EVOLUTION

ELECTRIC CONVERSION

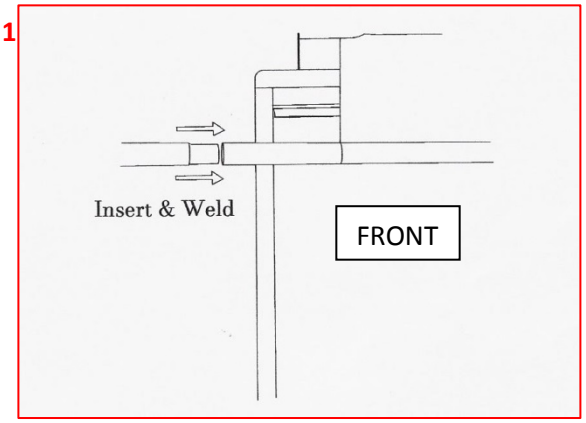
STEP 1 Prepare Trailer for converting system

With tarp rolled to covered position, remove crank assembly and the front roll return assembly (also remove rear return assembly if applicable). Remove all u-clamps attaching the tarp to the roll pipe. A 36" roll tube extension supplied with kit should be installed now. This can be done by:

Option 1) sliding the roll tube out of the front of tarp 12-15" and inserting swagged end of extension, welding and grinding smooth. *OR*

Option 2) remove pipe completely and complete this step on floor or bench (PIC 1)

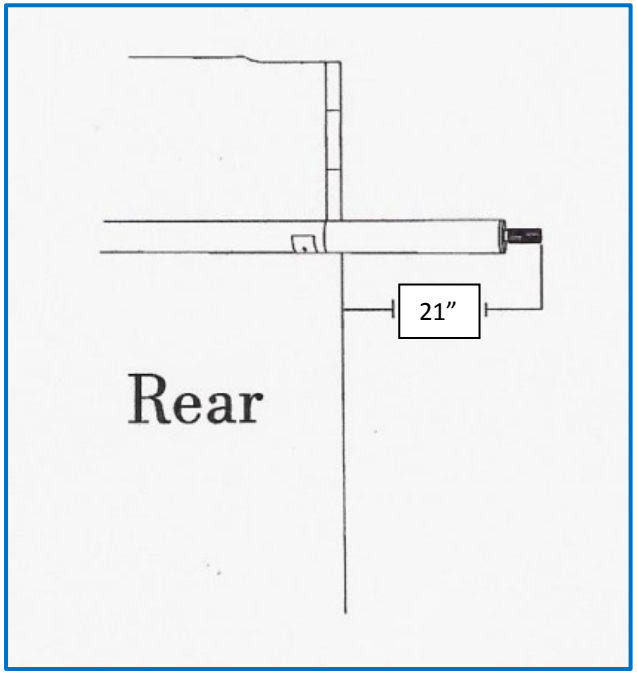
PIC 1



When completed, slide roll tube back until end of spline shaft is 21" past rear of trailer. (PIC 2)

NOTE: If this is a single arm system, this measurement will be 8-10" or as far out as needed to clear a rear ladder.

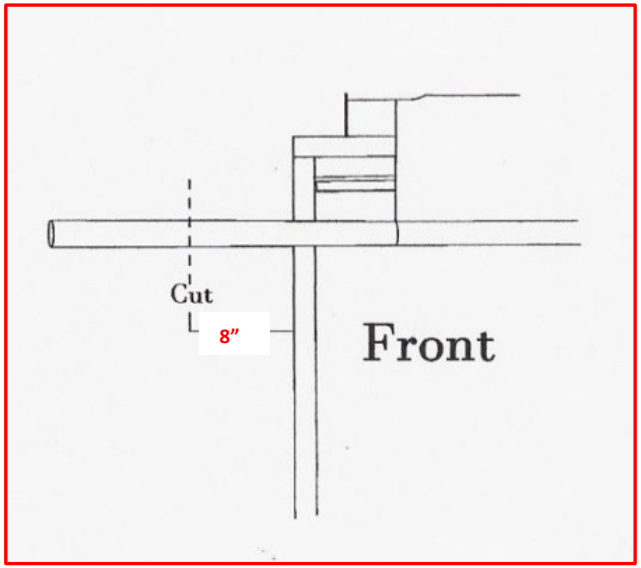
PIC 2

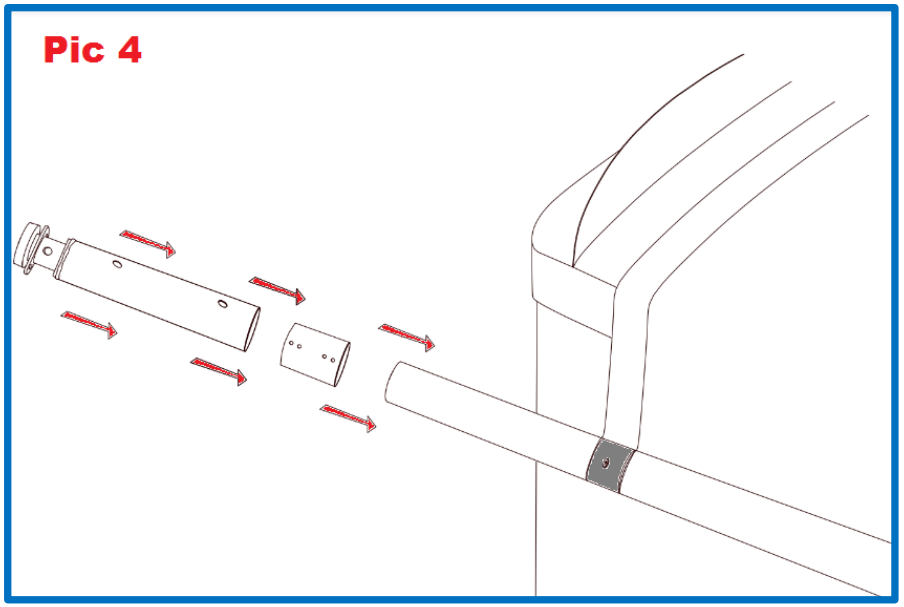


STEP 1 CONTINUED Prepare Trailer for converting system

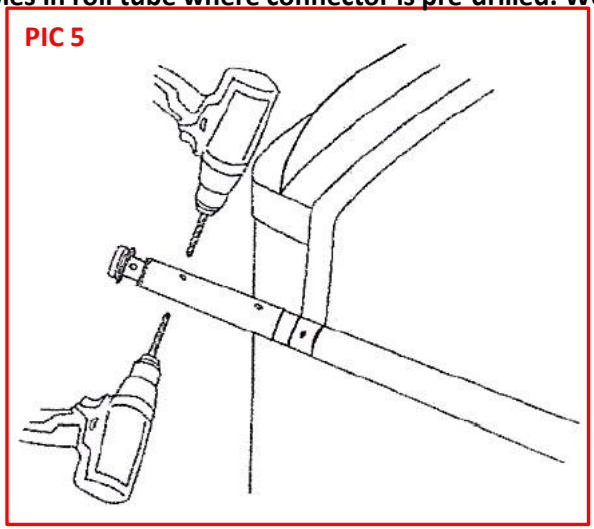
Go to front of trailer and mark & cut roll tube 8” out from front edge of trailer (Pic 3)

After cutting, smooth edge of pipe and slide motor shaft connector over roll tube until it bottoms out. NOTE If trailer has a radius front, 1st slide 3” metal protective sleeve (included) over pipe. You will attach/fasten to pipe later in installation in step 5 cont. (Pic 4)





Now using a 3/8” drill bit, drill holes in roll tube where connector is pre-drilled. We recommend drilling holes from top and bottom to better line up for bolts. (Pic 5)

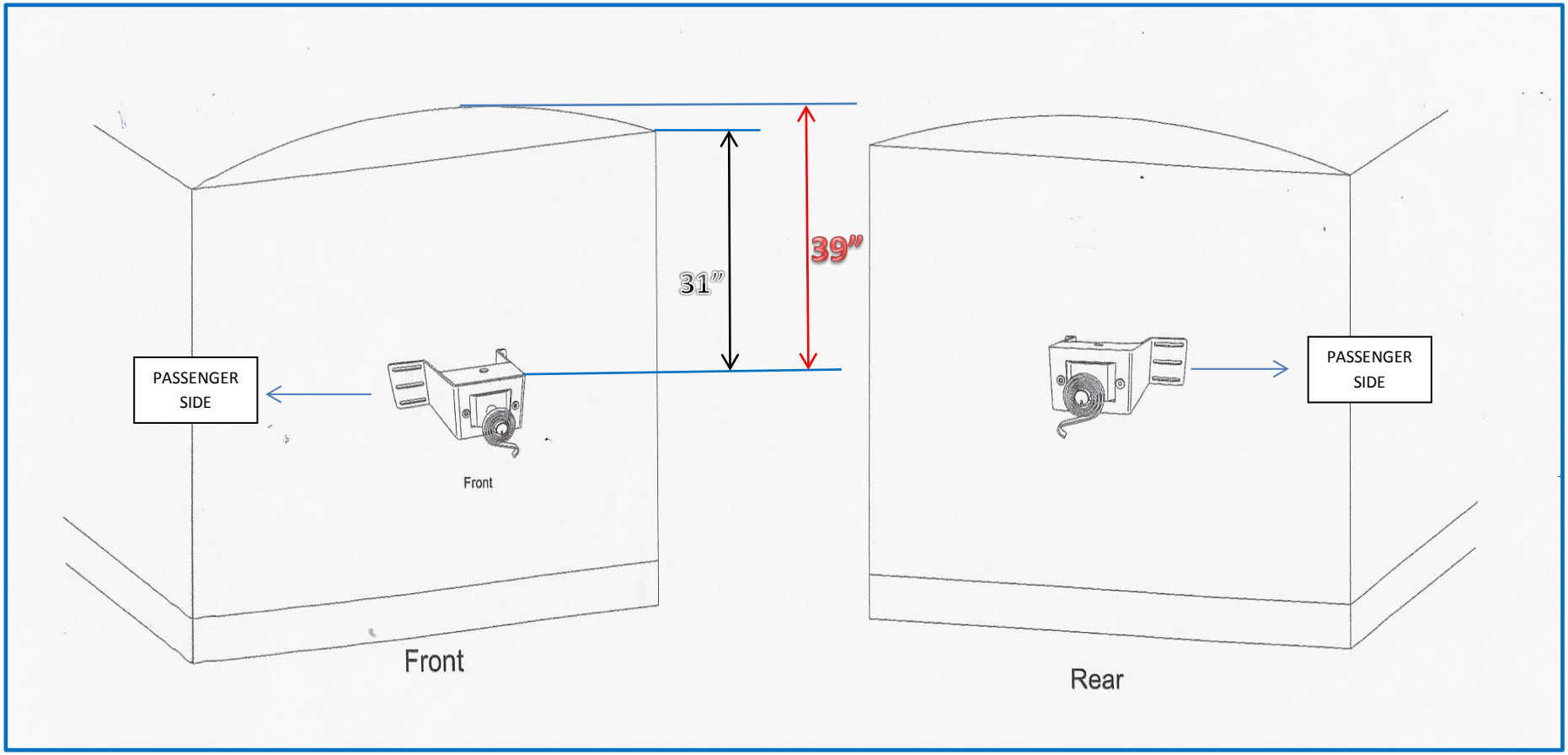


STEP 2 FRONT AND REAR MOUNT BRACKET LOCATION

Locate and mark center of trailer. For square front trailers, measure down from top edge of front cap 39" to top of mounting bracket. For radius front trailers, measure down 31" from top edge of trailer and mark holes for drilling. Bracket can be offset 4" towards tarp stop side of trailer if needed to match support braces in trailer. If bracket cannot be mouted to support braces, you should use a supporting bracket (not included with system) on the inside wall of trailer. Use 3/8 x 1" self tapping bolts to mount bracket with nuts on backside if possible.

****Repeat process for rear of trailer. NOTE: The long side of bracket with slotted holes should point toward passenger side.**

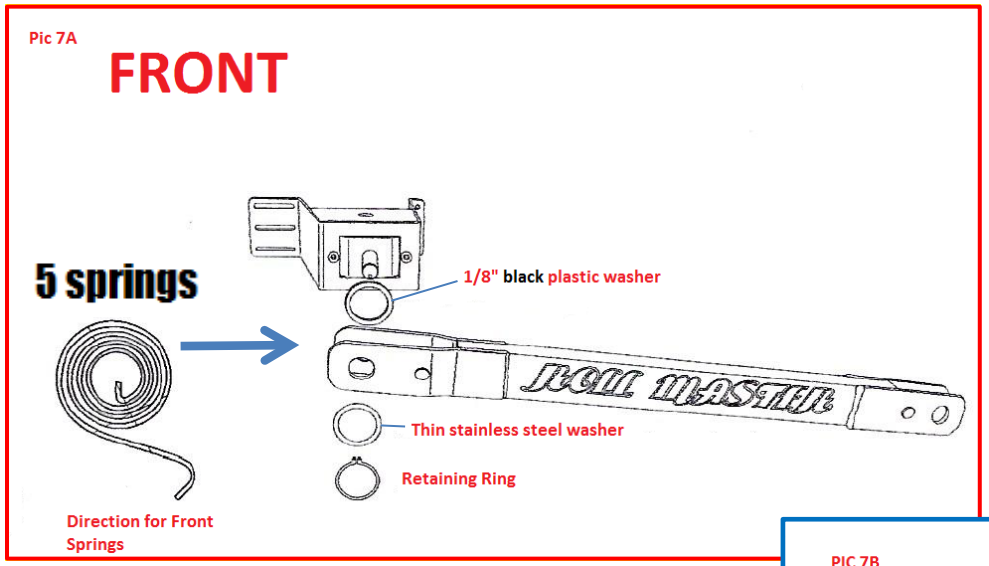
PIC 6



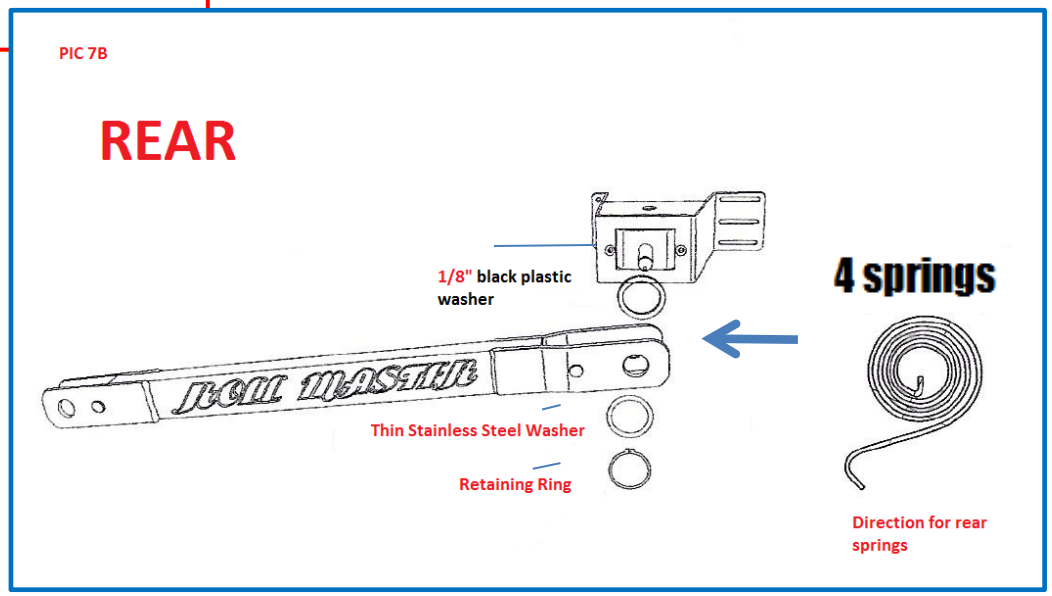
STEP 3 INSTALL LOWER ARM TO FRONT BRACKET

The pivot pin bracket will have 1/8” thick black plastic washer, a thin stainless washer and retaining ring already on pin. Remove the retaining ring and thin stainless washer. Leave the black plastic washer on. Grab lower arm and put back side of bracket just on pin. Put 5 springs onto the pin one at a time & repeat process on rear using 4 springs. When arm is totally on pin, slide thin stainless washer over pin and install the retaining ring. Make sure the ring snaps into groove. SEE Pic 7 A and B *****Pay attention to the direction of the springs. Repeat this process for rear lower arm.

Pic 7A



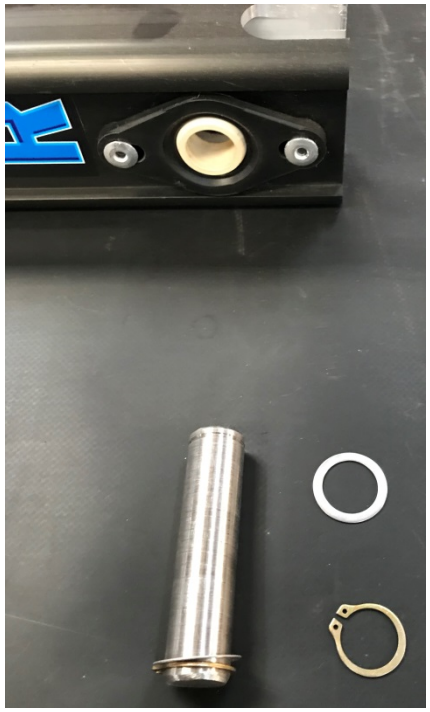
PIC 7B



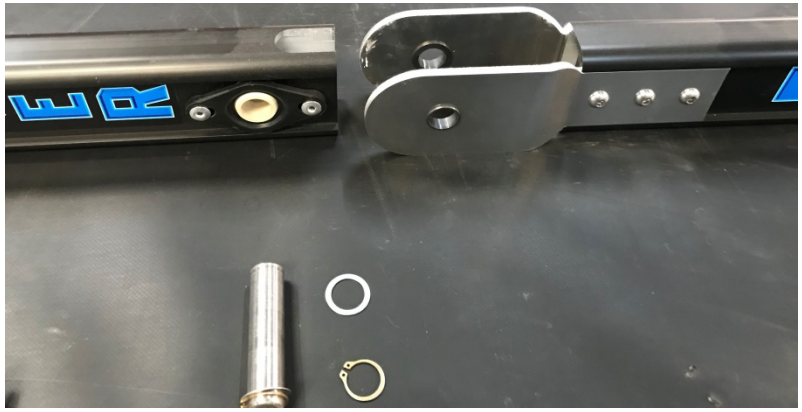
STEP 4 INSTALL UPPER ARM TO LOWER ARM

Remove ¾ stainless pin from upper arm. (PIC 8A) Now slide lower arm pivot plates over bearing in upper arm and install ¾ pin with washer and reataining ring.

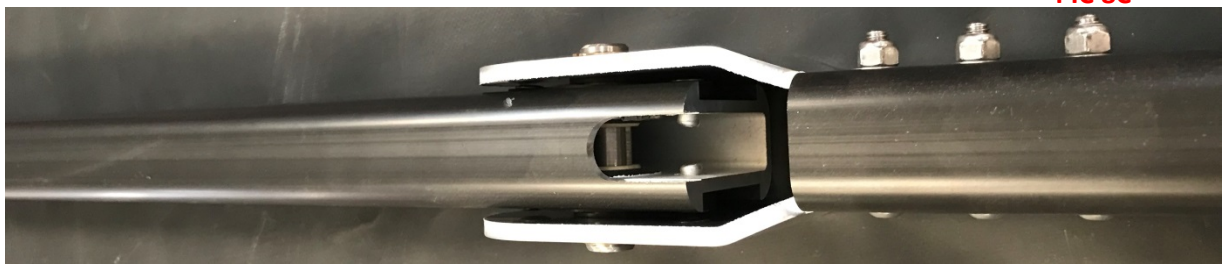
PIC 8A



PIC 8 B

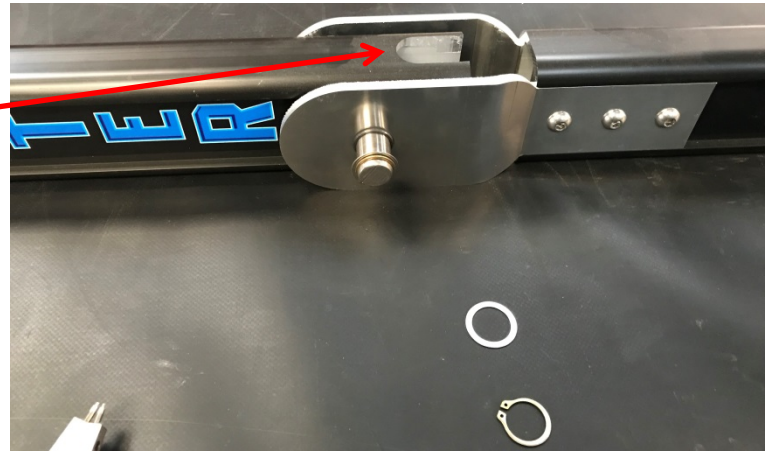


PIC 8C



8d

SLOT FOR 6G WIRE faces up



STEP 4 ADDITIONAL PICTURES

LOWER ARM

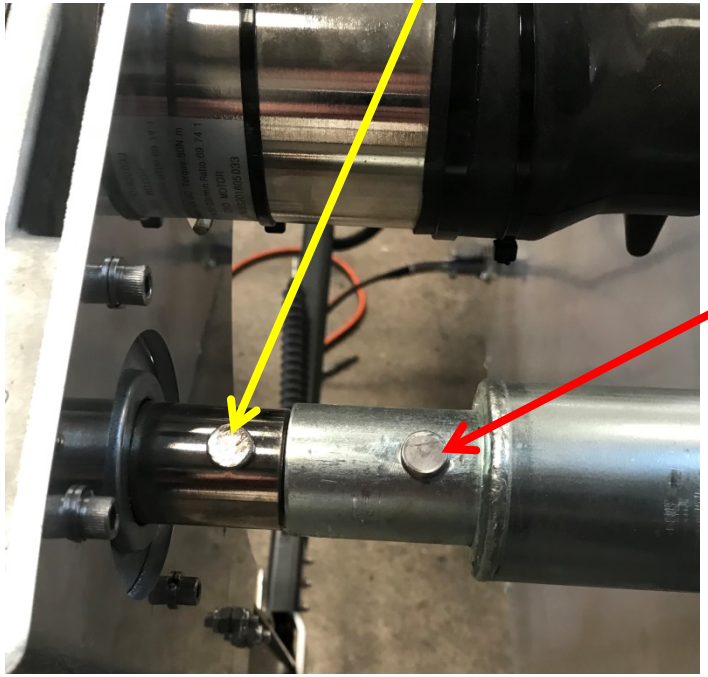
UPPER ARM REAR (ON DUAL ARM SYSTEM)

UPPER FRONT ARM

STEP 5 ATTACH FRONT UPPER ARM TO ROLL TUBE

Insert 1” shaft from motor into connector until holes align. Put 3/8 x 1-7/8 pin through holes in motor and connector and attach bow tie clip. NOTE You may need to slide roll tube towards rear to insert 1” shaft in connector.

NOTE: If motor fails, simply remove 3/8 pin holding motor to 1” shaft and crank manually with crank assembly.



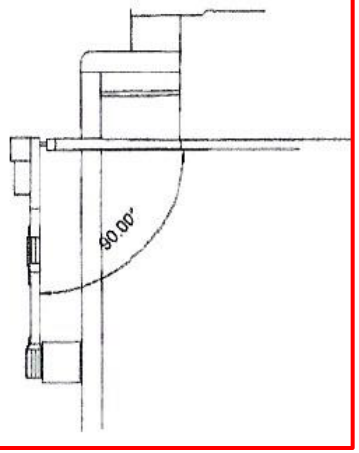
DO NOT

remove the 3/8 pin from connector unless you want to remove the motor.

STEP 5 CONTINUED ATTACH FRONT UPPER ARM TO ROLL TUBE

Now make sure roll tube and front arm are square. Adjust roll tube forward or backward until square. Now you will attach protective sleeve to roll tube. Center sleeve on pipe where it will ride on the aluminum cap windshield edge and fasten with 4 u-clamp screws. See Pic 10

PIC 10



At this time, replace all u-clamps attaching tarp to the roll tube.

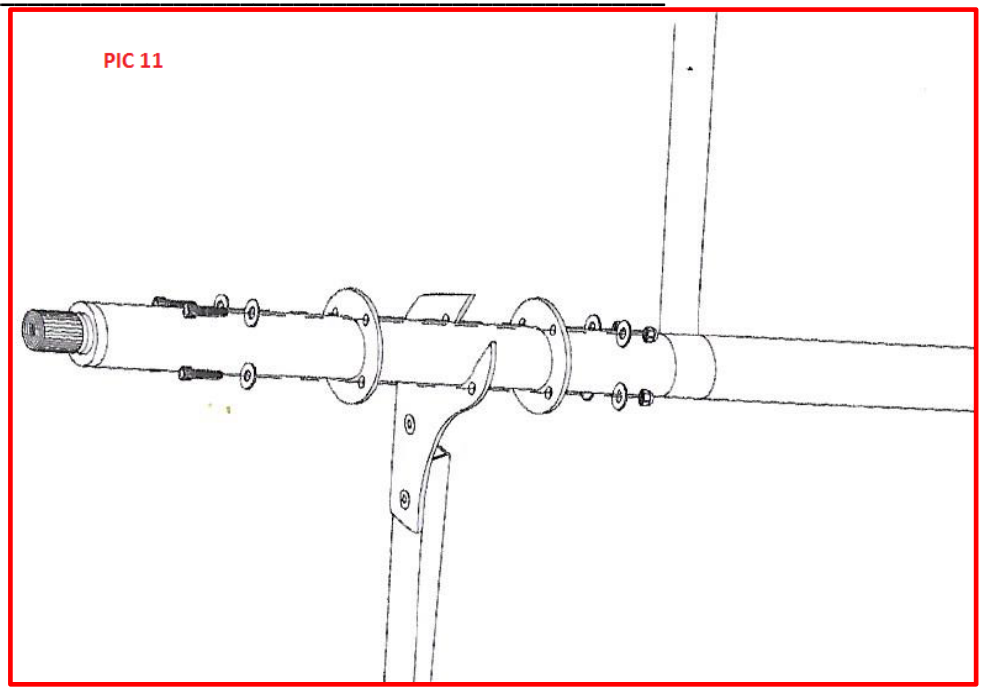
If this is a single arm system, skip this step

STEP 6 ATTACHING REAR UPPER ARM TO ROLL TUBE

Slide black ABS wear plate over roll tube and push forward. Now slide wear plate with studs over pipe. Bring arm up to let pipe lay in cutout slot and attach wear plate with stud through 4 holes in arm bracket. Slide other wear plate over studs and fasten with washers and lock nuts.

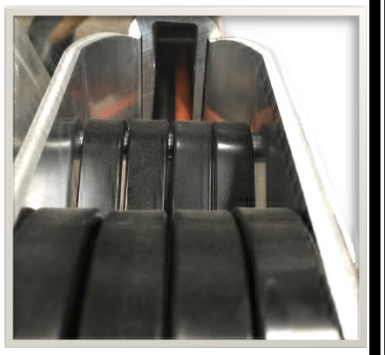
See Pic 11

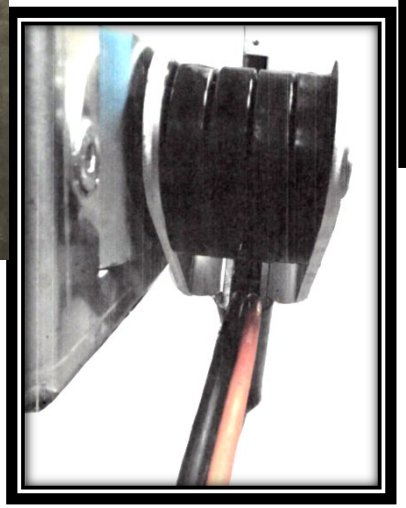
PIC 11

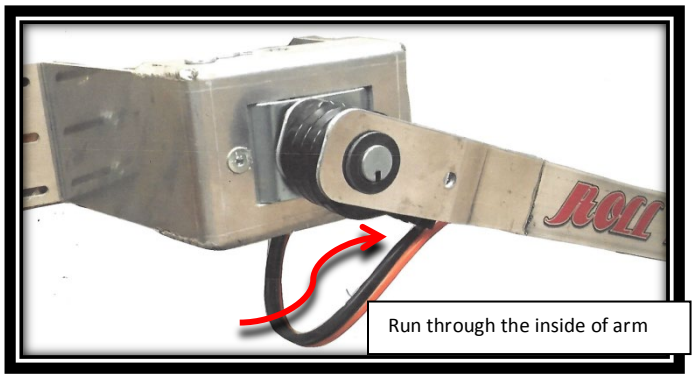


STEP 7 **Each Roll Master Evolution kit comes with 40 ft of #6 gauge wire and 12 ft of #14-3 wire.**

Run #6 wire up through Lower arm under bolts and springs and through Upper arm under pin and up to wiring terminal mounted on motor plate. See Pic 13

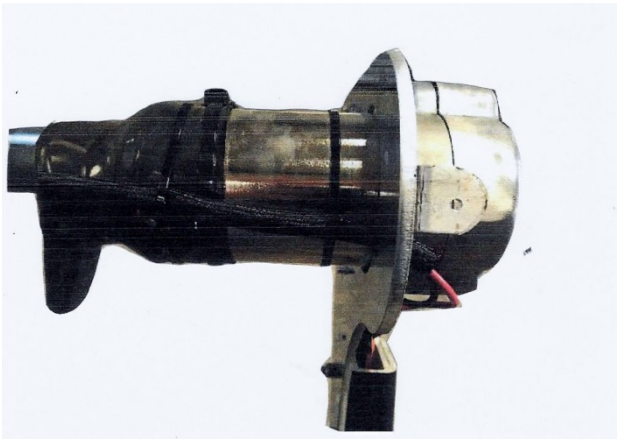






Run through the inside of arm

PIC 13

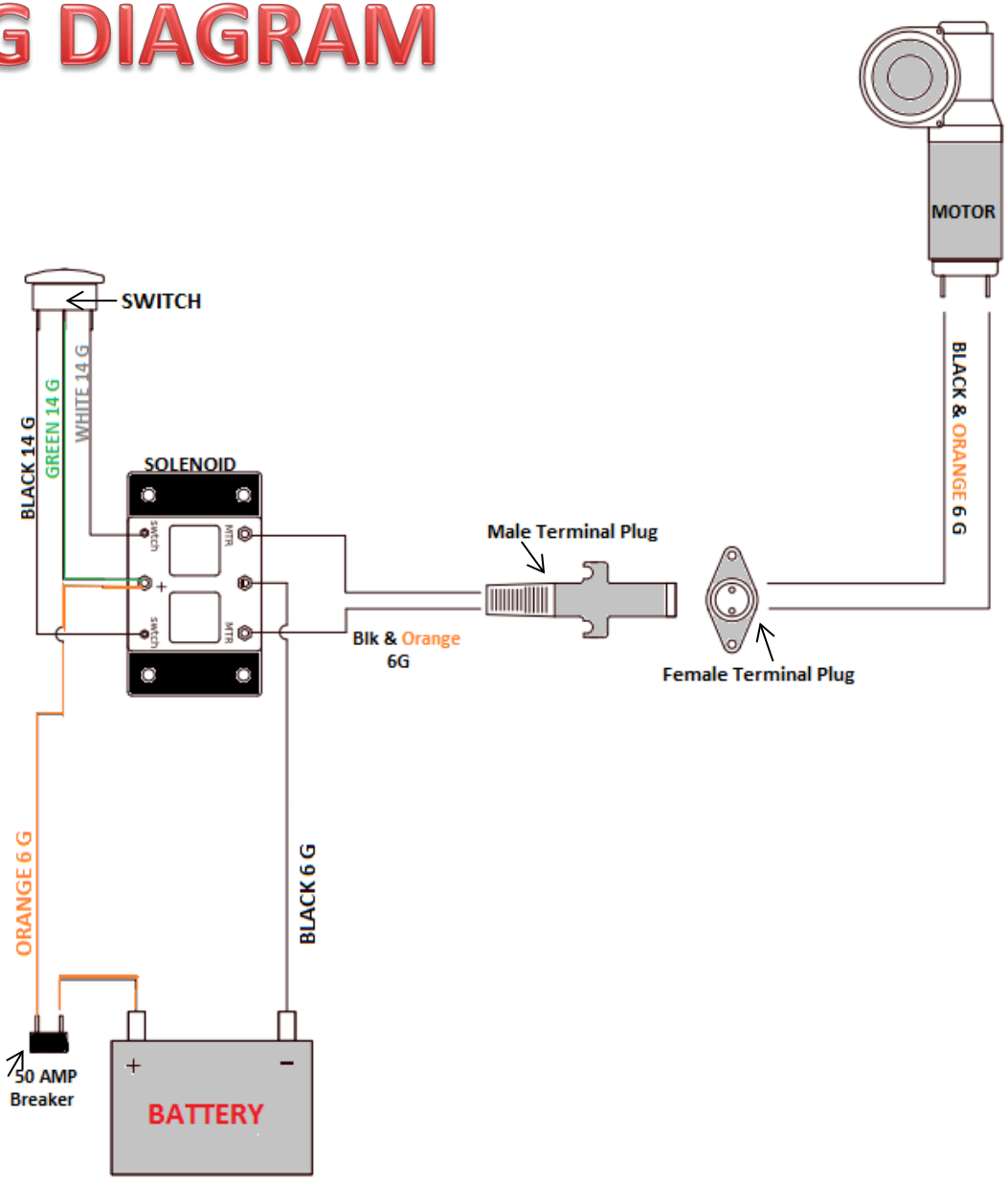


Run wires from motor through cutout in motor plate to wiring terminal.

Now you need to look at diagrams and decide how you want to wire your trailer. (Remote or No remote/Wire cab or switch on trailer)

WIRING DIAGRAM

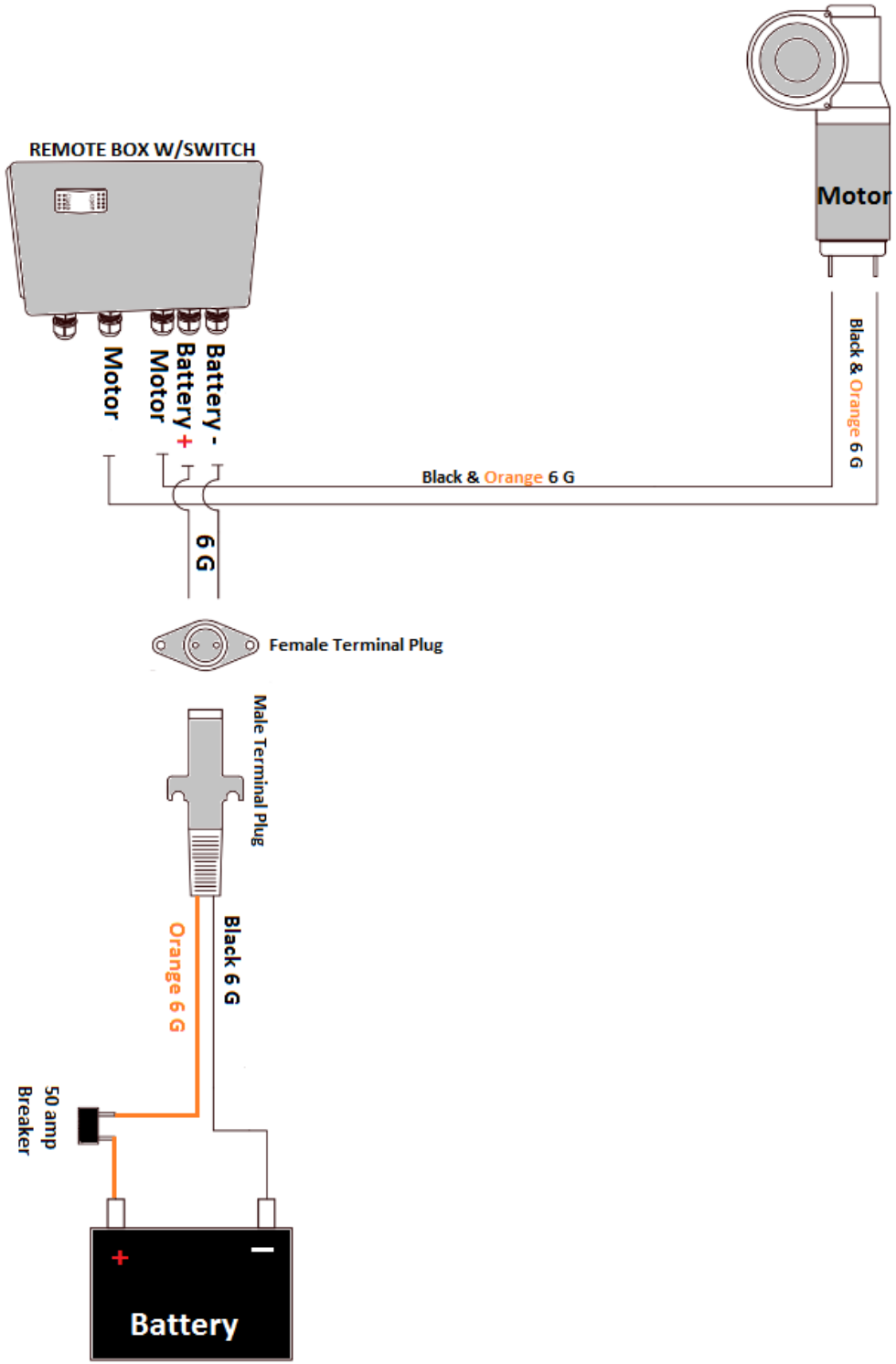
In Cab Switch Wiring

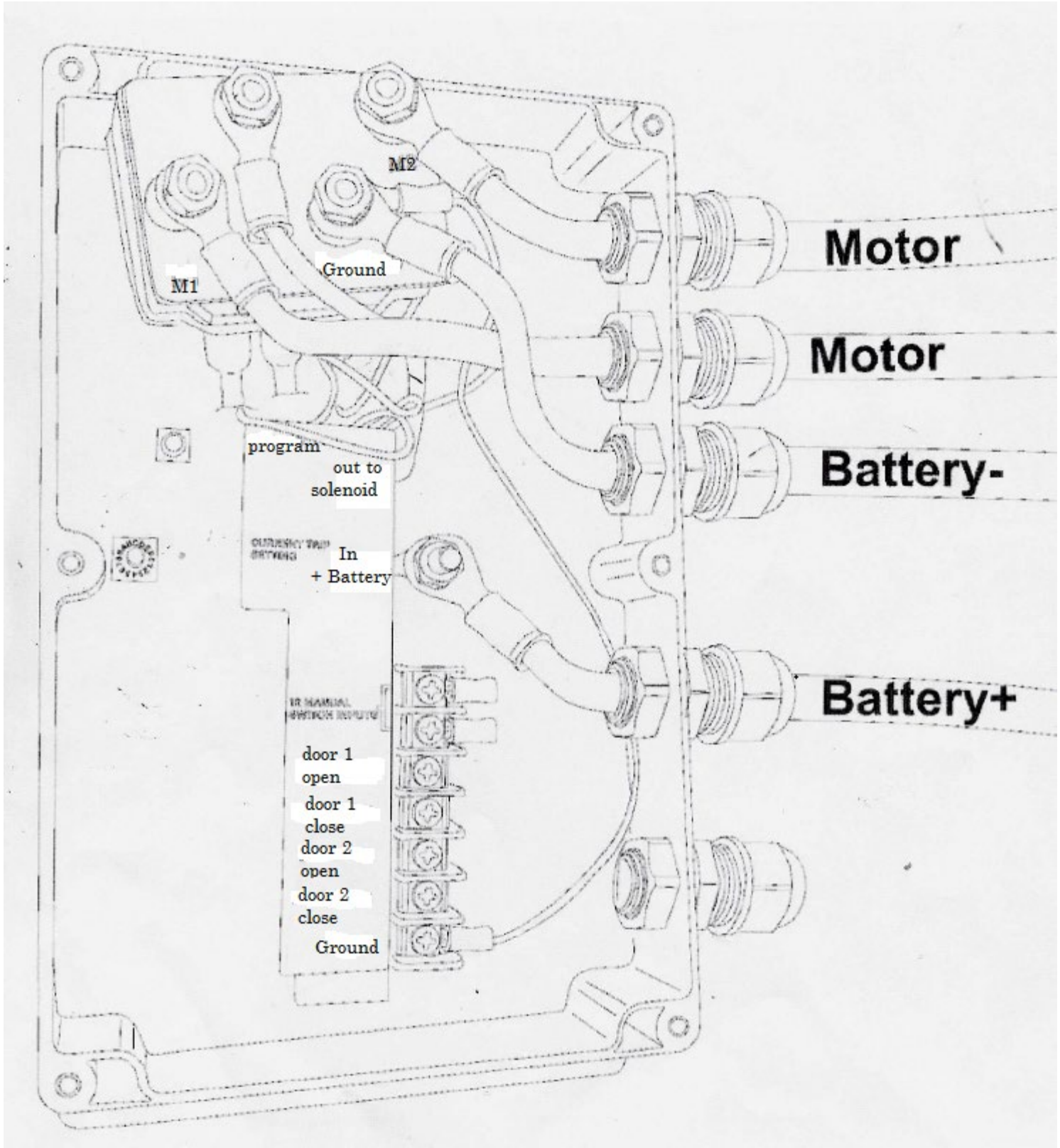


Wiring Diagram

OPTIONAL

TRAILER MOUNTED REMOTE BOX WIRING




M2
M1
Ground
Motor
Motor
Battery-
Battery+
program
out to
solenoid
In
+ Battery
door 1
open
door 1
close
door 2
open
door 2
close
Ground

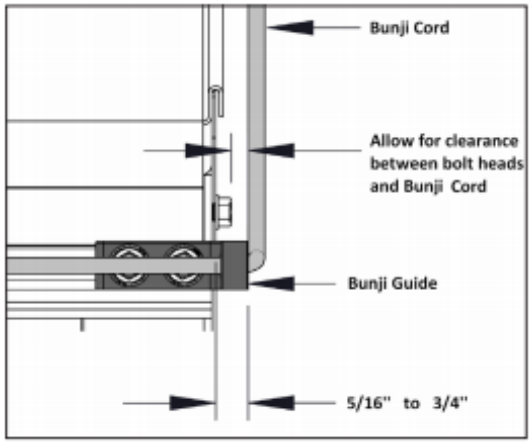
STEP 8 FOR SINGLE ARM SYSTEM ONLY

If you have a single arm system, you will now roll the tarp up to top edge of trailer to install the rear return assembly.

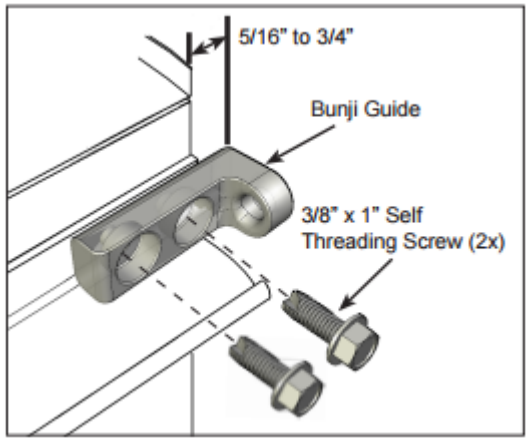
See Install instructions:

1. Starting at the rear corner of box place 1st bunji guide at collar end of cord onto latch plate. Adjust it to extend 5/16" to 3/4" beyond face of end cap. Make sure cord path will clear bolt heads on face of end cap. See PIC RR1 & RR2 Hold bunji guide in correct position and mark hole locations. Drill two 5/16" holes. Mount bunji guide with 3/8" self threading screws.

PIC RR1

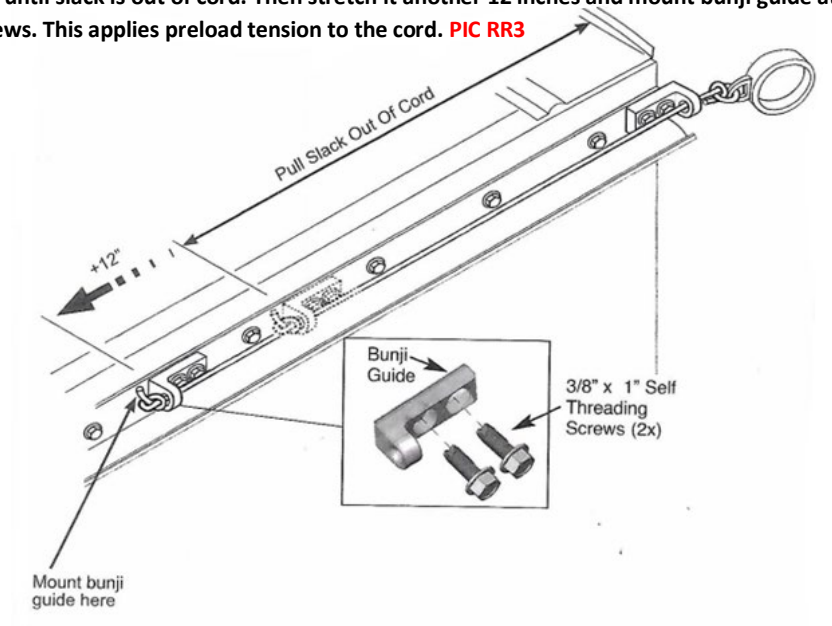


PIC RR2



2. At the other end of cord, pull second bunji guide along top of latch plate and pull until slack is out of cord. Then stretch it another 12 inches and mount bunji guide at that location by drilling two more 5/16" holes and fastening with 3/8" self threading screws. This applies preload tension to the cord. PIC RR3

PIC RR3



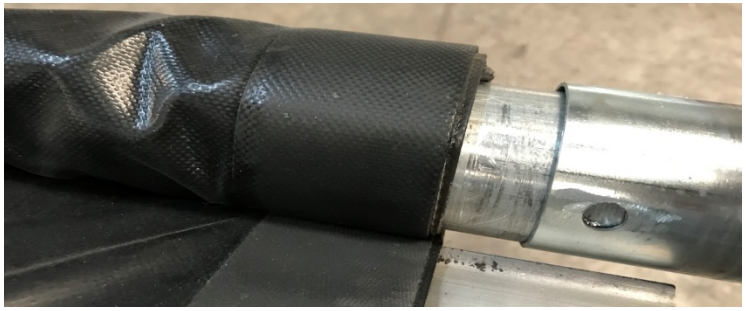
STEP 9 INSTALL ARM POWER STRUT

The upper arm strut bracket comes installed on upper arm. (PIC ST1) To install the lower arm bracket you 1st must roll tarp to very edge of aluminum lock rail. (PIC ST2 AND ST3)

PIC ST1 STRUT BRACKET

PIC ST2

PIC ST 3



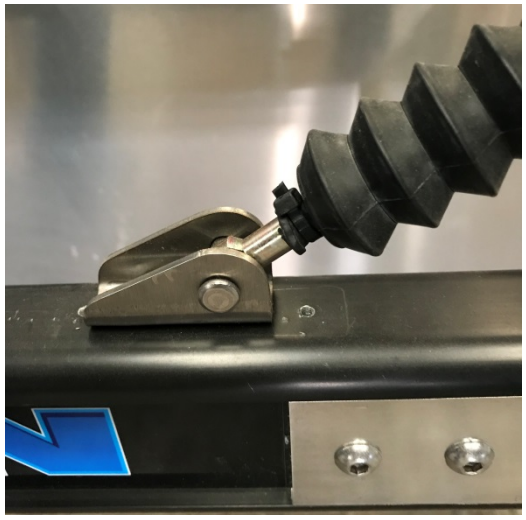
The strut will have lower arm bracket attached to strut. (PIC ST4) Connect open end to strut upper arm bracket using 5/16 x 1" pin with washer & retaining ring. While holding strut pin in center of upper arm bracket (PIC ST5) let lower strut lay on lower arm and mark for holes. Drill and fasten to arm. (PIC ST6 and ST7)

REPEAT PROCESS FOR REAM ARM IF DUAL ARM SYSTEM

ST4

ST5

ST6



ST7

STEP 10- MOTOR COVER INSTALLATION

Install cover by removing 5/16 x 2-3/4" bolt from arm and 10/32 bolt from bracket (see pics) and attach with cover.

BEFORE

AFTER

BEFORE

AFTER