



OWNER'S MANUAL

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THANK YOU

Thank you for purchasing your new Breedlove instrument. You are now the caretaker of a fine stringed instrument. Every instrument we produce is special to us and we hope it will bring you many years of enjoyment. To preserve the remarkable tone and playability of your Breedlove we have some simple suggestions to help ensure that your instrument will be making beautiful music for years to come.

Should you ever have questions or concerns please send us an email at: info@breedloveguitars.com.

Sincerely,

Kim Breedlove
Breedlove Guitars

YOU'RE *invited*

Welcome to the Breedlove family where you are about to experience the highest quality craftsmanship, customer service and an un-matched passion for music and fine instruments.

HOW TO: Experience Breedlove

We invite you to Experience Breedlove the following ways:

VISIT BREEDLOVEGUITARS.COM

Go online to get the most current information on your instruments, upcoming Breedlove events, technical support or warranty information.

EXPERIENCE THE BREEDLOVE, TWO OLD HIPPIES FESTIVAL

Join us in Bend, Oregon and enjoy factory tours, workshops, extraordinary instruments and an incredible line-up of award winning entertainment.

BREEDLOVE EXTRAORDINARY EXPERIENCE

Share your passion for music as we share our spirit for creating fine instruments. Breedlove luthiers will divulge design principles and help you create your ideal instrument. Contemplate the perfect combination of tonewoods while Oregon's natural wonders inspire the creation of your acoustic masterpiece.

BREEDLOVE ULTIMATE EXPERIENCE

Enjoy all the magic of the Extraordinary Experience on your own schedule, spending one-on-one time with Breedlove Luthiers and Breedlove artists while you design the instrument of your dreams.



Humidity, Temperature and Solid Wood Instruments

As with any high-quality solid wood instrument, humidity and temperature are very important factors affecting the health and longevity of your guitar, mandolin or ukulele. Humidity and temperature are easily monitored and regulated with the right accessories - specifically, a thermometer and a hygrometer.

You can take an in-the-case approach to humidity control, or you can treat the entire room in which your instrument will be kept. Measure the relative humidity (RH) and temperature of your storage environment to determine if it is suitable. Measuring daily for a week or two will help you determine whether conditions are stable. Your Breedlove guitar was built in a controlled environment with an RH of approximately 45% at a temperature of 70° Fahrenheit (F). An RH of between 40% and 50% at this same temperature will ensure a suitable environment for your Breedlove. Note that RH is temperature-dependent. Air with 45% RH at 60° F does not have the same water content as air at 70° F with 45% RH.

If your storage environment is below 40% RH, invest in a humidifier with variable controls to establish proper RH. If the environment is above 50% RH, a variable-control dehumidifier will be needed to achieve optimal RH. Humidifiers and dehumidifiers are available at many department stores.

The transfer of water vapor between the wood of your guitar, mandolin or ukulele and the atmosphere is actually a relatively slow process, and this works in your favor. When an instrument is kept in its case, the process is slowed even further. By keeping your instrument in suitable conditions most of the time, you can take it on short trips to places with less desirable RH conditions without causing problems. If you are taking a longer trip (more than several days) you will want to use some sort of in-case humidity control and measurement.

Before you take any steps to control humidity, you should be sure you can accurately measure the humidity conditions inside your room or guitar case.

Over-Humidified

Raised action
Sluggish tone, low volume
"Bellying" up of the top
Lateral finish cracks

Under-Humidified

Lowered action
Fret buzzing
Fret ends protruding
Dips in the top

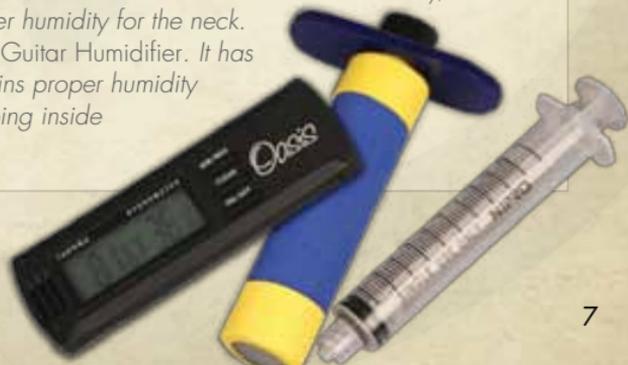
You will probably notice the symptoms of an RH problem before it poses a serious threat. Some telltale signs of improper humidification are listed above. If your Breedlove shows symptoms of being over or under humidified, take the instrument to a qualified guitar repair person immediately, or call our service department.

Avoid exposing your instrument to extreme temperatures (such as a car trunk on a hot day, or when possible, the cargo hold of an airplane). Avoid prolonged exposure to temperatures below 60° F or above 80° F.

Note

When selecting an in-case humidifier, avoid designs that completely block the sound hole - they can cause over-humidification of the instrument body, while doing little to maintain proper humidity for the neck.

We recommend the Oasis Guitar Humidifier. It has a unique design that maintains proper humidity without risk of leaks or dripping inside your guitar.



Neck Truss Rod Adjustment

The truss rod in your Breedlove guitar serves to counteract the affect of string tension on the neck of your instrument. String tension pulls the neck forward and up, while the truss rod pulls the neck down and back. A properly adjusted truss rod equalizes the tension on the neck. Adjustment of truss rod tension changes the amount of bow in the plane of the fingerboard. Let your instrument adjust to its new environment before changing truss rod tension.

Note

The truss rod should only be adjusted in order to establish proper neck relief and to counteract/balance the effect of string tension. Do not use the truss rod adjustment feature to try to correct larger set-up issues or other problems that are not related to neck relief.

Generally, a properly adjusted truss rod results in a neck with a slight forward relief. To check for proper neck relief, push down on the low "E" string at the 1st and 14th frets simultaneously. There should be about 0.010" of space between the bottom of the string and the top of the 6th fret - about the thickness of a business card. You may want a larger or smaller amount of relief depending on your playing style.

Consult a trained Breedlove Service Technician before attempting if you are inexperienced with this type of adjustment.

When making truss rod adjustments, turn a little at a time - an eighth or quarter turn and check the results before turning again. Allow some time for the neck to 'settle in' to an adjustment before turning again. *Use extreme caution when making adjustments.* To tighten the truss rod, turn the nut clockwise. This causes the neck to bow backward, lowering the string height. If you go too far, the strings will buzz. To loosen the truss rod, turn the nut counterclockwise. This causes the neck to bow forward, raising the string height. Go too far, and the guitar will be hard to play. Always make adjustments with your guitar tuned correctly.

Truss Rod Adjustments for Breedlove Atlas, Passport and Cascade Series Guitars

To adjust the double-action truss rod on a Atlas or Passport Series instrument, you will need a 4mm allen wrench (included). The truss rod adjustment nut is located inside the soundhole, just under the end of the fingerboard, and accessible via a hole in the brace at that location. Make adjustments by turning the wrench in the appropriate direction. Keep the wrench between 10 and 2 o'clock, and reposition the wrench as necessary. You may find it helpful to spread the D and G strings apart while turning the wrench.



Truss Rod Adjustments for Guitars (Pre-2009)

To adjust the single-action truss rod on a U.S. Custom Shop Breedlove that was built prior to 2009, remove the truss rod cover (on the headstock face, just above the nut). Then, using a 1/4" nut driver, turn the brass nut on the end of the truss rod (clockwise to tighten rod and pull the neck back, counterclockwise to loosen the rod and allow the strings to pull the neck up). Use a driver extender to ensure that the driver is well clear of the headstock as the tool is turned.



Truss Rod Adjustments for U.S. Custom Revival Shop Guitars



To adjust the single-action truss rod on a Revival Series instrument, you will need a round-tipped $5/32$ " allen wrench that is at least 4" long (a special Revival Truss Rod Wrench is available from Breedlove - please contact us for details). The adjustment nut is located inside the soundhole, toward the neck. It is very close to the top of the guitar, and right underneath the fingerboard.

Newer Revival instruments have an access hole through the top soundhole brace, while older instruments do not. If you do not have an access hole, note that one of the two neck bolts is also in this general area. The top neck bolt can be seen through the soundhole, while the truss rod nut is not visible unless you have the access hole. **If you can see your wrench going into a large bolt, you're in the wrong place.** To access the adjustment nut, insert the wrench into the soundhole between the D and G strings (holding them apart can be helpful) and point it up toward the area described above to find the nut. Turn clockwise to tighten the truss rod, or counterclockwise to loosen it.



Breedlove Steel-String Bracing & the JLD[®] Bridge Truss

All Breedlove Custom Shop, Cascade original designs and Passport Plus steel-string guitars (except for the Revival Series) and Atlas Series guitars use the JLD Bridge Truss system. This device is a cantilevered truss that helps to counterbalance string tension at the bridge creating a relaxed top and improved structural integrity. This allows us to brace our tops in a very progressive way. The use of graduated top thickness, scalloped bracing, pinless bridge and a bridge truss system gives our guitars the distinctive and highly dynamic "Breedlove Sound", with well-balanced tone.

The bridge truss in your Breedlove guitar is adjusted before leaving the factory, and should require very little attention from that point on. However, the system should be checked periodically for proper adjustment.



*Cutaway of a Breedlove guitar,
showing JLD bridge truss*

Note

Nylon string guitars, Revival, and Passport Series instruments do not have a bridge truss.

Adjustment Bolt Sizes for Breedlove Instruments

Use the following allen wrench sizes when making bridge truss adjustments:

- Custom shop instruments - use a 3/16" allen wrench
- Atlas Series and Passport Plus instruments - use a 4mm allen wrench



Note

You'll discover that the bridge truss system offers unrivaled body stability and preserves consistent action and playability. Note, however, that the bridge truss is not designed to make adjustments to instrument action, or to compensate for over- or under-humidification.

Checking Your Bridge Truss for Proper Adjustment

1. With the strings completely slackened or removed, reach into the body, toward the underside of the bridge. Just behind the wood block directly under the bridge, you will feel a wooden dowel extending to the tail block.

2. Grasp the dowel between your thumb and forefinger, and make sure there is no play in the dowel along the running the length of the guitar (front to back). If there is any movement here, the bridge truss will need to be tightened (see step 4). If there is no movement, move on to step 3.

3. Roll the dowel gently between your thumb and forefinger a few degrees counterclockwise, then return it to the original position. The dowel should feel snug, yet spin with some effort. If the dowel offers excessive resistance (i.e., the dowel won't turn) the bridge truss needs to be loosened (see step 4). If the dowel spins with just a touch of resistance, your bridge truss is perfectly adjusted. Restring the instrument and play on.

4. If your bridge truss is in need of adjustment, tighten (clockwise) or loosen (counterclockwise) the bolt on the front of the wood block (it is visible through the sound-hole). A very small turn of the bridge truss bolt can be enough to return the rod to proper tension, so make adjustments in very small increments and check tension after each turn of the bolt.



Steel-String Acoustic Guitar Set Up Specifications

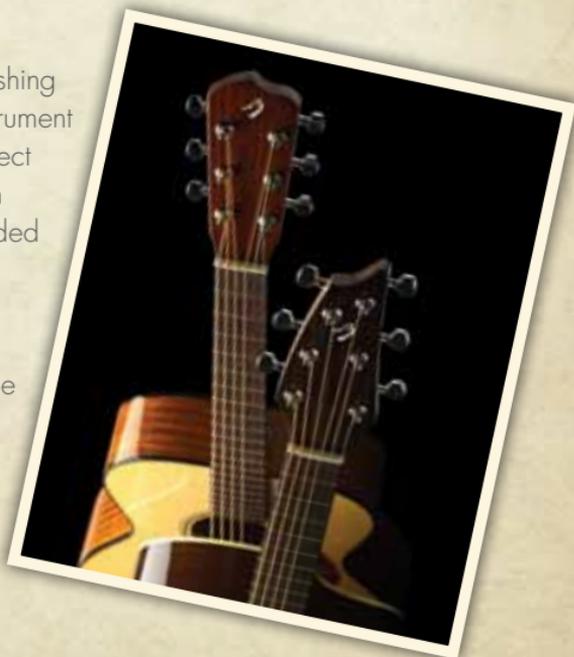
Our specifications for proper action are for $\frac{3}{32}$ " on the bass side and $\frac{1}{16}$ " on the treble side, as measured at the 14th fret. You may wish to set your instrument for higher or lower action than this, depending on your playing technique.

Note

For instruments equipped with an undersaddle pickup transducer, we recommend that you restring your instrument starting with the two middle strings, and work your way outward. This ensures that the saddle will reset firmly and squarely over the transducer.

Changing Strings on your Original Series Breedlove Acoustic Guitar

It is always wise to put a polishing cloth over the body of an instrument while changing strings to protect the finish from scratches. With pinless bridges, use the provided string guard for removing and replacing strings. If no string guard is available, use a business card with Scotch tape to prevent damage to your finish when pulling the strings through the bridge.



Changing Strings on your Revival Series Guitar

It is always wise to put a polishing cloth over the body of an instrument while changing strings to protect the finish from scratches. Loosen the strings considerably so they are visibly slack on the guitar. Remove the bridge pins and this will allow the strings to be carefully removed from the guitar. Insert the ball end of the string into the hole on the bridge approximately 1 to 2 inches. Reinsert the bridge pin to hold the string in place. Wind the string on the appropriate tuner at the headstock.

Breedlove Nylon String Guitars

Breedlove Nylon string guitars are designed with the playability of a modern steel string, and the warm tone of a nylon string guitar. A steel-string neck profile, and low string height over a radiused fingerboard allow for fast fretting and chording and playing comfort. Breedlove Nylon string guitars are fan-braced, and have the signature Breedlove graduated top thickness for a balanced tone. We use high-tension Nylon strings, balanced with a neck truss rod.

Note

For Breedlove Custom Shop Nylon String guitars, follow care and maintenance instructions provided for Custom Shop Steel String instruments. For Atlas Series Nylon guitars, follow instructions provided for other Atlas Series instruments.



Breedlove Mandolins

Breedlove mandolin bodies are slightly deeper than conventional mandolins with higher arches in the top and back. Tonewoods resonate freely thanks to a free-floating fingerboard extension, smaller neck and tail blocks and a bolt-on neck. Breedlove mandolins are well-known for their easy playability. A radiused fretboard, low string height, ample string set separation and a 1-3/16" nut width make them extremely comfortable. Breedlove mandolins are optimized for use with medium-light gauge strings, but you may also use light or heavy strings.

Changing Strings on your Mandolin

When changing strings, pay close attention to the location and orientation of bridge on the body. When strings are removed, the bridge may move. If you remove all the strings at once, it will be unsupported and will fall off. It is a good idea to mark the location of the bridge prior to changing strings. Place small pieces of masking tape on the top of the mandolin at each point of the bridge base to mark the location.

Also note the orientation of the bridge and mark one side with tape if you are not sure you know which way it goes. To ensure proper instrument intonation, the bridge must be in the correct location. It is also a good idea to protect the finish of the instrument with a soft cloth while changing strings. String ends can scratch the finish, as can any movement of the bridge. Please call Breedlove if we may be of assistance during your first string change.



Adjustable Bridge ↗

Electronic Pickups for Mandolins

For minimum acoustic impact and a rich, naturally balanced tone, Breedlove recommends the Schertler C-DYN-M, an electrodynamic contact microphone. This pickup is a full-bodied electrodynamic contact microphone which can also be coupled with a condenser microphone. It requires no phantom power.

Mandolin Set-Up Specifications

Breedlove mandolins have an adjustable bridge. Our factory setup is approximately .065" on the bass strings and .050" on the treble strings as measured at the 12th fret. A Breedlove Service Technician can recommend the right set-up for your style of play and desired tone.

Breedlove Ukuleles

Breedlove Ukuleles feature a radiused fingerboard for playability and an unlimited selection of tonewoods and inlay options.

Changing Strings on your Ukulele

It is always wise to put a polishing cloth over the body of an instrument while changing strings to protect the finish from scratches. Change the strings every three to six months. Remove the old strings by twisting the tuning pegs at the top of the neck. Pull the strings from the bridge of the ukulele. Then insert the new strings through each hole in the bridge. Then insert the strings into the holes on the tuning pegs and turn each peg so the string wraps around it several times.





Additional Care Instructions

As with all Breedlove instruments it is important to clean your ukulele using a soft cloth. Breedlove gloss finishes are very hard and durable. They can be waxed with a variety of non-abrasive waxes. Do not use oils on Breedlove gloss finishes. Refer to *Cleaning Your Breedlove Instrument* on page 22 for additional information.

Store your Ukulele in its case to ensure it is properly protected and refer to *Humidity, Temperature and Solid Wood Instruments* on page 6 for additional information on proper storage.

Electronics Configurations for Acoustic Guitars

A variety of electronics options are offered on your Breedlove Guitar. If you have any of the following electronics installed on your instrument please refer to the User's Guide for these electronics that was included with your guitar.

- L. R. Baggs Anthem
- L.R. Baggs Dual Element System
- *L.R. Baggs I-Mix M1*
- *L.R. Baggs Element Active*
- *L.R. Baggs Stage Pro Element pickup (All Atlas Series Instruments)*
- *Breedlove Synergy System Electronics*
- *Breedlove Passport Tuner-VTC pickup (All Passport Series Instruments)*

Manuals can also be downloaded from the L.R. Baggs or Breedlove web site:

- lrbaggs.com.
- breedloveguitars.com



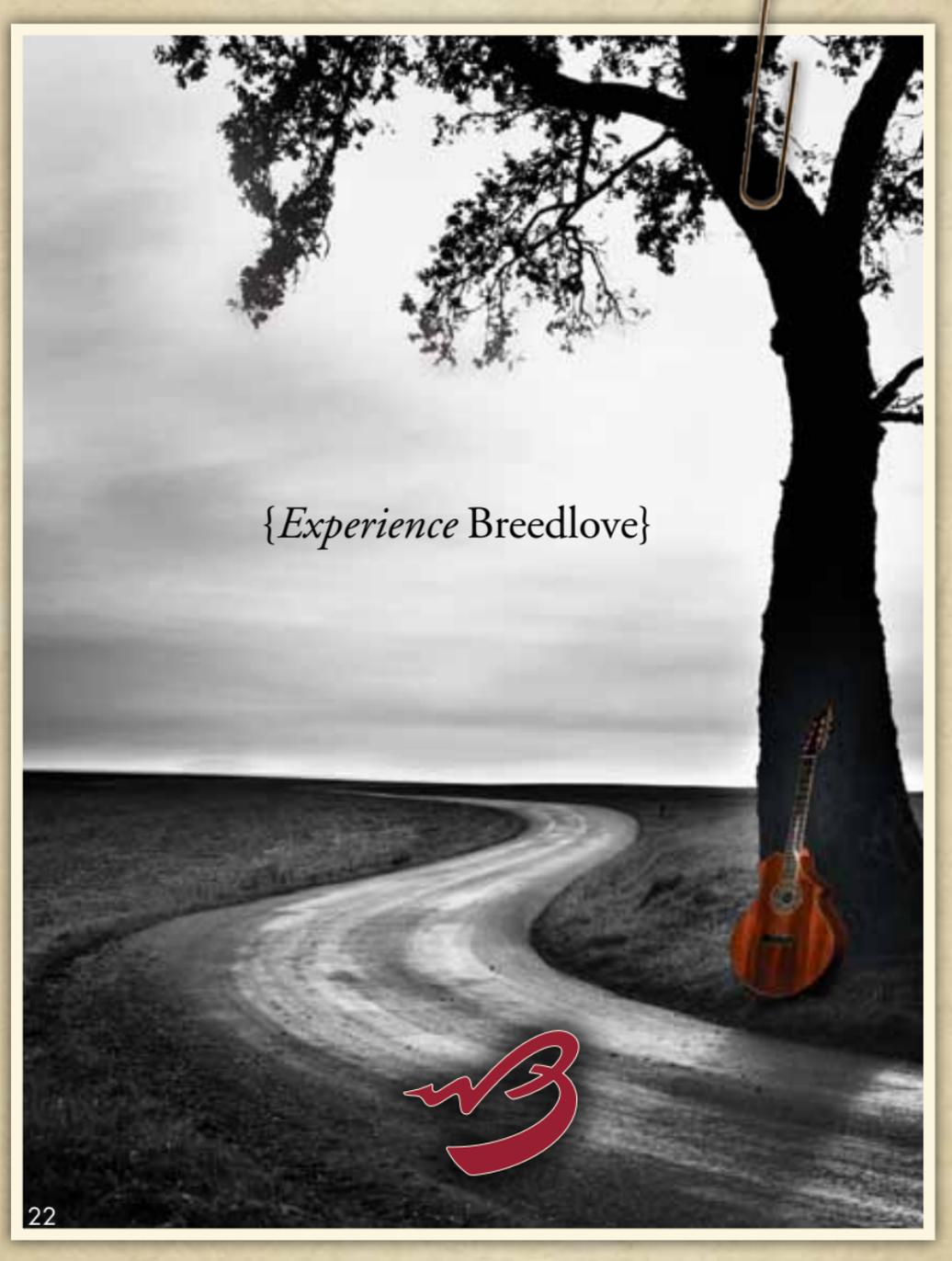


Cleaning Your Breedlove Instrument

Breedlove gloss finishes are very hard and durable. They can be waxed with a variety of non-abrasive waxes. Do not use oils on Breedlove gloss finishes.

Breedlove Satin finishes are very durable and easy to take care of. Do not use waxes or polish - simply wipe the finish with a soft cotton polishing cloth after playing to keep it looking clean.

The fingerboard of your guitar or mandolin may need occasional cleaning. Wipe down the fingerboard and strings after every time you play. If the fingerboard becomes gummy, rub it lightly with 0000 steel wool. Clean off any left-over steel wool fragments, then apply mineral oil. Finally, wipe down the fingerboard with a dry cotton cloth. If the fingerboard appears dry or cracked, you should first take a humidity measurement to ensure the instrument is being stored under suitable conditions. If you find that the environment is too dry, establish proper humidity as needed, and then follow the steps above.



{*Experience* Breedlove}



Breedlove Factory String Specifications

Custom Shop Concert and Auditorium, Revival OM and 000 & all Breedlove Atlas & Passport Models



D'Addario EXP16
Phosphor-Bronze, Coated, Light Gauge
.012, .016, .024, .032, .042, .053"

Custom Shop Dreadnoughts & Jumbos, Revival Dreadnought



D'Addario EXP17
Phosphor-Bronze, Coated, Medium Gauge
.013, .017, .026, .035, .045, .056"
Ed Gerhard Models: .013, .017, .024, .032, .042, .053"

Twelve-Strings (Custom Shop & Atlas)



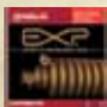
D'Addario EXP38
Phosphor-Bronze, Coated, Light Gauge
.010/.010, .014/.014, .023/.008, .030/.012, .039/.018, .047/.027"

Nylon-String Guitars



D'Addario EJ44
Classical Hard Tension
.0285, .0327, .0410, .029, .036, .046"

Atlas Acoustic Basses



D'Addario EXPBB170
Phosphor-Bronze, Coated, Soft Gauge
.045, .065, .080, .100" (and .130"
for five-string models)

Mandolins



D'Addario EXP74
Phosphor Bronze, Coated, Medium Gauge
.011/.011, .015/.015, .026/.026, .040/.040"

Ukuleles



Worth Premium Ukulele Strings
Brown, BT, 63"

Breedlove Instrument Warranty

The Warranty Term for Breedlove instruments is Limited Lifetime for the original purchaser.

Your Breedlove instrument is made from thin wood, and it is extremely important to maintain a stable environment of 40-50% Relative Humidity at 70 degrees Fahrenheit at all times.

1. Terms and Conditions

Two Old Hippiess, LLC warrants solely to the original purchaser of a Two Old Hippiess, LLC instrument that the instrument purchased shall be free from defects in materials and workmanship under normal use for the duration of the Warranty Term, or for as long as the instrument is owned by the original purchaser, whichever is shorter, and until the ownership of the instrument is transferred to another. This Warranty does not apply to (a) wear or breakage of frets or strings, or other normal wear and tear of the instrument or its parts; (b) asserted defects caused by modification, misuse or abuse or improper maintenance of the instrument; (c) asserted defects involving subjective personal dislikes or judgements; (d) asserted defects caused by accident or exposure to extremes of temperature or humidity which cause harm to the instrument; or (e) defects asserted by any purchaser who did not purchase the instrument from an authorized U.S. dealer, authorized international distributor or agent for the Two Old Hippiess, LLC.

2. Limitations on Obligation

The obligations of Two Old Hippiess, LLC hereunder are limited to repair or replacement of parts of the instruments found to be defective under this Warranty. In no event shall Two Old Hippiess, LLC be liable for any indirect, incidental or consequential damages, including but not limited to lost profits of any nature or kind, or for damages to persons or property, whether such liability claim is based on breach of warranty or contract, negligence or any other legal duty or obligation.

This Warranty is the sole warranty of Two Old Hippiess, LLC and is given in lieu of all other warranties, express or implied, including any implied warranties of merchantability and fitness for purpose.

3. No Other Warranties

The Warranty set forth herein constitutes the entire warranty and representation of the Two Old Hippiess, LLC with regards to its musical instruments. This Warranty shall be controlling over any conflicting terms and conditions of any purchase orders, contracts or invoices which may be executed in connection with the purchase of this musical instrument. No representation or warranty made by any salesperson, dealer, agent, representative or employee of the Two Old Hippiess, LLC shall be binding upon Two Old Hippiess, LLC other than as set forth herein.

4. Claim Procedures

Unless purchaser is notified in writing that repairs and service under this Warranty may be made by an authorized Two Old Hippiess, LLC dealer, claims for warranty performance and service shall be made by first calling Breedlove at the phone number below to request a Return Authorization number (RA #) and then sending the instrument, shipping and insurance prepaid by the purchaser, to the Two Old Hippiess, LLC at the address shown on the back page of this booklet, together with (a) your RA#; (b) evidence confirming the original purchase by purchaser (such as a copy of the sales invoice or receipt, or a credit card slip); (c) a brief description of the nature of the asserted defect; and (d) the name, address and phone number of the original purchaser to whom the instrument is to be returned.

The Two Old Hippiess, LLC shall review the description of the asserted defect, examine the instrument, and make service, repairs, and replacements as appropriate under this Warranty. Upon completion of the service, the instrument shall be returned to the original purchaser by the Two Old Hippiess, LLC, with shipping and insurance to be paid by the purchaser. In the event it is determined that the asserted defect is not covered by or is excluded from this Warranty, the instrument shall be returned without repairs or replacement, with shipping and insurance to be paid by the purchaser.

5. Owner Registration

To assist in confirming the original purchase and purchaser, please register your instrument with Breedlove by mailing in your warranty card or register online at breedloveguitars.com. Failure to register will not invalidate this Warranty.

Note

Register your Breedlove on-line at: breedloveguitars.com
or by phone at 877-800-4848 (toll free USA) or 541-385-8339

Keep a record of your Breedlove Guitar

Please fill in your purchase and instrument information on this form and retain in a safe location for easy reference.

Owner's Name

Owner's Address

Date of Purchase

Dealer's Name

Dealer's Name

Dealer's Address

Dealer's Phone

Model

Serial Number

Purchase Price

Sales Slip Number

Always retain a copy of your original sales receipt as proof of ownership.
Remember to fill out and return the warranty registration or register online at breedloveguitars.com.



breedloveguitars.com

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