



YOUR MUSIC. **YOUR POWER.**

EVO<sup>4.0</sup>

**OWNERS MANUAL**  
**5000.1 EVO<sup>4.0</sup>**

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**Dear Customer,**

Congratulations on acquiring your Soundigital! You've just purchased a product of high quality and technology. The Soundigital products are developed to assure maximum efficiency and reliability to your sound system.

**Class D amplifiers:**

The main characteristics of Class D amplifiers are audio quality, efficiency, versatility and compact design. Here are the advantages of these characteristics:

**Audio Quality** – Class D amplifiers used to have a limited response in the past and they used to have a worse performance regarding higher frequencies than Class AB amps, despite being more efficient. Introducing new technologies, Soundigital developed a Class D amplifier superior to the Class AB ones in efficiency and performance.

**Efficiency** - The Soundigital Class D amplifiers have a total efficiency (power source + output) higher than 70%, assuring a battery consumption and a heating lower than the expected.

**Versatility of uses** –The flat response of all the frequencies of Soundigital amplifiers allows them to be used in all the kinds of systems: SPL, Sound Quality, Trio Eletrico and Pancadao, meeting the needs with extreme quality.

**Compact design** – The high efficiency and technology allow our amplifiers to be really compact, making it easy to install them in vehicles where you have limited space.

**IMPORTANT INFO**

Read this manual and follow its instructions and information carefully. It contains extremely important information to have your amplifier working properly. If you feel the need to contact our Tech Support, you can reach our technician through the e-mail [info@soundigitalusa.com](mailto:info@soundigitalusa.com).

**PACKAGE CONTENTS**

- 1 **EVO4.0** Amplifier
- 1 Installation quick guide with warranty card
- 1 Promotional sticker

To prevent injuries to the user or damage to the amplifier, read all safety instructions written on this manual;

If you are insecure about the installation of this equipment, get in touch with our tech support or with a professional specialized in car audio installation;

Before proceeding with the installation of any electric equipment on your vehicle, unplug the negative (-) terminal of the battery to avoid fires, injuries or damages;

Use your sound system safely. The continuous exposure to sound pressures over 85dB may cause irreversible hearing damage;

This equipment is for use in automotive DC voltage batteries between 12.6 and 14.4 volts. Before installing the equipment, check voltage of the batteries;

Do not install the amplifier in places exposed to water, dirt or humidity;

Choose a ventilated place to install the amplifier and avoid blocking the side ventilation windows;

Mount the amplifier in a secure way. Avoid mounting it on metallic parts of the vehicle, because it may cause ground looping (noise);

Make sure that the location chosen for the amplifier installation does not effect the operation of the vehicle;

When passing cables through metallic walls, use rubber O-rings to avoid cable cutting and short-circuits.

Clean the amplifier periodically with brush or dry cloth to assure the thermal efficiency of the heatsink.

This product may reach temperatures over 60°C/140°F. Make sure it is cold before touching it;

Be careful when making holes in the vehicle. Make sure you are not making holes in the fuel tank, brake lines or electrical cables of the vehicle

Make sure the cables are properly secured throughout the installation;

Wear gloves, safety glasses and and all necessary PPE during the installation of SounDigital amplifiers.

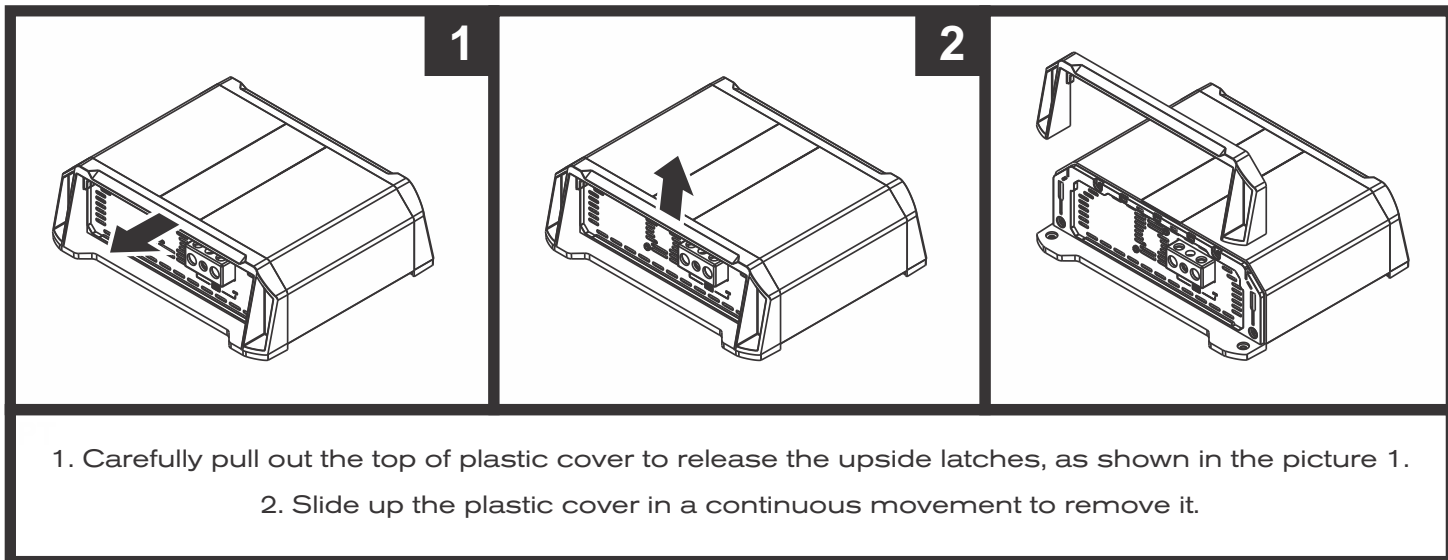


**Warning!**

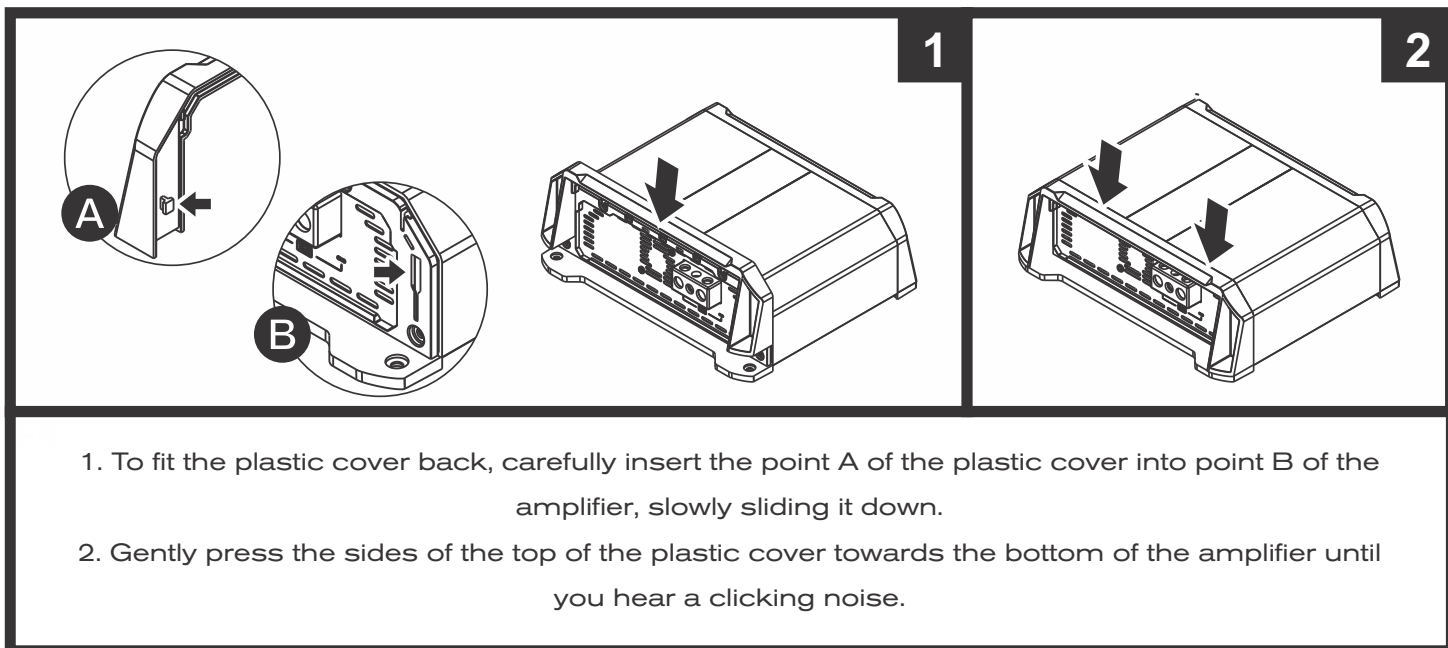
THIS "WARNING" SIGN ALERTS THE USER OF IMPORTANT INFO. NOT FOLLOWING THIS INSTRUCTIONS MAY CAUSE INJURIES TO THE USER OR DAMAGE TO THE EQUIPMENT.

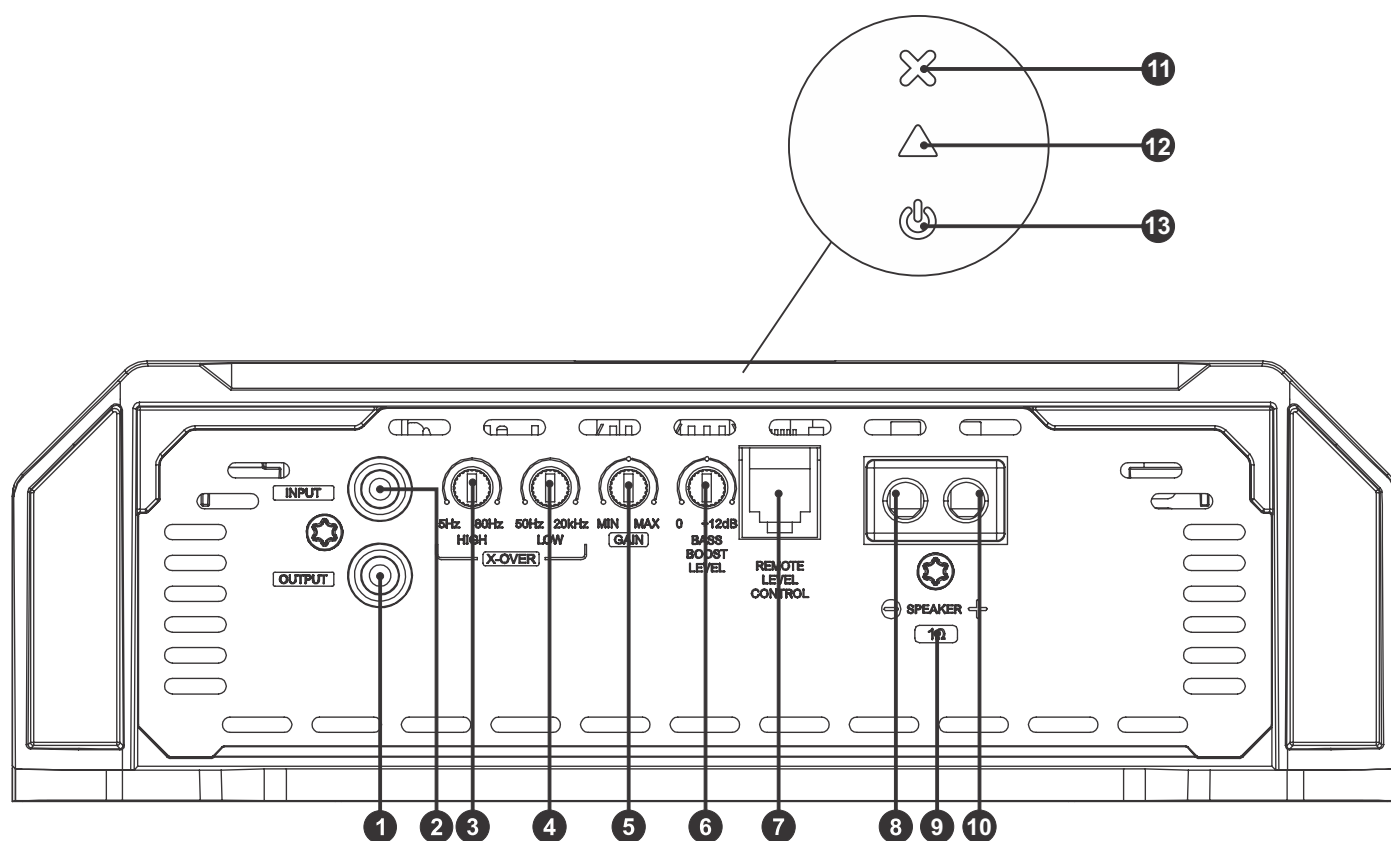
The plastic covers have the function of finishing and hiding the amplifier fixing screws. To disassembling and assembling them, follow the instructions below.

### DISASSEMBLING OF THE PLASTIC COVER

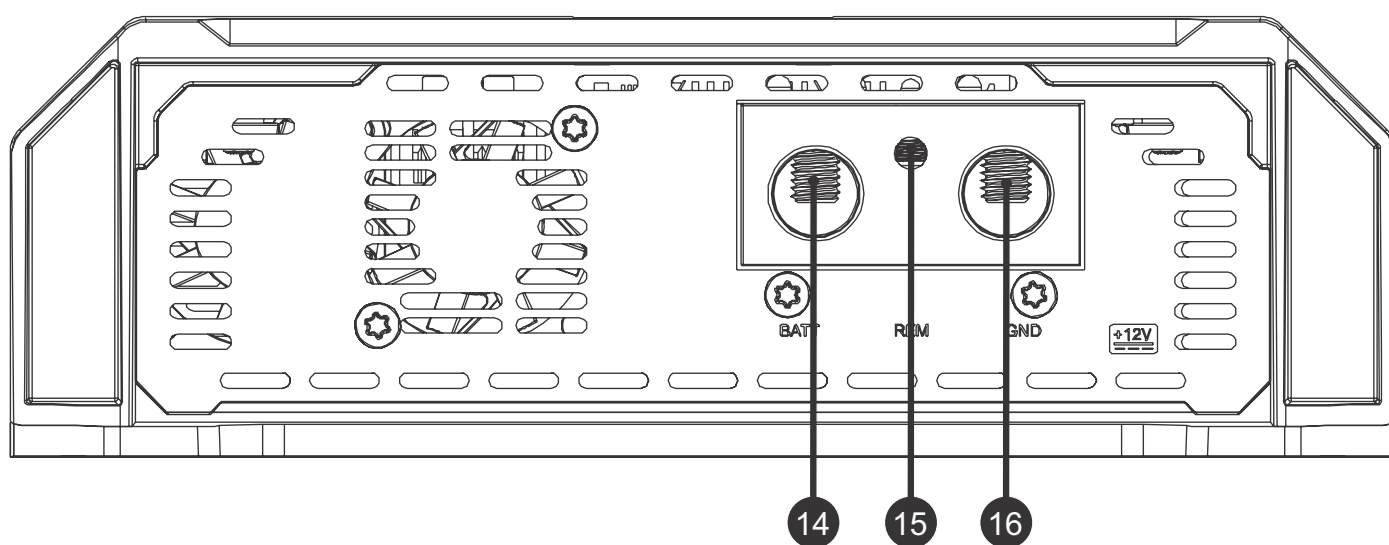


### ASSEMBLING THE PLASTIC COVER





1	INPUT	Audio input - RCA connector
2	OUTPUT	
3	X-OVER	Variable High Pass filter control (5Hz ~ 80Hz)
4		Variable Low Pass filter control (50Hz ~ 20kHz)
5	GAIN	Variable Gain Control
6	Bass Boost Level	Variable bass boost control (0dB - +12dB/50Hz);
7	Remote Level Control	Remote level control connector
8		Negative speaker connector
9	Saída de Áudio	Minimum speaker load allowed (impedance)
10		Positive audio output connector
11	-	"Protection" LED indicator (Red)
12	-	"Clip" LED indicator (Yellow)
13	-	"Power On" LED indicator (Blue)



14	ALIMENTAÇÃO	Positive power supply connector (+12v)
15		Remote power supply connector (REM)
16		Negative power supply connector (GND)

## ELECTRICAL DIMENSIONING

For proper operation of your SoundDigital amplifier, you need the proper dimensioning of the electrical system and the cables used.

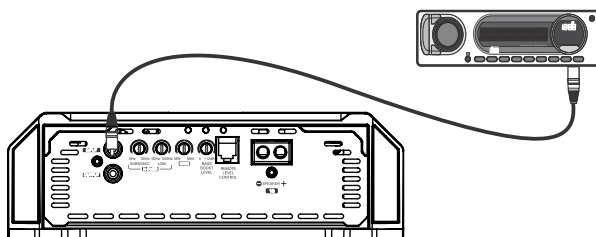
The table below shows the minimum section of GND cables, +12VDC cables and speaker output cables according to the power generated by the amplifier.

5000 WRMS	POWER CABLE	50mm <sup>2</sup> - 0 AWG
	GROUND CABLE	
	SPEAKER CABLE	2 x 2,5mm <sup>2</sup> - 13 AWG

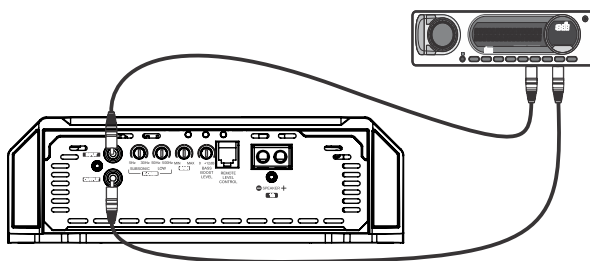
We recommend the use of ONLY OFC (Oxygen Free Copper) Cables on the installation of our products.

## RCA INPUTS

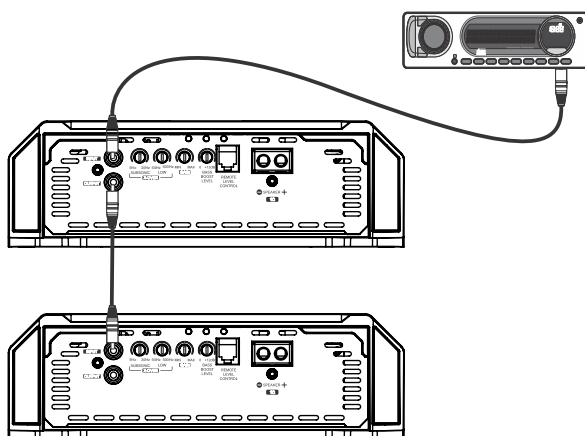
Exemple of one RCA cable connection only



Example of two RCA cables connection (mono input).



Example of one RCA cable connection only and using the RCA output to connect another amplifier.





**Warning!**

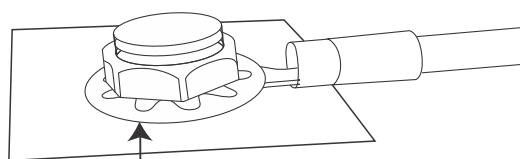
BEFORE PROCEEDING WITH THE INSTALLATION, UNPLUG THE NEGATIVE TERMINAL FROM ALL OF THE BATTERIES, TO AVOID FIRE, DAMAGE TO THE AMPLIFIER AND THE USER HIMSELF.

- Mount the amplifier in such a way you have access to the connectors;
- Install the power cables in the vehicle properly, starting from the battery to the fuse holder or circuit breaker, use the cable with the appropriate size. Make all connections, install fuse holders or circuit breakers, but without placing the fuses or with the circuit breakers in the "Off" position.

**Warning!**

THE MAX. DISTANCE FOR THE INSTALLATION OF THE FUSE/CIRCUIT BREAKER IS ONE FOOT (30 CM) AWAY FROM THE BATTERY.

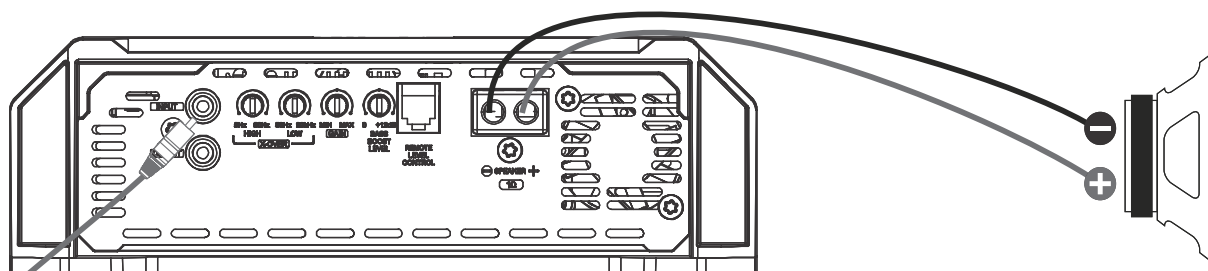
- Connect the power cables in to the amplifier, observing the polarity. Connect all the positive cables from the fuse holder or circuit breaker to the positive connector of the amplifier and all the negative power cables from the batteries to the negative connector of the amplifier;
- The ground cable must be as short as possible and must be connected to the vehicle chassis and the battery negative;



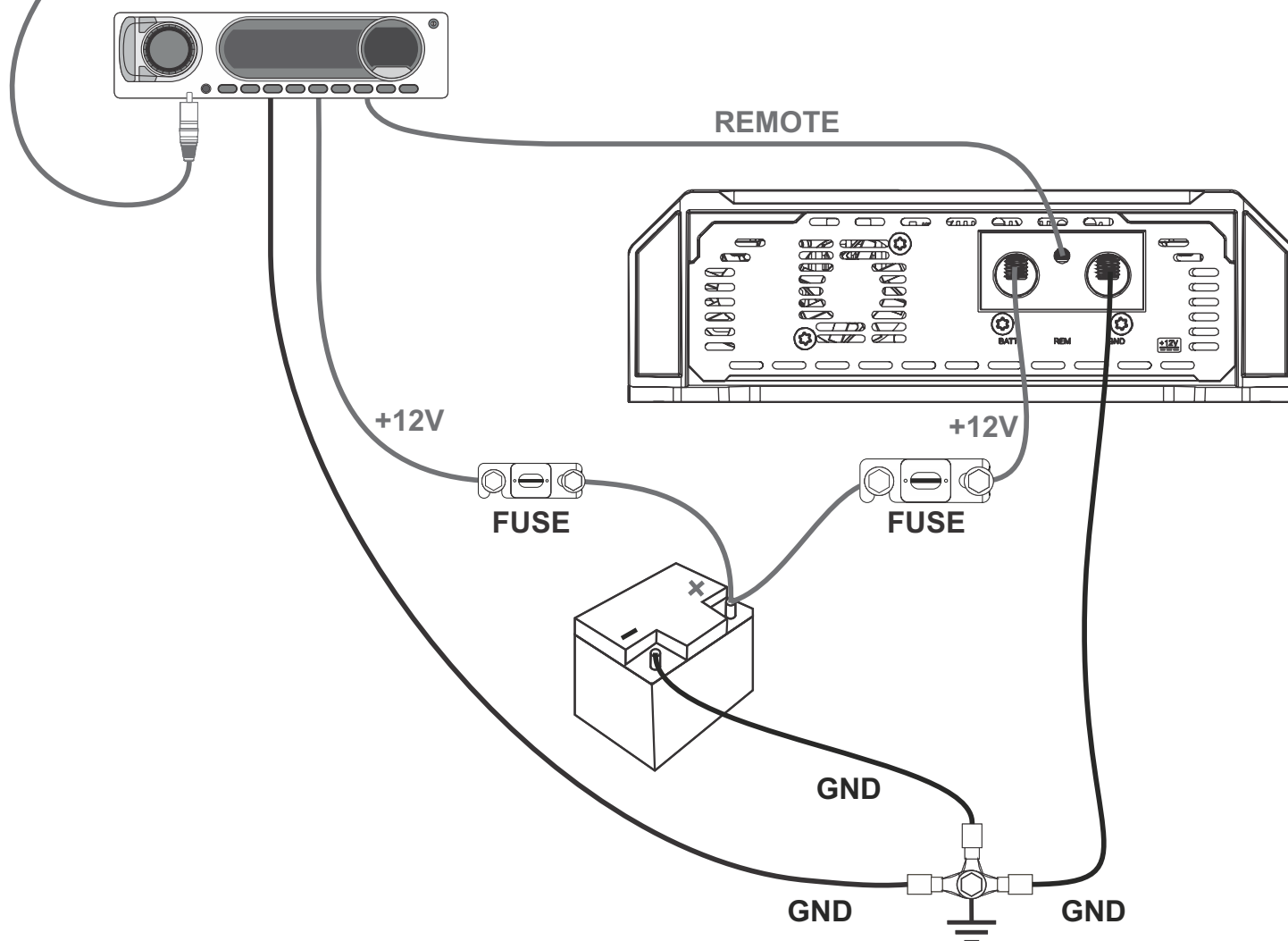
Remove the paint between the terminal and chassis

- Install the signal input cables in a proper way, distant from the power cables;
- Connect the RCA or the high signal input cables to the head unit and amplifiers;
- Install the audio output cables with the appropriate section, distant from the power and audio input cables;
- Connect the audio output cables to the amplifier and speakers respecting the positive (+) and negative (-) polarities;
- Install the remote cable with the power cables, using 1.5mm<sup>2</sup> (15 AWG) cable or thicker;
- Connect the remote power cable to the amplifier's "REM" terminal at the main unit's remote power output (when not using the high level signal inputs);
- Before powering the system, verify all the connections and make sure there are no mistakes or short-circuits on the power and ground cables;
- Reconnect the ground of the batteries;
- Check if the headunit is turned off and then place the fuses in the fuse holders or switch the circuit breakers on;
- Turn on the main unit and the amplifier will turn on the "On" LED indicating that it is in operation.

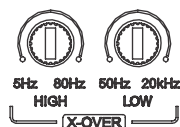
## AUDIO INPUT AND OUTPUT CONNECTIONS



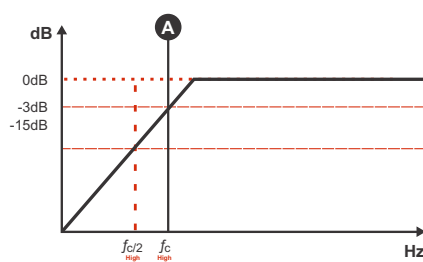
## POWER SUPPLY CONNECTIONS



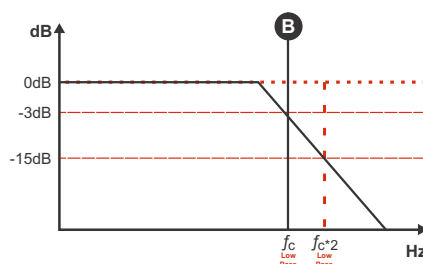
## How to Adjust the Crossovers



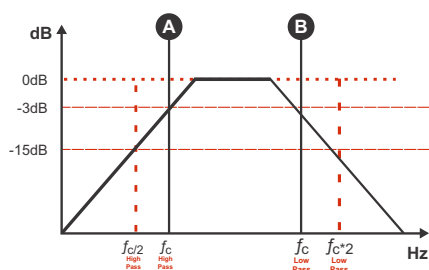
Set in the variable control "HIGH" between 5 Hz and 80 Hz ("A") where you want to perform the high pass cut filter;



Set in the variable control "LOW" between 50 Hz and 20 kHz ("B") where you want to perform the low pass cut filter;



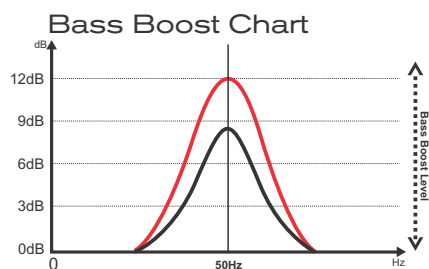
- The use of the two associated filters can form a bandpass filter, as in the figure below, where point "A" is defined in crossover "HIGH" and point "B" is defined in crossover "LOW".



## Using Bass Boost

The Amplifier Bass Boost setting enables the user to boost the sound intensity at low frequencies of the sound system, where boost intensity can be adjusted.

This is a semi-parametric equalizer type circuit with "Q" value for the fixed filter, with an intensity boost adjustment from 0 to +12dB (16 times), and a central frequency adjustment of the filter in 50Hz, making it versatile for several types of sound systems.



## How to Adjust Bass Boost



Reproduce your favorite song and set the boost intensity between 0dB and +12dB at the variable control level according your preference.

### Necessary equipament:

- Digital AC voltmeter;
- Media with sine wave test tone 60Hz recorded at 0db;
- Screwdriver 1/8" ( for gain set)

### Set up procedure

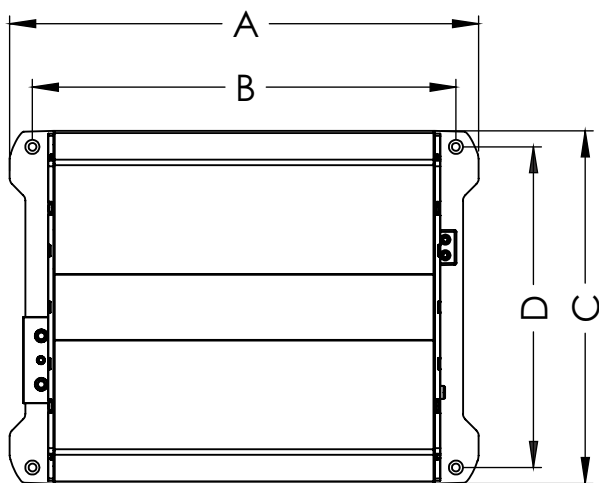
- Turn the gain control all the way down.
- Disconnect the output cables from the amplifier outputs;
- Turn off all processing (bass, treble, loudness, EQ, etc.);
- Set the source unit volume to 3/4 of full volume.
- Set the source unit's fader control to center position;
- Set the variable "LOW" crossover in 500Hz and the "SUBSONIC" in 5Hz;

- Use a 60 Hz sine wave
- Increase the gain control until the "CLIP" LED starts blinking;
- Return the gain to the limit where the "CLIP" LED stops blinking and remains off;
- Once you have adjusted the amplifier to its correct voltage output, turn off the source unit and reconnect the speaker(s)

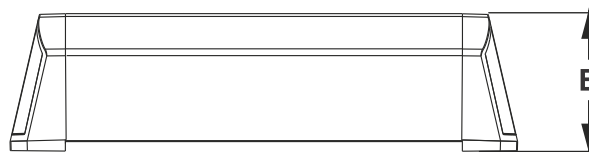
*Download the tracks for set up in <https://sounddigitalusa.com/tracks-for-set-up/>*

PARAMETERS	5000.1 EVO <small>4.0</small> 1Ω	5000.1 EVO <small>4.0</small> 2Ω
Power RMS @ 4Ω*	2178W	3300W
Power RMS @ 2Ω*	3300W	5000W
Power RMS @ 1Ω*	5000W	N/A
Frequency Response (-3dB)	5Hz ~ 20kHz	5Hz ~ 20kHz
Low Pass filter (LP -12dB/8)	50Hz - 20kHz	50Hz ~20kHz
High Pass filter (HP -12dB/8)	5Hz ~80Hz	5Hz ~80Hz
Operating Voltage	8V ~ 16V	8V ~ 16V
SNR	84dB	84dB
Input Sensitivity	0.2 ~ 4V	0.2 ~ 4V
Current Draw (music)	254A	254A
Current Draw (Max @ 1kHz -12,6V)	509A	509A
Total Efficiency	78%	78%
Damping Factor (@100Hz nominal impedance)	>1000	>1000
Minimum Impedance	1Ω	2Ω
Fuse (music)	250A	250A
Recommended Battery (minimum)	250Ah	250Ah

## DIMENSIONAL DATA



DIMENSÕES		
A	299mm	11.8"
B	270mm	10.6"
C	225mm	8.8"
D	204mm	8"
E	71.5mm	2.8"
Peso Líquido	3.3kg	7.3lbs





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