

Key points to care for your guitar

1. Natural woods require an environment with stable temperature and humidity. Ideally a temperature of between 20° and 25° Celsius (68° and 77° Fahrenheit) and a humidity of between 45% and 55%. Use a humidifier in the dry season and a dehumidifier in the humid season to maintain these conditions.

2. Avoid impact damage. Repairs are expensive and, no matter how expertly done, the instrument is unlikely to sound the same after repair.

3. If you do not play your guitar frequently, please detune each string one tone below standard pitch while not in use. The high tension of the strings, if left for long periods, can damage the instrument by causing the soundboard to lift up and the neck to bow upward. The result could be a high action which is uncomfortable to play.

4. We recommend that you store your guitar in a hard shell case. It is easier to control the humidity in the small enclosed space of a guitar case and the guitar will also be protected against impact damage.

5. The Equalizer is switched on by plugging a cable into the output jack. To preserve battery life, unplug the cable from the guitar's output jack when you are not amplifying your guitar. The tuner can still be selected without the cable plugged in.

At Crafter guitars we strive to make the best guitar we possibly can for you. We hope that your Crafter will give you many years of playing pleasure and that it will become an important part of your musical life. Following the directions in this manual will keep you playing **"Happily Ever Crafter"**.

Thank You.

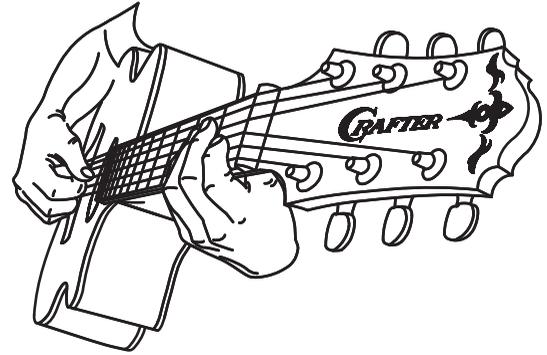


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Owner's Manual



Dear Crafter Owner,

Thank you for choosing a Crafter guitar. My father, HyunKwon Park, founded our company in 1972. Since the outset we have pursued a program of continuous review and development and we are proud that our innovations, quality and value have resulted in the instrument that you have chosen ahead of so many others. We hope that your Crafter will give you many years of playing pleasure and enjoyment.

InJae Park
President

A stylized, handwritten signature of InJae Park, written in black ink.

On receiving your guitar

Remove protective films off any plastic parts such as the pick guard. Also remove the hang tags from the tuning keys and any packing material which is attached to the instrument.

Care of your Guitar

Cleaning

The fingerboard and strings will tend to collect sweat and dirt. Keep both clean by wiping down the fingerboard and strings with a clean dry soft cloth after each time you use your instrument. You may also clean the fingerboard more thoroughly with lemon oil and a soft clean cloth. Do this with the strings off. A convenient time would be when changing strings.

Dirt and residue which collect on the neck, body and headstock should be cleaned off regularly using a clean dry soft cloth, or better still a micro fiber cleaning cloth such as the Crafter Guitar Micro Fiber Cloth. Use a little guitar polish to remove stubborn dirt but ***do not use any abrasive or solvent based cleaners.***

Tuning

This will have much to do with your level of ability and experience as a guitarist. With the exception of those few gifted individuals who have perfect pitch and knowledge of guitar tuning, we recommend you use an electronic tuner. This is a simple, inexpensive and quick way to tune your guitar with an accuracy that only experienced players could previously achieve.

Most of our recent electro/acoustic models incorporate a tuner into the guitar's equalizer. But for those models that don't, as well as all purely acoustic models, we recommend our Crafter headstock tuner (TG-200H or TS-10) which clips on to the headstock of your guitar. For more information visit our Crafter website or ask your dealer.

CAUTION!

When plugged into an amplifier or electronic device, do not handle your guitar or any connections with wet hands, or on a wet surface, or in a hot humid sweaty environment.

Volume : This is controlled by either a rotary or a slider control marked "Vol."

Tone : Slider or rotary controls marked "Bass", "Middle", "Treble" and "Presence" control the tone. Two or more of these controls will be found on your equalizer.

Phase : The push button phase switch will invert the phase of the signal. Phase affects the way that the guitar is pressurized by the sound waves from the loudspeakers. Feedback between guitar and amp is minimized when the sound waves emanating from the guitar and from the loudspeaker are out of phase with each other. A proper phase relationship will also help the sound to have more clarity. It is recommended to try both phase settings (with the push button in and out) in each new venue to find the best setting.

Low Batt. : The "Battery" light turns on when the battery is low and needs to be replaced.

Tuner : Most Crafter electro/acoustic models incorporate an electronic tuner with LCD screen built into the equalizer. The Tuner push button selects the chromatic tuner and mutes the sound. When the tuner is switched on but the guitar is not being played, the screen backlight will be off. When a string is plucked, the screen will light up orange if the note is out of tune and green if it is in tune. The note being played will be displayed on the screen and each string will tune as follows;

6th string to E, 5th string to A, 4th string to D,

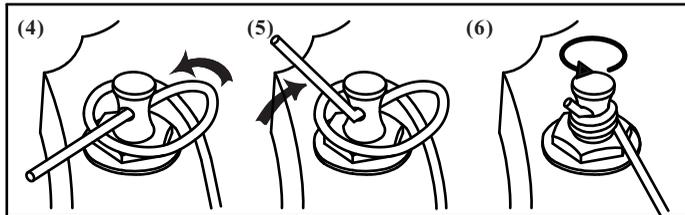
3rd string to G, 2nd string to B and the 1st string to E.

Once in tune, turn off the tuner to reconnect the sound. The tuner turns off automatically after 7 minutes.

Notch Filter : Our top end equalizers now also include a Notch Filter which is a powerful tool to reduce acoustic feedback. The filter operates in a narrow band of frequencies so as to have minimal effect on the overall sound. When it is set to coincide with the frequency at which there is feedback, the amplification is sharply reduced (at just this frequency) thus stopping the feedback. When you have a feedback problem, simply rotate the notch filter control slowly until you reach the point where the feedback reduces and stops.

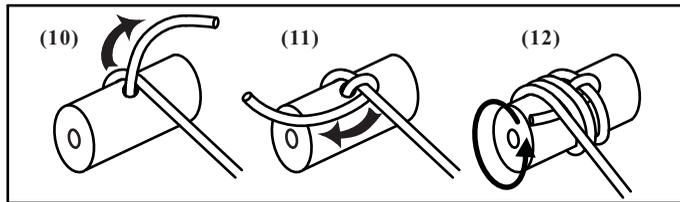
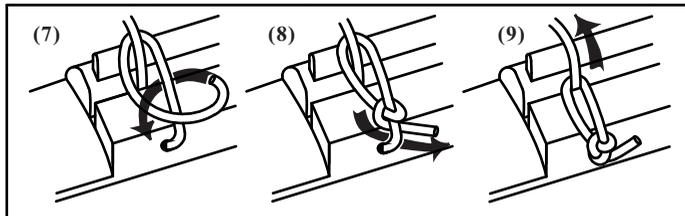
Repeat the above for each string but increase the slack a little for each string as you work through so that there is about 5 cm / 2 inches of slack at the high E (1st string). This allows the number of turns the string is wound around the post to increase as the strings get thinner.

When all the strings have been replaced, cut the loose ends off about 5 mm / ¼ inch from the post and bend downward and out of the way. These ends are sharp and can easily cause minor injury. Be careful!



Crafter Classical guitars

Classical guitars use nylon strings and fixing the string to the bridge and string post of the tuning keys is different to a steel string guitar. The string is first passed through the corresponding hole on the bridge, wrapped and tied. The procedure to tie the string to the bridge is shown in figures 7, 8 and 9. Once done, the other end of the string is passed through the hole in the tuning key post and the post rotated half a turn using the tuning key button as shown in figure 10. Allow some slack for windings and pass the end of the string underneath as shown in figure 11. Wind the rest of the string onto the post as shown in figure 12 and bring it up to tension so that it is roughly in tune. Finally, trim off the loose end of the string.



A word on the choice of string gauge

In an ideal world guitars would have light gauge strings with low, easy to play actions and produce great tone at a high volume with no fret buzz! Unfortunately this goes against the laws of physics. If the strings are too light, you will lose tone and the intonation may not be accurate. Conversely, if the strings are too heavy, the very high tension could damage the guitar.

The strings fitted to your Crafter at the factory have been selected for a balance between tone and a comfortable action and the guitar has been designed and manufactured to give the optimum performance with these strings. If you do change the gauge of string your guitar may require adjustment to the curve of the neck and the height of the strings from the frets. These adjustments require the truss rod to be reset and the bridge saddle to be raised or lowered. Instructions for this are beyond the scope of this guide and, it is recommended that you ask your Crafter dealer to make these adjustments. ***Failure to follow the correct adjustment procedure may result in irreparable damage to the instrument, and will void the warranty.***

WARNING

We strongly recommend that you do not use heavy gauge strings. The very high tension they exert on the neck, bridge and top could result in damage to the instrument. Good guitars have a fine balance between the strength of the woods and other materials used in their construction. String tension is an important parameter which the designer will take into account when allowing for the strengths of the various components. Never try to fit steel strings to a classical guitar. The tension exerted by steel strings is much greater than that of classical strings.

Humidity

Your Crafter acoustic guitar uses natural timbers for much of its construction. Wood will remain stable in normal climatic conditions but will swell or shrink in an excessively hot and humid or cold and dry environment. In summer warm moist air will cause the wood to swell and the top to rise. This will result in a high string action. In extreme circumstances the neck can warp.

Conversely, in winter the cold air does not hold much moisture. Heating the air to a comfortable room temperature dries the air further and will cause the woods of your guitar to lose moisture and shrink. This will tend to flatten the top, again changing the string height, this time lowering the action so that the strings may buzz against the frets. In extreme conditions the top could crack.

Our guitars are built in climate controlled conditions where the temperature is kept at 22° Celsius / 72° Fahrenheit and the humidity at a constant 50%. We recommend that you keep your instrument in similar climatic conditions. That is at a temperature of between 20°C and 25°C / 68°F and 77°F with the humidity between 45% and 55%. Depending on your local conditions you may need a dehumidifier to reduce humidity in the summer and a humidifier if the air is too dry in winter. Use a thermometer/hygrometer to monitor the temperature and humidity. A hard-shell case is highly recommended for storing your guitar as the volume of air in a case is small making it easy to control the humidity. And of course it is the best protection against knocks and bumps.

Equalizer instructions

If your Crafter is an electro/acoustic model, it will be fitted with an under saddle pickup and an equalizer with which to control the tone and volume. The pickup is located underneath the bridge saddle. Should you remove all the strings, the bridge saddle will be loose. The bridge saddle keeps the pickup in place so handle the guitar carefully. It is important not to shift the position of the pickup.

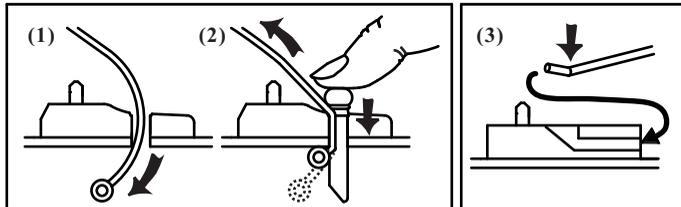
Crafter uses a number of different equalizers across the product range. However the principles of operation are common to all. Briefly the functions and controls are;

Replacing strings

Your Crafter guitar is strung with D'Addario light gauge acoustic strings. The gauges are; E 1st-.012, B 2nd-.016, G 3rd-.024, D 4th-.032, A 5th-.042, E 6th-.053. Provided you restring with the same, or approximately the same gauges, your guitar should not require any adjustment. If you do change to a lighter or a heavier gauge, it may be necessary to reset the truss rod to maintain the correct curvature of the neck/fingerboard.

We recommend that you replace one string at a time as this will minimize the stress on the neck.

Start with the low E (6th string). Slack off the tension with the tuning key so the string is quite loose. Then carefully pull out the bridge pin which will release the string. Take the new string and pass the ball end through the hole on the bridge (figure 1). Then replace the bridge pin securing it with gentle pressure. Keep your finger or thumb on the bridge pin to retain it and pull the string up so that the ball end grips (figure 2). Then press the bridge pin firmly home. If your guitar's bridge does not have pins, bend the end of the string slightly to help it to pass through the hole (figure 3). Take care when pulling the string through the bridge so the ball end doesn't dent or scratch the top of the guitar.



Next Step; Take the loose end of the 6th string and feed it through the hole in the tuning key post (figure 4). Allow about 3.5 cm / 1 ½ inches of slack and bend the string upward tight against the post to create a sharp bend (figure 5). Turn the tuning button so as to wind the string onto the post with the post turning in the direction indicated in figure 6. Note also in figure 6 the way that the windings should lay. Now bring the string up to tension so that it is approximately in tune to low E and cut the end of the string 5 mm / ¼ inch from the tuning post.