



Tantrum 1200.1 Mono Block Amplifier

SPECIFICATIONS

Continuous Output Power at 1% THD (watts):

Tantrum 1200.1

Into 4 ohms @ 12.5 Vdc (IASCA/USAC)250 x 1
 Into 4 ohms @ 14.4 Vdc1200 x 1
 Into 4 ohms @ 14.4 Vdc (Dynamic Power)1400 x 1
 Recommended Fuse Size80 Amps
 Dimensions without Endcaps11.75L x 10.0W x 2.35H
 Dimensions with Endcaps16.75L x 10.0W x 2.35H

Common Specifications

Frequency Response±3dB, 20Hz to 20kHz
 Signal to Noise Ratio (A-weighted)>95dB
 Input Sensitivity100 millivolts to 4 volts
 Crossover Frequency30Hz to 300Hz
 Subsonic Frequency5Hz to 50Hz
 Crossover Slopes18dB per Octave
 Bass Boost0 to +18dB @ 45Hz
 DC Input Voltage Range10 volts to 15.5 volts
 Operating Efficiency>70%
 Typical Current Draw at Idle3 amps
 Minimum Load2 ohms

Due to ongoing research and development, features, specifications and availability are subject to change without notice.

LIMITED WARRANTY

Phoenix Gold International, Inc. (or "Phoenix Gold") warrants its products against defects in materials and workmanship for a limited period of time.

For a period of one (1) year from date of original purchase, we will repair or replace the electronic product, at our option, without charge for parts and labor. The limited warranty period is EXTENDED to three (3) years from date of original purchase if the product was originally installed by an authorized Phoenix Gold electronics dealer and accompanied by a valid sales receipt showing a charge for installation. Customer must pay all parts and labor charges after the limited warranty period expires. The limited warranty period for factory refurbished products expires after ninety (90) days from date of original purchase. This limited warranty applies only to purchases from authorized Phoenix Gold Electronics/Speaker retailers.

This limited warranty is extended only to the original purchaser and is valid only to consumers in the United States. Consumers are required to provide a copy of the original sales invoice from an authorized Phoenix Gold dealer when making a claim against this limited warranty. This limited warranty only covers failures due to defects in materials or workmanship that occur during normal use. It does not cover failures resulting from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, modification, service by anyone other than Phoenix Gold, or damage that is attributable to Acts of God. It does not cover costs of transportation to Phoenix Gold or damage in transit.

This warranty will become void if the serial number identification has been wholly or partially removed, altered or erased. Repair or replacement under the terms of this warranty does not extend the terms of this warranty. Should a product prove to be defective in workmanship or material, the consumer's sole remedies will be repair or replacement as provided under the terms of this warranty. Under no circumstances shall Phoenix Gold be liable for loss or damage, direct, consequential or incidental, arising out of the use of or inability to use the product. There are no express warranties other than described above.

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Tantrum 1200.1 High Efficiency Mono Block Amplifier

FEATURES

* For complete manuals, technical tips, FAQ's, system diagrams and new product information visit us @

- Aluminum Alloy Cast Heatsink with Fly Cut Fins
- High Efficiency Operation using state of the art Tri-Path™ Technology
- Superbrite™ Blue power-on LED
- 18dB per Octave High or Low Pass crossover: Variable from 30 to 300Hz
- 18dB per Octave Defeatable Subsonic Filter: Variable from 5 to 55Hz
- Auxiliary Output provides a High or Low Pass signal to an additional amplifier
- LPL Ready: Optional LPL44 allows the subwoofer volume to be adjusted from the dash
- Remote Monitoring Display output connects to optional RMD voltage display
- Adjustable Twin-T™ bass equalization with +18dB of boost centered at 45Hz
- Fan Cooled Internal Housing
- Optimized muting circuitry eliminates turn-on and turn-off noises
- Advanced thermal and overload protection
- 2 layer, 2 ounce, copper G10 glass-epoxy printed circuit boards
- Features Surface Mount Technology
- Audiophile grade capacitors and resistors
- Gold plated power and speaker terminals
- Gold plated signal input and output jacks
- Optional Tantrum Endcaps hide wiring connections

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Technology and Design

The Tantrum 1200.1 is specifically designed to deliver a lot of power without taking up a lot of space. The legendary Phoenix Gold Engineering department has done it again. They have integrated revolutionary amplifier technologies while overbuilding this amplifier to handle the abuse and provide the power a demanding "Bass Head" needs.

The Tantrum 1200.1 utilizes the state of the art Tri-Path™ technology. This technology allows for audiophile signal fidelity and high operating efficiencies. The improved efficiencies allow the amplifier to create more power in a smaller package than conventional class A/B amplifiers. While the signal fidelity allows the Tantrum 1200.1 to be utilized as an audiophile full range amplifier unlike most Class-D amplifiers on the market today.

Installation and Recommendations

Phoenix Gold highly recommends you have an authorized Phoenix Gold dealer install the Tantrum 1200.1 so your system is able to achieve its maximum performance. This is a serious amplifier that creates a tremendous amount of power. Please choose subwoofers accordingly that can handle a MINIMUM of 1200 watts of power. This amplifier will drive most speakers to their mechanical limits with ease. Be sure to correctly match the sensitivity, subsonic and crossover settings to avoid subwoofer damage. This is why we highly recommend an Authorized Phoenix Gold Dealer install the amplifier.

When installing the amplifier use at least 4 gauge power and ground wire to the amplifier. Any smaller wire can potentially bottleneck the amplifier's performance and lead to system problems. Also, be sure you have a few inches around the amplifier so that heat will be able to dissipate from the heatsink. We recommend the use of a 1 farad or greater PowerFlow capacitor. On average this high efficiency amplifier draws less current than a standard A/B amplifier, however the peak current demands are still very high. Also, please be sure to never turn your Tantrum 1200.1 amplifier without speakers connected to the amplifier.

Multiple Amplifier System

System Explanation

This system example has a master amplifier that controls the signal processing for the slave amplifiers downstream. The LPL, crossover and subsonic filter on the master amplifier will effect all slave amplifiers. Please keep in mind each amplifier must still have its own sensitivity and bass boost level individually adjusted regardless if its a master or slave amplifier.

This system setup eliminates the need for a LPL splitter or having to individually match all crossover and subsonic levels on each amplifier in the system. Nearly all of the signal processing can be adjusted using the master amplifier's controls.

SPEAKER OUTPUTS

Used to connect the amplifier to speakers. The separate + and - terminals are internally wired in parallel. Minimum speaker cable size is 12 gauge (PG# SS122, SS212 or QS122). Lowest recommend impedance is 2 ohms. **1 ohm operation or lower is not recommend.**

B- TERMINAL (Chassis Ground)

Minimum 4 gauge wiring. Connect to a clean, solid chassis ground. Remove all paint and dirt from the chassis connection point. Keep the cable as short as possible.

POWER-ON LED

One Superbrite™ blue LED on top of the amplifier lights when the amplifier is turned on indicating that the amplifier is grounded through the B- terminal and is receiving voltage through the B+ and remote turn-on terminals.

RMD PORT

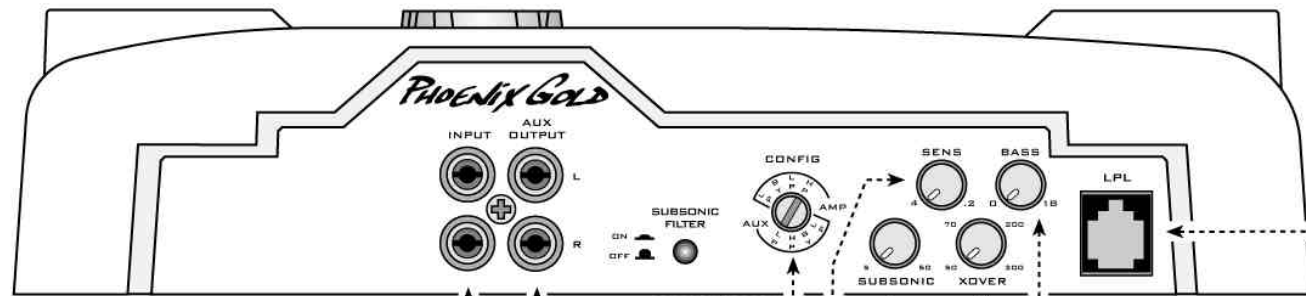
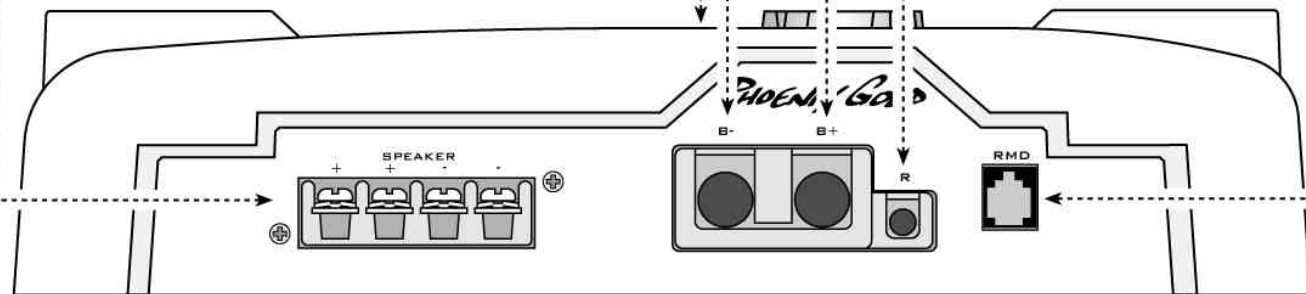
Connect the optional RMD Voltage Display to this terminal. This allows the amplifier's operating voltage to be monitored from anywhere in the vehicle.

B+ TERMINAL (Battery Positive)

Minimum 4 gauge wiring. Connect directly to the positive battery terminal. Minimum cable size is 4 gauge. Remember to properly fuse this cable with an 80 amp fuse within 18 inches of the positive battery terminal and amplifier.

REMOTE TURN-ON TERMINAL

Connect to a switched 12 Vdc source such as the head unit's "remote" or power antenna wire.



INPUTS

Connect preamp signal cables from the head unit to these terminals. To maximize noise rejection, we recommend using Phoenix Gold ARx.800, ARx.700, ARx.600, or ARx.500 series twisted pair interconnects.

AUXILIARY OUTPUTS

Provides either a low pass, high pass or full range signal for an additional amplifier or signal processor. The CONFIG switch determines the state of the signal.

CONFIG SWITCH

This switch affects both speaker and auxiliary outputs. The top half of the switch indicates the type of signal fed to the speaker outputs. The bottom half indicates the type of signal fed to the auxiliary outputs. For a high pass signal set the switch to HP. For a low pass signal set the switch to LP. To Bypass the crossover features for a full range signal set the switch to BY.

INPUT SENSITIVITY

This control adjusts the amplifier's sensitivity to incoming signals. Clockwise increases sensitivity. Counter-clockwise decreases sensitivity. Higher signal levels allow for a lower sensitivity setting and lower overall noise floor. Lower signal levels will require increased sensitivity to reach full power. To maximize performance, we recommend using a Tantrum Line Driver.

SUBSONIC FILTER This eliminates extreme low frequencies from reaching the subwoofers. The crossover frequency is adjustable from 5Hz to 50Hz with a 18dB per octave slope. The subsonic filter can only effect the low pass signal and can be turned on or off via the push button.

CROSSOVER FREQUENCY

The front control adjusts the high and low pass crossover points for the front speakers and auxiliary outputs. Crossover frequency is adjustable from 30Hz to 300Hz with a 18dB per Octave high or low pass slope.

TWIN-T™ BASS EQ

This control allows up to 18dB of boost at 45Hz for the speaker outputs. It cannot affect the auxiliary outputs. Use this control sparingly. Every 3dB of boost requires double the power at 45Hz.

LPL CONTROL PORT

This port is for connecting the optional LPL44™ Remote Lowpass Level Control knob allowing up to 20dB of subwoofer volume adjustment from the driver's seat.

The LPL44™ controls the low pass output of the internal crossover regardless of whether the low pass output is routed to the speaker or auxiliary outputs. The LPL44™ will only work when the low pass crossover is activated. It will not affect high pass or full range signals.

