

Guitar Technical Services

PETER ALLEN

PHONE 01926-499012 MOBILE PHONE 07767-431043 email: [guitar_technical_services\(at\)msn.com](mailto:guitar_technical_services(at)msn.com)

TM



Member of the
Guild of Master Craftsmen

www.guitartechnicalservices.co.uk



© Copyright 2006

FITTING NEW STRINGS

- ◆ USE THE SAME GAUGE AS FITTED AT THE SET-UP. When a guitar is set-up the truss rod is adjusted to counteract the pull of the strings. Different string gauges have varying amounts of pull, so when you choose to change your gauge of string, a qualified guitar technician should adjust the truss rod accordingly. If you replace strings with a new set of the same gauge and type the set-up should not change.
- ◆ Fit one string at a time and tune to pitch, then move on to the next. This is especially important for guitars fitted with tremolos.
- ◆ If you have machine-heads with capstan-type barrels and holes in them, use the 'string lock method' to fit the strings as illustrated below. Not only is it more secure it's a quicker method.
- ◆ Once the strings are all on tune them up to pitch, one at a time. Always tune up to the correct pitch from below the note, rather than downwards.
- ◆ Particularly with wound strings, check they are pulling straight from the saddle top - it is good practice to lightly press down on the saddle top & string to ensure the string does not slightly rise in the air before continuing towards the fretboard. Most new, thicker wound strings do, which also causes intonation problems. Depending on how thick the strings are, the intonation can be between 5% and 25% too sharp, so it's important to help them pull straight from nut to saddle.
- ◆ Now retune, bending each string in normal playing fashion - **i.e. about 2 string positions across the fretboard at the 12th fret (middle of the string)**. Let it return to its normal position and then check the tuning meter. You do not need to use one finger to bend the string as if you are playing it - style does not count when pre-stretching, you can use 3 or 4 fingers. Ensuring that new strings are pre-stretched is very important to maintain the set-up and stability.
- ◆ Re-tune up to pitch and bend each string in normal playing fashion again! **This procedure may have to be repeated up to 6 times or more to achieve stability.**
- ◆ When the strings have reached their optimum tension you will be able to bend and release the string and it will stay in tune. Even if you do not normally bend strings during playing, this method should be used to stabilise tuning and to make the truss rod work against the correct string tension.
- ◆ Over-stretching a string can sometimes result in damage to it or even breakage. If the intonation is correct and you suspect a faulty string, check the percentage error on the 5th fret. If you have pre-stretched the strings correctly, the 5th fret reading should ideally be Zero, but up to 10% sharp is normal and acceptable. If the note is above 15% sharp - and they can even go up to 30% - it is most likely that the string is defective or it wasn't properly pre-tensioned (see above). Please note that too much finger pressure will also give false readings.

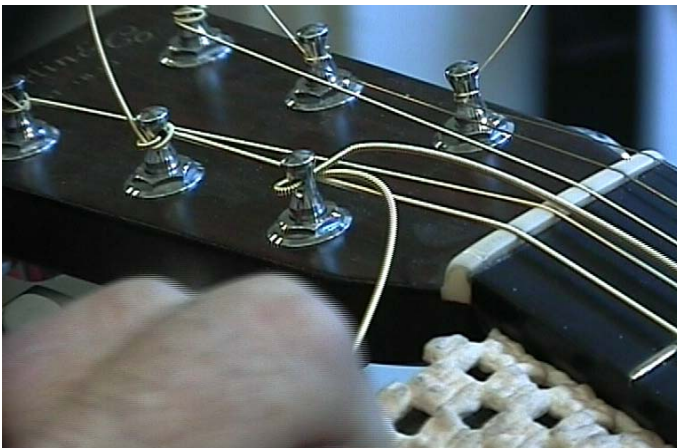
Re-Stringing standard Electric Acoustic Guitars the quick & easy way! Increases Tuning Stability! Diagrams show the bass string side of a 3+3 type. Use mirror image for treble side. This method is for steel-strung guitars only. Do not use on bass guitars or for electric guitars with slotted vintage capstans.



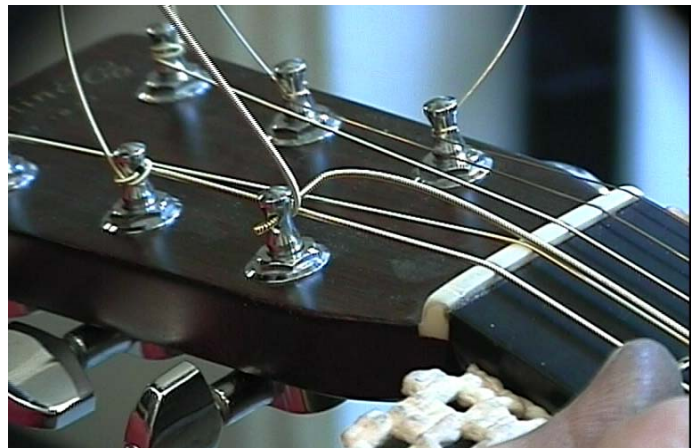
1 Position the machine-head capstan hole so that it is parallel with the nut. Thread the string through the hole and pull most of the slack out of the main body of the string, leaving about 3cm or 1".



2. Take the surplus string end and wrap it around the capstan in the opposite direction to which you would tension it up. **Note:** You are looking for one full turn of string around the post.



3. Thread the surplus string end under the string that runs from the nut to the machine-head capstan. Ensure that there is **NO** slack left around the post.



4. Pull the end of the string upwards so that it is vertical and parallel to the post. Turn the machine-head button so as to tighten up the string and the vertical string end will become trapped.



5 As the machine-head capstan is rotated, the string end should be well secured against the post, allowing the least amount of turns before the correct pitch is reached.



6. The objective is for the string to reach pitch after one full turn only. For neatness, trim off the excess string-end.