



## USER INSTRUCTIONS

### Standard Product: D012

### Version without opening catch in front plate: D011

#### Description

Quadra is a descender device with variable friction, for use on kernmantel rope (Ø10 to 11.5mm) and can be used for:

- abseiling
- ascending
- lowering and hauling

Quadra has a double-braking mechanism when in normal friction configuration, meaning it will brake if the handle is either released or squeezed fully. Quadra can be used on a working line at any angle.

Quadra has been certified with a Maximum Rated load of 200kg, compliant with EN12841(C). It has a minimum rated load of 30kg.

Quadra has also been independently tested for a descent energy of 1.5x10<sup>6</sup>J, with 20 consecutive descents of 100m each, meeting the requirements of EN341(B):1993. Note: EN341 is outside of the scope of the CE mark.

#### Before Each Use

Check condition and operation of device. Refer to notes on reverse for more information.

Ensure that the handle, gate, bobbin and top plate are all free to move smoothly over their full range and that spring-loaded elements return fully.

Confirm braking and descending functions under operational load in a location where there is no fall risk.

#### Attachment

For descending or ascending, hold Quadra with handle on right hand side and connect to central waist attachment point of harness. For hauling or lowering attach Quadra to anchorage point. Always use a suitable locking connector.

#### Inserting Rope

Quadra may be opened without removing the connector. Open the gate and manipulate the connector through the opening, this allows the top plate to swivel anti-clockwise.

Lay the rope across the lower part of back plate, then underneath the top plate, then between the cam and block and then between the bobbin and bollard (fig.1).

- For reduced friction configuration, close Quadra by swivelling the top plate clockwise. The top plate will automatically lock onto the connector.
- For normal friction configuration, take in the slack, then bring the rope around the bobbin and insert in channel between the top plate and the handle bollard (fig.2).

#### Removing Rope

Release the rope from the channel between the top plate and the handle bollard. Open the top plate by either: D012. opening the gate and passing the connector through the opening as the top plate is swivelled anti-clockwise.

D011. removing the connector from the lower hole and swivelling the top plate.

Release the rope from the bobbin and from the cam, then pass under the top plate and over the back plate.

#### Locking-Off

If it is necessary for both hands to be free, it will not be possible to control the tail rope and so Quadra should be "locked-off". To do this pass a loop of the tail rope through the connector (fig.3) and then over the other end of Quadra device (fig.4), making sure the karabiner remains fastened.

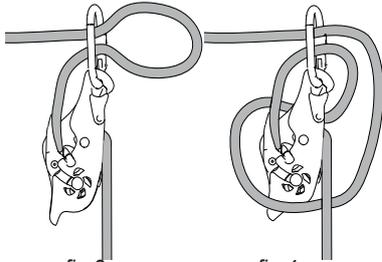


fig.3

fig.4

## Warnings

- Always use in conjunction with a suitable back-up system.
- Always maintain control of tail rope, unless Quadra is "locked-off".
- Always keep right hand on tail rope and in a low position close to hip, in order to keep rope in Normal Friction configuration when descending
- Always use a connector (EN362 Class B) with bar size between Ø10mm and Ø12.7mm.
- Do NOT use screwlinks (EN362 Class Q) with bar size less than Ø10mm
- Do NOT allow the handle movement to become obstructed, such as by fingers, clothing or other equipment.
- Always minimise slack in anchor line.
- Do NOT over-load or apply dynamic load as this may damage the rope.
- Always be aware of the device temperature rising during long/fast descents due to friction - this may damage the rope.
- Ensure a knot or other end termination is used at the bottom of the working line, to prevent descending off the end of the line.
- Ensure the rope does not run over any sharp edges or abrasive surfaces.
- Do NOT use outside of limits or for any purpose than described above.
- Do NOT use as part of a fall arrest system.

### Use as Rope Access Descender and Ascender

Quadra can be used either in normal or reduced friction configurations. It is possible to change from one configuration to the other while Quadra is under load.

**Normal Friction** - Quadra has a double-braking function and will brake if the handle is released or if it is squeezed fully. Quadra does not require additional friction from a second connector to hold higher loads (fig.6).



fig.6

**Reduced Friction** - Quadra is easily adjusted and can be used for: ascending, paying rope in and out or under partial load, such as when moving across a horizontal surface towards an edge prior to abseiling. Pass rope around back as shown. (fig.7). Caution: this will give a rapid descent if used when fully suspended.



fig.7

**To descend** - Quadra should be in normal friction configuration - gently squeeze the handle with left hand, while controlling the tail rope with right hand. When the handle is in a central position (the "sweet spot") the rope will pass through the device (fig.8). If the handle is squeezed too hard, or is released the device will brake.

**To descend with partial load** - Quadra should be in reduced friction configuration - gently squeeze handle with left hand, while maintaining firm and full control of tail rope with right hand. Increase pressure on handle until friction is reduced to required level. Extra care must be taken as secondary ("panic") brake is not enabled.



fig.8

**To ascend** - Quadra should be in reduced friction configuration - lift body weight by pulling on the anchor rope with left hand, while simultaneously pulling the tail rope up through Quadra with right hand (fig.9).

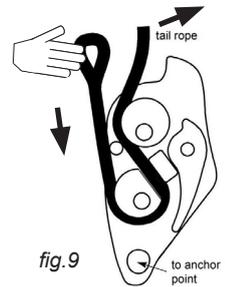


fig.9

#### Use for Lowering & Hauling

Quadra should be connected to a suitable anchorage. Operation of Quadra is similar to that described above, with the anchor rope becoming the load rope (attached to the load) and Quadra being inverted.

#### To pay out slack

Quadra should be in reduced friction configuration - gently squeeze the handle with one hand, while pulling the load rope out through Quadra with the other hand (fig.10).

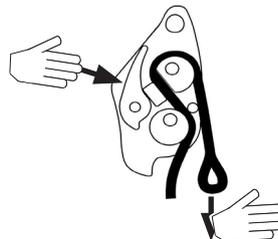


fig.10

#### To lower

Quadra should be in normal friction configuration - gently squeeze the handle with one hand, while controlling the tail rope with the other hand (fig.11).

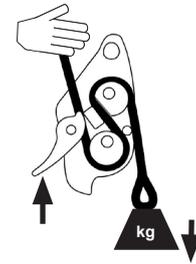


fig.11

#### To haul/take in slack

Quadra should be in reduced friction configuration - feed load rope into Quadra with one hand, while pulling tail rope out with other hand (fig.12).

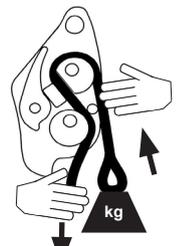


fig.12

