

PMI® CS TECH HARNESS

SG51156



PIGEON MOUNTAIN

PMI®
INDUSTRIES

Manufacturer's Instructions



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PRODUCT DESCRIPTION

PMI®'s one-piece, full-body harness was designed with the needs of the Confined Space worker in mind. Separating buckles on the leg loops and shoulder strap make this harness easy to put on and take off.

KEY FEATURES

- Dorsal, sternal, waist, and shoulder attachment points.
- Adjustable dorsal and shoulder rings.
- Adjusts to fit 31"- 52" waists.
- Separating buckles on legs and right shoulder.
- Ergonomic shoulder straps.
- Quick adjusting low profile buckles on waist.
- Storage bag included.
- Fall Arrest Indicator.
- Lanyard Parking Attachment Point.
- Large D-Ring attachment points.

CERTIFICATIONS

Meets NFPA 1983, 2017 Edition, Class III Full Body Harness.

Additional Information regarding life safety harnesses can be found in NFPA 1500 and NFPA 1983.

SPECIFICATIONS

Size: One Size

Sizing Info: Waist: 31"- 52" Leg: 19"- 34"

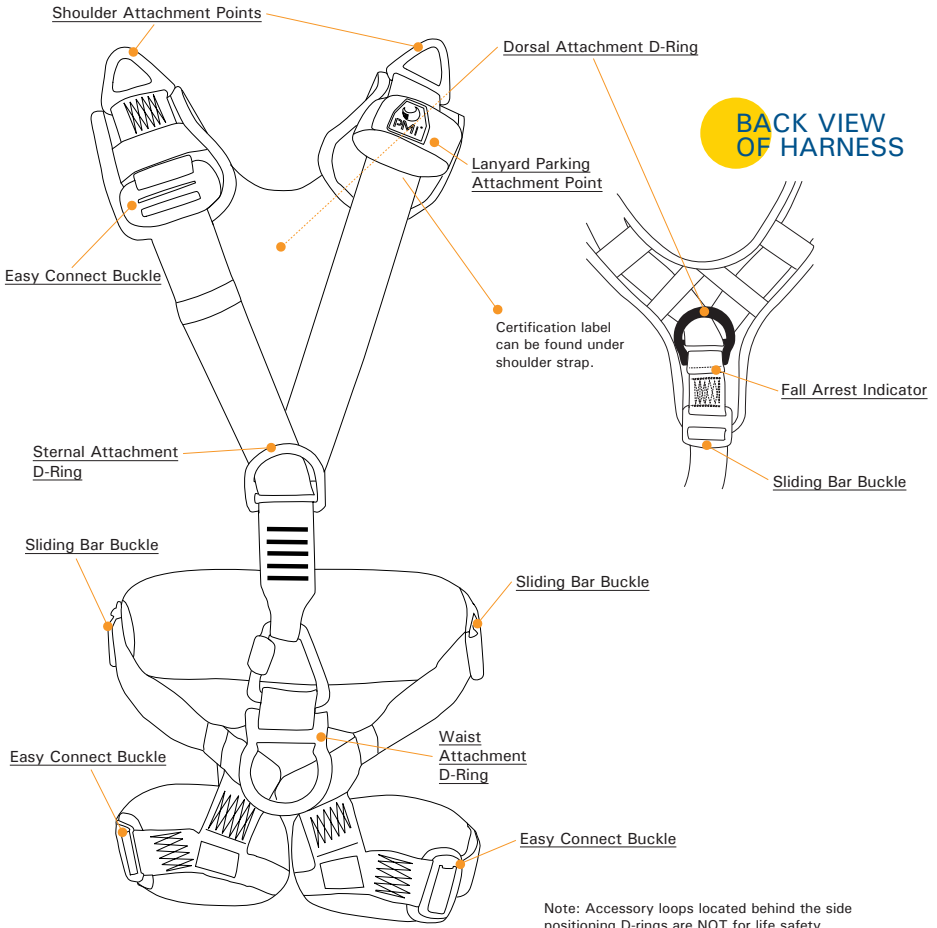
Color: Grey/Red

Weight: 5 lbs 1 oz (2.300 kg)

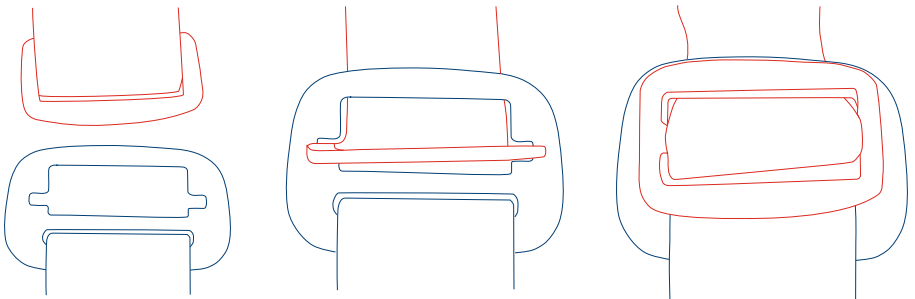
Materials: Nylon, Steel and Aluminum

FEATURES

FEATURES OF THE CS TECH HARNESS



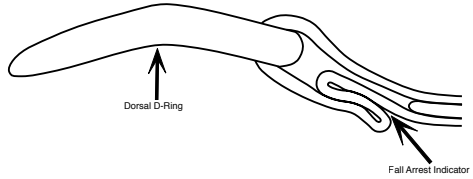
PROPERLY CONNECTING THE EASY CONNECT BUCKLE



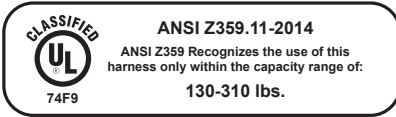
FEATURES *(continued)*

If Fall Arrest Indicator has been deployed and is showing any part of the red indicator label, then do not use the harness and retire it immediately.

SIDE VIEW OF DORSAL ATTACHMENT



LABELS



8/2017 RM00472



RM00369
8/2017

FULL BODY HARNESS
IN ACCORDANCE WITH
ANSI / ASSE Z359.11-2014
74F9
FIBER USED: NYLON

WARNING

- YOU COULD BE KILLED OR SERIOUSLY INJURED IF YOU DO NOT READ AND UNDERSTAND THIS LABEL BEFORE USING HARNESS.
- SPECIAL TRAINING AND KNOWLEDGE ARE REQUIRED TO USE THIS HARNESS.
- YOU MUST THOROUGHLY READ AND UNDERSTAND ALL MANUFACTURER'S INSTRUCTIONS BEFORE USE.
- USE AND INSPECT THIS HARNESS ONLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- REFER TO ADDITIONAL MANUFACTURER'S INSTRUCTIONS FURNISHED WITH THIS HARNESS BEFORE USE. YOU CAN CONTACT THE MANUFACTURER AT 1-706-764-1437 FOR IMPORTANT SAFETY INFORMATION.

RM00095 8/2017

DO NOT REMOVE THIS LABEL

OWNER'S NAME: _____

OWNER'S SERIAL NUMBER: _____

PLACED IN SERVICE: _____

RM00252
4-2006

PIGEON MOUNTAIN INDUSTRIES, INC.

LAFAYETTE, G.A.

MODEL NUMBER: _____

DATE OF MFG: _____

LOT NUMBER: _____

MADE IN USA

RM00090



RM00091
8/2017

MEETS THE LIFE SAFETY HARNESS
REQUIREMENTS OF NFPA 1883,
STANDARD ON LIFE SAFETY ROPE AND
EQUIPMENT FOR EMERGENCY
SERVICES, 2017 EDITION, CLASS II. THIS
HARNESS IS NOT FLAME-RESISTANT!
DO NOT REMOVE THIS LABEL!

WARNINGS *(continued)*

⚠ WARNING

- ▲ Failure to follow these stated warnings may result in serious injury or death.
- ▲ You are responsible for your own safety and decisions while using this product.
- ▲ Activities involving the use of this product are inherently dangerous; you must understand and accept the risks involved.
- ▲ Special training and knowledge are required to use this product. These instructions are not an acceptable substitute for appropriate training by a qualified instructor. The techniques employed in the safe and proper use of this equipment may only be learned through training from an instructor who is well qualified in all phases of vertical rope work. Such instruction will include evaluation of your comprehension of, and ability to perform, the task required to safely and efficiently use this equipment. Never attempt to use this product until you have received appropriate instruction and are approved to be competent by your instructor.
- ▲ Harness should not be used near moving machinery, electrical hazards, sharp edges, or abrasive surfaces without proper additional safety equipment in place. In addition, harness should be carried where it will be protected, as the harness could melt or burn and fail if exposed to flame or high temperature.
- ▲ All webbing tails should be properly secured before use.
- ▲ This harness is fitted with safety buckles that ensure no slip performance when properly rigged. If not used properly, the buckle will not hold and can result in injury or death. Inspect the buckle on receipt and before use to ensure that the two part buckle design is functioning properly.
- ▲ The user must have a rescue plan prepared and the means available to implement it while wearing this harness.
- ▲ For any safety information regarding this harness refer to all Manufacturer's/ User Instructions that shall remain available before and after use of this product.
- ▲ Use and inspect this product only in accordance with the manufacturer's instructions.
- ▲ The main attachment D-rings (sternal, dorsal, and waist) are for attaching to full strength anchors used to support life-safety loads. Equipment such as life safety lanyards, descenders, ascenders, and fall arrest systems are to be attached to these points in accordance with applicable standards and regulations.
- ▲ The side D-rings are for work positioning only and designed to be used as a pair with an appropriate work positioning lanyard. The side D-rings are NOT to be used as life safety attachment points.
- ▲ The accessory loops are designed to attach equipment only and should NEVER be used for life safety applications such as belaying, anchoring a person, or tying in to a life safety system.
- ▲ DO NOT alter or repair this product in any way. Any attempt will cancel the manufacturer's warranty and could compromise the safety of the product causing serious injury or death. Only the equipment manufacturer, or persons or entities authorized in writing by the manufacturer, can make repairs to the equipment.
- ▲ These manufacturer's instructions shall be provided to the users of the harness.
- ▲ Make a copy and keep these manufacturer's instructions, all product labels and the equipment inspection log WITH the equipment so that any potential user can read them prior to use and make entries after use.

WARNINGS *(continued)*

- ▲ Use caution when using combinations of components or sub-systems, or both, which may affect or interfere with the safe function of each other.
- ▲ If Fall Arrest Indicator has been deployed and is showing any part of the red indicator label, then retire the harness immediately.
- ▲ The Lanyard Parking attachment point is used only to attach lanyards in a manner that prevents tripping or entanglement on working surfaces. Do not use this Lanyard Parking Attachment Point as a life safety attachment point or for attaching any other equipment other than the lanyard connectors.
- ▲ The maximum value from testing the stretch of this full body harness was 8.5 inches. You must include this length and other factors such as D-ring/connector length, settling of the user's body and all other contributing elements when calculating fall clearance.
- ▲ PMI is not responsible or liable in any way for damages of any kind, injury or death resulting from direct or indirect incidents related to the use of its products.
- ▲ If in doubt about this use of this product or for any additional questions, please contact PMI at 706-764-1437 before using this product.

HARNESS FIT

To ensure a good fit, user must try on and adjust appropriately prior to use.

- Loosen waist belt, leg loops, and front chest connector (if applicable).
- Step through waist belt, inserting a leg into each loop.
- Flip chest harness forward, over your head, placing head between straps.
- Fasten front chest connector (if applicable).
- Tighten waist belt comfortably.
- Adjust size of chest harness so that it is snug, and the height of rear leg risers as appropriate.
- Tighten leg loops comfortably.

USE

**Approved American National Standard
ANSI/ASSE Z359.11-2014 Annex A- Normative American National Standard
Safety Requirements for Full Body Harnesses**

Note: This information from the Z359.11 standard is required to be included in the instruction manual for the end user:

ANSI/ASSE Z359 Requirements for Proper Use and Maintenance of Full Body Harnesses (Note: These are general requirements and information provided by ANSI/ASSE Z359, the Manufacturer of this equipment may impose more stringent restrictions on the use of the products they manufacture, see the Manufacturer's instructions.)

1. It is essential that the users of this type of equipment receive proper training and instruction, including detailed procedures for the safe use of such equipment in their work application.
ANSI/ASSE Z359.2, Minimum Requirements for a Comprehensive Managed Fall Protection Program, establishes guidelines and requirements for an employer's managed fall protection program, including policies, duties and training; fall protection procedures; eliminating and controlling fall hazards; rescue procedures; incident investigations; and evaluating program effectiveness.

USE *(continued)*

2. Correct fit of a Full Body Harness is essential to proper performance. Users must be trained to select the size and maintain the fit of their Full Body Harness.
3. Users must follow manufacturer's instructions for proper fit and sizing, paying particular attention to ensure that buckles are connected and aligned correctly, leg straps and shoulder straps are kept snug at all times, chest straps are located in the middle chest area and leg straps are positioned and snug to avoid contact with the genitalia should a fall occur.
4. Full Body Harnesses which meet ANSI/ASSE Z359.11 are intended to be used with other components of a Personal Fall Arrest system that limit maximum arrest forces to 1800 pounds (8 kN) or less.
5. Suspension intolerance, also called suspension trauma or orthostatic intolerance, is a serious condition that can be controlled with good harness design, prompt rescue and post fall suspension relief devices. A conscious user may deploy a suspension relief device allowing the user to remove tension from around the legs, freeing blood flow, which can delay the onset of suspension intolerance. An attachment element extender is not intended to be attached directly to an anchorage or anchorage connector for fall arrest. An energy absorber must be used to limit maximum arrest forces to 1800 pounds (8 kN). The length of the attachment element extender may affect free fall distances and free fall clearance calculations.
6. Full Body Harness (FBH) Stretch, the amount the FBH component of a personal fall arrest system will stretch and deform during a fall, can contribute to the overall elongation of the system in stopping a fall. It is important to include the increase in fall distance created by FBH Stretch, as well as the FBH connector length, the settling of the user's body in the FBH and all other contributing factors when calculating total clearance required for a particular fall arrest system.

ANSI/ASSE Z359.11-2014 American National Standard Safety Requirements for Full Body Harnesses

7. When not in use, unused lanyard legs that are still attached to a Full Body Harness D-ring should not be attached to a work positioning element or any other structural element on the Full Body Harness unless deemed acceptable by the competent person and manufacturer of the lanyard. This is especially important when using some types of "Y" style lanyards, as some load may be transmitted to the user through the unused lanyard leg if it is not able to release from the harness. The lanyard parking attachment is generally located in the sternal area to help reduce tripping and entanglement hazards.
8. Loose ends of straps can get caught in machinery or cause accidental disengagement of an adjuster. All Full Body Harnesses shall include keepers or other components which serve to control the loose ends of straps.
9. Due to the nature of soft loop connections, it is recommended that soft loop attachments only be used to connect with other soft loops or carabiners. Snaphooks should not be used unless approved for the application by the manufacturer.
10. Dorsal – The dorsal attachment element shall be used as the primary fall arrest attachment, unless the application allows the use of an alternate attachment. The dorsal attachment may also be used for travel restraint or rescue. When supported by the dorsal attachment during a fall, the design of the Full Body Harness shall direct load through the shoulder straps supporting the user, and around the thighs. Supporting the user, post fall, by the dorsal attachment will result in an upright body position with a slight lean to the front with some slight pressure to the lower chest. Considerations should be made when choosing a sliding versus fixed

dorsal attachment element. Sliding dorsal attachments are generally easier to adjust to different user sizes, and allow a more vertical rest position post fall, but can increase FBH Stretch.

Sections 11-16 provide additional information concerning the location and use of various attachments that may be provided on this FBH.

11. Sternal – The sternal attachment may be used as an alternative fall arrest attachment in applications where the dorsal attachment is determined to be inappropriate by a competent person, and where there is no chance to fall in a direction other than feet first. Accepted practical uses for a sternal attachment include, but are not limited to, ladder climbing with a guided type fall arrester, ladder climbing with an overhead self-retracting lifeline for fall arrest, work positioning and rope access. The sternal attachment may also be used for travel restraint or rescue.

When supported by the sternal attachment during a fall, the design of the Full Body Harness shall direct load through the shoulder straps supporting the user, and around the thighs. Supporting the user, post fall, by the sternal attachment will result in roughly a sitting or cradled body position with weight concentrated on the thighs, buttocks and lower back. Supporting the user during work positioning by this sternal attachment will result in an approximate upright body position.

If the sternal attachment is used for fall arrest, the competent person evaluating the application should take measures to ensure that a fall can only occur feet first. This may include limiting the allowable free fall distance. It may be possible for a sternal attachment incorporated into an adjustable style chest strap to cause the chest strap to slide up and possibly choke the user during a fall, extraction, suspension, etc. The competent person should consider Full Body Harness models with a fixed sternal attachment for these applications.

12. Frontal – The frontal attachment serves as a ladder climbing connection for guided type fall arresters where there is no chance to fall in a direction other than feet first, or may be used for work positioning. Supporting the user, post fall or during work positioning, by the frontal attachment will result in a sitting body position, with the upper torso upright, with weight concentrated on the thighs and buttocks. When supported by the frontal attachment the design of the Full Body Harness shall direct load directly around the thighs and under the buttocks by means of the sub-pelvic strap.

If the frontal attachment is used for fall arrest, the competent person evaluating the application should take measures to ensure that a fall can only occur feet first. This may include limiting the allowable free fall distance.

13. Shoulder – The shoulder attachment elements shall be used as a pair, and are an acceptable attachment for rescue and entry/retrieval. The shoulder attachment elements shall not be used for fall arrest. It is recommended that the shoulder attachment elements be used in conjunction with a yoke which incorporates a spreader element to keep the Full Body Harness shoulder straps separate.

14. Waist, Rear – The waist, rear attachment shall be used solely for travel restraint. The waist, rear attachment element shall not be used for fall arrest. Under no circumstances is it acceptable to use the waist, rear attachment for purposes other than travel restraint. The waist, rear attachment shall only be subjected to minimal loading through the waist of the user, and shall never be used to support the full weight of the user.

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USE (continued)

15. Hip – The hip attachment elements shall be used as a pair, and shall be used solely for work positioning. The hip attachment elements shall not be used for fall arrest. Hip attachments are often used for work positioning by arborists, utility workers climbing poles and construction workers tying rebar and climbing on form walls. Users are cautioned against using the hip attachment elements (or any other rigid point on the Full Body Harness) to store the unused end of a fall arrest lanyard, as this may cause a tripping hazard, or, in the case multiple leg lanyards, could cause adverse loading to the Full Body Harness and the wearer through the unused portion of the lanyard.
16. Suspension seat – The suspension seat attachment elements shall be used as a pair, and shall be used solely for work positioning. The suspension seat attachment elements shall not be used for fall arrest. Suspension seat attachments are often used for prolonged work activities where the user is suspended, allowing the user to sit on the suspension seat formed between the two attachment elements. An example of this use would be window washers on large buildings.

USER INSPECTION, MAINTENANCE & STORAGE OF EQUIPMENT

Approved American National Standard ANSI/ASSE Z359.11-2014 Annex A- Normative American National Standard Safety Requirements for Full Body Harnesses

Note: This information from the Z359.11 standard is required to be included in the instruction manual for the end user:

Users of personal fall arrest systems shall, at a minimum, comply with all manufacturer instructions regarding the inspection, maintenance and storage of the equipment. The user's organization shall retain the manufacturer's instructions and make them readily available to all users. See ANSI/ASSE Z359.2, Minimum Requirements for a Comprehensive Managed Fall Protection Program, regarding user inspection, maintenance and storage of equipment.

INSPECTION

1. In addition to the inspection requirements set forth in the manufacturer's instructions, the equipment shall be inspected by the user before each use and, additionally, by a competent person, other than the user, at interval of no more than one year for:
 - Absence or illegibility of markings.
 - Absence of any elements affecting the equipment form, fit or function.
 - Evidence of defects in, or damage to, hardware elements including cracks, sharp edges, deformation, corrosion, chemical attack, excessive heating, alteration and excessive wear.
 - Evidence of defects in or damage to strap or ropes including fraying, unsplicing, unlaying, kinking, knotting, roping, broken or pulled stitches, excessive elongation, chemical attack, excessive soiling, abrasion, alteration, needed or excessive lubrication, excessive aging and excessive wear.
2. Inspection criteria for the equipment shall be set by the user's organization. Such criteria for the equipment shall equal or exceed the criteria established by this standard or the manufacturer's instructions, whichever is greater.
3. When inspection reveals defects in, damage to, or inadequate maintenance of equipment, the equipment shall be permanently removed from service or undergo adequate corrective maintenance, by the original equipment manufacturer or their designate, before return to service.

USER INSPECTION, MAINTENANCE & STORAGE OF EQUIPMENT

(continued)

Your harness should be thoroughly inspected before each use. Inspections should be recorded and the details maintained in an equipment inspection log. Keep these instructions and the equipment inspection log with the harness so that the user can read and make important inspection entries.

A sample equipment inspection log is provided in these instructions but you may need to make your own with the same criteria. Any harness that does not pass inspection should be immediately retired from service and destroyed or serious injury or death could occur. Detailed inspection criteria must be established by the user according to his needs.

Inspections should include at a minimum:

- Examination of all load-bearing components for signs of damage.
- Inspection of all stitching for signs of wear, fraying, breaks, loosened/pulled threads, or cuts.
- Inspection of webbing for signs of cuts, burns, discoloration, broken fibers, hard/soft sections, or excessive wear.
- Examination of buckles, screw links, and attachment points for proper function.
- Examination of all metal components for corrosion, damage or sharp edges.
- Inspection of webbing rigging to ensure that harness has been properly assembled.
- Inspection for any signs of damage from heat, chemical exposure, or other environments.
- Inspection of in-service date.
- Inspection of date of manufacture.

MAINTENANCE AND STORAGE

Approved American National Standard ANSI/ASSE Z359.11-2014 Annex A- Normative American National Standard Safety Requirements for Full Body Harnesses

Note: This information from the Z359.11 standard is required to be included in the instruction manual for the end user:

1. Maintenance and storage of equipment shall be conducted by the user's organization in accordance with the manufacturer's instructions. Unique issues, which may arise due to conditions of use, shall be addressed with the manufacturer.
2. Equipment which is in need of, or scheduled for, maintenance shall be tagged as unusable and removed from service.
3. Equipment shall be stored in a manner as to preclude damage from environmental factors such as temperature, light, UV, excessive moisture, oil, chemicals and their vapors or other degrading elements.

The following maintenance guidelines should be followed:

- Store harness loosely packed in a clean, dry environment.
- Thoroughly air dry a wet harness before storing it; never dry in a heated dryer.
- Keep your harness away from exposure to direct flame or high temperatures such as in a hot vehicle.
- Prevent exposure of your harness to chemicals or other damaging substances.

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USER INSPECTION, MAINTENANCE & STORAGE OF EQUIPMENT

(continued)

- DO NOT attempt to alter, make any modifications to or attempt to repair this harness. Any attempt to do so will void the warranty and the safety of the harness could be compromised.

WASHING: Cleaning Your Harness - If your harness is dirty, you can wash it by hand or in a front-loading commercial washing machine. Use a PMI® Laundry bag for keeping the harness from getting tangled/damaged when washing in a machine. Wash harness by using cool to warm water < 30°C (< 86°F) with a mild soap. PMI recommends using PMI® Rope Soap; otherwise non-detergent soaps are best. Soap used should not contain any bleaching agents.

DO NOT:

- DO NOT use top loading washing machines with agitators because they tangle/ damage the harness severely and can cause damage to the machine.
- DO NOT use a commercial dryer to dry the harness.
- DO NOT leave a wet harness on a surface where contaminants may leach (such as concrete).
- DO NOT expose the harness to exhaust fumes.

DISINFECTING: Disinfection of a harness may occasionally become necessary, such as when exposed to bloodborne pathogens. To disinfect a harness from suspected bloodborne pathogens, PMI recommends following the NFPA standard for cleaning rescue gear of bloodborne pathogens. Keeping in mind that undiluted household bleach is known to damage nylon, NFPA calls for using a diluted solution of household bleach to clean rescue gear. Add 60 ml of household bleach per 4 liters of tap water. That's about one quarter (1/4) cup of bleach per gallon of water. Be aware that some commercial bleach solutions are stronger than the recommended 1.5% that is typical for household bleach. Soak the gear in the diluted solution for ten minutes, then rinse thoroughly with tap water.

The rinsing cycle is critical to prevent any damage to the nylon from the bleach. It is good to soak the gear in tap water for the same amount of time it soaked in the bleach solution. Never store gear while it is wet.

WARNING

The use of bleach over a long period of time, in repeated uses, can cause damage to fibers such as nylon. Disinfection of the harness using bleach should be used sparingly and only when needed.

DRYING: Dry your harness in a clean, dry area out of direct sunlight. For best results, it should be hung up to air dry in a low-humidity environment. DO NOT leave a wet harness on a surface where contaminants may leach (such as concrete).

WRITE IT DOWN: Remember to record the cleaning on the Equipment Log.

KEEP IT CLEAN: Store your harness in a clean, dark, dry environment, away from exposure to acids, other harmful chemicals, noxious fumes or other abuse.

PRODUCT LIFETIME

Retiring your harness is a judgment that is the responsibility of the user and should be based largely on results of frequent inspections, environment and use history.

If you have any questions regarding retirement of your harness you can contact PMI.

PRODUCT LIFETIME *(continued)*

Regardless of history and use, a PMI® Avatar Deluxe Harness should be retired if it is greater than 10 years from the date of manufacture. The actual service life of PMI® Avatar Deluxe Harness may be much less than 10 years and should be based largely on the results of frequent inspection and use history. Material integrity and product performance characteristics will degrade over time. PMI recommends that you thoroughly inspect your equipment before each use and at a minimum at least once every 6 months. Specialized training may be required to become competent with inspecting equipment and knowing when to retire your equipment. Good judgment, as well as proper care and inspection, are key to making personal decisions regarding the retirement of your harness.

A significant event with the potential to change the product should prompt you to consider retiring it immediately even if before or after only one use. Factors that may affect the safety of a harness depends on the type and frequency of usage (light to heavy), the environment including harsh environments with extreme temperatures, marine (salty or highly corrosive) environments, chemical contact, contact with sharp edges, etc. Textiles can become dry and brittle, plastics can weaken in areas, small cracks can form, etc. The best way to know when a change has occurred is to implement frequent detailed inspections before each use.

RETIREMENT CRITERIA

Use the following Retirement Criteria as guidelines for retiring your harness:

- RETIRE IMMEDIATELY any harness where the stitching is cut, torn, excessively worn or visibly damaged.
- RETIRE IMMEDIATELY any harness that is greater than 10 years old from the date of manufacture regardless of history and use.
- RETIRE IMMEDIATELY any harness whose strength may have been compromised during use.
- RETIRE IMMEDIATELY any harness which is subjected to a major fall or uncontrolled or excessive loading.
- RETIRE IMMEDIATELY any harness with a manufacture date which is greater than 10 years old, regardless of history and usage.
- RETIRE IMMEDIATELY any harness whose history and past usage you are uncertain about.
- RETIRE IMMEDIATELY any harness that has been exposed to excessive heat, direct flame or excessive abrasion.
- RETIRE IMMEDIATELY any harness that has been exposed to liquids, solids, gases, mists, or vapors of any chemical or other substance that can deteriorate the harness materials.
- RETIRE IMMEDIATELY any harness that does not pass inspection when following the inspection procedures in these instructions.

WARNING

CUT ANY RETIRED HARNESS to discourage future use and discard it entirely. A retired harness should not be stored, kept or maintained in such a way that it could inadvertently be used again.



For more information about this or other PMI products, please contact us at:

PIGEON MOUNTAIN INDUSTRIES
PO Box 803
LaFayette, GA 30728, USA

706-764-1437
1-800-282-ROPE (7673)

custserv@pmirope.com
PMIROPE.COM

PMI LIMITED WARRANTY

PMI products are warranted to the original retail purchaser to be free from defect in material and workmanship for a period of one year. PMI will repair or replace the item without charge provided inspection at our factory discloses no misuse or alteration, which, in our judgment, has affected the condition or functioning of the product. All implied warranties imposed by law in connection with the sale of PMI products are also limited in duration to a period of one year. PMI expressly excludes and shall not be liable for any consequential damages arising out of any breach of the express or implied warranties on sales of PMI products. Because of the high risks involved in high angle rope work such as, but not limited to, rescue, rope access, caving, rappelling, rock climbing and mountaineering, no further warranties exist or are implied by PMI. Regulations issued under the Magnuson-Moss Warranty Act require us to include the following statement: some states do not allow limitations on how long an implied warranty lasts nor the excluding or limitation of incidental or consequential damages, so the above limitations may not apply to you.