



Mullen Guitar Co., Inc.

Owner's Manual

G2 &
Royal Precision
Pre-Royal
Discovery

Covers Models
S-10, D-10, S-11, D-11, S-12, D-12

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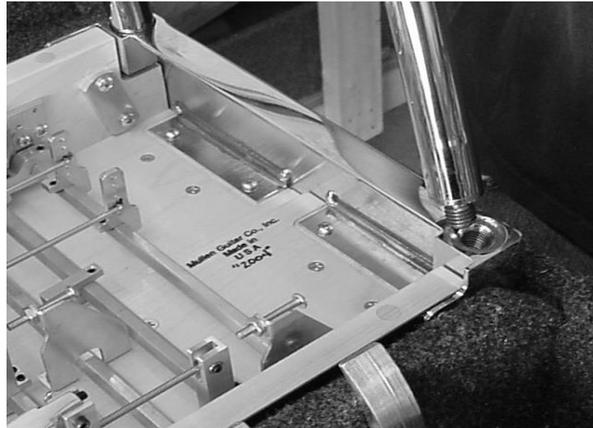
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Your Name

Guitar Model

Address

Special Notes



First, start by screwing legs into leg holes. You may want to develop your own method for marking which legs you put where, and installing them the same each time. Screw legs in tight, do not use any tools for installing legs.



Then, secure the pedal bar to the front legs. Slide retaining bracket over leg, then tighten wing nut.



Insert Pedal Rod through hole in pedal linkage.
Pedal rods are numbered for your convenience.



Slide Disconnect outer sleeve down and attach to ball
joint, then release the outer sleeve.

Removing Guitar from case.



Hold guitar firmly with left hand on the rear changer end leg, and the right hand on the front key head end leg. Make sure properly position yourself as not to cause any strain on your back. Then pull the guitar upward and bring guitar towards you and rotate legs forward to the upright position.



Reverse operation for setting guitar into case.

Tuning Your Guitar



First step is to tune all your strings open, (no pedals or knee levers) using the tuning keys (pictured above)



Then you can engage a pedal or knee lever. If it is not perfectly in Tune, you can adjust your tuning nut that corresponds to that pull.

Tuning The Splits



Correctly tune the open tuning



Using the 6th string and the B Pedal as an example.

Tuning The Splits

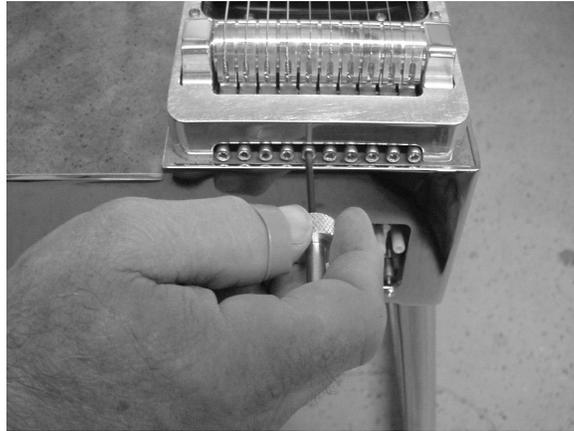


Tune the 6th string G# to A using the nylon tuning nut.



The next step is to tune the 6th string split which will be, Lowering G# to G . With pedal B down, tune knee lever to the G note , this is the split. (continue to next page)

Tuning The Splits



Release the B pedal and tune the G# to F# with the knee lever. To tune this you will have use the allen screws located behind the changer. This will give you the G# to F# solid stop.



When tuning the splits on any string make sure the allen screws are backed out as shown above.

Adjusting Half Stop

2nd string half stop adjustment.

When assembling new guitars this is the procedure we use to adjust the 2nd string half stop.

We use the 9th string for two purposes. The first, of course, is for the 2nd string half stop and the second is for the D to C# change on the 9th string. To make this work properly use the following method.

Make sure that the pulling rods are in the same holes in the bell crank and the changer (this should be the 5th hole, the one that is the the fifth hole from the guitar body) Temper tune the open E9th tuning first and then tune with the B pedal G# to A down. Next temper tune the 9th string to C# with 6th string, having the B pedal down. When the 9th string engages, making contact with the changer lowering lever, this will apply extra pressure to the feel on the knee lever this becomes the half stop feel for the 2nd string . After this procedure it should be in tune at this time. We also have available a tunable half stop, which is tunable from under the guitar, and also you can adjust the tension For more information on this product E-mail Mullen Guitars .

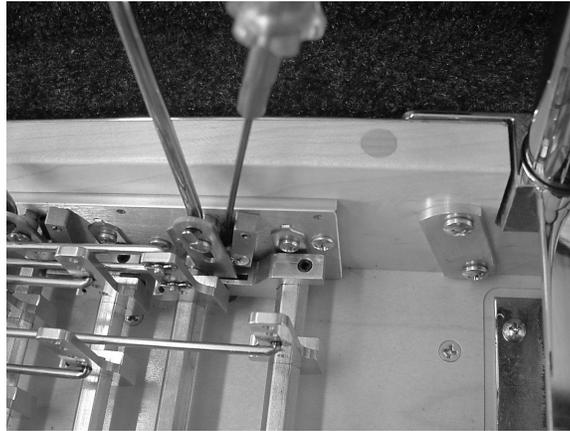
If you have trouble you may email.

Care and Maintenance

- You can wipe your guitar with a dry soft cloth.
- You can use Pledge if needed.
- When changing strings you can clean fret board and brass rollers as needed.
- Give your guitar a routine inspection to find areas needing cleaning or lubricating.
- Harsh degreasers and other hard chemicals are not advised and should be done only by an experienced technician.
- If there are any items that was not addressed here you may email Mullen Guitar Co., Inc for recommended cleaning methods
- It is not recommended that you transport your guitar unless in the guitar case to prevent damaged.

You can find lubricating tips further in this manual as well on the Mullen Guitar Web-Site www.mullenguitars.com

Adjusting Pedal Stop



An 8-32 allen screw located directly behind the pedal rod linkage in the bottom of the Aluminum Panel on the G2.
A 5/64 allen wrench is used for this purpose.

Adjusting Knee Lever Stop



The knee lever stop is the screw that the knee lever bracket stops against. You must loosen the locking nut on the screw and this will allow the screw to be turned in or out to adjust the amount of travel. When adjusted properly, hold the screw in place and tighten the locking nut.

Knee Lever angle adjustment.



Each Knee lever has a tilt adjustment. It will be on the end of the knee lever, where it is mounted. Counter clockwise to make the knee levers closer together and clockwise to move apart using a 5/64 allen wrench

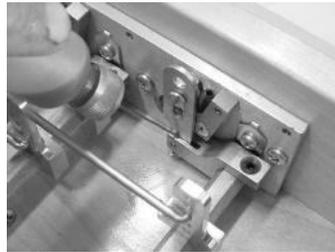
Adjusting Changer Return Springs



Each String has an adjustable return spring. Loosening these springs will make your lowers easier to the feel. Start with the screw all the way tight (do not put force on tightening them, just make contact. Loosen 3 full turns and this is a good place to start. If springs get loosened to much, the lever will not return properly.

Lubricating Your Mullen Guitar

Below you will find the main points to oil. Remember a little oil will go a long way. Do not Over Oil.



Pedal linkage slide where it attaches to the aluminum Linkage



Ball Joints on Pedals



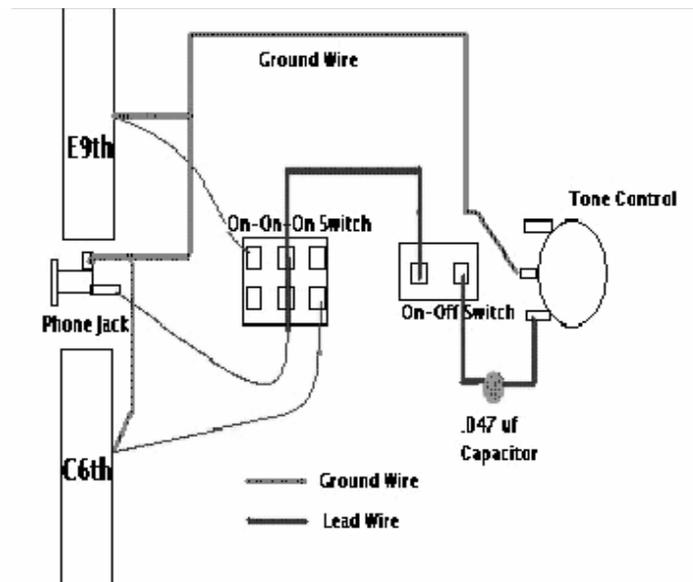
Changer Levers in Slotted Plate



Side of each brass and changer roller with strings off

Notes

Wiring diagram with tone control



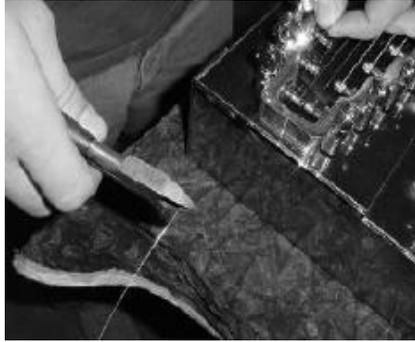
Changing Strings

New Strings

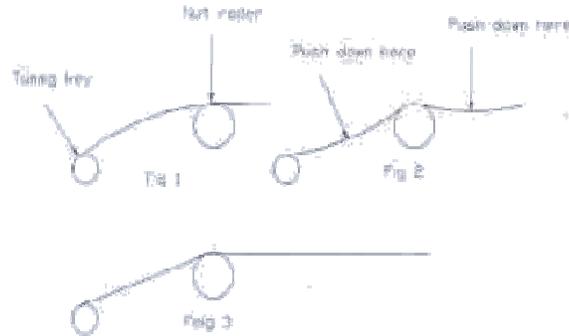
Here are some tips that might be helpful when replacing new strings. The number 1 problem many players encounter is that annoying third E9th string G#. Breaking it when installed can be eliminated if put on properly. When putting this string on attach it to the changer and cut it when it extends approximately 2 inches beyond the key

head. Put the string through the string post hole and wind 4 turns toward the back side of guitar and then let the string lap over itself toward the front side of guitar and continue winding until you have it to pitch. Letting the string lap over itself will help reduce the

chance of the string to break. You should end up having the string as shown in the picture at the right. With larger strings you should not experience this problem. Larger strings such as 9 and 10 only require one or two turns to work properly without slipping.



Valuable String Tip



We have been asked several times about gauged rollers on guitars. Our rollers are all the same gauges. This makes it easier to re-install when removed. Since they are all the same gauge you don't have to worry about putting them in the same position on the nut support. Here is a simple thing you can do, that I have found to work well after re-installing the rollers or installing new strings. The larger strings on E9th, C6th and Universal Tunings can have the most effect. New strings will create an arc as in figure 1 so you tune the new strings to pitch, push down on points as in figure 2, retune and you will have a nice flat set of strings all across your tuning as in figure 3.

Factory String Gauges 10 String Guitar

E9th

C6th

.013
.015
.011
.014
.017
.020
.026W
.030W
.034W
.036W

.012
.014
.017
.020
.024W
.030W
.036W
.042W
.054W
.070W

**Mullen Guitar Co., Inc.
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Flagler Colorado 80815**

Mullen
Steel Guitars

G₂ *Royal
Precision*
DISCOVERY

Family Owned and Operated

We have dedicated more than 30 years to building
Pedal Steel Guitars.
And we are continually getting better thanks to all dedicated
Steel Players
for making it possible for us to help in any way we can.