



C -11 Powered Subwoofer Owner's Information

American Acoustic Development LLC


C-11 Powered Subwoofer


Information

Important Instructions

1. Read your owner's manual carefully before using the product. Retain this manual for future reference.
2. The subwoofer should be placed at a ventilated, dry and cool location, away from any heat sources such as radiators or amplifiers. Do not obstruct the amplifier in the C-11 from ventilation. It is necessary that air can flow around the finned heat sink on the rear panel of the amplifier.
3. Do not use the subwoofer near water or expose it to rain or moisture.
4. Always unplug the power cord first when making connections. Switch power on only after you check and make sure all connections are made correctly.
5. Unplug the power cord from the outlet when you are not going to use the subwoofer for a long period of time.
6. To clean, unplug the power cord from the outlet first. Use a damp cloth only to wipe dust off the surface. Do not use any liquid cleaners.
7. Do not put coffee cups or other objects on top of the cabinet. They can be shaken off when the subwoofer is in operation as it can produce a lot of vibration.

Introduction

C-11 is a home theater subwoofer equipped with a build-in equalizer. The  5-band equalizer is a powerful tool in correcting anomalies of subwoofers caused by room acoustics. It will greatly increase subwoofer performance when used properly.

In the real world, subwoofers generally do not have a flat frequency response. Only in ideal conditions such as open air or large anechoic test chambers do they have a perfect response measurement. When a subwoofer is played in a listening room, the bass frequencies can be up or down 10 dB from the ideal response. The sound can have a “boomy” or ill-defined bass that will impair the overall musical performance. The  5-band equalizer is designed to control offending bass notes that “booms” louder than they should. It features precisely aligned 1/3-octave equalization filters that are only found on the best professional audio equipment.

The cabinet has been designed using extensive computer modeling for the best possible alignment between driver and box. Coupled with two high excursion

proprietary 10” drivers, the C-11 produces clean, powerful and controlled bass. Three large rear-firing vents ensure ventilation of both driver and amplifier for cool running at high power. The vent's large bore and “gas flowed” cross-section reduces air turbulence that causes audible distortion.

Functions and Connections

Please refer to Fig. 3 (Front control panel) and Fig. 4 (Back panel) for functions on C-11 Subwoofer amplifiers

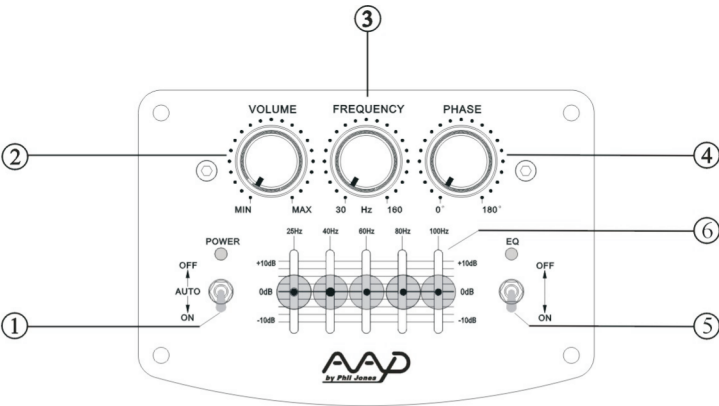


Fig. 3

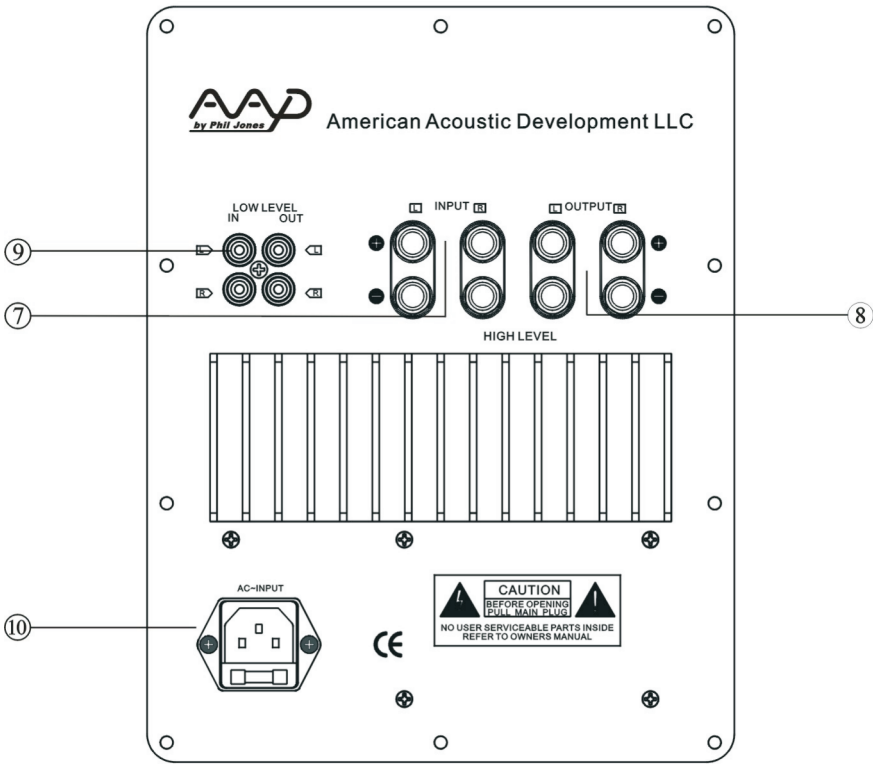


Fig. 4

① **Power switch on/off**

Upper position: Power on

Lower position: Power off

Middle position: Auto on

At this position the subwoofer amplifier is in a stand by mode, awaiting an input signal. When there is no signal, the amplifier is shut down. As soon as the signal appears, the amplifier switches on. If signal is absent, the amplifier will shut down automatically after a pre-determined period of time. The power indicator is red when the switch is at OFF position, and green when the switch is at ON or AUTO position.

② **Volume Control**

Use this control to balance the level of the woofer with the level of your main speakers.

③ **Crossover Frequency control**

If you are using small loudspeakers (4" to 6" woofers) in your main system, you will need to set the crossover frequency at a high position (100 to 160 Hz). If your main speakers have larger woofers (8" and above) you will need to set the crossover frequency to much lower position (40 to 80 Hz). Generally, the larger the speaker, the greater the low frequency output will be. If the frequency control is set too high, the bass will appear "boomy" due to outputs of subwoofer and main speakers overlapping each other. If it is set too low, the bass will be ill defined and the subwoofer will sound detached from the rest of the system.

④ **Phase Control**

Use this control to determine the best possible bass performance of your system. There can be interference between your main speakers and subwoofer at the frequency where they cross over due to placement, room acoustics and type of main speakers used. By carefully positioning the subwoofer in the room in combination with the level and crossover control, you should be able to get a seamless transition between your main speakers and subwoofer. Start with the full anticlockwise 0° position. This means that the subwoofer will push out positive pressure wave corresponding to a positive electrical input. The 180° full clockwise position inverts this so the subwoofer will put out a negative

pressure wave. You can use this position if you are unable to get a good integration between the subwoofer and main speakers.

⑤ **Equalizer on/off**

At “off” position, the amplifier will function normally without the effect of the 5-band equalizer.

⑥ **5-band Equalizer**

Please refer to “Setting up EQ for the Room”

⑦ **High Level Inputs L&R**

These inputs should be connected to the left and right speaker terminals of your amplifier/receiver, if you intend to connect the subwoofer using this option instead of the low-level RCA input connections.

⑧ **High Level Output L&R**

You could connect your main speakers from the subwoofer amplifier instead of the main amplifier/receiver. Use this option if you are connecting the subwoofer up via the High Level Input.

CAUTION! Do not use both low level and high level connection methods simultaneously. This may cause damage to the subwoofer and your amplifier/receiver.

⑨ **Low level Input & Output**

Connect this to the pre-amp output of your amplifier/receiver. If you do not have a pre-amp output or a power amplifier input, you can connect up the subwoofer using the Low Level Input/Output utilizing a tape input/output amplifier/receiver. Connect the tape output to the Low Level Input on the subwoofer, then connect the tape input to the Low Level Output on the Subwoofer. To switch the subwoofer into the circuit, switch the tape monitor input on your amplifier/receiver.

Use this in conjunction with your receiver/amplifier. Connect this output to the power amplifier input of your amplifier/receiver.

⑩ **Power input socket and Fuse**

For continued protection, replace only with same type fuse. (A spare fuse is enclosed for replacement.)

Connection

Please see diagrams below for different method of connecting the subwoofer to your main amplifier/receiver. It may be possible to use alternative connecting methods. Please refer to the owner's manual of your amplifier/receiver or seek professional advice from your retailer or installer.

CAUTION! Before switching power on, please make sure all connections are made properly, i.e., positive to positive, negative to negative.

Connection method 1:

Connecting the subwoofer using dedicated subwoofer RCA output from receiver (see Fig. 5)

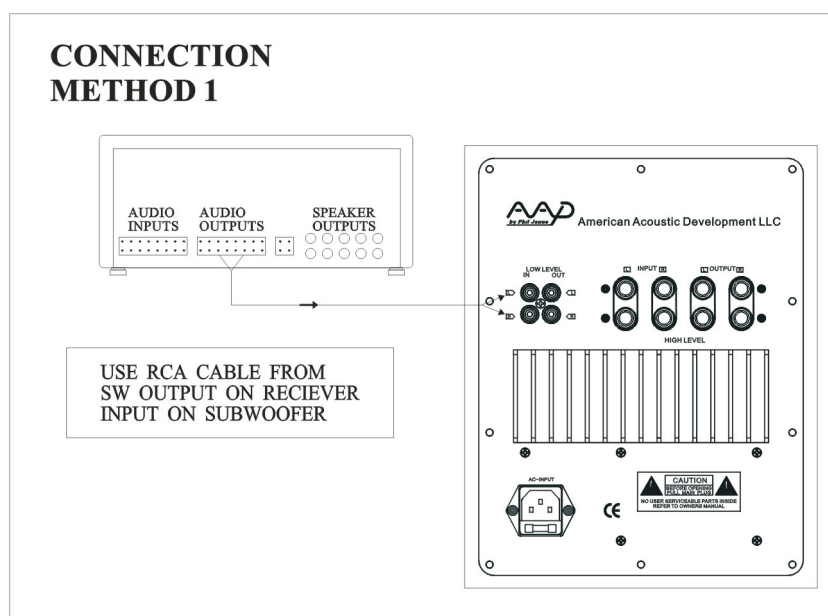


Fig. 5

Connection method 2:

Connecting subwoofer between pre-amplifier outputs and power amplifier inputs (see Fig. 6)

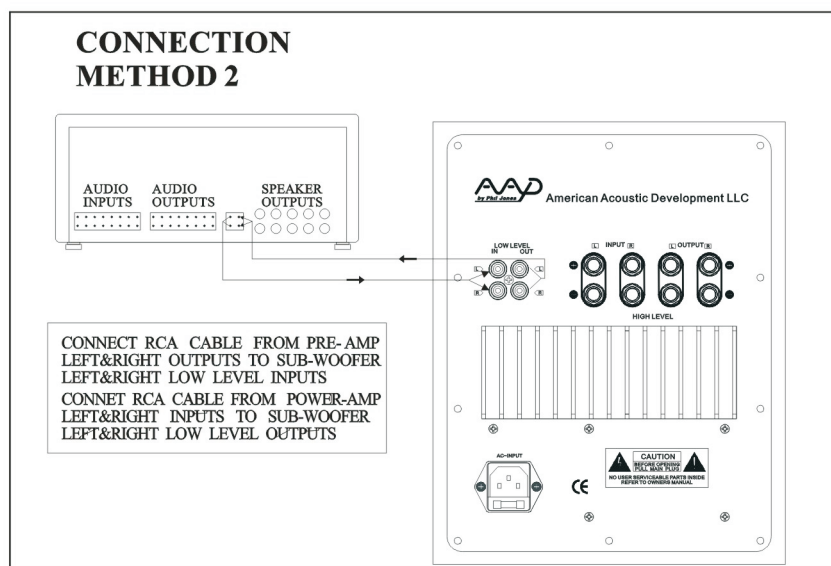


Fig. 6

Connection method 3:

Connecting subwoofer from speaker outputs of receiver (see Fig. 7)

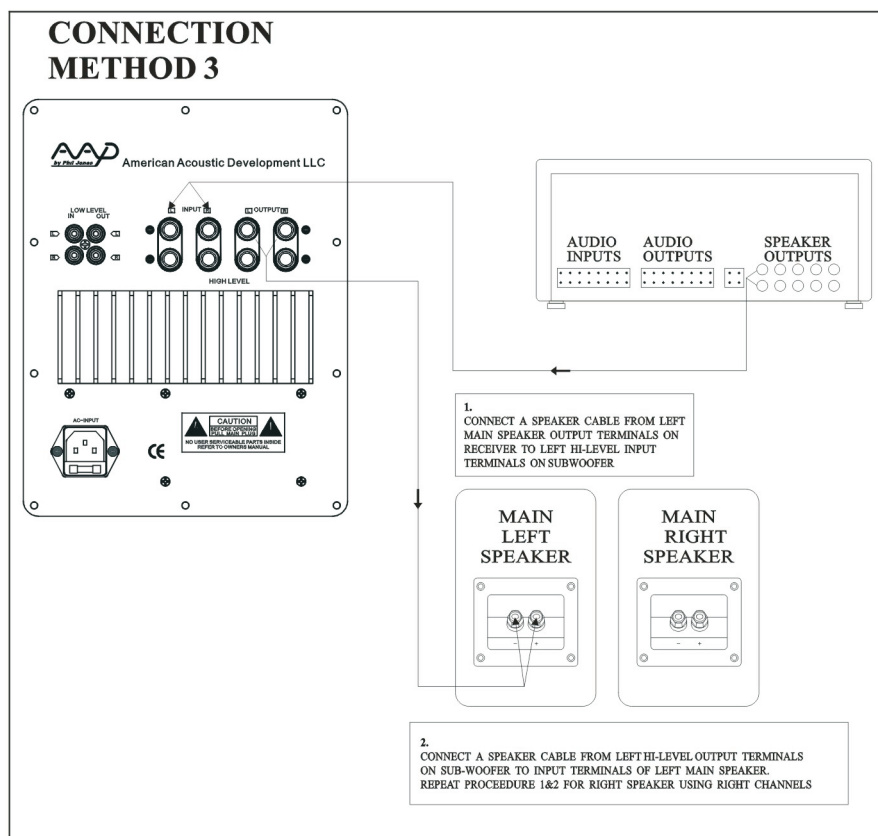


Fig. 7

Setting up EQ or the Room

Play some familiar pieces of music that have prominent bass lines. Start with the EQ switched out and then adjust the EQ filters one by one switching the EQ in and out. It is better to start with the EQ cutting the frequencies and not boosting them. Remember that a 10 dB boost is adding ten times the power at that frequency so it would be easy to overload the system at high power levels with the EQ sliders set at maximum.



Room Size and Room Position

The size of the room and the position of sub-woofer placement will also determine low frequency limit of the subwoofer. So by adjusting the EQ settings, the ideal response can be obtained without having to place the subwoofer in an impractical location. Small rooms usually add gain to low frequencies, which can be overpowering to the rest of the music. Large rooms need greater low frequency energy to sound balanced. The EQ settings can be adjusted to fit the room size. The 5 band equalizer should be used with great caution. The power levels to the speaker can be boosted by as much as 10 times! So if the subwoofer is running at 100 watts the EQ boost at maximum will try to push the amplifier to an impossible 1000 watts! Although the amplifier and speakers are designed to handle overload conditions it is still possible to cause damage from mis-use.

Placement of Subwoofer

The subwoofer can be placed virtually anywhere in your room without affecting the stereo image of your main speakers. Placing the unit in a corner of the room will yield the greatest bass output but may not provide the best sound, as this position will cause maximum room mode resonance. You can start with this position and then move the subwoofer to different areas until you find the sound satisfactory. The best method is to try different positions. Keep a clearance of 100mm/4" from the wall or furniture to provide best performance.

Service and Warranty

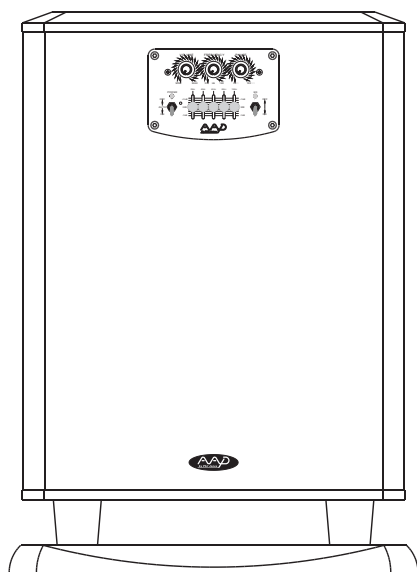
The C-11 Subwoofers have a warranty period of 1 year, starting from the date of purchase. This warranty is provided to the original owner who purchased the product from an authorized  dealer. This warranty covers defect in materials or workmanship that occurs in normal use only, and excludes damage that results from abuse, mis-use, accidents, shipping, or repairs or modifications by anyone other than authorized  representatives. The warranty is void if serial number has been removed.

Should you need service on your speakers, please bring it to the dealer whom you purchased from along with sales slip.

If this is not possible, call or write to:

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C-11 Product

C-11 Specifications

Amplifier type	Solid state Class A/B
Power	160 watts continuous into 4 Ohm
Woofers	Proprietary 10" diaphragm Aluminum Cone / 60 Az magnet / 2" voice coil
Frequency response	30 Hz to 160 Hz +/- 3 dB
Electronic crossover	Continuously variable from 30 Hz to 160 Hz 24dB/octave
Phase control	Variable 0° - 180°
5 Band EQ	±10dB at 25Hz、40Hz、60Hz、80Hz、100Hz
Inputs	Low level RCA 300mv sensitivity in both channel High level 5 way binding post 10v sensitivity
Outputs	Low level RCA High level 5 way binding post
Enclosure type	Vented bass reflex
Cabinet dimensions	514(H) x375 (W) x445(D) mm
Net weight	23.5 Kg
Finish	Cherry/Classic Black(vinyl)



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