Manuals+ — User Manuals Simplified.

w vtech link1000.1mini 1000W RMS Mono Amplifier

w vtech link1000.1mini 1000W RMS Mono Amplifier Owner's Manual

Contents

w vtech link1000.1mini 1000W RMS Mono Amplifier

- ⚠️**WARNING:** This symbol means important instructions. Failure to heed them can result in serious injury or death.

- ⚠️**CAUTION:** This symbol means important instructions. Failure to heed them can result in injury or property damages.

WARNING

- DO NOT DRIVE WHILE DISTRACTED. Any function that requires your prolonged attention should not be performed while driving. Always stop the vehicle in a safe location before performing any such function. Failure to do so may result in an accident.
- KEEP THE VOLUME AT MODERATE LEVELS WHILE DRIVING. Excess volume levels can obscure sounds such as emergency vehicle sirens or road warning signals and may result in an accident. Continuous exposure to high sound pressure levels may cause permanent hearing loss. Use common sense and practice safe sound.
- FOR USE WITH 12V NEGATIVE GROUND VEHICLE APPLICATIONS ONLY. Using this product other than in its designed application may result in fire, injury or product damage.
- MAKE THE CORRECT WIRING CONNECTIONS AND USE PROPER FUSE PROTECTION. Failure to connect wiring correctly with appropriate gauge and fuse protection may result in fire, injury or product damage. When replacing the fuse(s), never exceed the specified rating. Ensure proper protection of all system power wiring and install an external fuse (not included) with a specified rating for each amplifier connected with the +12V lead at the battery terminal.
- DISCONNECT THE NEGATIVE BATTERY TERMINAL BEFORE INSTALLATION. Failure to do so may result in fire, injury or damage to the unit.
- DO NOT ALLOW CABLES TO BECOME ENTANGLED IN SURROUNDING OBJECTS. Arrange wiring and cables to prevent obstructions when driving. Cables or wiring that obstruct or hang up on places such as steering wheel, brake pedals, etc. can be extremely hazardous.
- DO NOT DAMAGE VEHICLE SYSTEMS OR WIRING WHEN DRILLING HOLES. When drilling holes in the
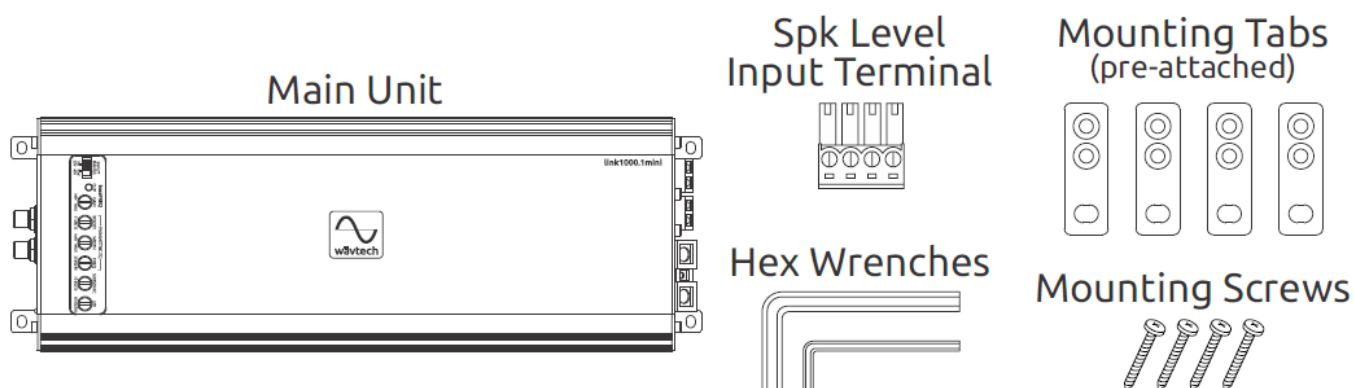
chassis for installation, take precautions so as not to contact, puncture or obstruct brake lines, fuel lines, fuel tanks, electrical wiring, etc. Failure to take such precautions may result in fire or an accident.

- DO NOT UTILIZE OR CONNECT TO ANY PART OF VEHICLE SAFETY SYSTEMS. Bolts, nuts or wires used in the brake, airbag, steering or any other safety-related systems or fuel tanks should NEVER be used for mounting, power or ground connections. Using such parts may disable control of the vehicle or result in fire.

CAUTION

- STOP USE IMMEDIATELY IF A PROBLEM OCCURS. Failure to do so may result in personal injury or damage to the product. Return it to your authorized Wāvtech dealer.
- HAVE AN EXPERT DO THE WIRING AND INSTALLATION. This unit requires special technical skills and experience for wiring and installation. To ensure safety and proper function, always contact the authorized dealer where you purchased the product to have it done professionally.
- INSTALL THE UNIT SECURELY WITH SPECIFIED PARTS. Be sure to use only the included parts and specified installation accessories (not included). Use of other than designated parts may damage this unit. Install the unit securely so that it will not come loose during a collision or sudden jolt.
- ROUTE WIRING AWAY FROM SHARP EDGES AND MOVING PARTS. Arrange cables and wiring away from sharp or pointed edges and avoid moving parts such as seat hinges or rails to prevent pinching or wear. Use loom protection where appropriate and always use a grommet for any wiring routed through metal.
- NEVER RUN SYSTEM WIRING OUTSIDE OR UNDERNEATH THE VEHICLE. All wiring must be routed, secured and protected inside the vehicle. Failure to do so may result in fire, injury or property damage.
- INSTALL THE UNIT IN A DRY AND VENTILATED LOCATION. Avoid mounting locations where the unit will likely be exposed to high moisture or heat without adequate ventilation. Moisture penetration or heat buildup may result in product failure. Always make sure the amplifier chassis temperature is safe before touching it.
- REDUCE GAIN AND SOURCE VOLUME TO MINIMUM LEVELS FOR INITIAL SYSTEM TUNING. Ensure amplifier power is off before connecting signal cables and follow proper system gain setting procedures. Failure to do so may result in damage to the amplifier and/or connected speakers.

Package Contents

Main Unit

Spk Level Input Terminal

Mounting Tabs (pre-attached)

Hex Wrenches

Mounting Screws

Accessories Required for Installation (not included):

- RCA Cables or Signal Wire
- Power Supply & Speaker Wire

- In-line Fuse Holder w/100A Fuse
- Battery Ring Terminal
- Chassis Ground Terminal
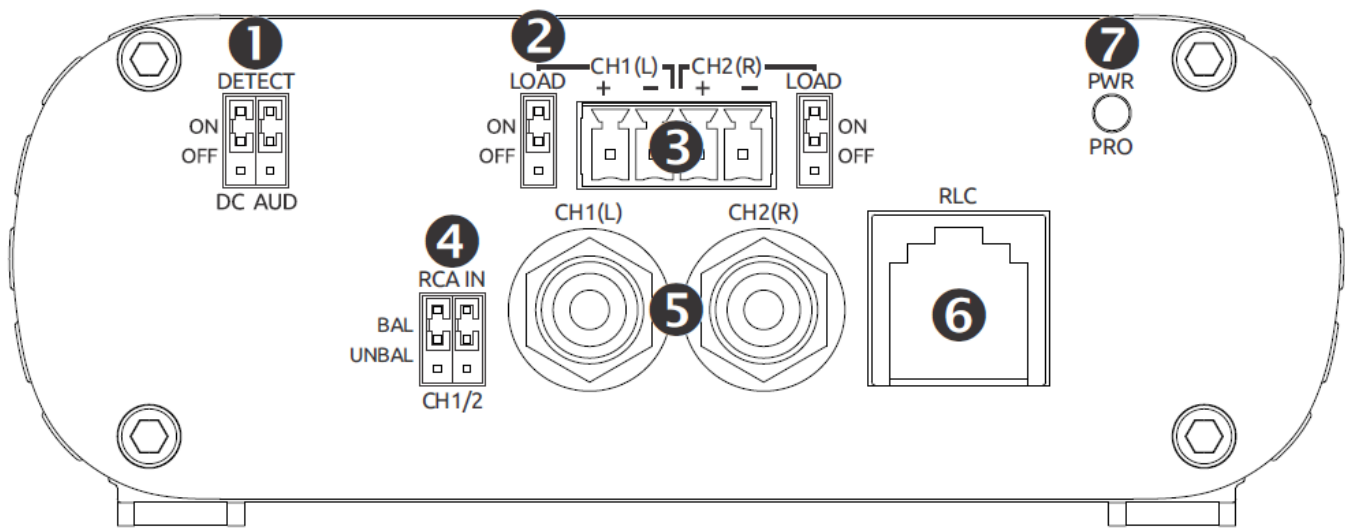- Wire Crimp Connectors
- Grommets & Loom

Introduction

Welcome to Wāvtech, an exceptional mobile audio product for audiophiles. Our products are engineered from the ground up to provide a truly remarkable listening experience with superior performance, sound quality and reliability. Built for the professional installer, our innovative features enable maximum application coverage with ultimate system flexibility. Whether retaining the factory receiver or utilizing an aftermarket source, our solutions are simply the best available for unlimited sound system upgrades.
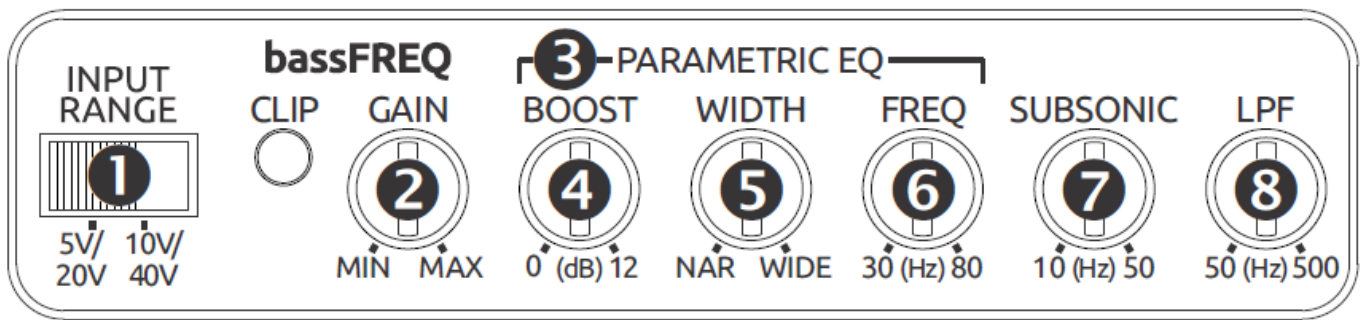
Features

- Differential Balanced Inputs
- Dual Input Range with Ideal Gain Structure
- Variable Gain Adjustment with Clip LED
- Fully Adjustable Parametric EQ
- Variable -24dB/oct. Low-Pass Filter
- Variable -24dB/oct. Subsonic Filter
- RLC Ready (links sold separately)
- Auto Turn-On via DC-Offset and Audio Detect
- Stop-Start Vehicle Compatible
- OEM Load Detect System Compatible
- Active Rollback Thermal Management
- Panel Mount RCA Inputs with Bal/Unbal Select
- Locking Detachable Spk Level Input Terminal
- 4AWG Insert Power/Ground Terminals
- Dual Mono 12AWG Insert Speaker Output Terminal
- Compact Chassis w/Detachable Mounting Tabs

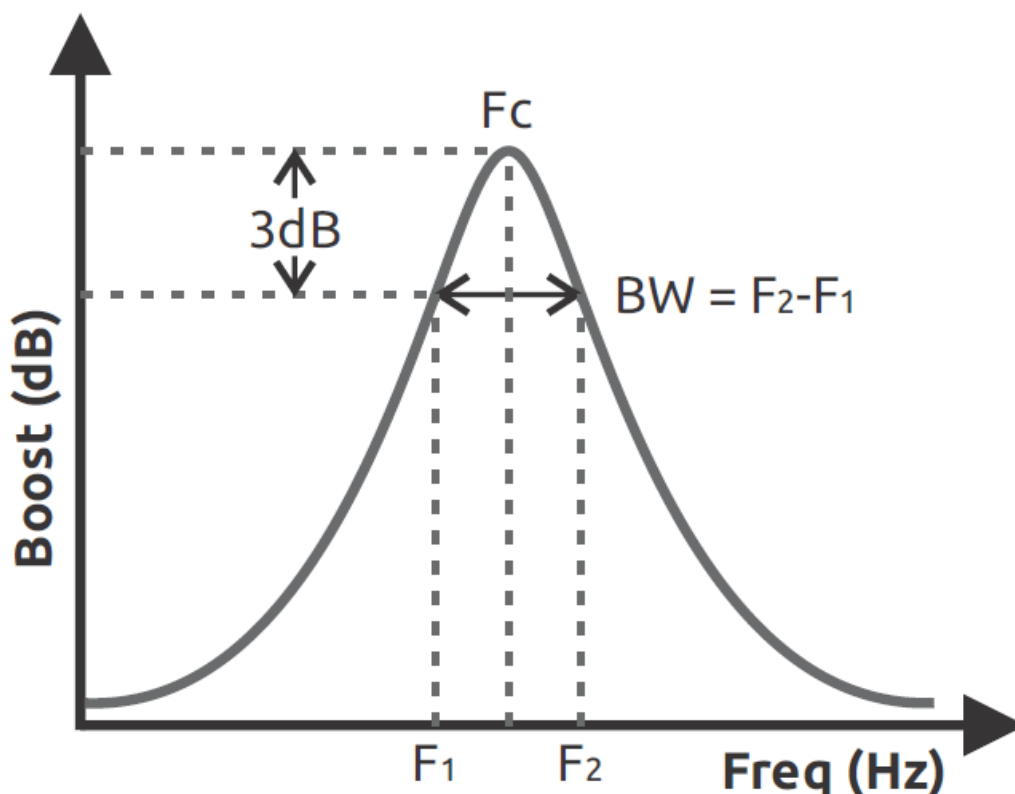## Input Panel Connections & Settings

1. **Auto Turn-On Detect Jumpers:** By default, the amplifier is set to detect both DC-offset and audio signals to turn itself on/off automatically. These jumpers allow either turn-on mode to be defeated independently for cases where only one turn-on mode is preferred or to bypass both modes when a switched +12V trigger is available and connected to the remote turn-on (REM) terminal.

2. **Load Jumpers:** Each speaker level input channel has built-in loading to satisfy most OEM load detect systems. These internal loading circuits can be bypassed (OFF) for channels where no loading is required, such as when a speaker is still directly connected to the source.

3. **Speaker Level Input Terminal:** For left/right channels of speaker level input connections to the source. When set to the 20V input range (default), the audio signal from 1-20Vrms will produce up to full power output from maximum to minimum gain. For factory amplifiers with more than 20Vrms output signal or if the volume range is not sufficient with gains set at minimum, select the 40V input range, which will reduce the input sensitivity by half for signals up to 40Vrms.

4. **RCA Input Bal/Unbal Jumpers:** These jumpers select the RCA input configuration between balanced (default) and unbalanced. Unbalanced connects the RCA shield to ground reference, which may be useful in eliminating noise under certain source or system conditions. Both jumpers (left/right) should be moved together if changed.

5. **RCA Inputs:** For left/right channels of RCA line level input connections to the source. When set to the 5V input range, the audio signal from 0.2-5Vrms will produce up to full power output from maximum to minimum gain. For sources with more than 5Vrms output signal or if the volume range is not sufficient with gains at minimum, select the 10V input range, which will reduce the input sensitivity by half for signals up to 10Vrms. Use quality interconnects to ensure stable connection and minimize the possibility of induced noise.

6. **Remote Level Control Jack:** This RJ45 jack is for connecting the optional links remote level controller to the main unit with its supplied cable. A standard ethernet cable may also be used.

7. **Power/Protect Indicator:** This LED will illuminate green when the amplifier is powered on and operating normally. If a shutdown occurs due to a detected fault, the LED will turn red. Note that over-current and short-circuit protections require manual reset (power off/on) to recover after the fault has been cleared, while other protection modes will automatically recover.

Top Panel Controls

1. **Input Sensitivity Range:** Two input sensitivity ranges are provided for each channel pair to optimize source volume range while minimizing the gain required to achieve full power output for best signal-to-noise. Choose the input range that will accommodate the source's maximum output signal voltage without excessive clipping, 5V or 10V for low-level (RCA) inputs, and 20V or 40V for speaker-level inputs.

2. **Gain Adjustment with Clip LED:** This adjustment is for matching the amplifier's input to the source's maximum undistorted output signal. The clip LED will dimly illuminate just before the onset of clipping and become fully bright when the amplifier has reached full power output at clipping. Follow proper gain setting procedure to ensure optimum source volume range with a minimum chance for clipping or distortion. Gain readjustment may be necessary after any changes are made to the parametric EQ, subsonic or low-pass filters.

3. **Parametric EQ:** This section provides full adjustment over all parameters of a single EQ band, including boost, width and frequency. Unlike traditional bass boost, a parametric EQ provides the tuning flexibility required for differences between vehicles, subwoofers and enclosures.

4. **Boost:** This adjustment sets the amount of boost at the centre frequency (Fc) of the parametric EQ band from 0dB up to +12 dB. Note that adding a boost may cause the output to clip or subwoofer to be over-driven. Readjust the gain, subsonic and low-pass filters as necessary to optimize bass response vs. maximum output and volume range.

5. **Width:** Also known as Q, width sets the bandwidth (BW) of boost for the parametric EQ band. A wide setting will include more adjacent frequencies for a broad boost, while a narrow setting will only boost frequencies
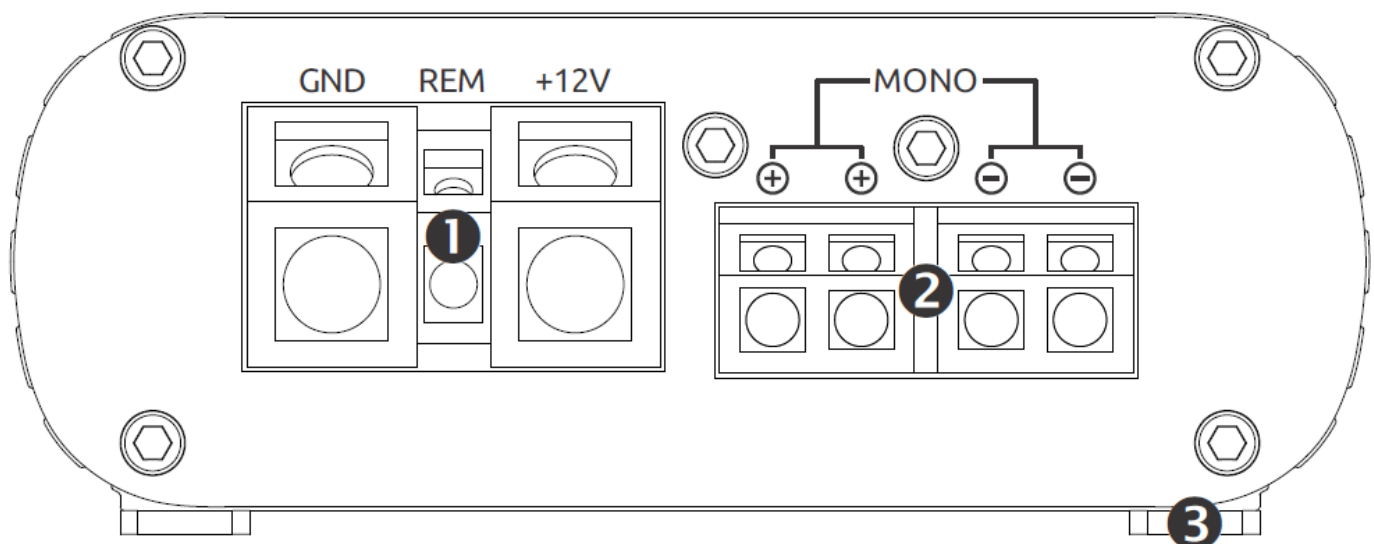
close to the chosen centre frequency (Fc). The range of Q adjustment is 1.5 (wide) to 5 (narrow). To calculate the bandwidth between the -3dB points that are boosted by the EQ band, use the formula BW = Fc/Q.

- **Example:** If FREQ is set to 50Hz, and WIDTH is set to narrow (Q=5), then the boosted bandwidth is 50Hz/5=10Hz, which puts the upper and lower -3dB points at 45Hz and 55Hz.

6. **Frequency:** This adjustment sets the centre frequency (Fc) of the parametric EQ band between 30Hz and 80Hz. Note that boosted frequencies that overlap with the subsonic and low-pass filters will attenuated.

7. **Subsonic Filter:** This adjustment sets the -3dB cut-off point (F3) below which all frequencies are filtered out at -24dB/oct. Very low frequencies can waste amplifier power and damage subwoofers. This adjustment is especially important for ported enclosures to prevent overexcursion below the tuning frequency.

8. **Low-Pass Filter:** This adjustment sets the -3dB cut-off point (F3) above which all frequencies are filtered out at -24dB/oct. Unwanted high frequencies allowed to play through subwoofers can cause boomy, buzzy bass that is easy to localize. With a steep -24dB per octave slope, the cut-off frequency can be set higher, allowing more punch with less distortion and optimized integration with full-range speakers to achieve up-front bass.

Note: If the subsonic and low-pass filter cut-off points are set too close together, only a narrow frequency range will pass through and may result in significantly reduced output.

Power Supply & Output Panel Connections

1. **Power Supply Terminal:**
   - **Ground (GND):** The ground terminal must be connected to a metal part of the vehicle with the ground plane back to the main battery ground attachment point (a.k.a. chassis ground). This wire should be as short as possible, but no longer than 2ft (60cm), with a minimum gauge of 4AWG.
     The ground wire should be terminated with a ground-specific or ring terminal and securely bolted to the vehicle with a star or lock washer and nut to prevent it from coming loose. The chassis ground connection point should be scuffed to the bare metal.
   - **Remote Turn-on (REM):** If the source unit has a remote output wire (+12V switched output), connect it to the REM terminal. If a remote lead is unavailable, the amplifier will automatically turn on by detecting the DC offset or audio signal from the source. While auto turn-on works well in most applications, there may be some cases where a +12V trigger is preferable or necessary. Both detect functions are enabled by default but can be individually defeated via the two jumpers located on the input panel.
   - **Power (+12V):** The constant +12V power connection must be made at the vehicle's main battery,
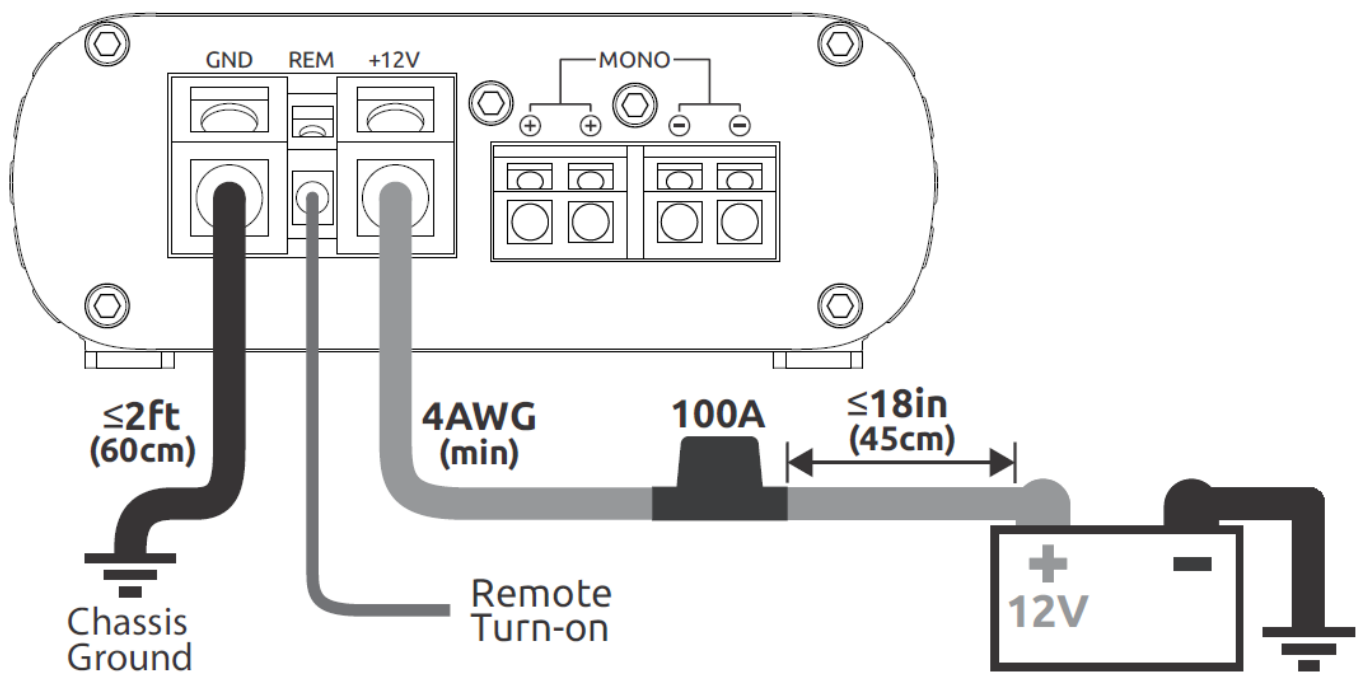
securely connected with a ring terminal and protected with an in-line fuse within 18in (45cm) from the positive battery terminal. The link1000.1mini requires a 100A external in-line fuse (not included) and a minimum power wire gauge of 4AWG. Do not install the fuse until all other system connections have been made.

2. **Speaker Output Terminal:** This terminal is for connecting the amplifier's output to one or more subwoofers as a single mono channel. The dual positive (+) and negative (-) outputs are provided for wiring convenience of parallel connections. Ensure correct polarity and that the connected subwoofer(s) are configured as a total nominal impedance of no less than 2Ω.

3. **Mounting Tabs:** These mounting tabs are pre-attached and should be used to properly secure the amplifier with the included mounting screws to a solid mounting surface that is directly attached to the metal structure of the vehicle cabin. These tabs are removable if the unit can be safely secured by another method.
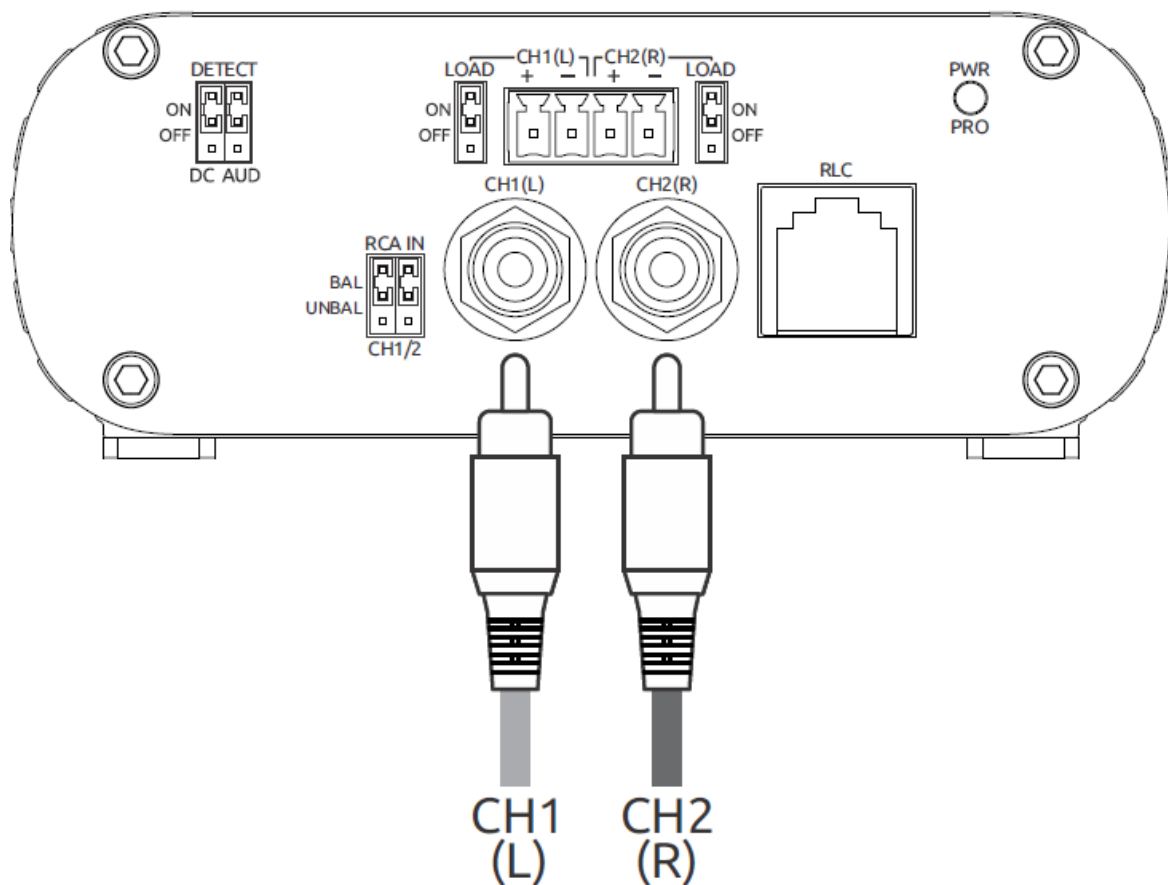
System Wiring

It is important to read this manual thoroughly before starting your installation and always plan accordingly. Before installing any Wāvtech product, disconnect the negative (ground) wire from the vehicle's battery to avoid damage to the vehicle or yourself. Following all guidelines will ensure years of enjoyment with your Wāvtech amplifier.
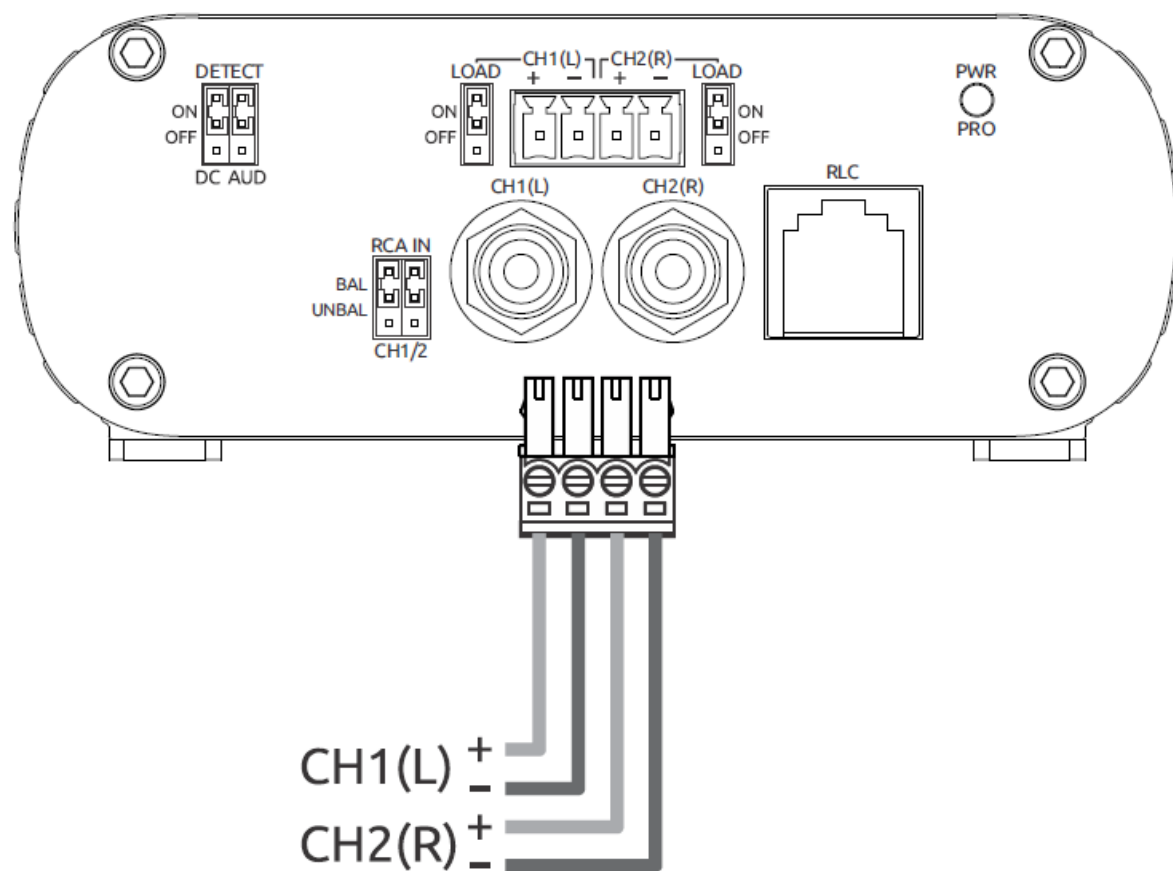
Power Supply Terminal Wiring
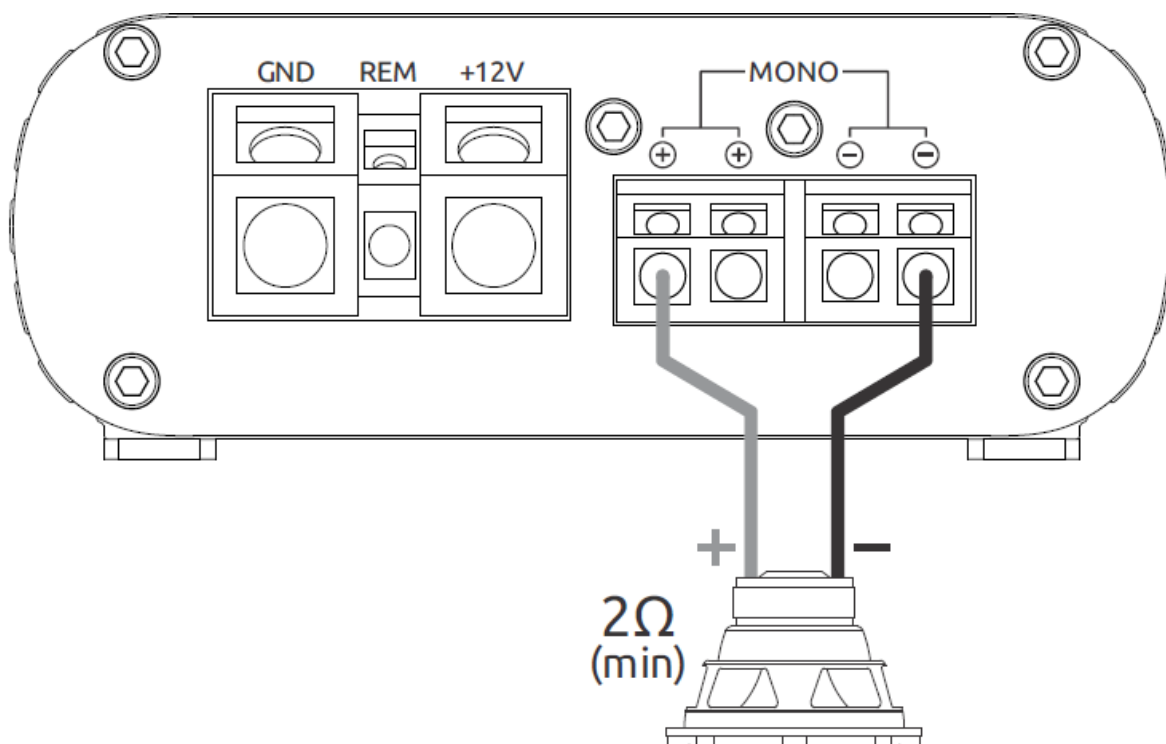

RCA Input Wiring

CH1 (L)   CH2 (R)

Speaker Level Input Wiring
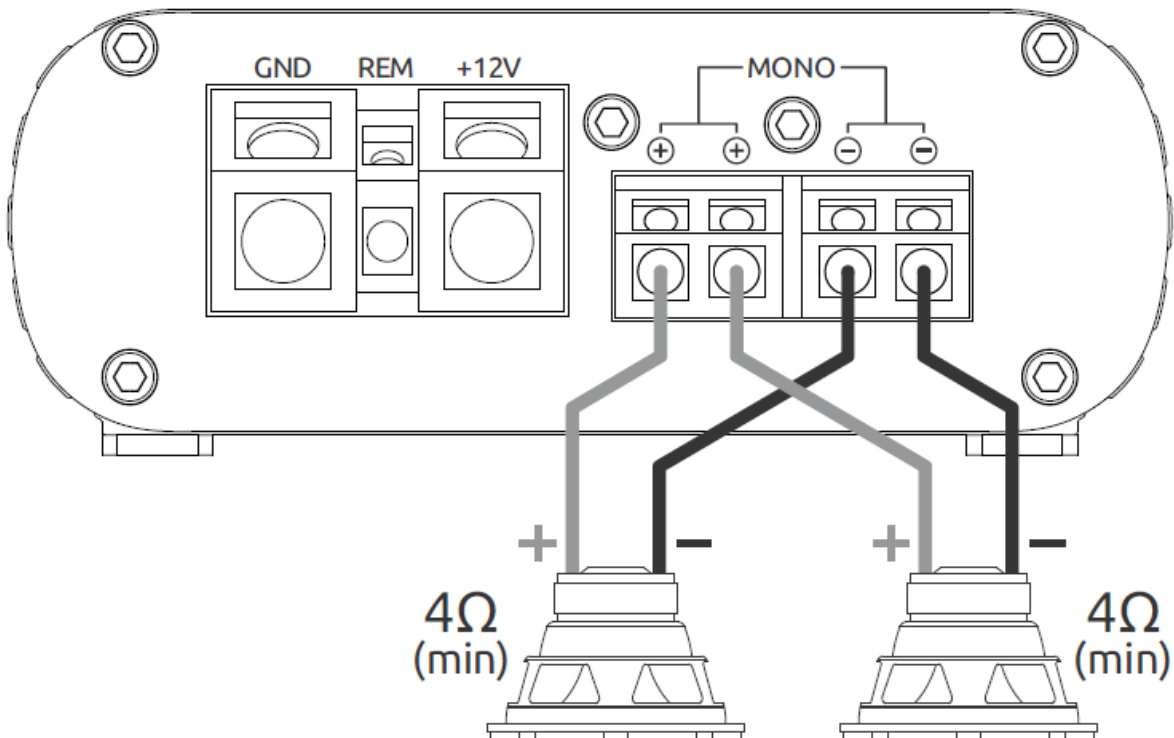

CH1(L) +−
CH2(R) +−

Note: Always connect stereo sources to both CH1(L) and CH2(R) inputs to retain full music content. If only one source channel is available, use an RCA y-adapter or jumper wires to connect it to both CH1 and CH2 inputs, otherwise, signal level will be reduced by half and require increasing the gain to achieve full power output.

Speaker Output Terminal Wiring

Single Subwoofer

Dual Subwoofers (Parallel)

Notes

- Ensure at least a 2Ω minimum total load impedance for any single or multiple subwoofer system configuration.
- After checking all wiring and connections, make all initial settings and adjustments before turning on the amplifier to avoid damaging the connected speakers. Gains should always start at a minimum with the

appropriate input range selected for your aftermarket or OEM source's maximum output voltage. For smaller subwoofers, free-air or ported alignments, always set the subsonic filter cut-off frequency to protect them from being over-driven.

- If bass output seems diminished vs. cone excursion, check the polarity of all input and output connections.
- Depending upon the particular vehicle and subwoofer placement, reversing subwoofer polarity may be necessary to minimize the cancellation of bass frequencies at the listening position.

Specifications

link1000.1mini

Power Output	14.4V, <1%THD+N	4Ω	600W RMS x 1
		2Ω	1000W RMS x 1
S/N Ratio		1W, 100Hz, A-wtd	-74dBA
Frequency Response		Max Flat (+0/-1dB)	15Hz – 400Hz
		Extended (+0/-3dB)	10Hz – 500Hz
Input Impedance		RCA Input	20KΩ
		Spk Level Input	20KΩ / 20Ω
Input Sensitivity	RCA Input	Low Range	200mV – 5V
		High Range	400mV – 10V
	Spk Level Input	Low Range	1V – 20V
		High Range	2V – 40V
Parametric EQ		Boost	0dB to +12dB
		Width (Q)	1.5 – 5
		Frequency (Fc)	30Hz – 80Hz
Crossover	Low-Pass Filter	Slope	-24dB/Oct.
		Frequency (F3)	50Hz – 500Hz
	Subsonic Filter	Slope	-24dB/Oct.
		Frequency (F3)	10Hz – 50Hz
Remote Level Control (w/optional links)		Volume Range	0dB to -30dB

Turn-On Threshold	Remote	via REM	>2.6V
	DC-Offset	via Spk Input	>2.6V
	Audio Signal	via RCA Input	<10mV/50mV (1kHz/100Hz)
		via Spk Input	<50mV/200mV (1kHz/100Hz)
Current Draw	Sleep Current		<2.2mA
	Idle Current		<1.3A
Fuse Rating	External (not included)		100A
Operational Voltage	Battery / DC Power Supply		7V – 16.2V
Protection	Thermal		Rollback / Auto-Recover
	Over-Voltage		Auto-Recover
	Under-Voltage		Auto-Recover
	Over-Current		Manual Reset
	Short Circuit		Manual Reset
Terminals	RCA Input		Panel Mount
	Speaker Level Input		16AWG, Insert/Plug
	Power Supply		4AWG, Insert
	Speaker Output		12AWG, Insert
Chassis Dimensions	HxWxL	w/o terminals, tabs	42 x 115 x 313mm
			1.65″ x 4.53″ x 12.32″
		incl. terminals, tabs	44 x 115 x 339mm
			1.73″ x 4.53″ x 13.35″

Note: All Specifications are subject to change without notice.

Warranty & Service Care

Wāvtech warrants this product to be free from defects in material and workmanship for one (1) year when purchased from an authorized Wāvtech retailer within the United States. This warranty will be extended to a period of two (2) years when the installation is performed by an authorized Wāvtech retailer. A valid sales receipt is

required to verify eligibility for purchase and installation.

This warranty is valid only to the original purchaser and is not transferrable to subsequent parties.

This warranty is void if the product serial number has been altered or removed. Any applicable implied warranties are limited in duration to a period of express warranty as provided herein beginning with the date of the original purchase at retail, and no warranties, whether expressed or implied, shall apply to this product thereafter. Some states do not allow limitations on implied warranties, therefore these exclusions may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

If your product needs service, you should contact Wāvtech Customer Service to receive a Return Authorization (RA) Number. Any product received without an RA number will be returned to sender. Once your product is received and inspected by customer service, Wāvtech at its sole discretion, will repair or replace it with a new or remanufactured product at no charge. Damage caused by the following is not covered under warranty: accident, abuse, failure to follow instructions, misuse, modification, neglect, unauthorized repair or water damage. This warranty does not cover incidental or consequential damages. This warranty does not cover the cost of removing or reinstalling the product. Cosmetic damage and normal wear are not covered under warranty.

For Service within the United States:

Wāvtech Customer Service: (480) 454-7017

Monday – Friday, 8:30 am to 5:00 pm MST

- Serial Number:…………………………………….
- Installation Date:…………………………………
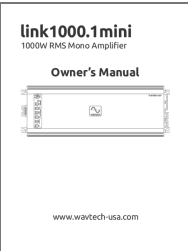- Place of Purchase:………………………………….

Important Notice for International Customers:

For products purchased outside the United States of America or its Territories, please contact your local distributor concerning specific procedures for your country's warranty policy. International purchases are not covered by Wāvtech, LLC.

CONTACT

- 1050 N. Fairway Drive
- Suite E108
- Avondale, AZ 85323
- (480) 454-7017

Documents / Resources

link1000.1mini 1000W RMS Mono Amplifier **Owner's Manual** www.wavtech-usa.com	[**w vtech link1000.1mini 1000W RMS Mono Amplifier**](#) [pdf] Owner's Manual link1000.1mini 1000W RMS Mono Amplifier, link1000.1mini, 1000W RMS Mono Amplifier, RMS Mono Amplifier, Mono Amplifier

References

- **Wāvtech**
- **User Manual**