

[Manuals.plus](#) /

> [Jackson Safety](#) /

> Jackson Safety NexGen HSL100 Auto-Darkening Welding Helmet Instruction Manual

Jackson Safety NexGen HSL100

Jackson Safety NexGen HSL100 Auto-Darkening Welding Helmet Instruction Manual

Model: NexGen HSL100 (Part Number: 036000-46148)

INTRODUCTION

The Jackson Safety NexGen HSL100 Auto-Darkening Welding Helmet is designed to provide protection and clear visibility during welding operations. This helmet features an auto-darkening lens for enhanced safety and efficiency. This manual outlines the proper procedures for assembly, operation, maintenance, and safety to ensure optimal performance and user protection.



Figure 1: Jackson Safety NexGen HSL100 Black Welding Helmet. This image shows the front view of the black welding helmet with its auto-darkening lens visible.

SAFETY INFORMATION

Always prioritize safety when using welding equipment. Failure to follow safety guidelines can result in serious injury or death. This helmet is designed to protect against harmful UV/IR radiation and welding spatter. However, it does not protect against severe impact hazards, explosive devices, or corrosive liquids.

- Ensure the helmet is properly fitted and adjusted before each use.
- Inspect the helmet and lens for any damage (cracks, scratches, loose parts) before use. Replace damaged components immediately.
- Do not modify the helmet or its components. Use only genuine Jackson Safety replacement parts.
- Always wear appropriate personal protective equipment (PPE) in addition to the welding helmet, including safety glasses, gloves, and protective clothing.
- Avoid direct exposure to welding arc without proper eye protection. The auto-darkening lens requires a fraction of a second to darken.
- Do not use the helmet if the auto-darkening function is not working correctly.
- Ensure adequate ventilation in the work area to avoid inhaling welding fumes.

SETUP AND ADJUSTMENT

Proper setup and adjustment are crucial for comfort and effective protection.

1. **Headgear Assembly:** If the headgear is not pre-assembled, attach it to the helmet shell according to the instructions provided with the headgear. Ensure all fasteners are secure.
2. **Headgear Adjustment:** Place the helmet on your head. Adjust the top strap and the rear ratchet knob (Speed Dial™) to achieve a snug, comfortable fit that distributes weight evenly and prevents the helmet from slipping. The helmet should sit low enough to protect your throat and neck.
3. **Distance and Angle Adjustment:** Adjust the distance between the helmet and your face, and the angle of the helmet when in the down position, using the side knobs. Ensure a clear field of vision and that the lens is positioned correctly in front of your eyes.
4. **Lens Installation:** Ensure the auto-darkening filter (ADF) is securely installed in the helmet. Verify that the inner and outer cover lenses are clean and free from scratches.

Your browser does not support the video tag.

Video 1: Jackson Safety Insight Auto Darkening Welding Helmet Overview. This video demonstrates the features of a Jackson Safety auto-darkening welding helmet, including its lightweight design, large viewing area, Speed Dial™ ratchet headgear for a customized fit, and easy-to-use digital controls for shade, mode, sensitivity, and delay settings. It highlights the helmet's ergonomic balance for all-day comfort and clear views during welding.

OPERATING INSTRUCTIONS

The NexGen HSL100 features an auto-darkening lens with adjustable settings.

Digital Controls

The helmet's auto-darkening filter (ADF) is equipped with digital controls for precise adjustment of welding parameters. These controls are typically located on the inside of the helmet for easy access.

- **Shade Adjustment:** Use the shade buttons to select the appropriate shade level (e.g., 4/9-13) for your welding process and amperage. Refer to welding safety standards for recommended shade levels.
- **Sensitivity Control:** Adjust the sensitivity to ensure the lens darkens reliably when the arc is struck, and does not react to ambient light or other welders nearby.
- **Delay Control:** Set the delay time for the lens to return to its light state after the arc is extinguished. A longer delay is useful for high amperage welding to prevent eye fatigue from residual glow.
- **Grind Mode:** Activate the grind mode when performing grinding tasks. This mode keeps the lens in its light state (shade 4) for clear visibility while providing full UV/IR protection. Remember to switch back to weld mode before striking an arc.

Pre-Weld Check

Before starting any welding task:

- Ensure the helmet is powered on and the battery indicator (if present) shows sufficient charge.
- Briefly strike an arc or use the test button (if available) to confirm the auto-darkening function is working correctly.
- Verify that the selected shade, sensitivity, and delay settings are appropriate for your welding application.

MAINTENANCE

Regular maintenance ensures the longevity and effectiveness of your welding helmet.

- **Cleaning:**
 - Clean the outer and inner cover lenses regularly with a soft, clean cloth and a mild soap solution or lens cleaner. Do not use abrasive cleaners or solvents.
 - Wipe the helmet shell with a damp cloth.
 - Keep the sensors on the ADF clean and unobstructed.
- **Lens Replacement:** Replace scratched, pitted, or damaged cover lenses immediately. Follow the helmet's specific instructions for removing and installing new cover lenses.
- **Battery Replacement:** If the auto-darkening function becomes unreliable or the low battery indicator illuminates, replace the batteries as per the manufacturer's instructions. Use the specified battery type.
- **Storage:** Store the helmet in a clean, dry place away from direct sunlight, extreme temperatures, and corrosive chemicals.

TROUBLESHOOTING

If you encounter issues with your welding helmet, refer to the following common solutions:

Problem	Possible Cause	Solution
Lens does not darken when arc is struck.	<ul style="list-style-type: none"> Low or dead batteries. Sensors are dirty or obstructed. Sensitivity setting is too low. Helmet is not facing the arc directly. 	<ul style="list-style-type: none"> Replace batteries. Clean sensors and cover lens. Increase sensitivity setting. Adjust helmet position.
Lens flickers or darkens intermittently.	<ul style="list-style-type: none"> Low batteries. Sensors are partially obstructed. Interference from other light sources. 	<ul style="list-style-type: none"> Replace batteries. Clean sensors. Adjust sensitivity or work area lighting.
Poor visibility or blurry view.	<ul style="list-style-type: none"> Scratched or dirty cover lens/ADF. Incorrect shade setting. 	<ul style="list-style-type: none"> Clean or replace cover lenses/ADF. Adjust shade to appropriate level.

SPECIFICATIONS

Feature	Detail
Brand	Jackson Safety
Model Name	NexGen HSL100
Part Number	46148 (036000-46148)
Product Type	Helmet Assembly
Lens Type	Auto-Darkening Lens
Color	Black

Feature	Detail
Material	Polycarbonate (PC)
Size	One Size Fits Most
Item Weight	2.7 Pounds
Item Dimensions (LxWxH)	10.25 x 9 x 10.13 inches
Closure Type	Ratchet
Standards Met	ANSI Z87.1, CSA
Manufacturer	Kimberly Clark

SUPPORT AND CONTACT INFORMATION

For further assistance, technical support, or to inquire about replacement parts, please contact Jackson Safety customer service or visit their official website.

- **Brand:** Jackson Safety
- **Manufacturer:** Kimberly Clark
- **Website:** [Visit the Jackson Safety Store on Amazon](#) (for product information and related items)

