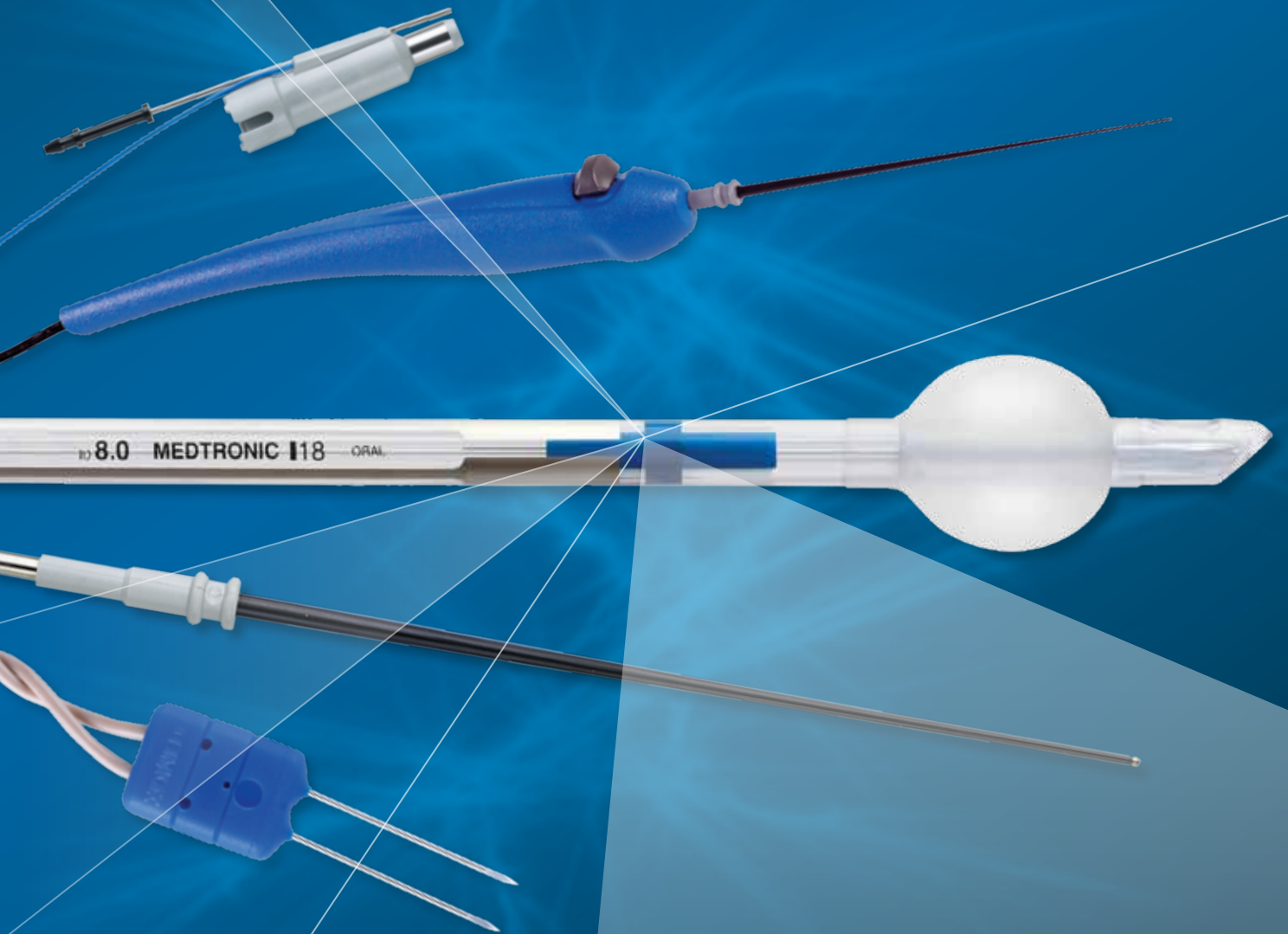




# Intraoperative Nerve Monitoring Accessories



Monitoring Accessories for NIM® Nerve Integrity Monitors



## Introduction

Medtronic ENT offers a complete line of instruments and accessories for intraoperative nerve monitoring, such as monopolar and bipolar probes, electrodes, EMG endotracheal tubes, and stimulus-dissection instruments. With over 20 years of nerve monitoring experience, our instruments and accessories help make nerve monitoring easier and more accurate.

## Bipolar probes



### PRASS BIPOLAR STIMULATOR PROBE

The single-use Prass Bipolar Stimulating Probe features a slim, flexible tip that allows greater access to neural structures. The probe tip is 0.5 mm in distance between cathode and anode for minimal shunting. Individually sterile packaged.

Product	Description	Qty
8225451	PROBES	5



### CONCENTRIC BIPOLAR STIMULATOR PROBE

The single-use Concentric Bipolar Stimulating Probe features a 360-degree contact area. Insulation is complete to the active tip; cables and handles are polarized. Individually sterile packaged.

Product	Description	Qty
8225351	PROBES	5



### SIDE-BY-SIDE BIPOLAR STIMULATOR PROBE

The single-use Side-by-Side Bipolar Stimulating Probe features probe tips that are 1.3 mm apart, allowing neural structures to be stimulated between the tips. Insulation is complete to the active tip; cables and handles are polarized. Individually sterile packaged.

Product	Description	Qty
8225401	PROBES	5

## Monopolar probes

### STANDARD PRASS FLUSH-TIP MONOPOLAR STIMULATOR PROBE

The single-use Standard Prass Monopolar Stimulating Probe is used for locating and mapping cranial nerves in the surgical field. It features a flush 0.5 mm tip and is insulated to the tip to prevent current shunting. Individually sterile packaged.

Product	Description	Qty
8225101	TIPS AND HANDLES	5
8225110	TIPS ONLY	10

### BALL-TIP MONOPOLAR STIMULATOR PROBE

With a flexible tip and shaft, the single-use Ball-Tip Monopolar Stimulating Probe enables greater access to neural structures. The 1 mm tip diameter allows atraumatic contact to larger neural structures. To prevent current shunting, the probe is insulated to the tip. Individually sterile packaged.

Product	Description	Qty
8225275	TIP AND HANDLE, 1 MM	1
8225277	TIPS ONLY, 1 MM	10
8225276	TIP AND HANDLE, 2.3 MM	1
8225278	TIPS ONLY, 2.3 MM	10

### YINGLING FLEX TIP MONOPOLAR STIMULATOR PROBE

The highly flexible, single-use Yingling Monopolar Stimulating Probe allows stimulation in areas outside the surgeon's field of view. The platinum-iridium wire of the probe is fully insulated to the ball tip to prevent current shunting. Individually sterile packaged with one green subdermal electrode.

Product	Description	Qty
8225251	TIPS AND HANDLES	5

### INCREMENTING PROBE\*

The Incrementing Probe allows you to easily adjust the stimulus level from within the surgical field and to print or save the screen display.

Product	Description	Qty
8225825	PRASS STANDARD TIP	3
8225490	BALL TIP, 1 MM	3

\*For use with NIM-Response® and NIM-Neuro® models 2.0 and later.

### MONOPOLAR PROBE HANDLES, STERILE

Product	Description	Qty
8225051	HANDLES	10



# Electrodes

## EMG HOOKWIRE ELECTRODES

Hookwire Electrodes may be ordered individually or in pairs. Each is silicone-coated to within 3 mm of the tip. The electrodes are designed for intramuscular placement to obtain a more specific response. Each electrode is 25 mm long with a 1 m wire. Packaged sterile with one green and one white subdermal needle. Single use.

Product	Description	Qty
8226326	PAIRED ELECTRODES	1 SET
8226626	SINGLE ELECTRODES	6

## PAIRED SUBDERMAL ELECTRODES

Designed for optimal performance, the Paired Subdermal Electrodes are color-coded for easy patient setup. They feature twisted wires to provide noise shielding. These electrodes are available for 2-channel, 4-channel, and 8-channel monitoring procedures. Sterile packaged with one green and one white subdermal electrode. Single use.

Product	Description	Qty
8227410	2-CHANNEL, 12 MM	1 SET
8227411	4-CHANNEL, 12 MM	1 SET
8227412	8-CHANNEL, 12 MM	1 SET
8227465	MIX 1: RED, BLUE, ORANGE, VIOLET, GRAY	25
8227466	MIX 2: YELLOW, GREEN, TAN, BLACK, WHITE	25

## PRASS PAIRED ELECTRODES

Muscle-specific and single-use, the Prass Paired Electrodes are insulated to within 5 mm of the tip with 5 mm spacing between electrodes. The color-coded cables are twisted pair. Individually sterile packaged.

Product	Description	Qty
8227304	2-CHANNEL, 18 MM, 1 M	5 SETS
8227301	2-CHANNEL, 25 MM, 1 M	5 SETS
8227307	2-CHANNEL, 38 MM, 1 M	5 SETS
8227500	4-CHANNEL, 18 MM, 2 M	1 SET
8227505	4-CHANNEL, 25 MM, 2 M	1 SET
8227510	2-CHANNEL, 18 MM, 2 M	5 SETS
8227515	2-CHANNEL, 25 MM, 2 M	5 SETS

## PRASS PAIRED ELECTRODES WITH SMALL HUB

Muscle-specific and single-use, the Prass Paired Electrodes are insulated to within 5 mm of the tip with 2.5 mm spacing between electrodes. These electrodes feature a longer needle length for deeper access to the targeted muscle. Individually sterile packaged.

Product	Description	Qty
8227414	2-CHANNEL, 12 MM	5
8227415	4-CHANNEL, 12 MM	5
8227418	2-CHANNEL, 18 MM	5
8227419	4-CHANNEL, 18 MM	5

## SUBDERMAL NEEDLE ELECTRODES

Subdermal Needle Electrodes are 12 mm long with a 0.4 mm diameter. The EMG electrodes are stainless steel with a one-meter cable. Each set is color-coded. Sterile, single use.

Product	Description	Qty
8227103	2-CHANNEL, 12 MM	6

## SUBDERMAL NEEDLE TWISTED PAIR ELECTRODES

These sharp, lancet-tipped electrodes are specially designed for gentle skin penetration with a 22 mm stainless steel needle. Color-coded for easy patient setup, the four-channel and eight-channel monitoring sets are packaged with one green and one white subdermal electrode. Sterile, single use.

Product	Description	Qty
8227421	4-CHANNEL, 22 MM	1 SET
8227422	8-CHANNEL, 22 MM	1 SET

# Instruments

## STIMULUS DISSECTION INSTRUMENTS

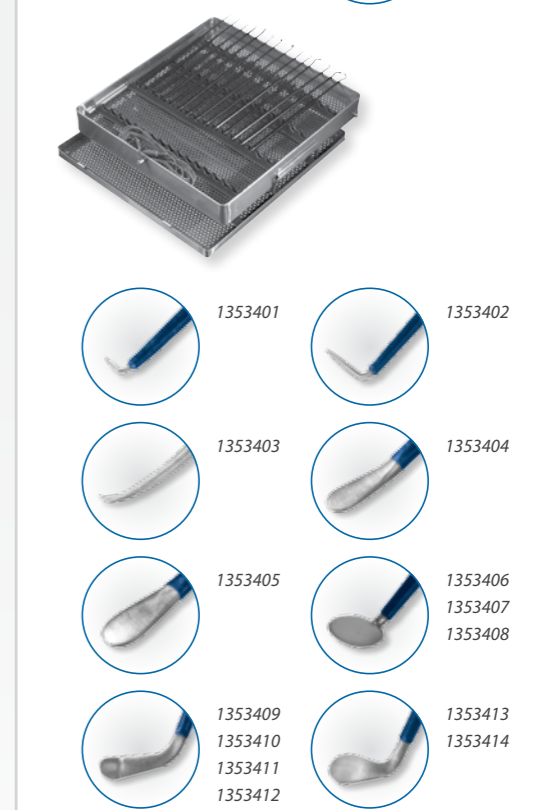
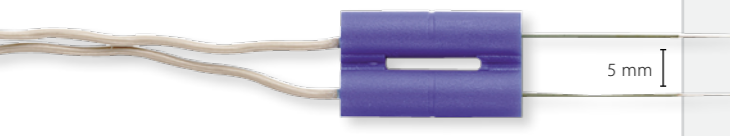
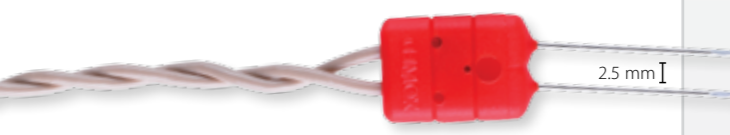
The set offers monopolar stimulation for intraoperative nerve monitoring. Instruments are 6.25" (15.9 cm) long and insulated to the dissecting surface to minimize current shunting. Ring Dissector instruments facilitate easy debulking of encapsulated masses.

Product	Description	Qty
1352401	CURVED NEEDLE	1
1352402	ELEVATOR	1
1352408	SICKLE KNIFE	1
1352409	90° HOOK	1
1352412	RING DISSECTOR, 3 MM, REGULAR	1
1352413	RING DISSECTOR, 2 MM, REGULAR	1
1352415	CABLE, 9 FT.	1
1352407	STORAGE CASE	1

## NEUROTOLOGIC STIMULUS DISSECTION INSTRUMENTS

The set offers monopolar stimulation for neurotologic intraoperative cranial nerve monitoring. Instruments are 7.25" (18.4 cm) long and insulated to the dissecting surface. Monopolar stimulation and nerve monitoring during sharp dissection minimizes trauma to cranial motor nerves.

Product	Description	Qty
1353401	RIGHT ANGLED PICK, SHORT	1
1353402	RIGHT ANGLED PICK, LONG	1
1353403	CURVED NEEDLE	1
1353404	DUCK BILL ELEVATOR, MEDIUM	1
1353405	DUCK BILL ELEVATOR, WIDE	1
1353406	ROUND KNIFE, 3 MM	1
1353407	ROUND KNIFE, 4 MM	1
1353408	ROUND KNIFE, 5 MM	1
1353409	RASPATORY, NARROW RIGHT	1
1353410	RASPATORY, NARROW LEFT	1
1353411	RASPATORY, MEDIUM RIGHT	1
1353412	RASPATORY, MEDIUM LEFT	1
1353413	RASPATORY, WIDE RIGHT	1
1353414	RASPATORY, WIDE LEFT	1
1352415	CABLE, 9 FT.	1
1352396	INSTRUMENT TRAY	1



## EMG Endotracheal Tubes

The NIM® EMG endotracheal tube monitors electromyography (EMG) activity during surgery and functions as a normal endotracheal tube, except that it contains bipolar contact electrodes for continuously monitoring both vocal cords during surgery.

**A properly positioned NIM EMG Tube can reduce the risk of patient injury by helping to:**

- Identify the recurrent laryngeal or vagus nerves
- Control manipulation during dissection
- Verify nerve integrity prior to surgical closure

*Only NIM EMG Tubes are clinically proven and validated for use with NIM® Systems.*

### NIM TRIVANTAGE™ EMG ENDOTRACHEAL TUBE

A standard-sized DEHP-free PVC non-reinforced tube with an inflatable high-volume, low-pressure cuff. Each tube is imprinted with two pairs of bipolar conductive silver ink electrodes. Its innovative low profile and smooth surface design allows for enhanced EMG recordings and helps optimize contact with the vocal cords, even upon tube rotation and movement.

Product	ID	OD	Qty
8229705	5 MM	.6.5 MM	1
8229706	6 MM	.8.2 MM	1
8229707	7 MM	.9.5 MM	1
8229708	8 MM	.10.7 MM	1
8229709	9 MM	.12 MM	1
8229735	5 MM	.6.5 MM	3
8229736	6 MM	.8.2 MM	3
8229737	7 MM	.9.5 MM	3
8229738	8 MM	.10.7 MM	3
8229739	9 MM	.12 MM	3

### NIM CONTACT® REINFORCED EMG ENDOTRACHEAL TUBE

Vocal cords are easily visible against the white band. Recording electrode leads are twisted pair. Packaged sterile with one green and one white subdermal needle. Single use.

Product	ID	OD	Qty
8229506	6 MM	.9 MM	1
8229507	7 MM	.10.5 MM	1
8229508	8 MM	.11.5 MM	1

### NIM FLEX™ REINFORCED EMG ENDOTRACHEAL TUBE

Dual-channel design allows the tube to maintain contact with the vocal cords, even upon rotation. Recording electrode leads are twisted pair. Packaged sterile with one green and one white subdermal needle. Single use.

Product	ID	OD	Qty
8229960	6 MM	.8.4 MM	5
8229965	6.5 MM	.8.9 MM	5
8229970	7 MM	.9.7 MM	5
8229975	7.5 MM	.10.3 MM	5
8229980	8 MM	.10.8 MM	5
8229985	8.5 MM	.11.2 MM	5

ID = INNER DIAMETER, OD = OUTER DIAMETER

### NIM® STANDARD REINFORCED EMG ENDOTRACHEAL TUBE

Recording electrode leads are twisted pair. Packaged sterile with one green and one white subdermal needle. Single use.

Product	ID	OD	Qty
8229306	6 MM	.8.8 MM	1
8229307	7 MM	.10.2 MM	1
8229308	8 MM	.11.3 MM	1

## Specialty

### APS™ (AUTOMATIC PERIODIC STIMULATION) ELECTRODE†

The APS™ Electrode enables continuous, real-time monitoring of the vagus nerve. The electrode is placed on the nerve and delivers continuous low-level stimulation. A baseline of nerve function is obtained and subsequent EMG responses are monitored to provide real-time feedback about nerve function.

Product	Description	Qty
8228052	2 MM, SIZE RANGE 2 MM TO 3 MM	1
8228053	3 MM, SIZE RANGE 3 MM TO 4 MM	1

*\* For use with NIM-Response® 3.0 and NIM-Neuro® 3.0 models only.*

### STIM BUR GUARD\*\*

The Stim Bur Guard provides warning of the bur's proximity to the facial nerve during otologic surgery. Stimulating the nerve while the bur is in use can offer approximately 1-3 mm of advance warning.

Product	Description	Qty
3318601	WITH IRRIGATION	1
3318602	WITHOUT IRRIGATION	1

*\*\* For use with NIM® models 2.0 and later, Visao® High-Speed Otologic Drill and the Integrated Power Console (IPC®) System.*

### SURGEON MINI-SCREEN†

For easier viewing within the surgical field, the Mini-Screen can be mounted to any I.V. pole to display monitoring information from the NIM® System.

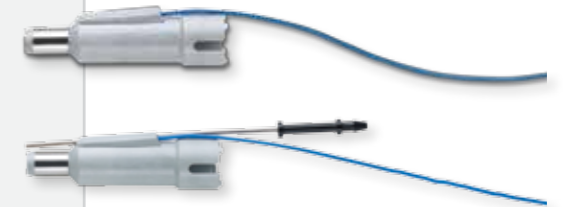
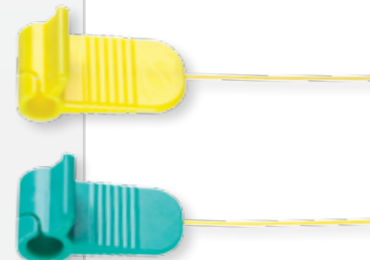
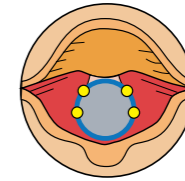
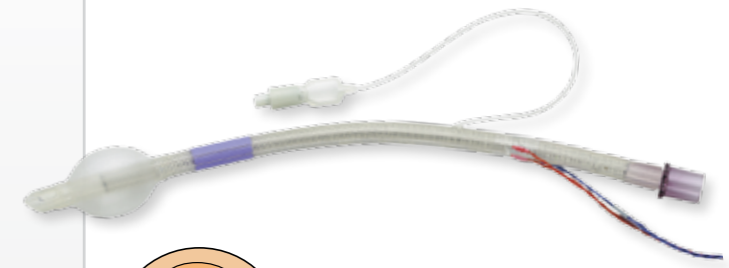
Product	Description	Qty
8253010	MINI-SCREEN AND CABLE	1

*† For use with NIM-Response® 3.0 and NIM-Neuro® 3.0 models only.*

### NIM® EQUIPMENT CART

The NIM Cart provides a stable, mobile base for the NIM® system. Convenient and portable, it allows for cord management and storage of the printer, mini-screen, accessories and supplies. The cart also has two locking castors.

Product	Description	Qty
8253020	EQUIPMENT CART	1



# Specialty

## PRINTER FOR NIM-RESPONSE® 3.0 AND/OR NIM-NEURO® 3.0 SYSTEMS

The printer allows you to print NIM 3.0 screens and reports for documentation and/or teaching. Required paper is 8.5" x 11".

Product	Description	Qty
8253026	..... PRINTER.....	1
8253025	..... POWER SUPPLY .....	1
8253028	..... USB CABLE .....	1
8253029	..... POWER CORD.....	1
8253032	..... PRINTER CARTRIDGE .....	1



## VIDEO RECORDING ADAPTOR KIT

The adaptor kit is used to connect the NIM® 3.0 Systems to video recording devices.

Product	Description	Qty
8253085	..... ADAPTOR KIT .....	1



## KEYBOARD

The keyboard is used to add notes or comments to events and screenshots captured throughout the surgery. In addition, it allows you to add comments to reports created at the end of the surgery.

Product	Description	Qty
8253030	..... KEYBOARD .....	1



For further information, please call Medtronic ENT at 800-874-5797 or 904-296-9600. You may also consult our website at [www.MedtronicENT.com](http://www.MedtronicENT.com).

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