



Fender®
MAKE HISTORY™

OWNER'S MANUAL
FOR FENDER® GUITARS

Si necesita acceder a los manuales de instrucciones de las guitarras en **Español**, visite nuestra página web **<http://www.fender.com/support>**

Vous trouverez le mode d'emploi des guitares Fender® en **français** sur le site Internet **<http://www.fender.com/support>**

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Guitars are cool.

Congrats on your new Fender electric guitar!

You're in good company, by the way—the world's guitarists—the greats and the unsung heroes alike—have made music on instruments just like yours for more than half a century now. Indeed, the sound of Fender is the sound of modern music, and we welcome you to the family ...

Whether you have the green hands of a newcomer or the sure grip of an experienced player, this manual will help you out by de-mystifying things like tuning up, changing strings, adjusting this and intonating that.

This manual will show you how to take care of your guitar for years to come, plain and simple. Believe us, it ain't rocket surgery, and you'll find that much of it is easy and even fun.

Plus, while we're at it, we'll tell you a lot of interesting things about Fender along the way. So congratulations again, and let's get right to it ...





Since 1946 ...

Your new guitar's **DNA** holds more than half a century of musical history.

Fender was founded in **1946** by **Clarence Leonidas "Leo" Fender**, a Southern California inventor and businessman with a flair for electronics. He started the company in his small radio repair shop in **Fullerton, California**, building solid amplifiers and simple lap steel guitars, which were popular with western swing bands of the era. Modest beginnings, to be sure. And rock 'n' roll was still a decade away.

Long story short, Leo and his staff soon embarked on an extraordinary creative streak that began in **1950** with the world's first solid-body Spanish style electric guitar, the **Telecaster®** (and its single-pickup version, the **Esquire®**). Fender followed in **1951** with the world's first commercially successful solid body electric bass guitar, the **Precision Bass®**, and its companion **Bassman®** amp. The **Twin Amp®** appeared in **1952**.



In **1954**, Fender® unveiled perhaps the most popular and influential electric guitar ever—the **Stratocaster®**. Within a decade, some of rock's greatest artists would start wringing unbelievable sounds

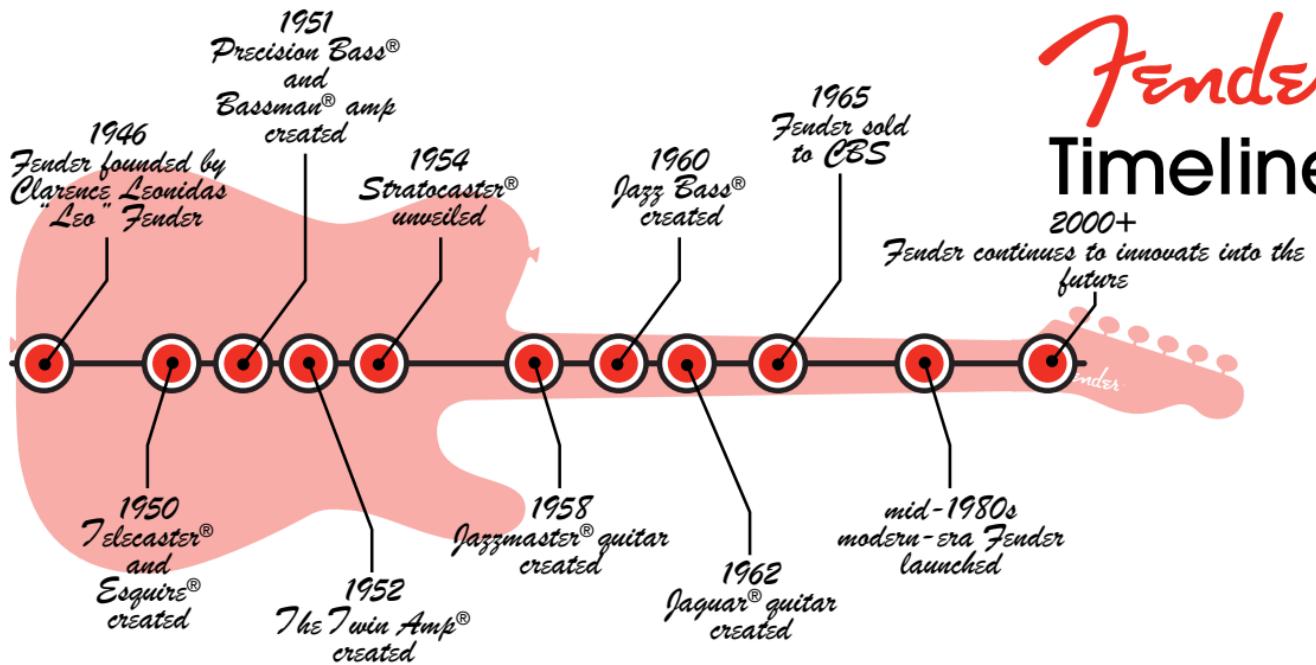
never envisioned by Fender designers from this particular model. Other classics followed—the **Jazzmaster®** guitar (**1958**), the **Jazz Bass®** (**1960**) the **Jaguar®** guitar (**1962**), and more great amps. By the time it was sold to **CBS** in **1965**, Fender had grown from a fledgling California guitar maker to an industry leader with a stable of acclaimed instruments and amplifiers that transformed music worldwide.

After CBS, the modern-era Fender was launched in the mid-1980s, and today Fender is **bigger and better** than ever. It's pretty cool, really—that a company with such a great rock 'n' roll past keeps reinventing itself as a thoroughly modern **industry leader** that continues to innovate straight into the great rock 'n' roll future.

That word—**innovate**—says it all. Fender was innovative right from the very start in the **1940s** and has stayed that way ever since, right through to the **2000s**. That's why, in the hands of everyone from hobbyists to the world's greatest guitarists, more popular music has been made in the **past 50 years** with Fender than any other electric instrument.



Fender® Timeline







Features & Controls & Specs



For more detailed info on the features and specifications of your specific guitar model, visit the “Products” section of www.fender.com, where each individual guitar listing has a “Specs” link that’ll give you an easy-to-read list.

For wiring diagrams, switch/control function diagrams and parts lists for your specific model, visit the “Support” section of www.fender.com, where the “Wiring Diagrams/Parts Lists” link will take you to info on more than 250 Fender instrument models.

You can always contact us directly, too, to get this info by mail, e-mail or telephone:

Attn: Consumer Relations
Fender Musical Instruments Corp.
8860 East Chaparral Road, Suite 100
Scottsdale, Ariz. 85250-2610
480.596.7195
consumerrelations@fender.com

open





A Word About Factory Specs and Setup ...

Your guitar is solidly built with the best materials and craftsmanship. As part of its final assembly, we've hand-adjusted it and set it up to Fender factory specs, which give you the best possible playing action.

Like all instruments made of wood, however, your guitar may have experienced changes brought on by exposure to different temperatures and humidity levels. This happens naturally with time and changes in your guitar's actual geographic location. In any case, when you receive it, the condition of the playing action can be affected by:

- Amount of time between final assembly and shipping from Fender.
- Amount of time between shipping from Fender and arrival at shipping destination.
- Method of shipment—e.g., trucking, airfreight, submarine, llama, etc.
- Climate conditions during shipping.
- Climate conditions at shipping destination.
- Amount of time in stock at dealer before purchase.
- Whether or not the dealer has performed its own product setup on the instrument.

Important note!

When you first get your guitar, don't be alarmed if the playing action is no longer set to factory specs! Like we said, it's natural for a guitar's setup to change due to the factors just listed. Stay calm and read on ...

Your guitar has many adjustment points that let you compensate for changes that might happen between final assembly and when you received it. If the action is higher or lower than you prefer, for example, this manual describes how to set up, adjust and maintain your guitar so that its playing condition is optimal for you. Of course, if you'd rather not mess with it yourself—which is perfectly OK—you can always take your guitar to an Authorized Fender Service Center.

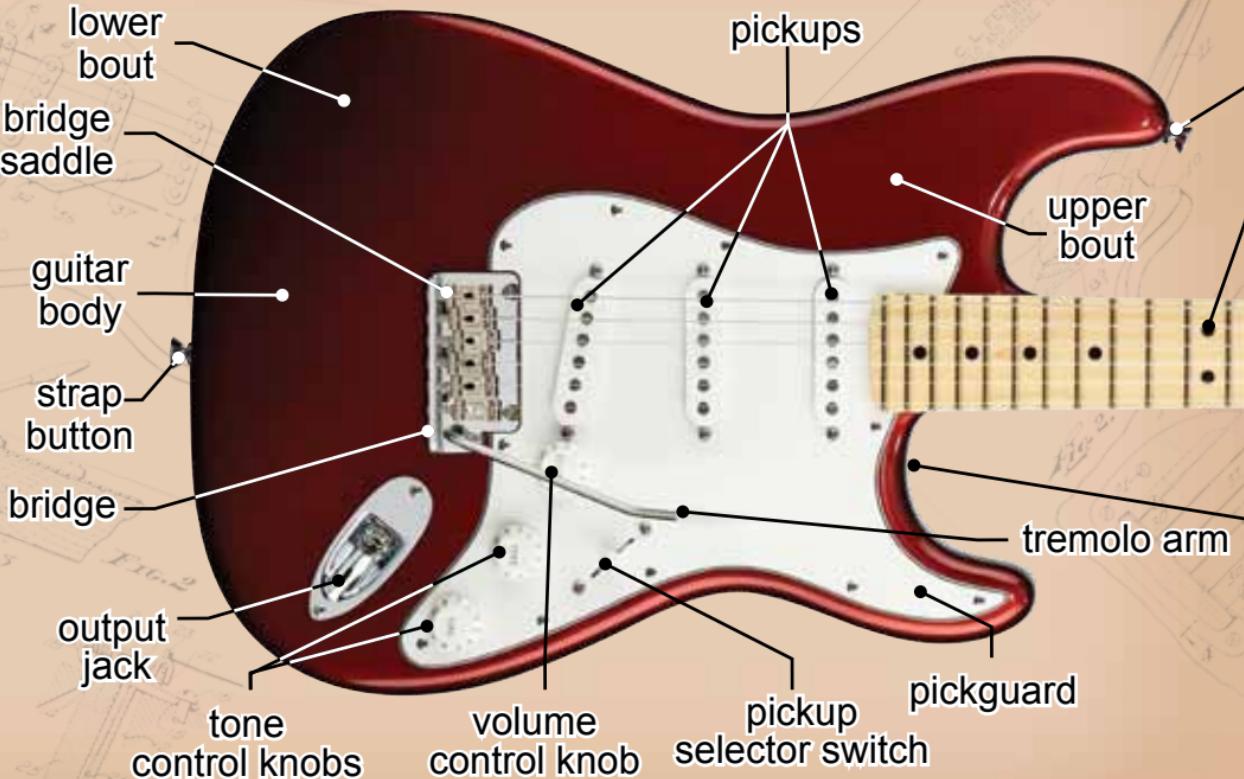
Other important note!

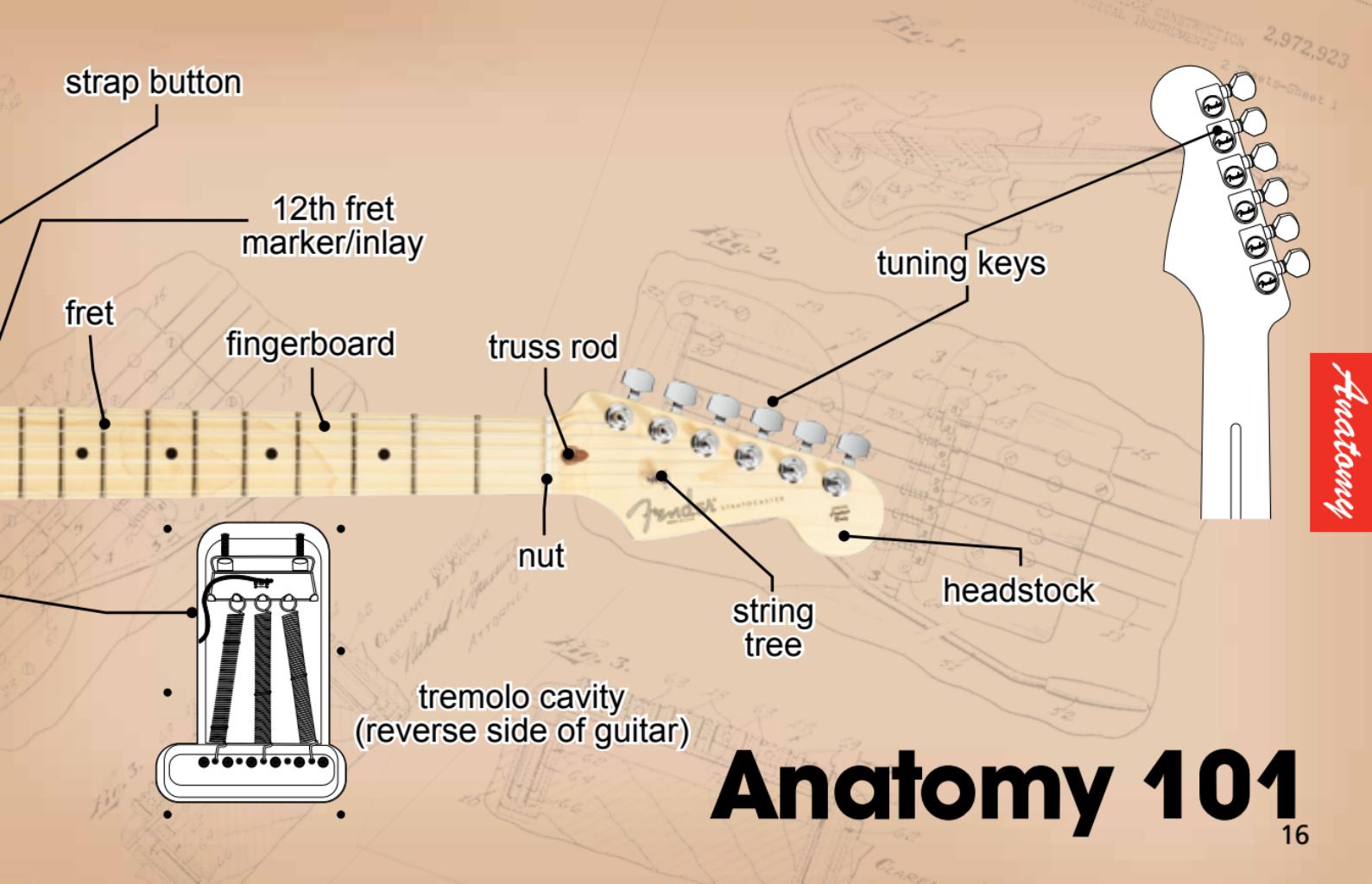
Initial standard setup and adjustment of an instrument and its parts at time of purchase are considered normal dealer product preparation and are not covered by the Fender warranty. On receipt and acceptance of the instrument, the consumer assumes all responsibility for setup, adjustment and maintenance.

Setup

Anatomy 101

Whether you know the names of all the parts or not, anatomical charts are always cool. Here's the basic anatomy of an electric guitar:





Anatomy 101

17 TYPES OF Fender GUITARS

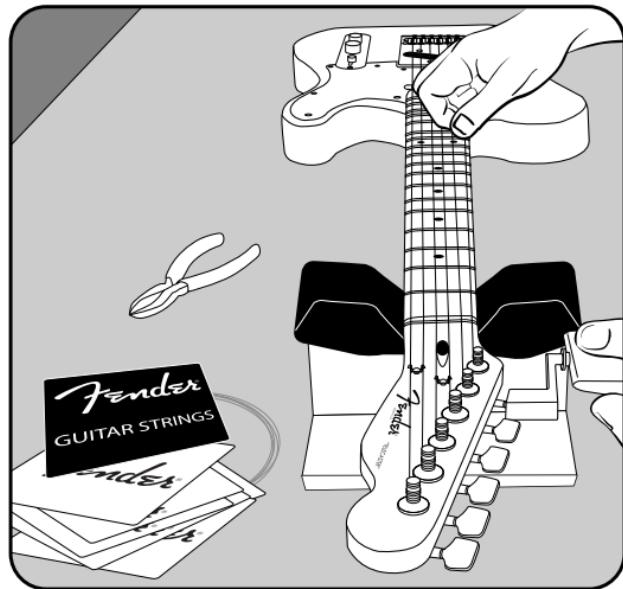


Great Electric Guitar Setup

Note: The following factory specifications are median specs, and are meant only to guide you. They should not be taken as hard and fast rules. If you prefer your action a little higher or lower, change it as you like, but be aware that higher action will be more difficult to play and lower action may result in excessive fret buzz, depending on your technique, or style of play.

To put your guitar in tip-top playing shape, follow the five easy steps presented here. First things first, though—you're gonna need the right tools:

- Set of automotive feeler gauges (.002-.025)
- 6" ruler (with 1/64" increments) and tape measure
- Set of Allen wrenches
- Phillips head screwdriver
- Electronic tuner
- Wire cutters
- String winder
- Light machine oil (3-in-1, model train or gun oil)
- Polish and cloth
- Capo

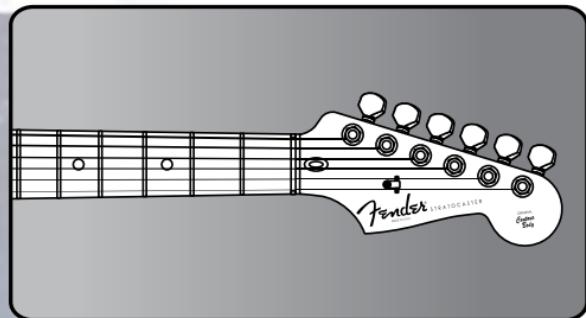




1. Changing Strings

There is no better, faster or easier way to reinvigorate the sound of your guitar than simply changing the strings. It's easy to tell when strings are old, worn or dirty—they sound dull and lifeless, and they feel rough when you run your fingers along them. Changing strings isn't difficult, but there are several ways to do it depending on what Fender guitar model you have.

Strings attach to the body at the bridge and to the headstock at the tuning machines. Since various Fender guitar models use a variety of bridges and tuning machines, different instruments call for different string replacement instructions too varied and lengthy to list in a small booklet like this one. Therefore, for the specific string changing instructions for your Fender guitar, we're going to steer you online to the "Support" section of www.fender.com. There you can use the "Setup Guide" link to find specific and easy-to-follow instructions for Telecaster®, Stratocaster®, Jazzmaster®, Jaguar® and other Fender guitars with various bridge and tuning machine types.



2. Setting Intonation (Roughing it out)

Whatever bridge type on your guitar, the main thing is to make sure there's sufficient string break angle (at least 30°) over the bridge saddles. Bridge adjustments such as string height and tremolo float are mostly up to personal preference.

Intonation however, is a very precise series of measurements. Fear not, though—you can easily preset your guitar's basic intonation. With a tape measure, find the exact scale length of your guitar by measuring from the inside edge of the nut to the center of the 12th fret (the fret wire itself, not the fingerboard space). Double that measurement—that's your scale length.

You can preset the basic intonation of your guitar by taking a tape measure and measuring from the inside of the nut to the center of the 12th fret (the fret wire itself; not the fingerboard). Double that measurement to find the scale length of your guitar. Adjust the first-string bridge saddle to this scale length, measuring from the inside of the nut to the center of the bridge saddle. Now adjust the distance of the second-string saddle back from the first saddle, using the gauge of the second string as a measurement. For example, If the second string is .011" (0.3 mm), you would move the second-string saddle back .011" (0.3 mm) from the first saddle. Move the third saddle back from the second saddle using the gauge of the third string as a measurement. The fourth-string saddle should be set parallel with the second-string saddle. Proceed with the fifth and sixth saddles with the same method used for strings two and three.

3. Truss Rod Adjustment

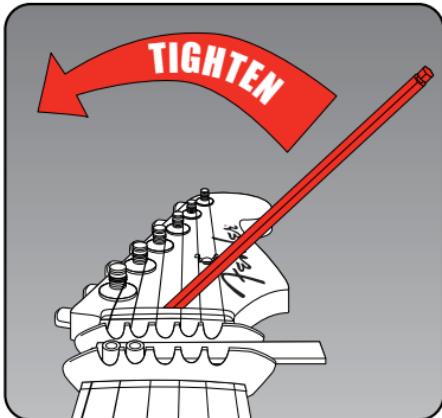
The truss rod is the ingenious unseen device inside the neck that counteracts the bending force caused by string tension. An ideally adjusted neck will have a moderate amount of relief (curvature) in it to accommodate the vibrating strings. Adjusting it is actually pretty simple.

Fix a capo to the first fret, then fret the sixth (low E) string at the last fret. Then measure from the bottom of the string to the top of the 8th fret—the gap should be about .010". Plus, when you eyeball the neck by sighting down it from the body end toward the headstock, you can see whether the neck is straight or bowed (and you look really cool when you do this).

Fender guitars use two kinds of truss rod adjustment mechanisms. One is accessible at the headstock and adjusted using an Allen wrench; the other is accessible at the neck joint and adjusted using a Phillips head screwdriver. For both types, here's what you do:

Adjustment at headstock (Allen wrench): If neck is too concave, (the guitar in playing position, looking up the neck towards the keys) turn the truss-rod nut counter clock-wise. Too convex - clockwise.

3. Truss Rod Adjustment (CONT.)



Adjustment at neck joint (Phillips screwdriver): If neck is too concave, turn the truss rod nut clock-wise. Too convex – counter clockwise. Check your tuning, then check the gap again with the feeler gauge.

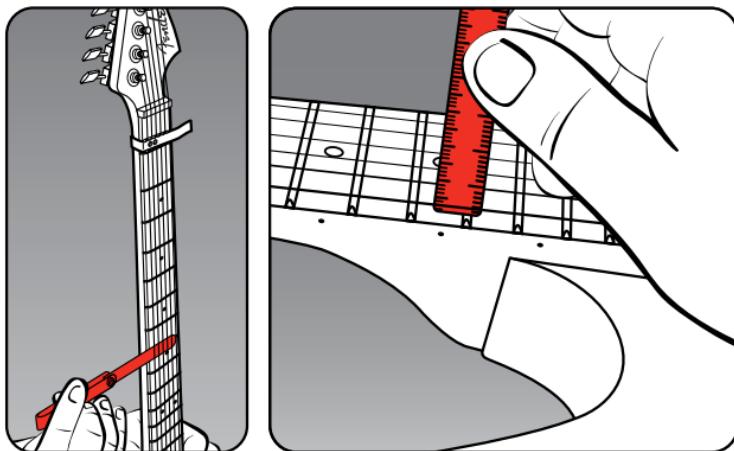
That's it. You can double-check your adjustments by sighting down the neck and by measuring that gap again to make sure it's around .010".

Listen though—if you meet excessive truss rod resistance or if you're not comfortable adjusting it yourself, you can always take your guitar to your authorized Fender Service Center.

4. Setting String Height

This one's easy, and more about personal preference than mathematical genius. Check your tuning first, then use a 6" ruler to measure the distance between the bottom of each string and the top of the 17th fret. You want that distance to be approximately $4/64"$, which is our recommended spec, so just adjust each bridge saddle (or the bridge height screws if your saddles are preset) until you're there.

Ultimately, it's up to you. We suggest about $4/64"$ on the treble side, but you can set the string height wherever it's comfortable for you..



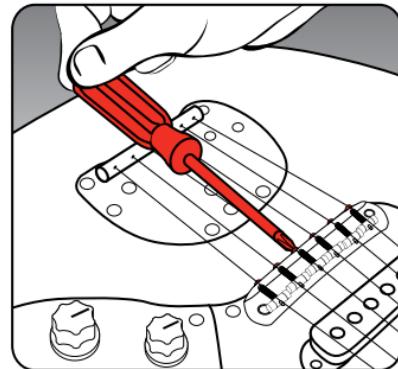
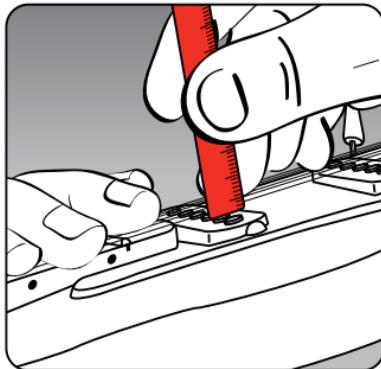
5. Setting Pickup Height

Pickups that are set too high can cause all kinds of sonic weirdness. To set them right, fret all the strings at the last fret and use a 6" ruler to measure the distance from the bottom of the first (high E) and sixth (low E) strings to the top of their respective pole pieces. The optimal distances you want will vary depending on what pickups you have, so use the outside pickup mounting screws to adjust those distances according to this chart:

The distance should be the greatest on the sixth string at the neck pickup position, and closest on the first string at the bridge pickup position. Also, the distance will vary according to the strength of the pickup's magnetic pull. Re-tune, make further adjustments as needed and you're good to go.

Pickups	Bass Side	Treble Side
Texas Special	8/64" (3.6 mm)	6/64" (2.4 mm)
Vintage Style	6/64" (2.4mm)	5/64" (2 mm)
Noiseless™	8/64" (3.6 mm)	6/64" (2.4 mm)
Standard single-coil	5/64" (2mm)	4/64" (1.6 mm)
Humbucking	4/64" (1.6mm)	4/64" (1.6 mm)
Lace Sensor	to preference	to preference

Adjustments should be made after all of the above have been accomplished. Set the pickup selector switch in the middle position, and turn the volume and tone controls to their maximum settings. Check tuning. Check each string at the 12th fret, harmonic to fretted note (make sure you are depressing the string evenly to the fret, not the fingerboard). If sharp, lengthen the string by adjusting the saddle back. If flat, shorten the string by moving the saddle forward. Remember, guitars are tempered instruments! Re-tune, play and make further adjustments as needed.

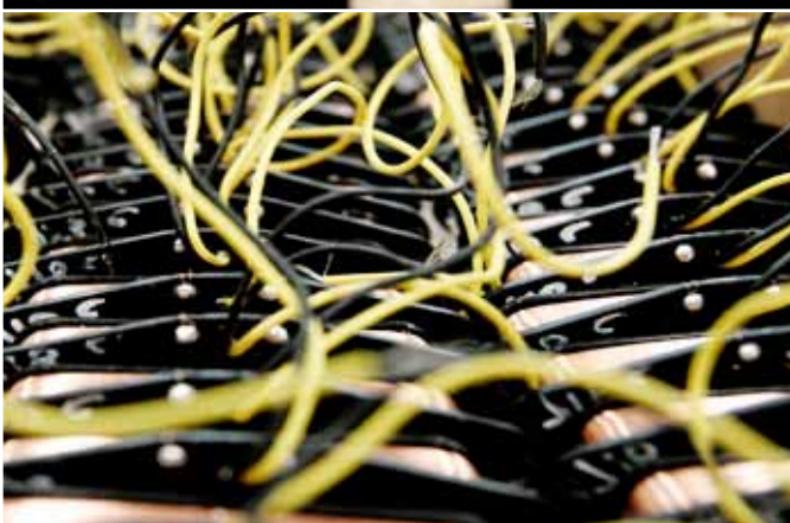


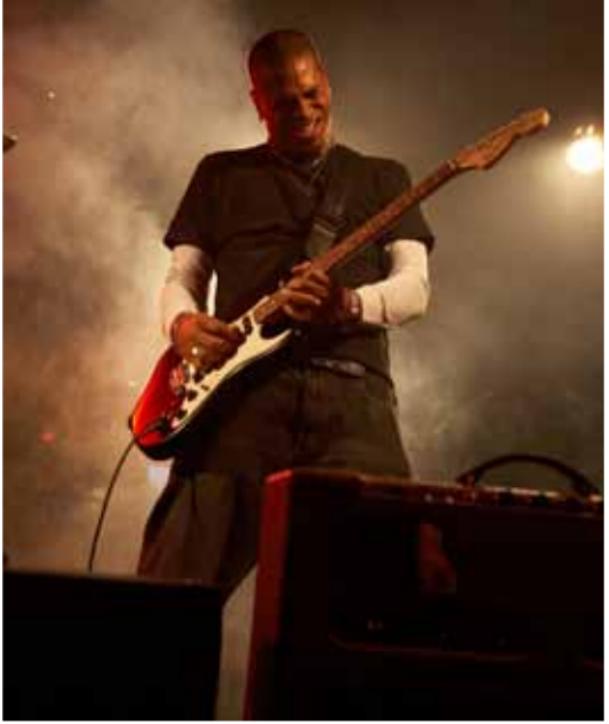
Care and Feeding of Your Guitar



Your Fender guitar is precision-crafted to give you years of satisfaction and enjoyment. A little maintenance here and there will go a long way toward keeping it looking, sounding and playing great long after you're dead. Now make with the bullet points ...

- **Keep it clean.** Dirt, dust, sweat, skin oil, smoke and other gunk can prematurely age your guitar's finish and hardware. Fight back—wipe the strings, neck and bridge often with a lint-free cloth. Use **Fender-approved polish** on the finished surfaces, and wipe metal parts clean with a soft, dry polishing cloth (visit www.fender.com for all kinds of stuff to do this with).
- **Oil that fingerboard.** The natural oils in unfinished rosewood, ebony and pau ferro fingerboards can dry out. Say no to this evil desiccation and keep those fingerboards beautiful by periodically hydrating your fingerboard with lemon oil, boiled linseed oil or other non silicone-based wood/furniture oil. Apply with a lint-free cloth, rub it in, let it soak, wipe off excess and then stand back and smile broadly. And remember—no oil on finished surfaces and no oil on maple fingerboards, which are, uh, finished surfaces.
- **Tighten those strap buttons.** They do loosen sometimes. Untreated, it can destroy your world. So rock that screwdriver and snug up your strap buttons every so often.
- **Set up and adjust.** Why neglect your guitar and risk complications? Familiarize yourself with the setup and adjustment procedures in this manual and on www.fender.com, or visit your Authorized Fender Service Center for routine seasonal adjustments.
- **Avoid extreme weather.** Extremes in temperature and humidity can damage your guitar. If it just can't be helped though, loosen the strings to minimize damage, and let a cold instrument warm up gradually before opening its case to avoid finish checking.
- **Lacquer finishes.** Lacquer is a natural wood finish used for ages on fine furniture and musical instruments. If your guitar has a lacquer finish, do read the "**Lacquer Finishes: Precautions and Care**" card that came with it. Try not to expose lacquer finishes for very long to plastics, synthetics and surgical rubber tubing (stop snickering; it's used on some guitar stands and straps), all of which react adversely with lacquer and can mar the finish. Checking, shrinkage, discoloration and fast wear, however, are all natural parts of the aging process of lacquer finishes, and as such aren't covered under the **Fender warranty**.





SERVICE:

For service ***in*** the United States and Canada, please contact an Authorized Fender Service Center, which you can find by calling the **Fender Consumer Relations Department (480.596.7195)** or using the “Service Center Finder” link on the “Support” section of www.fender.com.

For service ***outside*** the United States and Canada, please contact your authorized dealer or the Fender distributor in your country or region—there’s a helpful global “**International Distributor**” link on the “**Resources**” section of www.fender.com.

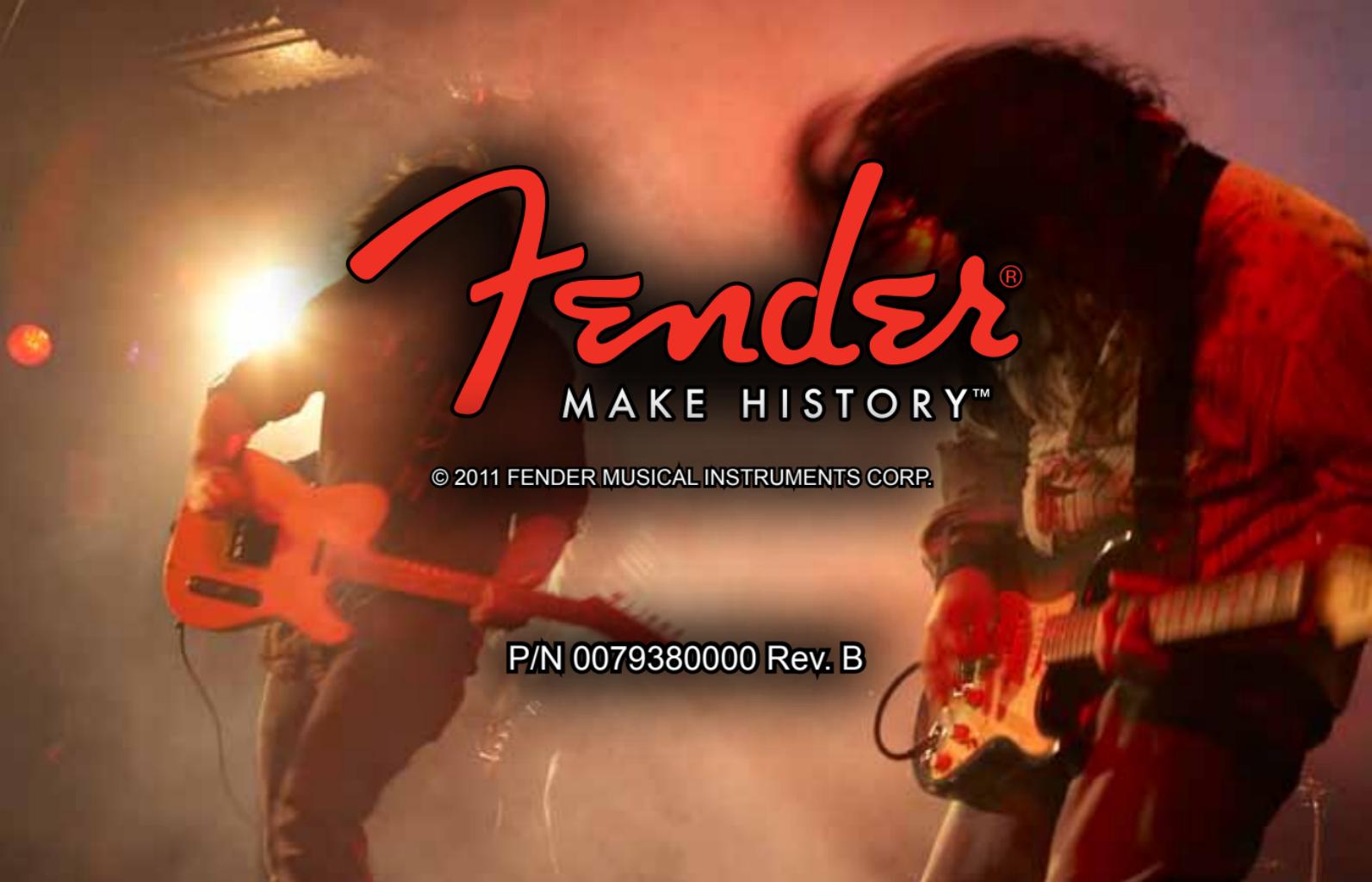


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