PIONEERING THE FUTURE OF SURGERY Asensus Augmented Intelligence Intelligent Surgical Unit™

## **COMBINING TECHNOLOGY AND HUMAN INGENUITY**

Asensus Surgical believes augmented intelligence (AI) and deep learning capabilities can elevate your intraoperative surgery.

## SUPPORTING ROBOTICS WITH AI

During surgery, AI enables a robotic-assisted surgery platform to *perceive* through computer vision, *learn* through machine learning and *assist* your surgical decision-making in real time.

# **CHANNELING THE COLLECTIVE KNOWLEDGE OF SKILLED SURGEONS**

Al captures the collective knowledge and experience of skilled surgeons to deliver critical, real-time information that helps reduce variability when navigating challenging anatomy.

# **PIONEERING THE FUTURE OF SURGERY**

As the *first* company to bring AI and machine learning into soft tissue surgical robotics, Asensus Surgical is leading innovation in supporting surgeons to perform safer and more accurate procedures.





# Al + Human Ingenuity: Pioneering Safer, More Predictable Surgeries

Asensus Augmented Intelligence is pioneering the introduction of digital tools to help surgeons make informed decisions, navigate challenging anatomy, and reduce variability that impacts outcomes. In combination with the Senhance<sup>®</sup> Surgical System, these novel digital capabilities are designed to provide clinicians with new data and insights to enhance real-time decision-making by analyzing multiple data sources in real-time, for example, visualization, force readings, and robotic positioning.

#### **AI SIGHT**

Al Sight enables a surgeon to precisely direct the camera's field of view without the need of an assistant to maneuver the endoscope, freeing surgical assistants to attend to other tasks in the sterile field.

*Eye Tracking, Follow Me*, Follow Us, Go *To, Smart Zoom* 





Single instrumentguided camera control



Dual instrumentguided camera control



Instrument-guided repositioning of the visual field



Maintaining targeted field of view while zooming in and out

#### **AI ANNOTATION**

Al Annotation is a means of providing visual instruction for enhanced communication and coordination of the surgical team. Digital OR collaboration tools support better communication between the surgical team during the procedure.

#### Digital Tagging



Digital overlay of up to 9 pins for enhanced OR communication



Al Precision allows surgeons to rely on data to interpret the surgical field, for more accurate decision-making. Al Precision enables precise intraoperative measurement for more procedural reproducibility and documentation.

#### Point to Point, Contour Measurement



Millimeter-accurate 2D

measurement between

instrument points



Millimeter-accurate 3D measurement across tissue planes



# Elevate Digital Laparoscopy with the Intelligent Surgical Unit™ (ISU)™

Advance to the next level of digital laparoscopy with the Intelligent Surgical Unit (ISU), the digital engine behind Asensus Augmented Intelligence, whilst advancing the Senhance Surgical System capabilities. The ISU will empower you and your Operating Room team to elevate your intraoperative performance with new system features including Senhance<sup>®</sup> Articulating. The Intelligent Surgical Unit is the world's first Al system to be FDA cleared, CE Marked and approved by PMDA for use in robotic surgery.

During surgery, augmented intelligence enables a robotic surgery assisted platform to:

**PERCEIVE** - computer vision

**LEARN** - machine learning

**ASSIST** - clinical intelligence

The ISU is designed to integrate with the Senhance Surgical System, and is compatible with a wide selection of vision systems to deliver a greater degree of surgeon control and clinical insight.

Ordering Information	
Order Code	Description
X9007696	Intelligent Surgical Unit (ISU)* *Compatible only with the Senhance Surgical System
X0009201	Senhance Upgrade Kit to ISU Configuration
	Description
2.5 Configuration Package	Software includes Go To, Follow Me, and Smart Zoom
2.7 Configuration Package	In addition to 2.5 configuration features, includes Follow Us, Point to Point Measurement, Contour Measurement, and Digital Tagging



Learn more about the clinical applications of Asensus Augmented Intelligence at Asensus.com!

Eye trackers supplied by Tobii.

The Senhance System was developed under a license of the European Commission Joint Research Centre.

Products may not be available in all markets and indications for use vary by region. Please visit www.asensus.com/indications-for-use or contact your local representative for information about your area.

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