

constellation audio

Simply, Light Years Ahead.



Inspiration PREAMP 1.0 Manual



CAUTION

To reduce risk of electric shock, do not remove any of the preamplifier's cover plates or screws. There are no user serviceable parts inside. Contact qualified service personnel.

WARNING

To reduce risk of fire or electric shock, do not expose this preamplifier to moisture, rain, or excessive humidity.



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's 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.

Thank you for purchasing the Constellation Audio Inspiration PREAMP 1.0. This preamplifier has been engineered to deliver an unmatched combination of sound quality, user-friendliness and flexibility.

The PREAMP 1.0 employs the same revolutionary circuitry pioneered in our Altair and Virgo preamps. The biggest difference is that the user can now control all functions from the front panel. As with the original, the advanced design necessarily demands a somewhat different setup process compared with typical stereo preamps. By reading this manual before you operate the PREAMP 1.0, you assure that you get maximum performance from your system.

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Before you install the PREAMP 1.0

Unpacking

Because of its machined aluminum parts, the PREAMP 1.0 may be heavier than you expect. Be sure to have a place cleared to put it down when you remove it from the shipping box, and place it only on sturdy surfaces that can bear its weight. You may wish to use gloves to protect your fingers.

Installation notes

If you will be using the Constellation Audio Inspiration MONO 1.0, STEREO 1.0, Centaur or Hercules amplifier (or any other high-powered amplifier), we recommend you do not plug the PREAMP 1.0 into the same AC socket or into any other outlet connected on that circuit. Constellation Audio amplifiers draw a great deal of power and could affect the PREAMP 1.0's performance if the amplifier(s) and preamp are plugged into the same electrical circuit or AC outlet.

When you connect or disconnect 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/or the PREAMP 1.0.

The PREAMP 1.0 uses passive cooling; there are no internal fans. While the PREAMP 1.0 does not generate as much heat as an amplifier, it should still be located in an area with adequate ventilation.

There should be at least 6 in/15 cm of clearance between the sides and top of the preamp and the nearest wall or cabinet. If the PREAMP 1.0 is installed in a cabinet or an equipment closet, ensure the cabinet/closet has adequate ventilation. Installation in an unventilated cabinet or closet may cause the PREAMP 1.0 to overheat, significantly reducing its lifespan.

The PREAMP 1.0 requires a room-temperature environment to operation properly. Ambient temperature should be about 70°F/21°C, plus or minus 10°F/5°C. Never install the PREAMP 1.0 in a place where it may be exposed to direct sunlight, and do not install it next to a room heater, radiator, air conditioner, etc.

Make sure that the PREAMP 1.0 will not be exposed to moisture. Do not locate it in an area where it might be spilled on, and do not place it in a humid location (such as an unfinished basement).

We recommend leaving the PREAMP 1.0 on all the time, except when you're changing cables. This way, it will always be at its optimum operating temperature and will always achieve maximum performance.

Installing the PREAMP 1.0 in a place where it will be exposed to direct sunlight or moisture, or where it will not have adequate ventilation, will void your warranty.

Amplifier note

The PREAMP 1.0 is designed to be paired with any high-quality audio amplifier; ideally Constellation's own Inspiration MONO 1.0, STEREO 1.0, Centaur or Hercules amps. Both balanced (XLR) and unbalanced (RCA) connections are available. XLR will provide the highest quality/lowest noise signals, and should be used when possible.

Before making or changing any connection to the PREAMP 1.0, first turn off the master power switch on the preamp and turn off the power on the power amplifier.

Source components

The PREAMP 1.0 has six analog audio inputs, three balanced (XLR) and three unbalanced (RCA), and can be used with any audio component with line-level analog outputs. An XLR connection will provide the highest quality signal, and should be used when possible. If you are using a record turntable, you will need to connect a high-quality phono preamplifier, such as the Constellation Audio Perseus, between the turntable and the PREAMP 1.0.

In the event of malfunction

Do not under any circumstances open the chassis of the PREAMP 1.0. There are no user-serviceable parts inside. Opening the chassis presents a shock hazard even if AC power is disconnected. Alteration or modification of the PREAMP 1.0's internal parts or circuit will immediately void your warranty.

If your PREAMP 1.0 does not function correctly, refer to the Troubleshooting section at the end of this manual. If you are still unable to resolve the problem, contact your Constellation Audio dealer.

If any liquid is spilled on the preamp, or if a metal object such as a staple or a paper clip is forced inside, immediately disconnect the AC power and contact your Constellation Audio dealer.

Source device and amplifier connections

1. XLR inputs



On the rear of the PREAMP 1.0 there are six XLR inputs, three on each side. As you are looking at the rear panel, the left three XLR inputs are for the right channel, the right three inputs are for the left channel. Underneath each jack is the corresponding input number. Use of XLR connections is recommended for the best possible audio quality. To remove an XLR plug, push on the tab above the jack and pull the plug out.

IMPORTANT NOTE: To preserve dual-mono operation, the PREAMP 1.0 uses a symmetrical circuit layout. This requires that the PREAMP 1.0's back panel connections be laid out differently from most preamps. For example, the left-channel connection for Input 1 is at the far right side of the back panel, and the right-channel connection is at the far left side. Connecting the cables in the usual side-by-side fashion will result in incorrect installation and the mixing of sounds from different source devices.

The input numbers from left to right, looking at the back of the PREAMP 1.0 are:

1_{right}, 2_{right}, 3_{right}—3_{left}, 2_{left}, 1_{left}.

2. RCA inputs



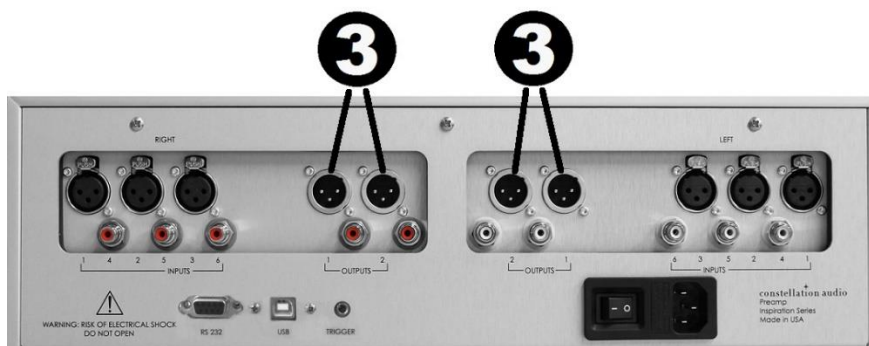
These unbalanced inputs are provided as a convenience for use with unbalanced signal sources. Whenever possible, we recommend using XLR connections instead. Connecting to an unbalanced source is handled in the same way an XLR balanced source.

The input numbers from left to right, looking at the back of the PREAMP 1.0 are:

4_{right}, 5_{right}, 6_{right}—6_{left}, 5_{left}, 4_{left}.

IMPORTANT NOTE: To preserve true dual-mono operation, the PREAMP 1.0 uses a symmetrical circuit layout. This configuration requires that the PREAMP 1.0's back panel connections be laid out a little differently from those on most preamps. For example, the left-channel connection for Input 4 is at the far right side of the back panel, and the right-channel connection is at the far left side. Connecting the cables in the usual side-by-side fashion will result in an incorrect installation and the mixing of sounds from different source devices.

3. XLR outputs



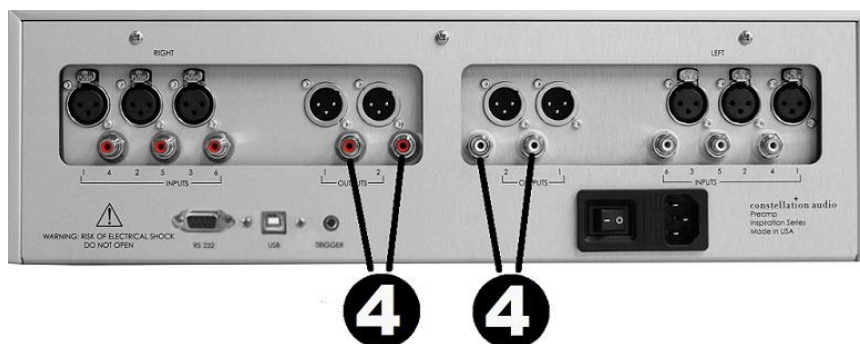
The inner four XLR connections on the rear of the PREAMP 1.0 are outputs. The signal at these outputs is the same—it does not matter if you use output 1 or output 2. To remove an XLR plug, push on the tab on the connector body and pull the plug out.

From left to right, looking at the back of the PREAMP 1.0, the outputs are: 1_{right}, 2_{right}—2_{left}, 1_{left}.

Be sure to match the output to the correct channel on your amp. As you are looking at the back of the PREAMP 1.0, the outputs on the left side are for the right channel, the outputs on the right are for the left channel.

When XLR connections are used to connect the PREAMP 1.0 with the Inspiration MONO 1.0, STEREO 1.0, Centaur or Hercules amplifiers, the Constellation Link is created—an audio interface that is, in essence, perfectly balanced. The positive- and negative-going halves of the signal will exhibit near-zero difference except for their polarity.

4. RCA outputs



RCA unbalanced outputs are supplied for amps and recording devices not equipped with XLR inputs. The signal at these outputs is the same—it does not matter if you use output 1 or output 2. From left to right, looking at the back of the PREAMP 1.0, the outputs are: 1_{right}, 2_{right}—2_{left}, 1_{left}.

When connecting to an amplifier, be sure to match the output to the correct channel on your amp. As you are looking at the back of the PREAMP 1.0, the outputs on the left side are for the right channel, the outputs on the right are for the left channel. To remove an RCA plug, grasp it by the connector body and pull the plug out.

Other connections on the PREAMP 1.0

5. RS-232

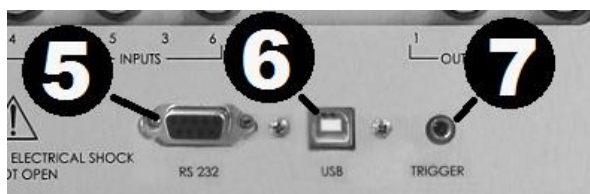
This DB9 jack interfaces the PREAMP 1 with home automation systems. For more information, contact your Constellation Audio dealer.

6. USB / control

This jack interfaces the PREAMP 1.0 with home automation systems, and is also used to update the PREAMP 1.0's firmware. For more information, contact your Constellation Audio dealer.

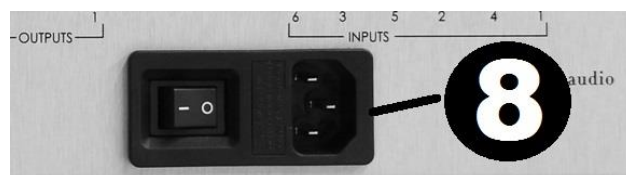
7. Trigger

This 3.5mm input jack on the back panel allows the PREAMP 1.0 to turn a connected device (such as a Constellation Audio amplifier) on and off automatically. When the PREAMP 1.0 is powered up or in Standby mode, this jack emits a 12-volt DC signal. When the PREAMP 1.0 is powered off entirely (by holding the front panel power button down for 5 seconds), the jack emits no signal. This jack will work with any device that can accept a standard 12-volt trigger signal.



8. AC Input

This AC input accepts standard 15-amp IEC-type power cords. You may use the high-quality power cord supplied with the PREAMP 1.0, or substitute an aftermarket power cord if you wish.



Controls / displays / indicators

9 – 15. Front panel controls



The front panel includes an LCD touchscreen and two knobs plus five buttons positioned underneath the display. These buttons allow you to control the PREAMP 1.0 without its remote. The functions of the buttons are shown using icons on the screen. Here are the functions of the buttons and knobs:

9. Balance

This knob adjusts left-to-right balance when an input screen is displayed—i.e., when an input is selected. Turn the knob counterclockwise to shift the balance to the left, clockwise to shift the balance to the right. An onscreen indicator will indicate if the balance is centered or how far it is shifted to one side or the other.

10. Home

This button brings you to the input select screen no matter which control screen you are currently viewing.

11. Return/back

This button brings you back to the previous control screen. For example, from any input's screen, such as XLR 1, it will take you back to the input selector screen.

12. Power

Push this button to turn the PREAMP 1.0 on and off. When you turn the unit on, it will take a few seconds to warm up. When the preamp is ready for use, its LCD screen will show the most recently selected input.

Hold this button down for 5 seconds to turn the preamp off. The unit will enter cool-down mode for 10 seconds. During cool-down, no buttons on the unit or remote will operate.

13. Multifunction button

The multifunction button serves different functions depending on which control screen is shown. A label on the LCD display will show the function of the button.

14. Mute

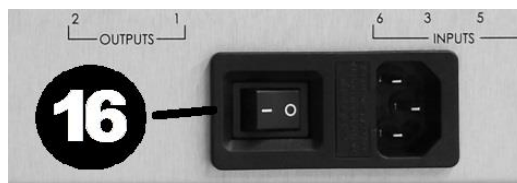
Press this button to silence the PREAMP 1.0 temporarily. The numerical volume readout will flash. Press again to restore the audio. Because the PREAMP 1.0 uses a relay to perform the mute function, it may take a second or so for this control to respond.

15. Volume

The volume control is always active when the PREAMP 1.0 is powered up and the mute is deactivated. Note that the control is calibrated in negative decibels (-dB), reaching maximum volume at 0.0 dB and minimum at -99.5 dB. Thus, when you turn the volume up (clockwise), the number on the front display will decrease. When you turn the volume down (counterclockwise), the number will increase. The adjustments steps are in 0.5 dB increments.

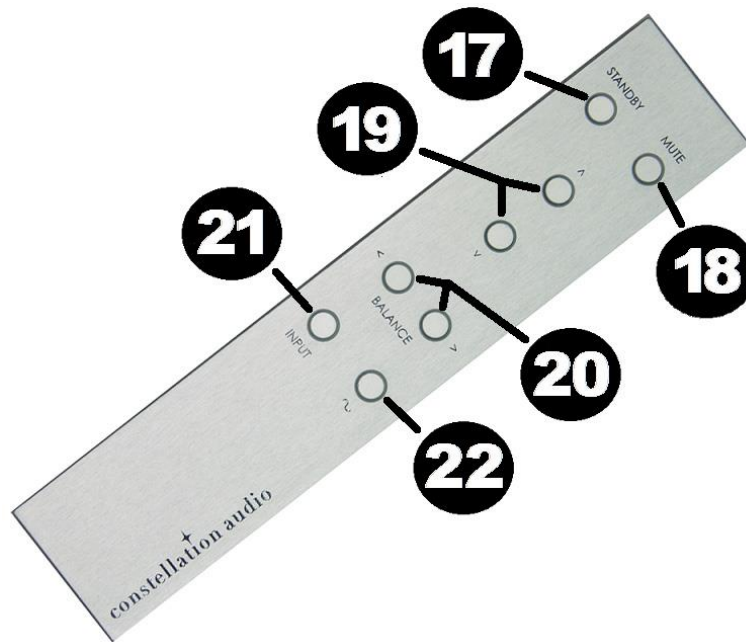
16. Rear-panel master power switch

This switch completely shuts off power to the PREAMP 1.0. When this switch is off, none of the buttons on the front panel or the remote will function. We recommend leaving this switch on except when you are changing connections.



Remote control

The remote operates basic functions of the PREAMP 1.0. It does not operate other Constellation components.



17. Power

Push this button to turn the PREAMP 1.0 on and off. When you turn the unit on, it will take a few seconds to warm up. When the preamp is ready for use, its LCD screen will show the most recently selected input.

18. Mute

Press this button to silence the PREAMP 1.0 temporarily. The numerical volume readout will flash. Press again to restore the audio. Because the PREAMP 1.0 uses a relay to perform the mute function, it may take a second or so for this control to respond.

19. Volume up/down

Press these buttons to raise or lower the volume. Each press changes volume by 1 dB at volumes below -50.0 dB, and 0.5 dB at volumes above -50.0 dB. Holding the buttons down raises or lowers the volume quickly.

20. Balance left/right

Press these buttons to shift the balance to the left or right. Each press changes the balance by 0.5 dB.

21. Input

Press this to select among the PREAMP 1.0's XLR and RCA inputs. You will have to wait a second or so between pushes of this button, because for best sound quality the PREAMP 1.0 uses relays to switch inputs.

22. Phase

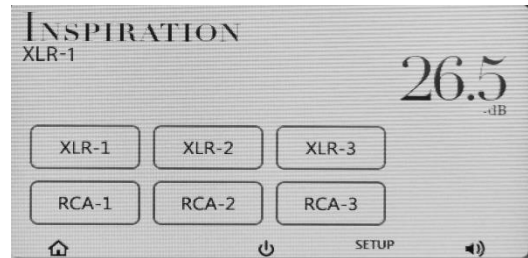
Push this to flip the phase of the PREAMP 1.0's output signal for the selected input. Use whichever setting sounds best.

Control screens

Many PREAMP 1.0 functions are controlled through the LCD touchscreen. Here is how the control screens function.

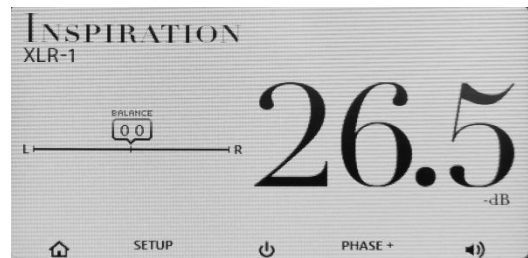
Input selector (or home) screen

This screen appears when the power is on and the unit is warmed up. Touching any input button onscreen will switch to that input. The Setup screen can be accessed from this screen using the multifunction button below the display.



Input screen

When you select an input, this screen will appear. It provides a large volume display as well as the display for the balance control. The balance control functions only when this screen is shown. Pushing the multifunction button under the Setup label enters the input setup screen.



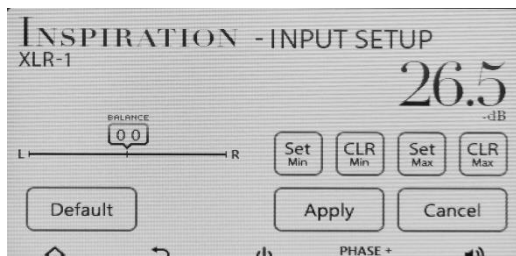
Input setup screen

When you press the multifunction button labeled Setup on the input screen, this screen will appear. It allows you to set up a home theater bypass input; set minimum and maximum output levels, and change the phase of the output signal.

To flip the phase of the PREAMP 1.0's output signal: Use the multifunction button below the Phase indicator at the bottom of the display.

To set minimum and/or maximum levels: Adjust the PREAMP 1.0's volume to the desired minimum or maximum level, and press either the Set Min or Set Max button, depending on which function you want, and hit Apply to accept the setting. To clear the setting, press either CLR Min or CLR Max as appropriate, or press Default to clear both settings.

To set up a home theater bypass input: First select the input you want to use for this function, then adjust the volume on the PREAMP 1.0 to the desired level. Push the Set Min button, then the Set Max button, then the Apply button. To clear these settings, press CLR Min then CLR Max, or press Default.



Screen setup screen

To adjust LCD brightness: Press the + and - buttons on the left half of the screen, on either side of the dark dot.

To adjust LCD contrast: Press the + and - buttons on the right half of the screen, on either side of the half-dark/half-light dot.

To adjust LCD backlight timeout: Press the Timeout button in the lower left corner to keep the screen lit for 15 sec., 30 sec., 1 min., 5 min., 10 min., and always on.

To accept or cancel screen setting changes: Press the Apply or Cancel button, respectively.

To return to the factory default settings: Press the Default button. This will bring up a screen asking "Are you sure you want to set this device to its default settings?" Hit the Yes button to go to default settings, the No button to cancel.



Step-by-step operating process

We've covered all of the basic controls and indicators of the PREAMP 1.0. Here's how you use them to perform the basic operations of turning the unit on, selecting a source, adjusting the sound, and turning the unit off.

STEP 1: Before making or changing any connections on the PREAMP 1.0, turn off the main power switch on the back of the preamp, and turn off the power amplifier(s).

STEP 2: To turn on the PREAMP 1.0 from the front panel, push the Standby button in the middle under the LCD touchscreen. Alternatively, you may push the Standby button on the remote. (The rear panel power switch must be set to the On position.)



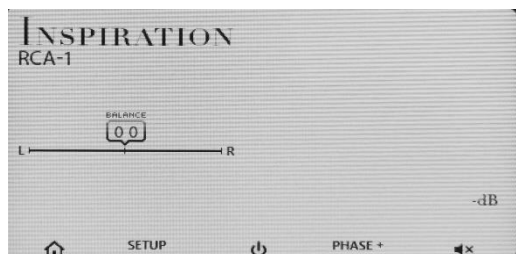
When you turn on the power, you will hear the PREAMP 1.0's internal relays click as the unit goes into warm-up mode. In a few seconds, the front touchscreen will illuminate. The most recently used input will be selected. If you wish to let the unit warm up for a while before listening, hit the Standby button (on the front panel or remote) again to enter Standby mode. The Standby screen will appear on the LCD and the audio will be silenced until you push the Standby button again.

STEP 3: To change to a different input from the front panel, press the button under the Home icon. This will bring up the input select screen. Push an onscreen button (XLR-1, RCA-1, etc.) to select the input you want. The screen for that input will appear. Alternatively, you can scroll through the available inputs using the Input button on the remote. Enable playback on the chosen source device.

STEP 4: Adjust listening volume with the volume knob on the front of the unit or the volume up/down buttons on the remote. Note that the control is calibrated in negative decibels (-dB), reaching maximum volume at 0.0 dB and minimum at -99.0 dB. Thus, when you turn the volume up (clockwise), the number on the front display will decrease. When you turn the volume down (counterclockwise), the number will increase.

STEP 5: To adjust left-to-right balance, turn the balance knob. Counterclockwise shifts the balance to the left, clockwise shifts it to the right. Or use the buttons on the remote; left shifts the balance to the left, right shifts to right. The onscreen indicator will show you the balance setting in 0.1 dB increments.

STEP 6: To mute the sound temporarily, press the Mute button—either the one on the remote or the one furthest to the right under the front touchscreen. You will see an X appear alongside the tiny speaker icon in the lower right corner of the touchscreen (as seen in the image at right), and the volume readout on the touchscreen will flash. To restore the sound, press the Mute button on the remote or front panel again.

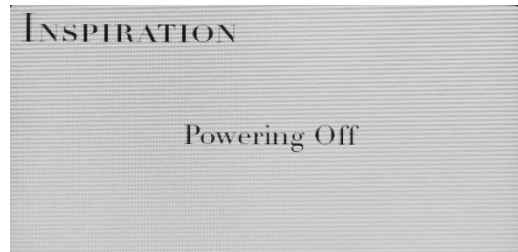


STEP 7: You may wish to set a maximum output level to prevent damage to your speakers if the level is accidentally turned up to high, and a minimum output level so that the preamp always delivers an audible volume. To do this, adjust the PREAMP 1.0's volume to the desired minimum or maximum level. Push the multifunction button labeled Setup. Press either the Set Min or Set Max button, depending on which function

you want. Hit Apply to accept the setting, or Cancel to return to the original setting. To clear the setting, press either CLR Min or CLR Max as appropriate, or press Default to clear both settings.

STEP 8: If you want to use the PREAMP 1.0 in a home theater system, in conjunction with a surround-sound processor, you should set up one input for home theater bypass. When you switch to this input, volume and balance will be at fixed settings and your channel balance adjustments in the surround processor will be preserved. To do this, first select the input you want to use for this function. Now adjust the volume on the PREAMP 1.0 to the desired level. Push the multifunction button labeled Setup. Push the Set Min button, then the Set Max button, then the Apply button. To clear these settings, press CLR Min then CLR Max, or press Default.

STEP 9: To turn the system off, stop playback on the source device. Hold the Standby button in the middle under the LCD touchscreen or on the remote down for 5 seconds. The unit will enter cool-down mode for 10 seconds, during which no buttons will work. After cool-down mode finishes, you can turn the unit back on again as described in Step 1 above.



Maintenance

The PREAMP 1.0 requires no regular maintenance.

If the preamplifier's surface becomes dusty, simply wipe it off with a soft dry cloth. Do not spray cleaners on the surface.

To clean fingerprints from the surface of the preamplifier, 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 preamplifier.

Troubleshooting

Preamplifier will not turn on

1. Touch the front touchscreen to see if it illuminates. If it does not, try the following steps in order. After you perform each step, touch the Power button on the front of the unit and wait a few seconds to see if the blue LED is illuminated. If any one of the steps restores the power (i.e., allows the Power button to turn the unit on), there is no need to continue to the next steps.

- A. Check AC power cord connection between the wall and the PREAMP 1.0. Push the wall plug and the connector at the preamp in firmly.
- B. Make sure the master power switch on the rear of the preamp is turned on.
- C. If the PREAMP 1.0 is plugged into an AC line conditioner, make sure the line conditioner is turned on.
- D. Flip the master power switch off and on again. This will reset the PREAMP 1.0's internal circuit breaker.
- E. Check the circuit breaker for the AC circuit that the PREAMP 1.0 is plugged into. If the breaker is tripped, flip it back on. If it will not turn on, there is likely a short circuit somewhere in the lines or in a device connected to this AC circuit. Check the power cords for your components to make sure none have been damaged.
- F. If none of these conditions restores power, it is possible one of the PREAMP 1.0's internal fuses is blown. Do not attempt to change the fuse yourself—the PREAMP 1.0 requires the use of special high-voltage fuses that are not commonly available. Contact your Constellation Audio dealer for service.

Preamplifier is on but no sound is produced

1. Touch the front touchscreen to see if it illuminates. If it does not, press the Power button under the front LCD to turn the unit on.
2. If the LED is lit and the Standby screen is visible on the LCD panel, press the Power button under the front LCD or on the remote to restore sound.
3. If the LED is lit and the volume numbers on the LCD panel are flashing, hit the Mute button on the front panel or on the remote to restore sound.
4. If neither the Mute nor the Power button restores the sound, try the following steps in order. If any one of the steps restores the sound, there is no need to continue to the next steps.
 - A. Check you are on the correct input. Cycle through available inputs using the front touchscreen controls, or select the desired input using the remote.
 - B. Check that the source component is on and playing back—i.e., if it is a CD player, make sure that the CD is playing and not in pause mode.
 - D. Check the connections between the PREAMP 1.0 and your amp, and between the PREAMP 1.0 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.
 - E. Check the connection between your amp and the speaker. Make sure the speaker cable has not come loose. If it has, turn the power off on your amp, then re-install the cable.
 - F. Check that the volume is at a sufficient level. Do not turn the volume all the way up to check this, as if sound is reestablished while the PREAMP 1.0 is set to output maximum volume, damage can be done to your speakers and amplifiers.
 - G. If none of these actions restores the sound, contact your Constellation Audio dealer.

Sound seems unfocused

1. Play a CD of typical pop vocals and sit in front of your 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 on your amplifier 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 you need 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 die out. After the sound dies out, it is OK to change or adjust the cables.

Sound comes from the wrong speaker

If left-channel sounds are coming from the right or vice-versa (i.e., the violins in an orchestral recording come from the right speaker, not the left), check the cable connections between the source and the PREAMP 1.0, and the PREAMP 1.0 and your amp. Make sure left-channel cables are connected to the left channels of the PREAMP 1.0 and amp, and right to the right channels.

Only one speaker is working, or one speaker is playing a different piece of music

1. Check each cable, starting with the source component. Make sure the left channel of the source goes to the left input on the PREAMP 1.0 (which is on the right side, as you're looking at the back panel), and the right channel to the right input (which is on the left side). On the back of the PREAMP 1.0, the left and right inputs are NOT next to each other. They are on opposite sides of the unit. In other words, the XLR input numbers are 1, 2, 3, 3, 2, 1, and the RCA input numbers are 4, 5, 6, 6, 5, 4.
2. Check that the cables to the amp are on the correct channels of the preamp. The XLR and RCA outputs on the back of the PREAMP 1.0, from left to right, are 1, 2, 2, 1.

Remote control does not work

1. Move the remote a few feet away to a different location and try again. The remote requires a clear line-of-sight to the infrared detector on the PREAMP 1.0's front panel.
2. If the remote still doesn't work, use a 3/32" Allen wrench to remove the remote's battery compartment cover, then replace the remote's CR2032 battery and replace the cover. You'll notice that there are slots for two batteries, but only one slot is used. Be sure to install the new battery in the same slot that the old battery occupied.

Balance and volume controls do not function

1. If you are using the input configured for home theater bypass, this situation is normal—volume and balance controls do not function in this mode.
2. If you are not using an input configured for home theater bypass, you need to clear out the minimum and maximum volume settings for the input you are using. Press the multifunction button labeled Setup on the screen, then press the Default button.

For more information

Your PREAMP 1.0ifier should give you many years of trouble-free, maintenance-free service. If you encounter any problems you cannot solve or have technical questions, please contact your Constellation Audio dealer.

For more information about Constellation Audio products, please visit our website:

www.constellationaudio.com

