



User manual EN

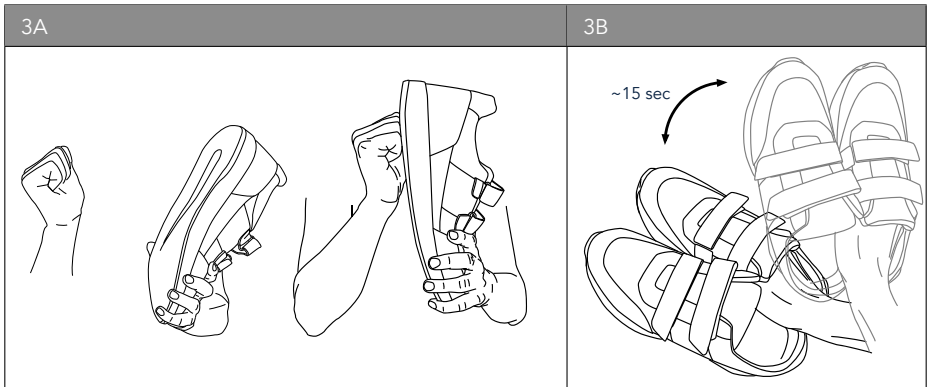
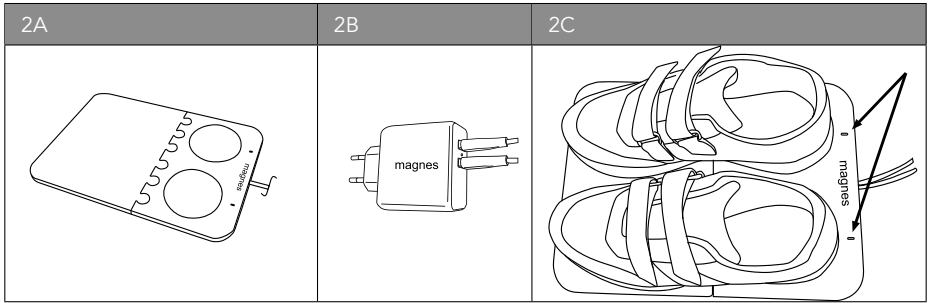
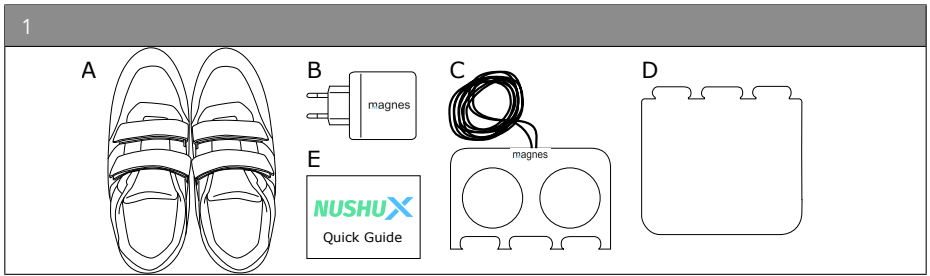
Version : 2026-08-27

Software Version: 1.8

Digital version available for download



<https://magnes.ch/documents/nushu-x/>





8							
A		B		C		D	
E		F		G		H	
I	 Max 120 kg / 264 lb	J	 +30°C 86°F 0°C 32°F	K	 70% 0%	L	 1500 mbar 21.75 psi 600 mbar 8.7 psi
M		N	 3.6 V 750 mAh Li-ion	O		P	
Q							

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1 Support



For the best experience, carefully read and understand this user manual prior to using NUSHU X.

For any inquiries, please reach out to Magnes.

Email: support@magnes.ch

For Europe and rest of the world

Magnes AG, Hardturmstrasse 253, 8005 Zurich, Switzerland.

For USA

Magnes Inc, 2261 Market Street STE 5508, San Francisco, CA 94114, USA.

2 Warnings / Important Notes



Users shall report any serious incident to the manufacturer (see page 6) and the authority having jurisdiction in their locale.



The product is NOT intended to come into contact with bare skin or wounds. Users must wear socks when using NUSHU X.



Make sure NUSHU X are charged.



Do not use NUSHU X while they are charging.



NUSHU X shall not be exposed to loads exceeding 120 kg (264 lb).



Transport and store NUSHU X between 0°C (32°F) and 30°C (86°F).



Maximum humidity should not exceed 70%.



Do not leave your NUSHU X exposed to direct sunlight during storage.



No modification of NUSHU X is allowed.



Use with caution on slippery and wet floors.



Keep out of the reach of children.



WARNING: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of NUSHU X, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.



Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.



WARNING: Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.



It is possible that high levels of interference due to close proximity or due to the power of a source, disrupts the operation of this device. Medical electrical devices require special precautions regarding electromagnetic compatibility and all devices must be installed and put into service in accordance with the information specified in this user manual.



Please keep the shoe box with the label for future reference.

3 Product Description and Intended Use

Enjoy a new way of walking with NUSHU X, the wearable device that tracks and displays your steps and walking style on the compatible NUSHU X mobile application. This product features vibration and/or cueing modes to encourage healthy lifestyle activities and help improve or maintain a general state of good health. NUSHU X is NOT a medical device.



NUSHU X may NOT perform as expected if used outside of its intended use.



NUSHU X is NOT intended to be used for making diagnostic or therapeutic decisions.



Please stop using the shoes and talk to your healthcare (HCP), if using them causes any discomfort.

4 Intended User Profiles and Use Environment

Intended User Profiles

NUSHU X can be used by general consumers aged 12 and up.

Intended Use Environment

NUSHU X can be used indoors and outdoors.



NUSHU X is NOT designed for high-impact activities like running or jogging.



NUSHU X is NOT designed for water sports. Avoid using NUSHU X in heavy rain or snow.

5 Setup of NUSHU X

Before using NUSHU X footwear for the first time, make sure you have completed the setup and your shoes are fully charged.

5.1 What's in the Box

Your NUSHU X box includes: (1A) NUSHU X footwear, (1B) charging adapter, (1C) wireless charging unit, (1D) pad for wireless charging unit, (1E) this user manual.

5.2 System Requirements

The NUSHU X mobile app is compatible with iPhones or iPads with iOS 17.6 or later.

5.3 Install the NUSHU X Mobile App

Scan the QR code or go to the Apple Store to download NUSHU X.



The most recent version of this user manual is also available in the NUSHU X mobile app.



Mobile costs may occur when using the NUSHU X app.

5.4 Log In

Open the NUSHU X app.

If you already have an account, please enter your email address and your password to log in.



Make sure to activate your cellular network with internet access or Wi-Fi.



If you do not have an account, see Section 5.5.

5.5 Create an Account

Select **Create an account**.

Fill in all required fields. Enter your height and weight in either metric or imperial units. Click on **Create** at the bottom of the screen.

Select **Go to Sign in** and continue with Section 5.4 **Log In**.

You need access to your email account to reset your password if needed.



Make sure to activate your cellular network with internet access or Wi-Fi.



The email address is shared with Magnes to create your account.

5.6 Charge the Shoes

Assemble the two pieces of the charging unit like a jigsaw puzzle (2A).

Connect the two charging cables to the power adapter (2B). Only use the supplied power adapter.

Place the shoes on the charging station. Each heel should completely cover a round disc on the charging station (2C).

Fully charging the shoes can take up to 6 hours.

LED Light	White	Green
	Status	
SLOW flashing	Charging	Charging
QUICK flashing	NOT Charging	NOT Charging
OFF	Fully Charged	—
ON	—	Fully Charged



Do not charge the shoes while wearing them.



If the LED is blinking very fast, the shoes are not positioned correctly onto the charging station. Adjust the position of the shoes until you observe slow flashing of the LED lights.



If you wear the shoes daily, charge them every night to preserve the battery life and to ensure uninterrupted use the following day. When you use the shoes only occasionally, we recommend that you fully charge the shoes at least once a month.

5.7 Turn ON Your Shoes

NUSHU X shoes can be turned ON by gently shaking them from side to side for at least 15 seconds (3B). The shoes vibrate twice when they power ON.



If the shoes do NOT vibrate, the battery may be low. Charge the shoes for at least 15 minutes and try again.



If the shoes do not turn ON, they may be in deep sleep. Follow the instructions on page 15 to wake them up from deep sleep.

5.8 Connect Your Shoes to the Mobile App

In the app, select the + symbol (4B) in the upper right corner of the screen.

Select the correct shoe size. You automatically return to the main menu. If only one shoe connects to the app, a pop-up message appears and the disconnected shoe is marked red.

The shoes will appear as connected on the home screen (4G).



Make sure to activate Bluetooth on your mobile device.



If the shoes do NOT appear, they are either switched off or low in battery. Either wake them up and press **Scan** or recharge and try again.

5.9 Turn OFF Your Shoes

If connected to the app, turn off your shoes by closing the NUSHU X app. The shoes will automatically power OFF after 5 minutes of inactivity.

See page 15 for ways to turn OFF your shoes manually.

 Always close the NUSHU X app to avoid draining your phone's battery.

6 Using NUSHU X

The home screen indicates the battery level (4G) and if the shoes are charging (flash symbol, 4F).

Select the vibration tile (4C), scroll and select the desired vibration (5B) and confirm with **Set Vibration** (5C). For more information click on (i) (5A).

To start the vibration, click on the **START VIBRATION** button (4D).

To collect data, slide the **SLIDE TO START ACTIVITY** to the right (4E). This is only available in Advanced Mode.

6.1 App Modes

The app offers two different modes:

Standard Mode Streamlines the app experience by hiding less frequently used functionalities, making it more user-friendly.

Advanced Mode Unlocks the full range of app features, providing access to all available settings. At present, this primarily impacts the selection of vibration modes.

To select Advanced Mode, go to **Settings** (7A) and select **App Settings** (7D). Under **App Mode**, select **Advanced**.

6.2 Vibration Modes

The following vibration modes are available in Standard Mode.



None Use the shoes without vibration



Metronome Vibrate at regular intervals. The frequency and the preferred side (left, right, both) can be adjusted.



Swing Vibrate when the foot is in the air, from toe off to heel strike (swing phase).

	Swing Plus	Vibrate when the foot is in the air, from heel off to heel strike (swing phase). Similar to 'Swing Vibration' with an earlier onset.
	Heel Off (HO)	Vibrate when the foot leaves the ground (heel off).
	Ground	Vibrate when the shoes are in contact with the ground.
<i>The following vibration modes are only available in Advanced Mode.</i>		
	Motion	Vibrate whenever the foot moves in any direction.
	Crescendo	Vibrate with higher intensity the faster the foot moves.
	Heel Strike (HS)	Vibrate when the foot hits the ground (heel strike).
	HS-HO	Vibrate when the foot hits the ground (heel strike) and when it leaves the ground (heel off).
	Load	Vibrate when the load on the heel is higher than a set threshold.
	Unload	Vibrate when the load on the heel is lower than a set threshold.
	Length	Vibrate when the detected step length is either longer or shorter than a set threshold, depending on the selected mode.

6.3 Set Vibration Preferences

From the home screen, navigate to Settings/Vibration Preferences.

Vibration Intensity

Set your preferred vibration intensity by moving the slider. Click **Start Vibration** to test and **Stop Vibration** to end it. The intensity applies to all vibration modes.

Metronome Variants

Set your preferred vibration frequency (beats per minute) by moving the slider.

Expand the drop-down arrow to set the active side to **Left**, **Right** or **Both**. The default is **Both**.

Length Vibration

Set your preferred vibration length in centimeters. Apply to the other side with **Match Values**.

Set the mode via the drop-down arrow to:

Affirmative The shoes vibrate when you reach your preferred step length.

Corrective The shoes vibrate when your step is shorter than your preferred length.

Load/Unload Vibration

Put on your shoes and connect them to the app. Adjust the sliders to manually change the percentage of weight on a given foot to trigger the vibration. Apply to the other side with **Match Values**.

Calibration for Load, Unload and Crescendo Vibration

Click on **Calibrate & Personalize** to calibrate your shoes for optimal use with the Load/Unload Vibration.

Confirm with **Start** in the pop-up message.

Follow the instructions and click **End Calibration** on the calibration screen, once you are done.

6.4 Record Your Activity

Gait parameters are tracked whenever you wear your charged shoes. If you want to get an analysis report on a dedicated walking episode, you can record your gait in Advanced Mode.

To record your gait, slide right (4D). The orange button and two discs in the heels of the shoes indicate that the activity is being recorded.

Press **STOP ACTIVITY** to stop the recording (4E).

If you just want to use the shoes with vibration, click **START VIBRATION** (4D) instead. This option is always available, also in Standard Mode.



For best performance, do not record your gait for longer than 1 hour.

6.5 Download Your Data

The download button **Arrow Down** is located at the center between the two shoes on the home screen (4H).

A counter next to the download button indicates that an activity is available for download. Click the **Arrow Down** to download the recording.

Connect to the Wi-Fi network — it will appear as NUSHU-XXXX.

In the opened view, click the arrow next to the activity or **Download All Activities**. A progress bar indicates the download status.

6.6 Analyze and Manage Your Data

Click on **Progress** in the lower left corner (6A). Allow 5–10 minutes after data upload and the analysis before checking the results.

If the data have not been uploaded automatically, the **arrow button** is enabled (6C), indicating the number of pending recordings to be uploaded. Click on the **arrow button** (6C) to upload the recording for analysis. Alternatively, you can swipe down at the top of the **Progress** screen (6A).

Select an individual recording (6B) to see detailed information about it after it has been analyzed.

To see more detailed information, swipe the graph to the left.

To delete a recording, click on **Show More** below the recorded activities. Swipe left and confirm the deletion in the pop-up message.

Your summary of medication intakes (4K) is shown at the bottom of the **Progress** screen (6A).

6.7 Manage Your Account

To view or change your account information, go to **Settings** (7A) and **Profile** (7B).

Tap on the information you would like to change and tap **Update** to save your changes. If your weight and height display different units than when you created your account, adjust your iOS settings.

To delete your account, press **Delete Account**. Enter your password and press **OK** in the pop-up window to confirm the deletion or press **Cancel** to cancel the process.



Deletion of your account is permanent. If you confirm, all your data will be deleted. You will need to create a new account to keep using NUSHU X.

6.8 Manage Access to Your Data

To view, add or delete who has access to your data, go to **Settings** (7A) and **Accesses** (7C).

To add a new access, select **Grant New Access**. Scan the QR code that you received from the HCP.¹

To delete an access, select it, select **Delete** and confirm deletion.

¹The app requires access to the device's camera to scan the QR code. You are asked to grant access to the camera the first time.



The app's own access is shown under **App**. Please note, that this includes access to the email you used for creating your account.



The access **Analyst** is created by default to allow processing of your data and providing the results.

6.9 Update the Shoes

Your shoes are running firmware which is reading the sensors, driving the vibration motors, and handling communication and storage. The firmware can be updated over the air.

Go to **Settings (7A)** and **Update Shoes (7E)**.

If a new version is available, press **Update**. The update may take several minutes.

At least 20% of battery is needed to update the shoes.



Make sure to activate your cellular network with internet access or Wi-Fi.

6.10 Report an Issue

To report an issue or any other feedback, go to **Settings (7A)** and **Report An Issue (7G)**.

Type in your message and press **Submit** to send your report to Magnes. Enable **Share Usage Data** to help diagnose the issue.

6.11 Additional Shoe Controls (Quick Actions)

Tap on name | shoe size at the top of the screen (4E) for the following quick actions:

Sync This setting allows you to manually upload the real-time parameters from the shoes for analysis.

Reboot This setting turns your shoes off and immediately on again.

Sleep This setting puts your shoes into sleep mode. To wake them up, gently shake them from side to side for at least 15 seconds (see page 10).

Deep Sleep This setting puts your shoes into deep sleep mode, making them less likely to wake up while traveling. To wake them up, firmly tap the heels of your shoes (see below).

Reset Shoes This setting restores the shoes to default settings. It may help if you experience faulty behavior of your shoes or trouble downloading data.

Wake Up the Shoes from Deep Sleep

To wake up the shoes from deep sleep mode, follow these steps:

1. Hold one shoe upright with the heel on top. Strongly hit your fist against the sole of the shoe to turn it ON (3A). If this is too difficult or the shoe does not turn ON, you can also hold the shoe at the front and hit the heel of the shoe on the floor. One tap at a time is enough, wait for 10–15 seconds.
2. The shoe vibrates twice as soon as it turns ON. If the shoe does not vibrate, tap again. Repeat with the second shoe.



If the shoes do NOT vibrate, the battery may be low. Charge the shoes for at least 15 minutes and try again.



The shoes go back to deep sleep if no connection is established within 2 minutes from wakeup.

6.12 Cleaning and Maintenance

Clean the NUSHU X shoes regularly. Remove any dirt with a damp cloth (dampen cloth with ambient temperature tap water) and let them air dry. Spray the inside of the shoes with a shoe disinfectant after each use, if multiple users are using the shoe.



Do not use any detergents. Do not machine wash. Do not use sharp utensils. Do not dry shoes in direct sunlight, oven, and/or microwave.

The maintenance of NUSHU X must not be carried out by the user. In case of a malfunction, please contact the distributor or the manufacturer (see page 6).



Device contains a Lithium-Ion battery. Dispose the device in accordance with EC Directive – WEEE (Waste Electrical and Electronic Equipment).

7 Troubleshooting

Problem	Cause	Action
Shoes not detected	Bluetooth inactive on mobile device	Turn on Bluetooth on your mobile device. Also ensure that Bluetooth is permitted in the app settings of your phone for the NUSHU X app.
Shoes not detected	Battery is empty	Fully charge your shoes.
Shoes not detected	Electromagnetic interference	Try using your shoes in a place free of other Bluetooth and wireless devices.
Shoes do not connect	Shoes in sleep mode	Shake the shoes side to side for 15 seconds to wake them up (see page 10).
Shoes do not wake up	Shoes in deep sleep mode	Strongly tap the heel of the shoe against your hand or fist and wait for 10–15 seconds (see page 15).
Recordings cannot be collected	No local network connection	Ensure that Local Network is permitted in the app settings of your phone for the NUSHU X app.
Data not uploaded to database	No or bad internet connection	If data was downloaded from the shoes, they will be saved under Progress (6A) , under Recorded Activities . Check mobile data or Wi-Fi internet connection.
Server cannot be reached	No or bad internet connection	Check mobile data or Wi-Fi internet connection.
Data download is not responding	Connection issue, no local network permission	Disconnect from the local network and try to download again (see page 13). If the problem persists, reboot the shoes (see page 15). Ensure that Local Network is permitted in the app settings of your phone for the NUSHU X app.
Results are not analyzed	Results were not fetched	Make sure to have internet connection and that at least 5 minutes have passed from uploading the data. Go to Progress (6A) and swipe down to refresh the page.
Cannot connect to the NUSHU-xxxx network	Connection issue	Retry to connect. If the problem persists, try one of the following: close the app completely and reopen it, reboot the shoes (see page 15), check if they are up-to-date (see page 15), and/or check the app permissions.
Profile data are not shown correctly	Connection issue	Logout and close the app completely. Then try again. Ensure internet connection.

Problem	Cause	Action
Cannot scan QR code	Camera access permission not granted to app, QR code settings of phone	Check if QR code reading is activated in your general device settings. Ensure that camera is permitted in the app settings of your device for the NUSHU X app.
Firmware update does not start	No local network permission	Ensure that your preferred language is selected in the app settings of your phone for the NUSHU X app. If your preferred language is not available, the default language is selected automatically.

8 Regulatory and Safety Notices

8.1 EU Declaration of Conformity

Hereby, Magnes AG declares that the product NUSHU X is in compliance with 2014/30/EU Electromagnetic Compatibility Directive. The full text of the EU declaration of conformity is available at <https://magnes.ch/documents/nushu-x/>.

8.2 FCC Compliance Statement

This device complies with Part 15 of the Federal Communications Commission (FCC) Rules.

Model: NUSHU X

FCC ID: 2BDTE-NUSHU1V1

Operation is subject to the following conditions:

1. This device may not cause harmful interference and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

FCC Warning

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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:

- Users 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.

9 Warranty

NUSHU X has a limited warranty of 2 years from the date of purchase. During the warranty period, should this product prove to be incomplete or defective in functionality in accordance with the provisions given in the user manual, Magnes AG shall carry out a repair or a replacement delivery free of charge. The warranty covers manufacturing defects and DOA (dead on arrival) cases. Defect products shall be returned to the return address specified below for further inspection. In no case shall the user modify the devices in any way (or even just try to do so). Any such action will void the warranty. Instances of force majeure are beyond the scope of this warranty. For disputes, Swiss law shall apply.

Return address: See page 6.

The following are explicitly excluded from this warranty:

- Deterioration due to normal use or consumption of the product.

- Accessories supplied with the product which are worn out or used up through proper use (e.g., shoes, rechargeable batteries).
- Products that are stored, used, or cleaned improperly or contrary to the provisions of the user manual.
- Products modified or repaired by the customer or by a service center not authorized by Magnes AG.
- Products that are damaged during shipping between manufacturer/service center and customer

Subject to change without notice.

10 Technical Specifications

NUSHU X	Lifetime	24 months
	Gait events accuracy	Heel Off, Flat Foot: 36 ms Toe Off, Heel Strike: 8 ms
	Gait parameters	Gait velocity: 0.06 m/s
	Power supply/capacity	Li-ion battery 3.7 V, 750 mAh IEC 62133-2:2017
	Storage capacity	32 GB (~ 600 h of data recordings)
	Wireless communication	BLE IEEE 802.11b/g/n (Wi-Fi)
	Wireless connection power	BLE: 3 dBm Wi-Fi: 19.5 dBm
	Battery charging rate	Regular: 260 mA Precharge (low voltage): 52 mA
	Unit weight	40 g for each side
	Dust- and waterproof rating	IP22 Protection against objects and particles > 12.5 mm and dripping water when tilted at 15°.
Charging Station		The device conforms with the European health, safety, and environmental protections standards.
		Contains FCC-ID: 2BDTE-NUSHU1V1
	Mains voltage	110 – 240 V at 50 – 60 Hz
	Valid inputs	5 V/3.0 A 9 V/2.0 A 12 V/1.5 A
	Output power	15 W each pad – 30 W total
	Compatible wireless charging standard	Qi

11 Explanation of Symbols Used

8A	Important safety or operating instructions	8B	Read the user manual
8C	Do not dispose in household waste	8D	Serial number
8E	European conformity	8F	Federal communication commission
8G	Dust- and water-proof rating	8H	Keep away from rain
8I	Maximal applicable load	8J	Transport and storage temperature
8K	Humidity limitation	8L	Atmospheric pressure limitation
8M	Manufacturer	8N	Battery disposal information
8O	Mains electricity is double insulated	8P	Indoor use only
8Q	Keep out of reach of children		
