

# Instruction manual



**T 0302** **RGB**  
**PLAYER** **CONTROL**  
**MULTICOLOR**  
CAR SOUND MIXER



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

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## Introduction

Read this manual before installing the product. In case of questions contact our technical support: **+55 (18) 3266-4050** or [www.taramps.com.br/en](http://www.taramps.com.br/en)

## Presentation

THE **T 0302 PLAYER MULTICOLOR RGB CONTROL** audio mixer was designed for sound systems, allowing the mixing and equalization of various types of signals with high fidelity, ensuring natural sound dynamics. It features the convenience of a built in MP3/WMA player, Bluetooth, and FM radio, with long distance remote control.

Its built in player supports USB flash drives up to 64GB in capacity, containing audio files in Mp3 and WMA formats with bit rates of up to 320 kbps(high quality). Its Bluetooth operates on version 4.0 and uses the SBC/A2DP protocol. It features a 4 band equalizer that allows boosting or attenuating specific low, mid, and high frequency ranges, providing professional control in any situation. Its outputs feature timed MUTE, preventing unwanted noise (pops) during power on and off, eliminating the need for activation sequencing and simplifying installation.

The **T 0302 PLAYER MULTICOLOR RGB CONTROL** features three input channels. CHANNEL 1 is balanced and has two shared connections, one XRL and J10. This input offers high sensitivity and wide gain range, allowing use with microphones as well as line level sources (LINE IN).

CHANNELS 2 and 3 feature L + R RCA inputs shared with a J10 connector, providing greater connection flexibility.

All three inputs feature independent controls for:

- Gain (GAIN) for input signal level adjustment.

- 4 equalization controls HIGH, MID HIGH, MID LOW and LOW with  $\pm 15$ dB of boost / attenuation.

- Level for output control.

Both outputs feature a wide dynamic range, delivering up to +18 dBu or 6.3Vac of distortion free signal.

Now with an external antenna for greater Bluetooth signal range and long distance remote control.

With up 16.000 different effect combinations, the RGB Control function allows the user to control LED strips with up to 300 LEDs in series and up to 10 strobe headlights all through the long distance remote control, which also features player control for the audio mixer.

# Safety requirements

Ensure proper use, please read this manual before using your car stereo. It is extremely important to know the following **CAUTIONS**:

- The installation of this product must be done by a qualified professional.
- Use the correct tools for installing this product.
- This product is for use with 12V batteries. Always check the voltage before installing.
- Never install the product 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.
- Make sure you install a protective fuse or a circuit breaker near to battery. Follow the ampere rating as indicated here in this manual. Using the wrong fuse or circuit breaker can 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 vehicle's body.
- Automotive sound systems may produce high sound pressure levels. Avoid continuous exposure to levels over 85dB to prevent permanent hearing loss.

## ⚠ 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 may result in risk of injury to user or product damage.

## Important recommendations

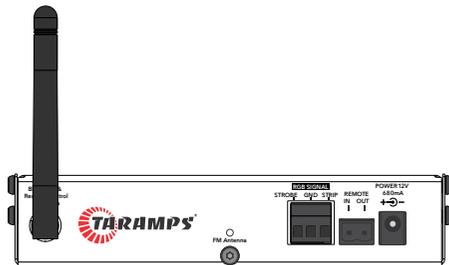
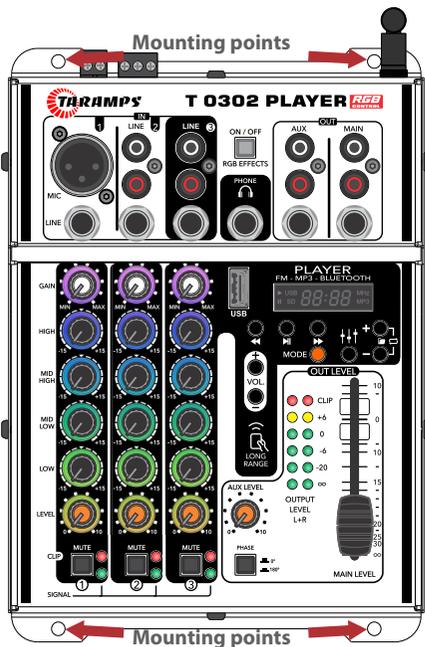
Use the P4 adapter with terminal that comes with the product to connect the power wires to the vehicle's 12V battery. Use 1.5mm<sup>2</sup> gauge wires for both the positive and negative wires. Screw the wires according to

the following instruction:

- 1-Terminal  on the battery positive.
- 2 - Terminal  on the battery negative.

As protection, a fuse must be installed close to the positive pole of the battery (2A fuse). For the REMOTE connection, use 0.5 mm<sup>2</sup> wire.

The sound mixer must be fixed in an easily accessible and ventilated place. It is not recommended to install the product on the sides of speakers, as vibrations can damage their internal components. Use the 4 mounting points. In order to avoid noise capture, use good quality shielded signal cables and connectors.



**⚠ CAUTION** Check power polarity and recommended gauge. it is recommended to install a 2 Amperes fuse on the positive supply terminal.

# Connections

## IN - Inputs



### MIC / LINE 1

**Balanced inputs:** for XLR (Canon) and TRS connectors. ATTENTION: these inputs DO NOT HAVE PHANTOM POWER.

### LINE 2 3

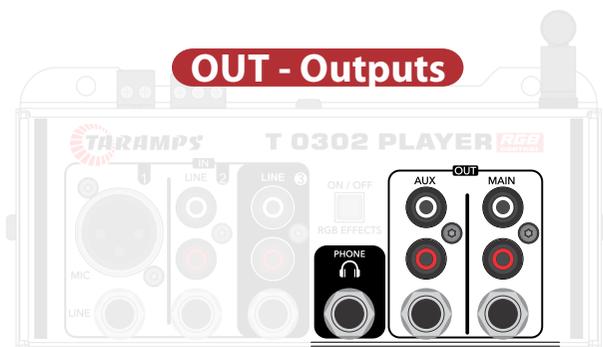
**Unbalanced inputs** Inputs for RCA or P10 connector. They allow you to receive signals from several types of sound gear such as CD/DVD/MP3-player, audio processors, etc... The LINE 3 input shares the same controls as the built-in **PLAYER**, with the signals being downmixed on the input.h high level outputs.

### USB

**Input for USB Drive:** USB input for USB DRIVE connection. This input accepts Mp3 and WMA files up to 320Kbps (high quality).



## OUT - Outputs



### HEADPHONES

Audio output for headphones. Use headphones with P10 standard. This output only plays audio from the built-in **PLAYER** in stereo.

**It is not possible to listen to channels 1, 2, and 3 through this output.**

### AUX OUT

It features an RCA connector in parallel with a connector for TRS. This output mixes all input signals, including L and R.

This output features a phase inversion button and independent level control, but it also responds to the **MAIN LEVEL** control.

### MAIN OUT

It features an RCA connector in parallel with a connector for J10.

This output mixes all input channels, including R and L.

# Functions

## Controls

**GAIN** Adjusts the input signal level. It must be used in case of input saturation, signaled by the CLIP LEDs.

**HIGH** Boosts or attenuates the high frequencies by  $\pm 15$ dB

**MID HIGH** Boosts or attenuates the mid high frequencies by  $\pm 15$ dB

**MID LOW** Boosts or attenuates the low mid frequencies by  $\pm 15$ dB

**LOW** Boosts or attenuates the low frequencies by  $\pm 15$ dB

**LEVEL CHANNELS** Adjusts the audio level of the channel (channel 1, 2 or 3) that will be mixed at the outputs.

**MUTE** Blocks the channel mix from outputs. It is useful for quickly muting the channel without changing the gain settings. When activated, the red CLIP LED will light up, regardless of the input signal level.

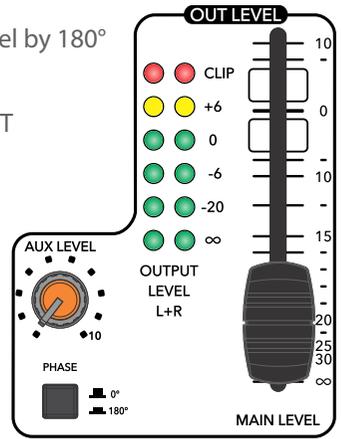
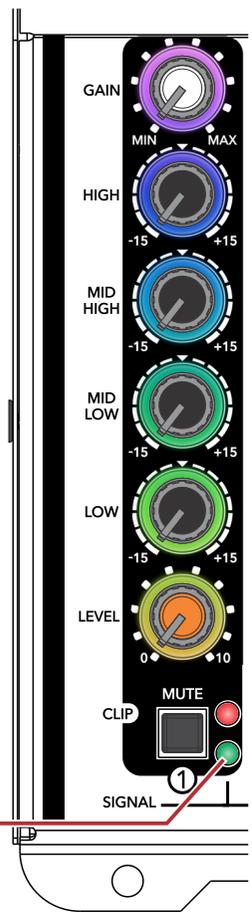
**LEDS INDICADORES**  
Red LED indicates channel input saturation or that the MUTE button pressed.  
Green LED indicates that the channel is receiving an input signal.

**PHASE** Inverts the signal phase of the AUX OUT channel by  $180^\circ$

**AUX LEVEL** Adjusts the audio output level at AUX OUT

**VU-METER** Indicates the level of the output signal.

**MAIN LEVEL** Controls the signal level at the outputs.



# Functions



## On / Off - RGB Effects

**ON/OFF / RGB Effects:** Turns the audio mixer on/off. When powered on, this button lights up blue, when powered off, it light up light red.

This button is also used to **synchronize** the long range remote control and to control the lighting effects. Up to three remote controls can be used simultaneously.

**To sync a new remote control, follow the instructions below:**

- 1- Make sure the audio mixer is powered on.
- 2- With the unit turned off, press and hold the ON/OFF button for  $\pm 5$  seconds.
- 3- The button will flash blue and red alternately, indicating synchronization mode between the audio mixer and the long range remote control.
- 4- On the long range remote control, press the synchronization buttons **▶||** and **▲** simultaneously until the ON/OFF button lights up light red (make sure the long range remote control is compatible).\*

5- If it does not turn off, bring the long range remote control closer to the audio mixer while holding the synchronization buttons **▶||** and **▲** until synchronization is completed and the ON/OFF button lights up light red.

\*The T 0302 PLAYER MULTICOLOR RGB CONTROL only operates with TARAMPS brand long range remote controls operating at 433.5 MHz, FSK modulation, with proprietary encryption.

## Player control



**◀◀** Returns to the beginning of the track. Double press, skip to the previous track. Long press, rewinds the current track.

**▶||** stops/continues playback of the current track.

**▶▶** skips to the next track. Long press, fast forwards the track currently playing.

**↑↑↑** **EQ:** Changes the preset equalization. It has 5 modes, **NO** is equal FLAT or NATURAL equalization.

**MODE:** Short press: Changes the playback source between Bluetooth, USB and FM.

Long press: Turns off only the player, keeping the other functions active.

**▶ Folder+:** Advances to the next folder.

**▶ Folder-:** Goes back to the previous. The root directory is typically the F001 folder.

**Obs.:** By pressing these two keys simultaneously: One, Random. Folder e All.

**Vol+:** Increases the player's volume.

**Vol-:** Decreases the player's volume.

## Long distance remote control

**+** Increases the player's volume.

**-** Reduces the player's volume.

**▶||** Stops/continues playback of the current track.

**▶▶** A short press skips to the next track, while a long press advances to the next folder.

**◀◀** A short press skips to the previous track, while a long press returns to the device previous folder.

**▲** Advances the lighting effect

**▼** Returns to the previous lighting effect.

**⏻** Short press: turns on the device / changes the PLAYER function.

Long press: turns off the device.

**▶|| + ▲** Short press: Effects customization. See page 07

Long press  $\pm 4$  seconds: LED pattern (RGB CONTROL). See next page.



## RGB effects

The **T 0302 PLAYER MULTICOLOR RGB CONTROL** audio mixer features 16.000 customizable effect combinations that can be saved into 10 presets, which can be selected by the user and played on RGB LED strips and strobe lights.

Through the remote control, it is possible to configure the RGB strip type, the strip length, and strobe light type, ensuring better performance of the lighting effects.

It is also possible to modify the 10 factory defined preset effects.

## Default LED configuration (RGB Control) **R** **G** **B**

Depending on the type of LED strip or (strobe) lights used, color variations may occur.

This configuration allows the audio mixer to operate properly with any RGB standard available on the market.

Using the remote control, press and hold the **▶|** and **▲** buttons for approximately 4 seconds until the mixer LEDs flash alternately between yellow and pink. The **ON/OFF button** will flash **blue and red**.

At this moment, the remote control enters **RGB CONTROL configuración** mode, and the buttons take on the following functions:

**+ -** Changes the LED strip color, note that the strobe lights turn off.

Press the + or - buttons until the LED strip colors flash alternately, matching the audio mixer colors (yellow and pink).

**◀ ▶** Changes to (strobe) light color, note that LED strips turn off.

Press the **◀** or **▶** buttons until the strobe light colors flash alternately, matching the audio mixer colors (yellow and pink).

Once this is done, the RGB configuration between the audio mixer, the LED strip, and the STROBE has been successfully completed.

To exit the **RGB CONTROL configuración** function, simply press the button **⏻**.

**▼▲** Configures the size of some effects according to the strip length. The white LEDs lit indicate how far the strip will light up. If the white LEDs do not light up, press **▲**.

This function adjusts the number of LEDs affected by the effect.

Minimum 12 and maximum 300 LEDs for WS2811 LED strips (12 V).

Minimum 12 and maximum 100 LEDs for WS2812 LED strips (12 V).



**CAUTION** Use high quality LED strip with an appropriate external power supply for this type of application.



Color variations may occur depending on the LED strip used.

Installation should follow the examples on pages 09 and 10.

Avoid installing the LED strips and strobes near amplifiers and products that generate interference.

If the installation is carried out in racks or any metallic equipment, it is recommended to keep the grounding isolated between the audio mixer and other equipment and accessories.

Interference may cause some LEDs to flicker or light up randomly.

# Effects customization

To enter the preset effects customization mode, press the **▶|** and **▲** buttons simultaneously. The ON/OFF button will flash blue intermittently, indicating that the remote control is in effects customization mode.

- ➕ increases the effect speed \*
- ➖ decreases the effect speed \*
- ▶| selects the effect to be modified
- ▶▶ increases the segment size/effect color \*
- ◀◀ decreases the segment size/effect color \*
- ▲ strobe effect
- ▼ strobe effect
- ⏻ ok/exit configuration mode

## \*VU Effect

The **➕** and **➖** buttons change the VU style.  
The **▶▶** and **◀◀** buttons change the effect color.

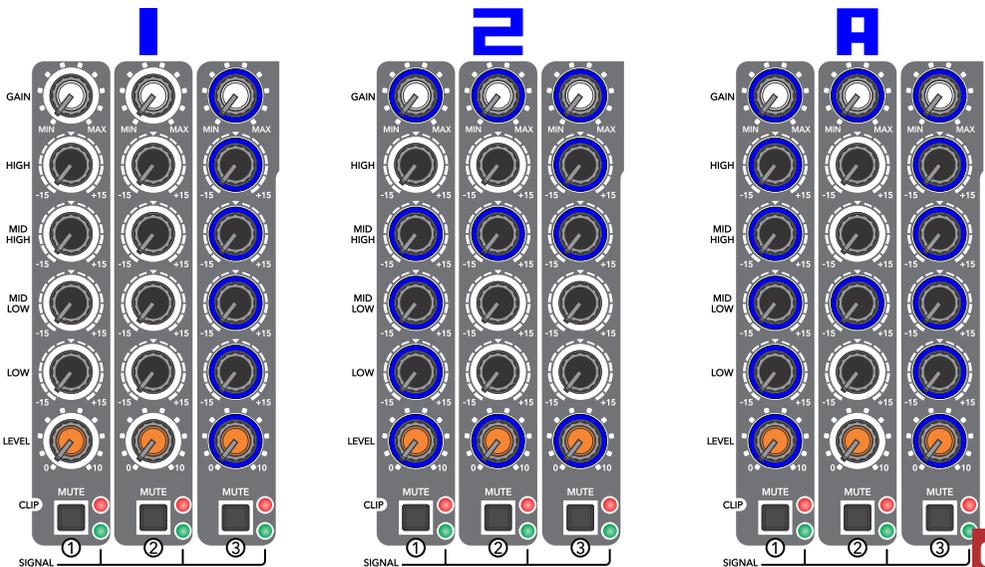
When pressing the RGB EFFECTS button to change the effect, or the corresponding button on the remote control, the RGB panel of the audio mixer will display the preset number from 0 to 9 and A.

Effect off	
0	Rainbow with wave animation
1	Comet
2	Vu-meter (rhythmic)
3	Line fill patterns
4	Effect wave
5	Fades and highlights
6	Pinball
7	Max Strobo (rhythmic)
8	Snake
9	Fading static colors
A	Changes the effect randomly

**Obs.** Some effects are adjusted automatically and do not require configuration.

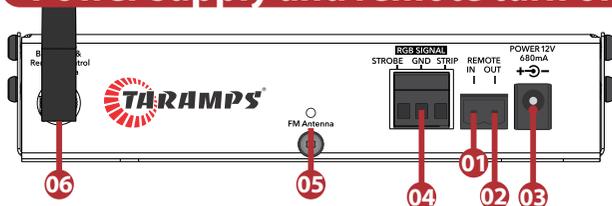
It is possible to modify the preprogrammed effects.

**RESET:** If you need to reset the effects, returning to the factory presets, press and hold the **▶| + ▲** buttons for 4 seconds to enter configuration mode. Then repeat the process by pressing and holding the same **▶| + ▲** buttons again for 4 seconds, the LEDs will turn off, indicating a RESET. The audio mixer panel will indicate the process by lighting the LEDs in red and then green. RESET completed successfully.



# Installation

## Power supply and remote turn on



The **T 0302 PLAYER MULTICOLOR RGB CONTROL** was developed for use in automotive systems with a 12V battery, but it can also be used with an external 12V power adapter rated at least 2A. It features ON/OFF power button (top panel), eliminating the need for REMOTE IN connections.

### REMOTE IN 01

Electrical connection that automatically turns on or off via a remote cable from a CD/MP3 player. Use a 0.5mm<sup>2</sup> cable.

### REMOTE OUT 02

Output for activating other equipment. It can be used to turn on amplifiers or other devices that feature a remote input. This output has current limitation and is not recommended for currents above 100mA. Use 0.5mm<sup>2</sup> cable or larger.

### POWER SUPPLY 12V 03

Standard P4 / 12V 2mm power connector. Use the TERMINAL/P4 adapter supplied with the product or a 12V adapter power supply (the adapter power supply is not included with the product).

Due to the variable current consumption caused by the LED effects, use power supplies rated at 1A or higher. Power supplies with low current capacity may cause the audio mixer to operate improperly.

Use a 1.5mm<sup>2</sup> cable for the connections, following the markings on the TERMINAL P4 adapter:

- ⊕ to the battery positive 12V terminal.
- ⊖ to the negative battery terminal.

### CAUTION

Check power polarity and recommended gauge.

it is recommended to install a 2 Amperes fuse on the positive supply terminal.

### CONECTOR RGB SIGNAL 04

**STROBE** - Signal output for strobe lights, capable of connecting up to 10 strobes in series

**STRIP** - Strip output for LED strips, capable of driving up to 300 LEDs in series.

**GND** - The GND return is used to connect the LED strips and strobe lights, preventing interference in the LEDs that could cause failures in the lighting effects. (See pages 10/11).

**Recommendation:** Use a parallel flexible cable to connect the GND return and the data line.

Do not swap the LED strip and the strobe, as some effects may not work.

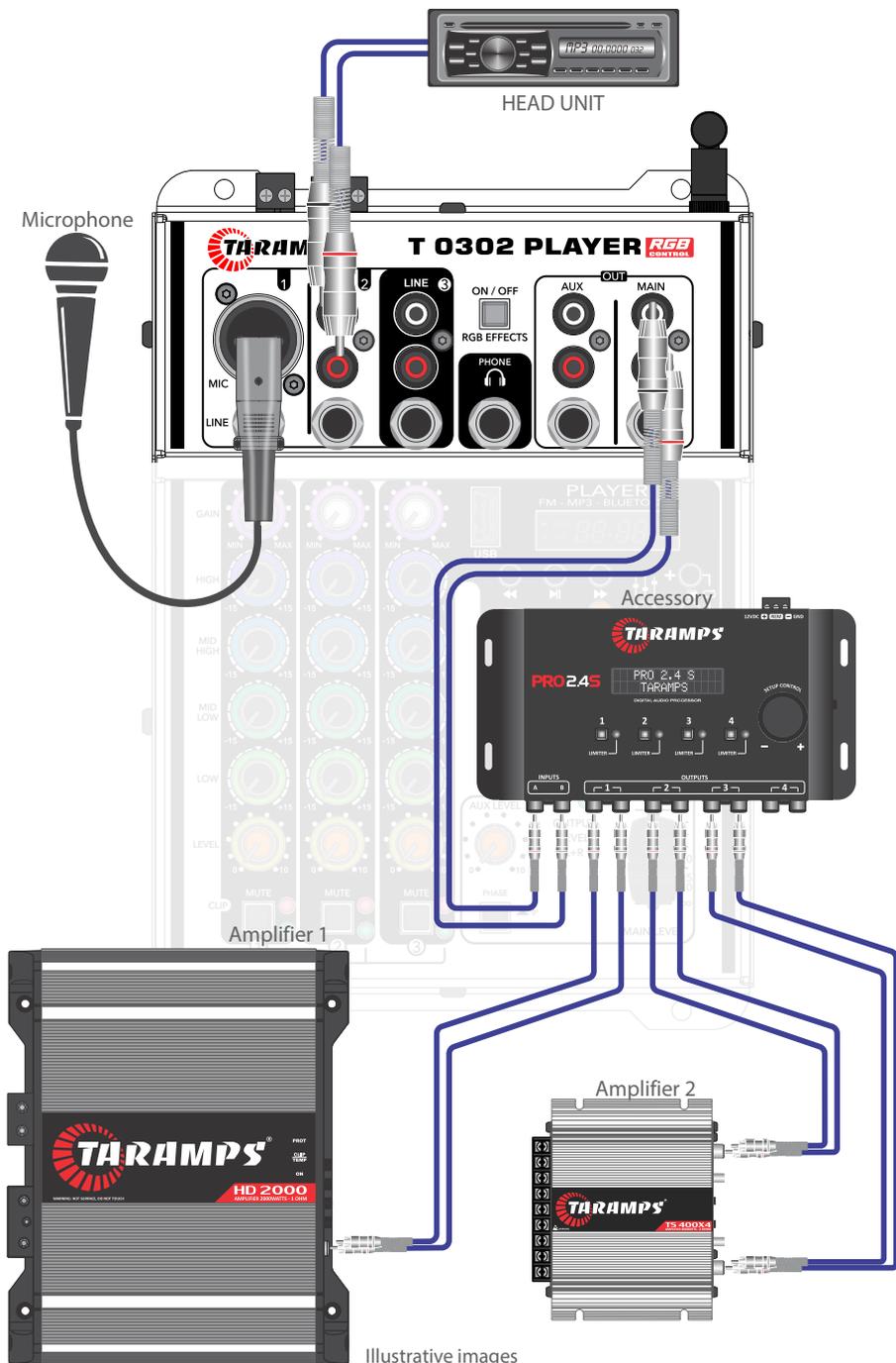
### FM ANTENNA 05

Position the antenna wire to obtain the best reception. If the FM function is not used, the antenna should remain coiled.

### LONG RANGE REMOTE CONTROL ANTENNA/BLUETOOTH 06

Allows extending the range of the Bluetooth signal and the long range remote control, ensuring a more stable connection over greater distances. Ideal for environments with obstacles or interference

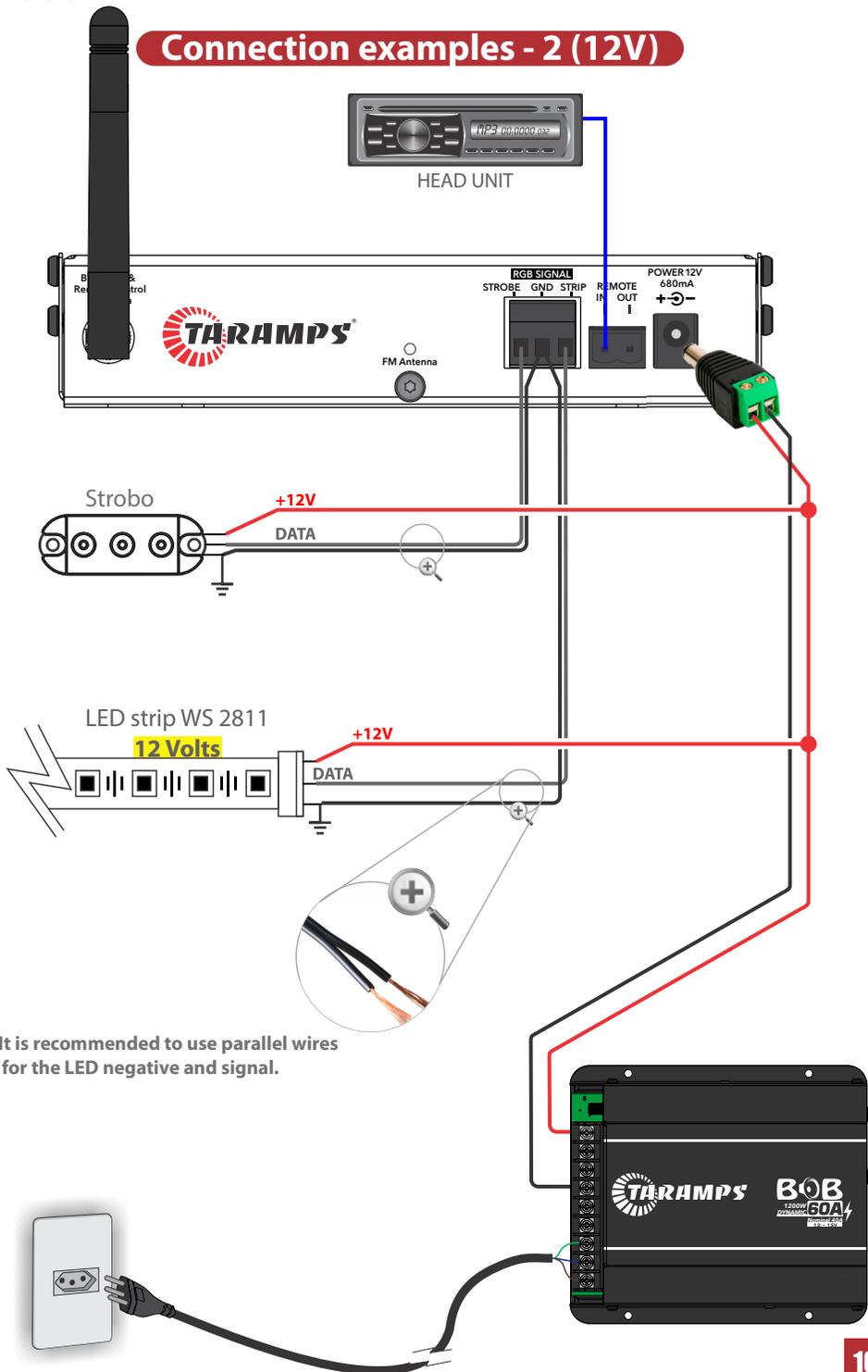
## Connection examples - 1



Illustrative images

# Installation

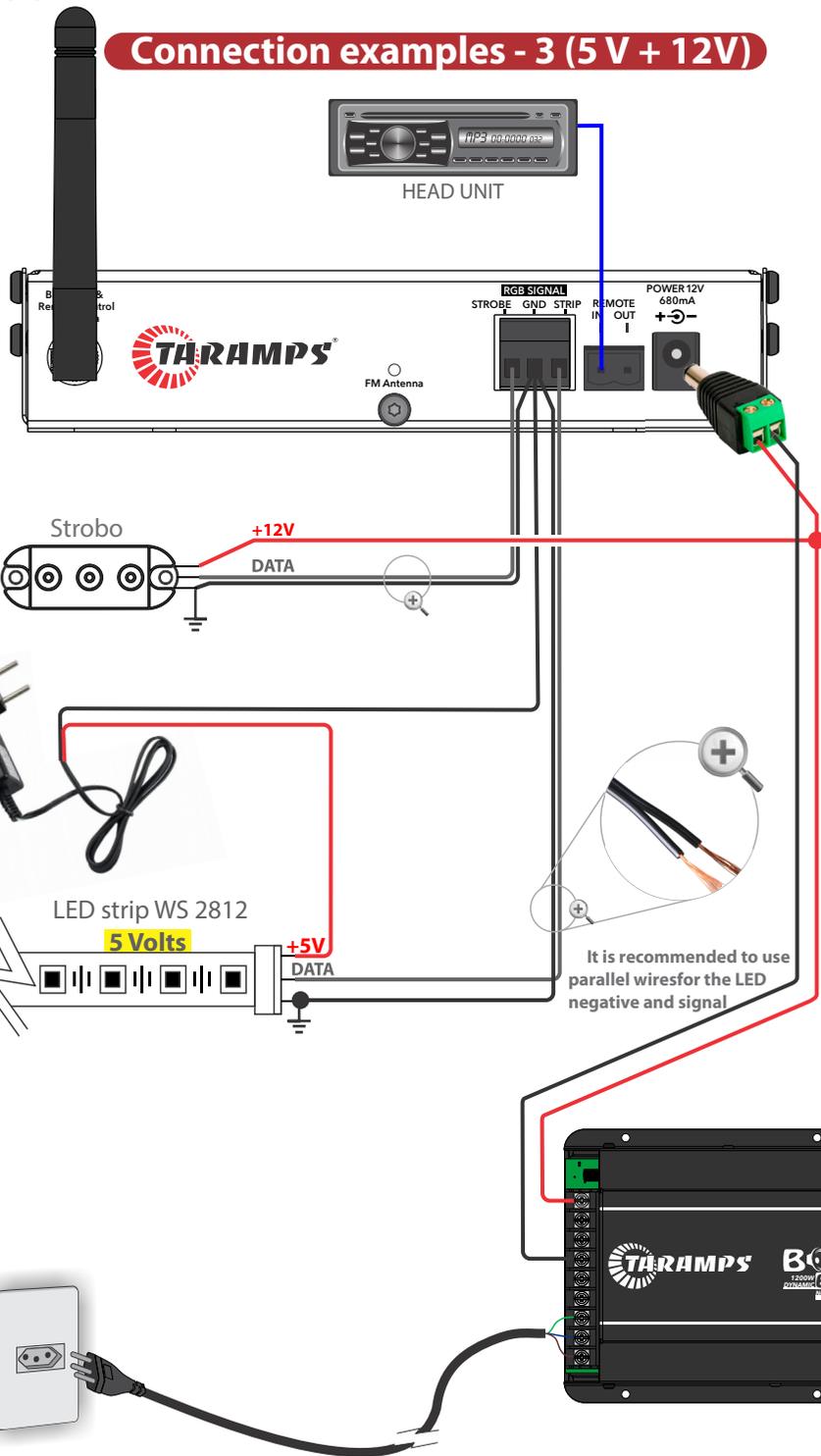
## Connection examples - 2 (12V)



It is recommended to use parallel wires for the LED negative and signal.

# Installation

## Connection examples - 3 (5 V + 12V)



# Características técnicas

Resp. Freq. (-3dB):	2Hz ~ 76Khz
Total Harmonic Distortion:	<0.009% (T.H.D.)
Signal to Noise Ratio (SNR):	112dB
Channel 1and 2 input sensitivity:	Mic (XLR) Min: 500mV ~ Max 7mV Line (P10) Min: 620mV ~ Max 7.6mV
Channels 2/3 input sensitivity:	Line (P10/RCA) Min: 2.55V ~ Max: 60mV
4 band equalization per channel	High ±15dB (12KHz) Mid High ±15dB (2.5KHz) Mid Low ±15dB (300Hz) Low ±15dB (80Hz)
Channel 1 input impedance:	Mic (XLR): Unbalanced 4K Ohms Balanced 8K Ohms Line (P10): Unbalanced 8.5K Ohms Balanceada 17K Ohms
Channels 2/3 input impedance:	Line (P10): Unbalanced 10K Ohms Line (RCA): Unbalanced 10K Ohms
Bluetooth version:	4.0 SBC / A2DP
Audio format:	MP3 / WMA
Maximum bit rate	320Kbps
FM:	87.5MHz a 108MHz
Equalization mode:	POP, ROCK, JAZZ, COUNTRY, NORMAL
Remote control:	433.5MHz 10dBm
Output impedance:	Main Out (P10/RCA): 47R Aux Out (P10/RCA): 47R
Max output level	Main Out (P10/RCA): 18 dBu/6.3Vac Aux Out (P10/RCA): 18 dBu/6.3Vac
Power Voltage (POWER):	9 ~ 16 Vdc
Consumption*:	680 mA
Remote Input(Conector REM):	9 ~ 16 Vdc
Remote Output (Conector REM):	100 mA
Dimensions (WxHxD):	165 x 42 x 228mm (6.5" x 1.65" x 8.98")
Weight:	0.90Kg (1.91lb)

\*The consumption of the T0302 PLAYER MULTICOLOR RGB CONTROL may vary according to the effect used.



Taramps reserves the right to modify the content of this manual without prior notice and without any obligation to apply the modifications to previously produced units.



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

Warranty Period TARAMPS, located at Rua Abílio Daguano, 274 Res. Manoel Martins - Alfredo Marcondes - SP, CEP 19.180-000, warrants this product against defects in design, manufacture, assembly and/or jointly and severally as a result of design defects that render it unfit or unsuitable for its intended use, for a period of ONE YEAR from the date of retail purchase by you.

In the event of a defect during the warranty period, TARAMPS' liability shall be limited to repairing or replacement of the device manufactured by TARAMPS.

### **The Limited Warranty does not cover defects which are a result of:**

- Damage resulting from the performance of repairs by someone other than an authorized TARAMPS Technical service assistance, improper installation, water infiltration, broken or liquid damage caused by negligence;

Warranty seal torn or ripped;

- Cases in which the product not used under normal conditions;

- Damage to, modifications or deterioration of, any accessory or equipment attached to the product;

- The product damaged by falls, impacts or the action of natural agents (floods, lightning, etc.);

- Warranty card not filled in or erased;

- Costs of removing and reinstalling the equipment, as well as transporting it to the service center;;

- Damage of any kind, due to problems in the product, as well as losses caused by discontinued use of the product.

## Technical assistance

For additional information or to initiate a warranty process, please contact TARAMPS' customer service through the following channels :

[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)



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