



Electric Acoustic Guitar

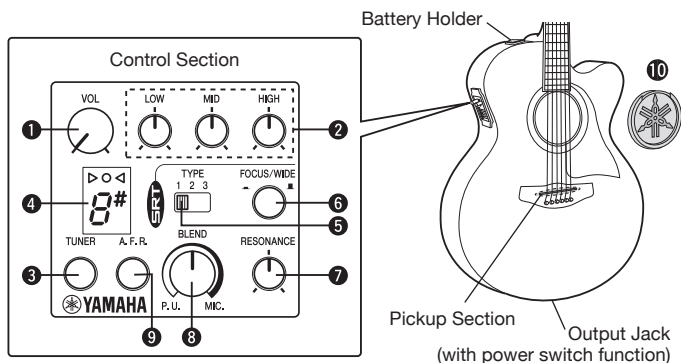
Owner's Manual

This Yamaha electric-acoustic guitar incorporates a new pickup and electronics system designed to capture and deliver a real acoustic sound like that of an acoustic guitar recorded with a microphone. In order to make the most of the advanced features and performance provided by your guitar, please read this manual carefully before using the instrument.

PRECAUTIONS

- Before connecting the guitar to the amplifier, refer to the "Battery Replacement" section and install the batteries.
- Always set the guitar's VOLUME control and the volume control on the amplifier to their minimum levels when connecting or disconnecting the cable.
- The built-in preamplifier is automatically turned ON when a guitar cable is connected to the output jack. When not using the instrument, or when playing it without amplification, be sure to remove the guitar cable from the output jack so that the preamplifier power is turned OFF. Also, if the instrument is not going to be used for an extended period of time, or when battery power is depleted, we recommend that the batteries be removed in order to avoid power consumption or leakage.
- Even when the guitar cable is disconnected from the output jack, **power is turned ON** when the TUNER switch is ON (). Always turn the TUNER switch OFF () after using the tuner.

NOMENCLATURE/CONTROL INSTRUCTIONS



- VOL Control:** Controls the volume.
* Always set the volume to its minimum level when connecting or disconnecting the cable.
- 3-Band Equalizer:** Adjusts the LOW, MID, and HIGH frequency levels.
- TUNER Switch:** Switches the tuner ON/OFF.
- Display:** Displays tuner information and settings, and A. F. R. functions.
- TYPE Switch:** Selects the pickup's mic simulation type (1: large diaphragm condenser mic/ 2: small diaphragm condenser mic/ 3: ribbon mic).
- FOCUS/WIDE Switch:** Selects the setting for the simulated mic.
FOCUS (): This setting delivers a clear tone appropriate for use when playing with a band.
WIDE (): This setting delivers broad tone appropriate for solo use.
- RESONANCE Control:** Rotating to the right delivers more body tone, rotating to the left produces less. The knob's central detent position is the standard setting.
- BLEND Control:** Controls the mix level of signals received from the pickup and the simulated mic. Rotate fully to the left for 100% pickup signal and fully to the right for 100% simulated mic signal.
- A.F.R. Switch:** When feedback occurs, this function automatically detects the problem frequency and applies a filter to eliminate the feedback.
- Sound Hole Cover (supplied):** Inserting the sound hole cover into the sound hole effectively reduces feedback.

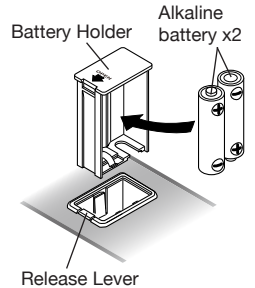
SPECIFICATIONS

- System:** System-63
- Pickup:** Bar Sensor (Piezo type)
- Preamplifier Controls:** Vol., 3-Band EQ (HIGH, MID, LOW), TYPE (1/2/3), FOCUS/WIDE, RESONANCE, BLEND, A.F.R., TUNER
- Output Jack:** Combination end pin/power switch
- Output Impedance:** 1k Ω
- Batteries:** Size AA alkaline battery (LR6) x2
- Battery Life:** Approx. 20 hours (Without tuner and using alkaline batteries. May differ due to operating conditions.)
- Tuner:** Chromatic type (12 semi-tones), Calibration (A=438 to 445Hz), Accuracy range \pm 3 cents
- Accessories:** Neck adjustment hex-wrench x1, Size AA alkaline battery x2, Sound hole cover x1

BATTERY REPLACEMENT

As battery power becomes depleted, the triangular icons blink alternately () in the display, replace the batteries as soon as possible.

- Press the release lever on the battery case in the direction indicated by the arrow \downarrow in the illustration in order to unlock it, and then slide out the battery holder.



- Remove the old batteries from the battery holder, and insert the two new size AA alkaline batteries. Make sure that the poles on the batteries are properly positioned as shown in the diagram inside of the holder.

* Use alkaline batteries only.

* Always change both batteries at the same time. Do not mix new and old batteries, or different type batteries (batteries made by different manufacturers or batteries by the same manufacturer but of different types). Not doing so can result in fire, etc.

* Never dismantle the batteries and never dispose batteries in fire.

* Never touch any fluid that may leak from the battery. If the fluid should come in contact with the eyes, mouth, or skin, wash immediately with water and consult a doctor.

* Always dispose batteries in accordance with local laws and regulations.

- Slide the battery holder back into the battery case and press firmly so that the battery holder locks in place.

USING THE TUNER

- Press the TUNER switch () to activate the tuner. (The $\triangleright \circ \triangleleft$ lamps light.)
- Tune the guitar string until the note name of the desired pitch appears in the display.
- The string is in tune when only the \circ lamp lights in the center of the $\triangleright \circ \triangleleft$ display.

Pitch is low $\rightarrow \rightarrow \rightarrow$ **In Tune** $\leftarrow \leftarrow \leftarrow$ **Pitch is high**
 $\triangleright \circ \triangleleft$ $\triangleright \circ \triangleleft$ $\triangleright \circ \triangleleft$ $\triangleright \circ \triangleleft$ $\triangleright \circ \triangleleft$

- Press the TUNER switch again to switch the tuner OFF (). (The $\triangleright \circ \triangleleft$ lamps are off.)

* It may take a few seconds before the tuner can detect pitches after being switched ON.

* The note name and $\triangleright \circ \triangleleft$ displays may have difficulty keeping up with irregular pitch changes. Gradually change the pitch and check when tuning.

* The tuner may not be able to detect notes rich with overtones or with very short sustain.

* Sound output is muted when the tuner is in use.

Calibration (changing the reference pitch)

The tuner's reference pitch can be adjusted within a range of A = 438 to 445Hz (set to 440Hz when the power is switched ON).

- After switching the tuner ON, press the A.F.R. switch. The last digit of the current reference pitch is shown in the display.
- Press the A.F.R. switch after the reference pitch is displayed to change the reference pitch in 1Hz increments.

$\rightarrow 438 \rightarrow 439 \rightarrow 440 \rightarrow 441 \rightarrow 442 \rightarrow 443 \rightarrow 444 \rightarrow 445 \rightarrow$

USING A.F.R. (Auto Feedback Reduction)

If you experience problem feedback while performing, follow the A.F.R. setting instructions below to effectively control the feedback.

- When feedback occurs, press the A.F.R. switch after all sound other than the feedback has muted.

* The system may not be able to detect the problem frequency if two or more sounds are present at the same time.

- The system automatically detects the frequency causing the feedback and applies a -12dB notch filter. The number of notch filter bands currently applied is shown in the display.

* The system can apply a maximum of 5 notch filter bands.

* If the detected frequency is the same or very close to a frequency that is already being suppressed with a notch filter, the notch filter gain will be decreased an additional 6dB (-12dB \rightarrow -18dB and -18dB \rightarrow -24dB, two stages).

* If all five notch filters are in use and another frequency is detected after the A.F.R. button is pressed, "F" appears in the display and the new frequency cannot be set.

* The system will not apply a notch filter if it cannot properly detect the problem frequency.

- Hold the A.F.R. switch until "F" appears in the display to cancel all notch filters. Or, switch off the power (unplug cable from output jack) to cancel all notch filters.