Instruction manual

TARAMPS®

DS 2000X4

AMPLIFIER - 2000WATTS - 2 OHMS

4 x 500W RMS

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

www.taramps.com.br

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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/es**

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 DS 2000X4 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.

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 braker near to battery. Follow the ampere rating 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 make any connection to amplifier, disconnect the battery negative terminal.
- When in use, the external surface of may 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.

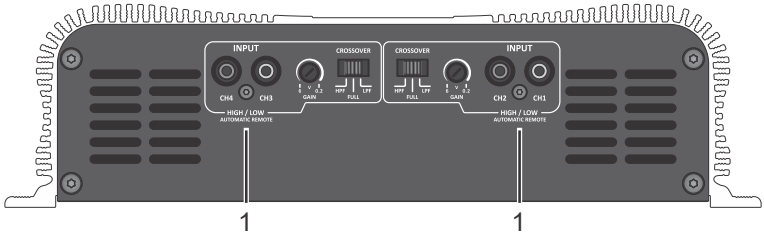
⚠ Safety

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

⚠ CAUTION 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.

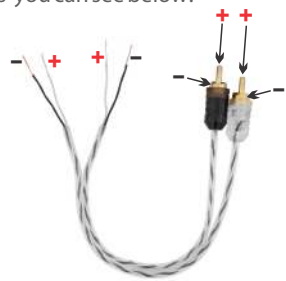
Functions & inputs



1 - INPUT (RCA / AUTOMATIC REMOTE): The DS2000X4's RCA input is suitable for both low level signals (from the player's RCA output) and high level wired output from the player (or multimedia).

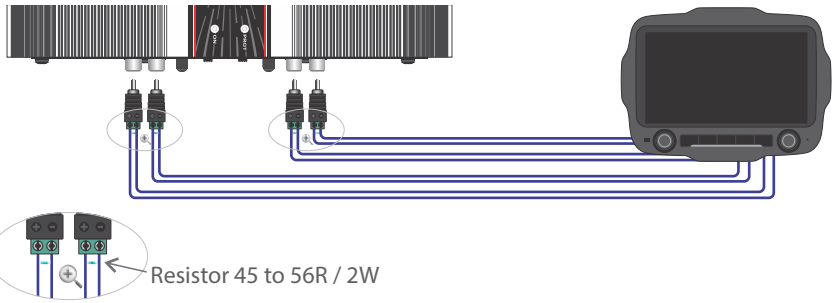
- If you choose to use the player's RCA output signal (low level), THE REMOTE WIRE MUST BE USED FOR ACTIVATION. It is also compatible with 4V RMS players with max output level by adjusting gain.

- By choosing to use the player's high level wired output (speakers output), you DO NOT NEED THE USE OF THE REMOTE WIRE. e.g.: Adapter or RCA cable as you can see below:

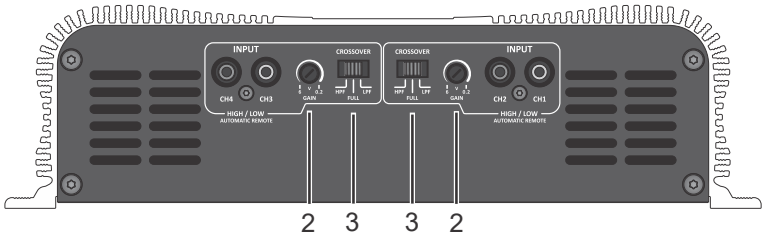


Important: When choosing this option, the gain adjustment must be set to the 6V position, to avoid input signal saturation. Correct wire polarity is also essential to avoid signal cancellation between channels or on the bridge.

- For cars with factory multimedia head units , mainly Fiat/Jeep, Renault models, as well as other models that have the unit with diagnostics and CAN communication with the vehicle system , a 45R to 56R / 2W resistor or similar resistance must be applied between the + and – of each multimedia speaker output that is connected to the amplifier, in order to avoid the error that blocks the audio and indicates failure in the speakers.
Note: When using this type of input connection, all Rca cables must be connected.

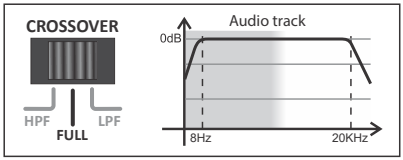


Functions

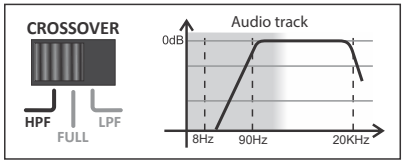


2 - GAIN: It sets the amplifier input sensitivity, which allows an optimal adjustment to the output signals levels of nearly all models of Head Units found in the market.

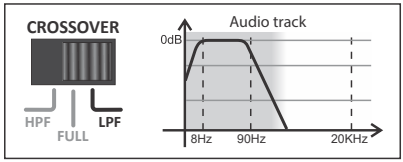
3 - CROSSOVER: Set the operating mode of amplifier:



SELECTOR POSITION - FULL
Amplifies the whole audio range, responding from 8Hz to 20KHz. This function is normally used when there is an external crossover in the system.

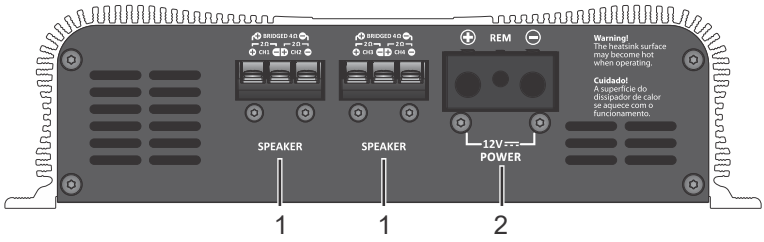


SELECTOR POSITION - HPF - (HIGH PASS)
Amplifies signals with more intensity above 90Hz. This type of function is used mid-bass, mid-range speakers or tweeters.



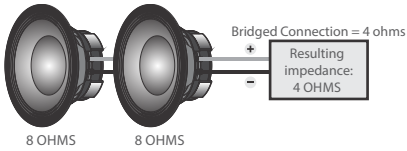
SELECTOR POSITION - LPF - (LOW PASS)
Amplifies only bass signal, the response is limited to 90Hz (-12dB/8ª), an optimal frequency cutoff for sub-woofers.

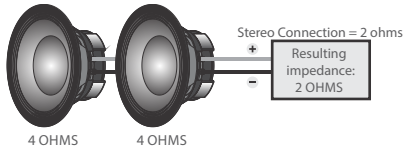
Output & power supply connector



1 - SPEAKER: To connect the speakers. Follow the polarity and the minimum impedance recommended.
For STEREO connections, the minimum impedance is 2 ohms at each channel; for BRIGDED connections is 4 ohms.
To combine speakers, the resulting impedance must be taken in consideration.
See the examples below:

WARNING The fan and ventilation openings are responsible for cooling the amplifier when it is in use, so it cannot be obstructed.





2 - POWER (Power Supply Connector): The connector terminal (+) must be connected to the battery's positive pole with a 21mm² (minimum) wire gauge. The connector terminal (-) must be properly connect to the battery's negative pole with a same wire gauge. The remote terminal must be connected to the Head Unit REMOTE output with a 0.75mm² wire.

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.

LEDs indicators & protection system

ON: Indicates that the amplifier is turned on.

PROT: Indicates that the amplifier is in protection.
Short-circuit or impedance lower than that supported at output.
LED flashes 1x: (1 sec on / 1 sec off = Temperature above operating limit (>85°C).
LED flashes 2x: Battery voltage under 9V.
LED flashes 3x: Battery voltage over 17V.
LED flashing 10x flashing = Protection detected at some of the outputs or across the GND output terminal. In this case the output audio is cut off for a few seconds and the amplifier will try to resume.
Protections with AUTO-Restart: Amplifier automatically restarts after some above protection event; If the amplifier is restarted 5 times without restart success, then protection is permanently activated, until the problem is solved.

Installation

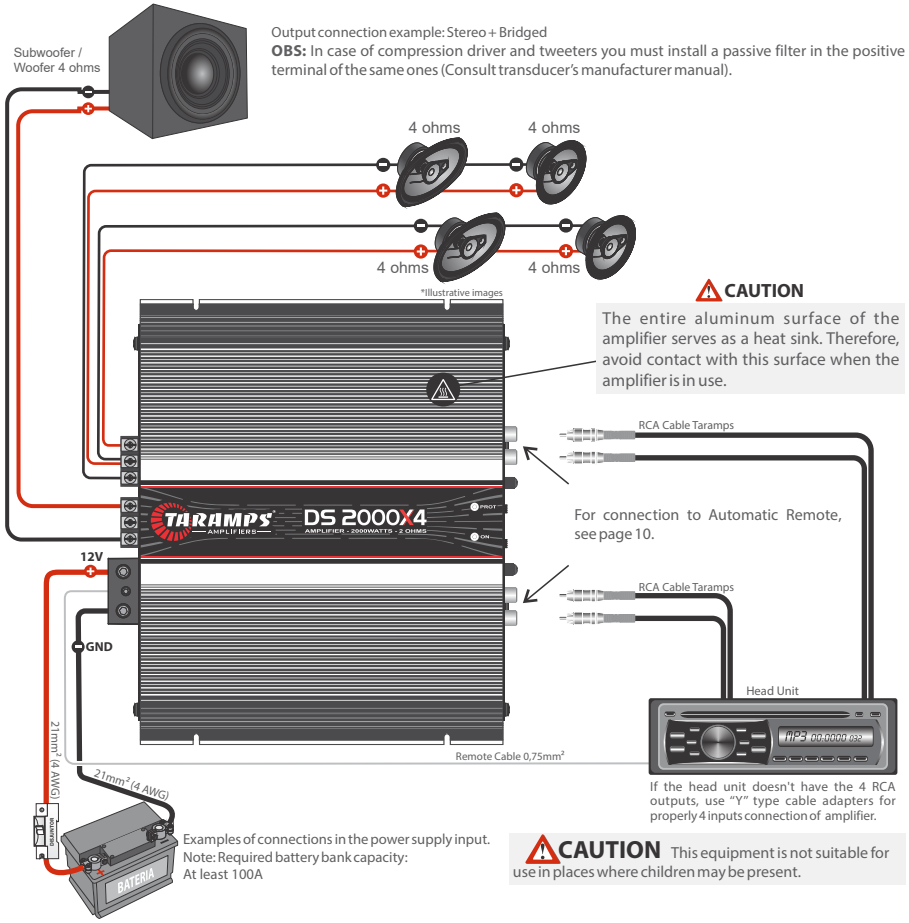
⚠ CAUTION All connections to power supply, input and output connectors must be carried out only with amplifier off.

Recommended wire gauge & fuse

Positive / negative power supply cable	**4 AWG**
Output cables wire gauge	**11 AWG**
Remote cable	**18 AWG**
Protection fuse or circuit breaker	**100A**

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.



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

Technical features

Minimum Output Impedance:	2 Ohms
Number of Channels:	04
Output Power @14.4VDC	
2 OHMS:	2000W RMS (4 x 500W RMS)
4 OHMS:	1300W RMS (4 x 325W RMS)
2 Channels in Bridged - 4 OHMS:	2000W RMS (2 x 1000W RMS)
Input Sensitivity (Level 100%):	250mV
Signal- to-noise Ratio:	>86dB
Frequency Response (Full Range):	8Hz ~ 20KHz (-3dB)**
Crossover HPF (High Pass Filter):	90Hz (-12dB/8ª) Fixed
LPF (Low Pass Filter):	90Hz (-12dB/8ª) Fixed
Input Impedance:	18K Ohms
Protection System:	Output overload
Minimum Supply Voltage:	9VDC
Maximum Supply Voltage:	17VDC
Idle Consumption:	2.2A
Musical Consumption @14.4VDC:	100A
Rated Power Consumption:	200A
Dimensions (W x H x L):	268 x 72 x 245mm (10.55" x 2.83" x 9.65")
Weigth:	3.37Kg (7.42lb)

*Rated power with 40Hz to 1KHz sinusoidal signal and THD <= 1%, with resistive loads, measured with an SMD/AD-1 power analyzer or equivalent and the product at lower than 50°C case temperature and 14.4V supply voltage.
**Frequency response measured at 2 times the minimum impedance, in 4 simultaneous loads..
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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