

Stetsom IR400.1_BASS

Stetsom IR 400.1 BASS 2 Ohms Digital Sub Amplifier User Manual

Model: IR400.1_BASS

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Stetsom IR 400.1 BASS 2 Ohms Digital Sub Amplifier. Please read this manual thoroughly before using the product to ensure proper function and safety.

The Stetsom IR 400.1 BASS is a compact, high-fidelity mono amplifier designed specifically for subwoofers, offering 400 Watts RMS at 2 Ohms. It features advanced technology for defined mids and bass, along with adjustable crossovers and bass boost controls.



Image 1.1: Front view of the Stetsom IR 400.1 BASS Digital Sub Amplifier, showing the "Iron Line" branding, Stetsom logo, model number, and power/speaker terminals.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the amplifier and connected components:

- Ensure the vehicle's battery is disconnected before beginning any installation.
- Install the amplifier in a dry, well-ventilated location, away from direct sunlight and heat sources.
- Use appropriate gauge wiring for power, ground, and speaker connections as specified in this manual.
- Do not expose the amplifier to moisture or liquids.
- If the amplifier malfunctions or emits smoke, immediately disconnect power and consult a qualified technician.
- This amplifier is designed for 12V DC automotive systems only.

3. PRODUCT FEATURES

The Stetsom IR 400.1 BASS amplifier includes the following key features:

- **Power Output:** 400 Watts RMS at 14.4V into 2 Ohms.
- **Class D Monoblock Design:** Dedicated for bass applications, stable at 2 Ohms.
- **Audio Controls:**
 - Crossover (HPF): Adjustable from 5Hz to 35Hz.
 - Crossover (LPF): Adjustable from 35Hz to 250Hz.
 - Bass Boost: Gain adjustable up to +15dB, frequency range 35Hz to 60Hz.
- **Compact Design:** New technology allows for a smaller footprint.
- **Efficient Cooling:** Powerful cooler for improved ventilation and extended use.
- **Robust Connectors:**
 - Power/Ground: 6mm² (approximately 10 AWG).
 - Remote: 0.75mm² (approximately 18 AWG).
 - Speakers: 2.5mm² (approximately 14 AWG).
 - Fuse: 30A.

4. PACKAGE CONTENTS

Upon unpacking, verify that the following items are included:

- Stetsom IR 400.1 BASS Digital Sub Amplifier
- User Manual (this document)

Note: Additional accessories such as wiring kits, RCA cables, and subwoofers are sold separately.

5. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and safety. If you are unsure about any steps, consult a professional car audio installer.

5.1 Mounting Location

Choose a mounting location that is:

- Dry and free from moisture.
- Well-ventilated to allow for heat dissipation.
- Secure, preventing movement during vehicle operation.
- Accessible for wiring and adjustments.

5.2 Wiring Connections

Refer to the installation diagram below for correct wiring. Ensure all connections are secure and properly insulated.



Image 5.1: Top view of the Stetsom IR 400.1 BASS amplifier, highlighting the POWER, REM (remote), GND (ground) terminals, the FUSE 25A slot, and SPEAKER output terminals.

Installation Diagram

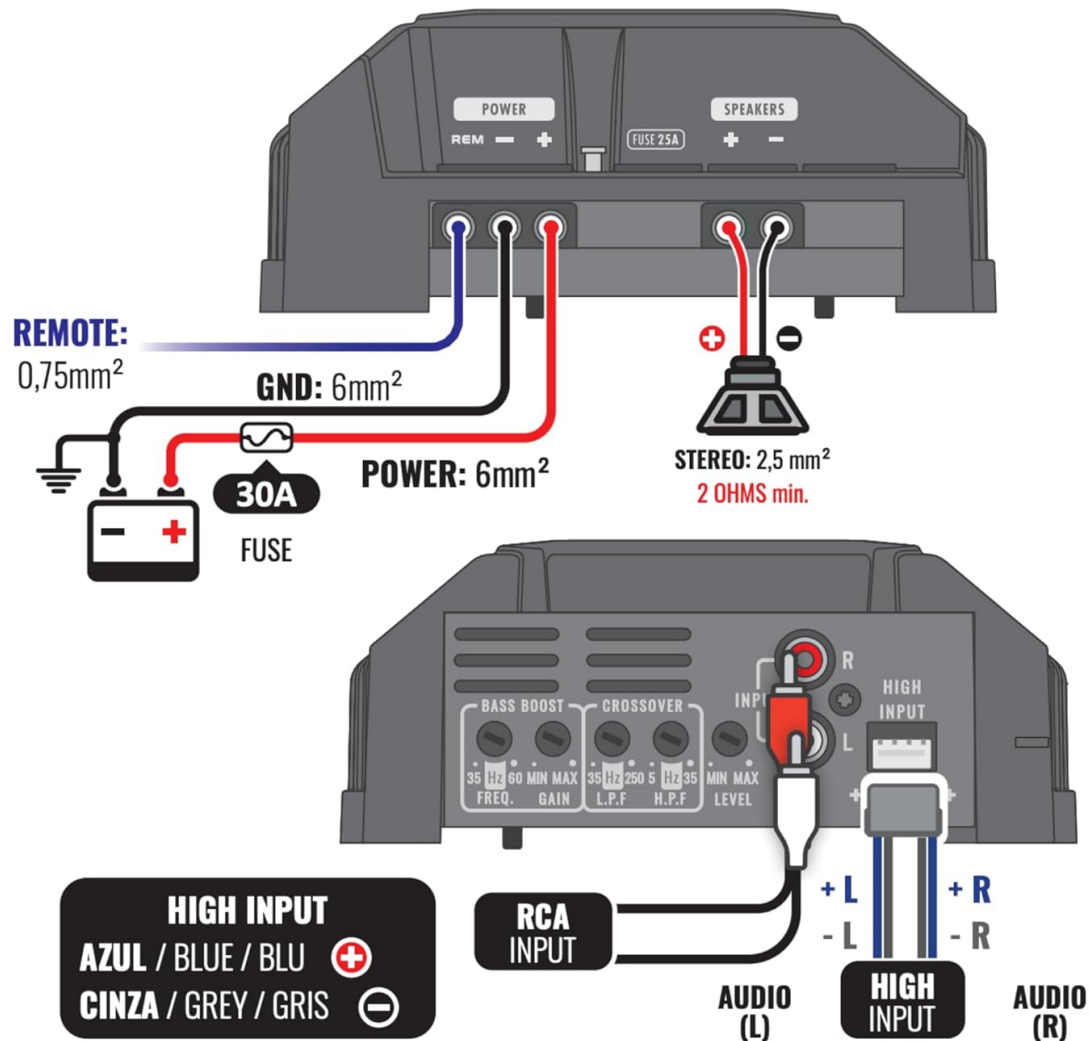


Image 5.2: Rear view of the Stetsom IR 400.1 BASS amplifier, displaying the Bass Boost, Crossover, Input Level controls, RCA inputs, High Input terminals, and an integrated wiring diagram.

- Power Connection (POWER):** Connect a 6mm² (approx. 10 AWG) power cable from the vehicle's positive battery terminal to the amplifier's "POWER" terminal. Install a 30A fuse within 30cm (12 inches) of the battery.
- Ground Connection (GND):** Connect a 6mm² (approx. 10 AWG) ground cable from the amplifier's "GND" terminal to a clean, unpainted metal point on the vehicle's chassis. Ensure a solid electrical connection.
- Remote Turn-On (REM):** Connect a 0.75mm² (approx. 18 AWG) remote wire from your head unit's remote output to the amplifier's "REM" terminal. This turns the amplifier on and off with your head unit.
- Speaker Connection (SPEAKERS):** Connect your subwoofer(s) to the "SPEAKERS" terminals using 2.5mm² (approx. 14 AWG) speaker wire. Ensure the total impedance of the connected subwoofers is 2 Ohms or higher. Observe correct polarity (+ to + and - to -).
- Audio Input (INPUT):**
 - RCA Input:** Connect RCA cables from your head unit's subwoofer output to the amplifier's "INPUT L" and "INPUT R" RCA jacks.
 - High Input:** If your head unit does not have RCA outputs, use the high-level input. Connect the

speaker outputs from your head unit to the "HIGH INPUT" terminals (+L/-L and +R/-R).

6. OPERATING INSTRUCTIONS

Once the amplifier is installed and wired correctly, you can adjust its settings for optimal sound performance.

6.1 Initial Power-Up

After all connections are made, reconnect the vehicle's battery. Turn on your head unit. The amplifier should power on, indicated by an illuminated LED (if present).

6.2 Adjusting Audio Controls

The Stetsom IR 400.1 BASS features several adjustable controls on its rear panel:

- **INPUT LEVEL (MIN/MAX):** This control matches the amplifier's input sensitivity to the output level of your head unit. Start with the level at minimum, then slowly increase it until you hear distortion, then back off slightly.
- **CROSSOVER (L.P.F. 35Hz ~ 250Hz):** The Low Pass Filter (LPF) allows frequencies below the set point to pass through to the subwoofer. Adjust this to blend the subwoofer's output seamlessly with your main speakers. A common starting point is 80Hz-100Hz.
- **CROSSOVER (H.P.F. 5Hz ~ 35Hz):** The High Pass Filter (HPF) allows frequencies above the set point to pass. For subwoofers, this is typically used to filter out extremely low, inaudible frequencies that can waste amplifier power and potentially damage the subwoofer. Set it to the lowest useful frequency, often around 5Hz-10Hz.
- **BASS BOOST (FREQ 35Hz ~ 60Hz, GAIN 0dB ~ +15dB):** This control allows you to boost specific bass frequencies.
 - **FREQ:** Selects the center frequency for the bass boost.
 - **GAIN:** Adjusts the amount of boost applied to the selected frequency. Use sparingly to avoid distortion and potential damage to your subwoofer.

Recommendation: Make small adjustments and listen carefully to the sound. It is often best to set the gain and crossover points with test tones or familiar music to achieve the desired sound quality.

7. MAINTENANCE

The Stetsom IR 400.1 BASS amplifier requires minimal maintenance. Follow these guidelines to ensure its longevity:

- Keep the amplifier clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Ensure adequate ventilation around the amplifier. Do not block cooling fins or vents.
- Periodically check all wiring connections for tightness and corrosion. Loose connections can cause performance issues or damage.
- If the fuse blows, replace it only with a fuse of the same type and rating (30A). Using a fuse with a higher rating can lead to severe damage or fire.

8. TROUBLESHOOTING

If you experience issues with your amplifier, consult the following troubleshooting guide before seeking

professional assistance:

Problem	Possible Cause	Solution
No Power / Amplifier does not turn on	<ul style="list-style-type: none">◦ Blown fuse◦ Loose power or ground connection◦ No remote turn-on signal◦ Faulty wiring	<ul style="list-style-type: none">◦ Check and replace 30A fuse if necessary.◦ Verify all power, ground, and remote connections are secure.◦ Ensure head unit is providing a remote signal (12V DC).◦ Inspect wiring for breaks or shorts.
No Sound Output	<ul style="list-style-type: none">◦ Input level too low◦ Incorrect crossover settings◦ Loose speaker connections◦ Faulty RCA or high-level input cables◦ Subwoofer impedance mismatch	<ul style="list-style-type: none">◦ Increase INPUT LEVEL gradually.◦ Adjust LPF and HPF settings.◦ Check speaker wire connections at both amplifier and subwoofer.◦ Test RCA or high-level input cables.◦ Ensure subwoofer impedance is 2 Ohms or higher.
Distorted Sound	<ul style="list-style-type: none">◦ Input level too high◦ Bass boost set too high◦ Incorrect crossover settings◦ Poor ground connection	<ul style="list-style-type: none">◦ Decrease INPUT LEVEL.◦ Reduce BASS BOOST gain.◦ Re-adjust LPF and HPF settings.◦ Verify ground connection is clean and secure.
Amplifier Overheating	<ul style="list-style-type: none">◦ Insufficient ventilation◦ Subwoofer impedance too low◦ Excessive gain or bass boost	<ul style="list-style-type: none">◦ Ensure amplifier has clear airflow.◦ Verify subwoofer impedance is 2 Ohms or higher.◦ Reduce INPUT LEVEL or BASS BOOST.

9. SPECIFICATIONS

Feature	Specification
Model	IR400.1_BASS
RMS Power (14.4V)	400W RMS @ 2 Ohms
Channels	1 (Monoblock)
Minimum Impedance	2 Ohms
Low Pass Filter (LPF)	35Hz ~ 250Hz
High Pass Filter (HPF)	5Hz ~ 35Hz
Bass Boost Gain	0dB ~ +15dB

Feature	Specification
Bass Boost Frequency	35Hz ~ 60Hz
Input Voltage	9V ~ 15V DC
Fuse Rating	30A
Power/Ground Wire Gauge	6mm ² (approx. 10 AWG)
Remote Wire Gauge	0.75mm ² (approx. 18 AWG)
Speaker Wire Gauge	2.5mm ² (approx. 14 AWG)
Product Dimensions (L x W x H)	5 x 3.9 x 2 inches
Weight	1.21 Pounds

10. WARRANTY AND SUPPORT



Stetsom products are designed and manufactured to the highest quality standards. For warranty information and technical support, please refer to the warranty card included with your product or visit the official Stetsom website.





For further assistance, you may contact Stetsom customer service through their official channels. Keep your purchase receipt as proof of purchase for warranty claims.

Online Resources:

- [Visit the Stetsom Store on Amazon](#)
- [Stetsom Official Website](#)

Related Documents - IR400.1_BASS

	<p>Stetsom DB3000 Digital Bass Amplifier User Manual</p> <p>Comprehensive user manual for the Stetsom DB3000 Digital Bass amplifier, covering installation, operation, troubleshooting, and technical specifications. Includes multilingual content in Portuguese, English, Spanish, and Italian.</p>
	<p>Stetsom Bravo Bass 3K Digital Amplifier User Manual</p> <p>Comprehensive user manual for the Stetsom Bravo Bass 3K digital amplifier, covering installation, operation, troubleshooting, technical specifications, and warranty information.</p>

	<p>Stetsom EX3000 Black Edition User Manual - High Performance Car Amplifier</p> <p>Comprehensive user manual for the Stetsom EX3000 Black Edition car amplifier. Learn about installation, operation, troubleshooting, technical specifications, and warranty.</p>
	<p>Stetsom Bravo Bass 8K Flex Impedance User Manual</p> <p>User manual for the Stetsom Bravo Bass 8K Flex Impedance amplifier, detailing installation, operation, troubleshooting, and technical specifications.</p>
	<p>STETSOM BRAVO FULL 12000 Digital Amplifier User Manual</p> <p>Comprehensive user manual for the STETSOM BRAVO FULL 12000 digital amplifier, covering installation, operation, troubleshooting, technical specifications, and warranty information for car audio systems.</p>
	<p>Stetsom Vulcan 3000 Digital Amplifier User Manual</p> <p>User manual for the Stetsom Vulcan 3000 Digital Amplifier, covering installation, operation, troubleshooting, and technical specifications.</p>