Primado 2
Total Surgical System
Nic Talantis 954-770-5426
Product Lineup

Saw Series
- P32-34

High Torque Motor Series
- Primado2 High Torque Motor P20
- High Speed Handpiece 200 P21
- Slim Handpiece P23
- Super Slim Handpiece P24
- Standard Angled Handpiece P25
- Standard Straight Handpiece P26
- Perforator / Craniotome / Drill P27-29
- Contra Angle Handpiece P30

Foot Control
- Primado2 Foot Control P10

Driver Series
- Drill Attachment P37
- Reamer Attachment P38
- Saw Attachment P38
Feel the difference

Primado2 is NSK’s second generation electric total surgical system, designed for fulfilling surgeons’ demands.
During the five years since NSK have distributed Primado, we have obtained various feedback from surgeons throughout the world. Based on their input, Primado2 is uncompromisingly built to assume maximum quality throughout the product line. Four strong lineups including the new motor series, Slim Motor, are introduced in Primado2. They consummate excellent cutting, and achieve weight balance during drilling. Thus, using Primado2 is less fatiguing for surgeons, which is especially beneficial during long hours of surgery, and it allows them to concentrate on the operation at hand. Moreover, the product safety achieved reduces the risk of undesirable events. Hope you experience the exceptional use that Primado2 provides.
The sign of excellence

Primado2 makes it possible to conduct various types of surgeries. New features include a control unit with a liquid crystal display touch screen, a multifunctional foot control, four lineups of motor handpieces, and extensive attachments. Additionally, easy maintenance is highly valued as all of the Primado2 handpieces and attachments are thermo disinfector compatible.
A: Motor: P200-SMH  
Attachment: Direct Drive  
SPEED: 80,000/min  
IRRIGATION: 70

B: P200-BMH  
SPEED: 20,000/min  
IRRIGATION: 100%
Settings

Extensive options are available

[Control Unit]
- Brightness
- Volume
- Language (English, Japanese, German, French, Spanish, Italian)

[Motor Handpiece]
- Accelerator adjustment (min. 10% - max. 100%)
- Brake adjustment (min. 10% - max. 100%)
- Torque adjustment (min. 30% - 100%)
- Oscillation adjustment (1 - 5 times, available only for Wire Pin Driver)

[Attachment]
- Handpiece selection (The rotational speed of the handpiece currently in use appears on the screen.)

Touch Panel

[Main Panel]
- Speed control
- Irrigation control
- Reverse rotation control
- Priming control

[Sub Panel]
- Allows to confirm the assigned functions of each foot control button.

[Mini Panel]
- Button for optional settings.
Primado2 Control Unit

A 6.5 inch LCD touch screen is newly adopted. The simple design makes it user friendly and easy to use. Two motor handpieces can be connected to the unit, allowing for easy switching between handpieces.

<table>
<thead>
<tr>
<th>Order Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>P200-CU-120</td>
<td>Primado2 Control Unit for 120V</td>
</tr>
<tr>
<td>P200-CU-230</td>
<td>Primado2 Control Unit for 230V</td>
</tr>
</tbody>
</table>

- Power Supply: AC120V / 230V 50/60 Hz
- Dimension: W270 x D200 x H1100 (mm)
- Weight: 6.0 kg

Configuration Settings

The control unit saves the last configurations made with the Option Set Up button, allowing the operator to proceed right away.

Regulation Equipment - Irrigation Pump

Primado2 comes equipped with an irrigation pump. Irrigation can be adjusted with 5% interval values allowing up to max. 75ml/min.

Automatic Recognition for Motor Handpieces

Four types of motor handpieces are automatically recognized by the control unit which displays the corresponding models and rotational speeds for each.
Primado2 Foot Control

The foot control is available in two models: single (one functional button), and multi (three functional buttons). Each button can be set to a specific function to meet the operator’s preference.
Functions are able to be allotted to each button

[Allocatable Features]
- Foot control ON/OFF
- A ⇔ B control (switching between motor handpieces)
- Speed control
  (adjust rotational speed: min. 30% ⇒ default ⇒ max. 100%)
- Reverse rotation mode
- Irrigation ON/OFF
- Flush (continuous 100% irrigation when depressed)
- Disable (disables function to the selected foot control button)
Slim Motor Series

Slim Design: A new design that combines being slim, compact and light, which reduces surgeons' stress during long hour operations.

High Speed: High speed rotation of maximum 80,000min⁻¹ makes it possible to cut precisely.

Versatile: Various types of handpieces available including a hand control type.

Easy Maintenance: All the motors and handpieces can be washed by a thermal disinfector.

Durable: Motors and handpieces are made to be highly durable due to NSK's long years of experience in high precision technology, and are protected with a NSK original special coating called DURACOAT, creating long-lasting and scratch-free quality products.

Slim Handpiece 200
Super Slim Handpiece 200
Standard Angled Handpiece 200
Standard Straight Handpiece 200
Primado2 Slim Motor

P200-SMH-HS
- Hand Control type
- Speed: Max. 80,000 min⁻¹
- Available handpieces: 19 kinds
- Bundled item: Spray Adaptor for Slim (see p.40)

P200-SMH
- Speed: Max. 80,000 min⁻¹
- Available handpieces: 19 kinds
- Bundled item: Spray Adaptor for Slim (see p.40)
The Slim Handpiece 200 has a bur guard tip of 4.8mm in diameter, and is available in various lengths as well as straight and curved models. These deliver excellent performance in endoscopic procedures with limited viewing access. The bur guard can be removed using a wrench that is included with delivery, making maintenance easy.
The Super Slim Handpiece 200 is designed with a bur guard tip of 2.1mm in diameter, and can rotate max. 20,000min⁻¹ allowing sensitive drilling in an endoscopic procedure possible. The bur guard can be removed using a wrench that is included with delivery, making maintenance easy.
Five different length of handpieces are available with the Standard Angled Handpiece 200. This allows surgeons to deal with various types of operations. Perfect rotation balance and cutting balance performance are achieved.
Five different lengths of handpieces are available with the Standard Straight Handpiece 200. This allows surgeons to deal with various types of operations. Perfect rotation balance and cutting balance performance are achieved.

Order code: P200-2SMS
Std. Straight Handpiece 200 MS
- Mini type
- Bur: ø2.35mm / MS

Order code: P200-2SES
Std. Straight Handpiece 200 ES
- Extra Short type
- Bur: ø2.35mm / Extra Short

Order code: P200-2SS
Std. Straight Handpiece 200 S
- Short type
- Bur: ø2.35mm / Short

Order code: P200-2SM
Std. Straight Handpiece 200 M
- Medium type
- Bur: ø2.35mm / Medium

Order code: P200-2SL
Std. Straight Handpiece 200 L
- Long type
- Bur: ø2.35mm / Long

Irrigation Nozzle
Order code: PD-IN-D
For P200-2SMS (MS)

Order code: PD-IN-2SES
For P200-2SES (ES)

Order code: PD-IN-2S
For P200-2SS (S)

Order code: PD-IN-2M
For P200-2SM (M)

Order code: PD-IN-2L
For P200-2SL (L)
Perforator Handpiece 200

The high performance handpiece for trephination. It delivers stable torque and achieves smooth and powerful cutting performance.

Drill Handpiece 200 for ø2.35 mm Twist Drill

The corresponding handpiece for a trephination.
The high performance handpiece designed for cranial surgery. Three different types of duraguards are available for variable cranial bone thickness. The smooth and powerful cutting performance avoids adding additional stress to the surgeon.

- Pediatric Duraguard 200
  - Bur: Pediatric Craniotome bur, Pediatric Router bur
  - Order code: P200-CRD-P

- Medium Duraguard 200
  - Bur: Medium Craniotome bur, Medium Router bur
  - Order code: P200-CRD-M

- Long Duraguard 200
  - Bur: Long Craniotome bur, Long Router bur
  - Order code: P200-CRD-L

Order code: P200-CRA
Craniotome Handpiece 200
- Bur: Craniotome bur, Router bur
- Bundled item: P200-CRD-M
High Torque Motor Series

High Torque: High torque motor delivers advanced cutting performance.

Versatile: Standard and hand control type are newly introduced.

Easy Maintenance: All of the motors and handpieces can be washed by a thermo disinfector.
Primado2 High Torque Motor

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>P200-HMH-HS</td>
<td>Primado2 High Torque Motor/HS</td>
<td>Hand Control type, Speed: Max. 60,000 min⁻¹, Available handpieces: 22 kinds</td>
</tr>
<tr>
<td>P200-HMH</td>
<td>Primado2 High Torque Motor</td>
<td>Speed: Max. 60,000 min⁻¹, Available handpieces: 22 kinds</td>
</tr>
</tbody>
</table>
High Speed Handpiece 200 for ø3.17 mm bur 100,000 min⁻¹

A maximum rotational speed of 100,000 min⁻¹ is attained with use of the motor increaser. Its powerful cutting performance is most suitable for open surgery.

- **P200-3GAS**
  - High Speed Handpiece 200 S
  - Short type
  - Bur: ø3.17 mm / Short

- **P200-3GAM**
  - High Speed Handpiece 200 M
  - Medium type
  - Bur: ø3.17 mm / Medium

- **P200-3GAL**
  - High Speed Handpiece 200 L
  - Long type
  - Bur: ø3.17 mm / Long

**Irrigation Nozzle**
- **PD-IN-3S**
  - For P200-3GAS S
- **PD-IN-3M**
  - For P200-3GAM M
- **PD-IN-3L**
  - For P200-3GAL L
The Slim Handpiece has a narrow bur guard tip of 4.8mm in diameter. It allows direct visualization of a bur in surgical procedures with limited viewing access.

**PD-1A135**
Long Slim Handpiece
- Long type
- Bur: ø1.0mm / Long

**PD-1A155-10**
Extra Long Slim Handpieces with a curvature of 10°
- Extra Long type
- Bur: ø1.0mm / Extra Long

**PD-1A175-10**
Super Long Slim Handpieces with a curvature of 10°
- Super Long type
- Bur: ø1.0mm / Super Long
The Super Slim Handpiece is designed with a bur guard tip of 2.1 mm in diameter. Maximum rotational speed of 24,000 min⁻¹ allows sensitive cutting in endoscopic operations possible.
The Standard Angled Handpiece comes available in four different lengths to support diverse procedures, each with excellent cutting performance and stability.
The Standard Straight Handpiece comes available in three different lengths to support diverse procedures, each with excellent cutting performance and stability.

- **PD-2SES**
  - Extra Short Standard Straight Handpiece
  - Extra Short type
  - Bur: ø2.35mm / Extra Short

- **PD-2SS**
  - Short Standard Straight Handpiece
  - Short type
  - Bur: ø2.35mm / Short

- **PD-2SM**
  - Medium Standard Straight Handpiece
  - Medium type
  - Bur: ø2.35mm / Medium

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Irrigation Nozzle

- **PD-IN-2ES**
  - For PD-2SES 2ES

- **PD-IN-2S**
  - For PD-2SS 2S

- **PD-IN-2M**
  - For PD-2SM 2M
Perforator Handpiece

The high performance handpiece for trephination. It delivers stable torque, and achieves smooth and strong cutting performance.
The high quality handpiece designed for cranectomy. Three different types of duraguards are available for variable cranial bone thickness. Strong cutting performance assists in a smooth operation.

- **PD-CRA**
  - Craniotome Handpiece
  - Bur: Craniotome bur, Router bur
  - Bundled item: PD-CRD-M

- **PD-CRD-P**
  - Pediatric Duraguard
  - Bur: Pediatric Craniotome bur, Pediatric Router bur

- **PD-CRD-M**
  - Medium Duraguard
  - Bur: Medium Craniotome bur, Medium Router bur

- **PD-CRD-L**
  - Long Duraguard
  - Bur: Long Craniotome bur, Long Router bur
Drill Handpiece for ø2.35 mm Twist Drill

The corresponding handpiece for a trephination. The NSK Drill Handpiece is available in straight and angled models for various types of operations.

**Order code**
**PD-2SD**
Straight Drill Handpiece
- Bur: ø2.35 mm Twist Drill

**PD-2SDM**
Straight Drill Handpiece M
- Corresponds to ø2.35 mm burs

**PD-2AD**
Angled Drill Handpiece
- Bur: ø2.35 mm Twist Drill

**PD-2ADM**
Angled Drill Handpiece M
- Corresponds to ø2.35 mm burs

**Irrigation Nozzle**

*PD-IN-D*
For PD-2SD, PD-2AD

*PD-IN-2ES*
For PD-2SDM, PD-2ADM
Contra Angle Handpiece

The Contra Angle Handpiece is useful when approaching at a blind angle. It is available in two types of speed reduction: 16:1 and 64:1.

**PD-CA-16**
Contra Angle Handpiece
16:1 Reduction
- 16:1 Reduction (Speed: Max. 3,750 min⁻¹)
- Latch Type Chuck
- Corresponds to ø2.35mm CA burs

**PD-CA-64**
Contra Angle Handpiece
64:1 Reduction
- 64:1 Reduction (Speed: Max. 940 min⁻¹)
- Latch Type Chuck
- Corresponds to ø2.35mm CA burs
Micro Bone Saw Series

**Slim Design**: The streamlined design with the reduced weight delivers well-balanced handling.

**High Performance**: Excellent cutting performance paired with low rotational vibration creates smooth operation.

**Easy Maintenance**: All of the motors and handpieces can be washed by a thermo disinfector.

**Durable**: Motors and handpieces are made to be highly durable due to NSK’s long years of experience in high precision technology, and are protected with a NSK original special coating called DURACOAT, creating long-lasting and scratch-free quality products.
Primado2 Reciprocating Saw Handpiece

Order code: P200-REC-S

Primado2 Rec. Handpiece
- Speed: Max 20,000 min⁻¹
- Stroke Length: 2.5 mm
- Blade: Reciprocating Saw Blades, Reciprocating Rasp
- Bundled Item: Soray Adaptor for Bone Saw
  (see p.43)

Order code: P200-REC-S-HS

Primado2 Rec. Handpiece/HS
- Hand Control type
- Speed: Max 20,000 min⁻¹
- Stroke Length: 2.5 mm
- Blade: Reciprocating Saw Blades, Reciprocating Rasp
- Bundled Item: Spray Adaptor for Bone Saw
  (see p.43)

Irrigation Nozzle
Order code: P200-IN-BS
Primado2 Sagittal Saw Handpiece

**Product Code: P200-SAG-S**
- Speed: Max. 20,000 min⁻¹
- Angle of Oscillation: 8°
- Blade: Sagittal and Oscillating Saw Blades
- Bundled Items: Spray Adapter for Bone Saw (see p.40)

**Product Code: P200-SAG-S-HS**
- Hand Control type
- Speed: Max. 20,000 min⁻¹
- Angle of Oscillation: 8°
- Blade: Sagittal and Oscillating Saw Blades
- Bundled Items: Spray Adapter for Bone Saw (see p.40)

Irrigation Nozzle
**Product Code: P200-IN-BS**
Fix P200-SAG-S, P200-SAG-S-HS
Primado2 Oscillating Saw Handpiece

P200-OSC-S
Primado2 Osc. Handpiece
- Speed: Max. 20,000 min⁻¹
- Angle of Oscillation: 8°
- Blade: Sagittal and Oscillation Saw Blades, Oscillating Saw Blades (for Intra Oral)
- Bundled item: Spray Adaptor for Bone Saw (see p.40)

P200-OSC-S-HS
Primado2 Osc. Handpiece/HS
- Hand Control type
- Speed: Max. 20,000 min⁻¹
- Angle of Oscillation: 8°
- Blade: Sagittal and Oscillation Saw Blades, Oscillating Saw Blades (for Intra Oral)
- Bundled item: Spray Adaptor for Bone Saw (see p.40)

PD-OSC-A
Adaptor
- Blade: Oscillating Saw Blades (for Intra Oral)
- Bundled item: Corresponding wrench (1), and screws (2)

Irrigation Nozzle
P200-IN-BS
The P200-IN-BS is used with the P200-OSC-S-HS.
Wire Pin Driver Series

**Powerful**: Delivers powerful pinning, wiring, and drilling through elaborate design.

**Ergonomic Design**: Smart design lies comfortably in the surgeon's hand and creates smooth handling and high operability.

**Easy Maintenance**: All of the motors and attachments can be washed by a thermo disinfector.

Wire & Pin Collet
Drill Attachment
Reamer Attachment
Saw Attachment
Primado2 Wire Pin Driver

- Speed: Max. 1,200 min⁻¹
- Rotation Mode: Forward, Reverse, Oscillating
- Bundled Item: Spray Adaptor (see p.40)
Attachment for Wire Pin Driver

Wire & Pin Collet

- **PD-DA-W**
  - Primado Wire Collet
  - \( \Phi 0.6-0.9 \) mm

- **PD-DA-P**
  - Primado Pin Collet
  - \( \Phi 0.8-0.82 \) mm

Drill Attachment

- **PD-DA-J4**
  - Jacobs Keyed Drill Chuck
  - \( \Phi 0.3-0.4 \) mm
  - Bundled Item: T wrench

- **PD-DA-J6**
  - Jacobs Keyed Drill Chuck
  - \( \Phi 0.5-0.6 \) mm
  - Bundled Item: T wrench

- **PD-DA-A**
  - AO Drill Chuck

- **PD-DA-K**
  - Keyless Drill Chuck
  - \( \Phi 0.6-0.74 \) mm

1,200 min⁻¹
Reamer Attachment

- **PD-RA-M**
  - Hudson Modified Trinkle Reamer
- **PD-RA-H**
  - Hudson Reamer
- **PD-RA-T**
  - Trinkle Reamer
- **PD-RA-A**
  - AO Reamer

300 min⁻¹

Saw Attachment

- **PD-SA-R**
  - Reciprocating Saw Attachment
    - Blades: Reciprocating Saw Blades, Reciprocating Rasp
- **PD-SA-S**
  - Sagittal Saw Attachment
    - Blades: Sagittal and Oscillating Saw Blades

12,000 min⁻¹
**Sterilization Case**

- **SC-ML** Sterilization Metal Lid
- **SC-T-F** Sterilization Tray Divider-Free
  - Dimensions: W480 x D250 x H60 (mm)
- **SC-C-H70** Sterilization Case/H70
  - Dimensions: W512 x D262 x H70 (mm)
  - The case intended to hold a single tray
- **SC-C-H125** Sterilization Case/H125
  - Dimensions: W512 x D262 x H125 (mm)
  - The case intended to hold 2 trays
- **SC-SM** Silicone Mat
  - The mat for the Sterilization Tray

**Mobile Trolley**

NSK offers a specially designed mobile trolley for the Primado control unit which is not only practical but also elegant. In this way, all the equipment can be stored in one place allowing easy access when needed. The trolley has adjustable height, lockable wheels and a bracket for the cable on the side.

- **Z299** iCart-L Mobile Trolley
  - Dimensions: W360 x D420 x H800 (mm)
  - Weight: 10 kg

**Irrigation Tube**

- **PD-IT-S** Surgical Irrigation Tube
  - 10 pcs/ set (Sterilized)
**Maintenance**

PANA SPRAY Plus is a specially formulated, highly effective general handpiece lubricant. Frequent application of PANA SPRAY Plus will assure handpiece performance and durability. Apply PANA SPRAY Plus to handpieces after "Cleaning" in the maintenance process.

![Image of PANA SPRAY Plus](image)

**Spray Mist Absorber**

A convenient way to avoid mist spray from escaping into the environment. Simply insert the handpiece into the Absorber Pack then apply the spray lubricant.

![Image of Spray Mist Absorber](image)
Global Quality comes from NSK's manufacturing method

Providing durable and elegant, yet competitively priced products has been NSK's philosophy since it was established. NSK consistently provides quality products that deliver high levels of customer satisfaction. We achieve this by reflecting market needs in the development process in a timely way based on our core technology of ultra high-speed rotation. Our customer-oriented approach is supported by in-house production of over 85% of parts, and integrated services from development and manufacturing to sales. Rapid product development, flexible production systems, and global sales network combine organically to create a structure under which our philosophy has been maintained constantly. Our products for dental and surgical applications support front-line medical institutions and individual health care.

Moreover, our general industrial products, such as industrial equipment for precision molding and abrasive finishing, contribute to providing convenience and choice in people's lives.

We always think how our products can satisfy and impress our customers. NSK's employees work constantly to create new value, while adhering to our core philosophy. Their pride and enthusiasm are backed up by superior technologies and state-of-the-art equipment. As a group of professionals, with each member possessing advanced skills and technical knowledge, they deliver comprehensive products and services that satisfy and impress customers. And, as a group, they are the driving force behind improving value and developing unique products.
Response to environmental issues is one of the important qualities of product

At a time when environmental problems are significant global issues, a corporate approach to reducing environmental loads can affect evaluations of the quality of management, and in turn, products themselves. NSK has developed measures to reduce environmental load, as a company manufacturing medical instruments, which are closely related to human health. Not only has NSK obtained ISO 14001 certification in 1999, but it also promotes improvement activities with a corporate-wide system for reducing environmental loads. We have completely abolished the use of environmental load chemicals such as chlorofluorocarbons. and achieved an impressive recycling rate of 97% for cutting oil, a large amount of which is used for metal cutting in factories, by introducing a complete recycling system.

Furthermore, we focus on the production of environmentally friendly products from the initial stage of design and development, making every effort to offer ecological products, such as by adopting green materials, ensuring compliance with the "RoHS directive", producing durable products, and energy efficient design. NSK will continue improvement activities to ensure a sustainable environment.

Technological development is born in the experience

We think ideas for innovative engineering developments can always be found at the places where products are used, and by requests from users. NSK sets themes for new product development by referring to valuable information from end-users in various fields - such as dentists, surgeons, and production engineers - making best use of our global sales network. NSK has established an integrated system to complete all development processes internally, aiming at shorter lead-times and timely delivery to customers. One recent trend has been for products that integrate mechanics and electronics, and NSK has a group of engineers who can respond promptly to market needs. NSK has also various state-of-the-art test facilities for promoting timely research and development. For instance, the "Electro Magnetic Compatibility (EMC) standard", which is stricter than that for general household appliances, is applied to medical instruments. NSK has in-house EMC test facilities, which make major contributions to shortening development periods.

Our most important mission is to consistently introduce useful new products to the world with the pride of a manufacturer.
Specifications are subject to change without notice.