

FRONT COVER



SA-1500.1D

HIGH PERFORMANCE MONOBLOCK AMPLIFIER



OWNER'S MANUAL

BACK COVER



Need help with your Skar Audio products?
Reach out to our customer service team by email or phone:
support@skaraudio.com | 888-501-7527 (9am - 5:30pm EST)

Skar Audio, Inc.
9700 18th St. N. St. Petersburg, FL 33716

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INTRODUCTION

Thank you for purchasing the Skar Audio SA-1500.1D Monoblock Amplifier! We appreciate your trust in our products and are confident that this amplifier will exceed your expectations in delivering high-quality audio performance. At Skar Audio, we are dedicated to providing our customers with top-tier audio equipment that combines innovative technology with exceptional craftsmanship. Your new SA-1500.1D amplifier is designed to enhance your listening experience, whether you're a car audio enthusiast or simply seeking superior sound. If you have any questions or need assistance, our customer support team is here to help. Enjoy your new Skar Audio amplifier, and thank you for choosing us for your audio needs!

INSTALLATION APPLICATIONS

This amplifier is specifically designed for use with 12-volt, negative ground electrical systems. Using this product in systems with a positive ground or voltages other than 12 volts may cause damage to the amplifier and will void the warranty. Additionally, this product is not certified or approved for use in aircraft.

PLANNING YOUR INSTALLATION AND SAFETY PRECAUTIONS

Take the time to read this manual thoroughly and plan your installation carefully. Modern vehicles have complex systems that are easy to damage, so always consult a reliable wiring diagram and use the correct test equipment. If you're unsure about any part of the process, seek help from your authorized Skar Audio dealer. They have the expertise and tools to ensure the best performance. Keep the following safety considerations in mind as you plan your installation:

- Install the amplifier in a dry, ventilated area away from safety equipment (airbags, seat belts, ABS, etc.).
- Do not mount the amplifier in the engine compartment or areas of extreme heat.
- Secure the amplifier to prevent movement during collisions or vibrations.
- Check for fuel tanks, gas/brake lines, wiring, etc., before drilling.
- Avoid running wiring outside or underneath the vehicle/vessel.
- Take precautions when connecting to the battery.
- Protect wires from sharp edges using grommets, loom, and secure routing.
- Use cable ties or wire clamps to secure all wiring away from moving parts and sharp edges.

**WARNING**

IMPORTANT: Failure to follow these instructions in this manual with this WARNING badge could result in severe injury or death.

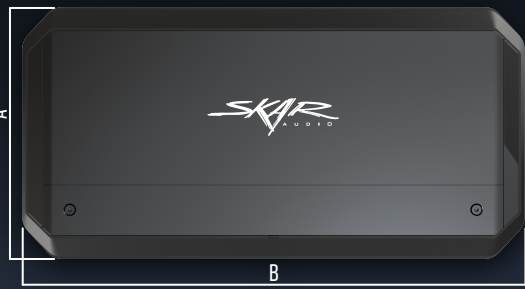
**CAUTION**

IMPORTANT: Failure to follow these instructions in this manual with this CAUTION badge could result in injury or amplifier damage.

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SPECIFICATIONS

SA-1500.1D Monoblock Amplifier		
Amplifier Type	Monoblock Class D	
Operating Voltage	8.5V - 16V	
Rated RMS Power @ 14.4V	1,050W x 1 @ 2Ω	1,550W x 1 @ 1Ω
MAX Power @14.4V	2,800W x 1 @ 1Ω	
Frequency Response	10 Hz - 250 Hz	
Low Pass Filter Range (LPF)	50 Hz - 250 Hz	
Sub Sonic	10 Hz - 50 Hz	
THD @ 80% Power	0.1%	
S/N Ratio	105 dB	
Idle Current Draw	≤1.4A	
Input Sensitivity @ 4Ω	170mV	
Minimum Power/Ground Wire Size	4 AWG	
Fuse Rating	150A	



DIMENSION A	DIMENSION B	DIMENSION C
5.98"	12.01"	2.12"

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CONNECTIONS



Power, Ground, and Remote Plug
The SA-1500.1D's easy-to-use quick-detach plug ensures a secure connection for your power, ground, and remote turn-on wires.

CAUTION
Ensure the Positive (+) wire and Ground (-) wire are installed into the correct terminals. Failing to do so could lead to electrical arcing and cause harm to yourself or damage the amplifier.

Remote Gain Control
Plug in the included remote gain control knob to adjust your SA-1500.1D's output level remotely.

High Level Inputs
If your signal source does not have RCA outputs, connect the audio signal directly from the speaker outputs to your SA-1500.1D using the High Level Input connectors.
Note: The Auto Remote Turn-On feature can only be used when the amplifier is receiving input signal via the high level inputs.

RCA Inputs
The SA-1500.1D amplifier features line-level analog inputs for left and right mono signal, using RCA interconnects to deliver a high-quality signal and ensure peak performance.
Note: RCA Interconnects sold separately.

Quick Disconnect Terminal Plug
The SA-1500.1D offers an easy to use quick disconnect terminal plug with (2) positive and (2) negative outputs, making it easy to power multiple subwoofers without the hassle of wiring multiple wires to a single output terminal.

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INSTALLATION & FEATURES

Installation Tips
Below are some tips that will help you when it comes time to install your SA-1500.1D:

- **CAUTION** Before installation, disconnect the negative battery terminal (-) to prevent damage to the amplifier, fire, and/or possible injury.
- Keep all RCA cables routed together and away from any high current wires.
- **CAUTION** Always safeguard the battery and electrical system with proper fusing. Install a fuse holder and the correct fuse on the +12V power wire within 18 inches (45.7 cm) of the battery terminal.
- When grounding to the chassis, remove paint for a clean connection. Keep the ground wire short and attach it to welded metal on the vehicle's body. Avoid using seat belt bolts for grounding.
- For optimal performance and to prevent overheating, mount the amplifier with at least a 1-inch (25.4 mm) air gap around the heat sink for proper cooling.
- Mount the amplifier securely to metal or a sturdy amp rack. Avoid mounting on cardboard or plastic, as screws may loosen from road vibrations or sudden stops.
- **CAUTION** Always turn off or disconnect power before connecting RCA cables to prevent damage to the amplifier or components.
- **CAUTION** Lastly, if you're unsure or lack the necessary skills or tools, have a qualified professional handle the installation of this amplifier.

Tuning Tips
Below are some easy to follow tips when it comes to tuning your SA-1500.1D monoblock amplifier:

- **Initial Setup** - Set your source unit to about 3/4 of its maximum volume (e.g., 25 out of 30). Turn the amplifier's gain knob completely down (counterclockwise).
- **Adjust Gain** - Slowly increase the gain on the amplifier (turn clockwise) until you hear distortion, then back it off slightly for clean sound.
- **Adjusting Subsonic & LPF** - Set the LPF to 80-100 Hz for clean bass, then adjust the subsonic filter just below your subwoofer's enclosure tuning frequency (e.g., 25 Hz for a 30 Hz-tuned enclosure) to protect your subwoofer and optimize performance.

CAUTION Follow these tips at your own discretion. Proper tuning requires the right tools (oscilloscope/multimeter) and knowledge. Skar Audio is not liable for damage from improper tuning. Seek professional help if you lack the tools or expertise.

Advanced Protection Circuitry
The SA-1500.1D features advanced protection circuitry, setting the standard for safeguarding both the amplifier and your audio system, ensuring optimal performance and reliability. Below are some reasons why your SA-1500.1D may have gone into protect mode:

- **Overheating** - The SA-1500.1D is equipped with an internal temperature sensor that activates protect mode if the amplifier's temperature exceeds 185°F (85°C). To prevent this, ensure the amplifier has adequate airflow and is not installed in a poorly ventilated area.
- **Low Voltage / High Voltage** - The SA-1500.1D operates within a voltage range of 8.5V to 14.4V. If the input voltage falls below or exceeds this range, the amplifier will enter protect mode. To avoid this, ensure your electrical system can provide stable voltage within the specified range.
- **High Current Draw** - The SA-1500.1D is stable at 1Ω mono. Using subwoofers with an impedance below these ratings can cause excessive current draw, triggering protect mode. To prevent this, ensure your subwoofers match the amplifier's impedance specifications and verify the final impedance after wiring.
- **DC Signals** - The SA-1500.1D continuously monitors its output for any DC (Direct Current) signals. Since the amplifier should only output AC (Alternating Current) signals, activating protect mode upon detecting a DC signal helps protect both your speakers and the amplifier from potential damage.

If your SA-1500.1D enters protect mode due to **overheating**, let it cool down, and it will automatically resume normal operation once the temperature drops below 185°F (85°C). If protect mode is triggered by **low or high voltage**, **high current**, or **DC signals**, try turning your vehicle off and on. If the issue persists, disconnect all wiring and let the amplifier sit overnight before reconnecting.

2-Year Limited Warranty
Skar Audio takes immense pride in offering a 2-Year Hassle-Free Limited Warranty on all products sold directly through Skar Audio's official website or any authorized Skar Audio retailer within the contiguous United States, ensuring unparalleled peace of mind for our valued customers.

Please note your warranty will be voided if the amplifier is damaged by improper installation, improper use, tampered with, modified, or repaired by an individual that is not Skar Audio.

CAUTION Skar Audio is not liable for any damages caused to your vehicle by improper installation or improper use of this amplifier.

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CONTROLS



1 Auto Remote Turn On
The SA-1500.1D can be switched on and off using two different methods configured by the "Auto Remote Turn On" switch.

- When in the ON position, the SA-1500.1D will use the "Signal Sense" feature to match the power on the amplifier.
- When in the OFF position, you will need to wire the Remote Turn On input to turn on the amplifier.
**This feature ONLY will work if using High Level Inputs.*

2 Gain Control
The gain control on your SA-1500.1D amplifier adjusts the input sensitivity, allowing you to match the amplifier's input level to the output level of your head unit or signal source.

- **Note:** The gain control is not a volume control; it does not increase the amplifier's power output but rather optimizes the signal for the best sound quality and system performance.

3 Subsonic Filter
The subsonic filter on your monoblock amplifier is designed to remove inaudible low-frequency signals from the audio signal before it reaches your subwoofer.

4 Low Pass Filter (LPF)
The Low Pass Filter (LPF) on your monoblock amplifier is designed to control the range of frequencies that are sent to your subwoofer. It allows only frequencies below a specified point to pass through to the subwoofer, effectively filtering out higher frequencies that are better suited for full-range speakers.

5 Bass Boost
The Bass Boost feature on your SA-1500.1D amplifier enhances the low-frequency response of your audio system, providing additional emphasis to the bass. This control allows you to increase the output level of bass frequencies centered around a specific frequency, typically between 30Hz and 80Hz, to create a more powerful and impactful bass sound.

6 Amplifier Status LED
Keep an eye on your SA-1500.1D's performance with the easy-to-read Amplifier Status LED, which provides clear visual feedback on the amplifier's operational status and health.

- Blue - Amplifier is on and in working order.
- Red - There is an issue in your system that has caused the amplifier to go into protect mode.

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