SAMSON®

CT16 Clip-On Tuner

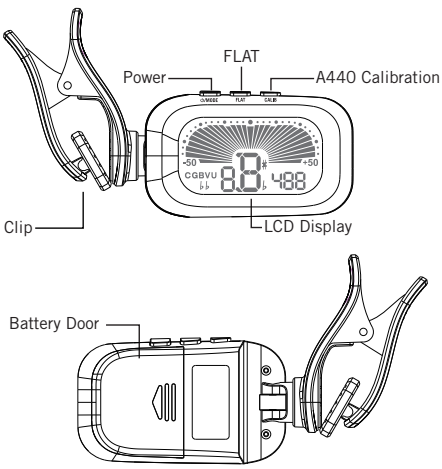
Owner's Manual

Guitar | Bass | Violin | Ukulele

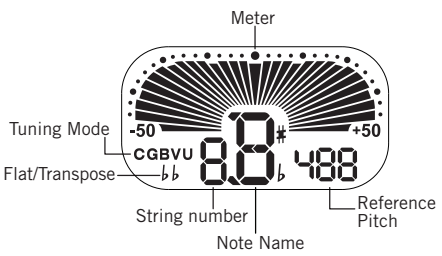
Introduction

Congratulations on the purchase of your new Samson CT16 clip-on tuner! Combining precision tuning with a vivid LCD display, the CT16 makes tuning your instrument easier than ever. The integral clip and dual 360° ball-joints allow for maximum visibility at any angle, and make the tuner perfect for use with guitars and basses, as well as stringed, woodwind and brass instruments. The CT16 has a piezo sensor, which uses the vibrations of your instrument to tune which makes the CT16 ideal for tuning in noisy environments. The CT16 is the ultimate accessory for every instrument case, gig bag, or back pocket. We suggest that you take some time to go through these instructions to fully understand how we've implemented a number of unique features, and to get the most out of your Samson CT16 tuner.

CT16 Controls and Functions



LCD Display



Tuning Your Instrument

1. Attach the CT16 to your instrument.
2. Press and hold the Power/MODE button to turn on the tuner. When the tuner is powered on, the display will light.
3. Select the tuning mode by tapping the Power/MODE button. The current mode will be displayed: **C (chromatic), G (guitar), B (Bass), V (Violin), U (Ukulele C and D tunings).** When the CT16 is set to an instrument mode, the tuner displays the string number and note name closet to the note played.
4. If necessary, adjust the calibration by pressing the CALIB button. The CT16 comes from the factory set to 440 Hz (A440). See **Adjusting the reference pitch** below for more information on changing the calibration.
5. Play a single note on your instrument. The display will show the name of the note. If in an instrument mode, the display will also show the string number closest to the pitch detected by the tuner.
6. While the note is being played, tune your instrument so that the meter points to the center position and the display back light changes to green. If the note is flat, the meter will point to the left side of the display. If the note is sharp, the meter will point to the right side of the display.
7. Tune your instrument to the correct pitch so that the desired note name appears. Repeat this step for each note or string to be tuned.

Adjusting the reference pitch

The Samson CT16 comes from the factory with the reference pitch set to 440 Hz (A440), which is the general tuning standard for musical instruments. If necessary, the reference pitch can be adjusted to any frequency between 410–450 Hz. To adjust, press the CALIB button; the reference pitch will increase by 1 Hz increments.

Note: The reference pitch will be stored even when the power is turned off. If the battery is removed, the reference pitch will reset to the factory default (440 Hz).

Flat tuning

The CT16 comes from the factory set to concert pitch, which means that the tuner displays the note "A" when A440 is played on an instrument. The CT16 can also transpose down two semi-tones below concert pitch. This is perfect for drop tuning guitars, or to use with non-transposing instruments like a B♭ clarinet. Press the FLAT button on the back of the tuner to lower the relative pitch. The tuner will lower a half step each time the button is pressed, and the display will indicate one or two flats (♭). To return the tuner to concert pitch, press the FLAT button until no flats (♭) are visible.

Note: The transpose setting will be stored even when the power is turned off. If the battery is removed, the setting will reset to the factory default.

Tips for tuning stringed instruments

For best results when tuning a stringed instrument, use a light to medium plucking volume. Strings will usually go sharp after the initial attack. Plucking the strings too hard will emphasize this effect.

Pluck the string with the flesh of your thumb. This will produce a note with fewer overtones for the tuner to process than when using your fingernail or a pick.

If the note is not registering, or the display jumps between notes, try muting the other stings to eliminate any sympathetic vibrations.

It is recommended that you tune up from a flatter pitch. This reduces any slack in the instrument's tuning pegs. If you go too far, loosen the string tension and tune up again.

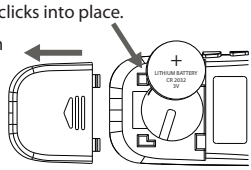
Attaching the CT16

Attach the CT16 tuner to your instrument using the integral clip. Use care when attaching the tuner to your instrument. Leaving the CT16 attached to your instrument for a long period of time may hurt or mar the finish. It is recommended that you remove the tuner when finished playing, or when storing your instrument. If the rubber pads are missing or broken, do not attach the tuner to your instrument. For stringed instruments, clip the tuner onto the headstock of the instrument. The tuner can be positioned on either the front or back of the headstock. For other instruments, you may want to experiment to determine optimal positioning. The position of the tuner will depend on the type of instrument.

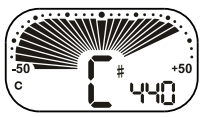
Installing the Battery

The CT16 uses one CR2032, 3-volt, lithium battery. To install or replace the battery, slide the battery door located on the back of the tuner until the compartment opens. Place the battery in the compartment, ensuring that the positive (+) terminal is facing up (towards you). Replace the battery cover, until it clicks into place.

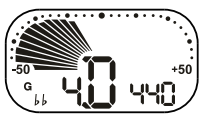
The tuner display will dim when the battery is low. At this point, the battery is depleted and should be replaced as soon as possible.



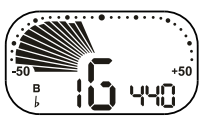
Tuning Modes



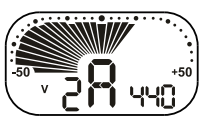
Chromatic: 12 notes of the chromatic scale



Guitar: 6E, 5A, 4D, 3G, 2B, 1E

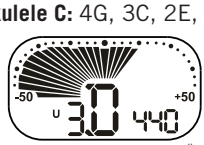


Bass: LB, 4E, 3A, 2D, 1G, HC



Violin: 4G, 3D, 2A, 1E

Ukulele C: 4G, 3C, 2E, 1A



Ukulele D: 4A, 3D, 2F#, 1B

Specifications

Tuning Scale	Chromatic, Guitar, Bass, Violin, Ukulele C, Ukulele D
Tuning Range	A_0 (27.50 Hz) - C_8 (4186 Hz)
Calibration	410 - 450 Hz (1 Hz Steps)
Display	LCD
Input	Piezo Sensor
Precision	±1 cent
Response Time	20 ms
Power	3V (CR2032 lithium battery)
Power Consumption	
Tuning Mode	<12mA (battery life is more than 20 hours)
Power Off	1uA
Dims	3.1" x 2.6" x 1.45"
Weight	1.7 oz
Included items	CR2032 lithium battery (3V)

Specifications subject to change without notice

Precautions

For optimal,trouble-free performance, please observe the following precautions.

- Do not leave the tuner attached to the instrument for long periods of time, as it may damage or mar the finish of the instrument.
- Do not use the tuner in direct sunlight, extreme temperature, or high humidity.
- Do not use the tuner in excessively dusty conditions, dirty locations, or areas subject to high levels of vibration or magnetic fields.
- Power off when the unit is not in use.
- To prevent leakage, remove the battery when the unit is not in use for extended periods of time.
- Do not apply excessive force to the switches or controls.
- To clean, wipe with a clean dry cloth. Do not use liquid cleaners, cleaning compounds, or flammable polishes.
- To avoid damage or electrical shock, do not place liquids on or near the tuner.
- There are no user-serviceable parts, do not open or perform any internal modifications to the unit.
- Do not attempt to repair the unit or to replace any internal parts. Refer all servicing to your retailer, Samson service center, or authorized Samson distributor.

FCC REGULATION WARNING

Note: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Please note that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.