

PACE 203®

Dual Chamber Temporary Cardiac Pacemaker

COMPETITIVE COMPARISON

The Cardiotron PACE 203 dual chamber(DDD) temporary pacemaker/external pulse generator is designed for safe and dependable temporary stimulation of the heart for peri/postoperative pacing and/or therapy for conduction defects and rhythm disturbances. The Pace 203 offers superior technology including advanced pacing customization, reliable safety features, and a user-friendly interface for effortless patient management.

ADVANCED TECHNOLOGY:

- *Extended Battery Life* - The Cardiotron PACE 203 can provide continuous pacing for a *minimum* of 11 days in VVI mode, and 9 days in DDD mode; an average of over 240 hours of continuous operation.
- *Superior Processing Speed* - The PACE 203 incorporates a sophisticated high performance processor which allows seamlessly quick changes to pacing parameters and options.

RELIABLE SAFETY FEATURES:

- *Longer Continuous Operation During Battery Changes* - At 30 seconds, the continuous operation during battery replacement is twice as long as that of the Medtronic Model 5388 device.
- *Automatic Locking* - The Cardiotron PACE 203 temporary pacemaker provides a safety locking feature which prevents accidental changes by locking out all functions within 30 seconds of the last input. The Medtronic Model 5388 only locks rate and output after 60 seconds, increasing the chances of an unintentional press of the Emergency, Off, Menu, or Pause buttons.

STATISTICAL RESULTS:

- The PACE 203 records and analyzes the activity of the pacer, including overall sensed cycles, paced cycles, and the percentage of paced cycles. Clinicians can use these statistical results to help determine the patient's dependency on pacing.

EFFORTLESS PROGRAMMING:

- The intuitive dial interface allows programming AV delay or atrial/ventricular sensitivities through only one touch compared to the three key presses needed for the Medtronic Model 5388. Clinicians can now select new parameters for the Cardiotron PACE 203 with just a simple twist of a dial, instead of repeated button pressing required for the Medtronic device.



MORE OPTIONS AND FEATURES:

- The PACE 203 temporary pacemaker provides more programming choices and features than the Medtronic Model 5388, allowing parameters and settings to be personalized for each patient. A wider range of adjustable pulse widths, AV intervals and sensitivities, and pacing modes assist in tailoring settings for specific patient needs.
- By just one button push, the PACE 203 can temporarily pause pacing to automatically measure and display the patient's intrinsic heart activity, including atrial/ventricular rates, their corresponding intervals, P/R wave amplitudes, and even AV interval.

Comparison Matrix

	Cardiotronic PACE 203	Medtronic ¹ Model 5388
Modes	DDD, VVI, AAI, VDD, DOO, VOO, AOO, DVI, DAI, VAT, AAT, DDD+AT, DAT	DDD, DDI, DVI, DOO, VVI, VOO, AAI, AOO
Atrial Tracking	DDD+AT	DDI (pacing in V, does not track atrial sensed events - for A arrhythmia)
Auto Mode Switching (reversion operation)	Signal rate analysis algorithm, if >273 ppm (~4.5 Hz) device will switch to asynchronous mode automatically	If high levels of interference detected, the 5388 will revert to asynchronous mode (rate set by dial)
Interference Detection Frequency	> 4.5 Hz $\pm 5\%$ (>273 bpm)	> 4 Hz (>240 bpm)
Base Rate	30 - 220 ppm ($\pm 2\%$)	30 - 200 ppm ($\pm 5\%$)
Upper Rates	80 - 230 ppm ($\pm 2\%$)	80 - 230 ppm $\pm 10\%$ (if manual) if auto, base rate + 30 ppm
Rapid Atrial Pacing Rates	70 - 1000 ppm $\pm 4\% \pm 1$ ms (in 10 ppm increments - nominal is 240 ppm)	80 - 800 ppm $\pm 5\%$ (nominal is 320 ppm)
PV Delay	A-V delay - 30 ms $\pm 5\% \pm 2$ ms (minimum 5 ms when atrial Auto Sense is not activated, minimum 30 ms when atrial Auto Sense is activated) may be prolonged depending on MTR	PAV minus 30 ms (± 15 ms or 5%) may be prolonged depending on MTR
Output Amplitude	<i>Atrial</i> 0.1 - 18 V ($\pm 10\% \pm 0.02$ V) <i>Ventricular</i> 0.1 - 18 V ($\pm 10\% \pm 0.02$ V)	0.1 - 20 mA $\pm 10\%$ or ± 0.1 mA 0.1 - 25 mA $\pm 10\%$ or ± 0.1 mA
Pulse Width	<i>Atrial</i> 0.05 - 1.5 ms ($\pm 5\% \pm 0.02$ ms) <i>Ventricular</i> 0.05 - 1.5 ms ($\pm 5\% \pm 0.02$ ms)	1.0 ms $\pm 10\%$ (fixed, not adjustable) 1.5 ms $\pm 10\%$ (fixed, not adjustable)
Sensitivity	<i>Atrial</i> 0.2 - 20 mV ($\pm 10\% \pm 0.05$ mV) <i>Ventricular</i> 1.0 - 20 mV ($\pm 10\% \pm 0.05$ mV)	0.4 - 10 mV $\pm 25\%$ or ± 0.3 mV 0.8 - 20 mV $\pm 25\%$ or ± 0.3 mV
Refractory Period	<i>Atrial</i> 250 ms $\pm 5\%$ (AAI, AAT) A-V interval plus PVARP (DDD, VDD, DAI, VAT, DAT) <i>Ventricular</i> 250 ms $\pm 5\%$	150-500 ms $\pm 10\%$ (AAI) AV interval plus PVARP (DDD, DDI) 250 ms $\pm 10\%$
Crosstalk Detection Window	40 ms (starts with either an atrial paced or intrinsic event)	20 ms
Runaway Protection	235 ppm ± 3 ppm	via quartz frequency surveillance
Defibrillation Protection	Yes, built-in suppression diode Y	Yes
Emergency Mode	VOO (AOO), 80 ppm, 12 V, 0.75 ms (1.0 ms)	DOO, 80 ppm, atrial (20 mA, 1.0 ms), ventricular (25 mA, 1.5 ms)
Battery	Standard 9 V Alkaline or Lithium	Standard 9 V Alkaline or Lithium
Low Battery Indicator	24 hours reserve after first appearance of battery change message	24 hours reserve after first appearance of battery change message
Continuous Operation During Battery Change	30 seconds	15 seconds
Size and Weight	7.87 x 3.78 x 1.5 inches; 17.28 oz (with battery)	8.3 x 3.2 x 1.4 inches; 18 oz (with battery)
Auto Self Test	Performed automatically when device turned on	Performed automatically when device turned on
Lock Feature	Automatically locks all buttons and dials within 30 seconds	Automatically locks all buttons and dials within 60 seconds
Two Step Service Turn Off Safety Feature	Confirmation and double button press required to prevent accidental shut down of temporary pacemaker	Confirmation and double button press required to prevent accidental shut down of temporary pacemaker
Warranty	2 years	1 year

¹Medtronic Model 5388 Technical Manual. © Medtronic, Inc. 1996