

Technical Specifications

Space Requirements

For safety reasons, the computer and all peripherals must be in the same room with the scanner.

Lunar PRODIGY, PRODIGY Advance, DPX-Pro, DPX-NT, DPX-MD+ Full size Table

Standard room configuration: The computer and peripherals must be located more than 1.83 m from the scanner. Recommended room dimensions are: 3.7 meters x 3.7 meters (12 feet x 12 feet)

Small room configuration: Room dimensions must be at least 3.0 m x 2.4 m if the computer and peripherals are powered by an isolation transformer. Equipment powered by an isolation transformer can be located anywhere in the room with the scanner. The isolation transformer and scanner must be plugged into the same dedicated line outlet.

Lunar PRODIGY system no. DF+11999 and lower

Scanner power output configuration: It is recommended that the computer and all peripherals be powered by the scanner (scanner power output). If scanner power output is used, the computer and peripherals can be placed anywhere in the room. Room dimensions must be at least 3.0 m x 2.4 m.

Lunar PRODIGY, PRODIGY Advance, DPX-Pro, DPX-NT, DPX-MD+, Compact Table and DPX Bravo Tables

Standard room configuration: The computer and all peripherals must be located more than 1.83 m from the scanner. Recommended room dimensions are 2.3 meters x 3.7 meters (7.5 feet x 12 feet).

Small room configuration: Room dimensions must be at least 2.3 m x 2.4 m (7.5 feet x 8 feet) if the computer and peripherals are powered by an isolation transformer. Equipment powered by an isolation transformer can be located anywhere in the room with the scanner. The isolation transformer and scanner must be plugged into the same dedicated line outlet.

Lunar DPX Duo Table

Standard room configuration: The computer and all peripherals must be located more than 1.83 m from the scanner. Recommended room dimensions are 2.3 meters x 3.7 meters (7.5 feet x 12 feet).

Small room configuration: Room dimensions must be at least 2.4 m x 2.8 m (8 feet x 9 feet) if the computer and peripherals are powered by an isolation transformer. Equipment powered by an isolation transformer can be located anywhere in the room with the scanner. The isolation transformer and scanner must be plugged into the same dedicated line outlet.



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Component Specifications

Specifications for standard components shipped with the system.

Component	Specifications
Lunar PRODIGY Advance Scanner table*	Maximum patient weight supported: 159 kg (350 pounds)
Full Size Table	Dimensions: 262.3 cm x 109.3 cm x 128.3 cm (W x D x H) Weight: approximately 272.16 kg
Compact Table	Dimensions: 201 cm x 109.3 cm x 128.3 cm (W x D x H) Weight: approximately 254 kg
Lunar PRODIGY Scanner table*	Maximum patient weight supported: 136 kg (300 pounds)
Full Size Table	Dimensions: 262.3 cm x 109.3 cm x 128.3 cm (W x D x H) Weight: approximately 272.16 kg
Compact Table	Dimensions: 201 cm x 109.3 cm x 128.3 cm (W x D x H) Weight: approximately 254 kg
Lunar DPX-NTPro/MD+ Scanner table*	Maximum patient weight supported: 136 kg (300 pounds)
Full-size table	Dimensions: 242 cm x 103 cm x 128 cm (W x D x H)Weight: approximately 272 kg Maximum patient weight supported: 136 kg
Compact table	Dimensions: 181 cm x 103 cm x 128 cm (W x D x H)Weight: approximately 254 kg
DPX Duo	Maximum patient weight supported: 136 kg
DPX Bravo	Dimensions: 186 cm x 86 cm x 147 cm (W x D x H) Weight: approximately 273 kg
	Dimensions: 186 cm x 86 cm x 130 cm (W x D x H) Weight: approximately 250 kg
Console table	78.5 cm x 63.3 cm x 48.1 cm
Computer	Greater than 900Mhz Pentium 512 MB RAM Greater than 10GB hard disk 17" SVGA monitor (1024x768x32-bit color) ZIP 250 drive CD ROM Audio capable with speakers Modem Windows® XP Professional operating system Internet Explorer version 5.0 Fast Serial I/O board (GE MEDICAL SYSTEMS part number 7151) - Prodigy only
Printer	HP DeskJet 2280 or <i>equivalent</i> W x D x H-44.0 x 40.0 x 19.6 cm

*Depth is measured from the front edge of the scanner table to the back edge of the scanner arm. Height is measured from the top of the scanner arm to the bottom of the scanner arm.

Functional Specifications

General specifications

- **Lunar PRODIGY, PRODIGY Advance:** Focal spot to image receptor distance is 67 cm.
- **Lunar DPX-Pro/NT/MD+/Duo/Bravo:** Focal spot to image receptor distance is 58 cm.
- Attenuation equivalence of patient support table is 0.7 mm Al.

Lunar PRODIGY and PRODIGY Advance Maximum scan area (long x transverse)

- AP Spine Measurements: 40.9 cm x 22 cm
- Femur Measurements: 20.9 cm x 18 cm
- Total Body Measurements*: 197.5 cm x 60 cm measurement field
- Forearm Measurements: 40.9 cm x 10 cm
- Lateral Spine Measurements**: 40.9 cm x 22 cm

Lunar DPX-Pro/NT/MD+/Duo/Bravo Maximum scan area (long x transverse)

- AP Spine Measurements: 40.9 cm x 22 cm
- Femur Measurements: 20.9 cm x 17.9 cm
- Total Body Measurements*: 195 cm x 60 cm measurement field
- Forearm Measurements: 40.9 cm x 10 cm
- Lateral Spine Measurements**: 40.9 cm x 22 cm

* Prodigy, DPX-Pro/NT/MD+ Full size tables only

** Prodigy, DPX-Pro/NT/MD+ tables only

Programs

Depending on the scanner model and number of options you purchased, not all of the programs listed below may be included with your software:

- AP spine measurement and analysis
- Pediatric spine measurement and analysis
- Extended AP spine measurement and analysis
- Femur measurement and analysis
- DualFemur measurement and analysis
- Total body measurement and analysis.
- Pediatric total body measurement and analysis
- Forearm measurement and analysis
- Lateral spine measurement and analysis
- Dual-energy Vertebral Assessment: (Lateral and AP)
- Orthopedic femur measurement and analysis (with extended Gruen Analysis)
- Hand measurement and analysis
- Small animal total body measurement and analysis
- Computer Aided Densitometry
- Quality Assurance
- Physician Reporting application
- Composer Data reporting
- DICOM and HL7 interface capability
- TeleDensitometry
- Multi-user database capability
- OneVision capability
- Dexter
- AHA II Hip Strength Analysis
- HIPAA Secure Report

Environmental Specifications

Operational Environment

Adhere to the specifications that follow during scanner operation:

- **Ambient Space (Interior Subcomponents)** - For scanner operation and servicing, do not block the area around the scanner table. Make sure there is a minimum clearance of 30.5 cm at the head and foot ends of the scanner table, at least 15.2 cm for the arm side, and 45.7 cm for the operator side.
- **Ambient Space (Ventilation)** - Do not block the cooling vents on the computer and scanner table. Make sure there is 15.2 cm from the console table to the wall for cable clearance and computer plugs.
- **Dust, Fumes and Debris** - Install the system in a clean, ventilated area. Dust and other airborne debris can cause the diskette drive heads and other sensitive mechanical components to malfunction. GE MEDICAL SYSTEMS recommends that you do not smoke in the scanner room.
- **Humidity** - Make sure the humidity for the scanner area is 20%-80%, non-condensing.
- **Power Consumption** - The scanner requires a dedicated 100-240 VAC - 20A 100-120 VAC, 10A 220-240 VAC circuit, (single duplex outlet) with isolated ground. The outlet should be located behind the Host PC. The Lunar PRODIGY and PRODIGY Advance scanner will draw 40 watts when idle and approximately 450 watts during a patient scan (76kV / 3mA). The Lunar DPX-Pro/NT/MD+ scanner will draw approximately 25 watts when idle and 250 watts during a patient scan (76 Kv / 1.5mA). The Lunar DPX Duo or DPX Bravo scanner will draw 40 watts when idle and approximately 450 watts during a patient scan (76kV / 1.5mA). The Host PC (typical PC with a 17" monitor) will draw approximately 110 watts when powered on.
- **Heat Output** - The Lunar PRODIGY and PRODIGY Advance scanner will output 150 BTU per hour when idle and 1500 BTU per hour when actively scanning. The Lunar DPX-Pro/NT/MD+/Duo/Bravo scanner will output 90 BTU per hour when idle and approximately 900 BTU per hour when actively scanning. The Host PC (PC with 17" monitor) will output approximately 400 BTU per hour when powered on.
- **Static Electricity** - Install and operate the system in a static-free area. Adhere to minimum humidity requirements to prevent malfunctions caused by static electricity.
- **Shock and Vibration** - Make sure the scanner table does not receive shock greater than 1G for more than 1 millisecond. Make sure the scanner table does not receive vibrations greater than 0.25 G at 5 Hz.
- **Temperature** - Make sure the temperature during system operation is 65°F-81°F (18°C-27°C).

NOTE: When the system is turned off, or there is a power failure, you must turn the system on and let it warm for one hour. After one hour, complete a Quality Assurance procedure.

Storage and transport environment

Adhere to the specifications that follow for scanner storage and transportation:

- Humidity, 0% to 95% non-condensing.
 - Atmospheric pressure, 500 to 1060 hPa.
 - Temperature, -40° to 70° C.
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Power Specifications

Leakage current

Computer and peripherals with Isolation Transformer: <100 microamperes.

Scanner Table alone: <500 microamperes.

Scanner input power

Lunar PRODIGY Advance, PRODIGY systems no. DF+12000 and higher, DPX-Pro/NT/MD+ systems no. 72000 and higher or 90000 and higher, DPX Duo, DPX Bravo

The scanner has a rated input of 100-240 VAC (100-120 for US, Canada). Voltage may fluctuate $\pm 10\%$ from the rated input without a loss of scanner performance. The input power must meet IEEE 519-1992 for power quality and total harmonic distortion (THD <5%).

Lunar PRODIGY systems no. DF+11999 and lower, DPX-Pro/NT/MD+ systems number 70000-71999

The scanner has 4 different nominal inputs: 100, 115, 230, and 240 VAC. During installation, the scanner is configured for the nominal input which best matches the voltage on site. Voltage may fluctuate $\pm 10\%$ from the nominal value without a loss of scanner performance. The nominal input (range of inputs) can be found on the system label. The input power must meet IEEE 519-1992 for power quality and total harmonic distortion (THD <5%).

Scanner output power

Lunar PRODIGY systems no. DF+11999 and lower, DPX-Pro/NT/MD+ systems number 70000-71999

The scanner has 3 different nominal outputs: 100, 120, 240 VAC. The nominal voltage output of the scanner is shown on the system label. The computer and all peripherals which use the scanner output power must be rated for this voltage. The maximum power output is 400 VA.

X-Ray Generator Specifications

Lunar PRODIGY Advance and PRODIGY X-Ray Generator

PRODIGY Advance, PRODIGY DF+12000 and higher

Lunar PRODIGY Advance, PRODIGY X-ray generator technical information:

Classification	Class I Equipment	IEC 601-2-7 5.1
Degree of protection against electrical shock	Type B equipment	IEC 601-2-7 5.2
Protection against ingress of liquids	Ordinary medical electrical equipment	IEC 601-2-7 5.3
Connection to supply mains	Power supply cord	IEC 601-2-7 6.1g)
Mode of operation	Continuous	IEC 601-2-7 6.1m)
Maximum X-ray tube voltage	76 kV	IEC 601-2-7 6.1m)
Maximum X-ray tube current	3 mA	IEC 601-2-7 6.1m)
Rated mains voltage	100-240 VAC	IEC 601-2-7 6.1j)1
Number of phases in mains	1	IEC 601-2-7 6.1j)2
Mains frequency	50/60 Hertz	IEC 601-2-7 6.1j)3
Required over-current releases	15 Amp dedicated service	IEC 601-2-7 6.1j)5
Heat dissipative components	X-ray tube dissipates 243W max. into surrounding air through forced air convection. Flow rate: 36 m ³ /h (approx.) Temp. rise of air stream 25° C (approx.)	IEC 601-2-7 6.1t)
Allowable high voltage supplies	Spellman SBD40PN280X2890 or Bertan 2907.	IEC 601-2-7 6.8.1 and 50.2.101-102
Allowable tube head assemblies	GE MEDICAL SYSTEMS model 8743 or equivalent	IEC 601-2-7 6.8.1 and 50.2.101-102
Original language of accompanying documents	English	IEC 601-2-7, IEC 601-2-28, IEC 601-2-32, 6.8.1
Maximum continuous kV, mA at nominal rated kV	76 kV, 3 mA	IEC 601-2-7 6.8.2 1)
Maximum intermittent kV, mA at nominal rated kV	76 kV, 3 mA	IEC 601-2-7 6.8.2 1)
Maximum continuous kV, mA at maximum mA	76 kV, 3 mA	IEC 601-2-7 6.8.2 2)
Maximum intermittent kV, mA at maximum mA	76 kV, 3 mA	IEC 601-2-7 6.8.2 2)
Continuous kV, mA for maximum electric output power	76 kV, 3 mA	IEC 601-2-7 6.8.2 3)
Intermittent kV, mA for maximum electric output power	76 kV, 3 mA	IEC 601-2-7 6.8.2 3)
Nominal electric power	0.243 kW	IEC 601-2-7 6.8.2 4)
Lowest current time product	0.20 mAs. Parameters: 76 kV, 0.10 mA, 2 seconds.	IEC 601-2-7 6.8.2 5)
Nominal shortest irradiation times	2 seconds.	IEC 601-2-7 6.8.2 6)
Method of x-ray tube voltage measurement	Voltage divider in high voltage power supply.	IEC 601-2-7 50.106.1
Method of x-ray tube current measurement	Shunt resistor in high voltage supply return line.	IEC 601-2-7 50.106.2
X-ray tube assembly reference axis	Line normal to the tube port, centered on tube port as shown in reference axis figure. Refer to Figure 7	IEC 336
Reference loading conditions	8.21 x 10 ⁵ Joules, 3 mA, 76 kV for 1 hour.	IEC 601-1-3 29.204.2
Focal spot to Image Receptor distance	67 cm	IEC 601-1-3 29.203.2
Attenuation equivalence of patient support table.	0.7 mm Al	IEC 601-1-3 29.206.2

DF+11999 and lower

Lunar PRODIGY X-ray generator technical information:

Classification	Class I Equipment	IEC 601-2-7 5.1
Degree of protection against electrical shock	Type B equipment	IEC 601-2-7 5.2
Protection against ingress of liquids	Ordinary medical electrical equipment	IEC 601-2-7 5.3
Connection to supply mains	Power supply cord	IEC 601-2-7 6.1g)
Mode of operation	Continuous	IEC 601-2-7 6.1m)
Maximum X-ray tube voltage	76 kV	IEC 601-2-7 6.1m)
Maximum X-ray tube current	5 mA	IEC 601-2-7 6.1m)
Rated mains voltage	100, 110, 115, 120, 125, 127, 200, 220, 230, 240, 250, and 254 volts	IEC 601-2-7 6.1j)1
Number of phases in mains	1	IEC 601-2-7 6.1j)2
Mains frequency	50/60 Hertz	IEC 601-2-7 6.1j)3
Required over-current releases	20 Amp dedicated service	IEC 601-2-7 6.1j)5
Heat dissipative components	X-ray tube dissipates 305W max. into surrounding air through forced air convection. Flow rate: 36 m ³ /h (approx.) Temp. rise of air stream 25° C (approx.)	IEC 601-2-7 6.1t)
Allowable high voltage supplies	Spellman X2112/X2113/ rev. K and higher. Bertan 2411P and 2411N rev. A and higher. GE MEDICAL SYSTEMS p/n 0311 and 0312.	IEC 601-2-7 6.8.1 and 50.2.101-102
Allowable tube head assemblies	GE MEDICAL SYSTEMS model 6838 or equivalent	IEC 601-2-7 6.8.1 and 50.2.101-102
Original language of accompanying documents	English	IEC 601-2-7, IEC 601-2-28, IEC 601-2-32, 6.8.1
Maximum continuous kV, mA at nominal rated kV	76 kV, 4 mA	IEC 601-2-7 6.8.2 1)
Maximum intermittent kV, mA at maximum kV	76 kV, 5 mA	IEC 601-2-7 6.8.2 1)
Maximum continuous kV, mA at maximum mA	61 kV, 5 mA	IEC 601-2-7 6.8.2 2)
Maximum intermittent kV, mA at maximum mA	76 kV, 5 mA	IEC 601-2-7 6.8.2 2)
Continuous kV, mA for maximum electric output power	76 kV, 4 mA	IEC 601-2-7 6.8.2 3)
Intermittent kV, mA for maximum electric output power	76 kV, 5 mA	IEC 601-2-7 6.8.2 3)
Nominal electric power	0.4 kW	IEC 601-2-7 6.8.2 4)
Reference current time product	7.89 mAs. Parameters: 76 kV, 2.63 mA, 3 seconds.	IEC 601-2-7 6.8.2 5)
Nominal shortest irradiation times	3 seconds.	IEC 601-2-7 6.8.2 8)
Repetition rate for loading during tests	No specific wait period was imposed. Time between tests was approximately 20 seconds.	IEC 601-2-7 50.104.4
Method of x-ray tube voltage measurement	Voltage divider in high voltage power supply.	IEC 601-2-7 50.106.1
Method of x-ray tube current measurement	Shunt resistor in high voltage supply return line.	IEC 601-2-7 50.106.2
X-ray tube assembly reference axis	Line normal to the tube port, centered on tube port as shown in reference axis figure. Refer to Figure 7	IEC 336

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Reference loading conditions	1.09 x 106 Joules, 4 mA, 76 kV for 1 hour.	IEC 601-1-3
Leakage radiation was measured at the following loading factors.	3mA, 76 kV	IEC 601-1-3
Focal spot to Image Receptor distance	67 cm	IEC 601-1-3
Attenuation equivalence of patient support table.	0.7 mm Al	IEC 601-1-3

Lunar DPX-Pro/NT/MD+/Duo/Bravo X-Ray Generator

NT+/MD+72000 and higher, NT+/MD+90000 and higher, Duo and Bravo

Lunar DPX-Pro//Pro/MD+/Duo/Bravo X-ray generator technical information:

Classification	Class I Equipment	IEC 601-2-7 5.1
Degree of protection against electrical shock	Type B equipment	IEC 601-2-7 5.2
Protection against ingress of liquids	Ordinary medical electrical equipment	IEC 601-2-7 5.3
Connection to supply mains	Power supply cord	IEC 601-2-7 6.1g)
Mode of operation	Continuous	IEC 601-2-7 6.1m)
Maximum X-ray tube voltage	76 kV	IEC 601-2-7 6.1m)
Maximum X-ray tube current	3 mA	IEC 601-2-7 6.1m)
Rated mains voltage	100-240 VAC	IEC 601-2-7 6.1j)1
Number of phases in mains	1	IEC 601-2-7 6.1j)2
Mains frequency	50/60 Hertz	IEC 601-2-7 6.1j)3
Required over-current releases	15 Amp dedicated service	IEC 601-2-7 6.1j)5
Heat dissipative components	X-ray tube dissipates 243W max. into surrounding air through forced air convection. Flow rate: 36 m3/h (approx.) Temp. rise of air stream 25° C (approx.)	IEC 601-2-7 6.1t)
Allowable high voltage supplies	Spellman SBD40PN280X2890 or Bertan 2907.	IEC 601-2-7 6.8.1 and 50.2.101-102
Allowable tube head assemblies	LUNAR model 8548 or equivalent	IEC 601-2-7 6.8.1 and 50.2.101-102
Original language of accompanying documents	English	IEC 601-2-7, IEC 601-2-28, IEC 601-2-32, 6.8.1
Maximum continuous kV, mA at nominal rated kV	76 kV, 3 mA	IEC 601-2-7 6.8.2 1)
Maximum intermittent kV, mA at nominal rated kV	76 kV, 3 mA	IEC 601-2-7 6.8.2 1)
Maximum continuous kV, mA at maximum mA	76 kV, 3 mA	IEC 601-2-7 6.8.2 2)
Maximum intermittent kV, mA at maximum mA	76 kV, 3 mA	IEC 601-2-7 6.8.2 2)
Continuous kV, mA for maximum electric output power	76 kV, 3 mA	IEC 601-2-7 6.8.2 3)
Intermittent kV, mA for maximum electric output power	76 kV, 3 mA	IEC 601-2-7 6.8.2 3)
Nominal electric power	0.243 kW	IEC 601-2-7 6.8.2 4)
Lowest current time product 0.20 mAs.	Parameters: 76 kV, 0.10 mA, 2 seconds.	IEC 601-2-7 6.8.2 5)
Nominal shortest irradiation times	2 seconds.	IEC 601-2-7 6.8.2 6)

Method of x-ray tube voltage measurement	Voltage divider in high voltage power supply.	IEC 601-2-7 50.106.1
Method of x-ray tube current measurement	Shunt resistor in high voltage supply return line.	IEC 601-2-7 50.106.2
X-ray tube assembly reference axis	Line normal to the tube port, centered on tube port as shown in reference axis figure. Refer to Figure 7	IEC 336
Reference loading conditions	8.21 x 105 Joules, 3 mA, 76 kV for 1 hour.	IEC 601-1-3 29.204.2
Focal spot to Image Receptor distance	58 cm	IEC 601-1-3 29.203.2
Attenuation equivalence of patient support table.	0.7 mm Al	IEC 601-1-3 29.206.2

NT_±/MD_±70000 - NT_±/MD_±71999

Lunar DPX-NT X-ray generator technical information:

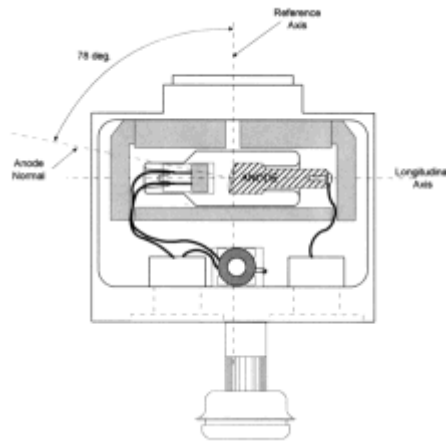
Classification	Class I Equipment	IEC 601-2-7 5.1
Degree of protection against electrical shock	Type B equipment	IEC 601-2-7 5.2
Protection against ingress of liquids	Ordinary medical electrical equipment	IEC 601-2-7 5.3
Connection to supply mains	Power supply cord	IEC 601-2-7 6.1g)
Mode of operation	Continuous	IEC 601-2-7 6.1m)
Maximum X-ray tube voltage	76 kV	IEC 601-2-7 6.1m)
Maximum X-ray tube current	5 mA	IEC 601-2-7 6.1m)
Rated mains voltage	100, 115, 230, and 240 volts	IEC 601-2-7 6.1j)1
Number of phases in mains	1	IEC 601-2-7 6.1j)2
Mains frequency	50/60 Hertz	IEC 601-2-7 6.1j)3
Required over-current releases	15 Amp dedicated service	IEC 601-2-7 6.1j)5
Heat dissipative components	X-ray tube dissipates 305W max. into surrounding air through forced air convection. Flow rate: 36 m ³ /h (approx.) Temp. rise of air stream 25° C (approx.)	IEC 601-2-7 6.1t)
Allowable high voltage supplies	Bertan 2411P and 2411N rev. A and higher.	IEC 601-2-7 6.8.1 and 50.2.101-102
Allowable tube head assemblies	LUNAR model 8297 or equivalent	IEC 601-2-7 6.8.1 and 50.2.101-102
Original language of accompanying documents	English	IEC 601-2-7, IEC 601-2-28, IEC 601-2-32, 6.8.1
Maximum continuous kV, mA at nominal rated kV	76 kV, 4 mA	IEC 601-2-7 6.8.2 1)
Maximum intermittent kV, mA at maximum kV	76 kV, 5 mA	IEC 601-2-7 6.8.2 1)
Maximum continuous kV, mA at maximum mA	61 kV, 5 mA	IEC 601-2-7 6.8.2 2)
Maximum intermittent kV, mA at maximum mA	76 kV, 5 mA	IEC 601-2-7 6.8.2 2)
Continuous kV, mA for maximum electric output power	76 kV, 4 mA	IEC 601-2-7 6.8.2 3)
Intermittent kV, mA for maximum electric output power	76 kV, 5 mA	IEC 601-2-7 6.8.2 3)
Nominal electric power	0.4 kW	IEC 601-2-7 6.8.2 4)

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Reference current time product 7.89 mAs.	Parameters: 76 kV, 2.63 mA, 3 seconds.	IEC 601-2-7 6.8.2 5)
Nominal shortest irradiation times	3 seconds.	IEC 601-2-7 6.8.2 8)
Repetition rate for loading during tests No specific wait period was imposed.	Time between tests was approximately 20 seconds.	IEC 601-2-7 50.104.4
Method of x-ray tube voltage measurement	Voltage divider in high voltage power supply.	IEC 601-2-7 50.106.1
Method of x-ray tube current measurement	Shunt resistor in high voltage supply return line.	IEC 601-2-7 50.106.2
X-ray tube assembly reference axis	Line normal to the tube port, centered on tube port as shown in reference axis figure. Refer to Figure 7	IEC 336
Reference loading conditions	1.09 x 106 Joules, 4 mA, 76 kV for 1 hour.	IEC 601-1-3
Leakage radiation was measured at the following loading factors.	1.5mA, 76 kV	IEC 601-1-3
Focal spot to Image Receptor distance	58 cm	IEC 601-1-3
Attenuation equivalence of patient support table.	0.7 mm Al	IEC 601-1-3

GE MEDICAL SYSTEMS X-Ray Tube Head Assembly

Reference Axis and Target Angles for Tube Head Assembly



GE Medical Systems 8022 X-ray tube technical information

Nominal anode input power	361 Watts	IEC 613/1989
Maximum anode heat content	18300 Joules	IEC 613/1989
Anode heating and cooling curves	Refer to figure 8.	IEC 613/1989
Anode target material	Tungsten	IEC 601-2-28
Reference axis	Refer to Figure 7	IEC 601-2-28
Target angle 78°	(reference to normal)	IEC 601-2-28
Nominal focal spot values	0.5	IEC 336/1982
Maximum useful voltage	95 kVp	Not Applicable
Maximum filament current	2.2	Amperes Not Applicable

GE Medical Systems 8743 X-ray tube technical information (DF+12000 and higher)

Beam filtration is permanently fixed with a minimum 2.9 mm Aluminum-equivalent.

Inherent filtration	>2.9 mm Al/70 kV	IEC 522/1976
Filament characteristics	Refer to Figure 9	IEC 613/1989
Nominal x-ray tube voltage	76 kV - Anode to Cathode 38 kV - Anode to Earth 38 kV - Cathode to Earth	IEC 613/1989
Single load rating	228 W (3 mA, 76 kV) for up to 15 min.	IEC 613/1989
Serial load rating	228 W (3 mA, 76 kV) for up to 15 min.	IEC 613/1989
Maximum x-ray tube assembly heat content	260 kJoules	IEC 613/1989
X-ray tube assembly heating and cooling curves	Refer to Figure 10	IEC 613/1989
Maximum continuous heat dissipation	243 Watts (3mA x 76kV + 15W filament)	IEC 613/1989
Maximum symmetrical radiation field	3.5 mm/19.4 mm at a distance from the focal spot of 220 mm.	IEC 806/1984
Dimensions	17 cm x 19.4 cm x 11 cm	IEC 601-2-28
Weight	8.6 kg	IEC 601-2-28

GE Medical Systems 6838 X-ray tube technical information (DF+11999 and lower)

Beam filtration is permanently fixed with a minimum 2.9 mm Aluminum-equivalent.

NOTE: Beam quality has a minimum first half-value layer of 3.2 mm of Al at 76 kV.

Inherent filtration	>2.9 mm Al/70 kV	IEC 522/1976
Filament characteristics	Refer to Figure 9	IEC 613/1989
Nominal x-ray tube voltage	76 kV - Anode to Cathode 38 kV - Anode to Earth 38 kV - Cathode to Earth	IEC 613/1989
Single load rating	361 W (3.00 mA, 76 kV) for up to 4 min., 59 sec.	IEC 613/1989
Serial load rating	361 W (3.00 mA, 76 kV) for up to 4 min., 59 sec.	IEC 613/1989
Maximum x-ray tube assembly heat content	260 kJoules	IEC 613/1989
X-ray tube assembly heating and cooling curves	Refer to Figure 10	IEC 613/1989
Maximum continuous heat dissipation	361 Watts	IEC 613/1989
Maximum symmetrical radiation field	3.5 mm/19.4 mm at a distance from the focal spot of 220 mm.	IEC 806/1984
Dimensions	17 cm x 19.4 cm x 11 cm	IEC 601-2-28
Weight	8.6 kg	IEC 601-2-28

GE Medical Systems 8548 X-ray tube technical information (DPX-Pro/NT/MD+ 72000 and higher, DPX Duo, DPX Bravo)

Beam filtration is permanently fixed with a minimum 3.0 mm Aluminum-equivalent.

Inherent filtration	>3.0 mm Al/70 kV	IEC 522/1976
Filament characteristics	Refer to Figure 9	IEC 613/1989
Nominal x-ray tube voltage	76 kV - Anode to Cathode 38 kV - Anode to Earth 38 kV - Cathode to Earth	IEC 613/1989
Single load rating	228 W (3 mA, 76 kV) for up to 15 min.	IEC 613/1989

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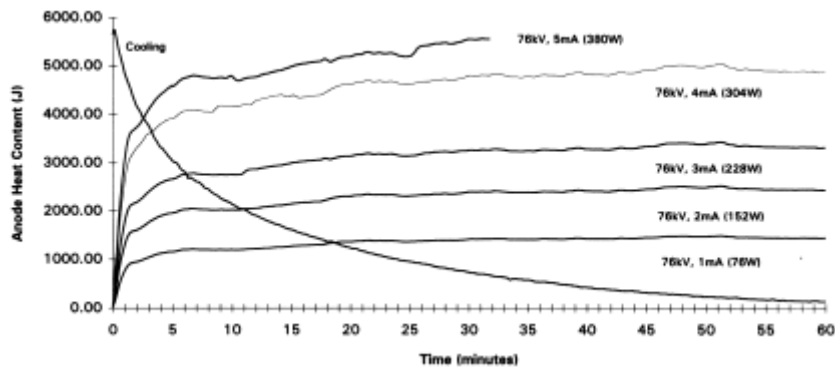
Serial load rating	228 W (3 mA, 76 kV) for up to 15 min. with a 5 min. cool down time between measurements.	IEC 613/1989
Maximum x-ray tube assembly heat content	260 kJoules	IEC 613/1989
X-ray tube assembly heating and cooling curves	Refer to Figure 10	IEC 613/1989
Maximum continuous heat dissipation	243 Watts (3mA x 76kV + 15W filament)	IEC 613/1989
Maximum symmetrical radiation field	Diameter = 10 mm	IEC 806/1984
Dimensions	17 cm x 19.4 cm x 11 cm	IEC 601-2-28
Weight	8.6 kg	IEC 601-2-28

GE Medical Systems 8297 X-ray tube technical information (DPX-NT 70000-71999)

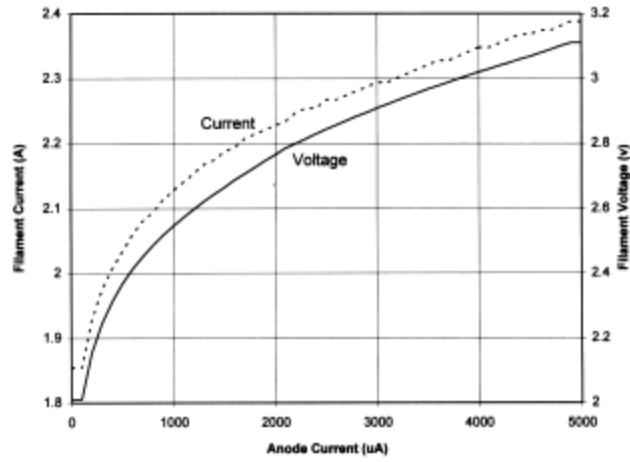
Beam filtration is permanently fixed with a minimum 3.0 mm Aluminum-equivalent.

Inherent filtration	>3.0 mm Al/70 kV	IEC 522/1976
Filament characteristics	Refer to Figure 9	IEC 613/1989
Nominal x-ray tube voltage	76 kV - Anode to Cathode 38 kV - Anode to Earth 38 kV - Cathode to Earth	IEC 613/1989
Single load rating	361 W (4.75 mA, 76 kV) for up to 4 min., 59 sec.	IEC 613/1989
Serial load rating	361 W (4.75 mA, 76 kV) for up to 4 min., 59 sec. with a 10 min. cool down time between measurements.	IEC 613/1989
Maximum x-ray tube assembly heat content	260 kJoules	IEC 613/1989
X-ray tube assembly heating and cooling curves	Refer to Figure 10	IEC 613/1989
Maximum continuous heat dissipation	361 Watts	IEC 613/1989
Maximum symmetrical radiation field	Diameter = 10 mm	IEC 806/1984
Dimensions	17 cm x 19.4 cm x 11 cm	IEC 601-2-28
Weight	8.6 kg	IEC 601-2-28

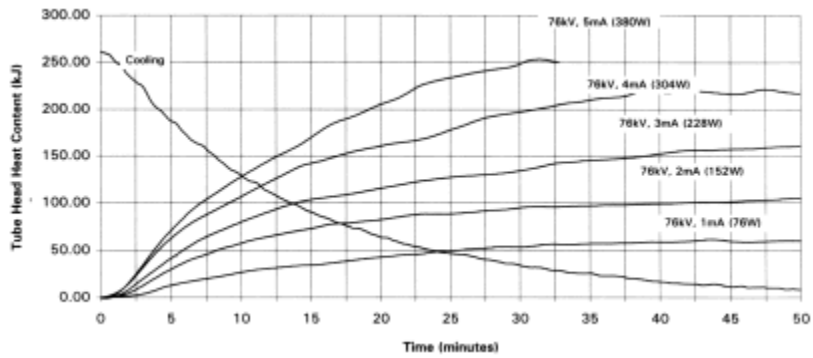
Anode heating/cooling curves



Cathode emission characteristics



X-ray tube assembly heating/cooling curves



Compatible Components

For customers located internationally, make sure the computer is certified to local requirements. The computer must meet the minimum requirements that follow:

- Greater than 900MHz Pentium
- 512 MB RAM
- Greater than 10GB Hard Disk
- 8X CD ROM
- 17" SVGA monitor with at least 1024x768x32-bit color
- Audio capable with speakers
- Windows XP Professional version operating system
- Internet Explorer version 5.0
- Fast Serial I/O board (GE Medical Systems part number 7151) - Prodigy only
- HP DeskJet 2280 or equivalent printer

FDA Certified Components

The following give components certified to the FDA for use with Lunar PRODIGY and PRODIGY Advance scanners. The tables are updated periodically. Contact GE MEDICAL SYSTEMS for a current listing of compatible components.

Lunar PRODIGY Advance, PRODIGY DF+12000 and higher

Component	Description	GE MEDICAL SYSTEMS Model #
X-ray Controller	GE MEDICAL SYSTEMS single board controller	7635
High Voltage Power Supplies	Bertan ¹ Model: 2907 Spellman ² Model: SBD40PN280X2890	7681 7681
Tube Head Assembly	GE MEDICAL SYSTEMS X-Ray Tube Head Assembly	8743
Collimator	GE MEDICAL SYSTEMS Lunar PRODIGY Collimator Assembly	8915

¹Bertan High Voltage Corp., 121 New South Road, Hicksville, NY

²Spellman High Voltage Electronics Corp., 475 Wireless Boulevard, Hauppauge, NY

Lunar PRODIGY DF+11999 and lower

Component	Description	GE MEDICAL SYSTEMS Model #
X-ray Controller	GE MEDICAL SYSTEMS Lunar PRODIGY single board controller	5447
High Voltage Power Supplies	Spellman ¹ Models: PTV40N200X2113 PTV40P200X2112	0311 0312
	Bertan ² Models: 2411 N 2411 P	0311 0312
Tube Head Assembly	GE MEDICAL SYSTEMS X-Ray Tube Head Assembly	6838
Collimator	GE MEDICAL SYSTEMS Lunar PRODIGY Collimator Assembly	6893

¹Spellman High Voltage Electronics Corporation Hauppauge, NY

²Bertan High Voltage Corp., 121 New South Road, Hicksville, NY

The following give components certified to the FDA for use with Lunar DPX-NT/PRO/MD+ scanners. The tables are updated periodically. Contact GE MEDICAL SYSTEMS for a current listing of compatible components.

Lunar DPX-NT/PRO/MD+ 72000 and higher/90000 and higher

Component	Description	GE MEDICAL SYSTEMS Model #
X-ray Controller	GE MEDICAL SYSTEMS single board controller	7634
High Voltage Power Supplies	Bertan ¹ Model: 2907 Spellman ² Model: SBD40PN280X2890	7681 7681
Tube Head Assembly	GE MEDICAL SYSTEMS X-Ray Tube Head Assembly	8548
Collimator	GE MEDICAL SYSTEMS DEXA Collimator Assembly	7767

¹Bertan High Voltage Corp., 121 New South Road, Hicksville, NY

²Spellman High Voltage Electronics Corp., 475 Wireless Boulevard, Hauppauge, NY

Lunar DPX-NT 70000-71999

Component	Description	GE MEDICAL SYSTEMS Model #
X-ray Controller	GE MEDICAL SYSTEMS Lunar DPX-NT single board controller	7844
High Voltage Power Supplies	Bertan ¹ Models: 2411 N 2411 P	0311 or 8531 0312 or 8532
Tube Head Assembly	GE MEDICAL SYSTEMS X-Ray Tube Head Assembly	8297
Collimator	GE MEDICAL SYSTEMS DEXA Collimator Assembly	2898

¹Bertan Associates, 121 New South Road, Hicksville, NY

Lunar DPX Duo, DPX Bravo

Component	Description	GE MEDICAL SYSTEMS Model #
X-ray Controller	GE MEDICAL SYSTEMS single board controller	41500
High Voltage Power Supplies	Spellman ¹ Model: SBD40PN280X2890	7681
Tube Head Assembly	GE MEDICAL SYSTEMS X-Ray Tube Head Assembly	8548
Collimator	GE MEDICAL SYSTEMS DEXA Collimator Assembly	7767

¹Spellman High Voltage Electronics Corp., 475 Wireless Boulevard, Hauppauge, NY