

# MILLER®

by Honeywell

## Miller HLLR Series Miller Série HLLR Miller Serie HLLR



TechLine Residential  
HLL Kit  
with RA30-2  
Roof Anchors

TechLine HLL Kit  
with Cross-Arm  
Straps

# Miller TechLine™ Temporary Horizontal Lifeline Systems

User Instruction Manual

Manuel D'utilisation / Manual de Instrucciones para El Usuario

I254 Rev. D / MFP9720128

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## Thank You

Thank you for your purchase of Miller fall protection equipment manufactured by Honeywell Safety Products. Miller brand products are produced to meet the highest standards of quality at our ISO 9001 certified facility. Miller equipment will provide you with years of use when cared for properly.

### WARNING

All persons using this equipment must read, understand and follow all instructions. Failure to do so may result in serious injury or death. Do not use this equipment unless you are properly trained.

## Questions?

CALL  
1.800.873.5242

It is crucial that the authorized person/user of this equipment read and understand these instructions. In addition, federal law requires employers to ensure that all users are trained in the proper installation, use, inspection, and maintenance of fall protection equipment. Fall protection training should be an integral part of a comprehensive safety program.

Proper use of fall arrest systems can save lives and reduce the potential of serious injuries from a fall. The user must be aware that forces experienced during the arrest of a fall or prolonged suspension may cause bodily injury. Consult a physician if there is any question about the user's ability to use this product. Pregnant women and minor children must not use this product.

## 1.0 Purpose

Miller TechLine Horizontal Lifeline Systems are temporary horizontal rope lifeline systems designed to provide fall protection for up to two workers. Kits are available for one or two workers in lengths of 30 ft. (9m) and/or 60 ft. (18m); anchorage connector options include cross-arm straps or roof anchors.

| SKU   | Description  | Kit Contents   |
|---|--|--|
| <b>TechLine HLL Kits with Cross-Arm Straps</b>                  |  |  |
| HLLR1/30FT<br>HLLR1/60FT  | Temporary Rope HLL System for 1 worker; available with 30 ft. (9m) or 60 ft. (18m) lifeline  | 11/16-in. (17.5mm) kernmantle-style rope lifeline / Lifeline adjuster / Two (2) heavy-duty cross-arm anchorage straps / One (1) connecting O-ring / Waterproof bucket  |
| HLLR2/30FT<br>HLLR2/60FT  | Temporary Rope HLL System for 2 workers; available with 30 ft. (9m) or 60 ft. (18m) lifeline | 11/16-in. (17.5mm) kernmantle-style rope lifeline / Lifeline adjuster / Two (2) heavy-duty cross-arm anchorage straps / Shock absorber / Two (2) connecting O-rings / Waterproof bucket  |
| <i>Add a "-Z7" before the "F" for 3600 lb. gate snap hooks.</i> |  |  |
| <b>TechLine Residential HLL Kits with RA30-2 Roof Anchors</b>   |  |  |
| HLLR0/RR60FT  | Temporary Rope HLL System for 2 workers; 60 ft. (18m) lifeline                               | 11/16-in. (17.5mm) kernmantle-style rope lifeline / Lifeline adjuster / Two (2) RA30-2 roof anchors / Shock absorber / Two (2) connecting O-rings / Storage bag  |
| HLLR1/RR60FT  | Temporary Rope HLL System for 2 workers; 60 ft. (18m) lifeline                               | 11/16-in. (17.5mm) kernmantle-style rope lifeline / Lifeline adjuster / Two (2) RA30-2 roof anchors / Shock absorber / Two (2) connecting O-rings / One (1) Titan™ full-body harness (T4000/UAK) / One (1) 3 ft. (0.9m) Titan™ lanyard with SofStop® shock absorber (T6111/3FTAF) / One (1) Miller MicroLoc™ trailing rope grab (8173/U) / One (1) 50 ft. (15m) vertical lifeline (300C/50FTBL) / Storage bag      |
| HLLR2/RR60FT  | Temporary Rope HLL System for 2 workers; 60 ft. (18m) lifeline                               | 11/16-in. (17.5mm) kernmantle-style rope lifeline / Lifeline adjuster / Two (2) RA30-2 roof anchors / Shock absorber / Two (2) connecting O-rings / Two (2) Titan™ full-body harnesses (T4000/UAK) / Two (2) 3 ft. (0.9m) Titan™ lanyards with SofStop® shock absorber (T6111/3FTAF) / Two (2) Miller MicroLoc™ trailing rope grabs (8173/U) / Two (2) 50 ft. (15m) vertical lifelines (300C/50FTBL) / Storage bag |

## 2.0 General Requirements, Warnings and Limitations

### 2.1 General Requirements

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All warnings and instructions shall be provided to authorized persons/users.

**All authorized persons/users must reference the regulations governing occupational safety, as well as applicable ANSI or CSA standards. Please refer to product labeling for information on specific OSHA regulations, and ANSI and CSA standards met by product.**

Proper precautions should always be taken to remove any obstructions, debris, material, or other recognized hazards from the work area that could cause injuries or interfere with the operation of the system.

All equipment must be inspected before each use according to the manufacturer's instructions.

All equipment should be inspected by a qualified person on a regular basis.

To minimize the potential for accidental disengagement, a competent person must ensure system compatibility.

Equipment must not be altered in any way. Repairs must be performed only by the manufacturer, or persons or entities authorized in writing by the manufacturer.

Any product exhibiting deformities, unusual wear, or deterioration must be immediately discarded.

Any equipment subject to a fall must be removed from service.

The authorized person/user shall have a rescue plan and the means at hand to implement it when using this equipment.

Never use fall protection equipment for purposes other than those for which it was designed. Fall protection equipment should never be used for towing or hoisting.

Always check for obstructions below the work area to make sure potential fall path is clear.

Allow adequate fall clearance below the work surface.

Never remove product labels, which include important warnings and information for the authorized person/user.

### 2.2 System Warnings and Limitations

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#### SYSTEM COMPATIBILITY

Miller TechLine Horizontal Lifeline Systems are designed for use with Honeywell-approved components. Substitution or replacement with non-approved component combinations, sub-systems, or both, may affect or interfere with the safe function of each other and endanger the compatibility within the system. This incompatibility may affect the reliability and safety of the total system.

#### SYSTEM FORCES

The TechLine HLL is equipped with an inline shock absorber. In the event of a fall, the shock absorber limits system forces.

#### CAPACITY

**The maximum capacity of Miller TechLine Systems is two (2) workers at 310 lbs (140.6kg) each, including body weight,**

**tools, and clothing, for the two-worker system. Do not exceed this weight. Capacity ratings assume the anchorage or structure to which the horizontal lifeline kit is installed meets the load requirements.**

#### LIFELINE

Do not use this system if the tensioner does not lock onto the lifeline or if any component in the system does not operate properly or appears to be damaged.

Use only the lifeline provided.

The lifeline must be placed at or above the back D-ring on the harness, unless the specific TechLine System is approved for use below the D-ring, such as those designated for roofing applications.

Connect to the O-rings on the lifeline only.

## PERSONAL FALL ARREST SYSTEMS

A Honeywell-approved full-body harness and shock-absorbing lanyard, self-retracting lifeline/fall limiter or rope grab/vertical lifeline with a maximum fall arrest force of 900 lbf (4kN) must be used with this system. The personal fall arrest system **MUST** limit fall arrest forces to 900 lbf (4kN).

Use only connecting devices with compatible locking snap hooks, auto-locking carabiners, or other Honeywell-approved connectors.

Fall arrest systems must be rigged in accordance to regulatory requirements. [All instructions and warnings provided with the components of the personal fall arrest system must be read, understood, and followed.]

Personal fall arrest systems must be rigged to limit a free fall to the shortest possible distance [6 ft (1.8m) maximum].

## FALL CLEARANCE & SWING FALL

Ensure that adequate clearance exists in your fall path to avoid striking a lower level or obstruction. The amount of fall clearance required is dependent upon the type of connecting device being used, number of workers on the system, the length of the system, and associated lifeline deflection. (see 6.0 Fall Clearance).

Work directly under or along side the lifeline to avoid hazards of a swing fall. A swing

fall can occur when the anchorage point is not located directly above the point at which a worker falls. See 6.0 Fall Clearance for further explanation and additional warnings related to swing falls.

## ENVIRONMENTAL HAZARDS

Use of this equipment in areas where environmental hazards exist may require additional precautions to limit the possibility of injury to the user or damage to the equipment. Hazards may include, but are not limited to high heat, caustic chemicals, corrosive environments, high-voltage power lines, explosive or toxic gases, moving machinery, and sharp edges. Polyester should be used in certain chemical or acidic environments. Use in a corrosive or caustic environment dictates a more frequent inspection and servicing program to ensure the integrity of the device is maintained. All synthetic material must be protected from slag, hot sparks, open flames, or other heat sources. The use of heat resistant materials is recommended in these applications. Do not expose the equipment to any hazard which it is not designed to withstand. Consult the manufacturer in cases of doubt.

# 3.0 System Diagram of Components, Assembly & Installation

**Before installation of this equipment, carefully inspect to ensure that it is in useable condition. Check for missing or damaged parts. Do not use if any component does not operate properly, is missing, or appears to be damaged in any way. Refer to the inspection section of this manual.**

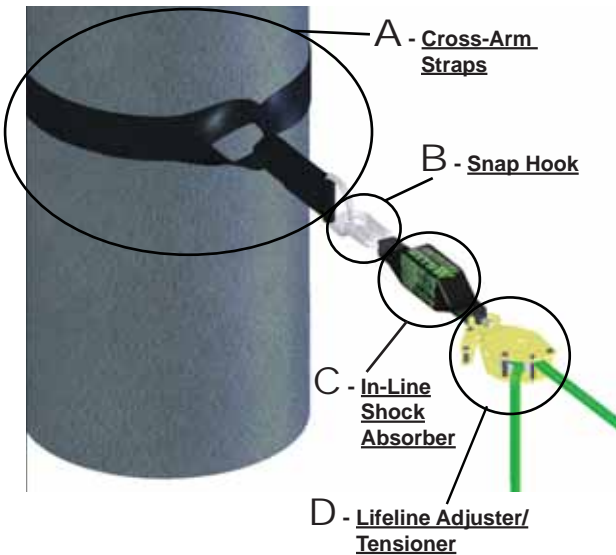
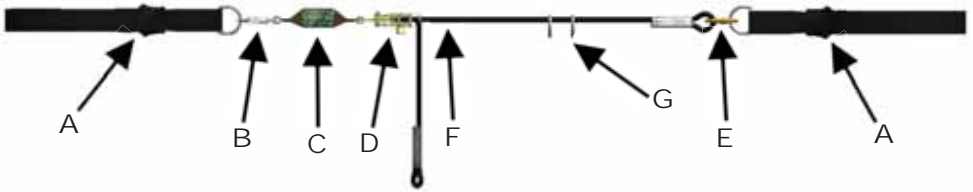
**Only trained and competent personnel should install and use this equipment.**

**The anchorage/structure that this system is attached to must be capable of supporting 5,000 lbs. (22.2 kN) per user attached; or be designed, installed and used, under the supervision of a qualified person, as part of a complete personal fall arrest system which maintains a safety factor of at least two.**

**Anchorage connectors must be rated for 5,000 lbs (22.2kN) and chosen to locate lifeline at or above the height of the D-ring on harness. Anchors and system must be installed and used in such a manner as to minimize the potential for a swing fall hazard and limit free fall distance to 6 feet (1.8m) or less.**

### 3.1 TechLine HLL System w/Cross-Arm Straps

(Complete system diagram shortened for illustration purposes)



**A. CROSS-ARM STRAPS**  
Used to secure lifeline to anchorage point.

**B. SNAP HOOK**  
Self-locking snap hook used to connect the end of the lifeline to an approved anchorage connector.

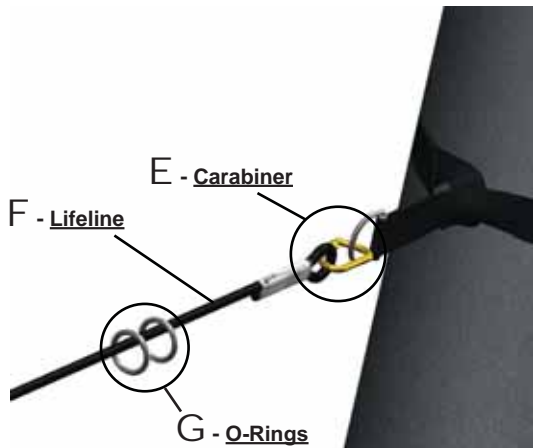
**C. IN-LINE SHOCK ABSORBER**  
Designed to limit forces to 2,500 lbs (11.2kN), which provides a 2:1 safety factor for 5,000 lb (22.2kN) anchorage.

**D. LIFELINE ADJUSTER/TENSIONER**  
Used to adjust the length of the rope, indicate proper pre-tension and maintain tension.

**E. CARABINER**  
Auto-locking carabiner used to connect the end of the lifeline to an approved anchorage connector.

**F. LIFELINE**  
5/8" (15.9mm) polyester rope used to span between two anchorage connectors.

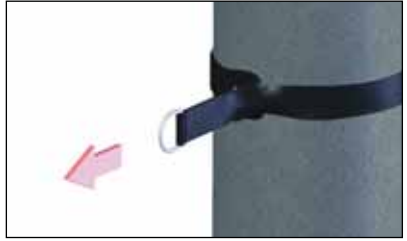
**G. O-RINGS**  
Used to lanyard worker's shock-absorbing lanyard, self-retracting lifeline, or rope grab and vertical lifeline to the horizontal lifeline.



## Assembly and Installation

### Step 1

Wrap a cross-arm strap around each approved anchorage point for the system installation. To prevent slippage, wrap cross-arm strap around anchorage point as many times as possible. **D-ring must pass completely through loop.**



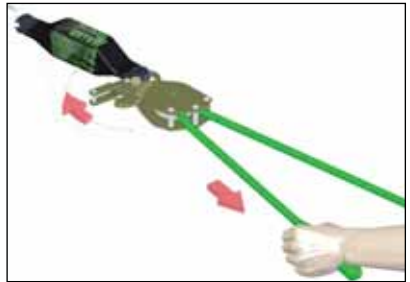
### Step 2

Secure snap hook (on shock absorber lifeline end) and carabiner (on opposite lifeline end) to D-rings on cross-arm straps. Be sure snap hook and carabiner are properly connected--closed and locked--and no gate loading is present.



### Step 3

Remove slack in system by releasing the tension release lever and pull the free end of the rope through the tensioner.



### Step 4

Tension the line with wrench or bar by pulling firmly on the free end of the rope while at the same time turning the tensioner nut in the direction of the arrow. Tighten nut (1-3/16") until tensioner begins to slip against the rope. **Once slippage occurs, DO NOT continue to tighten the tensioner.**



### Step 5

Close the tension release lever to prevent unintentional loosening of line tension.

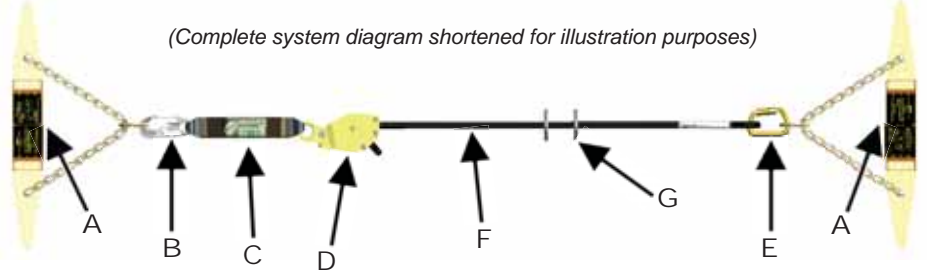


**For use, connect only to one of the O-rings provided on the horizontal lifeline.**

**DO NOT** connect to both O-rings with one connecting device.  
**DO NOT** connect more than one connecting device to a single O-ring.  
 Use only connecting devices with compatible locking snap hooks, auto-locking carabiners, or other Honeywell-approved connectors.

## 3.2 TechLine Residential HLL System w/RA30-2 Roof Anchors

(Complete system diagram shortened for illustration purposes)



**A. RA30-2 ROOF ANCHORS**

Used to secure lifeline to anchorage point.

**B. SNAP HOOK**

Self-locking snap hook used to connect the end of the lifeline to an approved anchorage connector.

**C. IN-LINE SHOCK ABSORBER**

Designed to limit forces to 2,500 lbs (11.2kN), which provides a 2:1 safety factor for 5,000 lb (22.2kN) anchorage.

**D. LIFELINE ADJUSTER/TENSIONER**

Used to adjust the length of the rope, indicate proper pre-tension and maintain tension.

**E. CARABINER**

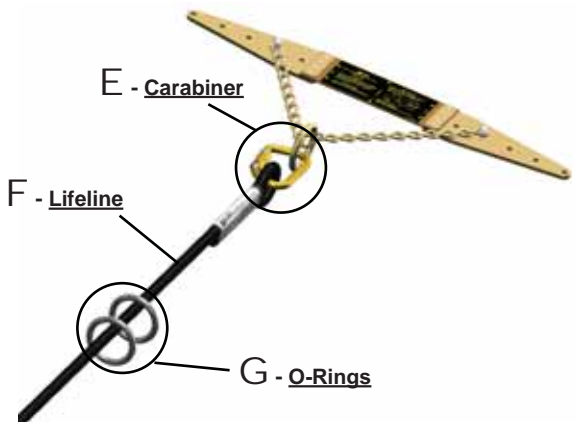
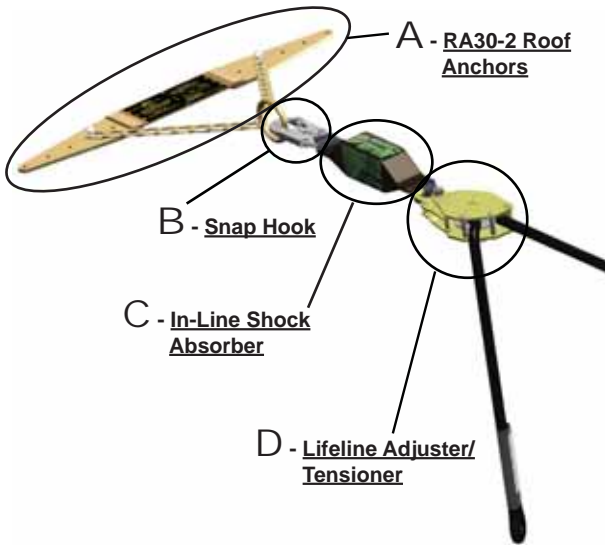
Auto-locking carabiner used to connect the end of the lifeline to an approved anchorage connector.

**F. LIFELINE**

5/8" (15.9mm) polyester rope used to span between two anchorage connectors.

**G. O-RINGS**

Used to connect worker's shock-absorbing lanyard, self-retracting lifeline, or rope grab and vertical lifeline to the horizontal lifeline.





## Assembly and Installation

### Step 1

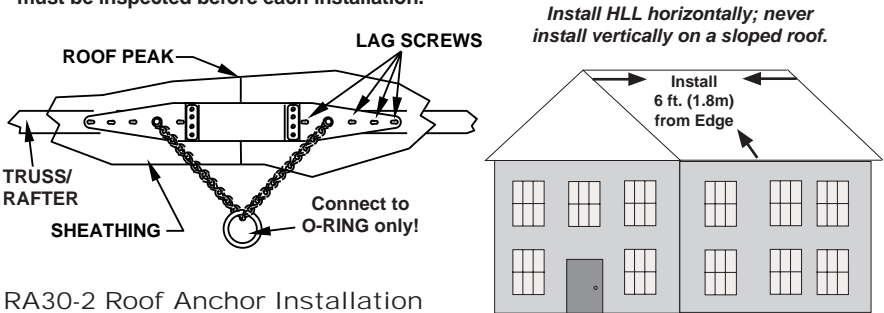
Install a roof anchor at each approved anchorage point for the system installation.

**Read warnings and limitations with regard to roof anchor installation, and follow installation instructions below.**



### RA30-2 Roof Anchor Warnings and Limitations

- The RA30-2 roof anchor is designed for roof-top installations on fully sheathed roofs comprised of wood members. Roof anchor may be installed on roof peaks or flat roofs, and must be installed at least 6 ft. (1.8m) from any roof edge when used with the Techline HLL System. Do not install on unsupported roof structures such as eaves or gable overhangs. Do not install on fascia boards.
- Roof anchor location is critical to minimize potential fall clearance and possible swing falls. Always avoid a possible gable end swing fall. Locate anchors so that any potential swing fall hazards have been eliminated. Never install the Techline HLL System vertically on a sloped roof. Never work above the roof level of the anchor (i.e., higher level, dormer, higher roof structure, etc.).
- Roof anchor must be positioned perpendicular to the lifeline such that the O-ring to which the lifeline is attached is centered on the anchor chain.
- Before installation and before each use, inspect the structure and roof members (i.e., studs, joists, rafters, trusses), where the roof anchor is installed or will be installed for deteriorated wood, rot, decay, defects, or any other questionable conditions. Ensure that the condition of the support structure will support the anticipated loads created by a fall arrest.
- Before use of any roofing fall protection system, ensure that the anchor is properly and securely installed with the required number of fasteners.
- RA30-2 roof anchors are reusable anchorage connectors designed to be repositioned as work progresses, provided that the roof anchor has not seen fall arrest forces and has not been damaged in any way. It is recommended that eight (8) new 5/16" x 2-1/2" (7.9mm x 63.5mm) or longer lag screws be used each time the anchor is installed. Roof anchor must be inspected before each installation.



### RA30-2 Roof Anchor Installation

1. Locate and mark solid roof members/support structures (i.e., studs, joists, rafters, trusses, etc.) under roof sheathing at the location where the roof anchor will be installed.
2. Follow the illustration above for proper set-up. Install the RA30-2 roof anchor with eight (8) 5/16" x 2-1/2" (7.9mm x 63.5mm) or longer lag screws (four on each side). **NOTE: Predrill 13/64" (5.2mm) or smaller pilot holes for easier installation of lag screws.**

**WARNING: Use all eight (8) 5/16" x 2-1/2" (7.9mm x 63.5mm) lag screws to attach the RA30-2 roof anchor. All screws must pass through the sheathing and into a support structure. If this warning is not followed, the anchorage connection will be weakened and serious injury or death could occur in the event of a fall.**

**WARNING: Attach the TechLine Horizontal Lifeline to the roof anchor O-ring only using the locking snap hooks on each end of the lifeline system.**

### Step 2

Secure snap hook (on shock absorber lifeline end) and carabiner (on opposite lifeline end) to O-rings on roof anchors. Be sure snap hook and carabiner are properly connected--closed and locked--and no gate loading is present.



### Step 3

Remove slack in system by releasing the tension release lever and pull the free end of the rope through the tensioner.



### Step 4

Tension the line with wrench or bar by pulling firmly on the free end of the rope while at the same time turning the tensioner nut in the direction of the arrow. Tighten nut (1-3/16") until tensioner begins to slip against the rope. **Once slippage occurs, DO NOT continue to tighten the tensioner.**



### Step 5

Close the tension release lever to prevent unintentional loosening of line tension.



**For use, connect only to one of the O-rings provided on the horizontal lifeline. DO NOT connect to both O-rings with one connecting device. DO NOT connect more than one connecting device to a single O-ring. Use only connecting devices with compatible locking snap hooks, auto-locking carabiners, or other Honeywell-approved connectors.**

## 4.0 Training

It is the responsibility of the user and the purchaser of this equipment to assure they are familiar with these instructions and are trained in the proper use, installation, operation, maintenance and limitations of this product. Training should be conducted periodically and without exposing the trainee to a fall hazard.

Training is an integral part of our Total Solution in fall protection, since no fall protection equipment – regardless of how effective – can save an employee who is not trained in its use. To meet this crucial requirement, Miller Training provides the knowledge and skills necessary to achieve a safe, more productive work environment. For more information on Miller Training, contact a representative today: 800.873.5242.

## 5.0 Inspection

**Miller TechLine Horizontal Lifeline Systems must be visually inspected by the user before each use and inspected by a Competent Person on a regular basis, at least annually.**

Perform the following procedures if applicable to your system and its components:

### GENERAL PRODUCT INSPECTION REQUIRED FOR ALL SYSTEM COMPONENTS

Inspect system and its components for any of the following: bent, cracked, distorted, worn, malfunctioning or damaged parts; rough or sharp edges; loose fasteners or missing parts/components; corrosion; deterioration; signs that indicate the product has been subjected to a fall arrest; or any other indications of damage/problems that may affect the integrity and operation of the component/system. If in doubt, contact the manufacturer.

#### Anchorage Connectors

**Cross-Arm Straps:** When inspecting the webbing, be sure to inspect each section, rotating and flexing, to reveal any damage, cuts, broken strands/fibers, frayed areas, pulled stitches, burns, environmental or chemical damage (refer to Table 1), unusual wearing patterns, or signs of deterioration. Inspect hardware for distortion, cracks, breaks, corrosion, pitted surfaces, and rough or sharp edges.

**Roof Anchors:** In addition to the general inspection, carefully inspect rivets, studs and fasteners to ensure that all are present, securely tightened or clinched, and are not damaged in any way. Check O-ring and chain for any damage, cracks, distortion, rough or sharp edges. Chain must not be twisted or have any kinks. Anchor side plates should be flat and free of corrosion.

#### Horizontal Lifeline

When inspecting lifelines, begin at one end and work to the opposite end. Slowly rotate the lifeline so that the entire circumference is checked. Inspect lifeline for cuts, frays, burns, broken fibers and excessive wear. Also inspect for signs of environmental or chemical damage (refer to Table 1).

**Snap Hooks/Thimbles:** Inspect closely for hook and eye distortions, cracks, breaks, corrosion, pitted surfaces, and rough or sharp edges. The gate (keeper) should seat into the nose without binding and should not be distorted or obstructed. The gate spring should exert sufficient force to firmly close the gate. When the gate is closed, the locking mechanism MUST prevent the gate from opening. The thimble must be firmly seated in the eye of the splice, and the splice should have no loose or cut strands. The edges of the thimble must be free of sharp edges, distortion, or cracks.

**Tensioner:** Check tensioner for damage, cracks, wear, corrosion or malfunctioning components. Ensure that it is operating properly and only as intended by the manufacturer.

**O-Rings:** O-rings must be present on the lifeline for attachment of the connecting device. Check O-rings for any damage, cracks, distortion, rough or sharp edges.

**Shock Absorber:** The outer portion of the pack should be examined for burn holes and tears. Stitching on areas where the pack is sewn to the webbing and hardware should be examined for loose strands, rips, deterioration or other signs of activation. Pack-style shock absorbers will break open to release the core contents when subjected to fall arrest forces. Any signs of breakage, rips or tears should be noted as an indication of deployment.

**For any missing, damaged or replacement parts call: 800.873.5242.**

TABLE 1 - TYPES OF MATERIAL DAMAGE

| HEAT  | CHEMICAL   | MOLTEN METAL OR FLAME  | PAINTS AND SOLVENTS  |
|---|--|--|--|
| In excessive heat, rope/webbing becomes brittle and has a shriveled brownish appearance. Fibers will break when flexed. Should not be used above 180°F. | Change in color usually appearing as a brownish smear or smudge. Transverse cracks when rope/webbing is bent over a mandrel. Loss of elasticity in rope/webbing. | Rope/webbing strands fuse together. Hard shiny spots. Hard and brittle feel. | Paint which penetrates and dries restricts movement of fibers. Drying agents and solvents in some paints will appear as chemical damage. |

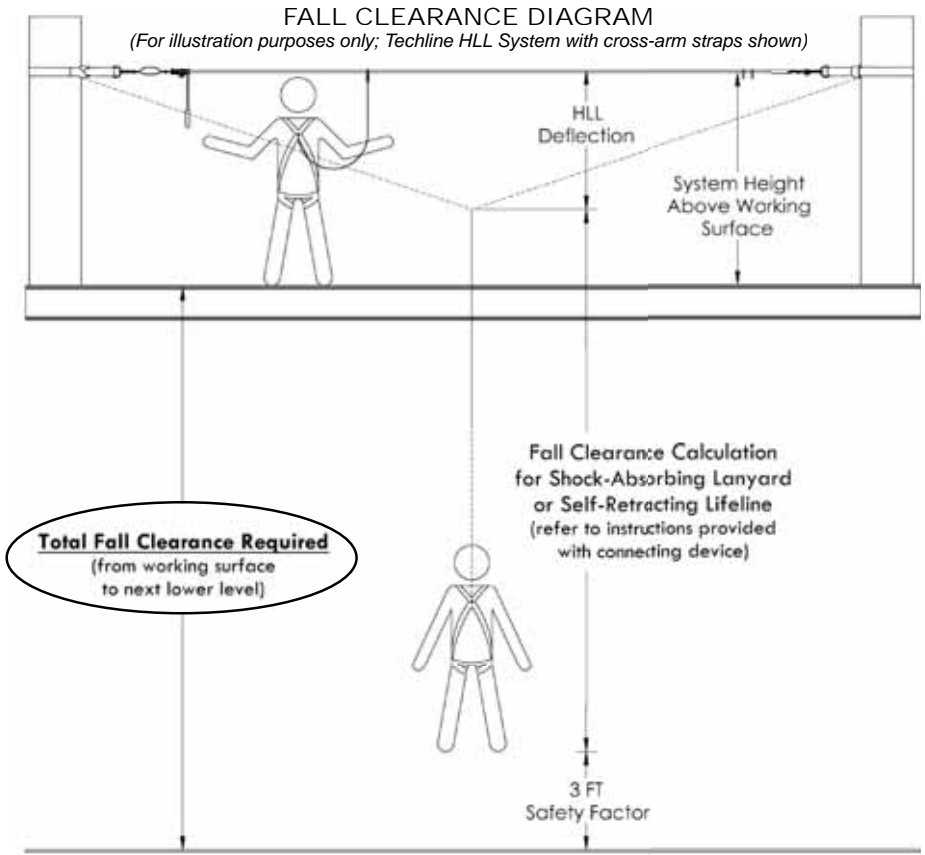
If inspection reveals a defect in condition or if components have been subjected to fall arrest forces, remove the horizontal lifeline system and all components from service immediately.

## 6.0 Fall Clearance

Refer to the Fall Clearance Diagram and to the following Fall Clearance Tables provided to obtain the minimum Total Fall Clearance Required from the working surface or roof edge to the next lower level or obstruction.

**Important:** Be sure to reference the correct fall clearance table for the specifics of your Techline Horizontal Lifeline System and application. Fall clearance required depends on varying factors such as the span length of the horizontal lifeline, the number of users on the system, and the connecting device(s) being used. In addition, fall clearance requirements differ for the Techline HLL System with Cross-Arm Straps and the Techline HLL System with RA30-2 Roof Anchors based on the installation height of the system (above working surface vs. working surface level).

**If you have any questions about the fall clearance warnings and information provided in this section, please contact Honeywell Technical Service immediately at 800.873.5242 (press 4).**



**TECHLINE HLL SYSTEM w/ CROSS ARM STRAPS**  
**FALL CLEARANCE TABLES**

| Total Fall Clearance Required for <b>one worker</b> connected to system with Miller shock-absorbing lanyard. |                                      |                 |
|--|--------------------------------------|-----------------|
| Span Length (in Feet)*   | Length of Lanyard (in Feet & Inches) |                 |
|  | 3 (0.9m)                             | 6 (1.8m)        |
| 0-10 (0-3m)  | 14'-1" (4.29m)                       | 17'-1" (5.18m)  |
| 11-20 (3.4-6.1m)   | 14'-8" (4.47m)                       | 17'-8" (5.38m)  |
| 21-30 (6.4-9.1m)   | 15'-3" (4.65m)                       | 18'-3" (5.56m)  |
| 31-40 (9.4-12.2m)  | 15'-10" (4.83m)                      | 18'-10" (5.74m) |
| 41-50 (12.5-15.2m)   | 16'-5" (5m)                          | 19'-5" (5.92m)  |
| 51-60 (15.5-18.2m)   | 17'-1" (5.18m)                       | 20'-1" (6.12m)  |

| Total Fall Clearance Required for <b>two workers</b> connected to system with Miller shock-absorbing lanyards. |                                      |                |
|--|--------------------------------------|----------------|
| Span Length (in Feet)*   | Length of Lanyard (in Feet & Inches) |                |
|  | 3 (0.9m)                             | 6 (1.8m)       |
| 0-10 (0-3m)  | 14'-1" (4.29m)                       | 17'-1" (5.18m) |
| 11-20 (3.4-6.1m)   | 14'-9" (4.5m)                        | 17'-9" (5.41m) |
| 21-30 (6.4-9.1m)   | 15'-8" (4.78m)                       | 18'-8" (5.69m) |
| 31-40 (9.4-12.2m)  | 16'-8" (5.08m)                       | 19'-8" (5.99m) |
| 41-50 (12.5-15.2m)   | 17'-7" (5.36m)                       | 20'-7" (6.27m) |
| 51-60 (15.5-18.2m)   | 18'-7" (5.66m)                       | 21'-7" (6.58m) |

\*Span Lengths are provided in feet (meters); for lengths that fall between the span length ranges provided, round up or down to the nearest span length using standard rounding rules. (Ex.: For 30'-5", use the span length of 31-40 feet to determine required fall clearance. For 50'-2", use the span length of 41-50 feet to determine required fall clearance.)

| Total Fall Clearance Required for<br><b>one or two workers</b> connected to system<br>with Miller self-retracting lifeline (SRL) or<br>Miller rope grab and vertical lifeline. |                 |                |
|--|-----------------|----------------|
| Span Length<br>(in Feet)*  | 1 Worker        | 2 Workers      |
| 0-10 (0-3m)  | 14'-1" (4.29m)  | 14'-1" (4.29m) |
| 11-20 (3.4-6.1m)   | 14'-8" (4.47m)  | 14'-9" (4.5m)  |
| 21-30 (6.4-9.1m)   | 15'-3" (4.65m)  | 15'-8" (4.78m) |
| 31-40 (9.4-12.2m)  | 15'-10" (4.83m) | 16'-7" (5.05m) |
| 41-50 (12.5-15.2m)   | 16'-5" (5m)     | 17'-7" (5.36m) |
| 51-60 (15.5-18.2m)   | 17'-1" (5.18m)  | 18'-7" (5.66m) |

TECHLINE HLL SYSTEM w/ RA-30 ROOF ANCHORS  
FALL CLEARANCE TABLES

| Total Fall Clearance Required for<br><b>one worker</b> connected to system<br>with Miller shock-absorbing lanyard. |   |                 |
|--|---|-----------------|
| Span Length<br>(in Feet)*  | Length of Lanyard<br>(in Feet & Inches) |                 |
|  | 3 (0.9m)                                | 6 (1.8m)        |
| 0-10 (0-3m)  | 19'-1" (5.82m)                          | 22'-1" (6.73m)  |
| 11-20 (3.4-6.1m)   | 19'-8" (5.99m)                          | 22'-8" (6.91m)  |
| 21-30 (6.4-9.1m)   | 20'-3" (6.17m)                          | 23'-3" (7.11m)  |
| 31-40 (9.4-12.2m)  | 20'-10" (6.35m)                         | 23'-10" (7.26m) |
| 41-50 (12.5-15.2m)   | 21'-5" (6.53m)                          | 24'-5" (7.44m)  |
| 51-60 (15.5-18.2m)   | 22'-1" (6.73m)                          | 25'-1" (7.65m)  |

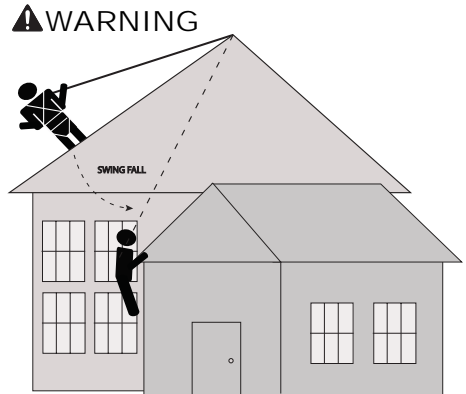
| Total Fall Clearance Required for<br><b>two workers</b> connected to system<br>with Miller shock-absorbing lanyards. |   |                |
|--|---|----------------|
| Span Length<br>(in Feet)*  | Length of Lanyard<br>(in Feet & Inches) |                |
|  | 3 (0.9m)                                | 6 (1.8m)       |
| 0-10 (0-3m)  | 19'-1" (5.82m)                          | 22'-1" (6.73m) |
| 11-20 (3.4-6.1m)   | 19'-9" (6.02m)                          | 22'-9" (6.93m) |
| 21-30 (6.4-9.1m)   | 20'-8" (6.3m)                           | 23'-8" (7.21m) |
| 31-40 (9.4-12.2m)  | 21'-8" (6.6m)                           | 24'-8" (7.52m) |
| 41-50 (12.5-15.2m)   | 22'-7" (6.88m)                          | 25'-7" (7.8m)  |
| 51-60 (15.5-18.2m)   | 23'-7" (7.19m)                          | 26'-7" (8.1m)  |

| Total Fall Clearance Required for<br><b>one or two workers</b> connected to system<br>with Miller self-retracting lifeline (SRL) or<br>Miller rope grab and vertical lifeline. |                 |                |
|--|-----------------|----------------|
| Span Length<br>(in Feet)*  | 1 Worker        | 2 Workers      |
| 0-10 (0-3m)  | 19'-1" (5.82m)  | 19'-1" (5.82m) |
| 11-20 (3.4-6.1m)   | 19'-8" (5.99m)  | 19'-9" (6.02m) |
| 21-30 (6.4-9.1m)   | 20'-3" (6.17m)  | 20'-8" (6.3m)  |
| 31-40 (9.4-12.2m)  | 20'-10" (6.35m) | 21'-7" (6.58m) |
| 41-50 (12.5-15.2m)   | 21'-5" (6.53m)  | 22'-7" (6.88m) |
| 51-60 (15.5-18.2m)   | 22'-1" (6.73m)  | 23'-7" (7.19m) |

\*Span Lengths are provided in feet (meters); for lengths that fall between the span length ranges provided, round up or down to the nearest span length using standard rounding rules. (Ex.: For 30'-5", use the span length of 31-40 feet to determine required fall clearance. For 50'-2", use the span length of 41-50 feet to determine required fall clearance.)

## SWING FALLS

Work directly under or along side the lifeline to avoid hazards of a swing fall. A swing fall can occur when the anchorage point is not located directly above the point at which a worker falls. In a swing fall situation, required fall clearance increases, and the force of hitting an obstruction while swinging can be great and cause serious injury. Always keep connecting device perpendicular to the horizontal lifeline to minimize any potential for a swing fall. Always avoid a possible gable end swing fall. Never work in an area where a swing fall hazard exists.



# 7.0 Care, Maintenance and Storage

Basic care of all fall protection equipment will prolong the durable life of the unit/system and will contribute toward the performance of its vital safety function.

## CLEANING INSTRUCTIONS

Periodically clean system components using a damp cloth and mild detergent to remove any dirt, paint, or other contaminants that may have accumulated. Wipe dry with a clean cloth and/or hang freely to dry away from excessive heat, steam or long periods of sunlight.

## MAINTENANCE/SERVICE

Servicing must only be carried out by Honeywell Safety Products or a qualified person trained in the inspection and replacement of the system. A record log of all servicing and inspection dates for this system must be maintained. This system and all components must be withdrawn from service if subjected to fall arresting forces. Only original Miller replacement parts are approved for use in this system. Non-repairable components that do not pass inspection must be disposed of in a manner to prevent inadvertent further use. Contact Honeywell Technical Service at 800.873.5242 if you have any questions.

## STORAGE

When not in use, store in a clean, dry location, free of exposure to heat, light, excessive moisture, oil, chemicals, vapors, or other degrading elements.

# Product Labels

## Étiquettes sur les Produits

## Etiquetas de los Productos


**Warning:** Manufacturer's instructions supplied with this product at time of shipment must be followed - failure to do so could result in serious injury or death. Contact Miller Fall Protection if instruction manual is needed.

**Advertencia:** Deben seguirse las instrucciones del fabricante provistas con este producto - el no hacerlo puede resultar en lesiones graves o la muerte. Si se requiere el manual de instrucciones consulte con Miller Fall Protection.

**Advertissement:** Vous devez respecter les instructions du fabricant que vous avez reçues avec le produit. Dans le cas contraire, vous risquez de blessures graves ou même la mort. Contactez Miller Fall Protection si vous avez besoin d'un nouveau manuel.

**Expiration Date:** See manual for inspection  
**Date de expiration:** Voir le manuel pour l'inspection.  
**Fecha de Vencimiento:** Vea el manual para la inspección

**DO NOT REMOVE THIS LABEL. LB1120 Rev.D**

Model: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX  
 (Modelo) (Modèle)  
  
 Max Capacity: 310 lbs.  
 (Capacité Max.) (Capacidad Max.)  
 Inspection No.: 274576  
 Material: nylon / polyester  
 (Materiel) (Materiel)  
 W.O. # XXXXXXXXXXXXX  
 Date of Manufacture: 04/22/13  
 (Fecha de la Fabricación) (Date de Fabrication)

# MILLER TECHLINE

## Horizontal Lifeline

If used for fall protection, a Miller shock-absorbing lanyard or self-retracting lifeline must be used.  
 Inspect all components before each use.  
 Remove from service if any damage is detected.  
 Users must be trained before using this system.  
 A rescue plan should be developed prior to use.  
 Connectors and anchorage points must be compatible and able to support 5,000 lbs. (22kN).  
 The lifeline must be placed at or above the back D-ring on the harness, unless the specific TechLine System is approved for use below the D-ring, such as those designated for cooling applications. No more than a 6 ft. (1.8m) free fall is allowed by OSHA.  
 Do not allow lifeline to contact sharp or abrasive surfaces, sparks, or temperatures above 180 degrees F (82 degrees C).

**WARNING:**  
 TIME OF SHIPMENT MUST BE FOLLOWED - FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.  
 • USE FALL PROTECTION IN ACCORDANCE WITH REGULATORY REQUIREMENTS.  
 • DO NOT ALLOW PRODUCT TO CONTACT SHARP OR ABRASIVE SURFACES.  
 • CONNECTORS AND ANCHORAGE POINTS MUST BE COMPATIBLE AND ABLE TO SUPPORT 5,000 LBS.

# MILLER TECHLINE™

## MILLER

by Honeywell

**ADVERTENCIA:** DEBEN SEGUIRSE LAS INSTRUCCIONES DEL FABRICANTE PROVISTAS CON ESTE PRODUCTO AL MOMENTO DE DESPACHO. EL NO HACERLO PUEDE RESULTAR EN LESIONES GRAVES O LA MUERTE.  
**AVERTISSEMENT:** VOUS DEVEZ RESPECTER LES INSTRUCTIONS DU FABRICANT QUE VOUS AVEZ RECUES AVEC LE PRODUIT. DANS LE CAS CONTRAIRE, VOUS RISQUEZ DES BLESSURES GRAVES OU MEME LA MORT.

**INSPECT BEFORE EACH USE**  
 LB924 Rev. B





by Honeywell

### Cross Arm Strap

Model/Length:

**HLLCS/10FT**

Date of Manufacture: 08/15/10

Capacity Rating:

310 lbs. per worker

See instruction manual for number of workers.

Min. Tensile Strength: 5000 lbs.



Inspection No.: 169097

Honeywell Safety Products  
Franklin, PA USA  
800-873-5242

|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MARK GRID ON DATE OF FIRST USE | 5 | 4 | 3 | 2 | 1 | R | J | F | M | A | M | J | J | A | S | O | N | D |
|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
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|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

Made in the U.S.A.

L830 REV. A

All persons using this equipment must read, follow, and understand all instructions. Failure to do so may result in serious injury or death. Inspect before each use in accordance to the manufacturer's instructions supplied at the time of shipment. Anchorage points and all horizontal lifeline components must be rated for 5000 lbs. See instruction manual for fall clearance requirements. Each worker must use a Miller/Titan Shock-Absorbing Lanyard or SRL.

Advertencia: Deben seguirse las instrucciones del fabricante provistas con este producto - el no hacerlo puede resultar en lesiones graves o la muerte. Si se requiere el manual de instrucciones consulte con Miller Fall Protection.

Advertissement: Vous devez respecter les instructions du fabricant que vous avez reçues avec le produit. Dans la cas contraire, vous risquez de blessures graves ou même la mort. Contactez Miller Fall Protection si vous avez besoin d'un nouveau manuel.

Material: Polyester  
Expiration Date: See manual for inspection.  
Compliance: ANSI Z359.1 & A10.32-2004  
OSHA 1926.502

DO NOT REMOVE THIS LABEL.



by Honeywell

### Heavy-Duty Multiple-Use Roof Anchor

Model: RA30-2

#### WARNING

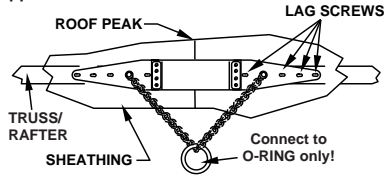
Manufacturer's instructions supplied with this product at the time of shipment must be followed: FAILURE TO DO SO MAY RESULT IN SERIOUS INJURY OR DEATH! Anchorage/support structure must be capable of supporting a 5,000 lb. (22kN) static load or provide a 2:1 safety factor.

#### BEFORE USING

Inspect before each use according to manufacturer's instructions.

#### INSTALLATION

Attach anchor with eight (8) 5/16" x 2-1/2" or longer lag screws. Position so that fasteners attach to a support structure.



Compliance: OSHA 1926.502  
Max. Capacity: 310 lbs. (140,6kg)  
Material: Steel, Copper, Nylon  
Questions? Call 800-873-5242

LB1291 REV. A





**MILLER® FALL PROTECTION PRODUCTS**  
**TOTAL SATISFACTION ASSURANCE**

At Honeywell Safety Products and its predecessors, we have been providing quality Miller brand fall protection equipment to millions of workers worldwide since 1945.

**LIMITED LIFETIME WARRANTY**  
**BACKED BY OVER 65 YEARS IN THE FALL PROTECTION BUSINESS**

We sincerely believe that our fall protection equipment is the best in the world. Our products endure rigorous tests to ensure that the fall protection equipment you trust is manufactured to the highest standards. Miller fall protection products are tested to withstand normal wear and tear, but are not indestructible and can be damaged by misuse. Our Limited Lifetime Warranty does not apply to normal wear and tear or abusive treatment of the product.

In the unlikely event that you should discover defects in either workmanship or materials, under our Limited Lifetime Warranty, we will repair or replace the product at our expense. If a replacement is necessary and your product is no longer available, a comparable product will be substituted. Should a product issue surface, contact us at 800.873.5242.

Manufacturing specifications are subject to change without notice.

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**PRODUITS MILLER® FALL PROTECTION**  
**ASSURANCE DE SATISFACTION TOTALE**

Honeywell Safety Products et ses prédécesseurs offrent les équipements antichute de marque Miller de qualité à des millions de travailleurs dans le monde entier depuis 1945.

**GARANTIE LIMITÉE À VIE**  
**ASSURÉE GRÂCE À PLUS DE 65 ANS PASSÉS DANS LE DOMAINE DE LA PROTECTION CONTRE LES CHUTES**

Nous croyons sincèrement que notre équipement de protection contre les chutes est le meilleur au monde. Nos produits sont soumis à des tests rigoureux, afin d'assurer que les équipements de protection contre les chutes dans lesquels vous avez confiance sont fabriqués selon les normes les plus exigeantes. Les produits de protection contre les chutes Miller sont soumis à des essais pour vérifier qu'ils résistent à une usure normale; ils ne sont cependant pas indestructibles et peuvent s'endommager en cas de mauvaise utilisation. Notre garantie limitée à vie ne s'applique pas à l'usure normale ou à un usage abusif du produit.

Dans le cas peu probable où vous découvririez des défauts, soit de fabrication, soit de matériau, dans le cadre de notre garantie à vie, nous réparerons ou remplacerons le produit à nos frais. En cas de remplacement, si votre produit n'est plus offert, vous recevrez un produit comparable. En cas de problème sur un produit, nous contacter au 800-873-5242.

Les caractéristiques de fabrication peuvent être modifiées sans préavis.

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**PRODUCTOS ANTICAÍDAS MILLER®**  
**GARANTÍA DE SATISFACCIÓN TOTAL**

En Honeywell Safety Products y sus predecesores, hemos estado brindando la calidad de la marca Miller en equipos de protección de caída a millones de trabajadores alrededor del mundo desde 1945.

**GARANTÍA LIMITADA DE POR VIDA**  
**NOS RESPALDAN MÁS DE 65 AÑOS EN LA FABRICACIÓN DE EQUIPO ANTICAÍDAS**

Sinceramente creemos que su equipo de protección contra caídas es el mejor del mundo. Nuestros productos resisten rigurosas pruebas para garantizar que el equipo de protección contra caídas en el que usted confía está fabricado de conformidad con las normas más elevadas. Los productos anticaídas Miller son sometidos a pruebas para que resistan el desgaste normal, pero no son indestructibles y su incorrecta utilización puede dañarlos.

Nuestra Garantía limitada de por vida no se aplica al desgaste normal ni al maltrato del producto.

En el poco probable caso de que usted descubriera defectos de mano de obra o materiales, por nuestra Garantía limitada de por vida, repararemos o sustituiremos el producto por cuenta nuestra. Si un reemplazo es necesario y nuestro producto ya no está disponible, se lo sustituiremos por otro comparable.

En caso de que surja un problema con el producto, contáctenos al 800.873.5242.

Las especificaciones de fabricación están sujetas a modificaciones sin previo aviso.



by Honeywell

**Toll Free: 800.873.5242**

**Fax: 800.892.4078**

Download this manual at: [www.millerfallprotection.com](http://www.millerfallprotection.com)

Téléchargez ce manuel à l'adresse: [www.millerfallprotection.com](http://www.millerfallprotection.com)

Puede bajar por Internet este manual en: [www.millerfallprotection.com](http://www.millerfallprotection.com)

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**Honeywell Safety Products**

P.O. Box 271, 1345 15th Street

Franklin, PA 16323 USA