

# DROP SUPPORT HARNESS USER INSTRUCTION MANUAL FOR USERS AND ASSISTANTS

Application, Fitting, Use, Maintenance, and Warranty

**U.S. Patent Pending** 

## **WARNING!**

Read manual before using harness. Failure to follow instructions could result in serious injury or death.

## DESCRIPTION OF PRODUCT

**Drop Support Harness** is a unique, upper body harness that wraps around the user's waist, chest and torso, with an attached central handle running the length of the torso. The support handle is a point of contact between the user of the harness and the person assisting the user ("assistant").

## **How it Works:**

The assistant monitors the user for instability and in the event that the user begins to fall or becomes unstable, the assistant must grab the support handle to provide steadying pressure to the user's upper body, helping them to regain stability in an upright position. If, in the event the user is unable to regain stability, the assistant can use the support handle to slow the user's descent to the floor thus minimizing any safety problem from the fall.

Another benefit of Drop Support is that it limits the need to physically touch the user when providing support. By limiting physical contact to the user through the means of the support handle, the user is less likely to be injured from excessive force or pressure from the assistant during a fall.

## **APPLICATION**

**Drop Support** is beneficial for in-home use when individual family members or medical practitioners need a better method of providing drop support for family members. Some common areas and uses are for individuals with:

- Individuals that suffer from medical conditions such as epilepsy that can result in falls or instability
- Elderly who may be unstable and fall
- Individuals undergoing Rehab & Physical Therapy
- Individuals in Nursing Homes
- Much More

# **WARNING!**

**STRANGULATION HAZARD!** Loose straps and harness loop openings present a potential strangulation hazard. Keep out of reach of small children.

## **WARNING!**

Do not place harness on back of chairs or other objects that are not bolted down or secured as a child can pull on the harness and have the object fall on top of them, possibly resulting in injury.

## **WARNING!**

The user should consult their doctor if there is reason to doubt their fitness to safely absorb the pressure received from the harness during a fall. Age and fitness seriously affect a user's ability to withstand falls. Pregnant women must not use Drop Support harness nor be an assistant to the user. The elderly should also not be an assistant to the user.

#### **WARNING!**

Do not alter or intentionally misuse this equipment. Use caution when using the Drop Support harness around moving machinery, electrical and chemical hazards, water, heat and sharp edges.

# **WARNING!**

Harness alone will not prevent or stop a fall without the aid of an assistant. Therefore, during use, an assistant should always be present and grasping the handle. Failure to do so can lead to injury or death to the user.

## **WARNING!**

Do not use if you just had any back surgery. Doing so can lead to injury.

# **Drop Support Hardware**





## **SIZES**

Drop Support Harness Size Measurements (inches & pounds)					
Sizes:	Chest	Waist	Height:	Weight:	
Adult (Large - XXL)	35 ½ - 57 ½	37 ½ - 53	5 ft - 6'4" ft	250 lbs.	
Adult (Small - Large)	28 ½ - 43	29 - 36	5 ft - 6' 4" ft	250 lbs.	
Boys & Girls (Large - XL)	24 - 35	29 - 36	4 ft - 5ft	250 lbs.	
Boys & Girls (Small - Large)	24 - 35	25 - 29	4ft - 5ft	250 lbs.	
Children's	21 - 26 ½	21 ½ - 24 ½	3ft - 4ft	100 lbs.	

## FITTING INSTRUCTIONS

- 1. Take the Harness out of the package. While holding the support handle, shake the harness so all of the straps fall into place. If the chest strap buckles are fastened, release straps by unbuckling.
- 2. Hold harness in the air by the support handle and locate shoulder and chest straps. Bring the harness over the user's torso so the support handle sits in the middle back between the shoulder blades and the shoulder straps sit on each shoulder. Like putting on a jacket.
- 3. Adjust and fasten the waist belt. Moving the waist belt adjuster towards the back of the harness will decrease the waist size. Moving towards the front will increase waist size.
- 4. Adjust the shoulder strap buckles up or down to align the waist belt to the user's waist line. (Adjusting the Shoulder Strap Adjuster upwards increases the length of the harness from shoulders to waist. Downward, decreases the length of the harness, for smaller fit).

Once the waist belt is aligned with the user's waist line, adjust both waist belt adjusters simultaneously, ensuring the waist belt fits <u>SNUGGLY</u>, but does not restrict movement.

5. Guide the chest straps under the arm pits, and through the frontal chest loop guides across the upper portion of the chest about halfway between the chest line and the collar bone. (*Chest Strap should not lay on top of shoulder straps*)

Adjust both chest strap adjusters simultaneously, ensuring the chest strap fits *SNUGGLY*, but does not restrict movement.

Women must make sure the chest strap is above the bust line and positioned halfway between the collar bones and nipple line. Never wear the chest strap below the bust line because it may cause pain during a fall.

- 6. Adjust Support Handle Adjuster up or down to work out the excess slack. Support Handle should not sit up against the torso. If it does, loosen the support handle slightly until the handle sits away from the torso (your back). (Adjusting upwards increases response grab of harness, downwards decrease response grab)
- 7. Run your hands over the support harness to ensure there is no twisting or bunching. If a strap is not lying correctly, remove your harness and refit as per the above instructions.

## **TESTING THE FIT**

- 1. After following the instructions, have an assistant pull upward on the support handle to ensure the support harness does not ride up. Some movement upward is fine, but the harness should not ride up to your chest or slip off like a shirt.
- 2. If the harness does begin to ride up toward the chest, remove the harness and refit as per the above instructions.

It may be required to shorten or lengthen the shoulder straps to adjust the placement of the waist belt.

For smaller framed individuals, it may be necessary, depending on the length between their waist line and torso, to adjust the shoulder straps to the smallest fit, thus raising the waist belt slightly higher than the waist line.

When adjusting the shoulder straps on the youth harness to the smallest fit, the rear, bottom torso strap may create a half loop. It is acceptable to use it with the loop.

All body types differ, and some testing and modification may be required to find the proper waist belt location to ensure proper fitting. 3. If you can pull upward on the support handle so that the user is not being supported, then do not use and consider using another size harness.

# **WARNING!**

**IMPROPER FIT CAN RESULT IN SERIOUS INJURY** The proper fit of Drop Support harnesses is critical for reducing the likelihood of injury. Users/Assistants must be knowledgeable in the proper fit and proper harness size selection.

# DROP SUPPORT STRAP PURPOSE & CALLOUTS

	<b>Purpose:</b> The waist belt is the part of the harness that sustains the majority of the user's weight during a fall.
Waist Belt	<b>Callout:</b> Ensuring the waist belt is properly fitted and adjusted snuggly around the user's waist determines how effective the waist belt sustains the user's weight.
Chest Strap	<b>Purpose:</b> The Chest Strap aids the waist belt in supporting the user's weight during a fall. It also aids in maintaining and ensuring the user stays in an upright position (vertical) during the fall. Also, when the chest strap is feed through the chest loop guides, it aids in reducing shoulder strap ride-up and aiding in forward falls.
	<b>Callout:</b> Ensuring the chest strap is properly fitted, adjusted snuggly, and feed through the Chest Loop guides determines how effectively the chest strap aids the waist belt in supporting the user's weight and maintaining the user in an upright position.
Shoulder Straps	<b>Purpose:</b> The shoulder straps aid in reducing and managing forward falls. They serve to maintain the user's weight during a forward fall, and less during a downward fall. The waist and chest straps serve to support the downward fall.
	<b>Callout:</b> When assisting during a fall or helping someone up, the shoulder straps may ride up. This is acceptable as they are designed to assist with forward falls and less for downward falls or lifting.
Support Handle	<b>Purpose:</b> The support handle is what ties everything together. The design and placement of the support handle (from the rear upper back to the waist belt) allows the assistant to better manage and support a user during a forward and downward fall. It also aids in allowing the assistant to have more control over the user for maintaining user balance and center of gravity.
	Callout: Always ensure assistant has a good grasp of the support handle. Adjusting the support handle adjuster upwards tightens the harness, and increase response grab of user. Downward keeps harness the same, and decreases response grab of user. Adjust accordingly to your needs.

# SUPPORT TECHNIQUES

Providing assistance to user in regaining	Falling forward: If the user is falling forward, the assistant should grasp the upper most part of the support handle, give a firm and smooth pull upward and towards them, allowing the user to rest up against them. This will aid the user in regaining stability.		
balance &	Falling Sideways:		
stability.	If the user is falling sideways, the assistant should grasp the upper most part of the support handle, give a firm, smooth pull, directing the user towards them, allowing the user to rest up against them. This will aid the user in regaining stability.		
Drawidina	In the event the user is unable to regain stability, the assistant should stand on the side of the user while grasping the upper most part of the support handle, and give a firm, smooth pull, directing the user towards them. Firmly and smoothly pull the handle upward with one hand, and, with another hand, either hold the user under the elbow or under the arm pit.		
Providing assistance to user	Keep a wide base of support. Your feet should be shoulder-width		
to get to the floor.	apart, with one foot slightly ahead of the other		
	• While supporting the user, squat down, bending at the hips and knees only, to lower the user to the floor.		
	<ul> <li>Keep good posture. Look straight ahead, and keep your back straight, your chest out, and your shoulders back. This helps keep your upper back straight while having a slight arch in your lower back.</li> </ul>		

# NOTE

The above support techniques are only provided as a reference and should not be considered as absolute.

# WARNING!

Avoid quick and excessive pulls on the support handle, as it can lead to over correction, and can cause injury to the user. The assistant should avoid using the back while aiding the user to the floor. This can lead to injury to the assistant.

# **WARNING!**

Avoid grasping the lower part of the support handle, as it may cause the user to lean too far forward so that the user's weight shifts causing the user to fall outside of the assistant's

control, possibly leading to injury.

## **LIMITATIONS**

Consider the following limitations before using this product:

## **Assistant:**

- 1. **2 Person Operation:** The harness requires the use of an assistant.
- 2. **Assistant Awareness:** The assistant should be of sound body and mind, and consistently alert and ready to brace the user as a fall can be immediate and without notice.
- 3. **Assistant Physical Ability**: The assistant must be at least as tall as the user and able to support the user's weight.

#### User:

1. **User Stability**: The user must be cognitive and conscious and able to stand unassisted.

**IMPORTANT: Product Weight Capacity**: The harness is heavy weight polypropylene webbing with a tensile strength of 1500 lbs., but is designed for use by persons who weigh no more than 250 lbs for Adults/ Boys & Girls, and no more than 100 lbs for Children's harness.

## **INSPECTION**

**FREQUENCY:** Before each use, inspect the Drop Support harness according to the following steps. The harness must be inspected by a person, other than the user, at least annually who has read these instructions and follows the inspection steps below.

**IMPORTANT:** Extreme use (such as many near falls or falls) may require increasing the frequency of inspections.

## **INSPECTION STEPS:**

- 1. Inspect harness hardware (buckles, support handle, frontal loop guides); Do not use if any of these items are damaged, broken, distorted, or have sharp edges, cracks, or worn parts. Ensure buckles work smoothly. Inspect the side release buckles and ensure that the release tabs work freely and that a click is heard when the buckle engages.
- 2. Inspect webbing; material must not be used if it is frayed, cut, or has broken fibers. Check for tears, abrasions, mold, burns, or discoloration. Inspect stitching. Check for pulled or cut stitches. Broken stitches may be an indication that the harness has been impact loaded and must be removed from use.
- 3. Inspect labels. All labels should be present and fully legible.
- 4. Inspect frontal loop guides for integrity and function.

#### **WARNING!**

If inspection reveals a defective condition, immediately stop using and replace harness.

**PRODUCT LIFE:** The functional life of the Drop Support harness is determined by use conditions and maintenance. As long as the product passes the above inspection, it may remain in use.

## **CARE & STORAGE**

## **WASHING INSTRUCTIONS:**

1. Clean full body harness with water and a mild soap solution. Do not use bleach or bleach solutions. Wipe off hardware with a clean, dry cloth, and hang to air dry. Do not force dry with heat. An excessive buildup of dirt, paint, etc. may prevent the Drop Support harness from working properly, and in severe cases, degrade the webbing to a point where it weakens and should be removed from use.

## **STORAGE INSTRUCTIONS:**

1. Store the Drop Support harness in a cool, dry, clean environment out of direct sunlight. Avoid areas where chemical vapors or fumes may exist. Thoroughly inspect the full body harness after extended storage.

# **One-Year Equipment Warranty**

Drop Support warrants all Drop Support harness soft goods and connectors, to be free from defects in material and workmanship for a period of one (1) year, commencing on the date of shipment to the first retail purchaser ("Purchaser").

These warranties do not extend to equipment which has been subject to misuse, use in excess of rated capacity, negligent operation, use beyond Drop Support published service factors, improper installation or maintenance, adverse environments, and does not apply to any equipment which has been repaired or altered without Drop Support written authorization. This warranty is void for any product that is designed to deform or absorb energy during a fall event.

Written notice of any claimed defect must be given to Drop Support within thirty (30) days after such defect is discovered. Drop Support obligation, and Purchaser's sole remedy under this warranty is limited to, at Drop Support discretion, the replacement or repair of the equipment at Drop Support factory. this warranty is expressly in lieu of all other warranties whatsoever whether express, implied, or statutory. seller makes no warranty as to the merchantability or fitness for a particular purpose of the equipment and makes no other warranty, either express or implied.