



TASKI®

balimat 6500

Instruction Manual
(Translation of the Original Version)

en



2024-08-21



CONTENTS

CONTENTS, GENERAL	3	BATTERIES	...19
CONTENTS	3	CHARGING THE BATTERIES	19
PROPER USE	4	BRAKE	...20
EC CONFORMITY DECLARATION	4	ADJUSTING THE BRAKE	20
RATING PLATE	4	BRAKE TEST	21
EXPLANATION OF SYMBOLS	4	AUTOMATIC SAFETY DEVICE	21
CONSTRUCTION, FUNCTION, TECHNICAL DATA	5	STEERING	22
FUNCTION	5	TRANSPORT OF THE MACHINE	22
OPERATING AND FUNCTIONAL COMPONENTS	6	TROUBLESHOOTING	...23
TECHNICAL DATA	7	CONTACT DATA	...24
SAFETY	8	MAINTENANCE WORK /	
SAFETY INSTRUCTIONS (FOR OPERATION, BATTERIES)...	8	MAINTENANCE TABLE	25
SYMBOLS IN THE OPERATING MANUAL/ON THE SWEEPER...	8	SHUT DOWN, DISMANTLING, DISPOSAL	...26
SAFETY INSTRUKTIONS-ATTACHEMENT STICKER	9	CIRCUIT DIAGRAM	27
SAFETY EQUIPMENT	...10		
START UP	...10		
WASTE DISPOSAL / RECYCLING	10		
OPERATION	...11		
ADJUSTING THE DRIVER'S SEAT	11		
STARTING SWEEPER	11		
SWEEPING OPERATION	...12		
SWEEPING OPERATION WITH			
SIDE BRUSHES, ROLLER BRUSH AND FAN	12		
SAFETY INSTRUCTIONS	12		
SWEEPING OPERATION ROLLER BRUSH	12		
STOPPING THE SWEEPING OPERATION	12		
SWEEPING OPERATION SIDE BRUSHES	12		
STOPPING THE SIDE BRUSHES	12		
OPERATING VACUUMING SYSTEM	12		
OPERATING THE FILTER SHAKER MECHANISM	13		
PARKING THE SWEEPER	13		
EMPTYING THE SWEEPINGS CONTAINER	14		
REMOVING THE SWEEPINGS CONTAINER	14		
INSERTING THE SWEEPINGS CONTAINER	14		
REPLACING THE DUST FILTER	15		
INSERTING THE DUST FILTER	15		
INSTALLING THE FILTER	15		
CLEANING THE SWEEPER	15		
SIDE BRUSH	...16		
REMOVING THE ROLLER BRUSH	16		
INSTALLING THE ROLLER BRUSH	16		
ADJUSTING THE SIDE BRUSH	16		
ROLLER BRUSH	...17		
REMOVING THE ROLLER BRUSH	17		
INSERTING THE ROLLER BRUSH	17		
CHECK THE SWEEP	18		
SETTING THE SWEEP LEVEL	18		

CONTENTS

This operating manual contains instructions for using the sweeper.

Carefully keep the operating manual so that you can refer to it later.

Our products are being continuously improved. Design changes after going to print may therefore not be considered. If you have any questions, please contact our Service department (for contact details, see page 24).



Carefully study the operating manual and the general safety instructions before you unpack the machine any further or undertake first start up.

The operating manual is to be read attentively and followed by any person that operates the sweeper.

PROPER USE

Only use the sweeper according to the specifications in this operating manual.

The sweeper is only intended for sweeping hard standing areas (e.g.: car parks, pavements, warehouses). The sweeping environment must not be wet.

The sweeper must only be operated by reliable, instructed personnel.

Prevent it from being used by children, young people and other unauthorised persons, e.g. by removing the key after use.

Any other usage beyond this is deemed to be improper use (see "Safety Instructions", page 7). The manufacturer is not liable for any damage resulting from this.

The user is solely responsible for the risk.

Proper use also includes following the operating manual, the safety instructions and keeping to the servicing and maintenance specifications.

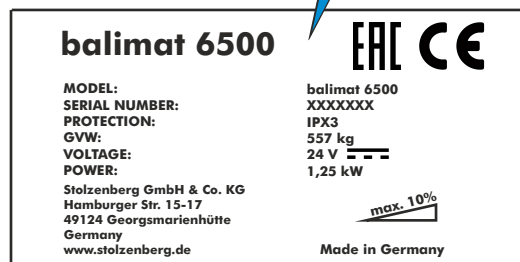
Only operate in expressly assigned routes and places.

Observe the maximum climbing ability specified in the technical data and maximum possible slope inclination for operating across slopes. Due to an abrupt change of direction, particularly on slopes, the sweeper may tip. Adapt your operating manner and speed to the conditions.

Follow the instructions on suitable ground (asphalt, screed, industrial floors, concrete, paving stones etc.)

RATING PLATE

The rating plate is attached on the frame.



EC DECLARATION OF CONFORMITY

EC Declaration of Conformity

According to the EC Machinery Directive 2006/42/EC, Annex II 1.A

We hereby declare that the machine designated below complies with the essential safety and health requirements of the EC Machinery Directive in its design and construction and in the version marketed by us.

Mister Kai Stolzenberg - Management of Stolzenberg GmbH & Co. KG, Hamburger Straße 15-17, 49124 Georgsmarienhütte - be authorized to compile the technical documentation.

Manufacturer: Stolzenberg GmbH & Co. KG
Hamburger Straße 15-17
D-49124 Georgsmarienhütte

Description of the machine: Ride-on suction sweeper with
Tandem-Roller-System

Machine type: balimat 6500

Applicable EC Directives: 2006/42/EG
2014/30/EU
2000/14/EG

Applied harmonized standards,
in particular:

DIN EN 60335-1:	2020-08
DIN EN 60335-2-72:	2014-09
DIN EN 55012:	2010-04
DIN EN 61000-6-2:	2019-11
DIN EN 61000-3-2:	2019-12
DIN EN 61000-3-3:	2020-07

Georgsmarienhütte, 11.01.2021


Kai Stolzenberg
(General Manager)

EXPLANATION OF SYMBOLS

⚠ DANGER!indicates a possibly dangerous situation that can cause death or serious injuries.

⚠ CAUTION!indicates a possibly dangerous situation that can cause minor injuries.

⚠ WARNING ...indicates a possibly dangerous situation that may cause material damage.

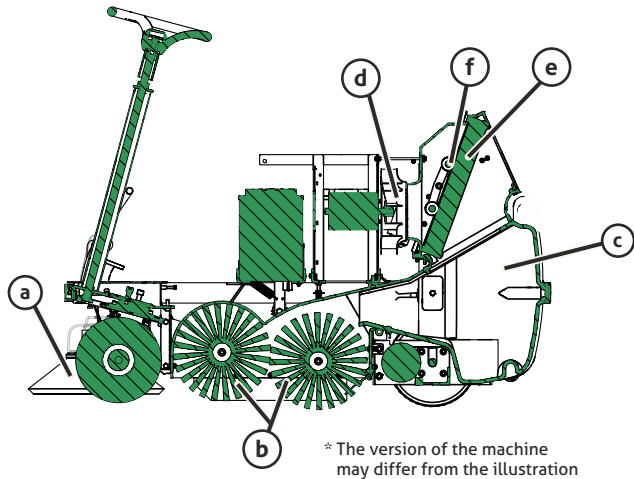
i INSTRUCTIONindicates important information.

CONSTRUCTION, FUNCTION, TECHNICAL DATA

The **balimat 6500** is a battery-operated, ride-on vacuum sweeper vacuum sweeper fitted with the **tandem roller system (TRS)**.

The **TRS** allows large sweeping materials to be swept up without difficulty. The sweeper has a powerful vacuum function.

FUNCTION



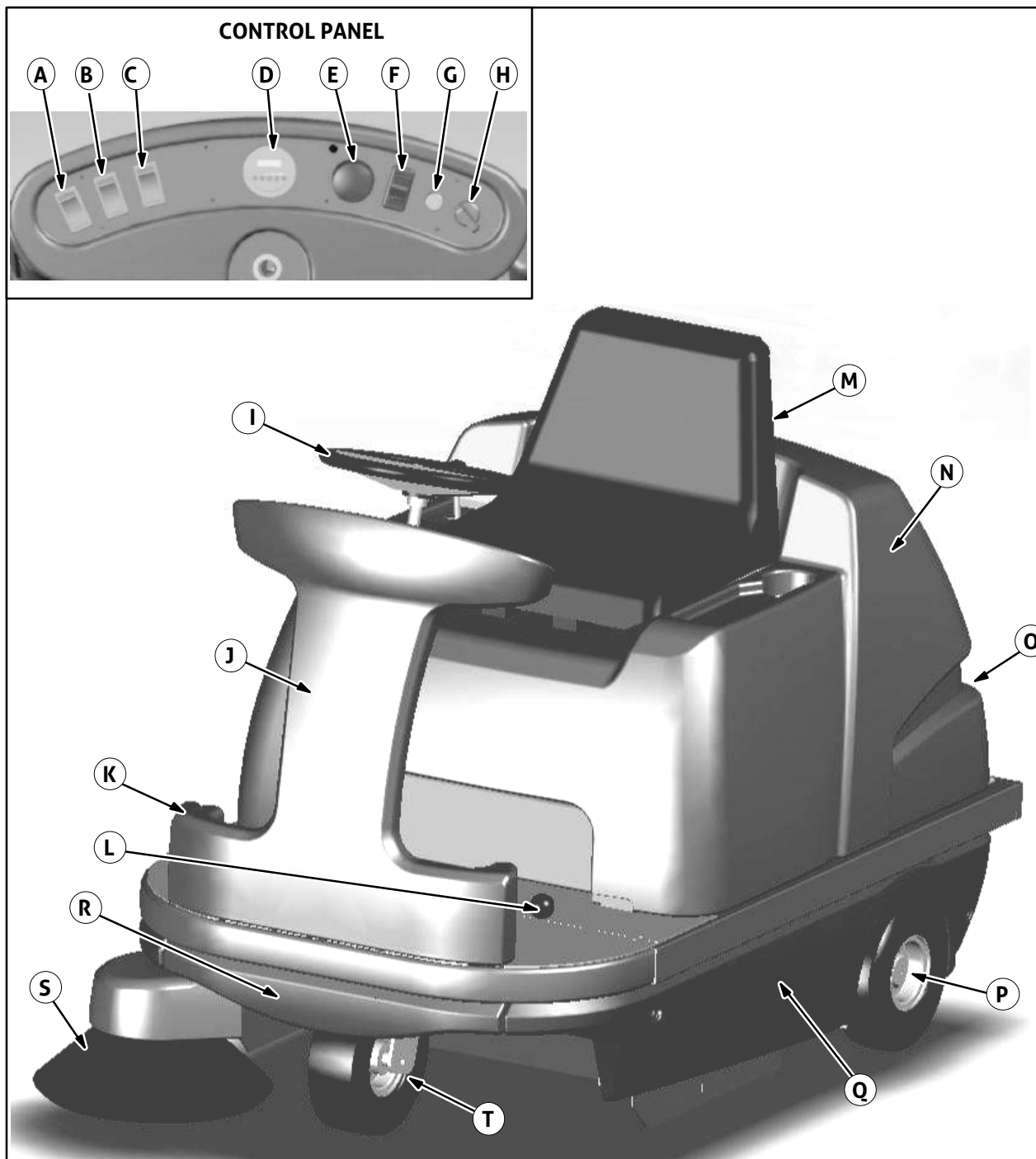
In the tandem roller system (TRS), sweeping materials are first conveyed by means of the side brush (a) from the corners and edges of the sweeping area into the centre of the machine and therefore towards the two counter-rotating roller brush (b).

From this, the sweeping material is taken up and conveyed into the dirt-hopper (c) situated at the back.

The dust stirred up by the sweeping process is vacuumed up by a vacuuming system (fan) (d), filtered by flat-pleat filter (e) and thus separated from the clean air.

Electro-mechanical filter cleaning (f) removes the dust caked onto the flat-pleat filter and allows this to drop into the dirt-hopper.

OVERVIEW:



- A. Side brush switch
- B. Main brush switch
- C. Vacuum/filter cleaner switch
- D. Battery condition display
- E. Emergency stop switch
- F. Directional switch
- G. Horn push button
- H. Key switch
- I. Steering wheel
- J. Front console

- K. Side brush lever (standard right)
- L. Side brush lever (optional left)
- M. Driver's seat
- N. Main cover
- O. Debris hopper
- P. Drive wheel
- Q. Side cover
- R. Front trim panel
- S. Pivotal side brushes
- T. Front wheel with drum brake

TECHNICAL DATA

DIMENSIONS AND WEIGHT

Item	Measure
Length	1420 mm
Width	900 mm
Height at steering wheel	1140 mm
Weight: without batteries	220 Kg
Weight: with batteries	350 Kg
Sweeping width without side brush	700 mm
Sweeping width with one side brush	900 mm
Sweeping width with two side brush	1100 mm
Debris hopper volume	90 ltr
Turning Radius	1210 mm
Climbing capacity Transport Mode	20%
Climbing capacity Sweeping Operation	10%
Speed	0-6 km/h
Filter Area	4 qm
Air volume of the Dust Filter	900 m ³ /h
Supporting frames	Steel construction powder coated
Trim panel parts	Impact resistant plastic
Hand-Arm-Vibration Kennwert	2.5 m/s ²
Sound level maximum	70 dB (A)

ELEKTRIK

Fuse	electric circuit	Measure
CB1	Vacuuming System/ Filter cleaning	20
CB2	Roller brush	25 A
CB3	Side brush	10 A (20 A)
CB4	Horn, reverse signal, Warningbeacon	20A
CB5	Traction drive	45 A
CB6	Power supply Traction drive electric	1A
CB7	Charge Indicator / Relais	20 A
Fuse		

ELEKTRIC DRIVES

Motor	MEASURE
Propelling drive	differential geared motor 24V, 130 rpm, 400 W
Side brushes	geared motor 24V, 90 rpm, 90 W
Roller brush	geared motor 24V, 220 rpm, 400 W
Vacuuming System	DC Motor, 24V, 3000 rpm, 300 W

TIRES

Location	Type	Size
Front (1)	Solid	260 x 85 mm
Back (2)	Pneumatic pressure (5,5 Bar)	260 x 85 mm

BRAKES

Brake	Location
Drum brake	On front wheel
Parking brake	On front wheel

SAFETY

SAFETY INSTRUKTIONEN

As well as the operating manual and the binding regulations for accident prevention applicable in the country of usage and at the place where it is deployed, recognised rules for safety and expert working, and environmental protection, are also to be followed.

SAFETY INSTRUCTIONS FOR OPERATION

- The machine is to be inspected before usage for its perfect condition and operational safety. If it is not in perfect condition, it must not be used.
- In particular, have any errors that may affect safety rectified immediately.
- Operating the machine in buildings at risk of explosion is prohibited.
- Sweeping up of flammable, toxic or explosive materials and combustible gases or undiluted acids and solvents, burning or smouldering objects is prohibited.
- The device is not suitable for accepting fluids, ropes, twines, wires or similar items.
- Only use the machine with the dirt-hopper inserted to prevent injuries due to parts being projected.
- Do not make any alterations or additions to the machine without the approval of the manufacturer.
- Persons (including children) who, due to their physical, sensory or mental capacities or their inexperience or lack of knowledge, are not capable of using the machine safely must not use this machine without the supervision or instruction of a responsible person. Children must be supervised to ensure that they do not play with the machine.
- Caution: Loose items of clothing may be drawn into rotating parts and cause serious or fatal injuries.
- Transporting loads with the sweeper is not permitted.
- Observe the maximum climbing ability specified in the technical data and maximum possible slope inclination for operating across slopes. The equipment may tip, particularly on slopes. Adapt your operating manner and speed to the conditions.
- The machine is not permitted for use on roads.
- Suitable, non-slip footwear is to be worn to avoid accidents.

SAFETY INSTRUCTIONS ON BATTERIES

- The operating instructions of the battery manufacturer for their product and the specifications of the legislator on handling batteries are to be followed.
- Charge flat batteries directly after usage and only keep in well-ventilated rooms.
- Keep away from naked flames and electrical sparks in the charging area, as a highly-explosive gas mixture can be produced when charging batteries.
- Always keep batteries clean and dry to avoid leakage currents. Never short circuit the battery terminals.

- To avoid damage to health, smoking, eating and drinking in the area of the battery charging station is to be avoided.
- The battery must only be charged with the front panel open and secured by the cover holder.
- Ensure safe and environmentally-friendly disposal of operating and auxiliary materials, as well as replacement parts, particularly batteries!

SAFETY INSTRUCTIONS FOR CARE AND MAINTENANCE

- Before cleaning and maintaining the equipment, replacing parts or changing to a different function, the equipment is to be switched off and the ignition key is to be pulled out.
- Spare parts must correspond to the requirements laid down by the manufacturer. This is always guaranteed for original spare parts.
- Accessories and spare parts must only be installed by an authorised customer service department.
- For work on the electrical system, the battery is to be disconnected.
- The equipment must not be cleaned with a hosepipe or high-pressure water jet (risk of short-circuits or other damage).
- Repairs must only be made by the permitted customer service centres or by experts in this field familiar with all the relevant safety regulations.
- Follow the safety review according to the locally-applicable regulations for mobile industrial equipment.
- Always wear suitable gloves when working on the equipment.

SYMBOLS IN THE OPERATING MANUAL/ON THE SWEEPER

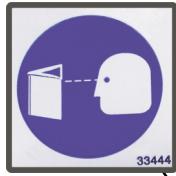
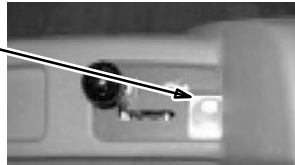
	WARNING! CAUTION! DANGER! THE INSTRUCTIONS DESCRIBED MUST BE FOLLOWED
	WEAR BREATHING PROTECTION!
	WEAR PROTECTIVE GOGGLES!
	WEAR GLOVES!
	FOLLOW THE OPERATING INSTRUCTIONS!
	WARNING: FLYING SHELTER!
	REMOVE KEY
	WARNING: BATTERY RISK OF EXPLOSION!
	WARNING: NO SMOKING!
	CHARGING BATTERY ONLY WITH FRONT PANEL OPEN!

SAFETY INSTRUKTIONEN - ATTACHEMENT STICKER

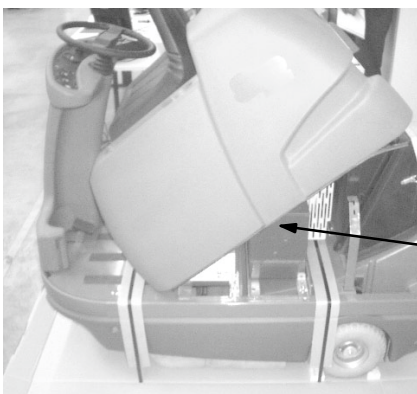
The following safety labels are mounted on the Machine in the locations indicated.

If any Label becomes damaged or illegible, install a new label in its place.

FOR SAFETY LABEL – LOCATED ON THE SIDE OF THE OPERATOR COMPARTMENT.



**Battery charging label-
located in battery compartment**



**FLYING DEBRIS LABEL –
LOCATED ABOVE DRIVE AXLE**

SAFETY EQUIPMENT

This sweeper can only be started if

- the ignition key is set to the ON position;
- the emergency switch is deactivated.

If the main switch is set to reverse motion, an audible signal is heard.

START UP

i Instruction! Look out for damage in transit and if there is any, indicate this to your specialist dealer without delay.



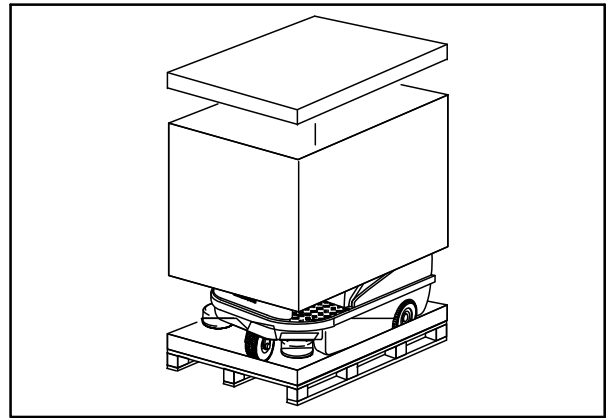
- 1• Open the transport packaging and disengage the seat switch cable.
- 2• Remove the cover. Lift up hood at back and lift the front spigots of the hood out of the retainer.
- 3• Install the batteries (if not installed)
- 4• Connect the batteries. Refer to technical data circuit diagram.
- 5• Replace the hood panel.
6. Connect the plugs of the seat switch cable.
7. Install the side brush

SEE ALSO: INSTALLING THE SIDE BRUSHES - Page 16

SEE ALSO: PUTTING OUT OF OPERATION / RECYCLING - Page 26

The Sweeper is ready for use.

⚠ WARNING! Use a unit ramp. The ramp must be designed in such a way as to allow the rear wheel as well as the drive wheels to travel across it. If this is not observed, damages to the sweeper mechanics may occur.



If the drive pedal is activated during the starting procedure, the power supply to the driving motor is interrupted. Power supply to the electric motor is interrupted, if the Driver's seat is not weighed down;

WASTE DISPOSAL / RECYCLING



Recycling packaging materials. Do not dispose of packaging materials in normal waste but forward for reprocessing.

For the disposal of all packaging materials, the disposal conditions specific for the location are applicable.

OPERATION

ADJUSTING THE DRIVER`S SEAT

Loosen the seat adjuster and shift the seat on the seat support to adjust the seat position.

STARTING SWEEPER

- 1• Sit down in the driver`s seat

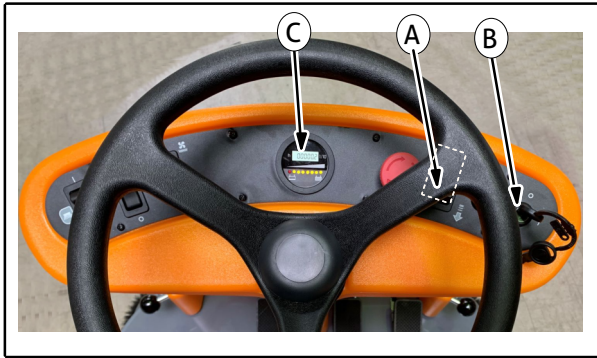
NOTE:

The Sweeper cannot be driven if the driver's seat is not weighed down.

- 2• Check the position of the directional switch.

NOTE:

- Forward position: the machine is set to propel forward.
- Backward position: the machine is set to propel in reverse.



- A. Direktion Switch
- B. Key switch
- C. Battery condition display

3. Insert the key into the key switch.

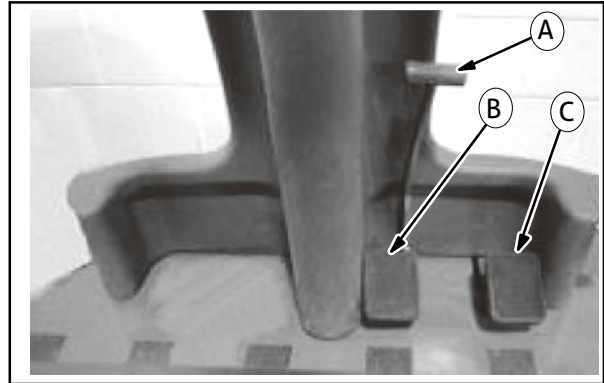
4. Turn the key clockwise

NOTE: A red LED starts flashing on the battery condition display indicating that the machine is ready for operation. After a few seconds the LED's will change to indicate the battery's charging condition.

5. Press the brake pedal.

6. Release the parking brake.

NOTE: An audible signal will sound when backing the machine.



- A. Parking brake
- B. Brake pedal
- D. Accelerator pedal

7. Press the accelerator pedal to adjust the speed of the sweeper.

SWEEPING OPERATION

MUST BE FOLLOWED!

You must only carry out the work described in this chapter if you have completely read and understood the operating manual, particularly page 8-11.

i INSTRUCTION Safety equipment is to be inspected for functioning before starting work

See also → *Safety, page 8*

i INSTRUCTION

Please adjust driving speed to the conditions (different ground surface, type and amount of sweeping material), to obtain a good sweeping result.

i INSTRUCTION

When in operation, the dust filter must be cleaned at regular intervals and as required.

i INSTRUCTION

When in operation, the dirt-hopper must be emptied at regular intervals and as required.

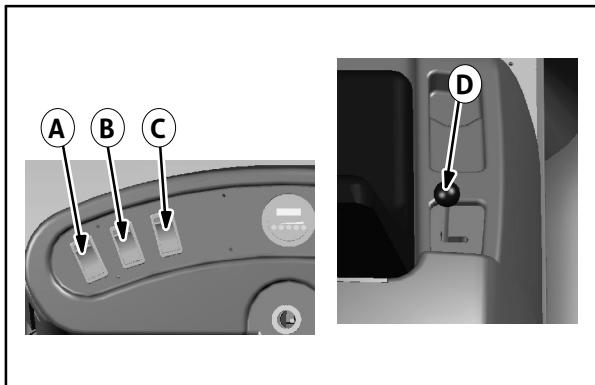
SEE ALSO - CLEANING DUST FILTER, PAGE 13

SEE ALSO - EMPYING DIRT-HOPPER, PAGE 14



SAFETY INFORMATION

Provide adequate ventilation when using the machine in closed rooms or buildings.
Do not sweep hazardous materials.



- A. Side brush switch
- B. Main brush switch
- C. Vacuum/filter cleaner switch
- D. Main sweeping brush lever

OPERATING OF THE ROLLER BRUSHES

1. Start the sweeper.
2. Place the main brush switch in the ON position.
The indicator lamp on the switch lights up.
The main brush begins rotating.
3. Lower the main brush with the main brush lever.
4. Sweep as required.

STOPPING THE ROLLER BRUSH

1. Place the main brush switch in the OFF position.
2. Raise the main brush with the main brush lever.

OPERATING THE SIDE BRUSH(ES)

1. Start the Sweeper.
2. Place the side brush switch in the ON position.
The indicator lamp on the switch lights up. The side brush(es) start(s) to rotate.
3. Lower the side brush with the side brush lever.

STOPPING THE SIDE BRUSH OPERATING

1. Place the side brush switch in the OFF position.
2. Raise the side brush with the side brush lever.

OPERATING THE VACUUMING SYSTEM (FAN)

i INSTRUKTION!

The fan must absolutely be switched on.

i INSTRUKTION!

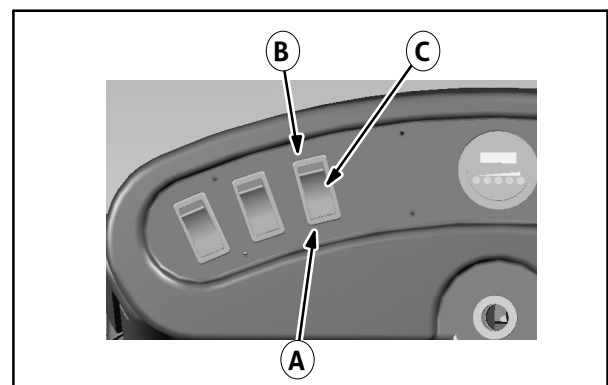
Do not operate vacuuming system when debris is wet.
This will cause damage to the fan.

The vacuum prevents dust formation during sweeping operations

1. Start the sweeper.
2. Place the vacuum/filter cleaner switch in the top vacuum position.

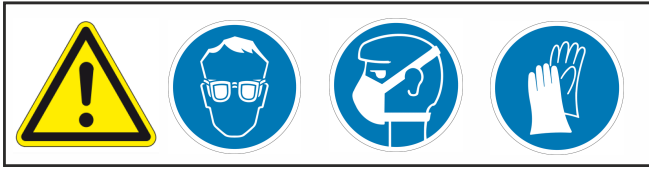
WARNING! The indicator lamp on the switch lights up. The vacuum begins operating.

WARNING! Turn off the vacuum operation by placing the switch in the middle OFF position.



- A. Filter cleaner position
- B. Vacuum position
- C. Middle OFF position

OPERATING THE FILTER CLEANING



The flat-pleat filter collects fine dust during sweeping operation. The filter cleaning cleans the dust and prevents the panel filter from being blocked by debris.

1. Place the main brush switch in the OFF position.
2. Place the vacuum/filter cleaner switch in the middle OFF position.
3. Wait until fan stops.
4. Press and hold the switch in the filter cleaner position for about 5–10 seconds.

i **Instruction!** Ensure that the dirt-hopper has been inserted.

i **Instruction!** It is recommended waiting 5-10 seconds until the fine dust has settled before emptying the dirt hopper.

TURNING OF THE SWEEPER

1. Press and hold the brake pedal.
2. Lock the brake by pulling the locking lever towards the driver's seat.



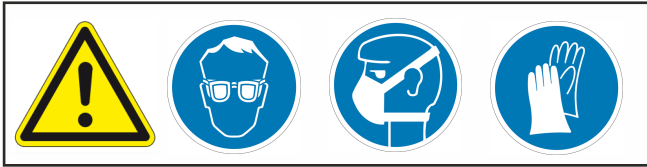
INSTRUKTION! When the brake is released the brake pedal must remain in pressed position.

3. Switch off all functions.
4. Raise the main brush and side brush(es) with the levers.
5. Turn the key counterclockwise and remove it from the key switch.

EMPTYING THE DIRT-HOPPER

The dirt container is where the debris is collected. It is positioned at the back of the sweeper. The dirt hopper must be emptied after each use.

⚠ CAUTION! → Risk of crushing when closing the dirt-hopper.



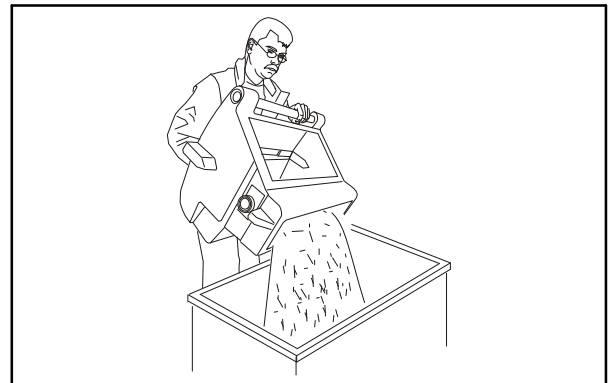
REMOVING THE DIRT-HOPPER

1. Turn the dirt-hopper locking devices upward.
2. Pull the dirt-hopper from the sweeper by the handle until the front dirt-hopper guide rails are free.

⚠ DANGER! → Brush throws debris. Stop motor before removing hopper.

⚠ DANGER! Before leaving or servicing machine, stop on a level surface, set parking brake, turn off machine and remove key.

3. Lower the debris hopper to the ground.
4. Remove the debris hopper completely from the sweeper.
5. In order to empty the debris hopper use the free hand to take hold of the handle.
6. The debris is discharged through the opening at the front of the hopper.
7. Empty debris into appropriate containers only.
8. Dump heavy loads on floor or use an assistant to help lift.



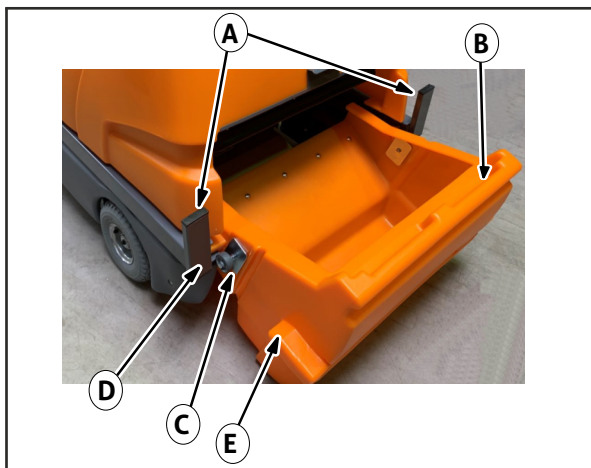
 = > 15 kg / 33 lbs → 

REINSERTING THE DIRT-HOPPER

⚠ CAUTION! → Risk of crushing when closing the dirt-hopper



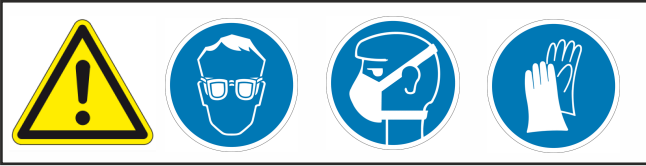
1. Position the debris hopper in front of the sweeper opening.
2. Align the debris hopper front guides level with guide rails.
3. Slide the debris hopper into the sweeper.
4. Turn the locking device downward.



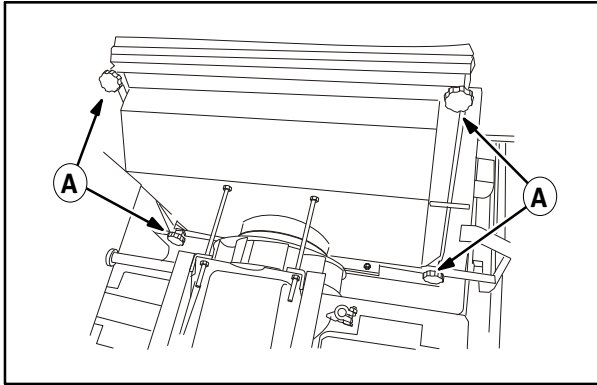
- A. Locking devices
- B. Handle
- C. Guide roller
- D. Guide rail
- E. Dirt-hopper guides

WARNING! At the back of the debris hopper two guiding rollers are installed to make the removal more easy.

REPLACING THE FLAT-PLEAT FILTER



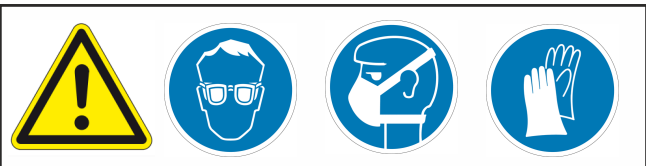
1. Open the hood.
2. Lock hood securely using the hood prop.



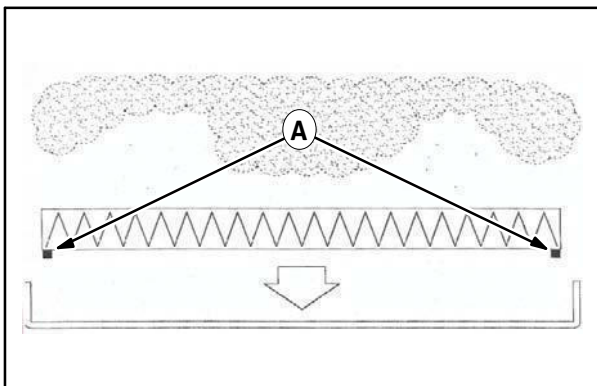
A. Star handles

3. Loosen the top two star handles.
4. Swing up the top angular bracket.
5. Loosen the bottom two star handles.
6. Pull the filter out of the fixture.

POSITIONING THE FLAT-PLEAT FILTER



Filter shows the following symbol on the frame.



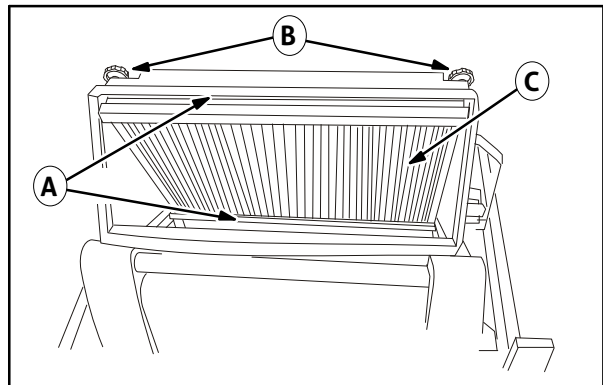
A. Filter seal

Make sure the filter is facing the right direction when installing. The seal filter must show towards the filter housing as shown.

INSTALLING THE FLAT-PLEAT FILTER



1. Place the filter into the lower angular bracket.
2. Swing the upper bracket over the filter.
3. Tighten the top star handles slightly.
4. Tighten star handles evenly crosswise so that the filter snugly fits all around the seal.
5. Adjust the bolts and the nuts in a way that, provides the filter with the best possible Sealing inside the casing.



A. Angular brackets
B. Star handle
C. Filter

CLEANING THE FILTER



The sweeper is equipped with electrical components.

INSTRUCTION! Electronics controls of the machine are damaged by moisture. Moisture may lead to leak current and short circuits. Do not use high-pressure cleaning devices.

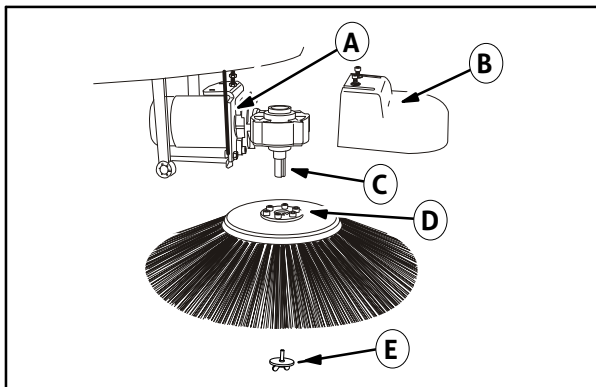
SIDE BRUSHES



REMOVING THE SIDE BRUSH

FOR SAFETY: Before leaving or servicing machine, stop on a level surface, set parking brake, turn off machine and remove key.

1. Turn off the sweeper.
2. Raise the side brush with the side brush lever.
3. Lift up the side brush motor.



- A. Side brush motor
- B. Side brush cover
- C. Shaft with keyway
- D. Flange base with feather key
- E. Fastening screw

4. Loosen the fastening screw at bottom center of the side brush.
5. Pull the side brush down and off.
6. Replace the side brush.

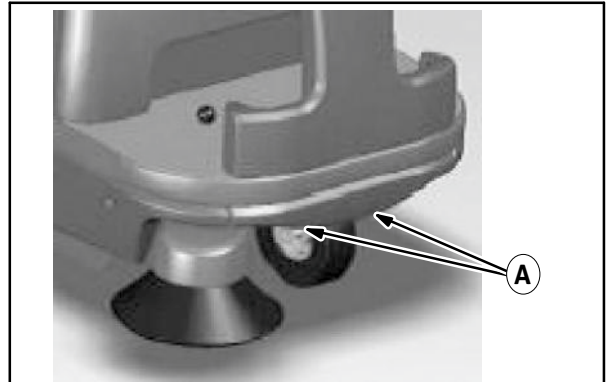
INSTALLING THE SIDE BRUSH

1. Fasten the flange plate to the side brush. The flange plate is equipped with a key. The side brush motor shaft is equipped with a keyway.
2. Turn the side brush until the key fits snugly into the keyway.
3. Slide the shim over the shaft of the side brush motor.
4. Fasten the side brush to the shaft of the side brush motor with the fastening screw.

ADJUSTING THE SIDE BRUSH

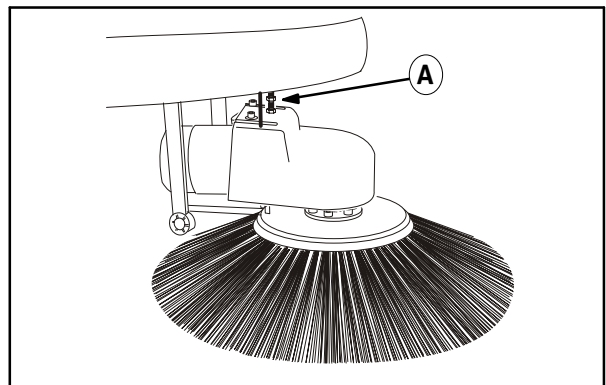
Normal wear requires additional adjustment of the side brushes.

1. Turn off the sweeper.
2. Lower the side brush with the side brush lever.
3. Loosen the bolts of the front panel.
4. Remove the front panel.



A. Bolts for the front panel

5. Loosen the bolt of the side brush level adjustment.
6. Move the side brush to the desired position.
7. Tighten the bolt of the side brush level adjustment.

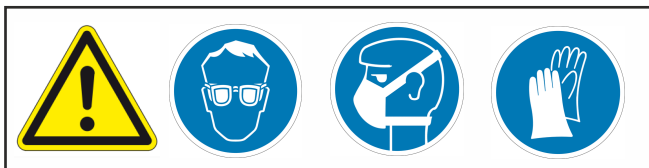


A. Level adjustment bolt for side brush

8. Reinstall the front panel.

ROLLER BRUSH

REMOVING THE ROLLER BRUSH



- Turn off the sweeper.
- Lower the main brush with the main brush lever.
- Emergency stop button switch off the machine and pull out the ignition key to secure the machine against rolling away.
- Pull lowering lever of the sweeping rollers.
- Arrest the lowering lever.
- Loosen the bolts of the left side cover.

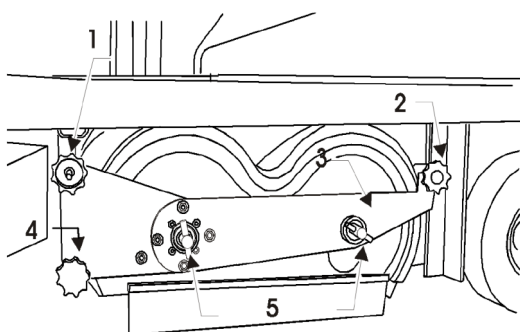


1. Fastening bolts of side trim panel

- Remove the side panel.

The roller swing is held in place by three star handles.

- Loosen the star handles.
- Remove the roller swing.



1	Open star handle
2	Star handle with marking
3	Roller swing
4	Star handle
5	Turning lever

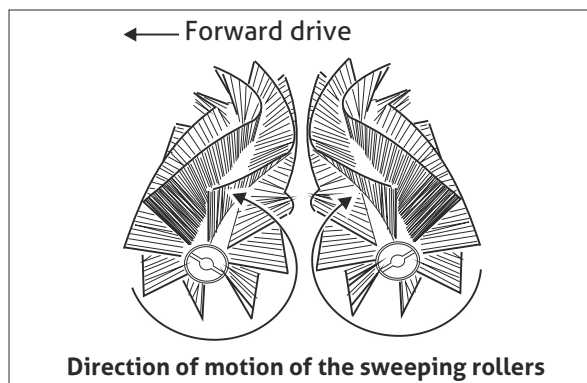
- Pull the sweeping rollers out of the machine and remove any debris, cords, etc., from the roller tunnel and from the pick-up pins.

INSTALLING THE ROLLER BRUSH



- Push the sweeping rollers under the machine.

Observe the sweeping rollers' sense of rotation while sliding them in.



Each roller end is equipped with a keyway.

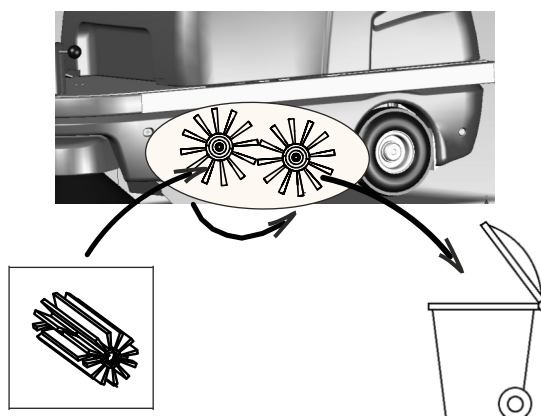
Turn the sweeping roller until the pick-up pin of the rear roller swing fits into the keyway of the sweeping roller.

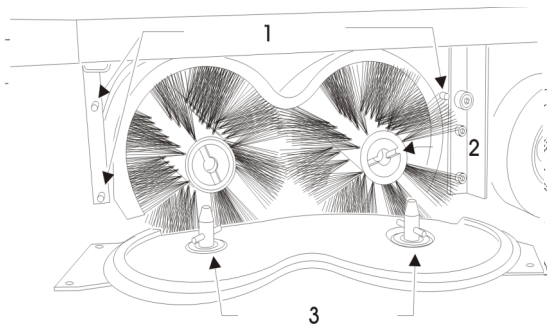
Slide the sweeping rollers in as far as possible.

Set the front roller swing onto the free sweeping roller ends.

The roller swing is equipped with two turning levers.

Each turning lever end is equipped with one pick-up pin.





1	Threaded rods
2	Sweeping roller keyway
3	Pick-up pin

- Turn the turning lever until the pick-up pin fits into the keyway of the sweeping rollers.
- Push the roller swing over the threaded rods.
- Make sure the sweeping rollers are fitted on both sides by the key-way into the pick-up pins and that all star handles are firmly tight-ened.
- Fasten the side trim panel.

SETTING ROLLER BRUSH CLEARANCE



For best cleaning results and to ensure the highest possible device efficiency, the sweeping rollers are equipped with a sweeping contour. The sweeping contour should be set to approx. 40-50 mm at the rear roller brush.

ESTABLISHING ROLLER BRUSH CLEARANCE

1. Drive the sweeper to an area to be cleaned.
2. Turn the roller brushes on and lower it to the floor.
3. Allow the roller brush to operate for about one or two minutes without moving.
4. Lift the roller brushes.
5. Stop roller brush operation and drive forward a few meters.
6. The roller brush track visible on the ground is the roller brush clearance.

ADJUSTING THE ROLLER BRUSH CLEARANCE



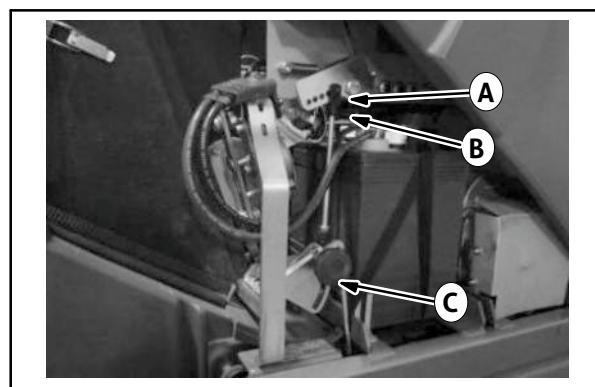
FOR SAFETY: Before leaving or servicing machine, stop on a level surface, set parking brake, turn off machine and remove key.

1. Switch off the Sweeper.
2. Lower the main brush.
3. Tilt the main cover forward and prop it open.
4. Adjust brush pattern with the forked lever or cam adjuster as needed.

There are two ways to make adjustments to the main brush pattern.

Fine adjustments can be made by moving the forked lever to a different hole. To move the forked lever, open the quick-release clip. Then the pin in the lever can be moved to the desired position. Close the clip when finished with the adjustment.

Course adjustments can be made with the cam adjuster. Loosen the knob to make an adjustment. Tighten the knob when finished with the adjustment.



- A. Forked lever adjuster
- B. Quick-release clip
- C. Cam

BATTERY

Safety Instructions on Batteries

You must note the following warning instructions for handling batteries.

	WARNING! CAUTION! DANGER! THE INSTRUCTIONS DESCRIBED MUST BE FOLLOWED!
	FOLLOW THE INSTRUCTIONS ON THE BATTERY; IN THE USER INSTRUCTIONS FOR THE BATTERY AND OPERATING INSTRUCTIONS!

To do this, you must read the General Safety Instructions, particularly the Battery Warning Instructions (Page 7)!

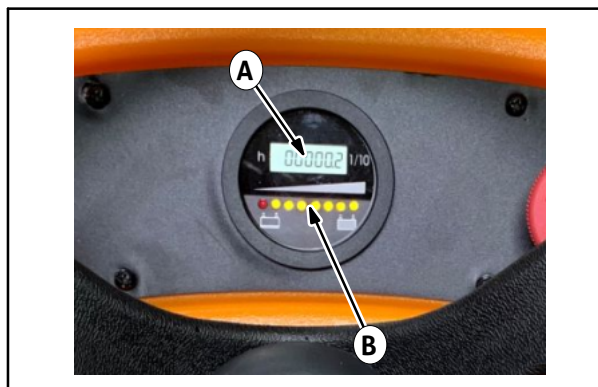
RECOMMENDED BATTERIES

Please use original spare parts and contact Customer Services.

i INSTRUKTION! Charge the batteries before putting the equipment into operation!

i INSTRUKTION! Charge the battery fully!

Four batteries supply the sweeper with electrical power. The charging condition of the batteries is indicated by the battery condition display on the control panel.



A. Battery-condition display

B. LED's

When the sweeper is switched on the red LED flashes five times. Subsequently the electronic system of the sweeper carries out a self-testing operation of the battery charging level. The result of this self-testing is displayed by the 5 LED's.

Information provided by LED indicators on the battery condition display:

Red	Yellow	Green	Green	Green	
					condition fully charged
					operating/charging condition uncritical
					operating/only for a short time longer
					operating/soon critical
					operating/critical

CHARGING THE BATTERIES

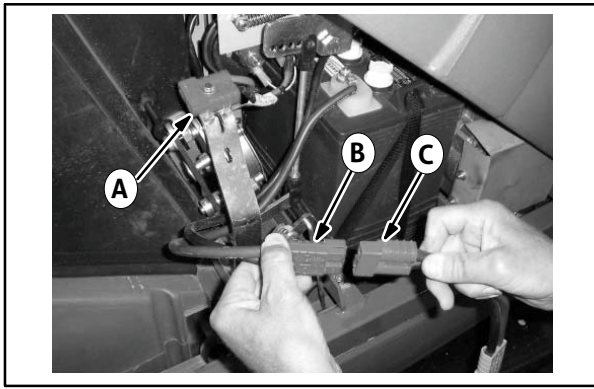
⚠ DANGER → Risk of injury, the charger must only be put into operation if the mains cable is not damaged. A damaged mains cable is to be replaced without delay by the manufacturer, Customer Services or a qualified person.

⚠ DANGER → Danger of electric shock. Follow mains and use the correct fuse. Only user charger in dry rooms with sufficient (i.e. open front panel) ventilation. Observe charging times.

⚠ DANGER → Risk of injury! Follow the safety instructions when handling batteries. Follow usage instructions of the charger manufacturer.

1. Turn of the sweeper
2. Open the hood.
3. Secure the hood position by the hood arresting device
4. Guide the hood arresting into the holes at the bottom of the hood. (See Fig.1)
5. Connect the plug of the charger to a power supply connector.
6. The battery is fully charged if the light of the charger is lit green.
7. Unplug the mains cable of the charging station





(Fig. 1)

- A. Sweeper connector
- B. Battery connector
- C. Charger connector

The charging process lasts for approx. 10 hours when the batteries have been completely depleted (with the device originally provided by the manufacturer).

The original charging device of the manufacturer can/should remain connected after charging is completed, because it is equipped with a charge saver allowing it to provide highest possible battery capacities even after long periods of standstill.

Be careful only to use the sweeper if there is enough voltage left in the batteries. The machine automatically switches itself off, if the batteries are discharged to such a degree that damages may occur (excessive discharge protection).

In this case: Switch off all functions and let the machine stand for about one or two minutes. Switch on the machine again and drive to the charging device (without sweeping operation!) Charge batteries immediately to avoid possible damages.

BRAKE

The brake (drum brake) acts on the front wheel and is controlled via the brake cable by the brake pedal.

The brake adjustment is situated on the right side of the front wheel facing in driving direction.

ADJUSTING THE BRAKE

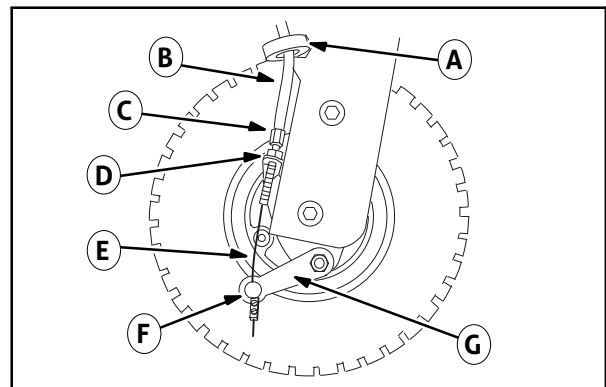
i CAUTION!
RISK OF CRUSHING
WHEN CLOSING THE
FILTER BOX.



FOR SAFETY:

Before leaving or servicing machine, stop on a level surface, set parking brake, turn off machine and remove key.

1. Hold the adjustment nut of the cable in place with a wrench.
2. Loosen the back nut of the adjustment nut.
3. Push the brake lever upward until the brake lever is fully engaged.
4. Hold the brake lever in this position.
5. Tighten the back nut of the adjustment nut.
6. Now conduct a brake-test.



- A. Wire guide
- B. Brake conduit
- C. Adjustment nut
- D. Back nut
- E. Brake cable
- F. Brake cable lock
- G. Brake lever

BRAKE CHECK

i CAUTION!
*RISK OF CRUSHING
WHEN CLOSING THE
FILTER BOX.*



FREE MOVEMENT OF FRONT WHEEL

You must be able to move the sweeper by pushing when the brake is released. The front wheel must not be blocked. Brakes that are set too tightly damage the brake drum.

CORRECT OPERATING OF BRAKE

Carefully drive a few meters at moderate speed. Press the brake pedal. The sweeper must stop. If the brake check should not render a satisfying result the setting procedure must be repeated.

FURTHER SETTING POSSIBILITY

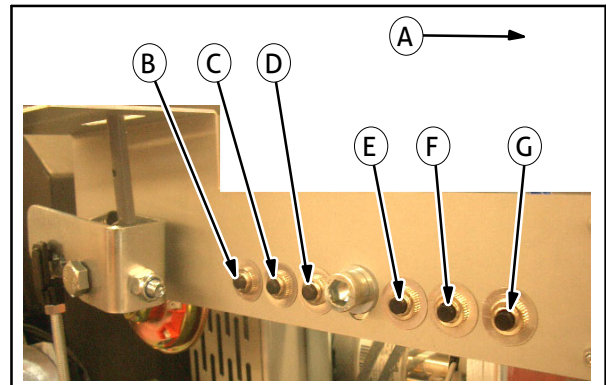
The cable no longer allows tightening in the way described above any longer.

1. Loosen the cable lock.
2. Lift the brake lever up until it is fully engaged.
3. Hold the brake lever in the "up" position.
4. Pull the brake cable down and push the brake lever upward.
5. Fasten the brake cable lock.

SAFETY EQUIPMENT

The resettable circuit breakers are positioned on the right side under the hood, facing in driving direction.

FOR SAFETY: Before leaving or servicing machine, stop on a level surface, set parking brake, turn off machine and remove key



- A. Forward motion
- B. F1 Vacuum fan
- C. F2 Main brush
- D. F3 Side brush
- E. F4 Horn, buzzer, beacon
- F. F5 Traction
- G. F7 Battery monitor/Relays

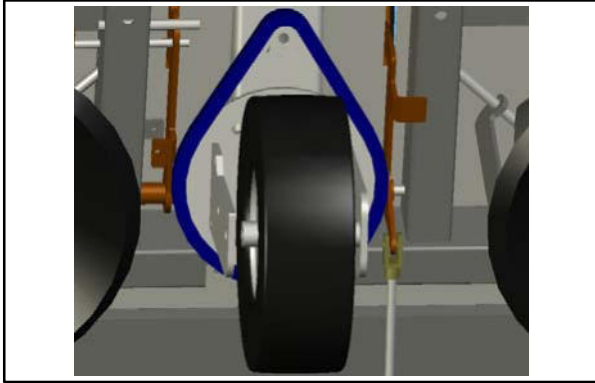
To reset a circuit breaker simply press the black part of the circuit breaker back into the snap-in position.

Make sure that the cause for the circuit breakers to be disengaged will be identified and fixed by a qualified person.

STEERING

The steering transferal to the front wheel is managed by a chain and two chain sprockets.

Grease the chain sprockets at regular intervals. See maintenance chart.



ROLLER BRUSH DRIVE

The brush drive is located on the right side of the sweeper facing the driving direction. The main brush is driven by an electric motor via a chain. The chain is deflected by a sprocket and guided over the sprockets of the brush drive. A spring biased chain tensioner keeps the chain tight.

Grease the sprockets at regular intervals.

See maintenance chart. To grease the sprockets, open the hood and remove the side trim panel.

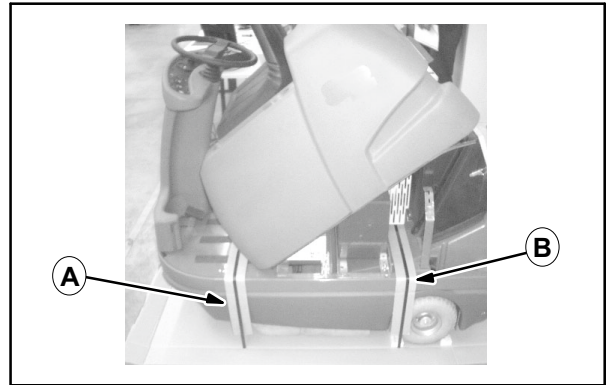
TRANSPORTING THE MACHINE

For the safe transport of the sweeper in a crate or on a pallet: tie down the machine by fixing two straps as shown below.

The front strap should be fixed across the frame along the foot-rest. The rear strap should be fixed across the frame along the area below the vacuum fan.

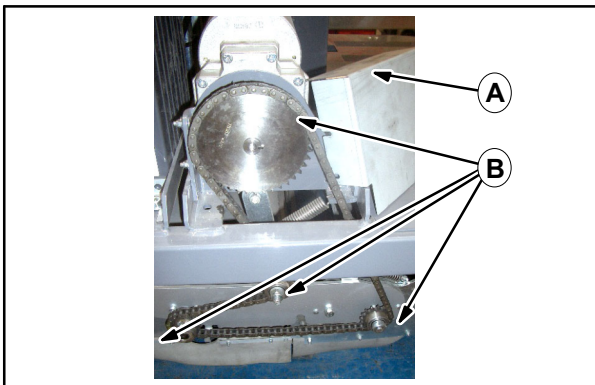
Protect the paint of the frame by using a edge protector.

FOR SAFETY: make sure to use straps that withstand an increased load due to vibrations of the machine during transport.



A. Main brush sprocket guard

B. Sprockets



A. Kettenverkleidung

B. Kettenräder

MACHINE TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
No operating display at control panel	EMERGENCY STOP SWITCH activated	Turn EMERGENCY STOP SWITCH clockwise
	Key switch not switched on	Turn key switch clockwise and check correct load
	Fault in electrical wiring	Check plug connections
	Battery charge empty	Charge battery
No operation of traction drive in spite of display at control panel	Accelerator pedal was depressed at start	Release accelerator pedal and re start
	Circuit breaker 5 or 7 or fuse 6 defective	Reset circuit breaker / replace fuse
	Fault in electrical connections	Check plug connections and compare
	Problems in electronic control	Have control checked by authorized person
No operation of one of the electrical components	Circuit breaker inactive	Reset circuit breaker
	Fault in electric connections	Check plug connections of corresponding system component: check especially sweeping brush whether obstructed by bands, cables, strings
Sweeping result unsatisfactory	Side brush(es) or main sweeping brush not lowered	Lowering the Roller Brush Lowering the Side Brush
	Side brush(es) or main brush worn	Adjust/replace Side brush(es) or main brush(es)
	Brush tunnel clogged by dirt	Check if brush trim panel is impaired by jammed debris
	Roller brushes don't operate	Install brush correctly Check to see if the motor rotates
	Filter not correctly fitted	Check for tight fit
	Filter excessively dirty	Clean filter
Dust formation unusually high	Sweeping material very fine-granulation	Raising the side brushes
Vacuum fan without function	electrical defect	Check plug connections
Circuit breaker of the sweeping brush active	Main brush is jammed by dirt, cords, strings etc.	Dismount and clean brush
Circuit breaker of the side brushes active	Side brushes are jammed by dirt, cords, strings or debris	Check side brushes and remove obstacles
Circuit breaker of vacuum active	Vacuum fan does not move freely	Check fan and remove any obstruction
Circuit breaker-traction drive active	Drive wheels obstructed (possibly only on one side)	Jack up the sweeper check differential operation of wheels and free running

IMPORTANT SPARE PARTS AND CONSUMABLES

Flat filter	Item No. 103853
Sweeping Roller PA 0.4 V	Item No. 106240
Side Brushes PA 0.6	Item No. 104256

CONTACT DATA

**Manufacturer: Stolzenberg GmbH &
Co. KG Hamburger Straße
15-17 49124
Georgsmarienhütte
T: +49 (0) 5401 / 8353-0
F: +49 (0) 5401 / 8353 - 11
E: service@stolzenberg.de**

MAINTENANCE WORK / MAINTENANCE TABLE

⚠ RISK! Risk of Injury The motor(s) need(s) to overrun for several seconds after being shut off. In this time, you must keep clear of the drive area

⚠ CAUTION! - Allow the equipment to cool down sufficiently before all maintenance and repair work
 - Unplug the charger from the socket.
 - Disconnect the plus terminal from the battery
 - For any care or maintenance:
 Set down the machine on a level surface.
 Apply the parking brake.
 Always switch off the machine and pull out the ignition key.



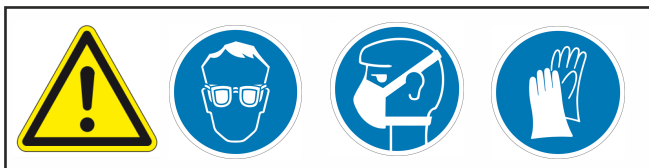
i Instruction: The following maintenance work must be carried out by instructed and authorised specialist staff at the set intervals.

i INSTRUKTION: In the event that damage to the machine is established, it must not be used until the damage has

Aktivität	Interval					
	tägl.	wöchentl.	alle 50 Std.	alle 100 Std.	alle 200 Std.	Seite
Check machine for damage and functional faults and remedy as appropriate.	•					
Check the battery charge; charge batteries as appropriate.	•					19
Empty the refuse container	•					14
Check sweeping roller & sweeping roller housing for damage, for foreign bodies and for wear; remove any foreign bodies / clean or replace the sweeping roller	•					16/17
Check side brushes for foreign bodies, straps etc.; remove/clean as appropriate.	•					
Check side brushes/ setting side brush; replace as appropriate	•					16
Check the condition of the dust filter; clean as appropriate	•					15
Undertake all daily maintenance work		•				
Check the sealing rubber in the sweeping roller area for wear and damage; replace as appropriate		•				
Check dirt-hopper for damage; replace if necessary.		•				15
Functional test of the entire machine		•				
Check the Bowden cables and all moving parts for their smooth running; replace as appropriate		•				
Check the Bowden cables for extension of the pull cable		•				
Checking all electrical components for moisture and dirt		•				
Check safety components (seat contact switch, automatic safety device)		•				21
Conduct all daily and weekly maintenance work			•			
Check battery condition; replace as appropriate			•			
Check smooth running of the wheels (replace any bearings)			•			
Check all bearings for damage			•			
Check all screws and fastenings			•			
Check all covers and steel parts for firm seating			•			
Check the operation of the charger			•			19
Undertake every 50 hours of maintenance work				•		
Check roller brush chain for extension ; replace as appropriate				•		(22)
Check the electric-cables bowden-cables for external damage: replace as appropriate				•		
Check cable connections and connectors for tightness: replace as appropriate				•		
Lube the steering-chain				•		(22)
Lube drive-roller brush				•		(22)
Check Vacuuming System (Fan) for damage, for foreign bodies, clean as appropriate				•		
Undertake every 100 hours of maintenance work					•	
Check all electric motors					•	
Check all carbon brushes of the motors: replace as appropriate					•	
Check the steering chain tension: adjust as appropriate					•	

SHUTDOWN, DISMANTLING, DISPOSAL

LING-TERM STOPPAGE OF THE SWEEPER



• INSTRUCTION

If it is stopped for a long period, the batteries must charge at intervals of approximately 2 months so they are not damaged by a deep discharge.

- Set down the sweeper onto a level, dry and protected surface.
- Put ignition key into the "OFF" position and pull out.
- Secure sweeper against rolling away.
- Raise sweeping roller. To do this, adjust the level to the lowest position and stop.
- Raise the side brushes.
- Clean the dust filter.
- Empty the refuse container.
- Clean the sweeper inside and out.
- Disconnect the battery.

SHUTDOWN / RECYCLING



After the useful life of the machine is over, it must be disposed of expertly. However, individual parts may be thoroughly reused.

For the disposal of all equipment parts, the disposal conditions specific for the location are applicable.

INSTRUCTION Please ask your supplier about disposal of the equipment.

See also ➔ WASTE DISPOSAL / ENVIRONMENTAL PROTECTION, page 10

