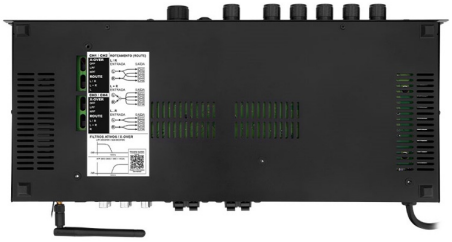


TARAMPS THE 6000 4x100W RMS Class D Multichannel Receiver Instruction Manual

Instruction manual
THS 6000
4 x 100W RMS
CLASS D

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

Contents

Introduction

Congratulations on purchasing a Taramps product.
Developed in a modern laboratory, with highest technology and highly qualified professionals.
This manual explains all the resources, operations and guidelines for resolving questions that may arise in your

installation. Take a time to read it carefully and ensure the proper installation and use of all the benefits that this product can offer. In case of doubt even after reading this manual, please contact our technical support at the number +55 18 3266 4050 or our website **www.taramps.com.br/en**.

Presentation

The TARAMPS THS 6000 is a Multi Channel Receiver developed with high technology to integrate different environments. Compact and powerful it can be used in several applications providing quality sound.
Application examples:
– Environment sound for stores, shops and clinics. It also allows, through the microphone input, that warnings are transmitted via the sound system.
– In your leisure area, gourmet space, country house, etc. Including various audio input options, such as Bluetooth, Micro SD, AUX and USB, it allows the audio sources to be easily changed giving the user exibility in choosing the preferred audio.
The equipment is automatic bivolt and can be connected to any power plug between 90 and 240V. It has a switching power supply that is more efficient in the consumption of electricity.
If you are not going to use the product for a long time, we recommend that you disconnect from the power plug.

Important recommendations

– The THS 6000 must be installed in a rm and ventilated place, away from heat and humidity places. Avoid locations with direct sunlight.
– Do not block the ventilation holes on the top and rear.
– Avoid falls and impacts.
– Carefully observe the polarity and impedance of the loudspeakers.
– Use cables according to the distance between the THS 6000 and the loudspeakers.
The table below shows the recommended gauges according to the distances:

Until 20m (65,6 ft)	cables with a gauge larger than or equal to	1 mm² (17 AWG)
Until 40m (131,2 ft)	cables with a gauge larger than or equal to	1,5 mm² (15 AWG)
Until 70m (229,6 ft)	cables with a gauge larger than or equal to	2,5 mm² (13 AWG)
Until 100m (328 ft)	cables with a gauge larger than or equal to	4 mm² (11 AWG)

– In case of unwanted noise make sure that the cables and connections are in good condition.
Leave the volume at minimum on unused channels.

Audio source
The TARAMPS THS 6000 has the following audio inputs:

1. USB: Flash drive input *
2. MICRO SD CARD *
3. AUX (front): P2 standard auxiliary input.
4. AUX1 and AUX2: RCA standard auxiliary inputs.
5. BLUETOOTH
6. FM radio
7. Microphone input (standard P10)
8. Optical Input

* The connected device must contain music in MP3 format to be identied by the equipment.

Maximum supported size: 64GB.

⚠ We advise you to always have a good antivirus, so there are no problems with the Flash Drive or micro SD card when connecting to the product. Infected devices may cause undesirable effects to the THS 6000, such as: Slow music reading and general failures.

Do not use the USB input to connect to the computer or to recharge other devices that have batteries.

Package content

- 01 Multi Channel Receiver THS 6000

- 01 Remote Control

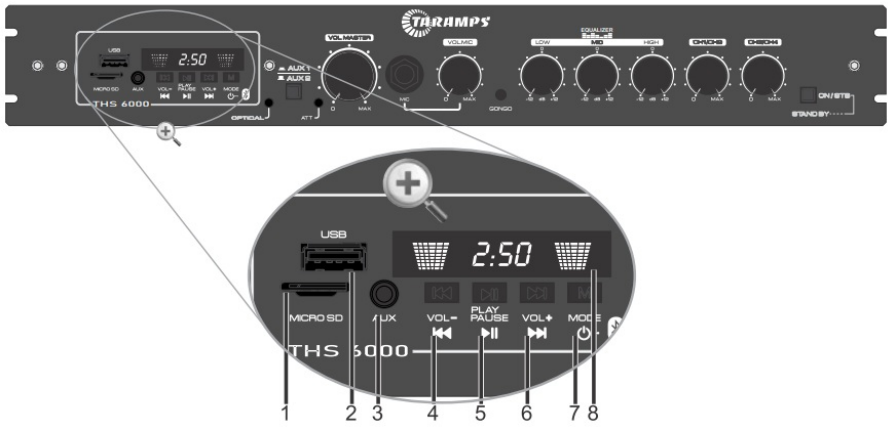
- 01 Optical Cable

- 01 Bluetooth Antenna

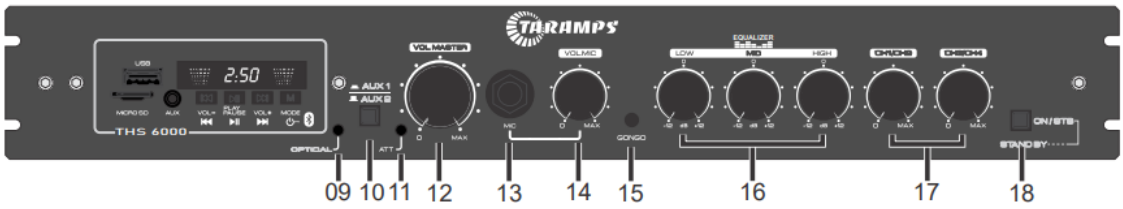
Illustrative images

Knowing your equipment

Front Panel



1. – MICRO SD: Micro SD memory card input .
   (The card must be positioned as the image shows, with the terminals facing up)
2. – USB: Input to Flash Drive.
3. – Aux. (Connector P2): Receives audio signal from the P2 output of your phone, tablet, MP3, computer, among others. Use good quality cable to avoid unwanted noise.
4. – Track – / Volume -:
   Short touch: Rewinds music tracks in USB / SD / BLUETOOTH source options. Decreases the FM tuning frequency by 0.1MHz.
   Long touch: Decreases overall volume. Automatic search for the previous FM station.
5. – Play/Pause:
   Short touch: Pause or start music for USB / SD / BLUETOOTH. Advances to the next saved FM station memory position.
   Mute to the AUXILIARY option Long touch: Search for FM stations and save them in memory.
6. – Track + / Volume +:
   Short touch: Advances music tracks in USB / SD / BLUETOOTH source options. Increases the FM tuning frequency by 0.1MHz.
   Long touch: Increases overall volume. Automatic search for the next FM station.
7. – Mode / ON/OFF:
   Short touch: Selects functions: USB / SD / AUXILIARY / BLUETOOTH / FM.
   Long touch: Turns the player on or off, leaving only the microphone input active.
8. – LED Display – Remote control IR sensor: For better communication between the remote control and the device, point the control at this point on the display.
   Front Panel (sequence)



9. – OPTICAL: LED indicating the presence of an optical signal. Indicates that the current auxiliary input is optical.
10. – AUX1 / OPTICAL or AUX 2 KEY: Button pressed: Selects AUX1 and Optical inputs.
    Button not pressed: Selects the AUX 2 input. (Inputs on the rear panel).
11. – ATT: LED audio attenuation indicator.
    When identifying an audio signal from the microphone input or emitting the ding-dong signal (GONGO), the

equipment attenuates the output signal, allowing higher evidence of the microphone. After 2 seconds without using the microphone, it returns to the state without attenuation. It is possible to enable or disable this function. See page 05 (Function configuration mode).

12. – MASTER: Controls the global volume level and must be used to adjust the output power desirable.
13. – MIC: P10 (1/4″) input for microphone.

    Microphone Recommendations:

    – The microphone signal has a low amplitude, so improper use can cause unwanted noise.

    – Use quality cables and connectors.

    – Do not wrap the microphone cables.

    – Do not pass the microphone in front of the loudspeakers. This causes microphone feedback.
14. – VOL. MIC: Adjusting the volume of the microphone and the GONGO (ding-dong). If you do not use the microphone and GONGO, it is recommended to keep the volume to a minimum.
15. – GONGO: GONGO activation key.

    The product has 2 GONGO options. To select another option with the device on, touch and hold the “GONGO” key. The 2 gong patterns will be emitted in sequence (do not release the key). To select an option, release the “GONGO” key after hearing the desired option.
16. – EQUALIZATION: 3 band equalizer control.

    LOW: Bass frequencies

    MID: Middle frequencies

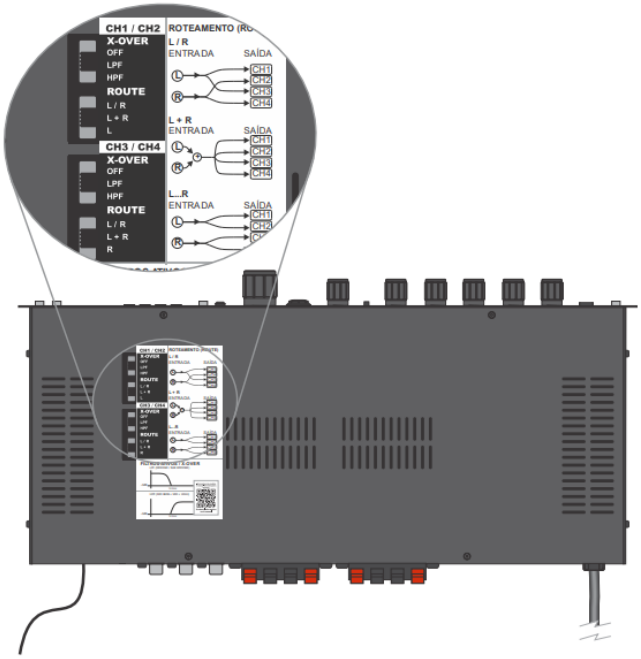
    HIGH: High frequencies.
17. – CH1/CH2 – CH3/CH4: Adjust each channel level (1 and 2,3 and 4).
18. – TECLA ON/STB: Turn ON the receiver or stay in standby mode. On, indicates that the product is plugged into the outlet in stand by mode.

Function configuration mode

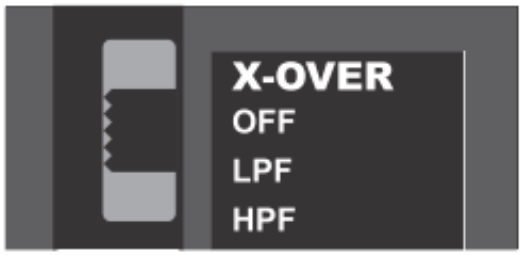
With the device in Standby, touch and hold the ON/STB key (18) for more than 5 seconds. The STANDBY LED (18) will flash indicating that the device is in configuration mode.
The blue LEDS on the panel will indicate the current status, being:
-OPTICAL(9) lit, indicates that the AUTO TURN ON function is active. To change the status of this function, touch the ON/STB button (18) repeatedly until the LED goes out.
-ATT(11) lit, indicates that the attenuation function is active. To change the status of this function, touch the GONGO key (15).
To exit programming, touch and hold the ON/STB key (18) for more than 5 seconds.

Output configurations

The CH1, CH2, CH3 and CH4 outputs can be configured for various use situations, such as a 2.1 system, often used in TV soundbars, where we have two stereo outputs and a bass output. In this case, the subwoofer box must be passive. Another option is a STEREO system with two high-power channels. Or even with 4 independent outputs.
For configurations, the THS 6000 has three resources: two X-OVER keys to activate frequency filter depending on the type of box used, two ROUTE keys to direct the input signal to the outputs and BRIDGED output connections. The X-OVER and ROUTE keys are located on the bottom (image below), built into the device to prevent accidental activation. Each key acts on two outputs simultaneously, one on CH1/CH2 and the other on CH3/CH4. The BRIDGED connections are on the back, on the SPEAKER OUT output connectors, simply connecting the speaker to the corresponding terminals.



X-OVER key (frequency Iters)
These keys activate the frequency filters of the respective channels. The HPF and LPF filters complement each other and are ideal for combined use, i.e. in separate bass systems with a passive woofer or subwoofer box.
The HPF filter used independently can help increase performance, durability and even improve distortion in small speakers that are not capable of reproducing bass efficiently. The settings are:



OFF: Frequency filters turned off, with no effect.
LPF: Low pass mode frequency filters. These filters only allow low sounds to pass through. Use these filters if you connect a passive woofer or subwoofer speaker.
HPF: High pass mode frequency filters. These filters only allow bassmids, mids and highs to pass through. Use these filters if you are connecting sconce-type speakers or small speakers that are not capable of reproducing sub-bass.
ROUTE key (routing)
These keys select which L or R channel (left or right) of the source being played will be routed to the CH1, CH2, CH3 and CH4 outputs. The playback source can be USB, FM or Bluetooth, AUX1, AUX2 or Optical and must be chosen in other controls. The options are:
ROUTE CH1/CH2:

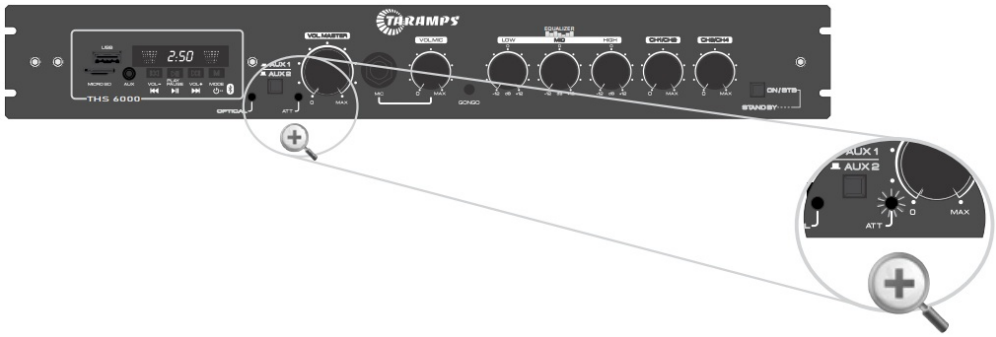
R/L: Directs the L channel to the CH1 output and the R channel to the CH2 output. This configuration is recommended for environments in which the speakers are in suitable positions for stereo reproduction. R+L: Directs the mixing of the R and L channels (mixer or mono-mix) to the CH1 and CH2 outputs. This configuration is recommended for use with a subwoofer/woofer or in the case of sound systems where only one channel will be

used per room (multi-room systems).
L: Directs only the L channel to the CH1 and CH2 outputs. This case is only allowed when the THS 6000 will operate on 2 outputs (200W + 200W). To do this, the ROUTE key on CH3/CH4 must be in the “R” position and the speakers must be connected to the BRIDGED connections. In this case, the BRIDGED output of CH1/CH2 will reproduce the L channel and the BRIDGED output of CH3/CH4 will reproduce the R channel.
ROUTE CH3/CH4:

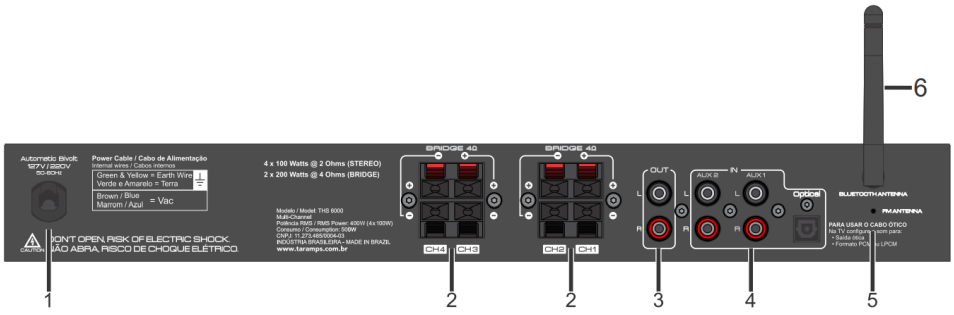
R/L: Directs the L channel to the CH3 output and the R channel to the CH4 output. This configuration is recommended for environments in which the speakers are in suitable positions for stereo reproduction.
R+L: Directs the mixing of the R and L channels (mixer or mono-mix) to the CH3 and CH4 outputs. This configuration is recommended for use with a subwoofer/woofer or in the case of sound systems where only one channel will be used per room (multi-room systems).
R: Directs only the R channel to the CH3 and CH4 outputs. This case is only allowed when the THS 6000 will operate on just 2 outputs (200W + 200W). To do this, the ROUTE key on CH1/CH2 must be in the “L” position and the speakers must be connected to the BRIDGED connections. In this case, the BRIDGED output of CH1/CH2 will reproduce the L channel and the BRIDGED output of CH3/CH4 will reproduce the R channel.
Note about the BRIDGED output: The BRIDGED outputs mentioned work to combine two outputs into one and work independently of the key settings, so it is possible to obtain a FULLRANGE or filtered signal at the BRIDGED output, depending on the position of theX-OVER key.

Protection System

The THS 6000 has a protection system against outputs overload and outputs short circuit.
When the protections are activated, the ATT LED on the front panel turns on temporarily and the audio output is interrupted. About 2 seconds, or the audio is restored.
If the protection system or system meets frequently, review the settings and installation of your system.



Knowing your equipment
Rear Panel



1. – POWER CABLE: Plugged it into a powered outlet. . This product operates from 127V AC to220V AC.
2. – SPEAKER OUT: Power output for connecting speakers. In this case, there are two connection possibilities: the normal one with a box at each output and the BRIDGED connection that joins two channels into one, for greater power. Follow the indicated polarity and the recommended minimum impedance of 2 Ohms for normal connection and 4 Ohms for Bridged connection.
3. – OUT: The LINE OUT output allows to send the audio signal (not amplified) to other equipment, such as another THS 6000, an amplifier or active subwoofer.

   The LINE OUT sound is affected by the 3 Band Equalizer and Volume controls. (LOW, MID, HIGH and VOLUME controllers).
4. – INPUT AUX 1, OPTICAL e AUX 2: Audio inputs. To use these inputs, the device must be in the AUX or DIRECT AUX function. Use the AUX1/AUX2 front button to select the desired input. OPTICAL input is automatically selected when an optical signal is present, regardless of the position of the front panel AUX1/AUX2 key. Using the OPTICA input, you have the AUTO TURN ON/OFF system, which automatically turns the device on/off when there is an optical signal at the input. This function can be disabled according to the configuration instructions on page 05.

   IMPORTANT: for the optical signal to work correctly, the TV or signal source must be configured as standard PCM output. Strong noises indicate that the received signal is not PCM standard. In this case, check the TV menu to see if the digital audio output format is PCM. (Consult your TV manufacturer's manual). Position the wire antenna in order to achieve the best FM reception.
5. – FM ANTENNA: Indoor wire antenna for FM radio reception.
6. – BLUETOOTH ANTENNA: External antenna for better reception of the Bluetooth range.

Remote Control Function

O THS 6000 has a compact remote control, so you can remotely control the device with practicality.

ON / OFF: touch this key to turn the player on or off.

MODE: Switch the audio source (USB, BLUETOOTH, SD, AUXILIARY, FM).

MUTE: Mute the audio

PLAY / PAUSE: Pause or start the music to USB / SD / BLUETOOTH.
FM: Short touch: Advances next saved memory location of FM stations.
Long touch: Searches for FM stations and saves them in memory.

TRACK – / FOLDER – / FM-:
Short touch: Previous 0.1MHz of the frequency. Previous track Long touch: Previous folder. Automatic search to the previous station.

TRACK + / FOLDER + / FM+:
Short touch: Next 0.1MHz of the frequency. Next track Long touch: Automatic search to the next station. Next folder

EQUALIZATION: Pop / Rock / Jazz / Country / Normal.
FM: Short touch Return to the saved memory position of FM stations.
Do not work in auxiliary mode.

VOL-: Volume down

VOL+: Volume up

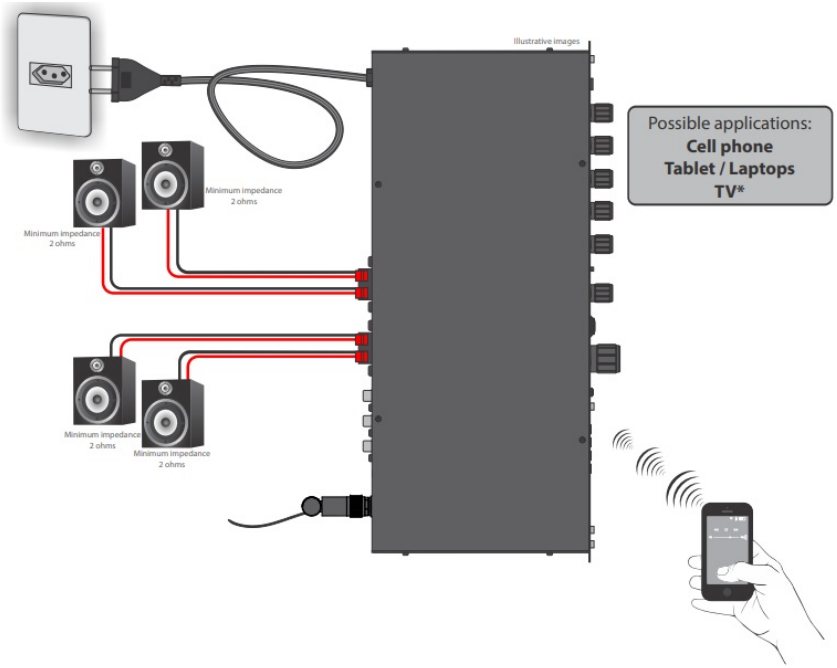
REPEAT: Repeat /play MP3 options
NUMERIC KEYBOARD: FM: Long touch saves FM stations.
NOTE: The SNC, REC and STOP keys have no function.

Bluetooth

When selecting the Bluetooth function (identied with “bt” on the display), the THS 6000 waits for a Bluetooth connection. Search for the device called “TARAMPS” using your phone, tablet, PC or other and match it.
– To connect to a new device, disconnect the current one and make the new Bluetooth pairing.
Bluetooth specication: class II with a 10m maximum range and may vary according to the environment (such as walls) and the connected device.

For other devices the connection system is similar (consult manufacturer's manual)

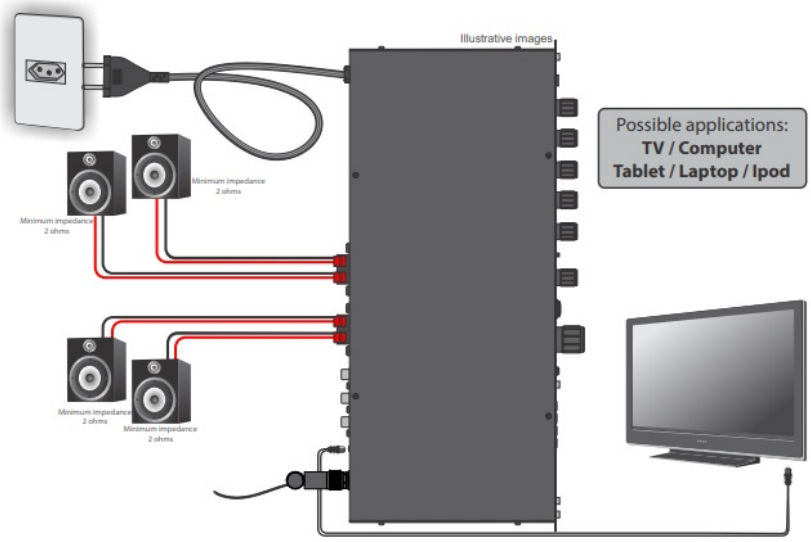
Bluetooth examples of use



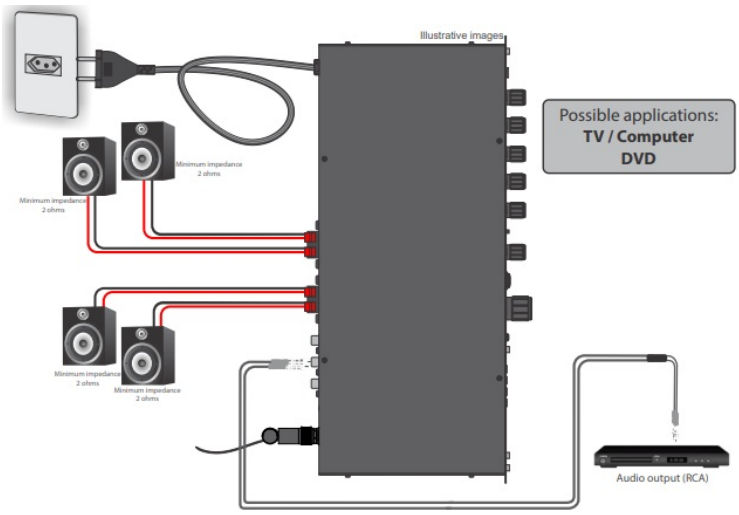
*Some TVs have an audio output system via Bluetooh. If your TV has this feature, it's possible to transmit the audio to the THS 6000.
Consult your TV manufacturer's manual.

Example of using OPTICAL input

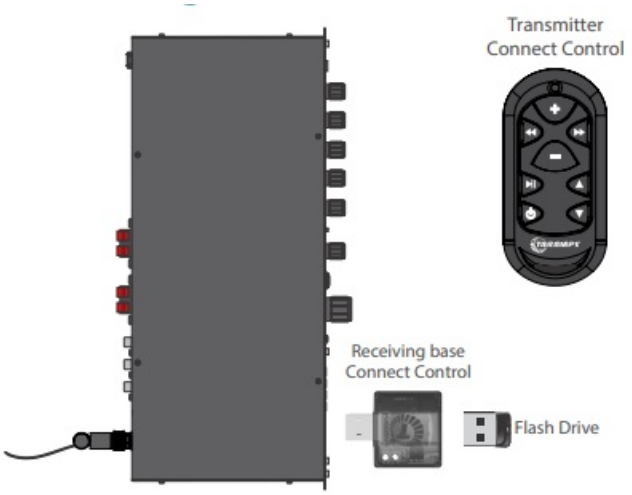
Select AUX mode using the "MODE" key. Set the TV to standard PCM output.
AUTO TURN ON: when the TV sends an optical signal, the device will automatically turn on and the OPTICAL LED will light up on the front panel. When there is no optical signal, the device turns off after 10 seconds.
The AUTO TURN ON function can be deactivated according to the configuration instructions on page. 05.



Example of using RCA input (AUX 2)
Select the AUX mode on the ‘‘MODE’’ key and the AUX 2 key not pressed.

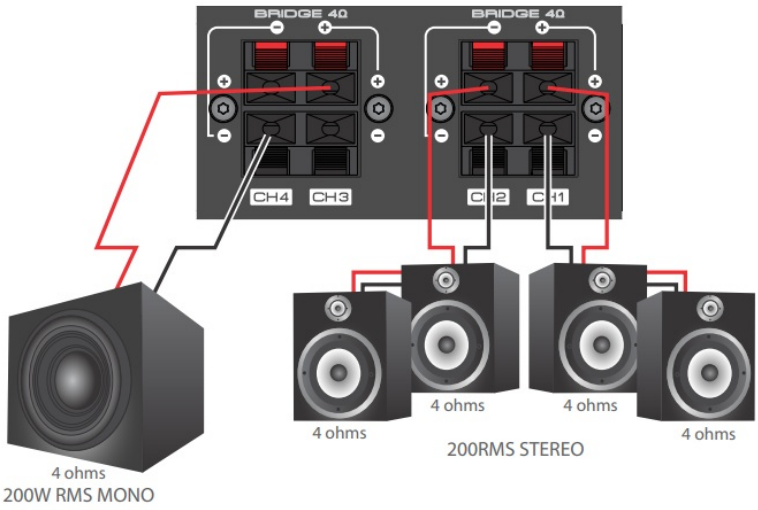


Connect control use example (Long range transmitter)
The THS 6000 is compatible with the CONNECT CONTROL, TARAMPS long range remote control which allows you to control your sound over wide distances and without the need to point the control at the device. The THS 6000 does not lose the functionality of the USB port, as the connect control allows a Flash Drive to be plugged into its USB port.
* For more details on the CONNECT CONTROL TARAMPS functionalities consult in its manual on the website.

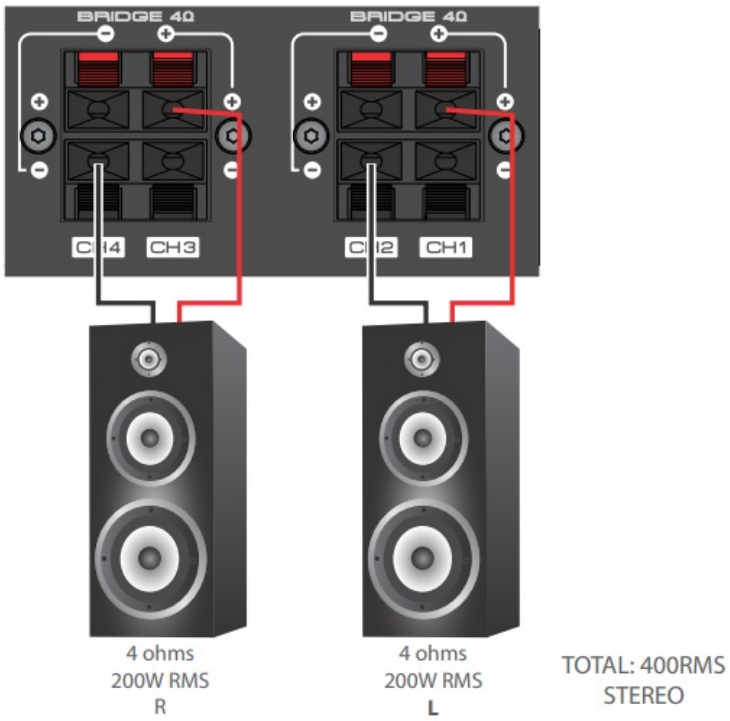


Examples of connections/congurations

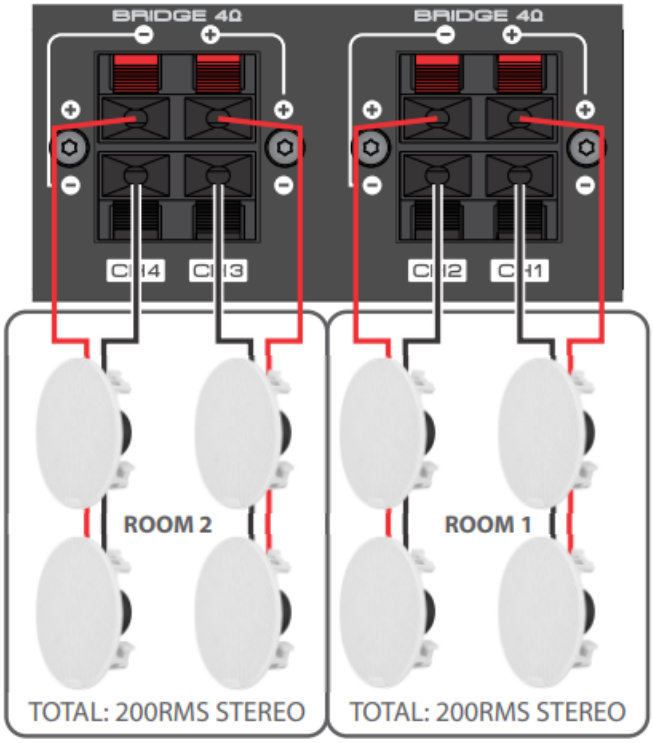
Example 1: System 2.1 with four bookshelf speakers + 1 passive bass speaker. All 4 ohms.
CH3/CH4: X-OVER in LPF, ROUTE in L+R CH1/CH2: X-OVER in HPF, ROUTE in L/R



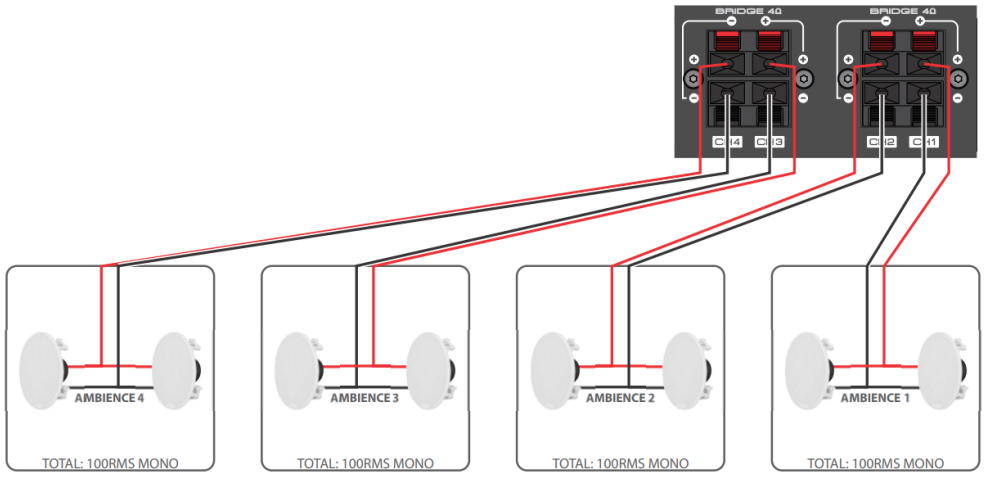
Example 2: Two full range TOWER boxes 200W each.
Both 4 ohms
CH1/CH2: X-OVER in OFF, ROUTE in L
CH3/CH4: X-OVER in OFF, ROUTE in R



Example 3: Eight 4 ohms ceiling speakers working in stereo for two commercial rooms:
CH1/CH2: X-OVER in HPF, ROUTE in L/R
CH3/CH4: X-OVER in HPF, ROUTE in L/R



NOTE: The THS 6000 does not allow two signal sources to operate at the same time, known as dual zone.
Example 4: Eight 4 ohms ceiling speakers working in mono for four environments:
CH1/CH2: X-OVER in HPF, ROUTE in L+R
CH3/CH4: X-OVER in HPF, ROUTE in L+R



To connect to ceiling speakers, use cables with a minimum gauge of 1.5mm² for up to 40 meters.
For longer distances, see table on page 02 ‘‘Important recommendations’’. It is necessary to make connections in parallel and series as shown in the example, to match impedance.

Technical features

TARAMPS THS 6000:_____Receiver Multi Channel Classe D
Number of Channels:_____04
RMS Power:_____ 400W (4 X 100W) ABNT NBR IEC 60268-3*
Nominal RMS Power of each channel:_____100W / 200W BRIDGED
RMS output voltage for each channel:_____14,2V rms / 28,4V rms Bridged
Total Harmonic Distortion + Noise (THD + N) at the nominal power of each channel (100W)_____<10%
Each channel nominal Impedance:_____2 Ohms / 4 Ohms Bridged
MIC Sensitivity:_____ 10 mV
AUX input Sensitivity:_____200 mV
MIC input impedance:_____2,2K Ohms

AUX input impedance:_____5K Ohms
Frequency response (equalizers at 0dB):_____15 Hz ~ 50 KHz (-3db)
Typical 3-way equalizer performance: :
Low (bass):_____±12 dB – 80 Hz
Mid (mid bass):_____ ±12 dB – 2 KHz
High (high):_____±12 dB – 10 KHz
Crossover _____ 100 Hz (-12 dB/8ª) Fixed
HPF (High Pass Filter):_____100 Hz (-12 dB/8ª) Fixed
LPF (Low Pass Filter):_____90 ~ 140V AC or 190 ~ 240V AC
Power Supply:_____750 W
Maximum consumption:_____8 W
Consumption in Stand by:_____6 A
Internal protection fuse:_____ – 4 OHMS
Protection System:_____ Output protection against short-circuit and low impedance**
Ratio signal/noise:____>82 db
FM frequencies:_____ 87,5 MHz ~ 108 MHz
Dimensions:_____398 x 59 x 194 mm (15.67″ x 2.32″ x 7.64″)
Weight:_____2.20 Kg (4.84 lb)
* Nominal power with 1KHz sinusoidal signal and 4 ohms resistive load. (Measured according to ABNT NBR IEC 60268-3 sound equipment, Part 3: Amplifiers).
** Protection system on page 07.
For more information or questions visit our website or contact TARAMPS support.
The values mentioned are typical and may change due to the tolerance of components or the manufacturing process.

Taramps reserves the right to modify the contents of this manual without prior notice and not to apply the modications to units previously produced.

Warranty term

TARAMPS, located – Alfredo Marcondes, SP – Brazil, at Julio Budisk highway, SN, KM 30 ZIP CODE 19180-000, 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:

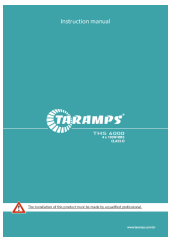
- Damaged products by improper installation, water infiltration, violation by unauthorized individuals;
- Tamper or torn warranty seal;
- Cases in which the product is not used in adequate conditions;
- Defects caused by accessories, modifications or features attached to the product;
- The product with 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**

+55183266-4050
Manufactured by:
TARAMPS ELECTRONICS LTDA
TAX ID: 11.273.485/0001-03
Julio Budisk highway, SN, KM 30
Alfredo Marcondes – SP
Made in Brazil
www.taramps.com.br
MN_020346_R00

Documents / Resources

	TARAMPS THE 6000 4x100W RMS Class D Multichannel Receiver [pdf] Instruction Manual MN_020346_R00_THS 6000_V2_ENG.cdr, MN_020346_R00_THS-6000_V2_ENG-1.pdf, THE 6000 4x100W RMS Class D Multichannel Receiver, THE 6000 4x100W RMS Class D, THE 6000, 4x100W RMS, Class D, THE 6000 Multichannel Receiver, 4x100W RMS Multichannel Receiver, Class D Multichannel Receiver, Multichannel Receiver, Receiver

References

- User Manual