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SIOUX CITY TARP, INC.

**ONE OF NATION'S LARGEST SUPPLIERS OF
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LOCK DOWN ELECTRIC

INSTALLATION MANUAL



**Lock Down
ELECTRIC**
1-888-258-6939
SiouxCityTarp.com

WILSON

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WARNING
Improper use of this equipment could result in death or serious injury.
Always use proper safety techniques and follow all instructions.
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MANUFACTURED BY SIOUX CITY TARP, INC.
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GETTING STARTED

IMPORTANT:

PLEASE READ MANUAL THOROUGHLY AND COMPLETELY.

This manual explains how to install, operate & maintain the Sioux City Tarp Lockdown system safely. If you have any questions on the proper installation or maintenance of your roll-up tarp, please contact Sioux City Tarp.

WARNINGS, CAUTIONS, NOTES, & HINTS:

This manual is available for your safety & assistance while installing your new Sioux City Tarp Grain Wagon and Grain Cart systems. There are two levels of steps found in this installation manual. The primary steps are found in **BOLD AND ALL CAPITAL LETTERS**. Followed by secondary steps in regular font.


ABOUT OUR SYSTEMS:

The Sioux City Tarp Lockdown Electric system comes with a 1 year prorated warranty on all electric components, 3 year prorated warranty on the motor and a LIMITED LIFETIME warranty on the Lockdown arms.
For Questions Call: **888.258.6939**


Covered by Patent Number's 8,931,823 & 8,910,996 & other Pending Patents

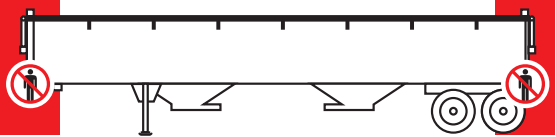
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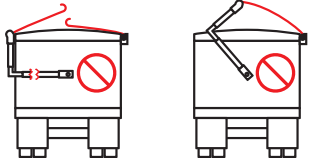


WARNING





DO NOT: Stand in the path of the front or rear spring arms. Springs and Arms are under extreme tension. Death or injury could occur.



DO NOT: Operate with broken or damaged components. Death or injury could occur. Tarp **MUST** be in fully covered or uncovered position prior to driving.

OPERATING & MAINTENANCE INSTRUCTIONS:

- Refer to operations and maintenance sheet or website.
- Spring tension must be released before repairs.
- Make repairs **ONLY** after following instructions.
- Routinely inspect for damage to tarp and parts.
- Do not operate if damaged, replace or repair damaged parts.
 - Keep path of arms clear.

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01: REVIEW THE PACKING LIST

THE FOLLOWING ITEMS SHOULD BE INCLUDED IN YOUR LOCK DOWN KIT.

**TABLE 1:
PACKING LIST FOR ARM KIT**

Quantity	Description	Part Number
1	36" Swedged Roll Tube Extension	1285
1	Front Arm With Wiring	56149
1	Rear Arm	56120

**TABLE 2:
PACKING LIST FOR
5700 HARDWARE KIT**

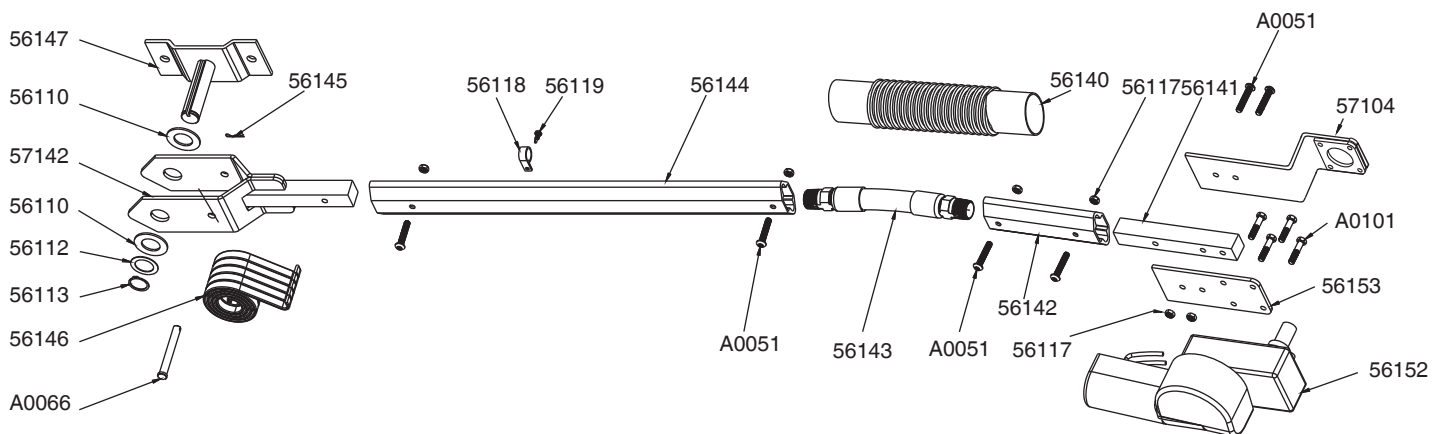
Quantity	Description	Part Number
1	Instruction Manual	
25 Ft.	6 Gauge Wire	2103
1	LockDown Sticker Pack	
1	Rear Mounting Hardware	
1	2 PC Universal Mounting Bracket Hardware	
1	Front Mounting Hardware	
1	Remote Box	5797
1	Motor Shaft Hardware	
1	Motor	5700-M
1	Front Mounting Bracket	57152
1	Rear Mounting Bracket	57153
1	Female Plug	1455V
2	Bottom Mounting Bracket	
1	Roll Tube Protector 2" PVC	
1	Locking Collar	
1	Motor Safety Plate	57104
1	Locking Collar For Motor Safety Plate	



FRONT ARM ASSEMBLY



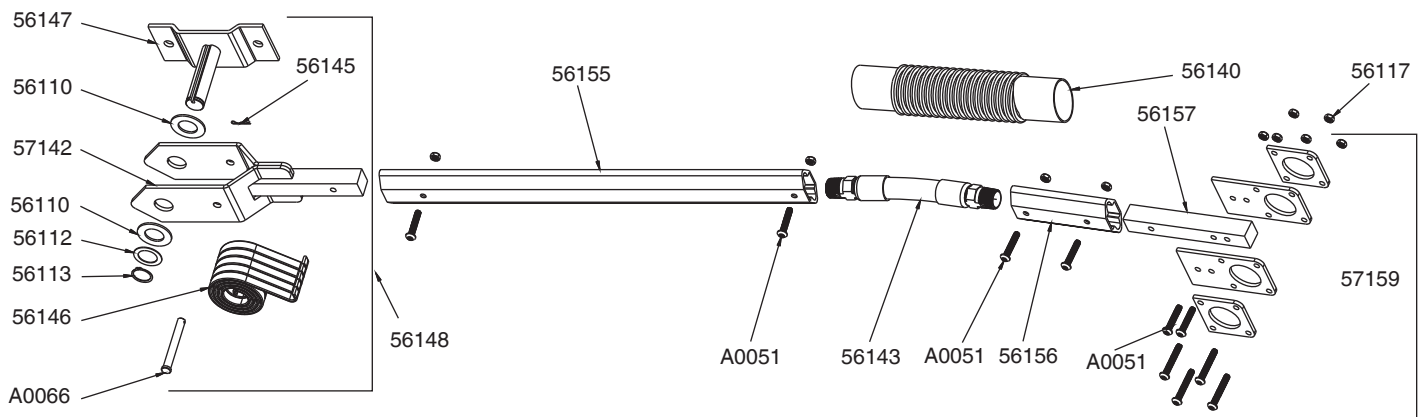
56149	Complete Front Arm without Mounting Bracket and Motor
56150	Complete Front Arm with Mounting Hardware (without Motor)
56151	Complete Front Arm with Mounting Hardware and Motor
56154	Wiring for Front Arm
A0101	3/8" Hex Cap Screw
56119	Screw - Self Drilling Pan Head
56118	Cushioned Loop Clamp
5700-M	Motor With Gearbox Assembly
5700	Lockdown Electric Grain Trailer Conversion Kit
5700-Dflex	Lockdown Electric /End Dump/Belt Trailer Conversion Kit
5700-RBRA	Lockdown Electric /End Dump/Belt Trailer Conversion Kit Bunji Assist
5700-LDKF	Key Fob
57152	Inner Mounting Bracket Lockdown Electric
57153	Outer Mounting Bracket Lockdown Electric
5797	Quick Connect Control Box For Lockdown Electric With Key Fob
57-TRWK	Tractor Wiring Kit Lockdown Electric
57102	Aluminum Motor Insert
57104	Safety Plate
1280	36" Swagged Roll Tube Extension
1417	12V Motor Only
1434	Chrome Motor Cover



REAR ARM ASSEMBLY



57120	Complete Rear Arm Assembly With Mounting Brackets
56140	Flex Cover
56117	Hex Nut 3/8"
A0051	BTN SKT CAP Screw 3/8" - 16X2"
57159	Rear Arm Roll Tube Bracket Kit
56157	Short Arm Bar
57156	Short Rear Arm Extrusion
56143	Short Flex Arm
56155	Arm Extrusion
56145	Cotter Pin 1/8" Dia.
A0066	Clevis Pin 1/2" Dia. X 4"
56113	External Ring Steel 1-1/4"
56112	Machinery Bushing
56146	Torsion Spring
56147	Pivot Pin Bracket Weld
56110	Nylon Flat Washer
56148	Complete Pivot Pin Assembly
57142	Arm Fork Only



02: REQUIRED TOOLS

TO COMPLETE THIS INSTALLATION YOU WILL NEED THE FOLLOWING TOOLS:

- ½ inch Drill
- #3 Phillips Bit or Screw Driver
- Snap Ring Pliers
- ¼, 5/16, 11/32, 3/8, ½ inch Drill Bit
- 2 inch Hole Saw Bit
- 1 ¼ inch Hole Saw Bit
- Metal Cutting Tool (Sawzall recommended)
- Impact or Ratchet (1/2 or 3/8 inch drive)
- Standard Wrench Set
- Standard Socket Set
- Wire Stripper
- Crimper up to 6 Gauge
- Allen Wrench Set - Standard or Metric
- Level

03: ARM INSTALLATION INSTRUCTIONS

NOTE:

THIS KIT CONVERTS AN EXISTING MANUAL CRANK SYSTEM THAT HAS AN EXISTING LOCKING EXTRUSION ON THE ROADSIDE AND TARP STOPS ON THE OUTSIDE INTO A SINGLE-TOUCH SYSTEM.

PREPARATION

1. Roll the tarp to the covered position.
2. Remove the hand crank attachment from the back of the axle.
3. Remove the return mechanism(s) from the front and/or back of the axle.

NOTE:

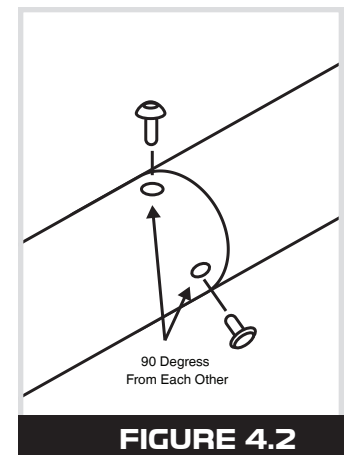
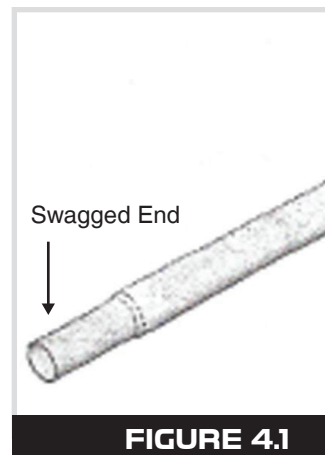
KEEP THE HANDLE ATTACHMENT. IF THE MOTOR IS DAMAGED OR THE SYSTEM CANNOT BE POWERED, YOU CAN REMOVE THE MOTOR, SLIDE THE ATTACHMENT ON TO THE ADAPTER AND PIN IT IN PLACE. THIS WILL ALLOW YOU TO USE YOUR HAND CRANK AS A BACKUP. (THE MOTOR ADAPTER WILL BE INSTALLED IN LATER STEPS.)

04: INSTALL TARP AXLE EXTENSION

1. Locate the 3' (36") Axle Extension. The Axle Extension will be swaged on the end. **See Figure 4.1.**
2. If the current manual tarp system has a front bungee return, remove the entire bungee cord, plastic guide, and 10' PVC tube from the front of your axle pipe and remove the eyebolt from the front of the Latch Plate.
3. Remove tarp clips along the length of the tarp axle tube and slide tarp axle tube forward 16 inches.
4. Insert the swaged end of the axle extension into the front of your tarp axle. If possible, weld axle extension to tarp axle and let cool fully before proceeding to next step. (If you cannot weld the extension into the roll tube, use the four ¼" x 1 ¼" self-drilling Phillips head screws that are included in fastener bag to attach the extension). Attach the axle extension to the tarp axle in at least four places at 90 degrees from each other. **See Figure 4.2.**

5. IMPORTANT: MAKE SURE WELD IS COOLED BEFORE SLIDING BACK INTO TARP.

Slide axle back into tarp and go to rear of trailer. Slide the tarp axle back until the end of the spline on the back of the axle is 19-22 inches away from the end of the tarp. When the distance at the rear of the trailer is set, go to the front of the trailer and measure 15-17 inches from the front of the tarp and mark the axle. Cut the axle at mark and remove excess material. Remove the burrs from the end of the axle that was cut. (On a slanted rear system the rear distance is 33-36 inches from the rear of the tarp and for a slanted front system the front dimension is 19 ½ inches from the front of the tarp to the extension end.



05: PIVOT INSTALLATION

FOR SINGLE ARM SYSTEM ONLY THE FRONT BRACKETS AND ARMS ARE INSTALLED.

1. On the front of the trailer, measure from the bottom of the tarp cap. For square-nosed trailers measure straight down approximately 21"- 25 ½" and put a mark on the front face of the trailer. This line should be as close to center as possible.

Refer to Figure 5.1. For slant nosed trailers measure approximately 25 ½" from the bottom of the tarp cap. **Refer to Figure 5.4.**

2. On the rear of the trailer, measure from the bottom of the tarp cap, straight down 21"- 25 ½" and put a mark on the rear face of the trailer as close to center as possible. **Refer to Figure 5.2.** For slant-nosed trailers, measure approximately 25 ½" from the bottom of the tarp cap. **Refer to Figure 5.4.**

3. Line up the top of the inner bracket with the top mark made in the previous step. Remove existing rivets that will be behind bracket (6 fasteners total). Align the holes in bracket with holes on the nose of trailer and bolt in place using four (3/8" Hex head bolts) provided. The pivot point can be +2" to roadside -1" to curbside from the horizontal dimensions shown.

4. Remove four of the rivets from the rear wall of the trailer (leave middle rivets in place) bolt in place using four (3/8" bolts, plastic washers) provided. The pivot point can be +2" to roadside -1" to curbside from the horizontal dimensions shown.

5. If you have a square-nosed trailer, bolt the outer brackets to the inner bracket using the four (1/2" hex head bolts, nylock nuts, washers) provided. It will appear as shown in the **Figure 5.3.**

NOTE: THE ANGLE OF THE BRACKET IS OPPOSITE THE LADDER SIDE ON BOTH THE NOSE AND REAR OF THE TRAILER.

6. If you have a slant-nosed trailer, bolt the outer brackets on using the two lower rear-most bolts. Then rotate the brackets down until the top holes on the outer bracket line up with the forward-most holes on the inner bracket. It will appear as shown in **Figure 5.4.**

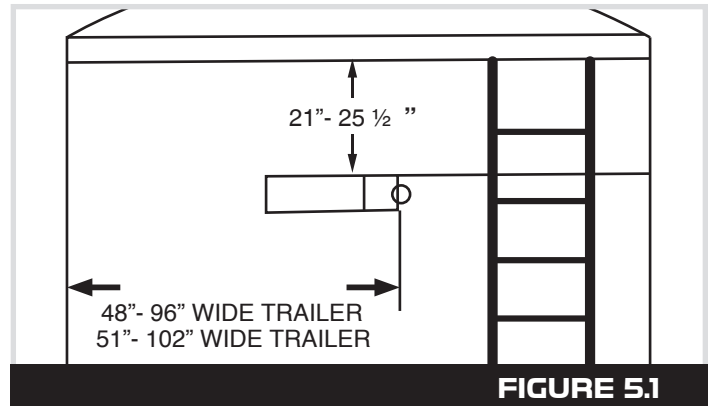


FIGURE 5.1

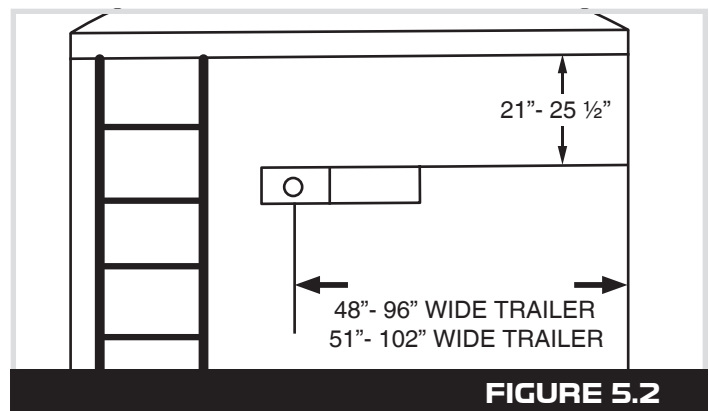


FIGURE 5.2

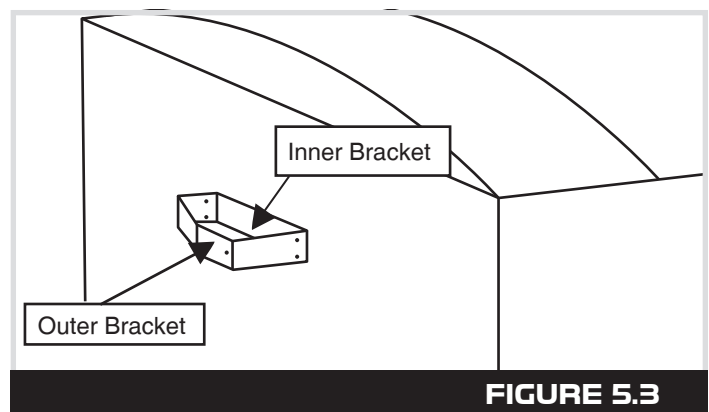


FIGURE 5.3

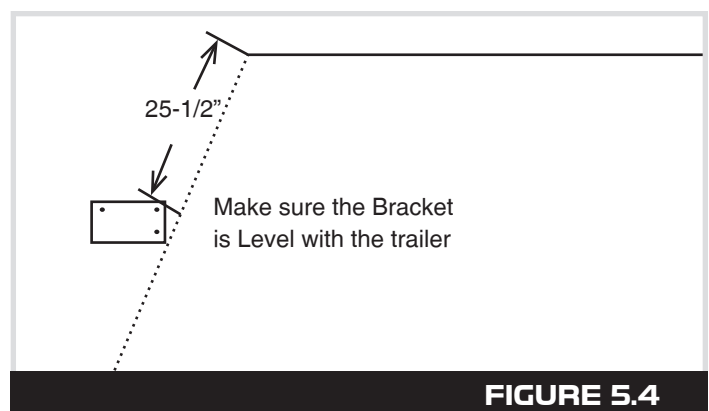


FIGURE 5.4

06: PLACEMENT OF CORNER LIGHT

Determine if you have the old style light.

1. If you have the old style light, unfasten light from corner radius of trailer.
2. Move light around the corner approximately 3"-4" or until the roll tube extension clears the light. **See figure 6.1.**
3. Refasten Light to corner radius of trailer.

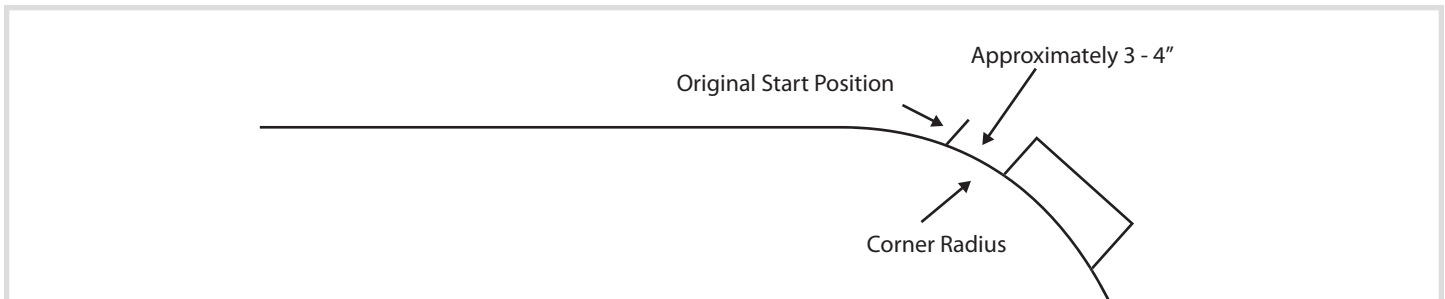


FIGURE 6.1

07: INSTALL THE FRONT ARM ON THE BRACKET

1. Place 2" PVC protector over extension pipe.
2. Take the front arm and lift it up to the bracket and place the 3/8" bolts through and tighten.
3. Next place the aluminum insert on the motor shaft. Line up the holes with motor and safety plate and place the 3/8" bolt through and tighten.
4. Drill one 3/8" hole through the extension pipe and aluminum insert. Place the supplied 3/8" bolt through the holes and tighten. **See Figure 7.1.**
5. Replace all U-Clamps and screws.

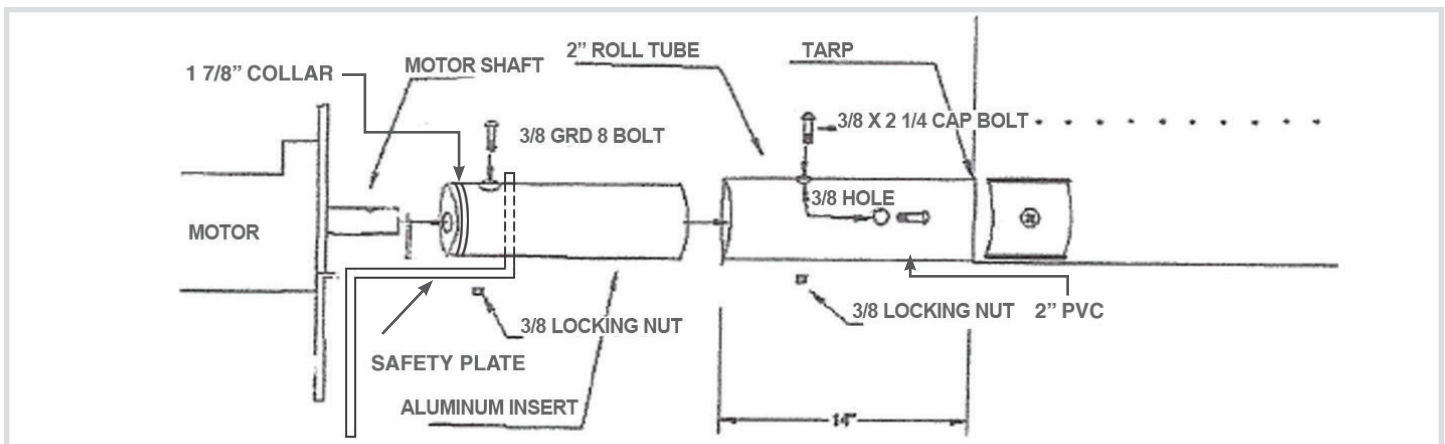
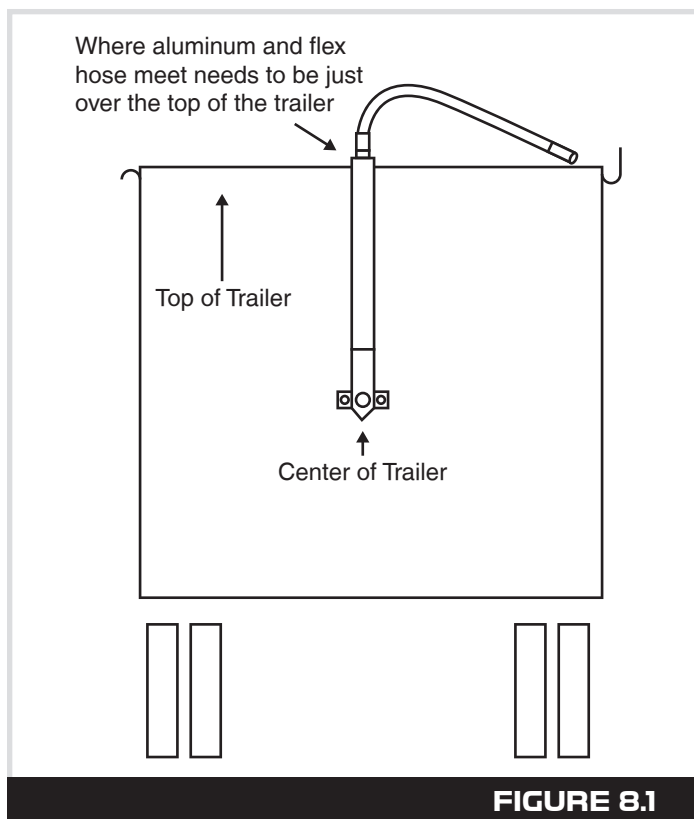


FIGURE 7.1

08: FLEX ARM INSTALLATION

1. First you will need to install the rear bracket.

Bolt the rear flex arm on the bracket; lift it up to the center of the trailer in the rear. Place it so where the aluminum and flex hose meet is just above the top of the trailer. Mark the four holes on the rear flex bracket, making sure the bracket is level and in the center. Mount the bracket using four 3/8 self-tapping bolts. Then attach the flex hose to the roll pipe by sliding the knuckle over the spline and inserting the lock pin.



09: CONTROL BOX WIRING

Make sure there is a plug from the battery to power the control box. If there is no plug, wire the tractor.

Box is pre-wired, if needed:

1. To wire the control box, take the positive and negative wires coming from the motor and feed them through the openings on the left of the control box.
2. Crimp an eyelet on the positive wire and the negative wire.
3. Attach the positive wire to the M1 terminal and the negative wire to the M2 terminal.



1. M1 Terminal Positive motor wire
2. M2 Terminal Negative motor wire
3. Red to Batter + terminal

*New style box will not have the +12 manual inputs

10: PROGRAMMING THE LOCKDOWN REMOTE.

The remote already comes programmed from the factory, but in a case where a new remote needs to be programmed, remove the lid on the control box. Press and hold the black button until it illuminates and release, then press the open button on the remote and release. The light in the box will blink and then go out. Your remote is now ready for use. When doing this, hold the remote an arms length away from the trailer.

11: MOUNT THE POWER RECEPTACLE AND CONTROL BOX

MOUNT THE POWER RECEPTACLE

1. Use a 2-inch hole saw bit to drill out a hole in the center of the trailer panel, towards the bottom, close to the air supply, for an easy hookup. This will be used for the power receptacle.

CAUTION:
MAKE SURE THE POLARITY OF THE WIRING FROM THE BATTERY IS THE SAME FOR THE PLUG GOING TO THE CONTROL BOX, OTHERWISE DAMAGE MAY OCCUR TO THE ELECTRICAL SYSTEM.

MOUNT THE CONTROL BOX

1. The control box will need to be mounted on the outside of the trailer in order to use the manual rocker switch. You can mount the box on the side of the ladder or on the face of the trailer. Use the 3/8" bolts to secure the box to the trailer.
2. You will then need to drill a 1 1/4" hole close to the control box so you can feed the wires through to the plug and also so you can feed the motor wires to the control box.
3. The other mounting option is to mount the box on the outside as stated in step 1 above, when mounted this way the wires can be ran outside of the trailer over to the control box.

12: WIRE THE TRACTOR

Pre assembled, but if needed:

1. Locate tractor wiring kit.
2. Remove the battery cover.

CAUTION:
MAKE SURE THE POLARITY OF THE WIRING FROM THE BATTERY IS THE SAME FOR THE PLUG GOING TO THE CONTROL BOX, OTHERWISE DAMAGE MAY OCCUR TO THE ELECTRICAL SYSTEM.

3. Take the supplied 6-gauge wire to the front of the trailer where the power receptacle is located.
4. Run the wire in a safe location to the battery.
5. Use zip ties to secure the wire in place.

CAUTION::
BE SURE TO STAY AWAY FROM THE DRIVE SHAFT OR ANY MOVING PARTS ON TRACTOR/TRAILER.

LEAVE ENOUGH LOOSE WIRE TO AVOID DAMAGE WHILE MAKING TURNS.

6. Cut off excess wire.
7. Strip the wire at the battery end and crimp the supplied eyelets onto the wire.
8. Measure back 8 inches. Cut the red (+) part of wire, strip, and crimp smaller eyelets on to each end of the wire.
9. Take the supplied 50 amp breaker and install it in the smaller eyelets.
10. Be sure to insulate the breaker from anything that may ground it out. You may put something around the breaker to protect it.

TROUBLE SHOOTING GUIDE

TARP WILL NOT DO ANYTHING.

[SEE OUR TROUBLE SHOOTING VIDEO ON SIOUXCITYTARP.COM](#)

1. Check all power connections from battery to motor.
2. Check the “Quick Connects”, coming off the control box going to both power and motor.
3. Check polarity on power supply going to the plug, make sure positive to positive and negative to negative.
4. Check power to the trailer, make sure you have a good 12 vt power coming from the tractor with a volt meter or test light.
5. Check the 50 amp short stop breaker coming off the battery. You may tie the 2 wires together to bypass breaker by putting both wires on the same post on breaker. If this solves the problem replace the breaker immediately. Do not run system this way with no breaker as it could cause fire.
6. Take a voltage meter or test light and place it on the motor terminals to check power going to the motor. If you have power to the motor you can also place jumper cables on the motor directly to test if motor is frozen or to open/close tarp in an emergency. If motor still does not turn you will need to replace motor.

REMOTE DOESN'T WORK BUT SWITCH DOES.

1. You must hold on/off button down for 10 seconds. Motor will jump indicating the remote is active for use.
2. Check the battery in remote if able to do so.
3. The remote may not be programmed to receiver

TO PROGRAM REMOTE.

Remove control box cover, press and hold the blue button until the red LED next to it illuminates and release. While the LED is on, press the Up arrow on the remote and release. The LED will flash and then go out. Now turn on your remote by holding down the ON button for 10 seconds and your system should work. When doing this, hold the remote an arms length away from the trailer.

* If remote still does not work you will need to replace remote

NOTE: REMOTE RANGE IS 100'



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"Quality tarp systems & replacement parts for over 44 years"



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