WiTouch® Pro

BLUETOOTH® TENS THERAPY

User Manual

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Made in USA

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Hollywog®

Keep Moving™

Introduction

Congratulations on your purchase of the WiTouch Pro Bluetooth® TENS Therapy device. WiTouch Pro is a pain relief wireless device incorporating Transcutaneous Electrical Nerve Stimulation (TENS) technology and Bluetooth wireless technology to specifically target back pain. The thin and flexible design perfectly contours to the back for maximum surface contact. The advanced electronics design maximizes energy use, providing over 100 30-minute treatment sessions per battery life. This device is safe, drug-free, easy to use, discreet and comfortable to wear, and most importantly allows you to control your pain to help keep you moving and maintain an active lifestyle. This innovative device can be controlled by your smartphone with the WiTouch Pro app or with the buttons on the device.

Indications for Use: To be used for temporary relief of pain associated with sore and aching muscles in the back due to strain from exercise or normal household and work activities and relief of pain of the upper and lower back associated with arthritis.

Safety

⚠ CONTRAINDICATIONS

Do not use this device if you have a cardiac pacemaker, implanted defibrillator, or other implanted metallic or electronic device, or are connected to high frequency surgical equipment. Such use could cause electric shock, burns, electrical interference, or death. It may also damage the stimulator.

⚠ WARNINGS!

- Do not allow children to swallow or ingest accessories or detachable parts (e.g., screwdriver, alkaline batteries).
- Do not use this device across or through your chest because the electrical currents introduced into the chest may cause rhythm disturbances to your heart, which may be lethal.
- Do not use this device if you are susceptible to rhythm disturbances to the heart unless under the direction of your physician.
- Do not use this device over your eyes, mouth, face, front of neck (especially in the carotid sinus), head, or across your heart because this could cause severe muscle spasms resulting in closure of your airway, difficulty in breathing, or adverse effects on heart rhythm or blood pressure.
- Consult with your physician before using this device if you are in the care of a physician.
- Consult with your physician before using this device if you have had medical or physical treatment for your pain.
- Stop using this device and consult your physician if your pain does not improve, becomes more than mild, or continues for more than five days.
- Do not use this device while driving, operating machinery, or during any activity in which electrical stimulation can put you at risk of injury.
- Do not use this device over open wounds or rashes, or over swollen, red, infected, or inflamed areas or skin eruptions (e.g., phlebitis, thrombophlebitis, varicose veins).
- Do not use this device over, or in proximity to, cancerous lesions.
- Do not use this device on children because it has not been evaluated for pediatric use.
- Do not use this device in the presence of electronic monitoring equipment (e.g., cardiac monitors, ECG alarms), which may not operate properly when the electrical stimulation device is in use.
- Do not immerse in water or use in a wet environment, such as the bath, shower or other sources of moisture.
- Do not use this device while sleeping.
- Do not use this device on abnormal skin, or skin that is not intact, clean, or healthy.
- Do not operate in close proximity (e.g. 1 m) to shortwave or microwave therapy equipment as it may produce instability in the stimulator output.
- Do not heat up the device/battery or place near a direct flame. These actions can heat the battery and cause an explosion.
- This device could interfere with communication equipment operating in radio frequency.
- Device may not work properly when applied over a sweaty part of the body during work and exercise.
- Other equipment could interfere with the medical device or device system, even if the other equipment complies with CISPR8 emission requirements.

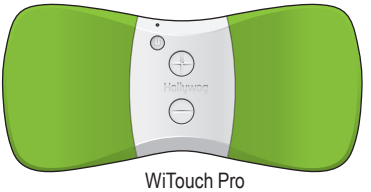
⚠ PRECAUTIONS

- Do not start stimulation of the device prior to application of the device to the back.
- Keep this device out of the reach of children.
- The safety of nerve stimulation has not been established during pregnancy; therefore, do not use this device if you are pregnant, or suspect that you are pregnant, unless under the direction of your physician.
- This device is for use by adults over 21 years of age.
- This device should not be applied on or across your head or face since the effects of stimulation of the brain are unknown.
- This device is for symptomatic treatment and, as such, suppresses the sensation of pain that would otherwise serve as a protective mechanism.
- If you have suspected or diagnosed heart disease, you should follow precautions recommended by your physician.
- If you have suspected or diagnosed epilepsy or experience convulsions, you should follow precautions recommended by your physician.
- Use this device with caution if you have a tendency to bleed internally, such as following an injury or fracture.
- Consult with your physician prior to using this device after a recent surgical procedure, because stimulation may disrupt the healing process.
- Do not use this device for pain of central origin, including headache.
- This device does not provide curative value.
- The long-term effects of nerve stimulation are unknown.
- You may experience skin irritation or hypersensitivity due to the electrical stimulation or adhesive medium (gel pads).
- Use this device with caution if stimulation is applied over the menstruating or pregnant uterus.
- Use this device with caution if stimulation is applied over areas of skin that lack normal sensation.
- Use this device only with the gel pads and accessories recommended by the manufacturer.
- Gel pads should be for single person use to avoid skin disease or any other transmissible disease.
- Do not remove this device from your skin with the stimulation mode of operation activated.
- Do not place your finger, or any object, between or near your skin and the adhesive gel pads during stimulation treatment.
- This device is not to be used in the presence of flammable or anesthesia gasses or liquids.
- Do not allow young children, pets, or pests contact with the device as alterations to the device may compromise product safety and/or performance.
- Handle the unit with care. Inappropriate handling of the unit may adversely affect its characteristics.
- Remove metallic objects around the treatment area, such as jewelry, piercings or belts.

⚠ ADVERSE REACTIONS

- Isolated cases of skin irritation or burns may occur due to electrical stimulation or adhesive medium (gel pads).
- Stop using the device and consult with your physician if you experience adverse reactions from use of this device.
- Prolonged use may cause discomfort or sore muscles.
- Burns may occur when the gel pads are not used properly, or if the gel pads are removed from the device or get damaged.

Contents



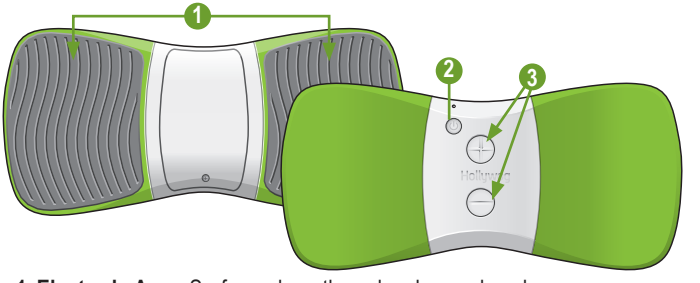
WiTouch Pro Bluetooth® device (1)

AAA alkaline batteries (2)

#0 Phillips head screwdriver (1)

Gel pads (1 pack of 3 pair)

Features and Functions

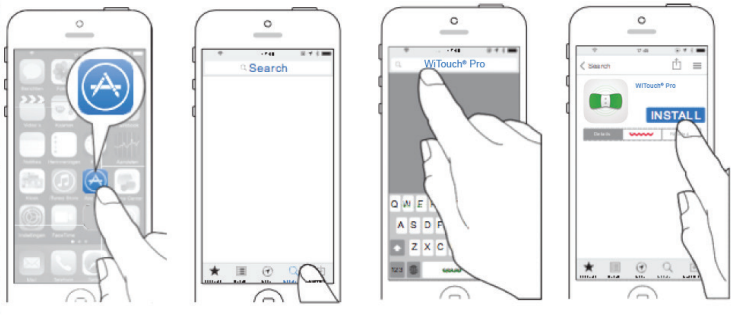


1. **Electrode Area:** Surface where the gel pads are placed
2. **On/Off Button:** Press to turn the device On/Off
3. **+/- Buttons:** Press to increase or decrease stimulation intensity

> ⚠ In case of emergency, press the ON/OFF (shown as button 2 above) on the device for one (1) second to power off the device.

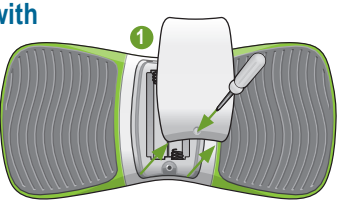
Download and Install the WiTouch Pro App

Install from Download on the App Store **iOS 9.0 and above:**

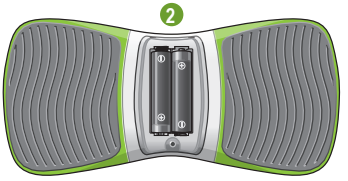


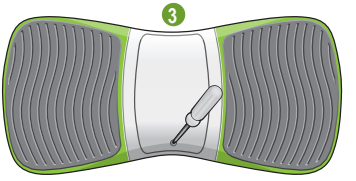
Install from GET IT ON Google Play **Android 4.4 and above:**

Connecting the WiTouch Pro Device with your Smartphone for the First Time



1. Using the provided screwdriver, remove the back cover from the WiTouch Pro device.
2. Insert the two (2) AAA batteries into the device, noting the correct (+) and (-) polarity.
3. Replace the back cover on the device.





4. Switch on Bluetooth® on your smartphone.
5. Press and hold the ON/OFF button on your WiTouch Pro device for one (1) second. The LED will begin flashing slowly to indicate the device is ready for use and in standby mode.
6. On your WiTouch Pro device, press and hold the (+) and (-) buttons simultaneously for 3 seconds to enter pairing mode. The LED will appear solid green.
7. Open the WiTouch Pro app on your smartphone and the app automatically searches for your device.
   a. **Your Device Has Been Paired:** The WiTouch Pro app and device automatically connect and no further action is required; the app will display the home screen.
   b. **Device Not Found:** WiTouch Pro app will provide instructions to repeat the device search and pairing process. Press "OK" on the app screen to begin the device search again.

Note: The pairing process will automatically continue to prompt you with instructions until pairing is successful or the process is discontinued by closing the app. The 'Device Not Found' screen will appear if the device is OFF or too far away from your smartphone. Some smartphones require a manual pairing process, and all on screen instructions should be followed.

Ensure your device is in pairing mode per instruction 6.

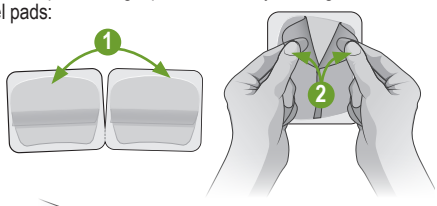
8. Once the initial pairing of your WiTouch Pro device and smartphone is complete, pairing is not required again unless the app is deleted from your smartphone or the device is replaced. The WiTouch Pro app and device will automatically connect when the app is started and the device is turned ON.

Preparation for Use

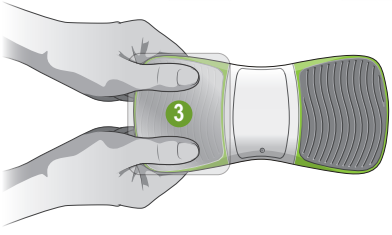
Before using your WiTouch Pro device, you will need to apply the gel pads to the device and prepare the device for a treatment.

Applying the Gel Pads to the WiTouch Pro Device

The gel pads are intended for single person use. They will last, depending on skin type, oils, and pH levels, approximately two to five applications. Replace the gel pads when they no longer adhere completely. Follow these steps to apply the gel pads:



1. Separate the two gel pads.
2. Remove the blue liner from the side being applied to the electrode area. The blue liner can be discarded. Do not remove the green protective liner.
3. Align the shape of the first gel pad with the electrode area. Apply the gel pad onto the electrode area and firmly press across the entire surface to ensure good adhesion.
4. Repeat steps 1 – 3 for the second gel pad.



Skin Preparation

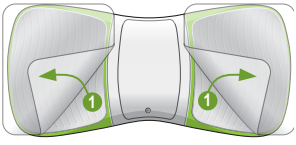
- Trim, not shave, excessive hair on the treatment area.
- Wash the skin and dry completely. (Do not use alcohol).

Treatment area should be void of oils and/or lotions.

Conducting a Treatment

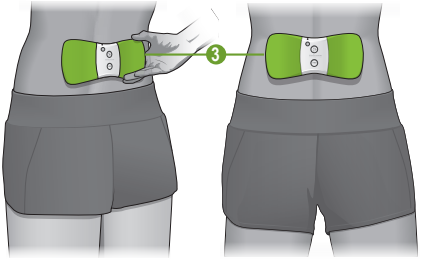
Always read the Safety information before conducting a treatment. Follow these steps to conduct a treatment:

IMPORTANT! Do **NOT** activate stimulation of the device prior to application of the device to the back.
IMPORTANT! In case of emergency, press the ON/OFF button on the device for one (1) second to power off the device.



1. Remove the green liners from the gel pads by slowly peeling the liner diagonally from an inside corner to the opposite outside corner.
   IMPORTANT! Avoid contact of the gel pad with other objects. Contact with other objects may affect the pads' adhesion properties. Do not discard the green liners. Save the green liners for storage of the device.

2. Press, and hold, the ON/OFF button on the WiTouch Pro device for one (1) second. The LED will begin flashing indicating the device is ready for use and in standby mode. **Note:** The WiTouch Pro device must always be ON prior to application.
3. Align the center of the device over the spine and place the device on your back in the area of pain. If you cannot place the device properly, ask another person for assistance.
   IMPORTANT! Do not apply the gel pads/electrodes directly over the spine.



Treatment Recommendations

- You can leave the device in position for multiple treatments during the day. It will automatically turn off after two (2) hours of inactivity.
- It is recommended you wait a minimum of 30 minutes between treatments.

Using the WiTouch Pro Device with the App

Selecting a Treatment Program

1. Open the WiTouch Pro app.
2. Choose your treatment option:
   There are four (4) available treatment programs:
   i. WiTouch Pro (WT Pro) Exclusive (default)
   ii. High Frequency
   iii. Low Frequency
   iv. High-Low Combo
   The last used treatment program will be highlighted among the four treatment programs.

Starting and Stopping a Treatment

1. On the treatment program screen, choose your preferred treatment program and then press START PROGRAM to begin your treatment. The treatment screen will open and the treatment program will begin at the lowest intensity level 1.
2. On the treatment screen, press the (+) button, one press at a time, to increase intensity of the stimulation until it is at a comfortable level. Press the (-) button to decrease the intensity of stimulation as desired. The intensity level is displayed on the screen. There are 15 levels of intensity, with level 1 being the minimum and level 15 being the maximum.
3. Press the Pause or Stop button on the treatment screen to stop the treatment at any time. Pressing Pause interrupts the treatment and allows the treatment to be continued by pressing the Play button. Pressing Stop ends the treatment program. **Note:** If a treatment is stopped and restarted the treatment will restart from the beginning. Care should be taken to not inadvertently depress the ON/OFF button on the device when being worn. If the ON/OFF button is pressed and held for 1 second during use, the treatment will stop.
4. Treatment will automatically stop after 30 minutes. The timer on the treatment screen will count down during the treatment until the treatment is completed and treatment time reaches 0:00. **Note:** The device will remain in standby mode for 2 hours. After 2 hours of non-use, the device will automatically shut off to save battery life.
5. If desired, after completion of a treatment program, press the star icon to indicate your favorite treatment program for future treatments.

Other WiTouch Pro App Features

Tap on any of the bottom navigation tabs of the WiTouch Pro app to access:

1. Stats: Select Stats to review your treatment history, including number of treatments, total treatment time, and treatment programs used.
2. Information: This section allows you to get further details about any of the following:
   a. Buy Gel Pads Now: Select this link to order replacement WiTouch Pro Gel Pads from hollywog.com.
   b. Read Me First: Select this option to learn more about the most important information you should know before first using the WiTouch Pro device.
   c. User Manual: Select User Manual to review the WiTouch Pro User Manual.
   d. About WiTouch Pro: Select to view WiTouch Pro app version and additional information.
   e. Conditions of Use: Select this option to review the manufacturer Conditions of Use.
   f. Privacy Statement: Select this option to review the manufacturer Privacy Statement.
   g. Contact Us: Select this option to view manufacturer contact information.
3. Settings: This section allows you to access some of the technical aspects of the app such as:
   a. Pair Device: Select this option to pair the device with your WiTouch Pro app.
   b. Reset Stats: Select this app to completely reset your statistics to zero.

Note: When accessing the navigation tabs while a treatment program is running, a treatment status bar will be visible at the bottom of the screen, displaying the time remaining status of the treatment program.

Using the WiTouch Pro Device in Manual Mode

The WiTouch Pro device can be operated without the WiTouch Pro app by using the buttons on the device.
Note: When using the WiTouch Pro device with the buttons on the device, the default treatment program will be program 1 (WiTouch Pro [WT Pro] Exclusive).

1. Follow the steps under the section Conducting a Treatment and apply the WiTouch Pro device to your back as instructed.
2. Press the (+) button to start the WiTouch Pro Exclusive treatment program. Press the (+) button again, one press at a time, to increase the intensity of the stimulation until it is at a comfortable level. Press the (-) button to decrease the intensity of stimulation as desired.
3. The treatment will automatically stop after 30 minutes. To stop the treatment at any time during treatment, press the ON/OFF one (1) time. This stops the treatment and the WiTouch Pro device will remain in standby mode to run additional treatments. **Note:** The device will remain in standby mode for 2 hours. After 2 hours of non-use, the device will automatically shut off to save battery life.

Removing the WiTouch Pro Device

IMPORTANT! Do not remove the device until the treatment has stopped.

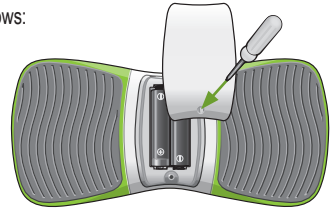
1. After treatment, or when you want to remove the device, grasp the edge of the device and gel pad to ensure the gel pad does not stay on the skin. Slowly peel the device away from the skin.
2. Align and place the green protective liners back on the gel pads. Ensure the pads are completely covered.

Battery Replacement

When battery replacement is needed the LED will flash as follows:

- LED flashes yellow every two (2) seconds when the unit is On and in Standby
- LED flashes yellow rapidly during treatment

Note: Fully depleted batteries will have no flashing LED.



To replace the device batteries:

1. Using the included #0 Phillips head screwdriver, remove the cover.
2. Remove the old batteries, and place the new batteries in the correct (+) and (-) polarity.
3. Replace the battery compartment cover.

Note: Consult your local authorities for proper disposal of batteries, device, and accessories.

Maintenance and Storage

- Use a damp cloth and mild soap to gently wipe clean after each use, when the is device is soiled, or to remove build-up of gel-pad residue. Remove any soap residue from cleaning. Damage to the device and/or accessories will occur if submerged in water or other liquids. WiTouch Pro device is manufactured with water detection technology to detect exposure to water that may cause damage to the electronics and void the product warranty.
- The unit should be routinely checked before each use to determine all controls function normally.
- The device should be operated, transported and stored at temperatures between 50° F and 104° F (10° C and 40° C), with relative humidity between 30% - 85%.
- Store the device, and accessories in the original packaging when not in use.
- Remove batteries before extended storage to reduce likelihood of battery corrosion or leakage.
- If the device is not working properly, stop using immediately. Do not disassemble or modify the device. Contact Hollywog Customer Service at: Phone: +1 423 305 7778; or Email: info@hollywog.com.
- To purchase replacement gel pads for your device, you can find them wherever the device is sold.
- If you have questions, please call Hollywog Customer Service at: Phone: +1 423 305 7778; or Email: info@hollywog.com.

Technical Specifications

Channels: Single channel
Waveform: Asymmetric biphasic square pulse
Pulse Amplitude (Maximum): 110 mA (55 volts) at 500 ohm load
Pulse Frequency: (Hz) 2-120
Pulse Duration: (µs) 120-250

Program Descriptions

Program 1: WiTouch Pro (WT Pro) Exclusive

The WiTouch Pro exclusive, patented 3-stage waveform incorporates both clinical theories of TENS to provide pain relief. The 30-minute stimulation treatment is delivered as follows:

Stage 1: 5 minutes of high frequency stimulation (sometimes described as a strong tingling sensation) that can initiate a feeling of pain relief by suppressing the transmission of pain signals in nerves. This stage provides a high sensory sensation and allows you to establish a comfortable intensity setting for the entire treatment.

Stage 2: 20 minutes of low frequency stimulation (sometimes described as a gentle tapping sensation) that can initiate an increased endorphin release in the body to reduce the sensitivity to pain for an extended period of time following the 30-minute treatment.

Stage 3: 5 minutes of high frequency stimulation, providing the same high sensory sensation experienced in Stage 1. This stage can allow you to maintain the feeling of pain relief and complete the overall treatment with a comfortable high sensory sensation.

Mode	Stage 1	Stage 2	Stage 3
Pulse Duration (sec) **Measured positive phase*	120µs	240µs	120µs
Pulse repetition frequency (Hz)	80 to 120Hz (Variable)	5 to 10Hz (Variable)	80 to 120Hz (Variable)
Output voltage (V) (Maximum)	55V	55V	55V
Load Range that is valid for these parameters (Ω)	500Ω		
Effect of load impedance on these parameters	External load resistance can be up to 10kΩ. If this load resistance is exceeded, the nominal current flowing to the patient may be less than the set target stimulation current.		

Program 2: High Frequency

The High Frequency program utilizes the same parameters of Stages 1 and 3 of the WiTouch Pro Exclusive treatment program. **Note:** This program is only accessible with the WiTouch Pro app

Mode	Stage 1
Pulse Duration (sec) **Measured positive phase*	120µs
Pulse repetition frequency (Hz)	80 to 120Hz (Variable)
Output voltage (V) (Maximum)	55V
Load Range that is valid for these parameters (Ω)	500Ω
Effect of load impedance on these parameters	External load resistance can be up to 10kΩ. If this load resistance is exceeded, the nominal current flowing to the patient may be less than the set target stimulation current.

Program 3: Low Frequency

The Low Frequency program utilizes the same parameters of Stage 2 of the WiTouch Pro Exclusive treatment program. **Note:** This program is only accessible with the WiTouch Pro app

Mode	Stage 1
Pulse Duration (sec) **Measured positive phase*	240µs
Pulse repetition frequency (Hz)	5 to 10Hz (Variable)
Output voltage (V) (Maximum)	55V
Load Range that is valid for these parameters (Ω)	500Ω
Effect of load impedance on these parameters	External load resistance can be up to 10kΩ. If this load resistance is exceeded, the nominal current flowing to the patient may be less than the set target stimulation current.

Program 4: Hi-Lo Combo
The High-Low Combo program alternates between high frequency stimulation and low frequency stimulation. **Note:** This program is only accessible with the WiTouch Pro app

Mode	Stage 1	Stage 2
Pulse Duration (sec) **Measured positive phase*	250µs	150µs
Pulse repetition frequency (Hz)	2Hz	70Hz
Output voltage (V) (Maximum)	55V	55V
Load Range that is valid for these parameters (Ω)	500Ω	
Effect of load impedance on these parameters	External load resistance can be up to 10kΩ. If this load resistance is exceeded, the nominal current flowing to the patient may be less than the set target stimulation current.	

Timer Control: (mins) 30
Power Supply: Two (2) AAA batteries (Internally Powered)
Size (D x W x H): 0.7" x 7.5" x 3.5" (18 mm x 191 mm x 90 mm)
Weight (including battery): 4.8 oz (136 g)
Battery Life: Over 100 treatments based on typical use
The expected service life for the WiTouch Pro device is 2 years.
Shelf life of gel pads is two years (see "Use By" date printed on pouch).
Safety Standards: IEC 60601-1, IEC 60601-1-2, IEC 60601-1-11, IEC 60601-2-10, CAN/CSA C22.2 No. 601.1,
Made in USA

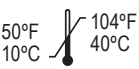
Troubleshooting

Event	LED Color	LED Sequence
Low Battery	Yellow	Slow flashing during standby when the device is ON. Rapid flashing during the stimulation treatment.
Device transition from OFF to ON	Green	Slow flashing during standby when the device is ON.
Device transition from ON to OFF	None	Green flashing stops.
Device transition from ON to start treatment	Green	Rapid flashing during treatment.

Event	Phone App Screen Message	Solution
Wireless connection lost bewteen the device and phone app	Device Not Found	Make sure your device is ON (green LED flashing) and close (within 20ft/6.10m) to your smartphone
Device unexpectantly turns off from exposure to electrostatic discharge	Device Not Found	Press the power button to restart the device.

Limitations of Use and Storage

Atmospheric Pressure Limitations ISO 7000-2621



Temperature Limitations ISO 7000-0632

Humidity Limitations ISO 7000-2620

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Wireless Distance: 20ft/6.10m
Frequency Range: 2.40 - 2.48 GHz
Data Modes: Bluetooth Low Energy
Antenna: Trace Antenna ~3.1dBi
EIRP: 4.3 dBm / 2.7 mW

FCC ID: N8L-HWOGTENS21
IC ID: 10346A-HWOGTENS21

Symbol Glossary		
	ISO 7010-M002	Refer to instruction manual/booklet
	IEC 60417-5333	Type BF Applied Part
	ISO 7000-0626	Keep dry
	ISO 60417-5140	Non-ionizing electromagnetic radiation
	ISO 7000-0434B	Caution

Manufacturer's Warranty

Hollywog, LLC warrants the original purchaser that the WiTouch Pro device ("Product") is free from defects in materials and workmanship for one year from the date of original purchase, except as noted below. During the stated one-year period, Hollywog, LLC shall, at no charge, replace a unit found to be defective with an equivalent or current version of the owner's model. For warranty service, contact Hollywog at +1 423 305 7778 or info@hollywog.com. Remember to retain the original receipt of purchase, packaging, and the device.

Limitations of Warranty

This warranty is subject to the following exceptions and limitations:

1. The one-year warranty only will be extended to the WiTouch Pro device. The warranty excludes the refill gel pads and the WiTouch Pro app.
2. This warranty is limited to replacement due to defects in parts or workmanship. Hollywog, LLC shall not be required to replace any Products which malfunction or are damaged due to abuse, accidents, alteration, misuse, neglect, exposure to or submersion in water, or maintenance by someone other than Hollywog, LLC, or failure to operate the instrument in accordance with instructions. The WiTouch Pro device is manufactured with water detection technology to detect exposure to water that may cause damage to the electronics and will void the Product warranty.
3. Hollywog, LLC assumes no liability for malfunction or damages to the Products caused by the use of the Products when used with gel pads other than WiTouch Pro refill gel pads manufactured or recommended by Hollywog, LLC.
4. Hollywog, LLC makes no warranty of the performance of the Products when used with gel pads other than WiTouch Pro refill gel pads manufactured or recommended by Hollywog, LLC or when the gel pads are altered or modified in any manner.
5. Hollywog, LLC makes no warranty of the performance of the Product when used with any software or apps other than Hollywog's WiTouch Pro app.
6. Hollywog, LLC reserves the right to make changes in design of the Product without obligation to incorporate such changes into previously manufactured Products.

HOLLYWOG, LLC MAKES NO OTHER EXPRESS WARRANTY FOR THIS PRODUCT. THE OPTION OF REPLACEMENT, DESCRIBED ABOVE, IS HOLLYWOG, LLC'S ONLY OBLIGATIONS UNDER THIS WARRANTY.

IN NO EVENT SHALL HOLLYWOG, LLC BE LIABLE FOR INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES, EVEN IF HOLLYWOG, LLC HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Guidance and manufacturer's declaration – electromagnetic emissions		
The WiTouch® Pro is intended for use in the electromagnetic environment specified below. The customer or the user of the WiTouch® Pro should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The WiTouch® Pro uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The WiTouch® Pro is suitable for use in all establishments other than those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations / flicker emissions IEC 61000-3-3	Not applicable	

Guidance and manufacturer's declaration – electromagnetic immunity			
The WiTouch® Pro is intended for use in the electromagnetic environment specified below. The customer or the user of the WiTouch® Pro should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic Environment/Guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±15 kV contact ±15 kV air	±15 kV contact ±15 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	IEC 61000-4-4 (Not applicable, no AC mains connection)		
Surge IEC 61000-4-5	IEC 61000-4-5 (Not applicable, no AC mains connection)		
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	IEC 61000-4-11 (Not applicable, no AC mains connection)		
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.

Guidance and manufacturer's declaration – electromagnetic immunity			
The WiTouch® Pro is intended for use in the electromagnetic environment specified below. The customer or the user of the WiTouch® Pro should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	EC 61000-4-6 (Not applicable, no AC mains connection)		
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m 80 MHz to 2.5 GHz	Portable and mobile RF communications equipment should be used no closer to any part of the WiTouch®-Pro, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
			Recommended separation distance:
			d=1.17√P 80 MHz to 800 MHz
			d=2.33√P 800 MHz to 2.5 GHz
			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 metres (m).
			Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ashould be less than the compliance level in each frequency range.
			Interference may occur in the vicinity of equipment marked with the following symbol:
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 TensTouch® is used exceeds the applicable RF compliance level above, the TensTouch® should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the TensTouch.			

Recommended separation distances between portable and mobile RF communications equipment and the WiTouch® Pro			
The WiTouch® Pro is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the WiTouch® Pro can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the WiTouch® Pro as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter	Separation distance according to frequency of transmitter (m)		
	150 kHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2.5 GHz
W	d=1.17√P	d=1.17√P	d=2.33√P
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.7	3.7	7.37
100	11.7	11.7	23.3
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (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.			