



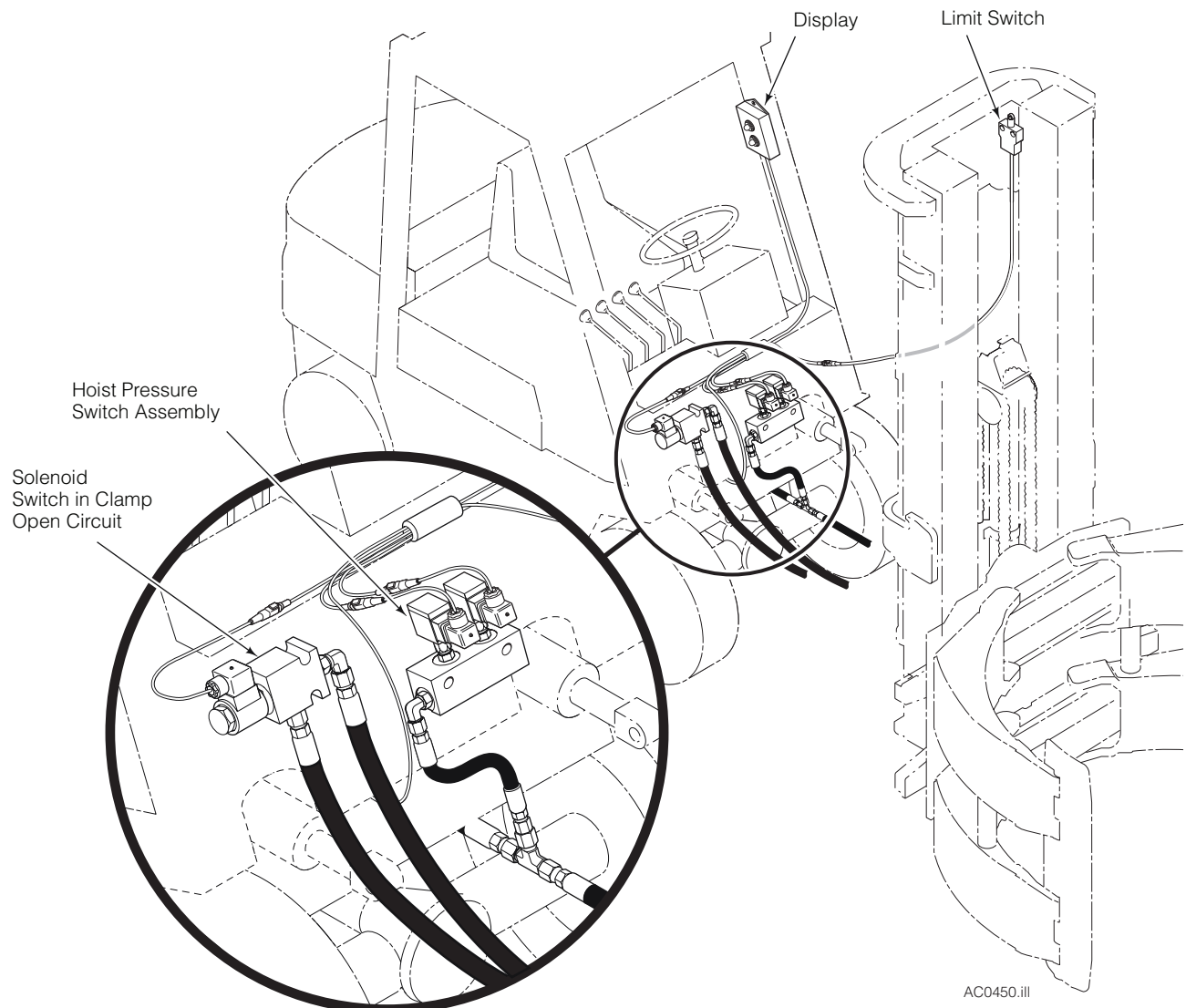
# Installation Instructions

**Clamp Open Guard® Kits**  
**6008230-12V, 6018016-24V,**  
**6018017-36V, 6018012-48V**

This manual provides installation instructions for Cascade Clamp Open Guard. The kit prevents the accidental opening of the roll clamp when the paper roll is in the lifted position. The kit is designed for use with Cascade F and G-Series Paper Roll Clamps and D-Series Sliding Arm Clamps.



**WARNING: Do not** use the Clamp Open Guard with any product other than a Pivot Arm Paper Roll Clamp and D-Series Sliding Arm Clamp.



Part No. 6017376-R6

**cascade®**  
**corporation**

**For Technical Support . . .**

Call: 1-800-227-2233

**OR**

Write: Cascade Corporation, P.O. Box 20187, Portland, OR 97294

**To Order Parts . . .**

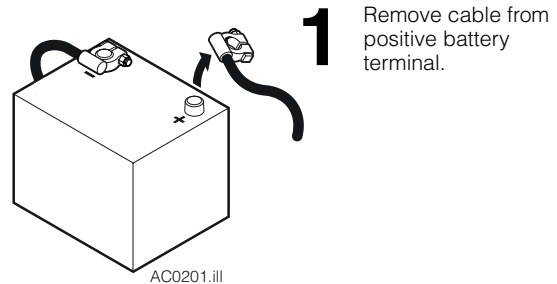
Call: 1-888-227-2233

**OR**

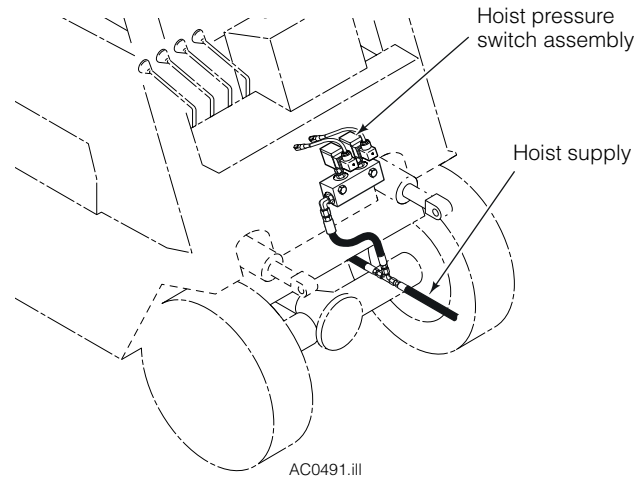
Write: Cascade Corporation, 2501 Sheridan Ave., Springfield, OH 45505

# Installation

- 1 Disconnect the cable from the positive battery terminal.

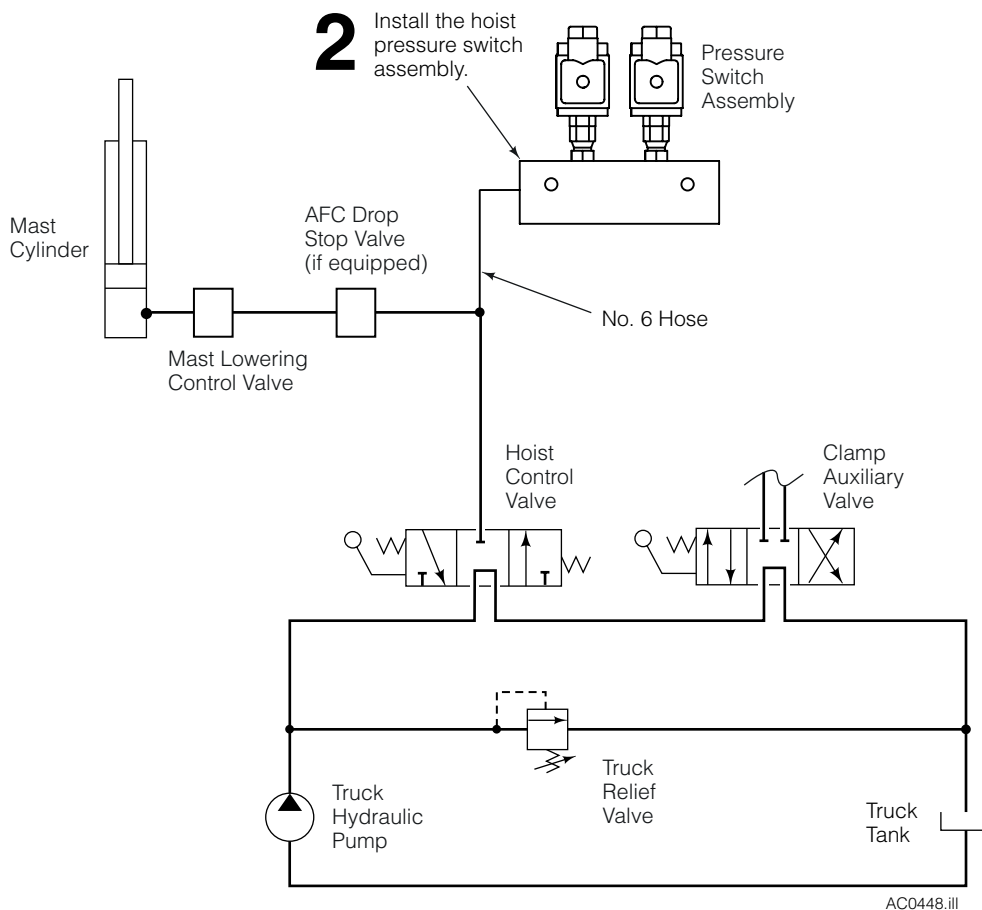


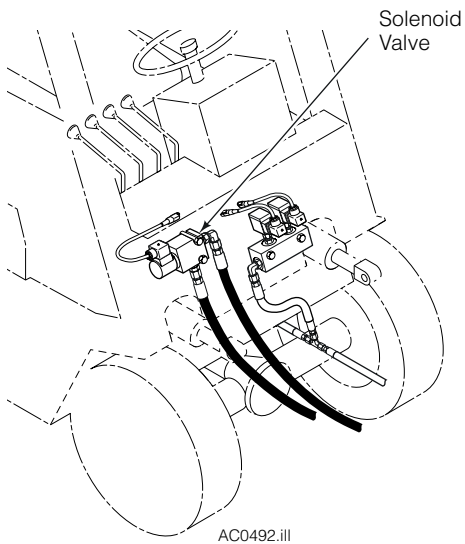
- 2 Locate and install the hoist pressure switch assembly on the truck cowl or under the floorboard. Watch for clearance when the mast is tilted back if mounting on the cowl. The pressure switch assembly has adjustment screws under the white caps that need easy access for final adjustment. Install a tee fitting in the mast hoist circuit between the mast lowering control valve or drop stop valve (if equipped with AFC) and truck hoist control valve. Install a No. 6 hose between the tee fitting and the hoist pressure switch assembly end port.



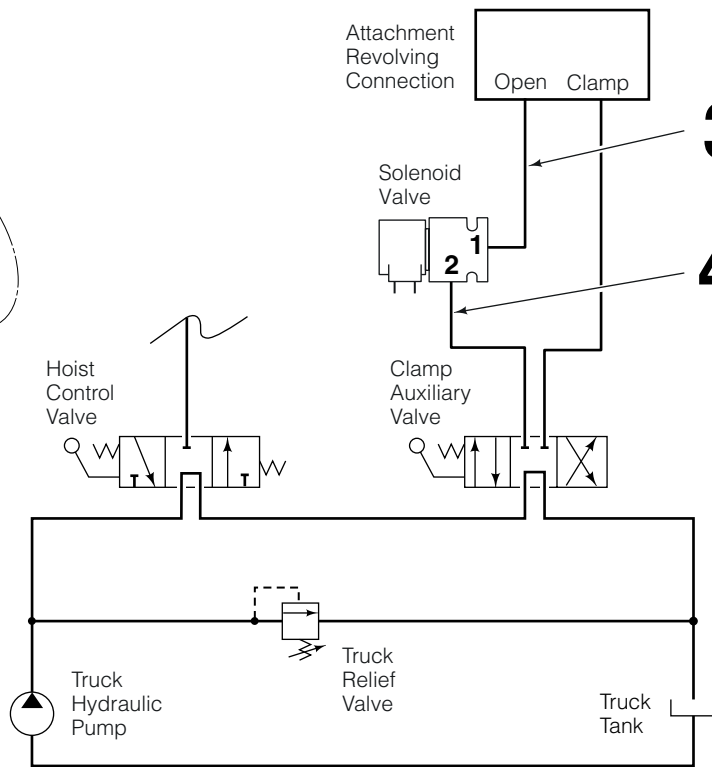
**IMPORTANT:** When installing the Clamp Open Guard with Cascade's Adaptive Force Control (AFC), the tee fitting must be installed between the drop stop valve and truck hoist control valve.

**NOTE:** If an accumulator is installed in the mast hoist circuit, it provides a convenient location to tap into the hoist circuit.





AC0492.ill



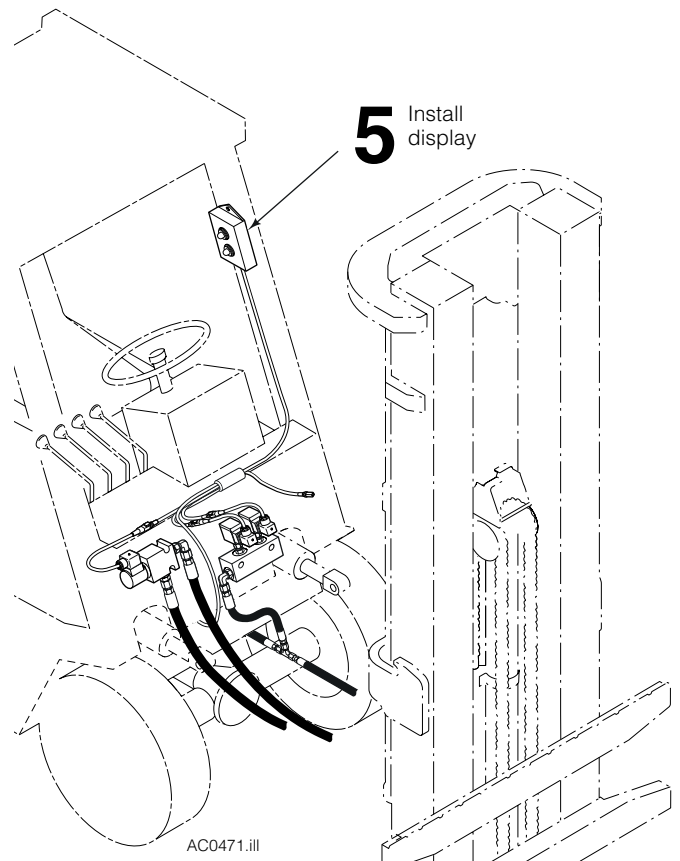
AC0447.ill

- 3** Install attachment supply hose to Port 1.
- 4** Install auxiliary valve hose to Port 2.

- 3** Locate and install the solenoid valve on the truck cowl. Watch for clearance when the mast is tilt all the way back. The valve is being installed in the clamp OPEN line from the auxiliary valve to the attachment.  
Connect control valve port 1 to the supply hose going to the attachment.

**IMPORTANT:** When installing the Clamp Open Guard with Cascade's Adaptive Force Control (AFC), the solenoid valve must be installed between the truck auxiliary valve and the AFC valve.

- 4** Connect solenoid valve port 2 to the supply hose from the truck auxiliary valve clamp OPEN line.
- 5** Install the display on the truck dashboard, overhead guard, or any other easy-to-see location.



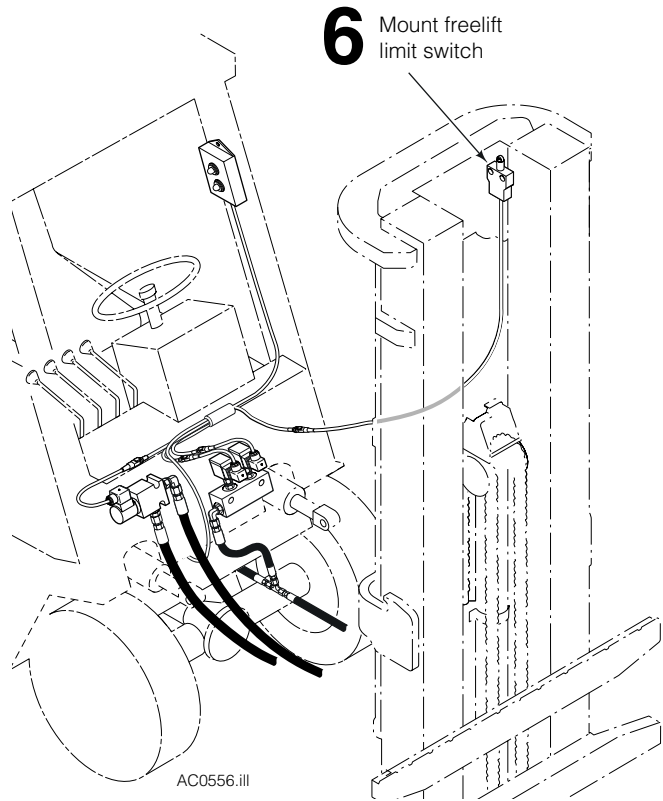
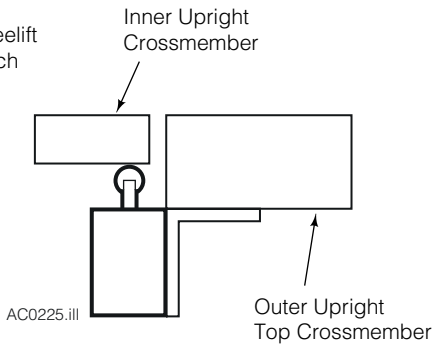
AC0471.ill

- 6** Mount the freelift limit switch to the mast outer upright top crossmember using a fabricated bracket. The roller end of the limit switch must contact the inner or intermediate upright top crossmember to determine when the mast carriage is above freelift.

**The switch plunger must be depressed when the mast is in freelift. The plunger must extend when the mast is above freelift.**

Use cable ties to secure the switch wires leaving the cable with slack for mast tilt. Protect the cable from pinch or shear points that could damage the cable.

- 6** Mount freelift limit switch



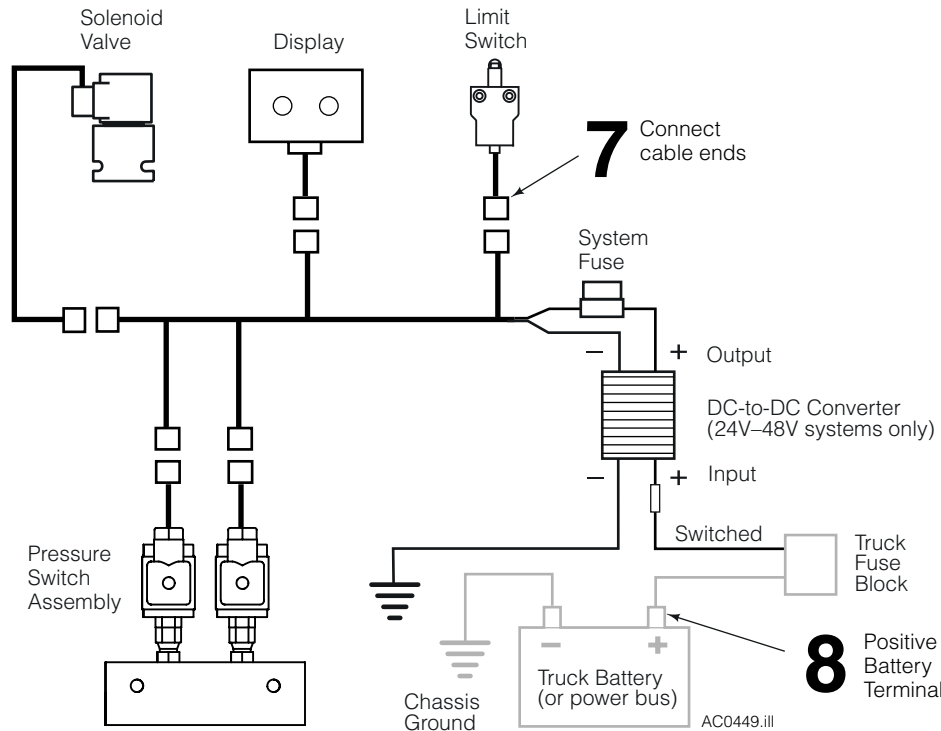
**CAUTION:** Consult the Lift Truck OEM for proper + power source connection.

- 7** Connect cable ends to the components as shown.

**12V Systems** – Connect the fused positive wire from the cable harness to a 12V switched power source, and the ground wire to a chassis ground.

**24V–48V Systems** – Connect the fused positive wire from the cable harness to the DC-to-DC converter positive output wire and the ground wire to the converter negative output wire. Connect a 24V–48V switched power source to the converter fused positive input wire and connect the converter input ground wire to a chassis ground.

Check the cable routing for pinch points and clearance. Use wire ties as needed.

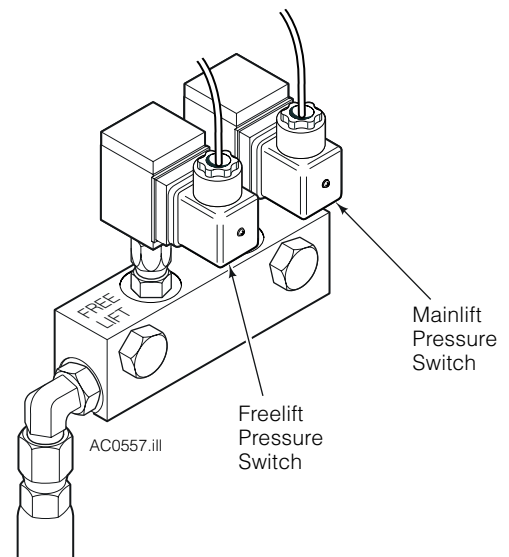
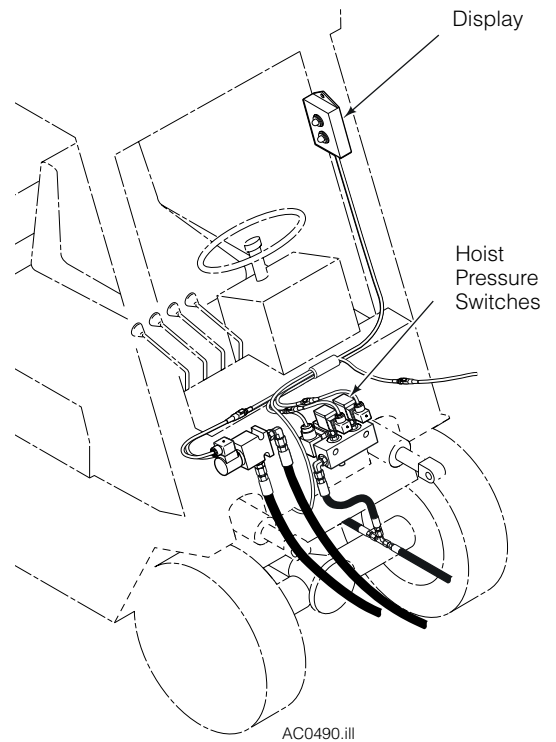


- 8** Reconnect the positive battery terminal to the battery.

# Adjustment

The following adjustments must be done with the attachment that will be used with this specific lift truck.

- 1 Test the installation before putting the truck in service. Initially when the truck key is ON, one of the lights on the display should be on. Check the wiring if the display is not lit.
- 2 Locate the white plastic cover on the hoist pressure switches. Remove the screw on the cover and pry off the cover. The hexscrew allows adjustment in step 3.
- 3 Raise the mast into freelift (the carriage raised with the mast uprights not extended). Unplug the pressure switch cable connector for the freelift switch.
  - If the light on the display goes off, reattach the connector and adjust the freelift switch. Turn the hexscrew in the pressure switch CCW until the amber light goes on, then turn back CW to just when the green light goes on and an additional 1/4 turn. Go to step 4.
  - If the light on the display stays on, swap the freelift and mainlift cable connectors and repeat step 3.
  - If the light on the display stays on after swapping cables, troubleshoot the wiring connections.
- 4 Raise the mast carriage above freelift (the inner mast upright extending above the top of the outer upright). Unplug the pressure switch cable connector for the main lift switch.
  - If the light on the display goes off, reattach the connector and adjust the main lift switch. Turn the hexscrew in the switch CCW until the amber light goes on, then turn back CW to just when the green light goes on and an additional 1/4 turn.
  - If the light on the display stays on, troubleshoot the wiring connections.
  - If both lights on the display stay on, troubleshoot the solenoid wiring connections.



# Operation

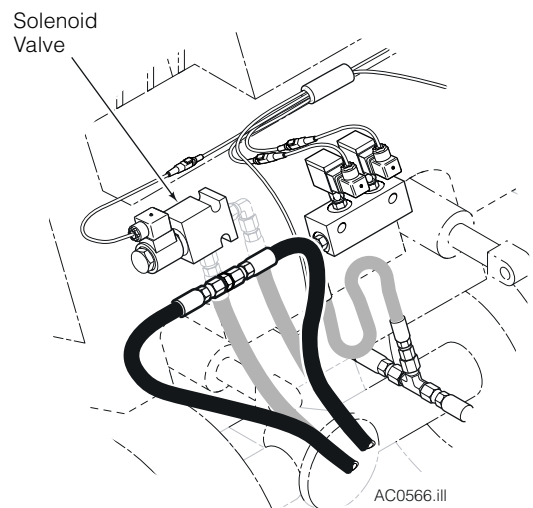
- When the green light is on, the clamp will open and close normally. When the amber light is on, the clamp will not open.
- During fast lowering of the attachment, the lights may flicker between amber and green, this is normal.
- In mast freelift or mainlift, lighter loads may not activate the pressure switch and the green light will remain on.  
**NOTE:** The system does not work like a drop stop valve that prevents load drop or jump when the clamp is opened. The green light **does not** indicate that the load has been lowered to its optimal position.

# Disabling System

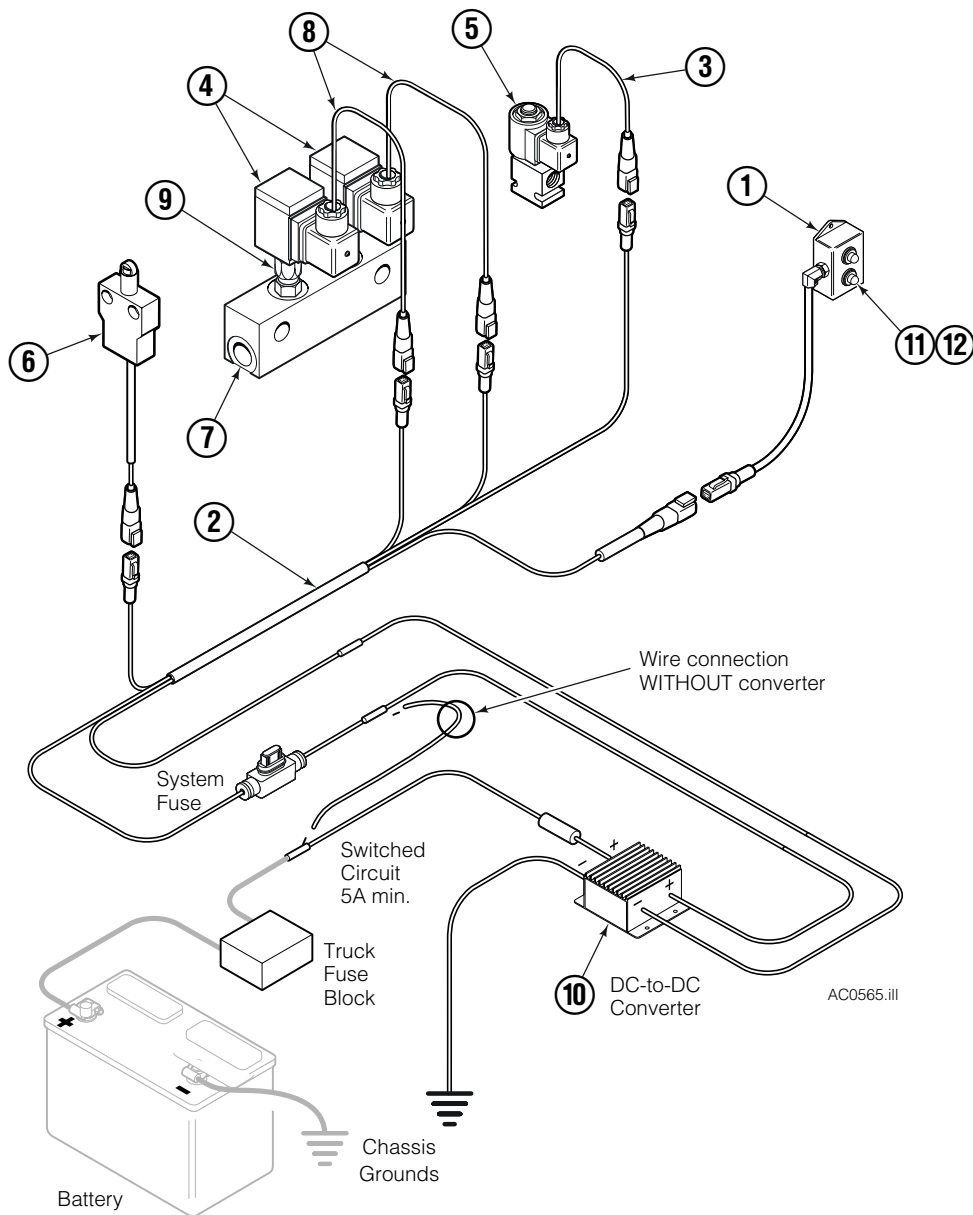
The Clamp Open Guard can be disabled by performing the following Steps:

- Disconnect the two hoses to the normally-closed solenoid valve and connect together with a union.
- Remove the main power fuse in the cable harness.

The truck and attachment will now operate normally. To enable the Clamp Open Guard, reverse the above procedure.



# Clamp Open Guard



REF	QTY	PART NO.	DESCRIPTION
		6008230	12V Clamp Open Guard
		6018016	24V Clamp Open Guard
		6018017	36V Clamp Open Guard
		6018012	48V Clamp Open Guard
1	1	6008231	Display
2	1	6008297	Wire Harness – Power
3	1	6008301	Wire Harness – Solenoid
4	2	6008304	Pressure Switch
5	1	6020882	Solenoid Valve
6	1	6019797	Limit Switch
7	1	6019833	Junction Block
8	2	6019836	Wire Harness
9	2	6013999	Fitting
10	1▲	6021069	DC-to-DC Converter
11	1	6004133	Lamp-Amber
12	1	6004132	Lamp-Green

▲ Converter not required for 12V system.



**Do you have questions you need answered right now?** Call your nearest Cascade Service Department. Visit us online at [www.cascorp.com](http://www.cascorp.com)

## **AMERICAS**

### **Cascade Corporation Parts Sales**

2501 Sheridan Ave.  
Springfield, OH 45505  
Tel: 888-CASCADE (227-2233)  
Fax: 888-329-0234

### **Cascade Canada Inc.**

5570 Timberlea Blvd.  
Mississauga, Ontario  
Canada L4W-4M6  
Tel: 905-629-7777  
Fax: 905-629-7785

### **Cascade do Brasil**

Rua João Guerra, 134  
Macuco, Santos - SP  
Brasil 11015-130  
Tel: 55-13-2105-8800  
Fax: 55-13-2105-8899

## **EUROPE-AFRICA**

### **Cascade Italia S.R.L. European Headquarters**

Via Dell'Artigianato 1  
37050 Vago di Lavagno (VR)  
Italy  
Tel: 39-045-8989111  
Fax: 39-045-8989160

### **Cascade (Africa) Pty. Ltd.**

PO Box 625, Isando 1600  
60A Steel Road  
Sparton, Kempton Park  
South Africa  
Tel: 27-11-975-9240  
Fax: 27-11-394-1147

## **ASIA-PACIFIC**

### **Cascade Japan Ltd.**

2-23, 2-Chome,  
Kukuchi Nishimachi  
Amagasaki, Hyogo  
Japan, 661-0978  
Tel: 81-6-6420-9771  
Fax: 81-6-6420-9777

### **Cascade Korea**

121B 9L Namdong Ind.  
Complex, 691-8 Gojan-Dong  
Namdong-Ku  
Inchon, Korea  
Tel: +82-32-821-2051  
Fax: +82-32-821-2055

### **Cascade-Xiamen**

No. 668 Yangguang Rd.  
Xinyang Industrial Zone  
Haicang, Xiamen City  
Fujian Province  
P.R. China 361026  
Tel: 86-592-651-2500  
Fax: 86-592-651-2571

### **Cascade India Material Handling Private Limited**

No 34, Global Trade Centre  
1/1 Rambaugh Colony  
Lal Bahadur Shastri Road,  
Navi Peth, Pune 411 030  
(Maharashtra) India  
Phone: +91 020 2432 5490  
Fax: +91 020 2433 0881

### **Cascade Australia Pty. Ltd.**

1445 Ipswich Road  
Rocklea, QLD 4107  
Australia  
Tel: 1-800-227-223  
Fax: +61 7 3373-7333

### **Cascade New Zealand**

15 Ra Ora Drive  
East Tamaki, Auckland  
New Zealand  
Tel: +64-9-273-9136  
Fax: +64-9-273-9137

### **Sunstream Industries Pte. Ltd.**

18 Tuas South Street 5  
Singapore 637796  
Tel: +65-6795-7555  
Fax: +65-6863-1368

