# SETUP AND ADJUSTMENT MADE EASY

Weather, specifically temperature and humidity, may have a dramatic impact on the way your instrument plays. All instrument woods expand and contract with seasonal fluctuations in temperature and humidity, and naturally, string height and playing action are affected. Depending on the climate where you live, your instrument may need routine adjustments a few times a year. Fender®/Squier®/Olympia™ instruments have several points of adjustment which are there to control the effects of these environmental changes, and more importantly, these features allow you to tailor the action of the instrument to your own personal playing style.

Note: The following factory specifications are minimum specs, and are meant only to guide you. They should not to be taken as hard and fast rules. If you want your action higher, set it higher!

### **Truss Rod Adjustment**

String tension exerts a tremendous bending force on the neck of the instrument. The adjustable steel truss rod in the neck employs a counter-force to the pull of the strings. If these two opposing forces are not in harmony with each other, the result will be a poorly playing instrument.

Note: A truss rod that is too loose will result in a concave neck bow and high action (Figure A). A truss rod that is too tight will result in a convex neck bow and buzzing strings (Figure B).



Figure A. Concave "Bow" (Exaggerated View)



Figure B. Convex "Hump" (Exaggerated View)

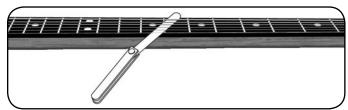


Figure C. Measuring relief with feeler gauge

To check the adjustment of the truss rod, first tune your instrument to pitch. Next, install a capo at the 1st fret. For electric guitars and basses, depress the "E" string at the last fret. For acoustic guitars depress the "E" string at the 14th fret. With the feeler gauge, check the gap between the bottom of the string and the top of the 8th fret (Figure C).

Note: It's a good idea to loosen the strings prior to making any truss rod adjustment. If you don't have feeler gauges, don't give up. You can approximate the gap, which is about the thickness of a regular business card and a piece of paper put together.

Instrument	Fingerboard Radius	Relief at 8th Fret
Electric Guitars	9.5″	.010" to .012"
Acoustic Guitars	12"	.008" to .010"
Electric Basses	9.5"	.014"

To adjust the truss rod, use the hex wrench supplied with your instrument. If neck is too concave (Figure A), turn the truss rod nut clock-wise. If neck is too convex, (Figure B) turn the truss rod nut counter clock-wise. Check your tuning, then re-check the gap with the feeler gauge.

**Note:** Adjust in small increments of only  $\frac{1}{4}$  turn at a time, and allow time for the wood to settle before adjusting again (Figures D and E).

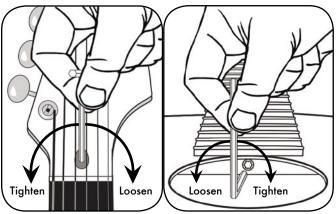


Figure D. (Electric Guitar or Bass) Figure E. (Acoustic Guitar)

If you meet excessive resistance, if your neck needs constant adjustment, or you're not comfortable adjusting it yourself, take your instrument to an authorized Fender Service Center.

## String Height Adjustment (Action) for Electric Guitars & Basses

First, check your tuning. Next, using your ruler, measure the distance between the bottom of each string and the top of the 17th fret. Using the appropriate hex wrench, adjust the bridge saddles to height according to the recommendations of the chart below, then re-tune. Don't be afraid to experiment with the height a little bit, until it feels right (Figures F and G). If you play with a light touch, you can get away with lower action. If you play hard, you'll need a little higher action to avoid fret buzz and rattles.

Instrument	String Height Bass Side	String Height Treble Side
Electric Guitars	4/64"	4/64"
Basses	6/64"	5/64"

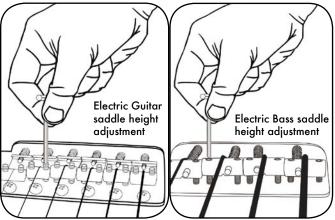


Figure F.

Figure G.

If you are not comfortable performing any of these adjustments to your instrument, take it to an Authorized Fender Service Center for a "setup."

Note: Setups and adjustments are considered to be routine maintenance, and as such, are not covered under warranty.

# SQUIER® INSTRUMENT 1-YEAR LIMITED WARRANTY

Fender<sup>®</sup> Musical Instruments Corporation warrants this Squier instrument to be free from defects in materials and workmanship for one (1) year from the date of original purchase, subject to the limitations set forth herein. This warranty applies only to the <u>original retail purchaser</u> when this instrument is purchased from an authorized Squier dealer, and requires the purchaser to supply a <u>copy of the original proof of purchase (original sales receipt with the instrument serial number and his/her name indicated as the purchaser, thereon) at the time service is requested.</u>

Repair service of defects covered by this warranty can be performed only at a Fender authorized warranty service center, as designated by FMIC. Remedies beyond normal service repair of any Squier instrument require both an evaluation of the defect and a direct recommendation from a Fender authorized service center for alternative considerations. A network of authorized service centers is available for warranty service. Your Squier dealer may also be authorized for warranty service and should be the first point of contact when service of any kind is required for your Squier instrument.

All transportation, insurance and freight charges associated with warranty service and repairs on Squier instruments are the responsibility of the purchaser, as is any service initiated for the purpose of customizing adjustments beyond factory specifications. Initial standard setup and adjustment of the instrument and its components at the time of purchase are considered normal dealer preparation.

#### 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.
- 3. 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, body salts and acids of perspiration, guitar straps, guitar stands/hangers made from vinyl, plastic, rubber or other synthetic materials, any other chemicals or non-Fender-approved 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, case or gig bag including jacks, controls, switches, plated surfaces, tuning machines, pickguards, zippers, clasps, handles, latches, case hardware etc.
- All other damage and deterioration due to normal usage, wear and tear, aging, accidents, neglect, abuse, or Acts of Nature.
- 8. Any instrument, whose serial number is missing, altered or tampered with in any fashion.
- 9. Any instrument purchased from anyone other than an Authorized Squier® Dealer.
- Instruments that have been serviced by unauthorized persons (any person other than a Fender Certified Technician at an Authorized Fender Service Center).

FMIC 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.

Any warranties implied by law (including warranties of merchantability or fitness) are limited to the duration of this express limited warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you. Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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

EFFECTIVE DATE: JANUARY 1, 1998

FENDER MUSICAL INSTRUMENTS CORP. 8860 EAST CHAPARRAL ROAD - SUITE 100 SCOTTSDALE, ARIZONA 85250-2618 - USA

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For best results, use only Fender strings. We cannot guarantee top performance of your instrument if strings other than Fender, are used