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› American Bass VFL ST-4500.1D Monoblock Amplifier Instruction Manual

American Bass VFL-STEALTH-ST-4500.1D

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Model: VFL-STEALTH-ST-4500.1D

INTRODUCTION

Thank you for choosing the American Bass VFL ST-4500.1D Class D Monoblock Amplifier. This amplifier is designed to provide powerful and clear audio performance for your car audio system. To ensure optimal performance and longevity, please read this manual thoroughly before installation and operation. Proper installation and understanding of the amplifier's features are crucial for safe and effective use.

SAFETY INFORMATION

- Always disconnect the vehicle's negative battery terminal before beginning any installation.
- Ensure all wiring is properly routed and secured to prevent damage or short circuits.
- Use appropriate gauge power and ground wires as specified in the installation section.
- Install the amplifier in a location that allows for adequate ventilation to prevent overheating.
- Avoid mounting the amplifier in areas exposed to moisture or direct sunlight.
- If you are unsure about any part of the installation process, consult a professional car audio installer.

PRODUCT OVERVIEW

The American Bass VFL ST-4500.1D is a high-performance monoblock amplifier engineered for robust bass reproduction. It features a compact design, efficient Class D circuitry, and a range of adjustable controls for precise sound tuning.

Amplifier Front View



Image: Front view of the American Bass VFL ST-4500.1D amplifier, showcasing its sleek black casing with the 'VFL AUDIO' logo and 'STEALTH ST-4500' branding.

Amplifier Power and Speaker Connections



Image: Rear view of the amplifier showing the power input terminals (GND, REM, +12V) and speaker output terminals, designed for secure wire connections.

Amplifier Control Panel



Image: Top view of the amplifier's control panel, featuring input RCA jacks, gain control, bass boost, subsonic filter, low-pass filter (LPF) adjustments, and a remote port.

Remote Bass Knob



Image: The wired remote bass level control knob, featuring power and clipping indicators, allowing for convenient adjustment of bass output from the driver's seat.

SETUP AND INSTALLATION

Proper installation is critical for the performance and safety of your amplifier. Follow these steps carefully.

1. Mounting Location

- Choose a dry, well-ventilated area, such as under a seat or in the trunk.
- Ensure sufficient airflow around the amplifier's heatsink.
- Mount the amplifier securely to a solid surface using the provided hardware to prevent movement during vehicle operation.

2. Wiring Connections

Power (BATT +12V): Connect a heavy-gauge power cable (e.g., 4 AWG or larger for high power applications) directly from the positive terminal of the vehicle's battery to the +12V terminal on the amplifier. Install an appropriate fuse holder

with a fuse (not supplied) within 18 inches (45 cm) of the battery.

Ground (GND): Connect a heavy-gauge ground cable of the same size as the power cable from the GND terminal on the amplifier to a clean, unpainted metal surface of the vehicle's chassis. Ensure a solid, low-resistance connection.

Remote (REM): Connect a remote turn-on wire (e.g., 18 AWG) from your head unit's remote output to the REM terminal on the amplifier. This wire turns the amplifier on and off with your head unit.

RCA Input: Connect RCA cables from your head unit's pre-amp outputs to the INPUT RCA jacks on the amplifier.

Speaker Output: Connect your subwoofer(s) to the SPEAKER terminals on the amplifier. Ensure correct polarity (+ to + and - to -) and that the total impedance of your speakers matches the amplifier's stable operating impedance (typically 1 Ohm for this model).

Remote Bass Knob: Connect the remote bass knob cable to the 'REMOTE' port on the amplifier's control panel. Mount the knob in a convenient location for adjustment.

OPERATING INSTRUCTIONS

Initial Power-Up

1. Double-check all wiring connections for security and correct polarity.
2. Insert the fuse into the fuse holder near the battery.
3. Turn on your vehicle's ignition and head unit. The amplifier's power indicator should illuminate.

Adjusting Controls

Gain (Input Level): This control matches the amplifier's input sensitivity to the output level of your head unit. Start with the gain set to minimum. Play a familiar track at about 75% of your head unit's maximum volume. Slowly increase the amplifier's gain until you hear slight distortion, then back off slightly. The remote bass knob also has a clipping indicator to assist with this setting.

Low Pass Filter (LPF): This filter allows only frequencies below the set point to pass through to the subwoofer. Adjust this between 40Hz and 180Hz to blend with your front speakers. A common starting point is 80Hz.

Subsonic Filter: This filter removes extremely low frequencies that are inaudible and can damage your subwoofer. Set this typically between 20Hz and 30Hz, depending on your subwoofer and enclosure characteristics.

Bass Boost: This control provides an increase in bass output at a specific frequency. Use sparingly to avoid distortion and potential speaker damage. Start at minimum and increase only if desired.

Remote Level Control: The wired remote allows you to adjust the subwoofer output level from the driver's seat. It also features a clipping indicator to help prevent overdriving the amplifier.

MAINTENANCE

- Keep the amplifier clean and free of dust. Use a soft, dry cloth for cleaning.
- Ensure that the amplifier's cooling fins are not obstructed to maintain proper heat dissipation.
- Periodically check all wiring connections for tightness and corrosion.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Amplifier does not turn on (no power light)	Blown fuse Poor power or ground connection No remote turn-on signal	Check and replace fuse if necessary. Verify +12V, GND, and REM connections. Ensure head unit is on and remote wire has +12V.

Problem	Possible Cause	Solution
No sound output	RCA cables disconnected or faulty Speaker wires disconnected or shorted Gain set too low	Check RCA connections and cables. Verify speaker wiring and check for shorts. Adjust gain control.
Distorted sound	Gain set too high Improper crossover settings Speaker impedance mismatch	Reduce gain until distortion disappears. Adjust LPF and Subsonic filter settings. Verify speaker impedance is within amplifier's stable range.
Amplifier goes into protection mode (protection light on)	Overheating Speaker short circuit Low voltage	Ensure adequate ventilation; allow amplifier to cool. Check speaker wiring for shorts. Verify vehicle's charging system and battery voltage.

SPECIFICATIONS

- **Model:** VFL-STEALTH-ST-4500.1D
- **Output Power:** 2250 Watts (RMS, typical)
- **Number of Channels:** 1 (Monoblock)
- **Voltage:** 6 Volts (Operating Range)
- **Maximum Supply Voltage:** 16 Volts
- **Item Dimensions (L x W x H):** 18 x 7.75 x 2.3 inches
- **Item Weight:** 2.72 Kilograms
- **Material Type:** Printed Circuit Board
- **Mounting Type:** Surface Mount

WARRANTY AND SUPPORT

American Bass products are designed for reliability and performance. This product is covered by a manufacturer's warranty against defects in materials and workmanship. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official American Bass website.

For technical support or assistance with installation and troubleshooting, please contact American Bass customer service through their official channels. Keep your purchase receipt as proof of purchase for any warranty claims.

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Example: How do I reset this device or fix this error?

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Model number, symptoms, what you tried, or the section of the manual you are using.

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