

Part #500995-001

# Product Manual:

## #LG5 Series

### Manhole Guard Retrieval System

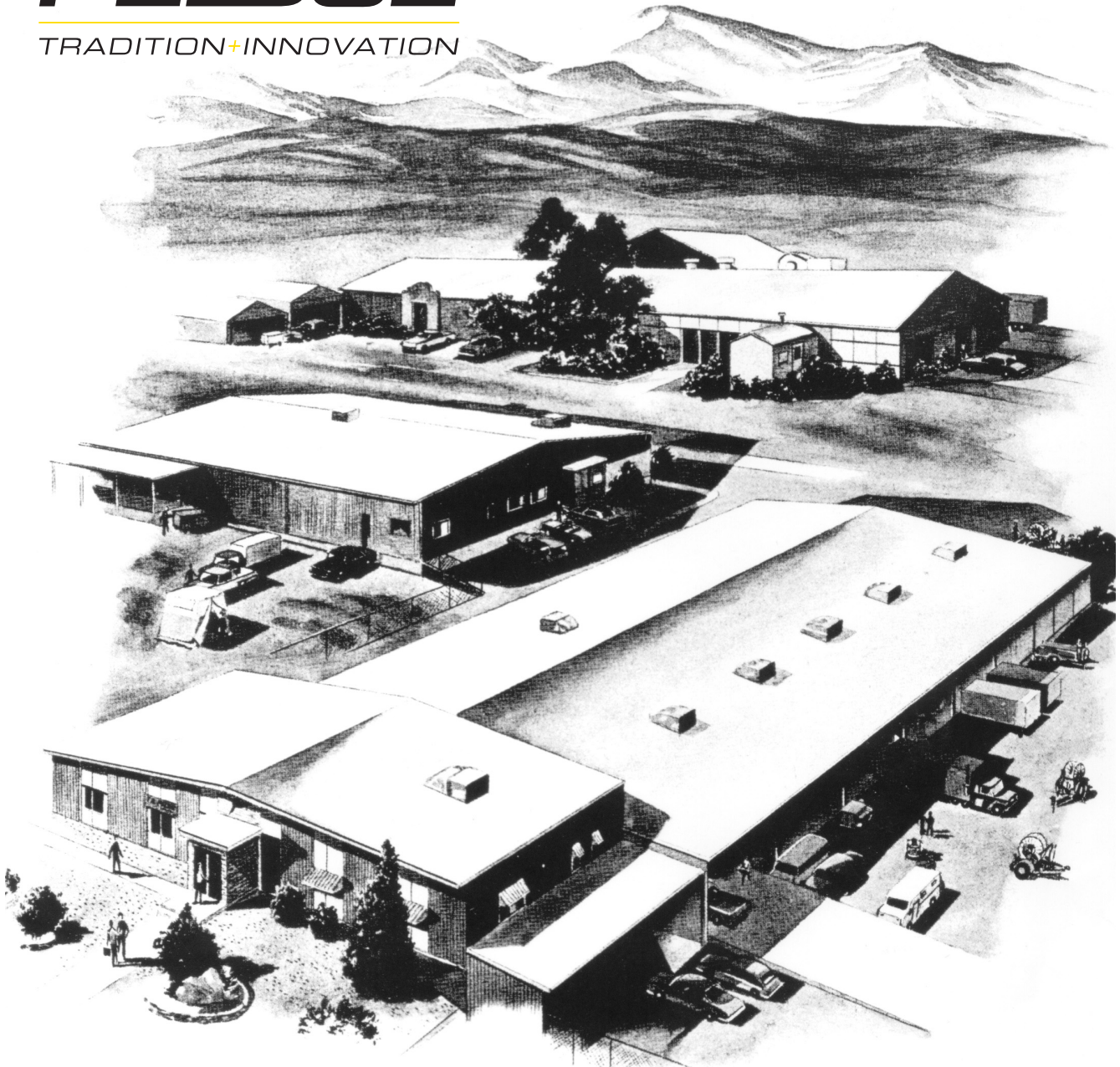


  
**PELSUE®**  
*ISO 9001 Certified*

**T.A. Pelsue Company**

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Since our inception in 1963 – the T.A. Pelsue Company has designed and manufactured high quality equipment to improve the personnel efficiency and working conditions in various underground, confined, and outdoor areas.

Founded by T. Allen Pelsue, the company has established a continuing reputation for excellence in the production of fine products for a broad spectrum of industry throughout the world.

Now, in our second generation of family direction, continued commitment to innovation and quality makes Pelsue a leading source of equipment for many types of confined spaces. We specialize in safety, retrieval, fall arrest, ventilation, cable placing, splicing, and maintenance nationally and abroad. With more than 70,000 square feet of facilities available, Pelsue continues the dedication that has made us pre-eminent in this field.

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#### **T.A. Pelsue Company**

##### **Quality Policy**

OUR GOAL IS THE PURSUIT OF NEVER-ENDING IMPROVEMENT IN PRODUCT QUALITY AND BUSINESS SYSTEMS.

METHODS TO BE EMPLOYED IN ATTAINING THIS GOAL WILL INCLUDE NEW PRODUCT QUALITY PLANNING, EMPLOYEE TRAINING, AND UTILIZATION OF EMPLOYEE INVOLVEMENT GROUPS TO SOLVE PROBLEMS.

IN AN INCREASINGLY COMPETITIVE MARKETPLACE, ENSURING CUSTOMER SATISFACTION IS ONE OF THE DIFFERENTIATORS THAT SETS YOU APART FROM THE PACK AND YIELDS A COMPETITIVE ADVANTAGE.

THEREFORE, WE WILL SUPPORT TOTAL CUSTOMER SATISFACTION BY IMPLEMENTING THE **ISO 9001 QUALITY SYSTEM** AND PROVIDING THE NECESSARY ATMOSPHERE AND TRAINING TO NURTURE THIS CONCEPT THROUGHOUT OUR ORGANIZATION.

WE WILL MAKE EVERY BUSINESS DECISION AS THOUGH THE QUALITY OF THE PART OR SERVICE PROVIDED WAS DESTINED FOR OUR OWN OR OUR FAMILY'S USE. WE WILL ALWAYS THINK **QUALITY FIRST**.

EVERY T.A. PELSUE COMPANY EMPLOYEE IS EXPECTED TO COMMIT TO THIS PHILOSOPHY IN THE PERFORMANCE OF HIS OR HER DAILY TASKS.

#### **QUALITY FIRST!**

T.A. PELSUE COMPANY SENIOR MANAGEMENT TEAM

## 1.2 - Pelsue Product Warranty

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Pelsue products are designed and engineered to perform as stated in published specifications. Quality materials and workmanship are used in the manufacture of this product. With regular maintenance and proper care, Pelsue equipment provides many trouble free hours of operation.

The T.A. Pelsue Company warrants to the buyer that the Hoist Product furnished will conform to specifications and will be free from defects in material and workmanship from the date of shipment to the original buyer, for a period of 3 months (90 days). In the event of failure of any components of a Pelsue product within the warranty period, service must be pre-approved by the T.A. Pelsue Company, and service must be performed by the T.A. Pelsue Parts and Service Department in Englewood, Colorado, or at the option of the T.A. Pelsue Company, service may be performed at any designated service center, which may include any authorized service center for the component manufacturer. Unauthorized repairs will not be covered by this warranty.

Damage or failure due to misuse, mishandling, or unauthorized modifications will not be covered by this warranty. Unless otherwise agreed, the T.A. Pelsue Company shall repair or replace the defective components within (30) calendar days of notice of failure. T.A. Pelsue Company's obligation hereunder, shall be limited to the repair or replacement of the product or component as set forth above and shall not include any liability whatsoever for damages caused by such failure, including, but not limited to consequential or incidental damages flowing from use or lack of use of product.

Any replacement, repair, modification, installation, or other service performed by the T.A. Pelsue Company shall be warranted by the remainder of the unexpired period of the warranty, or for a period of (90) calendar days, whichever is longer.

All materials or parts returned for credit or warranty shall be returned only with prior approval, and will be subject to factory inspection before credit is allowed. Parts claimed defective will be replaced upon request and will be invoiced as purchased, subject to credit when the parts claimed to be defective have been received and examined by the factory.

This warranty is expressly in lieu of all other warranties expressed or implied, including any warranties of merchantability or warranties of fitness for any particular use and all other obligations or liabilities in connection with the sale of this equipment.

T.A. Pelsue Company, 2500 South Tejon Street, Englewood, Colorado 80110, 800-525-8460




## 2.0 - Introduction & Product Information

Congratulations on your choice of a **Pelsue Model #LG5 Manhole Guard Retrieval System** to compliment your confined space entry/retrieval operation. This equipment has been designed and manufactured to exceed confined space requirements and regulations in order to meet the needs of the discriminating operator for the efficient and safe entry or retrieval of personnel from a confined space.

Safe, efficient and trouble-free operation and maintenance of the system requires that anyone who will be operating, maintaining, or inspecting the equipment, read, understand and follow all the operation, safety, maintenance, and inspection instructions contained within this manual. This manual covers the Pelsue Model #LG5 Manhole Guard Retrieval System. Use the Table of Contents as a guide to find specific information.

Keep this manual handy for frequent reference and to pass on to new operators. Establish a regular training program for experienced and new operators per this manual. Establish a regular maintenance and inspection program to keep the equipment in top condition.



# WARNING

This product is a part of a man rated confined space entry/retrieval system. The user must read, understand and follow the instructions contained in this manual for each component or total system before using this equipment. Establish an appropriate training, maintenance and inspection program for your people and the equipment. Failure to follow these instructions could result in serious injury or death.

## 2.1 - Serial Number

### Product Serial Number

Always give your dealer the serial number of your Pelsue confined space entry/retrieval product when ordering parts or requesting service or other information.

The serial number decal is permanently embossed with a serial number. The serial number decal will appear as shown in *Figure 2a* at the bottom. On the upper section it will be located on one of the front vertical legs (see Fig. 2b). On the lower section it will be located on the top rear cross bar (see Fig. 2c). A space has been provided below for the recording of the serial numbers for future reference.

Upper Assembly

Guard

MODEL: \_\_\_\_\_

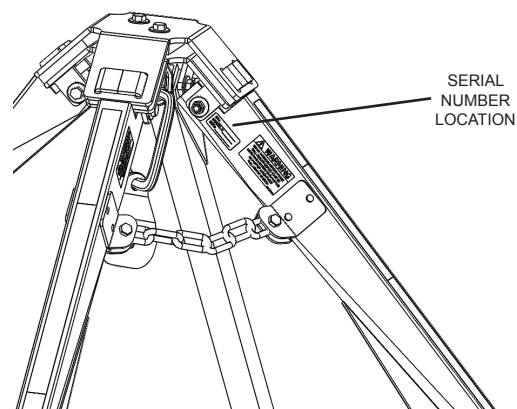
Serial Number : \_\_\_\_\_

Date of

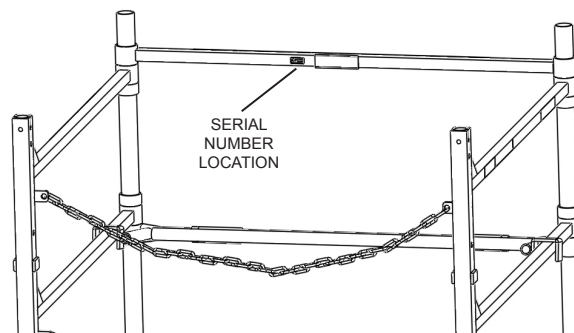
Manufacture (DOM): \_\_\_\_\_

S/N#	_____
MODEL#	_____
DOM	_____

**Figure 2a:** Serial Number Decal



**Fig. 2b:** Upper Assembly Serial Number Decal Location

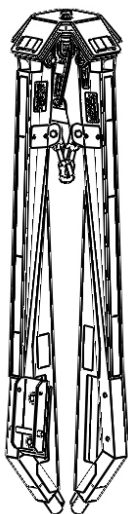


**Fig. 2c:** Guard Serial Number Decal Location

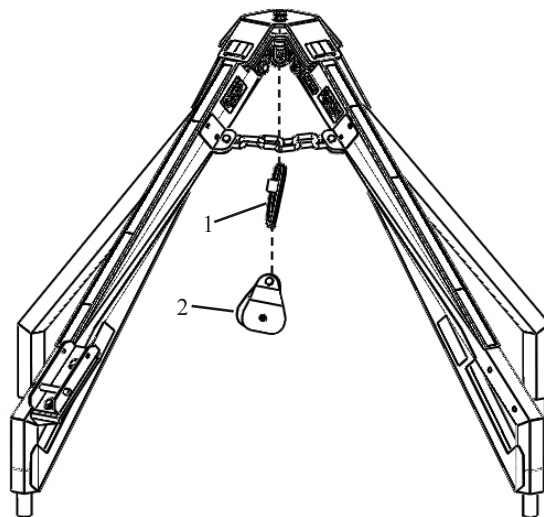
# 3.0 - Configuration & Assembly

Upon initial receipt of the Manhole Guard Retrieval System inspect the packaging for any evidence that the product may have been damaged in shipment. While unpacking the product, inspect all of the components for damage. If damage to any of the components is discovered, DO NOT USE THE PRODUCT! Alert the shipping carrier immediately of the damage to the shipment.

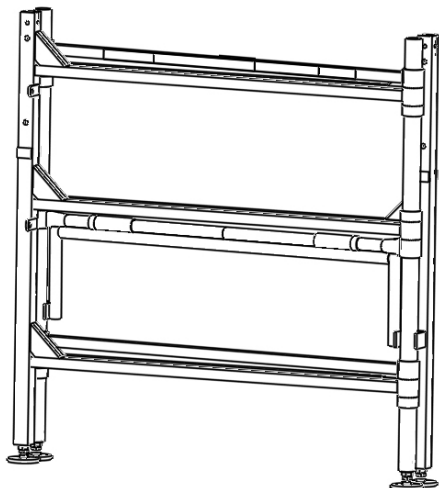
ITEM#	PART#	DESCRIPTION
LG5-TA	500909-001	LG5 UPPER SECTION
	1. P102	CARABINER - GALVANIZED STEEL, SCREW LOCK
	2. P025	PULLEY - CABLE READY, 2-1/2" TREAD, ALUMINUM
LG5-GA	500885-001	LG5 LOWER SECTION



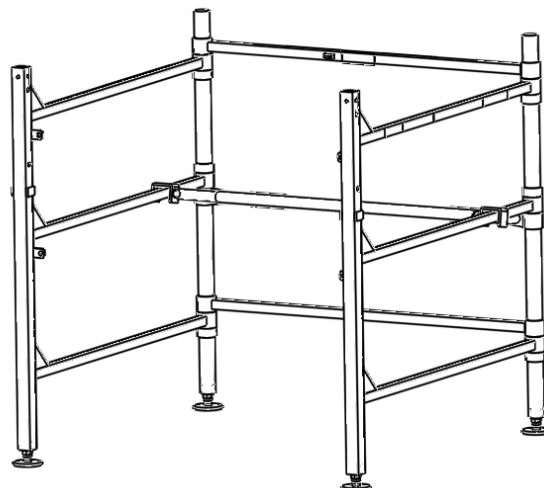
LG5-TA FOLDED ORIENTATION



LG5-TA DEPLOYED ORIENTATION



LG5-GA FOLDED ORIENTATION



LG5-GA DEPLOYED ORIENTATION

**Figure 3.0:** #LG5 Series  
Configuration Diagram

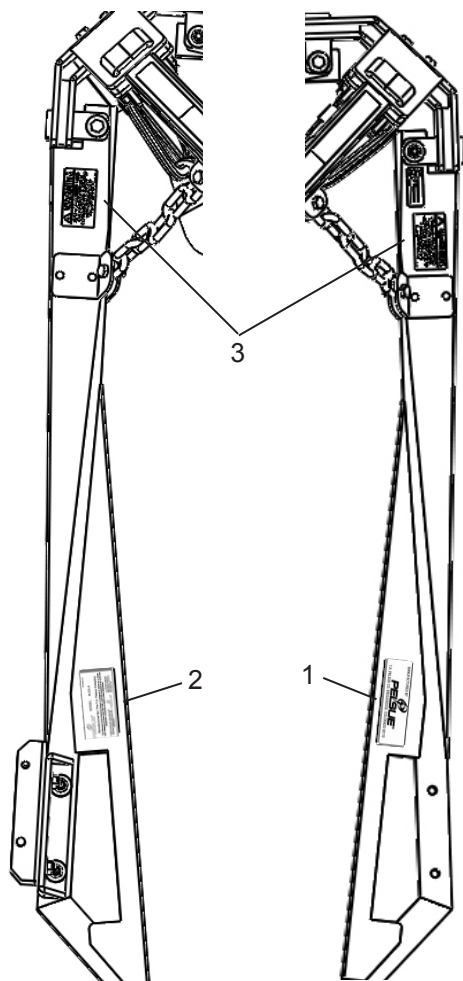
**Verify that all parts are present before completing assembly.**

The Carabiner and Pulley will not be installed on the upper assembly upon receipt. To fully assemble the upper section,

1. Secure the Screw Lock Carabiner (#1) to a Swivel Eye located on the Hub of the upper section by unscrewing the screw lock on the Carabiner, and hooking through the Swivel Eye.
2. Hook the Cable Ready Pulley (#2) onto the Carabiner (#1) and fully tighten the Screw Lock on the Carabiner.

\*\*Refer to parts list above if replacement parts are required. Replacement parts can be ordered from the T.A. Pelsue Company at 800-525-8460.





**Figure 3.1a: #LG5-TA**  
Label Locations



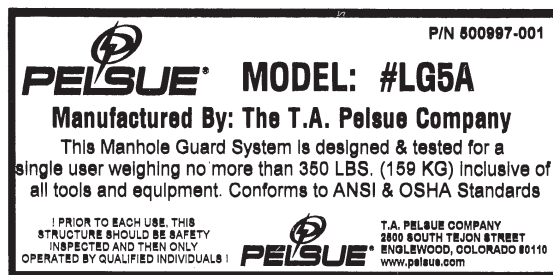
**Figure 3.1b: #LG5-GA**  
Label Locations

MANUFACTURED BY

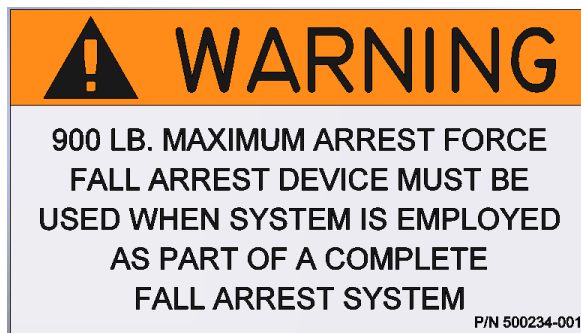


T.A. PELSUE CO. ENGLEWOOD, COLORADO 80110

**1) 102072-002**



**2) 500997-001**



**3) 500234-001**

## 4.0 - Safety

The following section will address the safety precautions which must be adhered to when working with Pelsue confined Space Safety equipment such as the #LG5 Series Manhole Guard Retrieval System. Any user must familiarize themselves with the information in this section before utilizing the equipment.

### SIGNAL WORDS:

Note the use of the signal words **DANGER**, **WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guidelines:

- DANGER-** Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations or for hidden or unseen hazards.
- WARNING-** Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury and includes obvious and hidden hazards. It may also be used to alert against unsafe practices.
- CAUTION-** Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

You are responsible for the safe operation, maintenance and inspection of your Pelsue #LG5 Manhole Guard Retrieval System. You must ensure that anyone who will operate, maintain, inspect or work around the equipment be familiar with the operating and maintenance procedures and related safety information contained in this manual. This manual will take you step-by-step through the workings and capabilities of the #LG5 Manhole Guard System and alert you to all good safety and operating practices while using the system.

Remember, you are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that everyone operating this equipment is familiar with the procedures recommended and follows safety precautions. Remember, most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- System owners must give operating instructions to operators or employees before allowing them to use the equipment and at least annually thereafter.
- The most important safety device on this equipment is a safe operator. It is the operator's responsibility to read and understand all safety and operating instructions in the manual and to follow these. Most accidents can be avoided.
- A person must understand the operation of this equipment and be trained in its usage before operating the equipment. An untrained operator exposes himself and others to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Think SAFETY! Work SAFELY!

### 4.1 - Warning Statement

#### WARNING!

Products manufactured or sold by the T.A. Pelsue Company are intended for use by professionals trained and experienced in the use, inspection and maintenance of these products.

Paraprofessional users such as volunteer rescue workers and sportsmen involved in risk sports such as climbing and caving will be held to the same standard of experience and training as professionals.

Technical rescue, repelling, climbing and the training involved are hazardous activities. Each situation has its own unique conditions and must be evaluated. Effective risk management comes from experience, proper training and good personal judgement.



### SAFETY ALERT SYMBOL

This Safety Alert symbol means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**

The Safety Alert symbol identifies important safety messages on your Pelsue Retrieval Product and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instruction in the safety message.



Why is this symbol important to you?

**3 BIG Reasons:**      **Accidents Disable and Kill.**

**Accidents Cost You Money.**

**Accidents Can Be Avoided.**

## 4.3 - General Safety Information

1. Read, understand, and follow the Product Manual and all safety signs before using, maintaining or inspecting the equipment.
2. Refer to and follow applicable standards and regulations. Comply with requirements of local regulations for your applications.
3. Establish an equipment-use training program for inexperienced employees. Only trained, competent persons shall use the equipment. An untrained operator is not qualified to operate the system.
4. Have a first-aid kit available for use should the need arise and know how to use it.
5. Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.
6. Install and properly secure all guards and shields before operating.
7. Wear appropriate protective gear. This list includes but is not limited to:
  - A hard hat
  - Protective shoes with slip resistant soles
  - Heavy gloves
  - Protective clothing
  - Face Protection
8. Review and follow the Pre-Operation Checklist before using a component in the system or the system itself.
9. Establish a regular maintenance and inspection program with your equipment and maintain detailed records.
10. Review safety related items and operating instructions with all personnel on a regular basis.

## 4.4 - Operating Safety

1. Read, understand and follow the User Manual and signs on the product before using, maintaining or inspecting the equipment.
2. Train all operators before allowing them to use the product. An untrained operator exposes themselves, bystanders and workers to possible serious injury or death.
3. Visually inspect the product and all auxiliary components and equipment before using. Correct any problems before using the equipment.
4. Securely anchor the product before using.
5. Use only certified anchor and connector components in your system.
6. Use only an approved full body harness for the workers.

## 4.4 - Operating Safety (continued)

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- 7.** Always work in teams. One person is to work in the confined space (entrant) and the other is to attend to the entrant (attendant). Pelsue recommends an additional attendant/rescuer for stand-by in case of an emergency.
- 8.** Do not exceed the capacity of the system at any time (see section 5.1).
- 9.** Establish a regular training program for new and experienced workers.
- 10.** Establish a detailed inspection program for your equipment and document the findings. Return the equipment to the manufacturer for repair if any problems are found.
- 11.** Plan your work program before starting. Have the required people, equipment and procedures available to do the job.
- 12.** Do not use the equipment around physical or environmental hazards. This list includes but is not limited to:
  - Corrosion that may affect the structural integrity of the lifeline or other components.
  - Chemicals which can degrade components in a manner which can not be visually identified.
  - Toxic gases: Rescuers or workers can be killed in toxic environments.
  - Heat or elevated temperatures.
  - Moving machinery: Workers or auxiliary equipment can be contacted by or pulled into moving components.
  - Sharp edges: Workers or the rescue equipment can be injured by or damaged by sharp edges or components.
  - Electrical hazards: Stay away from power lines or components carrying electrical power.
  - Overload: Do not overload the system at any time during operation (see section 5.1).
  - Follow confined space regulations and standards.

## 4.5 - Maintenance Safety

---

- 1.** Read, understand and follow the User Manual and signs on the product before using, maintaining or inspecting the equipment.
- 2.** ANSI and OSHA require a regular inspection program for all confined space entry/retrieval equipment and to maintain documented results of these inspections. Follow the inspection procedure contained in this manual and use the inspection form to document the results (see section 6.0).
- 3.** Keep instructional and safety signs clean and legible at all times. Clean or replace as required.
- 4.** Remove the equipment from service if a problem is found during the inspection. Return to an authorized repair depot or the factory for service.

## 4.6 - New Operator or Owner

---

The Pelsue #LG5 Series Manhole Guard Retrieval Systems are designed to assist a person/entrant in entering a confined space and assist in exiting if required. Every new operator must read, understand and follow the instructions in the manual. No one should be allowed to use the equipment without training. The training should be reviewed with experienced operators on a regular basis. At regular intervals, perform a detailed inspection of the equipment and document the results. Remove from service if deficiencies are found. Alterations or misuse of this equipment or failure to follow instructions may result in serious injury or death.

It is the responsibility of the owner's organization or operator to read this manual and to train all other operators before they start working with the equipment. Follow all safety instructions exactly. Safety is everyone's business. By following recommended procedures, a safe working environment is provided for the operator, bystanders and the area around the work site. Untrained operators are not qualified to operate the equipment.

Many features incorporated into this equipment are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the equipment safely and how to set it to perform as intended. By following the operating instructions in conjunction with a good maintenance program, your product will provide many years of trouble free service.

## 5.0 - Product Operation

The following section will address the capabilities and the general operation of the Pelsue #LG5 Series Manhole Guard Retrieval System. The instructions contained within this section should be adhered to each and every time the product is used. Any person tasked with installing or operating the piece of equipment should be familiar with these procedures.

### 5.1 - Product Description & Capabilities

The Pelsue #LG5 Series Manhole Guard Retrieval Systems are built from structural aluminum, and have several steel and/or engineered plastic components. LG5 Manhole Guard Retrieval Systems are specifically designed for confined space entry and/or rescue & retrieval applications. All specifications, instructions, and procedures provided within this manual or upon Pelsue Specification Documents are based upon and only valid for usage with a Pelsue Manhole Guard Retrieval System approved accessories. The T.A. Pelsue Company can not verify equipment safety and/or compliance when utilized with anything other than Pelsue approved LG5 Series accessories.

#### **Manhole Guard Retrieval System - #LG5 Series**

##### **General Specifications**

- System Footprint - 42" x 42"
- Overall Height - 78-1/2"
- Structure Weight - Upper Section 41.8 lbs  
Lower Section 35.5 lbs

##### **Load Rating & Compliance (2 applications)**

1. Rated for personnel lifting or lowering applications for a single user.
  - **Man Rated Load Capacity.....**Single User of **350 LBS.** (159 KG.)  
Maximum Weight

2. As an anchorage for a personal fall arrest system

**Warning!** A 900 LB. maximum arrest force (MAF) fall arrest device must be used when system is employed as part of a complete fall arrest system.

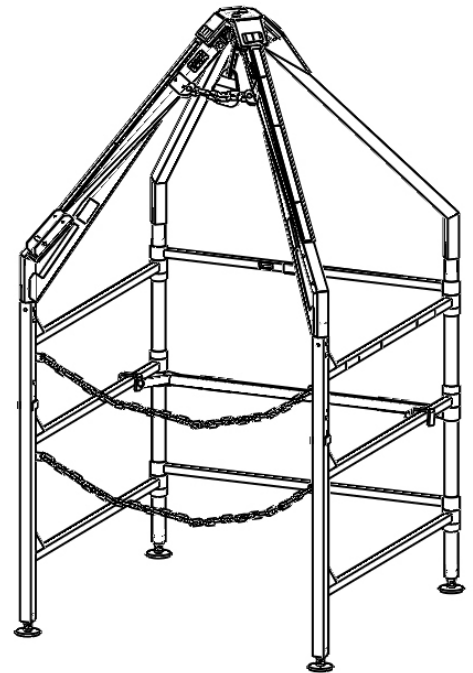
\*\*Refer to loading diagrams for proof load

##### **Materials & Construction**

- Main Structure:
  - Structural Aluminum
  - Carbon Steel  
(Powder coated)
- Chains
  - Zinc Plated Steel
- Hardware
  - Grade 5 & Grade 8 (plated)

##### **Features:**

- Easily assembles over most manholes for safe and secure lifting and/or placement of personnel
- Provides a multiposition winch mount compatible with many winch and fall arrest Systems
- Constructed primarily of lightweight & Corrosion-resistant powdercoated Aluminum & Steel
- Highly durable T-Handle latches located at each leg to secure upper assembly to guard assembly



**Figure #5.1a: #LG5 Series**



The load rating given here may supersede any load rating reported for an installed winch and or pulley system.



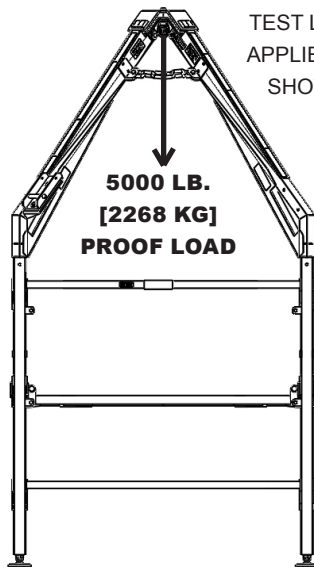
**! CAUTION !** - The user must ensure that the ground area utilized for operation is capable of withstanding the weight of the system combined with the system proof loads in order to retain the stated compliance of the entire system.

**! CAUTION !** - The user must ensure that the ground area utilized for operation is relatively level and debris free in order to retain the stated compliance and stability of the entire system.

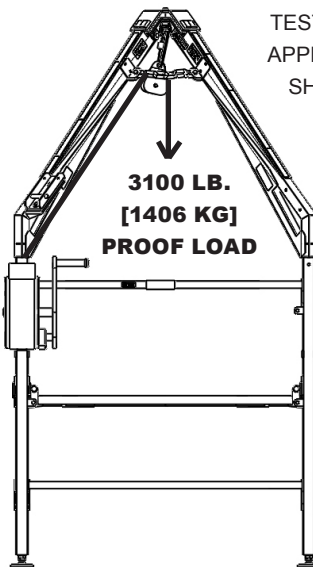
**! CAUTION !** - The user must ensure that the guard locking arms are locked in place and that the chain on the Upper Assembly are secure and intact in order to retain the stated compliance of the entire system.



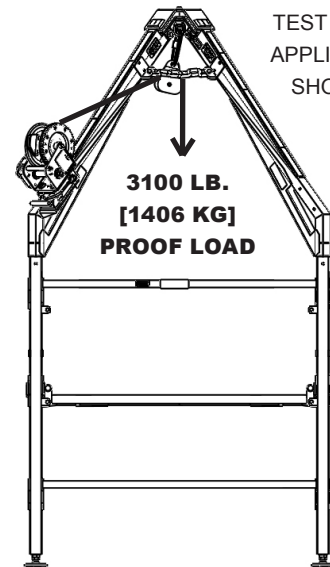
## 5.1 - Product Description & Capabilities (continued)



**Figure 5.1b:** LG5  
Loading Diagram  
Configuration 1



**Figure 5.1c:** LG5  
Loading Diagram  
Configuration 2



**Figure 5.1d:** LG5  
Loading Diagram  
Configuration 3

### Additional Requirements & Notes

- #LG5 Series Guard System must be set on a level surface prior to use.
- In order to ensure compliance, it is the user's responsibility to ensure that the supporting surroundings are capable of withstanding all of the loads imparted to it by the proof-loaded #LG5 Guard System.
- #LG5 Series are only to be utilized within the guidelines and ratings presented in this manual and only by personnel who are trained in the operation of this equipment as well as the practices of general confined space safety.

## 5.2 - Product Installation & Set-up

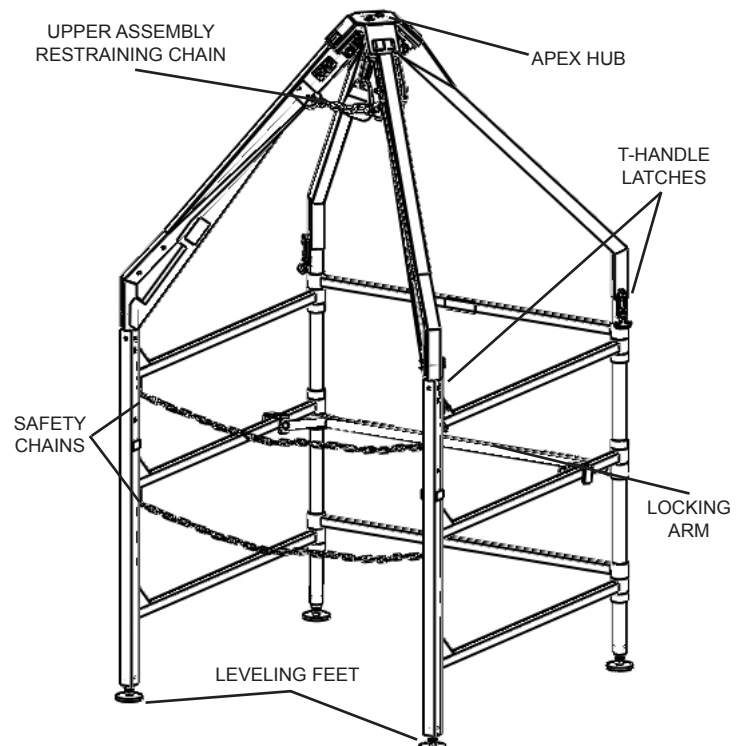
Prior to Operation, the #LG5 Series Rescue & Retrieval Manhole Guard System should be configured and prepared according to the following guidelines.

### 1. Pre-Operation Inspection:

It is necessary to perform a visual inspection, each time, prior to using the product. If deficiencies are found, remove the product from service and contact the T.A. Pelsue, regarding repair. The following checklist coupled with *Figure #5.2a* should be used as a guide to determine whether the equipment is in good operating condition prior to usage. Equipment that is not in good condition can endanger the safety of the entrant and attendant during use.

The Pre-Operation Visual Inspection is not limited to, but must include the following items;

- Check that all the cross bars are straight and that all welds do not have cracks or fractures. Be certain that all cross bars are solidly mounted & secure.
- Check that the rear locking arm is securely attached and pivots freely
- Check that the apex-mounted anchor-points are fastened securely to the apex structure, and swivel freely.
- All leveling feet are present and adjustable.
- All T-Handle latches are secured to the system and undamaged.
- Verify that the Restraining Chain on the Upper Assembly is intact and secure. Verify that the safety chains are present on the guard. (Note: The safety chains on the guard are not meant to be a load bearing mechanism.)



**Figure #5.2a:** #LG5 Series  
Pre-Operation Inspection Points

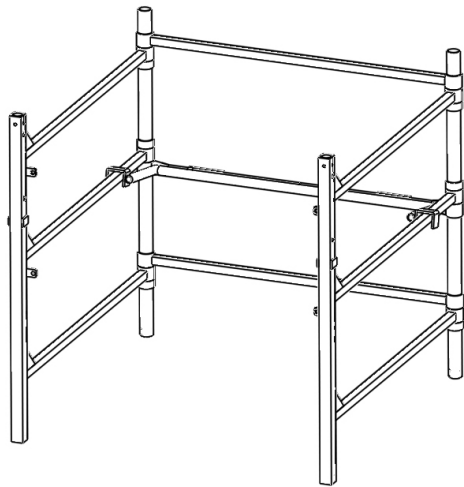


## 5.2 - Product Installation & Set-up (continued)

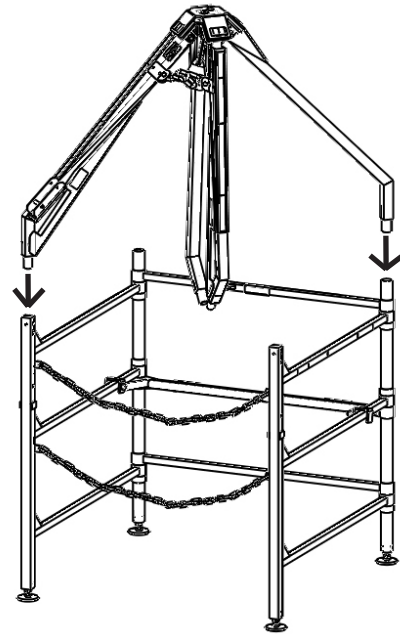
### 2. Setup of LG5 System:

Choose a location where installation will provide suitable proximity to the work area yet minimize obstructions during use and in the event a rescue is necessary. Once a location is chosen;

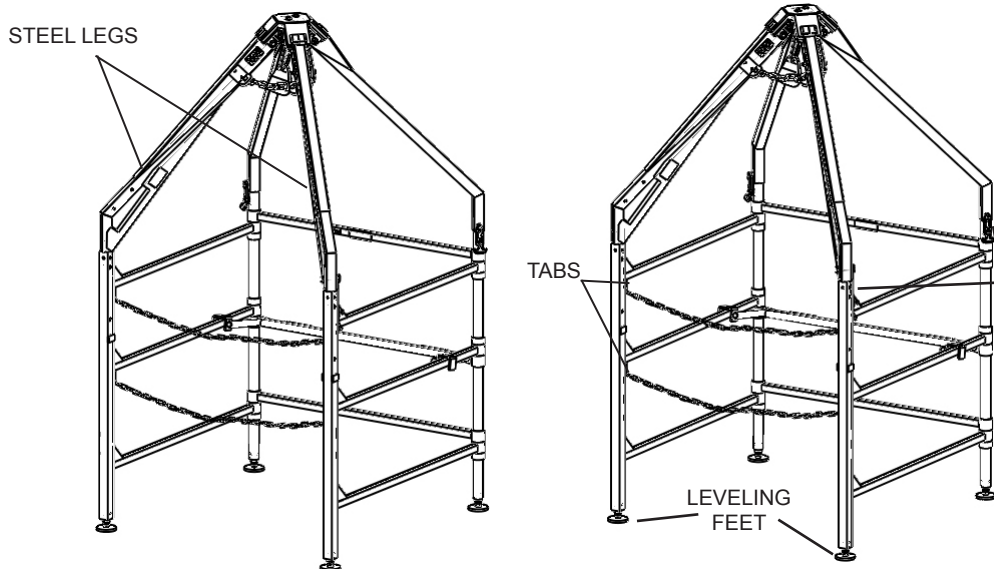
- Place the lower assembly on a secure flat surface. Allow the rear set of locking arms to be locked in place by folding them down onto their corresponding perpendicular rails (Refer to Fig #5.2b).
- Approach the open side of the lower assembly with the left steel leg of the upper section in one hand and the opposite aluminum leg in the other hand. Simultaneously place the insert of the steel leg into the front left corner post of the lower section and the insert of the aluminum leg into the opposite corner post. You can now let go of the upper assembly and it will stay upright (Refer to Fig #5.2c). Walk around the system placing the upper legs into the corresponding guard corner posts (Refer to Fig. #5.2d).
- After the upper and lower sections have been fully deployed and connected, level the system using the leveling feet on the bottom of the lower section at each corner post. (Refer Fig. 5.2e)
- Safety Chains can be secured to the tabs on the lower section if desired. T-Handle latches can also be secured if desired. (Refer Fig. 5.2e) Pull the T-Handle (attached to the upper legs) down and onto the keeper (attached to guard). (Refer Fig. 5.2f & 5.2g)
- Disassembly is reverse of assembly steps.



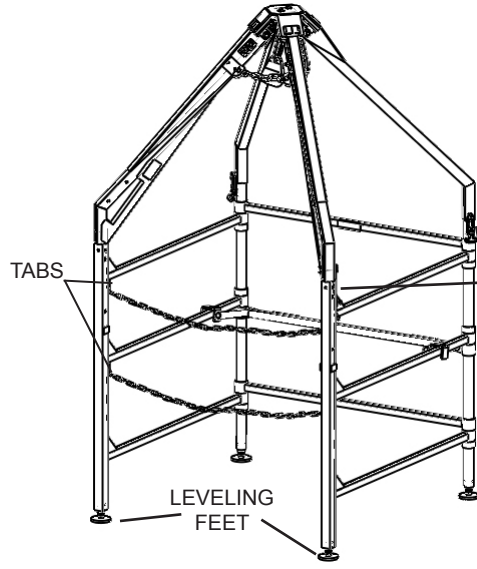
**Figure #5.2b:** #LG5 Series Lower Section  
In Unfolded Locked Position



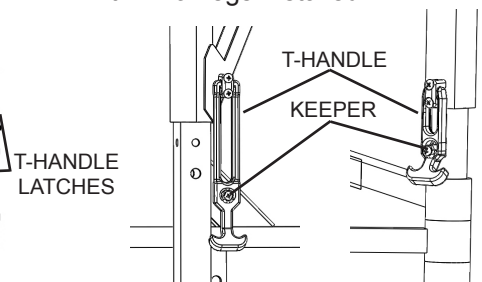
**Figure #5.2c:** #LG5 Series  
With Two Legs Installed.



**Figure #5.2d:** #LG5 Series  
Upper Section Installed.



**Figure #5.2e:** #LG5 Series  
Completely Installed.



**Figures #5.2f & #5.2g:** #LG5 Series  
Front & Rear T-Handle Latches

**!WARNING!** - The user must ensure that the locking bar is correctly installed in order to prevent damage to the product and injury to the operator.

## 5.3 - Product Operation

### 1. Operation of LG5 System:

Before operation of the LG5 System can occur, the user must choose one of three configurations in which to use the system. The configuration should be chosen and configured before the user can enter the manway.

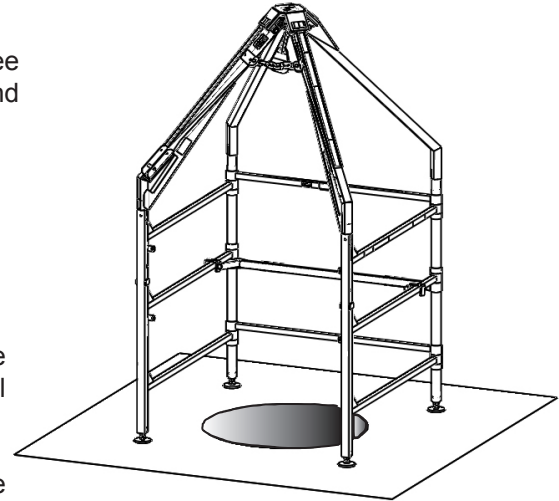
Ensure that the system is secure and level before working over the manway.

Ensure that the system is centered over the manway.

#### Configuration 1

A Standard SRL (Self Retracting Lifeline) can be connected directly to one of the Anchor Points on the Apex Hub (Fig. #5.2b) providing a compliant overhead fall arrest anchorage.

- To connect the SRL to the Apex Hub, utilize the SRL's connector to secure the device to one of the two overhead anchor points; (can be used in combination with Configuration #3 to provide full retrieval capability).

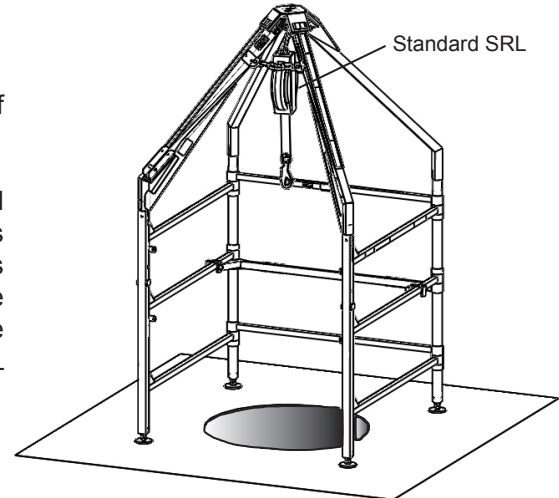


**Figure #5.3a:**  
#LG5 Over Manway

#### Configuration 2

A 3 Way SRL (Self Retracting Lifeline) device can be connected directly to one of the front vertical legs on the lower section of the LG5 (Fig. #5.3c).

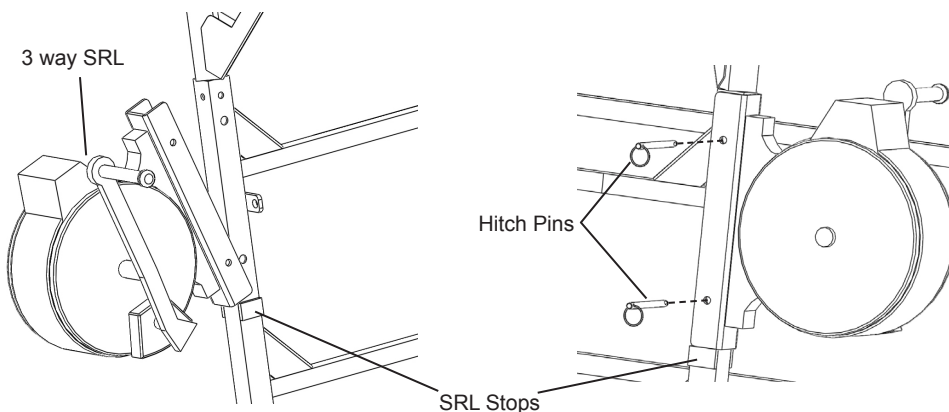
- The channel bracket that is integral to the 3 way SRL will slide over the leg and rest on the SRL Stops that are on the lower guard (Fig #5.3d). After the device is rested on the SRL Stops, the two Hitch Pins should be inserted through the holes on the bracket and the holes on the vertical leg to hold the 3 way SRL in place (Fig #5.3e). The provided Pulley and Carabiner should be connected to one of the Anchor Points on the Apex Hub. The line will then be reeved from the 3 Way SRL through the Pulley and then towards the manway.



**Figure #5.3b:**  
Configuration 1

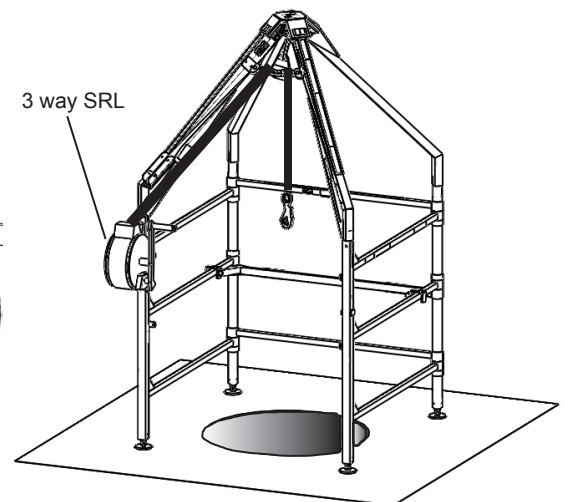
#### Configuration 3

A winch accessory bracket (#LGL-B) can be purchased from Pelsue. This accessory enables the use of a standard personnel winch. Please refer to [Section 8.0](#) for a detailed description



**Figure #5.3d:**  
3 Way SRL Installation

**Figure #5.3e:**  
3 Way SRL Installation



**Figure #5.3c:**  
Configuration 2

## 6.0 - Maintenance & Inspection



### MAINTENANCE & INSPECTION

1. Read, understand and follow the Product Manual and signs on the product before using, maintaining or inspecting the equipment.
2. ANSI and OSHA require a regular inspection program for all confined space entry/retrieval equipment and to maintain documented results of these inspections. Follow the inspection procedure contained in this manual and use the inspection form to document the results.
3. Keep instructional and safety signs clean and legible at all times. Clean or replace as required.
4. Remove the equipment from service if a problem is found during the inspection. Return to an authorized repair depot or the factory for service.

### 6.1 - Maintenance

For the most part, the Model #LG5 is intended to be a maintenance-free piece of equipment, however several steps can be taken to keep the system in top-notch working order and also extend the working life of the product.

#### Before Each Use:

1. Visual Inspection: Perform a complete visual inspection. Refer to section 6.2 for guidelines and take any maintenance steps that are necessary.

#### Annually:

1. Clean Product: Use a damp cloth and mild soap to clean the structure and labels of dirt and residue. Be sure the labels are legible (replacements are available from Pelsue)
2. Complete Inspection: Perform a thorough inspection, paying attention to the bullet points provided within section 6.2. Record results and keep documentation. A log has been provided in section 6.3 specifically for the recording of the dates & results of annual system inspections.

**Periodic Factory Service Inspection:** It is recommended that the product be serviced by a factory authorized service center or the manufacturer after a period of three years. Extreme working conditions may indicate the necessity to increase the frequency. Factory servicing shall include but not be limited to an intensive inspection and cleaning of all internal and external components. Failure to provide proper service may shorten product life and could endanger performance or function.

### 6.2 - Inspection

When completing an inspection of the Model #LG5 Manhole Guard Retrieval System, the following specific items should be checked;

#### 1. Labels:

Check that all the labels are clean and legible (Refer to Section 3.1). Clean the labels if any are dirty using mild soap and a damp cloth. Replace if any are illegible. Decals & labels provide valuable warning and caution information applicable to product usage and limitations, and should be visible and present at all times.

#### 2. Fasteners:

Check that all screws and other fasteners are present and secure. Note that not all fasteners are tightened to their maximum allowable torque. This is done in order to allow for pivoting and folding motions in certain components. Over-tightening of fasteners can interfere with the operation of the device and can damage the structure.

All fasteners on the Model #LG5 system are of a self-locking design. Bolt threads should extend all the way through their locking nuts. If any fasteners have appeared to "back-out" or loosen the product should be removed from service until the problem can be identified and corrected.

## 6.2 - Inspection (continued)

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### 3. Overhead Anchor Points:

Ensure that the two overhead anchor points swivel freely and that there is no binding in their range of motion. Also, visually inspect the anchor lugs for any sign of deformation. The anchor lugs can elongate and stretch if overloaded beyond the capacity of the system. Any Model #LG5 system exhibiting deformation in the anchor lugs should be removed from service immediately.

### 4. Structure:

The entire product structure should be checked for cracks, dents, bends or breaks. If there are major dents or any other structural damage, the unit should be removed from service and returned to the factory for repair.

- Pay special attention to weld locations: look for cracks or separation at the welds. Keep in mind the powder coating can age and crack, this normal paint cracking can be confused with structural cracking. If there is any uncertainty with regards to cracks, contact the Pelsue service department for assistance and/or recommendations
- Ensure that the upper and lower assemblies can be separated and folded as intended. Inability, or difficulty in folding the structure as intended may be indicative of structural damage. If the unit fails to fold or stow as intended remove the product from service and investigate further.
- Likewise, the rear locking bar should fold up and down easily, binding of the locking bar may also indicate a structural deficiency. Also, the locking bar is a load-bearing component of the LG5 system. The locking bar must be able to be fully lowered and locked into place for product compliance.

Model Number :  
Serial Number :  
Date Purchased :

#LG5

Place a check (✓) in the box if item is acceptable, place an x (X) in the box if item requires maintenance or repair

Date	Labels	Pins & Fasteners	Overhead Anchor Points	Overall Structure	Notes
Inspector (print & sign) :					
Inspector (print & sign) :					
Inspector (print & sign) :					
Inspector (print & sign) :					
Inspector (print & sign) :					
Inspector (print & sign) :					
Inspector (print & sign) :					
Inspector (print & sign) :					

\_\_\_\_\_

[illegible]



## 7.0 - Storage

Prior to storage, the product should be thoroughly inspected and maintained. Repair or replace any worn or damaged components to prevent any unnecessary down time at the next use.

Follow this procedure:

1. Thoroughly clean the entire unit using a mild soap on the frame and labels.
2. Perform a complete inspection of the unit and document the results prior to storage.

## 8.0 - Accessories

This section of the product manual will address optional accessories available from Pelsue for the LG5 Series System that can extend the capabilities of the system in various applications

### 8.1 - LGL-B Mounting Bracket

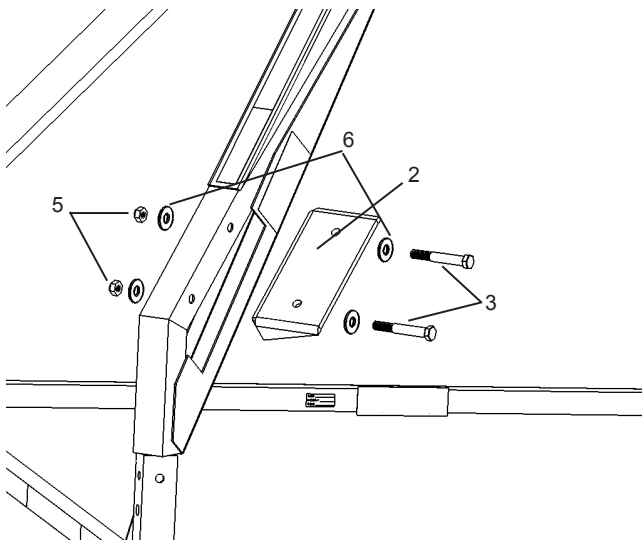
The winch mounting accessory, inclusive of a Mounting Platform and standard Winch Bracket comes standard with the LG5 Series system. This accessory provides full retrieval capabilities to the LG5 Series System

#### Installation of the Winch Mounting Parts (Part 1):

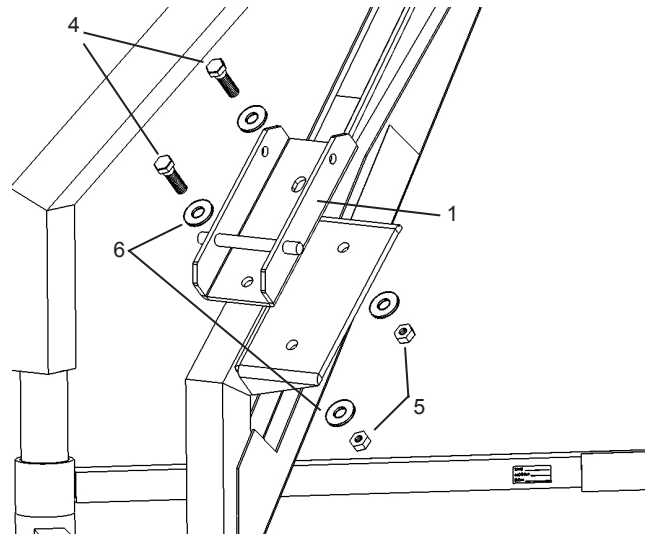
Installation of the winch or retrieval system should be performed prior to usage in an area not subject to fall hazard. Once installed, the platform and bracket can remain on the unit indefinitely, the upper assembly can be stowed with the winch adapter installed.

- a. First choose desired leg for winch mount location.
- b. Fasten the winch mounting platform with the necessary hardware (Refer to Fig #8.1a).
- c. Then fasten the winch bracket on to the mounting platform (Refer to Fig #8.1b).

ITEM#	PART#	DESCRIPTION
1.	500101-002	WELDMENT - WINCH BRACKET
2.	500890-001	MOUNTING PLATE
3.	100163-015	3/8"-16 X 2-3/4" BOLT
4.	100163-009	3/8"-16 X 1-1/4" BOLT
5.	107943-001	3/8"-16 STOVER LOCKING NUT
6.	100050-011	FLAT WASHER - 3/8"



**Figure #8.1a**  
Mounting Platform Installation



**Figure #8.1b**  
Winch Bracket Installation

## 8.1 - LGL-B Mounting Bracket (continued)

### Installation of the Winch to Adapter (Part 2):

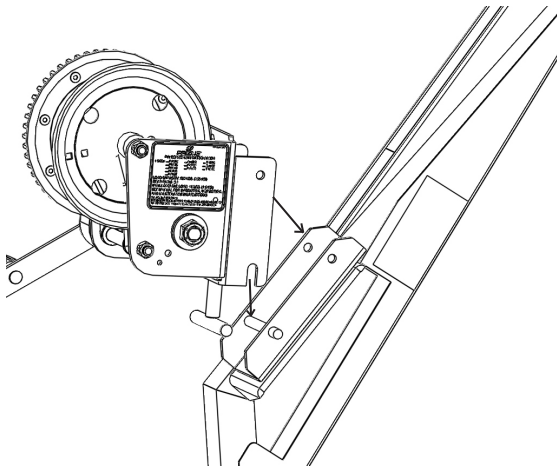
Note: The #LGL-B accessory will accept any Pelsue PW Series winch that is outfitted with a standard quick-release bracket

- a. Before Installing the winch, ensure that the LG5 system is assembled correctly.
- b. First slide the open slot of the Winch mount onto the welded bar on the Winch adapter (Fig. #8c).
- c. Then line up the holes on the Winch mount and the Winch adapter and insert the provided Hitch Pin.
- d. Enough winch cable can now be payed out so that the winch line can be reeved over the Pulley and carabiner that is included with the LG5 system ( Fig. #5.1a ). Ensure that the pulley and carabiner are properly fastened to an overhead anchor point and Operate the system within the limits of the LG5 system & the winch.

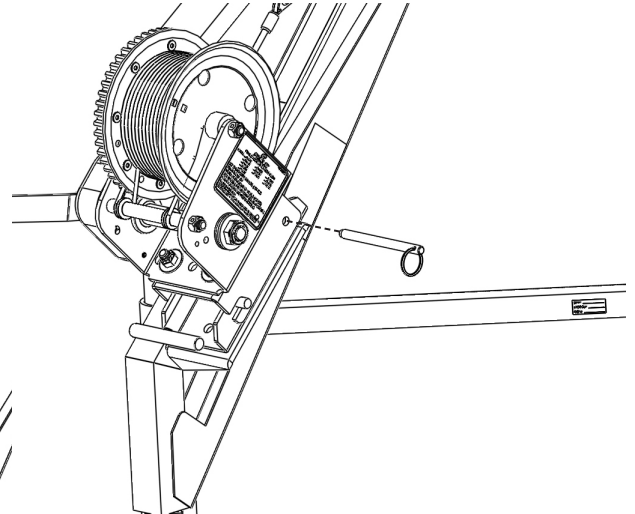
Note: If required, a secondary Fall arrest System can be attached to the second swivel eye at the apex in correspondence to the manufacture's instructions for that device.

### ! CAUTION !

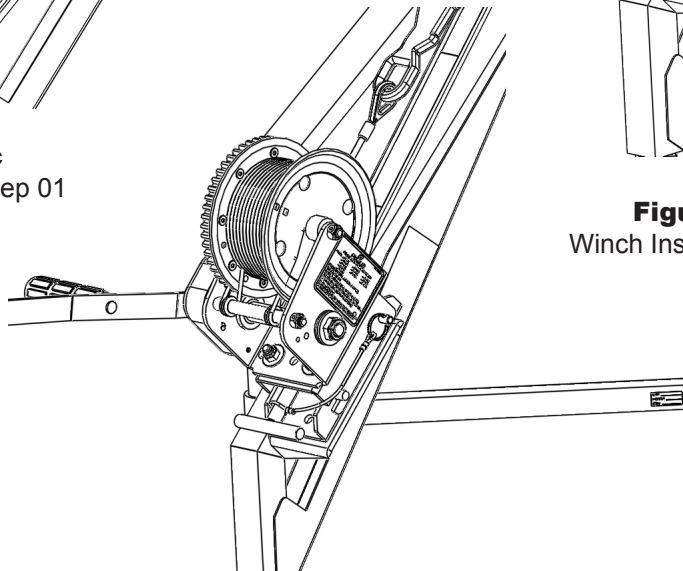
Pelsue can only verify compliance & compatibility with Pelsue PW Series Winches. Devices other than Pelsue PW Series Winches must be checked for compatibility.



**Figure #8.1c**  
Winch Installation Step 01



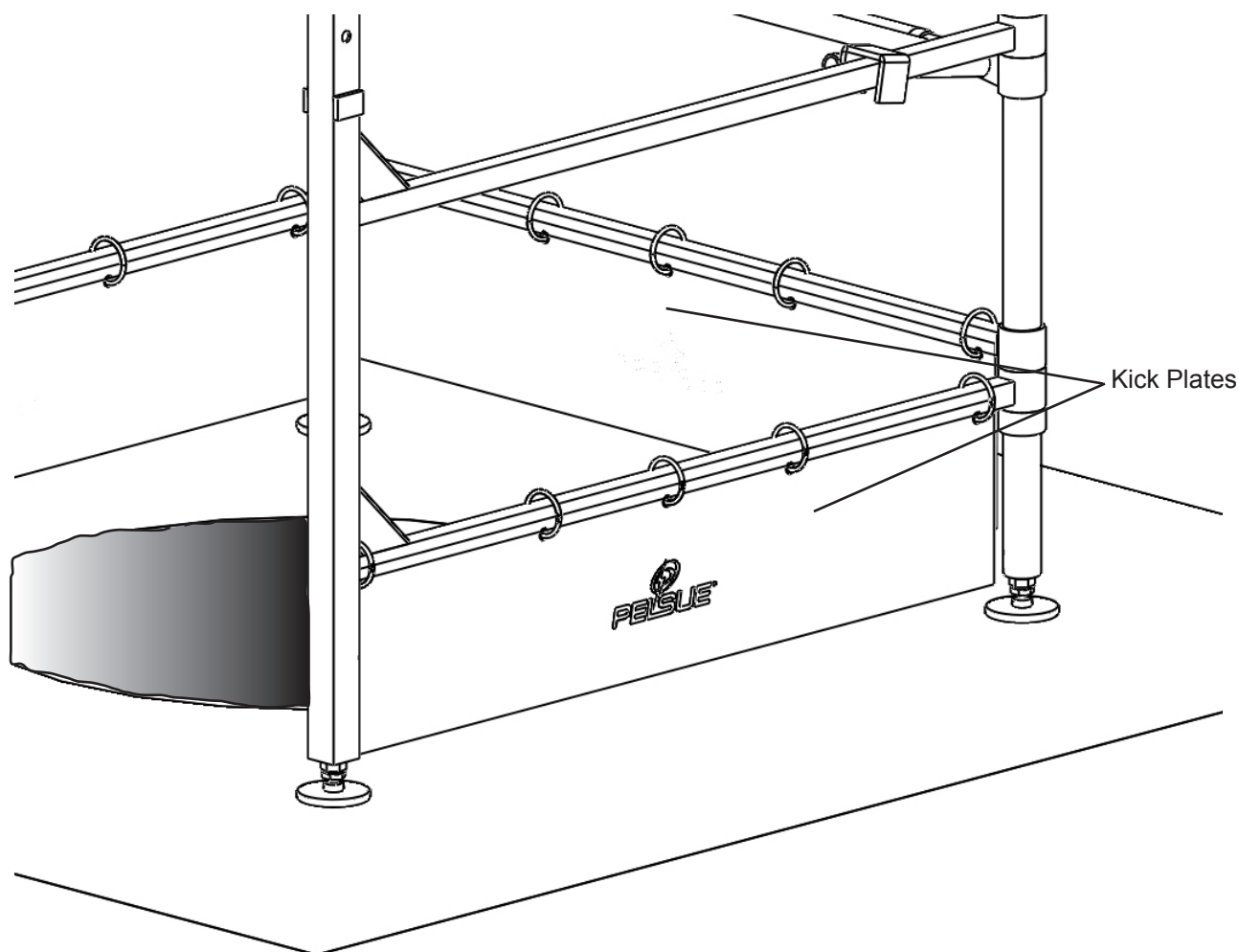
**Figure #8.1d**  
Winch Installation Step 02



**Figure #8.1e**  
Winch Installation Step 03

## 8.2 - Kick Plates - PVC Strip

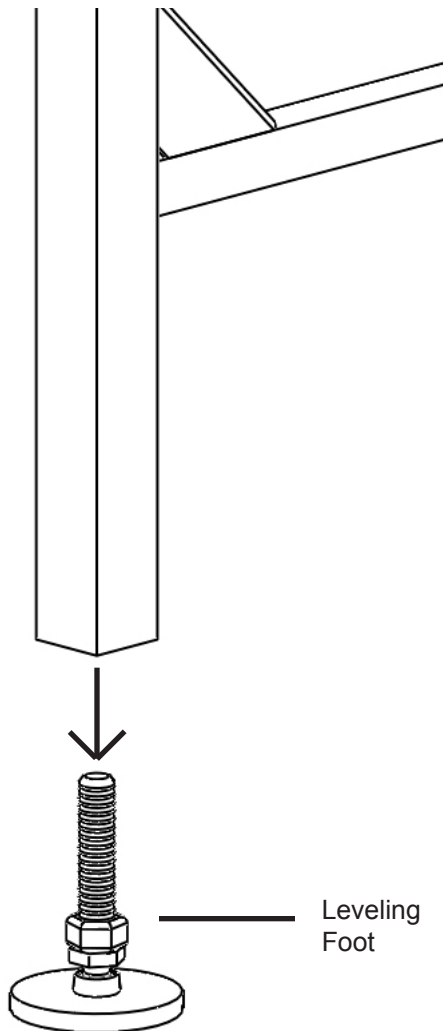
This Kick Plate accessory, inclusive of PVC Striping and standard fasteners can be fitted to the LG5 Series system. This accessory provides protection against debris or objects that can fall into the manway. The kick plates can be fitted on all three bottom cross bars of the lower section of the manhole guard as shown in the figure below. The kick plates can be ordered from Pelsue with the Part Number 500908-001.



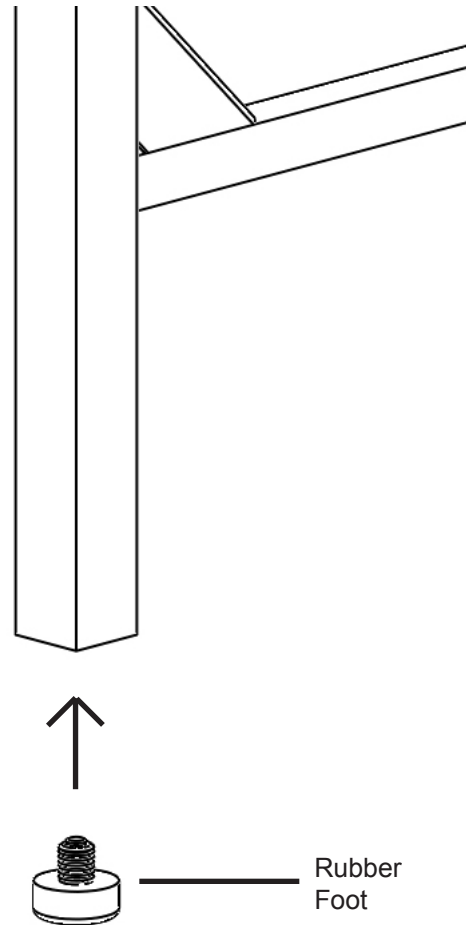
**Figure #8.2**  
LG5 Series System with  
Pelsue Kick Plates

## 8.3 - Replacement Rubber Feet

The replacement rubber foot accessory, inclusive of rubber feet with recessed washers and standard fasteners can be fitted to the LG5 Series system. This accessory can replace the leveling feet that come installed on the system if desired. The rubber feet can be used to prevent slippage between the system and the ground. To use the replacement rubber feet, the leveling feet must first be removed by un-threading it all the way until the feet are detached from the guard. The rubber feet can now be threaded in to take the place of the original feet as shown in the figures below. The rubber feet must be threaded all the way until the rubber meets the bottom of the legs. The rubber foot accessory comes standard with the LG5 Series System.



**Figure #8.3a**  
LG5 Series System  
Leveling Foot Removal



**Figure #8.3b**  
LG5 Series System  
Rubber Foot Installation

### For More Information...



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Notes:

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Notes:

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