BIOTRONIK PSW 1202.A/1

Time: **09:08**

Date: **14/03/2013**

Patient: -----

Device: Lumax 540 HF-T S/N: 60658606 (PID 63) RAM ID: 6.0.2

—0vei	rview							
Tachi	ycardia de	tection	:	Enabled				
	Rate	1. ATP	;	2. ATP	1st	Sho	cks 2nd—	—3-Nth—
VT1 VT2 VF	162 bpm 188 bpm 222 bpm	3×Burst 3×Burst 0		×Ranp ×Ranp	40J 40J 40J 40J		40J 40J 40J 40J	6×40J 6×40J 6×40J
Prog	Progressive course of therapy ON							
Basi	ricular pad c rate r rate	DDD cing BiV/T 60 130		Pulse a Pulse w	mplitude idth	A 3.6 0.4	RV 3.6 0.4	LV 4.8 V 0.4 ms

─Bradycardia ───────────────────────────────────			
Mode Basic rate Night rate	Permanent DDD 60 OFF	Post shock DDI 70	bpn
Rate hysteresis	0FF	0FF	
Ventricular pacing LV T-wave protection Triggering Maximum trigger rate VV delay after Vp VV delay after RVs Initially paced chamber RV delay Lower rate for RV delay Upper rate for RV delay Sense compensation RV safety window RV hysteresis mode	BiV ON RVs 150 5 0 LV 150/120 60 130 -30 100 0FF	RV 140	bpm ms ms bpm bpm bpm ms ms
Upper rate Upper rate response Atrial upper rate Intervention rate Mode Onset criterion Resolution criterion Change of basic rate Ventricular pacing LV T-wave protection Triggering Post ModeSw rate Post ModeSw duration PMT detection/termination VA criterion	130 WKB 240 160 DDI 7 5 +10 ON RVs +10 O1:00 ON 350	00.20	bpm bpm bpn out of 8 out of 8 bpn bpn bpn mm:ss
Post-shock duration		00:30	mm:SS

Bradycardia			
Pacing			
Pulse amplitude Pulse width	A 3.6 0.4	RV 3.6 0.4	LV 4.8 V 0.4 ms
—Sensing———			
Sensing Blanking	A Std.	RV Ind.	LV Std.
after atrial pace after RV pace after LV pace Thresholds		50 AUTO 80	100 ms 80 ms AUTO ms
Upper threshold Hold of upper threshold Lower threshold Post pace T-wave suppr. PVC	50 25	50 360 25 On	50 % 360 ms 50 %
Discrimination after As Minimum threshold Far-field protection after Vp Far-field protection after Vs PVARP PVARP after PVC	0 . 4 75 75 300 525	350 0.8	ms 1.6 mV ms ms ms
LV polarity LV sensing polarity LV pacing polarity		LV tip →	BIPL LV ring

Detection————————————————————————————————————	VT1 162	VT2 188		VF 222	bpm
Detection counter Redetection counter SMART detection SMART redetection	26 20 ON ON	16 14 On On		in 16	·
Onset Stability	20 12	20 12			
Forced termination	J	l	MÍN		

VT1	Rate	162 bpm				
—ATP's——— Type	-1st	2nd————————————————————————————————————	Shocks- Energy	—1st- 40J		-3-Nth- 6×40J
Ven. pacing Number S1 Add S1 R-S1 Int. S1 decrement	RV 5 ON 80 %	RV 5 0N 80 /. 10 ms	Confirmation Polarity Waveform Shock path		Ni Bipl	ON ormal hasic n+SVC
S1-S2 Int. Scan decrement Min.Interval ATP optimizat. ATP timeout		0FF 00 ms 0N FF	SHOCK PUTH	ľ	iv roui	1.346

UT2						
ATP's—	Rate	188 bpm	Shocks-			
Type	—1st——— 3×Burst	−2nd−−−− 3×Ramp	Energy	—1st 40J		-3-Nth- 6×40J
Ven. pacing Number S1 Add S1 R-S1 Int. S1 decrement	RV 5 ON 80 %	RV 5 ON 80 % 10 ms	Confirmation Polarity Waveform Shock path	I	Biph	ON ormal nasic n+SVC
S1-S2 Int. Scan decrement Min.Interval ATP optimizat. ATP timeout		OFF OO ms ON FF				

ATP-	Rate		222 bpm	Shocks-			
Туре		0FF		Energy	-1st 40J		3-Nth- 6×40J
Ven. pacing Number S1 R-S1 Int. S1 decrement S1-S2 Int.				Confirmation Polarity Waveform Shock path	F	No Bipl	ON ormal nasic n+SVC

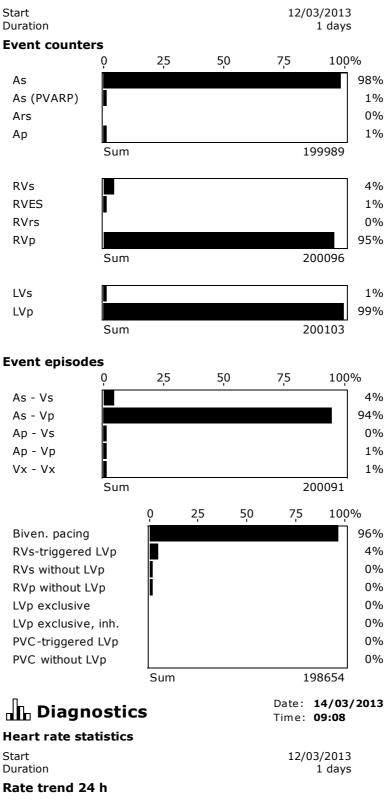
-Patient	
I ID	500831/025
Name	
First name	
Date of birth	
Gender	Male
Symptom	Prophylactic indication
EČG indication	Not documented
Etiology	Coronary artery disease
LVEF	15 <i>Y</i> .
NYHA	II
Tunlantation	
Implantation——— Implantation	12/03/2013
Hospital, City	FN BRNO - BOHUNICE
Physician	MUDr. Kozak
Phone	+420532232459
110110	120002202107
—Leads———	
	A
Lead position	Appendage
Manufacturer	BIOTRONIK
Type	Siello S 53
Serial number	25787702
land position	RV
Lead position Manufacturer	Septum BIOTRONIK
Type	LinoxSmart SD 65/16
l Serial number	10491781
Joi 141 Hallbei	LV
Lead position	LV posterolateral
Manufacturer	BIOTRONIK
Туре	Corox OTW-L 75 BP
Serial number	25103501

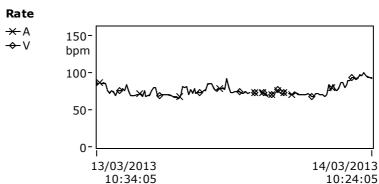
Diagnostics/HM		
Program No.	5	
Home Monitoring		
Home Monitoring	ON	
Time of transmission	01:00	hh:mm
IEGM for therapy episodes	ON	
IEGM for monitoring episodes	ON	
Periodic IEGM		Months
Ongoing atrial episode	12	h
Thoracic impedance	ON	
-Statistics-		
AT/AF rate	200	bpm
Start rest. period	02:00	
Rest. period dur.	04:00	
Automatic impedance measurement	ON	
AV delay adj. sensing test	300	ms
Thoracic impedance	ON	
December of the dec		
Recording episodes For AT/AF	ON	
For SVT	ON ON	
101 391	VIY	
—Autom. threshold monitoring (ATM)-		
ATM RV	ON	
I ÄTM LV	ŎŇ	

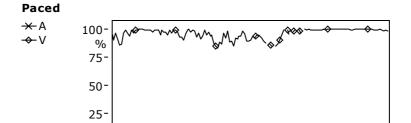


Date: **14/03/2013** Time: **09:08**

Timing







14/03/2013

10:24:05

Long term rate trend

0-

13/03/2013 10:34:05

Rate

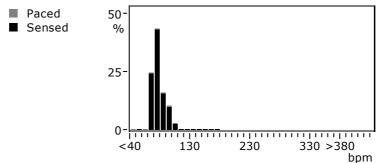


Paced

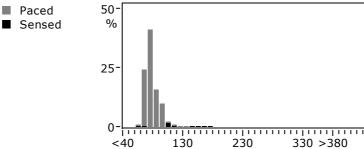


Rate histogram

Atrium



Ventricle



Counters

PMT counter	0
Safety window pacing	2
Mode switching episodes	0



Date: **14/03/2013** Time: **09:08**

0%

rime: **09**

Atr. arrhythmia

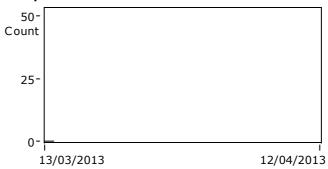
 Start
 12/03/2013

 Duration
 1 days

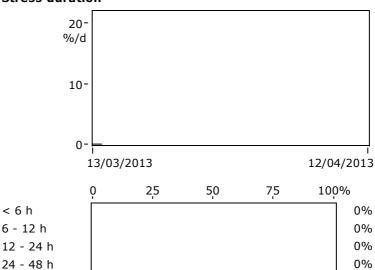
Atrial burden

Atrial burden	0.0	%
AT/AF rate	200	bpm

Number of episodes



Stress duration

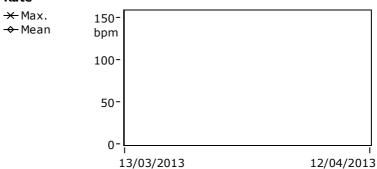


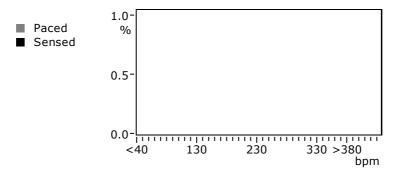
Ventricular reaction

Sum

Rate

> 48 h





Diagnostics

Date: 14/03/2013 Time: 09:08

1 days

Ven. arrhythmia

Start 12/03/2013 Duration

PVC/h



Total number in time range 1442

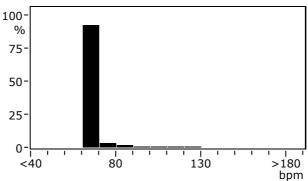
III Diagnostics

Date: 14/03/2013 Time: **09:08**

Start 12/03/2013 Duration í days

Sensor rate

Sensor



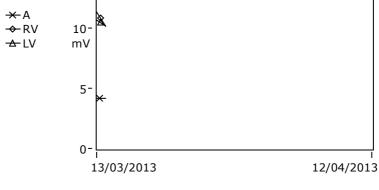
III Diagnostics

Date: 14/03/2013 Time: 09:08

Sensing

Start 12/03/2013 Duration 1 days

P/R amplitude



III Diagnostics

Date: **14/03/2013** Time: **09:08**

Pacing

 Start
 12/03/2013

 Duration
 1 days

Impedance trend

Brady



Shock



Pacing threshold



Thoracic impedance





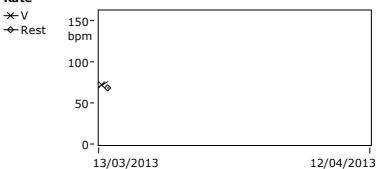
I Diagnostics

Date: **14/03/2013** Time: **09:08**

HF monitor

Start 12/03/2013 Duration 1 days

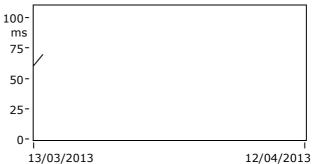
Rate



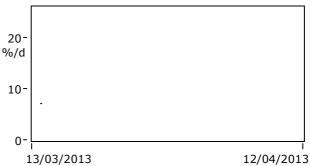
Start rest. period Rest. period dur.

02:00 hh:mm 04:00 hh:mm

HR variability



Patient activity



Recordings

Date: **14/03/2013** Time: **09:08**

Shocks

No.	Time	Energy [J]	Charge time [s]	Imped. [Ω]	Description

Total number of charges

Recordings

Date: **14/03/2013** Time: **09:08**

Episodes

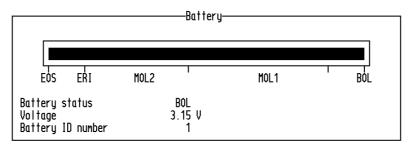
No.	Time	Zone	PP [ms]	RR [ms]	Description	PP [ms]	RR [ms]
1	1			l			

Display episodes [x] AT/AF [x] VT/VF [x] SVT [] Since last follow-up

🐧 Status

Date: **14/03/2013** Time: **09:09**

	Device	
Software release ICD PID	6.0.2 0K 63	



Shocks/Reforms								
Total number of charges 0								
	Last charge event	Last with max. energy						
Energy Charge time Date Time	 	 	J s					

Type of message
Last message

XX/XX/XXXX XX:XX

T Impedance

A + BiV

Date: 14/03/2013

Time: **09:09**

Chamber(s) Mode Ventricular pacing	A + BiV DDD BiV				
Shock path Pulse amplitude Pulse width	RV+Can+SVC A RV LV 3.6 3.6 4.8 V 0.4 0.4 0.4 ms				
LV pacing polarity	LV tip → LV ring				
Measured values					
Shock Pacing	A RV LV 46 Ω 537 510 714Ω				

▼ Sensing

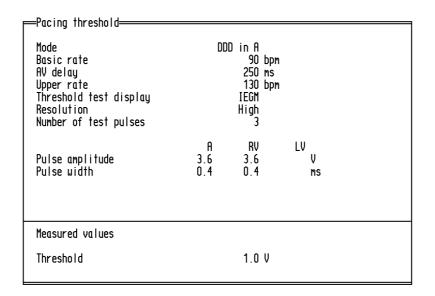
VI				
=Sensing====				
Mode		VVI		
Basic rate Ventricular pacing		30 bp BiV	OM .	
Pulse amplitude Pulse width	A	RV 3.6 0.4	LV 4.8 V 0.4 ms	
LV sensing polarity			BIPL	
Measured values				
Mean AV delay		155	ms	
Mean rate Min. amplitude Mean amplitude Max. amplitude	A 88 4.0 5.3 6.9	9.8 10.3 10.8	LV bpm 9.2 mV 10.1 mV 10.6 mV	

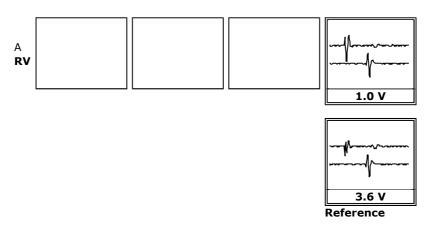
T Pacing threshold

DDD in A

Date: **14/03/2013** Time: **09:10**

Date: **14/03/2013** Time: **09:09**



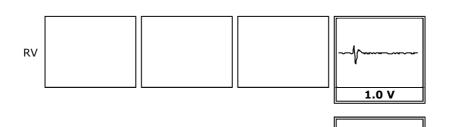


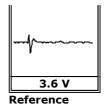
T Pacing threshold

Date: **14/03/2013** Time: **09:10**

VVI in RV

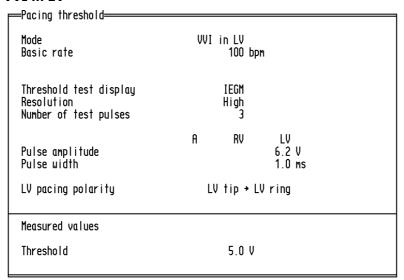
Pacing threshold				
Mode Basic rate	VVI	in RV 90 bpr	'n	
Threshold test display Resolution Number of test pulses		IEGM High 3		
Pulse amplitude Pulse width	A	RV 3.6 0.4	LV V ms	
Measured values				
Threshold		1.0 V		

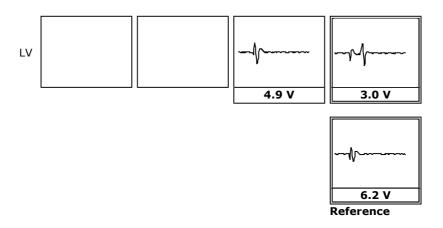




Pacing threshold Date: 14/03/2013 Time: 09:12

VVI in LV





Parameters (perm.) Date: 14/03/2013 Time: 09:12

—0ver	rview 							
Tachycardia detection : Enabled								
	Rate	1. ATP	;	2. ATP	1st	Sho	cks 2nd—,	—3-Nth—
VT1 VT2 VF	162 bpm 188 bpm 222 bpm	3×Burst 3×Burst Of	3×Ramp 3×Ramp OFF		40J 40J 40J 40J	40J 40J 40J 40J		6×40J 6×40J 6×40J
Progr	Progressive course of therapy ON							
Mode DDD Ventricular pacing BiV/T Basic rate 60 bpm Upper rate 130 bpm			Pulse ar Pulse wi	nplitude idth	A 2.5 0.4	RV 3.0 0.4	LV 6.0 V 1.0 ms	

-Bradycardia-			
Mode Basic rate Night rate	Permanent DDD 60 OFF	Post shock DDI 70	bpm
Rate hysteresis	0FF	0FF	
Ventricular pacing LV T-wave protection Triggering Maximum trigger rate VV delay after Vp VV delay after RVs Initially paced chamber RV delay Lower rate for RV delay Upper rate for RV delay Sense compensation RV safety window RV hysteresis mode	BiV ON RVs 150 5 0 LV 150/120 60 130 -30 100 0FF	RV 1 4 0	bpm ms ms ms bpm bpm bpm ms ms
Upper rate Upper rate response Atrial upper rate Intervention rate Mode Onset criterion Resolution criterion Change of basic rate Ventricular pacing LV T-wave protection Triggering Post ModeSw rate Post ModeSw duration PMT detection/termination VA criterion Post-shock duration	130 WKB 240 160 DDI 7 5 +10 ON RVs +10 O1:00 ON 350	00:30	bpm bpm out of 8 out of 8 bpm bpm mm:ss ms mm:ss

-Bradycardia-					
Daning					
-Pacing-					
	A	RV	LV		
Pulse amplitude	2.5	3.0	6.0 V		
Pulse width	0.4	0.4	1.0 ms		
—Sensing————					
Scharing					
	A	RV	LV		
Sensing	Std.	Ind.	Std.		
Blanking after atrial pace		50	100 ms		
after RV pace		AUTO	80 ms		
after LV pace		80	AUTO ms		
Thresholds	F0		F0 ''		
Upper threshold	50	50 360	50 % 360 ms		
Hold of upper threshold Lower threshold	25	25	50 ris		
Post pace T-wave suppr.		ŌŇ	30 7.		
PVC					
Discrimination after As	0.4	350	MS		
Minimum threshold Far-field protection after Vp	0.4 75	0.8	1.6 mV ms		
Far-field protection after Vs	75		MS		
PVARP	300		MS		
PVARP after PVC	525		MS		
LV polarity—					
LV POIGITTY					
LV sensing polarity			BIPL		
LV pacing polarity		LV tip → LV ring			

Rate Detection counter Redetection counter SMART detection SMART redetection Onset Stability	VT1 162 26 20 0N 0N 20 12	VT2 188 16 14 0N 0N 20 12	7.	VF 222 in 16	bpn
Forced termination		1	min		

UT1						
OTD's	Rate	162 bpm	Chaala			
—ATP's——	_1st	2nd	Shocks-	10+	2pd	-3-Nth-
Туре	3×Burst	3×Ramp	Energy	40J		6×40J
Ven. pacing Number S1	RV 5	RV 5	Confirmation			ΟŅ
Add S1 R-S1 Int.	ON 80 %	ON 80 %	Polarity Waveform		Bipl	ormal hasic
S1 decrement S1-S2 Int.		10 ms	Shock path	F	≀V+Car	n+SVC
Scan decrement	0FF	0FF				
Min.Interval		00 ms				
ATP optimizat. O ATP timeout OF		ON Ef				
THICOUT		1				

—IIT2———						
—ATP's—	Rate	188 bpm	Shocks-			
mir s	_1st	2nd	SHUCKS	1st-	_2nd-	_T 3-Nth-
Type	3×Burst	3×Ramp	Energy	40J	40J	6×40J
Ven. pacing Number S1	RV 5	RV 5	Confirmation			OŅ
Add S1 R-S1 Int.	0N	ON	Polarity Waveform			ormal
S1 decrement	80 %	80 % 10 ms	Shock path	F		hasic n+SVC
S1-S2 Int.	AFF					
Scan decrement Min.Interval	OFF 30	OFF 30 ms				
		ON IS				
ATP timeout	OF	F				

—NF————	Rate	222 bpr	Shocks-			
Type Ven. pacing	0FF		Energy	—1st- 40J		3-Nth- 6×40J
Number S1 R-S1 Int. S1 decrement S1-S2 Int.			Confirmation Polarity Waveform Shock path	ON Normal Biphasio RV+Can+SVO		ormal nasic

—Pαtient———		
ID	500831/025	
Name		
First name		
Date of birth	 Male	
Gender Sumptom	Prophylactic indication	
ECG indication	Not documented	
Etiology	Coronary artery disease	
LVEF	15 %	
NYHA	II	
Implantation——		
Implantation	12/03/2013	
Hospital, City	FN BRNO - BOHUNICE	
Physician	MUDr. Kozak	
Phone	+420532232459	
Leads-		
	A	
Lead position	Appendage	
Manufacturer	BÍOTRONÍK Siello S 53	
Type Serial number	25787702	
Jei rai nanbei	RV	
Lead position	Septum	
Manufacturer	BIOTRONIK	
Type	LinoxSmart SD 65/16	
Serial number	10491781 LU	
Lead position	LV posterolateral	
Manufacturer	BIOTRONIK	
Type	Corox OTW-L 75 BP	
Serial number	25103501	

⊫Diagnostics/HM======		
Program No.	6	
Home Monitoring	ON	
Time of transmission	01:00	hh:mm
IEGM for therapy episodes	ON	
IEGM for monitoring episodes	ON	
Periodic IEGM		Months
Ongoing atrial episode	12	h
Thoracic impedance	ON	
—Statistics—		
AT/AF rate	200	
Start rest. period	02:00	
Rest. period dur.	04:00	hh:mm
Automatic impedance measurement	ON	
AV delay adj. sensing test	300	ms
Thoracic impedance	ON	
Recording episodes	AU	
For AT/AF	ON	
For SVT	ON	
0		
—Autom. threshold monitoring (ATM)-	OH	
ATM RV	ON	
ATM LV	0FF	