Instruction of Smart Sleep Monitor

Product Model: BDV2-TUY



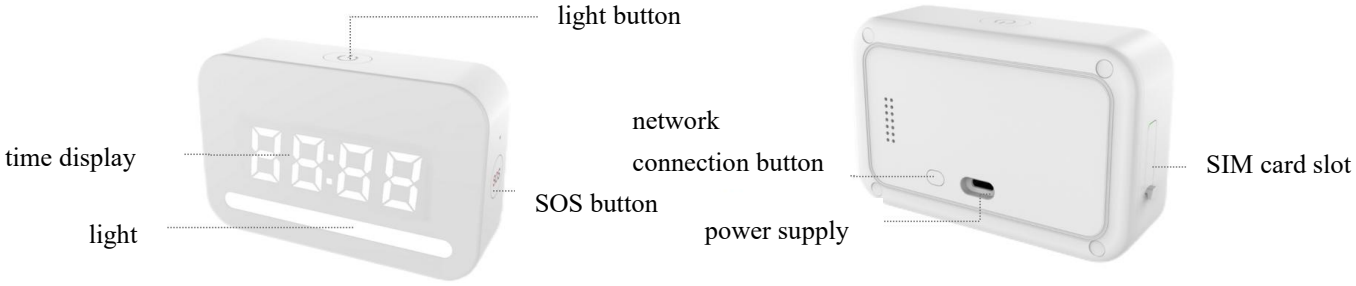
User Manual

1. Product introduction

The Smart Sleep Monitor is an intelligent device that records human presence, body movement parameter and even sleep quality of persons. It features the ability to record sleep stages (such as awake, deep sleep, light sleep, etc.), output real-time changes in breathing and heart rate, and provide sleep scores. It is a user-friendly and non-wearable product with privacy protection, which can be placed on a bedside table for contactless monitoring.

Functions	Function description
Sleep quality assessment	Record the sleep stages and sleep duration of people, and assess sleep quality
Abnormal situation alarm	SOS button, prolonged abnormal absence alarm
Voice interaction	Voice emergency call, voice-controlled light
Automatic nightlight sensing	Motion-activated nightlight
Historical record	Human presence record, SOS record, and abnormal absence alarm record

* This product needs to be used with the “Tuya Smart” App.



2. Installation method

2.1 Suggestion on installation position

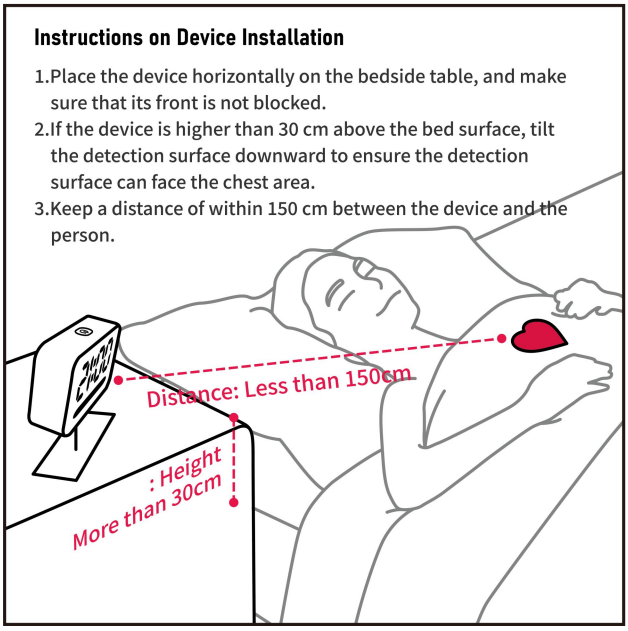
(1) Place the device horizontally on the bedside table, and make sure that its front is not blocked.

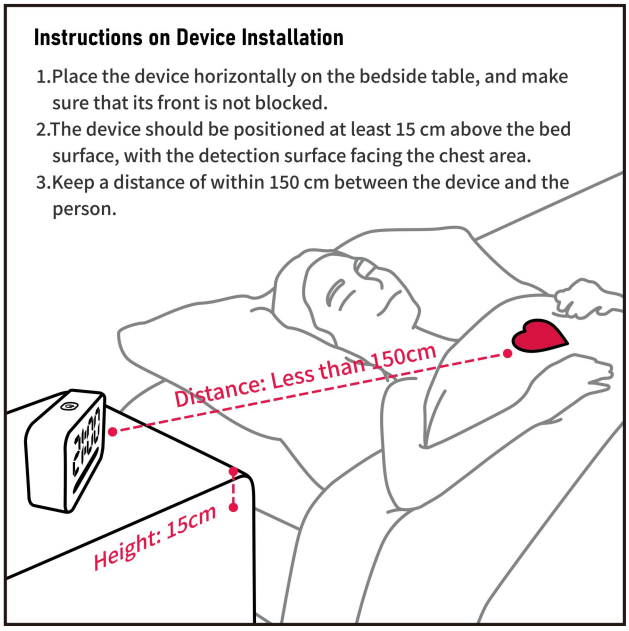
(2) The device should be positioned at least 15 cm above the bed surface (no more than 30 cm), with the display of device time (detection surface) facing the chest area after the person lies down on the bed

(3) If the device is higher than 30 cm above the bed surface, tilt the detection surface downward (with a bracket) to ensure the display of device time (detection surface) can face the chest area after the person lies down on the bed

(4) Keep a distance of within 1.5 meters between the device and the person

Reference Diagram





2.2 Downloading of client apps

Search for “Tuya Smart” in the app store or scan the QR code below to download

2.3 Connecting to power

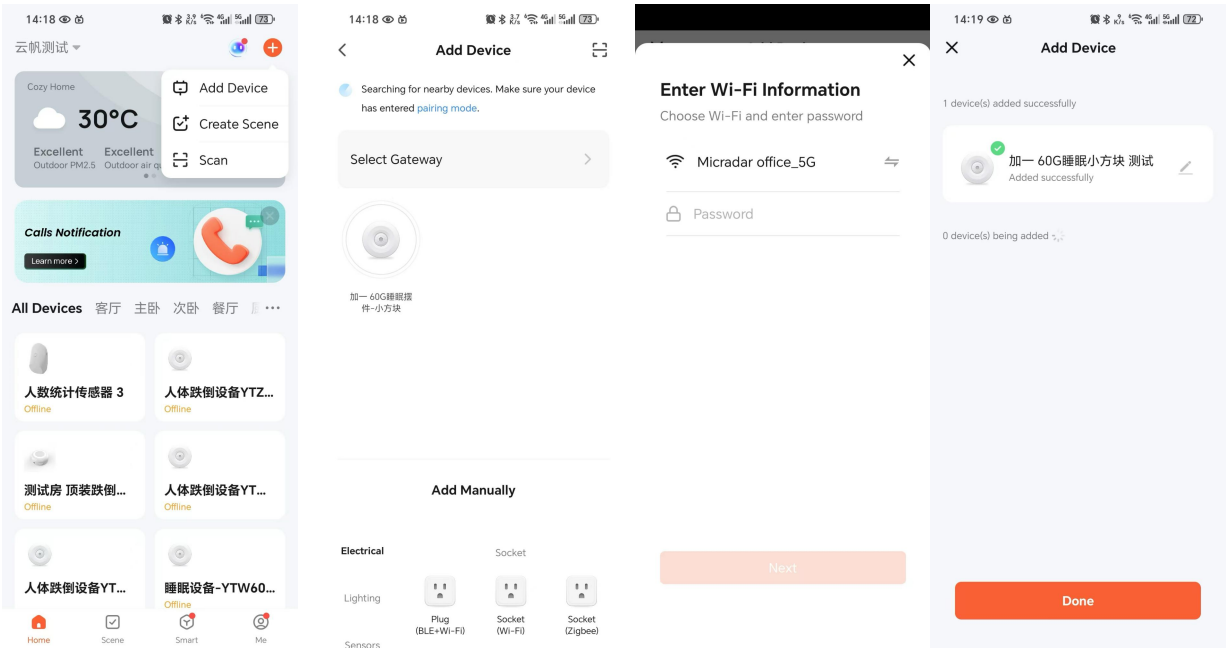
After the proper position is confirmed, connect the device to power. It will display the initial time, and if the red indicator light flashes, it indicates that the device has not yet been connected to the network. It will automatically synchronize the time after successful network connection according to the instructions.

2.4 Adding the device

2.4.1 Connect the device to the network

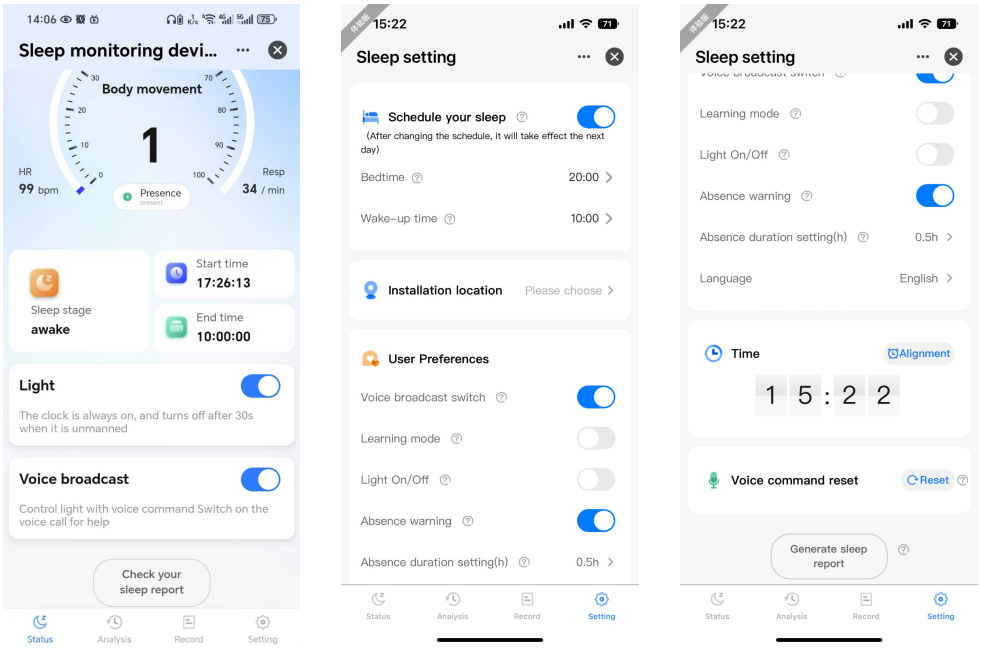
Press and hold the network connection button for 3 seconds; the red light will start flashing, indicating the device enters the network configuration mode (if there is no operation during the period when the light is flashing for 90 seconds, the device will exit the network configuration mode automatically). On the device page of the home page of the App, click “+” in the upper right corner, connect the device to the network according to the prompts from the App.

*Please select the 2.4G Wi-Fi network; 5G networks are not supported.



2.5 Device verification

Once the device is connected, if you can see the movement amplitude value changes according to body movement amplitude on the App's homepage, you may confirm that the device is functioning properly. Click on the parameter configuration page to set sleep schedule, installation location, user preferences, etc.



3. Details of product operation

3.1 Function overview:

The device can record the times of a person to get into and out of bed, fall asleep and wake up, record the sleep

status and output the sleep scores while sending alarm for abnormal bed exit. The device also supports voice emergency calls and has an SOS button for one-touch emergency call.

3.2 Function description

(1) Sleep analysis: Record the user's sleep stages and output sleep reports.

(2) Nightlight sensing: Motion-activated nightlight can provide basic lighting.

(3) Alarm for abnormal situation: Able to set alarms for prolonged bed-exit; if the user is away from the bed for too long, the device will send the alarm via the app.

(4) One-touch alarm: If any abnormality occurs, the user can activate the “SOS” one-touch alarm, which will notify emergency contacts via the app.

(5) Voice help: Users can call for help with voice commands

(6) Keywords for voice emergency calls

Type of functions	Functions	Voice Commands	Voice prompt from device
Nightlight Control	Turn on nightlight	Turn on light/Turn on the light	/
	Turn off nightlight	Turn off light/Turn off the light	/
Voice emergency call	Users actively wakes up the device	Help me please? Can you help me? Could you hep me? Help! I need help!	Do you need help?/Do you need call for help?
	If users are in danger, you should say	Yes/please help me/Please	Notifying the guardian immediately. Guardians notified, please wait a moment.
	If users don’t need help, you should say	No/I don't need help	Okay
Voice command learning mode	Users actively wakes up the device	Help me please? Can you help me? Could you hep me? Help! I need help!	Do you need help?/Do you need call for help?
	Enter learning mode	Enter learning mode	OK, entered learning mode. To start learning, please say, start learning
	Keywords that users need to learn	Start learning	Please study in a quiet environment and follow the prompts: Starting learning : I need help Starting learning : I fell Starting learning: Nobody fall down

			Note: Upon completion of learning each command, the device will report "learning completed ", while it will report "learning failed. Please try again" upon failure. If a single command learning fails three times, it will report "Learning abnormally，exited". The device will exit the learning mode automatically after all commands are learned.
Voice command learning mode	Exit learning mode	Stop learning mode	Exit learning mode
Restore default factory settings of learning mode	Users actively wakes up the device	Help me please? Can you help me? Could you hep me? Help! I need help!	Do you need help?/Do you need call for help?
	Initial confirmation	Restore default factory settings	Please say it again
	Reconfirmation	Restore default factory settings	The device has been reset to default factory mode

3.2 Product Configuration:

In the settings page, you can configure sleep schedule, voice functions, nightlight functions, and absence warning functions.

4. Description of Device Function

4.1 Introduction to App Interface

4.1.1 APP home page

(1) Body movement

Display the user's current real-time movement amplitude, with values ranging from 0-100

(2) Presence/Non-presence

Indicate whether there are people present within the device's current detection coverage

(3) Heart rate (HR)

Display the user's average heart rate per minute, with values ranging from 60-120 beats per minute

(4) Respiratory (Resp)

Display the user's average breath value per minute, with values ranging from 0-35 breaths per minute

(5) Sleep stages

Display the user’s real-time sleep status, including awake, light sleep, and deep sleep.

(6) Sleep start/end time

Display the start and end times of the user's sleep

(7) Light

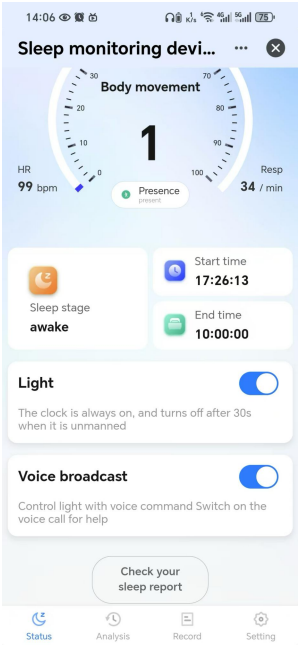
Switch to control the light and time display

(8) Voice broadcast

Switch of voice emergency call and voice control for light

(9) Check your sleep report

Click to view daily/weekly detailed sleep reports



4.1.2 App settings page

(1) Schedule your sleep (after changing the schedule, it will take effect the next day)

Customize sleep schedule settings; the device will score the sleep based on the preset time frame

(2) Installation location

Choose "left bedside" or "right bedside" based on the actual installation position before installation

(3) Voice broadcast switch

Voice lighting and voice-activated SOS switch

(4) Learning mode

Learn dialects or minor languages through the "voice learning function" with Mandarin as the default

(5) Light on/off

After you turn on this switch, the device will turn on the nightlight for 30 seconds when someone is detected by the device

(6) Absence warning

After you turn on this switch, the device will trigger warning reminders when it detects prolonged absence.

(7) Absence duration setting

Set the time from when a person leaves the bed abnormally to when an abnormal alarm is triggered

(8) Language

Support Chinese or English displays

(9) Time and Alignment

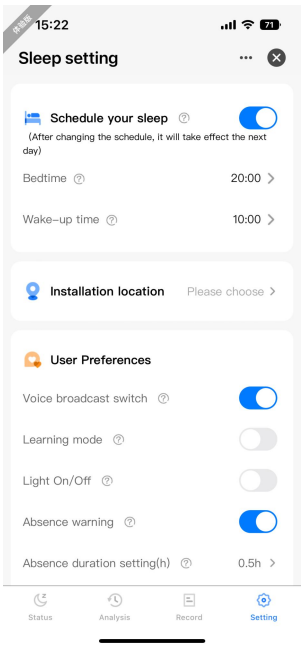
Online calibration for the device's clock

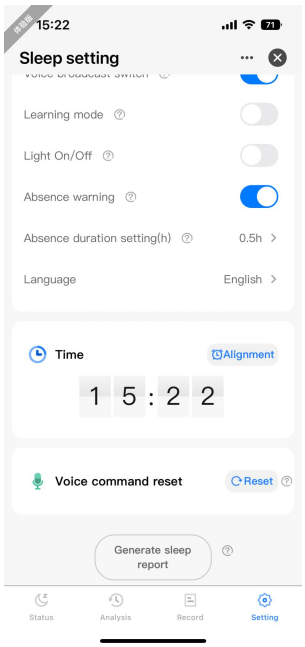
(10) Voice command reset

Restore the default voice commands

(11) Generate sleep report

After the "bedtime" preset in the sleep schedule, you can end sleep at any time by pressing the button to output the sleep report





4.1.3 App sleep analysis page

Daily Sleep Report：Report the latest sleep data within the specified schedule

(1) Status statistics

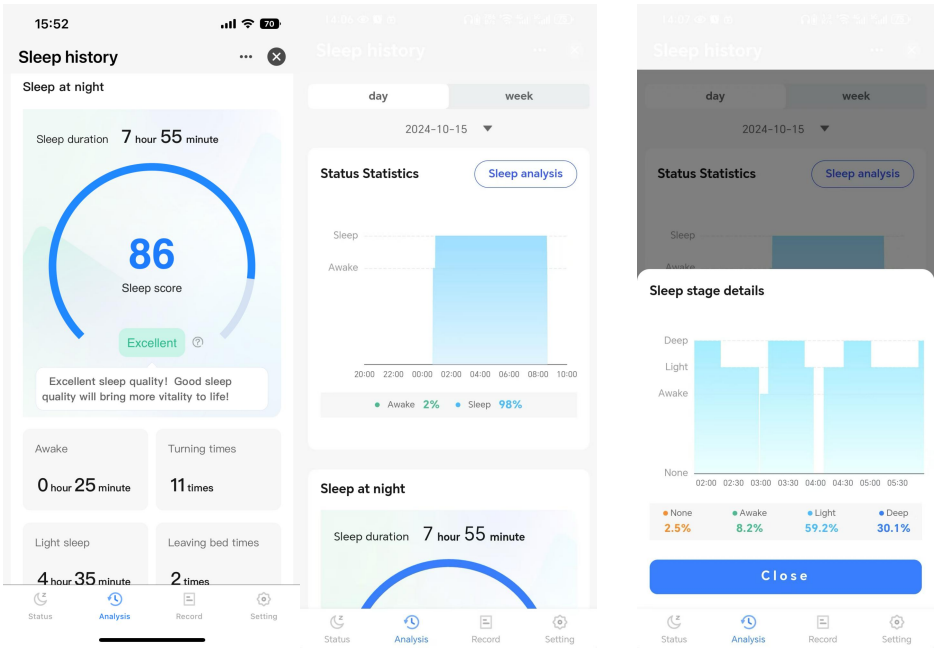
Statistics for the awake/sleep curves

(2) Sleep analysis

Detailed statistics for awake/light sleep/deep sleep curves

(3) Sleep at night

Display a sleep quality analysis report for that sleep period



Weekly Sleep Report: Analyze the sleep data for the latest week (7 days)

(4) Status statistics

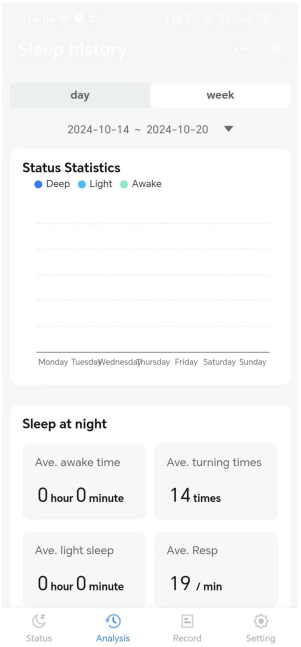
Display bar chart to show the proportion of sleep status for this week

(5) Sleep at night

Display the sleep quality analysis report for this week

(6) View the sleep records

Click to go to the sleep history record page



4.1.4 Sleep record page

(1) Sleep record

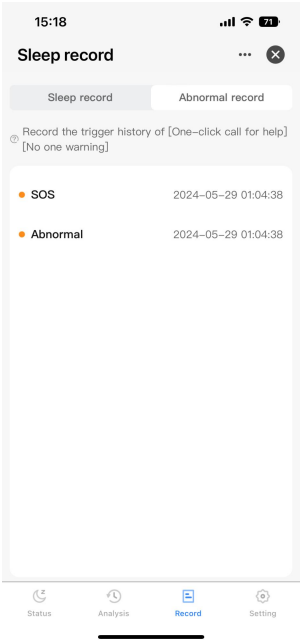
Record historical data triggered by "presence state"

(2) Abnormality record

Record historical data triggered by "one-touch emergency call"

(3) Absence warning records

Record historical data triggered by "absence warning"



4.2 Quick start guide for smart sleep monitor

4.2.1 How to enable sleep monitoring function:

Step 1: Place the device in accordance with requirements specified in 2.1 after successful network connection;

Step 2: Open the "Tuya Smart" app, and confirm sleep-related settings in the settings page;

1) Turn on the "Sleep Schedule" switch

2) Set the desired sleep time interval for detection (bedtime is the start time, and wake-up time is the end time)

Step 3: The radar activates sleep detection function within the sleep schedule, and the night sleep report will be generated upon the wake-up time;

(tips: If you want to end the sleep and output the report early within the preset sleep schedule, you can click the "sleep report cutoff function" in the settings page)

4.2.2 How to enable the "Motion-activated Light" function:

Step 1: Open the "Tuya Smart" app and turn on the “Nightlight Linkage Switch" in the settings page;

Step 2: Upon successful activation, the clock nightlight will turn on for 30 seconds when someone is detected by the device;
(tips: lighting can also be controlled via voice commands "turn on light", "turn off light" and the light button on top of the device)

4.2.3 How to use "Abnormal absence alarm" function:
Step 1: Open the "Tuya Smart" app and turn on the "Abnormal Absence Warning Switch" in the settings page;

Step 2: Choose the corresponding time for "prolonged absence warning time setting"; when the device detects absence, it will start counting and trigger a warning once the condition is met;

5. Product parameters

Model:	BDV2-TUY
Rated input:	5V ⎓ 2A
Wireless connection:	2.4G band
Radar frequency:	60GHz
Working temperature:	-10℃ ~ +60℃
Working humidity:	0 ~ 95% RH, Non-condensing
Power adapter output:	5V ⎓ 2A (Power adapters under 5V/2A may cause insufficient power supply, negatively influencing detection results)
Power adapter input:	180V — 240V ~ 50/60Hz 0.6A

6. Description of Status Indicator

Red lamp flashes	Matching network for the device
Red lamp off	Normal state/No-button state
Red lamp on	Button triggering
Red lamp constantly on	The device has connected to a Wi-Fi service, but not to the server

7. Names and content of hazardous substances in product

	Hazardous substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr(VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
PCB components	○	○	○	○	○	○
Plastic parts	○	○	○	○	○	○
Metal parts	○	○	○	○	○	○
Loudspeaker	○	○	○	○	○	○
AC adapter	○	○	○	○	○	○

This sheet is prepared pursuant to SJ/T11364.

○ indicates that the content of the hazardous substance in all homogeneous materials of the component complies with the limits set forth in GB/T26572.

× indicates that the content of the hazardous substance in at least one of the homogeneous materials of the component is beyond the limit set forth in GB/T26572.

8. After-Sales Service

The after-sales warranty services of repair, replacement and refund for this product is strictly implemented according to the Law of the People's Republic of China on the Protection of Consumer Rights and Interests and the Product Quality Law of the People's Republic of China, with the following service contents:

8.1 Warranty Policy

Within the warranty period, you can enjoy free repair, replacement and refund services as stated herein, and the repair, replacement and refund service will be provided according to original invoices.

Service Type	Service Policy
Return	Returns for poor product quality within 7 days from the day following the date of receipt
Replacement	Replacements within 15 days for poor product quality from the day following the date of receipt.
Repair	Repairs within 1 year for poor product quality from the day following the date of receipt.

Reminder: Due to the need to use packaging boxes for safe transportation of the product, it is recommended to keep the packaging box for at least 30 days from the date of receipt.

9. Performance Breakdowns

Name	Performance breakdowns

Smart Sleep Monitor BDV2-TUY	1. Surface damage due to structure or material factors 2. Indicator lamp is not working 3. Failure of network connection button 4. Human presence detection failed

10. Non-Warranty Clauses

- Unauthorized repairs, misuse, collisions, negligence, abuse, liquid ingress, accidents, alterations, incorrect use of non-original accessories, or removal/modification of labels and anti-counterfeiting marks.
- Performance faults after the expiration of the warranty period.
- Damage caused by force majeure.
- Performance faults not listed in the Performance Breakdowns.
- Performance faults of the product and its accessories as listed in the Performance Breakdowns but caused by human factors.