

The Tennant Biomodulator® *PLUS* Specification Sheet

Device Specifications – Features and Specifications

1. Increase power using (+) keys, LED lights show power level.
2. Decrease power using (-) keys, LED lights show power level.
3. Change modes using the Mode Selection switch.
4. Mode LED lights show which mode is selected.
5. Place the device on the skin such that the onboard electrodes on the back of the devices are firmly touching the skin.
6. Power on-off switch.
7. Battery compartment
8. Accessory jack supports convenient electrode and accessory connection.



Technical Specifications

Size; 114mm x 63mm x31mm
Weight; Approx. 108 grams (3.8 oz)
Power Source; 2 AA size 1.5V DC batteries
Pulse Duration 10-500 uS
Pulse Frequency 15-351 Hz
Output Voltage 20-450 V
Output Current 2-90 uA
Timeout 60 minutes
Waveform; pulsed, damped, bi-phasic sinusoidal

FDA Classification: 882.5890 Neurology, Biofeedback device

Indication for use: for symptomatic relief and management of chronic, intractable pain, and adjunctive treatment in the management of post-surgical and post-traumatic pain.

Restriction: US federal law restricts this device to sale by or on the order of a licensed healthcare professional. A prescription is needed for purchase for a non-licensed healthcare professional. Home users may purchase the Tennant Biomodulator® *PLUS* device with a written prescription provided by a physician.

Tennant Biomodulator® PLUS vs. Conventional TENS

The Tennant Biomodulator® PLUS devices are FDA-cleared as micro-current, biofeedback TENS devices for the symptomatic relief and management of chronic, intractable pain, and adjunctive treatment in the management of post-surgical and post-traumatic pain.

The output signature of the Tennant Biomodulator® PLUS devices are unique and is the basis for superior performance. Substitute devices will not have this unique signature and therefore not perform the same as the Tennant Biomodulator.

Technical Comparison

Tennant Biomodulator® PLUS	Conventional TENS
21st Century Technology	1970s Technology
High Intensity, very low current, burst pulses	Low Intensity, higher current, long duration pulses
Voltage Range: 20-600 volts	Voltage Range: 0-40 volts
Amperage Range: Micro amps (10^{-6} Amps)	Amperage Range: Milliamps (10^{-3} Amps)
Signals in the frequency range of 15 Hz to 351 Hz	Signals in the frequency range of 15 Hz to 351 Hz
Damped asymmetrical biphasic sinusoidal waveform	Square waveform, mono-phasic or biphasic symmetrical or asymmetrical
Signaling always varies based upon changes in impedance of the tissue	Signaling is typically the same continuous pattern
Tennant Biomodulator® PLUS forms a somatic biofeedback between the device and the tissue	No biofeedback

Performance Comparison

Tennant Biomodulator® PLUS	Conventional TENS
Somatic biofeedback prevents neurological habituation and accommodation, for more effective pain management	Develops neurological habituation and accommodation, which severely limits effectiveness of pain management
Effectiveness lasts several hours after treatment	Effectiveness often stops when treatment ends

- Precision medical instrument indicated in the use for symptomatic relief and management of chronic, intractable pain, and adjunctive treatment in the management of post-surgical and post- traumatic pain.
- Treatment is gentle and easy
- Non-invasive and drug free therapy
- May be used as a complement to standard drug and therapy treatments provided by healthcare practitioners.
- After treatment, there are usually no physical limitations imposed. Normal activities may be resumed immediately.
- May be used in combination with other treatments, subject to healthcare professional direction.



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