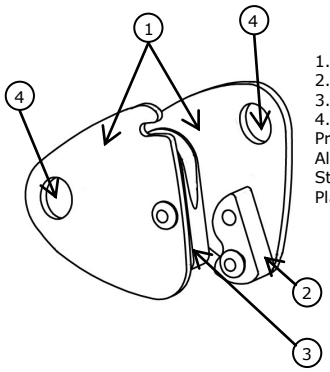
RED™
Rotational Braking Back-up Device
User Instruction Manual

I|S|C SOLUTIONS IN METAL



1. Side plates
2. Fixed cam
3. Cam
4. Attachment holes

Principal materials:
Aluminium (side plates, cams).
Stainless steel (side plates, rivets)
Plastic (popper) Polyester (cord)

RED—product name / brand.
I|S|C—manufacturer identification.
CE0120—Body controlling the manufacture of PPE

- Always read and follow the instructions supplied by the manufacturer.

EN12841—Personal fall protection equipment — Rope access systems—Rope adjustment devices. A—Safety line adjustment device. max 140kg
- EN1891, type A ropes Ø 10.5—11mm

YY/BBBBB/XX—Year of manufacture/ Production batch/Incremental number.

Own rope weight (not tensioned).

Suitable for 2 person load (240kg) in a rescue situation.

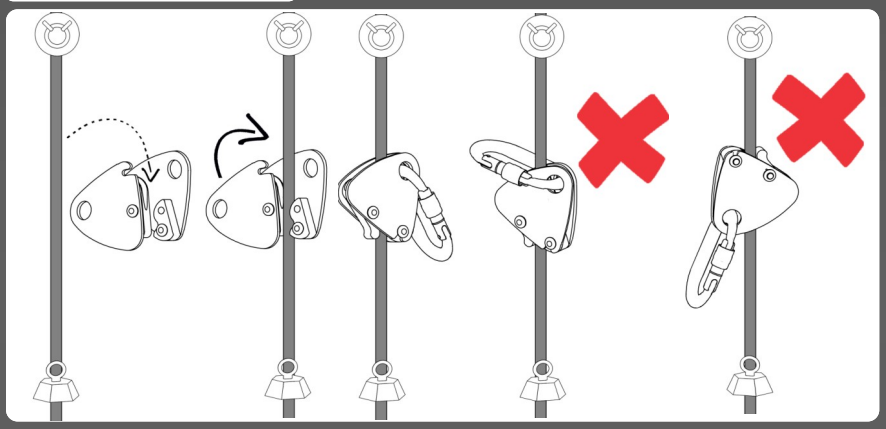
RP890—no towing option
RP891—fixed towing option
RP892—popper towing option

RP890—No tow cord

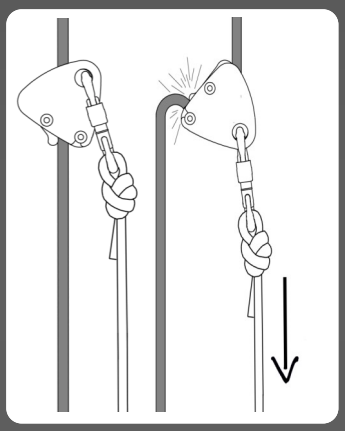
RP891—Fixed

RP892—Popper

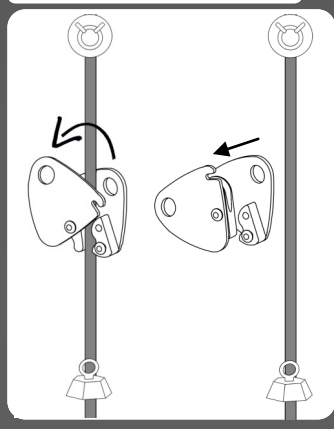
Installation— Fig 1



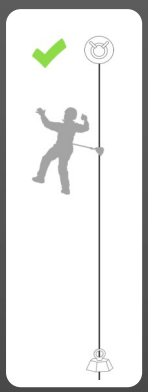
Operation— Fig 2

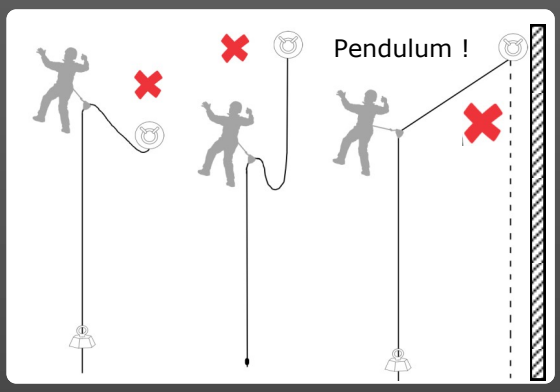


Removal— Fig 3

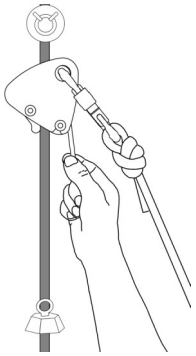


Clearance — Fig 4





Towing — Fig 5



RP891—Fixed

Ø 3mm cord

Tow unknotted cord between thumb and first finger.

RP892—Popper

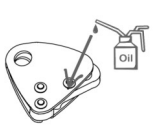
Ø 3mm cord

Tow unknotted cord between thumb and first finger.
Popper™ disengages at approx 3kg.

Cleaning

Max 40°C

Dry naturally



THIS DOCUMENTATION SHOULD BE ISSUED WITH AND KEPT FOR EACH ITEM OR SYSTEM .
DIESE UNTERLAGEN SOLLTEN MIT HERAUSGEGEBEN WERDEN UND FÜR JEDES EINZELTEIL ODER SYSTEM GEHALTEN WERDEN.
ESTA DOCUMENTACIÓN SE DEBE PUBLICAR CON Y GUARDAR PARA CADA ARTÍCULO O SISTEMA.
DEZE DOCUMENTATIE ZOU MET MOETEN UITGEBRACHT WORDEN EN ZOU VOOR ELK ONDERDEEL OF SYSTEEM - MOETEN BIJGEHOUDEN WORDEN.
CETTE DOCUMENTATION DOIT ÊTRE DÉLIVRÉE AVEC CHAQUE ÉLÉMENT OU SYSTÈME ET CONSERVÉE AVEC CELUI-CI

PERIODIC THROUGH EXAMINATION AND REPAIR RECORD

Date / Datum / Fecha / De datum / Date / Data	Inspection details / Detailinformationen zu Prüfungen / Detalles de inspección / Inspectiedetails / Détails de l'inspection / Dettagli ispezione	**Name and signature /** Nennen Sie und Unterschrift / Denomine y la firma / Noem en handtekening / Nom et signature / Nome e firma	**Next examination /** Nächste Untersuchung / Próximo examen / Het volgende onderzoek / Examen suivant / Prossimo esame

RED™ Rotational Braking Back-up Device.

General
ISC equipment and components for prevention of falls from height meet or exceed recognised European, American or other International standards. A multi-language user instruction manual should accompany this product. It is the users responsibility to read and understand these instructions before use.

WARNING - Activities involving the use of this equipment are inherently dangerous – this equipment should only be used by a competent person or a person specifically trained in its use who is under the direct supervision of a competent person.

Responsibility
It is the user's responsibility to ensure understanding of the correct safe use of this equipment, to use it only for the purposes for which it is designed, and to practise all proper safety procedures. It is mandatory that a Risk Assessment be carried out prior to any use and a rescue plan be in place for any work at height. Do not exceed loads either specified by the manufacturer or loads derived from the specified MBS using a recognised factor of safety. Do not under any circumstances modify the product as alterations may render it ineffective.

Compatibility
Always ensure that all components within a safety system are compatible and allow the system to function safely.

Use Inspection
Immediately before, during and after use make visual inspections of the product to ensure that it is in a serviceable condition and is operating correctly.

Use Requirements
It is recommended that the viability of any installation should be verified by a suitably qualified person. Extreme care should be taken when using this product near harmful chemicals, moving machinery, electrical hazards and near sharp edges and abrasive surfaces. Wet and icy conditions may cause the rope to become slippery.

Testing
All testing at ISC and the Notified body, has been carried out on Marlow 10.5 and 11mm LSK rope, using cows-tail made from 11mm Marlow dynamic rope, with suitable recognised knots at either end producing loops. One-man load 140kg, rescue load 240kg.

Max fall distances using Marlow LSK:

	10.5mm	11mm
One-man load	1600mm	1600mm
Rescue load	300mm	800mm

Please see our separate datasheet containing test results of varying fall distances.

Modifications, repair
There are no serviceable parts on the RED™ device except for the popper and tow cord. If required, repair or replacement of these items should only be carried out by the manufacturer or its recognised repair agent.

Figure 1 – Installation
1a -Installation on rope
Swing the front plate through 180°
Insert the rope, paying particular attention to the direction of the markings.
WARNING – RED™ is a directional device and locks in only one direction.
DO NOT INSTALL DEVICE UPSIDE DOWN.

1b - Installation on rope
Close front frame – reverse of opening.
Attach connector, approved to EN362:2004, through holes on front and back frame.
WARNING – Ensure device is closed and frames cannot be rotated with connector attached.

Figure 2 – Operational check
2a - Before each use, to verify the correct installation on the rope, a test must be carried out. Move the device up and down the rope. It must slide smoothly and easily. Ensure the device self-parks (stays in position when released).
2b – Test the locking on the rope by tugging sharply in the direction of a fall – ensure the device locks.
WARNING – RED™ is a directional device and locks in only one direction.
DO NOT INSTALL DEVICE UPSIDE DOWN.

Figure 3 – Removal
The removal of the device is the reverse of installation.

Figure 4 – Clearance
The strength of all anchors must be at least as great as that of the terminated ropes attached to them, and not less then 15kN (BS7985:2009). The anchor should be positioned above the user such that the free movement of the system and the fall path is unobstructed. Work as close to directly below the anchor point as is possible to avoid swing-fall injury (pendulum effect). When using 800mm cows-tail (including connectors) the clearance below the user's feet must be 4.6m to avoid collision with a structure or the ground in the event of a fall from height.

Figure 5 – Towing
The RED™ backup device can be used with a tow cord, a tow cord with detachable popper™ or without a tow cord. It is the responsibility of the user to carry out a risk assessment and determine which method of towing is best for their application. When using a fixed cord, it should be towed between index finger and thumb. When using the popper™ it should be towed between index and middle finger. It is important that the user does not descend out of reach of the RED™ backup device.
WARNING – Industry best practice dictates that the RED™ backup device shall never be lower than its attachment point or the main descending device, whichever is the higher.

Storage & Transportation
The product should be stored in a clean, dry environment away from exposure to UV, corrosive or chemical substances or extreme heat sources. Care should be taken to protect the product against damage during transportation.

Product Inspection & Maintenance
In addition to the visual inspections (see Inspection) a thorough examination should be carried out by a competent person in line with applicable legislation and the intensity and environment of use. ISC recommends a thorough examination at least every twelve months. The product should be immediately withdrawn from use and not used again until confirmed in writing by a competent person that it is safe to do so, should any doubt arise about its condition for safe use or, if it has been used to arrest a fall.
Extreme temperatures and the effects of chemicals, rust, cuts and abrasions could affect the performance of the equipment. Defective equipment shall be put beyond use to ensure it is not used as safety equipment.

Rescue
There are many ways in which a rescue can be carried out. A risk assessed rescue plan should be considered for each workplace and training environment. ISC would always recommend that where possible a rescue should be carried out using additional/new ropes installed for that purpose so that the integrity of the ropes used in the casualty's system do not have to be assessed since during a rescue scenario it is possible that a two-person dynamic load could be applied to the back-up rope. Only in the event of a rescue from below that utilises the casualty's existing lines and the casualty's backup line is loaded with a persons weight and where primary line failure might occur should the RED not be used as a back-up device since testing shows its performance to be inconsistent. Where additional/new lines are used to affect a rescue then the RED is the only device proven to be suitable to protect a rescuer/casualty combination of up to 240kg.

Cleaning
The product must be cleaned regularly (or after every use in a marine environment) with a mild detergent. Afterwards the product should be rinsed in clean water and allowed to dry naturally. Alternatively an air gun can be used to clear debris from device. Moving parts may be oiled regularly with a light oil such as 3-in-1. A small drop may be applied to the spring hole on the side frame. Remove all excess oil from the device, with a soft rag/cloth, before use .

Manufacturers' responsibility
The manufacturer or distributor will not be held responsible for any eventual damages, injuries or death resulting from an improper use of this equipment. If there is any doubt about the compatibility of the products you have chosen please consult the manufacturer

Approvals - Declaration of Conformity
The RED™ backup device has been tested and approved by SATRA, notified body number CE0321, in accordance with EN12841:2006 with a maximum rated load of 140kg and is subject to the procedures set out in Article 11b of Directive 89/686/EEC under the supervision of SGS UK Ltd., Unit 202b, Worle Parkway, Weston-super-mare. BS22 6WA., notified body number 0120.

Towcord Attachment Instructions

Please read these instructions fully before starting any work.
These instructions should only be carried out by a fully qualified and competent person.

Karabiner Retaining Cord Integrated with Popper Towing Cord

The RED™ backup device is now available with an integrated loop for retaining a karabiner. This loop is present to eliminate the possibility of the device being dropped whilst attaching and detaching the backup device to/from your ropes.

The karabiner should be placed through the loop of the towcord, prior to the karabiner being passed through the connection point of the backup device.

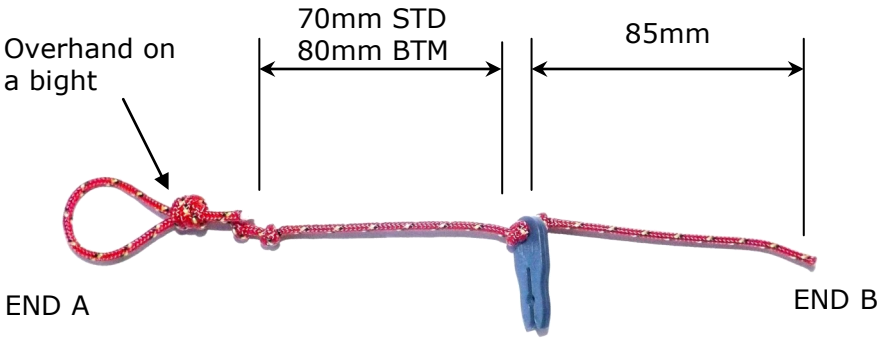
It is important that the tow cord attached to the karabiner is not impeding the function of the popper—this should be included as a pre-use check.

IMPORTANT—The loop MUST NOT be used for towing the device.

The popper is sold as a serviceable item and in the event of either the popper or towcord needing to be replaced, it is acceptable for a competent person to replace this item. In order to assist this process, we have included some brief notes on how to carry out this work.

1. Cut a length of 3mm accessory cord—see below for overall lengths.
2. Attach the popper in line with the dimensioned drawing below, tying overhand knots.
3. Feed END A through the hole in the frame and tie an overhand knot.
4. Finally tie an 'overhand on a bight' knot to produce a suitable loop for your karabiner.

IMPORTANT—THIS LOOP MUST ONLY BE USED FOR KARABINER ATTACHMENT



Standard/Upper popper position:
STD—overall length 570mm.

Bottom/Lower popper position:
BTM—overall length 580mm.

ISC is a responsible design, development and manufacturing organisation. We welcome feedback regarding these user instructions or indeed on our product range as a whole. For further details please see our website www.iscwales.com