BEFORE USE OR MAINTENANCE, READ THIS MANUAL.

This manual contains information necessary for the operation of the NIDEK CENTERING DEVICE CE-1. This manual includes operating procedures, safety precautions, specifications, and information about accessories and maintenance. IEC standard is applied in this manual. This manual is necessary for proper use. Especially, the safety precautions and operating procedures must be thoroughly understood prior to operation of the instrument. Keep this manual handy for reference. If you encounter any problems or have questions about the instrument, please contact NIDEK or your authorized distributor.
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1.1 Outline of the Product

The NIDEK CENTERING DEVICE, Model CE-1, blocks the lens with a lens cup. The CE-1 has a large screen with a diameter of 75 mm and permeable illumination system for clear viewing. The segment layout mark is provided on the screen for the right and left lenses, which makes segment layout of bifocal lens or trifocal lens easier. In addition, the screen can be lowered to confirm the positions of the marked points, segment placement, etc.

The CE-1 is lightweight compact, and is simple to operate.

1.2 Symbol Information

⚠ Indicates that caution must be taken. Refer to the operator’s manual before use.

∥ The state of the power switch. If the symbol side of this switch is flipped down, the power is supplied to the instrument.

○ The state of the power switch. If the symbol side of the switch is flipped down, the power is not supplied to the instrument.

⋯ Indicates the fuse rating.

📅 Indicates the date of manufacture.

峁 Indicates the manufacture.

⏰ Indicates that this product shall be disposed of in a separate collection of electrical and electronic equipment in EU.
In this manual, signal words are used to designate the degree or level of safety alerting. The definitions are as follows:

⚠️ WARNING: Indicates a potentially hazardous situation which, if not avoided, may result in death or serious injury.

⚠️ CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage accident.

Even situation indicated by ⚠️CAUTION may result in serious injury under certain conditions. Safety precautions must be strictly followed at all times.

### 2.1 Usage Precautions

**⚠️ WARNING**

- As soon as any abnormal symptom is encountered, discontinue the use of the instrument, and contact NIDEK or your authorized distributor. Continuous use under any abnormal conditions may cause injury.

**⚠️ CAUTION**

- Do not modify or touch the instrument. Do not touch anything inside the instrument. This may result in electric shock or malfunction.

- Be sure to use a wall outlet which meets the power specification requirements. If the line voltage is too high or too low, the instrument may not perform properly. Malfunction or fire may occur.

- Install and use the instrument in a place where the temperature and humidity are maintained to the following:

  Use conditions: Temperature: +10 to +40°C
  Humidity: 30 to 85% (Non-condensing)
  Atmospheric pressure: 700 to 1060 hPa
  Low-dust environment
  Environment with no vibration or shock
CAUTION

• Do not yank the power cord to disconnect it from an outlet. This can damage the metal core of the cord and may result in electric shock, short circuit or fire.

• Immediately replace the power cord if the internal wires are exposed, the instrument turns on or off when the power cord is moved, or the cord and/or plug are too hot to hold. This may result in electric shock or fire.

• Do not place heavy objects on the power cord. A damaged power cord may cause fire or electric shock.

• Occasionally clean the prongs of the main plug with a dry cloth. If dust settles between the prongs, it may collect moisture, and short circuit or fire may occur.

• Fully insert the main power plug into the outlet. Imperfect connection may result in fire.

• In the event of smoke or strange odors, immediately turn off the instrument and disconnect the power plug from the outlet. After you are positive that the smoke has stopped, contact NIDEK or your authorized distributor. Continued use of the instrument under such abnormal conditions may cause fire or electric shock.
2.2 Storage Precautions

⚠️ CAUTION

- Do not store the instrument in an area that is exposed to rain, water or contains poisonous gas or where any liquids are stored.

- Maintain the surrounding temperature and humidity to the following range during storage (transport). (In packed condition)
  Conditions:  
  - Temperature: –40 to +60ºC
  - Humidity: 10 to 100%
  - Atmospheric pressure: 700 to 1060 hPa
  - Place away from direct sunlight
  - Environment with no vibration or shock

2.3 Installation Precautions

⚠️ CAUTION

- Install the instrument on a stable and level surface which is not subjected to vibration or shock.
  A slant or vibrating floor may adversely affect the chamfering accuracy of the hand edger.

- Never install the instrument where it is exposed to the direct sunlight and in a high temperature, or high humidity environment.

2.4 Wiring Precaution

⚠️ CAUTION

- Use a grounded power outlet which meets the power requirements; otherwise, the instrument may not perform sufficiently and be damaged.
  If the outlet is not properly grounded, electric shock or fire may result from current leakage caused by malfunction.
2.5 After Use Precaution

⚠️ CAUTION

- If the instrument will not be used for a long period of time, disconnect the power cord from the outlet.
  If dust settles between the prongs, it may collect moisture, and short circuit or fire may occur.

2.6 Maintenance and Checks

⚠️ CAUTION

- Never use organic solvents such as a paint thinner to clean the exterior of the instrument.
  It may ruin the surface of the instrument.

- Use the specified fuses to replace the old ones.
  If not, fire may occur.

2.7 Disposal

⚠️ CAUTION

- Follow the local ordinances and recycling regulations regarding disposal or recycling of the components.

- When disposing of packing materials, sort them by material and follow local ordinances and recycling regulations.
2.8 Labels

Cautionary labels are provided on the CE-1. If labels are curling up or characters fading and becoming barely legible, contact NIDEK or your authorized distributor.
§3 CONFIGURATION

1 Screen
Projects a lens shape and markings.

2 Fitting pins for pattern
Serves as the markers for positioning a pattern.

3 Lens support pins
A lens is placed on the support pins.

4 Power switch

5 Slide scale
6 Cup holder
A lens cup is fitted into this holder.
The CE-1 is equipped with a standard Nidek cup holder. The following types are available. No cup other than those below can be used.

Top mark: *

Pliable cup
Lens cup
Lens cup for half-eye lens

Mini cup
Suction cup

The WECO-type cup holder can be selected as an option. Contact Nidek or your authorized distributor for details.

7 Block positioning guide
Indicates the inserted direction of the cup.

Orient the top mark of the suction cup to the side with the point.

8 Blocking arm

9 Rotation knob
Used to rotate the blocking arm and screen. The knob is provided with the click-stopped setting at the front center.
4.1 Blocking at the Optical Center (with the Patternless Edger)

1. Insert a suction cup (or lens cup) into the cup holder.
   * The groove on the cup and reference point should face as indicated on the block positioning guide.
   * Always use a clean cup washed with acetone.

2. Turn the power switch on.

3. Slide the slide scale to align the center line for horizontal positioning to “0” tick of the horizontal scale.

4. Place an untrimmed lens on the lens support pins.
5. Move the untrimmed lens to align the optical center (or cross hairs in the case of the progressive lenses) to the intersection of the center line for horizontal positioning and vertical reference scale.
   * When the markings and segments are unclear, lower the screen by lightly pushing down the rotation knob.

6. Turn the rotation knob to bring the blocking arm toward the front center.
   * Make sure that the blocking arm is click-stopped.

7. Push the rotation knob down to block the untrimmed lens with the cup.

8. Remove the blocked lens from the cup holder.
4.2 Blocking at the Boxing Center (with patterns)

1. Insert a suction cup (or lens cup) into the cup holder.
   * The groove on the cup and reference point should face as indicated on the block positioning guide.
   * Always use a clean cup washed with acetone.

2. Turn the power switch on.

3. Move the slide scale to the left or right and align the center line for horizontal positioning to an appropriate number calculated for decentering.

   Amount of decentering = (FPD-PD)/2

4. Place an untrimmed lens on the lens support pins.
5. Shift the untrimmed lens for horizontal positioning.

A. For the single vision and progressive lenses
Shift the lens to align its optical center (or cross hairs in the case of the progressive lenses) to the intersection of the center line for horizontal positioning and vertical reference scale.

B. For the bifocal and trifocal lenses
Referring to the segment layout line, shift the lens so that the center line for horizontal positioning comes to the center of the segment top.
For use with the NIDEK Patternless Edger LE-7070 or LE-9000 series to process lenses, blocking in accordance with Page 4-6 is convenient.

A. (Ex. Right-eye lens
Decentering of 4 mm to the nasal side)

B. (Ex. Right-eye lens
Decentering of 6 mm to the nasal side)
6. **Shift the untrimmed lens for vertical positioning.**

Align the segment’s top and bottom to an appropriate line on the vertical scales.

* Pay attention that the horizontal position of the segment will not be shifted in vertical positioning. Always refer to the segment layout lines.

In the case of Example B on Page 4-4:

When the diameter of the lens is 42 mm, divide 42 by 2. The 21 mm point is the center line. To make the segment height to 18 mm, lower segment by 3 mm from 0.

* When the markings and segments are unclear, lower the screen by lightly pushing down the rotation knob.

7. **Insert a pattern onto the fitting pins for pattern on the screen.**
8. Make sure if the untrimmed lens is large enough by comparing the lens with the pattern. If the untrimmed lens is not large enough, replace it with a larger one.

9. Block the lens in the same manner as Steps 6 to 8 on Page 4-2.

4.3 Blocking the Bifocal or Trifocal Lenses
(with the NIDEK LE-7070 or LE-9000 Series)

The NIDEK Patternless edger LE-7070 and LE-9000 series has the bifocal mode provided as the layout mode. To process a bifocal lens or trifocal lens in this mode, follow the procedure below for easy blocking.

1. Insert a lens cup into the cup holder.
   * The groove on the cup and reference point should face as indicated on the block positioning guide.
   * Always use a clean cup washed with acetone.

2. Turn the power switch on.

3. Horizontally slide the slide scale to align the center line for horizontal positioning to “0” tick of the horizontal scale.

4. Place an untrimmed lens on the lens support pins.
5. **Overlay the lens on either segment for the lens side.**
   When the segment is unclear, lower the screen by lightly pushing down the rotation knob.

6. **Block the lens in the same manner as Steps 6 to 8 on Page 4-2.**
5.1 Replacing the Lamp (Only for the 100 V system)

When the lamp does not light up even though the power switch is turned on (1), replace the lamp with a supplied spare lamp.

**NOTE**

- The CE-1 for the 200 V system uses the LED as illumination. Therefore, lamp replacement is not necessary.

1. Turn the power switch off and disconnect the power cord from the wall outlet.

2. Lay the main body down gently.

3. Remove the two screws that hold the lamp holder with a Phillips screwdriver.

4. Remove the old lamp by turning it clockwise while slightly pressing.
5. **Fit a new lamp into the lamp socket.**
Secure the lamp by pressing it down (in the direction to the lamp holder) so that it does not loosen.

Do not put fingerprints or stains on the surface of the lamp.

6. **Attach the lamp holder as it was with the two screws.**
Tighten the screws while the plate is placed in the direction of the arrow and the V-shaped notches against the stoppers.

Place the V-shaped notches against the stoppers.
5.2 Replacing the Fuse

When the lamp does not light up even though the power switch is turned on (1), the fuse may blow. In this case, replace the fuse with a supplied spare fuse.

⚠️ CAUTION

- Turn the power off and unplug the power cord from the wall outlet prior to fuse replacement.
  Electric shock may result.

1. Turn the power switch off and disconnect the power cord from the wall outlet.

2. Lay the main body down gently.
   The fuse holder is at the bottom of the instrument.

3. Remove the fuse holder by turning it counterclockwise with a coin.

4. Remove the fuse from the fuse holder to replace it with a new one.
   Fusering:
   T0.5 A 250 V (for the 100V system)
   T0.1A 250V (for the 200V system)

5. Attach the fuse holder as it was.
5.3 Adjusting the Cup Holder

Because of the loosened plunger inside the cup holder or wear of the plunger, there are cases where the cup rattles when it is inserted into the cup holder. In such cases, insert the included hexagonal wrench from the hole provided at the side of the cup holder, and tighten the plunger to prevent it from rattling and to allow smooth attaching and detaching of cups.

* The type of the cup holder differs depending on the destination.
5.4 Cleaning the Exterior

When the covers becomes dirty, wipe with a dry and soft cloth. For stubborn dirt, immerse the cloth in a neutral detergent, wring well, and wipe. Finally wipe with a dry and soft cloth.

NOTE

- Never use organic solvents such as a paint thinner. It may ruin the surface of the instrument.

5.5 List of the Replacement Parts

<table>
<thead>
<tr>
<th>Part name</th>
<th>Part No.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamp</td>
<td>42101-E013</td>
<td>6 V 8 W (Only for the 100 V system)</td>
</tr>
<tr>
<td>Fuse (for the 100V system)</td>
<td>80402-02153</td>
<td>T0.5 A 250 V</td>
</tr>
<tr>
<td>Fuse (for the 200V system)</td>
<td>80402-02156</td>
<td>T0.1 A 250 V</td>
</tr>
</tbody>
</table>

* After replacing consumables, restock them.
#### §6 SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range of decentering:</td>
<td>Vertical direction ±10 mm (in increment of 1 mm)</td>
</tr>
<tr>
<td></td>
<td>Horizontal direction ±15 mm (in increment of 1 mm)</td>
</tr>
<tr>
<td>Visual field:</td>
<td>75 mm in diameter</td>
</tr>
<tr>
<td>Power source:</td>
<td>AC 120, 220, 240 V ±10%</td>
</tr>
<tr>
<td></td>
<td>50/60 Hz 9.5 VA</td>
</tr>
<tr>
<td>Illumination lamp:</td>
<td>6 V 8 W (for the 100 V system)</td>
</tr>
<tr>
<td></td>
<td>LED (for the 200 V system)</td>
</tr>
<tr>
<td>Dimensions:</td>
<td>130 (W) × 184 (D) × 220 (H) mm</td>
</tr>
<tr>
<td>Weight:</td>
<td>Approx. 4 kg</td>
</tr>
<tr>
<td>Accessories:</td>
<td>Spare lamp 1 unit (only for the 100 V system)</td>
</tr>
<tr>
<td></td>
<td>Spare fuse 1 unit</td>
</tr>
<tr>
<td></td>
<td>Hexagonal wrench 1 unit</td>
</tr>
<tr>
<td></td>
<td>Phillips screwdriver 1 unit (only for the 100 V system)</td>
</tr>
<tr>
<td>Environmental conditions:</td>
<td>Temperature +10 °C to +40°C (In use)</td>
</tr>
<tr>
<td></td>
<td>-40 °C to +60°C (In transport and storage)</td>
</tr>
<tr>
<td></td>
<td>Humidity 30 to 85 % (Non-condensing) (In use)</td>
</tr>
<tr>
<td></td>
<td>10 to 100% (In transport and storage)</td>
</tr>
<tr>
<td></td>
<td>Atmospheric pressure</td>
</tr>
<tr>
<td></td>
<td>700 to 1060 hPa (In use)</td>
</tr>
<tr>
<td></td>
<td>700 to 1060 hPa (In transport and storage)</td>
</tr>
<tr>
<td></td>
<td>Altitude Up to 1000 m at sea level</td>
</tr>
</tbody>
</table>
DECLARATION OF CONFORMITY

Manufacturer's name  NIDEK Co. Ltd.
Manufacturer's address  34-14 Maehama, Hiroishi-cho, Gamagori, Aichi 443-0038, Japan
European Representative  NIDEK s.a.
  Europarc, 13 rue Auguste Perret, 94042 Creteil, France
Identification of product  Centering Device
Model No.  CE-1
Starting from this serial number  17045

We herewith declare that the above mentioned products meet the provisions of the following EC Council Directives and Standards. All supporting documentations are retained under the premises of the manufacturer.

DIRECTIVES

General applicable directives:
Low Voltage Directive: COUNCIL DIRECTIVE 73/23/EEC of 19 February 1973 relating to electrical equipment designed for use within certain voltage limit

Standards:
Harmonized Standards(published in the Official Journal of the European Communities) applicable to this product are:
  IEC61010-1, EN1050, EN55014-1, EN61000-3-2, EN61000-3-3

Date CE Mark was affixed:  July 1, 2000

Place: Aichi, Japan  Date: September 7, 2006
Signed by

Kan Ohtsuki
Quality Executive Representative,
NIDEK Co., Ltd.