

INSTRUCTION MANUAL

Thank you for purchasing the SEIKO CHROMATIC TUNER SAT1200. Carefully read this instruction manual before using your SAT1200 as proper use is important to ensure the life of the product.

Store this instruction manual in a place that is readily accessible and refer to it regularly.

FOR SAFE OPERATION

The following warnings and cautions are important in ensuring safe and proper use of the product, preventing injury to yourself and others, and preventing damage to your belongings.

— Please adhere to the following warnings. —



WARNING

Disregard of these warnings may result in injury or death.



- Do not disassemble, attempt to repair, or tamper with the tuner or batteries.



- Do not handle the tuner with wet hands.



- Do not use or store the tuner in places where it may become wet such as in bathrooms, near sinks, or outdoors.



- Do not expose the batteries to fire.
- Use only the batteries specified for the tuner.
- Do not insert pins or other foreign objects into the tuner.
- Do not place the tuner on unstable surfaces.
- Do not intentionally throw or drop the tuner.
- Do not use or store the tuner in places where it may be exposed to extremely high temperatures such as near heaters, on devices that generate heat, in direct sunlight, or in vehicles.
- Do not use or store the tuner in places where it may be exposed to extremely high levels of humidity.



- Do not let small children play with the tuner.
- Keep removed batteries and the battery lid out of the reach of small children. In the event that a child swallows these parts, contact a physician immediately.



CAUTION

Disregard of these cautions may result in injury or physical damage.



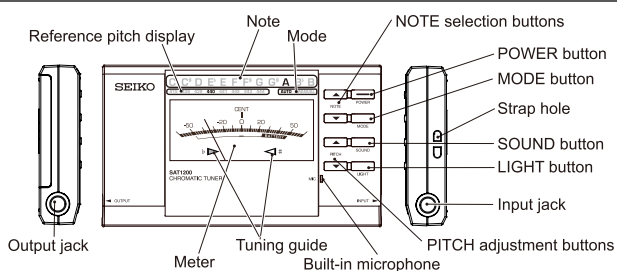
- Do not apply excessive force to the buttons or body of the tuner.
- When using a strap, do not swing the tuner around by the strap.
- Do not mix old and new batteries or batteries of different types.
- Do not use rechargeable batteries.
- Do not let leaked battery fluid come in contact with your skin.
- Do not use or store the tuner in dusty places or places prone to vibration.
- Do not use thinner or alcohol to clean the tuner.



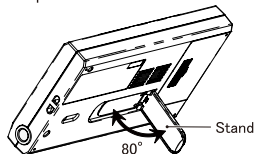
- Replace both (two) batteries at the same time. When installing new batteries, check that the (+) and (-) terminals are oriented correctly.
- Remove the batteries when they are depleted or when not using the tuner for a long period of time.

The batteries included with the tuner are for functionality testing and their life may be shorter than expected.

NAMES OF PARTS



The stand attached to the back of the tuner is designed to open to an angle of about 80 degrees. Exercise care as forcing the stand to open any farther may result in damage to the tuner.



TUNING YOUR INSTRUMENT

When the power is turned on using the POWER button, the remaining battery power is shown for two seconds on the meter, after which the device is ready to perform tuning. Select the reference pitch using the PITCH adjustment buttons, and select AUTO or MANUAL using the MODE button.

<AUTO MODE>The name of the note closest to the note played and whether the played note is sharp or flat are displayed on the meter and on the tuning guide.

<MANUAL MODE>The meter and tuning guide display whether the note played is sharper or flatter than the note selected using the NOTE selection buttons.

Tune your instrument by playing a note and adjusting until the needle of the meter reaches 0. When the pitch is within ± 3 cents, the left and right tuning guides will light up.

* You can also tune your instrument by plugging your guitar or bass's amplifier cord into the input jack of the tuner, or by plugging the Pickup Microphone (sold separately) into the input jack of the tuner.

* The built-in microphone of the tuner is disabled when the input jack is in use.

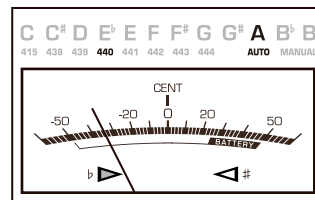
* Ambient sound or hum noise from electronic appliances may cause the tuner to behave as if in use. This is not a malfunction.

* In some cases, instruments that produce harmonic overtones or short-sustaining tones may not tune accurately.

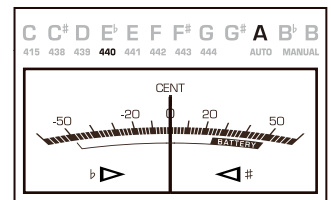
Tuning to a Reference Tone

Press the SOUND button to turn the speaker on. Select a note using the NOTE selection buttons. The reference tone will be played through the speaker.

When finished tuning, press the SOUND button again to turn the speaker off.



Example of display when a note slightly flatter than A (reference pitch of 440Hz) is played in AUTO mode



Example of display when the reference note A4 is played at reference pitch of 440Hz

Backlight function

Push the LIGHT button in AUTO or MANUAL mode to activate backlight mode to aid tuning in dim surroundings.

When backlight mode is on, the meter backlight will light up briefly when a note is played by an instrument.

The backlight will not light up when a reference note is being played in order to conserve power.

Press the LIGHT button again or turn off the power to cancel backlight mode. When backlight mode is canceled using the LIGHT button, the backlight will flash twice to indicate that backlight mode has been canceled.

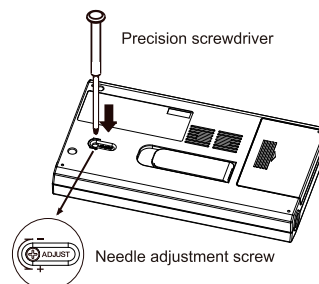
* Using backlight mode will drain battery power more quickly.

Bypass Function

The signal input via the input jack can be output via the output jack. When using the bypass function, be sure to turn the tuner off in order to prevent interference.

ADJUSTING THE METER NEEDLE

The 0 cent position of the meter needle may shift due to temperature changes, shocks, or the passage of time. If you notice a shift in the needle position during tuning, adjust the 0 cent position of the meter needle.



With the power turned off, press the POWER button while simultaneously holding down both of the PITCH adjustment buttons to enter needle adjustment mode. The meter will point to the 0 cents position. If the position indicated by the needle is out of alignment with the 0 cents position, use a fine-tipped Phillips-head screwdriver to turn the needle adjustment screw on the back of the device while checking the needle position until the needle aligns with 0 cents position. After making any necessary adjustments, press the POWER button to turn off the power.

* Turn the needle adjustment screw clockwise to move the needle towards -, or counterclockwise to move the needle towards +.

* Be sure to use a precision screwdriver for clocks or similar devices when adjusting the needle, and twist slowly to avoid excessive force. Using a screwdriver of the wrong size or applying excessive force to the screw may damage the device.

* The meter of your SEIKO SAT1200 is extremely delicate. Take care not to drop the device.

POWER SAVING FEATURES

Your SEIKO SAT1200 comes with the following features to save power and let you know when to change the batteries.

Auto-off

The tuner will automatically turn off if left inactive for a certain amount of time while the power is on.

The tuner will automatically turn off after 10 minutes of inactivity in AUTO or MANUAL mode, or after 5 minutes of continuous playing of the reference note.

Remaining battery life display

Remaining battery life is displayed for two seconds on the meter when the power is turned on.

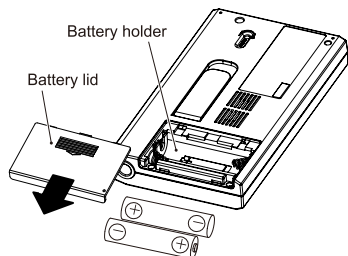
The meter needle will point to the BATTERY area to show that the charge of the current batteries is sufficient for tuning.

* Depending on battery performance or the manner in which the tuner is used, the batteries may become depleted within a short period even if the needle initially pointed to the BATTERY area.

Battery change alarm

When it is time to change the batteries, the AUTO and MANUAL mode lights will flash in alternation for 15 seconds to indicate that the batteries need to be changed, and the power will shut off automatically. You will no longer be able to use the tuner in this condition - please change the batteries.

BATTERY REPLACEMENT



Press the POWER button to turn off the tuner. Locate the battery lid on the back side of the tuner. Slide the battery lid in the direction of the arrow on it to remove it. Remove both (2) depleted batteries. Install two new batteries in the battery holder, making sure that the batteries are aligned with the polarity markings. Replace the battery lid. After replacing the batteries, turn the tuner on and confirm that the tuner functions normally. The tuner is reset to factory settings when the batteries are replaced (mode: AUTO, reference pitch: 440 Hz, note: A).

- * Please note that rechargeable batteries cannot be used with this product.
- * Be sure that the (+) and (-) terminals of the batteries are oriented correctly.
- * Follow all local ordinances and regulations when disposing of depleted batteries.

SPECIFICATIONS

- Tuning mode : AUTO / MANUAL, Reference tone
- Tuning range : A0 ~ C8
- Reference tone range : C4 ~ B4
- Tuning and reference tone accuracy : ± 1 cent
- Pitch shift : A4= 415, 438 ~ 444 Hz
- Auto power-off : 10 min. (tuner), 5 min. (reference tone)
- Input : Built-in microphone, $\Phi 6$ jack (monaural)
- Output : $\Phi 6$ jack (monaural)
- Power supply : Two (2) AAA batteries (3V)
- Battery life : Approx. 60 hours (at continuous A4 input)
- Overall dimensions and weight: 126 (W) \times 73 (H) \times 19 (D) mm ; approx. 125g (including batteries)
- Accessories : AAA manganese battery \times 2 (for functionality testing), instruction manual

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

Seiko Instruments Inc. <http://www.sii.co.jp/music/english/>

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT


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 a residential installation. 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.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

This Class B digital apparatus complies with Canadian ICES-003.

NOTICE (for EU only)

 This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste. If you ever need to throw away an old tuner or any of its components, please ensure that it is disposed of carefully in the way designated by local authorities.

RoHS Compliant

CE MARKING

This is to certify that the SEIKO CHROMATIC TUNER SAT1200 fully conforms to the protection requirements of EC COUNCIL DIRECTIVE 2004/108/EC and DIRECTIVE 2011/65/EU on the approximation of the laws of the member states.

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