

# **ELECTRIC GUITAR**

# OWNER'S MANUAL

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Congratulations on your purchase of the YAMAHA electric guitar.

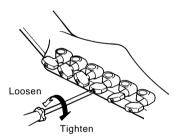
With reasonable care, your YAMAHA electric guitar will age gracefully and provide many years of superlative musical service.

#### CARE AND MAINTENANCE

- When connecting or disconnecting cables, turn off the amplifier and other equipment or reduce the volume.
- \* After playing, wipe the entire guitar down, including strings, with a good polishing cloth. This will remove corrosive skin oils and acids, and protect the plating, finish, and strings.
- Avoid exposing the guitar to direct sunlight and extremes of heat and humidity.

#### TUNING MACHINE TENSION ADJUSTMENT

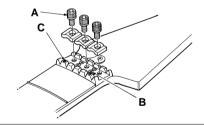
The tuning machines have spring-loaded mechanisms which automatically take up wear, preventing backlash. However, it is possible to adjust the amount of pressure required to turn the machines. Each machine has a tension adjustment screw, as illustrated.



Clockwise screw rotation tightens the machine. The tuning machines should be adjusted to the extent that they are firm, but can turn smoothly. This adjustment is normally unnecessary, and excessive tightening can lead to premature tuning machine wear.

#### HEIGHT ADJUSTABLE LOCKING NUT

- Remove 3 pcs. of hexagonal screws fixing the Lock Pads. (illustration — A)
- Loosen 4 pcs. of screws fixing the Nut Base. (illustration — B)
- Adjust the height by the Height Adjustment Screw. The Nut Base gets higher by clockwise rotation, and lower by counterclockwise rotation. (illustration — C)



NOTE: As the height has been adjusted in the best condition in the factory, please avoid the adjustment unless you have suitable experience. We suggest that you entrust this adjustment to your dealer.

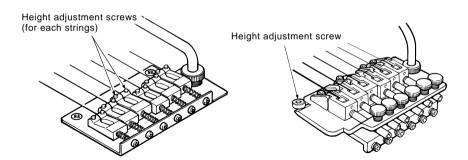
#### SETTING THE STRING ACTION

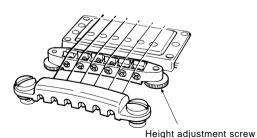
# - Bridge -

**NOTE:**Be sure to perform any necessary adjustments to the truss rod before performing the following adjustments.

Set one end of the 15 cm rule on top of the last fret with the flat side of the rule against the string and measure the space between the top of the last fret and bottom of 1st string, 6th string. The recommended height for each string should be as follows:

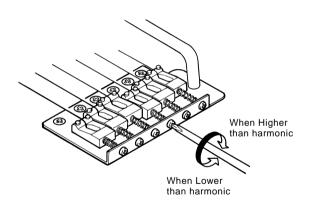
• 1st string:  $1.9 \pm 0.2 \text{ mm}$ • 6th string:  $2.4 \pm 0.2 \text{ mm}$ 





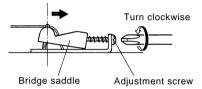
# **VIBRATO SYSTEM Vintage Type**

Following is the procedure for adjusting the vintage vibrato system:

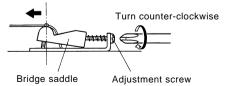


To check intonation, compare the harmonic tone (12th fret) to the fretted tone (12th fret).

 If fretted pitch is higher than harmonic, saddle must be moved backward to lengthen string.



 If fretted pitch is lower than harmonic, saddle must be moved forward to shorten string.



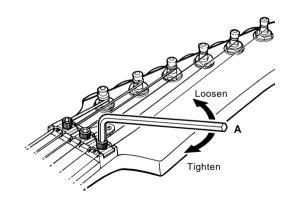
# VIBRATO SYSTEM TRS-PRO/101 (part 1)

When changing strings it is necessary to cut off the ball ends of the strings.

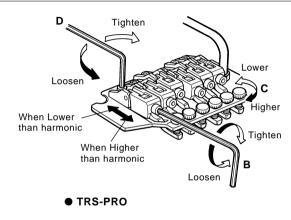
Following is the procedure for changing strings and adjusting the vibrato system:

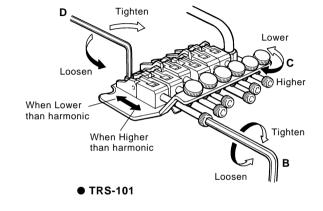
- Using the supplied hexagonal wrench, loosen the three hexagonal screws on the lock above the nut. (illustration A)
- 2) Loosen the individual string locks using the supplied hexagonal wrench. (illustration B)
- 3) Replace the old strings with new strings.
- 4) Using the hexagonal wrench, lock each string.
  (illustration B)
  After locking the strings, make sure that the fine tuning thumb screws are in the middle of their range of travel.
  (illustration C)
- 5) Tune the guitar to the correct pitch.
- 6) Remove the back plate to gain access to the vibrato strings. Three springs are factory installed and we recommend that these springs be adjusted so that the vibrato bridge plate is parallel to the top of the guitar when it is tuned to correct pitch.

- 7) Lock the strings above the nut. (illustration A)
- 8) Use the fine tuning thumb screw to tune the guitar to the correct pitch. (illustration C)



# VIBRATO SYSTEM TRS-PRO/101 (part 2)





## Intonation Adjustment in Vibrato Bridge

- 1) Loosen the hexagonal screw located in front of each saddle using the supplied hexagonal wrench. (illustration D)
- 2) Slide the saddles by hand to adjust the length of each string.

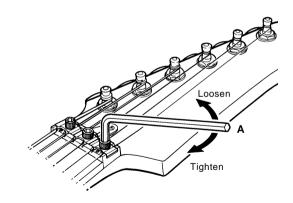
 When the intonation is correct, tighten the hexagonal screw in front of each saddle to ensure that its position stays stationary. (illustration — D)

# YAMAHA ORIGINAL DESIGN VIBRATO SYSTEM RM - Pro II / III (part 1)

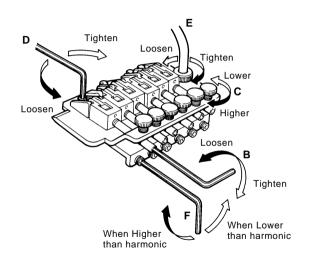
The strings are top-loaded from the rear of the bridge and it is not necessary to cut off the ball end as on other vibrato systems. Following is the procedure for changing strings and adjusting the vibrato system:

- Loosen the three hexagonal screws on the lock above the nut. (illustration — A)
- Loosen the individual string locks using the hexagonal wrench. (illustration — B)
- 3) Replace the old strings with new strings and tune the guitar to the correct pitch.
- 4) Using the supplied hexagonal wrench, lock each string.
  (illustration B)
  After locking the strings, make sure that the fine tuning thumb screws are in the middle of their range of travel.
  (illustration C)
- 5) Tune the guitar to the correct pitch.
- 6) Remove the back plate to gain access to the vibrato strings. Three springs are factory installed and we recommend that these springs be adjusted so that the vibrato bridge plate is parallel to the top of the guitar when it is tuned to correct pitch.

- Lock the strings above the nut using the supplied hexagonal wrench. (illustration — A)
- 8) Use the fine tuning thumb screw to tune the guitar to the correct pitch. (illustration C)



### YAMAHA ORIGINAL DESIGN VIBRATO SYSTEM RM - Pro II / III (part 2)



#### Intonation Adjustment in Vibrato Bridge

- Loosen the hexagonal screw located in front of each saddle using the supplied hexagonal wrench. (illustration — D)
- Use the hexagonal wrench to adjust the individual string lengths. These screws are located directly below the string mounting holes. (illustration — F)
- When the intonation is correct, tighten the hexagonal screw in front of each saddle to ensure that its position stays stationary. (illustration — D)

# Tension Adjustment in Vibrato Arm

Adjust the tension rotating the Arm Collar. (illustration — E)

# Removing the Vibrato Arm

When you pop in/out the Vibrato Arm, please be sure to loosen the Arm Collar first, and then pop in/out the Vibrato Arm.

#### BRIDGE/SPRING TENSION ADJUSTMENTS

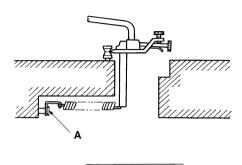
For best results the bridge should always be adjusted so it is parallel to the top surface of the guitar as shown in illustration (below). This position is maintained by opposing tension between the strings and the claw springs. If you change string gauge, you will need to readjust the spring tension to return the bridge back to the parallel position.

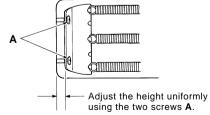
The adjustment procedures are:

- Remove the screws that attach the tremolo cavity back plate from the back side of the guitar exposing the claw springs.
- 2) Make sure that the guitar is tuned to proper pitch.
- 3) If the bridge is tilted forward (up), tighten spring tension by turning the claw screws clockwise. If the bridge is tilted back (down), loosen the spring tension by turning the claw screws counterclockwise.

(illustration — A)

Be sure to check string pitch after each adjustment to the spring tension.

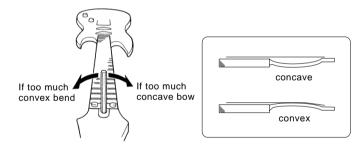




#### TRUSS ROD ADJUSTMENT

The curvature of the neck should be slightly concave.

Clockwise rotation of the nut tightens the rod and corrects for too much concave bow. Counterclockwise rotation of the nut loosens the rod and corrects for too much convex bend. Make any adjustments gradually. Allow five to ten minutes for setting, and check the curvature after each 1/2 turn of the truss rod nut.

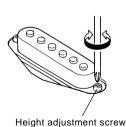


**NOTE:** Unless you have experience with truss rods, we suggest that you entrust this adjustment to your dealer.

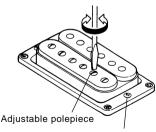
#### PICKUP HEIGHT ADJUSTMENT

The height of the pickup (i.e. distance from the strings) affects gain — the higher the pickup, the louder the sound, and vice versa. If the pickup is set too high, sustain and playability will suffer because of the magnetic pull on the strings. Adjust overall height using the screws located at either side of the pickup. If the pickup has individually adjustable polepieces (most humbuckers do), these can then be adjusted to achieve the best overall balance. The polepieces should normally be about 2 or 3 millimeters from the strings.

#### Single-coil Pickup



# **Humbucking Pickup**



Height adjustment screw

#### SERVICE

If your guitar should need any parts or service, or if you need any information, including the address of your nearest YAMAHA dealer, contact:

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