



P/N 1126177 Rev. A



7" Aluminum Housing Arm System for Belly Dumps, End Dumps, Dumps Bodies & Pups

READ BEFORE INSTALLING

PO BOX 713 = 2309 SHUR-LOK STREET = YANKTON, SD 57078-0713 PHONE 1-800-4-SHUR-LOK (1-800-474-8756) = FAX 605-665-0501 www.shurco.com

SHOP ONLINE: www.shopshurco.com

SHIPPING. Orders are shipped F.O.B. from the Shur-Co®, LLC sites listed below. No full freight is allowed or prepaid shipment accepted unless quoted and approved in writing prior to acceptance of the order. All shipments are made by the most reasonable means in accordance with size and weight of order, unless specified routing instructions are furnished by the customer. Shipments are made daily via U.P.S. and common carrier. Claims for shortages must be made within 10 days. All claims for damages or loss in transit must be made with the carrier. No collect calls will be accepted. To ensure delivery of orders, we need your full street address and phone number. When you receive your shipment, examine it carefully. Be sure all cartons listed on the delivery sheet are accounted for. Large items may be packaged separately. If a carton is damaged, open it and inspect the contents before signing for delivery. If merchandise is damaged, describe damage on the delivery receipt. Failure on your part to document damaged or missing merchandise on the delivery receipt releases the carrier of all liability; repair or replacement will be the customer's responsibility.

WARRANTY. We warrant all new products are free of defects in materials and workmanship.* This warranty is effective if products are properly installed and used for the purpose for which they were intended and applies to the original buyer only. Except as set forth above or in any product-specific warranty documentation, we make no other warranties, express or implied, including but not limited to warranties of merchantability of fitness for a particular use.

Returns of a product for warranty must be accompanied by a Return Merchandise Authorization number (RMA#), obtained by by calling Customer Service at 866-748-7435, and sent, with freight paid by us, to Shur-Co®, LLC, 2309 Shur-Lok St., PO Box 713, Yankton, SD 57078. All products returned without an RMA# will be refused. When we issue the RMA#, we will also issue a call tag to have UPS (or other freight company) pick up the product. C.O.D. returns not accepted. We will pay no storage fees for a warranty product return prior to pick by us or the freight company. If a warranty product return is scheduled to be picked up by us, we will pick up the product at our earliest convenience.

If a product returned is found, in our judgement, to be defective in material or workmanship, our obligation under this warranty is limited to the repair or replacement of the product, which will be made by us. Repair or replacement will be at our discretion, with replacements being made using current products performing in the equivalent function. Labor charges, other than those incurred at our factory, including, but not limited to, any labor to install a repaired or replacement product, are not covered under this warranty. All expenses associated with delivering defective products to our factory and delivering repaired or replacement products from our factory to the owner will be paid by us.

If the product returned is found, in our judgement, to be non-warrantable, the owner will be contacted to authorize repair work, purchase of a replacement product or return of the product, all of which will be at the owner's expense. Payment authorization must be received by us before any non-warrantable product is repaired, replaced or returned. All expenses associated with delivering the repaired non-warrantable product, a replacement product or the non-warrantable product from our factory to the owner will be paid by the owner.

In no event will we be liable for any damages of any kind to person, product or property, including but not limited to indirect, incidental, special, consequential or punitive damages, or damages for loss of profits or revenue, even if we have been advised of the possibility of such damages. There are no warranties for used products or products that have been repaired, altered, modified or subjected to misuse, negligence or accident. We will not repair or replace products that fail or malfunction due to ordinary wear and tear, except as expressly noted in a product-specific warranty. Use of non-Shur-Co®, LLC parts in conjuction with Shur-Co®, LLC products will void this product warranty.

*Certain products have specific warranties that differ from this warranty, for example motors and electronics. Product-specific warranty documentation is available for these items. In the event of a conflict between this warranty and a product-specific warranty, the product-specific warranty will govern.

RETURN POLICY. All sales final. See WARRANTY above for return details.

OTHER. All prices, product listings, sizes, weights and manufacturing details are subject to change without notice. No person is authorized to modify the foregoing conditions of sale whatsoever.

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For more info, log on to our website:

www.shurco.com

P/N 1126177 Rev. A Arm-Matic™

MESSAGE TO OWNERS

Thank you for buying this tarping system from Shur-Co[®]. We appreciate your confidence in our products. Please read and thoroughly understand this manual before installing and/or operating this system.

Pay particular attention to important safety and operating instructions, as well as warnings and cautions. The hazard symbol \triangle is used to alert users to potentially hazardous conditions and is followed by caution, warning or danger messages.

Failure to READ AND FOLLOW INSTRUCTIONS could result in failure of your tarping system and/or personal injury. Your trailer requirements may, however, call for minor variations to these instructions.

Please inspect your tarping system periodically. Repair or replace worn or damaged parts to your system.

QUESTIONS? CALL OUR HELP LINE:

1-866-748-7435

MON-FRI 8 AM-5 PM CENTRAL TIME

SAFETY

We at Shur-Co® are concerned with your safety and the safety of all those operating this system. Therefore, we have provided safety decals at various locations on your tarping system. Keep decals as clean as possible at all times. Replace any decal that has become worn or damaged, painted over or otherwise difficult to read. Replacement decals are available through Shur-Co® dealers.

SAFETY INSTRUCTIONS

- 1. Always wear safety glasses during installation and operation.
- 2. Stay clear of moving parts.
- 3. Do not operate under low-hung power lines. Always check for overhead obstructions before opening or closing.
- 4. Open and close tarp only at the job site.
- 5. Face vehicle into wind when opening and closing tarp.
- 6. Install tarp on axle to roll off the top and toward the rear of the truck.
- 7. No other use of this system is authorized, except as designed.

RUST PREVENTION

To prevent rust, paint all exposed metal, such as weld seams and/or metal exposed by grinding or cutting, with corrosion-resistant paint.

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TOOLS REQUIRED

- 1. Wrenches 1/2", 9/16", 3/4"
- 2. Ratcheting Socket Wrench
- 3. Sockets 1/2", 9/16", 3/4"
- 4. Allen Wrenches 1/8", 5/32", 3/16"
- 5. Drill Bits (metal cutting) 5/16", 3/8", 1/2"
- 6. Center Punch
- 7. Hammer
- 8. Tape Measure (2)
- 9. Flat Head or Phillips Screwdriver
- 10. Grinder or File
- 11. Air or Electric Impact Wrench w/9/16" Socket
- 12. Metal Saw

Additional tools needed, depending on kit configuration:

- 1. Retaining Ring Pliers
- 2. Wrench or Nut Driver 10mm
- 3. Large Pipe Wrench
- 4. Steel Welder
- Aluminum Welder

MAINTENANCE

- Spray all bearings with penetrating oil as needed.
- · Grease spring bearings as needed.
- Brush springs with steel brush weekly to remove dirt and spray with penetrating oil.
- · Tighten any loose bolts.
- Make sure arms are not hitting sides of box.
 Replace damaged/bent arms.
- Replace worn or broken springs.
- Replace/repair worn or damaged tarps.

Hardware Identification





1700398 Self-Drilling Screw - 1/4" x 1/4"





1703327 Button Hd. Cap Screw - 1/4" x 5/8"



1700403 Self-Tapping Screw Screw - 1/4" x 3/4"



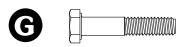
1703171 Cap Screw - 5/16" x 1/2"



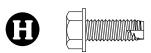
1701045 Cap Screw - 5/16" x 3/4"



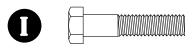
1702926 Cap Screw - 5/16" x 7/8"



1704451 Cap Screw - 5/16" x 1 5/8"



1700400 Self-Tapping Screw - 3/8" x 1"



1700369 Cap Screw - 3/8" x 1 3/4"





1702573 Cap Screw - 3/8" x 2 1/2"

CAUTION

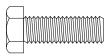
Read and understand owner's manual before installing or using system. Failure to follow operating instructions could result in damage to system or personal injury.



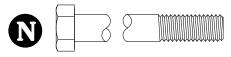


1801025 Cap Screw - 7/16" x 2 3/4"

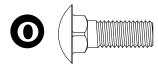




1702075 Cap Screw - 1/2" x 1 1/2"



1704656 Cap Screw - 1/2" x 4"



1800356 Carriage Bolt - 1/2" x 1 1/2"





1703290 Square Nut - 1/4"





1700411 Hex Nut - 5/16"





1700419 Nylon Lock Nut - 5/16"





1704454 Nylon Lock Nut - Thin - 5/16"





1700407 Hex Nut - 3/8"





1701580 Nylon Lock Nut - 3/8"





1800329 Nylon Lock Nut - 7/16"





1702115 Nylon Lock Nut - 1/2"





1700427 Flat Washer - 1/4"





1703218 Fender Washer - 1/4" x 1"





1700428 Flat Washer - 5/16"





1700433 Lock Washer - 5/16"





1701176 Flat Washer - SAE - 3/8"



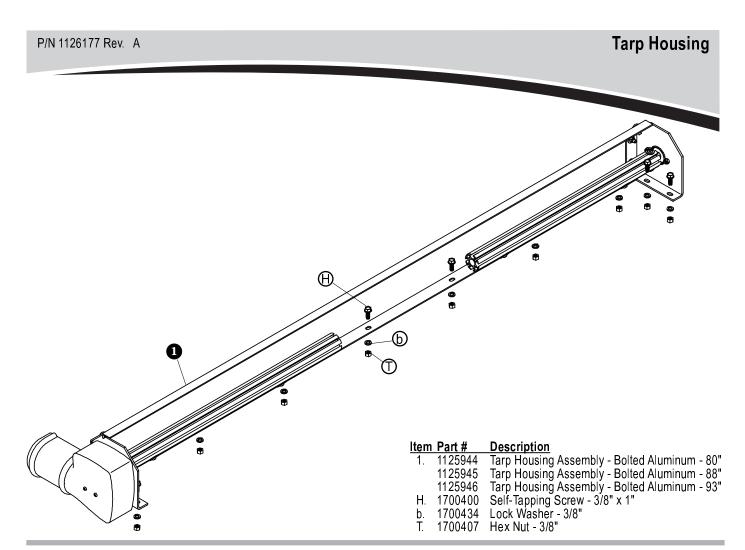


1700434 Lock Washer - 3/8"





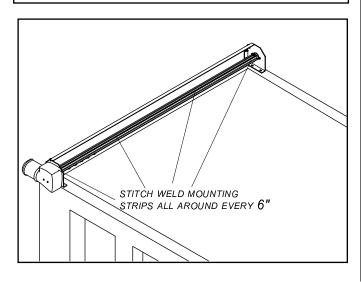
1702114 Flat Washer - 1/2"



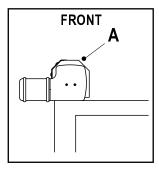
STEP 1: Place tarp housing in desired mounting location.

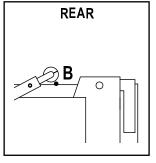
NOTE: Brackets may need to be fabricated in order to mount tarp housing as desired.

NOTE: Tarp arms must not interfere with cab doors, exhaust stacks or loading process.

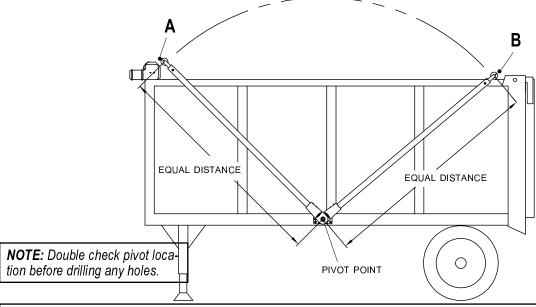


STEP 1: Locate point A and B. Point A is center of tarp axle. Point B is desired resting point for tarp tube. Refer to diagram for locations of points A and B.

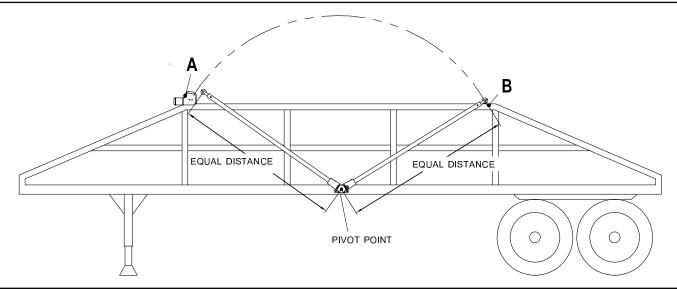




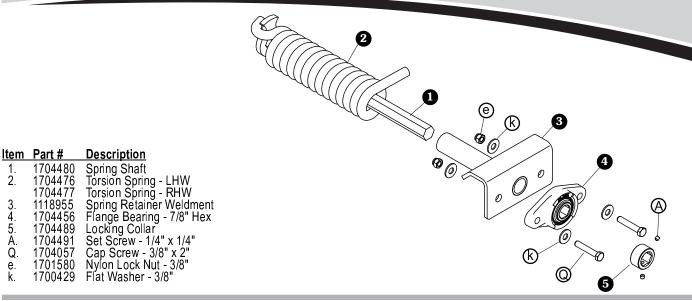
STEP 2: Locate and mark pivot point on bottom rail at equal distance between points A and B.



NOTE: To determine pivot point on opposite side of truck, first make sure truck is square. Transfer measurement from point A to pivot point over to opposite side of truck.

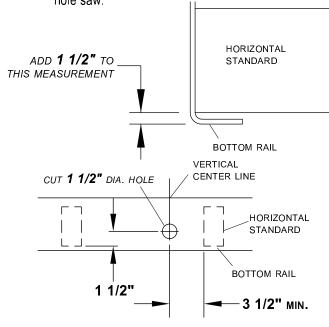


NOTE: Tapered, wedged, rounded or sloped trailers may require additional bracketry to offset and square arms with trailer.



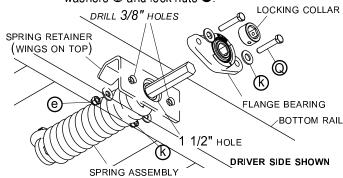
STEP 1: To determine height of pivot point from bottom of bottom rail, find distance between bottom of bottom rail to bottom of horizontal standard and add 1 1/2". Locate center point for spring shaft hole using center of pivot point found earlier as reference for vertical center line.

Intersection of vertical center line and a line at this height from bottom rail is center point of spring shaft hole. Cut hole in bottom rail using 1 1/2" diameter hole saw.

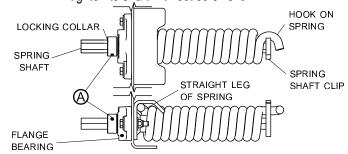


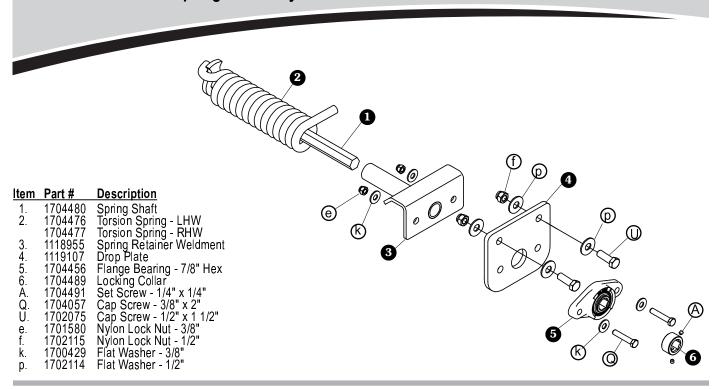
NOTE: Pivot point must be minimum of 3 1/2" away from nearest horizontal standard. Adjust location forward to fall short of tailgate and adjust rearward to fall short of tarp axle. If this will not work, drop plates may be used to drop spring assemblies below bottom rail, if there are no obstructions.

STEP 2: To install spring assembly, remove locking collar and flange bearing from preassembly. Center bore of flange bearing over 1 1/2" hole. Use flange bearing as guide to mark and drill 3/8" holes for mounting. Place spring assembly inside bottom rail with hex shaft protruding out through 1 1/2" hole. Slide flange bearing over shaft (wings of spring retainer should be on top). Insert screws ① through flange bearing, bottom rail and spring retainer. Fasten securely with washers ② and lock nuts ②.

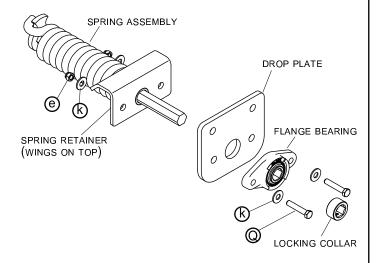


STEP 3: Set and lock spring shaft into position. Make sure spring is resting firmly against spring retainer with straight leg of spring rotated up and against wings of spring retainer. With spring in position, make sure clip on spring shaft is centered with hook on spring. Slide hex locking collar up against flange bearing and tighten to shaft with set screws .



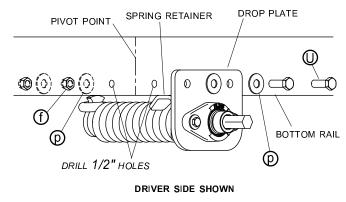


STEP 1: Remove locking collar and flange bearing from spring assembly. Place drop plate between flange bearing and spring retainer. Fasten flange bearing, drop plate and spring retainer together with wings of spring retainer on top.

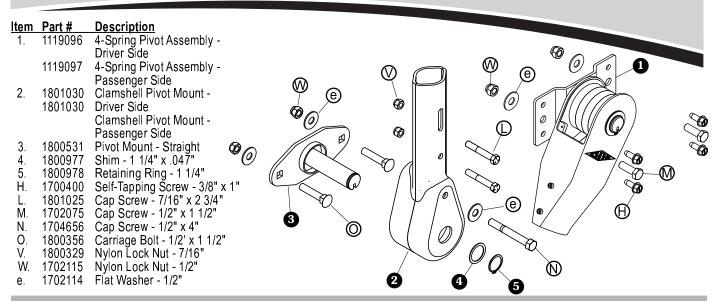


NOTE: Make sure spring shaft is centered in spring retainer.

STEP 2: With drop plate centered with pivot point marked earlier, hold assembly up to bottom rail so top of spring retainer is against bottom of bottom rail. Using drop plate as guide, mark hole locations and drill 1/2" holes. Fasten assembly to bottom rail using 1/2" screws ①, washers ② and lock nuts ④.



NOTE: If spring assembly will interfere with objects under body, it may be necessary to mount spring assembly through bottom rail. See Underbody instructions.

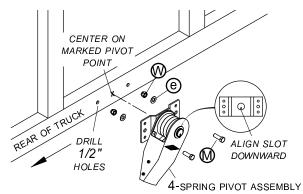


4-SPRING PIVOT ASSEMBLY

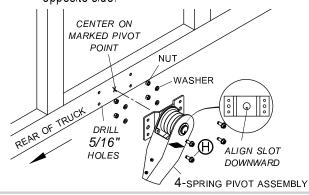
STEP 1: Clamp pivot assembly to box, centering shaft on marked pivot point with slot in shaft facing downward.

NOTE: Double check pivot location before drilling any holes.

OPTION A - Using holes in pivot bracket as guide, mark and drill 1/2" holes in box. Fasten assembly to box with screws ♠, washers ♠ and nuts ♠. Repeat on opposite side.

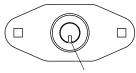


OPTION B - Fasten to blind holes. Drill 5/16" holes in box. Fasten assembly to box with screws ⊕ and, if possible, secure with washers and nuts. Repeat on opposite side.



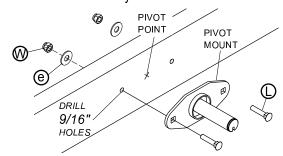
5-SPRING CLAMSHELL PIVOT ASSEMBLY

STEP 1: Align slots to face downward on pivot pins on both sides of truck.



SLOT FACING DOWNWARD

STEP 2: Bolt option. Align center of pivot mount plate with pivot point on truck. Use plate as guide to mark hole locations on both sides of truck. Drill 9/16" holes and fasten pivot mounts to truck with carriage bolts ❶, flat washers ❷ and nylon lock nuts ❶.



Weld option. Align center of mounting plate with pivot point and weld pivot mount in place.

Arm Installation P/N 1126177 Rev. A

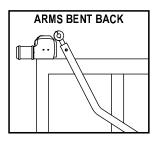
WARNING

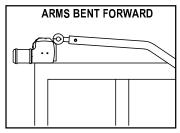
Apply arm warning decals (P/N 1704561) on box near spring pivot. Arms are under spring tension while springs are engaged. Use caution while assembling or disassembling arms.

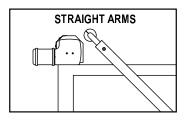
ltem	Part #	<u>Description</u>
1.	1704465	Aluminum Return Arm - 10' w/2' Bend
	1704466	Aluminum Return Arm - 12' w/2' Bend
	1704467	Aluminum Return Arm - 14' w/2' Bend
	1704486	Aluminum Return Arm - 16'
	1704487	Aluminum Return Arm - 18'
	1704488	Aluminum Return Arm - 20'
L.	1801025	Cap Screw - 7/16" x 2 3/4"
٧.	1800329	Nylon Lock Nut - 7/16"
C.	1701176	Flat Washer - 3/8"

NOTE: Determine desired length and orientation of arms before attaching arms to spring pivot.

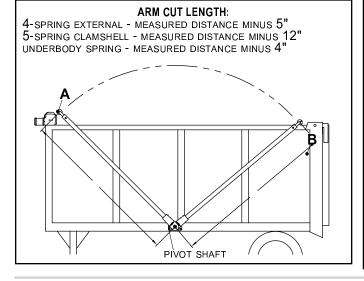
STEP 1: Determine best orientation for your application.





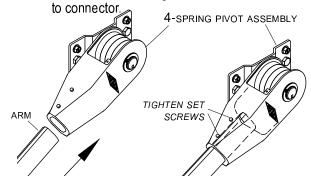


STEP 2: Determine arm length. Measure from center of pivot shaft to desired resting points for arm at front and rear of box. Find distance between point A and pivot shaft and between point B and pivot shaft. Calculate and cut arm length using shorter of two distances.



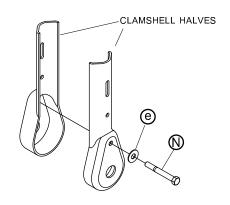
4-SPRING PIVOT ASSEMBLY

STEP 1: Slide pivot arm into 4-spring pivot assembly until it contacts arm stop. Tighten set screws to secure arm

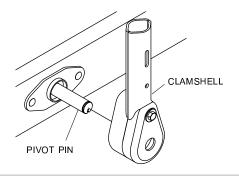


5-SPRING CLAMSHELL PIVOT ASSEMBLY

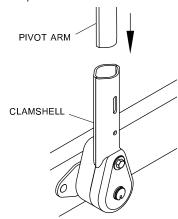
STEP 1: Fasten clamshell halves together with screw **3** and washer **3**. Do not install springs at this time.



STEP 2: Slide clamshell assembly onto pivot pin.



STEP 3: Insert pivot arm into clamshell.

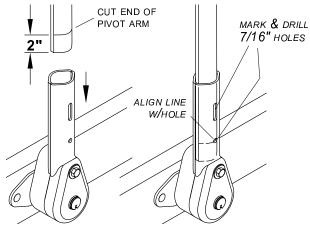


STEP 4: To determine correct arm length, insert tarp tube elbow into top of arm and rotate arm to both front and rear of truck.

NOTE: Position crosspiece far enough back on truck so tarp fully covers load without interfering with tailgate operation.

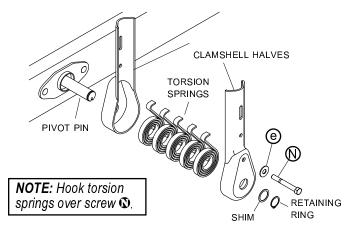
STEP 5: Disassemble arm from clamshell assembly. Cut arms to equal length, removing ends of arms that go into clamshell.

STEP 6: Draw line 2" from cut end of pivot arm. Insert arm into clamshell and align line on arm with lower hole in clamshell.

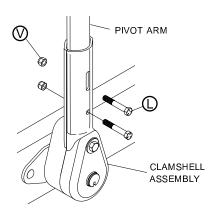


STEP 7: Using holes in clamshell as guide, mark and drill 7/16" holes in both arms, then disassemble clamshells.

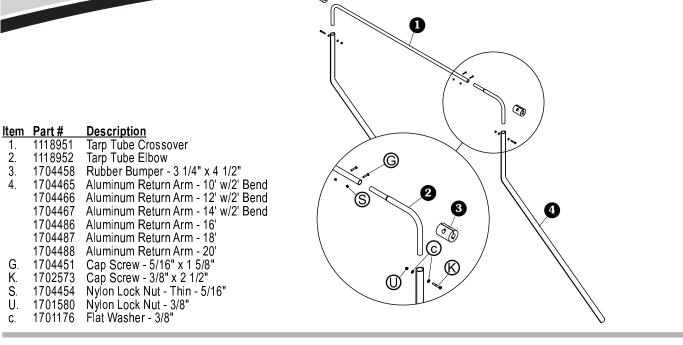
Assemble clamshell halves, torsion springs, shim and retaining ring onto pivot pin. Fasten with screw ② and washer ② apply Loctite to threads.



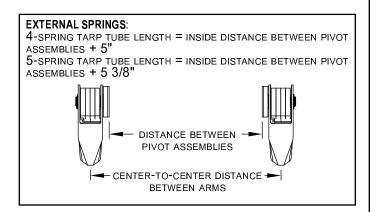
STEP 9: Slide pivot arms into clamshell assemblies and fasten with screws **①** and lock nuts **②**.



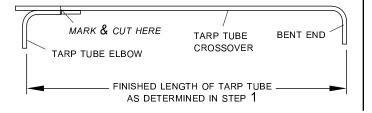
STEP 10: Ensure pivot arms are not binding or rubbing against truck. Adjust pivot mounts or arms as needed to provide clearance.



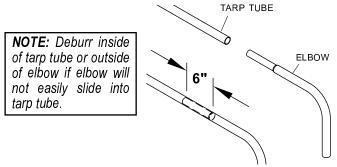
STEP 1: Determine finished tarp tube length. Measure center-to-center distance between tarp arms.



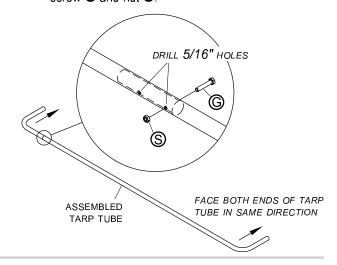
STEP 2: Overlap tarp tube elbow and tarp tube crossover as shown. Hook tape measure over bent end of tarp tube and measure to inside edge of elbow. Adjust position of elbow along tarp tube until elbow is positioned to attain finished tarp tube length as determined in step 1. Mark and cut tarp tube as shown.

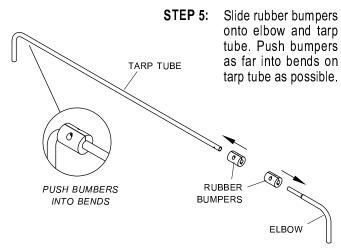


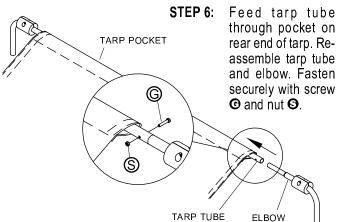
STEP 3: Insert 6" elbow into tarp tube.



STEP 4: Lay assembled tarp tube on flat surface with ends of tube laying flat and facing same direction. Drill two 5/16" holes on tarp tube side of joint. Fasten with screw **③** and nut **⑤**.



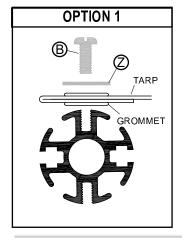


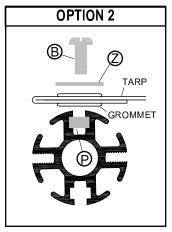


STEP 7: Lay front edge of tarp across tarp axle and center tarp with box (cab guard may be off center). Start at center and work toward edges, pulling tarp tight.

Option 1 - Fasten screws
⊕ through washers ⊕ and grommets into threaded groove.

Option 2 - Install nuts 1 into axle groove, then fasten screws 1 through washers 2, grommets and nuts 1.



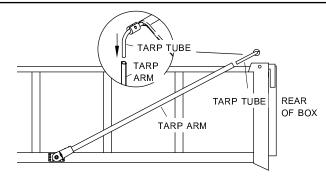




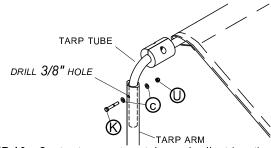
Tarp must wind open in direction shown. To prevent debris from entering tarp axle, position tarp to roll open off top of axle toward rear of box.

STEP 8: Position tarp arms at top rear of box. Insert ends of tarp tube into arms. Square up tarp tube with box by adjusting distance where tarp tube enters arms.

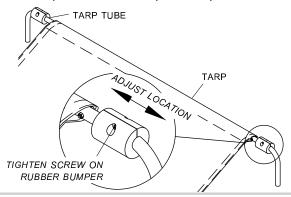
NOTE: First insert tarp tube as far as possible into tarp arms. Pull ends of tarp tube slightly out of each arm as needed to align tarp tube squarely across box.

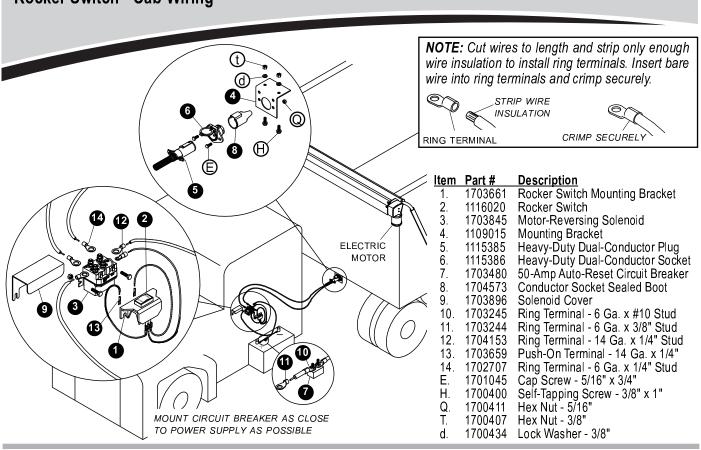


STEP 9: With arms equally spaced from sides of box, drill 3/8" hole through each tarp arm and tarp tube. Fasten securely with screw ③, washer ④ and nut ①.



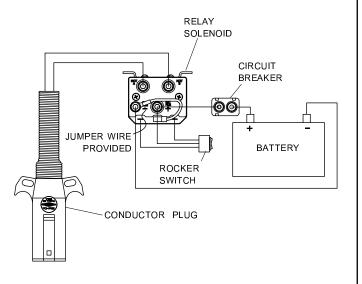
STEP 10: Center tarp on tarp tube and adjust location of rubber bumpers as desired. Tighten screws on rubber bumpers to secure bumpers to tarp tube.



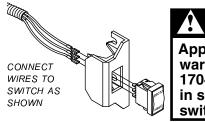


STEP 1: Circuit breaker and battery. Mount circuit breaker as close as possible to battery or power supply.

STEP 2: Mount solenoid. Mount solenoid in suitable location - a ventilated area near battery is ideal. Determine best route for wire, usually along frame with existing wire harness. Run 6-ga. wire from conductor plug to solenoid and from power supply to solenoid as shown in diagram. Run 14-ga. wires from solenoid to switch.



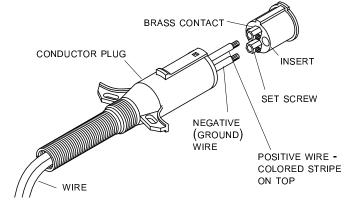
STEP 3: Rocker switch. Locate rocker switch in convenient operating location. Mount switch inside cab with bracket or install directly into dash panel.



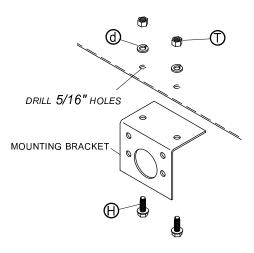
WARNING

Apply operation warning decal (P/N 1704562) provided in same location as switch.

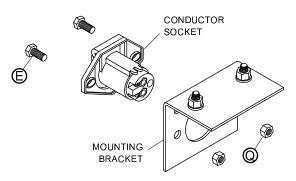
STEP 4: Conductor plug. Unfasten and remove insert from conductor plug. Feed 6-ga. wire through plug and into brass contacts on insert. Tighten set screws to secure wires. Replace insert into conductor plug and secure screw.



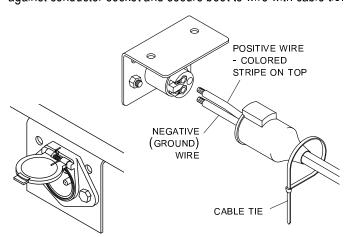
STEP 1: Mounting bracket. Mount bracket at suitable location on front of truck, usually near existing plugs. Mark and drill 5/16" holes and fasten with 3/8" x 1" self-tapping screws ⊕, lock washers ⊕ and nuts ⊕.



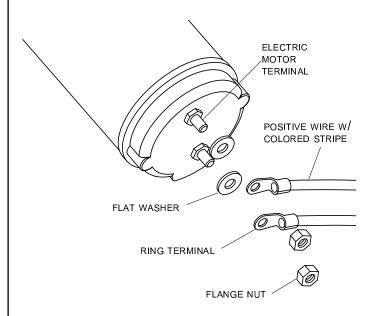
STEP 2: Conductor Socket. Fasten conductor socket into mounting bracket with screws **9** and nuts **0**.



Run 6-ga. wire from motor and slide wire through sealed boot. Connect wire to conductor socket, aligning positive wire on socket with positive wire on conductor plug. Slide sealed boot against conductor socket and secure boot to wire with cable tie.



STEP 3: Connect wires to motor terminals.



A CAUTION

Check all hardware for complete assembly before operating. Inspect system at this time and adjust as required.

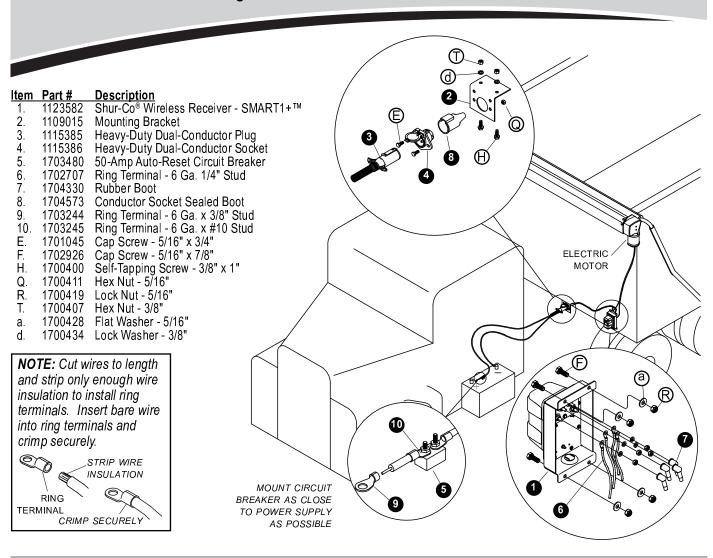
Operation:

A. Check motor direction by activating switch to "OPEN." If switch is running system backwards, change wire leads on motor to opposite connections.

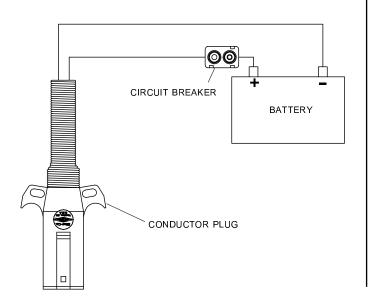
B. Close tarp: Push switch to "CLOSE" and hold. Observe tarp and release switch when tarp is fully closed.

C. Open tarp: Push switch to "OPEN" and hold. Observe tarp and release switch when tarp is fully open.

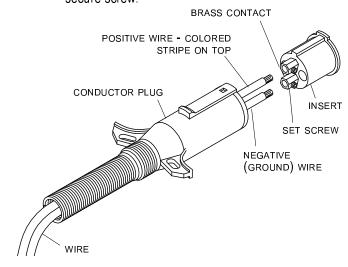
NOTE: Release switch at end of cycle or auto-reset circuit breaker will trip. After breaker resets, switch will activate motor again. To reduce unnecessary strain on tarp components, release switch at end of each cycle.



STEP 1: Circuit breaker and battery. Mount circuit breaker as close as possible to battery or power supply.

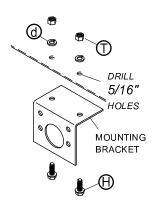


STEP 2: Conductor plug. Unfasten and remove insert from conductor plug. Feed 6-ga. wire through plug and into brass contacts on insert. Tighten set screws to secure wires. Replace insert into conductor plug and secure screw.

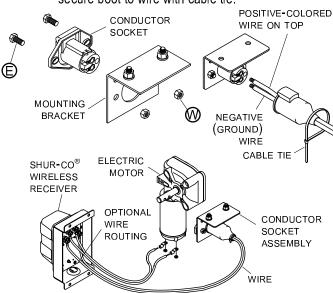


STEP 1: Mounting bracket.

Mount bracket at suitable location on front of truck, usually near existing plugs. Mark and drill 5/16" holes and fasten with 3/8" x 1" self-tapping screws ①, lock washers ② and nuts ①.



STEP 2: Conductor socket. Fasten conductor socket into mounting bracket with 5/16" x 3/4" cap screws ③ and nuts ⑤. Bring 6-ga. wire from motor through sealed boot. Connect wire ends to conductor socket, aligning positive wire on socket with positive wire on conductor plug. Slide sealed boot against conductor socket and secure boot to wire with cable tie.



A WARNING

Apply operation warning decal (P/N 1704562) in same location as receiver.

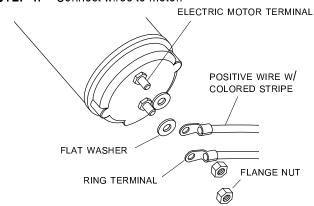
STEP 3: Shur-Co® wireless receiver. Run 6-ga. wire from electric motor to receiver. Route wire as desired. Insert end of this wire through rubber boots, then crimp 1/4" ring terminals onto wire ends. Remove nuts and lock washers from back of wireless receiver. Place positive wire on upper orange post and negative wire on upper black post. Secure lock washers and hex nuts. Coat with dielectric grease and install rubber boots over ring terminals.

NOTE: Use dielectric grease (P/N 1704378) to prevent corrosion on terminals.

Run 6-ga. wire from receiver to conductor socket through rubber boots. Crimp 1/4" ring terminals to wire ends. On back of wireless receiver, place positive wire on lower orange post and negative wire on lower black post. Secure with 1/4" lock washers and hex nuts. Coat with dielectric grease and install rubber boots over ring terminals. When wiring socket, align positive wire with positive wire on plug.

Mount wireless receiver at suitable location on front of truck. Mark and drill 11/32" holes and fasten with 5/16" x 7/8" cap screws \odot , flat washers \odot and lock nuts \odot .

STEP 4: Connect wires to motor.



A CAUTION

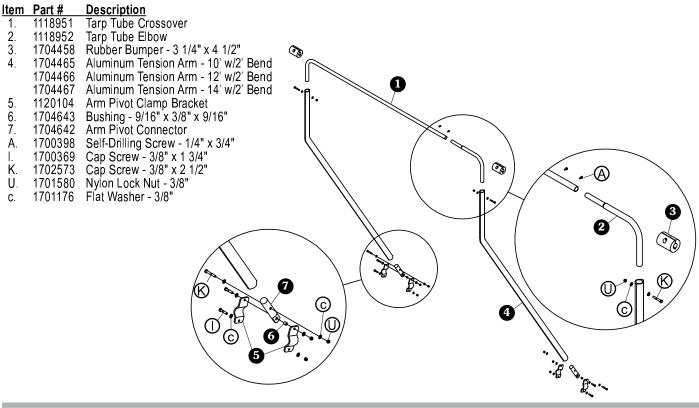
Check all hardware for complete assembly before operating. Inspect system at this time and adjust as required.

Operation:

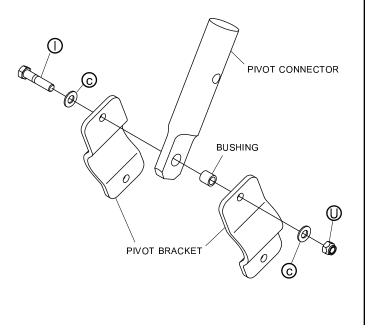
- **A.** Check motor direction by activating switch to "OPEN." If switch is running system backwards, change wire leads on motor to opposite connections.
- **B. Close tarp:** Push switch to "CLOSE" and hold. Observe tarp and release switch when tarp is fully closed.
- **C. Open tarp:** Push switch to "OPEN" and hold. Observe tarp and release switch when tarp is fully open.
- D) Remote operation: Refer to remote instruction manual.

NOTE: Release switch at end of cycle or auto-reset circuit breaker will trip. After breaker resets, switch will activate motor again. To reduce unnecessary strain on tarp components, release switch at end of each cycle.

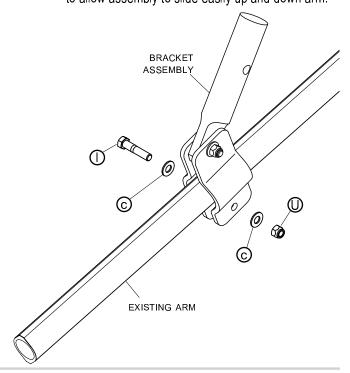
NOTE: Pressure wash. Receiver may be pressure washed, but keep nozzle at least 3' from system while spraying.



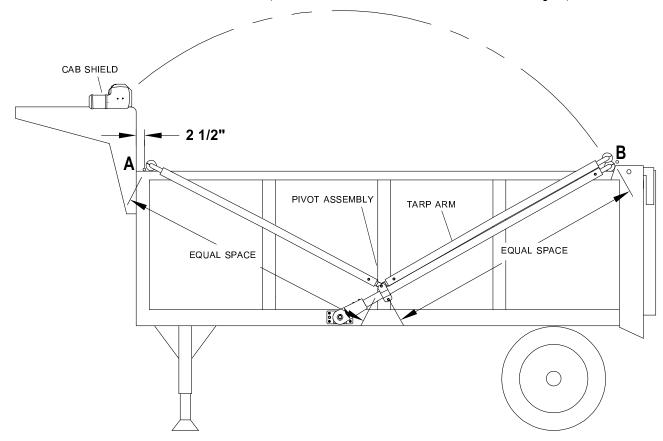
STEP 1: Assemble pivot connector to pivot bracket sections with screw ①, washers ②, spacer bushing and lock nut ①. Leave connection loose enough to allow brackets to slide over return arms.



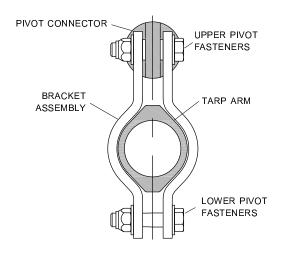
STEP 2: Install bracket assembly onto existing arm with screw **①**, washers **②** and nut **①**, leaving brackets loose enough to allow assembly to slide easily up and down arm.



STEP 3: Determine tension arm pivot location. Move pivot assembly until same distance from points A and B as shown. Allow 2 1/2" clearance between cab shield and point A. Point B is located at back surface of existing tarp tube.

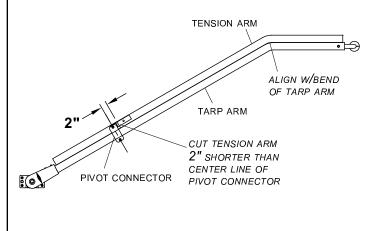


STEP 4: Align bracket assembly vertically as shown and clamp brackets to tarp arm by first tightening upper, then lower pivot fasteners. Mount second pivot connector assembly in same location on other arm.



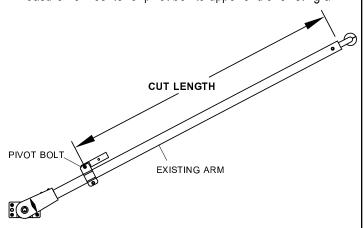
STEP 5A: Determine tension arm length (bent arms).

Mark top of existing arm on center line of pivot connector. Remove pivot connector. Lay tension arm over top of tarp arm, aligning bend in tension arm with bend in tarp arm. Transfer mark onto tension arm at pivot point center line. Cut tension arms 2" shorter than center line of pivot connector.

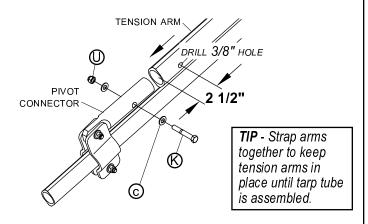


STEP 5B: Determine tension arm length (straight arms).

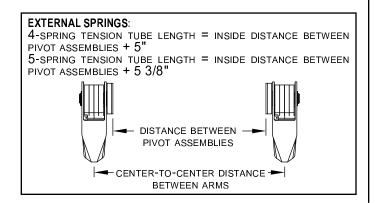
Measure from center of pivot bolt to upper end of existing arm.



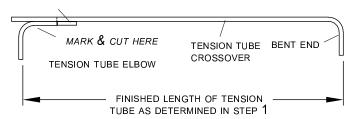
STEP 6: Drill 3/8" hole 2 1/2" from lower end of tension arms. Fasten arms to pivot connectors with screws ③, washers ⑤ and nuts ⑥.



STEP 7: Determine finished tension tube length. Measure center-to-center distance between tarp arms.

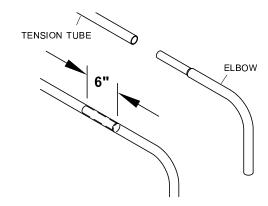


STEP 8: Overlap tension tube elbow and tension tube crossover as shown. Hook tape measure over bent end of tension tube and measure to inside edge of elbow. Adjust position of elbow along tension tube until elbow is positioned to attain finished tension tube length as determined in step 1. Mark and cut tension tube as shown.

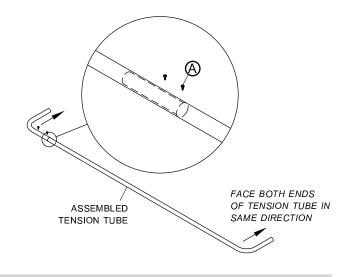


STEP 9: Insert elbow 6" into tube.

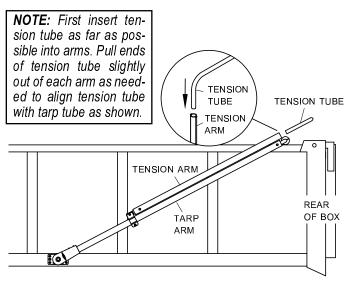
NOTE: Deburr inside of tension tube or outside of elbow if elbow will not slide easily into tension tube.

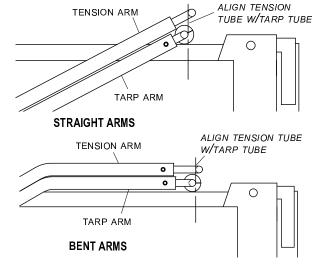


STEP 10: Lay assembled tension tube on flat surface with ends of tubes laying flat and facing same direction. Fasten with screws **a**.

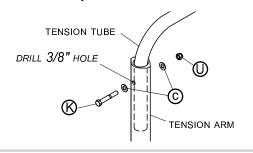


STEP 11: Position tension arms at top rear of box. Insert ends of tension tube into arms. Align tension tube with tarp tube by adjusting distance where tension tube enters arms. Align tension tube as shown in illustrations.

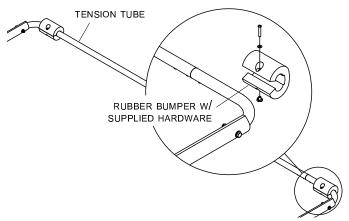




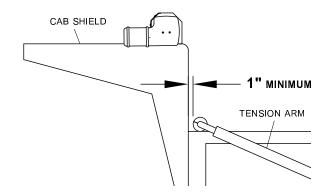
STEP 12: With arms equally spaced from sides of box, drill 3/8" hole through each arm and tension tube. Fasten securely with screws 3, washers 3 and nuts 4.



STEP 13: Rubber bumpers. Remove hardware from rubber bumpers. Pry bumpers open and slide bumpers onto tension tube. Align bumpers directly over bumpers on tarp tube and refasten hardware to secure bumpers to tension tube.

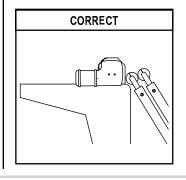


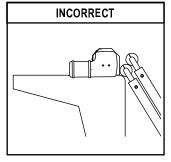
STEP 14: Rest tarp arms on rear of box and swing tension arms forward to rest tension tube on top rail behind cab shield. Verify there is about 1" clearance between rubber bumpers and cab shield. Check system operation. If tension tube contacts cab shield, adjust arm length or pivot location as needed.



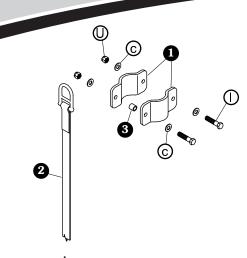
STEP 15: Check system operation by winding tarp to front of box.

Make sure arms swing entirely open without binding. To verify correct installation, compare to diagram below.





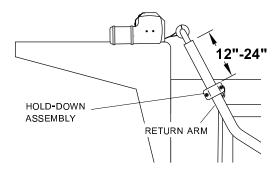
Return Arm Hold-Down P/N 1126177 Rev. A



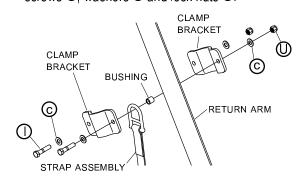
<u>ltem</u>	Part #	<u>Description</u>
	1120389	Arm Hold-Down Kit
1.	1120388	Arm Anchor Clamp Bracket
2.	1120390	Hold-Down Strap Assembly
3.	1704643	Bushing - 9/16" x 9/16"
4.	1700836	Ratchet Buckle - 1"
C.	1700403	Self-Tapping Screw - 1/4" x 3/4"
l.	1700369	Cap Screw - 3/8" x 1 3/4"
U.	1701580	Nylon Lock Nut - 3/8"

1701176 Flat Washer - 3/8"

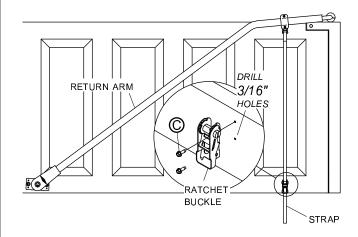
STEP 1: Locate return arm hold-down assemblies 12" to 24" from outer ends of return arms, one on each side of truck.



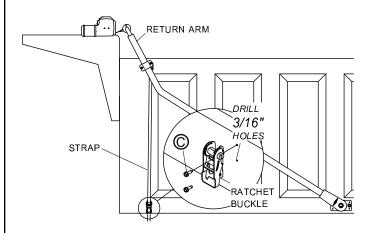
STEP 2: Align clamp brackets around return arm, placing bushing and strap assembly as shown. Fasten with screws ①, washers ② and lock nuts ①.



STEP 3: With return arms in closed position, let hold-down strap hang and align ratchet buckle with strap. Using holes in buckle as guide, mark and drill 3/16" holes. Fasten buckle to truck with screws **©**.



STEP 4: With return arms in open position, let hold-down strap hang. Locate ratchet buckle on lower edge of truck, aligning buckle and strap. Using lower hole in buckle as guide, mark and drill 3/16" hole. Fasten buckle to truck with screw ②. Rotate buckle so strap and buckle are parallel. Using top hole on buckle as guide, drill 3/16" hole and fasten with screw ④.

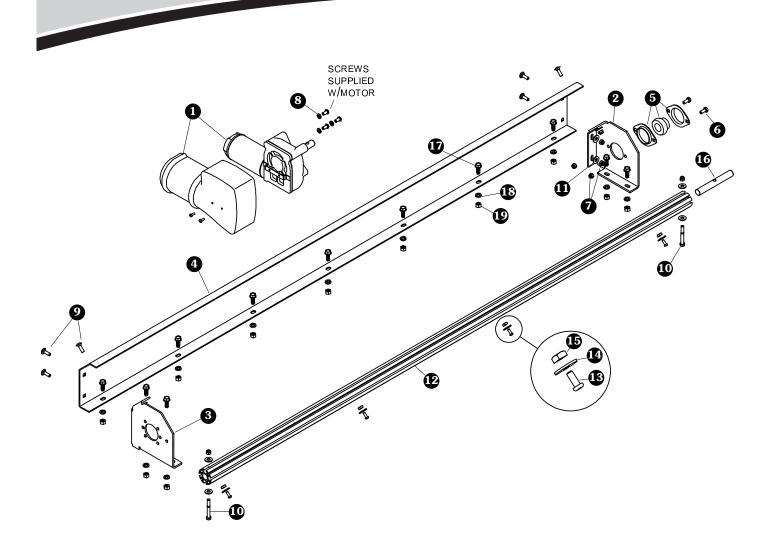


STEP 5: Run strap through buckle and tighten. Remove excess length from strap and melt end to prevent fraying.

STEP 6: Repeat steps 1 through 5 for return arm on other side of truck.

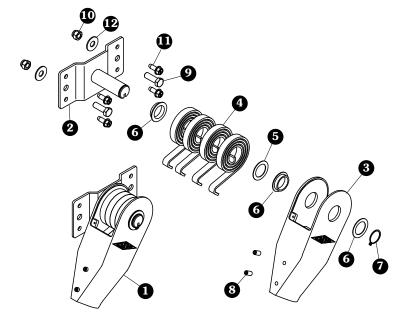
Our **Advanced Troubleshooting Guide** is available on our website: **http://www.shurco.com**, or call our Help Line: **1-866-748-7435**.

Problem:	Try This:
The SMART1+™ remote is not working.	Make sure the battery is placed correctly.
None of the lights on the remote turn on when I open the lid.	 The battery may be dead and must be replaced. Replacement high-capacity SMART1+™ remote batteries may be purchased from Shur-Co® (P/N 1704597).
	 The SMART1+™ remote may be damaged. Call Shur- Co's Help Line.
The SMART1+™ remote is not working. I can operate the system with the rocker switch, but not with the remote. The SMART1+™ remote channel light (Tarp System, for example) is blinking, and when I press	 Make sure the remote is set to the right channel. If you cannot set the remote to the desired channel (Tarp Sys- tem, for example), the remote must be reprogrammed. See the SMART1+™ remote programming instructions.
the Open/On button, the light blinks faster.	Make sure you are within a couple feet of the receiver and try again.
	 a) If it works at short range but not at greater distances, you have a range problem. A new battery may be needed. If the remote battery is not the cause, call Shur-Co's Help Line.
	Reprogram the receiver. See the receiver programming instructions. If this doesn't work, call Shur-Co's Help Line.
The system will not operate with the rocker switch or with the SMART1+ $^{\text{TM}}$ remote.	 Make sure the master disconnect switch is turned to the "ON" position.
When I try to use the rocker switch or SMART1+™ remote, I don't hear any noises (a clicking noise, for example) from	The circuit breaker may have tripped. Wait one minute and try again.
the receiver.	3. Check the vehicle's battery to make sure it isn't dead.
	4. Check all connections from the battery to the system. Check for polarity, good connections and corrosion. Verify that you have at least 12V on the back side of the receiver on the battery hookup posts.
	5. Call Shur-Co's Help Line.
The system will not operate with the rocker switch or with the SMART1+™ remote.	Verify that you have at least 12V on the back side of the receiver on the battery hookup posts.
When I try to use the rocker switch or SMART1+™ remote, I hear a dicking noise but nothing happens.	2. Call Shur-Co's Help Line.
The rocker switch is not sticking, but the motor continues to run after I release the rocker switch.	1. Call Shur-Co's Help Line.
The rocker switch is sticking.	 Check the switch for excessive dirt, rocks or other objects. If the rocker switch cannot be cleaned, call Shur-Co's Help Line for a replacement receiver.
	Pressure Wash: The receiver may be pressure washed, but keep nozzle at least 3' from system while spraying.



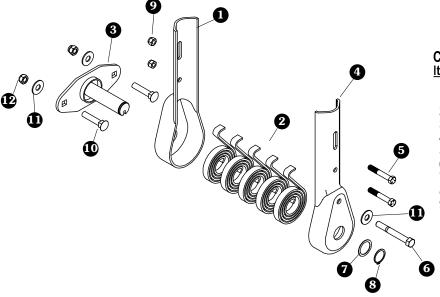
TARP HOUSINGS

1711		100			
<u>ltem</u>	Part #	<u>Description</u>			
	1125643	Tarp Housing Assembly - Bolted Aluminum - 80"			
	1125945	Tarp Housing Assembly - Bolted Aluminum - 88"	<u>ltem</u>	Part #	<u>Description</u>
	1125946	Tarp Housing Assembly - Bolted Aluminum - 93"	10.	1703237	Cap Screw - 5/16" x 2 1/2"
1.	1704878	Durabuilt™ Motor w/Cover - 3 1/8" Shaft	11.	1700428	Flat Washer - 5/16"
2.	1125940	Tarp Housing Bracket - 7"	12.	1125951	Threaded Tarp Axle - 79"
3.	1125939	Tarp Housing Bracket - 7"		1125890	Threaded Tarp Axle - 87"
4.	1125941	Windshield - 80"		1125952	Threaded Tarp Axle - 92"
	1125942	Windshield - 88"	13.	1703327	Button Hd. Cap Screw - 1/4" x 5/8"
	1125943	Windshield - 93"	14.	1703218	Fender Washer - 1/4" x 1"
5.	1703374	Radial Ball Bearing w/Flanges - 3/4"	15.	1703290	Square Nut - 1/4"
6.	1701045	Cap Screw - 5/16" x 3/4"	16.	1114940	Tarp Axle Stub Shaft
7.	1700419	Nylon Lock Nut - 5/16"	17.	1700400	Self-Tapping Screw - 3/8" x 1"
8.	1700433	Lock Washer - 5/16"	18.	1700434	Lock Washer - 3/8"
9.	1704237	Carriage Bolt - 5/16" x 1"	19.	1700407	Hex Nut - 3/8"



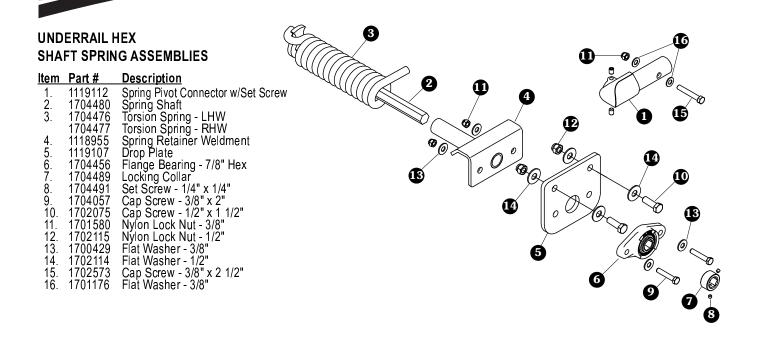
4-SPRING PIVOTS

Item	Part #	<u>Description</u>
1.	1119096	4-Spring Pivot Assembly - Driver Side
	1119097	4-Spring Pivot Assembly - Passenger Side
2.	1119098	4-Spring Pivot Bracket
3.	1704474	4-Spring Pivot Connector
4.	1111027	Spiral Torsion Spring - 1 1/4" Pins
5.	1702890	Flat Washer - 1 1/4"
6.	1704468	Flange Bushing
7.	1702888	External Retaining Ring - 1 1/4"
8.	1704450	Set Screw - 3/8" x 3/4"
9.	1702075	Cap Screw - 1/2" x 1 1/2"
10.	1702115	Nylon Lock Nut - 1/2"
11.	1700400	Self-Tapping Screw - 3/8" x 1"
12.	1702114	Flat Washer - 1/2"



CLAMSHELL PIVOTS

<u>ltem</u>	Part #	<u>Description</u>
	1801030	Clamshell Pivot Assembly
1.	1800934	Clamshell Stamped Housing Back
2.	1111027	Torsion Spring
3.	1800531	Pivot Mount - Straight
4.	1800769	Clamshell Stamped Housing Front
5.	1801025	Cap Screw - 7/16" x 2 3/4"
6.	1704656	Cap Screw - 1/2" x 4"
7.	1800977	Shim - 1 1/4" x .047"
8.	1800978	Retaining Ring - 1 1/4"
9.	1800329	Nylon Lock Nut - 7/16"
10.	1800356	Carriage Bolt - 1/2" x 1 1/2"
11.	1702114	Flat Washer - 1/2"
12.	1702115	Nylon Lock Nut - 1/2"
		•



LINDERBODY HEX SHAFT SPRING ASSEMBLIES

טאט	EKDUDI	HEA SHAFT SPRING ASSEMBLE	E3
<u>ltem</u>	Part #	<u>Description</u>	
1.	1119112	Spring Pivot Connector w/Set Screw	9
2.	1704480	Spring Shaft	£
3.	1704476 1704477	Törsion Spring- LHW Torsion Spring - RHW	
4.	1118955	Spring Retainer Weldment	3
5.	1704456	Flange Bearing - 7/8" Hex	
<u>6</u> .	1704489	Locking Collar	
7. 8.	1704491 1704057	Set Screw - 1/4" x 1/4"	2
9.	1704037	Cap Screw - 3/8" x 2" Nylon Lock Nut - 3/8"	
10.	1700429	Flat Washer - 3/8"	4
11.	1702573	Cap Screw - 3/8" x 2 1/2"	
12.	1701176	Flat Washer - 3/8"	6

P/N 1126177 Rev. A Replacement Parts

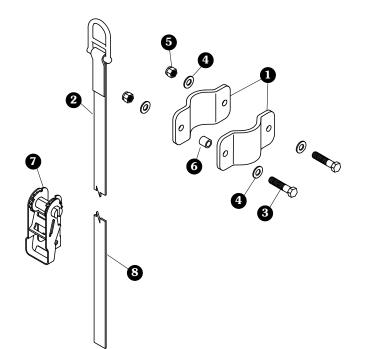
ARM ASSEMBLIES

<u>item</u>	Part #	<u>Description</u>
1.	1118951	Tarp Tube Crossover
2.	1704465	Aluminum Return Arm - 10' w/2' Bend
	1704466	Aluminum Return Arm - 12' w/2' Bend
	1704467	Aluminum Return Arm - 14' w/2' Bend
	1704486	Aluminum Return Arm - 16'
	1704487	Aluminum Return Arm - 18'
	1704488	Aluminum Return Arm - 20'
3.	1704451	Cap Screw - 5/16" x 1 5/8"
4.	1704454	Nylon Lock Nut - Thin - 5/16"
5.	1118952	Tarp Tube Elbow
6.	1704458	Rubber Bumper - 3 1/4" x 4 1/2"
7.	1701580	Nylon Lock Nut - 3/8"
8.	1701176	Flat Washer - 3/8"
9.	1702573	Cap Screw - 3/8" x 2 1/2"

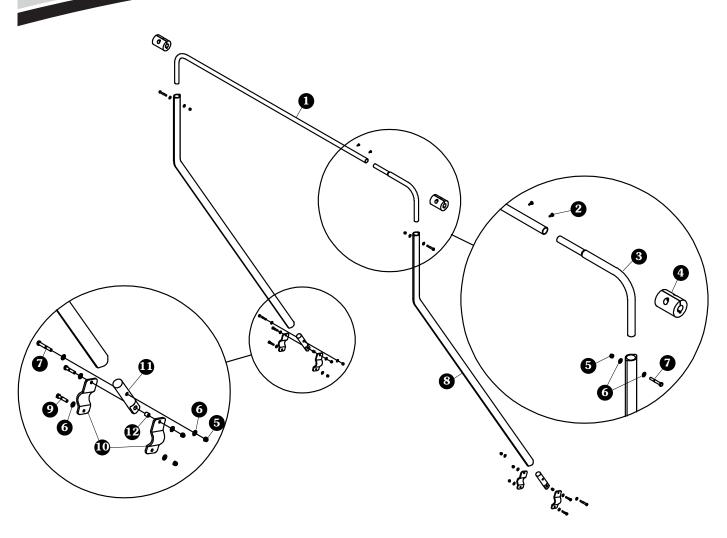
RETURN ARM HOLD-DOWNS

tem	Part #	<u>Description</u>
	1120389	Arm Hold-Down Kit
1.	1120388	Arm Anchor Clamp Bracket
2.	1120390	Hold-Down Strap Assembly
3.	1700369	Cap Screw - 3/8" x 1 3/4"
4.	1701176	Flat Washer - 3/8"
5.	1701580	Nylon Lock Nut - 3/8"
6.	1704643	Bushing - 9/16" x 9/16"
7.	1700836	Ratcheť Buckle - 1"

8. 1700403 Self-Tapping Screw - 1/4" x 3/4"







TENSION ARMS

I ⊏ IV•	DION AKI	113
Item	Part #	Description
1.	1118951	Tarp Tube Crossover
2.	1700398	Self-Drilling Screw - 1/4" x 3/4"
3.	1118952	Tarp Tube Elbow
4.	1704458	Rubber Bumper - 3 1/4" x 4 1/2"
5.	1701580	Nylon Lock Nut - 3/8"
6.	1701176	Flat Washer - 3/8"
7.	1702573	Cap Screw - 3/8" x 2 1/2"
8.	1704465	Aluminum Tension Arm - 10' w/2' Bend
	1704466	Aluminum Tension Arm - 12' w/2' Bend
	1704467	Aluminum Tension Arm - 14' w/2' Bend
9.	1700369	Cap Screw - 3/8" x 1 3/4"
10.	1120104	Arm Pivot Clamp Bracket
11.	1704642	Arm Pivot Connector
12.	1704643	Bushing - 9/16" x 3/8" x 9/16"

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Replacement Parts

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ROCKER SWITCH WIRING Dual-Pole Conductor w/Hardware Ring Terminal - 6 Ga. x #10 Stud - Motor/Breaker Ring Terminal - 6 Ga. x 3/8" Stud - Battery Ring Terminal - 14 Ga. x 1/4" Stud - Solenoid Push-On Terminal - 14 Ga. x 1/4" - Switch/Solenoid Ring Terminal - 6 Ga. x 1/4" Stud - Motor/Solenoid Cable Tie - 8" 50-Amp Auto-Pocot Circuit Bar Item Part # **Description** 1109016 1703245 1703244 1704153 1703659 50-Amp Auto-Reset Circuit Breaker Solenoid Cover Dual-Conductor Wire - 6 Ga. 259 Strand Electrical Wire - 14 Ga. Lead - 15' 1116482 Rocker Switch Nylon Lock Nut - 1/4" Motor-Reversing Solenoid Cap Screw - 1/4" x 1" Hex Nut - 3/8" Lock Washer - 3/8" 11. 12. 13. 14. 15. 16. 17. 1116020 1701543 1703845 1700381 1700407 1700434 Mounting Bracket - Rocker Switch Heavy-Duty Dual-Conductor Plug Heavy-Duty Dual-Conductor Socket w/Boot Hex Nut - 5/16" Mounting Bracket - Conductor Plug Cap Screw - 5/16" x 3/4" Self-Tapping Screw - 3/8" x 1" Electrical Parts Kit - Rocker Switch - 50 Amp 1703661 1119557 1700411 1109015 1701045 1700400 1116271 SMART1+™ REMOTE WIRING

SIVIA	K11+'''' K	KEMOTE WIRING		8 0 E	
ltem	Part #	<u>Description</u>		O. B. B. B. B. B.	
1. 2.	1109016 1703245 1703244 1702707 1123161	Dual-Pole Connector w/Hardware Ring Terminal - 6 Ga. x #10 Stud - Motor/Breaker Ring Terminal - 6 Ga. x 3/8" Stud - Battery Ring Terminal - 6 Ga. x 1/4" Stud - Motor/Solenoid 5-Channel SMART1+™	•	38888	4
4. 5. <u>6</u> .	1705163 1704330	SMAR11+ M Remote Battery - AAA - SMAR11+ M Rubber Boot			
1. 2. 3. 4. 5. 6. 7. 8. 9.	1703822 1700407 1700434 1109015	Dual-Conductor Wire - 6 Ga. 259 Strand Hex Nut - 3/8" Lock Washer - 3/8" Mounting Bracket			6
11. 12	1700411 1700400	Self-Tanning Screw - 3/8" x 1"		1 1 1 1 1 1 1 1 1 1	
16.	1119557 1701045 1115385 1703480 1703231	50-Amp Auto-Reset Circuit Breaker Cable Tie - 8"	O	0 0	37
18. 19. 20. 21.	1700419 1702926 1700428 1123582	Nylon Lock Nut - 5/16" Cap Screw - 5/16" x 7/8" Flat Washer - 5/16" Shur-Co® Wireless Receiver - SMART1+™	2	31 p	32 35 30 30
22. 23. 24.	1704308 1123604 1704309	Cap Screw - #10 x 1/2"	28	23	36 33
26. 27. 28.	1704316 1704317	12-Ga. Wire - 3" Red 12-Ga. Wire - 3" Black			8
18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33.	1700408 1704312 1704343 1118296 1118297	Modular Control Bracket Insulating Plate	22 22		
33 34 35 36	1703282 1701595 1118037 1118250	Rubber Grommet - 1 1/4" End Plug - 1"		& & & &	
35 36 37 38	1700436 1700427	Lock Washer - 1/4" Flat Washer - 1/4"		22	23

P/N 1126177 Rev. A **Notes**

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