ORDIN DE PLATA NR.: 134 TIP.DOC. 1

DATA EMITERII:21 octombrie 2022

PLATITI: 150000-00 LEI: Una Suta Cincizeci Mii lei 00 bani

PLATITOR: (R) S.C. "OXIVIT-MED" S.R.L.
CONTUL DE PLATI/CODUL IBAN MD44ML000000002251729503
CODUL FISCAL :1007600044280 /

PRESTATORUL PLATITOR
BC"Moldindconbank"S.A. suc."Invest" Chisinau
CODUL BANCII: :MOLDMD2X329:

BENEFICIAR (R) Centrul pentru Achizi?ii Publice Centralizate in Sanatate
CONTUL DE PLATI/CODUL IBAN MD23TRPCCC518430B01859AA
CODUL FISCAL :1016601000212 /

PRESTATORUL BENEFICIAR
Ministerul Finantelor - Trezoreria de Stat
CODUL BANCII: :TREZMD2X

DESTINATIA PLATII:/P102/150000,00 Pentru: garantia pentru oferta la procedura de achizi?ie publica nr. ocds-b3wdp1-MD-16:63342194003 din 24.10.2022

TIPUL TRANSFERULUI NORMAL/URGENT :N:

L.S.

CODUL TRANZACTIEI:101:
DATA PRIMIRII:21/10/2022
DATA EXECUTARII:

SEMNATURILE EMITENTULUI

CONDUCATOR:Web Kojevnikov Dmitrii

MIIGfAYJKoZIhvcNAQcCoIIGbTCCBmkCAQExCzAJBgUrDgMCGgUAMAsGCSqGSIb3:
DQEHAaCCBIUwggSBMIIDaaADAgECAhNHAACEjCA/4xcrKCbfAAAAAISMMA0GCSqG:
SIb3DQEBCwUAMCIxIDAeBgNVBAMTF0NFUlQxLUNBLU1vbGRpbmRjb25iYW5rMB4X:
DTIwMDMxNjA4NDUwM1oXDTIzMDMxNjA4NTUwM1owgbgxCzAJBgNVBAYTAk1EMRow:
YDVQQIExFSZXB1YmxpY2EgTW9sZG92YTERMA8GA1UEBxMIQ2hpc2luYXUxFzAV

(semnatura electronica)

CONTABIL-SEF:Web Kojevnikov Dmitrii

MIIGfAYJKoZIhvcNAQcCoIIGbTCCBmkCAQExCzAJBgUrDgMCGgUAMAsGCSqGSIb3:
DQEHAaCCBIUwggSBMIIDaaADAgECAhNHAACEjCA/4xcrKCbfAAAAAISMMA0GCSqG:
SIb3DQEBCwUAMCIxIDAeBgNVBAMTF0NFUlQxLUNBLU1vbGRpbmRjb25iYW5rMB4X:
DTIwMDMxNjA4NDUwM1oXDTIzMDMxNjA4NTUwM1owgbgxCzAJBgNVBAYTAk1EMRow:
YDVQQIExFSZXB1YmxpY2EgTW9sZG92YTERMA8GA1UEBxMIQ2hpc2luYXUxFzAV

L.S.
(semnatura electronica)

CONDUCATOR: _____
(semnatura manuala)

CONTABIL-SEF: _____
(semnatura manuala)

SEMNATURA PRESTATORUL L.S.

MOTIVUL REFUZULUI L.S.

Digitally signed by Kojevnikov Dmitrii
Date: 2022.10.21 16:48:48 EEST
Reason: MoldSign Signature
Location: Moldova

Anexa nr.7.2 la Instrucţiunea
aprobată prin ordinul IFPS
nr. 400 din 14 martie 2014

CC 04 AE

CERTIFICAT
privind lipsa sau existenţa restanţelor faţă de bugetul public naţional

Nr. / № A2219780 **din** / от 12.10.2022

1. Destinaţia / Назначение

AGENȚIA ACHIZIȚII PUBLICE

2. Date despre contribuabil / Информация о налогоплательщике

Denumirea / Наименование	**Codul fiscal / Numărul de identificare** / Фискальный код / Идентификационный номер
S.C. OXIVIT-MED S.R.L.	1007600044280
Adresa sediului de bază (strada, numărul) / Адрес основного месторасположения (улица, номер)	**Codul - Denumirea localităţii** / Код - Наименование населенного пункта
Decebal bd. nr.82 of.90	0110-SEC.BOTANICA

3. Atestarea lipsei sau existenţei restanţelor conform datelor Sistemului Informaţional Automatizat / Подтверждение отсутствия или наличия недоимки согласно данных Информационной автоматизированной системы

La data emiterii prezentului certificat restanța față de bugetul public național constituie/ На дату выдачи данной справки недоимка перед национальным публичным бюджетом составляет: **0,00** lei/лей.

4. Valabil pînă la / Действителен до 27.10.2022

5. Autentificarea Serviciului Fiscal de Stat / Подтверждение Государственной налоговой службы

ŞEF interimar al DDF Botanica — Mariana VOLOH

Funcţia/Должность — Semnătura/Подпись — Numele şi prenumele/Фамилия и имя

L.Ş/ М.П.

Executor: Galina Ginga

Numele şi prenumele/Фамилия и имя

Este extras din Sistemul Informaţional al SFS SIA „Contul curent al contribuabilului"// 12.10.2022 ora 14:15:20 cu aplicarea prevederilor pct. 82-83 Ordin IFPS nr.400 din 14.03.2014 (Monitorul Oficial 72-77/399, 28.03.2014)

NOTA (0,00)

MOBIAS BANCA

Nr. 12101-304

18.03.2016

CERTIFICAT
PRIVIND EXISTENTA CONTURILOR CURENTE

Prin prezentul, **BC „Mobiasbancă – Groupe Societe Generale" S.A.**, codul băncii (BIC): **MOBBMD22**, confirmă că compania **OXIVIT-MED SRL**, cod fiscal (IDNO) **1007600044280,** deține următoarele conturi curente la BC "Mobiasbancă-Groupe Societe Generale" S.A., Filiala. 1 Stejaur :

1. **MDL - 2224710SV23488147100; IBAN- MD09MO2224ASV23488147100**
2. **EUR - 2224710SV22227957100; IBAN- MD17MO2224ASV22227957100**
3. **USD - 2224710SV22214937100; IBAN- MD86MO2224ASV22214937100**

Certificatul este emis în baza cererii întreprinderii: Oxivit-Med SRL.

L.Ș.

Dumitru Popa
Director filială „Stejaur"

Executor : Mariana Guzun
Tel: 022 812 614

Filiala Nr. 1 „Stejaur"
Bd. Ştefan cel Mare şi Sfânt 196
MD-2004, Chişinău, Moldova
Cod MOBBMD22
Cont de corespondenţă 35213892
la Centrul de Decontări al BNM

Tel. +373 22 81 26 15
Fax. +373 22 81 26 15
www.mobiasbanca.md

BC „Mobiasbancă – Groupe Société Générale" SA
Capital Social: 100 000 000 MDL
Număr de înregistrare de stat - 1002600006089
Sediul Central:
bd. Ştefan cel Mare şi Sfânt 81a
MD-2012, Chişinău, Moldova

REPUBLICA MOLDOVA

CERTIFICAT DE ÎNREGISTRARE

Societatea Comercială "OXIVIT-MED" S.R.L.

ESTE ÎNREGISTRATĂ LA CAMERA ÎNREGISTRĂRII DE STAT

Numărul de identificare de stat - codul fiscal

1007600044280

Data înregistrării **30.07.2007**

Data eliberării **30.07.2007**

Bordeianu Tatiana, registrator de stat

Funcția, numele, prenumele persoanei care a eliberat certificatul

semnătura

CAMERA ÎNREGISTRĂRII DE STAT ... L.Ș.

MD 0067985

I.P. "AGENŢIA SERVICII PUBLICE"

Departamentul înregistrare şi licenţiere a unităţilor de drept

EXTRAS

din Registrul de stat al persoanelor juridice

nr. **8871** din **05.05.2021**

Denumirea completă: **Societatea Comercială «OXIVIT-MED» S.R.L.**
Denumirea prescurtată: **S.C. «OXIVIT-MED» S.R.L.**
Forma juridică de organizare: **Societate cu Răspundere Limitată.**
Numărul de identificare de stat şi codul fiscal: **1007600044280.**
Data înregistrării de stat: **30.07.2007.**
Sediul: **MD-2032, bd. Decebal, 82, ap.(of.) 90, mun. Chişinău, Republica Moldova.**
Modul de constituire: **nou creată.**
Obiectul principal de activitate:
1 Importul, fabricarea, comercializarea, asistenţa tehnică şi (sau) reparaţia dispozitivelor medicale şi (sau) a opticii;
2 Comerţul cu ridicata al parfumurilor şi produselor cosmetice;
3 Comerţul cu amănuntul al produselor cosmetice şi de parfumerie, articolelor de toaletă;
4 Intermedieri pentru vînzarea unui asortiment larg de mărfuri;
5 Alte tipuri de comerţ cu amănuntul în magazine nespecializate;
6 Alte tipuri de comerţ cu ridicata;
7 Închirierea altor maşini şi echipamente.
Capitalul social: **5400** lei.
Administrator: KOJEVNIKOV DMITRII, IDNP 0972305012362,
Asociaţi:
1. KOJEVNIKOV DMITRII , IDNP 0972305012362
cota 5400.00 lei, ce constituie 100 %.

Prezentul extras este eliberat în temeiul art. 34 al Legii nr. 220-XVI din 19 octombrie 2007 privind înregistrarea de stat a persoanelor juridice şi a întreprinzătorilor individuali şi confirmă datele din Registrul de stat la data de: 05.05.2021.

Specialist coordonator
tel. 022-207-840
Lazari Aliona

c/f: 1007600044280; adresa: str. Decebal 82-90, or. Chișinău, Republica Moldova
telefon: + 373 22 808002; fax: + 373 22 808003
web: www.oxivit-med.com; e-mail:info@oxivit-med.com

Lista fondatorilor companiei SRL „Oxivit-Med”

Nr.	Numele, Prenumele	Codul Personal
1	Kojevnikov Dmitrii	0972305012362

Anexe la SNC
"Prezentarea situatiilor financiare"
Aprobat de Ministerul Finantelor
al Republicii Moldova

SITUAȚIILE FINANCIARE

pentru perioada 01.01.2021 - 31.12.2021

Entitatea: S.C. OXIVIT-MED S.R.L.
Cod CUIÎO: 40424951
Cod IDNO: 1007600044280

Sediul:
MD:
Raionul(municipiul): 103, DDF BOTANICA
Cod CUATM: 0110, SEC.BOTANICA
Strada: Decebal bd. nr.82 of.90

Activitatea principală: G4774, Comert cu amanuntul al articolelor medicale si ortopedice, in magazine specializate
Forma de proprietate: 15, Proprietatea privată
Forma organizatorico-juridică: 530, Societăți cu răspundere limitată

Date de contact:
Telefon: +37322808002
WEB:
E-mail: oxivit.medical@gmail.com
Numele și coordonatele al contabilului-șef: Dl (dna) Kojevnikov Dmitrii Tel. 069200308

Numărul mediu al salariaților în perioada de gestiune: 5 **persoane.**

Persoanele responsabile de semnarea situațiilor financiare* Kojevnikov Dmitrii

Unitatea de măsură: leu

BILANȚUL

Anexa 1

la 31.12.2021

Nr. cpt.	Indicatori	Cod rd.	Sold la	
			Începutul perioadei de gestiune	Sfîrșitul perioadei de gestiune
1	2	3	4	5
	A C T I V			
	ACTIVE IMOBILIZATE **I. Imobilizări necorporale**			
	1. Imobilizări necorporale în curs de execuție	010		
	2. Imobilizări necorporale în exploatare, total	020	1137	487
	din care: 2.1. concesiuni, licențe și mărci	021	1137	487
	2.2. drepturi de autor și titluri de protecție	022		
	2.3. programe informatice	023		
	2.4. alte imobilizări necorporale	024		
	3. Fond comercial	030		
	4. Avansuri acordate pentru imobilizări necorporale	040		
	Total imobilizări necorporale (rd.010 + rd.020 + rd.030 + rd.040)	050	1137	487
	II. Imobilizări corporale			
	1. Imobilizări corporale în curs de execuție	060		
	2. Terenuri	070		
	3. Mijloace fixe, total	080	9980	45953
	din care: 3.1. clădiri	081		
	3.2. construcții speciale	082		
	3.3. mașini, utilaje și instalații tehnice	083	9235	45953
	3.4. mijloace de transport	084		

A.	3.5. inventar și mobilier	085		
	3.6. alte mijloace fixe	086	745	
	4. Resurse minerale	090		
	5. Active biologice imobilizate	100		
	6. Investiții imobiliare	110		
	7. Avansuri acordate pentru imobilizări corporale	120		
	Total imobilizări corporale (rd.060 + rd.070 + rd.080 + rd.090 + rd.100 + rd.110 + rd.120)	130	9980	45953
	III. Investiții financiare pe termen lung			
	1. Investiții financiare pe termen lung în părți neafiliate	140		
	2. Investiții financiare pe termen lung în părți afiliate, total	150		
	din care: 2.1. acțiuni și cote de participație deținute în părțile afiliate	151		
	2.2 împrumuturi acordate părților afiliate	152		
	2.3 împrumuturi acordate aferente intereselor de participare	153		
	2.4 alte investiții financiare	154		
	Total investiții financiare pe termen lung (rd.140 + rd.150)	160		
	IV. Creanțe pe termen lung și alte active imobilizate			
	1. Creanțe comerciale pe termen lung	170		
	2. Creanțe ale părților afiliate pe termen lung	180		
	inclusiv: creanțe aferente intereselor de participare	181		
	3. Alte creanțe pe termen lung	190		
	4. Cheltuieli anticipate pe termen lung	200		
	5. Alte active imobilizate	210		
	Total creanțe pe termen lung și alte active imobilizate (rd.170 + rd.180 + rd.190 + rd.200 + rd.210)	220		
	TOTAL ACTIVE IMOBILIZATE (rd.050 + rd.130 + rd.160 + rd.220)	230	11117	46440
B.	**ACTIVE CIRCULANTE** **I. Stocuri**			
	1. Materiale și obiecte de mică valoare și scurtă durată	240	617	752
	2. Active biologice circulante	250		
	3. Producția în curs de execuție	260		
	4. Produse și mărfuri	270	6895348	8612039
	5. Avansuri acordate pentru stocuri	280		
	Total stocuri (rd.240 + rd.250 + rd.260 + rd.270 + rd.280)	290	6895965	8612791
	II. Creanțe curente și alte active circulante			
	1. Creanțe comerciale curente	300	17423930	9151659
	2. Creanțe ale părților afiliate curente	310		
	inclusiv: creanțe aferente intereselor de participare	311		
	3. Creanțe ale bugetului	320	1593996	685035
	4. Creanțele ale personalului	330	1452	
	5. Alte creanțe curente	340		
	6. Cheltuieli anticipate curente	350	6076	4940
	7. Alte active circulante	360	3786977	5022901
	Total creanțe curente și alte active circulante (rd.300 + rd.310 + rd.320 + rd.330 + rd.340 + rd.350 + rd.360)	370	22812431	14864535
	III. Investiții financiare curente			
	1. Investiții financiare curente în părți neafiliate	380		
	2. Investiții financiare curente în părți afiliate, total	390		
	din care: 2.1. acțiuni și cote de participație deținute în părțile afiliate	391		
	2.2. împrumuturi acordate părților afiliate	392		
	2.3. împrumuturi acordate aferente intereselor de participare	393		

	2.4. alte investiții financiare în părți afiliate	394		
	Total investiții financiare curente (rd.380 + rd.390)	400		
	IV. Numerar și documente bănești	410	11586107	10982450
	TOTAL ACTIVE CIRCULANTE (rd.290 + rd.370 + rd.400 + rd.410)	420	41294503	34459776
	TOTAL ACTIVE (rd.230 + rd.420)	430	41305620	34506216
	P A S I V			
C.	**CAPITAL PROPRIU** **I. Capital social și neînregistrat**			
	1. Capital social	440	5400	5400
	2. Capital nevărsat	450	( )	( )
	3. Capital neînregistrat	460		
	4. Capital retras	470	( )	( )
	5. Patrimoniul primit de la stat cu drept de proprietate	480		
	Total capital social și neînregistrat (rd.440 + rd.450 + rd.460 + rd.470 + rd.480)	490	5400	5400
	II. Prime de capital	500		
	III. Rezerve			
	1. Capital de rezervă	510		
	2. Rezerve statutare	520		
	3. Alte rezerve	530		
	Total rezerve (rd.510 + rd.520 + rd.530)	540		
	IV. Profit (pierdere)			
	1. Corecții ale rezultatelor anilor precedenți	550	X	-178779
	2. Profit nerepartizat (pierdere neacoperită) al anilor precedenți	560	24939574	17439574
	3. Profit net (pierdere netă) al perioadei de gestiune	570	X	11125729
	4. Profit utilizat al perioadei de gestiune	580	X	( )
	Total profit (pierdere) (rd.550 + rd.560 + rd.570 + rd.580)	590	24939574	28386524
	V. Rezerve din reevaluare	600		
	VI. Alte elemente de capital propriu	610		
	TOTAL CAPITAL PROPRIU (rd.490 + rd.500 + rd.540 + rd.590 + rd.600 + rd.610)	620	24944974	28391924
D.	**DATORII PE TERMEN LUNG**			
	1. Credite bancare pe termen lung	630		
	2. Împrumuturi pe termen lung	640	76630	
	din care: 2.1. împrumuturi din emisiunea de obligațiuni	641		
	inclusiv: împrumuturi din emisiunea de obligațiuni convertibile	642		
	2.2. alte împrumuturi pe termen lung	643	76630	
	3. Datorii comerciale pe termen lung	650		
	4. Datorii față de părțile afiliate pe termen lung	660		
	inclusiv: datorii aferente intereselor de participare	661		
	5. Avansuri primite pe termen lung	670		
	6. Venituri anticipate pe termen lung	680		
	7. Alte datorii pe termen lung	690		
	TOTAL DATORII PE TERMEN LUNG (rd.630 + rd.640 + rd.650 + rd.660 + rd.670 + rd.680 + rd.690)	700	76630	
	DATORII CURENTE			
	1. Credite bancare pe termen scurt	710		
	2. Împrumuturi pe termen scurt, total	720		

E.	din care: 2.1. împrumuturi din emisiunea de obligațiuni	721		
	inclusiv: împrumuturi din emisiunea de obligațiuni convertibile	722		
	2.2. alte împrumuturi pe termen scurt	723		
	3. Datorii comerciale curente	730	15784405	4868225
	4. Datorii față de părțile afiliate curente	740		
	inclusiv: datorii aferente intereselor de participare	741		
	5. Avansuri primite curente	750	349631	938523
	6. Datorii față de personal	760	116957	107832
	7. Datorii privind asigurările sociale și medicale	770		
	8. Datorii față de buget	780		199712
	9. Datorii față de proprietari	790		
	10. Venituri anticipate curente	800		
	11. Alte datorii curente	810	33023	
	TOTAL DATORII CURENTE (rd.710 + rd.720 + rd.730 + rd.740 + rd.750 + rd.760 + rd.770 + rd.780 + rd.790 + rd.800 + rd.810)	820	16284016	6114292
F.	**PROVIZIOANE**			
	1. Provizioane pentru beneficiile angajaților	830		
	2. Provizioane pentru garanții acordate cumpărătorilor/clienților	840		
	3. Provizioane pentru impozite	850		
	4. Alte provizioane	860		
	TOTAL PROVIZIOANE (rd.830 + rd.840 + rd.850 + rd.860)	870		
	TOTAL PASIVE (rd.620 + rd.700 + rd.820 + rd.870)	880	41305620	34506216

SITUAŢIA DE PROFIT ŞI PIERDERE

de la 01.01.2021 pînă la 31.12.2021

Anexa 2

Indicatori	Cod rd.	Perioada de gestiune	
		precedenta	curenta
1	2	3	4
Venituri din vînzări, total	010	61054881	63146813
din care: venituri din vînzarea produselor și mărfurilor	011	61054881	63146813
venituri din prestarea serviciilor și executarea lucrărilor	012		
venituri din contracte de construcție	013		
venituri din contracte de leasing	014		
venituri din contracte de microfinanţare	015		
alte venituri din vînzări	016		
Costul vînzărilor, total	020	50207602	48882405
din care: valoarea contabilă a produselor și mărfurilor vîndute	021	50207602	48882405
costul serviciilor prestate și lucrărilor executate terților	022		
costuri aferente contractelor de construcție	023		
costuri aferente contractelor de leasing	024		
costuri aferente contractelor de microfinanţare	025		
alte costuri aferente vînzărilor	026		
Profit brut (pierdere brută) (rd.010 - rd.020)	030	10847279	14264408
Alte venituri din activitatea operațională	040	1967064	9915
Cheltuieli de distribuire	050	68333	60149
Cheltuieli administrative	060	995848	968411
Alte cheltuieli din activitatea operațională	070	34858	239797
Rezultatul din activitatea operațională: profit (pierdere) (rd.030 + rd.040 - rd.050 - rd.060 - rd.070)	080	11715304	13005966

Venituri financiare, total	090	1752762	1026285
din care: venituri din interese de participare	091		
inclusiv: veniturile obținute de la părțile afiliate	092		
venituri din dobînzi	093		1440
inclusiv: veniturile obținute de la părțile afiliate	094		
venituri din alte investiții financiare pe termen lung	095		
inclusiv: veniturile obținute de la părțile afiliate	096		
venituri aferente ajustărilor de valoare privind investițiile financiare pe termen lung și curente	097		
venituri din ieșirea investițiilor financiare	098		
venituri aferente diferențelor de curs valutar și de sumă	099	1752762	1024845
Cheltuieli financiare, total	100	1580853	1210147
din care: cheltuieli privind dobînzile	101		
inclusiv: cheltuielile aferente părților afiliate	102		
cheltuieli aferente ajustărilor de valoare privind investițiile financiare pe termen lung și curente	103		
cheltuieli aferente ieșirii investițiilor financiare	104		
cheltuieli aferente diferențelor de curs valutar și de sumă	105	1580853	1210147
Rezultatul: profit (pierdere) financiar(ă) (rd.090 - rd.100)	110	171909	-183862
Venituri cu active imobilizate și excepționale	120		
Cheltuieli cu active imobilizate și excepționale	130		174839
Rezultatul din operațiuni cu active imobilizate și excepționale: profit (pierdere) (rd.120 - rd.130)	140		-174839
Rezultatul din alte activități: profit (pierdere) (rd.110 + rd.140)	150	171909	-358701
Profit (pierdere) pînă la impozitare (rd.080 + rd.150)	160	11887213	12647265
Cheltuieli privind impozitul pe venit	170	1431875	1521536
Profit net (pierdere netă) al perioadei de gestiune (rd.160 - rd.170)	180	10455338	11125729

SITUAŢIA MODIFICĂRILOR CAPITALULUI PROPRIU

de la pînă la

Anexa 3

Nr. d/o	Indicatori	Cod rd	Sold la începutul perioadei de gestiune	Majorări	Diminuări	Sold la sfîrșitul perioadei de gestiune
1	2	3	4	5	6	7
I.	**Capital social și neînregistrat**					
	1. Capital social	010				
	2. Capital nevărsat	020	( )	( )	( )	( )
	3. Capital neînregistrat	030				
	4. Capital retras	040	( )	( )	( )	( )
	5. Patrimoniul primit de la stat cu drept de proprietate	050				
	Total capital social și neînregistrat (rd.010 + rd.020 + rd.030 + rd.040 + rd.050)	060				
II.	**Prime de capital**	070				
III.	**Rezerve**					
	1. Capital de rezervă	080				
	2. Rezerve statutare	090				
	3. Alte rezerve	100				
	Total rezerve (rd.080 + rd.090 + rd.100)	110				
	Profit (pierdere)					
	1. Corecții ale rezultatelor anilor precedenți	120	X			

IV.	2. Profit nerepartizat (pierdere neacoperită) al anilor precedenți	130				
	3. Profit net (pierdere netă) al perioadei de gestiune	140	X			
	4. Profit utilizat al perioadei de gestiune	150	X	( )	( )	( )
	Total profit (pierdere) (rd.120 + rd.130 + rd.140 + rd.150)	160				
V.	**Rezerve din reevaluare**	170				
VI.	**Alte elemente de capital propriu**	180				
	Total capital propriu (rd.060 + rd.070 + rd.110 + rd.160 + rd.170 + rd.180)	190				

SITUAŢIA FLUXURILOR DE NUMERAR

de la pînă la

Anexa 4

Indicatori	Cod rd	Perioada de gestiune	
		precedentă	curentă
1	2	3	4
Fluxuri de numerar din activitatea operațională			
Încasări din vînzări	010		
Plăți pentru stocuri și servicii procurate	020		
Plăți către angajați și organe de asigurare socială și medicală	030		
Dobînzi plătite	040		
Plata impozitului pe venit	050		
Alte încasări	060		
Alte plăți	070		
Fluxul net de numerar din activitatea operațională (rd.010 - rd.020 - rd.030 - rd.040 - rd.050 + rd.060 - rd.070)	080		
Fluxuri de numerar din activitatea de investiții			
Încasări din vînzarea activelor imobilizate	090		
Plăți aferente intrărilor de active imobilizate	100		
Dobînzi încasate	110		
Dividende încasate	120		
inclusiv: dividende încasate din străinătate	121		
Alte încasări (plăți)	130		
Fluxul net de numerar din activitatea de investiții (rd.090 - rd.100 + rd.110 + rd.120 ± rd.130)	140		
Fluxuri de numerar din activitatea financiară			
Încasări sub formă de credite și împrumuturi	150		
Plăți aferente rambursării creditelor și împrumuturilor	160		
Dividende plătite	170		
inclusiv: dividende plătite nerezidenților	171		
Încasări din operațiuni de capital	180		
Alte încasări (plăți)	190		
Fluxul net de numerar din activitatea financiară (rd.150 - rd.160 - rd.170 + rd.180 ± rd.190)	200		
Fluxul net de numerar total (± rd.080 ± rd.140 ± rd.200)	210		
Diferențe de curs valutar favorabile (nefavorabile)	220		
Sold de numerar la începutul perioadei de gestiune	230		
Sold de numerar la sfîrșitul perioadei de gestiune (± rd.210 ± rd.220 + rd.230)	240		

Documente atașate - Notă explicativă (fișierul pdf)

Versiune de imprimare
Salvare

Recipisa

Respondent
Codul fiscal: 1007600044280, denumire: S.C. OXIVIT-MED S.R.L.
A prezentat raportul: RSF1_21
Pentru perioada fiscala: A/2021
Data prezentarii: 30.05.2022
Marca temporală a raportului înregistrat în Sistemul de Raportare Electronică și expediat pentru procesare în Sistemul Informațional al BNS : 30.05.2022 16:42:42

Versiune de imprimare
Salvare

Recipisa 2

Respondent
Codul fiscal: 1007600044280, denumire: S.C. OXIVIT-MED S.R.L.
A prezentat raportul: RSF1_21
Pentru perioada fiscala: A/2021
Data prezentarii: 30.05.2022
Marca temporală a raportului înregistrat în Sistemul Informațional al BNS : 30.05.2022 22:47:31

Biroul Național de Statistică (BNS) a recepționat varianta electronică a raportului, expediat de DVs. Urmează verificarea și validarea raportului de către specialistul BNS pe domeniu.

G20SR

Specifications

Model G20A2
Single chamber MRI™ SureScan®
pacemaker system

vitatron • The Pace Makers

G20SR Specifications

Model G20A2 Single chamber pacemaker system

Mechanical

Model	G20A2
Size (HxWxD mm)	40.2x42.9x7.5
M (g)	21.5
V (cc)	9.7
Connector	IS-1 BI or UNI
Radiopaque ID	V5

Battery

Type	Lithium-iodine
Voltage	2.8 V
Average projected capacity	.91 Ah

Longevity	10.4 years* 9.6 years†

Bradycardia Pacing

Programmable parameters

Pacing Modes	**VVIR**, VVI, VVT, VOOR, VOO, AAIR, AAI, AAT, AOOR, AOO, OVO, OAO
Lower Rate	30, 35, 40…**60**…170 min^{-1} (exc. 65, 85)
Upper Sensor Rate	80, 90, 95…**130**…180 min^{-1}
A and RV Pulse Amplitude[a]	0.5, 0.75, 1.0…**3.5**…4, 4.5, 5, 5.5, 6, 7.5 V
A and RV Pulse Width	0.12, 0.15, 0.21, 0.27, 0.34, **0.4**, 0.46, 0.52, 0.64, 0.76, 1, 1.25, 1.5 ms
Atrial Sensitivity	0.25, 0.35, **0.5**, 0.7, 1, 1.4, 2, 2.8, 4 mV
Ventricular Sensitivity	1, 1.4, 2, **2.8**, 4, 5.6, 8, 11.2 mV
Pacing Polarity (A and V)	Bipolar, Unipolar, Configure
Sensing Polarity (A and V)	Bipolar, Unipolar, Configure
Atrial Refractory Period	180, 190, 200…**250**…500 ms
Atrial Blanking Period	130, 140, 150…**180**…350 ms
Ventricular Refractory Period	150, 160, 170…**330**…500 ms

Therapies to promote intrinsic activation

Sleep	On, **Off**
Sleep Rate	30, 35, 40…**50**…90 min^{-1} (exc. 65, 85)
Bed Time	00:00, 00:15, 00:30… **22:00**…23:45
Wake Time	00:00, 00:15, 00:30… **8:00**…23:45
Single Chamber Hysteresis	**Off**, 40, 50, 60 min^{-1}

Rate Response Pacing

ADL Rate	60, 65, 70…**95**…175, 180 min^{-1}
Rate Profile Optimization	**On**, Off
ADL Response	1, 2, **3**, 4, 5
Exertion Response	1, 2, **3**, 4, 5
Activity Threshold	Low, **Medium Low**, Medium High, High
Acceleration	15 s, **30 s**, 60 s
Deceleration	2.5 min, 5 min, 10 min, **Exercise**

MRI Pacing Parameters

SureScan® Pacing Mode	AOO, VOO, OAO,OVO
SureScan Lower Rate Interval	60, 70, 75, 80 … 115, 120[b] min^{-1}
SureScan Atrial Amplitude	5.0, 5.5, 6.0, 7.5 V
SureScan Atrial Pulse Width	1.0, 1.25, 1.5 ms
SureScan Atrial Sensitivity	0.18, 0.25, 0.35, 0.5, 0.7, 1.0, 1.4, 2.0, 2.8, 4.0 mV
SureScan Ventricular Amplitude	5.0, 5.5, 6.0, 7.5 V
SureScan Ventricular Sensitivity	1.0, 1.4, 2.0, 2.8, 4.0, 5.6, 8.0, 11.2 mV
SureScan Ventricular Pulse Width	1.0, 1.25, 1.5 ms
SureScan Timeout Duration	24 hr
SureScanMRI Compatibility	1.5 and 3 Tesla, full body scan

Atrial Tachyarrhythmia Therapies and Interventions

Conducted AF Response[b]

Regularize V-V during AT/AF	On, **Off**
Maximum Rate (min^{-1})	80, 85, 90…**110**…130

Automatic Pacing, Sensing, and Lead Monitor

Implant Detection and Initialization

At the completion of the 30-minute Implant Detection period, Rate Profile Optimization is enabled; the appropriate pacing and sensing polarities are automatically selected by the device; Ventricular Output Management is enabled and Amplitude and Pulse Width become adaptive. Sensing Assurance™ is enabled and Sensitivity becomes adaptive.

Implant Detection	On/Restart, Off/Complete
Lead Monitor (A and V)	Configure, Monitor Only, Adaptive (Auto Polarity Switch), Off
Notify If <	**200** Ω
Notify If >	1000, 2000, 3000, **4000** Ω
Monitor Sensitivity	2, 3, 4 … **8** … 16

Ventricular Output Management

Ventricular Output Management	Off, Monitor Only, **Adaptive**
Amplitude Margin	1.5x, **2x**, 2.5x, 3x, 4x (times)
Minimum Adapted Amplitude	0.5, 0.75…**2**…3.5 V
Capture Test Frequency	15, 30 min; 1, 2, 4, 8, 12 hours; **Day at rest**; Day at…; 7 days at
Capture Test Time	00:00, 1:00…23:00
Acute Phase Days Remaining	Off, 7, 14, 21…84, **112**, 140, 168… 252 days
V. Sensing During Search	Unipolar, Bipolar, **Adaptive**

Sensing Assurance

Sensing Assurance (A and V)	**On**, Off

Diagnostics

Cardiac Dashboard II
Highlights significant events, AT/AF and pacing summary, threshold and impedance trends
Ventricular pacing threshold trends
Battery longevity
Pacing summary and access to rate histogram
Atrial and ventricular lead impedance trends
Number of hours/day in atrial arrhythmia, percentage of time
Access to AT/AF diagnostics
Observations
P-wave/R-wave amplitudes and access to A and V sensitivity trends

CardioTrend™
Trend data compiles up to 6 months of daily clinical information in an easy-to-interpret graphic format

Histogram reports
Heart rate histograms
Sensor indicated rate profile

Atrial and ventricular episodes
High rate episodes
Atrial arrhythmia durations
Multiple EGM episodes

Clinician selected diagnostics
Custom rate trend
Ventricular output management detail
High rate detail

Patient Data Management

Patient data stored in device
Patient identification
Leads implanted
Device implanted
Clinician's stored notes

Data management
Automatic printing of initial interrogation report
Full page printing
Save-to-Disk capacity for electronic file management

Follow-up and Troubleshooting

Telemetry features

Transtelephonic monitor	On, Off
Extended telemetry	On, Off
Extended marker	Standard, Therapy Trace

Key parameter history
Initial interrogation report
Strength duration threshold test
Ventricular threshold test
Marker Channel™
Threshold margin test
Exercise test
EP studies
Magnet test
Underlying rhythm test
Sensing test
Temporary test

Magnet mode operation

	BOS	ERI
Single chamber atrial mode	AOO 85 min^{-1}	65
Single chamber ventricular mode	VOO 85 min^{-1}	65

Recommended Replacement Time (RRT) and Elective Replacement Indicator (ERI)
Replacement message on programmer (Cardiac Dashboard II)

Battery/lead information	Replacement message and battery voltage displayed on programmer
RRT and ERI initiation date	Displayed on programmer

References

*SSIR or SSI 50%, 2 V, 60 min^{-1}, 0.4 ms, 500 OHM.
† SSIR or SSI 100%, 2 V, 60 min^{-1}, 0.4 ms, 500 OHM.
[a] Tolerance for amplitudes from 0,5 V through 6.0 V is ± 10%, and for 7,5 V is -20/+0%. Tolerances are based on 37 ˚C and a 500Ω load. Amplitude is determined 200 µs after the leading edge of the pace.
[b] User selection will not include 65 min^{-1} or 85 min^{-1}.
[c] Conducted AF Response is functional during VVIR modes.

Nominal values indicated in **bold**

Vitatron. The Pace Makers

Vitatron - based in Europe - is the only medical device company that specializes exclusively in pacemakers. Since 1962, Vitatron pacemakers have helped restore more than 1,000,000 people in more than 60 countries to a full life. We strive to achieve perfection in everything we do. This results in unique patient-focused therapies, as well as highly cost-effective pacemakers that are easy to use.

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UC201708584 EE

G20SR • Single chamber

vitatron • The Pace Makers

G70DR

Specifications

Model G70A2
Dual chamber MRI™ SureScan®
pacemaker system

vitatron • The Pace Makers

G70DR Specifications

Model G70A2 Dual chamber pacemaker system

Mechanical

Model	G70A2
Size (HxWxD mm)	44.7x47.9x7.5
M (g)	27.1
V (cc)	12.1
Connector	IS-1 BI or UNI
Radiopaque ID	V5

Battery

Type	Lithium-iodine
Voltage	2.8 V
Average projected capacity	1.3 Ah

Longevity	11.4 years* 10.2 years†

Bradycardia Pacing

Programmable parameters

Pacing Modes	**DDDR**, DDD, DDIR, DDI, DVIR, DVI, DOOR, DOO, VDD, VVIR, VDIR, VVI, VDI, VVT, VOOR, VOO, AAIR, ADIR, AAI, ADI, AAT, AOOR, AOO, ODO, OVO, OAO
Mode Switch	**On**, Off
Lower Rate	30, 35, 40…**60**…170 min^{-1} (exc. 65, 85)
Upper Tracking Rate[a]	80, 90, 95…**130**…180 min^{-1}
Upper Sensor Rate	80, 90, 95…**130**…180 min^{-1}
A and RV Pulse Amplitude[b]	0.5, 0.75, 1.0…**3.5**…4, 4.5, 5, 5.5, 6, 7.5 V
A and RV Pulse Width	0.12, 0.15, 0.21, 0.27, 0.34, **0.4**, 0.46, 0.52, 0.64, 0.76, 1, 1.25, 1.5 ms
Atrial Sensitivity	0.18, 0.25, 0.35, **0.5**, 0.7, 1, 1.4, 2, 2.8, 4 mV
Ventricular Sensitivity	1, 1.4, 2, **2.8**, 4, 5.6, 8, 11.2 mV
Pacing Polarity (A and V)	Bipolar, Unipolar, Configure
Sensing Polarity (A and V)	Bipolar, Unipolar, Configure
Paced AV (PAV)	30, 40, 50…**150**…350 ms
Sensed AV (SAV)	30, 40, 50…**120**…350 ms
PVARP	**Auto**, Varied, 150, 160, 170…500 ms
Minimum PVARP	150, 160, 170…**250**…500 ms
PVAB	130, 140, 150…**180**…350 ms
Atrial Refractory Period	180, 190, 200…**400**…500 ms
Atrial Blanking Period	130, 140, 150…**180**…350 ms
Ventricular Refractory Period	150, 160, 170…**230**…500 ms
Ventricular Blanking (after atrial pace) (PAVB)	20, **28**, 36, 44 ms

Therapies to promote intrinsic activation

Reduced VP™+	**On**, Off
Max Increase to AV	10, 20, 30…**170**…250 ms
Sinus Preference™	**On**, Off
Sinus Preference Zone	3, 5, **10**, 15, 20 min^{-1}
Search Interval	5, 10, 20, 30 min
Sleep	On, **Off**
Sleep Rate	30, 35, 40…**50**…90 min^{-1} (exc. 65, 85)
Bed Time	00:00, 00:15, 00:30… **22:00**…23:45
Wake Time	00:00, 00:15, 00:30… **8:00**…23:45
Single Chamber Hysteresis	Off, 40, 50, 60 min^{-1}

Rate Response Pacing

ADL Rate	60, 65, 70…**95**…175, 180 min^{-1}
Rate Profile Optimization	**On**, Off
ADL Response	1, 2, **3**, 4, 5
Exertion Response	1, 2, **3**, 4, 5
Activity Threshold	Low, **Medium Low**, Medium High, High
Acceleration	15 s, **30 s**, 60 s
Deceleration	2.5 min, 5 min, 10 min, **Exercise**
RAAV	On, **Off**
Start Rate	50, 55, 60…**80**…175 min^{-1}
Stop Rate	55, 60, 65…**120** … 180 min^{-1}
Maximum Offset	-10, -20, -30…**-40** …-300 ms

Rate Drop Response

Detection Type	Low Rate, Drop, Both, **Off**
Intervention Rate	60, 70, 75, 80…**100**…180 min^{-1} (exc. 65, 85)
Intervention Duration	1, **2**, 3…15 min
Detection Beats	1, **2**, 3 beats
Drop Rate	30, 40, **50**…100 min^{-1}
Drop Size	10, 15, 20, **25**…50 min^{-1}
Detection Window	10, 15, 20, **25**, 30 s; 1, 1.5, 2, 2.5 min

Additional pacing features

PMT Intervention	On, **Off**
PVC Response	**On**, Off
Ventricular Safety Pacing	**On**, Off

MRI Pacing Parameters

SureScan® Pacing Mode	AOO, VOO, DOO,ODO
SureScan Lower Rate Interval	60, 70, 75, 80 … 115, 120[c] min^{-1}
SureScan PAV	50, 60 … 110 ms
SureScan Atrial Amplitude	5.0, 5.5, 6.0, 7.5 V
SureScan Atrial Pulse Width	1.0, 1.25, 1.5 ms
SureScan Atrial Sensitivity	0.18, 0.25, 0.35, 0.5, 0.7, 1.0, 1.4, 2.0, 2.8, 4.0 mV
SureScan Ventricular Amplitude	5.0, 5.5, 6.0, 7.5 V
SureScan Ventricular Sensitivity	1.0, 1.4, 2.0, 2.8, 4.0, 5.6, 8.0, 11.2 mV
SureScan Ventricular Pulse Width	1.0, 1.25, 1.5 ms
SureScan Timeout Duration	24 hr
SureScan MRI Compatibility	1.5 and 3 Tesla, full body scan

Atrial Tachyarrhythmia Therapies and Interventions

Mode Switch	**On**, Off
Detected Rate	120, 125…**175**…200 min^{-1}
Detect Duration	**No Delay**, 10, 20…60 sec
Blanked Flutter Search	**On**, Off

Atrial Preference Pacing (APP) parameters

APP	On, **Off**
Maximum Rate (min^{-1})	80, 90, 95, **100**…150
Interval Decrement (ms)	**30**, 40, 50…100, 150
Search Beats	5, 10…**20**, 25, 50

Post Mode Switch Overdrive Pacing (PMOP) parameters

PMOP	On, **Off**
Overdrive Rate (min^{-1})	70, 75, **80**, 90, 95…120
Overdrive Duration (min)	0.5, 1, 2, 3, 5, **10**, 20, 30, 60, 90, 120

Nominal values indicated in **bold**

Conducted AF Response[d]

Regularize V-V during AT/AF	On, **Off**
Maximum Rate (min^{-1})	80, 85, 90…**110**…130

Non-Competitive Atrial Pacing **On**, Off

Automatic Pacing, Sensing, and Lead Monitor

Implant Detection and Initialization

At the completion of the 30-minute Implant Detection period, Rate Profile Optimization is enabled; the appropriate pacing and sensing polarities are automatically selected by the device; Atrial and Ventricular Output Management is enabled and Amplitude and Pulse Width become adaptive. Sensing Assurance™ is enabled and Sensitivity becomes adaptive. Reduced VP™+ is enabled 60 minutes after Implant Detection is complete.

Implant Detection	On/Restart, Off/Complete
Lead Monitor (A and V)	Configure, Monitor Only, Adaptive (Auto Polarity Switch), Off
Notify If <	**200** Ω
Notify If >	1000, 2000, 3000, **4000** Ω
Monitor Sensitivity	2, 3, 4 … **8** … 16

Atrial Output Management

Atrial Output Management	Off, Monitor Only, **Adaptive**
Amplitude Margin	1.5x, **2x**, 2.5x, 3x, 4x (times)
Minimum Adapted Amplitude	0.5, 0.75…**1.5**…3.5 V
Capture Test Frequency	1, 2, 4, 8, 12 hours; Day at rest; **Day at**…; 7 days at
Capture Test Time	00:00, **1:00**…23:00
Acute Phase Days Remaining	Off, 7, 14, 21…84, **112**, 140, 168…252 days

Ventricular Output Management

Ventricular Output Management	Off, Monitor Only, **Adaptive**
Amplitude Margin	1.5x, **2x**, 2.5x, 3x, 4x (times)
Minimum Adapted Amplitude	0.5, 0.75…**2.0**…3.5 V
Capture Test Frequency	15, 30 min; 1, 2, 4, 8, 12 hours; **Day at rest**; Day at…; 7 days at
Capture Test Time	00:00, 1:00…23:00
Acute Phase Days Remaining	Off, 7, 14, 21…84, **112**, 140, 168…252 days
V. Sensing During Search	Unipolar, Bipolar, **Adaptive**

Sensing Assurance

Sensing Assurance (A and V)	**On**, Off

Diagnostics

Cardiac Dashboard II

Highlights significant events, AT/AF and pacing summary, threshold and impedance trends

Atrial and ventricular pacing threshold trends
Battery longevity
Pacing summary and access to rate histogram
Atrial and ventricular lead impedance trends
Number of hours/day in atrial arrhythmia, percentage of time
Access to atrial arrhythmia diagnostics
Observations
P-wave/R-wave amplitudes and access to A and V sensitivity trends

CardioTrend™

Trend data compiles up to 6 months of daily clinical information in an easy-to-interpret graphic format

Histogram reports

Heart rate histograms
AV conduction histograms
Reduced VP™+ histogram
Sensor indicated rate profile

Atrial and ventricular episodes

Atrial and ventricular high rate episodes
Ventricular rate during atrial arrhythmias
Atrial arrhythmia durations
Multiple EGM episodes
Rate drop response episodes

Clinician selected diagnostics

Custom rate trend
Rate drop response detail
Atrial output management detail
Ventricular Output Management detail
High Rate Detail

Patient data stored in device

Patient identification
Leads implanted
Device implanted
Clinician's stored notes

Data management

Automatic printing of initial interrogation report
Full page printing
Save-to-Disk capacity for electronic file management

Follow-up and Troubleshooting

Telemetry features	
Transtelephonic monitor	On, Off
Extended telemetry	On, Off
Extended marker	Standard, Therapy Trace

Key parameter history
Initial interrogation report
Strength duration threshold test
Ventricular threshold test
Marker Channel™
Threshold margin test
Exercise test
EP studies
Magnet test
Underlying rhythm test
Sensing test
Temporary test

Magnet mode operation

	BOS	ERI
Dual chamber mode	DOO 85 min^{-1}	65
Single chamber atrial mode	AOO 85 min^{-1}	65
Single chamber ventricular mode	VOO 85 min^{-1}	65

Recommended Replacement Time (RRT) and Elective Replacement Indicator (ERI)

Replacement message on programmer (Cardiac Dashboard II)

Battery/lead information	Replacement message and battery voltage displayed on programmer
RRT and ERI initiation date	Displayed on programmer

Vitatron. The Pace Makers

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www.vitatron.com

UC201708586 EE

G70DR • Dual chamber

References

*DDDR or DDD 50%, 1.5 V and 2.0 V, 60 min^{-1}, 0.4 ms, 500 OHM. For Atrial Output Management the Minimum Adapted Amplitude is 1.5 V (nominal). For Ventricular Output Management, the Minimum Adapted Amplitude is 2.0 V (nominal).

†DDDR or DDD 100%, 1.5 V and 2.0 V, 60 min^{-1}, 0.4 ms, 500 OHM. For Atrial Output Management the Minimum Adapted Amplitude is 1.5 V (nominal). For Ventricular Output Management, the Minimum Adapted Amplitude is 2.0 V (nominal).

[a] The atrial and ventricular Rate Limit is 200 min^{-1} (± 20 min^{-1}).

[b] Tolerance for amplitudes from 0.5 V through 6.0 V is ± 10%, and for 7.5 V is -20/+0%. Tolerances are based on 37 ºC and a 500 Ω load. Amplitude is determined 200 µs after the leading edge of the pace.

[c] User selection will not include 65 min^{-1} or 85 min^{-1}.

[d] Conducted AF Response is functional during Mode Switch episodes, DDIR, VVIR and VDIR modes.

vitatron • The Pace Makers

MIRRO MRI™
DR SURESCAN™
Model DDME3D4

- MR Conditional with PhysioCurve™ Design
- DF4

Product Specifications

Physical characteristics	
Volume[a]	34 cm^3
Mass	78 g
H x W x D	68 mm x 51 mm x 13 mm
Surface area of device can	57 cm^2
Radiopaque ID[b]	PFZ
Medtronic Radiopaque Identifier[b]	
Materials in contact with human tissue[c]	Titanium, polyurethane, silicone rubber
Battery	Hybrid CFx lithium/silver vanadium oxide

[a] Volume with connector ports unplugged.
[b] The radiopaque ID, which includes a Medtronic-identifier symbol, can be viewed in a fluoroscopic image of the device.
[c] These materials have been successfully tested for the ability to avoid biological incompatibility. The device does not produce an injurious temperature in the surrounding tissue during normal operation.

Replacement indicators	
Recommended Replacement Time (RRT)	< 2.73 V on 3 consecutive daily automatic measurements
End of Service (EOS)	3 months after RRT

Maximum energy levels and typical full energy charge times	
Maximum programmed energy	35 J
Maximum delivered energy[a,b]	36 J
Maximum stored energy[c]	42 J
Typical charge time at Beginning of Service (BOS)[d]	8.3 s
Typical charge time at Recommended Replacement Time (RRT)[d]	12.3 s

[a] Energy delivered at connector block into a 50 Ω load.
[b] For 35 J programmed energy, delivered energy exceeds 35 J.
[c] Energy stored at charge end on capacitor.
[d] Charge time during a nonwireless telemetry session may be slightly higher.

Medtronic

Device parameters

Tachyarrhythmia detection parameters

Parameter	Programmable values
AT/AF Detection	Monitor ◆
VF Detection[b]	On ◆; Off
VF Interval (Rate)[a]	240; 250 ... 320 ◆ ... 400 ms
VF Initial Beats to Detect	12/16; 18/24; 24/32; 30/40 ◆; 45/60; 60/80; 75/100; 90/120; 105/140; 120/160
VF Beats to Redetect	6/8; 9/12; 12/16 ◆; 18/24; 21/28; 24/32; 27/36; 30/40
FVT Detection	Off ◆; via VF; via VT
FVT Interval (Rate)[a]	200; 210 ... 240 ◆ ... 600 ms
VT Detection	On; Off ◆
VT Interval (Rate)[a]	280; 290 ... 360 ◆ ... 650 ms
VT Initial Beats to Detect	12; 16 ◆ ... 52; 76; 100
VT Beats to Redetect	8; 12 ◆ ... 52
VT Monitor	Monitor ◆; Off
VT Monitor Interval (Rate)[a]	280; 290 ... 450 ◆ ... 650 ms
Monitored VT Beats to Detect	16; 20; 24; 28; 32 ◆ ... 56; 80; 110; 130
PR Logic™	
AF/Afl[b]	On ◆; Off
Sinus Tach[b]	On ◆; Off
Other 1:1 SVTs	On; Off ◆
SVT V. Limit[a]	240; 250; 260 ◆ ... 650 ms
Other enhancements	
Stability[a]	Off ◆; 30; 40 ... 100 ms
Onset	Off ◆; On; Monitor
Onset Percent	72; 75; 78; 81 ◆; 84; 88; 91; 94; 97%
Sensitivity	
Atrial[c,d]	0.15; 0.30 ◆; 0.45; 0.60; 0.90; 1.20; 1.50; 1.80; 2.10; 4.00 mV
RV[c,d]	0.15; 0.30 ◆; 0.45; 0.60; 0.90; 1.20 mV

[a] The measured intervals are truncated to a 10 ms multiple (for example, 457 ms becomes 450 ms). The device uses this truncated interval value when applying the programmed criteria and calculating interval averages.
[b] The AF/Afl, Sinus Tach, and Wavelet features are automatically set to On when VF Detection is set to On.
[c] This setting applies to all sensing in this chamber for both tachyarrhythmia detection and bradycardia pacing operations.
[d] Carefully evaluate the possibility of increased susceptibility to EMI and oversensing before changing the sensitivity threshold to its minimum (most sensitive) setting of 0.15 mV. When susceptibility to modulated interference is tested under the conditions specified in CENELEC standard EN 45502-2-2, clause 27.5.1, the device may sense the interference if the sensitivity threshold is programmed to the minimum value of 0.15 mV. The device complies with the requirements of clause 27.5.1 when the sensitivity threshold is programmed to 0.3 mV or higher.

Ventricular tachyarrhythmia therapy parameters

Parameter	Programmable values
VF Therapy parameters	
VF Therapy Status	On ◆; Off
Energy	Rx1-Rx2: 0.4; 0.6 ... 1.8; 2; 3 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 ◆ J Rx3-Rx6: 10; 11 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 ◆ J
Pathway[a]	AX>B; B>AX Rx1-Rx4: B>AX ◆; Rx5-Rx6: AX>B ◆
ATP	During Charging ◆; Before Charging; Off
Deliver ATP if last 8 R-R ≥	200; 210 ... 240 ◆ ... 300 ms
Therapy Type	Burst ◆; Ramp; Ramp+
ChargeSaver	On ◆; Off
Switch when number of consecutive ATP successes equals	1 ◆; 2; 3; 4; 6; 8; 10
Smart Mode	On ◆; Off
VT/FVT Therapy parameters	
VT Therapy Status	On; Off ◆
FVT Therapy Status	On; Off ◆
Therapy Type	CV; Burst; Ramp; Ramp+ Rx1: Burst ◆; Rx2-Rx6: CV ◆
Energy	0.4; 0.6 ... 1.8; 2; 3 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 J VT Rx1-Rx2: 20 ◆ J VT Rx3-Rx6: 35 ◆ J FVT Rx1-Rx6: 35 ◆ J
Pathway[a]	AX>B; B>AX Rx1-Rx4: B>AX ◆; Rx5-Rx6: AX>B ◆
Burst therapy parameters	
Initial # Pulses	1; 2 ... 8 ◆ ... 15
R-S1 Interval = (%RR)	50; 53; 56; 59; 63; 66 ... 84; 88 ◆; 91; 94; 97%
Interval Dec	0; 10 ◆ ... 40 ms
# Sequences	1; 2 ... 10 VT Therapies: 3 ◆; FVT Therapies: 1 ◆
Smart Mode[b]	On; Off ◆
Ramp therapy parameters	
Initial # Pulses	1; 2 ... 8 ◆ ... 15
R-S1 Interval = (%RR)	50; 53; 56; 59; 63; 66 ... 84; 88; 91 ◆; 94; 97%
Interval Dec	0; 10 ◆ ... 40 ms
# Sequences	1; 2 ... 10 VT Therapies: 3 ◆; FVT Therapies: 1 ◆
Smart Mode[b]	On; Off ◆
Ramp+ therapy parameters	
Initial # Pulses	1; 2; 3 ◆ ... 15
R-S1 Interval = (%RR)	50; 53; 56; 59; 63; 66 ... 75 ◆ ... 84; 88; 91; 94; 97%
S1S2 (Ramp+) = (%RR)	50; 53; 56; 59; 63; 66; 69 ◆ ... 84; 88; 91; 94; 97%
S2SN (Ramp+) = (%RR)	50; 53; 56; 59; 63; 66 ◆ ... 84; 88; 91; 94; 97%
# Sequences	1; 2 ... 10 VT Therapies: 3 ◆; FVT Therapies: 1 ◆
Smart Mode[b]	On; Off ◆

Shared Settings	
V-V Minimum ATP Interval	150; 160 ... 200 ◆ ... 400 ms
V. Amplitude	1; 2 ... 6; 8 ◆ V
V. Pulse Width	0.1; 0.2 ... 1.5 ◆ ms
V. Pace Blanking	150; 160 ... 240 ◆ ... 450 ms
Active Can™/SVC Coil[c]	Can+SVC On ◆; Can Off; SVC Off
Progressive Episode Therapies	On; Off ◆

[a] If the Active Can/SVC Coil parameter is set to Can Off, the Active Can electrode is not used as part of the high-voltage delivery pathway. If the Active Can/SVC Coil parameter is set to SVC Off, the SVC Coil electrode is not used as part of the high-voltage delivery pathway.
[b] Smart Mode is available only for Rx1– Rx4.
[c] The Active Can/SVC Coil parameter applies to all automatic, manual, and emergency high-voltage therapies. It also applies to T-Shock™ inductions.

Pacing parameters

Modes, rates, and intervals

Parameter	Programmable values
Mode	DDDR; DDD; AAIR↔DDDR ◆ AAI↔DDD; DDIR; DDI; AAIR; AAI; VVIR; VVI; DOO; AOO; VOO; ODO
Mode Switch	On ◆; Off
Lower Rate[a]	30; 35 ... 60 ◆; 70; 75 ... 150 min^{-1} (±2 min^{-1})
Upper Tracking Rate	80; 85 ... 130 ◆ ... 150 min^{-1} (±2 min^{-1})
Paced AV	30; 40 ... 180 ◆ ... 350 ms (±4 ms)
Sensed AV	30; 40 ... 150 ◆ ... 350 ms (+30; –4 ms)
PVARP	Auto ◆; 150; 160 ... 500 ms (+5; –30 ms)
Minimum PVARP	150; 160 ... 250 ◆ ... 500 ms (+5; –30 ms)
A. Refractory Period	150; 160 ... 310 ◆ ... 500 ms (+5; –30 ms)

[a] The corresponding Lower Rate Interval can be calculated as follows: Lower Rate Interval (ms) = 60,000/Lower Rate.

Atrial parameters

Parameter	Programmable values
Atrial Amplitude	0.5; 0.75 ... 3.5 ◆ ... 5; 5.5; 6; 8 V
Atrial Pulse Width	0.03; 0.06; 0.1; 0.2; 0.3; 0.4 ◆ ... 1.5 ms
Atrial Sensitivity[a]	0.15 mV (± 75%); 0.3 ◆; 0.45; 0.6 mV (± 50%); 0.9; 1.2; 1.5; 1.8; 2.1; 4.0 mV (± 30%)

[a] This setting applies to all sensing in this chamber for both tachyarrhythmia detection and bradycardia pacing operations.

RV parameters

Parameter	Programmable values
RV Amplitude	0.5; 0.75 ... 3.5 ◆ ... 5; 5.5; 6; 8 V
RV Pulse Width	0.03; 0.06; 0.1; 0.2; 0.3; 0.4 ◆ ... 1.5 ms
RV Sensitivity[a]	0.15 mV (± 75%); 0.3 ◆; 0.45; 0.6 mV (± 50%); 0.9; 1.2 mV (± 30%)
RV Pace Polarity	Bipolar; Tip to Coil
RV Sense Polarity	Bipolar; Tip to Coil

[a] This setting applies to all sensing in this chamber for both tachyarrhythmia detection and bradycardia pacing operations.

Blanking periods

Parameter	Programmable values
PVAB Interval	10; 20 ... 150 ◆ ... 300 ms[a] 100; 110 ... 150 ◆ ... 300 ms[b]
PVAB Method	Partial ◆; Partial+; Absolute[c]
A. Blank Post AP	150; 160 ... 200 ◆ ... 250 ms
A. Blank Post AS	100 ◆; 110 ... 170 ms
V. Blank Post VP	150; 160 ... 200 ◆ ... 450 ms
V. Blank Post VS	120 ◆; 130 ... 170 ms

[a] When PVAB Method = Partial+ or Absolute.
[b] When PVAB Method = Partial.
[c] Programming the PVAB method to Absolute automatically resets the interval to 30 ms. If the PVAB method is programmed to Partial or Partial+, the interval resets to 150 ms.

Rate response pacing parameters

Parameter	Programmable values
Upper Sensor Rate	80; 85 ... 120 ◆; 150 min^{-1} (±2 min^{-1})
ADL Rate	60; 65 ... 95 ◆ ... 145 min^{-1} (±2 min^{-1})
Rate Profile Optimisation	On ◆; Off
ADL Response	1; 2; 3 ◆; 4; 5
Exertion Response	1; 2; 3 ◆; 4; 5
Activity Threshold	Low; Medium Low ◆; Medium High; High
Activity Acceleration	15; 30 ◆; 60 s
Activity Deceleration	Exercise ◆; 2.5; 5; 10 min
ADL Setpoint	5; 6 ... 40; 42 ... 80
UR Setpoint	15; 16 ... 40; 42 ... 80; 85 ... 180

Rate adaptive AV parameters

Parameter	Programmable values
Rate Adaptive AV	On; Off ◆
Start Rate	50; 55 ... 90 ◆ ... 145 min^{-1}
Stop Rate	55; 60 ... 130 ◆ ... 150 min^{-1}
Minimum Paced AV	30; 40 ... 140 ◆ ... 200 ms
Minimum Sensed AV	30; 40 ... 110 ◆ ... 200 ms

Ventricular rate stabilisation parameters

Parameter	Programmable values
V. Rate Stabilisation	On; Off ◆
Maximum Rate	80; 85 ... 100 ◆ ... 120 min^{-1}
Interval Increment	100; 110 ... 150 ◆ ... 400 ms

Post VT/VF shock pacing parameters

Parameter	Programmable values
Post VT/VF Shock Pacing	On; Off ◆
Overdrive Rate	70; 75; 80 ◆ ... 120 min^{-1}
Overdrive Duration	0.5 ◆; 1; 2; 3; 5; 10; 20; 30; 60; 90; 120 min

Post shock pacing parameters

Parameter	Programmable values
Post Shock A. Amplitude	1; 2; 3; 4 ◆; 5; 6; 8 V
Post Shock A. Pulse Width	0.1; 0.2 ... 1.5 ◆ ms
Post Shock V. Amplitude	1; 2 ... 6 ◆; 8 V
Post Shock V. Pulse Width	0.1; 0.2 ... 1.5 ◆ ms

Sleep parameters

Parameter	Programmable values
Sleep	On; Off ◆
Sleep Rate	30; 35 ... 50 ◆; 55; 60; 70; 75 ... 100 min^{-1}
Bed Time	00:00; 00:10 ... 22:00 ◆ ... 23:50
Wake Time	00:00; 00:10 ... 07:00 ◆ ... 23:50

Non-competitive Atrial Pacing (NCAP) parameters

Parameter	Programmable values
Non-Comp Atrial Pacing	On ◆; Off
NCAP Interval	200; 250; 300 ◆; 350; 400 ms

MRI SureScan parameters

Parameter	Programmable values
MRI SureScan	On; Off
MRI Pacing Mode	DOO (Asynchronous); AOO (Asynchronous); VOO (Asynchronous); ODO (Off)
MRI Pacing Rate	60; 70; 75... 120 min^{-1}

Additional pacing features

Parameter	Programmable values
Rate Hysteresis	Off ◆; 30; 40 ... 80 min^{-1}
PMT Intervention	On; Off ◆
PVC Response	On ◆; Off
V. Safety Pacing	On ◆; Off

Medtronic CareAlert™ parameters

Clinical management alerts

Parameter	Programmable values
Number of Shocks Delivered in an Episode[c]	
Device Tone	
Alert Enable – Urgency	Off ◆; On-Low; On-High
Patient Home Monitor	
Alert Enable[b]	Off ◆; On
Shared (Device Tone and Patient Home Monitor)	
Number of Shocks Threshold[a]	1 ◆; 2; 3; 4; 5; 6
All Therapies in a Zone Exhausted for an Episode	
Device Tone	
Alert Enable – Urgency	Off ◆; On-Low; On-High
Patient Home Monitor	
Alert Enable[b]	Off ◆; On

[a] This parameter is displayed only if an associated alert has been enabled.
[b] Alerts are programmable and transmittable to a monitor only when Patient Home Monitor is programmed to Yes.
[c] Note that VF, VT, and FVT therapies could be delivered during a single episode (from initial detection until episode termination).

Lead/Device integrity alerts

Parameter	Programmable values
RV Lead	
Device Tone	
Alert Urgency[a]	Low; High ◆
RV Lead Integrity Enable	On ◆; Off
Patient Home Monitor	
RV Lead Integrity Enable[c]	On ◆; Off
Lead Impedance Out of Range	
Device Tone	
Alert Urgency[a]	Low; High ◆
A. Pacing Impedance Enable	On ◆; Off (Observation only)
RV Pacing Impedance Enable	On ◆; Off (Observation only)
RV Defibrillation Impedance Enable	On ◆; Off (Observation only)
SVC Defibrillation Impedance Enable[b]	On ◆; Off (Observation only)
Patient Home Monitor	
A. Pacing Impedance Enable[c]	Off; On ◆
RV Pacing Impedance Enable[c]	Off; On ◆
RV Defibrillation Impedance Enable[c]	Off; On ◆
SVC Defibrillation Impedance Enable[b,c]	Off; On ◆
Shared (Device Tone and Patient Home Monitor)	
A. Pacing Impedance Less than	200 ◆; 300; 400; 500 Ω
A. Pacing Impedance Greater than	1,000; 1,500; 2,000; 3,000 ◆ Ω
RV Pacing Impedance Less than	200 ◆; 300; 400; 500 Ω
RV Pacing Impedance Greater than	1,000; 1,500; 2,000; 3,000 ◆ Ω
RV Defibrillation Impedance Less than	20 ◆; 30; 40; 50 Ω
RV Defibrillation Impedance Greater than	100; 130; 160; 200 ◆ Ω
SVC Defibrillation Impedance Less than	20 ◆; 30; 40; 50 Ω
SVC Defibrillation Impedance Greater than	100; 130; 160; 200 ◆ Ω
Low Battery Voltage RRT	
Device Tone	
Alert Enable – Urgency	Off; On-Low; On-High ◆
Patient Home Monitor	
Alert Enable[c]	Off; On ◆
Excessive Charge Time EOS	
Device Tone	
Alert Enable – Urgency	Off; On-Low; On-High ◆
Patient Home Monitor	
Alert Enable[c]	Off; On ◆

Lead/Device integrity alerts, cont'd.

Parameter	Programmable values
VF Detection Off, 3+ VF or 3+ FVT Rx Off	
Device Tone	
Alert Enable	Off; On-High ◆
Patient Home Monitor	
Alert Enable[c]	Off; On ◆

[a] This parameter is displayed only if an associated alert has been enabled.
[b] If an SVC lead is not implanted, the alert will not sound.
[c] Alerts are programmable and transmittable to a monitor only when Patient Home Monitor is programmed to Yes.

Shared parameters

Parameter	Programmable values
Patient Home Monitor	Yes; No ◆
Alert Time[a]	00:00; 00:10 ... 08:00 ◆ ... 23:50

[a] This parameter is displayed only if an associated alert has been enabled.

Data collection parameters

Data collection parameters

Parameter	Programmable values
LECG Source (Leadless ECG)[a]	Can to SVC ◆ [b,c] RVcoil to Aring; Can to Aring
LECG Range (Leadless ECG)	±1; ±2 ◆; ±4; ±8; ±12; ±16; ±32 mV
EGM 1 Source	RVtip to RVcoil; RVtip to RVring; Atip to RVring; Atip to Aring ◆; Aring to RVring; Aring to RVcoil
EGM 1 Range	±1; ±2; ±4; ±8 ◆; ±12; ±16; ±32 mV
EGM 2 Source	Can to RVcoil◆ ; Can to RVring; RVtip to RVcoil; RVtip to RVring; Can to SVC[b,c]; RVcoil to SVC[b]
EGM 2 Range	±1; ±2; ±4; ±8; ±12◆; ±16; ±32 mV
EGM 3 Source	RVtip to RVcoil; RVtip to RVring ◆
EGM 3 Range	±1; ±2; ±4; ±8 ◆; ±12; ±16; ±32 mV
Monitored	EGM1 and EGM2;EGM1 and EGM3 ◆; EGM1 and LECG; EGM2 and EGM3; EGM2 and LECG; EGM3 and LECG
Pre-arrhythmia EGM	Off ◆; On – 1 month; On – 3 months; On Continuous
Device Date/Time[d]	(enter time and date)
Holter Telemetry	Off ◆; 0.5; 1; 2; 4; 8; 16; 24; 36; 46 hr

[a] This EGM channel displays far-field signals. To display an approximation of a surface ECG signal, choose the Can to SVC EGM source.
[b] An SVC electrode must be present for this configuration.
[c] If Can to SVC is selected, the EGM Range is automatically set to ±2 mV. The EGM Range is automatically set to ±8 mV for all other EGM Source options.
[d] The times and dates stored in episode records and other data are determined by the Device Date/Time clock.

System test parameters

System test parameters

Parameter	Selectable values
Pacing Threshold Test parameters	
Test Type	Amplitude; Pulse Width
Chamber	Atrium; RV
Decrement after	2; 3 ... 15 pulses
RV Pace Polarity	Bipolar; Tip to Coil
Mode[a] (RV test)	VVI; VOO; DDI; DDD; DOO
Mode[a] (Atrium test)	AAI; AOO; DDI; DDD; DOO
Lower Rate[b]	30; 35 ... 60; 70; 75 ... 150 min^{-1}
RV Amplitude	0.25; 0.5 ... 5; 5.5; 6; 8 V
RV Pulse Width	0.03; 0.06; 0.1; 0.2 ... 1.5 ms
A. Amplitude	0.25; 0.5 ... 5; 5.5; 6; 8 V
A. Pulse Width	0.03; 0.06; 0.1; 0.2 ... 1.5 ms
AV Delay	30; 40 ... 350 ms
V. Pace Blanking	150; 160 ... 450 ms
A. Pace Blanking	150; 160 ... 250 ms
PVARP[c]	150; 160 ... 500 ms
Sensing Test parameters	
Mode[a]	AAI; DDD; DDI; VVI; ODO
AV Delay	30; 40 ... 350 ms
Lower Rate[b]	30; 35 ... 60; 70; 75 ... 120 min^{-1}

[a] The selectable values for this parameter depend on the programmed pacing mode.
[b] When performing the test in DDD mode, the Lower Rate must be less than the programmed Upper Tracking Rate.
[c] The selectable values for this parameter depend on the programmed PVAB values.

EP study parameters

T-Shock induction parameters

Parameter	Selectable values
Resume at Deliver	Enabled ◆; Disabled
Enable	Enabled; Disabled ◆
#S1	2; 3; 4; 5 ◆; 6; 7; 8
S1S1	300; 310 ... 400 ◆ ... 2,000 ms
Delay	20; 30 ... 300 ◆ ... 600 ms
Energy	0.4; 0.6; 0.8; 1.0 ◆ ... 1.8; 2; 3; 4 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 J
Waveform	Monophasic ◆; Biphasic
Pathway[a]	AX>B; B>AX ◆

[a] If the Active Can/SVC Coil parameter is set to Can Off, the Active Can electrode is not used as part of the high-voltage delivery pathway. If the Active Can/SVC Coil parameter is set to SVC Off, the SVC Coil electrode is not used as part of the high-voltage delivery pathway.

50 Hz Burst induction parameters

Parameter	Selectable values
Resume at Burst	Enabled ◆; Disabled
Chamber	Atrium; RV
Amplitude	1; 2; 3; 4 ◆; 5; 6; 8 V
Pulse Width	0.10; 0.20 ... 0.50 ◆ ... 1.50 ms
VOO Backup (for atrial 50 Hz Burst)	On; Off ◆
Pacing Rate	60; 70 ◆ ... 120 min^{-1}
V. Amplitude[a,b]	0.50; 0.75 ... 5.00; 5.50; 6.00; 8.00 V
V. Pulse Width[a]	0.10; 0.20 ... 1.50 ms

[a] The default value for this parameter is set according to the permanently programmed settings for bradycardia pacing.
[b] Crosstalk may occur when atrial pacing amplitude is greater than 6.0 V.

Fixed Burst induction parameters

Parameter	Selectable values
Resume at Burst	Enabled ◆; Disabled
Chamber	Atrium; RV
Interval	100; 110 ... 600 ◆ ms
Amplitude	1; 2; 3; 4 ◆; 5; 6; 8 V
Pulse Width	0.10; 0.20 ... 0.50 ◆ ... 1.50 ms
VVI Backup (for atrial Fixed Burst)	On; Off ◆
Pacing Rate	60; 70 ◆ ... 120 min^{-1}
V. Amplitude[a,b]	0.50; 0.75 ... 5.00; 5.50; 6.00; 8.00 V
V. Pulse Width[a]	0.10; 0.20 ... 1.50 ms

[a] The default value for this parameter is set according to the permanently programmed settings for bradycardia pacing.
[b] Crosstalk may occur when atrial pacing amplitude is greater than 6.0 V.

PES induction parameters

Parameter	Selectable values
Resume at Deliver	Enabled ◆; Disabled
Chamber	Atrium; RV
#S1	1; 2 ... 8 ◆ ... 15
S1S1	100; 110 ... 600 ◆ ... 2,000 ms
S1S2	Off; 100; 110 ... 400 ◆ ... 600 ms
S2S3	Off ◆; 100; 110 ... 400; 410 ... 600 ms[a]
S3S4	Off ◆; 100; 110 ... 400; 410 ... 600 ms[a]
Amplitude	1; 2; 3; 4 ◆; 5; 6; 8 V
Pulse Width	0.10; 0.20 ... 0.50 ◆ ... 1.50 ms
VVI Backup (for atrial PES)	On; Off ◆
Pacing Rate	60; 70 ◆ ... 120 min^{-1}
V. Amplitude[b,c]	0.50; 0.75 ... 5.00; 5.50; 6.00; 8.00 V
V. Pulse Width[b]	0.10; 0.20 ... 1.50 ms

[a] Default value when parameter is On is 400 ms.
[b] The default value for this parameter is set according to the permanently programmed settings for bradycardia pacing.
[c] Crosstalk may occur when atrial pacing amplitude is greater than 6.0 V.

Manual defibrillation parameters

Parameter	Selectable values
Energy	0.4; 0.6 ... 1.8; 2; 3 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 ◆ J
Pathway[a]	AX>B; B>AX ◆
Minimum R-R (atrial CV only)	400; 410 ... 500 ◆ ... 600 ms

[a] If the Active Can/SVC Coil parameter is set to Can Off, the Active Can electrode is not used as part of the high-voltage delivery pathway. If the Active Can/SVC Coil parameter is set to SVC Off, the SVC Coil electrode is not used as part of the high-voltage delivery pathway.

Shared manual ATP therapy parameters

Parameter	Selectable values
Minimum Interval (atrial ATP)	100; 110; 120; 130 ◆ ... 400 ms
Minimum Interval (ventricular ATP)	150; 160 ... 200 ◆ ... 400 ms
Amplitude	1; 2 ... 6 ◆; 8 V
Pulse Width	0.10; 0.20 ... 1.50 ◆ ms
VVI Backup (for atrial ATP therapy)	On; Off ◆
Pacing Rate	60; 70 ◆ ... 120 min^{-1}
V. Amplitude[a,b]	0.50; 0.75 ... 5.00; 5.50; 6.00; 8.00 V
V. Pulse Width[a]	0.10; 0.20 ... 1.50 ms

[a] The default value for this parameter is set according to the permanently programmed settings for bradycardia pacing.
[b] Crosstalk may occur when atrial pacing amplitude is greater than 6.0V.

Manual cardioversion parameters

Parameter	Selectable values
Chamber	Atrium; RV
Energy	0.4; 0.6 ... 1.8; 2; 3 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 ◆ J
Pathway[a]	AX>B; B>AX ◆
Minimum R-R (atrial CV only)	400; 410; ... 500 ◆ ... 600 ms

[a] If the Active Can/SVC Coil parameter is set to Can Off, the Active Can electrode is not used as part of the high-voltage delivery pathway. If the Active Can/SVC Coil parameter is set to SVC Off, the SVC Coil electrode is not used as part of the high-voltage delivery pathway.

Manual Ramp therapy parameters

Parameter	Selectable values
Chamber	Atrium; RV
RV Ramp therapy parameters	
# Pulses	1; 2 ... 6 ◆ ... 15
%RR Interval	50; 53; 56; 59; 63; 66 ... 84; 88; 91; 94; 97 ◆ %
Dec/Pulse	0; 10 ◆; 20; 30; 40 ms
Atrial Ramp therapy parameters	
# Pulses	1; 2 ... 6 ◆ ... 15; 20; 30 ... 100
%RR Interval	28; 31; 34; 38; 41 ... 59; 63; 66 ... 84; 88; 91; 94; 97 ◆ %
Dec/Pulse	0; 10 ◆; 20; 30; 40 ms

Manual Burst therapy parameters

Parameter	Selectable values
# Pulses	1; 2 ... 8 ◆ ... 15
%RR Interval	50; 53; 56; 59; 63; 66 ... 84; 88 ◆ ; 91; 94; 97%

Manual Ramp+ therapy parameters

Parameter	Selectable values
# Pulses	1; 2; 3 ◆ ... 15
R-S1 (%RR)	50; 53; 56; 59; 63; 66 ... 75 ◆ ... 84; 88; 91; 94; 97%
S1-S2 (%RR)	50; 53; 56; 59; 63; 66; 69 ◆ ... 84; 88; 91; 94; 97%
S2-SN (%RR)	50; 53; 56; 59; 63; 66 ◆ ... 84; 88; 91; 94; 97%

Manual Burst+ therapy parameters

Parameter	Selectable values
# S1 Pulses	1; 2 ... 6 ◆ ... 15; 20; 30 ... 100
%AA Interval	28; 31; 34; 38; 41 ... 59; 63; 66 ... 84; 88; 91 ◆; 94; 97%
S1S2	Off; 28; 31; 34; 38; 41 ... 59; 63; 66 ... 84 ◆; 88; 91; 94; 97%
S2S3 Dec	Off; 0; 10; 20 ◆ ... 80 ms

Longevity

Projected service life in years

		Projected service life in years	
Pacing Mode, percent pacing	Pacing Amplitude	500 Ω pacing impedance	600 Ω pacing impedance
DDD, 0%	2.5 V 3.5 V	9.7 9.6	9.7 9.6
DDD, 15%	2.5 V 3.5 V	9.1 8.7	9.2 8.8
DDD, 50%	2.5 V 3.5 V	8.3 7.1	8.5 7.4
DDD, 100%	2.5 V 3.5 V	7.3 5.7	7.6 6.1
AAI <=>DDD MVP™ Mode 50% Atrial, 5% Ventricular	2.5 V 3.5 V	8.9 8.2	9.0 8.3

The service life projections are based on the following assumptions:

- Semi-annual maximum energy charging frequency
- Pre-arrhythmia EGM storage programmed to On for a 6-month period (two 3-month follow-up intervals), over the entire life of the device
- 3 hours of wireless telemetry during implant
- A quarterly schedule of Medtronic patient monitor remote transmissions
- 1 hour of in-office wireless telemetry annually
- Typical shelf storage time before implant

Projected service life estimates are based on accelerated battery discharge data and device modeling as specified. Do not interpret these values as precise numbers.

Indications, Safety, and Warnings
If you are located in the United States, please refer to the brief statement(s) below to review applicable indications, safety, and warning information. See the device manual for detailed information regarding the implant procedure, indications, contraindications, warnings, precautions, and potential complications/adverse events. For further information, please call Medtronic at 1-763-514-4000 and/or consult the Medtronic website at medtronic.com.

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www.medtronic.com/manuals

Consult instructions for use at this website. Manuals can be viewed using a current version of any major Internet browser. For best results, use Adobe Acrobat Reader® with the browser.

Important Reminder: This information is intended only for users in markets where Medtronic products and therapies are approved or available for use as indicated within the respective product manuals. Content on specific Medtronic products and therapies is not intended for users in markets that do not have authorization for use.

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MIRRO MRI™
VR SURESCAN™
Model DVME3D4

- MR Conditional with PhysioCurve™ Design
- DF4

Product specifications

Physical characteristics

Volume[a]	33 cm^3
Mass	77 g
H x W x D	64 mm x 51 mm x 13 mm
Surface area of device can	57 cm^2
Radiopaque ID[b]	PFZ
Medtronic Radiopaque ID[b]	
Materials in contact with human tissue[c]	Titanium, polyurethane, silicone rubber
Battery	Hybrid CFx lithium/silver vanadium oxide

[a] Volume with connector ports unplugged.
[b] The radiopaque ID, which includes a Medtronic-identifier symbol, can be viewed in a fluoroscopic image of the device.
[c] These materials have been successfully tested for the ability to avoid biological incompatibility. The device does not produce an injurious temperature in the surrounding tissue during normal operation.

Replacement indicators

Recommended Replacement Time (RRT)	< 2.73 V on 3 consecutive daily automatic measurements
End of Service (EOS)	3 months after RRT

Maximum energy levels and typical full energy charge times

Maximum programmed energy	35 J
Maximum delivered energy[a,b]	36 J
Maximum stored energy[c]	42 J
Typical charge time at Beginning of Service (BOS)[d]	8.4 s
Typical charge time at Recommended Replacement Time (RRT)[d]	12.5 s

[a] Energy delivered at connector block into a 50 Ω load.
[b] For 35 J programmed energy, delivered energy exceeds 35 J.
[c] Energy stored at charge end on capacitor.
[d] Charge time during a nonwireless telemetry session may be slightly higher.

Medtronic

Device parameters

Tachyarrhythmia detection parameters

Parameter	Programmable values
VF Detection	On ◆; Off
VF Interval (Rate)[a]	240; 250 ... 320 ◆ ... 400 ms
VF Initial Beats to Detect	12/16; 18/24; 24/32; 30/40 ◆; 45/60; 60/80; 75/100; 90/120; 105/140; 120/160
VF Beats to Redetect	6/8; 9/12; 12/16 ◆; 18/24; 21/28; 24/32; 27/36; 30/40
FVT Detection	Off ◆; via VF; via VT
FVT Interval (Rate)[a]	200; 210 ... 240 ◆ ... 600 ms
VT Detection	On; Off ◆
VT Interval (Rate)[a]	280; 290 ... 360 ◆ ... 650 ms
VT Initial Beats to Detect	12; 16 ◆ ... 52; 76; 100
VT Beats to Redetect	8; 12 ◆ ... 52
VT Monitor	Monitor ◆; Off
VT Monitor Interval (Rate)[a]	280; 290 ... 450 ◆ ... 650 ms
Monitored VT Beats to Detect	16; 20; 24; 28; 32 ◆ ... 56; 80; 110; 130
Wavelet[b]	On ◆; Off; Monitor
Template	[date]
Match Threshold	40; 43; 46 ... 70 ◆ ... 97%
Auto Collection	On ◆; Off
SVT V. Limit[a]	240; 250; 260 ◆ ... 650 ms
Other enhancements	
Stability[a]	Off ◆; 30; 40 ... 100 ms
Onset	Off ◆; On; Monitor
Onset Percent	72; 75; 78; 81 ◆; 84; 88; 91; 94; 97%
Sensitivity	
RV Sensitivity[c,d]	0.15; 0.30 ◆; 0.45; 0.60; 0.90; 1.20 mV

[a] The measured intervals are truncated to a 10 ms multiple (for example, 457 ms becomes 450 ms). The device uses this truncated interval value when applying the programmed criteria and calculating interval averages.
[b] The Wavelet feature is automatically set to On when VF Detection is set to On.
[c] This setting applies to all sensing in this chamber for both tachyarrhythmia detection and bradycardia pacing operations.
[d] Carefully evaluate the possibility of increased susceptibility to EMI and oversensing before changing the sensitivity threshold to its minimum (most sensitive) setting of 0.15 mV. When susceptibility to modulated interference is tested under the conditions specified in CENELEC standard EN 45502-2-2:2008, clause 27.5.1, the device may sense the interference if the sensitivity threshold is programmed to the minimum value of 0.15 mV. The device complies with the requirements of clause 27.5.1 when the sensitivity threshold is programmed to 0.3 mV or higher.

Ventricular tachyarrhythmia therapy parameters

Parameter	Programmable values
VF Therapy parameters	
VF Therapy Status	On ◆; Off
Energy	Rx1-Rx2: 0.4; 0.6 ... 1.8; 2; 3 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 ◆ J Rx3-Rx6: 10; 11 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 ◆ J
Pathway[a]	AX>B; B>AX; Rx1-Rx4: B>AX ◆; Rx5-Rx6: AX>B ◆
ATP	During Charging ◆; Before Charging; Off
Deliver ATP if last 8 R-R ≥	200; 210 ... 240 ◆ ... 300 ms
Therapy Type	Burst ◆; Ramp; Ramp+
ChargeSaver	On ◆; Off
Switch when number of consecutive ATP successes equals	1 ◆; 2; 3; 4; 6; 8; 10
Smart Mode	On ◆; Off
VT/FVT Therapy parameters	
VT Therapy Status	On; Off ◆
FVT Therapy Status	On; Off ◆
Therapy Type	CV; Burst; Ramp; Ramp+ Rx1: Burst ◆; Rx2-Rx6: CV ◆
Energy	0.4; 0.6 ... 1.8; 2; 3 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 J VT Rx1-Rx2: 20 ◆ J VT Rx3-Rx6: 35 ◆ J FVT Rx1-Rx6: 35 ◆ J
Pathway[a]	AX>B; B>AX; Rx1-Rx4: B>AX ◆; Rx5-Rx6: AX>B ◆
Burst therapy parameters	
Initial # Pulses	1; 2 ... 8 ◆ ... 15
R-S1 Interval = (%RR)	50; 53; 56; 59; 63; 66 ... 84; 88 ◆; 91; 94; 97%
Interval Dec	0; 10 ◆ ... 40 ms
# Sequences	1; 2 ... 10 VT Therapies: 3 ◆; FVT Therapies: 1 ◆
Smart Mode[b]	On; Off ◆
Ramp therapy parameters	
Initial # Pulses	1; 2 ... 8 ◆ ... 15
R-S1 Interval = (%RR)	50; 53; 56; 59; 63; 66 ... 84; 88; 91 ◆; 94; 97%
Interval Dec	0; 10 ◆ ... 40 ms
# Sequences	1; 2 ... 10 VT Therapies: 3 ◆; FVT Therapies: 1 ◆
Smart Mode[b]	On; Off ◆
Ramp+ therapy parameters	
Initial # Pulses	1; 2; 3 ◆ ... 15
R-S1 Interval = (%RR)	50; 53; 56; 59; 63; 66 ... 75 ◆ ... 84; 88; 91; 94; 97%
S1S2 (Ramp+) = (%RR)	50; 53; 56; 59; 63; 66; 69 ◆ ... 84; 88; 91; 94; 97%
S2SN (Ramp+) = (%RR)	50; 53; 56; 59; 63; 66 ◆ ... 84; 88; 91; 94; 97%
# Sequences	1; 2 ... 10 VT Therapies: 3 ◆; FVT Therapies: 1 ◆
Smart Mode[b]	On; Off ◆
Shared Settings	
V-V Minimum ATP Interval	150; 160 ... 200 ◆ ... 400 ms
V. Amplitude	1; 2 ... 6; 8 ◆ V
V. Pulse Width	0.1; 0.2 ... 1.5 ◆ ms
V. Pace Blanking	150; 160 ... 240 ◆ ... 450 ms
Active Can™/SVC Coil[c]	Can+SVC On ◆; Can Off; SVC Off
Progressive Episode Therapies	On; Off ◆

Footnotes on following page

[a] If the Active Can/SVC Coil parameter is set to Can Off, the Active Can electrode is not used as part of the high-voltage delivery pathway. If the Active Can/SVC Coil parameter is set to SVC Off, the SVC Coil electrode is not used as part of the high-voltage delivery pathway.
[b] Smart Mode is available only for Rx1-Rx4.
[c] The Active Can/SVC Coil parameter applies to all automatic, manual, and emergency high-voltage therapies. It also applies to T-Shock™ inductions.

Pacing parameters

Modes, rates, and intervals

Parameter	Programmable values
Mode	VVI◈; VVIR; VOO; OVO
Lower Rate[a]	30; 35 ... 40 ◈; 45 ... 60; 70; 75 ... 150 min^{-1} (± 2 min^{-1})

[a] The corresponding Lower Rate Interval can be calculated as follows: Lower Rate Interval (ms) = 60,000/Lower Rate.

RV parameters

Parameter	Programmable values
RV Amplitude	0.5; 0.75 ... 3.5 ◈ ... 5.0; 5.5; 6.0; 8.0 V
RV Pulse Width	0.03; 0.06; 0.1; 0.2; 0.3; 0.4 ◈ ... 1.5 ms
RV Sensitivity[a]	0.15 mV (± 75%); 0.3 ◈ ; 0.45; 0.6 mV (± 50%); 0.9; 1.2 mV (± 30%)
RV Pace Polarity	Bipolar; Tip to Coil
RV Sense Polarity	Bipolar; Tip to Coil

[a] This setting applies to all sensing in this chamber for both tachyarrhythmia detection and bradycardia pacing operations.

Blanking periods

Parameter	Programmable values
V. Blank Post VP	150; 160 ... 200 ◈ ... 450 ms
V. Blank Post VS	120 ◈; 130 ... 170 ms

Rate response pacing parameters

Parameter	Programmable values
Upper Sensor Rate	80; 85 ... 120 ◈ ... 150 min^{-1} (± 2 min^{-1})
ADL Rate	60; 65 ... 95 ◈ ... 145 min^{-1} (± 2 min^{-1})
Rate Profile Optimisation	On ◈; Off
ADL Response	1; 2; 3 ◈; 4; 5
Exertion Response	1; 2; 3 ◈; 4; 5
Activity Threshold	Low; Medium Low ◈; Medium High; High
Activity Acceleration	15; 30 ◈; 60 s
Activity Deceleration	Exercise ◈; 2.5; 5; 10 min
ADL Setpoint	5; 6 ... 40; 42 ... 80
UR Setpoint	15; 16 ... 40; 42 ... 80; 85 ... 180

Ventricular rate stabilisation parameters

Parameter	Programmable values
V. Rate Stabilisation	On; Off ◈
Maximum Rate	80; 85 ... 100 ◈ ... 120 min^{-1}
Interval Increment	100; 110 ... 150 ◈ ... 400 ms

Post VT/VF shock pacing parameters

Parameter	Programmable values
Post VT/VF Shock Pacing	On; Off ◈
Overdrive Rate	70; 75; 80 ◈ ... 120 min^{-1}
Overdrive Duration	0.5 ◈; 1; 2; 3; 5; 10; 20; 30; 60; 90; 120 min

Post shock pacing parameters

Parameter	Programmable values
Post Shock V. Amplitude	1; 2 ... 6 ◈; 8 V
Post Shock V. Pulse Width	0.1; 0.2 ... 1.5 ◈ ms

Sleep parameters

Parameter	Programmable values
Sleep	On; Off ◈
Sleep Rate	30; 35 ... 50 ◈; 55; 60; 70; 75 ... 100 min^{-1}
Bed Time	00:00; 00:10 ... 22:00 ◈ ... 23:50
Wake Time	00:00; 00:10 ... 07:00 ◈ ... 23:50

MRI SureScan parameters

Parameter	Programmable values
MRI SureScan	On; Off
MRI Pacing Mode	VOO (Asynchronous); OVO (Off)
MRI Pacing Rate	60; 70; 75... 120 min^{-1}

Additional pacing features

Parameter	Programmable values
Rate Hysteresis	Off ◈; 30; 40 ... 80 min^{-1}

Medtronic CareAlert™ parameters

Clinical management alerts

Parameter	Programmable values
Number of Shocks Delivered in an Episode[a]	
Device Tone	
Alert Enable – Urgency	Off ◈; On-Low; On-High
Patient Home Monitor	
Alert Enable[b]	Off ◈; On
Shared (Device Tone and Patient Home Monitor)	
Number of Shocks Threshold[c]	1 ◈; 2; 3; 4; 5; 6
All Therapies in a Zone Exhausted for an Episode	
Device Tone	
Alert Enable – Urgency	Off ◈; On-Low; On-High
Patient Home Monitor	
Alert Enable[b]	Off ◈; On

[a] Note that VF, VT, and FVT therapies could be delivered during a single episode (from initial detection until episode termination).
[b] Alerts are programmable and transmittable to a monitor only when Patient Home Monitor is programmed to Yes.
[c] This parameter is displayed only if an associated alert has been enabled.

Lead/Device integrity alerts

Parameter	Programmable values
RV Lead	
Device Tone	
Alert Urgency[a]	Low; High ◆
RV Lead Integrity Enable	On ◆; Off
Patient Home Monitor	
RV Lead Integrity Enable[c]	On ◆; Off
Lead Impedance Out of Range	
Device Tone	
Alert Urgency[a]	Low; High ◆
RV Pacing Impedance Enable	On ◆; Off (Observation only)
RV Defibrillation Impedance Enable	On ◆; Off (Observation only)
SVC Defibrillation Impedance Enable[b]	On ◆; Off (Observation only)
Patient Home Monitor	
RV Pacing Impedance Enable[c]	Off; On ◆
RV Defibrillation Impedance Enable[c]	Off; On ◆
SVC Defibrillation Impedance Enable[b,c]	Off; On ◆
Shared (Device Tone and Patient Home Monitor)	
RV Pacing Impedance Less than	200 ◆; 300; 400; 500 Ω
RV Pacing Impedance Greater than	1,000; 1,500; 2,000; 3,000 ◆ Ω
RV Defibrillation Impedance Less than	20 ◆; 30; 40; 50 Ω
RV Defibrillation Impedance Greater than	100; 130; 160; 200 ◆ Ω
SVC Defibrillation Impedance Less than	20 ◆; 30; 40; 50 Ω
SVC Defibrillation Impedance Greater than	100; 130; 160; 200 ◆ Ω
Low Battery Voltage RRT	
Device Tone	
Alert Enable – Urgency	Off; On-Low; On-High ◆
Patient Home Monitor	
Alert Enable[c]	Off; On ◆
Excessive Charge Time EOS	
Device Tone	
Alert Enable – Urgency	Off; On-Low; On-High ◆
Patient Home Monitor	
Alert Enable[c]	Off; On ◆
VF Detection Off, 3+ VF or 3+ FVT Rx Off	
Device Tone	
Alert Enable	Off; On-High ◆
Patient Home Monitor	
Alert Enable[c]	Off; On ◆

[a] This parameter is displayed only if an associated alert has been enabled.
[b] If an SVC lead is not implanted, the alert will not sound.
[c] Alerts are programmable and transmittable to a monitor only when Patient Home Monitor is programmed to Yes.

Shared parameters

Parameter	Programmable values
Patient Home Monitor	Yes; No ◆
Alert Time[a]	00:00; 00:10 ... 08:00 ◆ ... 23:50

[a] This parameter is displayed only if an associated alert has been enabled.

Data collection parameters

Data collection parameters

Parameter	Programmable values
LECG Source (Leadless ECG)[a]	Can to SVC[b]
LECG Range (Leadless ECG)	±1; ±2 ◆; ±4; ±8; ±12; ±16; ±32 mV
EGM 1 Source	RVtip to RVcoil; RVtip to RVring ◆
EGM 1 Range	±1; ±2; ±4; ±8 ◆; ±12; ±16; ±32 mV
EGM 2 (Wavelet) Source	Can to RVcoil ◆ ; Can to RVring; RVtip to RVcoil; RVtip to RVring; Can to SVC[b,c]; RVcoil to SVC[b]
EGM 2 (Wavelet) Range	±1; ±2; ±4; ±8; ±12 ◆; ±16; ±32 mV
EGM 3 Source	RVtip to RVcoil ◆; RVtip to RVring
EGM 3 Range	±1; ±2; ±4; ±8 ◆; ±12; ±16; ±32 mV
Monitored	EGM1 and EGM2 ◆ ,EGM1 and EGM3; EGM1 and LECG; EGM2 and EGM3; EGM2 and LECG; EGM3 and LECG
Pre-arrhythmia EGM	Off ◆; On – 1 month; On – 3 months; On Continuous
Device Date/Time[c]	(Enter time and date)
Holter Telemetry	Off ◆; 0.5; 1; 2; 4; 8; 16; 24; 36; 46 hr

[a] This EGM channel displays far-field signals.
[b] An SVC electrode must be present for this configuration.
[c] If Can to SVC is selected, the EGM Range is automatically set to ±2 mV. The EGM Range is automatically set to ±8 mV for all other EGM Source options.
[d] The times and dates stored in episode records and other data are determined by the Device Date/Time clock.

System test parameters

System test parameters

Parameter	Selectable values
Pacing Threshold Test parameters	
Test Type	Amplitude; Pulse Width
Decrement after	2; 3 ... 15 pulses
RV Pace Polarity	Bipolar; Tip to Coil
Mode[a]	VVI; VOO
Lower Rate	30; 35 ... 60; 70; 75 ... 150 min^{-1}
RV Amplitude	0.25; 0.5 ... 5; 5.5; 6; 8 V
RV Pulse Width	0.03; 0.06; 0.1; 0.2 ... 1.5 ms
V. Pace Blanking	150; 160 ... 450 ms
Sensing Test parameters	
Mode[a]	VVI; OVO
Lower Rate	30; 35 ... 60; 70; 75 ... 120 min^{-1}

System test parameters, cont'd.

System test parameters

Wavelet Test parameters	Selectable values
Match Threshold	40; 43 ... 70 ◆ ... 97
Mode[a]	VVI; OVO
Lower Rate	30; 35 ... 60; 70; 75 ... 120 min^{-1}

[a] The selectable values for this parameter depend on the programmed pacing mode.

EP study parameters

T-Shock induction parameters

Parameter	Selectable values
Resume at Deliver	Enabled ◆; Disabled
Enable	Enabled; Disabled ◆
#S1	2; 3; 4; 5 ◆; 6; 7; 8
S1S1	300; 310 ... 400 ◆ ... 2,000 ms
Delay	20; 30 ... 300 ◆ ... 600 ms
Energy	0.4; 0.6; 0.8; 1.0 ◆ ... 1.8; 2; 3; 4 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 J
Waveform	Monophasic ◆; Biphasic
Pathway[a]	AX>B; B>AX ◆

[a] If the Active Can/SVC Coil parameter is set to Can Off, the Active Can electrode is not used as part of the high-voltage delivery pathway. If the Active Can/SVC Coil parameter is set to SVC Off, the SVC Coil electrode is not used as part of the high-voltage delivery pathway.

50 Hz Burst induction parameters

Parameter	Selectable values
Resume at Burst	Enabled ◆; Disabled
Amplitude	1; 2; 3; 4 ◆; 5; 6; 8 V
Pulse Width	0.10; 0.20 ... 0.50 ◆ ... 1.50 ms

Fixed Burst induction parameters

Parameter	Selectable values
Resume at Burst	Enabled ◆; Disabled
Interval	100; 110 ... 600 ◆ ms
Amplitude	1; 2; 3; 4 ◆; 5; 6; 8 V
Pulse Width	0.10; 0.20 ... 0.50 ◆ ... 1.50 ms

PES induction parameters

Parameter	Selectable values
Resume at Deliver	Enabled ◆; Disabled
#S1	1; 2 ... 8 ◆ ... 15
S1S1	100; 110 ... 600 ◆ ... 2,000 ms
S1S2	Off; 100; 110 ... 400 ◆ ...600 ms
S2S3	Off ◆; 100; 110 ... 400; 410 ... 600 ms[a]
S3S4	Off ◆; 100; 110 ... 400; 410 ... 600 ms[a]
Amplitude	1; 2; 3; 4 ◆; 5; 6; 8 V
Pulse Width	0.10; 0.20 ... 0.50 ◆ ... 1.50 ms

[a] Default value when parameter is On is 400 ms.

Manual defibrillation parameters

Parameter	Selectable values
Energy	0.4; 0.6 ... 1.8; 2; 3 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 ◆ J
Pathway[a]	AX>B; B>AX ◆

[a] If the Active Can/SVC Coil parameter is set to Can Off, the Active Can electrode is not used as part of the high-voltage delivery pathway. If the Active Can/SVC Coil parameter is set to SVC Off, the SVC Coil electrode is not used as part of the high-voltage delivery pathway.

Manual cardioversion parameters

Parameter	Selectable values
Energy	0.4; 0.6 ... 1.8; 2; 3 ... 16; 18; 20; 22; 24; 25; 26; 28; 30; 32; 35 ◆ J
Pathway[a]	AX>B; B>AX ◆

[a] If the Active Can/SVC Coil parameter is set to Can Off, the Active Can electrode is not used as part of the high-voltage delivery pathway. If the Active Can/SVC Coil parameter is set to SVC Off, the SVC Coil electrode is not used as part of the high-voltage delivery pathway.

Shared manual ATP therapy parameters

Parameter	Selectable values
Minimum Interval	150; 160 ... 200 ◆ ... 400 ms
Amplitude	1; 2 ... 6 ◆; 8 v
Pulse width	0.10; 0.20 ... 1.50 ◆ ms

Manual Ramp therapy parameters

Parameter	Selectable values
# Pulses	1; 2 ... 6 ◆ ... 15
%RR Interval	50; 53; 56; 59; 63; 66 ... 84; 88; 91; 94; 97 ◆ %
Dec/Pulse	0; 10 ◆; 20; 30; 40 ms

Manual Burst therapy parameters

Parameter	Selectable values
# Pulses	1; 2 ... 8 ◆ ... 15
%RR Interval	50; 53; 56; 59; 63; 66 ... 84; 88 ◆ ; 91; 94; 97%

Manual Ramp+ therapy parameters

Parameter	Selectable values
# Pulses	1; 2; 3 ◆ ... 15
R-S1 (%RR)	50; 53; 56; 59; 63; 66 ... 75 ◆ ... 84; 88; 91; 94; 97%
S1-S2 (%RR)	50; 53; 56; 59; 63; 66; 69 ◆ ... 84; 88; 91; 94; 97%
S2-SN (%RR)	50; 53; 56; 59; 63; 66 ◆ ... 84; 88; 91; 94; 97%

Longevity

Projected service life in years

		Projected service life in years	
Pacing Mode, percent pacing	Pacing Amplitude	500 Ω pacing impedance	600 Ω pacing impedance
VVI, 0%	2.5 V 3.5 V	11.0 11.0	11.0 11.0
VVI, 15%	2.5 V 3.5 V	10.7 10.4	10.8 10.5
VVI, 50%	2.5 V 3.5 V	10.1 9.2	10.2 9.5
VVI, 100%	2.5 V 3.5 V	9.3 7.9	9.6 8.3

The service life projections are based on the following assumptions:

- Semi-annual maximum energy charging frequency
- Pre-arrhythmia EGM storage programmed to On for a 6-month period (two 3-month follow-up intervals), over the entire life of the device
- 3 hours of wireless telemetry during implant
- A quarterly schedule of Medtronic patient monitor remote transmissions
- 1 hour of in-office wireless telemetry annually
- Typical shelf storage time before implant

Projected service life estimates are based on accelerated battery discharge data and device modeling as specified. Do not interpret these values as precise numbers.

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CARDIAC RHYTHM MANAGEMENT AND CARDIOVASCULAR DIAGNOSTICS & SERVICES

PRODUCT CATALOGUE 2021

Medtronic
Further, Together

TABLE OF CONTENT

PACEMAKERS (IPG)

Single Chamber (SR)

AZURE™ XT SR MRI
SURESCAN™

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 (RV)
- Auto-adjusting sensitivity (RV)
- Lead Monitor (RV) with Auto Polarity Switch
- CareAlert Monitoring
- Carelink connectivity with CareAlerts

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.
- 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
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 Manual.

AZURE™ S SR MRI
SURESCAN™

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 (RV)
- Auto-adjusting sensitivity (RV)
- Lead Monitor (RV) with Auto Polarity Switch
- CareAlert Monitoring
- Carelink connectivity with CareAlerts

ADDITIONAL PACING FEATURES
- Rate Hysteresis
- 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
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 Manual.

ASTRA™ XT SR MRI
SURESCAN™

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 (RV)
- Auto-adjusting sensitivity (RV)
- Lead Monitor (RV) with Auto Polarity Switch
- CareLink connectivity

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
- 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	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
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 Manual.

ATTESTA™ SR MRI
SURESCAN™

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 (RV)
- Sensing Assurance (RA and RV)
- Lead Monitor (RA and RV) with Auto Polarity Switch
- CareLink connectivity

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 Optimization

DIAGNOSTICS
- Quick Look II
- Histogram Reports
- Atrial and Ventricular Episodes including EGMs
- Additional Clinician Selected 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
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 Manual.

SPHERA™ SR MRI
SURESCAN™

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 (RV)
- Sensing Assurance (RA and RV)
- Lead Monitor (RA and 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
- Atrial and Ventricular Episodes including EGMs
- Additional Clinician Selected Diagnostics

Model	SPSR01
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
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 Manual.

ADVISA SR MRI™
SURESCAN™

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 (RV)
- Auto-adjusting sensitivity (RV)
- Lead Monitor (RV) with Auto Polarity Switch
- CareLink connectivity

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

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
- Histograms Reports
- Ventricular Episodes including EGMs

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)

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

ENSURA SR MRI™
SURESCAN™

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 (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
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 Manual.

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.

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

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 Optimization

DIAGNOSTICS

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

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

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.

- Implant Detection
- 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
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS

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

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

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 Detection
- 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 II
- 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 x 42.9 x 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 Manual.

PACEMAKERS

(IPG)

Dual Chamber (DR)

AZURE™ XT DR MRI
SURESCAN™

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 pediatric indications
- 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 Report
- Atrial and Ventricular Episodes including EGMs

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

Model	W2DR01
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)

AZURE™ S DR MRI
SURESCAN™

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 Hysteresis
- 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 Profile 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)

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

ASTRA™ XT DR MRI
SURESCAN™

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.
- 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 pediatric indications
- 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
- Atrial and Ventricular Episodes including EGMs

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

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)

ATTESTA™ DR MRI
SURESCAN™

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)
- Search AV+ up to 600ms

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 (VSP)
- 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 II
- Cardiac Compass Trends
- Histogram Reports
- Atrial and Ventricular Episodes including EGMs
- Additional Clinician Selected Diagnostics

Model	ATDR01	ATDRS1 (Small)	ATDRL1 (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 Manual.

SPHERA™ DR MRI
SURESCAN™

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.
- Search AV+ up to 600 ms

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 Hysteresis
- Sleep Function
- PVC Response
- Ventricular Safety Pacing (VSP)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Histogram Reports
- Atrial and Ventricular Episodes including EGMs
- Additional Clinician Selected 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 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 Manual.

ADVISA DR MRI™
SURESCAN™

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)

HEART FAILURE (HF) MANAGEMENT
Algorithm to help manage heart failure
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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 pediatric indications
- 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
- Atrial and Ventricular Episodes including EGMs

**Subject to availability*

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
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 Manual.

ENSURA DR MRI™
SURESCAN™

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 II
- Histogram Reports
- Ventricular Episodes including EGMs

Model	EN1DR01
M (g)	22.0
V (cc)	12.7
Size (mm) (HxWxD)	45 x 51 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)

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

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
- 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)
- Search AV+ up to 600ms

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 (VSP)
- 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 II
- Cardiac Compass Trends
- Histogram Reports
- Atrial and Ventricular Episodes including EGMs
- Additional Clinician Selected Diagnostics

Model	ADDR01	ADDR03	ADDR06	ADDRS1 (Small)	ADDRL1 (Longevity)
M (g)	27.1	28.1	28.5	23.6	31.3
V (cc)	12.1	13.0	14.2	11.1	13.1
Size (mm) (HxWxD)	44.7 x 47.9 x 7.5	46.7 x 47.9 x 7.5	50.3 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	IS-1 BI/ UNI; 3.2 mm LP BI	5 or 6 mm UNI	IS-1 BI/ UNI	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 Manual.

ADAPTA® 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.
- 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)
- Search AV+ up to 600 ms

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 (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 Profile Optimization

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

Model	ADD01
M (g)	27.1
V (cc)	12.1
Size (mm) (HxWxD)	44.7 x 47.9 x 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 Manual.

ADAPTA® VDD

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 (RV)
- Sensing Assurance (RA and RV)
- Lead Monitor (RV) with Auto Polarity Switch
- CareLink connectivity

MINIMIZING UNNECESSARY RV PACING
Promotes intrinsic conduction by reducing unnecessary RV pacing.
- Search AV+ up to 600 ms

AT/AF MANAGEMENT
Pacing therapies to help manage atrial tachyarrhythmias and alleviate symptoms.
- ModeSwitch with Blanked Flutter Search
- Conducted AF Response (CAFR)

ADDITIONAL PACING FEATURES
- Rate Hysteresis
- Sleep Function
- PVC Response
- High Upper tracking rate up to 210 min^{-1} for pediatric indications
- Dual Zone Rate Response Pacing with Rate Profile Optimization

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

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

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.
- 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.
- Search AV+ up to 600 ms

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 Hysteresis
- Sleep Function
- PVC Response
- Ventricular Safety Pacing (VSP)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

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

Model	SEDR01	SEDRL1 (Longevity)
M (g)	27.1	31.1
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 BI/UNI	

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

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.
- 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.
- Search AV+ up to 600 ms

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 Hysteresis
- Sleep Function
- PVC Response
- Ventricular Safety Pacing (VSP)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

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

Model	SED01
M (g)	27.1
V (cc)	12.1
Size (mm) (HxWxD)	44.7 x 47.9 x 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 Manual.

PACEMAKERS (IPG)

Leadless

MICRA™ 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 approach
- 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 (RV)

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 mm^2
- Cathode: 2.5 mm^2
- 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 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)

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

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)

MICRA™ VR
TRANSCATHETER PACING SYSTEM

PACEMAKERS (IPG)

GENERAL DESCRIPTION
- Miniaturized: Completely self-contained within the heart, no leads required
- Engineered for a minimally invasive approach
- 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 (RV)
- CareLink connectivity

DIAGNOSTICS
- Quick Look II
- Histogram Reports

ELECTRODES
- Surface area:
- Anode: 22 mm^2
- Cathode: 2.5 mm^2
- 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 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	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 Manual.

CRT PACEMAKERS (CRT-P)

PERCEPTA™ QUAD CRT-P MRI
SURESCAN™

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Implant Detection
- Therapy Guide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- Lead Monitor (RA, RV and LV) with Auto Polarity Switch
- CareLink connectivity

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
Pacing therapies and algorithms to help manage heart failure.
- EffectivCRT Diagnostic and EffectivCRT During AF
- AdaptivCRT
- CardioSync Optimization Test
- Multiple Point Pacing (MPP)
- VectorExpress 2.0 LV Automated Test
- 16 LV pacing vectors with Quadripolar LV lead
- Sequential MPP
- Ventricular Sense Response (VSR)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Pacing therapies and algorithms to help manage atrial tachyarrhythmias.
- 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
- Sleep Function
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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 II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG
- Atrial and Ventricular Episodes including EGMs

**Subject to availability*

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

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
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)

PERCEPTA™ CRT-P MRI
SURESCAN™

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Implant Detection
- Therapy Guide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- Lead Monitor (RA, RV and LV) with Auto Polarity Switch
- CareLink connectivity

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
Pacing therapies and algorithms to help manage heart failure.
- EffectivCRT Diagnostic and EffectivCRT During AF
- AdaptivCRT
- CardioSync Optimization Test
- 5 LV pacing vectors
- Ventricular Sense Response (VSR)
- Atrial Tracking Recovery (ATR)
- Optiol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Pacing therapies and algorithms to help manage atrial tachyarrhythmias.
- 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
- Sleep Function
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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 II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG
- Atrial and Ventricular Episodes including EGMs

**Subject to availability*

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

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

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)

SERENA™ QUAD CRT-P MRI
SURESCAN™

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Implant Detection
- Therapy Guide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- Lead Monitor (RA, RV and LV) with Auto Polarity Switch
- CareLink connectivity

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
Pacing therapies and algorithms to help manage heart failure.
- AdaptivCRT
- CardioSync Optimization Test
- Multiple Point Pacing (MPP)
- VectorExpress LV Automated Test
- 16 LV pacing vectors with Quadripolar LV lead
- Sequential MPP
- Ventricular Sense Response (VSR)
- Atrial Tracking Rec overy (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Pacing therapies and algorithms to help manage atrial tachyarrhythmias.
- 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
- Sleep Function
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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 II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG
- Atrial and Ventricular Episodes including EGMs

**Subject to availability*

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

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
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)

SERENA™ CRT-P MRI
SURESCAN™

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Implant Detection
- Therapy Guide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- Lead Monitor (RA, RV and LV) with Auto Polarity Switch
- CareLink connectivity

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
Pacing therapies and algorithms to help manage heart failure.
- AdaptivCRT
- CardioSync Optimization Test
- 5 LV pacing vectors
- Ventricular Sense Response (VSR)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Pacing therapies and algorithms to help manage atrial tachyarrhythmias.
- 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
- Sleep Function
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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 II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG
- Atrial and Ventricular Episodes including EGMs

**Subject to availability*

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

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 Manual.

SOLARA™ QUAD CRT-P MRI
SURESCAN™

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Implant Detection
- Therapy Guide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- Lead Monitor (RA, RV and LV) with Auto Polarity Switch
- CareLink connectivity

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
Pacing therapies and algorithms to help manage heart failure.
- CardioSync Optimization Test
- VectorExpress LV Automated Test
- 16 LV pacing vectors
- Ventricular Sense Response (VSR)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Pacing therapies and algorithms to help manage atrial tachyarrhythmias.
- 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
- Sleep Function
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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 II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG
- Atrial and Ventricular Episodes including EGMs

**Subject to availability*

Model	W4TR06
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
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 Manual.

SOLARA™ CRT-P MRI
SURESCAN™

CRT PACEMAKERS (CRT-P)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Implant Detection
- Therapy Guide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- Lead Monitor (RA, RV and LV) with Auto Polarity Switch
- CareLink connectivity

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
Pacing therapies and algorithms to help manage heart failure.
- CardioSync Optimization Test
- 5 LV pacing vectors
- Ventricular Sense Response (VSR)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Pacing therapies and algorithms to help manage atrial tachyarrhythmias.
- 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
- Sleep Function
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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 II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG
- Atrial and Ventricular Episodes including EGMs

**Subject to availability*

Model	W1TR06
M (g)	30
V (cc)	20
Size (mm) (HxWxD)	59 x 46.5 x 11
Connector	3 x IS-1

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 Manual.

DEFIBRILLATORS (ICD)

Single Chamber (VR)

COBALT™ XT VR MRI
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Capture Management (RV)
- Auto-adjusting sensitivity (RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA), Atrial Fibrillation (AF) burden and Fast V. Rate During AF
- CareLink connectivity

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 ChargeSaver with
- Smart Mode
- Programmable RV sensing and pacing polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

HEART FAILURE (HF) MANAGEMENT
Algorithm to help manage heart failure.
- OptiVol™ 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Conducted AF Response (CAFR)
- AF Diagnostic (Trends and Histograms)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG

**Subject to availability*

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
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 Manual.

COBALT™ VR MRI
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Capture Management (RV)
- Auto-adjusting sensitivity (RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA), Atrial Fibrillation (AF) burden and Fast V. Rate During AF
- CareLink connectivity

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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- TruAF™ Detection Algorithm
- Conducted AF Response (CAFR)
- AF Diagnostic (Trends and Histograms)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

Model	DVPB3D1	DVPB3D4
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
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 Manual.

CROME™ VR MRI
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Capture Management (RV)
- Auto-adjusting sensitivity (RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity

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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Conducted AF Response (CAFR)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

Model	DVPC3D1	DVPC3D4
M (g)	79	79
V (cc)	33.2	32.8
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)	40 / 40	40 / 40

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 Manual.

PRIMO MRI™ VR
SURESCAN™

DEFIBRILLATORS (ICD)

AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Auto-adjusting sensitivity (RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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 polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Conducted AF Response (CAFR)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

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
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 Manual.

MIRRO MRI™ VR
SURESCAN™

DEFIBRILLATORS (ICD)

AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Auto-adjusting sensitivity (RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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 polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

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
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 Manual.

VISIA AF MRI™ XT VR
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the 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
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

HEART FAILURE (HF) MANAGEMENT
Algorithm to help manage heart failure.
- OptiVol™ 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Conducted AF Response (CAFR)
- AF Diagnostic (Trends and Histograms)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG

**Subject to availability*

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
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 Manual.

VISIA AF™ XT VR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the 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
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

HEART FAILURE (HF) MANAGEMENT
Algorithm to help manage heart failure.
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Conducted AF Response (CAFR)
- AF Diagnostic (Trends and Histograms)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG

**Subject to availability*

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

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

VISIA AF MRI™ S VR
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the 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
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Conducted AF Response (CAFR)
- AF Diagnostic (Trends and Histograms)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

Model	DVFC3D1	DVFC3D4
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
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 Manual.

VISIA AF™ S VR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the 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
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Conducted AF Response (CAFR)
- AF Diagnostic (Trends and Histograms)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

Model	DVAC3D1
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

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

EVERA MRI® XT VR
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RV)
- Auto-adjusting sensitivity (RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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 polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

HEART FAILURE (HF) MANAGEMENT
Algorithm to help manage heart failure.
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Conducted AF Response (CAFR)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG

**Subject to availability*

Model	DVMB2D1	DVMB2D4
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
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 Manual.

EVERA® XT VR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RV)
- Auto-adjusting sensitivity (RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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 polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

HEART FAILURE (HF) MANAGEMENT
Algorithm to help manage heart failure.
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Conducted AF Response (CAFR)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG

**Subject to availability*

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	

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

EVERA MRI® S VR
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RV)
- Auto-adjusting sensitivity (RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Conducted AF Response (CAFR)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

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
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 Manual.

EVERA® S VR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RV)
- Auto-adjusting sensitivity (RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – Wavelet, Stability, Onset
- Wavelet programmable to discriminate SVT in VF zone

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Conducted AF Response (CAFR)

ADDITIONAL PACING FEATURES
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

Model	DVBC3D1	DVBC3D4
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	

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

DEFIBRILLATORS (ICD)

Dual Chamber (DR)

COBALT™ XT DR MRI
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA and RV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- Wireless telemetry
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)

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)
- ChargeSaver with ATP Before and During Charging
- Smart Mode
- Programmable RV sensing polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – PR Logic, Wavelet, Stability, Onset
- PR Logic and Wavelet programmable to discriminate SVT in VF zone

HEART FAILURE (HF) MANAGEMENT
Algorithm to help manage heart failure.
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- Updated Managed Ventricular Pacing Mode (MVP): AAI(R)DDD(R)
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

Model	DDPA2D1	DDPA2D4
M (g)	79	80
V (cc)	33.1	33.7
Size (mm) (HxWxD)	66 x 51 x 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
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 Manual.

COBALT™ DR MRI
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA and RV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- Wireless telemetry
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)

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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – PR Logic, Wavelet, Stability, Onset
- PR Logic and Wavelet programmable to discriminate SVT in VF zone

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- Updated Managed Ventricular Pacing Mode (MVP): AAI(:R)DDD(R)
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- Rate Drop Response with 2 detection algorithms
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

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

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 Manual.

CROME™ DR MRI
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Capture Management (RA and RV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity

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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – PR Logic, Wavelet, Stability, Onset
- PR Logic and Wavelet programmable to discriminate SVT in VF zone

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Atrial ATP with Reactive ATP
- ModeSwitch with 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
- Updated Managed Ventricular Pacing Mode (MVP): AAI(R)DDD(R)
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- Rate Drop Response with 2 detection algorithms
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

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
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 Manual.

PRIMO MRI™ DR
SURESCAN™

DEFIBRILLATORS (ICD)

AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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 polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – PR Logic, Wavelet, Stability, Onset
- PR Logic and Wavelet programmable to discriminate SVT in VF zone

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- Rate Drop Response with 2 detection algorithms
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

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
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 Manual.

MIRRO MRI™ DR
SURESCAN™

DEFIBRILLATORS (ICD)

AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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 polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- SVT Discriminators – PR Logic, Stability, Onset
- PR Logic programmable to discriminate SVT in VF zone

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- ModeSwitch with Post Mode Switch overdrive Pacing (PMOP)
- Non-competitive Atrial Pacing (NCAP)

ADDITIONAL PACING FEATURES
- Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

Model	DDME3D1	DDME3D4
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. / 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)

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

EVERA MRI™ XT DR
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA and RV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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 polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – PR Logic, Wavelet, Stability, Onset
- PR Logic and Wavelet programmable to discriminate SVT in VF zone

HEART FAILURE (HF) MANAGEMENT
Algorithm to help manage heart failure.
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

Model	DDMB2D1	DDBB2D4
M (g)	77	78
V (cc)	33	34
Size (mm) (HxWxD)	66 x 51 x 14	68 x 51 x 13
Connector	IS-1 / DF-1	IS-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)

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

EVERA® XT DR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA and RV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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 polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – PR Logic, Wavelet, Stability, Onset
- PR Logic and Wavelet programmable to discriminate SVT in VF zone

HEART FAILURE (HF) MANAGEMENT
Algorithm to help manage heart failure.
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

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	

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

EVERA MRI™ S DR
SURESCAN™

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA and RV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – PR Logic, Wavelet, Stability, Onset
- PR Logic and Wavelet programmable to discriminate SVT in VF zone

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- Rate Drop Response with 2 detection algorithms
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

Model	DDMC3D1	DDMC3D4
M (g)	77	78
V (cc)	33	34
Size (mm) (HxWxD)	66 x 51 x 14	68 x 51 x 13
Connector	IS-1 / DF-1	IS-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)

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

EVERA® S DR

DEFIBRILLATORS (ICD)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA and RV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT Discriminators – PR Logic, Wavelet, Stability, Onset
- PR Logic and Wavelet programmable to discriminate SVT in VF zone

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- Managed Ventricular Pacing Mode (MVP): AAI(R)<->DDD(R)
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- Rate Drop Response with 2 detection algorithms
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Leadless ECG

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. / Delivered Energy (J)	35 / 36	

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

CRT DEFIBRILLATORS (CRT-D)

COBALT™ XT HF Quad CRT-D MRI SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity

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
- Smart Mode
- Programmable RV sensing and pacing polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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.
- EffectivCRT Diagnostic and EffectivCRT During AF
- AdaptivCRT
- CardioSync Optimization Test
- Multiple Point Pacing (MPP)
- VectorExpress 2.0 LV Automated Test
- 16 LV pacing vectors with Quadripolar LV lead
- Sequential MPP
- Ventricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

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

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
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)

COBALT™ XT HF CRT-D MRI
SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity

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
- Smart Mode
- Programmable RV sensing and pacing polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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.
- EffectivCRT Diagnostic and EffectivCRT During AF
- AdaptivCRT
- CardioSync Optimization Test
- Ventricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

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

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
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)

COBALT™ HF Quad CRT-D MRI
SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity

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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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.
- AdaptivCRT
- CardioSync Optimization Test
- Multiple Point Pacing (MPP)
- VectorExpress 2.0 LV Automated Test
- 16 LV pacing vectors with Quadripolar LV lead
- Sequential MPPVentricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

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

Model	DTPB2Q1 (Quad)	DTPB2QQ (Quad)
M (g)	83	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
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)

COBALT™ HF CRT-D MRI
SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity

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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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.
- AdaptivCRT
- CardioSync Optimization Test
- Ventricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

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
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 Manual.

CROME™ HF Quad CRT-D MRI
SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity

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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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 Test
- Multiple Point Pacing (MPP)
- VectorExpress 2.0 LV Automated Test
- Ventricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Automatic and Patient-activated atrial cardioversion (CV)
- Atrial ATP with Reactive ATP
- Mode Switch with 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
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

Model	DTPC2Q1 (Quad)	DTPC2QQ (Quad)
M (g)	83	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
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 Manual.

CROME™ HF CRT-D MRI
SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- Bluetooth® Wireless Telemetry (BlueSync™ Technology)
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity

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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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 Test
- Ventricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- Automatic and Patient-activated atrial cardioversion (CV)
- Atrial ATP with Reactive ATP
- Mode Switch with Post Mode Switch overdrive Pacing (PMOP)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

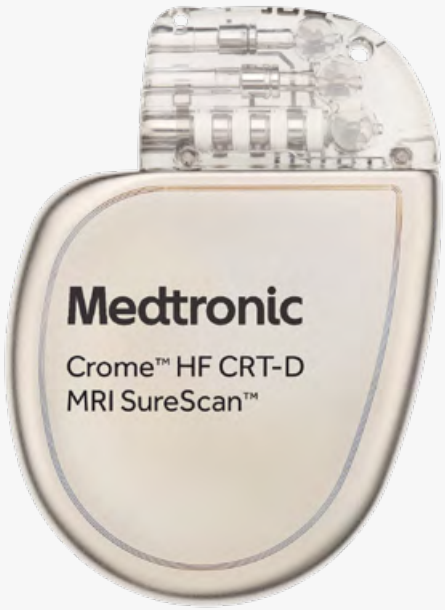
ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- Rate Drop Response with 2 detection algorithms
- Dual Zone Rate Response Pacing with Rate Profile Optimization

DIAGNOSTICS
- Quick Look II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG

**Subject to availability*

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
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 Manual.

CLARIA MRI™ QUAD CRT-D
SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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.
- EffectivCRT Diagnostic and EffectivCRT During AF
- AdaptivCRT
- CardioSync Optimization Test
- Multiple Point Pacing (MPP)
- VectorExpress 2.0 LV Automated Test
- 16 LV pacing vectors and 5 vectors for MPP with Quadripolar LV lead
- Ventricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

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

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
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)

CLARIA MRI™ CRT-D
SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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.
- EffectivCRT Diagnostic and EffectivCRT During AF
- AdaptivCRT
- CardioSync Optimization Test
- Ventricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

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

Model	DTMA2D1	DTMA2D4
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. / 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)

AMPLIA MRI™ QUAD CRT-D
SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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.
- AdaptivCRT
- CardioSync Optimization Test
- Multiple Point Pacing (MPP)
- VectorExpress LV Automated Test
- 16 LV pacing vectors and 5 vectors for MPP with Quadripolar LV lead
- Ventricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

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

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
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)

AMPLIA MRI™ CRT-D
SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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.
- AdaptivCRT
- CardioSync Optimization Test
- Ventricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

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

Model	DTMB2D1	DTMB2D4
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. / 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)

COMPIA MRI™ QUAD CRT-D
SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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 Test
- VectorExpress LV Automated Test
- 16 LV pacing vectors with Quadripolar LV lead
- Ventricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- ModeSwitch with Post Mode Switch overdrive Pacing (PMOP)
- 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 II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG

**Subject to availability*

Model	DTMC2QQ (Quad)
M (g)	81
V (cc)	35
Size (mm) (HxWxD)	74 x 51 x 13
Connector	IS-1 / IS-4 / 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)

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

COMPIA MRI™ CRT-D
SURESCAN™

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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 Test
- Ventricular Sense Response (VSR)
- Managed Ventricular Pacing (MVP)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- ModeSwitch with Post Mode Switch overdrive Pacing (PMOP)
- 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 II
- Cardiac Compass Trends
- Heart Failure Management Report
- Leadless ECG

**Subject to availability*

Model	DTMC2D1	DTMC2D4
M (g)	80	80
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)	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)

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

VIVA™ QUAD XT CRT-D

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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.
- AdaptivCRT
- CardioSync Optimization Test
- VectorExpress LV Automated Test
- 16 LV pacing vectors with Quadripolar LV lead
- Ventricular Sense Response (VSR)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

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

Model	DTBA2Q1 (Quad)	DTBA2QQ (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	

VIVA™ XT CRT-D

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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.
- AdaptivCRT
- CardioSync Optimization Test
- 4 LV pacing vectors
- Ventricular Sense Response (VSR)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

Model	DTBA2D1	DTBA2D4
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. / Delivered Energy (J)	35 / 36	

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

VIVA™ QUAD S CRT-D

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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 Test
- VectorExpress LV Automated Test
- 16 LV pacing vectors with Quadripolar LV lead
- Ventricular Sense Response (VSR)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

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

Model	DTBB2QQ (Quad)
M (g)	81
V (cc)	35
Size (mm) (HxWxD)	74 x 51 x 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
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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 Test
- 4 LV pacing vectors
- Ventricular Sense Response (VSR)
- Atrial Tracking Recovery (ATR)
- OptiVol 2.0
- Heart Failure Risk Stratification (TriageHF)*

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)
- Atrial Preference Pacing (APP)
- Conducted AF Response (CAFR)
- Non-competitive Atrial Pacing (NCAP)
- Atrial Rate Stabilization (ARS)

ADDITIONAL PACING FEATURES
- PVC Response
- Ventricular Safety Pacing (VSP)
- Ventricular Rate Stabilization (VRS)
- 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
- Leadless ECG

**Subject to availability*

Model	DTBB2D1	DTBB2D4
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. / Delivered Energy (J)	35 / 36	

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

BRAVA™ QUAD CRT-D

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- 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
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- SVT 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 Test
- VectorExpress LV Automated Test
- 16 LV pacing vectors with Quadripolar LV lead
- Ventricular Sense Response (VSR)
- Atrial Tracking Recovery (ATR)

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- 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 II
- Cardiac Compass Trends
- Leadless ECG

Model	DTBC2Q1 (Quad)	DTBC2QQ (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	

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

BRAVA™ CRT-D

CRT DEFIBRILLATORS (CRT-D)

COMPLETELY AUTOMATIC – SIMPLE TO USE
Continuously adapts key device parameters to ensure the therapies are optimized.
- TherapyGuide
- Capture Management (RA, RV and LV)
- Auto-adjusting sensitivity (RA and RV)
- CareAlert sounds incl. Lead Integrity Alert (LIA)
- CareLink connectivity
- Wireless telemetry

VT/VF MANAGEMENT
Therapies and algorithms to help manage ventricular tachyarrhythmias.
- Ventricular cardioversion/defibrillation
- Ventricular antitachycardia pacing (ATP)
- ChargeSaver with ATP Before and During Charging
- Smart Mode
- Programmable RV sensing and pacing polarity
- Programmable HV shocking vectors
- 3 detection zones allowing VF and FVT zone overlap
- T-Wave and RV Lead Noise Discriminators
- Confirmation+
- 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 Test
- 4 LV pacing vectors
- Ventricular Sense Response (VSR)
- Atrial Tracking Recovery (ATR)

AT/AF MANAGEMENT
Therapies and algorithms to help manage atrial tachyarrhythmias.
- 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 II
- Cardiac Compass Trends
- Leadless ECG

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. / Delivered Energy (J)	35 / 36	

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

IPG LEADS AND SYSTEMS

CAPSURE SENSE MRI™
SURESCAN™

PACING LEADS AND DELIVERY SYSTEMS

GENERAL
- Steroid eluting
- Lengths for 4574: 45, 53 (cm)
- Lengths for 4074: 52, 58 (cm)

CONNECTOR
- IS1 Bipolar

DIAMETER
- Body: 1.8 mm (5.3 Fr)

ELECTRODES
- Porous Ring Shape
- Electrode Surface Area
  - Tip: 2.5 mm^2
  - Ring: 24.0 mm^2
- Tip-to-Ring Spacing for 4574: 9 mm
- Tip-to-Ring Spacing for 4074: 17 mm

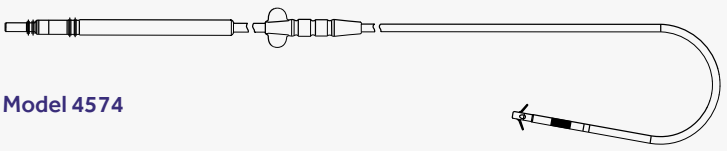
MATERIAL
- Insulator: Polyurethane (outer 55D), Silicone (inner)
- Conductor: MP35N Nickel Alloy
- Tip Electrode: Platinum/Iridium with porous Titanium Nitride coating
- Ring Electrode: Platinum Alloy with porous Titanium Nitride coating

STYLETS WITH 4574
- Inserted
  - 1 gray straight
- Packaged
  - 2 purple straight

STYLETS WITH 4074
- Inserted
  - 1 gray straight
- Packaged
  - 1 gray straight
  - 2 purple straight

Model	4574	4074
Fixation	Passive / Tines	
Shape / Chambers	J-shaped / RA	Straight / 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 4574

Model 4074

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

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
  - Helix: 4.2 mm^2
  - Ring: 22.0 mm^2
- Tip-to-Ring Spacing: 10.0 mm

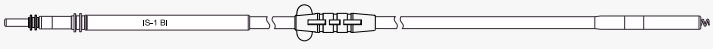
MATERIAL
- Insulator: Polyurethane (outer 55D), Silicone with Siloxane® treatment (inner)
- Conductor: MP35N Nickel Alloy
- Helix Electrode: Platinum Alloy with porous Titanium Nitride coating
- Ring Electrode: Platinum Alloy with porous Titanium Nitride coating
- Connector Ring: Stainless steel
- Connector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

STYLETS
- Inserted
  - 1 gray straight
- Packaged
  - 1 gray straight
  - 1 blue straight
  - 1 gray J-shaped*
  - 1 blue J-shaped*
  - 1 white J-shaped*

* Not available for leads 65 or 85 cm

Model	4076
Fixation	Active/ Screw-in
Shape / Chambers	Straigh / 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

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

CAPSUREFIX NOVUS MRI®
SURESCAN™

PACING LEADS AND DELIVERY SYSTEMS

GENERAL
- Steroid eluting
- Standard Lengths: 35, 45, 52, 58, 65, 85 (cm)

CONNECTOR
- IS1 Bipolar

DIAMETER
- Body: 2.0 mm (6.1 Fr)

ELECTRODES
- Extendable/Retractable Helix Screw
- Helix Length: 1.8 mm
- Electrode Surface Area
  - Helix: 4.2 mm^2
  - Ring: 22.0 mm^2
- Tip-to-Ring Spacing: 10.0 mm

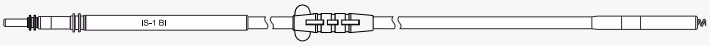
MATERIAL
- Insulator: Silicone with Siloxane® treatment (inner)
- Conductor: MP35N Nickel Alloy
- Helix Electrode: Platinized Platinum Alloy
- Ring Electrode: Platinized Platinum Alloy
- Connector Ring: Stainless steel
- Connector Pin: Stainless steel

STYLETS
- Inserted
  - 1 gray straight
- Packaged
  - 1 gray straight
  - 1 blue straight
  - 1 gray J-shaped*
  - 1 blue J-shaped*
  - 1 white J-shaped*

* Not available for leads 65 or 85 cm

Model	5076
Fixation	Active/ Screw-in
Shape / Chambers	Straigh / 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

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

SELECTSECURE® MRI
SURESCAN™

PACING LEADS AND DELIVERY SYSTEMS

GENERAL
- Steroid eluting
- Standard Lengths: 59, 69, 74 (cm)

CONNECTOR
- IS1 Bipolar

DIAMETER
- Body: 1.4 mm (4.1 Fr)

ELECTRODES
- Fixed Screw
- Helix Length: 1.8 mm
- Electrode Surface Area
  - Helix: 3.56 mm^2
  - Ring: 16.9 mm^2
- Tip-to-Ring Spacing: 9.0 mm

RECOMMENDED GUIDE CATHETER*
- C315 or C304

*Not included in the package – to be ordered separately

Model	3830
Fixation	Active/ Screw-in
Shape / Chambers	Straigh / RA and RV
Polarity	Bipolar
Insulation	Polyurethane
Introducer Size with/out Guidewire	5.5 Fr Inner Diameter

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 3830

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

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: Stainless steel
- Length: 120 cm
- Diameter: 0.09 cm, 0.035 in

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

Model C304-HIS

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

C315
CATHETER

PACING LEADS AND DELIVERY SYSTEMS

GENERAL
- Fixed shape guide catheters for SelectSecure® Model 3830 leads
- Package includes only catheter and dilator
- Package does not include introducer, guide wire, slitter, needle nor syringe
- To be ordered separately
- Use of introducer is optional – C315 catheter and dilator can be produced directly into the vein

CATHETER DILATOR
- Material: Polyether block amide
- Integrated valve
- In-line hub
- Hydrophilic coating
- Compatible with a 7 Fr Introducer
- Compatible with:
  - Universal II slitter 6230 UNI (to be ordered separately)
  - Adjustable slitter 6232 ADJ (to be ordered separately)

DILATOR
- Compatible with a 0.038" guide wire

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)		

Model S4

Model S5

Model S10

Model J

Model H20

Model H40

Model HIS

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

CAPSURE® EPI

PACING LEADS AND DELIVERY SYSTEMS

GENERAL
- Steroid eluting
- Lengths for 4965: 25, 35, 50 (cm)
- Lengths for 4968: 25, 35, 60 (cm)

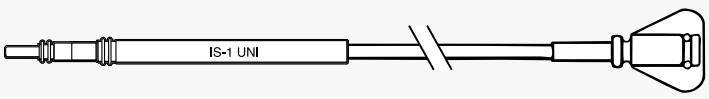
CONNECTOR
- IS1 Unipolar (4965)
- IS1 Bipolar (4968)

DIAMETER
- Body for 4965: 1.5 mm (4.5 Fr)
- Body for 4968: 2.5 mm (8.0 Fr)

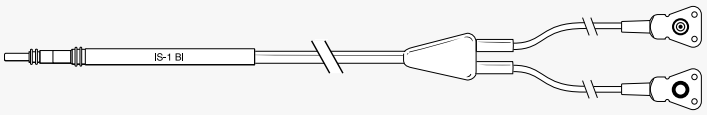
ELECTRODES
- Hemispherical, Platinized,,Porous
- Electrode Surface Area for 4965
  - Cathode: 14 mm^2
- Electrode Surface Area for 4968
  - Cathode: 6 mm^2
  - Anode: 14 mm^2

MATERIAL
- Insulator: Silicone
- Conductor: MP35N Nickel Alloy
- Electrode: Platinized Platinum

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



Model 4965



Model 4968

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

SCREW-IN

PACING LEADS AND DELIVERY SYSTEMS

GENERAL
- Lengths: 25, 35, 53 (cm)

CONNECTOR
- IS1 Unipolar

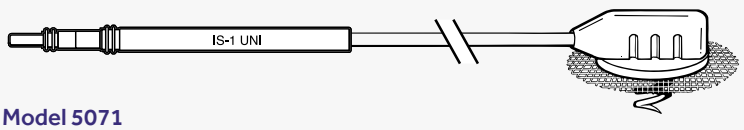
DIAMETER
- Body: 2.2 mm (6.5 Fr)

ELECTRODES
- Helical Screw
- Helix Length: 1.8 mm^2
- Electrode Surface Area
  - Cathode: 6.6 mm^2

MATERIAL
- Insulator: Silicone
- Conductor: MP35N Nickel Alloy
- Electrode: Platinized Alloy

EPICARDIAL IMPLANT TOOL 10626 – SOLD SEPARATELY
- Device Lenght
  - Overall: 350 mm
  - Shaft: 180 mm
- Shaft Angle: 65°
- Material
  - Acetal resin and stainless steel

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



Model 5071

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

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

SPRINT QUATTRO® MRI
SURESCAN™

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL
- Steroid eluting
- Standard Length: for 6946M: 55, 62 (cm)

DIAMETER
- Body: 2.8 mm (8.6 Fr)

ELECTRODES
- Electrode Surface Area
  - Tip: 2.5 mm^2
  - Ring: 25.2 mm^2
  - RV Coil: 614 mm^2
  - SVC Coil: 860 mm^2
- Electrode Lengths
  - RV Coil: 57 mm
  - SVC Coil: 80 mm
- Tip-to-Ring Spacing: 8 mm
- Tip-to-RVCoil Spacing: 12 mm

MATERIAL
- Insulator: Silicone, PTFE, ETFE
- Conductors: MP35N
- Tubing Design: Multilumen with Compression Lumens
- Tip and Ring Electrodes: Sintered (Tip) Platinum/Iridium alloy with Titanium Nitride (TiN) coating
- RV/SVC coils: Platinum-clad Tantalum

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

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

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

SPRINT QUATTRO®

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL
- Steroid eluting
- Standard Length: for 6946M: 72 (cm)

DIAMETER
- Body for 6946M: 2.8 mm (8.6 Fr)

ELECTRODES
- Electrode Surface Area
  - Tip: 2.5 mm^2
  - Ring: 25.2 mm^2
  - RV Coil: 614 mm^2
  - SVC Coil: 860 mm^2
- Electrode Lengths
  - RV Coil: 57 mm
  - SVC Coil: 80 mm
- Tip-to-Ring Spacing: 8 mm
- Tip-to-RVCoil Spacing: 12 mm

MATERIAL
- Insulator: Silicone, PTFE, ETFE
- Conductors: MP35N
- Tubing Design: Multilumen with Compression Lumens
- Tip and Ring Electrodes: Sintered (Tip) Platinum/Iridium alloy with Titanium Nitride (TiN) coating
- RV/SVC coils: Platinum-clad Tantalu

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

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

Model 6946M

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

SPRINT QUATTRO SECURE S MRI™
SURESCAN™

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 (8.6 Fr)

ELECTRODES
- Electrode Surface Area
  - Tip: 5.7 mm^2
  - Ring: 25.2 mm^2
  - RV Coil: 614 mm^2
- Electrode Lengths
  - RV Coil: 57 mm
- Tip-to-Ring Spacing: 8 mm
- Tip-to-RVCoil Spacing: 12 mm

MATERIAL
- Insulator: Silicone, PTFE, ETFE
- Conductors: MP35N
- Tubing Design: Multilumen with Extra Lumens
- Tip and Ring Electrodes: Platinized platinum alloy
- RV coil: Platinum-clad Tantalum

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

Model	6935	6935M
Fixation	Active/ Screw-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	

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 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 Manual.

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 (8.6 Fr)

ELECTRODES
- Electrode Surface Area
  - Tip: 5.7 mm^2
  - Ring: 25.2 mm^2
  - RV Coil: 614mm^2
- Electrode Lengths
  - RV Coil: 57 mm
- Tip-to-Ring Spacing: 8 mm
- Tip-to-RVCoil Spacing: 12 mm

MATERIAL
- Insulator: Silicone, PTFE, ETFE
- Conductors: MP35N
- Tubing Design: Multilumen with Extra Lumens
- Tip and Ring Electrodes: Platinized platinum alloy
- RV coil: Platinum-clad Tantalum

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

Model	6935	6935M
Fixation	Active/ Screw-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 Manual.

SPRINT QUATTRO SECURE MRI™
SURESCAN™

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL
- Steroid eluting
- Lengths for 6947: 58, 65 (cm)
- Lengths for 6947M: 55, 62 (cm)

DIAMETER
- Body: 2.8 mm (8.6 Fr)

ELECTRODES
- Electrode Surface Area
  - Tip: 5.7 mm^2
  - Ring: 25.2 mm^2
  - RV Coil: 614mm^2
  - SVC Coil: 860mm^2
- Electrode Lengths
  - RV Coil: 57 mm
  - SVC Coil: 80 mm
- Tip-to-Ring Spacing: 8 mm
- Tip-to-RVCoil Spacing: 12 mm

MATERIAL
- Insulator: Silicone, PTFE, ETFE
- Conductors: MP35N
- Tubing Design: Multilumen with Extra Lumens
- Tip and Ring Electrodes: Platinized platinum alloy
- RV/SVC coil: Platinum-clad Tantalum

STYLETS
- Inserted
  - 1 purple straight
- Packaged
  - 2 purple straight
  - 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	

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

Model 6947M

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

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 Fr)

ELECTRODES
- Electrode Surface Area
  - Tip: 5.7 mm^2
  - Ring: 25.2 mm^2
  - RV Coil: 614 mm^2
  - SVC Coil: 860 mm^2
- Electrode Lengths
  - RV Coil: 57 mm
  - SVC Coil: 80 mm
- Tip-to-Ring Spacing: 8 mm
- Tip-to-RVCoil Spacing: 12 mm

MATERIAL
- Insulator: Silicone, PTFE, ETFE
- 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 purple straight
  - 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	

Model 6947

Model 6947M

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

TRANSVENE LEAD

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

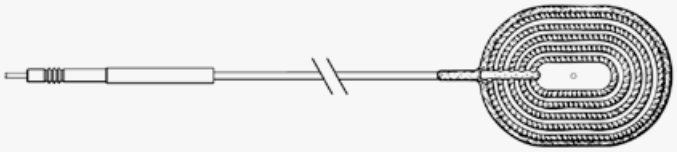
GENERAL
- Standard Length: 50 (cm)

DIAMETER
- Body: 2.5 mm (7.5 Fr)

ELECTRODES
- Electrode Surface Area
  - 6721S: 370 mm^2
  - 6721M: 660 mm^2
  - 6721ML: 840 mm^2

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

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)

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

TRANSVENE LEAD

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

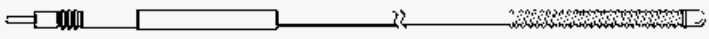
GENERAL
- Standard Lengths: 35, 52, 58, 110 (cm)

DIAMETER
- Body: 1.8 mm (7.5 Fr)

ELECTRODES
- Electrode Surface Area
  - Coil: 160 mm^2
- Electrode Lenght:
  - Coil: 80 mm

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

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

SUBCUTANEOUS LEAD

DEFIBRILLATION LEADS AND DELIVERY SYSTEMS

GENERAL
- Standard Lengths: 41, 58 (cm)

DIAMETER
- Body: 2.5 mm (7.5 Fr)

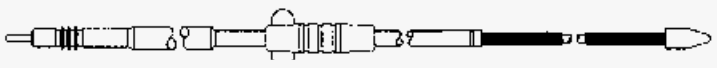
ELECTRODES
- Electrode Surface Area
  - Coil: 500 mm^2
- Electrode Lenght:
  - Coil: 250 mm

MATERIAL
- Insulator: Silicone
- 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
  - Tunneling: 338 mm
- Material
  - Stainless Steel
- Tunneling 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

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

LEFT-HEART LEADS AND DELIVERY SYSTEMS

ATTAIN ABILITY™ MRI
SURESCAN™

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 mm^2
  - Ring: 5.8 mm^2

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: Stainless Steel
- Connector Ring: Stainless Steel

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

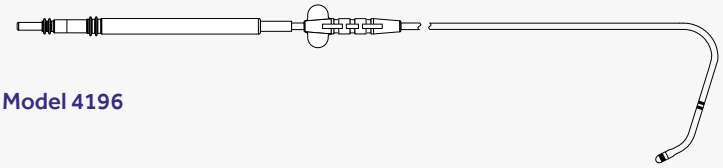
RECOMMENDED STYLET
- Diameter: 0.014 to 0.016 in

ACCESSORIES PACKAGED WITH LEAD
- Lead with Anchoring Sleeve
- Guide Wire Insertion Tool
- Guide Wire Steering Handle
- Guide Wire Clip
- 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

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

ATTAIN ABILITY™ PLUS MRI
SURESCAN™

LEFT-HEART LEADS AND DELIVERY SYSTEMS

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

CONNECTOR
- IS1 Bipolar

DIAMETER
- Body: 1.77 mm (5.3 Fr)

ELECTRODES
- Dual electrode, 21 mm spacing
- Electrode Surface Area
  - Tip: 5.8 mm^2
  - Ring: 5.8 mm^2

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: Stainless Steel
- Connector Ring: Stainless Steel

RECOMMENDED GUIDE WIRE
- Diameter: 0.014 to 0.018 in
- Attain Hybrid GWR419678, Purple knob, 98 cm – for 4296-78
- Attain Hybrid GWR419688, Purple knob, 108 cm – for 4296-88

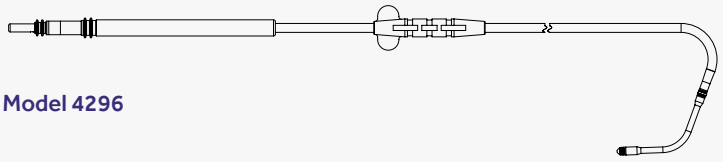
RECOMMENDED STYLET
- Diameter: 0.014 to 0.016 in

ACCESSORIES PACKAGED WITH LEAD
- Lead with Anchoring Sleeve
- Guide Wire Insertion Tool
- Guide Wire Steering Handle
- Guide Wire Clip
- Stylets

STYLETS
- Packaged
  - 2 gray straight
  - 2 purple straight

Model	4296
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 4296

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

ATTAIN ABILITY™ STRAIGHT MRI
SURESCAN™

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 mm^2
  - Ring: 5.8 mm^2

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: Stainless Steel
- Connector Ring: Stainless Steel

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

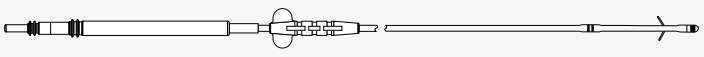
RECOMMENDED STYLET
- Diameter: 0.014 to 0.018 in

ACCESSORIES PACKAGED WITH LEAD
- Lead with Anchoring Sleeve
- Guide Wire Insertion Tool
- Guide Wire Steering Handle
- Guide Wire Clip
- Stylets

STYLETS
- Packaged
  - 2 gray straight
  - 2 purple 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

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

ATTAIN PERFORMA™ 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 mm^2
- 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

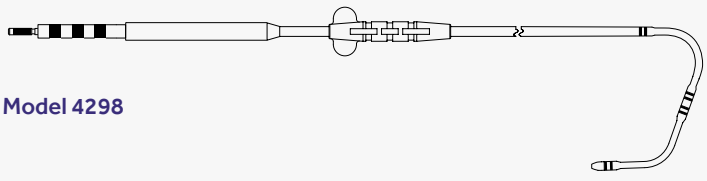
RECOMMENDED GUIDE WIRE
- Diameter: 0.014 to 0.018 in
- Attain Hybrid GWR419578, Orange knob, 98 cm – for 4298-78
- Attain Hybrid GWR419488, Orange knob, 108 cm – for 4298-88

ACCESSORIES PACKAGED WITH LEAD
- Lead with Anchoring Sleeve
- Guide Wire Insertion Tool
- Guide Wire Steering Handle
- Guide Wire Clip
- 2 AccuRead 2.0 analyzer cable interface tools
- Stylets

STYLETS
- Packaged
  - 2 gray straight
  - 2 purple straight

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)



Model 4298

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

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 mm^2
- 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

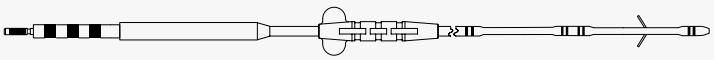
RECOMMENDED GUIDE WIRE
- Diameter: 0.014 to 0.018 in
- Attain Hybrid GWR419678, Orange knob, 98 cm – for 4398-78
- Attain Hybrid GWR419688, Orange knob, 108 cm – for 4398-88

ACCESSORIES PACKAGED WITH LEAD
- Lead with Anchoring Sleeve
- Guide Wire Insertion Tool
- Guide Wire Steering Handle
- 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 Manual.

ATTAIN PERFORMA™ S 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 mm^2
- 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

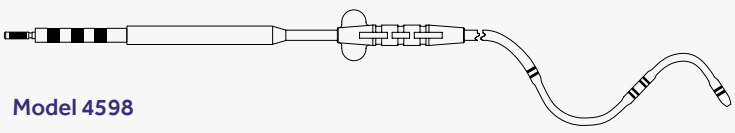
RECOMMENDED GUIDE WIRE
- Diameter: 0.014 to 0.018 in
- Attain Hybrid GWR419678, Orange knob, 98 cm – for 4598-78
- Attain Hybrid GWR419688, Orange knob, 108 cm – for 4598-88

ACCESSORIES PACKAGED WITH LEAD
- Lead with Anchoring Sleeve
- Guide Wire Insertion Tool
- Guide Wire Steering Handle
- Guide Wire Clip
- 2 AccuRead 2.0 analyzer cable interface tools
- Stylets

STYLETS
- Packaged
  - 2 gray straight
  - 2 purple straight

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)



Model 4598

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

ATTAIN STABILITY™ QUAD MRI
SURESCAN™

LEFT-HEART LEADS AND DELIVERY SYSTEMS

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

CONNECTOR
- IS4 -LLLL

DIAMETER
- Body: 1.47 mm (4.4 Fr)
- Helix: 1.87 mm (5.6 Fr)

ELECTRODES
- Quadripolar electrode, 21 mm spacing
- Electrodes Surface Area
  - All: 5.8 mm^2
  - Ring: 5.8 mm^2
- Distance between electrodes:
  - LV1-LV2: 21 mm
  - LV2-LV3: 1.3 mm
  - LV3-LV4: 21 mm
  - LV3 – Helix tip: 10 mm

HELIX
- Fixed, side
- Not electrically active
- Length – ¾ turn exposed lenght
- Distance from Helix tip to lead body – 0.25 mm
- Helix location – 38.1 mm proximal to tip nose

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
- Helix: Platinum/Iridium alloy
- Connector Pin: MP35N
- Connector Ring: MP35N

RECOMMENDED GUIDE WIRE
- Diameter: 0.014 to 0.018 in
- Attain Hybrid GWR419578, Blue knob, 98 cm
- Attain Hybrid GWR419588, Blue knob, 108 cm

ACCESSORIES PACKAGED WITH LEAD
- Lead with Anchoring Sleeve
- Guide Wire Insertion Tool
- Guide Wire Steering Handle
- Guide Wire Clip
- Stylets

STYLETS
- Packaged
  - 2 gray straight
  - 2 purple straight
  - 2 blue J-shaped

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

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

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 slitter
- To be ordered separately

CATHETER
- Material: Polyether block amide, polyamide 12
- Hydrophilic Coating distal ⅓ of the outer shaft

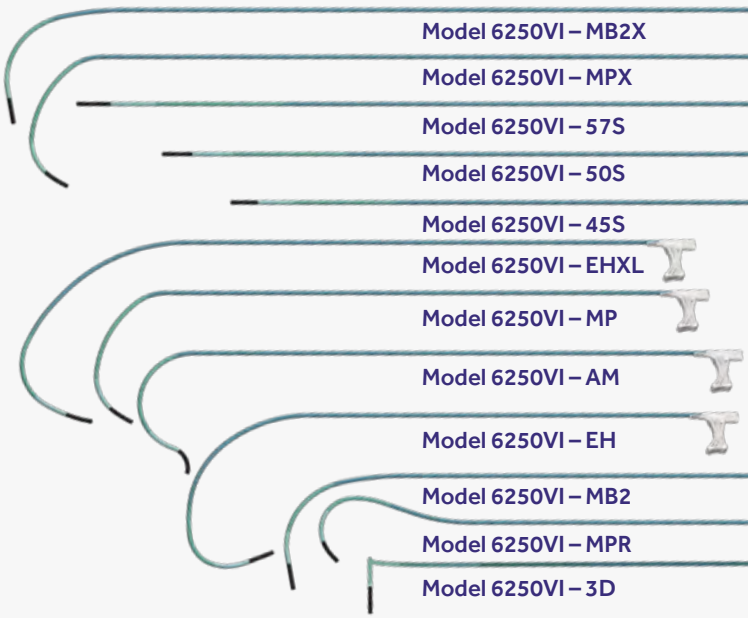
CATHETER DILATOR
- Material: Polyethylene
- Inner diameter: 0.96 mm (2.8 Fr)
- Outer diameter: 2.4 mm (7.1 Fr)

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-EH	6250VI-EXHL	6250VI-3D
Description	Multi-purpose	Multi-purpose extra	Multi-purpose right	Extended hook	Extended hook extra large	3-D (for right-sided implant
Usable Length (cm)	50	50	45	50	57.5	45
Min. Inner Diameter (mm (Fr))	2.4 (7.2)					
Max. Outer Diameter Proximal / Distal (mm (Fr))	3.0 (9.0) / 2.8 (8.5)					



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

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 12
- Hydrophilic Coating distal 1/3 of the outer shaft

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

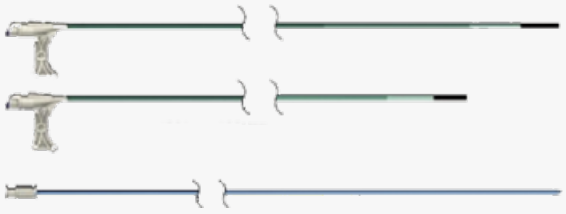
SUREVALVE INTEGRATED VALVE
- Material: Polypropylene with SBC overmold

VALVE TOOL
- Material: Polypropylene with SBC overmold

MEDTRONIC UNIVERSAL II 6230UNI SLITTER
- Material: Stainless steel, polycarbonate

GUIDEWIRE
- Material: Stainless steel
- 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

Model 6250VIC

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

ATTAIN SELECT™ II SUREVALVE™

LEFT-HEART LEADS AND DELIVERY SYSTEMS

GENERAL
- Delivery Catheter System for Sub-Selection in a wide variety of patient anatomies
- 7 Fr sub-selection catheters capable of delivering 4 Fr and 5.3 Fr leads directly to vein branches
- Petite Length Attain Select II: 57 cm catheters for 78 cm lead delivery
- Compatible leads:
  - Body max outer diameter: 1.77 mm (5.3 Fr)
  - Electrode tip max outer diameter: 1.88 mm (5.6 Fr)
- Other transvenous compatible devices:
  - Delivery catheter max outer diameter: 1.85 mm (5.5 Fr)
  - Straight Blue Inner Catheter max outer diameter: 0.89 mm (2.7 Fr)
- Package does not include guidewire nor slitter
  - To be ordered separately

CATHETER
- Material: Polyether block amide, polyamide 12

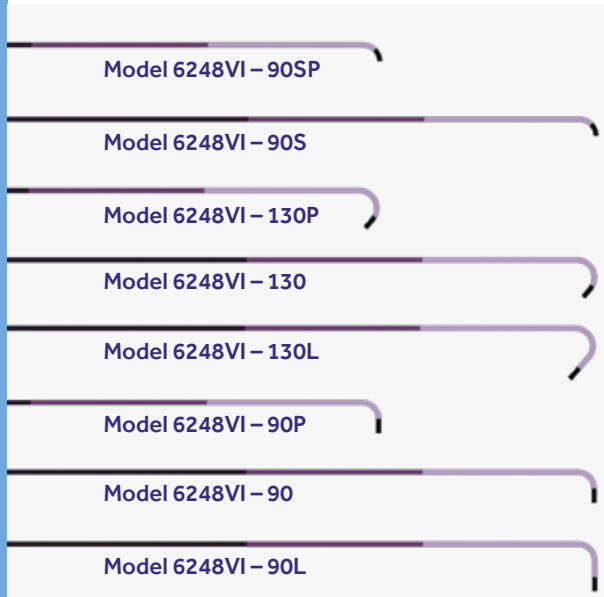
STRAIGHT BLUE INNER CATHETER
- Provides a soft distal tip and increased curve shape control
- Material: Polyether block amide
- Usable length: 80 cm
- Inner diameter: 1.0 mm (3.0 Fr)
- Outer diameter: 1.85 mm (5.5 Fr)

SUREVALVE INTEGRATED VALVE
- Material: Polypropylene with SBC overmold

VALVE TOOL
- Material: Polypropylene with SBC overmold

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)	65			
Compatible Outer Guide Catheter Max Length (cm)	57.5			
Compatible Lead Min Length (cm)	88			
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
Description	130° long curved tip	90° short curved tip	90° curved tip	130° curved tip
Usable Length (cm)	65	57 (Petite)	57 (Petite)	57 (Petite)
Compatible Outer Guide Catheter Max Length (cm)	57.5	50		
Compatible Lead Min Length (cm)	88	78		
Inner Diameter (mm (Fr))	1.9 (5.7)			
Outer Diameter (mm (Fr))	2.4 (7.2)			



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

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
- Material: Polyether block amide

CATHETER DILATOR
- Material: Polyethylene
- Length: 60 cm
- Outer diameter: 2.3 mm (7.0 Fr)

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

ADJUSTABLE HEMOSTASIS VALVE
- Inner Diameter: 15 Fr max

MEDTRONIC UNIVERSAL SLITTER 6230UNI
- Material: Stainless steel, polycarbonate

NEEDLE
- Dimensions: 18 gauge, 1.2 mm

SYRINGE
- Volume: 12 cc

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

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

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
- Catheter Body: 1.9 mm

BALLOON
- Max Inflation Capacity: 1.25 cc
- Inflated Balloon Diameter: 10 mm

MATERIAL
- Catheter Body: Polyurethane
- Balloon: Latex

RECOMMENDED GUIDE WIRE
- Diameter: 0.025 in (0.64 mm)

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

Model 6215

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

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
- Handle: Polycarbonate
- Blade: Stainless Steel
- Trigger in 6232ADJ: ABS

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

Model 6232ADJ

Model 6230UNI

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

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

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

ATTAIN HYBRID®
GUIDE WIRE

LEFT-HEART LEADS AND DELIVERY SYSTEMS

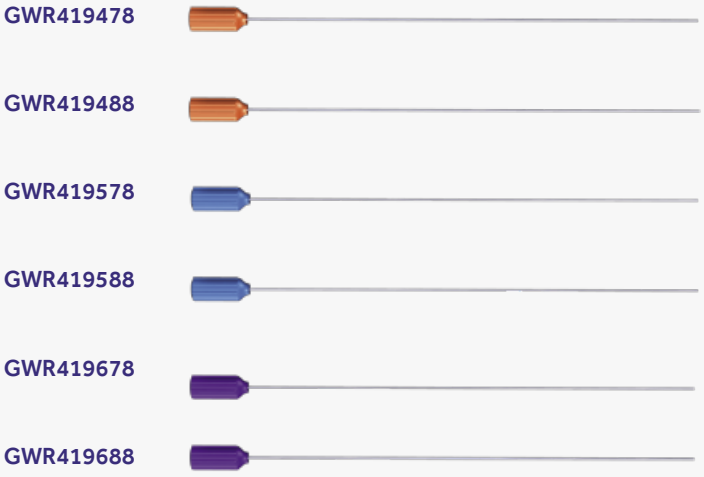
GENERAL
- Guide wire with stylet features
- Straightens the cants of the Attain OTW leads
- Optimizes lead trackability

DIAMETER
- Body: 0.014 in

MATERIAL
- Core wire: Stainless Steel
- 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 Manual.

ACCESSORIES

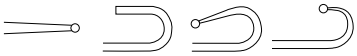
MEDTRONIC STYLETS

ACCESSORIES

GENERAL
- Stylets for use with transvenous leads
- Package includes:
  - 2 straight stylets (sterile)
  - 2 stylet guides (sterile)

MATERIAL
- Wire: Stainless Steel
- Knob: Plastic

Model	6057	6082	6054	6093
Knob Color	Blue	Gray	Rust	Purple
Shape				
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
Knob Color	Gray	White	Gray	Blue
Shape				
Diameter (in)	0.014	0.014	0.014	0.014
Distal End	Extended taper, Ball-tipped	Blunt	Extended taper, Ball-tipped	
# in kit	15	2	2	2
Lengths (cm)	75, 85	45, 53, 58	45, 53, 58, 65	45, 52, 58

* Hemostasis valve compatible (downsized knobs)

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

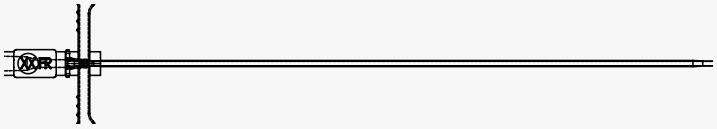
PEELABLE
INTRODUCERS

ACCESSORIES

GENERAL
- Peelable Percutaneous Lead Introducers (PLI) for use with transvenous leads

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			



Model 62xx-S1

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

SAFESHEATH CSG®
WORLEY BRAIDED CORE INTRODUCERS

ACCESSORIES

GENERAL
- SafeSheath CSG® Worley Braided Core Introducer System for Coronary Sinus Access

PACKAGE INCLUDES:
- 1 tear-away sheath w/side port
- 1 dilator
- 1 needle (18 gauge)
- 1 syringe (12 cc)
- 1 guidewire (135 cm)
- 1 curved guiding core
- 1 transvalvular insertion tool (TVI) (7 Fr)

Model	CSGWORBC19M	CSGWORLBC19M	CSGWORBC29M
Size (Fr)		9	
# of kits		5	
Lenght (cm)	40	50	50

Model CSGWORLBC19M

Model CSGWORBC19M

Model CSGWORBC29M

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

SAFESHEATH CSG®
EXTRUDED CORE INTRODUCERS

ACCESSORIES

GENERAL
- SafeSheath CSG® Worley Braided Core Introducer System for Coronary Sinus Access

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

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

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)

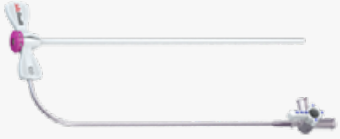
Model	SS5	SS6	SS7	SS8	SS85
Knob Color	5	6	7	8	8.5
# in kit			5		
Lengths (cm)			13		

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

Model	SSL9	SSL10	SSL105	SSL11
Knob Color	9	10	10.5	11
# in kit		5		
Lengths (cm)		23		

Model SSx



Model SSLx

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

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 pop-out during insertion

Model	10729 -001	10729 -002	10729 -003	10729 -004
Size (Fr)	7.0	8.0	9.0	10.5
# of kits	1			
Sheath Length (cm)	13	15	15	15
Dilator Length (cm)	18	21.5	21.5	21.5

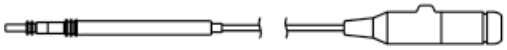
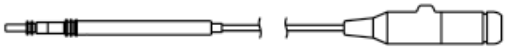
Model	10730 -001	10730 -002	10730 -003	10730 -004
Size (Fr)	7.0	8.0	9.0	10.5
# of kits	5			
Sheath Length (cm)	13	15	15	15
Dilator Length (cm)	18	21.5	21.5	21.5

Model 10729-00x
Model 10730-00x

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

PACING LEAD ADAPTORS

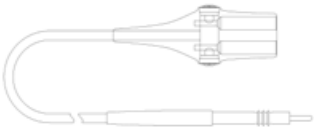
ACCESSORIES

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 Manual.

ICD LEAD ADAPTORS

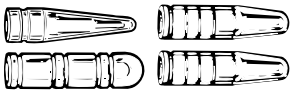
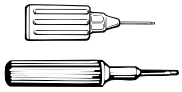
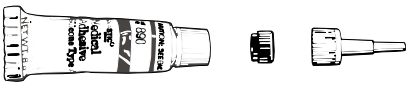
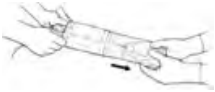
ACCESSORIES

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 Manual.

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	
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 II™

INSERTABLE CARDIAC MONITORS (ICM)

GENERAL
- Insertable Cardiac Monitor (ICM) with 4.5 years longevity*
- TruRhythm™ Detection
- Pause Detection Algorithm
- PVC Detection Algorithm
- Automatically Detected Episodes: up to 27 min
- Patient-Activated Symptom: up to 30 min
- Symptom/Auto Correlated Episodes: up to 4 min
- CareLink connectivity
- Smart Memory Management
- Bluetooth® Wireless Telemetry (BlueSync™ Technology): two-way communication
- Remote programming capability

ARRHYTHMIA DETECTION
- Pause/Asystole
- Bradycardia
- Tachycardia (VT/FVT)
- Atrial Tachycardia (AT) / Atrial Fibrillation (AF) with enhanced detection

DIAGNOSTICS
- Quick Look
- Cardiac Compass:
  - Programming and interrogation events
  - Patient symptoms
  - AT/AF total time per day
  - Ventricular rate during AT/AF
  - Average ventricular rate
  - Patient activity
  - Heart rate variability
  - Ventricular rate during AT/AF histogram (time in or out od AT/AF)
  - PVC

COMPATIBLE DEVICES
- In-clinic Programmer
  - Reveal LINQ™ Mobile Manager
- Patient Monitor
  - MyCareLink Heart™ Mobile App, or MyCareLink Relay™ Home Communicator
- Symptom Marker
  - MyCareLink Heart™ Mobile App, or Patient Assistant PA97000 (for MyCareLink Relay™ Home Communicator)

PACKAGE CONTENT
- LINQ II™ Insertable Cardiac Monitor (preloaded in the included insertion tool handle)
- Incision tool
- Insertion tool plunger
- Insertion tool handle
- Product documentation

** Nominal settings*

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

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

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

REVEAL LINQ™

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
  - Up to 14 min of ECG prior to activation
- CareLink connectivity

ARRHYTHMIA DETECTION
- Pause/Asystole
- Bradycardia
- Tachycardia (VT/FVT)
- Atrial Tachycardia (AT) / Atrial Fibrillation (AF) with enhanced detection

DIAGNOSTICS
- Quick Look
- Cardiac Compass Trends:
  - AT/AF burden
  - Ventricular rate during AT/AF
  - Day and night average ventricular rate
  - Daily activity
  - Heart rate variability
- AT/AF summary
- Rate histograms
- Episode list
- Episode counters

PATIENT ASSISTANT – MODEL PA96000
- 10cmx4cmx1cm
- Record button - captures patient-activated episodes
- Non-replaceable battery chosen for size, cost, and energy capacity
- Designed to operate at least 200 operations over 3 years plus shelf life and leakage

PACKAGE CONTENT
- Reveal LINQ™ ICM (preloaded in the included insertion tool)
- Incision tool
- Insertion tools
- Reveal PA96000

** Nominal settings*

Model	LNQ11
M (g)	2.5 ± 0.5
V (cc)	1.2
Size (mm)	44.8 x 7.2 x 4.0

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

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

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
- Up to 30 events in total
- CareLink connectivity
- Reveal Vector Check for optimal positioning

ARRHYTHMIA DETECTION
- Asystole
- Bradycardia
- Ventricular Tachycardia (VT) / Fast Ventricular Tachycardia (FVT)
- Atrial Tachycardia (AT) / Atrial Fibrillation (AF)

DIAGNOSTICS
- Quick Look
- Cardiac Compass Trends:
  - AT/AF total time per day
  - Ventricular rate during AT/AF
  - Day and night average ventricular rate
  - Patient activity
  - Heart rate variability
- AT/AF summary
- Rate histograms
- Episode list
- Episode counters

PATIENT ASSISTANT – MODEL PA96000
- 10cmx4cmx1cm
- Record button - captures patient-activated episodes
- Non-replaceable battery chosen for size, cost, and energy capacity
- Designed to operate at least 200 operations over 3 years plus shelf life and leakage

PACKAGE CONTENT
- Reveal XT ICM
- Conductive patches for Vector Check
- Reveal PA96000

** Nominal settings*

Model	9529
M (g)	15
V (cc)	9
Size (mm)	62 x 19 x 8

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

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

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 transmissions
- Technical support
- CareLink clinician website upgrades
- CareLink monitor software upgrades
- Training 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-certified
- Hosted in Europe at SAS70
- Certified site
- Managed by Medtronic personnel

DIEN CODE	SSA4-CLNETSERVICE (varies per country)

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

MYCARELINK HEART ™ MOBILE APP

PATIENT MANAGEMENT SOLUTIONS

GENERAL

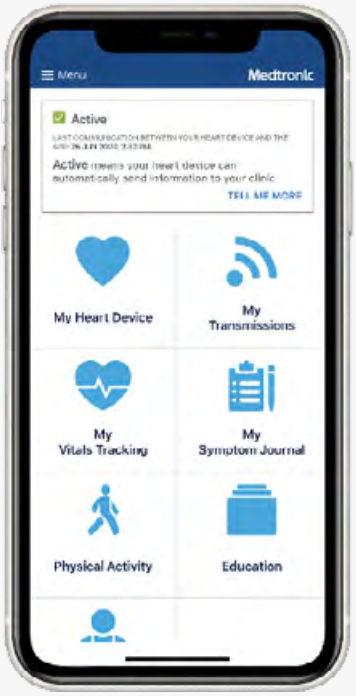
- Patient app for remote monitoring of Medtronic BlueSync™ enabled cardiac implantable devices in the Medtronic CareLink™ Network
- Replaces the traditional bedside monitor to securely transfer heart device data using patient smartphone or tablet
- Best option for patients owning compatible iOS and Android smart device[1] 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 design
- 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 devices

CONNECTIVITY AND TRANSMISSIONS
- Transmission data sent via MCL Smart App installed on patient's / caregiver's smart device
- Bluetooth connection between the reader and the smart device
- Inductive telemetry between the implanted device and the reader
- Designed for manual transmissions
- Intended to support non-wireless implantable devices

POWER SUPPLY
- Battery powered
  - 3x AA alkaline batteries

PHYSICAL CHARACTERISTICS
- Reader with 3 indicator LED lights
- App installed on a smart device

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

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

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
- Designed for automatic as well as manual transmissions

POWER SUPPLY
- AC powered, 100-240V, 50-60Hz

PHYSICAL CHARACTERISTICS
- Reader with 3 indicator LED lights
- Docking station with animated LCD display

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

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

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 (wireless)
- 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 unit
- 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 tablet
- Patient connector:
  - Communicating via Tel B with Astra™ Pacemakers; via Bluetooth Low energy with BlueSync™ enabled devices
  - 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 SmartSync Device Manager materials*

**** Depending on Country and tablet option*

Model Base unit	**24970A**
Weight (kg)	0.91
Size (cm)	4.6 x 24 x 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 Manual.

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
- Easily 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™ ICMs
- 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 Express™ Mobile System allows the interrogation of any compatible Medtronic cardiac Implantable device, with secure and rapid transfer of the data to the CareLink™ 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™ Network[1]
- The CareLink Express™ Mobile application is a free iOS application

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 tablet
- 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 Manual.

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
- Built in WiFi and ethernet
- keyboard
- Resistive touch screen
- PDF viewer
- Electronic strip recorder
- USB printing (no integrated printer available)
- Telemetry A and B (no wireless)
- Emergency button for VVI pacing

POWER SUPPLY
- AC powered with 2hours of battery back-up

ACCESSORIES (IN THE PACKAGE)
- 26901 Programming head
- 26902 Rechargeable battery
- 26905 Stylus
- 26906 Power cord
- 26907 Power supply

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

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

CARELINK® 2090 PROGRAMMER

PATIENT MANAGEMENT SOLUTIONS

GENERAL
- System for interrogating and programming Medtronic, Vitatron and NayaMed 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 (wireless)
- 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 Programmer
- 2090TPS/XS Touch pen
- 2090EC/ECL ECG cable with plug and leadwires
- 6092 Printer paper

Model	2090
M (kg)	11.3
Size (mm)	12.7 x 40.6 x 55.8

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

CARELINK® 2290 ANALYZER

PATIENT MANAGEMENT SOLUTIONS

GENERAL
- Accessory that installs into the Medtronic CareLink® 2090 Programmer
- Designed to analyze the electrical performance of a cardiac lead system
- Uses the programmer as a control and display platform

MAIN FEATURES
- Automatic measurement of P- and R-wave amplitudes and slew rates
- Automatic lead impedance measurement
- Real-time display of atrial and ventricular EGM
- Rapid atrial stimulation to 800 min^{-1} (ppm)
- Advanced analysis features, including antegrade and retrograde conduction tests, and a pulse width versus amplitude threshold analysis
- Measurement reports
- Backup battery in the event of a power loss
- Electrical isolation from the programmer
- Emergency VVI pacing

PACKAGE CONTENTS
- 2290 Analyzer
- 2292 Analyzer surgical cable
- 9 V Battery
- Screwdriver
- Product literature

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

* installs into the Medtronic CareLink® 2090 Programmer

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

FOCUSON™
MONITORING AND TRIAGING SERVICE

PATIENT MANAGEMENT SOLUTIONS

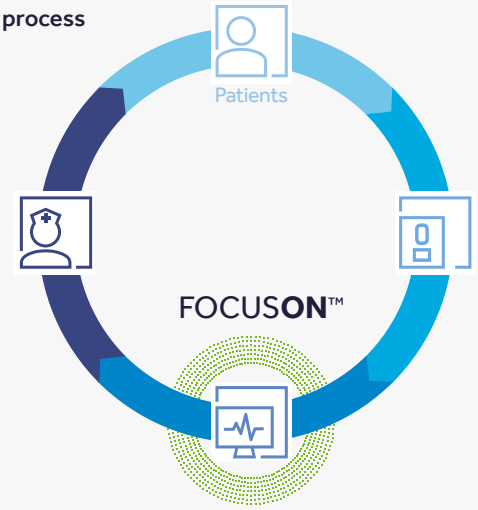
GENERAL
- FocusOn™ is a service that monitors and triages CareLink™ transmissions from all Medtronic implantable cardiac devices.
- All incoming data is reviewed and classified based on its clinical relevance (colour-code classification), according to a customized protocol instructed by the treating physicians.
- The FocusOn™ Team notifies the hospital clinical teams via email and/or phone /SMS and according to the customized colour-coding classification.
- All FocusOn™ triaged data and transmissions are accessible via the FocusOn™ platform.
- Available for:
  - IPG, CRT-P
  - ICD, CRT-D
  - ICM

QUALITY PROCESS
- All the data is reviewed by two different certified ECG/ cardiac device specialists to maximize accuracy and quality control through redundancy.
- The ECG specialists are supervised by cardiologists.

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

The continuous FOCUSON™ process



Hospital Clinical Teams

Teams are promptly alerted on urgent information, so they have more time to spend with patients and with those that need immediate care.

CareLink® Network

The CareLink® Network receives data from patients with Medtronic implantable cardiac devices.

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.

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

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:

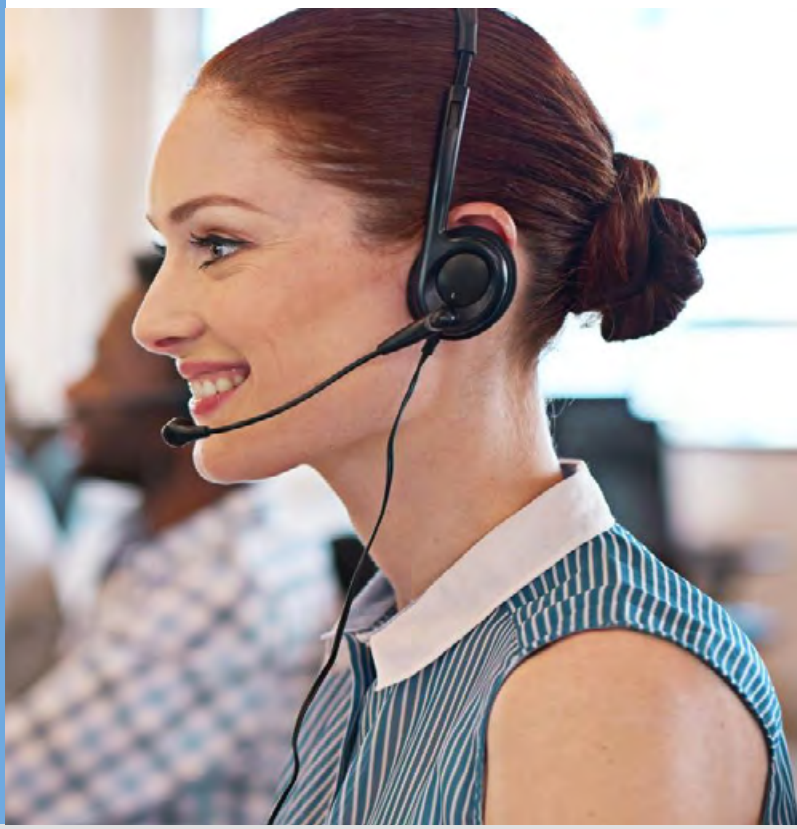
- Helping patients onboard with their optimal monitoring solution:
  - Education on remote monitoring
  - Screening for optimal monitoring solution with the ability to ship bedside monitor to patient home address
  - Set-up of patient monitoring solution.
- Helping patients with general device & remote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

TYRX™
ABSORBABLE ANTIBACTERIAL ENVELOPE

PROCEDURE INNOVATIONS

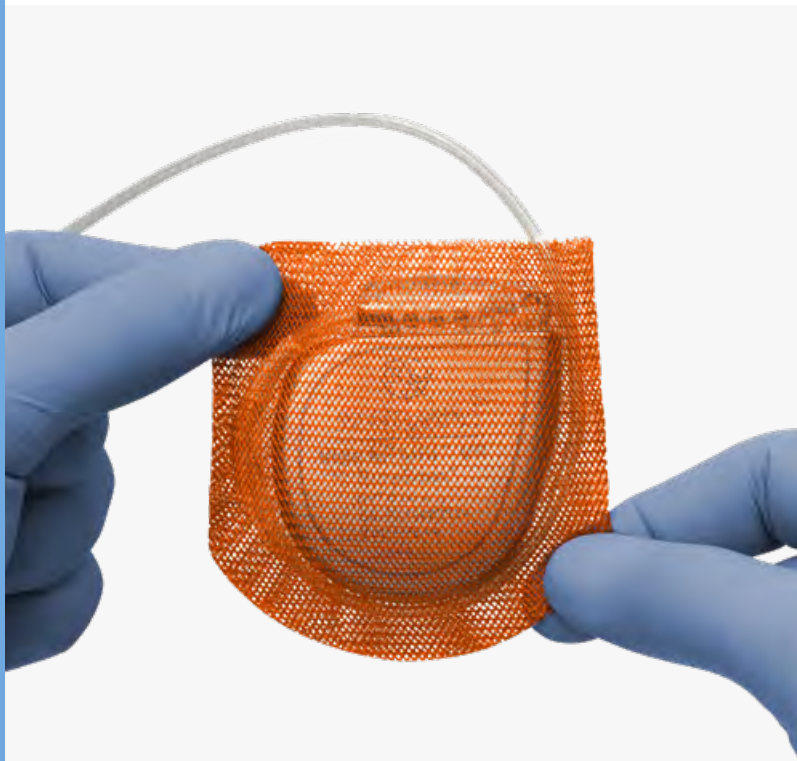
GENERAL
The TYRX Envelope is a fully absorbable sterile device designed to hold a Cardiac Implantable Electronic Device (CIED) securely in place to create a stable environment when implanted in the body. The envelope's bioabsorbable polymer coating contains antibacterial agents Minocycline and Rifampin.

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

ANTIBIOTICS
- Minocycline 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
- Battery Powered External Temporary Pacemaker
- Pacing Continuation upon Battery Removal
- Compatible with Medtronic cables 5832, 5833, 5487, 5433A/V and 5846A/V
- NO direct connection of heart wires

PACING FEATURES
- Pacing Modes: AAI, AOO, VVI, VOO
- Basic Pacing Rate: 30 – 200 ppm
- Rapid Atrial Pacing Rate: 80 – 800 ppm

ADDITIONAL PROGRAMMABLE PARAMETERS
- Output Amplitude
- Pulse Width
- Sensitivity
- Ventricular Blanking

PACKAGE CONTENT
- Single Chamber External Temporary Pacemaker Model 53401
- Two AA 1.5 V alkaline batteries
- Carrying case Model 53409

ACCESSORIES (NOT INCLUDED)
- 5409 Disposable Pouch: 5 units in package
- 53408 Replacement Covers (Main Covers and Rapid Atrial Pacing Cover)
- 53409 Carrying Case
- 53407 IV Pole Replacement Hook and Replacement Knobs

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

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
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
- NO direct connection of heart wires

PACING FEATURES
- Pacing Modes: DDD, DOO, DDI, AAI, AOO, VVI, VOO
- Basic Pacing Rate: 30 – 200 ppm
- Upper Rate: 80 – 230 ppm
- Rapid Atrial Pacing Rate: 80 – 800 ppm

ADDITIONAL PROGRAMMABLE PARAMETERS
- Output Amplitude
- Pulse Width
- Sensitivity
- AV Interval
- PVARP
- Ventricular Blanking

PACKAGE CONTENT
- Dual Chamber External Temporary Pacemaker Model 5392
- Two AA 1.5 V alkaline batteries

ACCESSORIES (NOT INCLUDED)
- 5409 Disposable Pouch: 5 units in package
- 53922 Disposable Cover: 3 units in package
- 53923 Carrying Case
- 53921GLBL IV Pole Replacement

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

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

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	
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 Manual.

GLOSSARY

GLOSSARY

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 tachyarrhythmias.

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 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

GLOSSARY

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

GLOSSARY

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

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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 non-tracking 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.

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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.

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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

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easy reference and the estimatednumber 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.

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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.

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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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