Sys*Stim 294 Specifications

General Specifications:

Input:	90–240 VAC, 50–60 Hz, 2.3 Amp. Nom.
ETL and C-ETL Listed: *Domestic Model*	Model ME 294 (9801427)
Classification: *CE model*	Protective Class I Equipment Type BF Equipment Enclosed equipment without protection against ingress of water. Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with nitrogen oxide
Year 2000 Compliant	Yes
Weight:	9.4 pounds 4,3 kg
Dimensions:	5 in (H) x 14.5 in (W) x 10 in (D) 12,7 cm (H) x 36,8 cm (W) x 25,4 cm (D)
Operating Temperature:	+50°F to +104°F +10°C to +40°C
Humidity:	Operating, 30% to 75% Relative Humidity at 104°F (40°C) Nonoperating, 5 to 95% Relative Humidity, non-condensing
Storage Temperature:	-40°F to 167°F -40°C to 75°C
Storage Humidity:	Storage, 30% to 90% Relative Humidity at 40º C, Non-condensing
Storage Pressure:	700-900 mB
Environmental Disposal:	The device contains lead in the form of solder used to produce electrical contact between components. To avoid adverse environmental impact, utilize a disposal facility that performs complete incineration of the device at a temperature in excess of 1000°C. The shipping materials are fabricated of cardboard and may be disposed of with other paper products.
Treatment timer:	
Timer Accuracy:	±0.5 minutes for times less than 5 minutes ±10% for times from 5 to 10 minutes ±1.0 minute for times greater that 10 minutes ±5%, *CE specification*
Maximum Treatment Time:	60 minutes–electrical stimulation

Treatment Timer:	Treatment time counts down to zero when a time is set, or up to 60 or 30 minutes when no time is set. The digital timer indicates time in minutes and seconds. The timer also indicates the remaining or elapsed treatment time during the "Hold" period.

Waveform Specifications:

Interferential Mode

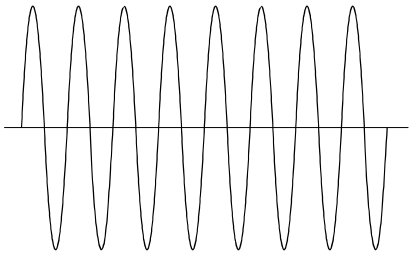

Figure 3.8—
Interferential Waveform

Waveform Type:	Sinewave
Polarity:	None
Volts:	0–65 volts RMS, 1 Kohm load
Current:	0–65 mA RMS, 1 Kohm load
Average current at maximum intensity and frequency:	65 mA RMS
Maximum current density under 2" diameter electrode.	3.2 mA/cm²
Frequency:	Channel 1 = 4000 Hz Channel 2 = 4000 to 4250 Hz variable frequency sine wave
Frequency Modulation:	1–15 Hz 80–150 Hz 1–150 Hz xx–xx Hz, *xx=any value from 1 to 250 Hz*
Phase Duration:	125 μs
Available Amplitude Modulation Options:	Vector rotation
Available Channels:	Channel pairs 1 & 2 or 3 &4

Premodulated Mode

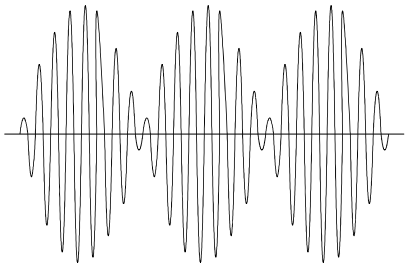

Figure 3.9—Premodulated
Waveform

Waveform Type:	Amplitude modulated sine wave
Polarity:	None
Volts:	0–50 volts RMS, 1 Kohm load
Current:	0–50 mA RMS, 1 Kohm load
Average current at maximum intensity and frequency:	50 mA RMS
Maximum current density under 2" diameter electrode:	2.5 mA/cm²

Frequency:	4,000 Hz
Frequency Modulation:	1–15 Hz 80–150 Hz 1–150 Hz xx–xx Hz, *xx=any value from 1 to 250 Hz*
Phase Duration:	125 μs internal sine wave 4–1,000 ms beat envelope
Available Amplitude Modulation Options:	Continuous Surge Reciprocation
Available Channels:	All

Medium Frequency Mode

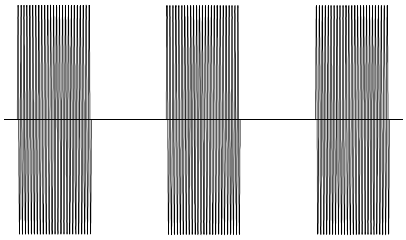

Figure 3.10—Medium Frequency (*Russian*) Waveform

Waveform Type:	Burst modulated sine wave
Polarity:	None
Volts:	0–50 volts RMS, 1 Kohm load
Current:	0–50 mA RMS, 1 Kohm load
Average current at maximum intensity and frequency:	50 mA RMS
Maximum current density under 2" diameter electrode.	2.5 mA/cm²
Frequency:	2500 Hz, Burst at 10 ms on and 10 ms off
Frequency Modulation:	No
Phase Duration:	200 μs
Available Amplitude Modulation Options:	Continuous Surge Reciprocation
Available Channels:	All

Biphasic *(TNS)* Mode

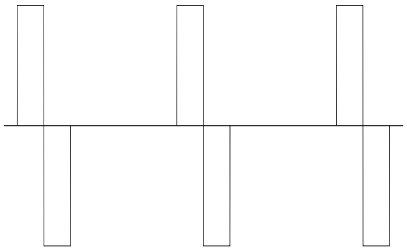

Figure 3.11—Biphasic *(TNS)* Waveform

Waveform Type:	Symmetrical biphasic square wave
Polarity:	None
Volts:	99 volts peak, 1 Kohm load
Current:	0 –99 mA peak, 1 Kohm load
Average current at maximum intensity and frequency:	7.2 mA
Maximum current density under 2" diameter electrode.	0.36 mA/cm²
Frequency:	1–120 HzzHz
Frequency Modulation:	No
Phase Duration:	50–300 μs
Available Amplitude Modulation Options:	Continuous Surge Reciprocation
Available Channels:	All

High Volt Mode

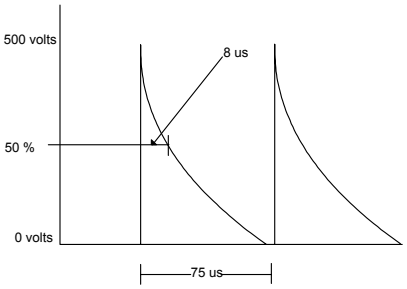

Figure 3.12—High Volt Waveform

Waveform Type:	Monophasic twin peak
Polarity:	Positive or negative
Volts:	500 volts peak, 1 Kohm load
Current:	0–500 mA peak, 1 Kohm load
Average current at maximum intensity and frequency:	1.2 mA at 120 pps with 1 Kohm load
Maximum current density under 2" diameter electrode.	0.06 mA/cm²
Frequency:	1–120 HzzHz
Frequency Modulation:	No
Phase Duration:	8 μs at 50% Vmax
Polarity:	Positive or negative
Available Amplitude Modulation Options:	Continuous Surge
Available Channels:	Channel One only

Microcurrent Mode

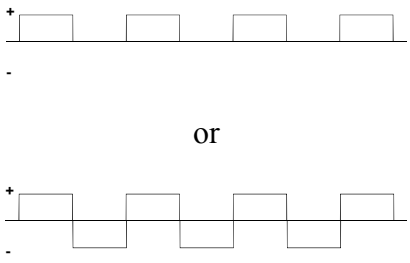

Figure 3.13—Microcurrent Waveform

Waveform Type:	Monophasic or biphasic square wave
Polarity:	Positive or negative or biphasic pulses
Volts:	1 Volt peak, 1 Kohm load
Current:	10-990 μA peak, 1 Kohm load
Average current at maximum intensity and frequency:	990 μA
Maximum current density under 2" diameter electrode.	24.4 μA/cm²
Frequency:	0.5-500 Hz
Duty Cycle:	50%zHz
Frequency Modulation:	No
Pulse Duration:	1-1000 ms
Available Amplitude Modulation Options:	Continuous
Available Channels:	Channel Two only

Amplitude Modulation Specifications:

Vector rotation: *Interferential Mode Only*

-50% amplitude modulation in anti phase with an eight second modulation period.

Surge Mode: *Premodulated, Medium Frequency and Biphasic (TNS) Pulsed Modes*

Up ramp:	3 seconds
Down ramp:	2 seconds
Preset on/off times:	10 seconds on, 10 seconds off 10 seconds on, 20 seconds off 10 seconds on, 30 seconds off 10 seconds on, 40 seconds off 10 seconds on, 50 seconds off 10 seconds on, 60 seconds off
Programmable On time:	1–240 seconds
Programmable Off time:	1–240 seconds

Reciprocation mode: *Premodulated, Medium Frequency and Biphasic (TNS) Pulsed Modes*

Up and down ramps:	1 second, *reciprocation only*
Reciprocation time:	2–240 seconds, (On time = off time)
Combine with Surge:	Use up and down ramps of surge program Use on/off times of surge program.
Two timer option:	No