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Ascentiz



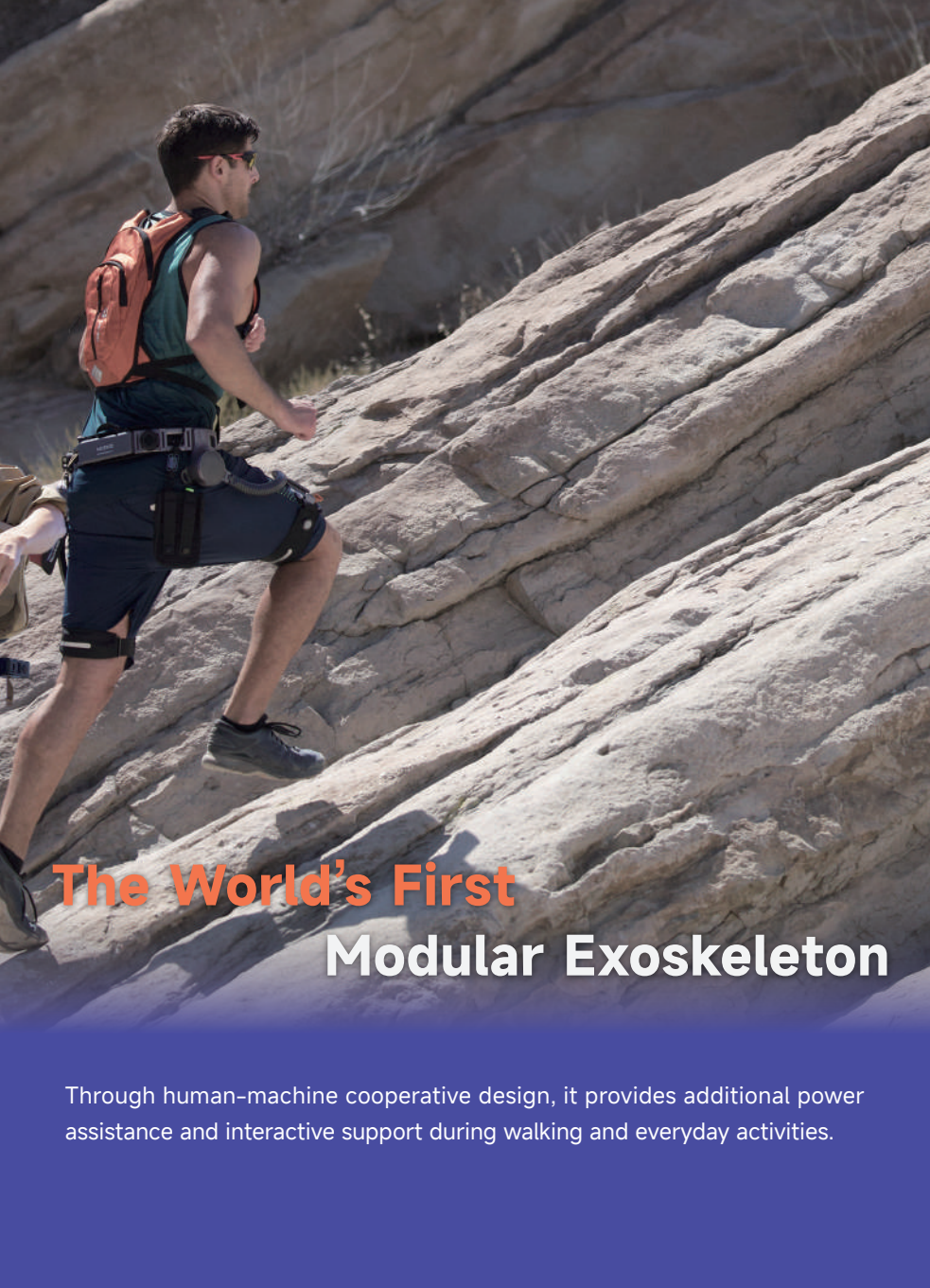
Ascentiz-H Product Manual

Operation Manual · For use together with
the Ascentiz Safe Use Guidelines (SUG)



Thank you for choosing the **Ascentiz Exoskeleton**.

Ascentiz is a wearable assistive device designed to support daily activities and active movement.



The World's First Modular Exoskeleton

Through human-machine cooperative design, it provides additional power assistance and interactive support during walking and everyday activities.

CONTENTS

01. Before You Begin	... 01
02. What This Exoskeleton Is	... 02
03. General Safety Warnings	... 03
04. Before You Use the Exoskeleton	... 04
05. Putting On and Adjusting	... 10
06. Powering On, Calibration & Startup Safety	... 23
07. Using the Exoskeleton	... 24
08. Battery, Charging & Electrical Operation	... 31
09. Cleaning, Care & Routine Maintenance Safety	... 38
10. Storage, Transport & Travel Warnings	... 39
11. Troubleshooting	... 40
12. Modifications, Compliance & Disposal	... 42
13. Trademark and Copyright	... 43
14. If You Have a Problem	... 44

1

BEFORE YOU BEGIN

Before You Begin

Read and fully understand this manual and the **Ascentiz Safe Use Guidelines (SUG)** before use. Improper use or failure to follow either document may result in equipment damage, falls, or serious injury.

This manual covers **operation**. For complete safety, eligibility, prohibited scenarios, battery hazards, disposal, and regulatory statements, refer to the **SUG**.

Safety signal words used in this manual:

Word	Meaning
 DANGER	Will result in death or serious injury if not avoided.
 WARNING	Could result in death or serious injury.
 CAUTION	Could result in minor or moderate injury.
 NOTICE	Important non-hazard information (property damage, malfunction, data loss).

2

WHAT THIS EXOSKELETON IS

Ascentiz is a wearable assistive device for daily activities and active movement. Through human-machine cooperative design, it provides power assistance and interactive support during walking and everyday, light-to-moderate activities.

Intended use, use limitations, and eligible/ineligible users are defined in SUG §1.2, §1.3.1, and §1.3.6. If you have any pre-existing condition, post-surgery status, or physical limitation, consult a qualified medical professional before use (SUG §1.2).

3

GENERAL SAFETY WARNINGS



WARNING

Pinch points and mechanical entrapment.

The device contains moving joints that create active pinch points during operation. Skin, fingers, loose clothing, drawstrings, or accessories contacting a moving joint can cause crushing, lacerations, entrapment, or sudden loss of balance.

- Keep hands and body parts clear of all joints whenever the device is powered on and moving.
- Do not adjust any mechanical component while assistance is active.
- Secure loose clothing, laces, and accessories before powering on.
- If anything becomes caught, power off **before** freeing it.



WARNING

Balance and terrain.

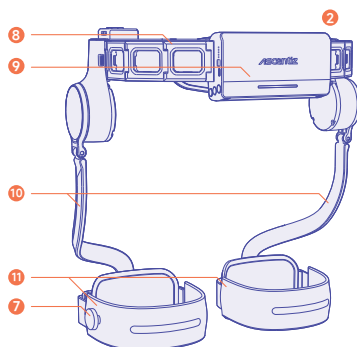
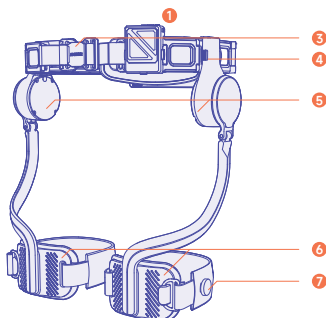
The device adds weight and may slightly alter your center of gravity; uneven or slippery ground increases fall risk. Acclimatize on flat ground first, stay attentive on transitions (roots, rocks, slopes), and use trekking poles on loose/sloped surfaces. On extremely slippery or steep terrain, power off or remove the device.

Full terrain and environmental limits: SUG §1.3.1, §1.3.5.

4

BEFORE YOU USE THE EXOSKELETON

Product Overview



1 Control Box



Increase/Decrease Level Button

Function Button

Power Button

Quick-Release Button

2 Main Controller



Battery Release Button

6 Left/Right Thigh Plate

8 Exo-Belt Assembly

10 Left/Right Leg Rod

3 Belt Buckle

4 Hip Joint Quick-Release Button

5 Left/Right Hip Module

7 Left/Right Dial

9 Battery

11 Left/Right Leg Strap

Product Specifications

	Ascentiz-H PRO	Ascentiz-H Ultra
Structural Materials	Aluminum alloy, Carbon Fiber Reinforced Plastic	Titanium alloy, Carbon fiber
Total Weight(including Battery and Ascentiz WildFlex Kit)	Approx. 2.55 kg	Approx. 2.5 kg
Product Dimensions (Folded)	14.17×9.45×3.94 in(360×240×100 mm)	
Motion Scenarios	Supports a wide range of motion scenarios during daily activities	
Firmware Update	OTA Update	
Operation Method	Physical buttons / App	
Indication Methods	LED Indicator / Haptic Feedback	
Battery Cell Type	Lithium Battery	
Intelligent Protection	Built-in Battery Management System (BMS) with overcharge / over-discharge / short-circuit / temperature protection	
Charging Temperature	5° -40° C	
Charging Time	Typical charging time: approx. 65 minutes (Using a Type-C fast charging cable and a 100 W PD charger)	
Ingress Protection Rating ¹	IP54	
Operating Temperature	-20°C -60°C	
Storage Temperature	0°C -40°C	

1. The ingress protection rating is based on laboratory test conditions.

Packing List

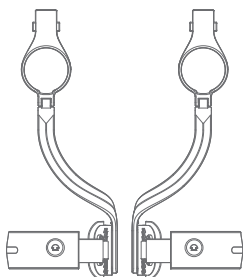
Standard Configuration



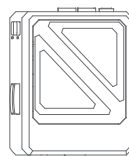
Exo-Belt x1



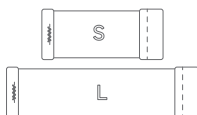
Battery PRO x1
Ultra x2



H Module x2



Control Box x1



Leg Strap x2



Waist Hinge Extension x4



Charging Cable x1

Documents and Included Items



Product Hang Tag x1



Quick Start Guide x1



Product Manual x1



Safe Use Guidelines x1

Note:

The packing contents may vary depending on product version, region, or production batch.

Please refer to the actual product received.

Ascentiz App First Use

Download the Ascentiz App from the Apple App Store or Google Play Store

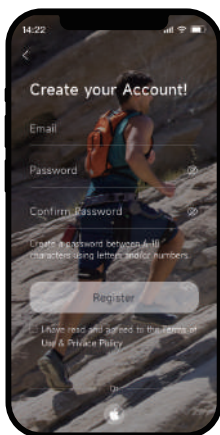


App Store



Google Play Store

Register an account and complete setup



Register Page



Settings Page

Note:

- Ensure Bluetooth and network connectivity are enabled on your mobile device
- Device binding must be completed in the Ascentiz App before first use

Unboxing Inspection

- Check all components for completeness and ensure there is no damage, looseness, or missing parts
- Ensure the battery is sufficiently charged and securely installed before wearing
- Ensure the device is powered off and no LED indicators are illuminated before wearing

5

PUTTING ON AND ADJUSTING

The device uses a **symmetrical cooperative design**: both Hip Modules must be installed simultaneously — single-side hip operation is **not supported**. Ensure all components are securely fastened **before powering on**. Misalignment may cause displacement, loss of balance, or falls.

Wear straps and leg bands over clothing; avoid direct device-to-skin contact (SUG §1.3.6).

Battery & Belt Preparation

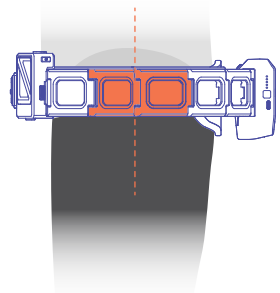
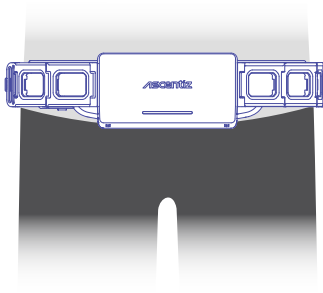
Remove all protective films. For first use, fully charge the battery (see §8), then install it into the Exo-Belt.

Exo-Belt Size Adjustment

- The Exo-Belt is factory-configured with **five (5) Waist Hinge Extensions on each side**; An additional **four (4) Waist Hinge Extensions** are included in the package, allowing users to add or remove hinge sections as needed to accommodate different waist sizes.

Adjustment reference standard

- When trying on the Exo-Belt, ensure that after the belt is properly positioned and fitted around the waist, the connection between the 2nd-3rd front Waist Hinge Extensions on each side aligns precisely with the user's hip joint. If the alignment is incorrect, adjust the belt by adding or removing Waist Hinge Extensions.



Waist Hinge Extension Adjustment Procedure

- Unfold the Exo-Belt, place it flat on a stable table with the back side facing upward.

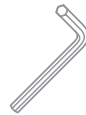


Exo-Belt

b. Take out the included **Waist Hinge Extensions** and the **dedicated screwdriver** provided in the package.

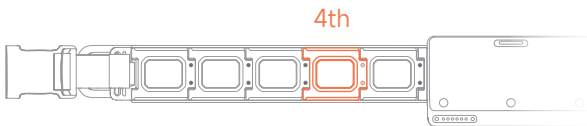


Waist Hinge Extension x4

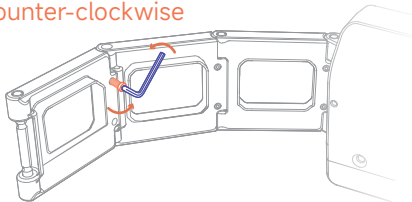


Screwdriver

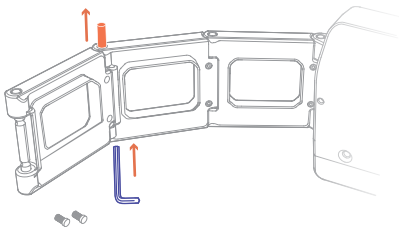
c. It is recommended to start from the connection between the 4th hinge section and its adjacent hinge.



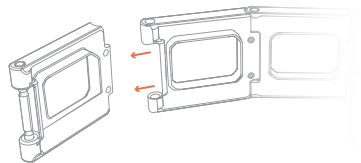
Loosen counter-clockwise



d. Gently use the screwdriver to push out the pivot pin at the connection point and separate the hinge sections on both sides.

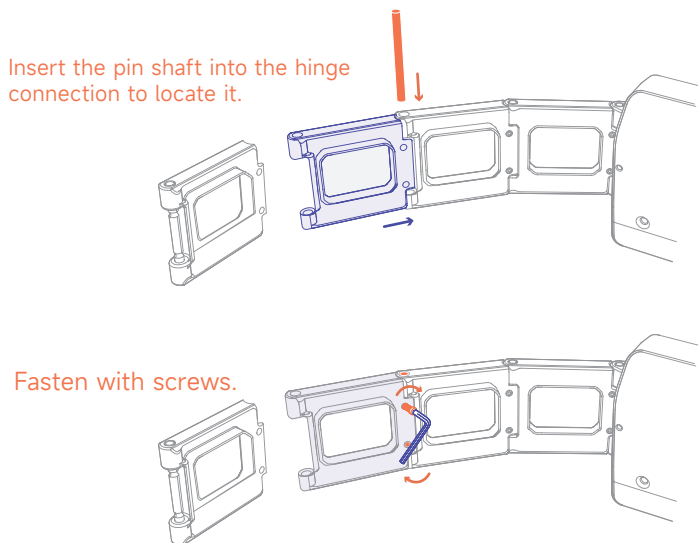


Separate



e. To increase the number of hinge sections:

Align the included Waist Hinge Extension with the existing hinge interface, insert the pivot pin to position the hinge, then insert the screws into the corresponding screw holes on both sides and tighten clockwise with the screwdriver until secure.



f. To reduce the number of hinge sections:

Follow steps c–d to remove the excess hinge section(s), then align the remaining hinge interfaces, insert the pivot pin, and tighten the screws to secure the connection.

Hinge Corresponding Waist Range

Number of Waist Hinge Extensions (Each Side)	Maximum Waist Circumference Range	Optimal Waist Circumference Range (Recommended)
4 on each side	25.6-47 in(65-120cm)	25.6-35.4 in(65-90cm)
5 on each side	29.5-51 in(75-130cm)	35.4-43.3 in(90-110cm)
6 on each side	33.5-55 in(85-140cm)	43.3-47.2 in(110-120cm)
7 on each side	37.5-59 in(95-150cm)	47.2-59.1 in(120-150cm)



NOTICE

- The factory default configuration is five (5) hinge sections on each side.
- A minimum of four (4) hinge sections must be retained on each side and must not be further reduced.
- During adjustment, the number of hinge sections must remain symmetrical on both sides.
- If one hinge section is added or removed on the left side, the same adjustment must be made on the right side to maintain balance and operational stability.
- Handle all components carefully during adjustment to avoid scratching the Exo-Belt or hinge surfaces.
- Tighten screws until secure only; do not overtighten, as this may damage the threads.
- After completing the adjustment, it is recommended to try on the Exo-Belt again to confirm proper waist fit, correct hip joint alignment with the specified hinge position, and absence of looseness before formal use.

Support Harness Installation (Optional)

NOTICE

The Support Harness is an optional accessory and not included as standard configuration.

- Attach the front and rear harness clips to the corresponding attachment rings on the Exo-Belt
- The Support Harness is not mandatory and may be used as needed
- Recommended for users with higher body weight or larger waist circumference

H Module Leg Strap Adjustment

WARNING

Leg Straps that are too loose or too tight interfere with proper force transmission between the device and your body. Improper strap fit may cause device displacement, abnormal assist force, gait instability, or falls.

To avoid:

- Ensure Leg Straps are correctly adjusted and securely fastened before powering on.
- Do not adjust or replace Leg Straps while the device is powered on or in operation.

Structure Description

The **Leg Strap** consists of the following two components:

- **ETIE Leg Strap Assembly** (with ETIE Dial Fastener)
- **Extension Strap**



ETIE Leg Strap Assembly
(with ETIE Dial Fastener)

Extension Strap

The Extension Strap is available in three sizes: **S / M / L**

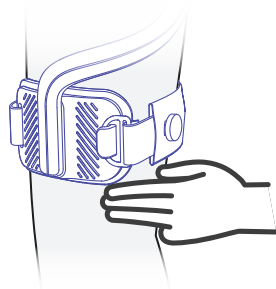
- **Size M:** Factory-installed on the Leg Strap Assembly by default
- **Size S & Size L:** Included in the package and stored in the product box

Wearing and Adjustment Criteria

Before adjusting the Leg Strap, ensure that the H Modules are fully installed and that the device is **completely powered off**.

Correct wearing and adjustment must meet the following conditions:

- The Thigh Plate must fit closely against the front of the thigh
- The lower edge of the Thigh Plate must be positioned **at least three finger widths above the knee**
- The Leg Strap must wrap fully around the thigh with **no visible twisting or folding**



Leg Strap Fastening Procedure

- Wrap the Leg Strap once around the thigh.
- Pull the end of the Leg Strap and hook the D-Ring onto the fixed hook on the **Thigh Plate**.
- If the strap length is insufficient, **do not force it**. Replace the Extension Strap with **Size L**.
- Press down on the **ETIE Dial Fastener** on the Leg Strap.
- Rotate the dial **clockwise** to gradually tighten the strap.
- Adjust until the Leg Strap fits snugly around the thigh, is secure, and provides stability **without causing noticeable pressure or discomfort**.

Extension Strap Size Selection and Replacement Recommendations

- If the strap length is insufficient and the D-Ring cannot be hooked properly → **replace with a Size L Extension Strap**
- If the strap cannot fit closely after tightening, or there is excessive remaining strap length → **replace with a Size S Extension Strap**

It is recommended to perform a **short standing test** after initial wearing or after replacing the Extension Strap to confirm that there is no looseness or discomfort.

Extension Strap Replacement Procedure

⚠ NOTICE

Before replacing the **Extension Strap**, ensure that the device is **completely powered off** and **removed from the body**.

Follow the steps below:

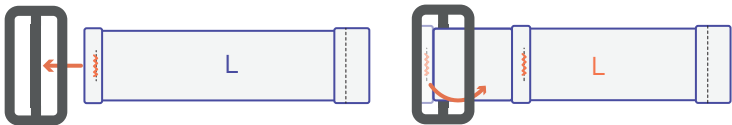
- a. As illustrated, remove the current Extension Strap from the ladder lock buckle.



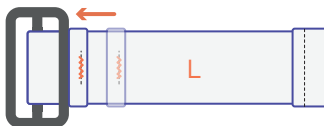
- b. Take out the required **Size S / L Extension Strap**.



- c. Following the illustrated threading path, re-thread the Extension Strap through the ladder lock buckle.



- d. Pull the Extension Strap tight to ensure it is **securely fastened** and **does not slip**.

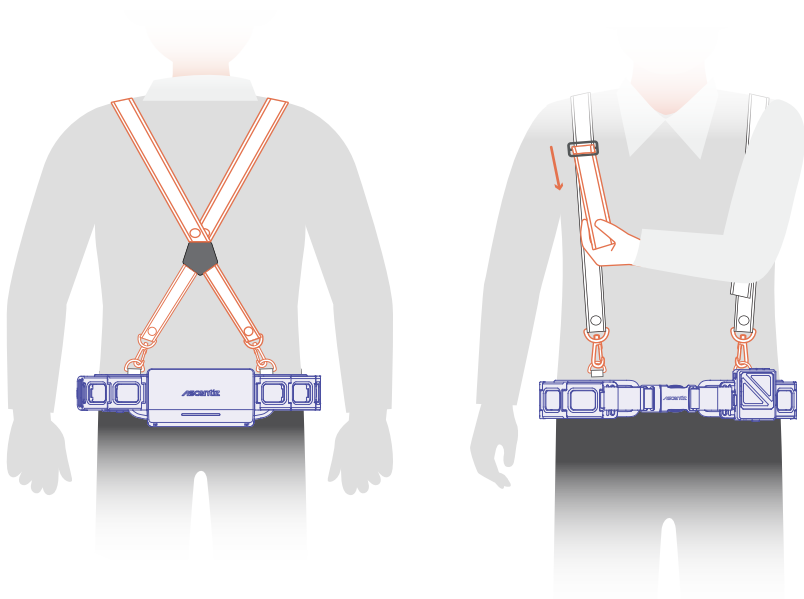


Wearing Procedure

1. Support Harness Wearing (Optional)

If the **Support Harness** is used, first place the harness over both shoulders so that the device naturally hangs against the back.

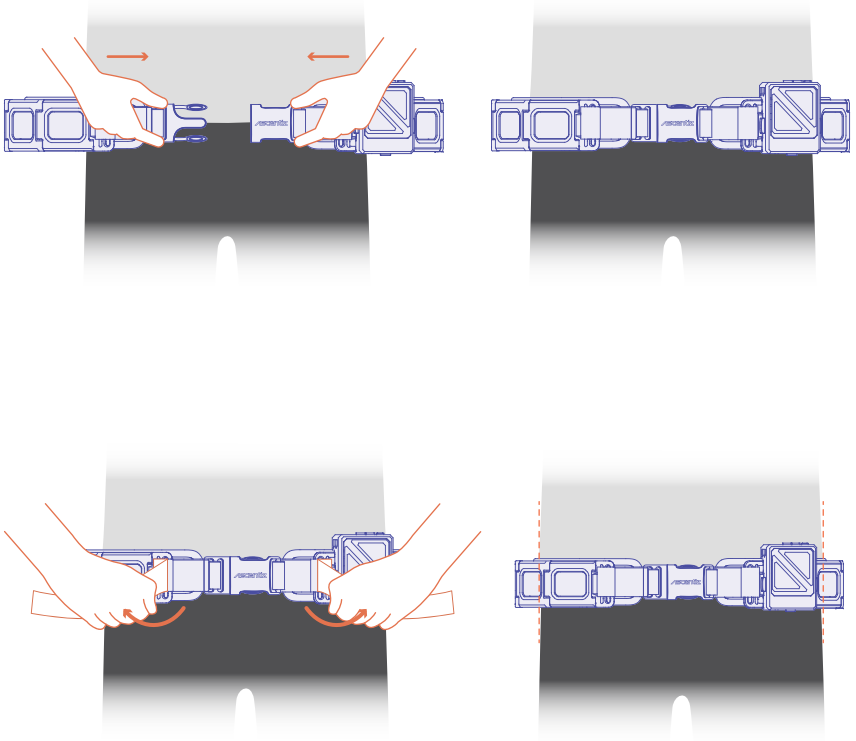
Adjust the length using the harness adjustment buckles to ensure that the **Exo-Belt** fits accurately around the waist and remains level on both sides.



2. Exo-Belt Wearing and Securing

Fasten the front **Belt Buckle** of the Exo-Belt, ensuring that the buckle is positioned at the center of the waist.

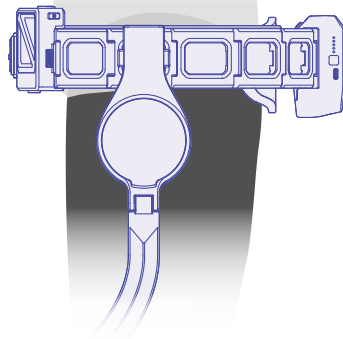
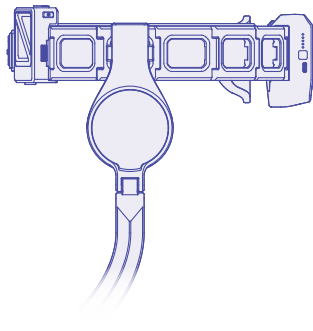
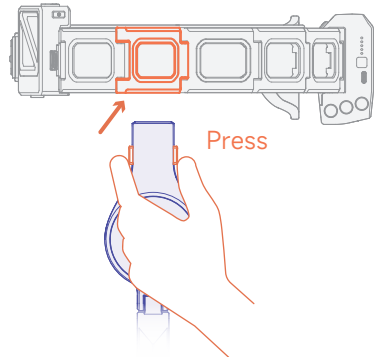
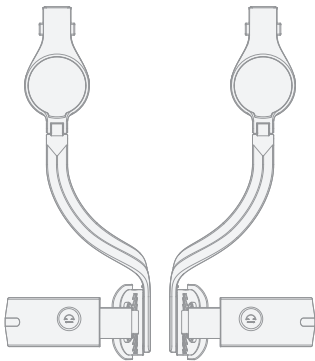
Pull and tighten the straps on both sides of the buckle to adjust the Exo-Belt until it fits snugly around the waist, with no looseness and a comfortable fit.



3. H Module Installation and Positioning

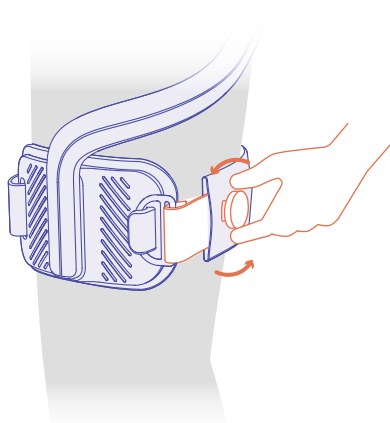
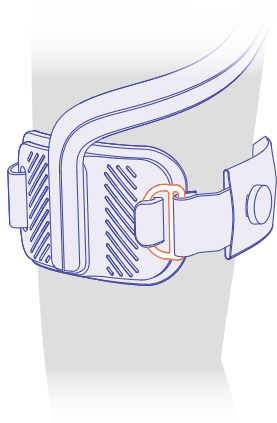
Take the left and right **H Modules**, press the **Quick-Release Button** on each module, and attach them to the corresponding belt attachment points on the outer sides of the thighs.

During installation, ensure that each H Module is installed specifically on the 2nd front Waist Hinge Extension of the **Exo-Belt**, corresponding to the hip joint position.



4. H Module Leg Fixation

Fasten the **Leg Straps** of the H Modules. Press and rotate the adjustment dials clockwise until the straps fit snugly around the thighs, providing secure fixation **without causing pressure or discomfort**.



6

POWERING ON, CALIBRATION & STARTUP SAFETY

1. Press and hold the Power Button for 2 seconds until the five LED indicators on the control box illuminate sequentially.
2. After powering on, remain stationary for 1 second while the system performs an automatic self-check.
3. If the self-check is successful, the device automatically enters **Ease Mode at Assist Level 1**, and the LED indicators turn solid green.
4. If the self-check fails, all five LED indicators change to a slow flashing yellow pattern. In this case, check whether the leg straps and waist belt are properly worn, then single-press the Power Button to restart the self-check.
5. Once the device is powered on and operating normally, open the **Ascentiz App** on your mobile phone, enable Bluetooth, bring the phone close to the device, and connect to the device through the app.

7

USING THE EXOSKELETON

 Mode Switching

The Ascentiz Exoskeleton is equipped with multiple **Assist Modes**, allowing users to select the appropriate mode according to daily activities, work scenarios, and usage needs, in order to achieve an optimal balance between assist performance and battery life.

 NOTICE

This product features an **intelligent motion scenario recognition function**, which automatically identifies the user's current activity and fine-tunes assist parameters accordingly.

This function is enabled by default and can be manually disabled via the mobile app. All Assist Modes are tools for daily/work assistance only. For rehabilitation use or any health condition, consult a physician first (SUG §1.2).

Assist Mode switching is indicated by changes in the **color of the Assist Level LED Indicators**.

Press the Function Button to cycle through the following three modes:

- **Ease Mode (Green):** Provides adjustable assistance for daily activities
- **ACC Mode (Blue):** Uses intelligent traction to help propel walking steps forward
- **Train Mode (Orange):** Provides resistance for fitness and strength training
- Press the Power Button briefly to switch between **Pause** and **Assist** states.
- **Pause State:**

When assistance is not needed, briefly press the Power Button to enter the Pause state to extend battery life.

Press the Power Button briefly again to resume assistance.

In the pause state, the LED indicators turn yellow and switch to a breathing light pattern.

Assist Level Adjustment

Briefly press the Increase Level Button(+) or Decrease Level Button(-) on the Control Box to raise or lower the assist intensity.

- Press the Increase Level Button(+) once to increase the assist level by one step
- Press the Decrease Level Button(-) once to decrease the assist level by one step

It is recommended to start with a lower assist level and gradually adjust based on comfort and activity requirements after becoming familiar with the device.

CAUTION

Adjusting the assist level while walking causes an immediate change in assist force mid-stride. Sudden changes in assistance during movement may cause loss of balance or falls.

Adjust assist levels only while standing still on flat, stable ground.

The color of the Assist Level LED Indicators corresponds to the active Assist Mode

Assist Mode	Assist Level	LED Status	LED Indicator Description
Ease	Level 1		LED1 solid on
	Level 2		LED1-LED2 solid on
	Level 3		LED1-LED3 solid on
	Level 4		LED1-LED4 solid on
	Level 5		LED1-LED5 solid on
ACC	Level 1		LED1 solid on
	Level 2		LED1-LED2 solid on
	Level 3		LED1-LED3 solid on
	Level 4		LED1-LED4 solid on
	Level 5		LED1-LED5 solid on
Train	Level 1		LED1 solid on
	Level 2		LED1-LED2 solid on
	Level 3		LED1-LED3 solid on
	Level 4		LED1-LED4 solid on
	Level 5		LED1-LED5 solid on

Powering Off the Device

After use, press and hold the **Power Button** for **2 seconds**.

The **LED Indicators** will turn off sequentially.

Other LED Indications

For detailed fault information, refer to <Troubleshooting>.

Status	LED Status	LED Indicator Description
Wear Protection /Module Connection Error Alert		LED1-LED5 YELLOW slow flashing
System Fault		LED1-LED5 RED slow flashing

Device Removal Procedure

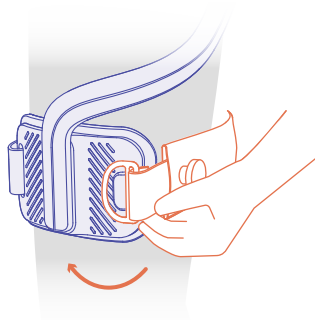
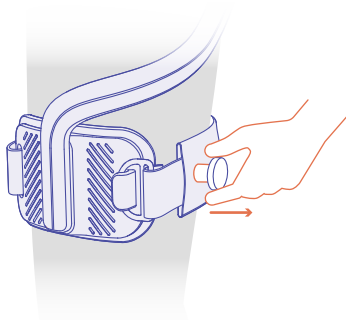
WARNING

Before removing the device, be sure to completely power off the device.

Do not perform any removal or detachment operations while the device is powered on or in operation.

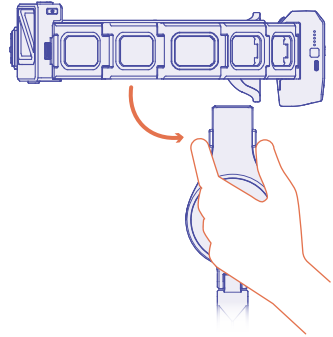
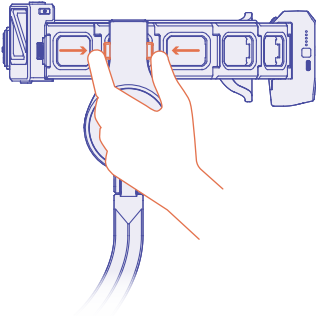
Left and Right Leg Straps

Pull the adjustment knobs of the leg straps outward, gently lift and pull to loosen the leg straps, then remove the straps.



H Module Removal

Press the quick-release latch buttons of the H module, and remove the left and right hip modules from the exoskeleton waist belt.

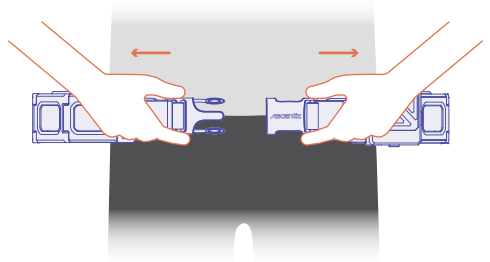
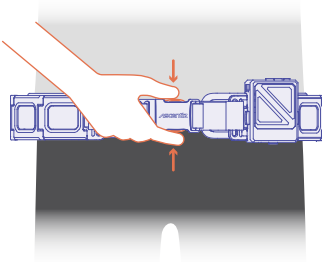


⚠ NOTICE

When replacement, storage, or maintenance is not required, the H module may remain installed.

Exo-Belt Removal

Press the exo-belt buckle to release it. After unfastening the exo-belt, remove the shoulder straps to complete device removal.



WildFlex Kit Replacement

- Before removing or replacing the WildFlex Kit, the device must be completely powered off and removed from the body.
- Do not perform any WildFlex Kit operations while the device is powered on, in operation, or being worn.
- The complete WildFlex Kit is shown in the figure below. It includes the Rear Support Pad and the Left / Right Lateral Stability Pads. These components are primarily used to improve wearing comfort and stability and are all designed to be removable.
- The Rear Support Pad and the Left / Right Lateral Stability Pads are secured to the inner side of the exoskeleton waist belt using hook-and-loop fasteners.
- Gently lift the pads along the edges to remove them from the waist belt.
- When replacing or reinstalling the pads, ensure that they are properly aligned, smoothly attached, and fully engaged with the hook-and-loop areas to prevent lifting or misalignment.
- The removed pads support machine washing or hand washing. For specific cleaning and maintenance methods, please refer to: <Section 9.2 WildFlex Kit Maintenance>.

NOTICE

- Do not reinstall or use the pads until they are completely dry.
- Do not use the device if any pad is missing, improperly installed, or incorrectly positioned.

8

BATTERY, CHARGING & ELECTRICAL OPERATION

Battery hazard warnings, charging rules, moisture protection, and modification prohibitions are defined in **SUG §3**. The steps below cover operation only.

Battery Installation and Removal

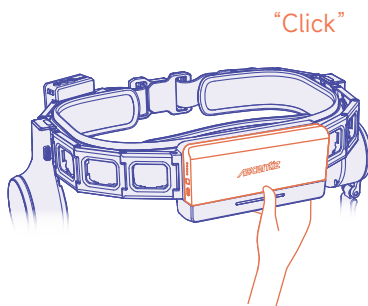
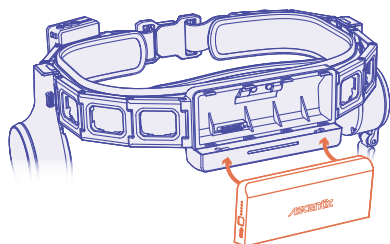
WARNING

Before installing or removing the battery, the device must be completely powered off and disconnected from the charging power source.

Do not operate the battery while the device is powered on, in operation, or charging.

Battery Installation

1. As shown in the figure, slightly tilt the battery and align it with the battery compartment located at the rear of the exoskeleton waist belt, then insert it.
2. Push the upper edge of the battery inward until a clear “click” sound is heard, indicating that the battery is correctly locked in place.
3. After installation, gently pull the battery to confirm that it is securely fixed.

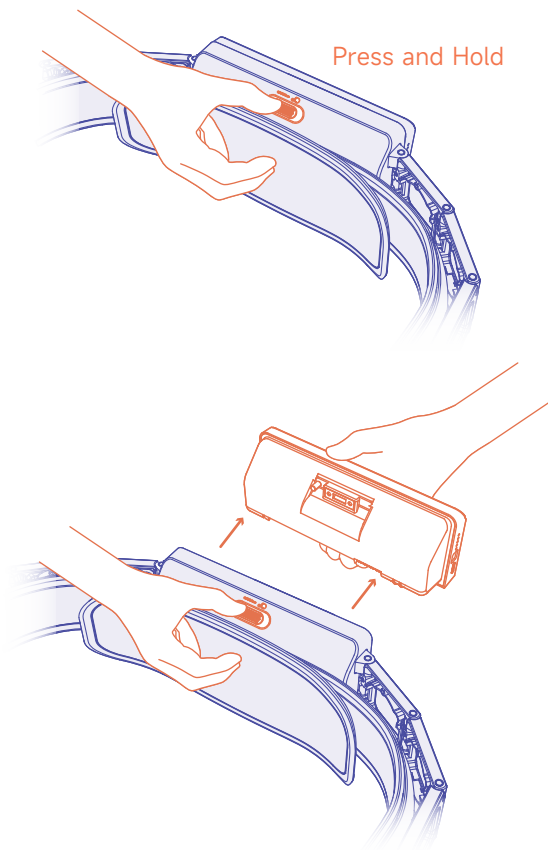


NOTICE

To conserve power, the battery will automatically enter sleep mode if left on the belt for a long time. Lightly press the power button on the battery to turn it on before your next use.

Battery Removal

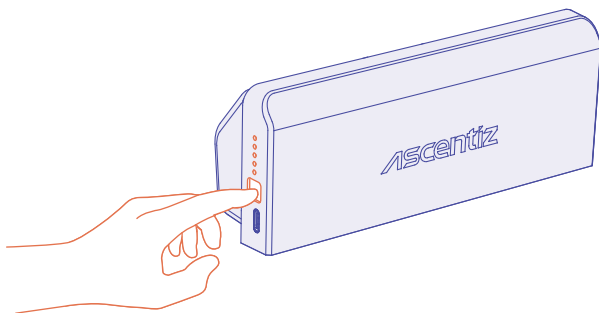
1. As shown in the figure, press and hold the battery release button.
2. While in the unlocked state, steadily remove the battery outward, avoiding excessive force or twisting.
3. After removal is complete, release the unlock button.



Battery Level Check

Method 1: Checking the Battery Level via the Battery Unit

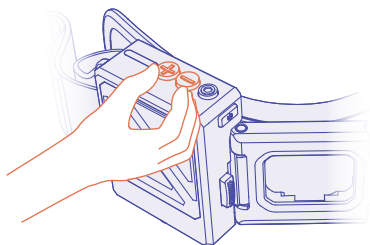
- Remove the battery from the device / packaging box.
- Single-press the power button on the battery.
- The LED indicators on the side of the battery will light up in sequence, showing the current battery level.
- The battery level indication will be displayed for approximately 5 seconds and will then automatically turn off.



Battery Level Range	LED Status	LED Indicator
80%-100%	○ ○ ○ ○ ○	LED1-LED5 solid white
60%-80%	○ ○ ○ ○ ●	LED1-LED4 solid white
40%-60%	○ ○ ○ ● ●	LED1-LED3 solid white
20%-40%	○ ○ ● ● ●	LED1-LED2 solid white
0%-20%	○ ● ● ● ●	LED1 solid white

Method 2: Checking the Battery Level via the Control Box

- Simultaneously short-press the up-level button and down-level button on the control box.
- The LED indicators on the control box will display the current battery level.
- The battery level indication will be displayed for approximately 3 seconds, and will then automatically return to the original LED display state.



Battery Level Range	LED Status	LED Indicator
80%-100%	○ ○ ○ ○ ○	LED1-LED5 solid white
60%-80%	○ ○ ○ ○ ●	LED1-LED4 solid white
40%-60%	○ ○ ○ ● ●	LED1-LED3 solid white
20%-40%	○ ○ ● ● ●	LED1-LED2 solid white
10%-20%	○ ● ● ● ●	LED1 solid white
Low battery <10%	💡 ● ● ● ● ●	LED1 slow flashing yellow
Low battery <3%	💡 ● ● ● ● ●	LED1 slow flashing red

NOTICE

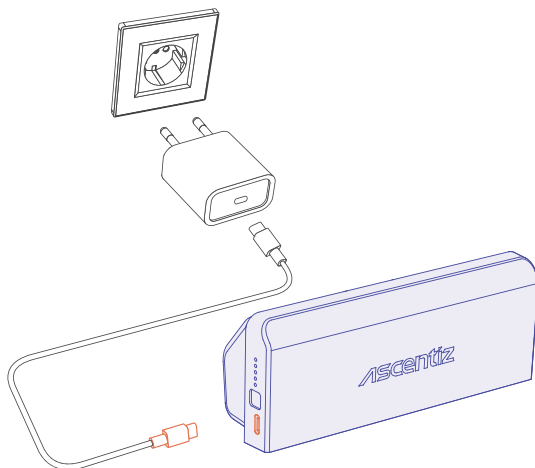
- The battery level indication is for status reference only and does not affect the current operating mode or level setting.
- When yellow or red flashing indications appear, it is recommended to charge the device as soon as possible to avoid automatic shutdown.

Battery Charging

- Charge the battery only with a certified Type-C power adapter compliant with the USB Power Delivery (PD) protocol. A standard Type-C to Type-C charging cable is recommended.
- Before charging, remove the battery from the device.

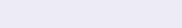
Charging Steps

1. Take the charging cable out of the package box, connect one end of the cable to your own Type-C charger (charger not included in package).
2. Remove the battery from the device or storage case, and connect the other end of the charging cable to the battery charging port.
3. Plug your Type-C charger into a household AC power outlet to start charging.



Charging Status Indicator Description

- The battery uses LED indicators to display the charging status. Each LED indicator represents approximately 20% battery capacity.
- Illuminated indicators indicate that the battery is charging.
- When LED1-LED5 are all solid on, the battery is fully charged.
- After charging is complete, promptly disconnect the power supply and unplug the charging cable.

Battery Level Range	LED Status	LED Indicator
100%		LED1-LED5 solid white
80%-100%		LED1-LED5: White, flowing illumination
60%-80%		LED1-LED4: White, flowing illumination
40%-60%		LED1-LED3: White, flowing illumination
20%-40%		LED1-LED2: White, flowing illumination
0%-20%		LED1 slow flashing white

Battery Specifications

Removable rechargeable lithium-ion battery, for powering the Ascentiz exoskeleton only.

Full battery safety warnings, prohibited actions, and disposal: [SUG §3](#) and [§7](#).

9

CLEANING, CARE & ROUTINE MAINTENANCE SAFETY

Daily Cleaning and Maintenance

Wipe with a soft dry or slightly damp cloth; use neutral detergent for stubborn stains; dry fully before use. Do not use high-pressure jets, immerse the device, or let liquid enter buttons/ports.

WildFlex Kit Maintenance

Inspect belt/straps/fabric regularly for wear, looseness, or aging; replace if damaged or stretched. Clean after extended use with neutral detergent; machine wash cold in a laundry bag on a gentle cycle; air dry. Do not bleach, use hot water, tumble dry, iron, or expose to high heat/direct sun.

Periodic Inspection

- Check whether buttons are responsive
- Check whether the LED indicators function properly
- Check for loose screws on the device
- Check whether straps and fastening structures are secure
- Check the battery level every 3 months. If the battery level is too low, recharge promptly to prevent permanent damage caused by over-discharge due to self-discharge.

10

**STORAGE, TRANSPORT
& TRAVEL WARNINGS** **Operating Environment** **WARNING.**

Operating outside the rated range (-20 °C to 60 °C) or exposing the device to rain, moisture, or wet surfaces may cause unexpected malfunction or shutdown and lead to falls. Do not use in heavy rain, standing water, or out-of-range temperatures. If exposed to moisture or extreme heat, power off and let it dry/cool fully before use.

Full environmental and scenario limits: SUG §6 and §1.3.5.

 Transportation & Motor Vehicles **WARNING.**

Power off the device completely before entering any motor vehicle. Never activate assistance while operating or riding in any vehicle or machinery. As a passenger, keep the device off or paused while the vehicle is in motion.

Full restrictions: SUG §1.3.2 and §1.3.4.

 Battery Storage and Transportation

Power off and remove the battery. Store in a dry, ventilated place away from sun, heat, and humidity; avoid compression. Store the battery at ~50–60% charge in a cool, dry place; protect from impact during transport.

11

TROUBLESHOOTING

 Troubleshooting

Fault Code	Fault Description	Solution
E001	Cannot communicate with Left H Module.	Check module installation (fully seated, correct side). Restart device. Contact support if unresolved.
E002	Cannot communicate with Right H Module.	Check module installation. Restart device. Contact support if unresolved.
E003	Cannot communicate with Left K Module.	Check module installation. Restart device. Contact support if unresolved.
E004	Cannot communicate with Right K Module.	Check module installation. Restart device. Contact support if unresolved.
E005	IMU data unavailable.	Restart device while keeping it still. Avoid vibration. Contact support if needed.
E006	Air pressure data unavailable.	Avoid rapid pressure changes. Restart device. Contact support if needed.
E007	Battery status unavailable.	Reinstall battery securely. Clean contacts. Replace battery or contact support if needed.
E008	Data storage read/write failure.	Restart device. Contact support if issue persists.
E009	Device not communicating with control box.	Check cable connection. Restart device. Contact support if needed.
E010	Device may not be worn correctly.	Refit device properly. Restart. Contact support if issue continues.

Fault Code	Fault Description	Solution
E011	Left H Module temperature too high.	Stop use. Power off and allow to cool. Contact support if repeated.
E012	Right H Module temperature too high.	Stop use. Power off and allow to cool. Contact support if repeated.
E013	Left K Module temperature too high.	Stop use. Power off and allow to cool. Contact support if repeated.
E014	Right K Module temperature too high.	Stop use. Power off and allow to cool. Contact support if repeated.
E015	Left H Module speed exceeded safety limit.	Stop movement. Avoid high-impact use. Restart. Contact support if repeated.
E016	Right H Module speed exceeded safety limit.	Stop movement. Avoid high-impact use. Restart. Contact support if repeated.
E017	Left K Module speed exceeded safety limit.	Stop movement. Avoid high-impact use. Restart. Contact support if repeated.
E018	Right K Module speed exceeded safety limit.	Stop movement. Avoid high-impact use. Restart. Contact support if repeated.
E019	Left K Module encoder data error.	Stop use. Check for blockage or loose wiring. Contact support if repeated.
E020	Right K Module encoder data error.	Stop use. Check for blockage or loose wiring. Contact support if repeated.
E021	H/K Module type not recognized.	Verify correct module. Restart device. Contact support if needed.
E022	Leg loosened. Motor overspeed detected and impacted limit position.	Stop use immediately and secure the device firmly. Avoid high-impact use such as downhill walking, jumping, or rapid leg swings. Restart device. If issue persists, contact support.
E023	Internal joint motor fault, unable to operate normally.	Stop use immediately and power off the device. Check for joint jamming, loose wiring or overheating, let it stand for 5 minutes then restart. Restart device. If issue persists, contact support.

12

**MODIFICATIONS, COMPLIANCE
& DISPOSAL**

Do not modify. Unauthorized changes to software, firmware, or hardware can disable safety features, cause unpredictable behavior, void the warranty, and may violate FCC rules. All service must be performed by authorized Ascentiz technicians. (See SUG §3, §8.)

Disposal & recycling. Do not dispose of the device or battery as household waste; recycle the Li-ion battery at an authorized e-waste facility per local regulations. (Full procedures: SUG §7.)

Regulatory compliance. For full FCC, EU, and ISED statements, refer to the [Ascentiz Safe Use Guidelines](#).

13

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14

IF YOU HAVE A PROBLEM

If you encounter issues not covered in this manual or need repair service, please contact Ascentiz Customer Support.

Contact Information:

Website: <https://ascentizexo.com/>

Email: service@ascentizexo.com

Please have your device Serial Number (SN) ready when contacting support.

For warranty coverage, limitations of liability, and your legal rights, please refer to the Limited Warranty Card included in the package or visit the website for full warranty terms and conditions:

ascentizexo.com/pages/warranty-policy