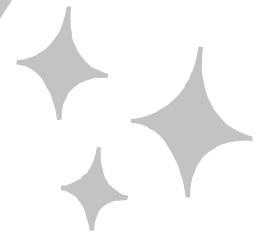


Bio-Tuner

Model BT7



A Consumer Product

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INTRODUCTION

Thank you for allowing us to be a part of your health team. The Bio-Tuner is a consumer product designed to complement a healthy lifestyle.

This unit outputs a modified rectilinear waveform to produce over 500 harmonic frequencies in each pulse.

Please understand that results will vary. Healthy lifestyle choices are important.

Please read this manual carefully. We encourage you to become better informed about the use of harmonics.

To learn more about the Bio-Tuner we invite you to visit www.sotainstruments.com

The SOTA Bio-Tuner is designed to give you many years of trouble-free use.

COMPLETE UNIT INCLUDES

- One (1) Bio-Tuner Unit
- One (1) Pair of Earclips with Cord
- One (1) Arm Clip and Band
- One (1) 9-Volt Alkaline Battery

OPERATIONAL CAUTIONS

As with all electrical products do not use:

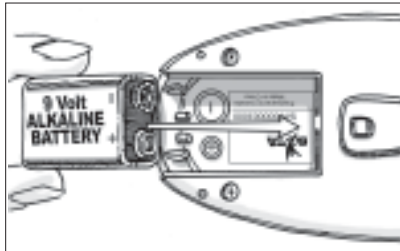
- a. Near water
- b. When driving a car or
- c. When operating heavy equipment

GETTING STARTED

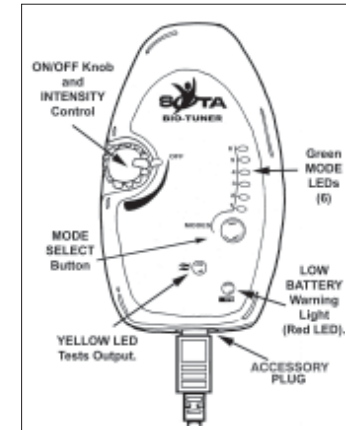
1. Place the 9-Volt Alkaline battery in the unit.
 - a. On the back of the unit, slide off the battery cover.
 - b. Position the 9-Volt Alkaline battery so the the positive (+) and negative (-) terminals line up as in the diagram.

Note: the smaller circle on the battery matches the smaller circle in the case.
... the larger battery circle matches the larger circle in the case.

- c. Slide the 9-Volt Alkaline battery into the case and push down. Slide the cover back onto the unit.



2. Turn the unit ON by rotating the thumbwheel switch clockwise.
3. All the lights will flash once to indicate the unit is ready for use. If the lights do not come on, the battery may not be placed correctly.
4. When the unit is turned on it always starts in Mode 1.
5. The green light for Mode 1 will remain on indicating the timing sequence has begun.
6. Turn the unit OFF by rotating the thumbwheel switch until it clicks. Important: Do not force the ON-OFF Thumbwheel Switch past its natural stopping point.

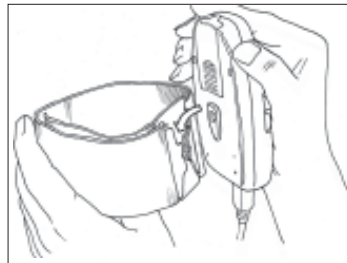


HOW TO USE THE BIO-TUNER



1. Wipe the ear lobes to eliminate skin oils. This will allow for better conductivity.
2. Wet the conductive rubber on the ear clips.
3. Position one clip on each ear lobe. Place as close to the jaw as possible.
4. Plug the earclip cord into the unit with the flat side of the plug face up. When the plug is positioned correctly, it will slide in gently. Do not force.
5. Slide the clip on the back of the Bio-Tuner into the holding clip on the Arm Clip and Band.

6. Slide the Arm Clip and Band with the unit attached up the arm to a comfortable position.
Tighten the Arm Clip and Band to fit snugly and comfortably.
Option: If preferred, the unit can be placed in a pocket.
7. Turn the unit ON and gradually turn up the intensity. The current may or may not be felt. If felt, the intensity



- should not be uncomfortable. See 'How It Should Feel' on page 8.
8. Change modes by pushing the mode button. The green light indicates which mode is selected. See 'Output of Six Modes' on page 9.
 9. The timer will automatically cycle the unit into Sleep Mode after 20 minutes. While in Sleep Mode, the green mode light will flash every 2 seconds.
 10. While in Sleep Mode the battery is still being used. Either reset to continue or turn the unit OFF.

To reset:

- a. Push the mode button once for another 20 minutes using the same mode, or
- b. Choose another mode by selecting with the mode button.

Note: The yellow light can be used to check the output of the unit if the current cannot be felt. The light should come on when the unit is on and the earclips positioned correctly. The unit may need to be turned up to a higher intensity for the light to come on. It is not necessary, however, to operate the unit at a high intensity.



HOW IT SHOULD FEEL:

- The sensation may be a pleasant buzzing or you may not feel the current at all. It is not necessary to have the intensity turned up to maximum. If it feels prickly or unpleasant, check the following:
 - a. Wet the conductive rubber of the ear clips again.
 - b. Apply conductive gel to the conductive rubber of the earclips.
- You may feel a sensation on one side more than the other.
- With repeated use, the buzzing sensation may not be felt as much. The intensity may be turned up if desired. It is not necessary to feel the current. The yellow light is the indicator to know the unit and ear clips are working.

TYPICAL USE:

Length of session: Limit each session to a **maximum** of 40 minutes. (Two timed 20 minute cycles.) Research indicated that if used longer than 40 minutes at a session, the benefits are reduced.

Drink plenty of water: It is important to drink several glasses of water daily while using the Bio-Tuner.

Sensitive skin: Apply a healing lotion after use if the ear lobes become red or irritated.

Length of use: Unit should be used daily for at least four weeks.

Maintenance schedule: Ongoing use may be beneficial. Suggestions for a maintenance schedule are 30 days every few months or a few days each month.

OUTPUT OF SIX MODES

The 6 different modes simply offer a choice to experiment as to what feels or works best. In all modes, the base frequency of 1,000 Hz pulse-modulated by 111.11 Hz is present.

MODE 1-3 (550uS pulse width)
Mode 1: 1,000 Hz modulated by 111.11 Hz, 550uS Pulse Width Output = Continuous
Mode 2: 1,000 Hz modulated by 111.11 Hz, 550uS Pulse Width Output = 1 Second ON, 1 Second OFF (0.5 Hz)
Mode 3: 1,000 Hz modulated by 111.11 Hz, 550uS Pulse Width Output = Amplitude Modulated by 7.83 Hz Schumann (Earth) Sine Wave
MODE 4-6 (220uS pulse width)
Mode 4: 1,000 Hz modulated by 111.11 Hz, 220uS Pulse Width Output = Continuous
Mode 5: 1,000 Hz modulated by 111.11 Hz, 220uS Pulse Width Output = 1 Second ON, 1 Second OFF (0.5 Hz)
Mode 6: 1,000 Hz modulated by 111.11 Hz, 220uS Pulse Width Output = Amplitude Modulated by 7.83 Hz Schumann (Earth) Sine Wave

ELECTRICAL SPECIFICATIONS

POWER REQUIREMENTS:

One 9-Volt Alkaline battery.

Note: An Alkaline battery must be used for the unit to work properly.

OUTPUT SPECIFICATIONS:

- Maximum <1.5mA Peak ~40 Volts Peak-Peak into typical 4k ohm load.
Minimum <~10 microamperes, 10 Volt Peak-Peak at lowest setting.
Output impedance ~20k ohm.
- Modified rectilinear wave with rapid rise time (under 1uS). There are over 500 harmonic frequencies delivered in each pulse as observed on a frequency domain (not time domain) spectrum analyzer.
- 1,000 Hz Squarewave (+/- 1%) pulse-modulated by 111.11 Hz (+/- 1%) Squarewave. Waveforms are Quartz Crystal-Controlled for precise frequency output.
- Pulses are Bi-Phasic (AC) with no direct current (DC) or offset bias. Output is transformer coupled so that no DC can appear at electrodes. The algebraic sum of positive and negative-going pulses is zero.

SUMMARY OF LIGHTS:

GREEN lights: Indicate which mode is selected.

RED light: Indicates the battery is low and will soon need replacing.

YELLOW light: Indicates current is flowing.

CAUTIONS

Do not use in the following situations as safety has not been explored:

- In the case of pregnancy, nursing or trying to get pregnant.
- With a pacemaker or other active implanted device.
- With seizures or psychotic conditions.

TROUBLE SHOOTING

If the green mode light does not come on, replace the 9-Volt Alkaline battery and turn the unit ON. If the problem persists, first check to be sure the battery has been placed correctly. For repair information, see page 12.

If the yellow light does not come on when the earclip electrodes are touched together, check as follows:

1. Ensure the conductive rubber electrodes are clean:
 - a. Remove the earclips from the cord.
 - b. Pull the rubber electrodes out of the earclips and clean with a soft cloth and toothpick or similar object.
 - c. Place back into earclips.
 - d. Ensure the pin on the cord is fully inserted into the earclip.
2. Plug the earclip cord into the unit.
3. Turn the unit ON to maximum intensity and touch the electrodes together. The yellow light should come on.

If the yellow light still does not come on, see page 12 for repair information.

WARRANTY

SOTA Instruments Inc. continually strives to manufacture the highest quality, most reliable units possible.

SOTA Instruments Inc. reserves the right to update, modify, revise, alter, or otherwise change or make changes to the Bio-Tuner without notification.

The Bio-Tuner is covered by a 3 (three) year parts and labor warranty on all internally mounted components. Please keep proof of purchase. Warranty is void if the failure is due to abuse or negligence.

Warranty and Repairs:

For repair, please contact your supplier for return instructions. Or, for information about your closest repair depot, contact:

repairs@sotainstruments.com

Tel: 1-250-770-2023

Fax: 1-250-770-1999

The BT7 is designed and engineered in Canada. Made in China.



MANCPBT-7

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