Part #500954-001

# **Product Manual:**

# **#LGL Series Manhole Guard Retrieval System**





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

2500 South Tejon Street Englewood, Colorado, USA 80110 Tel. 800-525-8460 or 303-936-7432 Fax. 303-934-5581

Internet: www.pelsue.com Email: sales@pelsue.com



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.

# **Table of Contents**

Section	Description	Page #
1.0	General Information	5
	Quality Policy	
	Pelsue Product Warranty	
2.0	Introduction & Product Informa	tion 7
2.1	Serial Number	
3.0	Configuration & Assembly	8
3.1	Label Locations	
4.0	Safety	10
	Warning Statement	
4.2	Safety Alert Symbol	
4.3	General Safety Information	
4.4	Operating Safety	
	Maintenance Safety	
	New Operator Safety Information	
5.0	Product Operation	13
5.1	Product Description & Capabilities	S
5.2	Product Installation & Set-Up	
5.3	Product Operation	
6.0		17
	Maintenance	
6.2	Inspection	
6.3	Inspection Log	
7.0	Storage	21
8.0	Accessories	21
9.0	Contact Information	23

# 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

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 #LGL 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 #LGL 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.

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.

<u>Upper Assembly</u>	Guard

MODEL:			
Serial Number :			
Date of Manufacture (DOM):			
	S/N# MODEL#		

Figure 2a: Serial Number Decal

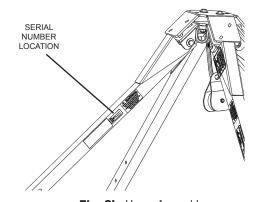


Fig. 2b: Upper Assembly Serial Number Decal Location

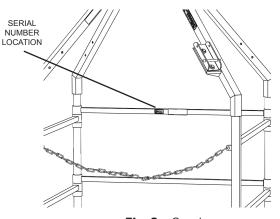
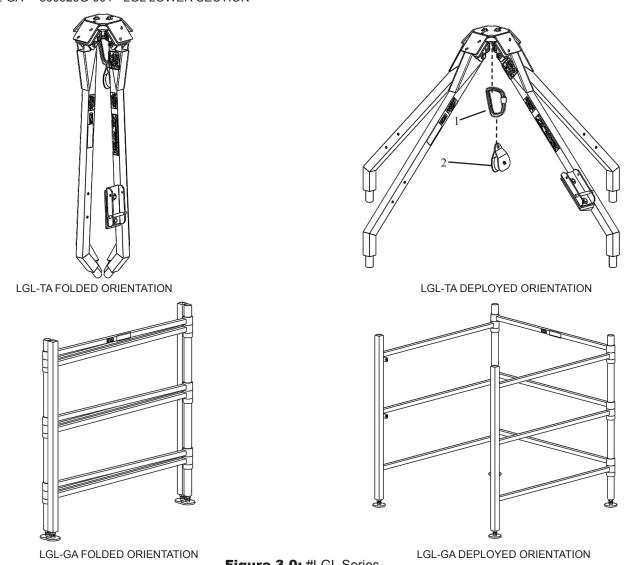


Fig. 2c: Guard Serial Number Decal Location

# 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
LGL-TA	500878-001	LGL UPPER SECTION
1	. P102	CARABINER - GALVANIZED STEEL, SCREW LOCK
2	. P025	PULLEY - CABLE READY, 2-1/2" TREAD, ALUMINUM
LGL-GA	500920G-001	LGL LOWER SECTION



**Figure 3.0:** #LGL 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.

<sup>\*\*</sup>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.

# WARNING THIS LGL SERIES SYSTEM IS DESIGNED AND TESTED AS A PERSONNEL RETRIEVAL SYSTEM AS REQUIRED WITHIN OSHA 1910.146 AND ANSIS Z117. REGULATIONS FOR CONFINED SPACES. THE LGL SYSTEM IS RATED FOR A SINGLE USER OF 350 LBS. (159 KG) MAXIMUM WEIGHT INCLUSIVE OF ALL TOOLS & EQUIPMENT. THE RATING IS BASED UPON A PROOF LOAD OF 1800 LBS. PRIOR TO EACH USE THIS SYSTEM SHOULD BE SAFETY INSPECTED AND THEN OPERATED IN ACCORDANCE WITH THE PRODUCT MANUAL (PART #500954-001) DO NOT REMOVE OR DEFACE THIS LABEL

#### 1) 500953-001

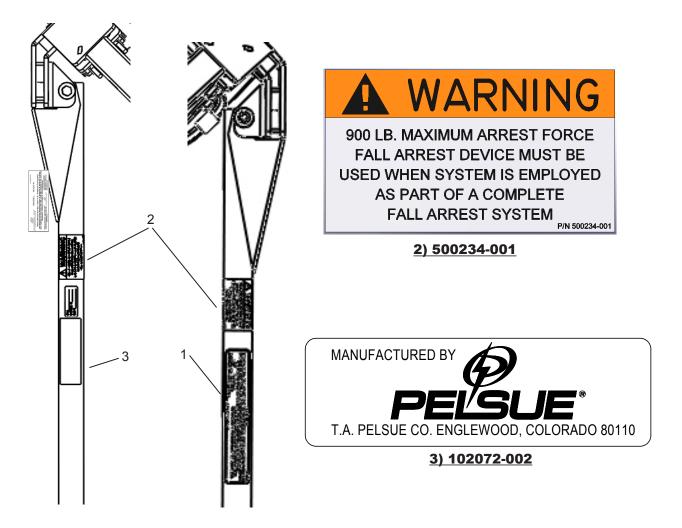
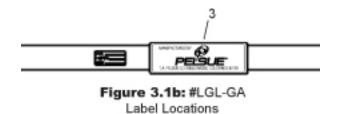


Figure 3.1a: #LGL-TA Label Locations



# 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 #LGL 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 #LGL 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 #LGL 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 it's 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.



Failure to read and heed all labels and instructions may result in injury or death. Inspect all components before and after each use, and remove from service if any damage or defect is found. Keep product free from dirt and moisture. Do not leave a suspended load unattended. Do not exceed maximum rated loads.

#### **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
- 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)

- **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 #LGL 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.

The following section will address the capabilities and the general operation of the Pelsue #LGL 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 #LGL Series Manhole Guard Retrieval Systems are built from structural aluminum, and have steel hardware and engineered plastic components. LGL 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 LGL Series accessories.

#### <u>Manhole Guard Retrieval System</u> - #LGL Series General Specifications

System Footprint
Overall Height
42" x 42"
76-3/4"

• Structure Weight - Upper Section 23 lbs Lower Section 30 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

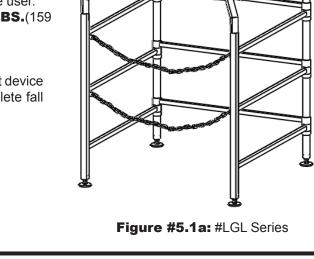
(Powder coated)
- Zinc Plated Steel

• Hardware - Grade 5 & Grade 8 (plated)

#### Features:

Chains

- Easily assembles over most manholes for safe and secure lifting and/or placement of personnel
- Provides a multi-position winch mount compatible with many winch and fall arrest Systems
- Constructed primarily of lightweight & Corrosion-resistant powder coated Aluminum & Steel



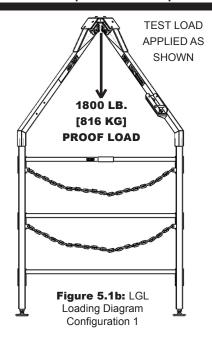


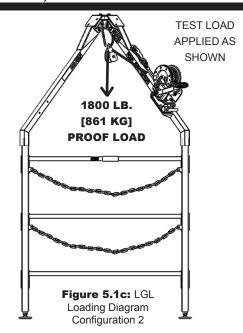
The load rating given here may supersede any load rating reported for an installed winch and or pulley system.



- **! 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 safety chains on the Guard Assembly are secure and intact in order to retain the stated compliance of the entire system.

## 5.1 - Product Description & Capabilities (continued)





#### Additional Requirements & Notes

- #LGL 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 #LGL Guard System.
- #LGL 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

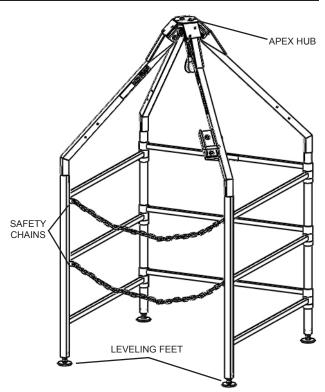
Prior to Operation, the #LGL Series Rescue & Retrieval Manhole Guard System should be configured and prepared according to the following guidelines.

#### 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;

- **a.** 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.
- **b.** Check that the apex-mounted anchor-points are fastened securely to the apex structure, and swivel freely.
- c. All leveling feet are present and adjustable.
- **d.** Verify that the safety chains are present on the guard. (Note: The safety chains on the guard are a load bearing mechanism and must be attached to the tabs to retain the stated compliance of the system.)



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

#### 2. Setup of LGL 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;

- **a.** Place the lower assembly on a secure flat surface. Unfold the lower assembly as to make a 90 degree bend between the side rails and the rear rails. (Refer to Fig #5.2b).
- **b.** Approach the open side of the lower assembly with the one leg of the upper section in one hand and the opposite leg in the other hand. Simultaneously place the insert of the one leg into the front left corner post of the lower section and the insert of the other 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).
- **c.** 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.
- **d.** Safety Chains are to be secured when the system is loaded. (Refer Fig. 5.2e).



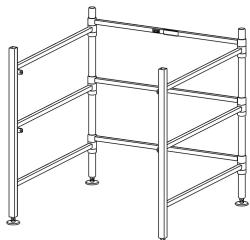


Figure #5.2b: #LGL Series Lower Section In Unfolded Position

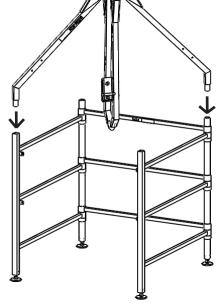


Figure #5.2c: #LGL Series With Two Legs Installed.

TABS

LEVELING FEET

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

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

#### 1. Operation of LGL System:

Before operation of the LGL System can occur, the user must choose one of two configurations in which to use the system. The configuration should be chosen and configured before any entry is attempted.

- Ensure that the system is secure and level before working over the manway.
- Ensure that the system is centered over the manway.
- Always secure the guards safety chains when there is a potential for loading of the winch or SRL line

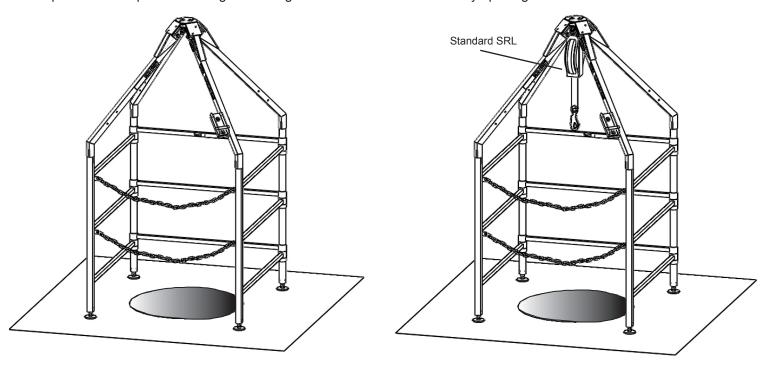
#### **Configuration 1**

An SRL device (Self Retracting Lifeline) with an MAF (maximum arrest force) rating of 900 LBS. can be connected directly to one of the Overhead Anchor Points present on the Apex Hub (Fig. #5.2b) providing a compliant overhead fall arrest anchorage point.

- 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.

#### **Configuration 2**

A single winch accessory bracket (#LGL-B) is included and installed on each LGL system. This accessory enables the use of a standard personnel winch. Please refer to <u>Section 8.0</u> for details on the winch installation. In this scenario, the winch will be attached at the winch bracket on the upper section and the cable will be reeved up and over the pulley at the apex which will provide a lifting & lowering line centered over the manway opening.



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

**Figure #5.3b:** Configuration 1

# **MAINTENANCE & INSPECTION**

- Read, understand and follow the Product Manual and signs 3. on the product before using, maintaining or inspecting the equipment.
- 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.
- Keep instructional and safety signs clean and legible at all times. Clean or replace as required.
- 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 #LGL 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 #LGL 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 #LGL system are of a self-locking design. Bolt threads should extend all the way though 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.

#### 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 #LGL 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.

Model Number :		797#			
Serial Number: Date Purchased:	nber : nased :				
Place a check (	$\langle \lambda \rangle$ in the box if item is acc	eptable, place an x (X) in	Place a check ( $^{\downarrow}$ ) in the box if item is acceptable, place an x (X) in the box if item requires maintenance or repair	aintenance or repair	
Date	Labels	Pins & Fasteners	Overhead Anchor Points	Overall Structure	Notes
Inspector (print & sign) :	& sign) :				
Inspector (print & sign) :	& sign) :				
Inspector (print & sign) :	& sign) :				
Inspector (print & sign) :	& sign) :				
Inspector (print & sign):	& sign) :				
Inspector (print & sign) :	& sign) :				
Inspector (print & sign) :	& sign) :				

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

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 LGL Series System that can extend the capabilities of the system in various applications

# 8.1 - #LGL-B Mounting Bracket

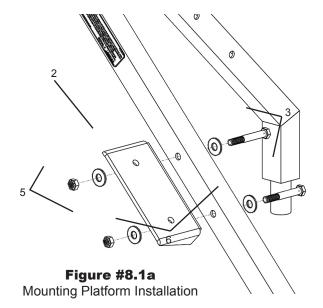
Each LGL system includes a single winch mounting bracket. Multiple winch mounts may be attached and are available from Pelsue as part #LGL-B. The winch bracket may be attached to any of the four legs of the LGL's upper assembly which are pre-drilled for this specific purpose. Multiple brackets allow the fastening of multiple winch options simultaneously. ! CAUTION - only one winch may be utilized and loaded at any one time when installed on the LGL system!

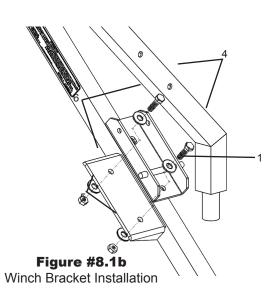
#### **Installation of the Winch Mounting Parts (Part 1):**

Installation of the winch mount should be performed prior to usage in an area not subject to fall hazards. 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 the 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).

	PARI#	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"





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

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

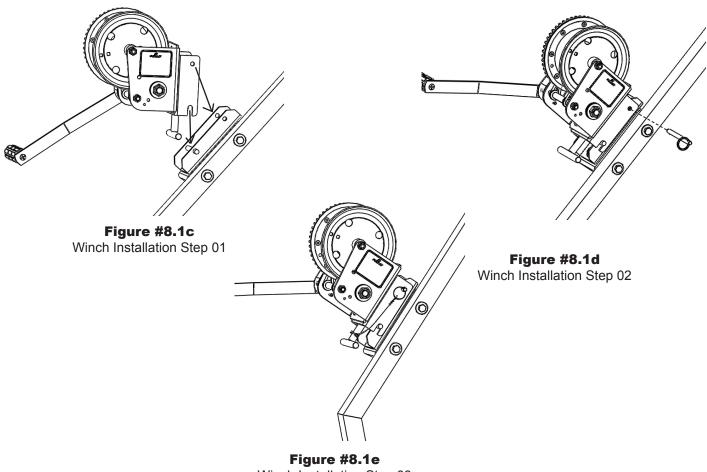
Note: The #LGL-B bracket will accept any Pelsue PW Series winch that is outfitted with a standard quick-release bracket

- Before Installing the winch, ensure that the LGL 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 detent Pin.
- d. A quantity of winch cable can now be payed out so that the winch line can be reeved over the Pulley that is included with the LGL 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 LGL 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 of the Model #LGL-B winch bracket with Pelsue PW Series Winches.



Winch Installation Step 03

#### For More Information...



T.A. Pelsue Company 2500 S. Tejon St. Englewood, CO 80110

Toll Free: 1-800-525-8460 Telephone: 1-303-936-7432 Fax: 1-303-934-5581

Website: www.pelsue.com

Email: sales@pelsue.com

