

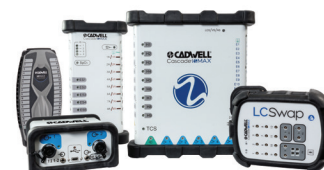
# Find the intraoperative neuromonitoring system that fits the needs of your facility and your patients



**CASCADE PRO®**



**CADWELL GUARDIAN™**



**CASCADE® IOMAX®**

System specifications			
<b>Platform</b>	Pod-based	Pod-based	Module-based with optional extender pods
<b>Channels</b>	16 or 32	Up to 80	Up to 80
<b>Weight</b>	15 lb / 6.8 kg	16 lb / 7.3 kg	20 lb / 9.1 kg
<b>Water ingress protection</b>	Drip-proof	Drip-proof	Drip-proof IP67 - waterproof
<b>Auditory stimulation</b>	Insert earphones or headphones	Insert earphones or headphones	Insert earphones
<b>Visual stimulation</b>	Cascade PRO LED Goggles	VEP Glow Goggles®	Cascade IOMAX Goggles
<b>PC interface</b>	10BASE-T	USB	USB
<b>Electrosurgical unit (ESU) detection</b>	Detection clip	Software-integrated	Software-integrated
Transcranial			
<b>Intensity</b>	Up to 1,000 V / 1,000 mA	Up to 1,000 V / 1,500 mA	Up to 1,000 V / 1,500 mA
<b>Pulse width</b>	50, 75 $\mu$ S	50-500 $\mu$ S with dynamic adjustment	50-500 $\mu$ S with dynamic adjustment
<b>Pulses</b>	9	9	9
<b>Mode</b>	Constant voltage	Constant current or voltage	Constant current or voltage
<b>Outputs</b>	1 or 4 fixed pairs	9 software configurable anode/cathode outputs	9 software configurable anode/cathode outputs
<b>Double train</b>	✓	✓	✓
<b>Facilitation</b>	✓	✓	✓
<b>Biphasic</b>	✗	✓	✓

	<b>CASCADE PRO®</b>	<b>CADWELL GUARDIAN™</b>	<b>CASCADE® IOMAX®</b>
<b>Low current stimulator</b>			
<b>Intensity</b>	Up to 20 mA / 20 V	Up to 35 mA / 20 V	Up to 20 mA
<b>Step resolution</b>	0.01 up to 5 mA / 5 V then 0.1 steps	0.01 up to 35 mA / 20 V	0.01 up to 20 mA
<b>Operating mode</b>	Constant current or voltage	Constant current or voltage	Constant current
<b>Direct cortical stimulation</b>	x	32 bifunctional outputs for recording or anode/cathode stimulation, up to 6 probe outputs	LCSwap®, 12 outputs as anode or cathode, 2 probe outputs
<b>EEG amplifier</b>	x	SMX-32™ EEG amplifier	IOMAX 32-channel amplifier
<b>E-STIM</b>			
<b>Intensity</b>	100 mA / 400 V	100 mA / 400 V	100 mA / 400 V
<b>Outputs</b>	Up to 16	Up to 16	Up to 20
<b>Mode</b>	Constant current or voltage	Constant current	Constant current

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Ready

### Cascade Surgical Studio® Software features

	<b>CASCADE PRO®</b>	<b>CADWELL GUARDIAN™</b>	<b>CASCADE® IOMAX®</b>
<b>Impedance</b>	Amplifier inputs	Amplifier inputs and stimulator outputs	Amplifier inputs and stimulator outputs
<b>TCS montaging</b>	Hardware driven	Software driven	Software driven
<b>CadX® Surgical Simulator</b>	x	✓	✓
<b>Direct cortical stimulation</b>	x	✓	✓
<b>SpO<sub>2</sub></b>	x	x	✓

### » Discover the right IONM system for your team.

Schedule your demonstration today at [cadwell.com/contact-us](https://cadwell.com/contact-us)

