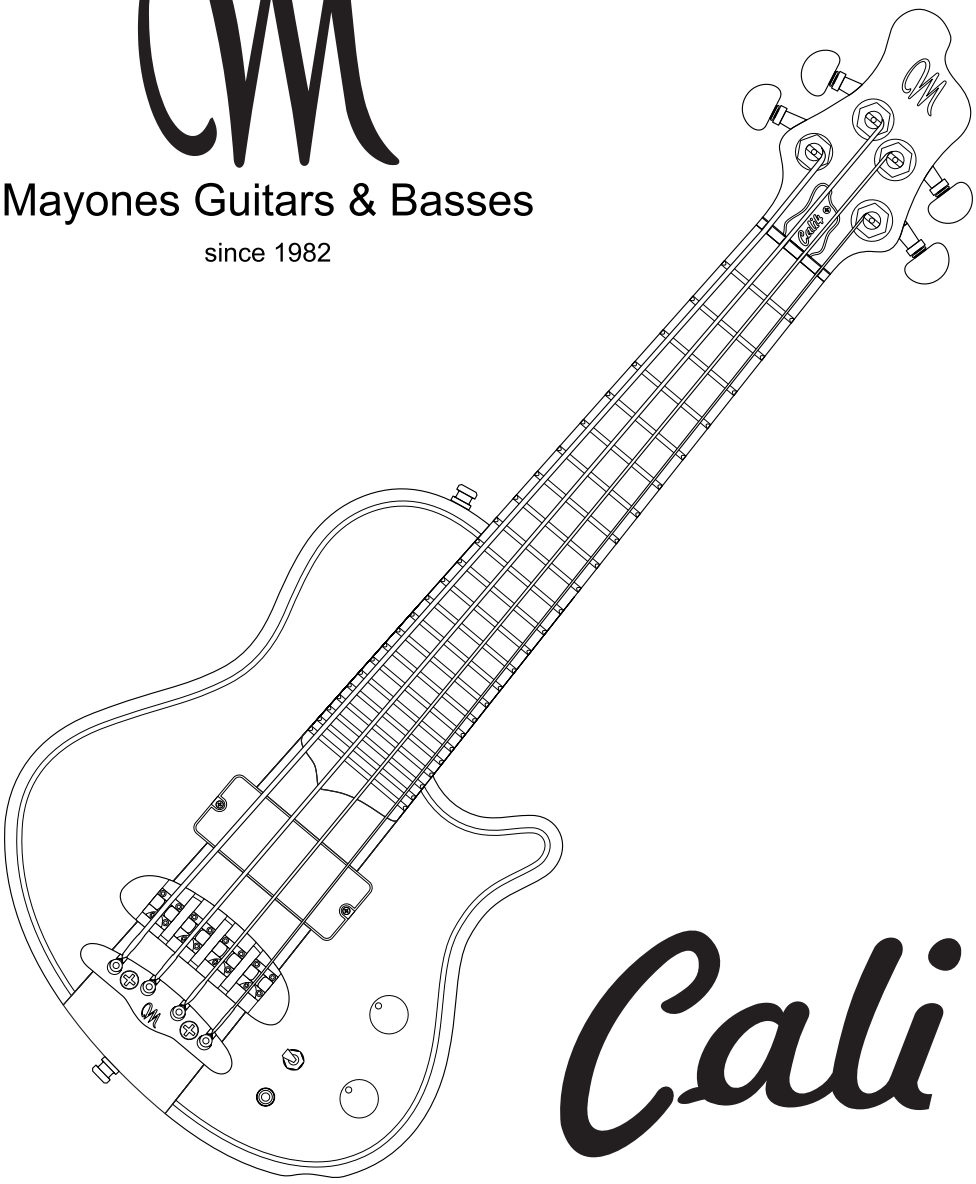
Mayones Guitars & Basses

since 1982



Cali

USER MANUAL

Dear Bass Player!

Mayones Cali is a very functional instrument. Apart from its incredible acoustic properties and playability, it also offers professional tone - both when used with a typical bass amp, as well as in practice situations, thanks to its internal headphone amp (Cali HS model). Cali mini bass is a professional instrument that can be placed on par with a regular bass. It may also be a highlight at live shows, used for a distinctive solo, or featured in arrangements written specifically for its unique short scale voicing.

Cali comes with electronics in two versions: **Standard** and **HS.**

The Standard Cali bass features an embedded active three-band-EQ preamp that provides the player with a broad range of tone adjustments in the bass, mids, and treble bands. Mini-switch in this model allows the user to bypass the preamp completely, thus making the instrument completely passive.

Cali HS tone control is all passive, however, its major advantage comes in the form of a dual-channel headphone amp.

If you are looking for something more sophisticated, then we have prepared the **Cali VFret** model that has a varied scale for each of the strings (17.1" - 18.3" multiscale), a tilted pick-up and bridge comprising out of individual modules for each of the strings. Cali VFret is being offered solely in the active version with a three-band EQ.

Note:
The present instruction manual constitutes an addendum to the basic version of the Mayones Electric Bass Manual. The manual you are holding complements the basic manual within the scope of the specific design and usability features of the Cali bass. The aforesaid instruction manual can be downloaded from the www.mayones.com website.

IMPORTANT SAFETY NOTICE

LISTENING TO THE SOUND AT LOUD VOLUMES MAY LEAD TO A PERMANENT HEARING DAMAGE. THE VOLUME SHOULD ALWAYS BE SET TO THE LOWEST USABLE LEVEL.

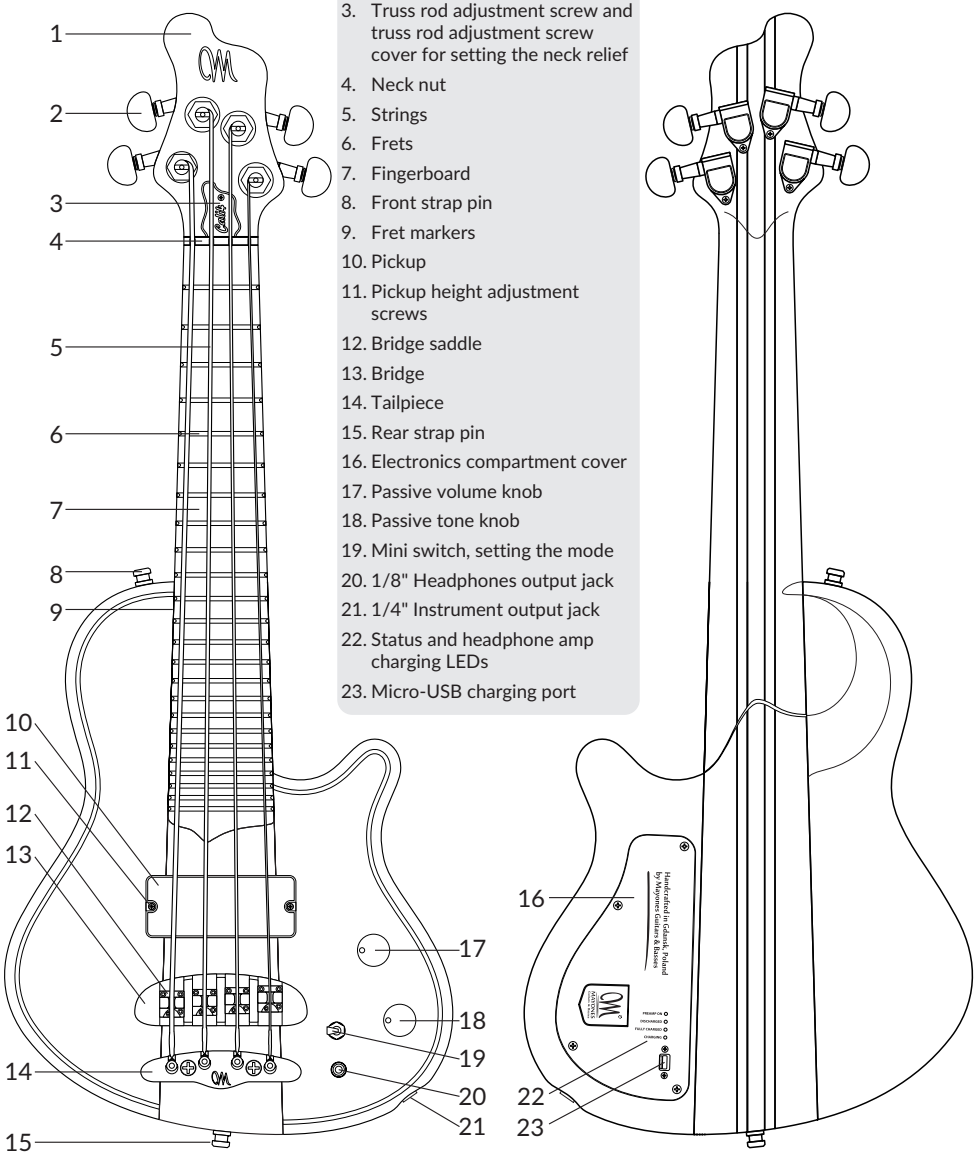
Exposure to loud sounds over a long period may lead to hearing damage and permanent hearing impairment. According to the general recommendations, we'd like to ask you to follow the values listed below, when it comes to maximum time one may spend in locations with a specific sound level. Following those recommendations is not expected to result in hearing damage.

- *90 dB SPL - Up to 8 hours*
- *95 dB SPL - Up to 4 hours*
- *100 dB SPL - Up to 2 hours*
- *105 dB SPL - Up to 1 hour*
- *110 dB SPL - Up to 30 minutes*
- *115 dB SPL - Up to 15 minutes*
- ***120 dB SPL — avoid levels so high, risk of loss of hearing occurs***

IMPORTANT!
Be especially careful when using earphones or headphones plugged into the instrument, as sounds of very high volume may appear and these could lead to permanent hearing damage.

Elements of the Cali HS bass

1. Headstock
2. Tuners
3. Truss rod adjustment screw and truss rod adjustment screw cover for setting the neck relief
4. Neck nut
5. Strings
6. Frets
7. Fingerboard
8. Front strap pin
9. Fret markers
10. Pickup
11. Pickup height adjustment screws
12. Bridge saddle
13. Bridge
14. Tailpiece
15. Rear strap pin
16. Electronics compartment cover
17. Passive volume knob
18. Passive tone knob
19. Mini switch, setting the mode
20. 1/8" Headphones output jack
21. 1/4" Instrument output jack
22. Status and headphone amp charging LEDs
23. Micro-USB charging port



General Information on Using the Instrument

Most of the set-up procedures applicable to the Cali bass are the same or very similar to conventional bass guitars. The above stems from the use of full-size components, identical to the ones used in other Mayones basses. This provides you with the very same Mayones signature sound that comes together with top quality, perfect playability, a broad range of set-up adjustments, reliability, and longevity of both the instruments, as well as of its components.

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Strings

Cali 4 is tuned one octave higher than a typical 4-strings bass guitar (**G_{high}, D, A, E_{low}**). By default, Cali comes with the following string gauges: 0.30-0.44-0.63-0.84 inch. They are cut to the length that corresponds with the 17.1" (436 mm) scale. In practical terms, the length of the strings should not be greater than 10 centimeters, from the tuner pegs, to which they would be attached, with a prior attachment of the strings to the tailpiece.

Depending on the individual preferences and strings availability on the local market, one may experiment and use strings of different gauges (±0,03" when compared to the stock strings set), use of different tunings may also be a possible option. One should note that usage of much thicker strings could create a necessity to introduce relevant setup adjustments. This may also require a luthier to customize the instrument, for instance, to adjust the neck nut slots width.

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Neck relief: Truss rod adjustment

To maintain an optimal level of playability and for the bass to remain stable throughout its scale, a truss rod has been used in the Cali bass that is applied to set the neck relief. The truss rod adjustment nut is located beyond the neck nut and it is protected by a decorative cover. The adjustment process is identical to a typical bass guitar.

Recommended neck relief, measured above the 8th fret after the string is fretted at the first and last fret, should be set at the level of **0.3 mm** for each of the strings.

Cali

Action

When the recommended neck relief has been set, it is recommended that distance between the strings and the top of the 12th fret is, respectively, around **1.3 mm for the G string** and ca. **1.5 mm for E**.

Note:
A detailed description of all of the individual set up and usage procedures can be found in our instruction manual for bass guitars that can be downloaded at the www.mayones.com website.

Using the Headphone Amp

Your Cali HS bass features an internal, high-quality headphone amp, allowing you to have unrestricted practice with a full tone, anytime, anywhere, without disturbing anybody around you. The headphones output also gives the user an extra capability to plug the bass directly into a vast selection of audio devices (via the AUX input) and to record or play along a backing track. Usage of modern, energy-saving components and a highly-efficient Li-Ion battery, along with a user-friendly charging system altogether extend the period over which the amp may be used, thus making the instrument available in many different scenarios.

Switching on the headphone amp

The headphone amp is switched on with the use of a three-way toggle mini-switch in the front of the instrument, alongside the headphone output. This integrated switch also makes it possible for the user to select the active or passive mode for the 1/4" output jack. Switching on the headphone output is signaled by illuminating the first blue LED on the left, labeled **PREAMP ON**. Details on the switch settings and LED indications can be found in further sections.

Volume and Tone Adjustment

Cali HS features two control knobs. The first one is used to adjust the pickup output signal level (volume knob) that is sent to the 1/4" instrument output jack and 1/8" headphone output. The second knob is a typical passive TONE control.

Plugging In Stereo Headphones

The headphone amp can only work with stereo headphones with impedance ranging from 32 to 64 ohms, fitted with a 1/8" (3.5 mm) TRS jack plug. In the case of stereo headphones with a different plug, a proper adapter should be used. Headphones and adapter should be purchased separately. Do not use mono (TS jack) headphones or headphones with the embedded microphone with 1/8" (3.5 mm) jack with this instrument. OMTP, CTIA, or similar TRRS jack plugs are also not usable with this bass.

Please note that Cali bass is not a stereophonic instrument. For that reason, both channels of the headphones (left and right) transmit the very same, monophonic pickup signal that is only split between the two channels of the headphone amp.

Note:
For safety and comfort reasons, the headphones (or other audio devices) should be plugged into the instrument only after the headphone amp is switched on, with the volume knob set to minimum (extreme left position).

Switch Positions

When the switch is in its **lower position**, only the 1/4" output jack is active, transmitting the passive pickup signal (passive mode). The instrument may be plugged into a typical bass amp with the use of a conventional instrument cable. The operation of the volume and tone knobs is identical as in the case of a typical bass guitar with passive electronics. When the switch is in the lower position, the 1/8" output jack is not active.

In the **middle position**, the passive signal is sent to the 1/4" output jack (passive mode), however, the headphone amp is turned on as well, and the signal is sent to the 1/8" headphones output. In this position, we can use the headphones as well, or we may send the signal from the 1/8" jack output to a sound recorder for instance.

Important:
When the switch position changes (from the lower position to the middle one), the power is supplied to the headphone amp. The headphone output may then emit a loud signal that can damage your hearing or the hardware plugged in. For that reason, the headphones (or other devices) should be plugged only after the headphone amp is switched on, with the volume knob set to the lowest setting.

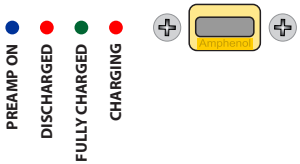
When the switch is in the **upper position**, the signal is sent to the active preamp, with the EQ also being active - and then, after the signal passes through the EQ, it is sent to the output. 1/4" Jack (active mode). In this position, low- and high-end are a bit more pronounced which makes the tone more dynamic, selective with a little more punch.

When the switch is set in this position, the 1/8" jack is also active.

Mini-switch Position		Instrument 1/4" output jack	Headphone 1/8" output jack
	**Lower**	ON, passive mode	**OFF**
	**Middle**	ON, passive mode	ON
	**Upper**	ON, **active mode**	ON

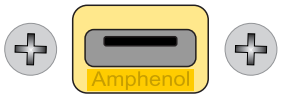
Battery charging

The headphone amp is powered by a Li-Ion battery of high efficiency and capacity, allowing the user to play the instrument for many hours without any problems, and without worrying about discharging the battery. Four LEDs indicate the battery charge levels and they also provide information on the status of the headphone amp. They are placed on the cover of the electronics, on the backside of the instrument.



When the battery is discharged, the red LED, the second one from the left, labeled as **DISCHARGED**, is flashing. Should you get the discharged battery indication, you should charge it as soon as possible.

To charge the internal battery, use the supplied charger that provides optimized charging parameters. The **micro USB** charging port has been placed next to the LED controls on the electronics cover, on the backside of the instrument. Due to its small dimensions and the delicate nature of the micro-USB port and the charger plug, one should be very cautious when plugging the charger in and during the charging process. In no circumstances use excessive force when plugging the charger in, or when removing its plug. Should any issues occur there, inspect the status of the plug and the charging input carefully. The imput should be clear from any objects and dirt. Do not use the charger if the plug, or any other part of the charger, has been damaged. In no case should you use force to remove the cable. You should not remove the plug at an angle as well.



After the charger is plugged into the micro-USB charging port and the mains socket, the charging process begins. This is shown by a continuous light that is emitted by the first red LED on the right (**CHARGING**). Should you be charging the battery after it has been depleted completely, the charging time would last **around 6 hours**.

When the battery is fully charged, red charging LED switches off and the other green LED (labeled **FULLY CHARGED**) begins to flash. Even though the applied charging module features overcharging protection, it is recommended to unplug the charger when the battery is fully charged for safety reasons. You may also just unplug the charger at any moment of the charging process. You may also leave it plugged in. However, this entails a risk of damaging the charger socket and the plug if we forget that the instrument is plugged in.

The instrument comes together with a universal EURO plug charger that may be powered by voltages ranging from 110 to 240V @ 50 - 60 Hz. Should you use the charger in areas where no socket compatible with the Euro plug is available, a proper adapter should be applied (one should purchase an adapter as such separately).

When the battery is being charged, one can use the headphone amp. However, in circumstances as such the charging would take longer. It is recommended that the battery is charged with the headphone amp turned off.

When, after the charger is plugged in, the red charging LED does not light up, nor does the green LED become active, this may mean that your charger, charging cable, or charging port has been damaged, or that the cable is plugged in improperly, or that the battery is unplugged. In the worst-case scenario, the above symptoms may mean that the headphone amp has been damaged. In a situation as such, try unplugging and plugging in the charging cable. Alternatively, you could also use another compatible charger, or take out and reinsert the battery. The battery voltage should not be lower than 2.5V. If the value is lower, then this may mean that the battery has been damaged.

Note:
It is not recommended to plug Cali into the PC USB port, as most of these ports do not provide current that has proper charging parameters for the battery applied.

Tip:
The internal battery may also be charged with the use of an external power-bank providing 5V/1A charging power. To provide a full charge, at least 5000 mAh power bank is required. The power bank could be used as an alternative charging unit in places where no mains access is available. It is also possible to use another charger that has output parameters equivalent to the charger that comes with the instrument (5V, 1A) and has been fitted with a micro USB plug.

In exceptional circumstances, one may remove the battery from its compartment and charge it in an external dedicated 18650 3.7V Li-Ion battery charger.

Important!
The micro-USB port is used solely for charging the battery. It is not used as an audio output.

Headphone Amp – How long can I use it on a single charge?

When the battery is fully charged, with 32 Ohm stereo headphones being plugged in, you can use the headphone amp for around **26 hours**, with comfortable playing volume.

Note:
Do not leave the mini-switch in the middle or top position - when the switch is in these positions, power is supplied to the headphone amp. This may lead to a rapid discharge of the battery.

Cali

Battery Operation - Remarks

18650 Li-Ion batteries are becoming increasingly more popular on the market. The option of quickly removing the battery also allows the user to quickly replace it, thus allowing him/her to use the headphone amp in a manner that is continuous and seamless. Having a spare 18650 battery at hand, along with an external charger, may make it much easier to use the headphone amp, should you have limited or no access to the mains.

If we are not going to use the headphone amp for a longer period (a month or longer), it is recommended to charge the battery and then remove it from the instrument. The battery should be stored in a dry and safe place, away from heat sources, with the battery terminals being protected from accidental short-circuit.

Note:
The headphone amp may only be powered by the 3.7V 18650 Li-Ion battery. Using any other cell may damage the headphone amp, or even lead to an explosion of the battery which may consequently cause fire and/or injury.

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Other Applications of the Headphone Amp

When you are not using the headphones, apart from using the standard 1/4" TS jack instrument output, the headphone output may be used to transmit the signal to an additional receiver - a sound recorder, effects, monitors, or extra stereo amp. Make sure that the coupled device can safely receive the headphone output signal. Should a need emerge, the output level can be adjusted with the bass's volume knob.

Important Usage Information on the Li-Ion Battery

The product uses a Li-Ion battery cell. Improper use may lead to electrolyte leaks, rupture, or other issues. When using the battery, closely follow the recommendations below.

- The cells may explode or release toxic substances into the environment. There is a risk of fire or burns. Do not open, crush, modify, dismantle, burn or heat the batteries above 60°C (140°F).
- Never charge the conventional non-rechargeable batteries. The batteries can explode or the electrolyte may leak out causing fires, damage, or injury.
- When installing the battery, take close notice of the polarity (plus/minus [+/-]) and install it accordingly in its compartment. Reversed position of the battery may lead to an explosion or leak of the electrolyte, causing fire, damage or stains around the battery.
- When storing or disposing of the batteries, secure the battery terminals with electrical tape or similar means of protection, to make short-circuit impossible (involving other cells or metal objects).
- When disposing of cells that have been worn out, follow the recommendations on them, general recommendations, and the general law regulations in force.
- Do not use any other cells than the one specified in the present manual. In any other case, there is a risk of fire or electrolyte leakage. This may lead to a fire, damage, injury, or emergence of stains around the battery.
- Do not store the batteries together with small metal objects. These objects may cause a short-circuit, thus creating electrolyte leak, explosion, or other issues.
- Do not heat up or dismantle the battery cells. One should not throw the cells into the fire or water. This could potentially lead to leakages, explosion, cause fire or cause injuries or damage, or stains around the batteries.
- If electrolyte leak occurs, carefully remove the battery cell from the compartment, before inserting a new one. If the electrolyte enters your eyes, it may cause sight loss. In cases as such, you should immediately rinse your eyes with a major quantity of clean water, without rubbing the eyes, and then you must contact a doctor immediately. If the electrolyte gets in contact with skin or clothes it may cause skin damage or burns. Should this happen, wash the irritated area of the skin with a large quantity of clean water, then consult your doctor.
- When inserting or replacing the battery, unplug the instrument from any other device.
- If you plan not to use the instrument over a longer period, please remove the battery cell. In extreme cases it may explode, the electrolyte may leak out, fire or damage may occur, or stains may be formed by the leak.

Battery Disposal

The battery in the instrument is recyclable. Please treat is as hazardous waste and return it to the seller or the battery recycling point. To protect the environment you should only dispose of batteries that are discharged and completely depleted.

Cali

Specification of the Headphone Amp

Control (passive):	1 × Volume knob 1 × Tone knob
Frequency response:	20 Hz – 20 kHz
Power:	2 × 50 mW @ 32 Ohm
THD+N:	>120 dB
Output jack:	1/8" (3.5 mm) TRS
Recommended headphones impedance:	32 ÷ 64 Ohms
Amp operating period:	Ca. 26 hours @ 32 Ohm
Mode switch:	3-position mini-switch (power switch)
LED operation/charge status indicators:	(4) on the electronics cover on the back-side of the instrument 1 – Blue – Headphone amp on 2 – Red, blinking – battery discharged 3 – Green, blinking – battery fully charged 4 – Red – charging
Amp power supply:	18650 Li-Ion battery, 3.7 V, 3400 mAh
Battery charging socket:	micro USB
Charging voltage:	5 V
Charging current:	1 A (minimum)
Charging time:	around 6 hours (5 V, 1 A)
Battery protection:	overcharging and deep discharging

Mayones Guitars & Basses

since 1982

Find more information on guitar operation and maintenance and solving basic problems on our website www.mayones.com.

Mayones Guitars and Basses care constantly about the quality of their instruments and release their newer and upgraded versions, as well as search for the best possible building materials.

All parts of the instruments are RoHS compliant.

The company reserves the right to make changes without prior notice.

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