



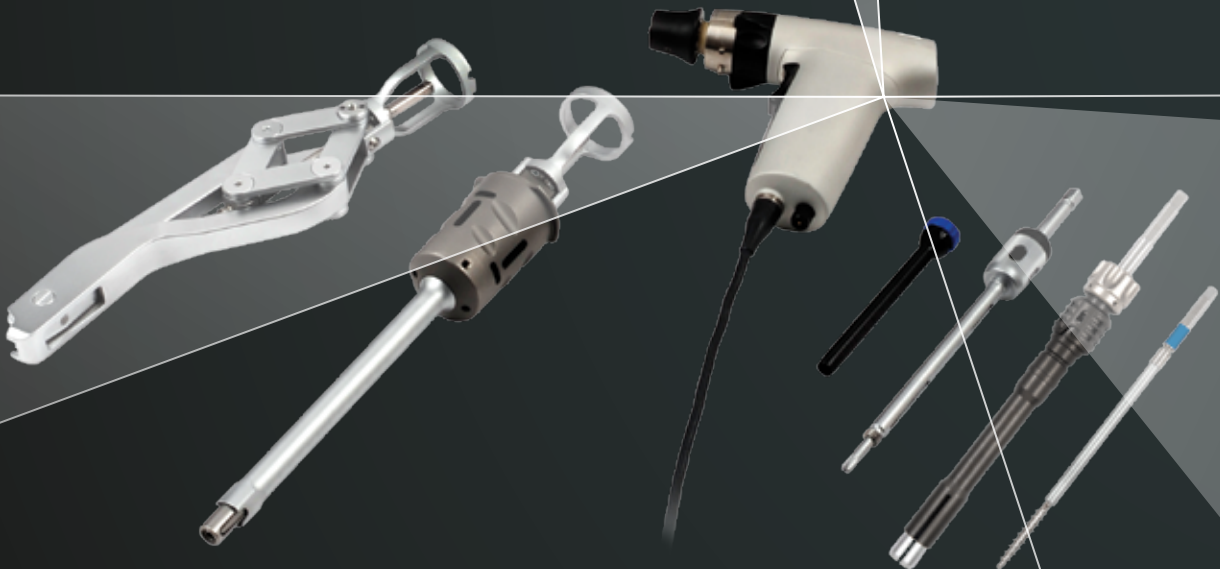
**Medtronic**

# POWEREASE<sup>®</sup> System

Designed for Spine

Working Ends  
User Manual







**Medtronic**

# POWEEASE<sup>®</sup>

## System

# Working Ends User Manual

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## System Overview and High-level Features

The POWEREASE® System is a system of powered surgical instruments designed specifically for use in spine surgery. The system consists of a POWEREASE® Driver hand piece that is powered by Medtronic Surgical Technologies' Integrated Power Console (IPC), along with a variety of working end instruments that are compatible with the POWEREASE® Driver. These working ends include Taps, Drill Bits, Screw Drivers, Post Cutter, and Set Screw Break-off Instrument (SSBO) and are compatible with the following implant systems:

- » CD HORIZON® SOLERA® Spinal System
- » Integrated design allows the POWEREASE® Driver to connect directly to the NIM-ECLIPSE® System, reducing procedural steps required to monitor neural pathways while tapping and placing pedicle screws
- » Dynamic stimulation with the NIM-ECLIPSE® Spinal System Technology<sup>1,2</sup>
  - Provides accurate, real-time monitoring of neural structures
  - Provides early indication of proximity to the nerve<sup>3</sup>
  - Results in improved accuracy of pedicle screw placement<sup>4</sup>
- » Capacitive Trigger feature of POWEREASE® Driver—trigger senses electric field, for example, a finger
- » Breakage, slippage, misuse, or mishandling of instruments, such as on sharp edges, may cause injury to the patient or operative personnel

1 Based on live animal testing. Animal testing is not indicative of human clinical outcome.

2 The NIM-ECLIPSE® System is manufactured by Medtronic Xomed, Inc. and distributed by Medtronic Sofamor Danek.

3 Maguire J, Wallace S, Madiga R, Leppanen R, Draper V. Evaluation of Intrapedicular Screw Position Using Intraoperative Evoke Electromyography. *Spine*. 1995 Volume 20, Number 9:1068-1074.

4 Glassman SD, Dimar JR, Puno RM, Johnson JR, Shields CB, Linden RD. A prospective analysis of intraoperative electromyographic monitoring of pedicle screw placement with computed tomographic scan confirmation. *Spine*. 1995 Jun 15;20(12):1375-1379.

## System Overview and High-level Features *continued*

### Features of the POWEREASE® System

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The following is based on biomechanical testing and claims validation questionnaire using Likert scale and completed by nine surgeons; biomechanical testing is not indicative of human clinical outcome.<sup>6</sup>

- » System includes Set Screw Break-off instrument and Post Cutter that, compared to manual instruments, result in:
  - Reduced physical fatigue for surgeons (median surgeon response to questionnaire)
- » Compared to manual tapping, taps used with the POWEREASE® Driver require:
  - 81% less work done
  - 51% less time to tap the pedicle
  - Reduced repetitive hand motion (fatigue) associated with tapping the pedicle channel (median surgeon response to questionnaire)
- » Compared to manual screw insertion, screws inserted using the POWEREASE® Driver require:
  - 95% less work done
  - 55% less time to place the screw
  - Reduced repetitive hand motion (fatigue) associated with placing pedicle screws (median surgeon response to questionnaire)
- » Reduced Wobble – When using a tap or screwdriver driven by the POWEREASE® Driver, the wobble is reduced by 43% and 38% respectively, providing greater control when tapping pedicles or inserting pedicle screws<sup>5</sup>
- » Variable speed – the POWEREASE® Driver provides surgeons two different methods of rpm control:
  - Finger control of trigger
  - A user defined interface allowing a surgeon to set a maximum rpm level
- » It is important that the surgeon exercise extreme caution when working in close proximity to vital organs, nerves, or vessels, and that the forces applied while correcting the position of the instrumentation is not excessive, such that it might cause injury to the patient
- » Using the POWEREASE® SSBO and compared to manual instruments there is a:
  - 22% reduction in energy transferred to the construct
- » Using the POWEREASE® Post Cutter and compared to manual instruments there is a:
  - 22% reduction in energy transferred to the construct when cutting posts
  - Reduced disruption to the surrounding anatomical structures (median surgeon response to questionnaire)
- » Cannulated Instruments
  - POWEREASE® Driver Taps and screwdrivers are cannulated to enable use over a guidewire

<sup>5</sup> Wobble is defined as the “deviation of the working end shaft from its axis while performing the activity.”

<sup>6</sup> The physicians who conducted this study were paid consultants of Medtronic.

## Classic Working Ends

The POWEREASE® System Classic Working Ends set contains the following instruments:

- » Taps
- » Sleeves
- » Screwdrivers

All of the above listed instruments are fully compatible with Medtronic's NIM-ECLIPSE® System.\*

The POWEREASE® Classic Working Ends set includes the following parts:



\* The NIM-ECLIPSE® System is manufactured by Medtronic Xomed, Inc. and distributed by Medtronic Sofamor Danek, Inc.

## Assembly and Disassembly Instructions — Classic Working Ends

To assemble a Classic Working End with the POWEREASE® Driver align the Working End with the Quick Connect on the POWEREASE® Driver and insert until the Classic Working End is fully seated within the Quick Connect of the Driver (**Figures 1a and 1b**).

In the event that the POWEREASE® Driver is not available for use, POWEREASE® Classic Working Ends can be manually driven using Ratcheting Handles (**Figures 2a and 2b**). To assemble a Classic Working End with either handle, align the Classic Working End with the Quick Connect on the Ratcheting Handle and insert until the Classic Working End is fully seated within the quick connect of the Ratcheting Handle.

To disassemble the POWEREASE® Classic Working Ends from either the POWEREASE® Driver or the Ratcheting Handle, pull back on the collet and remove the Classic Working End.

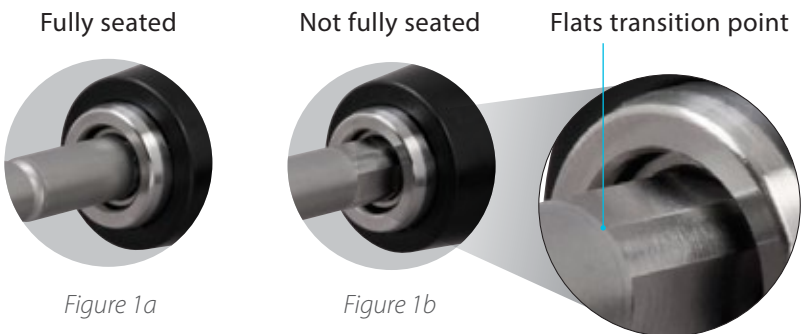


Figure 1a

Figure 1b

Flat sides should be fully inserted and not be visible.

### Note

The Classic Working End is fully seated when the flats transition point is flush with the edge of the POWEREASE® Driver Quick Connect.

### Note

Classic Working Ends may require a slight twist to fully seat into the POWEREASE® Driver and Ratcheting Handles.

### Note

Other ratcheting handles may not be compatible with POWEREASE® Classic Working Ends.



Quick Connect Ratcheting Handle  
(G900000)

Figure 2a



Quick Connect Ratcheting T-handle  
(G900100)

Figure 2b

## POWEEASE® Sleeves — Features and Instructions

The Sleeves, when used with Classic Working Ends, enable compatibility with the NIM-ECLIPSE® System\* by mechanically and electrically insulating portions of the Classic Working Ends from the patient's anatomy. The Sleeve freely rotates on the Classic Working End allowing the surgeon to firmly hold the Sleeve for guidance while the Classic Working End freely rotates. There are five Sleeves available that are designed to work with the Classic Working Ends; see **Table 1** below as a guide for which Sleeve to use with each Classic Working End.






Working Ends	Compatible Sleeve
 Taps: 3.75mm, 4.0mm, 4.5mm Drill Bits: 3.0mm, 3.5mm, 4.2mm	4.5mm Sleeve
 Taps: 5.0mm, 5.5mm, 6.0mm, 6.5mm	6.5mm Sleeve
 Taps: 7.0mm, 7.5mm, 8.0mm, 8.5mm, 9.0mm, 9.5mm, 10.0mm, 10.5mm Screwdrivers: Standard Driver, MPA® Driver, Threaded Post Driver	8.0mm Sleeve
 Screwdrivers: 4.75 MAS, 4.75 FAS, 4.75 RMAS, 5.5/6.0 MAS, 5.5/6.0 FAS, 5.5/6.0 RMAS	9.0mm Sleeve
 Locking MPA® Driver	15mm Sleeve

Table 1

\* The NIM-ECLIPSE® System is manufactured by Medtronic Xomed, Inc. and distributed by Medtronic Sofamor Danek, Inc.



## POWEREASE® Sleeves — Features and Instructions *continued*

To attach the Sleeve to a Classic Working End, see Table 1 on the Page 6 to determine which Sleeve to use with the Classic Working End. Slide the Sleeve onto the Classic Working End such that the wide color-coded CAM of the Sleeve is at the back of the Classic Working End (**Figure 3**). The sleeve will hit a physical stop (**Figure 4**). To lock the sleeve on the working end, rotate the colored CAM on the Sleeve clockwise (**Figure 5**).

To disassemble the Sleeve from the Classic Working End, simply rotate the colored CAM on the Sleeve in the opposite direction of the arrow and slide the Sleeve off of the Classic Working End.

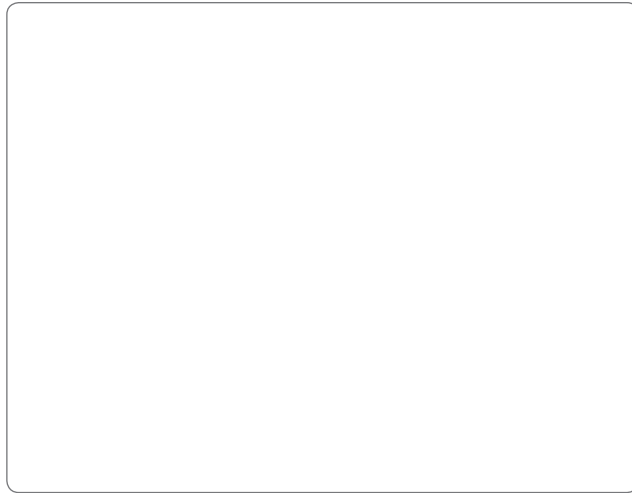


Figure 3

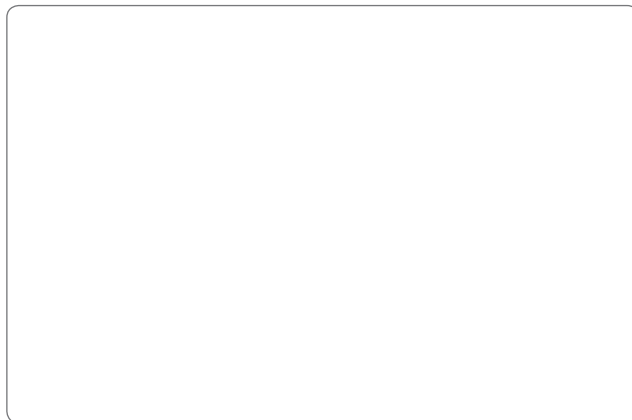


Figure 4

### ! Important

*For Taps 8mm diameter and larger, the 8.0mm Sleeve must slide over the back of the Classic Working End prior to attachment to the POWEREASE® Driver (Figure 6).*

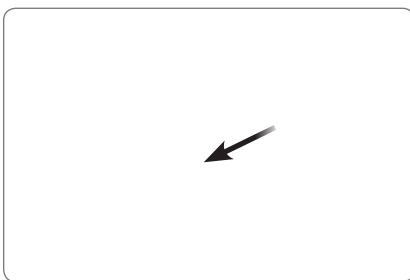


Figure 6

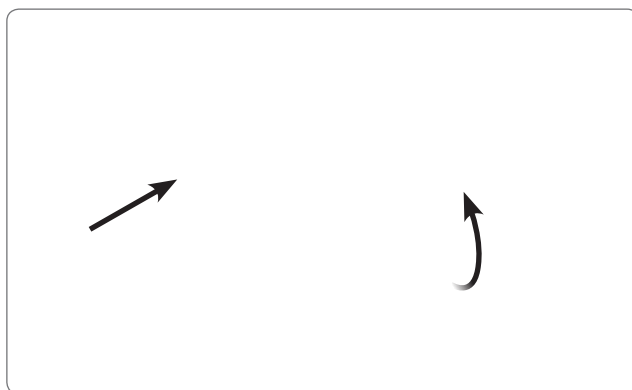


Figure 5

## Cannulation — Features and Instructions

For compatibility with guidewires, most POWEREASE® Taps and MAS Screwdrivers are cannulated. Specifically, POWEREASE® Taps 4.5mm in diameter and larger, the 4.75 MAS Screwdriver, the 5.5/6.0 FAS driver, and the 5.5/6.0 MAS Screwdriver are cannulated. The cannulated Classic Working Ends are compatible with Disposable Guidewire, Sharp (8670002) and Disposable Guidewire, Blunt (8670001). POWEREASE® Drill Bits and all other Screwdrivers are not designed for use with Guidewires. The instruments that are compatible with Medtronic Guidewires 8670001 and 8670002 are listed below (**Table 2**).

POWEEASE® Taps	Screwdrivers
4.5mm	4.75 MAS
5.0mm	5.5/6.0 MAS
5.5mm	5.5/6.0 FAS
6.0mm	
6.5mm	
7.0mm	
7.5mm	
8.0mm	
8.5mm	
9.0mm	
9.5mm	
10.0mm	
10.5mm	

Table 2

### ! Important

*Ensure the cannula of the POWEREASE® Classic Working Ends are unobstructed before each use. Failure to do so may lead to catastrophic guidewire migration.*

### ! Important

*Ensure the guidewire is in proper axial alignment with instrumentation.*

## POWEEASE® Taps — Features and Instructions

The POWEEASE® Taps utilize the OSTEOGRIP® threadform, which has a 4mm thread pitch. On all POWEEASE® Taps, the threads extend 40mm from the tip of the Tap. The Taps have a color band correlating to their major diameter, see **Table 3** below for dimensions.
















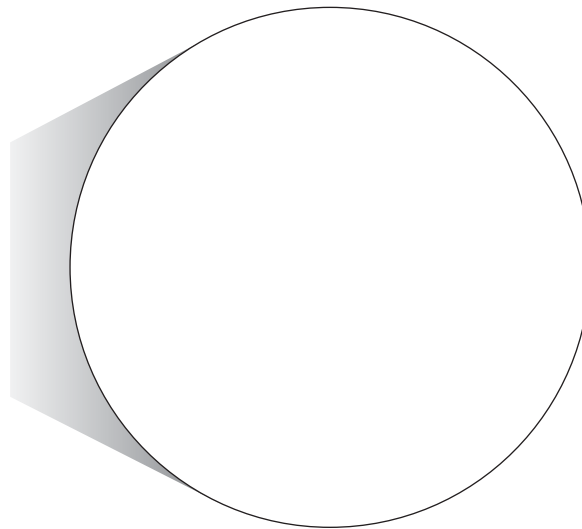
	POWEEASE® Tap (mm)	Tap Minor Diameter (mm)
	3.75	2.5
	4.0	2.9
	4.5	3
	5.0	3.62
	5.5	3.85
	6.0	4
	6.5	4.2
	7.0	4.55
	7.5	4.9
	8.0	4.9
	8.5	4.9
	9.0	5.4
	9.5	5.9
	10.0	6.4
	10.5	6.9

Table 3



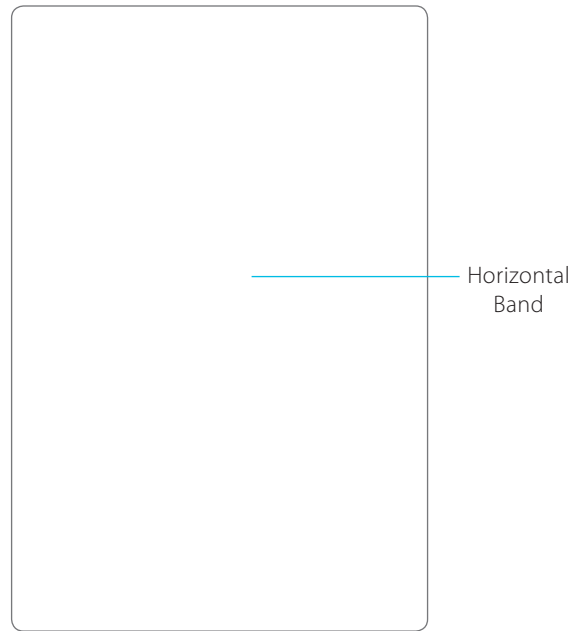


## Depth Markings — Features and Instructions

POWEREASE® Taps and Drill Bits are marked in 1cm increments, as denoted by the numbers 4 and 5 on Taps and the numbers 3 and 4 on Drill Bits. For example, a 4 on the Drill Bit indicates a length of 4cm from the tip of the bit to the horizontal band (**Figure 8**).

### Available Lengths

Taps, Screwdrivers, and Sleeves are available in three lengths: short, medium, and long. Only medium length instruments are included in the set. Short and long lengths must be ordered separately.



*Figure 8*

## POWEREASE® Screwdrivers — Features and Instructions

POWEREASE® Screwdrivers are compatible with the following types of pedicle screws:

- » CD HORIZON® SOLERA® 4.75mm Multi-Axial Screw
- » CD HORIZON® SOLERA® 4.75mm Fixed-Angle Screw
- » CD HORIZON® SOLERA® 4.75mm Reduction Multi-Axial Screw
- » CD HORIZON® SOLERA® 5.5/6.0mm Multi-Axial Screw
- » CD HORIZON® SOLERA® 5.5/6.0mm Fixed-Angle Screw
- » CD HORIZON® SOLERA® 5.5/6.0mm Reduction Multi-Axial Screw

CD HORIZON®  
SOLERA®  
Multi-Axial  
Screw

CD HORIZON®  
SOLERA®  
Fixed-Angle  
Screw

CD HORIZON®  
SOLERA®  
Reduction  
Multi-Axial  
Screw

## POWEREASE® Screwdrivers — Features and Instructions *continued*

To attach a MAS, FAS, or RMAS to the corresponding screwdriver, align the driver tip within the screw and tighten the screwdriver sleeve into the screw (Figures 9 and 10).

### Fixed Angle Screw Attachment

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Step 1

Step 2

Step 3

Figure 9

### Multi-Axial Screw Attachment

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Step 1

Step 2

Step 3



Figure 10

## Mechanized Working Ends

The POWEREASE® System Mechanized Working Ends are capable of performing the following functions:

- » Breaking set screws

The POWEREASE® Mechanized Working Ends have the following features:

- » The Set Screw Break-off (SSBO) is compatible with the 4.75mm, 5.5mm, and 6.0mm rods in MAS/FAS systems and with 5.5mm rods in offset connector systems



Set Screw Break-off



## Assembly and Disassembly Instructions — Mechanized Working Ends

### Adapter Features:

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- » The Set Screw Break-off Instrument **can connect to** standard Ratcheting Handles using the Handle Adapter, which provides a connection point between the working end and the handle.
- » The 1/4" Square Adapter can be used to drive the SSBO using standard Ratcheting Handles.



Handle Adapter



1/4" Square Adapter

## Assembly and Disassembly Instructions — Mechanized Working Ends

### Adapter Assembly:

To assemble the Handle Adapter, first insert the Handle Adapter into a 1/4" square compatible Ratcheting Handle. Clockwise thread the Handle/Adapter assembly into the side of the Mechanized Working End until tight (**Figure 18**). Then slide the Square Adapter over the input shaft of the Mechanized Working End being used (**Figure 19**).

 **Note**

*The Square Adapter is a slip-fit onto the Mechanized Working End, allowing the Working End to be fully seated into position before the manual handle/Square Adapter assembly is needed/used.*

 **Note**

*Also, the Set Screw Breakoff Instrument can be driven with a 1/4" square compatible Ratcheting Handle with the use of the Square Adapter. To use the Square Adapter it must first be connected to a manual handle.*

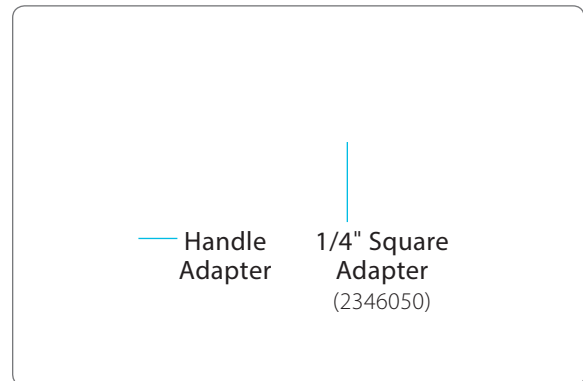


Figure 18

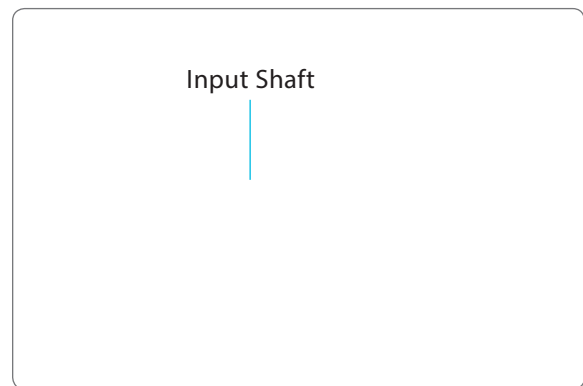


Figure 19

## Assembly and Disassembly Instructions — Mechanized Working Ends

### Working Ends Assembly and Disassembly with POWEREASE® Driver:

To assemble a Mechanized Working End with the POWEREASE® Driver:

Align and insert the drive shaft of the Mechanized Working End into the Quick Connect on the POWEREASE® Driver (**Figure 21**).



#### Note

*It may be necessary to rotate the Working End while inserting into the Quick Connect. This is acceptable as the Working End will be forced back into proper orientation in subsequent steps.*

Align the slots on Working End Collar with pins on the POWEREASE® Driver.

Push the Working End into POWEREASE® Driver until the drive shaft is fully seated into the Quick Connect (**Figures 22a and 22b**).

To disassemble a Mechanized Working End from either the POWEREASE® Driver or the manual Ratcheting Handle, pull back on the collet and remove the Mechanized Working End (**Figure 23**).

To remove the Handle Adapter from the Classic Working End, rotate the Handle Adapter counterclockwise until it is loose.

To disassemble the Square Adapter from a Ratcheting Handle, pull back on the handle collet and remove the Square Adapter.



#### Note

*When using the POWEREASE® Driver with the SSBO or Post Cutter it is recommended that the maximum forward speed be limited to 120 RPM. Running the Mechanized Working Ends at speeds faster than 120 RPM may lead to accelerated wear and possibly a reduced effective life.*

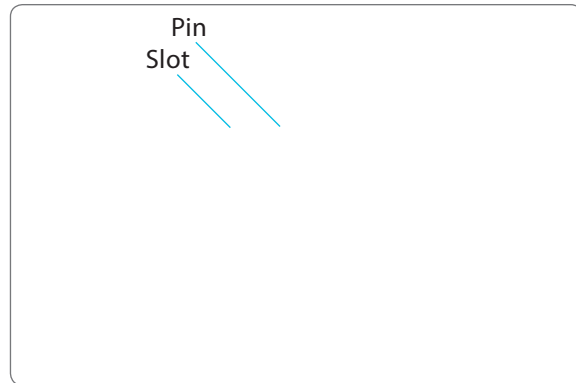


Figure 21

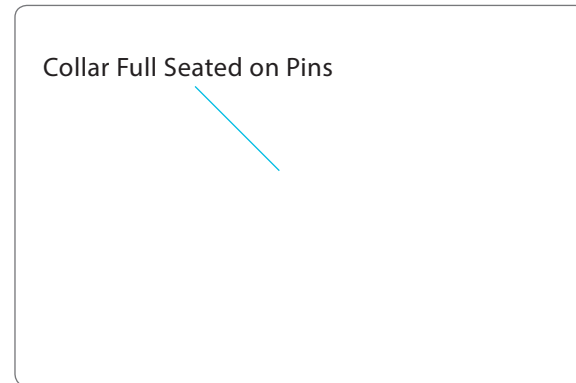


Figure 22a

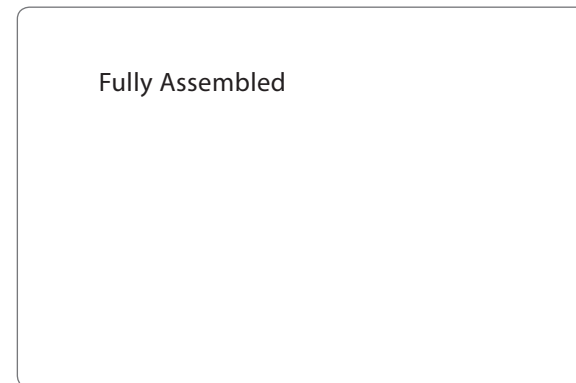


Figure 22b

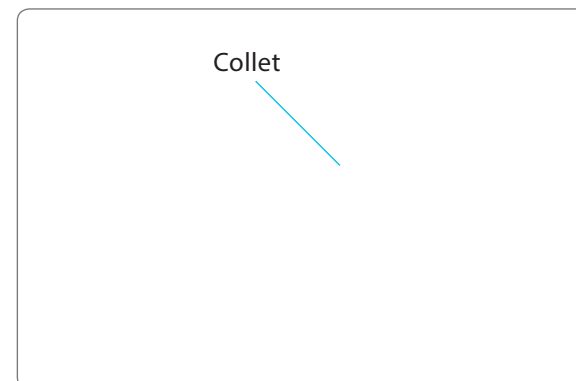


Figure 23

## POWEREASE® Set Screw Break-off Instrument — Features and Instructions

The Set Screw Break-off (SSBO) instrument can be used to lock break-off style set screws in spinal systems utilizing 4.75mm rod with MAS/FAS screws, 5.5mm rod with MAS/FAS screws, 6.0mm rod with MAS/FAS screws, and 5.5mm rod with Offset Connectors.

To use the SSBO instrument **with** the POWEREASE® Driver, select the appropriate Counter Torque to be used. Attach the Counter Torque to the SSBO instrument by sliding the Counter Torque over the Breaker Shaft, depressing the lock button, sliding the Counter Torque into the Body, and releasing the lock button (**Figures 24a, 24b, and 24c**).

Finally, attach the SSBO Instrument to the POWEREASE® Driver.

### Note

*The Counter Torque can be attached to the SSBO in 90 degree increments.*

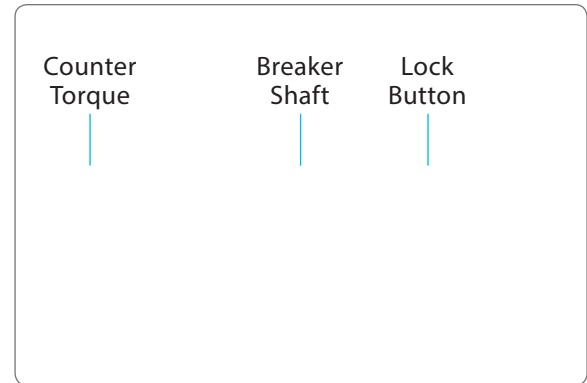


Figure 24a

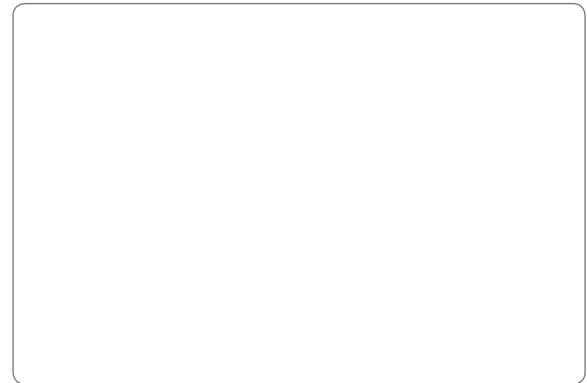


Figure 24b

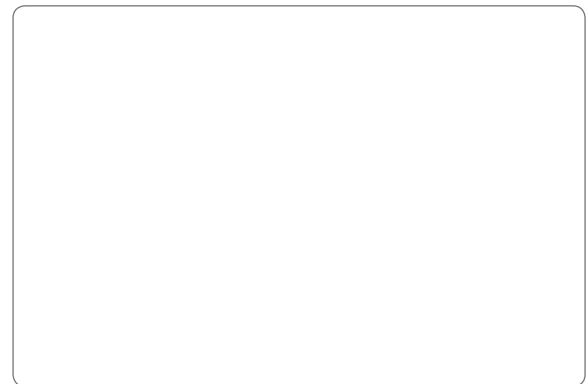


Figure 24c

## POWEREASE® Set Screw Break-off Instrument — Features and Instructions

*continued*

Align the SSBO Instrument Breaker Shaft with the set screw and press down to seat the Breaker Shaft fully over the set screw (**Figures 25a and 25b**).

**Note**

*Light rotation of the SSBO Instrument may be necessary to seat onto the set screw.*

Once the SSBO Instrument Breaker Shaft is fully seated onto the set screw, press down the SSBO Instrument, approximately 5mm, and rotate the SSBO until the Counter Torque rod cut-outs are aligned with the rod. Once the Counter Torque is aligned with the rod, fully seat the Counter Torque over the rod by pressing down on the SSBO Instrument (**Figure 26**). Once the Counter Torque is fully seated, drive the POWEREASE® Driver in forward until the set screw is broken (**Figure 27**). Pull the SSBO Instrument away from rod and the implant.

**Note**

*If the Counter Torque resists being fully seated, briefly depress the POWEREASE® Driver trigger.*

**Note**

*The SSBO Instrument drive-train is not connected to the Breaker Shaft until the Counter Torque is fully seated onto the rod.*

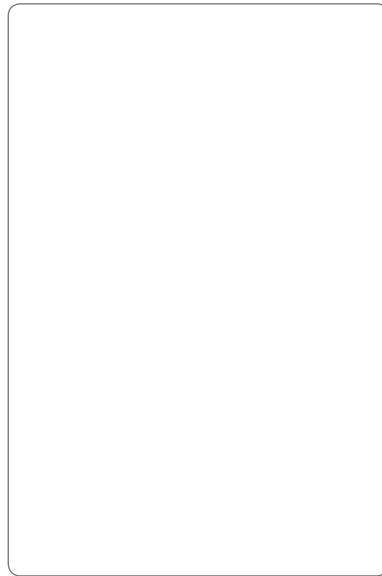


Figure 25a



Figure 25b



Figure 26



Figure 27

## POWEREASE® Set Screw Break-off Instrument — Features and Instructions

*continued*

When the Breaker Shaft becomes full of broken set screw heads, or at the completion of surgery, it is necessary to purge the broken set screw heads. To do so, first remove the Counter Torque from the SSBO Instrument. Next, insert an Obturator (8350322) into the front of the Breaker Shaft of the SSBO Instrument and press inward until all broken screw heads are ejected from the side port of the Breaker Shaft (**Figures 28a and 28b**).

To use the SSBO Instrument **without** the POWEREASE® Driver follow all of the previously described steps for using the SSBO Instrument with the POWEREASE® Driver, except in the place of the POWEREASE® Driver, a manual handle with the Square Adapter attached may be used to drive the SSBO Instrument (**Figure 29**).

### Note

*The Breaker Shaft of the SSBO Instrument can hold between 10 and 14 broken set screw heads depending on the spinal system being used.*



Figure 28a



Figure 28b



Figure 29

## Summary of Indications, Precautions, and Warnings

### PURPOSE

The instruments are working ends that are intended to be used in surgical procedures in the thoracic, lumbar, and sacral spine.

### DESCRIPTION

The working ends are compatible with the IPC POWEREASE® System and the NIM-ECLIPSE® System. The working ends consist of instruments such as taps, drill bits, reduction nut drivers, screw drivers, rod cutter, post cutter, set screw break-off tool, and sleeves. The working ends have a manual alternative.

The working ends are compatible with the CD HORIZON® SOLERA® Spinal System. The taps, screw drivers, drill bits, and sleeves are also compatible with Medtronic's NIM-ECLIPSE® Spinal System

### INDICATIONS

The working ends are intended for drilling, tapping, or driving screws during spinal surgery, including open and minimally invasive procedures. The IPC POWEREASE® System is also used in the placement or cutting of screws, posts, and rods.

### WARNINGS

- » Breakage, slippage, misuse, or mishandling of instruments, such as on sharp edges, may cause injury to the patient or operative personnel.
- » Improper maintenance, handling, or poor cleaning procedures can render the instrument unsuitable for its intended purpose or even dangerous to the patient or surgical staff.
- » There are particular risks involved in the use of instruments used for bending and cutting rods. The use of these types of instruments can cause injury to the patient by virtue of the extremely high forces which are involved. DO NOT CUT RODS IN SITU. In addition, any breakage of an instrument or the implant in this situation could be extremely hazardous.
- » It is important that the surgeon exercise extreme caution when working in close proximity to vital organs, nerves, or vessels and that the forces applied while correcting the position of the instrumentation is not excessive, such that it might cause injury to the patient

### PRECAUTIONS

- » Excessive force applied by instruments to implants can dislodge devices, particularly hooks.
- » Never expose instruments to temperatures in excess of 135 °C that may considerably modify the physical characteristics.
- » Extreme care should be taken to ensure that this instrument remains in good working order. During the procedure, successful utilization of this instrument is extremely important. Instruments should not be bent or damaged in any way. Misuse of instruments resulting in corrosion, "freezing-up", scratching, loosening, bending, or fracture of any or all sections of an instrument may inhibit or prevent proper function.
- » These instruments should be carefully placed on trays, cleaned after each use, and stored in a dry environment.

- » Do not use this instrument for any action for which it was not intended.
- » Regularly review the operational state of all instruments and, if necessary, make use of repair and replacement services.
- » To avoid injury, the instrument should be carefully examined for functionality or damage prior to use. A damaged instrument should not be used. Additional back-up instruments should be available.
- » Preoperative and operating procedures, including knowledge of surgical techniques, are important considerations in the successful utilization of the system by the surgeon. Further, the proper selection and the compliance of the patient will greatly affect the results.
- » Proper patient selection and operative care are critical to the success of the surgery and avoidance of injury during surgery. Read and follow all other product information supplied by the manufacturer of the implants or the instruments.
- » Special precautions are needed during pediatric use. Care should be taken when using instruments in pediatric patients since these patients can be more susceptible to the stresses involved in their use.
- » Some surgeries require the use of instruments which incorporate a measuring function. Ensure that these are not worn and any surface engravings are clearly visible.

### POTENTIAL ADVERSE EVENTS

- » Nerve damage, paralysis, pain, or damage to soft tissue, visceral organs, or joints.
- » Infection if instruments are not properly cleaned and sterilized.
- » Pain, discomfort, or abnormal sensations resulting from the presence of the instrument.
- » Nerve damage due to surgical trauma.
- » Dural leak in cases of excessive load application.
- » Impingement of close vessels, nerves, and organs by slippage or misplacement of the instrument.
- » Damage due to spontaneous release of clamping devices or spring mechanisms of certain instruments.
- » Cutting of skin or gloves of operating staff.
- » Bony fracture in cases of deformed spine or weak bone.
- » Tissue damage to the patient, physical injury to operating staff, and/or increased operating time that may result from the disassembly of multi-component instruments occurring during surgery.
- » The methods of use of instruments are to be determined by the user's experience and training in surgical procedures. A successful result is not always achieved in every surgical case. This fact is especially true in spinal surgery where other patient conditions may compromise the results.

## Technology Ordering Information

### Tapping and Driving Set with Insulating Sleeves SPS02353

POWEREASE® Taps	2341420M	3.75mm Tap
	2341421M	4.0mm Tap
	2341422M	4.5mm Tap
	2341423M	5.0mm Tap
	2341424M	5.5mm Tap
	2341425M	6.0mm Tap
	2341426M	6.5mm Tap
	2341427M	7.0mm Tap
	2341428M	7.5mm Tap

POWEREASE® Sleeves	2343422M	4.5mm Sleeve
	2343426M	6.5mm Sleeve
	2343429M	8.0mm Sleeve
	2343431M	9.0mm Sleeve

POWEREASE® Screwdrivers	2342326M	Threaded Post Driver
	2342393M	Standard Driver
	8350394	Standard Driver Sleeve
	2342280M	4.75 FAS Driver
	2342305M	4.75 MAS Driver
	2342281M	5.5/6.0 FAS Driver
	2342306M	5.5/6.0 MAS Driver
	2342300M	4.75 RMAS Driver
	2342301M	5.5/6.0 RMAS Driver

POWEREASE® Tray	2393002	Tapping and Driving Set with Insulating Sleeves Tray
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### Set Screw Break-off Set SPS02354

2346010	POWEREASE® Set Screw Break-off Instrument
2346011	4.75 MAS/FAS Counter Torque
2346012	5.5/6.0 MAS/FAS Counter Torque
2346013	5.5 Offset Counter Torque
2346050	Square Adapter
2346051	Handle Adapter (Set Qty 2)
2395002	Set Screw Break-off Tray

### Driver Tray SPS02355

2300000	POWEREASE® Driver
2397002	POWEREASE® Driver Tray

### IPC Tray SPS02356

EC300	Integrated Power Console
2398002	Integrated Power Console Tray



Classic Working Ends Tray  
(located in SPS02353)



## Technology Ordering Information *continued*

### ADDITIONAL ITEMS FOR ORDER

#### POWERAISE® Screwdrivers Including Short and Long Sizes

CD HORIZON® SOLERA® Drivers	2342305S	4.75 MAS Driver
	2342305L	4.75 MAS Driver
	2342280S	4.75 FAS Driver
	2342280L	4.75 FAS Driver
	2342306S	5.5/6.0 MAS Driver
	2342306L	5.5/6.0 MAS Driver
	2342281S	5.5/6.0 FAS Driver
	2342281L	5.5/6.0 FAS Driver
	2342300S	4.75 RMAS Driver
	2342300L	4.75 RMAS Driver
	2342301S	5.5/6.0 RMAS Driver
	2342301L	5.5/6.0 RMAS Driver
	2342326L	Threaded Post Driver
	TSRH® 3Dx™ Drivers	2342375L
2342393S		Standard Driver
2342393L		Standard Driver
2342401		Locking MPA® Driver
2342402		Locking MPA® Sleeve
2343435		15.0mm Sleeve

#### POWERAISE® Short and Long Taps

2341420S	3.75mm Tap
2341420L	3.75mm Tap
2341421S	4.0mm Tap
2341421L	4.0mm Tap
2341422S	4.5mm Tap
2341422L	4.5mm Tap
2341423S	5.0mm Tap
2341423L	5.0mm Tap
2341424S	5.5mm Tap
2341424L	5.5mm Tap
2341425S	6.0mm Tap
2341425L	6.0mm Tap
2341426S	6.5mm Tap
2341426L	6.5mm Tap
2341427S	7.0mm Tap
2341427L	7.0mm Tap
2341428S	7.5mm Tap
2341428L	7.5mm Tap
2341429S	8.0mm Tap
2341429M	8.0mm Tap
2341429L	8.0mm Tap
2341430S	8.5mm Tap
2341430M	8.5mm Tap
2341430L	8.5mm Tap
2341431S	9.0mm Tap
2341431M	9.0mm Tap
2341431L	9.0mm Tap
2341432S	9.5mm Tap
2341432M	9.5mm Tap
2341432L	9.5mm Tap
2341433S	10.0mm Tap
2341433M	10.0mm Tap
2341433L	10.0mm Tap
2341434S	10.5mm Tap
2341434M	10.5mm Tap
2341434L	10.5mm Tap

## Technology Ordering Information *continued*

### ADDITIONAL ITEMS FOR ORDER *continued*

#### POWEREASE® Short and Long Sleeves

2343422S	4.5mm Sleeve
2343422L	4.5mm Sleeve
2343426S	6.5mm Sleeve
2343426L	6.5mm Sleeve
2343429S	8.0mm Sleeve
2343429L	8.0mm Sleeve
2343431S	9.0mm Sleeve
2343431L	9.0mm Sleeve

#### POWEREASE® Drill Bits

2345030S	3.0mm Drill Bit
2345030M	3.0mm Drill Bit
2345030L	3.0mm Drill Bit
2345035S	3.5mm Drill Bit
2345035M	3.5mm Drill Bit
2345035L	3.5mm Drill Bit
2345042S	4.2mm Drill Bit
2345042M	4.2mm Drill Bit
2345042L	4.2mm Drill Bit

#### POWEREASE® Sterile Drill Bits

G2345030S	3.0mm Drill Bit
G2345030M	3.0mm Drill Bit
G2345030L	3.0mm Drill Bit
G2345035S	3.5mm Drill Bit
G2345035M	3.5mm Drill Bit
G2345035L	3.5mm Drill Bit
G2345042S	4.2mm Drill Bit
G2345042M	4.2mm Drill Bit
G2345042L	4.2mm Drill Bit

Notes

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The surgical technique shown is for illustrative purposes only. The technique(s) actually employed in each case will always depend upon the medical judgment of the surgeon exercised before and during surgery as to the best mode of treatment for each patient.

Please see the package insert for the complete list of intended uses, warnings, precautions, and other important medical information.

**Rx** only

