

User Manual

NOTE: To ensure this system works safely and to its fullest potential, please read the User Manual before use, and keep it handy for future reference. See important safety information on Pages 6-7.



Thank you for purchasing Acesonic's PS-420 400-Watt Professional 10" Powered Stereo Speaker System. Acesonic takes pride in providing its customers with only the most advanced and highest quality products on the market. With proper care and use you will get many years of satisfying use from your Acesonic product.

Be sure to keep all of the original packaging in case re-shipping is required for returns or repairs.

First Things First

Before using your PS-420 400-Watt Professional 10" Powered Speaker System, there are a few things you should do and know:

- Check to see that your local power outlets supply the correct voltage for the AC adapter.
- Do not open the device as there are no user-serviceable parts inside. For repairs, contact the local distributor, an authorized service center or Acesonic's U.S. headquarters.
- Care and cleaning directions are included in this User Manual, but preventive measures are good common sense. Do not use the device in areas that are wet or prone to dampness. Always allow sufficient room around the device to provide sufficient air flow for cooling.
- When the system will not be used for a long time, disconnect the power plug from the wall and remove all connecting cables for proper storage.

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System Components

Your Aceso nic PS-420 400-Watt Professional 10" Powered Speaker System is designed for years of enjoyment. Please take a moment to review the following instructions for its proper use and care.

Included Accessories

Your PS-420 includes the following items:

- 2 PS-420 speakers, 1 powered and 1 unpowered
- 1 Speakon cable to connect speakers
- 1 power cord
- 1 User Manual
- 1 Warranty Registration Card

If you are missing any of these items, contact your Aceso nic dealer at once.

Product Features

The PS-420 400-Watt Professional 10" Powered Speaker System is self-powered and does not need an external amplifier. This allows you to connect a mixer, player or other audio device directly to its stereo RCA audio inputs for instant sound.

- Speaker pair is designed for studio or club use
- Powerful 400W (max) built-in amplifier, so no need for separate, external amplifier
- 10" woofer for instrumental/percussive bass and full range on live vocals
- Compression tweeter for smooth, clear mids and soaring highs
- Master volume control with built-in EQ controls
- Optional speaker stand adapter will mount to standard hardware
- Outputs include Speakon speaker out to unpowered second speaker and stereo (L/R) RCA line-level out
- Inputs are stereo (L/R) RCA line in

Initial Setup & Connections

This basic setup guide provides simple, step-by-step instructions for setting up your PS-420 system, along with a complete diagram of the back panel connections and switches. Audio systems vary, so you may need additional and/or longer cables, adaptors, etc., to connect your system in the way(s) you want.

Speaker Position (Freestanding or Mounted)

The PS-420 speakers can be used various ways and in different positions, including freestanding on stage or ground, or mounted on standard speaker stands using appropriate adapters. Ask your Aceso nic customer service representative about getting the right speaker stand(s) for your PS-420 system.

Powering Up: Connections and Settings

Refer to *Figure A, Item #6 in the diagram at right, page 3*, and you will see the VOLTAGE SELECT switch at left lets you choose the appropriate setting for your country or region. Connect the appropriate end of the power cord to the AC INPUT on the rear panel of the PS-420, and the other end to a surge protector, power strip or wall plug. Use the POWER switch to turn the device on and off.

Note 1: We recommend that you use a surge protector to protect the system from possible power spikes that could harm the product and void the warranty.

Note 2 : To prevent any power from trickling to the device even when it is turned off, unplug the power cord from the surge protector or socket.

Connect the Second Unpowered Speaker

The PS-420 system is self-powered by the power supply that is built into the powered speaker. The second speaker is powered by the first when you connect it with the included Speakon speaker cable. Connect one end of the Speakon cable to the Speakon jack on the rear panel of the PS-420 powered unit (*see Figure A, Item #7 at right, page 3*), then connect the other end of the cable to the Speakon input jack on the non-powered speaker (*see Figure B at right, page 3*).

Connect a Mixer

You can connect any audio mixer with stereo RCA audio outputs (red and white, left and right). Connect the pair of RCA jacks from your mixer's audio outputs to the audio inputs on the powered speaker (*Figure A, Item #4 at right, page 3*).

Connect Media Players (Tape/Disc Players, etc.)

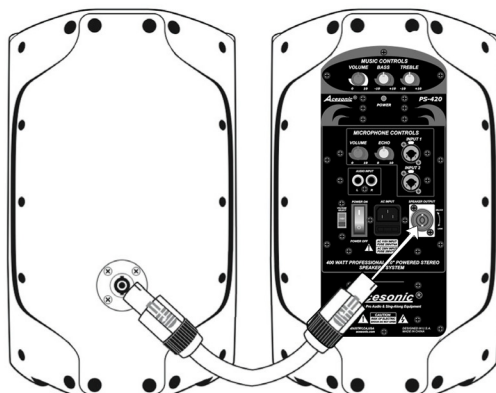
You can connect any media player, whether it is a CD/DVD player or a reel-to-reel tape recorder, if it has RCA audio output jacks. Simply connect one end of each RCA cable to the left and right outputs of the player, then connect the other ends to the appropriate audio input jacks on the rear panel of the powered speaker (*see Figure A, Item #4 at right, page 3*).

Figure A



- ① MASTER CONTROLS for Volume, Bass and Treble
- ② POWER Indicator Light.
- ③ MICROPHONE CONTROLS for Volume, Echo, and 2 XLR Microphone Inputs.
- ④ AUDIO INPUT Stereo RCA Jacks.
- ⑤ POWER CONTROLS for Voltage Select, OFF/ON Switch, and AC Input.
- ⑥ SPEAKON JACK for connecting a 2nd Speaker (lockable).

Figure B



Connect your Microphones

On the rear panel are two XLR Inputs into which you can plug your microphones (see Figure A #3). Both Volume and Echo Controls increase from 1 to 10 when turning clockwise.

Using Your PS-420 System

Powering On and Off

Press the power switch up to the ON position to turn the power on (see Figure A, Item #6 at left, this page), and down to the OFF position to turn the power off. Power light (Item #2) indicates status.

Volume and Tone Adjustment

The VOLUME, BASS and TREBLE controls are located at the top of the rear panel in the MASTER CONTROLS section (see Figure A, Item #1 at left, this page). Turn the VOLUME knob clockwise to increase the volume, counter-clockwise to decrease it.

The BASS and TREBLE controls will fine-tune the overall tone, and start in the neutral position at the top center detent. For both tone controls, turn counter-clockwise for up to -10 decrease and clockwise for up to +10 increase.

Care and Maintenance

1. To ensure the finest performance, please read this manual carefully. Keep it in a safe place for future reference.
2. Install your unit in a cool, dry, clean place, away from windows, heat sources and excessive vibration, dust, moisture or cold. Avoid sources of hum (transformers, electric motors). To prevent fire or electrical shock, do not expose to rain and water.
3. Do not operate the PS-420 upside-down.
4. Never open the cabinet. If a foreign object drops into the enclosure, contact your dealer or Acersonic.
5. Place the unit in a location with adequate air circulation. Do not interfere with proper ventilation, or the internal temperature may rise and result in a malfunction of some kind.

continued on following page >>

6. Do not use force on switches, knobs or cords. When moving the unit, first turn it off. Then gently disconnect the power plug and the cables connecting other equipment, never pulling the cords or cables.
7. Cleaning the unit with chemical solvents might damage the finish. Use a clean, dry cloth.
8. Be sure to read the *Troubleshooting* section below on common operating errors before concluding that your unit is malfunctioning. Call Acesonic if it is.
9. This unit consumes electrical power even when the

power switch is turned off. Unplug the power cord from the wall outlet if the unit is not going to be used for a period of time. This will save power and reduce fire hazards. To disconnect the cord, pull it out by grasping the plug. Never pull the cord itself.

10. To prevent lightning damage, pull out the power cord during an electrical storm.

11. Digital signals may interfere with other equipment such as tuners or receivers. Move the system farther away from such equipment if interference is detected.

Troubleshooting

No sound from either of the speakers

- *Is the power on?*
- *Is proper voltage selected?*
- *Are both ends of power cord secure (in PS-420 and socket)?*
- *Is the volume turned up?*
- *Are all cables securely connected to the proper jacks?*
- *Are there any damaged or bad cables?*
- *Are other devices (players, mixers, etc.) turned on, volume up?*

No sound coming out of second speaker

- *Is the Speakon speaker cable firmly attached at both ends?*
- *Are there kinks, bends or cracks in the cable?*

Excess feedback or high-pitched squeal

- *Are tone and volume settings okay on PS-420 and other devices?*
- *Have you tried positioning microphones differently?*
- *Have you adjusted volume of mixers, players, mics, etc.?*
- *Are there other electric instruments near the PS-420?*

The audio is muffled and/or unclear

- *Did you adjust the bass on the speaker, mixer, etc.?*
- *Are mics, mixers, etc. working properly and set correctly?*
- *Are you using a mic that requires phantom power?*

Loud popping sound from the speakers

- *Is there a bad cable somewhere in the system?*
- *Is there damage to the microphones or other devices?*
- *Have speaker enclosures been damaged, dropped or struck?*

Technical Specifications

- Master power output200W + 200W
- Frequency response 20Hz-20kHz (± 2 dB)
- Total harmonic distortion..... $\leq 0.5\%$
- Input impedance..... 47K
- Input sensibility..... ≤ 300 mV
- Max input signal5V_{p-p}
- Signal-to-noise..... ≥ 90 dB
- Treble adjustment ± 10 dB
- Bass adjustment ± 10 dB



FCC Advisory, Safety Warnings & Safe Use

Mises en garde, précautions et procédures de sûreté



The lightning-with-arrowhead symbol inside a triangle alerts the user that potentially dangerous voltage in the product enclosure may constitute a risk of electric shock.



The exclamation point within a triangle alerts the user to important operating, maintenance, and servicing information in this User Manual.

CAUTION

To reduce the risk of electrical shocks, fire and possible injuries, you should not

- remove screws, buttons, antennae, jacks or any part of the enclosure; or
- expose the product to rain or moisture.

FCC ADVISORY (U.S.A.)

1. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try correcting the problem by one or more of the following measures:

- Reorienting and/or relocating the receiving antennae
- Increasing the distance between the radio/TV equipment and the PS-420
- Connecting the radio/TV equipment to an outlet on a different circuit than the one into which the

receiver is plugged

- If necessary, consulting the dealer or an experienced radio/TV technician for help

2. **Important:** When connecting the PS-420 to audio equipment, use only high-quality, shielded cables such as what is supplied with this product. Follow all installation instructions and do not modify the equipment in any way, as this could void your FCC authorization to use the device in the U.S.

FOR CANADA/POUR LE CANADA

Caution: To prevent electric shock, match the wide blade of the plug to the wide slot, and fully insert.

Attention: Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

This product does not exceed the Class B limits for radio noise emissions from digital devices as set out in the Canadian standard for interference-causing equipment ("Digital Apparatus, ICES-003" from the Department of Communications).

Cet appareil numérique respecte les limites de bruits radio électriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur ("Appareils Numériques, NMB-003" édictée par le Ministre des Communications).

Safe Use Instructions

1. Read and follow these instructions, keep them handy for reference, familiarize yourself with the product's operation and heed all safety warnings.
2. Do not use this product near water, on wet surfaces or in places where moisture may accumulate. Do not expose the device to dripping or splashing, and do not place items filled with liquids – such as vases, beverages, etc. – on top of the device. Clean only with a dry cloth.
3. Do not block any ventilation openings or set device on carpets or rugs. Maintain sufficient room on all sides for airflow.
4. Do not position the device on or near radiators, stoves or other electrical equipment (such as amplifiers) that produce heat.
5. Do not defeat the safety purpose of a polarized or grounding-type plug. A polarized plug has two blades with one wider than the other, while a grounding-type

plug has two blades and one prong. The wide blade and the prong are safety features. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

6. Protect the power cord from being walked on or pinched, particularly where it is plugged in to an electrical socket and the point where it exits from the rear of the device.
7. Only use the attachments and accessories specified by the manufacturer.
8. Use only with a cart, stand, tripod, bracket or table specified by the manufacturer or sold with the device. When using a cart, use caution when moving the cart.
9. Unplug the product during lightning storms or when it will not be used for long periods of time.
10. Refer all servicing to qualified service personnel. Servicing is required when the unit has been damaged in any way, such as when the power-supply cord or plug is damaged, liquids have been spilled or objects introduced into the enclosure, the device has been exposed to rain or moisture, the product does not operate normally or it has been dropped.
11. Never push objects of any kind into this product, through jacks or other openings, as they may contact dangerous voltage points or short-circuit components, thus causing fire or electrical shock.
12. This product should be operated only from the type of power source indicated on the product label and in this User Manual. If you are not sure of the type of power supplied to your home, consult your product dealer or local utility.
13. An outside antenna system should not be located in close proximity to overhead power lines, or other

electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, be extremely careful not to touch such power lines or circuits, as contact with them could be fatal.

14. Do not overload wall outlets or extension cord as this can increase the risk of fire, power outages or electrical shock.
 15. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or with the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
 16. Following any servicing or repair of this product, ask the service technician to perform the appropriate safety checks to ensure the product is in proper operating condition.
 17. The product should not be mounted to a wall or ceiling except as recommended by the manufacturer, with a mounting accessory recommended by the manufacturer.
 18. If your product is not operating correctly or exhibits a marked change in performance, and you are unable to restore normal operation by following procedures in this User Manual, do not attempt to service it yourself. Opening the enclosure may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- Note:** With the proper care and maintenance, your PS-420 Powered Speaker System will give you years of dependable, enjoyable use. Make sure you are connecting the device properly to your computer and other audio devices, using good (unfrayed, unbent) cables at all times.

IMPORTANT REMINDERS

- *Fill out and return the accompanying Warranty Card as soon as possible.*
- *Follow all safety precautions and usage instructions, and do not attempt any repairs on either the powered or unpowered speaker. Unauthorized changes will void your warranty.*
- *Do not expose speakers to direct sunlight or allow them to sit in hot, enclosed areas, as this can affect both the enclosure material and the powered speaker's electronic components.*



Acersonic® **PS-420**

400-Watt Professional 10" Powered Speaker System

PS-420 400-Watt Professional 10" Powered Speaker System

One (1) Year Manufacturer Warranty & Lifetime Technical Support

Designed in U.S.A.

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