# Sustain<sup>™</sup> XL SC

## Single-Chamber Pacemaker

## **Product Highlights**

- Device features small, physiologic shape and offers superior longevity (12,8 years)
   without compromising size.<sup>1</sup>
- Instant follow-up with automatic P- or R-wave, lead impedance measurements and ventricular threshold tests.
- The AutoCapture™ Pacing System feature offers the maximum in threshold adaptability and patient safety with ventricular Beat-by-Beat™ capture confirmation.
- Stored electrograms (EGMs) record a real-time EGM waveform as well as the associated event markers that precede and follow a specific triggering event.
- 1. A, V = 2.5 V/0.4 ms, A,V = 500 ohms, 100% VVI pacing @ 60 bpm, SEGMs ON; data on file



# **Ordering Information**

Contents: Cardiac pulse generator

Model Number	Dimensions (H x W x T, mm)	Weight (g)	Volume (cc)	Connector
PM1134	42 x 52 x 6	23	10,4	IS-1

Indications and Usage: Implantation of Sustain pulse generators is indicated in the following permanent conditions, when associated with symptoms including, but not limited to: syncope, presyncope, fatigue, disorientation due to arrhythmia/bradycardia or any combination of those symptoms. Symptomatic bilateral bundle branch block when tachy-arrhythmia and other causes have been ruled out.

Atrial Pacing is indicated for patients with sinus node dysfunction and normal AV and intraventricular conduction systems. Ventricular Pacing is indicated for patients with significant bradycardia and: Normal sinus rhythm with only rare episodes of A-V block or sinus arrest, chronic atrial fibrillation, severe physical disability.

Contraindications: Implanted Cardioverter-Defibrillator (ICD). Because Sustain pulse generators will be automatically programmed to a unipolar pulse configuration if the device initiates Backup VVI pacing, Sustain devices are contraindicated in patients with an implanted cardioverter-defibrillator.

Potential Adverse Events: Arrhythmia, heart block, thrombosis, threshold elevation, valve damage, pneumothorax, myopotential sensing, vessel damage, air embolism, body rejection phenomena, cardiac tamponade or perforation, formation of fibrotic tissue, local tissue reaction, inability to interrogate or program a pulse generator because of programmer malfunction, infection, interruption of desired pulse generator function due to electrical interference, loss of desired pacing and/or sensing due to lead displacement, body reaction at electrode interface, or lead malfunction (fracture or damage to insulation), loss of normal pacemaker function due to battery failure or component malfunction, pacemaker migration, pocket erosion, or hematoma, pectoral muscle stimulation, phrenic nerve or diaphragmatic stimulation.

Refer to the User's Manual for detailed indications, contraindications, warnings, precautions and potential

Customer Support: 46-8-474-4756

Brief Summary: Prior to using these devices, please review the Instructions for Use for a complete listing of indications, contraindications, warnings, precautions, potential adverse events and directions for use. Devices depicted may not be available in all countries. Check with your St. Jude Medical representative for product availability in your country. Unless otherwise noted, ™ indicates that the name is a trademark of, or licensed to, St. Jude Medical or one of its subsidiaries. ST. JUDE MEDICAL, the nine-squares symbol and MORE CONTROL. LESS RISK. are registered and unregistered trademarks and service marks of St. Jude Medical, Inc. and its related companies. ©2011 St. Jude Medical, Inc. All rights reserved.



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### Single-Chamber Pacemaker

# **Product Specifications**

PHYSICAL SPECIFICATIONS	
Model	PM1134
Dimensions (mm)	42 x 52 x 6
Weight (g)	23
Volume (cc)	10,41
Connector	IS-1

### PARAMETER SETTINGS

### Rate/Timing

A or V Refractory (ms) 125-500 in steps of 25; 325 302: 40-130 in steps of 5: 140-170 in steps of 10 Base Rate (bpm) A00; AAI; AAT; OAO; VOO; **VVI**; VVT; OVO Hysteresis Rate (bpm) Off; 30-130 in steps of 5; 140;  $150^3$ Search Interval (bpm) Off; 5; 10; 15; 30 Cycle Count 1-16 in steps of 1 Off; 60; 80-120 in steps of 10; Intrinsic +0; Intervention Rate (bpm) Intrinsic +10; Intrinsic +20; Intrinsic +30 Intervention Duration (min) 1-10 in 1 minute intervals Fast: Medium: Slow: Very Slow Recovery Time Rate Responsive VREF Off; Low; Medium; High Rest Rate (bpm) Off; 30-130 in steps of 5; 140; 150 Shortest VREF 120-350 in steps of 10

### Output/Sensing

Search Interval (hours)

A or V Pulse Amplitude (V) 0,0-4,0 in steps of 0,25; 4,5-7,5 in steps of 0,5; **2,5** A or V Pulse Width (ms) 0,05; 0,1-1,5 in steps of 0,1;  ${\bf 0,4}$ A or V Sensitivity (mV) 0,5-5,0 in steps of 0,5; 6-10 in steps of 1,0;  $12,5^4$ A or V Pulse Configuration Unipolar (tip-case); Bipolar (tip-ring) A or V Sense Configuration Unipolar Tip (tip-case); Bipolar (tip-ring); Unipolar Ring (ring-case) Ventricular AutoCapture<sup>™</sup> Pacing System Primary Pulse Configuration Unipolar; Bipolar Backup Pulse Configuration Unipolar; Bipolar Backup Pulse Amplitude (V) 5,05

8; 24

### Stored Electrograms

Sampling Options Freeze; Continuous No. of Stored FGMs 1:2:4:8:12 Channel Atrial or Ventricular

Triggers

Magnet Placement **Off**; 125; 150; 175; 200; 225; 250; 275; 300 High Atrial Rate No. of Consecutive Cycles High Ventricular Rate No. of Consecutive Cycles

2; 3; 4; 5; 10; 15; 20  $\pmb{0ff};\,125;\,150;\,175;\,200;\,225;\,250;\,275;\,300$ 

2; 3; 4; 5; 10; 15; 20 On: Off

Other

Advanced Hysteresis

A or V Low Impedance Limit (Ω) A or V High Impedance Limit ( $\Omega$ ) A or V Signal Amplitude Monitoring Magnet Response Lead Type NIPS Options

Stimulation Chamber Coupling Interval (ms) S16: S2: S3 and S4 Cycle (ms) Sinus Node Recovery Delay (sec) Off; Monitor; Auto Polarity Switch 750; 1000; 1250; 1500; 1750; 2000

Uncoded; Unipolar; Bipolar Only; Unipolar/Bipolar

Atrial or Ventricular 100-800 in steps of 10 1-25 in steps of 1100-800 in steps of 10 1-5 in steps of 1

 $1.\pm0.5$  cc 2. The actual pacing rate for the 30 ppm is 31 ppm. 3. The highest available setting for Hysteresis Rate will be 5 ppm below the programmed Base Rate. 4. Sensitivity is with respect to a 20 ms haversine test signal.

5. This parameter is not programmable.
6. S1 Burst Cycle is applied at the preprogrammed S1 cycle length

