

## AX2000 Series Contact AutoTuner Operating Guide

AX2000

AX2000-W



Now that you're the owner of a patented Sabine AX2000 Contact AutoTuner, the most unique and innovative chromatic tuner available, you'll find tuning your instrument has never been easier. This removable, business card-sized tuner is always at your fingertips.

The AX Tuner's highly accurate advanced digital technology allows superior performance when tuning most stringed instruments, particularly electric or acoustic guitars, banjos, mandolins, violins and bass guitars.

### OUTSTANDING FEATURES

- **Highly Accurate**
- **Mounts Directly on Your Guitar**
- **InTouch™ Contact Microphone Picks Up Your Instrument's Vibrations**
- **It's Cordless!**
- **Easy-To-Read Three-Color LED Display**
- **World's Smallest Tuner**
- **Full-Range Chromatic Scale**
- **Automatic Recalibration**
- **Automatic Power Down**
- **Longest Battery Life**
- **Quartz Accuracy**
- **Available with Rich Wood Finish (AX2000-W)**

### INSTRUCTIONS for TUNING

**CAUTION:** *The AX Tuner is not recommended for use on instruments with antique or cracked finishes. See cautions on reverse side.*

1. PLACE THE TUNER DIRECTLY ON YOUR INSTRUMENT WHEREVER IT IS MOST CONVENIENT AND EASY TO SEE. You will want to experiment with the tuner to find where its peak performance can be reached on your particular instrument. For example, the tuner may work best on your guitar when placed near where the fingerboard meets the top or on the side next to the neck's heel.
2. PRESS THE POWER BUTTON ("P") TO TURN ON YOUR TUNER. When the power is turned on, the D# note indicator will blink once per second. Tones generated by both acoustic and electric instruments are detected by the AX Tuner's InTouch™ sensitive internal contact microphone. The AX Tuner picks up vibrations from the top of the instrument rather than the air so it is less affected by background noise than other tuners. It is therefore not necessary to play loudly; plucking the string lightly once per second usually gives the best results. Heavy plucks may make tuning more difficult.  
THE TUNER WILL TURN ITSELF OFF AFTER TWO MINUTES. However, if you wish to defeat the power down timer to have the tuner stay on throughout the performance instead of automatically turning off after two minutes, turn the tuner off; then hold down the calibrate ("C")

button and press the power ("P") key. Release the power key first and then the calibrate button. Two LEDs will light initially to indicate the tuner is in the non-timer mode.

3. LIGHTLY PLUCK THE STRING YOU WISH TO TUNE. Adjust the instrument's pitch until the desired NOTE INDICATOR LED lights. For example, if you wish to tune a D string on a guitar, pluck the string and tune it until the "D" LED lights. Pluck the string every second or so to keep the note "fresh" and to prevent the note from fading flat. Also, to eliminate extraneous overtones, mute the other strings after each pluck.
4. SLOWLY ADJUST THE INSTRUMENT'S PITCH UNTIL THE DESIRED NOTE'S LED TURNS GREEN, INDICATING THE STRING IS IN TUNE.  
Note that the LED turns yellow when the tone is flat and turns red when the tone is sharp. The LED blinks rapidly when the tone is far from being in tune and blinks slower and slower as the tone approaches being in tune. Repeat steps 3 and 4 for the other notes until the entire instrument is tuned.
5. TO REMOVE THE AX, GENTLY TWIST AND LIFT THE TUNER. Store the AX in its DomeHome™.

### RECALIBRATING your AX TUNER

Most other tuners allow the user to recalibrate only a few Hertz from standard A = 440 Hz. They are almost useless if you wish to tune to an instrument that is more than a few Hertz out of tune. However, you can recalibrate your AX Tuner to match the pitch of any reference instrument simply by touching the calibrate ("C") button.

**Example:** If you wish to tune a guitar so it will be in tune with a certain piano, place the tuner on the piano, defeat the two-minute power down timer, play an "A" (or any other note) and wait a moment for the note to register on the tuner's display. Then lightly press the calibrate button on the tuner. The "A" LED will turn green, indicating that the tuner now considers the piano to be in perfect tune. Now if you tune your instrument to the tuner, your instrument will be in tune with the piano.

Note: To reset the tuner to standard a = 440 Hz, press the power button to turn the tuner off and then back on. The ax tuner always returns to a = 440 Hz when it is turned on.

### CLEANING THE SafeMount™ PAD

**Only dampen the pad. Do not immerse the tuner in water or place it directly under a faucet. This may damage the tuner and will void the warranty.** If the tacky material gets dirty, there are two ways to clean it.

1. Use a little isopropyl rubbing alcohol and a toothbrush (preferably an old one!). For quick & easy cleaning, carry around some foil pack alcohol wipes to clean the pad. **CAUTION: Make sure the alcohol has dried completely before placing the AX Tuner on your guitar. - or -**
2. Place a dab of **NONABRASIVE, NON-MOISTURIZING** soap on your finger and spread the soap on the material. Then rinse your finger and use it like a squeegee to clear the pad of soap. Allow the pad to air dry for about 10 minutes. The SafeMount™ becomes tacky again when it dries.

To keep the pad tacky longer between cleanings: Keep the guitar surface clean, avoid touching the SafeMount™ pad, and keep your AX Tuner in its DomeHome™ when not in use.

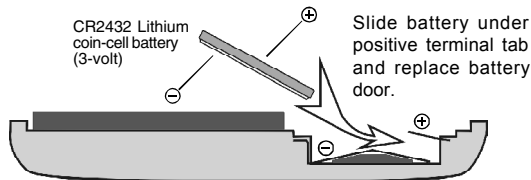
**CAUTION**

Take the AX Tuner off your guitar and store it in its DomeHome™ when not in use.

**DO NOT LEAVE IT ON THE INSTRUMENT**

The AX Tuner is not recommended for use on instruments with antique or cracked finishes.

Instrument finishes have the potential to become loose. Sabine will not be responsible for instruments where the finish has lost integrity. The Sabine AX Tuner will not harm a normal finish.

**CHANGING THE AX'S BATTERIES**

The AX Tuner's battery should last for approximately 1,500 tunings, or one year. When you find it necessary to change the battery, locate the battery door (exposed on the bottom of the AX Tuner). Place the bottom end lip of the DomeHome™ in the door's slot and turn the door counterclockwise until it opens. Slide CR2430 Lithium coin-cell battery with negative sides down into place on top of negative terminal strap (long) and under positive terminal strap (short) as shown in drawing above.

**KEY POINT:** Batteries must have negative terminals face down, and must be sandwiched between the long negative terminal and short positive terminal.

**NOTE: AX2000 Contact AutoTuners manufactured after January 15, 2002 require only one CR2430 Lithium coin-cell battery (included).** For AX2000 manufactured prior to this date, 2 CR2430 batteries must be stacked together with negative sides down and placed between the positive and negative terminal straps.

**TUNING TIPS**

Many musical instruments have peculiarities that cause annoying tuning problems. Most of these peculiarities are overcome by following these simple procedures:

1. Pluck one string at a time.
2. Pluck the instrument once per second to keep the note "fresh" while you are tuning. Notes go noticeably flat a second or two after being plucked. If tuning a higher-pitched instrument (such as a mandolin), pluck a little faster; for a lower-pitched instrument (such as a bass), pluck slower.
3. Do not pluck loudly. Your AX Tuner's sensitive contact microphone can pick up light to medium volumes, and heavy plucking may overpower the microphone or pull the note sharp.
4. Pluck the strings with the flesh of the thumb. Fingernails and flat picks add overtones and slow the tuning process.
5. Tune from a pitch that is flat up to the pitch you desire. This procedure removes any slack in the gears of the instrument's tuning heads. If you tune from SHARP to IN TUNE, the gears will slip as you play, and the instrument will go flat after a few minutes of playing.

6. If you have difficulty getting a note to register on the tuner, try touching the other strings lightly to stop their sympathetic vibrations. This will eliminate any extraneous overtones that may disturb the tuning.
7. Use good strings. Old strings lose their uniformity and do not vibrate evenly. New strings stretch flat as you play.
8. All sources of friction cause tuning problems. For example, if the slot in an instrument's nut is too tight, the string will be pulled flat as it is played. A tight nut (or capo) will cause the string's pitch to change in steps rather than evenly.
9. Avoid pressure on the instrument while tuning. Even moderate pressure on the neck of a guitar will cause a noticeable change in pitch. Also, press the strings straight down to the fingerboard. Bending the strings sideways is very common, especially on difficult chords, but causes the strings to be pulled sharp.
10. A note for advanced fretted instrumentalists: Almost all fretted instruments, and most other instruments, are constructed to play an "even-tempered scale." Sabine tuners are also calibrated to this scale. The even-tempered scale places equal tonal spacing between all notes in the scale so that the musician will not have to retune to change keys. A disadvantage, however, is that the third note of the scale sounds a little sharp (14 cents, to be exact). For example, when playing in the key of G, the B note will sound sharp. If you tune the B string so that it sounds correct in an open G chord, other chords using the B string will sound out of tune. The musician may choose to optimize the tuning of a particular key or to use the even-tempered scale. Much depends on the musician's style, but generally it is best to tune exactly as your Sabine tuner indicates.

**SPECIFICATIONS**

**Models:** AX2000, AX2000-WB, AX2000-WR, AX2000-WT

**Dimensions:** 3.3 x 1.8 x 0.4 in. (8.4 x 4.6 x 1.0 cm)

**Weight:** 1.25 oz. (36 g), with batteries

**Scale:** Even-tempered, 12 notes per octave

**Accuracy:** ± one cent (uses quartz crystal)

**Battery:** One CR2430 Lithium coin-cell, 3 Volts (included)

**Tuning Range:** 5 Octaves

**LIMITED 2-YEAR WARRANTY**

If your AX Tuner fails because of a manufacturing defect within two years from the date of the original purchase, please return it to your dealer. If you need to return the tuner to Sabine, call for a Return Authorization number. Then send it, postage prepaid, to Sabine for replacement with a new or reconditioned product. **You must include your full name, address, proof of purchase and the nature of the defect.** This warranty does not cover damage caused by accident, misuse or defective batteries.

**Sabine, Inc.**

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