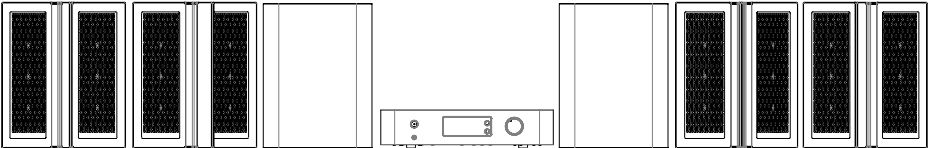




involve audio
Intelligent Sound

Involve Audio Y4

Hi-Fi Surround Sound System User Manual





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This manual describes how to setup and use your Involve Audio™ Y4 Hi-Fi Surround Sound System. The Setup guide describes how to set up the speakers and sub-woofer(s) and attached other devices such as your TV, DVD, set top box, Bluetooth device etc. so you can enjoy the full rich surround sound experience only an Involve powered system can provide.

Welcome to the wonderful world of Involve Audio!



AUSTRALIAN DESIGNED
AND MANUFACTURED



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Please read this guide

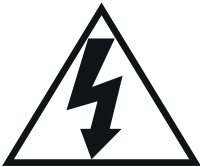
Please take the time to follow the instructions in this guide carefully. It will help you set up and operate your Y4 Hi-Fi Surround Sound System properly and enjoy all of its advanced features. Please save this guide for future reference.

WARNING: To reduce the risk of fire or electrical shock, do not expose the product to rain or moisture.

WARNING: The apparatus shall not be exposed to dripping or splashing, and objects filled with liquids, such as vases, shall not be placed on the apparatus. As with any electronic products, use care not to spill liquids into any part of the system. Liquids can cause a failure and/or a fire hazard.

WARNING: No naked flame sources, such as lighted candles, should be placed on any part of the system.

These **CAUTION** marks are located on your Y4 Amplifier enclosure:



The lightning flash with arrowhead symbol within an equilateral triangle alerts the user to the presence of uninsulated, dangerous voltage within the system enclosure that may be of sufficient magnitude to constitute a risk of electrical shock.



The exclamation point within an equilateral triangle, as marked on the system, is intended to alert the user to the presence of important operating and maintenance instructions in this owner's guide.

PLEASE NOTE : THERE ARE NO USER SERVICEABLE COMPONENTS CONTAINED WITHIN THE Y4 SYSTEM.

About Involve Audio

Involve Audio is a leading research organisation specialising in sound reproduction. Based in Melbourne, Australia, Involve Audio has concentrated its research efforts in the field of human hearing and how to reproduce sound in the best possible way.

After years of research and development Involve Audio has achieved a number of technical breakthroughs that are set to change the world of Audio. These technologies are incorporated for the first time in your Y4 Hi-Fi System and all at Involve Audio hope you enjoy the experience as much as we do.

The key technologies incorporated in your Y4 Hi-Fi System are:

Involve™

Our patented process called *Involve™* creates a full surround sound experience from any stereo source including Television, Internet, mobile devices, iPods, vinyl, etc. without adding to or subtracting from the original source. It provides the most accurate representation of the original audio recording available today. Additionally, any recording marked with the Involve logo will have enhanced surround content deliberately mastered for your system.

Sweet Spot Technology™ (SST™)

We have created a patented technology called *Sweet Spot Technology™* that enables your *Involve™* Y4 Hi-Fi Surround Sound System to be enjoyed by everyone in the room no matter where they are seated, eliminating the need to find the best seat in the house. All seats in the room now experience the same accurate surround sound image and provide the same audio experience.

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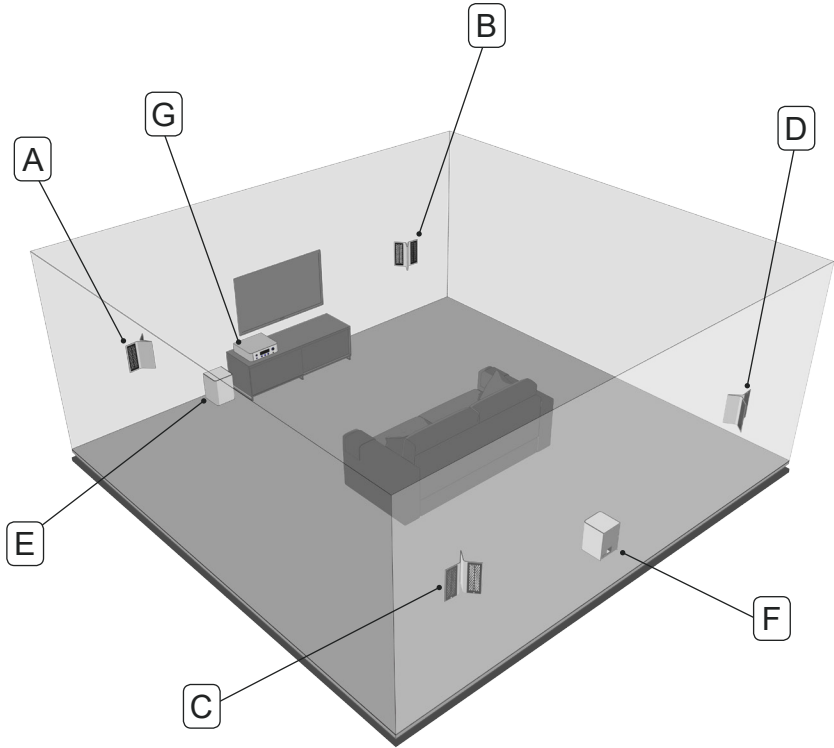
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1: What's Included

- Y4 Amplifier
- Four (4) Y Speakers
- One (1) or Two (2) Sub-Woofer(s)
- IEC Power Cable
- Four (4) Y Speaker Cables
- Remote Control with CR2032 battery
- HDMI Converter with ARC

2: General System Layout

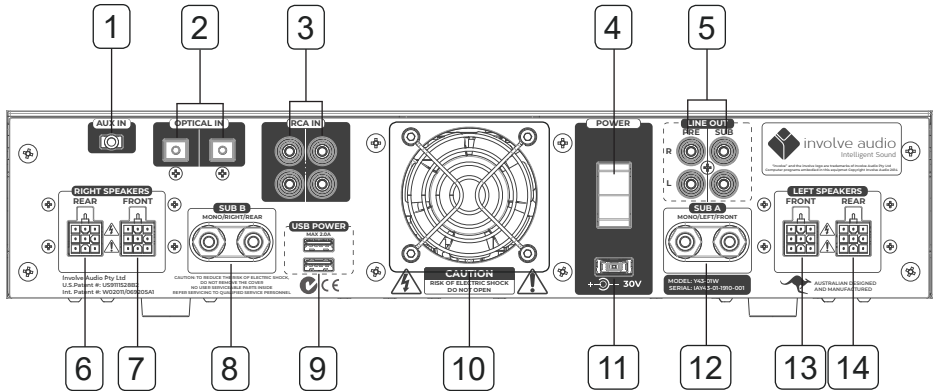
Here is a simple reference of the components and setup of a Y4 Hi-Fi system.



- A** Front Left Y Speaker
- B** Front Right Y Speaker
- C** Rear Left Y Speaker
- D** Rear Right Y Speaker
- E** Sub-Woofer (Front)
- F** Sub-Woofer (Rear)
- G** Y4 Amplifier

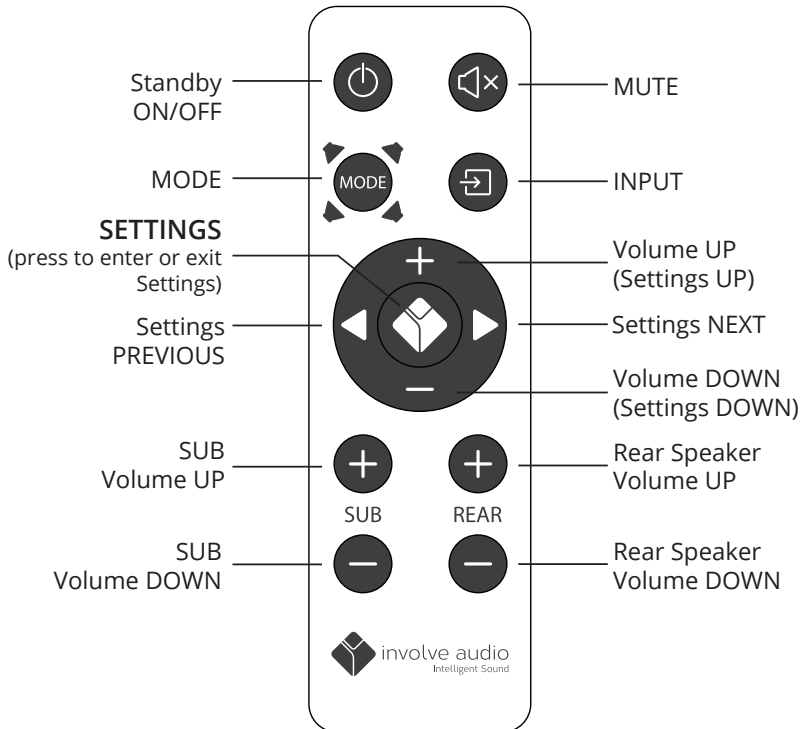
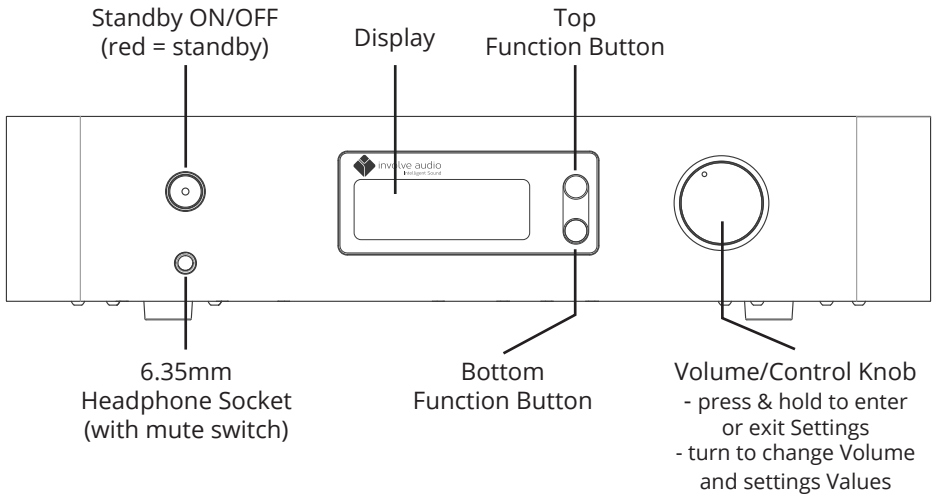
(Front/Rear Sub-Woofer Mode shown)
(Y Speakers shown wall mounted)

3: Rear Panel

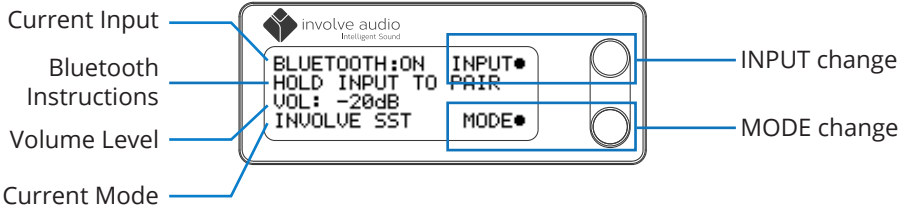


- | | | | |
|---------------------------------|--------|---------------------------------------|--------|
| 1 3.5mm Aux IN | Pg. 15 | 8 SUB B (Mono/Right/Rear) | Pg. 18 |
| 2 OPTICAL IN x2 | Pg. 15 | 9 USB 5V Power Out x2 | Pg. 10 |
| 3 RCA IN x2 | Pg. 15 | 10 Air Flow vents, don't cover | Pg. 10 |
| 4 POWER SWITCH | Pg. 15 | 11 30V POWER IN | Pg. 10 |
| 5 RCA Line OUT | Pg. 15 | 12 SUB A (Mono/Left/Front) | Pg. 10 |
| 6 Y Speaker - REAR LEFT | Pg. 11 | 13 Y Speaker - FRONT RIGHT | Pg. 12 |
| 7 Y Speaker - FRONT LEFT | Pg. 13 | 14 Y Speaker - REAR RIGHT | Pg. 12 |

4: Operation



Main Screen Layout



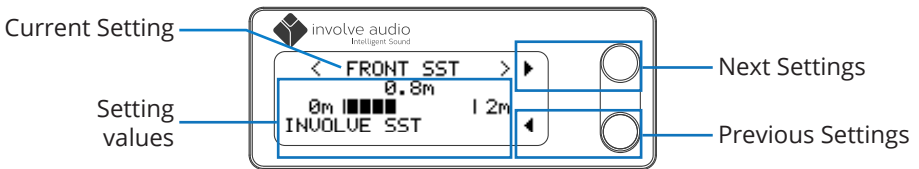
Input Order



Settings Menu Layout

To access the Settings Menu, press and hold the Volume/Control Knob or press the MENU button on the Remote Control.

Settings values can be changed by turning the Volume/Control Knob or pressing the Volume UP or Volume DOWN buttons on the Remote Control.



Settings Order



5: System Setup

When setting up your system please follow the guidelines below to avoid any needless damage or wear to your system.

- Turn **OFF** the system when connecting or disconnecting your Y Speakers, Sub-Woofer or wired devices.
- Do **NOT** place the Y4 Amplifier on any soft surface such as cloth or carpet. Placing the Y4 Amplifier on a soft surface while the system is on will **void your warranty**.
- Do **NOT** place the Y4 Amplifier or Y Speakers in Direct Sunlight, this could damage the speakers or cause visual fading to the surfaces your system.
- The Y4 Amplifier uses active cooling; keep the rear of the unit unobstructed to allow adequate airflow
- To reduce the chance of noise use high quality cables when connecting HDMI devices and ensure HDMI cables plugged into the Y4 do not cross over or under the Y Speaker Cables.

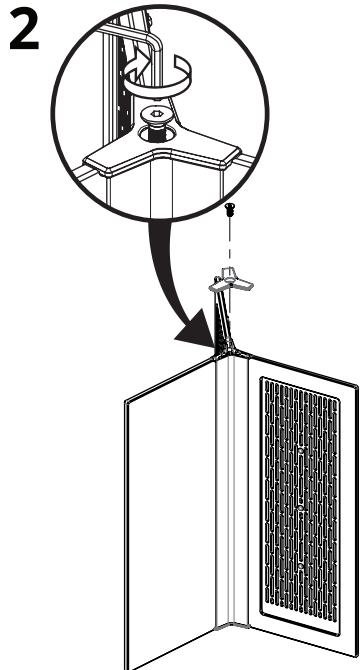
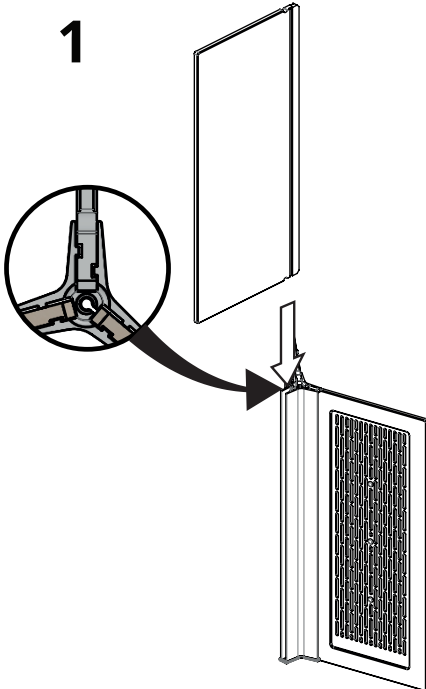
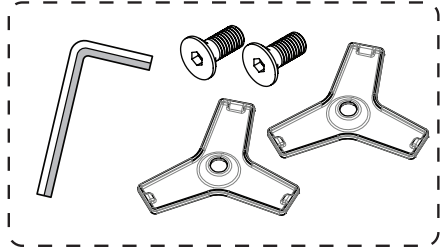
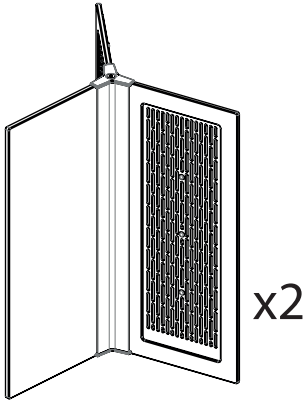
Setup guide

These are quick setup instructions and should help you quickly get your Y4 system setup and going, for more detail please read the full instruction manual.

1. Assemble Y Speakers
2. Position & Orient Y speakers, then connect them to the Y4 Amp
3. Position Sub-woofers and connect them to Y4 Amp
4. Connect Devices to the Y4 Amplifier
5. Connect Power to the Y4 Amplifier & turn it On
6. Set Sub-Woofer Mode according to your setup
7. Calculate and set SweetSpot Delay Distance to suit your room
8. Set listening mode to SST Involve for optimum sound experience
9. Play some music and adjust Rear Speaker and Sub-Woofer levels to your preference

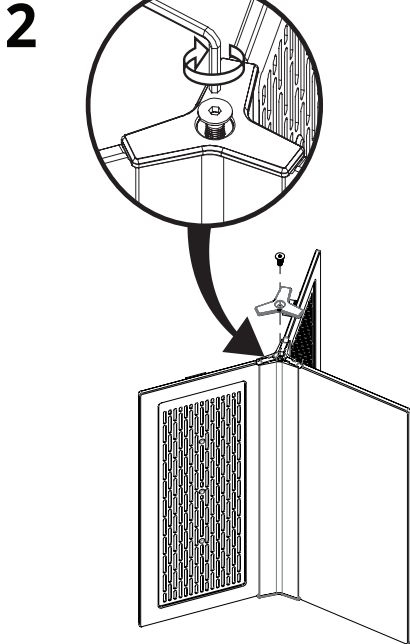
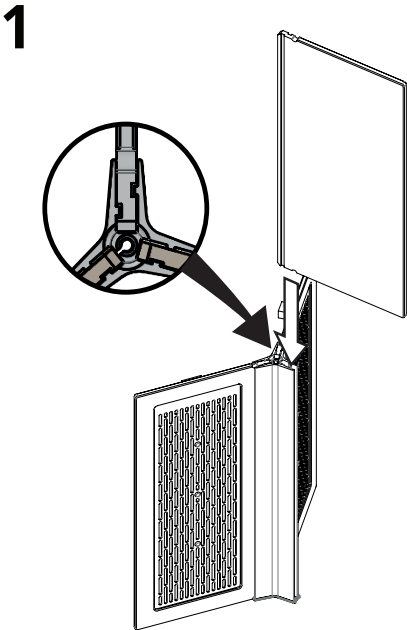
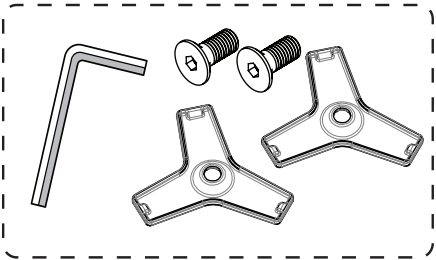
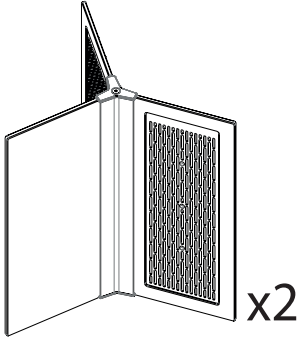
Step 1: Assemble Y Speakers

Y Speaker A - FL/RR
(Front Left / Rear Right)



Y Speaker B - FR/RL

(Front Right / Rear Left)



Step 2: Y Speaker Positioning

The speakers are marked as *FR/RL* or *FL/RR*. Face the front of the room where your front speakers are to be placed. Left and Right are taken from this perspective including the rear speakers. The diagram to the left illustrates the positioning of each speaker. Place the speakers on the installed wall mounts, speaker stands or other raised unit.

Your speakers should be placed as closely to the **same height as your ears** as practical when sitting down. If they are higher than this they are best angled down to send the sound to the centre listening position.

Y Speaker Distance & Orientation

Speakers can be placed around the room in front and behind the centre listening position. Ideally the centre listening position will be in the middle of a room however this is often not possible and so place your rear speakers as far to the rear of the centre listening position as practical.

For an ideal listening experience position each speaker the same distance from the centre listening position. With speakers equidistant a perfect circular sound field will be created.

The Y Speaker should have it's connectors closest to the ground for correct orientation. When orienting your Y Speakers turn the speaker so the **outside electrostatic panel is facing the front and back directly**, ie. it is facing straight down the room. The distance between the speakers should be set so that the **inside panels face the opposite side of the listen area**. This should mean the panels of each opposing front and back speaker line up and the inside panels are facing the opposite side of the central listening position.

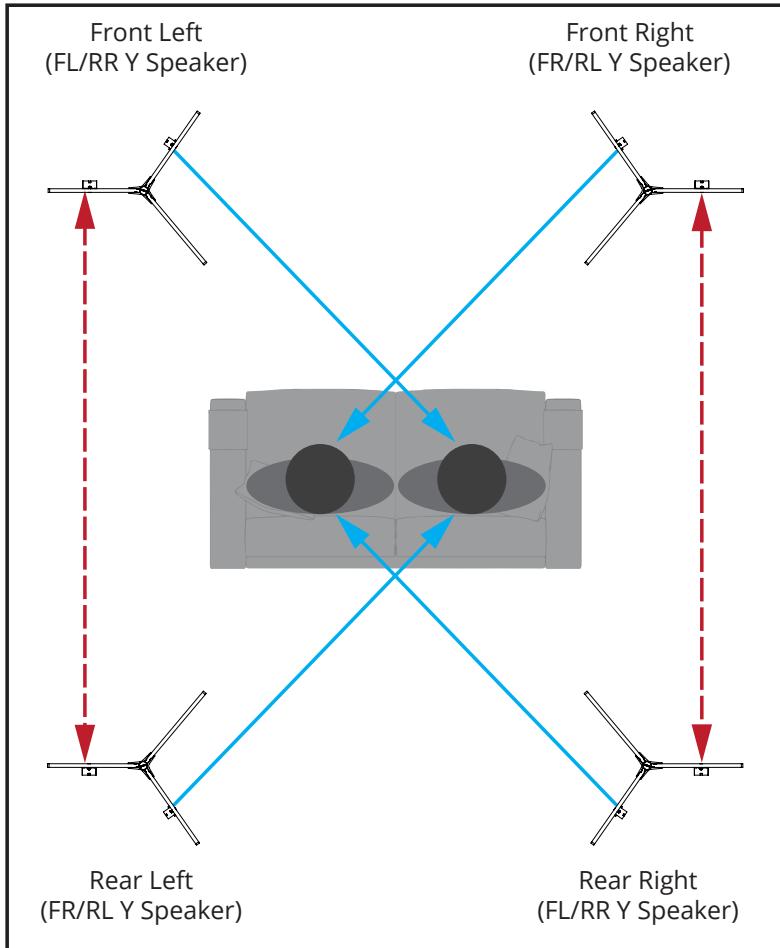


Diagram: Speaker Orientation for SST™

Step 4: Position Sub-Woofers

When placing a Sub-Woofers in position, keep at least 3cm of space between the rear of the Sub-Woofers and the wall. Any wall or hard object should not cover the sound outlet.

Positions below are recommendations, woofer location is often a matter of convenience and personal taste. We encourage you to experiment with different locations and modes. There are three sub-woofer modes, **Mono**, **Stereo L/R** and **Front/Rear F/R**. After you've finished setting up the rest of your system the mode can be selected through the settings menu. As a good starting place we suggest you try the Stereo mode and place your sub-woofers accordingly.

Mono Sub-Woofers

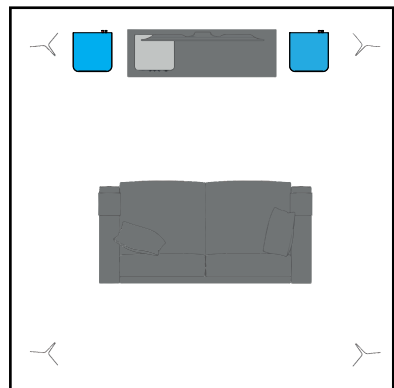
If your system has a single Sub-Woofers it can be placed at the front of the room just to the left or right of centre. The Sub Mode should be set to **MONO / MONO**.

Stereo Sub-Woofers

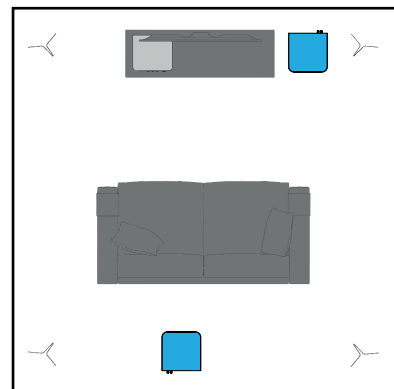
For a Stereo configuration place both Sub-Woofers at the front of the room with one on the left and one on the right as close to the Front left and right Y Speakers as possible. The Sub Mode should be set to **LEFT / RIGHT**.

Front/Rear Sub-Woofers

For a Front/Rear Sub-Woofers configuration place one Sub-Woofers at the front of the room just to the left or right of centre. The second Sub-Woofers should be placed at the back of the room just to the left or right of centre (ideally diagonally opposite to front Sub-Woofers) The Sub Mode should be set to **FRONT / REAR**.



Stereo Sub-Woofers

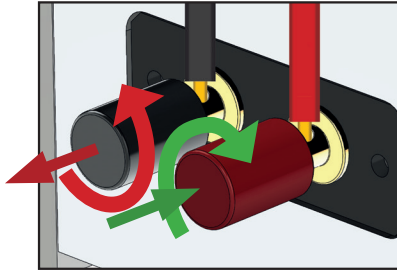


Front/Rear Sub-Woofers

Step 5: Connect Sub-Woofers

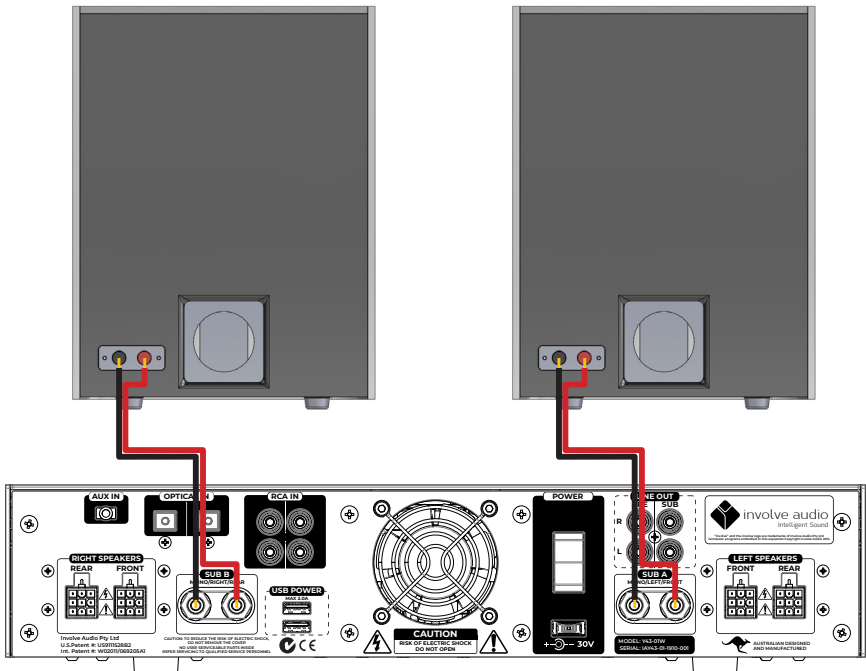
Attach the Sub-Woofers cable to the rear of the Y4 Amplifier and Sub-woofer as shown in the diagram below. **Unscrew the terminals** insert the cable into the revealed hole and screw back in the connector (below, right), **matching the positive and negative terminals** on the Y4 Amplifier and Sub-Woofers. Once connected set your sub-woofer setting as shown in the *Operating Instructions* section.

Woofer Connections



Mono/Right/Rear Sub-Woofers

Mono/Left/Front Sub-Woofers



Step 6: Connect your Wired Devices

Before connecting your devices ensure the system is turned OFF

Your Y4 Hi-Fi Surround Sound System is designed for easy connection to your devices with **two RCA**, **two Optical** and a **3.5mm AUX** input connections. Simply plug in your devices to the applicable inputs on the rear of the Y4 Amplifier.

Step 7: Plug in Power to the Y4 Amplifier & turn it On

Now that your speakers and devices are connected you can plug in power to the Y4 Amplifier and turn the system on with the rear power switch.

Once the amplifier has gone through it's start-up sequence and the red standby light is red, press the standby button to turn the system On.

Step 8: Set Sub-woofer mode for your setup

With the system on, enter the settings menu by pressing and holding the Volume/Control Knob until the settings menu appears, or by pressing the Menu button the remote. Navigate to the Sub Mode setting with the function buttons or the left/right arrows on the remote.

Once in the Sub Mode menu, turn the Volume/Control Knob or press the Up or Down arrows on the remote to select the appropriate mode for your setup.

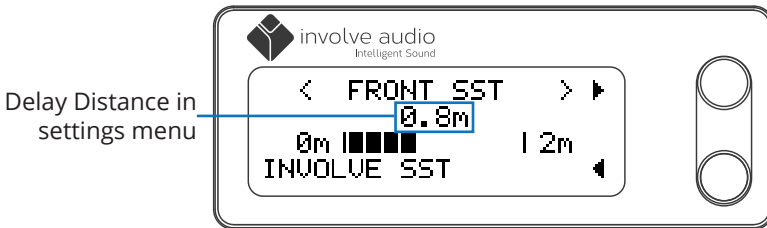
*refer to section 2.8

Step 9: Set up Sweet Spot

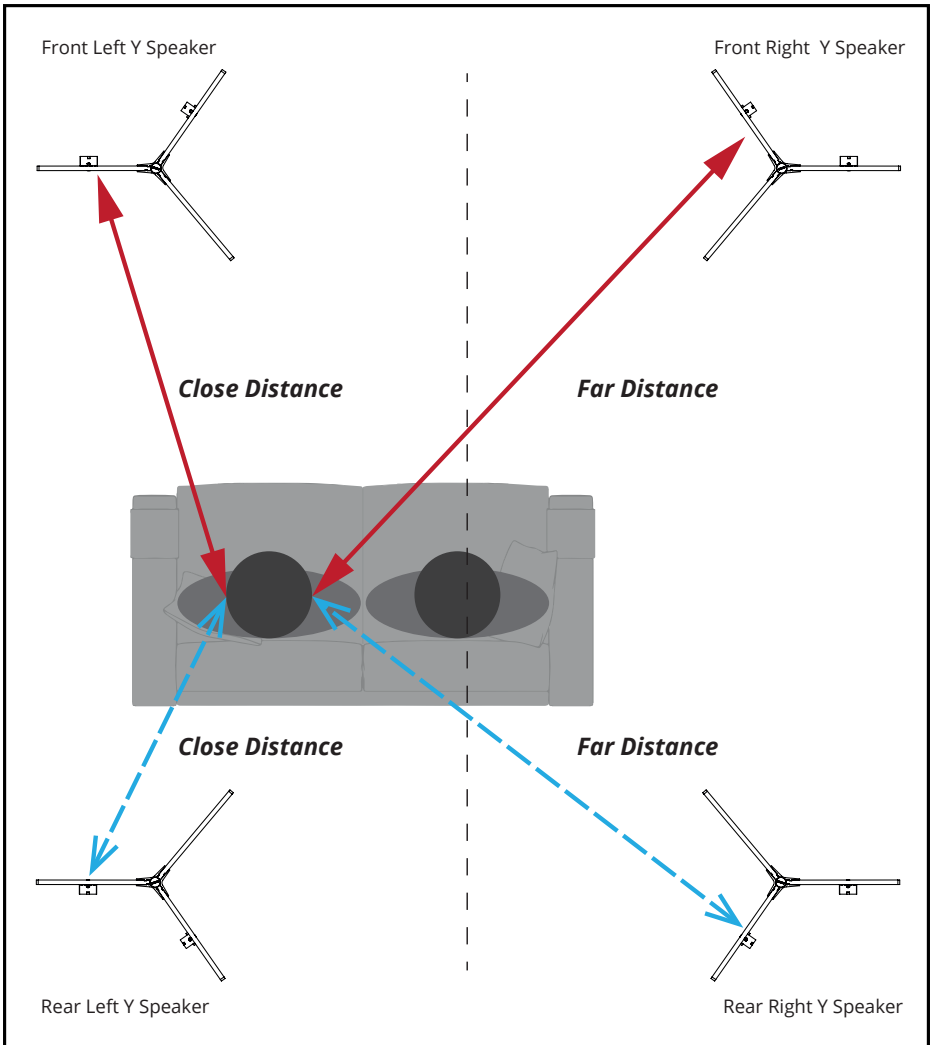
SweetSpot™ allows you to sit anywhere within the room and still receive a correct stereo image. To set up this technology first ensure your Y Speakers are placed and oriented correctly as shown in the Setup section.

The Front and Rear speakers have separate SST™ Settings to ensure SST™ is sounding of the highest quality. The **SST™ factory default setting is 0.5**, which covers a wide range of environments. To set up SweetSpot™ for your listening environment follow the steps below.

1. Measure the distance from the most off centre seating position to the **closest** Front Y Speaker, as shown in the diagram on the next page to obtain the **Close Distance**.
2. Measure the distance from the most off centre seating position to the **furthest** Front Y Speaker, as shown in the diagram on the next page to obtain the **Far Distance**.
3. Subtract the **Close Distance** from the **Far Distance** to obtain the **Delay Distance**, in metres. Navigate to the Front SST™ Settings Menu and adjust the value to the closest matching your calculated Delay Distance.
4. Repeat steps 1-3 for the REAR SST Setting by measuring distances to the Rear Speakers and setting in the Rear SST menu. By doing this you will have calibrated SST™ correctly.




$$\text{Delay Distance} = \text{Far Distance} - \text{Close Distance}$$



SST™ Measurements

6: Additional Information

Standby

To enter standby mode press the  button on the Remote, the system will power down to reduce power usage. When not using the Y4 system for an extended length of time it is recommended to turn of the system at the power switch on the rear of the amplifier unit (**section 3.1**)

Mode

Your Y4 Hi-Fi Surround Sound System features 3 different modes of listening, **Stereo**, **Stereo SST™** and **Involve™ SST™**. The Mode can be changed by pressing the Mode button on the remote or the bottom function button when in the Main Screen.

Stereo

Sets the system to bypass Involve™ processing and turns **OFF** SweetSpot™. You will only hear sound from the front Y Speakers and Sub-woofer. You can use this to compare and demonstrate the effects of SweetSpot™ and Involve™.

Stereo SST™

The system will bypass Involve™ processing and turn **ON** SweetSpot™. Sound will only be produced by the front Y Speakers and Sub-Woofers

Involve™

Turns on Involve™ processing and turns **OFF** SweetSpot™. You can use this to compare and demonstrate the effects of SweetSpot™ with surround sound. Sound will be heard from all speakers attached to the system.

Involve™ SST™

The recommended way of listening as it provides the fullest and most accurate reproduction of audio, we suggest you make this your default setting. The system will use both Involve™ and SweetSpot™. Sound will be heard from all speakers attached to the system.

Volume

Use the Volume/Control Knob to adjust the system volume, turn clockwise to increase volume and anti-clockwise to decrease volume. Or use the Volume Up and Volume Down buttons on the remote control.

The volume can be adjusted from -96db to +7db. Try to avoid going above 0db, instead adjust the volume output on your input device higher if possible. At 0db the system is taking the signal from your device directly with no extra gain. When above 0db the system must add gain, which can degrade the quality of the sound. When below 0db the system is removing gain, this does not degrade the quality of the sound. This is why systems use both negative and positive numbers for volume control.

Sub-Woofer Level

The sub-woofer level can be adjusted to make the sound of the system match that of your room or of the music you are listening to. Adjust this up and down according to your personal preference.

Rear Speaker Level

Every room is different and so requires the front and rear speakers to be level matched. If the Rear speakers are closer to you turn them down, if further away turn them up. Adjust to personal preference, for movies turn the rear speakers up will enhance environmental and orchestral scoring.

Headphones

Headphones can be plugged into the 6.35mm Headphone Socket on the front of the unit. Before plugging in your headphones into the system turn the volume down below -10db. Once your headphones are plugged in the Y Speakers and Sub-Woofer will be muted. You can adjust the volume as normal.



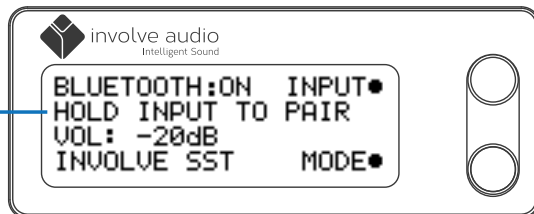
Bluetooth

The Y4 Hi-Fi Surround Sound System features Bluetooth to allow you to connect your device wirelessly. To connect your device to the Y4 Hi-Fi Surround Sound System follow the instructions below.

The Bluetooth status and instructions are displayed beneath the input when set to Bluetooth on the Main Screen.

1. Set the input to Bluetooth. The screen will display whether Bluetooth is ON/OFF or STANDBY
2. Press and Hold the INPUT button on the Remote Control or the Top Function Button to begin pairing.
3. Pair your device's Bluetooth with "**Involve Y4**" following your device's operating instructions.
*If a password is asked for use "0000" or refer to your device's operating instructions. When pairing, if the Y4 system Input is set to Bluetooth an audible beep will also be heard.
4. Adjust volume on the Y4 Amplifier to your liking using the Volume/Control Knob. You may also control the volume with your device, avoid setting your device volume

Bluetooth
Instructions



7: Cleaning Your System

Always ensure your Y4 system is switched off prior to cleaning.

Your Y4 Amplifier and associated sub-woofer can be cleaned with a slightly damp cloth. A mild cleaning agent such as a window cleaning agent can be used by spraying a cloth with the agent a gently rubbing it on the system. **DO NOT SPRAY WATER OR ANY OTHER LIQUID DIRECTLY ONTO ANY PART OF THE SYSTEM.** Ensure no cleaning residue remains after you have used it on your system.

Y Speakers can attract dirt and dust and should be cleaned periodically. This is best done by setting a vacuum cleaner on its **LOWEST** setting and opening any vents which lower the pressure of the vacuum cleaner. Gently vacuum any dust or other particles out of the speakers.

Cleaning the outside casing around the speakers can be done with a damp cloth. **DO NOT** spray liquid into the speakers as this is likely to damage your speakers.

8: System Specifications

Y4 Amplifier

Amplifier	10 Channel Class-D THD, Less than 0.1% 4 Ohm Capable 650W RMS Soft Clipping
Inputs	2x RCA Unbalanced 3.5mm Stereo jack Bluetooth 2x Optical SPDIF
Outputs	4x Y Speaker FL, FR, RL, RR 2x Configurable Woofer Mono, Left+Right, Front+Rear Stereo Pre-out RCA Sub-woofer Stereo Line-out RCA USB 5V 2A 6.5mm Amplified Headphone Jack
Dimensions	420mm x 370mm x 110mm

Y Speaker

ESL Panels	Two (2) Electrostatic Panels
THD	0.1%
Power RMS	65W
Power Peak	130W
Frequency Response	220hz to greater than 20,000Hz
Outside Material	Finished Plywood
Dimensions	335mm x 304mm x 262mm
Weight	1.5kg

Sub-Woofer

THD	less than 1% (80-250Hz) 2% (40-80Hz)
Power RMS	65W
Power Peak	130W
Dual Drivers	Two (2) 5' Long throw cones
Frequency Response	40hz to greater than 220hz
Outside Material	Aluminium Composite
Dimensions	335mm x 263mm x 263mm
Weight	8.5kg



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