

EMISSIONS - ALL EQUIPMENT AND SYSTEMS

The ActiPatch device is intended for use in the electromagnetic environment specified below. The user of ActiPatch should ensure that it is operated in such an environment.

Table 2. Guidance and manufacturer's declaration – electromagnetic emissions – for all medical electrical equipment and medical electrical systems.

EMISSION TEST	COMPLIANCE	ELECTROMAGNET ENVIRONMENT - GUIDELINE
RF Emissions CISPR 11	Group 2, Class B Frequencies (f): 30 ≤ f ≤ 80.8 MHz Limits (quasi-peak): 30 dB (μV/m) (μV/m) Distance: 10m	ActiPatch emits electromagnetic energy to provide therapeutic treatment for tissue. At 33.8 MHz, reading is 23.7 dB (μV/m) with a margin on -6.3 dB (μV/m). ActiPatch is suitable for use in all establishments, including domestic, and those directly connected to the public low-voltage power supply network that supplies buildings for domestic purposes
Harmonics EN 61000-3-2	N/A	The ActiPatch is internally powered, so not applicable.
Flicker EN 61000-3-3	N/A	The ActiPatch is internally powered, so not applicable.

Table 3. Guidance and manufacturer's declaration – electromagnetic immunity – for all medical electrical equipment and medical electrical systems.

IMMUNITY TEST	IEC/EN 60601 TEST LEVEL	COMPLIANCE LEVEL	ELECTROMAGNET ENVIRONMENT - GUIDELINE
ESD - Electrostatic discharge IEC/EN 61000-4-2	± 15kV air discharge, ± 8kV contact discharge	No conductive surfaces ± 8kV air ± 6kV contact	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, relative humidity should be at least 30%
EFT - Electrical fast transient/burst EN 61000-4-4	± 2kV Mains ± 1kV I/Os	N/A as ActiPatch is internally powered	N/A as ActiPatch is internally powered
Surge EN 61000-4-5	± 1kV Differential ± 2kV Common	N/A as ActiPatch is internally powered	N/A as ActiPatch is internally powered
Voltage Dips/ Dropouts EN 61000-4-11	>95% Dip in U_t for 0.5 Cycle 60% Dip in U_t for 5 Cycles 30% Dip in U_t for 25 cycles >95% dip in U_t for 5s	N/A as ActiPatch is internally powered	N/A as ActiPatch is internally powered
PFMF - Power frequency (50/60 Hz) magnetic field IEC/EN 61000-4-8	3 A/m	N/A as ActiPatch is internally powered	Power frequency magnetic fields should be that of a typical commercial or hospital environment

NOTE: U_t is the A.C. mains voltage prior to application of test level

DEVICE SPECIFICATIONS

Table 1. ActiPatch Device Specifications (Model O88)	
Carrier Frequency	27.12MHz
Peak Spatial Power Density	73 microwatts/ cm ²
Pulse Rate	1,000 pulses per second
Pulsed on Duration	100 micro seconds
Power Source	Lithium Battery - CR2032
Antenna Size	12cm
Treatment Area	110cm ²
Weight	9.5 grams
Operation Time	Up to 720 hours (on/off capability)
Expected Service Life O88:	Up to 720 hours (on/off capability)

The following are the APPLIED parts:

1) Loop antenna; and 2) Module.

PATIENT is the intended OPERATOR

CLINICAL TESTING SUMMARY

Note: Treatment effects of device use were clinically assessed for up to 4 weeks.

A randomized, controlled trial on chronic cervical osteoarthritis (neck pain): This was a randomized, active-treatment controlled study to evaluate the safety and effectiveness of the ActiPatch medical device to reduce the pain level of patients diagnosed with cervical osteoarthritis. The active-treatment control was an NSAID of the Cox-2inhibitor family. There were 200 intent-to-treat patients, out of which 197 completed the four-week study. The primary endpoint for efficacy was reduction in pain (VAS score) while at rest and being active, over four weeks, when compared to the beginning of the study. The primary safety endpoint was all treatment-related adverse events during the study. 94% of the medical device treatment group reported a clinically significant decrease (30% reduction) in VAS pain (at rest) compared to 89% in the NSAID-treatment group. 94% of the medical device treatment group reported a clinically significant decrease (30% reduction) in VAS pain (at rest) compared to 87% in the NSAID-treatment group. For the secondary outcome of functionality (Neck Disability Index, or NDI), the medical device treatment group reported a 64% improvement compared to 52% in the NSAID-treatment control group. No adverse events were recorded with use of the medical device. In the NSAID-treatment group 2 subjects reported an adverse event, these being peripheral edema and hypertension, following which NSAID-treatment was ceased. Two other minor adverse events were recorded dysuria and increased blood pressure that didn't result in the subjects ceasing NSAID treatment.

A randomized controlled trial on osteoarthritis of the knee: The osteoarthritis of the knee study was a double-blinded, randomized, placebo-controlled study to evaluate the safety and effectiveness of the ActiPatch medical device to reduce the pain level of patients diagnosed with knee osteoarthritis. The placebo treatment was a device that was identical to ActiPatch but did not produce an electromagnetic field when turned on. There were 66 intent-to-treat patients, out of which 60 patients completed the four-week study. The primary effectiveness endpoints were improvements in pain level over the four weeks as measured by the before and after VAS score and WOMAC scores, and the primary safety endpoint was all treatment-related adverse events during the study. 36% of the treatment group reported a clinically significant decrease in VAS pain compared to 9% for the placebo group, and 18% of the treatment group reported a clinically significant decrease in total WOMAC pain compared to 3% for the placebo group. In the medical device treatment group, 26% stopped pharmacological therapy whereas in the placebo group 33% started a new pharmacological therapy during the study. No adverse events were recorded.

A randomized controlled trial on plantar fasciitis (heel pain): This was a randomized, double-blinded, placebo-controlled study to evaluate the safety and effectiveness of the ActiPatch medical device to reduce the pain level of patients diagnosed with plantar fasciitis. The placebo treatment was a device that was identical to ActiPatch but did not produce an electromagnetic field when turned on. A total of 70 patients were recruited into the study, and all 70 completed the study. The primary effectiveness endpoint was the daily morning (AM) VAS score, and the primary safety endpoint was all treatment-related adverse events during the 7-day study. The results showed that the average reported pain reduction between the first day's AM pain score and the 7th day's AM pain score for the treatment group was 40% compared to 7% for the control group.

Table 4. Guidance and manufacturer's declaration – electromagnetic immunity – for all medical electrical equipment and medical electrical systems.

IMMUNITY TEST	IEC/EN 60601 TEST LEVEL	COMPLIANCE LEVEL	ELECTROMAGNET ENVIRONMENT - GUIDELINE
Conducted RF IEC 61000-4-6	3 V 150 kHz to 80 MHz	(V1) N/A as ActiPatch is internally powered	Portable and mobile communications equipment should be separated from ActiPatch by no less than the distances calculated/listed below:
Radiated RF IEC 61000-4-3	80 MHz – 2.6 GHz, 80% Amp. Mod. (1kHz)	(E1) 10 V/m	Recommended Separation Distance (m) $d = (3.5/V_t) \sqrt{P}$ (150 kHz – 80 MHz) $d = (3.5/E_t) \sqrt{P}$ (80 – 800 MHz) $d = (7/E_t) \sqrt{P}$ (800 MHz – 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 meters (m). Field strengths from fixed transmitters, as determined by an electromagnetic site survey, should be less than the compliance levels (V1 and E1) in each frequency range. Interference may occur in the vicinity of equipment containing a transmitter, marked with the following symbol (Ⓜ)

Table 5. Recommended separation distances between portable and mobile RF communications equipment and the medical electrical equipment and medical electrical systems – for medical electrical equipment and medical electrical systems that are not life-supporting.

MAX OUTPUT POWER (WATTS)	SEPARATION (m) 150 KHZ TO 80 MHz $d = (3.5/V_t) \sqrt{P}$	SEPARATION (m) 80 TO 800 MHz $d = (3.5/E_t) \sqrt{P}$	SEPARATION (m) 800 MHZ TO 2.5 GHZ $d = (7/E_t) \sqrt{P}$
0.01	0.11	0.11	0.23
0.1	0.36	0.36	0.73
1	1.16	1.16	2.33
10	3.68	3.68	7.37
100	11.66	11.66	23.33

ADVANCED 24-HOUR PAIN RELIEF

Electromagnetic Shortwave Therapy



DIRECTIONS FOR USE

Device Models O88, DA201PA01

Call our trained healthcare professionals for assistance
1.888.405.3251



Manufactured by: BioElectronics
Distributed by: DJO, LLC
Vista, CA 92081
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U.S. PATENT #75511957B2; U.S. PATENT #8412328; CANADA PATENT #2518210,
AUSTRALIA PATENT #2014201303; EUROPEAN PATENT #1606010,
CHINA PATENT #ZL2011200863544, & U.S. AND FOREIGN PATENTS PENDING



Read instructions before using

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FAQ'S

What is ActiPatch Electromagnetic Shortwave Therapy (PSWT)?

PSWT pulses radio-frequency electromagnetic energy into the body. There is no sensation from these pulses. The ActiPatch device is placed on or very close to the skin over the site of pain, such that the site of pain is centered within the loop. To experience pain relief, the device may need to be used for 3-4 days. The device is safe to use during regular physical activity and during sweating. ActiPatch is a PSWT device used to adjunctively treat musculoskeletal pain.

How does the device work?

The device safely interrupts abnormal pain signaling in the nerves. This advanced therapy reaches into the painful area to provide real relief at the source. The device can be used 24/7.

Is the device safe?

The device is drug free and has no harmful side effects. The device can be worn by diabetics, arthritics, the elderly and bedridden. Note: The device is nonsterile and should not be applied directly over open wounds, however it can be applied over bandaged wounds.

Is the device technology clinically proven?

Yes. The device has been clinically proven through a series of clinical studies, of which more are ongoing, at leading medical institutions. The technology has been used for decades in hospitals and clinics and has received an overwhelming amount of positive testimonials from consumers.

What will I feel?

ONLY BETTER! You will not feel heat nor will you feel the low level energy that is gently pulsed into the nerves.

How long until I feel pain relief?

Depending on the severity of the injury, patient pain levels can begin to subside after only 2-3 hours of wearing the device and will continue to decrease as long as the device is being used continuously or at least 12 hours per day. However, in some instances it could take up to 3-4 days for the therapy to take effect.

MAINTENANCE AND STORAGE

- Use a damp cloth and mild soap to gently wipe clean after each use, when the device is soiled, or to remove any buildup of residue from medical adhesives.
- Device Operation: a temperature range of +5°C to +40°C; a relative humidity range of 15% to 90%, non-condensing, but not requiring a water vapor partial pressure greater than 50hPa
- Device Transport/Storage: a temperature range of -25°C to +5°C, and +5°C to +35°C at a relative humidity up to 90%, non-condensing; >35°C to 70°C at a water vapor pressure up to 50hPa
- The device should be operated, stored and transported at an atmospheric pressure between 50 kPa and 106 kPa (0.5 atm and 1.04 atm), up to an altitude of 5,575 m above sea level
- Consult your local electronics store or waste management company for guidance on proper disposal of the device.

Precautions:

- There are no user-serviceable parts inside the unit. Do not attempt to modify or break open the device.
- Do not wear the device in the shower or bath: the device is not waterproof
- Keep this unit out of the reach of children
- If the LED light does not come on, it indicates that the device is no longer operational and can be disposed of according to local regulations.
- Wear the wrap (if provided with unit) comfortably. Loosen the wrap using the Velcro straps if there is any discomfort.
- The device should not be used by/on children under the age of 17.
- The device is not intended for use on multiple patients.
- The IP (Ingress Protection) rating for the device is IP22 and therefore offers protection from touch by fingers and objects greater than 12 millimeters. Additionally, the device is protected from water spray less than 15 degrees from vertical.
- The device is non-sterile. Avoid exposing the device to lint, dust and light (including sunlight) to prevent discoloration and to prevent build up of residue.
- The time required for the ME EQUIPMENT to warm from the minimum storage temperature, or cool from the maximum storage temperature, is 1 hour.

Contraindications:

- Do not use this over a cardiac pacemaker, implanted defibrillator, deep brain stimulator and nerve stimulators or other active implantable device.
- Do not use this device if you are experiencing sudden, unexplained pain. Sudden, unexplained pain can be an indicator of a serious medical condition and may require immediate medical attention.
- Do not use the device if you do not know the cause of your musculoskeletal pain. Contact your doctor to know more about the source of your pain.
- ActiPatch is a therapy for the adjunct treatment of musculoskeletal pain. Do not use for pain which is located deeper in the body, for example in the chest or stomach. This device is not intended to treat pain deep in the body.
- Do not use this device if you are pregnant or think you are pregnant.
- Do not use this device to treat cancer related pain. This device is not intended to treat cancer related pain.

Adverse Reactions:

- If pain persists within 3-4 days of use or worsens with use, discontinue use and seek medical attention.
- The wraps used to attach the device to your body may cause skin irritation. If skin irritation occurs, wear the device over clothing.
- If skin irritation does not subside, discontinue use of the device.
- Ensure that the device is close to the skin and no more than 3mm (or 1/8 inch) from the skin because greater distances may decrease effectiveness.

Warnings:

- If you are in the care of a doctor, consult your doctor before using this device.
- If your pain does not improve after using the device for 7 days, stop using the device and consult your doctor.
- ActiPatch is not a sterile device, so it should not come in direct contact with open wounds or irritable spots.
- Choking hazard: do not swallow the unit.
- Before using, check for damage to the device. Do not use if there is any damage

¹ A precaution is used to identify a hazard that may result in minor or moderate injury to the user or patient or damage to the equipment or other property.

² Contraindications are known and reasonably foreseeable conditions under which the device should not be used because the risk of use clearly outweighs any

RECOMMENDATIONS

Indications for Use:

For the adjunctive treatment of musculoskeletal pain

Note: Treatment effects of device use were clinically assessed for up to 4 weeks. Pain relief results may vary for each user. Always read the directions. Use only as directed. If symptoms persist see your healthcare professional

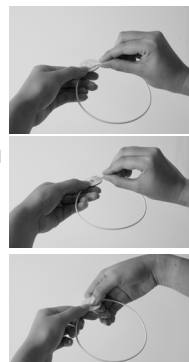
Recommended Treatment Duration (Use Time):

Use the device for a minimum of 12 hours per day, up to 24 hours per day.

HOW TO TURN DEVICE ON & OFF

How to turn the Device On:

Step 1: To activate the device, remove the white tab from the back of the device and push the silver on/off button for 1-2 seconds. Release the button.



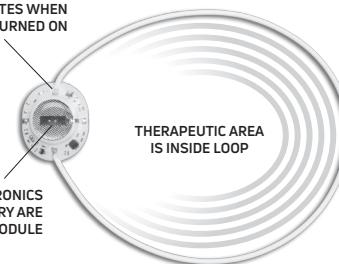
Step 2: Once the device is activated, the green LED light on the front of the device will turn on. If the green LED light does not turn on, please repeat Step 1.

How to turn the Device Off:

To deactivate the device, press the silver button and hold it down for 1-2 seconds. Once the device is deactivated, the green LED light will turn off.

GREEN LIGHT ILLUMINATES WHEN DEVICE IS TURNED ON

THE ELECTRONICS AND BATTERY ARE IN THIS MODULE



APPLICATION

For Best Results:

The device loop area should be placed directly over the source of the pain. For maximum pain relief, wear continuously in one area until pain diminishes. Ensure green light is illuminated and faced away from the body.

KNEE

Unfasten straps. Power on device (utilize device IFU) and insert into center slit inside compression sleeve. Ensure device is not kinked. Slide sleeve into place and center over the knee cap. Slide bottom strap through loop and secure. Slide top strap through loop and secure. Brace should be snug but not too tight to impair circulation.



BACK

Unfasten wrap. Power on device (utilize device IFU) and insert into center of back slit. Ensure device is not kinked. Wrap brace around torso, and center device around area of discomfort. (Note: Brace is intended to be used in the lower lumbar region of the back but can be positioned left or right to focus on area of pain). Secure hook to loop. Brace should be snug but not too tight to impair circulation.



EXPLANATION OF SYMBOLS

Symbol	Description	Location	Other
	Manufacturer: This Symbol is accompanied by the name and address of the manufacturer.	Box	On Box: Barcode, Part#, Rev#, Warnings, Contents, Patent#
	Upper and Lower limit of temperature	Box	On Label: Quantity, Description, Model number
	Attention, see warning statement	Box	
	Symbol for Not Sterile Product	Box	
	Upper and Lower limit of humidity	Box	
	Symbol for Follow instructions for use"	Box	
	Type BF Applied Part	Box	
	Non-ionizing radiation	Box	
	Upper and Lower limit for operation, storage and transport for atmospheric pressure	Box	