

OWNER'S MANUAL

HEX
INSTRUMENTS
LABS

HILS HEADLESS GUITAR OWNER'S MANUAL

(HN3, HN4, HN5, HN6, HZ7)

Thank you for purchasing a **HILS** headless guitar!

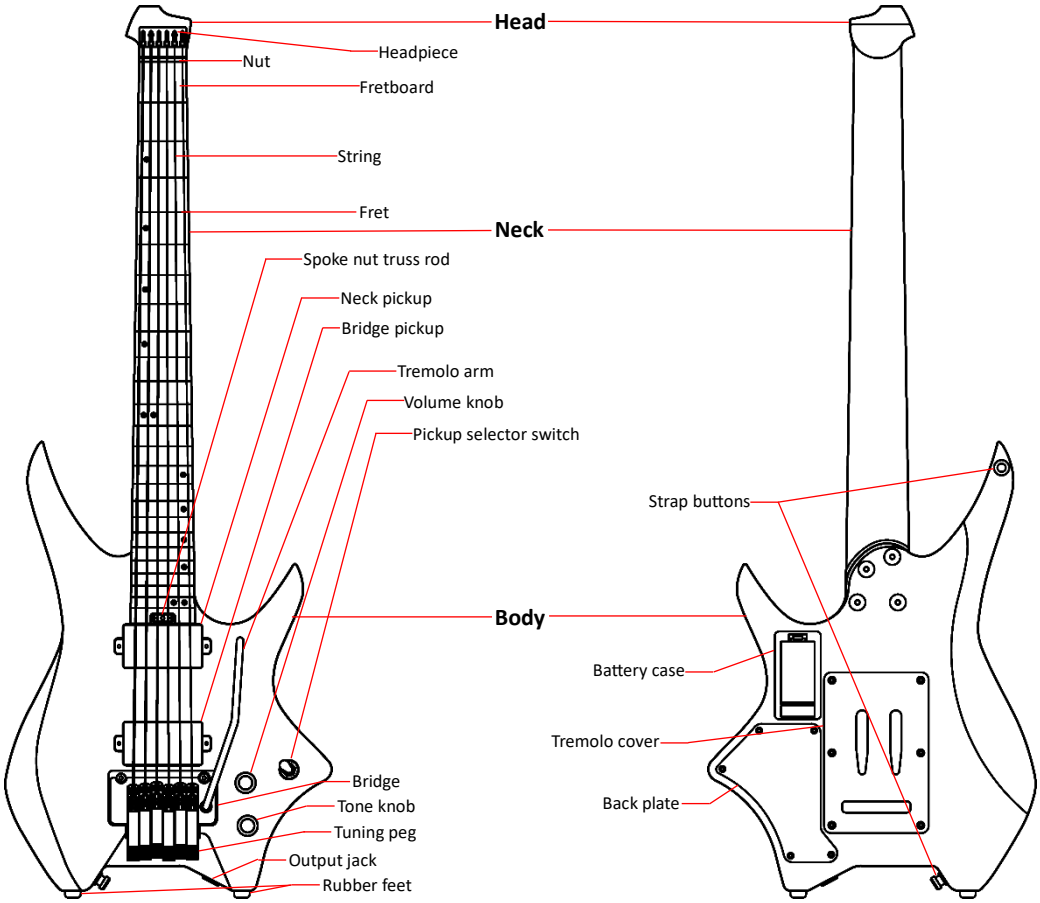
At **HILS**, we pride ourselves on producing high-quality instruments, staying true to our vision of exceeding expectations. We consider ourselves innovators and always thrive to listen to our customers and improve our instruments.

We hope you enjoy being the proud owner of your **HILS** guitar, and to ensure that you can obtain the maximum performance and enjoyment out of this instrument, please read this Owner's Manual thoroughly and keep it in a convenient place for future reference.

Are you ready to get "**MORE THAN YOU EVER IMAGINED**"?

YOUR GUITAR

Meet your **HILS** guitar.



GENERAL CARE

Due to the organic nature of wood, your **HILS** guitar needs regular maintenance and care. To make sure your guitar continues to look, play and sound as well as it did when you first got it, we strongly recommend you occasionally perform routine maintenance:

- Make sure to wipe down your instrument after use with a soft, dry cloth or rag, especially the fingerboard, strings, neck and any other parts that may have come into contact with your skin or other pollutants such as dirt and dust. The natural oils from your skin may corrode and damage the finish on the instrument's body and leave permanent stains on unfinished parts. If you use cleaning products, make sure to follow the instructions on the product's label. We recommend you only use cleaning products that were specifically made for instruments or guitars.
- When not in use, we recommend keeping the instrument stored in a safe place. If your instrument falls over or bumps into other things, it may be damaged permanently. If you are storing your instrument on a stand, make sure that it is sturdy and will not fall over.
- Wood is susceptible to heat and humidity. The environment where our instruments are produced, initially set up and/or stored may be the complete opposite to the climate where you get your instrument. It is vital for the instrument's integrity to stabilize the moisture content in the wood as soon as it comes into a new environment. During the winter, heating systems used in most homes can make the temperatures high enough and humidity levels low enough that they become dangerous to your instrument. We also recommend not leaving your instrument exposed to direct sunlight and heat for prolonged periods. The ideal temperature for our instruments is 19-25°C, and the ideal humidity is 40-50%.
- The strap buttons on your instrument may come loose from repeated use. Make sure that they are tight before use, and if they are not, use a regular Phillips head screwdriver to tighten them. Always check that the strap is securely attached to the instrument before you use it.
- We recommend periodic inspections by a trained professional. If your instrument experiences damage or you notice there are any issues with it, visit a guitar technician to have your instrument inspected and set up.

This guitar has been adjusted before being shipped to you. If you feel there is a need to readjust any part of your instrument, please contact the dealer where you purchased your instrument or a professional luthier, as any such adjustments may require special skills. For adjustments that may be performed by you, please closely follow the instructions in this Owner's Manual.

CHANGING STRINGS

As is the case with other electric guitars, our guitars will require you to change their strings when they eventually wear out or break. The process may seem daunting at first, but it's simpler than you imagine. If a string breaks, or if you notice that your guitar's tone is starting to get increasingly dull, it means that it's time to replace your strings. You can do so by following the steps below.

STEP 1 Fold the microfiber cloth that came with your guitar, or any other soft, clean, dry cloth of similar size, in half 3 times. Install the tremolo arm on the bridge and push down with moderate force to lift the back end of the bridge up, just enough that you can place the folded cloth underneath it. While holding the tremolo arm down, place the folded cloth between the bridge and the guitar's body (Figure 1).

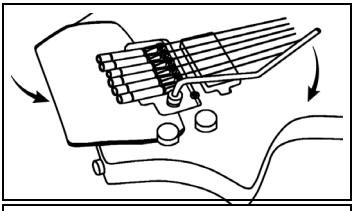


Figure 1

STEP 2 Turn the tuning pegs counterclockwise until they stop (Figure 2). Don't attempt to continue turning when the pegs stop. Forcing the tuning pegs further could damage them. Use a 2.5mm hex wrench to loosen the locking screws on the headpiece (Figure 3). We recommend that you don't fully remove the screws and only loosen them until the strings are released, as the bottom plates could fall out and get lost. Remove the old strings.

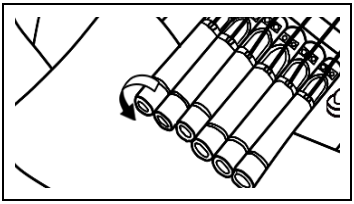


Figure 2

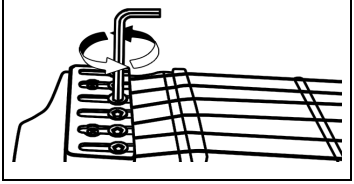


Figure 3

STEP 3 Slightly bend the end opposite the ball end of the new strings into a hook shape to make it easier to insert into the headpiece. Insert the bent end of the strings into the headpiece, making sure that the string goes through, between the bottom plate and the locking screw (Figure 4). Pull the strings about 4 inches through the headpiece, don't lock the screws yet.

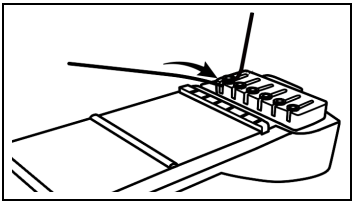


Figure 4

STEP 4 Holding the tuning peg forward, insert the ball end into the channel under the saddle (Figure 5). After inserting the ball end, pull the string through the headpiece until it is taut and tighten the headpiece screws to secure your string in place. Use only the force of your fingers, excessive force may damage the instrument. Repeat until all strings are secured.

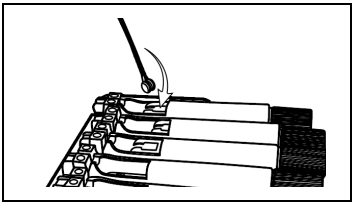


Figure 5

STEP 5 After installing all strings, tune the guitar using the tuning pegs that were loosened earlier. If there is no need to adjust intonation or string height, cut off the excess string and insert the cut ends into the headpiece slots (Figure 6). Using a 1.5mm hex wrench makes it easier to insert the cut ends into the slots.

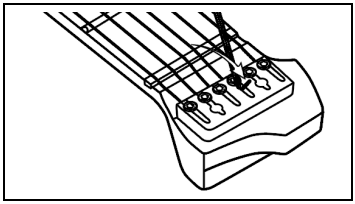


Figure 6

STEP 6 Lightly push down on the tremolo arm and remove the cloth inserted below the bridge (Figure 7). Slowly let go of the tremolo arm to get your bridge back into resting position. You are now ready to get back to rocking!

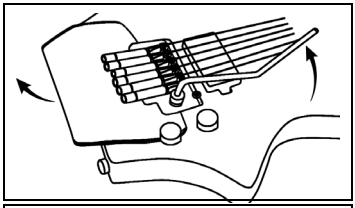


Figure 7

In the case of an **HN3 and HZ7 model, skip steps 1 and 6**.

If you are still confused about how to change your guitar strings, access the QR codes below to watch guided video tutorials.

HN3, HZ7

HN4, HN5, HN6

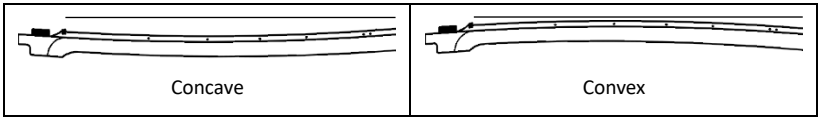
Please note that string replacement is part of regular maintenance, and a broken string doesn't mean the guitar is broken, so please **do not return your guitar when a string breaks**.

All the necessary tools (except the string cutters) are included when you purchase a new **HILS** guitar.

TRUSS ROD

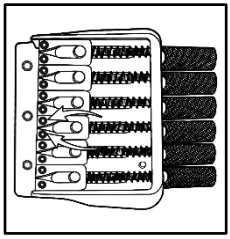
Your instrument's neck should be curved to be slightly concave, which means that the bulge of the curve should be towards the back side of the instrument (or a slight U-shape when seen from the side with the instrument's front side up).

Rotating the truss rod adjustment nut clockwise tightens the rod, which counteracts concave bow, and rotating it counterclockwise does the opposite, correcting convex bow. Allow about 10 minutes for the truss rod to set in before you check the neck's curve. Don't rotate the nut more than 1/4 turn each time.

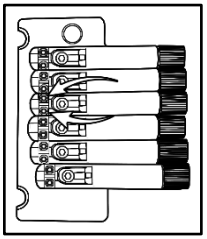


NOTE If you do not have experience adjusting truss rods, we suggest that you entrust this process to a professional.

STRING ACTION

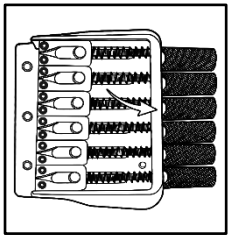


String height, or string action, refers to the space between the strings and frets, and this affects your instrument's playability. You can adjust the string height by adjusting the screws on the saddles. To do so, alternately turn the screws on both the left and right sides of the saddle little by little. If the action is too high, your instrument's playability will be compromised; action being too low will lead to fret noise, commonly known as 'fret buzz'.



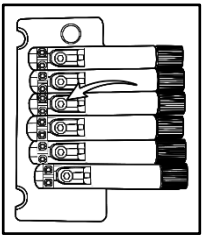
NOTE Perform adjustments to the truss rod before doing the above adjustments.

INTONATION



Intonation is how well the instrument stays in tune while you play different notes up and down the fretboard. Even if the open strings are tuned, bad intonation will cause notes further up the fretboard to be out of tune. Fortunately, intonation can be easily set on your instrument by adjusting the saddles.

To adjust your instrument's intonation, first tune your instrument up to pitch. Next, compare the pitch of each string when pressed down at the 12th fret with the harmonic on the 12th fret. If the pitch when fretted is sharper than the harmonic, move the saddle backward to lengthen the string. If the pitch of the fretted note is flatter, move the saddle forward to shorten the string.

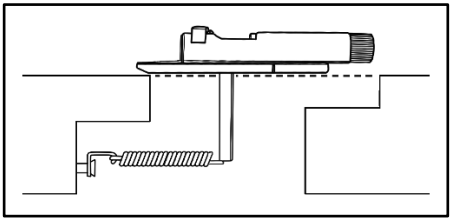


NOTE Always adjust your string action before adjusting intonation as the height of your strings greatly affects intonation.

TREMOLO BRIDGE ADJUSTMENT

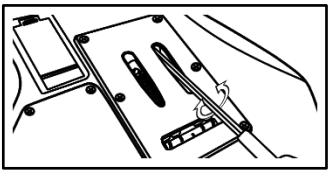
(For models with a tremolo bridge)

Tremolo bridges should be adjusted to lie parallel to the top surface of your guitar, as shown in the image below:



This is achieved through the opposing forces of the strings' tension and the claw springs. If you use different string gauges, you will need to adjust the tension of the springs on the bridge to make sure it is in the parallel resting position.

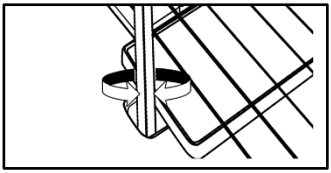
You can access the screws holding the tremolo claw through the slots on the tremolo cover and using a Phillips screwdriver. If the bridge is tilted up (forward), increase the spring tension by turning the screws clockwise. If the bridge is tilted down (back), lower the spring tension by turning the screws counterclockwise.



NOTE Make sure the guitar is tuned correctly before adjusting the angle of your tremolo bridge.

PICKUP HEIGHT

How high your pickups are compared to your strings affects the gain. If the pickups are higher, the sound will be louder, and vice versa. However, if the pickups are too high, your guitar's sustain and playability will be compromised due to the magnetic pull on the strings. Adjust the overall height of your pickups using the screws located on either side of each pickup. By turning the screw clockwise, the pickups are pushed upwards, getting them closer to the strings. Turning them counterclockwise does the opposite, pulling the pickups further from the strings.



ENVIRONMENTAL PROTECTION AND DISPOSAL

Proper Disposal of Your Instrument and its Components



This product is subject to environmental protection regulations, including the EU Waste Electrical and Electronic Equipment Directive (WEEE), which aims to reduce electronic waste and encourage recycling.

To ensure proper disposal of your instrument:

- **Do not dispose of this product as unsorted household waste**.
- Take the instrument to designated collection points for electrical and electronic waste or contact your local waste management facility for guidance.

Make sure to follow the rules and regulations that apply to your country.

Battery Disposal (for instruments with active pickups)

If your instrument includes active pickups powered by batteries:

1. **Remove batteries before disposal**:
   - Batteries must be removed from the instrument before it is disposed of.



2. **Recycling batteries:**
   - Dispose of batteries at designated recycling points.
   - In the EU, retailers selling batteries are required to accept used ones for recycling.
   - For lithium-ion or rechargeable batteries, insulate the terminals with tape to prevent short circuits before recycling.

Important: Never dispose of batteries in household waste, as they may contain hazardous substances harmful to the environment.

Recyclable Materials

Some components of your instrument, including parts such as: strings, metal hardware and packaging materials may be recyclable.



Strings are made of metal alloys that can be recycled at scrap metal facilities or through specialized programs from guitar string manufacturers.

Components like the bridge, tuning machines and screws can be recycled as scrap metal.

The materials used for the transport and protective packaging of your instrument are chosen environmentally friendly materials that can be recycled normally. Make sure that the cardboard, plastic bags, packaging, etc. are disposed of properly. Do not dispose of them as normal household waste and instead ensure that you follow local disposal laws.

If you need more information, contact your local waste management facility.

WARNINGS AND CAUTIONS

⚠ WARNINGS

Failure to follow these precautions may result in the possibility of injury or even death.

- The instrument contains small parts, such as the string-holding plates in the headpiece or any screws, which can be lost or swallowed. Keep them away from children.
- Avoid exposing the instrument to rain, water, or extreme humidity. Do not place liquid-filled containers near it.
- For models with an active pickup system, always follow the battery usage instructions provided on the packaging or label.
- Before cutting strings, ensure they are sufficiently loosened. Sudden tension loss may damage the neck, and rebounding strings can cause injury.
- After installing strings, trim the loose ends to an appropriate length and tuck them securely into the headpiece to prevent injuries from sharp ends.
- Always beware of sharp ends that may be sticking out as they could cause injury.

⚠ CAUTIONS

Failure to follow these precautions may result in damage to your instrument.

- Keep the instrument away from electronics like TVs, radios, and speakers, as its circuits may cause interference.
- Always turn off all electronic components before connecting or disconnecting the instrument. Set volume levels to the minimum before powering on or off.
- Do not hold the instrument close to your face when adjusting or replacing strings. Broken strings can cause eye injuries.
- Ensure the strap is securely attached before use. Do not lift the instrument by its strap or swing it roughly, as it may detach, causing injury or damage.
- When cleaning, use a soft cloth. Avoid thinners, solvents, or chemically soaked wipes. Do not place vinyl or plastic items on the instrument's surface. In case you need to perform deeper cleaning on your instrument, always use products that are specially designed to be used on instruments and guitars.
- Do not place heavy objects on the instrument, rest your body weight on it, or apply excessive force to its switches, buttons, or connectors.

HILS GUITARS CANNOT BE HELD RESPONSIBLE FOR ANY INJURY OR DAMAGE RESULTING FROM IMPROPER USE, NEGLIGENCE, OR FAILURE TO FOLLOW INCLUDED INSTRUCTIONS.

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