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› [Hifonics BXX1200.1D Brutus Class D 1200W RMS 1 Ohm Mono Car Subwoofer Amplifier User Manual](#)

Hifonics BXX1200.1D

Hifonics BXX1200.1D Brutus Class D 1200W RMS 1 Ohm Mono Car Subwoofer Amplifier

USER INSTRUCTION MANUAL

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1. Product Overview

The Hifonics BXX1200.1D is a high-performance Class D monoblock amplifier designed to deliver powerful and clear bass to your car audio system. Featuring Ultra-Fi MOSFET power supply and Super D-Class circuitry, this amplifier ensures efficient power delivery and superior sound quality. It is engineered for robust performance and reliability, making it an ideal choice for driving subwoofers.

Key Features:

- **1200 Watt Mono Amplifier:** Delivers substantial power for deep and impactful bass.
- **Super Class D Technology:** Utilizes an NGSD digital chip for high efficiency, low temperature operation, and powerful amplification.
- **Ultra-Fi MOSFET Outputs:** Selected for balanced and consistent power output, maintaining smooth power delivery even during peak music demands.
- **Protection Circuitry:** Features 3-way protection (thermal, overload, and speaker short protection) to safeguard the amplifier and connected components.
- **LED Indicators:** Green LED for normal operation (Power) and red LED for protection mode (Protect).
- **Wired Remote Bass Level Control:** Allows for convenient adjustment of bass levels from the driver's seat.
- **Preamp RCA Outputs:** Enables daisy-chaining of multiple amplifiers for expanded system configurations.
- **Dual Speaker Terminals:** Simplifies the connection of multiple speakers.
- **Heavy Duty Aluminum Alloy Heat-Sink:** Designed for efficient heat dissipation, ensuring stable performance.

Package Contents:

- Hifonics BXX1200.1D Monoblock Amplifier
- Wired Remote Bass Level Control

- Mounting Hardware (Screws)
- Owner's Manual (this document)

2. Safety Precautions

Please read all instructions carefully before installing and operating your Hifonics BXX1200.1D amplifier. Failure to follow these guidelines may result in personal injury, damage to the amplifier, or damage to other components in your vehicle.

- **Professional Installation Recommended:** Installation of car audio components can be complex. If you are unsure about any part of the installation process, seek assistance from a qualified professional installer.
- **Disconnect Battery:** Always disconnect the vehicle's negative battery terminal before beginning any electrical work to prevent short circuits and electrical shock.
- **Proper Wiring:** Ensure all wiring is correctly sized and securely connected. Use appropriate gauge power and ground wires as specified in the installation section. Improper wiring can lead to overheating and fire hazards.
- **Fuse Protection:** Always use an external fuse on the main power wire as close to the battery as possible. The amplifier itself has internal fuses, but external protection is crucial for the entire system.
- **Ventilation:** Mount the amplifier in a location that allows for adequate air circulation. Do not cover the heat sink or mount the amplifier in an enclosed space without ventilation.
- **Avoid Moisture and Heat:** Do not expose the amplifier to moisture, water, or extreme temperatures.
- **Secure Mounting:** Securely mount the amplifier to prevent it from becoming a projectile in the event of a sudden stop or collision.
- **California Proposition 65 Warning:** This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

3. Controls and Connections

Familiarize yourself with the input and output panels of the BXX1200.1D amplifier to ensure proper connection and configuration.

Input/Control Panel:

This side of the amplifier houses the signal inputs and various control adjustments.



Image: Rear view of the Hifonics BXX1200.1D amplifier, highlighting the input and control panel. This panel includes RCA input/output jacks, gain level control, phase switch, remote bass EQ port, subsonic filter, and low-pass filter controls. Power and Protect LED indicators are also visible.

- **INPUT (RCA):** Stereo RCA inputs for connecting the audio signal from your head unit or source.
- **OUTPUT (RCA):** Stereo RCA outputs for daisy-chaining the audio signal to another amplifier.
- **LEVEL (Gain):** Adjusts the input sensitivity of the amplifier to match the output voltage of your head unit. Range: 0.2V to 9V.
- **PHASE:** A switch to adjust the phase of the subwoofer output (0° or 180°) to optimize bass response with other speakers.
- **REMOTE HFR-31:** Port for connecting the wired remote bass level control.
- **BASS EQ:** Variable bass boost control (0 to +10 dB) to enhance low frequencies.
- **SUBSONIC:** Adjustable high-pass filter (15 - 35 Hz) to remove ultra-low frequencies that are inaudible and can damage subwoofers.
- **LPF (Low-Pass Filter):** Adjustable low-pass filter (30 - 250 Hz, 12 dB/octave) to allow only low frequencies to pass to the subwoofer.
- **POWER LED:** Illuminates green when the amplifier is powered on and operating normally.
- **PROTECT LED:** Illuminates red when the amplifier enters protection mode due to thermal overload, short circuit, or low voltage.

Power/Speaker Terminal Panel:

This side of the amplifier provides connections for power, ground, remote turn-on, and speaker outputs.



Image: Side view of the Hifonics BXX1200.1D amplifier, displaying the power input terminals (GND, REM, BATT+12V) with an 80A fuse, and the dual speaker output terminals.



Image: Close-up view of the speaker output terminals on the Hifonics BXX1200.1D amplifier, showing the positive and negative connections for speaker wiring.

- **GND (Ground):** Connects to a clean, bare metal chassis ground point in the vehicle.
- **REM (Remote Turn-On):** Connects to the remote turn-on output of your head unit.
- **BATT+12V (Power):** Connects directly to the positive terminal of the vehicle's battery.
- **FUSE:** Houses the main fuse for the amplifier (80A Maxi fuse).
- **SPEAKER OUTPUT:** Dual terminals for connecting your subwoofer(s). Ensure correct polarity (+ to + and - to -).

4. Setup and Installation

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

4.1 Mounting the Amplifier:

1. Choose a mounting location that is dry, well-ventilated, and secure. Avoid mounting on carpet or in enclosed spaces

without airflow.

2. Ensure the location allows for easy access to wiring and controls.
3. Use the amplifier as a template to mark the mounting holes.
4. Drill pilot holes if necessary, being careful not to drill into fuel lines, brake lines, or electrical wiring.
5. Secure the amplifier using the provided mounting screws.

4.2 Wiring Connections:

Before making any connections, ensure the vehicle's negative battery terminal is disconnected.

1. **Power Wire (+12V):** Run a suitable gauge power wire (e.g., 4 AWG for 1200W) directly from the positive terminal of the vehicle's battery to the BATT+12V terminal on the amplifier. Install an in-line fuse holder with an 80A fuse within 18 inches (45 cm) of the battery.
2. **Ground Wire (GND):** Run a short (less than 3 feet / 1 meter) and equally sized ground wire from the GND terminal on the amplifier to a clean, bare metal chassis point in the vehicle. Ensure the contact point is free of paint, rust, or dirt.
3. **Remote Turn-On Wire (REM):** Connect a smaller gauge wire (e.g., 18 AWG) from the REM terminal on the amplifier to the remote turn-on output of your head unit. This wire tells the amplifier to turn on when your head unit is active.
4. **RCA Input Cables:** Connect high-quality RCA cables from the pre-amp outputs of your head unit to the INPUT RCA jacks on the amplifier.
5. **Speaker Wires:** Connect your subwoofer(s) to the SPEAKER OUTPUT terminals. For a single subwoofer, connect its positive terminal to the amplifier's positive speaker terminal and its negative terminal to the amplifier's negative speaker terminal. For multiple subwoofers, ensure the total impedance matches the amplifier's capabilities (1 Ohm stable). Refer to your subwoofer's specifications for wiring configurations (series or parallel) to achieve the desired impedance.
6. **Remote Bass Control:** Connect the wired remote bass level control to the REMOTE HFR-31 port on the amplifier and mount it in a convenient location for adjustment.
7. **Reconnect Battery:** Once all connections are secure and verified, reconnect the vehicle's negative battery terminal.

5. Operation

After successful installation, follow these steps to power on and configure your amplifier for optimal performance.

5.1 Initial Power-Up:

1. Turn on your vehicle's ignition and head unit. The POWER LED on the amplifier should illuminate green, indicating it is receiving power and is operational.
2. If the PROTECT LED illuminates red, refer to the Troubleshooting section.

5.2 Adjusting Amplifier Settings:

Proper adjustment of the amplifier's controls is crucial for sound quality and preventing damage to your speakers.

- **Gain (LEVEL) Adjustment:**

- a. Set the amplifier's LEVEL control to its minimum (counter-clockwise) position.
- b. Set your head unit's volume to about 75-80% of its maximum level.
- c. Play a dynamic piece of music with strong bass.
- d. Slowly increase the amplifier's LEVEL control clockwise until you hear any distortion. Once distortion is heard, back off the gain slightly until the sound is clean. This sets the gain to match your head unit's output without

clipping.

- **Low-Pass Filter (LPF) Adjustment:**

- The LPF control allows only frequencies below the set point to pass to the subwoofer. A common starting point is 80-100 Hz, but this should be adjusted to blend seamlessly with your main speakers.
- Experiment with the LPF setting while listening to music to find the best integration with your full-range speakers.

- **Subsonic Filter Adjustment:**

- The Subsonic filter removes extremely low frequencies that are below the audible range and can cause your subwoofer to over-excurt without producing useful sound.
- Set the Subsonic filter slightly below your subwoofer's resonant frequency (Fs) or around 20-30 Hz to protect the subwoofer.

- **Bass EQ Adjustment:**

- The BASS EQ provides a boost to specific low frequencies. Use this sparingly. Excessive bass boost can lead to distortion and potential damage to your subwoofer.
- Adjust to your preference, ensuring the sound remains clean and undistorted.

- **Phase (0°/180°) Adjustment:**

- The phase switch helps to align the subwoofer's output with the rest of your car's speakers.
- Listen to music with strong bass and switch between 0° and 180°. Choose the setting that provides the loudest and most impactful bass response.

6. Maintenance

Regular maintenance helps ensure the longevity and optimal performance of your Hifonics BXX1200.1D amplifier.

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth to remove dust and dirt. Do not use harsh chemicals or abrasive cleaners.
- **Ventilation:** Ensure the heat sink fins are free from obstructions (e.g., dust, debris, loose wires) to allow for proper airflow and cooling.
- **Connections:** Occasionally check all power, ground, remote, RCA, and speaker connections to ensure they are secure and free from corrosion. Loose connections can lead to poor performance or damage.
- **Fuse Inspection:** If the amplifier fails to power on, check the 80A Maxi fuse on the amplifier and the in-line fuse near the battery. Replace blown fuses only with fuses of the same type and rating.

7. Troubleshooting

If you experience issues with your Hifonics BXX1200.1D amplifier, refer to the table below for common problems and their solutions.

Problem	Possible Cause	Solution
Amplifier does not turn on (POWER LED off)	No power to amplifier; Blown fuse; Loose ground connection; No remote turn-on signal.	Check +12V power wire and fuse; Check ground wire connection; Verify remote turn-on wire is connected and receiving +12V from head unit.

Problem	Possible Cause	Solution
Amplifier turns on but no sound	No input signal; Speaker wires disconnected or shorted; Gain set too low; LPF set too low.	Check RCA input cables; Verify speaker wire connections and check for shorts; Increase gain level; Adjust LPF setting.
PROTECT LED is red	Short circuit in speaker wiring; Overheating; Low voltage.	Check speaker wires for shorts; Ensure proper ventilation and allow amplifier to cool; Verify vehicle's battery voltage and charging system.
Distorted sound	Gain set too high; Improper LPF/Subsonic settings; Poor ground connection; Damaged speaker.	Reduce gain level; Adjust LPF/Subsonic filters; Improve ground connection; Inspect speaker for damage.
Weak or no bass	Phase incorrect; LPF set too low; Bass EQ off; Subwoofer polarity reversed.	Toggle phase switch; Increase LPF setting; Adjust Bass EQ; Verify correct speaker polarity.
Engine noise/whine	Poor ground connection; RCA cables too close to power wires; Ground loop.	Improve ground connection; Reroute RCA cables away from power wires; Install a ground loop isolator if necessary.

If the problem persists after attempting these solutions, contact Hifonics customer support or a qualified car audio technician.

8. Technical Specifications

Detailed specifications for the Hifonics BXX1200.1D amplifier.

Feature	Specification
Model Number	BXX1200.1D
Amplifier Class	Class D
Number of Channels	1 (Monoblock)
Max Power Rating (1 Ohm)	1200 watts x 1 chan.
RMS Power Rating (2 Ohms)	600 watts x 1 chan.
RMS Power Rating (4 Ohms)	400 watts x 1 chan.
Total Power Output	1200 watts
Frequency Response	10 - 250 Hz
Total Harmonic Distortion (THD)	0.1%
Signal to Noise Ratio	>95 dB
Variable Low-Pass Filter (LPF)	30 - 250 Hz, 12 dB/octave

Feature	Specification
Subsonic Filter	15 - 35 Hz
Variable Bass Boost	0 to +10 dB
Fuse Rating	80A x 1 (Maxi Fuse)
Input Voltage	9 Volts (Operating)
Product Dimensions (L x W x H)	17.2 x 10.2 x 3.7 inches
Item Weight	9.5 pounds
Connectivity Technologies	RCA
Certifications	CE, FCC
UPC	806576227939

9. Warranty and Customer Support

Hifonics stands behind the quality of its products. This amplifier comes with a manufacturer's warranty.

9.1 Manufacturer's Warranty:

The Hifonics BXX1200.1D amplifier is covered by a **1-year Manufacturer's Warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by improper installation, accident, misuse, abuse, neglect, unauthorized modification, or normal wear and tear.

Please retain your proof of purchase (receipt or invoice) as it will be required for any warranty claims.

9.2 Customer Support:

For technical assistance, warranty claims, or general inquiries, please contact Hifonics customer support through their official website or the retailer from whom you purchased the product. You may also find additional resources and FAQs on the Hifonics brand store page on Amazon: [Hifonics Store on Amazon](#).