

Instruction manual



TL-1500



The installation of this product must be made by a qualified professional.

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Term of warranty

TARAMPS, located at Júlio Budisk highway, SN, KM 30 – Alfredo Marcondes, SP - Brazil, ZIP CODE 19180-120, warrants this product against any defects on terms of project, making, assembling, and/or with solidarity, due to project vices which cause it improper or inadequate to its original use within 12 months from the date of purchase. In case of defect during the warranty period, TARAMPS responsibility is limited to the repairing or replacement of the device of its own making.

This warranty excludes:

- Damaged products by improper installation, water infiltration, violation by unauthorized individuals;
- Tamper or torn warranty seal;
- Cases in which the product is not used in adequate conditions;
- Defects caused by accessories, modifications or features attached to the product;
- The product with damage from falling, bumps or nature related problems (flooding, lightning, etc);
- Warranty card is not properly filled or torn;
- Costs involving uninstallation, reinstallation of equipment as well the shipment to the factory;
- Damage of any kind, due to problems in the product, as well as losses caused by discontinued use of the product;

Technical assistance

For international support, check on our website:

www.taramps.com.br/en/rede-de-assistencias-tecnicas or contact direct the factory support:

Phones: +55 18 3266-4050 / +55 18 99749-3391

E-mail: service@taramps.com.br

Introduction

Read this manual before preparing the product. In case of doubt, contact our technical support: **(18) 3266-4050** or **www.taramps.com.br**.



At the end of its useful life, this product must not be disposed of in household waste. Look for an electronic equipment collection or recycling center for proper disposal.

Declaration of Conformity

CE TARAMPS ELECTRONICS LTDA
Alfredo Marcondes - SP
Brazil

Hereby, Taramps Electronics Ltda declares that the product TL 1500 complies with the Directive 2014/30/EU, according with the following harmonized standard:

-EN 50498:2010 *Electromagnetic compatibility (EMC) - Product family standard for aftermarket electronic equipment in vehicles*

The full text of the EU Declaration of Conformity is available at the following Product Page on Internet.

Presentation

The TL-1500 amplifier was developed for 3-channel systems, including:

- 2x stereo channels (L / R) of 95 W RMS each, with active HPF 90Hz filter for connecting loudspeakers;
- 1x 200 W RMS SUB channel to connect the subwoofer. This channel is the sum of the channels (L / R) with active LPF filter at 90Hz.

Safety requirements

To ensure proper use, please read through this manual before using the amplifier. It is specially important that you know the **CAUTIONS** contained here.

- The installation of this amplifier must be done by a qualified professional.
- Wear safety glasses, insulated gloves and correct tools for installing this product.
- This amplifier is for use with 12V batteries. Always check the voltage before installing.
- This amplifier must be installed in a firm place with at least 1" space around the heatsink for proper heat spreading.
- Never install the amplifier in places exposed to dust, humidity and water. Pay attention to install it far from fuel tank, fuel lines, heat sources and other parts of vehicle.
- Be sure to install protection fuse or a circuit breaker near to battery. Follow the ampere rating as indicated here in this manual. Use of improper fuse or circuit breaker could result in overheating, smoke, damage to product, injury or burns.
- Avoid running wires over or through sharp edges. Use rubber or plastic grommets to protect any wires routed through car's body.
- Before make any connection to amplifier, disconnect the battery negative terminal.
- When in use, the external surface of the amplifier becomes hot. Avoid touching the heatsink area and keep childrens far from the amplifier.
- This amplifier may produce high sound pressure levels. Avoid continuous exposure to levels over 85dB to prevent permanent hearing loss.
- Output connections for speakers may have voltage levels when the amplifier is operating. Make sure that the amplifier is turned OFF before proceed any connection or disconnection in this terminals.
- If you want to dispose this amplifier, don't throw it on domestic waste. It must be collected by an used electronic product disposal service for proper recycling.

Safety

As you read this manual, pay attention to the safety symbols.

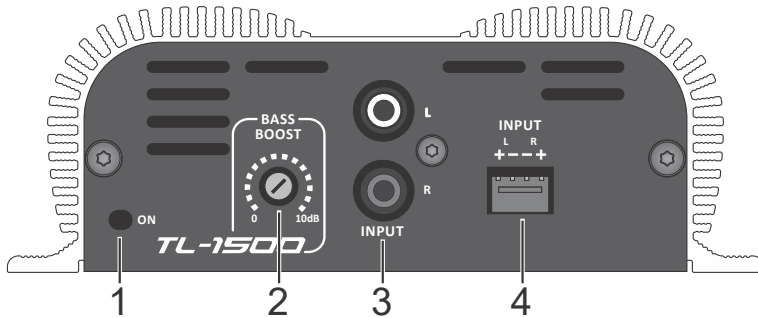


This symbol with **"CAUTION"** is intended to alert the user to the presence of important instructions. Failure to heed the instructions will result in risk of injury to user or product damage.



Taramps reserves the right to modify the contents of this document at any time without prior notice and does not have the obligation to apply the changes in units which were previously produced.

Functions & inputs



1 - ON: Indicates amplifier is turned on

2 - BASS BOOST: Bass boost 50 Hz, with amplitude from 0 up to 10dB.

3 - INPUT (RCA): Signal connectors (L/R) to be amplified. Connect them to the RCA output connections from Head Unit, using good quality shielded cables in order to avoid noise interference.

4 - INPUT (WIRES): Signal connectors (L/R) to be amplified. Connect them to the amplified output connections (WIRES) from Head Unit.

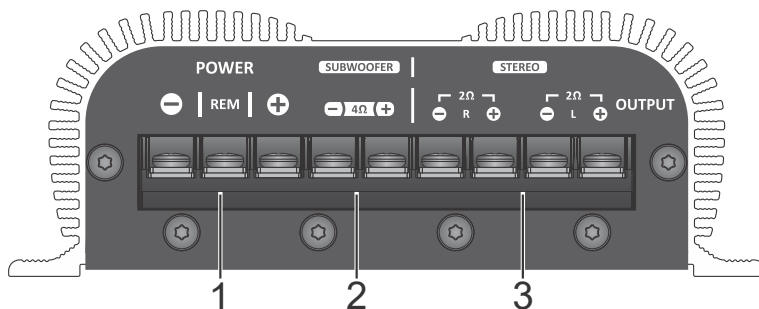
Attention: Using this connector, the connection of the REMOTE cable is NOT required, because TL-1500 has an audio recognition system which turns the amplifier on automatically.

In order to keep the amplifier ON, a minimum volume is required, around 2 to 5 (varying according to song or head unit model). Note that if the head unit is turned on with volume = 0, the amplifier won't turn-on.

In case of absence of audio or turning head unit off, the amplifier will still remain on for around 30 seconds.



Output & power supply connector



1 - POWER (Power Supply Connector): The (-) terminal of the connector must be connected to the negative terminal of the battery via a minimum 4mm² gauge cable. The remote terminal must be connected to the REMOTE output of the head unit a 0.75mm² cable. The (+) terminal of the connector must be connected to the positive terminal of the battery via a minimum 4mm² gauge cable.

Ω

2 - OUTPUT (SUBWOOFER 4): To connect the Subwoofer. Follow the indicated polarity, the minimum impedance is 4 OHMS.

3 - OUTPUT (R / L): To connect the speakers. Follow the indicated polarity, the minimum impedance is 2 OHMS.

Attention: The use of wiring with a lower than the recommended gauge causes a power loss and overheating of the wiring.

Observe the polarity, never invert the power cables, risk of damage to the amplifier.

Protection systems

Protection against short-circuit: Mute the audio signal in case of short-circuit or lower impedance into output.

Thermal protection: If the heatsink reaches high temperature levels (which is not much probable if device is correctly installed at adequate location), audio signal is muted.

Installation



CAUTION

CAUTION: All connections to power supply, input and output connectors must be carried out only with amplifier off.

Recommended wire gauge & fuse

Positive / negative power supply cable _____ **11 AWG**
 Output cables wire gauge _____ **15 AWG (stereo) / 13 AWG (subwoofer)**
 Remote cable _____ **18 AWG**
 Protection fuse or circuit breaker _____ **20A**

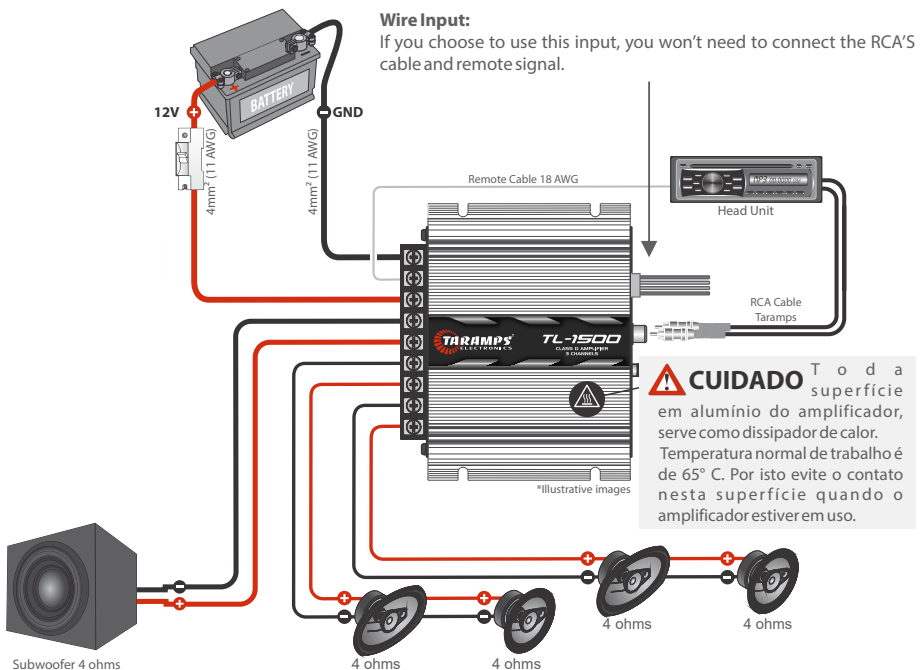
Calculated considering a maximum length of 4m. Distance greater than this, you will need to increase the cable gauges.



CAUTION

Using wire gauges below the recommendation will result in power loss and overheating of wiring.

Check polarity and never reverse power supply cables due to the risk of damage to the amplifier. It is compulsory to install a protection fuses or circuit breakers as close as possible from batteries.



Note: In case of compression drivers and tweeters you must install a passive filter in the positive terminal of the same ones (Consult transducer's manufacturer manual).

Examples of connections in the power supply input.
 Note: Required battery bank capacity:
 At least 150Ah



CUIDADO This equipment is not suitable for use in places where children may be present.

Technical features

Number of Channels:	03
Output Power @13.8VDC - 2 OHMS:	190W RMS (2 x 95W RMS STEREO)*
Output Power @13.8VDC - 4 OHMS:	200W RMS (1 x 200W RMS SUB)**
Input Sensitivity (Level 100%):	RCA input = 320mV Wire input = 6V
Signal- to-noise Ratio:	>90dB
Frequency Response (Full Range):	SUB output: (15Hz ~ 90Hz (-12dB/8 ^a))*** STEREO output L/R: 90Hz ~ 30KHz (-12dB/8 ^a))***
Bass Boost:	Ajustable 0 ~ 10dB @ 50Hz
Efficiency of output stage:	90%
Input Impedance:	10K Ohms (RCA) 1K Ohms (WIRE)
Protection System:	Output short circuit - thermal protection
Minimum Supply Voltage:	9VDC
Maximum Supply Voltage:	16VDC
Idle Consumption:	0.75A
Musical Consumption @13.8VDC:	17.5A
Rated Power Consumption:	35A
Dimensions (W x H x L):	138 x 49 x 121mm (5.43" x 1.93" x 4.76")
Weigth:	0,60Kg (1.32lb)

*Rated power with 1KHz sinusoidal signal and THD <= 10% in L & R output, with 2 ohms resistive load, measured with Audio Precision APx525 audio analyzer or equivalent and the product at lower than 50°C case temperature and 13.8V supply voltage.

**Rated power with 60Hz sinusoidal signal and THD <= 10% in SUB output, with 4 ohms resistive load, measured with Audio Precision APx525 audio analyzer or equivalent and the product at lower than 50°C case temperature and 13.8V supply voltage.

***Frequency response measured at 2 times the minimum impedance.

The values as above are typical and may vary, due to electronic components tolerance or manufacturing process.
For further informations or if you have questions contact TARAMPS support.



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