



# **Sportster Vertical Lift Gate**

**Athletica IOM manual**

# Athletica Sport Systems Inc. Sportster Vertical Lift Gate installation instructions

This manual details the recommended method for installation, use, and maintenance of the Sportster Vertical Lift Gate.

## Warranty

This Athletica Sport Systems product is warranted to be free of defects in materials and workmanship for a period of 1 year from the date of purchase. Please contact Athletica Sport Systems with any questions about the performance of this product.

## Contact Us

## Canada and International

554 Parkside Drive. Waterloo ON Canada N2L 5Z4  
519-747-1856

## USA

720 Innovation Drive. Shakopee MN USA 55379  
763-249-7465

**Replacement parts available.**

## Tool & Parts Required

The following is a list of items required in order to perform the installation.

[illegible]

## IMPORTANT!

**When ready, have an electrician wire up the lift gate. The wiring diagram for the lift gate is located inside the cover of the electrical panel on the lift gate motor.**



## IMPORTANT!

**NOTE: To ensure proper alignment, fit and functionality, we recommend installation be completed by certified Athletica Sport Systems Inc. personnel.**

## Step 1

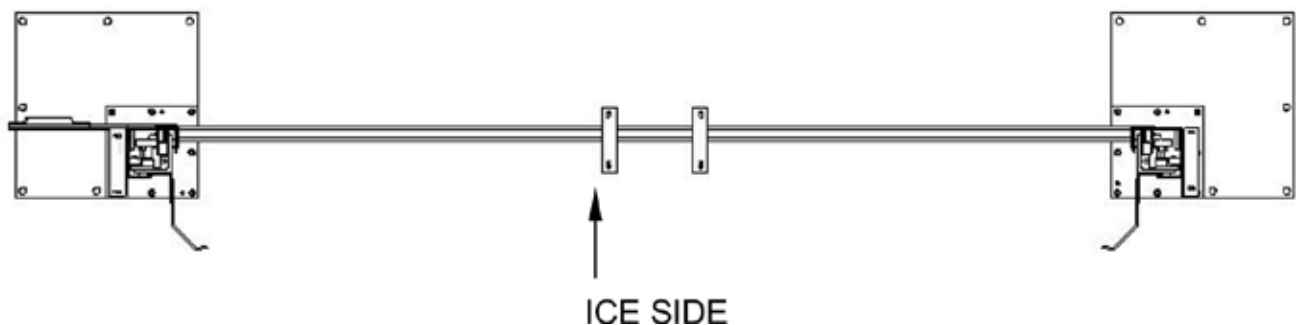
Cut banding on skid and layout components as shown in picture below.

**Note:** a forklift is suggested for lifting parts off skid, as all of the components are very heavy.



## Step 2

When looking at the columns from the top of the lift gate, they should look like the ones shown in the diagram below. As well, the motor should be facing up and be blocked to prevent the column from turning.



### Step 3

Lift crossbar assembly into place just above the top of the columns, lining up the mounting holes in the columns with the ones on the crossbar. Use 3/8" bolts to fasten the crossbar and bearing plates in place

**Note:** There are holes inside the column that are countersunk for 3/8" flat head socket cap screws. This is to allow for the removal of the carriages for service in the future.





#### Step 4

Lift the bottom crossbar into place and fasten. The bottom crossbar is provided as a spacer to help align the towers top and bottom. Make sure to measure between the towers top and bottom to ensure that the top and bottom measurements match.



#### Step 5

Loosely attach spreader bar plate together with 3/8" hardware provided. Also, loosen off the three bolts in the center shaft coupling so that both shafts can move independently when tightening the springs.



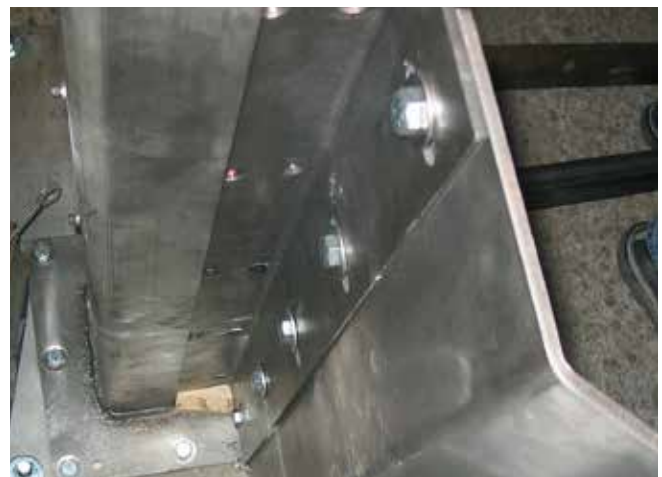
#### Step 6

The lift gate is now ready to be set in place. Lift the lift gate with a forklift by the middle of the crossbar while driving forward in order to get the lift gate vertical. Make sure to clamp the forks in front of the lift gate to prevent it from moving too far forward on the forks. Have two people guide the lift gate through the opening to where it will sit.



#### Step 7

Attach brackets to carriages as shown below making sure that the brackets are mounted in the middle of the slots as they may need to be adjusted in or out.



### Step 8

Move frame jambs and threshold into opening and fasten them to the floor and each other.

### Step 9

Set board section of lift gate between the frame jambs and on top of v-blocks.

### Step 10

Move the columns with a pry bar until the brackets on the carriages are flush with the inside of the end members of the lift gate as shown below.



### Step 11

Use a water level to check the elevation of the towers. Shim the towers as required to exact level. Once level, check both towers for plumb. Shim towers to plumb using metal shims under base plates beside the anchor hole locations.

### Step 12

Now that the columns are level and square to each other, they can be anchored to the floor. Using a hammer drill and concrete bit, drill 3/4" holes for the threaded rods which will be set in. Vacuum, brush and vacuum all of the holes to allow for good epoxy bond with surrounding concrete. Fill holes 1/2 full of supplied epoxy, place threaded rod into hole and allow the epoxy

to set. See manufacturers chart on epoxy cure times and allow sufficient time for epoxy to cure before tightening down base plates (Cure time is approximately 15 minutes and is dependent on ambient temperature). Check level and plumb after tightening base plate. Add or remove shims as required keeping towers level and plumb.



### Step 13

Block up the carriages with a 2 x 4 to prevent them from bottoming out and to set them at the same height. As well, attach the brackets to the gate with 1/4" screws provided. When attaching the 1/4" hardware to the gate use a 3/16" drill and a 1/4-20 tap to make the threads in the back of the tube prior to inserting the hardware.



### Step 14

For this step, you will need to go up in a man lift or on a ladder to the top of the lift gate. Take the two lengths of cable supplied and lock the end with the crimp into the drum and wind around the drum until the first tape indicator is even with the shaft center on the ice side. Note that it is absolutely critical that both cable drums be in the exact same location in relation to the shaft. If the drums are not perfectly aligned, loosen shaft coupling in center and rotate drums as required to make sure they line up.

### Step 15

Pass other end of cable through the thimble on the carriage pickup using another thimble. Make sure that the second tape indicator on the cables is located at the center of the thimble. This is critical to ensure that the cable drums are full of cable when the gate is fully open. Pull on the cable to stretch the take-up spring inside the carriage and clamp cables together with a pair of vice grips. Place cable clamps on cable making sure that the saddle part of the clamp is against the load bearing cable and the U-bolt is on the loose end. Make sure the lower clamp is as close to the thimble as possible to prevent the thimble from slipping out.



### Step 16

Place glass posts and glass in gate and secure all in place. This is to ensure that when tensioning springs in the next step that the gate system is balanced when under full load. Before going up to tighten the springs, place two heavy duty clamps on the columns 6" above the carriages to prevent the gate from rising when the springs are tensioned.

### Step 17

The springs can now be tightened. With two people, go up in man lift with the steel rods supplied to tension the springs. This is best done from the non-ice side of the lift gate as you will be lifting the bars and can rest them against the crossbar when tightening the springs to the shaft. The springs will have to be turned approximately 11 full turns (44 quarter turns) towards the ice. You will be able to count how many turns you have put on the springs by counting the number of distinct paint marks along the length of the spring. Be very careful when tensioning the springs, as they will want to turn back to their original position once they are tensioned. Once the springs are tensioned, tighten the set screws onto the shaft to hold the springs in their tensioned position. Repeat this for both springs.



### Step 18

If the gate rises when this is complete to the clamps you have placed on the columns, there is too much tension on the springs. Taking approximately 1/2 turn at a time, loosen the springs until the gate goes back down away from the clamps. If the gate did not rise when the springs were tensioned, the springs may be balanced or not have enough winds on them. To check this, you should be able to grab the cable drum and lift the gate easily by hand. If this is not easily done, add a 1/2 turn at a time until the gate is easily lifted by hand. You now have a perfectly balanced lift gate. When the clamps on the columns are removed, one person should be able to easily lift the gate by hand. Check for clearance and smooth operation and adjust as required. If everything is ok, place clamps above the carriages to hold the gate down flush with adjacent panels. Tighten the three bolts in the shaft coupling to synchronize the two sides of the gate.

### Step 19

Connect the drive chain between the sprocket on the motor and the sprocket on the shaft. Remove links as necessary to ensure the chain is tight between the sprockets. A master link and extension link are provided to connect the ends of the chain together. Tighten the chain spreader to keep tension on the chain.



### Step 20

Attach the board to tower braces on either side of the lift gate. Make sure that the bracket attached to the columns is to the front or the back of the safety ladder slots. This is to make sure that the bolts will not interfere with the safety leg deployment.

### Step 21

Wire in the safety edge from the lift gate into the key switch box. Match up the numbers on the wire ends and join together with supplied wire connectors.

### Step 22

Wire in the photo eye into the motor from the opposite tower. There are male and female connectors that will match up the connections inside the motor.

**Note:** When power is wired to the motor, a green light will show up on the bottom side of the photo eyes at the bottom when they are aligned. Turn the photo eyes as required until the green light comes on.

### Step 23

Pull the release chain on the motor to engage the manual lifting chain. Lift the gate to just above the v-blocks. Fine adjustments can be made in and out on the lift gate using the carriage brackets as well as the board to tower braces on either side of the gate.



## Step 24

Lift the gate further with the manual lifting chain until the bottom of the gate is level with the side jambs. Adjust gate up and down on either side as required by adjusting the eyebolt inside the carriages up or down.

## Step 25

Have an electrician wire up the lift gate. The wiring diagram for the lift gate is located inside the cover of the electrical panel on the lift gate motor.

## Step 26

All the adjustments for setting the height limits inside the motor electrical box is contained in the owner's manual provided with your lift gate. The lift gate limits have been factory set to limit the travel of the lift gate. The top limit must trip before the cable spool is full and the lower limit must trip once the gate is sitting in the v-blocks and before the cable is slack.

## Step 27

Before operating the lift gate make sure to check overhead for any obstructions that may come in contact with the glass or the gate. If there is an obstruction above, set upper limit to trip leaving at least 6" space between the top of the glass and the obstruction.

## **Congratulations! Your Athletica Sport Systems Inc. Sportster Vertical Lift Gate is now operational.**

Contact Athletica Sport Systems Inc. to schedule your annual inspection and maintenance.

Our technician will return to your facility and perform a full inspection, make adjustments and complete required maintenance as necessary.

When finished, a certificate will be issued to document the service.

## Maintenance Schedule

Item	Procedure	Every 3 months	Every 6 months	Every 12 months
Drive chains	Check for excessive slack Check and adjust as required Lubricate	◆	◆	◆
Sprockets	Check set screw tightness		◆	◆
Manual disconnect	Check and operate		◆	◆
Bearings and shafts	Check for wear and lubricate		◆	◆
Fasteners	Check and tighten as required		◆	◆
Cables	Check for wearing or fraying		◆	◆
Door alignment	In most cases, adjust the boards if misaligned with door	◆	◆	◆
Infrared sensor	Check that it operates	◆	◆	◆
Heated electric safety under door	Check that it operates and for wear on the material	◆	◆	◆
Automatic release brakes in columns	Check that they engage when a cable is slack			◆
Spring tension on cables	Check that both springs in each column are not broken	◆	◆	◆

**Note:** This unit should be serviced by a qualified Athletica Sport Systems Inc. technician. If any work is done by others, it should be inspected by Athletica Sport Systems Inc. as soon as possible afterwards.



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