

AISITESY 5E-35WV

AISITESY 5E-35WV Manual Lens Edger Instruction Manual

Model: 5E-35WV

1. INTRODUCTION AND PRODUCT OVERVIEW

The AISITESY 5E-35WV Manual Lens Edger is a versatile tool designed for precise grinding and polishing of various lens materials. This manual provides essential information for the safe and effective operation, maintenance, and troubleshooting of your device.

Key Features:

- **3-in-1 Grinding Capability:** Equipped with diamond grinding wheels for coarse grinding, fine grinding, and V-groove grinding, offering comprehensive lens shaping options.
- **Removable Sink:** Features a detachable water sink at the base for convenient water changes and easy cleaning.
- **Enhanced Stability:** Utilizes a 35 mm single diamond grinding wheel with a double stand design for increased stability and operational safety.
- **Adjustable Water Flow:** An adjustable brass screw allows for precise control of water droplets during the grinding process.
- **Broad Material Compatibility:** Suitable for polishing and grinding resin, optical glass, plastic, stone, and CR-39 materials.



Figure 1.1: Front view of the AISITESY 5E-35WV Manual Lens Edger, showcasing its compact design and grinding wheel.

2. SAFETY INSTRUCTIONS

Adhering to these safety guidelines is crucial for preventing injury and ensuring the longevity of your device.

- Always wear appropriate personal protective equipment (PPE), including safety glasses, during operation.
- Ensure the device is placed on a stable, level surface before use.
- Keep hands and loose clothing away from the grinding wheel during operation.
- Disconnect the power supply before performing any maintenance, cleaning, or when the device is not in use.
- Do not operate the device in wet conditions or expose it to rain.
- Use only the specified power supply (AC 110V 60HZ).
- Keep children and unauthorized personnel away from the operating area.
- Never force the lens against the grinding wheel; apply gentle, consistent pressure.

3. COMPONENTS AND ACCESSORIES

The AISITESY 5E-35WV Manual Lens Edger comes with the following main components and accessories:

- Main Edger Unit with integrated grinding wheel
- Removable Water Sink
- Power Cord
- Water Dispenser Valve (pre-installed)
- User Manual (this document)



Figure 3.1: The lens edger unit displayed with its power cord, water tubing, and user manual.

PRODUCT DETAIL PRESENTATION

Ergonomic design details ensure user-friendly operation and enhanced safety.



Figure 3.2: Detailed presentation of key components including the diamond grinding wheel, dual bracket support, adjustable water valve, detachable basin, and ventilation openings.

4. SETUP INSTRUCTIONS

1. **Unpacking:** Carefully remove all components from the packaging. Inspect for any damage.
2. **Placement:** Position the lens edger on a stable, flat, and dry workbench. Ensure adequate space around the unit for safe operation and ventilation.
3. **Water Supply:** Fill the removable sink with clean water. Ensure the water level is sufficient to cover the lower part of the grinding wheel during operation.
4. **Connect Power:** Plug the power cord into the unit's power inlet and then into a standard AC 110V 60HZ electrical outlet.
5. **Adjust Water Flow:** Turn the brass screw on the water dispenser to adjust the water flow rate. A steady drip or light stream is usually sufficient to keep the grinding wheel wet and cool.

5. OPERATING INSTRUCTIONS

Follow these steps for effective and safe lens edging:

1. **Power On:** Flip the power switch (usually red) to the 'ON' position. The grinding wheel will begin to rotate.
2. **Select Grinding Surface:** The grinding wheel typically has two surfaces: a coarse grit (e.g., 280#) for initial shaping and material removal, and a fine grit (e.g., 180#) for smoothing and finishing. Select the appropriate side for your task.
3. **Lens Placement:** Hold the lens firmly and gently bring its edge into contact with the rotating grinding wheel. Apply light, consistent pressure.
4. **Grinding Process:** Move the lens smoothly along the grinding surface to achieve the desired shape and edge. For V-groove edging, align the lens with the V-groove section of the wheel.
5. **Water Management:** Ensure the adjustable water dispenser provides continuous lubrication to the grinding wheel to prevent overheating and dust accumulation.
6. **Inspection:** Periodically remove the lens to inspect the progress and ensure accuracy.
7. **Finishing:** Once the desired shape is achieved with the coarse grit, switch to the fine grit side for a smoother finish.
8. **Power Off:** After completing the task, turn off the power switch and allow the wheel to come to a complete stop before cleaning.

DIAMOND GRINDING WHEEL

Fine Grinding Wheel

- ① Fine abrasive grit size, with a smooth surface.
- ② Higher rotational speed, minimal material removal, but delivers high precision and a smooth finish.
- ③ Used for the final stage before polishing (if required).



Coarse Grinding Wheel

- ① Large abrasive grit size, with a rough surface.
- ② Lower rotational speed but high material removal rate, often leaving visible grinding marks.
- ③ Used for rough lens processing or when significant edge correction is needed.



Figure 5.1: Illustration of the fine (180#) and coarse (280#) grinding wheel surfaces and their applications.



Figure 5.2: Top-down view of the grinding wheel, indicating the grit sizes for different stages of lens processing.

Your browser does not support the video tag.

Video 5.1: A demonstration of the AISITESY Manual Lens Edger in operation, showing the process of lens grinding and water flow adjustment.

6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your lens edger.

- **Water Tank Cleaning:** After each use, or periodically depending on usage, remove the sink and dispose of dirty water. Clean the sink thoroughly to prevent debris buildup and pump clogging.
- **Grinding Wheel Inspection:** Regularly inspect the diamond grinding wheel for wear or damage. A worn wheel may reduce efficiency and accuracy.
- **Exterior Cleaning:** Wipe down the exterior of the unit with a damp cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the device in a clean, dry environment when not in use.

7. TROUBLESHOOTING

This section addresses common issues you might encounter.

Problem	Possible Cause	Solution
Device does not power on	No power supply; faulty switch; loose connection	Check power cord connection; ensure outlet is functional; contact support if switch is faulty.
Grinding wheel not rotating	Motor issue; obstruction	Ensure no obstructions; if motor is faulty, contact support.
Insufficient water flow	Water tank empty; clogged dispenser; valve closed	Refill water tank; clean dispenser nozzle; open adjustable valve.
Poor grinding performance	Worn grinding wheel; incorrect technique	Inspect grinding wheel for wear and replace if necessary; review operating instructions for proper technique.

8. SPECIFICATIONS

Technical details for the AISITESY 5E-35WV Manual Lens Edger:

Parameter	Value
Product Name	Manual Lens Edger
Model	5E-35WV
Power Supply	AC 110V 60HZ
Net Weight	4 kg (approx. 8.8 lbs)
Motor Power	110W
Grit Wheel	#180 / #280
Grinding Wheel Diameter	35 mm with V-groove
Dimensions (L x W x H)	350mm x 230mm x 223mm (approx. 13.78"L x 9.06"W x 8.78"H)
Compatible Materials	Resin, Optical Glass, Polycarbonate (PC), CR-39

PRODUCT SPECIFICATIONS



Core Parameters

Product Name	Manual Lens Edger
Model	5E-35WV
Power Supply	AC 110V 60HZ
Net Weight	4kg
Motor Power	110W
Grit Wheel	#180 / #280
Grinding Wheel	35mm with V-groove
Dimensions	350(L)×230(W)×223(H)mm
Compatible Materials	Resin Optical Glass Polycarbonate (PC) CR-39

Figure 8.1: Dimensional diagram and core parameters of the lens edger.

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the contact details provided at the point of purchase or visit the official AISITESY website. Keep your purchase receipt as proof of purchase for warranty claims.