

# TABLE OF CONTENTS

A Note From Kim Breedlove	4
How To Experience Breedlove	7
Humidity, Temperature and Solid Wood Instruments	8
Neck Truss Rod Adjustment	10
Breedlove Bridge Truss	12
Adjustment Bolt Sizes for Breedlove Instruments	14
Steel-String Acoustic Guitar Set Up Specifications	15
Changing Strings on your Breedlove Guitar	16
Breedlove Mandolins	17
Electronics Configurations for Acoustic Guitars	19
Cleaning Your Breedlove Instrument	19
Breedlove Factory String Specifications	22
Breedlove Warranty	22
Keep a record of your Breedlove Guitar	25



# 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

# **DISTINCTIVELY CRAFTED SOUND.**

**We love what we do.** After all, it's in our name. We are master luthiers who create instruments of true distinction. It's in our DNA to push the boundaries of design and craftsmanship. Being different is never the easy path. But in our view, it has far greater rewards. And while we respect tradition, we simply choose not to make instruments of yesterday. Imagination compels us to make instruments of tomorrow.

Welcome to the Breedlove family where you are about to experience the highest quality craftsmanship, customer service and an unmatched 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. You can also follow us on Facebook (@BreedloveStringedInstruments) or Twitter (@BreedloveGuitar) for all the latest news.

#### VISIT YOUR LOCAL BREEDLOVE DEALER

Use our website to locate your local Breedlove dealer by going to www.breedloveguitars.com/dealer-locator.

#### **BREEDLOVE CUSTOM SOUND STUDIO**

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

# 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 or mandolin. 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 instrument 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 or mandolin 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.





OVER HUMIDIFIED	UNDER HUMIDIFIED
Raised action	Lowered action
Sluggish tone, low volume	Fret buzzing
"Bellying" up of the top	Fret ends protruding
Lateral finish cracks	Dips in the top

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.

You will probably notice the symptoms of an RH problem before it poses a serious threat. Some tell-tale 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 at 877.800.4848.

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.

# **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 GUITARS

To adjust the double-action truss rod 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. We recommend you watch the truss rod video under the FAQ section of our website before adjusting your truss rod.

# 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.



# **BREEDLOVE BRIDGE TRUSS**

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 the Breedlove bridge truss

## 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.

# ADJUSTMENT BOLT SIZES FOR BREEDLOVE INSTRUMENTS

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

- Breedlove USA use a 3/16" allen wrench
- import models use a 4mm allen wrench

# NOTE

We build most Concert, Auditoriums, acoustic basses and 12-String models using the Breedlove Bridge Truss. We do not use the bridge truss on the Oregon Series, USA Series, Jumbos, Dreadnoughts, Concertos and / or Parlor Guitars.

# STEEL-STRING ACOUSTIC GUITAR SET UP SPECIFICATIONS

Our specifications for proper action heigth are for 3/32" on the bass side string and 1/16" on the treble side string, 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 reseat firmly and squarely over the transducer.





# CHANGING STRINGS ON YOUR BREEDLOVE 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 (string guard are included with select models) 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.

# **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

#### 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.

# NOTE

Your mandolin's tuners have end-screws that will loosen with routine tuning. We recommend re-tightening them regularly with a small phillips screwdriver.

# ELECTRONICS CONFIGURATIONS FOR ACOUSTIC GUITARS

A variety of electronics options are offered for your Breedlove Instrument. If you have any of the following electronics installed on your instrument please refer to the User's Guide for these electronics found on the appropriate manufacturers websites or visit Breedloveguitars.com for more specific information:

- Fishman fishman.com
- K&K Sound kksound.com (Custom Sound Studio only)
- L.R. Baggs Irbaggs.com (All USA Models)

## **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.







# **BREEDLOVE FACTORY STRING SPECIFICATIONS**

#### Custom Shop Concert, Auditorium, Parlor, & all Breedlove international Models



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

#### Custom Shop Dreadnoughts, Jumbos & Concertos



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 (All)**



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"

#### **Acoustic Basses**



D'Addario EXPPBB170 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 (No Longer in Production)**



Worth Premium Ukulele Strings Brown, BT, 63"

# **BREEDLOVE WARRANTY**

**Congratulations and welcome to Breedlove!** We wish you many rewarding years making music with your Breedlove instrument. With consistent, proper care, your Breedlove will serve you well and will be an inspiration in your musical pursuits. Breedlove players all over the world will attest to this.

New Breedlove instruments are warranted to be free of defects in materials and workmanship throughout the lifetime of the original owner. This Warranty does extend only to the original owner of the instrument and the instrument must have been purchased through an authorized Breedlove dealer. This is a limited lifetime warranty and, as such, it is subject to the limitations and exclusions set forth below. In addition to materials and workmanship, Breedlove offers a 2-year warranty on tuning machines and electronics packages. Cases and bags are subject to a 1-year warranty covering defects in structure and hardware. This warranty is only applicable within the USA. International claims are to be processed through your local authorized Breedlove Dealer or Distributor.

#### **CLAIMING YOUR WARRANTY**

Warranty claims are to be processed through either your local authorized Breedlove dealer or direct through Breedlove Guitars, Bend, Oregon, USA. All claims must be sent to the Breedlove Stringed Instruments with a Return Merchandise Authorization ("RMA"). This can be obtained by contacting a Breedlove Consumer Service Representative online at www.breedlovguitars.com/support/contact or by calling (877) 800-4848. All transportation and insurance associated with warranty claims are the responsibility of the purchaser. Breedlove Stringed Instruments is not responsible for shipping damages associated with poor packaging or mishandling. Warranty claims are to be inspected by a Breedlove Repair Technician prior to authorization of warranty repair or replacement of an instrument. Replacements are to be at the sole discretion of our Breedlove Consumer Service Representatives. In instances where the guitar was custom-made or is a discontinued model, the value of the replacement shall not exceed the last retail value of the original instrument. THIS PART IS REALLY IMPORTANT: ALL WARRANTIES MUST BE REGISTERED WITHIN 30 DAYS OF PURCHASE, ALL CLAIMS MUST BE SUBMITTED WITH A COPY OF THE ORIGINAL SALES RECEIPT.

### 24

#### LIMITATIONS AND EXCLUSIONS:

Under the following circumstances this warranty will be void:

- Damages due to misuse or neglect resulting in, but not limited to, warping/ cracking of woods or cracks/discoloration in finish.
- Damages resulting from exposure to extreme humidity, dryness or temperatures.
- Wear and tear resulting from normal use such as fret wear, saddle wear and nut wear; strings and batteries.
- Missing or altered serial number.
- Damages as a result of customization/modification not done by Breedlove technicians.
- Tonal characteristics.

#### TWO OLD HIPPIES GUITARS SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING IN - BUT NOT LIMITED TO - LOSS OF INCOME, SATISFACTION, PROPERTY OR TIME DUE TO THE FAILURE OF THIS PRODUCT AS A RESULT OF DEFECTS.

BREEDLOVE MAKES NO OTHER WARRANTIES OF ANY KIND FOR ITS PRODUCTS. ANY IMPLIED OR EXPRESSED WARRANTIES ARE HEREBY EXCLUDED FROM THIS WARRANTY. ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PURPOSE OF WHICH EXCEEDS THE EXPRESSED LIMITATIONS OF THIS WARRANTY ARE HEREBY EXCLUDED. WITHIN THE LAWS OF SOME STATES AND COUNTRIES EXCLUSION AND/OR LIMITATIONS ARE NOT ALLOWED IN WHICH CASE THE ABOVE STATEMENT MAY NOT APPLY TO YOU.

This warranty applies to all Breedlove products manufactured after <u>January 1, 2013</u> and purchased and serviced within the United States of America. All warranties outside of the USA are defined by the authorized dealer or distributor of that particular country or region and may vary in terms and/or length from the above.

EFFECTIVE DATE: January 1, 2017

# **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 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 BreedloveSound.com.



### **BREEDLOVE GUITARS**

61573 American Loop Bend, Oregon, 97702, U.S.A. 1.877.800.4848 info@breedloveguitars.co

### **BREEDLOVEGUITARS.COM**

©2017 Breedlove Guitars. All Rights Reserved. All specifications are subject to change without notice.

Printed in Oregon, U.S.A.