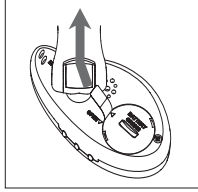# SEIKO CLIP-ON TUNER & METRONOME
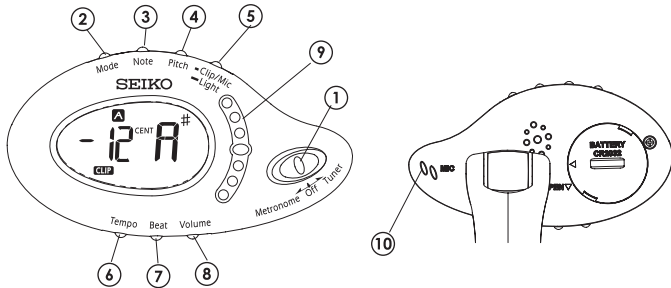## STMX1
INSTRUCTION MANUAL

BEFORE USING YOUR STMX1

Before use, pull out the insulating sheet slowly from the battery compartment as shown in the illustration at right. If the sheet is torn off and left inside the compartment, open the battery hatch by referring to "BATTERY CHANGE" below, and remove the remainder of the sheet completely. Otherwise, STMX1 may not turn on.

Note: *The battery included with STMX1 is a monitor battery, and its battery life may be shorter than the specified period.*

NAMES AND FUNCTIONS OF PARTS

① Power switch TUNER & METRONOME
Slide the switch to turn on the tuner or metronome, or to turn off the power.

② Mode button TUNER
Use the button to select the tuning mode from Auto (A), Manual (M) and Sound (S).

③ Note button TUNER
Use the button to set the note you wish to tune in the Manual and Sound modes.

④ Pitch button TUNER
Use the button to set the reference pitch (frequency of A4).

⑤ Clip/Mic selection button TUNER & METRONOME
Use the button to change over the input method of the tuner between Clip (input by the vibration sensor) and Mic (input through the built-in microphone). If the button is kept pressed, the **backlight function** is turned on and off alternately.

⑥ Tempo button METRONOME
Use the button to set the tempo of the metronome.

⑦ Beat/Rhythm button METRONOME
Use the button to set the beat and rhythm of the metronome.

⑧ Volume button TUNER & METRONOME
Use the button to set the volume of the reference note of the tuner and the tempo sound of the metronome.

⑨ Tuning guide/Tempo display TUNER & METRONOME
In the Auto and Manual modes of the tuner, the discrepancy between the note shown on the display and the input note is indicated by the LED lamp that lights up. While the metronome is used, the LED lamps represent the tempo with successive flashing lights.

⑩ Vibration sensor/built-in microphone

HOW TO USE THE TUNER

(1) Slide the power switch ① to "Tuner".

[Auto and Manual modes] **[Sound mode]**

(2) Press the Clip/Mic selection button ⑤ to select the input method when the Auto or Manual mode is selected.

CLIP	**Clip input method**	: Attach STMX1 to the instrument using the clip. The vibration sensor ⑩ senses the vibrations generated when the instrument gives out a note, and identifies it. This input method is convenient for the tuning in noisy environments or in a situation where other instruments are played nearby.
MIC	**Mic input method**	: Tuning is made using the note of the instrument input through the built-in microphone ⑩.

(3) Press the Mode button ② to select the tuning mode.

A	Auto mode	: When a note is played, the tuner automatically identifies it, and indicates the note closest to it. It also indicates the discrepancy between the input note and the note shown on the display by the position of the LED lamp that lights up and the cent indication on the display.
M	Manual mode	: Set the note you wish to tune, and then, play a note. The tuner indicates the discrepancy between the input note and the note you have set by the position of the LED lamp that lights up and the cent indication on the display. If the discrepancy between the notes is more than 50 cents, the display shows "Hi" or "Lo".
S	Sound mode	: The tuner gives out the note you have set. Tune the instrument on the basis of the reference note.

(4) Play a note to tune the instrument.

■ When the Auto mode is selected:
Play a note on the instrument. Check the note name indicated on the display, and tune the instrument until the green LED lamp at the center of the tuning guide ⑨ lights up. The discrepancy between the note played on the instrument and the one displayed on the display is indicated numerically in cents (cent: a unit corresponding to 1/100 of a semitone).
● Range of discrepancy when the green LED lights up : 3 cents or less

■ When the Manual mode is selected:
1. Press the Note button ③ to set the note you wish to tune.
   ● Settable range: C ~ B (12 notes)
2. Play a note on the instrument. Tune the instrument until the green LED lamp at the center of the tuning guide ⑨ lights up. The discrepancy between the input note and the note you have set is indicated numerically in cents (cent: a unit corresponding to 1/100 of a semitone) on the display.
   ● Range of discrepancy when the green LED lights up : 3 cents or less

■ When the Sound mode is selected:
1. Press the Note button ③ to set the note you wish to tune.
   ● Settable range: C4 ~ B4 (12 notes)
2. Press the Volume button ⑧ as required to adjust volume of the reference note that the tuner gives out (high, mid or low).
3. Tune the instrument on the basis of the reference note.

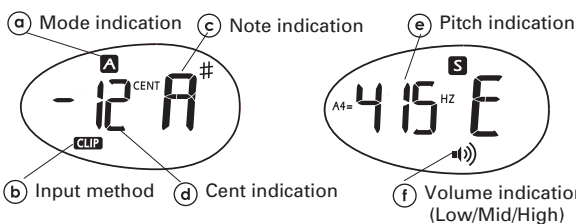### ● How to change the reference pitch (frequency of A4):
1. Press the Pitch button ④. The pitch indication ⓔ starts flashing.
2. With each press of the Pitch button ④, the pitch increases by 1 Hz. It advances quickly if the button is kept pressed.
3. After the desired pitch is displayed, leave STMX1 untouched until the digits stop flashing. The pitch you have set is automatically registered.
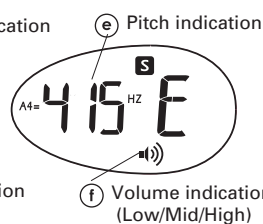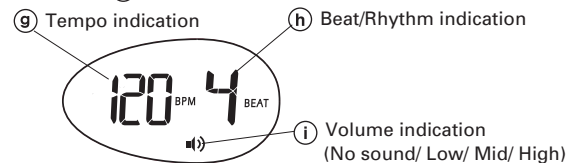
● Precautions on tuning
1. STMX1 may pick up noise from the surrounding environment or the hum noise generated by electric appliances, and shows indications as if a note is played. This is not a malfunction, and STMX1 operates properly when a note is played.
2. When the Mic input method is used, it is recommended that the tuning procedure be performed in a quiet environment for accurate tuning. Also, bring the instrument close to STMX1 to register a note.
3. If you find it difficult to tune the instrument with the Clip input method, re-attach STMX1 in such a position of the instrument that the vibrations are transmitted to STMX1 more clearly.

HOW TO USE THE METRONOME

(1) Slide the power switch ① to "Metronome".

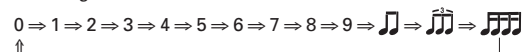ⓖ Tempo indication ⓗ Beat/Rhythm indication ⓘ Volume indication (No sound/ Low/ Mid/ High)

(2) Press the Tempo button ⑥ to set the desired tempo. With each press of the button, the tempo increases by 1 BPM. It advances quickly if the button is kept pressed.
● Settable range: 30 ~ 250 BPM

(3) To set the beat and rhythm, press the Beat/Rhythm button ⑦. It changes quickly if the button is kept pressed.
● Settable range:

0 ⇒ 1 ⇒ 2 ⇒ 3 ⇒ 4 ⇒ 5 ⇒ 6 ⇒ 7 ⇒ 8 ⇒ 9 ⇒ ♩ ⇒ ♫ ⇒ ♪♪♪

BACKLIGHT FUNCTION

By keeping the Clip/Mic button ⑤ pressed for approximately 3 seconds, the backlight function is turned on. As any of the buttons is pressed, the backlight lights up for 5 seconds for easy viewing in the dark. While the tuner function is used, the backlight also lights up when a note is input from the instrument. To turn off the backlight function, keep the Clip/Mic button ⑤ pressed for approximately 3 seconds, or turn off the power.

Note: *While the backlight function is turned on, the battery energy consumption is increased.*

AUTO POWER-OFF FUNCTION

STMX1 is equipped with an auto power-off function to save the battery energy. The power is turned off automatically under the following conditions:

Tuner (Auto and Manual modes)	If the tuner is left untouched for 10 minutes without any button operation or note input
Tuner (Sound mode)	If the tuner is left untouched for 5 minutes without any button operation
Metronome	When 3 hours have passed since the power was turned on (regardless of whether the button operation was made or not)

* To resume the power, slide the power switch ① to "Off", and then, slide it to "Tuner" or "Metronome".
* To deactivate the auto power-off function, slide the power switch ① to "Tuner" or "Metronome" while keeping the Volume button ⑧ pressed. "OFF" is shown on the display for 2 seconds, and the auto power-off function is deactivated. (The function is activated again by turning off the power, and then, turning it on again.)
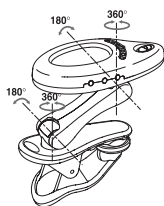
MEMORY BACKUP FUNCTION

Even after STMX1 is turned off, the settings you have made are stored in memory and will not be erased.
If the battery is replaced with a new one, STMX1 will return to the following initial settings.

■ **Tuner**
1. Input method [Clip]
2. Tuning mode [AUTO]
3. Note [A]
4. Reference pitch [440 Hz]
5. Volume [High]

■ **Metronome**
1. Tempo [120]
2. Beat [0]
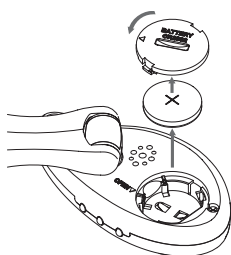3. Volume [High]

MOVABLE RANGES OF STMX1

STMX1 can be moved around the clip portion within the ranges shown in the illustration at left. Please note that if STMX1 is moved or rotated forcibly beyond those movable ranges, it may be damaged.

BATTERY CHANGE

When the battery nears its end, the liquid crystal display and the tuning guide will become dim. In that case, replace the battery with a new one immediately. If the battery is exhausted, STMX1 may not operate properly.

1. Turn off the power.
2. Turn the battery hatch counterclockwise until its " ◀ " mark aligns with the "**OPEN ▶**" mark on STMX1, and remove the battery hatch.
3. Replace the old battery with a new one with its (+) side up.
4. Turn the battery hatch clockwise to close it securely.
5. Operate the power switch ① several times to turn on and off the power repeatedly to check if STMX1 operates properly.

   Note: Be sure to follow this procedure. Otherwise, STMX1 may not operate properly.

* Be sure to use the specified battery (CR2032).
* Check that the battery is inserted with the (+) side up. Otherwise, it may result in a malfunction.
* Keep the old battery and the battery hatch beyond the reach of children. If a child swallows either of them, consult a doctor immediately.
* When disposing of the old battery, observe the regulations of the authorities concerned.

CAUTION ON USING STMX1

■ If the battery replacement is made while the power is turned on, STMX1 may not operate properly. In that case, slide the power switch ① to "Off" immediately to turn off the power, and then, turn it on again to check if STMX1 operates properly.
■ While STMX1 is not in use, detach it from the instrument. If it is clipped on an instrument for a long time, a mark may be left.
■ Do not use STMX1 for any other purpose than intended. When clipping it on or detaching it from an instrument, or when moving it around the clip portion, handle it with care.

SPECIFICATIONS

1. TUNER
   Input method : Microphone, built-in sensor
   Tuning mode : Auto mode/Manual mode/Sound mode
   Tuning range : A0 (27.5 Hz) ~ C8 (4186.0 Hz) (when A4 is set to 440 Hz)
   Reference note : C4 ~ B4 (12 notes)
   Tuning accuracy : ±1 cent
   Reference pitch : 410 Hz ~ 450 Hz (in 1 Hz steps)
2. METRONOME
   Tempo range : 30 ~ 250 BPM (in 1 BPM steps)
   Beat/rhythm range : 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, ♩ , ♫ , ♬
   Tempo accuracy : ±0.1 %
3. DISPLAY : Liquid crystal display and LED lamps
4. ADDITIONAL FUNCTIONS : Auto power-off, backlight and memory backup
5. POWER SUPPLY : Lithium battery CR2032 (3 V), 1 piece
6. OVERALL DIMENSIONS
   AND WEIGHT : 100 (W) x 47 (H) x 72 (D) mm
   75 g (including battery)
7. ACCESSORIES : Monitor battery (lithium battery CR2032), 1 piece; pouch, 1 piece; and instruction manual

* The design and specifications are subject to change without prior notice for product improvement.