READ BEFORE INSTALLING P/N 1133238 REV A



# Shur-Lok<sup>™</sup> E-Series Open-Top Van

# **OWNER'S MANUAL**

3-Inch Electric Roll Tarp Conversion

## **Download the ShurLink™ App**





2309 SHURLOCK STREET | YANKTON, SD 57078-0713

SHURCO.COM



## SAFETY INSTRUCTIONS

At Shurco™, your safety is our top priority. Please read and thoroughly understand all instructions before operating all equipment. Failure to READ AND FOLLOW INSTRUCTIONS may result in system failure, property damage, or personal injury. Pay close attention to warnings, cautions, and operating instructions. The hazard symbol ▲ alerts users of potentially hazardous conditions, and is followed by Caution, Warning, or Danger messages to indicate risk:

- Danger: (Red) Indicates an imminently hazardous situation that, if not avoided, WILL result in death or serious injury.
- Warning: (Orange) Indicates a potentially hazardous situation that, if not avoided, COULD result in death or serious injury.
- Caution : (Yellow) Indicates a potentially hazardous situation that, if not avoided, MAY result in minor or moderate injury or damage to the system.
- Notice: (Blue) Indicates operational notes or other essential information without addressing safety.

Regularly inspect equipment to ensure proper performance. Always repair or replace worn or damaged parts immediately to maintain safety. Safety decals are placed at critical locations on the equipment. Keep these decals clean and legible at all times. Replace any decal that is worn, damaged, painted over or otherwise unreadable. Replacement decals can be obtained by your local Shurco dealer.

- Always wear safety glasses during installation and operation.
- · Stay clear of moving parts.
- No other use of Shurco<sup>™</sup> equipment is authorized, except as designed.

## Shur-Co LLC. TERMS OF SERVICE

ORDER
TERMS AND CONDITIONS



**WARRANTY** 



**PATENTS** 



### **SERVICE AND DISTRIBUTION CENTERS**

SHURCO.com

**LOCATIONS** 



P/N 1133238 Rev. A Product Guide

### **MESSAGE TO OWNERS**

Thank you for choosing Shurco™ for your tarping system needs. We appreciate your confidence in our products. Please note that while this manual provides comprehensive installation and operation instructions, your trailer may require minor adjustments to these guidelines.

Visit Shurco.com to access the most current version of these instructions and other important product information.

## **QUESTIONS?**

**CALL OUR HELP LINE:** 

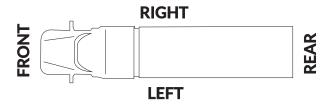
1-866-748-7435

MONDAY-FRIDAY 8 AM-5 PM CENTRAL TIME

### **MAINTENANCE**

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

#### **VEHICLE ORIENTATION**



## **REQUIRED TOOLS**

- Welder Steel, Aluminum Optional
- Hammer
- Center Punch or Transfer Punch
- #3 Phillips Insert Bit
- #2 Phillips Insert Bit
- Air or Electric Impact Wrench (9/16" and 3/4" deep socket)
- 7/16", 9/16", 1/2", 3/4" Combination Wrench
- 7/32", 1/4", 21/64", 5/16", 3/8", 1/2" Drill Bit
- 1/4" Drive with Swivel
- 1/2" Socket
- 15" Socket Drive Extension
- Standard/Flathead Screwdriver
- Utility Knife
- Ratchet
- Hack Saw (metal cutter)
- Pliers
- Grinder
- Tape Measure

**NOTICE:** This installation requires two people for safe and efficient completion.

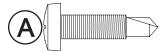




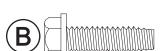
Inspect your kit to ensure all parts and hardware are included before starting installation.

# PLEASE READ THE COMPLETE MANUAL BEFORE PROCEEDING WITH INSTALLATION OR USE OF THE TARPING SYSTEM.

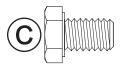
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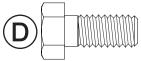
1705198 Self-Drilling Screw - 1/4" x 1"



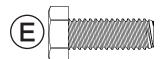
1704338 Self-Tapping Screw - 1/4" x 1"



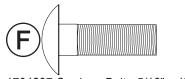
1703171 Hex Head Cap Screw - 5/16" x 1/2"



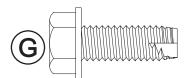
1701045 Cap Screw - 5/16" x 3/4"



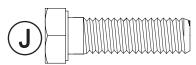
1702926 Cap Screw - 5/16" x 7/8"



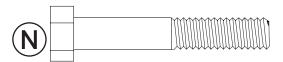
1704237 Carriage Bolt - 5/16" x 1" - Grade 5



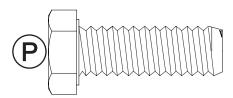
1700400 Self-Tapping Screw - 3/8" x 1"



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



1704264 Cap Screw - 3/8" x 2" - Grade 8



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



1701543 Nylon Lock Nut - 1/4"



1704297 Nylon Lock Nut - 5/16"



1700419 Nylon Lock Hex Nut - 5/16"



1704946 Top Lock Flanged Nut - 5/16"



1701580 Nylon Lock Nut - 3/8"



1700407 Hex Nut - 3/8"



1700416 Lock Nut - 1/2"



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"



1704751 Harness Lock Pin - 1/4" x 7/8"

#### STEP 1: REMOVE HAND CRANK

- a) Using the hand crank, close the tarp over the box until the roll tube hangs below the latchplates.
- b) Remove the existing hand crank from the end of the roll tube.

**NOTICE:** Store the hand crank arm in the truck or mount it to the trailer. (Example - above kingpin, near the apex.)

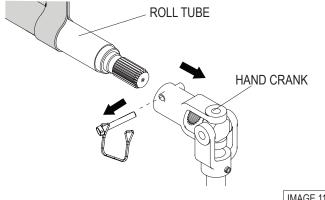


IMAGE 110

#### STEP 2: PREPARE EXISTING ROLL TUBE

- a) Remove any existing returns, such as a cable return, bungee return, etc.
- b) Remove all U-clamps and screws from the roll tube, and retain them for later use.

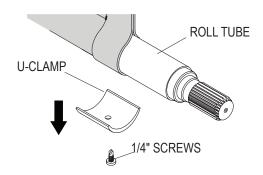


IMAGE 111

#### STEP 3: CUT ROLL TUBE

- a) Determine roll tube length by adding 9 inches to the trailer's length.
- b) Mark and cut the **roll tube** to the required roll tube length. Grind edges until smooth.

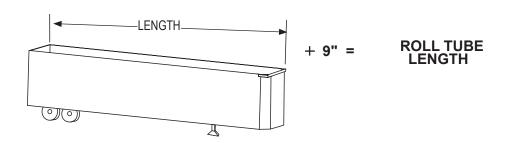
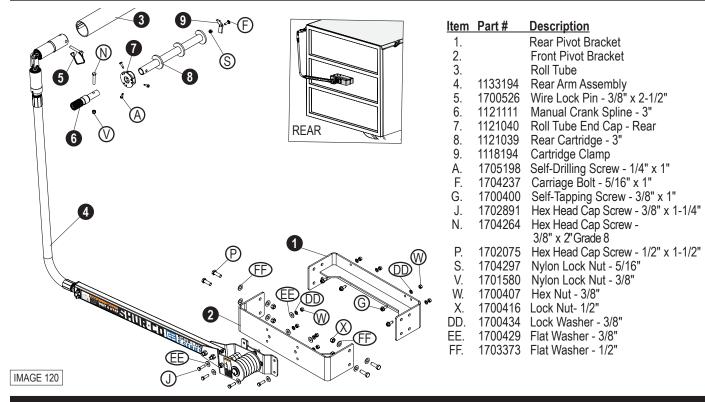


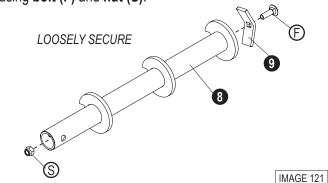
IMAGE 112



#### Rear Arm & Pivot Bracket Installation

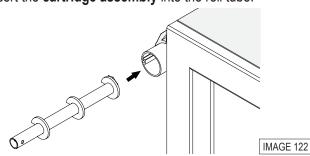
#### STEP 1: ASSEMBLE CARTRIDGE

Loosely fasten the cartridge clamp (9) to the cartridge (8) using **bolt** (F) and **nut** (S).



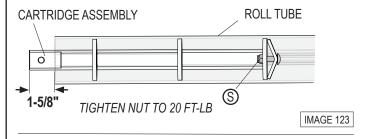
#### **STEP 2: INSERT CARTRIDGE**

Insert the cartridge assembly into the roll tube.



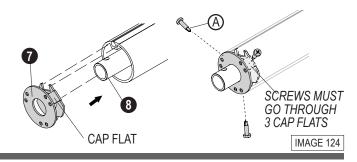
#### STEP 3: SECURE CARTRIDGE

- a) Adjust the **cartridge assembly** so that it extends 1-5/8 inches beyond the end of the roll tube.
- b) Tighten **nut (S)** to 20 ft-lb.



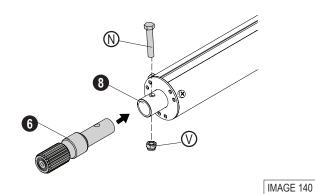
#### STEP 4: SECURE CAP

Insert the cap (7) onto the end of the cartridge (8) and into the roll tube. Fasten three screws (A) through the roll tube and into the three flats on the side of the cap.



#### STEP 5: SECURE SPLINE

Insert the **spline (6)** into the end of the **cartridge (8)** and secure with **screw (N)** and **nut (V)**.

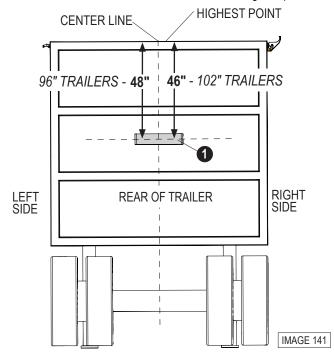


#### STEP 6: DETERMINE BRACKET LOCATION

#### **REAR TRAILER**

Center the **rear bracket (1)** according to trailer length:

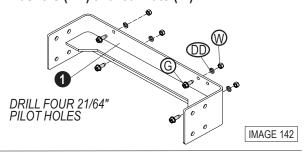
- 102-inch trailer center 46-inches down from highest point.
- 96-inch trailer center 48-inches down from highest point.



**NOTICE:** Before drilling any holes, make sure arm has a clear pathway to operate.

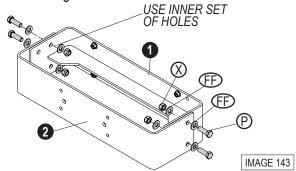
#### STEP 7: MOUNT REAR BRACKET

- a) Hold **rear bracket (1)** at location identified in Step 6. Mark hole locations.
  - When possible, remove existing rivets to use existing holes.
  - If required, drill 21/64-inch holes in trailer.
- b) Secure rear bracket (1) with four screws (G), four washers (DD) and four nuts (W).



#### STEP 8: SECURE BRACKETS

Install the **front bracket (2)** to the **rear bracket (1)** using the inner set of holes (closest to the trailer). Secure them with four **screws (P)**, eight **washers (FF)**, and four **nuts (X)**, as shown in Image 143.



# **A** WARNING

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

## **A** CAUTION

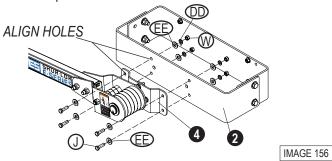
The arm assembly must be installed with the warning decals facing away from the trailer and in plain view.

## **A** WARNING

Do not stand or climb on the flex arm. Doing so may result in a fall or impact, causing serious injury or death.

#### STEP 9: ATTACH REAR ARM TO BRACKET

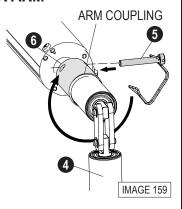
- a) Align holes on the rear arm plate (4) with the holes in the front bracket (2). Keep arm parallel to the front of the trailer.
- b) Place washers (EE) and hex cap screws (J) onto the plate and insert them into the bracket hole.
- c) From inside the bracket, attach washers (EE), lock washers (DD) and nuts (W) onto the end of the hex cap screws.



#### STEP 10: SECURE REAR ARM

a) Lift the **rear arm (4)** and slide the coupling onto the spline **(6)**.

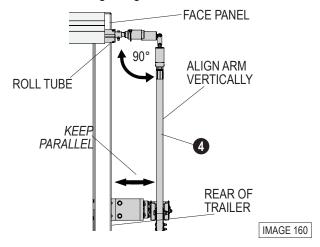
b) Insert the pin of the wire lock (5) through the arm to secure it into place.

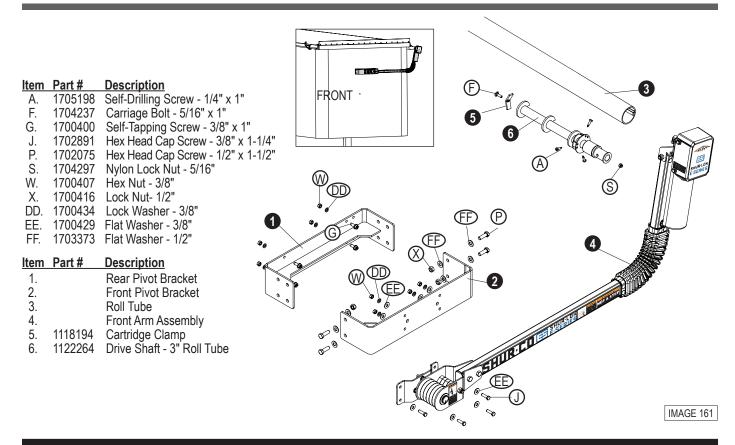


#### STEP 11: VERIFY REAR ARM PLACEMENT

At the rear of the trailer, ensure the **rear arm (4)**:

- · Lines up straight, parallel to the face panel.
- Remains at a right angle to the roll tube.

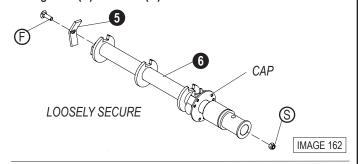




### Front Arm & Pivot Bracket Installation

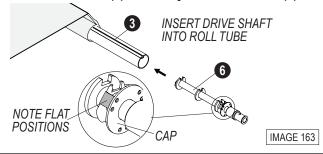
#### STEP 1: ASSEMBLE CARTRIDGE

Loosely fasten the **cartridge clamp (5)** to the **drive shaft (6)** using **bolt (F)** and **nut (S)**.



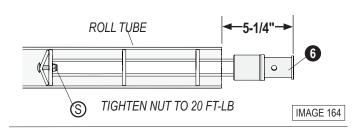
#### STEP 2: INSERT DRIVE SHAFT

Insert the drive shaft (6) assembly into the roll tube (3).



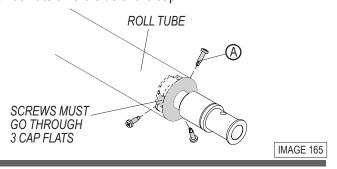
#### STEP 3: SECURE DRIVE SHAFT

Align the **drive shaft (6)** so that is is 5-1/4" beyond the end of the roll tube and tighten **nut (S)** to 20-ft-lb.



#### STEP 4: SECURE CAP

Fasten three **screws (A)** through the roll tube and into the three flats on the side of the cap.



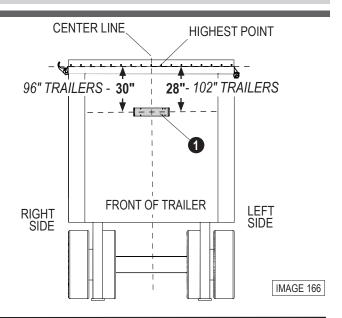
# STEP 5: BRACKET PLACEMENT FRONT TRAILER

Center the rear bracket (1) according to trailer length:

- 102-inch trailer center 28 inches down from highest point.
- 96-inch trailer center 30 inches down from highest point.

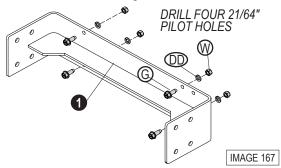
**NOTICE:** Before drilling any holes, make sure arm has a clear pathway to operate.

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



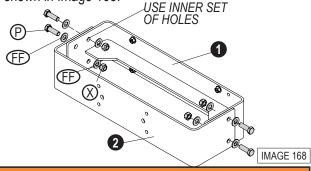
#### STEP 6: MOUNT BRACKET TO TRAILER FRONT

Hold **rear bracket (1)** at location identified in Step 5. Mark hole locations and drill 21/64-inch holes in trailer. Secure bracket as shown in Image 167.



#### STEP 7: SECURE BRACKETS

Install the **front bracket (2)** to the **rear bracket (1)** using the inner set of holes (closest to the trailer). Secure them with four **screws (P)**, eight **washers (FF)**, and four **nuts (X)**, as shown in Image 168.



## **A** WARNING

Do not stand or climb on the flex arm. Doing so may result in a fall or impact, causing serious injury or death.

# **A** WARNING

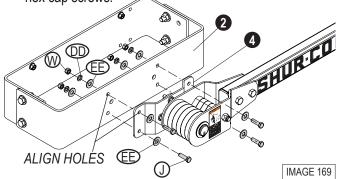
Flex arms are under tension while torsion springs are engaged. Use caution when assembling and disassembling arms. Failure to read and follow instructions may result in serious injury or death.

# **A** CAUTION

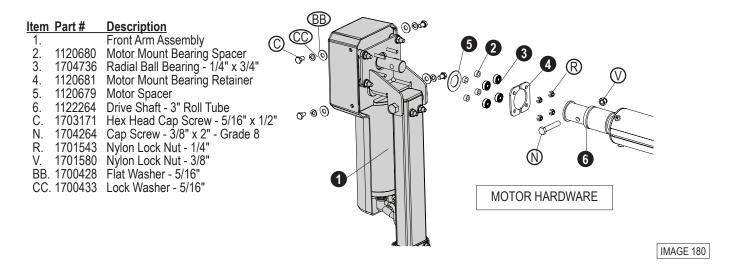
The arm assembly must be installed with the warning decals facing away from the trailer and in plain view.

#### STEP 8: ATTACH FRONT ARM TO BRACKET

- a) Align holes on the front **arm plate (4)** with the holes in the front **bracket (2)**. Keep arm parallel to the front of the trailer.
- b) Place washers (EE) and hex cap screws (J) onto the plate and insert them into the bracket hole.
- c) From inside the bracket, attach washers (EE), lock washers (DD) and nuts (W) onto the end of the hex cap screws.



Motor Mounting P/N 1133238 Rev. A



#### **Motor Installation**

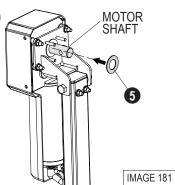
#### STEP 1: VERIFY REAR ARM PLACEMENT

At the rear of the trailer, ensure the rear arm:

- Lines up straight, parallel to the face panel.
- Remains at a right angle to the roll tube.

#### **STEP 2: PREPARE MOTOR**

At the front of the trailer, slide the **motor spacer (5)** over the motor shaft and press it against the motor.

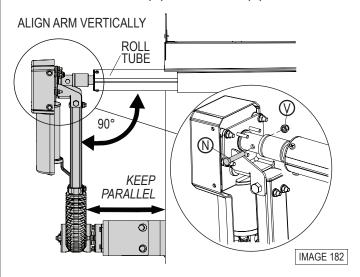


# **A** CAUTION

Avoid pinch points when sliding the roll tube extension over the motor shaft and during tightening. Keep hands and fingers clear of moving parts to prevent injury.

#### STEP 3: SECURE ARM TO ROLL TUBE

- a) Ensure the roll tube is in its correct position and the front arm is aligned vertically on the front end of the trailer.
- b) Fasten and secure the roll tube to the motor shaft with **Grade 8 screw (N)** and **lock nut (V)**.

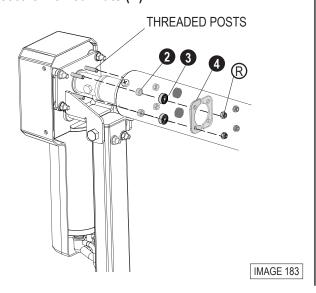


# **A** WARNING

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

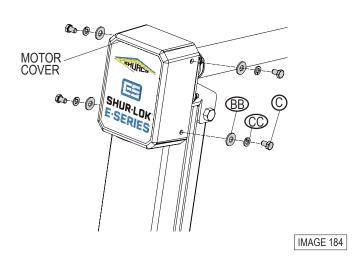
### **STEP 4: SECURE MOTOR HARDWARE**

Install four bearing spacers (2), four ball bearings (3), two bearing retainers (4) onto the four threaded posts and secure with four nuts (R).



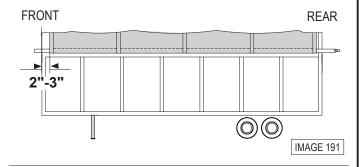
#### STEP 5: INSTALL MOTOR COVER

Fasten the **motor cover** to the motor with four **screws (C)**, lock washers (CC), and washers (BB).



#### STEP 1: POSITION THE TARP

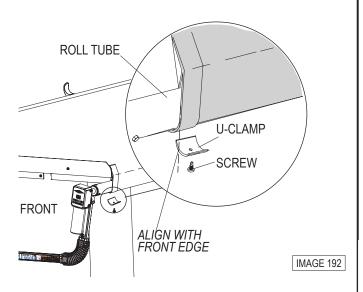
Ensure the tarp is square and the roll tube is aligned 2–3 inches from the wind deflectors, matching the fixed tube alignment.



**NOTICE:** Use the U-clamps and screws removed at the begining of the installation.

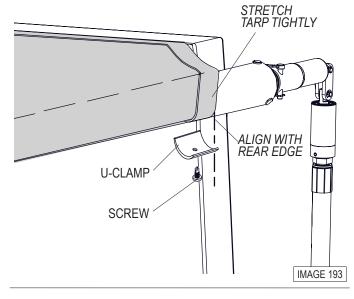
#### STEP 2: ATTACH FRONT U-CLAMP

Center a U-clamp on the front edge of the tarp, positioning a self-drilling screw on the crease at the bottom of the tarp pocket. Fasten the U-clamp with the screw.



#### STEP 3: ATTACH REAR U-CLAMP

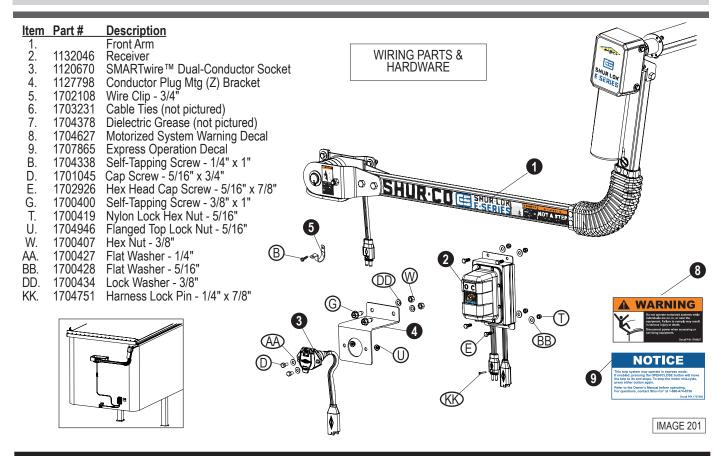
- a) Stretch the tarp along the roll tube so the tarp is square.
- b) Install a U-clamp on the rear strap, positioning self-drilling screw on the crease at the bottom of the tarp pocket.
- c) Fasten the U-clamp with self-drilling screw.



#### STEP 4: ATTACH REMAINING U-CLAMPS

- a) Position the remaining U-clamps evenly between the front and rear U-clamps.
  - If the tarp includes straps, place one U-clamp on each strap.
  - If there are no straps, space the U-clamps no more than 36 inches apart.
- b) Fasten with self-drilling screws.

Wiring P/N 1133238 Rev. A



## Front Arm, Dual Conductor Socket & Receiver Wiring

# CAUTION

- Do not cut SMARTwire™. Wire ends are designed with sealed connections to prevent corrosion; cutting the wire may lead to operational problems.
- Bind excess wire with cable ties to prevent loose wire entanglement.

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

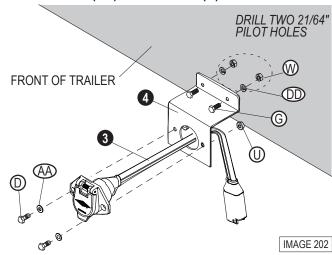
## STEP 1: CAB WIRING (Optional)

See the Dual Conductor Plug Kit for cab wiring instructions (Part Number 1119643).

**NOTICE:** Washers and nuts may be omitted if wall thickness prevents proper securement.

# STEP 2: MOUNT DUAL CONDUCTOR SOCKET & BRACKET

- a) Determine location on the front of the trailer, near the existing 7-pole conductor socket for the **socket (3)**. b) Drill two 21/64" pilot holes.
- c) Fasten the mounting bracket (4) with two screws (G), two lock washers (DD) and two nuts (W).
- d) Attach the **socket (3)** with two **screws (D)**, two washers (AA), and two nuts (U).



Wiring - continued P/N 1133238 Rev. A

#### **STEP 3: FASTEN RECEIVER**

- a) Determine a location on the front, left side of the trailer, positioning the receiver (2) as low as possible to ensure the front arm can move in an unobstructed travel path.
- b) Use the holes on the receiver as a guide to drill four 5/16-inch holes.
- c) Insert four screws (E) through the front of the receiver brackets and attach four washers (BB) and four nuts (T) inside the trailer skin.

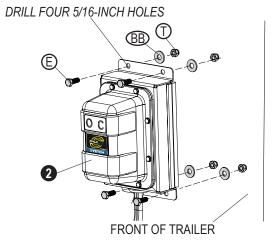
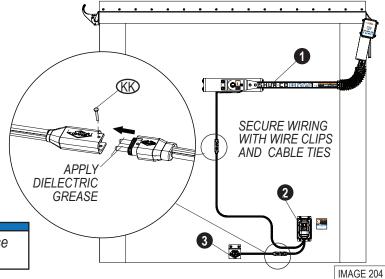


IMAGE 203

#### STEP 4: CONNECT SMARTWIRE

- a) Apply dielectric grease (7) to the male plug ends of the receiver (2) and front arm (1).
- b) Connect the SMARTwire from the **front arm (1)** to the **receiver (2)**.
- c) Connect the SMARTwire from the **receiver (2)** to the **dual-conductor socket (3)**.
- d) Secure connections with lock pins (KK).
- e) Secure wires to the trailer with wire clips (5) and screws (B). Use cable ties (6), if needed.

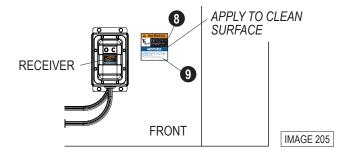


**NOTICE:** Coat each connection with dielectric grease to prevent corrosion.

#### **STEP 5: PLACE DECALS**

- a) Ensure the surface area near the receiver is clean and dry.
- b) Remove the backing from warning decal (8) and express notice decal (9).
- c) Place the decals in a visible location near the receiver, as shown in Image 205.
  - Regularly inspect all safety decals for wear and adhesion to maintain safety.
  - Replace worn or damaged decals as necessary.





# NOTICE

This tarp system may operate in express mode. If enabled, pressing the OPEN/CLOSE button will move the tarp to its end stops. To stop the motor mid-cycle, press either button again.

Refer to the Owner's Manual before operating. For questions, contact Shur-Co<sup>®</sup> at 1-800-474-8756

Decal P/N 1707865

P/N 1133238 Rev. A Operation

# **A** CAUTION

Ensure all hardware is secure before operating the system. Inspect the complete system at this time and make adjustments as required.

#### **EXPRESS MODE**

The tarp system automatically enters Express Mode when operated using the buttons on the trailer-mounted receiver box or through the Shurlink™ remote system. In this mode, pressing the O (open) or C (close) button initiates an express operation to open or close the tarp. This operation will continue until either button is pressed again to stop, or it will automatically conclude once the tarp reaches the end of its travel.

# **A** WARNING

Do not stand or climb on the flex arm. Doing so may result in a fall or impact, causing serious injury or death.

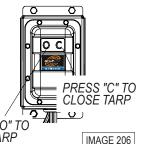


Decal P/N 1703897

#### TEST OPERATION

- Check the motor direction by pressing either the Open or Close button on the receiver.
- b) If the button is released and operation continues, the system is in *Express Mode*. To stop operation, press button again.

  PRESS "O" TO OPEN TARP



# **AWARNING**

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.

#### REMOTE OPERATION (OPTIONAL - NOT INCLUDED)

EZR™ remotes are pre-programmed to Express Mode but can be reconfigured according to your preferences. To stop the tarp system while using the remote, press the open or close button within range. If operation was initiated from the receiver, note that closing the remote lid or pressing the select button does not stop the system during Express Mode operation. For remote operation, refer to the remote instruction manual.

#### CHANGE MOTOR DIRECTION

If the open/close buttons are running the system backwards, download the app to change motor direction.

Follow QR code for Shurlink™ App Product Support



# **A WARNING**

Powering any Shur-co® wireless system solely with a battery charger may lead to operational issues or system failure. A 12-volt truck or automobile battery must be used as the power source for the trailer's system.

**NOTICE:** Only one electric tarp system can be hooked up at a time.

## **A** WARNING

Do not operate motorized systems while individuals are on, in, or nearby the equipment. Failure to comply may result in serious injury or death.

Disconnect power when accessing or servicing equipment.

Perform the following steps to convert the Shur-lock E Series electric system to manual crank operation.

**NOTICE:** Store the hand crank arm in the truck or mount it to the trailer. (Example - above kingpin, near the apex.)

#### **STEP 1: DISCONNECT POWER**

Disconnect power from the front of the trailer.

#### STEP 2: REMOVE REAR ARM

a) At the rear end of the trailer, remove the lock pin securing the rear arm to the roll tube.
b) Remove the rear arm.

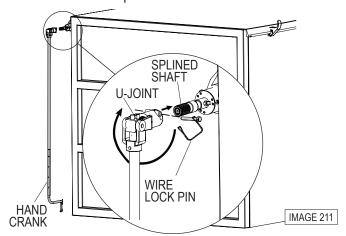
ROLL TUBE

REAR ARM

IMAGE 210

#### STEP 3: ATTACH HAND CRANK

Place splined U-joint of the hand crank on the splined shaft. Secure with wire lock pin.



# **A** WARNING

Do not open or close the tarp unless the U-joint is securely fastened to the splined shaft with the wire lock pin. Failure to do so could result in severe injury or death.

NOTICE: The U-joint is designed to operate as shown in Image 212 and is able to withstand considerably more pressure in this position.

RECOMMENDED

RETAINING WIRE ENCIRCLES U-JOINT POSITION

IMAGE 212

# **A** WARNING

Ensure the retaining wire encircles the U-joint to prevent the wiring from catching during operation. Failure to do so could cause severe injury or death.

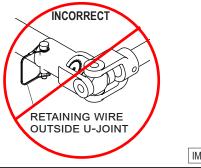
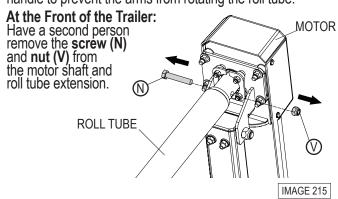


IMAGE 214

#### STEP 4: DISCONNECT MOTOR

At the Rear of the Trailer: Hold the crank handle to prevent the arms from rotating the roll tube.

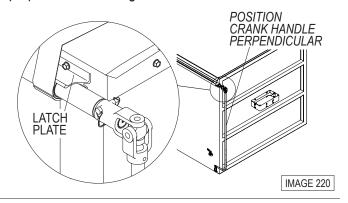


#### OPERATING INSTRUCTIONS

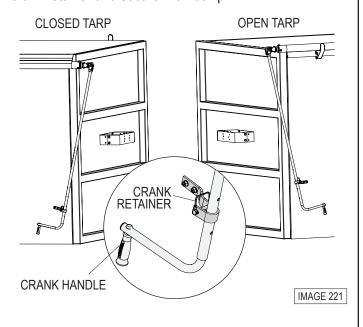
Use the crank arm assembly mounted at the rear of the trailer to manually open and close the tarp system until electrical system issues can be resolved. See the Shur-Lok® owner's manual for proper safety procedures at www.shurco.com.

#### **STEP 1:**

Hold the crank firmly with both hands and roll the tarp closed under the latchplate. Bring the crank handle down perpendicular to the ground.



# **STEP 2:** Tighten the tarp by lifting the crank handle up into the crank retainer and secure with lock pin.



## STEP 3:

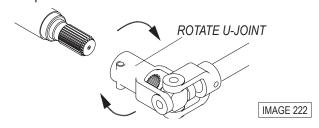
Check the tarp tension. It should take 40 to 60 pounds of pressure to force the crank handle into the crank retainer. The crank extension will bend 1/8".

# **A** WARNING

Do not open or close the tarp unless the U-joint is securely fastened to the splined shaft with the wire lock pin. Failure to do so could result in severe injury or death.

#### STEP 4:

If required, adjust the tension by removing the U-joint from the splined shaft, rotating the U-joint tooth, and replacing it on the splined shaft.

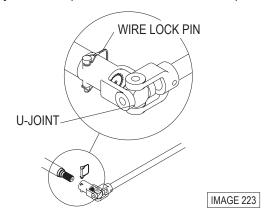


#### STEP 5:

Repeat Step 3 and Step 4 until the correct tension is achieved.

#### STEP 6:

Secure the U-joint to the splined shaft with the wire lock pin.



#### To uncover load:

- 1. Release the crank from the crank retainer.
- 2. Turn the crank clockwise (counter-clockwise for reverse roll) until the tarp has rolled up against the tarp stops.
- 3. Place the crank back into the crank retainer and secure with lock pin.

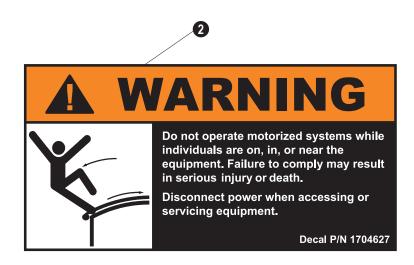
#### To cover load:

- 1. Release the crank from the crank retainer.
- 2. Turn the crank counter-clockwise (clockwise for reverse roll) until the tarp is unrolled over the edge of the trailer.
- 3. Continue cranking to roll the tarp up under the latchplate.
- 4. Bring the crank arm down to a vertical position.
- 5. Swing the crank arm up and place it into the crank retainer and secure with lock pin.

#### Decals

ltem	Part #	<u>Description</u>
1.	1703897	Flex Arm Tension Warning Decal
2.	1704627	Motorized System Warning Decal
3.	1707862	Flex Arm Step Warning Decal
4.		Express Operation Decal





# NOTICE

This tarp system may operate in express mode. If enabled, pressing the OPEN/CLOSE button will move the tarp to its end stops. To stop the motor mid-cycle, press either button again.

Refer to the Owner's Manual before operating. For questions, contact Shur-Co<sup>®</sup> at 1-800-474-8756

**Decal P/N 1707865** 



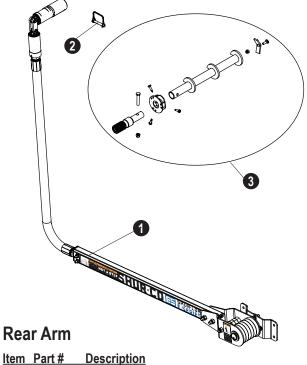
# **AWARNING**

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.



3

Fre	ont Arm		
<u>lten</u>	n Part#	<u>Description</u>	9.9
1.	1133197	Front Arm Assembly without Motor	
		Front Arm Assembly with Motor	
2.	1133019	E-Series Motor	5
3.	1133018	Motor Cover Kit - E-Series	/ 50/
4.	1122880	Electric Drive Shaft Kit - 3"	
		Cartridge Clamp	3
		Drive Shaft - 3"	
		Self-Drilling Screw - 1/4" x 1"	
		Nylon Lock Nut - 5/16"	and the state of t
		Cap Screw - 3/8" x 2" - Grade 8	
		Nylon Lock Nut - 3/8"	
		Carriage Bolt - 5/16" x 1" Self-Tapping Screw - 3/8" x 1"	
5.	1120977	Motor Mount Hdw - 4500HD/E-Series	
٥.	1120311	Motor Mount Bearing Spacer	
		Radial Ball Bearing - 1/4" x 3/4"	
		Motor Mount Bearing Retainer	O O SHUR PO
		Motor Spacer	O SHUR-CO ESPERATE A POLATE
		Cap Screw - 3/8" x 2" - Grade 8 Nylon Lock Nut - 3/8"	
		Nylon Lock Nut - 3/8"	[IMAGE 703]
		Nýlon Lock Nut - 1/4"	IIVIAGE 703

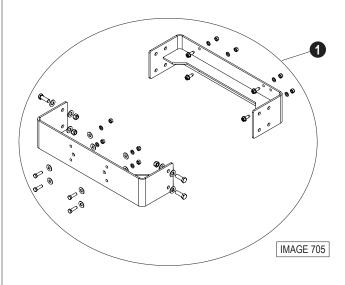


tem	Part #	Description
1	1122104	Door Arm Ac

1133194 Rear Arm Assembly 1700526 Wire Lock Pin - 3/8" x 2-1/2" 1122879 Rear Roll Tube Adapter Kit
Manual Crank Spline - 3"
Roll Tube End Cap - Rear
Rear Cartridge - 3"
Cartridge Clamp
Nylon Lock Nut - 3/8"
Carriage Rolt 5/16" x 1" Carriage Bolt - 5/16" x 1"

Hex Head Cap Screw - 3/8" x 2"Grade 8 Nylon Lock Nut - 5/16"

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



#### **Brackets**

Item	Part #	Description
1.	1133199	Bracket Mounting Kit
		Rear Pivot Bracket
		Front Pivot Bracket
		Self-Tapping Screw - 3/8" x 1"
		Hex Head Cap Screw - 3/8" x 1-1/4"
		Hex Head Cap Screw - 1/2" x 1-1/2"
		Hex Nut - 3/8"
		Lock Nut- 1/2"
		Lock Washer - 3/8"
		Flat Washer - 3/8"
		Flat Washer - 1/2"

IMAGE 704

## **RECEIVER & DUAL-CONDUCTOR SOCKET COMPONENTS**

<u>ltem</u>	Part #	<u>Description</u>		
1.	1132046	Receiver Flanged Nylon Lock Nut - 5/16" Flat Washer - 5/16" Wire Clip - 3/4" Cap Screw - 5/16" x 7/8" Cable Ties (not pictured) Dielectric Grease (not pictured) Self-Tapping Screw - 1/4" x 1" Harness Lock Pin - 1/4" x 7/8"	<b>3 6 6</b>	
2. 3. 4. 5. 6.	1120670 1127798 1700400 1700407 1700434	SMARTwire™ Dual-Conductor Socket Conductor Plug Mtg (Z) Bracket		
		2 00 00 0		IMAGE 706

## **OPTIONS**

<u>ltem</u>	Part #	<u>Description</u>
1.	1119643	Cab Wiring Kit - 6 Ga. x 30'- 40Amp HD Dual-Cond Plug - Vert Pin Dual-Cond Wire - 6 Ga 30' (not pictured) 40-Amp Modified-Reset Circuit Breaker Cable Tie - 8" Ring Terminal - 6 Ga. x 3/8" Stud - Battery Ring Terminal - 6 Ga. x #10 Stud - Motor/Breaker Circuit Breaker Boot - Red
2.	1131576	ShurLink EZR™ Remote  2
		IMAGE 707

