Instruction manual

TARAMPS®

HD 10000

AMPLIFIER - 10.000W RMS - 1 OHM

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

www.taramps.com.br

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ENGLISH

Term of warranty

TARAMPS, located at Julio Budisk highway, SN, KM 30 – Alfredo Marcondes, SP - Brazil, ZIP CODE 19180-000, warrants this product against any defects on terms of project, making, assembling, and/or with solidarity, due to project vices which cause in it improper or inadequacy as to the purpose for which it was produced 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 directly 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 HD 10,000 complies with the Directive 2014/30/EU, in accordance 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.

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 must be used 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 a protection fuse or a circuit breaker near the battery. Follow the amperes as indicated here in this manual. Use of improper fuse or circuit breaker could result in overheat, 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 making connection to amplifier, disconnect the battery's negative terminal.
- When in use, the external surface of the amplifier becomes hot. Avoid touching the heatsink area and keep children 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 proceeding any connection or disconnection in this terminal.
- If you want to dispose this amplifier, don't throw it on domestic waste. It must be collected by a disposal service for wasted electronic products proper recycling.

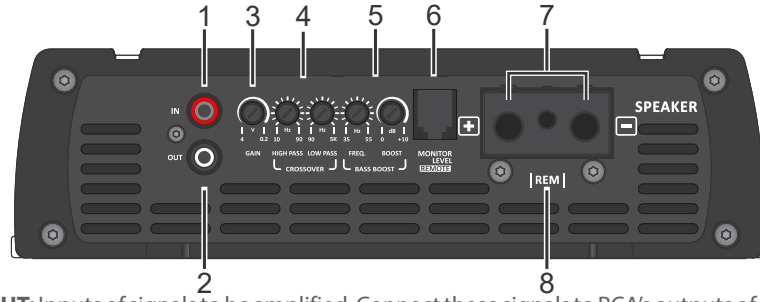
⚠ Safety

Pay attention to the safety symbols.

⚠ CAUTION This symbol with **"CAUTION"** is intended to alert the user about 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 - INPUT: Inputs of signals to be amplified. Connect these signals to RCA's outputs of CD/DVD Player, using good quality shielded cables to avoid noise interference.

2 - OUT: Audio signal output. Sends the same input (IN) signal to another amplifier, allowing cascading.

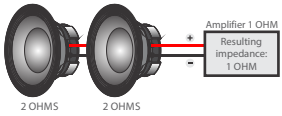
3 - GAIN: It sets into the amplifier input sensitivity, which allows an optimal adjustment to the output signal levels of nearly all models of CD/DVD Players found in the market.
Note: With this setting in the MIN position, the amplifier accepts signals of up to 4 Vrms at the RCA input.

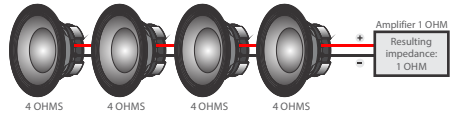
4 - CROSSOVER: Set the operating mode of the amplifier :
FILTRO HIGH PASS (HPF): Variable adjustment from 10 Hz to 90 Hz, which determines the beginning of the amplifier's operating frequency.
FILTER LOW PASS (LPF): Variable adjustment from 90 Hz to 5 KHz, which determines the end of the amplifier's operating frequency.

5 - BASS BOOST:
FREQ: Set the Bass Boost center frequency, from 35 Hz to 55 Hz.
BOSST: Boost for bass signals with variable range of 0 to + 10 dB.

6 - MONITOR LEVEL REMOTE: Connection to an accessory, whose function is to control the gain and monitor the amplifier where all information from the indicator's LEDs, such as distortion (CLIP/TEMP) and protection actuation (PROT), will be displayed simultaneously. **(Accessory not included).**

7 - SPEAKER: Output (positive and negative) for connecting transducers (speakers). Follow the indicated polarity.
For speaker's associations, the impedance to consider is the resulting impedance:
See the examples below:

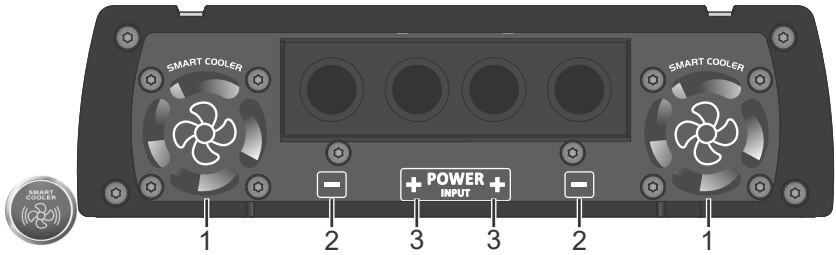




CAUTION Due to the presence of voltage at the output terminals when the product is turned on, avoid contact with them. Risk of electric shock.

8 - TERMINAL REMOTE: It must be connected to the remote output of the head unit using an 18 AWG cable.

Output & power supply connector



1 - FAN: This amplifier has two internal fans, and cannot be blocked. This fan is controlled by an intelligent system **(Smart Cooler)**. The fan only runs at maximum speed after the product reaches a certain temperature level. This function ensures long fan life and silent operation of your amplifier. For a perfect operation, the amplifier must be installed in a dry and ventilated place, with a free space of at least 1" (25mm) on each side. The normal working temperature of this amplifier is 65° C.

⚠ CAUTION The fan and ventilation openings are responsible for cooling the amplifier when it is in use. Do not obstruct them.

2 - NEGATIVE POWER SUPPLY TERMINAL: Use 2 x 70 mm^2 (2/0 AWG) cable as short as possible must be used, connected to the negative battery's pole.

3 - POSITIVE POWER SUPPLY TERMINAL: Use a 2 x 70 mm^2 (2/0 AWG) cable directly from the positive battery's terminal with fuse (490 A), as close as possible from the battery.

In order for your amplifier to have the best performance, it is necessary to use all the power inputs. See example on the next page. We recommend that all cables have tinned ends for better electrical contact.

In case of power bus bar using, avoid tightening with extenders on the allen wrench, as excessive torque may break the terminal.

⚠ CAUTION Before making any connections to the power terminals, make sure that the negative (-) of the vehicle's battery is disconnected.

LEDs indicators & protection system

ON

Steady blue LED on:
Indicates that the amplifier is on.

CLIP

Flashing yellow LED: The amplifier is overheating (May be caused by obstructed internal fans, improper installation or poorly ventilated location).
When the amplifier reaches a temperature of approximately 80°C (176°F), the amp goes into thermal protection, the audio ceases, and the yellow LED starts flashing. The fan will keep working to cool the components quickly. Only when the amplifier reaches a safe temperature level the audio will be back on again and the amplifier will be operational again.
We recommend that the amplifier is not switched off, so that the fan continues to work, making the cooling time shorter.

Flashing yellow LED according to music: Indicates that the amplifier is operating at the limit of distortion. If the red LED also flashes it indicates excessive distortion.

Steady red LED on:
Indicates short circuit or impedance lower than the output can handle.

PROT

RED LED flashes 2x:
Battery voltage under 9V.
RED LED flashes 3x:
Battery voltage over 17V.

Installation

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

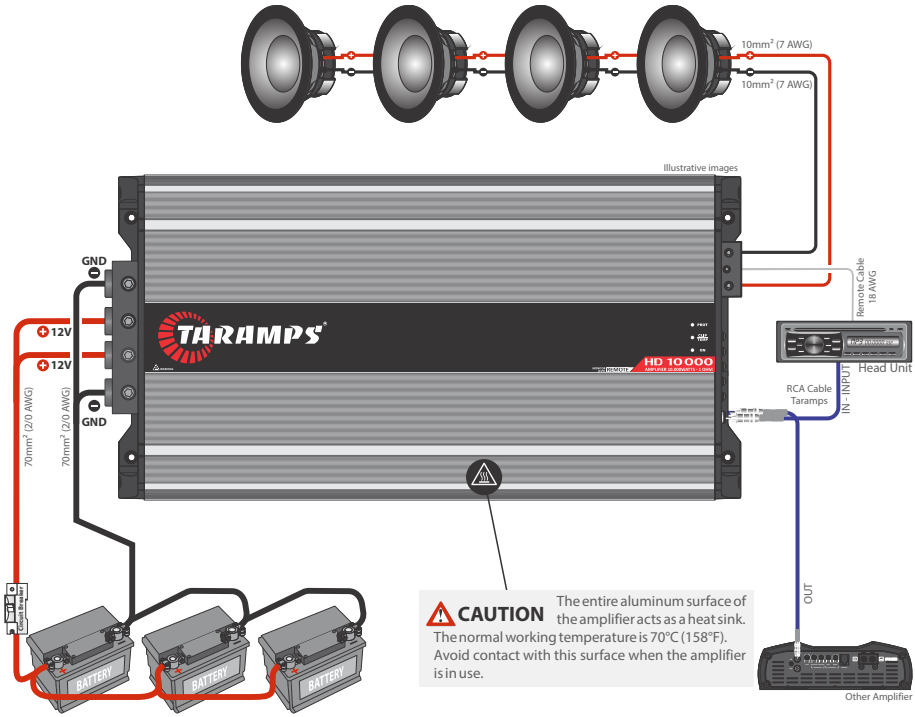
Recommended wire* gauge & fuse

Positive / negative power supply cable_____ **2 x 70 mm² (2 x 2/0 AWG)**
Output cables wire gauge_____ **10 mm² (7 AWG)**
Remote cable_____ **0,75mm² (18 AWG)**
Protection fuse or circuit breaker_____ **490 A**

*Calculated considering a maximum length of 4m. To reach a 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 fuse or circuit breakers as close as possible from batteries.

NOTE: In the case of compression drivers and tweeters, it is essential to install a passive filter on their positive terminals (Consult the manufacturer's manual).



CAUTION The entire aluminum surface of the amplifier acts as a heat sink. The normal working temperature is 70°C (158°F). Avoid contact with this surface when the amplifier is in use.

Examples of connections at the power input:
Minimum capacity required of the bank of batteries: 490A

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

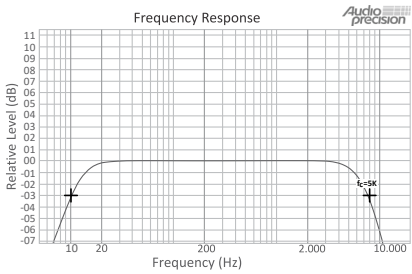
Technical features

Minimum output impedance:	1 Ohm
Number of channels:	01
Output power @14.4VDC:	
1 OHM:	10.162W RMS
2 OHMS:	6.080W RMS
4 OHMS:	3.332W RMS
Input sensitivity:	0,22 V ~ 4 V
Signal- to-noise ratio:	>90 dB
Frequency response:	10 Hz ~ 5 KHz (-3 dB)
Crossover HPF (High pass filter):	10 Hz ~ 90 Hz (-12 dB/8ª) Variable
LPF (Low pass filter):	90 Hz ~ 5 KHz (-12 dB/8ª) Variable
Bass boost: Freq.:	35 Hz ~ 55 Hz
Boost:	0 ~ +10 dB
Eficiency:	76%
Input impedance:	10K Ohms
Protection system:	Output short circuit to GND, low impedance protection, low/high voltage protection and thermal protection.
Minimum supply voltage:	9 VDC
Maximum supply voltage:	17 VDC
Idle consumption @14.4VDC:	4,2 A
Musical consumption @14.4VDC:	457 A
Rated power consumption @14.4VDC:	914 A
Dimensions (W x H x L):	228 x 70 x 513 mm (8.98" x 2.76" x 20.20")
Weigth:	6.65 Kg (14.63lb)

*Rated power with 40 Hz sinusoidal signal, THD <= 1%, with resistive loads, measured with SMD/AD-1 audio power analyzer or equivalent and the product at lower than 50°C case temperature and 14.4 V supply voltage.

The values as above are typical and may vary, due to electronic components tolerance or manufacturing process.

For further informations or questions, visit our website or contact TARAMPS' support.



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