

# Guitar Technical Services

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**FITTING NEW STRINGS: To a 'Vintage-style Electric Guitar' with split capstan machine-heads -**  
Such as the Fender Stratocaster & Telecaster.  
This method increases tone and tuning stability with heavy tremolo use! (if fitted)

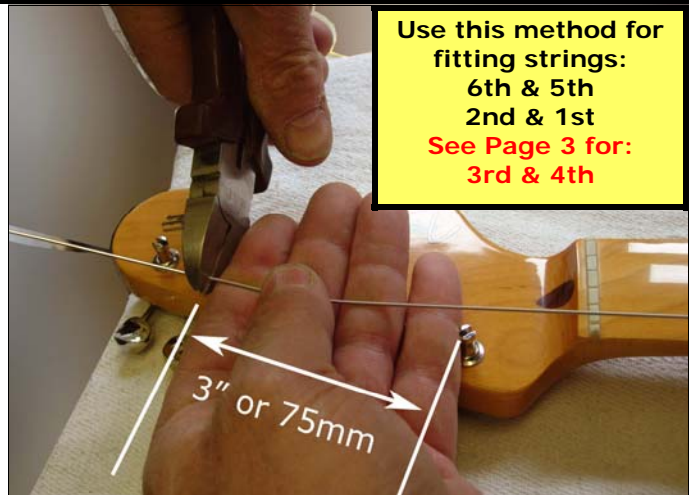


- ◆ USE THE SAME GAUGE AS FITTED AT THE SET-UP. When a guitar is set-up the truss rod is adjusted to counteract the pull of the strings. Different string gauges have varying amounts of pull, so when you choose to change your gauge of string, a qualified guitar technician should adjust the truss rod accordingly. 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 slotted capstan-type barrels and holes in the centre, read the illustrated pages that follow.

## How to Re-Stringing a Vintage Electric Guitars with split capstan (Vintage) machine-heads. This increases tuning stability with heavy tremolo use!



1 Thread the string through the Sustain Block in the back of the guitar. Remove the cover plate if you cannot see properly. Make sure the ball end doesn't catch on the edge and goes down the hole.



Use this method for fitting strings:  
6th & 5th  
2nd & 1st  
See Page 3 for:  
3rd & 4th

2. Pull the string taut, past the 1st post nearest the fretboard. Measure the distance as seen in the picture or use the width of your hand. 3" or 75 mm will give you 3 turns on the post when wound on..



3. If the string was cut cleanly, the end should be easily pushed down the hole in the centre of the capstan until it won't go any further.



4. Press the string into the slot, bending it so it is horizontal (parallel with the headstock). Turn the tuning button anti-clockwise so the string starts to wind onto the capstan.



5 As the machine-head capstan is rotated, the string end should be well secured. The string wrap must go DOWN the post in order to give the right amount of down-pressure on the nut.



6. By the time the string is up to tension, there should be 3 wraps (minimum) on the post. This will ensure the string has greater grip because there is more surface area with the post.

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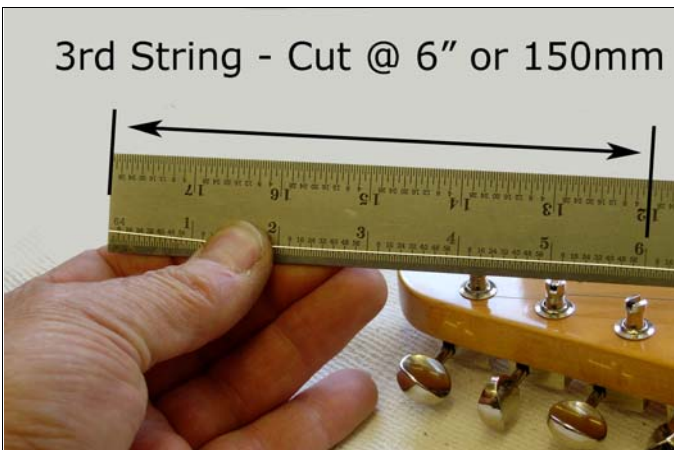
**For Fitting Strings:3rd & 4th only**



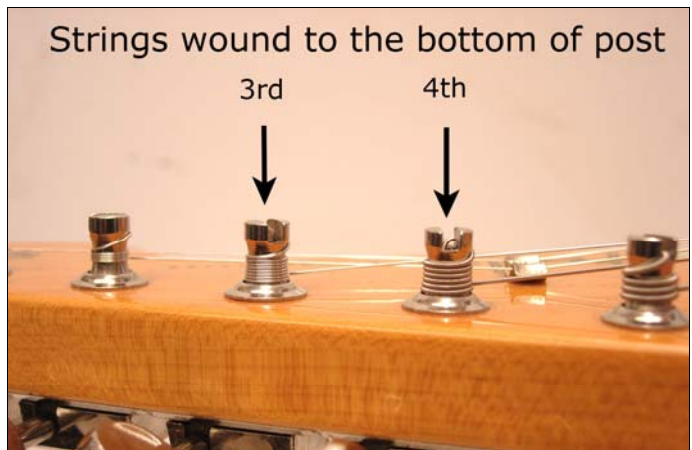
7 Once the 1st, 2nd, 5th & 6th strings are fitted a different method is used for the 3rd & 4th because there is no string tree to give enough downward pressure. [Ignore the following if you do have 2 fitted.](#)



8. Measure & cut 5" or 130mm past the 4th post. This gives you enough winds so that it finishes at the bottom of the post and increases the angle of the string off the nut, giving greater down-pressure.



9. Finally, for the 3rd string, measure & cut in a similar way to how the 4th string was done but @ 6" or 150mm and wind the remaining string to the bottom of the post.



10. This is how it should look after the restring is complete. Note that the 2nd and 5th strings only have the necessary 3 turns to give good grip on the post. .



1 One modification is to fit a small spacer under the string tree to reduce the sharp angle off the nut. This should give enough down-pressure but still allow free movement of the string when using the tremolo (if fitted).



12. Once the Restring is completed with the correct angles, the guitar will stay in tune. All that remains is to 'Pre-tension the Strings' as explained in the following text.....

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## Pre-tensioning New Strings

- ◆ 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.