

INSTRUCTION FOR USE

The instructions for use conform to the American National Standard ANSI Z359.1-2007 and is approved by INSPEC International Ltd.

Product Model No: SB-S102-AN, SB-S109-AN, SB-S115-AN, SB-S119-AN

EXAMINATION AND PRODUCTION CONTROL STAGE ARE PERFORMED BY:

INSPEC International Ltd
56, Leslie Hough Way, Salford,
Greater Manchester, M6 6AJ,
United Kingdom

WARNING:

The Full Body Harness is one part of a personal fall arrest, restraint, work positioning, personnel riding, climbing, or rescue system. Without the other necessary components in such sub-systems the harness itself serves no useful purpose. The user must follow the manufacturer's instructions for each component of the system. These instructions must be provided to the user before using this product and retained for ready reference by the user. The user must read, understand (or have explained), and heed all instructions, labels, markings and warnings supplied with this product and with those products intended for use in association with it before using this equipment. Manufacturer's instructions must be followed for proper use and maintenance of this equipment. National standards and state, provincial and federal laws require the user to be trained before using this product. This manual can be used as part of as such a user safety-training program that is appropriate for the user's occupation.

IMPORTANT: Alterations or misuse of this product or failure to follow instructions may result in serious injury or death. If you have questions on the use, care, or suitability of this equipment for your application, contact Red Wood for information.

APPLICATION :

All Harnesses used for fall arrest are full body holding devices with leg loops, shoulder straps and chest strap. The Harnesses are designed to safely transfer and distribute the fall forces to the body in the event of a fall. The Fall Arrest Harnesses conform to and they are designed for use as part of a Personal Fall Arrest System (PFAS).

PURPOSE :

The full body harnesses are used as one component in a personal fall arrest system (PFAS). They may also be utilized in restraint, work positioning, or rescue systems when the appropriate attachments are present. Harnesses included in this manual meet the current ANSI Z359.1-2007. These instructions, and markings

borne by the harness, fulfill the instruction and marking requirements of those standards and regulations.

1) DORSAL ATTACHMENT (Back D-ring)
Present on all Harnesses. For fall arrest, use only the back D-ring for connection to the other elements of a personal fall arrest system. Never attach fall protection connecting devices to the side, front, chest, or shoulder D-ring.

2) DORSAL D-RING LOCATOR
May be called D-ring attachment pad, and allows manual adjustment of back D-ring. This should never be adjusted below mid-point of shoulder blades.

3) SIDE D-RING (Only for SB-S119-AN)
Used for the work positioning. Never use the side D-rings for fall arrest or for climbing protection. Always use both side D-rings together, for work positioning applications. When the work positioning may occur a fall could occur a separate fall arrest system, then must be attached to the back D-ring.

4) FRONT ATTACHMENT (Only for SB-S102-AN)
For controlled descent, lifting and lowering (by hoisting) and for ladder climbing protection systems (provided the potential free fall distance is very short and footing can be easily gained). The front-mounted attachment element for fall arrest attachment of chest D-ring may also be used for rescue, retrieval, and evacuation. Maximum free fall distance must be limited to 2 foot and MAF must not exceed 900lbs. (4kN).

LIMITATION :

Consider the following application limitations before using this equipment:

1) CAPACITY:

These full body harnesses are designed for use by persons with a combined weight (clothing, tools, etc.) of no more than 310 lbs (140 kg). Persons with muscular, skeletal, or other physical disorders should consult a physician before using. Pregnant women and children under 18 must never use the harness. Increasing age and diminished physical fitness may reduce a person's ability to withstand shock loads during fall arrest or prolonged suspension. Consult a physician if there is any question about a user's physical ability to safely use this product to arrest a fall or remain suspended. Models are available for persons with heavier combined weights (May also affect the selection of other components of a PFAS).

2) FREE FALL:

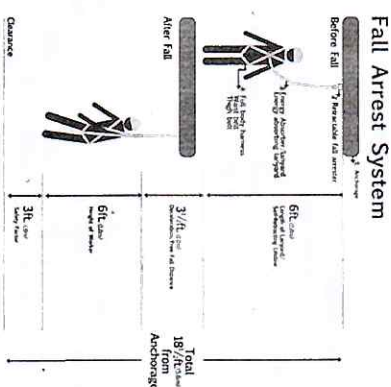
Personal fall arrest systems used with this equipment must be rigged to limit the free fall to a minimum of 6 ft (ANSI Z359.1) Restraint systems must be rigged so that no vertical free fall is possible. Work positioning systems must be rigged so that free fall is limited to two feet or less. Personnel riding systems must be rigged so that no vertical free fall is possible. Climbing systems must be rigged so that free fall is limited to 18 inches or

less. Rescue systems must be rigged so that no vertical free fall is possible.

3) FALL CLEARANCE:

There must be sufficient clearance below the user to arrest a fall before the user strikes the ground or other obstruction. The clearance required is dependent on the following factors (see diagram below for reference):

- Elevation of anchorage
- Connecting subsystem length
- Deceleration distance
- Free fall distance
- Worker height
- Movement of harness attachment element



4) SWING PENDULUM FALLS:

Swing falls occur when the anchorage point is not directly above the point where a fall occurs. The force of striking an object in a swing fall may cause serious injury or death. Minimize swing falls by working as close to the anchorage point as possible.

Do not permit a swing fall if injury could occur. Swing falls will significantly increase the clearance required when a self-retracting lifeline or other variable length connecting subsystem is used.

5) CHEMICAL HAZARDS:

Acidic, alkaline, or other environments with harsh substances may damage the webbing and hardware elements of this harness. Nylon is more resistant to degradation by alkaline or neutral pH environments. Polyester is more resistant to attack by acids. If working in a chemically aggressive environment, consult RED WOOD to determine which harness material is better for your specific conditions. When working in the presence of chemicals, more frequent inspection of the harness is required.

6) HEAT:

Do not use harness in environments with temperatures greater than 185°F (85°C). Protect the harness when used near welding,

metal cutting, or other heat producing activities. Sparks may damage the harness webbing and reduce its strength. For high temperature applications (up to 700° F.).

IMPORTANT: When working with tools, materials, or in high temperature environments, ensure that associated fall protection equipment can withstand high temperatures, or provide protection for those items.

7) CORROSION:

Do not expose harness to corrosive environments for prolonged periods. Organic substances and salt water are particularly corrosive to metal parts. When working in a corrosive environment more frequent inspection, cleaning, and drying of the harness is required. See Care of the Harness and Inspection sections cleaning and inspection details

8) ELECTRICAL HAZARDS:

Use extreme caution when working near energized electrical sources. Metal hardware on the harness and on other components connected to it will conduct electric current. Maintain a safe working distance [preferably at least 10 feet (3 m)] from electrical hazards.

9) MOVING MACHINERY:

When working near moving machinery parts (e.g. conveyors, rotating shafts, presses, etc.), make sure that the strap collars secure the ends of harness straps. Maintain a safe working distance from machinery that could entangle clothing, the harness, or other components connected to it

10) SHARP EDGES AND ABRASIVE SURFACES:

Do not expose harness straps to sharp edges or abrasive surfaces that could cut, tear or abrade and weaken the fibers. If working around sharp edges and abrasive surfaces is unavoidable use heavy padding or other protective barriers to prevent direct contact.

11) WEAR AND DETERIORATION:

Any harness which shows signs of excessive wear, deterioration or aging, must be removed from use and marked "UNUSABLE" until destroyed. See detailed inspection procedures.

12) IMPACT FORCES:

Any harness that has been subjected to the forces of arresting a fall must be immediately removed from service and marked as "UNUSABLE" until destroyed. RED WOOD harnesses have integral load impact indicators sewn in to the webbing below the back D-ring to facilitate inspection for fall loading.

COMPATIBILITY OF SYSTEM PARTS

1) COMPATIBILITY OF COMPONENTS AND SUBSYSTEMS:

RED WOOD Harnesses are designed to be used with RED WOOD approved components and connecting subsystems. Use of the Harness with products made by others that are not approved in writing by RED WOOD may adversely affect the functional compatibility between system parts and the safety and reliability of the complete system. Connecting subsystems must be suitable for use in the application (e.g. fall arrest or restraint). RED WOOD produces a line of connecting subsystems for most applications. Contact RED WOOD for further information. Refer to the manufacturer's instructions supplied with the component or connecting subsystem to determine suitability. For fall arrest applications using the Harness, the maximum fall arrest force must not exceed 1,800 lbf. (8 kN). Contact RED WOOD with any questions regarding compatibility of equipment used with the Harness.

2) COMPATIBILITY OF CONNECTORS:

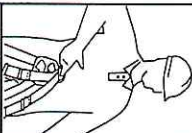

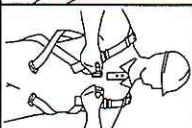
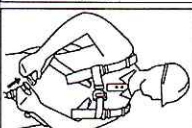
Connectors, such as D-rings, snap hooks, and carabiners, must be rated at 5,000 lbf. (22 kN) minimum breaking strength. RED WOOD connectors meet this requirement. Connecting hardware must be compatible in size, shape, and strength. Non-compatible connectors may accidentally disengage ("rollout") or false engage. Always verify that the connecting snap hook or carabiner and the D-ring on the harness or anchorage connector is compatible. Use only self-closing, self-locking snap hooks and carabiners with the harness. Some harness models have web loop connection points. Do not use snap hooks to connect to web loops. Use a self-locking carabiner to connect to a web loop. Ensure the carabiner cannot cross-gate load (load against the gate rather than along the backbone of the carabiner). Some lanyards are designed to choke onto a web loop to provide a compatible connection. Connecting subsystems (self retracting lifeline, lanyard, rope grab and lifeline, cable grab, etc.) must be suitable for your application.

3) ANCHORAGES AND ANCHORAGE CONNECTORS:

Anchorage and anchorage connector for PFAS shall have a strength capable of supporting 5000lbs per person. When more than one PFAS is attached to an anchorage, the anchorage strengths set forth in above shall be multiplied by the number of personal fall arrest systems attached to the anchorage.

HOW TO CORRECTLY PUT THE FULL BODY HARNESS ON

Full body harness is to be adjusted using the straps and insert buckles to the individual figure of the user. If not, the straps and insert buckle have to be adjusted to the right position. The correct way to put the harness on shall be as per the step by step instruction below. After finished putting on the harness, it is necessary to check every strap and buckles to ensure they are fitted in the right position. Once the straps loosen, the user should adjust the strap with buckle immediately to prevent from falling.

			
Spread the shoulder straps apart, grasp the harness by the D-ring.	Put on the shoulder straps one after one - take care do not twist them.	Fasten the chest strap and tighten for best fit. Do not over tighten.	Buckle up both the right and left leg loops accordingly and tighten to fit.

INITIAL ADJUSTMENT OF THE DORSAL ATTACHMENT POINT

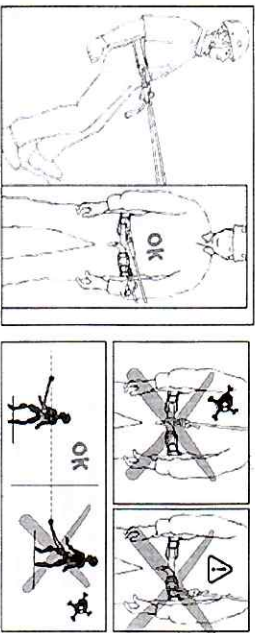
The adjustment should be done only once when putting on your harness for the first time. Have another person help you do it. Slide the strap retainer so that both layers of webbing are taut between the two buckles. Be sure to neatly slow the excess webbing (flat-no loops or slack) in the strap retainer so that it does not interfere with your work. Adjust the position of the dorsal attachment point to suit your individual body shape and size. Position it at the level of the shoulder blades. If the dorsal ring is too low on the back, you will be hanging too far forward when in suspension. If it is too high on the back, you will feel a squeezing sensation.

HOW TO CORRECTLY PUT THE WAIST BELT ON

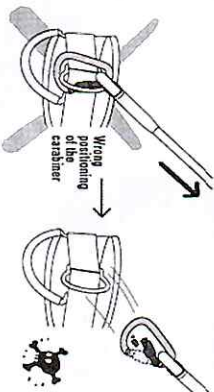
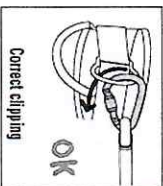
- It is essential to try on and adjust the model SB-S119-AN before use remembering to anticipate the type of clothing you expect to be wearing. It is recommended that before using the Harness the user should carry out a suspension test in a safe place to ensure that the Harness is the correct size, has sufficient adjustment and is of an acceptable comfort level for the intended use.
- The waist belt should fit snugly around the waist.



- The lateral side positioning attachment points of the belt must be used solely for connecting to a work positioning system and never to a fall arrest system. Refer to diagram below for details.
- Correct way of attaching to the lateral attachment points on the belt by connectors.



Attachment points / connectors



REMINDER

- The user is responsible to make sure they read, understand and follow all instructions in the care and use of this device as well as receive adequate training.
- The user could be a competent or responsible person, or who are working under the direct and visual control of a competent/proficient person.
- The user must be trained in the use and be aware of the characteristics, the application limits, and consequences of the incorrect use of the equipment. Training should be repeated periodically and especially if any components in the system are changed. The training is to be done in a way that the trainee is not exposed to fall hazard.
- Before and during use, consideration should be given as to how any rescue could be safely and efficiently carried out.
- Training should be repeated periodically and especially if any components in the system are changed.
- The training is to be done in a way that the trainee is not exposed to fall hazard.
- Whenever possible, it is strongly advised to personally attribute the PFAS to an individual user.
- Disregarding the instructions described in this booklet could give rise to some serious repercussions. User is thus advised to re-read these instructions from time to time.

WARNING

ANY MODIFICATION TO AN ADJUSTMENT WILL MAKE THE DEVICE DANGEROUS FOR USE.

- Do not use the Full Body Harness until you have read and fully understand the instructions.
- It is essential for the safety of the user that if the product is re-sold outside the original country of destination the reseller shall provide instructions for use, for maintenance, for periodic

examination in the language of the country in which the product is to be used.

- Before and during use, consideration should be given as to how any rescue could be safely and efficiently carried out.
- The equipment shall not be used outside its limitations, or for any purpose other than that for which it is intended.
- Any alterations or additions to the equipment without the Manufacturer's prior written consent, any dangers caused by this condition during the equipment utilization process will not be the responsibility of the Manufacturer.
- The Full Body Harness shall be used for personal purpose. If necessary, the user should mark his/her own name somewhere on full body harness for identification. The user also has responsibility to preserve full body harness well. It is not advisable to lend full body harness to someone else. If this condition happens and find any damage, full body harness should be abandoned immediately out of safety consideration. Be aware of the material - width and thickness of Harness may affect the safe equipment utilization. If necessary, please seek for the professional equipment knowledge support or Manufacturer's advice.
- The harnesses are intended to create an anchorage point on the operator to form a fall-arrest system to protect him against a fall when performing work at heights. A fall-arrest harness is the only device which can be worn on a body in a fall-arrest system.
- It is important for safety to verify the free space required beneath the user at the workplace before each occasion of use, so that, in the case of a fall, there will be no collision with the ground or other obstacle in the fall path.
- The user should ensure that he always work directly under the anchorage point. This will avoid the hazard of a swing fall. Always avoid any point whose strength may be subject to doubt. It is preferable to use the structural anchors provided for this purpose or anchorage points conforming to ANSI Z359.1 or anchorage points with a resistance exceeding 10KN.
- The connection of a fall arrest system to a full body harness must exclusively be carried out using the upper dorsal, sternal or pectoral attachment points.
- The lower side positioning anchorage points of a belt or a harness with a belt must be used solely for connecting to a work positioning system and never to a fall arrest system.
- Before each use, the user must examine the equipment visually to ensure it is in perfect operating condition. It is important to check for deformation, corrosion, sharp edges and abrasive areas on the metal parts of the system or components. Similarly check for cuts, burns, broken wires, extensive wear, and change of color or rigidity in the textile parts of the system or components.
- Store in a clean dry environment, avoiding direct sunlight, corrosive fumes, chemical substances or undue vibration.
- Always verify the compatibility of the full body harness with the other components of the equipment. An incompatible connection between the attachment point and connectors can cause accidental disconnection, breakage, or affect the safety function of another piece of equipment.

- Any equipment attached to the full body harness (anchorage, locking connectors, absorber, etc) must conform to ANSI Z359.1-2007.

- In extreme cases, the lifetime of the product can be reduced to one single use through exposure to for example any of the following: chemicals, extreme temperatures, sharp edges, major fall or load, etc.
- The potential lifetime of this product is as follows: up to 3 years from the date of manufacture for plastic and textile products. It is indefinite for metallic products.
- The actual lifetime of a product ends when it meets one of the retirement criteria listed below, or when in its system use it is judged obsolete.
- The actual lifetime is influenced by a variety of factors such as: the intensity, frequency, and environment of use, the competence of the user, how well the product is stored and maintained, etc.
- This full body harness shall be examined every year by a competent person to ensure the safety and serviceable condition.
- Following any fall incident (even a high one), your Harness must be inspected by a qualified safety officer / engineer, who will decide if the Harness is safe for further use or if it should be destroyed.
- Full body harness must not be used after sustaining a fall or on which visual inspection leaves any doubt, must be withdrawn immediately from service. Defects, damage, excessive wear, malfunction, and aging are generally not repairable.

MAINTENANCE AND STORAGE:

CARE

Do not expose the Full Body Harness to corrosive environments for prolonged periods. Organic substances and salt water are particularly corrosive to metal parts. When working in corrosive environments, more frequent inspection, cleaning and drying of the Full Body Harness is required.

- The equipment would be pack with polystyrene plastic material to prevent any item damage during transportation.
- The item may be cleaned with a mild detergent solution or disinfected with a mild sterile disinfectant.
- Store in a clean dry environment avoiding corrosive fumes or chemical substances.
- The Full Body Harness is difficult to give a precise lifetime because it depends on factors such as the environment where it is used (for instance in a marine environment, in contact with chemicals, sand etc.) and frequency of use. If maintained and cleaned regularly and used correctly the product will give many years of service.
- The equipment become wet, either from being in use or when due to cleaning, it shall be allowed to dry naturally, and shall be kept away from direct heat.

- Modifications and repairs outside of Red Wood facilities are prohibited.
- The requirement to check the legibility of the equipment marking during the periodic examination.
- The regular periodic examination is necessary for the equipment maintenance and when the equipment purchasing.
- The personal protective equipment shall be examined every year. The periodic examination are only to be conducted by a competent person and strictly in accordance with the manufacturer's periodic examination procedure.

STORAGE

- Store the Harness in a ventilated place away from humidity.
- Harness should be hung up by the rear D-Ring, or placed loosely in a container.
- Keep the Harness in its original packaging when no in use, or when transporting.
- Transport the component or system in a package to protect it from any cuts, moisture or ultraviolet light. Avoid corrosive, overheated or refrigerated atmospheres (freezing temperatures).

PERIODIC EXAMINATION:

Detailed recorded examinations should only be carried out by a competent person, appointed by the employer. Additionally, recorded interim examinations may be required where risks from harsh working environments exist which may affect safety functions of the device. These should be identified through risk assessment.

The Full Body Harness does not require any special tools and equipment. However, it is enable periodic examinations to be carried out by a competent person:

1. Ensure that the periodic examination instructions for other components used in conjunction with any item are complied with European standards. These recorded examinations must be carried out at least every 12 months as a requirement of ANSI Z359.1. However, the frequency of periodic examination is recommended taking account of such factors as legislation, equipment type, frequency of use, and environmental conditions.
2. Periodic examination is essential for the safety of the user. This examination guarantees the efficiency and trouble-free operation of the system or component. Be sure to fill in and preserve carefully the descriptive sheet, making a note of any periodic checks, and periodic check shall be performed by competent person for periodic examination.
3. Inspect each component and subsystem of the complete system in accordance with the associated manufacturer's instructions. No spare parts can be in place of.
4. Always make sure the product marking is present showing the date of manufacture and that it matches your user instructions. If the label is not legible on the product body or do not match the user instructions **DO NOT USE**.

5. The potential lifetime of this product is up to 3 years from the date of manufacture.
6. The actual lifetime of a product ends when it meets one of the retirement criteria listed below, or when its system use is judged obsolete.
 - Defects, damage, excessive wear, malfunction, and aging.
 - The hardware elements for deformations, fractures, cracks, corrosion, deep pitting, sharp edges, cuts, deep nicks and evidence of excessive heat or chemical exposures.
 - Inspect the Harness for wear, abrasion, cuts, frayed, missing or loose stitches, burns or signs of chemical attack.
 - You do not know its full usage history
 - It is at least 3 years old and made of plastics or textiles
 - You have any doubt as to its integrity.

7. If during the periodic examination any part is found not safe or faulty, please DO NOT use it. Defects, damage, excessive wear, malfunction, and aging are generally not repairable.
8. To keep better track of the equipment, it is preferable to assign each piece of equipment to a unique user so that he will know its history.
9. The results of inspections should be documented in an "inspection record". This document must allow recording of the following details: name, department and use date.

The above periodic inspection shall be strictly follow.

CLEANING & DISINFECTION:

The Full Body Harness does not require any particular maintenance. However, it is good practice to:

- Regularly clean the Harness with plain water and let dry in the air.
- Do not use bleach, solvents, petrol, or dye as they will affect the performance of the Lanyard.
- Apply disinfectant product and allow to remain for 10 minutes for 100% kill of vegetative organisms by sponge, mop, cloth, pressure sprayer, fogging device, portable sprayer.

The above cleaning instruction shall be strictly adhere to.

Markings and marking locations :

The illustrations on the following pages are representations of the actual labels that appear on Red Wood A-Series harnesses.

The **Harness Specifications Label** contains information that is specific to the particular harness. It will identify the Red Wood part number, the size of the harness, the material of which it is constructed, the date the harness was manufactured, and the harness' unique serial number. All this information is necessary for the user to know in order to assure safe use of the harness.

All the information on the **Harness Specifications Label** is important for the safe use of this product, so the user should ensure that the label has not been removed and that the descriptions it contains

match the task and environment in which the product is intended to be used.

On the back side of the **Harness Specifications Label** is the harness' **Inspection / Visitation**, which can be marked with an indelible marker or punched on the occasion of inspections. This label will be verified by a Competent Person at least annually, more often in the case of heavy use.

<p>USAFE® Full Body Harness / Arnes</p> <p>This is a 100% Polyester woven webbing Full Body Harness manufactured by NSF (NSF International Ltd) in accordance with the requirements of ANSI Z359.1 (2007) and approved by NSF (NSF International Ltd) for use as a Full Body Harness.</p> <p>Manufacturer: NSF / Red Wood Model: A-Series Size: L (Medium) Color: Blue / Gris</p> <p>The user must read, understand and follow the instructions and warnings included with the equipment at time of use. The user must also follow the instructions and warnings included with the equipment at time of use.</p> <p>Adaptations: E-Labels show wear, puncture, a large tear, or other damage to the equipment at time of use. The user must read, understand and follow the instructions and warnings included with the equipment at time of use.</p> <p>Made in China / Produit en Chine Ref: 1001-1001-1001</p>	<p>USAFE® Full Body Harness / Arnes</p> <p>This is a 100% Polyester woven webbing Full Body Harness manufactured by NSF (NSF International Ltd) in accordance with the requirements of ANSI Z359.1 (2007) and approved by NSF (NSF International Ltd) for use as a Full Body Harness.</p> <p>Manufacturer: NSF / Red Wood Model: A-Series Size: L (Medium) Color: Blue / Gris</p> <p>The user must read, understand and follow the instructions and warnings included with the equipment at time of use. The user must also follow the instructions and warnings included with the equipment at time of use.</p> <p>Adaptations: E-Labels show wear, puncture, a large tear, or other damage to the equipment at time of use. The user must read, understand and follow the instructions and warnings included with the equipment at time of use.</p> <p>Made in China / Produit en Chine Ref: 1001-1001-1001</p>	<p>USAFE® Full Body Harness / Arnes</p> <p>This is a 100% Polyester woven webbing Full Body Harness manufactured by NSF (NSF International Ltd) in accordance with the requirements of ANSI Z359.1 (2007) and approved by NSF (NSF International Ltd) for use as a Full Body Harness.</p> <p>Manufacturer: NSF / Red Wood Model: A-Series Size: L (Medium) Color: Blue / Gris</p> <p>The user must read, understand and follow the instructions and warnings included with the equipment at time of use. The user must also follow the instructions and warnings included with the equipment at time of use.</p> <p>Adaptations: E-Labels show wear, puncture, a large tear, or other damage to the equipment at time of use. The user must read, understand and follow the instructions and warnings included with the equipment at time of use.</p> <p>Made in China / Produit en Chine Ref: 1001-1001-1001</p>	<p>USAFE® Full Body Harness / Arnes</p> <p>This is a 100% Polyester woven webbing Full Body Harness manufactured by NSF (NSF International Ltd) in accordance with the requirements of ANSI Z359.1 (2007) and approved by NSF (NSF International Ltd) for use as a Full Body Harness.</p> <p>Manufacturer: NSF / Red Wood Model: A-Series Size: L (Medium) Color: Blue / Gris</p> <p>The user must read, understand and follow the instructions and warnings included with the equipment at time of use. The user must also follow the instructions and warnings included with the equipment at time of use.</p> <p>Adaptations: E-Labels show wear, puncture, a large tear, or other damage to the equipment at time of use. The user must read, understand and follow the instructions and warnings included with the equipment at time of use.</p> <p>Made in China / Produit en Chine Ref: 1001-1001-1001</p>
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Harness Warnings Label (Located on side of back strap)

Name / Nom:		Inspection / Visitation											
Department / Section:		Use Date / Fecha de Uso:											
		1	2	3	4	5	6	7	8	9	10	11	12
11													
12													
13													
14													
15													

Ref: Inspection-A1 Rev. 1.0

Harness Specifications Label (Located on side of back strap)

MANUFACTURE INFORMATION:

Taiwan
Red Wood Enterprise Co., Ltd.
No. 36, Lu Kong South 2nd Rd.,
Lu Kang Chang Hua Shein, Taiwan
TEL: 886-4-7810588
FAX: 886-4-7810688
Website: www.redwood.com.tw

China
Kunshan Red Wood Enterprise Co., Ltd.
No.8, Jin Yang East Rd Lu Jia Zhen Kunshan Jiangsu. P.R.C
TEL: +86-512-57676288
FAX: +86-512-57676788
Website: www.redwood.com.tw

