



400.25 EVO
Owner's Manual

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1 400,25 EVO Amplifier

1 Owner's Manual

1 Allen wrench 2,5mm

1 Cable for High Input

1 Promotional Sticker

Dear Customer,

Congratulations on acquiring a product with the highest quality and technology!

The **SoundDigital** products are developed to assure maximum efficiency and reability 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, **SoundDigital** developed a Class D amplifier superior to the Class AB ones in efficiency and performance.

Efficiency – The **SoundDigital** Class D amplifiers have a total efficiency (power source + output) higher than 60%, assuring a battery consumption and a heating lower than the expected.

Versatility of Uses – The flat response of all the frequencies of **SoundDigital** 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 technicians through the e-mail info@sounddigitalusa.com.

IMPORTANT INFO

We recommend the use of **SoundDigital** original accessories for a better performance. The crossovers, power supplies and voltmeters offered by **SoundDigital** follow the same quality standards as our amplifiers, assuring an excellent quality and high power sound system to our customers.

To know our complete line of amplifiers and accessories, visit www.sounddigitalusa.com.

**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.

SAFETY INSTRUCTIONS

- To prevent injuries to the user or damage to the amplifier, read all the safety instructions written on this manual;
- If you have questions 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, exposure to continuous sound pressure over 85dB may cause irreversible hearing loss.
- This equipment is for use in automotive DC voltage batteries, between 12.6 and 14.4 volts. Before installing the equipment, check the voltage of the batteries;
- Do not install the amplifier in places exposed to water, dirt or humidity;
- Fix the amplifier in a steady and proper way. Avoid fixing it in metallic parts of the vehicle, because it may cause ground looping (noise);

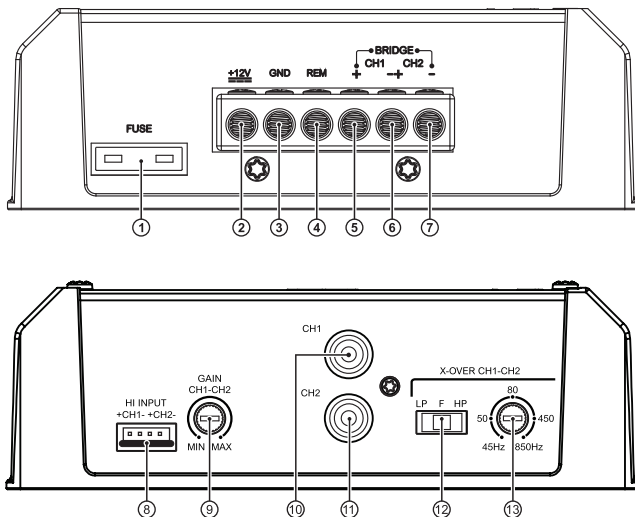
- When passing cables through metallic walls, use rubber O-rings to avoid cable cutting and short-circuits.
 - Make sure the place chosen for the installation of the amplifier will not interfere with the proper working of the vehicle;
 - Clean the amplifier periodically with a brush or dry cloth to assure 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're not making holes in the fuel tank, brake lines or electrical cables of the vehicle;
 - Make sure the cables are properly fixed throughout the installation;
 - Wear gloves, safety glasses and all necessary PPE during the installation of **SoundDigital** amplifiers.
- 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 busbar or from the batteries, to the negative connector of the amplifier;
 - Install the signal input cables in a proper way, distant from the power cables;
 - Connect the 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 amplifiers and the acoustic boxes, observing the positive (+) and negative (-) polarities;
 - Install the remote cable with the power cables, using a section of 1.5mm² or thicker;
 - Connect the remote cable to the REM terminal on the amplifier and to a 12V power supply activated by a switch key or to the remote power output of the head unit;

Installation Sequence

- Before proceeding with the installation, unplug the negative from all of the batteries;
 - Affix the amplifier in such a way you have access to the connectors;
 - Install the power cables on the vehicle in a proper way. From the battery to the busbar, fuse holder or circuit breaker. Chose the appropriate section for the cable (see Table 1). Make all of the connections to the busbars fuse holders or circuit breakers, with no fuses in the holder and with the circuit breakers in the "Off" position;
- 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 remote key is in the "Off" position and if the head unit is turned off, then place the fuses in the fuse holders or switch the circuit breakers on.



Warning! The max. distance for the installation of the fuse/circuit breaker is one foot away from the battery.

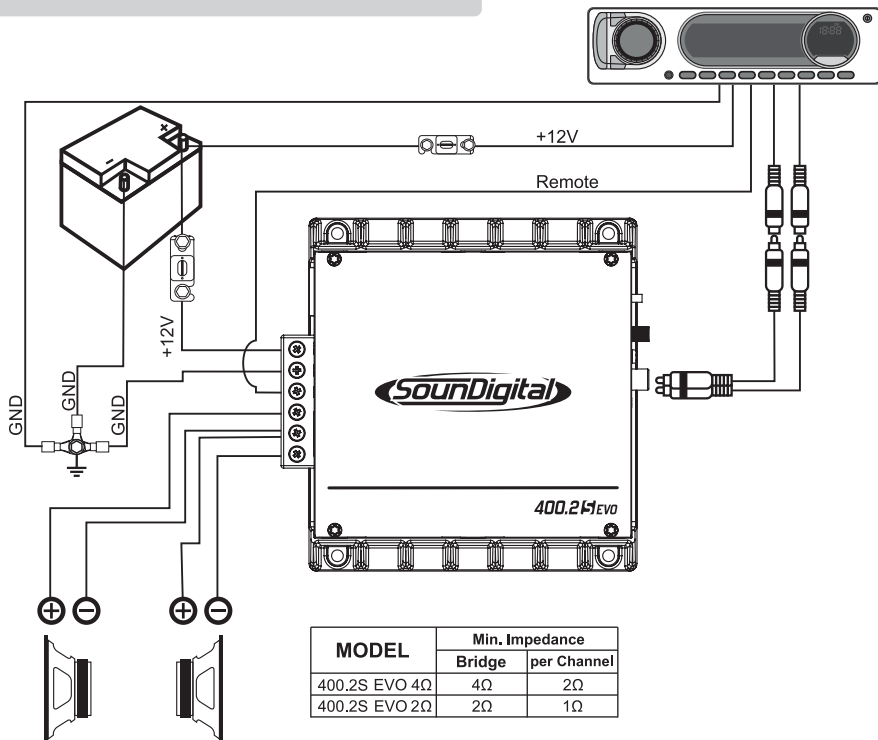


- ① Protection Fuse 30A;
- ② Positive power supply connector (+12V);
- ③ Negative power supply connector (GND);
- ④ Remote power supply connector (REM);
- ⑤ Positive speaker connector (+) CH1;
- ⑥ Negative speaker connector(-) CH1 and positive (+) CH2;
- ⑦ Negative speaker connector (-) CH2;
- ⑧ Hi level audio input CH1 and CH2.
- ⑨ Gain control CH1 and CH2;
- ⑩ Audio input RCA connector CH1;
- ⑪ Audio input RCA connector CH2;
- ⑫ Selector switch crossover CH1 and CH2.
- ⑬ Variable crossover control CH1 and CH2;

ATTENTION: Before proceeding with the installation of your *SoundDigital* amplifier, unplug the negative (-) terminal of the battery.

The versatility of the *SoundDigital* multi-channel amplifiers, allows the installation in 1 or 2 channel mode.

Bellow is the schematic for the 2-channel mode:



Procedure for setting the gain

Necessary equipment:

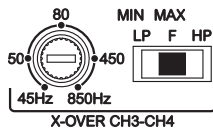
- Digital AC voltmeter;
- Media with sine wave test tone 60Hz recorded at 0db;
- Screwdriver 1/8" (for gain set)

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 crossover selector switch in "F"
- Use a 60 Hz sine wave
- Connect the AC voltmeter to the speaker output connectors of the amplifier. Make sure you test the voltage at the correct connectors (+ and -);
- Increase the "Input Sens." control until the target voltage is observed with the voltmeter (see the chart to the right);
- Once you have adjusted the amplifier to its correct voltage output, turn off the source unit and reconnect the speaker(s).

Model	Impedance/ Power	Bridge/ Power	Output Voltage Stereo	Output Voltage Bridge
400.2S EVO 2Ω	1Ω / 200W	2Ω / 400W	14.4 V	28.2 V
400.2S EVO 4Ω	2Ω / 200W	4Ω / 400W	20.0 V	40.0 V

Crossover set up

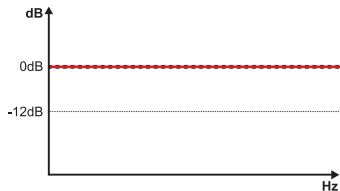


"F" All the frequencies are reproduced;

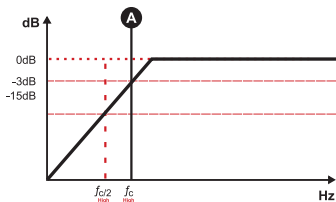
"LP " Set in the variable control on Low Pass Function;

"HP " Set in the variable control on High Pass Function.

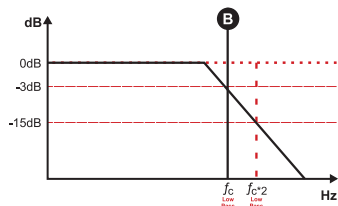
- Switch Key at position "F" (Full Range): All the frequencies are reproduced.



- Switch key at "HP" - Set in the variable control between 45Hz and 850Hz ("A") where you want to perform the high pass cut filter;

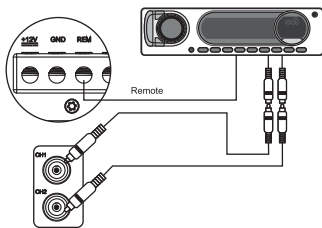


➤ Switch key at "LP" - Set in the variable control between 45Hz and 850Hz ("B") where you want to perform the low pass cut filter;

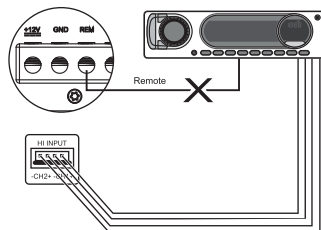


Input connections

RCA inputs




Hi inputs



➤ Hi 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.

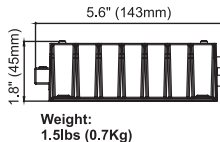
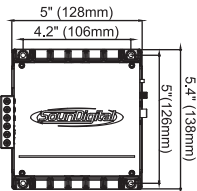
➤ If your source unit is not able to turn on the amplifier through the high level input, the remote input should be connected normally.

Warning!  RCA and hi inputs should not be used simultaneously or you may damage the amplifier.

SPECS	400.2S EVO 2Ω	400.2S EVO 4Ω
Power RMS Bridge @ 8Ω*	1 x 121W	1 x 220W
Power RMS Bridge @ 4Ω*	1 x 220W	1 x 400W
Power RMS Bridge @ 2Ω*	1 x 400W	N/A
Power RMS per channel@ 4Ω*	2 x 60W	2 x 110W
Power RMS per channel@ 2Ω*	2 x 110W	2 x 200W
Power RMS per channel@ 1Ω*	2 x 200W	N/A
Frequency response (-3db)	5Hz ~ 20kHz	5Hz ~ 20kHz
Crossover LP 12dB/oct	45Hz ~ 850Hz	45Hz ~ 850Hz
Crossover HP 12dB/oct	45Hz ~ 850Hz	45Hz ~ 850Hz
Operating voltage	9V ~ 16V	9V ~ 16V
SNR	99dB	99dB
Input sensitivity	0.5 ~ 6V	0.5 ~ 6V
Current draw (Music)	20A	20A
Current draw (Max)	40A	40A
Total efficiency	81.6%	81.6%
Damping factor	55	55
Power cable	8 AWG (8mm ²)	8 AWG (8mm ²)
Speaker cable	2 x 15AWG (1.5mm ²)	2 x 15AWG (1.5mm ²)
Fuse (music)	20A	20A
Recommended battery	35 Ah	35 Ah

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

Dimensions



SounDigital warrants the original purchaser that this product shall be free of defects in materials and workmanship for a period of twelve (12) months from the original date of purchase. Some countries have extended warranty in case the product is installed by an authorized dealer. This warranty is not transferrable and applies only to the original customer from an authorized **SounDigital** dealer.

- Incorrect installation or non-conformity with the Manual;
- Maintenance made by unauthorized personnel;
- Alteration or removal of the seal/serial number;
- Exposure to adverse conditions (weather, humidity, etc.);
- Damage caused by fall, impact or natural depreciation, caused by transport and/or handling, risks or smashing's;
- Products was purchased more than 12 months ago.

Warranty Covers:

- Component or material with manufacturing defects;
- Workmanship/service needed to repair the equipment;

Observations:

- Any extra information you can get by contacting us at the e-mail address: infor@soundigitalusa.com;
- In case of manufacturing defect or bad quality of raw material the max compensation will be the replacement of the product, not allowing any kind of compensation payment;
- New modifications/iterations on a product don't obligate the manufacturer to modify products formerly produced.



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