



**Designers, Manufacturers and Suppliers of
Quality Height Safety & Rescue Equipment,
Training & Consultancy**

Users Manual

English Version

Energy Absorbing Lanyards

Thank you for purchasing this P&P Energy Absorbing Lanyard. Please take the time to familiarize yourself with the correct attachment, positioning and adjustment procedure.

It is imperative that this Energy Absorbing Lanyard is only used for its intended purpose and that it is subject to a periodic recorded detailed inspection by a competent person.

To avoid personal injury, prior to using this Energy Absorbing Lanyard or training others to use it, CAREFULLY READ and understand these instructions. If there is anything you do not understand DO NOT use the Energy Absorbing Lanyard, contact the supplier or P&P for further details.

Certain information in this manual is governed by law and is subject to change without prior notice. Great care has been taken to ensure that the information is correct at the time of publication. However, it is the users' sole responsibility to ensure that they fully comply with all legal requirements. P&P will not accept liability for any inaccuracy or incorrectly stated legal requirements.

P&P operate a policy of continual improvement and reserve the right to change specifications without notice. The Manufacturer and / or their recognised agents, directors, employees or insurers will not be held liable for consequential or other damages, losses or expenses in the connection with or by reason of or the inability to use the Energy Absorbing Lanyard for any other purpose.

Note; training should only be delivered by a suitably qualified and competent person, i.e. a P&P products trainer.

Description

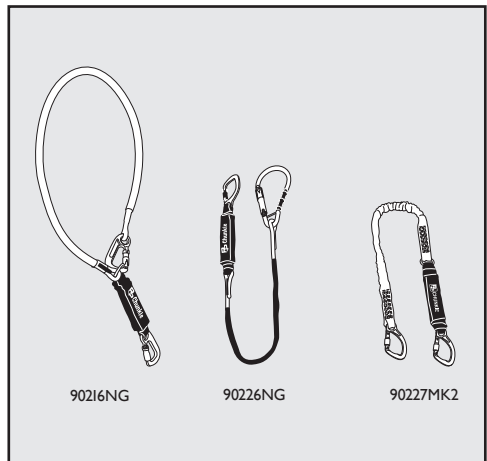
All the following Lanyards are made incorporating an energy absorbing pack. They are all Fall Arrest Lanyards to BS EN 355 for arresting a potential fall, and are designed for use as part of a fall arrest system comprising a Lanyard and compatible BS EN 361 harness. P&P manufacture a standard range of Lanyards fitted with connectors and links to meet most user requirements. When required users may specify Lanyards with different connector/link configurations - in this case all connectors will comply with BS EN 362 and links will be CE marked.

Equipment specifiers/users must ensure that connectors and links are compatible with anchorage and harness attachment points. Failure to ensure compatibility may result in an unsafe condition or even connector/link failure.

Contact your supplier or P&P if you require further information.

WARNING

All work at height including the use of Personal Protective Equipment (PPE) as a control measure is subject to a suitable and sufficient risk assessment.



90216NG

'Chunkie' 2m single leg, fixed loop Lanyard. This Lanyard features a welded ring attached to the energy absorber, enabling a connection to be made around a suitable structure. Fitted as standard with an aluminium captive karabiner at each end. The leg of the Lanyard is constructed from 11 mm kernmantle rope, sleeved with heavy duty PVC for abrasion protection and rigidity.

90226NG

'Chunkie' 1.5m single leg Lanyard. Fitted as standard with a captive karabiner at one end and a captive aluminium scaffold hook at the other.

The leg of the Lanyard is constructed from 11 mm kernmantle rope, sleeved with tubular webbing for abrasion protection. The energy absorber pack has a clear shrink sleeve for additional abrasion protection.

90227MK2

‘Chunkie’ 1.8m stretch single leg Lanyard. Fitted as standard with a captive screwgate steel karabiner at each end.The leg of the Lanyard is constructed from elasticated 'stretchy' webbing.



90474

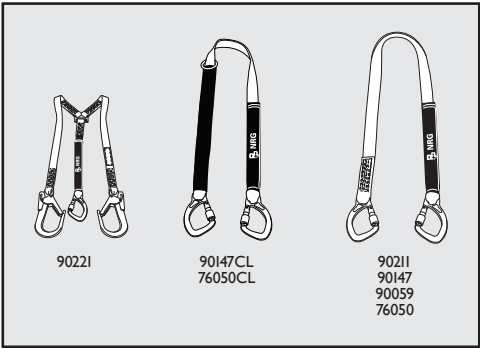
‘Chunkie’ 1.75m Scaffolders' single leg Lanyard. Fitted as standard with a large captive double action hook at one end and a triangular screwed link at the other end. The leg of the Lanyard is constructed from 11 mm kernmantle rope, sleeved with medium duty PVC for abrasion protection.

90270, 90370

‘Chunkie’ 1.5m and 2m respectively, twin legged Lanyard. Fitted as standard with a captive screwgate karabiner on the energy absorber and a large double action snaphook on each leg. The legs of the Lanyard are constructed from 11 mm kernmantle rope.

90306

‘Chunkie’ 1.9m stretch twin legged Lanyard. Fitted as standard with a captive screwgate karabiner on the energy absorber and a large double action snap hook on each leg. The legs of the Lanyard are constructed from elasticated 'stretchy' webbing.



90221

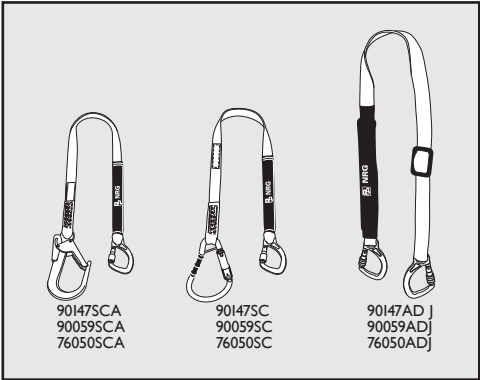
‘NRG’ 1.5m twin legged Lanyard suitable for arresting potential falls. The Lanyard is constructed of 32mm webbing and incorporates a unique 'rip stitch' energy absorbing pack.

90147CL, 76050CL

‘NRG’ 1.5m and 2m respectively. Single leg Lanyard suitable for arresting potential falls. The Lanyard is constructed of 32mm webbing and incorporates a unique ‘rip stitch’ energy absorbing pack. Fitted with a wear sleeve and choking ring.

90211, 90147, 90059, 76050

‘NRG’ 1m, 1.5m, 1.75m and 2m respectively. Single leg Lanyard suitable for arresting potential falls. The Lanyard is constructed of 32mm webbing and incorporates a unique ‘rip stitch’ energy absorbing pack.



90147SCA, 90059SCA, 76050SCA

‘NRG’ 1.5m, 1.75m and 2m respectively. Single leg Lanyard suitable for arresting potential falls. The Lanyard is constructed of 32mm webbing and incorporates a unique 'rip stitch' energy absorbing pack and as standard is fitted with a large snap hook.

90I47SC, 90059SC, 76050SC

'NRG' 1.5m, 1.75m and 2m respectively. Single leg Lanyard suitable for arresting potential falls. The Lanyard is constructed of 32mm webbing and incorporates a unique 'rip stitch' energy absorbing pack and as standard is fitted with a scaffold hook.

90I47ADJ, 90059ADJ, 76050ADJ

'NRG' 1.5m, 1.75m and 2m respectively. Single leg adjustable length Lanyard, suitable for arresting potential falls. The Lanyard is constructed of 32 mm webbing and incorporates a unique 'rip stitch' energy absorbing pack.

Usage

Prior to use, a full visual inspection of every part of the fall arrest system must be carried out by the user as detailed in this P&P user manual.

This item of fall arrest system is for personal use only. Only use EN362 connectors (hooks, karabiners etc.) approved and recommended by P&P.

Check the inspection record for this Lanyard to ensure that regular inspections have been correctly recorded. It is strongly recommended that the user is given adequate practical training prior to using this Lanyard or any other P&P product.

DO NOT use this Lanyard until you have read and fully understood these instructions.

IF IN DOUBT, CHECK BACK WITH THE SUPPLIER OR P&P.

WARNING

This Energy Absorbing Lanyard must only be used by persons who are medically fit to do so. If you have any medical condition, are recovering from any medical condition or suffering from any physical or mental disability you must seek professional medical advice before using this Energy Absorbing Lanyard.

Important

DO NOT

- Do not anchor to a structure that itself can fall i.e. freestanding ladder or any loose structure.
- Do not use an anchorage point that will not take a shock load of 10kN.

- Do not use an anchorage point that is located below the point of attachment to your harness, unless you have no other choice.
- Do not use waist connection points on a harness for Fall Arrest. Waist connection points are for work positioning or restraint only.
- Do not loop standard Lanyards around obstructions with sharp edges. If a Lanyard is to be looped around a structure (choked), a protection sleeve should be fitted.
- Do not extend the length of your Lanyard.

DO

- Ensure that this Lanyard is connected to the correct fall arrest system attachment point of an EN361 full body harness (either front sternum or rear dorsal 'D' ring), usually marked by a letter 'A'.
- Connect the energy absorber end of the Lanyard to the harness and the free end to the fall arrest anchorage point.
- Use approved permanent anchorage points that have been built or installed by approved installers.
- Ensure that the karabiner, scaffold hook or snap hook is correctly loaded. A connector must only be attached to a compatible anchorage point or harness fall arrest point that loads the Lanyard connector along its major axis. There must be no tendency for the Lanyard connector to twist or trap in such a way that an arrest force will be applied across its gate.
- Always ensure that the closing mechanism on the connector is locked shut. 'Kwiklok', 'Locksafe' and 'Double Action' hook types do this automatically, but should still be checked. 'Screwgate' types must be screwed home manually and checked by applying pressure against the closing mechanism.

NOTE

Identification of harness fall arrest attachment points is a recent change to equipment standards and earlier model harnesses may not be marked with a letter A.

Use an anchorage wherever possible that is located directly above the working position and make sure that you have sufficient free space with no hazards or protrusions beneath you.
SEE MINIMUM FREE SPACE SECTION.

**P&P TWIN TAILS
WARNING NOTICE**

In common with all 'Two Tails' / 'Twin Tailed' Lanyards Users must be aware of the following. If one of the tails is not in use the un-used tail MUST NOT BE 'parked up' / 'stowed' by being attached to the primary strap of the User's harness or anyone of the attachment 'D' rings of the harness.

This is due to the fact that should a fall occur and be arrested by the other tail, the attached 'parked up' / 'stowed' Lanyard may prevent the energy absorber from deploying fully and hence subject the User to a greater arrest force than permitted by the European Fall Protection standard.

P&P would therefore strongly recommend the user keeps both tails attached to the structure at all times or parks the un-used tail of the Lanyard onto the welded ring or 'D' ring that makes the connection between the energy absorber and 'tails' of the Lanyard.

Alternatively, a sacrificial point such as a P&P breakaway parking point may be used to 'park up' / 'stow' an un-used Lanyard tail.

Should you require further information or an explanation of this potential problem please do not hesitate to contact the supplier or P&P for further detail.

to prevent the possibility of a collision, there must be sufficient free space directly under the user for the fall to be arrested in, i.e. the free space must be greater than the arrest distance. Free space means that the path of the fall is free from obstacles.

MFS is defined as the vertical distance measured from the anchorage, (where the Lanyard attaches to the structure), to the ground level, the next lower substantive platform, or the nearest significant obstacle, depending upon the application. Application of the MFS ensures the safe arrest of a faller and avoids the possibility of a collision.

When using the P+P 'Chunkie' Energy Absorber Lanyard or 'NRG' Energy Absorbing Lanyard in conjunction with a Fall Arrest Safety Harness, the MFS is determined by adding together the original length of the Lanyard, the potential deployment of the energy absorber Lanyard, the height of the user (normally taken as 2m, due to harness stretch and feet hanging down) and safety clearance of at least 0.5m.

The maximum deployment length of a 'Chunkie' Energy Absorber is 1.5m and the maximum deployment length of an 'NRG' Energy Absorber is 1.3m. The actual deployment length depends upon freefall distance before initial arrest and mass of the user. Below is a table showing deployment lengths based on a 2m version of the Lanyard with a 100 kg mass.

Deployment lengths of 2 metre P&P Energy Absorbing Lanyard using a 100Kg solid rigid test mass.

The data is based on the P&P Energy Absorbing Lanyard being used in 3 different Fall Factors (FF) - FF 0.5 (1m free fall), FF 1 (2m free fall) and FF 2 (4m free fall).

LANYARD	FF 0.5 – 1m Free Fall	FF 1 – 2m Free Fall	FF 2 – 4m Free Fall
2.00m NRG	0.3m	0.5m	1.3m
2.00m Chunkie	0.4m	0.8m	1.5m

These figures are specific to the P&P range of products – it should be noted that other manufacturers' energy absorbers may deploy up to 1.75m.

Minimum Free Space (MFS)

Fall arrest systems are designed to arrest a person's fall in as short a distance as possible and limit the arrest force to below 6kN. This is achieved by absorbing the energy generated in the fall by applying an arresting force to the user over a distance, i.e. the 'arrest distance'. In order

Explanation of Fall Factors

Fall Factor 0.5 - FF 0.5 means that the Lanyard would be connected above the user and you would fall half the length of the Lanyard before arrest.

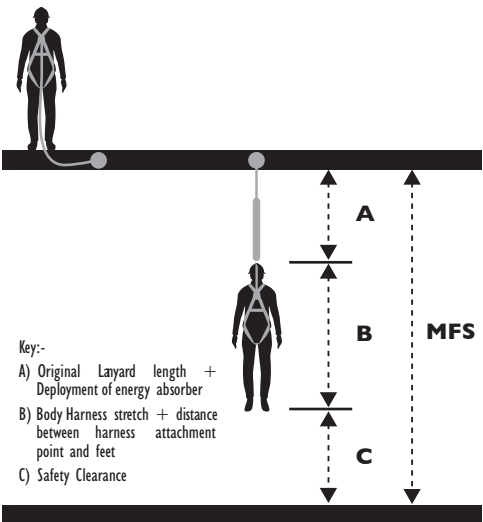
Fall Factor 1 - FF1 means that the Lanyard would be connected around chest height of the user and you would fall the length of the Lanyard before arrest.

Fall Factor 2 - FF2 means that the Lanyard would be connected below the user and you would fall twice the length of the Lanyard before arrest.

The following pictograms illustrate the calculations needed to be done before using an Energy Absorbing Lanyard. 'C' always equals a minimum safety clearance of 0.5m, 'B' always equals height of user, normally taken at 2m, 'A' is the variable specific to your application depending upon original Lanyard length and fall factor situation you are working in.

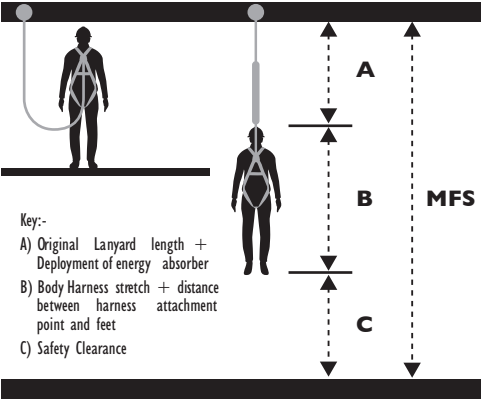
Example 1

4m Free Fall – using a 2m energy absorbing lanyard in a fall factor 2 situation i.e. clipped below your feet.



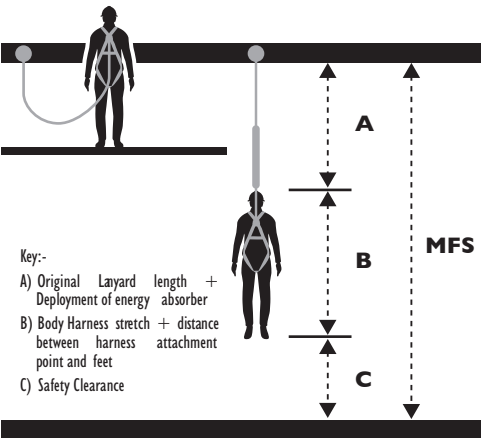
Example 2

1m Free Fall using a 2m energy absorbing lanyard in a fall factor 0.5 situation i.e. clipped above your head.



Example 3

2m Free Fall using a 2m energy absorbing lanyard in a fall factor 1 situation i.e. clipped at the same height as your chest.



As all testing of energy absorbing Lanyards is based on a 100kg mass, we offer the following guidance for users over 100kg.

The data is based on the P&P Energy Absorbing Lanyard being used in a potential fall factor 2 situation (clipped to a suitable solid rigid anchor below the user's feet - not recommended!)

P&P 'NRG' Energy Absorbing Lanyards

NRG's	80-100Kg	100-110Kg	110-120Kg	120-135Kg	135-140Kg
2.00m	✓	?	✗	✗	✗
1.75m	✓	✓	?	✗	✗
1.50m	✓	✓	✓	?	✗
1.25m	✓	✓	✓	✓	?
1.00m	✓	✓	✓	✓	✓

P&P 'Chunkie' Energy Absorbing Lanyard

CHUNKIE	80-100Kg	100-110Kg	110-120Kg	120-135Kg	135-140Kg
2.00m	✓	✓	?	✗	✗
1.75m	✓	✓	✓	✗	✗
1.50m	✓	✓	✓	?	✗
1.25m	✓	✓	✓	✓	?
1.00m	✓	✓	✓	✓	✓

Key:

- ✓ Arrest Force below 6kN as required by European Fall Protection Standards.
- ? If used in a fall factor 2 situation the arrest forces will exceed 6kN but NOT be above 8kN – not ideal but certainly considered survivable.
- ✗ Do Not Use in fall factor 2 situations arrest forces will exceed 8kN.

Based on the above information what can be concluded is that P&P Energy Absorbing Lanyards – 'NRG', and 'Chunkie', at any length, if only used in a fall factor 1 situation (clipped to a suitable anchor at chest height, so the fall distance does not and can not exceed 2m) will limit the arrest force acting on a User weighing up to 140Kg to less than 6kN.

Modifications and Repairs

No repairs, modifications or alterations are to be carried out on this Energy Absorbing Lanyard.

RESCUE PLAN

As part of your risk assessment you MUST have in place a rescue plan to deal with any emergency, which may occur during use. Access to the user, directly or indirectly and their safe retrieval is of paramount importance, including preparations for dealing with potential Post Fall Suspension Syncope.

Inspection

This manual contains a Declaration of conformity and a section for recording your periodic 'Detailed Inspections'. On the back page of this manual is a space for the user to record the product name, unique serial number and date of manufacture.

The product name, unique serial number and date of manufacture will be found on the product label either stitched into the Lanyard's webbing or captive at the end of the rope.

Always make sure the product label is present showing both the serial number and date of manufacture and that it matches your User Manual. If the numbers are not legible on the Product Label or do not match the User Manual - DO NOT USE the Lanyard!

The Lanyard, along with all your other safety equipment must be subjected to a pre-use check each time before use. Failure to inspect the Lanyard correctly could cost you your life. You should be trained to carry out a pre-use check.

Detailed Recorded Inspections should only be carried out by a competent person, appointed by the employer. Additionally, recorded interim inspections may be required where risks from transient arduous working environments exist. This should be identified through Risk Assessment.

These recorded inspections must be carried out at least every 12 months as a requirement of EN365, however; in the UK the HSE would like to see all Fall Protection PPE have a Detailed Recorded Inspection every 6 months.

The pre-use check must include (but is not limited to):

- Check all webbing / rope for signs of cuts, abrasions, fraying, tears, burns, mould, discolouration or chemical attack.
- Check all stitching for signs of loosening, pulling or cut thread. There must be no evidence of damaged stitching on either side of the stitch pattern.
- Check the Energy Absorber Pack for signs of exposed 'tear webbing' visible at the ends. Exposure of 'tear webbing' indicates the Lanyard may have been subject to a fall.
- Check all shrink sleeving is intact and protecting rope or webbing.
- If the Lanyard has been subject to significant paint overspray, it must not be used.

- Adjusters and connectors **MUST** be free from rust, excessive wear, distortion or cracks.
- All connectors/links must operate correctly with no tendency for gates to stick or jam.

If during the pre-use check any part is found to be or believed to be faulty **DO NOT** use it. Remove ALL components from site to ensure that they cannot be used by anyone.

Cleaning, Maintenance and Storage

You may clean the Lanyard of light soiling, using warm water (40°C max) with pure soap or mild detergent. Heavy deposits of creosote or grease may be removed with a diluted solution of heavy detergent and water.

Avoid getting soap / detergent into buckles. After cleaning, rinse thoroughly with fresh clean water then remove excess water with a dry cloth. Finally, allow the Lanyard to dry naturally then give it a full inspection before storing.

Store the Lanyard in a cool dry place, which will protect it from extreme humidity, direct heat and sunlight. Protect your Lanyard by allocating a storage area that is free from sharp edges or abrasive materials that are likely to damage webbing or metal components. Do not hang your Lanyard in the back of a van or work vehicle where it is likely to suffer abrasion. If the Lanyard is wet, allow to dry naturally **BEFORE** storing.

Chemical Attack

If the Lanyard comes into contact with any chemicals, you **MUST** immediately remove it from service and check with the supplier or P&P for advice on the possible consequence of chemical degradation.

Service Life

WARNING

Each P&P Energy Absorbing Lanyard is designed to arrest a fall from height once only.

If subject to an arrest fall the Lanyard must be withdrawn from service and destroyed to ensure that it is not used again.

Each P&P Lanyard has a maximum working life of 5 years from date of first use, provided it is correctly stored and maintained. However, if the Lanyard fails any inspection it **MUST** be destroyed. See the ‘Statement of Obsolescence’ within this manual.

About This Manual

This User Manual is for English speaking countries only. If you require this manual in a different language, please Contact P&P. When this item is sold on, this manual must accompany it and be supplied in the language of the destination country.

Product Details

The Product Code, Serial number and Date of Manufacture of the Lanyard should be entered on the back page of this manual for future reference and inspection records.

IMPORTANT! Applies to the following	
PN902I6NG	BSEN 355: 2002
PN90226NG	BSEN 355: 2002
PN90227MK2	BSEN 355: 2002
PN90474	BSEN 355: 2002
PN90270	BSEN 355: 2002
PN90370	BSEN 355: 2002
PN90306	BSEN 355: 2002
PN9022I	BSEN 355: 1993
PN90I47CL	BSEN 355: 1993
PN76050CL	BSEN 355: 1993
PN902II	BSEN 355: 1993
PN90I47	BSEN 355: 1993
PN90059	BSEN 355: 1993
PN76050	BSEN 355: 1993
PN90I47SCA	BSEN 355: 1993
PN90059SCA	BSEN 355: 1993
PN76050SCA	BSEN 355: 1993
PN90I47SC	BSEN 355: 1993
PN90059SC	BSEN 355: 1993
PN76050SC	BSEN 355: 1993
PN90I47ADJ	BSEN 355: 1993
PN90059ADJ	BSEN 355: 1993
PN76050ADJ	BSEN 355: 1993



Statement of Obsolescence

Due to the ingress of dirt and grit, chemical contamination, edge and surface damage, ultraviolet light degradation, and wear and tear, Fall Protection Equipment manufactured from synthetic fibres (webbing and/or rope) is subject to a manufacturer's statement of obsolescence, which is a requirement of BS EN 365:2004 a European Product Standard.

Any item of Fall Protection Equipment manufactured by P&P Limited with synthetic fibre components (webbing and/or rope) is subject to a maximum working life of 5 years from the recorded date of first use, provided that the item has been correctly stored, maintained and subjected to regular inspections by a trained and competent person. However, if the item fails any inspection it **MUST** be destroyed.

A new item of Fall Protection Equipment manufactured by P&P Limited may be stored for a maximum of 3 years and will still give the potential 5 year working life provided it remains in the original manufacturer's packaging. Once the product is taken from this original packaging for the first time, this date becomes the "date of first use", which should be recorded on the Inspection Record and the 5 year working life begins.

Reference should also be made to the British Standard BS 8473:2005 - "The code of practice selection, use and maintenance of personal fall protection systems and equipment for use in the workplace" - clause 13.2 Lifespan, which states:

"Some equipment is given a life span or obsolescence date by the manufacturer. Equipment that has reached such a limit, which has not already been rejected for other reasons, should be withdrawn from service and not used again, unless or until confirmed by a competent person, in writing, that it is acceptable to do so."

It should be noted that inspections carried out by a trained and competent person are only visual and tactile observations of the condition of the product; they are not testing the residual strength of the equipment. All synthetic fibres deteriorate slowly with age regardless of use and as a result, P&P Limited strongly advises all users of Fall Protection Equipment to follow the manufacturer's statement of obsolescence.

For further advice on this statement, as well as training in the use and inspection of Fall Protection Equipment, please contact P&P Limited.



Designers, Manufacturers and Suppliers of Quality Height Safety & Rescue Equipment, Training & Consultancy

EC DECLARATION OF CONFORMITY

The manufacturer in the Community
P&P Limited, 131 New John Street, Aston, Birmingham
B6 4LD United Kingdom

Declares that the new PPE described hereafter
P&P 'Chunkie' and 'NRG' Range of Energy Absorbing Lanyards

is in conformity with the provisions of Council Directive 89/686/EEC and, where
such is the case, with the national standard transposing harmonized standard
numbers:

either BSEN 355:2002, or BSEN 355:1993

is identical to the PPE, which is subject to EC certificate of conformity with
associated amendment number(s):
'Chunkie' Energy Absorber Range BSEN 355/04/013 dated 15 October 2004 and
P1 Absorber Lanyard (NRG) Range BSEN 355/01/003 dated 13 June 2001.
issued by TUV NEL Limited, East Kilbride, Glasgow, G75 0QU, United
Kingdom. EC Notified Body No 0320

is subject to the procedures set out in Article 11 point B of Directive 89/686/EEC
under the supervision of the approved body:

The British Standards Institute, 389 Chiswick High Road, London
W4 4AL, United Kingdom.
EC Notified Body No. 0086

Done
at: Birmingham, United Kingdom.

on: 08 July 2008

Malcolm Perry
H&S/TECHNICAL MANAGER

INSPECTION RECORD

Supplier:..... Date Purchased:...../...../..... User Name:..... Date First Used:...../...../.....

Date	Pass/ Fail	Comments / Actions	Next Inspection Due	Print Name	Signed
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These P&P Limited Lanyards have been tested and CE marked to
BSEN355:2002, or BSEN355: 1993. Certified by Approved Body: TUV NEL Limited, East Kilbride,
Glasgow, G75 0QU, United Kingdom.

EC Notified Body No 0320. P&P Limited operate a Quality management System
to BS EN ISO 9001:2000 controlled and audited by: The British Standards Institute, 389 Chiswick
High Road, London W4 4AL, United Kingdom. EC
Notified Body No 0086.

PRODUCT NAME

PRODUCT CODE:

SERIAL NO.:

DATE OF MANUFACTURE:



Designers, Manufacturers and Suppliers of Quality Height Safety & Rescue Equipment, Training & Consultancy

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Lanyards Manual V2.0411

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