

UNIVERSAL 



QUANTUM AIR

**Flip-up Auto Darkening
Welding Helmet**

SAFETY WARNINGS - READ BEFORE USING



WARNING

Read & Understand All Instructions Before Using



Welding Helmets are designed to protect the eye and face from sparks, spatter, and harmful radiation under normal welding conditions. It comes ready for use. The only thing you need to do before your welding is to adjust the position of the headband, and make sure the correct shade glass lens for your application.

This helmet are designed to be used together with QUANTUM AIR blower unit to protect against airborne contaminants.



WARNING

Severe personal injury could occur if the user fails to follow the above mentioned warnings, and/or fails to follow the operating instructions.



TECHNICAL SPECIFICATIONS

Viewing Area: 107 x 74 mm (4.21" x 2.91")

UV/IR Protection: Up To Shade 16 at all times.

Dark State: Shade 8 / 9 / 10 / 11 / 12

Approved: CE



WARNING



- Inspect face seal for damage and replace if necessary. Make sure the air is supplied to helmet. Make sure the ears are uncovered by the face seal.
- This filter is not suitable for laser welding and oxyacetylene welding / cutting processes.
- Be sure to read all safety warnings as well as instruction manuals before use of this helmet.
- Never place this helmet on a hot surface.
- This helmet does not provide protection against severe impact hazards, including explosive devices and/or corrosive liquids. In the presence of these hazards, other protection must be used.
- Do not make modifications to either the filter lens or the helmet, unless specified in this manual. Do not use replacement parts other than manufacturer's replacement parts specified in this manual. Any unauthorized parts or modifications will void the warranty and could expose the user to risk or personal injury.
- Wear CE approved safety goggles and ear protection at all times during use of this welding helmet. The lens is breakable and does not provide complete protection from flying particles.
- Do not use any solvents on screen or helmet components.
- Use between temperature range of -20 °C to +55 °C (-4 °F to 131 °F).
- Storing temperature of -20 °C to +70 °C (-4 °F to 158 °F).
- Do not immerse helmet in water. To clean use a damp soft cloth only.
- Regularly inspect/replace front cover lens if cracks, scratches, or other damage occurs.
- **Caution:** During welding operation, dust containing chemicals known to cause cancer and birth defects may be produced. In order to reduce risk, adequate ventilation when welding is necessary and important.
- In order to reduce risk of personal injuries, inspect this helmet frequently and replace worn or damaged parts.

INSTRUCTIONS FOR USE

WARNING! Before using the helmet for welding, ensure that you have read and understood the safety instructions.

The helmet comes fully assembled. Before starting to weld, adjust the helmet to fit the user properly.

• ADJUSTING THE FIT OF THE HELMET

The overall circumference of the headband can be made larger or smaller by rotating the knob on the back of the headband (See adjustment "Y" in fig.1). This can be done while wearing the helmet and allows just the right tension to be set to keep the helmet firmly on the head without it being too tight.

• If the headband is riding too high or too low on your head, adjust the strap which passes over the top of your head. To do this release the end of the band by pushing the locking pin out of the hole in the band. Slide the two portions of the band to a greater or lesser width as required and push the locking pin through the nearest hole (See adjustment "W" in fig.1).

• Front and back bands will automatically self-adjust according to headform, and soft pads suit forehead and back of head perfectly, which will bring more comfort (See fig.2a). Test the fit of the headband by lifting up and closing down the helmet a few times while wearing it. If the headband moves while tilting, re-adjust it until it is stable.

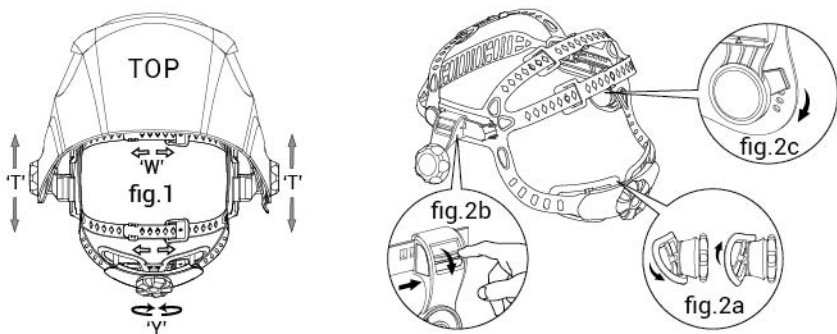
• ADJUSTING THE DISTANCE BETWEEN THE HELMET AND THE FACE

Step 1: Press down and hold the "LOCK" latch on both sides (See fig.2b) and it can be slide back and forth.

Step 2: Loosen the "LOCK" latch and keep it snap into slots. Please make sure the distance between the lens to both eyes are equal, to avoid uneven darkness.

• ADJUSTING VIEW ANGLE POSITION

Tilt adjustment is located on right side of helmet. Loosen the right headgear tension knob and adjust the lever forward or back to the proper position. Re-tighten the right headgear tension knob (See fig.2c).



• ASSEMBLING THE BREATHING TUBE

Insert the prong on the breathing tube into the helmet air duct, twist 1/4 to the anti-"open" direction, then clip the breathing tube into holder on the back cover of the headgear to lock into place (See fig.3).

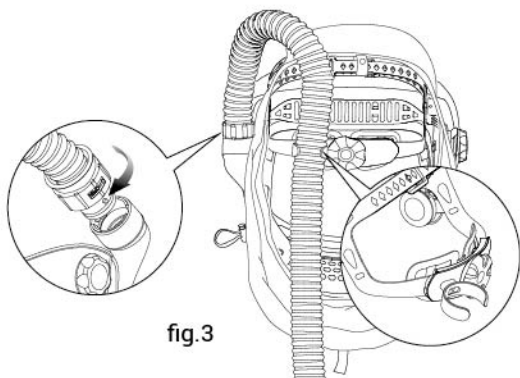


fig.3

MAINTENANCE

• REPLACING THE FRONT LENS HOLDER

Disassembling: Remove the front lens holder per fig.4a / 4b.

Assembling: Fit the one side into slot, then press and lock the other side (See fig.4c).

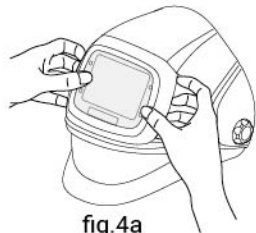


fig.4a

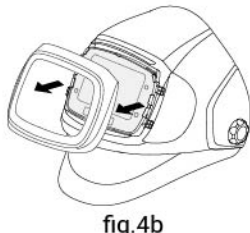


fig.4b

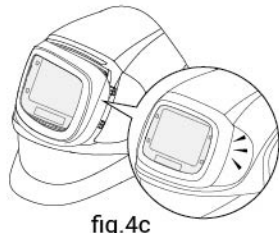


fig.4c

• REPLACING THE AUTO DARKENING FILTER

Disassembling: Press the thumb on the bottom sides of the auto darkening filter and push it upward (See fig.5a), remove the filter from the helmet shell (See fig.5b).

Assembling: First insert the auto darkening filter into the slots on left and right sides. Then push the filter down till the locks click (See fig.5c).



fig.5a

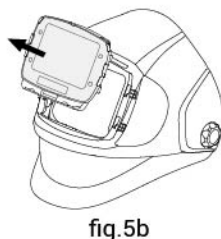


fig.5b

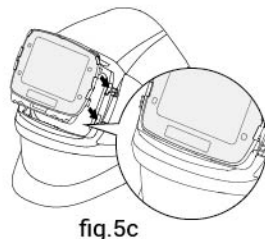


fig.5c

• REPLACING THE OUTSIDE COVER LENS

Replace the outside cover lens if it is damaged.

Disassembling: Remove the front lens holder per fig.4a / 4b. Place your fingernail in recess above filter view window and flex lens upwards until it releases from edges of filter view window (See fig.6a).

Assembling: Install with one side into the slot, then insert the other side.

• REPLACING THE INSIDE COVER LENS

Replace the inside cover lens if it is damaged.

Disassembling: Place your fingernail in recess above filter view window and flex lens upwards until it releases from edges of filter view window (See fig.6b).

Assembling: Assemble inside cover lens the same way as it was removed.



fig.6a

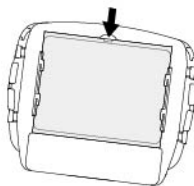


fig.6b

• REPLACING THE GRIND LENS HOLDER AND GRIND LENS

Disassembling: Remove the grind lens holder per fig.7a / 7b. Remove the grind lens per fig.7c.

Assembling: Install with one side into the slot, then insert the other side.



fig.7a



fig.7b

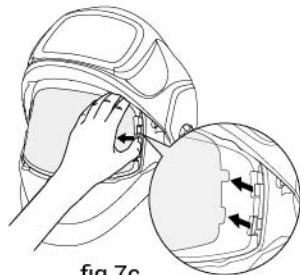


fig.7c

• REPLACING THE FACE SEAL

The face seal can be used to facilitate cleaning after disassembling from the shell, but it must be replaced if it is damaged.

Press the "LOCK" key on cantilevered components and push the headgear in the direction of arrow to separate headgear from the helmet (See fig.8a). In accordance with the order of A-D in the figure, align the face seal with the velcro inside the helmet shell and make sure the face seal is closely attached to helmet shell (See fig.8b). Then press the "LOCK" key on cantilevered components to install the headgear to the helmet (See fig.8c), buckle up the face seal according to 1-7 points (See fig.8d).

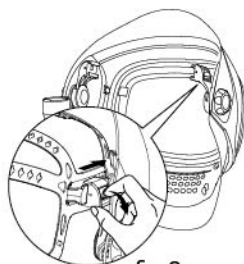


fig.8a

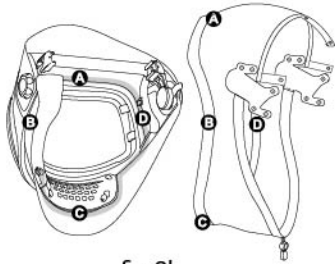


fig.8b

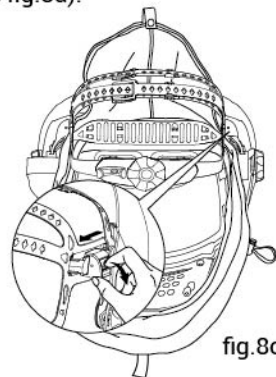


fig.8c

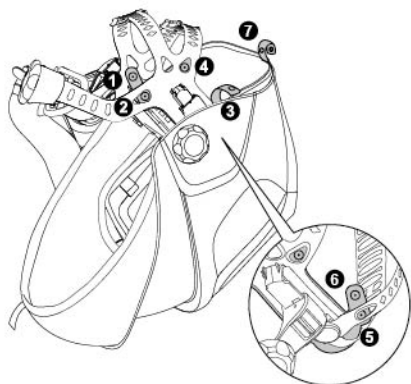
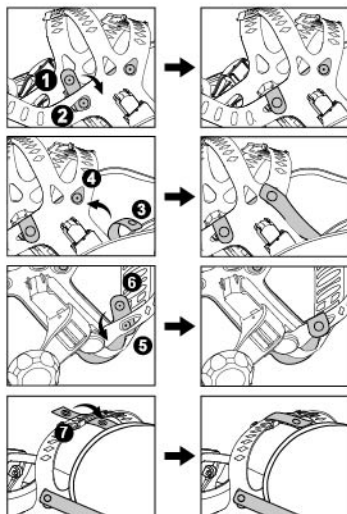


fig.8d



• CLEANING

Clean helmet by wiping with a soft cloth. Clean the filter surfaces regularly. Do not use strong cleaning solutions. Clean sensors and solar cells with methylated spirit and a clean cloth and wipe dry with a lint-free cloth.

SHADE GUIDE TABLE

(NO.1)

Welding Process	ARC CURRENT (Amperes)													
	0.5	2.5	10	20	40	80	125	175	225	275	350	450		
	1	5	15	30	60	100	150	200	250	300	400	500		
SMAW					9	10		11		12		13		14
MIG(heavy)							10	11		12		13		14
MIG(light)							10	11		12		13		14
TIG,GTAW				9	10	11	12		13				14	
MAG/CO2						10	11	12		13		14		15
SAW								10	11	12	13	14	15	
PAC							11		12			13		
PAW			8	9	10	11	12		13		14			15

NOTE:

SMAW – Shielded Metal Arc Welding

MIG (Heavy) – MIG on Heavy Metals

PAW – Plasma Arc Welding

SAW – Shielded Semi-Automatic Arc Welding

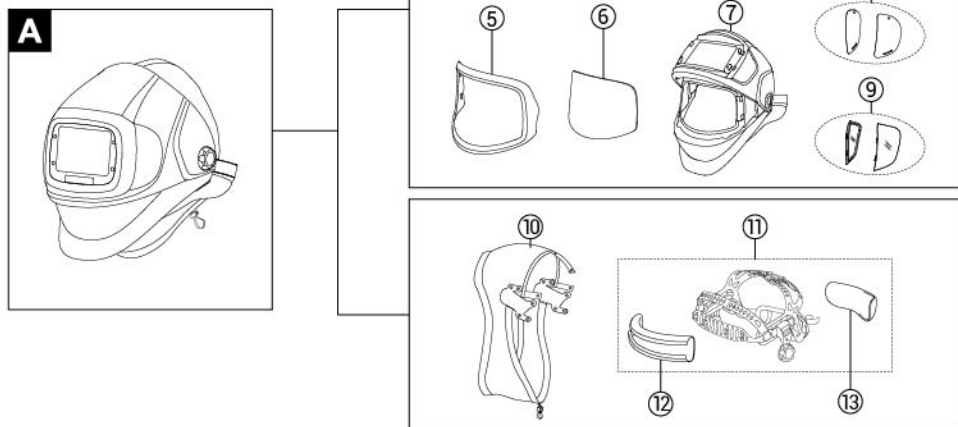
TIG, GTAW – Gas Tungsten Arc Welding

MIG (Light) – MIG on Light Alloys

PAC – Plasma Arc Cutting

MAG/CO2 - Metal Active Gas

PARTS LIST & ASSEMBLY



Part List

ITEM	PART NUMBER	DESCRIPTION
A-1	AC429-000-005-000	Front lens holder
A-2	EP264-000-041-000	Outside cover lens (160.36×107.3 mm)
A-3	EP372-0000-005	Quantum helmet passive filter din 8 (glass)
	EP371-0000-005	Quantum helmet passive filter din 9 (glass)
	EP370-0000-005	Quantum helmet passive filter din 10 (glass)
	EP369-0000-005	Quantum helmet passive filter din 11 (glass)
	EP368-0000-005	Quantum helmet passive filter din 12 (glass)
A-4	EP266-000-005-000	Quantum helmet inside cover lens (107×80 mm)
A-5	AC430-000-005-000	Grind lens holder
A-6	EP267-000-005-000	Grind lens (anti-fog, 223×129.8 mm)
A-7	RP159-000-005-000	Helmet shell with air duct
A-8	EP269-000-005-000	Side lens cover
A-9	EP270-000-005-000	Side lens
A-10	AC435-000-005-000	Face seal
A-11	AC439-000-005-000	Headgear (Including sweatband & soft pad)
A-12	AC432-000-005-000	Sweatband
A-13	AC433-000-005-000	Soft pad

WARRANTY

Universal's only obligation shall be repair, replace or refund the purchase price of such parts or products material and fabrication defects free of charge within the warranty period. This warranty does not cover to cause by improper handling abuse or application other than recommended in the user instruction.

If you come across any problem during warranty period, contact your distributor, send the defective parts together with the completed defect problem if necessary.

For future reference, please complete the owner's record below:

Serial Number:

Purchase Date:



DIN EN175:1997
DIN EN166:2001
(EU) 2016/425

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