TU-15 CHROMATIC TUNER Owner's Manual

Thank you, and congratulations on your choice of the BOSS TU-15 Chromatic Tuner.
Before using this unit, carefully read the sections entitled: "USING THE UNIT SAFELY" and "IMPORTANT NOTES" (separate sheet).
These sections provide important information concerning the proper operation of the unit. Additionally, in order to feel assured that you have gained a good grasp of every feature provided by your new unit, this manual should be read in its entirety. The manual should be saved and kept on hand as a convenient reference.
As shipped, the TU-15's batteries are not yet installed. Be sure to read "Changing the Batteries" and then follow the instructions to install the batteries.

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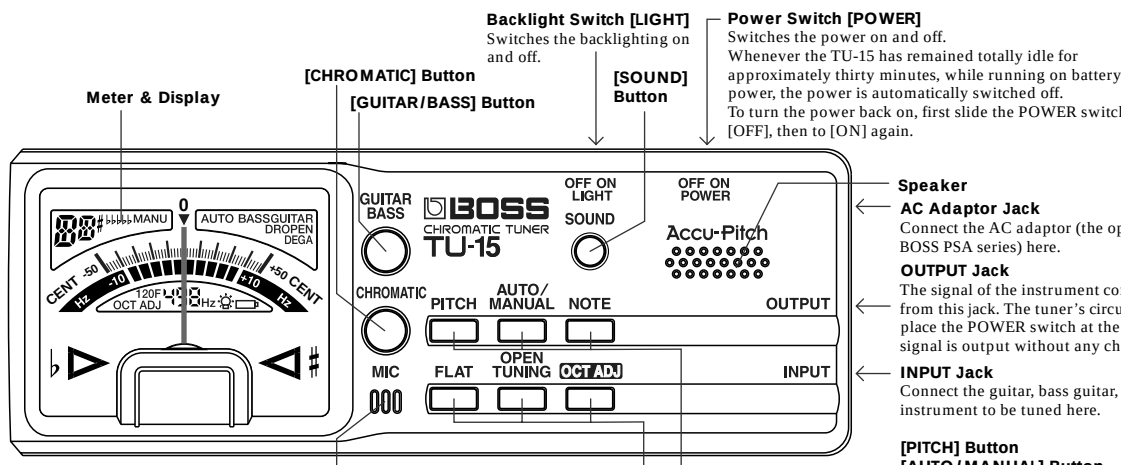
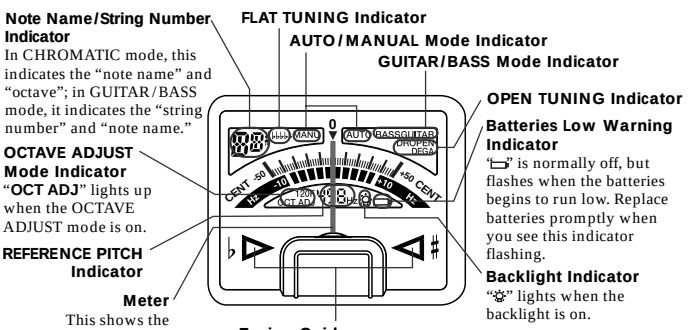
■ Features

- **Backlit meter** allows tuning even in dark environments.
- Also features an "**AUTO mode**," which automatically determines the note name or string number, and a "**MANUAL mode**," where you can specify note names and string numbers (which comes in handy after you've restrung your instrument).
- Includes "**CHROMATIC mode**," which permits tuning to any of the twelve semitone steps by note name over the entire chromatic scale, and a "**GUITAR/BASS mode**" for tuning to guitar and bass string numbers.
- Compatible with seven-string guitars and six-string basses.
- Includes a **Flat Tuning** function, which lowers all pitches from one semitone to five semitones (two and a half steps).
- **Open Tuning** function makes it easy to achieve DROP D, OPEN D/E/G/A, and DADGAD tunings.
- **OCTAVE ADJUST mode** makes the octave adjustments required to maintain the correct pitch when playing the frets.
- **SOUND mode** plays the reference tone.
- **Accu-Pitch** function produces a beeping tone to signal that the tuning is correct.
- AC adaptor jack for use with AC adaptor.
- **Auto Power Off** function helps prevent battery drain (only when batteries are used).

■ Panel Descriptions



■ Display



■ Note About AUTO and MANUAL Modes

Normally, you will be using "**AUTO mode**," in which note names and string numbers are indicated automatically.
However, after restringing an instrument, or when using the **Open Tuning** function, it is more convenient to use "**MANUAL mode**," in which you specify the note names and string numbers using the **[NOTE] button** in advance.
Pressing the **[AUTO/MANUAL] button** toggles the mode between "**AUTO**" and "**MANU**." The current mode is indicated in the display.

■ Regarding CHROMATIC and GUITAR/BASS Modes

Mode	Description	Operation	Displayed
CHROMATIC	Allows tuning any of the twelve pitches in the chromatic scale.	Press the **[CHROMATIC] button**.	The tone name and octave are displayed.
GUITAR	Allows tuning by guitar string number.	Press the **[GUITAR/BASS] button** one or more times until "**GUITAR**" is lit.	"**GUITAR**" lights up, and the string number and tone name are displayed.
BASS	Allows tuning by bass guitar string number.	Press the **[GUITAR/BASS] button** one or more times until "**BASS**" is lit.	"**BASS**" lights up, and the string number and tone name are displayed.

■ How to Use the Tuner

1. Connect the instrument to be tuned to the INPUT jack.
   The built-in mic is used for tuning acoustic instruments. When using the mic, make sure that nothing is connected to the INPUT or OUTPUT jacks, and place the TU-15 near the instrument.

* *To prevent malfunction and/or damage to speakers or other devices, always turn down the volume, and turn off the power on all devices before making any connections.*

2. Slide the POWER switch to [ON].
   The reference pitch is indicated in the display.
   To change the reference pitch, press the **[PITCH] button** one or more times until the pitch you want to set as the reference pitch appears in the display (the factory default setting is 440 Hz).
   If the power has been turned off by the **Auto Power Off** function, slide the POWER switch to [OFF], then to [ON] again.
3. Switch to **AUTO mode**.
   Normally, "**AUTO mode**" is used. In this mode, note names and string numbers are indicated automatically.
   If "**MANU**" appears in the display, press the **[AUTO/MANUAL] button** so that "**AUTO**" is shown.
4. Play a single note on the instrument.
   The note name/string number for the note that is playing appears in the display.
   The meter and Tuning Guide show how far the note is from the correct pitch.
5. Tune the instrument.
   With the intended note name/string number appearing in the display, tune the instrument so that both "♭" and "♯" of the Tuning Guide are lit, and the meter needle points to 0 (center position).
   When a stable pitch is achieved, the tuner makes a beeping sound, informing you that the tuning is completed (with the **Accu-Pitch** function).

■ Flat Tuning

This lowers the actual pitch of all notes below the regular tuning (from one to five semitones, or two and a half steps), and can be accomplished simply without changing the regular display.
Press the **[FLAT] button** and select the number of semitones the actual pitch is to be lowered relative to the note appearing in the display.
No flat symbols appear when regular tuning is selected; "♭" indicates the pitch is lower by one semitone, "♭♭" a whole tone, and so on, with "♭♭♭♭♭" marks indicating a drop of five semitones.

■ Open Tuning

You can tune by string number not only with normal OPEN D/E/G/A, but with six kinds of open tuning, from the often-used DROP D to DADGAD.
After switching to **GUITAR/BASS mode**, press the **[OPEN TUNING] button** to select the type of tuning you want to set.

In GUITAR Mode

Type	Open Tuning Indicator
Regular	Not Displayed
OPEN D	OPEN D
OPEN E	OPEN E
OPEN G	OPEN G
OPEN A	OPEN A
DROP D	DROP D
DADGAD	D GA

In BASS Mode

Type	Open Tuning Indicator
Regular	Not Displayed
DROP D	DROP D

■ Tuning While Listening to the Reference Tone (SOUND Mode)

The built-in speaker plays the reference tone.
In **CHROMATIC mode**, you can play any of the twelve notes in the chromatic scale.
In **GUITAR/BASS mode**, pitches corresponding to the open strings are played.

1. First select the type of tuning you want to use (e.g., Chromatic, Guitar, Bass, Flat, or Open Tuning).
2. Press the **[SOUND] button**.
3. Press the **[NOTE] button** to display the note name or string number you want to tune.
4. Tune the instrument to the reference tone.
5. Press the **[SOUND] button** to stop playing the reference sound.

■ OCTAVE ADJUST Mode

To ensure that the correct pitch is played when you press the strings against the guitar frets, Octave Adjust is required.
The TU-15 features an **OCTAVE ADJUST mode**, which indicates whether you need to shift the bridge up or down when the sound of the open string and the sound with the string pressed at the twelfth fret are played.
This function allows you to make octave adjustments quickly and easily.

1. First tune the instrument in **GUITAR/BASS mode**.
2. Press the **[OCT ADJ] button**.
   The "**OCT ADJ**" in the display lights up, and the tuner switches to **GUITAR** or **BASS mode**.
   In **MANUAL mode**, you can select the string to adjust by pressing the **[NOTE] button**.
3. Play an open string.
   When the pitch stabilizes, "**OF**" lights up.
4. Next, play the same string while holding it down at the twelfth fret.
   When a stable pitch is obtained, "**12 F**" lights up, and the meter indicates the direction in which the bridge should be shifted.
   If the needle moves to the left side (the ♭ side), shift the bridge toward the neck; if the needle moves to the right side (the ♯ side), shift the bridge away from the neck.

* *For instructions on moving the bridge, refer to the owner's manual that came with your guitar.*

5. After shifting the bridge, repeat Steps 3 and 4.
   This adjustment is complete when the meter is at 0 (center) while "**12 F**" is lit.
6. When you have finished adjusting all of the strings, press the **[OCT ADJ] button** to exit **OCTAVE ADJUST mode**.

■ Changing the Reference Pitch

The frequency for A4 (Middle A on the piano) for an instrument (such as the piano) whose pitch other instruments are tuned to is called the "reference pitch."

The current reference pitch is indicated when you turn on the TU-15.
The reference pitch changes by 1 Hz each time you press the **[PITCH] button**.
You can adjust the reference pitch to any value from A=430 Hz to A=449 HZ.

* *The factory default setting is A=440 Hz.*

■ Preventing Battery Drain When Running on Batteries (Auto Power Off Function)

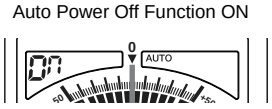
The TU-15 features an **Auto Power Off** function that helps prevent the batteries from going dead if you forget to switch off the unit when using battery power.
After the TU-15 is turned on, if approximately thirty minutes passes without any button being pushed or a tuning sound being input, the power is then turned off automatically.
To turn on the power after it has been turned off by the **Auto Power Off** function, first slide the POWER switch to OFF, then slide it to ON once more.

* *The **Auto Power Off** function is turned on at the factory.*

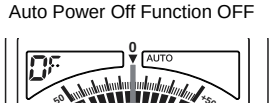
You can turn the **Auto Power Off** function on and off. Use the following procedure to switch the setting to the opposite of the current setting.

1. Turn the POWER switch to OFF.
2. Hold down the **[PITCH] button**, the **[AUTO/MANUAL] button**, and the **[NOTE] button** and slide the POWER switch to ON.
   The **Auto Power Off** setting is switched, and the current ON/OFF status is indicated in the display for approximately five seconds.

Auto Power Off Function ON



Auto Power Off Function OFF



Afterwards, the indicators and operations work as usual, and you can then proceed to use the tuner.

* *The **Auto Power Off** setting remains stored even after the power is turned off.*

■ Using a Tone to Indicate Tuning is Completed (Accu-Pitch Function)

The TU-15 includes a "**Accu-Pitch**" function. This function plays a beeping sound when the pitch stabilizes within a range of three cents above or below the correct pitch. The beeping sound that tells you that a string is precisely in tune will have the pitch of a note from C6 to B6, depending on the string being tuned.

* *The Accu-Pitch function is turned on at the factory.*

You can turn the **Accu-Pitch** function on and off. Use the following procedure to switch the setting to the opposite of the current setting.

1. Turn the POWER switch to OFF.
2. Hold down the **[SOUND] button** and slide the POWER switch to ON.
   The **Accu-Pitch** setting is switched, and the current ON/OFF status is indicated in the display for approximately five seconds.

Accu-Pitch Function ON

Accu-Pitch Function OFF

Afterwards, the indicators and operations work as usual, and you can then proceed to use the tuner.

* *The **Accu-Pitch** setting remains stored even after the power is turned off.*

■ Memory Functions

Once batteries are installed in the TU-15, a number of different settings can be stored in memory, where they'll be preserved even while the power is turned off.
The settings stored in memory are listed below.

- Reference Pitch
- AUTO/MANUAL Mode
- Note Names/String Numbers in MANUAL Mode and SOUND Mode
- CHROMATIC/GUITAR/BASS Mode
- Flat Tuning Settings
- Open Tuning Settings
- Auto Sound Off Setting
- Accu-Pitch Setting

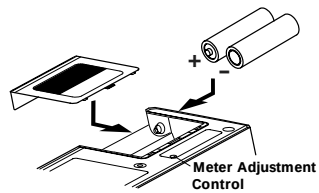
■ Changing the Batteries

A "batteries low" warning flashes in the display when the batteries begin to go dead.
Replace the batteries as soon as possible.

* *The settings stored by the memory function are reset to the default factory settings if the batteries are removed from the tuner, or if the batteries get completely depleted. (However, the stored settings are preserved if the TU-15 remains connected to an electrical outlet with the AC adaptor.)*

1. Press down and slide off the lid of the batteries compartment (located on the bottom of the unit).
2. Remove the old batteries from the compartment.
3. Insert two of the same type of fresh AA batteries.

* *Make sure the "+" and "-" ends of the batteries are oriented correctly.*



4. Slide the lid back into place.

* *Do not mix fresh batteries with used ones, or mix batteries of different types. Doing so can result in fluid leakage.*

■ Calibrating the Meter's Needle

Over time, or as the result of being knocked around, the meter needle may drift away from the 0 position. If this occurs, you can recalibrate the needle using the following procedure.

* *Normally, the needle almost never goes off center. Adjust the needle only in the event that it has shifted from the 0 position.*

1. Hold down the **[PITCH] button** and turn the power on.
   Confirm whether or not the needle is pointing at the 0 position.
2. If the needle is not pointing to 0, then while holding down the **[PITCH] button**, turn the adjustment screw with a small, precision, flathead screwdriver (approx. 1.2 mm) until the needle points to 0.
3. Release the **[PITCH] button** to return the tuner to normal operation.

* *Do not use any other tool than a small flathead screwdriver to make this adjustment, and do not use undue force. Failure to observe these precautions may result in damage to the unit.*

■ Main Specifications

Reference Pitch:	A4=430 Hz–449 Hz (1 Hz step)
Tuning Range:	E0 (20.6 Hz)–C8 (4186.0 Hz)
Tuning Accuracy:	± 1 cent
Input Impedance:	10 MΩ
Indicator:	Meter, LCD Display
Speaker:	36 mm x 1 dynamic type
Connectors:	Input Jack, Output Jack, AC Adaptor Jack
Power Supply	Dry Battery (R6/LR6 (AA) Type) x 2; DC 3 V, AC Adaptor DC 9 V (PSA series; optional)
Power Consumption	15 mA (backlit off and SOUND mode off), 55 mA (backlit on and SOUND mode on)
Expected battery life under continuous use (Carbon):	
	Approximately 45 hours (backlit off, SOUND mode off and A4 continuous input), Approximately 15 hours (backlit on and SOUND mode on) * These figures will vary depending on the actual conditions of use.
Dimensions:	149 (W) x 58 (D) x 40 (H) mm / 5-7/8 (W) x 2-5/16 (D) x 1-5/8 (H) inches
Weight	190 g (including batteries) / 7 oz
Accessories	Dry Battery (R6 (AA) Type) x 2, Owner's Manual, Leaflet ("USING THE UNIT SAFELY" and "IMPORTANT NOTES"), Information (sepalate sheet)
Option:	AC Adaptor (PSA series)

* *In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.*