

# FLSUB10 and 12 Series User's Installation Guide

## Floor Standing Powered Bass Reflex Subwoofer The "Ballista"

We call it the "Ballista" because it launches the bass energy into the room instead of merely pushing air into the room. You will not only hear the bursting rich bass but your body will feel the resonating forceful sound pressure.

A Ballista was a weapon used by the Greeks and Romans to throw large projectiles at the enemy. The FLSUB Ballista uses the same principles in design to unleash the bass into the room.

The Ballista's reproduction of low frequencies are enhanced by the front slotted port Bass Reflex design with vinyl coated MDF. The FLSUB is the perfect unit for custom cabinetry.

The woofer is made of a long lasting heavy-duty mica filled paper pulp with a strong butyl rubber surround.

The amplifier is the brains of the system and has all the latest features including: RCA low level Line Input, high level left/right spring loaded Speaker inputs, high level pass through Speaker outputs, Auto On Switch, a Phase control switch, variable Subwoofer Level control and a variable Crossover Frequency control.

The color is Black Ash easy maintenance vinyl.

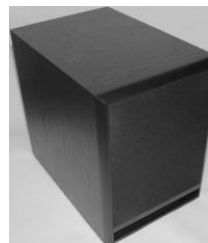
The FLSUB is truly your best complement to any Home Theater.

With the Ballista you are assured years of explosive realistic sound and superior trouble free operation.



SPECIFICATIONS FL SUB	FLSUB10	FLSUB12
Woofer	10" Heavy Duty Mica Filled Paper Pulp Cone	12" Heavy Duty Mica Filled Paper Pulp Cone
Surround	Butyl Rubber	Butyl Rubber
Frequency Response (with Fixed High Pass Cut Off)	25Hz-250Hz	22Hz-200Hz
Variable Low Pass Crossover	40-150Hz	35-150Hz
Power handling	175 Watts <2% THD	250Watts <2% THD
SPL @ 1 Watt/1 meter @ 30Hz	112db	116db
Input	RCA and High Pass Output @75Hz	RCA and High Pass Output @75Hz
Height X Width X Depth (Approximate)	17.2"(437mm)x 12.9"(328mm) X 19"(483mm)	<b>Coming Soon</b>
Weight	44lbs (20kg)	

Part Number	92053 FLSUB10 92052 FLSUB12
Manual URL	<a href="http://www.currentaudio.com">www.currentaudio.com</a>
Accessories	ILS120 In-line Surge Protector FIT, FITFL, WS, CS Loudspeakers



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## Packaging and Enclosed Parts

Please inspect your pack for any transit damage or missing parts. Notify your supplier if any discrepancies occur.

There are three (3) parts in the package: One main Speaker housing, one removable Grille and one IEC Power cord.

Only simple hand tools are required for assembly and installation.

## 1 Precautions and Safety Instructions

1. Read all Instructions and retain this manual for future reference.
2. Adhere to all Warnings, Notices, and Operating Instructions.
3. Avoid placement near water and moisture, this could include pools, laundry, bathtubs, Kitchen sink or wet basements.
4. Don't not block ventilation. If placed in a cabinet or bookcase make sure there is plenty of ventilation space.
5. Connect only to an approved Grounded 110VAC source or 230VAC. A surge protector is recommended.
6. The FLSUB is a vinyl coated material and should only be cleaned with mild soapy water. Do Not use harsh cleaners.
7. **Warning! Do Not open the amplifier cavity. Risk of electric shock possible. There are No User Serviceable Parts on the inside.**

## 2 Placement

- The optimal placement of the FLSUB subwoofer should be in the front stereo plane. By placing the FLSUB in a corner you experience a "bass boost" this is accomplished by sound reinforcement from adjacent walls. This translates to less required amplification and less distortion that the woofer is trying to produce. This placement may increase standing waves depending on the room size, and make the bass sound uneven at different listening locations.
- It is better to install two smaller subwoofers than one bigger more expensive one. By placing two smaller subwoofers on opposite walls you can get a more uniform axial mode cancellation.
- Place the FLSUB in a well ventilated area to take advantage of its massive heat sink for cooling. A fan may be required if placed in a cabinet.
- If installed in a cabinet place the front edge of the FLSUB as far forward as possible. Do Not push toward the rear of the enclosure
- Do Not obstruct the woofer or the slotted port. This will affect the sound quality. This sub needs room to launch the bass into the room.

## 3 Installation

The POWER switch should be in OFF position. After checking all input/output wiring plug the FLSUB into a grounded 110VAC Outlet.

The preferred low Line Level (LFE) connection is made by connecting a quality single RCA audio cable with male ends. If your amplifier has two outputs connect only to the left sub out or follow amplifier directions. When using the amp LFE output turn the FLSUB Crossover Frequency knob fully (CW) clockwise. See *Figure 1, LINE INPUT* (LFE) and *Figure 2, Hook-Up*.

If you are rewiring in the wall use a 2 conductor shielded 22 gauge or larger wire to your jack. Make sure you prewire next to a 110VAC outlet.

If your amplifier does not have a RCA SUB Output, run your Left/Right 16 gauge or higher Speaker Output wire from the amp to the FLSUB labeled FROM RECEIVER then from the FLSUB connect your speakers TO SPEAKER Output. See *Figure 3, SPEAKER HOOK-UP*. With this configuration the FLSUB will extract only the Low frequencies to be amplified by the FLSUB and pass the remainder of the frequencies to your satellite speakers. Your satellite speakers will now work more efficiently.

**WARNING! Reversing the Input and output could damage your amplifier. Verify this connection before energizing your amplifier.**

Figure 1, LINE INPUT



Figure 1, FLSUB Controls



LINE INPUT (LFE) Connection

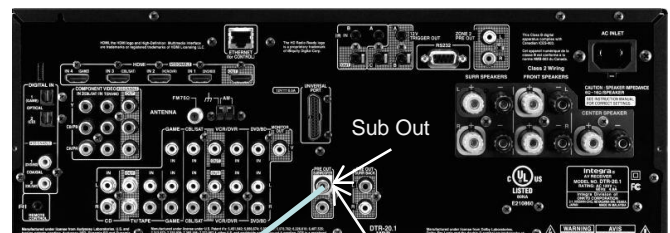


Figure 2, LINE INPUT Hook-Up

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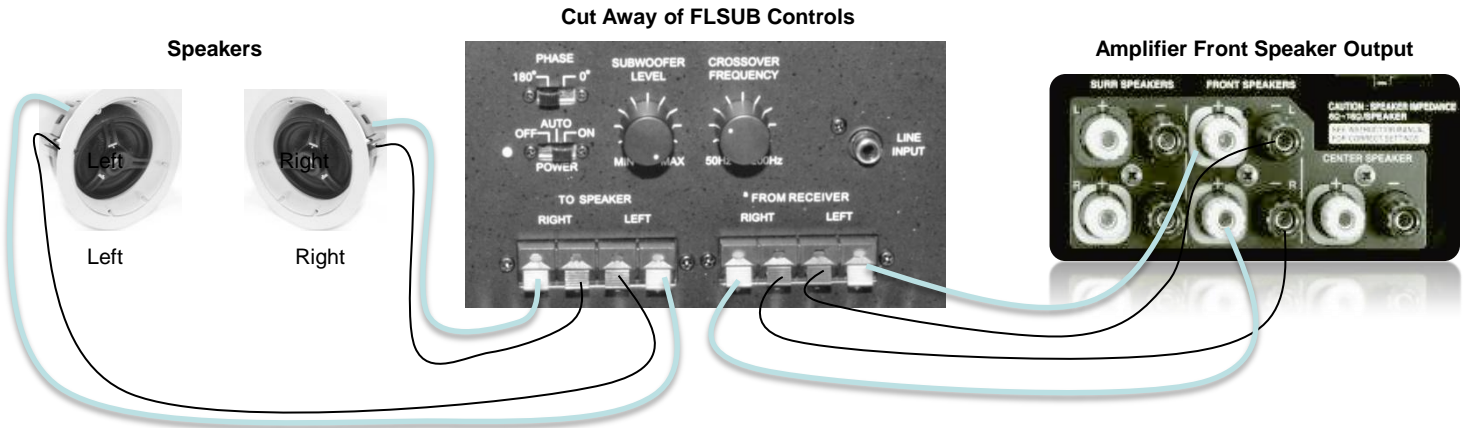


Figure 3, SPEAKER SUB HOOK-UP

## 4 Operation

After you are satisfied that all connections are correct you are ready to begin operation. See *Figure 3, OPERATION CONTROLS*

- POWER Switch** The POWER switch has three (3) positions OFF-AUTO-ON.
- In the **OFF** position the FLSUB is totally de-energized and nothing will function.
  - In the **AUTO** position the FLSUB has “keep alive” voltage and is waiting for an audio signal from your amplifier. Once the FLSUB senses an audio input the unit will fully energize and allow the signal to be amplified. If no signal is present it will shut off in about 15 minutes. This is the preferred setting and will save on your energy bill.
  - In the **ON** position the FLSUB is constantly on and consuming energy. In this mode you may hear annoying background low frequency noise when no signal is applied. Either lower the SUBWOOFER LEVEL or switch to AUTO to stop it.

**SUBWOOFER LEVEL** This is the volume control for the FLSUB and is used to match the output of your main speakers. Once set your amplifier will determine the overall volume of bass. Do not set this level too high. Unnatural sound and distortion will result.

**CROSSOVER FREQUENCY** This control allows you to adjust the maximum upper frequency cutoff of the FLSUB. The range is 50-200Hz. Frequencies above the set are filtered out and will not be amplified. Initially set it at mid range then adjust up or down for the best response for your room. When using LFE out adjust fully clockwise.

**PHASE** The PHASE switch is either 180° or 0°. This control allows you to minimize the unwanted destructive acoustic interference when the main speaker low frequencies overlap that of the subwoofer. Toggle the switch to find the best sound with audible bass.

**INPUT POWER Switch** The FLSUB has a switchable power input of 110VAC and 230VAC See Figure 5. It is shipped in the 110VAC position with the required cord. To change to 230VAC loosen the two Phillips screws on the clear cover of the 120-230V slide switch and slide the switch down to the 230-240VAC position. Return the clear cover to the proper position and retighten the two Phillips screws.

**NOTE:** For 230VAC operation a separately supplied IEC female to male 230VAC is required for operation.

**Warning:** Connecting the amp to a 230VAC source with the Input Power Switch in the 120VAC position will permanently damage the amp and void the warranty. Conversely, having the Switch in the 230VAC position and connecting to a 120VAC source will render the amp inoperable and also void the warranty.

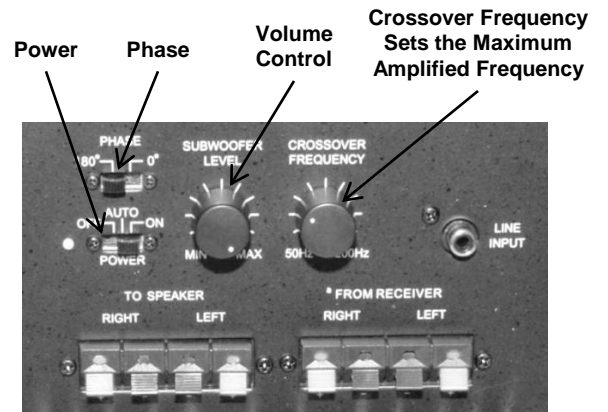


Figure 4, FLSUB OPERATION CONTROLS

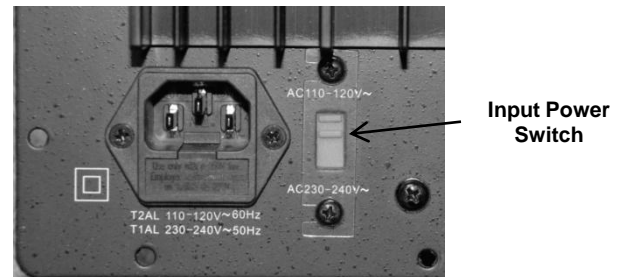


Figure 5, INPUT POWER SWITCH

## 5 Troubleshooting

Trouble	Possible Cause	Possible Solution
No Sound From Sub	<ul style="list-style-type: none"> <li>•Unit not plugged in to AC power</li> <li>•Audio Cable Not Properly Connected</li> <li>•Amp Not Set to Deliver Bass output</li> <li>•Power Switch on Sub not in ON or AUTO Position</li> </ul>	<ul style="list-style-type: none"> <li>•Check Power, Plug In to a Live Outlet</li> <li>•Check Cable Connections. Replace Cable</li> <li>•Program Amp to Send Bass Signal to Sub Out</li> <li>•Place Power Switch to ON or AUTO</li> </ul>
Hum or Buzz	<ul style="list-style-type: none"> <li>•RCA Cable Not Completely Seated</li> <li>•Bad Cable</li> <li>•Improper or No Ground</li> <li>•PreWire Cable Ran Too Close to AC Wires</li> </ul>	<ul style="list-style-type: none"> <li>•Push-in RCA Cable Completely</li> <li>•Replace Cable</li> <li>•Check With Plug Tester, Reverse Cord</li> <li>•Insert Isolation Transformer In-line with RCA</li> </ul>
Hum from Sub When Receiver Off	<ul style="list-style-type: none"> <li>•Subwoofer Level Set Too High</li> <li>•Sub Set to Constant ON</li> <li>•Cable TV Ground Not Same as Earth Ground</li> <li>•Ground Loop</li> </ul>	<ul style="list-style-type: none"> <li>•Turn Subwoofer Level Down</li> <li>•Turn POWER Switch to Auto</li> <li>•<b>Insert In-line Ground Isolation</b></li> <li>•Common all Grounds/Isolate AC Ground</li> </ul>
No Audio from Speakers	Improper Connection From Amp Front Speakers	Check Speaker Wiring from Amp to Sub and from Sub to Speakers

## 6 Considerations

- Two smaller subwoofers are better than one larger one. There is less localization and more uniform bass sound with two subwoofers.
- Do Not place the subwoofer too close to the listening are. It will feel like you are being pounded with a pillow.
- Do not place the subwoofer in the rear of the room unless you are installing more then two subs. The first two need to be in the front plane.
- The front firing, front ported FLSUB makes the perfect unit for custom built-in cabinet. Insure proper ventilating with a small fan.
- Do not obstruct the sub speaker or the slotted port. To produce bass a great deal of air has to be moved.
- Make sure the front edge of the sub is even with the front edge of your cabinet. If not a tunnel sound will occur.
- Do Not use harsh cleaners on the FLSUB cabinet. Use mild soapy water. A wax like Pledge will renew the shine. Check the label!
- As a minimum use a quality 2-22S shielded wire when prewiring in the wall. Avoid running next to any AC power lines.
- Connect the shield on only one end to prevent ground loops that can cause hum. Connecting the shield on amplifier end is preferred.
- When pre-locating the subwoofer make sure you have a 110VAC or 230VAC outlet next to the jack. The FLSUB requires AC power.
- Every surround sound home theater should have at least one powered subwoofer. Two is an improvement.
- Many receivers must have the Sub Out signal enabled. This is accomplished in the receiver menu. Check receiver instructions.
- Install an ILS120 Surge Protector or equivalent surge protection.
- Some homes have uneven ground potentials that could cause hum in the amp. Try a two prong ground isolator to solve this problem.

### Limited 1-Year Warranty

Current Audio powered subwoofers are warranted to be free from defects in materials and or workmanship to the original retail purchaser for a period of one year, provided the speaker was purchased from a Current Audio Authorized Dealer.

In the event of defective materials and or workmanship, Current Audio ,LLC will, without charge, repair or replace, at its option, the defective product. In order to make claim under this Warranty and to obtain performance of any obligation under warranty, please contact Current Audio LLC. Instructions will be given on how to return the defective product to Current Audio. Returned products must be shipped prepaid. Proof of purchase must be provided with the product. Suggest saving original packaging for shipping. Current Audio will not be responsible for any return shipping damage.

The Warranty does not apply to damage not resulting from defective materials and or workmanship while in the possession of the original consumer or due to unreasonable use by the original consumer, which includes but not limited to improper installation, negligence, unauthorized repair or modification, aesthetic deterioration from the environment. Products purchased by unauthorized sources will void the warranty and not be honored.

Current Audio, LLC is not liable for any incidental or consequential damages, so the above limitations or inclusion may not apply to you. This warranty gives you specific legal rights, and you may have other rights, which vary from state to state within the United States.