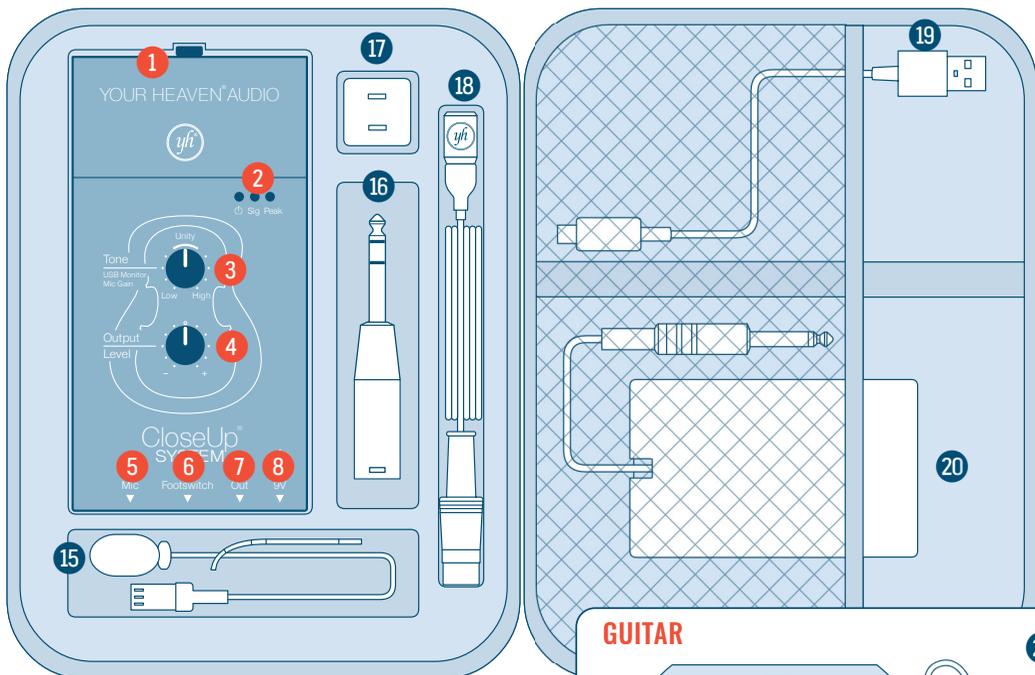




THE **CloseUp**[®] System USER GUIDE

Rev 2023-10-17



Like a studio-grade mic, the CloseUp® System delivers a sound that is true to the acoustic tone of your instrument. The sound isolation the CloseUp® System provides allows for clear studio sound while playing live with a band.

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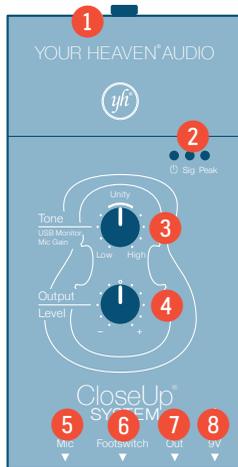
GUITAR

GETTING STARTED

Download the Mac or Windows app from: yourheaven.net/closeup-downloads

CloseUp Box: Front View

- 1 Battery Lid** | *see pg. 47*
Slightly loosen screw & lift for 9V battery
- 2 Indicator LEDs** | *see pg. 48*
Level meter & various status settings (*mute, boost, etc.*)
- 3 Tone Knob** | *see pg. 41*
Multi-Function: 1. Bass/Treble Balance 2. Mic Volume 3. USB Monitor Level
- 4 Output Level** | *see pg. 41*
Adjusts output volume
- 5 Mic Input** | *see pg. 43*
Connect CloseUp® mic extension cable
- 6 Footswitch Input** | *see pg. 43*
Mute & Boost functions
- 7 Audio Output** | *see pg. 44*
Balanced line or stereo headphone output
- 8 9V Power Jack** | *see pg. 46*
9V DC power in (*Ring= +, Tip= -*).



CloseUp Box: Side View

- 9 Monitor Button** | *see pg. 56*
Enter Headphone Output Mode (hold 3 sec.) or USB Monitor Mode (double-tap)
- 10 USB Connector** | *see pg. 46*
USB power, also computer connection
- 11 Power Switch** | *see pg. 40*
USB | OFF/9V Adapter | Battery
- 12 Mute Switch** | *see pg. 40*
Mutes all audio output (analog & digital)
- 13 Tone/Mic Gain Switch (Dual Gain)** | *see pg. 55*
Switches Tone Knob between Tone and Mic Gain
- 14 Profile Switch** | *see pg. 41*
Select instrument profile

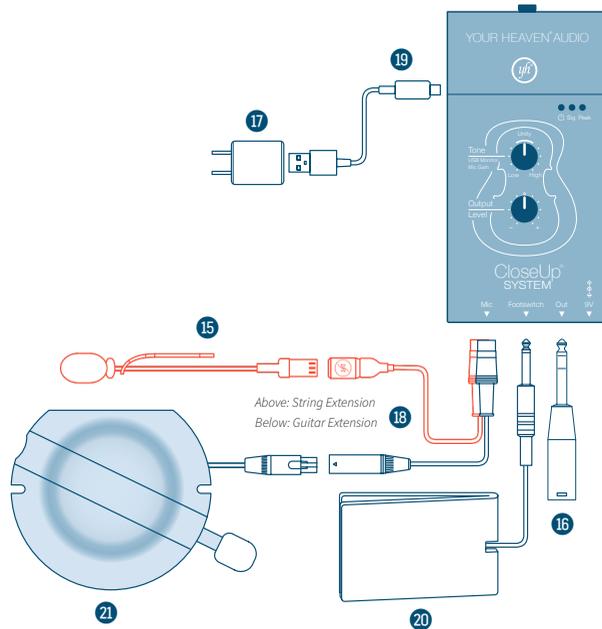


GETTING STARTED

Download the Mac or Windows app from: yourheaven.net/closeup-downloads

External Parts

- 15 **Microphone** | *see pg. 9*
- 16 **¼" to XLR Adapter** | *see pg. 31*
Adapts output to a microphone cable
- 17 **USB Power Adapter** | *see pg. 46*
- 18 **Mic Extension Cable** | *see pg. 9*
Connects the mic to the processor
- 19 **USB Cable** | *see pg. 46*
Connect to power adapter or computer
- 20 **Footswitch** | *see pg. 43*
Activates mute and/or boost (see setup instructions)
- 21 **Guitar Mic with Sound Hole Cover** | *see pg. 10*
Cover improves feedback, isolation and sound quality (*guitar systems only*)



*This guide applies to CloseUp® System hardware revisions SEQ006 and SEQ007.
Features and operation may change in future hardware revisions.*

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The CloseUp® System in a Nutshell



What is CloseUp® sound?

The Your Heaven® Audio CloseUp® System is a mic system used for amplifying or recording the acoustic sound of your instrument, and only your instrument, in the most authentic way possible.

The CloseUp® System works by using Your Heaven's proprietary profiling algorithm to transform the sound of a mic inside the body of your instrument into the isolated, natural, acoustic sound of your instrument.

The mic and processor work together to train and apply a unique model of your particular instrument, allowing you to capture and amplify and/or record its true acoustic sound without the interference of background noise or feedback.

The CloseUp® System isolates your sound better than any other microphone, avoiding feedback, rejecting

unwanted noises, and delivering the sound quality of a high-end studio set up by a knowledgeable engineer.

The CloseUp® System consists of the microphone, processor, and several cables and accessories. The CloseUp® System software is required for a one-time instrument profile, to calibrate and train the CloseUp® System for your individual instrument.

Download the free software (for any Windows PC or Mac) at yourheaven.net/closeup-downloads

Once you have learned how to install your mic and create and transfer your custom profile to the CloseUp® System, you will be ready to play on stage or record clean, beautiful-sounding tracks in almost any environment.

Installing the Microphone



The CloseUp® mic can be installed by hand in 1–3 minutes and is unobtrusive while performing. Videos are available at yourheaven.net/instructional-videos or by opening the CloseUp® System app on your computer and clicking *Watch Instructional Videos*.

STEEL STRING GUITAR

*NOTE: For installation instructions for the **WOODEN SOUND HOLE MIC**, please see **Appendix B** (pg 67).*

The **SOUND HOLE MIC** is comprised of three parts:

- **CENTER BAR** (crosses center of sound hole)
- **NECK WING** (near the neck)
- **BRIDGE WING** (near the bridge)

Installing the **SOUND HOLE MIC** is most easily done while resting the guitar on a flat surface with the neck pointing to your left (*pointing right for left-handed guitars*).



ATTACHING THE SOUND HOLE MIC

- 1 Attach the **NECK WING** to the left side of the **CENTER BAR**. Remove the **BRIDGE WING**.



- 2 Use the **NECK WING** as a visual guide, aligning the flat edge with the bottom of the fretboard. This will align the **CENTER BAR** at the correct angle to the strings, with the mic pointing away from you and away from the fretboard.



NOTE: Use the neck wing to orient the center bar at the correct angle, even if you will not be using the wings. It is important that the mic's location remains consistent. While using only the center bar (without the wings) is an option, using the wings is highly recommended for any situation in which either: a) monitors or PA speakers will cause feedback or affect the instrument's sound, or b) isolation is important.

- 3 Move the cable to the right side of the **CENTER BAR** (away from the fretboard).
- 4 Pinching strings together with one hand, hold the near end of the **CENTER BAR** with the other and duck it under the strings and into the sound hole. The **MIC ARM** should slide under the soundboard (*top surface*) of guitar.



- 5 Hook the far end of the **CENTER BAR** over the edge of the sound hole so that the foam at the end of the **CENTER BAR** touches the edge of the sound hole. At this point the **MIC ARM** will be fully hidden under the soundboard.



- 6 Press gently away from you on the near end of the **CENTER BAR** to compress the foam at the far end until you can drop the near end down and hook it onto the edge of the sound hole. When you release, confirm that the **CENTER BAR** is snug. Gently wiggle the bar back and forth to make sure it is centered and seated correctly.

- 7 Slide the neck and bridge wings in under the strings and snap them on, making sure the mic cable comes out of the instrument through one of the cables slots in the wings.



- 8 Make sure the top wing is aligned with the fingerboard, then check that the cover is completely blocking the sound hole.

- 9 Ensure everything is securely in place.



NOTE: Once you have done this a few times, you may find that you can attach the wings first and then insert the whole thing in one piece. The ease of this method varies across different guitars.

REMOVING THE SOUND HOLE MIC

- 1 Find the divot on the near end of the **CENTER BAR**. Press away from you (across the sound hole) and lift up to release the cover's clips.



- 2 Lift up and slide the **SOUND HOLE MIC** out from under the strings.



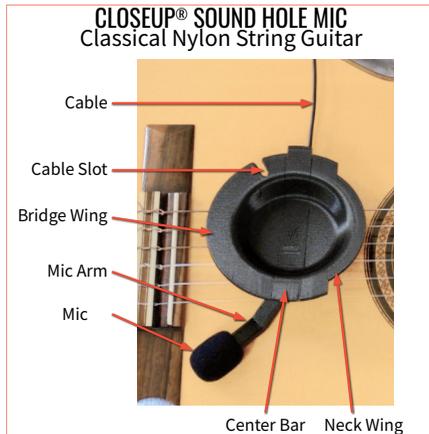
CLASSICAL GUITAR

*NOTE: For installation instructions for the **WOODEN SOUND HOLE MIC**, please see **Appendix B** (pg 67).*

The **SOUND HOLE MIC** is comprised of three parts:

- **CENTER BAR** (crosses center of sound hole)
- **NECK WING** (near the neck)
- **BRIDGE WING** (near the bridge)

Installing the **SOUND HOLE MIC** is most easily done while resting the guitar on a flat surface with the neck pointing to your left (*pointing right for left-handed guitars*).



ATTACHING THE SOUND HOLE MIC



- 1 Separate the three parts of the **SOUND HOLE MIC**
- 2 Orient the **CENTER BAR** perpendicular to the strings, with the mic pointing away from you and away from the fretboard.

***NOTE:** While using only the center bar (without the wings) is an option, using the wings is highly recommended for any situation in which either: a) monitors or PA speakers will cause feedback or affect the instrument's sound, or b) isolation is important.*

- 3 Move the cable to the right side of the **CENTER BAR** (away from the fretboard).



- 4 Pinching strings together with one hand, hold the near end of the **CENTER BAR** with the other and duck it under the strings and into the sound hole. The **MIC ARM** should slide under the soundboard (*top surface*) of guitar. (You may have to twist the **CENTER BAR** to insert it, but once inside the hole, return it to an orientation perpendicular to the strings.)



- 5 Hook the far end of the **CENTER BAR** over the edge of the sound hole so that the foam at the end of the **CENTER BAR** touches the edge of the sound hole. At this point the **MIC ARM** will be fully hidden under the soundboard.



- 6 Press gently away from you on the near end of the **CENTER BAR** to compress the foam at the far end until you can drop the near end down and hook it onto the edge of the sound hole. When you release, confirm that the **CENTER BAR** is snug. Gently wiggle the bar back and forth to make sure it is centered and seated correctly.



- 7** Slide the neck and bridge wings in under the strings and snap them on, making sure the mic cable comes out of the instrument through one of the cables slots in the wings.



- 8** Make sure the top wing is aligned with the fingerboard, then check that the cover is completely blocking the sound hole.

- 9** Ensure everything is securely in place.



NOTE: Once you have done this a few times, you may find that you can attach the wings first and then insert the whole thing in one piece. The ease of this method varies across different guitars.

REMOVING THE SOUND HOLE MIC

- 1** Find the divot on the near end of the **CENTER BAR**. Press away from you (across the sound hole) and lift up to release the cover's clips.





- 2 Lift up and slide the **SOUND HOLE MIC** out from under the strings.

ENDPIN GUITAR SYSTEM

INSTALLING THE ENDPIN MICROPHONE IN YOUR INSTRUMENT

Installing the **ENDPIN MICROPHONE** is much simpler than installing a typical pickup system. The microphone is built inside of a standard endpin jack; there is no cabling or other hardware to install. Simply remove the endpin of your instrument and replace it with our microphone assembly.

Some situations may be more complex however. While many people are able to install the system themselves, we cannot be responsible for any damage done to your instrument. Please consult a qualified luthier as needed. Contact us at support@yourheaven.com with any questions.

If you are unfamiliar with endpin jacks, great instructions can be found at this stewmac.com link.

NOTE: *If you have a historical instrument and you are not replacing an already existing endpin jack, consider carefully, as any change to the instrument may reduce its historical value. The standard CloseUp® System for guitar does not require any modification of your instrument for installation (see pgs 10–17 for more details).*

CONNECTING THE MICROPHONE TO THE PROCESSOR

Simply connect one end of the **1/4" TRS CABLE** to your newly installed **ENDPIN MICROPHONE** (or the **EXTERNAL PROFILING MICROPHONE**, when profiling) & the other end to the processor box's **MIC INPUT**.

NOTE: *You may use a different TRS cable than provided, just be sure it is TRS (aka stereo) and not TS (aka mono).*

PROFILING FOR THE ENDPIN SYSTEM

Profiling for the endpin system is similar to profiling for the standard guitar system. The CloseUp® System software will walk you through recording a short sound sample—both inside and outside of your guitar's body—to create a profile for your instrument.

The primary difference is that because the **ENDPIN MICROPHONE** is installed inside your guitar, we provide you with an **EXTERNAL PROFILING MICROPHONE** to make the recording outside the guitar body. This external mic is only required when creating instrument profiles—not during performances or recordings. When done, please keep it in a safe place for any future profiling needs.

You may choose to use or not use the **SOUND HOLE COVER** with your endpin system; both ways produce quality audio. If you choose not to use it, disregard the instruction to insert it for the inside recording during profiling and continue as normal. We recommend using the **SOUND HOLE COVER** because of the improved isolation and feedback reduction it provides. **It is important to make *separate profiles* for use with and without the cover, as the sound of the instrument will be different.**

*To learn more about profiling, see the section: **Creating a Custom Profile for Your Instrument** (pg 26).*

VIOLIN & VIOLA

ATTACHING THE STRING MICROPHONE TO YOUR INSTRUMENT

- 1 Insert the tip of the microphone into the diamond shaped center of the *f*-hole, and wiggle the microphone while pushing gently until the foam is just past halfway in. Slide it along the *f*-hole toward the endpin until it is snug.



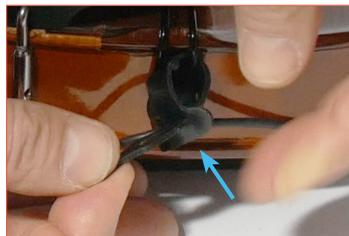
- 2 Thread the microphone wire around the corner of the center bout, then under the violin (and chinrest) to the tailgut.



- 3 Slide end of rubber strap under a tailgut wire.



- 4 Thread the rubber strap back through the small slot to lock it to the tailgut.



- 5 Pull the wire through the rubber strap to set a light tension, enough to hold the wire in place underneath the instrument.

NOTE: You can leave the mic attached to the instrument. When not plugged in, it will be out of the way while playing your

instrument. In our experience the instrument will almost always fit just fine into its case with the CloseUp® mic installed.



CONNECTING THE MICROPHONE & EXTENSION

- 6 Insert the ribbed mic connector all the way into the extension cable connector.



- 7 Thread the hook on the extension cable connector into the long slot on the rubber strap.

The connection now has strain relief provided by the rubber strap. **This is very important for reliability.** Tug the extension a bit to test that the wires stay together and that the mic does not move.



- 8 To disconnect, slide the hook out of the slot and pull the two connectors apart.

CELLO

ATTACHING THE MANDOLIN MICROPHONE TO YOUR INSTRUMENT

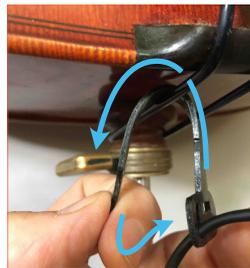
- 1 Gently press the mic into the *f*-hole at the diamond and slide down until snug.



- 2 Connect mic cable to tailpiece with velcro strap.



- 3 Coil excess cable around cello peg.
- 4 Thread the rubber strap on the mic cable through the tailgut, then thread the tip through the slot on the strap.



- 5 Pull strap tight to fasten.



NOTE: You can leave the mic attached to the instrument. When not plugged in, it will be out of the way while playing your instrument. In our experience the instrument will almost always fit just fine into its case with the CloseUp® mic installed. An alternative mic attachment method is to route the mic cable through the waist and down the back of your cello.

CONNECTING THE MICROPHONE & EXTENSION

- 6 Insert the ribbed mic connector all the way into the extension cable connector.
- 7 Thread the hook on the extension cable connector into the long slot on the rubber strap. The connection now has strain relief provided by the rubber strap. ***This is very important for reliability.*** Tug the extension a bit to test that the wires stay together and that the mic does not move.



- 8 To disconnect, slide the hook out of the slot and pull the two connectors apart.

F-HOLE MANDOLIN

ATTACHING THE MANDOLIN MIC TO YOUR INSTRUMENT

- 1 Insert the tip of the microphone into the diamond shaped center of the *f*-hole, and wiggle the microphone while pushing gently until the foam windscreen is just under an inch deep. Slide the microphone down the *f*-hole (toward the endpin) until it is snug.



- 2 Thread the microphone cable behind the mandolin, toward the endpin. Attach the shorter,

wider strap on the cable to the endpin. Pull the cable through the strap until it lies snugly against the back of the mandolin. This will set a light tension that holds the cable in place under your instrument.



- 3 To disconnect, remove the strap from the endpin & slide the microphone up and out of the center of the *f*-hole.

NOTE: You can leave the microphone attached to the mandolin. When not plugged in, it should be out of the way while playing and fit easily into the case, without danger of damage to your instrument.

CONNECTING THE MIC & EXTENSION

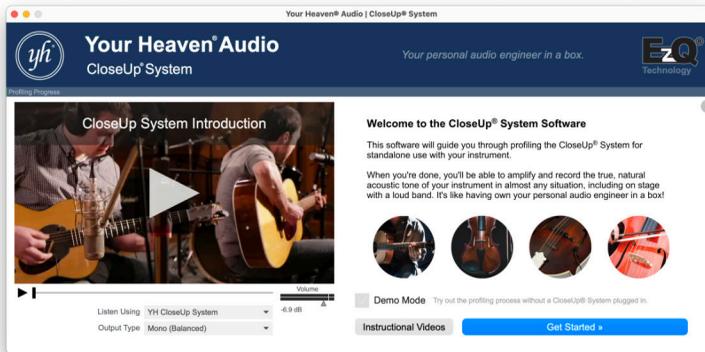
- 1 Insert the ribbed mic connector all the way into the extension cable connector.
- 2 Thread the hook on the extension cable connector into the long slot on the rubber strap. The connection now has strain relief provided by the rubber strap. *This is very important for reliability.* Tug the extension a bit to test that the wires stay together and that the mic does not move.



- 3 To disconnect, slide the hook out of the slot and pull the two connectors apart.



CREATING A **Custom Profile** FOR YOUR INSTRUMENT



Download the Profiling Software App at yourheaven.net/closeup-downloads

Creating a custom profile is a one-time setup required for most instruments that will be used with the CloseUp® System. It takes 15-30 minutes and requires a computer with Windows or MacOS. You will not need a computer to use the CloseUp® System once you've finished profiling your instrument.

You can make and save as many custom profiles as you like, and have up to four (4) on the CloseUp® System at any time. Universal profiles for violin, viola, and cello are pre-installed on string CloseUp® Systems. While these are good in a hurry, we highly recommend custom profiles for best results. There are no universal profiles for other instruments, so you will have to create a custom profile for other instruments for use with your CloseUp® System.



This is the holy grail, and I think you've done it!

— Donald Porter, Classical Guitarist

YOU WILL NEED:

- Your instrument
- The CloseUp® System
- An internet connection (*to download profiling software*)
- A computer with Windows 8 or newer, or macOS 10.11.6 or newer (*Older computer? See our website for options*)
- A song or chord progression you can play well, which includes a good sampling of your instrument's pitch range
- A space that is quiet during the two 30-second long recordings that you will make

CREATING YOUR CUSTOM PROFILE

The software guides you step by step through making a custom profile, and includes a 'Demo' version that lets you practice it without using your instrument. Here is how to create a custom profile:

- 1 Download the CloseUp® System software at: yourheaven.net/closeup-downloads
- 2 Install the software on your computer.
- 3 Connect the CloseUp® System to your computer with the USB cable.
- 4 Power on the CloseUp® System using USB power.
- 5 If you are using Windows, please make sure "Enable audio enhancements" is turned off in the Sound control panel. Right-click on the volume icon on the taskbar and then click Sound to open the Sound control panel. Navigate to the Recording tab > YH CloseUp System > Properties button (opens new window) > Advanced tab. This option may or may not be available on your PC. If you don't have it, profiling will work fine.

- 6 Launch the software. It will walk you through the process of profiling your instrument.

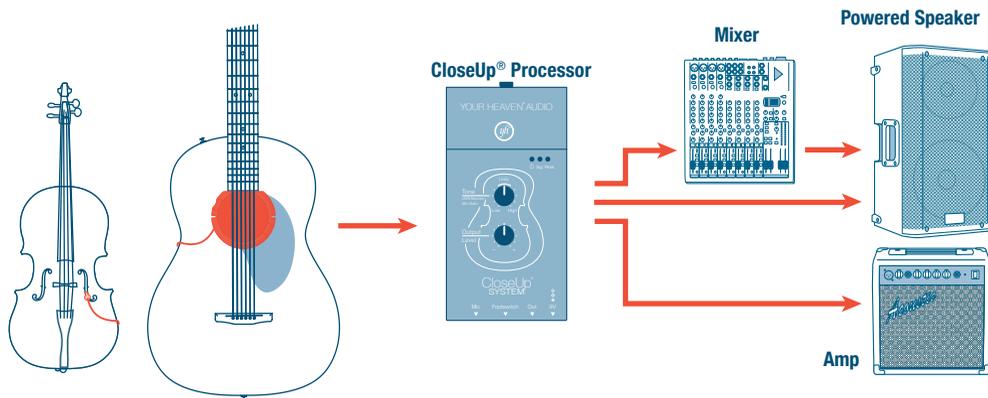
During the profiling process, the CloseUp® System Software will review the process of installing and removing the mic, automatically set a proper input gain for the profile, and allow you to customize the profile with Custom EQ. It will then allow you to transfer the profile to the CloseUp® System and save it to your computer for future use.

SAVING CUSTOM PROFILES

After creating your custom profile, you can save it to your computer as an .ezq file. The CloseUp® System Software can open .ezq files you have saved, allowing you to adjust their settings and load them into one of the CloseUp® System's memory slots at any time in the future.

On Stage WITH THE CLOSEUP® SYSTEM

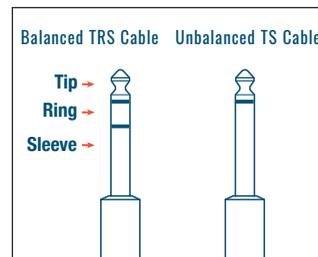




CONNECTING TO LIVE SOUND

The CloseUp® System can connect to professional audio equipment via a 1/4" cable or an XLR cable (connector cables not included). A 1/4" TRS to XLR adapter is included with the CloseUp® System to connect to XLR inputs such as mic cables and stage snakes.

The CloseUp® System outputs a balanced, line level signal for use with professional audio equipment. This means you can connect it directly to a mixer or audio interface (via the line input or mic input with pad,) eliminating the need for a DI Box.



*NOTE: There are a few situations where we would recommend using a mono cable instead. For the best sound, we do not recommend connecting the CloseUp® System to a guitar or bass amp. See **Output** section (pg 44) for more information.*

LED LEVEL INDICATION ON THE CLOSEUP SYSTEM

GOOD SIGNAL		<i>Yellow LED lights up when playing; red never lights up.</i>
INPUT OVERLOAD		<i>Red flashes fast (10x over 1 sec) Turn down profile's MIC GAIN (see pg 55)</i>
OUTPUT OVERLOAD		<i>Red flashes slowly (10x over 2 sec) Turn down OUTPUT LEVEL knob</i>

When possible, always use a balanced cable (XLR mic or stereo ¼") to go into a stage snake, mixer, amp, or powered speaker. This increases signal-to-noise ratio and eliminates many sources of potential electrical and RF interference.

SETTING THE CORRECT VOLUME

Set the **OUTPUT LEVEL** control so your amp, PA, mixer, etc. gets a strong signal, but does not distort or overload. (The **OUTPUT LEVEL** control is labeled **INPUT GAIN** on some units that shipped with older firmware.) With a properly set up custom profile, this is probably all you will need to do!

AVOIDING DISTORTION

Overloads or distortion can occur in other equipment in the signal chain, or in some cases within the

CloseUp® System itself. If an overload occurs within the CloseUp® System, the red LED warns you and helps you correct it as follows:

OUTPUT OVERLOAD: A series of 10 slow flashes of the red LED over two seconds means the CloseUp® is overloading at its output. Turn down the Output Level control until the red LED no longer flashes. If more gain is needed, add it later (at the mixer, speaker, etc).

INPUT OVERLOAD: A series of 10 fast flashes of the red LED over one second means the input is overloading, indicating the profile's Mic Gain is set too high for your instrument. To correct this quickly:

- 1 Center the **TONE KNOB**.

- 2 Slide the **TONE/MIC GAIN SWITCH** to Mic Gain (ON) to enter Mic Gain Mode.
- 3 Gradually turn the **TONE KNOB** down (counterclockwise) until the red LED does not flash when you play your instrument at its maximum volume.
- 4 Slide the **TONE/MIC GAIN SWITCH** to Tone (OFF) to exit Mic Gain Mode.
- 5 Reset any adjustment you had previously made using the Tone Knob.

If you hear distortion but the red LED is not flashing, the overload is probably occurring in a different piece of equipment. The CloseUp® System outputs a line level signal, so it may be necessary to engage the pad or turn down the input trim on devices that expect a low level signal such as a microphone or traditional pickup. Alternately, try turning the CloseUp® System's **OUTPUT LEVEL** down.

If the sound is too quiet even with the **OUTPUT LEVEL** control at its highest setting, and you are sure the problem is not with an amp or other device in the signal

chain, the profile's **INPUT GAIN** may be set too low for your instrument. Follow the steps above, but instead turn the **TONE KNOB** up (clockwise). Be careful that you do not turn it up so much that it overloads.

ADJUSTING TONE & DEALING WITH FEEDBACK

The **TONE KNOB** can be used to alter the tone of your instrument (eg, if the speaker sounds tinny.). This is its main use. Turning the tone knob toward High can also help control the low-frequency feedback created by some sound systems. Alternately, turning this knob toward Low can help reduce high-frequency feedback.

FINAL ADJUSTMENTS

Often, engineers automatically make certain adjustments when they see a guitar, violin, or other instrument with a cable coming from it, assuming you are using either a pickup or regular clip-on mic. These adjustments will almost always change the CloseUp® System sound in unintended and unpleasant ways. With the CloseUp® System, the engineer should instead start with a flat EQ, and only make changes based on the room and speakers.

Recording WITH THE CLOSEUP[®] SYSTEM



The CloseUp® System is equally at home on stage and in the studio. There are two easy ways to record your instrument using the CloseUp System:

AS A USB DIGITAL AUDIO INTERFACE

The CloseUp® System can act as a plug-and-play 24-bit USB audio interface. This means you can plug it directly into your computer via the USB cable (or into a mobile device with an appropriate adapter) and record digitally. The CloseUp® System interacts directly with standard audio software such as audio editors and DAWs. The CloseUp® System has a fixed sample rate of 48kHz, but most modern software will be able to convert to a different rate if preferred.

When recording along with a click track or previously recorded tracks, please see [USB MONITOR MODE](#) on page 37.

When used as a USB audio interface, the CloseUp® System passes the signal of your instrument as usual,

and mixes it with computer playback at the analog audio output. This is called "zero-latency monitoring" and its great for hearing yourself play without any delay while recording on a computer. Just be sure to mute or disable monitoring on the track you are recording to so you do not hear a delayed echo of your instrument in the CloseUp® System's output.

VIA THE BALANCED LINE OUTPUT TO ANOTHER AUDIO INTERFACE OR MIXER

Connect the CloseUp® System's balanced analog output to a standard audio interface or mixer with a ¼" TRS cable or XLR mic cable using the included adapter. Used with a balanced input, recording quality will be equivalent to that from the CloseUp®'s

USB output, and this setup will be simpler and more reliable if you are recording more than just your instrument at the same time.

A ¼" TS (aka guitar or mono) cable will also work, and an unbalanced input can be used, but the signal will be lower and potentially more noisy.

Be sure to set your interface and software for latency-free monitoring of your instrument.

SOUND ISOLATION

When recording using the CloseUp® System, you don't have to worry about sound isolation or the sound of the room you are in. Unlike traditional microphones, your recordings will be isolated from most outside noises such as cars driving by, or someone talking in the next room. You can also record your voice or other instruments at the same time while keeping them almost entirely isolated from your instrument's track. For instance if you get a good take playing and singing, but make a mistake in the vocals, you can fix vocal errors later without re-recording the guitar track! Another benefit of this

isolation is the ability to record parts of the same track in different spaces while maintaining sonic continuity.

USING THE CLOSEUP® SYSTEM WITH SMARTPHONES AND TABLETS

The CloseUp® System can be used with iOS and Android devices as a class-compliant USB audio interface. iOS devices will usually require an Apple-proprietary adapter (often called a “camera connection kit”) to convert the lightning port to a USB host port. Android devices will usually require a USB OTG (“On The Go”) adapter. The landscape of mobile devices is a moving target, so for the most current information, check yourheaven.com or contact us at support@yourheaven.com.

Most phones/tablets cannot provide enough power via their USB port to power the CloseUp® System. To use the CloseUp® System with these devices:

- 1 With the CloseUp® off, connect the USB.
- 2 Power on the CloseUp® from either the 9V battery or the 9V DC power input.

NOTE: If you have powered on the CloseUp® System before connecting the USB, turn it off and back on again. The CloseUp® System will disable its USB to extend battery life if it is turned on before there is a USB connection.

Alternatively, you may connect the CloseUp® System to your device through an independently powered USB hub. This will allow the CloseUp® System to be powered from USB while you use it with your mobile device.

USB MONITOR MODE

The CloseUp® System always passes the signal of your instrument without any delay and mixes it with sound from the computer at the analog output. In the context of USB audio interfaces, this is called "zero Latency monitoring". The CloseUp® System's USB Monitor Mode adds extra control to its zero-latency monitoring feature by allowing you to set how loud the sound of your instrument is compared to the sound of other tracks or a click track playing on your computer.

USB Monitor Mode will always be OFF when you first turn on the CloseUp System. To toggle USB Monitor Mode, double-tap the Monitor button. The green LED will pulse slowly when USB Monitor Mode is on.

STEREO (HEADPHONE) OUTPUT MODE

In this mode, the analog output changes to an unbalanced, stereo signal. This allows you to plug headphones or a consumer speaker system into the Output jack. When enabled, your instrument will have the correct phase, and you will hear USB audio playback from your computer in stereo. However, make sure Stereo Output Mode is not on when connecting to balanced audio equipment, otherwise there will be no output.

To toggle Stereo Output Mode, hold the Monitor button for about 1.5 seconds. The yellow LED will light dimly to indicate that it is enabled. Stereo Output Mode will always be OFF when first you turn on the CloseUp.

USING THE CLOSEUP® SYSTEM WITH ANOTHER AUDIO DEVICE

If recording more than one track with a multi-channel audio interface, the easiest thing to do is connect the analog line output of the CloseUp® System to a line input (or mic input with a pad) of that interface. Recording quality will be equivalent to that from the CloseUp® System's USB output.

However, there are several ways to use the CloseUp® System's audio interface functionality in tandem with another audio interface.



Professional audio software often allows for the use of more than one audio interface at a time. Often one interface can be the input, while another acts as the output. If your software has this capability, you can use the CloseUp® System as the input, while listening through another audio

interface. Most modern software can deal with this, but we can not guarantee that this setup will be problem free. Beware that clock mismatches can occur and sound quality can be degraded or audio can go out of sync in this situation. Additionally, you will need to figure out a separate routing solution, such as a mixer, if you want to hear the zero-latency monitoring provided by the CloseUp® System mixed with audio playing back from your computer.

Advanced users may combine the CloseUp® System with other audio interfaces using the aggregate audio device features of their OS or other audio drivers, effectively adding the CloseUp® System to another audio interface as additional input and output channels. Once again, while this scenario usually works, we cannot guarantee that it will be problem free due to the need for the audio driver to reconcile the clocks of the two audio interfaces. Please test with your particular setup before relying on this scenario.



You just turned my instrument into a \$50,000 cello!

— Lanny Paykin, Cellist



Product Features: DEFINITIONS & DETAILS



CONTROLS

POWER SWITCH

The **POWER SWITCH** has three positions (USB/OFF/BATT):

- **USB:** CloseUp® System powers from the USB input
- **OFF:** CloseUp® System is off, or powers from a standard 9V guitar-pedal-style DC power supply (tip negative, ring positive, >150ma required; not included with CloseUp® System)
- **BATT:** CloseUp® System powers from a 9V Battery

MUTE SWITCH

The **MUTE SWITCH** mutes the CloseUp® System. When Mute is activated, the red LED will pulse slowly. Both the Mute Switch and the **FOOTSWITCH** can mute the output, but this Mute Switch must be OFF if you want to use the Footswitch to control mute.

NOTE: If you are using the CloseUp® System as a USB audio interface and playing audio from your computer, the **MUTE SWITCH** will silence both audio coming from your instrument, and from the computer. The Mute function of the **FOOTSWITCH**, on the other hand, will only silence audio coming from your instrument.

DUAL GAIN (TONE KNOB) SWITCH

With **TONE/MIC GAIN SWITCH** set to Mic Gain (ON), the **TONE KNOB** becomes the Mic Volume (Input Gain) adjustment. See the *Advanced Features* chapter (pg 50) for more information.

PROFILE SWITCH

The **PROFILE SWITCH** chooses which of the four instrument profiles stored on the CloseUp® System will be active. To learn how to create a custom profile, see page 26.

OUTPUT LEVEL

NOTE: On earlier CloseUp® Systems, this knob will be marked “Input Gain,” however its functionality will be as described below as long as you purchased or updated your CloseUp® System in November of 2019 or later.

This control sets the analog output level from -31.5dB to +12dB. Set the **OUTPUT LEVEL** to the best level for the input of the audio equipment you are connecting to.

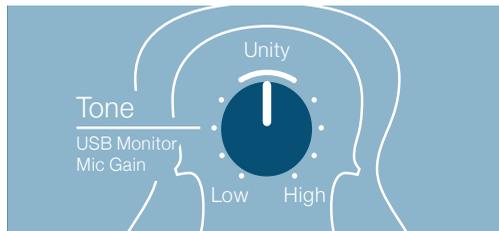
Above 0dB (2:30pm on the knob), it is possible to overload this output stage with a very loud sound from your instrument, even if the input gain stage

is not overloading. When this happens the red LED will flash slowly (10x over 2 seconds) to indicate an output stage overload. Turn the Output Level Knob down until this overload indication no longer happens.

IMPORTANT: The red LED flashing quickly (10x over 1 second) when playing indicates the Input Gain is too high, causing input overload. Turn down your input gain using the **TONE/MIC GAIN SWITCH** (see pg 55).

TONE

The **TONE KNOB** changes the tone of your instrument. We recommend leaving this knob somewhere in the clear zone around the Unity position (the “no effect” zone). This means that the custom profile you’ve created for your instrument is unchanged.



Adjust the **TONE KNOB** if you need to compensate for live sound (amplification) systems with too much or too little bass. Low cost or unadjusted sound systems often have too much or too little bass (which can cause feedback, or muffled or tinny sound).

Turning the **TONE KNOB** toward “High” can help control the low-frequency feedback created by some sound systems. Turning this knob toward “Low” can help with high frequency feedback.

The **TONE KNOB** has several auxiliary functions depending on other CloseUp® System settings:

- If the **DUAL GAIN SWITCH** is set to Mic Gain (aka ON) (left position), it will set the Mic Volume (aka Input Gain) of the profile.
- In USB Monitor Mode, it will balance your



I especially love the way the low end is coming through...there's a lot about this that's super exciting!

— Rachel Panitch, Professional Violinist



instrument's sound with USB playback from your computer.

CONNECTIONS

MIC INPUT

The CloseUp® System **MIC INPUT** (DIN-5 connector) accepts CloseUp® System Microphones. The guitar endpoint model instead has a ¼" TRS jack input jack that accepts the TRS cable from its microphone.

This **MIC INPUT** does not accept standard mics and does *not* work with other mics or MIDI cables.

Starting with hardware model SEQ007, the CloseUp® System automatically mutes itself if there is no microphone present, and will automatically un-mute itself about one second after a mic is plugged in. Older models need to be muted or turned off manually before removing or plugging in a mic.

NOTE: This auto-mute feature can be disabled in the CloseUp® System software. In Device Settings, turn off "Mic Detection". This is required if you are using the optional Wireless Adapter.

As with any audio device, plugging a microphone in while the CloseUp® System is on, unmuted, and connected to a speaker or headphones can cause a loud pop that can damage the other equipment or your ears. Use the same caution you would for any other audio equipment.

If you hear soft white noise instead of your instrument, mute and unmute the CloseUp® System, or turn it off and then on again.

FOOTSWITCH

The **FOOTSWITCH** allows you to quickly **mute** or **boost** the output of the CloseUp® System, which

is particularly convenient on stage. The default configuration is for both mute and boost.

- **BOOST:** When the **FOOTSWITCH** is tapped quickly, the red LED will turn on, and the CloseUp® System’s Output Level will increase by the Boost Level set in the profile (6dB by default). Tap again to return to the original volume. This is often beneficial for soloing, but will effect the point at which feedback may occur.
- **MUTE:** When the **FOOTSWITCH** is held down for about a second, the red LED will pulse slowly and the Output Level will be muted. A quick tap unmutes. To avoid pops and clicks, the sound takes about half a second to come back.

You can configure the amount of boost gain separately for each profile in the CloseUp® System software. To do so, open the CloseUp® software on your computer and connect with USB as if you are creating a profile, but instead of creating or loading a profile click “Device Settings”. Boost amounts of +1dB to +12dB are available, in 1dB increments. *Hint: +6dB = 2 times the original sound*

pressure level (SPL), and +12dB = 4 times the original SPL.

The **FOOTSWITCH** may also be configured as *only* a mute switch (*if so, a tap mutes*), or *only* a boost switch. Use the “Device Settings” page in the CloseUp® System software to change this setting. This setting is independent for each profile.

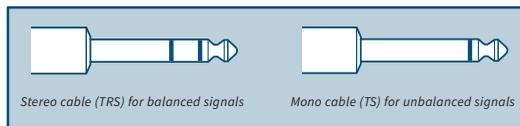
NOTE: Both the **FOOTSWITCH** and the **MUTE SWITCH** on the CloseUp® System can mute the output. However, when the Mute Switch is on, the Footswitch has no effect. Neither the **BOOST** nor the **MUTE** functions can be activated or deactivated.

OUTPUT

The **AUDIO OUTPUT** jack (stereo TRS) accepts most ¼” cables. We recommend using a stereo (aka balanced) ¼” cable most of the time (see recommendations below.) The Output jack outputs a mono, balanced, line-level signal. It can be plugged directly into any powered speaker, amp, mixer or audio interface. It does not need a DI box (direct box), however you can use one without issues.

We recommend using a TRS ¼” cable (see *diagram below*) when connecting to equipment that has a balanced input because it provides the standard noise rejection and gain advantages of balanced audio. Most balanced inputs will be labeled as such.

If the audio input is not labeled, most professional recording equipment uses a balanced line input, while most guitar equipment does not. However, we always recommend looking online or at the product manual for that equipment just to be sure.



Only use a mono ¼” cable (*guitar cable with one stripe on the plug—see diagram on previous page*) if connecting directly to an amp that does not have a balanced input. Most guitar/bass amplifiers do not have a balanced ¼” input. However, microphone and other XLR inputs that some amps have will work well with the CloseUp® System.

The **AUDIO OUTPUT** signal is mono and balanced by default, however it can be temporarily set to stereo, unbalanced using the Monitor button. (See the “Monitor Button” section).

Avoid using electric guitar amps. Though the CloseUp® System works with electric guitar amps, we do not recommend them. Electric guitar amps are designed to make their own colored sound. They will produce unpredictable, and usually unpleasant, results when used with the CloseUp® system, an MP3 player, or any other source except an electric guitar. Usually, PA speakers, keyboard amps, bass amps and some “acoustic” guitar amps work well. A good check is to play recorded music that you know well right through the system or amp. If the music sounds muffled, tinny, or distorted, look for another way to amplify.

USB CONNECTOR

The Micro-USB connector allows the CloseUp® System to be powered from most standard USB battery packs and wall chargers, including cell phone chargers. The CloseUp® System requires 100mA of current over USB, so it can be powered from any standard USB port on a computer, and even used through an unpowered 4-port USB hub. The USB port allows the CloseUp® System to connect to a computer in order to profile your instrument, and for digital recording and playback as a plug-and-play 24-bit USB audio interface.

9V DC POWER JACK

The 9V DC Power Jack allows you to power the CloseUp® System using a standard 9V DC guitar pedal power supply. Just make sure it is a “tip -” power supply and is 9V DC. Using a “tip +” power supply, or one of a higher voltage, may damage your CloseUp®.

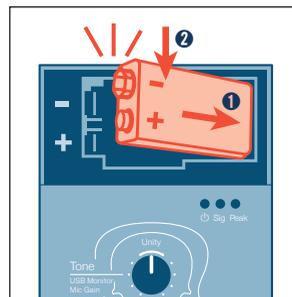
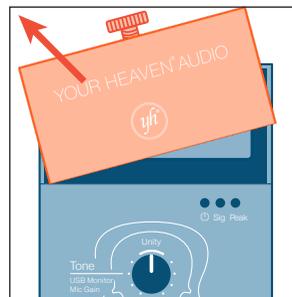
BATTERY

The CloseUp® System accepts one 9V battery (*standard alkaline or rechargeable*). A standard 9V alkaline battery will power the CloseUp® System for about 7 hours. A rechargeable may provide less runtime, but should be more affordable if you plan to regularly use battery power, and is more friendly to the environment.

A Note on Battery Types: We recommend standard alkaline 9V, rechargeable lithium-ion 9V, or rechargeable lithium-polymer 9V batteries, as they perform better than other types of 9V batteries.

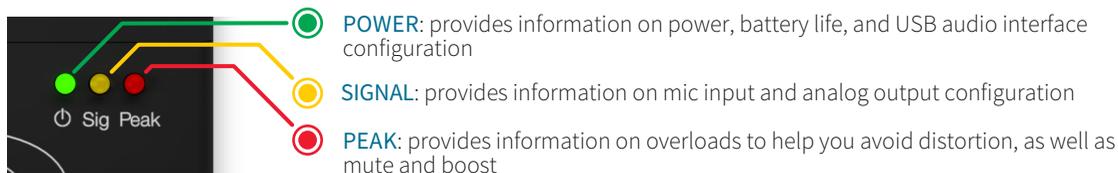
To remove the **BATTERY**, loosen (but do not remove) the screw and open the **BATTERY LID**. Pull up on the flat edge at the battery's bottom.

Set the **POWER SWITCH** to OFF before inserting a battery. Insert the battery from bottom end first (see *diagram*) to ensure correct polarity (e.g. matching negative with negative and positive with positive). Be certain that you are observing the correct polarity of the battery—**Inserting a battery backwards can damage the CloseUp® System.**



INDICATOR LEDS

The LEDs on the CloseUp® System indicate different states. Please refer to the chart below:



POWER (GREEN) LED STATES



on

Power on, normal operation



slowly pulsing

CloseUp® System is in **USB MONITOR MODE** (see pg 56)



double flash

Caution, battery has about 1 hour left



fast triple flash

Warning! Battery only has about 15 minutes left

SIGNAL (YELLOW) LED STATES



on

Lights up when there is a strong audio signal present, then turns off



*dim when no
audio signal*

The output is set to **STEREO/HEADPHONES OUTPUT MODE** (see pg 37).
Use the monitor button to change back to **MONO/BALANCED**.

PEAK (RED) LED STATES

	<i>Flashes fast (10x over 1 sec)</i>	Input stage signal overload — turn down profile's MIC GAIN (see p. 55)
	<i>Flashes slow (10x over 2 sec)</i>	Output stage signal overload — turn down VOLUME knob
	<i>slowly pulsing</i>	CloseUp® System is muted
	<i>on</i>	Boost is engaged via FOOTSWITCH . This does NOT indicate overload or peak.

MIXED LED STATES

	<i>All LEDs slowly pulsing</i>	CloseUp® is connected to the profiling software — most controls are locked
		
		
	<i>Green flashing, red and yellow on</i>	CloseUp® is in firmware update mode, awaiting programming by a computer. If you did not intend this, turn off your CloseUp® and turn it back on, making sure the MONITOR BUTTON is not held down during startup.
		
		

Advanced Features

The image features a dark blue horizontal banner at the top with the text "Advanced Features" in white, bold, sans-serif font. The background is a blurred financial candlestick chart with a grid. The chart has a dark background with green and red candlesticks. A white diagonal line and a red vertical line are visible on the chart. The overall image is out of focus, creating a sense of depth and complexity.

CUSTOM EQ

When you have finished the automated portion of creating the custom profile for your instrument, you have the option to customize the tone of your instrument further. On the **REVIEW** screen, choose either “BASIC” or “ADVANCED” under “USE CUSTOM EQ”. The **CUSTOM EQ** feature allows you to adjust the tone quality of your instrument in two ways:



- 1 **BASIC CUSTOM EQ** emulates the EQ controls found on amps or basic EQ pedals, allowing you to increase or decrease the Low (Bass), Middle, and High (Treble) frequencies of your instrument’s sound. It gives added flexibility by offering a Mid Freq knob that adjusts

which frequencies the Mid knob affects. The behavior of these knobs adapts to best serve the instrument type you chose at the beginning of profiling.



- 2 **ADVANCED CUSTOM EQ** is similar to an EQ plugin you’d find in a professional digital audio workstation. It offers 7 parametric filters of various types to precisely shape your sound. It also features a spectrum analyzer, or RTA, superimposed on the filter frequency response graph that provides a visual guide for adjusting your equalization. The RTA is post-EQ, so it will show the changes made by the **CUSTOM EQ**.

TIP: When switching between **NONE**, **BASIC** and **ADVANCED CUSTOM EQ** types, your settings in each will be preserved for future editing, even after the profile is saved to your computer and reloaded later.

HEARING YOUR CHANGES

As you adjust your **CUSTOM EQ**, you can hear the changes in the playback of your recording at right as it loops. You also have the option of recording a new audio loop if you want to try out your profile and **CUSTOM EQ** on other musical material. To do this, click “Alternate Loop” above the audio waveform, then click “Record.”

You can also listen to the effects of **CUSTOM EQ** live by choosing “Live Input.” The recording waveform display will change to a spectral analyzer (RTA) display of the live input audio. Play your instrument. Although this method is quick and easy, it is harder to judge the sound, because you will hear the instrument and the CloseUp® System at the same time.



EDITING THE CUSTOM EQ OF AN EXISTING PROFILE

If you open an existing profile (.eqz) file from your computer, you can add or edit **CUSTOM EQ** before transferring it to your CloseUp® System using the **EDIT CUSTOM EQ** button that appears once you open the profile.

The **CUSTOM EQ** editor will automatically open the ‘inside’ recording saved with the profile as long as it’s in the the same folder. This allows you to audition changes to the **CUSTOM EQ**.

You also can click “Alternate Loop” to either open a different ‘inside’ or ‘alternate’ recording you saved

during a previous profiling session with the same instrument, or record a new loop using your instrument.

You can choose “Live Input” to audition changes by playing your instrument live, but keep in mind you will probably hear the acoustic sound of the instrument along with the amplified sound in this mode.

SAVING AND LOADING CUSTOM EQ PRESETS

You can easily load the **CUSTOM EQ** settings from any previous profile that has been saved on your computer. Using this feature, you can keep a library of different **CUSTOM EQ** ‘presets’, and apply them to any profile you create or edit.

In the **ADVANCED CUSTOM EQ** editor, click “Load From File” and choose a profile containing **CUSTOM EQ** settings. The **CUSTOM EQ** settings from this profile will overwrite your current ones. If that turns out not to be what you wanted, just click “Revert” to get back your settings just before the last file load. It works even if you have modified the new EQ since loading.

USING CUSTOM EQ TO ENHANCE YOUR AMPLIFICATION SYSTEM

One use for the **CUSTOM EQ** is to correct for undesired characteristics of amplification equipment you will be using consistently (such as your own amp or PA). To do this, follow these instructions:

- 1 Place the speaker(s) a reasonable distance away from you to simulate what an audience might hear.
- 2 Connect the **AUDIO OUTPUT** of the CloseUp® System to the amplification system.
- 3 Connect the CloseUp® System to your computer with the **USB CABLE**.
- 4 Load your instrument’s current profile (.eqz) file into the CloseUp® System Software (*or load it from the CloseUp’s Memory*) and open the **CUSTOM EQ** editor. For this task we recommend the **ADVANCED CUSTOM EQ**.
- 5 Click “Alternate Loop” to either load a previously recorded “inside” loop for this

instrument, or record a new one. If you are recording, you will need to have your instrument connected to the CloseUp® System.

- 6 Listen to the loop through the amplification system.
- 7 Adjust the **CUSTOM EQ** until you're happy with the sound.
- 8 Click "Next."
- 9 Save your new profile with a new name.
(Don't overwrite your old one—you will probably want to keep it!)
- 10 Transfer your new profile to the CloseUp® System.

*Note that you can't turn off the **CUSTOM EQ** of any given profile using the hardware controls on the CloseUp® System, so you might want to have a second copy of this profile transferred to your CloseUp® System without these **CUSTOM EQ** adjustments, in case you use other amplification equipment or want to record direct.*

TONE/MIC GAIN SWITCH (DUAL GAIN)

The **TONE/MIC GAIN SWITCH** allows you to choose what the **TONE KNOB** controls:

- Tone/Zero-latency monitoring level
- Mic Gain

Left (Mic Gain) position should not need to be used often because is taken care of in profiling. It is included in case you need access to it quickly, or in situations without a computer.

When in Left (Mic Gain) position, gain is adjusted relative to whatever the mic gain setting was when you flipped the switch to enter this mode. Turning the knob down from its initial position when the switch was flipped will always decrease mic gain, and turning it up will always increase mic gain. Therefore, we recommend that you set the Tone Knob to a position near the center before using the Tone / Mic Gain Switch (Dual Gain) to switch to Mic Gain mode. Also note that the position of the knob will not

correspond to the same mic gain setting the next time you set the Tone/Mic Gain Switch (Dual Gain) to the Left. Instead of thinking of knob position when setting, use your ears and the meter LEDs to set the input gain.

After adjusting input gain correctly, and before you touch the Treble/Bass Balance or Mic Volume knob, set the switch back to Right (Tone) position.

Otherwise, any accidental movement of the knob could cause a large, unintended gain change.

TONE/MIC GAIN SWITCH (DUAL GAIN)

Tone/Mic Gain Switch (Dual Gain) Position	Monitor Mode	Tone Knob Function
Left (Mic Gain)	Off	Mic Gain
	USB Monitor Mode	
Right (Tone)	Off	Tone
	USB Monitor Mode	Zero-latency Monitoring Level

MONITOR BUTTON

STEREO (HEADPHONE) OUTPUT MODE

In this mode, the output changes from balanced mono to unbalanced stereo so that when you plug headphones into the **OUTPUT JACK**, both ears will be properly in phase. This mode also allows you to hear audio you're playing back from a computer in stereo when using the CloseUp® System as a USB audio interface. Otherwise it is mixed to mono.

To activate **STEREO (HEADPHONE) OUTPUT MODE**, hold the **MONITOR BUTTON** for about 2 seconds until the yellow LED is dimly lit, even when there is no signal. To deactivate it, hold the monitor button until the yellow LED goes dark. This mode is not recommended for live performance use.

USB MONITOR MODE

This feature is only available if the CloseUp® System is plugged in as a plug-and-play USB audio interface. See page 46 for more information.

This mode allows you to balance the sound of your instrument with USB audio playback from the

computer while using the zero-latency monitoring the CloseUp® System provides. To activate **USB MONITOR MODE**, double-tap the **MONITOR BUTTON**. The **TONE KNOB** will now control how loud your instrument comes out of the **OUTPUT JACK**, and the tone setting will return to unity (neutral). The green LED will switch from solid on to slowly pulsing. To deactivate **USB MONITOR MODE**, double-tap the **MONITOR BUTTON** again.

Note: if the Dual Gain Switch is set to On/Mic Gain (Left position), that setting takes precedence. USB Monitor Mode only affects the controls when Dual Gain Switch is set to Off/Tone (Right position).

The CloseUp® System **OUTPUT JACK** always provides zero-latency monitoring. You only need to activate **USB MONITOR MODE** if you need to adjust the balance between the live and recorded audio. Using this feature will not affect the level that your instrument is recorded at, only how loud you hear it while recording. If you require tone control while using **USB MONITOR MODE**, use EQ controls or plugins in your audio software. The CloseUp® **TONE** control can be emulated with a low-shelf filter.

USING YOUR OWN FOOTSWITCH

Most keyboard sustain pedals with a ¼” plug work without any extra setup.

Latching footswitches, such as those for guitar amps, can also be used if configured in the CloseUp® System Software. However they are not compatible with the default **BOTH** (mute and boost) footswitch mode, and must be set as either a **MUTE** or **BOOST** pedal. Here’s how you’d set up a latching footswitch:

- 1 Connect the CloseUp® System to your computer, power it on using USB power, and open the CloseUp® System Software.
- 2 Proceed as if you are going to create or load a profile (click **Get Started**, choose your instrument type, etc)
- 3 When you arrive at the page that asks “What would you like to do?”, click **Device Settings** under “Other Tasks”.

- 4 Change “Footswitch Type” from Momentary to Latching. This setting affects the CloseUp® System globally, regardless of which profiles are loaded.
- 5 Change **Footswitch Function** to either **Mute** or **Boost** for each individual profile.
- 6 Optional: click **Test** to try the pedal and see its effect on the CloseUp® System’s red LED (solid ON for boost, slow pulsing for mute). Click **End Test**.
- 7 Click **Done**. You may exit the software and unplug the CloseUp® System.

QUICK INSTRUMENT SWITCHING

QUICK INSTRUMENT SWITCHING is intended for musicians who plan to switch between two instruments over the course of a live concert. The Your Heaven® Dual Instrument Y-Cable allows you to connect two instruments to your CloseUp® System at the same time and can be purchased on our website.

You cannot play each instrument simultaneously. However, when the CloseUp® System is properly configured, you can switch between the two instruments using just the profile selector switch. When you switch to the profile for one instrument, the other will be muted.

SETTING UP QUICK INSTRUMENT SWITCHING

- 1 Connect the CloseUp® System to your computer, power it on using USB power, and open the CloseUp® System Software.
- 2 Proceed as if you are going to create or load a profile (click **Get Started**, choose your instrument type, etc).
- 3 When you arrive at the page that asks **What would you like to do?**, use the list at left to Verify that the profiles for the two instruments you would like to use are loaded onto your CloseUp® System.

NOTE: If they are not, choose to Create or Load a profile, click Next and follow instructions to put the missing profile(s) on your CloseUp® System.
- 4 If both profiles are present, click **Device Settings** under “Other Tasks”. This screen will show you the settings for each profile and some global settings. *Note that settings on this page are saved to the CloseUp® System hardware as soon as they are changed.*
- 5 On your 1st instrument’s profile, set Mic Input to “1 - PRIMARY” (*this is the default*).
- 6 On your 2nd instrument’s profile, set Mic Input to “2 - SECONDARY.”
- 7 Click **Done**.

- 8 Plug the Your Heaven® Dual Instrument Y-Cable into the CloseUp® System. Install the microphone in each instrument and then plug them into the adapter cable. “1 – Primary” profiles will use the primary (first) input of the Y-Cable; “2 – Secondary” profiles will use the secondary input.
- 9 Power on the CloseUp® System and test. One instrument should be active at a time, with its correct profile just by changing the **PROFILE SELECTOR SWITCH** on the CloseUp® System.

You can also specify Mic Input settings for a profile when you create or load it (on the **Transfer** page). In this case, any Mic Input settings (along with Input Gain, Footswitch, and Custom EQ settings) will be saved in the .ezq profile file that is saved on your computer for later modification or re-loading. If you specify the Mic Input here and transfer the profile to the CloseUp® System, you do not need to set it again in **Device Settings**, but we still recommend visiting that page to verify all your settings are correct.

Additionally, you may save the same profile to two different slots on the CloseUp® System, each with a different Mic Input setting if that is convenient.

IMPORTANT: *Any profile set to “2 – Secondary” will only be accessible through the 2nd input of the Your Heaven® Dual Instrument Y-Cable. The only other way to use a profile set to “2 – Secondary” is to plug the CloseUp® System into the Profiling Software and change it back to “1 – Primary,” so make sure you don’t forget the Y-Cable!*

Appendix A: CLOSEUP® SYSTEM SIGNAL FLOW



INTELLIGENT GAIN CONTROL

Starting with Firmware Revision 16 (November 2019), the CloseUp® System uses a new and improved method of gain control where the **OUTPUT LEVEL** knob adjusts the level of the analog output. The input gain is set for each profile (but can be adjusted later). This change creates a flexible and predictable gain structure.

Being able to independently adjust input and output levels allows you to connect to a wider variety of audio equipment, while keeping gain settings related to your instrument at their optimum. This is because you can set the analog output to the best level for the gear you are connecting to (e.g. amp, mixer, PA, recorder, headphones), without changing the optimal gain setting of the CloseUp® Mic.

Input gain (a.k.a. Mic Volume) is set automatically each time you create a custom profile. This way, the input gain will always be correct for your instrument, avoiding accidental overloads and distortion. The software will step you through the process of setting

an input gain when you create the custom profile for your instrument. You can make adjustments later if you want to. Note that only CloseUp® System Software version 2.0 or later is compatible with this feature.

On older units, the lower knob that is labelled “Input Gain” now adjusts **OUTPUT LEVEL**.

ADJUSTING THE MIC GAIN

There are several ways to adjust the mic gain after your profile is created:

- A.** in **DEVICE SETTINGS** in the software
- B.** when transferring a saved profile from a computer
- C.** on the CloseUp® System itself, without a computer

A. IN DEVICE SETTINGS

Connect your CloseUp® System to your computer, launch the software, and proceed as if you were

going to make a profile. When you have a choice of whether to create a new profile or load an existing one, instead click **DEVICE SETTINGS**.

Input gains, along with other information, are displayed for each profile.

You can manually adjust the input gains of each profile in increments of 0.5 dB by dragging, or clicking and typing into, the blue sliders. If you make a change this way, we suggest making a small change of not more than 1 or 2 dB until you have a chance to test with your instrument.

If you have your instrument handy, you can click **Set Using Instrument** to automatically set your input gain. The software will instruct you to connect your mic to your instrument. You will then be asked to play loudly. Play as loud as you can imagine ever wanting to play, then click **Next** to store the result.

You can click **Reset** at any time to set the input gain back to the original value determined when profiling. If the profile was made using a software version before 2.0, **Reset** will set the input gain to the default for that instrument type.

B. WHEN TRANSFERRING A SAVED PROFILE FROM YOUR COMPUTER

Before transferring any profile to your CloseUp® System, there will be an option to adjust input gain, similar to the one described above in **DEVICE SETTINGS**. If you make adjustments, you will be prompted to re-save your profile after transferring. This allows you to save a new .ezq file that includes this input gain adjustment.

When you load a saved .ezq profile that does not have an input gain set, you will be asked if you want to set it using your instrument (automatically) or use the default gain setting. If you choose **Set Using Instrument**, you will be asked to play loudly. Play as loud as you can imagine ever wanting to play, then click **Next** to store the result. You will be prompted to re-save your profile after transferring. This allows you to save a new .ezq file that includes this input gain adjustment.

C. WITHOUT A COMPUTER

To adjust the input gain of the active profile without a computer, follow these steps:

- 1 Make sure the profile you want to adjust is selected on the profile selector switch.
- 2 Center the **TONE KNOB** (approximately - exact setting does not matter).
- 3 Slide the **TONE/MIC GAIN SWITCH** to **ON** position (left).
 - either stops flashing, or begins flashing faster for only one second at a time.
 - If the red LED flashes quickly for one second at a time (10x over 1 sec), reduce the Input Gain until it never does.
 - Additionally, you can listen to the output through speakers, an amp, or headphones to make sure your signal is strong, but free of distortion.
- 4 The **TONE KNOB** is now a *relative* control for input gain: no matter where the knob starts out, turning it up (clockwise) will incrementally increase the input gain, and turning it down (counter-clockwise) will decrease it.
- 5 Play your instrument loudly and watch the meter LEDs.
 - If the yellow LED lights consistently but the red LED never flashes, you have found a good setting.
 - If the red LED flashes slowly for two seconds at a time (10x over 2 sec), there is an overload at the output. Reduce the Output Level Knob until the red LED
- 6 When you are satisfied, slide the **TONE/MIC GAIN SWITCH** back to the OFF position (right) to restore the **TONE KNOB**'s normal function. This new input gain setting will be stored in the profile on the CloseUp® System and recalled whenever it is chosen with the profile selector switch. You can now return the **TONE KNOB** to your desired position.

If you were not able to change the input gain as much as you wanted (i.e. if you were making a drastic change, or the **TONE KNOB** was not centered when you started), simply center the **TONE KNOB** and start the process again. The rest of the input gain range will now be available to you.

Note: This change will be saved in the copy of your profile on the CloseUp® System, but will not be reflected in the copy that is saved on your computer. If you need to transfer it again, you'll have to redo this adjustment using one of the methods described above.

If you're curious, you can see what your new gain setting is later by connecting your CloseUp® System to your computer, launching the software, and navigating to **DEVICE SETTINGS**. You can then use that setting to update an EzQ file on your computer.

SIGNAL FLOW

The diagram on the following page shows the CloseUp® System's signal flow from **MICROPHONE** to **AUDIO OUTPUT**.

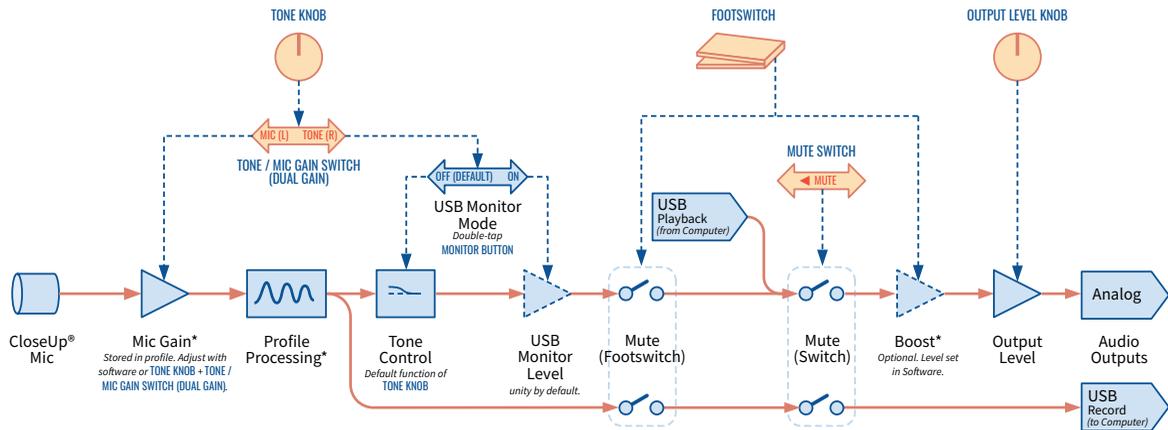
Note that Input Gain and the Profile are the only adjustments that affect the USB record signal when the CloseUp® System is used as a USB audio interface. This is actually useful for recording: recordings of your instrument will always have a consistent level and tone, regardless of any other settings of the CloseUp® System (which you might

change if, for example, you are monitoring using its analog output). You will always get a consistent, predictable signal that never overloads, and not have to match levels between recording sessions. It's set and forget, so you can concentrate on the music, not the audio engineering.



Your Heaven® Audio CloseUp® System Control and Signal Flow

(firmware version 19 and up)



* Adjustable using CloseUp® software via USB

Appendix B: LEGACY FEATURES



WOODEN SOUND HOLE COVER MICROPHONE INSTALLATION

If you have a non-wooden sound hole cover, please refer to pages 10–17 for instructions.

FITTING THE MICROPHONE & SOUND HOLE COVER TO YOUR GUITAR

- 1 The guitar mic is connected to a wood and foam brace that attaches to the inside edges of your guitar's sound hole. The cover has notches to route the wire out through.
- 2 Slide the mic into your sound hole below the strings.



- 3 Continue sliding the Sound Hole Cover under the strings.



- 4 Press the brace's lower foam contact point into the bottom edge of the sound hole. Fit the microphone wire through one slot.



- 5 Push on the finger notch in the direction of the brace until the other side of the cover slides in as you press down the brace's upper edge. Adjust as needed.



NOTE: Sound hole sizes and shapes vary. Our sound hole cover does not need to fit perfectly to work properly. If you have difficulty or concerns with the fit, please contact us at support@yourheaven.net. Custom sound hole covers may also be available for unusual shapes and sizes.

ATTACHING THE GUITAR STRAP TO YOUR ENDPIN

- 6** The microphone wire has a guitar endpin strap to hold the wire snugly around the guitar's back and out of your way. Slip the strap slot over the end pin and adjust the microphone wire as needed.



NOTE: We recommend adjusting the wire snugly against the back of the guitar.

REMOVING THE GUITAR MICROPHONE

- 7** Push the notch in towards the center of the sound hole to until you can lift the brace out of the hole.



- 8** Pull the whole thing up and out towards you to remove it from beneath the guitar strings.



FREQUENTLY ASKED QUESTIONS



EQUIPMENT

Can I use my own microphone?

No, our system is designed to work specifically with Your Heaven's® proprietary microphone.

Can I pass the signal coming out of the CloseUp® System through other processors/ EQs (i.e. wah pedal, etc.)?

Yes, indeed—enjoy! Be aware, though, that you may encounter noise issues when using pedal setups related to ground loops or power supply shielding. These are common problems when using unbalanced audio and guitar effects generally.

Which kind of battery works best?

The CloseUp® System takes a single standard 9-Volt (PP3) battery. For a single-use battery, use a standard alkaline 9V. If you would like to use a rechargeable battery, we recommend a lithium-ion (Li-ion) or lithium-polymer (Li-Po) 9V, as they perform much better than other types of rechargeable 9V batteries.

Some rechargeable Li-ion or Li-Po batteries that claim to be 9V actually provide voltages closer to 8.4V. This is fine, and the CloseUp® System will work with batteries down to 7.6V, as long as the voltage from the battery is consistent.

The CloseUp® System also works well with many USB power banks. Just make sure to choose a high quality one, as we have had experiences with some inexpensive power banks causing unwanted noise. A 13000mAH USB power bank, which is a little bigger than a deck of cards, will power a CloseUp® System continuously for 5 days.

How long does the 9V battery last?

About 7 hours for a standard alkaline battery. Rechargeable lithium cells can last substantially longer depending on the battery's capacity.

Is there any specific amplifier that the CloseUp® System works best with?

Any flat response amplifier and powered speaker. Most modern PA systems are suitable. If required, the

CloseUp® System comes with tone adjustments to help with balancing frequencies.

How can I use the CloseUp® System with my iPhone or iPad?

You can connect to an iPhone or iPad with an Apple “Lightning to USB Camera Adapter”. This will connect the CloseUp® as an audio interface to the iOS device. However, the iOS device cannot supply sufficient power through this USB adapter. The CloseUp® System will need to be powered from a battery or 9V DC adapter (*neither supplied*), or be connected through an independently powered USB hub (*e.g. a hub powered by wall power or a USB battery pack*). USB-C hubs for iPad Pro and later devices that provide USB ports may work similarly, but have not been tested as of this writing. Any of these options will allow you to record literally anywhere using the CloseUp® System and an iPhone or iPad.

How can I use the CloseUp® System with my Android phone or tablet?

Android devices work using an “On-the-Go” USB host to Micro-USB or USB-C cable that will allow



Yeah, this system is amazing!

— Sam Skinner, Acoustic Guitar Player

you to connect to the CloseUp® System as an audio interface. Power limitations are similar to the iPhone (*see above*), as many Android devices do not supply enough power to power a USB audio device. Also, there are many makers of Android devices, so check that the one you want to use will work with a class-compliant USB audio interface.

Can the CloseUp® System be wireless?

Yes, with a custom adapter you can connect to almost any wireless belt pack. Contact our team at **support@yourheaven.net** or **401-753-3453** for details.

Can I simultaneously use the USB interface for recording while performing live?

Yes!

Can I leave the CloseUp® Mic in my instrument when I'm not playing it?

Yes, many of our users do just that! This is why we use a separate 'extension' cable to connect to most of our microphones.

PROFILING

Can I manually adjust my profile once it's been generated?

Yes, the custom EQ filters included in our profiling software allow you to adjust your profile to your preference. You can also adjust the input gain (a.k.a. **MIC VOLUME**), boost amount, and footswitch function of any profile after it is created and/or transferred to the CloseUp® System.

How important is creating a custom profile for my instrument?

The custom profile is at the heart of the CloseUp® System. While we can provide a decent sounding "Universal" profile for some instruments, the process

of measuring and calibrating to your instrument is very important and will provide the best sound. It's like having an experienced engineer at a high end studio record your instrument after spending an hour on careful listening and mic placement!

For Guitar and Mandolin, you will need to create a custom profile to use the CloseUp® System. But it's not hard! Your Heaven® engineers have designed the software to be as friendly as possible with input from a number of musicians. And with the CloseUp® System, you only have to make the profile once, and then you get the best sound instantly, anywhere.

Although the computer software is needed to make and save any changes, once the revised profile is transferred to the CloseUp®, the computer and software are not needed for playing.

How does my playing style affect the profiling process?

Playing style (i.e. picking vs finger-picking on a guitar) may have some effect on the profile created, but usually not too much. A profile made with one style

of playing will usually work just fine for another. The exception to this is bowed string instruments: when profiling, do not play only pizzicato unless that is the only style you plan to play in with that profile. The bow excites many more harmonics of the instrument that provide the profiling algorithm with important data.

You may wish to experiment with training the custom profile on different material if you plan on using extreme styles or extended techniques on your instrument.

The most important part is that you play relatively loudly when creating the profile, in order to excite all the resonances of the instrument. If you play very quietly or timidly during profiling, the profiling algorithm may miss some aspects of the instrument's sound that only emerge during louder playing, leading to a profile that does not perform very well.

Should I make different profiles for different playing styles?

You can, but it's usually not necessary. However, you should feel free to experiment if you like. You can load up to 4 profiles on the CloseUp® System at a time, and store a nearly infinite amount on your computer for later re-use. Generally the more complex the excitation of the instrument that happens during a profile, the better that profile will work for all styles of playing.

For instance:

- For bowed string instruments, always profile using the bow, unless you plan to always play pizzicato.
- For guitars and Mandolin, profile with moderate-to-vigorous strumming or picking rather than quiet finger picking.

I just started playing my instrument and cannot play a piece of music well to create the custom profile. Can I still use the CloseUp® System?

Don't worry—you will only need to play for 30 seconds (twice) when creating a custom profile, and you don't need to play masterfully! The main

requirement is that you can play the same basic music in the same style and tempo both times. If you want, you can repeat a simple song or a strummed chord progression as many times as you need to fill the 30 seconds. But if you're not ready yet, you can ask a friend or teacher to play your instrument to create the custom profile. You only have to do it once, and it takes just about 15 minutes.

If you are a bowed string player, our pre-installed universal profiles for VIOLIN, VIOLA, and CELLO will provide an excellent starting sound for your instrument without the need to play a piece of music for training the custom profile. You can create a custom profile later, when you are ready, for improved sound.

SOUND CONCERNS

Is the USB digital audio input from the CloseUp® System professional quality?

Yes! The CloseUp® System's internal processing and USB audio interface (as of firmware revision 24) are

both 24-bit for maximum digital audio fidelity. Also, since the CloseUp® System is designed specifically for your instrument type, you will always get a strong signal well above the noise floor of the analog-to-digital converters.

How do I deal with feedback on stage?

Turning the tone knob toward “High” can help control the low-frequency feedback created by some sound systems. Turning this knob toward “Low” can help with the high-frequency feedback found in some situations. Other common methods of dealing with feedback include moving or angling the instrument away from the speaker, or turning down the volume of the amp, PA system or monitors, or adding EQ using a mixer or other audio processor.

What if I'm getting distortion when I play?

Is the red LED flashing when you hear this distortion?

- If it is flashing slowly (10 flashes over 2 seconds), the CloseUp® System's output gain stage is overloading. Turn down the **OUTPUT**

LEVEL KNOB and see if that helps.

- If it is flashing quickly (10 flashes over 1 second), the CloseUp® System's input gain stage is overloading. Turn down the **INPUT GAIN** of the profile (*see pages 32–33*) and see if that helps.
- If the red LED is no longer flashing (or never was), but you still hear distortion, the cause is probably in equipment in the signal chain after the CloseUp® System. Try either turning down the **OUTPUT LEVEL KNOB** of the CloseUp® System, or the input gain of the mixer, amp or PA you are connecting to. The CloseUp® System's analog audio output is balanced line level, which is stronger than most guitar pickups, so many mixers with XLR mic/line inputs will want to have their input pad engaged on the CloseUp® System's channel.
- If you cannot get rid of the distortion, try a different amplification setup, or try plugging headphones directly into the

analog output of the CloseUp® System. If you still hear distortion, it is possible that the CloseUp® System or the CloseUp® Mic is damaged. Please contact Your Heaven® Support at **support@yourheaven.com** or **401-753-3453** to troubleshoot the problem.



Your Heaven Audio | yourheaven.com | 401-753-3453 | info@yourheaven.com