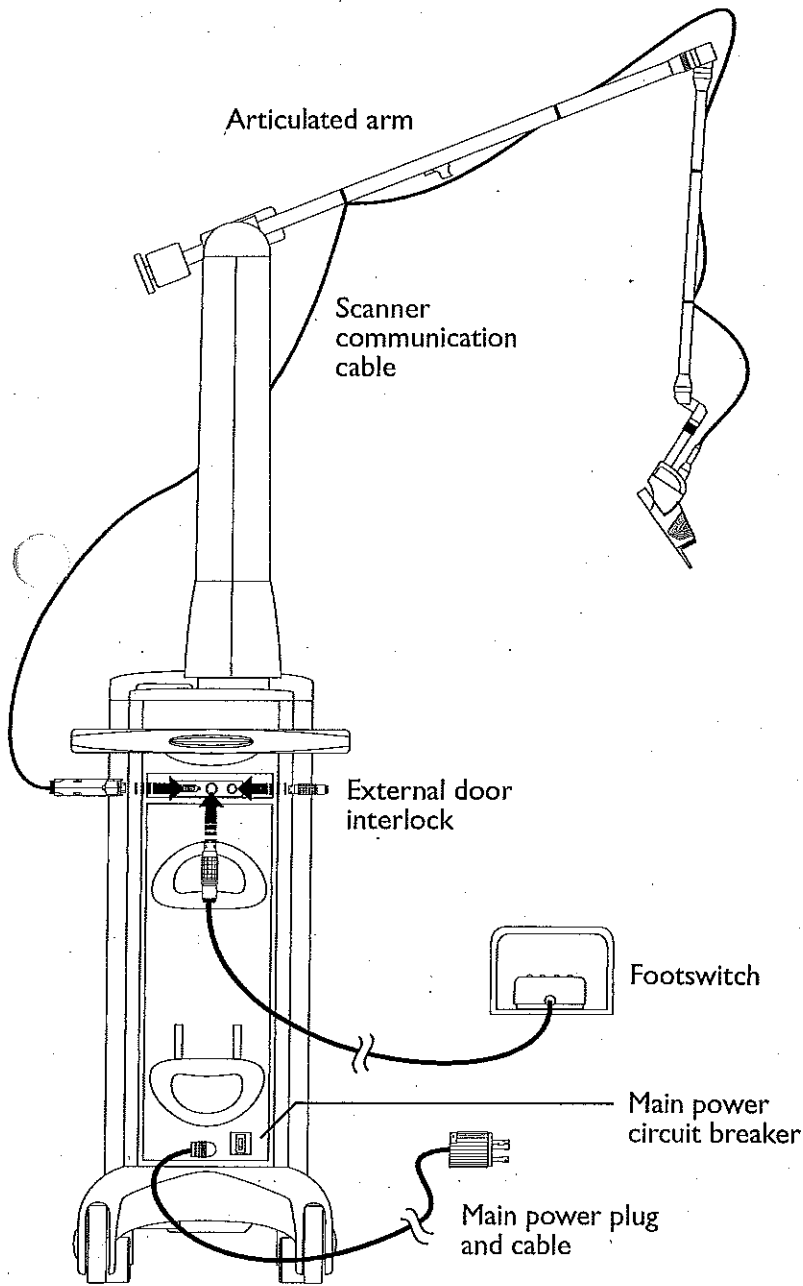
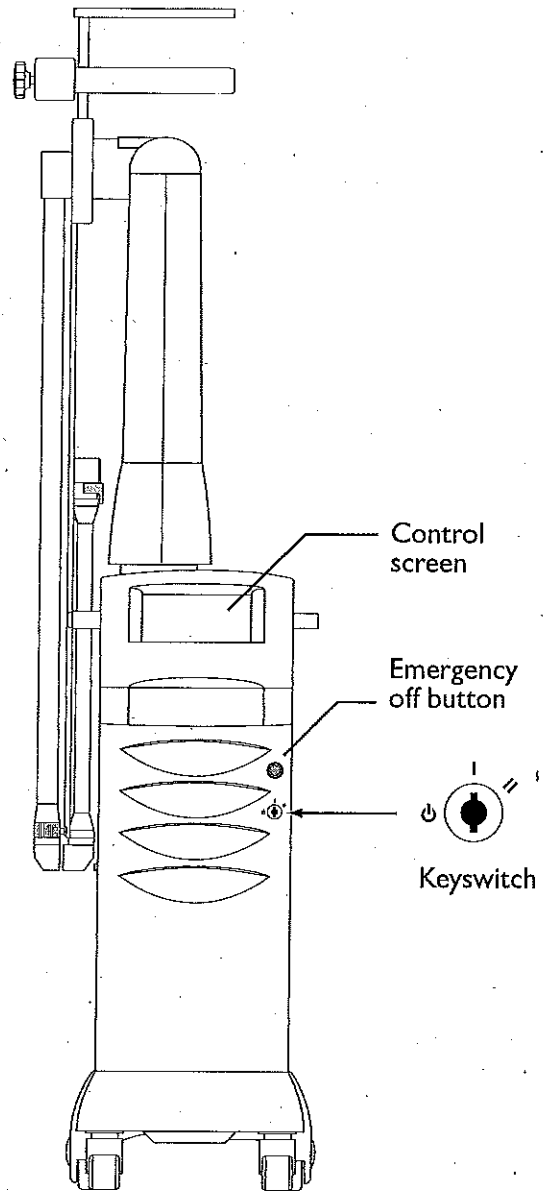


Read the UltraPulse® CO₂ Laser operator manual and the appropriate delivery system operator manual before operating the laser. These instructions are intended as a supplemental guide to the laser and delivery system operator manuals.

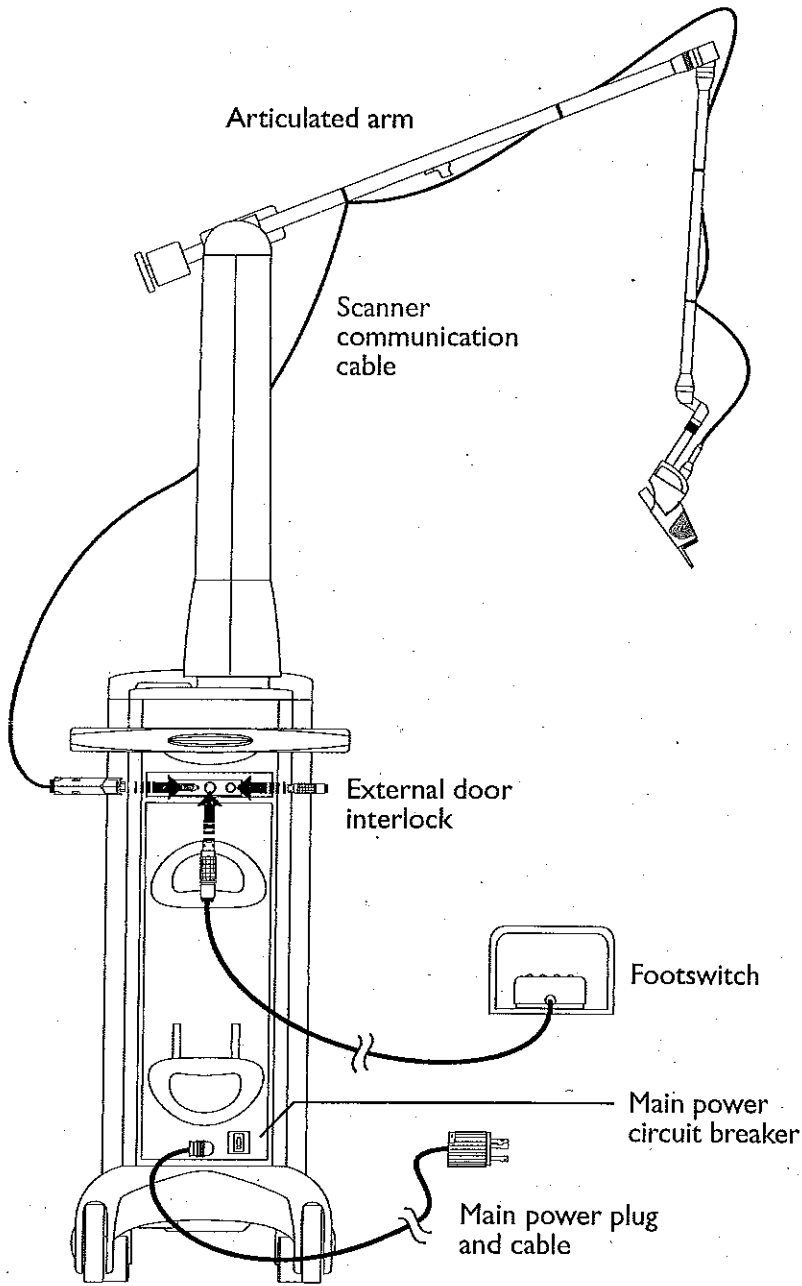


Laser console—rear

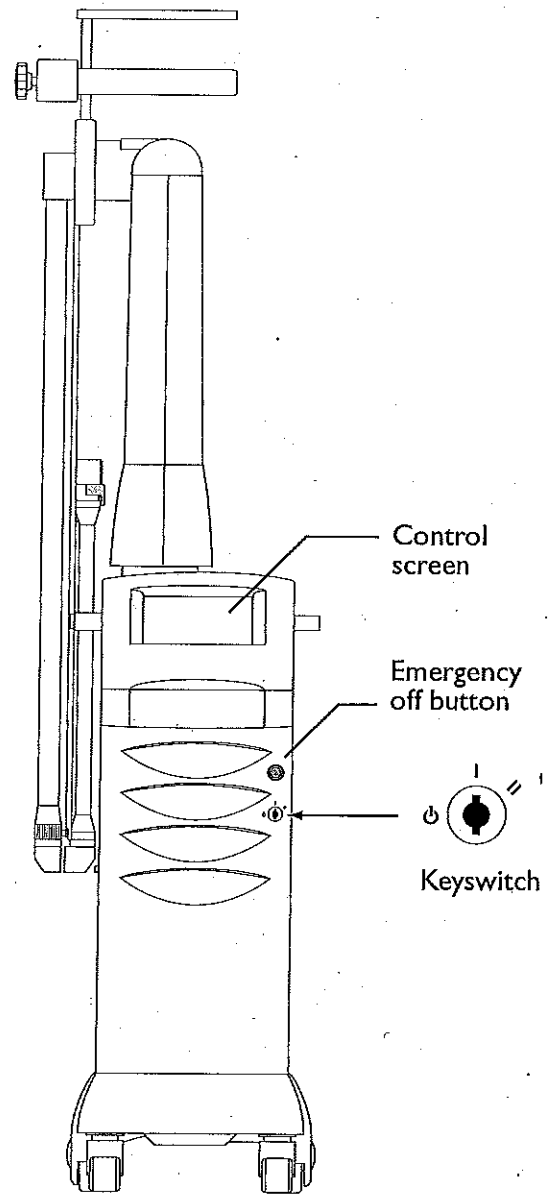


Laser console—front

Read the UltraPulse® CO₂ Laser operator manual and the appropriate delivery system operator manual before operating the laser. These instructions are intended as a supplemental guide to the laser and delivery system operator manuals.



Laser console—rear



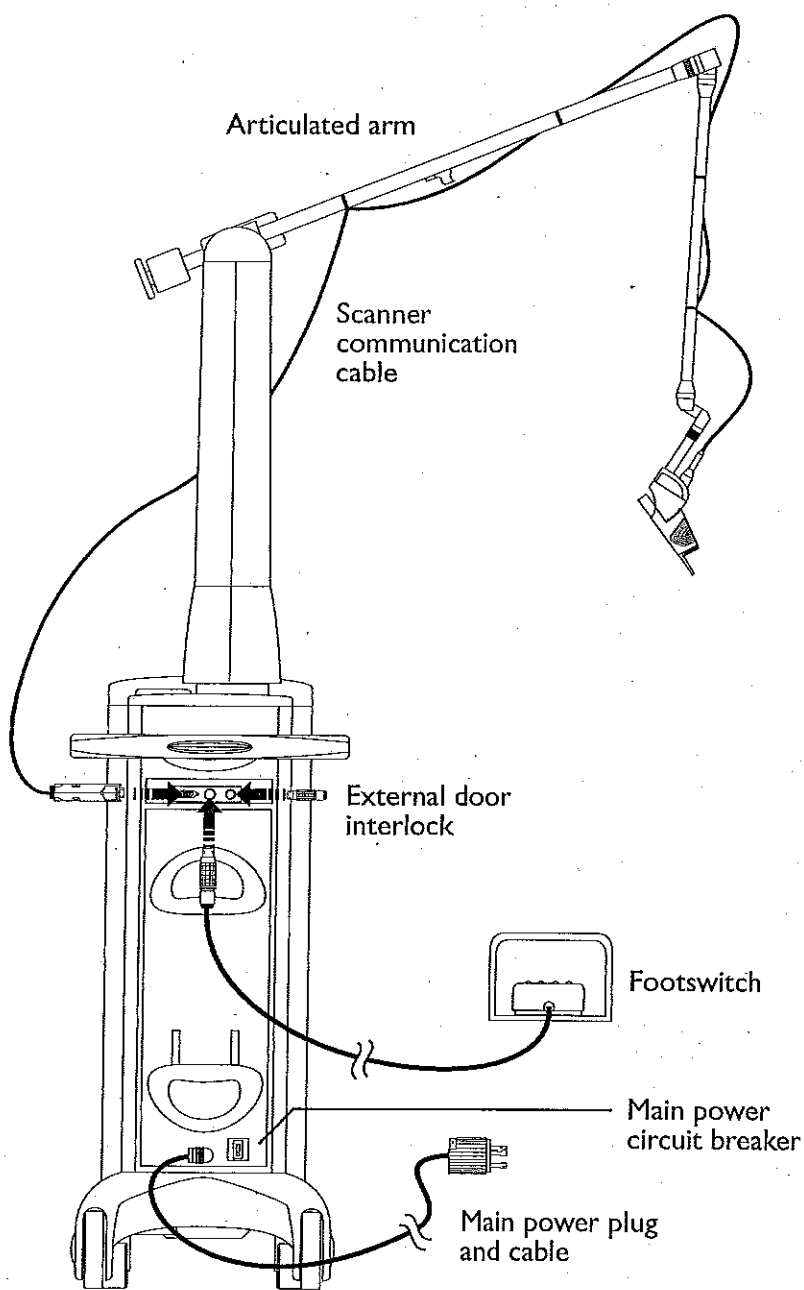
Laser console—front

SurgiTouch Interface

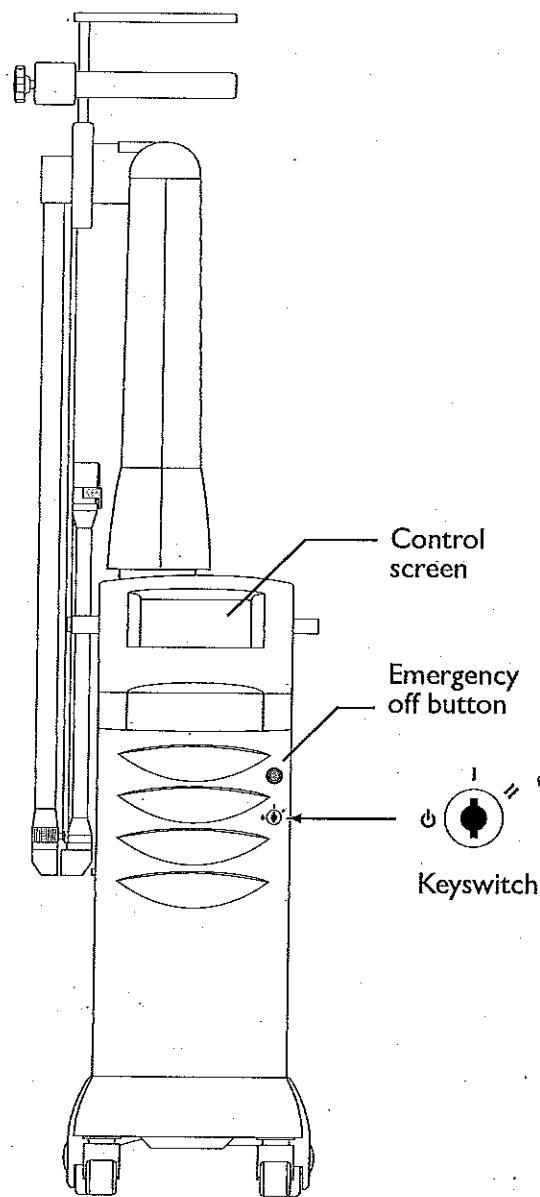
The following table shows the available applications and delivery devices within each SurgiTouch specialty.

Specialty	Application	Delivery Device
Aesthetic	Resurfacing CPG	UltraScan Encore CPG*
	Endoscopic Surgery	UltraFlex Waveguide Delivery System
	Blepharoplasty	0.2mm Focused Incisional Handpiece
	Resurfacing Paint	TrueSpot 2.0mm Collimated Handpiece
ENT (Otolaryngology)	Tonsil	Oral Pharyngeal & Nasal Delivery System
	Uvula	Oral Pharyngeal & Nasal Delivery System
	Bronchi	781 Laser Bronchoscope
	Tympanic Membrane	OtoScan Ear Aeration Delivery System AcuSpot 712 Micromanipulator
	Larynx	AcuBlade Micromanipulators AcuSpot 712 Micromanipulator Laryngeal Probes
	Nasal	Oral Pharyngeal & Nasal Delivery System AcuSpot 712 Micromanipulator Nasal Probes
GYN (Gynecology)	Laparoscopy	Lumenis/Nezhat Laparoscopic Coupler Variable Spot Laparoscopic Coupler Second Puncture Probe Coupler
	Colposcopy	MicroSlad Micromanipulator ClearSpot 350 Micromanipulator
	Freehand	1.0mm Focused Incisional Handpiece 0.2mm Focused Incisional Handpiece
Neurosurgery	Microsurgery	AcuSpot 712 Micromanipulator
	Freehand	1.0mm Focused Incisional Handpiece 0.2mm Focused Incisional Handpiece
General Surgery	Freehand	1.0mm Focused Incisional Handpiece 0.2mm Focused Incisional Handpiece
*Compatible UltraScan Encore CPGs are identified by a blue name label.		

Read the UltraPulse® CO₂ Laser operator manual and the appropriate delivery system operator manual before operating the laser. These instructions are intended as a supplemental guide to the laser and delivery system operator manuals.

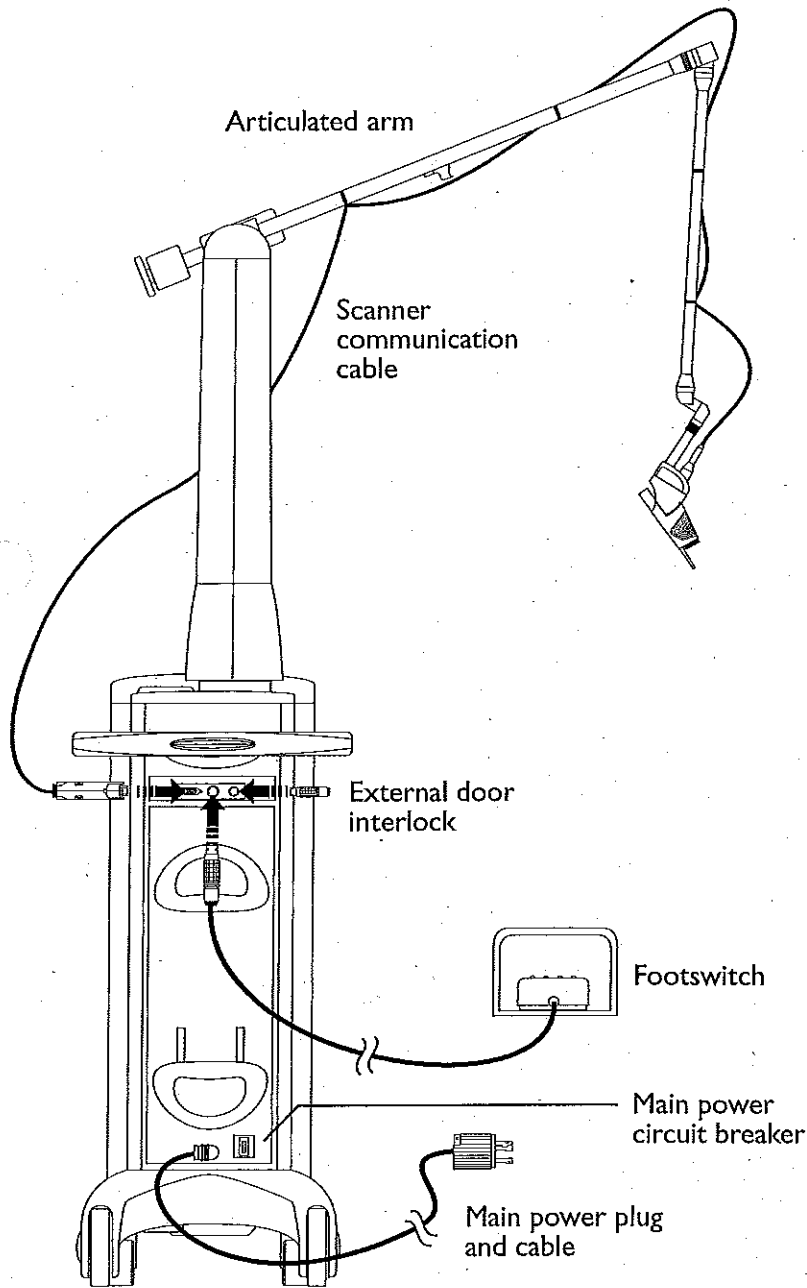


Laser console—rear

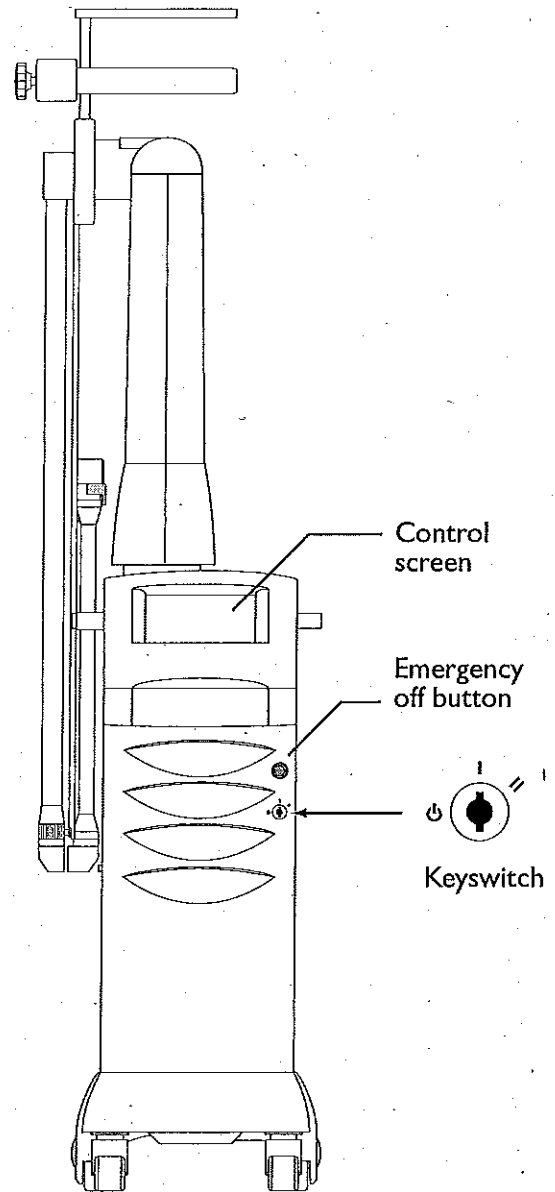


Laser console—front

Read the UltraPulse® CO₂ Laser operator manual and the appropriate delivery system operator manual before operating the laser. These instructions are intended as a supplemental guide to the laser and delivery system operator manuals.



Laser console—rear



Laser console—front

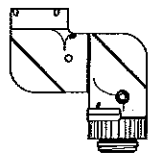
The SurgiTouch Interface

The following table shows the available applications and delivery devices within each SurgiTouch specialty.

Specialty	Application	Delivery Device
Aesthetic	Resurfacing CPG	UltraScan Encore CPG*
	Endoscopic Surgery	UltraFlex Waveguide Delivery System
	Blepharoplasty	0.2mm Focused Incisional Handpiece
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	Bronchi	781 Laser Bronchoscope
	Tympanic Membrane	OtoScan Ear Aeration Delivery System AcuSpot 712 Micromanipulator
	Larynx	AcuBlade Micromanipulators AcuSpot 712 Micromanipulator Laryngeal Probes
	Nasal	Oral Pharyngeal & Nasal Delivery System AcuSpot 712 Micromanipulator Nasal Probes
GYN (Gynecology)	Laparoscopy	Lumenis/Nezhat Laparoscopic Coupler Variable Spot Laparoscopic Coupler Second Puncture Probe Coupler
	Colposcopy	MicroSlad Micromanipulator ClearSpot 350 Micromanipulator
	Freehand	1.0mm Focused Incisional Handpiece 0.2mm Focused Incisional Handpiece
Neurosurgery	Microsurgery	AcuSpot 712 Micromanipulator
	Freehand	1.0mm Focused Incisional Handpiece 0.2mm Focused Incisional Handpiece
General Surgery	Freehand	1.0mm Focused Incisional Handpiece 0.2mm Focused Incisional Handpiece
*Compatible UltraScan Encore CPGs are identified by a blue name label.		

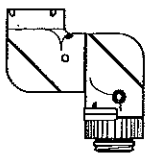
UltraPulse Delivery Device Connection Diagram

*Compatible UltraScan Encore CPGs are identified by a blue name label.



Laser articulated arm

- 0.2mm Focused Incisional Handpiece
- 1.0mm Focused Incisional Handpiece
- ClearSpot 160 Micromanipulator
(in UltraPulse or CW mode only)
- ClearSpot 350 Micromanipulator
- UltraScan Encore CPG*
(Computer Pattern Generator)
- Lumenis/Nezhat Laparoscopic Coupler
- Oral Pharyngeal Variable Spot Handpiece
(in UltraPulse or CW mode only)
- Second Puncture Laparoscopic Coupler
- TrueSpot 2.0mm Collimated Handpiece
- UltraFlex Waveguide
- Variable Spot Laparoscopic Coupler

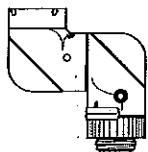


Laser articulated arm



Blue UltraPulse thread adapter (with lens)

- Bronchoscope 781
- MicroSlad 715, 717, 718, 719 Micromanipulators
- AcuSpot 712 Micromanipulator
- Oral Pharyngeal and Nasal Delivery System

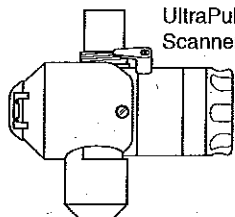


Laser articulated arm



Blue UltraPulse thread adapter (with lens)

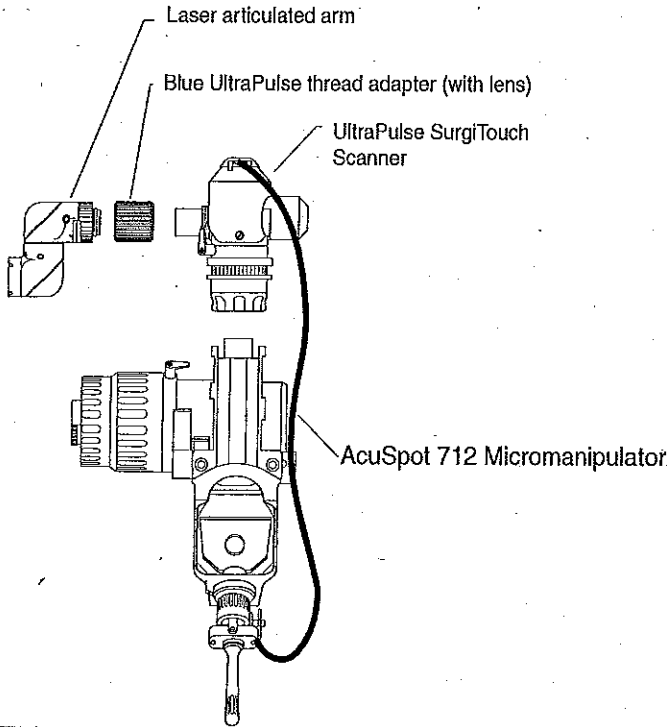
This configuration is only suitable for the UltraPulse SurgiTouch laser model.



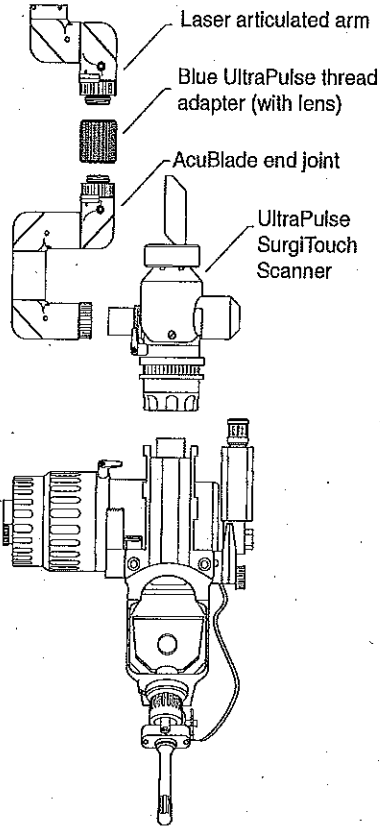
UltraPulse SurgiTouch Scanner

- OtoScan Ear Aeration Delivery System 15300
- Bronchoscope 781
- MicroSlad 715, 717, 718, 719 Micromanipulators
- AcuSpot 712 Micromanipulator
- Oral Pharyngeal and Nasal Delivery System

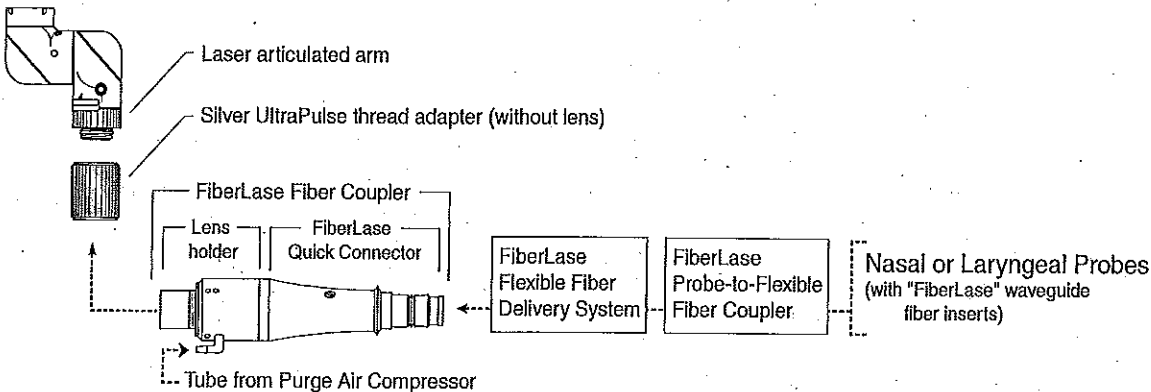
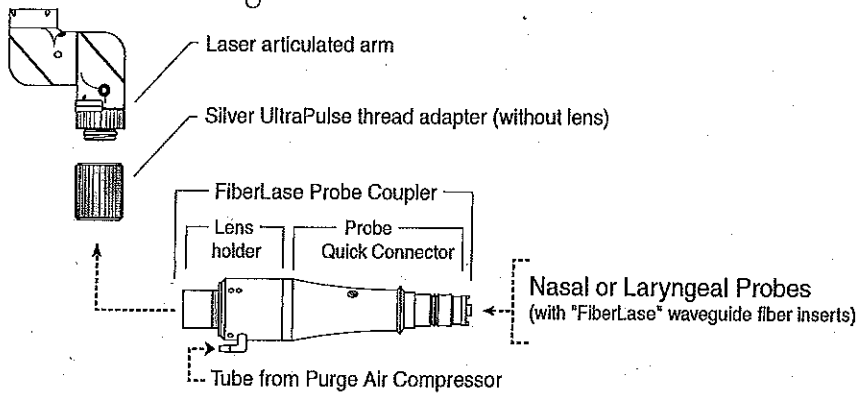
Digital AcuBlade™ Micromanipulator Delivery System



AcuBlade™ Micromanipulator Delivery System



These configurations are only suitable for the UltraPulse SurgiTouch laser model.



The SurgiTouch treatment screen features a top navigation bar with tabs for 'SurgiTouch', 'UltraPulse', 'CW', and 'ULTRA Pulse'. Below this, a 'Laser status display' shows a hand icon and a circular progress indicator. The main interface is divided into several sections: 'Select Specialty' and 'Select Application' (with icons for ENT, Larynx, and AblBlade); 'Select Delivery Device' (with a 2.0 mm depth indicator); 'Power display' (10.0 W); 'Turn timed exposure on or off' (10 mts); 'Turn repeat delay on or off' (0.00 s); and an 'Advisory text bar' at the bottom with a 'LUMENIS' logo and a save/retrieve icon.

Labels on the left side of the screen include: Select standby mode, Select ready mode, Select SurgiTouch treatment screen, Laser status display, Select Non-scan or Scan mode, Power display, Turn timed exposure on or off, Turn repeat delay on or off, and Advisory text bar.

Labels on the right side of the screen include: Select Specialty Application, Select Delivery Device, Set scan depth, Set scan size, Set scan shape, Adjust power, Set exposure time, Set delay interval, and Save and retrieve treatment settings.

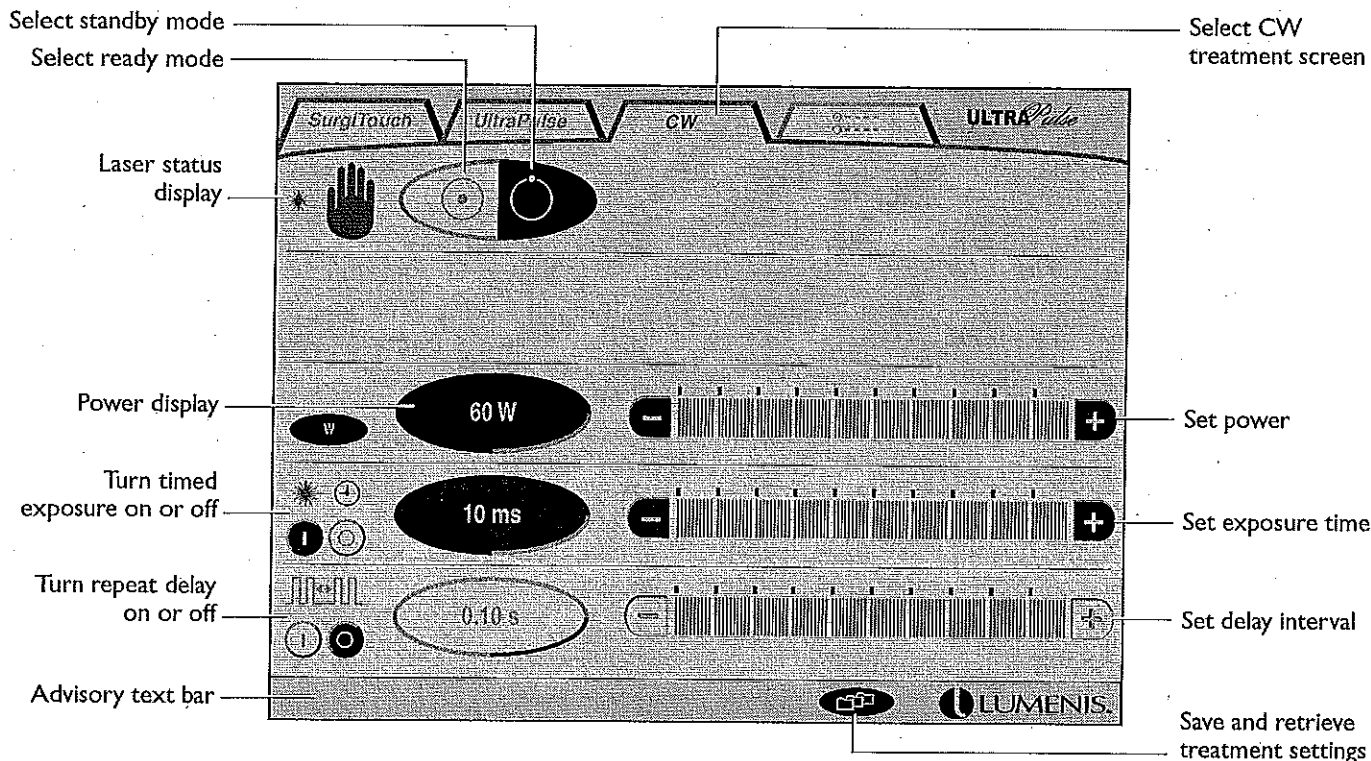
SurgiTouch treatment screen

The UltraPulse treatment screen features a top navigation bar with tabs for 'SurgiTouch', 'UltraPulse', 'CW', and 'ULTRA Pulse'. Below this, a 'Laser status display' shows a hand icon and a circular progress indicator. The main interface is divided into several sections: 'Energy/fluence display' (125 mJ, 9.4 J/cm²); 'Rate/average power display' (10 Hz, 1.3 W); 'Turn CPG on or off' (1-2-5, 17.3 J/cm²); 'Turn repeat delay on or off' (0.10 s); and an 'Advisory text bar' at the bottom with a 'LUMENIS' logo and a save/retrieve icon.

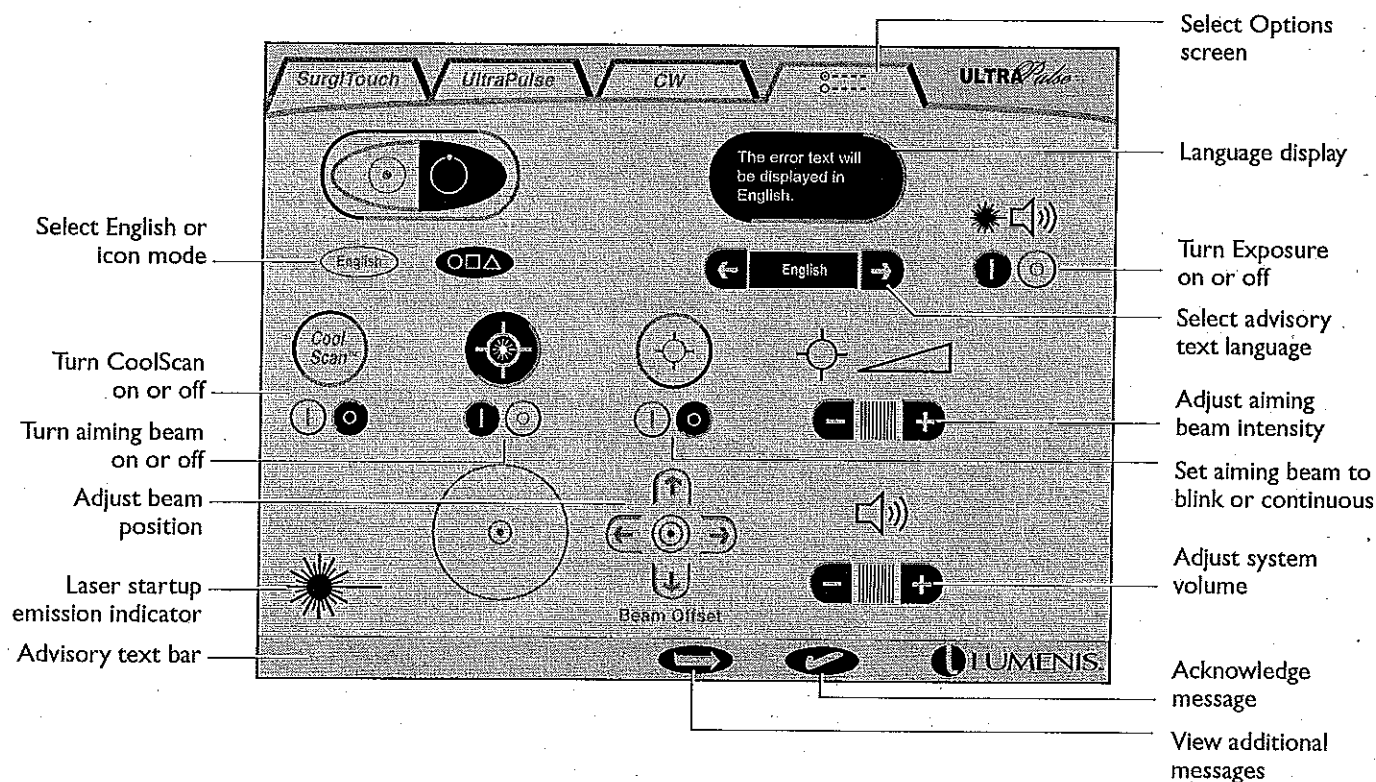
Labels on the left side of the screen include: Select standby mode, Select ready mode, Laser status display, Energy/fluence display, Rate/average power display, Turn CPG on or off, Turn repeat delay on or off, and Advisory text bar.

Labels on the right side of the screen include: Select UltraPulse treatment screen, Enter CO₂ Lite mode, Set energy or fluence, Set rate or average power, Set pattern density, Set pattern size, Set pattern shape, Set delay interval, and Save and retrieve treatment settings.

UltraPulse treatment screen (CPG controls shown)



CW treatment screen



Options screen

Connection to the Laser System

1. Situate the compressor on a stable surface, in close proximity to the base of the laser system's articulated arm.
2. Connect one end of the power cable to the compressor's power cable receptacle (see Figure 4) and the other end to a normal electrical outlet.
3. Unpack the air tube with the bacteriological filter and connect one end of the tube to the spigot on the compressor labeled **Air Outlet**. Refer to Figure 2:
4. Ensure that the silver UltraPulse thread adapter and the FiberLase fiber coupler are attached to the articulated arm's endjoint.
5. Attach the bacteriological filter's clamp to the silver thread adapter.
6. Connect the free end of the air tube to the FiberLase fiber coupler's intake nipple.

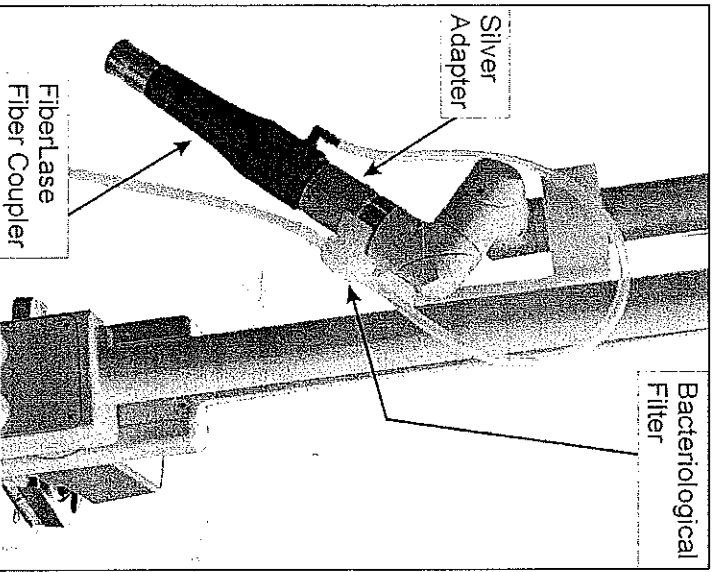


Figure 2

Operation

1. The compressor must be connected and used when the laser system is operated in **ENT** or **Laryngeal** modes.
2. Turn the compressor on using the power switch on the front panel (see Figure 3), before turning on the laser system.
3. Keep the compressor running as long as the laser system is operating with the FiberLase fiber, or any of the nasal or laryngeal probes is attached to the articulated arm.
4. Turn the compressor off after you turn off the laser system.

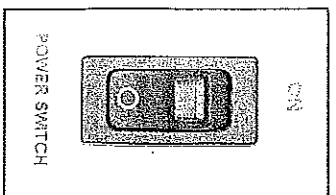


Figure 3

Note

When accessing the ENT or Laryngeal modes, a warning message will appear at the bottom of the screen stating:
Verify that the purge is connected

Caution

- The compressor should be turned on before turning on the laser system.

Maintenance

Bacteriological Filter:

A unidirectional bacteriological filter (P/N # MD1359300) is supplied with the compressor to provide clean, compressed air to the surgical accessory.

The filter should be replaced when:

- Insufficient air flow is detected
- Discoloration is observed in the filter

Fuses:

The compressor is surge-protected with two 1.0 Amp, 5x20mm glass-tube fuses. The fuses are located in the fuse compartment under the power cable receptacle (see Figure 4).

When necessary, always replace the fuses as a pair.

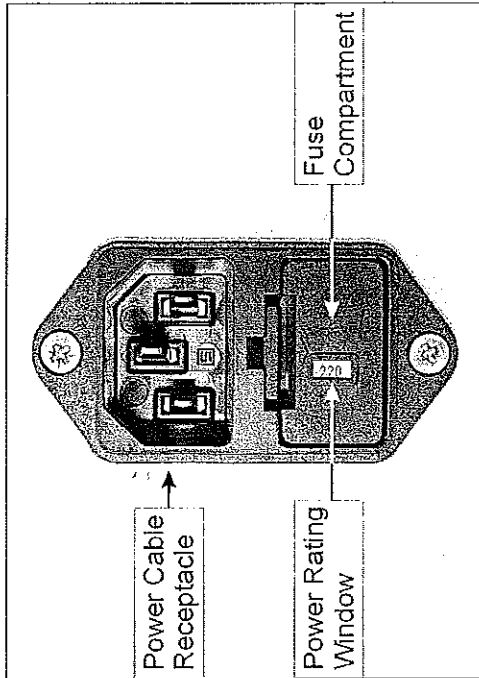


Figure 4

Caution

- Before turning the compressor on for the first time, make sure that the number appearing in the **Power Rating Window** (10 or 220) matches the electrical power being supplied to the compressor (110V or 220V).
- If the number in the window does not match the power supplied to the compressor: disconnect the power cable, remove the fuse compartment, pull out the inner cartridge, turn it and re-insert it so that the number in the window will match reads the proper power rating.

Purge Air Compressor for Lumenis UltraPulse Laser Systems

Introduction

The UltraPulse Purge Air Compressor must be connected to the laser system and operated when using the nasal or laryngeal probe accessories, with or without the FiberLase flexible fiber.

The purge air compressor is delivered with the following accessories (see Figure 1):

- Power cable
- Air tube
- Bacteriological filter (installed on air tube)
- 2 surge protection fuses (installed)

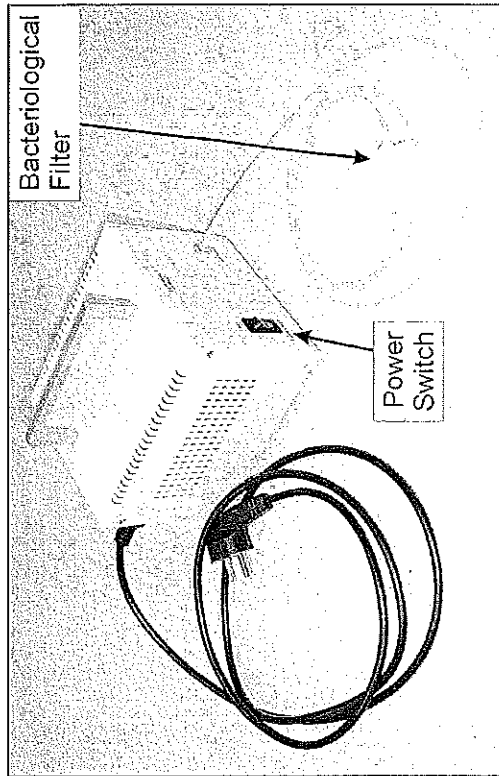


Figure 1

Preoperative Instructions

- 1 Verify that the laser is properly connected, as instructed in the General Operation section of the laser operator manual.
- 2 Verify that the delivery system is properly connected, and sterile drape the arm if necessary, as instructed in the delivery system operator manual.
- 3 Post the "Laser in Use" warning sign outside the treatment room door.
- 4 If necessary, turn on the main electrical service (wall circuit breaker).
- 5 Ensure that all persons in the treatment room are wearing the appropriate laser safety eyewear.
Refer to the Safety and Regulatory section of the laser operator manual for detailed information regarding laser safety eyewear.
- 6 If using the OtoScan, Acuspot, AcuBlade, Oral Pharyngeal handpiece, or the Nasal or Laryngeal Probes - with or without the FiberLase flexible fiber delivery system - connect the external Purge Air Compressor, as instructed in "Connection Instructions" in this manual.
- 7 Turn on the laser, as instructed in "Laser Console Basics" in the laser operator manual.
- 8 Perform the beam alignment check, as instructed in your delivery system operator manual.




WARNING - Before beginning an operative procedure, always verify that the laser aiming and treatment beams are aligned, as instructed in the delivery system operator manual. If the aiming and treatment beams are not aligned, do not use the laser until alignment is corrected by a Lumenis-certified service technician. Misalignment of aiming and treatment beams may result in laser exposure to nontarget tissues and possible injury.



CAUTION - Laser plume may contain viable tissue particulates.

Intraoperative Instructions

- 1 Set the treatment values, as instructed in the laser operator manual and the appropriate delivery system operator manual.
- 2 If any of the "OtoScan", "Tympanic Membrane", "Nasal" or "Nasal Probes" ENT applications have been selected, a message will appear in the advisory text bar requesting you to turn on the external Purge Air Compressor (see below). Turn on the compressor and press the  button.




CAUTION - Operating the laser with the FiberLase delivery systems without turning on the external Purge Air Compressor can cause severe damage to the FiberLase fibers.

- 3 Place the laser in ready mode.
- 4 Ensure that the aiming beam is visible. If using the UltraScan Encore CPG, preview the pattern as described in the UltraScan Encore CPG operator manual.



CAUTION - Before beginning a procedure with the UltraScan Encore CPG, always preview the pattern. Repeat the pattern preview instructions during treatment if the pattern is changed, if single exposure is changed to timed exposure, or if the time delay between patterns is adjusted. Delivering the treatment beam to the target tissue before previewing the pattern may result in unintended laser-tissue interaction.

- 5 Position the aiming beam on the target tissue.
- 6 Depress the footswitch to deliver the treatment beam to the tissue. The  (laser emission) icon appears in the laser status display on the control screen.
If surgery must be interrupted, place the laser in standby mode to disable the footswitch.

Postoperative Instructions

- 1 Place the laser in the standby mode.
- 2 Turn off the laser, as instructed in the General Operation section of the laser operator manual.
- 3 Turn off the main power circuit breaker.
- 4 Place the footswitch on the footswitch storage mounts. Coil the footswitch cable and store it inside the footswitch housing. Do not wrap the footswitch cable around the power cable wrap.
- 5 If used, turn off the external Purge Air Compressor. Disconnect its air tube from the delivery device.
- 6 Disconnect the delivery system, including all adapters and couplers. Clean the delivery system and store in the appropriate storage container, as instructed in the delivery system operator manual.



See the delivery system operator manual for a list of additional postoperative instructions that are specific to the delivery system.

- 7 Clean the exterior surfaces of the laser, as instructed in the Maintenance section of the laser operator manual.
- 8 Replace the red protective cap on the distal end of the laser articulated arm.
- 9 Fold and secure the articulated arm, as instructed in the General Operation section of the laser operator manual.

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Revision C

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