

# *Michel's*

## **SPUD COVER**

**ELECTRIC MODEL**

**INSTALLATION INSTRUCTIONS**

MICHEL'S INDUSTRIES, LTD.  
P.O. BOX 119  
ST.GREGOR,SK., S0K 3X0  
PH: 306.366.2184 FX: 306.366.2145  
EM:sales@michels.ca WWW.MICHELS.CA

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**PLEASE READ ENTIRE INSTRUCTIONS BEFORE BEGINNING THESE INSTRUCTIONS ARE FOR A STANDARD ROLLING TARP THAT LOCKS CLOSED ON THE DRIVER'S SIDE**

**Step 1: Front Hood Installation**

(See Figure 1)

**Procedure:** Center the front hood on the front wall of the box with the lower 1 inch flange (A) positioned flush against the outside front edge of the box. Using a 3/16" drill bit, drill 14 holes through the 1 inch flange and into the box wall (B) placing 2 holes at approximately every 15 inches (see Figure 1). Secure the front hood using the 1/4"x1" lag screws provided. Drill through the horizontal portion on each side of the front hood and secure using 1/4"x1" lag screws (C).

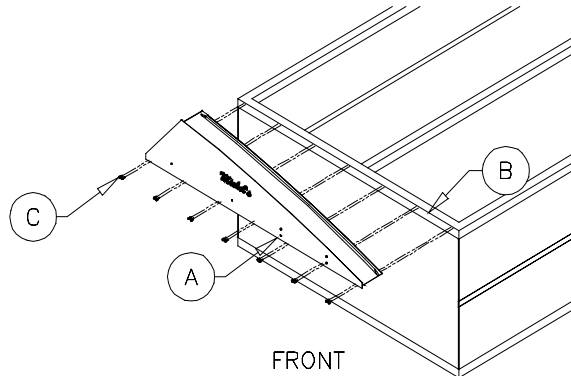


Figure 1

**Step 2: Rear Hood Installation**

(See Figure 2)

**Procedure:** Center the rear hood on the rear wall of the box with the lower 1 inch flange (A) positioned flush against the outside rear edge of the box. Using a 3/16" drill bit, drill 14 holes through the 1 inch flange and into the box wall (B) placing 2 holes at approximately every 15 inches (see Figure 2). Secure the rear hood using the 1/4"x1" lag screws provided (C).

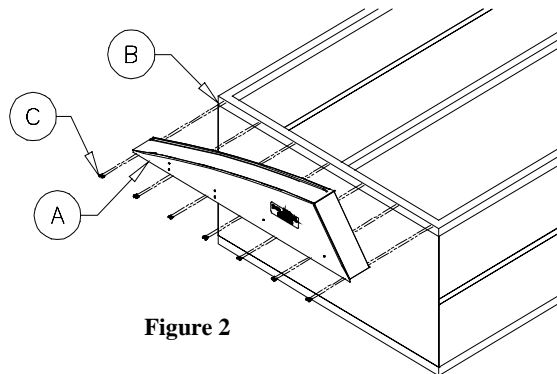


Figure 2

**Step 2A: Optional Hinging Rear Hood Installation**

(See Figure 3 - 4)

**Procedure:** Set the smaller piece of the hood (D) on the passenger side rear corner of the box. The edge of the hood (D) should be flush with the outside edge of the box. Secure the section to the top of the box using two 3/8"x1" bolts (1), 3/8" flat washer (2), and 3/8" nylon lock nut (3). Section (E) should then be attached to part (D) by hinge pin (F) into hinge part (G). Make sure the rear hood hinges outward easily.

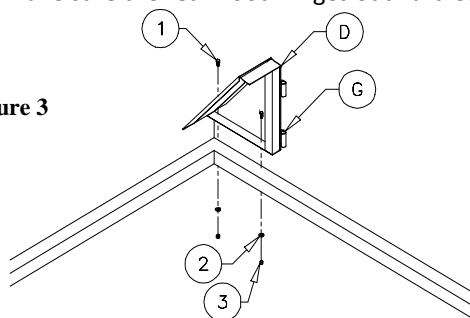


Figure 3

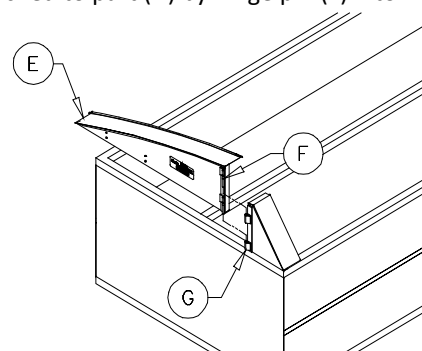


Figure 4

### Step 3: Locking Flange Installation (See Figure 5-8)

**Procedure:** The locking flange (H) is mounted either to the top or side (See Figure 8) or side (See Figure 5-7) of the box wall. This will depend on the make of the box you have. Pre-drill holes every 15" apart using a 3/16" drill bit. Secure using the 1/4"x1" lag screws (C) provided. The locking flange must run the entire length of the sidewall. The front locking flange may need to be notched in order to accept the sidewall latches. In most cases, this must be done on the rear as well.

**Note:** If there is a space between the flat (J) and the sidewall, a spacer (I) must be used behind the flats for support against the box wall. These spacers may need to be cut to length and must be secured using the 3/8"x3" hex bolts and 3/8" hex nuts provided.

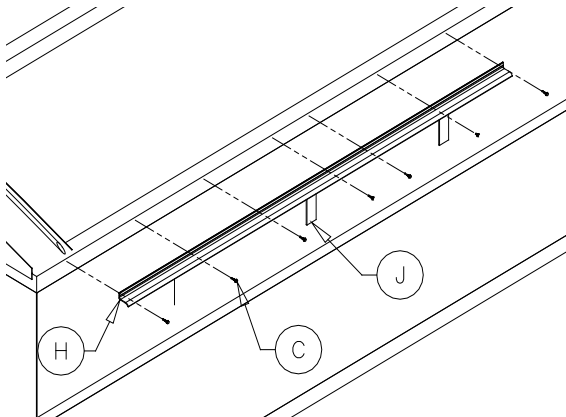


Figure 5

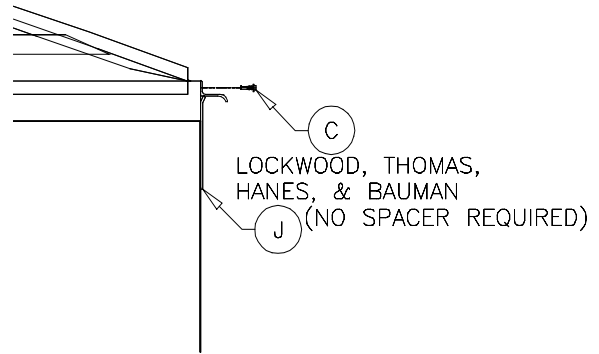


Figure 6

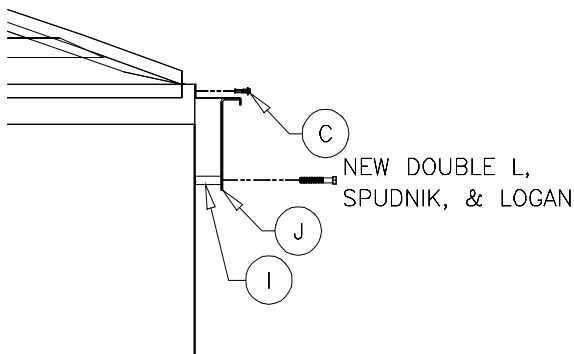


Figure 7

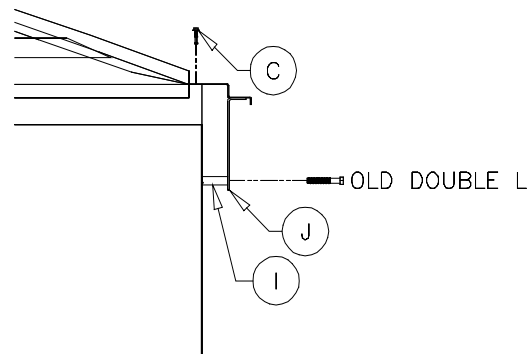


Figure 8

### Step 4: Sidewall Structure Installation (See Figure 9-10)

**Procedure:** Measure the outside distance from the front hood to the rear hood. Measure the length of the Support Wall Roll-tube (L) to make sure that it will fit between the hoods. The Support Wall Roll-tube should be 2" shorter than the distance that you measured from hood to hood. Cut off any excess material from the Support Wall Roll-tube if necessary. Slide the Support Wall Brackets onto the Support Wall Roll-tube. Fasten the Support Wall Roll-tube to the hoods using four 5/16"x2-1/2" truss head bolts (N) and 5/16" lock nuts. Evenly space the Support Wall Brackets between the hoods and secure to the top of the box wall using four 5/16"x1" self-threading bolts (M) provided (See Figure 9,10).

#### Step 4: Sidewall Structure Installation Cont.

The optional Spring Loaded Cross-Member must be placed onto the Support Wall Roll-tube before the Support Wall Roll-tube gets fastened to the hoods (See Figure 10).

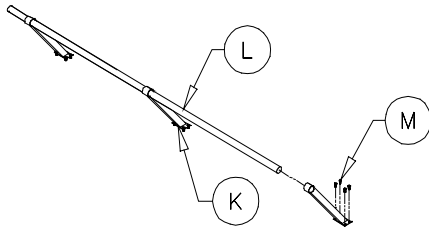


Figure 9

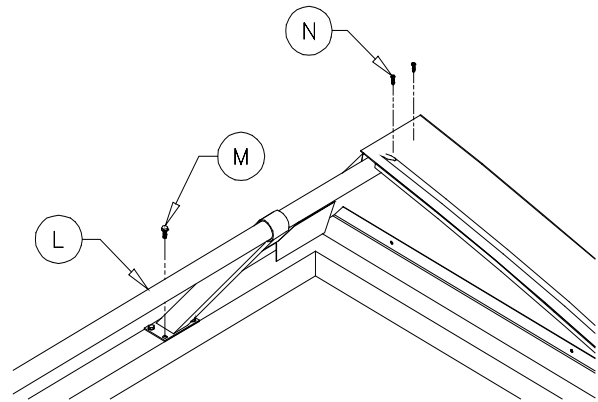


Figure 10

#### Step 4a: Spring Loaded Cross-Member Installation (Optional)

(See Figure 11, 12)

**Procedure:** Evenly space the Spring Loaded Cross-Members (O) on the Support Wall Roll-tube (L) between the hoods and Support Wall brackets (K) (see Figure 11). Adjust the Spring Loaded Cross-Members so that they are pointing upwards approximately at 10 o'clock. (Looking from the rear of the box) As the tarp opens, the Spring Loaded Cross-Members will spring upwards approximately 2ft above the tarp roll (See Figure 12). Tighten the 2" muffler clamp. The height of the Spring Loaded Cross-members can be adjusted to different heights to allow for more clearance. This will depend on what you are hauling.

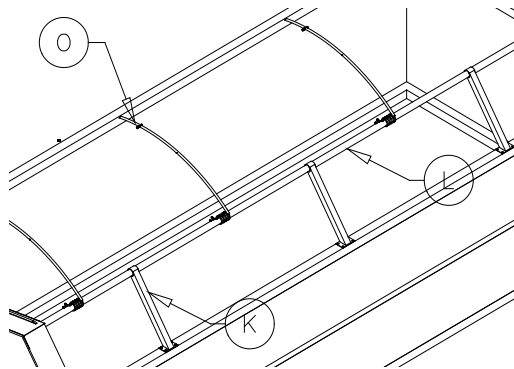


Figure 11

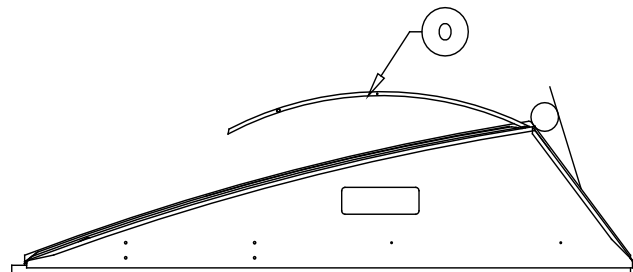


Figure 12

#### Step 5: Tarp Installation

(See Figure 13-15)

**Procedure:** Place tarp roll on the passenger side. Unroll the tarp material and place roll tube under the locking flange. Hold the roll tube in place by prying 2x4's underneath the roll tube. The pop rivets holding the tarp to the roll tube should be at a 45 degree angle away from the face of the front hood. When the tarp is tightened at this position, the pop rivets will be facing down. With the tarp resting on the top end caps, pull the front of the tarp snug while keeping it parallel to the hood wind deflector and keeping it 2" away from the face of the front hood.

**Note:** The tarp must be 2" away from the face of the front hood.(Figure 14)

### Step 5: Tarp Installation Cont.

On the inside of the tarp material you will find a flap of material. This flap must be slit on each support so it hangs toward the inside of the box. Standing on the outside of the box flip the tarp material upwards exposing the material flap. Using a scissors cut material flap on the center of each support. At the top of the cut make a hole approximately 1/2 x 2". This allows the material to fall freely toward the inside of the box. (Figure 13)

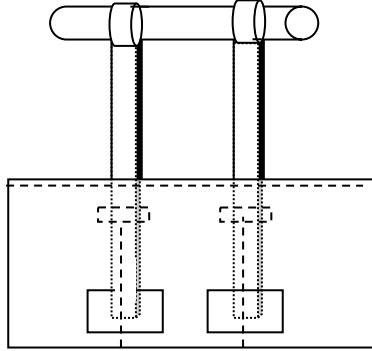


Figure 13

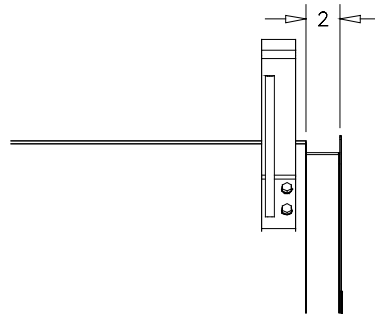


Figure 14

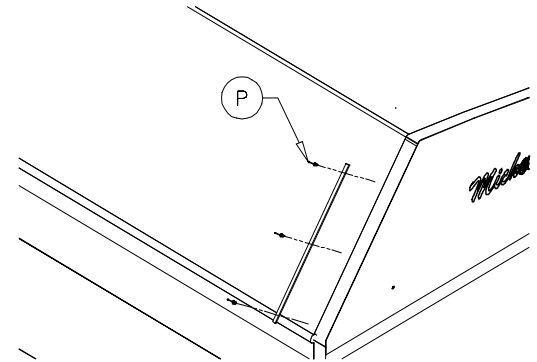


Figure 15

### Step 6: Tarp Stop Installation

(See Figure 16)

**Procedure:** Mount the tarp stops 2" down from the top of the Support Wall Brackets. Mount the tarp stops 2" down from the hood peak. Using a 1/4" drill, drill pilot holes through the tarp stop holes and into the Support Wall Brackets and hoods. Secure the tarp stops using two 5/16"x1" self-threading bolts (M) provided.

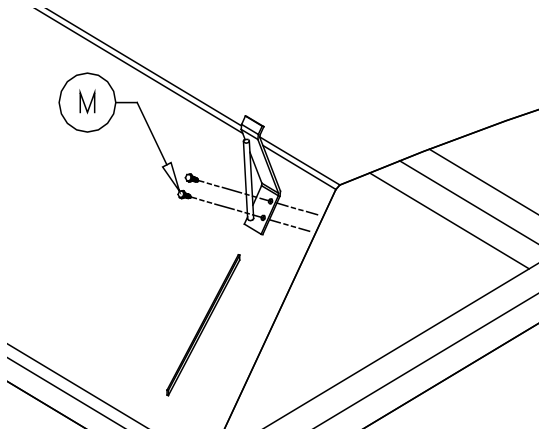


Figure 16

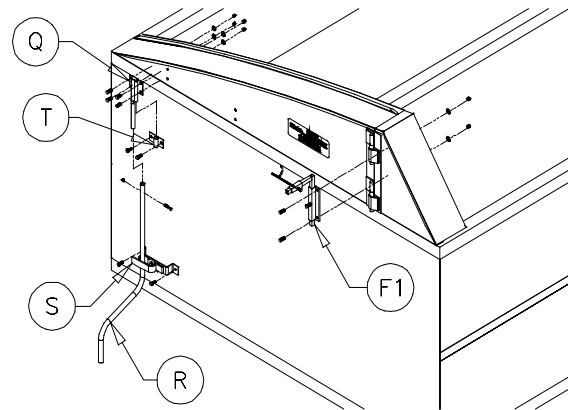


Figure 17

### Step 7a: Hood Lock Mechanism Installation (Optional)

(See Figure 17 above)

**Note:** Make sure there are no obstructions for the crank handle and the Crank Handle Holder Bracket.

**Procedure:** Mount bracket (Q) on the rear hood using four 3/8"x1" bolts approximately 11" to 13" from the front hood edge and parallel with the bottom of the hood. Slide bracket (T) onto pin directly below the top bracket (Q) making sure that the pin inserts into the bottom bracket. Secure using two 3/8"x1" bolts.

### **Step 7b: Crank Handle Holder Bracket Installation**

(See Figure 17) see previous page

**Special Note:** The location of the Crank Handle Holder and Crank Handle may need to be modified due to ladder or other obstructions.

**Procedure:** Slide the 8' Hinging Hood Crank Handle (R) onto the Hood Latch Pin with the Crank Handle facing towards you. Place the Crank Handle Holder Bracket (S) behind the Hinging Hood Crank Handle and secure using two 5/16"x1" self-threading bolts (M) provided. Cut the Hinging Hood Crank Handle to length and secure by drilling a 1/4" hole through the Hinging Hood Crank Handle and the Hood Latch Pin. Secure with a 1/4"x1-3/4" bolt and 1/4" nylon lock nut.

**Note:** The Hinging Hood Crank Handle's position may need to be adjusted in order to have clearances around your ladders and other obstructions you may have on your box.

### **Step 7c: Cable Guide Installation (Hinging Rear Hood)**

(See Figure 17) see previous page

**Special Note:** The cable guide is adjustable.

**Procedure:** Roll the tarp to the open position. Mount the cable guide on the right side of the hinge on the passenger's side hinging hood. Make sure the hook will catch the cable when it is swung to the open position. Adjust accordingly.

### **Step 8: Holdback (Tension Control Unit) Installation**

(See Figure 18&19)

**Note:** The square tubing with the spring, cable, elbow guide, and brackets are pre-assembled. The U-Bolts are not tightened. This allows you to adjust the position of the elbow guide with the beveled pulley.

**Procedure:** Take tension control unit (square tubing) (U) and brackets (V) and position on the front hood. The square tubing may slide in either direction so that it may be adjusted accordingly later. There are two different sizes of holdback brackets. A 2" offset and a 3" offset. These holdback brackets may be used for the front or the rear depending on which needs more clearance. The top of the nylon cable guide, which is inserted in the elbow of the holdback tubing, should measure 7"-8" from the top of the box. The outside of the elbow cable guide should be located 2" from the box sidewall. If a spacer is required, then the 2" is measured from the locking flange flat (J). Mount holdback brackets to the front of the hood and align inside Hood Flange to the inside of the front hood and secure. Do the same for the rear hood.

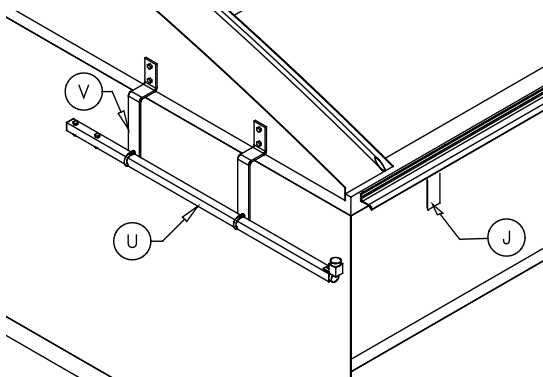


Figure 18

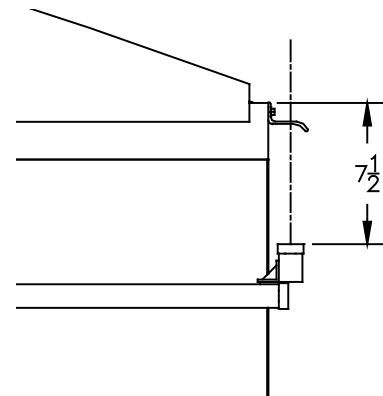


Figure 19

### Step 9: Mounting the Motor and Pivot arm Assembly (See Figure 20-21)

Procedure: With the tarp in the closed position, slide the beveled pulley marked front standard (O) onto the front of the roll tube shaft and the pulley stamped front reverse onto the back. Mount the motor (B) to the electric bracket (C) with 5/16"x3/4" hex bolts and lock washers as shown. Mount the pivot arm bracket (D) to the front of the box at the bottom. Center the bracket and secure to the box with 3/8"x1\_1/4" self-threading bolts by drilling 5/16" holes through the predrilled holes in the bracket. Slide the front beveled pulley onto the rolltube. Slide the motor assembly into the front of the rolltube and swing the arm down in between the box and the cab. Slide the bottom pivot arm (E) into the tubing of the electric bracket. Secure the bottom pivot arm to the bracket with 3/8"x1-3/4" bolt, washers and nylon lock nut. Drill a 5/16" hole through the rolltube and the predrilled hole in the motor shaft, approximately 1" from the bracket. Make sure the pivot arms are running parallel with the box and not leaning in or away from it. Secure together using a 5/16"x2\_1/4" hex bolt and jam nut. The 1/4"x3/8" set screws in the front and rear beveled pulleys are to be tightened in Step 12.

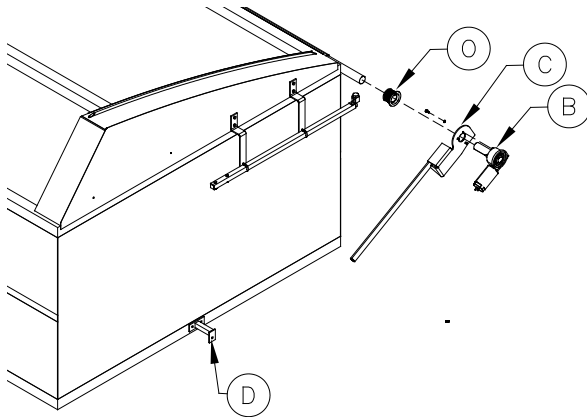


Figure 20

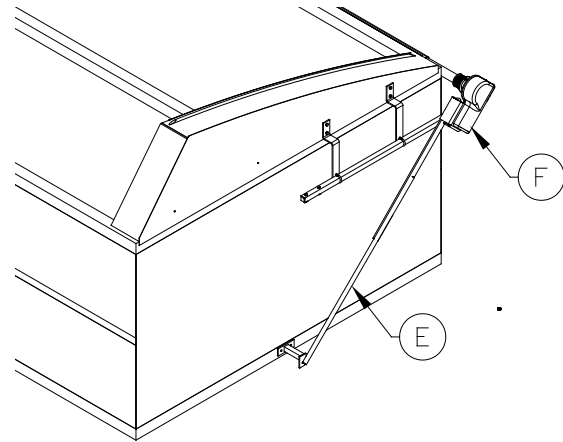


Figure 21

### Step 10A: Rocker Switch Electrical Installation (See Figure 22)

**Note:** Apply the supplied Dielectric Lubricant to all wire connections when each wire is hooked up. The Dielectric Lubricant will help to prevent corrosion.

**Procedure:** Mount the rocker switch in an obstruction free area inside the truck cab. Then mount the solenoid on the frame near the cab of the truck. Run the #6 double strand wire from the solenoid along the truck frame to the rear box hinge point. Now run the wires along the box frame to the front box sill. Leave a slight amount of slack at point (D) (see Figure 20) and continue running the wire along the pivot arm. Secure the wire to the top pivot arm (C) with the tie straps provided. Attach the wire to the truck with the wire clips and 1/4"x1" self-tapping screws that are provided. The ends at the solenoid both get a black rubber boot and a #6-1/4" stud crimped on. Splice a 50amp circuit breaker in line with 1 of the wires running from the motor to the socket or solenoid. Connect the wires to the motor posts. Secure the motor cover to the motor with the 2 screws provided. Run the 14-3 wire from the solenoids to the rocker switch. At the switch, each wire gets a 14G female end crimped on and at the solenoid each wire gets a 14G female end except for the wire connected to the middle post of the switch gets a 14G-3/8" ring terminal crimped on to connect to the positive (+) post of the solenoid. Follow wiring schematic below (Figure 22). Raise and lower the hoist to make sure that the wires are free from obstructions. Run #6 wire from the solenoid to the battery posts. The wire with the red stripe will be the positive wire and will get bolted on the positive post marked (+) along with the black 14Ga wire running from the switch. The black wire or negative wire will be bolted onto the bottom negative post (-). Put the 50A circuit breaker in line with the positive wire. (See Figure 22)



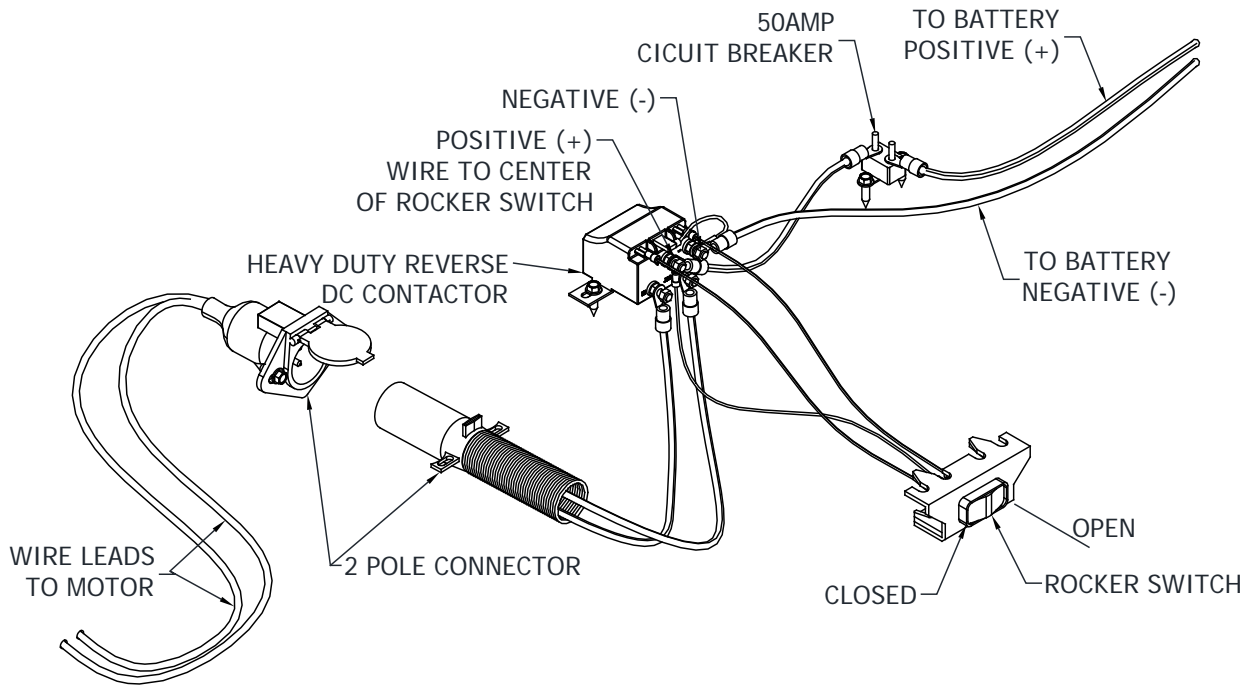


Figure 22

### Step 10B: Wireless Remote Electrical Installation

(See Figure 23)

#### Lead B-Train/Single Trailer Mounted Wireless Remote instructions

1. If the trailer is a closed front, drill a 2" hole in the front of the trailer and mount the supplied two pole female connector. If the trailer is an open front, mount the female connector on the top side of the frame.
2. Apply the supplied Dielectric Lubricant to all wire terminal connections as each wire is hooked up.
3. Mount the wireless remote box on the front of the trailer making sure that the switches will still be accessible.
4. Hook the red wire to the + positive post and the black wire to the - negative on both the two pole connector and the remote box. Make sure to crimp, solder, and use the shrink tubes on the female trailer connector. Install the Red rubber boot on the positive wire at the remote box and a Black rubber boot on the negative wire.
5. Connect the wire to Motor 1 and 2 on the remote box and run the wire to the electric motor. Use the remaining two black rubber boots at the remote box.
6. Connect the black wire from negative post of the battery directly onto the NEG- terminal in the male trailer connector. Mount the 50A circuit breaker as close to the battery as possible. Connect the red wire from the positive post on the battery to the circuit breaker and from the circuit breaker to the POS+ terminal in the male trailer connector. When installing the wires into the male trailer connector, the provided wire sleeves must be used on the end of the wires. It is required that the connection then be crimped, soldered, and the shrink sleeve installed. Double check that the positive and negative wires match the trailer plug. If these wires are crossed it will damage the wireless remote box.
7. Power the hand held remote on and press the open and close buttons to make sure that they work correctly. Also check the buttons on the remote box. If the motor runs the opposite direction as desired, reversed the wires that are connected to MOTOR 1 and 2.

### Rear B-Train Mounted Wireless Remote instructions

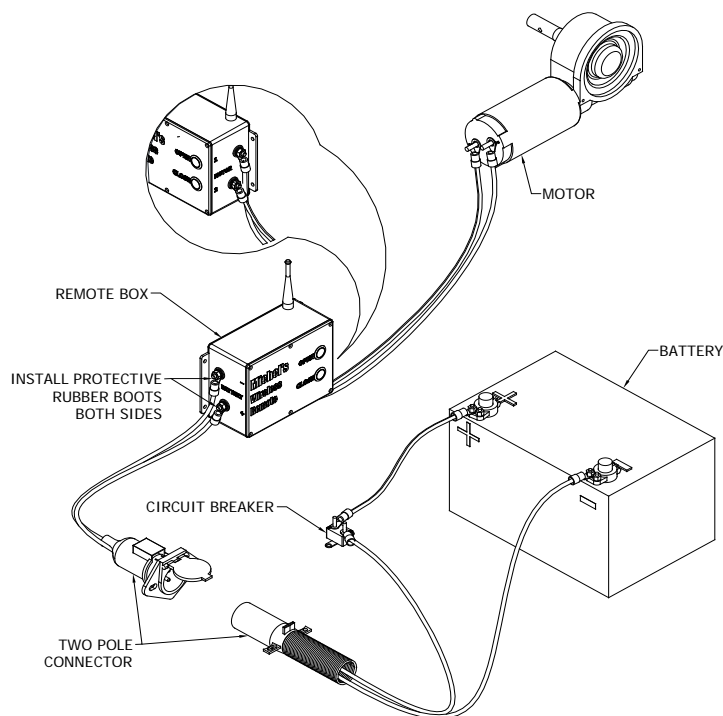
1. The two pole connector on the lead trailer is shared by the lead and rear trailer.
2. Run #6 wire from the two pole plug on the lead trailer to the rear of the lead trailer.
3. Wire the rear trailer the same as the above instructions for a single trailer.

### 3 Ton Truck Mounted Wireless Remote instructions

1. The instructions for a 3 Ton Truck are similar to the instruction for a trailer mounted Wireless Remote, with two exceptions.
  - a. Exclude the two pole connector and run the power wires direct from the battery and circuit breaker to the wireless remote box.
  - b. Mount the wireless remote box in a location where it won't be in the way and the buttons will be accessible.

**Note:** *If wiring is hooked up incorrectly it will void your warranty.*

### Trailer Mounted Wireless Remote Diagram



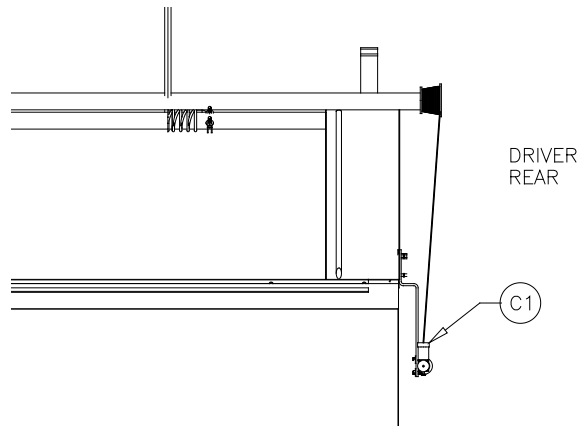
**Figure 23**

### Wireless Operation

Press and hold the power button on the transmitter until both LED's turn on, then release. The green LED will flash rapidly when communication has been established with receiver. The green LED flashes slowly if the receiver is off or there is no communication between the transmitter and receiver. Turn the receiver on and press the corresponding buttons on the transmitter keypad to turn on and off each of the outputs. Only one receiver can be operated at a time.

**Step 11: Beveled Cable Pulley Installation & Tension Control Adjustment.**  
(See Figure 24)

**Procedure:** With the tarp in the open position, slide the beveled pulley marked FRONT STANDARD so there is approximately 2" to 3" from the beveled pulley small flange to the face of the front hood. Pull the cable from the front holdback system towards the beveled pulley stamped FRONT STANDARD and insert the cable end into the pulley slot and rotate the beveled pulley 3 to 3-1/2 turns. Rotate the pulley from the underside of it and on the large diameter of the pulley. Secure the pulley to the roll tube with the 1/4" set screws. Repeat for the rear beveled pulley. Roll the tarp open and closed several times checking each time to make sure that the cable follows in the pulley grooves and the tarp rolls evenly. If the tarp DOES NOT roll evenly, roll tarp to open position, adjust the position of the beveled pulleys in or out until the proper position or loosen the 1/4" set screws in the front and rear pulley and increase the cable wrap slightly. This will increase the tension. Do not allow the pulley to have less than one complete wrap of cable when the tarp is in the open position. If the tarp is still not rolling evenly, check the alignment of beveled pulley with nylon cable guide.



**Figure 24**

**WARRANTY:**

Michel's Industries warrants their products for a period of one year from date of purchase. Any parts returned to Michel's Industries LTD. Will be shipped prepaid and will be returned F.O.B. St.Gregor, Sk. Canada. We will not assume responsibility for shipping, labor or travel expenses.

**Note:** We reserve the right to make improvements; therefore specifications are subject to change without notice.