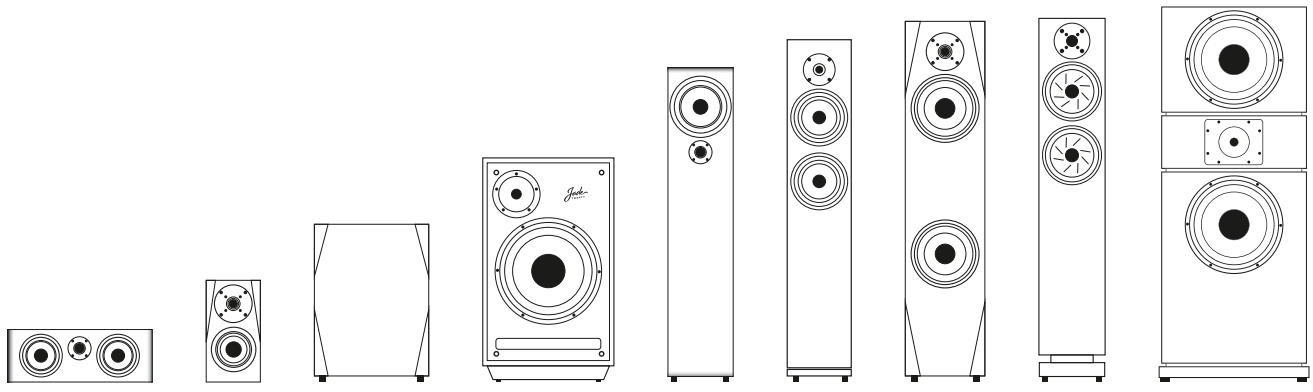
PYLON AUDIO

General operation and maintenance manual



Thank you for purchasing Pylon Audio equipment.

We are proud that you have chosen a product from our line, which has been carefully inspected and verified at every stage of production and packaging to ensure the highest quality.

After unpacking the device, we recommend conducting a detailed inspection to ensure that it has not suffered any damage during transport. We also encourage you to keep the original packaging along with the protective material (necessary for future shipments, ensuring the safety of the device).

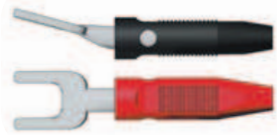
To ensure that your Pylon Audio product serves you for as long as possible, maintaining its functionality and aesthetic appearance, we highly recommend familiarizing yourself with the accompanying user manual. It is the key to fully utilizing the potential of our equipment and enjoying its excellent quality every day.

Connecting the speaker system

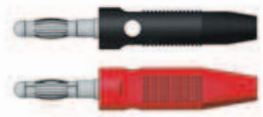
Note: Before you begin connecting the speaker system, we recommend thoroughly reviewing the user manual for your amplifier or AV receiver. **All connections should be made with the amplifier turned off.**

For the best sound quality, we recommend using high-quality speaker cables. The cables should be of equal length. Pylon Audio speakers are equipped with speaker terminals suitable for both bare wire connections and cables terminated with banana plugs or spade connectors. **CAUTION! When connecting bare wires, special attention should be paid to ensure that individual wires from the positive (+) and negative (-) terminals do not touch each other.**

care cable



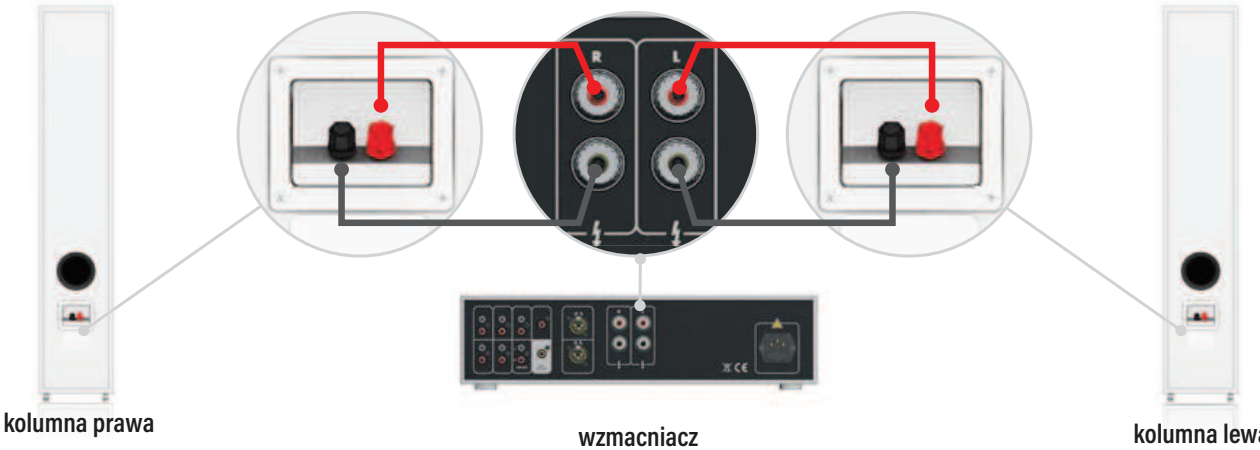
spade connector



banana plug

❶ Speakers equipped with a single pair of terminals.

Connect the cables to the appropriate terminals on the rear panel of the amplifier, paying attention to the channel (left, right, center, etc.). Connect the amplifier's positive (+) terminal to the positive terminal (+, red color) of the first speaker, then the negative (-, black color) terminal to the negative (-) terminal of the amplifier. Follow the same procedure for the second speaker.



kolumna prawa

wzmacniacz

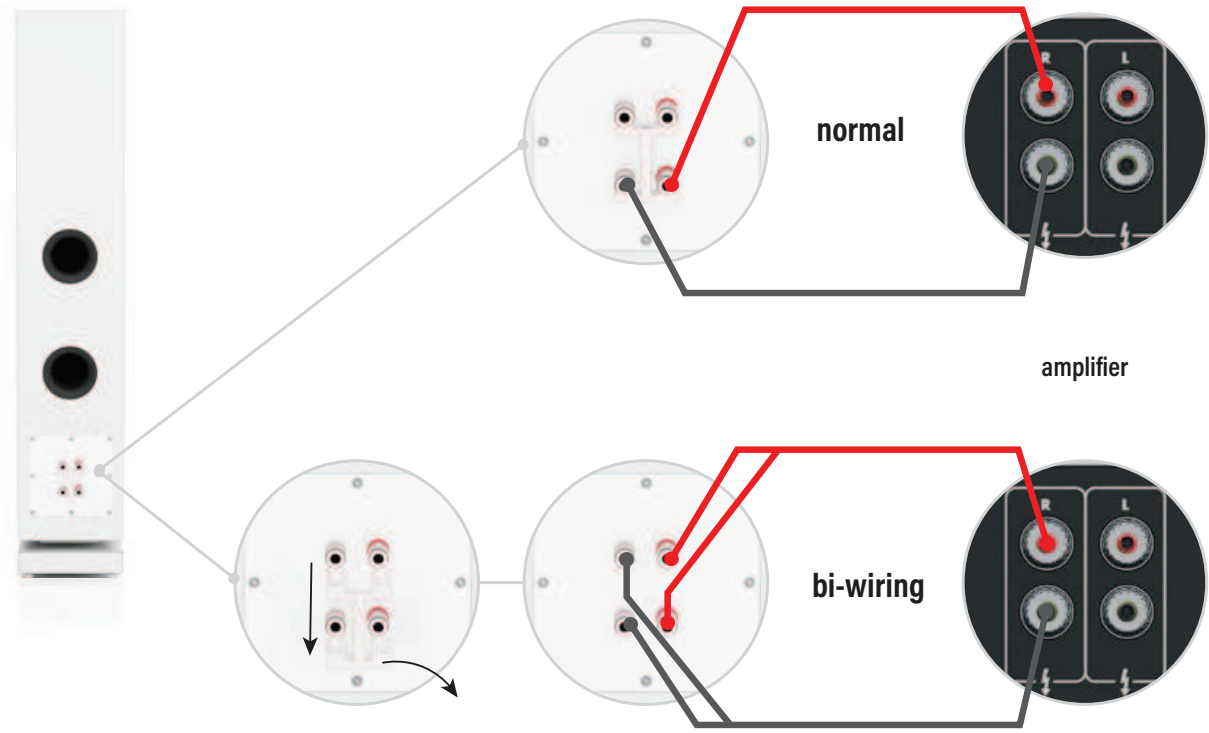
kolumna lewa

❷ The speakers equipped with double pair of terminals (bi-wiring)

Columns equipped with double pair of terminals can be connected in two ways:

a. **normal:** connecting the wires to the bottom row of terminals and leaving the jumper between the terminals in place and proceeding similarly to point 1.

b. **bi-wiring:** involves connecting the bass and mid-high tone sections with special cables. To do this, remove the jumper between the terminals, then connect the four-cable end of the cable to the columns, proceeding similarly to point 1.



Running in the speakers

During the so-called „running in" process, the mechanical and electrical components of the loudspeakers acquire their optimal properties. For example, the upper and lower rubber suspension becomes appropriately elastic, and the wires carrying the signal to the coil become appropriately flexible.

We recommend that new columns be subjected to this process for a minimum of 100 hours at the normal listening level. After this time, the speakers will achieve their optimal sound values as designed by Pylon Audio engineers.

Speakers and amplifier power - how not to damage the transducers?

The issue of power in audio systems is quite complex and cannot be adequately discussed in a short manner. The power of speakers and amplifier, as indicated in technical specifications, is not directly comparable.

Since the audio signal is not a simple sinusoidal waveform but consists of multiple variable signals simultaneously, determining the actual power delivered by the amplifier and absorbed by the speakers is challenging. Moreover, the wide dynamic range means that at "normal" volume levels, the power is in the range of a few to a dozen watts. However, during bass "hits," the transient power can reach several dozen or even a few hundred watts if the amplifier has such capabilities. While a substantial power reserve in the amplifier is desirable for dynamics and sound quality, it also poses a risk of damaging speakers if mishandled.

Two crucial characteristics for speaker safety are:

- Maximum electrical power that the speaker coil can "handle" without thermal damage.
- Maximum excursion of the vibrating system (coil and diaphragm) without mechanical damage.

In the first case, exceeding the maximum power can lead to coil overheating and, consequently, burning. If this happens at relatively high frequencies (e.g., midrange and above), it may go unnoticed due to the small diaphragm displacements.

The second case usually occurs at low frequencies (bass), where very large diaphragm displacements occur (noticeable), and a distinct knocking sound may follow, indicating the coil or vibrating system elements striking against the pole pieces or the speaker chassis. This phenomenon is extremely dangerous, as even a single impact can result in coil deformation, meaning permanent speaker damage.

Regardless of the speaker power, it's essential to **remember that the volume knob or scale on the amplifier display does not correspond directly to the currently delivered power**; it's only an indicator of the current amplification of the input signal. At low input signal levels, the amplifier may not reach its maximum power even with the volume knob turned to the maximum. On the other hand, with high input signal levels (e.g., CD players, DACs, streamers, etc.), the amplifier's maximum power may be reached very quickly, even at 1/4 of the volume knob's scale. Additionally, amplifier distortion, mostly in lower-powered amplifiers, can occur after reaching the maximum power threshold, strongly distorting the signal and often leading to damage of tweeters.

Considering the above, the most critical element for ensuring speaker safety is the user. Speakers can be damaged by an amplifier with 50W, 100W, or 200W power if handled improperly and recklessly with the volume knob.

In summary, three key points to consider are:

- Do not set volume levels causing audible sound distortions, and if they occur, quickly reduce the volume.
- Do not increase the volume before turning on the equipment or input signal.
- Pylon Audio speakers are designed for home use and are not suitable for prolonged, very loud play, such as events, concerts, etc.

Cleaning

Note: Avoid using strong detergents, alcohol or solvents, which may damage the surface of the cabinet or other components of the speakers. Be careful when cleaning to avoid damaging the surfaces of the electroacoustic transducers. Regularly cleaning your speaker cabinets will help maintain their attractive appearance. Remember to proceed carefully and gently so as not to damage the surface.

❶ Cleaning electroacoustic transducers

Regardless of the finish of the product's enclosure, it is important to regularly clean the electroacoustic transducers themselves. Be careful when cleaning to avoid damaging their surfaces. To clean the transducers, make sure the system is turned off and disconnected from the power source and other devices. Then gently remove dust using a soft dust brush.

❷ Matte or PVC finished cabinets

Cleaning matte or PVC finished loudspeaker enclosures is a simple process that helps maintain their aesthetic appearance. Here are some steps you can take to properly care for your speaker system:

- **Step 1: Turn the speakers off**
  Make sure your speakers are turned off and disconnected from power and other devices before beginning the cleaning process.
- **Step 2: Preparation of cleaning products**
  Prepare soft cloths and lukewarm water
- **Step 3: Dust removal**
  If the speaker cabinets are dusty, gently remove the dust using a duster. This will help avoid scratches when cleaning.
- **Step 4: Cleaning of the speaker cabinets**
  Soak a soft cloth in lukewarm water. Wipe the surface of the speaker cabinets gently, avoiding strong pressure. Try to remove any stains or dirt.
- **Step 5: Rinse and dry**
  After completing the cleaning process, wipe the speaker housings with a soft, dry and clean cloth. Make sure there is no moisture on the surface.
- **Step 6: Return to use**
  Once the speaker housings are thoroughly dry, you can reconnect them to the audio source and turn them on. Make sure everything is working properly.

❸ Enclosures covered with natural veneer finished with oil-wax

To keep natural veneer in good condition, it is recommended to clean and remove dust regularly to avoid dirt accumulation. You can also use special wood oils or care waxes, according to the manufacturer's instructions (please contact us directly at biuro@pylonsa.pl), to restore the shine of the veneer and protect it against drying out. This type of care should be performed at least once every 4 years. Be careful when cleaning to avoid damaging the natural veneer or wax oil finish. Regular and gentle cleaning will help keep your speaker cabinets in good condition for many years.

- **Step 1: Turn the speakers off**
  Make sure your speakers are turned off and disconnected from power and other devices before beginning the cleaning process.
- **Step 2: Preparation of cleaning products**
  Prepare soft cloths and lukewarm water

- **Step 3: Dust removal**
  Start cleaning by removing dust and loose dirt from the surface of the natural veneer. You can do this by gently wiping the speaker cabinets with a dry cloth or sponge.
- **Step 4: Cleaning of the speaker cabinets**
  Soak a soft cloth or sponge in lukewarm water. Make sure the cloth is wrung out well to avoid excess moisture. Gently wipe the surface of the natural veneer using circular movements. Avoid strong pressure and rubbing, which can damage the wax oil finish. If there are stains or dirt on the veneer that are difficult to remove, we recommend using agents recommended by the manufacturer (please contact us directly at biuro@pylonsa.pl)
- **Step 5: Return to use**
  Once the speaker housings are thoroughly dry, you can reconnect them to the audio source and turn them on. Make sure everything is working properly.

Attention! To avoid uneven discoloration of veneers finished with oil-wax, avoid placing the columns in places exposed to uneven sunlight. Moreover, placing the columns near heat sources (fireplaces, radiators, etc.) may damage the natural veneer.

❹ Enclosures covered with natural veneer finished with high-gloss varnish

To maintain the shine of the painted surface, regularly remove dust and fingerprints. You can do this using a dry microfiber cloth. Avoid using chemicals or cleaning products not intended for painted surfaces as they may damage the paint. If the loudspeaker housing is heavily dirty or damaged, please contact us via biuro@pylonsa.pl.

- **Step 1: Turn the speakers off**
  Make sure your speakers are turned off and disconnected from power and other devices before beginning the cleaning process.
- **Step 2: Preparation of cleaning products**
  Prepare a soft microfiber or polishing cloth and a special spray for cleaning painted surfaces (check if it is safe for the paint).
- **Step 3: Dust removal**
  Start cleaning by removing dust and loose dirt from the surface of the natural veneer. You can do this by gently wiping the speaker cabinets with a dry microfiber or polishing cloth.
- **Step 4: Cleaning of the speaker cabinets**
  To remove streaks, fingerprints or stains, use a special spray for cleaning painted surfaces. Make sure that the spray is intended for high-gloss surfaces and does not contain substances that may damage the paint. Spray the substance onto the surface of the casing, creating an even layer. Don't apply it in excess. Immediately after spraying, gently wipe the surface with a soft microfiber or polishing cloth. Use circular motions to remove dirt and restore shine. If necessary, repeat the process on areas with harder-to-remove stains. If you use a special cleaning spray, there is no need to rinse it with water.
- **Step 5: Return to use**
  Once the speaker housings are thoroughly dry, you can reconnect them to the audio source and turn them on. Make sure everything is working properly.

How to place the speakers in the listening room?

Properly setting up speaker systems in a listening room is crucial for the enjoyment of music playback. Sound waves generated by speakers reach us both directly to our ears and indirectly through reflections from walls, ceilings, and objects in the room. Therefore, adjusting the positioning to the unique characteristics of each room, taking into account its shape and proportions, is essential.

Each room requires an individual approach, taking into account its surface area, shape, and specific acoustic challenges. In smaller rooms, it's harder to control low frequencies, and a solution like placing monitors on an entertainment rack can be effective. In larger living rooms, however, it's necessary to consider not only equipment placement but also issues related to reverberation.

When considering room acoustics, it's crucial to remember that sound affects not only speakers but also walls, floors, furniture, and other furnishings. Surfaces like glass, doors, and entrances to other rooms also impact this. Avoiding unfavorable acoustics can be achieved by using various materials and objects with absorbing or diffusing properties.

Furniture in the room plays an important role as well. Empty rooms with perpendicular walls can make hard to achie an ideal acoustic effect. Adding furniture that absorbs sound, along with various accessories such as curtains, blinds, potted plants, or artwork, can significantly improve sound quality.

Setting up speakers is a process that requires experimentation since there is no single ideal configuration. The popular method of creating an equilateral triangle between the speakers and the listening position can be a good starting point, but experimenting to find the optimal setup is crucial. Striking a balance between the quantity and depth of low tones and a realistic stereophonic scene is key.

Avoid forcefully pushing speakers against walls or placing them in tight spaces. Symmetry between speakers and the listening position, along with identical distances, is crucial for achieving an accurate stereophonic scene. The proper height at which speakers are placed and avoiding obstruction during listening are equally important.