

## TROUBLESHOOTING

### NOT ON – AUTO LENS WILL NOT DARKEN.

Check battery and verify it is in good condition and installed properly. Check battery for proper contact and gently adjust contact points if necessary. Change cover lens if dirty or damaged. If auto lens still won't darken, return to dealer for replacement. **DO NOT CONTINUE TO USE GOGGLES.**

### NOT SWITCHING – AUTO LENS STAYS LIGHT AND WILL NOT DARKEN WHEN WELDING.

**STOP WELDING IMMEDIATELY!** Change the battery if Low Battery Light indicator is on. If power is on, review the sensitivity recommendations and adjust sensitivity. Clean lens cover and sensors of any obstructions. If auto lens still won't switch, return to dealer for replacement. **DO NOT CONTINUE TO USE GOGGLES.**

### GOGGLES ARE FLICKERING DURING USE-

Could be caused by incorrect distance from arc and/or sensitivity too low.

*Note! Make sure the sensors are clean and facing the arc; angles of 45° or more will not allow the arc light to reach the sensors.*

### NOT SWITCHING – AUTO LENS STAYS DARK AFTER THE WELD ARC IS EXTINGUISHED, OR THE AUTO-LENS STAYS DARK WHEN NO ARC IS PRESENT.

Fine-tune the sensitivity setting by making small adjustments to the control by turning it toward the 'Lo' setting. In extreme light conditions, it may be necessary to reduce the surrounding light levels. If auto lens still won't switch, return to dealer for replacement. **DO NOT CONTINUE TO USE GOGGLES.**

**IN CASE OF ANY MALFUNCTION DURING TEST OR USE, PLEASE STOP USING GOGGLES AND CONTACT YOUR DEALER FOR REPLACEMENT.**

### CAUTIONS

- These goggles are not suitable for laser welding.
- Do not put goggles on or near a heated or damp surface. (extreme temperature hot or cold)
- Do not open the goggles except to change the battery or front cover lens as detailed in the manual.
- Please check whether welding/grinding is chosen correctly before use.

- Protective lens must be installed on the outside of goggles. Otherwise, goggle lenses will be damaged.
- Do not alter or modify the goggles. Use only genuine replacement cover lenses.
- If the auto lens isn't auto darkening, immediately discontinue use and contact dealer.
- Do not use solvents or strong chemicals such as alcohol, gasoline or diluents to clean goggles.
- Do not submerge the goggles in water.
- The reaction of goggles will be slower if ambient temperature is low but it will not affect protective functions.
- Replace the goggles immediately if they are broken or scratched because this damage will result in the reduction of the protective performance.
- Replace protective lens immediately if it is broken or scratched. Do not use hard objects to contact the glasses of the filter.
- Clean the surface of the goggles and sensor regularly.
- Goggle bump cap will not provide protection from a hard impact, explosion or corrosive liquid.
- Do not drop or expose goggles to excessive force or impact.
- Clean with a water dampened cloth.
- Store goggles in goggle bag when not in use.
- Do not wear the goggles when not welding/grinding or when walking around as this may result in an accident or injury.
- Manufacturer is not responsible for any modifications to the welding filter or use with masks other than the K Tool shields. Protection may be seriously impaired if modifications are made.
- Wearers of eye glasses should be aware that in the case of severe impact the deformation of the shield might cause the inside of the shield to come into contact with the eye glasses creating a hazard for the wearer.

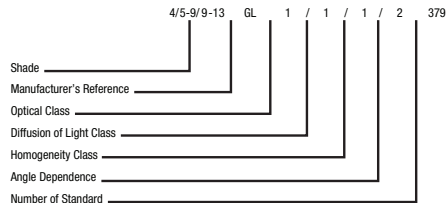
**NOTICE: IF THE USER DOES NOT FOLLOW THE ABOVE CAUTIONS, IT MAY RESULT IN SERIOUS INJURY.**

### SPARE PARTS LISTING:

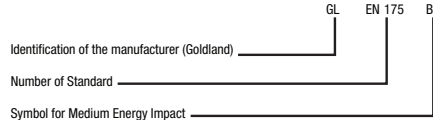
	PART No.
1. Face Mask Shell	KTI-70046-1
2. Front Cover Lens	KTI-70046-2
3. Head Hood (internal bump cap)	KTI-70046-3

**AN INNER PROTECTION LENS IS NOT NEEDED FOR THESE GOGGLES.**

### DEFINITION OF DIFFERENT MARKS ON THE FILTER LENS



### DEFINITION OF DIFFERENT MARKS ON THE SHELLS



### SHADE GUIDE TABLE (as per EN 169 and BS 379)

Welding Process	Arc Current (Amperes)																											
	10	20	30	40	60	80	100	125	150	175	200	225	250	300	350	400	450	500	600									
SMAW	9			10			11			12			13			14												
MIG (heavy)					10				11				12				13				14							
MIG (light)					10				11				12				13				14				15			
TIG, GTAW	9		10		11		12		13		14		15		16		17		18									
MAG / CO2	9		10		11		12		13		14		15		16		17		18									
SAW					10				11				12				13				14				15			
PAC					11				12				13				14				15							
PAW	9		10		11		12		13		14		15		16		17		18									

SMAW - Shielded Metal Arc Welding  
 SAW - Shielded Semi-Automatic Welding  
 MIG (heavy) - MIG on heavy metals  
 PAC - Plasma Arc Cutting  
 MIG (light) - MIG on light alloys  
 PAW - Plasma Arc Welding  
 TIG, GTAW - Tungsten Arc Welding (GTAW, TIG)



KTI-70046

## Auto-Darkening Welding Mask Kit Owner's Manual



**Important information!  
Please read before use!**

**THESE WELDING GOGGLES ARE DESIGNED FOR USE BY INDIVIDUALS WITH A FULL UNDERSTANDING OF THE HAZARDS AND SAFETY RISKS WITH WELDING**

### 1 YEAR WARRANTY

We offer a limited warranty for this product against any defects in material and workmanship for a period of one year. This warranty does not include any damages arising from misuse of this product or modification without authorization.

Tested and complies to standards:  
 DIN EN 379 : 2003 + A1 : 2009  
 AS/NZS 1338.1 : 2012  
 ANSI / ISEA 287.1 - 2015  
 CSA Z94.3 - 15

### WARNING

THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. WASH HANDS AFTER HANDLING.

The K Tools International Auto-Darkening Welding Mask Kit is a high-tech product manufactured with spectral filtering technology, photoelectric sensors and control unit technology. The photoelectric sensors makes liquid crystal change from bright to dark state as soon as it receives arc light. It also changes from dark to bright state when welding is finished to protect the eyes of users from arc light, splash and harmful radiations of IR/UV lighting.

Parts included in this package include the following:

- Welding shell with auto-darkening lens
- Elastic headband assembly
- Outer protection lens
- Bump cap
- Fire retardant hood
- Instruction Manual

### ASSEMBLY INSTRUCTIONS

Install elastic headband by putting the plastic buckle at the headband ends into the clips on both sides of the goggles. The elastic headband can be fastened or loosened by adjusting the buckle in the middle of the headband. Clip face shield to goggles.

### WARNING!

- Welding helmets do not provide unlimited eye, ear and face protection. If you are uncertain do not use this product as misuse may result in serious injury. These goggles provide protection against the hazards of welding but are not designed or intended to be used without other appropriate personal protective equipment (PPE). Additional PPE is required for all other areas of exposed skin such as face and neck.
- These auto-darkening goggles are not suitable for laser welding.
- Do not use these welding goggles while working with or around explosive or corrosive liquids.
- Never place these goggles and auto-darkening filter on a hot surface
- Inspect the auto-lens frequently. Immediately replace any scratched, cracked, or pitted cover lenses or auto-lenses.

### REPLACING THE PROTECTION LENSES

1. Ensure that the goggles are always fitted with an outer protection lens.
2. Outer protection lenses must be replaced if broken,

damaged or covered with welding spatter to the extent that vision is impaired.

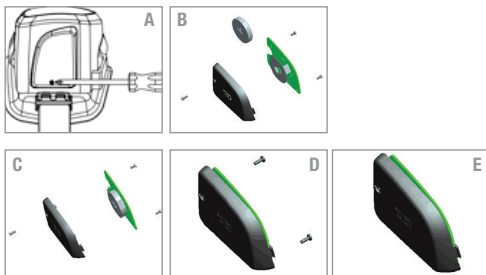
3. Outer protection lenses are consumables and must be replaced regularly with genuine certified spare parts.
4. **Replace outer lens:** Remove used outer lens by gently prying from the gap in the top middle of lens. Install the lens by gently bowing it in the center and inserting it, one end at a time into the retaining clips located on the outside of the goggles.



### BATTERY REPLACEMENT

When the Low Battery indicator is lit up Red, change the battery at once. Please pay attention to the positive and negative terminals and replace battery according to the following operations:

1. Unscrew the battery cover on the right side and remove used battery.
2. Replace battery, then screw on the battery cover.



### BEFORE WELDING

1. Please check whether outer protection lens is fitted correctly and is in good working order.
2. Please make sure that there is enough power in the battery. If the Low Battery indicator is Red, change battery before use.
3. Please check that the ADF filter darkens normally.
4. Please check that outer protection lens is not damaged or blocked by dust or particles. Also make sure that the arc sensors are not blocked or covered by any dust or particles.

5. Please check all operating parts to see whether they are worn out or damaged. Any scratched or broken parts should be replaced immediately to avoid injury to welder's eyes.
6. Please ensure goggles are sealing against user's face before use.
7. Before using these welding goggles for the first time, the protective film that covers the protection lenses must be removed from both sides.
8. Adjust the shade control knob clockwise to the desired welding shade before starting to weld.

### CAUTION:

**Ensure grind mode is not selected before welding!**

9. Before welding, the lens will be in a DIN 4 state which allows the user to see the work piece. The lens will automatically darken when an arc is struck.

**TEST THE LENS OPERATION BEFORE STRIKING AN ARC! DO NOT USE IF LENS DOES NOT DARKEN!**

The "Grind" LED will blink Green when grinding. "Low Battery" LED will blink Red when the battery is low. To use the grind mode, turn the Shade knob clockwise to the far right position (Grind), and the grind light will keep blinking. To resume welding, return the Shade knob to the desired shade setting. **DO NOT WELD IN GRIND MODE! THE LENS WILL NOT DARKEN!**



### WHEN WELDING

1. Change dark shade between DIN 5 and 9 or between DIN 9 and 13 using the selector switch. Set the desired shade by using the Shade knob. *Refer to Shade Guide Table if necessary.*
2. Adjust the Sensitivity and Delay Time as desired by using the variable adjustment knobs.



### PRODUCT FEATURES

1. Powered by 1 x CR2450 lithium battery.
2. Setting adjustment knobs can adjust shade DIN 5-9/9-13. Sensitivity, Delay Time, and Grind functions are also adjustable.
3. Photoelectric sensor technology, liquid crystal and spectrum filters provide the user a clear view of observation and protection.
4. The speed of the lens filter changes from light to dark in 0.3ms to ensure eye protection.
5. Light-weight, well-balanced design and adjustable headband provides comfortable fit and reduces fatigue for the user.

### GENERAL CARE AND MAINTENANCE

1. The filter lens should be cleaned when the outer cover lens is replaced.
2. Wipe with clean dry cloth.

**DO NOT APPLY CLEANER DIRECTLY TO THE FILTER LENS. DO NOT USE ALCOHOL TO CLEAN.**

3. Replace parts with our genuine parts replacements only.

### SPECIFICATIONS

Model:	KTI-70046
Auto Filter Size:	7.70 (L) x 3.75 (W) x 3.50 in (H)
Viewing Field:	4.80 x 1.40 in
Shade Control Light States:	DIN 4
Shade Control Dark States:	DIN 5 – 9 / 9 – 13 Outside
Adjustable Switching Time:	Light - Dark: 0.3 ms
Delay Time:	Dark - Light: 0.1 – 0.8 sec
Sensitivity & Delay Time:	Outside Adjustable
Power Supply:	3V Lithium Battery (1 x CR2450, Replaceable)
Grinding Mode:	Yes
Grind Mode & LED Indicator:	Yes
Arc Sensors:	4 Sensors
Operating Temperature:	-23° F to + 131° F
Storing Temperature:	-4° F to + 131° F
Helmet Material:	PA
Total Weight:	10.2 oz