User Manual

Busch PROtective

AMP-1X

AMP -1 X

The AMP-1 X is a high-end ballistic helmet, made of durable aramid.

Ballistic helmets make up part of the personal protective equipment and are designed to prevent head injuries and mitigate serious head trauma. Please read these instructions carefully so no relevant safety aspects are missed.

The helmet system AMP-1 X is certified according to DEA / FBI ballistic helmet testing protocol dated 2019 / 2024.

Important Information

⚠ This helmet should only be used for the purpose intended, which is to provide head protection. Inappropriate use of the helmet such as (but not limited to) a use as a throwing object, hammer, spade, stool or football, can affect the properties of the helmet and in consequences reduce the level of intended protection.

The AMP-1 X in standard formats – Mid-Cut (MC) and High-Cut (HC) – are designed to offer optimal protection and should not be modified or equipped with foreign components. Additional drilling or any changes to the helmet shell and/or original accessories may affect the protective capabilities of the helmet and render it unfit for use and further negate the warranty.

Standard equipment

The AMP-1 TP X MC and AMP-1 X HC standard setup consists of the helmet's ballistic shell, hard form pad system EPP, a comfort pad system CPP, a harness strap (retention system), combined with a wheel-dial (retention system), a rail system CMR-1, as well as hook and loop fasteners that anchor the retention and rail system to the helmet.

The helmets standard weight is:
AMP-1 X MC 1.550 g – 3.4 lbs
AMP-1 X HC 1.480 g – 3.2 lbs

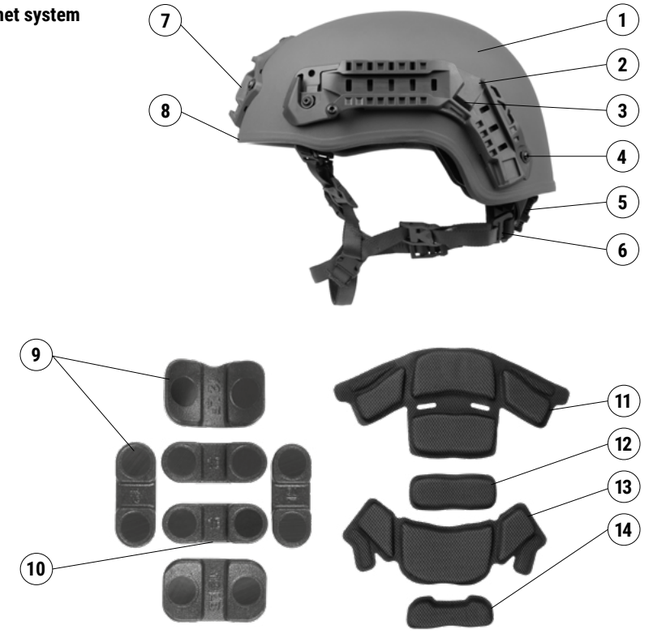
Optional accessories

The optional accessories for the AMP-1 X helmet series include:

- NVG interface for attachment of night vision devices or cameras
- Velcro loop patches – CAP-2 – for attaching the helmet cover or individual/unit insignia
- Helmet covers – CAC-1 and CAC-2 series – available in different colors and patterns.
- Ballistic visors – BAV-1 series – available in different cuts & protection classes.
- Non-ballistic visors – CAV-1 series – available in different cuts & protection classes
- Battery pouches/Counterweights – CAW-2
- Laser protection system – MEP-1

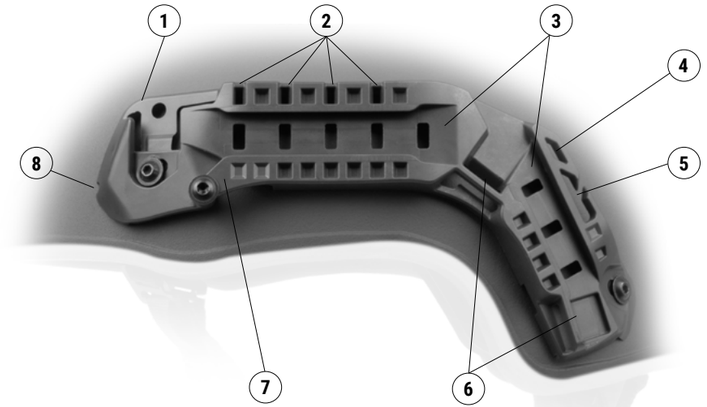
Other accessories are available on request.

Helmet system



1. Ballistic shell
2. Rail system
3. Attachment points for mandible / gas mask (rail-clips as option)
4. Attachment screws
5. Wheel-dial (retention system)
6. Harness (retention system)
7. NVG interface (optional)
8. Rubber edge
9. Hard foam EPP pads (12 mm)
10. Crown hard foam EPP pads (18 mm)
11. CPP-2 front comfort pad
12. CPP-2 crown comfort pad
13. CPP-2 rear comfort pad
14. CPP-2 wheel-dial comfort pad

CMR-1 rail system



1. Speed-Connect-System socket for fast and toolless attachment of visors (face-shield)
2. Attachment points/gaps for shock-cord (bungees)
3. Multifunctional rail
4. Attachment points/gaps for shock-cord (bungees) for the rear end
5. Open attachment point for accessories, e.g. counterweights, tactical goggles (sold separately)
6. Attachment points for mandible / gas mask (rail-clips as option)
7. Modular attachment point for protective accessories (sold separately)
8. Groove for NVG stability shock-cord (bungee)

Retention and suspension system

The interior of the AMP-1 X consists of the retention and suspension system. These are: (1) webbing harness strap (retention system), (2) adjustable wheel-dial (retention system) and (3) six double hard foam pads and (4) comfort protection pads (CPP) (suspension system), which collectively make for a comfortable and secure fit. These 4 system components can be individually adapted to the needs of the user.

Size and height adjustment

EPP pads (suspension system)

In its standard setup the AMP-1 X helmet`s inside is equipped with 12 mm hard foam pads in front, back and on sides and with 18 mm hard foam pads in the crown.

With this setup, the AMP-1 X fulfils the DIN EN 397 impact standards, therefore it is imperative that the 18mm pad in the crown (EPP) is in place within the helmet! If the EN 397 blunt impact protection is not required, the height can be adjusted.

The AMP-1 X has an innovative padding system which allows for height adjustment within the helmet. In the standard setting, the padding system in the crown of the helmet consists of 2 hard foam pads (18 mm EPP) and a comfort pad (CPP), mounted centrally, and enables the user to adjust the height by changing the hard foam pad (EPP). For height adjustment remove the two hard foam pads hidden below comfort pads and replace them with a 12 mm hard foam pads. The thickness of the hard foam pads (EPP) is marked on each pad with numbers 12 or 18.

The AMP-1 X helmet can also be individually adjusted on both sides. This can be done by removing the comfort pads (CPP), and then by exchanging the 12 mm hard foam pads (EPP) located underneath the comfort pads with the 18 mm equivalent. For head sizes below <52 cm the option of doubling or adding up hard foam pads (EPP in 12 mm or 18 mm) is available.

Size adjustment

CPP pads (suspension system)

The comfort pads CPP-2 come in thin, medium and fat version for individual preference & comfort. By swapping the CPP-2 comfort pads (accessory) the comfort of wearing can by increased, depending on individual needs. The comfort pads CPP-1 come in one size thickness only.

Points to note:

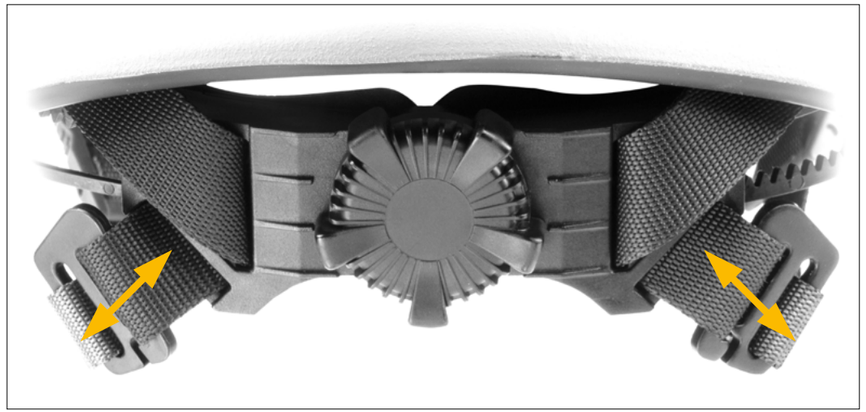
To further improve the comfort, the position of the pads can also be changed. By moving pads (EPP and CPP) higher, it makes it more comfortable to wear a helmet with peripheries such as respirators/gas masks. Additionally, when pads are raised slightly higher, it presents more space to accommodate the rubber seal of the respirator. This will ensure it is sealed correctly and doesn't have impact on the helmet edge.

Wheel-dial (retention system)

The circular wheel-dial knob located at the back of the helmet enables the user to further finely adjust the AMP-1 X helmet size. This feature, located at the back of the helmet towards the neck region, can be rotated using the finger and thumb. By rotating the knob clockwise, the circumference of the retention system of the helmet is decreased; by rotating it anti-clockwise the circumference of the retention system of the helmet is increased.
The wheel-dial of the AMP - 1 X provides for a firm and secure fit. To further improve comfort the wheel-dial housing seated around the neck/back of head, can be raised or lowered depending on individual preference. Two straps situated on either side of the wheel-dial housing can be slid up or down, which enable the wheel-dial housing to be seated either lower or higher at the back of the neck.

Points to note:

By rotating the wheel-dial and ensuring the helmet is tightly placed around the head, the helmet will provide for a firm fit and in consequence minimize tilting of the helmet when using accessories such as visors or NVGs.



Harness (retention system)

By adjusting harness in the correct manner the stability of the helmet will be further improved. The harness straps are strategically located to minimize tilting of the helmet (forwards/ backwards) and to optimize comfort of wearing and stability.

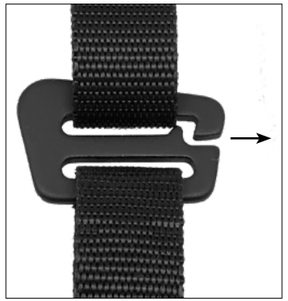
The harness of the AMP-1 X has 4 adjustment points which help to centralize the forces and balance the helmet. The harness chin strap, when ideally fitted, should be adjusted so that the chin-cup is centrally placed on the chin, with all four points of attachment being taught and firm, but equally comfortable. To easily adjust the harness chin straps, the four cam buckles can be opened and can be slid up or down. After adjusting the chin straps the fitting length the buckles can be closed.

Points to note:

The CRS-2 harness system can be detached from the helmet shell without the use of any tools. In order to detach the harness for exchange or cleaning purposes, please unhook the harness. Make sure when attaching the harness that all four hooks with the openings are facing the rear wheel-dial.

cam buckle open

cam buckle closed



facing wheel-dial

To replace the retention system:

If you need to remove the entire retention system for the purpose of decontamination or refurbishment, make sure you follow the steps below.

⚠ Frequent removal of this type can reduce the holding force between the retention system and the helmet shell. In this case, it may be advisable to replace the retention system.

1. carefully remove the four Velcro fasteners of the retention system from the helmet shell and ensure that the glued Velcro hooks are not pulled off the helmet shell.
2. ensure that the retention system is correctly aligned during installation. The hook and loop connections each have the same outer contours and must completely overlap.
3. jiggle the four Velcro connections firmly with a little pressure.

Rail system and NVG

To replace the damaged rail:

1. Loosen the screws with a suitable tool and remove the damaged rail.
2. To fit the new rail, place the rail on the side of the helmet so that the rail is flush with the helmet surface and the threaded inserts of the shell are visible through the slots in the rail.
3. Use medium-strength thread-locker to increase the strength of the screw connection.
4. For the front: Use the M5x8 screw (item no. 70000812) and the PTFE spacer D-2.0 mm (item no. 80000530). The spacer must be fitted between the rail and the helmet. Make sure that the rail sits flush and then tighten the screw lightly.
5. For the rear: Use the M5x6 screw (item no.: 70000811) with the PTFE spacer washer D-1.0 mm (item no. 80000529). The spacer must be fitted between the rail and the helmet. Make sure that the rail sits flush and then tighten the screw lightly.
5. Finally tighten all screws to 3.5 Nm.

To replace the damanged NVG:

1. Loosen the screws with a suitable tool and remove the damaged NVG shroud
2. To mount the new NVG shroud, place the shroud flush on the front helmet surface so that the threaded inserts of the shell are visible through the holes of the shroud.
3. Take the M5x6 screws (item no.: 70000811) and tighten all 3 screws lightly. Make sure that the shroud is flush with the helmet.
4. Use medium-strength threadlocker to increase the strength of the screw connection.
5. Finally tighten all screws to 3.5 Nm.

Points to note:

If you want to use the helmet without rails and NVG shroud (for example to reduce weight), make sure that the threaded inserts in the helmet shell are not loose.

Use without NVG or rail

1. Loosen all screws with a suitable tool and remove rails and shroud
2. Use the M5x6 screws (item no.: 70000811) and the PTFE spacer D-1.0 mm (item no. 80000529) for all threaded inserts.
3. Use medium-strength threadlocker to increase the strength of the screw connection.
4. Finally tighten all screws to 3.5 Nm.

Cleaning and Care

The helmet shell, removable comfort pads (CPP) and the retention system (wheel-dial and harness strap webbing) can be cleaned with lukewarm water and a mild soap detergent. The removable comfort pads (CPP) can be washed in a commercial washing machine in a wash bag at 40°C (104°F), without a spin wash. The interior of the helmet can be treated with disinfectant spray (e.g. Heliosept Medical Spray). After washing, the items should be carefully re-shaped and left to dry naturally so they can resume their original shape.

⚠ Please do not wipe the helmet down with any solvents or thinners or other similar materials.

Storage and Transport

The helmet should be kept in a dry and sheltered place. The storage temperature should be 20°C ± 15°C (68±59°F) and should not exceed or fall below these recommendations. During storage the helmets should be placed out of range of direct sunlight avoiding any prolonged UV exposure. While in use the maximum temperatures of the helmet should not exceed -51°C to 60°C (-60°F to 140°F).

Optimally the helmets are best stored in the helmet's bags supplied.

⚠ Do not store near aggressive substances such as solvents and fuels.

If the helmet is stored and packed with original packaging (cardboard container box) to prevent damage, it can be easily transported.

Maintenance checks

Periodical maintenance checks should be carried out on the shell (interior and exterior), and all accessories. If the helmet is exposed to an excessive force or other trauma, such as being struck by a very heavy object the helmet should not be worn. A damaged helmet should not be used.

If in doubt, please contact the company Busch PROtective Germany GmbH & Co. KG through your local agent.

Replacement of damaged accessories

For replacement of damaged equipment, such as rail system, the NVG-interface or harness there is no requirement for any special tools.

Spare Parts List

CRS-2 harness system with inner ring and wheel-dial, (EPP pads and CPP pads are not included)

CPP-1 comfort pads (includes six comfort pads (CPP-1) for a complete exchange)

CPP-2 comfort pads (thin, medium and fat version available) (includes four comfort pads for a complete exchange)

Spare EPP impact management pads (includes six EPP pads for a complete exchange)

NVG interface, includes torx head screws

CMR-1 rail system, includes torx head screws. Rail accessory attachment clips are optional.

CAP-1 Velcro patches (includes six adhesive rectangular patches)

CAP-2 Velcro patches (Includes ten adhesive patches)

TSB-1 and TPB-1 transport bag

CAC-1 helmet cover, (includes CAP-1 Velcro patch attachment points) CAC-2 Helmet cover.

CAH-2 helmet holder

CPA-1 communication headset apapters, compatible with Peltor®, Comtac®, and other similar models.

Should you require any spares/ accessories, please contact us.

Contact:

US
Busch PROtective USA, LLC
26895 Aliso Creek Road, B-604
Aliso Viejo, CA 92656
(949) 409-6007
inquiries@buschprousa.com

Telephone: +1 (714) 706-9344
www.busch-protective.com

Busch PROtective

US
Busch PROtective USA, LLC
26895 Aliso Creek Road, B-604
Aliso Viejo, CA 92656
(949) 409-6007
inquiries@buschprousa.com

www.busch-protective.com