

**Zeta** W201

**Zeta** W201x

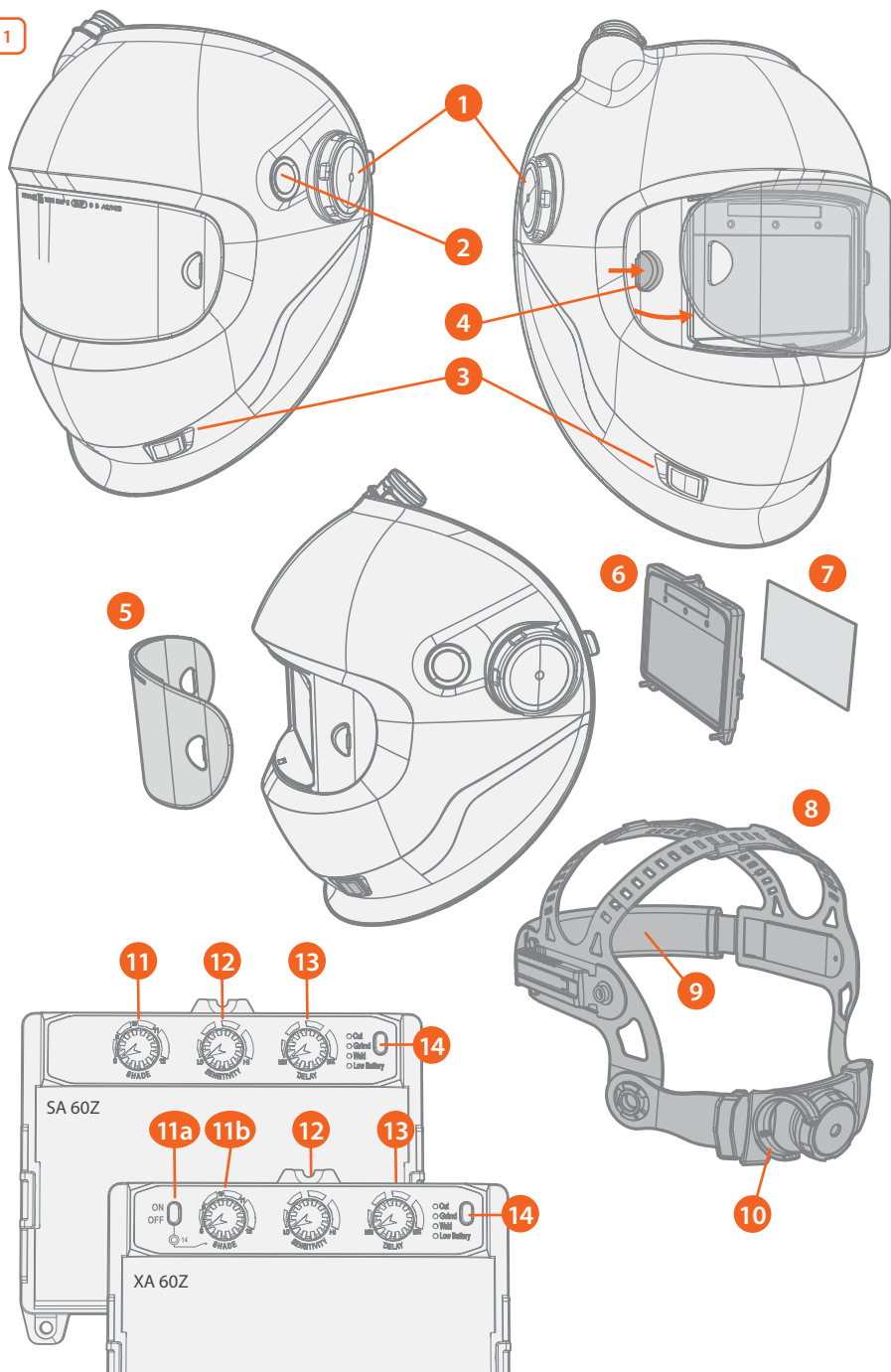
**Zeta** W211

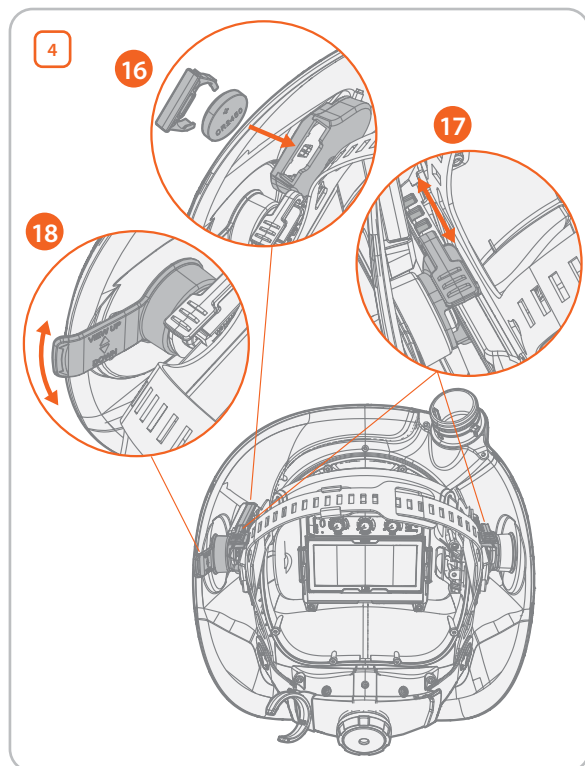
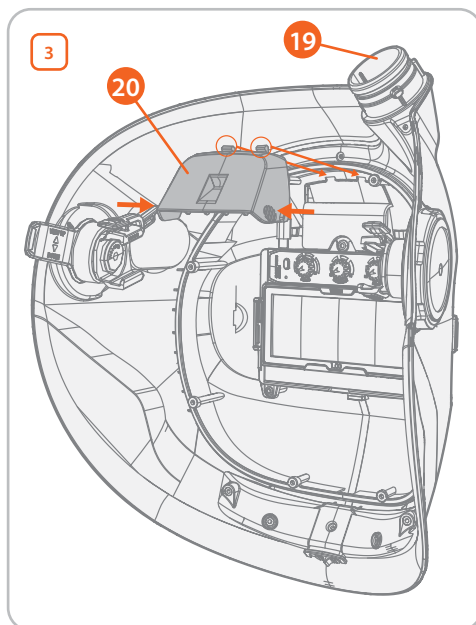
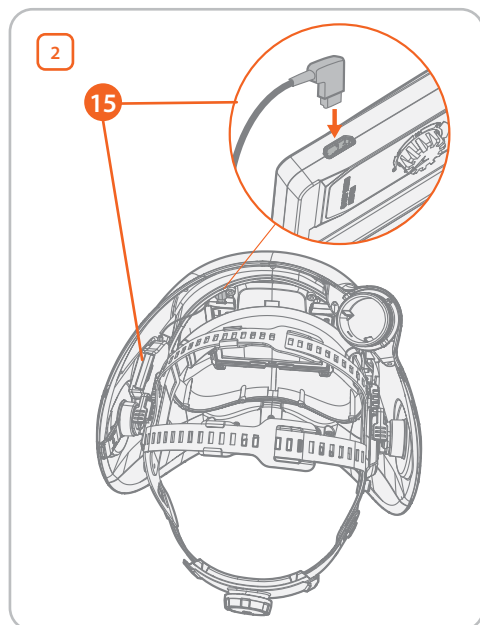
**Zeta** W211x

**Operating  
manual**

Operating manual – Brugsanvisning – Gebrauchsanweisung – Manual de instrucciones – Käyttöohje – Manuel d'utilisation – Manuale d'uso – Gebruiksaanwijzing – Bruksanvisning – Instrukcja obsługi – Manual de utilização – Manual de utilizare – Инструкции по эксплуатации – Bruksanvisning – Kullanım ve bakım kılavuzu – 操作手册

1





# 1. Introduction

## 1.1 Zeta W201, W201x, W211 and W211x

Zeta W201, W201x, W211 and W211x welding helmets are designed for arc welding (MMA, MIG/MAG, TIG), grinding, gouging and plasma cutting.




Zeta W201, W201x, W211 and W211x welding helmets provide the users with protection for the eyes and face. The helmets are equipped with auto-darkening filter.

When used together with a compatible powered filter unit (PFU 210e) or supplied air unit (RSA 230), Zeta W201, W201x, W211 and W211x models also protect the user's respiratory system providing the highest level of respiratory protection: TH3 classification with PFU 210e, and 3B classification with RSA 230.

Zeta W201x and W211x models have also integrated LED work lights that can be used when connected to the PFU 210e powered filter unit.

## 1.2 About this manual

Read this manual carefully before using the equipment for the first time. Pay particular attention to the safety instructions.

	Note	Gives the user a piece of information of particular importance.
	Caution	Describes a situation that may result in damage to the equipment or system.
	Warning	Describes a potentially dangerous situation that may result in personal damage or fatal injury.

## 1.3 Disclaimer

While every effort has been made to ensure that the information contained in this guide is accurate and complete, no liability can be accepted for any errors or omissions. Kemppi reserves the right to change the specification of the product described at any time without prior notice. Do not copy, record, reproduce or transmit the contents of this guide without prior permission from Kemppi.

# 2. Safety



## Warning:

- It is strictly forbidden to use any other than Kemppi branded parts or accessories with Kemppi's personal protection equipment. If you do not respect this safety regulation, serious damage for your health may occur.
- We recommend a usage period of 5 years. The period of use depends on various factors such as use, cleaning, storage and maintenance.

- Before each use, inspect fresh air helmet for damages and verify it operates properly. Replace damaged or worn parts.
- Use all adjustment features for maximum protection.
- Face seal needs to be in good condition, placed in front of users ears and both buckles tighten enough.
- Never weld with the welding visor up or without the welding filter.
- If the auto-darkening filter (ADF) does not darken when the arc ignites, stop welding immediately. Inspect the ADF and its power supply. Change if necessary.
- Always use welding filters together with suitable protection plates.
- Never use welding filter without inner protection plates.
- Never use a scratched or damaged welding filter and ocular.
- Materials which may come into contact with the wearer's skin may cause allergic reactions to susceptible individuals.
- Only operate this product within the temperature range -5...+55 °C.
- The product is not intended for use in environments with a risk of explosion.
- The helmet does not protect against explosive devices or corrosive liquids.
- The helmet is not suitable for laser welding and oxyacetylene welding/cutting processes.
- The helmet gives designed protection against high speed particles only at room temperature (EN ISO designation E) and only when all helmet components are properly attached, as described in the manual.
- When helmet is worn over any spectacles, they may transmit the impact of high speed particles, thus creating a hazard to the wearer.
- Protectors that have been subject to impact shall not be used and shall be discarded and replaced.
- If the symbols of the markings are not the same for different parts of the protection equipment, the lower protection level shall be assigned to the complete protection equipment.
- Adequate protection cannot be provided by the RPD (respiratory protection device) in certain highly toxic atmospheres.
- At very high work rates the pressure in the facepiece can become negative at peak inhalation flow.

### 3. Parts 1 2 3 4 5

1. Opening/closing tightness adjuster
2. Grinding mode (clear view) button
3. LED work lights (W201x and W211x models only)
4. Protection plate release button
5. Protection plate
6. Auto-darkening welding filter
7. Inner protection plate
8. Headband, adjustable
9. Sweatband, washable
10. Air hose holder
11. ADF SA: Shade adjustment
- 11a ADF XA: Shade adjustment 14 (ON)
- 11b ADF XA: Shade adjustment 9-13 (OFF)
12. ADF: Sensitivity adjustment
13. ADF: Delay adjustment
14. ADF: Operation mode selector (Cut/Grind/Weld)
15. ADF: Battery connection
16. ADF battery and battery holder
17. Distance slide adjusters
18. Viewing angle adjuster
19. Air duct for respiratory protection system
20. Air duct nozzle
21. Face seal.

## 4. Using helmet features

### 4.1 Taking into use 6

1. Adjust the helmet for your head:
  - A. Use the top bands to adjust how deep the helmet sits (a).
  - B. Use the distance slide adjuster to change the distance of the helmet from your face (b). The welding filter should be at a 1-2 cm distance from the nose. Ensure that the helmet sits comfortably and that both sides are equally positioned.
  - C. Turn the knob in the rear to tighten and secure the headband (c).
2. Adjust the helmet's opening/closing tightness if needed (d).
3. Turn the viewing angle adjuster to tilt the viewing angle upwards or downwards (e).
4. Connect the air hose to the helmet and to the respiratory protection device: 12
  - A. Turn the air hose connector (1) to fully expose the openings (2).
  - B. Align the groove in the air hose connector with the tab in the air duct (3).

- C. Push the connector into the air duct.
- D. Turn the connector clockwise to snap-lock the air hose into its place.
- E. Secure the air hose into the air hose holder to keep it out of the way.

5. Turn the respiratory protection device on. (Refer to your powered filter units' / air supply's documentation for more information.)
6. Tighten the face seal properly around your face using all the tighteners in the face seal.



**Warning:** If the face seal is not tight, the respiratory protection system may not offer the best possible protection.

The three face seal snap fasteners must also always be fastened to maintain TH3/3B classification. 11

### 4.2 Using work lights (W201x, W211x) 11

Zeta W201x and W211x helmets have LED work lights that are powered by the powered filter unit PFU 210e battery. The battery is connected when the air hose is connected to the welding helmet.



**Note:** The LED work lights are not available for use with RSA 230.

1. For charging and checking the battery, refer to the powered filter unit's documentation.
2. Use the OFF/AUTO/ON selector to turn the lights on and off. The AUTO mode turns the lights off in bright conditions (e.g. during welding) and then back on.



**Caution:** Never use a damaged battery unit. Avoid exposure to extreme temperatures, direct sunlight, moisture, sand and dust.

Observe the battery unit while charging. If the battery unit becomes hot, smokes or there are visible deformations in the battery unit during charging, stop charging immediately.

### 4.3 Using quick grinding view 8

The Zeta helmet's auto-darkening welding filter can be switched to the grinding mode (clear view) also by long-pressing the grinding mode button on the side of the helmet.

To return to welding mode, only short press is needed.

## 5. Replacing parts

### 5.1 Removing headband <sup>10</sup>

1. Press and hold down the distance slide adjuster.
2. Push the headband connector forwards, out of the distance slide adjuster.

### 5.2 Attaching headband <sup>10</sup>

1. Bring the headband connector in front of the distance slide adjuster.
2. Press down the slide adjuster button while pushing the headband connector through the distance slide adjuster.
3. Slide the headband connector in place so that the slide adjuster pin locks into one of the grooves in the headband connector.
4. Adjust the helmet distance from your face.

### 5.3 Replacing outer protection plate <sup>1</sup>

1. To remove the outer protection plate, press the protection plate release button (4) on the right and pull the protection plate (5) out.
2. To install the outer protection plate, place it on the left fastener first and then snap the right side in place.



**Note:** Make sure both sides are properly aligned and in place.

### 5.4 Replacing inner protection plate <sup>8</sup>

1. To remove the ADF inner protection plate, pull the bottom of the plate out slightly and slide the plate out from below.
2. To install the inner protection plate, slide the plate up into the grooves in the ADF. Make sure the plate snaps into place properly.

### 5.5 Replacing face seal <sup>10 11</sup>

1. Release the three snap fasteners keeping the face seal attached to the headband (pic 11).
2. Remove the headband.
3. Remove the eight small screws holding the face seal frame.
4. Take the face seal out. Note that the distance slide adjusters go through the openings in the face seal.
5. To install the face seal, pass the distance slide adjusters through the openings in the face seal.

6. Secure the face seal in place with the eight small screws.
7. Attach the headband back in place.
8. Fix the face seal to the headband with the three snap fasteners (pic. 11).

## 6. Maintenance

Inspect the helmet after each use. Replace worn or damaged parts.

### 6.1 Cleaning <sup>9</sup>

- Clean the protection plate with mild soap, lukewarm water and a soft cloth.
- Wipe the welding filter lens with a soft, clean cloth, if necessary.
- Remove the air duct nozzle by pressing the nozzle on both edges. Wipe the nozzle and the section behind it clean with a soft cloth and mild detergent or suitable disinfecting mask spray. Dry well before reassembling.
- Detach and wash the sweatband and face seal, if necessary.



**Note:** The fire retardant on the face seal gradually wears out in wash. Wash the face seal max. 5 times.

## 7. Storage

Store the Zeta helmet in an environment with temperature between -20...+50 °C and humidity < 80 % Rh.

Store and transport the helmet and the accessories in the original bag or package.

## 8. Technical data

Welding helmet	Zeta W201 / W201x	Zeta W211 / W211x
Compliant with standards:	Regulation (EU) 2016/425 EN ISO 16321-2:2021 EN ISO 16321-1:2022 EN12941:1998+A1:2004+A2:2008 FprEN 12941:2021 EN 14594:2018 3B AS/NZS 1337.1:2010 B - LIC 40174 AS/NZS 1338.1:2012 AS/NZS 1716:2012 - LIC 40175	
Type inspected and certified by:	CE: ECS GmbH. Hüttfeldstraße 50, 73430 Aalen, Germany. Notified Body No. 1883. (Module B for W201 / W201x) CE: CCQS Certification Services Limited, Notified body No. 2834, Block 1 Blanchardstown Corporate Park, Ballycoolin Road, Blanchardstown, Dublin 15 D15 AKK1 Dublin, Ireland (Module D). CE: FORCE Certification A/S, Park Alle 345, 2605 Brøndby, Denmark. Notified Body No. 0200. (Module B) UKCA: CCQS UK Ltd, 25 Wilton Rd, Pimlico, London SW1V 1LW, UK. Approved Body No. 1105. (Module B & D). Not applicable for W211 / W211x. SAI Global Certification Services Pty Limited, Level 7, 45 Clarence Street. Sydney NSW 2000, Australia.	
Manufacturer:	Kemppi Oy PL 13, Kempinkatu 1, 15801 Lahti, Finland	
Operating temperature:	-5...+55 °C	
Recommended humidity for use:	< 80 % Rh	
Storage temperature:	-20...+50 °C	
Materials:	Plastics: PA, PP, PC, ABS, POM Sweatband material 100 % cotton, padding foam plastic	
Weight:	Zeta W201: 680 g, Zeta W201x: 710 g	Zeta W211: 680 g, Zeta W211x: 710 g

Welding filter	ADF SA 60Z	ADF XA 60Z
Welding filter type:	Auto-darkening, factory-installed	
Operating temperature range:	- 5 ... + 55 °C <80% Rh	
Storage temperature range:	- 20 ... + 50 °C <80% Rh	
Manufacturer:	Kemppi Oy PL 13, Kempinkatu 1, 15801 Lahti, Finland	
ADF switching time:	0.1 ms	
ADF light state:	Shade 2.5	Shade 3
ADF UV/IR protection:	Protection at all times	
Battery, replaceable:	1 x CR2450	
Materials:	Plastics: PA, PC; Glass	

## 9. Helmet and ocular markings

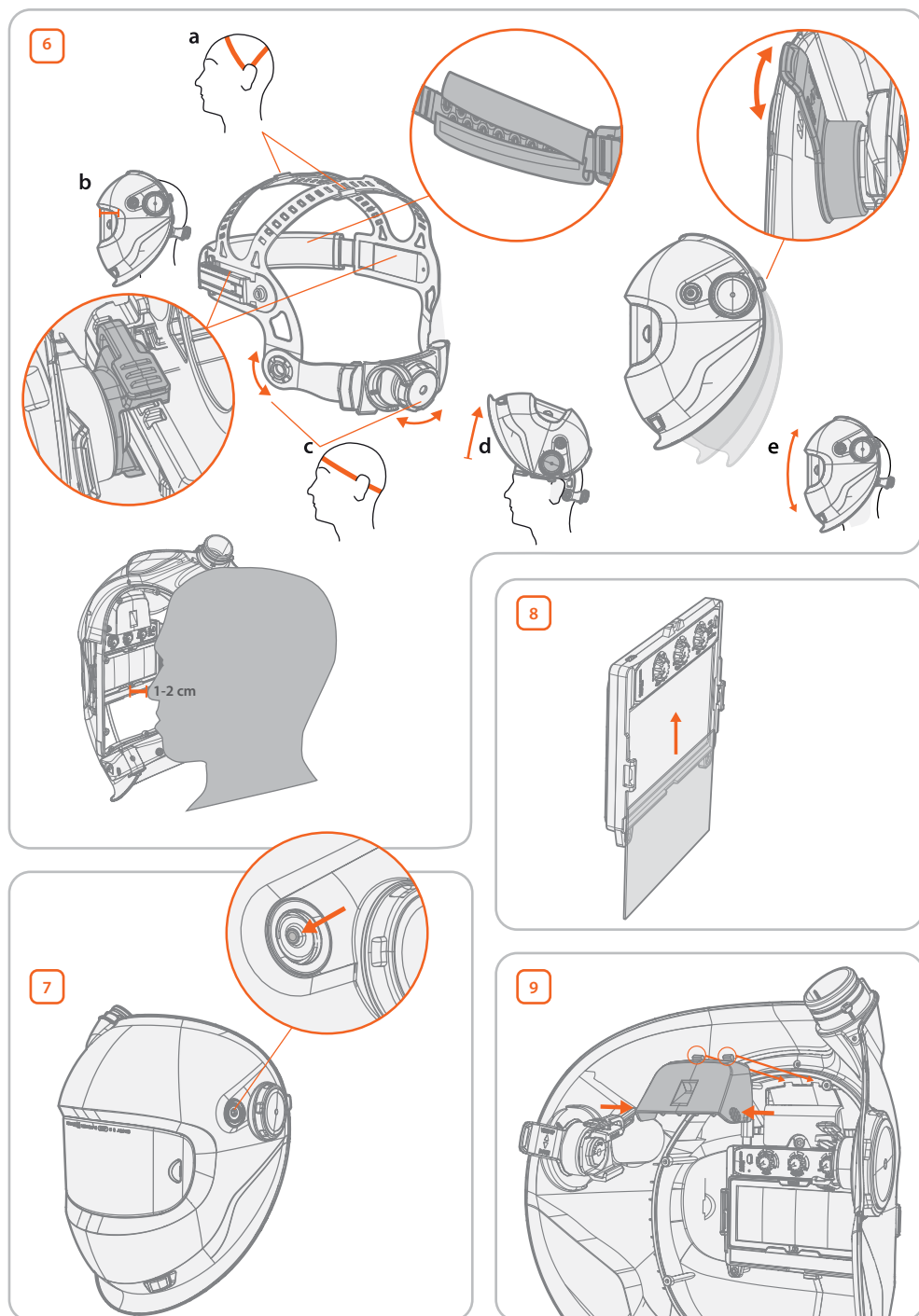
Helmet shell	Zeta W201/201x	Zeta W211/211x
Markings	16321 KMP W15 E HM 1-M CE	16321 KMP W14 HM E 1-M CE
Standard reference	16321	
Identification of the manufacturer	KMP	
Welding protector	W	
Maximum filter shade	15	14
Impact level	E	
High mass impact level	HM	
Average medium head size	1-M	
CE marking (European Conformity)	CE	

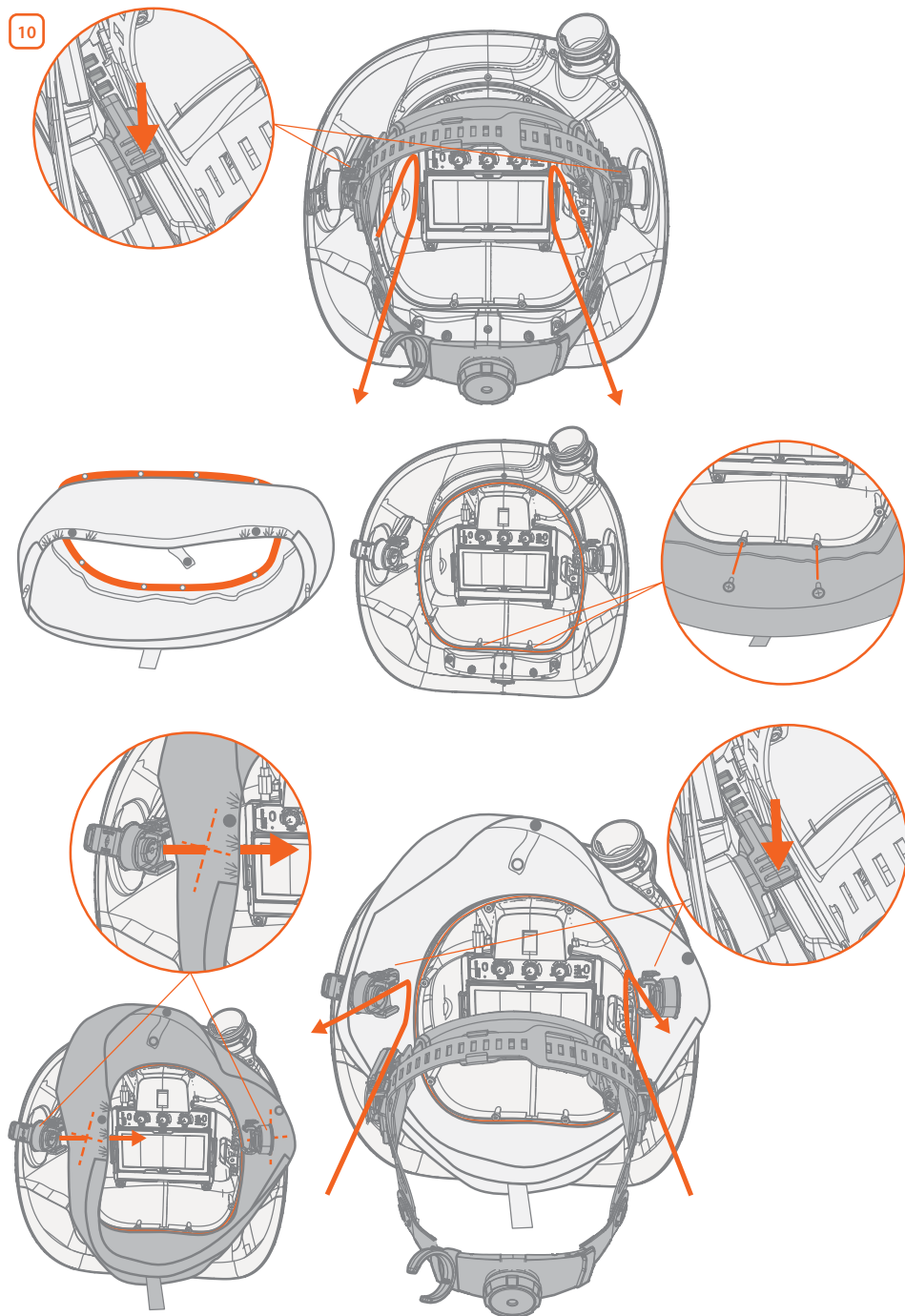
Automatic welding filter	SA 60Z	XA 60Z
Markings	16321 KMP W2.5 / 8-12 V1 +TIG CE	16321 KMP W3/9-13/14 V1 CE
Welding filter	W	
Light shade / dark shade range	2.5 / 8-12	3/9-13/14
Angle dependence class	V1	
Applicable for TIG welding	+TIG	-

## 10. Ordering codes

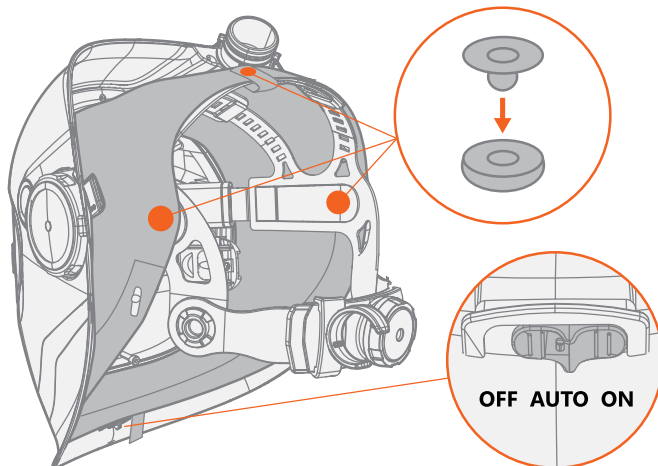
Part	Ordering code
Face seal Zeta W	SP024160
Headband	SP009023
Sweatband 2 pcs	SP9873018
Comfort band padding 5 pcs	SP013231
Protection plate 5pcs	SP022579
Inner protection plate 5 pcs	SP023221
ADF SA 60Z auto-darkening welding filter	SP9873076
ADF XA 60Z auto-darkening welding filter	SP9873078
Magnifying lens holder	SP023179
Magnifying lens 1.0x	9873260
Magnifying lens 1.5x	9873261
Magnifying lens 2.0x	9873262
Magnifying lens 2.5x	9873263
Helmet bag, small	SP023780
Universal neck protector	SP015579



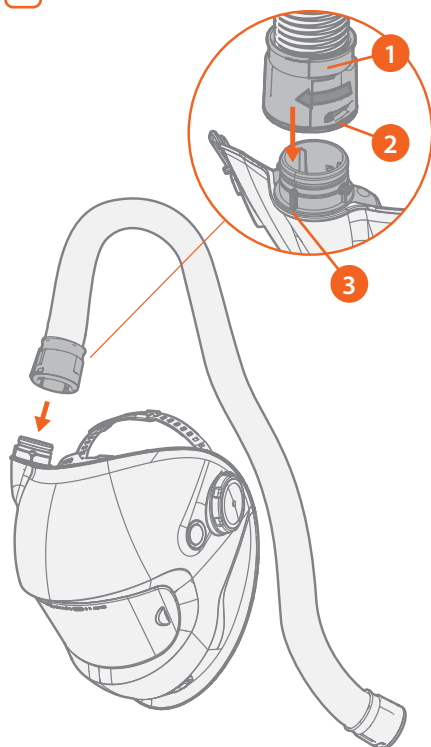




11



12



Zeta W201/W201x

**UK  
CA**  
1105

Zeta W211/W211x

**CE** **UK  
CA**  
2834 2834



AS/NZS 1716, Lic. 40175

Zeta W201/W201x/W211/W211x

	MMA (E-Hand)	MIG, Ss	MIG, Al	MAG, CO <sub>2</sub>	TIG	Gouging	Plasma cutting
15 A					9		
20 A	9				10		
30 A							
40 A	10			10	11		
60 A		10	10				
80 A				11			11
100 A	11	11	11	12	12	10	
125 A							
150 A							
175 A							
200 A							
225 A	12	12	12	13	13	11	12
250 A						12	
275 A			13				
300 A					14	13	13
350 A	13	13	14	14		14	
400 A							
450 A							
500 A	14	14		15		15	
550 A	15	15	15				
600 A							



Welding helmet weight – Svejsehjelmens vægt – Gewicht der Schweißerschutzmaske – Peso de la máscara de soldadura – Hitsauskypärän paino – Poids du masque de soudage – Peso del casco per saldatura – Gewicht lshelm – Sveisemaskevekt – Masa przyłbicy – Peso da máscara de soldagem – Масса сварочной маски – Svetshjälms vikt – 电焊帽重量



See information supplied by the RPD manufacturer – Se oplysningerne fra RPD-producenten – Siehe die vom RPD-Hersteller bereitgestellten Informationen – Véase la información suministrada por el fabricante de la unidad RPD – Katso hengityksensuojaimen valmistajan toimittamat tiedot – Voir les informations fournies par le fabricant du RPD – Vedere le informazioni fornite dal produttore RPD – Zie de informatie die is verstrekt door de RPD-fabrikant – Se informasjon som leveres av RPD-tilvirker – Patrz informacje podane przez producenta zaworu – Veja as informações fornecidas pelo fabricante do RPD – См. информацию, предоставленную производителем средств индивидуальной защиты органов дыхания – Se information från RPD-tillverkaren – 请参见 RPD 制造商提供的信息



Declaration of Conformity – Överensstemmelseserklæring – Konformitätserklärung – Declaración de conformidad – Vaatimustenmukaisuusvakuutus – Déclaration de conformité – Dichiarazione di conformità – Verklaring van overeenstemming – Samsvarserklæring – Deklaracja zgodności – Declaração de conformidade – Declarație de conformitate – Заявления о соответствии – Försäkran om överensstämmelse – Uygunluk Beyanı – 符合性声明



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