

Guitar Technical Services

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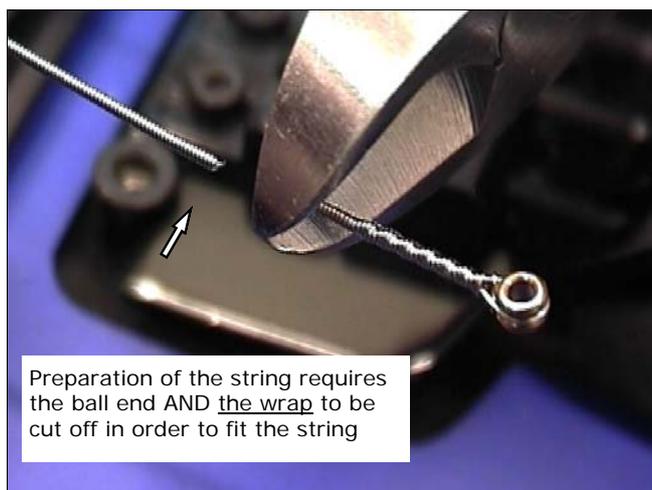
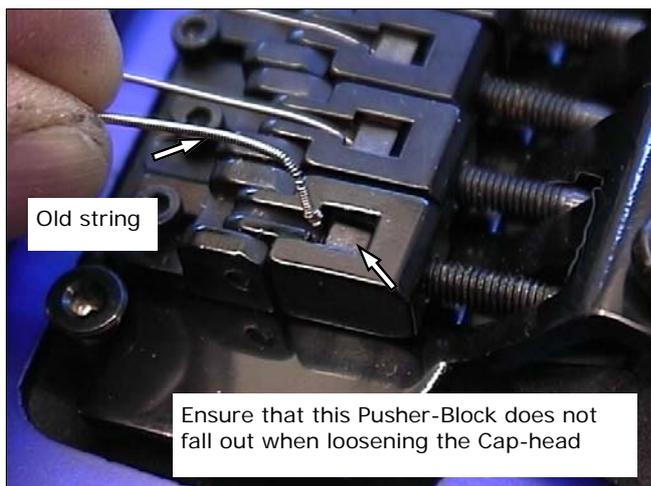
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Re-Stringing the Double Locking Floyd Rose Tremolo

FLOYD ROSE STRING CHANGE - It is important to keep to the same gauge of string as listed at the set-up. If the gauge of string is changed and/or a different tuning is used, the playability may be affected.



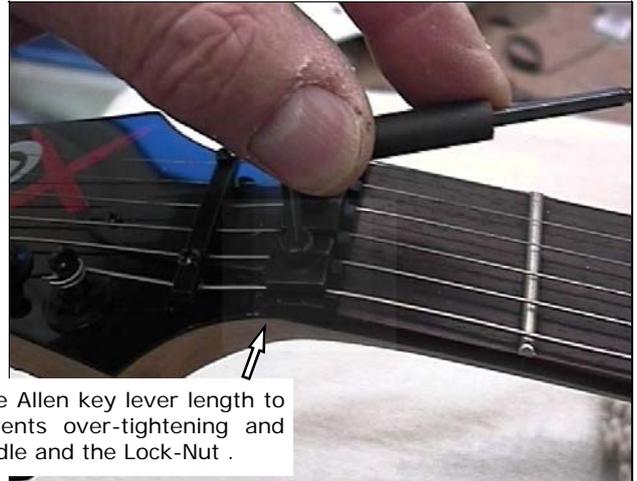
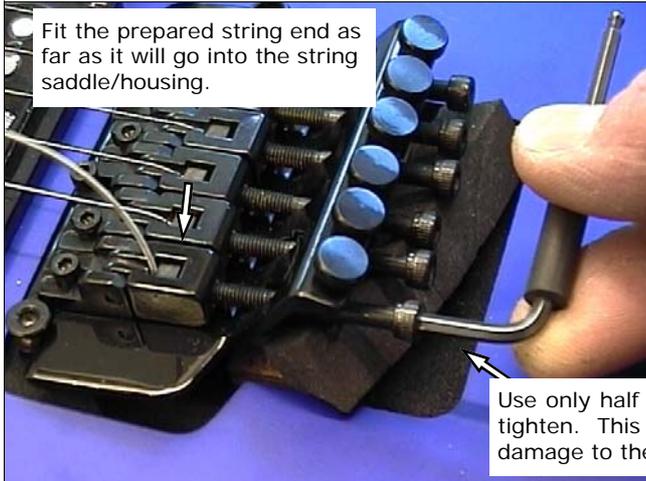
Remove the string by undoing the clamp at the headstock, undoing the machine-head and undoing the cap-head which in turn pushes the 'string pusher block/clamp block'.



Ensure that all of the string is removed from the SADDLE (tremolo) - especially when the string has broken on top of the saddle, leaving a small piece behind. Do not undo the cap-head any more than you need to as the hardened steel string pusher block may fall out and become lost!

Fit a new string by cleanly cutting off all of the ball-end AND wrap . This allows the even part of the string to be clamped properly.

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Push the clean-cut end of the string down into the "SADDLE - String Housing". Whilst holding the string in this position, tighten up the cap-head (tensioner), which in turn will push against the 'pusher block', thus clamping the string tightly against the wall of the SADDLE - string housing.

The thumb wheel at the back (which presses down on the long cap-head) should be set to a mid-position. This thumb wheel is used later on as the only way of fine-tuning, i.e. after both clamps have been set.



After the string has been fitted to the tremolo unit the string is then threaded underneath the clamp at the headstock (unless the clamps have been taken off for re-stringing purposes) and fed underneath any pressure bar that may be fitted before being fitted to the machine head - i.e. in the reverse order of removal.

The machine head is then turned until the correct note is obtained for the string. On checking the other strings, you will notice that the other strings drop in pitch as the new string is being tuned up to pitch! This is normal and it is important that the other OLD & NEW strings are all re-tuned in order to maintain a balanced pull on each string.

When all strings have been tuned to pitch, the next NEW string can be fitted. When all the new strings have been fitted the elasticity of each string will need to be reduced - this is what we call pre-tensioning them.

PLEASE READ THE FOLLOWING RE-STRING INSTRUCTIONS & ENSURE THAT THE STRINGS ARE PRE-TENSIONED BEFORE FINALLY TIGHTENING DOWN THE LOCK NUT .



PRE-TENSIONING THE STRINGS

- Pre-tensioning each string can be very frustrating because it will keep going out of tune until its elasticity is reduced. One of the problems with bending strings to pre-tension them is that the tremolo unit will rise up to compensate. It is best to fit the tremolo arm and hold the unit steady while bending the string with the other hand - this will save time in the long run.
- After all the new strings have been fitted and initially tuned to pitch check that wound strings, particularly, 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 rise in the air slightly (as all new strings do) before continuing towards the fretboard. This can alter the intonation on a new string from 5 to 25% depending on how thick the string is.
- Now retune. Bend each string in normal playing fashion, **about 2 string positions across the fretboard at the 12th fret (middle of the string)** and check the tuning meter. You don't need to use one finger to bend the string as if you are playing it - style does not count when pre-tensioning! You can use 3 or 4 fingers to bend each string. 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 each one 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.
- It is very important to make sure that the string is not over-stretched as this will cause damage to the string, which in turn will give incorrect tuning and intonation. 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.

Once the tuning is stabilised, only then can you tighten down the lock-nut. It must be pointed out that locking down the nut will cause an increase in pitch on some strings, to a small degree, but this can now be adjusted using the fine-tuners. Slight variations in pitch may be seen on the tuner at this stage but is of no importance as the fine tuners will take care of them.

NB: If there is no further adjustment possible from the fine tuners, it indicates either that the fine tuners were not set in the middle or that the strings have not been fully pre-tensioned/stabilised before clamping down at the headstock end. To rectify, undo the neck lock-nuts and start again from pre-tensioning the strings.

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