

P/N 1118931 Rev. U



# Fertilizer Spreader

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.

### SHUR-CO®, LLC SERVICE AND DISTRIBUTION CENTERS

Corporate HQ and Outlet Store

#### SHUR-CO® of SOUTH DAKOTA

2309 Shur-Lok St., PO Box 713 Yankton, SD 57078-0713 Ph 800.474.8756 | Fax 605.665.0501

ShurTite™ Service Centers

### SHUR-CO® of CANADA

490 Elgin St., Unit #1 Brantford, Ontario N3S 7P8 Ph 800.265.0823 | Fax 519.751.3997

### SHUR-CO® of SIOUX FALLS

47184 258th St., Suite B Sioux Falls, SD 57107 Ph 844.573.9322 | Fax 605.543.5469

### SHUR-CO® of ILLINOIS

Ph 866.356.0246 | Fax 217.877.8270

### SHUR-CO® of OHIO

Ph 866.356.0242 | Fax 330.297.5599

#### SHUR-CO® of FLORIDA

3353 SE Gran Park Way Stuart, FL 34997 Ph 800.327.8287 | Fax 772.287.0431

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3993 E. Mueller Ave. Decatur, IL 62526 Ph 866.356.0246 | Fax 217.877.8270

### SHUR-CO® of IOWA

3839 Midway Blvd. Ft. Dodge, IA 50501 Ph 866.356.0245 | Fax 515.576.5578

### SHUR-CO® of MICHIGAN

5100 Lakeshore Dr. Lexington, MI 48450 Ph 800.327.8287 | Fax 772.287.0431

#### SHUR-CO® of NORTH DAKOTA

1746 4th Ave. NW West Fargo, ND 58078 Ph 877.868.4488 | Fax 701.277.1283

#### SHUR-CO® of OHIO

1100 N. Freedom, St. Rt. 88 & 14 Ravenna, OH 44266 Ph 866.356.0242 | Fax 330.297.5599

### SHUR-CO® UK, Ltd.

Unit 41 Rochester Airport Estates Laker Rd., Rochester, Kent ME1 3QX Ph +44 (0)1795.473499 Fax +44 (0)871.272.8278

For more info, log on to our website:

www.shurco.com

### **MESSAGE TO OWNERS**

Thank you for buying this tarping system from Shur-Co<sup>®</sup> 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 and repair or replace worn or damaged parts.

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.
- 2. Keep body and clothing clear of moving parts.
- 3. Use only OSHA-approved ladders or scaffolding during installation process.
- 4. 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.

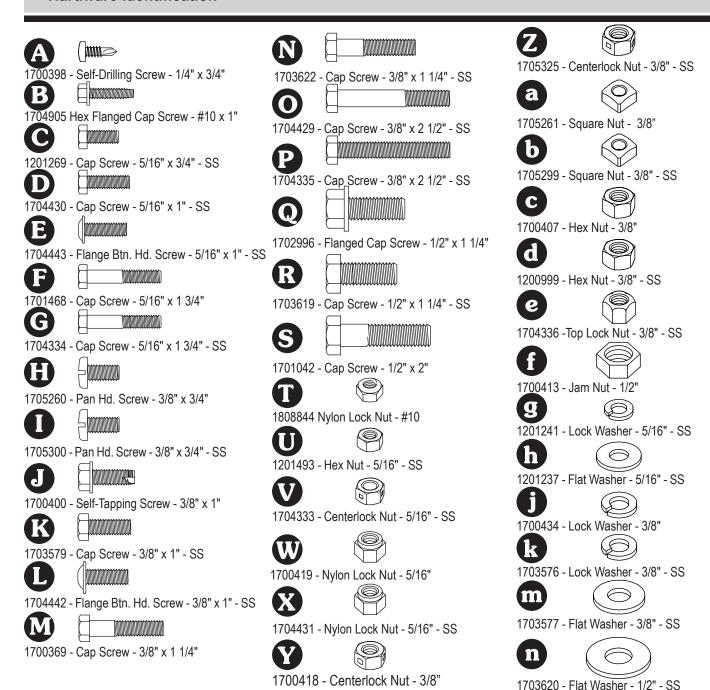
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### **TOOLS REQUIRED**

- 1. Grinder
- 2. #3 Phillips Insert Bit or #3 Phillips Screwdriver
- 3. Air or Electric Wrench w/9/16" Socket
- 4. 1/2" Combination Wrench
- 5. 9/16" Combination Wrench
- 6. Electric Drill
- 7. 3/16" Drill Bit
- 9. 5/16" Drill Bit (for 3/8" self-tapping screws)
- 10. 3/8" Drill Bit (for 3/8" cap screws)
- 11. 3/4" Combination Wrench (for socket & wrench)
- 12. Socket Wrench w/1/2" Socket
- 13. Tape Measure
- 14. Pencil
- 15. Clamps
- 16. Band Saw or Hack Saw
- 17. Pop Rivet Gun
- 18. Hammer
- 20. 11/32" Drill Bit
- 21. 13/32" Drill Bit

Optional: Hot Knife, Spray Paint, Caulk, Rubber Sealant or Welder



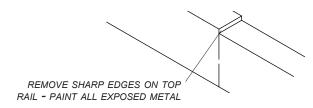
### TARP INSPECTION

**Measure tarp:** Determine tarp length and width with slight tension applied. Compare with length and width stated on sheet attached to tarp. If tarp length and width do not match what is on sheet, do not proceed. Call your local dealer or call Shur-Co® Customer Service at 1-866-748-7435.

### **BOX PREPARATION**

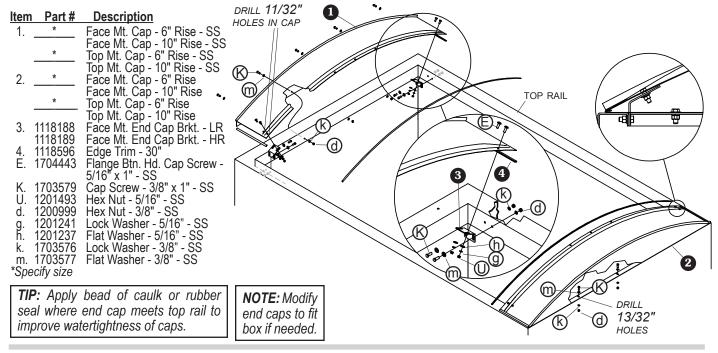
Prepare box before installing Shur-Lok® tarping system. Remove or grind any sharp edges smooth to prevent tarp damage.

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

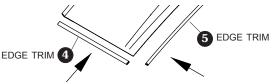


## **A** CAUTION

Box extensions (tip tops), if used, must be secured to truck box. System could blow off if box extensions are not secured to box.

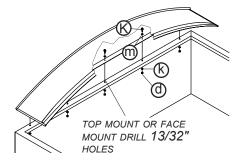


STEP 1: Apply edge trim to end caps, placing edge trim **3** on sides of caps and edge trim **3** on inside edges.

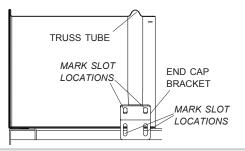


STEP 2: Center caps on box. Mark five evenly spaced hole locations on top rail/box and caps. Drill 13/32" holes and fasten end caps to top rail with screws **3**, flat washers **4**, lock washers **4** and nuts **4**.

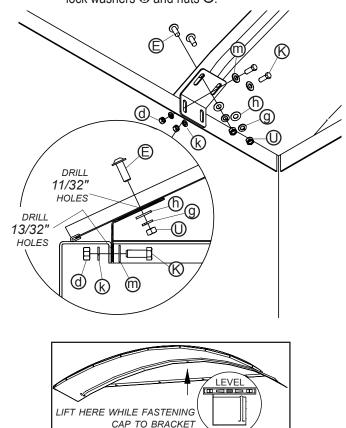
TIP: If cap has mounting slots, loosely fasten screws and nuts into top rail. Slide cap into place, then tighten screws.

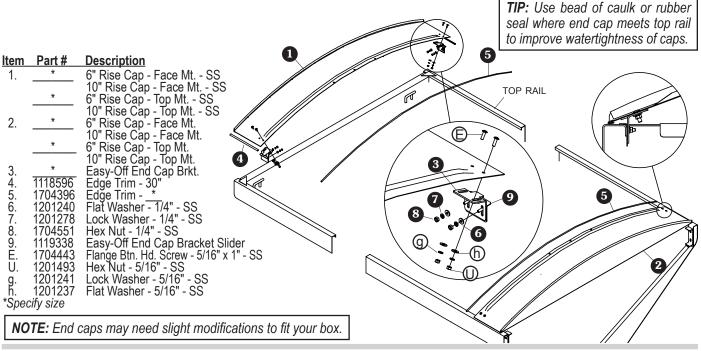


STEP 3: Center end cap brackets under truss tube. Mark locations of slotted holes on box and end caps.

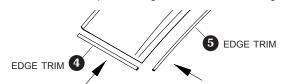


STEP 4: Drill 13/32" holes at marked locations on box. Fasten bracket to box with screws ③, flat washers ⑤, lock washers ⑤ and nuts ⑥. Drill 11/32" holes and fasten bracket to end cap with screws ⑤, flat washers ⑥, lock washers ⑥ and nuts ⑥.

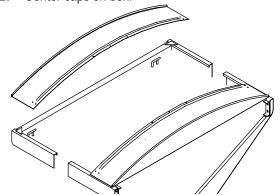




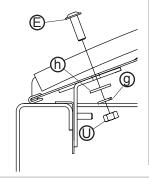
**STEP 1:** Apply edge trim to end caps, placing edge trim **3** on sides of caps and edge trim **3** on inside edges.



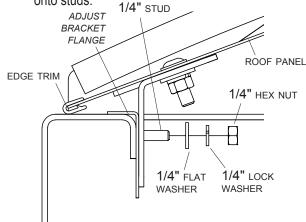
**STEP 2:** Center caps on box.



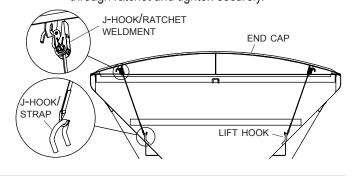
STEP 3: Adjust easy-off brackets side to side so brackets will hold caps centered between side rails. Secure brackets to caps with screws ①, flat washers ①, lock washers ② and nuts ①.

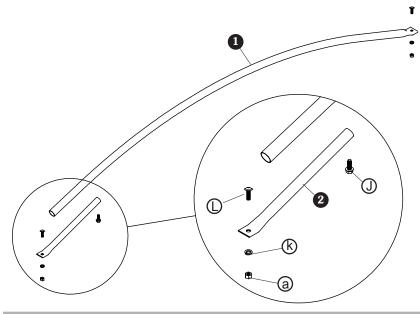


STEP 4: Adjust flange on easy-off bracket so roof panel is parallel to ground and edge trim contacts top rail but does not deform when J-hook ratchets are tightened. Fasten 1/4" flat washers, lock washers and hex nuts onto studs.

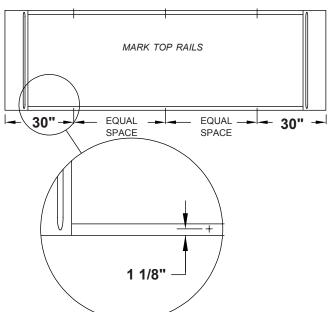


STEP 5: Hook J-hooks into lift-hooks on box. Hook J-hook/ ratchet weldments into end cap as shown. Pull straps through ratchet and tighten securely.

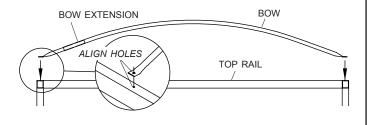




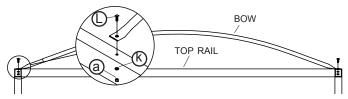
STEP 1: Mark bow locations on top rails as shown. Mark hole center locations 1 1/8" in from outside edge of top rail. Drill 13/32" holes at marked locations.



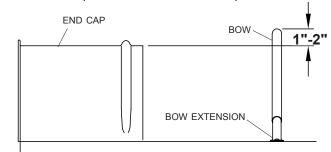
STEP 2: Insert bow extension into bow and align holes in bow assembly with holes on top rails.



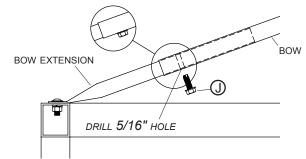
STEP 3: Fasten bows to top rails with screws ①, washers ② and nuts ②.



STEP 4: Lift center of bow 1" to 2" above top of end caps. Clamp bow and bow extension in place.

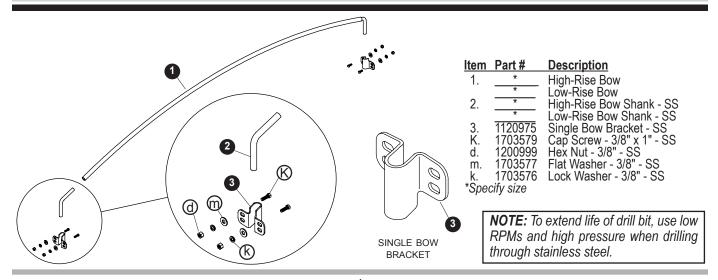


STEP 5: Drill 5/16" hole into bow extension through hole in underside of bow. Drive screw ● into hole to secure bow and bow extension at correct height.

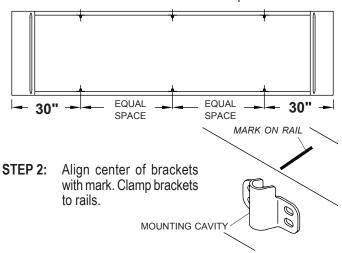


**STEP 6:** Repeat on remaining bows.

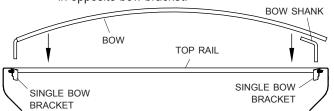
Galvanized Bows P/N 1118931 Rev. U



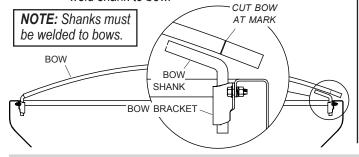
STEP 1: Mark bow bracket locations on top rails as shown.



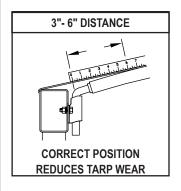
**STEP 3:** Place bow into bow bracket. Place loose bow shank in opposite bow bracket.

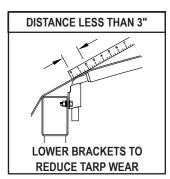


STEP 4: Align bow with bow shank. Mark and cut bow at point where bend starts on shank. Grind edges smooth and weld shank to bow.

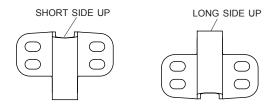


STEP 5: Adjust bow brackets vertically to allow 3" to 6" between bend in bow shank and point where tarp will contact bow.

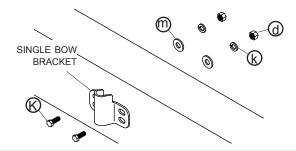




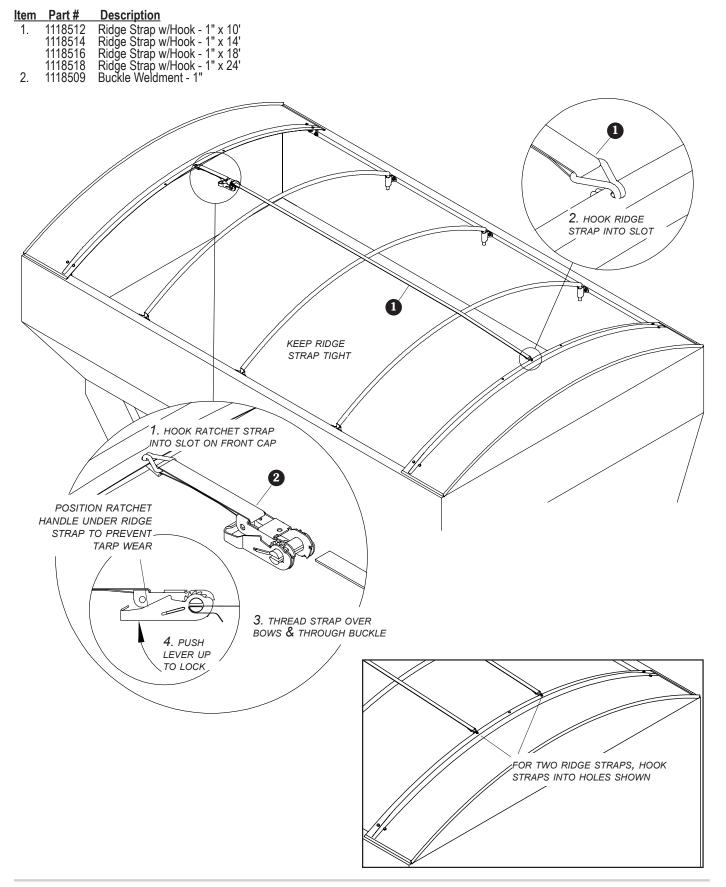
**NOTE:** In order to attain correct bow height, bow brackets may be oriented with long or short side up.

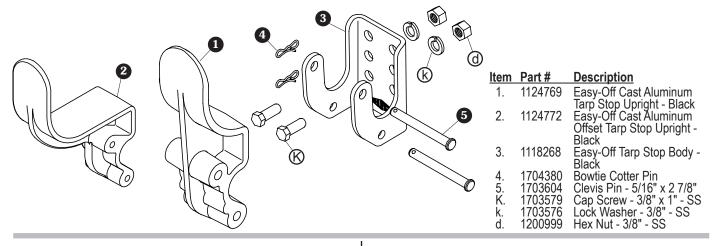


STEP 6: Mark and drill 13/32" holes and mount brackets with screws ③, flat washers ⑤, lock washers ⑤ and nuts ⑥. Install bows into bow brackets.



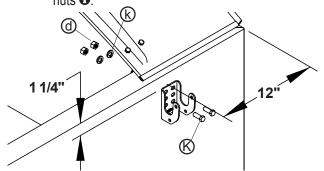
P/N 1118931 Rev. U Ridge Straps





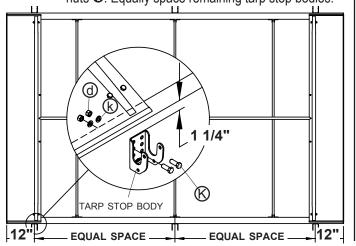
**NOTE:** If installing system to open from passenger side of box, locate tarp stops on driver side.

STEP 1: Locate first tarp stop body 12" from front edge of box and 1 1/4" below top of side rail. Mark and drill holes and fasten to box with screws 3, lock washers 3 and nuts 3.

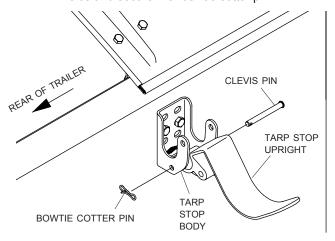


**NOTE:** Install tarp stop body on vertical surface. Fasten through holes that best fit top rail configuration.

STEP 2: Locate second tarp stop body 12" from rear edge of box and 1 1/4" below top of side rail. Mark and drill holes and fasten with screws ③, lock washers ④ and nuts ④. Equally space remaining tarp stop bodies.

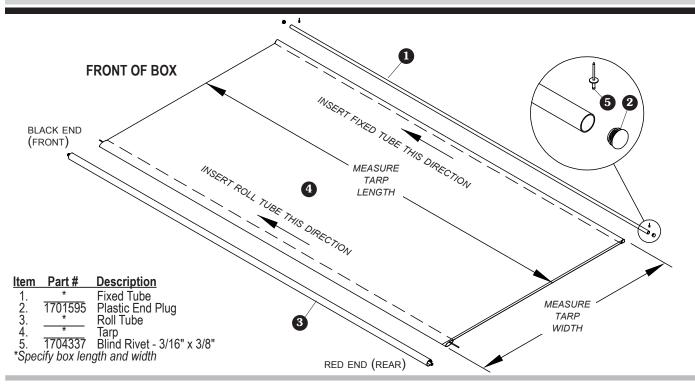


STEP 3: Align lower holes in tarp stop uprights with lower holes in tarp stop bodies. Insert clevis pins through aligned holes and secure with bowtie cotter pin.

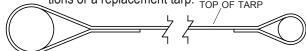


**NOTE:** Align cotter pins toward rear of trailer as shown.

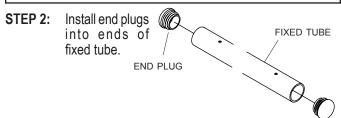
P/N 1118931 Rev. U



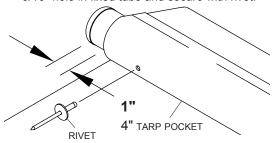
STEP 1: Measure tarp. Open tarp and stretch tight. Measure tarp length and width and compare with sheet attached to tarp. Do not proceed with installation if tarp length or width doesn't match what is specified on sheet. Call Shur-Co® or your local dealer for alterations or a replacement tarp. TOP OF TARP



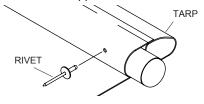
**NOTE:** Tarps cannot be returned at Shur-Co's expense beyond this point. Tarps damaged beyond this point may be returned for repair or replacement at owner's expense.



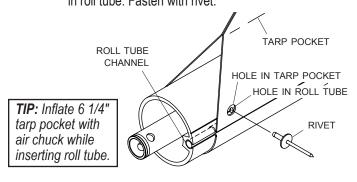
STEP 3: Insert fixed tube into 4" tarp pocket. Extend tube 1" past tarp edge, align pre-punched hole in tarp with 3/16" hole in fixed tube and secure with rivet.



STEP 4: Stretch tarp along fixed tube until second hole in tarp stop is aligned with second hole in fixed tube, then secure second rivet on opposite end of fixed tube.

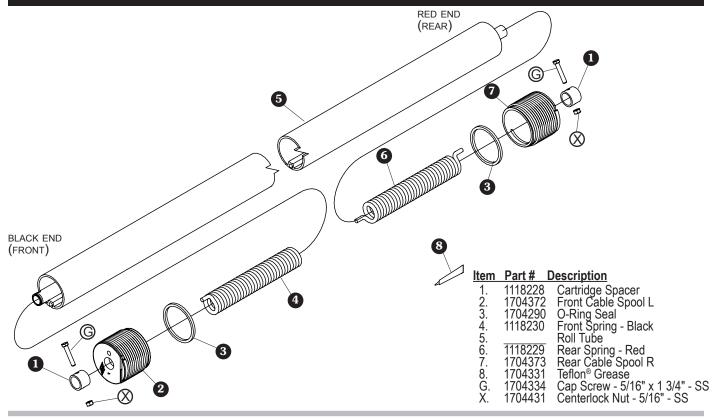


STEP 5: Roll tube. Align roll tube with 6 1/4" pocket in tarp so channel in roll tube lines up with rod sewn inside tarp pocket. Make sure hole in roll tube and hole in tarp are on same side of rod. Slide roll tube into tarp pocket, fitting rod into channel. Align hole near end of roll tube with hole in tarp. Fasten with rivet. At opposite end of roll tube, stretch tarp until hole in tarp aligns with hole in roll tube. Fasten with rivet.

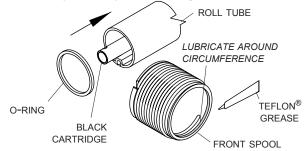


**NOTE:** Rod must extend past edge of tarp but must not extend past edge of roll tube. Trim rod, if required.

Springs & Spools P/N 1118931 Rev. U



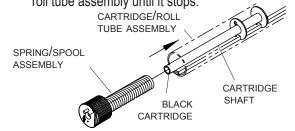
**STEP 1:** Slide O-ring onto roll tube. Lubricate inside of front spool (marked L) with Teflon® grease.



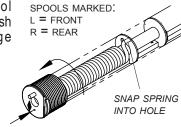
**STEP 2:** Insert spring into spool so offset tab goes through small hole in spool.



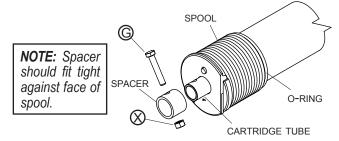
STEP 3: Insert spring and spool onto black cartridge shaft. Continue to slide spring/spool assembly into cartridge/roll tube assembly until it stops.



STEP 4: Turn front spool marked 'L' and push to fully engage spring in roll tube.

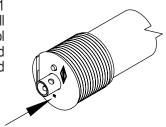


STEP 5: Slide spacer on cartridge tube. Align holes with cartridge tube and fasten with cap screw ③ and hex nut ③. Tighten. Push O-ring against spool.

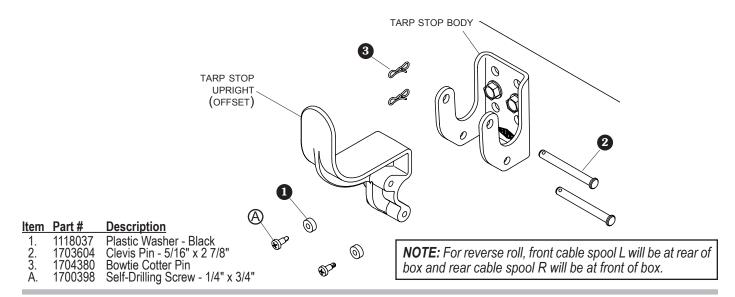


STEP 6: Rear. Repeat steps 1 to 5 on rear end of roll tube, using rear spool (marked R) and red spring. Install on red cartridge.

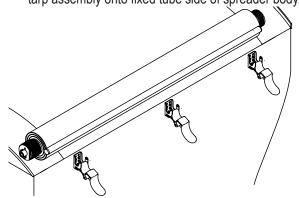
SPOOLS MARKED: L = FRONT R = REAR



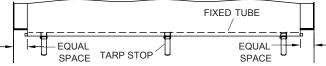
P/N 1118931 Rev. U



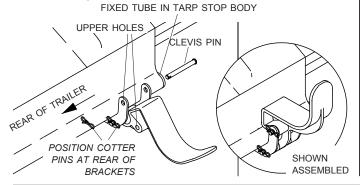
STEP 1: Wind tarp completely around roll tube. Lift rolled up tarp assembly onto fixed tube side of spreader body.



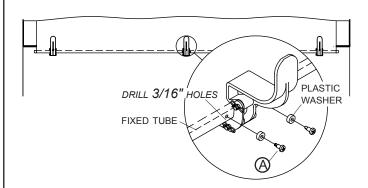
STEP 2: Center tarp on farm box, overlapping end caps. Unroll tarp so fixed tube hangs over edge of box. Square up tarp and fixed tube. Adjust tarp so fixed tube rests squarely in tarp stop bodies.



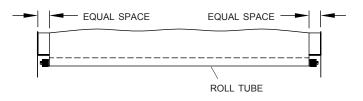
STEP 3: Align upper holes in tarp stop uprights with upper holes in tarp stop bodies. Insert clevis pins through aligned holes and secure with bowtie cotter pins.



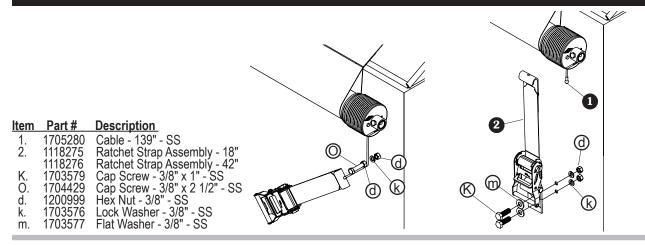
STEP 4: At center tarp stop, hold plastic washer against tarp stop body. Using washer as guide, drill 3/16" hole through tarp and fixed tube. Using #3 Phillips bit, thread self-drilling screw ① through washer and hole in fixed tube. Do not overtighten. Repeat on other side of tarp stop body.



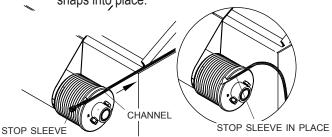
**STEP 5:** Make sure roll tube and tarp are centered on box.



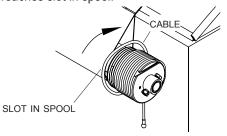
Cables & Ratchets
P/N 1118931 Rev. U



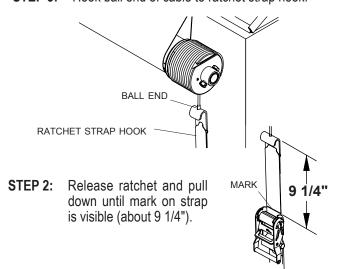
STEP 1: With tarp closed, insert stop sleeve end of cable into channel on end of spool. Pull cable until stop sleeve snaps into place.



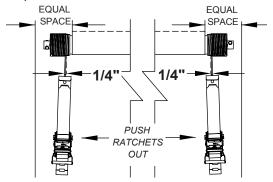
STEP 2: Wrap cable into grooves around spool until cable reaches slot in spool.



**STEP 3:** Hook ball end of cable to ratchet strap hook.

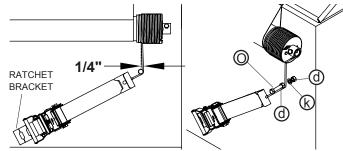


STEP 3: To ensure cable winds correctly in spool grooves, push ratchets out so cable moves 1/4".

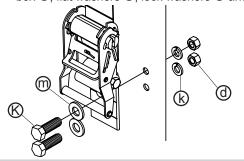


STEP 3A: If vertical surface is too short to mount ratchets.

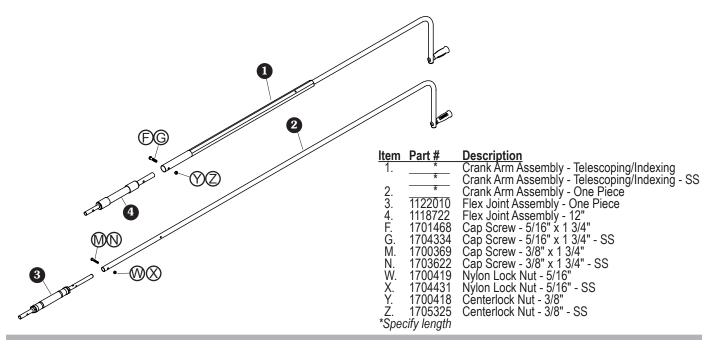
Mark location for 5/16" holes after ratchets are pushed out so cable moves 1/4". Drill holes. Tighten nut on screw ② and fasten to box with lock washer ③ and nut ③. Guide cable around cap screw and rotate ratchet bracket to fit on vertical surface.



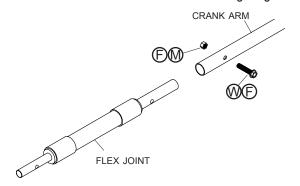
STEP 4: Mark and drill 5/16" holes. Fasten ratchet bracket to box ③, flat washers ⑤, lock washers ③ and nuts ①.



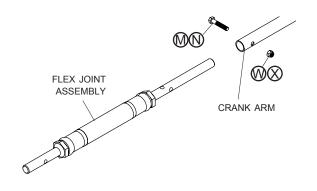
P/N 1118931 Rev. U



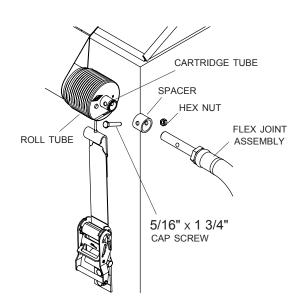
STEP 1A: Telescoping/Indexing crank option. Insert flex joint into end of crank arm. Fasten with screw ☑ and nut ☑ for galvanized option. For stainless steel option, fasten with screw ☑ and nut ☑. Finger tighten.

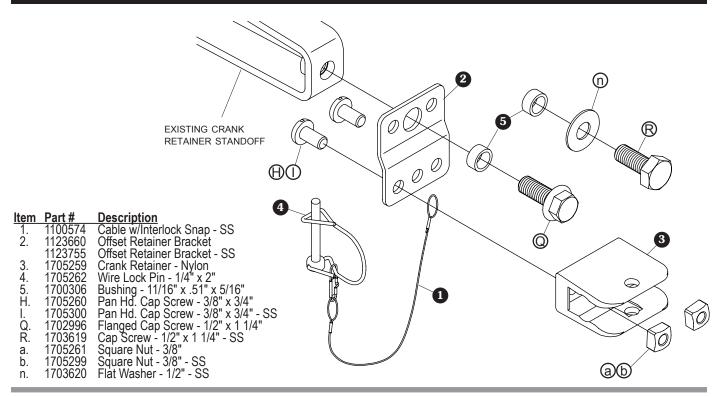


STEP 1B: One piece crank option. Insert flex joint into end of crank arm. Fasten with screw **③** and nut **④** for galvanized option. For stainless steel option, fasten with screw **⑤** and nut **⑥**. Finger tighten.

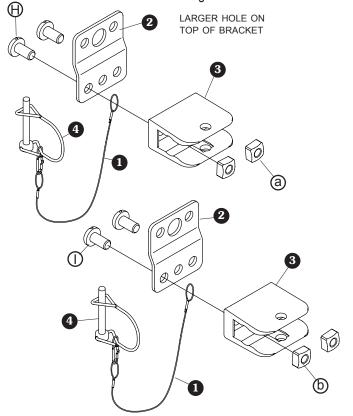


STEP 3: Remove nut and cap screw from spacer on rear (red) end of roll tube. Slide flex joint assembly end into cartridge tube protruding from roll tube. Align holes, reinsert cap screw and tighten hex nut.



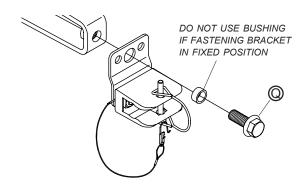


**STEP 1A: Galvanized option.** Fasten components shown with screws **①** and nuts **②**. Tighten fasteners.

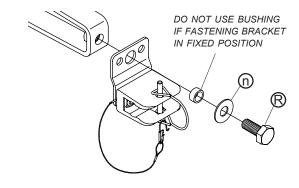


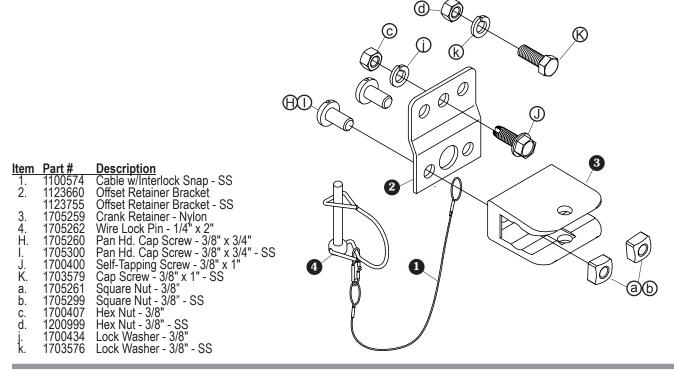
**STEP 1B: Stainless option.** Fasten components shown with stainless steel screws **①** and nuts **②**. Tighten fasteners.

**STEP 2A:** Galvanized steel option. Fasten telescoping crank retainer to existing crank retainer standoff on rear of trailer with screw ① and bushing. Tighten fasteners.

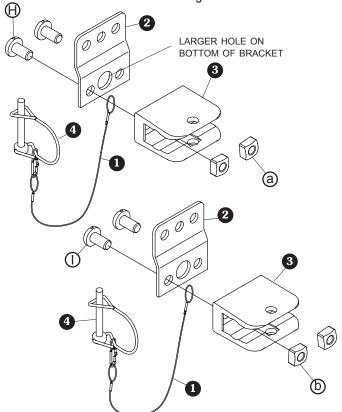


STEP 2B: Stainless steel option. Fasten telescoping crank retainer to existing crank retainer standoff on rear of trailer with screw ♠, washer ♠ and bushing. Tighten fasteners.





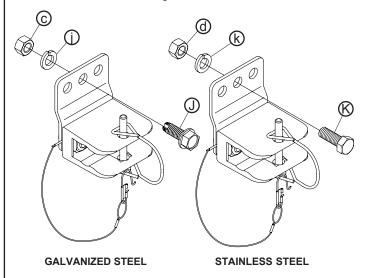
**STEP 1A: Galvanized option.** Fasten components shown with screws **①** and nuts **②**. Tighten fasteners.



**STEP 1B: Stainless option.** Fasten components shown with stainless steel screws **①** and nuts **心**. Tighten fasteners.

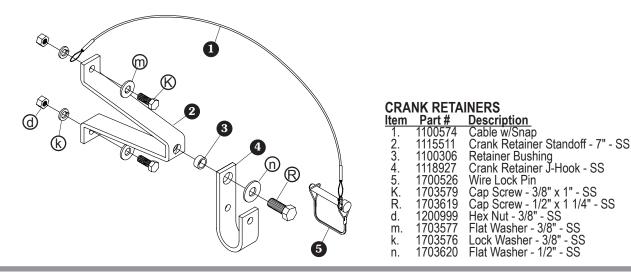
STEP 2: Determine mounting location on rear of trailer for telescoping crank retainer.

STEP 3A: Galvanized steel option. Use center hole in retaining bracket as guide to mark and drill 5/16" hole in trailer wall. Fasten with galvanized steel screw ●, washer ● and nut ●. Tighten fasteners.



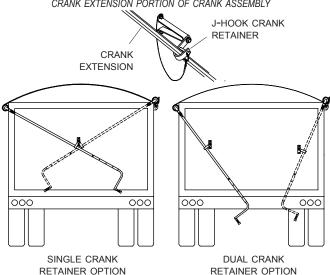
STEP 3B: Stainless steel option. Use center hole in retaining bracket as guide to mark and drill 13/32" hole in trailer wall. Fasten with stainless steel screw ③, washer ③ and nut ④. Tighten fasteners.

Crank Retainers P/N 1118931 Rev. U

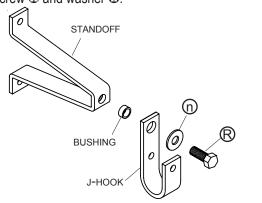


STEP 1: Mark locations for one or two crank arms on back of box, where accessible by crank arm while tarp is opened or closed.

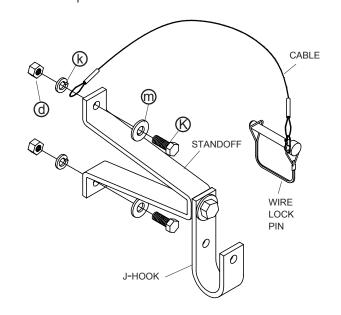
LOCATE CRANK RETAINER WHERE IT WILL ENGAGE CRANK EXTENSION PORTION OF CRANK ASSEMBLY

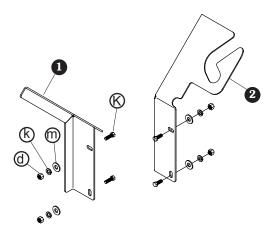


**STEP 2:** Fasten J-hook and bushing to crank arm standoff with screw **①** and washer **①**.



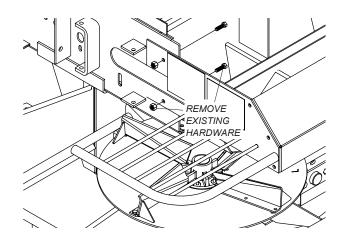
STEP 3: Drill 5/16" holes and fasten crank retainer assembly to box with screws ③, flat washers ⑤, lock washers ③ and nuts ⑥. If using J-hook, fasten cable to wire lock pin. Fasten other end of cable behind standoff.



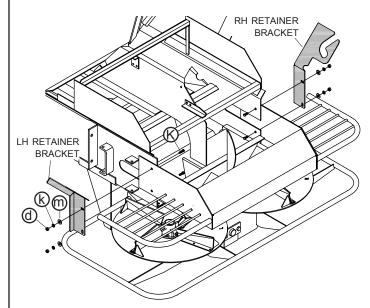


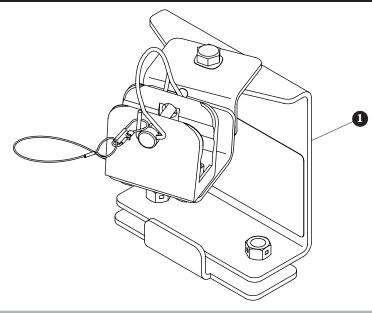
<u>ltem</u>	Part #	Description
1.	1119653	Retainer Bracket - LH
2.	1119654	Retainer Bracket - RH
K.	1703579	Cap Screw - 3/8" x 1" - SS
d.	1200999	Hex Nut - 3/8" - SS
k.	1703576	Lock Washer - 3/8" - SS
m.	1703577	Flat Washer - 3/8" - SS

**STEP 1:** Remove existing hardware from spinner guard.



Fasten retainer bracket into bolt holes on spinner guard (where fasteners were removed in step 1) with screws  $\bullet$ , lock washers  $\bullet$ , flat washers  $\bullet$  and nuts  $\bullet$ .

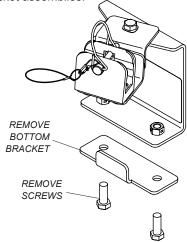




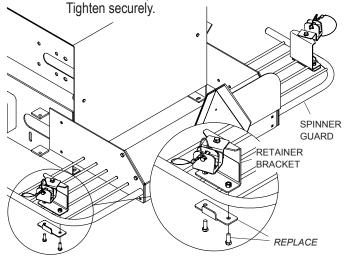
Item Part # <u>Description</u> Retainer Bracket Assembly - SS

STEP 1: Remove screws and bottom bracket from retainer

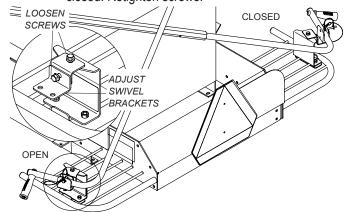
bracket assemblies.



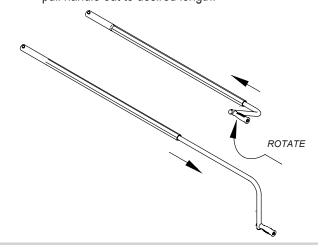
STEP 2: Align retainer brackets on both sides of spinner guard as shown. Replace screws and bottom bracket.



STEP 3: Loosen screws in swivel bracket and align crank retainers with crank handle while tarp is open and closed. Retighten screws.

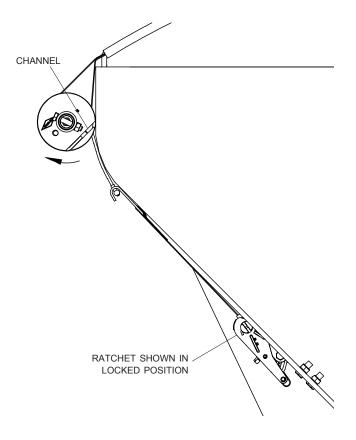


STEP 4: To change angle of crank handle while crank is in retainer, slide handle into hexagonal portion of crank arm until it stops. Rotate handle to desired angle, then pull handle out to desired length.



P/N 1118931 Rev. U Cable Tension

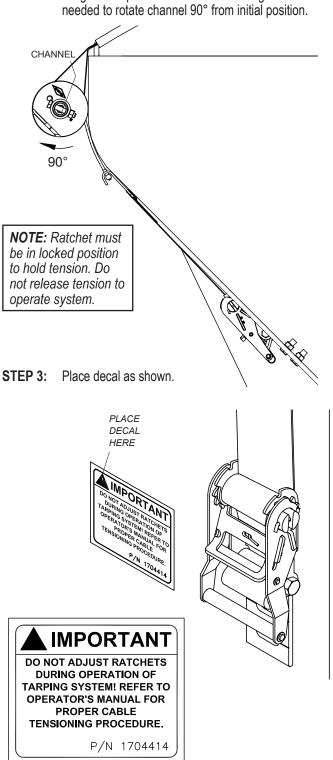
**STEP 1:** Determine tarp tension. Tighten ratchets to remove slack and apply initial tension to tarp. Note position of channels on front and rear spools as initial tarp tension is reached.

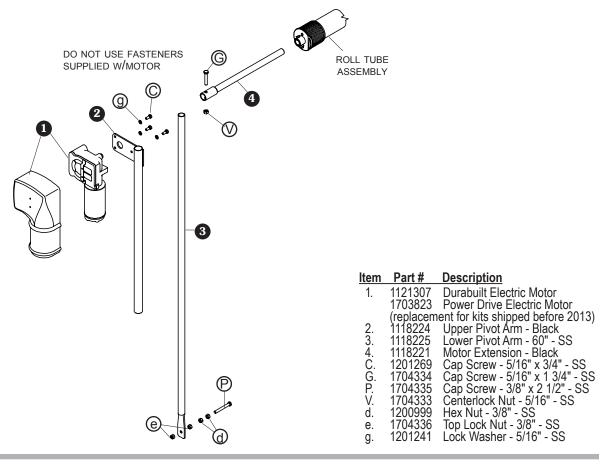


### **A** CAUTION

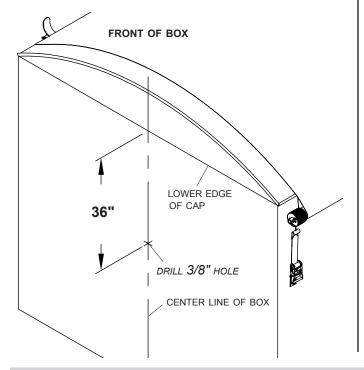
Do not adjust ratchets while system is operating.

STEP 2: Tighten ratchet so channels rotate 90° from original position. Open and close tarp system five or six times to allow cable to seat in spool grooves and tarp to pull snug. Check position of channel and retighten ratchet as needed to rotate channel 90° from initial position.

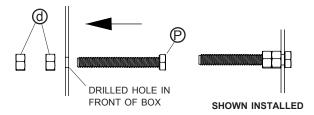




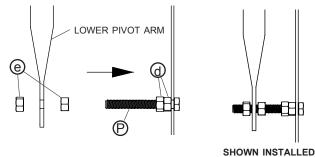
STEP 1: Determine pivot point location on front of box by measuring 36" down from lower edge of end cap at center of box. Mark location and drill 3/8" hole.



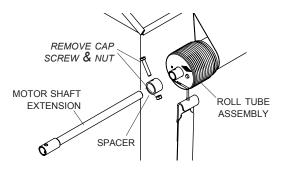
STEP 2: From inside of box, insert cap screw ① through hole and tighten against box wall with hex nut ②. Tighten second hex nut ② against first hex nut.



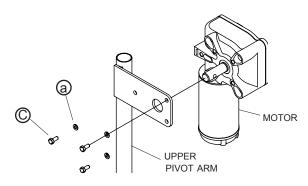
STEP 3: Turn top lock nut ② onto cap screw ②, positioning nut to allow enough thread on cap screw to place pivot arm and another nut. Install lower pivot arm over cap screw ② and turn second top lock nut ③ onto cap screw ②, leaving room for arm to rotate freely.



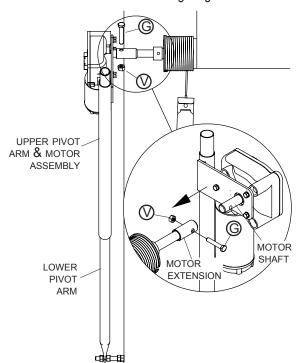
STEP 4: Remove cap screw **3** and lock nut **3** from cartridge spacer on front of roll tube. Insert motor shaft extension into spacer and roll tube assembly.



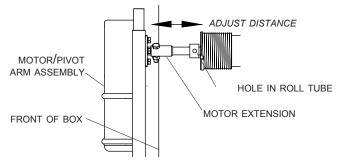
STEP 5: Fasten motor to upper pivot arm with screw **②** and lock washer **③**.



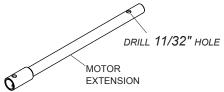
STEP 6: Slide upper pivot arm and motor assembly over lower pivot arm. Insert motor shaft into motor extension. Insert screw **⊙** and finger tighten nut **⊙**.



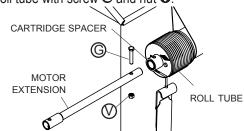
STEP 7: Adjust distance between motor/pivot arm assembly and box to allow free movement of pivot arm and motor assembly across front of box. Using hole in roll tube as guide, mark hole location on motor extension.



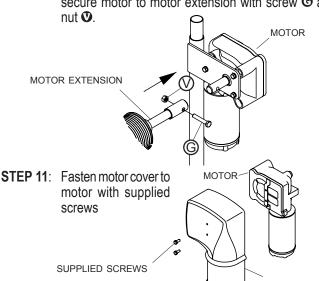
STEP 8: Remove motor extension. Drill 11/32" hole through motor extension at marked location.



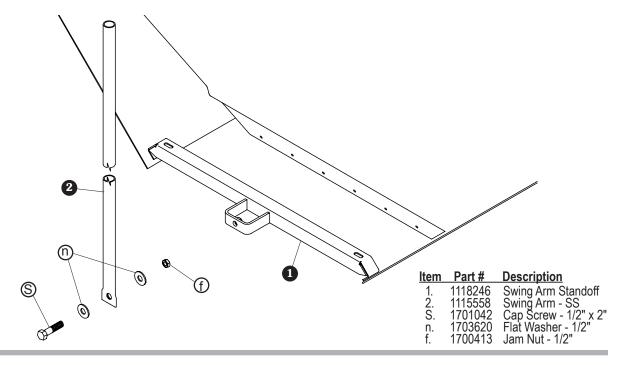
STEP 9: Replace motor extension into roll tube. Align holes and secure cartridge spacer and motor extension to roll tube with screw **③** and nut **④**.



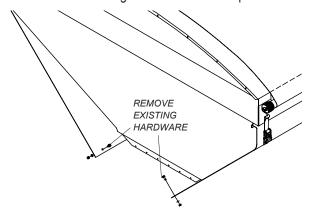
STEP 10: Replace motor onto motor extension. Align holes and secure motor to motor extension with screw **3** and nut **3** 



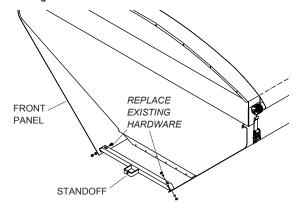
MOTOR COVER



**STEP 1:** Remove existing hardware from front panels.

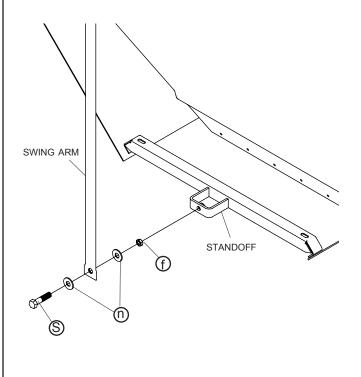


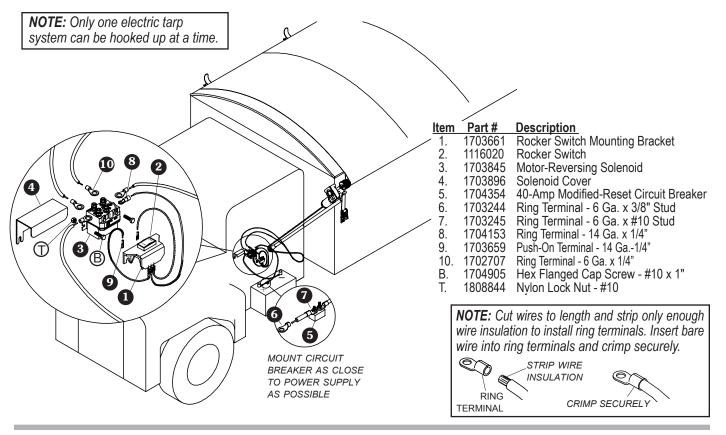
**STEP 2:** Fasten standoff to front panels as shown, using existing hardware.



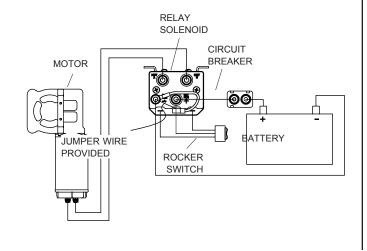
**NOTE:** Swing arm must operate without interference. Locate standoff to allow clearance for swing arm operation..

STEP 3: Fasten swing arm to standoff with screw ③, washers ① and nut ①.

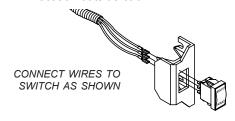




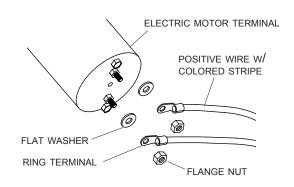
- **STEP 1:** Circuit breaker & battery. Mount circuit breaker as close as possible to battery or power supply.
- STEP 2: Mount solenoid. Mount solenoid in suitable location a ventilated area near the battery is ideal. Determine best route for wire, usually along frame with existing wire harness. Run 6-ga. wire from motor 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. Switch can be mounted in cab, on dash panel, on driver side door jamb or in convenient location outside cab.



- **STEP 4:** Wire routing. Run wire to rear of box, around hoist pin and back to front of box.
- **STEP 5:** Connect wires at top of pivot arm to motor.



#### **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 modified-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.

### **A** CAUTION

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

- **STEP 1: Determine tarp tension.** Tighten ratchets to apply initial tension to tarp. Note position of channels on front and rear spools as initial tarp tension is reached.
- STEP 2: Tighten ratchet so channels rotate 90° from original position. Open and close tarp system five or six times to allow cable to seat in spool grooves and tarp to pull snug. Check position of channel and retighten ratchet as needed to rotate channel 90° from initial position.

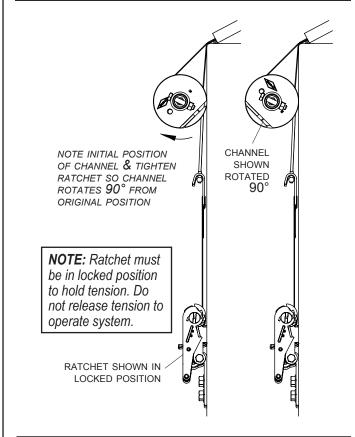
**STEP 3:** Decal below must be installed near ratchets.



DO NOT ADJUST RATCHETS
DURING OPERATION OF
TARPING SYSTEM! REFER TO
OPERATOR'S MANUAL FOR
PROPER CABLE
TENSIONING PROCEDURE.

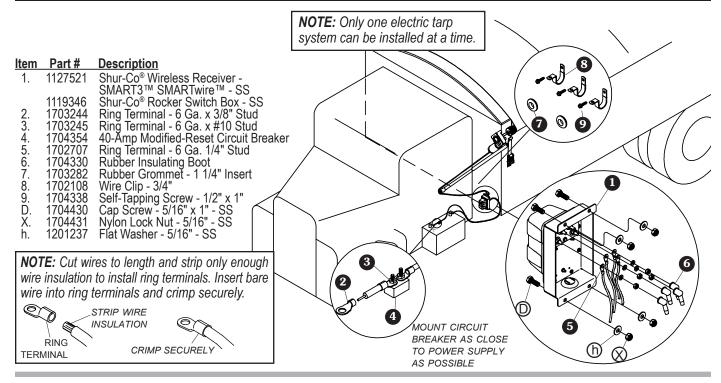
P/N: 1704414

**NOTE:** Ratchet must be in locked position to hold tension. Do not release tension to operate system.

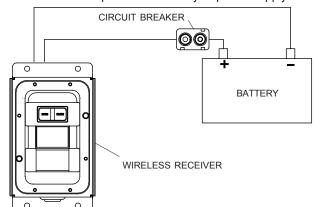




Do not adjust ratchets during operation of tarping system!



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



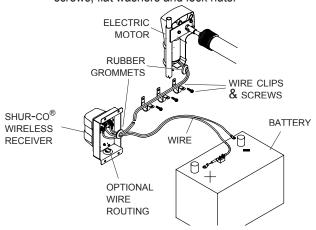
STEP 2: Strip and prep wire ends for connection to motor. Insert end of wire through rubber boots, then crimp 1/4" ring terminals onto wire ends. Connect wires at top of pivot arm to motor.

STEP 3: Shur-Co® wireless receiver. Run 6-ga. wire from electric motor down pivot arm. Use cable ties to hold wire onto pivot arm. Drill 1 1/8" hole below pivot point. Press rubber grommet into hole and insert wire through grommet. Leave slack in wire for movement during operation. Route wires as desired, securing with wire clips and self-tapping screws. Drill 1 1/8" hole through front of trailer at suitable location for wireless receiver. Insert grommet into hole and push wire through grommet.

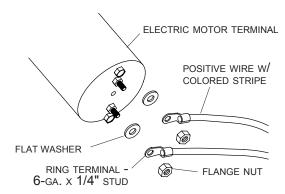
**NOTE:** Use dielectric grease (P/N 1704378) to prevent corrosion on terminals.

STEP 4: Insert end of 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.

STEP 5: Run section of 6-ga. wire long enough to reach rear hoist pin and back to battery 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. Mount wireless receiver to cover rubber grommet. Mark and drill 11/32" holes and fasten with 5/16" x 7/8" cap screws, flat washers and lock nuts.



**STEP 6:** Connect wires at top of pivot arm to motor.



### **A** CAUTION

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

- **STEP 1: Determine tarp tension.** Tighten ratchets to apply initial tension to tarp. Note position of channels on front and rear spools as initial tarp tension is reached.
- STEP 2: Tighten ratchet so channels rotate 90° from original position. Open and close tarp system five or six times to allow cable to seat in spool grooves and tarp to pull snug. Check position of channel and retighten ratchet as needed to rotate channel 90° from initial position.
- **STEP 3:** Decal below must be installed near ratchets.



DO NOT ADJUST RATCHETS
DURING OPERATION OF
TARPING SYSTEM! REFER TO
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TENSIONING PROCEDURE.

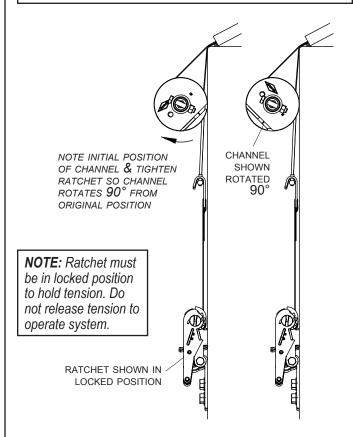
P/N: 1704414

#### **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 modified-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:** Receiver may be pressure washed, but keep nozzle at least 3' from system while spraying.



### **A** CAUTION

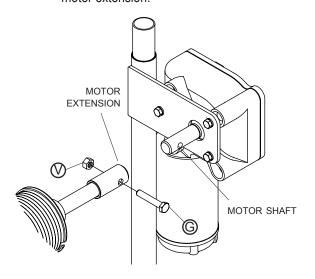
Do not adjust ratchets while tarp system is in operation!

Perform the following steps to convert electric Cable-Lok $^{\text{TM}}$  system to manual crank operation:

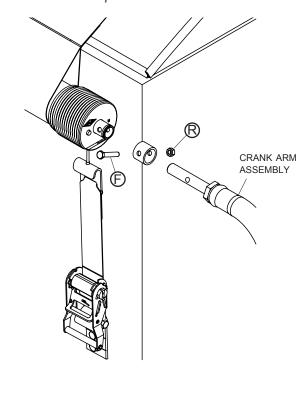
**NOTE:** Store manual crank arm in truck or mounted to trailer. (Example - above kingpin in apex.)

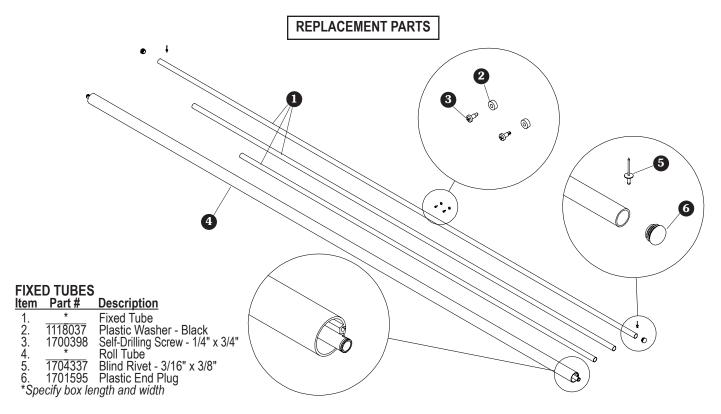
**STEP 1:** Close tarp, letting roll tube hang loose.

STEP 2: At front of box, remove cap screw **②** and nut **②** from motor shaft and motor extension. Remove motor from motor extension.

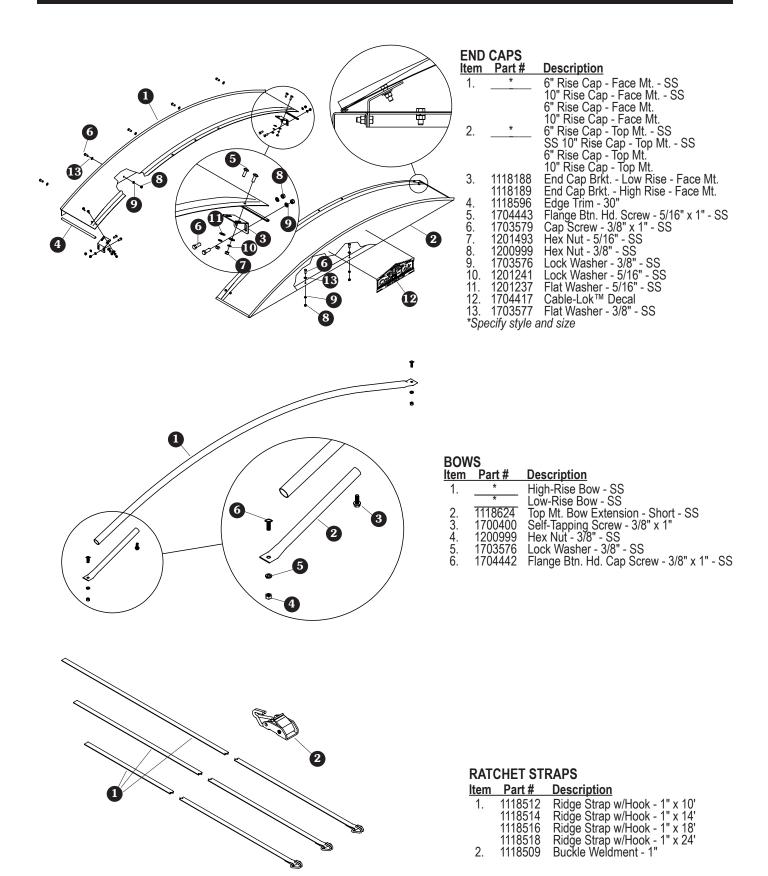


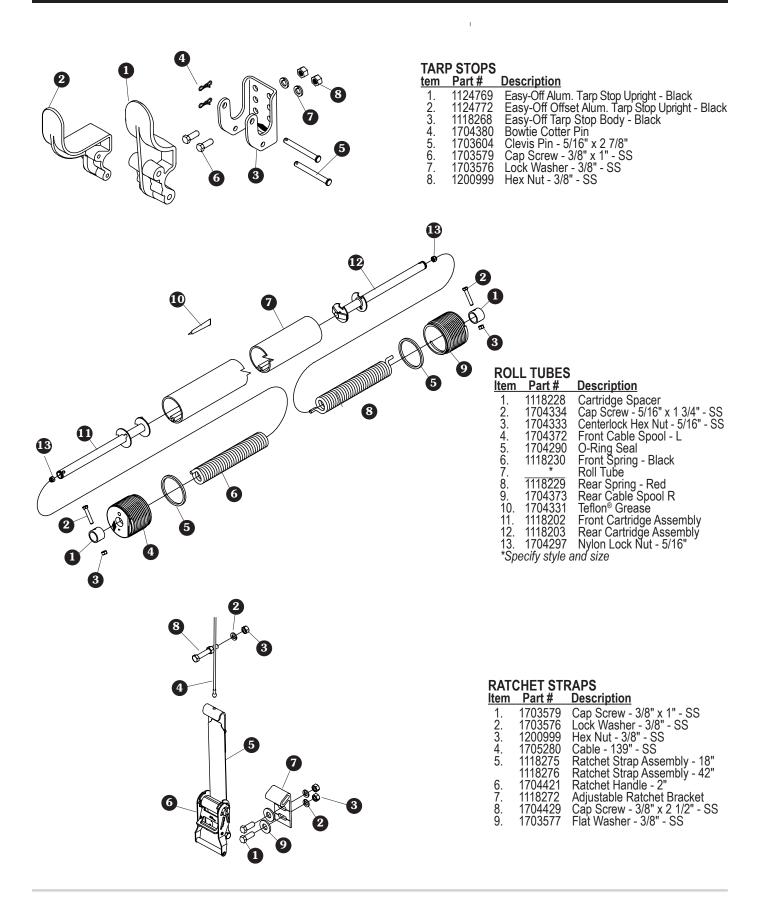
STEP 3: Install crank arm at rear of box as shown in *Manual Crank Option* section of this manual.

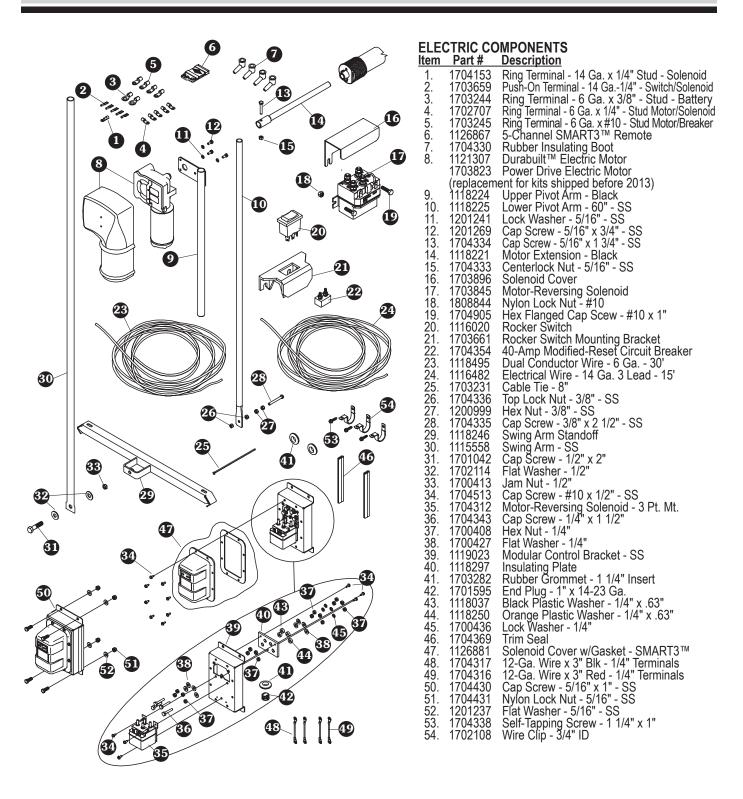


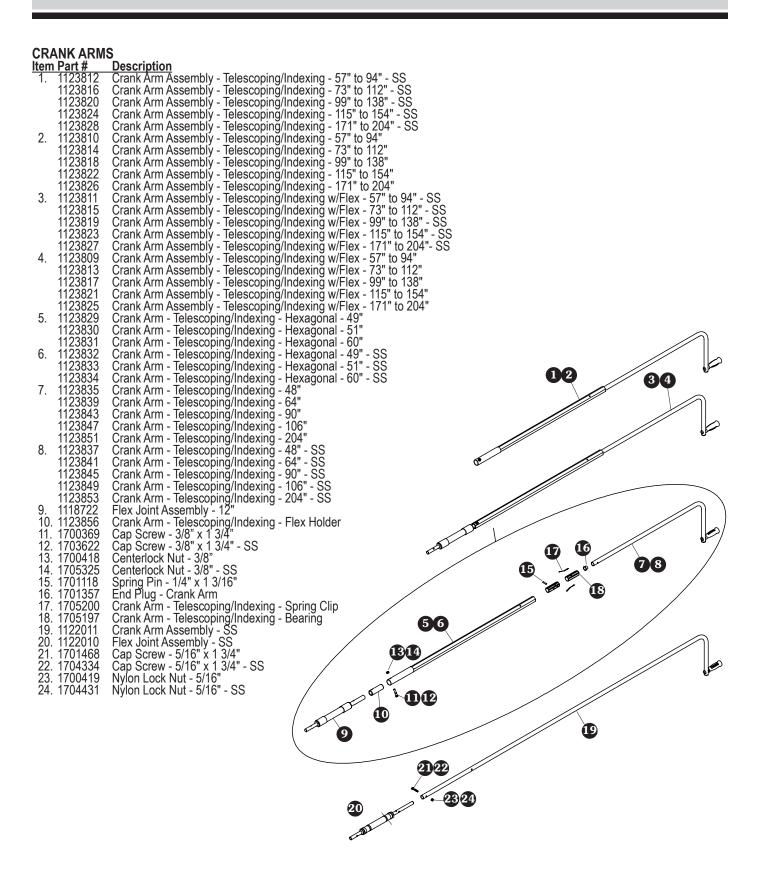


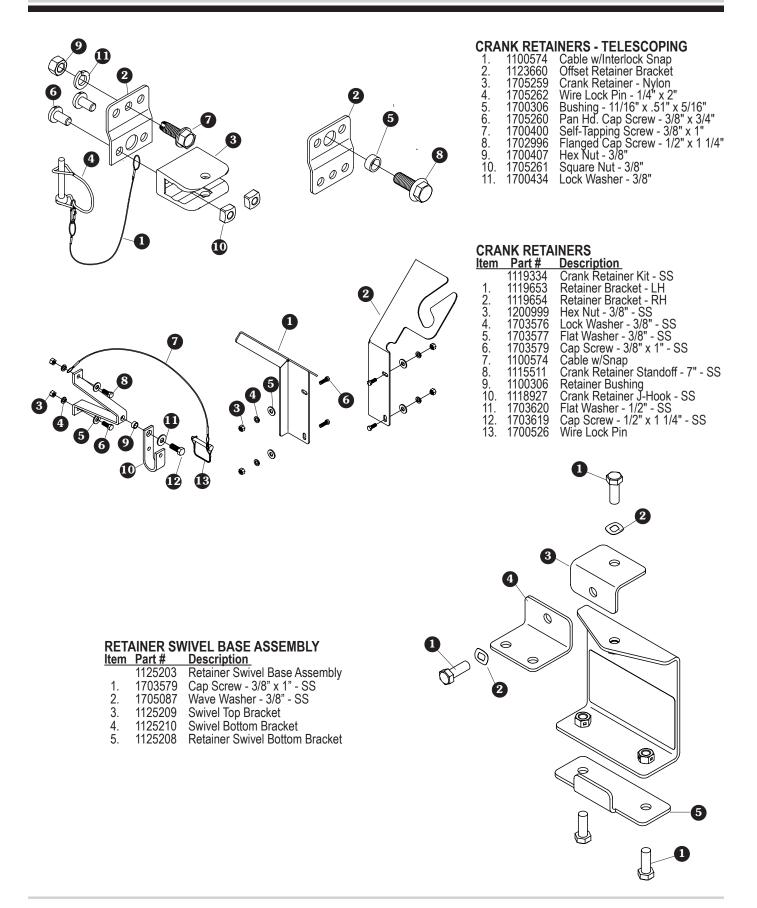
**Replacement Parts** 











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:
When operating the system, cables do not wind properly in the spool grooves.	Verify the spools are not binding on the roll tube. Remove, clean and re-grease, if required. See Springs and Spools.
	2. Verify the tarp is centered on the end caps and black plastic washers are correctly installed. Measure, center tarp and install washers. See Tarp Installation.
	3. Verify ratchets are correctly installed. Adjust from side to side. See Cables and Ratchets.
	4. Verify cable tension. Adjust as needed. See Cable Tension.
When operating the system, the tarp doesn't roll up evenly.  Tarp binds on one or both ends.	1. Verify the spools are not binding on the roll tube. Remove, clean and re-grease, if required. See Springs and Spools.
	Verify cable tension is not too loose. Adjust as needed.     See Cable Tension.
	3. Verify the tarp has not been altered or improperly repaired. Verify the tarp length and width have not changed and the tarp is square.
When closed, the tarp doesn't become tight in the middle.	Verify cable tension. Adjust as needed. See Cable Tension.
	2. Verify the correct number of ridge straps are installed and in the correct location. Move or install as needed. See Ridge Straps.
	3. Verify correct bow spacing and installation height and the bows are not damaged. Bow height should be 1" to 2" above cap height. Move, adjust, repair or replace bows as needed. See Standard Bows.
The tarp is worn or has holes.	Verify the tarp is not contacting any sharp edges. Remove sharp edges. See Box Preparation.
	Consult your local Shur-Co® dealer for repairs or order a tarp repair kit.
	3. If required, replace tarp or parts with Genuine Shur-Co® parts.
The SMART3™ remote is not working.	Make sure the batteries are placed correctly.
None of the lights on the remote turn on when I open the lid.	2. The batteries may be dead and must be replaced.
	3. The SMART3™ remote may be damaged. Call Shur-Co's Help Line.

PROBLEM:	TRY THIS:
The SMART3™ remote is not working.  I can operate the system with the rocker switch, but not with the remote. The SMART3™ channel light (Tarp System, for example) is blinking, and when I press the Open/On button,	<ol> <li>Make sure the remote is set to the right channel. If you cannot set the remote to the desired channel (Tarp System, for example), the remote must be reprogrammed. See the SMART3™ programming instructions.</li> </ol>
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 the SMART3™ remote.	Make sure the master disconnect switch is turned to the "ON" position.
When I try to use the rocker switch or SMART3™ remote, I don't hear any noises (a clicking, for example) from the re-	The circuit breaker may have tripped. Wait one minute and try again.
ceiver.	Check the vehicle's battery to make sure it isn't dead.
	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 the SMART3™ 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 SMART3™ remote, I hear a clicking 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: Receiver may be pressure washed, but keep nozzle at least 3' from system while spraying.

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### MAINTENANCE SCHEDULE

### Every 2 to 4 weeks:

- 1. Inspect tarp repair any tears, cuts or worn areas.
- 2. Inspect hardware securely tighten any loose fasteners.
- 3. Check cable tension and adjust as needed (see Cable Ten-

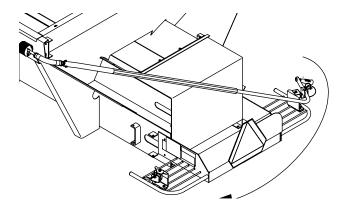
### MANUAL OPERATING INSTRUCTIONS

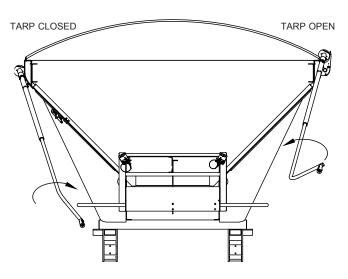
### Open tarp from closed postion:

- 1. Using both hands, carefully remove crank from crank retainer.
- 2. Move crank handle to operating position.
- 3. Turn crank clockwise to roll tarp open.
- 4. Return crank to other crank retainer and secure.

### Close tarp from open position:

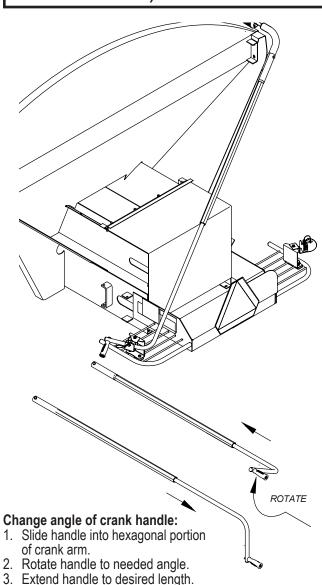
- Using both hands, carefully remove crank from crank retainer.
   Move crank handle to operating position.
- 3. Turn crank counter-clockwise to roll tarp closed.
- 4. Return crank to other crank retainer and secure.





### **SAFETY INSTRUCTIONS**

- 1. Do not adjust ratchets while operating tarping system.
- 2. Do not load or unload trailer while tarp is closed.
- 3. Do not operate tarping system while box is raised or elevated.
- 4. Do not stand or walk on tarp or end caps.
- 5. Do not drive vehicle at highway speeds unless tarp is fully open or closed (fully closed is recommended.)



PLACE ONLY THE LOWER PORTION OF THIS DECAL IN A LOCATION VISIBLE TO THE OPERATOR OR ALL WARRANTIES ARE VOID!

### **ATTENTION!**

TARP MUST BE IN THE OPEN POSITION BEFORE UNLOADING OR LOADING.

DO NOT WALK OR STAND ON THE TARP OR END CAPS.

DO NOT OPERATE TARP WITH THE BOX IN A RAISED OR ELEVATED POSITION.

DO NOT OPERATE THIS VEHICLE AT HIGHWAY SPEEDS UNLESS THE TARP IS IN THE FULLY CLOSED OR FULLY OPEN POSITIONS. NOTE: DRIVING AT HIGHWAY SPEEDS IN THE FULLY CLOSED POSITION IS RECOMMENDED.

### CABLE-LOK OPERATING INSTRUCTIONS - MANUAL

1) OPENING FROM A CLOSED POSITION	2) CLOSING FROM AN OPEN POSITION	CORRECT TENSION ADJUSTMENT
Using Both Hands, Carefully Remove Crank From The Crank Retainer.	Using Both Hands, Carefully Remove Crank From The Crank Retainer.	REFER TO OPERATING MANUAL FOR
Extend Crank Handle To Its Operating Position.	Extend Crank Handle To Its Operating Position.	MANUAL FOR PROPER TENSIONING
Use Crank To Roll Tarp To Fully Open Position.	Use Crank To Roll Tarp To Fully Closed Position.	RATCHET HANDLE MUST BE IN LOCKED
Return Crank To Crank Retainer And Secure.	Return Crank To Crank Retainer And Secure.	DOWN POSITION TO HOLD TENSION

P/N: 1704412

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**NOTE: Electric system.** Install warning decal shown above near wireless receiver on box or all warranty claims will be void.

### **OPTIONS & ACCESSORIES**

### SHUR-PRO™ TARP REPAIR KIT

Repair tarp using the heat-seal method. No messy adhesives or solvents. Kit includes Wagner heat gun, scissors, roller, 12' of 18-oz. or 22-oz. tarp (specify color) and instructions.



### STANDARD TARP REPAIR KIT

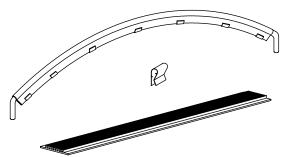
Includes adhesive, cleaner, 10' of tarp (specify color) and instructions.

### TARP OPTIONS

18-oz. heavy-duty fabric, multicolored tarps, personalized tarps, reinforcements, extra length or width, 13 vibrant colors available.

### **BOW COVERS**

Vinyl-coated compound wraps over bows and clips underneath. Reduces tarp wear and grain splatter, prevents rust and provides traction. Extra-wide bow covers also available.



P/N 1118931 Rev. U **Notes** 

### MORE QUALITY PRODUCTS FROM SHUR-CO®

- Genuine Replacement Tarps
- Genuine Replacement Parts
- Agriculture Products
  - The Original Shur-Lok®
  - Turning Point™ Bow
  - Shur-Lok® Junior
  - Premium Belt 'n Ratchet
  - Cable-Lok™
  - Tater-Top™
- SMARTrailer<sup>™</sup> Accessories for Agriculture Products
  - SMART2<sup>™</sup> Remote
  - SMART3<sup>™</sup> Remote
  - 4500 Series HD Electric
  - Electric Shur-Lok®
  - AutoTrap™ Hopper Opener
  - ProTrap® Hopper Opener
  - Electric Gate & Hoist
  - DriveMaxx<sup>TM</sup> Auger Drive
  - Electric Farm Swing Gate
  - LiteALL™ Work Lights
  - Cable-Lok<sup>TM</sup> Electric Upgrade
  - Electric Turning Point  $^{\scriptscriptstyle \mathsf{TM}}$  Bow
  - Solar Power Pack

- Construction Products
  - The Original Shur-Lok®
  - Turning Point™ Bow
  - Shur-Trak II™
  - IronSide II™
  - Shur-Matic™
- SMARTrailer<sup>™</sup> Accessories for Construction Products
  - 4500 Series HD Electric w/Gate Flex™
  - Shur-Trak II™ Electric Upgrade
  - Electric Turning Point™ Bow
  - Solar Power Pack
- Custom Products
  - Fitted Truck Covers
  - Flat Utility Tarps
  - Bean Drill Covers
  - Gustbuster<sup>™</sup> Tarp Cords
  - SMARTwire<sup>TM</sup>

