

Patient safety



WARNING: Do not use or operate the Indego or any of its accessories in any way not described in this manual.

Indications for use

The Parker HMC Indego is a powered lower limb orthosis which fits to the lower limbs and trunk of the user. Indego is intended to enable individuals with lower-limb weakness or paralysis to perform ambulatory functions in a clinical or personal use setting with the assistance of a specially trained clinician or companion. Only individuals who participate in and successfully pass the clinical training program requirements are allowed to operate or assist in the use of Indego. The Indego is not intended for sports or stair climbing.

Contraindications for use

The contraindications listed here are not exhaustive. The decision as to whether a user is suitable for Indego use must come as written approval from their physician. As part of this medical clearance process, the physician must evaluate the possible risks of Indego use against the potential benefits gained from it.

- Cognitive impairments resulting in inability to follow directions
- Diminished standing tolerance (caused by, e.g. orthostatic hypotension)
- Lower limb prosthesis
- Passive joint range of motion that cannot achieve at least neutral position at hips, knees and ankles
- Poor bone health that places the user at an increased risk for fracture during ambulation
- Poor skin integrity in areas in contact with the device
- Severe vascular disorders of the lower limbs (e.g. Unresolved deep vein thrombosis)
- Uncontrolled autonomic dysreflexia
- Uncontrolled hypertension or hypotension
- Visual impairments which would make ambulation unsafe
- Any condition which in the opinion of physician medical doctor prevents the user from using the device

General warnings

The following are general warnings associated with use of the Indego and its accessories.



WARNING: If device or accessory behavior not as described in this manual is detected at any time, immediately cease use of the device and contact the Helpline for assistance.

Required Training

Clinical staff training

Indego Instructors must have extensive experience with Indego and are certified to conduct all aspects of the *Indego Specialist Training Course*, and the *Indego Trainer Clinic Course*.

Indego Trainers may train other clinical personnel to become **Indego Specialists**. Indego Trainers must complete an *Indego Trainer Clinic Course* provided by a certified Indego Instructor.

Indego Specialists may evaluate persons for appropriate use and fit patients with component sizes to provide mobility or therapeutic intervention in a clinical setting. Specialists must complete the *Indego Specialist Training Course* provided by a certified **Indego Trainer** or **Indego Instructor**.

Contact Parker HMC if you wish to receive or update your training.

Device warnings

Autonomic dysreflexia/Autonomic hyperreflexia

Autonomic dysreflexia (also called autonomic hyperreflexia) is a serious medical condition associated with spinal cord injury at or above the sixth thoracic vertebral level (T6 and higher) and can affect individuals with complete or incomplete injuries. Common signs include sudden increase in blood pressure, severe headache, excessive sweating, goosebumps, blurred vision, flushed skin, nasal congestion, slow pulse, tightness in chest, and anxiety. Autonomic dysreflexia is considered a medical emergency requiring immediate medical attention.

If symptoms of autonomic dysreflexia occur while using the Indego, immediately cease use and remove the device. The user should sit up or raise head and remain upright, empty bowel or bladder, loosen or remove tight clothing, and monitor blood pressure until normal. If symptoms persist, seek medical attention immediately.

Users with uncontrolled autonomic dysreflexia are not permitted to use the Indego.

Clothing requirements

Patients must wear appropriate clothing while using the Indego Therapy to reduce the risk of skin irritation and related complications. Any skin area in constant contact with the device during use must be covered by clothing, including feet. Long trousers made of soft fabric should be worn. Shorts or cropped trousers are not recommended. Very loose or thick fabric garments may prevent proper fit.

Patients must wear shoes with removable insoles for proper care of skin and fit of the ankle foot orthosis (AFO). Shoes should have flat soles, a stiff heel counter, and must fully enclose the foot. Non-slip soles are recommended.

Care must be taken with the placement of urinary catheter leg bags and tubing to reduce the risk of autonomic dysreflexia or similar events.

Exposure to magnetic fields and other forms of radiation

Patients may not receive any X-ray, computed tomography (CT) or magnetic resonance imaging (MRI) scan, diathermy treatment or other form of intentional radiation exposure while wearing the Indego Therapy. The device must be powered off and removed. The device should never be brought into proximity with MRI equipment. The electromagnetic fields and radiation generated by these systems could render part of the Indego non-functional or damage mechanical components. If the Indego is accidentally exposed to a high-strength (MRI) magnetic field, cease use and contact the Helpline.



WARNING: MR unsafe. Do not use the Indego or accessories in areas of strong magnetic or electrical fields.

Close contact with other devices that emit electromagnetic energy such as RFID or electromagnetic security systems should be avoided.

Skin integrity

Patient skin integrity should be assessed before, during and after Indego use. If redness, pressure sores or other indication of contact injury are identified, discontinue use of the device until the injury heals. Notify a physician if the injury fails to heal.

Stability aids

For users with lower-limb weakness or paralysis, the Indego is intended to be used in conjunction with platform walkers, rolling walkers or forearm crutches. A platform walker is recommended for users with upper-limb weakness or paralysis. Users with hemiparesis may also use a hemi walker, quad or single point cane. Users should not carry items by hand while using a stability aid with the Indego.

Walking environments

The Indego can be safely used on indoor and outdoor surfaces including carpet, hard floors, level grass, pavement, sidewalks, curb cutouts with a grade equal to or less than 8° and ramps with a grade equal to or less than 5°. The Indego should not be used on slippery or wet surfaces. Uneven or unstable surfaces such as gravel or sand must be avoided.

The Indego should never be used to walk on a treadmill, moving walkway or escalator. The device must be powered off after a user enters any vehicle. The Indego must always be placed in **{Standby}** after entering an elevator.

Walking speeds

The maximum walking speed a user can achieve is largely dependent on the physical capabilities of the user and their familiarity with the Indego. In a clinical trial with 40 people with spinal cord injury, users achieved speeds between 0.19 and 0.59 m/s on paved surfaces after 27 hours of device use over 8 weeks. Users may not be able to cross a street in the time allotted by crosswalk signals.

Accessory warnings

Recharging the handheld controller (Apple iPod touch)

The Indego handheld controller should never be recharged or plugged into another device while using the Indego. Refer to the iPod touch user guide for instructions on use (<https://www.apple.com/support/ipodtouch/>).

Recharging the Indego

The Indego must be powered off before recharging the battery. If the Indego is on when the charger is plugged in, the Indego will disable itself and the front LEDs will turn red to show the device should be powered off.

General cautions

The following are general cautions associated with use of the Indego and its accessories.

Device cautions

Access to the device, handheld controller, and other accessories

Do not allow children or pets access to the Indego or to the handheld controller/Indego mobile app. Damage to the device or unintended changes to settings could occur.

Avoid extreme use and storage conditions

Exposing the Indego to extreme temperatures or inclement weather may damage the device and impair its safety and effectivity. The Indego should not be exposed to temperatures above 88°F (31°C) or below 32°F (0°C) during use, or to temperatures above 122°F (50°C) or below -4°F (-20°C) during storage or transport, as this may damage the device.

Do not leave the Indego in a parked car or another high temperature environment.

While the Indego may be safely used outdoors, avoid exposure to rain, snow, and ice as water may migrate into and damage the device electronics.

Avoid spills and immersion

Exposing the Indego to liquid spills or immersion may allow liquid to migrate within the device housings and cause damage to the internal components.

Intended use

Do not use or attempt to use the Indego or its accessories for any purpose not described in the indications for use.

Prescription device

Caution: Federal (United States) law restricts this device to sale by or on the order of a physician.

RF communications

The Indego sends and receives information to and from the handheld controller over a Bluetooth connection operating within the 2.4 GHz ISM band. Other devices (such as cell phones, wireless networks, other Bluetooth devices) operating on a similar frequency may prevent communication between the Indego and the handheld controller. This interference will not cause any incorrect data or commands to be sent and will not cause harm to the Indego or controller. Moving away from or turning off these other devices may allow communication.

The Indego uses a Bluetooth® smart (Low Energy) module compliant with the Bluetooth smart standard. The Indego handheld controller is an Apple iPod touch with a built-in Bluetooth module. All communications between the controller and device are handled by these components. The wireless Bluetooth communication used by the Indego system serves four functions:

- 1) The device is enabled by beginning a session through the Indego mobile app,
- 2) Settings changes are made within the mobile app and then transmitted to the Indego,
- 3) Helpful session information on the current status of the Indego is received and displayed by the app during a session, and
- 4) Diagnostic data on the performance of the Indego can be transmitted to the app and (with an active Wi-Fi connection) uploaded for use in troubleshooting device performance.



Caution: Electronic equipment operating in the same frequency band used by the Bluetooth® smart module may interfere with the reception of commands from the controller by the Indego. These issues can typically be solved by reorienting the controller, disabling the interfering devices, or decreasing the distance between the controller and the device.

Vital signs monitoring

Variability in blood pressure during use may result from position changes, such as going from sitting to standing, and/or as a response to the physical activity of walking.

Patient blood pressure and heart rate must be measured before, during, and after each Indego use session.

Abnormalities in patient blood pressure or heart rate should be reported to the patient's primary care physician and use discontinued if the physician deems continued use to be hazardous to the patient's health.

Accessory cautions

Charger and power supply cautions

Avoid extreme temperatures when charging

Avoid exposing the charger to extreme temperatures during use. Device charging must occur between 41°F (5°C) and 88°F (31°C).

Avoid spills or immersion on charger

Exposing the Indego charger to liquid may damage the internal components. Do not get the charger or power supply wet.

Electric screwdriver ("Driver")

The electric screwdriver and bit(s) (referred to as "driver") provided with the device are the **only** allowed method of adjusting the Indego Therapy device components.

Use and care of the driver should follow the driver instructions included with the device.

Indoor use only

The charger is intended for indoor use only, do not use the charge outdoors, damage to the charger or device may occur.

Power supply

Only use the manufacturer supplied AC line cable, power supply, and charger to charge the Indego. Do not use any other power supply than the provided XP Power AHM100PS48C2-8.

Do not position the charger so that it is difficult to access or unplug from the AC power source.

Other (third-party) equipment

User mobility devices and stability aids including wheelchairs, rolling walkers, platform walkers, forearm crutches and canes may be used with the device. Use and care of these devices should follow their user instructions.

Emergency procedures

Shutdown and doff device

Circumstances may arise during use that require the device to be stopped or the patient be given emergency medical attention. In the event of such an emergency:

- 1 Power off the Indego by holding both power buttons down until the front LEDs change to white and then turn off.



Press and hold both power buttons

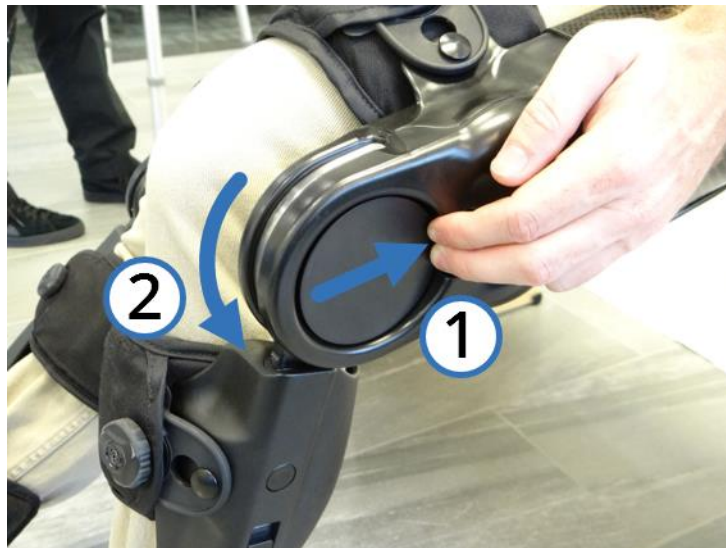


Front and back LEDs turn off



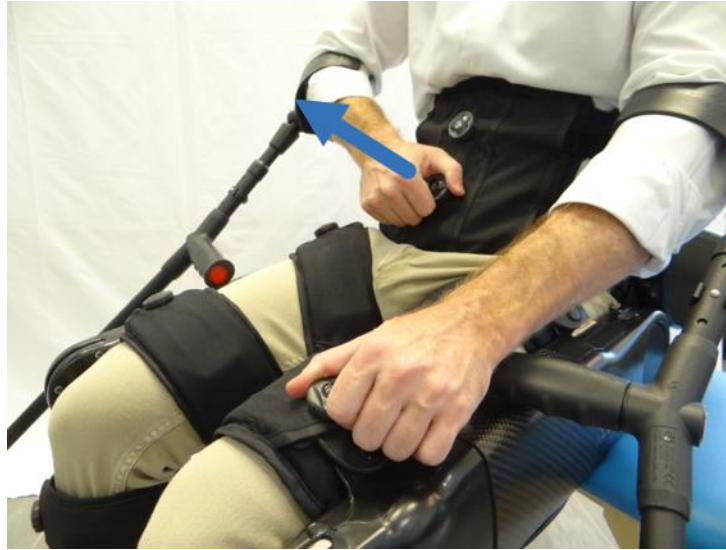
Caution: Do not perform this two button shutdown procedure if there is no emergency. Diagnostic and session data will be lost.

- 2 The Indego knees will lock while the hip joints rotate freely. The patient can then be lowered into a seated position. The knees can then be rotated while holding the brake release button on each leg.



Brake release button

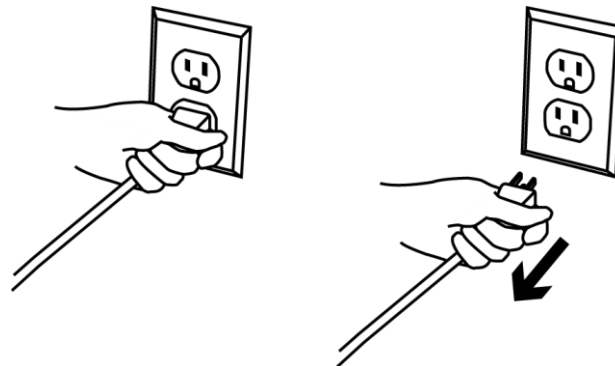
- 3 Pull up on each BOA knob to release the tension in the strapping mechanisms and unclasp the straps. The patient can then be removed from the Indego or the Indego can be taken apart and removed from the patient's body.



Boa release

Disconnecting the charger power supply

If an emergency arises while the device is charging or connected to the charger, disconnect the charger from the wall by pulling the power cable from the receptacle.



Unplug charger from AC power

Note Power loss

If the device loses power for any reason, the knee joints of the Indego lock while the hip joints rotate freely, like long-legged braces. The knee joint can be rotated (to straighten or bend the legs) by pressing the brake release button on the front of the upper leg near the knee. The patient may then be lowered into a seated position.

Regulatory information

Medical device directive

This product conforms to the requirements of council directive 93/42/EEC concerning medical devices when it bears the following CE mark of conformity:



UL Certifications

The Indego is UL certified (file number E474726) as Medical General Medical Equipment, AS TO ELECTRICAL SHOCK, FIRE AND MECHANICAL HAZARDS ONLY, when it bears the following mark:



The Indego Charger is UL certified (file number E353146) AS TO ELECTRICAL SHOCK, FIRE AND MECHANICAL HAZARDS ONLY in accordance with ANSI/AAMI ES60601-1 (2005, 3rd ed.), when it bears the following mark:



WEEE

The Waste Electrical and Electronic Equipment (WEEE) marking on the Indego applies to countries with WEEE and electronics waste regulation. This electrical and electronic equipment may not be disposed of as unsorted municipal waste. Follow all local and regional disposal requirements. Contact Parker HMC for information concerning proper disposal of your Indego.



Technical information

Powered Exoskeleton	
User weight	Up to 250 lbs. (113 kg)
Operating conditions*	32°F to 88°F (0°C to +31°C) 0% to 90% non-condensing relative humidity 78 kPa to 101 kPa
Dimensions	28.69x18.25x22.71 inches (72.8x46.3x57.6 cm)
Device weight	39 lbf (17.7 kgf)
Power rating	37.8 VDC, 25 A
Energy	159 Wh (4.9 Ah)
Operating time	4 hours
Charge time	4 hours
Range of motion	Knee 10° extension/110° flexion Hip 30° extension/110° flexion
Storage conditions	-4°F to 122°F (-20°C to +50°C) 0% to 90% non-condensing relative humidity 11.6 kPa to 101 kPa
Device expected life	5 years with proper servicing
Battery expected life	2.5 year of normal use

*If the Indego is stored outside this range, allow a 2-hour stabilizing period before using the device.

Indego Charger	
Operating conditions†	41°F to 88°F (+5°C to +31°C) 15-90% non-condensing relative humidity 70 kPa to 106 kPa
Dimensions	2.1" x 2.7" x 8.0" (5.3 cm x 6.9 cm x 20 cm)
Weight	0.6 lbs. (0.3 kg)
Input	48 VDC
Output	48 VDC, 1.5 A
Storage conditions	-13°F to 158°F (-25°C to +70°C) 0% to 90% non-condensing relative humidity 7 kPa to 106 kPa
Expected life	5 years

†Charging times will increase at elevated temperatures

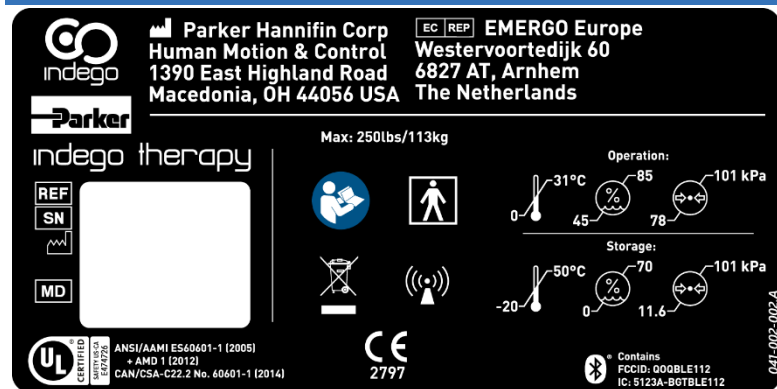
Power Supply

Manufacturer and model	XP Power AHM100PS48C2-8
Operating conditions[†]	41°F to 104°F (+5°C to +40°C) 15-90% non-condensing relative humidity 70 kPa to 106 kPa
Dimensions	6.3" x 2.5" x 1.5" (16 cm x 6.4 cm x 3.7 cm)
Weight	1.1 lbs. (0.5 kg)
Input	100-240 V~1.8 A, 50/60 Hz
Output	48 VDC, 1.5 A
Storage conditions	-40°F to 185°F (-40°C to +85°C) 5% to 95% non-condensing relative humidity 70 kPa to 106 kPa
Expected life	5 years

Safety standards

IEC 60601-1, ANSI/AAMI ES 60601-1, CAN/CSA-C22.2 No. 60601-1
IEC 60601-1-2
IEC 60601-1-6
IEC 62366

Device labels



The device label is located on the inside of the tail of the hip, under the torso pad.



Detachable component labels are on each component.



The charger label is located on the bottom of the charger.

Radiofrequency communication specifications

Description of the Bluetooth system

The Indego employs Bluetooth smart (Low Energy) technology, whose standards, licensing, and trademarks are managed by the Bluetooth Special Interest Group (SIG).

BLE is a wireless personal network communication technology which operates in the 2.400 GHz-2.4835 GHz industrial, scientific, and medical radio band, separated into 40 2-MHz wide channels. The transmitter uses digital modulation to rapidly distribute the BLE signal over these channels in a pseudorandom pattern which is known to the receiver. This Direct-Sequence Spread Spectrum (DSSS) modulation scheme reduces the likelihood of interference and interception while allowing many devices to share the same frequency band. Within a given channel, BLE employs Gaussian frequency shift modulation to transfer data at 1 Mbit/s with a maximum output power of 10 mW/MHz and a minimum 6dB bandwidth of at least 500 kHz. Data is transferred in 10-47 byte packets, each containing a 3 byte cyclic redundancy check (CRC) that is used to verify the packet contents once received. Packets which the receiver cannot verify are not acknowledged. The sender may retransmit the packet until such acknowledgement is received.

Bluetooth communication occurs between a Bluetooth Module on the Indego Device, and a Bluetooth Module located on the iOS Device which runs the Indego mobile app. The Bluetooth module contained in the Indego Device is Bluetooth SIG qualified, listed as a controller subsystem, and is compliant with the RF PHY (Radio Frequency Physical Layer), LL (Link Layer), and HCI (Host Controller Interface/Transport Layer) Profiles of Bluetooth Specification Version 4.0. The module has a transmit power of +3 dBm to -23 dBm (approximately 2 mW to 5.0 μ W) and a receive sensitivity of -85 dBm to -91 dBm (approximately 3.2 nW to .79 nW), respectively. The module complies with Federal Communications Commission (FCC) and Industry Canada (IC) Regulations, is CE qualified, and is certified by MIC Japan and KCC (Korea). The FCC ID and IC Certification number for the module may be found on the Indego Hip labeling. Details regarding the iOS Device may be found on Apple's website (<http://www.apple.com/ipod-touch/specs/>).

Quality of service

The selected Bluetooth components and the Bluetooth technology they employ should allow for reliable communication in the presence of other wireless devices and provide reasonable protection against wireless interference.

There is a possibility that other wireless equipment could delay or disrupt Bluetooth communication between the Indego Device and Indego mobile application. Such interference will not cause harm to you or the Indego as the Bluetooth connection is only required to enable the device. If Bluetooth communication is compromised, the device will continue to operate with its current settings. Note, however, that sending information to (e.g. Settings), or receiving information from (e.g. Step Count) the Indego Device will not be possible until a clear connection is reestablished. The likelihood of outside interference increases when the connection between the Indego Device and App occurs: 1) over greater distances, 2) through obstructions and 3) in the presence of other active wireless equipment.

To facilitate proper operation of the Indego's Bluetooth components, do the following:

- 1 Keep the Indego mobile app and Indego Device within 3 meters of one another.
- 2 Remove any intervening obstacles between the Indego Device and App.
- 3 Move away from or power off any wireless equipment in the vicinity.











Data security

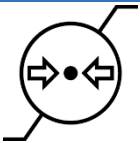




Security against malicious Indego BLE connections is provided by: 1) the limited range over which Bluetooth Low Energy communication can occur, 2) the connection requirements which must be met for that communication to occur, and 3) the device-specific (as opposed to user-specific) nature of the data which is transferred during such communication. That is, for a third party to receive, record, transmit, or otherwise affect the BLE data passing between the Indego Device and the Indego mobile app, that party (or any malicious device they might employ) would need to be within BLE

range of the Indego Device or Indego mobile app at a time when the two are disconnected, as only a single Bluetooth connection is allowed between an Indego Device and Indego mobile app at any given time. (Once connected, the Indego mobile app cannot connect to another Indego Device and the connected Indego Device cannot be connected to from other Indego mobile apps.) Should malicious wireless interaction occur at a time when these conditions are met, the only information available to the third party would be settings specific to the Indego device.

Symbols used on the device and packaging

Symbols used on the Indego system (device components and accessories).

Symbol	Standard Reference	Description
	ISO7000:2493	Catalog (part) number.
	ISO7000:2498	Serial number.
	ISO7000:3082	Manufacturer ID.
	ISO7000:2497	Date of manufacture.
	n/a	Do not dispose of this device in normal municipal waste, contact the manufacturer.
	n/a	UL certification mark and File Number (E474726).
	n/a	CE mark with notified body ID.
	IEC60417:5333	Body Floating applied part.
	AAMI/ANSI ES60601 1:2005(R)2012 +A1:2012 Annex D, Table D.2 Row 10	Mandatory: Read user manual before use.
	ISO7000:2620	Humidity limitations.

	ISO7000:2621	Atmospheric pressure limitations.
	ISO7000:0632	Temperature limitations.
	IEC60417:5140	Non-ionizing radiation; radiofrequency interference may occur in the vicinity of this device.
	n/a	Bluetooth symbol.
	n/a	Use of this device is restricted to on the order of a physician.

Guidance and manufacturer's declaration

Electromagnetic emissions

The Indego is intended for use in the electromagnetic environment specified below. The customer or the user of the Indego should assure that it is used in such an environment

Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions	Class B	The Indego is suitable for use in all establishments, including domestic establishments.
CISPR 11		Conducted emissions tests were not performed. Device is battery operated
Harmonic emissions	Not applicable	Device is battery operated
IEC 61000-3-2		
Voltage fluctuations/ flicker emissions	Not applicable	Device is battery operated
IEC 61000-3-3		


Electromagnetic immunity

The Indego is intended for use in the electromagnetic environment specified below. The customer or the user of the Indego should assure that it is used in such an environment

Immunity test	ISO 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ± 8 kV air	±6 kV contact ± 8 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines	±2 kV for power supply lines	Device is battery operated and does not have I/O cables
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Device is battery operated and does not have I/O cables
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	$<5\% U_T$ (>95% dip in U_T) for 0,5 cycle $40\% U_T$ (60% dip in U_T) for 5 cycles $70\% U_T$ (30% dip in U_T) for 25 cycles $<5\% U_T$ (>95% dip in U_T) for 5 s		Device is battery operated and does not have I/O cables.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment. NOTE Tests performed at 50 and 60Hz
NOTE U_T is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacturer's declaration – electromagnetic immunity

The Indego is intended for use in the electromagnetic environment specified below. The customer or the user of the Indego should assure that it is used in such an environment

Immunity test	ISO 60601 test level	Compliance level	Electromagnetic environment – guidance	
			<p>Portable and mobile RF communications equipment should be used no closer to any part of the Indego, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance</p>	
Conducted RF	3 V _{rms}	$[V_1] = 3 V_{rms}$	$d = \left[\frac{3.5}{V_1} \right] \sqrt{P}$	
IEC 61000-4-6	150 kHz to 80 MHz			
Radiated RF	3 V/m	$[E_1] = 3 V/m$	$d = \left[\frac{3.5}{E_1} \right] \sqrt{P}$	
IEC 61000-4-3	80 MHz to 2.5 GHz		80 MHz to 800 MHz	
			$d = \left[\frac{7}{E_1} \right] \sqrt{P}$	
			800 MHz to 2.3 GHz	
			<p>where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey^a, should be less than the compliance level in each frequency range^b.</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p>	
				

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Indego is used exceeds the applicable RF compliance level above, the Indego should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Indego

^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than $[V_1]$ V/m.

Recommended separation distances between portable and mobile RF communications equipment and the Indego

The Indego is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Indego can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Indego as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1.1667\sqrt{P}$	80 MHz to 800 MHz $d = 1.1667\sqrt{P}$	800 MHz to 2.5 GHz $d = 2.3333\sqrt{P}$
0.01	.11667	.11667	.23333
0.1	.36894	.36894	.73785
1	1.1667	1.1667	2.3333
10	3.6894	3.6894	7.3785
100	11.667	11.667	23.333

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

- NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.
- NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.