

# Installation Instructions

## 5544000, 55443300, 5545000, and 5545300 Automatic Tarp Systems

### Section 1 - Installing the Head Assembly

#### 1. Determine the Mounting Location for the Head Assy.

**A.** Mount the Head Assembly on top of the cab shield and as far forward as possible to minimize interference when side loading dump.

**B.** When choosing the location, it will be helpful to visualize a line from the approximate pivot location to the Axle to see if the arms are clear.

**C.** If vertical exhaust stacks are in the way of the ideal location you can choose to shorten or realign the stacks or mount the Head Assembly behind them.

#### 2. Install the DS (left) & PS (right) Mounting Brackets

**A.** Use the included (4) 1/2"-20 x 1" HHCS (Hex Head Cap Screws) and Locknuts.

#### 3. Mount the Gear Motor

**A.** Using (5) 5/16"-18 x 5/8" Button Head Screws (in motor box) to attach the Gear Motor to the DS Mounting Bracket

#### 4. Fit the Aluminum Roller Axle

**A.** Axle will need to be long enough to mount on the Gear Motor and reach up to 1" from the PS Mounting Plate

**B.** Cut the Axle to this length

#### 5. Mount the Gear Motor

**A.** Drill a clearance hole (5/16" Bolt) in the Roller Axle 1" from the end.

**B.** Attach the Gear Motor to the Axle using a 5/16"-18 x 2-3/4" HHCS (Hex Head Cap Screws) and Nylon Locking Nut.

#### 6. Mount Bearing Side the Stub Shaft

**A.** Drill a clearance hole (5/16" Bolt) from the end of the Roller Axle.

**B.** Mount the Stub Shaft to the Axle using a 5/16"-18 x 2-3/4" HHCS (Hex Head Cap Screws) and Nylon Locking Nut.

**NOTE: The long end of the Stub Shaft should be outside the end of the Roller Axle**

#### 7. Mount the Bearing

**A.** Insert the Stub Shaft to the Bearing and attach to the PS Mounting Bracket using (2) 3/8" x 1-1/2" HHCS (Hex Head Cap Screws) and Nylon Insert Locking nuts

#### 8. Install the Wind Deflector

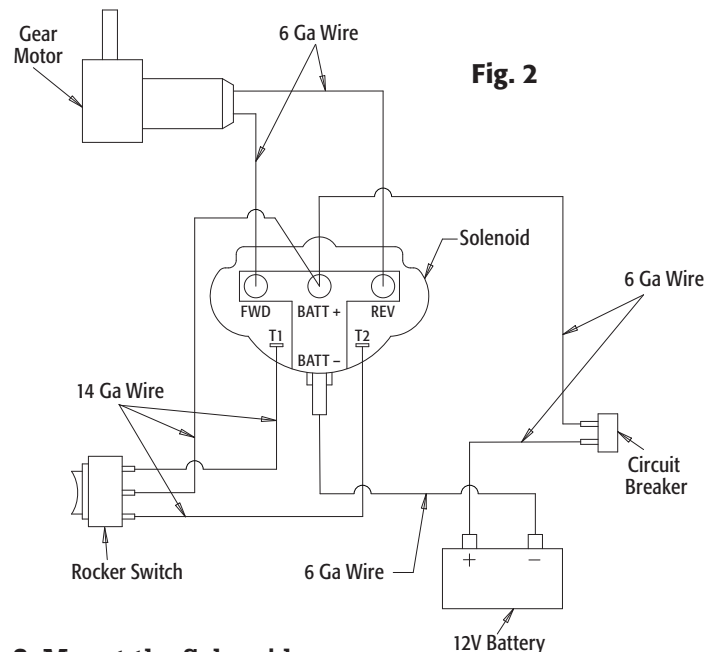
**A.** Cut to fit in between the DS and PS Mounting Brackets

**B.** Attach it using the (8) 1/4"-20 x 1-1/2" Thread Cutting Bolts



### Section 2 - Wiring the System

#### 1. Refer to Fig. 2 for the Wiring Diagram



#### 2. Mount the Solenoid

**A.** Find a location to mount the Solenoid. It should be in a location that will minimize the amount of necessary wire and must be protected from the elements (rain water and road spray)

**B.** Use (2) 1/4"-20 x 1-1/2" HHCS and Flange nuts to mount the Solenoid.

**NOTE: Make sure that the bolt heads are on the backside of the Solenoid as the Cover will be added later.**

#### 3. Wiring the Motor to Solenoid

**A.** Using the 6Ga Wire, (2)5/16"-24 Kepnuts, (2)1/4"-6Ga Ring Terminals and (2)3/8"-6Ga Ring Terminals, Connect the Gear Motor to the Solenoid

#### 4. Wiring the Solenoid and Circuit Breaker

**A.** Using the 6Ga Wire, (1)5/16"-24 Kepnut, and (2)3/8"-6Ga Ring Terminals, loosely connect the Negative Post of the

—continued inside



### WARNING

Failure to follow the wiring diagram could lead to electrical failure of the motor and/or voiding the warranty.

Battery to the Solenoid post labeled "BATT -".

**NOTE: After verifying fit, REMOVE connection from the Battery until the rest of the system is wired.**

**B.** Using the 6Ga Wire, (1)#10-6Ga Ring Terminal, (1)3/8"-6Ga Ring Terminal, and (1)5/16"-24 Kepnut, connect the Circuit Breaker to the "BATT +" post on the Solenoid. Do NOT tighten at this time.

**C.** Using the 6Ga Wire, (1)#10-6Ga Ring Terminal and (1)3/8"-6Ga Ring Terminal, connect the Circuit Breaker to the Positive Post on the Battery

### 5. Installing the Motor Reversing Switch

**A.** Using (2) 1/4"-20 x 1-1/2" HHCS and flange nuts mount the Switch Bracket and Switch to a desired location.

**B.** Using the included 14Ga wire and (4) Female, Push-On Terminals, connect the outside terminals of the Switch to the terminals T1 and T2 of the Solenoid

**C.** Use the 14Ga wire, (1) Female, Push-On Terminal and (1) 3/8"-14Ga Ring Terminal to connect the center terminal of the Switch to the "BATT +" post on the Solenoid. (Loosen the Kepnut already on the post, attach Ring Terminal and fully tighten Kepnut)

### 6. Connecting the Battery and Testing

**A.** Reconnect the Negative Wire to the battery post

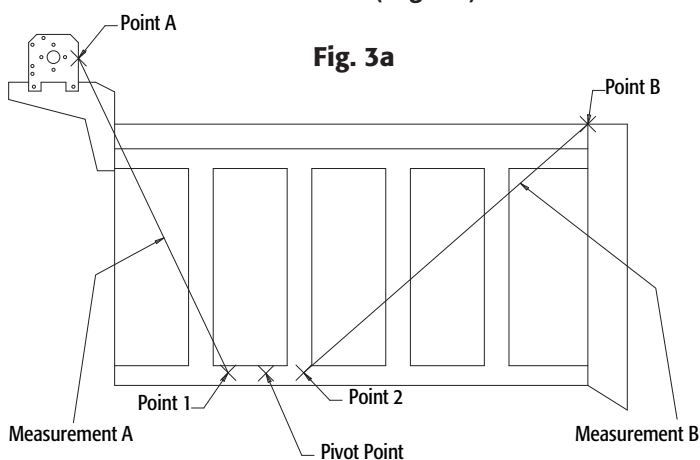
**B.** Test operation of the Switch. If the direction is incorrect, either change the wires on the back of the Gear Motor OR switch the T1 and T2 connections to reverse the rotation.

**C.** Apply Dielectric grease to all electrical connections

**D.** Mount the Protective Cover on Solenoid by loosening the nuts, sliding it on and then tighten to secure in place

## Section 3 - Installing the Tarp Bow

### 1. Determine the Pivot Point (Fig. 3a)



**A.** Measure from Point A to the point on the side rail that is approximately where the pivot point will be. Mark this point(Point 1) and record it as Measurement A.

**B.** From Point B(where you want the tarp to end), use Measurement A to mark this point(Point 2) on the rail.

**C.** Mark your pivot point at 1/2 the distance between Point 1 and Point 2.

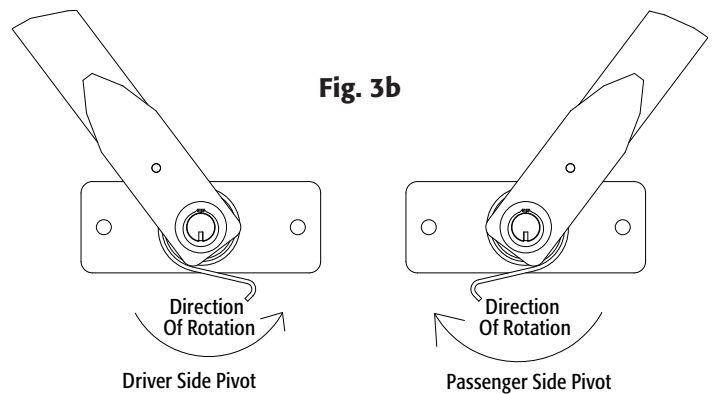
**D.** To mark the pivot point on the other side, measure from the back of the box to the first pivot point and transfer this measurement to the other side.

### 2. Mounting Pivot Assemblies

**A.** Drill one 3/4" hole 4-1/4" on each side of both pivot points. This will give you two holes 8-1/2" apart for mounting the Pivot Assemblies.

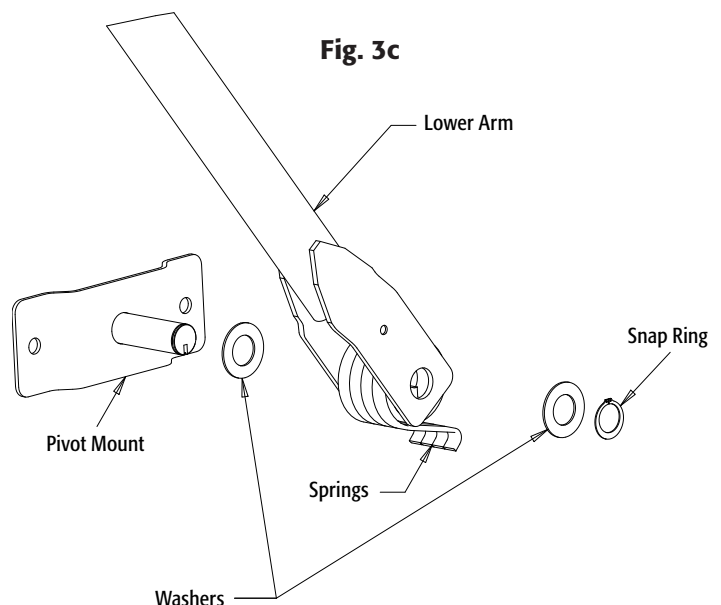
**B.** Using the included 5/8"-11 x 1-1/2" Bolts, Washers, and Locknuts bolt the Pivot Assemblies to the box.

**NOTE: Pivots are directional and must be mounted to their correct sides. Grooves point toward ground. (See Fig. 3b).**



### 3. Mounting the Lower Pivot Assemblies

**A.** Install the Components as shown in Fig. 3c.



### 4. Verify Fit of System

**A.** Rotate Lower Pivot Assemblies so they do not engage the springs and can move freely (This will simplify verification since you will not be working against the spring forces)

**B.** Insert the Corner Connectors into the Upper Arms.

Fasten by drilling a hole through the Upper Arm and Corner Connector and bolting together using the supplied 5/16"-18 x 1-3/4" HHCS and Nylon Locking Nuts.

**C.** Insert one Upper Arm into a Lower Arm

D. Adjust the Upper Arm length until the Corner Connector rests on the desired landing point at the back of the box. If the Upper Arm is too long, cut it to fit. Be sure to maintain at least 24" inside the Lower Arm

E. Cut the other Upper Arm to the same length and insert it on the other side so both Upper Arms are inserted the same amount

F. Cut the Rear Arm to the desired length and fit between Corner Connectors to create a Bow Assembly

G. Swing the Bow Assembly toward the Head Assembly. It should rest in the center of the Head Assembly. Adjust as needed.

H. Swing the Bow Assembly back toward the rear of the truck and verify that the rear resting point is in a desired location and does not interfere with the tailgate operation.

**NOTE: If position is not as desired the Pivot Point may need moved and the verification of fit repeated.**

I. Drill necessary holes to fasten the Corner Connectors and the Rear Arm. Do NOT bolt together at this time.

## Section 4 – Installing the Tarp

### 1. Preparing the System for the Tarp

A. Mark the Position of the Upper Arms so they can easily be returned to the same place without re-measuring.

B. Remove the Upper Arms and Rear Arm

### 2. Preloading the Springs

A. Rotate the pivots so the hooks on the springs clip over the pin inside the assembly. (Fig. 3b)

B. Preload the Springs by rotating the Lower Arms (one at a time) toward the back of the box and until you can reinstall the Upper Arms

C. Install one Arm Guide on each Upper Arm

D. Insert the Upper Arms to the positioning mark and tighten the bolts to secure them in the Lower Arms.

**NOTE: Make sure the springs have hooked over the pin in the Lower Arm Assembly**

### 3. Attaching the Tarp

A. Line up the grommets on the front edge of the tarp with the threaded slot of the Axle

B. Attach the tarp to the Axle using the included 5/16"-18 x 5/8" Button Head Bolts (found in hardware bag)

C. Slide Rear Arm through the pocket in the Tarp

D. Slide (2) Arm Guides on each end of the Rear Arm

E. Reattach the Rear Arm to the Corner Connectors using included 5/16" Bolts

F. Center the Tarp, slide the inner set of Arm Guides against Tarp, tighten Arm Guides to lock Tarp in position

G. Position the remaining Arm Guides as desired and tighten set screws

H. Double check that all fasteners and wire connections are secured and fully tightened and thread lockers are used where needed.

I. Apply antiseize to all metal to metal connections

## Section 5 – General Information & Troubleshooting

### 1. Operation of the Tarp System

A. The Tarp System should only be opened and/or closed when the truck is stationary. Winding or unwinding the Tarp System while the truck is moving may cause damage if the wind catches the tarp or if the Bow Assembly hits trees, power lines, overpasses, bridges, etc.

B. The tarp should always be wound OVER the top of the Axle to prevent foreign materials from being rolled into the tarp and possibly jamming the tarp or causing damage

C. Before operating the Tarp System, be sure that there are no obstructions in the Head Assembly such as debris or ice as this may cause damage to the tarp or cause the breaker to trip.

D. Inspect the Tarp System regularly (daily inspection is recommended) for any issues. Replace any damaged component before operating the Tarp System

### 2. Gear Motor

A. The Gear Motor is a single unit & is only serviced as such.

B. The Gear Motor should not be modified in any way. Any modifications will void the warranty

C. If you believe your Gear Motor has failed, follow these steps before removing it

i. Disconnect the motor wires from the terminals

ii. Test the motor using a fully charged 12V battery & 6Ga or larger jumper cables between the battery & motor terminals (Do NOT leave connected and do NOT use a battery charger)

iii. If the gear motor runs, switch the connections at the motor terminals & perform the same test in the opposite direction

iv. If the Gear Motor does not run in one or both directions then it needs replaced

v. If the Gear Motor runs in both directions then the problem is not the motor and the rest of the System must be checked

1. Look for bad connections or broken wires,

2. Incorrect wire gauge

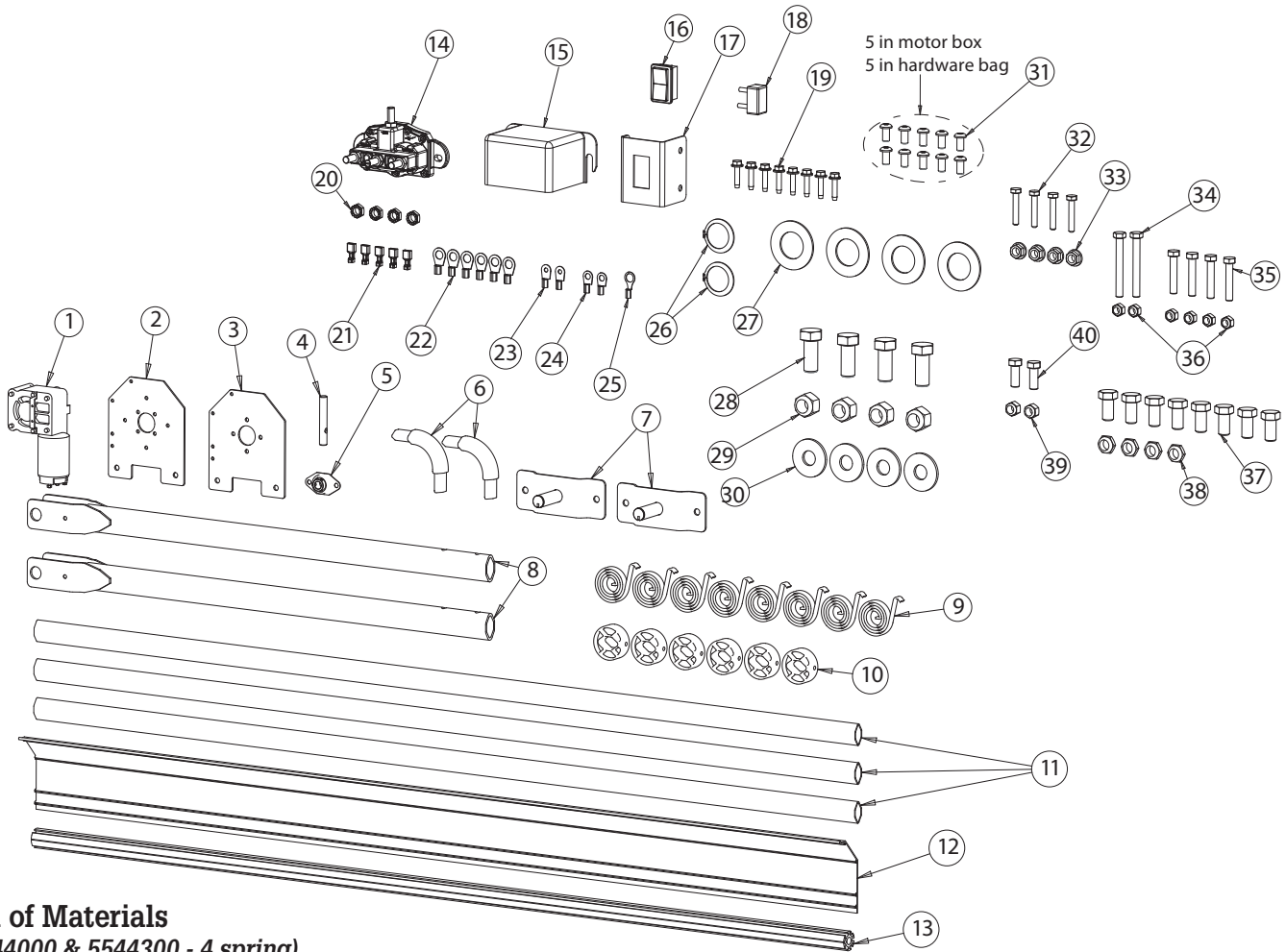
3. Tarp no longer fastened to the Axle

4. Tripped Circuit Breaker

5. Damaged or defective Circuit Breaker, Solenoid, or Switch

### WARRANTY

Buyers Products Co. warrants all truck/trailer hardware manufactured or distributed by it, to be free from defects in material and workmanship for a period of one year from date of shipment. Parts must be properly installed and used under normal conditions. Any product which has been altered, including modification, misuse, accident or lack of maintenance will not be considered under warranty. Normal wear is excluded. The sole responsibility of Buyers Products Co. under this warranty is limited to repairing or replacing any part or parts which are returned, prepaid, and are found to be defective by Buyers Products Co. Authorization from Buyers Products Co. must be obtained before returning any part. No charges for transportation or labor performed on Buyers' products will be allowed under this warranty.



**Bill of Materials**  
 (5544000 & 5544300 - 4 spring)  
 (5545000 & 5545300 - 5 spring)

ITEM	PART NO.	QTY.	DESCRIPTION
1	5541095	1	Gear Motor, 1yr. Warranty
	5543095	1	Gear Motor, 3yr. Warranty
2	3011874	1	DS Mounting Bracket
3	3011873	1	PS Mounting Bracket
4	3012785	1	Stub Shaft
5	3012784	1	Bearing
6	3011866	2	Corner Joint
7	3012084	2	4 Spring Pivot Assemblies
	3012781	2	5 Spring Pivot Assemblies
8	3012085	2	4 Spring Lower Arm Assemblies
	3012788	2	5 Spring Lower Arm Assemblies
9	3011876	8/10	Springs
10	3012786	6	Arm Guides
11	3011869	3	Upper and Rear Arms
12	3011871	1	Wind Deflector
13	3011870	1	Aluminum Roller Axle
14	1306600	1	Solenoid
15	3014186	1	Solenoid Cover
16	3014187	1	Rocker Switch
17	3014188	1	Switch Bracket
18	3014214	1	4 Spring Circuit Breaker
	CB60	1	5 Spring Circuit Breaker
19	3014109	8	1/4"-20 x 1" Thread Cutting Screw
20	3014222	4	5/16"-24 Kep Nut
21	3008037	5	16-14 Ga, Female Push-On Terminal
22	3014209	6	3/8" - 6 Ga, Ring Terminal

ITEM	PART NO.	QTY.	DESCRIPTION
23	3014210	2	#10 - 6 Ga, Ring Terminal
24	3014211	2	1/4" - 6 Ga Ring Terminal
25	3014212	1	3/8" - 16-14 Ga, Ring Terminal
26	-	2	Snap Ring
27	-	4	Spring Pivot Washer
28	-	4	5/8"-11 x 1.5" HHCS
29	-	4	5/8"-11, Nylon Locking Nut
30	-	4	5/8" Flat Washer
31	-	10	5/16"-18 x 5/8" Button Head Screw
32	-	4	1/4"-20 x 1-1/2" HHCS
33	-	4	1/4"-20 Serrated Flange Nut
34	-	2	5/16"-18 x 2-3/4" HHCS
35	-	4	5/16"-18 x 1-3/4" HHCS
36	-	6	5/16"-18, Nylon Locking Nut
37	-	8	1/2"-20 x 1" HHCS
38	-	4	1/2"-20, Nylon Locking Nut
39	-	2	3/8"-16, Nylon Locking Nut
40	-	2	3/8"-16 x 1" HHCS

**NOT SHOWN**

-	3012783	1	60FT - 6 Ga, Dual Conductor Wire
-	3014217	1	20FT - 14 Ga, 3-Conductor Wire

**OPTIONAL KITS - Sold Separately**

-	5540710	1	Rotary Switch Kit
-	3014230	1	30° Elbow Kit