

ROCK-on Series
User Manual

Granite-52 Speakers



Granite-10D Subwoofer

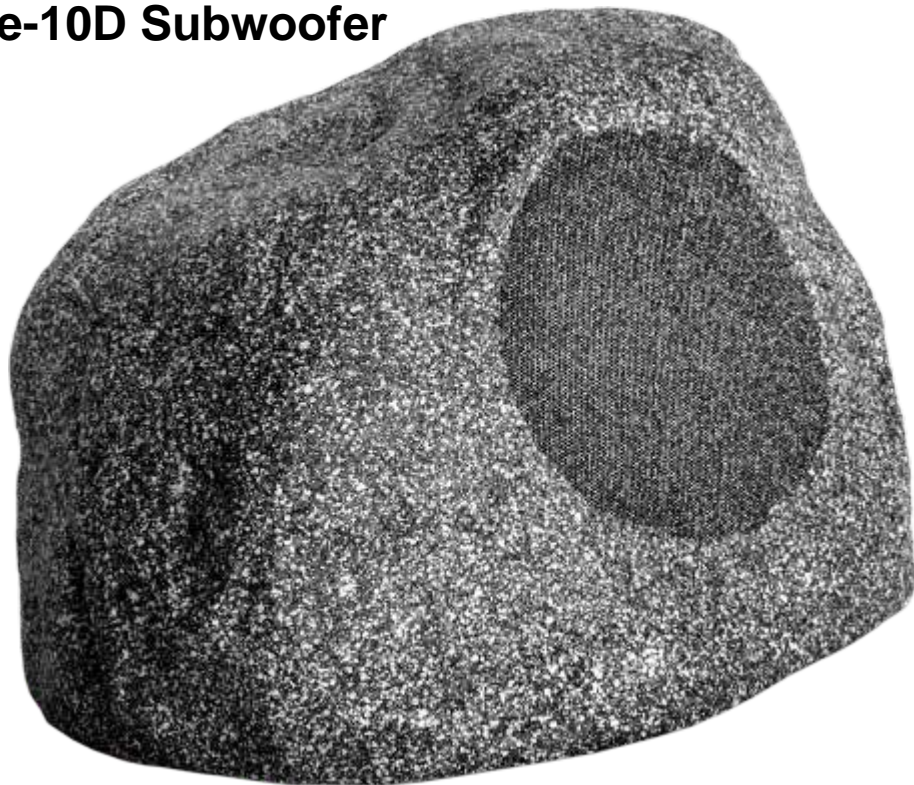


Table of Contents

Introduction.....	3
Safety Instructions.....	3
Unpacking Tips.....	5
Applications.....	6
Features.....	6
Wiring Your System.....	6
Wiring Options.....	7
Design.....	8
Specifications.....	8
Warranty Information.....	9



The Sound That Will *Move* You

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Introduction

Rock speakers have become a necessity in the outdoor audio entertainment market. Having outdoor speakers in your backyard that blend in introduces an audio element while remaining invisible. Rock speakers transform your backyard and pool area into a party zone.

Earthquake Sound Corporation has designed and manufactured speakers for over 25 years. This experience was put to the test when designing the ROCK-on line of outdoor rock speakers. In addition to designing the product to produce accurate sound, it must blend into any environment while handling a variety of hard weather conditions.

The Granite-52 speakers and Granite-10D subwoofer, part of the new ROCK-on outdoor speaker series, are specifically designed to imitate a rock appearance and easily blend in with any outdoor environment. Made with UV treated, weather-resistant enclosure materials and durable epoxy resin construction, the ROCK-on speakers can withstand the demanding outdoor elements.

Granite-52 is a pair of rock speakers with a 5 1/4 inch woofer and a 1/2 inch tweeter. They serve as your left and right speakers and have an amazing frequency response that is unmatched by any other rock speaker. They produce a crisp, clean, and accurate audiophile sound.

The ROCK-on subwoofer, the Granite-10D, features high power crossovers that reduce distortions and deliver pure sound that blends in with nature. The Granite-10D brings bass to your outdoor space, something that is greatly needed in today's rock speaker market. Granite-10D's port is "S" shaped so water cannot get trapped inside. We have tested and retested our ROCK-on speakers to ensure they are up to par with our reputable line of subs. Combined with the Granite-52 speakers which have a matching finish, you can turn any backyard into an entertainment center.

ROCK-on outdoor speakers are the ideal choice for listening to music in the garden, by the pool, in the yard, or on the patio.

Safety Instructions

Safety First

This documentation contains general safety, installation, and operating instructions for the ROCK-on series. 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.

CAUTION

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

WARNING

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.

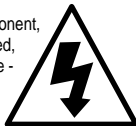
Note:

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 with the manufacturers 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.
- 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 & accessories specified by the manufacturer.
- 12) Use only compatible rack or cart for final resting position.
- 13) Unplug this apparatus during lightning storm or when unused for long period of time.
- 14) Refer all servicing to qualified service personal. Servicing is required when the apparatus has been damaged in any way such as; power-supply cord or plug is damaged, liquid has been 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 a 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 established the duration of the limited warranty and provided information for insurance purposes.

System installation considerations

There are several factors to consider before installing Earthquake Sound's ROCK-on series.

- 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 and patches).
- 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 could be unsafe. Consult with your electrical contractor about proper grounding.

Applications

- Outdoor Home Theater
- Patio
- BBQ Area
- Pool
- Backyard and Frontyard
- Garden
- Balcony

Features

- UV treated and weather-resistant enclosure materials
- Epoxy resin durable construction
- Rock-like appearance and finish to easily blend in with any outdoor environment
- Completely sealed speaker with Santoprene surrounds, poly cones and poly dust caps
- High power crossovers (for Granite 10D only).

Wiring Your System

1. Use direct burial wire and measure out how much you will need.
2. Dig a 6-inch deep trench to each speaker.
3. Connect the speaker wire to the speaker. It is recommended that you use heat-shrink tubing to seal each individual conductor, then heat-shrink the two connections together.

WARNING

Make sure that all connections are secure. A poor connection can lead to corrosion and a damaged speaker.

4. Run the wire through the trench to the amplifier.
5. Connect the speaker wire to the terminals on the back of your amplifier. Make sure that the speaker wires' polarity is connected correctly.
 - + (positive, red) to speaker red wire (positive)
 - (negative, black) to speaker black wire (negative)

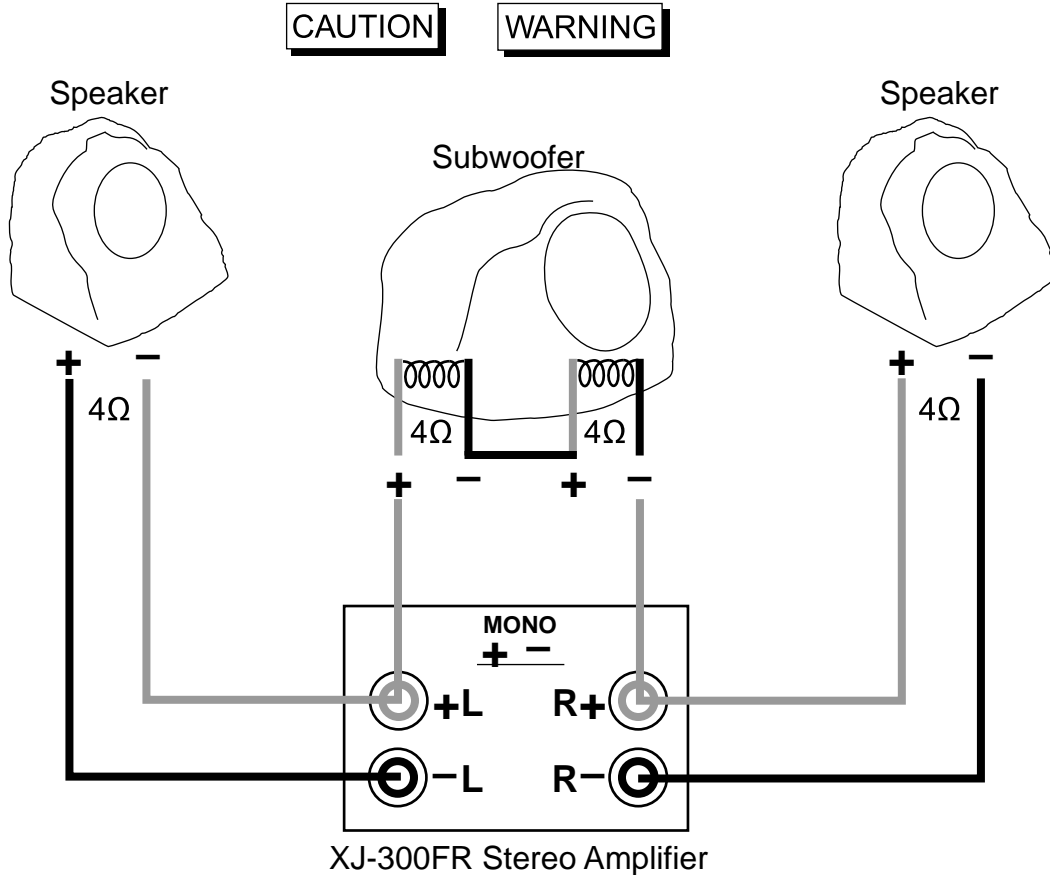
Note: If using the XJ-300FR Stereo Amplifier, wire as described on the adjacent page but bridge the two positive (red) wires to the subwoofer. This uses the Stereo option and the Mono option at the same time.

6. Turn your amplifier on and test the system with your favorite music. If the speakers are operating properly, refill the trench.

Wiring Options

Earthquake Sound's XJ-300FR Stereo amplifier can be used for your ROCK-on 2.1 system. In tri-mode wiring, the user can connect the 2 channel stereo and the mono at the same time.

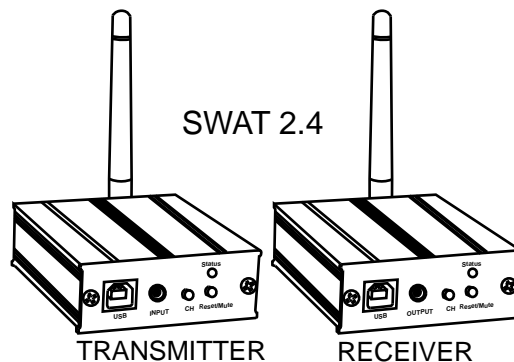
The subwoofer connection below demonstrates a series wiring formula which has a load impedance of 8Ω.



To simplify the wiring process, use Earthquake Sound's **SWAT 2.4 Wireless Transceiver**

1. Connect the rock speakers and subwoofer to the XJ-300FR amplifier as shown above.
2. Connect the SWAT 2.4 Receiver to the XJ-300FR amplifier through the RCA inputs.
3. Connect the SWAT 2.4 Transmitter to any music player that has a mini jack or RCA output.

Note: Make sure both the Transmitter and the Receiver are connected to a power source, either through the DC power supply or the USB port.



Granite-52 Design

- 5 1/4" woofer with polycone with butyl rubber surround
- 1/2" Mylar tweeter

Granite-52 is a pair of left and right speakers with an unconventional coaxial design. The tweeter is mounted on the same shaft of the speaker and in a typical speaker, the shaft requires a small opening for movement. This allows moisture to pass the waterproof cone and get into the voice coil, damaging the speaker.

Earthquake engineers solved this problem by developing the world's first rubber spider. This injection molded rubber is shaped like a spider which is waterproof and extremely durable under weather conditions. The spider acts as a soft suspension yet serves as a moisture barrier.

The Granite-52 speakers are made with a waterproof poly propylene injection molded cone. The surround is made of butyl rubber and the front of the shaft is totally sealed from the back so no water will get trapped inside.

Granite-10D Design

- 10" long excursion dual coil driver
- 2.5" diameter voice coil with 1.5" winding height

Granite-10D is a dual voice coil long excursion subwoofer. It has a massive motor that is unconventional in the outdoor rock speaker market. The voice coil has a whopping 2.5" diameter and 1.5" winding height. The overall excursion is over 2" peak to peak. Due to its voice coil winding height, the Granite-10D produces more sound pressure level, SPL, while using less current from your amplifier.

Conventional rock speakers are totally sealed and will heat up to a temperature that exceeds 180 degrees. So as soon as you turn on the music, the rock speaker only gets hotter. Not the Granite-10D.

Granite-10D has a clever ported design that allows the subwoofer to release the hot air. This port is a tube that has an opening in the lower back side but extends upward inside the box to prevent moisture and water from being trapped inside. In addition to keeping the subwoofer cool, this port adds 3dB of bass. 3dB is equal to half the volume.

Like the Granite-52, the Granite-10D also has a poly propylene injection molded cone with a butyl rubber surround.

Specifications

	Granite-10D	Granite-52
Frequency Response (± 3 dB)	30Hz-100Hz	50Hz-21kHz
Recommended Amplifier Power	20-400 Watts	40-200 Watts
Nominal Impedance	2 x 4 Ω	4 Ω
Sensitivity(1W@1M)	92dB	93dB
Woofer	10" (254mm) Two 2.5" diameter voice coils	5 1/4" (133mm)
Tweeter	N/A	1/2" (13mm) Mylar
Dimensions (HxWxD)	14" (356mm) 18 1/2" (470mm) 21" (546mm)	8 1/2" (216mm) 8 1/2" (216mm) 9" (229mm)
Finish	Granite rock	Granite rock
Enclosure	15mm epoxy resin	15mm epoxy resin

1 Year Limited Warranty Information

ROCK-on Granite-52 and Granite-10D one (1) year limited warranty:

Earthquake warrants the original purchaser that the speaker or amplifier (product) is 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 bill of sale with serial number affixed/written on it). The one (1) year warranty period is valid only if the product is properly installed by an Earthquake authorized party, and the warranty registration card is properly filled out and sent to Earthquake Sound Corporation. **If the product is installed by a non-authorized dealer, a thirty (30) day warranty period applies.**

(A) One (1) year limited warranty guidelines: (If installed by an authorized Earthquake dealer)

First year: Earthquake pays for labor, parts, and ground freight (**only in US mainland**) back to customer.

(B) Warning:

- Products (sent 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 (ongoing rates) plus shipping charges back to customer.
- Each product sent for repair must be packaged in its original packaging. Otherwise, **there will be repackaging charge in addition to labor, parts and shipping charges.**

© Earthquake agrees to repair or replace - at our option - all such defective products/parts subject to the following provisions:

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

(D) Warranty Limitations:

Earthquake 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 use of improper use of cleaning materials/methods.
- Bent speaker frame, broken speaker connectors, holes in speaker cone, surround & dust cap, burnt speaker voice coil.
- Fading, 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 purchase receipt.

(E) Service Request:

To receive product(s) 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 avoid repackaging charges. Shipper claims regarding items damaged in transit must be presented to carrier. Earthquake Sound Corporation reserves the right to refuse products that are improperly packaged. A copy of the purchase receipt must accompany product returned for service. We encourage you to include with the package a written description of the problem. Ship product to: Earthquake Sound Corp. 2727 Mc Cone Avenue, Hayward, CA 94545. Ph (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 & regulations of the county of Alameda -California.

It Is Recommended That You Place Your Serial Number Here For Reference



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