

Line operations equipment – technical information

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1 Introduction

- 1.1 This policy provides information relating to the equipment contained within the various rope packs. (Safe working at height rope pack, water rescue rope pack and station training kit).
- 1.2 The rope packs provide safe systems of work for:
 - Fall arrest
 - Work positioning/restraint
 - Lowering/raising of a person
 - Water rescue

2 Description

- 2.1 The various pieces of equipment contained within the rope packs are described below. An inventory of the number of each of the items contained in each pack is shown in Appendix 1.

3 Phoenix firefighter safety harness

- 3.1 The Phoenix firefighter safety harness is a one size fits all, fall arrest harness that can be used for all work at height.
- 3.2 Carried on all Rescue and Skills FRU's, and all aerial appliances.
- 3.3 It is simple to put on and take off and is ergonomically designed to be worn over fire gear and whilst wearing breathing apparatus.
- 3.4 The harness has two attachment points, one front and one back.
- 3.5 Conforms to EN361 and EN1497.
- 3.6 POMS numbers: HLR004 (Harness, Phoenix SWH).



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Installation, fitting or wearing

- 3.7 **Donning:**
 - Pick up the harness by the shoulder straps.
 - Hold it behind you and climb into the leg loops.
 - Pull the jacket up over the shoulders and make it comfortable.
 - Connect the front screw link fastener through the front eyes of the harness and screw fully shut by hand.
 - Adjust the shoulder straps by pulling down on the slack webbing to position the front attachment at the sternum position.
 - Adjust the leg loops straps to be a close fit.
- 3.8 **Doffing:**
 - This is a reverse of the above procedure.
 - Ensure that all straps are left fully loosened.
 - Ensure the harness screw link is loosely closed to prevent it falling off.

Methods of use (practical requirements)

- 3.9 Do not use the rear attachment point for suspension of more than 20 minutes.
- 3.10 Do not connect into anything other than the two main attachment points.
- 3.11 Ensure webbing straps are adjusted correctly and not twisted.

4 Matrix harness

- 4.1 The Matrix rescue work harness can be used for all working at height positioning, suspension and fall arrest.
- 4.2 It is simple to put on and take off and is ergonomically designed to be worn over fire gear and whilst wearing breathing apparatus.
- 4.3 The harness has five attachment points, front, side and rear.
- 4.4 Conforms to EN361, EN358, EN813.
- 4.5 POMS number: HLR005 (Harness, Matrix SWH).



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Installation, fitting or wearing

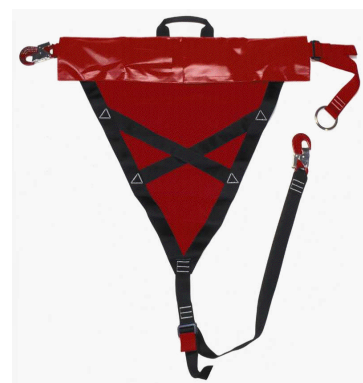
- 4.6 Donning
 - Open the harness ensuring that all adjustments have been extended and climb into the leg loops.
 - Adjust the waist straps to be a close fit.
 - Pull shoulder straps over the head and connect the front screw link fastener to the red nylon eye of the harness and screw fully shut by hand. Ensure that the connection is made behind the central connection ring.
 - Adjust the shoulder straps by pulling up on the slack webbing to place the front attachment at the sternum position.
 - Adjust the leg loops straps to be a close fit and ensure all slack webbing is tucked away.
- 4.7 Doffing
 - This is a reverse of the above procedure ensuring that all straps are left fully loosened.

Methods of use (practical requirements)

- 4.8 Do not use the side attachment points for fall arrest.
- 4.9 Ensure webbing straps are adjusted correctly and not twisted.

5 Casualty harness (X-It sling)

- 5.1 Triangular shaped harness with integral support straps designed to give support under the arms and under the thighs.
- 5.2 This style of harness is simple to fit to a casualty in distress as it wraps around them rather than having to be "stepped into".



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- 5.3 Designed to be passed around the casualty's chest, for an underarm lift or to make safe, then triangle seat section is used to give better support.
- 5.4 Conforms to EN1498.
- 5.5 POMS number: HLR029 (Casualty Harness X-lt Sling SWH).

Installation, fitting or wearing

- 5.6 Ensure the harness is the correct way up (see diagram above).
- 5.7 Fit around the casualty's chest, clip safety hook into front ring, adjust chest belt buckle to remove slack.
- 5.8 Pull on lower strap to unfold harness.
- 5.9 Pass the long lower strap between the legs and clip into the front ring and adjust.
- 5.10 Make sure all connectors are correctly fastened.
- 5.11 Where appropriate, ensure casualty keeps hands clear of all fittings.
- 5.12 Connect rope to harness using the front ring.

Methods of use (practical requirements)

- 5.13 The handle on the rear is to assist in manual handling and is not a load bearing attachment.
- 5.14 Always ensure suspension system is taut – do not allow slack to develop in the rope.
- 5.15 All safety hooks connect into central suspension ring.

Note – This harness is to be used only for the lowering or lifting of a casualty under suspension. It must never be used in a situation where a fall may occur.

6 Lanyard

- 6.1 The Lanyard is a means of attaching the harness to a secure anchorage point and can be used either for work restraint or for fall arrest. Gate closure system requires two independent actions to open.
- 6.2 The length is such that it will ensure minimal fall distance whilst still allowing work to be carried out around the anchor point.
- 6.3 Should a fall occur the lanyard has a shock absorbing system built into it that will reduce the impact force on the body of the person to whom it is attached. To achieve this reduction in the shock load, the lanyard will extend in length. This will have the effect of leaving the fallen person further way from the anchor than the original length of the lanyard.
- 6.4 At one end of the twin lanyard is a karabiner, and a large scaffold hook at the end of each of the two legs.
- 6.5 Energy absorbing element ensures force experienced by the user in the event of a fall is below 600kg.
- 6.6 Conforms to EN355, EN354.



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6.7 POMS number: HLR011(Lanyard & hook, SWH).

Installation, fitting or wearing

6.8 Attach lanyard to front ring of harness using the attached karabiner.

6.9 Ensure that the connection is fully closed.

Methods of use (practical requirements)

6.10 If connecting around large anchorage points ensure the large scaffold hook is clipped back into the large eye, or ring, at the farthest end of the energy absorbing element from the harness. Clipping back onto the lanyard or the harness itself may damage the gate or prevent the energy absorbing element from deploying.

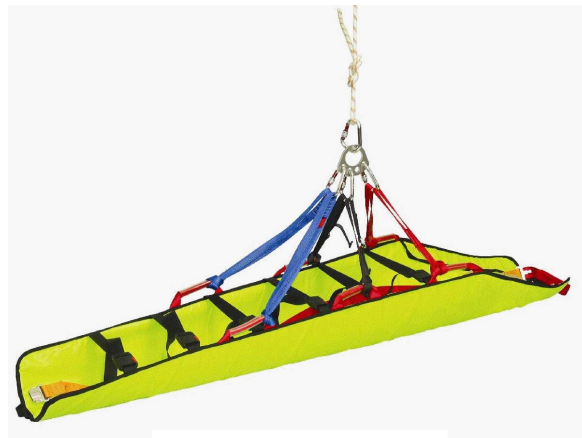
6.11 Avoid climbing above the point of attachment and do not allow the lanyard to be positioned over sharp edges.

6.12 Ensure clearance is sufficient in the event of a fall to avoid a possible collision with the structure.

6.13 When using lanyards avoid twisting the legs together when moving from one anchor point to another.

Note - It is risk critical when using twin lanyards to ensure that the unused hook is not clipped back to the harness as it could prevent proper deployment of the energy absorber in the event of a fall.

7 Chrysalis stretcher



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7.1 The Chrysalis stretcher is designed for rescue from a range of confined, exposed or high locations.

7.2 Designed for lifting in either a horizontal or vertical lifting position.

7.3 Manufactured from durable materials. The base is constructed from a tough, pliable sheet which when wrapped around a patient, gives a rigid spine to the stretcher.

7.4 The outer cover is PVC coated nylon to a degree is resistant to abrasion and tearing whilst being used.

- 7.5 The stretcher webbing straps are colour coded for ease of use: Lifting/load bearing straps are Red. Fastening/restraint straps are Black. Harness closing straps are Yellow.
- 7.6 Length: 2m unrolled, 75cm rolled.
Weight: 8.2kg. Maximum load: 125kg.
- 7.7 Supplied with a set of black lifting slings for horizontal lifting. Each black sling has a label attached that denotes its intended position; feet end, middle, head end.
- 7.8 If the stretcher or any of the straps become defective, the stretcher and all slings are to be sent back as a complete unit to Technical Rescue & Hose Workshop.
- 7.9 Conforms to EN361.
- 7.10 POMS number: HLR001 (Stretcher, Chrysalis SWH).

Installation, fitting or wearing

- 7.11 Before placing the patient on the stretcher, release all the buckles and lay the tapes out flat.
- 7.12 The casualty should be placed in the stretcher with the shoulders approximately level with the uppermost red carry loops.
- 7.13 The internal body harness is used to secure the casualty initially, with the harness straps passing between the legs to the chest area to connect to the shoulder straps.
- 7.14 The stretcher is fitted with a foot loop for securing the casualty's feet if no leg injuries are suspected.
- 7.15 The stretcher is also fitted with a headband which may be utilised if conditions allow.
- 7.16 The casualty is finally secured using the black cross-over straps. These are gently tightened to pull the sides of the stretcher up around the patient making them more secure.

Methods of use (practical requirements)

- 7.17 The stretcher may only be lifted by the red carry handles at the edge of the stretcher, with another at the head end solely for dragging through confined spaces.
- 7.18 The 6 carry handles are also used to connect the lifting slings for a horizontal lift.
- 7.19 Vertical lifts are achieved by securing the lifting rope directly to the red handle above the head. A safety rope may also be fastened to this point for extra security.
- 7.20 A control rope may be attached at the foot end of the stretcher to assist with the haul.
- 7.21 **Note: If neck or back injuries are suspected, medical immobilisers will be required.**

8 50m and 15m Kernmantle 10.5mm low stretch rope

- 8.1 Kernmantle nylon rope has a core of parallel or braided strands (the core or kern) surrounded by a tightly woven sheath (mantel).
- 8.2 The rope is flexible, easy to knot, strong for its diameter and hard wearing. The tightly woven sheath protects the core from UV light, cutting, dirt and abrasion.
- 8.3 The term low stretch means that it can absorb a small shock load by extending a small amount.
- 8.4 Each rope supplied with Rope Pack is 50 metres in length, 10.5mm in diameter.

- 8.5 Minimum breaking load (MBL): 32kN unknotted; 22kN sewn. 18kN knotted.
- 8.6 Each rope is individually numbered for identification and recording purposes.
- 8.7 Conforms to EN1891(A).
- 8.8 POMS numbers:
 - 50m Red HLR013 (Rope, red 50m, SWH)
 - 50m White HLR020 (Rope, white 50m Kernmantle, SWH)
 - 15m Rigging Line HLR015 (Rigging line, 15m, SWH)



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Installation, fitting or wearing

- 8.9 The sewn termination of the rope should be attached to a harness using a karabiner.



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Methods of use (practical requirements)

- 8.10 The handle on the rear of the rope bag is to assist in manual handling and is not a load bearing attachment.
- 8.11 Avoid wear or abrasion over edges or sharp projectiles, cover edges.
- 8.12 Avoid gritty or degrading environments, e.g. chemicals, heat etc.
- 8.13 Do not stand on ropes.
- 8.14 The rope is stowed loosely flaked into the rope pack bag to permit easy and quick deployment.
- 8.15 Do not restow the rope when wet. Stowing away when wet causes the rope to expand in diameter when not being used, thus causing issues when using the rope in conjunction with the Quadra device. Do not force dry; allow to dry naturally.

9 Tag line and bag

- 9.1 50m line complete with bag.
- 9.2 7mm diameter.
- 9.3 Min breaking strength 1300kg (13 kN)
- 9.4 Conforms to EN564.
- 9.5 POMS number: HLR019 (Tag line (SWH))



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Installation, fitting or wearing

- 9.6 Attach to casualty harness or stretcher using a figure 8 knot and karabiner.

Methods of use (practical requirements)

- 9.7 Line passes through eye in bag to prevent loss and assist use as a 'throw line'.

- 9.8 When attached to a casualty harness/stretcher, the line can be used to pull casualty clear of obstacles when lowering.

10 Quadra multi function rope device

- 10.1 The Quadra is a rope control device of stainless steel construction.
- 10.2 It has a maximum load of 200kg (two persons).
- 10.3 Correctly used with suitable associated equipment, it will allow the following objectives to be safely achieved:
- Safely control the lowering of a load – **lowering mode**.
 - Act as a safety device in a raising system – **raising mode**.
 - Act to arrest the fall of a load (lifeline) – **safety mode**.
 - Act to prevent a person from reaching an exposed edge (Work positioning) – **locked off mode**.
- 10.4 Conforms to EN12841.
- 10.5 POMS number: HLR012 (Quadra, SWH).



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Installation, fitting or wearing

- 10.6 For life-lining or raising, install rope according to top diagram.
- 10.7 For lowering, pass rope around top cam and swivel handle open, with flattened face aligned with path of rope. Pull rope into groove between handle and brake block then allow handle to rotate shut. Flange of handle will maintain rope in secure position.
- 10.8 The Quadra is stowed on the rope with a karabiner attached.

Methods of use (practical requirements)

- 10.9 Always control the tail rope into the device during any rope operation.
- 10.10 Lock the system off when lowering or raising operations have ceased by passing loop of the tail rope through the karabiner and over the body of the device.

Note - Do not open the handle when loaded device is in lifeline mode – this will cause the load to be released.

11 Rope ascender

- 11.1 A hauling/ascending device of stainless steel construction for corrosion resistance, durability and reduced spark hazard.
- 11.2 For use with 10.5mm rope as part of a pulley system or to provide grip on a rope at any point.
- 11.3 It allows a pulley to be attached anywhere along a loaded rope to create a 3:1 hauling system in conjunction with the rope control device.



- 11.4 The ascender has a maximum load of 450kg.
- 11.5 The "barbs" on the cams are to assist initial purchase on the rope rather than support the load.
- 11.6 Conforms to EN567.
- 11.7 POMS number: HLR009 (Ascender SWH).

Installation, fitting or wearing

- 11.8 The ascender is attached to a rope by releasing the safety catch and placing the ascender on the rope in the direction required. The safety catch is then released allowing the cam to grip the rope.
- 11.9 This will allow the ascender to grip the rope, loading in one direction but able to slide along the rope in the other direction.
- 11.10 A karabiner and pulley can be attached into the lower hole on the ascender in line with the direction of pull to create a mechanical advantage.

Methods of use (practical requirements)

- 11.11 The ascender should not be used where a sudden shock load might occur.
- 11.12 Do not allow body of ascender to become bent over an edge.
- 11.13 Not intended for dynamic loading.

12 Rescue pulley

- 12.1 The pulleys in the rope pack are designed to act as rolling surfaces over which a rope can pass.
- 12.2 Pulleys will reduce the friction when changing the direction in which a rope is working and act to maximise mechanical advantage within raising systems.
- 12.3 The pulleys are constructed with stainless steel side plates and a wheel made from graphite-impregnated nylon.
- 12.4 Moving side plates for easy installation of rope and large attachment eye for multiple connectors.
- 12.5 The pulleys have a maximum safe working load of 300kg.
- 12.6 Conforms to EN12278.
- 12.7 POMS number: HLR014 (Pulley, 5cm, SWH).



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Installation, fitting or wearing

- 12.8 Swivel open side plates to insert rope, align plates and insert a karabiner through attachment eye.
- 12.9 Attachment point will accept up to three connectors.

Methods of use (practical requirements)

- 12.10 Do not allow body to become bent over an edge.
- 12.11 Note that the anchor point will be subjected to a higher load than is being lifted by the pulley.

Note - only for use with textile ropes not steel cable.

13 Casualty pulley system

- 13.1 Consists of a length of 5mm nylon cord with two multi-sheave pulleys.
- 13.2 Enables one person to easily lift the weight of a casualty in order to free them from their system.
- 13.3 Nylon cord can be locked off by passing between two rubber cams. This enables the rescuer to use both hands to deal with the casualty.



LFB image id: 567707

Methods of use (practical requirements)

- 13.4 Not to be used as the sole means of suspension for a casualty. Before releasing a casualty from their system, they must be attached to an alternative system.
- 13.5 When using, avoid introducing excess slack into the system, which would result in shock loading if the casualty pulley were to fail.
- 13.6 Working load of one person.
- 13.7 POMS number: HLR030 (Casualty Pulley System SWH).

14 Rigging plate

- 14.1 Forged aluminium.
- 14.2 Safe Working Load (SWL): 550kg
- 14.3 Used to simplify rigging systems.
- 14.4 May be used in water rescue scenarios, such as manoeuvring a boat across a river using a tensioned line.
- 14.5 Used in conjunction with Chrysalis stretcher and any other appropriate stretchers.
- 14.6 POMS number: HLR016 (Rigging Plate, SWH).



LFB image id: 580283

15 Oval screw gate karabiner

- 15.1 Karabiners provide a quick and easy connection between elements of a fall protection system.
- 15.2 Steel, with a gate closure system which requires two independent actions to open (in this case a screwgate).
- 15.3 Oval karabiners are suited for use in pulley systems and for general purpose rigging and personal suspension.
- 15.4 Each karabiner has a 3000kg (30kN) breaking load along the major axis, known as the spine, with the gate shut.
- 15.5 Bar size: 10mm
- 15.6 Conforms to EN362.
- 15.7 POMS number: Contact; Technical Rescue & Hose Workshop.



LFB image id: 567727

Installation, fitting or wearing

15.8 Ensure gate is fully closed to hand tight.

Methods of use (practical requirements)

15.9 Ensure gate is fully closed to hand tight.

15.10 Avoid dropping onto a hard surface.

15.11 Do not over tighten the barrel.

Note - always position karabiners so the load is applied at two points only from end to end and double check screw barrel is securely locked finger tight. The system may be compromised if karabiners are loaded sideways or are not locked shut.

16 Edge protector (material)

16.1 Constructed of double thickness canvas with a brass eyelet in each corner.

16.2 Dimensions: 30cm x 45cm.

16.3 POMS number: HL139 (Edge protector, material (SWH)).



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Methods of use (practical requirements)

16.4 Fitted with two short lengths of cord for securing the edge protector in place if required.

17 Edge protector complete (metal)

17.1 Consists of 4 steel bars connected together by 6 screw links.

17.2 Used to avoid rope wear over rough edges.

17.3 POMS number: HLR010 (Edge protector, metal SWH).



LFB image id:567713

Method of use (practical requirements)

17.4 Must be secured to avoid dropping over the edge, supplied with 2 short lengths of line for this purpose.

18 Steel wire anchor strops

- 18.1 Steel anchor strops can be used in any situation for a primary anchor point in fall protection or rescue systems.
- 18.2 The anchor strop is made from galvanised steel wire with a PVC sheath to protect both the wire and the structure to which the strop is attached.
- 18.3 PVC sheath also provides grip to maintain the position of the strop if it is wrapped several times around the anchor structure.
- 18.4 2m in length with a breaking strain of 3000kg in a straight pull.
- 18.5 Conforms to – EN795.
- 18.6 POMS number: HLR021 (Wire strop, SWH).



LFB image id: 567747

Installation, fitting or wearing

- 18.7 Attach eyes together using screw gate karabiner.

Methods of use (practical requirements)

- 18.8 When using steel strops beware of possible re-orientation of connector owing to tendency of eyes to spring apart (more apparent in smaller lengths). This could cause the connector to be loaded across the gate or threaded closure.

Note – When setting up anchors do not loop doubled strop through itself as this will significantly reduce strength.

19 Protected sewn slings

- 19.1 Protected sewn slings can also be used for primary anchor point attachment.
- 19.2 More flexible than steel strops
- 19.3 Provided in both 120cm and 60cm lengths.
- 19.4 Made from a loop of 26mm wide nylon tubular tape with the ends sewn together to form an eye at each end, and protected by a fabric sleeve.
- 19.5 Fabric sheath provides additional friction (grip) when the sling is wrapped several times around the anchor structure.
- 19.6 Breaking strain of 2500kg in a straight pull.
- 19.7 Conforms to – EN795, EN354 and EN566.
- 19.8 POMS numbers: 60cm – HLR018 (Sling, 60m)
120cm – HLR031 (Sling, protected 120cm SWH)



LFB image id:567743

Installation, fitting or wearing

- 19.9 Attach eyes together using screw gate karabiner.

Note – When setting up anchors do not loop doubled sling through itself as this will significantly reduce strength.

20 Quadpod and rescue winch

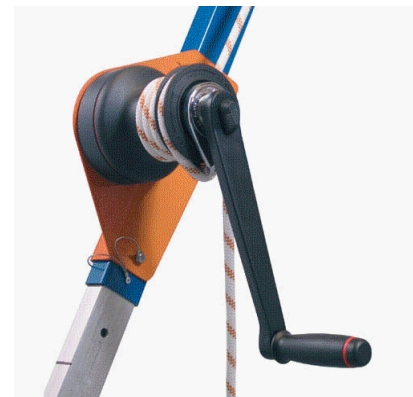
- 20.1 The Quadpod provides a portable, self supporting anchor.
- 20.2 The fourth leg allows the anchor to be positioned over trenches, which a tripod cannot do.
- 20.3 The box profile aluminium legs provide adjustable height and the steel headlock contains multiple anchor points.
- 20.4 The rescue winch will allow a Kernmantle rope to be fitted at any point along its length.
- 20.5 The winch is supplied with a mounting plate for fitting to the Quadpod.
- 20.6 The winch provides a 2 speed lifting action.
- 20.7 Length: 175cm
Weight: Tripod 15kg - Winch 3.5kg.
- 20.8 Conforms to EN795.
- 20.9 POMS numbers: Quadpod – HLR006 (Quad pod)
Winch – HLR007 (Quad pod rope winch)



LFB image id: 567732

Installation, fitting or wearing

- 20.10 The quadpod legs must be secured by the locking pins before use.
- 20.11 Ensure the locking pins at the shoulder are disconnected before attempting to collapse the equipment.
- 20.12 The Jumar brake must be fitted.



LFB image id: 567733

Methods of use (practical requirements)

- 20.13 The 2 main shoulder lifting loops are for vertical rescue.
- 20.14 Additional fixing points on shoulder can be used to secure quadpod.
- 20.15 Quadpod feet can be fixed in 2 positions. Flat for hard ground and pointed for soft ground

21 Jumar brake

- 21.1 Cast aluminium rope grab for use with quadpod.
- 21.2 The Jumar brake is not certified for any use other than with the Quadpod.
- 21.3 POMS number: HLR008 (Jumar SWH)



LFB image id: 567721

22 Vehicle steering wheel warning cover

- 22.1 High visibility warning sign that fits over appliance steering wheel.
- 22.2 For use when the appliance is being utilised as an anchor point.
- 22.3 POMS number: HLR028 (Vehicle steering wheel warning cover SWH)



LFB image id: 567750

Installation, fitting or wearing

- 22.4 Ensure cover is placed over entire steering wheel and is positioned the correct way up (see diagram).

23 Safety precautions

- 23.1 Line operations equipment should only be operated by personnel who have received training in its specific use and have studied the relevant material.
- 23.2 The appropriate PPE as specified for the designated task must be worn when deploying this equipment.
- 23.3 The appropriate manual handling lifting techniques are to be used, in accordance with manual handling guidance notes.
- 23.4 This equipment should be inspected before use.
- 23.5 Do not use these items of equipment outside their limitations, do not exceed maximum load capacity or person capacity specified for individual items of equipment.
- 23.6 Medical immobilisation of the casualty should be considered if the casualty has suspected injuries, before using any of this equipment.
- 23.7 Rope operations must not be conducted in any situation where the equipment could be exposed to temperatures exceeding 60°C (including radiant heat) or high humidity. (Low temperatures, rainwater, hose sprays or foam have no detrimental effect on the kit contents).
- 23.8 Avoid this equipment being exposed to chemicals or other corrosives.
- 23.9 Avoid sharp edges or other possible causes of damage.

24 Operating instructions

- 24.1 This equipment should only be deployed and operated by personnel who have received specific training in its use.
- 24.2 This equipment should only be used as per current LFB guidance, protocols and training.

25 Maintenance and testing

- 25.1 The equipment contained within the rope pack is to be examined:
- On acceptance
 - Before use
 - After use
 - Monthly
 - 6 monthly (by Technical Rescue & Hose Workshop)
 - At any other time considered necessary
- 25.2 The result of the examination should be recorded in the equipment record log which accompanies the pack.

Equipment categorisation

- 25.3 The equipment contained within the rope pack can be categorised into three component areas as described in the table below:

DESCRIPTION	CATEGORY
Phoenix firefighter safety harness	Fabric
Matrix harness	Fabric
Casualty harness (X-It)	Fabric
Twin lanyard	Metal/Fabric
Quadra multi function rope device	Metal
50m and 15m Kernmantle 10.5mm low stretch rope	Rope
Casualty pulley system	Rope
Rigging plate	Metal
Rope ascender	Metal
Rescue pulley	Metal
Karabiners	Metal
Edge protector complete (metal)	Metal
Edge protector (material)	Fabric
Steel anchor strop	Metal
Protected sewn sling	Fabric
Chrysalis stretcher	Fabric
Tag line and bag	Rope
Vehicle warning sign	Fabric
Quadpod and rescue winch	Metal
Jumar brake	Metal

Examination and testing

- 25.4 The standard test for the equipment contained within the rope packs will consist of a thorough visual examination of all components. All moving parts are to be operated to ensure correct functioning.
- 25.5 The specific component parts are to be examined and tested in the following way as per the equipment categorisation:

Metal

- 25.6 This consists of all metal items including those metal items permanently attached to fabric items (e.g. Lanyards).
- Each item is to be thoroughly examined for serious abrasion, rust, cracks or deformation.
 - Wire anchor strops should be hung so that any water will drain out from the protective plastic cover.
 - Any suspected damage is to be referred to Technical Rescue & Hose Workshop.
 - Any metal component that has been dropped from height should be inspected. Further guidance should be sought from Technical Rescue & Hose Workshop.
 - Any metal items that need cleaning, can be washed and rinsed with clean water and allowed to dry naturally. All metal items should be fully dried before stowing.
 - If the equipment can't be cleaned by the above method, it should be sent to Technical Rescue & Hose Workshop for cleaning.
 - If the equipment is contaminated with blood, human waste and oil or grease etc; ensure that the items are doubled bagged using red contamination bags and send to Bureau Veritas (BV) for specialist cleaning via the daily van service.

Fabric

- 25.7 This consists of all fabric items, including those permanently attached to metal components (e.g. Tensor lanyard with scaffold hook).
- Each item is to be checked for cuts or damage caused by abrasion or contact with rusty metal, chemicals, or extreme temperatures. Any known contact with chemicals will result in equipment being removed from service until informed otherwise by Technical Rescue & Hose Workshop.
 - Any stitching in a fabric item that is of a different colour to the surrounding material is load-bearing, and must be thoroughly checked.
 - Any buckles attached to a fabric item are to be checked to ensure their proper operation.
 - Webbing strops should be hung so that any water will drain out from the protective sleeve.
 - Any suspect damage should be referred to Technical Rescue & Hose Workshop.
 - The identification tag is to be inspected to ensure that it is in good condition and the information is still legible. If the tag is damaged or missing the item of equipment must be immediately removed from service and referred to Technical Rescue & Hose Workshop. (Please note ID number of harnesses can also be found handwritten on the manufacturers label.)
 - Any fabric items that need cleaning can be washed and rinsed with clean water and allowed to dry naturally All fabric items should be thoroughly dried before storage. Drying is never to be carried out through direct contact with a heat source.
 - If the equipment can't be cleaned by the above method, it should be sent to Technical Rescue & Hose Workshop for cleaning.

- If the equipment is contaminated with blood, human waste and oil or grease etc; ensure that the items are doubled bagged using red contamination bags and send to Bureau Veritas (BV) for specialist cleaning via the daily van service.

Rope

25.8 This consists of all ropes and lines.

- Each item is to be visually inspected along its entire length and checked for cuts, or damage from abrasion or contact with rusty metal, chemicals, or extreme temperatures. Any known contact with chemicals will result in equipment being removed from service until informed otherwise by Technical Rescue & Hose Workshop.
- Each end is to be checked for excessive wear.
- A check is to be made for internal damage, which is indicated by uncharacteristic soft or hard areas in the core or on the sheath of the rope.
- During an inspection the ropes and tagline will be reversed, and any knots untied and then retied in the correct position.
- Any suspected damage should be referred to Technical Rescue & Hose Workshop.
- Any item that has been subjected to a shock load must be taken off the run and referred to Technical Rescue & Hose Workshop.
- The identification tag is to be inspected to ensure that it is in good condition and the information is still legible. If the tag is damaged or missing the item of equipment, must immediately removed from service and referred to Technical Rescue & Hose Workshop.
- Any ropes or tag lines that need cleaning can be rinsed with clean water and allowed to dry naturally. They should be dried properly before storage but never left in direct contact with a heat source.
- If the equipment can't be cleaned by the above method, it should be sent to Technical Rescue & Hose Workshop for cleaning.
- If the equipment is contaminated with blood, human waste and oil or grease etc; ensure that the items are doubled bagged using red contamination bags and send to Bureau Veritas (BV) for specialist cleaning via the daily van service.

26 Defects

26.1 If any defect is found, the item of equipment is to be taken off the run and sent for repair or replacement.

26.2 Any faults or defects should be recorded in the equipment record log.

26.3 This equipment is maintained by the Technical Rescue & Hose Workshop, all requests for repairs and replacements will be managed through the Purchase Order Management System (POMS).

Recording test

26.4 Following each incident where line operations equipment has been used, an entry is to be made in the equipment record log.

26.5 Periodic tests are also to be entered in the equipment record log. Test details should be entered in the remarks column.

Stowage

26.6 After any necessary cleaning, store equipment in the appropriate stowage bag in the approved stowage point on the appliance.

26.7 Store away from direct heat, sunlight and dust. **Do not store wet.**

27 Associated material

27.1 To be read in conjunction with the following material where necessary:

- Policy number 358 – Water rescue equipment – technical information.
- Policy number 540 – Manual handling operations procedure.
- Policy number 707 – Control of infection and infectious diseases policy.
- Policy number 979 - rescue – NOG
- Policy number 985 - Operational safety management - knowledge skills and competence
NOG
- FRU training note – Line Ops 2 hand-out.
- FRU training note – Chrysalis stretcher note.
- FRU training note – Safe working at height.
- FRU training note – Quadpod.
- Safe working at height – training support desktop icon>FRU Training>FRU.

Appendix 1 – Rope pack contents

Safe Working at Height Rope Pack (Rescue & Skills FRU)		PL Line Support Pack (PL at Rescue FRU stations)		Water Rescue Rope Pack (Hazmat FRU)	
Karabiner	26	Karabiner	12	Karabiner	10
Rope Ascender	2	Rope Ascender	1	Ascender / Rope Grab	1
Casualty Harness	1			Casualty Harness	1
Casualty Pulley System	1	Casualty Pulley System	1		
Edge Protector (metal) set of 4	2	Edge Protector (metal) set of 4	1	Edge Protector (metal) set of 4	1
Edge Protector (material)	4	Edge Protector (material)	2	Edge Protector (material)	2
Rope Pulley	5	Rope Pulley	3	Rope Pulley	4
Rigging Plate	2	Rigging Plate	1	Rigging Plate	1
Sling Large	4	Sling Large	2	Sling Large	2
Sling Small	4	Sling Small	2	Sling Small	2
Tag Line (in bag)	2	Tag Line (in small bag)	1		
Wire Strop	4	Wire Strop	2	Wire Strop	2
Steering Wheel Warning Cover	1	Steering Wheel Warning Cover	1	Steering Wheel Warning Cover	1
Line Bag 1				Line Bag 1	
50 metre Line White	1			50 metre Line White	1
Quadra	1			Quadra	1
15 metre Line	2			15 metre Line	2
Line Bag 2		Line Bag 2			
50 metre Line Red	1	50 metre Line Red	1		
Quadra	1	Quadra	1		
15 metre Line	2	15 metre Line	2		
Phoenix Harness Bag		Phoenix Harness Bag			
Phoenix Safety Harness	4	Phoenix Safety Harness	4		
Tensor Lanyard	10	Tensor Lanyard	4		
Matrix Harness Bag					
Matrix Harness	5				
Quadpod Ancillary Bag					
Quadpod Rope Winch	1				
Jumar Brake	1				
Stowed separately on FRU rescue/skills		Stowed separately on PL & P		Stowed separately on FRU hazmat	
Floating Safety Line	4	Floating Safety Line	1	Floating Safety Line	4
Throw Line	2	Throw Line	1	Throw Line	4
Quad Pod	1				
Chrysalis Stretcher	1				

Document history

Assessments

An equality, sustainability or health, safety and welfare impact assessment and/or a risk assessment was last completed on:

EIA	03/09/08	SDIA	L - 03/09/08	HSWIA	04/06/18	RA	NA
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Audit trail

Listed below is a brief audit trail, detailing amendments made to this policy/procedure.

Page/para nos.	Brief description of change	Date
Page 19	Updated - cancellation of policies	27/10/2008
Throughout	Policy reviewed as current. No changes made to the content of this policy, but minor formatting has been completed throughout.	12/09/2011
Page 1	Ownership has been changed from Operational Procedures to Technical and Service Support.	31/07/2012
Throughout	All references to the Rollgliss equipment removed from this policy following its withdrawal from service.	25/11/2013
Throughout Section 27 Appendix 1	Policy re-written as part of review. General content remains the same, but changes made to format to make policy more user friendly. POMS numbers added, image id numbers added. Policies affected changed to associated material and additional material added. Rope pack contents moved from section 2 to appendix 1 and enhanced to include various rope packs.	03/03/2015
Section 6	Section amended to include Y lanyards.	07/09/2016
Throughout	This policy has been reviewed as current with changes made throughout policy. Please read whole document to familiarise yourself with the content.	25/05/2018
Page 12, para 16.3 & Page 16, 25.3 Appendix 1	Additional information added regarding the edge protector (material). Additional information added.	04/09/2018
Throughout	This policy has been reviewed as current with minor changes made throughout policy. Please read whole document to familiarise yourself with the content.	16/09/2021
Throughout	All cross references to cancelled policies have been updated.	08/03/2022
Throughout	Cross reference links and broken hyperlinks updated.	22/08/2022
Page 17 para 25.7	This policy has been reviewed as current. Additional information added regarding ID numbering of harnesses.	28/10/2024

Subject list

You can find this policy under the following subjects.

Technical information	Operational equipment
Line operations	Rope pack
Chrysalis stretcher	Safety harness

Freedom of Information Act exemptions

This policy/procedure has been securely marked due to:

Considered by: (responsible work team)	FOIA exemption	Security marking classification