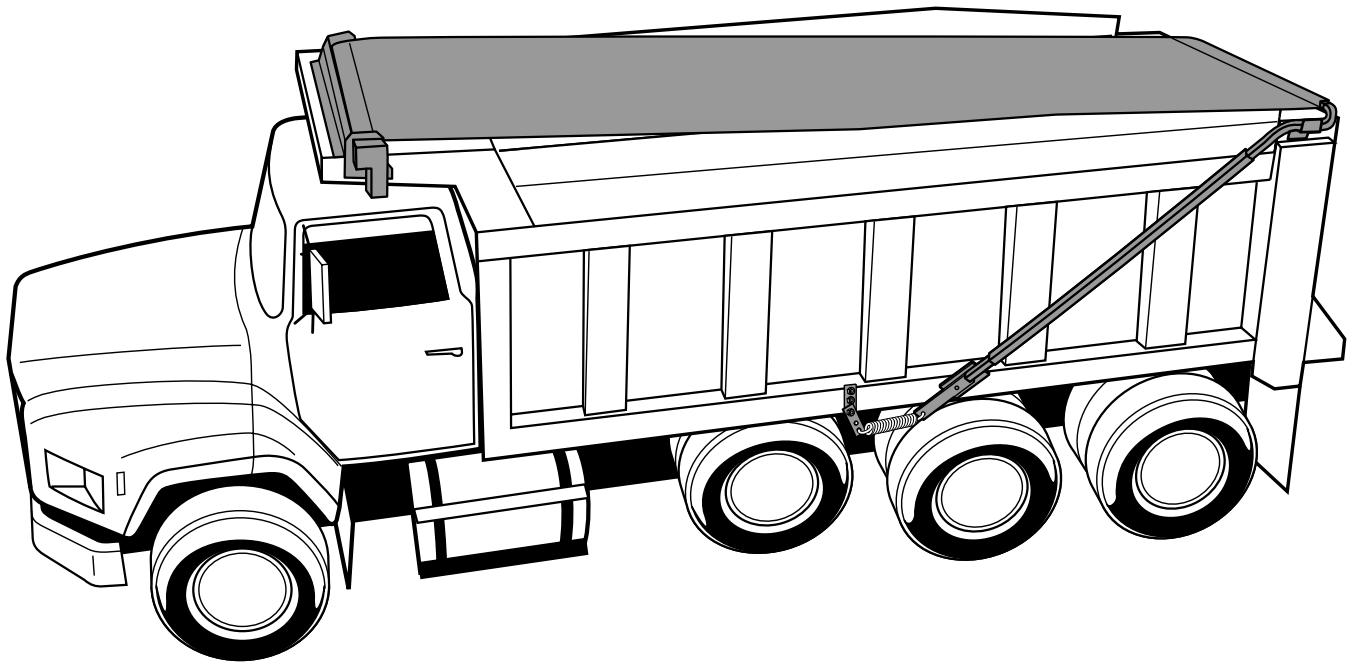


Economy Easy Cover

Model 50 VI.0

Installation, Maintenance,
and Safety Instructions



Attention Dealers:
Please give this manual to
the customer when the
product is delivered.

Indianapolis, IN • Omaha, NE • Hamburg, PA • Streetsboro, OH • Burlington, Ontario (800) 535-9545

 **Aero**
Industries, Inc.

Economy Easy Cover



Economy Easy Cover

Important: This manual explains how to install, operate, and maintain the Model 50 Economy Easy Cover. Before installing or operating the Easy Cover, read the entire manual.

Three kinds of special explanations will appear throughout the manual. These are Warning, Caution, and Note. Be sure to read and follow them.

⚠ Warning: Possible danger to the operator or a bystander. The operator or bystander could be injured if you ignore this information.

CAUTION: Risk to the product. If you ignore this information, the Easy Cover or the truck could be damaged.

Note: Contains additional information about a feature or step critical to the operation of the cover.

STEP 1

How to Install the Motor Assembly

Parts you will need:

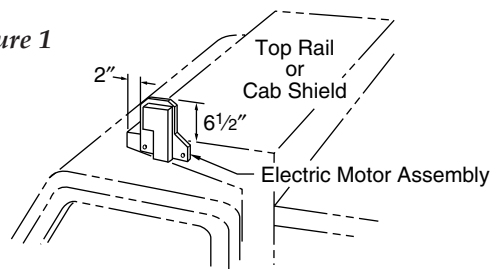
- Electric motor assembly (1)
- $\frac{3}{8}$ " x 1 $\frac{1}{2}$ " bolts (2)
- $\frac{3}{8}$ " nylon insert nuts (2)
- $\frac{3}{8}$ " flat washers (2)

Note: If the electric motor assembly does not set squarely against the top rail, use shims to square the plate. Shim material is not included in the assembly package.

⚠ Warning: Before installing the electric motor assembly, visually check the path of the swing arms so they do not obstruct the door or create a hazard to the operator. The swing arms will come to the rear edge of the electric motor assembly.

1. Remove the electric motor assembly cover.
2. Make a pencil mark 2" back from the front of the top rail (or cab shield). (See Figure 1)

Figure 1



3. Align the forward edge of the electric motor assembly with the pencil mark, and position its top edge 6 $\frac{1}{2}$ " above the top rail.

4. Mark the two mounting holes on the top rail. Remove the electric motor assembly.
5. Drill two $\frac{13}{32}$ " holes through the top rail where marked.
6. Bolt the electric motor assembly in place with the $\frac{3}{8}$ " x 1 $\frac{1}{2}$ " bolts, nuts, and washers.
7. Replace electric motor assembly cover.

STEP 2

How to Install the Passenger Side Mounting Plate and Roll-up Bar

Parts you will need:

- Passenger side mounting plate (1)
- Roller bar (1)
- $\frac{3}{8}$ " x 1 $\frac{1}{2}$ " bolts (3)
- $\frac{3}{8}$ " nylon insert nuts (3)
- $\frac{3}{8}$ " flat washers (3)
- $\frac{1}{4}$ " x 1 $\frac{1}{4}$ " bolt (1)
- $\frac{1}{4}$ " nylon insert jam nut (1)

Note: If a mounting plate does not set squarely against the top rail, use shims to square the plate. Shim material is not included in the assembly package.

1. Refer to figure 1. Make a pencil mark 2" from the front of the top rail (or cab shield).

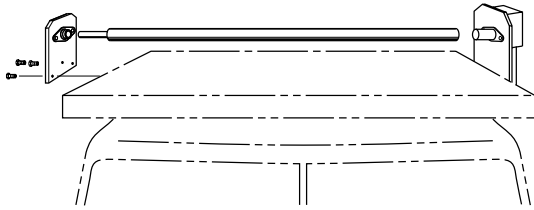
Note: Make sure the center of the bearing on the passenger side mounting plate is the same distance from the front of the cab shield as the center of the crank assembly shaft.

2. Align the forward edge of the passenger side mounting plate with the pencil mark, and position its top edge 6 $\frac{1}{2}$ " above the top rail. Make sure the bearing is facing inward.
3. Mark the three mounting holes on the top rail. Remove the mounting plate.
4. Drill three $\frac{13}{32}$ " holes through the top rail where marked.
5. Measure the distance between the inside of the crank plate and the inside of the passenger side mounting plate. It must be a minimum of 94". If it is less than 94", cut tube 4" less than measurement on open end of roll-up bar.

Economy Easy Cover

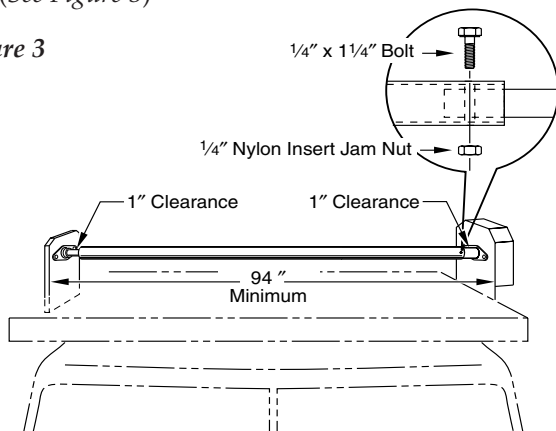
6. Insert the passenger side roll-up bar through the bearing on the passenger side mounting plate. Slide this roll-up bar into the driver's side shaft until the passenger side mounting plate can be bolted on to the truck. (See Figure 2)

Figure 2



7. Bolt the passenger side mounting plate to the truck. Be sure to maintain a 1" clearance from the bearing. Drill $\frac{1}{4}$ " hole through roll-up bar and crank shaft. Fasten with $\frac{1}{4}$ " nut and $\frac{1}{4}$ " x $1\frac{1}{4}$ " bolt. (See Figure 3)

Figure 3



8. Tighten the bearing set screws on the passenger side.

STEP 3

How to Install the Tension Spring Assembly

Parts you will need:

- Lower swing arms (2)
- Swing arm inserts (2)
- Extension brackets (2)
- Spring mounting brackets (2)
- Tension springs (2)
- $\frac{1}{2}$ " x $2\frac{1}{2}$ " bolts (2)
- $\frac{1}{2}$ " nylon insert nuts (2)
- $\frac{1}{2}$ " flat washers (8)
- $\frac{3}{8}$ " x $1\frac{1}{2}$ " bolts (6)
- $\frac{3}{8}$ " nylon insert nuts (6)
- $\frac{3}{8}$ " flat washers (12)

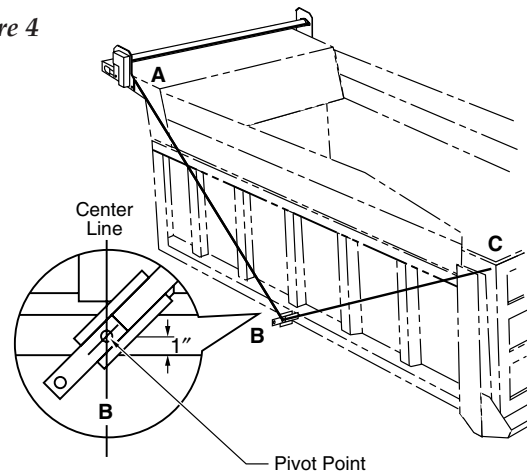
Note: Refer to Figure 4. Notice that the tension spring assembly (B) is one point of a triangle. The other two points (A and C) are on the top of the truck. The two downward-pointing legs of the triangle must be the same length. These steps will make sure that the two legs are equal.

1. Mark the rear edge of the crank assembly or mounting plate in line with the tarp roll-up bar on the driver's side and passenger side. Mark these points and call them A.
2. Determine where you want the rear of the tarp to be when it fully covers the box. Mark these points on both sides of the box and call them C.
3. Find a point at the side of the box that is the same distance from A and C. This is point B, where the tension spring assembly will be mounted. Mark this point on both sides. Once point B center line is marked, measure 1" up from the bottom of the box body and mark.

Note: If box body construction does not allow you to thread nuts on from the interior wall, refer to alternate instructions on figure 7.

4. Drill $\frac{1}{2}$ " hole where center line (point B) and 1" mark intersect. (See Figure 4)

Figure 4

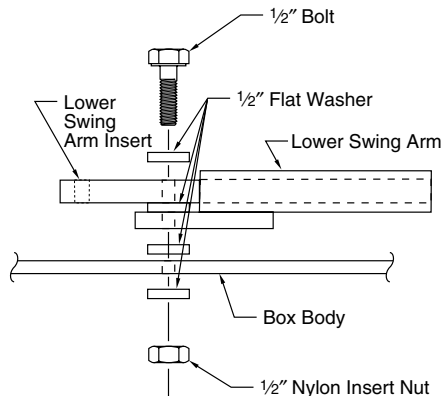


5. Slide swing arm insert bar into lower swing arm aligning $\frac{1}{2}$ " holes. Position one $\frac{1}{2}$ " washer in between swing arm insert and lower swing arm. Insert one $\frac{1}{2}$ " x $2\frac{1}{2}$ " bolt and washer into arm and through $\frac{1}{2}$ " hole in box body. Use washer on each side of bolt. Thread $\frac{1}{2}$ " nylon insert nut on other side and secure. (See Figure 5)

Note: Do not overtighten, lower swing arm must be able to pivot freely.

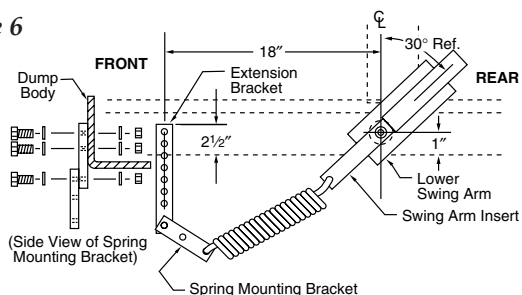
Economy Easy Cover

Figure 5



- Place one extension bracket into position and clamp, bracket must be 90° of bottom rail. Mount bracket as low as possible. (Leave clearance for tires.) Drill two 3/8" holes through box body and use 3/8" lock nuts, 3/8" x 1 1/2" bolts and washers, and secure tightly. (See Figure 6)

Figure 6

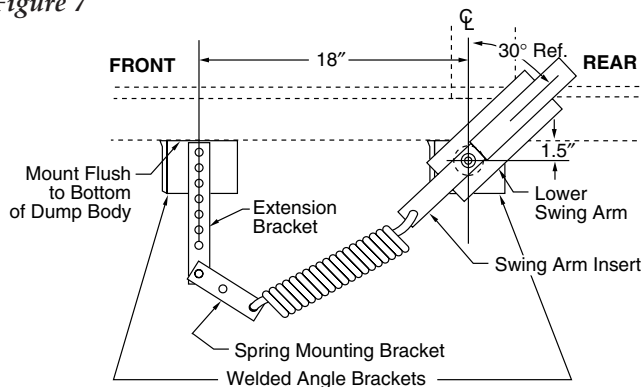


- Bolt second spring mounting bracket to first spring mounting bracket using 3/8" lock nuts, 3/8" x 1 1/2" bolts and washers.

Note: Do not overtighten. Mounting bracket must be able to pivot freely.

- Position tension spring as shown.
- Repeat on passenger side of box body.

Figure 7



STEP 4

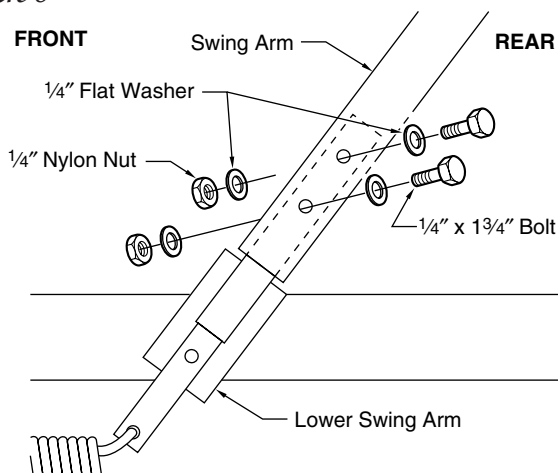
How to Install the Swing Arms

Parts you will need:

- Swing arms (2)
- 1/4" x 1 3/4" bolts (4)
- 1/4" nylon insert nuts (4)
- 1/4" flat washers (8)

- Place a swing arm on the driver's side lower swing arm assembly shaft. Be sure that the arm is in the rear position. (See Figure 8)

Figure 8



- Insert 1/4" x 1 3/4" bolts, nuts, and washers into holes as shown and tighten securely.
- Repeat steps 1 & 2 on the passenger side.

Note: On rare occasions, the tension spring assembly may not have enough tension to pull the tarp to the rear of the truck. Test the completed tarp system. If the tension is not sufficient, increase distance from pivot point to spring mounting bracket 16" to 18".

Economy Easy Cover

STEP 5

How to Install the Tarp, Cross Arm, and Connecting Arms

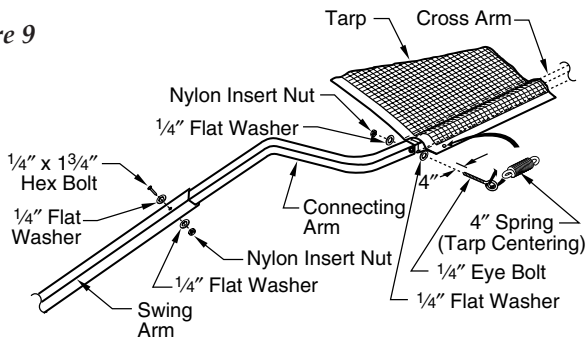
Parts you will need:

- Tarp (1)
- Cross arm (1)
- Connecting arm, driver's side (1)
- Connecting arm, passenger side (1)
- 4" tarp-centering springs (2)
- 1/4" x 1 3/4" hex bolts (2)
- 1/4" x 3/4" self-tapping Phillips screws (6)
- 1/4" x 1 1/2" eye bolts (2)
- 1/4" nylon insert nuts (4)
- 1/4" flat washers (8)

Note: The driver's side and passenger side connecting arms can be interchanged to provide greater clearance with the box. Each connecting arm has a different part number. Before ordering replacement parts, double-check the part number. (See the assembly drawing at the back of the manual).

1. Feed the cross arm through the pocket in the rear of the tarp. (See Figure 9)

Figure 9

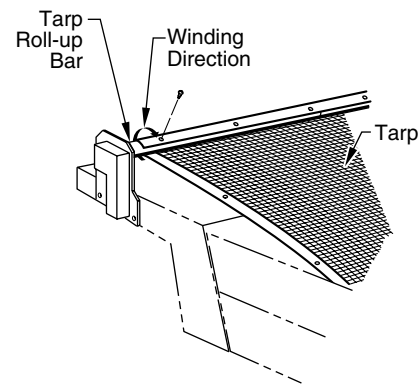


2. Raise the connecting arms to the top of the tailgate and slide the ends into the cross arm.
3. Slide both connecting arms into the swing arms.
4. Square the tarp and the rear cross bar with the top of the tailgate.
5. Drill a 9/32" hole through each swing arm and connecting arm.
6. Fasten the swing arms to the connecting arms with 1/4" x 1 3/4" hex bolts.
7. Center the tarp from side to side on the rear cross bar.

8. Measure 4" from the edge of the tarp on both sides. Drill a 9/32" horizontal hole through the connecting arm and the cross arm. *Do not drill through the tarp.*
9. Fasten the arms with eye bolts, washers, and nylon nuts. (Refer to Figure 9)
10. Attach the spring to the grommet in each corner of the tarp and to the eye bolt. Crimp the ends of the springs.
11. Pull the loose end of the tarp under the tarp roll-up bar, winding from the underside. Make sure the tarp is centered from side to side. (See Figure 10)

CAUTION: The tarp must be rolled from underneath, for the cranking system to operate.

Figure 10



12. Mark the tarp roll-up bar for screw placement using the grommets in the tarp as a guide.
13. Drill six 7/32" holes through one wall of the roll-up bar tube.
14. Fasten the tarp to the roll bar with 1/4" x 3/4" self-tapping Phillips screws.

STEP 6

How to Install the Swing Arm Brackets

Parts you will need:

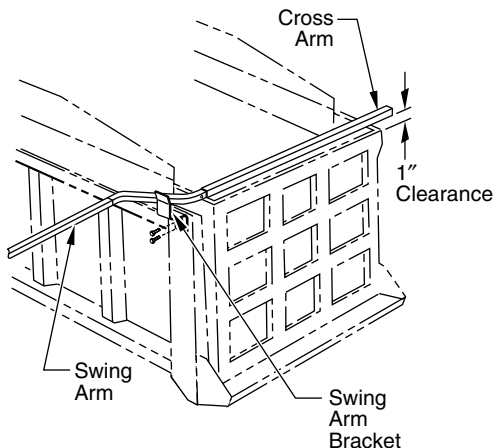
- Rear swing arm brackets (2)
- 5/16" x 1" self-tapping screws (4)
- 5/16" lock washers (4)

Note: The swing arm rear brackets keep the tarp from striking or rubbing the rear of the box when the tarp covers the load.

Economy Easy Cover

1. Decide where to place the swing arm brackets by using the brackets to push the cross arm slightly upward off of the tailgate (approximately 1"). Mark the location of the bracket. (See Figure 11)

Figure 11



2. Drill two $\frac{9}{32}$ " holes. Fasten the bracket in this location using $\frac{5}{16}$ " self-tapping screws and lock washers. Swing the cross arm down to double-check that the tarp is clear of the box.

CAUTION: Do not allow the cross arm to rest on the box or extend over the rear of the box. This will cause premature failure of the tarp.

STEP 7

How to Install the Electrical Controls

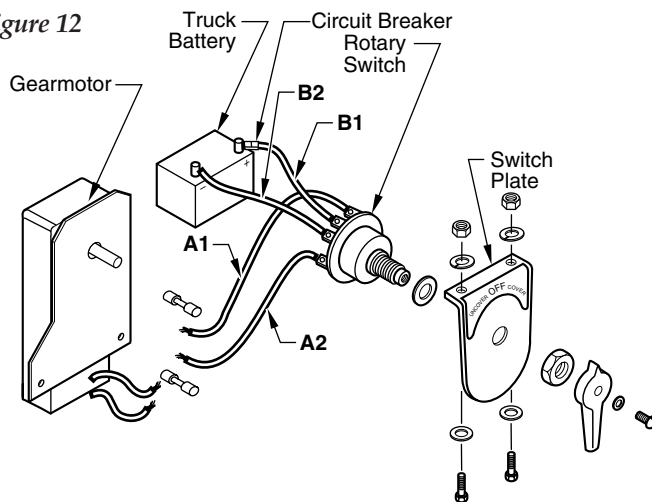
Parts you will need:

- Rotary switch package (1)*
- #6 x #10 wire connectors (5)*
- #6 x $\frac{3}{16}$ " wire connectors (1)*
- #6 wire*
- Circuit breaker (1)*
- #10 x $\frac{3}{4}$ " HWH screws (12)*
- Metal loom clamps (12)*
- Butt connectors (2)*
- $\frac{1}{4}$ -20 nylon insert nuts (2)*
- $\frac{1}{4}$ " flat washers (4)*
- $\frac{1}{4}$ -20 x $\frac{3}{4}$ screws (2)*
- Wiring diagram (1)*

Note: Failure to properly install and use the circuit breaker will void all motor warranty. Some motors have threaded contact stubs in place of head wires. Reference wiring diagram for additional information on wiring.

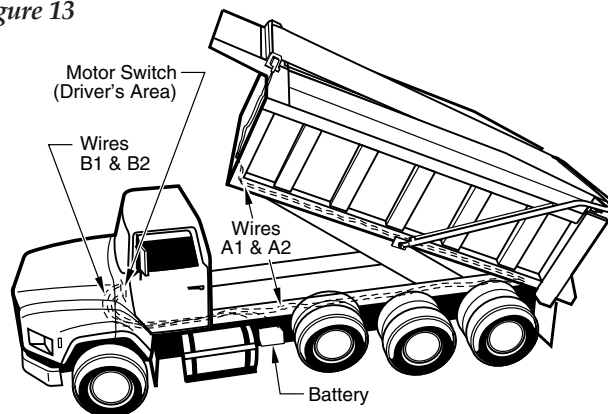
1. Peel decal and place on the switch plate. (See Figure 12)

Figure 12



2. Find a convenient place, on the driver's side under the dashboard, to mount the switch plate. Using the switch plate as a template, mark and drill two holes for the sheet metal screws.
3. Mount the switch plate using the two sheet metal screws.
4. Remove the switch handle and fastening nut from the rotary switch. Pass the rotary switch's operating shaft through the hole in the switch plate from behind the plate. Replace the nut and tighten it to secure the switch to the plate. Replace the switch handle.
5. Measure the wiring distance from the gearmotor to the pivot point of the box, then from the pivot point through the truck body to the switch in the cab. If possible, run the wiring along an existing wiring harness. Add about 6 inches to this figure. Cut two pieces of #6 wire to this length. Mark one wire "A1", and mark the other wire "A2." (See Figure 13)

Figure 13



Economy Easy Cover

6. Run the wiring from the gearmotor to the rotary switch, through the same places existing wiring runs, and secure using metal loom clamps and screws provided. Make sure to protect the wiring throughout its entire length, so that no piece of wiring is left exposed.

7. Fasten the two gearmotor leads to the ends of wire A1 and A2. This connection should be made with the two butt connectors.

Note: Some motors have threaded contact studs in place of head wires. Reference wiring diagram for additional information on wiring.

8. Fasten #6 x #10 wire lugs onto the switch ends of A1 and A2. Attach these two lugs to the marked terminals of the rotary switch.

9. Measure the wiring distance between the rotary switch and the truck's battery. If possible, run the wiring along an existing wiring harness. Add about 6 inches to this figure. Cut two pieces of #6 wire to this length and mark them "B1" and "B2".

10. Run wires B1 and B2 to the truck's battery.

11. Fasten #6 x #10 wire lugs to the switch ends of wires B1 and B2. Connect these ends to the marked terminals on the rotary switch.

12. Loosen the wire connections at the battery.

13. Fasten a #6 x #10 wire lug to the battery end of wire B1 and fasten another #6 x $\frac{3}{8}$ " lug to wire B2.

Note: Wire B1 to be connected to positive on battery, and wire B2 to be connected to negative on battery.

14. Connect the end of the circuit breaker with the $\frac{3}{8}$ " hole to the positive post of the battery. Tighten the battery connection.

15. Connect wire B1 to the other end of the circuit breaker.

16. Connect wire B2 to the negative side of the battery. Retighten the wire connections to the battery.

CAUTION: Since wires A1 and A2 are shorted when the rotary switch is in the **OFF** position, it is vital that the wires be connected properly to the switch, to avoid shorting B1 and B2.

17. To test direction, momentarily flip the rotary switch to "Cover". The tarp roll-up bar should turn counter-clockwise, viewed from the driver's side. Let the switch return to center position. If the direction is not correct, reverse the wire connections at the gearmotor.

STEP 8

How to Install the Wind Deflector (Optional)

Parts you will need:

Wind deflectors (2)

$\frac{1}{4}$ " x $\frac{3}{4}$ " machine screws (2)

$\frac{1}{4}$ " nylon insert nuts (2)

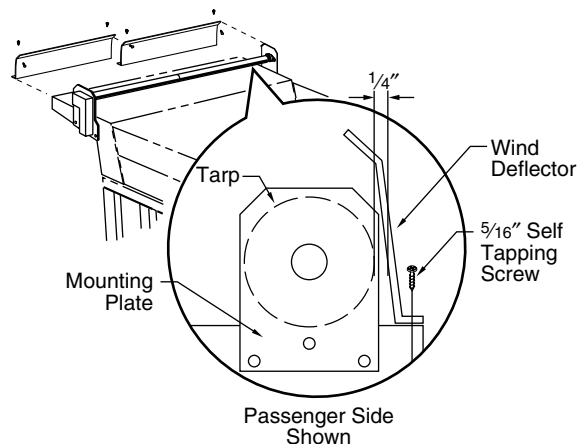
$\frac{5}{16}$ " self-tapping screws (5)

$\frac{5}{16}$ " lock washers (5)

Note: If you are mounting the deflector somewhere other than across the front edge of the cab shield, you will have to place a support under the wind deflector to support the center of the deflector as well as to prevent air from getting under the tarp. Support is not included in the assembly package.

1. Make sure dump is uncovered and tarp is wound around roll-up bar. Place one deflector on the passenger side. Position deflector so there is $\frac{1}{4}$ " gap between deflector and tarp. Back the deflector up until it rests against the passenger side mounting plate (this provides support to the deflector). Fasten to cab shield with two $\frac{5}{16}$ " screws and lock washers provided. (See Figure 14)

Figure 14



2. Place the other deflector on the driver's side overlapping the passenger side deflector. Fasten to the cab shield maintaining a $\frac{1}{4}$ " clearance between tarp and deflector with three $\frac{5}{16}$ " screws and lock washers. Where the two deflector plates meet, fasten the two deflectors together at the top and the center with the $\frac{1}{4}$ " x $\frac{3}{4}$ " screws and keps nuts to support the center.







Economy Easy Cover

How to Operate the Tarp System

1. Turn the rotary switch to the “Uncover” position. The tarp should move toward the cab.
2. To reverse the tarp operation, turn the switch to the “Cover” position.






Note: When the tarp is completely covering the load, crank it slightly towards the front to take up any slack in the tarp which will help eliminate tarp ballooning in the wind.

Safety Considerations

-  **Warning:** Do not leave the switch on in the “Uncover” position after the tarp has come all the way forward. Tripping of circuit breaker or damage to motor can occur.
-  **Warning:** Never operate the tarp system under obstructions, such as trees or power lines.
-  **Warning:** Always check to make sure that no one is at the rear of the box or in the immediate area of the tarp as it operates. Keep everyone clear of the area.
-  **Warning:** Make sure that all safety guards are in place before operating the tarp system.
-  **Warning:** Keep all clothing clear of moving parts.
-  **Warning:** Be sure that your working platform is secure as you work on the truck. Use OSHA approved ladders or scaffolding to work above ground level.

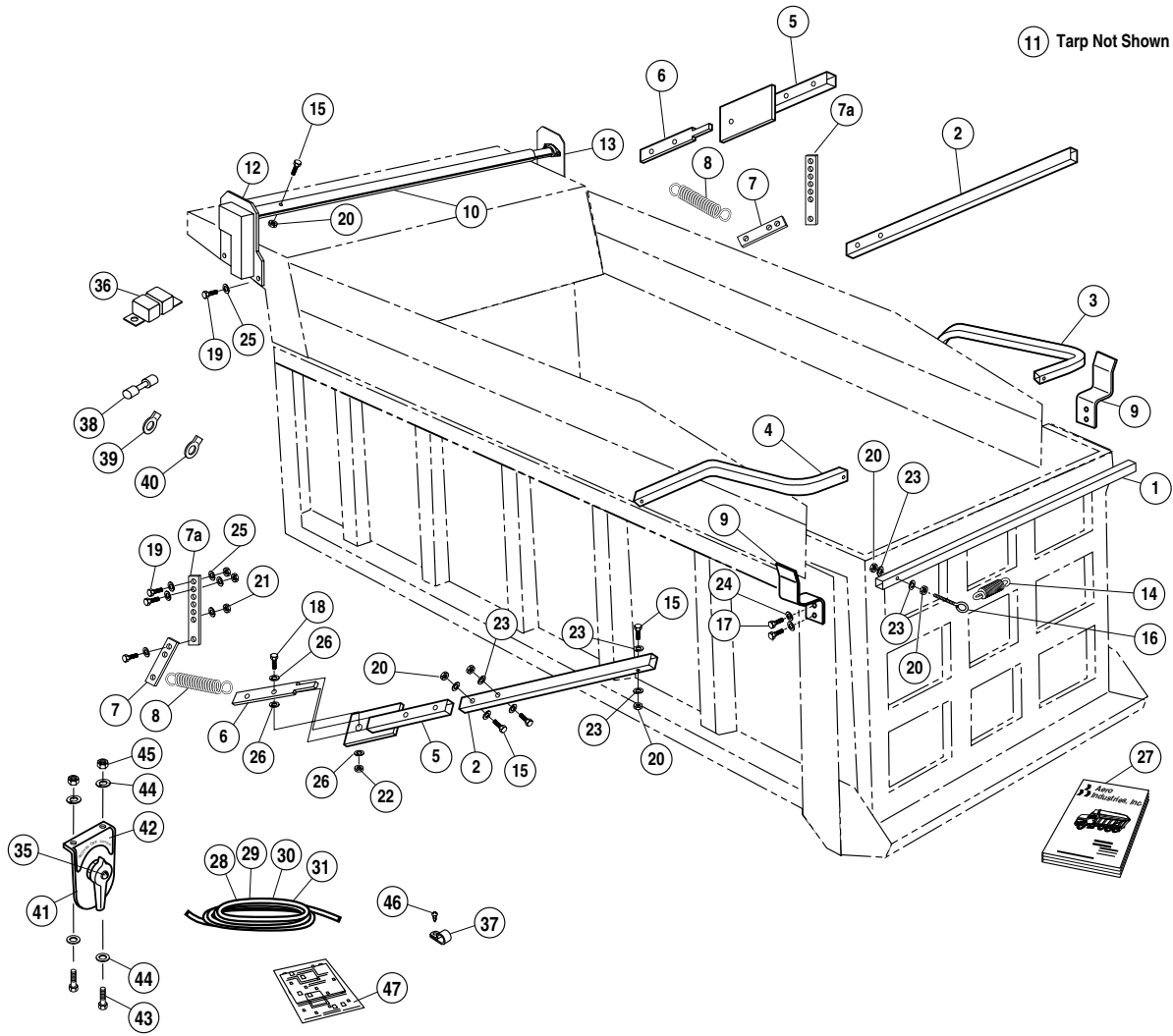
How to Maintain the Easy Cover

Minimal maintenance is required for the Easy Cover. Individual usage and operating conditions will determine when to check the Easy Cover. Aero Industries recommends a weekly inspection of the following items:

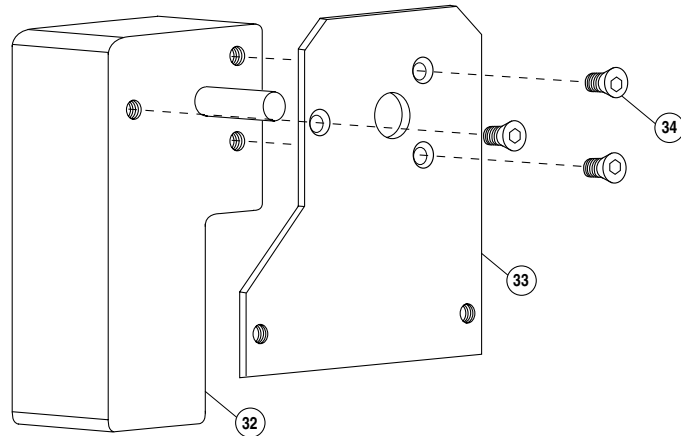
-  **Bearings:** Pull the shafts from side to side and in and out. If there is excessive play, replace the bearings. Lubricate as often as necessary with penetrating oil. Operating conditions will determine how often to lubricate. Do not use an excessive amount of lubricant.
-  **Chain and Springs:** Check the chain for a broken master link and for excessive stiffness. Lubricate the chain regularly with a penetrating oil. Examine springs for breakage or stretching. Lubricate the tension springs with penetrating oil as often as conditions dictate.
-  **Screws:** Make sure that all mounting bolts and screws are in place and tight and that no parts are worn or damaged.
-  **Electrical Connections:** Check all electrical connections and tighten any that have become loose.
-  **General:** Replace all worn or broken parts immediately.

Replacement parts may be obtained from the dealer or by contacting Aero Industries.

Economy Easy Cover



Electric Motor Assembly #0311-962821



Economy Easy Cover

No. Part No. Description Qty.			Electrical Hardware Package #0311-962531			
No. Part No.	Description	Qty.	No. Part No.	Description	Qty.	
1	0311-862822	Cross Arm	1			
2	0311-862823	Swing Arm	2			
3	0311-862828	Connecting Arm P.S.	1			
4	0311-862829	Connecting Arm D.S.	1			
5	0311-962800	Lower Swing Arm	2			
6	0311-862801	Swing Arm Insert	2			
7	0311-862830	Spring Mounting Bracket	2			
7a	0311-862860	Extension Bracket	2			
8	0715-619305	Underbody Spring	2			
9	0311-960249	Swing Arm Saddle	2			
10	0311-962521	Roll-up Bar	1			
11		Tarp - not pictured	1			
12	0311-962821	Electric Motor Assembly	1			
13	0311-962805	Mounting Plate	1			
14	0715-619601	Spring Tension 4" -2	2			
15	0810-650473	Bolt HHCS 1/4" -20 x 2"	10			
16	0810-650915	Bolt Eye 1/4 -20 x 1 1/2"	2			
17	0810-650510	Bolt 5/16" x 1" Type F	12			
18	0810-650602	Bolt HHCS 1/2" -13 x 2 1/2"	2			
19	0810-670660	Bolt HHCS 3/8" -16 x 1 1/2"	16			
20	0815-660451	Nut Hex Nylon Lock 1/4" -20	12			
21	0815-660660	Nut Hex Nylon Lock 3/8" -16	16			
22	0815-660855	Nut Hex Nylon Lock 1/2" -13	2			
23	0820-680410	Washer Flat 1/4"	24			
24	0820-680520	Washer Split Lock 5/16"	4			
25	0820-680620	Washer Flat 3/8"	32			
26	0820-680810	Washer Flat 1/2"	6			
27	0930-861808	Installation Manual	1			
28	0755-626511	#6 Wire - 100 Feet	1			
29	0755-626512	#6 Wire - 125 Feet	1			
30	0755-626513	#6 Wire - 145 Feet	1			
31	0755-626514	#6 Wire - 185 Feet	1			
			35	0755-623456	Switch Rotary	1
			36	0755-623501	Circuit Breaker 40 Amp	1
			37	0850-603756	Metal Loom Clamp	12
			38	0755-626500	Butt Connector #6 Wire To #10	2
			39	0755-626507	Ring Terminal #6 Wire to #10 Screw	6
			40	0755-62503	Ring Terminal #6 To 3/8" Screw	2
			41	0755-619511	Switch Mounting Bracket	1
			42	0920-590400	Switch Bracket Decal	1
			43	0810-600004	Screw Hex Head 1/4-20 x 3/4" Zinc	2
			44	0820-680410	Washer Flat 1/4" Zinc	4
			45	0815-660451	Nut 1/4-20 Nylon Insert	2
			46	0825-670551	Screw PPH 1/4-20 x 3/4" Type F Zinc	12
			47	0930-861612	Wiring Diagram	1

Electric Motor #0311-962821

No. Part No.	Description	Qty.	
32	0755-623420	Motor	1
33	0311-860757	Mounting Plate Model 050	1
34	0825-650885	Screw FHSCS	1

You're Covered With Aero!

WARRANTY

Aero products come with a one year warranty on all parts. It's another example of our ongoing commitment to customer satisfaction and quality.

CUSTOMER SERVICE

1-800-535-9545

Our customer service technicians are trained to help you. Whether it's ordering, installation, or just general information on our products, you can count on expert advice from Aero.

© 2002 AERO INDUSTRIES, INC

0930-861808

03/12/02



INDIANAPOLIS, IN
3010 W. Morris Street
Indianapolis, IN 46221
(800) 535-9545
FAX (317) 244-1311

OMAHA, NE
10308 South 144th St.
Omaha, NE 68138
(800) 535-8552
FAX (402) 895-6129

HAMBURG, PA
2nd & Grand
Hamburg, PA 19526
(800) 535-3665
FAX (610) 562-0340

STREETSBORO, OH
8540 St. Rt. 14, Suite A
Streetsboro, OH 44241
(888) 237-2262
FAX (330) 626-3277

BURLINGTON, ONTARIO
AERO-KIT INDUSTRIES
3474 Mainway Drive
Burlington, Ontario
L7M 1A8
(905) 335-2012
FAX (905) 335-8499