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AQUADUST 800.4 4-CHANNEL MARINE AMPLIFER
USER MANUAL

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INTRODUCTION

Thank you for purchasing our car audio amplifier. This power amplifier has been designed to provide high-quality performance with minimal maintenance. However, its performance will only be as good as the care and quality of components used during installation. Therefore, we strongly advise reading these instructions carefully to familiarize yourself with the product and its features.

Before installing the power amplifier, please read this instruction manual thoroughly. The instructions for mounting and connecting the unit must be followed precisely. If needed, please consult a service center.

All connections for DC power, signal input, and speaker outputs can be carried out easily and safely using RCA connectors and screw terminals.

INSTALLATION INSTRUCTIONS

Please choose a mounting location that is not exposed to direct weather conditions. Be aware that the amplifier generates heat, so proper ventilation is necessary. Depending on your car's construction, the installation should be carried out carefully to ensure optimal performance and reliability of the amplifier.

Keep wire connections as short as possible and use adequately sized wires to minimize power loss and maximize the system's audio output.

For safety reasons, route all power and speaker wiring through the existing wire channels.

To prevent cable damage, ensure that wires do not come into contact with sharp-edged metal.

Lay all cables as far away as possible from ignition wires, modules in the trunk, and under-dash components, as these can cause interference.

Install a fuse in the (+) power cable no farther than 30 cm from the positive battery terminal.

Keep power wires as short as possible. It is preferable to use shorter power cables and longer speaker cables if necessary.

To further reduce interference, follow all provided instructions carefully.

PRECAUTIONS

This unit is designed for negative ground 9–16 Volts (DC) operation only.
Use speakers with an impedance of 2 or 4 Ohms (4–8 Ohms when used as a bridged amplifier).

Avoid installing the unit in locations where:
- It would be exposed to high temperatures, such as direct sunlight or hot air from the heater.
- It would be exposed to rain or moisture.
- It would be subject to dust or dirt.

If your car is parked in direct sunlight, causing a significant rise in temperature inside the vehicle, allow the unit to cool down before operation.

When installing the unit horizontally, ensure that the heatsink fins are not covered by the floor carpet.

If this unit is positioned too close to the car radio, interference may occur. In such cases, separate the amplifier from the car radio.

This power amplifier is equipped with a protection circuit to safeguard the transistors and speakers in case of malfunction. Do not attempt to test the protection circuits by covering the heatsink or connecting improper loads.

Do not operate the unit with a weak car battery, as its optimal performance relies on a stable and normal battery voltage. For safety reasons, keep the volume of your car audio system at a moderate level, ensuring you can still hear normal traffic sounds outside your vehicle.

FUSE REPLACEMENT

If the fuse blows, inspect the power connection and replace the fuse. If the fuse blows again after replacement, it may indicate an internal malfunction. In such a case, please consult your dealer.

WARNING: Always use the specified amperage fuse. Using a fuse with a higher amperage rating can cause severe damage.

PROTECTION CIRCUIT: This amplifier is equipped with a protection circuit that activates under the following conditions:

The unit becomes overheated.

The speaker terminals are short-circuited.

WIRING INSTRUCTIONS

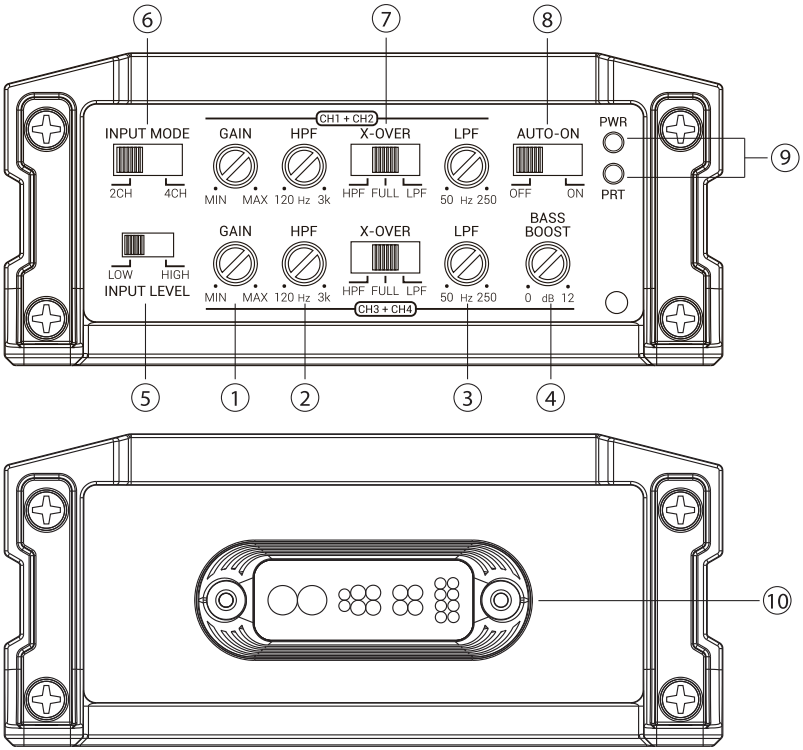
POWER CONNECTION
The battery terminal (BATT) must be connected directly to the positive terminal of the vehicle's battery to ensure an adequate voltage source and minimize noise. Connecting the battery terminal lead to any other point (such as the fuse block) will reduce power output and may cause noise or distortion. Use only #10 gauge or thicker (smaller gauge #) wire for this connection, and complete all other wiring before connecting it to the battery terminal.

GROUND CONNECTION
The ground terminal (GND) is critical for the proper operation of the amplifier. Use a wire of the same gauge as the power connection (#10 or thicker) to connect the ground terminal (GND) of the amplifier to a metal part of the vehicle close to the mounting location. Keep this wire as short as possible, and remove any paint or rust from the grounding point to provide a clean metal surface for securing the ground wire with a screw or bolt.

REMOTE TURN-ON CONNECTION
The amplifier is activated by applying +12V to the remote turn-on terminal (REM). This wire should be connected to the "Auto-Antenna" lead from the car stereo, which supplies +12V only when the stereo is turned on. If the car stereo does not have an "Auto-Antenna" lead, the remote turn-on lead can be connected to an "Accessory" or "Radio" terminal in the car's fuse block. This configuration will turn the amplifier on and off with the ignition key, regardless of whether the car stereo is on or off. Since the remote turn-on lead carries minimal current, #20 gauge wire is sufficient for this purpose.

SPEAKER CONNECTIONS
Wire the speakers to the amplifier's speaker terminals according to the appropriate wiring diagram, based on the type and number of speakers used. For most applications, #18 gauge wire is recommended for speaker leads, but wires should never be thinner than #18 gauge. For leads exceeding 10 feet in length, #12 gauge wire is recommended. When wiring the speakers, ensure that the polarity of the speaker terminals matches the polarity of the corresponding amplifier terminals. Do not ground any speaker leads to the vehicle's chassis.

FEATURES



1. Input Gain Control

The input level control enables the system to operate effectively across a wide range of output levels. Adjust the control to achieve the best sound quality, minimizing distortion. As a guideline, follow this procedure:

If multiple amplifiers are used, adjust each one separately.

Set the car radio volume to 2/3 of its maximum level.

Gradually turn the amplifier's gain control from "Min" toward "Max" until distortion is audible. Then, slightly reduce the gain control toward "Min" to eliminate distortion. The adjustment is now complete.

Attention! For 2 Ohm speakers in stereo mode, Tri-mode, or 4 Ohm speakers in bridge mode, if the overload protection is activated, reduce the gain control toward "Min" until the operation is smooth and trouble-free.

2. High Pass Filter

The high-pass filter controls the frequency range of high-frequency reduction for the power amplifier.

Channels 1-2: Adjustable from 120Hz to 3kHz.

Channels 3-4: Adjustable from 120Hz to 3kHz.

3. Low Pass Filter

The low-pass filter controls the frequency range of low-frequency reduction for the power amplifier. It is adjustable from 50Hz to 250Hz.

4. Bass Boost Control

This control is used to enhance the sound output level of bass frequencies.

5. Input Level Selector

Set to “LOW” when connecting a low-level input (RCA input) from your source unit.

Set to “HIGH” when connecting a high-level input (speaker level input) from your source unit.

6. Input Mode Selector

Adjust the Input Mode Selector according to the available outputs from your source unit:

2CH: Use when connecting a front 2-channel (left & right) output from your source unit.

4CH: Use when connecting a front/rear 4-channel output from your source unit.

7. X-over Control

The amplifier operates in full-range, high-pass, or low-pass mode depending on the selected switch setting.

8. Auto Power On

The AUTO POWER ON (ON/OFF) switch is designed for high-level (speaker level) connections:

When set to ON, the subwoofer will automatically power on when a signal is detected. If no signal is detected, the amplifier will automatically power off.

If you prefer to use the remote turn-on/off connection, leave the switch in the OFF position.

9. Power Status LED

PWR LED (Green): Indicates the unit is powered on and operational.

PRT LED (Red): Indicates the unit is in protection mode and not operational. This includes thermal protection mode. The unit will automatically resume operation once it cools to a safe temperature.

10. Power/Audio Output Wiring Harness

This harness connects the amplifier to the power source and the speaker.

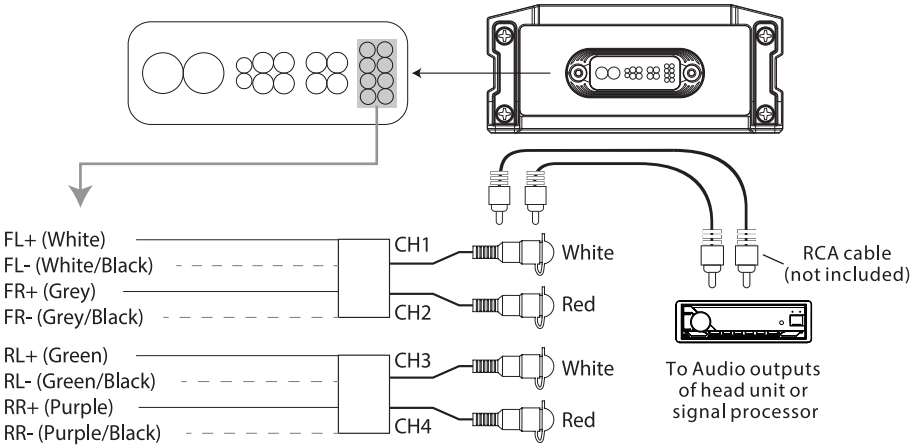
SPECIFICATIONS

4 ohm RMS Power	120 W x 4
2 ohm RMS Power	165 W x 4 / 200 W x 4*
Bridged 4 ohm RMS Power	340 W x 2 / 400 w x 2*
Min. Speaker Impedance	2 ohm
Frequency Response	20 Hz - 20 KHz
S/N Ratio	≥ 82 dB
T.H.D.	≤ 1 % / ≤ 3%*
Input Sensitivity	300 mV - 8 V
Low Pass Freq.	50 Hz - 250 Hz
High Pass Freq.	120 Hz - 3 KHz
Bass Boost	0 - 12 dB
AGU Fuse	80 A
Operating Voltage	9 - 16 V DC
Dimensions	9.84”x 4.53”x 1.97” / 250 x115 x 50 mm

LOW-LEVEL INPUT WIRING

Low-level (RCA) input wiring is recommended for optimal audio performance. Always ensure that you use high-quality cables for the best results.

Important! Never connect both the high-level and low-level inputs from your head unit to the amplifier simultaneously.

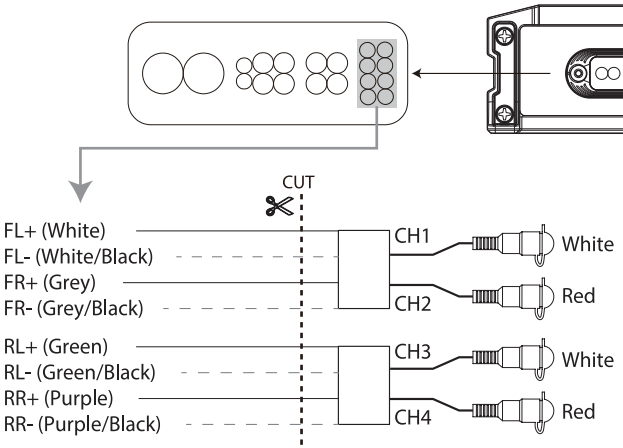


NOTE: In this connection, the AUTO POWER ON switch is in the OFF position.

HIGH-LEVEL INPUT WIRING

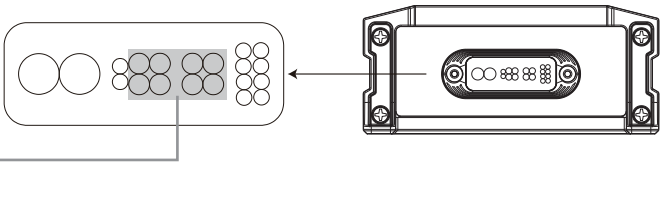
The amplifier provides two wiring options for audio input from your head unit. Use high-level input wiring only if your head unit lacks RCA audio outputs for connection.

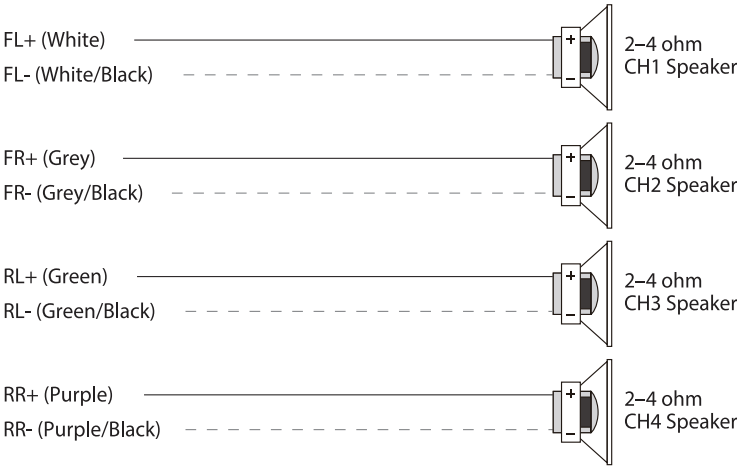
Important! Never connect both high-level and low-level inputs from your head unit to the amplifier simultaneously.



NOTE: In this connection, the AUTO POWER ON switch is in the ON position.

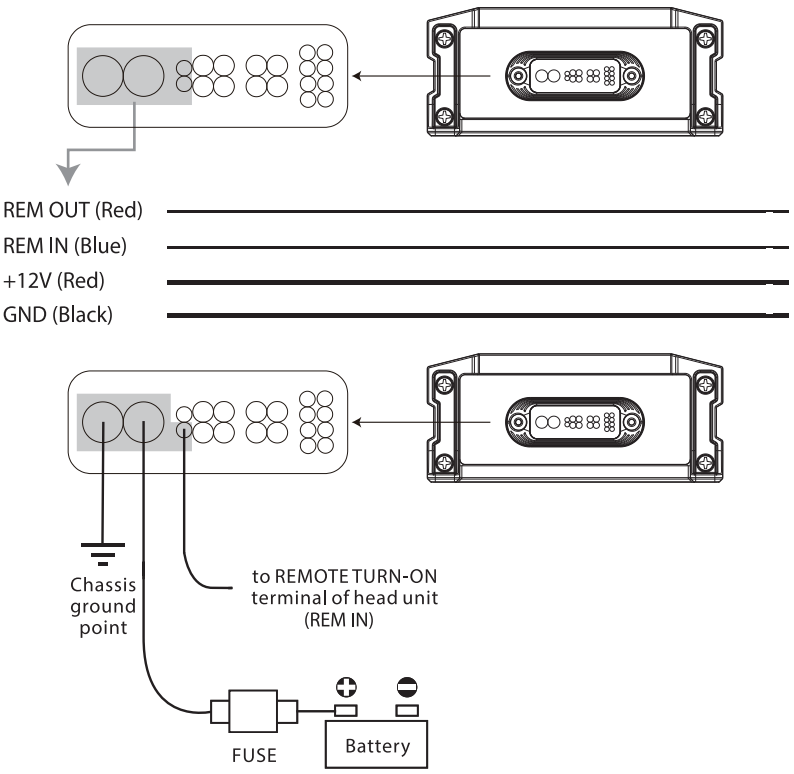
SPEAKER WIRING





Bridged Mode

POWER CONNECTION



NOTES ON THE POWER SUPPLY:

Connect the +12V power input lead only after all other leads have been securely connected.

Ensure the ground wire of the unit is firmly connected to a metal part of the vehicle or boat. A loose connection may result in amplifier malfunction.

REM Terminal:

The unit is activated by applying +12 Volts to this terminal. This terminal does not draw significant current like the two power terminals, so a thinner connecting wire is acceptable. Standard 18-gauge wire is sufficient, with the typical color being yellow.

If the radio has a Power Antenna control wire, it can be connected to this terminal. If the Power Antenna wire is already in use, you can splice into it. Using this method, the unit will automatically turn on with the radio.

Use a power supply lead equipped with a fuse matching the original fuse value.

Position the fuse in the power supply lead as close as possible to the car battery.

During full-power operation, maximum current flows through the system. Ensure that the leads connected to the +12V and GND terminals of the unit are no thinner than 16-gauge wire (AWG.16).

TROUBLESHOOTING

If you encounter operational or performance issues with this product, compare your installation with the electrical wiring diagram provided on the previous pages. If the problems persist, refer to the following troubleshooting tips, which may help resolve the issues.

SYMPTOM	POSSIBLE REMEDY
Products will not power up.	Check to make sure you have a good ground connection. Check that the Remote Input (Turn-On) has at least 5VDC. Check that there is battery power on the (+) terminal. Check that there is at least 12V. Check all fusee, replace if necessary. Make sure that the Protection LED is not illuminated.If it is lit,shut off the amplifier briefly, and then repower it.
Protection LED comes on when amplifier is powered up.	Turn down the volume control on the head unit to prevent overdriving. Check that there is good air circulation around the amp.
No output.	Check that all fuses are OK. Check that unit is properly grounded. Check that the Remote Input (Turn-On) has at least 5VDC. Check that the RCA audio cables are plugged into the proper inputs.
Low output.	Reset the Level Control. Check the Crossover Control settings.
High hiss in the sound.	Disconnect all RCA inputs to the power sub's control panel. If the hiss disappears, then plug in the component driving the amplifier and unplug its inputs. If the hiss disappears at this point, go on until the faulty/noisy component is found. It is best to set the amplifier's input level control as low as possible. The best subjective signal-to-noise ratio is achieved in this manner. Try to set the head unit as high as possible (without distortion)
Squealing noise is present.	Check for improperly grounded RCA interconnects.
Distorted sound.	Check that the Input Level Control is set to match the signal level of the head unit.
Engine noise (static type)	This is usually caused by poor quality RCA cables, which can pick up radiated noise. Use only the best quality cables, and route them away from power cables.
Engine noise (alternator whine)	Check that the RCA grounds are not shorted to the vehicle chassis. Check that the head unit is properly grounded.

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LIMITED WARRANTY INFORMATION

B2 audio offers a limited warranty under the following terms:
The product is to be free of defects in material & workmanship under normal use for a period of 1 year from the date of the original purchase, when installed by an authorized dealer. Items not installed by authorized dealers will be warrantied for 30 days from the original purchase. Original sales receips must be accompanied with all returns.The warranty applies to the original purchaser of the product & it being sold by authorized B2 audio dealers.

The warranty does **not** cover: 1. Damage caused by accident, abuse, misuse, improper operation, water / solvents & shipping.
2. Product modification, neglect, failure to follow installation instructions & misrepresentation by the seller.
3. Products used for competition purposes or are of such a charachter 4. Any product that has been opened.
5. Products that has had the serial number defaced, altered or removed.
6. The cost of shipping the product back for repair to an authorized repair centre & cost of return of non-defective items.