



Tantrum 300.2 and 500.2 Amplifiers

SPECIFICATIONS

Continuous Output Power at 1% THD (watts):

Tantrum 300.2

Into 4 ohms Stereo @ 12.5 Vdc (IASCA/USAC)30 x 2
Into 4 ohms Stereo @ 14.4 Vdc75 x 2
Into 2 ohms Stereo @ 14.4 Vdc150 x 2
Into 4 ohms Bridged @ 14.4 Vdc300 x 1
Recommended Fuse Size30A ATO style
Dimensions without Endcaps8.4L x 10.0W x 2.35H
Dimensions with Endcaps13.4L x 10.0W x 2.35H

Tantrum 500.2

Into 4 ohms Stereo @ 12.5 Vdc (IASCA/USAC)50 x 2
Into 4 ohms Stereo @ 14.4 Vdc125 x 2
Into 2 ohms Stereo @ 14.4 Vdc250 x 2
Into 4 ohms Bridged @ 14.4 Vdc500 x 1
Recommended Fuse Size30A x 2 ATO style
Dimensions without Endcaps11.75L x 10.0W x 2.35H
Dimensions with Endcaps16.75L x 10.0W x 2.35H

Common Specifications

Frequency Response±1dB, 20Hz to 20kHz
Signal to Noise Ratio (A-weighted)>100dB
Input Sensitivity100 millivolts to 4 volts
Crossover Frequency40Hz to 800Hz
Crossover Slope18dB per Octave
Bass Boost0 to +18dB @ 45Hz
DC Input Voltage Range10 volts to 15.5 volts
Typical Current Draw at Idle<2 amps
Minimum Bridged Load2 ohms
Minimum Stereo Load1 ohm
Maximum Power Load . . .4 ohms bridged or 2 ohms stereo

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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PHOENIX GOLD®



Tantrum 300.2 and 500.2 2 Channel Amplifiers

FEATURES

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

- Aluminum alloy cast heatsink with fly cut fins
- Superbrite™ blue power-on LED
- 18dB per octave high or low pass crossover: variable from 40 to 800Hz
- 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
- Tri-Linear™ capability allows simultaneous stereo and bridged mono operation
- 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
- Linkable using the optional Tantrum link to connect multiple amplifiers together
- Pictured endcaps sold separately



Power and Speaker Wiring

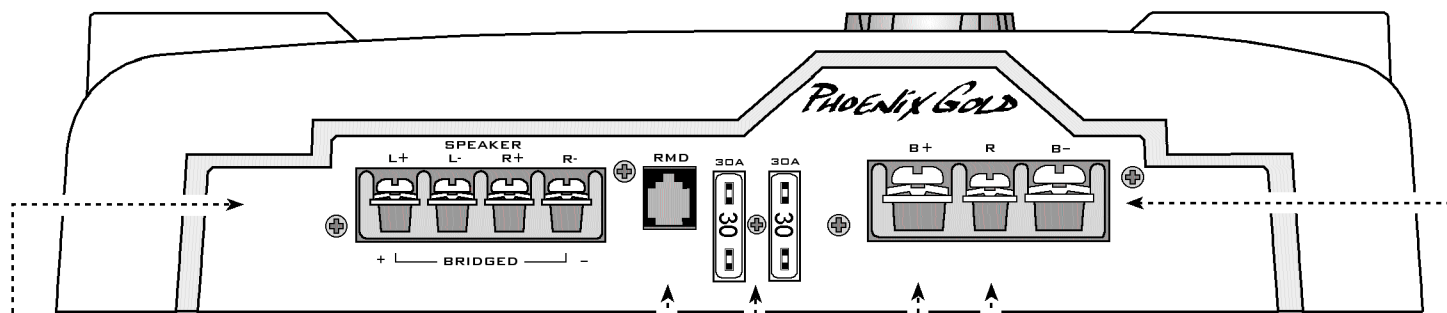
Dear Phoenix Gold Enthusiast,

Thank you for purchasing this Phoenix Gold product. By doing so, you have demonstrated a desire to own the finest audio components available for your car or home. At Phoenix Gold, we use state of the art design, engineering, and production methods to continually improve the quality, reliability and performance of our products.

The Tantrum Series amplifiers provide incredible power and system flexibility for the most demanding audiophile or competitor. If properly installed by an Authorized Phoenix Gold Mobile Electronics Retailer, this equipment will provide years of high quality performance. For proper operation, please read this manual carefully and keep it for future reference.

Keith Peterson

Keith Peterson
President



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.

FUSE

Used to protect the amplifier. If replacement is necessary, use the same size and type. T500.2: two 30 amp ATO. T300.2: one 30 amp ATO. *Never use a fuse with a higher amp rating. The T300.2 contains a spare fuse labeled "SPR" on the endpanel.*

SPEAKER OUTPUTS

Used to connect the amplifier to speakers. Use the left + and right - terminals for bridged mode. Minimum speaker cable size is 16 gauge (PG# SS162 or QS162). Use 12 gauge for bridged operation (SS122 or QS122). Minimum impedance is 2 ohms bridged or 1 ohm stereo.

REMOTE TURN-ON TERMINAL

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

B- TERMINAL (Chassis Ground)

Minimum 4 gauge wiring for T500.2 or 8 gauge for T300.2. Connect to a clean, solid chassis ground. Remove all paint and dirt from the chassis connection point. Keep the cable as short as possible.

B+ TERMINAL (Battery Positive)

Minimum 4 gauge wiring for T500.2 or 8 gauge for T300.2. Connect directly to the positive battery terminal. Minimum cable size is 4 gauge. Remember to properly fuse this cable within 18 inches of the amplifier and positive battery terminal.

Amplifier Fuse size

T500.2	60 amp
T300.2	30 amp



Operational Details



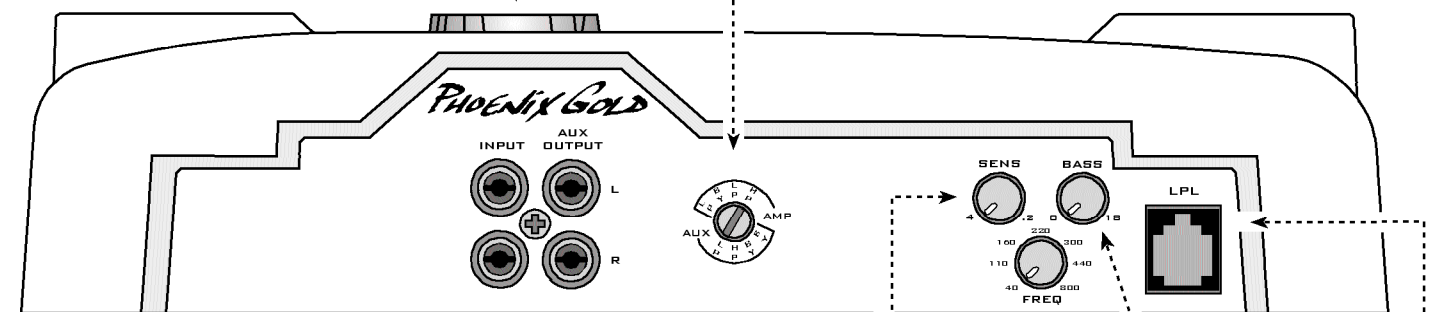
POWER-ON LED

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.

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. Note: Full range signals bypass all internal crossover circuits.

- Speaker outputs receive high pass signals
Auxiliary outputs receive low pass signals
- Speaker outputs receive low pass signals
Auxiliary outputs receive high pass signals
- Speaker outputs receive full range signals
Auxiliary outputs receive full range signals
- Speaker outputs receive low pass signals
Auxiliary outputs receive full range signals



INPUTS

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

AUXILIARY OUTPUTS

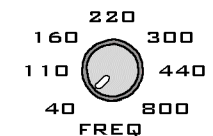
Provides either a low pass, high pass or full range signal for an additional amplifier or signal processor. The CONFIG switch determines the state of the signal.

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.

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 40Hz to 800Hz 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.

