



HAND-PUSH SWEEPER OPERATION MANUAL



ES-2RB

EXEN CORPORATION

☆ SAFETY PRECAUTIONS

- ☆ This product is a hand-push sweeper. You can clean a large space by pushing by hand.
Do not use sweeper for any other purpose.
- ☆ For safety operation, be sure to read this operation manual completely and understand the contents and the DANGER.WARNING and CAUTION messages before operation. Improper use of the product may result in injury or failure.
- ☆ When you lend this product to another person, be sure to provide them the manuals, and fully explain to them safety and appropriate use of the product.
- ☆ The following symbols are DANGER, WARNING, and CAUTION instruction for the use of this product so that the product will not cause harm or damage to users or others.



DANGER

【DANGER】 indicates an imminent dangerous situation which may lead to death or serious injury.



WARNING

【WARNING】 refers to a hazard that may cause death or serious injury.



CAUTION

【CAUTION】 refers to a hazard that may cause minor or moderate injury.

	WARNING
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(To prevent death)

-  Do not put your hands or feet into the rotating brush.
-  Please do not collect flammable items, a rope or string-like garbage, or burning items (cigarettes, matches, etc.).
-  Do not ride on this product or use it as a means of transportation.
-  This product should be stored and used out of the reach of children.

	CAUTION
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(To prevent injury or damages)

-  When using on wet roads, be careful not to slip. Also, there is also a risk of slipping on slopes.
-  Do not use near hazardous materials or fire.

○ INTRODUCTION

Thank you for purchasing the hand-pushed sweeper.

Be sure to read this operation manual before use.

Be sure to read and understand this operation manual carefully before using the product until it can be operated safely and efficiently. Handle and maintain it appropriately for safety operation.

Keep this manual for further reference.

The specifications in this document are subject to change without notice due to modification.

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○ SAFETY



(For personal protection during operation)

- Put on a safety helmet, safety gloves, eye protection, and dust protector mask and safety shoes, before using the sweeper.



Safety helmet



Safety gloves



Eye protection



Dust protector mask



Safety boots

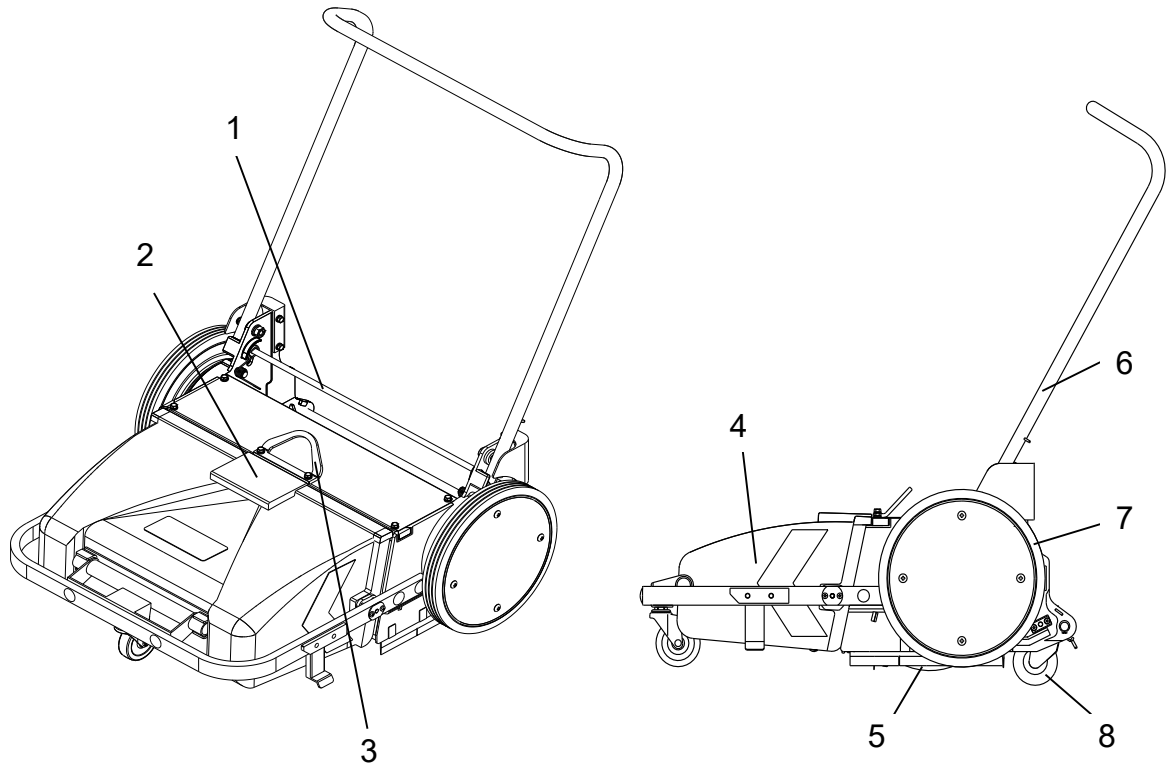
- When lifting this product using a crane, etc., be sure to pass the rope through the lifting equipment before lifting it. Do not lift this product by the handle.
- Be careful not to pinch your hands or fingers when installing the dust case or tilting the handle forward.



(For longer service life)

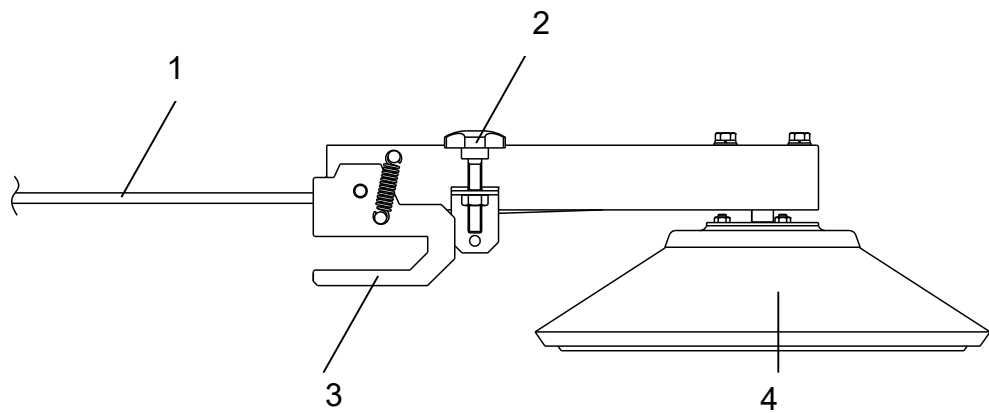
- Be careful of bumps on the road surface and floor to avoid damage to the dusting rubber.
- Apply grease to the gear and oil seal parts periodically.
- Do not clean the resin part with thinner or gasoline.

○ NAMES OF PARTS



1	Handle Lock Bar	5	Main Brush
2	Dust Case Handle	6	Handle
3	Lifting Bracket	7	Tires
4	Dust Case	8	Moving Casters

■ Side brush ES-2SB (option)



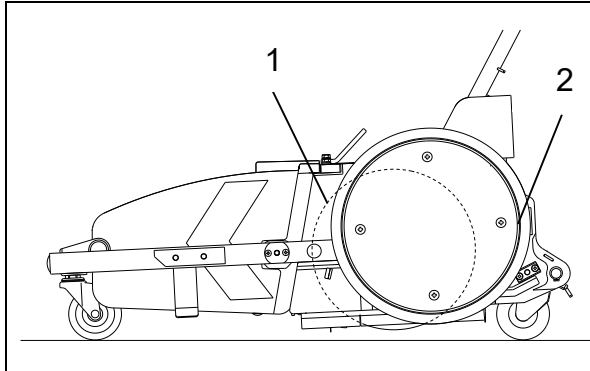
1	Round Belt	3	Arm Mounting Bracket
2	Height Adjustment Knob	4	Side Brush

○ OPERATIONS

■ Description of moving casters

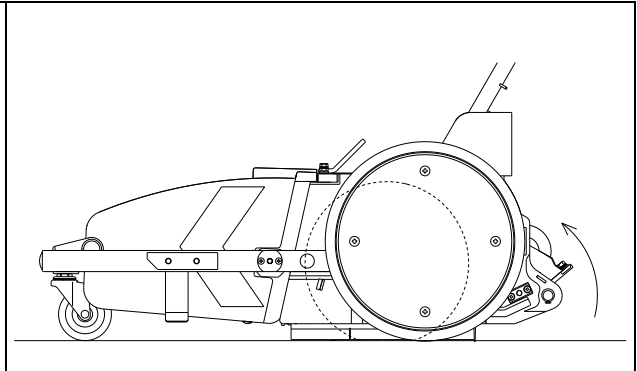
<When moving the sweeper>

- Raise the tire and main brush off the ground.



<During cleaning work>

- Place the tires and main brush on the ground.

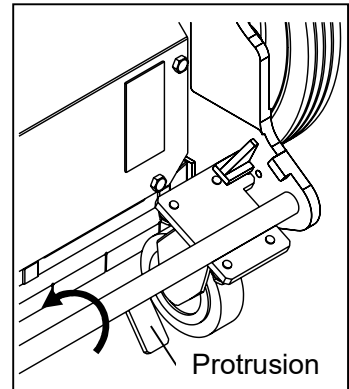


▶ 1. Main Brush 2. Tires

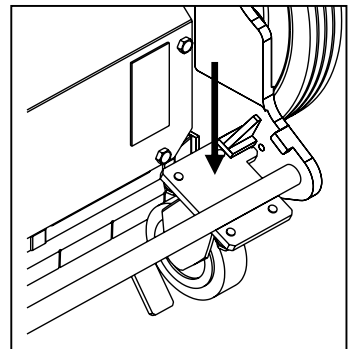
< When cleaning >

1. Hold the handle to lift the tire.

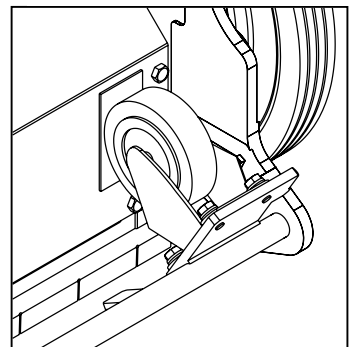
Turn the protruding part of the caster upward.



2. If the lock is hard, push the arrow part on the caster.

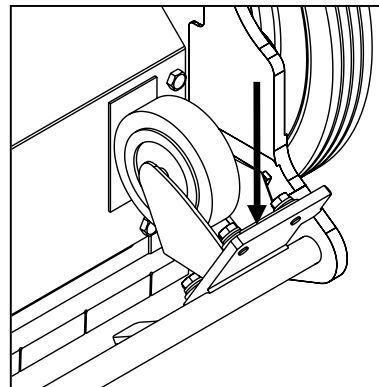


3. Rotate it using the protrusion until it touches the main body cover.

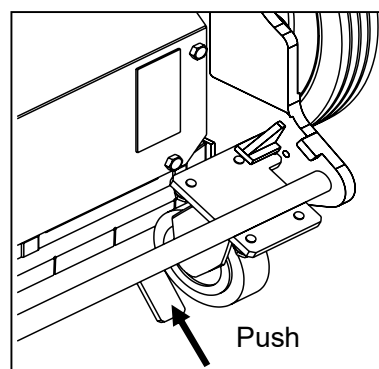


<When moving>

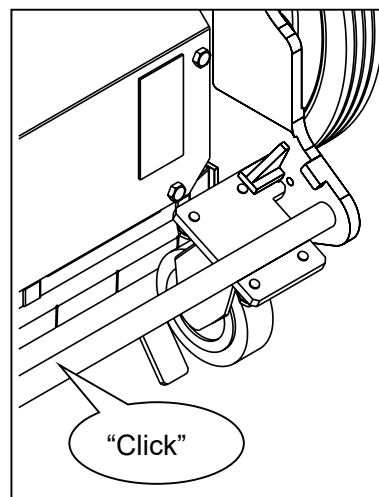
1. Hold the handle and lift the tire, rotate the corner of the caster towards you and lower it to the ground.



2. Push the protrusion of the caster towards the main unit.



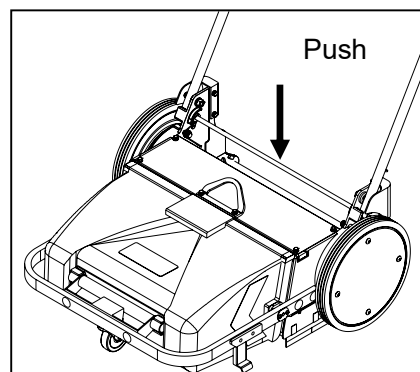
3. Push down on the main unit until you hear a "click" sound.



■ Handle operation explanation

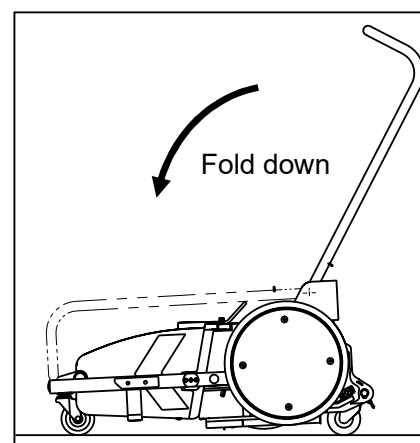
<When folding the handle>

1. Step on the unlock bar.



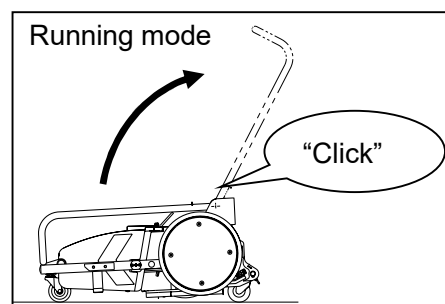
2. Fold down the handle.

Note : Even if the handle is folded, it will not lock.



<When putting the handle in running mode>

1. Raise the handle until you hear a click.



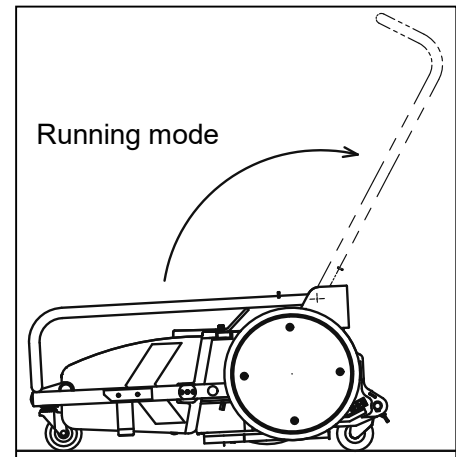
■ Preparation before cleaning

⚠ CAUTION

- **When folding the handle, be careful not to pinch your hands or fingers.**

Make sure that the handle is locked when you put it in running mode.

Move it to the cleaning area using the moving casters.



■ Cleaning

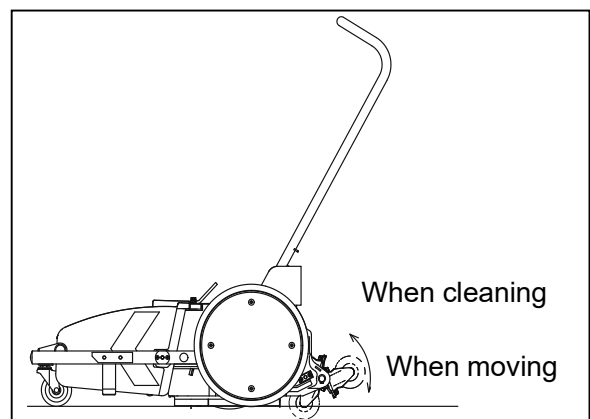
⚠ CAUTION

- **Do not clean the mobile casters while they are in contact with the road.**
Reversing in this condition may damage the road surface.

When cleaning, push the protrusion on the mobile casters to rotate them.

Then, place the tires and main brushes on the road.

By holding the handle and moving the sweeper forward, the roll brush rotates and cleans the road surface.



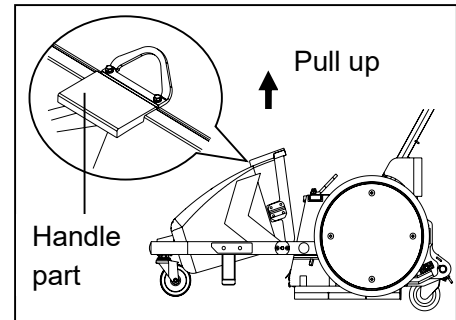
■ Install and removal of the dust case

CAUTION

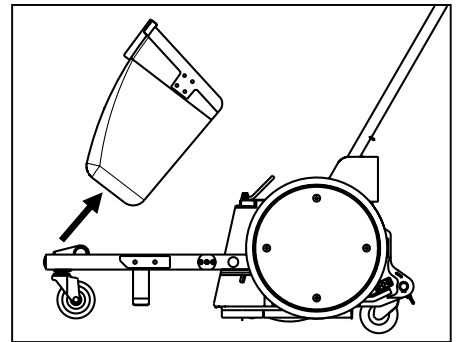
- **When folding the handle, be careful not to pinch your hands or fingers.**

<Removing the dust case>

1. Pull up the handle of the dust case.

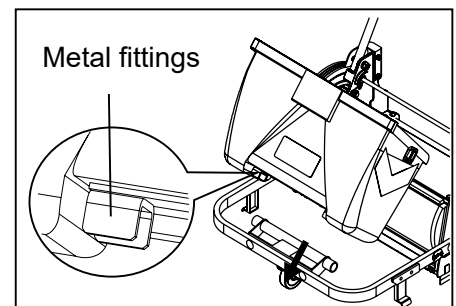


2. Remove the dust case from the frame.

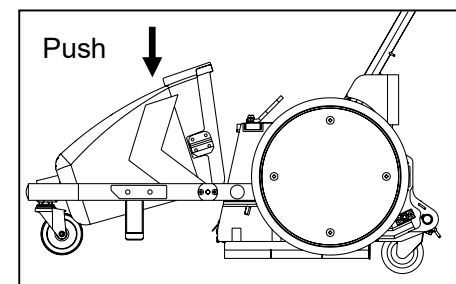


< When installing the dust case >

1. Place the metal fitting at the tip of the dust case to the frame.



2. Push down on the handle until you hear a "click" sound and it stops.



○ REMOVING AND OPERATION METHOD OF THE SIDE BRUSH

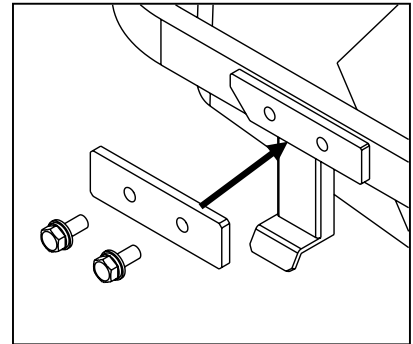
* Side brush ES-2SB is an option. It is not included with the product itself.

○ Side brush ES-2SB is installed on the left side of the main frame (viewed from the handle side).

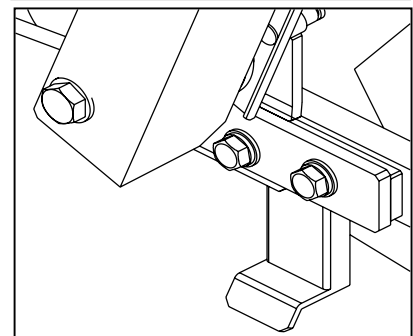
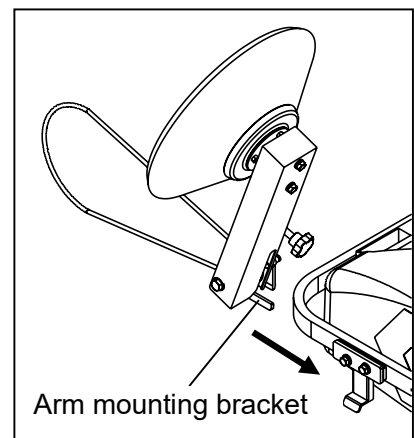
■ How to install the side brush

1. Attach the plate.

Please fasten firmly.

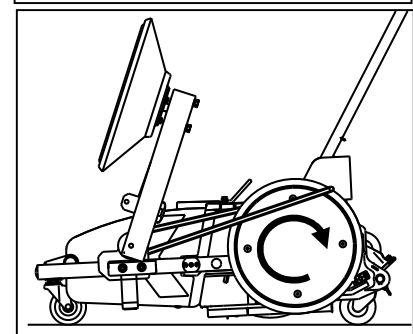


2. Insert the side brush into the groove.

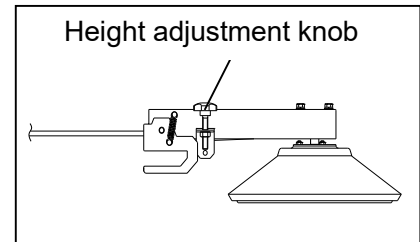


3. Hook the round belt to the tire and set while turning slowly.

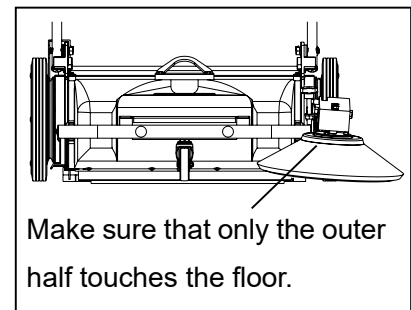
Once set, tilt the side brush forward.



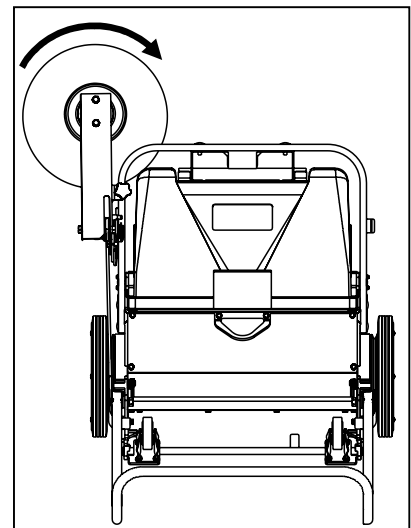
4. Adjust the height of the side brush using the height adjustment knob.



5. Adjust the side brush so that only the outer half lightly touches the floor.
Also, if you lower the side brush too much, the dirt will not be collected in the center and will be scattered around.



6. Check the side brush is rotating clockwise when viewed from the handle side.

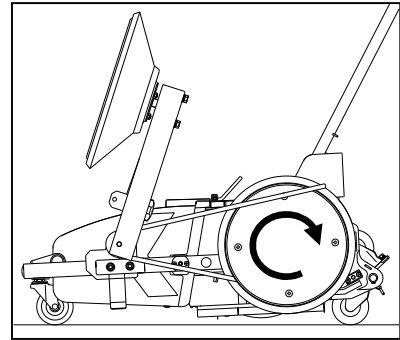


■ How to remove the side brush

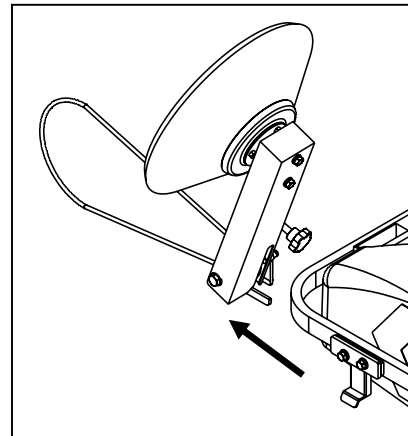
⚠ CAUTION

- **Be careful not to pinch your hands or fingers as tension is applied to the belt.**

1. When removing the side brush, raise the brush, hook the round belt to the tire, and rotate the wheel.



2. Pull the side brush toward you to remove it.

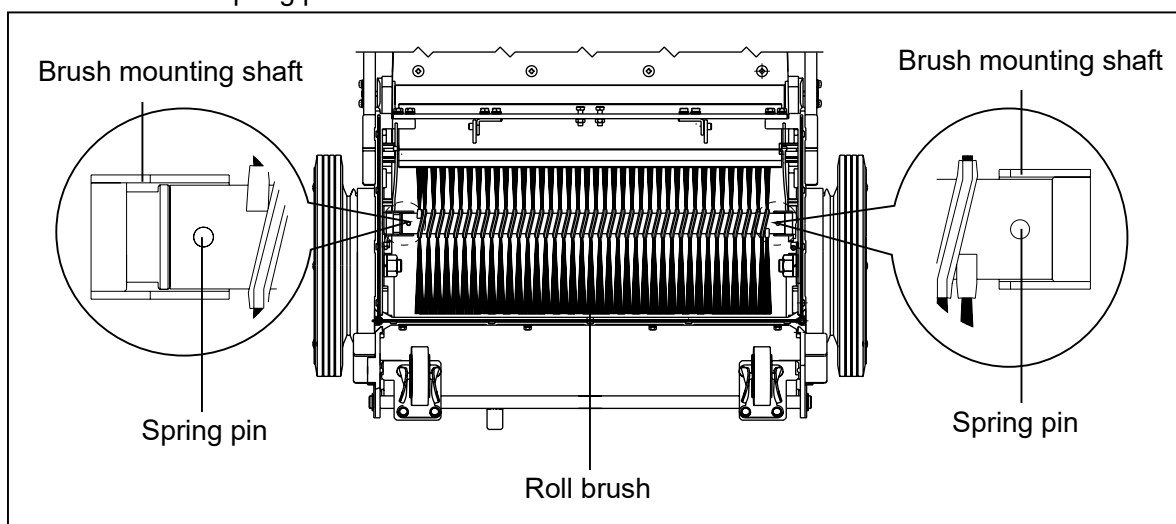


○ REPLACING THE BRUSH

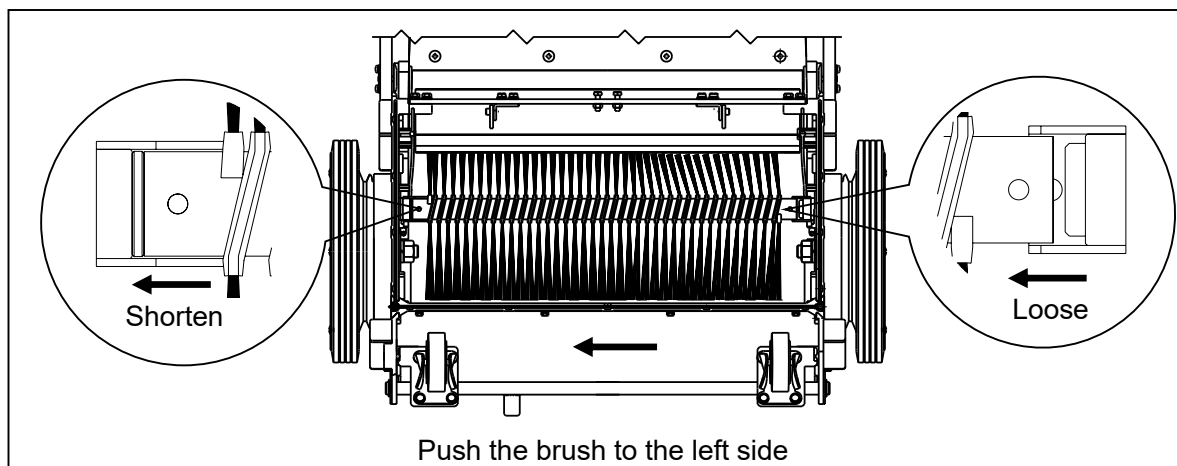
■ How to remove the roll brush

1. Remove the dust case.

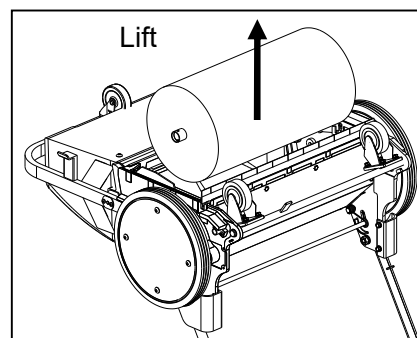
Holding both the handle and frame, turn the unit over to reveal the roll brush. Rotate the roll brush so that the spring pins on both sides are visible.



2. Push the brush in the direction of the arrow.

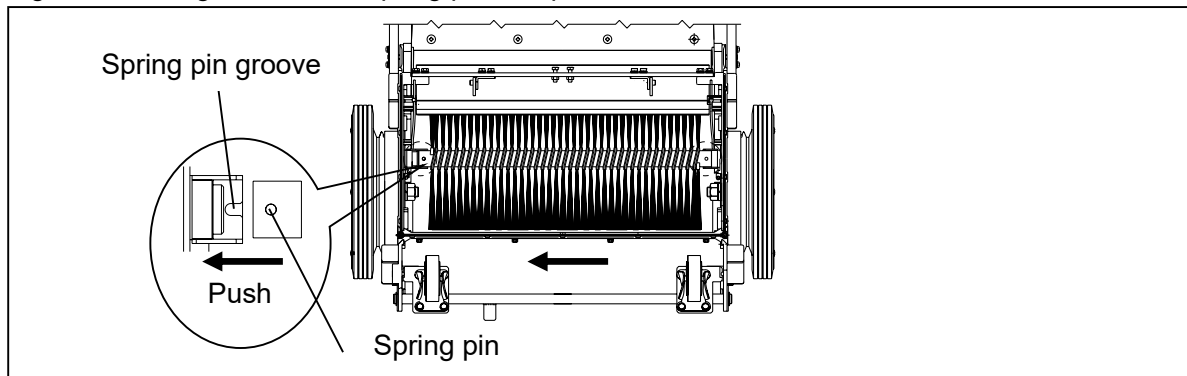


3. The brush can be removed from the brush mounting shaft by pushing the brush to the left. Also, lift the brush upward once it is removed.

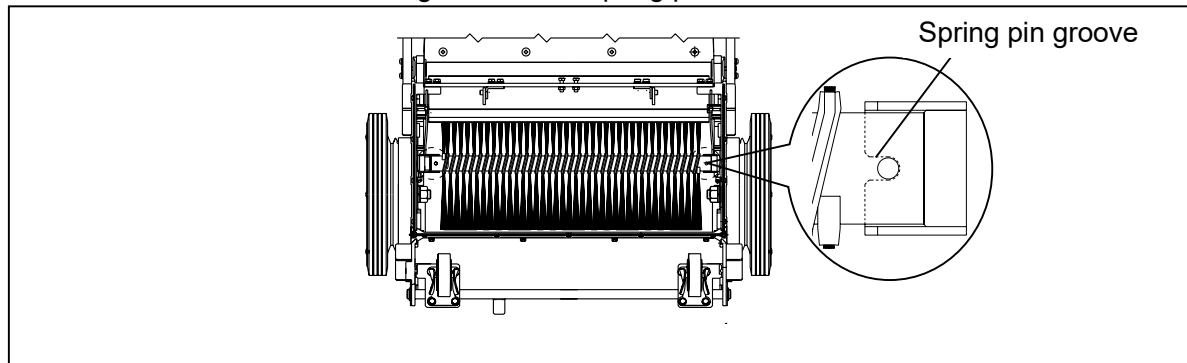


■ How to install a roll brush

1. Align it with the groove of the spring pin and push it to the left.

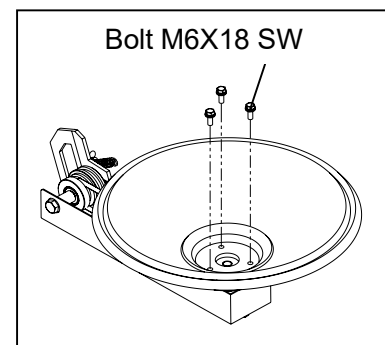


2. Fit the other side to match the groove of the spring pin.

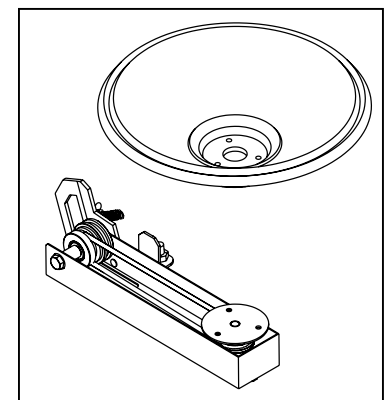


■ How to replace the side brush

1. Remove the three bolts inside the side brush.



2. Remove and replace the side brush.



○ STORING METHOD

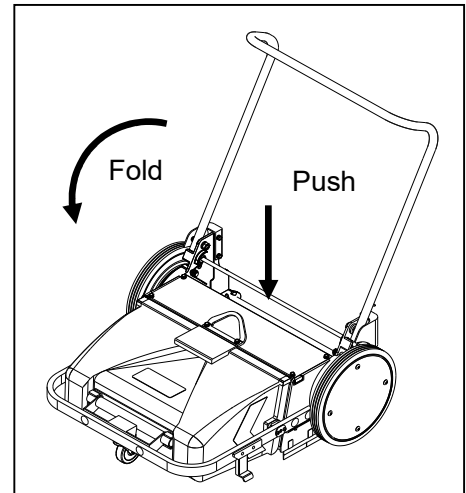
CAUTION

- **After use, dispose of waste before storing.**
- **Keep out of reach of children.**
- **Do not store near hazardous materials or fire.**
- **Remove side brushes before stacking.**

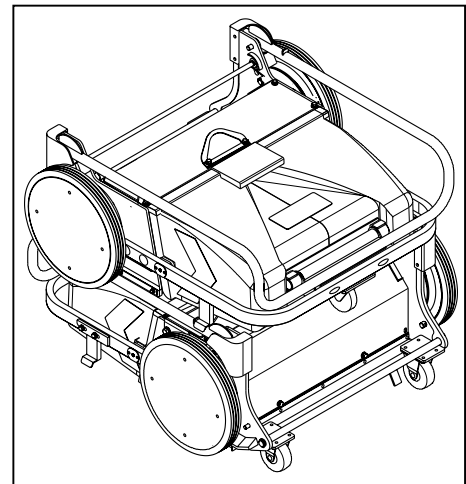
- This product can be stacked up to 4 times.

1. To fold the handle forward, push down the unlock bar.

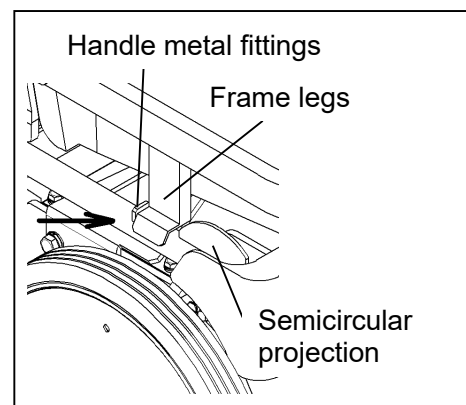
Note : Even if the handle is folded, it will not lock.



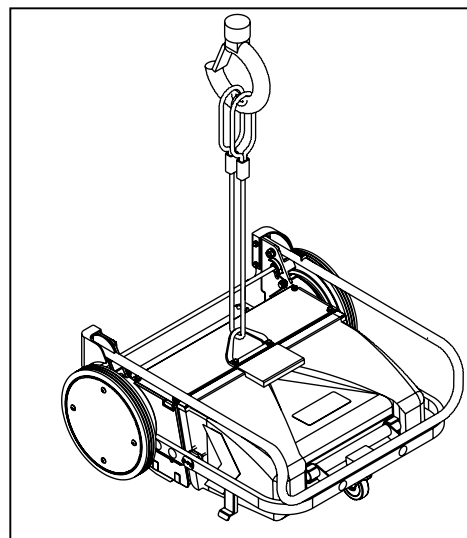
2. When stacking this product, be sure to hold both the handle and frame and stack them alternately, front to back.



3. Stack them so that the legs of the frame are between the handle hardware and the semicircular projection.

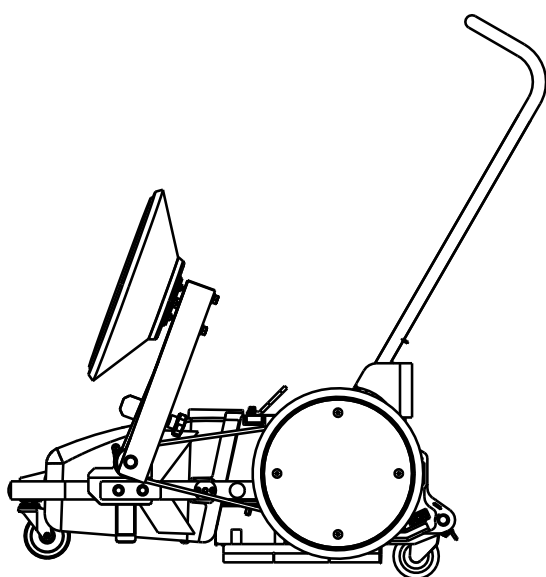


4. When using a sling, be sure to fold the handle and then thread the rope through the sling.

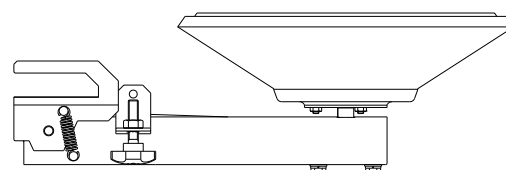


■ How to store the side brush

- There are two ways to store the product: standing with the side brush attached to the product or removing the side brush from the product and storing it facing up.



Attached to the main unit for storage

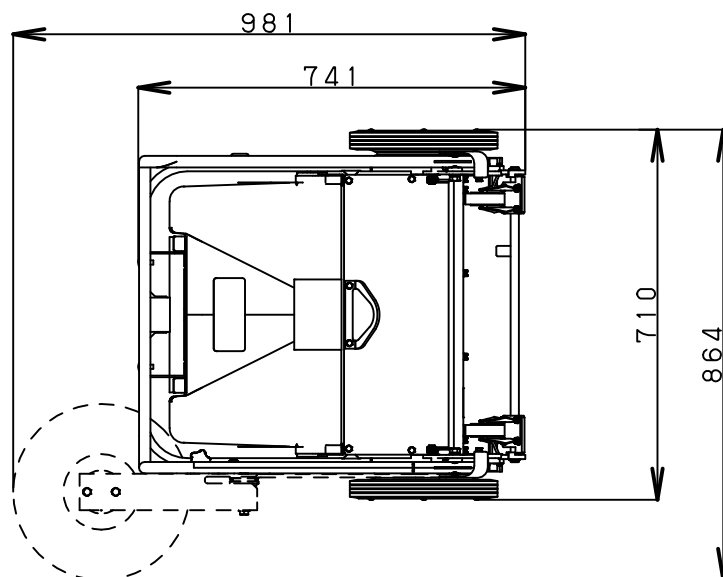
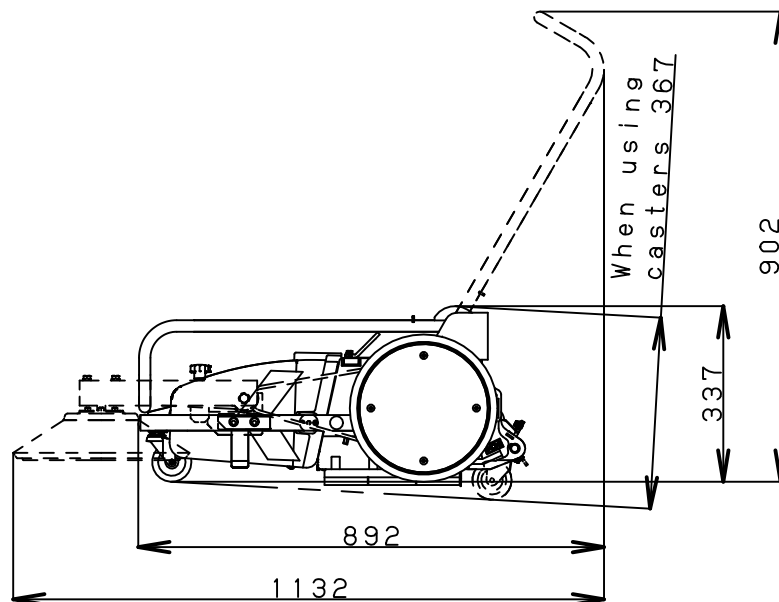


Removed from the main unit for storage

○ SPECIFICATIONS

() is with side brush

Sweeping width	460mm (715mm)
Sweeping performance	1600m ² /h (2500m ² /h)
Dust case capacity	20L
Body size (L×W×H)	892 (1132) × 710 (864) × 902mm
Body size (When folded)	741 (981) × 710 (864) × 337mm
Mass	26.8 (29.0)kg



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