Use this instrument properly and safely.

⚠️ BEFORE USE, READ THIS MANUAL.

This operator’s manual includes operating procedures, safety precautions and specifications for the NIDEK CENTERING DEVICE, CE-9. IEC standards are applied in this manual.

Cautions for safety and operating procedures must be thoroughly understood before using this 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.

Safety precautions

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 properly damage accident.

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

Before Use

⚠️ **WARNING** • Be sure to lift the CE-9 by holding the base.
When lifted by the blocking arm or screen, the CE-9 may become bent or fall resulting in injury or instrument failure.

⚠️ **CAUTION** • Do not use the CE-9 for other than the intended purpose.
NIDEK will not be responsible for accidents or malfunction caused by misuse.

- **Never disassemble nor touch the inside of the CE-9.**
  This may result in electric shock or malfunction.

- **Install the CE-9 in an environment that meets the following conditions.**
  **The following conditions must be maintained during use.**
  **Use conditions**
  Temperature: 5°C to 40°C
  Humidity: 30 to 80% (in the range of 5°C to 31°C)
  The minimum acceptable relative humidity is 30% for the temperature range of 31°C to 40°C. The maximum acceptable relative humidity is 80% for temperatures up to 31°C which decreases linearly after that to 50% relative humidity at 40°C.
  Pressure: 700 to 1060 hPa
  A place with low dust
  A place with little external light
  A place free of vibration and shock

- **Be sure to use a wall outlet which meets the power specification requirements.**
  If the line voltage is too high or too low, the CE-9 may not give full performance. Malfunction or fire may result.

- **Completely insert the AC adapter or power plug into the outlet as far as the prongs will go.**
  Fire may occur if the CE-9 is used with a loose connection.

- **Do not place heavy objects on the cord.**
  A damaged AC adapter or power cord may cause fire or electric shock.

- **Do not yank the power cord to disconnect it from a wall but hold the plug.**
  This can damage the metal core of the cord and may result in short circuit or electric shock.

- **Do not use an AC adapter or a power cord other than the one supplied. Also do not connect the supplied AC adapter or power cord to any other device.**
  Failure or fire may result.

- **Install the CE-9 in a level and smooth surface.**
  Failure to do so may cause improper blocking.
During Use

CAUTION• In the event of smoke or strange odors, immediately disconnect the AC adapter or power plug from the wall outlet. After you are sure that the smoke has stopped, contact NIDEK or your authorized distributor.

Usage of the CE-9 under such abnormal conditions may cause fire or electric shock. In case of fire, use a dry chemical (ABC) extinguisher to extinguish the fire.

• Be sure to perform check before use and after use.

After Use

CAUTION• Occasionally clean the prongs of the AC adapter or main plug with a dry cloth.

If dust settles between the prongs, the dust will collect moisture, and short circuit or fire may occur.

• If the CE-9 will not be used for a long time, disconnect the AC adapter or power cord from the wall outlet.

If dust settles between the prongs, the dust will collect moisture, and short circuit or fire may occur.

• Do not use organic solvents such as paint thinner to clean the exterior of the CE-9.

This could damage the surface. Fire may occur.

• Do not store the CE-9 in an area that is exposed to rain, water or contains poisonous gas or where any liquids are stored.

• Verify that the following specified environmental conditions for transport and storage (packed condition) are met.

<table>
<thead>
<tr>
<th>Environmental conditions</th>
<th>Temperature: -10°C to +70°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Humidity: 10 to 95% (non-condensing)</td>
</tr>
<tr>
<td></td>
<td>A place not exposed to direct sunlight</td>
</tr>
<tr>
<td></td>
<td>A place free of vibration and shock</td>
</tr>
</tbody>
</table>

• To transport the CE-9, use the special packing materials to protect from shock and impact.

Excessive vibration or impact to the device may cause malfunction.
• To shutdown power supply completely, disconnect the AC adapter or power cord from the outlet. While the AC adapter or power plug is connected to the outlet, a little standby power is consumed even if the illumination unit turns off.

Maintenance and Check

⚠️ **CAUTION**• Do not use organic solvents such as paint thinner or abrasive cleanser to clean the exterior or screen of the CE-9. This could damage the surface.

Disposal

⚠️ **CAUTION**• Follow the local ordinances and recycling regulations regarding disposal or recycling of the components. It is recommended to commission the disposal to a designated industrial waste disposal contractor.

• When disposing of packing materials, sort them by material and follow local ordinances and recycling regulations.
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1. BEFORE USE

1.1 Outline of Instrument

The NIDEK centering device CE-9 blocks the lens using a lens cup for edging as well as centration. The compact and lightweight CE-9 allows the lens to be blocked simply. It illuminates a marked lens from below and blocks the lens while aligning it with the markings projected on the screen.

The CE-9 has the following features.

- Provides good visibility by the transillumination method using a screen with a large visual field of 75 mm in diameter.
- Allows the position or shape of marks or segments to be checked precisely by lowering the screen to bring it near to the lens.
- The right and left segment marks printed on the screen makes centration of bifocal or trifocal lenses easier.
- Lamp replacement is unnecessary because a long-life LED is used as light source.
- Light intensity is adjustable so that markings on a low-transmittance lens such as that for sunglasses may be checked easily.
- The LED turns off during blocking so that the operator is not dazzled.
1.2 Configuration

○ Front view

1. Screen
   A lens shape and marks are projected on the screen.

2. Pattern holder pin
   A pattern is held in place by inserting the pins through its holes.

3. Lens support pin
   The lens is put on the pins.

4. Light intensity control
   Adjusts the light intensity.
   Increase the light intensity when the marks on a low-transmittance lens such as that for sunglasses are hard to see.
5. Cup holder

The lens cup is inserted here.

The CE-9 is equipped with the standard NIDEK cup holder. The following cups can be attached to the holder. The other types are not available.

★ : Top mark

- Pliable lens
- Lens cup (hard cup)
- Lens cup (hard cup) for half-eye lenses
- Mini cup
- Suction cup

The optional cup holders are the WECO and TOPCON types. Contact NIDEK or your authorized distributor for details.

6. Cup orientation marking

Indicates the orientation for how the lens cup is inserted.

Align the top mark on the lens cup with the marking (circle).

7. Arm rotation control

Rotates the blocking arm and screen.

A click stop is provided in the front center.
8. DC input terminal

The DC output cord of the provided AC adapter is connected here.
### Labels and indications on the instrument

To call attention to users, some labels and indications are provided on the CE-9.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="logo.png" alt="Direct Current" /></td>
<td>Indicates direct current.</td>
</tr>
<tr>
<td><img src="logo.png" alt="Alternating Current" /></td>
<td>Indicates alternating current.</td>
</tr>
<tr>
<td><img src="logo.png" alt="Polarity" /></td>
<td>Indicates that the polarity of the DC input terminal and AC adapter is the plus in the inside and the minus in the outside.</td>
</tr>
<tr>
<td><img src="logo.png" alt="Date of Manufacture" /></td>
<td>Indicates the date of manufacture.</td>
</tr>
<tr>
<td><img src="logo.png" alt="Manufacturer" /></td>
<td>Indicates the manufacturer.</td>
</tr>
<tr>
<td><img src="logo.png" alt="Caution" /></td>
<td>Indicates that caution must be taken. Refer to the operator’s manual before use.</td>
</tr>
<tr>
<td><img src="logo.png" alt="WEEE Symbol" /></td>
<td>WEEE symbol Indicates that this product shall be disposed of in a separate collection of electrical and electronic equipment is EU countries.</td>
</tr>
</tbody>
</table>

*<Rear view of main body>*
<AC adapter>

For USA and Canada only

For other areas

1.3 Checking Contents

Unpack the contents from the shipping carton and check them.

The following is included in the standard configuration.

- Main body
- AC adapter
- Power cord \(^1\)
- Frame change holder
- Operator’s manual (this book)

\(^1\) A power cord is not supplied for instruments shipped to the USA and Canada because the AC adapter comes with the plugs for a wall outlet attached.
1.4 Getting Started and Exiting

1.4.1 Getting started

1. Prepare the CE-9.

   Confirm that the AC adapter or power plug is connected to the outlet properly.

2. Check the following before use.

   Be sure to check the following before every use.
   
   - The illumination unit lights up by rotating the arm rotation control.
   - The screen is clean and without dust or smudges.
   - The lens support pins and the illumination unit are clean and without dust or smudges.

   If any of the items above is not satisfactory, stop the operation and take measures according to “3 MAINTENANCE” (Page 19).

The CE-9 is not equipped with a power switch. The illumination unit lights up by rotating the screen to the front with the arm rotation control. The illumination unit turns off when the screen is not in the front.

1.4.2 Power saving mode

The CE-9 is not equipped with a power switch. The illumination unit lights up by rotating the screen to the front with the arm rotation control. It turns off automatically even with the screen in front if idle for a few minutes.

In order to light it up again, shift the screen from the front and then return it with the arm rotation control.
1.4.3 Exiting

1 Disconnect the AC adapter or power plug from the outlet as necessary.

   • While the AC adapter or power plug is connected to the outlet, a little standby power is consumed even if the illumination unit turns off.

2 Check the following after use.
   Be sure to check the following after every use.
   - The CE-9 is not damaged.
   - The screen is clean and without dust or smudges.
   - The lens support pins and the illumination unit are clean and without dust or smudges.
2. OPERATING PROCEDURES

2.1 Blocking at Optical Center (With Patternless Edger)

1. Insert the lens cup into the cup holder.
   1) Stick the double-coated adhesive tape to the cup. (The double-coated adhesive tape is not necessary when the suction cup is used.)
      Use the tape appropriate for the cup type.

   • Clean the cup well and wipe it dry before use.
     If a dusty cup or one with processing waste is used, the lens may be scratched or axis shift may occur.

2. Insert the lens cup aligning the top mark with the cup orientation marking.

   ★: Top mark

   Pliable cup
   Lens cup (hard cup)
   Lens cup (hard cup) for half-eye lenses
   Mini cup
   Suction cup
2. The illumination unit lights up by rotating the screen to the front center with the arm rotation control. For accurate blocking, confirm that the arm of the screen is properly positioned by rotating it until a click is heard.

3. Shift the slide scale until the movable center line for horizontal positioning is aligned with 0 on the horizontal scale.

4. Put the lens on the lens support pins. The optical center has been marked with a lensmeter beforehand.

   • Stick a protective seal to the lens if necessary. It is especially recommended to stick a protective seal to water repellent lenses because there is a high possibility of axis shift.

5. Shift the lens so that the center mark (eyepoint mark for progressive lenses) is within the vertical reference frame and aligned with the movable center line for horizontal positioning. If the marks or segments are unclear, press the arm rotation control slightly to lower the screen. Adjust the intensity with the light intensity control as necessary.
6 Rotate the arm rotation control so that the blocking arm is in the front center.
   For accurate blocking, confirm that the holder arm is properly positioned by rotating it until a click is heard.
   The illumination unit turns off.

7 Push the arm rotation control to block the lens with the cup.
   Push the control while holding the lens by hands so that it does not move.

8 Remove the lens blocked with the cup from the cup holder.
2.2 Blocking at Boxing Center (With Pattern)

1 Insert the lens cup into the cup holder.
   1) Stick the double-coated adhesive tape to the cup. (The double-coated adhesive tape is not necessary when the suction cup is used.)
      Use the tape appropriate for the cup type.

   Note
      • Clean the cup well and wipe it dry before use.
      If a dusty cup or one with processing waste is used, the lens may be scratched or axis shift may occur.

2) Insert the lens cup aligning the top mark with the cup orientation marking.

   ★ : Top mark

   ![Pliable cup](image1)
   ![Lens cup (hard cup)](image2)
   ![Lens cup (hard cup) for half-eye lenses](image3)

   ![Mini cup](image4)
   ![Suction cup](image5)

2 The illumination unit lights up by rotating the screen to the front center with the arm rotation control.
   For accurate blocking, confirm that the arm of the screen is properly positioned by rotating it until a click is heard.
3 Shift the slide scale so that the movable center line for horizontal positioning is adjusted by the amount of inward or outward decentration.

Amount of decentration
= \( \frac{\text{FPD} - \text{PD}}{2} \)

---

4 Put the lens on the lens support pins.

The optical center has been marked with a lensmeter beforehand.

---

**Note**

- Stick a protective seal to the lens if necessary.

  It is especially recommended to stick a protective seal to water repellent lenses because there is a high possibility of axis shift.
5 Shift the lens for horizontal positioning.
   If the marks or segments are unclear, press the arm rotation control slightly to lower the screen.
   Adjust the intensity with the light intensity control as necessary.

A. For single vision lenses or progressive power lenses
   Shift the lens so that the center mark (eyepoint mark for progressive lenses) is within the vertical reference frame and aligned with the movable center line for horizontal positioning.

B. For bifocal or trifocal lenses
   Using the segment layout lines as a guide, shift the lens so that the movable center line for horizontal positioning is in the midpoint on the segment top.
   Refer to page 16 for easy blocking when the any model of the NIDEK LE-7070 series, LE-9000 series, or ME-1000 series is used for lens processing.
6. Shift the lens by the amount of the vertical decenteration using the vertical scale.

A. For single vision lenses or progressive power lenses

B. For bifocal or trifocal lenses

7. Hold the pattern in place on the screen by inserting the pattern holder pins through its holes.

8. Confirm whether or not the lens size is sufficient based on the pattern.
   Replace with a larger lens if the size is insufficient.

9. Block the lens with the cup in the same manner as Steps 6 to 8 on page 11.
2.3 Blocking Bifocal and Trifocal Lenses

(For any model of the NIDEK LE-7070 series, LE-9000 series, or ME-1000 series)

The LE-7070 series, LE-9000 series, and ME-1000 series offer bifocal mode as a layout mode. When a bifocal or trifocal lens is processed in bifocal mode, block the lens with the following procedures for easy blocking.

1 Insert the lens cup into the cup holder.
   1) Stick the double-coated adhesive tape to the cup.
      Use the tape appropriate for the cup type.

   • Clean the cup well and wipe it dry before use.
     If a dusty cup or one with processing waste is used, the lens may be scratched or axis shift may occur.
   • Do not use the suction cup for bifocal and trifocal lenses.
     Segmenting of the lens may prevent the suction cup from properly blocking the lens.

2) Insert the lens cup aligning the top mark with the cup orientation marking.

2 The illumination unit lights up by rotating the screen to the front center with the arm rotation control.
   For accurate blocking, confirm that the arm of the screen is properly positioned by rotating it until a click is heard.

3 Shift the slide scale until the movable center line for horizontal positioning is aligned with 0 on the horizontal scale.

4 Put the lens on the lens support pins.

   • Stick a protective seal to the lens if necessary.
     It is especially recommended to stick a protective seal to water repellent lenses because there is a high possibility of axis shift.
5 Overlay the lens segment for the right or left lens on the corresponding segment layout mark.
   If the segments are unclear, press the arm rotation control slightly to lower the screen.

6 Block the lens with the cup in the same manner as Steps 6 to 8 on page 11.
2.4 Notes for Lenses with Prisms

The CE-9 performs lens centration using marks projected on the screen by illuminating the lens from below. Using this method, the position of the projected marks may shift for lenses with prisms. To reduce the shift, press the arm rotation control lightly until the screen is lowered as far as possible without contacting the lens.

2.5 Notes for Low-transmittance Lenses

For low-transmittance lenses such as sunglasses, the marks projected on the screen may be hard to see. In such cases, adjust the intensity with the light intensity control.

2.6 Notes for Blocking Small Lenses

Use the provided frame change holder if the lens is too small to place on the lens support pins when changing frames. Place the frame change holder at the center of the illumination unit. Put the lens on the holder instead of the lens support pins and block the lens.
3. MAINTENANCE

3.1 Troubleshooting

In the event that the CE-9 does not work correctly, attempt to correct the problem according to the following table before contacting NIDEK or your authorized distributor.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Actions</th>
</tr>
</thead>
</table>
| The illumination unit does not light up by rotating the arm rotation control. | • Confirm that the AC adapter or power plug is connected to the outlet.  
• Confirm that the DC output from the AC adapter is connected to the DC input terminal. |
| The illumination unit turns off suddenly.                              | • The CE-9 may have gone into power saving mode. Rotate the arm rotation control to light the illumination unit. See “1.4.2 Power saving mode” (Page 7). |

* If the symptom cannot be corrected with the above actions, contact NIDEK or your authorized distributor.

3.2 Cleaning

When the cover or screen of the CE-9 becomes dirty, clean it with a soft cloth. For severe stains, soak the cloth in a neutral detergent, wiring well, and wipe. Finally dry with a soft, dry cloth.

Note: Do not use organic solvents such as paint thinner to clean the exterior of the CE-9. This could damage the surface.
4. SPECIFICATIONS AND ACCESSORIES

4.1 Specifications

○ Main body

- Amount of decentration: Vertical direction: ±10 mm (in increment of 1 mm)
  Horizontal direction: ±15 mm (in increment of 1 mm)
- Visual field: 75 mm in diameter
- Blocking accuracy:
  Position: ±0.5 mm in diameter
  Axis angle: ±0.5°
- Light source: White LED
- Dimensions: 115 (W) x 160 (D) x 214 (H) mm
- Weight: 1.7 kg
- Power source: DC 5 V 0.5 A
- Power consumption: 2.5 W at maximum

○ AC adapter

- Input voltage: AC 100 to 240 V
  The voltage regulation is within ±10% of nominal voltage.
- Frequency: 50 to 60 Hz

○ Environmental conditions (in use)

- Installation location: Indoors
- Temperature: 5 to 40°C
- Humidity: 30 to 80% (in the range of 5°C to 31°C)
  The minimum acceptable relative humidity is 30% for the temperature range of 31°C to 40°C. The maximum acceptable relative humidity is 80% for temperatures up to 31°C which decreases linearly after that to 50% relative humidity at 40°C.
- Pressure: 700 to 1060 hPa

○ Environmental conditions (in transport and storage)

- Temperature: -10 to 70°C
- Humidity: 10 to 95% (non-condensing)
  * The conditions in transport and storage apply to the instrument when packed.
4.2 **Standard Configuration**

4.2.1 **Standard accessories**

- AC adapter 1 unit
- Power cord 1 unit *1
- Frame change holder 1 unit
- Operator's manual 1 volume

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*1 A power cord is not supplied for instruments shipped to the USA and Canada because the AC adapter comes with the plugs for a wall outlet attached.
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