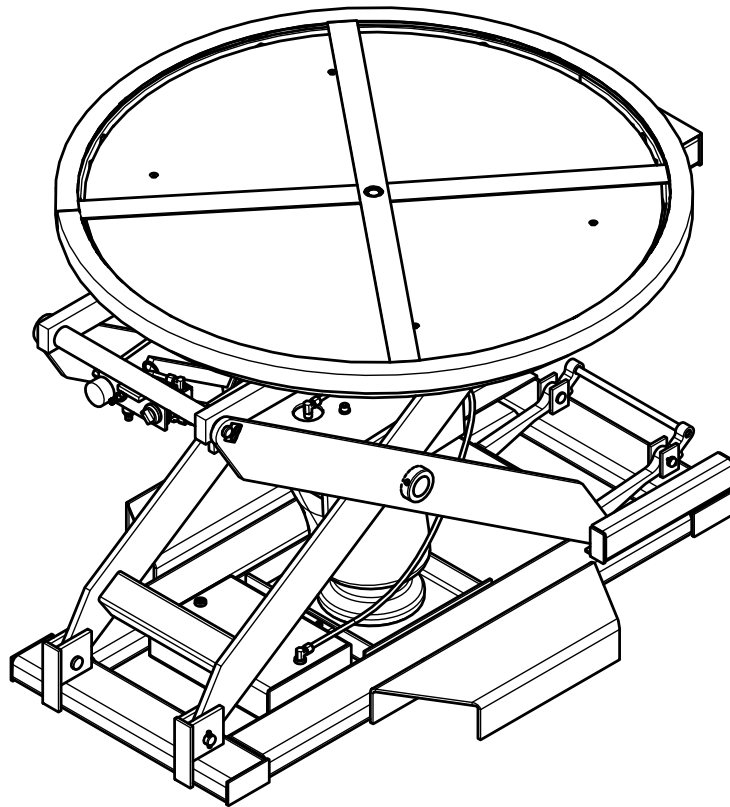


# OPERATOR'S MANUAL

## PL4 PALLET POSITIONER



ACTUAL PRODUCT MAY NOT APPEAR EXACTLY AS SHOWN

### WARNING

Do not operate or service this product unless you have read and fully understand the entire contents of this manual. Failure to do so may result in bodily injury or death.

**BLUE GIANT**<sup>®</sup>

STARTING FROM MAY 8, 2024 / SERIAL # 0.

ISSUE DATE: MAY 1, 2024 REV. 1.0 (PART # 038-806EO)



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## 1.0 ABOUT THE PL4 PALLET POSITIONER

The Blue Giant PL4 Pallet Positioner is a high performance system. The PL4 Pallet Positioner Series provides load transfer/manipulation options for production facilities. The table is constructed with beams welded at dynamic impact points to provide a sturdy table support. Pneumatic components increase operating efficiency, operator safety, and reduce maintenance requirements.

## 1.1 OWNER'S PURCHASE RECORD

Please record information for future inquiries and to validate warranty. See "2.1 WARRANTY INFORMATION" on page 6.

<b>Dealer:</b>	<b>Date in Service:</b>
	<b>Number of Units:</b>
<b>Serial Number:</b>	<b>Location #:</b>
<b>Serial Number:</b>	<b>Location #:</b>
<b>Serial Number:</b>	<b>Location #:</b>
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<b>Serial Number:</b>	<b>Location #:</b>
<b>Serial Number:</b>	<b>Location #:</b>

The manufacturer offers a full line of pallet positioners, lift tables, tilters, turn tables, safety equipment, accessories, ergonomic equipment, and industrial trucks. Concurrent with a continuing product improvement program, specifications are subject to change without notice (See "2.2 EXCLUSION OF LIABILITY" on page 6). Please contact the your Blue Giant Dealer for latest information. Some features illustrated may be optional in certain market areas.

<b>NOTICE</b>
See "10.0 DECAL IDENTIFICATION AND LOCATION" on page 23 for serial number location.

## 2.0 INTRODUCTION

The following is a quick reference to important procedures that must be followed while using the PL4 Pallet Positioner System. It is not intended to cover, or suggest that it does cover, all procedures necessary to ensure safe operation. All owners and operators should be aware of and abide by all workplace safety regulations applicable to the inspection and operation of the PL4 Pallet Positioner. These laws and regulations include but are not limited to:

- The Occupational Safety and Health Act
- Canada Occupational Health and Safety Regulations
- Occupational Safety and Health Acts for Individual States (USA), Provinces, or Territories.
- ANSI standard MH29.1

For additional information on these regulations as well as industry standards that may apply to this product, please contact:

American National Standards Institute (ANSI)

1430 Broadway

New York, NY 10018

Telephone: 212.642.4900

[www.ansi.org](http://www.ansi.org)

Lift Manufacturers Product Group (LIFT)

A Product Section of Material Handling Industry of America

A Division of Material Handling Industry

8720 Red Oak Blvd, Suite 201

Charlotte, NC, 28217-3992

Telephone: 704.676.1190

[www.mhi.org/lift](http://www.mhi.org/lift)



## 2.1 WARRANTY INFORMATION

Thank you for purchasing Blue Giant products. We appreciate your business, and are confident that our product will serve you for many years to come. In the event that you experience a problem with our product, our Customer Support Team is here to support the Blue Giant Product(s) that you have purchased.

To validate warranty on recently purchased equipment, please complete and submit your information with our on-line Warranty Registration at [www.BlueGiant.com](http://www.BlueGiant.com).

For more information about Blue Giant Warranty Support, please contact your Blue Giant Dealer. You may also visit [www.BlueGiant.com](http://www.BlueGiant.com) or phone 1.800.872.2583.

**NOTE: All products must be registered to qualify for warranty.**

### DEALER INFORMATION

Name:

Contact:

Telephone:

## 2.2 EXCLUSION OF LIABILITY

To the maximum extent permitted by applicable law, the manufacturer assumes no liability for damage or injury to persons or property that occur as a result of use of the PL4 Pallet Positioner equipment. Furthermore, to the maximum extent permitted by applicable law, the manufacturer does not assume any liability for lost profits, operating downtimes, consequential, indirect, incidental, special, exemplary, punitive or enhanced damages, or similar losses, whether incurred by owner, authorized users and other third parties. By use of the pallet positioner equipment, owner assumes all risk of liability for damage or injury to persons or property that occur as a result of use of the PL4 Pallet Positioner equipment, including, with respect to owner, authorized users and other third parties.

The manufacturer reserves the right to make changes at any time to the modules, components, and accessories, concurrent with its continuing product improvements and development program. Specifications, operating instructions, and illustrations included in this manual are subject to change without advance notice. As the PL4 Pallet Positioner equipment is a highly customizable product, please contact the manufacturer by telephone at 1.800.872.2583 for the latest information.

## 2.3 MANUFACTURER'S NOTE

The PL4 Pallet Positioner equipment has been carefully inspected and tested at the manufacturer's plant prior to shipment, but **MUST be checked** upon receipt for transport damage. Any observed transport damage is to be listed on the signed copy of the freight document. There are many configurations or custom designs whose specifications may not be fully reflected in this manual. Contact your Blue Giant Dealer to obtain the General Arrangement drawing for application specific designs.

**Notify the freight forwarder and the dealer of any damage WITHIN 24 HOURS.**

## 2.4 OWNER'S RESPONSIBILITY

The PL4 Pallet Positioner equipment needs to be maintained and inspected by the owner to verify its safe condition for operation.

1. The owner should recognize the inherent danger of the interface between the PL4 Pallet Positioner equipment and other components. The owner should, therefore, train and instruct operators in the safe use of the PL4 Pallet Positioner equipment and accessories in accordance with the manufacturer's recommendations.
2. The owner should thoroughly familiarize themselves with the following procedures and specifications as referenced in this manual, and request immediate replacement of all manufacturer-supplied documents that are missing, damaged, or otherwise illegible. Owners shall apply sound principles of safety, training, inspection, maintenance, and expected operating environment toward their PL4 Pallet Positioner equipment usage and maintenance requirements.
  - Commissioning instructions
  - Operating instructions
  - Daily maintenance procedures checklist
  - Inspections procedures
  - Recommended spare parts listsUpon receipt of any newly purchased PL4 Pallet Positioner equipment, the owner shall verify the presence of operator's manuals, and any other documentation necessary for training dock personnel how to use the equipment safely and effectively.
3. All Blue Giant equipment shall undergo regularly scheduled planned maintenance. Maintenance requirements will vary according to usage frequency and application, so the owner shall contact with their authorized Blue Giant distributor for schedule recommendation. Written records of the performance of these procedures shall be kept as per warranty requirements and per local state or provincial requirements. Please see "7.0 MAINTENANCE" on page 15.
4. The pallet positioner equipment that is structurally damaged, experiencing performance irregularities, or has been potentially compromised shall be removed from service until a trained and authorized manufacturer's representative can conduct an inspection and perform any necessary repairs.
5. As with any piece of machinery, PL4 Pallet Positioner equipment requires routine maintenance, lubrication, and adjustments. Recommended procedures are itemized in the Planned Maintenance Program (PMP) checklist included in any manuals. It is recommended that for anything other than the basic maintenance procedures outlined in this manual, please contact your Blue Giant Dealer.
6. The owner shall ensure that all nameplates and safety labels are in place and legible, and that the appropriate manuals are provided to authorized users. Replacement nameplates, safety labels, and manuals are available through the Blue Giant Aftermarket Department. See "10.0 DECAL IDENTIFICATION AND LOCATION" on page 23 in this manual for more information.
7. Unless specifically agreed to in writing by Blue Giant Equipment Corporation at the time of order (and prior to manufacture), all Blue Giant PL4 Pallet Positioner equipment is sold as a complete offering and must not be altered or added to in any manner (which includes configuration and function) without written permission from an authorized manufacturer's representative. These changes shall also satisfy all safety recommendations of the original equipment manufacturer for the particular application of the PL4 Pallet Positioner equipment.
8. If, at the request of the owner, Blue Giant does not supply all or some of the PL4 Pallet Positioner equipment power unit and/or control panel components, the owner shall assume responsibility for any and all operational and safety issues associated with the resulting configuration.
9. The owner must adhere to the load classification information provided on the product nameplate. Failure to do so will void product warranty and can result in serious injury, including death.
10. The owner shall ensure that inspections are performed to the pallet positioner device as prescribed by law or regulation.

### 3.0 SAFETY MESSAGE COLOR IDENTIFICATION

This manual includes color-coded safety messages that clarify instructions and specify areas where potential hazard exists. To reduce the possibility of equipment damage and serious injury or death, please follow the instructions and understand the warnings contained in the messages. If warning decals become damaged or missing, replace them immediately. Avoid accidents by recognizing dangerous procedures or situations before they occur.

 <b>DANGER</b>
Serious injury or death will likely occur if the instructions are not followed.


 <b>WARNING</b>
Serious injury or death may occur if the instructions are not followed.


 <b>CAUTION</b>
Instructions marked caution concern safe operating procedure. Failure to comply may result in personal injury.

<b>NOTICE</b>
Procedures marked notice must be followed in order to reduce damage to machinery.

### 3.1 OPERATIONAL SAFETY WARNINGS

These are safety warnings that may be part of a procedure or hardware warning decal.

 <b>DANGER</b>
<ul style="list-style-type: none"> <li>• BEFORE BEGINNING ANY SERVICE PROCEDURES:             <ul style="list-style-type: none"> <li>– Disconnect the power and follow all lockout / tagout procedures, as per OSHA requirements. Refer to schematics and diagrams.</li> </ul> </li> <li>• Never operate a broken or damaged Table. Repair immediately by a qualified service technician.</li> <li>• All loads must be centered and secured from rolling off the platform. Loose or unbalanced loads are dangerous.</li> <li>• While transferring load, be aware of potential fall risks from table edges.</li> </ul>

 <b>WARNING</b>
<ul style="list-style-type: none"> <li>• Do not use fingers or hands to remove foreign materials.</li> <li>• Table may drop unexpectedly, keep people and objects clear of the area immediately under or near the pallet positioner.</li> <li>• Post safety warnings and barricade working area around the pallet positioner and at ground level to reduce unauthorized use of the lift during maintenance/service.</li> <li>• Operator must be present during all steps of this procedure and keep an unobstructed view of pallet positioner to ensure safe operation. Never leave the PL4 Pallet Positioner unattended with a load on the table.</li> <li>• Never leave loads sitting on the PL4 Pallet Positioner.</li> <li>• Do not operate the PL4 Pallet Positioner beyond its rated capacity. Before load transfers, verify the load does not exceed the load maximum rating as found on nameplate of the PL4 Pallet Positioner.</li> <li>• Never attempt to lift or hold the table by hand unless instructed by this manual and using caution. Serious personal injury could occur.</li> </ul>



 **CAUTION**

- Only trained personnel should operate or service this equipment.
- Always park the pallet positioner equipment after use.
- Conduct routine inspections and maintenance. Failure to do so could cause equipment damage and or personal injury.
- Always contact your Blue Giant Dealer immediately if a malfunction occurs.

**NOTICE**

- Never use air to blow debris from controls. Use a vacuum to remove debris from controls.
- Always keep the work area clean and free of litter.
- Always clean all side openings of dirt and debris.
- Always clean up dry and liquid spills immediately after they occur.
- Always maintain proper lighting in the work area.
- If a procedure is not clearly defined in this manual, contact your Blue Giant Dealer.

## 4.0 LOCKOUT / TAGOUT PROCEDURE AND RULES

In accordance with the rules and regulations of the Occupational Safety and Health Administration (OSHA) and/or local jurisdiction, all affected employees must be notified that the machine or equipment will be shut down and locked out to perform repair or maintenance work.

The work area must be checked to verify that all personnel have been removed or safely repositioned.

The machine or equipment power supply shall be locked in the **OFF** position or disconnected from the energy source.

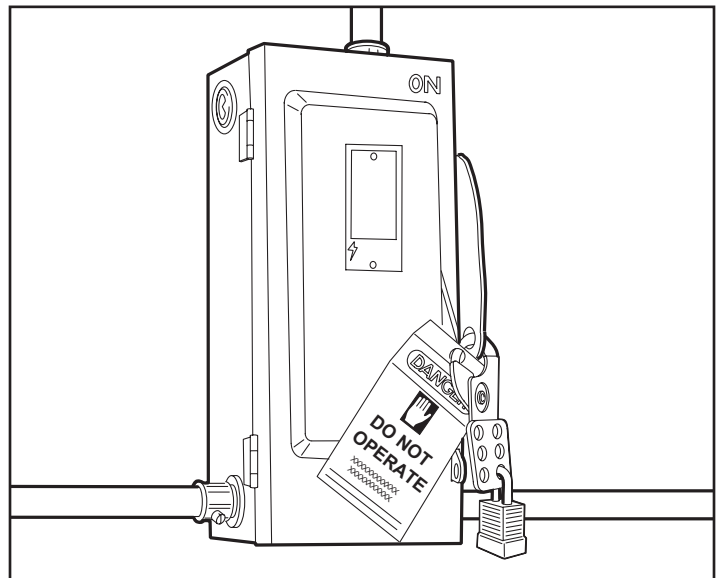
Blue Giant strongly recommends that only OSHA-approved and/or local jurisdiction lockout devices and procedures be utilized.

The energy isolating device must bear a prominent warning tag indicating that work is being done on the equipment and the name of the authorized employee responsible for the lockout.

It is mandatory that tagout notices shall **NOT** be susceptible to deterioration or illegibility due to weather conditions, exposure to chemicals and/or moisture.

### WARNING

- Always lockout and tagout any power (i.e. pneumatic, electric, mechanical) source before performing any work on any devices or controls according to OSHA regulations and approved local electrical codes. Refer to diagrams.



An example of lockout / tagout. Verify and comply with local codes/ regulatory requirements.

## 5.0 CONTROL STATION OPERATION

As the PL4 Pallet Positioner is part of an assembly line environment, the site documentation will give the correct control setup and use.

### 5.1 PNEUMATIC CONTROLS

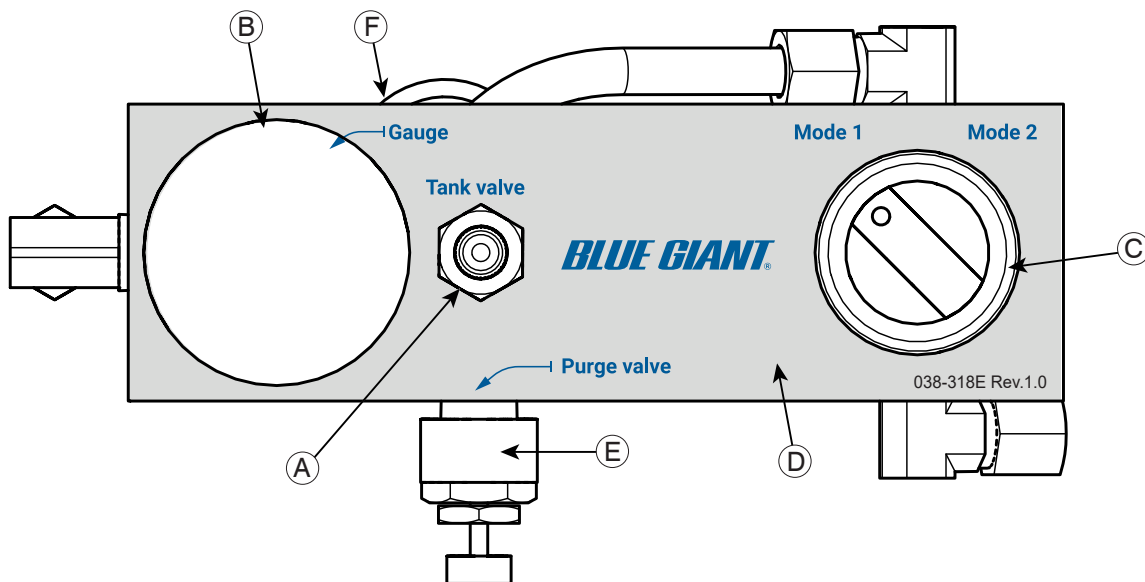
#### ⚠ DANGER

- While pallet positioner is moving, keep people and objects clear of areas under the platform and in the immediate area.
- Fully read and understand the PL4 Pallet Positioner operation. Practice safe load transfer methods. If you do NOT understand the complete pallet positioner operating procedure and safe load transfer methods, refer to the Owner/Operator regarding local regulatory/jurisdictional and facility requirements.

#### ⚠ WARNING

- The pallet positioner operator(s) must be present during all steps of this procedure.
- Do not exceed (rated/lifting) capacity or load classification of lift as listed on the manufacturer/product nameplate. Capacity includes: manual equipment, pallet(s), material(s)/goods, and any other objects on the table/platform. See “2.4 OWNER’S RESPONSIBILITY” on page 7. For nameplate location, see “10.0 DECAL IDENTIFICATION AND LOCATION” on page 23.
- To avoid bodily injury, stand clear of pallet positioner while it is moving.

The PL4 Pallet Positioner controls have a mode setting, (pneumatic) Tank valve, Purge valve, and (air pressure) Gauge. Consult the pneumatic schematic for details.



MODE 1  MODE 2	<b>ADD AIR IN MODE 1 TO PURGE THE AIR MOVE TO MODE 2</b>	 <b>MAX. 60PSI</b>
038-068E Rev.1.0		

PALLET POSITIONER	
ITEM	DESCRIPTION
A	Tank valve: one-way valve to feed air to the PL4
B	Gauge: Displays the range of pressure charged in the pallet positioner
C	Mode switch: <b>Mode 1</b> for lighter loads (only airbag as actuator, no tank) and <b>Mode 2</b> for heavier loads (Airbag as actuator, connected to tank) Normal operation can be done in both <b>Mode 1/Mode 2</b> depending on the smaller unit weights on a pallet.  <b>NOTE:</b> It is recommended to purge in <b>Mode 2</b> as the air from both tank and airbag would be purged out.

PALLET POSITIONER	
ITEM	DESCRIPTION
D	Manifold: aluminum block which control air flow and release
E	Purge valve: Vents the air out of the PL4 to adjust to a new weight, readjust initial pressures, or prepare for moving.
F	Safety Valve: Reduces risk of damage to table components due to pressure rises. If the pressure rises above 60 PSI, the pressure is automatically released.

## 5.2 PRESSURIZE THE PL4 WITH AIR

**MODE 1:** (Lighter loads) Only airbag as actuator and not filling the tank.

1. Verify that there is no load on the table and that the Mode switch is set to **MODE 1**.
2. Attach pneumatic feed hose to the **Tank valve**.
3. Pressurize the tank until the Gauge reads 60PSI.
4. Use **Purge valve**, as necessary.
5. Remove pneumatic feed hose to the **Tank valve**.

**MODE 2:** (Heavier loads) The Airbag as actuator and filling the tank.

1. Verify that there is no load on the table and that the Mode switch is set to **MODE 2**.
2. Attach pneumatic feed hose to the **Tank valve**.
3. Pressurize the tank until the Gauge reads 60PSI.
4. Use **Purge valve**, as necessary.
5. Remove pneumatic feed hose to the **Tank valve**.

## 5.3 PURGE AIR FROM PL4

1. Verify that there is no load on the table and inform nearby personnel that the table will drop during this operation.
2. Set the Mode switch is set to **MODE 2** (to purge the airbag and tank).
3. Open the Purge valve to release any stored pneumatic energy. and the table will lower.
4. If required, set the Mode switch to **MODE 1**.
5. Wait until the table is fully lowered before attempting to move the PL4.
6. The PL4 is ready for relocation or storage.

## 5.4 ROTATIONAL RING

The rotational ring permits loaders to rotate the table and keep loading evenly.

1. If table space in front of you is full then rotate the table, either to the left or to the right to keep the load balanced horizontally and comfortable for the user.
2. Keep loading and rotating the table until the current layer is full and the table will adjust automatically.

**NOTE:** Keep the overall load of the table under the maximum capacity. See the Serial plate for capacity.

## 6.0 PALLET POSITIONER MAINTENANCE STRUT

This section describes the different functions of the Maintenance Strut. These procedures require at least temporary pneumatic power to pressurize the pallet positioner.

### 6.1 ENGAGING THE PALLET POSITIONER MAINTENANCE STRUT

The Maintenance Strut is engaged to perform cleaning or visual inspection under the pallet positioner.

#### DANGER

- Failure to properly secure the pallet positioner table prior to working underneath it may result in bodily injury, or death.
- Engage the Maintenance Strut before visual inspecting or cleaning under the table. If the strut cannot be successfully engaged, contact your Blue Giant Dealer.

#### WARNING

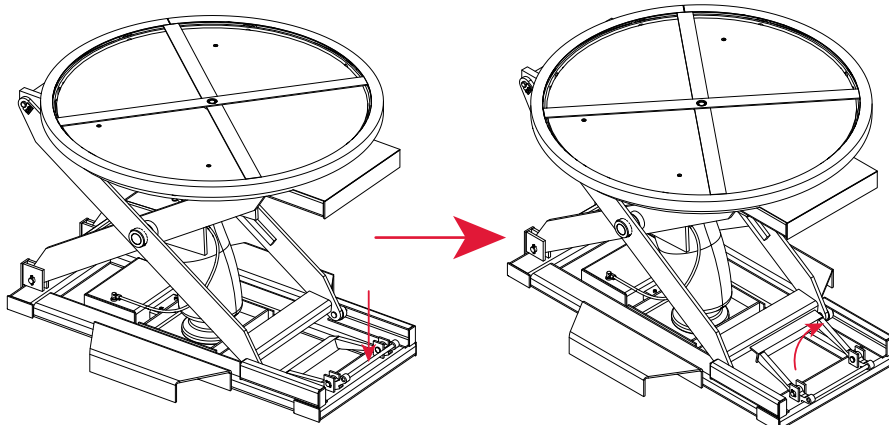
- Post safety warnings and barricade work area at ground level. Notify all affected personnel that work is being performed on the unit and follow proper lock-out procedure. Verify that pneumatic power to the unit has been completely cut off or purged, and cannot be turned back on accidentally, as per OSHA requirement.
- Head protection and other applicable PPE is recommended when working under or around the raised table.
- Use Maintenance Strut when working under the pallet positioner. (i.e. more than cleaning or visually inspecting)
- Do not stand in the pathway of the pallet positioner during the disengagement process in case the pallet positioner falls unexpectedly.

#### CAUTION

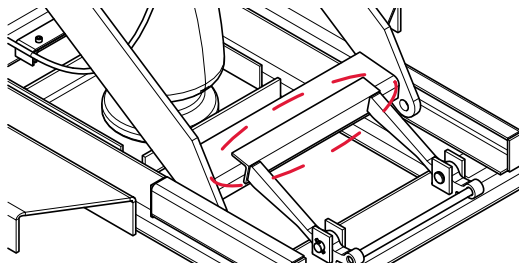
- It is recommended that a retrieval tool be used when retrieving or replacing the Maintenance Strut from the stored positions.
- It is recommended that this procedure be performed with assistance.

1. Clear any load or debris on the pallet positioner's table.
2. When the area around the pallet positioner is clear of personnel, equipment, and materials, pressurize the pneumatic system to raise the pallet positioner to the highest height position.
3. Examine the Maintenance Strut/Stop for damage or if it is missing. Contact your Blue Giant Dealer for service or repair, as required.
4. Step on the rocker to raise the Maintenance Strut into a position that will brace it against the lower frame.

**NOTE:** Actual product may not appear exactly as shown.



5. Release air pressure to lower the pallet positioner until the Maintenance Strut is fully braced against the lower frame of the pallet positioner.



6. When the Maintenance Strut is fully braced and holding the pallet positioner table in position, an authorized person shall lock out and tag out the pneumatic connections.
7. If safe to do so, use an extension tool to clear any debris or material from under the pallet positioner.
8. Inspect the pallet positioner and minimize any time spent under the pallet positioner.

## 6.2 DISENGAGING THE PALLET POSITIONER MAINTENANCE STRUT

The Maintenance Strut is disengaged after a cleaning or visual inspection is completed under the pallet positioner.

### DANGER

- Failure to properly secure the pallet positioner table prior to working underneath it may result in bodily injury, or death.
- Engage the Maintenance Strut before visual inspecting or cleaning under the table. If the strut cannot be successfully engaged, contact your Blue Giant Dealer.

### WARNING

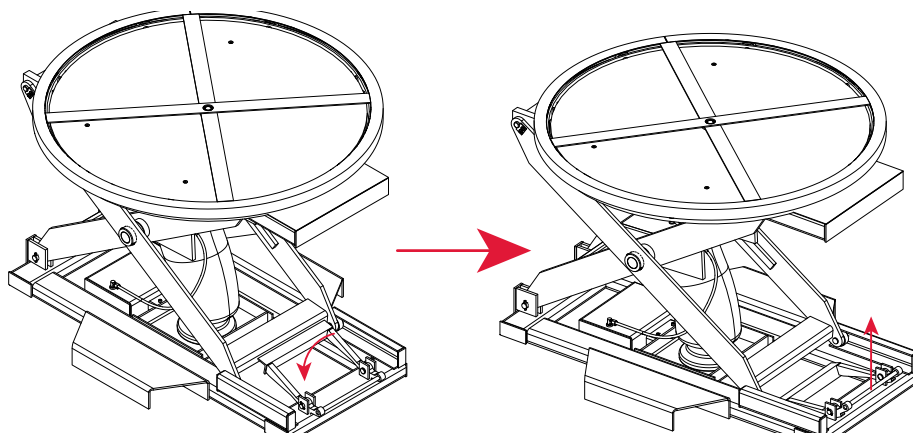
- Post safety warnings and barricade work area at ground level. Notify all affected personnel that work is being performed on the unit and follow proper lock-out procedure. Verify that pneumatic power to the unit has been completely cut off and cannot be turned back on accidentally, as per OSHA requirement.
- Head protection and other applicable PPE is recommended when working under or around the raised table.
- Use Maintenance Strut when working under the pallet positioner. (i.e. more than cleaning or visually inspecting)
- Do not stand in the pathway of the pallet positioner during the disengagement process in case the pallet positioner falls unexpectedly.

### CAUTION

- It is recommended that a retrieval tool be used when retrieving or replacing the Maintenance Strut from the stored positions.
- It is recommended that this procedure be performed with assistance.

1. Examine the Maintenance Strut for damage or if any are missing. Contact your Blue Giant Dealer for service or repair, as required.
2. When all work is completed and the area around the pallet positioner is cleared, an authorized person shall inform all affected personnel before removing the lock out and tag out from the pneumatic connections to the pallet positioner.
3. Pressurize the pneumatic system to raise the pallet positioner to gently raise the pallet positioner off of the Maintenance Strut.
4. Flip the Maintenance Strut to the stored position. Use an extension tool (i.e. broom handle or wood) to move the Maintenance Strut. As much as possible, never reach in with a body part to move the Maintenance Strut.

**NOTE:** Actual product may not appear exactly as shown.



5. Return PL4 Pallet Positioner to service.

## 7.0 MAINTENANCE

Develop a planned or scheduled maintenance plan to keep the pallet positioner in good operating order.

### DANGER

- Failure to properly secure the pallet positioner table prior to working underneath it may result in bodily injury, or death.
- Engage the Maintenance Strut before working. If both cannot be successfully engaged, contact your Blue Giant Dealer.

### WARNING

- Do not attempt to install, make repairs, or adjustments. Only a trained and authorized service technician should perform the installation process, make repairs, or make adjustments. Contact your Blue Giant Dealer for assistance.
- Do not service this equipment until you have read and understood all of the safety information and instructions contained herein. Failure to adhere to recommended safety practices in this manual and on the pallet positioner equipment warning labels could result in death or serious injury.
- Do not conduct maintenance or repairs until adequate barriers have been placed to keep warehouse and vehicle traffic away from the work area.
- Before doing any maintenance work, verify that the power (pneumatic, electrical, hydraulic) is disconnected and properly tagged or locked out.
- When conducting maintenance, use only Blue Giant approved lubricants. Improper lubrication or adjustments may cause operational problems.

## 7.1 PLANNED MAINTENANCE PROGRAM (PMP)

In addition to the Daily Maintenance Procedures (DMP), the manufacturer recommends (and local government regulations may require) that a Planned Maintenance Program (PMP) and safety inspection program be performed by a trained and authorized service technician on a regular basis to ensure the equipment is in safe operating condition. The PMP will provide an opportunity to make a thorough inspection of the safety and operating condition of the pallet positioner. Necessary adjustments and repairs can be done during the PMP, which will increase the life of components and reduce unscheduled downtime.

Recommended procedures for a periodic planned maintenance program that covers inspections, operational checks, cleaning, lubrication, and minor adjustments are outlined in the product manual. Contact your Blue Giant Dealer regarding for assistance with a planned maintenance program by offering trained service personnel with expertise in pallet positioner maintenance requirements.

## 7.2 OPERATOR DAILY INSPECTION

The pallet positioner shall always be examined by the operator **PRIOR TO ANY USE** to verify that it is safe to operate.

The manufacturer recommends scanning to storage or making multiple photocopies of the DMP Checklist. The operator should fill out this form to keep a daily record of operation and maintenance issues. See “7.6 DAILY MAINTENANCE PROCEDURES (DMP) CHECKLIST” on page 17.

## 7.3 ROUTINE SERVICING AND MAINTENANCE

Regular maintenance and care of the pallet positioner is very important for operator safety, operation efficiency, and cost. A faulty pallet positioner is a potential source of danger to the operator, and to other personnel working near it. As with all quality equipment, keep the pallet positioner in good operating condition by following the recommended schedule of maintenance. Failure to properly maintain or operate the pallet positioner within its rated load classification can void the manufacturer warranty.

## 7.4 PLANNED MAINTENANCE PROGRAM INTERVALS

Arrange for a qualified pallet positioner repair technician to perform regularly scheduled planned maintenance on your pallet positioner every three months for single shift operations or monthly for multi-shift operations. Call your authorized manufacturer / dealer for further details.

## **7.5 MAINTENANCE SEQUENCE**

Follow this procedure for maintenance of the pallet positioner.

1. Cleaning, including under pallet positioner and work area.
2. Visual inspection of all components.
3. Lubrication, as required (by a trained service technician only).
4. Test operate all functions.
5. Adjustments, if required (by a trained service technician only).
6. Record inspection details and findings for owners' files.







DEALER: \_\_\_\_\_

**PLANNED MAINTENANCE PROGRAM - PMP CHECKLIST**

PL4 Pallet Positioner

<b>Customer:</b>		<b>SWO#</b>		
<b>Location:</b>		<b>Date:</b>		
<b>Contact:</b>	<b>Telephone:</b>	<b>Inspected By:</b>		
<b>Signature:</b>	<b>Model / Serial #:</b>	<b>Voltage:</b>	<b>Phase:</b>	<b>HP:</b>

**WARNING**

<b>NOTE TO TECHNICIAN:</b> ALL ITEMS ON LIST <b>MUST</b> BE VERIFIED AND CHECKED. ITEMS WITH AN * REQUIRE LUBRICATION.	<b>Position #</b>	<b>Position #</b>	<b>Position #</b>	<b>Position #</b>	<b>Position #</b>
	✓	✓	✓	✓	✓
	Barricade area				
Purge pneumatic power per OSHA requirements					
Clean debris from in and around pallet positioner					

Mark the following with one of the following: ✓ = GOOD ✗ = COMMENTS / REQUIRES REPAIR	<b>Position #</b>		<b>Position #</b>		<b>Position #</b>		<b>Position #</b>		<b>Position #</b>	
	✓	✗	✓	✗	✓	✗	✓	✗	✓	✗
	Mount area									
Pneumatic hose assembly										
Airbag										
Pneumatic connectors										
Structural damage										
Lowering speed flow control (If present)										
Check that safety decals are present and legible										
Complete operating cycle by checking lights for proper sequence, both inside and outside if so equipped										

Unit Certified for Use At Maximum Capacity	Position #	Comments (for items marked with an ✗):

The noted equipment has been checked, inspected and serviced by a trained technician.

## 8.0 OPERATING INSTRUCTIONS

Depending on the installation, the pallet positioner may have controls available. Consult the site specific installation diagrams for these options, if present.

### 8.1 LOAD TRANSFER

When transferring loads onto and off of a pallet positioner, the cargo weight distribution should **NEVER** exceed the maximum value on the weight rating decal. The pallet positioner weight rating decal lists the maximum load values for the pallet positioner.

The cargo weight shall be evenly distributed and kept level to ensure that the work space is at a comfortable level for personnel. The level can be adjusted based on air pressure.

### 8.2 PREPARING THE PALLET POSITIONER

The following Danger and Warning list apply to any pallet positioner.

#### DANGER

- While pallet positioner is operated, keep people and objects clear of areas under the platform and in the immediate pallet positioner area.
- Fully read and understand the pallet positioner operation. Practice safe load transfer methods. If you do NOT understand the complete pallet positioner operating procedure and safe load transfer methods, refer to the Owner/Operator regarding local regulatory/jurisdictional and facility requirements.
- While monitoring the pallet positioner, be aware of potential fall risks from table edges.

#### WARNING

- The pallet positioner operator(s) must be present during all steps of this procedure.
- The pallet positioner operator(s) must keep an unobstructed view of pallet positioner, work area, and other operators to ensure safe operation.
- Do not exceed (rated/pallet positioner) capacity or load classification of pallet positioner as listed on the manufacturer/product nameplate. Capacity includes: any object(s) on the table/platform. See “2.4 OWNER'S RESPONSIBILITY” on page 7. For nameplate location, see “10.0 DECAL IDENTIFICATION AND LOCATION” on page 23.
- To avoid bodily injury, stand clear of pallet positioner while it is moving.

Read and understand these instructions and safety rules before operating pallet positioner:

- Before using pallet positioner, inspect it for proper operation and condition. If any unsafe condition exists, remove unit from service until repairs are made.
- Before using pallet positioner, inspect any/all safety devices to verify that they are in place and functioning properly.
- Prior to placing a load on pallet positioner, read and understand the rated capacity of the unit, as labeled on the nameplate attached to the side of the table assembly. The rated pallet positioner capacity is the maximum uniformly distributed load permitted for the unit.

1. The PL4 Pallet Positioner is ready for use, when:
  - the Gauge registers the required air pressure and the table is raised to the required height.
  - the Mode switch is set to either **MODE 1** or **MODE 2**.

**NOTE:** Use **MODE 1** only for very light loads only and **MODE 2** is for heavier loads only.

2. Rotate the table to keep load balanced and use comfortable for the user.
3. As load is added to the PL4 Pallet Positioner table, the table will adjust lower.  
This keeps the space available for convenient and comfortable load transfer.
4. As load is removed from the PL4 Pallet Positioner table, the table will adjust and rise.  
This keeps the space available for convenient and comfortable load transfer.

## 8.3 MOVING THE PALLET POSITIONER

The PL4 Pallet Positioner may be moved to other locations based on need via forklift with the required/rated capacity.

### DANGER

- While moving the pallet positioner, be aware of potential risks for personnel and from the surrounding environment.
- While pallet positioner is operated, keep people and objects clear of areas under the platform and in the immediate pallet positioner area.
- Fully read and understand the pallet positioner operation. Practice safe load transfer methods. If you do NOT understand the complete pallet positioner operating procedure and safe load transfer methods, refer to the Owner/Operator regarding local regulatory/jurisdictional and facility requirements.

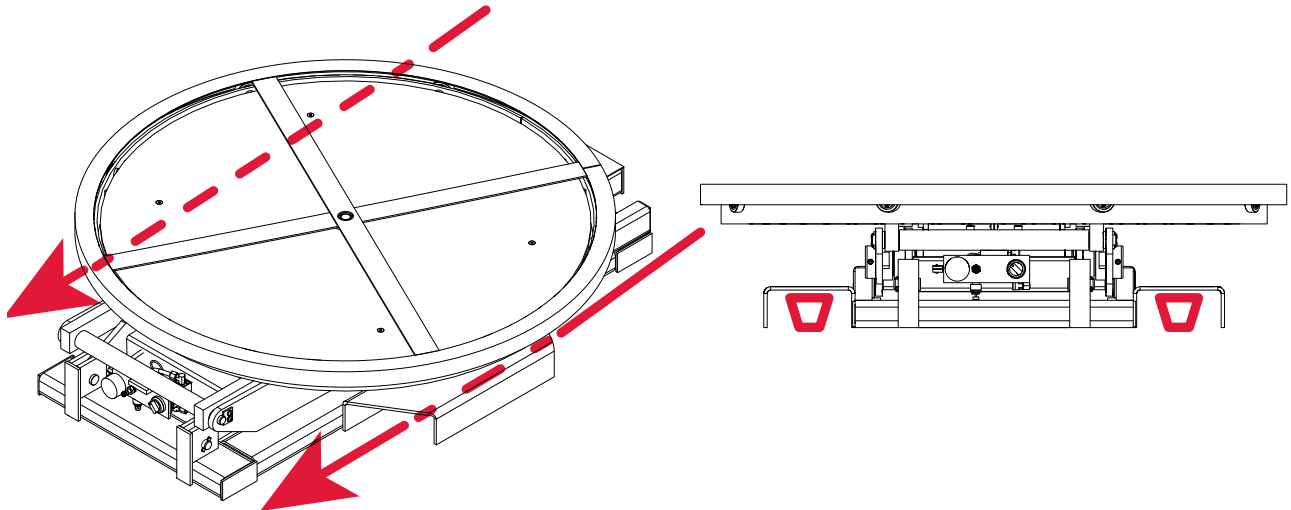
### WARNING

- To avoid bodily injury, stand clear of pallet positioner while it being moved by forklift.

1. Verify that the PL4 Pallet Positioner Gauge reads no pressure (0), and that the table does not carry any load or items.  
If necessary, see "5.3 Purge Air from PL4" on page 12.

**NOTE:** The pallet positioner shall be fully lowered before any move is attempted.

2. Verify that the surrounding work area is cleared and have the forklift slide into the support weldments.



3. Before lifting the PL4 Pallet Positioner, verify that the pallet positioner is fully braced against the lifting mast.



4. Move the PL4 Pallet Positioner to the new location and lower onto a level section of finished floor.
5. Hook up the pallet positioner to the pneumatic supply and return to service. See "5.2 Pressurize the PL4 with Air" on page 12 for specifics.

## 9.0 RECOMMENDED PARTS

### 9.1 STANDARD OPERATIONAL COMPONENTS

PALLET POSITIONER STANDARD OPERATIONAL COMPONENTS			
ITEM	QTY	PART NO.	DESCRIPTION
1	2	PL4D0112	PIN,CENTER,PL4
2	2	018-654	BUSHING,FLANGE,1 1/2in ID X 1 21/32in OD X 1 1/2inL
3	2	018-655	BUSHING,FLANGE,1 1/2in ID X 1 21/32in OD X 3/4inL
4	2	018-653	BUSHING,OILITE,3/4in ID X 1in OD X 1/2inL
5	4	013-007	PIN,SPRING,SLOTTED,3/16X1 1/4,PREFERRED
6	8	012-705	WASHER,SPACER,3/4X1-13/32X0.059
7	4	018-652	BUSHING,OILITE,3/4in ID X 1in OD X 3/4inL
8	4	PL4D0109	WHEEL,2in OD X 3/4in THK X 1in ID
9	2	013-094	PIN,SPRING,SLOTTED,5/16X2 1/2,
10	2	013-010	PIN,SPRING,SLOTTED,1/4X1 1/4,PREFERRED
11	2	013-634	CLEVIS PIN,5/8in DIA X 1-3/8inL USABLE
12	2	013-005	PIN,SPRING,SLOTTED,5/32X1,PREFERRED
13	2	011-879	NUT,CLIP ON,BARREL,M6 X 1
14	2	011-258	CAPSCREW,HEX SOCKET,M6x1,16mm
15	2	PL4D0111	PIN, FIXED END, PL4
16	9	013-635	RETAINING RING,EXTERNAL,20mm
17	1	PL4D0115	COVER,PLASTIC,HDPE,PL4
18	8	019-513	BEARING,6204ZZ,NTN
19	1	019-514	BEARING, ANGULAR, 7204 BE 2RZP
20	1	013-636	RETAINING RING,INTERNAL,47mm
21	2	018-656	BUSHING,FLANGE,3/4in ID X 1in OD X 1-1/4inL
22	1	PL4D0113	SHAFT,UNION,FIXED END,PL4
23	4	011-104	SCREW,SOCKET,ROUND,HD,1/4-20,PREFERRED

PALLET POSITIONER STANDARD OPERATIONAL COMPONENTS			
ITEM	QTY	PART NO.	DESCRIPTION
24	4	012-202	WASHER,LOCK,SPG,REGULAR,1/4,PREFERRED
25	2	PL4D0114	PLATE,LOCK,PIN,PL4
26	2	040-042	FITTING ELBOW,90 DEG 5/16in TUBE,1/4in NPTM
27	1	040-049	AIRBAG, PL4, 6in-20in, 8in DIA
28	1	PL4E0102	ASSEMBLY,VALVE,PL4. See "9.2 OPTIONAL SUPPORT COMPONENTS" on page 22 for a part breakdown of this part
40	2	012-201	WASHER,LOCK,SPG,REGULAR,3/8,PREFERRED
41	2	011-604	SCREW,CAP,SOCKET HEAD,3/8-16X1,NP
42	2	011-049	SCREW,SKT,COUNTER,1/2-13X1,PFD
43	1	035-030	PLUG 1/4" NPT, HEX SOCKET
44	4	013-637	RING,RETAINING,EXT,3/8,NP
45	4	011-187	SCREW,SKT,COUNTER,1/4-20X1/2,NP
46	1	091-426-0500	TUBE,NYLON,BLUE,5/16in OD,50in LONG
47	1	091-425-0400	TUBE,NYLON,BLACK,5/16in OD,40in LONG
48	2	011-067	SCREW,CAP,SOCKET HEAD,1/4-20X2,NP

## 9.2 OPTIONAL SUPPORT COMPONENTS

PL4E0102 may be replaced as a single unit or any of the individual component in this table.

PALLET POSITIONER OPTIONAL COMPONENTS			
ITEM	QTY	PART NO.	DESCRIPTION
29	2	012-706	LOCKWASHER,SPRING,#12,BOLT,SIZE
30	2	011-257	CAPSCREW,HEX SOCKET,12-24 X 1/2in LG
31	1	040-043	PRESSURE GAUGE, 1/8NPT, 0-150PSI
32	1	040-044	VALVE, AIR FILL,1/4 NPT
33	1	040-045	MECHANICAL VALVE, 2POS, TWIST SELECTOR
34	1	040-046	RELIEF VALVE, 1/4 NPT, 60PSI
35	4	040-042	FITTING ELBOW,90 DEG 5/16in TUBE,1/4in NPTM
36	1	040-048	VALVE,METERING,SILENCER,1/4NPT
37	2	011-256	CAPSCREW,HEX SOCKET,10-24 X 1-3/8inLG
38	2	011-500	NUT,HEX,MACHINE,#10-24,PFD
39	1	091-425-0040	5/16in OD NYLON TUBE, BLACK, 4in L

## 10.0 DECAL IDENTIFICATION AND LOCATION

These labels inform operators and personnel about hazardous areas on and around the pallet positioner.

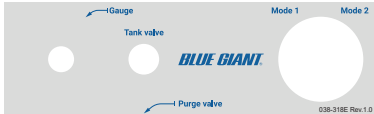
**NOTE:** Actual product may not appear exactly as shown.



(A)



(B)



(C)



(D)



(E)



(F)



(G)



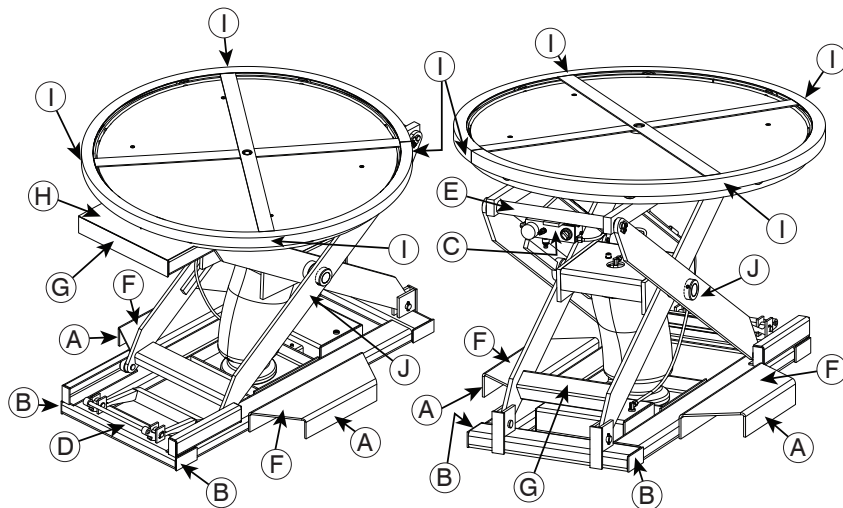
(H)



(I)



(J)



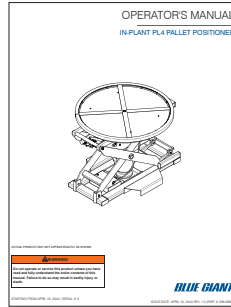
Call out	Qty	Part No.	Description
A	2	038-1400E	Blue Giant logo (locations may vary)
B	4	038-237	Safety Stripe tape to alert personnel of hazardous areas and edges (i.e. toe guards, edges)
C	1	038-018E	Valve Control
D	2	038-065E	Warns personnel to use stops to support table
E	1	038-068E	Pneumatic Mode Control
F	2	038-095E	Warns personnel to clear table before moving PL4 unit
G	2	038-315E	Warns personnel to read instructions before operating PL4 unit
H	1	038-194E	Warns personnel to read instructions, check capacity, and be mindful of load position
I	4	038-192E	Warns personnel to stand clear of rollers and edges
J	2	038-1218EF	Nameplate to identify the pallet positioner, serial number, and load transfer capacities

## 11.0 EQUIPMENT COMPONENT ILLUSTRATIONS

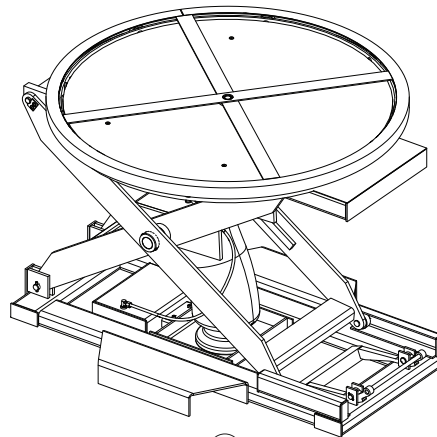
This section displays the various hardware components.

### 11.1 COMPONENTS AS SHIPPED CHECKLIST

This section displays the shipped hardware components.



(B)



(A)

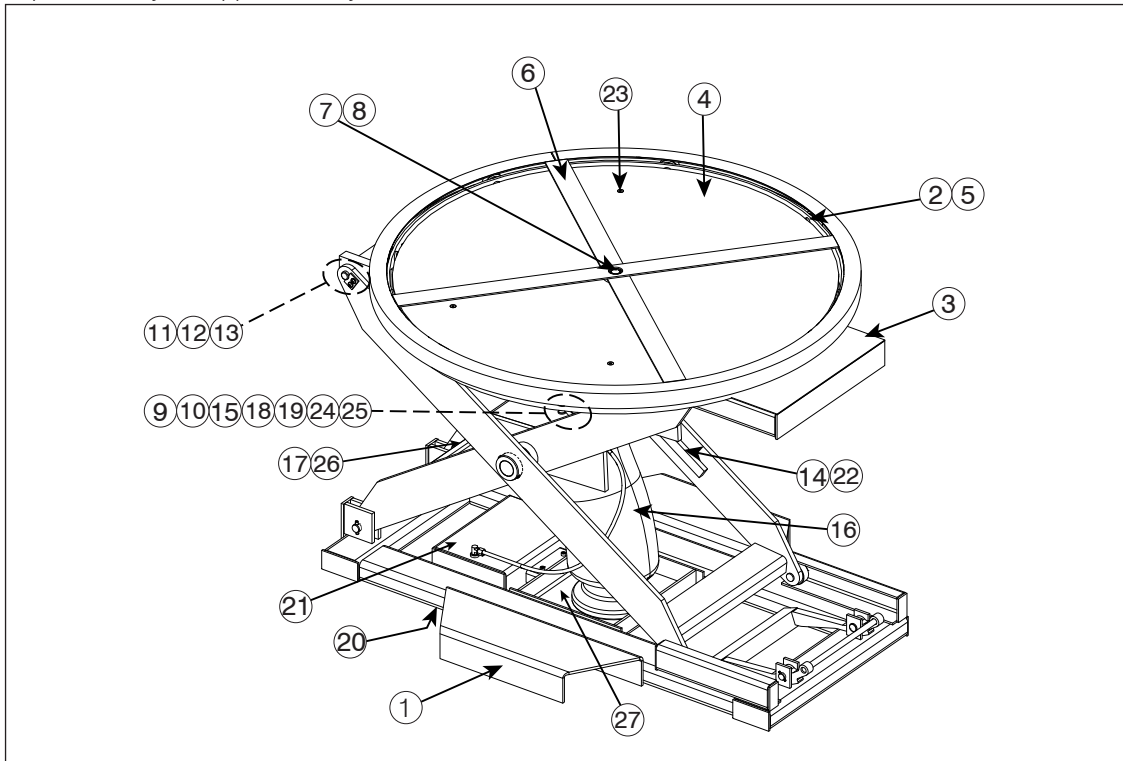
✓	CALLOUT	QTY.	PART NO.	DESCRIPTION
	A	1	—	PL4 Pallet Positioner
	B	1	038-806E	Operator's Manual



## 11.2 PALLET POSITIONER MECHANICAL ASSEMBLY

This diagram shows a detailed view of the pallet positioner assembly.

**NOTE:** Actual product may not appear exactly as shown.



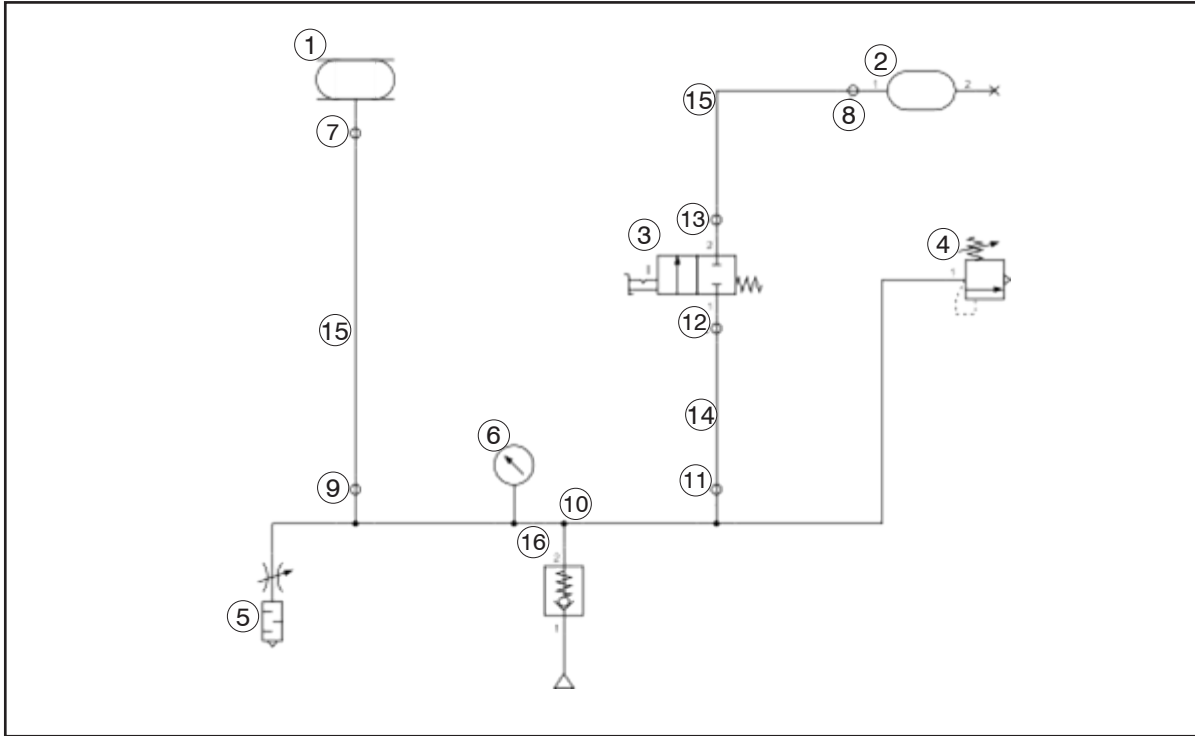
**PALLET POSITIONER STANDARD OPERATIONAL COMPONENTS**

ITEM	QTY	PART NO.	DESCRIPTION
1	1	PL4E0104	ASSEMBLY,BASE,FRAME,LEG,PL4
2	9	013-635	RETAINING RING,EXTERNAL,20mm
3	1	PL4D0102	WELDMENT,PLATFORM,FIXED,PL4
4	1	PL4D0115	COVER,PLASTIC,HDPE,PL4
5	8	019-513	BEARING,6204ZZ,NTN
6	1	PL4D0103	WELDMENT,ROTATING RING,PL4
7	1	019-514	BEARING, ANGULAR, 7204 BE 2RZP
8	1	013-636	RETAINING RING,INTERNAL,47mm
9	2	018-656	BUSHING,FLANGE,3/4in ID X 1in OD X 1-1/4inL
10	1	PL4D0113	SHAFT,UNION,FIXED END,PL4
11	4	011-104	SCREW,SOCKET,ROUND,HD,1/4-20,PREFERRED
12	4	012-202	WASHER,LOCK,SPG,REGULAR,1/4,PREFERRED

PALLET POSITIONER STANDARD OPERATIONAL COMPONENTS			
ITEM	QTY	PART NO.	DESCRIPTION
13	2	PL4D0114	PLATE,LOCK,PIN,PL4
14	2	PL4D0118	WELDMENT,GUIDETUBE,PL4
15	2	040-042	FITTING ELBOW,90 DEG 5/16in TUBE,1/4in NPTM
16	1	040-049	AIRBAG, PL4, 6in-20in, 8in DIA
17	1	PL4E0102	ASSEMBLY,VALVE,PL4
18	2	012-201	WASHER,LOCK,SPG,REGULAR,3/8,PREFERRED
19	2	011-604	SCREW,CAP,SOCKET HEAD,3/8-16X1,NP
20	2	011-049	SCREW,SKT,COUNTER,1/2-13X1,PFD
21	1	035-030	Plug 1/4" NPT
22	4	013-637	RING,RETAINING,EXT,3/8,NP
23	4	011-187	SCREW,SKT,COUNTER,1/4-20X1/2,NP
24	1	091-426-0500	TUBE,NYLON,BLUE,5/16in OD,50in LONG
25	1	091-425-0400	TUBE,NYLON,BLACK,5/16in OD,40in LONG
26	2	011-067	SCREW,CAP,SOCKET HEAD,1/4-20X2,NP
27	1	PL4D1019	TUBE, 8x3x3/16, AIR TANK

## 12.0 PNEUMATIC SCHEMATIC

This diagram illustrates the hydraulic circuit.



ITEM	QTY	DESCRIPTION
1	1	Air bag
2	1	Tank 1
3	1	2/2 port mechanical valve,G1/4
4	1	Relief valve to 60PSI
5	1	Speed controller with silencer, port size R1/4 with seal
6	1	Pressure gauge dia 37.5, port size R11/8 axial
7, 8,9,12,13	5	Self - align fitting, elbow type
10	1	Valve block
11	1	Self align fitting, straight
14	1	Nylon tube dia 8/6, 20m black
15	1	Nylon tube dia 8/6, 20m blue
16	1	Tank valve 1/4 NTP

## 13.0 TROUBLESHOOTING

Use this section to help diagnose issues if the pallet positioner is not operating as specified.

### DANGER

- Failure to properly secure the pallet positioner prior to working underneath it may result in bodily injury, or death.
- Engage the Maintenance Strut before working. If both cannot be successfully engaged, contact your Blue Giant Dealer.

### WARNING

- Do not attempt to install, make repairs, or adjustments. Only a trained and authorized service technician should perform the installation process, make repairs, or make adjustments. Contact your Blue Giant Dealer for assistance.
- Do not service this equipment until you have read and understood all of the safety information and instructions contained herein. Failure to adhere to recommended safety practices in this manual and on the pallet positioner equipment warning labels could result in death or serious injury.
- Do not conduct maintenance or repairs until adequate barriers have been placed to keep warehouse and vehicle traffic away from the work area.
- Before doing any electrical work, verify that the power is disconnected and properly tagged or locked out, in accordance with OSHA regulations and approved electrical codes.

Following description of operating principles is intended as a guide when trouble shooting and making adjustments or repairs. If no fault can be found and equipment fails to operate properly, contact your Blue Giant Equipment Dealer.

PROBLEM	PROBLEM CAUSED
Leaking air heard	<b>Leak(s) in pneumatic lines</b> Tighten fixtures and check hoses. If leaking sound persists then contact your Blue Giant Dealer.
Table will not raise.	<b>Foreign material lodged between scissor legs and/or lower frame.</b> Remove and discard foreign material as required. <b>Equipment or goods parked on pallet positioner table.</b> Remove and test operate the pallet positioner. Verify pallet positioner pressure on gauge before resuming. <b>Valve may have blockages.</b> Replace / repair if necessary. <b>Pneumatic hose pinched.</b> Check hose for pinching, folding, or object on top of hose.
The pallet positioner does not maintain steady height.	<b>Pneumatic line leak may be present.</b> Repair leak.
Table will not lower.	Check Vent valve for broken connection. <b>Lowering valve defective.</b> Replace.
Table raises slowly.	<b>Pressure relief bypassing.</b> Foreign material lodged. Contact your Blue Giant Dealer. <b>Weight overload.</b> Remove weight until load matches nameplate weight capacity rating.







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