

**USER'S MANUAL** 1200.2 ∈√⊃**5** 

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#### **Dear Costumers,**

Congratulations for purchasing a product of the highest quality and technology! SounDigital's products are developed to ensure maximum efficiency and reliability in your audio system.

### **Class D Amplifiers:**

Class D amplifiers have audio quality, efficiency, application versatility, and compact design as their main features. Here are the advantages of these characteristics:

**Audio Quality** – In the past, Class D products had limited response and for higher frequencies, Class AB products performed better, but their efficiency was very low. The new technologies introduced by SounDigital resulted in a Class D amplifier with high efficiency and performance superior to Class AB.

**Efficiency** – SounDigital Class D amplifiers have a total efficiency (Output + Source) higher than 70%, which ensures lower battery consumption and less heating.

**Versatility of Application** – The flat response in all frequencies of the SounDigital amplifiers allows them to be used in all automotive sound systems. They meet the demands with extreme quality.

**Compact Design** – The high efficiency and high technology applied allows SounDigital amplifiers to be very compact, facilitating installation in vehicles where space is limited.

## **IMPORTANT INFORMATION**

Read this manual carefully and follow precisely all the information contained herein, which are very important and allow your amplifier to work optimally. If you think it necessary, do not hesitate to contact our technical support by e-mail **sac@soundigital.com** or by **SAC +55 (51) 3042-9001.** 

## **PACKAGE CONTENT**

- 1 EVO5 Amplifier
- 1 Quick installation guide with warranty certificate
- 1 Promotional sticker

To prevent injury to the user or damage to the amplifier, read all the safety instructions contained in this manual;

If you feel insecure about installing the equipment, contact SounDigital technical support or a qualified professional in automotive sound installation;

Before proceeding with the installation of any electrical equipment in the vehicle, disconnect the negative (-) terminal of the battery to avoid fire, injury or damage to the amplifier;

Use your sound system safely, continuous exposure to sound pressures above 85 decibels may cause irreversible hearing damage;

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

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

Install the amplifier in a ventilated place and prevent the side ventilation windows from being obstructed;

Fix the amplifier in a proper and firm manner. Avoid the fixation on metallic parts, as this procedure may cause ground "Looping" (noise);

Use rubber "O-rings" when passing the wires in metallic walls in order to prevent them from being cut and causing short-circuit;

Make sure that the place chosen for installation of the amplifier does not hinder the operation of the vehicle;

During the use of this product, the aluminum housing/dissipator may reach temperatures higher than 60°C. Before touching the amplifier, be sure that it is cold;

To maintain the efficient thermal dissipation, periodically clean the dissipator, removing dust and impurities with the help of a brush and/or dry cloth;

Be very careful when drilling holes in the vehicle, make sure not to pierce the fuel tank, brake lines, electrical cables, etc;

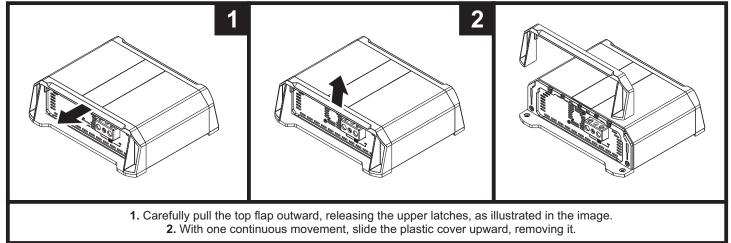
Make sure that all cables are properly secured throughout the entire installation;

Wear gloves, safety goggles, and all necessary safety equipment during the installation of the SounDigital amplifiers.

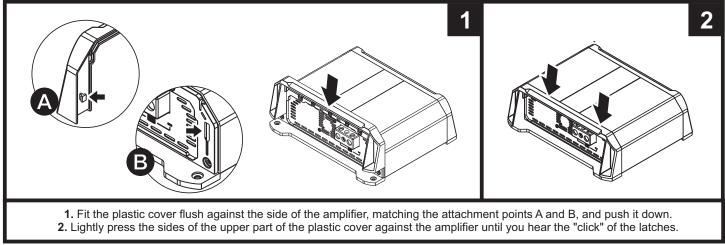


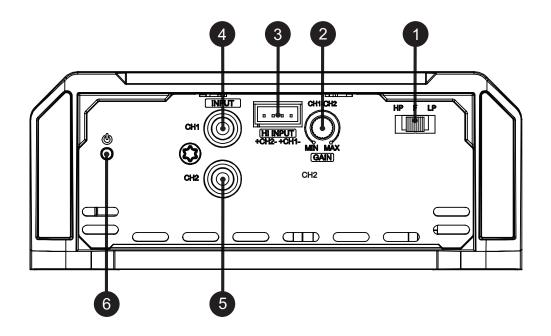
This symbol alerts the user to the presence of important instructions. Failure to comply with these instructions may result in damage to the amplifier or the user. The plastic covers have the function of giving finishing and hiding the amplifier's fixation screws. To remove and replace them, follow the instructions below.

#### **DISASSEMBLING THE COVER**

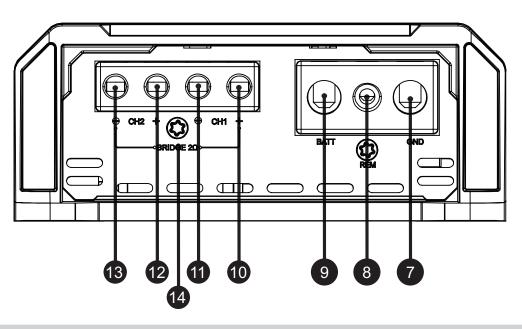


#### **COVER ASSEMBLY**





1	-	Crossover Switch Low Pass - Full - High Pass
2	-	Variable gain control
З	CH1 CH2	High Level audio input (To connect to the speaker output of the headunit)
4	CH1	Audio input - RCA connector
5	CH2 -	"Power ON" LED indicator



7	-	Negative power connector (GND)
8	-	Remote power connector (REM)
9	-	Positive power connector (+12VDC)
10	CH1	Positive audio output connector (+)
11	CH1	Negative audio output connector (-)
12	CH2	Positive audio output connector (+)
13	CH2	Negative audio output connector (-)
14	-	Minimum impedance for BRIDGE connection

## ELECTRICAL SIZING

For a correct operation of your SounDigital amplifier, it is necessary to properly size the electrical system and the cables used.

In the table below you can determine the minimum proper section of the grounding, positive + 12VDC, and audio output cables according to the amplifier power.

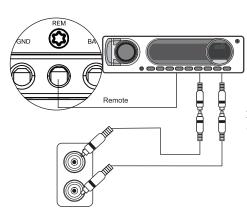
1200 WRMS	POSITIVE CABLE (+12VDC) NEGATIVE CABLE (GND)	16mm² - 5 AWG
	AUDIO OUTPUT CABLE	2 x 2mm² - 12 AWG

For the connections from the battery to the amplifier and to ground, use good quality copper cables.

CCA cables should not be used.

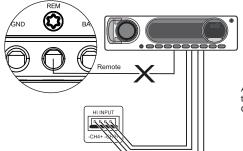
## **AUDIO INPUTS**

RCA Entry



All RCA Inputs must be connected for the 2 channels work, including the Bridge Connection

High signal inputs



All High Signal Inputs must be connected for the 2 channels work, including the Bridge Connection

High input must be used when the main unit does not have RCA outputs.

When hi inputs is used, no remote connection is required, the amplifier recognizes the audio signal and switches on.

If your source unit is not able to turn on the amplifier through the high level input, the remote input should be connected normally.

RCA AND HIGH INPUTS SHOULD NOT BE USED SIMULTANEOUSLY OR YOU MAY Warning! DAMAGE THE AMPLIFIER.



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

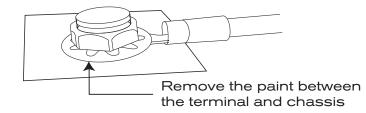
- Mount the amplifier in such a way you have access to the connectors;
- Install the power cables in the vehicle properly, starting from the battery to the fuse  $\geq$ holder or circuit breaker, use the cable with the appropriate size. Make all connections, install fuse holders or circuit breakers,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



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

#### Warning!

- $\geq$ 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 conector 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  $\geq$ chassis and the battery negative;



- Install the signal input cables in a proper way, distant from the power cables;  $\geq$
- Connect the RCA or the high signal input cables to the head unit and amplifiers;  $\geq$
- 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  $\geq$ (+) and negative (-) polarities;
- Install the remote cable with the power cables, using 1.5mm<sup>2</sup> (15 AWG) cable or thicker;  $\geq$
- 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  $\geq$ mistakes or short-circuits on the power and ground cables;
- Reconnect the ground of the batteries;  $\geq$
- 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  $\triangleright$ operation.

#### **GAIN ADJUSTMENT**

Equipment required

Woltmeter capable of measuring AC voltage;

Media with 60Hz sinusoidal signal recorded at 0Db

#### **Adjustment Procedure**

A his procedure is the same for both gain controls;

Set the gain control to minimum;

Disconnect the speakers from the amplifier output;

সurn off or set to "0" all audio processing (bass, treble, loudness, EQ, etc.);

Set the volume of the main unit to approximately 3/4 of the total.total.

Set the audio positioning controls in the center (fader and left and right controls);

Set the crossover to "F";

Play 60Hz media on the main unit

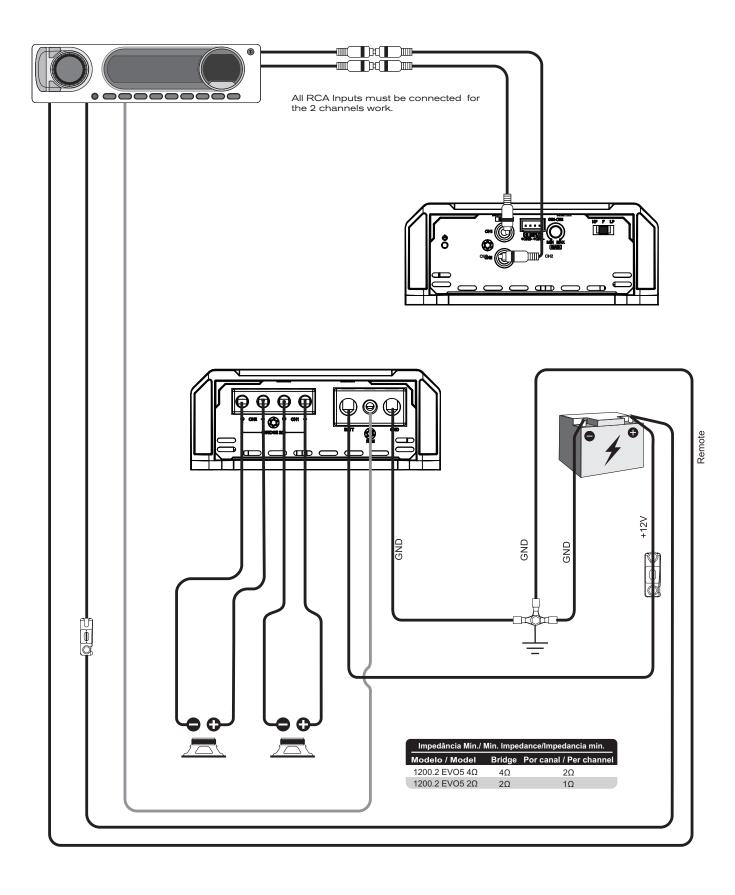
Measure, with the aid of a voltmeter, the output voltage of the amplifier at the terminals where the speakers were connected;

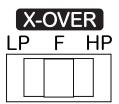
Furn the gain control clockwise until the voltage observed in the table below is reached;

After adjustment, turn off the main unit and reconnect the speakers.

Download the media for regulation at https://soundigital.com/downloads/

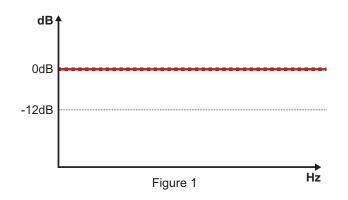
MODEL	STEREO / POWER	BRIDGE / POWER	STEREO OUTPUT VOLTAGE	BRIDGE OUTPUT VOLTAGE
1200.2005 20	<b>Ω</b> 1Ω/ 600W	2Ω/ 1200W	24.5 V	49.0 V
1200.2EV0540	2Ω/ 600W	4Ω/ 1200W	34.6 V	69.3 V



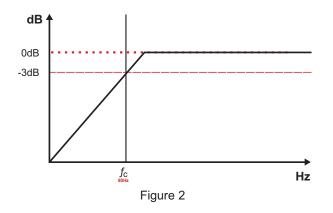


"F" All frequencies will be played back "LP" Frequencies below 80Hz will be played "HP" Frequencies above 80Hz will be played

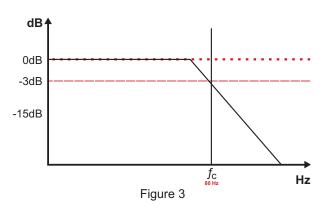
> Select the key in position "F" - All frequencies will be played as in "Figure 1";



> Select the switch in the "HP" position - All frequencies above 80Hz will be played as in "Figure 2";



> Select the key in the "LP" position - All frequencies below 80Hz will be played as in "Figure 3";

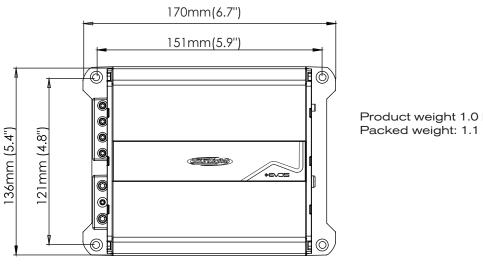


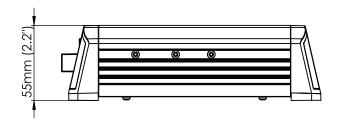
PARAMETERS	1200.2Ε√ጋ≣ 2Ω	1200.2∈√ጋ⊑ 4Ω
Bridge RMS power @ $2\Omega^*$	1 X 1200W	N/A
Bridge RMS power @ $4\Omega^*$	1 X 792W	1 X 1200W
RMS power @ 1Ω*	2 X 600W	N/A
RMS power @ 2Ω*	2 X 396W	2 X 600W
Frequency response (-3dB)	10Hz ~ 20kHz	10Hz ~ 20kHz
Low Pass Filter (LP -12dB/8)	80Hz	80Hz
High Pass Filter (HP -12dB/8)	80Hz	80Hz
Supply voltage	8V ~ 16V	8V ~ 16V
SNR	91dB	91dB
Input sensitivity	0.2 ~ 4V	0.2 ~ 4V
Consumption with musical signal	57A	58A
Consumption with resistive load (1kHz @ 12.6V)	115A	116A
Total Efficiency	83%	82%
Damping Factor (@100Hz impedância nominal)	200	200
Minimum Impedance per stereo channel	1Ω	20
Minimum Impedance per Bridge	2Ω	4Ω
Fuse (music use)**	60A	60A
Recommended Battery (minimum)	70Ah	70Ah

\*Power at 12.6V @ 60Hz with maximum THD of 1%.

\*\*It is mandatory to install the fuse at a maximum distance of 30cm from the battery.

## **DIMENSIONAL DATA**





Product weight 1.0 kg (2.20 lb) Packed weight: 1.1 kg(2.42 lb)



# YOUR MUSIC. YOUR POWER.











