



KLEIN TOOLS

for Professionals... since 1857™

Instructions for Klein® Pro-Guard™ Portable, Retractable Lifeline Devices

This instruction manual covers the operation and maintenance procedures for products listed at right.

WARNING Equipment must NOT be installed, operated or inspected by anyone who has not read, understood and followed all the instructions contained in this manual. Failure to observe these instructions could lead to serious injury or death. Training and instructions review should be repeated at regular intervals by the user and his or her employer.

WARNING Never attempt to adjust, repair or modify any part or component of any lifeline device. For prompt repair or reconditioning, return the component(s) to Klein Tools, Inc., Service Center†, 2070 Bennett Road, Philadelphia, PA 19116.

WARNING Failure to comply with the following instructions could result in serious injury or death.

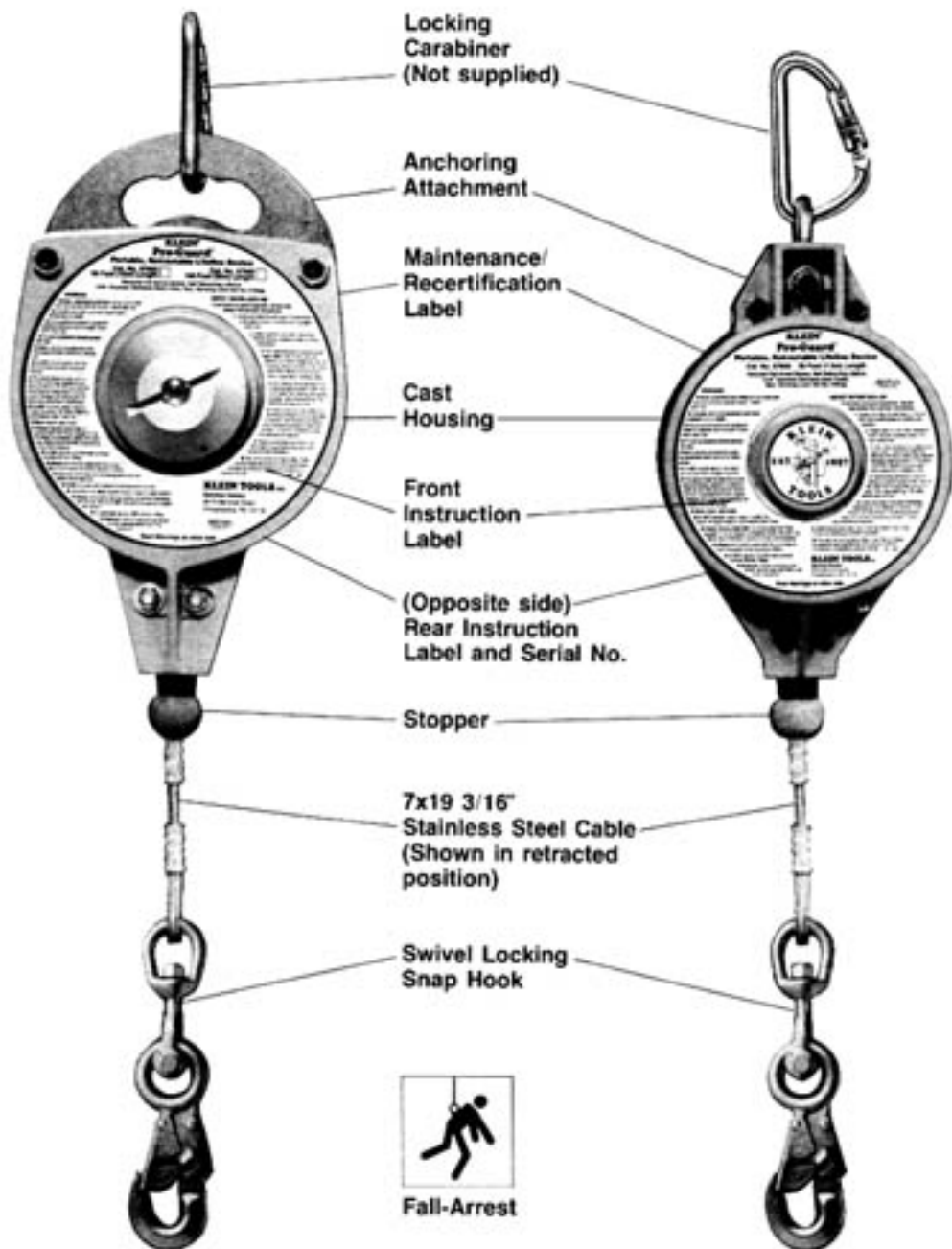
† Service Center for these products only.

General

The 87640, 87650 and 87660 Portable, Retractable Lifeline Devices are designed for use as a part of a complete fall-arrest system as required by OSHA. Their portability and deceleration features are designed for use whenever fall-arrest protection is needed. These devices are to be used in conjunction with a full-body harness or belt meeting government standards.

Under normal working conditions, the worker can draw the cable in and out of the unit housing as required. The unit's self-retracting feature keeps the lifeline taut and out of the worker's way during use and recoils the lifeline when disconnected from the worker. The unit's centrifugal brake will not engage as long as the unit is NOT under load. In the event of a fall, however, the braking system brings the worker to a decelerated stop and holds him in place.

Each unit's cable has a permanently-attached, locking swivel snap hook which must be attached to the rear fall-arrest D-ring of the worker's fall-arrest belt or harness. The lifeline itself is made of 3/16" diameter stainless-steel aircraft cable and is available in three lengths (25', 50' and 100'), each corresponding to a different unit catalog number (87640, 87650 and 87660). The unit's housing is weather-sealed and made of rugged cast aluminum.

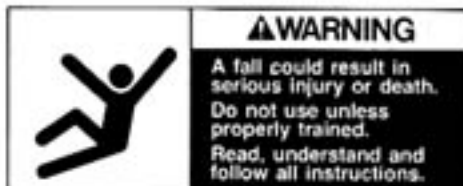


Cat. No. 87650 in 50-foot length

Cat. No. 87640 in 25-foot length

Cat. No. 87660 in 100-foot length (not shown)

All individuals who may use this Portable, Retractable Lifeline Device must be instructed on how to use the system correctly. They must also read, understand and follow all instructions and warnings contained in this instruction manual and any warnings or instructions attached to the product before each use.



Installation Procedures

1. Inspect the work area and clear all debris and other material that could cause injuries or interfere with the operation of the device. Make sure the lifeline is clear of any electrical lines or other energized sources at all times.

2. Attach the unit using an approved device through the anchor mounting bracket to an approved anchor source suitable for fall-arrest as defined in the current OSHA regulations. The anchorage must be capable of supporting 5,000 lbs. (22.2kN) per attached worker and be independent of worker support. This device is designed for use with one person only. Never use this device to support multiple workers. Also, do NOT use this unit if the total workload will exceed 350 lbs. (158kg).

Caution should be taken to insure compatibility between the connecting device and the anchorage. Always use locking snap hooks or locking carabiners for this application.

3. Make sure device is installed directly over work area and hangs vertically to avoid swing-fall injuries (pendulum effect, Fig. 1). Worker must be vertically in line with device. Make sure enough clearance exists in the worker's fall path to prevent striking an object in the event of a fall. A minimum of 3 feet is required (Fig. 2).

Fig. 1 Swing Fall Hazard

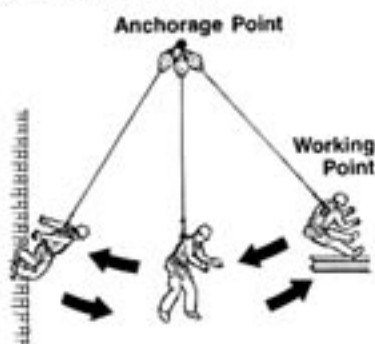
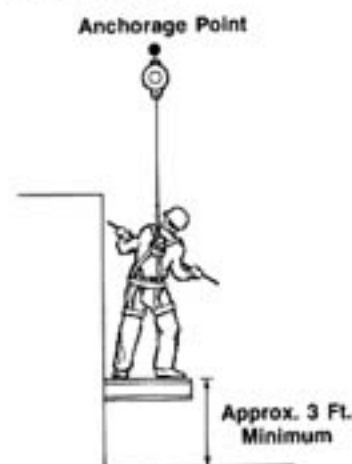


Fig. 2 Fall Clearance



4. Never work above anchorage. Increased fall distance will result.

Inspection Procedures

⚠WARNING NEVER use this lifeline device without a thorough inspection before each use.

1. Inspect and clear the vicinity around work area of debris and other material that could cause injuries or interfere with the operation of the unit. Be sure that the unit is attached to an approved anchorage that will support 5,000 lbs. (22.2kN) per attached worker.

2. Check the cable to insure it moves freely and retracts correctly. If the cable does not pull out smoothly or sticks when retracting, pull all the cable out of the housing and allow it to retract slowly under light tension. While the cable is retracting, check for cuts, kinks, broken strands, excessive wear, foreign substances or other damage. All cables should be checked regularly for signs of wear. A competent person, for example, a safety director, must schedule regular safety inspections based on amount of use and working conditions. (See Fig. 3)

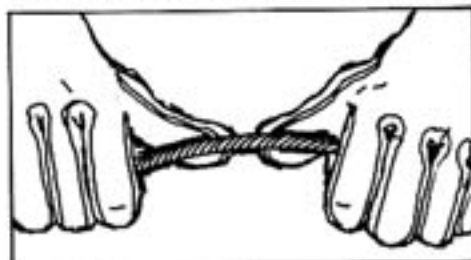


Figure 3

3. Test cable retraction of the device by pulling out at least 4 feet (1.2m) of the cable and allowing it to retract slowly back into the housing, while keeping tension on the cable. (See Fig. 4)

⚠CAUTION Gloves should be worn when inspecting or handling cable.

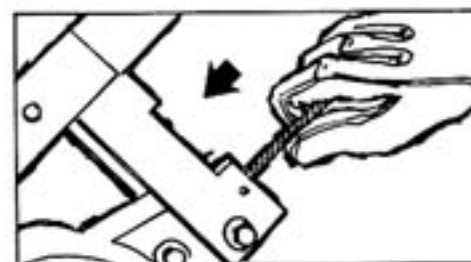


Figure 4

4. Test braking action (fall arrest) capability of the device by pulling out approximately 2 feet (.6m) of cable from the housing, then giving the cable a quick, hard, downward tug. The cable should stop and lock. (See Fig. 5)

⚠CAUTION Gloves should be worn when inspecting or handling cable.

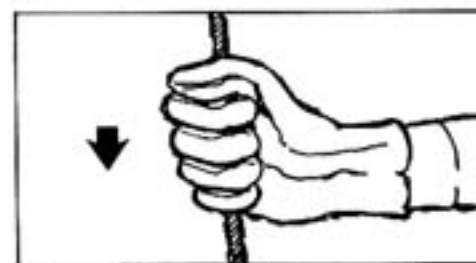


Figure 5

5. Inspect the snap hooks and connecting hardware to be sure they are not distorted or cracked. Be certain the snap-hook keepers are free of burrs, functioning properly, clean and not bent. Inspect retractable unit housing for distortion, cracks, loose screws or other damage. Make sure that all connecting hardware is properly fastened and secured. (See Fig. 6)



Figure 6

6. Make sure stopper is clean and free of cuts or cracks.

7. Remove from service immediately if any system function, component or part does not pass this inspection, or whenever subjected to a severe free fall, and return entire device to Klein Tools, Inc., Service Center, 2070 Bennett Road, Philadelphia, PA 19116 for inspection, repair and recertification. (Philadelphia Service Center for these products only.) Additionally, repairs and recertification MUST BE performed by the Klein Tools Service Center annually, or more frequently, depending on the system's use and operating conditions.

Operation Procedures

1. Complete all instructions listed in the "Inspection Procedures" section.
 2. Attach swivel snap hook on the retractable lifeline cable to the rear fall-arrest D-ring on the worker's belt or harness that meets government standards. Always visually check that: 1) Locking snap hook freely engages D-ring, 2) Keeper is completely closed with each use. Never rely solely on the feel or sound of a snap hook engaging.
- NOTE:** It is highly recommended that a full-body harness be worn for most applications.
3. If used properly, this retractable lifeline device provides proper fall-arrest protection as OSHA requires. The worker can now move to his work position. Remember, this device only provides fall-arrest protection.
 4. Always allow cable to retract slowly back into housing. If unit is mounted out of reach, always attach a lag line.
 5. See attached product labels for additional information.

Storage and Maintenance Procedures

A written log of all servicing and inspection dates for this device should be maintained by the company safety officer or other competent individual.

1. Do NOT leave this unit for extended periods of time in an environment where corrosion may take place, such as sewage and fertilizer plants. Additionally, avoid use in areas that contain high concentrations of ammonia. When used near sea water or other similar environments, more frequent inspection may be necessary to monitor potential corrosive damage. Avoid use with acids, alkaloids or other caustic chemicals, especially at elevated temperatures.
2. Clean exterior of case and retractable cable with water and mild soap detergent, rinse, and thoroughly air dry. Do NOT use harsh chemicals. Clean labels as required.
3. Never attempt to lubricate, adjust, repair or modify any part or component of this device.
4. Repair and recertification MUST BE performed by the Klein Tools Service Center annually, or more frequently, depending on the device's use and operating conditions, or whenever subjected to a severe free fall. Return the component(s) to Klein Tools, Inc., Service Center, 2070 Bennett Road, Philadelphia, PA 19116 †
5. See maintenance label for next inspection date.

† Philadelphia Service Center for these products only.

Specifications

| | Cat. No. | | | Measurement Unit |
|---------------------|----------|-----------|-------------|--------------------|
| | 87640 | 87650 | 87660 | |
| Cable Length | 25(7.5m) | 50 (15m) | 100 (30m) | Feet (meters) |
| Weight | 20 (9kg) | 29 (13kg) | 45 (20.3kg) | Pounds (kilograms) |

For Cat. Nos. 87640, 87650, and 87660

| | |
|--|--|
| Body Construction | Aluminum alloy casing, weather sealed |
| Cable Material | 7x19 Stainless steel |
| Cable Diameter | 3/16" (4.8mm) |
| Cable Breaking Strength | 3,700 lbs. (1,665kg) |
| Max. Working Load | 350 lbs (158kg) |
| Cable Locking Speed | 4-5 Feet (1.2-1.5m) per second |
| Stopping Distance | 2 feet (6m) or less |
| Maintenance & Recertification | Yes (Yearly or more frequently if needed) |
| Product Service† | Klein Tools Service Center, 2070 Bennett Road, Philadelphia, PA 19116. |

Specifications of products are subject to change without notice.
† Service center for these products only.

WARRANTY

The Klein products listed in this instruction booklet, manufactured and sold for commercial or industrial uses, are warranted to be free from defects in materials and workmanship for one year. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS. At its option, Klein will repair or replace, or refund the purchase price of, any product which fails to conform with this warranty under normal use and service. In no event shall Klein be liable for incidental or consequential damage.

Cat. No. 87640 Portable, Retractable Lifeline Device

KLEIN® Pro-Guard™ Portable, Retractable Lifeline Device Cat. No. 87640 25 Foot (7.5m) Length Personal Fall Arrest Device, Self Retracting Lifeline 3/16" Diameter Stainless Steel Cable, Max. Working Load 350 lbs (158kg).

MADE IN U.S.A.
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Printed in U.S.A.

WARNINGS:

- Read, understand and follow all instructions and warnings provided with this device... before each use.
- Improper use of this equipment could result in serious injury or death.
- All occupational protective equipment must be inspected and thoroughly tested before each use.
- For use by properly trained personnel only.
- Never use any occupational protective equipment other than for its intended use.
- Do NOT use this device near electrical lines and other energized sources.
- This device must be attached to a fall arrest anchorage capable of supporting 5,000 lbs (22.2kN) per attached worker and be independent of worker support. Always use locking type connectors for attachment to anchorage.
- Never extend cable length.
- Do NOT lubricate, adjust, repair or modify this device. All repairs must be performed by Klein Tools.
- Always visually check that: 1) Locking snap hook freely engages D-ring; 2) Keeper is completely closed with each use. Never rely on the feel or sound of a snap hook engaging.
- Always work directly underneath the anchorage to avoid swing fall injuries (pendulum effect).
- Do NOT use this unit if the total workload exceeds 350 lbs (158kg).
- Employer: Instruct employee as to proper use and warnings before use of the equipment.

INSPECT BEFORE EACH USE

If unit does not pass inspection, remove this device from service immediately.

1. Inspect and clear the work area of material that could cause injuries or interfere with operation.
 2. Check cable for cuts, kinks, abrasions, broken strands, excessive wear or foreign substances.
 3. Test cable retraction by pulling out at least 4 feet (1.2m) of the cable and allowing it to retract slowly back into the housing, keeping tension on the cable. CAUTION: Gloves should be worn when inspecting or handling cable.
 4. Test braking (fall arrest) action by pulling out approximately 2 feet (.6m) of the cable from housing then giving it a quick, hard, downward tug. The cable should stop and lock.
 5. Check that snap hooks and connecting hardware are not distorted or cracked, hook keepers are free of burrs, functioning properly, clean and not bent, connecting hardware is properly fastened and secured.
 6. Attach swivel snap hook only to rear fall arrest D-ring of belt or harness meeting government standards.
- This unit must be returned to Klein Tools Service Center for inspection and recertification annually at a minimum or whenever subjected to a severe free fall. KS-1 395

Front Warning Label

KLEIN TOOLS™

Service Center
2070 Bennett Road
Philadelphia, PA 19116

Read Warnings on other side

Read warnings and instructions on other side.

WARNINGS:

- Make sure anchorage and connecting device are compatible before each use.
- Avoid prolonged use in caustic or corrosive environments.
- One worker only. Never use this device to support multiple workers.
- Always use a belt or harness meeting government standards with this unit. This unit is NOT intended to be used for suspension.
- For personal use only. NOT towing or lifting.
- Do NOT use this device if it has been subjected to a severe free fall.
- Never allow cable to pass over sharp edges which could damage the cable.
- The cable must be kept clean and free of foreign matter.
- Never work above your anchorage, increased fall distance will result.

KS-2 395

Read warnings and instructions on other side.

WARNINGS:

- The braking action of the fall-arrest device requires a minimum speed to engage. Fall arrest function will NOT operate if footing is on loose or sliding material such as sand or grain.
- Always wear gloves when inspecting or handling cable.
- Never join two hooks together. They are NOT intended for that use and may twist apart.
- Never allow cable to retract uncontrollably. Always use a tag line to allow slow return of the cable to housing.
- Never cross the lifeline of another worker.
- Never allow cable to pass under or get wrapped around the legs, arms, neck or torso of the user or other workers.
- Never clamp off or stand on the cable nor allow the cable to become slack when in use.
- Rig to allow a minimum of 3 ft (.9m) clearance to objects below should a fall occur.

KS-3 395

Back Warning Label

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Cat. No. 87650 and 87660 Portable, Retractable Lifeline Devices — Front Warning Label

**KLEIN®
Pro-Guard™
Portable, Retractable Lifeline Device**

Cat. No. 87650 50 Foot (15m) Length
Cat. No. 87660 100 Foot (30m) Length

Personal Fall Arrest Device, Self Retracting Lifeline
3/16" Diameter Stainless Steel Cable, Max. Working Load 350 lbs (158kg).

WARNINGS:

- Read, understand and follow all instructions and warnings provided with this device... before each use.
- Improper use of this equipment could result in serious injury or death.
- All occupational protective equipment must be inspected and thoroughly tested before each use.
- For use by properly trained personnel only.
- Never use any occupational protective equipment other than for its' intended use.
- Do NOT use this device near live electrical lines and other energized sources.
- This device must be attached to a fall-arrest anchorage capable of supporting 5,000 lbs (22.2kN) per attached worker and be independent of worker support. Always use locking type connectors for attachment to anchorage.
- Do NOT lubricate, adjust, repair or modify this device. All repairs must be performed by Klein Tools, Inc.
- Never extend cable length.
- Always visually check that: 1) Locking snap hook freely engages D-ring. 2) Keeper is completely closed with each use. Never rely on the feel or sound of a snap hook engaging.
- Do NOT use this unit if the total workload exceeds 350 lbs (158kg).
- Always work directly underneath the anchorage to avoid swing fall injuries (pendulum effect).
- Make sure anchorage and connecting device are compatible before each use.
- Avoid prolonged use in caustic or corrosive environments.
- One worker only. Never use this device to support multiple workers.
- Always use a belt or harness meeting government standards with this unit. This unit is NOT intended to be used as a suspension system.
- For personal use only. NOT towing or lifting.
- Employer: Instruct employee as to proper use and warnings before use of the equipment.

INSPECT BEFORE EACH USE

If unit does not pass inspection, remove this device from service immediately.

1. Inspect and clear the work area of material that could cause injuries or interfere with operation of the unit.
 2. Check cable for cuts, kinks, abrasions, broken strands, excessive wear or foreign substances.
 3. Test cable retraction by pulling out at least 4 feet (1.2m) of the cable and allowing it to retract slowly back into the housing, keeping tension on the cable. CAUTION: Gloves should be worn when inspecting or handling cable.
 4. Test braking (fall arrest) action by pulling out approximately 2 feet (.6m) of the cable from housing then giving it a quick, hard, downward tug. The cable should stop and lock.
 5. Check to be sure snap hooks and connecting hardware are not distorted or cracked, hook keepers are free of burrs, functioning properly, clean and not bent, connecting hardware is properly fastened and secured.
 6. Attach swivel snap hook only to rear fall arrest D-ring of belt or harness meeting government standards.
- This unit must be returned to Klein Tools Service Center for inspection and recertification annually at a minimum or whenever subjected to a severe free fall. K6-1 395

KLEIN TOOLS, INC.

Service Center
2070 Bennett Road
Philadelphia, PA 19116

MADE IN U.S.A.
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Printed in U.S.A.

Read Warnings on other side

Cat. No. 87650 and 87660 Portable, Retractable Lifeline Devices — Back Warning Labels

KLEIN® Pro-Guard™ Portable, Retractable Lifeline Device

Read Warnings and Usage on other side

WARNINGS:

- Never allow cable to pass over sharp edges which could damage the cable.
- The cable must be kept clean and free of foreign matter.
- Do NOT use if cable has cuts, kinks, abrasions, broken strands or excessive wear.
- Never work above your anchorage, increased fall distance will result.
- The braking action of the fall-arrest device requires a minimum speed to engage. Fall arrest function will NOT operate if footing is on loose or sliding material such as sand or grain.

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WARNINGS:

- Always use locking carabineers and locking snap hooks.
- Always wear gloves when inspecting or handling cable.
- Never join two hooks together. They are NOT intended for that use and may twist apart.
- Never allow cable to retract uncontrollably. Always use a tag line to allow slow return of the cable to housing.
- Never cross the lifeline of another worker.
- Never allow cable to pass under or get wrapped around the legs, arms, neck or torso of the user or other workers.
- Never clamp off or stand on the cable nor allow the cable to become slack when in use.
- Rig to allow a minimum of 3 ft. (.9m) clearance to objects below should a fall occur.
- Do NOT use this device if it has been subjected to a severe free fall.



▲WARNING

A fall could result in serious injury or death. Do not use unless properly trained. Read, understand and follow all instructions.

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KLEIN TOOLS.

NEXT INSPECTION DUE

| | | | |
|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| <input type="checkbox"/> JAN | <input type="checkbox"/> FEB | <input type="checkbox"/> MAR | <input type="checkbox"/> APR |
| <input type="checkbox"/> MAY | <input type="checkbox"/> JUN | <input type="checkbox"/> JUL | <input type="checkbox"/> AUG |
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| <input type="checkbox"/> 2001 | <input type="checkbox"/> 2002 | <input type="checkbox"/> 2003 | <input type="checkbox"/> 2004 |

Annual Inspection and Recertification
of this Equipment Required.
For Any Questions Regarding
Recertification Call
1-800-323-3664

▲ WARNINGS

• **Read, understand and follow** all instructions and warnings, attached to and/or packed with this unit... before each use.

• Improper use of this equipment could result in serious injury or death.

• **Inspect before each use.** All occupational protective equipment **must** be inspected and thoroughly tested before each use. If any part or component shows damage, excessive wear or does not function properly, the entire device should be removed from service.

• **Before each use,** test unit to make sure it operates properly.

• For use by **properly trained personnel only.**

• **Never** use any occupational protective equipment for other than for the intended use.

• Do **NOT** use this device near live electrical lines and other energized sources.

• This device **must** be attached to a fall-arrest anchorage capable of supporting 5,000 lbs. (22.2kN) per attached worker and be independent of worker support. **Always** use locking type connectors for attachment to anchorage.

• Do **NOT** use this unit if the total workload exceeds 350 lbs (158kg).

• This device is **NOT** to be used for towing or lifting.

• **Always** use a belt or harness meeting government standards with this unit. This unit is **NOT** intended to be used for suspension.

• Do **NOT** use this device if the brake does not function when tested.

• Do **NOT** use this device if the cable does not retract.

• Do **NOT** use this device if it has been subjected to a severe free fall.

• The cable **must** be kept clean and free of foreign matter.

• Do **NOT** use if cable has cuts, kinks, abrasions, broken strands or excessive wear.

• **Avoid** prolonged use in caustic or corrosive environments.

• **Always** work directly under the anchorage. Worker **must** be vertically in line with device to avoid swing-fall injuries (pendulum effect).

• Make sure the anchorage and connecting device are compatible before each use.

• **Always** use locking carabineers and locking snap hooks.

• **Always** wear gloves when inspecting or handling cable.

• **Only** attach the swivel locking snap hook to the rear fall-arrest D-ring of a belt or harness meeting government standards for the intended use.

• **Always visually check that:** 1) Locking snap hook freely engages D-ring. 2) Keeper is completely closed with each use.

• **Never** rely on the feel or sound of a snap hook engaging.

• **Never** join two hooks together. They are **NOT** intended for that use and may twist apart.

• **Never** allow cable to retract uncontrollably. **Always** use a tag line to allow slow return of the cable to housing.

• **Never** cross the lifeline of another worker.

• **Never** allow cable to pass under or get wrapped around the legs, arms, neck or torso of the user or other workers.

• **Never** clamp off or stand on the cable nor allow the cable to become slack when in use.

• For use with one person only. **Never** use this device to support multiple workers.

• Rig to allow a minimum of 3 ft (.9m) clearance to objects below should a fall occur.

• **Never** extend cable length by attaching extension lanyard. Use correct length for job.

• The braking action of the fall-arrest device requires a minimum speed to engage. Fall-arrest function will **NOT** operate if footing is on loose or sliding material such as sand or grain.

• **Never** work above your anchorage, increased fall distance will result.

• **Never** allow cable to pass over sharp edges which could damage the cable.

• Do **NOT** lubricate, adjust, repair or modify any part of this device. All repairs **must** be made at the Klein Tools Service Center, 2070 Bennett Road, Philadelphia, PA 19116. (Service Center for these products only).

• Components **must** be inspected by competent person. Retractable lifeline devices **must** be returned to the Klein Tools Service Center for inspection and recertification annually or more frequently depending on the system's use and operating conditions, or whenever subjected to a severe free fall.

• Do **NOT** use this device if any instruction or warning is not fully understood. Telephone Klein Tools Sales Department at 1-800-323-3664 for clarification.

• **Employer**— instruct employee as to proper use and warnings before use of equipment.

Detailed Inspection and Maintenance Log

SERIAL NO.:

MODEL NO.:

DATE PURCHASED:

| Inspection Date | Inspection Items Noted | Corrective Action Taken | Maintenance Performed |
|-----------------------|------------------------|-------------------------|-----------------------|
| Approved by: _____ | | | |
| Approved by: _____ | | | |
| Approved by: _____ | | | |
| Approved by: _____ | | | |
| Approved by: _____ | | | |
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| Approved by: _____ | | | |

Please feel free to photocopy this page for continued use as an Inspection and Maintenance Log.



KLEIN TOOLS
for Professionals... since 1857™

Klein Tools, Inc., 7200 McCormick Blvd., P.O. Box 599033, Chicago, IL 60659-9033