# ORAL SURGERY

Surgic Pro / Surgical Handpieces / VarioSurg / iSD900



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# Sugirco Power, Safety & Accuracy, No compromise

# Surgicies Micromotor Optic / Non-Optic

20:1

LED

NSK Surgicito serun

Brighter and Lighter – That's Clear Evolution Surgic Pro micromotor with LED

- Powerful torque (up to 80 Ncm)
- Wide speed range (200 to 40,000 min<sup>-1</sup>)
- High torque accuracy
- Lightest and smallest micromotor
- LED illumination (over 32,000 LUX)
- Excellent durability
- Autoclavable, thermo-disinfectable and maintenance free brushless design



Shorter and Lighter than the conventional optic surgical micromotor

This new surgical micromotor is 16.2 mm shorter and weighs 42 g less compared to the conventional optic surgical micromotor.

LED illumination helps the clinicians to focus more easily on the treatment area and contributes to precise surgery

Clearer : LEDs generate natural daylight quality light which gives clearer vision when compared to halogen light. Durable : LED light sources are longer lasting and more durable than halogen bulbs.



#### \*Including cord





# Surgic Pro Control Unit

# The right choice for all professionals

All necessary functions for oral surgery procedures and implantology in once stylish and compact unit.





visibility of all treatment parameters at all times.

#### Adjustable Light Intensity

3 levels of light intensity can easily be adjusted by the user (High/Low/Off) to suit treatment conditions.



#### **Control Unit with Advanced Handpiece** Calibration (AHC) -**High Torque Accuracy Guaranteed**

Use NSK Surgic Pro AHC to calibrate micromotor and handpiece to the rotational resistance of each individual handpiece prior to operation. AHC guarantees extremely accurate speed and torque for maximum safety during operation.

#### Slim High Performance Pump

NSK has designed a slim high performance irrigation pump. The pump is easily accessible and extremely user friendly.



# Surgic Pro Series can memorize

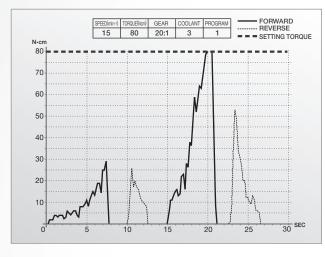
Within each System you can program 8 different settings. Please refer to implant manufacturers guidelines for recommended settings.

# Surgic Prot with data storage facility

The data storage facility can record the following: date, speed, rotational direction, torque, gear ratio, irrigation solution flow setting. The total recording time is up to 100 min and every recording captures date, time and duration of operation.

#### **No Special Software Required**

You do not need to install any specific software as the data can be displayed with general-use software which can display csv or bitmap files.



# Surgic Prot Complete Set Optic with data storage facility





Surgic Pro+ Complete Set with X-DSG20L Optic Handpiece

 Control Unit with data storage facility
 SGL70M LED Micromotor
 FC-78 Foot Control • X-DSG20L Optic Handpiece (20:1 Reduction) • Irrigation tube (5 pcs.) and other accessories

Specifications

Contents

Control Unit with Al-	łC	Micromo
<ul> <li>Power Supply</li> </ul>	: AC 120V 50/60 Hz	Torque
• Max. Pump Output	: 75 mL/min	Motor S
<ul> <li>Programs</li> </ul>	: 8 Programs / Implant Systems	<ul> <li>Light Pc</li> </ul>
<ul> <li>Dimensions</li> </ul>	: W268 x D220 x H100 (mm)	(LED Mid
• USB I/F	: 1 port	
<ul> <li>Built in Memory</li> </ul>	: 100 min	

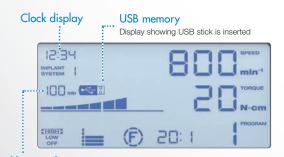
#### **Data Accessibility**

Treatment data can be accessed and downloaded using a USB memory stick. \*USB memory stick isn't included.



#### **Display Permanently Showing Memory Status**

LCD shows remaining capacity of the built-in memory and the status of USB Stick when inserted.



Memory time Display showing remaining recording time

8 Oral Surgery

#### Optic MODEL: Surgic Pro+ OPT-D ORDER CODE: Y1002095

#### otor : 5-80 Ncm Speed : 200~40,000 min<sup>-1</sup> Power : over 32,000 LUX licromotor)

#### Foot Control

• Foot Control Functions : Program Button, Speed Control Pedal Coolant Solution Flow Volume Button Forward / Reverse Button

# Surgic Pro Complete Sets Optic / Non-Optic



#### Surgic Pro Complete Set with X-SG20L Optic Handpiece

Optic MODEL: Surgic Pro OPT ORDER CODE: Y1001949

Contents

- Control Unit without data storage facility 
   SGL70M LED Micromotor 
   FC-78 Foot Control
- X-SG20L Optic Handpiece (20:1 Reduction) Irrigation tube (5 pcs.) and other accessories

#### Surgic Pro Complete Set with SG20 Handpiece

Non-Optic MODEL: Surgic Pro NON-OPT ORDER CODE: Y1001950

Contents

- Control Unit without data storage facility 
   SG70M Non-Optic Micromotor 
   FC-78 Foot Control
- SG20 Handpiece (20:1 Reduction) Irrigation tube (5 pcs.) and other accessories

#### Specifications

Max. Pump Outp	: AC 120V 50/60 Hz uut : 75 mL/min	Micromotor • Torque : 5-80 Ncm • Motor Speed : 200~40,000 min <sup>-1</sup>	Foot Control • Foot Control Functions : Program Button, Speed Control Pedal
<ul><li>Programs</li><li>Dimensions</li></ul>	: 8 Programs / Implant Systems : W265 x D220 x H100 (mm)	Light Power : over 32,000 LUX     (LED Micromotor)	Coolant Solution Flow Volume Button Forward / Reverse Button

## Foot Control

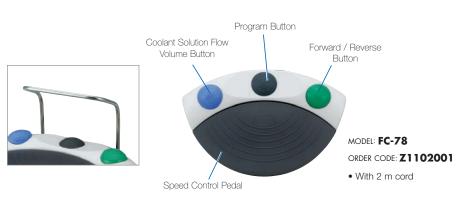
#### Stay in control

The Foot Control is user friendly and allows operation of all functions within the preset parameters without touching the control panel to avoid accidental activation of the micromotor outside the preset limits. The Surgic Pro/Surgic Pro+ is certificated according to IPX8.

#### Handle Set (Optional)

Handle Set can be easily attached to Foot control (FC-78).

MODEL: Handle Set ORDER CODE: **Z1027001** 



## Sterilization Cassette (Optional) 🕅

The NSK Surgic Sterilization Cassette can accommodate the micromotor with cable, straight and electric & slow speeds handpieces ready for sterilization.



### Carrying Case (Optional)

The NSK Carrying Case can accommodate all Surgic Pro components as well as the optional sterilization cassette.



MODEL: SG-CASE

ORDER CODE: 20001348

• Dimensions : W281 x D171.5 x H47 (mm)



MODEL: Carrying Case ORDER CODE: Y1001952 (Surgic Pro)

• Dimensions : W534 x D427 x H207 (mm)

# Surgical Handpieces

# High Torque Dismantling Surgical Handpieces 80 Ncm

The Ti-Max X-DSG20L implant handpieces offers extraordinary durability and reliability that specialist clinicians can completely rely on. X-DSG20L is easy to dismantle without any tools for easy cleaning and maintenance. Also it offers constant torque and maximal efficiency to transmit with very minimal loss and stands up to 80 Ncm torque without any problem.

# Ti-Max X-DBG20L

**Dismantling Surgical Handpiece** 



#### Easy to Disassemble Without Tool

The X-DSG20 handpiece can be disassembled with a simple twist for easy internal cleaning. However, when attached to a motor, it will not disassemble accidentally due to NSK's unique locking mechanism.

A AN



# Ti-Max X-SG20L 📟



S.Max SG20



20:1

#### **Double Sealing System**

Ti-Max X-DSG201 NSK's original double sealing system reliably prevents blood and bodily fluids from entering the instrument head. This guarantees longevity of the instruments.



 Cellular Glass Optics 
 Push Button Chuck • External and internal cooling (Kirschner and Meyer) Double Sealing System 
 Max. Torque : 80 Ncm • Max. Speed : 2,000 min<sup>-1</sup>



#### MODEL: X-SG20L ORDER CODE: C1003 Optic

20:1 Reduction • Titanium Body with Scratch Resistant DURACOAT Cellular Glass Optics 
 Push Button Chuck • External and internal cooling (Kirschner and Meyer) • Double Sealing System • Max. Torque : 80 Ncm • Max. Speed : 2,000 min<sup>-1</sup>

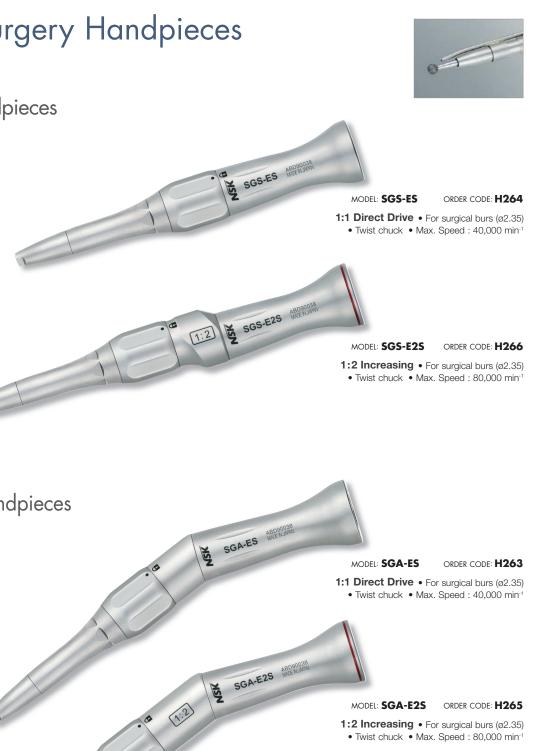


ORDER CODE: C1010

Non-Optic MODEL: SG20

20:1 Reduction • Stainless Steel Body • Push Button Chuck • External and internal cooling (Kirschner and Meyer) Double Sealing System 
 Max. Torque : 80 Ncm • Max. Speed : 2,000 min-1

### Straight Handpieces







# Ti-Max X-SG93L



1:3 Increasing • Titanium Body with Scratch Resistant DURACOAT Cellular Glass Optics (X-SG93L)
 Clean Head System • Push Button Chuck • For FG burs (ø1.6) • External cooling • Max. Speed : 120,000 min-1

# Ti-Max X-SG65L

Straight Handpiece

Triple Spray





**1:1 Direct Drive** • Titanium Body with Scratch Resistant DURACOAT Cellular Glass Optics (X-SG65L)
 Clean Head System • For HP burs (ø2.35) • External cooling • Max Speed : 40,000 min<sup>-1</sup>







A Powerful Ultrasonic Surgical System with LED

#### Applications

- Bone Surgery
- Scraper
- Extraction
- Sinus Lift
- Sinus Membrane
- Implant Preparation
- Scaling
- Perio (Root Planing)
- Retrograde Endo
- Maintenance

NSK Variaburg LED

#### **Comfortable Grip Handpiece**

The superior ergonomics of the VarioSurg handpiece, including its slim and lightweight body, ensure minimal hand fatigue and greater accessibility to difficult to reach areas. The twin LEDs integrated in the handpiece produce outstanding visibility, leading to safer and more precise treatments. Advanced ultrasonics produce oscillation at the handpiece tip that eliminates heat at the operation site, allowing for minimally invasive procedures.

#### Shorter, Lighter Handpiece

VarioSurg's slim LED-equipped handpiece gives you extraordinary accessibility and visibility during procedures, and its ergonomic shape and fine balance are designed to minimize hand and finger fatigue even during extended use.

#### **Tips - Products of NSK's** Meticulous Manufacturing

We maximize the sharpness of our tips through threedimensional cutting (toothing) of the blade's edge.







Twin LED lights

#### NSK's twin LEDs deliver natural daylight-quality illumination, and significant advantages to the way you work

Clearer : LEDs generate natural daylight-quality light, which ensures clearer vision than halogen light sources. Durable : LED light sources are longer lasting and more durable than halogen bulbs.



• with 2 m cord



 135°C
 Washable in the thermodisinfector

 1135°C
 Autoclavable up to 135°C

# VarioSurg Control Unit

# The Advanced Ultrasonic Technology of NSK

VarioSurg is equipped with various advanced functions of ultrasonic bone surgery through it's specially-made engine. The Feedback & Auto Tuning Function achieve high cutting efficiency through the automatic power control to exacting levels according to grinding surface.

The Burst Function generates the "hammer effect", which adds more powerful vibration to the vibrating tip, thus improving the ability to cut hard tissue.

#### Advantages

Power: superior cutting capability shortens treatment time
Minimally invasive: eliminates heat generation during bone dissection
Safe: avoids damage to soft tissue even during accidental contact
Precision: cavitations effect of irrigation solution keeps surgical site blood free

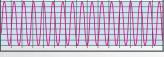
#### **Burst Mode**

Burst Mode creats a hammer drill effect promoting cutting of the hardest tissues. Superior cutting capability of the burst mode facilitates cutting of hard tissue without stress, and effectively shortens treatment time.

#### Burst mode



Continuous vibration mode



#### **Feedback Function**

The Feedback Function constantly monitors the performance parameters of the ultrasonic unit during operation and simultaneously controls the power output, to optimize the level of power depending on the procedure.

#### Simple, intuitive graphic operation panel



Memorize Key Select Mode Key S: SURG E: ENDO P: PERIO



#### Main Features

- 3 Modes (SURG, ENDO, PERIO)
- Burst Mode
- 9 Programs (SURG x 5, ENDO x 2, PERIO x 2)
- Automatic Cleaning Mode
- Feedback Function
- Auto Tuning Function



#### VarioSurg Complete Set with LED Handpiece

#### MODEL: VSRG OPT ORDER CODE: Y1001928

Contents

- Control Unit 
   LED Handpiece with 2 m cord
- FC-51 Foot Control
   Sterilization Cassette
- Handpiece Stand Irrigation tube (5 pcs.) and other accessories
- Basic-S Kit (SG1, SG3, SG5, SG6D, SG7D, SG11 and Tip holder)

#### Specifications

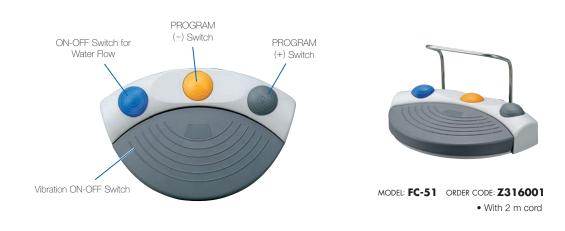
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## Foot Control

#### Hands-free Program Adjustments Via Foot Control

The VarioSurg Foot Control, which meets IPX8 Standards for medical foot control systems, allows perfect control during delicate surgical procedures. A bracket enables the Foot Control to be easily raised or moved without using your hands during use.



### Sterilization Cassette 🕅 🎆

The Sterilization Cassette is designed for the safe processing and storage of VarioSurg components.



## Carrying Case (Optional)

The NSK Carrying Case can accommodate all VarioSurg components.





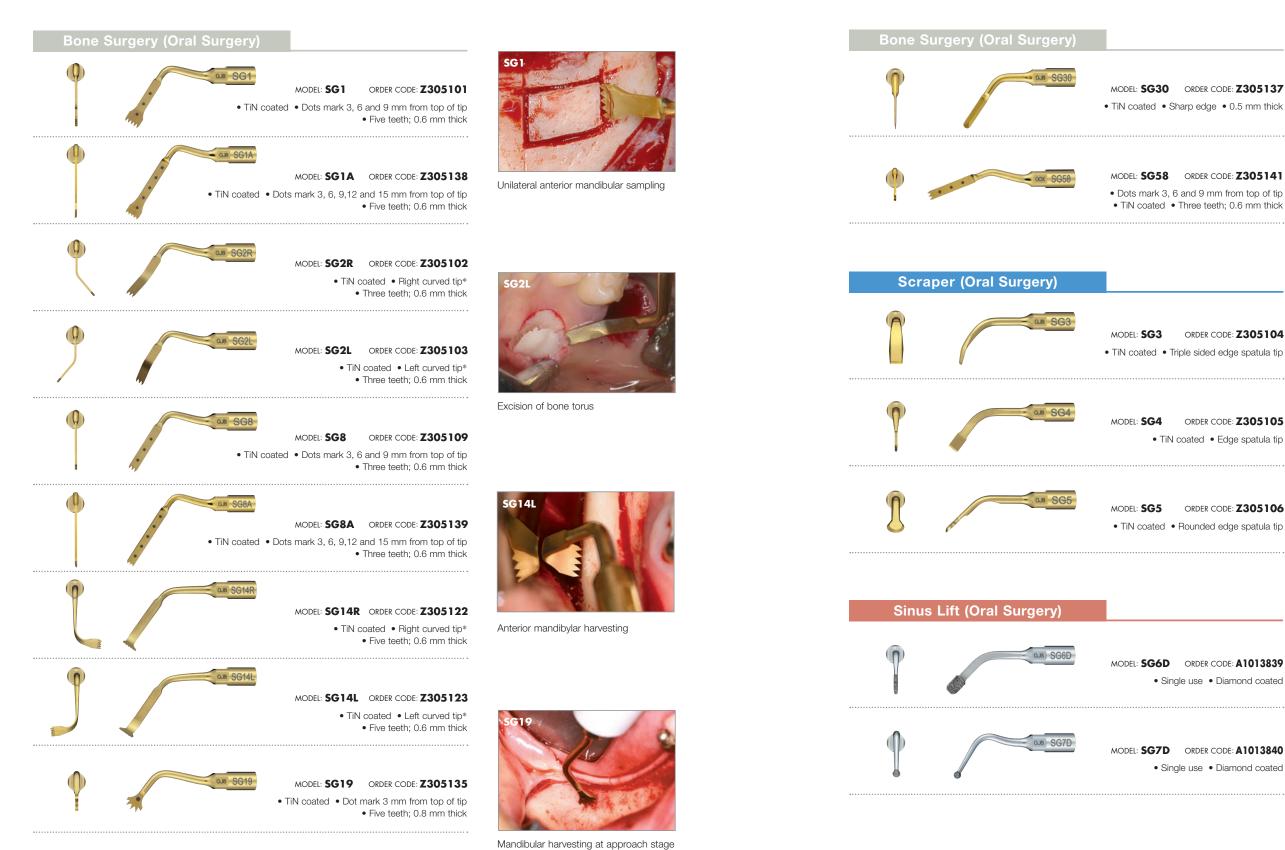
#### MODEL: VA-SG-CASE ORDER CODE: 20001326

Dimensions : W281 x D171.5 x H47 (mm)
With appropriate compartments for handpiece, cord, tip replacement wrench and tip holders

MODEL: Carrying Case ORDER CODE: Y1001907 (VarioSurg)

• Dimensions : W534 x D427 x H207 (mm)





MODEL: SG30 ORDER CODE: Z305137 • TiN coated • Sharp edge • 0.5 mm thick

MODEL: SG58 ORDER CODE: Z305141 • Dots mark 3, 6 and 9 mm from top of tip • TiN coated • Three teeth; 0.6 mm thick



The cutting part is bone torus

G3	ORDER CODE: <b>Z305104</b>	
ed • Tri	ple sided edge spatula tip	
G4	ORDER CODE: <b>Z305105</b>	
• TiN c	coated • Edge spatula tip	

5G5	ORDER CODE: <b>Z305106</b>
oated	Rounded edge spatula tip

• Single use • Diamond coated

• Single use • Diamond coated



Ostroplasties



Avulsion of wisdom teeth and impacted teeth



Sinus graft

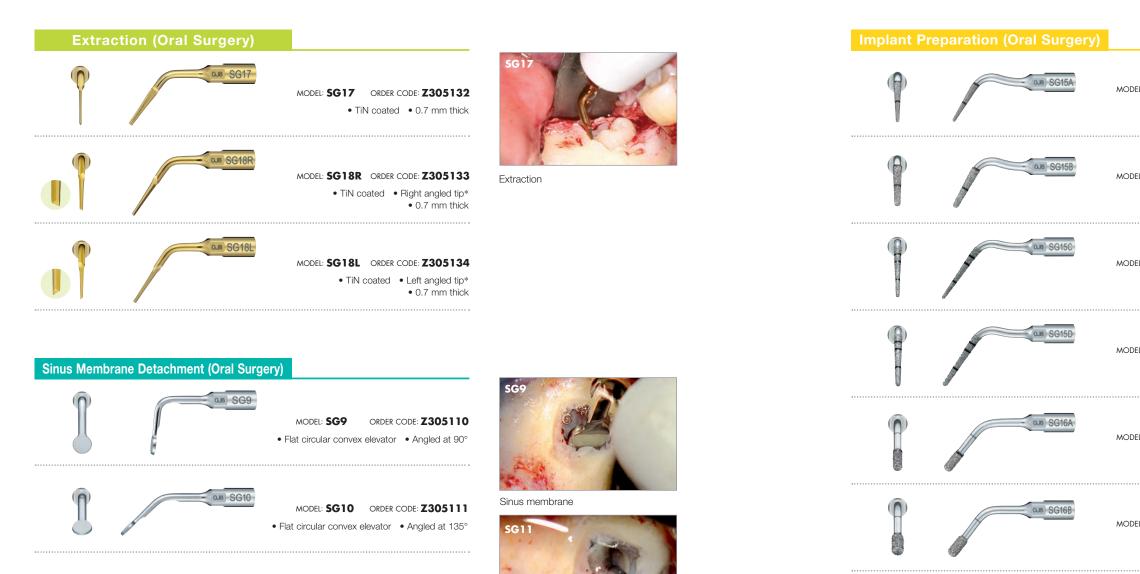


# Varia Jurg tips

JB SG11

MODEL: SG11 ORDER CODE: Z305112

Cone compressor



Sinus graft

#### MODEL: SG15A ORDER CODE: A1013841

• Single use • Diamond coated • Diameter of the tip end; 0.7 mm

#### MODEL: SG15B ORDER CODE: A1013842

 Single use 
 Diamond coated • Diameter of the tip end; 1.3 mm

#### MODEL: SG15C ORDER CODE: A1013843

- Single use Diamond coated
- Diameter of the tip end; 0.9 mm

#### MODEL: SG15D ORDER CODE: A1013844

 Single use 
 Diamond coated • Diameter of the tip end; 1.3 mm

#### MODEL: SG16A ORDER CODE: A1013845

 Single use 
 Diamond coated Diameter; 2.0 mm

#### MODEL: SG16B ORDER CODE: A1013846

 Single use 
 Diamond coated Diameter; 2.6 mm



Conical preparations for implant osteotomies

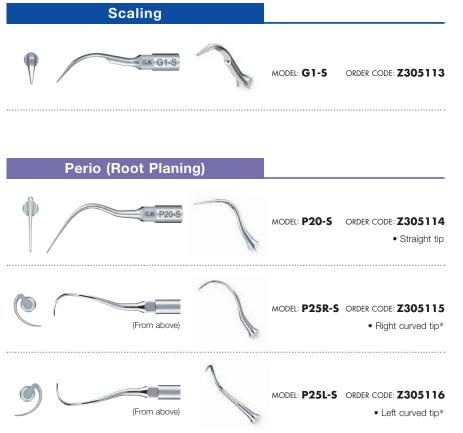


Implant preparation





# Varia Surg tips



### Retrograde Endo (Retrograde Preparation of Root Canals MODEL: E3ORD-S ORDER CODE: A1013847 CUB E30RD-S Single use Diamond coated OUR ESOLD-S MODEL: E30LD-S ORDER CODE: A1013848 • Single use • Diamond coated • For posterior teeth (left angled) MODEL: E31D-S ORDER CODE: A1013849 • Single use • Diamond coated • For anterior and posterior teeth (70°) OUB E32D-S MODEL: E32D-S ORDER CODE: A1013850 Single use Diamond coated • For anterior teeth (90°)

Tip Kits





Contents

• Tip holder

1 pc. each

• Single use : SG6D, SG7D • Reusable : SG1,SG3, SG5, SG11



## ORDER CODE: A1013868

• Single use : E30RD-S, E30LD-S, E31D-S, E32D-S • Single use : SG15A, SG15B, SG16A, SG16B 1 pc. each



#### MODEL: Endo-S Kit ORDER CODE: A1013867

Contents Reusable : G1-S

• Tip holder 1 pc. each

Contents • Tip holder



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- For posterior teeth (right angled)





### ORDER CODE: A1013866

Contents • Single use : SG6D

- Reusable : SG1,SG3, SG9, SG10,SG11 Tip holder
- 1 pc. each





# iSD900

# Cordless Prosthodontic Screwdriver with Torque Calibration System (TCS)

NSK is introducing the iSD900 cordless screwdriver with Torque Calibration System (TCS) for prosthodontic screw fixing procedures. iSD900 will guarantee precise torque control due to the unique NSK torque calibration system which is extremely easy to use. The iSD900 will help to save time and allow precise risk-free tightening of screws. Clinicians can depend on iSD900 for safety and productivity.

#### High quality operation with good visibility

It has been too difficult to keep good visibility on retracting buccal mucosa with current ratchet wrenches which need your both hands. iSD900 supports you to keep good visibility and perform higher quality operations.





field through the one hand operation.

iSD900: Deliver wider operation view and Ratchet Wrench: Blind to the operation view and field by the hands and fingers.

#### **Torque Calibration System (TCS)**

Precise torque from 10 to 40 Ncm in 1 or 5 Ncm increments can be easily set and delivered. The TCS allows for easy calibration within seconds and guarantees precise torque and gives peace of mind.





Calibration Mode

#### **Ergonomic Extension On/Off Switch Lever**

The iSD900 features a removable extension on/off switch lever to allow clinicians to operate the instrument easily. The extension lever is fully autoclavable to meet cross infection control requirements.

#### iSD900 Complete Set

MODEL: iSD900 ORDER CODE: Y1001357

Contents

• iSD900 Motor • iSD-HP, Quick Charger for iSD900 Torque Calibrator 
 On/Off Switch Lever

#### Specifications

- Torque: 10 40 Ncm in 1 or 5 Ncm increments
- Speed : 15, 20, 25 min<sup>-1</sup>
- Weight: 148 g (iSD900 Motor + iSD-HP) Charging Time: Around 90 min\*
- Continuous Operation Time: Max 72 min\*

\*these may change according to the usage environment.



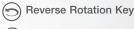
#### 3 selectable speed setting for various procedures

The LCD digital display shows torque, speed, reverse rotation, battery condition and calibration mode settings. The display is clear and very easy to use.



#### **User-friendly LCD Digital Display**

The LCD digital display shows torque, speed, reverse rotation, battery condition and calibration mode settings. The display is clear and very easy to use.



C Calibration Key



Up / Down Key To aclinet the for torque and speed

1520 <b>25</b> min <sup>4</sup>
$R \bigcirc $

Torque : 35 Ncm Speed: 25 min



**Reverse Rotation** 



# Spare Parts

#### Surgic Pro ORDER CODE PRODUCTS ORDER CODE MODEL PRODUCTS ORDER CODE MODEL SGL70M X III (Pack of 5) Tube Holder 0 E1023 Y900113 Y900083 Optic Micromotor (with 2 m Cord) (Pack of 7) 1357 SG70M Coolant Solution Hanger Post SG-CASE Sterilization Cassette The second second Carlos V E1025 U370152 20001348 Non-Optic Micromote (with 2 m Cord) X 1350 X 1350 Carrying Case (Surgic Pro) 0 Tube Holder E295105 Handle Set Z1027001 Y1001952 ¥ 1355 and and Protection Plug 10001595 Z1029201 Handpiece Stand X 1350

#### Surgical Handpieces

Internal Spray Nozzle	THE LEVE	10000324	Nozzle Holder For SG20		20000357	Cleaning Wire	20000512
Nozzle Holder X-DSG20L, X-DSG20 X-SG20L		20000396	Y-Connector	>	C823752	Calibration Bur	 U494304

#### Micro Surgery Handpieces



#### VarioSurg

VS-LED-HPSC LED Handpiece (with 2 m Cord)		E1084	
E Tip Replacement Wrench For V10-S	<b>X</b> 1555	Z217399	
VS Tip Wrench For SG1A, SG8A (CR-40)	X 150	Z305350	
Tip Wrench (CR-30)		10000977	

Tips Holder		20001327
Handpiece Stand		Z1029201
Irrigation Tube (Pack of 5)		Y900113
Saline Solution Hanger Post	s	U564152

Tube Holder (Pack of 7)	T III	Y900767
VA-SG-CASE Sterilization Cassette	X S	20001326
Carrying Case (VarioSurg)		Y1001907

#### iSD900

Quick Charger for iSD900 U1070001 Torque Calibrator 21056001 On/Off Switch Lever	
TOP IS DEPUT	Z1070001
Power Cord     Image: Cord Cord Cord Cord Cord Cord Cord Cord	Y900103

\* Use only a rechargeable battery, size AAA Ni-MH (Nickel Metal Hydride). Never attempt to use a non rechargeable battery.

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