

<sup>®</sup>  
stryker

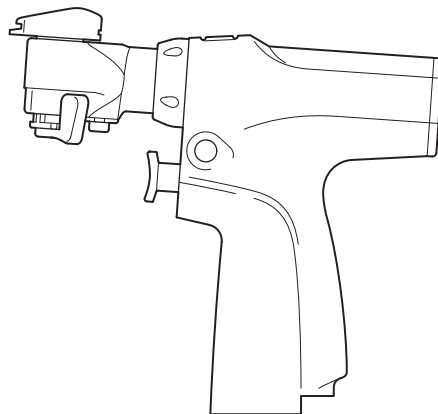
# System 8 Sagittal Saw

REF 8208-000-000

Instructions For Use

R<sub>x</sub> ONLY

CE 0197



ENGLISH (EN)

# Contents

Introduction . . . . .	3	Definitions . . . . .	8
Audience . . . . .	3	Instructions . . . . .	8
Conventions. . . . .	3	To Install the Blade . . . . .	8
Contact Information . . . . .	3	To Index the Blade Mount . . . . .	9
Indications For Use. . . . .	3	To Install the Battery Pack. . . . .	10
Contraindications. . . . .	3	To Operate the Handpiece. . . . .	10
Safety Directives . . . . .	4	To Remove the Battery Pack. . . . .	11
Accessories . . . . .	5	Care Instructions . . . . .	11
Blades . . . . .	6	Troubleshooting . . . . .	12
Battery Packs. . . . .	6	Specifications . . . . .	15
Insert Trays . . . . .	6	Product Safety Certification . . . . .	16
Features. . . . .	7	Product Safety Compliance . . . . .	17
Handpiece . . . . .	7	Electromagnetic Compatibility . . . . .	18
Function Switch. . . . .	7		

## Introduction

This instructions for use manual contains information intended to ensure the safe, effective, and compliant use of your product.

Keep and consult this reference manual during the life of the product.

**NOTE:** The user and/or patient should report any serious product-related incident to both the manufacturer and the Competent Authority of the European Member State where the user and/or patient is established.

## Audience

This manual is intended for in-service trainers, physicians, nurses, surgical technologists, and biomedical equipment technicians.

## Conventions

The following conventions are used in this manual:

- A **WARNING** highlights a safety-related issue. ALWAYS comply with this information to prevent patient and/or healthcare staff injury.

- A **CAUTION** highlights a product reliability issue. ALWAYS comply with this information to prevent product damage.
- A **NOTE** supplements and/or clarifies procedural information.

## Contact Information

For additional information, including safety information, in-service training, or current literature, contact your Stryker sales representative or call Stryker customer service at 1-269-323-7700 or 1-800-253-3210. Outside the US, contact your nearest Stryker subsidiary.

## Indications For Use

The Stryker System 8 Sagittal Battery Powered Heavy Duty System is intended for use in the cutting and shaping of bone and other bone related tissue in a variety of surgical procedures.

## Contraindications

None known.

## Safety Directives



### WARNINGS:

- Before using this equipment, or any component compatible with this equipment, read and understand the instructions for use. Pay particular attention to safety information. Become familiar with the equipment before use.
- Only healthcare professionals trained and experienced in the use of this medical device should operate this equipment.
- The healthcare professional performing any procedure is responsible for determining the appropriateness of this equipment and the specific technique used for each patient. Stryker, as a manufacturer, does not recommend surgical procedure or technique.
- Upon initial receipt and before each use, operate the equipment and inspect each component for damage. DO NOT use any equipment if damage is apparent or the inspection criteria are not met. See the care instructions manual supplied with the handpiece.
- Upon initial receipt and before each use, clean and sterilize the equipment as indicated. See the care instructions manual supplied with the handpiece.
- DO NOT use this equipment in areas in which flammable anesthetics or flammable agents are mixed with air, oxygen, or nitrous oxide.
- Take special precautions regarding electromagnetic compatibility (EMC) when using medical electrical equipment. Place this equipment into service according to the EMC information contained in this manual. Portable and mobile radio frequency (RF) communications equipment can affect the function of this equipment.
- ALWAYS lock the handpiece trigger before installing or removing attachments or accessories.

## Accessories



### WARNINGS:

- Use only Stryker-approved electronic components and accessories. Failure to comply may result in increased electromagnetic emissions or decreased electromagnetic immunity of the system.
  - DO NOT modify any equipment without the authorization of the manufacturer.
  - Using non-Stryker blades may result in fragmentation or ejection of the blade during use.
  - Upon initial receipt and before use, visually inspect the package for damage to confirm the integrity of the sterile barrier. Do not use the product if damage is apparent, the sterile barrier is compromised, or the package is unintentionally opened.
- DO NOT reuse, reprocess, or repackage a device that is intended for single use only.
    - A single use device may not withstand chemical, chemical vapor, or high temperature sterilization reprocessing.
    - Design features may make cleaning difficult.
    - Reuse may create a contamination risk and compromise structural integrity resulting in operational failure.
    - Critical product information may be lost during repackaging.
- Failure to comply may lead to infection or cross infection and result in patient and/or healthcare staff injury.

### NOTES:

- Sterile cutting accessories are sterilized by irradiation.
- For a complete list of accessories, contact your Stryker sales representative or call Stryker customer service. Outside the US, contact your nearest Stryker subsidiary.

The following Stryker-approved accessories are sold separately:

## Blades

DESCRIPTION	REF
2108 Series Sagittal Blade	2108-XXX-XXX series
Dual Cut Sagittal Blade	41XX-XXX-XXX series 42XX-XXX-XXX series
Heavy Duty Sagittal Blade	530X-X10-XXX series
Stryker-OSC Blade	5108-127-070
Stryker Performance Series® Sagittal Blade	61XX-XXX-XXX series 62XX-XXX-XXX series

## Battery Packs

DESCRIPTION	REF
System 8 Battery Packs	8212-000-000 8215-000-000
SmartLife® Battery Packs	7212-000-000 7215-000-000
SmartLife Non-sterile Batteries	7126-110-000 7222-110-000
SmartLife Aseptic Housings	7126-120-000 7222-120-000
SmartLife Transfer Shields	7126-130-000 7222-130-000
System 6 Battery Packs	6212-000-000 6215-000-000
System 6 Aseptic Battery Kits	6126-000-000 6127-000-000

## Insert Trays

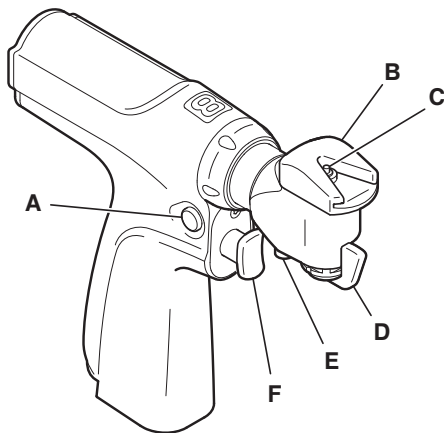
DESCRIPTION	REF
Insert Trays	4405-452-010 7102-450-010 7102-452-010 7102-454-010 7102-458-010

## Features

**NOTE:** The Stryker System 8 Sagittal Saw (handpiece) is a component of the Stryker System 8 Battery Powered Heavy Duty System.

## Handpiece



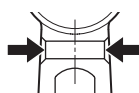
The System 8 Sagittal Saw is battery powered and has a trigger and a function switch.



- |   |   |
|---|---|
| A | <b>Function Switch</b> – Sets the speed or locks the trigger. See the <i>Function Switch</i> section. |
|---|---|







B	<b>Blade Mount</b> – Retains the blade in the handpiece.
C	<b>Center Pin</b> – Engages with the blade to secure the blade in the blade mount.
D	<b>Blade Mount Lever</b> – Unlocks the blade mount to allow installation of the blade.
E	<b>Index Button</b> – Allows the blade mount to be indexed in 45-degree increments to achieve the desired cutting angle.
F	<b>Trigger</b> – Controls the variable speed operation of the handpiece.

## Function Switch

	<b>Fast Mode</b> – The handpiece will operate at high speed when the trigger is depressed.
	<b>Standard Mode</b> – The handpiece will operate at standard speed when the trigger is depressed.
	<b>Safe Mode</b> – The trigger is locked to prevent inadvertent operation of the handpiece.

## Definitions

The symbols located on the equipment and/or labeling are defined in this section or in the *Symbol Definition Chart*. See the *Symbol Definition Chart* supplied with the equipment.

SYMBOL	DEFINITION
	General warning sign
	Fast Mode
	Standard Mode
	Blade mount locked
	Blade mount unlocked
1 min / 4 min x 5	Duty Cycle – See the <i>Specifications</i> section.
	Full insert
SAG SAW	Sagittal Saw

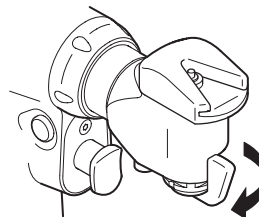
## Instructions

### To Install the Blade



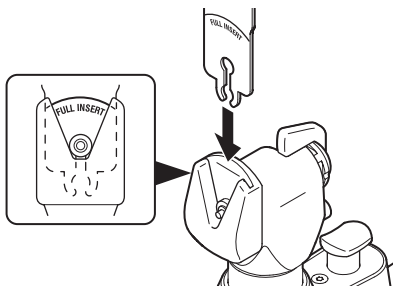
**WARNING:** Make sure the FULL INSERT mark is completely inside of the blade mount and the center pin is securely engaged with the blade after installation.

1. Lock the handpiece trigger.
2. Rotate the blade mount lever to the unlock position.

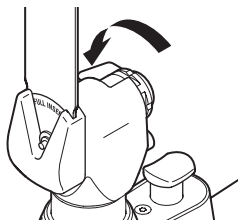




3. Hold the handpiece in a vertical orientation and fully insert the blade into the blade mount.



4. Maintain the vertical handpiece orientation and rotate the blade mount lever to the lock position to lock the blade in the blade mount.



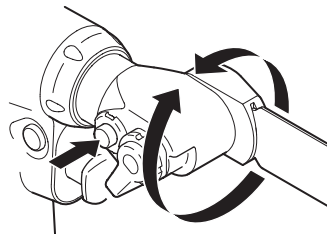
5. Gently tug the blade to make sure the blade is securely locked in the blade mount.

## To Index the Blade Mount

**CAUTION:** ALWAYS securely lock the blade mount in position before operating the handpiece.

**NOTE:** The blade mount can be locked in eight possible cutting angle positions.

1. Lock the handpiece trigger.
2. Depress the index button and rotate the blade mount to the desired cutting angle.

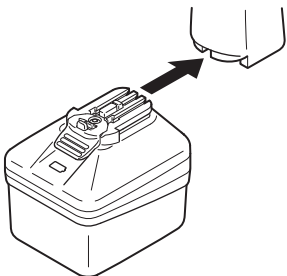


3. Release the index button.
4. Gently turn the blade mount to ensure the blade mount is securely locked in position.

## To Install the Battery Pack

**NOTE:** See the instructions for use supplied with the battery pack and/or battery charger for charging instructions and specifications.

1. Lock the handpiece trigger.
2. Slide a fully charged battery pack into the handpiece until the battery pack snaps into place.



3. Gently tug the battery pack to make sure the battery pack is securely locked in the handpiece.
4. Test the operation of the handpiece by unlocking and then depressing the trigger.

## To Operate the Handpiece



### WARNINGS:

- ALWAYS lock the handpiece trigger when the handpiece is idle or when passing the handpiece to another person.
- Before operating the handpiece, ALWAYS gently tug the cutting accessory to make sure the cutting accessory is securely locked in the handpiece.
- DO NOT change the position of the function switch while the handpiece is operating.
- ALWAYS operate the equipment within the specified environmental condition values. See the *Specifications* section.
- ALWAYS follow the recommended duty cycle to prevent the equipment from overheating. See the *Specifications* section.
- DO NOT apply excessive pressure, such as bending or prying, with the accessory. Excessive pressure may bend or fracture the accessory and result in tissue damage, loss of tactile control, and/or the ejection of accessory fragments at a high velocity.

**CAUTIONS:**

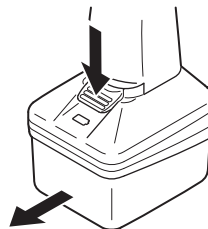
- When operating the handpiece, let the accessory do the cutting. **DO NOT** apply excessive pressure with the accessory. Excessive pressure may bend the blade and reduce the cutting quality.
- **DO NOT** stall the handpiece. Failure to comply may damage the electric motor and/or battery pack. If the handpiece jams, release the trigger immediately. Remove any obstructions before continuing to operate the handpiece.
- If any power loss is experienced while using the handpiece, **ALWAYS** replace the battery pack with a fully charged battery pack. Failure to comply may result in a drained or damaged battery pack with a shortened life.

**NOTE:** See the *Features* section for mode descriptions.

1. Slide the function switch to the fast or standard position.
2. Depress the pressure-sensitive trigger to operate the handpiece.

**To Remove the Battery Pack**

1. Lock the handpiece trigger.
2. Depress the battery latch and slide the battery pack out of the handpiece.

**To Remove the Blade**

1. Lock the handpiece trigger.
2. Rotate the blade mount lever to the unlock position, and then remove the blade from the handpiece.

**Care Instructions**

For processing instructions and disposal/recycle information, see the care instructions manual supplied with the equipment.

## Troubleshooting



**WARNING:** DO NOT disassemble or service this equipment without the authorization of the manufacturer.

**NOTE:** For service, contact your Stryker sales representative or call Stryker customer service. Outside the US, contact your nearest Stryker subsidiary.

PROBLEM	CAUSE	ACTION
The handpiece does not operate or operates at a reduced speed.	The battery pack is discharged.	Use a Stryker battery charger to recharge the battery pack.
	The battery pack is expended.	Replace the battery pack.
	The handpiece trigger is locked.	Unlock the handpiece trigger. See the <i>Features</i> section.
	The function switch is in the standard position.	Set the function switch to the fast position.
	The handpiece is damaged.	Return the equipment to Stryker for repair.
The handpiece operates but the cutting accessory does not move.	The handpiece is damaged.	Return the equipment to Stryker for repair.
The handpiece continues to operate after the trigger is released.	The handpiece is damaged.	Depress the battery latch and slide the battery pack out of the handpiece. Return the equipment to Stryker for repair.

PROBLEM	CAUSE	ACTION
The equipment becomes unusually hot during use.	The duty cycle has been exceeded.	ALWAYS follow the recommended duty cycle to prevent the equipment from overheating. See the <i>Specifications</i> section.
	The handpiece is damaged.	Return the equipment to Stryker for repair.
	The battery pack is damaged.	Use a Stryker battery charger to check the integrity of the battery pack. See the instructions for use supplied with the battery charger for more information. Replace the battery pack if required.
The cutting accessory will not fit or cannot be secured in the handpiece.	The distal end of the handpiece contains debris.	See the care instructions manual supplied with the handpiece.
	The cutting accessory is not a Stryker product.	Use a Stryker cutting accessory.
	The cutting accessory is damaged.	Replace the cutting accessory.
	The handpiece is damaged.	Return the equipment to Stryker for repair.


<b>PROBLEM</b>	<b>CAUSE</b>	<b>ACTION</b>
The handpiece is noisy and/or vibrates.	The cutting accessory is not properly installed in the handpiece.	Remove and properly install the cutting accessory. Make sure the cutting accessory is securely locked in the handpiece.
	The cutting accessory is not a Stryker product.	Use a Stryker cutting accessory.
	The cutting accessory is damaged.	Replace the cutting accessory.
	The handpiece is damaged.	Return the equipment to Stryker for repair.
The handpiece experiences sporadic electrical interference.	Electrical noise is present.	Turn off all electrical equipment not in use in the operating room.
		Relocate electrical equipment and/or increase spatial distance between electrical equipment.
		Plug operating room equipment into different operating room outlets.

## Specifications



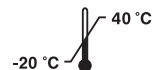
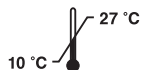
**WARNING:** ALWAYS consult any documentation that accompanies attachments and/or accessories for product-specific duty cycles and instructions for use.

**CAUTION:** ALWAYS store the equipment within the specified environmental condition values throughout its useful life.

<b>Model:</b>	System 8 Sagittal Saw (REF 8208-000-000)
<b>Dimensions:</b>	156 mm [6.1 inch] height, 38 mm [1.5 inch] width, 171 mm [6.7 inch] length
<b>Mass:</b>	1.09 kg [2.4 lb]
<b>Speed:</b>	12000 cpm (fast mode), 10000 cpm (standard mode)
<b>Excursion:</b>	5 degree arc
<b>Mode of Operation:</b>	Non-continuous
Duty Cycle:	1 minute on/4 minutes off, 5 times
Rest Between Cycles:	3 hours
<b>Applied Part(s):</b>	The distal end of the handpiece as defined by the manufacturer
<b>Maximum Temperature of Applied Part(s):</b>	Less than 51 °C [124 °F] as tested to the <i>Product Safety Certification</i> standards
<b>Power Supply:</b>	Internally powered. Refer to battery housing for voltage rating.
<b>Ingress Protection:</b>	IPX9 during cleaning and sterilization
<b>Equipment Type:</b>	 Type BF Applied Part

**Environmental Conditions:****Operation****Storage and Transportation**

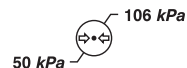
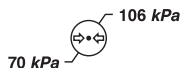
Temperature Limitation:



Humidity Limitation:



Atmospheric Pressure Limitation:



## Product Safety Certification



Canadian Standards Association (CSA) International

**Canadian Standards Association (CSA)**

CAN/CSA-C22.2 No. 60601-1:14, *Medical Electrical Equipment – Part 1: General Requirements for Basic Safety and Essential Performance*; (IEC 60601-1:2005+A1:2012, MOD)

**American National Standards Institute (ANSI)/Association for the Advancement of Medical Instrumentation (AAMI)**

ANSI/AAMI ES60601-1:2005/(R) 2012, *Medical Electrical Equipment – Part 1: General Requirements for Basic Safety and Essential Performance*; Consolidated Reprint (2009/(R) 2012); Amendment 2 (2010/(R) 2012); Amendment 1 (2012)



## Product Safety Compliance

### International Electrotechnical Commission (IEC)

IEC 60601-1:2005, Ed: 3.1, *Medical Electrical Equipment – Part 1: General Requirements for Basic Safety and Essential Performance*; Corrigendum 1 (2006); Corrigendum 2 (2007); Amendment 1 (2012)

IEC 60601-1-2:2014 Ed: 4, *Medical Electrical Equipment – Part 1-2: General Requirements for Basic Safety and Essential Performance – Electromagnetic Disturbances*

IEC 60601-1-2:2007 Ed: 3, *Medical Electrical Equipment – Part 1-2: General Requirements for Basic Safety and Essential Performance – Electromagnetic Compatibility*

IEC 60601-1-6:2010+ A1:2013 Ed. 3.1, *Medical Electrical Equipment – Part 1-6: General Requirements for Basic Safety and Essential Performance – Usability*

IEC 62366-1:2007+ A1:2014 Ed 1.1, *Medical Devices - Part 1: Application of Usability Engineering to Medical Devices*

### European Committee for Electrotechnical Standardization (CENELEC)

EN 60601-1:2006+A12:2014, Ed: 3.1, *Medical Electrical Equipment – Part 1: General Requirements for Basic Safety and Essential Performance*; IEC Corrigendum 1 (2006); IEC Corrigendum 2 (2007); CENELEC Corrigendum (2010); CENELEC Amendment A11 (2011); IEC Amendment 1 (2013); IEC Corrigendum 3 (2014); CENELEC Amendment A12 (2014)

## Electromagnetic Compatibility

<b>Guidance and manufacturer's declaration - electromagnetic emissions</b>		
<p>The System 8 Sagittal Saw (REF 8208-000-000) is intended for use in the electromagnetic environment specified below. The customer or the user of the System 8 Sagittal Saw (REF 8208-000-000) should assure that it is used in such an environment.</p>		
<b>Emissions test</b>	<b>Compliance</b>	<b>Electromagnetic environment - guidance</b>
RF emissions CISPR 11	Group 1	The System 8 Sagittal Saw (REF 8208-000-000) uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The System 8 Sagittal Saw (REF 8208-000-000) is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	N/A	
Voltage fluctuations/flicker emissions IEC 61000-3-3	N/A	

**Guidance and manufacturer's declaration - electromagnetic immunity**

The System 8 Sagittal Saw (REF 8208-000-000) is intended for use in the electromagnetic environment specified below. The customer or the user of the System 8 Sagittal Saw (REF 8208-000-000) should assure that it is used in such an environment.



<b>Immunity test</b>	<b>IEC 60601 test level</b>	<b>Compliance level</b>	<b>Electromagnetic environment - guidance</b>
Electrostatic discharge (ESD) IEC 61000-4-2	±2, ±4, ±6, ±8 kV Contact ±2, ±4, ±8, ±15 kV Air	±2, ±4, ±6, ±8 kV Contact ±2, ±4, ±8, ±15 kV Air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV at 100 kHz repetition frequency for power supply lines ±1 kV at 100 kHz repetition frequency for input/output lines	±2 kV at 100 kHz repetition frequency for power supply lines ±1 kV at 100 kHz repetition frequency for input/output lines	N/A
Surge IEC 61000-4-5	±0.5, ±1 kV line(s) to line(s) ±0.5, ±1, ±2 kV line(s) to earth	N/A  N/A	N/A

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Voltage dips, short interruptions and voltage variations on power supply input lines  IEC 61000-4-11	$<5\% U_T$ (>95% dip in $U_T$ ) for 0.5 cycle  $0\% U_T$ (100% dip in $U_T$ ) for 0.5 cycle at $0^\circ, 45^\circ, 90^\circ, 135^\circ, 180^\circ, 225^\circ, 270^\circ,$ and $315^\circ$  $0\% U_T$ (100% dip in $U_T$ ) for 1 cycle at $0^\circ$  $40\% U_T$ (60% dip in $U_T$ ) for 5 cycles  $70\% U_T$ (30% dip in $U_T$ ) for 25 & 30 cycles at $0^\circ$  $<5\% U_T$ (>95% dip in $U_T$ ) for 5 s  $0\% U_T$ (100% dip in $U_T$ ) for 5 s	N/A  N/A  N/A  N/A  N/A  N/A  N/A	N/A
Power frequency (50/60 Hz) magnetic field  IEC 61000-4-8	3 A/m, 30 A/m	3 A/m, 30 A/m	Power frequency magnetic fields should be at levels characteristics of a typical location in a typical commercial or hospital environment.

NOTE:  $U_T$  is the alternating current mains voltage prior to application of the test level.

### Guidance and manufacturer's declaration - electromagnetic immunity

The System 8 Sagittal Saw (REF 8208-000-000) is intended for use in the electromagnetic environment specified below. The customer or the user of the System 8 Sagittal Saw (REF 8208-000-000) should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
<p>Conducted RF IEC 61000-4-6</p>	<p>3 Vrms 150 kHz to 80 MHz outside ISM bands 80% AM at 1 kHz</p> <p>6 Vrms 150 kHz to 80 MHz in ISM bands 80% AM at 1 kHz</p>	<p>N/A</p>	<p style="text-align: center;">IEC 60601-1-2 3rd Edition:</p> <p>Portable and mobile RF communications equipment should be used no closer to any part of the System 8 Sagittal Saw (REF 8208-000-000), including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p style="text-align: center;">Recommended separation distance:</p> <p style="text-align: center;"><math>d=1.2\sqrt{P}</math> 80 MHz to 800 MHz <math>d=2.3\sqrt{P}</math> 800 MHz to 2.5 GHz</p> <p>Where <math>P</math> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <math>d</math> is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,<sup>a</sup> should be less than the compliance level in each frequency range.<sup>b</sup> Interference may occur in the vicinity of equipment marked with the following symbol:</p> <div style="text-align: center;">  <p>(Non-ionizing electromagnetic radiation)</p> </div> <p style="text-align: center;">IEC 60601-1-2 4th Edition:</p>
<p>Radiated RF IEC 61000-4-3</p>	<p>10 V/m 80 MHz to 2.7 GHz 80% AM at 1 kHz</p> <p>3 V/m 80 MHz to 2.5 GHz 80% AM at 1 kHz</p>	<p>10 V/m 80 MHz to 2.7 GHz 80% AM at 1 kHz</p> <p>3 V/m 80 MHz to 2.5 GHz 80% AM at 1 kHz</p>	<div style="text-align: center;">  <p><b>WARNING:</b> Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the System 8 Sagittal Saw (REF 8208-000-000) including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.</p> </div>

NOTE 1: At 80 MHz and 800 MHz the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

<sup>a</sup> Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the System 8 Sagittal Saw (REF 8208-000-000) is used exceeds the applicable RF compliance level above, the System 8 Sagittal Saw (REF 8208-000-000) should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating System 8 Sagittal Saw (REF 8208-000-000).

<sup>b</sup> Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

**Recommended separation distances between portable and mobile RF communications equipment and the System 8 Sagittal Saw (REF 8208-000-000)**

The System 8 Sagittal Saw (REF 8208-000-000) is intended for use in the electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the System 8 Sagittal Saw (REF 8208-000-000) can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the System 8 Sagittal Saw (REF 8208-000-000) as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2.5 GHz
	N/A	$d=1.2\sqrt{P}$	$d=2.3\sqrt{P}$
0.01	N/A	0.12	0.23
0.1	N/A	0.38	0.73
1	N/A	1.2	2.3
10	N/A	3.8	7.3
100	N/A	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance  $d$  in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where  $P$  is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

ES/DE/FR/IT/NL	8208-001-710
JA/ZH/KO	8208-001-720
SV/DA/FI/PT/NO	8208-001-730
PL/EL	8208-001-750
TR	8208-001-760
RU	8208-001-770



**Stryker Instruments**

1941 Stryker Way  
Portage, Michigan  
(USA) 49002  
1-269-323-7700  
1-800-253-3210

**stryker**<sup>®</sup>