ROLTEC®
ELECTRIC TARP CONVERSION

INSTALLATION INSTRUCTIONS

Thank you for purchasing ROLTEC® Electric Tarp Conversion for your tarp system with 2” or 3” roll tube. Agri-Cover, Inc. proudly manufactured this tarp using superior quality materials and workmanship. With proper care, your tarp system will provide years of service.

NOTICE TO INSTALLER: Even if familiar with hardware, read instructions prior to installation as improvements may be made without notice. Always handle components with care. If you have questions or problems, have serial number ready and call customer service. When done, these instructions must be given to the consumer.

NOTICE TO CONSUMER: Before using this product read operating, maintenance and safety sections. Save these instructions for future reference.

FOR YOUR RECORDS

DATE PURCHASED: _____

WHERE PURCHASED: _____

MOTOR SERIAL NUMBER: _____
(Located on motor and gearbox)

ACI™
AGRI-COVER, INC.
Questions? 800-233-4655
agricover.com

PREPARATION

⚠ WARNING: Mounting to a structurally weak or damaged roll tube can result in serious injury or death.

NOTES:

Before installing, inspect mounting surface of roll tube for corrosion or damage. Ensure adequate tarp support for mounting location on roll tube. Be aware that several mounting holes in close proximity may compromise roll tube strength and integrity. It is recommended that your roll tube be replaced after the third replacement tarp.

Prior to assembly, park truck or trailer on level grade.

Remove or reposition any interferences with motor arms. If modifications to box are needed, consult box manufacturer.

Ensure extension on top of your box is secure by bolting it in place.

TOOLS NEEDED:

- Protective eyewear
- Tape measure
- Marking pencil
- #2 and #3 Phillips driver bit
- Drill with 7/32”, 1/4”, 5/16” and 1/2” bits
- Center punch
- Impact wrench
- 9/16” socket
- 9/16”, 1/2”, 7/16” and 3/8” Wrenches
- Metal hack saw
- Heat gun
- Wire cutter and crimper
- Grinder
- Hammer

STAINLESS STEEL HARDWARE ONLY

⚠ CAUTION: To avoid galling of stainless steel hardware, use anti-galling spray, grease or lubricant on threads and avoid high speed when fastening. Do not use impact tools for stainless steel hardware.

SAFETY INFORMATION

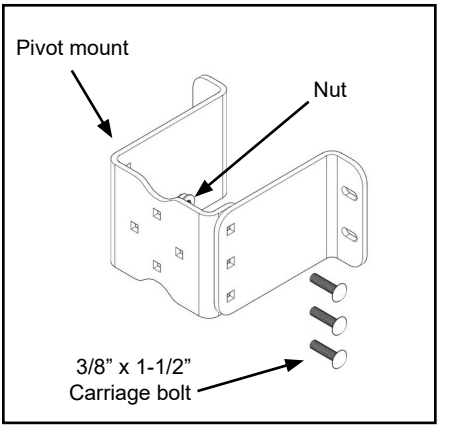
IMPORTANT: When performing maintenance procedures on spring arms, note arms are under spring pressure. Always use caution and assistance from another person if disassembly is required.

- Be aware that front and rear arms move during operation. Ensure people and objects are clear of tarp system before and during operation.
- Do not use front or rear arms as a step.
- Always use caution when operating tarp.
- Never allow children to operate or play with system.
- Disconnect power before servicing system or electrical components.
- Ensure tarp is fully open before unloading or loading.
- Ensure nobody is on or near tarp system before and during operation.
- Do not operate tarp with box hoisted in elevated position.
- Remove snow or debris from top of cover before operating.
- End caps must be free from commodity. Commodity should not be piled higher than end caps.
- Ensure tarp system is fully open or fully closed before operating vehicle at highway speeds.
- Instruct everyone who will operate this tarp on the proper procedures.
- Do not directly spray electric motor or connections with a pressure washer.
- Always refer to OEM documentation before installing electrical components.

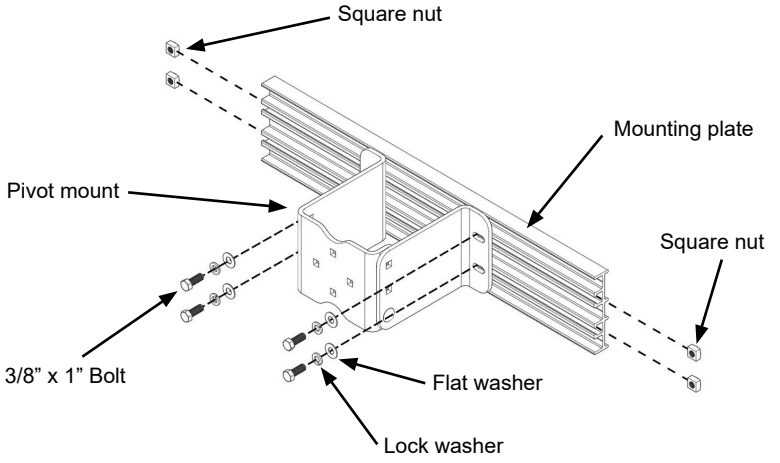
NOTE: If original decal becomes damaged or missing on arms, order replacement decal part number 70863.

1: PREPARING MOUNTING ASSEMBLY

A. Secure both halves of pivot mount with (3) 3/8” x 1-1/2” carriage bolts and nuts.



B. Slide (4) square nuts into channels in mounting plate. Secure pivot mount to mounting plate using (4) 3/8” x 1” bolts, flat washers and lock washers threaded into square nuts in channel. Center pivot mount on mounting plate and finger tighten all hardware.



2: INSTALL MOUNTING ASSEMBLY

IMPORTANT: Disconnect power to trailer before drilling any holes.

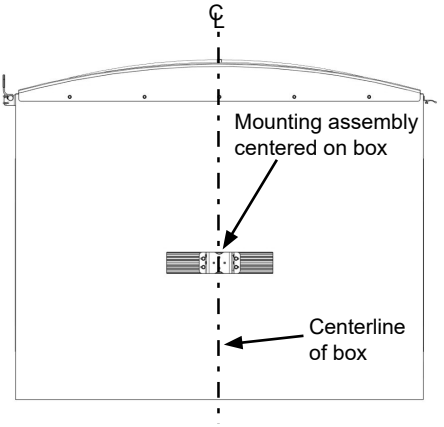
A. At front of trailer, align center point of mounting assembly with centerline of box. Measure down 47” to 55” from top of end cap and mark holes in top and bottom groove.

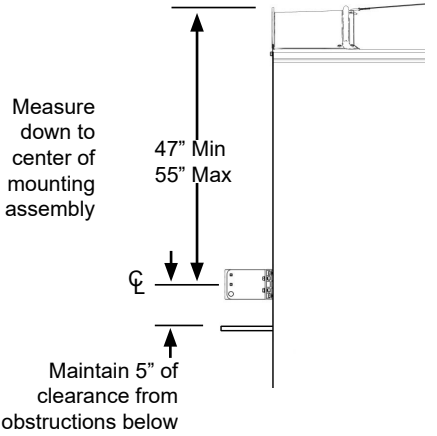
NOTE: Mounting assembly can be located higher, though arm may lift tarp off box during operation.

NOTE: Attach mounting assembly to support braces whenever possible.

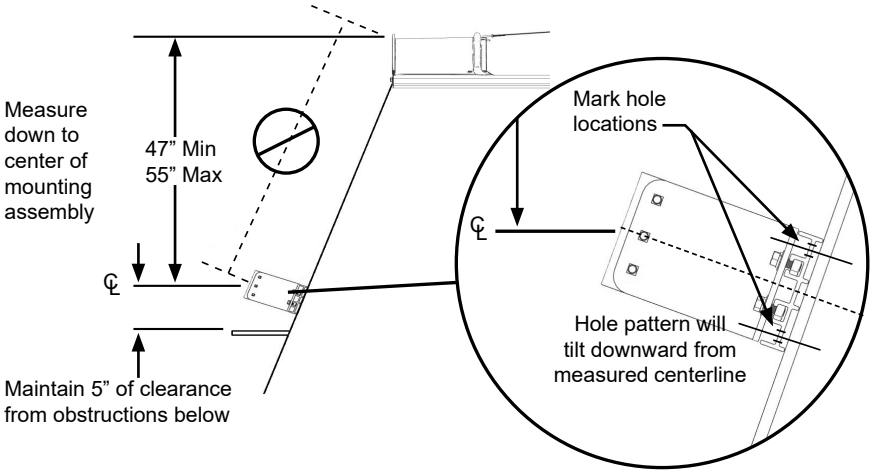
NOTE: Maintain 5” of clearance from obstructions below pivot mount.

VERTICAL WALL BOX





SLANT WALL BOX



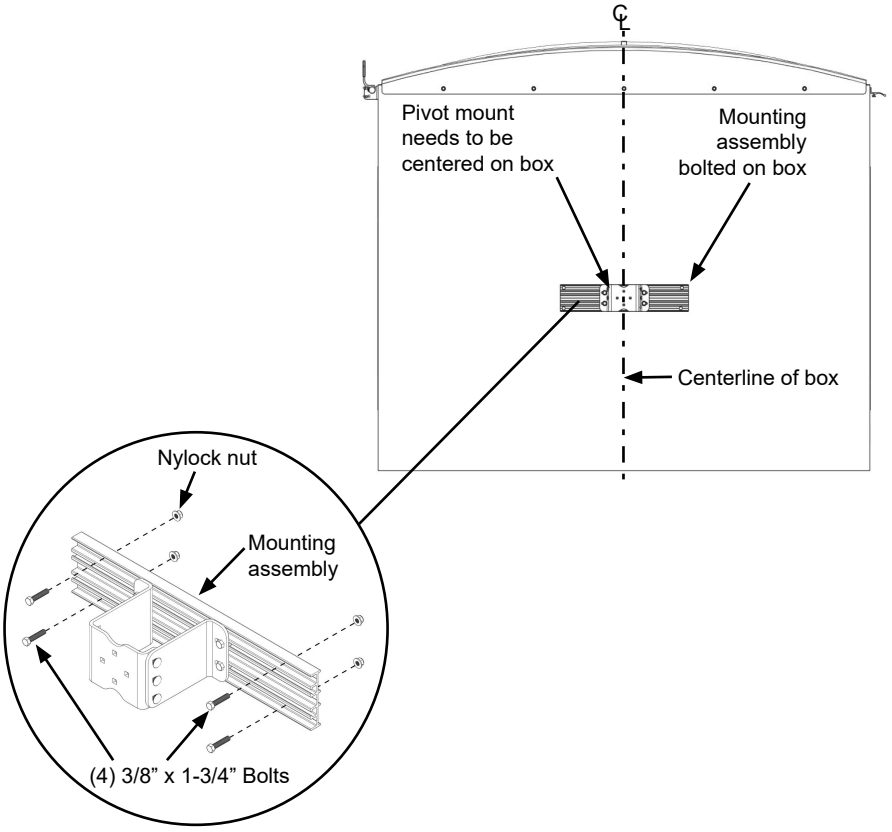
2: INSTALL MOUNTING ASSEMBLY (Continued)

IMPORTANT: Before drilling any holes, ensure arm has a clear path to operate.

A. Drill 5/16” holes at marked locations. Attach mounting assembly to box wall by turning (4) 3/8” x 1” self threading bolts to cut threads, then turn back out. Secure using (4) 3/8” x 1-3/4” bolts, when possible use nuts on back side.

NOTE: Bolt locations may vary based on trailer support braces.

B. Ensure pivot mount is centered on box, then tighten all hardware.



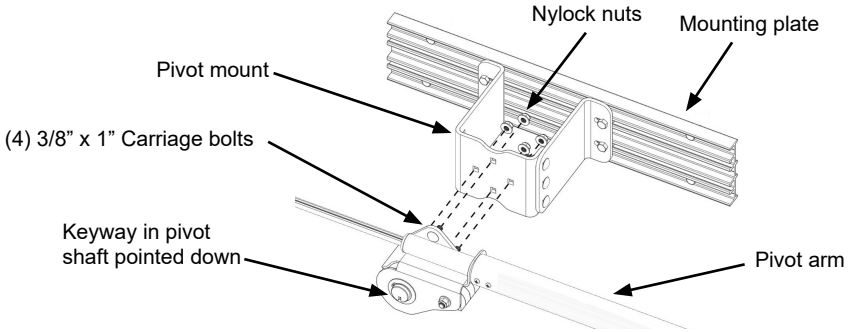
3: BOLTING PIVOT ARM TO PIVOT MOUNT

To mount pivot arm, perform one of the following:

VERTICAL WALL BOX

A. Bolt pivot arm to pivot mount using (4) 3/8” x 1” carriage bolts and nuts. Ensure keyway in pivot shaft is pointed down.

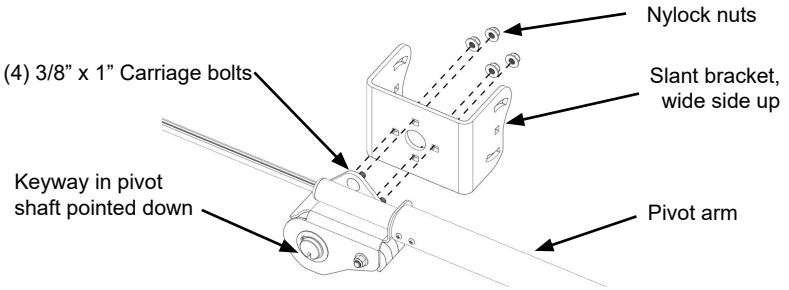
NOTE: Carriage bolts may be installed from back side of pivot mount if needed.



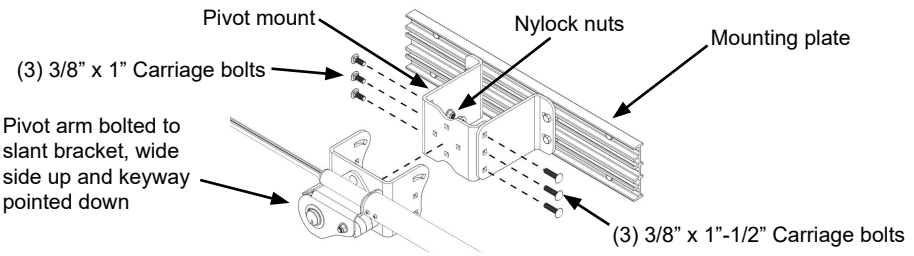
SLANT WALL BOX

A. Bolt pivot arm to slant bracket (wide side up) using (4) 3/8” x 1” carriage bolts and nuts. Ensure keyway in pivot shaft is pointed down and slant bracket has wide side up.

NOTE: Carriage bolts may be installed from back side of pivot mount if needed.



B. Bolt pivot arm with slant bracket to pivot mount using (3) 3/8” x 1” carriage bolts, (3) 3/8” x 1-1/2” carriage bolts and nuts. Leave bolts loose for now.

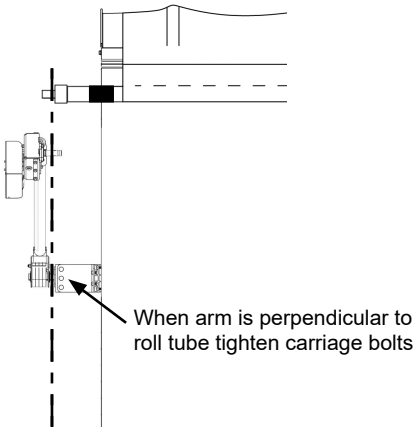


4: VERTICAL ALIGNMENT OF MOTOR ARM

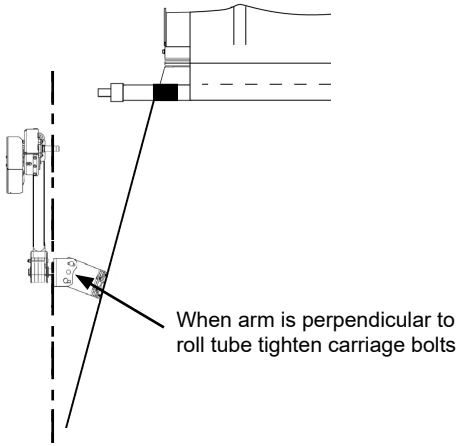
NOTE: Arm is under pressure. Requires two people for safe installation.

A. Lift arm to vertically align motor and arm. Ensure path of motor and arm is free of obstructions then lower and tighten carriage bolts.

VERTICAL WALL BOX



SLANT WALL BOX



5: REMOVING CRANK ASSEMBLY

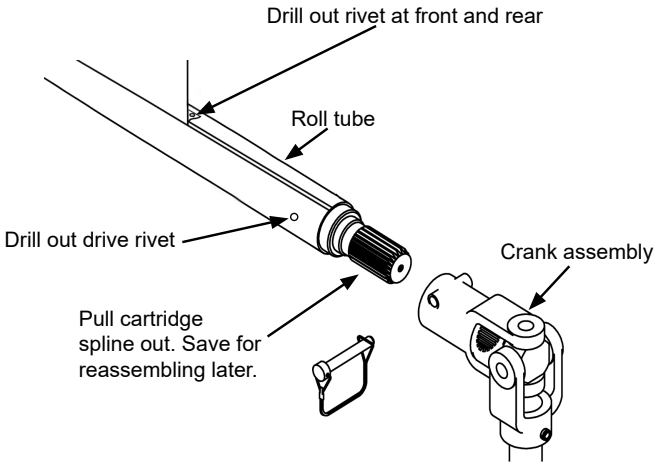
NOTE: Remove any existing returns such as cable return, bungee return, etc. at both front and rear.

NOTE: If system has a bolt-on spline adaptor, remove and save for reattaching later.

To remove crank assembly, perform one of the following:

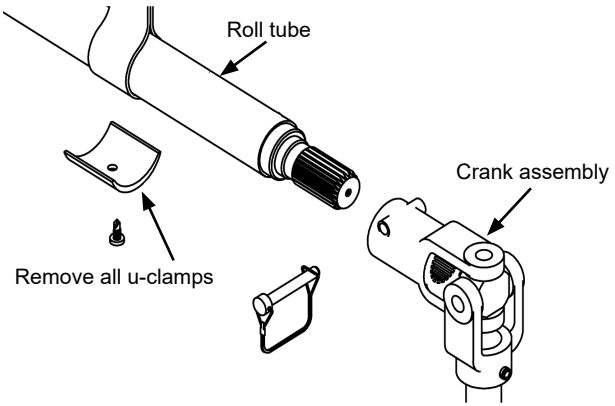
3" AND 2" ALUMINUM ROLL TUBE

A. Unroll tarp to hang down on latch plate side. Remove crank assembly from roll tube. Drill out rivet pin with 7/32" bit at front and rear of tarp. Drill out drive rivet with 5/16" bit and remove spline. Save spline to be re-installed later.



2" STEEL ROLL TUBE

A. Unroll tarp to hang down on latch plate side. Remove crank assembly and u-clamps from roll tube.

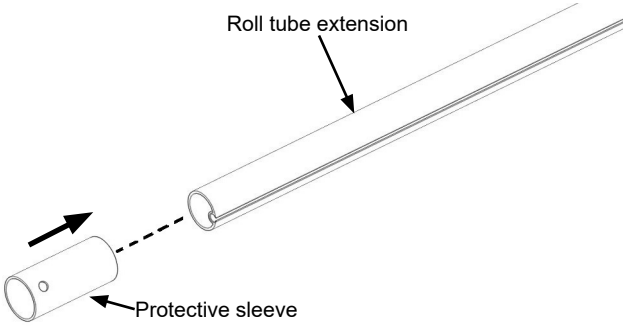


6: INSTALLING ROLL TUBE PROTECTOR

To install roll tube protector, perform one of the following:

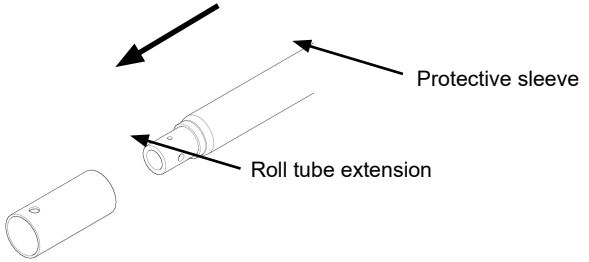
3” AND 2” ALUMINUM ROLL TUBE

A. Slide protective sleeve onto roll tube extension, leave loose for final adjustment in Step 9.



2” STEEL ROLL TUBE

A. Slide protective sleeve onto rear of roll tube extension, leave loose for final adjustment in Step 9.

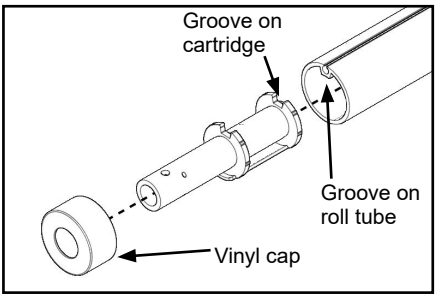


7: INSTALLING FRONT DRIVE CARTRIDGE

To install cartridge, perform one of the following:

3" ALUMINUM ROLL TUBE

A. With grooves aligned, slide cartridge into roll tube extension then vinyl cap onto cartridge shaft and roll tube.

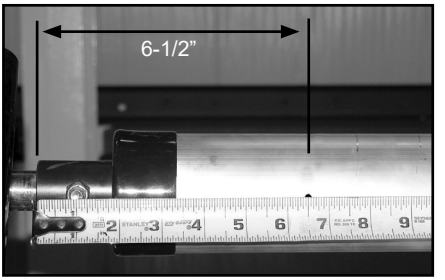


B. Measure along side of tube, 180° opposite of rope channel, and mark 6-1/2" in from beginning of drive cartridge.

NOTE: Cartridge shaft should protrude out of roll tube with vinyl cap in place.

C. Drill 5/16" hole through roll tube and first wall of cartridge inside of tube.

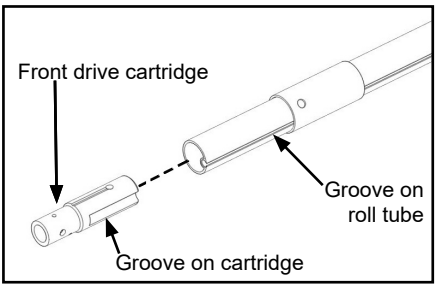
D. Insert 5/16" x 9/32" drive rivet. Ensure rivet is fully seated. Set with hammer.



2" ALUMINUM ROLL TUBE

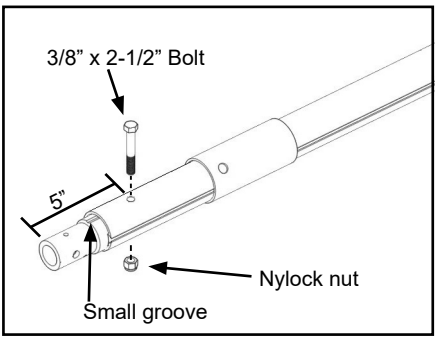
A. At front of roll tube extension, align grooves and slide cartridge into end of roll tube. Leave loose for now.

B. Use small groove on cartridge as guide to measure along side of roll tube and mark 5" in from end of cartridge, then drill 13/32" hole through first layer of roll tube.



C. Push cartridge into previously selected location of roll tube using hole as guide to drill through cartridge and second layer of roll tube.

D. Insert 3/8" x 2-1/2" bolt and secure with nylock nut.



8: ROLL TUBE SPLICE EXTENSION

To install roll tube splice, perform one of the following:

3” AND 2” ALUMINUM ROLL TUBE

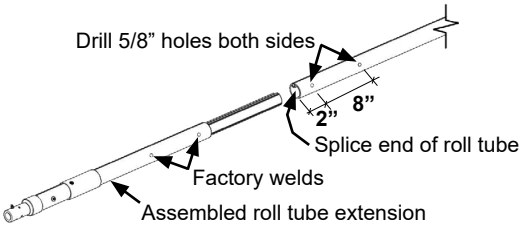
A. Pull end of roll tube away from tarp and trailer enough to allow drilling holes and welding splice (heat and splatter from welding can damage tarp and trailer).

B. On existing roll tube, mark locations for holes on both sides of rope channel (See figure below for locations).

C. Drill (4) 5/8” holes (through roll tube only) and deburr if needed.

D. Insert splice end of tube extension into roll tube and butt them tight against each other.

E. Attach splice to roll tube with an aluminum plug weld in each of the 4 holes. Let cool and grind welds flush to prevent tarp wear.



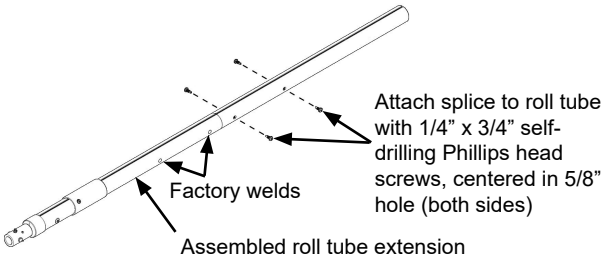
ALTERNATE TO WELDING CONNECTION METHOD

A. This method replaces welding in this step. Insert splice end of tube extension into roll tube and butt them tight against each other.

B. Drill pilot hole into splice through center of previously drilled 5/8” hole using a 1/8” bit.

IMPORTANT: Pilot hole needs to be centered in previously drilled holes on roll tube, this will ensure screw heads will not touch sides of drilled hole.

C. Secure extension by turning (4) 1/4” x 3/4” self-drilling Phillips head screws into pilot holes.



8: ROLL TUBE SPLICE EXTENSION (Continued)

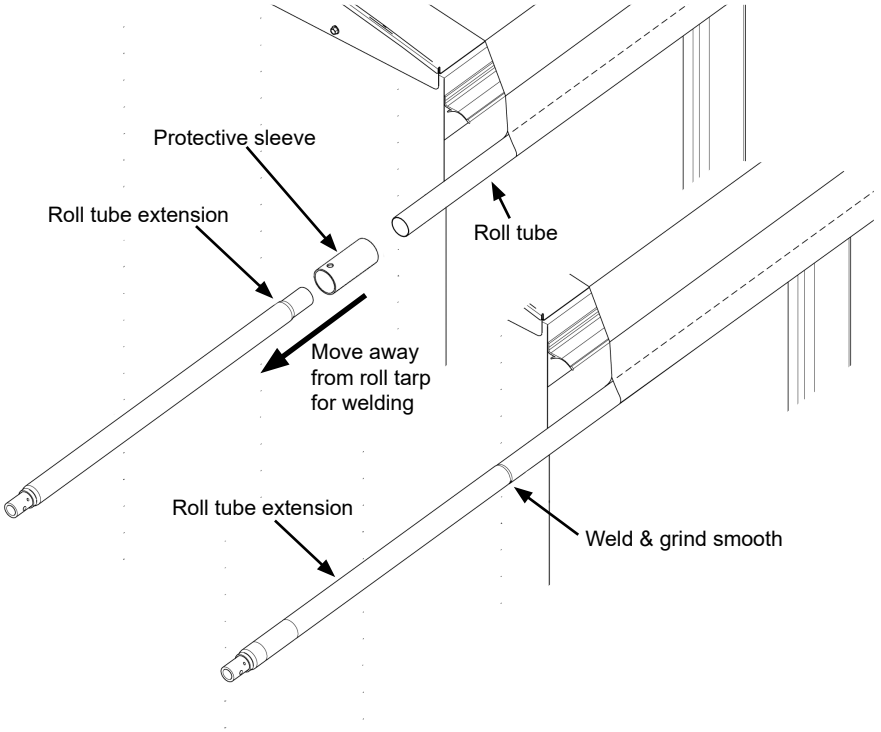
2” STEEL ROLL TUBE

A. Pull end of roll tube out away from tarp and trailer prior to welding (heat and splatter from welding can damage tarp and trailer).

B. Insert swaged end of tube extension into roll tube. Ensure extension is in line with roll tube for tarp to roll smoothly.

C. Then weld all around. Let it cool and grind weld smooth.

TIP: For rust prevention, apply rust resistant paint to exposed metal from welding and grinding.



9: CONNECTING MOTOR TO ROLL TUBE

⚠ WARNING: Arm is under pressure. Requires two people for safe installation.

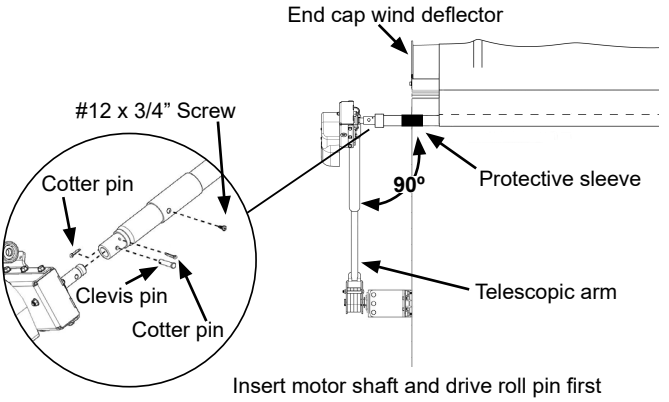
A. Apply grease to motor shaft. Raise arm with motor and insert shaft into cartridge, then secure with cotter pin.

B. Align holes in cartridge and shaft then insert clevis pin and cotter pin, bend tabs to secure.

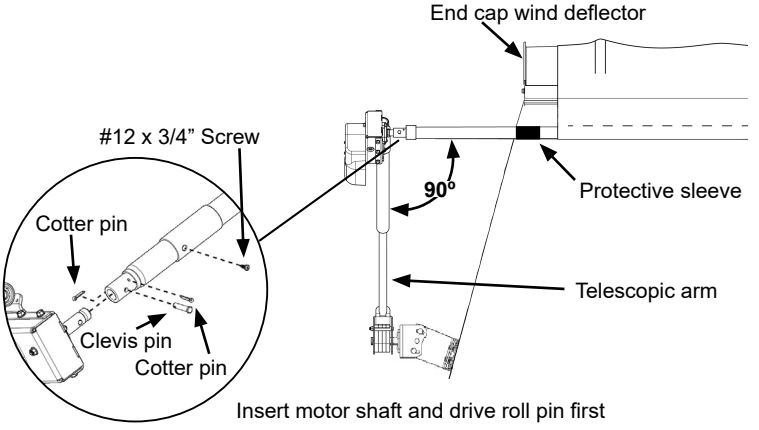
C. Align center of protective sleeve to travel over top of wind deflector. Secure with #12 x 3/4" Phillips head screw.

D. Square pivot arm with roll tube by adjusting motor and roll tube forward or backward as needed.

VERTICAL WALL BOX



SLANT WALL BOX



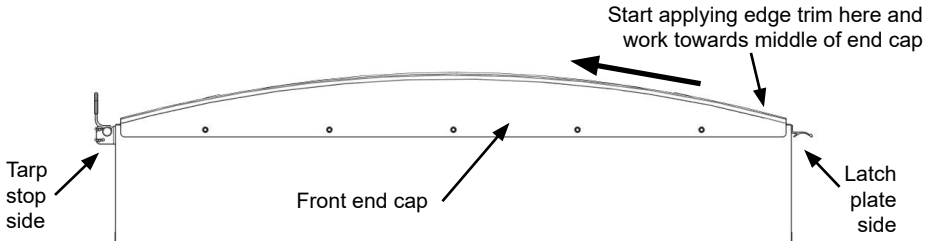
10: REAR RETURN SYSTEM

A. Refer to included instructions for installing rear return.

NOTE: Check all bolts and nuts and tighten if needed.

11: OPTIONAL EDGE TRIM

NOTE: Trim air dam as needed to ensure smooth return operation. Apply edge trim onto front edge of tall, trimmed air dams or end caps without hem, from latch plate towards middle of air dam. Edge trim will not cover entire end cap. Repeat at rear.



12: REATTACH TARP

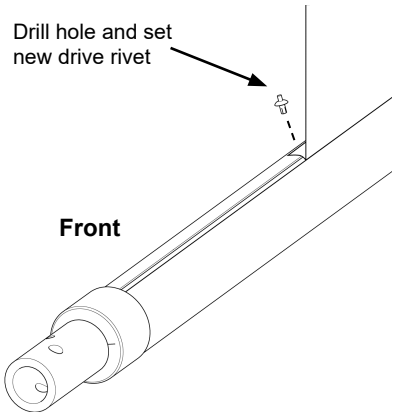
A. Center tarp on trailer.

To reattach tarp, perform one of the following:

3” AND 2” ALUMINUM ROLL TUBE

A. At front, use existing hole in tarp as guide to drill 7/32” hole in tube. Insert drive rivet and set with hammer.

B. At rear, pull tarp tight and use existing hole in tarp as guide to drill 7/32” hole in tube. Insert drive rivet and set with hammer.



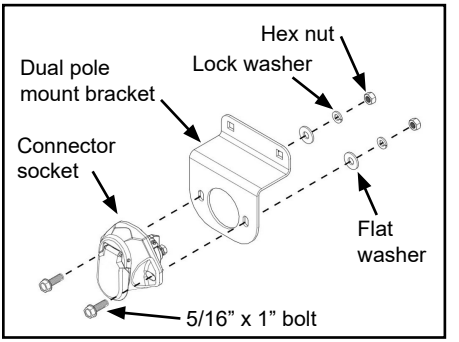
2” STEEL ROLL TUBE

A. Use existing U-clamps and self-drilling screws (screws most likely will not align with old holes).

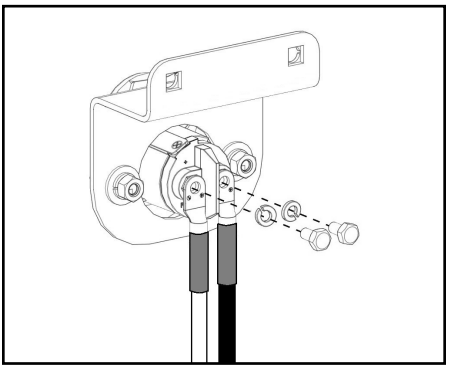
13: INSTALLING CONNECTOR SOCKET

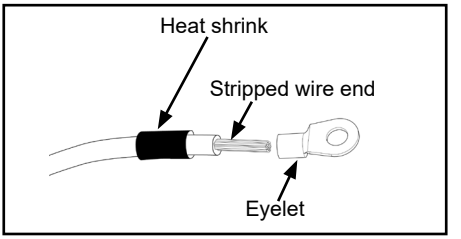
TIP: Dielectric silicone is provided for electric wire connections. Use as needed.

A. Bolt connector socket to dual pole mount bracket using (2) 5/16” x 1” bolts, flat washers, lock washers and nuts.

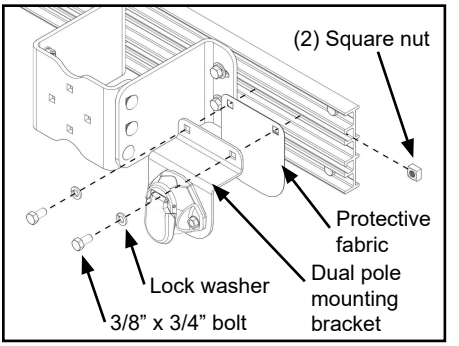


B. Before cutting wire, form a loop on arm that allows room for movement and mark where to cut at connector socket at location on dual pole mount bracket. Cut wire, strip only enough insulation off to attach ring terminals and heat shrink tube. Attach wires to socket terminals.





C. Slide (2) square nuts into channel on mounting plate. Place protective fabric between dual pole mounting bracket and mounting plate, secure with (2) 3/8 x 3/4” bolts and lock washers.



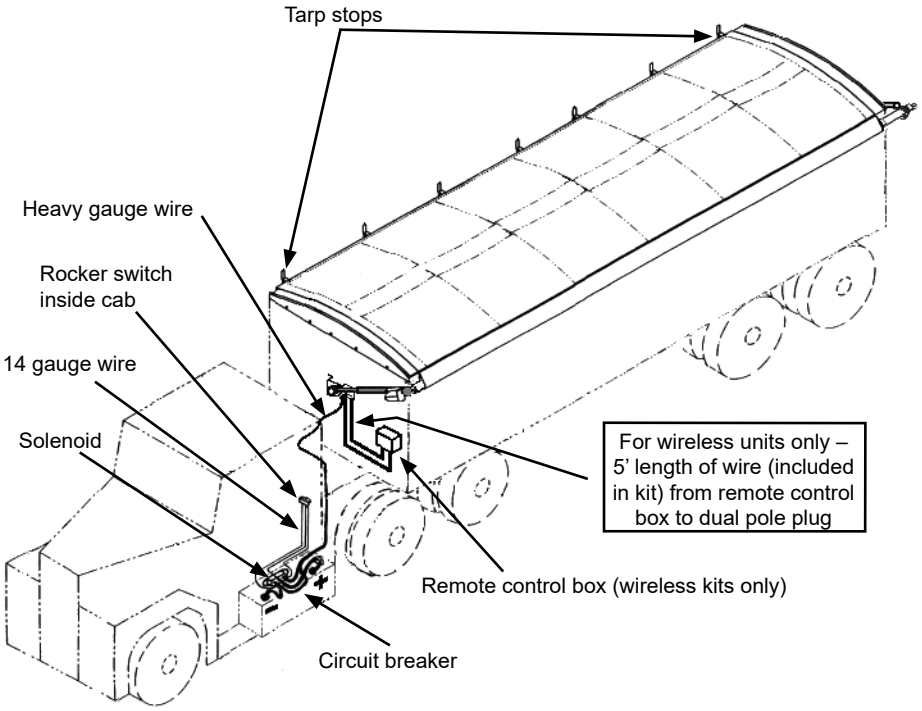
14: WIRING ELECTRIC CONVERSION

NOTE: If installing an optional remote control box, skip steps 15 A-C. Use instructions supplied with the remote control box.

TIP: Dielectric silicone is provided for electric wire connections. Use as needed.

A. WIRE ROUTING
Select best routing of wire from battery to solenoid usually along frame with other wire harness along cab and up to pole connectors.

IMPORTANT: If installing this kit on an existing tarp system, it is recommended both end tarp stops are located 5" in from each end of tarp. When needed and if possible, relocate existing end tarp stops.



NOTE: Some wiring will come pre-assembled.

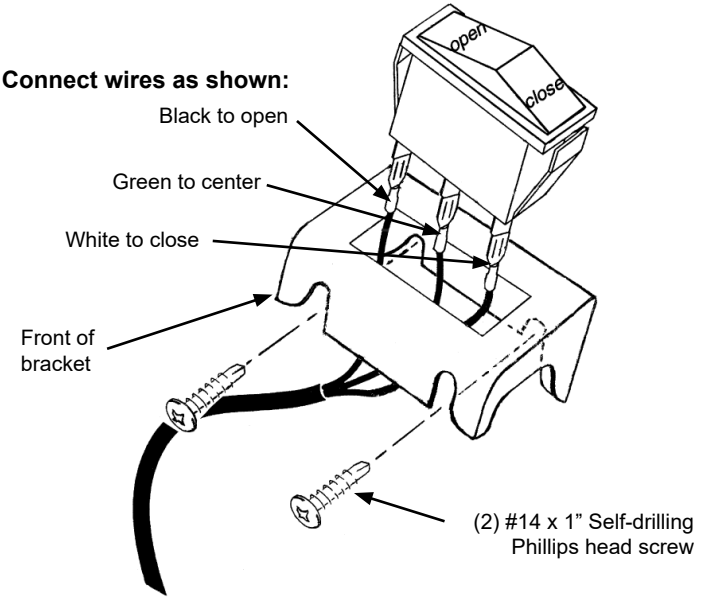
15: WIRING SWITCH

A. SWITCH LOCATION AND INSTALLATION

Select convenient location in cab to mount switch bracket with (2) #14 x 1" self drilling Phillips screws through slots in back of bracket.

Route 14 ga. wire from switch to location of solenoid near battery. Rubber grommet is supplied for area where wire enters cab, 11/16" hole is needed for grommet.

At switch, strip 14 ga. wire ends about 3/8" back and attach push-on connectors and crimp. Pull wires through bracket and attach to switch. Snap switch into bracket.



B. SOLENOID

Mount solenoid in protected area near battery using #2 x 1" self-drilling Phillips screws. Then follow wiring connections on page 19. For reference see wiring diagram on page 20.

C. LIGHT GAUGE WIRES

Prepare end of black and white light gauge wires from switch with push on connectors for solenoid terminals. Connect white wire to close terminal. Connect black wire to open terminal. Prepare end of light gauge green wire from switch with 1/4" ring terminal. For reference see wiring diagram on page 20.

15: WIRING SWITCH (Continued)

D. HEAVY GAUGE WIRES

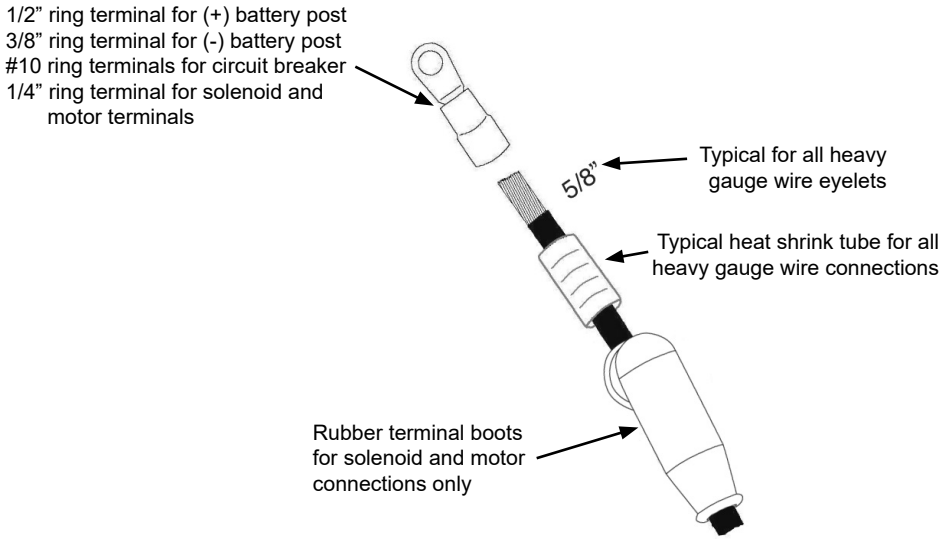
Split heavy gauge wire at solenoid about 4” back. Prep ends of black and red heavy gauge wires leading from motor and battery with heavy gauge 1/4” ring terminals, heat shrink tubes and rubber boots for (4) solenoid studs if needed. Attach wires to solenoid studs as shown on wiring diagram on page 20.

NOTE: The light gauge jump wire leads through same rubber boot with black (-) wire from battery. The green wire from the switch leads through the same rubber boot with red (+) wire from battery.

Tighten nuts on terminal - always hold base nut while tightening top nut. Do not over tighten. Connect the white light gauge wire to close terminal and black wire to open terminal (see wiring diagram on page 20).

E. CIRCUIT BREAKER

Install circuit breaker in line on red (+) wire close to battery using #10 ring terminals and heat shrink.

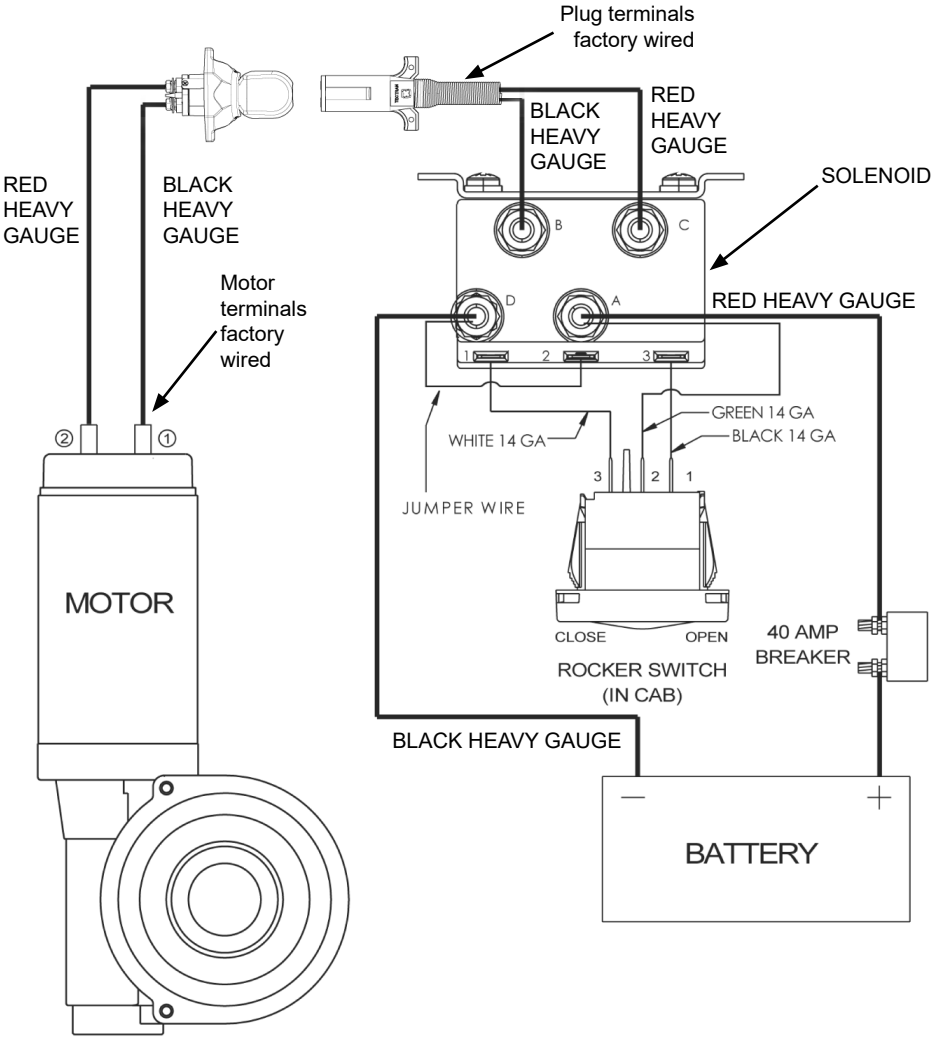


F. BATTERY

Prep end of heavy gauge black wire for battery (-) post with heat shrink tube and 3/8” ring terminal. Prep end of heavy gauge red wire for battery (+) post with heat shrink tube and 1/2” ring terminal. Connect wires to battery now.

NOTE: Once all wiring is completed, verify system according to schematic. Inspect travel paths of arms at front and rear to ensure no interference. Make adjustments if needed. Test operation. If motor runs tarp in reverse of open and close positions on switch, reverse 14 gauge wires on solenoid (move white to 3 and black to 1).

WIRING DIAGRAM



NOTE: Always hold base nuts when tightening top nuts on terminals.

ELECTRIC MOTOR OPERATING INSTRUCTIONS

NOTE: For kits with a tarp control box, refer to the tarp control box manual for operating instructions.

CLOSING FROM OPEN POSITION

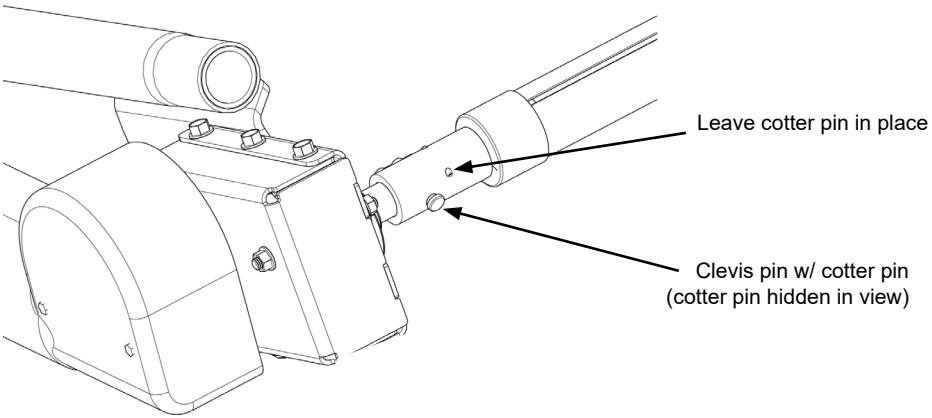
A. Push switch to the CLOSED position and hold. Visually view tarp position and release switch when tarp is fully closed. Fully closed is when tarp roll tube is tight up under latch plate.

OPENING FROM CLOSED POSITION

A. Push switch to the OPEN position and hold. Visually view tarp position and release switch when tarp is fully open. Fully open is when tarp roll tube touches tarp stops. TOO TIGHT in open position could cause damage to tarp stops, tubes and tarp.

IMPORTANT: Electric tarp system is equipped with a modified reset circuit breaker. Holding switch until circuit breaker trips is too long. When this occurs, breaker will trip and reset if the breaker is overloaded by the motor. To reduce unnecessary strain on components, always release switch before breaker trips. If breaker trips and does not reset, it may have detected a continuous short and will not reset until the short is repaired.

ENABLE MANUAL OVERRIDE



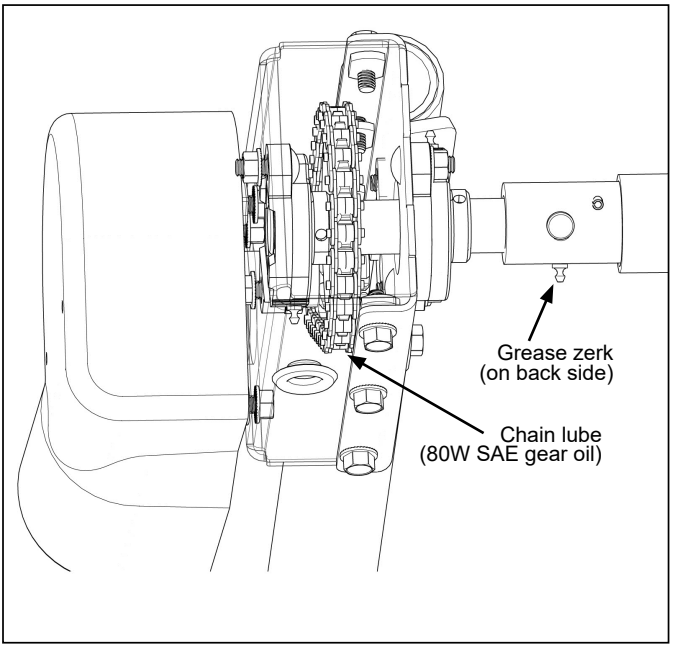
A. To enable manual override, disconnect power, relieve pressure on clevis pin and remove while making certain cotter pin is in place.

⚠ CAUTION: If attaching crank handle, ALWAYS remove it before connecting power back to tarp motor.

INSPECTION AND MAINTENANCE

⚠ **CAUTION**: **Some lubricants attract dust, avoid using on telescoping components.**

- Periodic preventive maintenance should be practiced. Inspect tarp system often for proper operation.
- Periodically inspect front arm (and spiral springs) for loose or worn parts and replace as needed. Clean telescoping parts for smooth operation.
- Always use genuine Agri-Cover, Inc. replacement parts if repairs are needed.
- Periodically check the tightness of mounting bolts and electrical connections.
- Remove any dirt or corrosion that may have accumulated on the electrical connections.
- The motor gearbox is lubricated with 5 ounces of Mobil SHC 630 lubricant and sealed for life.
- Periodically grease zerk fittings and lubricate chain. Remove plastic plug to access chain inside gearbox.



MANUFACTURER'S LIMITED WARRANTY

Agri-Cover, Inc. extends the following Limited Warranty on its ROLTEC® Electric Tarp Conversion:

Agri-Cover, Inc. warrants its ROLTEC® Electric Tarp Conversion to be free from defects in material and workmanship under normal use for one (1) year from date of manufacture unless accompanied by proof of purchase. The one (1) year warranty start date can be found on the unit (motor and gearbox). Check both and refer to the oldest date shown.

ANY IMPLIED WARRANTY APPLICABLE TO THE ROLTEC® ELECTRIC TARP CONVERSION IS LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF MANUFACTURE UNLESS ACCOMPANIED BY PROOF OF PURCHASE. Agri-Cover Inc.'s sole obligation under this Limited Warranty or any implied warranty is limited to the repair or replacement at its option, of defective parts only. No labor or service allowance is given or implied. IN NO EVENT SHALL AGRI-COVER, INC. BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES. EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY, AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION CONTAINED HEREIN.

For warranty, have serial number ready and fill out the warranty claim form at agricover.com/warrantyclaim or call Customer Service Department at 800-233-4655 to determine if only a replacement part is needed or if the COVER needs to be returned for inspection and repair. Goods to be returned must have a pre-authorized RA # (Return Authorization Number) – obtained by calling the number above. Mark the number on the package and ship it freight prepaid to address below. Agri-Cover will pay freight to return goods to sender.

This Limited Warranty gives you specific legal rights and you may have other rights, which vary, from state to state.

For replacement parts shop at agricoverparts.com or call Customer Service at 800-233-4655.

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Hours: 8:00 am - 5:00 pm CST Monday through Friday, except Holidays

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