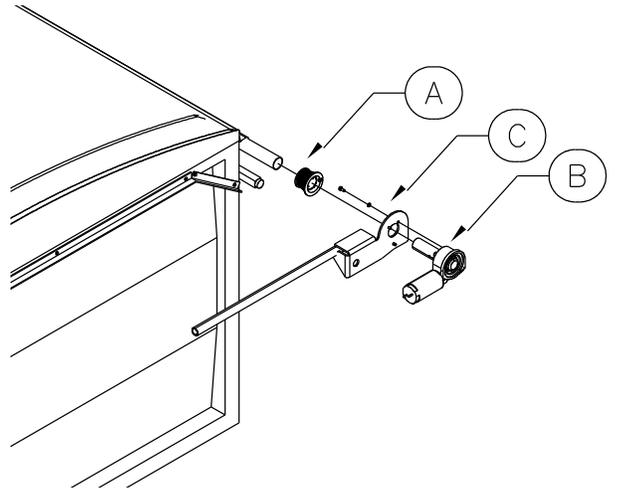


MIC210 Electric Farm Conversion Instructions

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

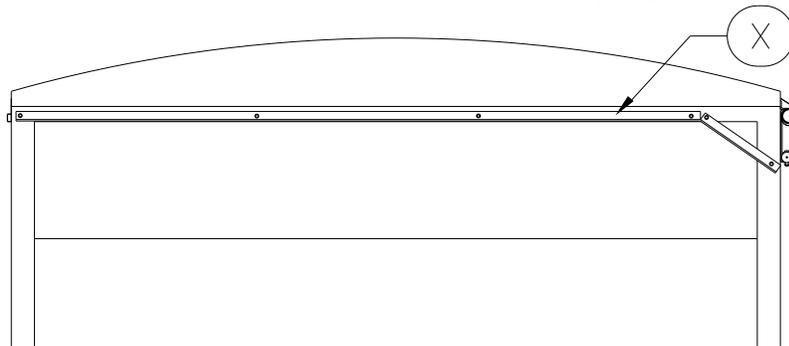
Step 1: Disassemble

With the tarp all the way open, make a note of the number of wraps of the tension cable on the front pulley (A) and measure the distance from the pulley to the tarp. Now you can loosen the pulley and remove it from the roll tube.



Step 2: Electric Pivot Arm Guide

Procedure: The electric pivot arm guide (X) is an aluminum angle with one end bent down. Place on the front of the box against the top rail of the box with the bent end on the driver's side. The bent end should be so it is just under the square tubing of the holdbacks (see below). Secure to the box with 1/4"x1" lag screws. You may need to bend it more and shorten the length if necessary.



Step 3: Roll tube Preparation

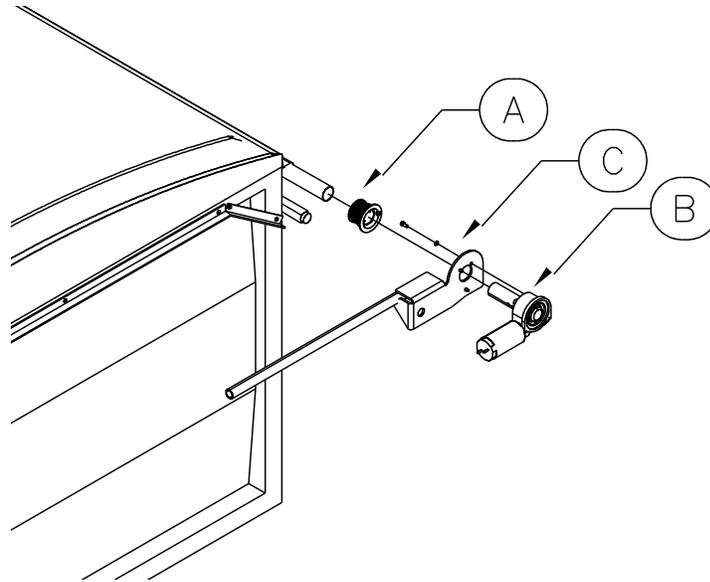
If the roll tube does not stick at least 4" past the front of the box you will need to cut the roll tube back and weld the supplied roll tube extension into the front of the roll tube. The minimum length of the extension piece can be 5-1/2" to the weld. After the roll tube extension is welded in, cut the front of the roll-tube so it sticks 4" past the front of the box.

Step 4: Reinstall the front bevel pulley in the same location and wraps as were noted previously in Step 1.

Step 5: Electric Motor Installation

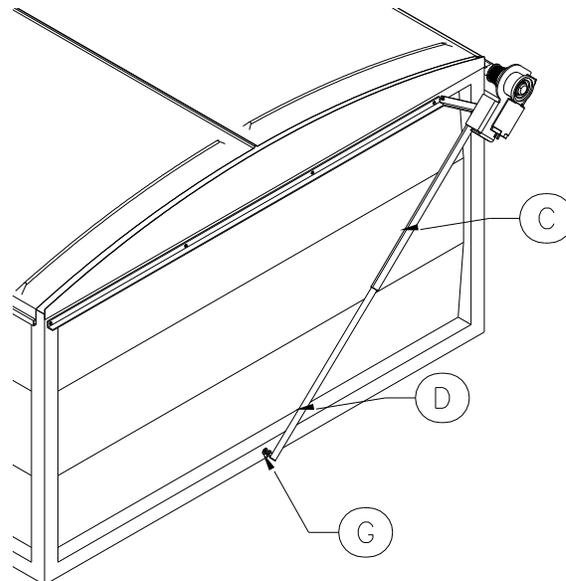
Note: The front beveled cable pulley (A) is stamped **FRONT STANDARD** and the rear beveled pulley is stamped **FRONT REVERSE**.

Procedure: Mount the motor (B) to the electric bracket (C) with 5/16"x3/4" hex bolts and lock washers as shown. Slide the motor assembly into the front of the roll-tube and swing the arm down in-between the box and the cab. Drill a 5/16" hole through the roll-tube and the predrilled hole in the motor shaft, approximately 1" from the bracket. Secure together with 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 10.



Step 6: Pivot Arm Installation

Procedure: To locate the pivot point on the front of the box, make a mark on the bottom sill of the box in the middle of it. Note: Drill a 3/8" hole at pivot point (G) and slide the 1" round tubing (D) into the tubing on the electric bracket (C). Secure the bottom tubing to the box with a 3/8"x4_1/2" hex bolt, 3/8" washers and nylon lock nut.



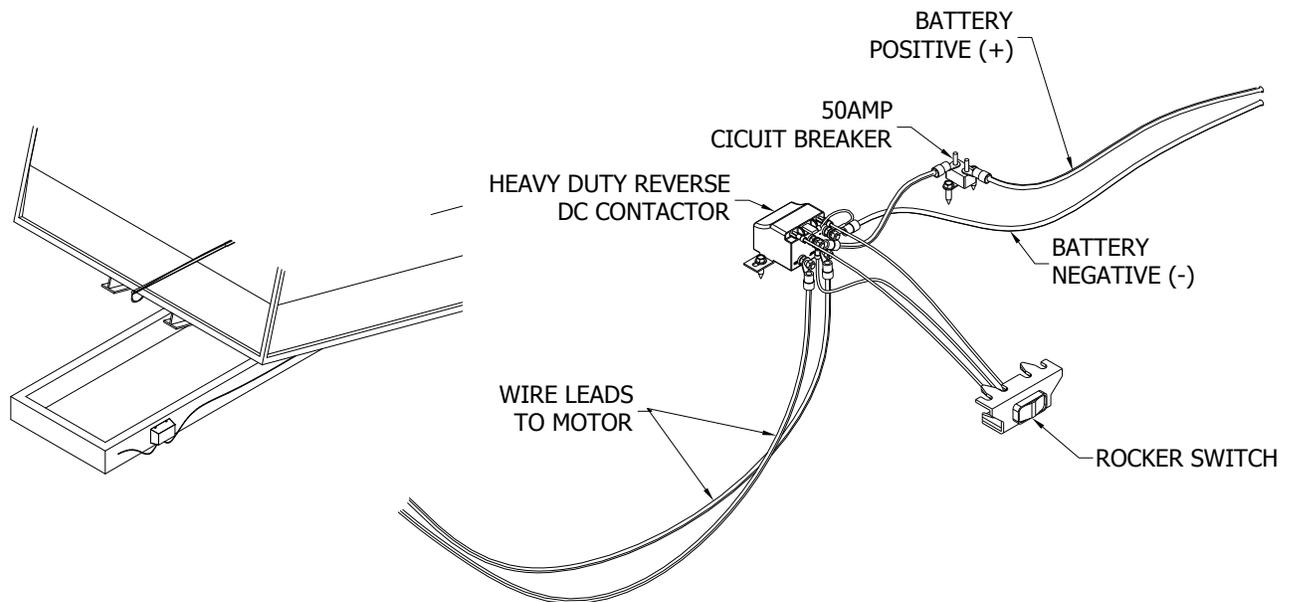
Step 7.1: Rocker Switch Electrical Installation

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. Mount the solenoid on the truck near the cab/batteries. 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 (G) and continue running the wire along the pivot arm. Secure the wire to the top pivot arm (I) 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. Connect the wires to the motor posts. The ends at the solenoid both get a black rubber boot and a #6-1/4" stud crimped on.

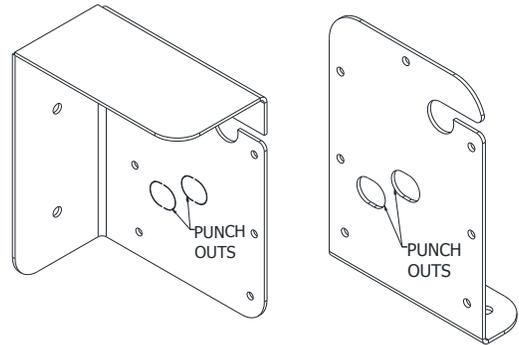
Step 7.1: Rocker Switch Electrical Installation Cont.

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-1/4" ring terminal crimped on to connect to the positive post of the solenoid. Follow wiring Schematic below, 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. Once everything is wired secure the motor cover to the motor with the 2 self-tapping screws provided.

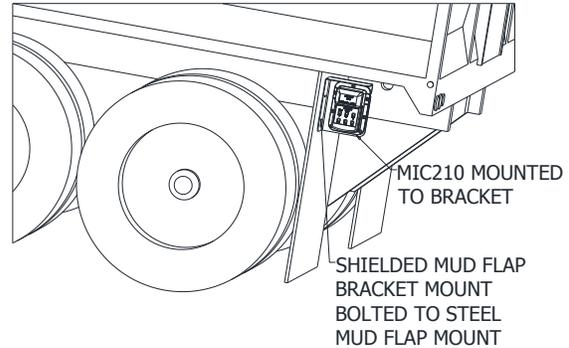
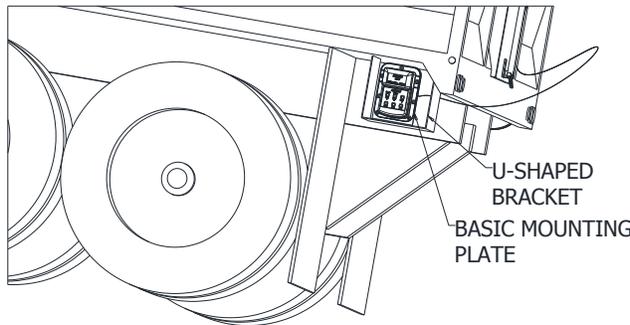


Step 7.1.1: MIC210 Control Box Installation

Depending on the grain box, two different mounting brackets may be used. If the grain box already has a large 'U'-shaped bracket which houses air controls, use the basic plate. If not equipped with this 'U'-shaped bracket then the shielded bracket which mounts to the back side of the mud flap bracket should be used. The MIC210 Control Box mounting plate will be mounted to the box using the 3/8" bolts provided. Wire in the power wire and the electric tarp motor wires (if applicable) before securing the MIC210 Control Box to the mounting plate.

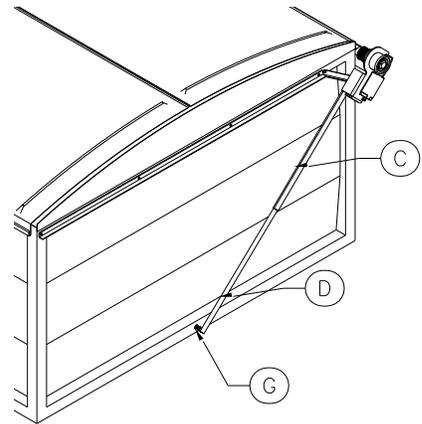


Shielded Mud Flap Bracket Mount Basic Plate

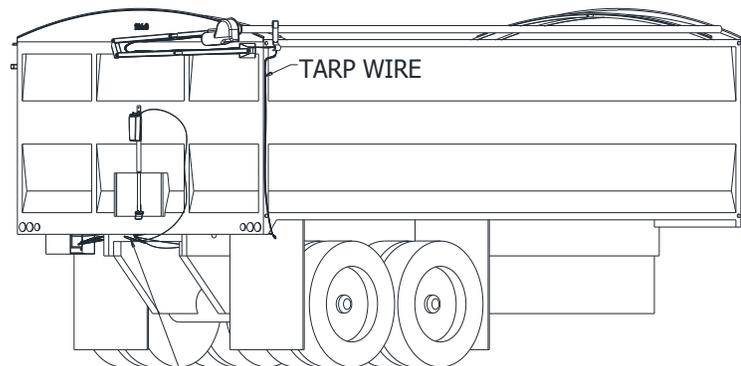


Step 7.1.2: Wiring the MIC210 System on a grain truck equipped with an electric tarp

Run 6 AWG wire from the battery underneath the truck, along the frame to the MIC210 control box. Make sure the inline circuit breaker is connected to the positive wire near the battery, **but do not connect to the battery until all wire ends are connected correctly to refrain from shorting anything out.** Once the wires are installed and secured to the truck, thread the wires through the appropriate hole (described below) of the mounting plate coming in from behind the plate. Remove the punch outs with a chisel and hammer. Place a grommet in each of the slots to protect the wires. Run the

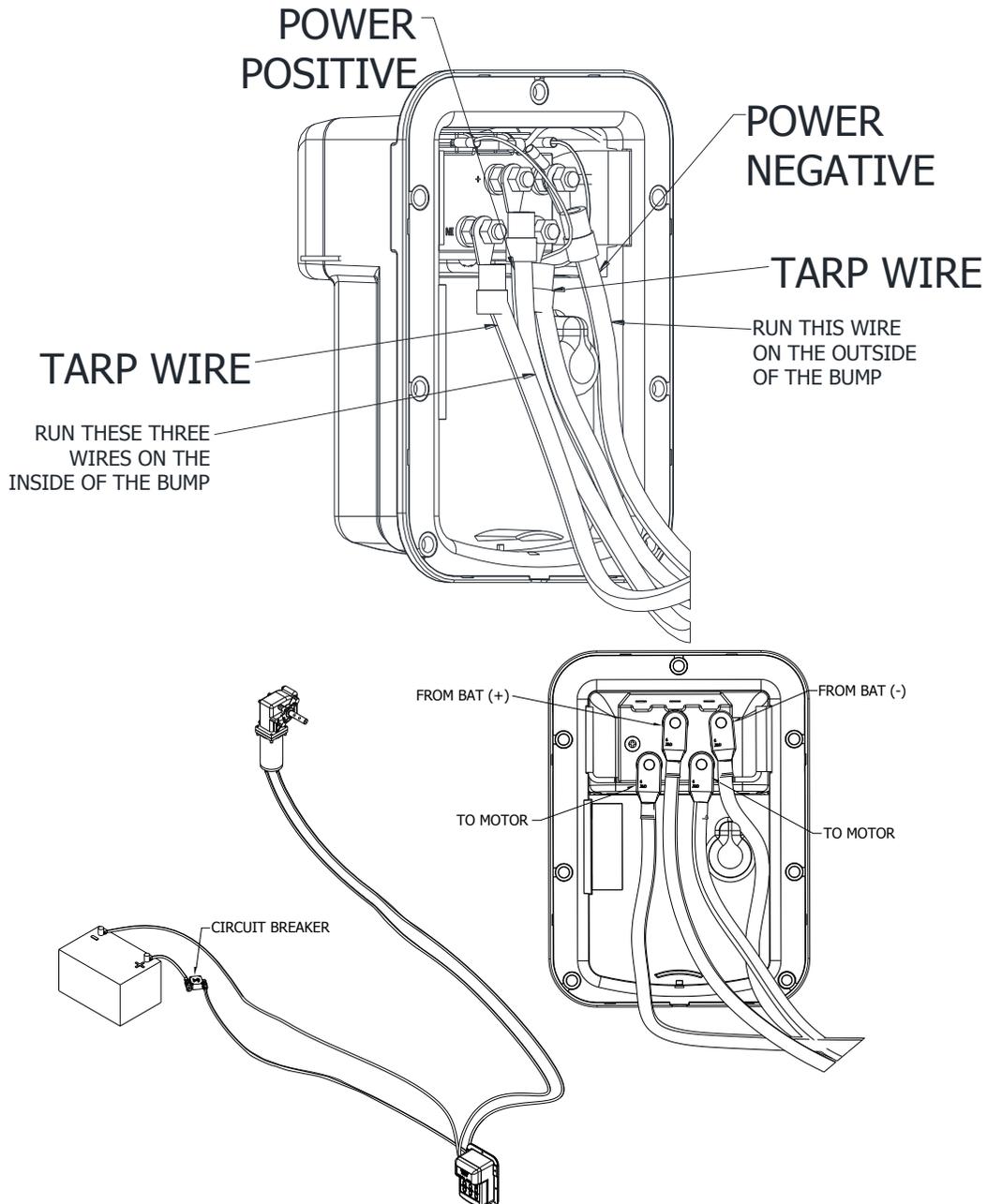


#6 double strand wire from the MIC210 box along the truck frame to the rear box hinge point. Now run the wires along the box frame to the front box sill. Leave a slight amount of slack at point (G) and continue running the wire along the pivot arm. Secure the wire to the top pivot arm (I) with the tie straps provided. Attach the wire to the truck with the wire clips and 1/4"x1" self-tapping screws that are provided.



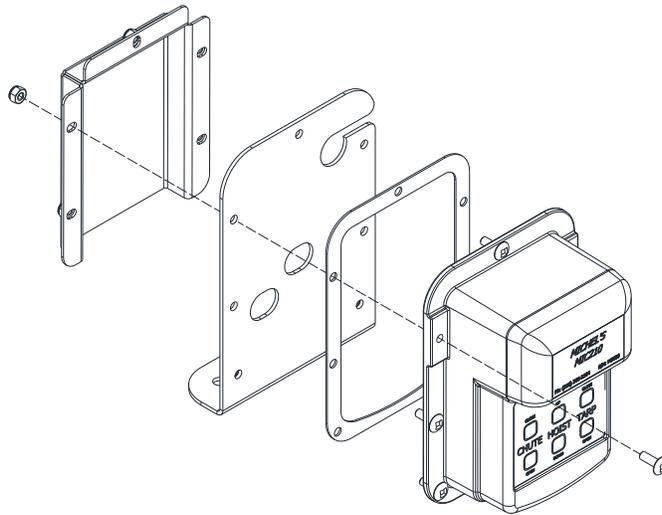
WIRES THROUGH HOLE IN THE FRAME

Connect the wires to the motor posts. The ends at the MIC210 box and the motor all get a #6-1/4" stud crimped on. These motor wires thread through the middle hole on the mounting plate. The incoming power wires thread through the bottom hole of the bracket. Make sure the grommets have been installed to protect the wire. The third hole at the top of the bracket is for the hoist and the Power Pro leads. Slide them into the top hole using the slot. The third grommet will need to be split using a pair of side cutters or a knife. Wrap the split grommet around the actuator and hoist leads. Then insert it into the top hole. Next, connect the power wires to the solenoid. The positive wire goes on the positive post (top left) of the solenoid. The negative wire goes on the negative post (top right) of the solenoid. Then, connect the tarp motor wires to the solenoid. These wires connect to the remaining bottom posts on the solenoid. It does not matter which wire goes where on these two posts. If they end up being backwards to the remote there is a very simple setting in the remote which can reverse them without having to physically switch the wires. Please see the R200 Remote instruction manual, Section 4.2.2. **There is a specific way in which the 6 AWG wires must be positioned in order to fit inside the MIC210 Control Box.** Please refer to the Diagram on the next page. Once all the wires are connected to the MIC210 box connect the wires to the battery to ensure everything works before carrying on to securing the box to the mounting plate.



Securing MIC210 Control box to Mounting Plate

Start by mounting the control box and gasket to the mounting plate by using the bottom two holes in the control box, this will aid in holding everything in place before you install the back cover. Next make sure your wires are still remaining in the correct positions according to the diagram to refrain from pinching anything, install the back protective cover using the remaining five holes in the control box.



Step 8: Beveled Cable Pulley Installation & Tension Control Adjustment

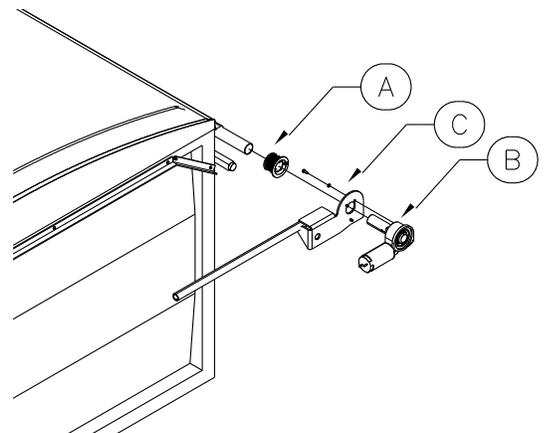
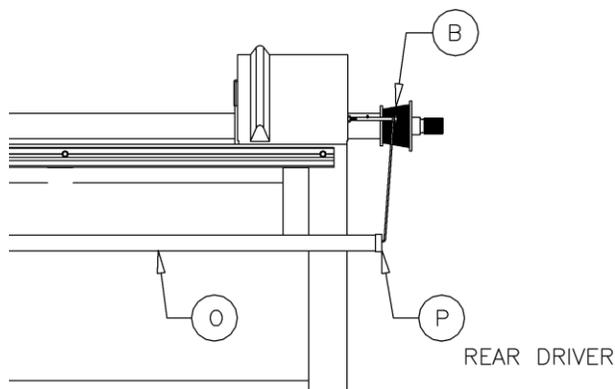
Procedure: Roll the tarp to the open position.

1. Installing cable onto rear beveled pulley:

Pull the cable from the rear holdback system (O) towards the rear beveled pulley stamped FRONT REVERSE (B). Insert cable end into pulley slot and rotate beveled pulley 1-3/4 turns for an 8-1/2ft box or 2-1/4 turns for an 8ft box. Rotate the pulley from the underside of it on the large diameter. Properly position the beveled pulley on the roll-tube so that the nylon cable- guide (P) on the holdback lines up with the small diameter on the pulley. Tighten the 1/4"x3/8" set screws (B) to hold the pulley in place.

2. Installing cable onto front beveled pulley:

Pull the cable from the front holdback system towards the front beveled pulley stamped FRONT STANDARD (A). Repeat the rear beveled pulley procedure. 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 cable does not follow in the grooves, move the beveled pulley in or out until the correct position is achieved. If the tarp does not roll evenly, roll the tarp to the open position; loosen the 1/4"x3/8" set screws in the front and rear pulleys and increase the wrap. 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.



Optional Manual Override

Step 1: Remove the motor cover and disconnect the motor from the power supply.

Step 2: Remove the plastic cap covering the manual input shaft. **Do not use the manual override when the motor is running or the motor is connected to the power supply.**

Step 3: Using a 1/2in socket and a speed ratchet or impact driver, simply slide onto the manual input shaft and drive the gearbox as needed. Keep in mind that 90 revolutions of input will result in one revolution of output.

Step 4: Remove the driver and re-install the plastic cap.

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 by the customer and will be returned F.O.B. St. Gregor, Sk. Canada. We will not assume responsibility for shipping, labor or travel expenses. Please Note: We reserve the right to make improvements; therefore specifications are subject to change without notice.

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

The enclosed device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (i.) this device may not cause harmful interference and (ii.) this device must accept any interference received, including interference that may cause undesired operation.

Contains FCC ID: MCQ-XB900HP

Contains IC: 1846A-XB900HP

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

*****For Remote Operation and Programming functions refer to the R200 Remote Instruction Manual Section 8.0.0*****

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