# Performance 2

### Stereo and Monoblock Amplifier





Constellation

**User Manual** 





# The Sound of Perfection.

The Constellation Performance 2 Stereo and Monoblock Amplifiers are among the very finest amplifiers ever built, engineered to deliver an unmatched combination of sound quality and unbridled power.

Because of their substantial power output, elevated to even higher levels with our proprietary Constellation Switch-Mode Power Supply (C-SMPS), these amplifiers demand careful installation in order to deliver the performance they are designed to achieve. This is especially true of the Performance 2 Monoblock Amplifier, which delivers double the power of the Stereo. Reading through this manual and following the steps outlined within will ensure that your amplifier performs at its very best.

For technical updates, visit ConstellationAudio.com

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## The Sound of Perfection. Built with Pride.

We stand behind this Constellation product with our 3-year' pledge, offering customers peace of mind against product defects when purchased new from an authorized Constellation Sales Agent. Action required: The Limited Warranty must be activated within 30 days of purchase. Scan the QR code now.



Constellation Audio.com/warranty

\*Unregistered products are entitled only to the original 30-day Limited Warranty, which commences on the date of purchase. The 3-year Limited Warranty for the extended coverage also begins on the date of purchase. Eligibility for the warranty requires that the product be purchased from an authorized Constellation Audio sales agent and be accompanied by valid proof of purchase documentation. Additional details and exclusions are available at: https://www.constellationaudio.com/warranty-registration.



### ИЩЛ

### In the event of malfunction

Do not under any circumstances open the cabinet of the Performance 2 Amplifier. There are no user-serviceable parts inside. Opening the cabinet can present a shock hazard even if the AC power is disconnected. Any alteration or modification of the component's internal parts or circuitry will void the warranty. If the component does not function properly, refer to the Troubleshooting section at the back of this manual. If you are still unable to resolve the problem, contact your Constellation dealer. If liquid is spilled on the component, or if any metal object is inadvertently forced inside, immediately disconnect the AC power and contact your Constellation dealer.

#### Unpacking

At 90 pounds each, the Performance 2 Stereo and Monoblock Amplifiers require two or more strong people to lift the amplifier and to move it into position. Do not place the amplifier on a surface that cannot safely support its weight. It is recommended that the amplifier is placed no more than 6 in/150 mm above the floor on a dedicated amplifier stand built for the purpose, or a similarly robust structure.

Two or more people should lift the amplifier by hooking their fingers under the edges. The machined finish is delicate and you may wish to use gloves to protect your fingers and to avoid leaving fingerprints on the surface.

#### Installation notes

The Performance 2 Stereo and Monoblock Amplifiers must be installed in an area with adequate ventilation so that cool air can flow through the heat sinks. There should be at least 6 in/15 cm of clearance between the sides and top of the unit and the nearest wall or cabinet. Ensure that no curtains or shades can be lowered in a way that will block the amplifier's vents. If the amplifier is installed in a cabinet or an equipment closet, ensure adequate ventilation. Installation in an unventilated cabinet or closet may cause overheating and reduce the lifespan of internal components.

The amplifier ideally operates at an ambient temperature of 70°F/21°C, plus or minus 10°F/5°C. Never install the amplifier in a place where it may be exposed to direct sunlight, and do not install it next to a room heater, radiator, air conditioner, humidifier, etc. Ambient temperature can rise even more quickly with two Performance 2 Monoblock Amplifiers, so if both are placed in an enclosed or tight space, make certain to provide plenty of ventilation and air flow.

Make sure that the amplifier will not be exposed to moisture. Do not locate it in an area where it can encounter liquids, and do not place it in a humid location, such as an unfinished basement.

(!) **CAUTION:** Installing the Performance 2 Amplifier in a place where it will be exposed to direct sunlight or moisture, or where it will not have adequate ventilation, will void the warranty.

#### **AC** connection

For best performance, each amplifier should be plugged into its own dedicated 15- or 20-amp AC outlet, with no other component but the amplifier connected to that AC circuit. It is especially important to provide a dedicated AC output if the amplifier is used with a speaker that has impedance dips down into the 2- or 3-ohm range at certain

frequencies, as a high-level signal at these frequencies can draw potential peaks well over 2,400 watts per channel. Do not plug the amplifier(s) into a power strip or AC line conditioner—few such products are designed to handle the current that these amplifiers can pull.

While it may be tempting to plug two Performance 2 Monoblock Amplifiers into a single AC circuit, we strongly caution against it, especially with 15-amp AC circuits. A single 15-amp circuit provides only 1,800 watts of power, which is not sufficient to allow two Performance 2 Monoblock Amplifiers to reach their peak output capability, especially with low-impedance speakers. Not only will sound quality suffer, but listening sessions will likely be interrupted often when the amplifiers' considerable power draw trips a home circuit breaker.

When connecting or disconnecting the AC cord, always grasp it by the plug, not by the cord itself. Pulling the plug out by the cord can damage the cord, the AC socket, and the amplifier.

#### Loudspeakers

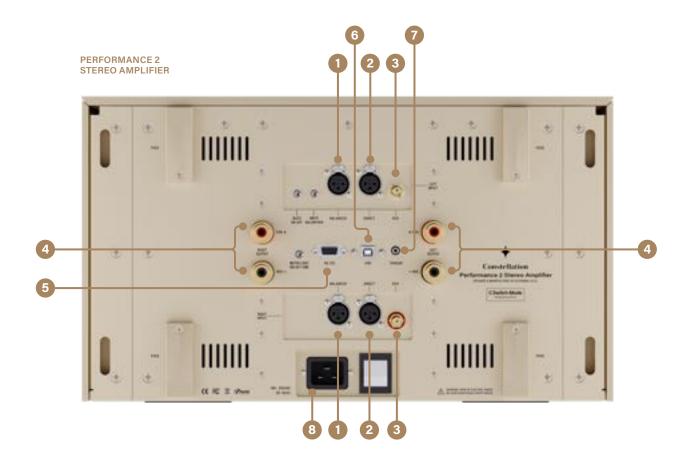
The Performance 2 Stereo and Monoblock Amplifiers deliver sufficient voltage and current to drive virtually any loudspeaker made, regardless of impedance, sensitivity, or power rating. However, the Performance 2 Stereo Amplifier and, especially, the Performance 2 Monoblock Amplifier, have sufficient power to damage some loudspeakers if used carelessly. When turning up preamplifier volume, do so gradually. If there is audible distortion, crackling noises, or mechanical thumps from the speaker, turn the volume down immediately.

The full capability of the Performance 2 Stereo and Monoblock Amplifiers is best appreciated when driving a set of large full-range loudspeakers. They will sound excellent driving small speakers, too, but exercise judicious use of the volume control and avoid turning the preamplifier volume to maximum level.

CAUTION: Constellation is not responsible for damage to any speaker connected to the Performance 2 Stereo or Monoblock amplifier. Before making or changing any connections to the amplifier, be sure to turn off the master power switch located on the rear panel and let the unit cool down.

CAUTION: Connecting the speaker outputs of the Performance 2 Stereo or Monoblock Amplifier to the speaker-level input of a powered subwoofer or subwoofer amplifier can result in serious damage to the amplifier. Before connecting, read the full explanation on page 7. Constellation is not responsible for damage of any speaker connected to any Constellation amplifier.

#### Input and Output Connections



### Balanced inputs

Use this XLR balanced input for connection to balanced-output preamplifiers of other brands. To select this input, set the Input switch to BAL (left position). To remove the XLR plug, push on the tab above the jack and pull the plug out.

#### 2 Direct inputs

The XLR Direct input is designed for use with Constellation preamplifiers. This connection forms Constellation Direct—an audio interface that eliminates an unnecessary gain stage of the amplifier. The positive- and negative-going halves of the signal will exhibit near-zero difference except for their polarity. To select this input, set the Input switch to DIR (center position). To remove the XLR plug, push on the tab above the jack and pull the plug out.

### **3** RCA inputs

This input is provided as a convenience when using

an unbalanced preamplifier or signal source. To select this input, set the Input switch to RCA (right position). However, to get the best performance from the amplifier, it is necessary to use an XLR input. To remove an RCA plug, grasp the plug and pull it out. Do not pull on the cable.

#### Speaker-cable binding posts

The Performance 2 Stereo Amplifier provides one set of binding posts for each channel. These may also be used for bi-wiring, although two cables must be "stacked" in each of the binding posts.

Connect the marked connector or cable conductor for the left speaker cable to the left positive (+ or red) binding post and the unmarked connector to the negative (- or black) binding post. Repeat with the right speaker cable. Make sure the speaker cables on both channels are connected identically, with the marked cable conductor or connector to red, unmarked conductor or connector to black.

The Performance 2 Monoblock Amplifier provides two sets of binding posts for each amplifier's output. The positive (+ or red) terminals are on the left side (seen from the rear) and the negative terminals (- or black) are on the right side. These can be used for standard cabling (with a two-conductor cable running from the amplifier to the speaker) or bi-wired with separate cables going from one amplifier to the speaker's woofer and midrange/tweeter drivers. Consult your loudspeaker owner's manual for more information.

The binding posts accept spade lugs or banana plugs. Make certain that the spade lugs on speaker cables will fit the binding posts—do not force the spade lugs onto the posts if they do not fit. Do not use bare wire connections, because the high-power output of the amplifier might vaporize any stray wires that touch. The binding posts are designed to be tightened only by hand. Do not use tools to tighten the binding posts.

(!) CAUTION: Do not allow the speaker cable terminals to touch each other or to touch the amplifier chassis. Before powering up the amplifier, check at the terminals of the speakers and the amplifier to make sure the positive and negative leads of the speaker cables are separated and not touching.

(!) **CAUTION:** If connecting a subwoofer, exercise extreme care when connecting the Performance 2 Stereo or Monoblock Amplifier to the speaker-level inputs of a powered subwoofer or a subwoofer amplifier.

The negative input terminals of a powered subwoofer or subwoofer amplifier are almost always grounded together, and this is incompatible with the Balanced Bridged design of Constellation amplifiers. Serious damage to amplifier could result. Consult the manufacturer of the subwoofer or subwoofer amplifier to determine if the negative speaker input terminals are grounded together.

If the manufacturer cannot provide this information, use a multimeter to check. Set the multimeter for ohms ( $\Omega$ ). When touching the probes from the meter together, it should read 0 ohms (or up to 0.1 or 0.2 ohms). Now touch

the probes to the metal parts of the two negative (black) binding posts on the subwoofer's input. If it reads 0 or a small value like 0.1 ohms, DO NOT connect the amplifier to this input. Instead, use a line-level connection from your preamplifier, which will prevent damage and will also deliver better sound quality.

#### BS 232 / control

This connector allows control of the Performance 2 Stereo and Monoblock Amplifier from third-party home automation systems. Consult your Constellation dealer for more information.



#### USB / control

This jack allows control of the Performance 2 Stereo and Monoblock Amplifier from thirdparty home automation systems. Consult your Constellation dealer for more information.



#### Trigger input

This 3.5mm jack accepts a 12-volt DC on/off trigger signal from a preamplifier or third-party control systems. When a 12-volt DC trigger signal is input to the jack, the amplifier will turn on. When the trigger signal stops, the amplifier will turn off.



#### 20-amp IEC AC socket

This input accepts a 20-amp AC connector. The AC cord supplied with the Performance 2 Amplifier can be substituted with an aftermarket cord, provided it uses a similar connector. Before making this connection, turn the power switch next to the AC input to the off position. Connect the AC cord, plug the AC cord into the wall, then turn the power switch of the component to the on position. For best performance, a 20-amp circuit with a 20-amp power cord connector is recommended.



### 9 Master power switch

This switch, located on the rear panel, disconnects AC power to the amplifier. Set to the Off position, the front power switch will not be active and the meter(s) will not be illuminated. Set to the On position, the front power switch will become active. This switch also resets the internal circuit breaker of the amplifier. If the circuit breaker trips, flip the switch off and on again to reset it.

#### 10 Meter light switch

Use this switch, located on the rear panel, to select the level of meter lighting desired: Full intensity (ON), not illuminated (OFF), or reduced intensity (DIM).

#### Mute switch

This switch, located on the rear panel, puts the amplifier into mute mode. In this mode, the amplifier is fully powered up, but the sound is muted. Use this mode if you wish to mute the sound, of course, but also when you are

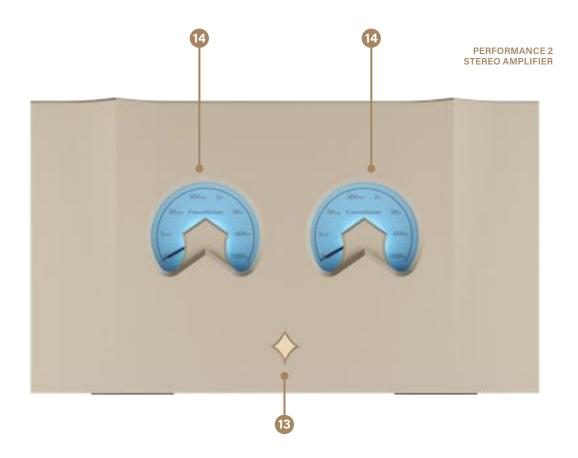
checking the connections into and out of the amplifier. In the event of an accidental disconnection, using the mute mode will prevent unwanted bursts of sound from coming through the loudspeakers.

#### 12 Input select switch

Use this switch to select which of the amplifier inputs you wish to use: Balanced (BAL), Direct (DIR) or RCA. The BAL setting (left position) should be used with balanced-output preamplifiers not manufactured by Constellation. The Constellation Direct input (center position) should be used only with Constellation preamplifiers. The RCA input (right position) should be used only with preamplifiers that do not offer balanced outputs.

#### 13 Front power/mute switch

The flush star-shaped button in the center of the front panel of the amplifier is the power/mute switch.



Press and hold for 3 seconds to turn the amplifier on and off. Press and release quickly to activate and deactivate mute mode.

Use mute mode if you wish to mute the sound, of course, but also when you are checking the connections into and out of the amplifier. In the event of an accidental disconnection, using the mute mode will prevent unwanted bursts of sound from coming through the loudspeakers.

#### 14) Front-panel power meter(s)

The Performance 2 Stereo and Monoblock Amplifiers are equipped with power meters that monitor the unit's operation. The meters of the Performance 2 Stereo Amplifier display power up to 1,200 watts, while the meter of the Performance 2 Monoblock Amplifier displays power up to 2,400 watts.

#### **Amplifier status**

Meter lighting indicates the functional state of the amplifier:

#### **SOLID RED**

Standby mode. The amplifier is powered down but ready to use.

#### **FLASHING RED**

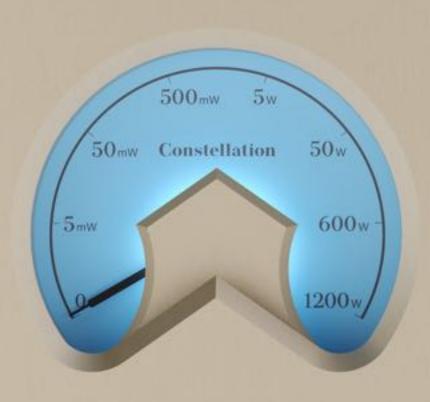
Cool-down mode. The amplifier is powered off but cooling down. The power button cannot be used in this mode. This mode lasts less than 1 minute. Flashing red also indicates Warm-up mode. The amplifier power is on, but is warming up and cannot be used. This mode also lasts less than 1 minute.

#### **SOLID BLUE**

On mode. The amplifier is powered on and is fully functional.

#### **FLASHING BLUE**

Mute mode. The amplifier is powered on but will produce no sound.





### Operation



#### Step 1

Before making or changing any connections, ensure that the master power switch of the amplifier is turned off. If the AC has not been connected, connect the amplifier(s) to the wall AC power socket using the supplied cord.

#### Step 2

If using Performance 2 Monoblock Amplifiers, connect a high-quality speaker cable from the left speaker to the binding posts of the left amplifier, and repeat the process for the right speaker/channel. If using a Performance 2 Stereo Amplifier, connect the speaker cable from the left channel binding posts to the left speaker, and repeat for the right channel/speaker. Be sure to connect the marked (red) connector or cable to the positive (red or +) binding post on the amplifier, and the unmarked (black) connector or cable to the negative (black or -) binding post on the amplifier. If using Performance 2 Monoblock Amplifiers, use either of the two positive (red or +) posts and either of the two negative (black or -) posts; just ensure that the red/+ post is connected to the red/+ cable and that the black/- post is connected to the black/- cable. Repeat for the right speaker.

CAUTION: Be careful about connecting the output of the Performance 2 Amplifier to the speaker-level input of a powered subwoofer or subwoofer amplifier. Damage to the amplifier could result.

Ensure that the conductors of the cables do not touch; that there are no stray wires coming from the cables that might cause a short circuit; and that the amplifier and speakers do not come into contact with metal objects that might cause a short circuit. While the amplifier is internally protected against short circuits, it delivers enough current to vaporize small wires, so a fire hazard can result in the event of a short circuit.

#### ► Step 3

Connect a high-quality XLR balanced audio interconnect from the left channel of the preamplifier output to the XLR input of the left Performance 2 Monoblock Amplifier, or the left XLR input of the Performance 2 Stereo Amplifier. Use the Direct (DIR) input if using a Constellation preamplifier; the BAL input if you are using a balanced XLR connection from a different brand of preamplifier, and the RCA input if the preamplifier offers only unbalanced RCA outputs. Repeat for the right channel.

If biwiring/biamping speakers using a pair of Performance 2 Stereo Amplifiers, connect the signal from the left-channel output of the preamplifier to the right-channel (lower) input of the left amplifier, and the right-channel preamp output to the rightchannel (lower) input of the right amplifier.

#### Step 4

Using the Input select switch near the input jacks on the rear panel of the amplifier, select the input to which the interconnect cables are connected. Set the switch to BAL (left position) if using regular balanced inputs, DIR (center position) if using the Constellation Direct inputs, or RCA (right position) if using unbalanced RCA inputs.

#### ► Step 5

Ensure the mute switch on the rear panel is set to Off.

#### Step 6

Turn on the master power switch on the rear of the amplifier, aside the connection for the AC cord. The meter should glow red, indicating the amplifier is in standby mode. If it does not, check the AC connection.

#### Step 7

To power up the amplifier, push the button on the front panel for 3 seconds. The meter will start flashing red, which indicates that the amplifier is warming up. After less than 1 minute, the meter will turn solid blue and the amplifier will be active. If the preamplifier and a source are connected and playing, and the volume on the preamplifier is up, sound will be heard.

#### Step 8

To mute the amplifier, press and release the button on the front panel. The front meter will start flashing blue and the sound will stop. To unmute the amplifier, press and release the button again.

#### Step 9

To turn the amplifier off, press and hold the button on the front panel for 3 seconds. The meter will start to flash red, indicating that the amplifier is in cool-down mode. It will remain in this mode for less than 1 minute, and during this time, the front power button cannot be operated. After 1 minute, the meter will glow solid red and the amplifier can be powered up again.



#### **Normal Operation**

Once the amplifier is installed correctly, it requires no user operation except powering on and off.

Other than the power button on the front panel, the only control that will likely be used on a regular basis is the mute function, which can be activated from the front power button or the rear mute switch. However, this function is provided mainly as a convenience—the mute function on the preamplifier or the pause button on a source device would ordinarily be used to mute the sound from the audio system.

### Maintenance and Troubleshooting

The Performance 2 Amplifier requires no regular maintenance. If the unit's surface becomes dusty, gently wipe it off with a soft dry cloth in the direction of the metal grain; not a circular motion. Do not spray cleaners on the surface. To clean fingerprints from the surface of the unit, spray a small amount of mild window cleaner such as Windex onto a soft dry cloth, then use the cloth to remove the fingerprints. Do not spray the cleaner directly onto the component.

#### Amplifier will not turn on

- 1. Check to confirm if the meters are illuminated solid red. If not, try the following steps in order. If any one of the steps restores the power, there is no need to continue to the next steps.
- Make sure the master power switch on the rear of the amplifier is turned on.
- Check to make sure the AC cord is connected to the amplifier and to a wall outlet.
- Flip the master power switch off and on again. This will reset the internal circuit breaker of the amplifier.
- Check the circuit breaker in the electrical box to make sure it has not been tripped. If it has, check to make sure a short circuit does not exist at the amplifier speaker terminals or the speaker input terminals. If no short circuit exists, flip the breaker on and off to reset it.
- If none of these conditions restores power, it is likely one of the internal fuses of the amplifier is blown. Do not attempt to change the fuse yourself—the amplifier requires the use of special fuses that are not

commonly available. Contact your Constellation Audio dealer.

2. If the meters are illuminated solid red, push the front power switch and hold it for 3 seconds. The meters should begin flashing red. If not, wait 1 minute for the amplifier to warm up. When the meters turn blue, the amplifier is ready to use. If the meters glow red, but do not change color when you push and hold the power switch, contact your Constellation Audio dealer.

### Amplifier is on but no sound is produced

- 1. Make sure the front meters are glowing blue, indicating that the amplifier is warmed up and in active mode. If the meters are glowing red, push the power button and wait 1 minute for the amplifier to warm up and the meters to glow blue. Sound should now be restored.
- 2. If the meters are flashing blue, the amplifier is in mute mode. Push the front power switch and release it. The meters should glow solid blue and sound should be restored. If not, check to make sure the rear mute switch is set to off.

- **3.** If the meters are glowing blue and you hear no audio, try the following steps in order. If any one of the steps restores the power, there is no need to continue to the next steps.
- Check to make sure the preamplifier and signal source are both turned on, and the preamplifier is not in mute mode.
- Make sure the desired source is selected on the preamplifier.
- Make sure the source device is putting out signal—i.e., if it is a CD player, make sure that the CD is playing and not in pause mode.
- Check the connections between the amplifier(s) and the preamplifier, and between the preamplifier and the audio source device. If a cable is disconnected, reconnect it. If this does not restore sound, try substituting a different set of cables in order to make sure the original set was functioning properly.
- Check the connections between the amplifier(s) and the speakers. Make sure the speaker cables have not come loose. If so, turn the power off on the amplifier(s), wait for the front meters to glow red, then re-install the cable.

#### Sound seems unfocused

- 1. Play a CD of typical pop vocals and listen to speakers at an equal distance from both (at least 8 feet away from each speaker). If the vocals seem to come from between the speakers, they are connected correctly. Alternatively, you can use the "barking dog" test from the Stereophile Test CD or a similar phase check test from another test CD.
- 2. If the vocals seem to come from all around you, make sure that the cables between the amplifier(s) and the speakers are connected properly, with the marked connector or cable connected to the positive (red or +) binding post on the amplifier, and the unmarked connector or cable connected to the negative (black or -) binding post.
- 3. If is necessary to change the speaker cable connection, turn the amplifier off first. To avoid possible electrical shock or damage to the amplifier, you must discharge the energy stored in the power supply. To discharge the power supply, turn the power off with music playing. It may take up to a minute or so for the sound to stop. After the sound stops, it is OK to change or adjust the cables.

#### Sound comes from the wrong speaker

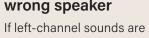
If left-channel sounds are coming

(i.e., the violins in an orchestral recording come from the right speaker, not the left), check the cable connections between the amplifier(s) and the speakers. between the amplifier(s) and the preamplifier, and between the preamplifier and the source device. Make sure left-channel interconnect cables are connected to the left channels. of the source, preamplifier and amplifier, and right to the right channels. Make sure the left speaker is connected to the left-channel binding posts of the Performance 2 Stereo Amplifier, or to the Performance 2 Monoblock Amplifier used for the left channel. Check the right speaker connection in the same manner.

#### Sound comes from only one speaker

- 1. If using Performance 2 Monoblock Amplifiers, make sure both units are plugged in and powered up. If you encounter difficulties, follow the troubleshooting steps under "Amplifier will not turn on" above.
- 2. Switch the preamplifier to a different input and play music from a different source device. If sound now comes from both speakers, check the connection between the source device and the preamplifier.
- 3. If sound is only produced from only one speaker no

- matter which preamplifier input is selected, check the cables connecting the preamplifier to the amplifier(s), and between the amplifier(s) to the speakers. Make sure the speaker cables are firmly connected to the amplifier(s) and the speaker, and that the cables have not been damaged. Then check to make sure the interconnect cables are connected correctly between the source component and the preamplifier, and between the preamplifier and the amplifier(s), and that all of the interconnect cables are in good condition.
- **4.** If these steps do not restore sound to both speakers, turn the rear power switch off on the Performance 2 Stereo Amplifier or on the Performance 2 Monoblock Amplifier connected to the speaker that is not working. Leave the music playing, and allow it to continue to play until the sound dies out. This will discharge the power supply to avoid possible electrical shock or amplifier damage. If using Performance 2 Monoblock Amplifiers, connect the left speaker to the amplifier normally used for the right channel, and vice-versa. If using the Performance 2 Stereo Amplifier, switch the speaker cables, connecting the left speaker to right channel of the amplifier and the right speaker to the left channel. If the same speaker doesn't work—if, say, the left speaker was silent before and it's still silent after switching the cables—there is likely a speaker malfunction. If the sound moves to the other speaker—i.e., if only the left speaker was playing but now only the right speaker is playing contact your Constellation dealer.



from the right or vice-versa



Visit the Performance 2 product page of our website for the latest user manuals and product information.

ConstellationAudio.com

### Performance 2 Stereo and Monoblock Amplifier

Output power: @ 8 Ω (0.1% THD+N, 20 Hz-20 kHz)       600 WPC       1,200 W         Output power: @ 4 Ω (0.1% THD+N, 20 Hz-20 kHz)       1,125 WPC       2,000 W         GENERAL SPECIFICATIONS         Inputs       4 XLR (2 Direct) 2 RCA       2 XLR (1 Direct) 1 RCA         Frequency response       10 Hz-80 kHz +/- 0.05 dB         Gain, direct input       12 dB         Gain, non-direct input       25.2 dB         AC power draw, standby       <0.5 W         AC power draw @ max power into 8 Ω       1,300 W         AC power draw @ max power into 4 Ω       1,970 W         Power factor, partial power       0.98         Power factor, full power       1.0         Damping factor       >160         Signal-to-noise ratio, DC-90 kHz ref 1 V       >100 dB, A-weighted         Signal-to-noise ratio, DC-90 kHz ref full power       >115 dB, unweighted         Signal-to-noise ratio, DC-90 kHz ref full power       >125 dB, A-weighted	POWER SPECIFICATIONS	STEREO	MONOBLOCK
A XLR (2 Direct) 2 XLR (1 Direct) 1 RCA	Output power: @ 8 Ω (0.1% THD+N, 20 Hz-20 kHz)	600 WPC	1,200 W
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AC power draw, standby  AC power draw, idle  135 W  AC power draw @ max power into 8 Ω  1,300 W  AC power draw @ max power into 4 Ω  1,970 W  Power factor, partial power  0.98  Power factor, full power  1.0  Damping factor  Signal-to-noise ratio, DC-90 kHz ref 1 V  Signal-to-noise ratio, DC-90 kHz ref full power  Signal-to-noise ratio, DC-90 kHz ref full power  Signal-to-noise ratio, DC-90 kHz ref full power  >125 dB, A-weighted	Gain, direct input	12 dB	
AC power draw, idle  AC power draw @ max power into 8 Ω  1,300 W  AC power draw @ max power into 4 Ω  1,970 W  Power factor, partial power  0.98  Power factor, full power  1.0  Damping factor  Signal-to-noise ratio, DC-90 kHz ref 1 V  Signal-to-noise ratio, DC-90 kHz ref full power  Signal-to-noise ratio, DC-90 kHz ref full power  Signal-to-noise ratio, DC-90 kHz ref full power  >125 dB, A-weighted	Gain, non-direct input	25.2 dB	
AC power draw @ max power into 8 Ω  1,300 W  1,970 W  Power factor, partial power  0.98  Power factor, full power  1.0  Damping factor  Signal-to-noise ratio, DC-90 kHz ref full power  >125 dB, A-weighted	AC power draw, standby	<0.5 W	
AC power draw @ max power into 4 Ω  Power factor, partial power  0.98  Power factor, full power  1.0  Damping factor  >160  Signal-to-noise ratio, DC-90 kHz ref 1 V  >100 dB, A-weighted  Signal-to-noise ratio, DC-90 kHz ref full power  >15 dB, unweighted  Signal-to-noise ratio, DC-90 kHz ref full power  >125 dB, A-weighted	AC power draw, idle	135 W	
Power factor, partial power  1.0  Damping factor  Signal-to-noise ratio, DC-90 kHz ref full power  Signal-to-noise ratio, DC-90 kHz ref full power  Signal-to-noise ratio, DC-90 kHz ref full power  >125 dB, A-weighted	AC power draw @ max power into 8 Ω	1,300 W	
Power factor, full power  1.0  Damping factor  >160  Signal-to-noise ratio, DC-90 kHz ref 1 V  >100 dB, A-weighted  Signal-to-noise ratio, DC-90 kHz ref full power  >115 dB, unweighted  Signal-to-noise ratio, DC-90 kHz ref full power  >125 dB, A-weighted	AC power draw @ max power into 4 Ω	1,970 W	
Damping factor       >160         Signal-to-noise ratio, DC-90 kHz ref 1 V       >100 dB, A-weighted         Signal-to-noise ratio, DC-90 kHz ref full power       >115 dB, unweighted         Signal-to-noise ratio, DC-90 kHz ref full power       >125 dB, A-weighted	Power factor, partial power	0.98	
Signal-to-noise ratio, DC-90 kHz ref 1 V       >100 dB, A-weighted         Signal-to-noise ratio, DC-90 kHz ref full power       >115 dB, unweighted         Signal-to-noise ratio, DC-90 kHz ref full power       >125 dB, A-weighted	Power factor, full power	1.0	
Signal-to-noise ratio, DC-90 kHz ref full power >115 dB, unweighted  Signal-to-noise ratio, DC-90 kHz ref full power >125 dB, A-weighted	Damping factor	>160	
Signal-to-noise ratio, DC-90 kHz ref full power >125 dB, A-weighted	Signal-to-noise ratio, DC-90 kHz ref 1 V	>100 dB, A-weighted	
	Signal-to-noise ratio, DC-90 kHz ref full power	>115 dB, unweighted	
	Signal-to-noise ratio, DC-90 kHz ref full power	>125 dB, A-weighted	
Output impedance 0.05 \(\Omega\)	Output impedance	0.05 Ω	
<b>Weight</b> 90 lbs / 40.9 kg	Weight	90 lbs / 40.9 kg	

Specifications subject to change.

18.75 x 11.25 x 22.5 in / 47.6 x 28.6 x 57.2 cm (WHD)

**Dimensions** 





The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the product enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating maintenance (servicing) instructions in the literature accompanying the appliance.

#### STOP! NO USER SERVICEABLE PARTS INSIDE THIS UNIT.

Do not open the component or remove any of its screws. Contact Constellation or your dealer if you have service needs.

WARNING!

Do not expose this component to moisture or excessive humidity, and do not use it outdoors. Fire hazard may result.

# The Sound of Perfection.

Your Performance 2 Amplifier is designed to provide many years of trouble-free, maintenance-free service. If you encounter any problems you cannot solve or have technical questions, please contact your Constellation dealer.

Constellation Audio.com

CONSTELLATION PRODUCTS ARE DESIGNED AND MANUFACTURED IN CALIFORNIA, U.S.A.