



**PATRIOT JACK SYSTEMS™**  
**OWNER'S MANUAL**

L I P P E R T  
C O M P O N E N T S®

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## Introduction

The Patriot Jack Systems™ are three designs for hydraulic landing gear for gooseneck trailers, including dual jack options with either one valve or two valves and a single jack option. The system features a hydraulic power unit mounted vertically on the roadside jack. Refer to jack rating for system lifting capacity and stroke length.

### **WARNING**

The "WARNING" symbol above is a sign that an installation procedure has a safety risk involved and may cause death, serious injury, severe product or property damage if not performed safely and within the parameters set forth in this manual.

### **WARNING**

**Make sure the trailer is properly supported before performing any maintenance or repair work. Follow the trailer manufacturer's recommendations for lifting and supporting the trailer. Failure to do so may result in death, serious personal injury or severe product or property damage.**

### **CAUTION**

**Moving parts can pinch, crush or cut. Keep clear and use caution.**

## Operation

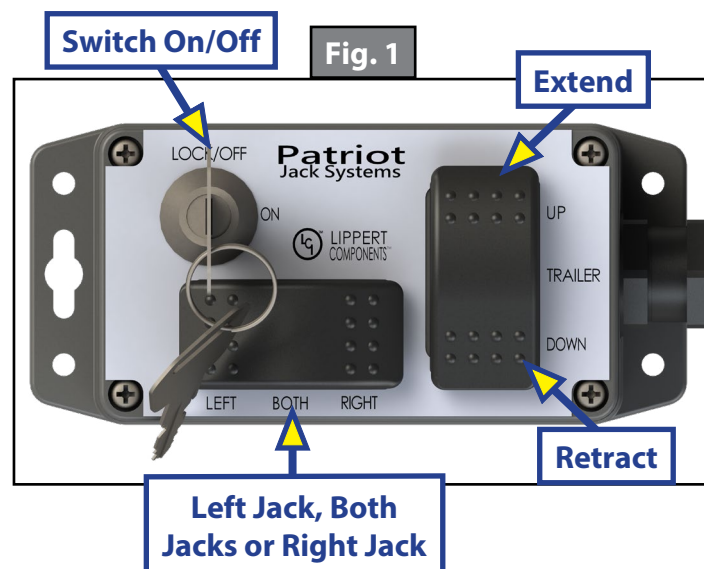
Before operating the jacks, unlock the pendant switch to activate it (Figs. 1 and 2).

**NOTE:** The switch key should always be returned to the LOCK/OFF position after operating the jacks and while towing the trailer.

### Dual Jack Two-Valve System

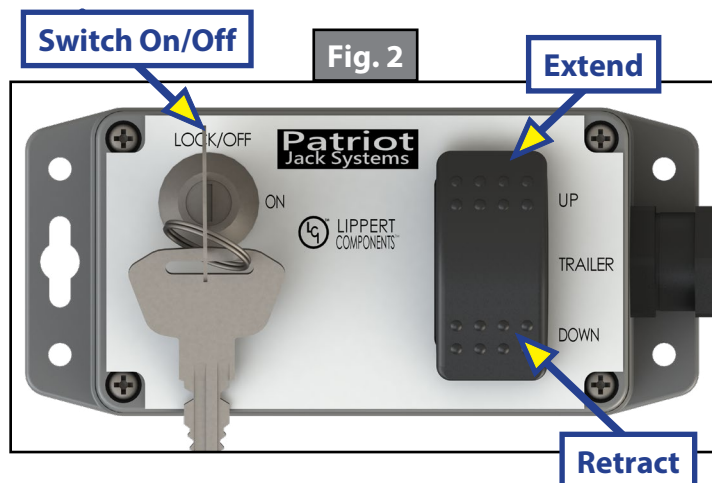
**NOTE:** The jacks can be operated independently or simultaneously.

1. Using the center portion of the switch, select the left jack (roadside) by moving the switch to the left; select both jacks by moving the switch to the center; or select the right jack (curbside) by moving the switch to the right (Fig. 1).
2. Press the rocker switch to extend the jack(s) (TRAILER UP) or retract the jack(s) (TRAILER DOWN) (Fig. 1).
3. Release the switch when either the trailer is level or stabilized or the jacks have been completely retracted.
4. Turn the key to the LOCK/OFF position.



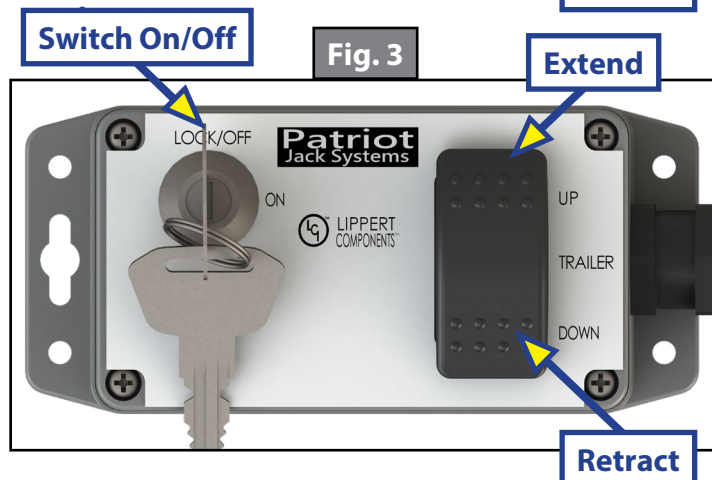
### Dual Jack One-Valve System

1. Press the rocker switch to extend the jack(s) (TRAILER UP) or retract the jack(s) (TRAILER DOWN) (Fig. 2).
2. Release the switch when either the trailer is level or stabilized or the jack(s) has been completely retracted.
3. Turn the key to the LOCK/OFF position.



### Single Jack One-Valve System

1. Press the rocker switch to extend the jack(s) (TRAILER UP) or retract the jack(s) (TRAILER DOWN) (Fig. 3).
2. Release the switch when either the trailer is level or stabilized or the jack(s) has been completely retracted.
3. Turn the key to the LOCK/OFF position.



## Preventive Maintenance

1. Check hydraulic fluid in reservoir every 12 months. If fluid is a clear red color, do not change. If fluid is milky, pink and murky and not clear red in color, drain reservoir and add new fluid. See Adding Fluid, Purging Air From Hydraulic System section.

**NOTE:** Check and fill the hydraulic fluid only when the jacks are fully retracted. Filling the reservoir when jacks are extended will cause the reservoir to overflow when jacks are then retracted.

**NOTE:** When adding hydraulic fluid, fill reservoir to the fill line.

2. Inspect and clean all power unit electrical connections every 12 months. If corrosion is evident, spray power unit electrical connectors with lubricant.
3. Remove dirt and road debris from jacks as needed.
4. If jacks are down for extended periods, it is recommended to spray exposed inner tubes with a silicone lubricant every three months for protection. If the trailer is located in a salty environment, it is recommended to spray the exposed inner tubes every four to six weeks.

## Adding Fluid, Purging Air From Hydraulic System

1. Start with all hydraulic components in the fully retracted position, i.e. the trailer is ready for travel.
2. Remove motor cover to gain access to the hydraulic reservoir. See Manual Override section.
3. Remove fill cap and check fluid level.

**NOTE:** When checking the fluid level after the hydraulic components are retracted, note if there are any bubbles, froth or foam on top of the fluid. This is an indication that air has been pushed back to the reservoir when the hydraulic components were retracted. Wait 15-20 minutes for the foam to dissipate before beginning the purge process.

4. If there is no froth or foam in the reservoir and the fluid is not to the fill line, fill the reservoir to the fill line at the top of the reservoir.
5. With the fluid level full and no foam in the reservoir, begin cycling the hydraulic system. Extend the jacks until the footpads touch the ground, and then immediately fully retract the jacks.
6. Check the reservoir for foam. If foam is present, see **NOTE** after step 3 and repeat steps 4 and 5.
7. Repeat these steps until no foam is present in the reservoir. If no foam is present, the system is purged of air.
8. Replace fill cap and reinstall motor cover.

## Fluid Recommendation

Type "A" automatic transmission Fluid (ATF) is to be utilized. Lippert Components, Inc. recommends ATF with Dexron III® or Mercon V® or a blend of both.

For a list of approved fluid specifications, see [TI-188](#). Or go to <https://www.lci1.com/stabilization/support-patriot-jack-systems>, click on the Technical Information Sheets tab and then select *TI - 188: Hydraulic Operation Fluid Recommendation* from the listed documents.

**NOTE:** In colder temperatures less than 10° F, the landing gear may extend and retract slowly due to the fluid's molecular nature. For cold weather operation, fluid specifically formulated for low temperatures may be desirable.

# Troubleshooting

## Troubleshooting Guide

| What Is Happening?                                     | Why?                                  | What Should Be Done?                                                 |
|--------------------------------------------------------|---------------------------------------|----------------------------------------------------------------------|
| Switch does not activate system.                       | Low voltage.                          | Test battery voltage under load. Charge or replace.                  |
|                                                        |                                       | Use Manual Override.                                                 |
|                                                        | Damaged or disconnected wiring.       | Check wiring. Repair or replace.                                     |
|                                                        |                                       | Use Manual Override.                                                 |
|                                                        | Tripped or blown circuit protection.  | Reset or replace circuit protection.                                 |
| Jacks will not extend to ground while pump is running. | Little or no fluid in reservoir.      | Add fluid as recommended.                                            |
|                                                        | Cartridge valve is inoperative.       | Clean, repair or replace cartridge valve.                            |
|                                                        | Hose damaged or unconnected.          | Replace with new hose or reconnect hose.                             |
| Jacks will not retract while pump is running.          | Little or no fluid in reservoir.      | Add fluid as recommended.                                            |
|                                                        | Cartridge valve is inoperative.       | Replace inoperative cartridge valve.                                 |
|                                                        | Hose damaged or unconnected.          | Replace with new hose or reconnect hose.                             |
| Trailer bleeds down after jacks extended.              | Possible fluid leak.                  | Check for fluid leaks and repair or replace components as necessary. |
|                                                        | Cartridge valve manual override open. | Close override. See Manual Override of the system.                   |
| Jack bleeds down after being retracted.                | Possible fluid leak.                  | Check for fluid leaks and repair or replace components as necessary. |
|                                                        | Cartridge valve manual override open. | Close override. See Manual Override of the system.                   |

## Manual Override

In the event of electrical or system failure, the jacks can be operated manually. Unhook the hydraulic power unit motor from the power source prior to attempting the manual override procedure.

### Two-Valve System

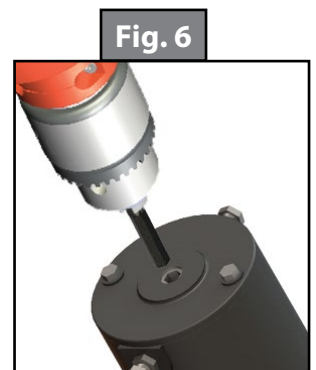
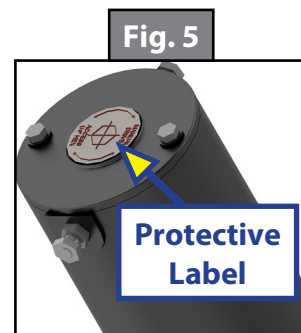
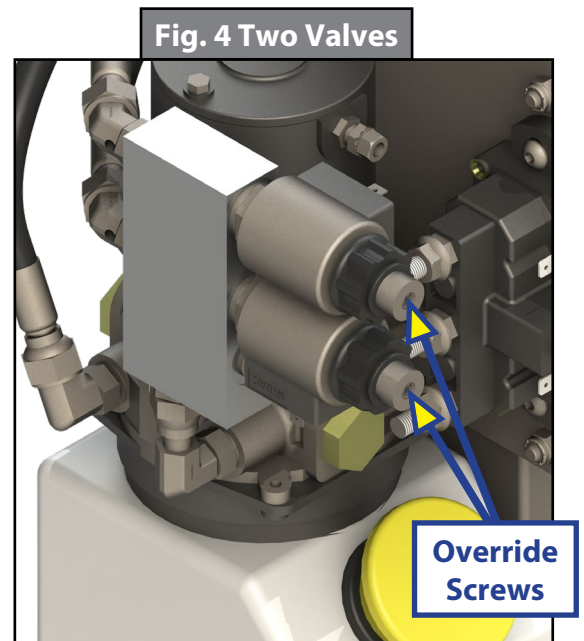
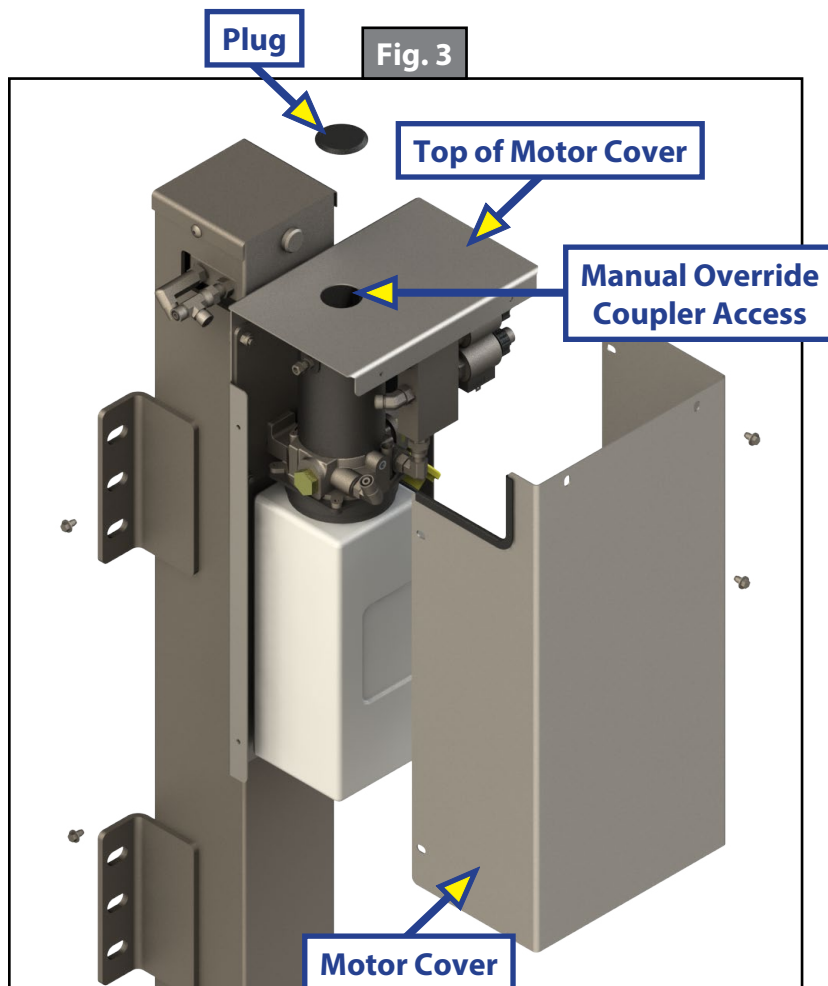
1. Remove six screws around the perimeter of the motor cover and remove cover (Fig. 3).
2. Using a  $\frac{5}{32}$ " hex wrench, open the valve(s) by turning the manual override screw(s) clockwise until it stops (Fig. 4).

**NOTE:** With the two-valve system, the jacks can be independently extended or retracted. To manually extend or retract the curbside (right) jack, open the top valve. To manually extend or retract the roadside (left) jack, open the bottom valve. To manually operate both jacks simultaneously, open both top and bottom valves.

3. Remove plug from top of motor cover (Fig. 3).
4. Remove protective label from power unit to reveal the manual override coupler (Fig. 5).

**NOTE:** Top of motor cover and wiring removed for clarity in Figs. 4, 5 and 6.

5. Using a drill with a  $\frac{1}{4}$ " hex bit, insert the hex bit into the manual override coupler (Fig. 6).
6. Run the drill clockwise to retract the jacks.
7. Run the drill counterclockwise to extend the jacks.
8. After extending or retracting the jacks, make sure to turn the override screw(s) counterclockwise until it stops.
9. Reinstall motor cover and plug.

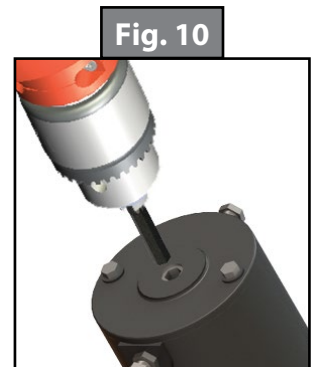
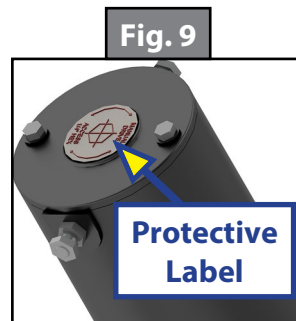
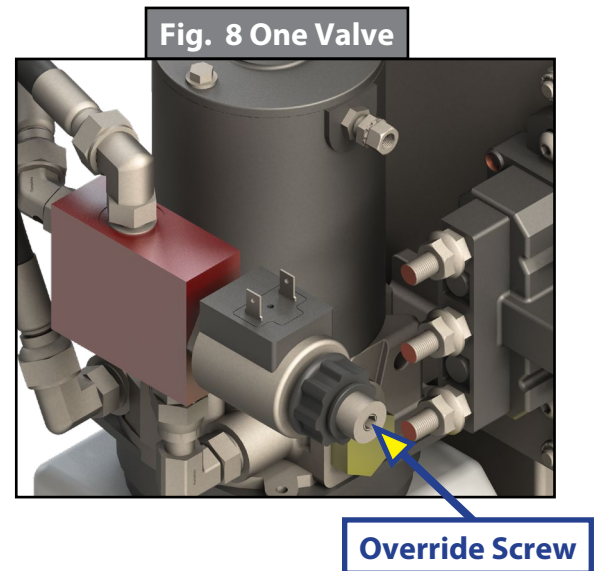
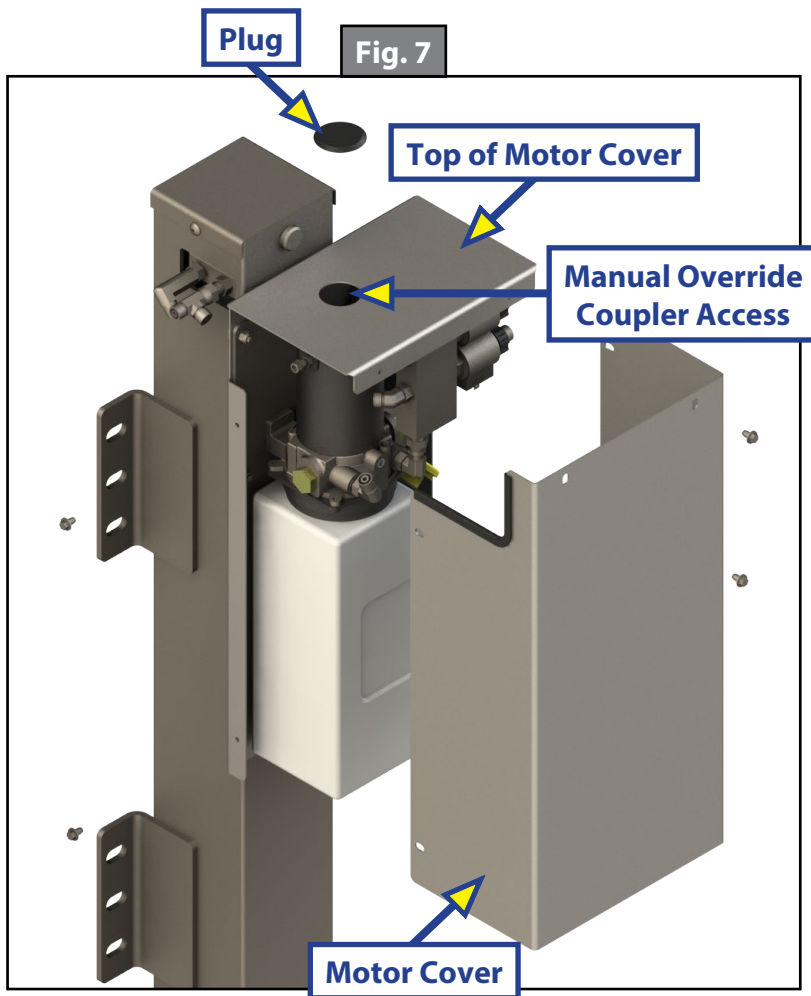


## One-Valve Systems

1. Remove six screws around the perimeter of the motor cover and remove cover (Fig. 7).
2. Using a  $\frac{5}{32}$ " hex wrench, open the valve by turning the manual override screw clockwise until it stops (Fig. 8).
3. Remove plug from top of motor cover (Fig. 7).
4. Remove protective label from power unit to reveal the manual override coupler (Fig. 9).

**NOTE:** Top of motor cover and wiring removed for clarity in Figs. 8, 9 and 10.

5. Using a drill with a  $\frac{1}{4}$ " hex bit, insert the hex bit into the manual override coupler (Fig. 10).
  - A. Run the drill clockwise to retract the jack(s).
  - B. Run the drill counterclockwise to extend the jack(s).
6. After extending or retracting the jack(s), make sure to turn the override screw counterclockwise until it stops.
7. Reinstall motor cover and plug.





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Follow proper safety practices. If in doubt, consult a professional RV technician.