



TPO-5300 User's Manual

TABLE OF CONTENTS

Preface

Cautions

Unpacking Instruction

Important Safety Notice

Product Features

What the expert say

About THX and THX Ultra Certification

Supplied Accessories

Quick Operation Guide

Front & Rear Panels

Applications

Troubleshooting

Specifications

Warranty

Preface

Dear Valued Customer,

Thank you for your purchasing of SensaSound Professional TPO-5300 THX Ultra Certified Power Amplifier. You are about to experience the power amplifier with the latest advancements in amplifier technology. The amplifier is designed to perform at a higher level of flexibility and sonic performance than you may have expected. Before you unpack and install the product, we encourage you to read through this user's manual to learn all the features and capabilities of your new TPO-5300. From correct system connection, placement and optimized performance, this manual will guide you through from the beginning to the end. Should you still have any questions about the products, please contact your local dealer or directly contact us about your inquiry. Welcome to our SensaSound family, it is time to amplify your home entertainment!

SENSASOUND TEAM

Cautions



This symbol warns the presence of dangerous voltage inside the enclosure. There is a high risk of electric shock if the product is opened at which the symbol appears. Please follow all instructions specified in this manual.

Unpacking Instruction

1. Before unpacking the box, check the integrity of the package and ensure that there is no visual signs of damage. Otherwise you should consult your SensaSound dealer before you start the installation.
2. When unpacking the box, handle with care in order to avoid any damage to the product.
3. Keep the original carton for future shipping.

Important Safety Notice

Read and follow these instructions:

1. Do not use this amplifier anywhere near water or in any wet environment.
2. Clean the amplifier only with a dry cloth.
3. Keep the amplifier away from any sources that produce heat.
4. The amplifier should be properly installed so that its location or position does not block any ventilation openings. Also, it should not be placed in a built-in installation, such as a bookcase or cabinet which may impede the air flow.
5. Power cords should be protected so that they are not likely to be walked on or pinched especially near the plugs, convenience receptacles, and the point where they exit from the amplifier.
6. Do not defeat the safety purpose of the polarized or grounding-type plug.
7. Only use attachments that are specified by the manufacturer.
8. In order to prevent the damage to the product during lightning or power-line surges, unplug the amplifier from wall outlet.
9. Use the appropriate shipping tools when moving the amplifier to avoid the injury from tip-over and fall-off.
10. Do not overload wall outlet and extension cords in order to avoid the risk of fire or electric shock.
11. Ask for service assistance from qualified personnel when amplifier has been damaged, such as damage to the supply cord or plug, liquid spillage into the amplifier, damage to the amplifier from fallen objects, significant change in performance, malfunctions or water exposure etc.
12. Unplug the power cord from amplifier when unused for a period of time.
13. The objects which are filled with water, such as vases, should not be placed on the amplifier.
14. Do not place the amplifier on unstable stand, shelf, bracket or table. This may cause a serious injury and product damage. Please follow all instructions in this manual.

Important: Turn off all equipment before you making any connection.

Product Features

- THX Ultra Certified
- 5 independent channels of fully balanced wire module design with noninterference
- High-dynamic performance with practically negligible distortion
- Four-level safety design and fully protected circuit design to protect from short-circuit, self-excitation, over-heated, and direct circuit etc.
- 45A high-current output
- SensaSound special HIC powers supply design. The optimum structure design with high-end capacitor, which together make sure that there is no signal loss, distortion and less inference , under high and wide dynamic range
- Unique Home Theater model auto wakeup and shot down design. The TPO-5300 will wakeup automatically with pre-amp or other AV equipment, when given 12 Voltage input from other wired equipment.

What the expert say

“Along with meeting our strict THX Ultra performance requirements, the Sensasound TPO-5300 amplifier has a lot of power capability, ensuring dialogue and explosions alike are heard clearly and without distortion or clipping.”

—Jon Cielo, Director of AV Technology at THX

Jon Cielo, Director of AV Technology, has spent over 10 years at THX and his current responsibilities include managing the technical accounts of THX’s audio partners as well as representing THX in industry organizations such as UHD Alliance. Jon works closely with licensees to ensure audio and visual equipment including AV Receivers, loudspeakers, flat panel displays, video projectors, etc. meet THX Certification requirements. He is involved in the development of new THX Certifications standards incorporating emerging technologies such as object-based audio, 4K UHD and High Dynamic Range

About THX and THX Ultra Certification

THX , standing for “Tomlinson Holman’s eXperiment,” is an American high-fidelity audio/visual reproduction standard and certification system, developed by the sound technicians behind the Star Wars movies, by its namesake at Lucasfilm studios. They have developed a series of certifications for movie theaters, screening rooms, home theaters, computer and car audio systems etc.

THX certification is an assurance to consumers of uncompromised quality, best-in-class performance and consistency. In order to get THX Certified, all products need to go through the industry’s most rigorous performance testing in order to meet the highest qualifications for quality.

THX Ultra is specified and designed for large home theaters or living rooms capable of THX reference Level in a room up to 3,000 cubic feet. In order to get THX Ultra Certified, all amplifiers need to go through continuous output tests and the dynamic tests.

All in all, THX Certification is a guarantee that products truthfully deliver the artist’s intention.

Supplied Accessories



①



②



③

- ① Power supply cord
- ② 12 V trigger cord
- ③ User’s Manual

Quick Operation Guide

For those who want to listen to music or watch movies right away, please follow this quick guide set forth, to connect and operate your amplifier in the right way to avoid all potential damages.

However, this instruction manual contains a great deal of other information that you should know for the proper operation of the amplifier. Therefore, we highly recommend you to read the rest of this manual as well after reading this quick guide

Below are the quick steps for those of you who want to operate the TPO-5300 right away.

1. Make sure the system remained powered off until all connections are completed.

Make sure the system remained powered off until all connections are completed, otherwise, you might encounter undesired sound.

2. Lower the volume at the preamplifier

Lower the volume of the preamplifier to the minimum so that when the amplifier is turned on, you do not hear loud undesired sound.

3. Connect speakers to the amplifier.

Connect speakers to the amplifier using the proper speaker cables. Be sure to match the channels and the positive (+) and negative (–) polarities between speakers and the amplifier. If the connections are mistaken, the correct orientation will not be obtained.

4. Select balanced input (XLR) or unbalanced input (RCA) with the INPUT SELECT switch.

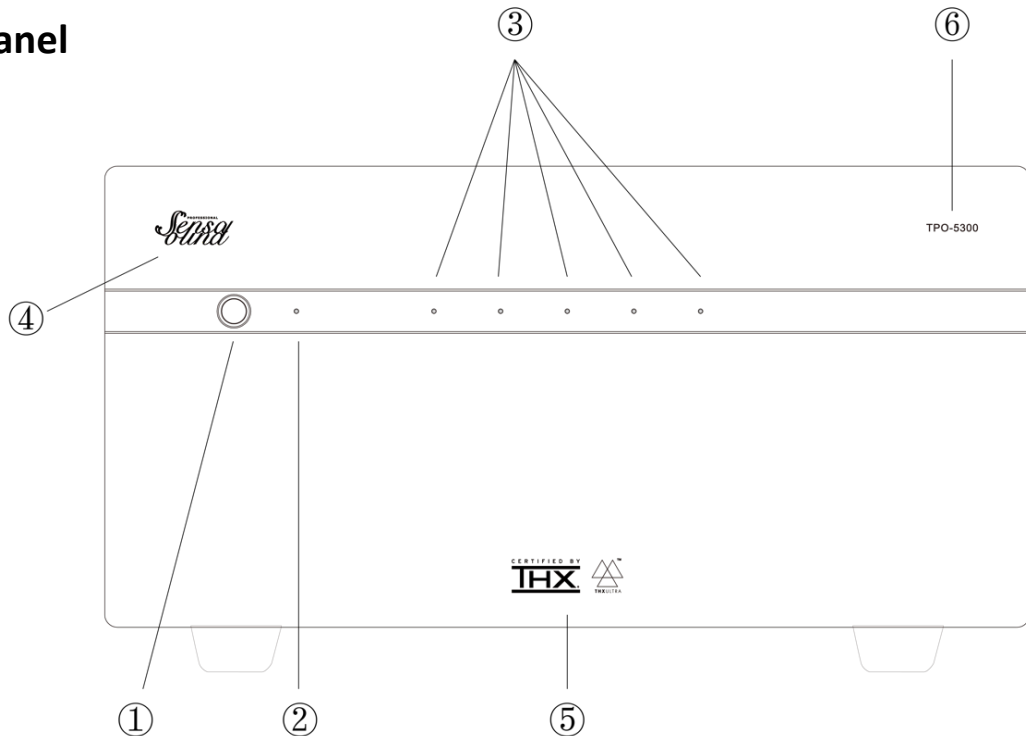
The amplifier possesses a balanced input (XLR) and unbalanced input (RCA) for each channel and the switch for the two is located between the two input terminals. Select the proper input type depending on the functionality of the connected cables and the control amplifier.

5. Make sure the TRIGGER/ON switch is in the desired status.

The TPO-5300 has a unique home theater mode, which can be waked-up/turned-on automatically when a preamplifier outputs a 12V signal by default. If you do not need this function and want to conceal the amplifier or put it into a separate equipment room using integrated central control system, make sure switch it to ON. Under ON mode, when you want to turn on the amplifier, just simply turn on the power switch at the rear panel.

Front & Rear panels

Front Panel



① On/Standby button

This button is used to set the amplifier to On or Standby. Please note to wait for at least 5 seconds if you want to turn on the amplifier again after it is turned off.

② On/Standby indicator

When the amplifier is turned on, the indicator light will stay blue after flashing about 5 seconds. When the amplifier is switched to standby, the indicator light will stay red.

③ Status indicator

When the amplifier is turned off, the indicator lights will be all out. When the amplifier is turned on, the indicator lights will be all blue. Please note that when one or more indicator flashing red, the amplifier is in self-protection mode. Please check if there are any short-circuits or any low impedance loads with the speakers.

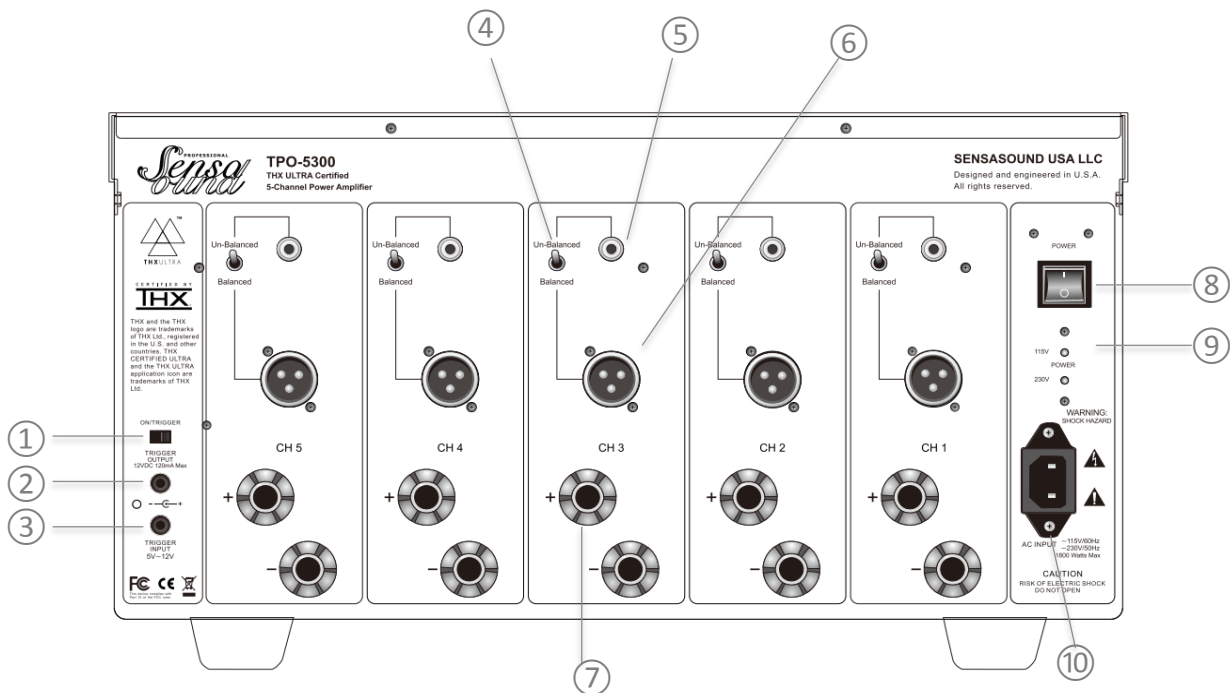
④ SensaSound registered logo

This is SensaSound registered logo for professional series.

⑤ THX logo and THX ULTRA application icon

⑥ Product model name

Rear Panel



① 12V trigger switch

This switch enables the amplifier to be opened in two ways. This switch stays in TRIGGER mode by default. Under this mode, when given 12V input, TPO-5300 will be turned on automatically. When the switch stays in ON mode, it will be turned on by push the power button in the rear panel.

② 12V output

This output is designed to trigger other amplifiers or equipment by its 12V output.

③ 12V input

When given a 12V input, TPO-5300 will wakeup automatically.

④ Balance/Unbalanced input select

This switch between Balanced and Unbalanced inputs is designed to select which of the two inputs that you plan to use.

⑤ Unbalanced input

If you are planning to use RCA connections between your preamplifier and any particular channel of the amplifier, select the RCA input by sliding the input select switch toward the Unbalanced input.



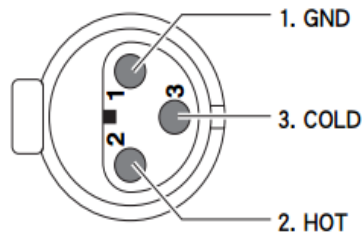
⑥ Balanced input

If you are planning to use XLR connections between your preamplifier and any particular channel of the amplifier, select the Balanced input by sliding the input select switch toward the Balanced input.

Pin 1: Signal ground

Pin 2: Signal + (non-inverting)

Pin 3: Signal – (inverting)

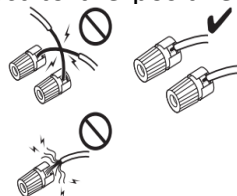


These pin assignments are consistent with the standards adopted by the Audio Engineering Society. Refer to the operating manual of your balanced output preamplifier to verify that the pin assignments of its output connectors correspond to your Proceed amplifier. If not, wire the cables so that the appropriate output pin connects to the equivalent input pin. If you are planning to use balanced connections between your preamplifier and any particular channel of the amplifier, select the balanced input by sliding the input select toward the Balanced input. Then connect the balanced outputs of your preamplifier to the corresponding balanced inputs on the amplifier using high quality cables .

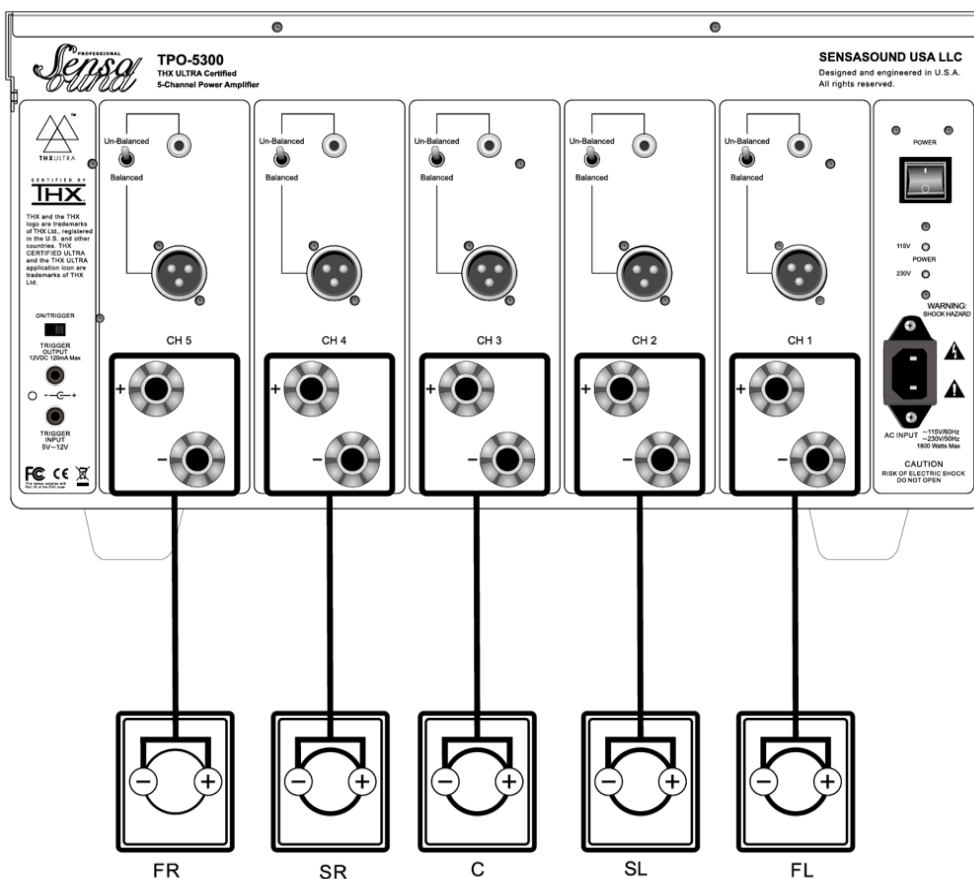
⑦ Speaker outputs & binding posts

The amplifier is equipped with gold-plated, high-current binding posts for output termination to a loudspeaker system. Before you connect to your loudspeakers, please note to carefully read through below content:

- The connected loudspeaker resistance should be within 4-16 Ohms. If you consistently use speakers less than 4 Ohms at a high volume level, it may trigger the built-in self protection system. Long-term use may damage the speaker or the amplifier itself.
- Before setup the system, make sure be powered off.
- When wire the speaker, pay special attention to the polarity of the cable. And make sure the positive wire connect to the positive terminal and negative to negative (See below illustration).



- Don't short-circuit or it may damage the amplifier.
- To take full advantage of the amplifier's sonic quality, we recommend using SensaSound high-quality speaker cable.



⑧ Power switch

Switches the main AC power to On and Off. When the amplifier will not be used in a fairly longtime, switches the power off. Under normal use, no need to switch the power off every time. (The standby power usage is less than 1 watt)

⑨ 110V/22V power supply indicator

The amplifier automatically detects and switches between 110V and 220V. These indicators tell you which line voltage the amplifier has detected. No manual action is required.

⑩ AC input

Never connect to AC that exceeds the power range or it may damage the amplifier.

Applications

The amplifier is designed to amplify the audio signals, which can be used as audio signal amplifier in home theater system or while enjoy the music.

Troubleshooting

If you experience any of the following difficulties while using the TPO-5300 power amplifier, use this troubleshooting guide to help you remedy the problem. Should any problem persist, please contact SensaSound directly or consult your nearest SensaSound dealer.

Problem: There's no sound/output .

Check:

- Are the AC properly connected?
- Are the signal lights on?
- Are the level controls turned up?
- Are the speakers properly connected?

Problem: There's no sound and the standby and status lights are in blue.

Check:

- Are speakers and components are correctly and securely connected?
- Are all connections connected with correct polarity?
- Is Balance/Unbalanced input switch placed in the proper position?

Problem: There's no sound and one or more status LED lights in red.

Check:

- Are there any short-circuit cables?
- Are there any damaged speakers?

Problem: Standby light in red and the 12V trigger doesn't work.

Check:

- Is the trigger cable correctly and securely connected?
- Is the trigger cable damaged?
- Are the trigger devices of other AV equipment properly setup?

Specifications

TPO-5300

Rated power output	200W / each @ 8 Ohms, all channels driven 330W / each @ 4 Ohms, all channels driven 450W / each @ 4 Ohms, single channel driven
Frequency response	20Hz~75KHz(+1/-3dB)
Signal to noise ratio	≥112dB (A-weighted), unbalance ≥117dB (A-weighted), balance
THD	≤0.08% (1kHz)
Recommend Power	1400W @ 8 Ohms 2200W @ 4 Ohms
Input sensitivity	1.4 V rms @ 200W
Gain	29.5dB
Product Dimensions (W*H*D)	19.7''*17.3''*9.4''
Package Dimensions(W*H*D)	25.2''*23.6*15.4''
Net Weight	77.2lbs. (35kg)
Gross Weight	90.4 lbs. (41Kg)

Warranty

We promise that all SensaSound amplifiers are elaborately designed and manufactured with the most strict quality requirements. Under normal use we warranty them free from defects in materials and workmanship for 1 year from the original purchase date.

If any defects in materials and workmanship occur within the limited warranty period, you can get immediate help from the following ways:

Contact the dealer from whom you purchased the product

Or you can send an email to **service@sensasound.com**

However, after the warranty period, you will be responsible for the charges incurred from spare parts, labor service and shipments, etc.

No matter which way you choose to obtain the service, we need the information of model, serial number, original purchase date and detailed problem description from you. Once we have confirmed that any parts need to be repaired or replaced, it is required that you carry or send your products to the SensaSound dealer where you bought them. Please note, that we also need your warranty card and purchase proof, so keep them in a secured place after your purchasing of SensaSound products.

Important:

Please do not entrust any repair work to unauthorized person or party. Only the authorized SensaSound dealers and distributors can provide the original components necessary for servicing the products. We do not warranty any service to any modified parts that are not from authorized ways.

Warranty does not include (but are not necessarily limited to) :

- Those caused by force majeure and acts of nature.
- Damages caused by any use other than correct use described in the user manual.
- Damage caused by improper installation, adjustment or was installed in seal up environment.
- Damage caused by shipment other than arranged by SensaSound.
- Bought, repaired, modified or use of parts that are not made or authorized by SensaSound.
- If the serial number has been altered, defaced or removed.
- For deterioration of component parts, the nature of which is to become worn or depleted with use.

Shipping charge:

If the repairs are covered by the warranty, you need to pay for the charge incurred from sending the product to the maintenance point, and SensaSound will pay for the return shipping charge. We provide all support and guidance to make sure the process moves smoothly.



SENSASOUND USA LLC, P.O. Box 4137, Warren, NJ 07059, USA
www.sensasound.com