

RokTempo 2 User Manual



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What is the RokTempo 2?

- A self contained battery powered electronic tempo monitor that attaches to a drum and displays Beats Per Minute (BPM) as you play.
- The RokTempo 2 has an internal sensor that senses vibrations from the drum and converts these vibrations to BPM as a repeated pattern is played on the drum.
- Much like the original RokTempo but with a LCD display that allows viewing in direct **sunlight**.
- Battery life should be similar to the original RokTempo. If the backlight brightness is set to “0” (see user setting U4) battery will be longer than the original RokTempo.
- Here are the features that are new for the RokTempo 2 when compared to the original RokTempo.
 - **Factory Reset button.** Restores original factory settings.
 - **Enable Extra Features** mode. See **User Settings** for more info on these features.
 - **User Mode 6**, LCD display blink time when a beat is detected.
 - **User Modes 1 and 2** are swapped to make it easier to change time signatures.
 - **A larger display.**
 - **Can be seen in direct sunlight and in very bright stage lights.**
 - **Flashing Metronome mode**, flashes the digits on the display at a preset BPM used for counting off songs. There is a white button opposite the control knob that activates this feature.
 - Note : The Metronome feature does not produce any audible sound, it's visual only.

Quick Start Guide

Using the RokTempo 2 with the Drum Clip Accessory Adapter (DCAA)

1. Mount the Drum Clip to the rim of the drum. Follow this link for a video showing how to install the Drum Clip : <https://www.youtube.com/watch?v=pLvLSVJ0U9A>
2. Remove the Velcro piece with the clear protective backing from the back of the RokTempo 2, remove the clear backing and apply it to the top portion of the Drum Clip.
3. Attach the RokTempo 2 to the Velcro on the Drum Clip and press firmly to engage the mating Velcro pieces.

4. The RokTempo 2 is shipped powered off. To **Power up**, press and hold the control button for three seconds. “**Pu**” will be displayed for a moment then three hyphens will be displayed indicating the unit is ready to use.
5. Rotate the control knob to adjust the threshold trigger to the desired sensitivity, the default is 12. This is a good place to start when using the drum clip.
6. If the unit goes to sleep, (blank display) it can be woken up by hitting the drum, tapping on the unit, rotating or pushing the control knob.
7. To Power Down (turn off), press and hold the control knob for two seconds. The display will blink “**Pd**” three times indicating **Power down** mode has been entered. In power down mode not only does the battery life get extend it also prevents wake up by a hit, tap or rotation of the control knob.
8. Follow this link for a video showing the demonstration of how to use the **Drum Clip** with the **RokTempo 2** : <https://www.youtube.com/watch?v=tovRDxJNR20>

Using the RokTempo 2 directly mounted to the Drum Head

1. Remove the Velcro piece with the clear protective backing from the back of the RokTempo 2, remove the clear backing and apply it to the drum head near the rim.
2. Attach the RokTempo 2 to the Velcro on the snare drum, firmly pressing down to fully engage the velcro.
3. The RokTempo 2 is shipped powered off. To **Power up**, press and hold the control button for three seconds. “**Pu**” will be displayed for a moment then three hyphens will be displayed indicating the unit is ready to use.
4. Rotate the control knob to adjust the threshold trigger to 20, the default is 12. A setting of 20 is a good place to start with the RokTempo 2 mounted to the drum head.
5. If the unit goes to sleep, (blank display) it can be woken up by hitting the drum, tapping on the unit, rotating or pushing the control knob.
6. To Power Down (turn off), press and hold the control knob for two seconds. The display will blink “**Pd**” three times indicating **Power down** mode has been entered. In power down mode not only does the battery life get extend it also prevents wake up by a hit, tap or rotation of the control knob.

Quick Start for the Flashing Metronome mode

1. Follow steps above for powering on.
2. You should see three hyphens indicating it's ready.
3. Press and release the white button opposite the control knob, the display will change to one of the **Presets**, PXX (XX = 1 - 99) for 1.5 second. During this time you can rotate the control knob to select a preset from 1 to 99. All 99 presets are set to a tempo of 80 BPM as the factory default setting..

4. Once the knob is stationary for 1 second the display will change to the tempo for the selected preset (1 - 99). For 1.5 seconds the tempo preset will be displayed. During this time the BPM can be changed by rotating the control knob. Once the control knob is stationary for 1.5 secs the tempo displayed will begin to flash at the preset tempo. Ex. A Tempo of 60 BPM will flash the number 60 on and off at sixty times a min, a Tempo of 90 BPM will flash the number 90 at ninety times a minute, etc.
5. The flashing will continue for 60 seconds if no beat is detected. When a beat is detected within the 60 seconds the flashing will stop (exit Flashing Metronome mode) and enter into the Tempo Monitor mode.

Features:

- Small enough to attach to a snare drum.
- Powered by one CR2450 coin cell battery, sleep mode entered after 30 sec of no activity.
- Power down mode to extend battery life and prevent wakeup.
- Self contained, no external sensors needed.
- Adjustable sensor threshold trigger, sensitivity can be set to pick up hits from brushes.
- Ready to use right out of the box using pre-programmed default settings.
- Built in battery level monitor, if the battery level falls too low for normal operation it will let the user know by displaying “**bLo**”.
- Adjustable average number of beats. Depending on the selection, the RokTempo 2 will average between 2 - 8 beats before starting the averaging process again.
- User selectable 1 - 6 BPM reading. (**Note** : 3 -6 are only available in the Extra Feature mode)
- Adjustable Backlight for the LCD display so it can be easily seen indoors in low ambient light conditions.
- Seven Segment LCD display that can be viewed in sunlight or with bright stage lights.
- Additional settings listed in the User Changeable Settings section.

Tempo Monitor Mode

- When the RokTempo 2 is first powered on it will automatically enter into Tempo Monitoring Mode indicated by displaying three hyphens. Any time three hyphens are displayed this indicates the unit is ready to be used in Tempo Monitor Mode or in the Flashing Metronome Mode.
- When the first beat is detected three bottom row segments will be displayed. Any beats after this will display the actual BPM.
- When a beats are detected the display will blink for a brief time and the BPM is updated to the latest measurement.

- If no activity is detected after 30 sec the RokTempo 2 will enter sleep mode, it can be woken up by hitting the drum, tapping on the unit, rotating or pushing the control knob.

How to use the Flashing Metronome Mode

- See the quickstart above for programming 1 of the 99 presets of the Flashing Metronome.
- Press and release the white button opposite the control knob, the display will change to one of the **P**resets, PXX (XX = 1 - 99) for 1 second. During this time you can rotate the control knob to select a preset from 1 to 99.
- The Display of the BPM will begin flashing 1.5 seconds after the preset is selected. The flashing rate will be the tempo of what is being displayed. Ex. If a 60 is being displayed, this number will flash on an off at 60 times per minute.
- If a beat is detected in Flashing Metronome Mode it will switch to Temp Monitor Mode and begin to monitor and display the tempo being played.
- To re-enter the Flashing Metronome mode, just push and release the white button and select a new preset by rotating the control knob.
- To re-enter the Flashing Metronome mode, just push and release the white button and select a new preset by rotating the control knob.

User Changeable Settings:

- The unit comes with default pre-programmed settings and can be used right out of the box. But the user can change these settings as noted below.
- **Tip** : To prevent the push button from causing a trigger, set the threshold to 70 or higher. Once User settings have been changed set the threshold to it's previous setting.
- On the top of the unit is a dual function control knob. 1) Push button for selecting user options and powering the unit on or off. 2) Rotating the control knob for adjusting the settings. Note : If the button is pressed and held for two seconds or more, the unit will be **Powered Down**. Press and hold the button for three seconds will power up the RokTempo 2 indicated by "**Pu**" on the display.

Modes Available:

- Set **Threshold**. Just turn the control knob (pushing the button is not required), you will see the value increase or decrease. The higher the value decreases the sensitivity, the lower the value increases the sensitivity. Tap the unit or hit the drum to lock in the setting. Default value is 20, user setting ranges from 10 - 127. See the **Additional Features** section below on how to set the **Extra Features** Mode which will allow the sensitivity to be adjusted to **8** for even more sensitivity.
- To change any of the following settings, **pushing** the button is required

- First Press (**User Mode 1**) = Set **BPM Multiplier** from **1 - 6**. BPM is multiplied by the BPM multiplier to get the actual BPM. Default is x1.
 - A “u1“ will be displayed for a brief moment indicating **User Mode 1** has been entered.
 - Rotating the control knob will change the value from 1 to 6.
 - **Note** : Settings 3 - 6 are only available in **Extra Feature** mode.
 - Setting of 1 = Multiply BPM by 1 (x1), 2 = Multiply BPM by 2 (x2) and etc
 - Press the button again to lock in the change.
- Next Press (**User Mode 2**) = Set **Avg Beats 1,2,3,4,5,6,7,8**. Default is 1.
 - A “u2“ will be displayed for a brief moment indicating **User Mode 2** has been entered.
 - Rotating the control knob will change the value from 1 - 8. Press the button again to lock in the change.
 - Note : After 20 sec of no activity, Avg Beats will always be set as the first user mode.
- Next Press (**User Mode 3**) = Set **Sensor Delay, 75 - 200ms**. Default is 100ms (ms = millisecond = thousands of a second).
 - A “u3“ will be displayed for a brief moment indicating **User Mode 3** has been entered.
 - Rotating the control knob will change the sensor delay from 75 to 200ms in 25ms increments. Press the button again to lock in the change.
 - On some really hard hits double triggering can occur with certain drums. Adjusting the Threshold level higher can help eliminate this condition but will reduce the sensor sensitivity. To keep the desired sensitivity, increase the length of the sensor delay greater than the default value of 100.
 - The amount of delay will impact the maximum BPM measurement. For example, a delay of 100ms will limit the max BPM to ~200. A 200ms delay will limit the max BPM to ~140.
- Next Press (**User Mode 4**) = Set **LCD Backlight Brightness, 0 - 100**. Default is 30.
 - A “u4“ will be displayed for a brief moment indicating **User Mode 4** has been entered.
 - Rotating the control knob will change the value from 0 to 100. Press the button again to lock in the change.
 - Note : Values over 50 will shorten the battery life.
- Next Press (**User Mode 5**) = Display the **Battery level remaining**.

- A “u5“ will be displayed for a brief moment indicating **User Mode 5** has been entered.
- Displays 20 - 100, this number represents the percentage (20 to 100%) of remaining battery life.
- Rotating the control knob in this mode will display/set three **additional features**. The first clockwise rotation click will display the firmware revision x.xx, the next rotation click will display “LbF” which stands for **Last average beat OFF** (This is the default), The next rotation click will display “Lbn” the **Last average beat on**. **See below the detailed description between these modes**.
- Note : During usage if the battery falls below 20%, it will display “bLo” for a brief period before resuming operations. Letting the user know the CR2450 coin cell battery needs replacing.
- **Next Press (User Mode 6) = Set Display Blink Time 10 - 90ms.** Default is 50ms (ms = millisecond = thousands of a second).
 - A “u6“ will be displayed for a brief moment indicating **User Mode 6** has been entered.
 - Rotating the control knob will change the Display Blink Time from 10 to 90ms in 10ms increments. This is the amount of time the display will blink when a beat is detected.
 - Press the button again to lock in the change.

Note : While one of the above settings is in progress the power down function is not available.

- **Turn Off (Power Down mode) :** Press and hold the control knob button for two seconds to enter the Power Down mode. When the unit is in power down all modes are inactive.
- **Turn On (Exit Power Down Mode):** Pressing the control knob for three seconds exits the power down mode and returns to normal mode while retaining all of the user settings.

Additional Features :

- **Last Average Beat BPM Multiplier Off (“LbF”)** - When this feature is selected during User Mode 5, and User Mode 1 is set to Average beats > 1 then every beat will display the BPM times the BPM multiplier. This mode is the default setting.
- **Last Average Beat BPM Multiplier On (“Lbn”)** - When this feature is selected during User Mode 5, and User Mode 1 is set to Average beats > 1 then only the last beat averaged will display the BPM times the BPM multiplier.
- **Extra Feature Mode** - When using the Drum Clip, the sensitivity is decreased when compared to directly attached to the Snare drum. To accommodate for this decrease a Extra Sensitive Mode is available. Note : To enable this feature you

will need a small object like the end of a paper clip (or similar device) to push a small internal button just below the control knob. Power the RokTempo 2 off as normal. Then power it back on. When “**Pu**” is displayed, insert the end of the paper clip through the small hole located just below the control knob pressing and releasing the small button located inside. A “**EF**” (**Extra Feature**) will be displayed briefly indicating the mode is now enabled. Another Extra Feature that is enabled is the BPM multiplier, it includes x3 - x6 which can be used for other time signatures.

- **Factory Reset** - To restore the factory settings, power on the RokTempo 2 and insert the end of the paper clip (or similar device) through the small hole located just below the control knob. Pressing and holding the small internal button until “**CL**” is displayed (~2 sec), the factory reset is now complete.

Note : The settings listed above are retained even when the battery is removed.

Specifications:

- Sleep Mode : Entered after 30 seconds of no activity.
- Operating Voltage:
 - Battery : One CR2450 coin cell. Battery life = ~1 year.
- BPM Range : 1 - 240
- Tempo Monitor Accuracy +- 1 BPM
- Flashing Metronome Accuracy +- 1 BPM
- Display : Seven Segment LCD display
- Enclosure Size : L : 2.36 x W : 1.38 x H : 0.82"

Replacing the Battery:

- To replace the battery, remove the back cover by removing the two screws.
- Use a small screwdriver as shown, and carefully remove the battery.
- Install the new battery making sure it snaps in place.



For questions and comments email us at : info@roktempo.com

FCC Compliance Statement

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.

Responsible Party :

RFJ Industries LLC

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Product Name : RokTempo 2

Model Number: RT002

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.

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