#### LABELS

The following product labels are located in the keeper situated in the rear of the harness in the following order.

#### ANSI Z359.11-2014

ខ 000255

**ANSI Z359 RECOGNIZES THE USE OF THIS** HARNESS ONLY WITHIN THE CAPACITY RANGE OF:

130 LBS (59 KG) - 310 LBS (140 KG)



**MEETS THE LIFE SAFETY HARNESS** REQUIREMENTS OF NFPA 1983. STANDARD ON LIFE SAFETY ROPE AND EQUIPMENT FOR **EMERGENCY SERVICES 2017 EDITION, CLASS III.** THIS HARNESS IS NOT FLAME RESISTANT! DO NOT REMOVE THIS LABEL!

**EMERGENCY SERVICES LIFE SAFETY** HARNESS IN ACCORDANCE WITH NFPA 1983-2017 AND ALSO IN ACCORDANCE WITH ANSI / ASSE Z359.11-2014

	NAME:	I USA IGN INC. RIVE
2 00C	AGENCY:	IRED IN FORE NENTS SCUE, ONA DF CA 931
000295	PHONE:	JFACTU US AND COMPO CORT CORT CMCPR
	DATE IN SERVICE:	MANU OF I BY C 6740

2 00	If this equipment fails inspection, remove it from vice and destroy it.	CTURED INITIALS	CTED		
000282 00	If this eq fails ins remove service and	MANUFACTURED DATE INITIAL	INSPECTED DATE INIT		

# **A** Warning

- YOU COULD BE KILLED OR SERIOUSLY INJURED IF YOU DO NOT READ AND UNDERSTAND THIS LABEL BEFORE USING THIS LIFE SAFETY EQUIPMENT.
- SPECIAL TRAINING AND KNOWLEDGE ARE REQUIRED TO USE THIS LIFE SAFETY EQUIPMENT.
- YOU MUST THOROUGHLY READ AND UNDERSTAND ALL MANUFACTURER'S INSTRUCTIONS BEFORE USE.
- USE AND INSPECT THIS LIFE SAFETY EQUIPMENT ONLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

#### DO NOT REMOVE THIS LABEL!



# Helix Harness

Made in USA

of US and foreign components

# ♠ WARNING

- FAILURE TO COMPLY WITH INSTRUCTIONS OR IMPROPER USE OF THIS EQUIPMENT MAY RESULT IN SERIOUS INJURY OR DEATH.
- THIS EQUIPMENT HAS BEEN DESIGNED AND MANUFACTURED FOR USE BY EXPERIENCED PROFESSIONALS ONLY.
- DO NOT ATTEMPT TO USE THIS EQUIPMENT WITHOUT PROPER TRAINING.
- MANUFACTURER'S INSTRUCTIONS SHALL BE PROVIDED TO THE USER.
- THOROUGHLY READ AND UNDERSTAND ALL LABELS AND INSTRUCTIONS BEFORE USE.
- USE, INSPECT AND REPAIR ONLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- DO NOT ALTER OR MISUSE THIS EQUIPMENT.
- FOLLOW RECOMMENDED PROCEDURES FOR DONNING AND ADJUSTING THE HARNESS.
- FOLLOW THE EMPLOYER'S SAFE WORKING PROCEDURES AT ALL TIMES WHEN USING THE HARNESS.
- THE USER SHALL HAVE A RESCUE PLAN AND A MEANS TO IMPLEMENT IT WHEN USING THIS EQUIPMENT.
- THE USER SHALL KNOW AND FOLLOW ALL APPLICABLE OSHA AND OTHER REGULATIONS PERTAINING TO OCCUPATIONAL SAFETY.
- ASSURE THAT ANY COMBINATION OF COMPONENTS OR SUBSYSTEMS, OR BOTH, DO NOT INTERFERE WITH THE SAFE FUNCTION OF EACH OTHER.
- DO NOT EXPOSE THE HARNESS TO CHEMICALS WHICH ARE HARMFUL TO NYLON. IF IN DOUBT, CONTACT THE MANUFACTURER.
- AVOID CONTACT WITH SHARP EDGES OR ABRASIVE SURFACES.
- USE EXTREME CAUTION WHEN USING THE HARNESS AROUND MOVING MACHINERY OR ELECTRICAL HAZARDS.



REQUIREMENTS OF NFPA 1983, STANDARD ON LIFE
REQUIREMENTS OF NFPA 1983, STANDARD ON LIFE
REQUIREMENTS OF AND FOUNDMENT FOR EMERGENCY SERVICES, 2017 EDITION, CLASS III. THIS HARNESS IS NOT FLAME RESISTANT!

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**EMERGENCY SERVICES LIFE SAFETY HARNESS** IN ACCORDANCE WITH NFPA 1983-2017 AND ALSO IN ACCORDANCE WITH ANSI / ASSE Z359.11-2014

#### CMC Rescue, Inc.

6740 Cortona Drive, Goleta CA 93117 USA 805-562-9120 / 800-235-5741 cmcpro.com

## ISO 9001 Certified

#### HARNESS CERTIFICATION AND USE

Rescue and work harnesses from CMC are designed to comfortably support the wearer, creating a safe work platform. Because our harnesses are used when working at height, they are also built with the strength to catch a fall. Depending on the intended use (rescue, rope access or fall protection) harnesses are tested to specific standards set by the applicable industry.

**Rescue:** NFPA 1983 provides specifications for a rescue harness. All front and back D-ring connection points are dynamically and statically tested, and independently certified to this standard.

Rope Access Work: A harness selected for rope access work needs comfort and support very similar to a rescue harness, which is not available in a harness designed solely for fall arrest applications. Depending on the applicable regulations, fall protection may also be required. When so labeled, CMC harnesses are independently certified to ANSI Z359.11.

Fall Protection: Harnesses designed solely for fall protection are independently certified to ANSI Z359.11.

#### **USER INFORMATION**

User Information shall be provided to the user of the product. NFPA Standard 1983 recommends separating the User Information from the equipment and retaining the information in a permanent record. The standard also recommends making a copy of the User Information to keep with the equipment and that the information should be referred to before and after each use.

Additional information regarding life safety equipment can be found in NFPA 1500, Standard on Fire Department Occupational Safety and Health Programs, and NFPA 1983, Standard on Life Safety Rope and Equipment for Emergency Services.

#### **INSPECTION**

Inspect the equipment according to your department's policy for inspecting life safety equipment. Inspect the equipment prior to entry into service, after each use, and at least once every 12 months. The equipment should be thoroughly inspected by an inspector that meets your department's training standard for inspection of life safety equipment. Keep a record of the date, person performing the inspection and results, as well as the date of first use, name of users and any other pertinent information necessary to keep accurate track of the equipment's usage history in the equipment log or on a tag that attaches to the equipment. Each user should be trained in equipment inspection and should inspect the equipment before each use.

When inspecting the equipment, check the webbing and rope for cuts, worn or frayed areas, broken fibers, soft or hard spots, discoloration, or melted fibers. Check the stitching for pulled threads, abrasion, or breaks. Check the hardware for damage, sharp edges, and improper operation. If any of the above is noted, or if the equipment has been subjected to shock loads, fall loads, or abuse other than normal use, remove the equipment from service and destroy it. If there is any doubt about the serviceability of the equipment, remove the equipment from service and destroy it.

The service life of equipment depends greatly on the type of use and the environment of use. Because these factors vary greatly, a precise service life of the equipment cannot be provided.

Prior to donning the harness, inspect the fall arrest indicator located in proximity of the dorsal attachment point. If the fall arrest indicator is damaged or shows signs of being deployed, remove the harness from service immediately.

#### **PUTTING ON YOUR HARNESS**

- Loosen the adjusting buckle on each side of the waist belt to make the waist larger.
- Holding the harness by the right shoulder strap, open all of the quick-connect buckles. With the shoulder strap in the right hand, step through the waist belt.
- Pull the waist belt up around your waist while sliding the shoulder strap over your right shoulder.
- Tighten both waist straps until the waist is snug, and the front D-ring is centered.
- Reach over your left shoulder and find the left shoulder strap.
   Connect the quick-connect buckle and adjust the shoulder strap until snug.
- 6) Connect the leg strap quick-connect buckles and adjust until snug.
- Secure all loose webbing tails in the provided Web Keepers™.

A suspension test should be carried out in a safe place prior to putting the harness in service. A suspension test will verify that the harness is the correct size, has sufficient adjustment and is of an acceptable comfort level for the intended use.

WARNING: Make sure the straps are snug. This increases the comfort when sitting in the harness and helps prevent the quick-connect buckles from disconnecting. When wearing the harness, double-check the buckles, adjusters, and fit of the harness immediately prior to relying on it for support.

#### **USING YOUR HARNESS**

CMC harnesses are not intended for rock climbing. Lead climbing ropes should not be tied into the D-ring or connected into it with a carabiner.

To prevent roll out when using carabiners to attach to an attachment point, use only locking models. If using manual locking carabiners, verify that they are locked before use. It is the users responsibility to verify equipment compatibility with components and sub-systems before use.

Consult with the current edition of ANSI/ASSE Z359.11 and applicable State or Provincial regulations governing occupational safety. The user should consider all component extensions and allow clearance for an arrest to take place a safe distance away from the ground or structure. A harness stretch factor of up to 18 inches (46 cm) should be factored in while calculating fall clearance.

#### LANYARD PARKING ELEMENT

If using a fall arrest lanyard or Y-lanyard, connect the lanyard snaphook to the parking element located at the waist of the harness when not in use (unless otherwise connected to an anchorage point). The lanyard parking element of the harness is intended to disengage in the event that the lanyard is hung up or tangled during a fall or during normal use creating a hazard.

## **CARRYING, MAINTENANCE & STORAGE**

During use, carrying and storage keep the equipment away from acids, alkalis, exhaust emissions, rust and strong chemicals. Do not expose the equipment to flame or high temperatures. Carry the equipment where it will be protected as the equipment could melt or burn and fail if exposed to flame or high temperatures.

If the equipment becomes soiled, it can be washed in cold water with a mild detergent that is safe for use with nylon and polyester. Dry out of direct sunlight. Do not dry in an automatic dryer. Store in a cool, dry location. Do not store where the equipment may be exposed to moist air, particularly where dissimilar metals are stored together.

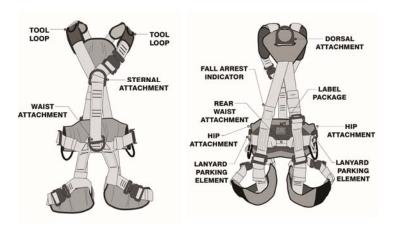
#### **REPAIR**

All repair work shall be performed by the manufacturer. All other work or modifications void the warranty and releases CMC from all liability and responsibility as the manufacturer.

## SAMPLE INSPECTION AND MAINTENANCE LOG

The sample log suggests records that should be maintained by the purchaser or user of life safety equipment.

Equipment Inspection and Maintenance Log							
Item #   Brand/Model Strength							
Date	How Used or Maintained	Comments	Name				



# ANSI/ASSE Z359 REQUIREMENTS FOR PROPER USE AND MAINTENANCE OF FULL BODY HARNESSES

- 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.
- **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.
- 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.

# SECTIONS 10-16 PROVIDE ADDITIONAL INFORMATION CONCERNING THE LOCATION AND USE OF VARIOUS ATTACHMENTS THAT MAY BE PROVIDED ON THIS FBH.

- 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.
- 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.
- **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 AND STORAGE OF EQUIPMENT

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.

- **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.

## **MAINTENANCE AND STORAGE**

- **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.