

# BARCUS-BERRY. Pulse MetroTuner

## Digital Metronome & Chromatic/Guitar Dual Tuner

Congratulations on purchasing a Barcus Berry MetroTuner PULSE. The PULSE combines a digital metronome and dual chromatic/guitar tuner in a compact and slim body for mostly portable use.

### Metronome Features

- Loud, wood-block and clear chime tone - hear the PULSE over loud instruments
- Accented down beat phrases ( 0, 2 to 7) and 5 kinds of rhythms - great for practicing difficult parts
- Set tempo from 40 to 216 BPM ( Beat Per Minute), 41 steps
- Sweeping LCD meter makes it easy to stay on the beat, even with the volume off
- Beat sound can be on/off by MUTE button

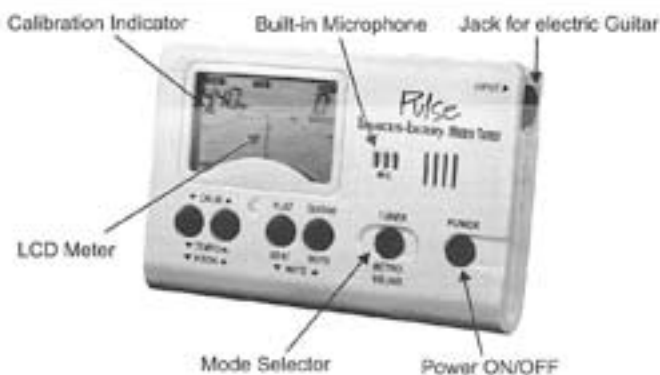
### Tuner Features

- Automatic and chromatic - perfect for intonation training
- Dedicated tuning mode for the stringed instruments, especially for a guitar
- "Quadra flat tuning" - no need to remove a capo to tune your guitar
- Built in microphone and jack for electric guitar
- Calibrate from A = 430 to 449 Hz with 1Hz step
- Easy-to-read LCD meter acts like a real tuning meter - clearly shows how sharp or flat you are in cents
- High performance voltage regulator keeps high contrast LCD display all time
- Advanced tuning algorithm - works for most string and reed instruments including human voice
- Automatic power off - 3 minutes with no signal.

### And you also get these very cool features...

- Built in stand tilts the unit for table top viewing or mounts on music stand
- Non-volatile memory maintains all settings during power-off
- Super-bright and fascinating 3 colored LED
- Recessed power on/off button; won't accidentally turn on in your instrument case
- Ultra-long battery life, ten times longer than others

## GUIDE TO USING PULSE



## USING THE METRONOME FUNCTION OF PULSE

### Press 'POWER' button for one second to turn on.

LCD screen appears and shows the mode of operation (tuner or metronome). Then you can release the button to start the operation. Hit this button shortly when you want to stop the operation.

### How to change Tempo:

Tap the 'TEMPO' button to enter tempo edit mode. Repeatedly tap a up button or down button to select the desired tempo or press the button for a while until tempo digit starts to increase/decrease automatically. As with all other functions, the PULSE will revert back to normal mode after 1.5 seconds of no button action.

### How to change Beat pattern:

Tap the 'BEAT' button to enter beat edit mode. Repeatedly tap the button to select the desired beat pattern or press the button for a while until the beat pattern starts to shift automatically.

### How to adjust the Volume of PULSE:

To mute the sound, press 'MUTE' button. To make the sound on, press 'MUTE' button again.

### NOTE:

- The PULSE remembers the last settings of metronome/tuner functions during power-off and returns to that point when power-on.
- Try to approach PULSE to the instrument under tuning as close as possible to reject noise. Otherwise use input jack for optional pick-up microphone in the noisy environment.

## USING THE TUNER FUNCTION OF PULSE

**How to select a tuning mode:** After power-on, LCD screen appears and select the mode of operation for TUNER by pressing 'MODE SELECTOR' button. In the tuner mode, the 'GUITAR' button toggles chromatic/guitar mode.

### How to re-calibrate the tuner of PULSE:

Use the calibrate function to tune your instrument to a pitch other than A=440Hz, or you want to use alternate scales. For example, if you wish to re-calibrate the tuner from standard A=440Hz to A=438Hz, tap the 'CALIB.' button to enter the calibration mode. Repeatedly tap the left or right of 'CALIB.' button until the pitch digit displays 438Hz or press the button for a while until the pitch digit starts to decrease/increase automatically.

### How to use the flat tuning mode:

Each time 'FLAT' button is pressed, the number of 'b' symbols will change, allowing you to tune from 1 semitone to 4 semitones lower than the displayed note name. Tuning is normal when no 'b' are displayed. when the capo is installed, you don't need to remove it. After pressing 'FLAT' button 1-4 times depends on the capo's position, you can tune it same as a normal tuning process.

## USING THE REFERENCE PITCH GENERATOR

Please press 'MODE SELECTOR' when PULSE is metronome mode. To choose the note what you want to hear, press 'NOTE' buttons.

Also you can calibrate A=440Hz to other pitches by pressing 'PITCH'

**Installing new battery:** Be sure that PULSE is power-off. Don't try to change the battery when it is working. Open the battery cover and change two batteries with AAA size dry battery. Never use rechargeable battery. PULSE may return to the default mode if it loses the data of settings during installation.

*Default setting:* Chromatic tuner, 440Hz, 120 BPM, 3 beat, mute off, no flat

## CAUTION

The pre-installed battery may be discharged.

Please replace it with new one after checking the performance.

### Some Stringed Instrument Tuning Tip.

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

- ◆ Pluck one string at a time
- ◆ 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 bass), pluck slower.
- ◆ Do not pluck loudly. Generally light to medium volumes provide purer tones that are easier for tuners to analyze.
- ◆ Pluck the strings with the flesh of the thumb. Finger nail and flat picks add overtones and slow the tuning process.
- ◆ 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.
- ◆ 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.
- ◆ Use a good strings. Old strings lose their uniformity and do not vibrate evenly.
- ◆ New strings stretch flat as you play.  
All source of friction cause tuning problems. For example, if the slot in an instrument's nut is too loose, the string will be pulled flat as it is played. A tight nut (or capo) will cause the string's pitch to change in step rather evenly.
- ◆ Avoid pressure on the instrument while tuning. Even moderate pressure on the neck of guitar will cause a noticeable change in pitch. Also, press the strings straight down to the finger board. Bending the strings sideways is very common, especially on difficult chords, but causes the strings to be pulled sharp.

## Specifications

Dimensions:	W=100 mm D=65.5mm H=16mm
Weight:	100 grams (including batteries)
Tuning Range:	12-Note Full Range Chromatic, A2-B7
Accuracy:	+/- 0.5 Cent
Tempo Range:	From 40 to 216 BPM (41 steps)
Beat Patterns:	0,2,3,4,5,6,7 and ♩ ♪♪ ♫♪ ♫♪♪ ♫♪♪♪
Standard Pitch:	430 ~ 449 Hz(1 Hz step)
Memory:	Non-volatile memory keeps all settings: