

Instruction manual



T 0202
MULTICOLOR
CAR SOUND MIXER



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

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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:

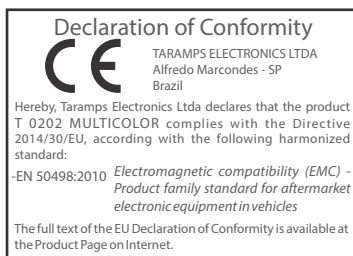
www.taramps.com.br/en/rede-de-assistencias-tecnicas or contact direct the factory support:

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

E-mail: service@taramps.com.br

Introduction

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



At the end of its lifespan, 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 car sound mixer. It is specially important that you know the **CAUTIONS** contained here.

- The installation of this product must be done by a qualified professional.
- Use the correct tools for installing this product.
- This product must be powered by the vehicle's power system or a 12V AC/DC adapter. 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.
- Be sure to install protection fuse or a circuit breaker near to battery. Follow the ampere rating as indicated here in this manual. Use of improper fuse 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.
- 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.



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.



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Presentation

The **T 0202 MULTICOLOR** mixer was designed for sound systems allowing the mixing of several types of audio signals with high fidelity, ensuring the original dynamics of the sound. It features a 4-band equalizer that allows you to increase or reduce specific ranges of mid-bass and highs, allowing for a professional control in any situation. Its outputs with timed MUTE avoid undesired noises (Pops) when turned on or off, making the sequence of activations unnecessary, and easing installation.

With a **total of 79 variable lighting effects + random mode effects**, causing a different visual effect for the user. See pages 08 and 09.

The **T 0202 MULTICOLOR** features 2 input channels, with two shared connections, one RCA and one RTS. This is a high-sensitivity, wide-gain input, which allows the use of a Microphone or LINE IN.

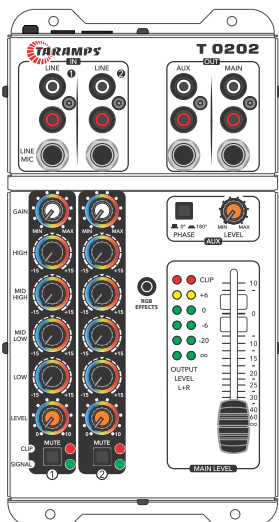
CHANNELS 1 and 2 feature shared L+R type RCA inputs with an RTS connector for greater connection flexibility.

All 2 inputs have independent controls for:



- Gain for adjusting the input signal level.
- 4 EQ controls HIGH, MID HIGH, MID LOW and LOW with ± 15 dB boost/attenuation.
- Level for output control.

The 2 outputs have great amplitude and can deliver up to +18dBu or 6.3Vac of distortion-free signal.

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 1.5mm² gauge wires for both the positive and negative wires. Screw the wires according to the following instruction:

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

As protection, a fuse must be installed close to the positive pole of the battery (**1A fuse**). check for more details on pag. 16 of this manual. For the REMOTE connection, use 0.5 mm² 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.

In order to avoid noise captation, use good quality shielded signal cables and connectors.



CAUTION

Check power polarity and recommended gauge.

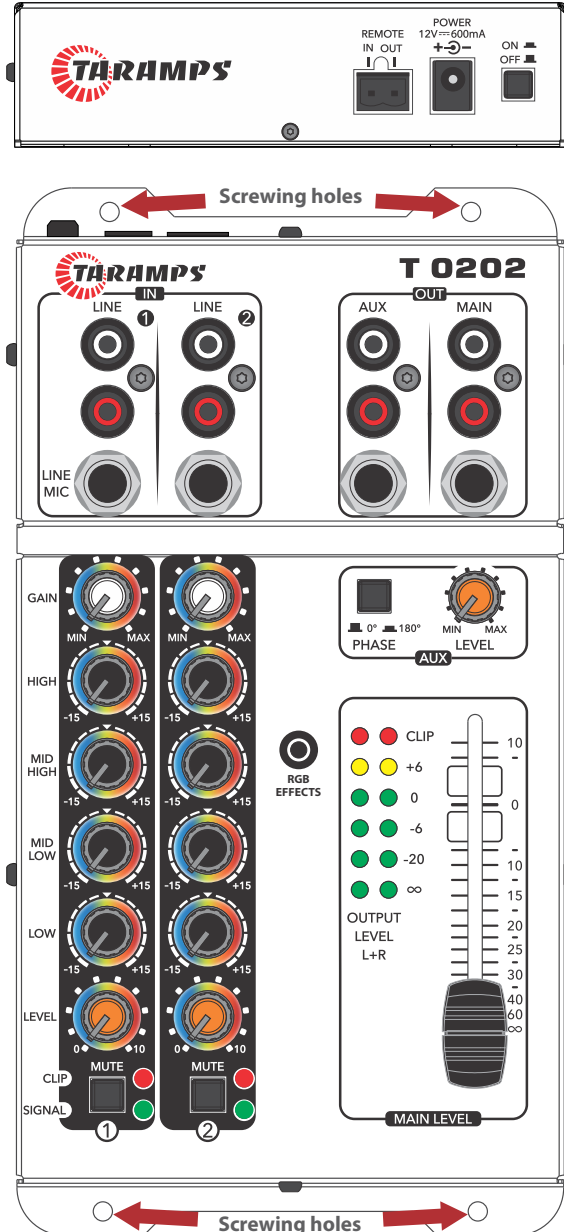
it is recommended to install a 1 Ampere fuse on the positive supply terminal.

Product overview

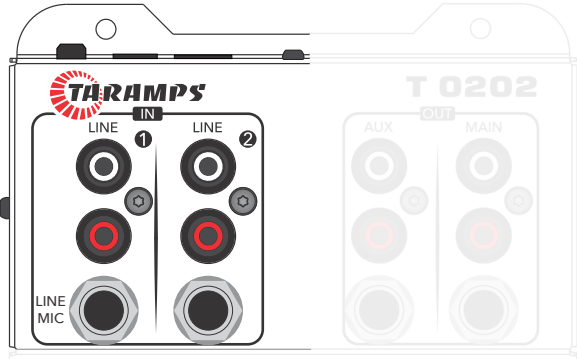
ENGLISH

On this page you have an overview of the **T 0202 MULTICOLOR** sound mixer, you will better understand the commands on the next page. To be able to use all the product commands, carefully read all the commands below.

Install the mixer in an easily accessible place and, if fixing is necessary, use the 4 screwing holes to avoid possible vibrations.



IN - Inputs



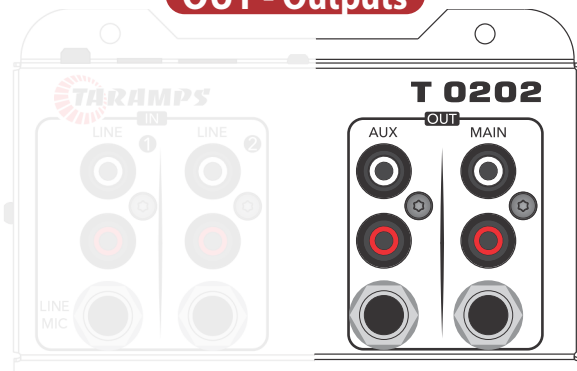
LINE

Inputs for RCA connectors. Allow to receive signals from various sound equipment, such as head unit, audio processor, etc... with high level output.

LINE / MIC

Inputs for connectors RCA or P10 (TRS 1/4"). They allow you to receive signals from various sound equipment, but with a gain range suitable for MICROPHONES. These inputs DO NOT HAVE PHANTOM POWER.

OUT - Outputs



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 TRS.

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 Increases or reduces **treble** by up to ± 15 dB

MID HIGH Increases or reduces **mid-high** by up to ± 15 dB

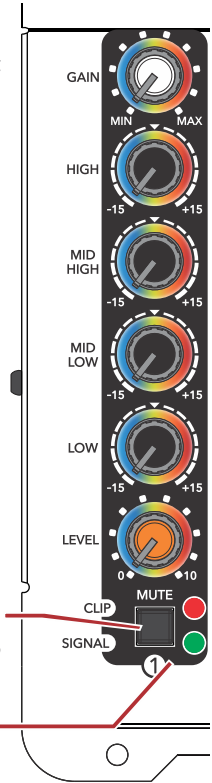
MID LOW Increases or reduces **mid-low** by up to ± 15 dB

LOW Increases or reduces **Low** by up to ± 15 dB

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

MUTE Mutes the channel mixing at the outputs. It is useful for quick channel cutting without changing the gain settings. When activated, the red CLIP LED will light regardless of the input signal level.

LED INDICATORS Red LED shows channel input saturation or MUTE button pressed. Green LED indicates that the channel is receiving signal at its input.

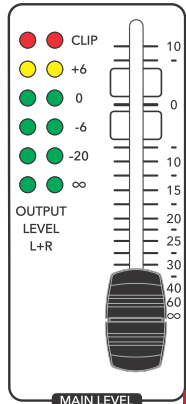
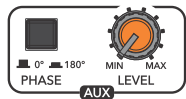


PHASE Inverts the signal phase of the AUX OUT channel by 180°

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.



RGB effects

The **T 0302 FX MULTICOLOR** sound mixer has several lighting effects that can be chosen by the user. There are two operating modes that alternate depending on the state of the table:

STANDBY MODE: activated when there is no audio output for 10 seconds. At this moment, the RGB EFFECTS button will set the lighting effect to standby mode.

AUDIO MODE: activated when there is an audio signal output from the table. At this moment, the RGB EFFECTS button will configure the lighting effect for audio mode.

NOTE: VU-METER effects are only available in AUDIO MODE. This effect works with the output audio level and serves only as a lighting effect. For greater output level accuracy, use the LED VU-METER next to MAIN LEVEL.

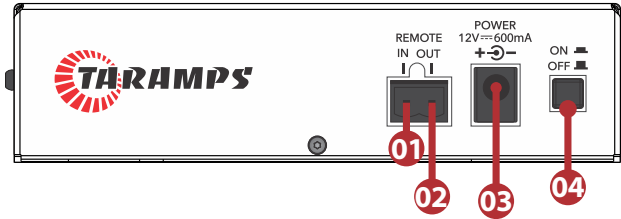


STANDBY EFFECTS TABLE

0	4 comets from red to green
1	4 comets from red to blue
2	4 comets from green to blue
3	4 comets from pink to purple
4	4 comets from blue to purple
5	4 comets from white to pink
6	rainbow effect with wave animation
7	horizontal lines falling and accumulating, changes colors automatically.
8	vertical back and forth with white background and dots alternating colors.
9	vertical fill in red.
10	strobe effect on white
11	giroflex effect
12	color bomb effect
13	matrix effect
14	fixed color: red
15	fixed color: orange
16	fixed color: yellow
17	fixed color: green
18	fixed color: green + cyan
19	fixed color: cyan
20	fixed color: blue
21	fixed color: purple
22	fixed color: pink
23	fixed color: pink + red
24	fixed color: faint white
25	fixed color: medium white
26	fixed color: strong white
27	palette by function: white gain / eq. blue / level orange
28	palette by function: white gain / eq. green / level orange
29	palette by function: white gain / eq. cyan / orange level
30	palette by function: white gain / eq. purple / level orange
31	palette by function: gain red / eq. purple / level blue
32	rainbow background with colorful pinball animation / 1 dot
33	rainbow background with pinball animation in white / 1 dot
34	rainbow background with pinball animation in white / 1 dot
35	green background with white pinball animation
36	red background with white pinball animation
37	blue background with white pinball animation
38	purple background with white pinball animation
39	yellow background with white pinball animation
40	cyan background with white pinball animation

0	4 comets from red to green
1	4 comets from red to blue
2	4 comets from green to blue
3	4 comets from pink to purple
4	4 comets from blue to purple
5	4 comets from white to pink
6	vu-meter: green background, scale from green to red
7	vu-meter: green background, scale from blue to green
8	vu-meter: white background, scale from green to purple
9	vu-meter: blue background, scale from blue to red
10	vu-meter: green background, scale from green to red
11	vu-meter: purple background, green/yellow/red scale
12	vu-meter: purple background, green/yellow/red scale
13	rainbow effect with wave animation
14	horizontal lines falling and accumulating, changes colors automatically.
15	vertical back and forth with white background and dots alternating colors.
16	vertical fill in red.
17	strobe effect on white
18	giroflex effect
19	color bomb effect
20	matrix effect
21	fixed color: red
22	fixed color: orange
23	fixed color: yellow
24	fixed color: green
25	fixed color: green + cyan
26	fixed color: cyan
27	fixed color: blue
28	fixed color: purple
29	fixed color: pink
30	fixed color: pink + red
31	fixed color: faint white
32	fixed color: medium white
33	fixed color: strong white
34	palette by function: white gain / eq. blue / level orange
35	palette by function: white gain / eq. green / level orange
36	palette by function: white gain / eq. cyan / orange level
37	palette by function: white gain / eq. purple / level orange
38	palette by function: gain red / eq. purple / level blue
39	rainbow background with pinball animation in white / 1 dot
40	rainbow background with pinball animation in white / 2 dot
41	rainbow background with pinball animation in white / 3 dot
42	green background with white pinball animation
43	red background with white pinball animation
44	blue background with white pinball animation
45	purple background with white pinball animation
46	yellow background with white pinball animation
47	cyan background with white pinball animation

Power and activation



The **T 0202 MULTICOLOR** was designed to be used in car audio systems with a 12V battery, but it can also be used with an external 12V plug adapter with a current of at least 1A, which must be purchased separately (in this case, the consumer should pay attention to the adapter plug that should be standard P4-2mm). It has an ON/OFF button that eliminates the REMOTE IN connections.

It can automatically turn on and off by remote activation using the REMOTE IN connection. To do so, keep the ON/OFF key off (unpressed).

The REMOTE OUT connection can be used for powering amplifiers and is timed to minimize transients when turning the system on and off.

REMOTE IN 01

Connection that turns on or off automatically from a remote cable from a head unit. Use 0.5 mm² cable. Note: if the ON/OFF button is pressed, the device will not turn off by remote activation.

REMOTE OUT 02

Output for activating other devices. It can be used to turn on amplifiers or other equipment as long as they have a remote input. This output is current limited and not suitable for currents greater than 100mA. Use the screw-on connector that comes with the product and a 0.5 mm² cable sold separately.

12V POWER SUPPLY 03

Standard P4 /12V 2mm power connector. Use the TERMINAL/P4 adapter that comes with the product or a 12V adapter source (adapter source doesn't come with the product).

Use a 1.5mm² cable for the connections and **use a 1A fuse on the positive wire as close as possible to the battery**, following the marking on the TERMINAL/P4 adapter:

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



CAUTION

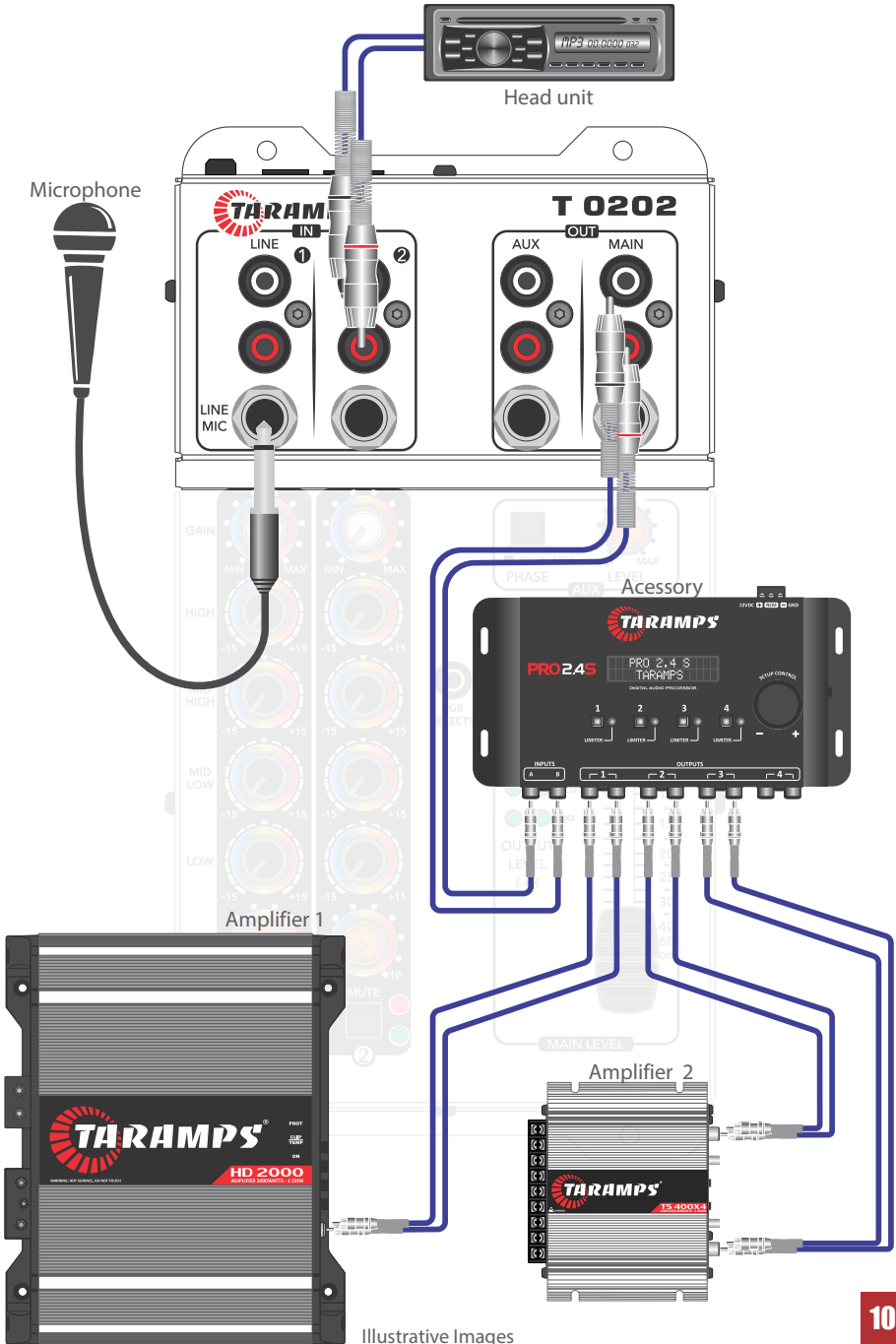
Check power polarity and recommended gauge. it is recommended to install a 1 Ampere fuse on the positive supply terminal.

POWER ON/OFF 04

Turns on the sound mixer regardless of the REMOTE IN signal when pressed.

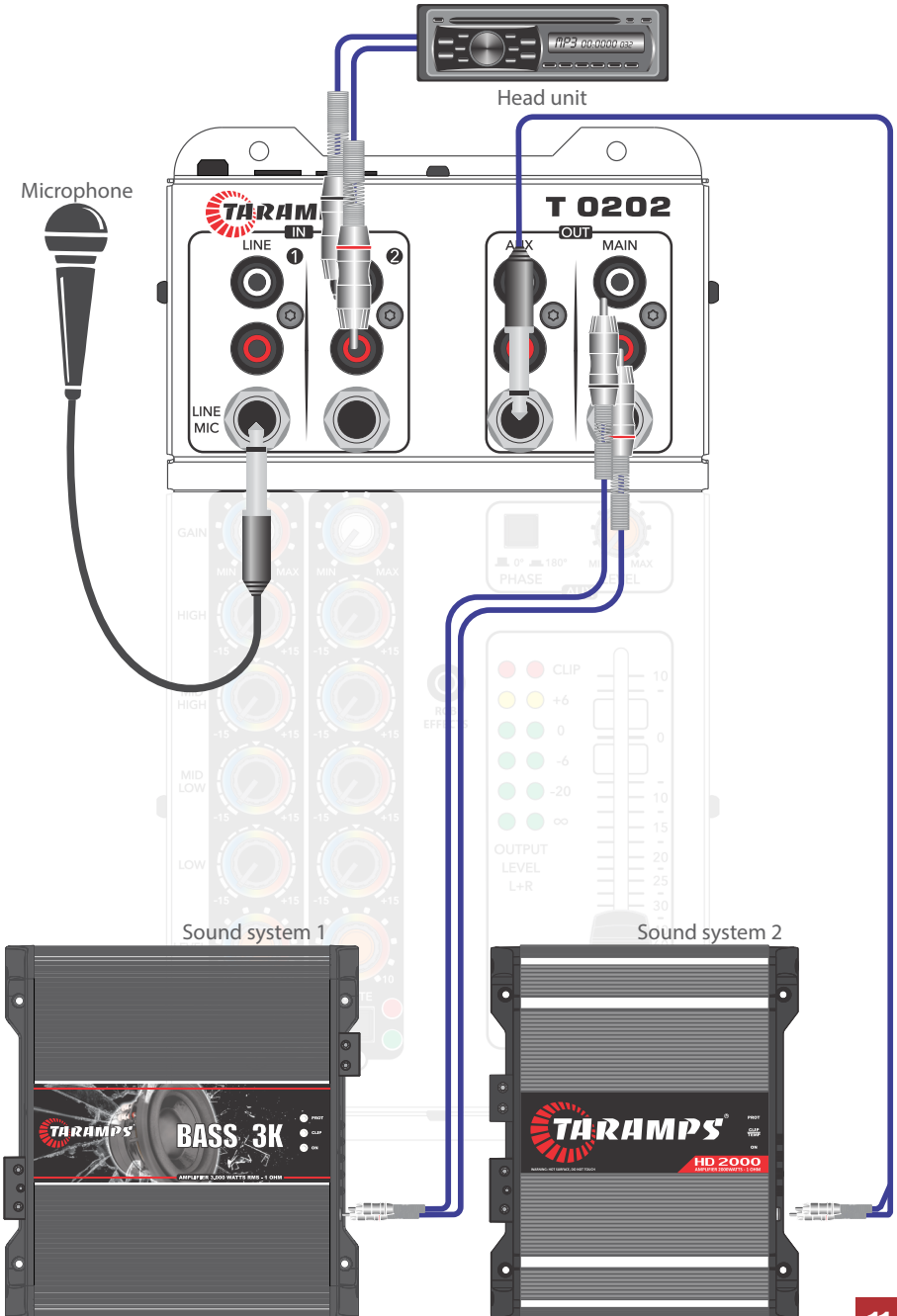
If the REMOTE IN input is active (remote on) this button will not turn off the device until the REMOTE IN input is deactivated.

Connection examples - 1



Illustrative Images

Connection examples - 2



Frequency Response (-3dB):	2Hz ~ 76Khz
Total Harmonic Distortion:	<0,009% (T.H.D.)
Signal to Noise Ratio (SNR):	112 dB
4 EQ bands per channel:	High ± 15 dB (12 KHz) Mid High ± 15 dB (2,5 KHz) Mid Low ± 15 dB (300 Hz) Low ± 15 dB (80 Hz)
Input sensitivity:	LINE (RCA) Min: 840 mV ~ Max 15.6 mV Line/MIC (P10) Min: 2.65 mV ~ Max 44.7 mV
Channel input impedance:	Line (RCA): Unbalanced 10K Ohms Line/MIC (P10): Unbalanced 2.5K Ohms
Max inputs level no distortion:	Line (RCA): 3 Vac Line/MIC (P10): 1 Vac
Output impedance:	Main Out: 47R Aux Out: 47R
Max outputs level no distortion:	Main Out: 18 dBu/6.3Vac Aux Out: 18 dBu/6.3Vac
Power Voltage (POWER):	9 ~ 16 Vdc
Max Consumption:	600 mA*
Remote Input (REM Connector IN):	9 ~ 16 Vdc
Remote Output REM Connector OUT):	100 mA max.
Dimensions (WxHxD):	120 x 42 x 220mm (4.72" x 1.65" x 8.66")
Weight:	0.68 Kg (1.50 lb)

*The consumption of the T0202 MULTICOLOR may vary according to the effect used.



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