



A Division of Allied Systems Company

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# **Installation Instructions Rotation Control Kit**

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**TABLE OF CONTENTS**

SECTION 1 PURPOSE ..... 3

SECTION 2 INSTALLATION ..... 4

    Test Installation .....6

    Disabling The System.....6

    Operation.....6

## SECTION 1 PURPOSE

This kit is designed to disable the rotation function of an attachment.

### Notice

This kit is intended to be installed by a qualified person or technician.

Rotation Control Switch Operated Kits  
2528662 - 12V

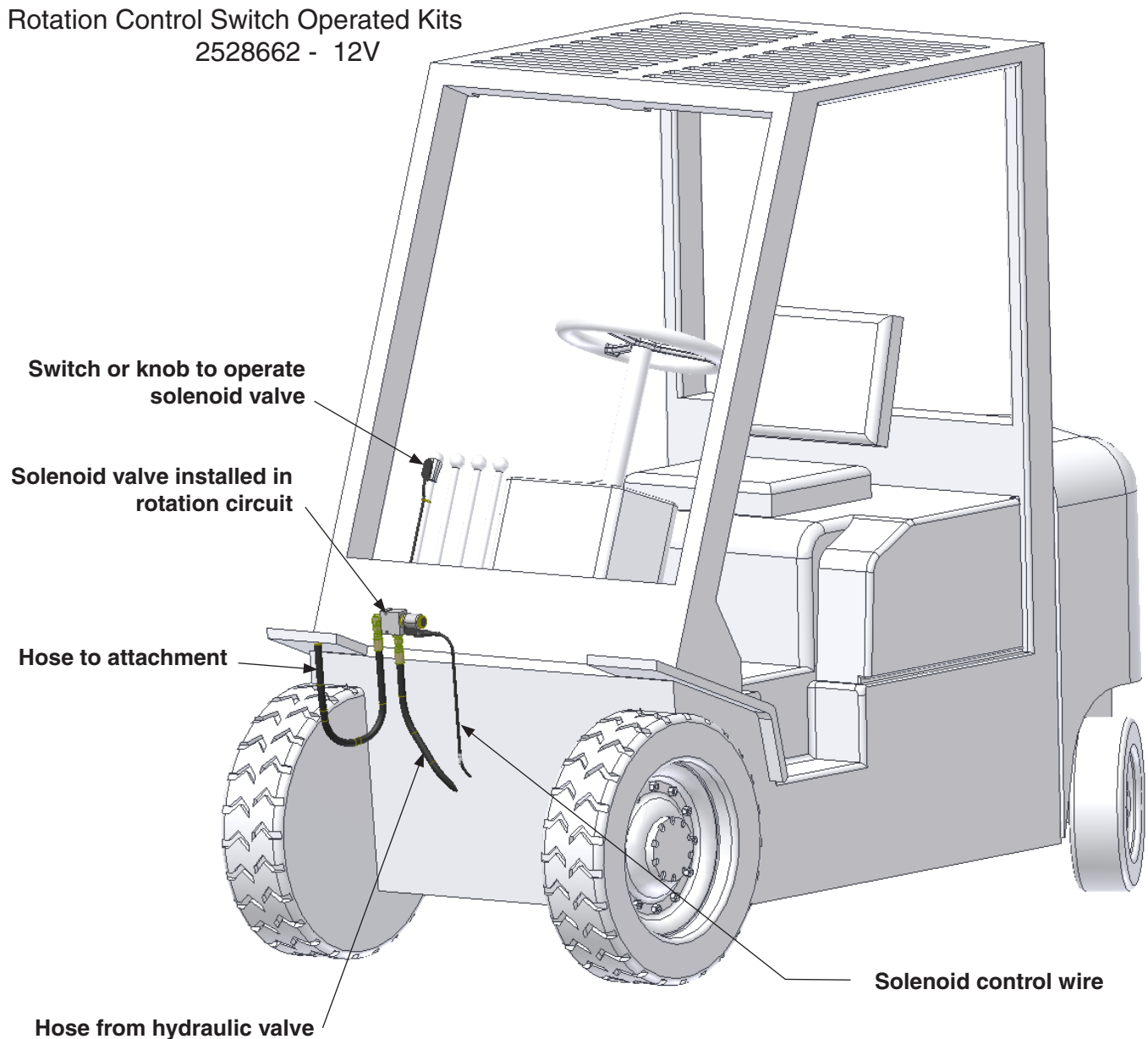
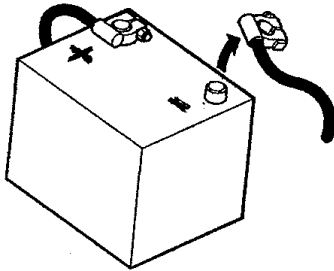


Figure 1, Opening Control Kit Installed

## SECTION 2 INSTALLATION

1. Disconnect the cable from the battery's negative terminal before connecting any electrical components. (Fig. 2)



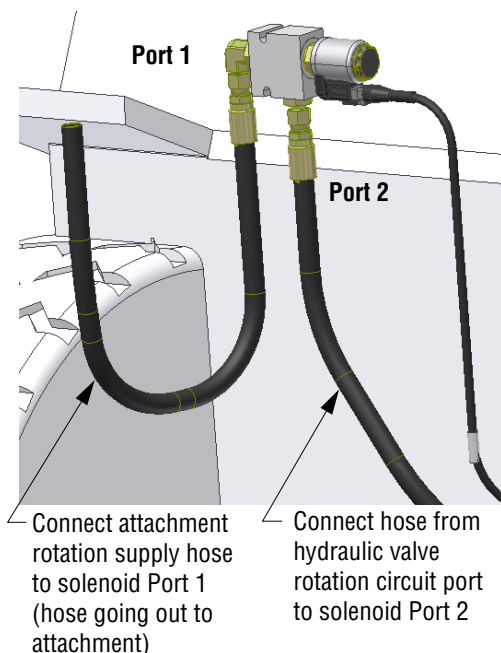
**Figure 2, Disconnect Cable from Negative Terminal**

2. Confirm the kit's solenoid coil voltage matches the truck operating voltage.

### Notice

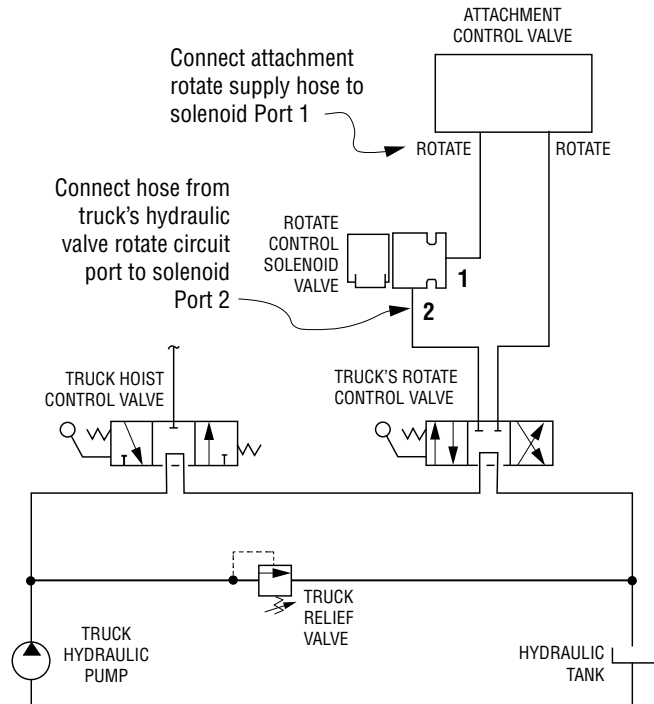
**Consult the lift truck OEM to confirm that system will handle additional 1.5 amp draw at 12 volts.**

3. Determine a suitable location for the solenoid on the cowl or near the hydraulic control valve and securely attach the valve. Do not get dirt or contamination in the valve or fittings. (Fig. 3)



**Figure 3, Mount Solenoid Connections**

4. Ensure that the hose is free of any internal contamination. Connect a hydraulic supply hose from the hydraulic valve rotation circuit port to solenoid Port 2. (Figs. 3 and 4)



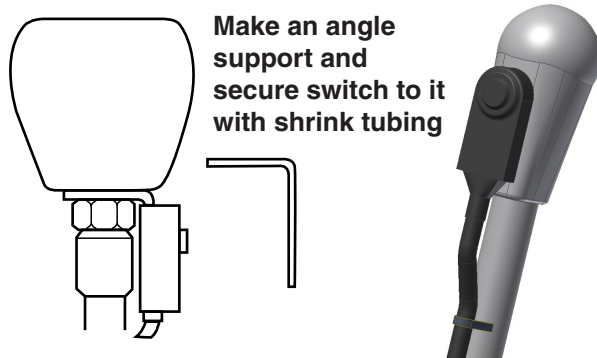
**Figure 4, Solenoid Connection Schematic**

5. Ensure that the hose is free of any internal contamination. Connect the attachment opening supply hose to the end port (Port 1) of the solenoid valve. (Figs. 3 and 4)

### Notice

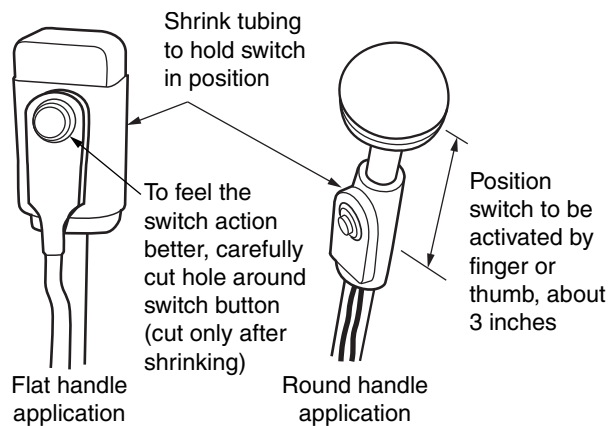
**Solenoid can be installed in either supply line going to the rotate function, either clockwise or counterclockwise**

6. Install switch on the rotation control handle. Depending on handle or knob style, select a position convenient and comfortable for the operator's use. Better switch support may be provided by building up a support surface on handle or knob. Use double-sided tape to temporarily hold the switch in position. (Fig. 5)



**Figure 5, Switch Support**

7. Using the smallest shrink tube that will fit around switch and handle, use a heat gun to heat and shrink the tube in place, to restrain the switch. If it is difficult to feel the switch action, carefully cut a hole in the shrink tube around the switch button to provide a better feel. (Fig. 6)



**Figure 6, Switch Positioning**

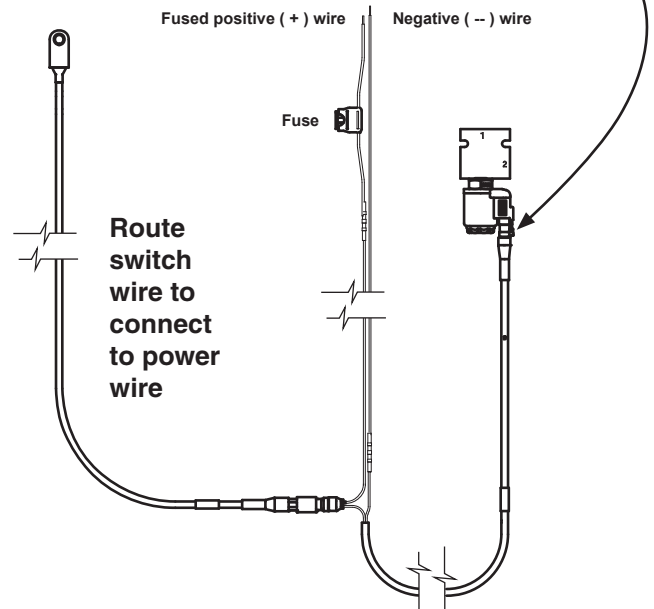
8. Secure the switch wire to the handle with cable ties.

## Notice

Consult the lift truck OEM for proper positive power and negative ground connection points

9. Insert power cord connector in solenoid receptacle and route wire to a switch-controlled power source. (Fig. 7)

Insert connector in solenoid receptacle and route wire toward power connection points



**Figure 7, Wire Routing**

## Notice

Consult the lift truck OEM to confirm that system will handle additional 1.5 amp draw at 12 volts, dropping proportionally to 0.4 amp at 48 volts.

10. Route switch wire to connect to power wire connection at receptacle, avoiding moving parts where abrasion and pinch points could damage the wire. Secure as required. (Fig. 7) Nominal current draw is 1.5 amp at 12 VDC.

## Notice

The solenoid coil has an integral zener diode for transient voltage suppression. No external diode is required.

11. Connect positive wire to the designated key-controlled power connection points and negative to common negative terminal. Check the cable routing to avoid pinch points and abrasion sources, and provide clearance from moving parts. (Fig. 8)

12. Re-connect the battery's negative terminal.

## Test Installation

Before returning the truck to service, the installation must be tested.

1. Turn truck key on to provide power to the switch.
2. With no load, activate the solenoid switch. The solenoid activation should be detectable by a slight sound or by feel of the solenoid noting the spool shift.
3. With the hydraulic system operational and no load, hold down the activation switch and rotate the unit several full rotations in each direction to flush out any air introduced during installation of the circuit.
4. Without pressing the activation switch, actuate the rotate control lever in one direction, and then the other. The attachment should not rotate in either direction.

## Disabling The System

The rotation control can be disabled by performing the following steps:

1. Disconnect the two hose ends to normally-closed solenoid valve and connect them to each other with a union. Alternately, remove the solenoid valve cartridge, being careful not to get contamination on it. Install a #10 O-ring plug in the cavity.
2. Remove the system power fuse in the cable harness. The truck and attachment will now operate normally. To enable the rotation control, reverse the procedure above.

## Operation

The rotation control kit is designed to prevent accidental rotation of a load. The rotation control handle will not function without engaging the switch to activate the circuit.

Press and hold the switch to operate the rotation control.

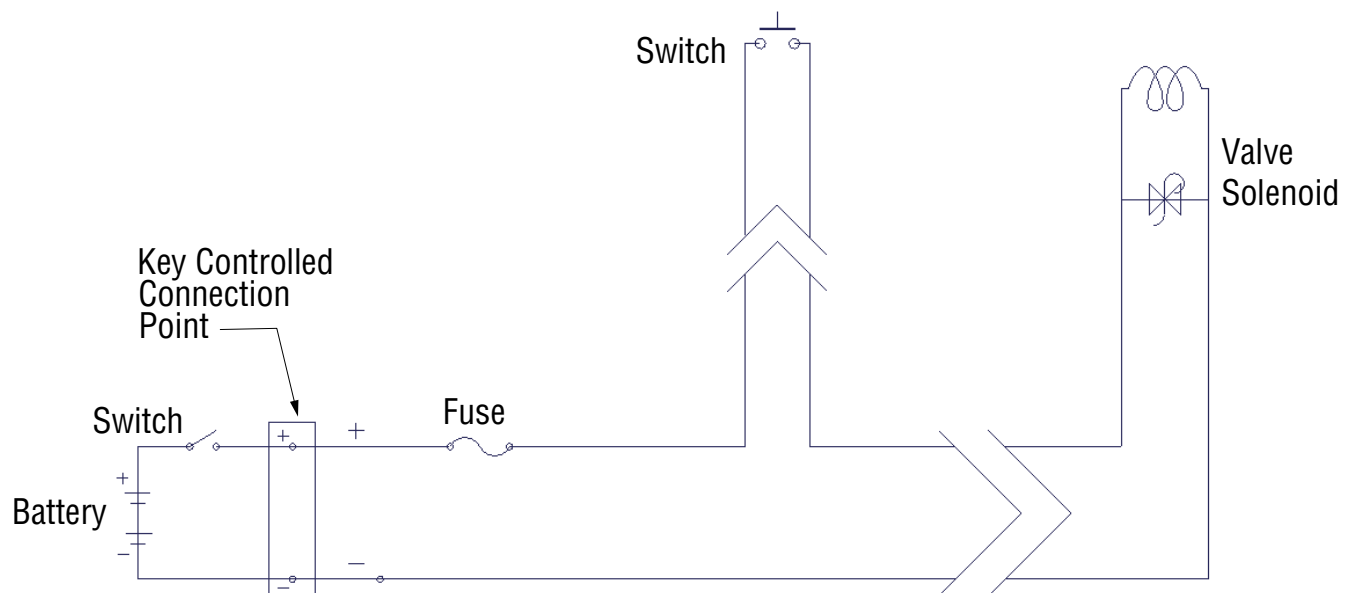


Figure 8, Wire Connections