



**SS-4000**Serial No. SB4-100000 and higher



**CUSTOMER COPY** 

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## Introduction



These assembly instructions have been designed to guide you in assembling your SS-4000 Rotary Sweeper. Follow these instructions with care to ensure performance and longevity.

Please read and understand the safety warnings associated with the assembly of the equipment before beginning. In addition the safety information in the these instructions, observe general safety guidelines to maintain your safety and the safety of those around you.

To assemble the SS-4000 you will need a set of metric tools.



### THIS SIGN SHOULD ALERT YOU:

This Safety Alert Symbol is used to pinpoint characteristics that, if not carefully followed, can create a safety hazard. When you see this symbol in this manual or on the machine itself, be alert! Your personal safety and the safety of others is involved.

Defined below are the Safety Alert Messages.



### **DANGER**

Information that, if not carefully followed, can cause death.



### WARNING

Information that, if not carefully followed, can cause serious personal injury or death.



## **YELLOW**

Information that, if not carefully followed, can cause minor injury or damage to equipment.



### **IMPORTANT**

This symbol is used to call out information that is important to follow carefully.

### RECOMMENDED FASTENER TOROUE

In each step, hand-tighten all fasteners until the step is complete, then tighten to the recommended torque.

To prevent damage to the equipment, do not tighten fasteners with plastic nuts or directly contacting plastic parts to the recommended torque. Tighten until it feels tight.

TORQUE CHART FT-LB		
Fastener	Recommended Torque	
M6	7.8	
M8	20.25	
M10	42.75	
M12	72	
M19	250	
T20	7.75	

Note: Some of the photos in these instructions show the SS-4000 with the optional Mult-Purpose Brush Kit SBK-020.



This page contains safety information to highlight safety hazards and precautions involved with operating your SS-4000. This page must be read and understood by all personnel who have any part with the assembly, use and care of this machine.



Your SS-4000 is manufactured to state-of-the-art technical regulations. Despite this, it is possible that operation will result in danger to life and limb for the operator or third parties, impairments to the machine and other physical assets.

The machine is intended exclusively for use for brushing operations in property maintenance and snow clearance. Examples of intended use are: snow clearing; sidewalk, driveway & parking lot cleaning (with multi-purpose brushes); spring debris clean-up; dethatching; clearing debris from artificial turf; and leaf clean-up (with Multi-Purpose brushes). Any operation over and above these uses will be considered as a non-intended use. SnowEx will not be held liable for any resulting damages. The operator alone is responsible for any risk. Intended Use also includes observance of the Owner's Manual and keeping to all service and maintenance procedures.

Always keep the Owner's Manual available at the machine's place of work. In addition to this Owner's Manual, furnish all users with information regarding legal or other important regulations regarding accident prevention. These duties can include handling hazardous materials; wearing personal safety equipment; and traffic regulations. You should supplement this Owner's Manual with instructions covering information related to use of powered machinery; and operating equipment near people, other machines and traffic.

Do not smoke or have any open flame near the machine. Gasoline vapors could explode.

Only use the machine in perfect condition and according to applicable regulations. Be aware of your surroundings and alert to what you are doing to reduce hazards. You should always repair faults which could influence the safety of the machine.



Personnel operating the machine must read the Owner's Manual before using — especially all safety information. This includes people who occasionally work on or operate the machine such as for service and transport. A clear understanding of how to operate the machine will reduce dangers involved with operating powered equipment.

You must check that personnel operating the machine are paying attention to safety and hazards and under observance of this Owner's Manual. Operating personnel may not have long hair, or wear loose clothing or jewelry, including rings – these items can catch and be pulled in by moving parts.

Keep all safety and hazard information for the machine complete and in readable condition. If the machine is altered with regard to its safety or changes its operational behavior, stop operation immediately and report the malfunction to the responsible department or person.

The SS-4000 may only be operated with brushes approved by SnowEx.

Do not carry out any alteration, addition or rebuilding to the machine which could influence its safe operation. This especially applies to addition and alteration to safety devices and machine controls, and to welding work on load-bearing components.

Personal protection equipment must be worn to prevent accidental injury. Observe all safety and hazard information for the machine.

Rotating brushes cause flying debris, wear safety glasses with side protection.

Wear high-visibility clothing, especially when working around other machines, people and vehicles.

Be aware of and avoid pinch points when assembling and operating. Pinch points can exist around levers and when putting two parts together (during assembly).

Use barriers and traffic cones when working in areas of pedestrian and vehicle traffic to keep everything at a safe distance.



Use genuine SnowEx parts for replacement. These meet the specific technical requirements. Observe all deadlines indicated in the Owner's Manual for maintenance checks and service

Suitable and adequate mechanic's equipment is required for performing maintenance and service procedures.

The SS-4000 is powered by gasoline. Know the location of fire extinguishers and observe fire safety procedures.



Use metric tools to assemble the SS-4000. Two people are necessary for this procedure.

STEP 1

Rest the handlebar on the clamps.



STEP 2

Mount Handlebar to the supports with the knob.



STEP 3

Put the other half of the clamps onto the studs.



STEP 4

Put fixing plates on the studs. Position as shown.





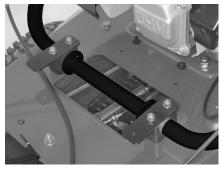
STEP 5

Put locknut and washer on the stud.



STEP 6

Tighten the nuts so the handlebars will still move, but not fall.



STEP 7

Attach Throttle Lever with bolt, washer and locknut



## STEP 8

Put right and left wheels on the drive axle and secure with the linchpin. Put the linchpin through the axle only. This is the freewheel position – see Owner's Manual for more information.





**STEP 9**Support the machine at the front with a wooden block. Secure the rear wheels with chocks.





STEP 10 Attach Support Wheel.



Wheel with fasteners.



Push the sleeve through the wheel.



Position the support wheel as shown.



Push the hex bolt through and thread on the nut.



Use two wrenches on to tighten the bolt/nut.



Completed.



### **STEP 11**

Have another person hold the machine firmly by the handlebars.

#### **STEP 12**

Remove the bolts on both sides that hold the Wheel Drive Housing to the Brush Drive Extension.

### DO NOT RE-USE THE REMOVED HARDWARE.



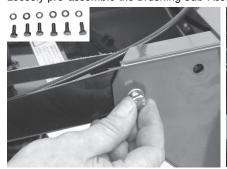
### **STEP 13**

Remove the bolts on both sides that hold the Wheel Drive Housing to the Brush Drive Frame. Pull the Brush Drive Frame forward keeping the frame-member as level as possible and keeping the frame from scraping the cover.



**STEP 14** 

Loosely pre-assemble the Brushing Sub-Assembly to the Axle Drive Housing with bolts and washers. Begin at the front.









**STEP 15** 

Tighten the bolts holding the Brushing Mechanism to the Axle Drive Housing in the order shown.



## **IMPORTANT**

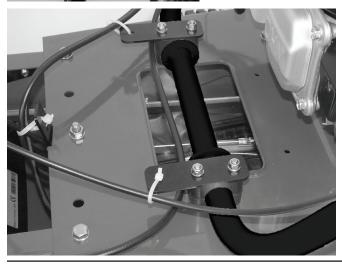
Tighten the bottom bolts first, then tighten the bolts on the side. Please note the order in which the bolts are tightened. Otherwise, the machine is not exactly aligned and the drive belt could wear down the brush.

**STEP 16** 

Fix the Cable to the Handle Bars with cable ties at the locations show. Trim the end off when finished all the cable ties.











The ties here must form a loop. Do not tighten. The cable must be able to move when the handle is folded.



**STEP 17** Attach the Brush Cover Side Panels.



Parts.



Position the side panel so that the holes are concentric.

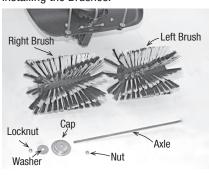


Push the bolts through from above. Push the washers on from below and screw on the nuts. Tighten.

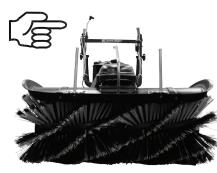


Repeat this procedure for the second panel.

**STEP 18** Installing the Brushes.



Parts.



Bristles should be installed as shown – curving upward from the left.



Screw the nut onto the axle.



Put cap and washer on the axle.



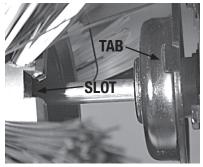
### STEP 18 - CONTINUED



Put the Axle with the Cap, Washer and Right Brush through the drive source (centered underneath the brush cover).



Put the Axle with the Cap, Washer and Brush through the drive source (centered underneath the brush cover).



In the center, the tab on the Cap-Gear should fit the slot on the brush cylinder.



Put the Left Brush on – make sure the brush is locked onto center Cap-Gear.

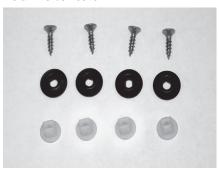


Put the cap and washer on the end. Thread on Locknut.



Tighten the axle – You will need two 19 mm wrenches.

STEP 19 Install the belt cover.



Hardware needed. Torx Screws, Counter-Sink Washers, Snap Nuts.



Installation of snap nut.



## **STEP 19 CONTINUED**



Location of Snap Nuts.



Location of Snap Nuts.



Set the brush at an angle. Slip the cover over the belt area and back so the Snap Nuts can be seen through the holes in the cover.



Put Torx Screws with the Counter-Sink Washers through the mounting holes on the cover and thread into the snap nuts. Tighten.



Tightening. T20.

## **STEP 21**

Thread the Height Adjustment Knob into the Height Adjustment Mechanism: Put a lubricant on the threads. Push the threads through the rubber bushing. Feel around for the hole in the mechanism. Push down to ensure the threads are lined up. Make sure the knob is standing vertical. Begin tightening. Do not force the knob to tighten. Refer to "Adjusting Brush Height" for instructions to adjust the brush height.

## **STEP 22**

Install the Plow Blade.



Hold plow at an angle, lower plow over receiver bar. The bar will fit between the tabs on the plow.



Lower plow until the wheels rest on the ground.



## **IMPORTANT**

Now that assembly is finished, fill the motor with oil and fuel tank with unleaded gasoline. See Maintenance Instructions in Owner's Manual for oil-filling instructions.

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