

Tap Beat Trainer

Detailed User Manual

Beat Training / Action Feedback / Audio / Bluetooth / Recording

U.S. English Edition | Version 1.1

Version: V1.1 | Applies to the functions described in this manual.

1. Product Function Overview

This product is a multifunctional training device integrating beat training, action detection, action sound feedback, LED feedback, audio playback, white noise, Bluetooth connectivity, recording, and electronic candlelight ambience. The core training logic is: the user performs taps/actions according to the set tempo; the device records the training process through tempo counting, action detection, sound and LED feedback, and provides a grade based on accuracy.

Function Module	Primary Use	Key Operation
Beat Training	Set the tempo value and perform action training	Single- or double-press to enter settings; triple-press or press-and-hold to open Recording.
Action Detection	Detect completed actions and count them	Acceleration-based action detection; supports hot-action switching.
Action Sound	Provide sound feedback for actions	Select an action audio file.
LED Lighting	Provide visual training and ambient feedback	Adjust brightness, change colors, or turn lighting off.
Audio Player	Play audio stored on the memory card	Play/pause, previous/next track, and playback mode.
White Noise	Play white noise and set automatic shutoff	Select white noise and set a sleep timer.
Bluetooth	Search for and connect to Bluetooth devices	Bluetooth Home → Search → Select → Connect.
Recording	Record training or environmental sounds	Triple-click or long-press to open Recording.
Electronic Candlelight	Provide ambient lighting effects	Adjust brightness and change light colors.

2. Before First Use

- Make sure the device has sufficient battery power. Before first use, fully charge the device if possible.
- If you want to play your own audio or recorded files, insert a compatible TF card containing supported audio files.
- For Bluetooth playback, turn on Bluetooth on your phone or audio device, then search for and connect to the product from the Bluetooth screen.
- Before starting a training session, become familiar with the complete Home → Tempo Settings → Action Sound → Training → Scoring workflow.

3. Buttons and Basic Operations

3.1 Power/Home Button

Operation	Function	Description
Single press	power on/Return to Home	Turns the device on. On a function page, single-click to return to Home and retain the current settings.
Double press	Return to Home and exit the current mode	Returns to Home without retaining the current page settings and turns off the lighting and Bluetooth.
Triple press	Open Bluetooth	Opens and enables Bluetooth.
Press and hold	Power off	Turns the device off normally.

3.2 Up/Down and Volume Buttons

Operation	Function
Press and hold the Up button	Volume +
Press and hold the Down button	Volume -
Short press the Up button	Scroll up / select previous item
Short press the Down button	Scroll down / select next item

4. Home Screen and System Status

The Home screen displays the current time, active function status, and audio or training information. Different function pages display different icons. Some pages automatically return to the Home screen after a period of inactivity. The Bluetooth page returns to Home after approximately 3 seconds of inactivity.

4.1 Common Display Symbols

Display Symbol / Field	Display Label	Meaning	Purpose
Battery	Battery indicator	Battery level	Shows remaining battery level
SV	Set Value	Set value	For example, the target value for training tempo
PV	Process Variable	Measured value	For example, the actual detected action/tempo value
Tap	Action selection	Action selection	Currently selected action/training item
VC	Change Source	Sound selection	Current sound/audio source
REC	Recording	Recording status	A red REC indicator means recording is in progress
TF card	TF card	Memory card	Displays TF card status and capacity
GBFREE	Memory Cap	Free/total capacity	Shows available and total storage space
NO/TOT	File Count	File number/total	Shows the current file number and total number of files
Bluetooth	Bluetooth Status	Bluetooth on/connected	Indicates Bluetooth status
Elapsed Time	Elapsed Time	Elapsed time	Shows current playback/recording/training duration
Total Count	Total Count	Total action count	Shows the cumulative number of detected actions
Tempo	Tempo Indicator	Tempo indicator	Shows the tempo training status

Display Symbol / Field	Display Label	Meaning	Purpose
Score Rank	Score Rank	Score rank	Displays the grade corresponding to training accuracy
Accel Detect	Acceleration Detect	Acceleration mode	Action detection status/intensity feedback

5. Lighting and LED Settings

Use the Lighting settings to adjust brightness and control light color changes. Press and hold the Up or Down button to adjust brightness, short-press the Function button to start or pause color changes, and double-press the Function button to turn lighting off.

Operation	Function	Result
Press and hold the Up button	Increase brightness	Increase the LED brightness step by step
Press and hold the Down button	Decrease brightness	Decrease the LED brightness step by step
Short press the Function button	Start or pause light color changes	Starts or pauses the dynamic color-changing effect
Double-click the Function button	Turn off the lighting mode	Turn off LED lighting
Single-press the Home button	Return to Home	Exit lighting settings

Note: Example screens in the documentation show brightness values such as 99%. The actual adjustable range is determined by the product firmware.

6. Electronic Candlelight / Ambient Light

The Electronic Candlelight mode creates a stable ambient lighting effect. Keep the device upright as shown in the documentation for the intended visual effect.

Operation	Function
Press and hold the Up button	Increase candlelight brightness
Press and hold the Down button	Decrease candlelight brightness
Short press the Function button	Start or pause candlelight color changes
Keep upright	Recommended orientation for candlelight mode

Note: The documentation states that candlelight is mainly effective in specified scenarios such as Home/White Noise playback. Other lighting-related scenarios may operate differently; the actual product firmware takes precedence.

7. White Noise

White noise can be used for relaxation, ambient sound playback, or to support concentration. The White Noise screen lets you select a playback mode and set an automatic shutoff timer.

Operation	Function	Description
Double-press to enter White Noise	Open White Noise Home	Open the Relax/Beat / White Noise screen
Triple-press	Set playback mode	Select Sequential Play, Repeat One, or Shuffle.
Enter automatic shutoff settings	Sleep Timer Settings	The documentation provides 30-, 60-, and 90-minute examples.
Single-press the Home button	Return to Home	Exit the White Noise screen

Operation	Function	Description
Approximately 3 seconds of inactivity	Auto-confirm	Some settings pages automatically confirm and return

Recommendation: Set the volume first when using White Noise, then select the playback mode. If a sleep timer is set, the device will automatically stop playback or power off according to the product firmware when the timer expires.

8. Bluetooth Connection

Use Bluetooth to connect the product to a phone, tablet, or other compatible Bluetooth device.

Steps	Operation	Interface / Result
1	Triple-click the Home/Power button	Open the Bluetooth Home screen and enable Bluetooth
2	Search for Bluetooth devices	Display "BLE DEVICES / Scanning"
3	Select the target device	Enter the BLE LIST/device list
4	Confirm connection	Display "CONNECTING"
5	Wait for completion	The screen displays "CONNECTED" when the connection is successful.
6	No operation	Returns to the Home screen after approximately 3 seconds of inactivity.

Troubleshooting: If connection fails, confirm that Bluetooth is enabled on the target device, keep the devices sufficiently close, and disconnect any Bluetooth connection currently occupied by another device. Search again if necessary.

9. Core Beat Training Function

Beat Training is the core function of this product. During a session, the device uses the selected tempo, action detection, action sounds, and LED feedback to help you develop consistent rhythm and action control. A grade is displayed based on your accuracy.

9.1 Pre-Training Settings

Item	Recommended Operation	Description
Tempo Value	Enter Tempo Settings and set the target value	SV represents Set Value
Action Sound	Select the corresponding action audio file	Used for action feedback
LED Lighting	Turn on/off and adjust brightness as needed	Used for visual feedback
Volume	Press and hold Up/Down to adjust	Avoid excessive volume
Training Mode	Select the appropriate tempo/playback mode	According to the training objective

9.2 Single/Double Click: Tempo and Action Audio Settings

Operation	Function	Documented Logic
Single press	Set tempo value	Sets the target training tempo. In this mode, sound volume changes with the tempo and is independent of action force. Acceleration-based action volume is not used, and there is no background music.

Operation	Function	Documented Logic
After setting the action audio file	Select action sound	Specifies the sound file played when the action occurs.
Double press	Enter alternate action-feedback settings	Enters the alternate action-feedback setting mode.
After double-pressing, set the Action Audio File	Select action sound	Acceleration-based action volume can be used. When an action is detected, background music is turned off and the selected action sound is played.
Triple press/Press and hold	Open the Recording screen	Enter the Recording interface.

9.3 Two Action Feedback Modes

According to the documentation, Beat Training has two sound feedback modes:

- **Tempo Mode:** Based on the set tempo; the sound volume changes with the tempo and is independent of the force of the action. There is no background music in this mode.
- **Acceleration Action Mode:** Provides sound feedback based on detected actions. After an action is detected, background music may be turned off and the action sound played; the force of the action may affect the action volume.

9.4 Hot-Action Switching

The right side of the training interface provides Up/Down controls for switching the current hot action/training item. Actual action names, quantities, and corresponding sound files are determined by the action menu in the product firmware.

10. Training Data and Display

Field	Meaning	Purpose During Training
SV	Set Value	Target tempo/training setting.
PV	Process Variable	Actual tempo/process value detected by the device.
Total Count	Total action count	Counts completed/detected actions.
Elapsed Time	Elapsed time	Records the duration of the current training session.
Tempo Indicator	Tempo indicator	Indicates whether the current action is faster or slower than the target tempo.
Accel Detect	Acceleration detection	Used for action detection and action-force feedback.
Score Rank	Score rank	Displays grades from A++ to C– based on accuracy.

11. Accuracy and Grade Standards

The Accuracy Percentage shown by the device is used to determine the training grade. A higher accuracy percentage results in a higher grade.

Grade	Accuracy Percentage	Suggested Interpretation
A++	99–100%	Excellent: Very stable tempo/action control
A+	95–98%	Very Good: Generally stable, with occasional deviations
A	90–94%	Good: Basic training rhythm has been mastered

Grade	Accuracy Percentage	Suggested Interpretation
A-	85–89%	Good: Some tempo deviations remain
B+	80–84%	Above Pass: Continue stable training
B	75–79%	Pass: Rhythm stability still needs improvement
B-	70–74%	Basic: Reduce training difficulty and increase repetition
C+	65–69%	Needs Improvement: Low action-to-tempo matching
C	60–64%	Needs Practice: Re-practice basic tempos
C-	0–59%	Below Standard: Reduce tempo and restart with basic training

Important: These grades are intended for internal product training feedback only and should not be interpreted as medical diagnosis, ability diagnosis, or professional qualification assessment.

12. Audio File Playback

The device can play audio files stored on the memory card for normal playback, action sounds, and training feedback.

Operation	Function	Description
Single-press the Playback button	Play/pause audio	Toggles playback/pause of the current audio. On supported pages, it can also control light color changes or Bluetooth.
Short press Up / Down	Previous / next track	Switches between audio files in the file list.
Press and hold the Up / Down buttons	Adjust volume	Increases or decreases the volume.
Double-press the relevant Settings item	Action Audio File Settings	Assigns the selected audio file to action feedback.
Press and hold the relevant Settings item	Restore Factory Settings	Opens the factory reset function described in the documentation.

13. Playback Modes

Mode icon/name	Meaning	Use Case
Sequential Play	Sequential Play	Plays files in file order.
Repeat One	Repeat One	Repeats the current file.
Shuffle	Shuffle	Randomly selects files for playback.

The documentation indicates that the default factory setting is Sequential Play.

14. Recording

Use the Recording function to record sound and save the recording to the memory card.

Operation/Status	Meaning
Triple press/Press and hold	Open the Recording screen
● REC	Recording in progress
Playback icon	Recording or audio is playing
Pause icon	Playback paused
A00	Example of the current recording filename

Operation/Status	Meaning
TF card	Recording storage medium
Elapsed Time	Recording elapsed time
GBFREE	Available/total storage space

Before recording, confirm that the TF card is properly inserted and has sufficient free space. After recording, exit the Recording page normally before removing the memory card.

15. Restore Factory Settings

The documentation indicates that the relevant menu supports “Press and hold Restore Factory Settings.” A factory reset may clear or reset user Training, Playback, Lighting, Playback Mode, and other settings. Perform this operation only when a reset is required.

Recommended procedure: Confirm that the device is operational → open the relevant settings → press and hold Restore Factory Settings → confirm the on-screen prompt → wait for the reset to complete → return to the Home screen.

16. Recommended Complete Training Workflow

1. **Power on:** Single-press the Power/Home button to enter the Home screen.
2. **Check the Battery:** Check the Battery indicator.
3. **Set Tempo:** Enter the Tap Training menu and set the SV target value.
4. **Select action:** Select the action or hot action you want to train.
5. **Set sound:** Select the corresponding action audio file and confirm the volume.
6. **Set Lighting:** Enable LED feedback and adjust brightness as needed.
7. **Start training:** Perform each action in time with the tempo and prompts provided by the device.
8. **Observe Feedback:** Monitor the Tempo Indicator, PV, Total Count, and action-sound feedback.
9. **End Training:** Stop the training or playback and return to the Home screen.
10. **Review Results:** Record the session accuracy and Score Rank.
11. **Progress Gradually:** Once you consistently achieve a high accuracy grade, gradually increase the tempo or training complexity.

17. Troubleshooting

Problem	Possible Cause	Solution
Device will not power on	Low battery or incorrect operation	Press and hold the Home/Power button to turn the device off normally.
Device will not power off	Press and hold not performed	Press and hold the Up button to increase the volume; then check the audio file and mute status.

Problem	Possible Cause	Solution
No sound	Volume too low/muted/no audio selected	Press and hold the Up button to increase the volume; then check the audio file and mute status.
Bluetooth cannot connect	Bluetooth is disabled on the target device, or the connection is occupied	Turn on Bluetooth on the target device, then search for it and reconnect.
Audio file not found	TF card not recognized, or file format/directory is incompatible	Reinsert the TF card and verify that the file format and directory structure are supported by the device.
Recording failed	Insufficient TF card space or the card is not recognized	Check GBFREE, then replace or reinsert the TF card as needed.
Light does not turn on	Lighting mode off/brightness too low	Turn on the lighting mode and press and hold the Up button to increase brightness.
Light does not change color	Color-change function not enabled	Short press the corresponding Function button to start or pause color changes.
Action not detected	Insufficient action amplitude or incorrect training mode	Confirm that Accel Detect and the correct Training Mode are selected. Increase the action amplitude as needed, then test again.
Low score	Large tempo deviation or unstable actions	Lower the target tempo. Establish a stable rhythm first, then gradually increase the difficulty.

18. Safety and Usage Notes

- Do not use the device in wet, water-exposed, or high-temperature environments unless the actual product specifications explicitly allow it.
- Do not drop, crush, or disassemble the device.
- Use only a charger and memory card that meet the product requirements.
- Before inserting or removing the TF card, stop Recording/Playback and exit the relevant page to help prevent file corruption.
- Prolonged playback at high volume may cause listening discomfort. Adjust the volume according to the environment.
- Keep movements within a safe range during training to avoid collisions caused by fast or large movements.
- The lighting function is intended for ambient and training feedback. Use dynamic lighting with caution around children and people who are sensitive to flashing lights.
- Product scores are training feedback indicators only. They are not medical, psychological, or professional ability assessments.

19. Quick Operation Reference

Operation	Quick Functions
Home — Single press	Power on / return to the Home screen and retain settings
Home — Double press	Return to the Home screen, discard the current page settings, and turn off Lighting and Bluetooth
Home — Triple press	Open Bluetooth
Home — Press and hold	Power off
Up — Short press	Scroll up / select the previous item
Down — Short press	Scroll down / select the next item
Up — Press and hold	Increase the volume / increase brightness on applicable pages
Down — Press and hold	Decrease the volume / decrease brightness on applicable pages
Lighting — Short press	Start or pause light color changes
Lighting — Double press	Turn off the lighting mode
White Noise — Triple press	Switch the playback mode
Bluetooth — Triple press	Open the Bluetooth Home screen

Operation	Quick Functions
Tap — Single press	Set tempo value
Tap — Double press	Set tempo and action audio
Tap — Triple press / Press and hold	Open the Recording screen
Relevant Play button — Single press	Play/pause
Relevant setting — Press and hold	Restore Factory Settings

20. Manual Revision Note (For Mass Production)

This manual has been updated with the latest supplementary information, including battery capacity, power input, Type-C interface, 3.5 mm headphone jack, reference playback time, material, weight, and other key technical specifications. Hardware parameters not listed here are subject to the final engineering specification or the mass-production version.

— End of Manual —

21. Technical Specifications (Supplementary Information)

The following parameters reflect the latest supplementary information and form the technical specifications section of this manual.

Technical Item	Specification
Battery Capacity	800 mAh
Power/Charging Input	DC 5V
Charging Interface	USB Type-C
Audio Output	Supports a 3.5 mm headphone jack
Continuous Playback Time	Approximately 10 hours (actual battery life depends on volume, lighting, Bluetooth, and usage mode)
Product Material	ABS + PC + Aluminum Alloy
Product Weight	Approx. 100 g

Notes:

- 1. Battery capacity is 800 mAh. This replaces the incorrect 1,000 mAh value listed in the previous version.**
- 2. The device uses a DC 5V power/charging input and a USB Type-C charging interface.**
- 3. The product supports a 3.5 mm wired headphone jack for audio output.**
- 4. Approximately 10 hours is the reference playback time. Actual battery life is affected by volume, LED lighting, Bluetooth, audio type, and usage mode.**

QUICK START GUIDE

Model Z1

BUTTONS & CONTROLS

Power / Home

Press once: Power on / return to the Home screen.

Press twice: Return to the Home screen and turn off the lights and Bluetooth.

Press three times: Open Bluetooth settings and synchronize the clock with your phone.

Press and hold: Power off.

Menu / Settings

Open rhythm training settings, set BPM, search for Bluetooth devices, enter Recording mode, and set the White Noise auto-off timer.

Up / Volume + / White Noise

Press once: Move to the next item/page.

Press twice: Open the White Noise player.

Press three times: Select Single Track Repeat, Sequential Play, or Shuffle.

Press and hold: Increase volume.

Down / Volume – / Flashlight

Press once: Move to the previous item/page.

Press twice: Turn on the flashlight.

Press three times: Fast page turning.

Press and hold: Decrease volume or flashlight brightness, as applicable.

Play / Pause / Action Sound / Bluetooth

Press once: Play/pause audio, change the light color, or control the Bluetooth connection on the applicable screen.

Press twice: Assign an audio file as the action sound.

Press and hold: Restore factory settings.

QUICK FUNCTIONS

Ambient Lighting

Colorful ambient lighting. Press twice to turn it off. The device can display red candlelight and change the light color.

Beat Indicator

Blue = Normal tempo; Red = Faster; Green = Slower.

Force-Sensing Mode

Provides action feedback based on detected movement/force.

Recording

Press the Menu button three times or press and hold it to enter Recording mode.

CHARGING & CONNECTIONS

USB Type-C

Charge using a USB Type-C 5V/1A charger. USB Type-C can also be used for file management.

3.5 mm Headphone Jack

Supports stereo audio output.

Bluetooth

Supports Bluetooth audio playback/output and clock synchronization.

Microphone / Speaker

The microphone is located on the back. The speaker provides audio feedback and playback.

STORAGE & CUSTOM AUDIO

TF Card / File Management

Connect the device to a computer or mobile device for USB-MSC file management. Custom action-sound files can be copied to the Metro or Drum folder as supported by the device.

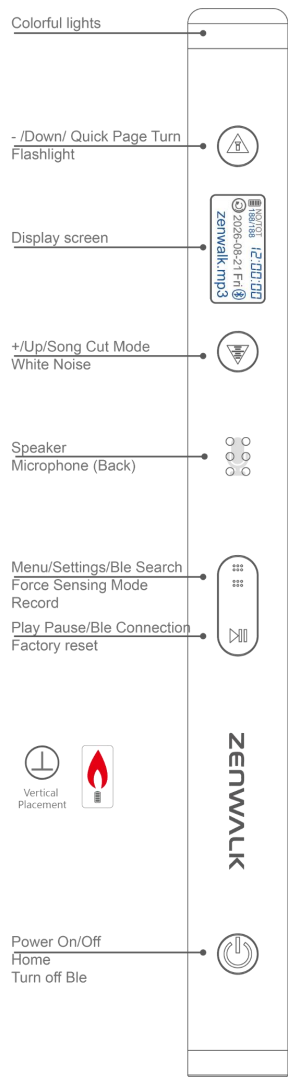
Factory Settings

The source Quick Start Guide lists default settings including flashlight brightness at 20%, volume at 12, White Noise auto-off at 60 minutes, Sequential Play, and a 72 BPM wooden-fish percussion sound.

Quick reference only. For complete operating instructions, troubleshooting, safety information, and technical specifications, see the detailed sections of this manual.

PRODUCT OVERVIEW

Controls & Components



Product controls and functional areas

Control / Component	Function
Power / Home	Power on/off; return to the Home screen; turn off Bluetooth as applicable.
Menu / Settings	Open settings, Bluetooth search, Force-Sensing Mode, and Recording.
Up / Volume +	Move up, increase volume, select Song Cut Mode, and access White Noise.
Down / Volume -	Move down, decrease volume, quick page turning, and access the Flashlight.
Play / Pause	Play/pause; Bluetooth connection; Factory Reset.
Colorful Lights	Ambient lighting and visual feedback.
Display Screen	Displays operating status, tempo, battery, Bluetooth, and playback information.
Speaker	Audio playback and feedback.
Microphone (Rear)	Audio recording.
Flashlight	Built-in flashlight function.
Vertical Placement	Recommended upright placement.

Note: The diagram is a quick visual reference. Refer to the detailed operating sections for complete button actions and mode-specific behavior.