



TARPING SYSTEMS & ACCESSORIES

P/N 1117650 Rev. F

OWNER'S MANUAL



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 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 conjunction with Shur-Co®, LLC products will void this product warranty.

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

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

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

SHUR-CO®, LLC SERVICE AND DISTRIBUTION CENTERS

Corporate HQ and Outlet Store

SHUR-CO® of SOUTH DAKOTA
2309 Shur-Lok St., PO Box 713
Yankton, SD 57078-0713
Ph 800.474.8756 | Fax 605.665.0501

ShurTite™ Service Centers

SHUR-CO® of CANADA
490 Elgin St., Unit #1
Brantford, Ontario N3S 7P8
Ph 800.265.0823 | Fax 519.751.3997

SHUR-CO® of SIOUX FALLS
47184 258th St., Suite B
Sioux Falls, SD 57107
Ph 844.573.9322 | Fax 605.543.5469

SHUR-CO® of COLORADO
10220 Brighton Rd., Unit #1
Henderson, CO 80640
Ph 866.355.9173 | Fax 303.289.2298

SHUR-CO® of FLORIDA
3353 SE Gran Park Way
Stuart, FL 34997
Ph 800.327.8287 | Fax 772.287.0431

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

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, Unit A
West Fargo, ND 58078
Ph 877.868.4488 | Fax 701.277.1283

SHUR-CO® of OHIO
1100 N. Freedom, St. Rt. 88 & 14
Ravenna, OH 44266
Ph 866.356.0242 | Fax 330.297.5599

SHUR-CO® of OKLAHOMA
1604 East US Hwy 66
El Reno, OK 73036
Ph 866.356.0243 | Fax 405.262.3842


SHUR-CO® of TEXAS
34505 I-10 West, S. Frontage Rd.
Brookshire, TX 77423
Ph 866.689.0039 | Fax 281.934.3311

SHUR-CO® UK, Ltd.
Unit 41 Rochester Airport Estates
Laker Rd., Rochester, Kent ME1 3QX
Ph +44 (0)1795.473499
Fax +44 (0)871.272.8278

For more 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. Repair or replace worn or damaged parts to your system.

QUESTIONS? CALL OUR HELP LINE:

1-866-748-7435

MON-FRI 8 AM-5 PM CENTRAL TIME

SAFETY

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

OPERATION

1. Roll tarp open.
2. Check for overhead obstructions. Bows rise about 12" while opening.
3. Operate switch to swing bows to side of box.
4. After loading trailer, operate switch to allow bows to close over box.

SAFETY INSTRUCTIONS

- 1. Always wear safety glasses during installation.**
- 2. Keep body and clothing clear of moving parts.**
- 3. Do not operate under potentially dangerous obstacles.**
- 4. Return bows to secure position after operation.**
- 5. Use only OSHA-approved ladders or scaffolding during installation process.**
- 6. Close bows fully before raising trailer.**

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..... 1
- Prepare Rope Pull System for Upgrade to Electric System 2
- Pivot Bracket Installation 3
- Electric Turning Point Bow™ Installation..... 4
- Electric Actuator Installation 5
- Actuator Shield Assembly 6
- Limit Switch Assembly..... 7
- Terminal Block Assembly..... 8
- Rocker Switch - Cab Wiring..... 9
- Rocker Switch - Trailer Mounting & Wiring 10
- Wireless Receiver - Cab Wiring..... 11
- Wireless Receiver - Trailer Mounting & Wiring..... 12
- Replacement Parts 13-14
- Troubleshooting Guide 15

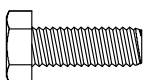
TOOLS REQUIRED

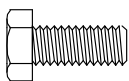
1. Steel Welder
2. Hammer
3. Center Punch or Transfer Punch
4. 3/8" Drill
5. Drill Bit - 17/64"
6. Drill Bit - 5/16"
7. Drill Bit - 3/8"
8. Wrench - 7/16"
9. Wrench - 1/2"
10. Wrench - 9/16"
11. Wrench - 3/4"
12. Wrench - 5/8"
13. Wrench - 18 mm
14. Ratchet
15. 1/2" Deep Socket
16. 9/16" Deep Socket
17. 7/16" Socket
18. Air or Electric Impact Driver
19. 9/16" Deep Impact Socket
20. Hacksaw (Metal Cutting Saw)
21. Flat Head Screwdriver
22. Phillips Head Screwdriver
23. Pliers
24. Wire Cutter
25. Utility Knife or Wire Stripper
26. Wire Terminal Crimper
27. Grinder
28. Tape Measure

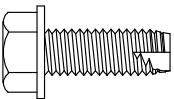
A  1704191 - Pan Hd. Machine Screw - #6 x 7/8"

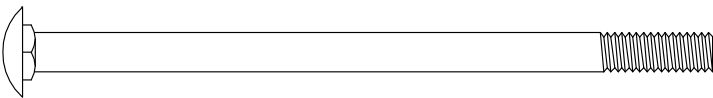
B  1701471 - Self-Drilling Screw - #12 x 1"

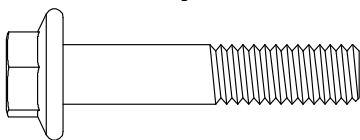
C  1703960 - Cap Screw - 1/4" x 1/2"

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

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

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

H  1701216 - Carriage Bolt - 5/16" x 5 1/2"

J  1704179 - Hex Flange Cap Screw - M12 x 60

K  1704184 - Nylon Lock Nut - #6

M  1704185 - Nylon Lock Nut - 1/4" Thin

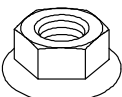
N  1701543 - Nylon Lock Nut - 1/4"

O  1700411 - Hex Nut - 5/16"

P  1700419 - Nylon Lock Nut - 5/16"

Q  1700407 - Hex Nut - 3/8"

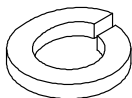
R  1704181 - Hex Nut - M12 x 1 3/4"

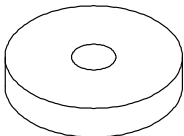
S  1704180 - Flange Lock Nut - M12 x 1 3/4"

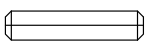
U  1700427 - Flat Washer - 1/4"

V  1201237 - Flat Washer - 5/16"

W  1700434 - Lock Washer - 3/8"

X  1700437 - Lock Washer - 1/2"

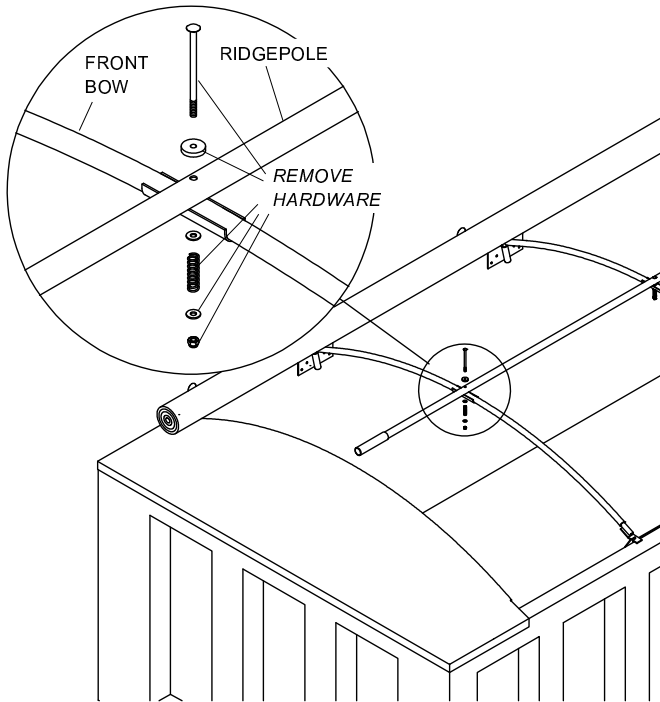
Y  1701215 - Washer - 1/4" x 1 1/4" x 5/16"

Z  1701118 - Spring Pin - 1/4" x 1 3/16"

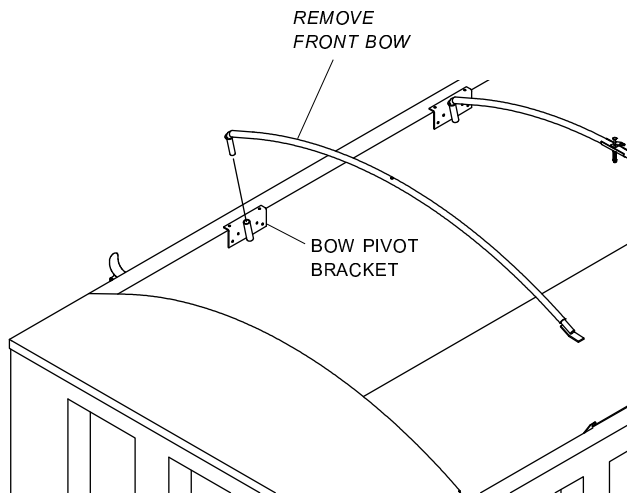
For existing Turning Point™ Bow System upgrades: Remove first existing Turning Point™ bow and pivot bracket from front of box. These will be replaced with a new bow and pivot bracket assembly connected to an electric actuator.

If existing front bow stop is damaged, remove and replace with new bow stop provided. Remove rope return components and store in vehicle.

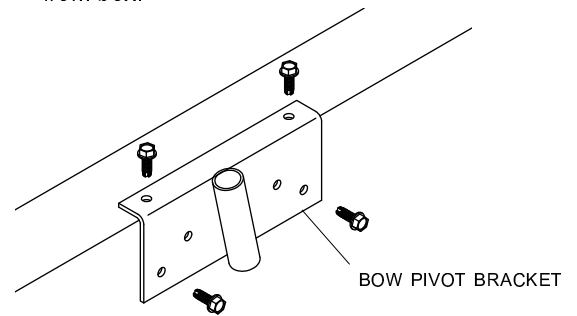
STEP 1: Remove existing hardware from ridgepole and front bow. Discard hardware.



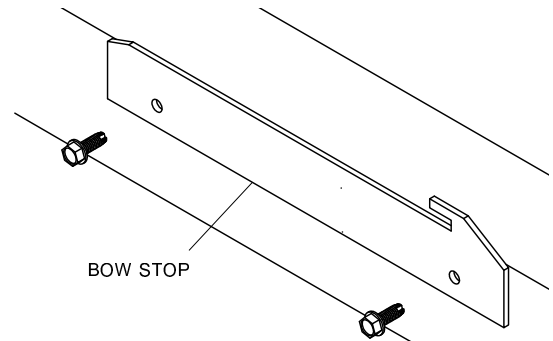
STEP 2: Remove and discard existing front bow by lifting bow up and out of bow pivot bracket.



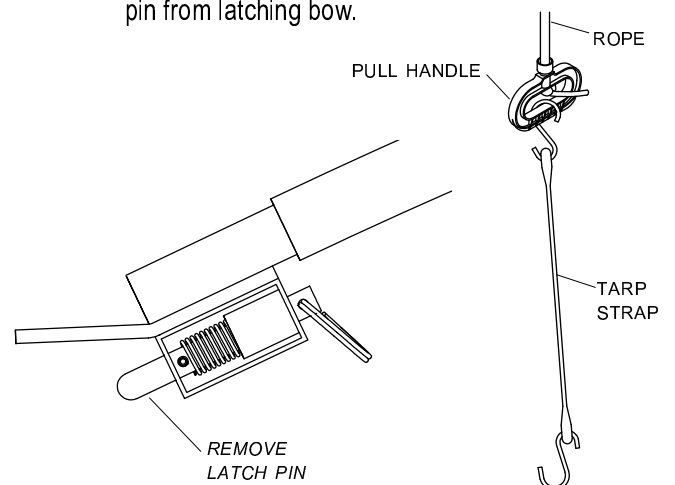
STEP 3: Remove and discard existing front bow pivot bracket from box.



STEP 4: Inspect existing front bow stop. If damaged, replace with supplied bow stop.



STEP 5: Remove rope return handle and spring-loaded locking pin from latching bow.

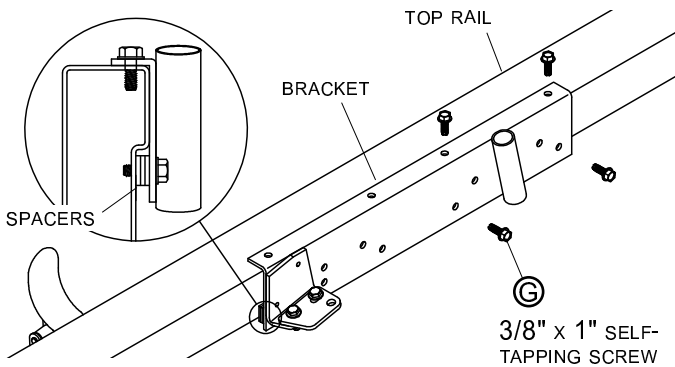


NOTE: Do not throw these parts away! Store rope return, handle and locking pin in vehicle for use in case of actuator or wiring failure.

NOTE: If you are installing a complete Turning Point™ bow system, refer to the owners manual to determine front bow pivot bracket location.

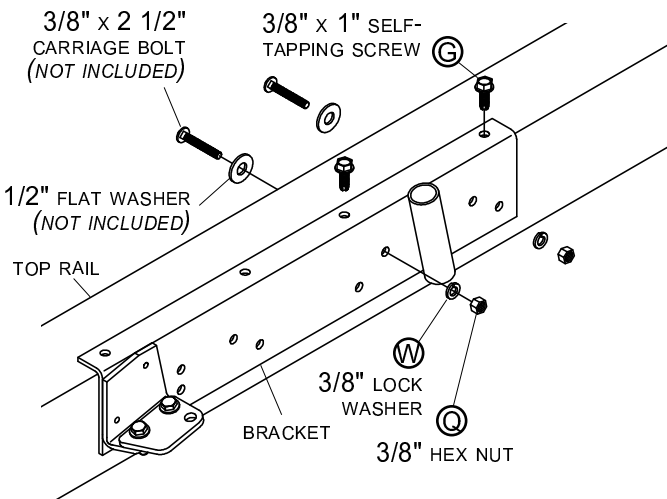
STEP 6: Mount electric bow pivot bracket in same location as original front bow pivot bracket, fastening through existing holes in box.

a) Steel/aluminum rails. Mount bow pivot bracket with 3/8" x 1" self-tapping screws through top of bracket and through either upper or lower hole pattern on side of bracket.



TIP: If installing spacers, align center of spacers with holes in bracket. Tape spacers in place while drilling holes.

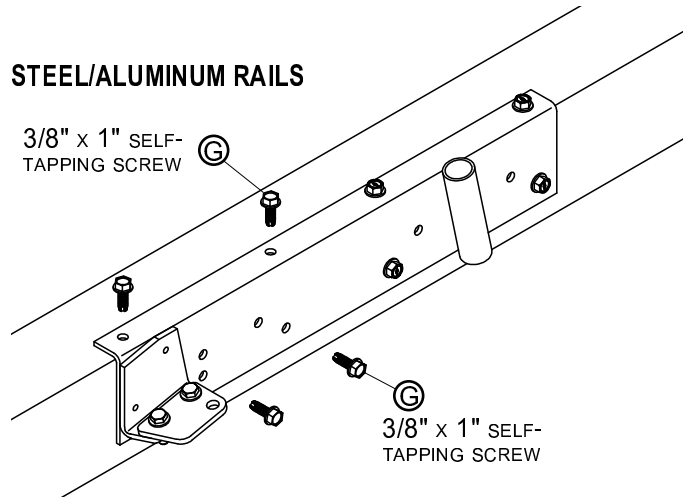
b) Rails with planks. Mount bow pivot brackets with 3/8" x 1" self-tapping screws through top of bracket and 3/8" x 2 1/2" carriage bolts, lock washers and nuts through upper or lower hole pattern on side of bracket. Secure 1/2" flat washers to outside of plank to minimize twist.



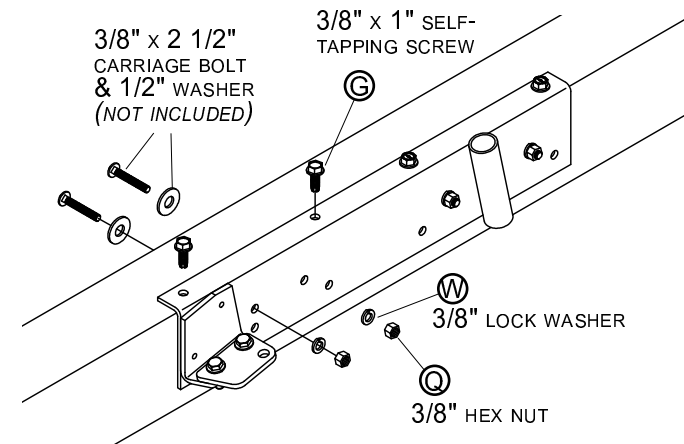
STEP 7: Drill into box or planks through holes in top of new bow pivot bracket and through upper or lower hole pattern on side of bracket.

NOTE: Drill 5/16" holes for 3/8" x 1" self-tapping screws and drill 3/8" holes for 3/8" x 2 1/2" carriage bolts.

STEEL/ALUMINUM RAILS



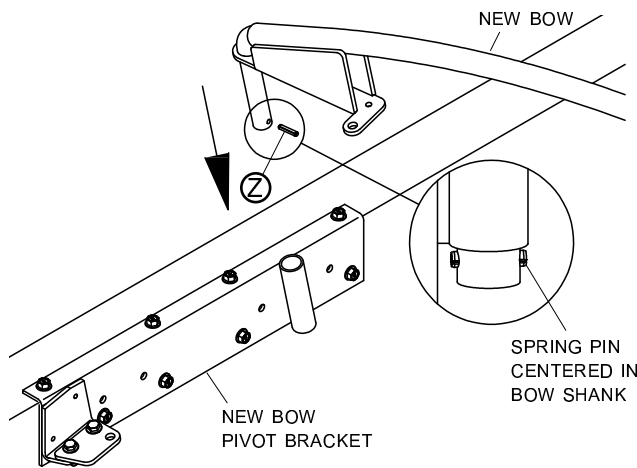
RAILS W/PLANKS



STEP 8: Fasten bracket through drilled holes as shown above.

CAUTION
Mount pivot bow brackets to planks securely because they must withstand considerable stress.

STEP 9: Insert new bow into new bow pivot bracket. Secure with 1/4" x 1 3/16" spring pin, centering pin in bow shank.



NOTE: Bow pivot brackets can be greased or lubricated. See Caution below before doing so.

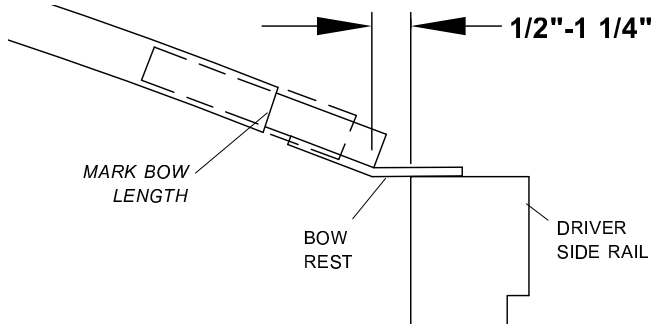


CAUTION

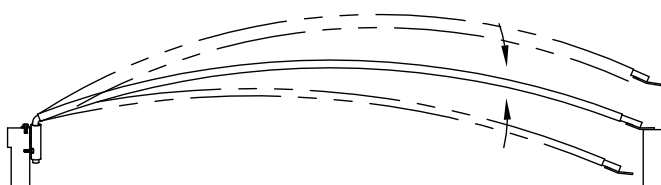
DO NOT lubricate if you intend to haul fertilizers or hazardous material. Explosive chemical reaction could occur.

TIP: For easier installation on existing system upgrades, hold ridgepole and other bows open while installing new bow.

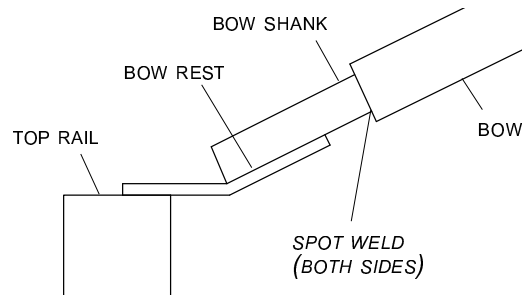
STEP 10: Determine bow length by aligning new bow rest provided in kit with bow and bow stop on top of side rail. Cut to length.



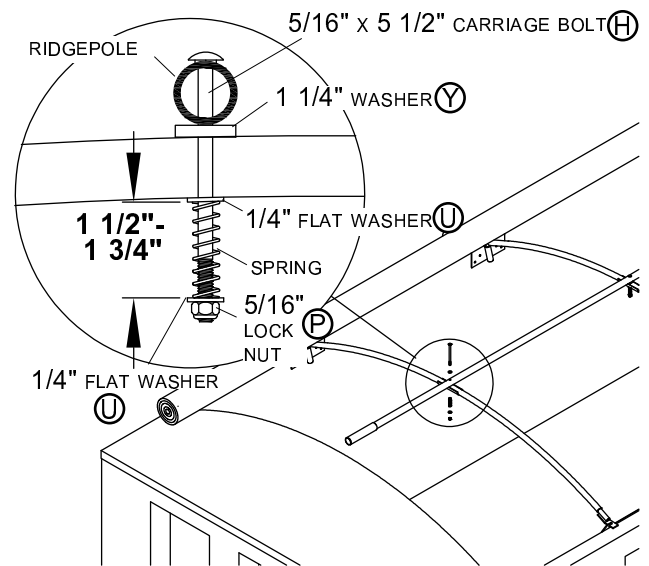
STEP 11: Adjust bow arch as needed so bow rest slides into bow stop smoothly. Adjust bow to desired arch by pulling up or down on bow.



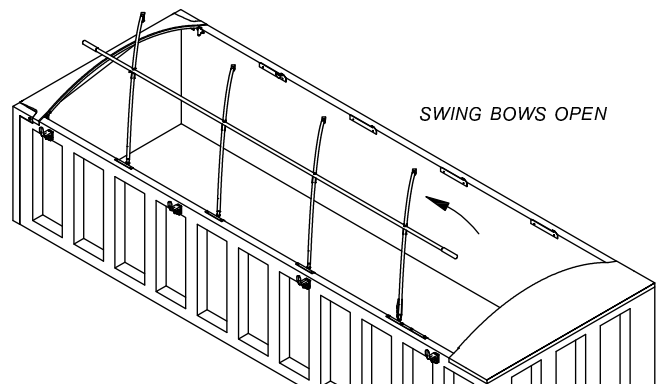
STEP 12: Weld bow rests to bows with 1/2" weld on each side of bow. De-burr sharp edges created by welding. Touch up with corrosion-resistant paint.



STEP 13: With all bows closed, fasten ridgepole to new front bow using existing hole in ridgepole. Fasten with 5/16" carriage bolt, 1 1/4" nylon washer, two 1/4" washers, spring and 5/16" lock nut as shown.



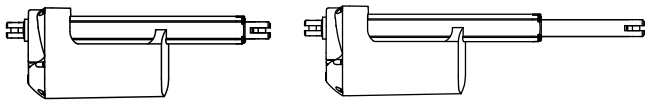
STEP 14: Test system by swinging bows open manually. Make sure bows are able to swing all the way open, then close system.



NOTE: Installing actuator in following manner will result in bows opening to full potential.

STEP 15: Using a 12V power source (12V vehicle battery, 12V battery charger), fully extend actuator by touching wire leads to terminal posts of power source. If actuator emits a loud clicking noise, actuator is pulling closed and wires are touching wrong posts. With wires touching correct terminals, actuator rod will extend until overload clutch clicks again, at which point actuator is fully extended.

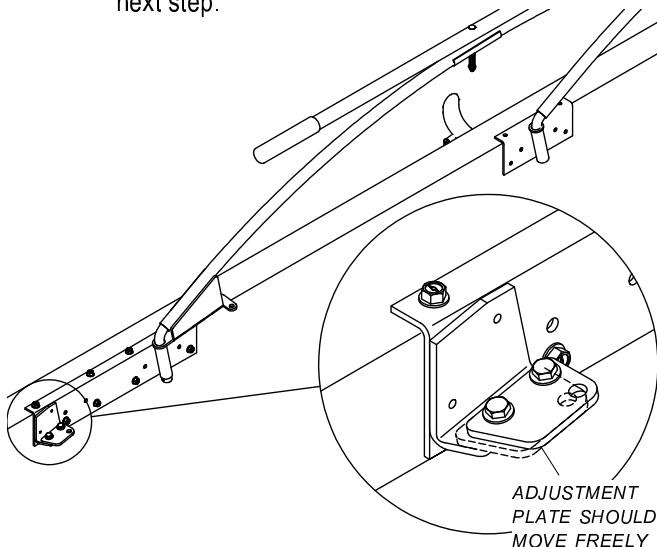
NOTE: If using battery charger to extend actuator, make sure charger is set on 10 amps or less and is set for 12 volts. Do not use charger set on high-amp 'booster' or 'start' setting!



ACTUATOR FULLY RETRACTED

ACTUATOR FULLY EXTENDED

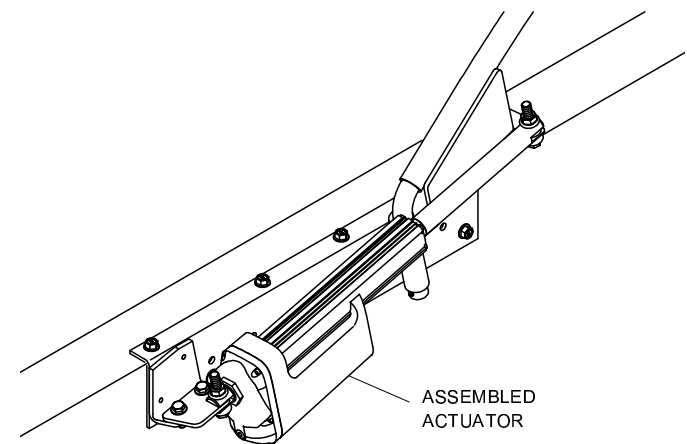
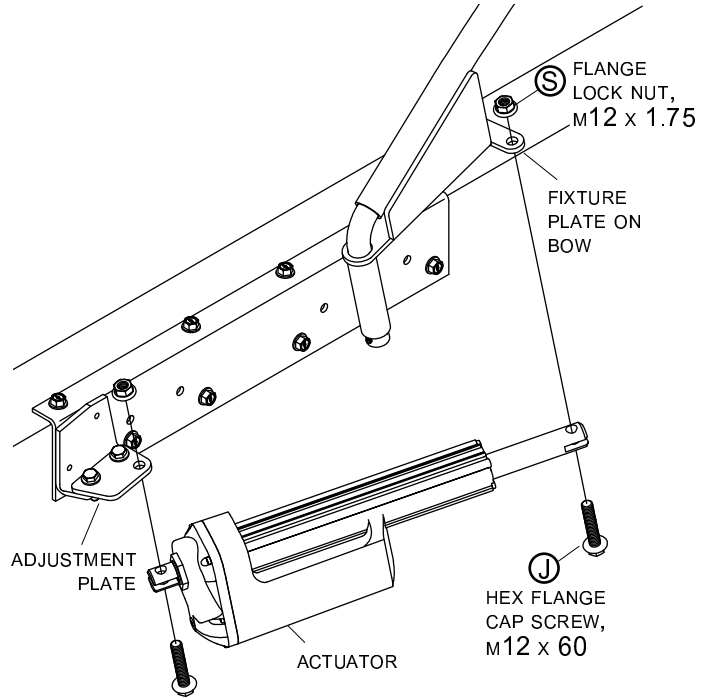
STEP 16: Push on new front bow to swing bow system open to fullest extent. Have assistant hold bows open during next step.



NOTE: In order for bows to open fully, hold bow system open by front bow while installing actuator.

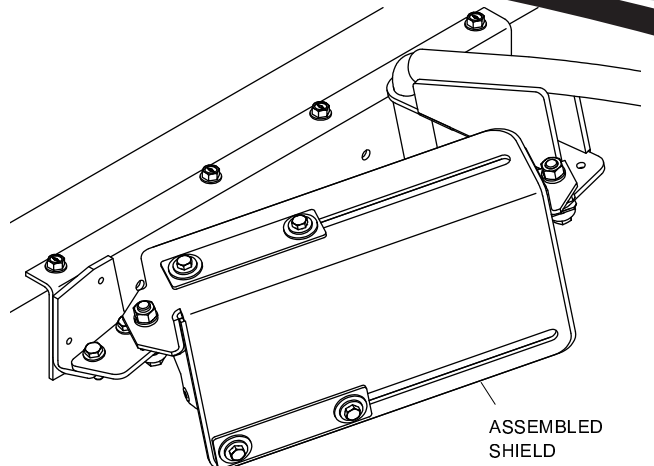
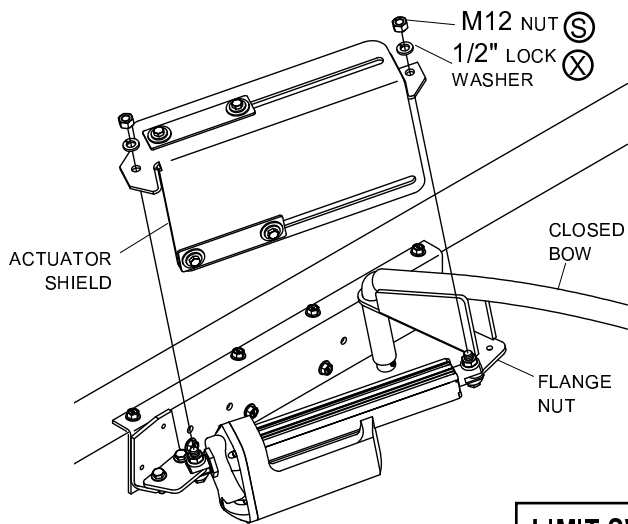
Adjustment plate on pivot bracket assembly should move back and forth freely at this point. If for some reason it has been fastened down securely and will not slide, loosen nuts until plate easily slides back and forth.

STEP 17: Secure actuator to fixture plate on bow and to adjustment plate on pivot bracket with metric flange bolts and flange nuts (bolt heads pointing down as shown). With actuator secured and bows held fully open, tighten fasteners to secure adjustment plate to pivot bracket.



STEP 18: Test system by touching wire leads from motor to 12V power source. Actuator's overload clutch will click when reaching either end of stroke. If Turning Point™ system has been installed correctly, bow rest should contact bow stop either just before actuator clicks or at same time. If bow is not returning completely to bow stop, move adjustment plate on pivot bracket assembly back until it does. Result will be that bows will not quite open to full extension, but will close completely.

STEP 19: Align holes in actuator shield with bolts fastening actuator to adjustment plate on pivot bracket and to fixture plate on bow. Slide shield onto bolts so shield rests on flange nuts. Grip flange nuts with wrench while securing shield with lock washer and nuts.

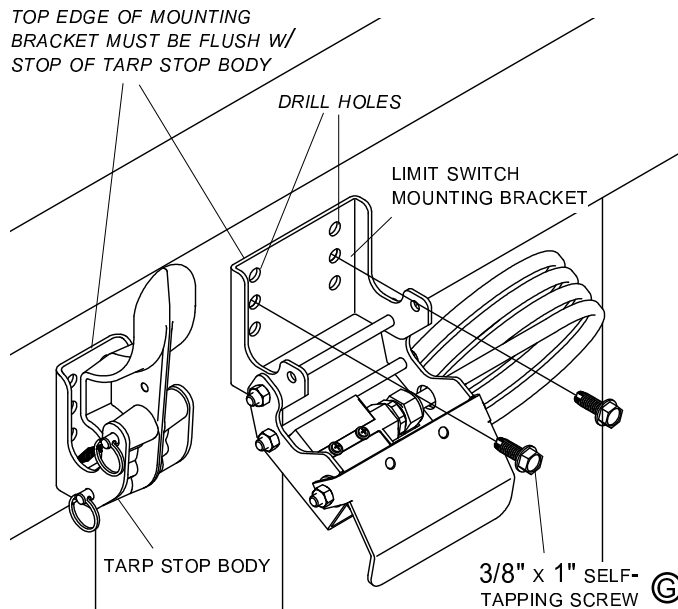
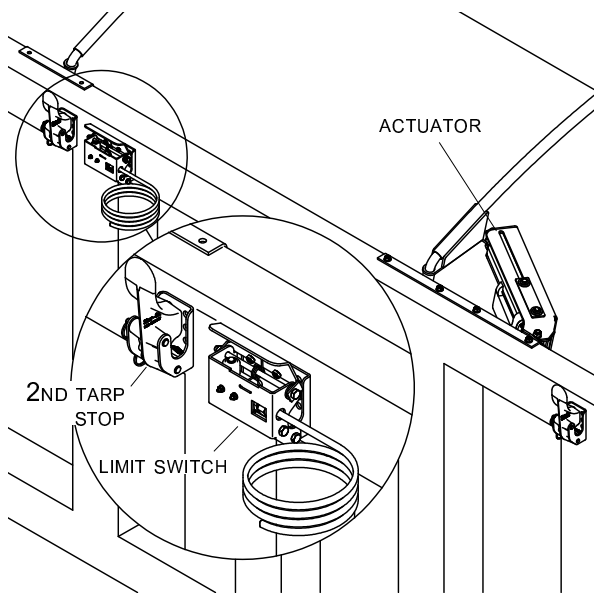


NOTE: Install limit switch assembly between first and second tarp stop at front of box. To install switch on outside of box, first remove fixed tube from easy-off tarp stops and set tube on top of box.

LIMIT SWITCH ASSEMBLY

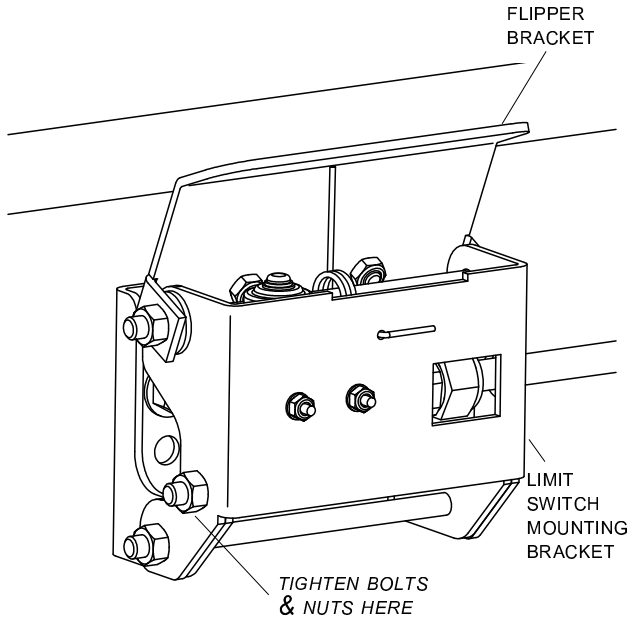
STEP 20: Mount switch assembly to box in same manner as tarp stops. Set top edge of mounting bracket at same height from top rail as tarp stop bodies. It is preferable (but not necessary) to locate assembly within 10" of second tarp stop, leaving enough wire to reach terminal block (refer to step 23 for terminal block location).

STEP 21: Use mounting bracket as guide to mark and drill holes. Drill 5/16" holes when mounting to steel or aluminum top rail; drill 3/8" holes when mounting to wooden plank. Fasten mounting bracket to steel or aluminum rail with 3/8" x 1" self-tapping screws, adding lock washers and nuts if possible. Fasten mounting bracket to plank with 3/8" x 2 1/2" carriage bolts (not included), lock washers and nuts.

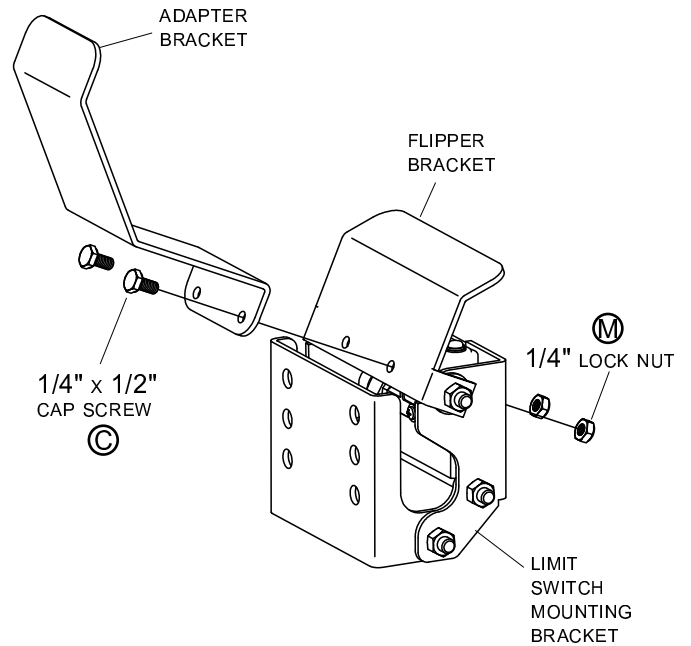


NOTE: When mounting assembly close to a tarp stop, be sure to leave room for removal of tarp stop or limit switch assembly fasteners.

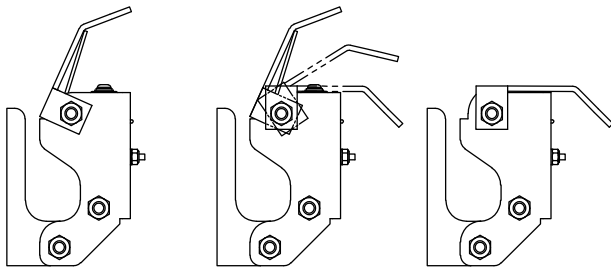
STEP 22: Re-install fixed tube and tarp into limit switch mounting bracket and tarp stops. Lock tarp stops. Lock switch assembly into position by tightening bolts and nuts (tighten only until nuts begin to clamp bracket). Verify flipper bracket will close and spring open easily when released.



STEP 22a: 3" Offset tarp stops. Fasten adapter bracket to spring-loaded flipper bracket with 1/4" x 1/2" cap screws and lock nuts. Adapter bracket allows limit switch to operate with 3" offset tarp stop.



Tarp actuates limit switch assembly when rolled completely open.

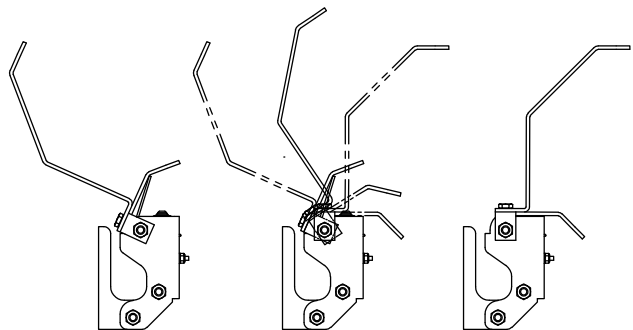


SWITCH FULLY OPEN
(ACTUATOR NON-OPERABLE)

SWITCH FULLY CLOSED
(TARP ROLLED OPEN COMPLETELY
- ACTUATOR OPERABLE)

NOTE: For use with easy-off 6" offset tarp stops only.

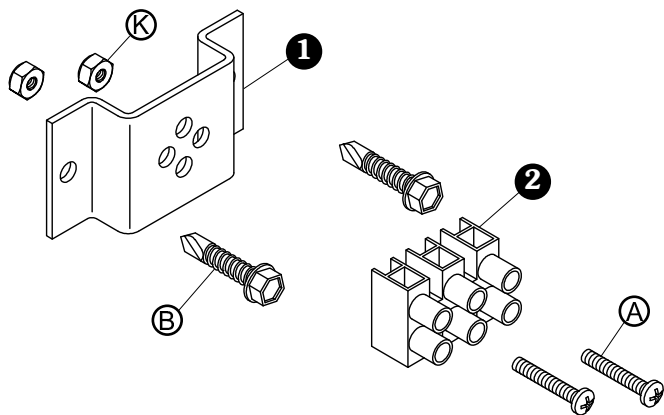
Tarp actuates limit switch assembly when rolled completely open.



SWITCH FULLY OPEN
(ACTUATOR NON-OPERABLE)

SWITCH FULLY CLOSED
(TARP ROLLED OPEN COMPLETELY
- ACTUATOR OPERABLE)

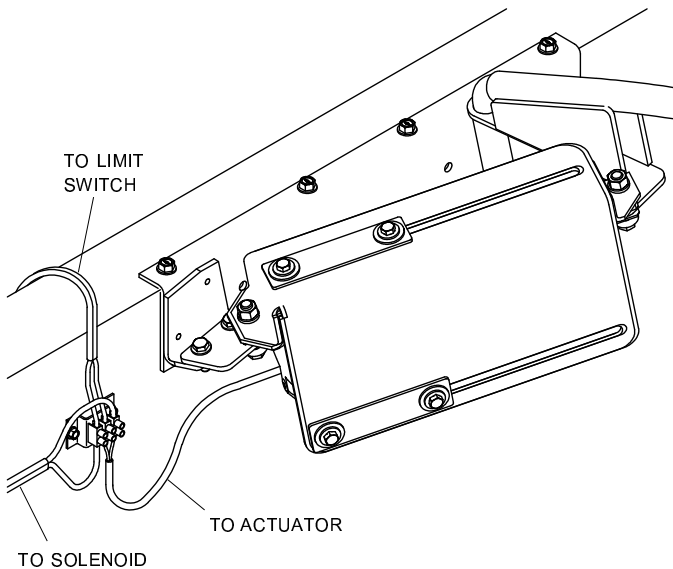
NOTE: For use with easy-off tarp stops only.



Item	Part #	Description
1.	1117647	Terminal Block Mounting Bracket
2.	1704190	Terminal Block
A.	1704191	Pan Hd. Machine Screw - #6 x 7/8"
B.	1701471	Self-Drilling Screw - #12 x 1"
K.	1704184	Lock Nut - #6

NOTE: Terminal block allows easier connection for three wire leads coming from limit switch, actuator and solenoid (or wireless receiver).

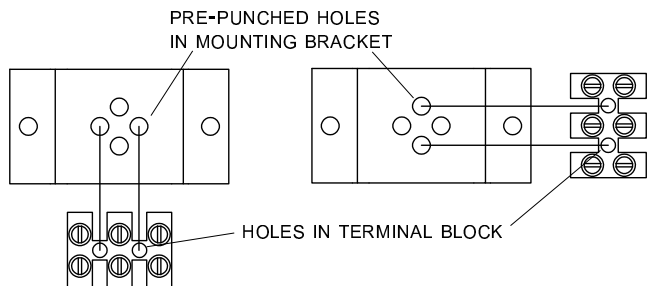
STEP 23: Determine terminal block location. Locate in safe place near actuator, easily reached by all three wire leads.



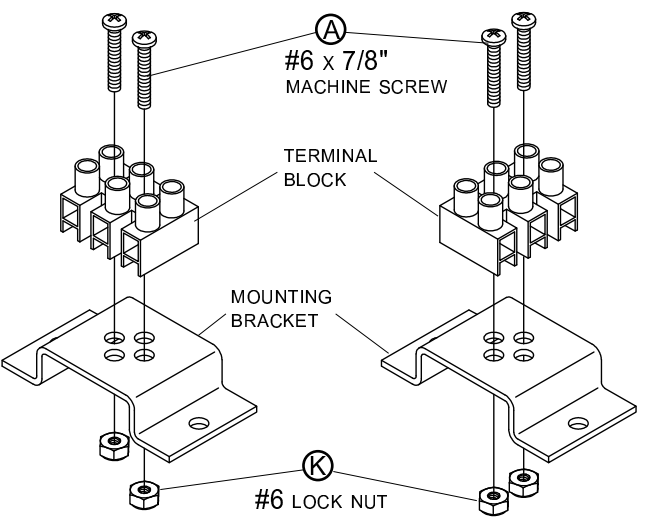
NOTE: Refer to trailer wiring pages for wiring procedures.

NOTE: Mounting bracket is included in kit to assist mounting terminal block to trailer.

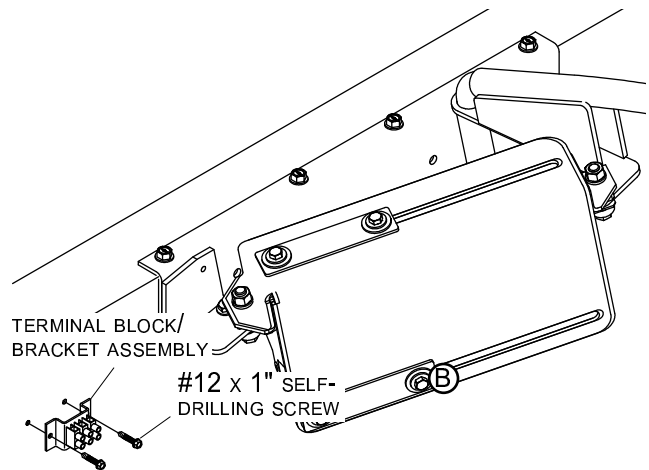
STEP 24: Align holes in terminal block with either pair of pre-punched holes in mounting bracket.



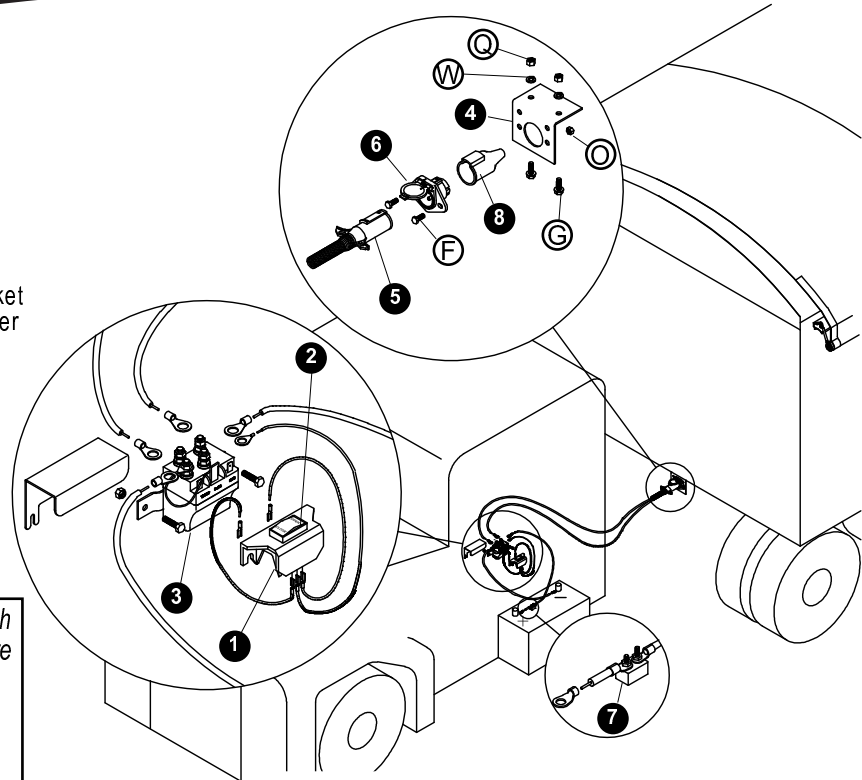
STEP 25: Fasten terminal block to bracket with two #6 x 7/8" screws and lock nuts.



STEP 26: Using mounting bracket as guide, mark and drill 3/16" holes in trailer and fasten terminal block/bracket assembly to trailer with #12 x 1" self-drilling screws.



Item	Part #	Description
1.	1703661	Rocker Switch Mounting Bracket
2.	1116020	Rocker Switch
3.	1703845	Motor-Reversing Solenoid
4.	1109015	Mounting Bracket
5.	1115385	Heavy-Duty Dual-Conductor Plug
6.	1115386	Heavy-Duty Dual-Conductor Socket
7.	1704126	25-Amp Auto-Reset Circuit Breaker
8.	1704573	Conductor Socket Sealed Boot
F.	1701045	Cap Screw - 5/16" x 3/4"
G.	1700400	Self-Tapping Screw - 3/8" x 1"
O.	1700411	Hex Nut - 5/16"
Q.	1700407	Hex Nut - 3/8"
W.	1700434	Lock Washer - 3/8"

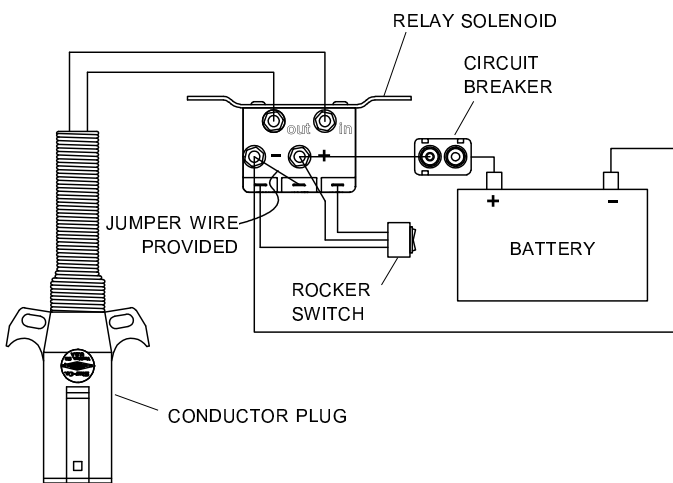


NOTE: Cut wires to length and strip only enough wire insulation to install ring terminals. Insert bare wire into ring terminals and crimp securely.

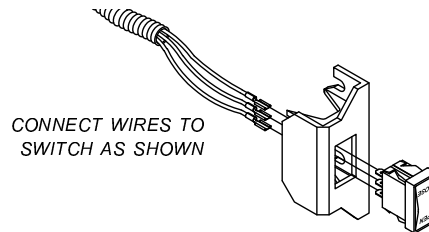


STEP 1: Circuit breaker & battery. Mount circuit breaker as close as possible to battery or power supply.

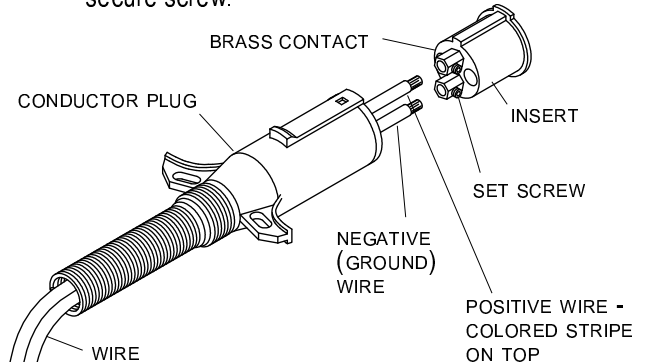
STEP 2: Mount solenoid. Mount solenoid in suitable location - a ventilated area near battery is ideal. Determine best route for wire. Usually along frame with existing wire harness. Run 8-ga. wire from conductor plug to solenoid and from power supply to solenoid as shown in diagram. Run 14-ga. wires from solenoid to switch.



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

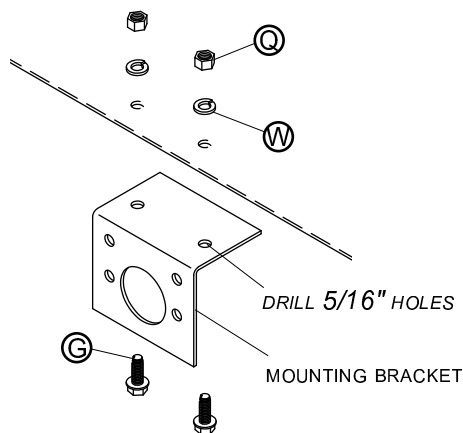


STEP 4: Conductor plug option. Unfasten and remove insert from conductor plug. Feed 8-ga. wire through plug and into brass contacts on insert. Tighten set screws to secure wires. Replace insert into conductor plug and secure screw.

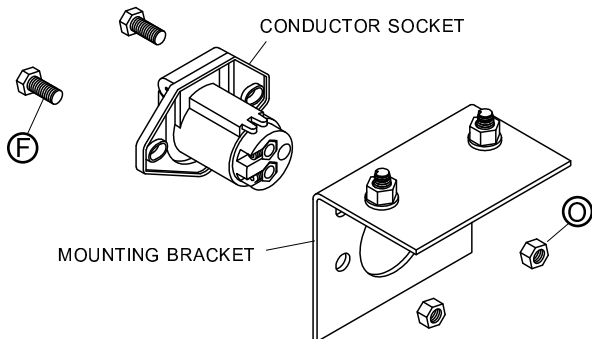


CONDUCTOR OPTION FOR TRAILERS

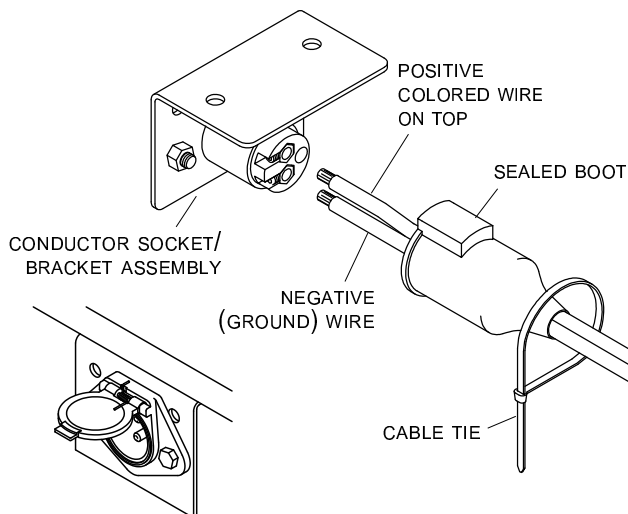
STEP 1: Mounting bracket. Mount bracket at suitable location on front of trailer, usually near existing plugs. Mark and drill 5/16" holes and fasten with 3/8" x 1" self-tapping screws, lock washers and nuts.



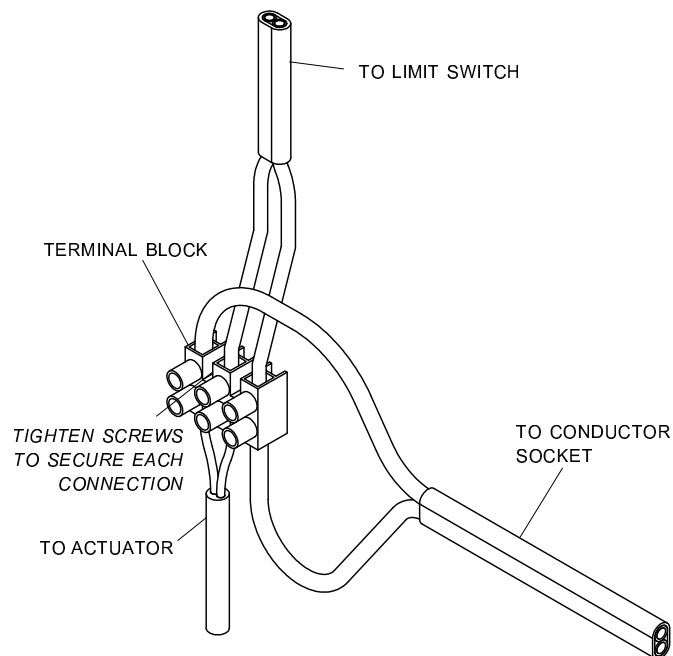
STEP 2: Conductor socket. Fasten conductor socket to mounting bracket with screws **F** and nuts **Q**.



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



STEP 3: Connect wire from actuator solenoid, and limit switch to terminal block. Apply dielectric grease to each connection before securing with terminal block screws.



NOTE: If system is mounted on end dump-style box, run wire from front of box to box pivot and back to actuator at front of box. Do not place wire in areas where it can be pinched or cut during operation.

Operation:

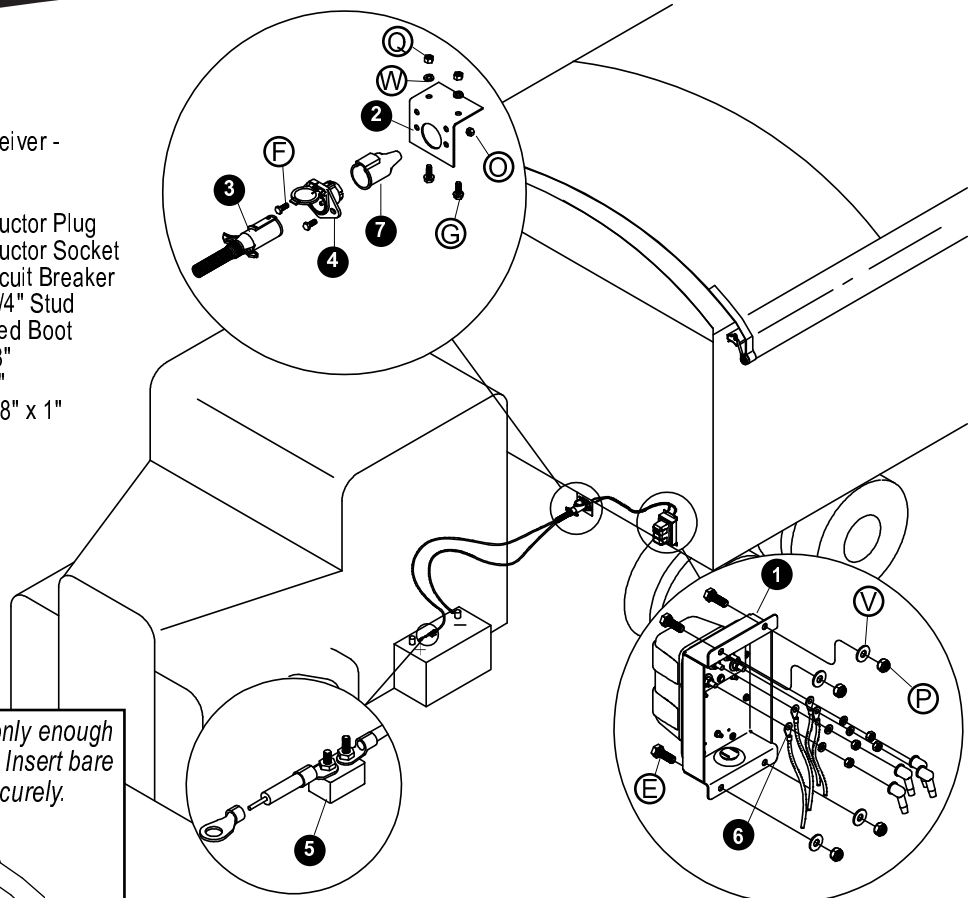
A) Check actuator direction by activating switch to "OPEN." If switch is running system backwards, change wire leads on rocker switch or solenoid to opposite connections.

B) Close Bows: Push switch to "CLOSE" and hold. Observe bows and release switch when actuator clicks

C) Open Bows: Push switch to "OPEN" and hold. Observe bows and release switch when actuator clicks.

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

Item	Part #	Description
1.	1123582	Shur-Co® Wireless Receiver - SMART1+™
2.	1109015	Mounting Bracket
3.	1115385	Heavy-Duty Dual-Conductor Plug
4.	1115386	Heavy-Duty Dual-Conductor Socket
5.	1704126	25-Amp Auto-Reset Circuit Breaker
6.	1704177	Ring Terminal - 8 Ga. 1/4" Stud
7.	1704573	Conductor Socket Sealed Boot
E.	1702926	Cap Screw - 5/16" x 7/8"
F.	1701045	Cap Screw - 5/16" x 3/4"
G.	1700400	Self-Tapping Screw - 3/8" x 1"
O.	1700411	Hex Nut - 5/16"
P.	1700419	Nylon Lock Nut - 5/16"
Q.	1700407	Hex Nut - 3/8"
V.	1201237	Flat Washer - 5/16"
W.	1700434	Lock Washer - 3/8"

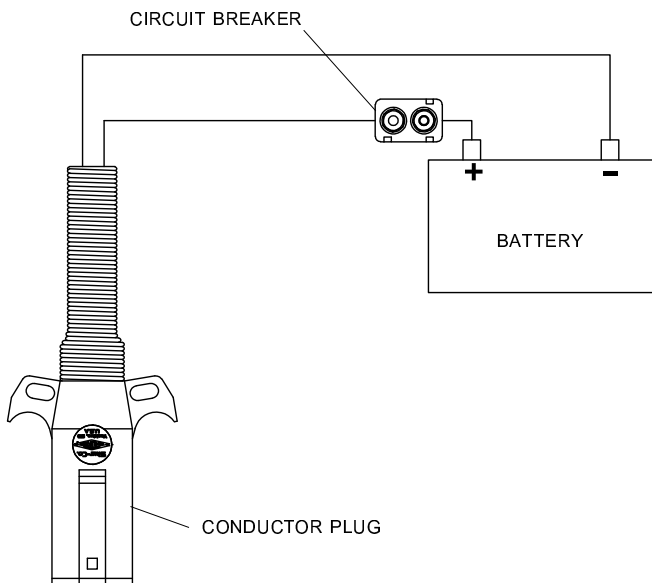


NOTE: Cut wires to length and strip only enough wire insulation to install ring terminals. Insert bare wire into ring terminals and crimp securely.

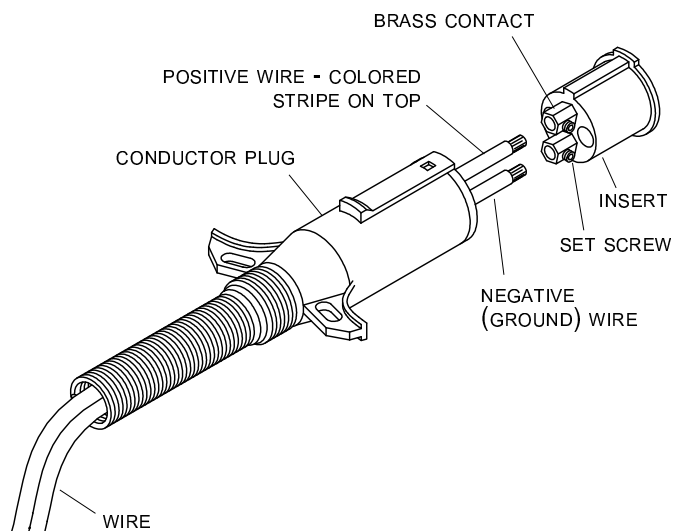


MOUNT CIRCUIT BREAKER AS CLOSE TO POWER SUPPLY AS POSSIBLE

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

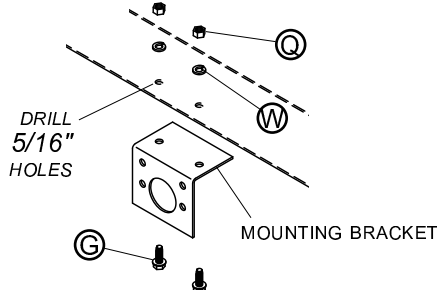


STEP 2: Conductor plug. Unfasten and remove insert from conductor plug. Feed 8-ga. wire through plug and into brass contacts on insert. Tighten set screws to secure wires. Replace insert into conductor plug and secure screw.

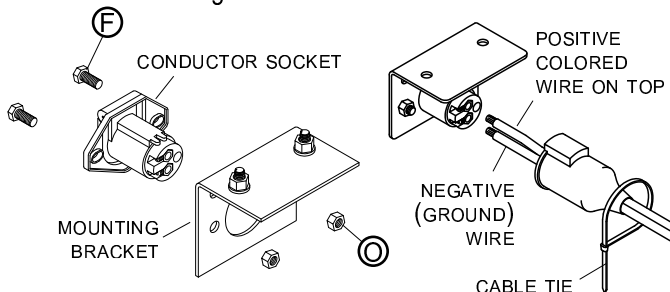


CONDUCTOR OPTION FOR TRAILERS

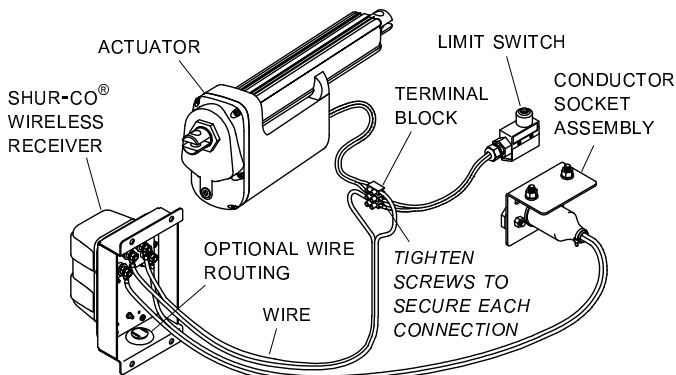
STEP 1: Mounting bracket. Mount bracket at suitable location on front of trailer, usually near existing plugs. Mark and drill 5/16" holes and fasten with 3/8" x 1" self-tapping screws, lock washers and nuts.



STEP 2: Conductor socket. Fasten conductor socket to mounting bracket with screws (F) and nuts (O).



Bring 6-ga. wire from lower end of pivot arm through sealed boot. Connect wire ends to conductor socket, aligning positive wire on socket with positive wire on conductor plug. Slide sealed boot against conductor socket and secure boot to wire with cable tie.



STEP 3: Shur-Co® Wireless Receiver. Route 8-ga. wire from terminal block to Shur-Co® Wireless Receiver. Route wire as desired. Insert end of wire through rubber boots, then crimp 1/4" ring terminals onto wire ends. Remove nuts and lock washers from back of wireless receiver. Place positive wire on upper orange post and negative wire on upper black post. Secure lock washers and hex nuts. Coat with dielectric grease and install rubber boots over ring terminals.

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

Run section of 8-ga. wire, long enough to reach conductor socket, through rubber boots. Crimp 1/4" ring terminals to wire ends. On back of wireless receiver, place positive wire on lower orange post and negative wire on lower black post. Secure with 1/4" lock washers and hex nuts. Coat with dielectric grease and install rubber boots over ring terminals. When wiring conductor socket, align positive wire with positive wire on conductor plug.

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

STEP 4: Connect wires from actuator, limit switch and wireless receiver to terminal block. Apply dielectric grease to each connection before securing with terminal block screws.

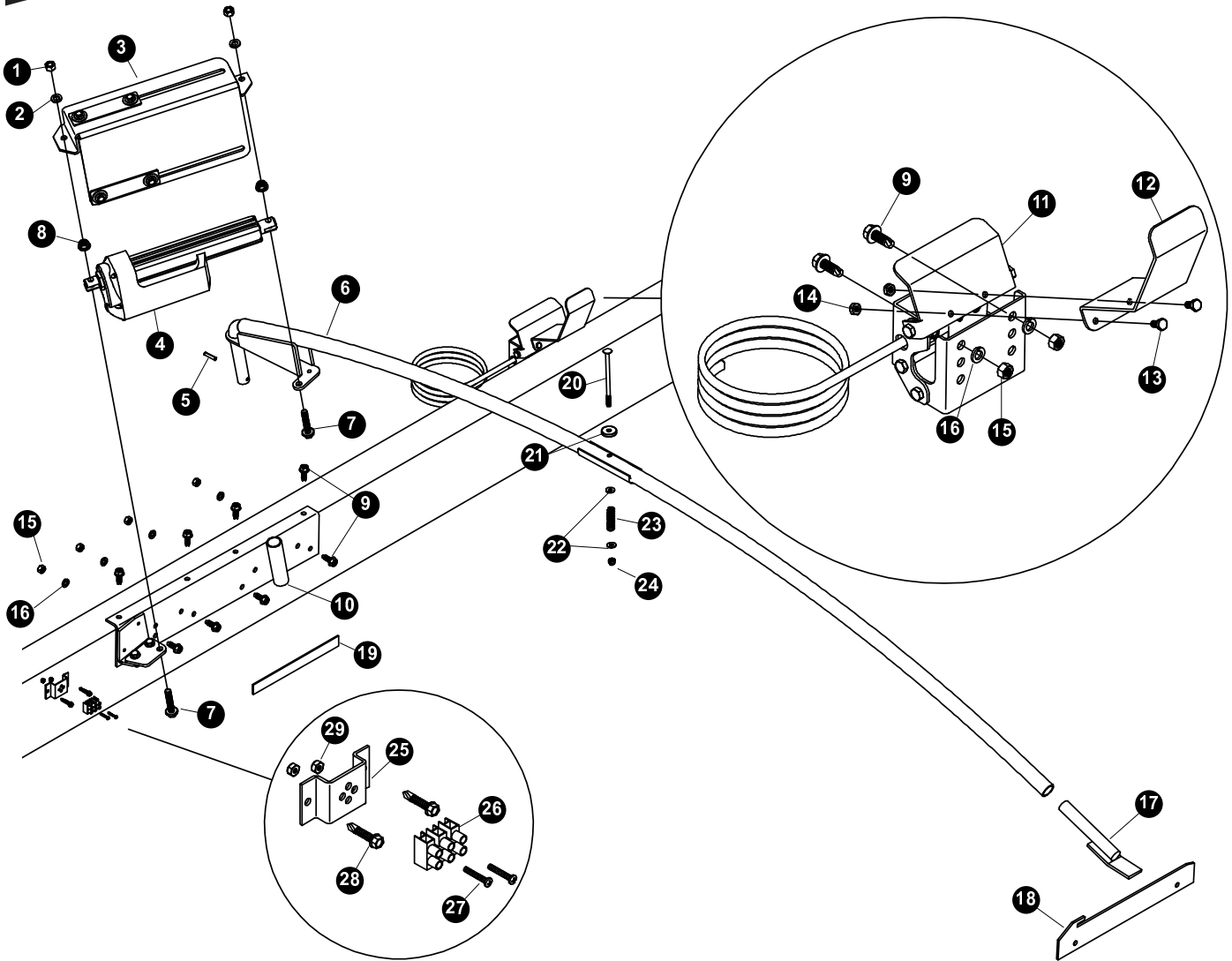
NOTE: If system is mounted on end dump-style box, run wire from front of box to box pivot and back to actuator at front of box. Do not place wire in areas where it can be pinched or cut during operation.

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

- Operation:**
- A) Check actuator direction** by activating switch to "OPEN." If switch is running system backwards, change wire leads on rocker switch or solenoid to opposite connections.
 - B) Close Bows:** Push switch to "CLOSE" and hold. Observe bows and release switch when actuator clicks.
 - C) Open Bows:** Push switch to "OPEN" and hold. Observe tarp and release switch when actuator clicks.
 - D) Remote operation:** Refer to remote instruction manual.

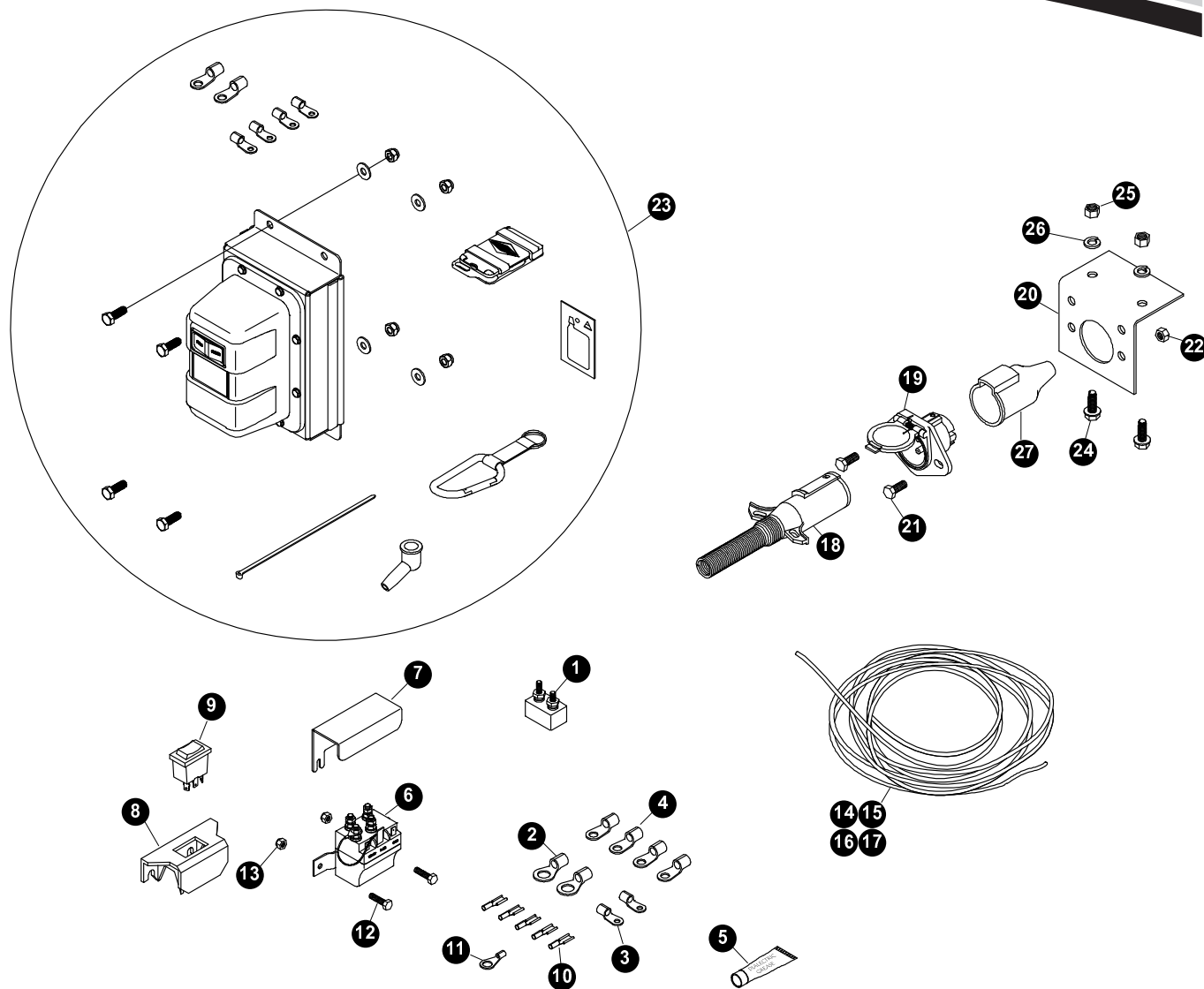
NOTE: Release switch at end of cycle or modified-reset circuit breaker will trip. After breaker resets, switch will activate actuator again. To reduce unnecessary strain on actuator, release switch at end of each cycle.

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



Item	Part #	Description
1.	1704181	Full Hex Nut - M12 x 1 3/4"
2.	1700437	Lock Washer - 1/2"
3.	1117633	Actuator Shield
4.	1704130	Electric Linear Actuator - 8" Stroke
5.	1701118	Spring Pin - 1/4" x 1 3/16"
6.	1117623	Low-Rise Bow
	1117622	High-Rise Bow
7.	1704179	Flange Cap Screw - M12 x 60
8.	1704180	Flange Lock Nut - M12 x 1 3/4"
9.	1700400	Self-Tapping Screw - 3/8" x 1"
10.	1117628	Bow Pivot Bracket
11.	1117637	Limit Switch
12.	1117643	Contact Bracket Offset Adapter
13.	1703960	Cap Screw - 1/4" x 1/2"
14.	1704185	Thin Nylon Lock Nut - 1/4"
15.	1700407	Hex Nut - 3/8"

Item	Part #	Description
16.	1700434	Lock Washer - 3/8"
17.	1105333	Low-Rise Bow Rest
	1105327	High-Rise Bow Rest
18.	1105314	Bow Stop
19.	1107006	Pivot Bracket Spacer
20.	1701216	Carriage Bolt - 5/16" x 5 1/2"
21.	1701215	Washer - 1/4" x 1 1/4" x 5/16"
22.	1700427	Flat Washer - 1/4"
23.	1701217	Compression Spring - .6" x .072" x 2"
24.	1700419	Nylon Lock Nut - 5/16"
25.	1117647	Terminal Block Mounting Bracket
26.	1704190	Terminal Block - 3 Circuit - Euro
27.	1704191	Pan Hd. Machine Screw - #6 x 7/8"
28.	1701471	Self-Drilling Screw - #12 x 1"
29.	1704184	Nylon Lock Nut - #6



Item Part # Description

- 1109016 Dual Conductor w/Hardware
- 1117642 Electric Parts Kit
- 1110368 Bow Attach Spring Assembly
- 1117641 Rocker Switch Electrical Parts Kit
- 1. 1704126 25-Amp Auto-Reset Circuit Breaker
- 2. 1704174 Ring Terminal - 8 Ga. 3/8" Stud
- 3. 1704175 Ring Terminal - 8 Ga. #10 Stud
- 4. 1704177 Ring Terminal - 8 Ga. 1/4" Stud
- 5. 1704192 Dielectric Grease - 1/3 Oz. Tube
- 6. 1703845 Motor-Reversing Solenoid
- 7. 1703896 Solenoid Cover
- 8. 1703661 Rocker Switch Mounting Bracket
- 9. 1116020 Rocker Switch
- 10. 1703659 Push-On Terminal - 14 Ga. 1/4"
- 11. 1704153 Ring Terminal - 16 to 14 Ga. 1/4" Stud
- 12. 1700381 Cap Screw - 1/4" x 1"

Item Part # Description

- 13. 1701543 Nylon Lock Nut - 1/4"
- 14. 1117651 Electrical Wire - 8 Ga. 2 Cond. - 100'
- 15. 1117652 Electrical Wire - 8 Ga. 2 Cond. - 75'
- 16. 1117653 Electrical Wire - 8 Ga. 2 Cond. - 50'
- 17. 1117654 Electrical Wire - 8 Ga. 2 Cond. - 30'
- 18. 1115385 Heavy-Duty Conductor Plug
- 19. 1115386 Heavy-Duty Conductor Socket
- 20. 1109015 Dual-Conductor Mtg. Bracket
- 21. 1701045 Cap Screw - 5/16" x 3/4"
- 22. 1700411 Hex Nut - 5/16"
- 23. 1123585 Shur-Co® Wireless Receiver - SMART1+™
- 24. 1700400 Self-Tapping Screw - 3/8" x 1"
- 25. 1700407 Hex Nut - 3/8"
- 26. 1700434 Lock Washer - 3/8"
- 27. 1704573 Conductor Socket Sealed Boot

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:
<p>The SMART1+™ remote is not working.</p> <p>None of the lights on the remote turn on when I open the lid.</p>	<ol style="list-style-type: none"> 1. Make sure the battery is placed correctly. 2. The battery may be dead and must be replaced. Replacement high-capacity SMART1+™ remote batteries may be purchased from Shur-Co® (P/N 1704573). 3. The SMART1+™ remote may be damaged. Call Shur-Co's Help Line.
<p>The SMART1+™ remote is not working.</p> <p>I can operate the system with the rocker switch but not with the remote. The SMART1+™ remote channel light (Bow System, for example) is blinking, and when I press the Open/On button, the light blinks faster.</p>	<ol style="list-style-type: none"> 1. Make sure the remote is set to the right channel. If you cannot set the remote to the desired channel (Bow System for example), the remote must be reprogrammed. See the SMART1+™ remote programming instructions. 2. Make sure you are within a couple feet of the receiver and try again. <ol style="list-style-type: none"> a) If it works at short range but not at greater distances, you have a range problem. A new battery may be needed. If the remote battery is not the cause, call Shur-Co's Help Line. 3. Reprogram the receiver. See the receiver programming instructions. If this doesn't work, call Shur-Co's Help Line.
<p>The system will not operate with the rocker switch or with the SMART1+™ remote.</p> <p>When I try to use the rocker switch or SMART1+™ remote, I don't hear any noises (a clicking noise, for example) from the receiver.</p>	<ol style="list-style-type: none"> 1. Make sure the master disconnect switch is turned to the "ON" position. 2. The circuit breaker may have tripped. Wait one minute and try again. 3. Check the vehicle's battery to make sure it isn't dead. 4. Check all connections from the battery to the system. Check for polarity, good connections and corrosion. Verify that you have at least 12V on the back side of the receiver on the battery hookup posts. 5. Call Shur-Co's Help Line.
<p>The system will not operate with the rocker switch or with the SMART1+™ remote.</p> <p>When I try to use the rocker switch or SMART1+™ remote, I hear a clicking noise but nothing happens.</p>	<ol style="list-style-type: none"> 1. Verify that you have at least 12V on the back side of the receiver on the battery hookup posts. 2. Call Shur-Co's Help Line.
<p>The rocker switch is not sticking, but the motor continues to run after I release the rocker switch.</p>	<ol style="list-style-type: none"> 1. Call Shur-Co's Help Line.
<p>The rocker switch is sticking.</p>	<ol style="list-style-type: none"> 1. 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. <p>Pressure Wash: The receiver may be pressure washed, but keep nozzle at least 3' from system while spraying.</p>

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**
 - Value Series Shur-Lok®
 - Super Duty Shur-Lok®
 - Shur-Lok® Junior
 - Premium Belt 'n Ratchet
 - Cable-Lok™
 - Turning Point™ Bow

- **SMARTrailer™ Accessories for Agriculture Products**
 - SMART2™ Remote
 - SMART1 +™ Remote
 - 4500 Series HD Electric
 - AutoTrap™ Hopper Opener
 - ProTrap® Hopper Opener
 - LiteALL™ Work Lights
 - Cable-Lok™ Electric Upgrade
 - Electric Turning Point™ Bow
 - Value Series Electric
 - Solar Power Pack

- **Flatbed Products**
 - ShurTite™ Retractable Tarps
 - Stock Lumber & Steel Tarps
 - Steel Tarps

- **Custom Products**
 - Fitted Truck Covers
 - Flat Utility Tarps
 - Bean Drill Covers
 - Shur-Lok® Tarp Cords

- **Construction Products**
 - Super Duty Shur-Lok®
 - Shur-Trak II™
 - Cover-Pro II®
 - Turning Point™ Bow
 - IronSide™ Side-Dump System
 - Arm-Matic™
 - DuraPull™
 - Econo-Pull™
 - Turbo Tarp2 DONOVAN BRAND
 - 2000 Series DONOVAN BRAND
 - 5000 Series DONOVAN BRAND
 - Hammer DONOVAN BRAND
 - Bullet DONOVAN BRAND
 - Flash DONOVAN BRAND
 - Long Arm DONOVAN BRAND

- **SMARTrailer™ Accessories for Construction Products**
 - 4500 Series HD Electric w/Gate Flex™
 - Shur-Trak II™ Electric Upgrade
 - Cover-Pro II® Electric Upgrade
 - Electric Turning Point™ Bow
 - Solar Power Pack

- **Waste Products DONOVAN BRAND**
 - The Ox™
 - Quick-Flip III
 - Sidewinder
 - Sidewinder 350
 - HyTower SL
 - HyTower DL
 - Double-Flip