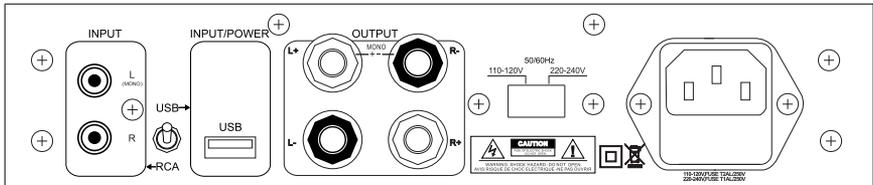
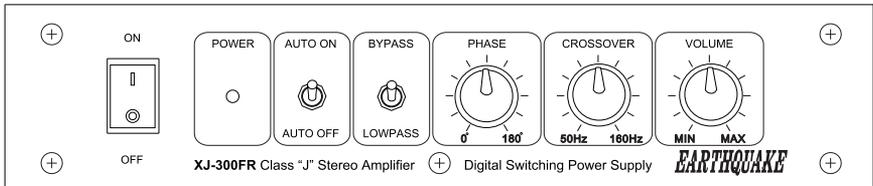


XJ-300 FR

2 Channel or Monoblock Class "J" Amplifier

User's Manual



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Safety Instructions

Safety First

This documentation contains general safety, installation, and operating instructions for XJ-300FR. 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.

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 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.
- 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 a long period of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in anyway, 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.

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 **XJ-300FR**.

- 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 cable cords (Earthquake Sound also specializes in high-performance RCA cables and patches).
- All speaker wires that are ran through the walls should be twisted 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 your electrical contractor about proper grounding.

Introduction

The XJ-300FR amplifier is an extremely versatile and modular amplifier. It can be used as a two channel, 2.1 channel, or bridged as a 1 channel amplifier. The XJ-300FR runs completely cool while outputting twice the power of most amplifiers its size. Therefore, it is extremely flexible and can be used in many different applications.

Multiple Mounting Options

The XJ-300FR is only one rack space tall and has a half-rack width chassis. This smart design features a patented interlocking design so two XJ-300FRs can be connected side by side and be rack mountable. Other amplifiers of the same size run too hot to mount them near anything else which defeats the purpose of their size. Because the XJ-300FRs run completely cool, you can comfortably mount other components directly above or below them in the rack. This means ultimate convenience for the installer. There are also additional mounting holes on the sides of the amplifier so that short brackets can be attached and the amp can be mounted directly to a wall or inside a cabinet.

Speaker Set-up Options

One or two XJ-300FRs can power a 2.1 channel system. This depends on how much power you want to output to your speakers. One XJ-300FR can be used for two speakers while the other can be bridged as a monoblock. Alternatively, you can use two linked XJ-300FRs as a 4 channel system. For a more high powered system, bridge both of them and designate one speaker or sub to one amplifier and another speaker or sub for the other. The installer is completely in charge of how the amplifier's power is distributed.

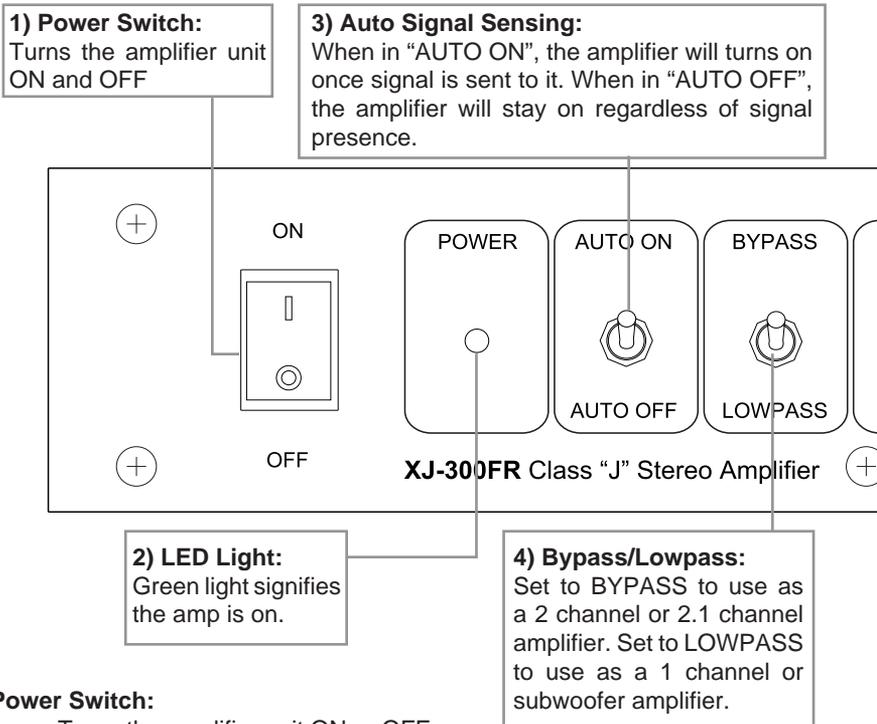
Applications

The XJ-300FR has countless applications because of how customizable the channel set-up is. If you need to install in-ceiling speakers in the kitchen, tower speakers in the living room, or rock speakers outside, the XJ-300FR can perform accurately in every situation.

Included in the Box

- 1 XJ-300FR Stereo Class "J" Amplifier
- 4 Short Mounting Ears
- 1 Bracket
- 4 Screws for the Bracket
- 1 Power Cord

Front Features



1) Power Switch:

Turns the amplifier unit ON or OFF

2) LED Status Light:

When amplifier is ON, the LED will light green.

3) Auto Sensing:

When set to "AUTO ON", the amplifier will only turn on whenever signal (50mV minimum) is present. Once signal is no longer present for about 8 minutes, the amplifier will shut off automatically.

If set to "AUTO OFF", the amplifier will stay on whether or not there is signal present.

Note that the amplifier needs to be powered ON in either case.

4) Bypass/Lowpass Toggle Switch:

When set to "BYPASS", the amplifier crossover control is OFF. This setting is best when using the XJ-300FR in the 2-channel or 2.1 configuration.

When set to "LOWPASS", the crossover control is ON. This setting is best when using the XJ-300FR as a mono block or subwoofer amplifier.

5) Phase Setting:

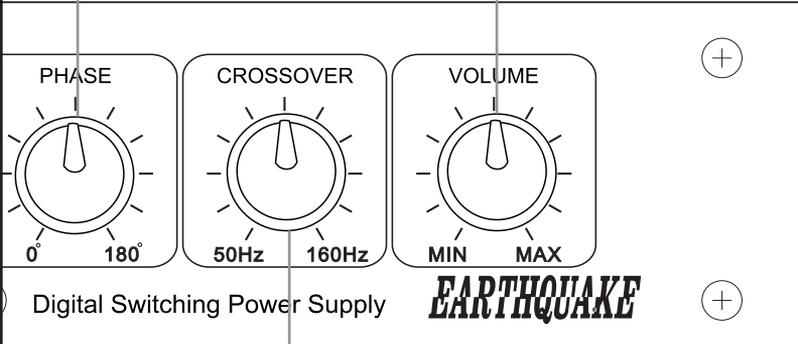
If you are using the XJ-300FR to power a subwoofer, you will need to set the arrival time of the subwoofer's frequencies to that of your speakers. To do this with the highest accuracy, you will need an SPL meter supplied at most electronics stores.

5) Phase Setting:

Use to correct subwoofer frequency arrival times. Can only be used when in "LOWPASS" setting.

7) Volume Setting:

Set based on the input level and power rating of your load.



6) Crossover Setting:

Sets the 3dB down maximum frequency range. Note that the amplifier must be set to "LOWPASS" for this feature to work.

To set the phase:

- A) Send a 50Hz continuous tone signal through the speakers and the subwoofer at the same time.
- B) Turn the phase knob to zero and place the meter in the listening position.
- C) While the system is playing the 50Hz tone, read the meter.
- D) Rotate the phase knob until the meter reads the highest possible.
- E) Take note of the position for future reference.

6) Crossover Setting:

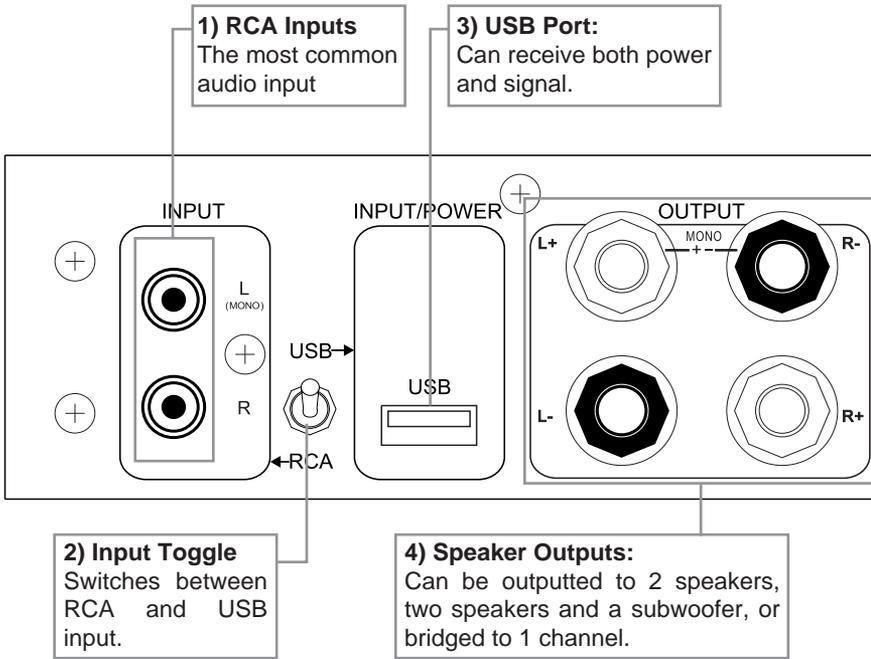
As a rule of thumb:

- A) If you are powering the THOR In-Wall SUB10, the Q10B tactile transducer, or a large subwoofer (12" - 18"), set the crossover to 50Hz - 100Hz.
- B) If you are powering a MQB-1 tactile transducer, a 10" subwoofer, or small front speakers, set the crossover to 70Hz, or the 9 o'clock position.
- C) If you are powering a small subwoofer (8") or small speakers, set the crossover to 100Hz, or the 12 - 2 o'clock position.

7) Volume Setting:

Always start at MIN position and slowly increase the volume to reach the desired sound level.

Back Features



1) RCA Inputs:

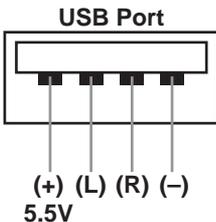
If you are using the XJ-300FR as a mono block (1 channel amplifier), connect to **both L and R RCA terminals**. Be sure the toggle switch is set to “RCA” in order to use this input.

2) Input Toggle:

The XJ-300FR is capable of receiving signal through either the RCA or USB input. Be sure to set the toggle switch to the audio input being used.

3) USB Port:

Capable of receiving power and signal, the USB port is optimized for use with the SWAT-2.4X Wireless Transceiver. It uses the standard 5.5V USB. Be sure the toggle switch is set to “USB” in order to use this input.



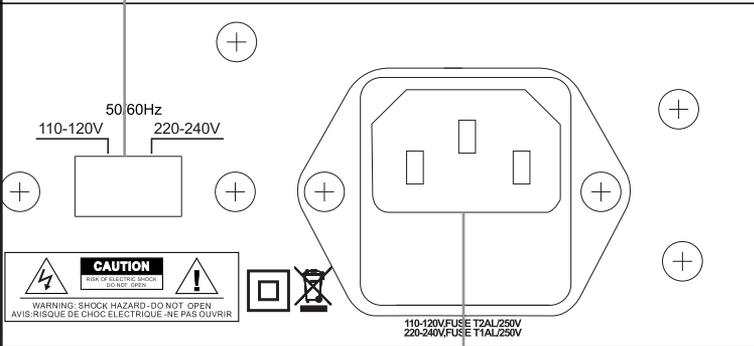
The four metal contacts enable the USB to be used for both power and signal. The outer metal contacts receive the **positive** and **negative** currents while the inner metal contacts receive the **left** and **right** audio.

5) 110V/220V Option:

Should already be set to the correct voltage depending on your region.



CAUTION



6) Power Supply:

Comes with a 6A/250V replacement fuse directly under power inlet.

4) Speaker Outputs:

- To use the XJ-300FR as a two channel amplifier, connect the right speaker to the R+ and R- terminals and the left speaker to the L+ and L- terminals.
- To bridge the XJ-300FR as a one channel amplifier (or mono block), connect the positive speaker wire to the L+ terminal and connect the negative speaker wire to the R- terminal. Do not connect anything to the two lower black terminals.
- To use the XJ-300FR as a 2.1 channel amplifier, connect the right speaker to the R+ and R- terminals and the left speaker to the L+ and L- terminals. Then, connect the subwoofer positive to the L+ terminal and the subwoofer negative to the R- terminal.

5) 110V/220V:

Do not attempt to change the voltage setting. The amplifier should already be set to the correct voltage depending on your region. If not, please contact your local Earthquake Sound dealer.

6) Power Supply:

To access the 6A/250V replacement fuse, use a flat head screwdriver to pry off the plastic cover. Make sure that the amplifier is not connected to any power source when doing so.

Mounting Options for 1 XJ-300FR

Wall (or Anywhere) Mountable

The XJ-300FR can uniquely be mounted to a wall or inside a cabinet. Simply screw in the four short ears to the matching holes on the sides of the amplifier chassis.



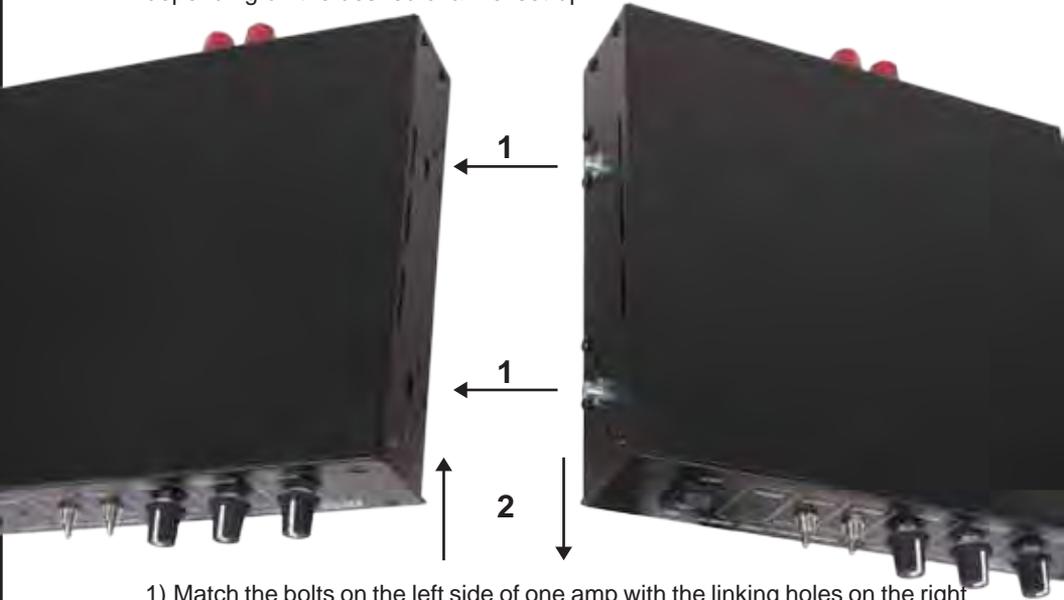
Then bolt to any vertical or horizontal surface.



The XJ-300FR also comes with four rubber feet to not damage the bottom in the instance that it simply sits on a shelf or cabinet.

Linking 2 XJ-300FRs

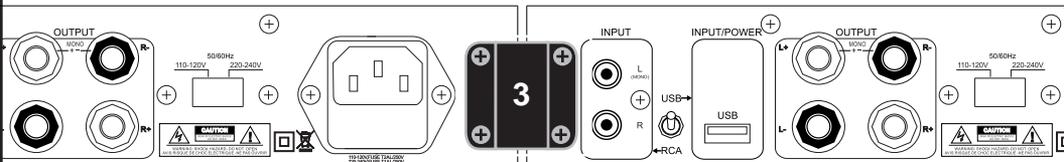
The XJ-300FR's ingenious design lets the user link two amplifiers together depending on the desired channel set-up.



- 1) Match the bolts on the left side of one amp with the linking holes on the right side of the other amp.
- 2) Once they are connected, push the right amp forward while pushing the left amp backwards until they are locked together. They are linked correctly when the face plates are flush.
- 3) Bracket the back plates of the amps together for added reinforcement.

WARNING

WHEN LINKING THE AMPS, DO NOT APPLY PRESSURE ONTO THE FRONT PLATES OR BACK PLATES. THIS COULD DAMAGE THE TERMINALS, KNOBS, OR TOGGLE SWITCHES. AMPS DAMAGED IN THIS WAY ARE NOT COVERED BY THE WARRANTY.

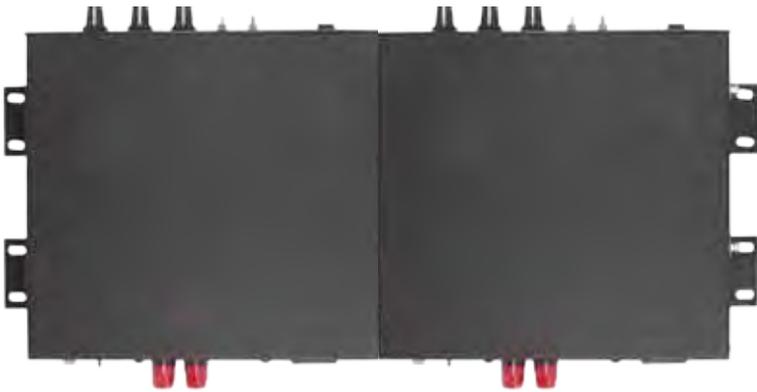


Mounting 2 XJ-300FRs

Screw short mounting arms to the outer sides of the amplifiers so they are rack mountable.



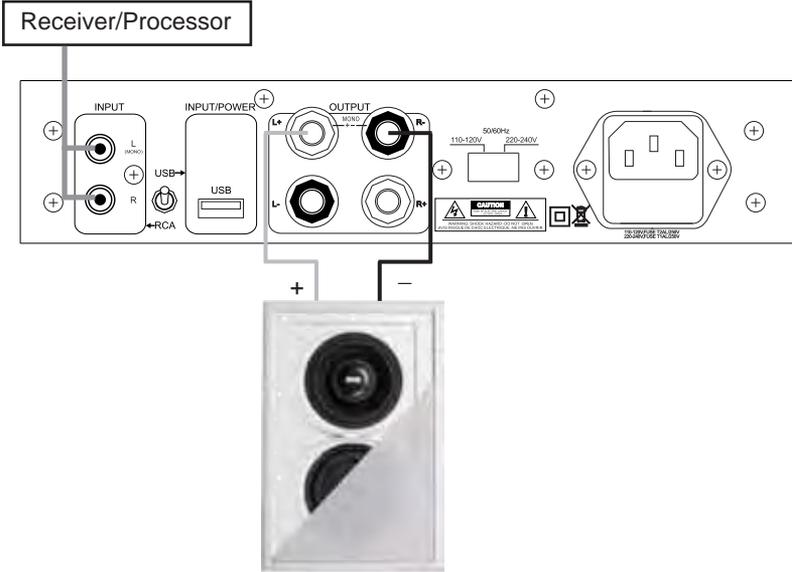
Or screw two mounting arms on each side so the set is wall mountable.



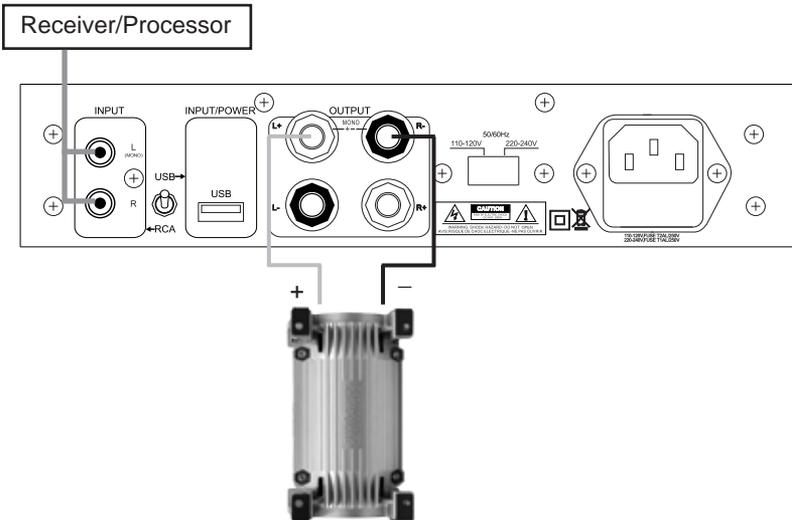
Connecting to a Subwoofer/Tactile Transducer

Note: Make sure the front toggle switch is set to “Low Pass” if connecting to a subwoofer or tactile transducer.

Wiring with the THOR In-Wall Subwoofer



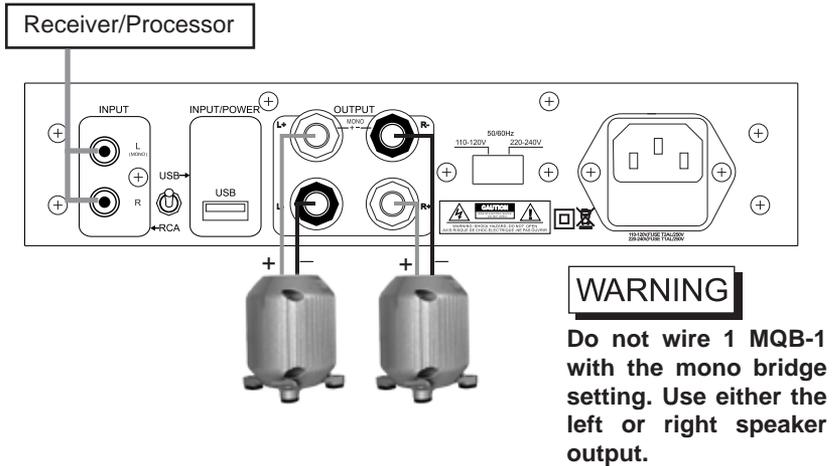
Wiring with the Q10B Tactile Transducer



Connecting to Tactile Transducers

Note: Make sure the front toggle switch is set to “LOWPASS” if connecting to a subwoofer or tactile transducer.

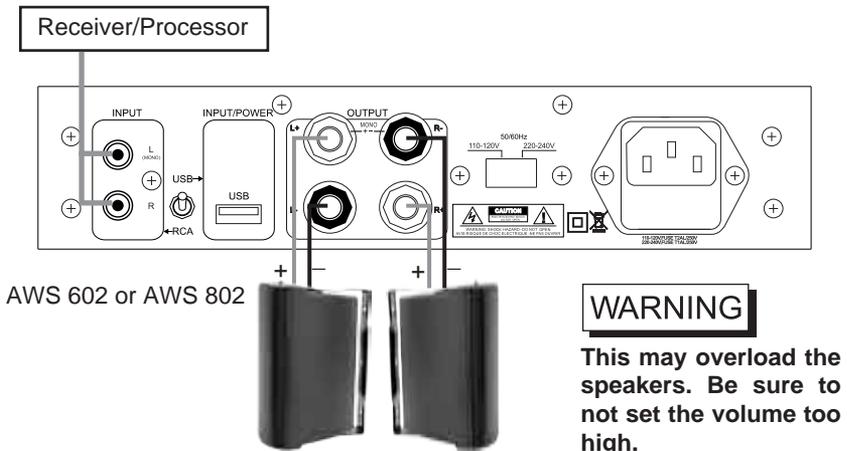
Wiring with 2 MQB-1 Tactile Transducers



Connecting to Outdoor Speakers

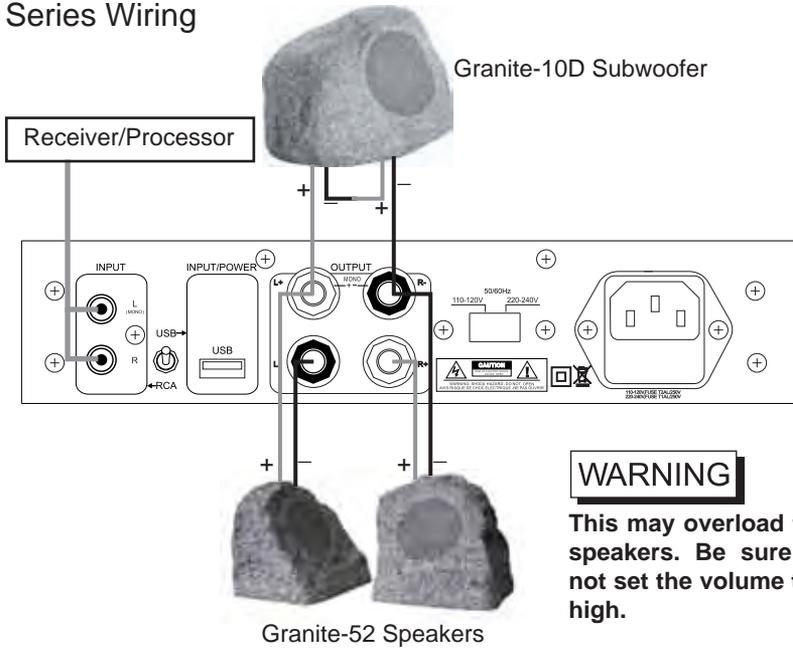
Note: Make sure the front toggle switch is set to “BYPASS” if connecting to speakers or a 2.1 channel system.

Wiring with AWS All Weather Speakers



Connecting to Outdoor Speakers (cont.)

Wiring with the ROCK-on 2.1 channel system Series Wiring

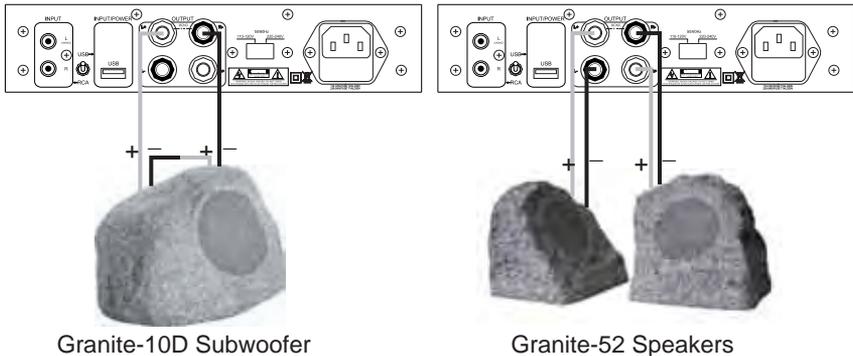


Option 2

Though 1 XJ-300FR is capable of powering the Granite 2.1 system, you can use 2 linked XJ-300FRs for more power. Set the bridged amplifier to “LOWPASS” to power the subwoofer and set the other amp to “BYPASS” to power the speakers.

WARNING

This may overload the speakers. Be sure to not set the volume too high.



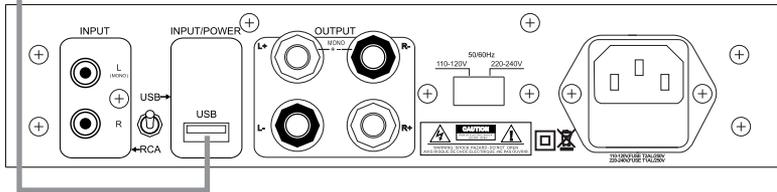
Connecting to SWAT-2.4X Wireless Transceiver

Note: Make sure the back input toggle switch is set accordingly when connecting to the SWAT-2.4X

The XJ-300FR is optimized for use with the SWAT-2.4X Wireless Transceiver. After the amplifier is wired to the speakers, connect the SWAT-2.4X Receiver to the USB inputs on the XJ-300FR using a USB cable. This will also power the SWAT-2.4X Receiver, eliminating the use of the power supply.



SWAT-2.4X Wireless Receiver



Connect the SWAT-2.4X Transmitter to your audio source, processor, or computer with a USB cable. Now you can wirelessly transmit audio to the XJ-300FR.

SWAT-2.4X Wireless Transmitter

NOTE:

If you choose to connect your audio source using an RCA or mini-jack cable, be sure to switch the toggle to “RCA” and power the SWAT-2.4 with either the USB or the supplied power supply.



Music Source with audio output

Specifications

Model No.	XJ-300FR
Output Power	8-ohm load: 2 x 110 WRMS 4-ohm load: 2 x 170 WRMS Mono Bridged: 8-ohm load: 170 WRMS 4-ohm load: 300 WRMS
Frequency Response	20Hz - 20kHz
THD	0.08%
Damping Factor	>400
Signal to Noise Ratio	>97dB
Power Line Voltage	110 - 120C ~ AC/60Hz/180W (110/220V)
Input Sensitivity for Full Output	max/min: 0 - 5V
Input Impedance	10kOhm
Fuse Rating	6A/250V
Weight	3.8lbs/1.7kg

Dimensions



5 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 five (5) years from the date of purchase (as shown on the original sales receipt with the serial number affixed/written on it).

The five (5) years 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 party, a thirty (30) days warranty period applies.**

(A) Five (5) years limited warranty plan coverage guidelines (If installed by an authorized Earthquake dealer):

- First year: Earthquake pays for labor, parts, and ground freight **(only in the U.S. mainland, not including Alaska and Hawaii)** back to the customer.
- Second, third, fourth, and fifth year: Earthquake pays for labor only. Customer must pay for parts and freight both ways.

(B) Warning:

- Products (sent for repair) that are tested by Earthquake technicians and deemed to have no problem, will not be covered by the five (5) years limited warranty. Customer will be charged a minimum of one (1) hour of labor (ongoing rates) plus shipping back to the customer.
- Each product sent for repair must be packaged in its original packaging. Otherwise, **there will be a repackaging charge in addition to labor, parts, and shipping charges.**

(C) 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, removed, or have been used in anyway that is contrary to Earthquake's written instructions.

(D) Warranty Limitations:

Earthquake warranty does not cover products that have been modified and/or abused, including but not limited to the following:

- Damages to unit cover and finish due to misuse, abuse, or improper use of cleaning materials/methods.
- Bent casing, damaged finish on casing due to abuse, misuse, or improper frame or broken connections.

5 Year Limited Warranty (cont.)

- Fading, deterioration of components and finish due to improper exposure to elements.
- Burnt tracers of 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 and returned to Earthquake with a copy of the sales invoice.

(E) Service Request:

To receive product(s) service, contact Earthquake Sound's service department at (510) 732-1000 and request an RMA number (Return Material Authorization), item(s) shipped without a valid RMA number will be refused. Make sure you provide us with your complete and 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. Shipper claims regarding item(s) damaged in transit must be presented to the carrier. Earthquake Sound Corporation reserves the right to refuse improperly packed product(s). A copy of original sales receipt must accompany product(s) returned for service. We encourage you to include a written description of the problem inside the package. Ship product to:

**Earthquake Sound Corp.
2727 McCone Avenue
Hayward, CA 94545 USA
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 five (5) years limited warranty policy must be resolved according to the laws and regulations of the county of Alameda, California.



The Sound That Will *Move* You.

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

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