

# RESOLV **RXA**

ACTIVE STUDIO MONITOR WITH AIR DISPLACEMENT RIBBON TWEETER

## Owner's Manual



**SAMSON®**

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## Introduction

Thank you for purchasing a Resolv RXA series studio reference monitor from Samson Technologies! The Resolv RXA studio monitors are extremely accurate professional active speakers that incorporate internal bi-amplified power (separate amps for both the woofer and tweeter) which reduces intermodulation distortion, as each amp is only responsible for a portion of the audio signal bandwidth. In addition, a multi-pole crossover provides optimal tonal balance, precise performance and maximum sound pressure level.

Each speaker features a Samson's high efficiency Air Displacement ribbon tweeter that can reproduce a linear frequency response, extended high frequency, accurate phase response and extremely low distortion. The tweeter is mounted in a waveguide that provides even dispersion of high-frequency content for a wide listening area and exceptional stereo imaging.

To deliver an accurate mid-range and tight low end, our engineers have carefully voiced each model utilizing copolymer low-frequency drivers with butyl surrounds. The cabinets are constructed out of medium density fiberboard (MDF) with internal bracing to create a rigid enclosure which reduces vibration and increases performance. The edges of the cabinets are rounded to reduce cabinet-edge diffraction.

The Resolv RXA monitors have been designed as near-field reference monitors ideal for use in studios, video post-production suites, gaming, or as playback speakers. The monitors have two M6 (6 mm) thread inserts to be mounted on wall brackets, ideal for fixed installations or as part of a multi-channel audio system.

In these pages, you'll find a detailed description of the features of the Resolv RXA5 and RXA6 models, as well as a guided tour through the control panel, and instructions for setup and use. You'll also find a warranty card enclosed—please don't forget to fill it out and mail it in so that you can receive online technical support, and so that we can send you updated information about these and other Samson products, in the future.

We recommend you record your serial number in the space provided below for future reference.

Serial number: \_\_\_\_\_

Date of purchase: \_\_\_\_\_

With proper care and maintenance, your Resolv RXA studio monitor will operate trouble-free for many years. Should your speaker ever require servicing, a Return Authorization (RA) number must be obtained before shipping your unit to Samson. Without this number, the unit will not be accepted. Please call Samson at 1-800-3SAMSON (1-800-372-6766) for an RA number prior to shipping your unit. Please retain the original packing materials and, if possible, return the unit in its original carton. If your Resolv monitor was purchased outside of the United States, contact your local distributor for warranty details and service information. Also, be sure to check out our website ([www.samsontech.com](http://www.samsontech.com)) for information about our full product line.

## Features

The Samson Resolv RXA series reference monitors provide smooth, accurate response for any mixing or critical listening situation. Here are some of their main features:



- Two-way, bass-reflex, active studio monitor providing extremely accurate monitoring for recording studio, post-production or multi-media applications
- Air Displacement ribbon tweeter provides extended, accurate high frequency response with minimal distortion
- Tweeter waveguide designed to provide even dispersion of high-frequency content for flat on- and off-axis listening areas
- Powered by an internal amplifier specifically designed for optimal performance and maximum SPL.
- Low Frequency and High Frequency variable level control allows the listener to contour the response curve to custom tailor the response that works best in their mixing environment
- Active electronic crossover utilizing a multi-pole design for linear frequency response unaffected by signal level
- Tight and controlled low frequency response produced by magnetically shielded, copolymer woofers with butyl surround and heavy-duty motor structures with large voice coils
- Extremely rigid, MDF (medium density fiberboard) construction, delivering maximum SPL
- Two M6 (6 mm) thread inserts for wall mounting

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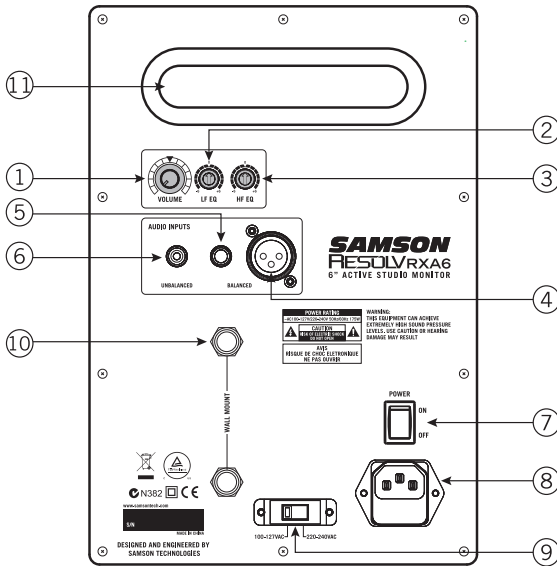
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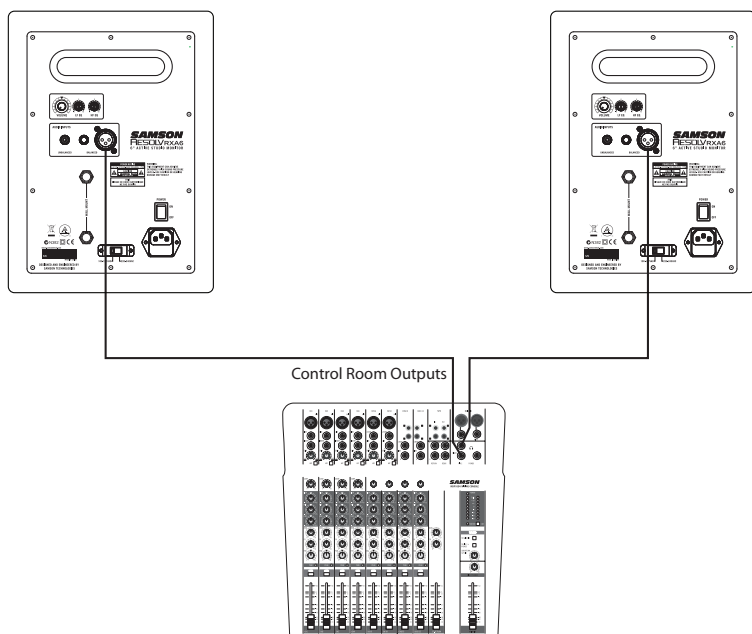
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# Rear Panel Callouts



1. **VOLUME** – Controls the amount of overall output level.
2. **LF EQ** – Rotary control to raise or lower the low frequency shelving equalizer filter by +/-6 dB. This control should be used to "fine-tune" the speaker to match your listening environment.
3. **HF EQ** – Rotary control to raise or lower the high frequency shelving equalizer filter by +/-6 dB. This control should be used to "fine-tune" the speaker to match your listening environment.
4. **XLR Input** – Connect a balanced, +4dBu, line level signal here via standard XLR (microphone) cable.
5. **¼" Input** – Connect a balanced, +4dBu, line level signal here via a TRS (Tip, Ring, Sleeve), or unbalanced TS (Tip, Sleeve) ¼" cable.
6. **RCA Input** – Used to connect signals from unbalanced, -10dBV devices.
7. **POWER Switch** – Use this switch to turn the speakers on and off. When powered on, the front panel LED will light.
8. **AC Inlet** – Connect the supplied IEC power cable here.
9. **Voltage Switch** – Used to select the operating voltage.  
**NOTE: Be sure to check that the voltage setting and fuse rating are correct for your country.**
10. **Wall Mount Points** – Two M6x10 thread inserts for mounting the speakers on a stand or wall.
11. **Bass Reflex Port** – Rear firing port provides minimal air turbulence and enhances the linear low frequency response

## Connecting the Resolv RXA Monitors



The Resolv RXA series monitors are the perfect addition to any studio. When connecting your monitors, you should utilize the control room outputs of your mixer so that you can independently control the level to the speakers without affecting the main mix output. Follow the simple steps and diagram in this section to quickly connect your monitors using a standard recording console's control room outputs.

1. Lower your mixer's master outputs until they are completely off.
2. Connect the mixer's Left Control Room output to the left-side Resolv RXA Series LINE INPUT and the mixer's Right Control Room output to the right-side Resolv RXA Series LINE INPUT. The Resolv RXA series connections can be made via one of the three rear panel Audio Inputs. You can use RCA inputs for unbalanced, -10dBV level signals, or either the 1/4" or XLR inputs for balanced, +4dBu level signals.  
**Note: Before plugging in and powering on the speakers, remember the "last on, first off" rule of power amplifiers (and powered monitors). When powering up your system, be sure that all the wires are connected, turn your mixer and any other outboard gear on, and then finally turn your Resolv RXA Series on.**
3. Set the Resolv RXA Series input Volume control to the 12-o'clock (center detent) position.
4. Run an audio signal (such as music from an MP3 player) through your mixer and raise the Control Room level to a comfortable listening volume.

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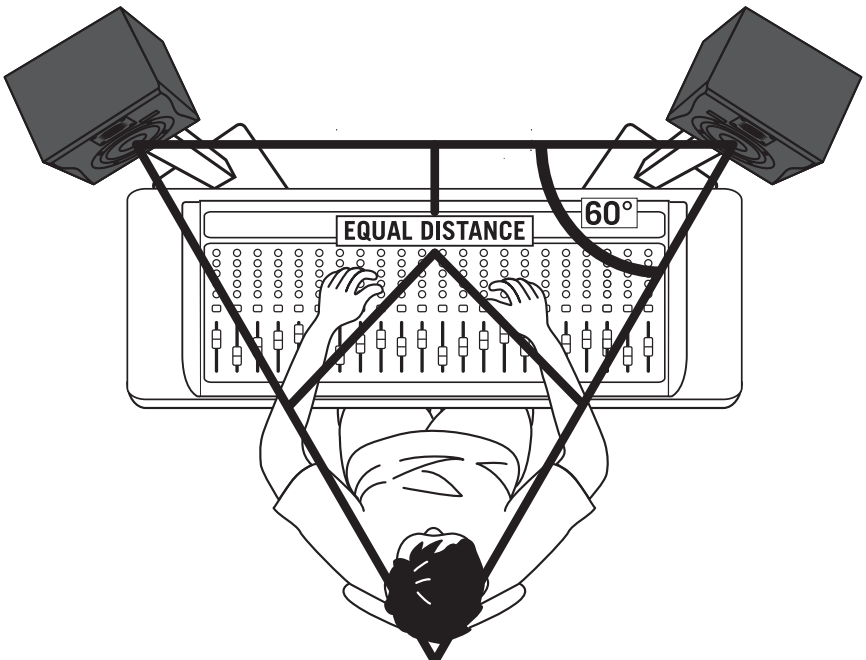
# Positioning your Studio Monitors

## Positioning the Resolv RXA Series

Near field (close to the listener) monitoring has become the choice of many engineers because of the cost and complexities associated with mounting monitors onto the walls. Positioning your studio monitors correctly is very important. Correct placement not only creates the proper stereo image, but also minimizes the effects of your room's reflections. This is especially important in today's project studios since the budget for room acoustics is often close to nothing. By taking some time and using your ears when setting up your monitors, you can create an optimal listening environment.

The most important consideration when evaluating room acoustics is the presence of reflective surfaces near the monitoring area. These can include flat tabletops, glass mirrors or framed pictures, large open walls and even the surface of your mixing console. Most reflecting sound will eventually reach the listening position, but since it is slightly delayed from the direct source, the result is random cancellation of some frequencies, or comb filtering. If possible, remove any and all reflective surfaces. You may also want to hang some acoustic foam on walls near the monitors.

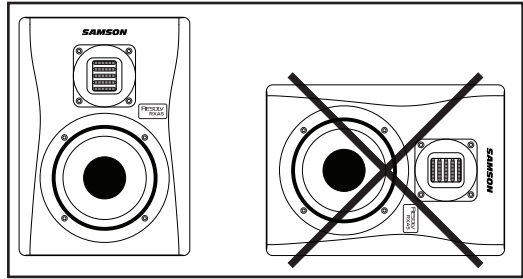
When positioning the monitors, you'll want to set up what is commonly referred to as the "mix triangle" (shown below). In this ideal configuration, the space between the left and right monitor is equal to the distance from the listener to each monitor, forming an equilateral triangle.



# Positioning your Studio Monitors

## Speaker Orientation

A major objective when setting up your studio monitors is to obtain the best possible stereo image. The Resolv RXA monitors are designed to be used in a vertical position, with the tweeter and woofer symmetrically in line. Placing the speaker on its side will cause an offset in sound



between the woofer and the tweeter, limiting your ability to find optimal listening positions.

## A Moment of Reflection

When setting the height of your monitor system, be careful to avoid reflections off the surface of the mixing console. These reflections arrive at the listening position slightly delayed from the original sound, resulting in cancellations and overall unpredictable response (Figure 1). Visualize straight lines representing the beams of sound radiating from the monitors and choose a height that reduces the occurrence of reflections that will end up in the prime listening spot. In most cases, the ideal position is slightly behind and above the mixing console's meter bridge (Figure 2). Always use your ears to find the best positioning for your room. Using monitor stands will assist in placing the speakers in the appropriate position.

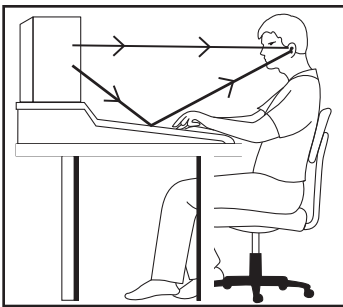


Figure 1

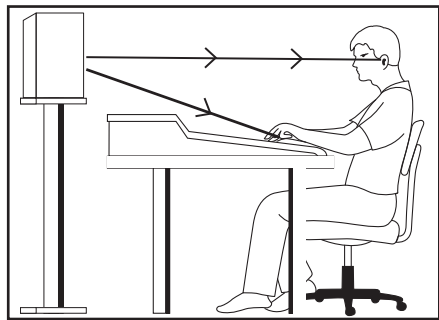


Figure 2

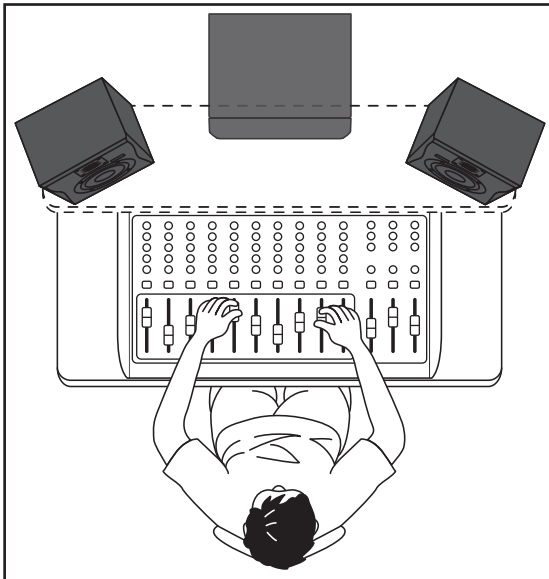
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## Connecting an Active Subwoofer

The Resolv RXA monitors are designed to be full-range speakers, but on occasion you may need to hear the extreme low end. Adding an active subwoofer to extend the low frequency response of your monitor system can be beneficial when mixing your music, for example. Typically, it is best to set the subwoofer level to be equal to that of the Resolv RXA main speakers.

Because deep-bass frequencies are non-directional, it is difficult for our ears to locate the sound source, and the precise placement of the subwoofer is not as critical as the main speakers. The ideal location is between the two main speakers. If you notice there are frequencies that sound quieter than others, move the subwoofer slightly to the left or right. If the subwoofer has a polarity switch, try setting the switch to the opposite phase setting to see if this provides an improved low frequency response.

To incorporate a subwoofer into your monitor system, connect Left and Right Control Room outputs of your mixer to the active subwoofer's line inputs. Then connect the subwoofer's line outputs to the Resolv RXA series left and right speakers. Run an audio signal (such as music from an MP3 player) through your mixer and raise the level to a comfortable listening volume. Finally, adjust the crossover frequency control (if applicable) of the subwoofer to the desired frequency.





# Specifications

Model		Resolv RXA5	Resolv RXA6
Woofers		5" copolymer woofer with butyl surround	6" copolymer woofer with butyl surround
Tweeter		34mm x 27mm RX Tweeter	34mm x 27mm RX Tweeter
Enclosure Type		2-way Bass Reflex System	2-way Bass Reflex System
Enclosure		Vinyl wrapped 0.6" (15mm) MDF cabinet with painted front baffle	Vinyl wrapped 0.6" (15mm) MDF cabinet with painted front baffle
Frequency Response		50Hz - 27kHz	45Hz - 27kHz
Crossover Frequency		3kHz 12dB/oct Linkwitz-Riley	3.5kHz 12dB/oct Linkwitz-Riley
Output Power	HF	20 Watts RMS <1%	25 Watts RMS <1%
	LF	50 Watts RMS <1%	75 Watts RMS <1%
Input Connectors	Unbalanced	RCA	RCA
	Balanced	XLR / ¼" TRS Phone	XLR / ¼" TRS Phone
Input Impedance	Unbalanced	10k ohm	
	Balanced	10k ohm	
Controls		VOLUME, HF EQ, LF EQ	VOLUME, HF EQ, LF EQ
Power Consumption		82W	95.5W
Fuse		100V - 120V T1.25AL 220V - 240V T630mAL	100V - 120V T1.25AL 220V - 240V T630mAL
Dimensions (L x W x H)		8.85" x 8.46" x 11.8" 225mm x 215mm x 300mm	10.66" x 9.29" x 12.75" 271mm x 236mm x 324mm
Weight		15lbs 6.85kg	19lbs 8.68kg

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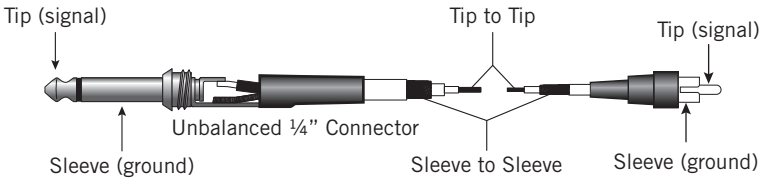
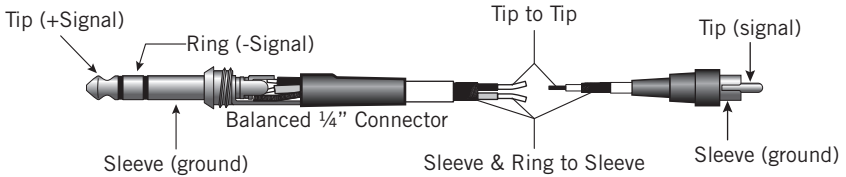
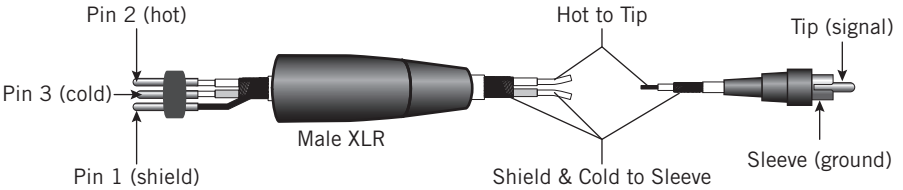
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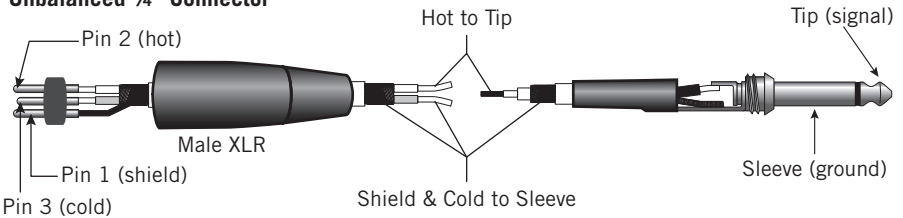
# Resolv RXA Wiring Guide

There are several ways to interface the Resolv RXA speakers, depending on your exact monitoring set-up. Follow the cable diagrams below for connecting your monitor system.

## RCA



## Unbalanced 1/4" Connector



## Balanced 1/4" Connector

