



# PolyTune Clip

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|-------------------------|------------------|
| Product                 | PolyTune Clip    |
| Document                | Reference manual |
| Document version / date | 2015-06-16       |

## Important Safety Instructions

- Read these instructions.
- Keep these instructions.
- Heed all warnings.
- Follow all instructions.
- Do not use this apparatus near water.
- Clean only with dry cloth.
- Do not block any ventilation openings.
- Install in accordance with the manufacturer's instructions.
- Do not install near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Only use attachments/accessories specified by the manufacturer.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- Warning: Batteries installed shall not be exposed to excessive heat such as direct sunlight, fire or the like.
- To reduce the risk of fire or electrical shock, do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on or near the equipment. Do not install this product in a confined space.

### **Warning – Coin/Button cell battery**

Applicable to products with the  symbol

-  **DO NOT INGEST BATTERY.  
CHEMICAL BURN HAZARD!**
-  This product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death.
-  Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children.
-  If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

### **Caution**

- You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.
- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

### **EMC/EMI**

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 residential installations. 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 into 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.
- **For customers in Canada:** This Class B digital apparatus complies with Canadian CAN ICES-3(B).

**Service**

- All service must be performed by qualified personnel.
- Used batteries must be disposed of or recycled properly.

## About this manual

This manual will help you learn understanding and operating your TC product.

This manual is only available as a PDF download from the TC Electronic website. A printed multi-lingual quick guide is provided with the product.

Of course, you can print this manual, but we encourage you to use the PDF version, which has both internal and external hyperlinks. For example, clicking the TC Electronic logo in the upper left corner of each page will take you to the table of contents.

To get the most from this manual, please read it from start to finish, or you may miss important information.

To download the most current version of this manual, visit [tcelectronic.com/support/manuals/](http://tcelectronic.com/support/manuals/)

**Enjoy your TC product!**

## Introduction

PolyTune Clip is much more than just a clip-on tuner, it's a revolution! Perfectly combining state of the art tuning technology with an unprecedented attention to aesthetics and functionality, PolyTune Clip gives a tune-up that's unmatched in speed, precision and grace.

PolyTune Clip is designed to be your trusty tuning companion, whether you're going for a quick on-stage tune-up or an ultra-precise setup of your instrument.

PolyTune Clip sports three distinct tuning modes – ranging from the game-changing polyphonic tuning mode that lets you tune all strings of your instruments at once, to your trusty chromatic tuner and all the way to an ultra-precise strobe tuner mode, which offers  $\pm 0.02$  cents of tuning precision.

# Setup

## Ready...

The PolyTune Clip box should contain the following items:

- 1 PolyTune Clip tuner
- 1 CR2032 button cell battery
- 1 multilingual quick guide
- 1 voucher for the free PolyTune Plug-in.

Inspect all items for signs of transit damage. In the unlikely event of transit damage, inform the carrier and supplier.

If damage has occurred, keep all packaging as it can be used as evidence of excessive handling force.

## Set...

- Insert the battery into the PolyTune Clip as described under "[Inserting/replacing the battery](#)".
- Remove the protective film from the PolyTune Clip display.
- Attach PolyTune Clip to the neck of your guitar, and adjust the hinge. Choose whatever position you like – the display will automatically adapt to PolyTune Clip's position.  
That's it. There are no audio connections to make. Both for acoustic and electric instruments, PolyTune Clip will pick up the signal with its built-in piezo sensor.

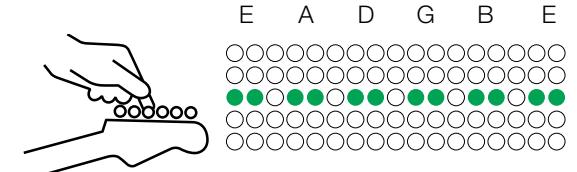
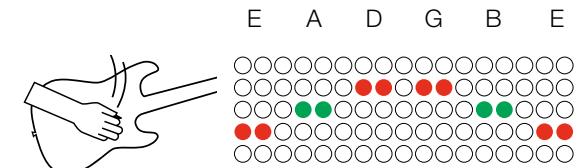
### Important note regarding your instrument's coating

Depending on various factors such as age-related changes or the surface finish, there is a possibility that your instrument's coating may be damaged by attaching this product.

In general, do not leave accessories such as PolyTune Clip attached to your guitar longer than necessary, as the rubber pad may adversely affect the finish of your instrument, especially when it is exposed to sunlight for extended periods of time.

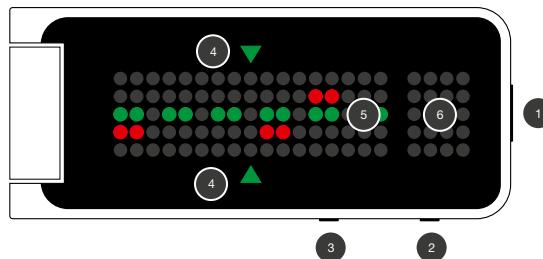
## Get ready for a new tuning experience!

Tuning your instrument with PolyTune Clip is fast and intuitive. If you don't feel like reading the manual, just strum your instrument and watch the display. We think you'll like what you see.



If you want to learn more – read on!

## Display and controls



Please note that all settings will be stored and preserved even when you change the battery.

### 1 Power On/Off Button

Press the Power On/Off Button to turn PolyTune Clip on.

PolyTune Clip turns off automatically after 3 minutes.

### 2 Tuning Mode Button

Press the Tuning Mode Button to cycle through the available tuning modes:

E - Eb - D - Db - C - B - F - Gb -  
G - Ab - A - Bb - B - E

For more information, see [“Alternate tunings and capos”](#).

### 3 Display Mode Button

Press the Display Mode Button to toggle between Needle and Strobe Tuning Modes.

For more information, see [“Switching Display Modes”](#).

Press and *hold* the Display Mode Button for 5 seconds to toggle between Guitar (G) and Bass Mode (B).

Please note that polyphonic tuning is only available in the Guitar Modes. If you select Bass Needle Mode or Bass Strobe Mode, polyphonic tuning is disabled.

For more information, see [“Setting instrument type \(guitar or bass\)”](#).

### 2 + 3 Reference pitch

Press the Tuning Mode Button and the Display Mode Button *simultaneously* to set the reference pitch.

- To increase the reference pitch in 1 Hz steps, press the Tuning Mode Button. ②
- To decrease the reference pitch in 1 Hz steps, press the Display Mode Button. ③

For more information, see [“Changing the reference pitch”](#).

### 4 Adaptive Display Orientation Indicators

PolyTune Clip’s display automatically flips. If you use the tuner either at the front or back of the headstock, or even if you are left-handed, the display will always be correctly aligned. The lit arrow shows the current direction.

### 5 Display – Main Display

The larger part of the PolyTune Clip display (the Main Display) is used to indicate the pitch of all strings in polyphonic tuning mode and the pitch of the currently tuned string in chromatic tuning mode.

### 6 Display – Secondary Display

The smaller part of the display (the Secondary Display) displays the detected note name for the currently tuned string in chromatic tuning mode.

When switching Display Mode, it will display a “G” for guitar tuning or a “B” for bass tuning. For more information, see [“Setting instrument type \(guitar or bass\)” \(page 7\)](#).

## How to use PolyTune Clip

### Chromatic versus polyphonic tuning

A very simple guitar tuner will only allow you to tune open strings, one string at a time – e.g. E, A, d, g, b, and e' for the standard tuning of a guitar.

PolyTune Clip is a **chromatic** tuner – meaning it will detect and allow you to tune all twelve notes of the scale.

But that's not all. Other than a traditional tuner, PolyTune Clip allows you to strum all your instrument's string **simultaneously** when tuning. PolyTune Clip will detect which strings need to be tuned and indicate those strings in its display. This allows you to tune your instrument much faster.

Finally, you may have tuned one or all strings on your instrument differently from standard tuning, or you may be using a capo to change the playable length of the strings.

In all these situations, PolyTune Clip has you covered.

### Setting instrument type (guitar or bass)

By default, PolyTune Clip is set up for tuning guitars. To tune a bass, press and hold the Display Mode Button for more than 5 seconds. The secondary display will display "B".

To return to Guitar Tuning Mode, press and hold the Display Mode Button for more than five seconds again. The Secondary Display will display "G".

The selected instrument type will be stored and preserved even when you change the battery.

### Battery life

Depending on the quality of the button cell lithium battery you are using, you can expect a battery life of approximately 18 hours. This means that after inserting a fresh battery, you should be able to tune your instrument for three minutes every day for a full year.

PolyTune Clip turns off automatically after 3 minutes, but to increase battery life, you might want to turn it off manually after tuning.

## Switching Display Modes

If you press the Display Mode Button once, the currently selected Display Mode will be shown. Pressing the Display Mode Button repeatedly will cycle between the two display modes described in this section.

- Needle Mode is indicated by the center LED column and row lighting up.
- Strobe Mode is indicated by the middle row of LEDs lighting up.

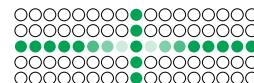
The selected Display Mode will be stored and preserved even when you change the battery.

### Needle Mode

In **Needle Mode**, when you tune a single string, pitch is indicated by a column of five LEDs in the main display, and the name of the target note is displayed in the secondary display.

If the string you are tuning is too *low*, LEDs to the *left* of the center column will light up. If the string is too *high*, LEDs to the *right* of the center column will light up.

Tune the string until the middle column and the middle row of green LEDs lights up. This means you are “on target”.



### Strobe Mode

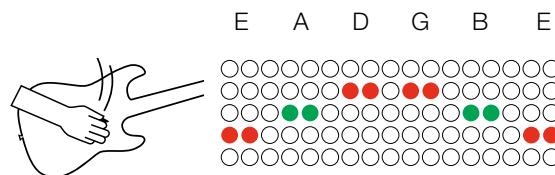
In **Strobe Mode**, the difference between the correct (target) frequency and the actual detected frequency is displayed by two indicators simultaneously:

1. Red LEDs to the left (pitch too low) or to the right (pitch too high) of the center LED column
  2. “Rotating” segments in the display. The closer the detected frequency is to the target frequency, the slower the rotation.
- Tune the string until the rotating pattern has come to a stop and only the middle column of green LED lights up.

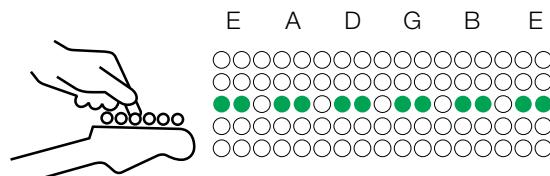
## Polyphonic tuning

As you know by now, PolyTune Clip is a **polyphonic** tuner. You can strum your instrument, and PolyTune Clip will analyze and display the tuning of all strings. So how do you activate polyphonic tuning mode?

You don't – it just works. Strum, tune, rock on!



*Strum your guitar. Strings that are in tune will be represented by two green LEDs. Strings that need tuning are represented by two red LEDs below (flat) or above (sharp) the middle row.*



*Tune your guitar and strum again. Your instrument is in tune when each string is represented by two green LEDs in the middle row.*

## Polyphonic tuning and Bass Mode

Please note that polyphonic tuning is only available for guitar. If you select Bass Needle Mode or Bass Strobe Mode, polyphonic tuning is disabled.

If you play guitar and you don't want to use polyphonic tuning at all, you can also change the instrument type to Bass by pressing and holding the Display Mode Button for more than 5 seconds – see “[Setting instrument type \(guitar or bass\)](#)” (page 7). You will still be able to tune your guitar chromatically, but strumming multiple strings will not trigger polyphonic tuning anymore.

## Alternate tunings and capos

There's more to life than E A D G B E! You may have tuned all strings of your instruments down, or you may be using a capo. In that case, tell PolyTune Clip about your instrument's tuning by pressing the Tuning Mode Button.

If you press the Tuning Mode Button once, the current tuning will be displayed (“-- E --” for standard tuning). Pressing the Tuning Mode Button repeatedly will cycle through the following tunings:

| Display   | Mode                               |
|-----------|------------------------------------|
| --- E --- | Standard tuning                    |
| Eb        | All strings tuned down 1 semitone  |
| D         | All strings tuned down 2 semitones |
| Db        | All strings tuned down 3 semitones |
| C         | All strings tuned down 4 semitones |
| B         | All strings tuned down 5 semitones |
| F 1       | Capo at first fret                 |
| Gb 2      | Capo at second fret                |
| G 3       | Capo at third fret                 |
| Ab 4      | Capo at fourth fret                |
| A 5       | Capo at fifth fret                 |
| Bb 6      | Capo at sixth fret                 |
| B 7       | Capo at seventh fret               |

If you do not touch the Tuning Mode Button for two seconds, the display will blink twice, and the selected tuning will be used.

The selected tuning will be stored and preserved even when you change the battery.

## Changing the reference pitch

In most cases, you may want to tune your what is considered standard pitch, where the A above the middle C has a frequency of 440 Hz.

However, you and your band may prefer a different pitch, or you may have to tune to an acoustic instrument that cannot easily be retuned. In that case, you need to change the reference pitch.

- To change the reference pitch, press the Display Mode Button and the Tuning Mode Button simultaneously.  
The display will show the current reference pitch (e.g. "440" for 440 Hz).
- To increase the reference pitch in 1 Hz steps, press the Tuning Mode Button.
- To decrease reference pitch in 1 Hz steps, press the Display Mode Button.
- To accept the currently displayed reference pitch and return to normal operation, do not press either button for two seconds. The set reference pitch will blink three times.

The selected reference pitch will be stored and preserved even when you change the battery.

## Inserting/replacing the battery

If you need to change the PolyTune Clip battery, proceed as follows:

- Open the PolyTune Clip hinge so that the battery compartment on the back is accessible.
- Open the battery compartment.
- Remove the drained battery.
- Insert a full CR 2032 lithium battery (20 mm diameter, 3.2 mm height) into the battery compartment, with the positive terminal (the plus pole) facing towards you. I.e., when you have inserted the battery, you should see the "+" marker on its bottom.
- Close the battery compartment.

## Technical specifications

- Tuning Range:  
A0 (27.5 Hz) to C8 (4186 Hz)
- Tuning Accuracy – Chromatic tuning mode:  
±0.5 Cent
- Tuning Accuracy – Strobe tuning mode:  
±0.02 Cent
- Reference Pitch:  
A4 = 435 to 445 Hz  
(adjustable in 1 Hz steps)
- Battery:  
CR2032 Li-Mn battery  
(battery included)
- Dimensions (W x D x H):  
25 x 60 x 28 mm / 0.98 x 2.36 x 1.1"
- Weight:  
32 g / 1.13 oz.  
(including battery)

Due to continuous development, these specifications are subject to change without notice.

## Getting support

If you still have questions about the product after reading this manual, please get in touch with **TC Support**:

<http://tcelectronic.com/support/>

