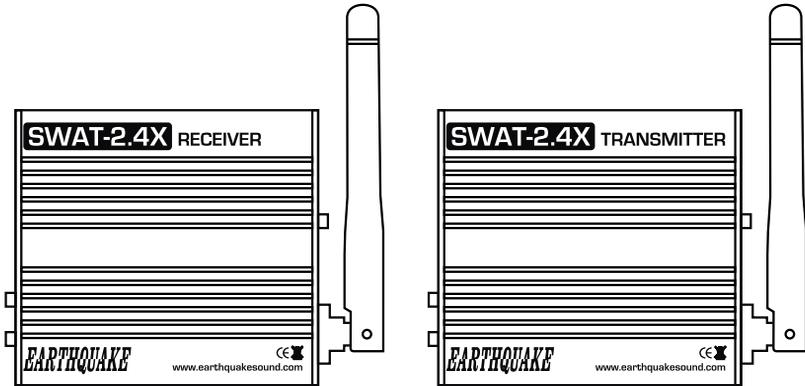




The Sound That Will Move You

SWAT-2.4X

Stereo Wireless Audio Transceiver



Transmitter

Receiver

USER MANUAL

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The Sound That Will Move You

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Safety Instructions

Safety First

This document contains general safety, installation, and operating instructions for SWAT-2.4X. It is important to read this user's manual before attempting to use these products. Pay particular attention to the safety instructions.

Symbols Explained:



Appears on the component to indicate the presence of uninsulated, dangerous voltage inside the enclosure – voltage that may be sufficient to constitute a risk of shock.



Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in injury or death.



Calls attention to a procedure, practice, condition or the like that, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the product.

Note:

Calls attention to information that is essential to highlight.

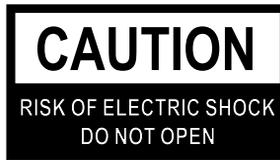
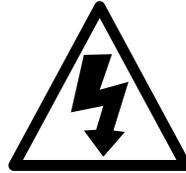
Important Safety Instructions

- 1) Read these instructions in their entirety.
- 2) Store this manual and packaging in a safe place.
- 3) Heed all warnings.
- 4) Follow instructions (do not take short cuts).
- 5) Do not use this apparatus near water.
- 6) Clean only with a dry cloth.
- 7) Do not block any ventilation openings. Install in accordance to the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatuses that produce heat.
- 9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Unpacking System Components

- 10) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments and accessories specified by the manufacturer.
- 12) Use only compatible rack or cart for final resting position.
- 13) Unplug this apparatus during lightning storms or when unused for long period of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way such as: power supply cord or plug is damaged, liquid has 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.
- 15) To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

This triangle, which appears on your component, alerts you to the presence of uninsulated, dangerous voltage inside the enclosure - voltage that may be sufficient to constitute risk of shock.



This triangle, which appears on your component, alerts you to important operating and maintenance instructions in this accompanying literature.



Unpacking System Components

- Keep the original carton and packing materials for future shipment or storage.
- Check for any visual signs of damage. If you encounter any concealed damage, consult your Earthquake Sound dealer before proceeding with unit installation.
- Retain the sales receipt as it establishes the duration of the limited warranty and provides information for insurance purposes.

System Installation Considerations

There are several factors to consider before installing Earthquake Sound's SWAT-2.4X.

- What are the intended listening zones?
- What system options and accessories might be required for features such as local sources, etc.?
- From where in each zone will the listener prefer to control the system? Where will the remote gains be located? Where will the speakers be located?
- Where will the source equipment be located?

Connection Tips

- Keep all power cords away from all signal cables to prevent humming from induced noise.
- Choose reliable signal cables/cords (Earthquake Sound also specializes in high-performance RCA cables).
- All speaker wires that are ran through the walls should be twisted type to reduce potential hum noise pick up.
- Label both ends of all wires with the corresponding room location.
- It is best to use a grounded electrical outlet to power the amplifier. Lack of input ground reference can be unsafe. Consult an electrical contractor about proper grounding.

Introduction

SWAT-2.4X is Earthquake Sound's wireless audio transceiver that allows you to play audio material from your audio source to almost any speaker wirelessly. Hard wiring your speakers to your sound source can be costly and time consuming. SWAT-2.4X makes install a snap without compromising sound quality for convenience. It is extremely versatile and perfect for apartments or outdoor settings. It even has microphone capability so you can transmit voice as well.

Each set of SWAT-2.4X comes with the following:

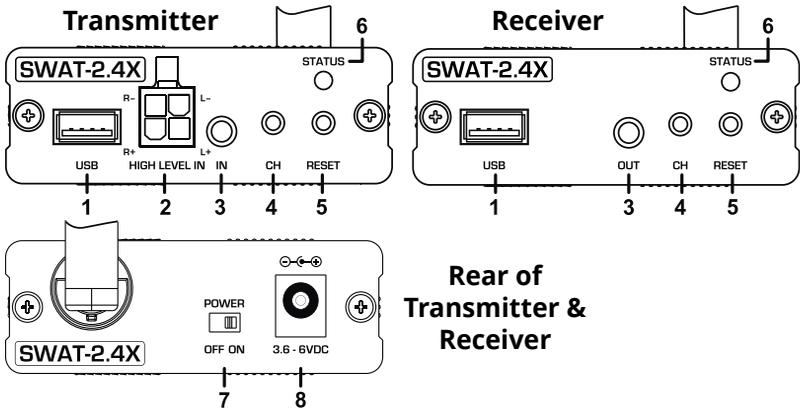
- One (1) transmitter
- One (1) receiver
- One (1) 3.5mm to 3.5mm cable
- Two (2) 3.5mm to RCA cables
- Two (2) 100–240V AC to USB 5V DC power supply adapters

If you want the music to play in different areas or on multiple systems, one transmitter can wirelessly connect to multiple receivers (additional receivers can be purchased separately). With 20 broadcast/pairing channels, the chance of interference with other signals is extremely slim. The SWAT-2.4X is also equipped with an advance auto-connect circuitry which allows the receiver(s) to automatically adjust to match the transmitter channel.

Features And Highlights

- 20 broadcast/pairing channels
- Auto connect circuitry for quick & easy pairing
- Two types of inputs supporting microphones and stereo
- 64kHz / 16-bit x 2 sampling ratio
- Frequency response of 20Hz–20kHz (± 1 dB)
- Point-to-point and point-to-mass pairing capability
- Eliminates hum noise in any system
- Digital transmission
- HDCD sound effect
- < 0.5ms latency
- 95dB S/N ratio

SWAT-2.4X Overview



1. USB Port

This USB port is used to power the SWAT-2.4X transmitter and/or receiver when using a standard USB-to-USB cable from a computer or amplifier unit.

2. High/Speaker Level Input

The SWAT-2.4X transmitter can accept high/speaker level inputs with a range of 0.5V to 17V RMS.

3. IN/OUT 3.5mm Stereo Jack

The SWAT-2.4X transmitter can also accept stereo audio input through the 3.5mm mini jack. Use the 3.5mm stereo out to connect the SWAT-2.4X receiver to an amplifier or powered speaker.

4. CH (Channel Selector) Button

To change the channel on the SWAT-2.4X, simply press the CH button on the transmitter and the receiver will automatically adjust.

5. RESET Button

Press and hold this button for 3 seconds to reset the SWAT-2.4X.

6. STATUS LED Indicator

This LED indicates the operational status of the SWAT-2.4X. For the transmitter, its status LED will stay on when the transmitter is powered on, regardless of signal presence. On the receiver, the status LED will remain off when both the transmitter and the receiver are powered on. The receiver's status LED will light up when it is not paired to any transmitter, or if the transmitter's reset or ch button is pressed.

7. POWER Switch

When this 2-way switch is in the ON position, the SWAT-2.4X is powered on. And when it is in the OFF position, then the SWAT-2.4X is off.

8. DC Power Receptacle

The SWAT-2.4X requires 3.6–6V DC.

WARNING

DO NOT use both DC and the USB power supplies at the same time as this will damage the SWAT-2.4X.

Powering & Pairing The SWAT-2.4X

The SWAT-2.4X transmitter and receiver can be powered on either by using the provided 110/220V DC power supplies (to the wall outlets) or by using standard USB to USB cables (to a computer/amplifier).

WARNING

DO NOT power the SWAT-2.4X using both the DC power supplies and USB-to-USB cable at the same time as this will damage the unit.

1. Connect the transmitter to the power source and sliding its power switch to the ON position. The transmitter's status LED will flicker and light up, regardless of signal presence.
2. Connect the receiver to the power source and slide the power switch to the ON position. The receiver's status LED will flicker, light up for about one second, then turn off. Due to the auto-connect circuitry, this indicates successful pairing between the transmitter and the receiver.

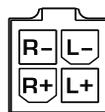
If additional receivers are used, simply repeat step 2 for all the additional receivers.

Connecting The SWAT-2.4X Transmitter

The SWAT-2.4X transmitter can accept either high/speaker level (0.5–1.7 V RMS) or stereo audio inputs through the 3.5mm mini jack.

High/Speaker Level Input Connection

Connect the high level plug to an audio source follow the input configuration shown. Then connect the plug to the SWAT-2.4X transmitter.



Stereo Audio Input Connection

Using the provided 3.5mm to 3.5mm or 3.5mm to RCA cable, connect the 3.5 mm side to the SWAT-2.4X transmitter and the other 3.5mm or RCA end to an audio source.

Note: The SWAT-2.4X is designed to accept only one audio input.

Connecting The SWAT-2.4X Receiver

Using the provided 3.5mm-to-3.5mm or 3.5mm-to-RCA cord, connect the 3.5mm side to the SWAT-2.4X and the other 3.5mm or RCA end to the amplifier, powered subwoofer, powered speaker, or stereo receiver.

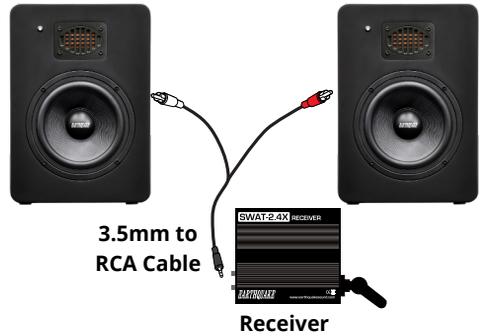
Changing The SWAT-2.4X Channel

In case of interference with other signals, simply change the SWAT-2.4X pairing channel by pressing the channel button on the transmitter. Due to the advanced auto-connect circuitry, the receiver(s) will automatically adjust its channel to that of the transmitter's

SWAT-2.4X Applications

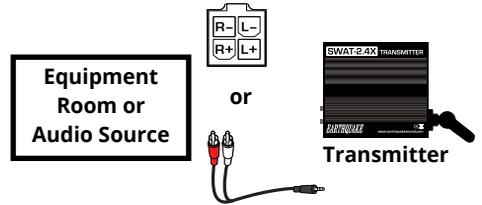
Point To Point Setup Powered Subwoofer/Speakers

Components used:
 One (1) SWAT-2.4X transmitter
 One (1) SWAT-2.4X receiver
 Two (2) MPower active monitors



Step 1.
 Connect the transmitter to the audio source using either the high level or stereo input.

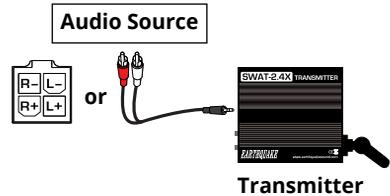
Step 2.
 Connect the receiver to the powered monitors with the supplied 3.5mm to RCA cable.



The receiver will automatically pair to the transmitter.

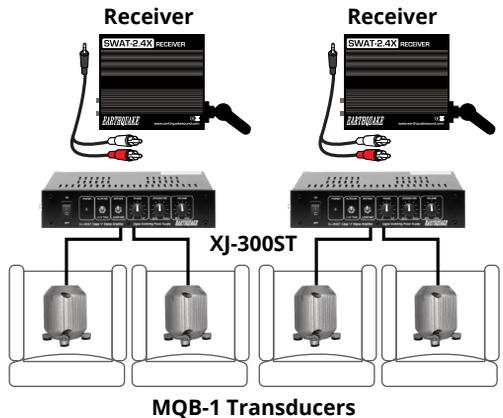
Point To Mass Setup Tactile Transducers

Components used:
 One (1) SWAT-2.4X transmitter
 One (1) or more SWAT-2.4X receivers
 Two (2) XJ-300ST amplifiers
 Four (4) MQB-1 tactile transducers



Step 1.
 Connect the transmitter to the audio source using either the high level or stereo input.

Step 2.
 Connect the two receivers to the XJ-300ST amplifiers that power the MQB-1 Tactile Transducers.



The two receivers will automatically pair to the transmitter.

Single Point To Point Setup 8 Zone Whole House Setting

Components used in Source Area:

One (1) SWAT-2.4X transmitter

One (1) Cinénova IR16 8-zone/16 channel amplifier

One (1) SWAT-2.4X receiver

Components used in zone 1 to 3:

Six (6) ECS series speakers

Components used in zone 4:

Two (2) ECS series speakers

Components used in zone 5 and 6:

Four (4) ECS series speakers

Components used in 7 and 8:

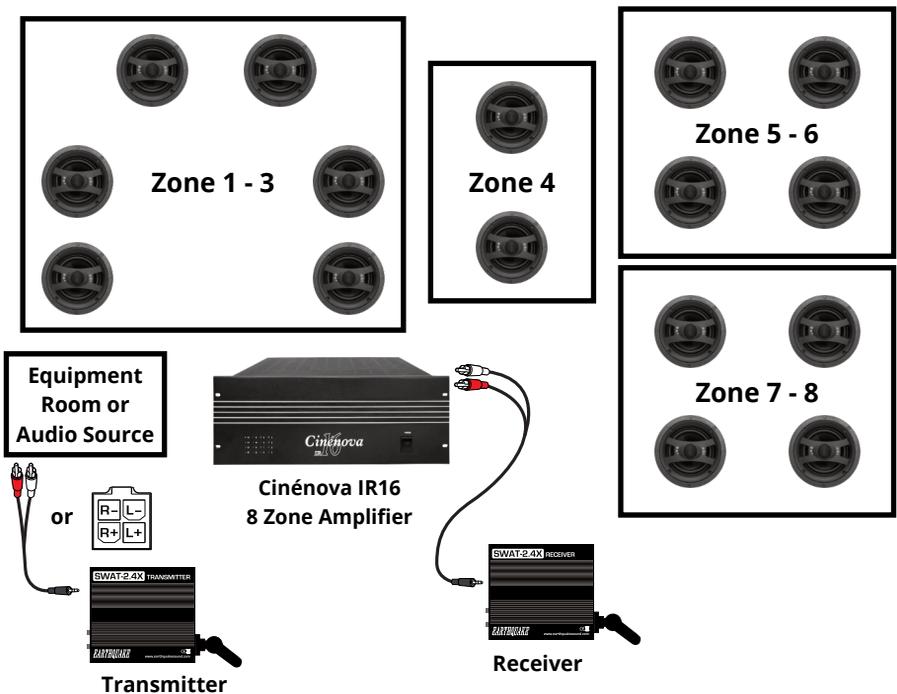
Four (4) ECS series speakers

Step 1.

Connect the transmitter to a source using either the high level or stereo input.

Step 2.

Connect the receiver with supplied 3.5mm to RCA cable to the BUS Audio RCA Input at the rear panel of the Cinénova IR16 amplifier.



Point To Point Setup

Outdoor Speakers & Subwoofer System

Components used:

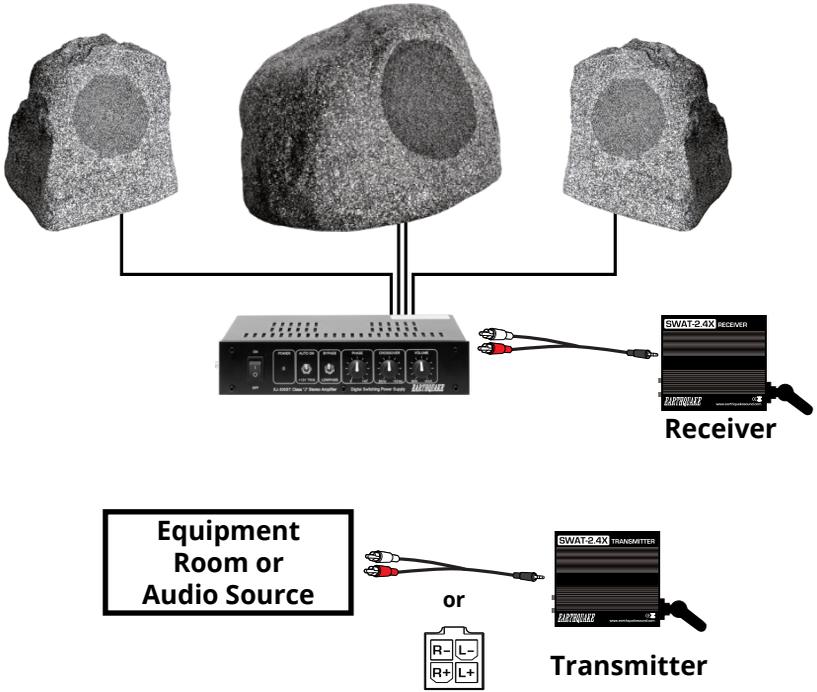
One (1) SWAT-2.4X receiver

One (1) XJ-300ST amplifier

One (1) ROCK-On series 2.1 woofer and speaker setup

1. Connect the transmitter to the audio source using either the high level or stereo input.
2. Connect the three (3) receivers to the amplifiers that are powering the speakers/subs.

The receiver will automatically pair to the transmitter.



Troubleshooting SWAT-2.4X

Transmitter LED Illuminates But There Is No Sound

- Check the source, make sure it is on and properly working.
- Check the connection between the source and the transmitter, make sure it is proper and all cables used are in good working condition.
- Make sure the receiver is turned on and paired to the transmitter.
- Check the connection between the receiver and the amplifier/powered speaker, make sure it is proper and all cables used are in good working condition.
- Make sure the amplifier/powered speaker is turned on.

Receiver LED Illuminates But There Is No Sound

The receiver's status LED will only light up when or if the transmitter is turned off or when the transmitter's CH or RESET button is pressed.

- Check to see if the transmitter is on and none of its buttons are pressed.

Intermittent Signal or Sound

Keep in mind that the SWAT-2.4X requires 3.6–6V DC power and 0.5–17V RMS high level input.

- Check to make sure that the receiver or transmitter is a minimum of 6 feet away from any network router as this can cause channel interference.
- Set your network router to a static channel and not dynamic.
- Check the connection between the source and the transmitter, make sure it is proper and all cables used are in good working condition.
- Check the connection between the receiver and the amplifier/powered speaker, make sure it is proper and all cables used are in good working condition.
- Change the channel on the transmitter by pressing the CH button.

Contact Technical Support:

Tel: +1 (510) 732-1000

E-mail: tech@earthquakesound.com

Transmitter	Receiver	Status
Solid Green LED	No LED	Paired
Solid Green LED	Slow Blinking Green LED	Low Level Channel Interference
Solid Green LED	Fast Blinking Green LED	High Level Channel Interference
Solid Green LED	Solid Green LED	Needs Pairing

Specifications

	Transmitter	Receiver
Work Voltage	3.6–6V DC	
Work Current	Max 120 mA	Max 35 mA
Operation Temperature	5–149 °F (-5–65 °C)	
Practical Mode Freq. Range	2400–2484 MHz	
Modulation	GFSK	
Band Rate	2 Mbps	
Frequency Stability	± 156 kHz	
Channel Selections	20 Channels	
Practical Working Frequency	2400–2484 MHz	
Channel Space	4 MHz	
RF Range	Up to 328 ft. (100 m) of open field	
TX Power	0–20 dBm	
RX Sensitivity		90 dBm
Input Level	Max 1.0 Vrms	
Input Impedance	10 kOhm	
Input Interface	Mic & High Level	
Stereo Output Level 1		30mW RL = 32 Ohms
Speaker Output Level 2		50mW RL = 16 Ohms
Output Impedance		1 kOhm
In/Out Gain Ratio	1 : 1	
Frequency Response	20Hz–20kHz (± 1dB)	
Latency	< 0.5 ms	
Sampling Ratio	64kHz / 16-bit x 2	
S/N Ratio	95 dB	
THD	0.3% @ 1kHz	
Dynamic Range	90 dB	
Channel Separation	70 dB	
Dimensions (W x D x H)	3.14" x 2.75" x 1" (80mm x 69mm x 25mm)	

One (1) Year Limited Warranty Information

Earthquake warrants the original purchaser that all Factory Sealed New Audio Products to be free from defects in material and workmanship under normal and proper use for a period of one (1) year from the date of purchase (as shown on the original sales receipt with serial number affixed/written on it).

The one (1) year limited warranty period is valid only if an authorized Earthquake dealer properly installs the product and the warranty registration card is properly filled out and sent to Earthquake Sound Corporation. If a non-authorized party installs the product, a ninety (90) day warranty period will be applied.

(A) One (1) year limited warranty plan coverage guidelines:

- Earthquake pays for labor, parts, and ground freight (only in US mainland, not including Alaska and Hawaii. Shipping to us is not covered).

(B) Warning:

- Products (sent in for repair) that are tested by Earthquake technicians and deemed to have no problem will not be covered by the limited warranty. Customer will be charged a minimum of one (1) hour of labor (at ongoing rate) plus shipping charges back to customer.
- Each product sent in for repair must be packaged in its original packaging. Otherwise, **repackaging charges will apply in addition to the labor, parts and shipping charges.**

(C) Earthquake will repair or replace at our option all defective products/parts subject to the following provisions:

- Defective products/parts have not been altered or repaired by anyone other than an Earthquake factory approved technician.
- Products/parts are not subjected to negligence, misuse, accident or damage by improper line voltage.
- Products/parts were used with incompatible products.
- The serial number or any part of the product has been altered, defaced or removed.
- Products/parts have been used in any way that is contrary to Earthquake's written instructions.

(D) Warranty Limitations:

Warranty does not cover products that have been modified or abused, including but not limited to the following:

- Damages to speaker cabinet and cabinet finish due to misuse, abuse or improper use of cleaning materials/methods.
- Bent speaker frame, broken speaker connectors, hole(s) in speaker cone, hole(s) in surround &/ dust cap, and burnt speaker voice coil.
- Fading and/or deterioration of speaker components & finish due to improper exposure to elements.
- Bent amplifier casing, damaged finish on the casing due to abuse, misuse or improper use of cleaning material.
- Burnt tracers on PCB.

- Product/part damaged due to poor packaging or abusive shipping conditions.
- Subsequent damage to other products.

A warranty claim will not be valid if the warranty registration card is not properly filled & returned to Earthquake with a copy of the sales receipt.

(E) Service Request:

To receive product service, contact Earthquake Service Department at (510) 732-1000 and request an RMA number (Return Material Authorization). Items shipped without a valid RMA number will be refused. Make sure you provide us with your complete/correct shipping address, a valid phone number, and a brief description of the problem you are experiencing with the product. In most cases, our technicians might be able to resolve the problem over the phone, thus eliminating the need to ship the product.

(F) Shipping Instructions:

Product(s) must be packaged in its original protective box(es) to minimize transport damage and prevent repackaging cost (at the ongoing rates). Shipper claims regarding items damaged in transit must be presented to carrier. Earthquake Sound Corporation reserves the right to refuse improperly packed product. A copy of the original sales receipt must accompany product returned to service. We encourage you to include with the package a written description of the problem. Ship product to:

Earthquake Sound Corp.
2727 McCone Avenue, Hayward, CA 94545
Tel: (510) 732-1000

You are responsible for the cost of shipping the product to Earthquake Sound Corporation.

(G) Disputes Resolution:

All disputes between clients and Earthquake Sound Corporation resulting from the one (1) year limited warranty policy must be resolved according to the laws & registration of the county of Alameda, California.



Earthquake Sound reserves the right to amend details of the specifications without notice.

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