

TQR02

User Manual

TQR02

Fast separation unit

Subject to technical changes

BRIEF DESCRIPTION

INTENDED USE

The fast separation unit TQR02 is part of personal protective equipment (PPE) of category III to prevent falls from heights.

The product is part of the personal fall prevention equipment and should be assigned to a specific person. Avoid alternating use by different people.

All other uses are deemed improper. The company BORNACK will not be liable for any ensuing damages. The user bears the sole risk.

EQUIPMENT

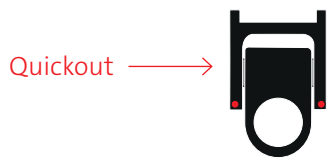
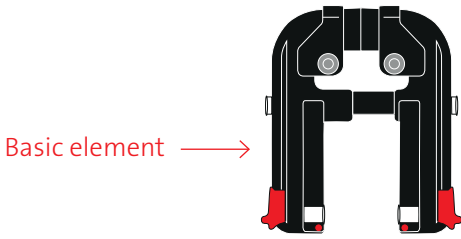
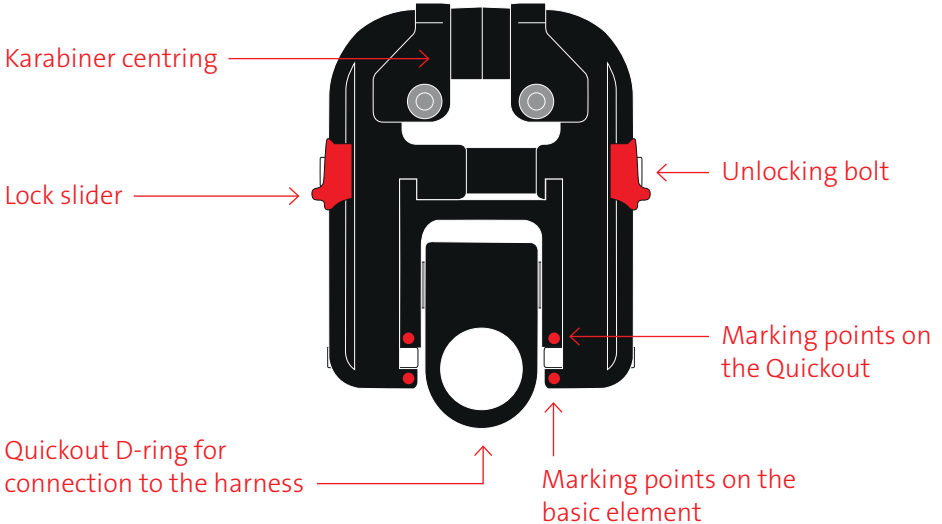
- TQR02 Basic element made of aluminium
- Fastener lock made of plastic
- Quickout made of stainless steel

INFORMATION

BORNACK recommends the use of connectors that can be secured to prevent them twisting.

USE

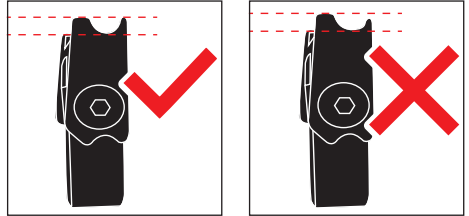
- Tactical intervention that requires fast separation from the abseiling device or anchor point. The fast separation unit allows the release of loads of up to 750 kg.
- It may only be used by trained persons of operational and fighting forces.



INFORMATION BEFORE USE

SIDE VIEW WEAR LEVEL

The wear level on the hollow fillets of the TQRo2 must be checked at regular intervals. The device must be withdrawn from use if heavily worn.



INFORMATION BEFORE USE



Always check every time before use!

- The personal protective equipment (PPE) may no longer be used in the case of even very minor faults.
- Faulty PPE components may only be tested or repaired by BORNACK or in a workshop authorised in writing by BORNACK.
- Regular inspections are essential because the safety of the user depends on the efficiency and durability of the PPE.
- The user must have completely read and understood the User Manual before use.

VISUAL INSPECTION

- Product identification legible.
- The last inspection by an expert was carried out within the past 12 months.
- No obvious damage or wear that could impact on the safe function.
- Inside surface of the basic element is free of dirt, foreign bodies, corrosion or similar.
- The screws of the TQRo2 are tightened.
- Plastic components are not aged or worn.

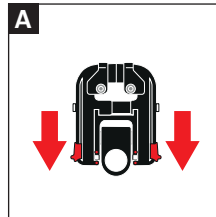
FUNCTION TEST

- Before and after it is used, the TQRo2 must be checked for damage; also, steps must be taken to ensure that it is serviceable and that it functions correctly.
- The unlocking bolts only release the Quickout, if the lock sliders are pushed down and both unlocking bolts are pressed.
- The lock sliders may not become loose on their own.
- When released, the unlocking bolts return to this locking position.
- When inserted, the Quickout D-ring moves freely.
- The secured and locked Quickout will not become released even under pressure.
- Once the Quickout is inserted, the unlocking bolts return to their initial position.

TQR02 IN USE

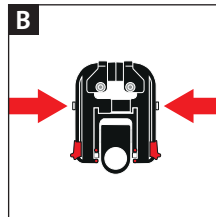
RELEASING THE SAFETY CATCH

A To release, the two lock sliders are pushed toward the Quickout D-ring to uncover the two unlocking bolts.



UNLOCKING

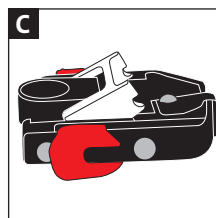
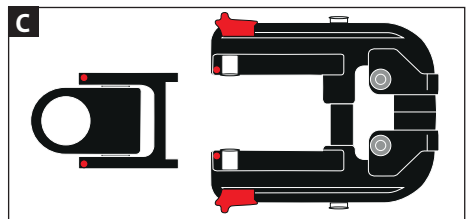
B Pressing both unlocking bolts at the same time releases the fastener mechanism of the Quickout. The Quickout can now be removed from the TQR02 basic element. When unlocking the Quickout when under load, ensure that there is enough space because the Quickout swings to the side or downwards.



ATTENTION:  Only abseil with the Quickout is inserted and secured.

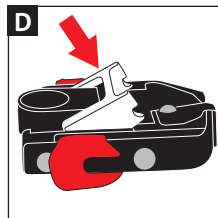
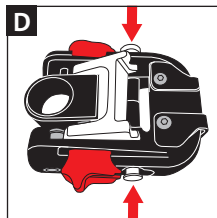
INSERTION OF THE QUICKOUT

C Insert the Quickout into the basic element from above so that the marking points of the Quickout and the basic element are opposite one another.



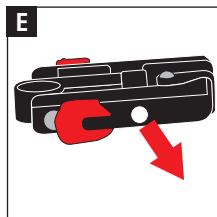
TQR02 IN USE


D After pressing the unlocking bolts at the same time, the Quickout can be inserted into the TQR02 basic element.

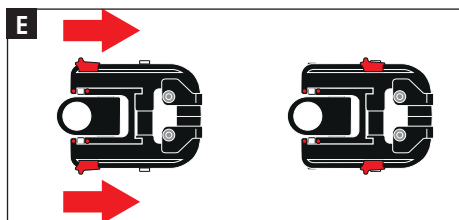


LOCKING AND SECURING THE QUICKOUT

E Once inserted, the two unlocking bolts need to return to their initial position automatically and completely, and the Quickout must lie evenly and completely in the basic element. Then the two lock sliders are pushed over the two unlocking bolts again.



CAUTION: RISK TO LIFE!  Never use the device without first checking that it functions, and locks safely.

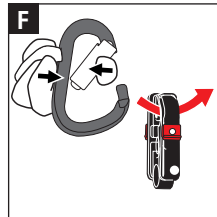


TQR02 IN USE

USE WITH AN ABSEILING DEVICE

BORNACK recommends the connectors are secured against twisting or use connectors with twistlocks to prevent transverse loads.

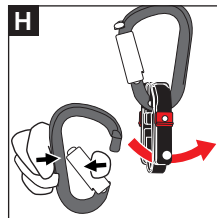
F Attach the connector acc. to EN 362 to the karabiner centring of the TQR02.



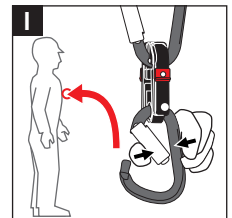
G Attach the TQR02 basic element to the D-ring of the abseiling system using the connector acc. to EN 362.



H Attach the connector acc. to EN 362 to the Quickout of the TQR02.





I Attach the Quickout D-ring of the TQR02 to the arresting D-ring/loop of the full body harness using the connector acc. to EN 362. Position the TQR02 so that the Quickout can be removed in the direction of the user.



Observe the User Manual of the abseiling device and the full body harness.



CAUTION: RISK TO LIFE! 
Using the lanyard with wide straps can reduce the strength of the lanyard.

CAUTION: RISK TO LIFE! 
The length of the lanyard needs to be taken into account when used in an arresting system because this impacts on the fall path.

TQR02 IN USE

USE AS AN EMERGENCY RELEASE SYSTEM ON AN ANCHOR POINT

During tactical abseiling manoeuvres, in particular on helicopters, operational considerations may make it necessary to discharge the abseiling ropes.

The fast separation unit is only connected to the helicopter using a connector acc. to EN 362 on a specifically designated anchor point on the aircraft. This is based on the respective flight operation manuals, operational procedures and the specifications of the helicopter manufacturer.

Steps should be taken to ensure that there is no tilting on the anchor point and that the connector lies unhindered in the karabiner centring of the fast separation unit.

CAUTION: RISK TO LIFE!



Anchor points must be adequately strong (observe 12 kN according to EN 795 and/or DGUV Regulation 112-198)!

CAUTION: RISK TO LIFE!



When selecting the attachment point, minimise the fall height and/or the free fall!

COMBINATION

When combining this product with other parts, there is a risk of mutual impairment with respect to the function and safety. Compatibility must be assessed during the risk analysis. Only combine with personal protective equipment that bears a CE symbol. If you have any questions about compatibility or you require help with the risk analyses, feel free to contact BORNACK.

SAFETY REGULATIONS

There is a risk to life if these safety instructions are not observed!

- The personal protective equipment (PPE) may no longer be used even in the case of very minor faults.
- Damaged, fall-stressed or dubious personal protective equipment or safety devices must be immediately withdrawn and not used. The equipment may only be inspected by an expert in compliance with DGUV (German Social Accident Insurance) principle 312-906, by BORNACK or by a workshop authorised in writing by BORNACK. This must be documented in the test card.
- Independent modifications or repairs are not allowed.
- Rope protection is part of the personal fall prevention equipment and should be assigned to a specific person.
- The personal protective equipment may only be used by qualified staff that are familiar with the material. They must be proficient in handling the personal protective equipment and must have been briefed about the possible risks associated with its use.
- In accordance with the accident prevention guidelines (UVV), the users of personal protective equipment against falls (Category III) must attend a theoretical training course and a practical training course. Make use of the training competence of the BORNACK training centres: info@bornack.de
- Clothing and shoes must be suitable for the task at hand and the weather conditions.
- Only use if fully fit and healthy.
- Health impairments can jeopardise the safety of the user when working at heights or depths.
- If this PPE is used as an arrester system (free fall is possible), only full body harnesses that comply with EN 361 may be used.
- Calculation of the possible fall path if all necessary PPE components are used correctly: (if necessary braking path HSG) + surplus lanyard (situation-dependent) + braking path energy absorber (max. 1.75 m) + height of D-ring (1.5 m) + safety reserve 1.0 m.
- Before use, ensure adequate clearance below the user to prevent impact on a protruding object or the ground.
- Protect personal protective equipment during storing, use and transportation against the effects of heat (e.g. welding flames or sparks, burning cigarettes) and chemicals (e.g. acids, alkalis, oils) and mechanical impact (e.g. sharp edges).

SAFETY REGULATIONS

- The combinability and protective effect of the PPE must be checked for each hazard situation (risk assessment).
- If a casualty hangs motionless in a full body harness for a longer time, blood cannot flow back from the legs and/or the flow may be interrupted. This can lead to a suspension trauma, a circulatory shock with serious to fatal consequences.
- Before starting work, the responsible person must draw up a plan of rescue measures that defines how to rescue casualties quickly and safely and ensures first aid measures. The rescue should be carried out as quickly as possible, longer suspension times (>20 min) can lead to medical problems. BORNACK can help you draw up tailor-made rescue concepts and includes these in the necessary training courses.
E-mail hotline: info@bornack.de
- The local safety guidelines (e.g. in Germany, the DGUV Regulations 112-198 and 112-199 issued by the professional associations) and the accident prevention guidelines for the specific industry (UVV) must be observed.

OTHER

APPROVAL:

Complies with the Regulation (EU) 2016/425 for PPE.

EU type testing (Module B) and production monitoring (Module C2) by:

TÜV SÜD Product Service GmbH
Ridlerstr. 65, D-80339 München
CE 0123

Quality management system certified to ISO 9001:2015.

Production monitoring by notified office in accordance with Category III.

REGULAR INSPECTIONS

This personal protective equipment must be inspected at least once a year by an expert in compliance with DGUV Principle 312-906. The result must be documented in the test card at the end of this User Manual.

SALES

The dealer must ensure that the User Manual is supplied in the language of the designated country. The respective translation must be authorised by BORNACK.

SERVICE

If you have any further questions about this PPE or other BORNACK services, such as:

- Risk analyses
- Rescue concepts
- Training courses
- Expert inspections
- Technical inspections
- Maintenance + inspections

please contact our e-mail hotline:
info@bornack.de
We will be happy to help!

OTHER

MAINTENANCE

- If necessary, apply a small amount of oil on the joints so that the moving parts of the karabiner and other devices run smoothly. Preferably, use an acid-free oil or a Teflon or silicone-based agent. Ensure that the oil does not come into contact with textile PPE components.
- Maintenance may only be carried out by a qualified expert in compliance with DGUV Principle 312-906. All instructions in this User Manual must be strictly observed.
- Protective equipment that is clean and well looked after will last longer!

CLEANING

- Dry damp personal protective equipment in the air, not on artificial heat sources. Dry metal components with cloths.
- Clean soiled textile components (e.g. arrester harnesses and ropes) with lukewarm water and a little detergent for delicates. Then rinse carefully and allow to dry in the air. Other cleaning agents are not allowed!
- Spray with an alcoholic disinfectant. Observe the usage instructions provided by the manufacturer.

- If the personal protective equipment comes into contact with salt-water, keep it wet until it can be rinsed with plenty of distilled water.
- Use compressed air to blow on the unit if necessary.

LIFE SPAN

The following recommendation applies for the use of the TQR02:

Maximum usage period after being used for the first time:

500x activation under load, as long as the device shows no signs or damage or malfunctions, and safe locking is guaranteed.

The red lock sliders of the TQR02 may lose their colour over time as a result of weathering, e.g. UV radiation. This is a normal process. The TQR02 must be withdrawn from use at the latest when the plastic is visibly porous and a significant loss of strength is recognisable. The expert makes a decision about these parts based on his technical expertise. Metal parts are not subject to age-related life span deadlines. The expert makes a decision based on his technical expertise and the latest version of the standard.

OTHER

For reasons of safety, intensive use and/or extreme application conditions such as sharp edges, chemical influences, UV radiation etc. will reduce the usage period. The company owner needs to take this into account in the workplace risk analysis.

The company owner must ensure compliance with the maximum usage period by documenting first-time use in the test card.

The test card at the end of this User Manual must be presented during the regular expert inspections and be completed by an expert.

For more details, please visit www.bornack.de.

REPAIRS

- For reasons of liability, repairs may only be carried out by BORNACK or in a workshop authorised in writing by BORNACK.
- Only original spare parts from the manufacturer may be used.

STORAGE

- Dry wet PPE **before** storage.
- Store in a dry place away from direct sunlight.
- Do not store PPE near radiators. Permanent exposure to temperatures below 0 °C or above +50 °C has a negative impact on the strength of the textile material and shortens the life span.
- Do not allow PPE to come into contact with aggressive substances (e.g. oils, grease, acids, chemicals). Precision mechanics oils may be applied to moving metallic parts during maintenance. Always ensure that textile PPE components do not come into contact with the oil.
- Do not store personal protective equipment close to aggressive substances (see above) because even the vapours of aggressive substances can have a negative effect on the strength of the PPE.
- Protected storage in the device case or device bag.

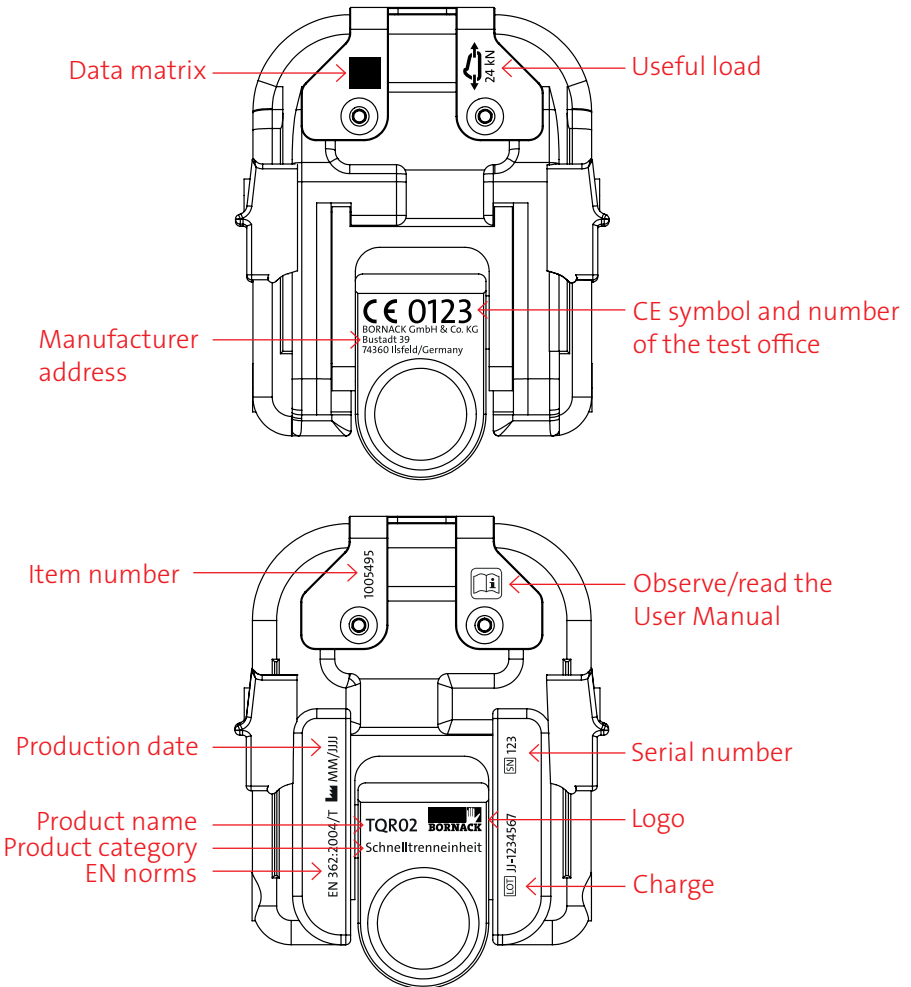
TRANSPORT

- Protected transport in the device case or device bag.

OTHER

PRODUCT IDENTIFICATION

The following identification is on the product:



TEST CARD

FOR ANNUAL MONITORING

The test list must be completed in full by the expert during the annual inspection.

This test list does not claim to cover all test criteria and does not relieve the expert from his decision about the overall condition.

Type product name: _____

Production date: _____

Charge: _____ Serial no.: _____

Purchase date: _____

Date of first Use: _____

Maximum life span until: _____

	Date	Signature	Next inspection	Reason for inspection
Year 1				
Year 2				
Year 3				
Year 4				
Year 5				
Year 6				
Year 7				
Year 8				
Year 9				
10th year				

TEST CARD

FOR ANNUAL MONITORING

Please complete: × √

Year	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Lock slider functional?										
No chemical soiling?										
Unlocking bolt functional?										
No deformation of metal parts?										
Condition of the springs/rivets/axles OK?										
No corrosion damage?										
Red marking points on the TQR02 basic element and on the Quickout in place?										

Continued on the next page

EU DECLARATION OF CONFORMITY



EU Declaration of Conformity

The manufacturer or his authorised representative established within the EU

BORNACK GmbH & Co. KG
Bustadt 39
74360 Ilsfeld
Germany

hereby declares that the following personal protective equipment

Connector
TQR02

- is in conformity with the relevant harmonisation legislation according to Annex V (Module B) of the Regulation (EU) 2016/425 on personal protective equipment according to Article 19 (category III PPE) and is examined to EN 362:2004
- is identical to the PPE that is the object of the EU type-examination certificate No. P5A 040506 0305 Rev. 00

issued by

TÜV SÜD Product Service GmbH
Zertifizierstelle
Ridlerstraße 65
80339 München
Germany
CE 0123

- is subject to the assessment of conformity to type, based on internal production control plus supervised product checks according to Module C2 of the Regulation (EU) 2016/425 for personal protective equipment (category III PPE), monitored by the notified body

TÜV SÜD Product Service GmbH
Zertifizierstelle
Ridlerstraße 65
80339 München
Germany
CE 0123

21 July 2021

BORNACK GmbH & Co. KG

A handwritten signature in blue ink, appearing to read "Ulrike Bornack".

Ulrike Bornack
Managing Director



FALLSTOP

Safety equipment for securing and rescuing at heights and depths

SAFEPOINT

Planning and assembly of stationary securing systems

BORNACK GmbH & Co. KG

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