CARDIAC RHYTHM MANAGEMENT AND CARDIOVASCULAR DIAGNOSTICS & SERVICES PRODUCT CATALOGUE 2021











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> **PROCEDURE INNOVATIONS** Antibacterial Envelope, External Pacemakers

PACEMAKERS (IPG)

Single Chamber (SR)

AZURETM XT SR MRI

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

- Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
- Implant Detectio
- Capture Management (RV)
- Auto-adjusting sensitivity (RV)
- Lead Monitor (RV) with Auto Polarity Switch
- CareAlert Monitoring
 Carelial as a structure of the care
- Carelink connectivity with CareAlerts

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.

HEART FAILURE (HF) MANAGEMENT

- Algorithm to help manage heart failure.
- OptiVol 2.0

ADDITIONAL PACING FEATURES

- Rate Hysteresis
- Sleep Function
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS

- Quick Look II
- Cardiac Compass Trends
- Heart Failure Management Report
- Histograms Reports
- Ventricular Episodes including EGMs

Model	W2SR01
M (g)	22.5
V (cc)	12.25
Size (mm) (HxWxD)	42.6 x 50.8 x 7.4
Connector	IS-1 BI/UNI

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



AZURETM S SR MRI

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

- Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
- Implant Detectio
- Capture Management (RV)
- Auto-adjusting sensitivity (RV)
- Lead Monitor (RV) with Auto Polarity Switch
- CareAlert Monitoring
- Carelink connectivity with CareAlerts

ADDITIONAL PACING FEATURES

- Rate Hysteresi
- Sleep Function
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS

- Quick Look II
- Ventricular Episodes including EGMs

Model	W3SR01
M (g)	22.5
V (cc)	12.25
Size (mm) (HxWxD)	42.6 x 50.8 x 7.4
Connector	IS-1 BI/UNI

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



ASTRATM XT SR MRI SURESCAN™

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

adapts key device parameters to ensure the therapies are

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms. Conducted AF Response (CAFR)

HEART FAILURE (HF) MANAGEMENT

- Algorithm to help manage heart failure

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	X2SR01
M (g)	22.5
V (cc)	12.2
Size (mm) (HxWxD)	42.6 x 50.8 x 7.4
Connector	IS-1 BI/UNI

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





ATTESTA[™] SR MRI SURESCAN™

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

adapts key device parameters to ensure the therapies are optimized.

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.
Conducted AF Response (CAFR)

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	ATSR01
M (g)	21.5
V (cc)	9.7
Size (mm) (HxWxD)	40.2 x 42.9 x 7.5
Connector	IS-1 BI/UNI

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



SPHERA[™] SR MRI SURESCAN™

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

optimized.

ADDITIONAL PACING FEATURES

- Rate Hysteresis
 Sleep Function
 Dual Zone Rate Response Pacing with Rate Profile

DIAGNOSTICS

Model	SPSR01
M (g)	21.5
V (cc)	9.7
Size (mm) (HxWxD)	40.2 × 42.9 × 7.5
Connector	IS-1 BI/UNI

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



ADVISA SR MRI™ SURESCAN™

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

adapts key device parameters to ensure the therapies are optimized.

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms. Conducted AF Response (CAFR)

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	A3SR01
M (g)	21.0
V (cc)	11.9
Size (mm) (HxWxD)	51 x 42 x 8
Connector	IS-1 BI/UNI

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan lead:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



ENSURASR MRITM SURESCANTM

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

- Implant Detectio
- Capture Management (RV)
- Auto-adjusting sensitivity (RV
- Lead Monitor (RV) with Auto Polarity Switch
- CareLink connectivity

ADDITIONAL PACING FEATURES

- Rate Hysteresis
- Sleep Function
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS

- Quick Look II
- Histogram Reports
- Ventricular Episodes including EGMs

Model	EN1SR01
M (g)	21.0
V (cc)	11.9
Size (mm) (HxWxD)	51 x 42 x 8
Connector	IS-1 BI/UNI

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



ADAPTA[®] SR

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.
Conducted AF Response (CAFR)

ADDITIONAL PACING FEATURES

- Rate Hysteresis
 Sleep Function
 Dual Zone Rate Response Pacing with Rate Profile

DIAGNOSTICS

Model	ADSR01	ADSR03	ADSR06
M (g)	21.5	22.5	22.5
V (cc)	9.7	10.5	11.0
Size (mm) (HxWxD)	40.2 x 42.9 x 7.5	42.9 x 42.9 x 7.5	43.3 x 42.9 x 7.5
Connector	IS-1 BI/UNI	IS-1 BI/UNI; 3.2 mm LP BI	5 or 6 mm UNI



SENSIA® SR

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

ADDITIONAL PACING FEATURES

- Rate Hysteresis
 Sleep Function
 Dual Zone Rate Response Pacing with Rate Profile

DIAGNOSTICS

Model	SESR01
M (g)	21.5
V (cc)	9.7
Size (mm) (HxWxD)	40.2 x 42.9 x 7.5
Connector	IS-1 BI/UNI



SENSIA[®] S

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

- Implant Detectio
- TherapyGuide
- Capture Management (RV)
- Sensing Assurance (RA and RV)
- Lead Monitor (RA and RV) with Auto Polarity Switch
- CareLink connectivity

ADDITIONAL PACING FEATURES

- Rate Hysteresis
- Sleep Function

DIAGNOSTICS

- Quick Look I
- Histogram Reports
- Atrial and Ventricular Episodes including EGMs
- Additional Clinician Selected Diagnostics

Model	SES01
M (g)	21.5
V (cc)	9.7
Size (mm) (HxWxD)	40.2 × 42.9 × 7.5
Connector	IS-1 BI/UNI



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

PACEMAKERS (IPG)

Dual Chamber (DR)



AZURETM XT DR MRI

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

- Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
- Implant Detection
- Capture Management (RA and RV)
- Auto-adjusting sensitivity (RA and RV)
- Lead Monitor (RA and RV) with Auto Polarity Switch
- CareAlert Monitoring
- Carelink connectivity with CareAlerts

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV pacing.

 Updated Managed Ventricular Pacing Mode (MVP) AAI(R)<->DDD(R)

HEART FAILURE (HF) MANAGEMENT

- Algorithm to help manage heart failure
- OptiVol 2.0

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.

- Atrial ATP with Reactive ATP
- ModeSwitch
- Post Mode Switch overdrive Pacing (PMOP)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES

- Rate Hysteresis
- Sleep Function
- PVC Response
- Ventricular Safety Pacinig (VSP)
- Ventricular Rate Stabilization (VRS)
 High Upper tracking rate up to 210 min⁻¹ for pedia
- Rate Drop Response with 2 detection algorithms
- Dual Zone Rate Response Pacing with Rate Profile
- Optimization

DIAGNOSTICS

- Quick Look II
- Cardiac Compass Trends
- Heart Failure Management Report
- Histograms Reports
- Heart Failure Management Repo
- Atrial and Ventricular Episodes including EGMs

M (g)	22.5
V (cc)	12.75
Size (mm) (HxWxD)	46.6 x 50.8 x 7.4
Connector	IS-1 BI/UNI

W2DR01

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan lead:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system

Model

No Patient size restriction and no condition restrictions (e.g. fever)



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

AZURETM S DR MRI

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

- Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
- Implant Detection
- Capture Management (RA and RV)
- Auto-adjusting sensitivity (RA and RV)
- Lead Monitor (RA and RV) with Auto Polarity Switch
- CareAlert Monitoring
- Carelink connectivity with CareAlerts

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV pacing.

 Updated Managed Ventricular Pacing Mode (MVP) AAI(R)<->DDD(R)

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.

- ModeSwitch
- Atrial Preference Pacing (APP)
- Non-competitive Atrial Pacing (NCAP)

ADDITIONAL PACING FEATURES

- Rate Hysteresi
- Sleep Function
- PVC Response
- Ventricular Safety Pacinig (VSP)
- High Upper tracking rate up to 210 min⁻¹ for pediatric indications
- Rate Drop Response with 2 detection algorithms
- Dual Zone Rate Response Pacing with Rate Prot Optimization

DIAGNOSTICS

- Quick Look II
- Ventricular Episodes including EGMs

Model	W3DR01
M (g)	22.5
V (cc)	12.75
Size (mm) (HxWxD)	46.6 x 50.8 x 7.4
Connector	IS-1 BI/UNI

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan lead:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



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ASTRA[™] XT DR MRI **SURESCAN™**

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

adapts key device parameters to ensure the therapies are optimized.

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV

HEART FAILURE (HF) MANAGEMENT

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and

- Atrial ATP with Reactive ATP
 ModeSwitch
 Post Mode Switch overdrive Pacing (PMOP)

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	X2DR01
M (g)	22.5
V (cc)	12.75
Size (mm) (HxWxD)	46.6 x 50.8 x 7.4
Connector	IS-1 BI/UNI

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan lead:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



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ATTESTATM DR MRI SURESCANTM

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

- Implant Detection
- TherapyGuide
- Capture Management (RA and RV)
- Sensing Assurance (RA and RV)
- Lead Monitor (RA and RV) with Auto Polarity Switch
- CareLink connectivity

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV pacing.

Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
 Constant AV(to a backgroup of the constant of

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.

- ModeSwitch with Blanked Flutter Search
- Post Mode Switch overdrive Pacing (PMOP)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)

ADDITIONAL PACING FEATURES

- Rate Hysteresis
- Sleep Function
- PVC Response
- Ventricular Safety Pacing (VS
- Sinus Preference
- High Upper tracking rate up to 210 min⁻¹ for pediatric indications
- Rate Drop Response with 2 detection algorithms
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS

- Quick Look
- Cardiac Compass Trends
- Histogram Reports
- Atrial and Ventricular Episodes including EGMs
- Additional Clinician Selected Diagnostics

Model	ATDR01	(Small)	(Longevity)
M (g)	27.1	23.6	31.3
V (cc)	12.1	11.1	13.1
Size (mm) (HxWxD)	44.7 x 47.9 x 7.5	44.7 x 42.9 x 7.5	45.4 x 52.3 x 7.5
Connector		IS-1 BI/UNI	

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan lead:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

SPHERATM DR MRI **SURESCAN™**

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

adapts key device parameters to ensure the therapies are optimized.

MINIMIZING UNNECESSARY RV PACING

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.

- ModeSwitch with Blanked Flutter Search
 Non-competitive Atrial Pacing (NCAP)

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	SPDR01	SPDRL1 (Longevity)
M (g)	27.1	31.3
V (cc)	12.1	13.1
Size (mm) (HxWxD)	44.7 x 47.9 x 7.5	45.4 x 52.3 x 7.5
Connector	IS-1 E	BI/UNI

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan lead:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



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ADVISA DR MRITM SURESCAN™

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

adapts key device parameters to ensure the therapies are optimized.

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV

HEART FAILURE (HF) MANAGEMENT

- Algorithm to help manage heart failure

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and

- Atrial ATP with Reactive ATP
 ModeSwitch
 Post Mode Switch overdrive Pacing (PMOP)

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	A3DR01
M (g)	22.0
V (cc)	12.7
Size (mm) (HxWxD)	45 x 51 x 8
Connector	IS-1 BI/UNI

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



ENSURA DR MRITM SURESCANTM

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

- Implant Detection
- Capture Management (RA and RV)
- Auto-adjusting sensitivity (RA and RV)
- Lead Monitor (RA and RV) with Auto Polarity Switch
- CareLink connectivity

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV pacing.

Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.

- ModeSwitch
- Atrial Preference Pacing (APP)
- Non-competitive Atrial Pacing (NCAP)

ADDITIONAL PACING FEATURES

- Rate Hysteresis
- Sleep Function
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS

- Quick Look I
- Histogram Reports
- Ventricular Episodes including EGMs

Model	EN1DR01
M (g)	22.0
V (cc)	12.7
Size (mm) (HxWxD)	45 × 51 × 8
Connector	IS-1 BI/UNI

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan lead:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

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ADAPTA[™] DR

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

- Implant Detection
- IherapyGuide
- Capture Management (RA and RV)
- Sensing Assurance (RA and RV)
- Lead Monitor (RA and RV) with Auto Polarity Switch
- CareLink connectivity

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV pacing.

Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
 Constant AV(to a backgroup of the constant of

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.

- ModeSwitch with Blanked Flutter Search
- Post Mode Switch overdrive Pacing (PMOP)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)

ADDITIONAL PACING FEATURES

- Rate Hysteresis
- Sleep Function
- PVC Response
- Ventricular Safety Pacing (V
- Sinus Preference
 High Upper tracking rate up to 210 min⁻¹ for per
- indications
- Rate Drop Response with 2 detection algorithms
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS

- Quick Look
- Cardiac Compass Trends
- Histogram Reports
- Atrial and Ventricular Episodes including EGMs
- Additional Clinician Selected Diagnostics



 Size (mm)
 44.7 x 47.9 46.7 x 47.9 50.3 x 47.9 44.7 x 42.9 (HxWxD)
 45.4 x 52.3 x 7.5 x 7.5 x 7.5 x 7.5 x 7.5 x 7.5

Connector IS-1 BI/UNI	IS-1 BI/ UNI; 3.2 mm LP BI	5 or 6 mm UNI	IS-1 BI/ UNI	IS-1 BI/ UNI
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NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

ADAPTA® D

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

adapts key device parameters to ensure the therapies are optimized.

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and

ADDITIONAL PACING FEATURES

DIAGNOSTICS



Connector





ADAPTA® VDD

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

adapts key device parameters to ensure the therapies are optimized.

MINIMIZING UNNECESSARY RV PACING

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.

ADDITIONAL PACING FEATURES

- Rate HysteresisSleep FunctionPVC Response

DIAGNOSTICS

Model	ADVDD01
M (g)	23.6
V (cc)	11.1
Size (mm) (HxWxD)	44.7 x 42.9 x 7.5
Connector	IS-1 BI/UNI

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SENSIA[®] DR

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

MINIMIZING UNNECESSARY RV PACING

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.
ModeSwitch with Blanked Flutter Search
Non-competitive Atrial Pacing (NCAP)

ADDITIONAL PACING FEATURES

- Rate HysteresisSleep FunctionPVC Response

DIAGNOSTICS



Connector



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SENSIA[®] D

PACEMAKERS (IPG)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Automatically monitors for implant detection and continuously adapts key device parameters to ensure the therapies are optimized.

MINIMIZING UNNECESSARY RV PACING

AT/AF MANAGEMENT

Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.
ModeSwitch with Blanked Flutter Search
Non-competitive Atrial Pacing (NCAP)

ADDITIONAL PACING FEATURES

- Rate HysteresisSleep FunctionPVC Response

DIAGNOSTICS





PACEMAKERS (IPG)

Leadless

MICRATM AV TRANSCATHETER PACING SYSTEM

PACEMAKERS (IPG)

GENERAL DESCRIPTION

- Miniaturized: Completely self-contained within the heart, no leads required
- Designed to provide AV Synchrony (VDD)
- Engineered for a minimally invasive approacl
- Integrated delivery system facilitates a streamlined implant procedure via femoral approach
- Atraumatic FlexFix[™] nitinol tines provide secure capsule placement
- CareLink connectivity
- **COMPLETELY AUTOMATIC SIMPLE TO USE**
- Continuously adapts key device parameters to ensure
- the therapies are optimized.
- Capture Management (RV)
- Auto-adjusting sensitivity (F

ENSURING AV SYNCHRONY

- Dynamic sensing that adjusts pacing based on the mechanical atrial contraction
- Accelerometer-based mechanical atrial sensing

DIAGNOSTICS

- Quick Look II
- Histogram Reports

ELECTRODES

- Surface area
- Anode: 22 mm²
- Cathode: 2.5 mm²
- Steroid eluting cathode

MICRA DELIVERY CATHETER

- Catheter system with a handle that controls deflection and deployment of the Micra pacing capsule
- It can function as a retrieval catheter post tether remova
- Outer diameter: 7.8 mm (23 F
- Effective length: 105 cm
- Radiopacity: Gold (99.99% purity)

MICRA INTRODUCER SHEATH

- Lubricious hydrophilic coating facilitates smooth vessel navigation
- Stopcock for aspirating and flushing
- Radionaque marker on end of Introducer
- Inner diameter: 7.8 mm (23 Fr)
- Outer diameter: 9.0 mm (27 Fr)
- Working length: 55.7 cm
- Dilator
- Working length: 69.9 cm
- Guidewire compatibility: 0.89 mm (0.035 in)

Model	MC1AVR1	
M (g)	1.75	
V (cc)	0.8	
Length (mm)	25.9	
Outer Diameter (mm (Fr))	6.7 (20.1)	

MRI SureScan

Full Body 1.5 and 3T MRI:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

MICRATM VR TRANSCATHETER PACING SYSTEM

PACEMAKERS (IPG)

GENERAL DESCRIPTION

- Miniaturized: Completely self-contained within the heart, no leads required
- Engineered for a minimally invasive approac
- Integrated delivery system facilitates a streamlined implant procedure via femoral approach
- Atraumatic FlexFix[™] nitinol tines provide secure capsule placement
- CareLink connectivity

COMPLETELY AUTOMATIC – SIMPLE TO USE

Continuously adapts key device parameters to ensure the therapies

are optimized.

- Canture Management (RV/)
- Auto-adjusting sensitivity (RV)
- Carel ink connectivity

DIAGNOSTICS

- Quick Look II
- Histogram Report

ELECTRODES

- Surface area:
- Anode: 22 mm²
- Cathode: 2.5 mm²
- Steroid eluting cathode

MICRA DELIVERY CATHETER

- Catheter system with a handle that controls deflection and deployment of the Micra pacing capsule
- It can function as a retrieval catheter post tether removal
- Outer diameter: 7.8 mm (23 Fr)
- Effective length: 105 cm
- Radiopacity: Gold (99.99% purity)

MICRA INTRODUCER SHEATH

- Lubricious hydrophilic coating facilitates smooth vessel navigation
- Stopcock for aspirating and flushing
- Radiopaque marker on end of Introduce
- Inner diameter: 7.8 mm (23 Fr
- Outer diameter: 9.0 mm (27 Fr
- Working length: 55.7 cm
- Dilato
- Working length: 69.9 cm
- Guidewire compatibility: 0.89 mm (0.035 in

Model	MC1VR01
M (g)	1.75
V (cc)	0.8
Length (mm)	25.9
Outer Diameter (mm (Fr))	6.7 (20.1)

MRI SureScan

Full Body 1.5 and 3T MRI:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

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CRT PACEMAKERS (CRT-P)
PERCEPTATM QUAD CRT-P MRI **SURESCAN™**

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE

the therapies are optimized. ■ Bluetooth® Wireless Telemetry (BlueSync™ Technology)

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	W4TR04	
M (g)	30	
V (cc)	20.5	
Size (mm) (HxWxD)	59 x 46.5 x 11	
Connector	2x IS-1 / 1x IS-4	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



PERCEPTATM CRT-P MRI **SURESCAN™**

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE

the therapies are optimized. ■ Bluetooth® Wireless Telemetry (BlueSync™ Technology)

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS

W1TR04 Model M (g) 30 V(cc) 20 Size (mm) 59 x 46.5 x 11 (HxWxD) Connector 3x IS-1

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



SERENATM QUAD CRT-P MRI **SURESCAN™**

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE

the therapies are optimized. ■ Bluetooth® Wireless Telemetry (BlueSync™ Technology)

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

Pacing therapies and algorithms to help manage atrial

- tachyarrhythmias.Atrial ATP with Reactive ATPModeSwitch

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	W4TR05	
M (g)	30	
V (cc)	20.5	
Size (mm) (HxWxD)	59 x 46.5 x 11	
Connector	2x IS-1 / 1x IS-4	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



SERENATM CRT-P MRI **SURESCAN™**

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE

the therapies are optimized. ■ Bluetooth® Wireless Telemetry (BlueSync™ Technology)

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

Pacing therapies and algorithms to help manage atrial tachyarrhythmias.

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	W1TR05	
M (g)	30	
V (cc)	20	
Size (mm) (HxWxD)	59 x 46.5 x 11	
Connector	3 x IS-1	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



SOLARA[™] QUAD CRT-P MRI **SURESCAN™**

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE

the therapies are optimized. ■ Bluetooth® Wireless Telemetry (BlueSync™ Technology)

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

Pacing therapies and algorithms to help manage atrial tachyarrhythmias.

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	W4TR06	
M (g)	30	
V (cc)	20.5	
Size (mm) (HxWxD)	59 x 46.5 x 11	
Connector	2x S-1 /1x S-4	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



SOLARATM CRT-P MRI **SURESCAN™**

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE

the therapies are optimized.
Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
Implant Detection

MINIMIZING UNNECESSARY RV PACING

Promotes intrinsic conduction by reducing unnecessary RV

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

- CardioSync Optimization Test
 5 LV pacing vectors

AT/AF MANAGEMENT

Pacing therapies and algorithms to help manage atrial

- tachyarrhythmias.Atrial ATP with Reactive ATP

ADDITIONAL PACING FEATURES

DIAGNOSTICS

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan lead:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system

Model

M (g)

V(cc)

Size (mm)

(HxWxD)

Connector

No Patient size restriction and no condition restrictions (e.g. fever)

W1TR06

30

20

59 x 46.5 x 11

3 x IS-1



DEFIBRILLATORS (ICD)

Single Chamber (VR)

COBALTTM XT VR MRI **SURESCAN™**

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.
Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
Capture Management (RV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DVPA2D1	DVPA2D4
M (g)	79	79
V (cc)	33.2	33.8
Size (mm) (HxWxD)	66 x 51 x 13	66 x 51 x 13
Connector	IS-1/DF-1	DF-4
Max Program. / Delivered Energy (J)	40 / 40	40/40

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



COBALTTM VR MRI **SURESCAN™**

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.
Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
Capture Management (RV)

VT/VF MANAGEMENT

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial tachyarrhythmias. ■ TruAF™ Detection Algorithm

ADDITIONAL PACING FEATURES

DIAGNOSTICS

DVPR3D1 DVPR3D4 Model M (g) 79 79 V(cc) 33.2 33.8 Size (mm) $66 \times 51 \times 13$ $66 \times 51 \times 13$ (HxWxD) Connector IS-1/DF-1 DF-4 Max Program. 40/40 40/40 Delivered Energy (J)

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



CROMETM VR MRI SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.
Bluetooth® Wireless Telemetry (BlueSync™ Technology)
Capture Management (RV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

- Ventricular cardioversion/defibrillation
 Ventricular antitachycardia pacing (ATP)
 ATP Before and During Charging with ChargeSaver

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DVPC3D1	DVPC3D4
M (g)	79	79
V (cc)	33.2	32.8
Size (mm) (HxWxD)	66 x 51 x 13	64 × 51 × 13
Connector	IS-1/DF-1	DF-4
Max Program. / Delivered Energy (J)	40 / 40	40 / 40

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





PRIMO MRITM VR SURESCAN™

DEFIBRILLATORS (ICD)

AUTOMATIC - SIMPLE TO USE

- the therapies are optimized.TherapyGuideAuto-adjusting sensitivity (RV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

- Ventricular cardioversion/defibrillation
 Ventricular antitachycardia pacing (ATP)
 ATP Before and During Charging with ChargeSaver

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DVMD3D1	DVMD3D4
M (g)	77	77
V (cc)	33	33
Size (mm) (HxWxD)	66 x 51 x 13	64 x 51 x 13
Connector	IS-1 / DF-1	DF-4
Max Program. / Delivered Energy (J)	35/36	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



MIRRO MRITM VR SURESCAN™

DEFIBRILLATORS (ICD)

AUTOMATIC - SIMPLE TO USE

- the therapies are optimized.TherapyGuideAuto-adjusting sensitivity (RV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

- Ventricular cardioversion/defibrillation
 Ventricular antitachycardia pacing (ATP)
 ATP Before and During Charging with ChargeSaver

- Programmable RV sensing polarity
 Programmable HV shocking vectors
 3 detection zones allowing VF and FVT zone overlap
 SVT Discriminators Wavelet, Stability, Onset

ADDITIONAL PACING FEATURES

DIAGNOSTICS

- Quick Look II
 Cardiac Compass Trends

Model	DVME3D1	DVME3D4
M (g)	77	77
V (cc)	33	33
Size (mm) (HxWxD)	66 x 51 x 13	64 x 51 x 13
Connector	IS-1/DF-1	DF-4
Max Program. / Delivered Energy (J)	35	/ 36

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



VISIA AF MRITM XT VR **SURESCAN™**

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DVFB2D1	DVFB2D4
M (g)	77	77
V (cc)	33	33
Size (mm) (HxWxD)	66 x 51 x 13	66 x 51 x 13
Connector	IS-1/DF-1	IS-1 / DF-4
Max Program. / Delivered Energy (J)	35,	/ 36

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





VISIA AFTM XT VR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- TherapyGuideCapture Management (RV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DVAB2D1
M (g)	77
V (cc)	33
Size (mm) (HxWxD)	66 x 51 x 13
Connector	IS-1 / DF-1
Max Program. / Delivered Energy (J)	35/36





VISIA AF MRITM S VR **SURESCAN™**

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RV)

VT/VF MANAGEMENT

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS

DVFC3D1 DVFC3D4 Model M (g) 77 77 V(cc) 33 33 Size(mm) $66 \times 51 \times 13$ $64 \times 51 \times 13$ (HxWxD) Connector IS-1/DF-1 DF-4 Max Program. 35/36Delivered Energy (J)

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





VISIA AFTM S VR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
ontinuously adapts key device parameters to ensure
ne therapies are optimized.
TherapyGuide
Capture Management (RV)
Auto-adjusting sensitivity (RV)
CareAlert sounds incl. Lead Integrity Alert (LIA),
Atrial Fibrillation (AF) burden and Fast V. Rate During AF

C

VT/VF MANAGEMENT

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial tachyarrhythmias.

ADDITIONAL PACING FEATURES

Ventricular Rate Stabilization (VRS)
Dual Zone Rate Response Pacing with Rate Profile

DIAGNOSTICS





EVERA MRI[®] XT VR **SURESCAN™**

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

- Ventricular cardioversion/defibrillation
 Ventricular antitachycardia pacing (ATP)

HEART FAILURE (HF) MANAGEMENT

- Algorithm to help manage heart failure.

AT/AF MANAGEMENT

- Therapies and algorithms to help manage atrial

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DVMB2D1	DVMB2D4
M (g)	77	77
V (cc)	33	33
Size (mm) (HxWxD)	66 x 51 x 13	64×51×13
Connector	IS-1/DF-1	DF-4
Max Program. / Delivered Energy (J)	35/36	

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan lead:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



EVERA[®] XT VR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

- Algorithm to help manage heart failure.

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DVBB2D1	DVBB2D4
M (g)	77	77
V (cc)	33	33
Size (mm) (HxWxD)	66 x 51 x 13	64 x 51 x 13
Connector	IS-1/DF-1	DF-4
Max Program. / Delivered Energy (J)	35	/ 36



EVERA MRI® S VR SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

- Ventricular cardioversion/defibrillation
 Ventricular antitachycardia pacing (ATP)

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DVMC3D1	DVMC3D4
M (g)	77	77
V (cc)	33	33
Size (mm) (HxWxD)	66 x 51 x 13	64 x 51 x 13
Connector	IS-1/DF-1	DF-4
Max Program. / Delivered Energy (J)	35/36	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



EVERA[®] S VR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RV)

VT/VF MANAGEMENT

- Ventricular cardioversion/defibrillation
 Ventricular antitachycardia pacing (ATP)

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DVBC3D1	DVBC3D4
M (g)	77	77
V (cc)	33	33
Size (mm) (HxWxD)	66 × 51 × 13	64 x 51 x 13
Connector	IS-1/DF-1	DF-4
Max Program. / Delivered Energy (J)	35/36	



DEFIBRILLATORS (ICD)

Dual Chamber (DR)

COBALT™ XT DR MRI SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.TherapyGuideCapture Management (RA and RV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DDPA2D1	DDPA2D4
M (g)	79	80
V (cc)	33.1	33.7
Size (mm) (HxWxD)	66 × 51 × 14	66 x 51 x 13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	40 / 40	40 / 40

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



COBALT™ DR MRI SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.TherapyGuideCapture Management (RA and RV)

VT/VF MANAGEMENT

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DDPB3D1	DDPB3D4
M (g)	79	80
V (cc)	33,1	33,7
Size (mm) (HxWxD)	66 x 51 x 14	64×51×13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	40 / 40	40 / 40

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



CROME™ DR MRI SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.
Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
Capture Management (RA and RV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DDPC3D1	DDPC3D4
M (g)	79	80
V (cc)	33.1	33.7
Size (mm) (HxWxD)	66 x 51 x 13	66 x 51 x 13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	40 / 40	40 / 40

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



PRIMO MRITM DR **SURESCAN™**

DEFIBRILLATORS (ICD)

AUTOMATIC - SIMPLE TO USE

- the therapies are optimized.TherapyGuideAuto-adjusting sensitivity (RA and RV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

- Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
 PVC Response
 Ventricular Safety Pacing (VSP)

DIAGNOSTICS

Model	DDMD3D1	DDMD3D4
M (g)	77	78
V (cc)	33	34
Size (mm) (HxWxD)	66 x 51 x 15	68 x 51 x 15
Connector	IS-1 / DF-1	IS-1 / DF-4
Max Program. / Delivered Energy (J)	35/36	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





MIRRO MRITM DR **SURESCAN™**

DEFIBRILLATORS (ICD)

AUTOMATIC - SIMPLE TO USE

- the therapies are optimized.TherapyGuideAuto-adjusting sensitivity (RA and RV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

- Ventricular cardioversion/defibrillation
 Ventricular antitachycardia pacing (ATP)
 ATP Before and During Charging with ChargeSaver

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial

ADDITIONAL PACING FEATURES

- Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
 PVC Response

DIAGNOSTICS

DDMF3D1 DDMF3D4 Model M (g) 77 78 V(cc) 33 34 Size (mm) $66 \times 51 \times 13$ $66 \times 51 \times 13$ (HxWxD) Connector IS-1/DF-1 IS-1/DF-4 Max Program. 35/36 Delivered Energy (J)

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



EVERA MRI[™] XT DR **SURESCAN™**

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RA and RV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial

ADDITIONAL PACING FEATURES

- Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
 PVC Response

DIAGNOSTICS

Model	DDMB2D1	DDBB2D4
M (g)	77	78
V (cc)	33	34
Size (mm) (HxWxD)	66 × 51 × 14	68 x 51 x 13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	35	/ 36

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



EVERA[®] XT DR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial

- **ADDITIONAL PACING FEATURES**
- Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
 PVC Response

DIAGNOSTICS

Model	DDBB2D1	DDBB2D4
M (g)	77	78
V (cc)	33	34
Size (mm) (HxWxD)	66 x 51 x 13	68 x 51 x 13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	35	/ 36



EVERA MRITM S DR **SURESCAN™**

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RA and RV)

VT/VF MANAGEMENT

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

- Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
 PVC Response

DIAGNOSTICS

Model	DDMC3D1	DDMC3D4
M (g)	77	78
V (cc)	33	34
Size (mm) (HxWxD)	66 x 51 x 14	68×51×13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	35/36	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



EVERA[®] S DR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RA and RV)

VT/VF MANAGEMENT

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial

ADDITIONAL PACING FEATURES

Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
 PVC Response

DIAGNOSTICS

Model	DDBC3D1	DDBC3D4
M (g)	77	78
V (cc)	33	34
Size (mm) (HxWxD)	66 x 51 x 13	66 x 51 x 13
Connector	IS-1/DF-1	IS-1 / DF-4
Max Program. /	35/36	

Delivered Energy (J)





CRT DEFIBRILLATORS (CRT-D)


COBALT[™] XT HF Quad CRT-D MRI **SURESCAN™**

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.
Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
Capture Management (RA, RV and LV)

VT/VF MANAGEMENT

- Therapies and algorithms to help manage ventricular tachyarrhythmias.
- SmartShock™ 2.0+ Technology with Intrinsic ATP™ Algorithm
 Ventricular cardioversion/defibrillation
 Ventricular antitachycardia pacing (ATP)
 ATP Before and During Charging with ChargeSaver

HEART FAILURE (HF) MANAGEMENT

- Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

- Therapies and algorithms to help manage atrial tachyarrhythmias.

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DTPA2Q1 (Quad)	DTPA2QQ (Quad)
M (g)	82	83
V (cc)	36.3	35.5
Size (mm) (HxWxD)	74 x 51 x 13	74 x 51 x 13
Connector	IS-1/IS-4/DF-1	IS-1/IS-4/DF-4
Max Program. / Delivered Energy (J)	40 / 40	40 / 40

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





COBALT[™] XT HF CRT-D MRI **SURESCAN™**

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.
Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
Capture Management (RA, RV and LV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

HEART FAILURE (HF) MANAGEMENT

- Pacing therapies and algorithms to help manage heart failure.
- EffectivCRT Diagnostic and EffectivCRT During AF
 AdaptivCRT

AT/AF MANAGEMENT

- Therapies and algorithms to help manage atrial tachyarrhythmias.
- Automatic and Patient-activated atrial cardioversion (CV)
 Atrial ATP with Reactive ATP

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DTPA2D1	DTPA2D4
M (g)	82	82.1
V (cc)	35	35
Size (mm) (HxWxD)	71 x 51 x 13	71 x 51 x 13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	40/40	40/40

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





COBALT[™] HF Quad CRT-D MRI **SURESCAN™**

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.
Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
Capture Management (RA, RV and LV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DTPB2Q1 (Quad)	DTPB2QQ (Quad)
M (g)	83	83
V (cc)	36.3	35.5
Size (mm) (HxWxD)	74×51×13	74 × 51 × 13
Connector	IS-1/IS-4/DF-1	IS-1/IS-4/DF-4
Max Program. / Delivered Energy (J)	40 / 40	40 / 40

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





COBALT[™] HF CRT-D MRI **SURESCAN™**

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.
Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
Capture Management (RA, RV and LV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial tachyarrhythmias.

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DTPB2D1	DTPB2D4
M (g)	82	82.1
V (cc)	35	35
Size (mm) (HxWxD)	71 x 51 x 13	71 x 51 x 13
Connector	IS-1/DF-1	IS-1 / DF-4
Max Program. / Delivered Energy (J)	40/40	40 / 40

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



CROME[™] HF Quad CRT-D MRI SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.
Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
Capture Management (RA, RV and LV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS

DTPC2Q1 (Quad)	DTPC2QQ (Quad)
83	83
36.3	35.5
74 × 51 × 13	74 x 51 x 13
IS-1/IS-4/DF-1	IS-1/IS-4/DF-4
40 / 40	40 / 40
	DTPC2Q1 (Quad) 83 36.3 74×51×13 IS-1/IS-4/DF-1 40/40

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



CROME™ HF CRT-D MRI SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

therapies are optimized.
Bluetooth[®] Wireless Telemetry (BlueSync[™] Technology)
Capture Management (RA, RV and LV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial tachyarrhythmias.

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DTPC2D1	DTPC2D4
M (g)	82	82.1
V (cc)	35	35
Size (mm) (HxWxD)	71 x 51 x 13	71 x 51 x 13
Connector	IS-1/DF-1	IS-1 / DF-4
Max Program. / Delivered Energy (J)	40/40	40/40

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



CLARIA MRI[™] QUAD CRT-D **SURESCAN™**

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RA, RV and LV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

- EffectivCRT Diagnostic and EffectivCRT During AF
 AdaptivCRT

AT/AF MANAGEMENT

- Therapies and algorithms to help manage atrial tachyarrhythmias.

ADDITIONAL PACING FEATURES

DIAGNOSTICS

- Quick Look II
 Cardiac Compass Trends
 Heart Failure Management Report

Model	DTMA2Q1 (Quad)	DTMA2QQ (Quad)
M (g)	82	81
V (cc)	36	35
Size (mm) (HxWxD)	74 x 51 x 13	74 x 51 x 13
Connector	IS-1/IS-4/DF-1	IS-1/IS-4/DF-4
Max Program. / Delivered Energy (J)	35/36	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





CLARIA MRITM CRT-D **SURESCAN™**

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RA, RV and LV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

AT/AF MANAGEMENT

- Therapies and algorithms to help manage atrial tachyarrhythmias.
- Automatic and Patient-activated atrial cardioversion (CV)
 Atrial ATP with Reactive ATP

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DTMA2D1	DTMA2D4
M (g)	80	80
V (cc)	35	35
Size (mm) (HxWxD)	71×51×13	73 × 51 × 13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	35/36	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





AMPLIA MRI[™] QUAD CRT-D **SURESCAN™**

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RA, RV and LV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

HEART FAILURE (HF) MANAGEMENT

- Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial tachyarrhythmias.

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DTMB2Q1 (Quad)	DTMB2QQ (Quad)
M (g)	82	81
V (cc)	36	35
Size (mm) (HxWxD)	74 x 51 x 13	74 x 51 x 13
Connector	IS-1/IS-4/DF-1	IS-1/IS-4/DF-4
Max Program. / Delivered Energy (J)	35/36	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





AMPLIA MRI[™] CRT-D **SURESCAN™**

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RA, RV and LV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

- Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

- Automatic and Patient-activated atrial cardioversion (CV)
 Atrial ATP with Reactive ATP

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DTMB2D1	DTMB2D4
M (g)	80	80
V (cc)	35	35
Size (mm) (HxWxD)	71×51×13	73 × 51 × 13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	35/36	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





COMPIA MRI™ QUAD CRT-D **SURESCAN™**

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

the therapies are optimized.TherapyGuideCapture Management (RA, RV and LV)

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS Quick Look II

Model	DTMC2QQ (Quad)
M (g)	81
V (cc)	35
Size (mm) (HxWxD)	74 × 51 × 13
Connector	IS-1/IS-4/DF-4
Max Program. / Delivered Energy (J)	35/36

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



COMPIA MRITM CRT-D **SURESCAN™**

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RA, RV and LV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

- Therapies and algorithms to help manage atrial tachyarrhythmias.

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DTMC2D1	DTMC2D4
M (g)	80	80
V (cc)	35	35
Size (mm) (HxWxD)	71 × 51 × 13	71 × 51 × 13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	35/36	

MRI SureScan

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



VIVATM QUAD XT CRT-D

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RA, RV and LV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

- Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial tachyarrhythmias.

ADDITIONAL PACING FEATURES

Model	DTBA2Q1 (Quad)	DTBA2QQ (Quad)
M (g)	82	81
V (cc)	36	35
Size (mm) (HxWxD)	74 × 51 × 13	74 × 51 × 13
Connector	IS-1/IS-4/DF-1	IS-1/IS-4/DF-4
Max Program. / Delivered Energy (J)	35.	/ 36





VIVA[™] XT CRT-D

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

- Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

Therapies and algorithms to help manage atrial tachyarrhythmias.

- Automatic and Patient-activated atrial cardioversion (CV)
 Atrial ATP with Reactive ATP
 ModeSwitch with Post Mode Switch overdrive Pacing (PMOP)

ADDITIONAL PACING FEATURES

Model	DTBA2D1	DTBA2D4
M (g)	80 80	
V (cc)	35	35
Size (mm) (HxWxD)	71 × 51 × 13	73 × 51 × 13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	35,	/ 36





VIVATM QUAD S CRT-D

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RA, RV and LV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

Model	DTBB2QQ (Quad)
M (g)	81
V (cc)	35
Size (mm) (HxWxD)	74×51×13
Connector	IS-1/IS-4/DF-1
Max Program. / Delivered Energy (J)	35/36





VIVA[™] S CRT-D

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

- the therapies are optimized.TherapyGuideCapture Management (RA, RV and LV)

VT/VF MANAGEMENT

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

Model	DTBB2D1	DTBB2D4
M (g)	80 80	
V (cc)	35 35	
Size (mm) (HxWxD)	71 × 51 × 13	73 × 51 × 13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. / Delivered Energy (J)	35,	/ 36





BRAVA™ QUAD CRT-D

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

Continuously adapts key device parameters to ensu

- the therapies are op
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA
- CareLink connectivit
- Wireless telemetry

VT/VF MANAGEMENT

Therapies and algorithms to help manage ventricular tachyarrhythmias.

- Ventricular cardioversion/defibrillation
- Ventricular antitachycardia pacing (ATP)
- ATP Before and During Charging with ChargeSaver
- Smart Mode
- Programmable RV sensing and pacing polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap

- SVI Discriminators PR Logic, Wavelet, Stability, Onset
- PR Logic and Wavelet programmable to discriminate SVT in VF zone

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

- CardioSync Optimization Tes
- VectorExpress LV Automated Test
- 16 LV pacing vectors with Quadripolar LV lead
- Ventricular Sense Response (V)
- Atrial Tracking Recovery (ATR

AT/AF MANAGEMENT

Therapies and algorithms to help manage atria

- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)

ADDITIONAL PACING FEATURES

- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS

- Quick Look
- Cardiac Compass Trends
- Leadless ECG

Model	DTBC2Q1 (Quad)	DTBC2QQ (Quad)
M (g)	M (g) 82	
V (cc)	36	35
Size (mm) (HxWxD)	74 × 51 × 13	74 x 51 x 13
Connector	IS-1/IS-4/DF-1	IS-1/IS-4/DF-4
Max Program. /	35	/ 36

, Delivered Energy (J)



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua



BRAVATM CRT-D

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE

VT/VF MANAGEMENT

- Ventricular cardioversion/defibrillation
 Ventricular antitachycardia pacing (ATP)
 ChargeSaver with ATP Before and During Charging

HEART FAILURE (HF) MANAGEMENT

Pacing therapies and algorithms to help manage heart failure.

AT/AF MANAGEMENT

ADDITIONAL PACING FEATURES

DIAGNOSTICS

Model	DTBC2D1	DTBC2D4
M (g)	80	80
V (cc)	35 35	
Size (mm) (HxWxD)	71 x 51 x 13	73 x 51 x 13
Connector	IS-1/DF-1	IS-1/DF-4
Max Program. /	35,	/ 36

Delivered Energy (J)





IPG LEADS AND SYSTEMS

CAPSURE SENSE MRI[™]

SURESCAN™

PACING LEADS AND DELIVERY SYSTEMS

GENERAL

CONNECTOR

DIAMETER

ELECTRODES

MATERIAL

- Insulator: Polyurethane (outer 55D), Silicone (inner)
 Conductor: MP35N Nickel Alloy

STYLETS WITH 4574

STYLETS WITH 4074

Model	4574	4074
Fixation	Passive	/ Tines
Shape / Chambers	J-shaped / RA	Straight / RV
Polarity	Bipolar	
Insulation	Polyure	ethane
Introducer Size with/out Guidewire (Fr)	7.0 / 9.0	

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





CAPSUREFIX NOVUS MRI® SURESCAN™

PACING LEADS AND DELIVERY SYSTEMS

GENERAL

- Steroid eluting
- Standard Lengths: 45, 52, 58, 65, 85 (cm)

CONNECTOR

IS1 Bipolar

DIAMETER

Body: 1.9 mm (5.7 Fr)

ELECTRODES

- Extendable/Retractable Helix Screw
- Helix Length: 1.8 mm
- Electrode Surface Area
- Tin-to-Ring Spacing: 10.0 mi

MATERIAL

- Insulator: Polyurethane (outer 55D), Silicone with Siloxane[®] treatment (inner)
- Conductor: MP35N Nickel Alloy
- Helix Electrode: Platinum Alloy with porous Titanium Nitride coating
- Ring Electrode: Platinum Alloy with porous Titanium Nitride coating
- Connector Ring: Stainless steel
- Connector Pin: Stainless steel

STYLETS

- Inserted
- 1 gray straight
- Packaged
- I gray straight
- I blue straight
- I gray J-Shapeu *
- * Not available for leads 65 or 85 cm

Model	4076
Fixation	Active/Screw-in
Shape	Straigh
/ Chambers	RA and RV
Polarity	Bipolar
Insulation	Polyurethane
Introducer Size with/out Guidewire (Fr)	7.0/9.0

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



Model 4076



CAPSUREFIX NOVUS MRI® SURESCAN™

PACING LEADS AND DELIVERY SYSTEMS

GENERAL

CONNECTOR

DIAMETER

ELECTRODES

MATERIAL

- Insulator: Silicone with Siloxane® treatment (inner)
 Conductor: MP35N Nickel Alloy
 Helix Electrode: Platinized Platinum Alloy
 Ring Electrode: Platinized Platinum Alloy

STYLETS

* Not available for leads 65 or 85 cm

Model	5076	
Fixation	Active/ Screw-in	
Shape	Straigh	
/ Chambers	RA and RV	
Polarity	Bipolar	
Insulation	Silicone	
Introducer Size with/out Guidewire (Fr)	7.0/9.0	

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



Model 5076



SELECTSECURE® MRI SURESCAN™

PACING LEADS AND DELIVERY SYSTEMS

GENERAL

CONNECTOR

DIAMETER

ELECTRODES

RECOMMENDED GUIDE CATHETER*

- Active/ Screw-in Fixation Straigh Shape Chambers RA and RV Polarity Bipolar Insulation Polyurethane Introducer Size with/out 5.5 Fr Inner Diameter Guidewire

3830

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system

Model

No Patient size restriction and no condition restrictions (e.g. fever)



Model 3830



SELECTSITE® DEFLECTABLE CATHETER

PACING LEADS AND DELIVERY SYSTEMS

GENERAL

 Deflectable guide catheters for SelectSecure[®] Model 3830 leads

DEFLECTABLE CATHETER

• Material: Polyether block amide

CATHETER DILATOR

- Material: Polyethylene
- Outer diameter: 1.85 mm (5.6 Fr)

GUIDE WIRE

- Material: Stainles:
- Diamator: 0.00 cm 0.075 ir

INTRODUCER VALVE

- Material: Silicone
- Inner diameter: 9 Fr max

UNIVERSAL II SLITER

- Blade Material: Stainless steel
- Handle Material: Polycarbonate
- **NEEDLE** (not included into C304-HIS package)
- 18 gauge, 1.2 mm
- **SYRINGE** (not included into C304-HIS package)

• 12 cc

Model	C304 -HIS	C304S 59	C304L 69	C304XL 74
Description	Deflectable + preshaped		Deflectable	
Length	43 cm	30 cm	40 cm	45 cm
Compatible Lead	3830-59, 69,74	3830-59	3830-69	3830-74
Inner Diameter (mm (Fr))	1.9 (5.7)			
Outer Diameter (mm (Fr))	2.8 (8.4)			



Model C304S59, C304L69, C304XL74



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua



C315 CATHETER

PACING LEADS AND DELIVERY SYSTEMS

GENERAL

- leads Package includes only catheter and dilator

CATHETER DILATOR

- Material: Polyether block amide
 Integrated valve
 In-line hub
 Hydrophilic coating

DILATOR

Model	C315H20	C315J	C315S4	C315S5
Description	Fixed shape			
Length (cm)	20	30	30	30
Compatible Lead	for 49 cm or longer 3830 leads	for 59 cm or longer 3830 leads		
Inner Diameter (mm (Fr))		1.8	(5.4)	
Outer Diameter (mm (Fr))		2.4	(7.0)	

Model C315S10 C315H40 C315HIS

Description	Fixed shape			
Length (cm)	40 40 43			
Compatible Lead	for 69 cm or longer 3830 leads			
Inner Diameter (mm (Fr))	1.8 (5.4)			
Outer Diameter (mm (Fr))		2.4 (7.0)		





CAPSURE® EPI

PACING LEADS AND DELIVERY SYSTEMS

GENERAL

CONNECTOR

DIAMETER

ELECTRODES

- Hemispherical, Platinized, Porous
 Electrode Surface Area for 4965
 Cathode: 14 mm²
 Electrode Surface Area for 4968

MATERIAL

Model	4965	4968
Fixation	Sutured /	Epicardial
Shape / Chambers	RA and RV	
Polarity	Unipolar	Bipolar
Insulation	Silic	cone



Model 4968

SCREW-IN

PACING LEADS AND DELIVERY SYSTEMS

GENERAL

CONNECTOR

DIAMETER

ELECTRODES

- Helical Screw
 Helix Length: 1.8 mm².

MATERIAL

EPICARDIAL IMPLANT TOOL 10626 - SOLD SEPARATELY

Model	5071
Fixation	Screw-in / Epicardial
Shape / Chambers	RV
Polarity	Unipolar
Insulation	Silicone





DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

SPRINT QUATTRO® MRI SURESCAN™

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL

DIAMETER

ELECTRODES

- Electrode Surface Area
 Tip: 2.5 mm²
 Ring: 25.2 mm²

MATERIAL

STYLETS

Model	6946M
Fixation	Passive / Tines
Polarity	Quadripolar
Defibrillation Coils	RV/SVC
Connectors	1x DF4
Insulation	Silicone
Introducer Size without/with Guidewire (Fr)	9.0/11

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



Model 6946M



SPRINT QUATTRO®

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL

DIAMETER

ELECTRODES

- Electrode Surface Area
 Tip: 2.5 mm²
 Ring: 25.2 mm²
 RV Coil: 614 mm²

MATERIAL

STYLETS

Model	6946M
Fixation	Passive / Tines
Polarity	Quadripolar
Defibrillation Coils	RV / SVC
Connectors	1x DF4
Insulation	Silicone
Introducer Size without/with Guidewire (Fr)	9.0/11



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Model 6946M

SPRINT QUATTRO SECURE S MRITM SURESCANTM

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL

- Steroid eluting
- Lengths for 6935: 58, 65 (cm)
- Lengths for 6935M: 55, 62 (cm

DIAMETER

Body: 2.8 mm (8.

ELECTRODES

- Electrode Surface Area
- Tip: 5.7 mm²
- Ring: 25.2 mm²
- RV Coll: 614 mm
- Tip-to-Ring Spacing: 8 mr
- Tip-to-RVCoil Spacing: 12 mn

MATERIAL

- Insulator: Silicone, PTFE, ETFE
- Conductors: MP351
- Tubing Design: Multilumen with Extra Lumens
- I ip and Ring Electrodes: Platinized platinum alloy
- RV coll: Platinum-clad Tan

STYLETS

- Inserted
- 1 purple straigh
- Packaged
- 2 purple straigh
- 2 gray straight

Model	6935	6935M
Fixation	Active/S	crew-in
Polarity	Tripolar	
Defibrillation Coils	R\	/
Connectors	1×IS11×DF1	1x DF4
Insulation	Silicone	
Introducer Size without/with Guidewire (Fr)	9.0 /	11

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



Model 6935M

NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

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SPRINT QUATTRO SECURE S®

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL

- Steroid eluting
- Lengths for 6935: 52, 75, 100 (cm
- Lengths for 6935M: 49, 72, 97 (cm

DIAMETER

Body: 2.8 mm (8.

ELECTRODES

- Electrode Surface Area
- Tip: 5.7 mm²
- Ring: 25.2 mm²
- RV Coil: 614mm^e
- Electrode Length
- Tip to Dipa Spacing: 9 m
- Tip-to-RVCoil Spacing, 12 mm

MATERIAL

- Insulator: Silicone, PTFE, ETFE
- Conductors: MP35I
- Tubing Design: Multilumen with Extra Lumens
- Tip and Ring Electrodes: Platinized platinum alloy

STYLETS

- Inserted
- 1 purple straigh
- Packaged
- 2 purple straigh
- 2 gray straign

Model	6935	6935M
Fixation	Active/Sc	crew-in
Polarity	Tripolar	
Defibrillation Coils	RV	
Connectors	1x IS1 1 x DF1	1x DF4
Insulation	Silicone	
Introducer Size without/with Guidewire (Fr)	9.0/	11



Model 6935

Model 6935M

NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

SPRINT QUATTRO SECURE MRI™ SURESCAN™

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL

DIAMETER

ELECTRODES

- MATERIAL

STYLETS

- Inserted
 1 purple straight
 Packaged

Model	6947	6947M
Fixation	Active/ S	crew-in
Polarity	Quadripolar	
Defibrillation Coils	RV/SVC	
Connectors	1x IS1 2x DF1	1x DF4
Insulation	Silicone	
Introducer Size without/with Guidewire (Fr)	9.0 /	/11

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



Model 6947

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Model 6947M

SPRINT QUATTRO SECURE®

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL

- Steroid eluting
- Lengths for 6947: 75, 100 (cm
- Lengths for 6947M: 72, 97 (cm

DIAMETER

Body: 2.8 mm (8.6

ELECTRODES

- Electrode Surface Area
- Tip: 5.7 mm²
- Ring: 25.2 mm²
- RV Coil: 614 mm²
- SVC Coil: 860 mm²
- Electrode Lengths
- Tin-to-Ping Spacing: 8 mm
- Tip-to-RVCoil Spacing: 12 m
- MATERIAL
- Insulator: Silicone, F
- Conductors: MP35N
- Tubing Design: Multilumen with Extra Lumens
- Tip and Ring Electrodes : Platinized platinum alloy
- RV/SVC coils: Platinum-clad Tantalum

STYLETS

- Inserted
- 1 purple straight
- Packaged
- 2 gray straight

Model	6947	6947M
Fixation	Active/ Screw-in	
Polarity	Quadripolar	
Defibrillation Coils	RV/SVC	
Connectors	1x IS1 2x DF1	1x DF4
Insulation	Silicone	
Introducer Size without/with Guidewire (Fr)	9.0 /	11
(Fr)		



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Model 6947



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua
TRANSVENE LEAD

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL

DIAMETER

ELECTRODES

MATERIAL

- Insulator: Silicone
 Conductor: Multifilar MP35N Composite
 Electrode Surface: Platinum Alloy

			6
Model	6721S	6721M	6721L
Fixation		Sutures	
Polarity		Unipolar	
Defibrillation Coils		Epi Patch	
Connectors		1x DF1	
Insulation		Silicone	
Introducer Size without/with Guidewire (cm)	3 coils: 5.0 x 8.0	4 coils: 6.1 x 9.1	5 coils: 7.2 x 10.2



Model 6721 (S/M/L)



TRANSVENE LEAD

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL

DIAMETER

ELECTRODES

MATERIAL

- Insulator: Silicone
 Conductor: Multifilar MP35N Composite
 Electrode Surface: Platinum Alloy

Model	6937
Fixation	N/A
Polarity	Unipolar
Defibrillation Coils	SVC
Connectors	1 x DF1
Insulation	Silicone
Introducer Size without/with Guidewire (Fr)	9.0 / 10.5



Model 6937

SUBCUTANEOUS LEAD

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL

Standard Lengths: 41, 58 (cm)

DIAMETER

Body: 2.5 mm (7.5 F

ELECTRODES

- Electrode Surface Area
- Coil: 500 mm²
- Electrode Lenght:
- Coil: 250 mm

MATERIAL

- Insulator: Silicor
- Conductor: Multifilar MP35N Composite
- Electrode Surface: Platinum Alloy

CONTENTS OF STERILE PACKAGE

- 1 Model 6996 SQ Lead (with stylet + stylet guide
- 2 introducer sheaths 10.5 Fr x 33 cm length
- 2 PTFE split tubings
- 2 slitters

TUNNELING TOOL 6996T – SOLD SEPARATELY

- Device Length
- Overall: 421 mm
- I unneling: 338 mm
- Material
- Stainless Steel
- I unneling Diameter: 3.1 mm

Model	6996SQ
Fixation	Sutures on Achoring Sleeve
Polarity	Unipolar
Defibrillation Coils	Subcutaneus
Connectors	1 x DF1
Insulation	Silicone
Introducer Size without/with Guidewire (Fr)	10.5 x 33 cm Length



Model 6996SQ

LEFT-HEART LEADS AND DELIVERY SYSTEMS



ATTAIN ABILITYTM MRI

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

- Steroid eluting on all electrodes
- Standard Lengths: 78, 88 (cm)

CONNECTOR

IS1 Bipolar

DIAMETER

Body: 1.3 mm (4.0 Fr)

ELECTRODES

- Dual electrode, 21 mm spacing
- Electrode Surface Area
- I ip: 5.8 mm²
- Ring: 5.8 mm

MATERIAL

- Insulator: Polyurethane-outer, SI-Polyimide-inne
- Conductor: SI-PI coated 25% Ag-core-MP35N
- Tip Electrode: Platinum/Iridium with Titanium Nitride coating
- Ring Electrode: Platinum/Iridium with Titanium Nitride coating
- Connector Pin: Stainless Stee
- Connector Ring: Stainless Stee

RECOMMENDED GUIDE WIRE

- Diameter: 0.014 to 0.018 in
- Attain Hybrid GWR419678, Purple knob, 98 cm – for 4196-78
- Attain Hybrid GWR419688, Purple knob, 108 cm – for 4196-88

RECOMMENDED STYLET

Diameter: 0.014 to 0.016 in

ACCESSORIES PACKAGED WITH LEAD

- Lead with Anchoring Sleev
- Guide Wire Insertion Tool
- Guide Wire Steering Handle
- Guide Wire C
- Stylets

STYLETS

- Packaged
- 2 gray straight
- 2 purple straight

Model	4196
Fixation	Preformed Body
Shape / Chambers	Dual Canted / LV
Polarity	Bipolar
Insulation	Polyurethane
Guide Catheter Size (Inner Diameter) (Fr)	5.7

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



Model 4196

ATTAIN ABILITYTM PLUS MRI SURESCAN™

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

CONNECTOR

DIAMETER

ELECTRODES

MATERIAL

RECOMMENDED GUIDE WIRE

- 98 cm for 4296-78
 Attain Hybrid GWR419688, Purple knob, 108 cm for 4296-88

RECOMMENDED STYLET

ACCESSORIES PACKAGED WITH LEAD

STYLETS

Model 4296 Fixation Preformed Body Shape Dual Canted / LV Chambers Polarity Bipolar Insulation Polyurethane Guide Catheter Size 5.7 (Inner Diameter) (Fr)

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



ATTAIN ABILITYTM STRAIGHT MRI SURESCANTM

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

- Steroid eluting on all electrodes
- Standard Lengths: 78, 88 (cm)

CONNECTOR

IS1 Bipolar

DIAMETER

Body: 1.3 mm (4.0 Fr)

ELECTRODES

- Dual electrode, 21 mm spacing
- Electrode Surface Area
- Tip: 5.8 mm²
- Ring: 5.8 mm

MATERIAL

- Insulator: Polyurethane-outer, SI-Polyimide-inne
- Conductor: SI-PI coated 25% Ag-core-MP35N
- Tip Electrode: Platinum/Iridium with Titanium Nitride coating
- Ring Electrode: Platinum/Iridium with Titanium Nitride coating
- Connector Pin: Stainless Stee
- Connector Ring: Stainless Stee

RECOMMENDED GUIDE WIRE

- Diameter: 0.014 to 0.018 in
- Attain Hybrid GWR419678, Purple knob, 98 cm – for 4396-78
- Attain Hybrid GWR419688, Purple knob, 108 cm – for 4396-88

RECOMMENDED STYLET

Diameter: 0.014 to 0.018 in

ACCESSORIES PACKAGED WITH LEAD

- Lead with Anchoring Sleev
- Guide Wire Insertion 1 ool
- Guide Wire Steering Handle
- Guide Wire

- STYLETS
 - ackayeu
 - 2 nurnle straight

Model	4396
Fixation	Tines
Shape / Chambers	Straight / LV
Polarity	Bipolar
Insulation	Polyurethane
Guide Catheter Size (Inner Diameter) (Fr)	5.7

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



Model 4396

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ATTAIN PERFORMATM MRI SURESCAN™

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

CONNECTOR

DIAMETER

ELECTRODES

MATERIAL

- Insulator: Polyurethane-outer, SI-Polyimide-inner
 Conductor: SI-PI coated 25% Ag-core-MP35N
 Tip Electrode: Platinum/Iridium with Titanium Nitride

RECOMMENDED GUIDE WIRE

- Diameter: 0.014 to 0.018 in
 Attain Hybrid GWR419578, Orange knob, 98 cm for 4298-78
 Attain Hybrid GWR419488, Orange knob,

ACCESSORIES PACKAGED WITH LEAD

STYLETS

Model	4298
Fixation	Preformed Body
Shape / Chambers	Dual Canted/ LV
Polarity	Quadripolar
Insulation	Polyurethane
Guide Catheter Size (Inner Diameter) (Fr)	5.7

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)





ATTAIN PERFORMA[™] STRAIGHT MRI SURESCAN™

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

- Steroid eluting on all electrodes
- Standard Lengths: 78, 88 (cm)

CONNECTOR

IS4-LLLL

DIAMETER

Body: 1.7 mm (5.3 Fr)

ELECTRODES

- Electrodes Surface Area
 All: 5.8 mm²
- Distance between electrodes
- LV1-LV2: 21 mm
- LV2-LV3: 1.3 mm
- LV3-LV4: 21 mm

MATERIAL

- Insulator: Polyurethane-outer, SI-Polyimide-inner
- Conductor: SI-PI coated 25% Ag-core-MP35N
- Tip Electrode: Platinum/Iridium with Titanium Nitride coating
- Ring Electrode: Platinum/Iridium with Titanium Nitride coating
- Connector Pin: MP35N
- Connector Ring: MP35N

RECOMMENDED GUIDE WIRE

- Diameter: 0.014 to 0.018 in
- Attain Hybrid GWR419678, Orange knob, 98 cm – for 4398-78
- Attain Hybrid GWR419688, Orange kn 108 cm – for 4398-88

ACCESSORIES PACKAGED WITH LEAD

- Lead with Anchoring Slee
- Guide Wire Insertion Tool
- Guide Wire Steering Han
- Guide Wire Clip
- 2 AccuRead 2.0 analyzer cable interface tools
- Stylets

STYLETS

- Packaged
- 2 gray straight
- 2 purple straight

Model	4398
Fixation	Tines
Shape / Chambers	Straight/LV
Polarity	Quadripolar
Insulation	Polyurethane
Guide Catheter Size (Inner Diameter) (Fr)	5.7

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



Model 4398

NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

ATTAIN PERFORMA[™] S MRI SURESCAN™

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

CONNECTOR

DIAMETER

ELECTRODES

MATERIAL

- Insulator: Polyurethane-outer, SI-Polyimide-inner
 Conductor: SI-PI coated 25% Ag-core-MP35N
 Tip Electrode: Platinum/Iridium with Titanium Nitride

RECOMMENDED GUIDE WIRE

- Diameter: 0.014 to 0.018 in
 Attain Hybrid GWR419678, Orange knob, 98 cm for 4598-78
 Attain Hybrid GWR419688, Orange knob,

ACCESSORIES PACKAGED WITH LEAD

STYLETS

Model	4598
Fixation	Preformed Body
Shape / Chambers	S-Shape/LV
Polarity	Quadripolar
Insulation	Polyurethane
Guide Catheter Size (Inner Diameter) (Fr)	5.7

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



ATTAIN STABILITYTM QUAD MRI **SURESCAN™**

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

CONNECTOR

DIAMETER

ELECTRODES

HELIX

MATERIAL

- Insulator: Polyurethane-outer, SI-Polyimide-inner
 Conductor: SI-PI coated 25% Ag-core-MP35N
 Tip Electrode: Platinum/Iridium with Titanium Nitride

RECOMMENDED GUIDE WIRE

ACCESSORIES PACKAGED WITH LEAD

STYLETS

Model	4798
Fixation	Preformed Body with Helix (active fixation)
Shape / Chambers	Canted/LV
Polarity	Quadripolar
Insulation	Polyurethane
Guide Catheter Size (Inner Diameter) (Fr)	5.7

MRI SureScan

Full Body 1.5 and 3T MRI with any MRI SureScan cardiac device:

- No MRI scan exclusion zone and no scan duration restriction
- MRI scan possible for the entire life of the system
- No Patient size restriction and no condition restrictions (e.g. fever)



Model 4798



ATTAIN COMMAND® SUREVALVE™

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

- Guide catheters for left-heart delivery
- Compatible transvenous devices:
- Leads 2.1 mm (6.2 Fr) max diameter
- Other devices 2.4 mm (7.1 Fr) max diameter
- Package does not include guidewire nor slitt
- I o be ordered separately

CATHETER

- Material: Polyether block amide, polyamide 12
- Hydrophilic Coating distal 1/3 of the outer shaf

CATHETER DILATOR

- Material: Polyethylene
- Inner diameter: 0.96 mm (2.8 Fr
- Outer diameter: 2.4 mm (7.1 Fr)

SUREVALVE INTEGRATED VALVE

Material: Polypropylene with SBC overmold

VALVE TOOL

Material: Polypropylene with SBC overmold

Model	6250VI- 45S	6250VI- 50S	6250VI- 57S	6250VI- AM	6250VI- MB2	6250VI- MB2X
Description	Straight	Straight	Straight	Amplatz	Multi- purpose bend 2	Multi- purpose bend 2 extra
Usable Length (cm)	45	50	57.5	50	45	50
Min. Inner Diameter (Fr)			2.4	(7.2)		
Max. Outer Diameter Proximal / Distal (mm (Fr))			3.0 (9.0)	/ 2.8 (8.5)		
Model	6250VI- MP	6250VI- MPX	6250VI- MPR	6250VI- FH	6250VI- FXHI	6250VI- 3D
Model	6250VI- MP Multi- purpose	6250VI- MPX Multi- purpose extra	6250VI- MPR Multi- purpose right	6250VI- EH Extended hook	6250VI- EXHL Extended hook extra large	6250VI- 3D (for right- sided implant
Model Description Usable Length (cm)	6250VI- MP Multi- purpose	6250VI- MPX Multi- purpose extra 50	6250VI- MPR Multi- purpose right 45	6250VI- EH Extended hook	6250VI- EXHL Extended hook extra large 57.5	6250VI- 3D (for right- sided implant
Model Description Usable Length (cm) Min. Inner Diameter (mm (Fr))	6250VI- MP Multi- purpose	6250VI- MPX Multi- purpose extra 50	6250VI- MPR Multi- purpose right 45 2.4	6250VI- EH Extended hook 50 (7.2)	6250VI- EXHL Extended hook extra large 57.5	6250VI- 3D (for right- sided implant 45



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

ATTAIN COMMAND® SUREVALVE™ KITS

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

- Left-Heart Delivery System with 2 Guide
- Compatible transvenous devices:
- Leads 2.1 mm (6.2 Fr) max diameter
- Other devices 2.4 mm (7.1 Fr) max diameter

CATHETER

- Material: Polyether block amide, polyamide 1
- Hydrophilic Coating distal 1/3 of the outer shaft

CATHETER DILATOR

Material: Polyethylene

- Inner diameter: 0.96 mm (2.8 F
- Outer diameter: 2.4 mm (7.1 Fr

SUREVALVE INTEGRATED VALVE

Material: Polypropylene with SBC overmole

VALVE TOOL

Material: Polypropylene with SBC overmold

MEDTRONIC UNIVERSAL II 6230UNI SLITTER

aterial: Stainless steel, polycarbonate

GUIDEWIRE

- Material: Stainless stee
- Length: 120 cm
- Diameter: 0.9 cm (0.035 in)

Model	6250VIS	6250VIC
Description	Left-Heart Delivery System Straight Catheter Kit	Left-Heart Delivery System Curved Catheter Kit
Catheters included	6250VI-45S and 6250VI-50S	6250VI-EH 6250VI-MB2
Minimum Inner Diameter (mm (Fr))	2.4	(7.2)
Max. Outer Diameter Proximal / Distal (mm (Fr))	3.0 (9.0)	/ 2.8 (8.5)



Model 6250VIS





ATTAIN SELECT[™] II SUREVALVE[™]

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

CATHETER

STRAIGHT BLUE INNER CATHETER

- Provides a soft distal tip and increased curve shape control
 Material: Polyether block amide
 Usable length: 80 cm

SUREVALVE INTEGRATED VALVE

VALVE TOOL

Model	6248VI- 90S	6248VI- 90	6248VI- 90L	6248VI- 130
Description	90° short curved tip	90° curved tip	90° long curved tip	130° curved tip
Usable Length (cm)		6	5	
Compatible Outer Guide Catheter Max Length (cm)		57	7.5	
Compatible Lead Min Length (cm)		8	8	
Inner Diameter (mm (Fr))	1.9 (5.7)			
Outer Diameter (mm (Fr))	2.4 (7.2)			
Model	6248VI- 130L	6248VI- 90SP	6248VI- 90P	6248VI- 130P
Model Description	6248VI- 130L 130° long curved tip	6248VI- 90SP 90° short curved tip	6248VI- 90P 90° curved tip	6248VI- 130P 130° curved tip
Model Description Usable Length (cm)	6248VI- 130L 130° long curved tip 65	6248VI- 90SP 90° short curved tip 57 (Petite)	6248VI- 90° curved tip 57 (Petite)	6248VI- 130° curved tip 57 (Petite)
Model Description Usable Length (cm) Compatible Outer Guide Catheter Max Length (cm)	6248VI- 130L 130° long curved tip 65 57.5	6248VI- 90SP 90° short curved tip 57 (Petite)	6248VI- 90° curved tip 57 (Petite) 50	6248VI- 130° curved tip 57 (Petite)
Model Description Usable Length (cm) Compatible Outer Guide Catheter Max Length (cm) Compatible Lead Min Length (cm)	6248VI- 130 ^c long curved tip 65 57.5 88	6248VI- 90SP 90° short curved tip 57 (Petite)	6248VI- 90° curved tip 57 (Petite) 50 78	6248VI- 130° curved tip 57 (Petite)
Model Description Usable Length (cm) Compatible Outer Guide Catheter Max Length (cm) Compatible Lead Min Length (cm) Inner Diameter (mm (Fr))	6248VI- 130 ^e long curved tip 65 57.5 88	6248VI- 90° short curved tip 57 (Petite) 1.9 (6248VI- 90° curved tip 57 (Petite) 50 78 (5.7)	6248VI- 130° curved tip 57 (Petite)



ATTAIN® DEFLECTABLE

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

- Deflectable Catheter System for left-heart delivery
 Compatible transvenous devices:
 Leads 2 mm (6 Fr) max diameter

DEFLECTABLE CATHETER

CATHETER DILATOR

GUIDE WIRE

- Material: Stainless Steel
 Length: 120 cm
 Outer diameter: 0.09 cm (0.035 in)

ADJUSTABLE HEMOSTASIS VALVE

MEDTRONIC UNIVERSAL SLITTER 6230UNI

NEEDLE

SYRINGE

Model	6227DEF04
Usable Length	Deflectable
Inner Diameter (cm)	45
Outer Diameter (mm (Fr))	2.4 (7.2)
Insulation (mm (Fr))	3.3 (9.9)



Model 6227DEF04



ATTAIN[®] VENOGRAM BALLOON

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

- Venogram balloon catheter for coronary sinus
 Package includes:

 Venogram balloon catheter
 1.25 cc syringe

DIAMETER

BALLOON

- MATERIAL Catheter Body: Polyurethane Balloon: Latex

RECOMMENDED GUIDE WIRE

Model	6215
Description	Venogram Balloon Catheter
Usable Length (cm)	80
Guide Catheter Size (Inner Diameter) (Fr)	7.0



Model 6215



MEDTRONIC SLITTERS

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

- Slitter for LV guide catheters
 Slit two catheters in the same procedure
 Single use; Disposable

DEFLECTABLE CATHETER

6232ADJ 6230UNI Model Medtronic Medtronic Description Adjustable Slitter Universal II Slitter Lead mechanically se-cured in lead channel Lead secured with Lead Stabilization thumb pressure





Model 6232ADJ





ADJUSTABLE VALVE

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

- Adjustable Hemostasis Valve for use with LV delivery systems
 Rotating luer lock for variable positioning of side port
 Hemostatic to 103 kPa (15 PSI)

Model	6248VAL
Description	Medtronic Adjustable Valve
Max. Inner Diameter (Fr)	15



Model 6248VAL

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ATTAIN HYBRID® GUIDE WIRE

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL

- Guide wire with stylet features
- Straightens the cants of the Attain OTW le
- Optimizes lead trackability

DIAMETER

Body: 0.014 in

MATERIAL

- Core wire: Stainless Stee
- Sleeve: PET
- Coating: Lubricious Pro/Pel[®] silicone

Model	GWR419478	GWR419488	GWR419578
Knob Color	Orange	Orange	Blue
Support			
Length (cm)	98	108	98
Recommended Lead Models	4298, 4398	4298, 4398	4195, 4598
Lead Length (cm)	78	88	78

Model GWR419588 GWR419678 GWR419688

Knob Color	Blue	Purple	Purple
Support			
Length (cm)	108	98	108
Recommended Lead Models	4195, 4598	4196, 4296, 4396	4196, 4296, 4396
Lead Length (cm)	88	78	88



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua



ACCESSORIES

MEDTRONIC STYLETS

ACCESSORIES

GENERAL

- Stylets for use with transvenous leads
 Package includes:

 2 straight stylets (sterile)
 2 stylet guides (sterile)

MATERIAL

Model	6057	6082	6054	6093
Knob Color	Blue	Gray	Rust	Purple
Shape	0	0	0	0
Diameter (in)	0.014	0.014	0.016	0.016
Distal End	Ball- tipped	Extended taper, Ball- tipped	Tapered, Ball- tipped	Extend- ed-taper, Ball- tipped
# in kit	2	2	2	2
Lengths (cm)	45, 52, 58, 65, 75, 110	45, 52, 55, 58, 62, 65, 72, 75, 97, 110	45, 52, 53, 58, 65, 75, 85, 110	.52, 58, 65, , 75, 85, 100
Model	6282*	6052	6091	6094
Model Knob Color	6282* Gray	6052 White	6091 Gray	6094 Blue
Model Knob Color Shape	6282* Gray	6052 White	6091 Gray	6094 Blue
Model Knob Color Shape Diameter (in)	6282* Gray 	6052 White	6091 Gray	6094 Blue
Model Knob Color Shape Diameter (in) Distal End	6282* Gray 0.014 Extended taper, Ball- tipped	6052 White	6091 Gray 0.014 Extende Ball-ti	6094 Blue 0.014 d taper, pped
Model Knob Color Shape Diameter (in) Distal End # in kit	6282* Gray 0.014 Extended taper, Ball- tipped	6052 White	6091 Gray 0.014 Extende Ball-ti 2	6094 Blue 0.014 d taper, pped
Model Knob Color Shape Diameter (in) Distal End # in kit Lengths (cm)	6282* Gray 0.014 Extended taper, Ball- tipped 15 75, 85	6052 White 0.014 Blunt 2 45, 53, 58	6091 Gray 0.014 Extende Ball-ti 2 45, 53, 58, 65	6094 Blue 0.014 d taper, pped 2 45, 52, 58

 * Hemostasis valve compatible (downsized knobs)

PEELABLE INTRODUCERS

ACCESSORIES

GENERAL

PACKAGE INCLUDES:

- 1 introducer sheath with tapered vessel dilator
 1 thin-wall needle (18 gauge)
 1 disposable syringe
 1 flexible J guide wire with tip straightener:
 Diameter: 1 mm (0.035 in)
 Length: 60 cm (23.6 in)

Model	6207-S1	6208-S1	6209-S1	6210-S1	6211-S1	6212-S1	6214-S1
Size (Fr)	7	8	9	10.5	11	12	14
# of kits				1			





SAFESHEATH CSG® WORLEY BRAIDED CORE INTRODUCERS

ACCESSORIES

GENERAL

PACKAGE INCLUDES:

Model	CSGWORB C19M	CSGWORL BC19M	CSGWORB C29M
Size (Fr)		9	
# of kits		5	
Lenght (cm)	40	50	50



SAFESHEATH CSG® **EXTRUDED CORE INTRODUCERS**

ACCESSORIES

GENERAL

PACKAGE INCLUDES:

- 1 tear-away sheath w/side port
 1 dilator
 1 needle (18 gauge)
 1 guidewire (135 cm)
 1 curved guiding core
 1 transvalvular insertion tool (TVI) (7 Fr)

Model	CSGWORLEY109M	CSGWORL19M
Size (Fr)	9	
# of kits	5	
Length (cm)	40	50





Model CSGWORLEY109M

Model CSGWORL19M



SAFESHEATH II® LEAD INTRODUCERS

ACCESSORIES

GENERAL

- SafeSheath II[®] Hemostatic Peel-away Introducer System for Vascular Access with
 low insertion/withdrawal force lubricated valve
 ergonomically-designed, easy-splitting hub

- extruded score line sheath
 infusion side port
 snap-fit dilator

PACKAGE INCLUDES:

- 1 tear-away sheath w/side port
 1 dilator
 1 needle (18 gauge)
 1 syringe (12 cc)
 1 guidewire (Standard-50cm / Long-60cm)

Model	SS5	SS6	SS7	SS8	SS85
Knob Color	5	6	7	8	8.5
# in kit			5		
Lengths (cm)			13		
Model	SS9	SS95	SS10	SS105	SS11
Knob Color	9	9.5	10	10.5	11
# in kit			5		
Lengths (cm)			13		
Model	SS12	SS125	SSL6	SSL7	SSL8
Knob Color	12	12.5	6	7	8
# in kit			5		
Lengths (cm)	13	13	23	23	23
Mode	SSL	9 SSL	10 SSL	.105 SS	5L11
Knob Color	9	10	10	0.5	11
# in kit			5		
Length: (cm)	S		23		





Model SSLx



FLOWGUARD® VALVED PEELABLE INTRODUCERS

ACCESSORIES

GENERAL

- FlowGuard[®] Valved Peelable Introducers for use with transvenous leads
 Sliding valve feature for procedural flexibility
 Low-profile handle and interlock system to prevent dilator

10729 -001	10729 -002	10729 -003	10729 -004
7.0	8.0	9.0	10.5
	-	1	
13	15	15	15
18	21.5	21.5	21.5
10730 -001	10730 -002	10730 -003	10730 -004
7.0	8.0	9.0	10.5
	ļ	5	
13	15	15	15
18	21.5	21.5	21.5
	10729 -001 7.0 13 18 10730 -001 7.0 13 18 10730 -001 7.0 13 13 13 13 13 13 13 13 13 13 18	10729 10729 -001 -002 7.0 8.0 13 15 18 21.5 10730 -002 7.0 8.0 13 15 14 21.5 15 10730 -001 10730 -002 3.0 13 15 13 15 13 15 18 21.5	10729 10729 10729 -001 -002 -003 7.0 8.0 9.0 1 1 1 13 15 15 18 21.5 21.5 10730 10730 -003 7.0 8.0 9.0 13 15 15 14 21.5 21.5 15 5 5 13 15 15 13 15 15 13 21.5 21.5



Model 10730-00x

PACING LEAD ADAPTORS

ACCESSORIES

Model	Description	
BLV-BIS-10	LV-1 Bipolar Lead to IS-1 Bipolar IPG - 10cm	
BLV-BIS-40	LV-1 Bipolar Lead to IS-1 Bipolar IPG - 40cm	
B-IS-15SS2	5mm Bifurcated Bipolar Lead or two 5mm Unipolar Leads to IS-1 Bipolar IPG	
BIS-IS-15	Two IS-1 UNI Leads to IS-1 BI IPG	
BIS-BIS-17	3.2mm Low Profile Bipolar Lead to IS-1 BI IPG - Permanent Extension	
BIS-BIS-40	IS-1 BI Lead to IS-1 BI IPG - Permanent Lead Extension	

NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua



ICD LEAD ADAPTORS

ACCESSORIES

Model	Description	
6726	DF-1 Y Adaptor/Extender – 25cm or 37cm	
6707	6.5 mm to DF-1 - Adaptor Kit – 15cm	
6920	Upsizing Sleeve for HV Leads 3,2mm LP or DF-1 to 6,5mm 3 Units per Kit	
5019	DF-4 Adapter - Removes SVC coil from shock path and allows use of additional defibrillation DF-1 lead/ patch	

NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua



ADDITIONAL ACCESSORIES

ACCESSORIES

Model	Description	
5867-3M	Lead End Cap Kit	
6056	Pinch-on Tool 6056 for Medtronic Screw-in Leads	
6056M	Individual package for AccuRead 2.0 tool	The state of the s
5873C	Lead Service Installation Kit	
5873W	Lead wrench kit	
80118	Medical adhesive	
6717	6.5mm Unipolar Connector Port Pin Plug, 1 per kit	
6719	DF-1 unipolar connector Port Pin Plug, 1 per kit	
6725	IS-1 connector port pin plug, 1 per kit - may be used as a part of the MRI CRT-D SureScan systems in place of a right atrial lead	
6177	Sterile Programming Head Cover - 10 per kit	
9466	Patient Magnet - 4 per kit	

NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manual

INSERTABLE CARDIAC MONITORS (ICM)
LINQ IITM

INSERTABLE CARDIAC MONITORS (ICM)

GENERAL

- Insertable Cardiac Monitor (ICM) with 4.5 years longevity*
 TruRhythm™ Detection
 Pause Detection Algorithm

ARRHYTHMIA DETECTION

DIAGNOSTICS

COMPATIBLE DEVICES

PACKAGE CONTENT

Model	LNQ22
M (g)	3.4
V (cc)	1.4
Size (mm)	45.1 × 8.0 × 4.2

MRI Compatibility

- MR-Conditional at 3.0 and 1.5 Tesla
- No-post insertion waiting period



REVEAL LINQTM

INSERTABLE CARDIAC MONITORS (ICM)

GENERAL

- Insertable Cardiac Monitor (ICM) with 3 years life*
 TruRhythm[™] Detection
 Auto-activated events: 29 min of ECG
 Patient-activated events: 30 min of ECG

ARRHYTHMIA DETECTION

DIAGNOSTICS

PATIENT ASSISTANT – MODEL PA96000

PACKAGE CONTENT

MRI Compatibility

MR-Conditional at 3.0 and 1.5 Tesla

Model

M (g)

V(cc)

Size (mm)

LNQ11

 2.5 ± 0.5

1.2

 $44.8 \times 7.2 \times 4.0$

No-post insertion waiting period



REVEAL® XT

INSERTABLE CARDIAC MONITORS (ICM)

GENERAL

- Insertable Cardiac Monitor (ICM) with 3 years life*
 Auto-activated events: 27 min of ECG
 Patient-activated events: 22.5 min of ECG
 Up to 14 min of ECG prior to activation

ARRHYTHMIA DETECTION

DIAGNOSTICS

- Quick Look
 Cardiac Compass Trends:

 AT/AF total time per day
 Ventricular rate during AT/AF

PATIENT ASSISTANT - MODEL PA96000

PACKAGE CONTENT

- Reveal XT ICM
 Conductive patches for Vector Check
 Reveal PA96000

MRI SureScan

- MR-Conditional at 3.0 and 1.5 Tesla
- 6-week post-insertion waiting period

Model

M (g)

V(cc)

Size (mm)

9529

15

9

 $62 \times 19 \times 8$



PATIENT MANAGEMENT SOLUTIONS

CARELINK™ NETWORK

PATIENT MANAGEMENT SOLUTIONS

GENERAL

The CareLink[™] Network is a remote monitoring service for patients with Medtronic implanted cardiac devices. The service allows patients to send full device data to their clinic from home or away. The monitoring solution collects patients' device data and sends it to a secure sever.

Healthcare providers can analyze the patient device diagnostic data via the CareLink™ Network Clinician Website through their internet browser. The site is also used to enroll clinic users, enroll patients, and perform other administrative duties.

- Compatible with 99.9% Medtronic implantable devices
- Operates on the Microsoft[™] Windows[™] operating system with database support based on Microsoft's SQL (Structured Query Language) Server software
- Administration for hospital CareLink network service set-up
- Access to secure server space for data hosting of active patient data using CareLink
- Unlimited healthcare professional users per hospital
- Access to Vodafone worldwide data network and their roaming partners
- Patient transmissions
- Scheduled
- Customizable color-coded CareAlerts
- Patient-initiated transmissic
- I echnical support
- CareLink clinician website upgrades
- CareLink monitor software upgrades
- I raining of healthcare professionals and patient groups
- Online access for healthcare professionals to the Medtronic Academy for training on website
- CareLink Mobile Application for clinicians
- Updates

SECURITY MEASURES

- ISO 27001 and SOC II-certifie
- Hosted in Europe at SAS70
- Certified site
- Managed by Medtronic personnel



SSA4-CLNETSERVICE

(varies per country)

DIEN CODE

NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

MYCARELINK HEART ™ MOBILE APP

PATIENT MANAGEMENT SOLUTIONS

GENERAL

- Patient app for remote monitoring of Medtronic BlueSync[™] enabled cardiac implantable devices in the Medtronic CareLink[™] Network
- Replaces the traditional bedside monitor to securely transfer heart device data using patient smartphone or tablet
- Best option for patients owning compatible iOS and Android smart device¹ and comfortable with using apps or smart technology

MAIN FEATURES

- Cellular or Wi-Fi connectivity through patient's smart device
- Bluetooth[®] Low Energy is designed to minimize battery drain of the implantable device
- Enhanced security with data encryption from end to end
- Automatic notifications help patients stay connected
- Upgradable throughout lifetime of the device
- Allows patients to view select device data such as battery life and access in-app education content

¹ Please visit www.MCLHeart.com for a list of compatible smartphones and tablets

Model Patient app	27000
Model Application for IOS	MSW003
Application for Android	MSW004



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manual

MYCARELINK RELAY™ HOME COMMUNICATOR

PATIENT MANAGEMENT SOLUTIONS

GENERAL

- Patient bedside communicator for remote monitoring of Medtronic BlueSync[™] enabled cardiac implantable devices in the Medtronic CareLink[™] Network
- Best option for patients that rarely carry a mobile device or not comfortable with using apps or smart technology

MAIN FEATURES

- Integrated cellular 4G LTE connectivity with international coverage and Wi-Fi connectivity
- Bluetooth[®] Low Energy is designed to minimize battery drain of the implantable device
- Enhanced security with data encryption from end to end
- Optimized Bluetooth[®] & cellular antenna de
- Requires little to no user interaction

POWER SUPPLY

AC powered, 100-240 V, 50-60 Hz, 0.5 A Max

PHYSICAL CHARACTERISTICS

- Ambient light sensor automatically turns off lights in the dark
- Light Ring to show activity
- Progress bar to display transmission status
- Button to checks status or send patient-initiated transmissions

Model	24960
M (g)	N/A
Size (mm)	N/A



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manual

MYCARELINK SMART[™] MONITOR

PATIENT MANAGEMENT SOLUTIONS

GENERAL

- Patient monitor for remote monitoring of Medtronic cardiac implantable devices in the Medtronic CareLink[™] Network
 Designed to be paired with one single implantable device
 Designed to be paired with IPGs, CRT-Ps and Micra TPS

CONNECTIVITY AND TRANSMISSIONS

POWER SUPPLY

PHYSICAL CHARACTERISTICS

Model	25000
M (g)	164 (without batteries)
Size (mm)	155 x 80 x 30



MYCARELINK[™] MONITOR

PATIENT MANAGEMENT SOLUTIONS

GENERAL

- Patient monitor for remote monitoring of Medtronic cardiac implantable devices in the Medtronic CareLink[™] Network
 Designed to be paired with one single implantable device

CONNECTIVITY AND TRANSMISSIONS

- Cellular technology, with international coverage
 Supports wireless data transmissions (when paired to wireless implantable device)
 Can send the wireless transmission when in range of up to 3 m from the implanted device

POWER SUPPLY

PHYSICAL CHARACTERISTICS

Model	24952
M (g)	N/A
Size (mm)	207 × 153 × 66



SMARTSYNC[™] DEVICE MANAGER

PATIENT MANAGEMENT SOLUTIONS

GENERAL

- Tablet-Based programmer for interrogating and programming compatible Medtronic cardiac implantable devices*
- Includes the Pacing System Analyser (PSA)
- Intended to support implants and follow-ups
- Enables wireless, streamlined and secure digital workflow

MAIN FEATURES

- Free iOS Application, is compatible with certain models of the Apple iPad Pro and iPad Air**
- Pacing System Analyzer integrated in the Base Station
- Telemetry B (inductive), BlueSync[™] Technology (wirele
- E-strip recorder, with annotating options
- Report Exporting options: save to network folder, USB***
- Possibility to connect to external printer via WiFi

POWER SUPPLY

- Patient Connector: AC powered with 3 hours of battery back-up
- Base Unit: AC powered
- PSA: powered separately from the base, using 2 AA batteries

COMPONENTS AND ACCESSORIES

- 24970A Base un
- 24967 Patient Connector
- 249705 Power cord
- 2090 EC/ECL ECG cable with plug and leadwires
- 2292 surgical cables
- 249704 Carry case

SYSTEM COMPONENTS

- SmartSync iOS application
- Base unit:
- Including the Pacing System Analyzer
- Communicating via Bluetooth[®] with table
- Patient connector
- Communicating via Tel B with Astra[™] Pacemakers; via Bluetooth Low energy with BlueSync[™] enabled dev
- Communicating via Bluetooth[®] with tablet
- Tablet
- Apple iPad Pro and iPad Air**
- Hospital owned or Medtronic Managed Tablet (MMT)

* More information on compatible devices can be found in the CareLink SmartSync Device Manager materials

** More information on compatible iPad models can be found in the CareLink SmartSvnc Device Manager materials

*** Depending on Country and tablet option

Model Base unit	24970A
Weight (kg)	0.91
Size (cm)	4.6 × 24 × 20.8
Model Patient connector	24967
Weight (kg)	0.25
Size (cm)	16.7 x 7.3 x 3.0



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

REVEAL LINQ™ MOBILE MANAGER

PATIENT MANAGEMENT SOLUTIONS

GENERAL

- The Reveal LINQ[™] Mobile Manager is an innovative, app-based device management system for Reveal LINQ[™] and LINQ II[™] insertable cardiac monitor (ICM).
- It enables procedure simplicity and programmer portability for device activation, programming, CareLink[™] Network pre-enrollment and follow-up checks - all from the same tablet.
- Generate reports quickly and simply
- Simplify staff training with guided animations
- Lasily access patient education modules directly from the app*
- Streamline workflows for initial device activation or follow-up
 Access a built-in Help Menu to answer device activation and follow-up device check questions.
- Setting up patients up to 7 days prior to implant
- Automatically pre-enroll your patients in the Medtronic CareLink™ Network
- Access data on the CareLink[™] Network within minutes after device activation or follow-up device checks, while connectivity with the CareLink[™] Network is established

MAIN FEATURES

- The LMM application is a free iOS application
- www.LINQMobileManager.com follow the links to download the app

POWER SUPPLY

Patient connector: AC powered with 3 hours of battery back-up

SYSTEM COMPONENTS

- LMM iOS application
- Patient connector:
- Communicating via Tel B with Reveal LINQ[™]
- Communicating via Bluetooth[®] with LINQ II[™] and tablet
- Reveal LINQ[™] and LINQ II[™] ICM:
- Tablet hospital-owned or Medtronic Managed Tablet (MMT)

* May vary based on geography



Model

Patient connector

24967



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manual

CARELINK EXPRESS[™] MOBILE SYSTEM

PATIENT MANAGEMENT SOLUTIONS

GENERAL

- The CareLink ExpressTM Mobile System allows the interrogation of any compatible Medtronic cardiac Implantable device, with secure and rapid transfer of the data to the CareLinkTM Network for remote interpretation.
- The CareLink Express[™] System provides secure access and transfer of data, seamlessly integrating into a follow-up clinic's CareLink system.

MAIN FEATURES

- Compatible with 99% of Medtronic cardiac devices supported on the CareLink[™] Network¹
- The CareLink Express[™] Mobile application is a free iOS

POWER SUPPLY

Patient connector: AC powered with 3 hours of battery back-up

SYSTEM COMPONENTS

- CareLink Express[™] Mobile IOS application
- Patient connector (Tel A/B)
- Communicating via Tel B with all devices
- Communicating via Bluetooth with tablet
- Tablet hospital-owned or Medtronic-supplied table
- CareLink Express[™] Website
- Carrying Case for patient connector and the tablet (ordered seperately)

¹ Supported devices on CareLink™ Network - Data on File (Jan 2014)

Model Patient connector	24967
Model Application for IOS	31302
Carrying Case	249653





NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua

CARELINK ENCORE™ PROGRAMMER

PATIENT MANAGEMENT SOLUTIONS

GENERAL

- System for interrogating and programming Medtronic and Vitatron cardiac implantable devices
 Intended to support follow-ups

MAIN FEATURES

- **POWER SUPPLY**

ACCESSORIES (IN THE PACKAGE)

Model	29901
M (g)	4.94
Size (mm)	35.5 x 35.5 x 10.2



CARELINK[®] 2090 PROGRAMMER

PATIENT MANAGEMENT SOLUTIONS

GENERAL

- System for interrogating and programming Medtronic, Vitatron and NavaMed cardiac implantable devices
- Intended to support implants and follow-ups

MAIN FEATURES

- Ethernet card
- Mechanical keyboard
- Display screen
- Integrated printer possibility to connect to external printer via parallel port or USB
- Telemetry A, B (inductive) and C (wirele
- Emergency button for VVI pacing

POWER SUPPLY

- AC powered
- **ACCESSORIES**
- 2290 Medtronic Analyzer
- 2067/L Programmer head
- 2090TPS/XS Touch pen
- 2090EC/ECL ECG cable with plug and leadwires
- 6092 Printer paper

PACKAGE CONTENTS

- 2090 CareLink Programm
- 2090TPS/XS Touch pen
- 2090EC/ECL ECG cable with plug and leadwires
- 6092 Printer paper





CARELINK® 2290 ANALYZER

PATIENT MANAGEMENT SOLUTIONS

GENERAL

MAIN FEATURES

- Automatic measurement of P- and R-wave amplitudes and slew rates

PACKAGE CONTENTS

- 2290 Analyzer2292 Analyzer surgical cable

Model	2290
M (kg)	N/A
Size (mm)*	N/A

* installs into the Medtronic CareLink® 2090 Programmer



FOCUSONTM MONITORING AND TRIAGING SERVICE

PATIENT MANAGEMENT SOLUTIONS

GENERAL

- FocusOn[™] is a service that monitors and triages CareLink[™] transmissions from all Medtronic implantable cardiac devices.
 All incoming data is reviewed and classified based on its clinical relevance (colour-code classification), according to

QUALITY PROCESS

Service Time		
Days	Mon-Fri (no bank holidays)	
Hours	7am – 6pm CET	

Service Level Agreement and escalation methods

Days	Phone/SMS and e-mail	Same working day
Days	E-mail	Next working day
Hours	Weekly e-mail	Once a week



Monitoring & Triaging Service Centre

The FocusOn[™] team monitors and triages all incoming CareLink[™] data according to hospital customisations. The hospital clinical teams are then alerted about clinically actionable events via telephone, email and the FocusOn™ Platform.

BECONNECTED SERVICE

PATIENT MANAGEMENT SOLUTIONS

GENERAL

BECONNECTED is a patient support service designed to free up clinic time by directing patients to the experienced BeConnected team:

- Helping patients onboard with their optimal monitoring solution:
- Education on remote monitoring
 Screening for optimal monitoring solution with the ability to ship bedside monitor to patient home address
- Set-up of patient monitoring solution.
- Helping patients with general device & remote monitoring questions.

SCOPE

Service offered in local language

CONTACT NUMBER

Austria	00800-26663282
Belgium	00800-26663282
Finland	990800-26663282
Ireland	00800-26663282
Netherlands	00800-26663282
Portugal	00800-26663282
Spain	00800-26663282
Sweden	00800-26663282
Switzerland	00800-26663282
United Kingdom	00800-26663282

Service hours*

Monday- Friday 8am – 4pm Ability to leave voicemail outside of office hours

* Service hours may vary



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manual

PROCEDURE INNOVATIONS

TYRXTM ABSORBABLE ANTIBACTERIAL ENVELOPE

PROCEDURE INNOVATIONS

GENERAL

The TYRX Envelope is a fully absorbable sterile device designed to hold a Cardiac Implantable Electronic Device (CIED) securely in place to create a stable environment when implanted in the body. The envelope's bioabsorbable polymer coating contains antibacterial agents Minocycline and Rifampin.

- Fully absorbs into the body in ~9 weeks
- Large pore mesh
- Knitted from absorbable filame
- (glycolide, caprolactone and trimethylene carbonate)
- Filaments coated with a bioabsorbable polymer containing antibacterial agents
- Single Use Only
- Storage: between 2 25° C

ANTIBIOTICS

- Minocyline and Rifampin have been shown to reduce infection in an in vivo model of bacterial challenge following surgical implantation of the generator or defibrillator.¹
- Locally delivered Minocycline and Rifampin sustained for 7 days
- Minocycline has been shown to be effective against:
- Gram-positive bacteria such as S aureus
- Gram-negative bacteria such as E coli, E aerogenes, H influenzae and A baumannii
- Rifampicin has been shown to be effective against:
- Gram-positive bacteria such as S aureus (including MRSA) and S epidermidis
- Gram-negative bacteria such as H influenzae

¹ Huntingdon Life Sciences Studies TR-2011-043, TR-2011-044, TR-2011-045, TR-2011-047, TR-2011-056.

Model	CMRM6122INT	CMRM6133INT
Description	TYRX Absorbable Antibacterial Envelope (Medium)	TYRX Absorbable Antibacterial Envelope (Large)
Size (cm)	6.3 x 6.9	7.4 x 8.5
Minocycline dose (mg)	5.1	7.6
Rifampin dose (mg)	8.0	11.9



NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manual

EXTERNAL PACEMAKER SINGLE CHAMBER

PROCEDURE INNOVATIONS

GENERAL

PACING FEATURES

- Pacing Modes: AAI, AOO, VVI, VOO
 Basic Pacing Rate: 30 200 ppm

ADDITIONAL PROGRAMMABLE PARAMETERS

PACKAGE CONTENT

- Single Chamber External Temporary Pacemaker Model 53401
 Two AA 1.5 V alkaline batteries

ACCESSORIES (NOT INCLUDED)

	Model	53401				
	M (g)	499				
_	Dimension (cm)	20.2 × 6.6 × 4.1				
-	Battery	Two IEC type LR6-sized (AA-sized) 1.5 V alkaline batteries (Duracell MN1500, Eveready E91 or equivalent)				



EXTERNAL PACEMAKER DUAL CHAMBER

PROCEDURE INNOVATIONS

GENERAL

- Battery Powered External Temporary Pacemaker
 Pacing Continuation upon Battery Removal
 Compatible with Medtronic cables 5832, 5833, 5487, 5433A/V and 5846A/V

PACING FEATURES

- Pacing Modes: DDD, DOO, DDI, AAI, AOO, VVI, VOO
 Basic Pacing Rate: 30 200 ppm

ADDITIONAL PROGRAMMABLE PARAMETERS

PACKAGE CONTENT

- **ACCESSORIES (NOT INCLUDED)**

Model	5392		
M (g)	680		
Dimension (cm)	20.3 x 8.6 x 4.45		
Battery	Two IEC type LR6-sized (AA-sized) 1.5 V alkaline batteries		





EPG PATIENT AND SURGICAL CABLES

PROCEDURE INNOVATIONS

Model	Description	Channel	Lenght (m)	
5832S	Surgical Cable, Reusable, One channel, Small Clips	A or V	1.83	
2292	Surgical Cable, Reusable, Two channels	A and V	3.66	
5833S / 5833SL	Surgical Cable, Disposable, Small Clips	A or V	1.83 / 3.66	
5487 / 5487L	Surgical Cable, Disposable	A or V	1.83 / 3.66	
5433A / 5433AL	Patient Cable, Reusable	A	1.83 / 3.66	
5433V / 5433VL	Patient Cable, Reusable	V	1.83 / 3.66	8
5846A / 5846AL	Patient Cable, Disposable	A	1.83 / 3.66	
5846V / 5846VL	Patient Cable, Disposable	V	1.83 / 3.66	

NOTE: This is not intended to be a full product description. For full description, refer to the Device Specification Sheet and/or Manua



2:1 block rate – a conduction ratio in which every second atrial event is refractory. This results in a ventricular pacing rate that is one half as fast as the atrial rate. Also known as second-degree Mobitz Type II AV block.

Active Can – option to select the device case as an active electrode for delivering defibrillation and cardioversion therapies.

activities of daily living rate (ADL Rate) – the approximate target rate that the patient's heart rate is expected to reach during activities of daily living.

activities of daily living response (ADL response) – a programmable parameter that alters the slope of the rate response curve to adjust the targeted rate distribution in the submaximal rate range to match the patient's activity level.

activity sensor - accelerometer in the device that detects the patient's body movement.

AdaptivCRT – algorithm that enhances cardiac resynchronization therapy (CRT) by adjusting CRT parameter values automatically while the patient is ambulatory.

AF/Afl feature – PR Logic feature designed to discriminate between rapidly conducted atrial fibrillation or atrial flutter and ventricular tachyarrhythmia.

Antitachycardia pacing (ATP) – therapies that deliver rapid sequences of pacing pulses to terminate tachyar-rhythmias.

Arrhythmia episode data – system that compiles an arrhythmia episode log that the clinician can use to view summary and detailed diagnostic data quickly, including stored EGM, for the selected arrhythmia episode.

AT/AF detection – feature that analyzes the atrial rate and its effect on the ventricular rhythm to determine whether the patient is currently experiencing an atrial tachyarrhythmia. Depending on programming, the device delivers a programmed sequence of atrial therapies or continues monitoring without delivering therapy.

AT/AF Interval – programmable interval used to define the AT/AF detection zone. The median atrial interval must be shorter than this value to detect an AT/AF episode.

ATP During Charging – device delivers a ventricular antitachycardia therapy sequence while the device charges its capacitors for the first defibrillation therapy during a VF episode.

Atrial antitachycardia pacing (ATP) – therapies that respond to an AT/AF episode or a Fast AT/AF episode with rapid sequences of pacing pulses to terminate detected atrial tachyarrhythmias.

Atrial cardioversion – therapy that delivers a high-voltage shock to treat an AT/AF episode or a Fast AT/AF episode. Atrial cardioversion delivery is synchronized to a sensed ventricular event and cannot exceed a programmable ble daily limit within programmable times.

Atrial Preference Pacing – atrial rhythm management feature that adapts the pacing rate to slightly higher than the intrinsic sinus rate.

Atrial Preference Pacing (APP) - atrial rhythm management feature that adapts the pacing rate to slightly higher

than the intrinsic sinus rate.

Atrial Rate Stabilization (ARS) – atrial rhythm management feature that eliminates a prolonged pause following a premature atrial contraction (PAC).

atrial refractory period – interval that follows an atrial paced or sensed event during which the device senses events but responds to them in a limited way. This interval is applied when the device is operating in a single chamber, atrial pacing mode.

Atrial therapy scheduling – feature that enables the clinician to program the delivery of automatic atrial therapies. Each time that an AT/AF therapy is needed, the device schedules one of the available therapies based on clinician programming.

atrial tracking – dual chamber pacing operation that paces the ventricle in response to atrial events.

Atrial Tracking Recovery (ATR) – feature that helps to restore atrial tracking if it is lost due to successive atrial events falling in the refractory period following ventricular senses.

Auto PVARP – Adjusts PVARP (Post-Ventricular Atrial Refractory Period) in response to changes in the patient's heart rate or pacing rate. PVARP is longer at lower tracking rates to prevent pacemaker-mediated tachycardia (PMT) and shorter at higher rates to maintain 1:1 tracking.

AV synchrony – coordinated contraction of the atria and ventricles for most effective cardiac output.

blanking period – time interval during which sensing in a chamber is disabled to avoid oversensing.

Burst+ pacing – antitachycardia pacing (ATP) therapy that delivers sequences of atrial pacing pulses with an interval that is a programmable percentage of the tachycardia cycle length, followed by up to 2 premature stimuli delivered at programmable intervals. With each sequence of Burst+ pacing delivered; the device shortens the pacing interval by a programmable interval.

Burst pacing – antitachycardia pacing (ATP) therapy that delivers sequences of ventricular pacing pulses with an interval that is a programmable percentage of the tachycardia cycle length. With each sequence of Burst pacing delivered, the device shortens the pacing interval by a programmable interval.

Capture Management – feature that monitors pacing thresholds with daily pacing threshold searches and, if programmed to do so, adjusts the pacing amplitudes toward a target amplitude.

Cardiac Compass Trends – overview of the patient's condition over the last 14 months with graphs that display long-term clinical trends in heart rhythm, such as frequency of arrhythmias, heart rates, and device therapies.

cardiac resynchronization therapy (CRT) – delivery of coordinated pacing pulses to the left and right ventricles designed to treat ventricular dysynchrony.

Combined Count detection – feature designed to prevent a delay in VF detection when ventricular tachyarrhythmia fluctuates between the VF and VT zones.

Conducted AF Response – feature that adjusts the pacing rate to help promote a regular ventricular rate during

AT/AF episodes.

crosstalk – condition when pacing in one chamber is sensed as intrinsic activity in another chamber.

Decision Channel annotations – annotations to stored and telemetered EGM that document details about tachyarrhythmia detection operations.

device reset – automatic device operation to recover from a disruption in device memory and control circuitry. Programmed parameters may be set to default reset values. This operation triggers a device status indicator. device status indicators – warnings that describe problems with device memory or operation.

EffectivCRT Diagnostic – feature that determines the percentage of effective CRT pacing. It provides data about the effectiveness of CRT pacing on the Quick Look screen and in RATE HISTOGRAMS, Cardiac Compass TRENDS, and EffectivCRT EPISODES.

EffectivCRT During AF – algorithm that dynamically adjusts the pacing rate in response to changes in the percentage of effective CRT pacing to promote CRT delivery in non-tracking modes.

EffectivCRT episodes data – feature that compiles diagnostic information to help the clinician identify the cause of ineffective CRT pacing and reprogram the device to avoid it.

electromagnetic interference (EMI) – energy transmitted from external sources by radiation, conduction, or induction that can interfere with device operations, such as sensing, or can potentially damage device circuitry.

EOS (End of Service) – battery status indicator displayed by the implantable device app to indicate that the device should be replaced immediately and that it may not operate per specifications.

event - a sensed or paced beat.

evoked response detection – the act of detecting the electrical signal generated by the contracting myocardium immediately following a pacing pulse.

exertion rate range – rates at or near the Upper Sensor Rate that are achieved during vigorous exercise.

Flashback – diagnostic feature that records the intervals that immediately preceded tachyarrhythmia episodes or that preceded the last interrogation of the device and plots the interval data over time.

Heart Failure Management Report – report that summarizes the patient's clinical status and observations since the last follow-up appointment and provides graphs that show trends in heart rates, arrhythmias, and fluid accumulation indicators over the last 14 months.

High Rate Timeout – feature that allows the device to delivery therapy for any ventricular tachyarrhythmia that continues beyond the programmed length of time.

Holter telemetry – telemetry feature that transmits EGM and marker data continuously for a programmable number of hours, regardless of whether telemetry actually exists between the device and device manager.

Home communicator - instrument that wirelessly receives information from a patient's implanted device and then

transmits the information to the Medtronic CareLink Network via a cellular phone network or a home WiFi network. This dedicated instrument is placed within range of where the patient sleeps.

last session – refers to the last time the device was successfully interrogated before the current interrogation. A session ends 8 hours after the last interrogation.

median atrial interval – the seventh in a numerically ordered list of the 12 most recent A-A intervals.

median ventricular interval – the seventh in a numerically ordered list of the 12 most recent V-V intervals.

Medtronic CareAlert Monitoring – the continuous monitoring for, and silent, wireless transmission of, alert data between an implanted device and the Medtronic CareLink Network.

Medtronic CareAlert notifications – alert information sent via the Medtronic CareLink Network that notifies clinics and clinicians of events that impact patients or their implanted devices.

Medtronic CareLink Network – Internet-based service that allows a patient to transmit cardiac device information from home or other locations to the physician over a secure server. The CareLink Network may be unavailable in some geographic locations.

Mode Switch – feature that switches the device pacing mode from a dual-chamber atrial tracking mode to a nontracking mode during an atrial tachyarrhythmia. This feature prevents rapid ventricular pacing that may result from tracking a high atrial rate and restores the programmed pacing mode when the atrial tachyarrhythmia ends.

MR Conditional – an item that has been demonstrated to pose no known hazards in a specified MR environment with specified conditions for use.

MRI SureScan – a feature that permits a mode of operation that allows a patient with a SureScan system to be safely scanned by an MRI machine while the device continues to provide appropriate pacing.

Multiple point pacing (MPP) – feature that allows the device to deliver a second, separately programmed LV pacing pulse during CRT pacing.

MVP (Managed Ventricular Pacing) – atrial-based pacing mode that is designed to switch to a dual chamber pacing mode in the presence of AV block. The MVP feature is intended to reduce unnecessary right ventricular pacing by promoting intrinsic conduction. The MVP modes are AAIR<=>DDDR and AAI<=>DDD.

Non-Competitive Atrial Pacing (NCAP) – programmable pacing feature that prohibits atrial pacing within a programmable interval after a refractory atrial event.

non-sustained VT (VT-NS) – ventricular rhythm that is fast enough to fall within the programmed VT and VF zones for at least 5 beats but does not meet any episode detection criteria. Onset – feature that helps prevent detection of sinus tachycardia as VT by evaluating the acceleration of the ventricular rate.

OptiVol 2.0 fluid status monitoring – feature that identifies a potential increase in thoracic fluid, which may indicate lung congestion, by monitoring changes in thoracic impedance.

OptiVol event – an occurrence of the OptiVol 2.0 Fluid Index exceeding the programmed OptiVol Threshold, which may indicate fluid accumulation in the patient's thoracic cavity.

OptiVol Threshold – a programmable value of the OptiVol 2.0 Fluid Index. Values above this threshold may indicate fluid accumulation in the patient's thoracic cavity and define the occurrence of an OptiVol event.

Other 1:1 SVTs feature – PR Logic feature designed to withhold ventricular detection for supraventricular tachycardias that exhibit nearly simultaneous atrial and ventricular activation.

oversensing – inappropriate sensing of cardiac events or noncardiac signals. Examples include far-field R-waves, T-waves, myopotentials, and electromagnetic interference.

Paced AV (PAV) interval – programmable delay between an atrial pace and its corresponding scheduled ventricular pace.

pacemaker-mediated tachycardia (PMT) – a rapid, inappropriately paced rhythm that can occur with atrial tracking modes. PMT results when a device senses and tracks retrograde P-waves in the DDD mode or the DDDR mode.

pacing threshold - minimum pacing output that consistently captures the heart.

patient alert - a tone emitted from an implanted device to notify the patient of an alert condition.

Patient app – application that automatically gathers information from a patient's implanted device and transmits it to clinicians through the Medtronic CareLink Network. This application is installed on a patient-owned tablet or smart phone and communicates with the implanted device via Bluetooth® wireless technology.

PMOP (Post Mode Switch Overdrive Pacing) – atrial intervention feature that works with the Mode Switch feature to deliver overdrive atrial pacing during the vulnerable phase following an AT/AF episode termination.

Post Shock Pacing – feature that provides temporary pacing support after a high-voltage therapy by increasing the pacing amplitude and pulse width to prevent loss of capture.

Post VT/VF Shock Pacing – feature that provides temporary overdrive pacing that may improve cardiac output after a high-voltage therapy.

Pre-arrhythmia EGM storage – programmable option to record EGM from before the onset or detection of a tachyarrhythmia. While this feature is operating, the device records EGM continuously. If a tachyarrhythmia episode occurs, the most recently collected EGM is added to the episode record to document the rhythm at onset.

PR Logic – set of features that uses pattern and rate analysis to discriminate between supraventricular tachycardias (SVTs) and true ventricular tachyarrhythmias.

Progressive Episode Therapies – feature that causes the device to skip therapies or modify high-voltage energy levels to ensure that each therapy delivered during an episode is at least as aggressive as the previous therapy.

PVAB (Post-Ventricular Atrial Blanking) – interval after ventricular events during which atrial events are ignored by bradycardia pacing features or are not sensed by the device, depending on the programmed PVAB method.

PVARP (Post Ventricular Atrial Refractory Period) – atrial refractory period following a ventricular event used to prevent inhibition or pacemaker-mediated tachycardias (PMTs) in dual chamber pacing modes.

PVC (premature ventricular contraction) – a sensed ventricular event that directly follows any other ventricular event with no atrial event between them.

PVC Response – feature that extends PVARP following a premature ventricular contraction (PVC) to avoid tracking a retrograde P-wave and to prevent retrograde conduction from inhibiting an atrial pace.

Quick Look – implantable device app screen that presents overview data about device operation and patient rhythms collected since the last patient session. It includes links to more detailed status and diagnostic information stored in the device, such as arrhythmia episodes and therapies provided.

Ramp pacing – antitachycardia pacing (ATP) therapy that delivers pacing pulses with progressively shorter pacing intervals per pulse. Each sequence of Ramp pacing that is delivered during a therapy includes an additional pacing pulse.

Rate Adaptive AV (RAAV) – dual chamber pacing feature that varies the Paced AV (PAV) and Sensed AV (SAV) intervals as the heart rate increases or decreases to maintain 1:1 tracking and AV synchrony.

Rate Drop Response – feature that monitors the heart for a significant drop in rate and responds by pacing the heart at an elevated rate for a programmed duration.

Rate Drop Response episodes data – feature that displays beat-to-beat data that is useful in analyzing Rate Drop Response episodes and the events leading up to those episodes.

Rate Histograms – diagnostic feature that shows range distributions for a patient's heart rate.

rate profile – rate histogram of the sensor rates used by Rate Profile optimization to automatically adjust Rate Response settings.

Rate Profile Optimization – feature that monitors the patient's daily and monthly sensor rate profiles and adjusts the rate response curves over time to achieve a prescribed target rate profile.

Rate Response – feature that adjusts the cardiac pacing rate in response to changes in sensed patient activity.

Reactive ATP – algorithm that allows the device to repeat programmed atrial antitachycardia pacing (ATP) therapies during long AT/AF episodes. Therapies are repeated after a programmed time interval or when the atrial rhythm changes in regularity or cycle length.

reference impedance – a baseline against which daily thoracic impedance is compared to determine if thoracic fluid is increasing.

refractory period – time interval during which the device senses events normally but classifies them as refractory and responds to them in a limited way.

Remaining longevity estimate – an estimate of remaining device longevity that is displayed on the Quick Look screen and the BATTERY AND LEAD MEASUREMENTS window. This information includes a graphical display for

easy reference and the estimated number of years or months of remaining longevity. In the battery and lead measurements window, the minimum and maximum number of years or months of remaining device longevity are also provided. The remaining longevity estimate is updated when parameters are reprogrammed and when the device is interrogated.

RESUME – programming command that reinstates automatic tachyarrhythmia detection.

retrograde conduction - electrical conduction from the ventricles to the atria.

RRT (Recommended Replacement Time) – battery status indicator displayed by the implantable device app to indicate when replacement of the device is recommended.

RV Lead Integrity Alert – feature that sounds an alert tone to warn the patient that a potential RV lead problem is suspected, which could indicate a lead fracture.

RV Lead Noise Alert – feature that sounds an alert tone when RV Lead Noise Discrimination withholds VT/VF detection because of the presence of noise on the RV lead. Noise could indicate lead fracture, breached lead insulation, lead dislodgment, or improper lead connection.

RV Lead Noise Discrimination – feature that compares a far-field EGM signal to the near-field sensing signal to differentiate RV lead noise from VT/VF. If lead noise is identified when these signals are compared, the device withholds VT/VF detection and therapy and triggers an RV Lead Noise Alert.

Sensed AV (SAV) interval – programmable delay following an atrial sensed event that schedules a corresponding ventricular pace.

sensed event – electrical activity across the sensing electrodes that exceeds the programmed sensitivity threshold and is identified by the device as a cardiac event.

Sensing Integrity Counter – diagnostic counter that records the number of short ventricular intervals that occur between patient sessions. A large number of short ventricular intervals may indicate double-counted R-waves, lead fracture, or a loose setscrew.

sensor rate – the pacing rate determined by the level of patient activity and the programmed rate response parameters; this rate is adjusted between the Upper Sensor Rate and the operating Lower Rate.

sequence, ATP - one programmable set of antitachycardia pacing (ATP) therapy pulses.

Sinus Tach feature – PR Logic feature designed to discriminate between high rate sinus tachycardia and ventricular tachyarrhythmia.

Sleep – feature that causes the device to pace at a slower rate during a programmed sleep period.

Smart Mode – feature that disables an ATP therapy that has been unsuccessful in 4 consecutive episodes so the device can treat subsequent episodes more quickly with therapies that have been effective.

Stability – feature that helps prevent detection of atrial fibrillation as ventricular tachyarrhythmia by evaluating the stability of the ventricular rate. If the device determines that the ventricular rate is not stable, it withholds VT detection.

SUSPEND – programming command that temporarily deactivates the tachyarrhythmia detection functions.

SVT V. Limit – feature that allows you to program a highest rate for which PR Logic and Wavelet can withhold detection and therapy.

synchronization – period during defibrillation and cardioversion therapies when the device attempts to deliver the therapy shock simultaneously with a sensed ventricular event.

thoracic impedance – impedance across the thorax as measured from 2 points within the thorax.

TWave Discrimination – feature that withholds VT/VF detection when a fast ventricular rate is detected because of oversensed T-waves.

undersensing – failure of the device to sense intrinsic cardiac activity.

ventricular antitachycardia pacing (ATP) – therapies that respond to a VT episode or an FVT episode with rapid sequences of pacing pulses to end detected ventricular tachyarrhythmias.

ventricular cardioversion – therapy that delivers a high-voltage shock to treat a VT or an FVT episode. Therapy is synchronized to a sensed ventricular event.

ventricular fibrillation (VF) therapies – therapies that deliver automatic defibrillation shocks to treat VF episodes. The first defibrillation therapy requires VF confirmation before delivery. After the first shock has been delivered, shocks are delivered asynchronously if synchronization fails.

Ventricular Rate Stabilization (VRS) – ventricular rhythm management feature that adjusts the pacing rate dynamically to eliminate the long pause that typically follows a premature ventricular contraction (PVC).

Ventricular Safety Pacing (VSP) – pacing therapy feature that prevents inappropriate inhibition of ventricular pacing caused by crosstalk or ventricular oversensing.

Ventricular Sense Response (VSR) – feature intended to promote continuous CRT pacing by providing ventricular pacing in response to ventricular sensed events.

Ventricular sensing episodes data – feature that compiles diagnostic information to help the clinician identify the cause of ventricular sensing episodes and reprogram the device to avoid these episodes.

VF confirmation – device operation that confirms the presence of VF after initial detection but before a defibrillation therapy is delivered. This feature applies only to the first programmed VF therapy.

VT/VF detection – feature that uses programmable detection zones to classify ventricular events. Depending on programming, the device delivers a scheduled therapy, re-evaluates the patient's heart rhythm, and ends or redetects the episode.

VT monitoring – programmable option that allows the device to detect fast rhythms as VT and record episode data without delivering VT therapy.
GLOSSARY

Wavelet – feature designed to prevent detection of rapidly conducted SVTs as ventricular tachyarrhythmias by comparing the shape of each QRS complex during a fast ventricular rate to a template.

Brief Statement

See the device manual for detailed information regarding the instructions for use, the implant procedure, indications, contraindications, warnings, precautions, and potential adverse events. If using an MRI SureScan™ device, see the MRI SureScan™ technical manual before performing an MRI. For further information, contact your local Medtronic representative and/or consult the Medtronic website at medtronic.eu.

For applicable products, consult instructions for use on www.medtronic.com/manuals. Manuals can be viewed using a current version of any major internet browser. For best results, use Adobe Acrobat® Reader with the browser.

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