

# Instruction manual



## MD5000.1

AMPLIFIER - 5000WATTS - 1 OHM  
2 OHMS  
4 OHMS



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

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## Introduction

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

The **MD 5000.1** is a mono (1-channel) amplifier with 5,000 Watts RMS of power with impedance options of 1 Ohm, 2 Ohms, and 4 Ohms.

This amplifier was carefully developed with the latest technology, offering high performance for a wide range of automotive sound systems. Its wide frequency response of 10Hz ~ 10KHz (-3dB) allows it to be used with a wide range of speakers, such as subwoofers and woofers.

The power you're looking for is here!

## 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 amperage as indicated here in this manual. Use of improper fuse or circuit breaker can 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.



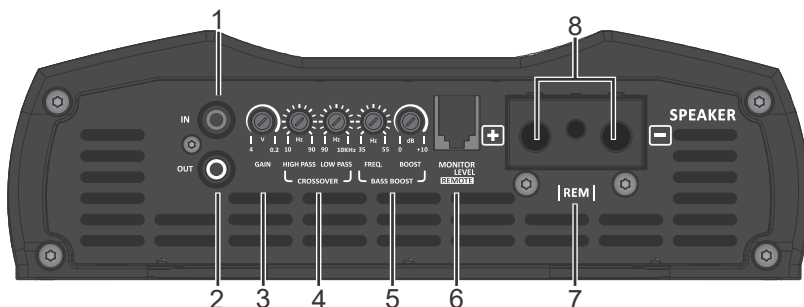
### CAUTION

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 & outputs



**1 - IN:** Input of signal to be amplified. Connect to the RCA output of the Head Unit using good shielded cable to avoid noise interference.

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

**3 - GAIN:** Adjusts the input sensitivity of the amplifier, allowing a perfect adjustment to the output signal levels of various head units models on the market. It is possible to adjust from 4V (minimum sensitivity) to 0.2V (maximum sensitivity).

## 4 - CROSSOVER

**HIGH PASS FILTER (HPF):** Variable setting from 10Hz to 90Hz, which determines the start of the amplifier's operating frequency.

**LOW PASS FILTER (LPF):** Variable setting from 90Hz to 10KHz, which determines the end of the amplifier's operating frequency.

## 5 - BASS BOOST

**FREQ.:** Set the frequency of bass boost from 35Hz to 55Hz.

**BOOST:** Set the boost level from 0 to + 10dB at the frequency set in FREQ.

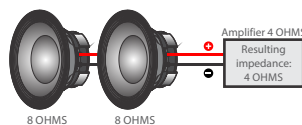
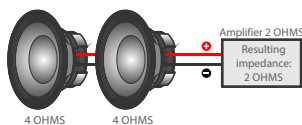
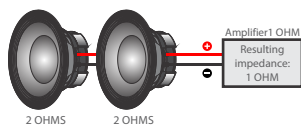
**6 - MONITOR LEVEL REMOTE:** Connection to an accessory, which function is to control the gain and monitor the amplifier where all information from the indicator LEDs, such as amplifier on (ON), such as distortion (CLIP/TEMP) and protection actuation (PROT), will be displayed simultaneously. **(Accessory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

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

**8 - SPEAKER:** Output (positive and negative) for connecting transducers (speakers). Follow the indicated polarity.

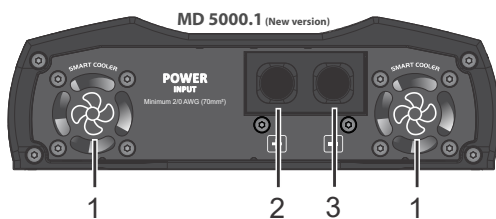
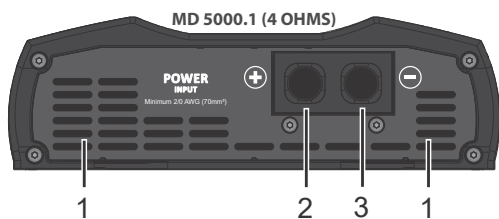
For speaker associations, the impedance to consider is the resulting impedance:

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.

# Power supply connector



**1 - SMART COOLER:** This amplifier has two internal ventilation fans. For perfect functioning, the amplifier must be installed in a cool and aired place with at least 1" (25mm) space around the heatsink for proper heat spreading. 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, so it cannot be obstructed.

**2 - POSITIVE POWER SUPPLY:** Use 2/0 AWG cables direct from the positive battery terminal, with fuse or circuit breaker (280A), as close to it as possible.

**3 - NEGATIVE POWER SUPPLY:** Use 2/0 AWG cables as short as possible, connected to the negative battery pole.

We recommend that all cables have tinned ends, for better electrical contact and that all power inputs are used.

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

## LEDs indicators & protection systems



**ON**

**ON (BLUE LED):** Indicates that amplifier is on.



**CLIP  
TEMP**

**CLIP (FLASHING YELLOW LED):** Excessive temperature (This can be caused by clogged internal fans, improper installation, or a poorly ventilated location).

When the amplifier reaches a temperature of approximately 80°C, thermal protection will activate, audio will be interrupted, and the yellow LED will begin flashing. The fan will remain on to quickly cool the components. Only when the amplifier reaches a safe temperature will audio be released and the amplifier will return to normal.

**We recommend not turning off the amplifier, so that cooling time is shorter through the cooler vents.**



**PROT**

**Yellow LED flashing in time with the music:** Indicates that the amplifier is operating at the edge of distortion. If the red LED also flashes, it indicates excessive distortion.

**Red LED on solid:** A short circuit or impedance below the output's rated capacity has been detected.

**Red LED flashes 2x:** Power supply voltage below 9V.

**Red LED flashes 3x:** Power supply voltage above 16V.

# Installation

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

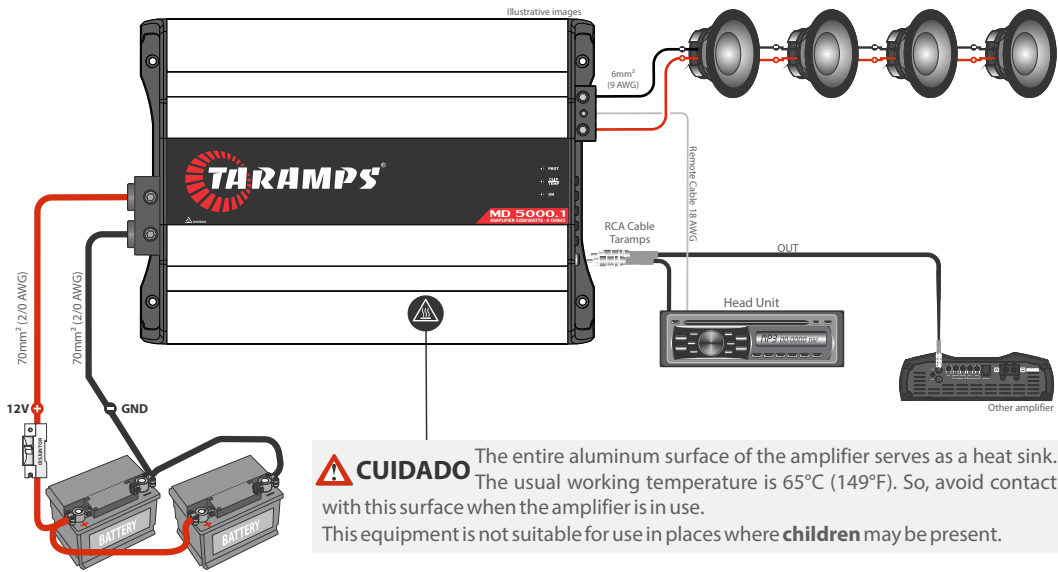
## Recommended wire gauge & fuse

Positive / negative power supply cable	2/0 AWG
Output cables	9 AWG
Remote cable	18 AWG
Protection fuse or circuit breaker	280A

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 to install a protection fuses or circuit breakers as close as possible from batteries.

**OBS:** Em caso de drivers é indispensável a instalação de filtro passivo nos terminais positivo dos mesmos (Consulte manual do fabricante).



Examples of connections in the power supply input.  
Note: Required battery bank capacity: At least: 280Ah

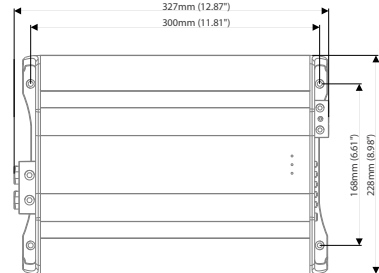
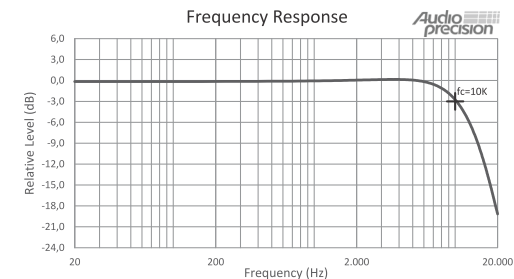
# Technical features

Number of Channels:		01	
Output Power @12,6VDC*		5000W RMS	
Minimum Output Impedance:		1 Ohm	2 Ohms
1 OHM:		5000W RMS	-----
2 OHMS:		3200W RMS	5000W RMS
4 OHMS:		-----	3200W RMS
8 OHMS:		-----	5000W RMS
Input Sensitivity:		0.22 V ~ 4 V	
Signal- to-noise Ratio:		>90dB	
Frequency Response: (Full Range):		10Hz ~ 10KHz (-3dB)**	
Crossover			
HPF (Subsonic Filter):		10Hz ~ 90Hz (-12dB/8°) Variable	
LPF (Low Pass Filter):		90Hz ~ 10KHz (-12dB/8°) Variable	
Bass Boost:		35Hz ~ 55Hz	
Freq.: Boost:		0 ~10dB (50Hz)	
Efficiency:		81%	86%
Input Impedance:		15K Ohms	
Protection System:		Short-Circuit to Output, Short on output to GND, Low impedance at output, low/high supply voltage and Thermal protection	
Minimum Supply Voltage:		9VDC	
Maximum Supply Voltage:		16VDC	
Idle Consumption:		1.20A	1.40A
Musical Consumption @12,6VDC:		245A	231A
Rated Power Consumption:		489A	461A
Dimensions (W x H x L):		228 x 70 x 327mm (8.98" x 2.76" x 12.87")	
Weigth:		4.22Kg (9.28lb)	

\*Rated power with 60Hz sinusoidal signal, THD <= 1%, with resistive loads, measured with audio analyzer Audio Precision APx525 or equivalent and the product at lower than 50°C case temperature and 12.6V supply voltage.

\*\*Frequency response measured at twice the minimum impedance.

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.



## Declaration of conformity



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.

## Term of warranty

TARAMPS, located at Julio 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 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](http://www.taramps.com.br/en/rede-de-assistencias-tecnicas) or contact directly the factory support:

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E-mail: [service@taramps.com.br](mailto:service@taramps.com.br)





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