

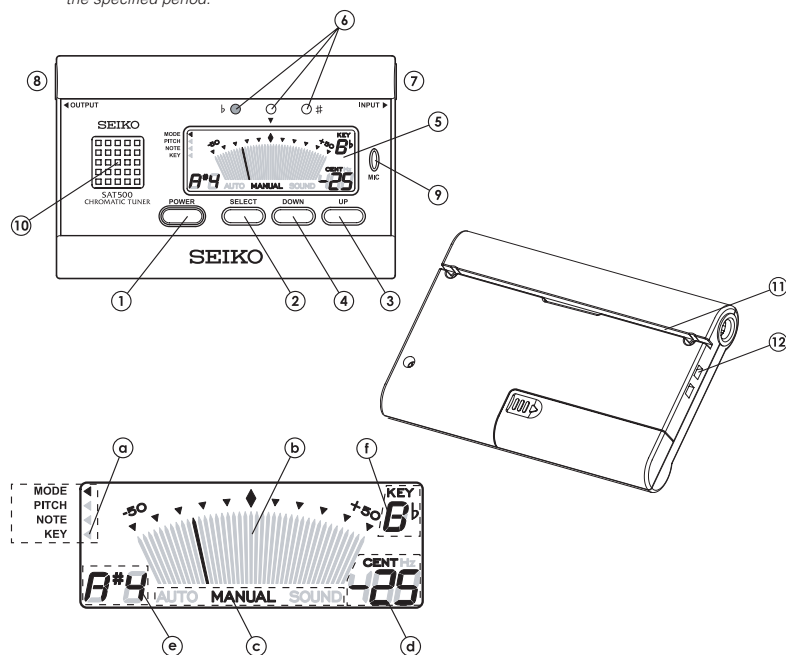
# SEIKO CHROMATIC TUNER SAT500

## INSTRUCTION MANUAL

### PARTS OF YOUR TUNER AND THEIR OPERATION

Before use, install the batteries included with the tuner, following the instructions in "BATTERY CHANGE".

**Note:** The batteries included with the tuner are monitor batteries, and the battery life may be shorter than the specified period.



#### ① Power button

With each press, the tuner is turned on and off alternately.

##### ● Auto power-off function

If no button operation is made or no sound is input into the tuner for approximately 20 minutes while the tuner is turned on, it will be turned off automatically to save the battery energy.

#### ② Selector button

Use the button to select the item of tuner setting. With each press, the setting item is selected in order.

Printed mark	Setting item	Description
MODE	Mode setting	To set the tuning mode.
PITCH	Reference pitch setting	To set the frequency of the reference pitch (A4).
NOTE	Note setting	To set the note you wish to tune.
KEY	Key setting	To transpose the key.

\* For details, see "TUNER SETTING".

#### ③ UP button

#### ④ DOWN button

Use the buttons to change the settings of the item selected by pressing the selector button (②). The two buttons change the setting of the selected item in the opposite order. For details, see "TUNER SETTING".

#### ⑤ Liquid crystal display

##### (a) Setting item indication

The pointer "◀" indicates the item currently selected.

##### (b) Tuning meter

It shows the difference in pitch between the note indicated on the display and that given by the instrument.

##### (c) Tuning mode indication

The tuning mode currently selected is shown.

##### (d) Cent/reference pitch indication

The difference in pitch between the note indicated on the display and the one given by the instrument is shown numerically. While the pitch setting is made, the current reference pitch is shown.

##### (e) Note indication

AUTO mode: The tuner automatically identifies and indicates the note given by the instrument.

MANUAL and SOUND modes: The note you have set is indicated.

##### (f) Key indication

The current key setting is shown.

MODE  
PITCH  
NOTE  
KEY

#### ⑥ Tuning guide

As a guide in tuning, it visually shows the difference in pitch between the note indicated on the display and the one given by the instrument by means of the LED lights.

- When the pitch of the input note is lower than that of the indicated note, the "b" LED lights up.
- When the pitch of the input note is higher than that of the indicated note, the "♯" LED lights up.
- When the instrument is in tune, the LED at the center lights up in green.

### ⑦ Input jack

When tuning an electric/electronic instrument, connect the output cord of the instrument to the input jack ⑦. While the cord is connected to the input jack ⑦, the built-in microphone ⑨ will not work.

### ⑧ Output jack

#### ● Bypass function

The tuner outputs the signal input from the instrument connected with the input jack ⑦ to an amplifier and other devices through the output jack ⑧.

#### ● Precautions on using the bypass function

1. Before connecting an amplifier to the output jack ⑧, be sure to set its volume control to the lowest level, and turn it off, to prevent any malfunction of the tuner and the amplifier. After checking that both the tuner and amplifier are turned off, properly connect the amplifier to the output jack ⑧ of the tuner.
2. Turn on the tuner first, and then turn on the amplifier.
3. Even if the volume control is set at the lowest level, noise may be heard when they are turned on. This is not a malfunction.

### ⑨ Built-in microphone

Use it to tune acoustic instruments.

#### ● Precautions on using the microphone:

When tuning, bring the instrument as close as possible to the microphone. Make sure that no cord is connected to the input jack ⑦.

### ⑩ Built-in speaker

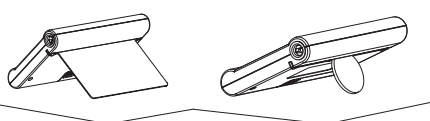
In SOUND mode, it gives out the reference note you have selected.

### ⑪ Slit stand

Insert a card or coin into the slit on the rear of the tuner to prop it up.

#### ⚠ Caution:

Do not forcibly insert a card or coin that will not fit into the slit, as this may cause damage to the tuner or injuries. Also, note that the card or coin used to prop up the tuner may get scratched or damaged accidentally.



### ⑫ Strap hole

Use the hole to attach a strap to the tuner.

#### ⚠ Caution:

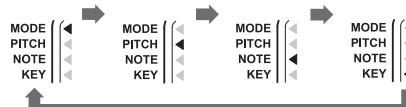
Do not apply undue force to the tuner by swinging it with the strap or pulling the strap forcibly, as this may cause damage to the tuner or injuries.

## TUNER SETTING

Press the selector ②, UP ③ and DOWN ④ buttons to set the tuner as desired.

#### ● Selection of the setting item:

With each press of the selector button ②, the setting item is selected in the following order:



#### ● Setting of items:

Press UP ③ or DOWN ④ button to set the selected setting item.

The two buttons change the setting of the selected item in the opposite order. In setting the reference pitch, UP ③ and DOWN ④ buttons increases and decreases the pitch value, respectively. In setting the reference pitch, note, and key, the settings change continuously by keeping the respective buttons pressed.

#### ● Flashing of the indication and registration of the setting:

The flashing indication shows that the setting procedure is still in process. By pressing the selector button ② to select another setting item, the current setting is registered. If the tuner is left untouched with the indication flashing, the flashing stops, and the setting is automatically registered in a certain period of time.

#### ■ Mode setting [MODE] + ②

Select the tuning mode.

**AUTO mode** : By inputting a note of the instrument, the tuner automatically identifies and indicates the note having the pitch closest to it. It also indicates that the pitch of the input note is lower or higher than that of the indicated note.

**MANUAL mode** : Set the note you wish to tune, and then input a note. The tuner indicates that the pitch of the input note is lower or higher than that of the note you have set.

**SOUND mode** : The tuner gives out the note you have set. Tune the instrument on the basis of the reference note the tuner produces.

#### ■ Reference pitch setting [PITCH] + ②

Set the reference pitch (frequency of A4).

Settable range : 415 Hz and 435 ~ 446 Hz at 1 Hz steps

#### ■ Note setting (for MANUAL and SOUND modes) [NOTE] + ②

Set the note you wish to tune.

In AUTO mode, the tuner automatically identifies the name of the input note, and the note you have set will be disregarded.

#### ● Settable range

AUTO mode : Not applicable.

MANUAL mode : C ~ B (at one-semitone steps, when the key is set at "C")

SOUND mode : C4 ~ B4 (at one-semitone steps, when the key is set at "C")

#### ■ Key setting [KEY] + ②

Set the key for the transposition tuning.

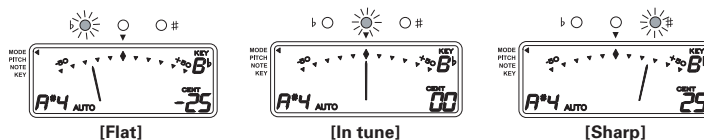
Selectable keys : E♭, F, B♭, C

## HOW TO TUNE THE INSTRUMENT

### ■ AUTO/MANUAL mode

Tune the instrument according to the indication of the tuning meter on the liquid crystal display.

1. To tune an electric instrument, connect its output cord to the input jack ⑦.
2. Press the power button ① to turn on the tuner.
3. Select the tuning mode. Press the selector button ② to select "MODE". Press UP ③ or DOWN ④ button to select "AUTO" or "MANUAL" tuning mode.
4. If you have selected "MANUAL" mode, select the note you wish to tune. Press the selector button ② to select "NOTE". Press UP ③ or DOWN ④ button to set the desired note.
5. To change the reference pitch, press the selector button ② to select "PITCH". Press UP ③ or DOWN ④ button to set the desired frequency.
6. For transposition tuning, press the selector button ② to select "KEY". Press UP ③ or DOWN ④ button to set the desired key.
7. Play the instrument to give a note. When tuning an acoustic instrument, bring it as close as possible to the built-in microphone ⑨.
8. Tune the instrument until the LED at the center of the tuning guide ⑥ lights up in green and the pointer of the tuning meter ⑤ stays in the center ("0" position).  
To tune the instrument more accurately, tune it further until the cent indication ④ reaches "0".



### ■ SOUND mode

The tuner gives out the note you wish to tune.

1. Press the power button ① to turn on the tuner.
2. Select the tuning mode. Press the selector button ② to select "MODE". Press UP ③ or DOWN ④ button to select "SOUND" tuning mode.
3. Select the note you wish to tune. Press the selector button ② to select "NOTE". Press UP ③ or DOWN ④ button to set the desired note.
4. To change the reference pitch, press the selector button ② to select "PITCH". Press UP ③ or DOWN ④ button to set the desired frequency.
5. For transposition tuning, press the selector button ② to select "KEY". Press UP ③ or DOWN ④ button to set the desired key.
6. Tune the instrument on the basis of the reference note the tuner produces.

### ● Precautions on tuning

1. The tuner 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 the tuner operates properly when a note is played.
2. To tune acoustic instruments, the note is received through the built-in microphone. It is recommended, therefore, that the tuning procedure be performed in a quiet environment for accurate tuning. Also, bring the instrument close to the tuner to register a note. If it is difficult to tune the instrument with the built-in microphone, it is recommended that a microphone, such as SEIKO STM-20, sold separately from the tuner, be used together with the tuner.

## MEMORY BACKUP FUNCTION

Even after the tuner is turned off, the following settings are stored in memory and will not be erased. The descriptions in the parentheses represent the initial settings made at the factory. If the batteries are replaced with new ones, the tuner will return to the initial settings.

- |                    |          |
|--------------------|----------|
| 1. Setting item    | [MODE]   |
| 2. Tuning mode     | [AUTO]   |
| 3. Reference pitch | [440 Hz] |
| 4. Note            | [A]      |
| 5. Key             | [C]      |

## BATTERY CHANGE

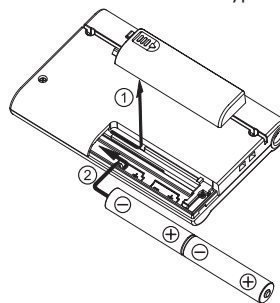
- When the batteries near their end, the liquid crystal display will become dim. In that case, replace the batteries with new ones immediately. If the batteries are exhausted, the tuner may not operate properly.
- When replacing the batteries, replace both of them with new ones at the same time. It is recommended that batteries of the same manufacturer and of the same type be installed.

1. While pressing the battery hatch, slide it in the direction of the arrow until it stops, and lift it to remove.
2. Install two AAA dry batteries (R03 or LR03), checking the + and - terminals are properly aligned.

*\* If the batteries are set with their terminals improperly aligned, it may result in a malfunction.*

- If you decide not to use the tuner for a long time, be sure to remove the batteries from the tuner.

*\* When disposing of the batteries, observe the regulations of the authorities concerned.*



## CAUTION ON USING THE TUNER

If the power button ① is not pressed properly, or if the battery change procedure is not performed properly, the tuner may malfunction. In that case, press the power button ① to turn off the tuner immediately. Then, press it again, and check if the tuner operates properly.

## SPECIFICATIONS

1. MODE : AUTO mode/ MANUAL mode/ SOUND mode
2. DISPLAY : Liquid crystal display and tuning guide
3. TUNING RANGE : AUTO/ MANUAL mode A0 ~ C8
4. ACCURACY :  $\pm 1$  cent
5. REFERENCE NOTE : C4 ~ B4 (at one-semitone steps, when the key is set at "C")
6. REFERENCE PITCH RANGE : 415 Hz and 435 Hz ~ 446 Hz (at 1 Hz steps)
7. ADDITIONAL FUNCTIONS : Auto power off, memory backup, transposition tuning, and bypass functions
8. TRANSPOSITION TUNING : E $\flat$ , F, B $\flat$ , C
9. POWER SUPPLY : 1.5 V AAA dry battery (R03 or LR03), 2 pieces
10. TERMINALS : Input jack ( $\phi$  6 mm), output jack ( $\phi$  6 mm)
11. OVERALL DIMENSIONS AND WEIGHT : 106 (W) x 69 (H) x 16.5 (D) mm, 90 g (including batteries)
12. ACCESSORIES : Monitor battery (AAA dry battery R03/LR03), 2 pieces and instruction manual

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