



TARPING SYSTEMS & ACCESSORIES

P/N 1121684 Rev. D

INSTALLATION INSTRUCTIONS

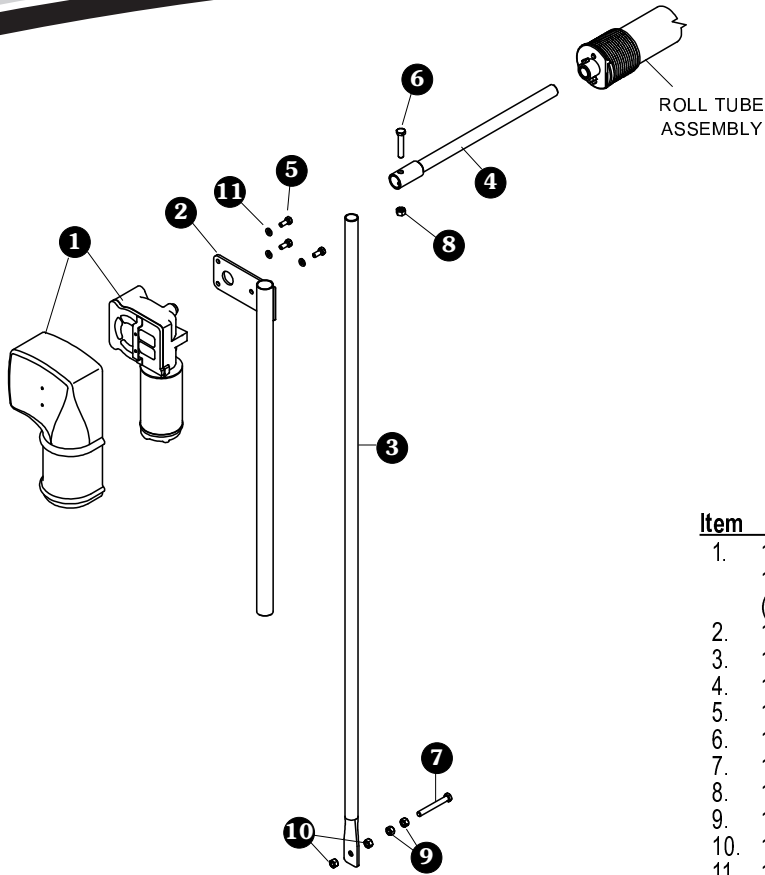


Electric Upgrade

READ BEFORE INSTALLING

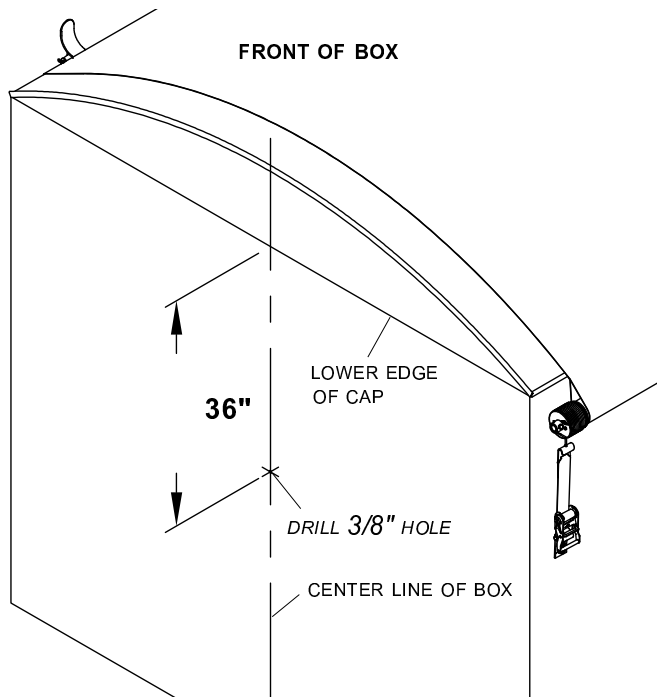
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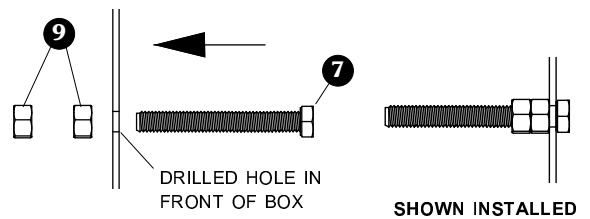


Item	Part #	Description
1.	1121307	Durabilt Electric Motor
	1703823	Power Drive Electric Motor (replacement for kits shipped before 2013)
2.	1118224	Upper Pivot Arm - Black
3.	1118225	Lower Pivot Arm - 60" - SS
4.	1118221	Motor Extension - Black
5.	1201269	Cap Screw - 5/16" x 3/4" - SS
6.	1704334	Cap Screw - 5/16" x 1 3/4" - SS
7.	1704335	Cap Screw - 3/8" x 2 1/2" - SS
8.	1704333	Centerlock Nut - 5/16" - SS
9.	1200999	Hex Nut - 3/8" - SS
10.	1704336	Top Lock Nut - 3/8" - SS
11.	1201241	Lock Washer - 5/16" - SS

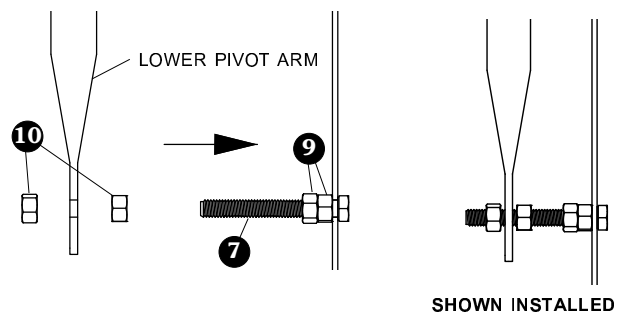
STEP 1: Determine pivot point location on front of box by measuring 36" down from lower edge of end cap at center of box. Mark location and drill 3/8" hole.



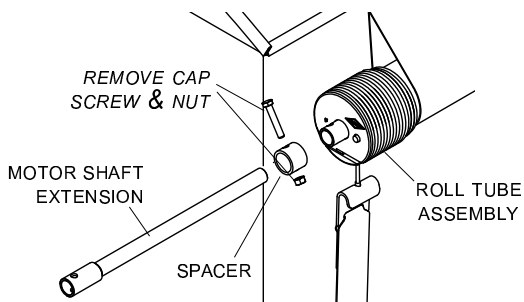
STEP 2: From inside of box, insert cap screw 7 through hole and tighten against box wall with hex nut 9. Tighten second hex nut 9 against first hex nut.



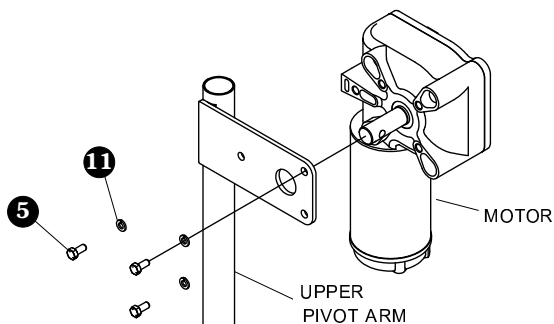
STEP 3: Turn top lock nut 10 onto cap screw 7, positioning nut to allow enough thread on cap screw to place pivot arm and another nut. Install lower pivot arm over cap screw 7 and turn second top lock nut 10 onto cap screw 7, leaving room for arm to rotate freely.



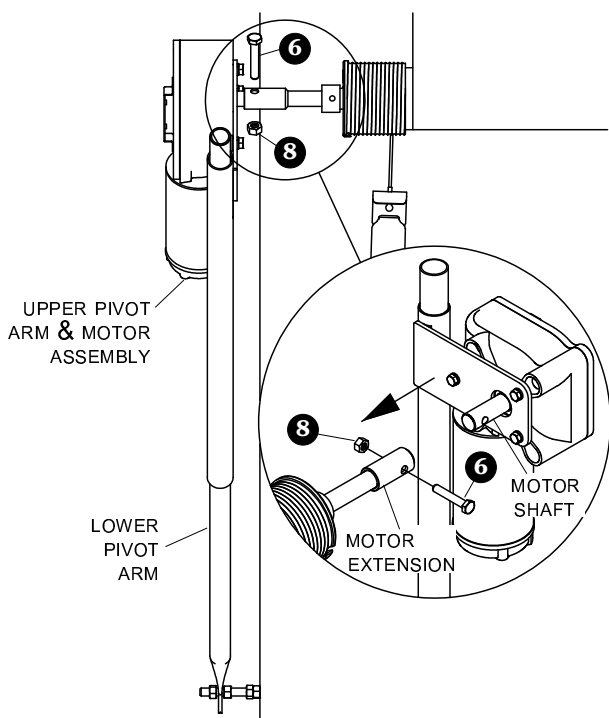
STEP 4: Remove cap screw ⑤ and lock nut ③ from cartridge spacer on front of roll tube. Insert motor shaft extension into spacer and roll tube assembly.



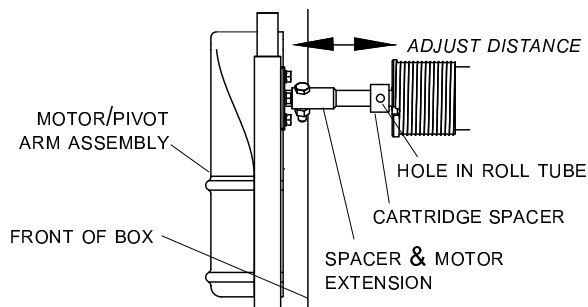
STEP 5: Fasten motor to upper pivot arm with screw ⑤ and lock washer ⑪.



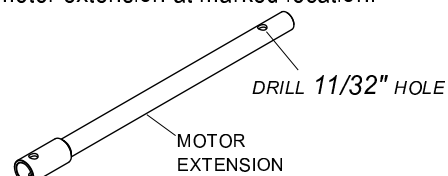
STEP 6: Slide upper pivot arm and motor assembly over lower pivot arm. Insert motor shaft into motor extension. Insert screw ⑥ and finger tighten nut ③.



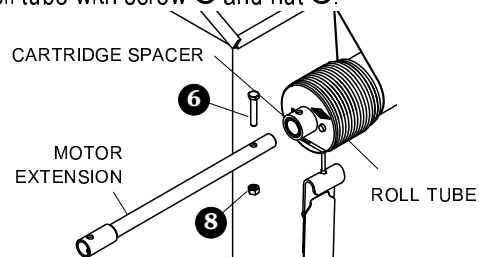
STEP 7: Adjust distance between motor/pivot arm assembly and box to allow free movement of pivot arm and motor assembly across front of box. Using hole in roll tube as guide, mark hole location on motor extension.



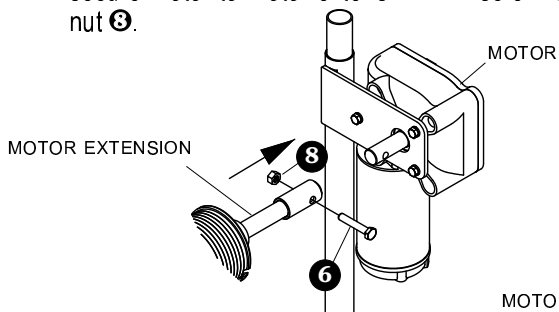
STEP 8: Remove motor extension. Drill 11/32" hole through motor extension at marked location.



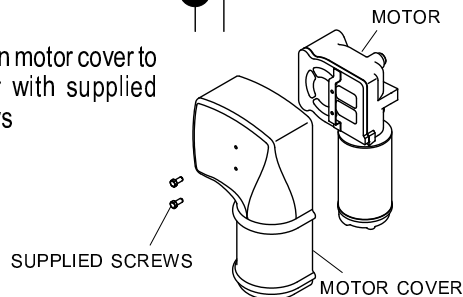
STEP 9: Replace motor extension into roll tube. Align holes and secure cartridge spacer and motor extension to roll tube with screw ⑥ and nut ③.

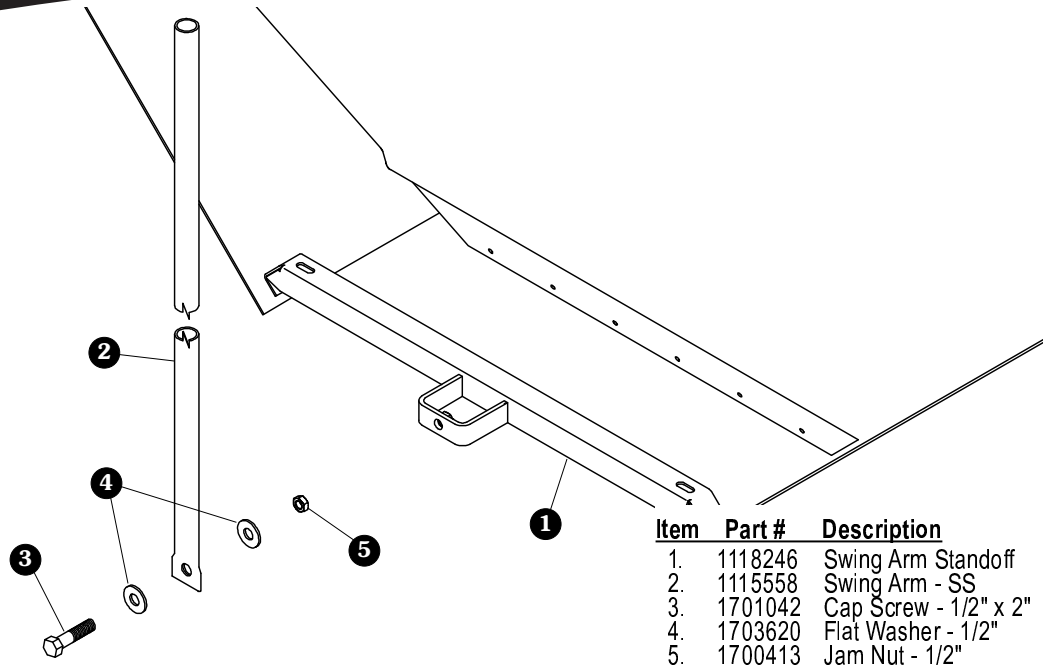


STEP 10: Replace motor onto motor extension. Align holes and secure motor to motor extension with screw ⑥ and nut ③.

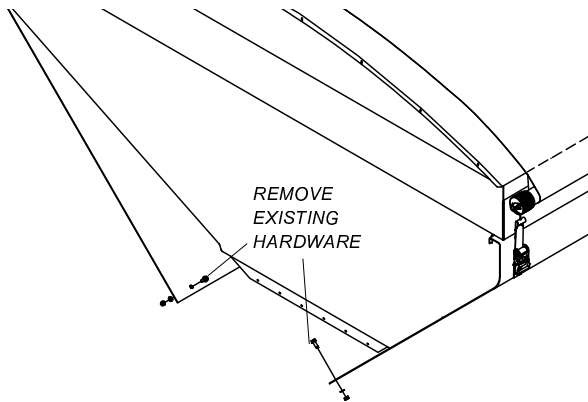


STEP 11: Fasten motor cover to motor with supplied screws

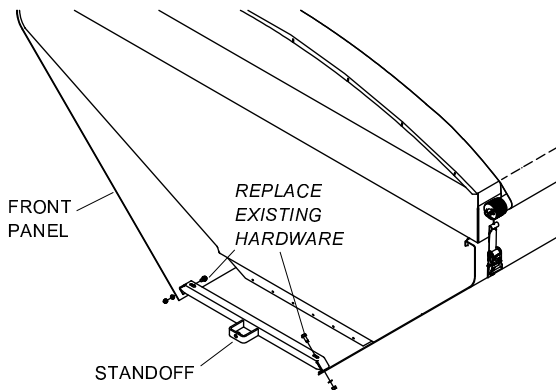




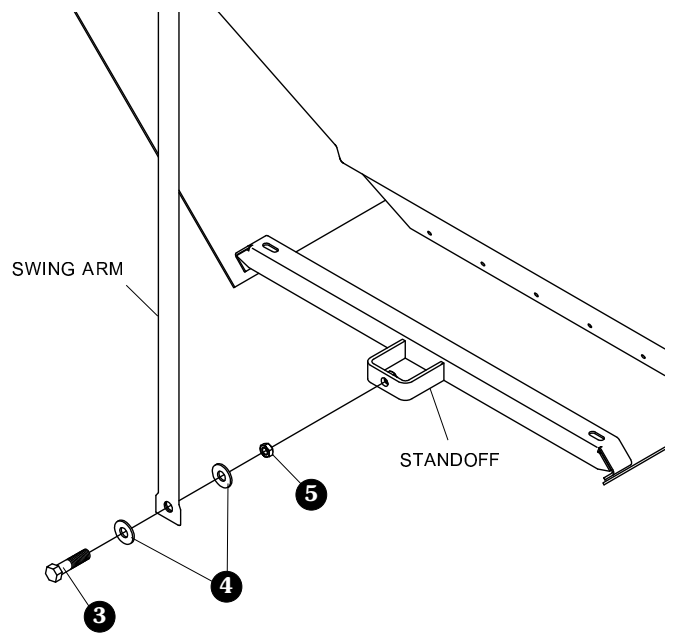
STEP 1: Remove existing hardware from front panels.



STEP 2: Fasten standoff to front panels as shown, using existing hardware.

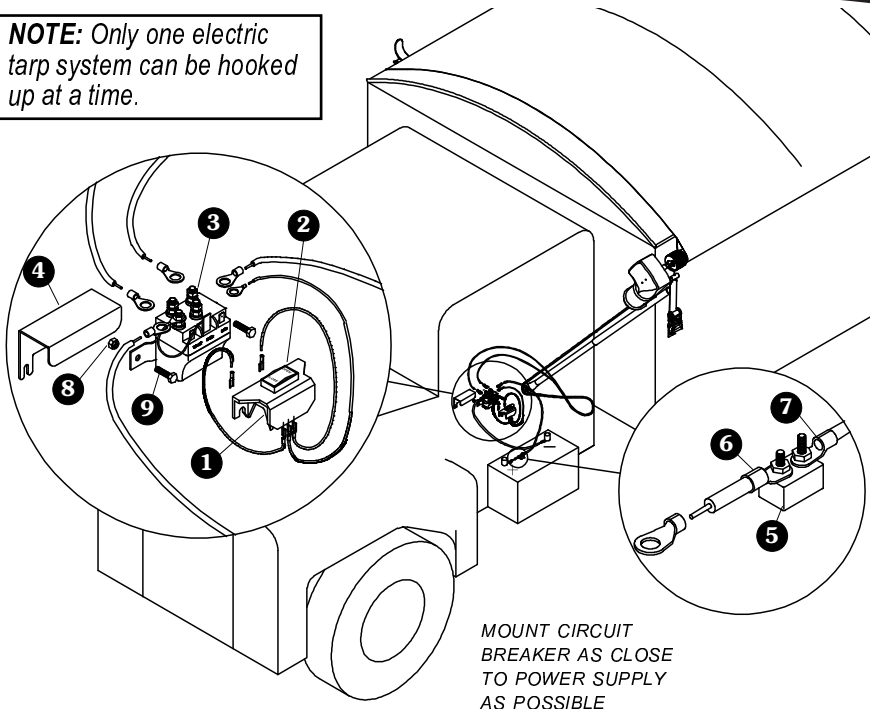


STEP 3: Fasten swing arm to standoff with screw 3, washers 4 and nut 5.



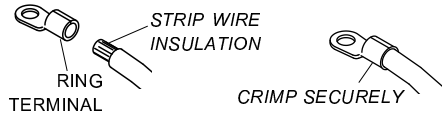
NOTE: Swing arm must operate without interference. Locate standoff to allow clearance for swing arm operation..

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

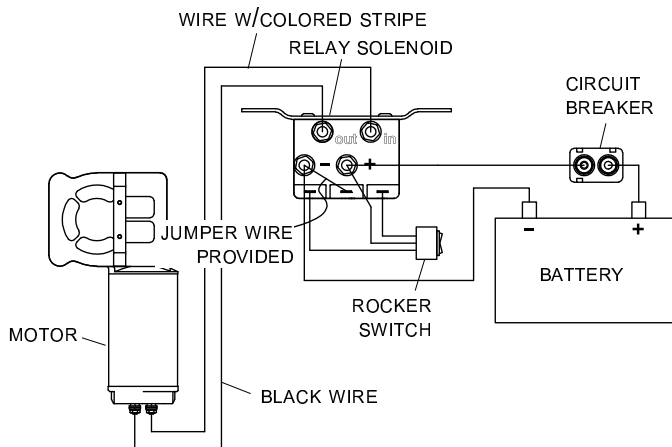


Item	Part #	Description
1.	1703661	Rocker Switch Mounting Bracket
2.	1116020	Rocker Switch
3.	1703845	Motor-Reversing Solenoid
4.	1703896	Solenoid Cover
5.	1704354	40-Amp Modified-Reset Circuit Breaker
6.	1703244	Ring Terminal - 6 Ga. x 3/8" Stud
7.	1703245	Ring Terminal - 6 Ga. x #10 Stud
8.	1701543	Nylon Lock Nut - 1/4"
9.	1700381	Cap Screw - 1/4" x 1"

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



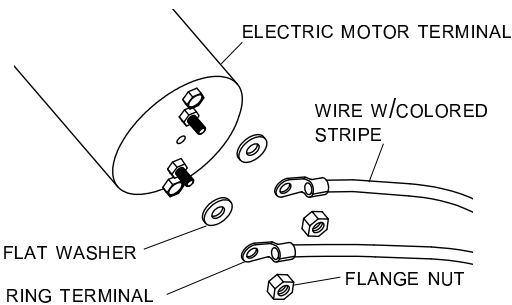
STEP 1: Circuit breaker & battery. Mount circuit breaker as close as possible to battery or power supply, as shown in diagram.



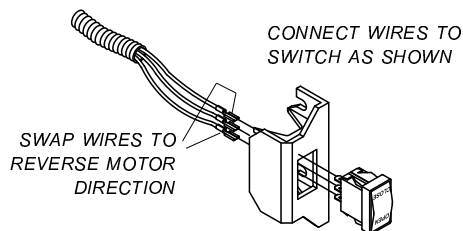
STEP 2: Mount solenoid. Mount solenoid in suitable location - a ventilated area near the battery is ideal. Determine best route for wire. Usually along frame with existing wire harness.

STEP 3: Run 6-ga. wire from power supply to solenoid as shown in diagram and cut to proper length. Crimp ring terminals to wire ends. Connect wires as shown in wiring diagram.

STEP 4: Run 6-ga. wire from solenoid to motor and cut to proper length. If box has hoist, run wire to rear of box, around hoist pin, then back to front of box. Cut to proper length and crimp ring terminals. Connect wires as shown in wiring diagram.



STEP 5: Rocker switch. Locate rocker switch in a convenient operating location. Switch can be mounted in cab, on dash panel or on driver side door jamb. Run 14-ga. wire from solenoid to switch.



STEP 6: Check motor direction by activating switch to "OPEN." If switch is running system backwards, change wire leads on motor to opposite connections or swap wires connected to left and right quick disconnect tabs on top front of solenoid.

OPERATION:

A) Close tarp: Push switch to “CLOSE” and hold. Observe tarp and release switch when tarp is fully closed.

B) Open tarp: Push switch to “OPEN” and hold. Observe tarp and release switch when tarp is fully open.

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



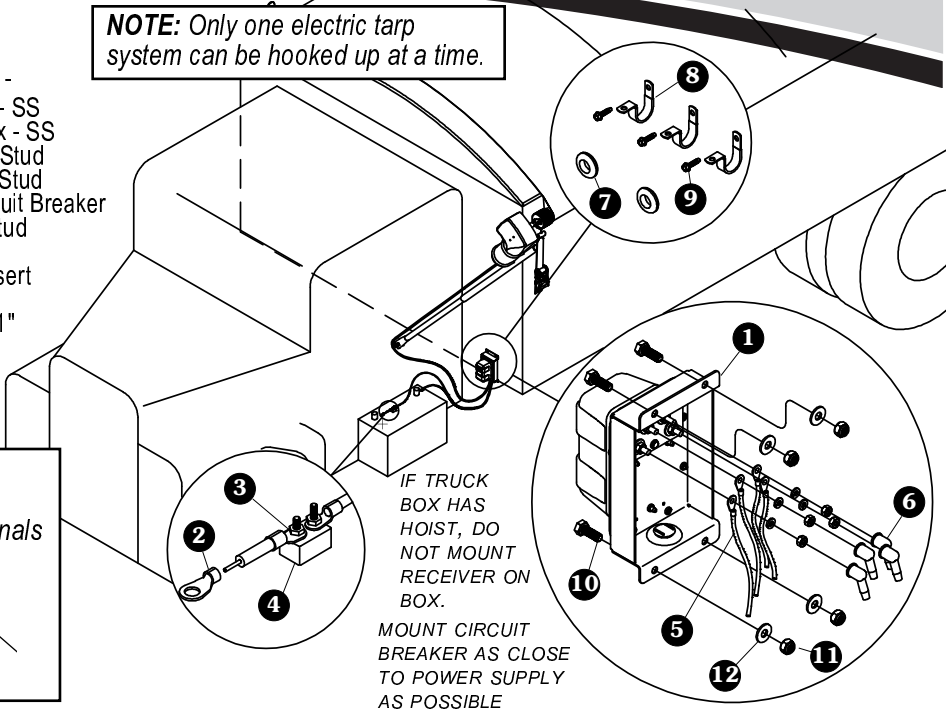
CAUTION

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

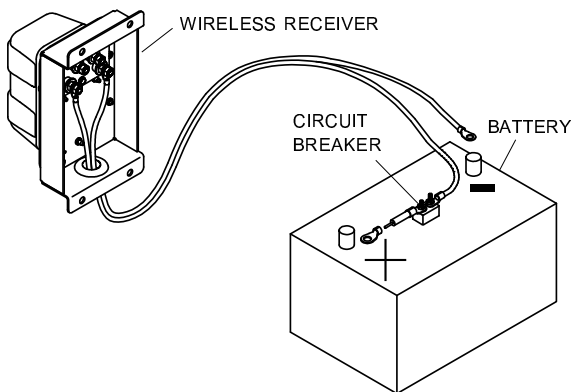
Item	Part #	Description
1.	1123596	Shur-Co® Wireless Receiver - SMART1+™ SMARTwire™ - SS
	1119346	Shur-Co® Rocker Switch Box - SS
2.	1703244	Ring Terminal - 6 Ga. x 3/8" Stud
3.	1703245	Ring Terminal - 6 Ga. x #10 Stud
4.	1704354	40-Amp Modified-Reset Circuit Breaker
5.	1702707	Ring Terminal - 6 Ga. 1/4" Stud
6.	1704330	Rubber Insulating Boot
7.	1703282	Rubber Grommet - 1 1/4" Insert
8.	1702108	Wire Clip - 3/4"
9.	1704338	Self-Tapping Screw - 1/2" x 1"
10.	1704430	Cap Screw - 5/16" x 1" - SS
11.	1704431	Nylon Lock Nut - 5/16" - SS
12.	1201237	Flat Washer - 5/16" - SS

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

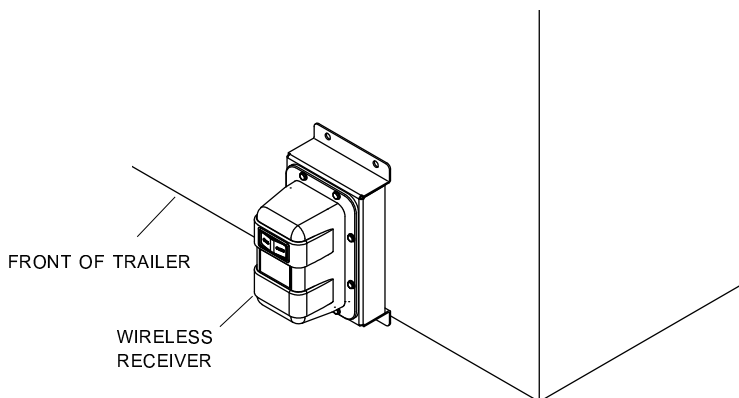
NOTE: Cut wires to length and strip only enough wire insulation to install ring terminals. Insert bare wire into ring terminals and crimp securely.



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



STEP 2: Determine mounting location for wireless receiver and determine how to route wire.



STEP 3: Run 6-ga. wire from power supply to mounting location on wireless receiver. If box has hoist, run wire to rear of box around hoist pin, then back to front of box. Cut wire to proper length. Insert end of wire through rubber boots, then strip wire ends and crimp 1/4" ring terminals onto wire ends. Remove nuts and lock washers from back of wireless receiver. Place positive (red striped) wire on lower orange post and negative (black) wire on lower black post. Secure lock washers and hex nuts. Coat with dielectric grease and install rubber boots over ring terminals. Connect wires as shown in wiring diagram.

STEP 4: Run 6-ga. wire from electric motor down pivot arm. Use cable ties to hold wire onto pivot arm.

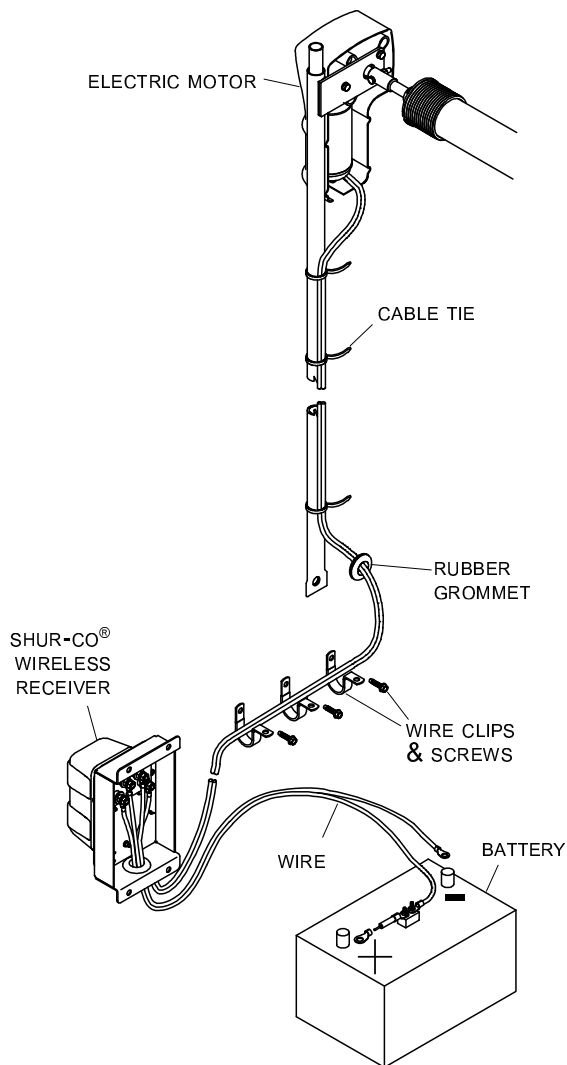
STEP 5: If needed, drill 1 1/8" hole below pivot point. Press rubber grommet into hole and insert wire through grommet. Leave slack in wire for movement during operation.

STEP 6: Continue to run 6-ga. wire to wireless receiver and cut to proper length.

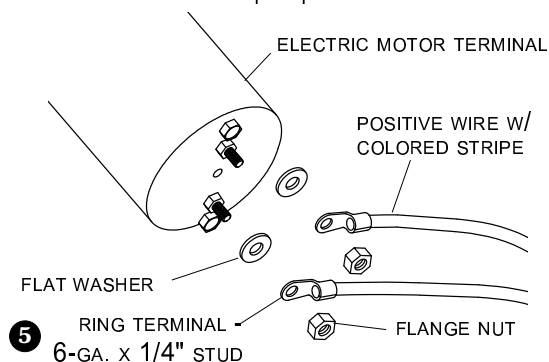
NOTE: Use dielectric grease (P/N 1704378) to prevent corrosion on terminals.

STEP 7: Insert end of wire through rubber boots, then strip wire ends and crimp 1/4" ring terminals onto wire ends. Remove nuts and lock washers from back of wireless receiver. Place positive (red striped) wire on upper orange post and negative (black) wire on upper black post. Secure lock washers and hex nuts. Coat with dielectric grease and install rubber boots over ring terminals.

STEP 8: Mount wireless receiver. Mark and drill 11/32" holes and fasten with 5/16" x 7/8" cap screws, flat washers and lock nuts.



STEP 9: Connect wires at top of pivot arm to motor.



⚠ CAUTION

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

OPERATION:

A) Check motor direction by activating switch to "OPEN." If switch is running system backwards, change wire leads on motor to opposite connections. For remote operation, see section on *Programming and Operating* wireless SMART1+™ remote.

B) Close tarp: Push switch to "CLOSE" and hold. Observe tarp and release switch when tarp is fully closed.

C) Open tarp: Push switch to "OPEN" and hold. Observe tarp and release switch when tarp is fully open.

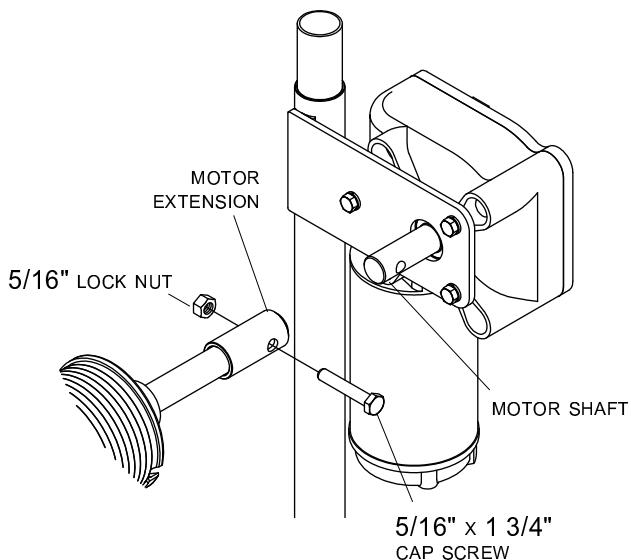
NOTE: Release switch at end of cycle or modified-reset circuit breaker will trip. After breaker resets, switch will activate motor again. To reduce unnecessary strain on tarp components, release switch at end of each cycle.

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

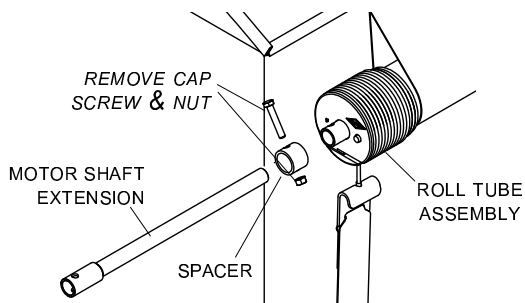
Perform following steps to convert electric Cable-Lok™ system to manual crank operation:

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

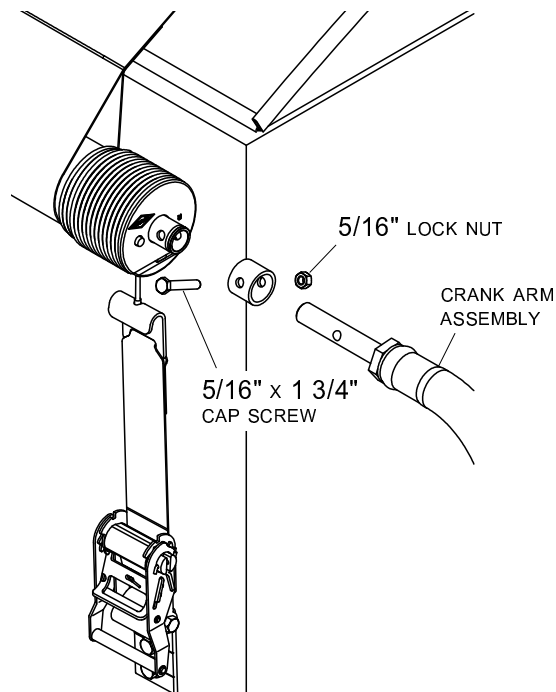
- STEP 1:** Close tarp, letting roll tube hang loose.
- STEP 2:** Remove 5/16" x 1 3/4" cap screw and lock nut from motor shaft and motor extension.



- STEP 3:** Secure or remove motor and upper pivot arm.
- STEP 4:** Remove 5/16" x 1 3/4" cap screw and lock nut from motor extension and cartridge spacer. Remove motor extension.

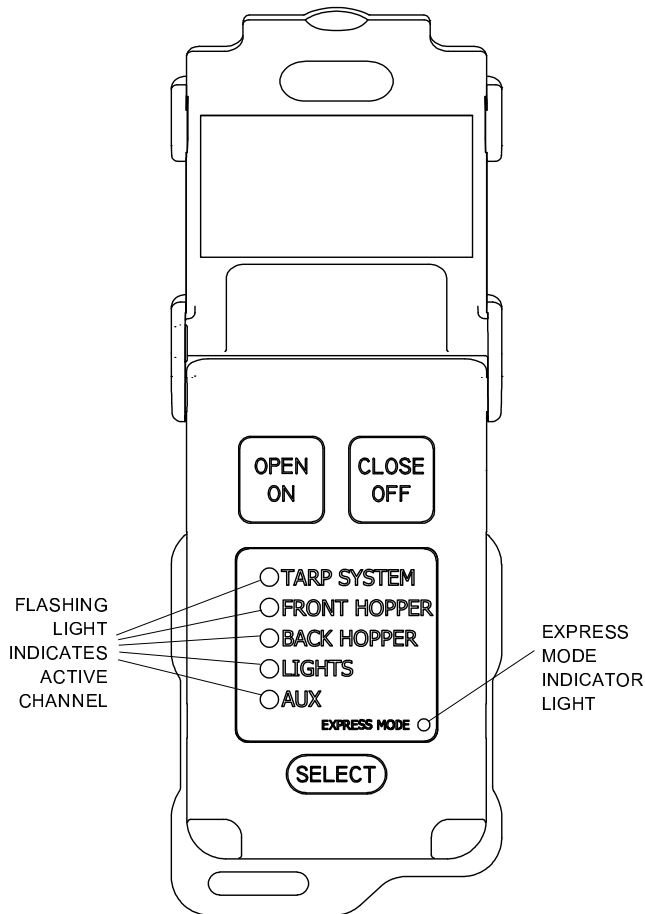


- STEP 3:** Install crank arm at rear of box as shown in the *Manual Crank Option* section of this manual.



POWER UP/DOWN

Remote will power up when lid is opened. Remote will power down when lid is closed or when lid is left open three minutes after last button is pushed.



STANDARD OPERATION

After power-up, first channel will be immediately active and indicator light will be flashing. *Open/On* and *Close/Off* buttons are operational for indicated active channel. While either *Open* or *Close* button is pressed, indicator light for active channel will flash faster, indicating command is being transmitted on active channel. *Select* button will cycle between enabled channels.

Each channel on remote can be set to operate in either *Momentary Mode* or *Express Mode*.

Momentary Mode: While remote channel is in *Momentary Mode*, *Open* or *Close* button must be held down to operate system.

NOTE: Some Shur-Co® products are not compatible with **EXPRESS MODE**. If motor does not have encoder wire, remote will operate in *Momentary Mode* only.

Indicator light labeled **EXPRESS MODE** will be off when remote is in *Momentary Mode*.

If remote channel is in *Momentary Mode*, you may still force system to open or close automatically one time by pressing *Open* or *Close*, then simultaneously pressing *Select* button. System will continue to operate until fully open or closed. System can be stopped at any time by pressing any button on remote or closing remote lid.

Indicator light labeled *Express Mode* will be lit for first five seconds after initiating "One Time" Express command.

Express Mode: While remote channel is in *Express Mode*, *Open* or *Close* button can be pressed and released. System will continue to operate until fully open or closed. System can be stopped at any time by pressing any button on remote or closing remote lid.

Indicator light labeled **EXPRESS MODE** will be on when remote is in *Express Mode*.

PAIRING (INTRODUCING) REMOTE(S) TO RECEIVER

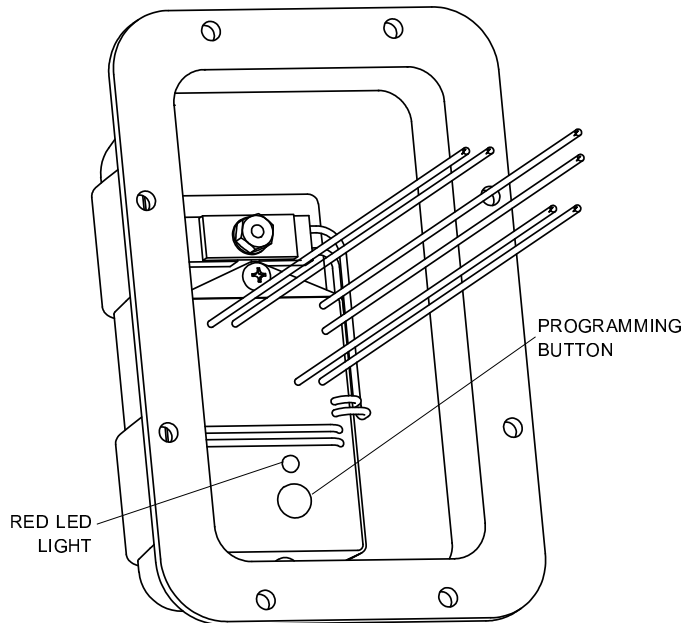
Receiver will accept and respond to signals from up to five remotes. Receiver will not respond to signals from remotes that have not been paired to it.

NOTE: Remotes are typically paired to receivers at factory if remote is shipped with receiver.

Follow instructions below to pair remote(s) to receiver:

1. Remove solenoid cover from receiver assembly, pulling gently on cover to prevent damage to wires connected to cover.

NOTE: Only SMART1+™ remotes will function with SMART1+™ receivers. Original SMARTtransmitter® cannot be used.



2. Check to be sure receiver is connected to 12-volt power supply. Receiver must be connected to power to be programmed. If battery disconnect switch is installed, make sure it is turned on.

NOTE: Read following steps entirely before proceeding. Programming must be completed within 20 seconds. Receiver will exit program mode after 20 seconds, whether or not it has received five Open/On button signals from remote.

3. Receiver can learn to recognize up to five remotes. Gather all remotes to be introduced. Open remote lid(s) to activate.
4. Set remote(s) to appropriate channel (Tarp System).
5. Press and hold programming button on receiver for five seconds. Red light will start flashing to indicate it is in programming mode. Release programming button. Red light will now turn off.

Single SMART1+™ remote:

- 6a1. On remote, press Open/On button five times. Red light on receiver will flash after each button press. After receiving last signal, light will flash twice, then begin flickering, indicating it has been successfully programmed.
- 6a2. Verify remote and receiver are operating correctly, then refasten solenoid cover.

Multiple SMART1+™ remotes:

- 6b1. Press Open/On button on first remote. Red light will flash after receiving signal.
- 6b2. Repeat above step for each remote being used.
- 6b3. Receiver will accept up to five signals. Press Open/On button additional times on last remote being programmed to achieve total of five signals. Red light on receiver will flash twice after last (fifth) signal, then begin flickering, indicating it has been successfully programmed (see programming example).
- 6b4. Verify each remote and receiver are operating correctly, then refasten solenoid cover.

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TARPING SYSTEMS & ACCESSORIES

