



P/N 1124662 Rev. F



# Aluminum System - Articulating Rear Arm 0" to 12" Hinge Depth Live-Bottom Trailer

STANDARD ROLL

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

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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 information, 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 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.

### QUESTIONS? CALL OUR HELP LINE:

1-866-748-7435

MON-FRI 8 AM-5 PM CENTRAL TIMF

### 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. 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. Welder
- Hammer
- Center Punch or Transfer Punch
- 4. #3 Phillips Insert Bit
- 5. Air or Electric Impact Wrench (9/16" deep socket)
- 6. 7/16" Deep Socket
- 7. 3/8" Combination Wrench
- 8. 9/16" Combination Wrench
- 9. 1/2" Combination Wrench
- 10. 1/8" Hex Wrench Long T-Handle
- 11. 3/16" Hex Wrench Long T-Handle (recommended)
- 12. 7/32" Drill Bit
- 13. 5/16" Drill Bit (for 3/8" self-tapping screws)
- 14. 11/32" Drill Bit
- 15. 13/32" Drill Bit
- 16. 3/8" Drill
- 17. 1 1/8" Hole Saw
- 18. 1 1/2" Hole Saw
- 19. 2" Hole Saw (if bracket for conductor socket is not used)
- 20. Standard/Flathead Screwdriver
- 21. #2 Phillips Screwdriver
- 22. Utility Knife
- 23. Ratchet
- 24. Hack Saw (metal cutter)
- 25. Pliers
- 26. Snap-Ring Pliers
- 27. Wire Cutters
- 28. Grinder
- 29. Tape Measure





1704367 Cap Screw - #10 x 3/4"





1704905 Hex Flanged Cap Screw - #10





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





1700398 Self-Drilling Screw - 1/4" x 3/4"





1704338 Self-Tapping Screw - 1/4" x 1"





1705198 Self-Drilling Screw - 1/4" x 1"





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





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





1704237 Carriage Bolt - 5/16" x 1"





1701455 Carriage Bolt - 5/16" x 2 1/2"





1704943 Shoulder Bolt - 3/8" x 2" - 5/16" x 1/2" Thd.





1201022 Cap Screw - 5/16" x 3 1/2"





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

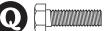




1701061 Cap Screw - 3/8" x 1"

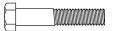
Inspect all parts in 4500 Series HD electric kit upon arrival.





1702891 Cap Screw - 3/8" x 1 1/4"





1704264 Cap Screw - 3/8" x 2"





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





1700371 Cap Screw - 3/8" x 3"





1808844 Nylon Lock Nut - #10





1700408 Hex Nut - 1/4"





1701543 Nylon Lock Nut - 1/4"





1700411 Hex Nut - 5/16"





1704946 Flanged Top Lock Nut - 5/16"





1704931 Flanged Nylon Lock Nut - 5/16"





1704297 Nylon Lock Nut - 5/16" - ZP





1700419 Nylon Lock Nut - 5/16"





1700407 Hex Nut - 3/8"





1701062 Hex Jam Nut - 3/8"





1701580 Nylon Lock Nut - 3/8"





1702668 Top Lock Nut - 3/8"





1701283 Flanged Top Lock Nut - 3/8"





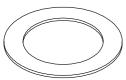
1700436 Lock Washer - 1/4"





1700427 Flat Washer - 1/4"





1702890 Flat Washer - 1-1/4"





1700428 Flat Washer - 5/16"





1700434 Lock Washer - 3/8"





1700429 Flat Washer - 3/8"





1118318 Spacer Washer - 1/4" x 1.81"





1120291 Pivot Bracket Washer



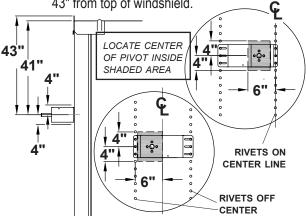


1706103 Rivet - 3/16"

**NOTE:** Read entire section before drilling holes. Determine if rivets on front of trailer are centered or off center.

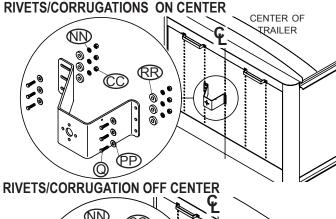
### FRONT OF TRAILER

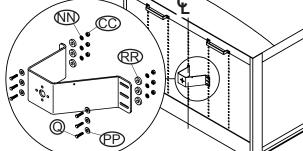
STEP 1: Locate front pivot mount bracket on passenger side of trailer so center of pivot lies within shaded area shown below. Measure 41" down from top of cap or 43" from top of windshield.



**NOTE:** Mount front pivot bracket into support braces on trailer, if possible. If bracket cannot be mounted into support braces, reinforce mounting area with backer plate for adequate support. Before drilling any holes, make sure flex arm will have clear pathway to operate.

STEP 2: Place pivot mount brackets on trailer in orientation shown below. Using brackets as guide, mark mounting hole locations.



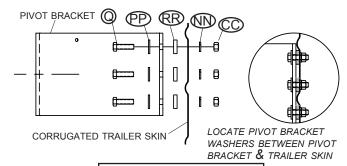


STEP 3: Remove rivets and mount brackets into rivet holes. If not possible, drill 13/32" holes in trailer. Fasten with screws • flat washers • lock washers • and nuts • and nuts • and nuts • .

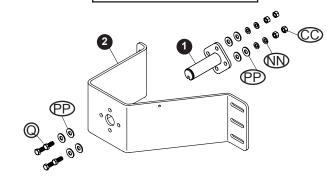
### HORIZONTALLY CORRUGATED TRAILERS

**NOTE**: Use pivot bracket washers only when horizontal corrugation on trailer skin prevents bracket from contacting skin.

STEP 4: If installing pivot bracket or pivot mount bracket on horizontally corrugated trailer skin, center bracket between corrugations and use brackets as guide to mark hole locations. Mark and drill 13/32" holes in trailer and fasten with screws •, flat washers •, lock washers •, pivot bracket washers • and nuts •. Locate pivot bracket washers between pivot bracket and trailer skin as shown.

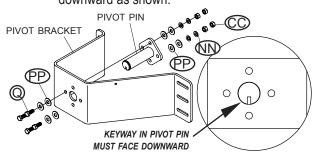


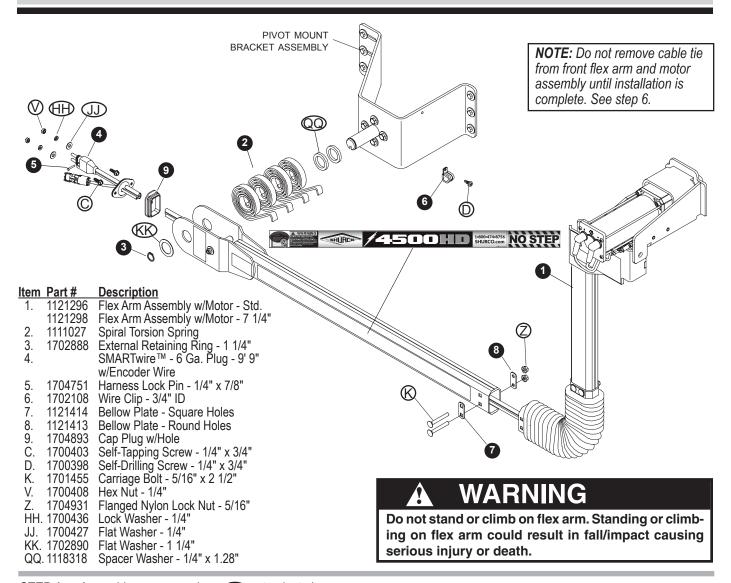
### **PIVOT PIN INSTALLATION**



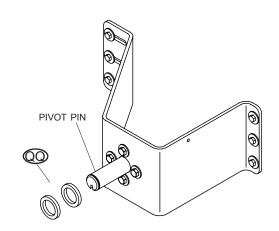
Part #	Description
1116920	Pivot Pin - 4 Spring
1121578	Vertical Pivot Mount Bracket - 9 1/4" Standoff
1702891	Cap Screw - 3/8" x 1 1/4"
1700407	Hex Nut - 3/8"
1700434	Lock Washer - 3/8"
1700429	Flat Washer - 3/8"
	1116920 1121578 1702891 1700407 1700434

**STEP 1:** Fasten pivot pin to pivot bracket with keyway facing downward as shown.

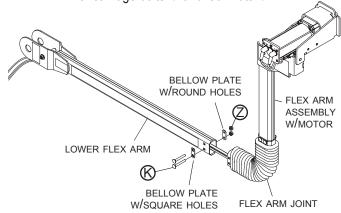




**STEP 1:** Assemble spacer washers **O** onto pivot pin.

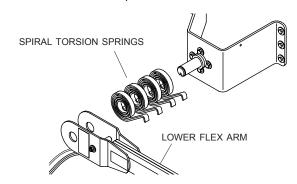


STEP 2: Align holes in bellow, end fitting and bellow plates with holes in lower flex arm assembly as shown. Fasten with carriage bolts ② and lock nuts ②.

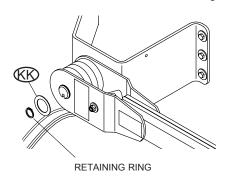


**NOTE:** Motor assembly on upper flex arm must face toward trailer as shown.

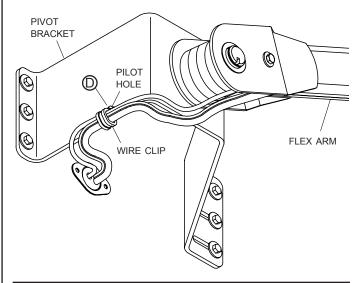
STEP 3: Assemble spiral torsion springs and lower flex arm onto pivot pin. Hook springs over 3/8" x 3 1/2" cap screw and spacer tube.



**STEP 4:** Secure with washer and retaining ring.



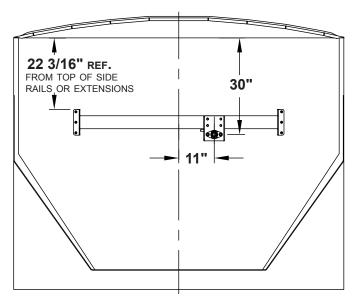
STEP 5: Choose appropriate pilot hole on pivot bracket to route 6-ga. wire from flex arm through trailer skin. Fasten wire clip to pilot hole with screw ①.



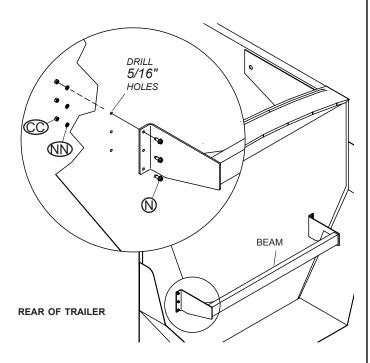
**NOTE:** Fasten wire clip to pilot hole on opposite side of pivot bracket from flex arm to prevent wire from being pinched during operation.

**STEP 6:** Remove cable tie from front arm/motor assembly before operating system.

**STEP 1:** Center beam on rear of trailer, positioning beam so spring pivot shaft is located as shown.

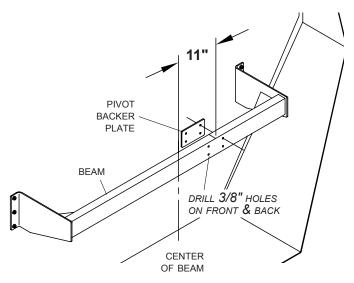


STEP 2: Hold beam in place and use as guide to mark and drill 5/16" holes into rear door. Fasten with screws ①, lock washers ① and nuts ②.

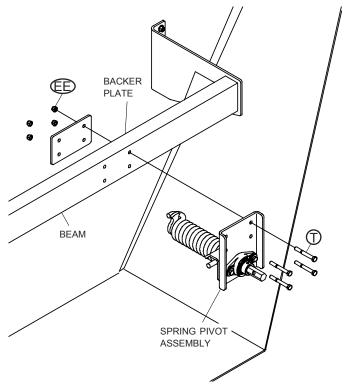


**NOTE:** If fastening through tubing, alternate fasteners may be needed. Add bracing/reinforcement if door skin is too weak to support beam and spring pressure.

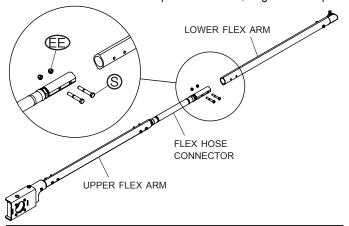
STEP 3: Fasten spring pivot assembly to beam. On front of beam, measure and mark 11" from center of beam toward curb side of trailer. Center pivot backer plate on mark and use as guide to locate and drill 3/8" holes. Place plate on backside of beam and repeat process to ensure alignment of holes on backside of beam with holes on front of beam.



STEP 4: Place spring pivot assembly and backer plate on either side of beam as shown and fasten with screws • and lock nuts •.

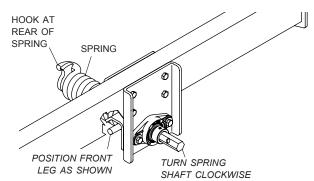


STEP 1: Assemble flex arm. Align flex hose connector on upper flex arm assembly with lower flex arm as shown and slide connector into flex arm. Fasten connector to lower flex arm with screws S and lock nuts If flex arm comes pre-assembled, begin with step 2.

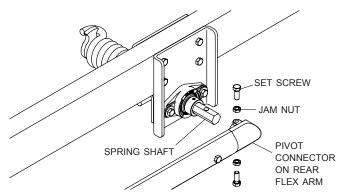


**NOTE:** Make sure arm upper arm is oriented as shown with lower arm, or arm may be damaged in operation.

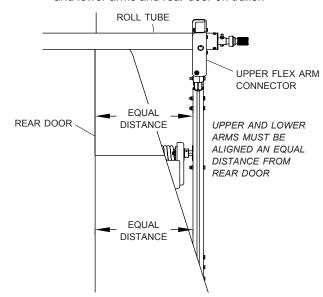
STEP 2: To correctly position spring and spring shaft, make sure front leg of spring is positioned as shown below. Then turn shaft clockwise until shaft catches in hook at rear of spring.



STEP 3: Align rear flex arm with spring shaft as show below and slide pivot connector onto shaft. Align set screw in pivot connector with hole in shaft and tighten until screw bottoms out in hole. Tighten other set screw, then tighten jam nuts to lock set screws into shaft.



STEP 4: With tarp hanging loosely in closed position, lift flex arm up to roll tube and slide upper flex arm connector onto roll tube. Adjust connector forward or backward to align upper arm with lower arm on vertical plane. To check alignment, measure distance between upper and lower arms and rear door on trailer.

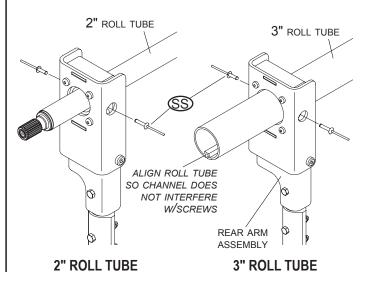


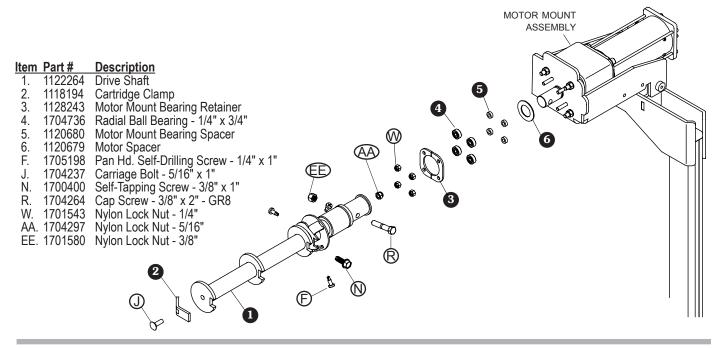
**NOTE:** Wait to do this step until after front arm has been connected and both front and rear arms are correctly aligned.

**NOTE**: For systems using 3" roll tube, wait until after manual crank/spline adapter has been installed.

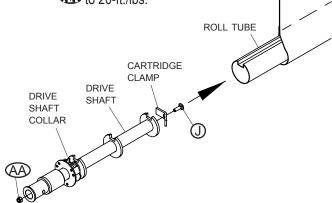
STEP 5: With rear arm correctly aligned, fasten rear arm bearing ring on rear arm assembly to roll tube. Drill 3/16" holes and fasten bearing ring to roll tube with rivets

S.

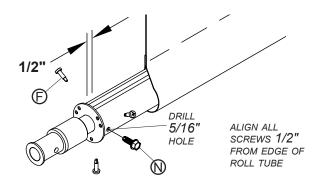




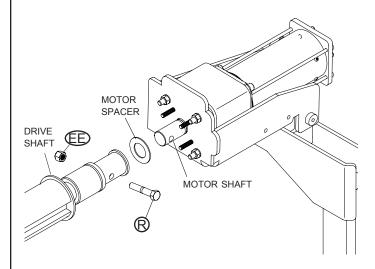
STEP 1: Loosely fasten cartridge clamp to drive shaft with screw and lock nut . Insert drive shaft into roll tube. To secure drive shaft to roll tube, tighten nut to 20-ft./lbs.



STEP 2: Install three screws through roll tube and flats on drive shaft collar. Drill 5/16" hole between flats and collar, then fasten screw through roll tube and collar.



STEP 3: Slide motor spacer over motor shaft. Slide drive shaft over motor shaft. Fasten with screws ③ and nuts ④. Finger tighten only.



# A

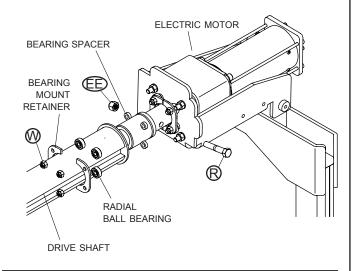
# CAUTION

If clearance lights are in path of roll tube, install deflector to prevent roll tube from damaging lights.

# WARNING

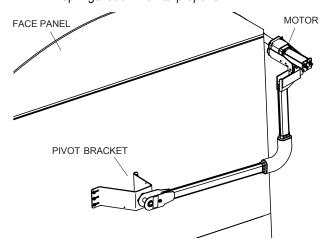
Flex arms are under tension while torsion springs are engaged. Use caution while assembling and disassembling arms. Failure to read and follow instructions could result in serious injury or death.

STEP 4: Fasten drive shaft to electric motor shaft with screw 
and nut 
Install bearing spacers, radial ball bearings and bearing mount retainer and secure with 1/4" lock nuts 
U.

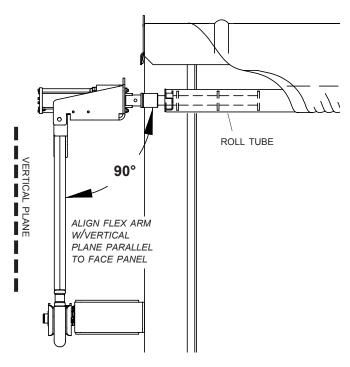


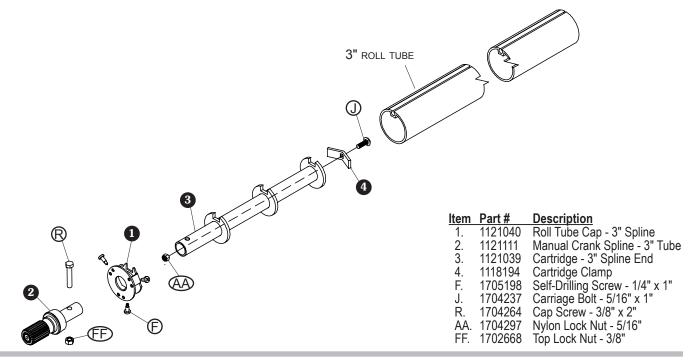
**NOTE:** Make sure all fasteners holding motor to upper flex arm bracket are tightened securely.

**STEP 5:** Position motor as shown below. Make sure torsion springs load when tarp opens.

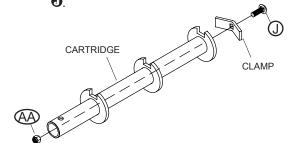


STEP 6: Align flex arm vertically with front of trailer and at 90° angle to roll tube.

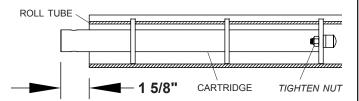




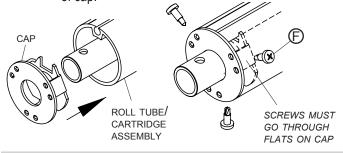
STEP 1: Assemble cartridge, nut 📣, clamp and carriage bolt



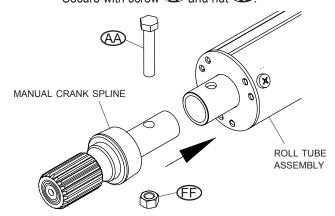
STEP 2: Insert cartridge assembly into roll tube. Position cartridge to extend 1 5/8" past end of roll tube. Tighten nut to 20-ft./lbs.



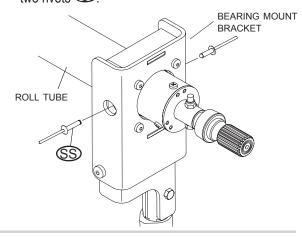
STEP 3: Insert cap into roll tube/cartridge assembly. Fasten three screws **3** through roll tube and flats on sides of cap.

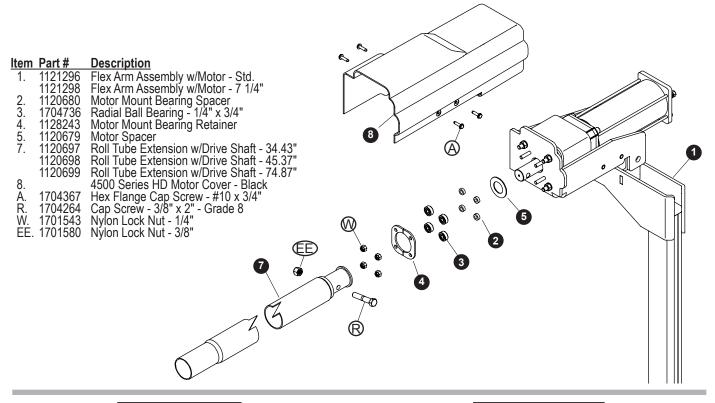


STEP 4: Insert manual crank spline into roll tube assembly. Secure with screw and nut .



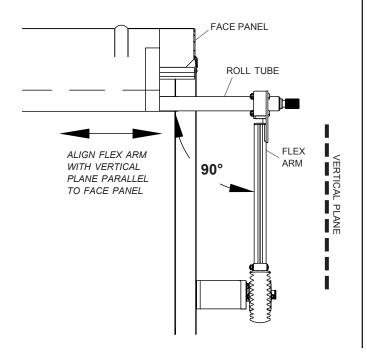
STEP 5: When both front and rear flex arms are vertical, fasten bearing ring in bearing mount bracket to roll tube with two rivets .





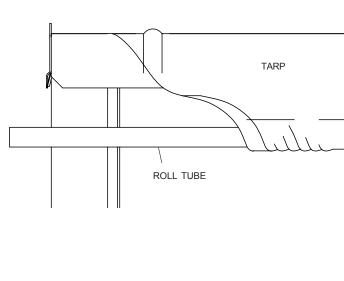
### **REAR OF TRAILER**

# STEP 1: Adjust roll tube toward front or rear of trailer so rear flex arm lies on vertical plane parallel to face panel and perpendicular to roll tube extension. Mark roll tube where roll tube extension ends.



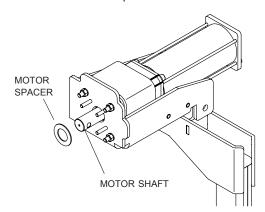
### FRONT OF TRAILER

**STEP 2:** Slide tarp back on roll tube.

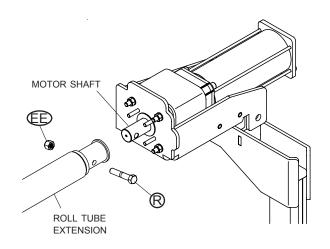


### Fasten roll tube extension to motor mount bracket:

**STEP 3A**: Slide motor spacer over motor shaft.



**STEP 3B**: Slide roll tube extension over motor shaft. Fasten with screws ① and lock nuts ④. Finger tighten only.

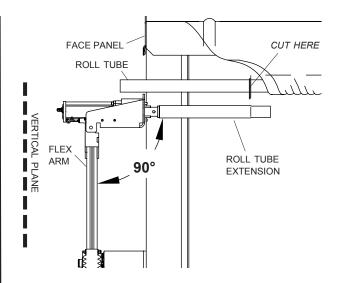


STEP 4: Hold flex arm with motor and roll tube extension in vertical plane to trailer and at 90° angle to roll tube. Mark roll tube at location to be cut.

**NOTE:** Requires two people for safe installation.

# A CAUTION

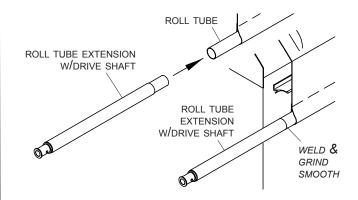
On certain trailers, clearance lights might be in way of roll tube and can be damaged if caution is not taken. In some instances, a 'deflector' might have to be installed to prevent roll tube from causing damage to lights.



STEP 5: Reverse step 3B to unfasten and remove motor from roll tube extension. Remove roll tube extension from roll tube. Cut roll tube at marked location.

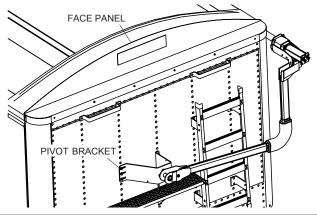
STEP 6: Insert swaged end of roll tube extension with drive shaft into roll tube. Align extension straight with roll tube and weld all around. Grind smooth.

**NOTE:** Pull roll tube away from tarp and trailer before welding to protect from weld spatter. Align roll tube extension straight with roll tube before welding so tarp system will roll smoothly.



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

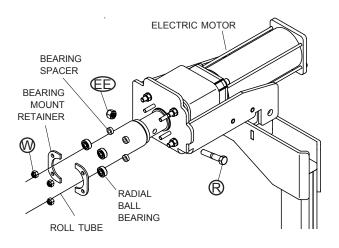
STEP 7: Slide roll tube/roll tube extension weldment back into position and align upper flex arm on front of trailer. Follow step 8 to install motor, positioning as shown below. Make sure torsion springs load when tarp opens.



# **A** WARNING

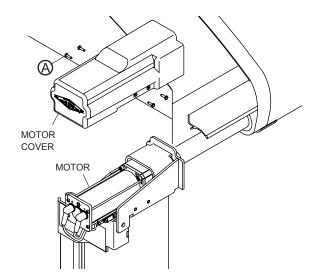
Flex arms are under tension while torsion springs are engaged. Use caution while assembling and disassembling arms. Failure to read and follow instructions could result in serious injury or death.

STEP 8: Refasten and secure roll tube to electric motor shaft with screw ① and lock nut ②. Install bearing spacers, radial ball bearings and bearing mount retainer and secure with lock nuts ①.



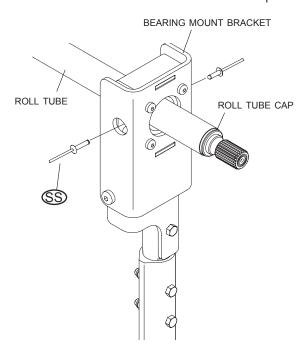
**NOTE:** Verify again that flex arm is on vertical plane parallel to face panel before proceeding. Make sure all fasteners holding motor to upper flex arm bracket are tightened securely.

**STEP 9:** Fasten motor cover onto motor with screws **4**.

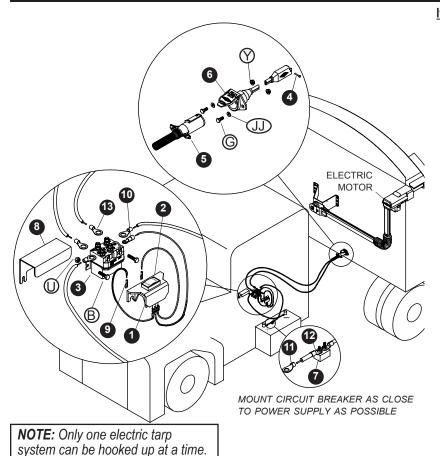


**STEP 10**: Adjust rear roll tube extension to align flex arm on vertical plane parallel to face panel. Do not drill holes and/or fasten until tarp and roll tube are in desired position.

**STEP 11**: When both front and rear flex arms are vertical, fasten two rivets into roll tube and roll tube cap.



**STEP 12**: Re-fasten tarp to roll tube with existing U-clamps and screws. Tighten all fasteners securely. Tighten front and rear flex arm connections.



Item Part #	Description
1. 1703661	Rocker Switch Mounting Bracket
2. 1116020 3. 1703845 4. 1704751 5. 1115385 6. 1120670	Rocker Switch
3. 1703845	Motor-Reversing Solenoid_
4. 1704751	Harness Lock Pin - 1/4" x 7/8"
5. 1115385	Heavy-Duty Dual-Conductor Plug SMARTwire™ Dual-Conductor Socket
6. 1120670	SMARTwire <sup>™</sup> Dual-Conductor Socket
7. 1704354	40-Amp Modified-Reset Circuit Breaker
7. 1704354 8. 1703896 9. 1703659 10. 1704153	Solenoid Cover
9. 1703659	Push-On Terminal - 14 Ga. 1/4"
10. 1704153	Ring Terminal - 14 Ga. x 1/4" Stud
11. 1703244	Ring Terminal - 6 Ga. x 3/8" Stud
12. 1703245	Ring Terminal - 6 Ga. x #10 Stud
13. 1702707	Ring Terminal - 6 Ga. 1/4" Stud
B. 1704905	Hex Flanged Cap Screw - #10
G. 1701045 U. 1808844	Cap Screw - 5/16" x 3/4"
U. 1808844	Nylon Lock Nut - #10
Y. 1704946	Flanged Top Lock Nut - 5/16"
JJ. 1700427	Flat Washer - 1/4"

# **WARNING**

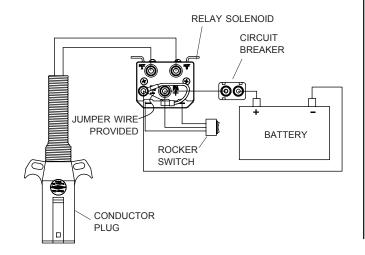
When transporting trailer, wiring from incab rocker switch must be connected to 4500 HD system on trailer. If motor is not connected to cab-wired solenoid while in transit, tarp may unwind and blow off.

**NOTE:** Cut wires to length and strip only enough wire insulation to install ring terminals. Insert bare wire into ring terminals and crimp securely.

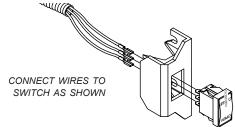


**STEP 1:** Mount circuit breaker as close as possible to battery or power supply.

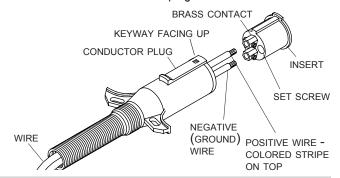
STEP 2: Mount solenoid in suitable location - ventilated area near battery is ideal. Determine best route for wire, usually along frame with existing wire harness. Run 6-ga. wire from conductor plug to solenoid and from power supply to solenoid as shown. Run 14-ga. wires from solenoid to switch.

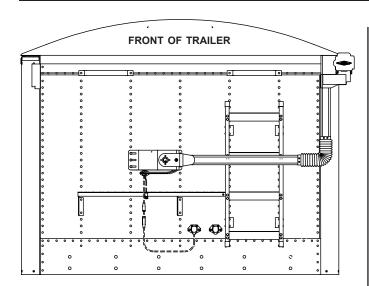


STEP 3: Locate rocker switch in convenient operating location. Switch can be mounted in cab, on dash panel or on driver side door jamb.



STEP 4: 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.

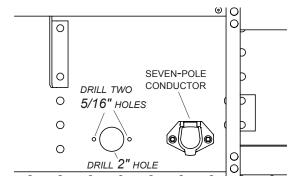




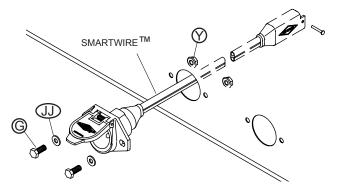
**NOTE:** Wire lengths are predetermined. Before installing SMARTwire<sup>™</sup> components, review and confirm wire routing so wires reach components with ample room for connection.

### **DUAL CONDUCTOR**

STEP 1: Locate dual-pole conductor socket near seven-pole conductor socket as shown. Determine location and drill 2" hole through trailer skin.



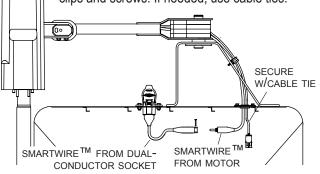
- STEP 2: Align socket over 2" hole. Using holes in flanges on socket as guide, mark and drill two 5/16" holes.
- STEP 3: Fasten conductor socket to trailer with screws ③, flat washers ④ and nuts ④.





### WIRING SCHEMATIC

STEP 1: Connect SMARTwire ™ from electric motor to SMARTwire ™ from dual-conductor socket and secure connection with lock pin. Secure all wires to trailer with cable clips and screws. If needed, use cable ties.

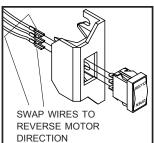


**NOTE:** Coat each connection with dielectric grease (P/N 1704378) to prevent corrosion.

# **A** CAUTION

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

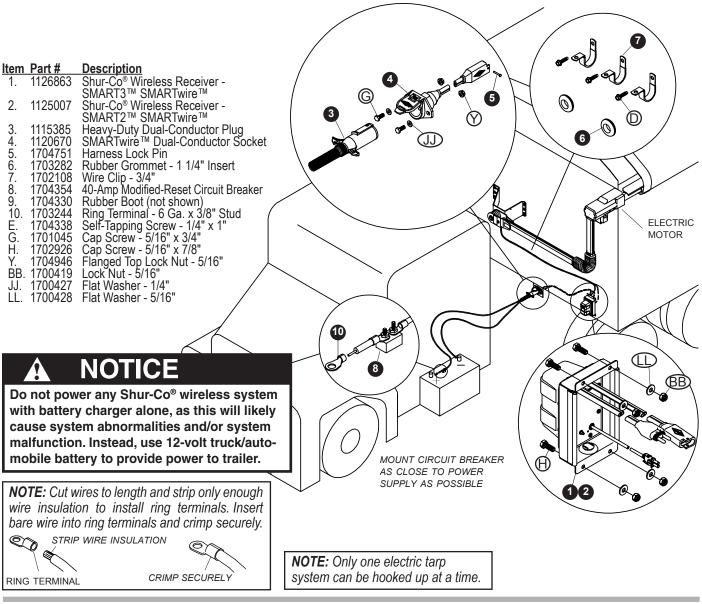
STEP 2: Check motor direction by activating switch to "OPEN." If switch is running system backwards, swap wire leads on two outside tabs on rocker switch.

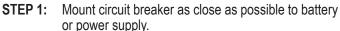


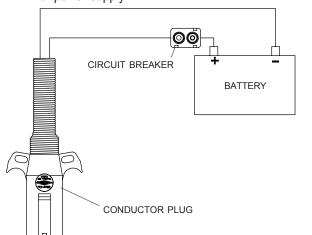
### **OPERATION:**

- **A) Close tarp:** Push switch to "CLOSE" and hold. Observe tarp and release switch when tarp is fully closed.
- **B) Open tarp:** Push switch to "OPEN" and hold. Observe tarp and release switch when tarp is fully open.

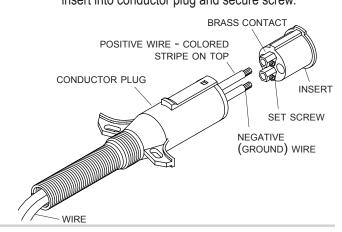
**NOTE:** Release switch at end of cycle or modified-reset circuit breaker will trip. After breaker resets, switch will activate motor again. To reduce unnecessary strain on tarp components, release switch at end of each cycle.





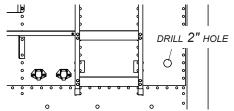


STEP 2: Unfasten and remove insert from conductor plug. Feed 6-ga. wire through plug and into brass contacts on insert. Tighten set screws to secure wires. Replace insert into conductor plug and secure screw.

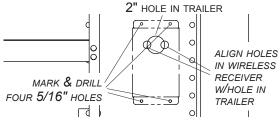


### SHUR-CO® WIRELESS RECEIVER

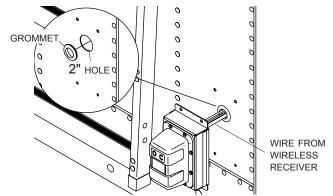
STEP 1: In order to clear travel area of front arm, locate Shur-Co® wireless receiver as low as possible on front of trailer. Determine location and drill 2" hole through trailer skin.



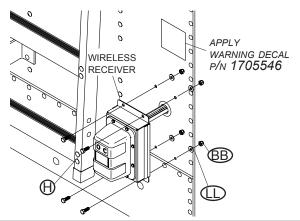
STEP 2: Align holes in wireless receiver over 2" hole in trailer as shown below. Using holes on flanges on receiver as guide, mark and drill four 5/16" holes.



**STEP 3:** Install grommet into 2" hole. Insert wire from wireless receiver through grommet.

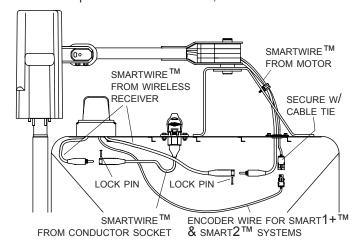


STEP 4: Align holes on wireless receiver with holes on trailer. Fasten receiver to trailer with 5/16" x 7/8" cap screws, lock washers and nuts. Adhere warning decal P/N 1705546 above receiver in location shown.



### WIRING SCHEMATIC

STEP 1: Connect SMARTwire™ from wireless receiver to SMARTwire™ from electric motor. Connect SMARTwire™ plug from wireless receiver to SMARTwire™ from dual-conductor socket. Secure connections with lock pins. If you have SMART2™ or SMART3™ system, connect encoder wire from receiver to encoder wire from motor. Secure wires to trailer with cable clips and screws. If needed, use cable ties.



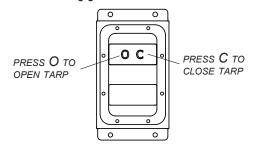
**NOTE:** Coat each connection with dielectric grease (P/N 1704378) to prevent corrosion.

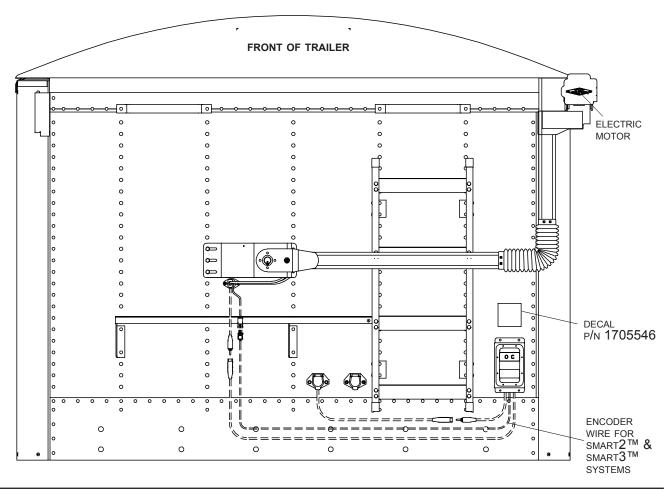
# **A** CAUTION

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

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

**STEP 2:** Check motor direction by pressing either button. If button is released and operation continues, system is in *Express Mode*. To stop operation, press button again. If switch is running system backwards, program remote to wireless receiver and rewire as directed in troubleshooting guide in remote instructions.

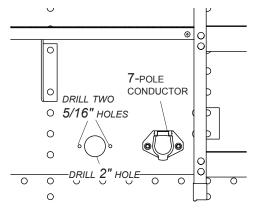




**NOTE:** Wire lengths are predetermined. Before installing SMARTwire™ components, review and confirm wire routing so wires reach components with ample room for connection.

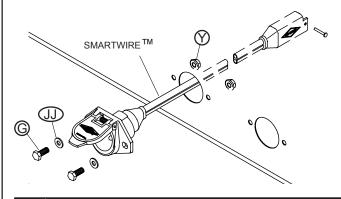
### **DUAL-CONDUCTOR SOCKET**

STEP 1: Locate dual-pole conductor socket near seven-pole conductor socket as shown. Determine location and drill 2" hole through trailer skin.



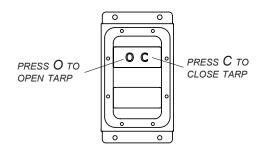
STEP 2: Align socket over 2" hole. Using holes in flanges on socket as guide, mark and drill two 5/16" holes.

STEP 3: Fasten conductor socket to trailer with screws ③, flat washers ④ and nuts ④.



# **A** CAUTION

Do not fasten SMARTwire™ components to trailer through hopper walls.



**NOTE:** 4500 Series HD trailer-mounted control boxes now operate in **EXPRESS MODE**, for both SMART3™ and SMART2™ remote systems. Pressing **O** or **C** button on control box initiates express open or close operation. After that, pressing either button will stop tarp operation. If neither button is pressed, operation will automatically stop at end of travel. On SMART2™ systems, if travel stops are not set, trailer-mounted control box operates in **MANUAL** (momentary) **MODE**. Remotes for both systems are shipped with tarp channel set to **EXPRESS MODE** and can be configured as desired.

**WARNING** 



MOTORIZED SYSTEMS
WHILE INDIVIDUALS
ARE ON OR OCCUPYING 46
BOX/TRAILER/HOPPER.

# **A NOTICE**

THIS TARP SYSTEM OPERATES IN EXPRESS MODE. UPON PRESSING THE OPEN/CLOSE BUTTON THE TARP SYSTEM WILL CONTINUE TO TRAVEL TO THE END STOPS. TO STOP THE MOTOR, PRESS EITHER BUTTON. READ OWNERS MANUAL BEFORE OPERATING. CONTACT SHUR-CO® FOR ALL TARP SYSTEM QUESTIONS AT 1-866-748-7435.

# **⚠** NOTIC

Decal shown above must be placed above wireless receiver on front of box.

NOTE: Tarp systems will operate in EXPRESS MODE when using buttons on trailer-mounted control box, if encoder wires are connected. For SMART2™ systems, travel stops must also be set, otherwise you must press and hold buttons. When in EXPRESS MODE, press and release buttons to open and close tarp (operation will continue until complete after releasing button). When in MANUAL MODE, press and hold buttons (operation will stop if button is released). See remote instruction manual for detailed instructions on remote operation.

**NOTE:** Tarp systems operate in **EXPRESS MODE** when commanded to operate from buttons on trailer-mounted control box. Closing remote lid or pressing select button will not stop system in this case. Pressing **OPEN** or **CLOSE** button on remote will stop system if in range.

**NOTE:** Tarp systems operate in **EXPRESS MODE** when using buttons on trailer-mounted control box, if encoder wires are connected. For SMART2<sup>TM</sup> systems, travel stops must also be set. Otherwise you must press and hold buttons (see remote instructions for SMART2<sup>TM</sup> systems).

# **A** WARNING

Stay clear of roll tarp and arm(s) area of travel during operation. Failure to do so could result in serious injury or death.



# **WARNING**

Stay clear of the roll tarp and arm(s) sweep area, from front-to-back, during operation. Failure to do so may result in a fall/impact causing serious injury or death. For repair/service of equipment, reference manual for proper safety precautions before proceeding.

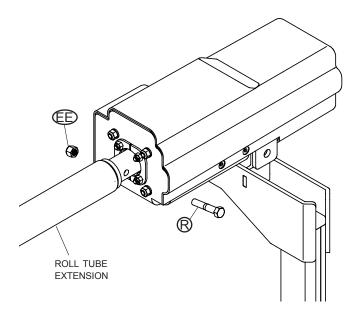
Decal P/N 1705523

Perform following steps to change 4500 Series HD electric system to manual crank operation:

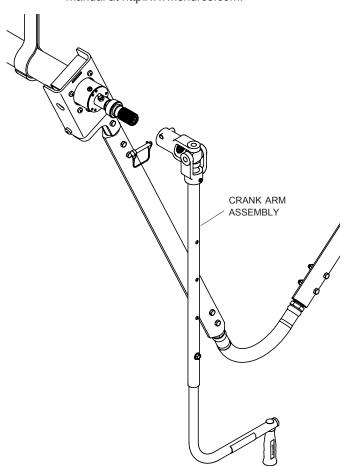
**NOTE:** Store manual crank arm in truck or mounted to trailer. (Example - above kingpin in apex.)

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

STEP 2: At front of trailer, remove screw ② and lock nut ⑤ from motor shaft and roll tube extension connection.



STEP 3: Remove protective cap and install crank arm assembly as shown in Shur-Lok® owner's manual. View owner's manual at http://www.shurco.com.



# Λ

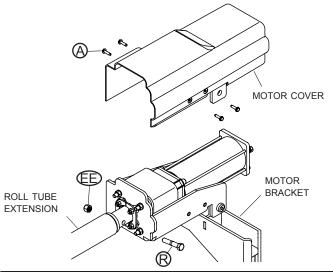
# CAUTION

Do not open or close tarp without U-joint securely fastened to splined shaft with wire lock pin. Failure to do so could result in injury.

### REMOVE EXISTING MOTOR

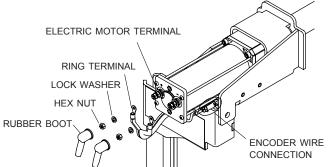
**STEP 1:** Close tarp, letting roll tube hang loose under latchplate.

STEP 2: Disconnect electric power to trailer. Unfasten and remove motor cover. Unfasten screw ③ and lock nut ⑤ holding motor shaft to roll tube extension.

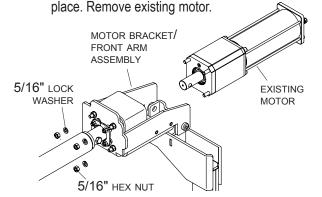


NOTE: Leave roll tube fastened to motor bracket.

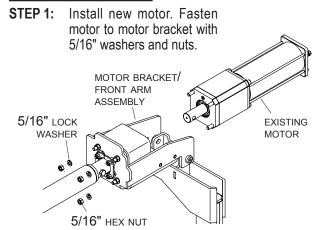
**STEP 3:** Disconnect electric wires from motor terminals and encoder wire.



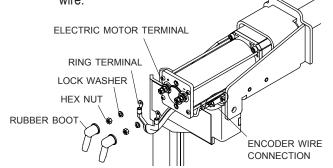
STEP 4: Unfasten and remove only 5/16" lock washers and hex nuts holding motor to motor bracket/front arm assembly, leaving motor mount bearing retainers in



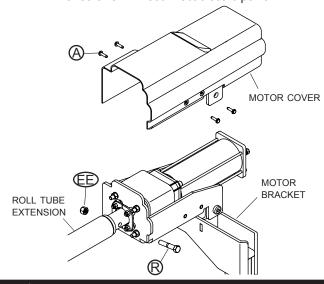
### **INSTALL NEW MOTOR**



STEP 2: Connect electric wires to motor terminals and encoder wire.

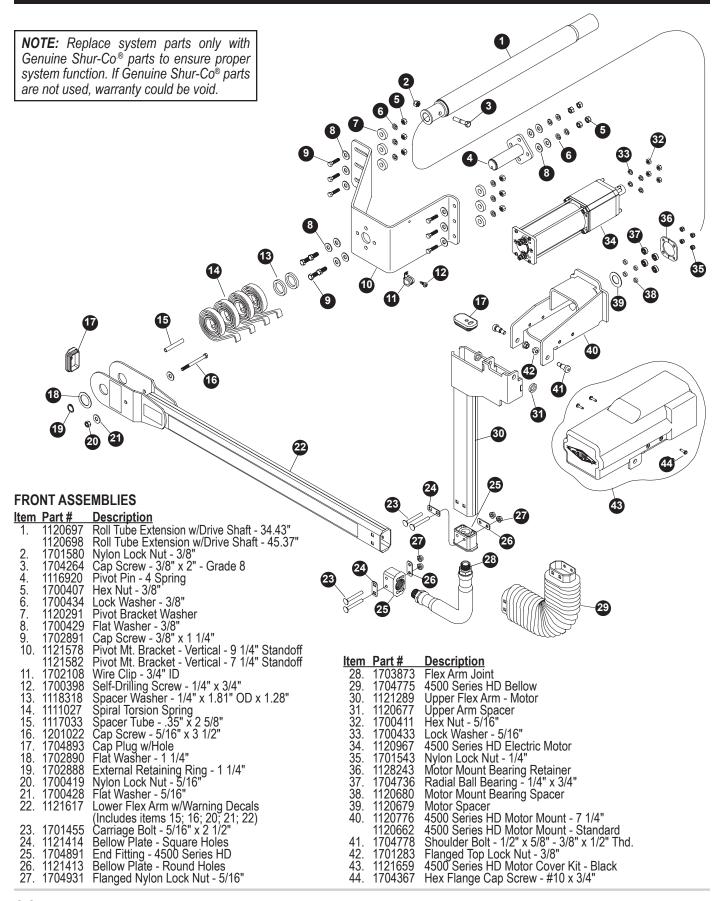


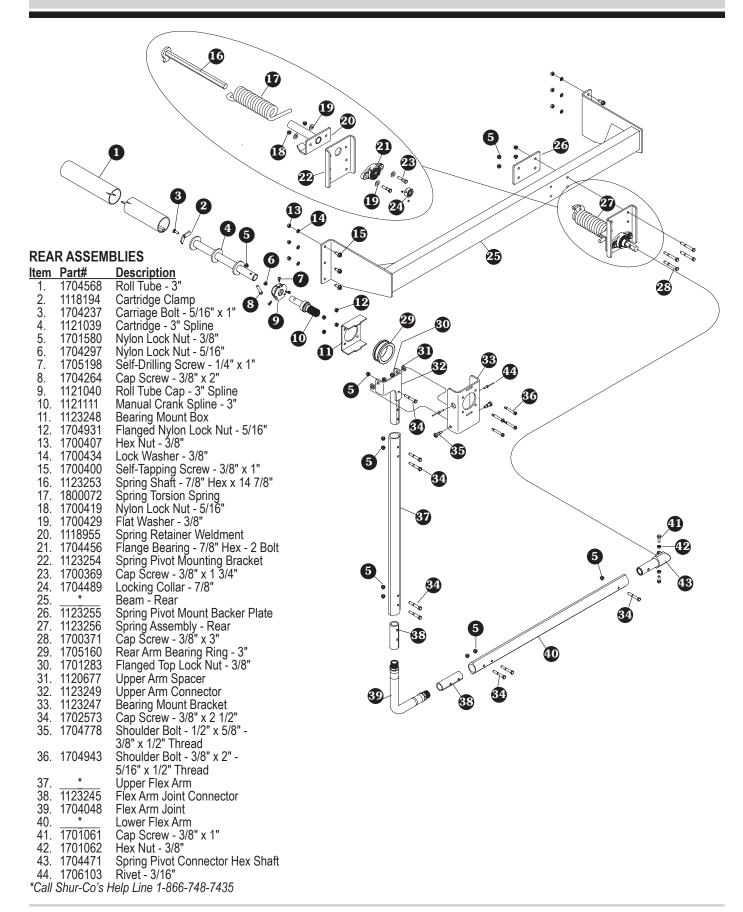
STEP 3: Fasten motor shaft to roll tube with screw ① and lock nut ②. Replace motor cover and fasten to motor with screws ①. Reconnect electric power.



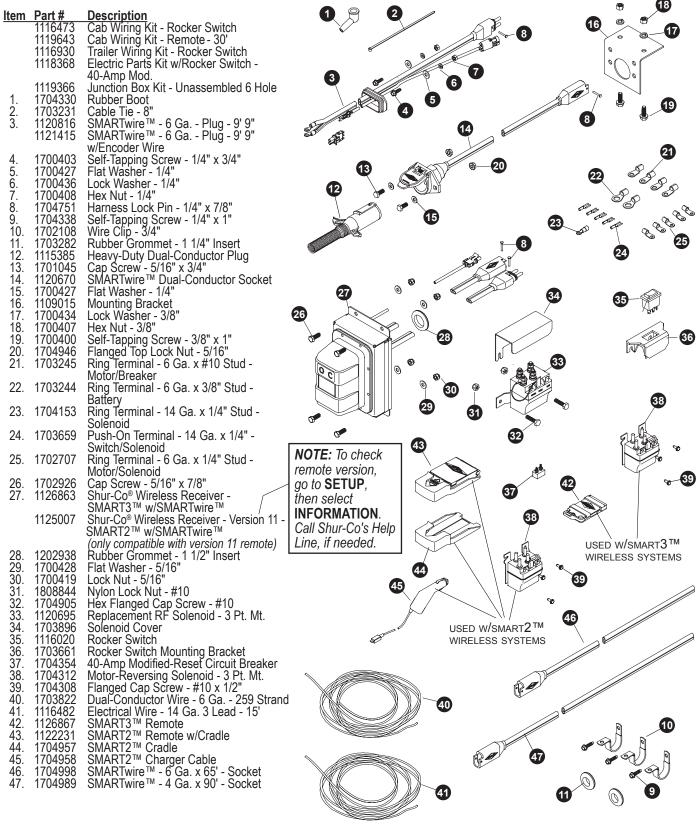
# **A** CAUTION

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





### **ELECTRIC COMPONENTS**



P/N 1124662 Rev. F **Notes** 

# MORE QUALITY PRODUCTS FROM SHUR-CO®

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- Genuine Replacement Parts
- Agriculture Products
  - The Original Shur-Lok®
  - Turning Point™ Bow
  - Shur-Lok® Junior
  - Premium Belt 'n Ratchet
  - Cable-Lok™
  - Tater-Top™
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  - 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
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  - IronSide II™
  - Shur-Matic™
- SMARTrailer<sup>™</sup> Accessories for Construction Products
  - 4500 Series HD Electric w/Gate Flex™
  - Shur-Trak II™ Electric Upgrade
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  - Gustbuster<sup>™</sup> Tarp Cords
  - SMARTwire<sup>TM</sup>

