

#### **OWNER'S MANUAL & WARRANTY**





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#### Introduction

Congratulations on purchasing the finest jazz guitar available anywhere in the world. We sincerely hope that you are inspired to attain new musical heights on your Benedetto<sup>®</sup> guitar.

It is very important that you take a few moments to review this information. Guitars are not all alike and there are care and maintenance issues you may find are specific to our guitars.

Please contact us if you have any questions after reading this booklet.

For detailed specifications of Benedetto instruments, please visit www.benedettoguitars.com

Thank you again for purchasing a Benedetto guitar. We wish you many years of musical enjoyment.

Howard Paul, President/CEO Benedetto Guitars, Inc.

The Signature of Jazz Guitar.™

#### The Art of Robert Benedetto

A finely crafted guitar is the union of many things: music, design, art, sculpture and architecture. The Benedetto guitar represents the pinnacle of this union as now, more than ever, the archtop guitar is in a golden age of popularity and artistic achievement.

Now in the fifth decade of his career, Robert Benedetto has ultimately redefined the nature of that quintessential American instrument, the archtop guitar.

Played by three generations of jazz masters, Benedetto guitars have been crafted for such noted players as Johnny Smith, Joe Diorio, Martin Taylor, Bucky Pizzarelli, Kenny Burrell, Chuck Wayne, Cal Collins, Jimmy Bruno, Jack Wilkins, Howard Alden, Frank Vignola, Andy Summers and Earl Klugh. The Benedetto guitar appears on countless recordings, videos, books, magazines, TV & film soundtracks and at concerts, museums (including the Smithsonian Institution) and jazz festivals worldwide.

With original innovations and features such as the solid ebony tailpiece, "honey blonde" finish, and exotic wood veneers for the headstock, Benedetto instruments define the continuum that runs through the instrument's history to the present and provide exciting glimpses into the future.

### **Moisture Content and Humidity**

Wood is a porous, organic material and is affected dimensionally by changes in the amounts of moisture it contains. Fine guitars made from solid woods are, without a doubt, more susceptible to the effects of changes in humidity than laminated wood instruments and therefore require ongoing attention to their condition.

The moisture content of wood is determined by the relative humidity and temperature of the surrounding atmosphere.

Relative humidity is expressed as a percentage of air's capability to hold moisture. For example, 30% relative humidity means that the air is holding 30% of the moisture it could possibly hold at a given temperature.

The moisture content for wood and the relative humidity for air are measured quite differently. In wood, a 6% moisture content is present at 30% relative humidity and 72° F temperature, (about  $22.2^{\circ}$  C).

# Protection from Temperature and Humidity

The greatest threats to a fine wood guitar are extremes of, and rapid changes in, temperature and humidity.

**High humidity** can cause softening of the glues used in the construction of the instrument. Also, as the woods absorb moisture from the air, it can cause the top and back to expand and rise – making string action high.

Conversely, if you live in or travel with your guitar to a drier climate (either hot or cold), there is another danger. In areas of **low humidity**, the evaporation of moisture from the wood can cause shrinkage and cracking, no matter how long the wood may have been previously aged. It also can cause the top and back to shrink, making the string action low.

The collective experience of all of the major guitar manufacturers today has demonstrated that the ideal temperature to preserve the integrity of solid wood acoustic guitars is room temperature, which is about  $70^{\circ}$  F (20.5° C). The ideal relative humidity is about 40% to 50%.

In the winter, the forced air systems used to heat most homes can drive temperatures up and humidity levels dangerously low for guitars. A good measure of protection against drying out your guitar is to use a room humidifier.

When the instrument is not in use, we recommend that you keep it in its case. If you are not using a room humidifier, check the relative humidity periodically and, when needed, use one of the small guitar humidifiers that are available from many instrument dealers. (Be sure to follow their instructions carefully).

Do not leave the guitar out for long periods near a heating vent, radiator or in direct sunlight near a window. Never leave your guitar in a car or in the trunk of a car and do not expose it to excessive heat or cold. Please note: Damage caused to the guitar as the result of exposure to temperature or humidity changes will not be covered under the Benedetto<sup>®</sup> warranty.

#### Cracks in the Wood

Cracks in the wood are typically caused by changes in temperature and humidity. While a crack may initially be alarming, if it is taken care of promptly it shouldn't be a cause for undue concern. Cracks may easily be repaired without compromising the structural or tonal integrity of the instrument.

If the crack is in the top, near the bridge, loosen all the strings to reduce tension, (which could potentially exacerbate the problem), and have the crack repaired as soon as you can. Please note: Cracks in the wood, which occur as the result of temperature or humidity changes, will not be covered under the Benedetto<sup>®</sup> warranty.

#### A Note About Lacquer Finishes

Early handmade instruments with lacquer finishes have been prized and sought after for decades by players and collectors, and part of the attraction has been the way lacquer ages. Gurus of vintage tone have consistently chosen lacquer finished instruments over the years, as lacquer lets the wood breathe and vibrate more freely.

Modern polyesters and polyurethanes are harder than lacquer and are much less affected by environmental conditions, heavy use and aging.

Lacquer is a bit softer than polys and, while it does **not** seal the wood completely from climatic conditions, it provides an acoustical advantage by allowing the most natural voice of the instrument to be heard.

#### Important Points to Remember About Lacquer Finishes

**1. Finish Checking.** All of the materials that make up a guitar expand and contract with changes in temperature and humidity and they do this at different rates. Wood naturally expands as it warms and it does so faster than the finish placed over it. When this expansion occurs, the finish will stretch slightly; when it cannot stretch anymore, it will split and fracture in tiny little lines over the wood.

This finish "checking", or "crazing" as it is sometimes called, usually occurs in winter and is typically the result of bringing an instrument inside from the cold. To reduce the likelihood of checking, remember to allow plenty of time for the instrument to acclimate to the new temperature before you open the case.

Although it does not affect the structural integrity or tone of the instrument, finish checking does mar its appearance. Avoid exposing your instrument to sudden temperature and humidity changes and you should be able to minimize finish checking through the years.

**2. Shrinkage.** The cellular structures of solid woods (most notably Spruce) naturally compress over time and as the instrument ages these woods will shrink somewhat. As this happens, you will notice small ridges in the surface of the instrument as the lacquer settles into the grain of the wood. This is a perfectly normal part of the aging process.

**3. Chemical Reactions.** Use only a non-silicone based guitar polish and avoid using guitar straps, stands or wall hangers made from vinyl, plastic, synthetic or surgical rubber tubing, as

these materials may react with the lacquer and mar the finish of your instrument.

4. Cleaning. Smoke, sweat, grease and grime will all contribute to and accelerate the aging, discoloration and wear of the finish. If you want your finish to age gracefully, take good care of it and keep it clean. Please Note: Finish checking, shrinkage, discoloration and wear are all a natural part of the aging process of lacquer finishes and, as such, will not be covered under the Benedetto warranty.

#### **General Maintenance**

Clean the instrument after each use, making sure to wipe the fingerboard and strings, as well as any of the plated parts, (i.e. machine heads, pickups, etc.), with a soft dry cloth.

To clean your gloss finish, use a high quality non-silicone based guitar polish available through your Benedetto Dealer.

When not playing the instrument, keep it tuned to pitch and in its case. However, if you plan to store the instrument for long periods of time, loosen the strings slightly to relieve some of the tension on the neck.

The natural oils in ebony fingerboards may dry out over time and rough, exposed fret edges are evidence of dry, shrunken wood. It is a good idea to give your thirsty fretboard a drink of lemon oil periodically to preserve its integrity and natural beauty.

Remove the strings first; then apply the oil to a clean lint free cloth. Rub into the wood, letting it soak in for a couple of minutes, and then wipe to dry any excess oil.

#### **Tuning Machines**

Benedetto<sup>®</sup> uses only the finest tuning machines. These machines are pre-lubricated, die-cast, sealed tuners, which do not require periodic oiling for smooth operation.

A small tension adjustment screw is located at the end of each tuner's button that also holds the button in place. If the tension is too loose, the machine may slip and go out of tune easily. If it is too tight, the button may become very difficult to turn. Make sure that the adjustment is firm, but not too tight.

The plating on Benedetto tuning machines may become degraded from the acids and oils in finger sweat. Wipe the machines off with a soft dry cloth after each use to preserve their appearance and function.

Strings that have not been secured properly to the tuning machine post may easily slip and go out of tune. This problem is commonly misdiagnosed as an issue with the tuners. Check your string installation carefully. See illustrations 1, 2, and 3.

#### **Changing Strings**

A new set of strings can breathe renewed life into your instrument. That is why many "tone-conscious" touring professionals change their strings before every performance. While there is no set rule on how often to change strings, we have found that most players do not change them nearly as often as they should.

Body oils, acids from sweaty hands and humidity all interact with the metals in guitar strings and cause a corrosion and breakdown of the materials.

Don't wait until your strings break and fall off from old age before you change them. Worn, oxidized, pitted and dirty strings will not hold pitch accurately and simply sound bad. If you are an average player, playing several times a week, we suggest that you change the strings at least once a month.

When changing strings, we recommend that you remove and replace each string one at a time, instead of all at once. This will prevent sudden and potentially damaging rapid changes in neck tension. Each new string should be tuned up to correct pitch before the next one is removed.

#### **Re-Stringing**

Benedetto jazz guitars have surface mounted bridges and slotted tailpieces through which the strings are fed. The chambered solid body electrics use a combination bridge/tailpiece.

To re-string your guitar, simply feed the ball end of the string through the appropriate slot in the tailpiece or hole in the bridge, and pull the string through and over to seat the ball.

To attach a string to the machine head, thread it through the hole or slot on the machine head, running it halfway around the post, then underneath the main length of the string. Next, pull the string end back and over the main length. **See illustrations 1, 2 and 3.** Hold the string in place and tune to pitch.

Make sure that each string is seated well, stretched and snugged down on the tuning machine post. This will prevent slipping and save you some tuning frustrations down the road.



#### **Truss Rod Adjustment**

String tension exerts a tremendous bending force on the guitar neck. Environmental conditions like temperature change and humidity variations may also result in movement or bowing of the neck.

Your Benedetto<sup>®</sup> guitar has a double action truss rod extending the length of the neck which counteracts this force, strengthens the neck and insures straightness.

Should your guitar need a truss rod adjustment, first remove the truss rod cover located on the headstock above the nut. (The guitar should remain tuned to pitch during this procedure.) Insert a 5/16" truss rod wrench over the truss rod nut.

- If the neck has a concave bow, turn the nut clockwise.
- If the neck has a convex bow, turn the nut counter clockwise.

Adjust the nut only a partial turn ( $\frac{1}{4}$  or  $\frac{1}{2}$ ) at a time. Sight down the edge of the fretboard after each adjustment to check the results.

If you encounter excessive resistance or if you have any doubts in your ability to make this adjustment correctly, take your guitar to a qualified repair technician. **Please Note: Truss rod adjustments are considered to be routine maintenance and will not be covered under the Benedetto warranty**.

#### Bridge Adjustment (Movable Bridge with Ebony Tailpiece)

Benedetto<sup>®</sup> jazz guitars use height-adjustable movable bridges. A movable bridge typically has an arched wooden base that is held in its proper position on the instrument by the downward pressure of the strings.

To raise the height of the bridge, turn the adjustment wheels counterclockwise. To lower the bridge, turn the adjustment wheels clockwise.

Note: If you have adjusted the height of the bridge up or down, or if the bridge is bumped or moved during re-stringing, the intonation will no longer be true.

To reset the intonation adjustment, check both the 12<sup>th</sup> fret harmonic and the stopped 12<sup>th</sup> fret tuning of both the high and low E-strings, and adjust as follows:

If the pitch of the note at the 12<sup>th</sup> fret is sharp relative to the pitch of the harmonic, loosen string tension and lightly tap the foot of the bridge to move it back toward the tailpiece. Retune and adjust as needed until the two pitches agree.

If the pitch of the note at the 12<sup>th</sup> fret is flat relative to the pitch of the harmonic, lightly tap the foot of the bridge to move it forward toward the neck until the two pitches agree.

When the harmonic and  $12^{th}$  fret pitches agree on both the E-strings of a movable bridge, the instrument is properly intonated.

IMPORTANT NOTE: When re-stringing a guitar with a movable bridge and ebony tailpiece, change the strings one at

a time. Do not remove all of the strings at the same time, as both the bridge and tailpiece are held into proper position by the downward pressure and tension of the strings.

#### Bridge Adjustment (TonePros® AVT2)

Use the handle of the TonePros<sup>®</sup> wrench (provided) sideways in the groove of the stud tops to tighten and loosen the studs. The stud tops should be snugly tightened so the bridge is not leaning under string tension, yet loose enough to adjust the longitudinal set-screw. After adjusting the set screw, use the open end of the wrench to adjust the bridge height. Now adjust each string saddle as needed to intonate the guitar.

To set the intonation, check the harmonics and fretted notes at the  $12^{th}$  fret of all strings. If the pitch of the note at the  $12^{th}$  fret is sharp, relative to the pitch of the harmonic, adjust the saddle towards the butt-end of the guitar. If the pitch of the note at the  $12^{th}$  fret is flat, relative to the pitch of the harmonic, adjust the saddle towards the neck.

With the bridge intonated, detune all the strings so there is little tension on the bridge, tighten the stud tops, then re-tune.

#### **Traveling with Your Guitar**

Benedetto<sup>®</sup> guitars demonstrate the highest standards of quality in material and craftsmanship and deserve only the best in protection. We recommend that you keep your guitar in its case when not playing it.

If you plan to travel, carry your instrument in a hard shell case at all times for protection.

When traveling by air, your guitar may be exposed to dramatic changes in temperature and pressure. To help prevent possible damage, de-tune all of the strings about a whole step so that the tension is reduced from the top and neck of the instrument.

### Servicing Your Guitar

New guitars typically have a settling in period where adjustments may be necessary to compensate for wood movement caused by the tension of the strings. Many experienced guitar players have learned to adjust the truss rod or "action" of their own instruments.

If you do not feel comfortable making this adjustment to your new guitar we recommend that you bring your instrument to a qualified technician. This type of adjustment is considered routine and is not covered under the warranty.

#### BENEDETTO LIMITED LIFETIME WARRANTY

Benedetto Guitars, Inc. warrants this Benedetto<sup>®</sup> instrument to be free from defects in materials and workmanship for as long as it is owned by the original retail purchaser. This warranty does not include pickups, switches, jacks, controls, all other electronic components, tuning machines, hardware, pickguards, plated surfaces, cases and case hardware. This warranty applies only to the original retail purchaser when this instrument is purchased from an Authorized Benedetto Dealer and is subject to the limitations set forth herein. IMPORTANT: PLEASE RETAIN YOUR ORIGINAL SALES RECEIPT AS IT IS YOUR PROOF OF PURCHASE VALIDATING THIS LIMITED WARRANTY.

Benedetto Guitars, Inc. has designated an authorized warranty center on the Benedetto website **www.benedettoguitars.com** as the primary Benedetto Factory Service Center for all authorized warranty service. The Benedetto Dealer from whom you purchased your instrument can also identify non-warranty maintenance and should be the first point of contact when service of any kind is required for your Benedetto instrument. To receive warranty service, return the complete instrument to the Authorized Benedetto Service Center, with your sales receipt as proof of purchase, during the applicable warranty period.

Defective components that qualify for coverage under this warranty will be repaired or replaced (at Benedetto's discretion) without charge.

All transportation, insurance and freight charges associated with warranty service and repairs on Benedetto instruments are the responsibility of the purchaser, as is any service initiated for the purpose of customizing setups or adjustments beyond factory specifications. Initial standard setup and adjustment of the instrument and its components at the time of purchase are considered normal dealer product preparation and are not covered by this warranty.

#### Limitations and exclusions

The following items are not covered by this warranty:

- 1. Fret wear, saddle wear, nut wear, strings and batteries.
- 2. Setups, adjustments or routine maintenance of any kind.
- Damage to finishes or cracks, splitting, or warpage of wood due to changes in temperature or humidity, exposure to or contact with sun, fire, moisture, perspiration, body salts and acids, guitar straps, guitar stands/hangers made from vinyl, plastic, rubber or other synthetic materials, any other chemicals or non-Benedettoapproved polishes.
- Damage, corrosion or rusting of any hardware components caused by humidity, salty air, or exposure to the moisture, body salts and acids of perspiration.
- 5. Any damage to an instrument resulting from customization or modification.
- 6. Normal wear and tear on any part of the instrument or case including jacks, controls, switches, plated surfaces, tuning machines, pickguards, handles, latches, case hardware, etc.
- 7. All other damage and deterioration due to normal usage, wear and tear, aging, accidents, neglect, abuse, or Acts of Nature.
- 8. Shrinkage, cracking, or deterioration of plastic bindings.
- 9. Any instrument, whose serial number is missing, altered or tampered with in any fashion.
- 10. Any instrument purchased from anyone other than an Authorized Benedetto<sup>®</sup> Dealer.
- Instruments that have been serviced by unauthorized persons (any person other than a Benedetto<sup>®</sup> Certified Technician at an Authorized Benedetto<sup>®</sup> Service Center).

THE FOREGOING CONSTITUTES THE ONLY WARRANTY MADE BY BENEDETTO WITH RESPECT TO THE PRODUCTS AND IS MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. Any implied warranties, including without limitation, any implied warranties of merchantability or fitness for any particular purpose, imposed under state law are limited to the duration of this limited warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not be applicable to you.

BENEDETTO ASSUMES NO LIABILITY FOR PROPERTY DAMAGE RESULTING FROM FAILURE OF THIS PRODUCT NOR ANY LOSS OF INCOME, SATISFACTION, OR DAMAGES ARISING FROM THE LOSS OF USE OF SAME DUE TO DEFECTS OR AVAILABILITY OF SAME DURING SERVICE.

\*This warranty applies only to Benedetto instruments purchased and serviced within the U.S.A. and Canada. Warranties outside these countries are as defined by the authorized Benedetto Distributor for your country or region, and may vary from the above in terms and/or length.

**EFFECTIVE DATE: JANUARY 1, 2007** 

BENEDETTO® GUITARS 10 MALLTERRACE, SUITE A SAVANNAH, GEORGIA 31406 USA Phone: 912-692-1400 www.benedettoguitars.com

Upon request, we will be happy to send you a full catalog of all available Benedetto products.



#### Luthier's Inspection Card

Model\_\_\_\_\_

Serial Number \_\_\_\_\_

Materials	
Fit of All Components	
Internal Assembly	
Electronics	
Finish	
Fret Work	
Set-up and Playability	

Final Approval by:

Craftsman \_\_\_\_\_ Date \_\_\_\_\_

Benedeto. The signature of jazz guitar."

This superb instrument has been handcrafted by the artisans of Benedetto Guitars from only the finest materials.

Made under the direction of Bob Benedetto to the highest standards of excellence, this guitar is truly a work of art, created to express the soul of the player.

Final inspection and approval remains the personal responsibility and joy of Bob Benedetto.

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