

Peiying NB-3000

Peiying NB-3000 Active Car Subwoofer Instruction Manual

Model: NB-3000

1. INTRODUCTION

Thank you for choosing the Peiying NB-3000 Active Car Subwoofer. This compact and powerful audio solution is designed to enhance your in-car listening experience by delivering deep, rich bass. Its ultra-flat design allows for versatile placement in vehicles with limited space. Please read this manual thoroughly before installation and operation to ensure proper use and maximize performance.

2. SAFETY INFORMATION

WARNING: Improper installation or use can lead to serious injury or damage to the product and vehicle.

- Always disconnect the vehicle's negative battery terminal before starting any electrical work.
- Ensure all wiring is properly routed and secured to prevent pinching, cutting, or short-circuiting.
- Use appropriate gauge wiring for power and ground connections as specified in this manual.
- Do not install the subwoofer in locations where it may obstruct the driver's view or interfere with vehicle operation.
- Avoid installing the unit in areas exposed to direct sunlight, excessive heat, moisture, or dust.
- Consult a professional car audio installer if you are unsure about any part of the installation process.
- Do not attempt to open or modify the unit. This will void the warranty and may cause damage.

3. PRODUCT OVERVIEW AND FEATURES

The Peiying NB-3000 is an active (amplified) car subwoofer designed for powerful bass reproduction.

Key Features:

- 20 cm (8-inch) active subwoofer with 1000 W maximum power output.
- Flat metal enclosure for low vibration and compact installation.
- Integrated MOSFET power amplifier.
- High-level and low-level (RCA) inputs for versatile connection options.
- Wired remote control for convenient bass level adjustment.

Component Identification:



Figure 1: Peiying NB-3000 Active Car Subwoofer. This image displays the overall design of the subwoofer, including the speaker grille and the control panel located on one side.



Figure 2: Control Panel and Connections. This close-up view shows the various inputs and controls: PHASE switch, FREQ (frequency) knob, REMOTE port, MIN/MAX GAIN knob, CH1/CH2 RCA inputs, POWER/PROTECT indicators, and the POWER/HIGH LEVEL INPUT terminal.

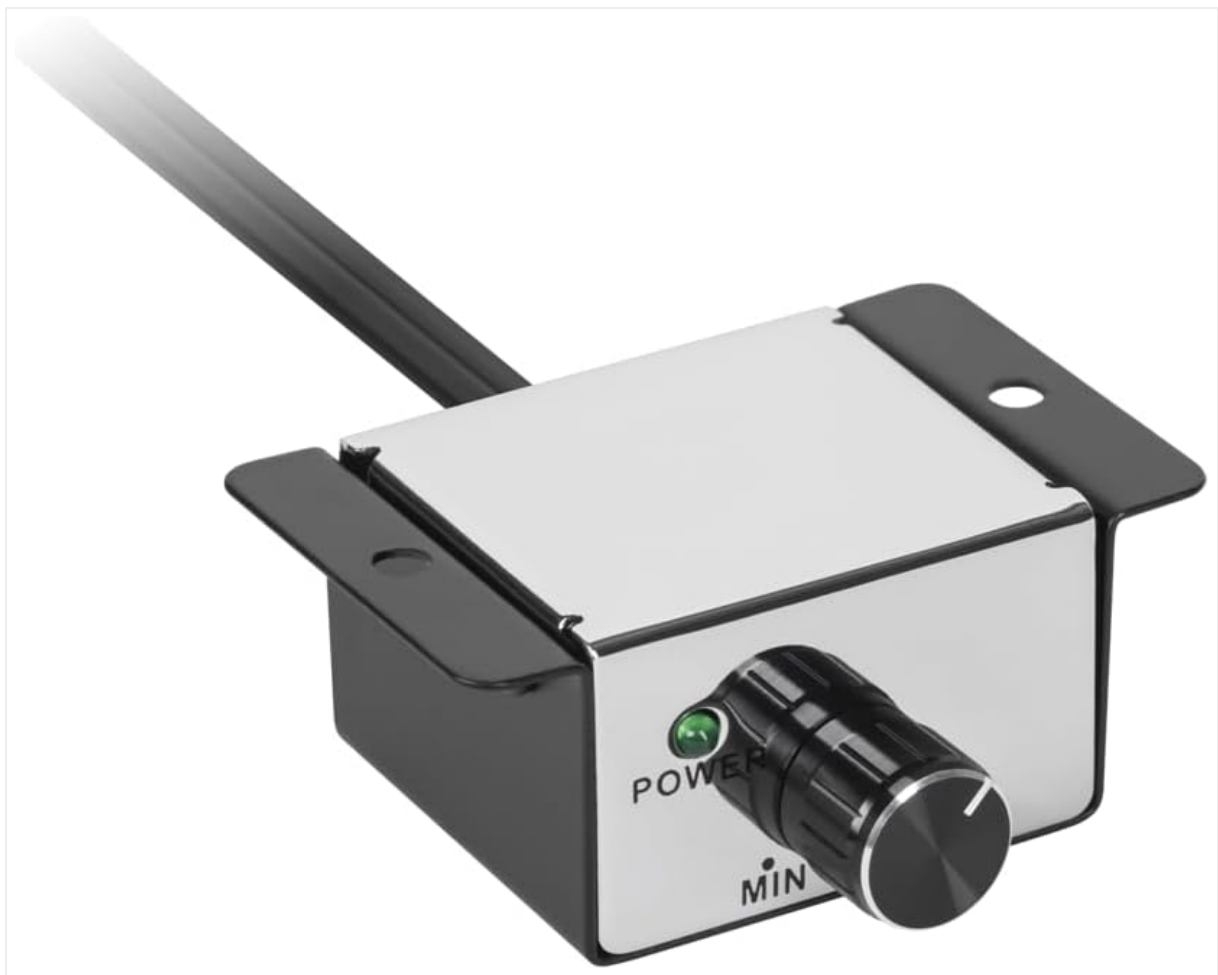


Figure 3: Wired Remote Control. This image shows the external wired remote control unit, featuring a power indicator light and a rotary knob for adjusting the subwoofer's output level (MIN/MAX).

4. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and safety. If you are not confident in performing the installation yourself, please seek professional assistance.

4.1. Placement

The compact design of the NB-3000 allows for flexible placement. Common locations include:

- Under a car seat (ensure adequate clearance and ventilation).
- In the trunk.
- Behind a rear seat.

Secure the subwoofer firmly to prevent it from moving during vehicle operation. Use mounting brackets or straps if provided or necessary.

4.2. Wiring Connections

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

1. **Power Connection (BATT+):** Connect a suitable gauge power cable (e.g., 8 AWG or 10 AWG, depending on cable length and power requirements) directly from the vehicle's positive battery terminal to the "POWER" terminal on the subwoofer's high-level input connector. Install an in-line fuse (e.g., 20A-30A) within 18 inches (45 cm) of the battery.
2. **Ground Connection (GND):** Connect a short, heavy gauge ground cable (same gauge as power cable) from the "GND" terminal on the subwoofer's high-level input connector to a clean, unpainted metal surface

of the vehicle chassis. Ensure a good electrical contact.

3. **Remote Turn-On (REM):** Connect a remote turn-on wire from your car stereo's remote output (usually a blue/white wire) to the "REM" terminal on the subwoofer's high-level input connector. This wire tells the subwoofer to turn on and off with your car stereo. If your stereo does not have a remote output, you may need to use an ignition-switched 12V source.

4. Audio Input:

- **Low-Level Input (RCA):** If your car stereo has RCA pre-outs, connect RCA cables from the stereo's subwoofer or rear pre-outs to the "CH1" and "CH2" RCA inputs on the subwoofer.
- **High-Level Input:** If your car stereo does not have RCA pre-outs, connect the speaker wires from your stereo's rear speakers to the "HIGH LEVEL INPUT" terminals on the subwoofer's connector. Ensure correct polarity (+ to + and - to -).

5. **Remote Level Control:** Connect the wired remote control cable to the "REMOTE" port on the subwoofer's control panel. Mount the remote control in a convenient location for the driver.

After all connections are made, reconnect the vehicle's negative battery terminal.

5. OPERATING INSTRUCTIONS

Once installed, you can adjust the subwoofer's settings for optimal sound.

5.1. Initial Power-Up

Turn on your car stereo. The "POWER" indicator light on the subwoofer's control panel should illuminate (green). If the "PROTECT" light (red) illuminates, there may be a wiring issue or fault. Refer to the Troubleshooting section.

5.2. Adjusting Controls

- **GAIN (MIN/MAX):** This knob controls the input sensitivity. Start with the GAIN set to minimum (MIN). Play music with a moderate bass level. Slowly increase the GAIN until the bass output blends well with your main speakers without distortion. Avoid setting the GAIN too high, as this can cause distortion and damage.
- **FREQ (Frequency):** This knob adjusts the low-pass filter (LPF) crossover frequency, typically from 50Hz to 160Hz. The LPF ensures that only low frequencies are sent to the subwoofer. Adjust this to blend smoothly with your main speakers. A common starting point is around 80-100Hz.
- **PHASE (0°/180°):** This switch adjusts the phase of the subwoofer's output relative to your main speakers. Listen to music with strong bass and switch between 0° and 180°. Choose the setting that provides the most impactful and cohesive bass response.
- **REMOTE (Level Control):** The wired remote control allows you to conveniently adjust the subwoofer's output level from the driver's seat without accessing the main unit.

6. MAINTENANCE

The Peiying NB-3000 requires minimal maintenance.

- Keep the unit clean by wiping it with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- Periodically check all wiring connections to ensure they are secure and free from corrosion.
- Ensure the area around the subwoofer is clear to allow for proper ventilation.

7. TROUBLESHOOTING

If you experience problems with your subwoofer, refer to the following troubleshooting guide.

Problem	Possible Cause	Solution
No power / No sound	<ul style="list-style-type: none"> ◦ Blown fuse. ◦ Loose power or ground connection. ◦ Remote turn-on wire not connected or not receiving signal. ◦ No audio input signal. 	<ul style="list-style-type: none"> ◦ Check and replace fuse if necessary (use correct rating). ◦ Verify all power, ground, and remote connections are secure. ◦ Check remote wire connection and ensure car stereo is on. ◦ Check RCA or high-level input connections. Ensure stereo output is active.
Distorted sound	<ul style="list-style-type: none"> ◦ GAIN set too high. ◦ Incorrect FREQ setting. ◦ Poor audio source quality. ◦ Loose speaker wires (high-level input). 	<ul style="list-style-type: none"> ◦ Reduce GAIN level. ◦ Adjust FREQ knob for a smoother blend. ◦ Try a different audio source. ◦ Check high-level input connections for proper polarity and secure fit.
Subwoofer turns off intermittently	<ul style="list-style-type: none"> ◦ Overheating (PROTECT light on). ◦ Loose power/ground connections. ◦ Low voltage. 	<ul style="list-style-type: none"> ◦ Ensure adequate ventilation around the unit. Reduce GAIN. ◦ Check and secure all power and ground connections. ◦ Verify vehicle's electrical system is functioning correctly.
Weak or no bass	<ul style="list-style-type: none"> ◦ GAIN set too low. ◦ Incorrect PHASE setting. ◦ Incorrect FREQ setting. ◦ RCA cables faulty or disconnected. 	<ul style="list-style-type: none"> ◦ Increase GAIN level. ◦ Toggle PHASE switch (0°/180°) to find the best setting. ◦ Adjust FREQ knob. ◦ Check RCA cable connections and try a different cable if suspected faulty.

8. SPECIFICATIONS

The following are the technical specifications for the Peiying NB-3000 Active Car Subwoofer:

Model Name	NB-3000
Speaker Type	Active Subwoofer
Speaker Size	20 cm (8 inches)
Maximum Output Power	1000 Watts
Amplifier Type	MOSFET
Frequency Response	Adjustable via LPF (50Hz - 160Hz)
Input Sensitivity	Adjustable (GAIN)
Phase Control	0° / 180° Switchable
Inputs	RCA (Low-Level), High-Level Speaker Input
Control Method	Wired Remote Control

