



**Operating Manual**  
**F2 X-TREM**  
**Multi-Purpose Helmet**

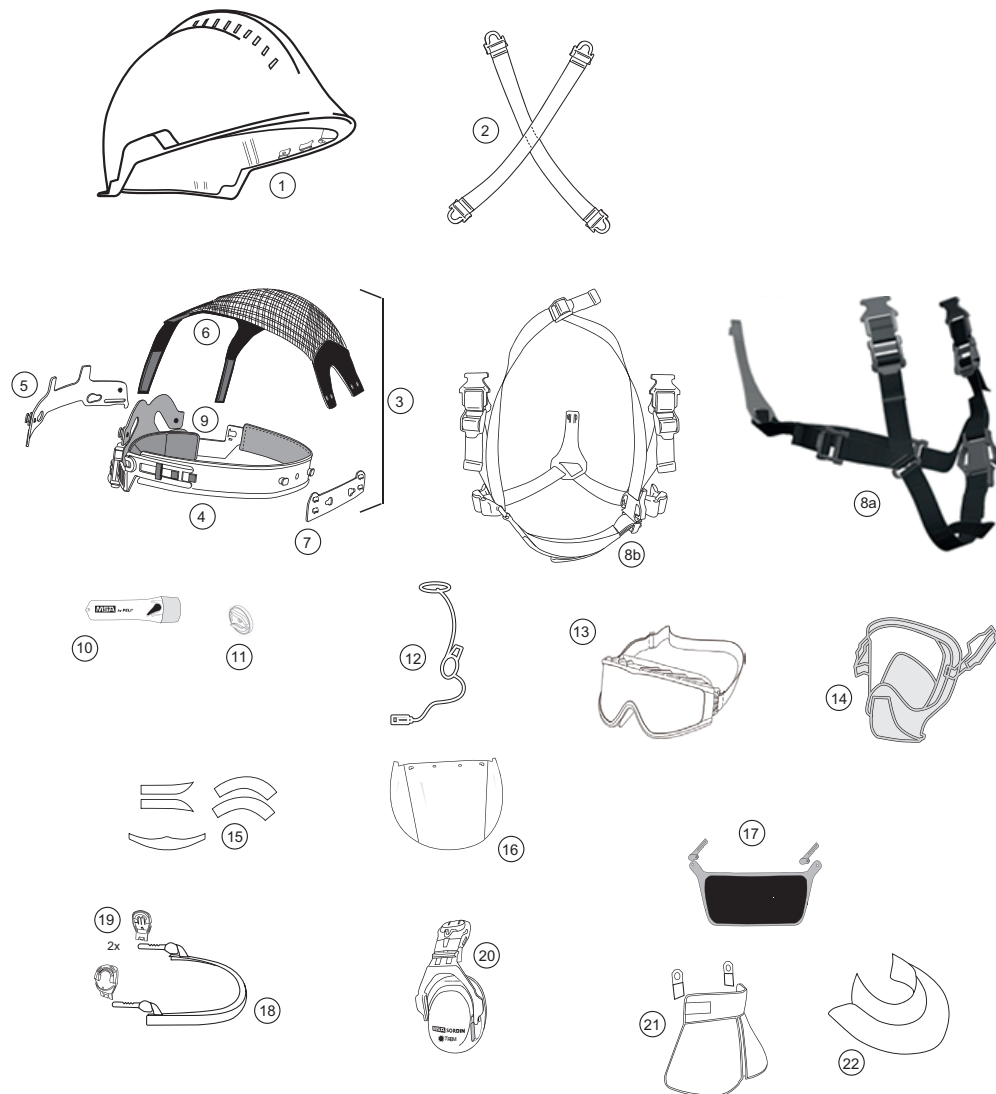


Order No. CH180A03-PQ110144/00



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| No                                | Part                                      | Part. No    |
|-----------------------------------|-------------------------------------------|-------------|
| 1                                 | F2 XTREM helmet shell with ventilation    | GA3220      |
|                                   | F2 XTREM helmet shell without ventilation | GA3221      |
| 2                                 | Suspension                                | GA3222      |
| 3                                 | Ratchet system                            | GA3223      |
| 4                                 | Ratchet headband                          | GA3224      |
| 5                                 | Ratchet interface                         | GA3227      |
| 6                                 | Ratchet net                               | GA1012F     |
| 7                                 | Front strap                               | GA3225      |
| 8a                                | Chin strap EN16471/16473                  | GA3250      |
| 8b                                | Chin strap EN12492                        | GA3226      |
| 9                                 | Neck pad (x5)                             | GA1014D     |
| <b>Accessories</b>                |                                           |             |
| 10                                | Lamp XP LED                               | GA1464      |
|                                   | Lamp XS                                   | GA1466      |
|                                   | Lamp XPS                                  | GA1488      |
|                                   | Lamp AS-R                                 | GA1481      |
| 11                                | Lamp holder F2X-TREM                      | GA1468      |
| 12                                | Communication systems                     | Contact MSA |
| <b>Optional protective device</b> |                                           |             |
| 13                                | RESPONDER goggle                          | GA1027B     |
| 14                                | Full face mask with F2 XTREM adapters     | Contact MSA |
| 15                                | Retro-reflective stickers                 | GA3230      |
| 16                                | Clear polycarbonate visor, 20 cm          | SOR60040    |
|                                   | Clear polycarbonate visor, 16 cm          | SOR60041    |
| 17                                | Nylon mesh visor for Forest Work          | SOR60065    |
| 18                                | Visor holder                              | SOR60020    |
| 19                                | Visor fastener (x2)                       | SOR60515    |
| 20                                | Passive ear muff, XTREM 31 dB             | SOR12015    |
| 21                                | Aluminised neck curtain                   | GA3234      |
| 22                                | Wool neckcurtain for F2 XTREM             | GA3240      |

For other languages see chapter 9 of the respective manual.

# 1 Safety Regulations

## 1.1 Correct Use

The F2 X-TREM helmet - hereafter called helmet - is a multi-purpose helmet and is suitable for different applications according to the following standards:

- EN 16471:2014 Helmets for wildland fire fighting
- EN 16473:2014 Helmets for technical rescue
- EN 12492:2012 Helmets for mountaineers



### WARNING

- The safety intended to be provided by the helmet can only be ensured when it is properly assembled and correctly fitted, removable parts must not be worn separately.
- The validity of the EC type-examination certificate might no longer be satisfied if a helmet marked as conforming to this European Standard is fitted with another item of personal protective equipment or with an accessory (other than as supplied by the helmet manufacturer for use with this helmet).
- This helmet conforms to the retention requirements of this European Standard when the chin strap supplied by the helmet manufacturer is worn and adjusted in accordance with these instructions.
- Helmet absorbs the energy of a blow by partial destruction of, or damage to, the helmet. Even though such damage may not be readily apparent, any helmet subjected to a severe impact should be replaced.
- Do not damage, modify or remove any of the original component parts of the helmet, other than recommended by MSA. Helmets should not be adapted for the purpose of fitting attachments in any way not recommended by MSA.
- This helmet is not suitable as a motorcycle helmet.
- This helmet is not intended to provide protection during structural fire fighting and fire entrapment.

It is imperative that this operating manual be read and observed when using the product. In particular, the safety instructions, as well as the information for the use and operation of the product, must be carefully read and observed. Furthermore, the national regulations applicable in the user's country must be taken into account for safe use.

Alternative use, or use outside this specification will be considered as non-compliance. This also applies especially to unauthorised alterations to the product and to commissioning work that has not been carried out by MSA or authorised persons.

### Wildland Fire Fighting

Protection of the upper head mainly against the effects of impact, penetration, heat, flame and burning embers while conducting fire fighting and associated activities (e.g. wood cutting) in wildland environments.

### Technical Rescue

Protection of the upper head mainly against the effects of mechanical hazards such as impact and penetration, flame, electrical and chemical hazards during operations such as but not limited to:

- Road traffic collisions, railway incidents (e.g. extrication)
- Working in and around collapsed structures
- Natural disasters (flood, earthquakes, etc.)
- Accidents with hazardous materials (e.g. use under a chemical protective suit)
- First aid/ambulance operations, law enforcement
- High angle rescue

1.2 Liability Information

MSA accepts no liability in cases where the product has been used inappropriately or not as intended. The selection and use of the product are the exclusive responsibility of the individual operator. Product liability claims, warranties also as guarantees made by MSA with respect to the product are voided, if it is not used, serviced or maintained in accordance with the instructions in this manual.

**DANGER**

Before use the product operability must be verified. The product must not be used if the function test is unsuccessful, it is damaged, a competent servicing/maintenance has not been made, genuine MSA spare parts have not been used.

2 Technical Data

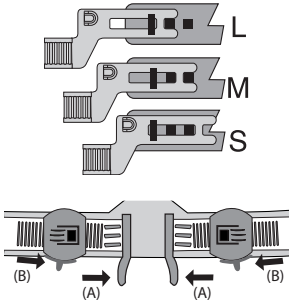
|                                               |                                                                                                                                                                                 |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Helmet size                                   | 52 cm to 64 cm                                                                                                                                                                  |
| Weight<br>(Helmet without options)            | 700 g (+/-50g)                                                                                                                                                                  |
| Accessories and additional protective devices | <div><div>- Reflective stickers</div><div>- Lamp holders (L &amp; R)</div><div>- Lamps</div><div>- Goggles RESPONDER</div></div> More Accessories and Options (see chapter 9).  |
| Warranty                                      |                                                                                                                                                                                 |
| - Helmet                                      | 2 years, parts and labour from the date of purchase                                                                                                                             |
| - Options                                     | 2 years, parts and labour from the date of purchase                                                                                                                             |
| Legal warranty                                | For defects and hidden defects according to the conditions stipulated in articles 1641 and pursuant to the Civil Code (in France).<br>Different national regulations may apply. |

GB

## 3 Adjusting the Helmet

For adequate protection this helmet has to fit or to be adjusted to the size of the user's head.

### 3.1 Ratchet

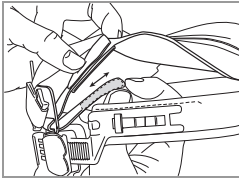


The headband covers 3 sizes: S, M, L.

Adjust the headband size:

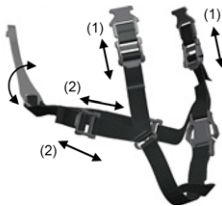
- (1) Set to matching head size..
- (2) Tighten (A) or loosen (B) headband for further adjustment.

- (3) Adjust the headband with the front snaps (2 positions, P1 and P2).

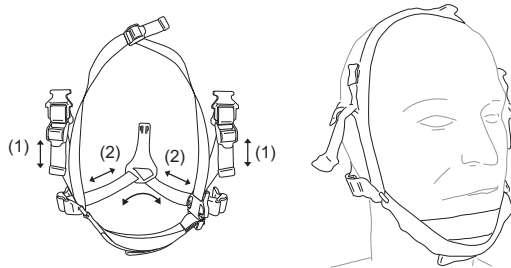


- (4) Adapt the helmet wearing height: Guide the two velcro fasteners of the ratchet net through the openings in the rear interface and adjust as shown.

### 3.2 Chin Strap



Chin strap EN16471/16473



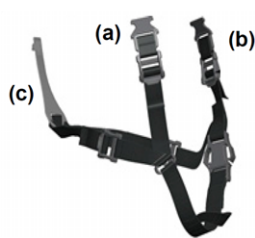
Chin strap EN12492

For optimum adjustment:

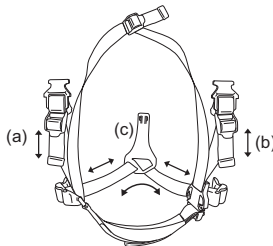
- Adjust left and right front straps (1) at the same time.
- Adjust left and right rear straps (2) at the same time.

4 Replacing Spare Parts

Chin Strap

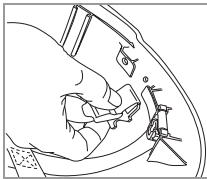


EN16471 / EN16473

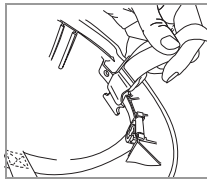


EN12492

(1) Remove the rear clamp (c).

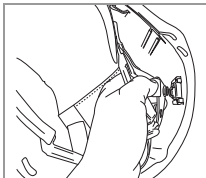
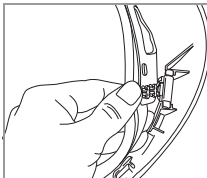


Ratchet Headband



(2) Remove the front points (a) and (b).

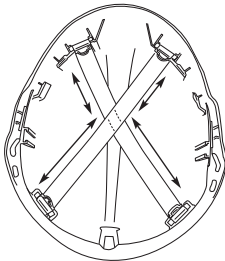
(3) Chin Strap EN12492: Release top strap.



■ Carefully remove the ratchet headband by undoing the front and rear snaps from their slots.

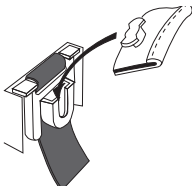
Suspension

Front



Rear

- (1) Remove the straps by releasing them from their fastening points.
- (2) Fit the suspension system into the four slots, the shortest straps go into the slots in the front.



(3) During re-assembly, fit the strap behind the bracket.

## 5 Goggles

### 5.1

#### Use

Safety goggles are used to protect the eyes against dust and projections.

- Don with both hands.

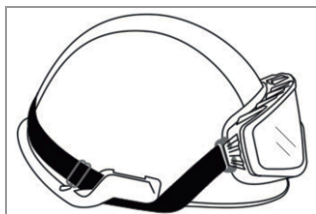
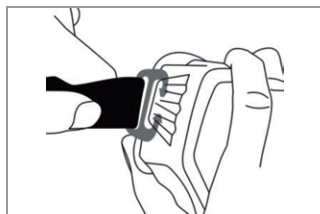
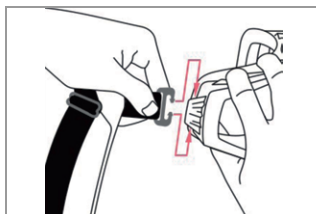
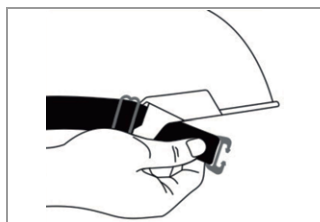


After use, store goggles inside the helmet, not on top of it.

### 5.2 Attaching the Goggles

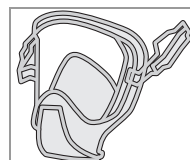
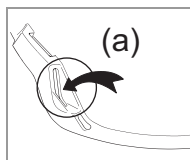
#### Protection Goggles, Model RESPONDER (GA3027B)

The elastic strap includes an adjustable buckle to adjust the pressure of the goggles on the wearer's face, to optimize comfort and protection.



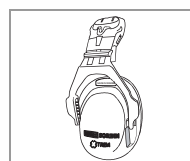
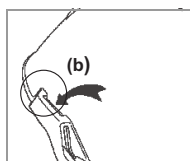
## 6 Use with Full Face Masks

The helmet has two holes (a) to accommodate the brackets of full face masks.



## 7 Use with Accessories

The helmet has two holes (a) to accommodate standard MSA visors and hearing protection.



8 Maintenance and Cleaning

For cleaning, maintenance or disinfection use only substances that have no adverse effect on the helmet and are not known to be likely to have any adverse effect upon the wearer, when applied in accordance with the manufacturer's instructions and informations.  
The length of the useable life of this helmet will be affected by the type(s) of material used in its construction and the environments in which the helmet is used and stored. Recommendations on this topic should be sought from the manufacturer.

**WARNING**

Do not apply paint, stickers, cleaning products with a hydrocarbon base or solvents to the helmet or visors to prevent damaging the materials of the helmet.



Do not drop the helmet.  
Prevent the helmet from impacts which could damage the shields (cracks/scratches).



The parts in contact with skin have to be inspected regularly for cracks or wear that could cause discomfort. Changing those parts regularly will maintain user comfort level.

- To maximize helmet lifetime:
- Store the helmet in a proper storage bag and/or in a closed cabinet to avoid extended exposure to cold, humidity, exhaust fumes, etc.
  - Clean the helmet (shell and internal components) after use before storing.

**Checks After Each Use**  
After each use, check every part of the helmet and especially all the fixing points:

- Correct anchor points used
- No evident wear
- No fractures or cracks

Check that the helmet fit is always correct.

Maintenance

**WARNING**

Replace any damaged parts only with original MSA parts, as only these original parts are authorized and ensure the performance of the helmet.  
Helmet absorbs the energy of a blow by partial destruction of, or damage to, the helmet. Even though such damage may not be readily apparent, any helmet subjected to a severe impact should be replaced.

8.1 Cleaning and Disinfection

Plastic Components and Inner Padding

- Use soapy water and a soft cloth. (Do not use detergent, solvent based products or abrasive materials).

Cleaning the Neck Curtains

Neck curtains made of Nomex, wool:

- Cleaning at 30°C with a gentle detergent



Aluminized neck curtain:

- Cleaning at 30°C with water, using a sponge.

8.2 Transport

Store the googles inside the helmet (out of use position), the helmet can be stored in a MSA protective bag (GA1043).

### 8.3 Discard

The helmet must be treated as ordinary industrial waste/non-hazardous waste according to local regulations. For further information contact MSA.

## 9 Spare Parts, Accessories and Options

| No                                | Part                                      | Part. No    |
|-----------------------------------|-------------------------------------------|-------------|
| 1                                 | F2 XTREM helmet shell with ventilation    | GA3220      |
|                                   | F2 XTREM helmet shell without ventilation | GA3221      |
| 2                                 | Suspension                                | GA3222      |
| 3                                 | Ratchet system                            | GA3223      |
| 4                                 | Ratchet headband                          | GA3224      |
| 5                                 | Ratchet interface                         | GA3227      |
| 6                                 | Ratchet net                               | GA1012F     |
| 7                                 | Front strap                               | GA3225      |
| 8a                                | Chin strap EN16471/16473                  | GA3250      |
| 8b                                | Chin strap EN12492                        | GA3226      |
| 9                                 | Neck pad (x5)                             | GA1014D     |
| <b>Accessories</b>                |                                           |             |
| 10                                | Lamp XP LED                               | GA1464      |
|                                   | Lamp XS                                   | GA1466      |
|                                   | Lamp XPS                                  | GA1488      |
|                                   | Lamp AS-R                                 | GA1481      |
| 11                                | Lamp holder F2X-TREM                      | GA1468      |
| 12                                | Communication systems                     | Contact MSA |
| <b>Optional protective device</b> |                                           |             |
| 13                                | RESPONDER goggle                          | GA1027B     |
| 14                                | Full face mask with F2 XTREM adapters     | Contact MSA |
| 15                                | Retro-reflective stickers                 | GA3230      |
| 16                                | Clear polycarbonate visor, 20 cm          | SOR60040    |
|                                   | Clear polycarbonate visor, 16 cm          | SOR60041    |
| 17                                | Nylon mesh visor for Forest Work          | SOR60065    |
| 18                                | Visor holder                              | SOR60020    |
| 19                                | Visor fastener (x2)                       | SOR60515    |
| 20                                | Passive ear muff, XTREM 31 dB             | SOR12015    |
| 21                                | Aluminised neck curtain                   | GA3234      |
| 22                                | Wool neckcurtain for F2 XTREM             | GA3240      |



For illustrations of parts see fold-out page.

For local MSA contacts, please visit us at ***MSAsafety.com***

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*Because every life has a **purpose...***