

KORG

OT-120

ORCHESTRAL TUNER

Owner's Manual

Thank you for purchasing the **Korg OT-120 Orchestral Tuner**. Before you use the OT-120, please read this owner's manual carefully and use the unit as directed. After you have read the manual, keep it for future reference.

Precautions

Location

Using the unit in the following locations can result in a malfunction.

- In direct sunlight
- Locations of extreme temperature or humidity
- Excessively dusty or dirty locations
- Locations of excessive vibration
- Close to magnetic fields

Power supply

Please connect the designated AC adapter to an AC outlet of the correct voltage. Do not connect it to an AC outlet of voltage other than that for which your unit is intended.

Interference with other electrical devices

Radios and televisions placed nearby may experience reception interference. Operate this unit at a suitable distance from radios and televisions.

Handling

To avoid breakage, do not apply excessive force to the switches or controls.

Care

If the exterior becomes dirty, wipe it with a clean, dry cloth. Do not use liquid cleaners such as benzene or thinner, or cleaning compounds or flammable polishes.

Keep this manual

After reading this manual, please keep it for later reference.

Keeping foreign matter out of your equipment

Never set any container with liquid in it near this equipment. If liquid gets into the equipment, it could cause a breakdown, fire, or electrical shock.

Be careful not to let metal objects get into the equipment. If something does slip into the equipment, unplug the AC adapter from the wall outlet. Then contact your nearest Korg dealer or the store where the equipment was purchased.

THE FCC REGULATION WARNING (for U.S.A.)

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.

Unauthorized changes or modification to this system can void the user's authority to operate this equipment.

CE mark for European Harmonized Standards

CE mark which is attached to our company's products of AC mains operated apparatus until December 31, 1996 means it conforms to EMC Directive (89/336/EEC) and CE mark Directive (93/68/EEC).

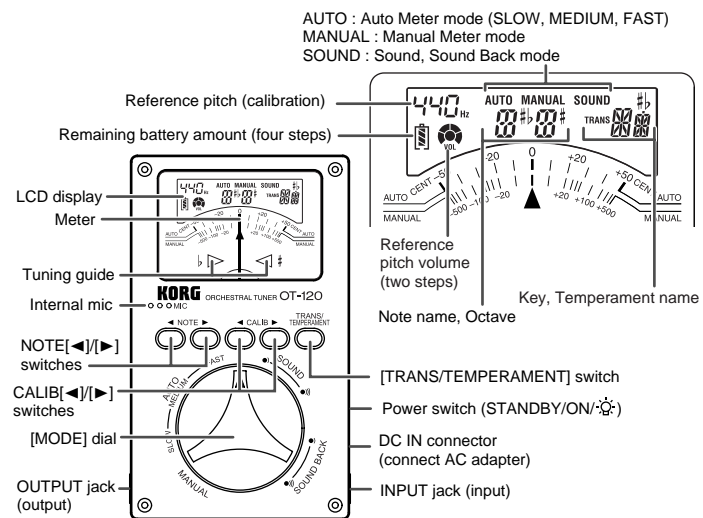
And, CE mark which is attached after January 1, 1997 means it conforms to EMC Directive (89/336/EEC), CE mark Directive (93/68/EEC) and Low Voltage Directive (73/23/EEC). Also, CE mark which is attached to our company's products of Battery operated apparatus means it conforms to EMC Directive (89/336/EEC) and CE mark Directive (93/68/EEC).

IMPORTANT NOTICE TO CONSUMERS

This product has been manufactured according to strict specifications and voltage requirements that are applicable in the country in which it is intended that this product should be used. If you have purchased this product via the internet, through mail order, and/or via a telephone sale, you must verify that this product is intended to be used in the country in which you reside.

WARNING: Use of this product in any country other than that for which it is intended could be dangerous and could invalidate the manufacturer's or distributor's warranty. Please also retain your receipt as proof of purchase otherwise your product may be disqualified from the manufacturer's or distributor's warranty.

Front and side panels



Tuning procedure

The OT-120 provides four modes: Manual Meter, Auto Meter (SLOW/MEDIUM/FAST), Sound, and Sound Back.

■ Preparations for tuning

1. If you are using an instrument with a pickup or contact mic, connect the INPUT jack of the OT-120 to the cable (plug) from your instrument or mic.

If the OUTPUT jack of the OT-120 is connected to an amp, the sound that is input to the INPUT jack will be output without change. Since this may cause noise during your performance, set the power switch of the OT-120 to STANDBY.

If you are using the internal mic of the OT-120, tune without connecting a plug to the INPUT jack and OUTPUT jack. If a plug is connected to the INPUT jack or OUTPUT jack, the internal mic cannot be used.

- ▲ The INPUT and OUTPUT jacks are for mono use only. Stereo plugs cannot be used.

2. Turn the power switch to ON or [⏻]. (At the [⏻] position, the power will be on and the display will be illuminated.)

When the power is on, the last-selected reference pitch (default: A=440 Hz) and the mode last selected by the [MODE] dial will be active.

3. If you wish to change the reference pitch (calibration), press the CALIB [◀|▶] or [▶|▶] switch.

Each time you press the switch, the reference pitch will change, and will be shown in the display. If you press and hold the switch, the setting will change continuously.

349 → 350 → 351 → → 497 → 498 → 499

4. If you are tuning a transposing instrument or tuning to a classical scale, press the [TRANS/TEMPERAMENT] switch.

Each time you press the switch, the setting (key, temperament) will change, and will be shown in the display.

If you select a key, the characters "TRANS" will blink in the LCD display.

If you select a temperament, the setting will blink in the LCD display.

C (Not display for C) → C♯ → D → E♭ → E → F → F♯ → G → G♯ → A → B♭ → B
Yg ← Vt ← Kn ← Kb ← Wm ← Md♯ ← Me♭ ← Pg

PG: Pythagorean

WM: Werckmeister III

Vt: Vallotti

ME♭: Mean Tone E♭

Kb: Kirnberger III

Yg: Young

MD♯: Mean Tone D♯

Kn: Kellner

- ▲ When a classical temperament is selected, the reference pitch will be A (= +/- 0 cents).

■ Manual meter mode

In this mode you can tune to a note name that you specify.

1. Make the settings described in steps 1-4 of "Preparations for tuning."
2. Set the [MODE] dial to MANUAL.
3. Press the NOTE [◀|▶] switch to select the note name (C-B) that you wish to tune.
Each time you press the switch, the note name will change in semitone steps. If you press and hold the switch, the note name will change continuously.

C → C♯ → D → E♭ → E → F → F♯ → G → G♯ → A → B♭ → B

This setting will be remembered even if you change modes.

4. Play a single note on your instrument, and tune so that the VU style meter moves to the 0 position (center) and the tuning guide indicators are both lit.

The meter will operate when the difference between the specified note and the input pitch is in the range of -500 cents - +500 cents.

■ Auto meter mode

In this mode you can tune any note you input.

1. Make the settings described in steps 1-4 of "Preparations for tuning."
2. Set the [MODE] dial to AUTO-SLOW, AUTO-MEDIUM, or AUTO-FAST.
AUTO-SLOW: The VU style meter will respond slowly to the input sound.
AUTO-FAST: The VU style meter will respond rapidly to the input sound.
AUTO-MEDIUM: The response will be between that of AUTO-SLOW and AUTO-FAST.
3. Play a single note on your instrument.
The LCD display will indicate the closest note name and the octave for the pitch that you played.
Tune your instrument approximately so that the correct note name is displayed.
4. Tune your instrument so that the VU style meter moves to the 0 position (center) and the tuning guide indicators are both lit.
The meter will indicate the difference between the specified note and the input pitch in the range of -50 cents - +50 cents.

- ▲ If you use the internal mic of the OT-120 to tune, place your instrument as close as possible to the internal mic so that extraneous sounds are not picked up by the mic.

- ▲ In some cases, such as when the sound contains numerous overtones, the OT-120 may have difficulty detecting the pitch. If this occurs, change the volume or octave, and try again.

■ Sound mode

In this mode you can tune to a reference pitch sounded by the OT-120.

1. Make the settings described in steps 1-4 of "Preparations for tuning."
2. Set the [MODE] dial to SOUND- (●) or SOUND- (●●).
The (●) setting produces a low-volume reference tone. The (●●) setting produces a loud reference tone.
3. Press the NOTE [◀|▶] or [▶|▶] switch to select the note that you wish to tune.
Each time you press the switch, the reference pitch will change in semitone steps over a five octave range of C2-C7.
This setting is remembered even if you change modes.

4. Tune your instrument to the reference pitch that is output by the OT-120.

■ Sound Back mode

This mode outputs the reference pitch that is closest to the note you input via the INPUT jack, and displays the difference between your note and the reference pitch in the meter.

1. Make the settings described in steps 1-4 of "Preparations for tuning."
2. Set the [MODE] dial to SOUND BACK - (●) or SOUND BACK - (●●).
The (●) setting produces a low-volume reference tone. The (●●) setting produces a loud reference tone.
3. Play a single note on your instrument.
The reference pitch closest to the note that you played will be sounded, and the note name will be displayed in the LCD. The meter will indicate the difference between the specified note and the input pitch in the range of -50 cents - +50 cents. Tune your instrument approximately so that the correct reference pitch is sounded.
4. Tune your instrument according to the reference pitch and the VU style meter.

Replacing the batteries/Memory function

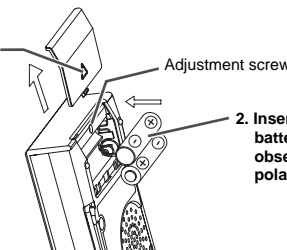
When the batteries run down, accurate tuning will no longer be possible. When directed by the low battery indicator in the LCD, replace the batteries as soon as possible.

The batteries are also used to maintain the contents of memory when the power is off in order to preserve the reference pitch, TRANS/TEMPERAMENT setting, and the note name selected in Manual Meter mode or Sound mode (Memory function).

- ▲ The various settings of the Memory function will be reset when you remove the batteries or when the batteries run down. (If the AC adapter is plugged in and connected to the OT-120, these settings will not be reset.)

You should leave the batteries installed even when using the OT-120 with its AC adapter.

1. Press lightly and slide in the direction of the arrow to open the lid of the battery case.
2. Insert two AAA batteries. Be careful to observe the correct polarity (+, -).
3. Close the lid of the battery case.



Adjusting the zero point of the VU style meter

If the OT-120 is jarred while being transported etc., or due to normal aging after extended use, the VU style meter may drift away from the 0 position (center). Please re-adjust the VU style meter to the 0 position so that tuning will be accurate.

1. While holding down the NOTE [◀|▶] switch, turn the power switch ON and verify that the VU style meter points to the 0 position.
2. If it does not point to 0, open the battery case lid as shown in the diagram for "Replacing the batteries/Memory function," and use a small Phillips screwdriver (jeweler's screwdriver) to rotate the adjustment screw until the VU style meter points to 0.
3. After completing the adjustment (or if the VU style meter already points to 0), press any switch to return to normal operation, and close the lid.

Specifications

Scale	: 12 equal tempered, Pythagorean, Mean tone E♭/D♯, Werckmeister III, Kirnberger III, Kellner, Vallotti, Young
Transposition range	: C, C♯, D, E♭, E, F, F♯, G, G♯, A, B♭, B
Detection range	: A0 (27.50 Hz)-C8 (4186 Hz)
Reference tone	: C2 (65.41 Hz)-C7 (2093 Hz) five octaves, two volume levels
Tuning modes	: Manual, Auto (SLOW, MEDIUM, FAST), Sound, Sound Back
Calibration range	: A4=349-499 Hz (1 Hz steps)
Detection accuracy	: +/-1 cent
Sound accuracy	: +/-1.5 cents
Tuning guide range	: for AUTO (SLOW, MEDIUM, FAST), SOUND BACK modes -50 cents - -3 cents : ♭ -3 cents - +3 cents : ♭, ♯ +3 cents - +50 cents : ♯ for MANUAL mode -500 cents - -3 cents : ♭ -3 cents - +3 cents : ♭, ♯ +3 cents - +500 cents : ♯

Connectors : INPUT (1/4" mono), OUTPUT (1/4" mono), DC IN (9V [⊕-⊖])

Power supply : AAA batteries x 2 (3 V), or AC adapter

Battery life : approximately 100 hours (alkaline batteries, Meter mode, continuous input at A4)

Dimensions (W x D x H) : 74 x 120 x 36 mm [2.91" x 4.71" x 1.42"]

Weight : 193g [6.8 oz] (with batteries)

Included items : Alkaline AAA (LR03) batteries x 2 to verify operation

Options (sold separately) : AC adapter (9V [⊕-⊖])

* Appearance and specifications are subject to change without notice.

Using the stand

By opening the stand located on the back, you can position the OT-120 at a convenient angle.

- ▲ The VU style meter may drift from the 0 position (center) when the OT-120 is tilted. If this occurs, perform the procedure described in "Adjusting the zero point of the VU style meter" while the unit is tilted, so that the VU style meter points to 0.

