

## LIMIT SWITCH SPECIAL INSTRUCTIONS

Use these instructions to install a limit switch. Read and follow these instructions along with the standard instructions carefully before installing or using tarp system.

**NOTICE TO INSTALLER:** Even if familiar with product, read special instructions prior to installation as improvements may be made without notice. Always handle components with care. If you have questions or problems, call customer service. When done, these instructions must be given to the consumer.

**NOTICE TO CONSUMER:** Before using this product, read safety and maintenance sections of these special instructions. Save these instructions for future reference.

# PREPARATION

## TOOLS NEEDED

- Ratchet with 1/4", 3/8" and 1/2" sockets
- Screwdriver
- 1/4", 3/8" and 1/2" wrenches
- Wire stripper
- Torch
- Protective eyewear

**NOTE:** Hardware appearance and components may vary.

## INSPECTION AND MAINTENANCE

- Check condition of limit switch and mounting hardware daily and verify they are attached securely.
- Verify limit switch is operating correctly daily.
- Periodic preventive maintenance should be practiced. Inspect tarp system often for proper operation.
- Always use genuine Agri-Cover, Inc. replacement parts if repairs are needed.
- Periodically check tightness of mounting bolts.

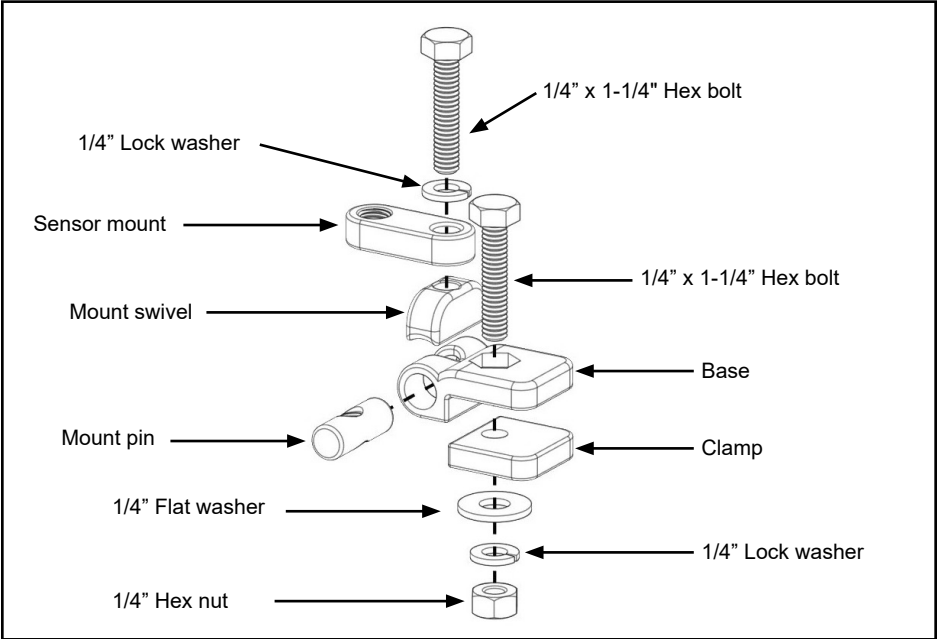
## SAFETY INFORMATION

- Operate tarp with ladder in full upright position.
- Be aware the front and rear arms move during operation. Ensure people and objects are clear of tarp system before and during operation.
- Do not use front or rear arms as a step.
- Always use caution when operating tarp.
- Disconnect power before servicing system or electrical components.
- Ensure tarp is fully open before unloading or loading.
- Do not operate tarp with box hoisted in elevated position.
- If tarp is covered with snow, remove before operating.
- End caps must be free from commodity that may be piled on them. Commodity should not be piled higher than end caps.
- Ensure tarp system is fully open or fully closed before operating vehicle at highway speeds.
- Instruct everyone who will operate this tarp on the proper procedures.
- Do not directly spray electric motor or connections with a pressure washer.
- Always refer to OEM documentation before installing electrical components.

# 1: ASSEMBLING SENSOR

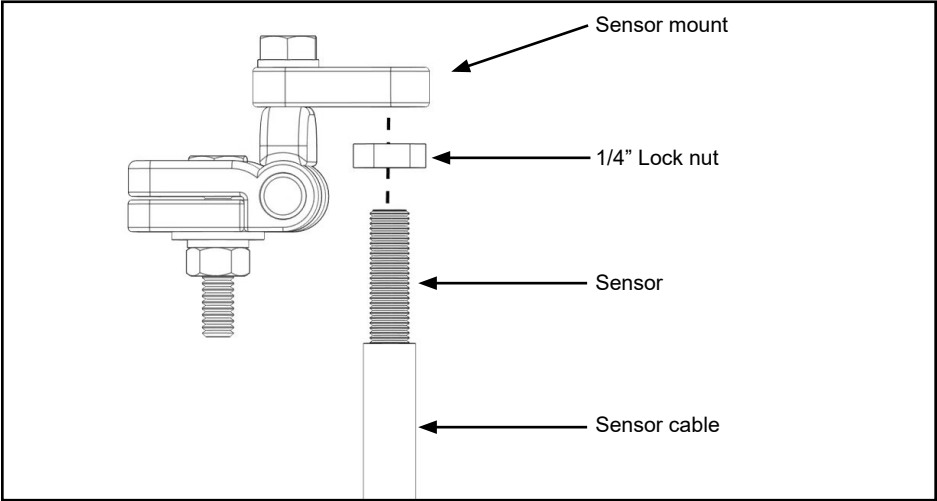
A. Assemble sensor bracket as shown.

B. Leave hex nut and bolts loose for now.



C. Attach sensor to bracket as shown.

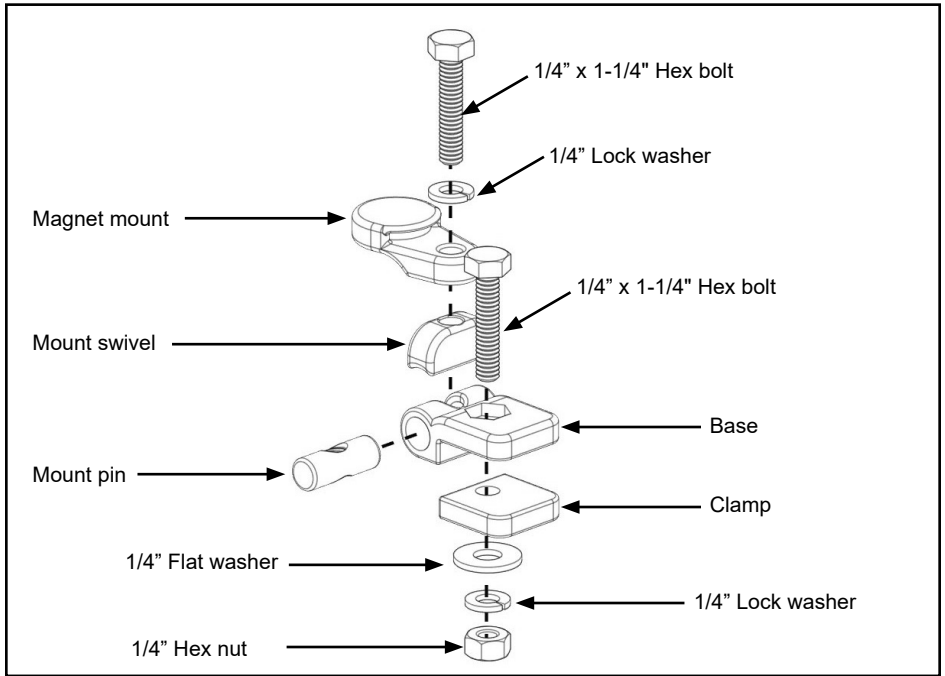
**NOTE:** Lock nut is adjustable to change exposed length of sensor.



## 2: ASSEMBLING MAGNET

A. Assemble magnet bracket as shown.

B. Leave hex nut and bolts loose for now.



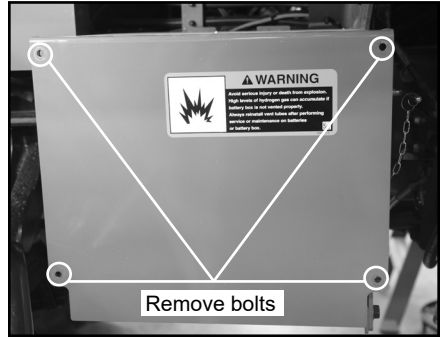
### 3: INSTALLING LIMIT SWITCH

A. Power off machine and disconnect batteries.

**NOTE:** Follow OEM instructions to power off machine and disconnect batteries.



B. At battery compartment remove (4) retaining bolts. Pull cover away from machine to remove.



### 3: INSTALLING LIMIT SWITCH (Continued)

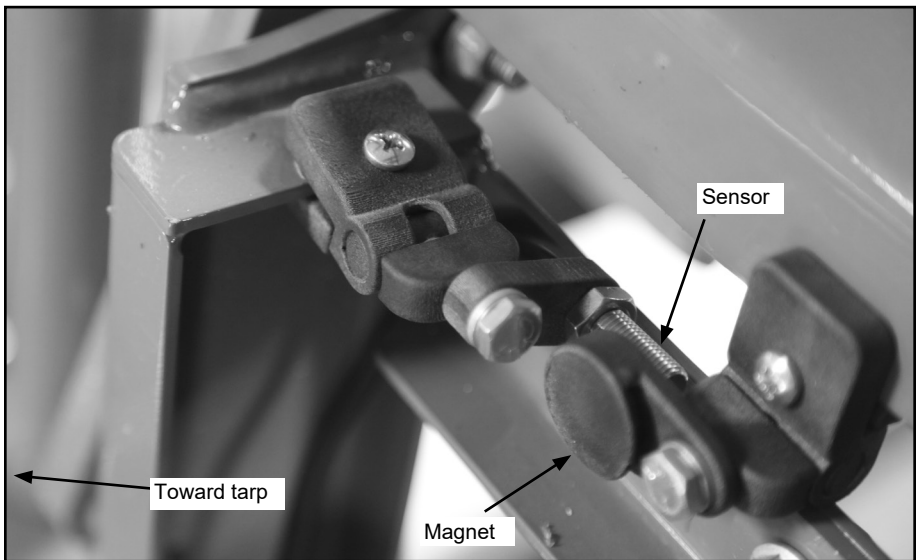
C. Fit sensor and magnet assemblies to meet the following conditions:

- When ladder swivel is upright, magnet is adjacent to sensor.
- When swivel is down, magnet is away from sensor.

**NOTE:** Typically, the sensor is attached to back of ladder, on top of stationary side in a corner. In most cases, magnet is attached on bottom inside of the swivel top.

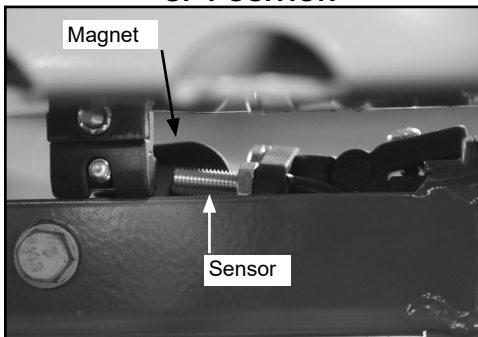
When ladder is swiveled down, magnet moves away from sensor. This causes circuit to open and disables tarp operation.

D. Adjust sensor and magnet until they fit adjacent to each other. Ensure the gap between the sensor and magnet is not over 1/4" and magnet moves freely when swivel is moved to down position.

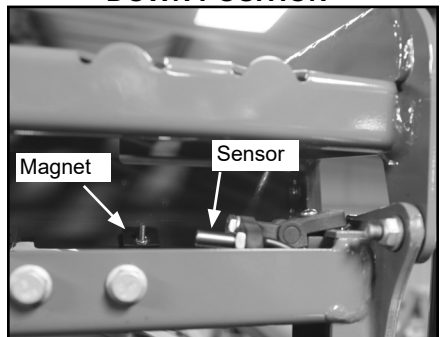


**NOTE:** Images below display the ladder swivel in up and down positions.

**UP POSITION**



**DOWN POSITION**

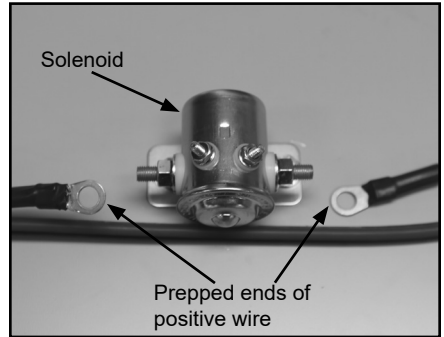


### 3: INSTALLING LIMIT SWITCH (Continued)

E. Route cable into battery housing and then secure with cable ties along machine frame.

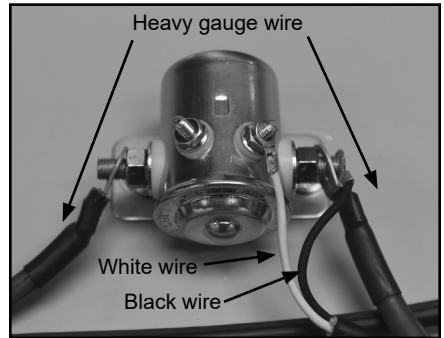
F. Mount solenoid after circuit breaker in a protected area near battery.

G. Split heavy gauge wires at solenoid. Using wire stripper, cut positive heavy gauge wire. Prep ends with terminal rings and heat shrink.



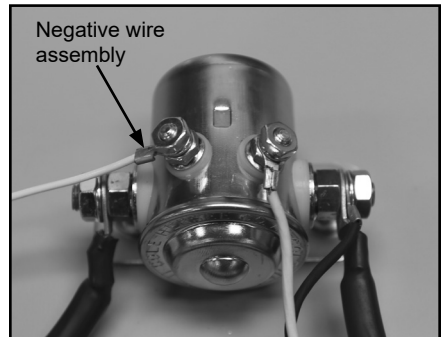
H. Place positive heavy gauge wires onto solenoid, leave loose for now.

I. Place black wire from limit switch assembly on larger terminal post on battery side of relay. Place white wire from limit switch assembly on smaller terminal post on battery side of relay.



J. Place small terminal from negative wire assembly on smaller terminal post on solenoid.

K. Place lock washers on terminal posts and secure with nuts. Hold base nut on solenoid when tightening or loosening nuts.



L. Place opposite end of negative wire assembly on negative battery post and secure.



### **3: INSTALLING LIMIT SWITCH (Continued)**

M. With ladder swivel locked in upright position, open and close tarp. Tarp should open and close without stopping.

N. If limit switch prohibits tarp movement:

- Adjust hardware so sensor and magnet are closer to each other.
- Check sensor cabling.

O. Lower ladder swivel then open and close tarp.

P. The sensor and magnet should separate, causing the limit switch to disable tarp operation.