

# ASE SYSTEMS

The Ergonomics & Productivity Specialists!

ASE Systems Inc.

5611 Guhn Road Ste: A1 \* Houston Texas 77040

713-462-3072 \* fax: 713-462-3540 \* 800-245-2163

## Air Jack System Operation and Maintenance Manual

**WARNING!**

**Read this manual carefully before installing, operating or servicing this equipment**

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**Failure to observe the following WARNINGS could result in severe personal injury, death or substantial property damage**

- Operate this tool at 116 psig (8 BAR/\* kg/cm<sup>2</sup>) maximum air pressure at the air inlet of the inflatable jack.
- Disconnect air supply and relieve residual air pressure from inflatable jack system before performing maintenance procedures.
- Keep hands, feet and long hair away from jacks when operating air jack.
- Turn off air supply and disconnect air supply hose before installing or removing inflatable jack from a load or performing any maintenance on the air jack system.
- Do not use damaged, frayed or deteriorated air hoses, inflatable jacks or fittings.
- Only trained and qualified personnel should use an inflatable jack.
- Always wear eye protection when using inflatable jacks.
- Always use a pressure regulator to control inlet pressure to 116 psig (8BAR/8 kg/cm<sup>2</sup>) or less to prevent over pressurizing the inflatable jack.
- Use compressed air, bottled Non-explosive gases, oil or water to inflate a jack. NEVER use oxygen!
- Keep the surface of the inflatable jack clean to maximize grip during a lift.
- Never place the inflatable jack on surfaces that can damage the inflatable jack and cause the load to lower unexpectedly. Plywood, steel plate or other suitable material no smaller than the surface of the inflatable jack should be used next to the inflatable jack surface to protect it from damage.
- Never work under a load that is supported by an air jack.
- Always block and secure the load as it is lifted. Use only cribbing which will not slip.
- Stay clear of the load being lifted to prevent personal injury.
- Do not add weight to a load as it is lifted or supported on the inflatable jacks until sufficient cribbing is supporting the load as it may deflate or burst the inflatable jack.
- The inflatable jack must always be in contact with the load being lifted to help prevent slippage. If needed, suitable cribbing should be placed under the inflatable jack for stability.
- For control and stability of the load when stacking a maximum of two jacks, always inflate the lower jack first until contact is made with the load. Then inflate both inflatable jacks evenly.

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## NOTICE

- Use of an air filter is strongly recommended to protect the jack from internal damage.
- Do not drag or drop the inflatable jack on the air inlet fitting.
- Avoid prolonged exposure to sunlight which will deteriorate the inflatable jack material.
- Never expose the inflatable jacks to temperatures in excess of 180° (82°C).

### DEFINITION:

**WARNING!** Hazards or unsafe practices, which could result in severe personal injury, death or substantial property, damage.

**CAUTION!** Hazards or unsafe practices, which could result in, minor personal injury or product or property damage.

**NOTICE** Important installation, operation or maintenance information.

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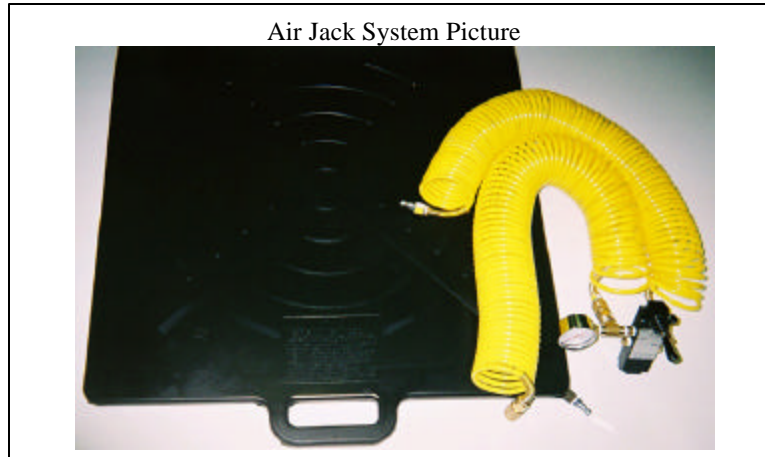
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## **DESCRIPTION; Your Air Jack System contains the following:**



### **1. CONTROLLER:**

Air inlet coupler  
Inflation valve  
Operating gauge  
Safety relief valves  
Deflation valves  
Air outlet coupler (2)

The inflatable air jack controller is used to inflate and deflate the inflatable jacks. The two pressure relief valves are pre-set at the factory to 116 psig (8bar/8 kg/cm<sup>2</sup>) to prevent over inflation. There are separate control valves to safely operate two inflatable jacks individually

### **2. HOSES**

Hoses are used for delivery of air to the air jack system. All hoses are equipped with field replaceable couplings. Additional lengths of hose can be attached to permit remote operation or connect additional inflatable jacks.

### **3. INFLATABLE JACK**

Technical Data Label. Includes serial number. Air inlet nipple. (Shipped loose in carton to prevent damage in shipping). Safety label.



### **CAUTION!**

Do not drag or drop the air jack on the air inlet nipple, as this can cause breakage of the brass inflation fitting and render the air jack useless.

**BREAKAGE OF THE BRASS INFLATION FITTING IS NOT COVERED UNDER WARRANTY.**

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## 4. ADAPTER ASSEMBLY

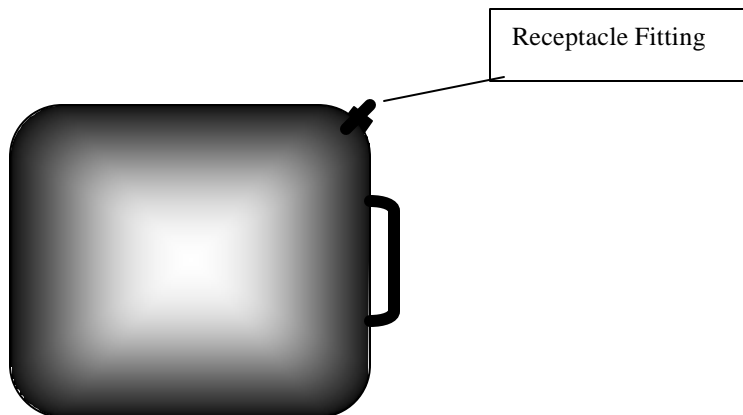
An adapter assembly is required for connection to an air supply. Adapter assemblies are available for connecting to Camlock adapters, Camlock couplers or air caster control console inlets.

To Connect Inflatable Jack System To:	Order Part No.
Camlock Adapter PT A- ½ & ¾ PT A-1	12359 12391
Camlock Coupler PT D- ½ & ¾ PT D- 1	12362 12392
Air Caster Control Console 1-1/2" 2"	12393 12394

## USE AND HANDLING

After unpacking, lay out systems for general familiarization. Inspect for any shipping damage. Check hoses, controller, inflatable jacks and accessories.

Install the replaceable air inlet nipple into the corner fitting on each inflatable jack. These fittings are tapered brass and should not be over tightened; a snug fit is all that is required.



# WARNING!

**READ RULES FOR SAFE OPERATION BEFORE OPERATING THE INFLATABLE JACKS**

## RULES FOR SAFE OPERATION

1. Only trained and qualified personnel shall operate this equipment.
2. All personnel using and assisting must wear proper safety equipment, including head, eye, hand, body and foot protection.
3. All non-essential personnel must be kept clear of the operation area.
4. Always block and secure the load as it is being lifted.
5. Never work under a load that is supported only by inflatable jacks.
6. Remain clear of operating area of the inflatable air jacks.
7. Never operate the air jacks without a controller, part number 12355.

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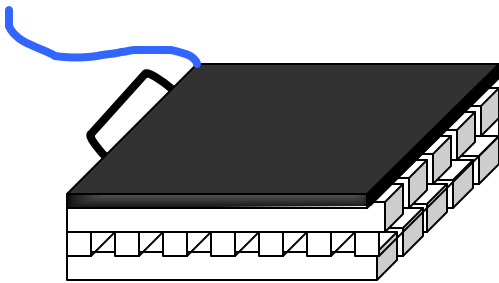
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## WARNING!

When shoring using the box cribbing method, make sure the inflatable jack is placed on a solid tip layer. Do not leave a hollow center as any movement of load may cause the cribbing to shift and collapse.

Use blocks and shoring that will be able to fully support the load. Remember; although the inflatable air jack does not need a smooth surface, blocks and shoring do.



### PROTECT THE INFLATABLE AIR JACK

Never inflate the air jack against sharp objects or on a surface in excess of 180° F. (82° C). When necessary, protect the surface of the inflatable jack from damage by using cribbing or protective materials.

Two inflatable jacks may be operated from one controller. This allows you to lift the same load at two separate points to maximize surface contact.

**By Stacking two inflatable jacks, additional lift height can be achieved.**

## WARNING!

When using two inflatable jacks of different sizes, always place the small air jack on top.



### OPERATING INSTRUCTIONS

1. The operation of the Controller is simple. The Inflation Valves “UP” are depressed, allowing air to flow to the inflatable jacks. Notice the Operating Lever—Forward / Up—Down / Down.
2. To deflate the jack, the lever is moved downward. Notice the instructions on controller faceplate.
3. Verify Controller operation by allowing air pressure to increase into the red zone (safety relief valves will open, preventing over inflation.) Note: verify controller operation with no air jack connected.

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4. Next, the supply hose is connected from the Controller to an inflatable jack. Now operate the inflation valves. Air will flow through the supply hose and the inflatable jack will inflate. Inflate jack to lift load. Operate the deflation valve, allowing the inflatable jack to deflate.

5. Operate the controller with two jacks connected. Practice operating the jacks simultaneously and alternately, inflating and deflating. As you can see, the operation of the air jack system is simple.

NOTE: When using more than one jack, the use of different colored air hoses enables the operator to rapidly identify the jack that is connected to each side of the control valve.

## WARNING!

**DUE TO THE TREMENDOUS FORCES EXERTED ON THE INFLATABLE JACK, INFLATION SHOULD NOT EXCEED 30 PSIG (2 KG/CM<sup>2</sup>) WHILE THE JACK IS UNRESTRAINED.**

Note: Jack will deflate slowly, it is designed in this manner so that there will not be any quick movements of heavy loads which could throw them off-center and cause damage for injury.

## WARNING!

**ALWAYS INFLATE JACKS SLOWLY TO MINIMIZE CHANCE OF THE LOAD SHIFTING.**

## TROUBLESHOOTING

Extremely slow inflation or deflation of an inflatable jack may be caused by blockage of the corner fitting. Remove air nipple and inspect corner fitting visually for foreign matter.

If relief port on controller opens during inflation, check to make sure supply air pressure is 116 psig (8 gk/cm<sup>2</sup>) or less.

## ACCESSORIES

Inline Safety Relief and Shutoff  
Part Number 12356

Allows an inflatable jack to remain inflated when the air supply has been disconnected. This valve is equipped with a built-in pressure relief.

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## CARE AND MAINTENANCE

1. Inspect after each use.
2. Remove any foreign objects that may be on inflatable jack surface, such as broken glass or debris.
3. Wash the air jack in soap and water. Avoid getting water in the inflatable jack. If water does get in, allow the air jack to thoroughly dry before the next use.
4. Cuts on the neoprene surface can be repaired with rubber cement.
5. Leak test the inflatable jack by pressurizing to 30psig (2 kg/cm<sup>2</sup>) for 30 minutes. If a loss of pressure has occurred, immerse in water or soap solution. The appearance of small air bubbles around the connection pipe / air inlet is of no significance with regards to the safety and operational readiness of the inflatable jack, and may be disregarded.
6. Check for damage to the air inlet nipple.

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