Models: BCX Ultra

Type		Differential Plasma Carrier Modulator and TENS Stimulator
Application		Standalone Powered by 120-240VAC 50/60Hz Household Power
Configuration		PCM: Fully Balanced Differential, Floating TENS: Fully Balanced Differential, Floating
Energy type		PCM: AC Radio Frequencies (RF) Conduction Electromagnetic (EM) Electric Field (E-Field) Ultra-red (UR), Visible, & Ultra-violet (UV) Light TENS: AC Audio and Radio Frequencies (AF & RF) Conduction
Frequency	Modes of Operation	PCM: Single or Mixed Frequencies with 100KHz Carrier Frequency TENS: Single or Mixed Frequencies with or without Variable Frequency Carrier Linear and Square Drive frequencies and Carrier
	Waveform Type	PCM: Squarewave TENS: Squarewave, Sinewave, Square Sweep, Trapezoid, Triangle, Hoyland, Linear Ramp Up, Linear Ramp Down, Exponential Ramp Up, Exponential Ramp Down, Equal Odd Order Harmonics, Equal Even Order Harmonics, Custom 1, Custom 2, Custom 3
	Range	PCM: 1 to 100,000 Hz TENS: 1 to 4,000,000 Hz
	Resolution	1.00000 to 9.99999 Hz (0.00001 Hz) 10.0000 to 99.9999 Hz (0.0001 Hz) 100.000 to 999.999 Hz (0.001 Hz) 1,000.00 to 9,999.99 Hz (0.01 Hz) 10,000.0 to 99,999.9 Hz (0.1Hz) and 100,000 Hz 100,000 to 4,000,000 Hz (100 Hz)
	Maximum Simultaneous Frequencies	2 Individual 6 Equal Intensity Harmonic Multipliers Multiple with Pulse and Frequency Harmonics Multiple with Custom Arbitrary Waveforms
Duty Cycle, Modulation & Gate	Modes of Operation	Variable Duty Cycle 1 to 100% Single or Multiple Frequencies Square or Linear Drive Frequencies

	Waveform Types	Squarewave, Sinewave, Square Sweep, Trapezoid, Triangle, Hoyland, Linear Ramp Up, Linear Ramp Down, Exponential Ramp Up, Exponential Ramp Down, Equal Odd Order Harmonics, Equal Even Order Harmonics, Custom 1, Custom 2, Custom 3
	Range	1 to 10,000 Hz
	Resolution	1.0000 to 9.9999 Hz (0.0001 Hz) 10.000 to 99.999 Hz (0.001 Hz) 100.00 to 999.99 Hz (0.01 Hz) 1,000.0 to 9,999.9 Hz (0.1 Hz) and 10,000 Hz
	Maximum Simultaneous Modulation Frequencies	1 Individual 2 Equal Intensity Harmonic Multipliers Multiple with Pulse and Frequency Harmonics Multiple with Custom Arbitrary Waveforms
Programs		1236 Internal non-volatile (User re-nameable) 255 User non-volatile (Completely configurable including name)
Sequences		80 Sequences per Program Single direct 40 Sequences per Program Mixed or Carrier direct
Sweep		Sweep Frequencies with Upper and Lower limits Set Dwell and Direction Up, Down, or Wobble
Chain		Chain up to 100 Programs Repeat Programs for unlimited run time
Intensity		1 to 100% Independent for each Running Accessory
Timer		1 to 120 Minutes
Shutoff		Auto Shutoff or Manual
Program Variables		Name, Use Defaults, Output, Run Time, Duty Cycle, Gate Waveform, Gate Frequency, Electrode Intensity, Raytube Intensity, Soft Start, Auto Shutoff, Use Carrier, Carrier Waveform, Carrier Frequency, Frequency Waveform, Frequency, Add Frequencies, Save Program, Run Program
Changeable Defaults		Show Instructions, Power On Application, Sequence, Program, Use Defaults, Output Device, Run Time, Duty Cycle, Gate Waveform, Gate Frequency, Electrode Intensity, Radiator Intensity, Soft Start, Auto Shutoff, Use Carrier, Same/Different Carrier, Carrier Waveform, Frequency Waveform, Carrier Frequency, Frequency More, Frequencies, Save Program, Run Program
Other		Built in Instructions, Soft Start, Program without Run, Run without Store
Power Output		PCM: 30 Watts Max. TENS: 0.75 Watts Max., Voltage 30 Vpp Squarewave, 35 Vpp other

Raytubes

10/01/13

Type		Plasma Carrier Modulator		
Application		1 pair plugs directly into the Ultra Powered from the Ultra		
Configuration		Fully balanced differential, Floating		
Energy type		AC Radio Frequencies (RF) Conduction Electromagnetic (EM) Electric Field (E-Field) Ultra-red (UR), Visible, & Ultra-violet (UV) Light		
Frequency	Modes of Operation	Single or Mixed Frequencies @ Fixed Carrier (100kHz Nominal) Square Drive Frequencies, Linear Drive Carrier		
	Waveform Types	Squarewave Sinewave Square Sweep Trapezoid Triangle	Hoyland Linear Ramp Up Linear Ramp Down Exponential Ramp Up Exponential Ramp Down	Equal Odd Order Harmonics Equal Even Order Harmonics Custom 1 Custom 2 Custom 3
	Range	1 to 100,000 Hz (only effective if below Carrier Frequency)		
	Resolution	1.00000 to 9.99999 Hz (0.00001 Hz) 10.0000 to 99.9999 Hz (0.0001 Hz) 100.000 to 999.999 Hz (0.001 Hz) 1,000.00 to 9,999.99 Hz (0.01 Hz) 10,000.0 to 100,000.00 Hz (0.1Hz)		
	Maximum Simultaneous Frequencies	1 Individual + Carrier 2 Equal Intensity Harmonic Multipliers + Carrier Multiple with Pulse and Frequency Harmonics + Carrier Multiple with Custom Arbitrary Waveforms + Carrier		
Duty Cycle, Modulation & Gate	Modes of Operation	Variable Duty Cycle 1 to 100% Single or Multiple Frequencies Square or Linear Drive Frequencies		
	Waveform Types	Squarewave Sinewave Square Sweep Trapezoid Triangle	Hoyland Linear Ramp Up Linear Ramp Down Exponential Ramp Up Exponential Ramp Down	Equal Odd Order Harmonics Equal Even Order Harmonics Custom 1 Custom 2 Custom 3
	Range	1 to 10,000 Hz		
	Resolution	1.0000 to 9.9999 Hz (0.0001 Hz) 10.000 to 99.999 Hz (0.001 Hz) 100.00 to 999.99 Hz (0.01 Hz) 1,000.0 to 9,999.9 Hz (0.1 Hz) and 10,000 Hz		
	Maximum Simultaneous Modulation Frequencies	1 Individual 2 Equal Intensity Harmonic Multipliers Multiple with Pulse and Frequency Harmonics Multiple with Custom Arbitrary Waveforms		
Intensity		1 to 100%		
Power Output		30 Watts Max. (dependent upon program & load impedance)		

Electrodes

10/01/13

Type		Conduction Device		
Application		Up to 2 pairs plug directly into the Ultra Powered by the Ultra		
Configuration		Fully balanced differential, Floating		
Energy type		AC Audio and Radio Frequencies (AF & RF) Conduction		
Frequency	Modes of Operation	Single or Multiple Frequencies with or without Variable Frequency Carrier Square or Linear Drive Frequencies and Carrier		
	Waveform Types	Squarewave Sinewave Square Sweep Trapezoid Triangle	Hoyland Linear Ramp Up Linear Ramp Down Exponential Ramp Up Exponential Ramp Down	Equal Odd Order Harmonics Equal Even Order Harmonics Custom 1 Custom 2 Custom 3
	Range	1 to 4,000,000 Hz Squarewave (Rise and Fall time < 150ns.) 1 to 100,000 Hz all other Waveforms (Sinewave Distortion < 0.1% THD)		
	Resolution	1.00000 to 9.99999 Hz (0.00001 Hz) 10.0000 to 99.9999 Hz (0.0001 Hz) 100.000 to 999.999 Hz (0.001 Hz) 1,000.00 to 9,999.99 Hz (0.01 Hz) 10,000.0 to 99,999.9 Hz (0.1Hz) and 100,000 Hz 100,000 to 4,000,000 Hz (100 Hz)		
	Maximum Simultaneous Frequencies	2 Individual 6 Equal Intensity Harmonic Multipliers Multiple with Pulse and Frequency Harmonics Multiple with Custom Arbitrary Waveforms		
Duty Cycle, Modulation & Gate	Modes of Operation	Variable Duty Cycle 1 to 100% Single or Multiple Frequencies Square or Linear Drive Frequencies		
	Waveform Types	Squarewave Sinewave Square Sweep Trapezoid Triangle	Hoyland Linear Ramp Up Linear Ramp Down Exponential Ramp Up Exponential Ramp Down	Equal Odd Order Harmonics Equal Even Order Harmonics Custom 1 Custom 2 Custom 3
	Range	1 to 10,000 Hz		
	Resolution	1.0000 to 9.9999 Hz (0.0001 Hz) 10.000 to 99.999 Hz (0.001 Hz) 100.00 to 999.99 Hz (0.01 Hz) 1,000.0 to 9,999.9 Hz (0.1 Hz) and 10,000 Hz		
	Maximum Simultaneous Modulation Frequencies	1 Individual 2 Equal Intensity Harmonic Multipliers Multiple with Pulse and Frequency Harmonics Multiple with Custom Arbitrary Waveforms		
Intensity		1 to 100%		
Power Output		¾ Watt Max. (dependent upon program & load impedance) Voltage 30 Volts PP Squarewave, 35 Volts PP all other waveforms		