP, press "Connection" again		
	WS66l didn't set the controls mode by Ethernet	Please make sure the ETHERNET/RS232 switch is set at ETHERNET position.		
	WS66I didn't't connect to the local network router	Please sure the CAT-5 cable has been connected between WS66l's Ethernet Port and your local WiFi network router (see page 15 & 17 for more detail)		
Wi-Fi Audio Buffering is Ongoing	Bad Quality Audio Source	Try a different audio source		

- WS66i Specification & Warrany -

RMS Power @ 8 ohms	25 watts x 12		
RMS Power @ 4 ohms	50 watts x 12		
RMS Power @ 8 ohms Bridge Mode	100 watts x 6		
S/N Ratio	>85dB A Weighted		
THD	<0.1%		
Frequency Response	20Hz - 20kHz		
Input Impedance	>47 K Ohms		
Input Sensitivity	250mv		
Amplifier Protection	Overload, Short Circuit & Therma		
Trigger Systems ON Voltage	DC + 12V		
Trigger External Mute Voltage	DC + 12V		
Infrared Frequency	38kHz		
Input Connectors	3.5mm stereo, RCA, SPDIF		
Output Connectors	Terminal Block, 3.5mm mono		
Power Supply (switchable)	AC115V/60Hz, 230V/50Hz		
Dimensions mm	430 W x 89 H x 416 D		
Weight	11kg		
Warranty	3 Years		

In an effort to constantly provide our valued customers with the latest advancements in technology, Soundavo specifications are subject to change from time to time without notice.

Contact Information:

Soundavo Inc

E-Mail: support@soundavo.com

Web: www.soundavo.com

Warranty:

Soundavo WS66i amplifiers are warranted to be free from defects in workmanship and materials for a period of three (3) years from the date of purchase without charge for parts or labour. This warranty applies only to the original owner. The owners responsibilities are to provide proof of purchase from an authorized Soundavo dealer/distributor and transportation to the dealer/distributor the unit was purchased from or Soundavo. This warranty does not apply to units that have been subject to misuse, abuse, neglect or improper installation, and does not apply to repairs or alterations made by unauthorized personnel. This warranty specifically excludes responsibility for consequential damage.

Retention of your original bill of sale is required to obtain service under the terms of this warranty.

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