

# Instruction manual



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

# Index

- 01 • Term of warranty
  - Technical assistance
- 02 • Introduction
  - Safety requirements
  - Safety
- 03 • Installation procedure
- 04 • Functions, inputs & outputs
  - LEDs indicators / protections
- 05 • Power supply connector
- 06 • Interconnections
- 07 • Charging the battery bank
- 08 • Connection Examples 1
- 09 • Connection Examples 2
- 10 • Connection Examples 3
- 11 • Technical features

## Term of warranty

TARAMPS, located on Julio Budisk Highway, SN, KM 30 – Alfredo Marcondes, SP - Brazil, ZIP CODE 19180-000, guarantees 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 substitution 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 as 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 direct the factory support:

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

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

## 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 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.
- Check carefully the polarity of power supply wiring (battery's positive and negative terminals) loudspeakers and the minimum speaker impedance;
- It is compulsory to install fuses to protect against overloading. The fuse or circuit breaker must be installed as close as possible to the battery and sized up according to the amplifier;
- 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.



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.

# Installation Procedure

- 1 - Follow all procedures described below;
- 2 - If you do not follow the proper procedures by qualified professionals, Taramps is exempted of any responsibility;
- 3 - Insulate completely all system connections, this avoiding electrical contact with the vehicle chassis;
- 4 - Accessories and peripherals (such as Head Units, equalizers, crossover or other equipment requiring power at 12 volts) should be eliminated from the original vehicle connections. The equipment will be supplied by the of auxiliary batteries bank, designed according to system needs;
- 5 - Circuit breakers must be installed in a visible and easily access place for operating, and system maintenance;
- 6 - The batteries must be insulated once installed, to avoid electric shock, sparks and/or damage to vehicle;
- 7 - All connections should be made with all circuit breakers off.

## TURNING ON THE AMPLIFIER

- 1 - Check that any system is not shorted or in contact with the chassis of the vehicle;
- 2 - Check carefully if the negative points of high voltage batteries bank and 12.6 VDC battery negative point are connected together;
- 3 - Connect the speakers in its output;
- 4 - Make sure that your batteries are properly charged;
- 5 - Keep the volume control (Level) at the minimum;
- 6 - Turn on the remote to activate the preamp;
- 7 - After checking the preamplifier, disconnect the remote, activate the circuit breakers and turn-on the remote again;
- 8 - Set all volume settings, frequency cuts and enjoy all the advantages of your new amplifier.

## CARING OF YOUR SOUND SYSTEM

- 1 - After the use of the sound system, turn off all circuit breakers;
- 2 - Never move the vehicle with activated circuit breakers;
- 3 - Do not connect the battery charger with the sound system in operation;
- 4 - Do not add any other battery charger; Use only the specified charger.
- 5 - Do not start the vehicle engine with the sound system in operation;
- 6 - The engine starting (ignition) is only allowed once all circuit breakers are turned off.

## NOTE:

Failure to comply with any of the above procedures fully exempts Taramps from any liability for the risks of its use. So for you can take advantage of this high technology, high quality and powerful amplifier, be sure to follow step by step all safety procedures, otherwise it could implies the loss of warranty.

For further information please contact our Technical Department to solve all doubts.

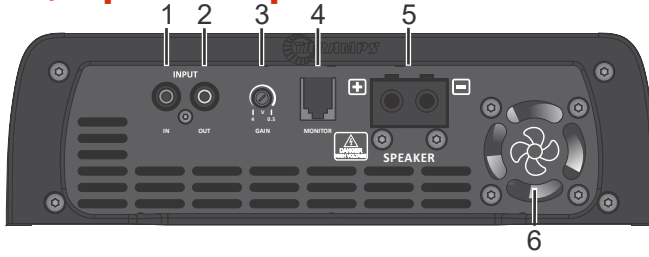
All electrical and electronic equipment installation must be made by qualified and trained professionals.



## CAUTION

"Your life is valuable. Avoid accidents. Depending on the severity of an electric shock, it can cost your life".

# Functions, input & output



**1 - INPUT:** Connect to the RCA output of the Head Unit using good quality shielded cables to avoid noise pickup. The signals from the L and R inputs are mixed (added) internally.

**2 - OUT:** This output can send the same input signal (INPUT) to another amplifier.

**3 - GAIN:** Adjust the sensitivity of the amplifier input, in order to get better performance and volume.

**4 - MONITOR:** Connection for accessory whose function is to monitor the amplifier, where all information from the indicator LEDs, such as distortion (CLIP) and protection activation (PROT), will be shown simultaneously. (Accessory does not come with the product).

**5 - SPEAKER:** Amplified audio output, MULTI-IMPEDANCE, allowing to extract 3000 W RMS from 1 to 2 OHMS.

**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.

**6 - FANS:** This amplifier has three 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 usually working temperature of amplifier is 65°C.

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

## LEDS indicators / protections



**GREEN LED (HV):** Indicates high voltage presence at the power terminals.

**BLUE LED (ON):** Indicates powered amplifier.

**YELLOW LED (CLIPPING):** Indicator of clipping and protections. (See protections below).

**RED LED (PROTECTION):** Indicator of protections. (See protections below).

**SHORT:** Red LED flashes 6x and restarts the product. If the short condition no longer exists, the amplifier automatically restarts. After 5 restart attempts, the red LED will be on and the product will be in a fixed protection state.

**LOW VOLTAGE (HV):** Blue LED alternating with yellow.

**POWER LACK (HV):** Blue LED flashing. The product turns on with voltages from 100V.

**TEMPERATURE:** Yellow LED flashing. When the temperature drops within the operating range, the amplifier automatically restarts.

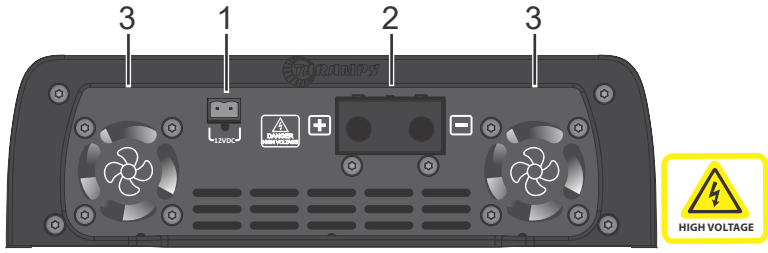
### VOLTAGE 12V

**LOW VOLTAGE 12V:** If the voltage is lower than 9VDC, the red LED flashes twice.

**HIGH VOLTAGE 12V:** If the voltage exceeds 16VDC, the red LED flashes 3x.

In both situations, when the 12V voltage is normalized, the amplifier restarts.

# Power supply connector



**1 - 12.6 VDC POSITIVE TERMINAL (1.5A):** Use an exclusive 12.6V battery and relay (driven by the remote signal from Head Unit. See diagram at the page 06).

**2 - POWER +:** Positive power input for high voltage.

**POWER -:** Negative power input for high voltage.

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

**3 - FANS:** This amplifier has three 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 usually working temperature of amplifier is 65°C.

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

**! Please note:** This is a device that will be high voltage powered. As in any electronic equipment take care to not cause any incident during installation. We recommend using of well insulated tools.

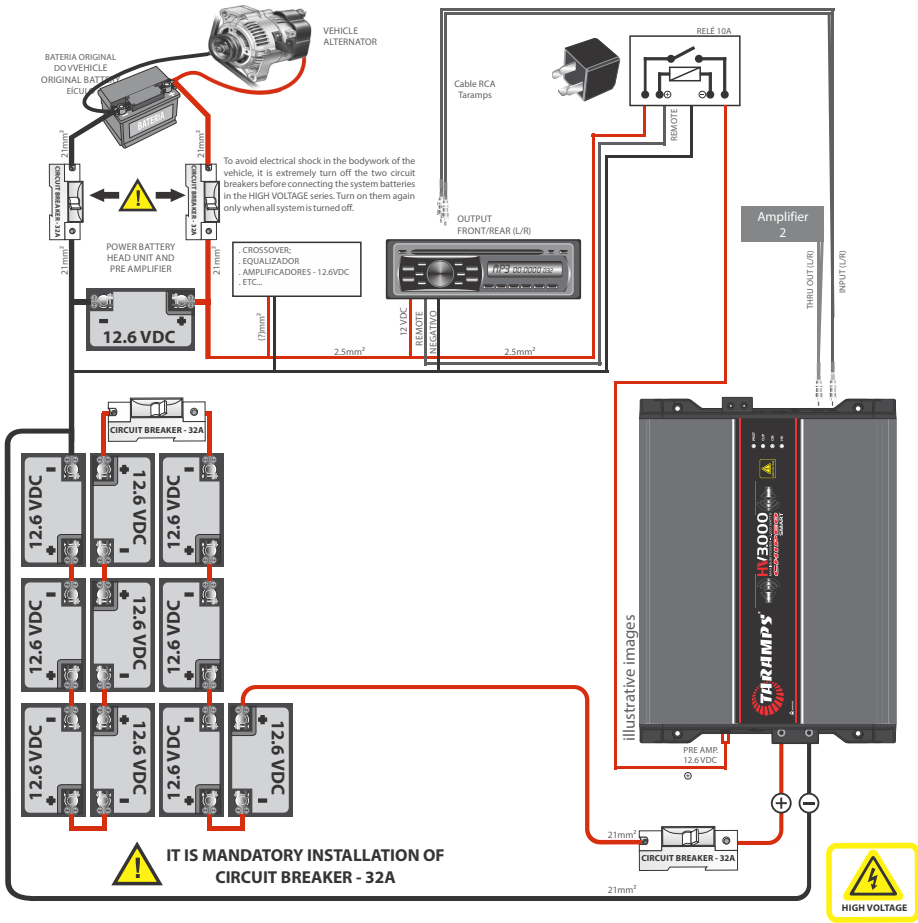
Cables and circuit breakers should be good quality with its connections well protected and insulated following the specified gauge. Wrongly dimensioned wiring may degrade the amplifier performance and causes power loss, wiring heating and serious risk of fire. The wiring gauge recommended described in scheme on page 06.

**21+** The sale, purchasing or installation of this product by those under 21 years age is forbidden.

**!** This product is powered by HIGH VOLTAGE. Risk of electric shock. **Danger of Death.** Maximum care should be taken to avoid personal injury while installing or operation the amplifier.

# Interconnections

Installing one or more batteries is necessary to work at 12.6 Volts, to supply the pre amplifier and other equipment that require this same voltage as Head Unit, crossover, equalizers, amplifiers, etc. As shown in the scheme .



\* Gauge for the output cable is 21mm<sup>2</sup>, calculated a maximum length of 2m.

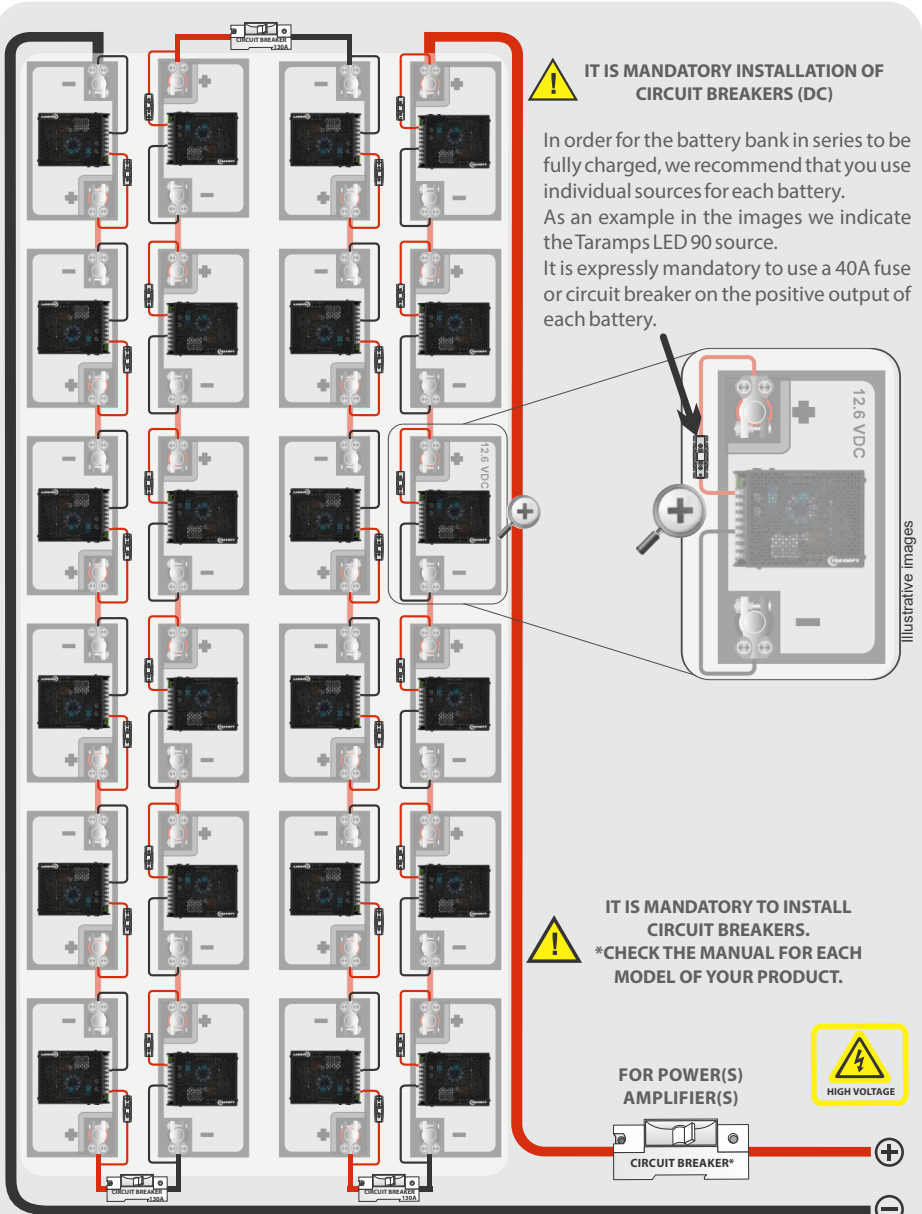
The HV 3,000 CHIPEO SMART is an intelligent amplifier, which recognizes the amount of battery. Therefore, if you use 10 batteries (minimum) or 24 batteries (maximum), performance will be maintained. See installation examples on pages 08, 09 and 10.

**!** Attention! Do not use the vehicle chassis as system grounding point.

Is forbidden the locomotion of the vehicle with this in sound system in operation.

# Charging the battery bank

## SERIES CONNECTION - 24 12.6VDC BATTERIES

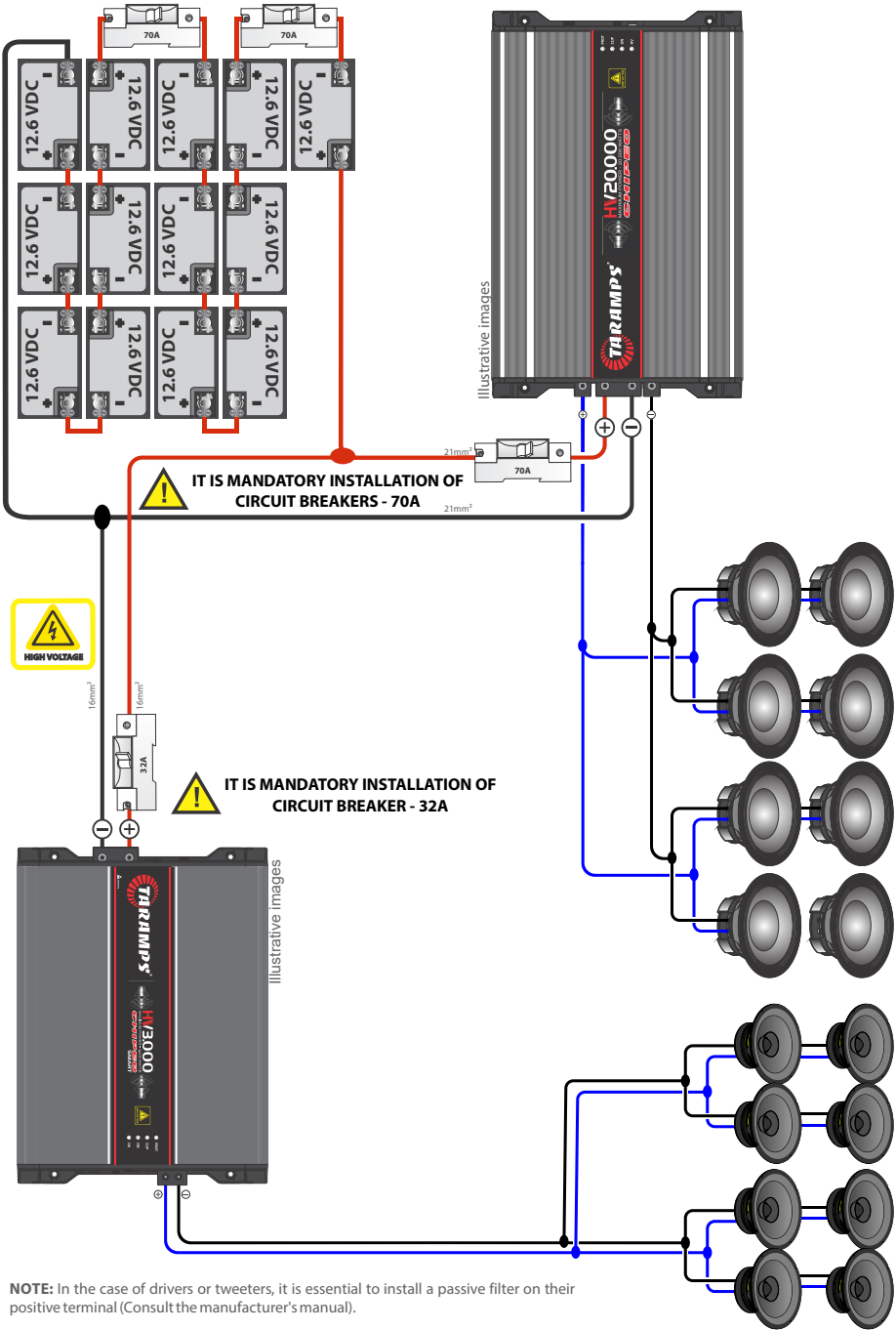


The LED 90 battery charger isn't included.



# Examples of connectio 1:

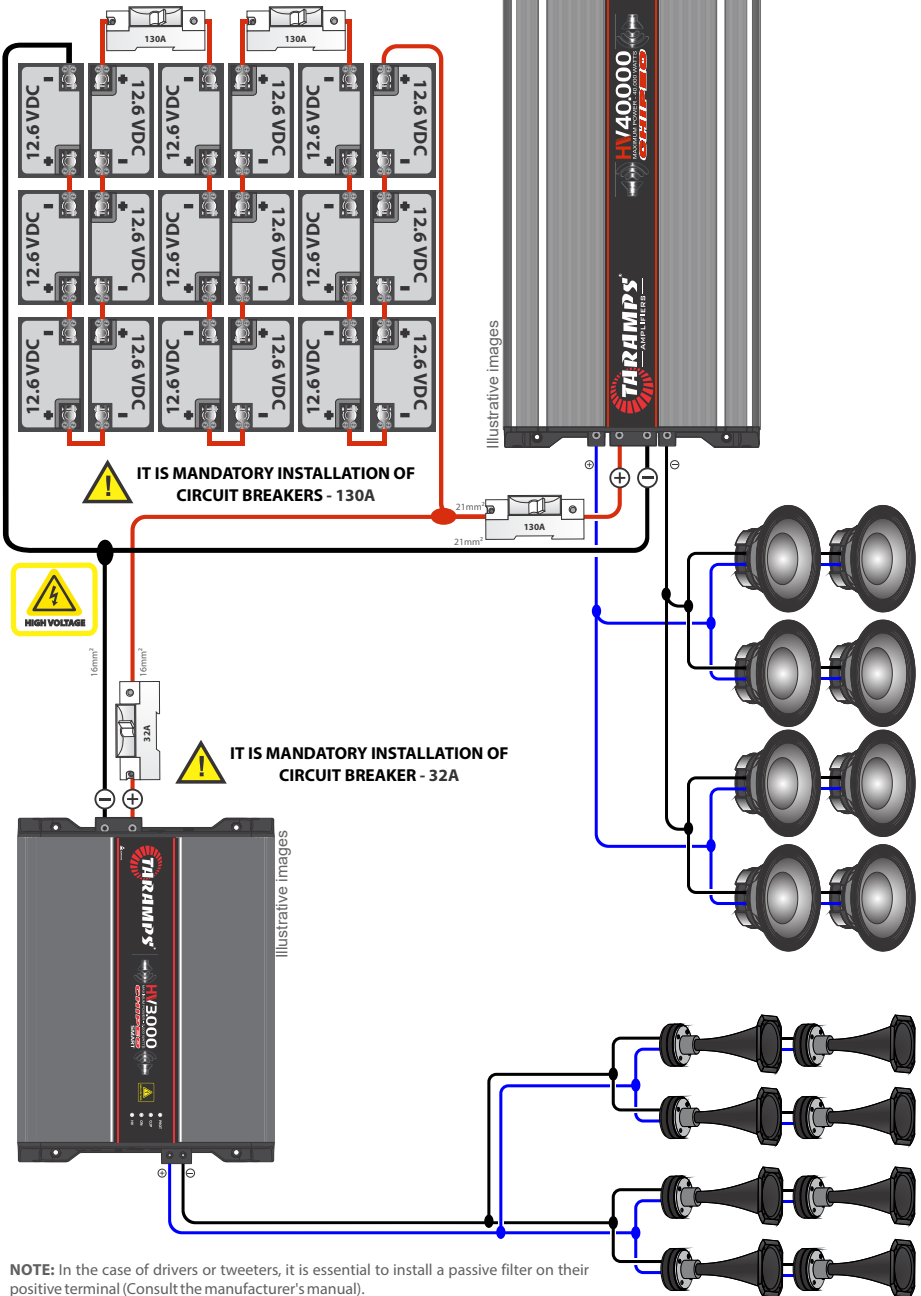
## Installation together to HV 20,000 CHIPEO - 13 Batteries



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

# Examples of connectio 2:

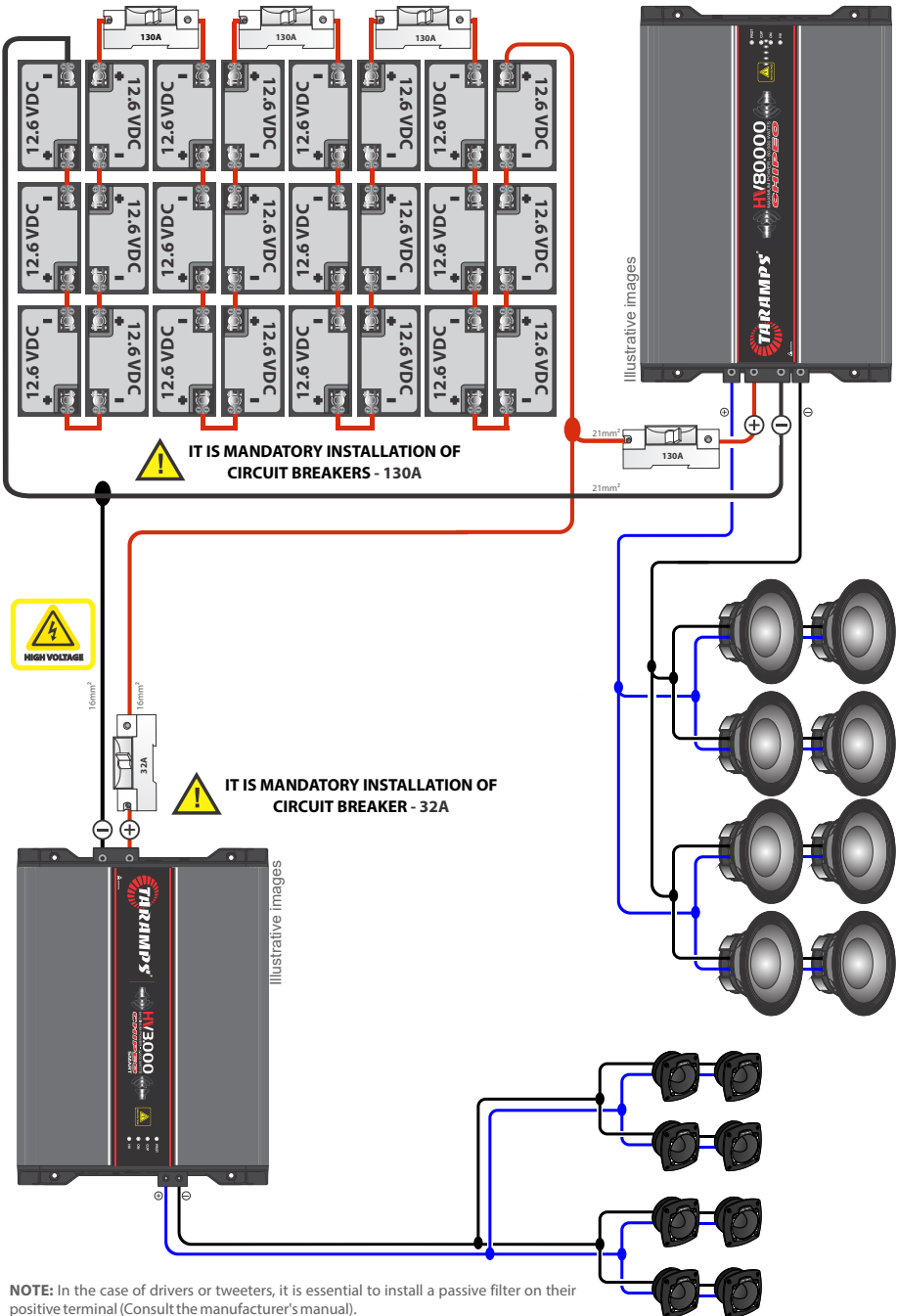
Installation together to HV 40.000 CHIPEO  
18 Batteries



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

# Examples of connectio 3:

## Installation together to HV 80.000 CHIPEO 24 Batteries

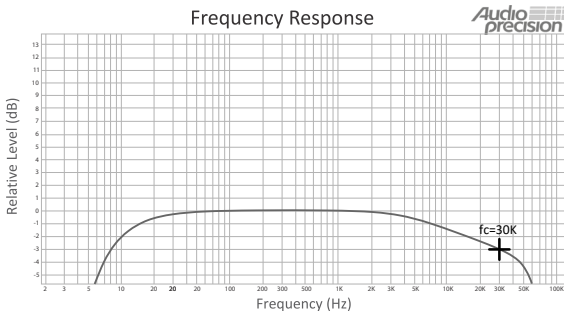


# Technical features

Multi-output impedance:	1 Ohms ~ 2 Ohms
Number of channels:	01
Rated power:	
1 OHM	3000W RMS
2 OHMS	3000W RMS
4 OHMS	2000W RMS
Input sensitivity:	0,5V RMS ~ 4V RMS
Total harmonic distortion (THD):	1%
Signal to-noise ratio:	>95 dB
Frequency response:	10 Hz ~ 30 KHz (-3 dB) 2 Ohms
Efficiency:	80%
Input impedance:	16K Ohms
Protection system:	Short-Circuit to Output, Short on output compared to GND, Low impedance at output, High/Low supply voltage and Thermal protection**
Minimum supply voltage:	120VDC
Maximum supply voltage:	350VDC
Input consumption 12.6VDC:	1A
Maximum consumption:	23A
Dimensions (W x H x D):	239 x 73 x 329 mm / 9.41" x 2.87" x 12.95"
Weight:	3.95 Kg / 8.69 lb

\*Potência de saída medida com sinal 60 Hz, THD <= 1% na saída, utilizando carga resistiva na impedância de 2 Ohms, 18 baterias e medida com analisador Audio Precision.

Os valores citados são típicos e podem sofrer pequenas variações devido a tolerância de componentes ou do processo de fabricação. Para maiores informações ou em caso de dúvidas acesse nosso site ou entre em contato com o suporte da TARAMPS ELECTRONICS.





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