



D2000.1

INSTRUCTION MANUAL

CLASE D, HIGH EFFICIENCY MONOBLOCK POWER AMPLIFIER

Congratulations on choosing a SUONO amplifier! At SUONO we are proud of our products and we stand behind them with our name, technical advice and guarantee. If you have any questions or comments, do not hesitate to contact us, we will gladly assist you. For the installation of your new SUONO equipment, we highly recommend you go to an authorized dealer.

FEATURES AND SPECIFICATIONS:

500 Watts RMS x 1 @ 4 Ohms; 1,000 Watts RMS x 1 @ 2 Ohms; 2,000 Watts RMS x 1 @ 1 Ohm @ 13.8 Volts Input Voltage.

You can externally Link two D2000.1 amplifiers to get **4,000 Watts RMS x 1 @ 2 Ohms.**

Low-Pass fourth order filter (24 dB / octave) continuously variable from 50 to 250 Hertz.

Subsonic (Infrasonic) fourth order filter (24 dB / octave) continuously variable from 10 to 50 Hertz.

Quasi-parametric Bass Boost: center frequency can be set between 40 and 100 Hertz with a Maximum gain of 12 dB.

Output phase switch: 0 or 180 degrees.

Output Level External Remote Controller (Cable and Control included).

Frequency response: 10 to 250 Hertz, THD + N \leq 0.05%

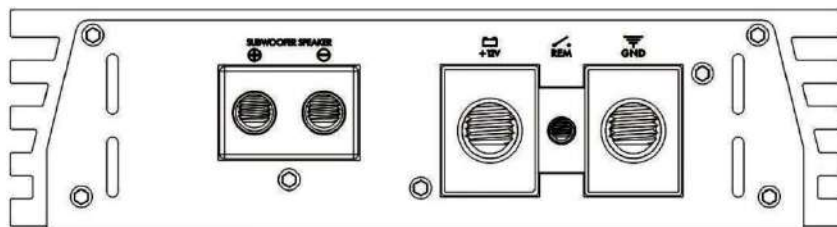
A 200 Ampere fuse should be installed at the amplifier input cable.

To get the most out of your new SUONO amplifier, please study this manual: This device is capable of producing considerable acoustic sound pressure levels inside a car. Please use common sense and take care of your ears. It is recommended to always start the vehicle's engine before operating any audio equipment. Install an in-line fuse in the power cord within 15 inches of the positive battery post. This fuse's function is to protect you and your car in case of an accident. Install another in-line fuse close to the amplifier. This will protect the amplifier from short-circuits. The wire should be at least AWG # 0 oxygen-free cooper. To prevent engine noise from entering the system, one side of the car should be designated exclusively for the power cable and the other for all other cables, such as RCAs, Remote, Speakers cables, etc. Twisted pair RCA cables are the most immune to magnetically induced noise. The ground connection must be made to a point on the chassis close to the amplifier, using the same gauge and type of cable used for the positive, in a star ground connection (each device with its own cable, all to the same point). A good place to take the ground or negative will be a not cluttered zone, where the car's metal chassis has good thickness. Once located, it could be drilled and sanded until all traces of paint have disappeared. Then, secure all grounds using a screw with a nut, tooth or lock washer; a drywall screw is not enough or recommended. The ground of the device who draws the most power should be closer to the chassis. Be careful never to screw the amplifier directly to the car's chassis, as this may create a 'double ground', making it easier for engine noise to enter; always fix it first to some **flat** piece of wood or equivalent. This flat surface may also help prevent shorts inside the amplifier, which can be caused by bumpy surfaces pressing the belly of the Amp. To avoid overheating, never install an amplifier upside down, with an acoustic enclosure leaning over it, near major sources of heat such as just above where the muffler passes, where it could be hit by direct sunlight, or in any other way in which a good flow of fresh air is not available. If it is not possible to comply with these recommendations and/or the amplifier is turning-off because of overheating, we recommend the installation of a fan, which will help it keep its temperature within its operating range. The amplifier has several built-in self-acting protection circuits.

CONEXIONS, CURRENT AND OUTPUTS:

This amplifier accepts power wire up to 0 AWG.

The one marked as +12V should be connected to the positive terminal of the battery. At the center is the Remote (REM); connect it to the Remote output of your stereo to turn on the amplifier, typically with the help of a relay. On the right is the ground terminal (GND), which must be connected to the car's chassis, as is explained in the previous paragraph. The block on the left is the speakers outputs. They accept up to AWG No. 4 cable. Minimum speaker load: 1 ohm



CONEXIONS, AUDIO SIGNAL AND ADJUSTMENTS (image in next page)

- 1. RCA Inputs.** The signal inputs are the two on the left. Connect the RCA signal cables from your stereo or processor here.
- 2. GAIN.** Adjusts the gain or sensitivity of the amplifier. The recommendation is to first adjust the amp's gain from the mids and tweeters, and then bring the gain of this amp "to proportion", so that a proper balance between mids and lows is achieved.
- 3. PHASE.** It allows you to change the output phase between 0 and 180 degrees. Once all the sound equipment has been installed, listening to it from the driver's seat, experiment with flipping this switch. Leave it where the bass intensity is the greatest.
- 4. BRIDGED CONNECTION.** With the help of the included special cable, it is used to link two D2000.1 amplifiers externally and add their powers. The full connection is explained in the back of this page.
- 5. SUBSONIC.** Allows you to adjust the cutoff frequency of the infrasonic 4th order high-pass filter between 10 and 50 Hertz. This may help you control over-excitation of the woofers, allowing them to receive more power, mainly in bass-reflex enclosures: adjust the gain structure, play music with a lot of low-frequency information at a high intensity, and start with the knob at the most protective frequency (50 Hertz). Slowly decrease that frequency to the lowest point possible before excessive distortion. If the knob can go all the way down (10 Hertz), fantastic, that's the ideal position.

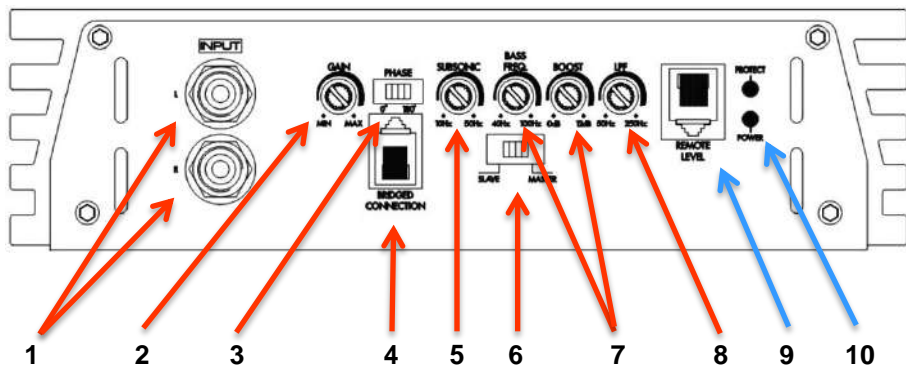
6. SLAVE / MASTER. When linking two D2000.1 amplifiers, one will work as the **Master** and the other as the **Slave**. You make that distinction here. More details below.

7. BASS FREQ and BOOST. These knobs let you adjust the bass response. With the BASS FREQ knob you can choose the center frequency you want to accentuate, between 40 and 100 Hertz, and with the BOOST knob you can give it a gain of up to 12 decibels.

8. LPF (Low Pass Filter). It allows you to select the Low-Pass 4th order cutoff frequency between 50 and 250 Hertz.

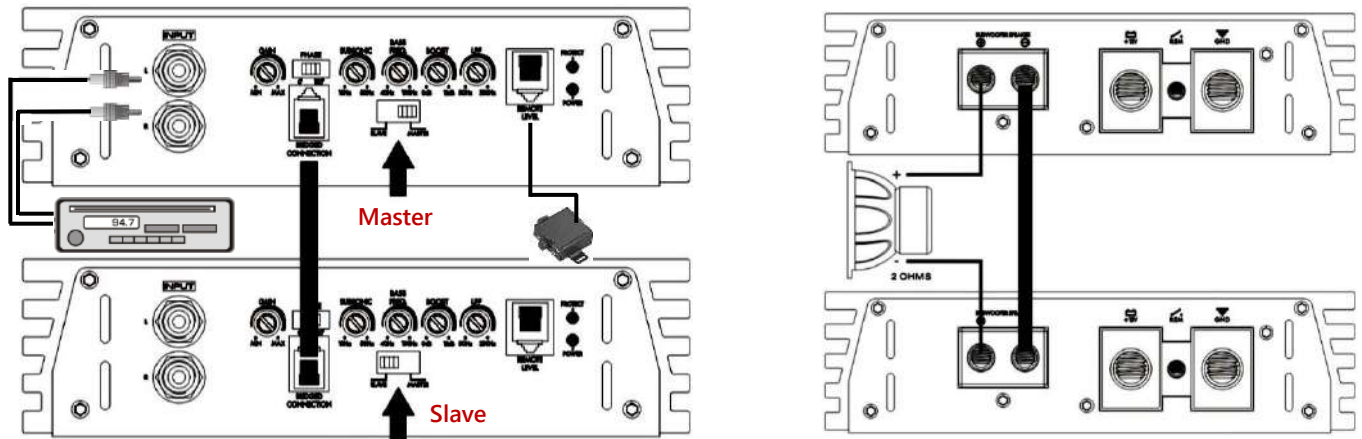
9. REMOTE LEVEL. The External Remote Controller wire is inserted here. It allows you to control the gain of the amplifier from the front of the car. It is a replica of the GAIN knob (Point 2), but works from the adjustment of that GAIN downwards, i.e. only as an attenuator.

10. PROTECT and POWER LEDs. The POWER LED will light up whenever the amplifier is operating normally. In case of any problem, such as a short circuit in the cables, the amplifier will turn off and the PROTECT LED will turn on. Once the problem is resolved, you should turn-off the amplifier for a few seconds before it can resume normal operation



LINKING TWO D2000.1 AMPLIFIERS TO GET 4,000 W X 1 @ 2 OHMS

The architecture of this amplifier allows combining the outputs of two D2000.1 units to develop up to 4,000 watts RMS x 1 @ 2 Ohms. Please note that the minimum working impedance in this configuration rises to 2 Ohms, as each amplifier is actually working with half of that value, 1 ohm each. Also note that it is only possible to configure up to 2 amplifiers in this way. Only two SUONO D2000.1 amplifiers can be linked externally. Attempting to combine amplifiers from other brands, including SUONO amplifiers from other models, invalidates the warranty. Please faithfully follow the instructions below.



1. Decide which amplifier will be the **Master** and which will be the **Slave**. Once decided, position the switch accordingly for each of them (Point 6 and image on the left, above). The stereo audio signal is connected only to the amplifier selected as Master. Next, connect the included telephone cable for this purpose from the Master to the Slave, as shown in the drawing on the left (Point 4). From that point on, it is only possible to manipulate the settings, such as gain, cutoff frequency, subsonic filter, External Remote Control, etc., from the Master amplifier. All controls on the Slave amplifier stop working.

2. The audio power output for the woofer(s) will come out from the outputs marked "+" on both amplifiers. The positive signal will come from the Master amplifier, the negative from the Slave. In this configuration, the total impedance should never be less than 2 ohms.

3. Connect the outputs marked (-) of both amplifiers to each other with an AWG No. 8 gauge cable. This will close the "bridge".

4. Before testing the system, please double-check that all previous connections and adjustments have been made correctly.

Extra precautions: Please note that the gauge of the power cable to be used is a critical factor for the proper operation of the amplifiers. If you have any questions, please contact us. When linking two amplifiers in this way it is highly recommended that the length and gauge of both power cables for each amplifier, positive and ground, be the same. To avoid losses, we suggest the wire gauge to the woofers be at least AWG # 12 or thicker. The terminals accept gauges up to AWG # 4.

WARRANTY:

SUONO products are guaranteed for one year for the original retail purchaser against defects in material and workmanship. Products found to be defective will be repaired or replaced (at SUONO's discretion) at no charge. Damage caused by misuse, abuse, product modification, accidents, improper installation, water, and unauthorized repair attempts is not covered. Cosmetic or finish damages are not covered. Products not purchased in the United States from an authorized dealer are not covered. Incidental or subsequent damages to other products are not covered. Any costs or expenses for removing and/or reinstalling the product are not covered. SUONO's total liability will not exceed the purchase price of the product. Some states do not allow limitations on implied warranties so this may not apply to you. You are responsible for the shipment of your product to SUONO. Please get in touch with SUONO first to get a Return Authorization Number.

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