# Saramonic

Wireless Timecode Generator 无线同步时码器

Saramonic TC-NEO

User Manual 用户手册

## Statement

Please read this manual carefully before using, and strictly operate and store it in accordance with the instructions. Please save the manual for future reference. If you need further assistance than the user manual, please consult your retailer for help or email us at: support@saramonic.com

## **Cautions**

- Non-professionals are strictly prohibited from disassembling this unit on their own.
- 2. Please keep it away from heat sources such as radiators or spotlights.
- 3. Do not remove the battery without professionals' help.
- 4. Please clean the unit with only a soft, dry cloth.
- 5. When using and storing, please keep away from dust and moisture.
- For the best pick-up pattern, do not hold your hand against the microphone capsule cover.

## **General Introduction**

The TC-NEO is a high-precision, reliable timecode generator designed for professional audio and video production. It supports wireless sync via Bluetooth, RF wireless sync, and wired sync, ensuring seamless timecode synchronization across multiple devices. With three operational modes—Master Run mode, Auto Jam mode, and Jam Once and Lock mode, the TC-NEO allows users to set a user-defined starting timecode for maximum flexibility. It supports multiple frame rates, including 23.98, 24, 25, 29.97, 29.97DF, 30, 50, and 60, meeting diverse production needs.

The TC-NEO offers intuitive control via its knob or the Saramonic System app, allowing for easy configuration, real-time monitoring, and firmware updates. The device connects effortlessly to cameras, audio recorders, and other equipment through Line Input (L-IN), Line Output (L-OUT), or Audio Output (A-OUT). In Master Run mode, it transmits timecode to other devices, while in Auto Jam mode or Jam Once and Lock mode, it accepts and syncs with an external source. Supporting up to 48 synchronized units, the TC-NEO delivers precise, efficient, and scalable timecode management for professional productions.

## **Features**

- 1.1" OLED display, clear & flicker-free
- TCXO precision, < 1 frame drift / 48 h
- · Wired, wireless, and app sync
- · 3-pack charging kit for multi-cam sync
- · Shockproof case enhances durability
- · 24-hour battery for all-day use

## In the Box

## Saramonic TC-NEO

Timecode Generator × 1
SR-TRS-C01 Locking 3.5 mm to 3.5 mm Audio Cable x 1
SR-USB-C01 USB-C to USB-C Charging Cable x 1
USB-C to USB-A Adapter x 1
Female Hook-N-Loop x 2
Rotary 1/4"-20 Thread Cold Shoe x 1
Thumb Screw 1/4"-20 Thread Cold Shoe x 1

QR Code Card for Instructions x 1

OR Code Card for APP Installation x 1

Semi-Transparent Protective Case (Orange) x 1

Carrying Pouch x 1

### Saramonic TC-NEO Kit

Timecode Generator x 3 Charging Case x 1

SR-TRS-C01 Locking 3.5 mm to 3.5 mm Audio Cable x 1

SR-TRS-C06 Locking 3.5 mm to BNC Cable x 1

SR-TRS-C03 Locking 3.5 mm to Right-Angle 5-Pin Cable x 1

SR-USB-C01 USB-C to USB-C Charging Cable x 1

USB-C to USB-A Adapter x 1

Female Hook-N-Loop x 6

Rotary 1/4"-20 Thread Cold Shoe x 3

Thumb Screw 1/4"-20 Thread Cold Shoe x 3

QR Code Card for Instructions x 1

QR Code Card for APP Installation x 1

Semi-Transparent Protective Case (Orange, Blue, and Yellow) x 3

### Carrying Pouch x 1

## **Sold Separately**

SONY FX3/30-TCH Timecode Holder / Bracket

SR-TRS-C04 Locking 3.5 mm to 5-Pin LEMO Cable (Sraight)

SR-TRS-C05 Locking 3.5 mm to 5-Pin LEMO Cable (Bent Angle)

SR-TRS-C06 Locking 3.5 mm to BNC Cable

SR-TRS-C07 Locking 3.5 mm to 4-Pin Cable (Sraight)

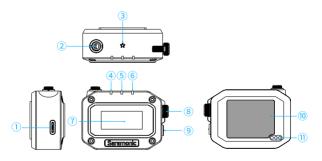
SR-TRS-C08 Locking 3.5 mm to 9-Pin Cable

SR-TRS-C09 Locking 3.5 mm to 9-Pin Cable (Straight, for Canon Cameras)

SR-TRS-C10 Locking 3.5 mm to Sony Multi-Port Cable

## **Product Structure**

## Timecode Generator (Saramonic TC-NEO)



### 1 USB-C Port

Use the included USB-C to USB-C charging cable for charging the TC-NEO, upgrading the firmware.

## 2 3.5 mm TRS Locking Port

TC-NEO can accept timecode signals from external devices or output the timecode signals to other timecode generators using the included or an optional compatible cable.

### 3 In-built Microphone

When the camera input is set to "MIC level" and the TC-NEO is in A-OUT mode, connect it using the included or an optional compatible cable. The timecode signal will be recorded on the left channel, while the reference audio signal will be recorded on the right channel.

## 4 Power Indicator

Status	Indicator
Power on	Solid blue for 10 seconds and then off
Low battery	Solid red until device powers off
Charging (in shutdown mode)	Blinks red and blue alternately
Fully charged	Static blue

## Sync Indicator

Status	The indicator of TC-NEO in Master run mode	The indicator of other timecode generator
Syncing	Blinks red quickly	Blinks red quickly
Sync successfully	Blinks blue slowly	Blinks blue slowly

### 6 Bluetooth Indicator

Device Setting	Status	Indicator
Bluetooth On	Connecting to the App	Blinks blue
Bluetooth On	Successfully connected	Solid blue
Bluetooth Off	-	Blue light off

<sup>\*</sup>The Bluetooth of TC-NEO is off by default. After manually turning it on, the TC-NEO is immediately recognized and can connect to the app.

### 7 OLED Display Screen

Display real-time timecode, battery level, device name, operating mode, and other status information.

## 8 Knob

• When the display screen is on the home screen, press and hold the knob for 2

- seconds to enter the home appearance setting page.
- When the display screen is on the home screen, press the knob twice to enter the device menu page.
- When the display screen is on the home appearance setting page or the menu page, rotate the knob up and down to select an item, and press once to enter the item or save the settings.

### 9 Power Button / Back Button

- · Press and hold for 2 seconds to power on or off.
- When the display screen is on the home screen, press this button three times to lock or unlock the screen. After the screen is locked, all buttons are ineffective except for pressing this button twice to wake up the screen.
- When the display screen is on other pages, press this button once to return to the previous page.

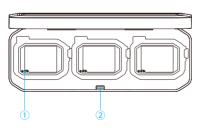
### 10 Male Hook-N-Loop

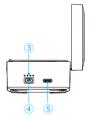
The TC-NEO can be connected to a camera cold shoe, tripod, or other recording devices using the included rotary 1/4"-20 thread cold shoe or thumb screw 1/4"-20 thread cold shoe.

### (1) Charging Contacts

Charging will begin when the charging contacts of the TC-NEO connect to the charging pins of the charging case.

## Charging Case (Saramonic TC-CC)





### 1 Charging Pins

The TC-NEO will begin to charge when its charging contacts connect to the

charging pins in the charging case.

## 2 Charging Case Switch

### 3 Battery Level Indicator

The definition of indicator in the Table:

- $\circ$  is blinking  $\circ$  is solid  $\bullet$  is off
- When the charging case is not connected to power (not in charging mode), opening the case or placing the TC-NEO into it for charging, this indicator will display the case's current battery level.

Batter level (case)	Indicator
≤ 25%	<b>◎ • • •</b>
26% to 50%	○ ◎ ● ●
51% to 75%	○ ○ ◎ ●
76% to 99%	0000
Fully charged	0000

- The battery level indicator will be solid white for 7 seconds and then automatically off when displaying the remaining charge of the charging case.
- When the charging case is connected to power, this indicator will display the case's charging status.

Batter level (case)	Indicator
≤ 25%	0000
26% to 50%	0000
51% to 75%	0000
76% to 99%	0000
Fully charged	0000

### 4 Battery Level or Time Display Toggle Button

- Press the button once, and the battery level indicator will display the remaining charge of the charging case.
- Press and hold the button for 1.5 seconds. When all three TC-NEO are inside
  the charging case, the display screens of the three TC-NEO will show the time
  in "hours: minutes: seconds" format in real-time.

Please pair the TC-NEO with the Saramonic System app first to ensure accurate local time.

### **5 USB-C Charging Port**

For charging the charging case via the included USB-C to USB-C charging cable.

## **Operation Guide**

#### TC-NEO Menu Introduction

The TC-NEO screen provides a quick access to status information. The screen view may differ slightly from the illustrations in this User Manual due to the ongoing product updates. Please refer to the actual device for accuracy.

### **Buttons for navigating Menu**

Use the following buttons to navigate through the TC-NEO menu.

#### Knob:

- Press and hold for 1.5 seconds to navigate from the home screen to home appearance settings page.
- Press the knob twice to enter the menu page from the home screen. Rotate
  the knob up and down to select menu options. Press once to enter the menu
  option or save settings.

### Power Button / Back Button:

Changes to the previous page.

### 1.Home screen



## The device information of TC-NEO

20:21:09:20	TC-NEO real-time timecode
TC1000	TC-NEO device name
A	TC-NEO channel

29.91DF	TC-NEO frame rate
	TC-NEO is locked
M	TC-NEO is in master run mode
*	TC-NEO is connected to the app
A-OUT	The out type setting of TC-NEO is audio output
20h	TC-NEO remaining usage time
	TC-NEO battery level

#### 2 Shortcut menu

When the TC-NEO display screen is on the home screen, press and hold the knob for 1.5 seconds to quickly access the home appearance settings. Rotate the knob to select between Concise, Specific, and User Bit,

Specific Mode





User Bit Mode



## 3.Operating Menu

When the display screen is on the home screen, press the knob twice to navigate from the home screen to the menu page. Rotate the knob up or down to select a menu option. Then press the knob once to access the menu option or save

#### settinas.



#### 1 TC Mode



Based on your needs, you can rotate or press the knob to select the TC Mode, including Master Run, Auto Jam, and Jam Once and Lock.

- Master Run: In this mode, TC-NEO can wirelessly output timecode to other Saramonic devices that support timecode. The devices that accept the timecode signal must be set to Auto Jam mode or Jam Once and Lock mode. The TC-NEO and other devices should be assigned to the same channel or group. Additionally, synchronization can also be achieved via included or optional compatible cables when connecting to external devices.
- Auto Jam: In this mode, TC-NEO waits for an external timecode signal input to synchronize. The default setting of TC-NEO is Master Run mode.
- Jam Once and Lock: In this mode, TC-NEO automatically synchronizes the timecode once and then locks it; it will not sync again until the mode is switched

### 2 Frame Rate



Enter this menu option to set the frame rate for TC-NEO as 23.98, 24, 25, 29.97, 29.97DF, 30, 50, and 60, making it suitable for various regions and shooting requirements. Users can select the appropriate frame rate to ensure stable synchronization and maintain consistency between video and audio.

#### Frame Rate Introduction:

- 23.98 FPS: Commonly used in digital filmmaking and compatible with the NTSC standard.
- 24 FPS: The traditional film standard, widely used in cinematic productions.
- 25 FPS: Standard for PAL video systems (e.g., China and Europe), commonly

- used in television and video production.
- 29.97 FPS: NTSC standard, primarily used in television broadcasting in North America, Japan, and other NTSC regions.
- 29.97 DF (Drop Frame): A timecode mode within the NTSC system that
  ensures timecode remains synchronized with real-time, making it ideal for live
  broadcasts and long-duration recordings.
- 30 FPS: The traditional NTSC black-and-white television standard, applicable to certain digital video productions.
- 50 FPS: A high-frame-rate mode used in PAL systems, ideal for sports, action scenes, and other applications requiring smooth motion.
- 60 FPS: A high-frame-rate mode for NTSC systems, suited for high-dynamicrange shooting and slow-motion processing.
- PAL and NTSC are two different television video standards used in different regions. When selecting a timecode frame rate, ensure compatibility with the shooting environment and equipment standards (PAL: 25 fps / 50 fps, NTSC: 29.97 fps / 59.94 fps) to maintain synchronization and video consistency across devices.
  - To ensure precise synchronization, all recording and filming equipment should be set to the same timecode frame rate.

## 3 Out Type Setting



- Line Input (L-IN): Accepts an external timecode signal via a timecode cable.
   Suitable for scenarios where TC-NEO needs to synchronize with an external timecode source.
- Line Output (L-OUT): Outputs the timecode signal generated by TC-NEO
  via a timecode cable to other devices. Suitable for situations where TC-NEO
  serves as the master timecode device, transmitting timecode signals to other
  equipment.
- Audio Output (A-OUT): Outputs Mic level timecode to external devices, recording it as a reference audio signal on an audio track to facilitate postproduction synchronization and alignment. Ideal for cameras that do not have a dedicated timecode input but support audio input.

## 4 TC Setting



When TC-NEO is set to Master Run mode, there are three timecode setting options:

- SYNC: Transmits timecode signals to other devices for synchronization.
- External: Detects and accepts external timecode signals via the 3.5 mm port for synchronization.
- Reset: Starts timecode from 00:00:00:00 or any user-defined starting timecode

## **5** Channel Setting



TC-NEO supports channel management, allowing devices to be assigned to channels A.-H. Once TC-NEO devices are set to the same channel, timecode synchronization within the channel can be achieved through wireless synchronization technology. The default channel is Channel A. If TC-NEO needs to synchronize timecode with other Saramonic devices that support timecode, the other devices must also be set to the same channel or group to enable synchronization. Channels and groups have the same meaning.

## 6 Auto-Lock Setting



Enter the Auto-Lock option, you can choose the device's screen lock time from the following options: Never, 15 s, 30 s, and 60 s. The default screen lock time is set to 15 seconds. Once set, the TC-NEO will automatically save and apply the previous screen lock settings.

## 7 Bluetooth Setting



- Turn On/Off: After turning on Bluetooth, you can use the Saramonic System
  app for wireless control, device management, and firmware upgrades. Turning
  off Bluetooth reduces power consumption but disables remote control via the
  app.
- Reset: This function forgets the current Bluetooth pairing information and restores Bluetooth to its default setting. It is applicable to troubleshooting Bluetooth connection issues or when re-pairing is required. After resetting, the screen will display a "Succeeded" message.

### Device Name



Enter the "Device name" option to customize the TC-NEO device name as needed, making it easier to differentiate and identify different devices.

### 9 Language Setting



Enter the "Language" option, where you can rotate the knob to choose the TC-NEO display language as either Chinese or English.

## 10 System Reset



Enter the "System reset" option, where you can rotate the knob to reset the device system and restore the default settings.

### (1) Firmware Version



Enter the "Firmware Version" option, where you can rotate the knob to view the firmware upgrade, current firmware version, and MAC address.

## **Timecode Synchronization**

TC-NEO supports three synchronization methods: Blue synchronization (via app wireless connection), wireless synchronization, and wired synchronization (through input or output of timecode with external devices)

### 1.Wireless Sync via Saramonic System

TC-NEO supports wireless timecode synchronization for multiple devices through the Saramonic System app, allowing synchronization of up to 48 TC-NEO devices. This app enables timecode synchronization between TC-NEO devices, device status monitoring, firmware updates, and changes to basic device settings (including timecode, frame rate, device name, out type setting, customized timecode, User Bit, etc.).

### The Wireless Sync Steps for Saramonic System

- ① Launch the Saramonic System app on your mobile device, add all TC-NEO devices to the device list, and click "Confirm."
- ② Click "Sync All" to synchronize the timecode of all TC-NEO devices with the master timecode or user-defined timecode.
- ③ Tap the "SYNC" button on each TC-NEO device individually to synchronize it with the master timecode or user-defined timecode.



- The User Bit of the TC-NEO device can only be set through the Saramonic System app. It can be customized based on time information or camera model to distinguish different TC-NEO devices.
  - Before syncing wirelessly via the app, ensure that both the mobile device and TC-NEO have Bluetooth turned on.
  - If the TC-NEO that needs to be added is not found in the Saramonic System app's "Add Device" section, reset the Bluetooth on the TC-NEO device and try again.

## 2.Wireless Sync

TC-NEO can wirelessly synchronize with other TC-NEO devices or Saramonic devices with timecode function without using the app.

## Wireless Sync Steps for the Devices:

- Set one TC-NEO device to Master Run mode, and set the other TC-NEO devices or other Saramonic devices with timecode function to Auto Jam mode or Jam Once and Lock mode.
- ② Before wirelessly synchronizing the TC-NEO timecode, ensure all devices are set to the same channel / group (e.g., Channel / Group A).
- ③ Select and confirm the "SYNC" option on the TC-NEO in Master Run mode. Devices accepting the timecode signal will synchronize with the master device's current timecode within a few seconds.
- Select and confirm the timecode information on the TC-NEO in Master Run
  mode. You can customize the start timecode, click "SET," and then click
  "SYNC." Devices accepting this timecode signal will start from the userdefined start timecode or 00:00:00:00.





### 3.Wired Sync via a Timecode Cable

TC-NEO supports timecode synchronization with external devices via the included or optional compatible timecode cables.

### Operation steps for TC-NEO in Auto Jam mode or Jam Once and Lock mode:

- (1) Set the TC-NEO timecode mode to "Auto Jam" or "Jam Once and Lock".
- 2 Set the out type setting to "L-IN".
- ③ Connect the external device via a compatible timecode cable.

Once connected, the TC-NEO will automatically detect the external device's timecode signal and synchronize with it.

### Operation steps for TC-NEO in Master Run mode:

- 1) Set the TC-NEO timecode mode to "Master Run".
- ② Set the out type setting to either "L-OUT" or "A-OUT" based on the connected device type.
- 3 Use the compatible timecode cable to connect the external device.

Once connected, the TC-NEO will automatically output the current timecode signal to the external device.

### Connect the External Devices

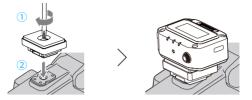
#### 1.Install the Cold Shoe Mount

① Secure the TC-NEO or other accessories onto the camera's cold shoe mount using the included rotary 1/4"-20 thread cold shoe.





② Install the TC-NEO or other accessories onto a tripod, bracket, or camera's cold shoe mount using the included thumb screw 1/4"-20 thread cold shoe.

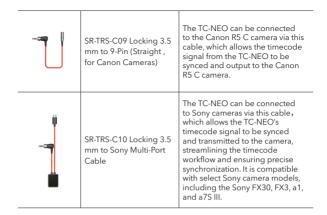


## 2.Connect the appropriate cables

Use the suitable cables to connect the TC-NEO to the external device for optimal compatibility and performance. Refer to the following common cable overview to choose the appropriate cables.

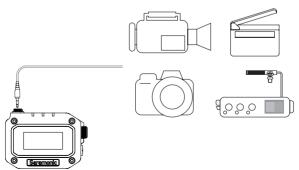
Cable	Name	Description
	SR-TRS-C01 Locking 3.5 mm to 3.5 mm Audio Cable	When the device does not have a dedicated TC / SYNC input port, this cable can be used to connect any camera or audio devices with a 3.5 mm TRS input port, such as the Deity D2RX, Saramonic UwMic9, VmicLinkS wireless kit, Sennheiser XSW-D receiver, Sennheiser G4EW100, EW500, Sennheiser MKE 200, MKE 400, and Sony URX-P41D
	SR-TRS-C03 Locking 3.5 mm to Right-Angle 5-Pin Cable	This cable is used to output timecode signals from recording devices with a built-in timecode generator to the TC-NEO device via the LEMO TC OUT port. The right-angle design allows for the installation of a camera battery while using this cable, making it compatible with devices such as the Arri Alexa Mini

SR-TRS-C04 Locking 3.5 mm to 5-Pin LEMO Cable (Straight)	This cable allows the timecode signal from the TC-NEO device to be transmitted to field recording device with a LEMO Port
SR-TRS-C05 Locking 3.5 mm to 5-Pin LEMO Cable (Bent Angle)	This cable allows field recording device with a built-in timecode generator to transmit the timecode signal to the TC-NEO device via the LEMO TC OUT port
SR-TRS-C06 Locking 3.5 mm to BNC Cable	The TC-NEO can be connected to devices with a standard BNC input/ output port. The BNC connector supports bidirectional transmission, allowing the TC-NEO to output its timecode signal to external devices or receive timecode signals from external sources for accurate synchronization. This is ideal for professional video equipment with a built-in timecode generator, such as certain models of cameras and audio devices from Sony, Panasonic, and Blackmagic Design.
SR-TRS-C07 Locking 3.5 mm to 4-Pin Cable (Straight)	The TC-NEO can output its timecode signal to field recording devices with a LEMO port, such as the Tascam DR series and Zoom H series devices.
SR-TRS-C08 Locking 3.5 mm to 9-Pin Cable	The TC-NEO can output its timecode signal to recording devices with a LEMO port, such as camera devices like the Red Komodo and V-Raptor.



### 3. Connect Compatible Devices

The TC-NEO is compatible with nearly all types of recording or video devices, including cameras, camcorders, audio recorders, smart slate boards, and more. As long as the device has a timecode input port or supports audio input, timecode synchronization can be achieved.



#### 1 Devices With Timecode Input

For professional devices equipped with timecode input (such as certain camcorders and audio recorders), the TC-NEO can be directly connected to the external device using the included or optional timecode cables.

- If the TC-NEO needs to sync with an external device's timecode signal, set the TC-NEO's timecode mode to "Auto Jam" or "Jam Once and Lock," and set the out type setting to "L-IN."
- If the TC-NEO need to output its timecode signal to other external devices, set the TC-NEO's timecode mode to "Master Run" and set the out type setting to "L-OUT". This will allow the TC-NEO to output the timecode signal to the external device, ensuring precise synchronization.

### 2 Devices That Only Supporting Audio Input

For devices that lack a dedicated timecode input (such as DSLR cameras or small audio recorders), you can use the included or optional compatible timecode cable to output the timecode as an audio signal through the TC-NEO in "A-OUT" mode. The timecode will be embedded in the audio track for recording. This method is suitable for post-production editing, where the timecode can be extracted from the audio track to ensure audio-video synchronization. Be sure the audio input type is properly configured to avoid distortion or recording failure due to excessive signal levels.



- It is recommended to confirm that the frame rate of TC-NEO matches the recording device before connecting to avoid synchronization issues.
  - When TC-NEO is in "A-OUT" mode, it is advisable to set the camera or recorder's input level to "MIC" to ensure the timecode audio signal is compatible with the input device, preventing signal distortion or recording failure.

## **Troubleshooting**

If you encounter problems when using the unit, please refer to the following checklist first. If the problem cannot be solved, please contact the dealer's aftersales service department.

## • Unable to synchronize timecode with external devices

- (1) Ensure that the frame rate of TC-NEO matches the external device.
- Check if the timecode cable is properly connected and that there are no loose or faulty connections.
- ③ Verify whether the TC-NEO is connected to the Saramonic System app. If connected, disconnect it from the app before syncing timecode with the external device.

### . TC-NEO can not turn on or charge

- ① If the device has not been used for an extended period, the battery may be completely drained. Charge the device.
- 2) Try using a different charger or USB-C cable to ensure proper power input.

#### · Unable to connect to the App via Bluetooth

- ① Make sure that both the TC-NEO and the mobile device is turning on Bluetooth.
- 2) If the device does not appear in the app, reset the TC-NEO's Bluetooth and retry.
- 3 Ensure the Saramonic System app is installed and updated to the latest version.

#### • TC-NEO can not sync with other devices

- ① Ensure that one TC-NEO is set to "Master Run" mode while other TC-NEO devices are set to either "Auto Jam" or "Jam Once and Lock" mode. Also, confirm that all devices are using the same frame rate and channel.
- ② If using wireless synchronization, check that the Bluetooth connection between devices is stable and free from interference.
- ③ When using the "A-OUT" mode, make sure the external device's input level is set correctly to prevent signal loss or distortion.

## **Specifications**

### Timecode Generator (Saramonic TC-NEO)

Timecode Format	SMPTE 12M,highly compatible,supports Audio TC and LTC timecode output
Accuracy	Less than 1 frame out in 48 hours (-30°C to +85°C)
Battery Life	24 h
Synchronization Methods	Wired / 2.4 G RF / APP Bluetooth

Display Type	1.1-inch OLED
Battery Type	Built-in lithium polymer battery
Battery Capacity	1150 mAh
Charging Time	TC-NEO: 2 h TC-NEO Kit: 4.33 h
Power Supply	USB-C
Polar Pattern for in-built microphone	Omnidirectional
TC-NEO Net Weight	42.5 g
TC-NEO Dimensions	49 × 37 × 19 mm (L x W x H)
Operating Temperature	-20°C to 55°C

## Charging Case (Saramonic TC-CC)

Battery Type	Built-in Li-ion battery
Battery Capacity	6000 mAh
Power Supply	USB-C port
Charging Time	5 hours (5 V 2 A)
Charging Cycles	More than 1.4 times (3*TC-NEO)
Weight	265 g
Dimensions	182.7 × 65 × 41.5 mm (L × W × H)
Operating Temperature	0°C to 50°C
Storage Temperature	-20°C to 50°C

## 声明

请在使用前仔细阅读本手册,并严格按照说明进行操作和存储。请妥善保存好说明 书以供将来参考。如果用户手册不能帮助您解决某些问题,请向零售商寻求帮助或 给我们发送电子邮件:support@saramonic.com

## 注意事项

- 1. 请勿擅自拆开机壳。
- 2. 请勿将本机靠近热源,如散热器、聚光灯或其他产生热量的设备。
- 3. 电池不可自行更换。
- 4. 请使用柔软的干布清洁本设备。
- 5. 在使用和储存时,请注意防尘和防潮。
- 6. 为获得最佳拾音效果,请勿将手放在麦克风咪头上。

## 概述

TC-NEO 是一款高精度、可靠的时码生成与同步设备,适用于各种录音与录像设备。它支持蓝牙无线同步、无线同步和有线同步三种方式,确保您在多设备拍摄和录制环境中获得准确的时间码。TC-NEO 提供主时码模式、从时码动态同步模式和从时码同步后锁定模式,用户可以根据需要设置自定义起始时间码,灵活适应不同的录制需求。设备支持多个常用帧率,包括 23.98、24、25、29.97、29.97DF、30、50和 60 帧,满足不同拍摄环境的需求。

TC-NEO 可通过旋钮或应用程序进行方便的操作和设置,进行时码同步和设备管理。它可以通过选择合适的输出信号(如线路输入 L-IN、线路输出 L-OUT 或音频输出 A-OUT)与摄像机、录音机等设备连接,并在主时码模式下将时间码同步到其他设备,或在从时码模式下接收外部设备的时间码进行同步。通过 Saramonic System 应用程序,用户可以进行设备监控、固件升级等操作,最多支持同步 48 个 TC-NEO 设备。

## 特点

• 1.1 寸 OLED 屏, 清晰不闪屏

- 高精度 TCXO, 漂移< 1 帧 /48h</li>
- 无线 / 有线 / APP 三模同步
- 充电盒套装,3机位高效协同
- 防摔硅胶套,有效减震
- 24 小时全天续航

## 包装清单

### Saramonic TC-NEO

时间码发生器 x1

SR-TRS-C01 (TRS-TRS) 时码线 x 1

SR-USB-C01 (USB-C-USB-C) 充电线 x 1

USB-C-USB-A 转接插头 x 1

母扣磨术贴 x 2

旋转式 1/4 冷靴接口 x 1

手拧 1/4 螺口冷靴接口 x 1

操作指引二维码纸卡 x1

APP 下载二维码纸卡 x 1

橙色保护套 x 1

收纳袋 x 1

### Saramonic TC-NEO Kit

时间码发生器 x 3

充电盒 x 1

SR-TRS-C01 (TRS-TRS) 时码线 x 1

SR-TRS-C06 (TRS-BNC) 时码线 x 1

SR-TRS-C03 (TRS 转 -5Pin LEMO) 时码线 x 1

SR-USB-C01 (USB-C-USB-C) 充电线 x 1

USB-C-USB-A 转接插头 x 1

母扣魔术贴 x 6

旋转式 1/4 冷靴接口 x 3

手拧 1/4 螺口冷靴接口 x 3

操作指引二维码纸卡 x 1

#### APP 下载二维码纸卡 x 1

透明保护套 x 3 (橙,蓝,黄三种颜色)

收纳袋 x 1

### 选配

SONY FX3/30-TCH 时码器支架

SR-TRS-C04 (TRS-5PIN LEMO Sraight) 时码线

SR-TRS-C05 (TRS-5PIN LEMO Bent Angle, Recorder Sync) 时码线

SR-TRS-C06 (TRS-5PIN BNC) 时码线

SR-TRS-C07 (TRS-4PIN Sraight) 时码线

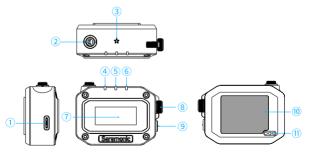
SR-TRS-C08 (TRS-9PIN) 时码线

SR-TRS-C09 (TRS-Single-Pin Straight, for Canon Cameras) 时码线

SR-TRS-C10 (TRS-Sony Multi-Port) 时码线

## 产品结构

## 时码器 (TC-NEO)



## ① USB-C 接口

通过标配的 USB-C 转 USB-C 充电线,可为 TC-NEO 充电或进行固件升级。

## ② 3.5 mm TRS 带锁接口

通过标配或选配的 3.5 mm TRS 时间码同步线,可接收外部设备的时间码信号,或向 其他时码器输出时间码信号。

## ③内置麦克风

当摄像机输入设置为 "MIC 电平"输入,同时将时码器的输出信号设置为 A-OUT 模式时,使用标配的 3.5 mm TRS 转 TRS 或其他接口的时码线连接后,时间码信号将记录于左声道,参考音频信号将记录于右声道。

## 4)电源指示灯

状态	指示灯
开机	蓝灯常亮十秒后熄灭
低电量	红灯常亮直至设备电量耗尽自动关机
充电中	红蓝灯交替闪烁
充满电	蓝灯常亮

### ⑤同步指示灯

状态	主时码指示灯	从时码指示灯
主从时码同步中	红灯快闪	红灯快闪
主从时码同步成功	蓝灯慢闪	蓝灯慢闪

## ⑥蓝牙指示灯

设备蓝牙设置	状态	指示灯
开启蓝牙	与 App 连接中	蓝灯闪烁
开启蓝牙	与 App 连接成功	蓝灯常亮
关闭蓝牙	_	蓝灯熄灭

<sup>\*\*。</sup>设备蓝牙默认处于关闭状态。手动开启后,设备将进入可搜索模式或低功耗模式,并可立即被 APP 识别与连接。

## ⑦ OLED 显示屏

显示时码器的实时时码、电量、设备名称、工作模式等状态信息。

## ⑧旋钮按键

- 当显示屏处干首页时、长按2秒可进入首页样式设置页面。
- 当显示屏处于首页时、双击可讲入设备菜单页面。
- 当显示屏处于首页样式设置页面或设备菜单页面时,上下旋转旋钮可选择设置项, 短按一次进入菜单或保存设置。

### 9 电源键 / 返回键

- 长按2秒开机或关机;
- 当显示屏处于首页时,短按此键三次可锁定或解锁屏幕。锁定屏幕后,除双击此 键两次可唤醒屏幕外,其他按键均无效。
- 当显示屏处于其他页面时,短按此键返回上一级页面。

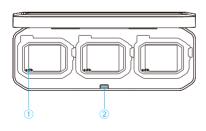
### 10 背胶魔术贴

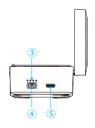
通过标配的旋转式 1/4 冷靴接口或标配的手拧式 1/4 螺口冷靴接口,可将 TC-NEO 连接至相机冷靴、三脚架或其他录音设备。

### ⑪充电触点

与充电盒充电触点连接后即可充电。

## 充电盒 (Saramonic TC- CC)





### ①充电触点

与时码器充电触点连接后即可为时码器充电。

## ②充电盒开关按钮

## ③电量指示灯

表中指示灯定义如下:

- ※表示指示灯闪烁 ○表示指示灯常亮 ●表示指示灯熄灭
- 充电盒未接入电源(非充电状态时),打开充电盒或盒内放入时码器后,该指示灯显示充电盒当前电量。

充电盒电量	指示灯
≤ 25%	<b>○ • • •</b>
26%至50%	○ 😳 • •
51%至75%	○ ○ ◎ ●
76% 至 99%	0000
充满电	0000

- ☀ 电量指示灯在显示充电盒剩余电量时,常亮7秒后会自动熄灭。
- 充电盒接入电源充电时,该指示灯显示充电盒充电的状态。

充电盒电量	指示灯
≤ 25%	0000
26%至 50%	0 0 0 0
51%至75%	0000
76%至99%	0000
充满电	0000

## ④电量/显示切换按键

- 短按此键,电量指示灯将显示充电盒电量。
- 长按 1.5 秒,当三个时码器均在充电盒内时,三个时码器显示屏将以"时:分:秒" 格式实时显示时间。
- 🦆 请先将时码器与 Saramonic System 应用程序连接,以确保获取当地准确时间。

## ⑤ USB-C 充电口

可通过标配 USB-C 转 USB-C 充电线给充电盒充电。

## 操作指南

### 时码器菜单页面功能介绍

时码器显示屏显示时码器的状态信息。由于产品的持续更新,时码器的设置页面功 能可能与本《用户手册》中的图示有细微差异,请以实际为准。

### 菜单导航按键

使用以下按键在时码器的菜单中进行导航

### 旋钮按键

- 长按 1.5 秒从首页跳转到首页样式设置页面。
- 双击旋钮从首页跳转到菜单页面;上下旋转旋钮,选择菜单选项;短按旋钮,进入菜单选项或保存设置。

## 电源键 / 返回键

返回上一级页面。

#### 1. 首页



### 时码器的设备信息

20:21:09:20	时码器实时时码
TC1000	时码器名称
A	时码器通道
29.97DF	时码器工作帧率
	时码器处于锁定状态
M	时码器处于主时码状态
*	时码器已与 App 连接
A-OUT	时码器的输出信号为音频输出

20h	时码器剩余使用时间
	时码器电量

### 2. 快捷菜单

当时码器显示屏处于首页时,长按旋钮 1.5 秒可快速进入首页样式设置页面。转动旋钮可选择详细版、简洁版或 UB 通道版首页样式。

详细版



简洁版



UB 通道版



### 3. 操作菜单

当显示屏处于首页时,双击旋钮从首页跳转到菜单页面;上下旋转旋钮,选择菜单 选项:短按旋钮,进入菜单选项或保存设置。



### ①时间码模式



可根据使用需求,旋转或短按旋钮选择 TC-NEO 的时间码模式,包括主时码、从时码动态同步和从时码同步后锁定模式。

- 主时码:在此模式下,TC-NEO可以将时间码无线输出到其他具备时间码功能的 Saramonic设备,接收时间码信号的设备需要设置为从时码动态同步模式或从时 码同步后锁定模式,并分配在同一通道或同一组别。也可通过3.5 mm TRS 时间 码同步线连接外部设备进行同步。
- 从时码动态同步:在此模式下,TC-NEO等待外部时间码输入以进行同步。系统 默认时码模式为主时码模式。
- 从时码同步后锁定:在此模式下,TC-NEO完成同步后将锁定,不再响应主时码模式下的TC-NEO设备或Saramonic System应用程序的指令。直至设备切换为其他时间码模式,才可重新接收指令。

### (2) 姉 塞



TC-NEO 支持多种标准时码帧率,包括: 23.98, 24, 25, 29.97, 29.97DF, 30, 50, 60。 适用于不同地区及拍摄需求。可根据要求选择合适的帧率,以确保设备同步稳定、 画面与音频保持一致。

#### 支持帧率说明:

- 23.98: 常用干数字电影制作, 兼容 NTSC 系统标准。
- 24: 传统胶片电影标准,适用于电影拍摄。
- 25: 适用于 PAL 视频系统地区 (如中国和欧洲),广泛应用于电视节目和视频制作。
- 29.97: NTSC 系统标准, 主要用于北美、日本等地区的电视广播。
- 29.97 DF: NTSC 视频系统下的丢帧时码模式。适用于电视直播或长时间录制场景,确保时码与实际时间保持同步。
- 30: 传统 NTSC 黑白电视标准,适用干部分数字视频制作。

- 50: 高帧率模式,适用于 PAL 系统。适合体育赛事、动作场景等对画面流畅性要求较高的拍摄。
- 60: 高帧率模式,适用于 NTSC 系统,适合需要高动态表现和慢动作处理的拍摄应用。
- PAL 和 NTSC 是两种不同的电视视频标准,适用于不同地区。请根据拍摄环境和使用设备的标准,选择相应的时码帧率(PAL 系统常用 25 fps / 50 fps, NTSC 系统常用 29.97 fps / 59.94 fps) ,以确保设备之间的时码同步和视频兼容性。
  - 选择时请确保所有录音、摄影设备的时码帧率一致,以保证同步准确。

### ③输出信号



- 线路输入 L-IN:用于接收外部设备的线路信号时间码输入。适用于 TC-NEO 需要跟随外部时间码源同步的场景。
- 线路输出 L-OUT: 用于将 TC-NEO 生成的时间码通过线路信号输出至其他设备。
   适用于 TC-NEO 作为主时码设备时,向其他设备发送时间码信号。
- 音频输出 A-OUT: 通过音频信号输出时间码,将时间码录制在相机或录音设备的 音频轨道中。同时输出参考音频信号,便于后期同步和对齐。适用于不具备专用 时码输入接口、但支持音频输入的相机设备。

### 4)时间码设置



当 TC-NEO 的工作模式设置为"主时码"模式时,有以下三种时间码设置选项:

- 同步:向其他设备发送时间码信号,用干同步其他设备。
- 外部:通过3.5 mm接口检测并接收外部时间码信号,实现同步校准。
- 重置:从 00:00:00:00 或任何用户自定义的起始时间码开始计时。

### ⑤诵道分组设置



TC-NEO 支持分组管理,可将设备划分为 A-H 组。将 TC-NEO 设备设置为相同的通道后,即可通过无线同步技术实现组内设备的时码同步。系统默认通道为 A 组。若 TC-NEO 需与其他具备时间码功能的 Saramonic 设备同步,其他设备需设置为相同通道/组别才能实现同步。(通道与组别含义相同)

## 6锁屏时间



进入"锁屏时间"子菜单,可选择设备的锁屏时间:从不、15 s、30 s、60 s 四个选项。 系统默认锁屏时间为 15 秒。设置后,系统将自动保存并沿用上一次的锁屏设置。

### ⑦蓝牙设置



- 开启/关闭:开启蓝牙后,可通过 Saramonic System 应用程序实现无线控制、设备管理及固件升级。关闭蓝牙可降低设备功耗,但无法使用应用程序进行远程操作。
- 重置蓝牙:清除当前蓝牙配对信息,并将蓝牙恢复至默认状态。适用于蓝牙连接 异常或需要重新配对的情况。重置完成后,屏幕将显示"已重置"的提示信息。

### ⑧设备名称



进入"设备名称"子菜单,可根据需要自定义 TC-NEO 设备名称,便于区分和识别不同设备。

## 9语言设置



进入"语言"子菜单,可旋转旋钮选择设备显示语言为中文或英语。

### 10系统重置



进入"系统重置"子菜单,可以旋转旋钮重置设备系统,恢复系统默认设置。

### ⑪固件版本



进入"固件版本"子菜单,旋转旋钮可查看 升级固件、当前固件版本 和 MAC 地址。

## 时间码同步

TC-NEO 支持蓝牙同步(通过 App 无线连接)、无线同步和有线同步(通过外部设

备输入/输出时间码)三种同步方式。

## 1.Saramonic System 无线同步时间码

TC-NEO 支持通过 Saramonic System 应用程序无线同步多个设备的时间码,最多可同步 48 个 TC-NEO 设备。支持通过此 App 进行 TC-NEO 设备间的时间码同步、设备状态监控、固件更新和设备基本参数(包括时间码、帧率、设备名称、输出信号、自定义时间码、UB 码等)的更改。

### App 无线同步操作步骤:

- ① 在移动设备上打开 Saramonic System 应用程序,添加所有 TC-NEO 设备到设备 列表,并点击"确定"。
- ② 点击"全部同步",将所有 TC-NEO 设备的时间码与主时码或自定义时间码同步。
- ③ 单独点击每个 TC-NEO 设备上的 "SYNC" 按钮,实现对应设备与主时码或自定义时间码同步。





- TC-NEO 设备的 UB 码只可在 Saramonic System 应用程序上设置,可根据时间或相机型号自定义 UB 码,便于区分不同的 TC-NEO 设备。
  - 在使用 App 蓝牙同步前,请确保移动设备和 TC-NEO 都已开启蓝牙。
  - 若在 Saramonic System "添加设备"中无法找到需添加的 TC-NEO,请重置 TC-NEO 设备的蓝牙并重新搜索。

## 2. 本地无线同步时间码

TC-NEO 无需使用 App,也能通过无线同步其他 TC-NEO 或其他具备时间码功能的 Saramonic 设备。

### 无线同步操作步骤:

① 先将一个 TC-NEO 设备设置为主时码模式,将其他的 TC-NEO 设备或其他具备时

间码功能的 Saramonic 设备设置为从时码动态同步模式或从时码同步后锁定模式。

- ② 无线同步 TC-NEO 设备时间码前,需将所有 TC-NEO 设备设置为同一通道(例如 A 组)。
- ③ 选择并确定主时码模式下的 TC-NEO "同步"选项,其他接收此时间码信号的设备将在几秒钟内与主时码设备的当前时间码同步。
- ④选择并确定主时码模式下的TC-NEO的时间码信息,可自定义起始时间码,点击"重置",再点击"同步",其他接收此时间码信号的设备将从自定义起始时间码或00:00:00:00 开始运行。





### 3. 有线同步时间码

TC-NEO 支持通过标配的 3.5 mm TRS 时间码同步线,与外部设备同步时间码。

### TC-NEO 作为从时码设备,通过有线与外部时间码同步操作步骤:

- ① 将 TC-NEO 时间码模式设置为"从时码动态同步"或"从时码同步后锁定"。
- ② 将输出信号设置为"线路输入 L-IN"。
- ③ 使用 3.5 mm TRS 时间码同步线连接外部设备。

连接成功后, TC-NEO 将自动检测外部设备时间码信号, 并与其同步。

### TC-NEO 作为主时码设备,有线同步外部时间码操作步骤:

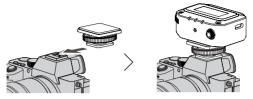
- ① 将 TC-NEO 时间码模式设置为"主时码"模式。
- ② 根据连接设备类型,将输出信号设置为"线路输出 L-OUT"或"音频输出 A-OUT"模式。
- ③使用 3.5 mm TRS 时间码同步线连接外部设备。

连接成功后,TC-NEO 将自动向外部设备输出当前时间码信号。

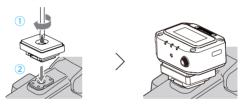
## 连接外部设备

### 1. 安装冷靴接口

①通过标配的旋转式 1/4 冷靴接口,将 TC-NEO 或其他附件固定在相机冷靴上。



② 通过标配的手拧式 1/4 螺口冷靴接口,将 TC-NEO 或其他附件安装至三脚架、支架或摄像机的冷靴接口。



## 2. 连接适配线材

使用合适的线材将时码器与设备连接,以获得最佳兼容性和性能表现。可参考以下 常用线材概述,选择适配线材。

线材	名称	说明
	SR-TRS-C01(TRS-TRS) 时 码线	当设备未配备专用TC / SYNC接口时,可使用此线材连接任何带有 3.5 mm TRS 接口的摄影或录音设备,如:谛听 D2RX、枫笛 UMMic9、VmicLink5 无线套件、森海塞尔 XSW-D 接收器、森海塞尔 G4EW100、EW500、森海塞尔 MKE 200、MKE 400 以及索尼 URX-P41D。

SR-TRS-C03(TRS转-5Pin LEMO) 时码线	用于将具备内置时码发生器的录音设备通过 LEMO TC OUT 接口,将时码信号发送至 TC-NEO 设备。弯头设计支持在使用此线材的同时安装相机电池,兼容 Arri Alexa Mini 等设备。
SR-TRS-C04(TRS-5PIN LEMO Sraight) 时码线	可将 TC-NEO 设备的时码信号发送至 具备 LEMO 接口的现场录音设备。
SR-TRS-C05(TRS-5PIN LEMO Bent Angle, Recorder Sync) 时码线	可将具备内置时码发生器的录音设备 通过 LEMO TC OUT 接口,将时码信 号发送至 TC-NEO 设备。
SR-TRS-C06(TRS-5PIN BNC) 时码线	可将 TC-NEO 设备连接至配备标准 BNC 输入/输出接口的设备。该 BNC 接头支持双向传输,既可将 TC-NEO 的时码信号同步输出至外部设备,也可接收来自外部时码源的信号,实现精准同步。适用于具备内置时码发生器的专业视频同步设备,如 Sony, Panasonic、Blackmagic Design 部分型号的摄像机和录音设备。
SR-TRS-C07(TRS-4PIN Sraight) 时码线	可将 TC-NEO 设备的时码信号发送至 具备 LEMO 接口的现场录音设备,如 Tascam DR 系列和 Zoom H 系列设 备。
SR-TRS-C08(TRS-9PIN) 时码线	可将 TC-NEO 设备的时码信号发送至 具备 LEMO 接口的录音设备,如 Red Komodo 和 V-Raptor 等摄像设备。

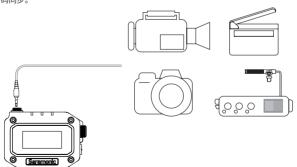


可将 TC-NEO 设备连接至 Sonv 摄像 机。通过此线材,可将TC-NEO的时 码信号同步输出至 Sony 摄像机,从 而简化时间码工作流程,实现精准 同步。适用于 Sonv 部分型号的摄像 机如 Sony FX30、Sony FX3、Sony

a1、Sonva7SIII。

## 3. 连接话配设备

TC-NEO 几乎兼容所有类型的录音或录像设备,包括摄像机、相机、录音机、智能场 记板等设备。只要设备具备时间码输入接口,或支持音频传入功能,即可实现时间 码同步。



### ① 具备时间码输入接口设备

对干配备时间码输入接口的专业设备(如部分摄像机、录音机),可通过标配或适 配的 3.5 mm TRS 时间码同步线,将 TC-NEO 与设备直接连接。

- 若 TC-NEO 需与外部设备的时间码同步,请将 TC-NEO 的时间码模式设置为 "从时码动态同步"或"从时码同步后锁定",并将输出信号设置为"线路输入 L-IN"。
- 若 TC-NEO 作为主时码设备输出时间码,将 TC-NEO 时间码模式设置为"主时码", 并将输出信号设置为"线路输出 L-OUT"。此时,TC-NEO 会向外部设备发送时间码信号,实现精准同步。

### ② 无时间码输入接口, 仅支持音频输入的设备

对于不具备专用时间码接口的设备(如 DSLR 相机、小型录音机),可以使用标配或 适配的 3.5 mm TRS 时间码同步线,通过 TC-NEO 的 "音频输出 A-OUT" 模式,将 时间码作为音频信号嵌入音频轨道进行录制。此方法适用于在后期剪辑时通过音频轨道解析时间码,确保音视频同步。请确保音频输入通道已正确设置,避免信号过 大导致失真或录制失败。



- 建议在连接设备前,先确认 TC-NEO 的时间码帧率设置与拍摄设备保持一致, 以避免不同步现象。
  - TC-NEO 使用 "音频输出 A-OUT"模式时,建议将摄像机或录音机的输入电平调整至"MIC"电平,确保时间码音频信号匹配输入设备的要求,避免信号失真或录制失败。

## 故障排除

在使用本机的过程中出现任何问题,请参照以下内容加以解决。如果此手册仍然无法解决您遇到的问题,请与我们当地的经销商售后服务部联系。

- 无法通过外部设备同步时间码
- ① 确保 TC-NEO 与所连接的外部设备时间码帧率保持一致。
- ② 检查时间码线是否正确连接,并确认没有松动或接触不良的情况。
- ③ 检查 TC-NEO 是否与 Saramonic System 应用程序连接。如果已连接,请先断开与应用程序的连接,然后再与外部设备同步时间码。
- 设备无法开启或无法充电

- ① 确认是否因为太长时间未使用而导致电池没电,请为产品充电。
- ② 尝试使用其他充电器或 USB-C 数据线,确保电源输入正常。

### • 设备无法与 App 蓝牙连接

- ①确保设备和移动设备的蓝牙功能都处于开启状态。
- ② 如果在 App 中无法找到设备,尝试将 TC-NEO 的蓝牙设置重置后重新搜索。
- ③ 确保 Saramonic System 应用程序已安装并更新至最新版本。

#### • 时码不同步或不稳定

- ① 确保一个 TC-NEO 设备设置为 "主时码"模式,其他 TC-NEO 设备设置为 "从时码动态同步"或"从时码同步后锁定"模式。同时,确保主时码和从时码设备使用相同的帧率设置,并处于相同的通道。
- ② 如果使用无线同步,确保设备间的蓝牙连接稳定,避免信号干扰。
- ③ 使用"音频输出 A-OUT"模式时,确保外部设备输入电平设置正确,避免信号丢 失或失真。

## 参数

## 时码器 (Saramonic TC-NEO)

SMPTE 12M,高兼容性,支持 Audio TC,LTC 时间码输出
48 小时内精度小于 1 帧漂移(-30° C 至 +85° C)
24 h
有线 / 2.4 G / APP 蓝牙
1.1寸 OLED
内置聚合物锂电池
1150 mAh
时码器 2 h / Kit 套装 4 h 20 m
USB-C
全指向

TC-NEO 净重	42.5 g
TC-NEO 尺寸	49 × 37 × 19 mm (L x W x H)
工作温度	-20° C 至 55° C

## 充电盒 (Saramonic TC-CC)

电池类型	内置锂电池
电池容量	6000 mAh
充电方式	USB-C 接口
充电时长	5 小时 (5 V 2 A)
可供循环充电次数	1.4 次以上(3* 时码器)
重量	265 g
尺寸	182.7×65×41.5 mm (长×宽×高)
工作温度	0° C 至 50° C
贮存温度	-20° C 至 50° C



For better recording experience, the application Saramonic System is recommended.

为获得更好的录制体验,推荐使用枫笛 Saramonic 自主研发应用软件 Saramonic System。



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