



*Starter*

# Owner's Manual



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# CONGRATULATIONS!

You are now the lucky owner of the best all-pull entry-level pedal steel guitar available anywhere in the world today!

Please take a few minutes to *read* through and familiarize yourself with this Owner's Manual so you can become familiar with the general mechanics and care requirements of your new **Carter-Starter™**.

For your convenience, we are available to assist you in answering questions.

Once you have watched the enclosed Video<sup>1</sup>, read through this Owner's Manual, checked the special [www.CarterStarter.com](http://www.CarterStarter.com) web site for the latest info/news, and looked through The Steel Guitar Information Resource at [www.steelguitarINFO.com](http://www.steelguitarINFO.com), please feel free to contact us with any questions you might still have<sup>2</sup>.

## Carter-Starter™

by CARTER STEEL GUITARS

The **Carter-Starter™** is carried in a soft, gig bag. The guitar fits into the bottom of the bag. The pedal bar, pedal pull rods and legs are contained in the separate leg pouch. This arrangement reduces the chance of damage while transporting the **Carter-Starter™**.

### ASSEMBLY & SETUP

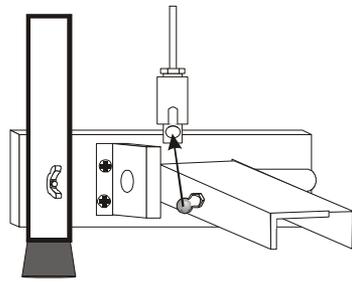
When using the gig bag, **check** the position of the guitar in the bag: *as you face the bag*, the changer (the end with the springs) should be on the left side of the case, with the pedal bar side (front of guitar) to the back of the bag, *and* the underside of the guitar facing upward. This position allows easy and convenient assembly and removal from the bag. The guitar should *always* be put back into the gig bag in this position.

Remove the leg & pedal bar pouch (containing the legs & rods) & screw the legs snugly into the end-plates. **Note:** the FRONT legs are easily distinguished from the back legs by the HOLES near the rubber leg TIPS. **Note:** the #4 label on 1 of the front legs; insert this leg into the endplate hole labeled #4. Next, remove the pedal bar from the bag. With the pedal surfaces hanging down & closer to your right hand, place the pedal bar on each of the 2 front legs by inserting the screws into the leg holes & attach the wing nuts. (See Figure 1, Page 2).

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<sup>1</sup> enclosed quick-start Video: Unpacking/Assembly; Tuning; Hooking-Up volume pedal & amp; Left-Hand & Right-Hand techniques; Amp info & settings.

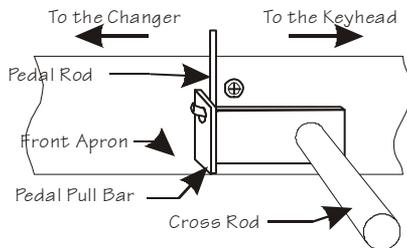
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**Figure 1**

Now, look at the pedal rods. The number on the bottom of the quick-disconnect end shows which pedal they are adjusted for. Pedal number one (1) is farthest from the changer, or your extreme right. Hook the rod into the pedal rod pull hole (See Figure 2, Page 2) so that the hook faces toward the left end (changer) of the guitar. To attach the pedal rod disconnect to the pedal (See Figure 1, Page 2): first: depress the spring-loaded outer shell of the disconnect. Next: slide the pedal ball-joint into the exposed slot *and* release the outer shell. This will lock the ball-joint into place. Repeat this procedure for each of the other rods. Raise the knee levers to their respective vertical positions. The guitar is now fully assembled.

**To remove the guitar from the bag:** lean over the guitar, *and* grasp one (1) of the front legs in one hand *and* one (1) of the rear legs in the other hand [hold these two (2) legs close to the body of the guitar]. Carefully lift the guitar straight up. Now, slowly allow the guitar to turn over to its vertical position, setting the front legs on the floor first and then allowing the back legs to settle onto the floor.



**Figure 2**

### ***TUNING YOUR Carter- Starter™***

#### ***TUNING PEDALS, KNEE LEVERS & OPEN STRINGS***

The following procedure is used for tuning your **Carter- Starter™**.

- 1. Tuning the strings:** *Without* depressing any pedals or knee levers, tune each

string to the desired pitch by using the tuning keys. Work the pedals up & down occasionally while tuning to insure that the strings are properly stretched.

2. **Tuning the pedals & knee levers:** Depress the pedal to be tuned *and* note the movement of the tuning nuts in the right end-plate. The holes in the end-plate correspond to the string positions. There are three (3) holes for each string. The bottom row lowers string pitch and the 2 top rows raise string pitch. To lower the string pitch further, use the tuning wrench on the bottom row *and* turn the tuning nuts in a clockwise direction. Repetition of this procedure on the 2 top rows of tuning nuts (and turning in a clockwise direction) raises the string pitch. With the pedal fully depressed, turn the proper tuning nut by using the tuning wrench provided, until the desired pitch is reached. Turning the nut clockwise will increase the movement of the string. Turning the nut counterclockwise will decrease the movement of the string. Repeat this procedure for the *knee levers*.

**Note:** Slack is necessary in the linkage system to provide room for normal tuning. This slack has been pre-adjusted at the factory for the **Carter-Starter™** string gauges and tuning. There should be slack in the pulling train. If the adjusting nut is turned too far in the clockwise direction, the string will not return to proper pitch after the pedal is released. If this happens, the tuning nuts should be turned in a counterclockwise direction until they no longer affect the pitch of the string with the pedal not depressed.

### ***ADJUSTING YOUR Carter-Starter™***

1. **Pedal Height:** The height of the pedals from the floor can be adjusted by loosening the lock nut on the pull rod at the ball-joint connection. Once the lock nut has been loosened, the ball-joint can be screwed in or out as desired. The lock nut should then be re-tightened. (*See Figure 1, Page 2.*)
2. **Knee Lever Slack:** The total amount of "movement" required by the pedals and knee levers is set by the amount of travel required to pull a string to pitch (or release it to lower it to pitch). You can adjust the knee lever stops to reduce the distance to the end of travel. The way to do this on RKL and LKL is to raise the screw in the body under the bottom of the LKL (or RKL). This screw functions as a stop to set the end of travel. Once you back out the screw a couple of turns, you will have to retune the tuning nuts so the string is brought up to pitch as shown in the quick-start Video which came with your Carter-Starter. Caution: do NOT back the screw out far enough to interfere with the free rotation of the KL cross shaft during the adjustment of the stop. To increase the amount of slack on RKR and LKR, loosen the locking nut on the knee lever bracket. Back off the set screw with a 1/16" allen wrench until the string comes to pitch. Tighten the locking nut. You need to have a SMALL amount of slack in the system before the knee levers start to change the strings' pitch.
3. **One of the rear legs** has a **Height Adjustment** screw with locking nylon nut at the bottom, above the rubber tip. Use this leveling adjustment to steady your **Carter-Starter™** on any uneven flooring.

## ***GENERAL CARE & MAINTENANCE***

Your new **Carter-Starter™** is a precision instrument. Like any precision instrument, proper care & lubrication will greatly enhance the guitar's appearance, performance, and value. Generally, on laminate or mica finishes, *never* use any type of abrasive cleaner. Laminate and vinyl can be cleaned and polished by using Windex® & buffing with a soft, clean cloth.

**Note:** When using **SPRAY**-type polishes or cleaners, **NEVER** spray them directly at or onto any part of the guitar. Instead, spray the product onto a soft cloth and apply to the appropriate part of the guitar with the cloth.

Your new **Carter-Starter™** has been pre-lubricated and fully adjusted at the factory.

Lubrication must be done on all pivot and metal-to-metal contact points under the guitar, about 2 or 3 times per year. A light, high-grade machine oil or turbine oil is recommended & 30W motor oil is okay.

### ***LUBRICATION***

**1. Undercarriage:** Most moving parts in the pull system use nylon bearings and have been lubricated as needed. *Lubricate several times each year.*

**2. Changer:** The changer has been pre-lubricated during assembly. Lubricate several times per year.

**3. Roller Nut:** This area requires occasional lubrication to insure proper string return.

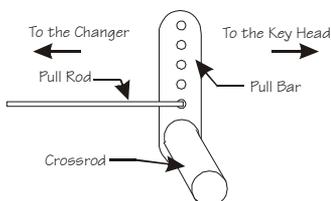
**WARNING: DO NOT use WD-40** (or the equivalent) on the rollers or any part of the guitar because this evaporates and leaves a gummy residue, which eventually causes the moving parts to stop moving freely.

**4. Pedals:** The pedals are mounted on a steel shaft. To keep the pedals working freely, use a small drop of light oil on the shaft where the pedal is attached 2 times per year.

**Please Note:** The ball joint connection at the pedal rod-end is *not* lubricated. If a slight squeak should occur in 1 of these, use a *small drop* of light oil.

### ***ADJUSTING THE CHANGER RETURN SPRINGS***

**NOTE: Do NOT attempt this until you have exhausted all other possible remedies to this problem** (such as lubrication, string ball ends stuck in mechanism, etc.)



**Figure 3**

The return springs for the changer fingers (also called "fingers") that lower have been adjusted at the factory, and normally *require no further adjustment*.

The return spring must always be tight enough to hold the lower part of the finger against the stop bracket while the raise part of the finger makes its complete travel. If the lower part of the finger pulls away from the stop bar slightly while raising a string or the finger fails to return fully after lowering a string: unhook the spring from the finger, cut one coil from the return spring, and then re-hook the spring on the lowering part of the changer finger.

### ***STRINGS***

**Carter-Starters** come from the factory in the string gauges listed in the Tuning Chart below. When replacing strings, ***BE SURE*** to use strings whose gauges & type match the list below. A deviation from these may require a slight adjustment of the nylon tuning nuts; or it might require relocation of a pull bar in the 5-hole pull finger to properly tune the different strings. (See Figure 3, Page 3).

Be sure to use **WOUND** strings where indicated below (by a "W").

<b>Carter- Starter™ E<sup>9</sup> TUNING CHART &amp; STRING GAUGES</b>									
String NUMBER	Basic Tuning	String Gauge	A	B	C	F	D	X	E
			P1	P2	P3	← LKL	→ LKR	← RKL	→ RKR
1	F #	.012							
2	E <sup>b</sup>	.015							D
3	G #	.011		A					
4	E	.014			F #	F	E <sup>b</sup>		
5	B	.017	C #		C #			B <sup>b</sup>	
6	G #	.022W		A					
7	F #	.026W							
8	E	.030W				F	E <sup>b</sup>		
9	D	.034W							
10	B	.036W	C #						

### **KEY:**

**W = Wound \* P = Pedal \* LKL = "Left Kick Left"**

**LKR = "Left Kick Right" \* RKL = "Right Kick Left" \* RKR = "Right Kick Right"**

## ***LIMITED WARRANTY***

This new **Carter-Starter™** is warranted to the Original Purchaser, to be free from defects in both material and workmanship for a period of ONE HUNDRED TWENTY DAYS (120 Days) from Date of Original Purchase. Date of Original Purchase shall be the date shown on the bill of sale from Dealer. The Original Purchaser must be an individual person. Names of bands, clubs, churches, groups, institutions, organizations, etc. are not acceptable as the Original Purchaser.

Should any part of your new **Carter-Starter™** be defective, it will be repaired or replaced free-of-charge (except transportation), provided it has been operated according to the instructions in this Owner's Manual, which accompanied the guitar when delivered to Original Purchaser. Should any trouble develop during this 120-Day period, return the COMPLETE guitar, freight prepaid, to **World Class Steels, Inc. dba CARTER STEEL GUITARS®** (hereinafter "WCSI") factory or to an Authorized Service Center. You may obtain in the location of the Authorized Service Center nearest you by contacting the factory.

This Warranty does *not* apply to: guitar cases, strings, tunings, adjustments, accessories, or surface finishes. Also, this Warranty does *not* apply where repairs are required because of normal wear & tear. This Warranty is void if, in the sole judgment of WCSI: (1) Guitar has been damaged by abuse, accident, misuse, mishandling, the elements, or improper maintenance; (2) Repairs or alterations have been made or attempted by anyone other than the WCSI factory or Authorized Service Center; or (3) Adaptation or accessories, other than those provided or recommended by WCSI, have been made or attached.

In no event shall WCSI be liable for any indirect, incidental or consequential damages from the sale or use of the product. This disclaimer applies *both* during *and* after the term of this Warranty. WCSI disclaims liability for any implied warranties, including, but not limited to, implied warranties of "merchantability" and "fitness for a specific purpose," after the 120-Day term of this Warranty.

This Warranty gives you specific legal rights, and you may also have other rights which vary by geographic location. Some areas do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some areas do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

**CARTER STEEL GUITARS LIMITED WARRANTY ACTIVATION**

Please mail this form to us within 15 days of receiving your **Carter-Starter™** ...

**SEND TO: Carter Steel Guitars \* P.O. Box 851324 \* Mesquite, TX 75185-1324 U.S.A.**

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Phone (day): \_\_\_\_\_ Phone (evening): \_\_\_\_\_

Date of Purchase: \_\_\_\_\_ Serial Number: \_\_\_\_\_

Name of Dealer: \_\_\_\_\_

Comments or Questions: \_\_\_\_\_  
\_\_\_\_\_

FAX: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

WEB Site: \_\_\_\_\_

We thank you for purchasing a **Carter-Starter™** and wish you many years of enjoyment ....

Please feel free to contact us<sup>3</sup> in the future with any questions you may have.

Prefer to **activate your Warranty online?** You can! Just follow the links from **[www.CarterStarter.com](http://www.CarterStarter.com)**

Join the **Carter-Starter™ OnLine Club!**

**www.Carter-Starter.com Web Photos & Comments Page - Send us a close-up PHOTO of you** and your **Carter-Starter™**, along with a brief note with **any comments about your Carter-Starter™** (other ideas to include in your note: how long you have been playing psg, your psg-learning experience, types of music you play or want to play on psg, your country, state or province, city, your email address, any feedback about the Dealer from whom you purchased your **Carter-Starter™**, anything else you want to say. *If you prefer to email to us your comments & photo please feel free to do so.*)

**ACCESSORIES**, including a Hard-Shell case, String Sets, 1" OverHeight Kit, 2" Overheight Kit, and 1" Underheight Kit, all designed specially for your **Carter-Starter™**, are available either from your **Dealer** or from Carter Steel Guitars directly (call us<sup>3</sup> or **purchase OnLine:** [www.CarterStarter.com](http://www.CarterStarter.com)).

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