

 **Speedglas™**

3M™ Speedglas™ 9100 FX Series Welding Shields.





User manual

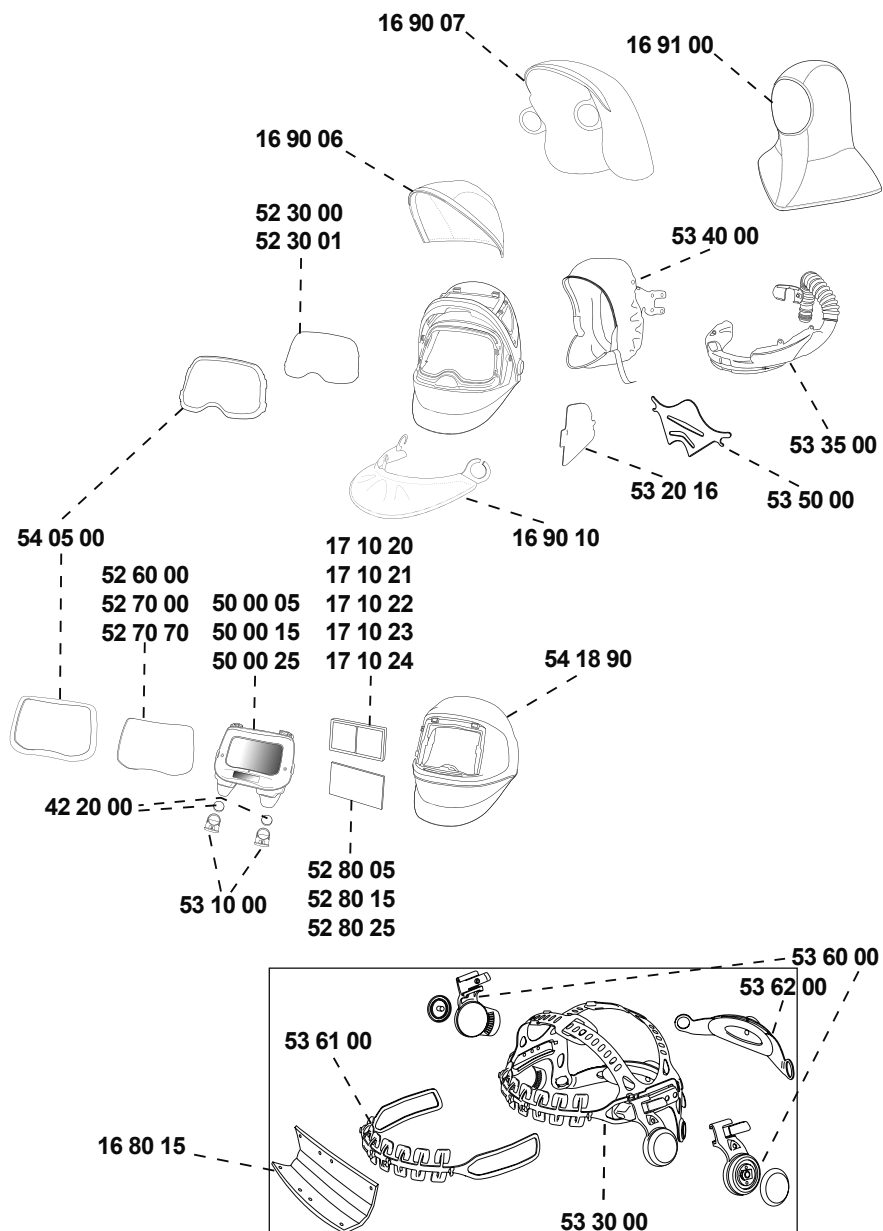
3M™ Speedglas™ 9100 FX Series Welding Shields.



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56 Leslie Hough Way Salford, M6 6AJ, UK (Notified body 0194)

This product has been produced to comply with the requirements of the
Australian Standards AS/NZS 1337.1:2010 under an agreed production certification
scheme operated during manufacture in accordance with the
SAI Global Standards Mark programme.

Parts List



Instruction 3M™ Speedglas™ 9100 FX Series Welding Shields

USER INSTRUCTIONS

Please read these instructions in conjunction with other relevant user instructions for 3M Speedglas welding filters, 3M air delivery units and reference leaflets where you will find information on approved combinations of air delivery units, spare parts and accessories.

SYSTEM DESCRIPTION

The 3M Speedglas 9100FX help protect the wearer's eyes and face from sparks/spatter, harmful ultra-violet radiation (UV) and infra-red radiation (IR) resulting from certain arc/gas welding processes. The product is designed to be used only with 3M Speedglas 9100 welding filters and protection plates. The 3M Speedglas 9100FX air also protects against certain airborne contaminants when used with an approved air delivery unit.

⚠ WARNING

Proper selection, training, use and maintenance are essential in order for the product to help protect the wearer. Failure to follow all instructions on the use of these protection products and/or failure to properly wear the complete product during all periods of exposure may adversely affect the wearer's health, lead to severe or life threatening illness, injury or permanent disability.

For suitability and proper use follow local regulations, refer to all information supplied.

Particular attention should be given to warning statements ⚠ where indicated.

APPROVALS

These products meet the requirements of the European Community Directive 89/686/EEC (Personal Protective Equipment Directive) and are thus CE marked. The products comply with the harmonized European Standards EN 175 and EN 166. Certification under Article 10, EC Type-Examination has been issued by DIN Certco Prüf- und Zertifizierungszentrum (Notified body number 0196). Speedglas 9100 FX air respiratory systems complies with the harmonized standards EN 12941 and EN 14594. Certification under article 11, EC quality control has been issued by INSPEC International Ltd (Notified body number 0194).

LIMITATIONS OF USE

⚠ Only use with original 3M Speedglas brand spare parts and accessories listed in the reference leaflet and within the usage conditions given in the Technical Specifications.

⚠ The use of substitute components, decals, paint or other modifications not specified in these user instructions might seriously impair protection and may invalidate claims under the warranty or cause the product to be noncompliant with protection classifications and approvals.

⚠ Eye protectors worn over standard ophthalmic spectacles may transmit impacts thus creating a hazard to the wearer.

⚠ The Speedglas welding shield is not designed for heavy duty overhead welding/cutting operations due to the risk of burns from falling molten metal.

⚠ The SideWindows should be covered with the cover plates in situations when other welders are working beside you and in situations where reflected light can pass through the SideWindows (see fig I:1)

⚠ Materials which may come into contact with the wearer's skin are not known to cause allergic reactions to the majority of individuals. These products do not contain components made from natural rubber latex.

3M™SPEEDGLAS™FX AIR

⚠ Do not use for respiratory protection against unknown atmospheric contaminants or when concentrations of contaminants are unknown or immediately dangerous to life or health (IDLH).

⚠ Do not use in atmospheres containing less than 19.5% oxygen (3M definition. Individual countries may apply their own limits on oxygen deficiency. Seek advice if in doubt).

⚠ Do not use these products in oxygen or oxygen-enriched atmospheres.

⚠ Leave the contaminated area immediately if: Any part of the system becomes damaged, airflow into the headtop decreases or stops, breathing becomes difficult, dizziness or other distress occurs, you smell or taste contaminants or irritation occurs.

⚠ High winds above 2m/s, or very high work rates (where the pressure within the headtop can become negative) can reduce protection. Adjust equipment as appropriate or consider an alternative form of respiratory protective device.

⚠ Users should be clean-shaven where the respirator's face seal comes into contact with the face.

EQUIPMENT MARKING

3M 1 BT N (1= optical class, BT=medium energy impact at extremes of temperatures (-5°C and +55°C), N=Resistance to fogging)

3M EN166BT (medium energy impact at extremes of temperatures (-5°C and +55°C) BT)

3M EN175B (medium energy impact B)

3M EN12941 TH3 (assigned protection factor 40, nominal protection factor 500, higher strength requirement for breathing hose and couplings)

3M EN12941 TH2 (assigned protection factor 20, nominal protection factor 50, medium strength requirement for breathing hose and couplings)

3M EN14594 3B (assigned protection factor 40, nominal protection factor 200, higher strength requirement)

Additional markings on the product refer to other standards.

PREPARATION FOR USE

Carefully check that the product is complete (see fig A:1), undamaged and correctly assembled, any damaged or defective parts must be replaced before each use.

⚠ The welding shield is heat resistant but can catch fire or melt in contact with open flames or very hot surfaces. Keep the shield clean to minimize this risk.

OPERATING INSTRUCTIONS

Adjust the welding shield according to your individual requirements to reach the highest comfort and protection. (see fig B:1 - B:4).

3M™Speedglas™FX air

Adjust and fit the Air Delivery Unit as outlined in the appropriate User Instruction. Adjust the face seal to suit the shape of the face. (see fig H:8) Air deflector (part no 535000) for 3M™ Speedglas™ 9100FX Air Welding Shield can be mounted to change the distribution of air within the shield. (see fig J:1)

- ⚠ It is important that the face seal is correctly mounted and fitted to provide the correct protection factor. Do not remove the welding shield or turn off the air supply until you have vacated the contaminated area.

CLEANING INSTRUCTIONS

Clean the welding shield with a mild detergent and water.

- ⚠ To avoid damage to the shield do not use solvents for cleaning. Clean the head cover according to the washing instruction on the product label.

MAINTENANCE

Replacement of:



- visor plate. see fig. (C:1-C:4)
- welding filter see fig. (D:1 -D:4)
- headband see fig. (E:1)
- sweatband see fig. (F:1)
- head cover see fig. (G:1)

- ⚠ Worn out product parts should be disposed of according to local regulations.

3M™SPEEDGLAS™FX AIR

Replacement of face seal see fig. (H:1) overview of assembling order, (H:2-H:6) mounting steps, (H:7) correctly mounted.

STORAGE AND TRANSPORTATION

Do not store outside the temperature range -30°C to +70°C  or with humidity above 90% . The original packaging is suitable for transporting.

TECHNICAL SPECIFICATIONS

WEIGHT:

Welding shield with SideWindows (excl headband and welding filter):	430 g
Welding shield with airduct, with SideWindows (excl headband and welding filter):	640 g
Headband	135 g

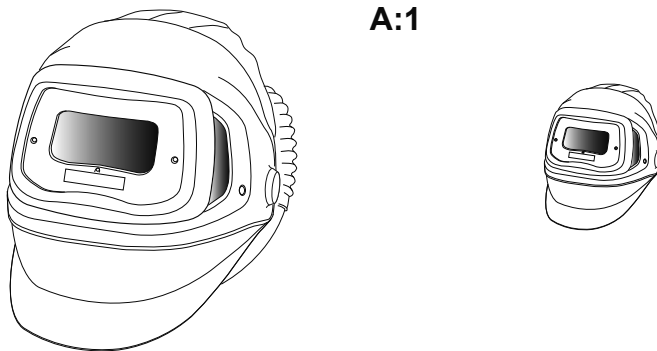
VIEWING AREA:

Visor plate:	100 x 170 mm
Operating temperature:	-5°C to +55°C
Head sizes:	50-64

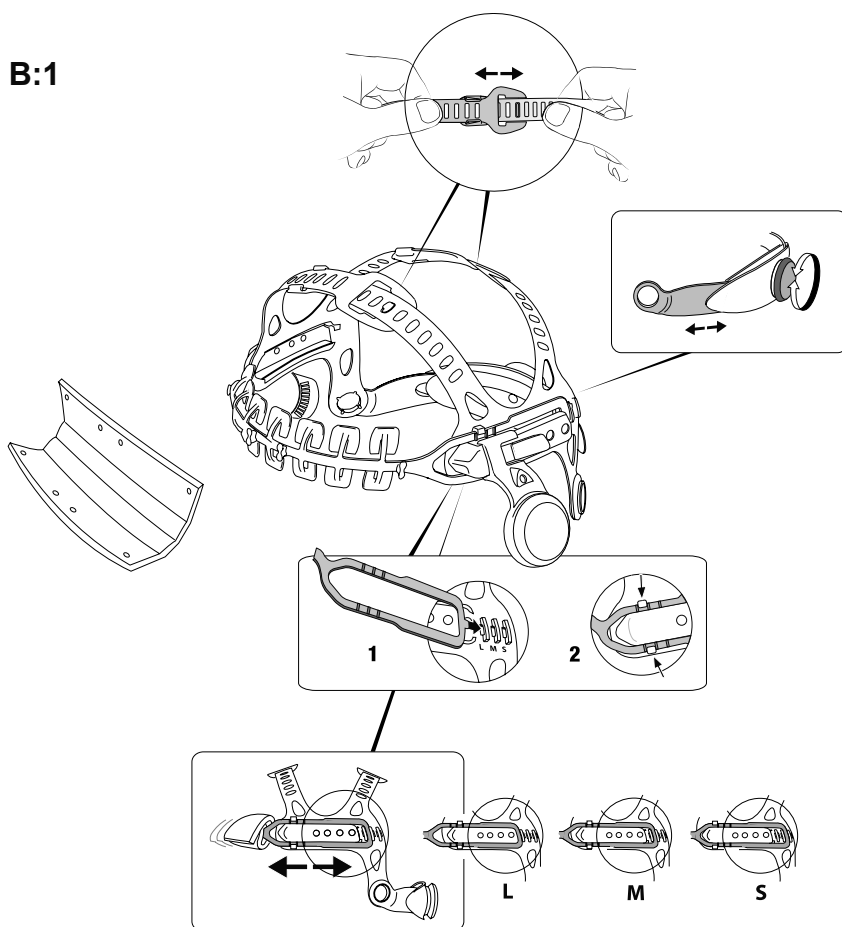
MATERIAL:

Shield:	PPA
Silver front frame:	PA
SideWindows:	PC
Headband:	PA, PP, TPE, PE

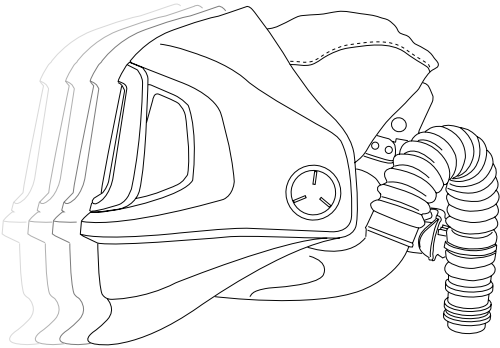
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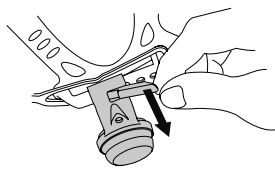


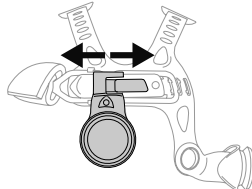
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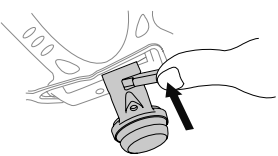


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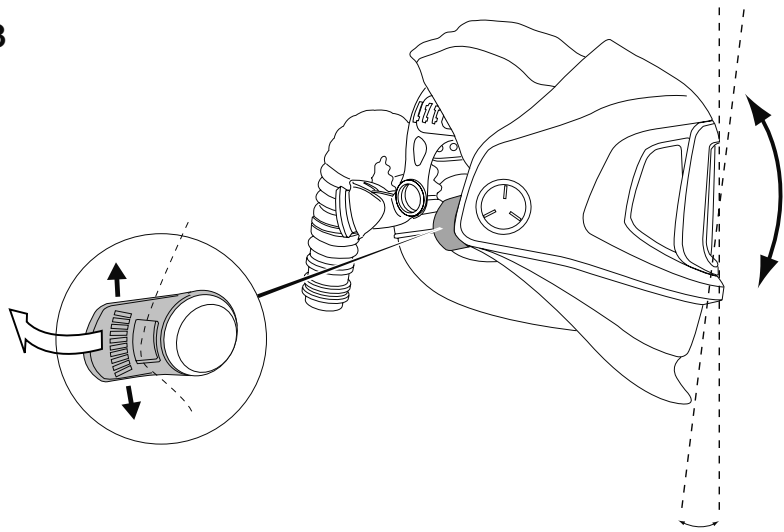
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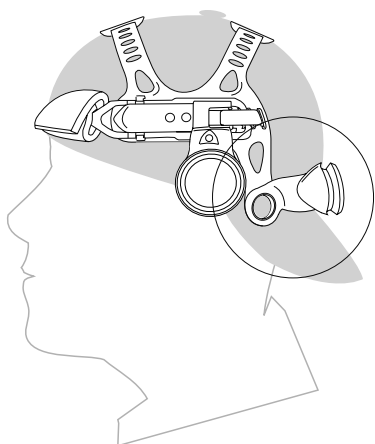
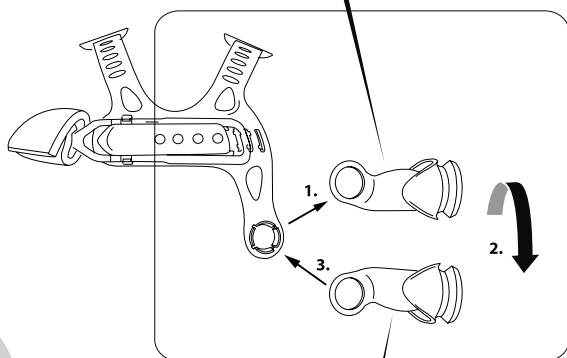
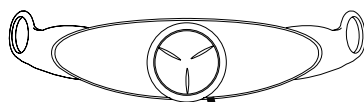
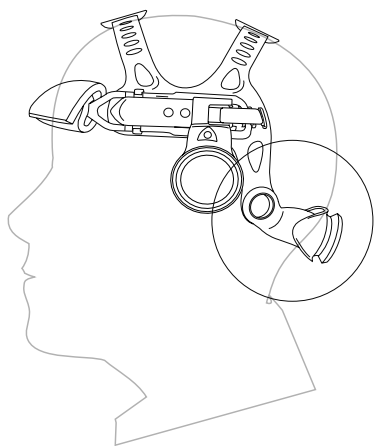
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2.
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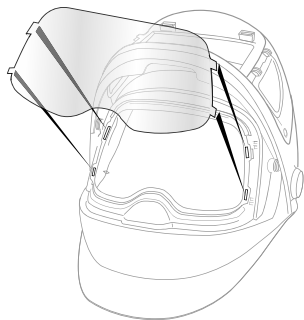
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B:3





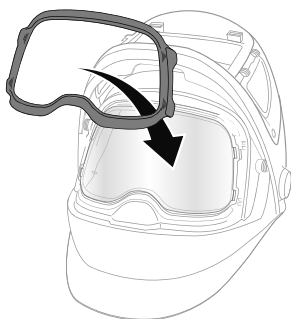
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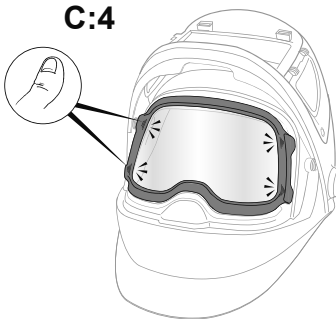
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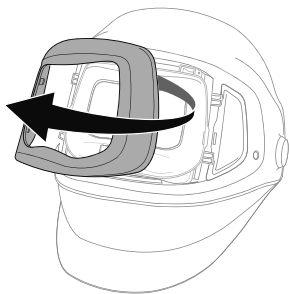
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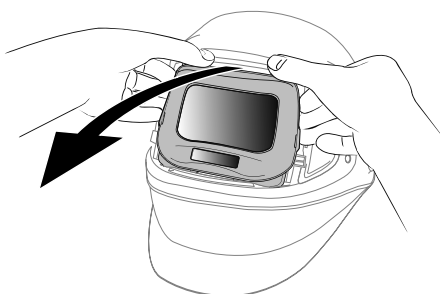
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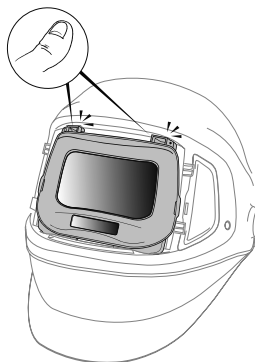
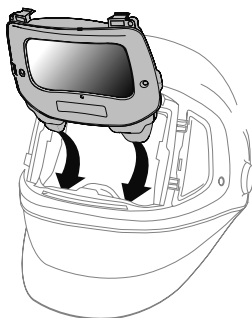
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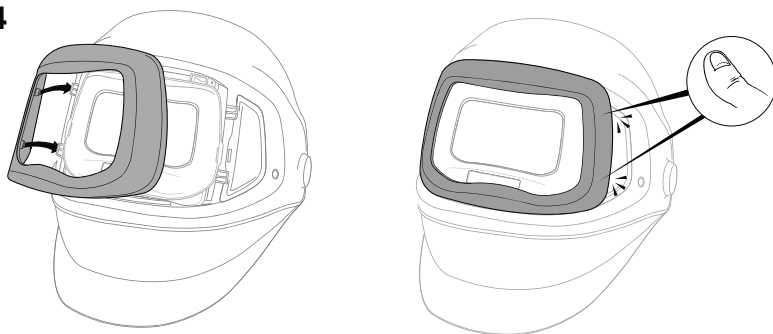
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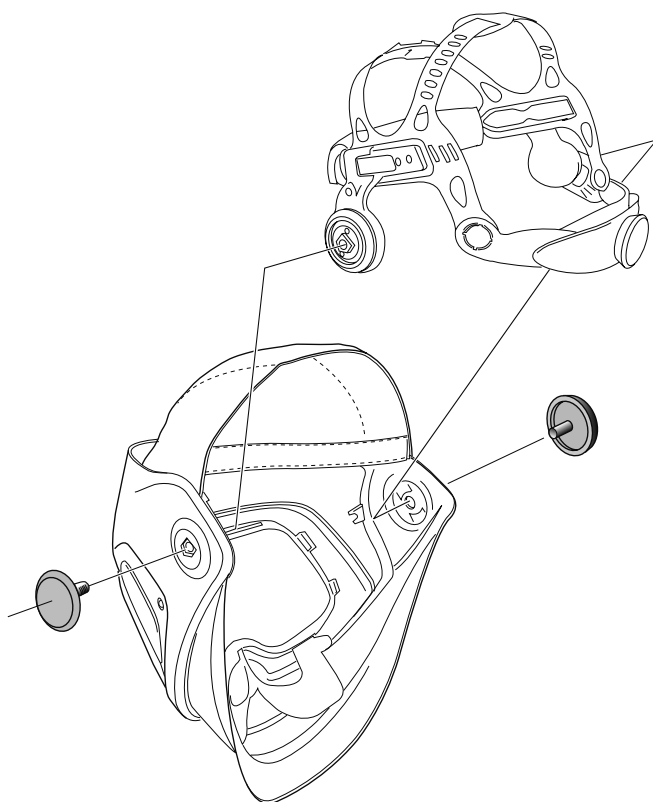
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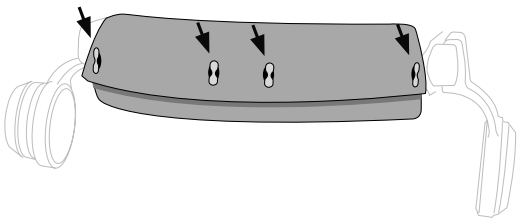
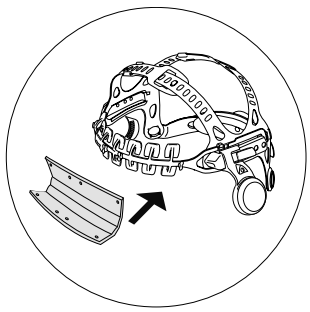
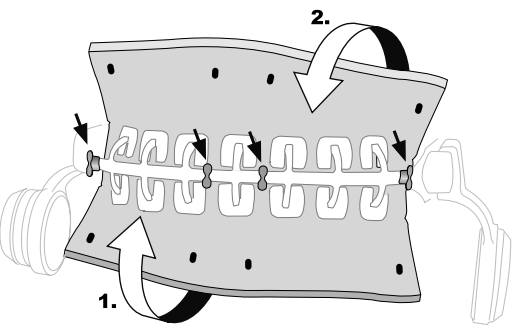
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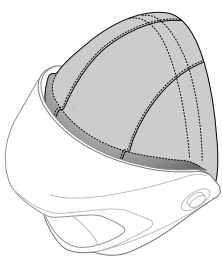
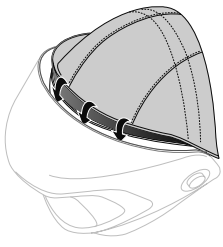
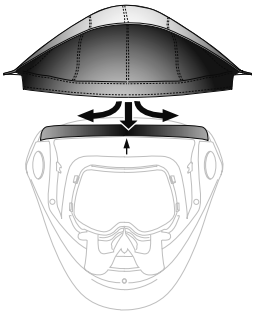
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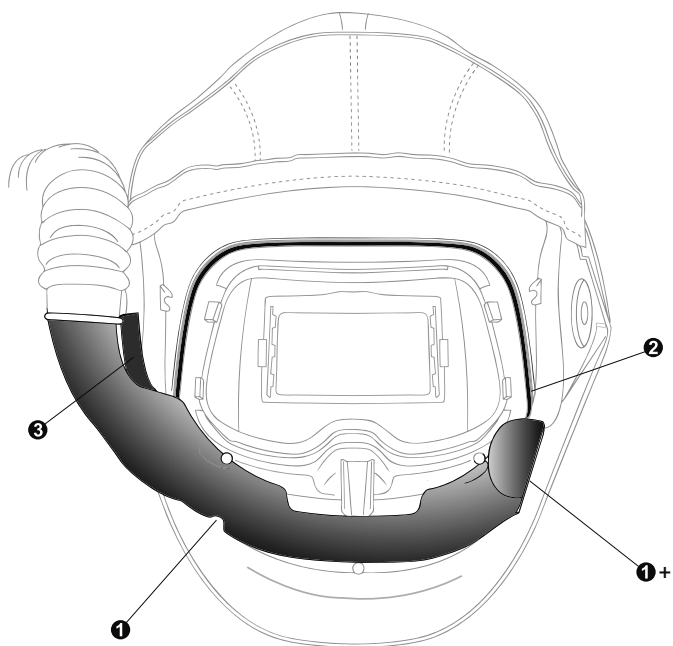
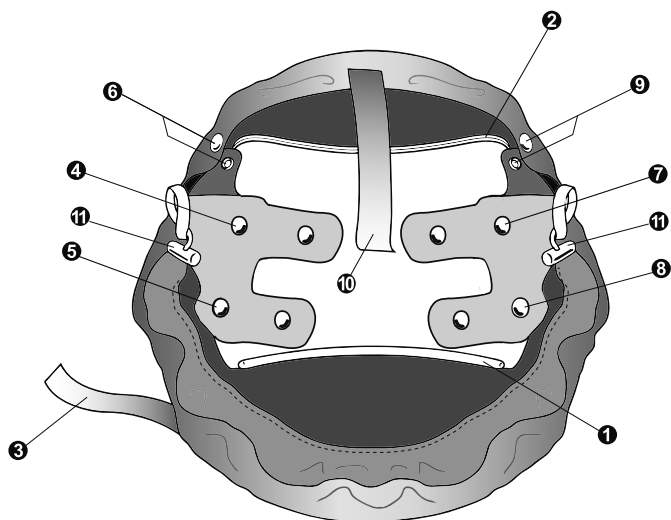
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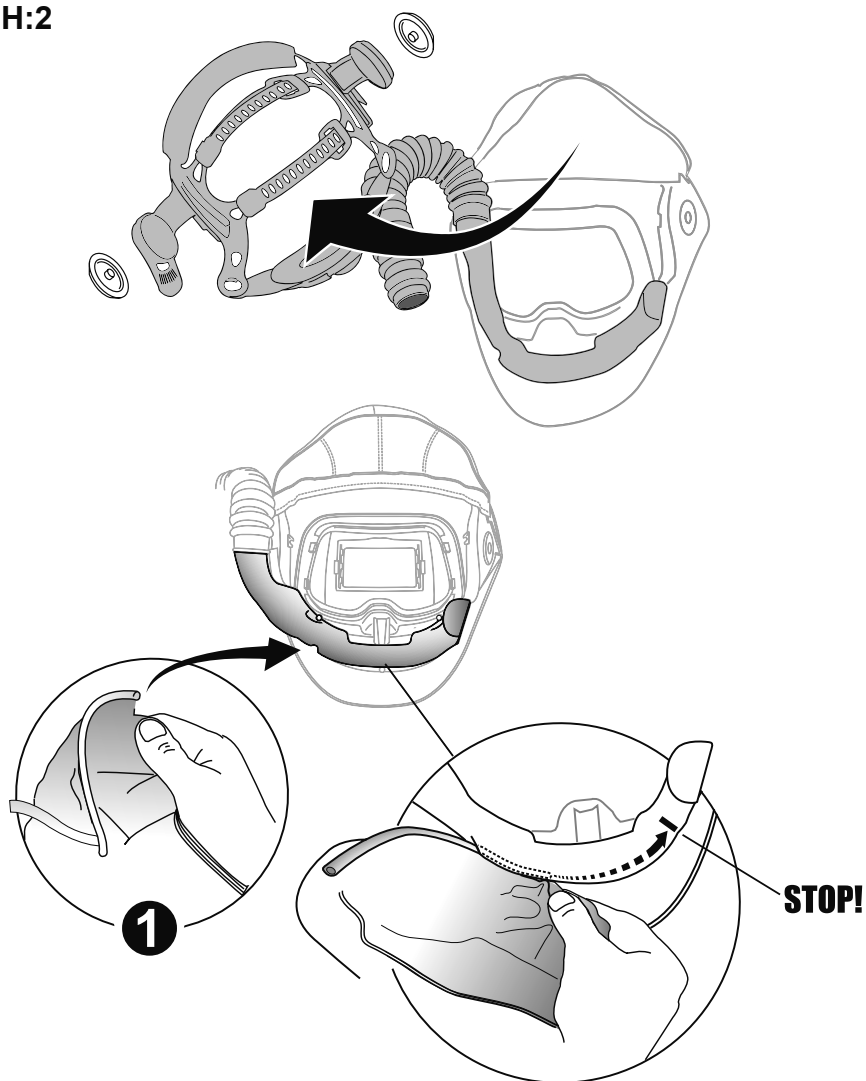
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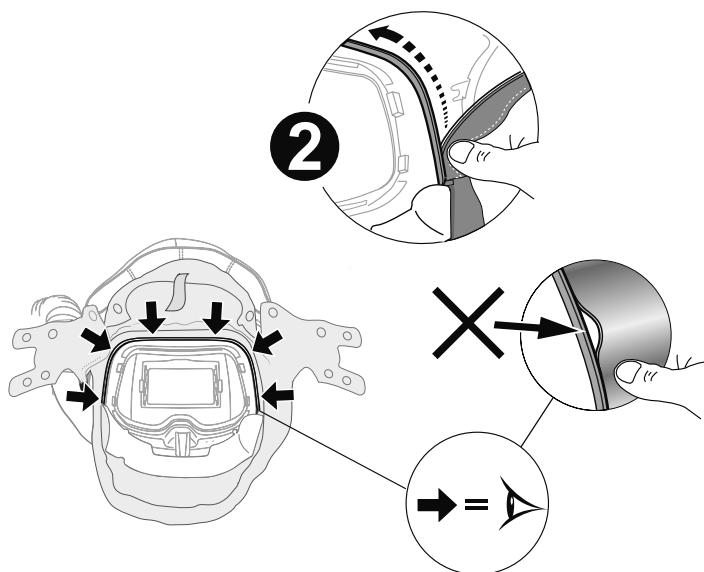
H:1



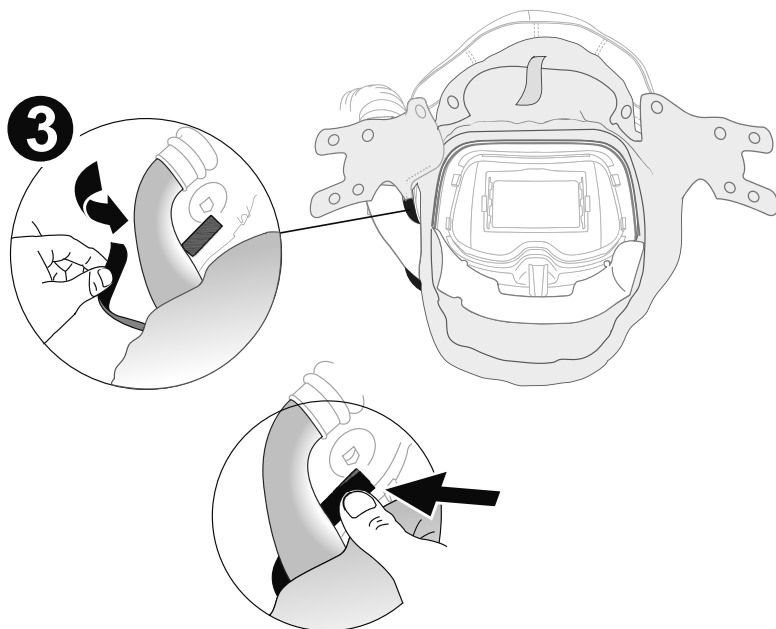
H:2



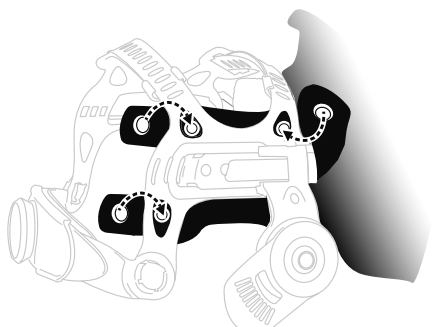
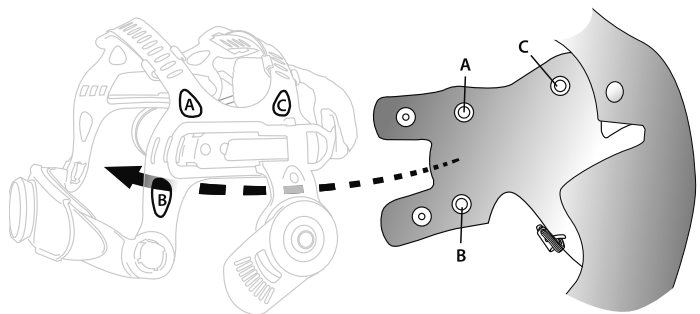
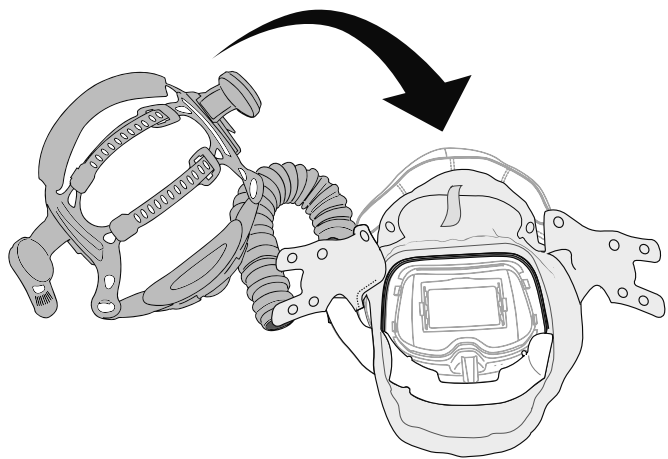
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H:4

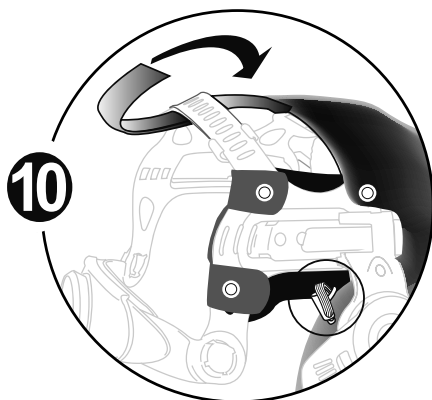


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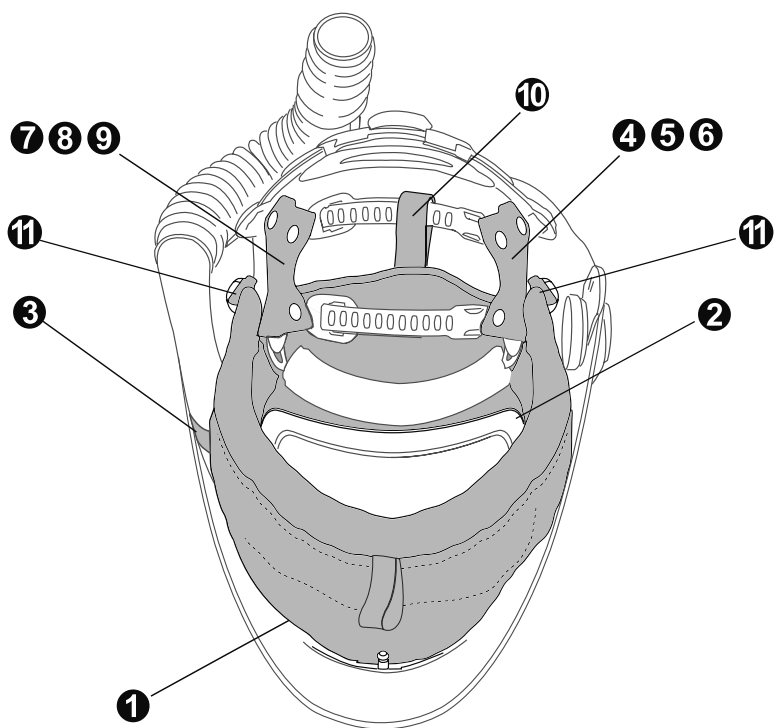


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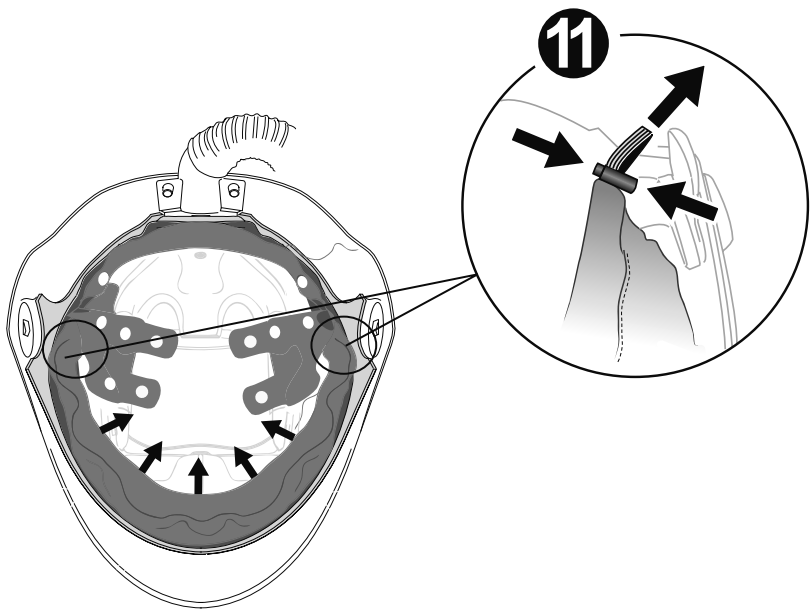
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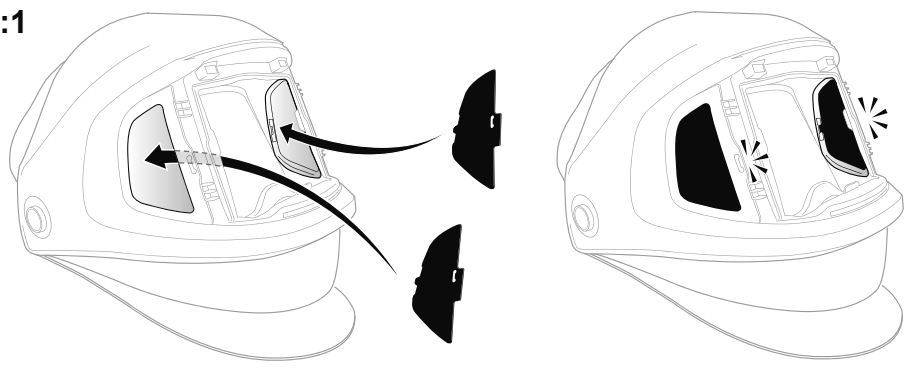
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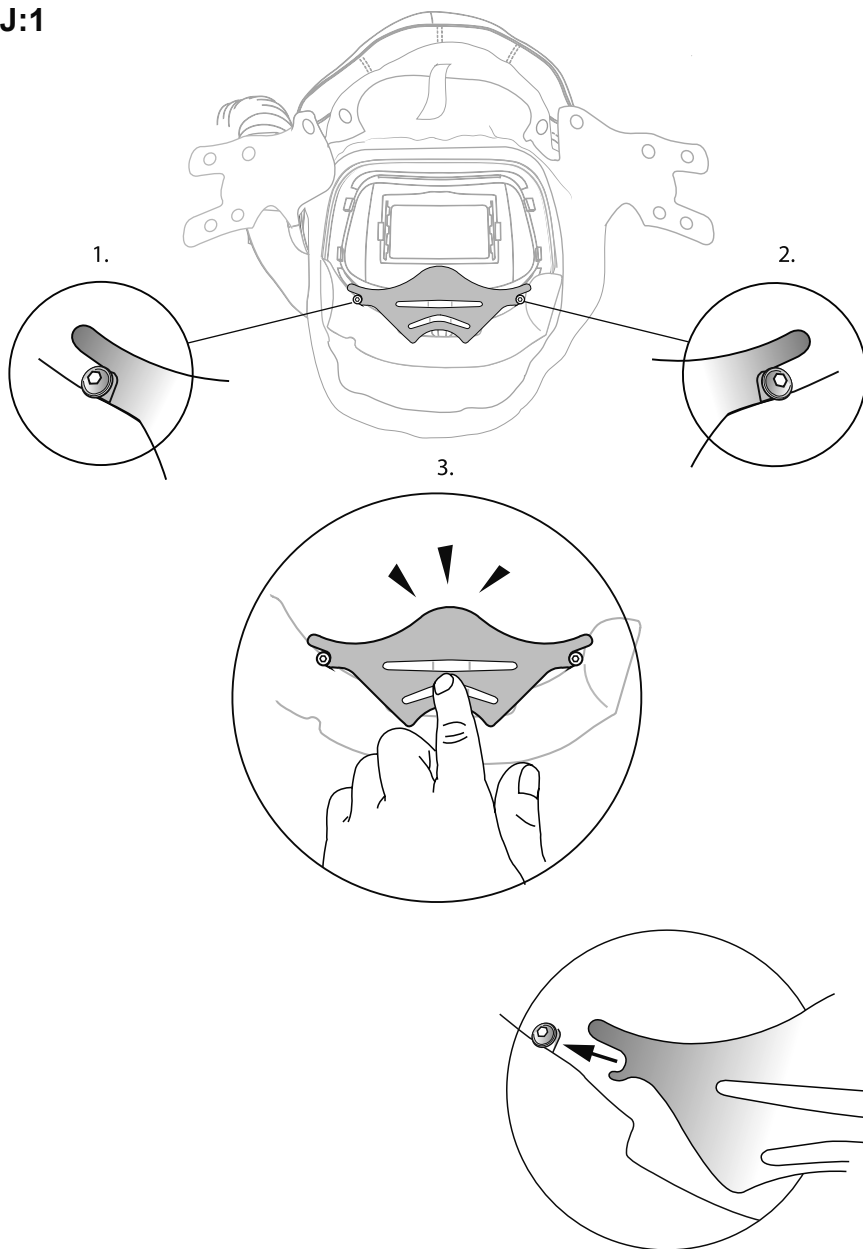
H:8



I:1



J:1



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