



P/N 1121522 Rev. G



Aluminum Single-Arm System for Open-Top Vans & Live-Bottom Trailers

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 Ph 800.474.8756 | Fax 605.665.0501

SHUR-CO® of FLORIDA

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

SHUR-CO® of IDAHO

610 N. 16th Ave., Caldwell, ID 83607 Ph 208.455.1046 | Fax 208.455.1046

SHUR-CO® of ILLINOIS

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

Preferred Donovan-Brand Seller 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

4676 Lynn Rd. Rootstown, 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 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 IDAHO

Ph 208.455.1046 | Fax 208.455.1046

SHUR-CO® of ILLINOIS

Ph 866.356.0246 | Fax 217.877.8270

SHUR-CO® of OHIO

Ph 866.356.0242 | Fax 330.297.5599

For more information, log on to our website:

www.shurco.com

MESSAGE TO OWNERS

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

Pay particular attention to important safety and operating instructions, as well as warnings and cautions. The hazard symbol 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 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.

TABLE OF CONTENTS

Hardware Identification	1
Pivot Bracket Installation	2
Front Flex Arm & Electric Motor Installation	3-4
Roll Tube Extension Installation	5-6
Stretch Cord Return	7
Shur-Return™	8
Rear Cable Return	9
Value Series Stretch Cord Return	10
Electric Mounting & Wiring	11-16
Wireless SMARTransmitter® Operating	17
Program Wireless SMARTransmitter® to Receiver	17
Electric Motor Replacement	
Change from Electric to Manual Operation	
Replacement Parts	
Troubleshooting Guide	

TOOLS REQUIRED

- 1. Welder
- 2. Hammer
- 3. 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
- 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. 5/16" Drill Bit (for 3/8" self-tapping screws)
- 13. 11/32" Drill Bit
- 14. 13/32" Drill Bit
- 15. 3/8" Drill
- 15. 1 1/8" Hole Saw
- 16. 2" Hole Saw
- 17. Standard/Flathead Screwdriver
- 18. #2 Phillips Screwdriver
- 19. Utility Knife
- 20. Ratchet
- 21. Hack Saw (metal cutter)
- 22. Pliers
- 23. Snap Ring Pliers
- 24. Wire Cutters
- 25. Grinder
- 26. Tape Measure





1701423 Set Screw - #10 x 3/16"





1704743 Self-Drilling Screw - #10 x 1/2"





1704367 Cap Screw - #10 x 3/4"





1704905 Flanged Cap Screw - #10 x 1"





1700736 Self-Tapping Screw - 1/4" x 1/2"





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





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





1703959 Cap Screw - 1/4" x 3/4"





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





1704353 Self-Drilling Screw - 1/4" x 1"





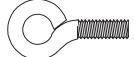
1701045 Cap Screw - 5/16" x 3/4"





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





1700717 Eyebolt - 5/16" x 7/8"





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





1700400 Cap Screw - 3/8" x 1"





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





1704057 Cap Screw - 3/8" x 2"





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"





1700419 Nylon Lock Nut - 5/16"





1700407 Hex Nut - 3/8"





1701580 Nylon Lock Nut - 3/8"





1700436 Lock Washer - 1/4"





1700427 Flat Washer - 1/4"





1700428 Flat Washer - 5/16"





1700433 Lock Washer - 5/16"





1700434 Lock Washer - 3/8"





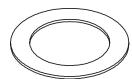
1700429 Flat Washer - 3/8"





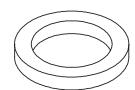
1703373 Flat Washer - 1/2"





1702890 Flat Washer - 1 1/4"





1118318 Spacer Washer - 1/4" x 1.81"





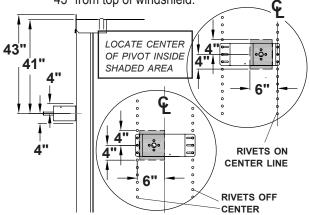
1120291 Pivot Bracket Washer

Inspect all parts in your 4500 Series Electric kit upon arrival.

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

FRONT OF TRAILER

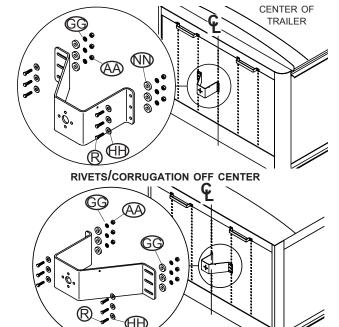
STEP 1: Locate front pivot mount bracket on passenger side of trailer so center of pivot lies within shaded area shown below. Measure 41" down from top of cap or 43" from top of windshield.



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.

RIVETS/CORRUGATIONS ON CENTER

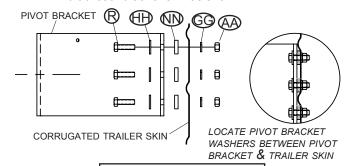


STEP 3: Remove rivets and mount brackets into rivet holes. If this is not possible, drill 13/32" holes in trailer. Fasten with screws ①, flat washers ①, pivot bracket washers ② and nuts ②.

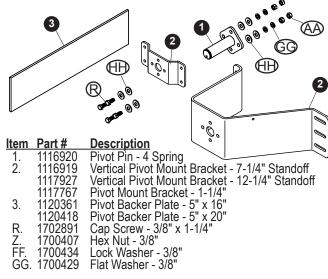
HORIZONTALLY CORRUGATED TRAILERS

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

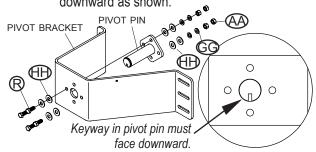
STEP 3: If installing pivot bracket or pivot mount bracket on horizontally corrugated trailer skin, center bracket between corrugations and use brackets as guide to mark hole locations. Mark and drill 13/32" holes in trailer and fasten with screws ①, flat washers ①, lock washers ②, pivot bracket washers ② and nuts ①. Locate pivot bracket washers between pivot bracket and trailer skin as shown.

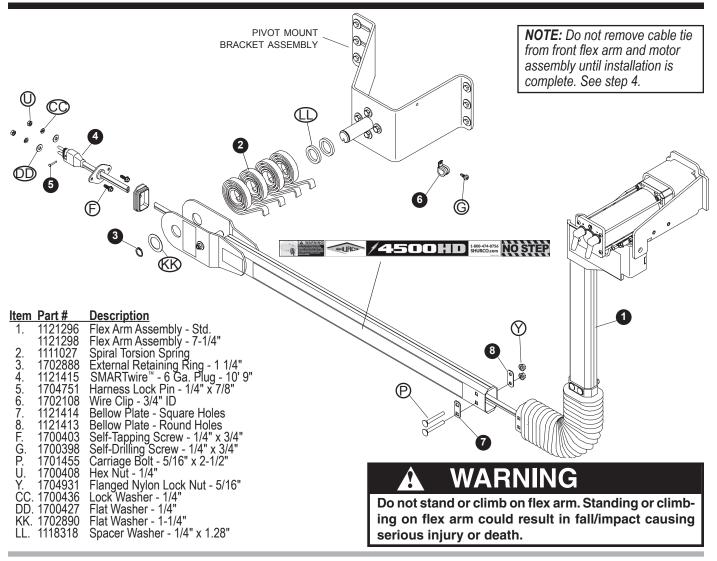


PIVOT PIN INSTALLATION

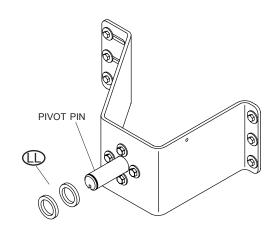


STEP 1: Fasten pivot pin to pivot bracket with keyway facing downward as shown.

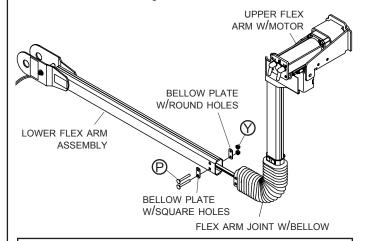




STEP 1: Assemble spacer washers onto pivot pin.

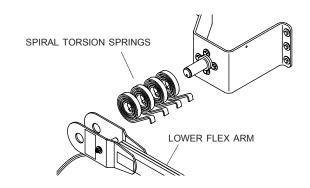


STEP 2: Align holes in bellow and bellow plates with holes in lower flex arm assembly as shown. Fasten with 5/16" x 2-1/2" carriage bolts and lock nuts.

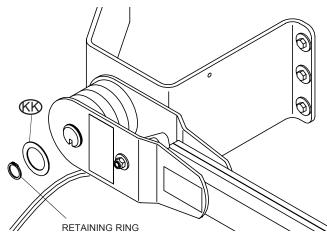


NOTE: Motor assembly on upper flex arm must face toward trailer as shown.

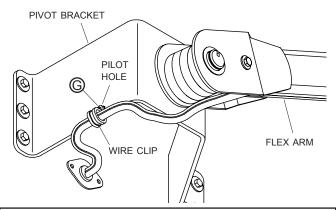
STEP 3: Assemble spiral torsion springs and lower flex arm onto pivot pin. Hook springs over 3/8" x 3-1/2" cap screw and spacer tube.



STEP 4: Secure with 1-1/4" flat washer and retaining ring.



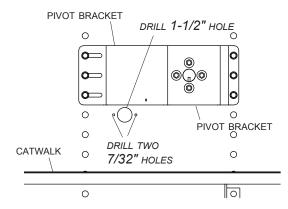
STEP 5: Choose appropriate pilot hole on pivot bracket to route 6-ga. wire from flex arm through trailer skin. Fasten wire clip to pilot hole with 1/4" x 3/4" self-drilling screw 3.



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

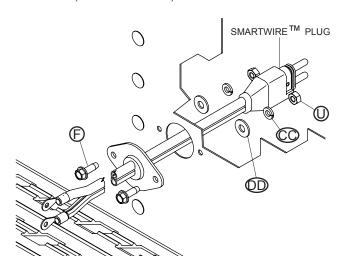
NOTE: Wire lengths are predetermined. Before installing SMARTwire[™] components, review and confirm wire routing so wires will reach components with ample room for connection.

STEP 6: Measure 11" horizontally from center line of trailer and 1" down from lower edge of pivot bracket. Mark and drill 1-1/2" hole through trailer skin.

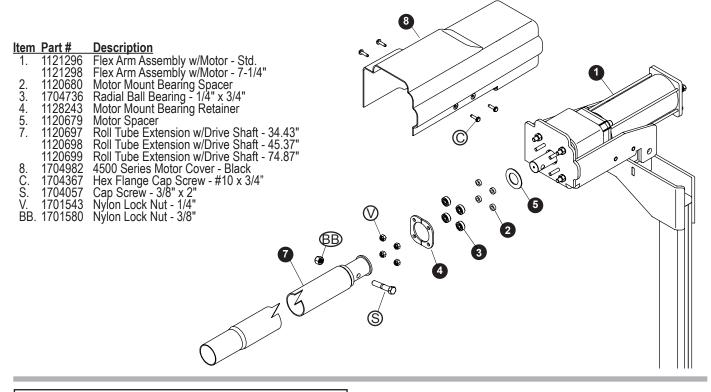


STEP 7: Align adapter plug with 1 1/2" hole. Using plug as guide, mark and drill two 7/32" holes as shown.

STEP 8: Fasten adapter plug to front of trailer with screws **9**, flat washers **9**, lock washers **4** and nuts **9**.

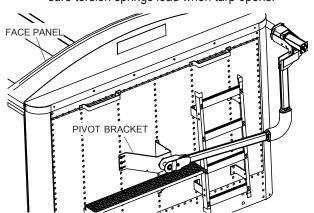


STEP 9: Remove cable tie from front arm/motor assembly before operating system.



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

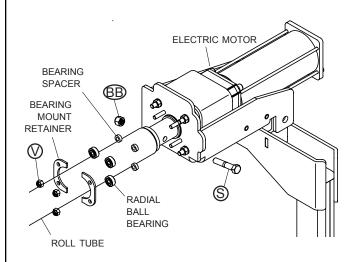
STEP 1: Slide roll tube/roll tube extension weldment back into position and align upper flex arm on front of trailer. Install motor, positioning motor as shown below. Make sure torsion springs load when tarp opens.



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 2: Refasten and secure roll tube to electric motor shaft with screw 3 and nut 3. Install bearing spacers, radial ball bearings and bearing mount retainer and secure with nuts 3.



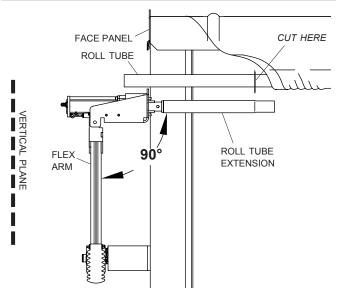
NOTE: Verify again that flex arm is on a vertical plane and parallel to face panel before proceeding. Make sure all fasteners holding motor to upper flex arm bracket are tightened securely.

STEP 3: Hold flex arm with motor and roll tube extension in vertical plane to trailer and 90° to roll tube. Mark roll tube at location to be cut.

NOTE: Requires two people for safe installation.

A CAUTION

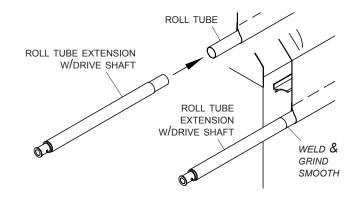
On certain trailers, clearance lights might be in way of roll tube and can be damaged if caution is not taken. In some instances, a 'deflector' might have to be installed to prevent roll tube from causing damage to lights.



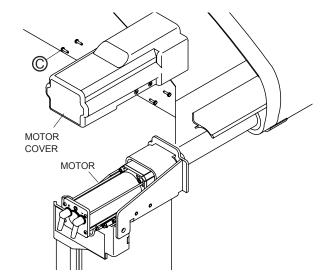
STEP 4: Reverse step 2 to unfasten and remove motor from roll tube extension. Remove roll tube extension from roll tube. Cut roll tube at marked location.

STEP 5: Insert swaged end of roll tube extension w/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.



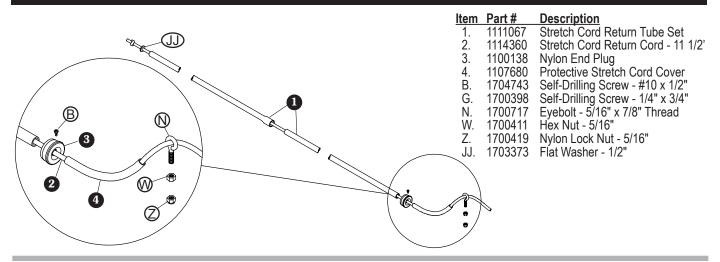
STEP 6: Fasten motor cover onto motor with screws **②**.



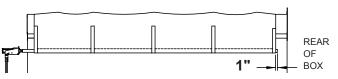
STEP 7: Adjust rear roll tube extension to align flex arm on vertical plane parallel to face panel. Do not drill holes and/or fasten until tarp and roll tube are in desired position.

STEP 8: Re-fasten tarp to roll tube with existing U-clamps and screws. Tighten all fasteners securely. Tighten front and rear flex arm connections.

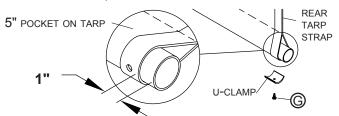
Stretch Cord Return P/N 1121522 Rev. G



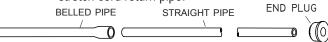
STEP 1: Align roll tube to extend 1" past rear of tarp.



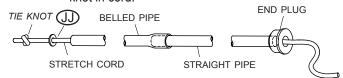
STEP 2: Center first U-clamp on rear tarp strap, positioning screw **③** on crease at bottom of tarp pocket. Fasten U-clamp with screw **⑤**.



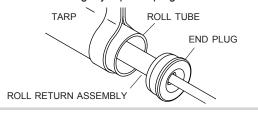
STEP 3: Insert straight stretch cord return pipe into belled stretch cord return pipe. Insert end plug into straight stretch cord return pipe.



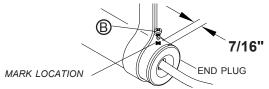
STEP 4: Insert stretch cord through end plug and roll return pipes. Slide flat washer over stretch cord and tie knot in cord.



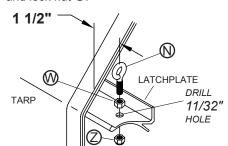
STEP 5: At rear of box, insert stretch cord return assembly into roll tube. Lightly tap end plug into roll tube.



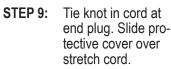
STEP 6: Mark location about 7/16" from edge of end plug. Secure end plug to roll tube with self-drilling screw ①.

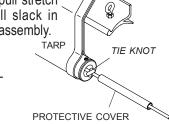


STEP 7: Drill 11/32" hole through latchplate, 1 1/2" from edge of tarp. Insert eyebolt © through hole and secure with nut © and lock nut ②.



STEP 8: With tarp closed and hanging over edge of box, pull stretch cord to remove all slack in stretch cord return assembly.

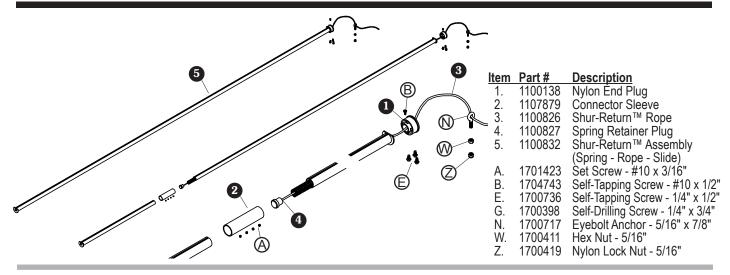




STEP 10: Thread stretch cord through eyebolt, applying enough tension to almost lift roll tube. Tie knot.

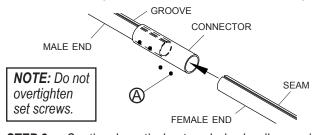


Shur-Return™ P/N 1121522 Rev. G

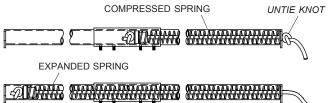


NOTE: Follow steps 1 and 2 on page 7 before proceeding. Steps 1 and 2 on this page are for UPS-able Shur-Return™ only.

STEP 1: Align grooves in male and female UPS-able Shur-Return™ ends, insert female end into connector sleeve and align set screws **②** opposite seam and tighten.

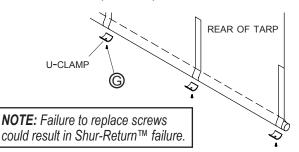


STEP 2: Cautiously until knot and slowly allow spring to expand to full length of UPS-able Shur-Return™.

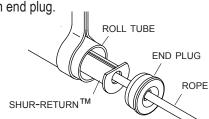


NOTE: Spring is compressed. Use caution when untying knot.

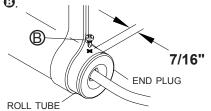
STEP 3: Remove all 1/4" x 3/4" screws on U-clamps from rear 11' of tarp, then replace with screws **©**.



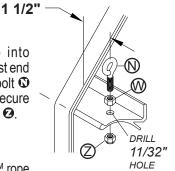
STEP 4: Insert Shur-Return™ into roll tube at rear of box, with rope at open end of roll tube. Thread rope through nylon end plug.



STEP 5: Tap end plug into roll tube and mark location 7/16" from edge of end plug. Secure end plug to roll tube with screw 3.



STEP 6: Drill 11/32" hole into latchplate 1 1/2" past end of tarp. Insert eyebolt 3 through hole and secure with nut @ and nut @.



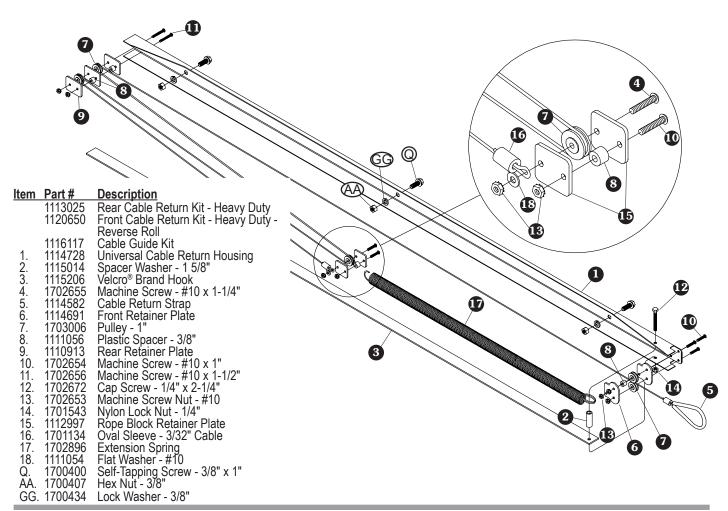
KNOT

ROPE

STEP 7: Insert Shur-Return™ rope through eyebolt, remove all slack from rope and tie knot.

TIP: Do not cut off excess rope until sure tarp will open completely. **EYEBOLT**

Rear Cable Return P/N 1121522 Rev. G



STEP 1: Mark point on center line of face panel 3 1/8" above upper edge of top rail.



STEP 2: Center punch and drill 13/32" hole at mark.

STEP 3: Align center mounting hole on return to drilled hole in cap and fasten with screw (0), lock washer (3) and nut (4).

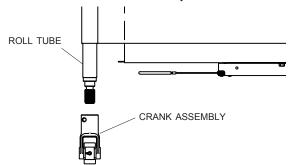
STEP 4: Align cable return parallel with top rail on box.

STEP 5: Mark mounting holes and repeat steps 2 and 3.

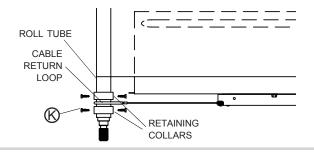
STEP 6: Release tarp from latchplate and let hang over side of trailer.

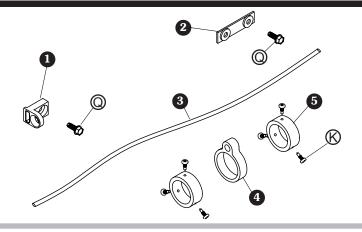
TIPS - Install spacer, such as S/40 PVC pipe, to align cable with pulleys and/or separate cable loop from weld. Adjust cable to prevent rubbing on objects and fraying. Remove weld spatter or debris from roll tube. Replace cable assembly every two years. Roll tube must extend at least 4" past front of trailer - purchase 4' roll tube P/N 1111719, if required.

STEP 7: Remove crank assembly from roll tube.



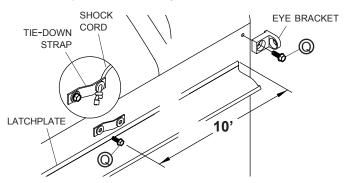
STEP 8: Slide cable return loop and retaining collars over roll tube. Fasten collars to roll tube with screws **3**.





Item Part # Description 1703445 Shock Cord Eye Bracket Shock Cord Tie-Down Strap 1114948 1100169 Shock Cord - 138" 1114947 Roll Tube Eve 1704352 Retaining Collar 5. 1704353 Self-Drilling Screw - 1/4" x 1" K. 1700400 Self-Tapping Screw - 3/8" x 1"

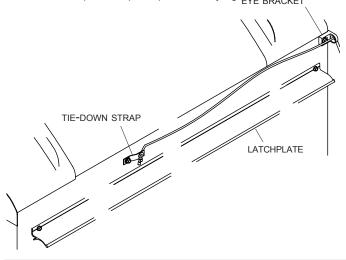
STEP 1: Open tarp against tarp stops. At rear of box, locate eye bracket in configuration shown.



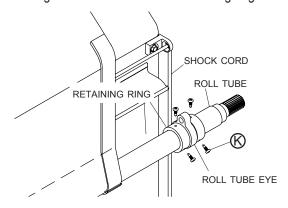
STEP 2: Using eye bracket as guide, mark and drill 5/16" hole in trailer. Fasten bracket to trailer with screws **②**.

STEP 3: Mount shock cord tie-down strap 10' back from rear edge of latchplate. Drill 5/16" hole and fasten with screws ①.

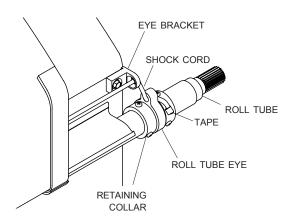
STEP 4: Lead shock cord through eye bracket, then through grommet on tie-down strap. Tie knot in shock cord at tie-down strap to secure. Trim end of shock cord and wrap with tape to prevent fraying.



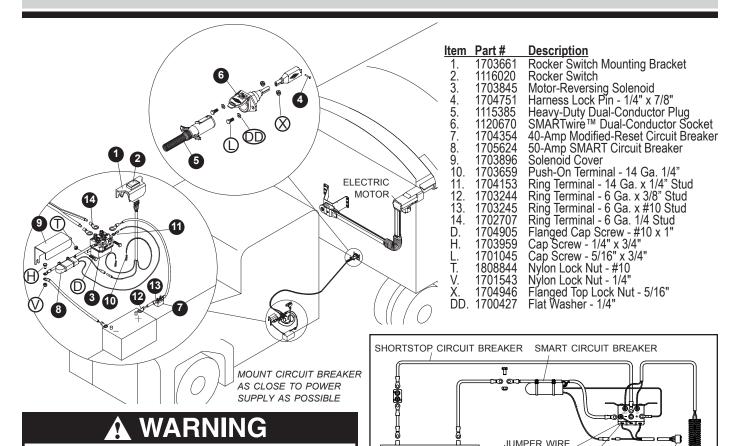
STEP 5: Allow shock cords to hang down. Slide roll tube eye onto rear end of roll tube and align eye about 1" from shock cord, toward outside of trailer. Space retaining rings about 1/8" from each side of roll tube eye. Tighten screws to secure retaining rings.



STEP 6: Roll tarp closed tight under latchplate and pull shock cord through roll tube eye to create tension. Tie permanent knot in shock cord at rear of roll tube.



STEP 7: Roll tarp open and closed to make sure roll tube returns correctly. Adjust tension in shock cord as needed. Trim end of shock cord and wrap with tape to prevent fraying.



BATTERY

STEP 1: Mount solenoid in battery box or other location protected from elements and road debris. Solenoid posts should face up.

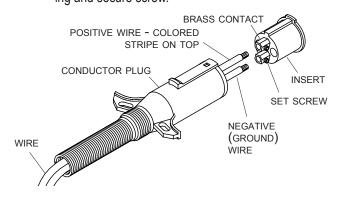
When transporting trailer, wiring from in-cab rock-

on trailer. If motor is not connected to power while

er switch must be connected to 4500 HD system

in transit, tarp may unwind and blow off.

STEP 2: Assemble conductor plug. Unfasten screw and remove insert from plug housing. Feed 6-ga. dual wire through plug housing. Strip insulation back 1/2" and insert bare wire strands into brass contacts. Ensure there are no loose wire strands that could short circuit. Tighten set screws to secure wires. Replace insert into plug housing and secure screw.



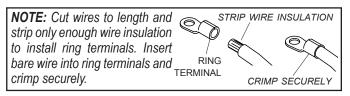
STEP 3: Route 6-ga. dual wire from conductor plug to solenoid and cut wire to length. Crimp and connect 1/4" ring terminals to rear two solenoid posts. Striped wire should be connected to right rear post. Orient wires so shield can be mounted over solenoid later.

PROVIDED

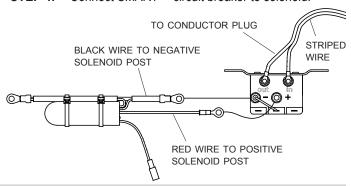
SOLENOID

ROCKER SWITCH

CONDUCTOR PLUG



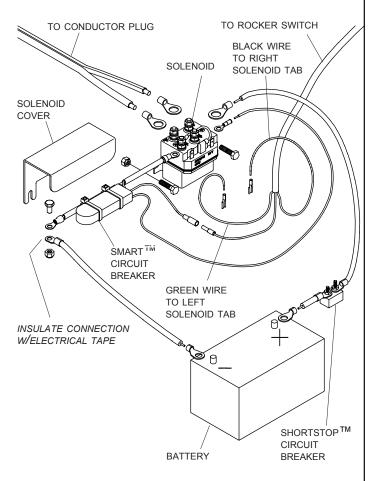
STEP 4: Connect SMART™ circuit breaker to solenoid.



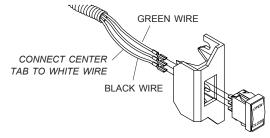
STEP 5: Connect SMART™ breaker to battery. Make jumper out of black 6-ga. wire (no stripe). Connect one end to battery negative post and bolt other ring terminal to SMART™ breaker. Insulate bolted connection with electrical tape.

NOTE: When splitting dual 6-ga. wire into separate halves to make jumper wires, use sharp knife to split webbing in order to prevent insulation from tearing and exposing metal strands.

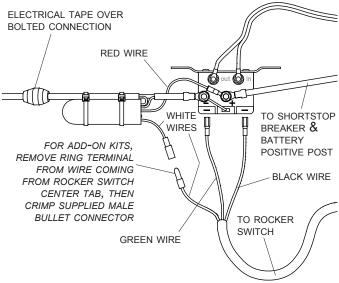
STEP 6: Locate ShortStop™ circuit breaker within 1' of battery positive post. Make jumper wires out of 6-ga. wire (with stripe) for connecting ShortStop™ breaker between positive battery post and positive solenoid post. Connect breaker to positive solenoid post, but do not connect breaker to positive battery post at this time.



STEP 7: Mount rocker switch in cab in convenient location on dash panel or door jamb. Crimp female quick disconnects and connect to rocker switch as shown.



STEP 8: Route 14-ga. 3-conductor cable between rocker switch and solenoid.



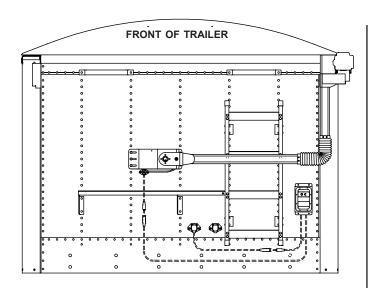
STEP 9: Mount solenoid cover over solenoid and tighten fasteners.

STEP 10: Connect ShortStop™ breaker to battery positive post and test operation.

OPERATION

- **A)** Check motor direction by activating switch to OPEN. If switch is running system backwards, swap green and black quick disconnects on solenoid.
- **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, but before it tightens against tarp stops.

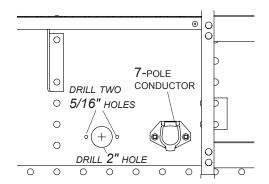
NOTE: Release switch at end of cycle or SMART™ circuit breaker will trip. SMART™ breaker will reset after rocker switch is released. SMART™ breaker should always trip before ShortStop breaker™.



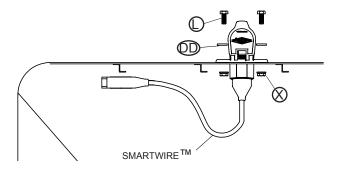
NOTE: Wire lengths are predetermined. Before installing SMARTwire™ components, review and confirm wire routing so wires will reach components with ample room for connection.

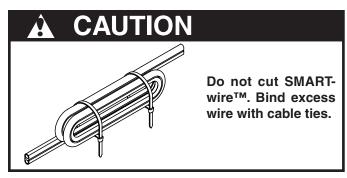
DUAL CONDUCTOR

STEP 1: Locate dual-pole conductor socket near 7-pole conductor socket as shown. Determine location and drill 2" hole through trailer skin.



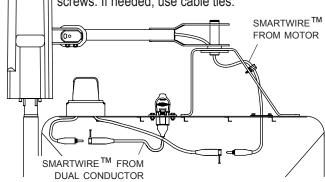
- STEP 2: Align socket over 2" hole. Using holes in flanges on socket as guide, mark and drill two 5/16" holes.
- STEP 3: Fasten conductor socket to trailer with screws ①, washers ② and nuts ③.





WIRING SCHEMATIC

STEP 1: Connect SMARTwire™ from electric motor to SMARTwire™ from dual conductor 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.

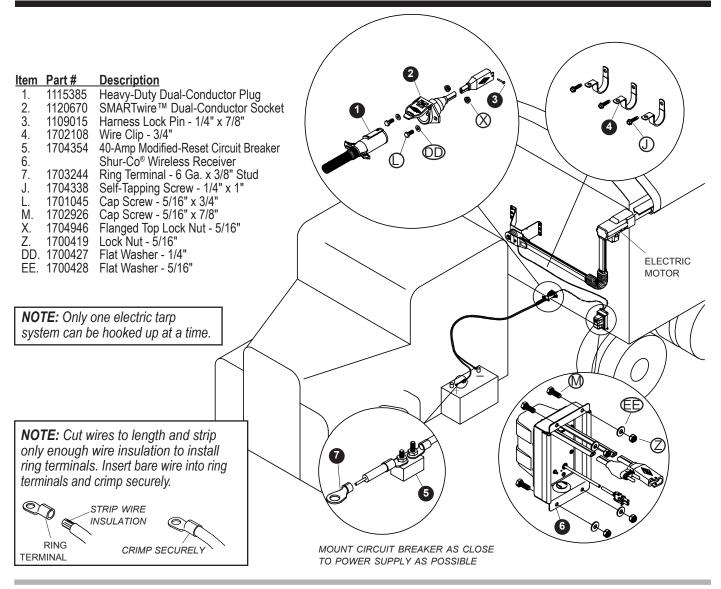
A CAUTION

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

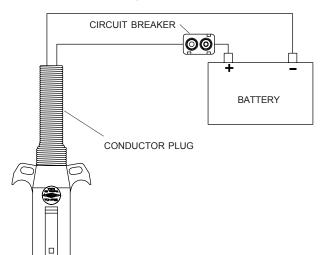
OPERATION:

- **A)** Check motor direction by activating switch to *Open*. If switch is running system backwards, change wire leads on dual conductor plug 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 opened.

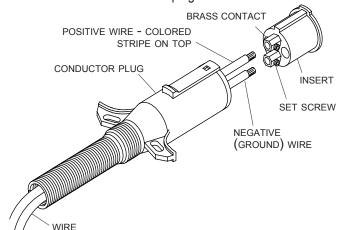
NOTE: Release switch at end of cycle or modified-reset circuit breaker will trip. After breaker resets, switch will activate motor again. To reduce unnecessary strain on tarp components, release switch at end of each cycle.

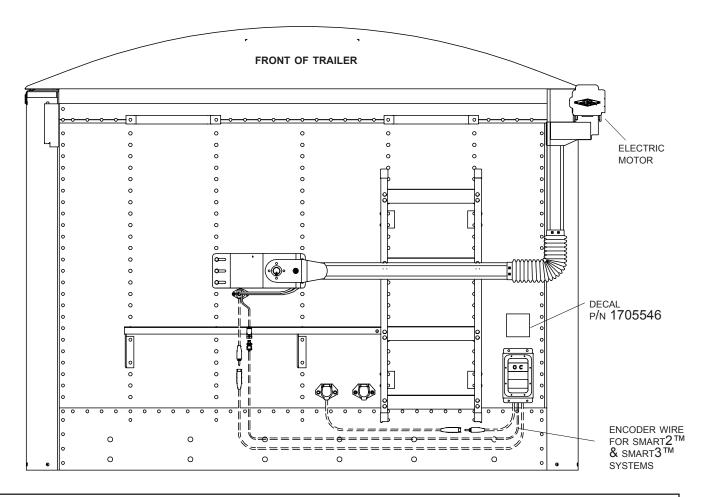


STEP 1: Mount circuit breaker as close as possible to battery or power supply.



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.

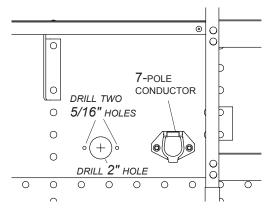




NOTE: Wire lengths are predetermined. Before installing SMARTwire™ components, review and confirm wire routing so wires will reach components with ample room for connection.

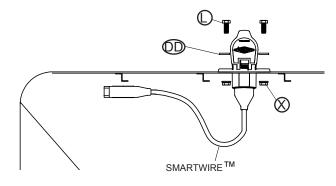
DUAL-CONDUCTOR SOCKET

STEP 1: Locate dual-pole conductor socket near 7-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 ①, washers ② and nuts ③.

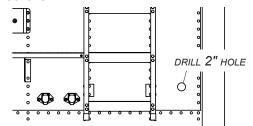


A CAUTION

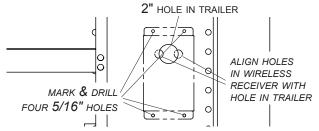
Do not fasten SMARTwire™ components to trailer through hopper walls.

SHUR-CO® WIRELESS RECEIVER

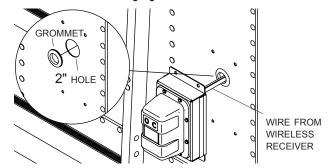
STEP 1: In order to clear travel area of front arm, locate Shur-Co® wireless receiver as low as possible on front of trailer. Determine location and drill 2" hole through trailer skin.



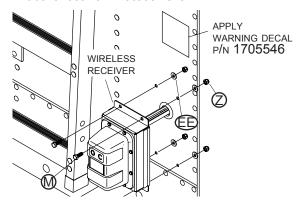
STEP 2: Align holes in wireless receiver over 2" hole in trailer as shown below. Using holes on flanges on receiver as guide, mark and drill four 5/16" holes as shown.



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

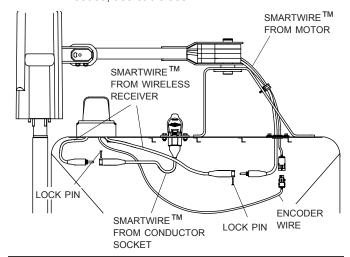


STEP 4: Align holes on wireless receiver with holes on trailer. Fasten receiver to trailer with screws ♥, washers and nuts ♥. Adhere warning decal P/N 1705546 above receiver in location shown.



WIRING SCHEMATIC

STEP 1: Connect SMARTwire™ from wireless receiver to SMARTwire™ from electric motor. Connect SMARTwire™ from wireless receiver to SMARTwire™ from conductor socket. Secure connections with lock pins. Secure wires to trailer with cable clips and screws. If needed, use cable ties.

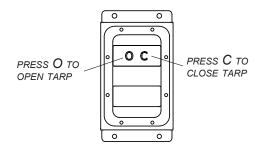


NOTE: Coat each connection with dielectric grease (P/N 1704378) to prevent corrosion.

A CAUTION

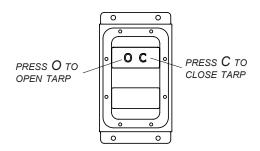
Check all hardware for complete assembly before operating. Inspect system at this time and adjust as required.

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

Operation P/N 1121522 Rev. G



NOTE: 4500 Series HD trailer-mounted control boxes now operate in **EXPRESS MODE**. 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.

A WARNING



DO NOT OPERATE

MOTORIZED SYSTEMS

WHILE INDIVIDUALS

ARE ON OR OCCUPYING &

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.

△ NOTICE

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™ systems, travel stops must also be set. Otherwise you must press and hold buttons (see remote instructions for SMART2™ systems).

A WARNIN

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

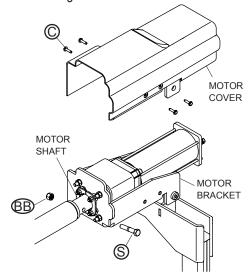


WARNING

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.

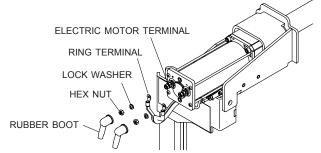
REMOVE EXISTING MOTOR

STEP 1: Disconnect electric power to trailer. Unfasten and remove motor cover. Unfasten screw ① and nut む holding motor shaft to roll tube/front arm assembly.

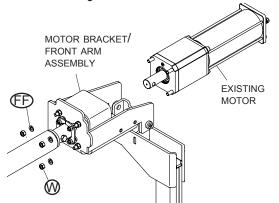


NOTE: Leave roll tube fastened to motor bracket.

STEP 2: Disconnect electric wires from motor terminals.



STEP 3: Unfasten and remove only washers and nuts bounding motor to motor bracket/front arm assembly, leaving motor mount bearing retainers in place. Remove existing motor.

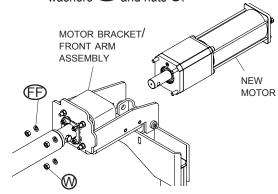


INSTALL NEW MOTOR

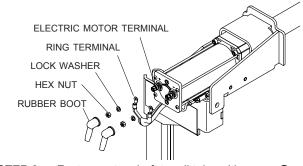
STEP 1: Install new motor. Fasten motor to motor bracket with washers

and nuts

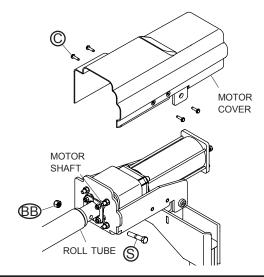
.



STEP 2: Connect electric wires to motor terminals.



STEP 3: Fasten motor shaft to roll tube with screw S and nut D. Replace motor cover and fasten to motor with screws O. Reconnect electric power.

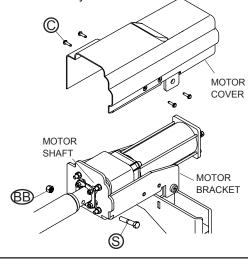


A CAUTION

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

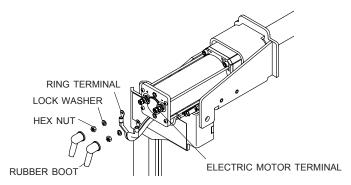
REMOVE EXISTING MOTOR

STEP 1: Disconnect electric power to trailer. Unfasten and remove motor cover. Unfasten screw 3 and lock nut 4 holding motor shaft to roll tube/front arm assembly.



NOTE: Leave roll tube fastened to motor bracket.

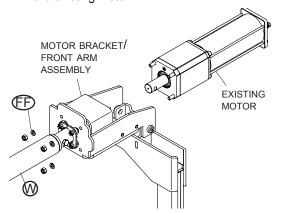
STEP 2: Disconnect electric wires from motor terminals.



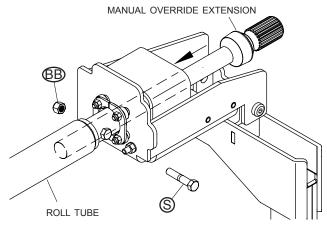
STEP 3: Unfasten and remove only washers

and nuts

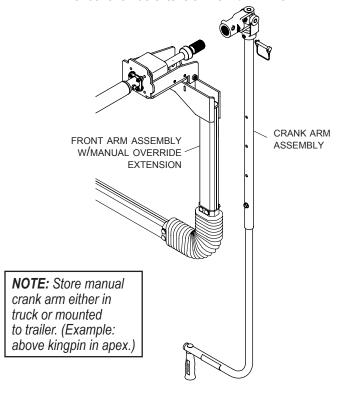
holding motor to motor bracket/front arm assembly, leaving motor mount bearing retainers in place. Remove existing motor.



STEP 4: Insert manual override extension through motor bracket and into roll tube at front of trailer as shown. Fasten with screw 3 and nut 3.

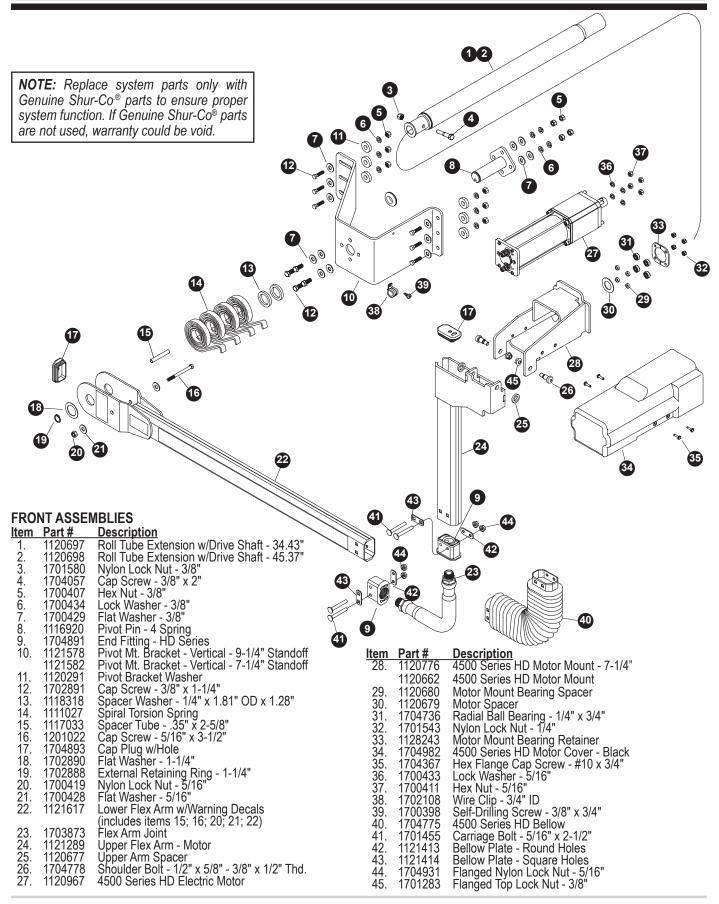


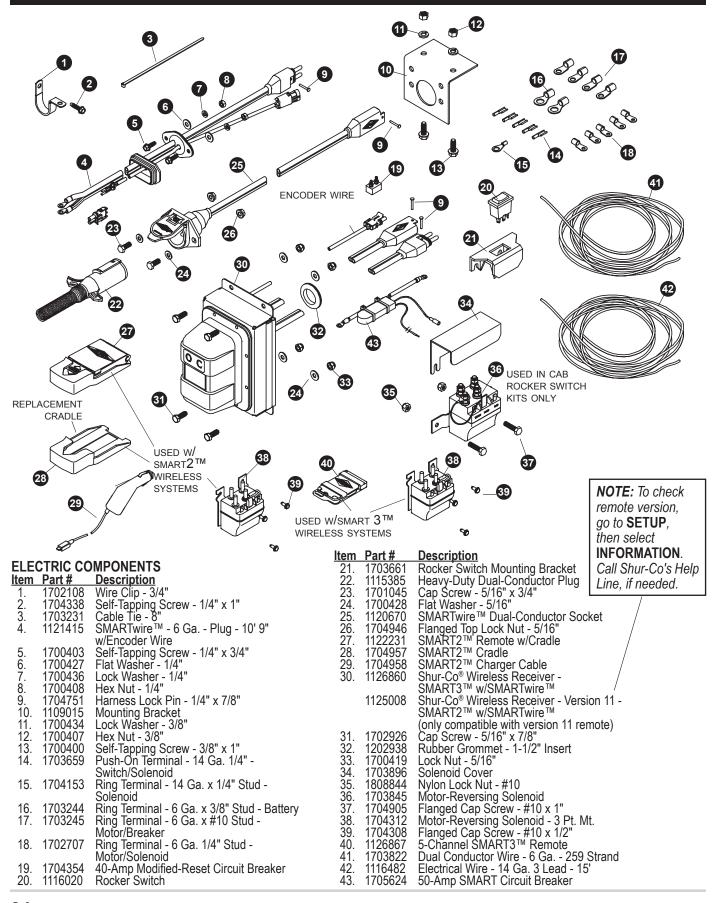
STEP 5: Install crank arm assembly as shown in Shur-Lok® owner's manual. Owner's manual may be viewed at http://www.shurco.com. You may need optional manual override extension kit - P/N 1117022.

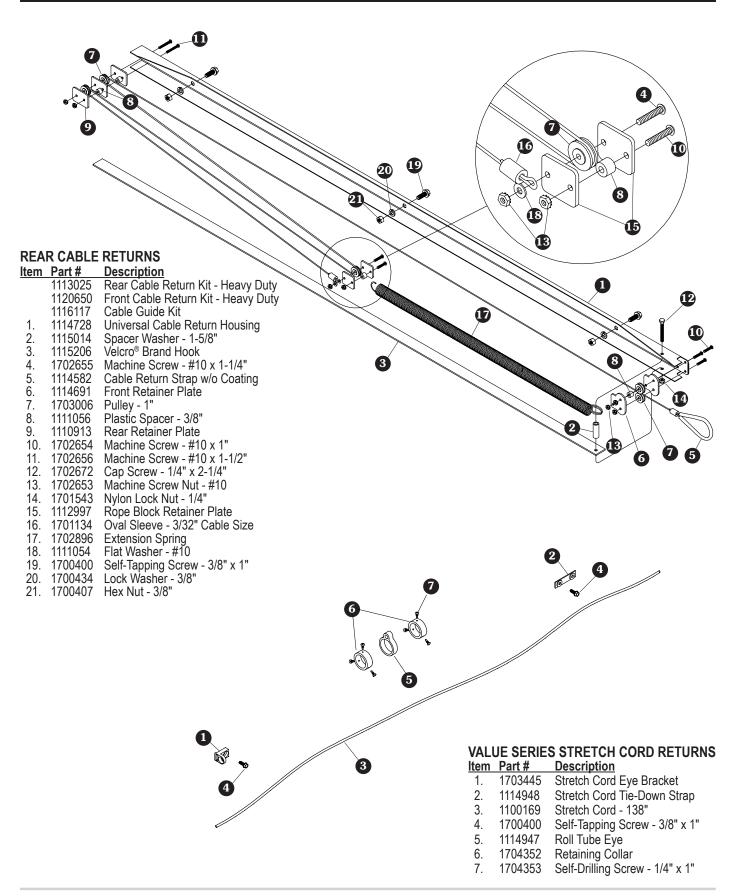


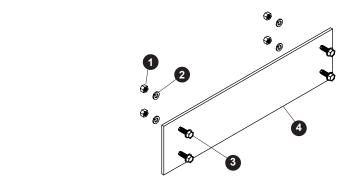
A CAUTION

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.



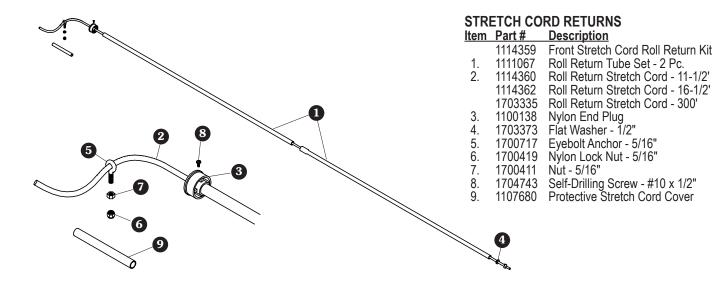






PIVOT BACKER PLATE Item Part # Description

1.	1700407	Hex Nut - 3/8"
2.	1700434	Lock Washer - 3/8"
3.	1702891	Cap Screw - 3/8" x 1-1/4"
4.	1120361	Pivot Backer Plate - 5" x 16"
	1120418	Pivot Backer Plate - 5" x 20"



SHUR-RETURNS

Item Part # Description

	1100824	Shur-Return [™] Kit
	1107881	UPS-able Shur-Return™ Kit
1.	1100832	Tube Assembly
2.	1100138	Nylon End Plug
3.	1700717	Eyebolt Anchor - 5/16"
4.	1700419	Nýlon Lock Nut - 5/16"
5.	1700411	Hex Nut - 5/16"
6.	1704743	Self-Drilling Screw - #10 x 1/2"
7.	1700736	Self-Tapping Screw - 1/4" x 1/2"
8.	1107880	UPS-able Shur-Return™ Assembly
^	4407070	O

Connector Sleeve 1107879

10. 1100826 Shur-Return™ Rope
 11. 1100827 Shur-Return™ Spring Retainer Plug
 12. 1701423 Set Screw - #10 x 3/16"

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

PROBLEM:	TRY THIS:
The SMART™ Remote is not working.	Make sure the battery is placed correctly.
None of the lights on the remote turn on when I open the lid.	 The battery may be dead and must be replaced. Re- placement high-capacity SMART™ Remote batteries may be purchased from Shur-Co® (P/N 1704597).
	 The SMART™ Remote may be damaged. Call Shur-Co's Help Line.
The SMART™ Remote is not working.	1. Make sure the remote is set to the right channel. If you
I can operate the system with the rocker switch but not with the remote. The SMART™ Remote channel light (<i>Tarp System</i> , for example) is blinking, and when I press the <i>Open/On</i>	cannot set the remote to the desired channel (<i>Tarp System</i> , for example), the remote must be reprogrammed. See the SMART™ Remote programming instructions.
button, the light blinks faster.	Make sure you are within a couple feet of the receiver and try again.
	If it works at short range but not at greater distances, you have a range problem. A new battery may be needed. If the remote battery is not the cause, call Shur-Co's Help Line.
	Reprogram the receiver. See the receiver programming instructions. If this doesn't work, call Shur-Co's Help Line.
The system will not operate with the rocker switch or with the SMART™ Remote.	Make sure the master disconnect switch is turned to the "ON" position.
When I try to use the rocker switch or SMART™ Remote, I don't hear any noises (a clicking noise, for example) from the	The circuit breaker may have tripped. Wait one minute and try again.
receiver	3. Check the vehicle's battery to make sure it isn't dead.
	4. Check all connections from the battery to the system. Check for polarity, good connections and corrosion. Veri- fy you have at least 12V on the back side of the receiver on the battery hookup posts.
	5. Call Shur-Co's Help Line.
The system will not operate with the rocker switch or with the SMART™ Remote.	Verify 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 SMART™ 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.
	The receiver may be pressure washed, but keep nozzle at least 3' from system while spraying.

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

MORE QUALITY PRODUCTS FROM SHUR-CO®

- Genuine Replacement Tarps
- Genuine Replacement Parts
- Agriculture Products
 - The Original Shur-Lok®
 - Turning PointTM Bow
 - Shur-Lok® Junior
 - Premium Belt 'n Ratchet
 - Cable-Lok™
 - Tater-Top™
- SMARTrailer[™] Accessories for Agriculture Products
 - SMART2TM Remote
 - SMART3[™] Remote
 - 4500 Series HD Electric
 - Electric Shur-Lok®
 - AutoTrap™ Hopper Opener
 - ProTrap® Hopper Opener
 - Electric Gate & Hoist
 - DriveMaxxTM Auger Drive
 - Electric Farm Swing Gate
 - LiteALLTM Work Lights
 - Cable-Lok™ Electric Upgrade
 - Electric Turning Point $^{\scriptscriptstyle{\text{TM}}}$ Bow
 - Solar Power Pack
 - Tater-Top™ Electric
 - Service Truck Power Kit

- Construction Products
 - The Original Shur-Lok®
 - Turning PointTM Bow
 - Shur-Trak II™
 - IronSide II™
 - Shur-Matic™
- SMARTrailer[™] 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
 - GustbusterTM Tarp Cords
 - SMARTwireTM

