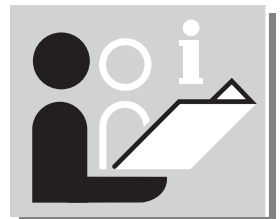




BR/BD Trike



Safety notes

Before using the unit, please read and comply with the operating instructions and the enclosed brochure "Safety instructions for brush cleaning units and spray extraction units", No. 5.956-251.

It is permitted to operate the unit on surfaces with no more than a 10 % incline.

The unit may only be operated when the hood and all covers have been closed.

Safety features

Safety features are intended to protect the user and must not be disconnected or bypassed.

Emergency STOP pushbutton

Immediately stops all functions To unlock the Emergency STOP pushbutton, rotate it slightly to the right and release.

Safety switch

Switches the drive motor off if the operator leaves his seat while operating or driving the unit.

Symbols

The following symbols are used in these operating instructions:



Danger!

Indicates imminent danger. Non-compliance with this warning may result in death or serious injury.



Caution!

Indicates a potentially dangerous situation. Non-compliance with this warning may result in slight injury or damage to property.



Information:

Indicates application tips and important product information.

Function

The BR/BD Trike is used for wet-cleaning of level floors. It can easily be adjusted to a particular cleaning task by setting the water flow rate, the contact pressure of the brushes and extraction of dirty water.

An operating width of up to 640 mm (BR model) or 695 mm (BD model) and an 80 l fresh-water tank and dirty-water tank enable effective cleaning over a prolonged period.

The unit is self-propelled; the driving motor is powered by four batteries.



Information:

The unit can be fitted with various accessories for a particular cleaning task. Ask for our catalogue or visit us on the Internet at www.karcher.com.

Appropriate use

Use this unit exclusively in accordance with the information in these operating instructions.

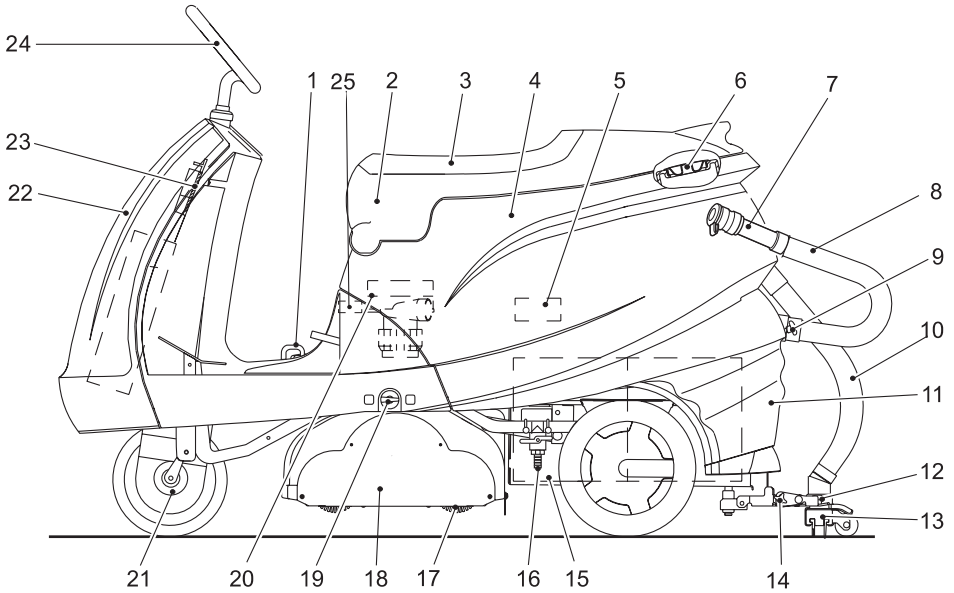
- The unit may be used for cleaning non-moisture-sensitive smooth floors only.
- The unit is not suitable for cleaning frozen floors (e.g. in cold-storage depots).
- The unit may be fitted with original accessories and spare parts only.
- The unit has been developed for cleaning indoor floors or covered areas. The use of alternative brushes must be tested for other application areas.
- The unit has not been designed for cleaning public highways.

Protection of the environment, disposal

Do not simply throw packaging into the household rubbish.

Take the packaging components to the appropriate collection points for recycling.

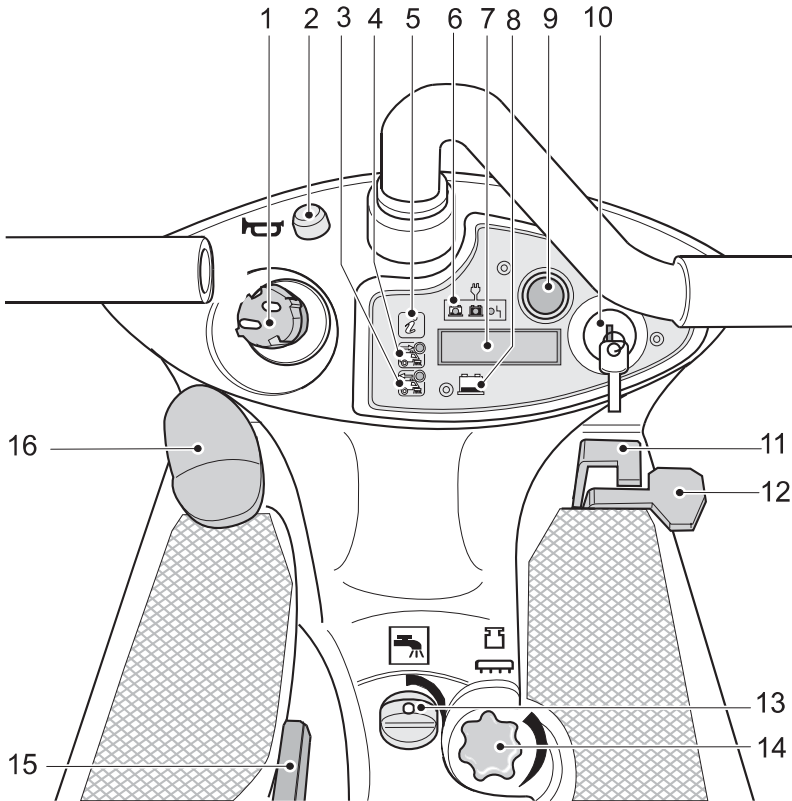
Operating and function controls



- | | | | |
|----|---|----|---|
| 1 | Manual water control | 17 | Brush roller (BR model)
Disc brush (BD model)* |
| 2 | Cover | 18 | Cleaning head |
| 3 | Seat | 19 | Selector switch for recycling/
fresh-water mode (optional) |
| 4 | Fresh/dirty-water tank | 20 | Suction motor |
| 5 | Recycling filter and pump (optional)* | 21 | Magnet brake for drive motor |
| 6 | Threaded plug for fresh-water tank | 22 | Front panel |
| 7 | Metering equipment | 23 | Electronics module/printed circuit
board |
| 8 | Drainage hose for dirty water | 24 | Steering wheel |
| 9 | Clip for attaching the battery cover | 25 | Battery plug connection |
| 10 | Suction hose | | |
| 11 | Battery cover | | |
| 12 | Star knobs for attaching the suction bar | | |
| 13 | Suction bar** | | |
| 14 | Star knobs
for inclining the suction bar | | |
| 15 | Batteries | | |
| 16 | Fresh-water drainage tap | | |

* not illustrated

** not supplied with the appliance



Control console

- | | | | |
|----|--|----|--|
| 1 | Mains plug for battery charger (package version) | 11 | Water metering pedal |
| 2 | Horn | 12 | Drive pedal reverse/forwards |
| 3 | Pushbutton for reverse driving | 13 | Manual water control |
| 4 | Pushbutton for forward driving | 14 | Star knob for adjusting the brush contact pressure |
| 5 | Pushbutton for information display (optional) | 15 | Pedal for raising/lowering the suction bar |
| 6 | Battery charger monitor (package version) | 16 | Pedal for raising/lowering the brush head |
| 7 | Display (optional) | | |
| 8 | Battery monitor | | |
| 9 | Emergency STOP pushbutton | | |
| 10 | Key switch | | |

Before switching on the unit

Batteries

When handling batteries, comply with the following warning symbols:



Comply with the information on the battery, in the operating instructions and in the vehicle operating instructions.



Wear eye protection



Keep children away from acid and batteries



Danger of explosion



No naked flames, sparks or naked lights and no smoking



Risk of chemical burns



First Aid



Warning



Disposal



Do not throw the battery in the dustbin



Danger of explosion!

Do not place any tools or similar objects on the battery, i.e. on the terminals and intercell connectors.



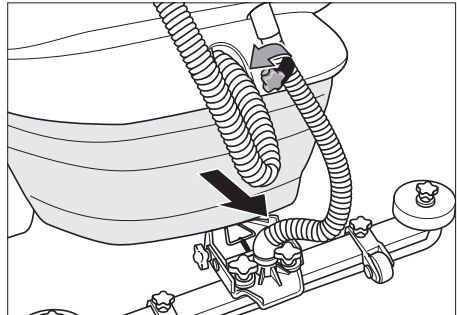
Risk of injury!

Do not bring any wounds into contact with lead; after working with batteries, always wash hands.

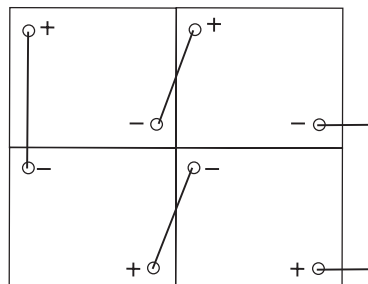
Inserting and connecting batteries

The batteries are already installed in the BAT package variant.

- Remove the suction hose from the suction bar.
- Unscrew the star knob slightly and swivel the bracket off.
- Remove the battery cover.



- Lift up the water tank and cover and engage the support.
- Insert the batteries into the container flush with the cleaning head.
- Grease the terminals and connect to the enclosed cables.



Caution!

Ensure that the polarity is correct!

- Clamp the supplied connection cable to the remaining free battery terminals (+) and (-).

- Unlock the support and swivel back the water tank and cover.
- Insert the battery cover.
- Tighten the star knob.

**Caution!**

Before switching on the unit, charge the batteries!

Charging the batteries**Information:**

The unit features deep-discharge protection, i.e. if the still permitted minimum capacity value is reached, the brush motors and the turbine are switched off. In this case the battery charge status display on the control console illuminates red. From this moment on the unit can only be driven.

- Drive the unit directly to the charging station, avoiding any inclines.

**Information:**

If using other batteries (e.g. another manufacturer), the deep-discharge protection for the particular battery must be re-adjusted by Kärcher customer service.

**Danger of electric shock!**

Note power supply system and fusing —see “Battery charger”.

Never use the battery charger in rain, in high atmospheric humidity or in damp rooms!

**Information:**

The battery charging process lasts on average 10–15 hours.

The recommended battery chargers (which correspond to the utilised batteries) are electronically controlled and end the charging process automatically.

Charging process BR/BD Trike BAT**Danger of explosion!**

Open the hood before charging lead-acid batteries.

- Remove the battery cover.
- Lift up the water tank and cover and engage the support.
- Remove the battery connector and connect to the charger cable.
- Switch on battery charger.

After charging the battery:

- Switch off the battery charger and disconnect from the power supply.
- Remove the charging cable and connect to the battery plug connection.

Non-maintenance-free batteries

- One hour before the end of the charging process, add distilled water, ensuring that the acid level is correct. Batteries are identified accordingly. At the end of the charging process all cells must gas.

**Risk of injury!**

If a discharged battery is refilled with water, acid may escape!

When handling battery acid, wear protective goggles and follow the instructions to prevent injury and damage to clothing.

Immediately wash off any acid splashes on the skin or clothing using plenty of water.

**Caution!**

Use only chemically pure battery acid (in compliance with VDE 0510), concentration 1.28 kg/l.

Refill the batteries with distilled or demineralised water only (VDE 0510).

Do not use additives (so-called enhancing agents), otherwise any warranty will be invalidated.

Recommended batteries

Manufacturer Description

Kärcher
order no.

Hagen 24 V PzS 175 (5)
6.654-070* low-maintenance
Capacity: 175 Ah
Voltage: 4 x 6 V

Hagen 24 V GiV 160 (5)
6.654-071 maintenance-free
Capacity: 160 Ah
Voltage: 4 x 6 V

DETA 24 V GiV 180 DTP
6.654-130 maintenance-free
Capacity: 180 Ah
Voltage: 4 x 6 V

DETA 24 V GiV 160 DT
6.654-089 maintenance-free
Capacity: 160 Ah
Voltage: 4 x 6 V

SONNEN- 020 8517 405
SCHEIN* low-maintenance
Capacity: 175 Ah
Voltage: 4 x 6 V

SONNEN- 021 9216 000
SCHEIN maintenance-free
Capacity: 160 Ah
Voltage: 4 x 6 V

* not approved for the BAT package variant



Caution!

Use only maintenance-free batteries with package battery chargers.

Maximum dimensions

	Length	Width	Height
Battery set (4x)	520 mm	380 mm	290 mm
Single battery	260 mm	190 mm	290 mm

The following is to be observed if lead-acid batteries are used in the BAT variant:

- Lead-acid batteries must be housed in a battery container (accessory).
- Observe the maximum battery dimensions.
- The tank must be folded open while charging lead-acid batteries.
- When charging lead-acid batteries, comply with the regulations of the battery manufacturer.

Attaching the steering wheel

- Attach the steering wheel and tighten the clamping screw.



Caution!

The steering wheel must be attached firmly; observe the minimum insertion depth of 65 mm.

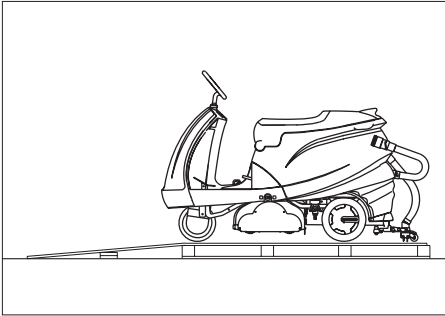
Unloading the unit



Risk of injury!

To stop all functions immediately, press the red Emergency STOP pushbutton.

- Place the long, lateral planks from the packaging on the pallet and form a ramp.



- Secure the planks with nails.
- Support the ramp by placing the shorter planks underneath.
- Remove the wooden laths.
- Raise the cleaning head with the pedal and lock it.
- Set key switch to "I".
- Press "Direction-of-travel" pushbutton and slowly run the unit down the ramp.
- Set key switch back to "O".

Attaching the brushes

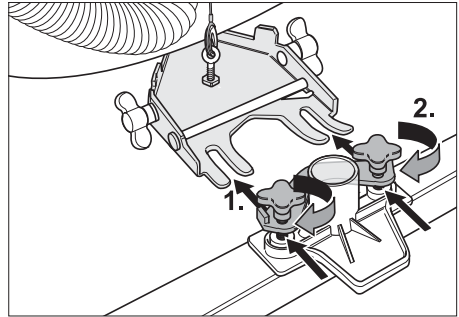
BD Trike

Before switching on the unit, the disc brushes must be attached (see "Maintenance procedures").

Attaching the suction bar

- Unlock the suction bar pedal.
- Insert the suction bar into the suction-bar suspension device, ensuring that the profiled sheet is situated over the suspension device.

- Tighten the star knobs.



- Check that the traction cable functions correctly.
- Attach the suction hose.

Operation



Risk of injury!

To stop all functions immediately, press the red Emergency STOP pushbutton.

Driving



Caution!

Get used to your unit by test-driving it in an open space.

Drive up/down slopes at low speed only.



Information:

The unit has a projecting brush head on the right side, ensuring a clear view when cleaning right up to the edge.

- Sit on the unit and set the key switch to "I".
- Set the direction of travel with the "Direction-of-travel" buttons on the control panel.
- Specify the driving speed by depressing the drive pedal.
- To stop the unit: release the drive pedal.

Adding detergent

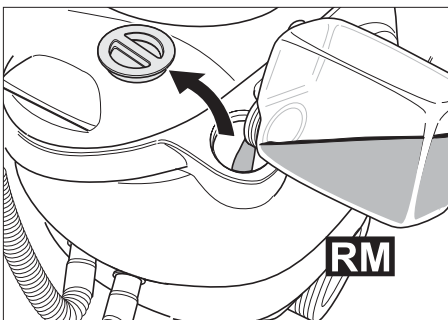
Caution! Use the recommended detergents only. If other detergents are used, the operator increases the risk of malfunctions and accidents. Detergents must not contain solvents, hydrochloric acid or hydrofluoric acid.

Information: Do not use detergents which foam vigorously. Before switching on the unit for the first time, completely fill the fresh-water tank in order to vent the water line system.

Working without recycling

If cleaning in hygienic areas (e.g. hospitals, food companies) and if giving very dirty floors a basic cleaning.

- Open the threaded plug on the fresh-water tank.
- Fill with fresh water (maximum 60 °C) up to the lower edge of the filler inlet
- Add detergent. Comply with the metering information.



- Close the threaded plug on the fresh-water tank.

Working in recycling mode (optional)

For cleaning slightly to normally dirty floors. Detergent and setting-up times are reduced in recycling mode.

- When the fresh-water tank is empty and the dirty-water tank is full, set the rotary knob to recycling mode.

Information: Dirty water is filtered before being reused. Recycling mode requires a feed pump which conveys the fresh and recycled water to the brushes. If the fresh water goes directly into the dirty-water tank, recycling mode can be actuated at the start of the cleaning process.

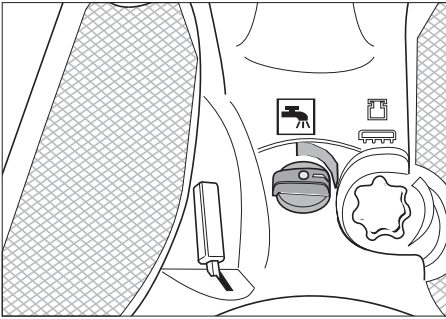
Recommended detergents

Application:	Detergents
Maintenance cleaning (also for alkaline-sensitive floors)	RM 745 RM 746
Cleaning greasy dirt deposits	RM 69 ES ASF RM 69 ASF
Basic cleaning (stripping) alkaline-resistant hard floor coverings	RM 752
Basic cleaning stripping linoleum	RM 754
Sanitary cleaner	RM 25 ASF
Disinfectant cleaner	RM 732

Detergents are available from specialist outlets.

Setting the water flow rate

- Set the maximum water flow rate with the control knob.

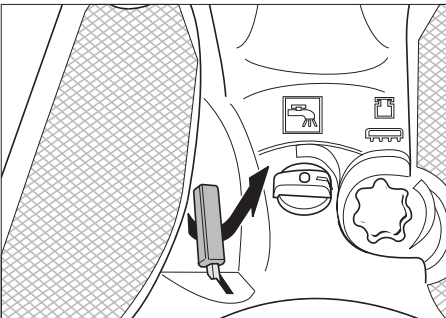


- Control the water flow rate by depressing the metering pedal. Simultaneous depression of the drive and metering pedals ensures that metering is speed-dependent.

i Information:
The surface must be cleaned several times depending on the degree of dirt.

Lowering the suction bar

- Unlock the suction bar pedal by gently pushing it to the right. The suction bar is lowered and the suction motor switches on.



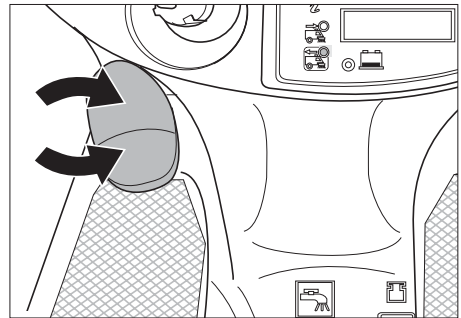
! Caution!
To clean tiled floors, adjust the straight suction bar so that it is not at right angles to the crevices. When the dirty-water tank is full, the suction turbine automatically switches off.

i Information:
To improve the vacuuming result, the suction bar can be rotated or tilted (see "Setting the suction bar").

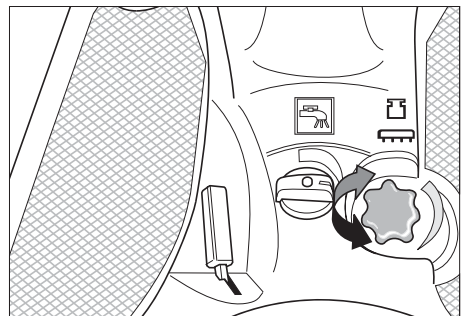
Switching on the brush head

! Caution!
To prevent damage to the floor, do not operate the unit on the spot.

- Depress the pedal and unlock by simultaneously tilting it forwards; the cleaning head is lowered and the brush motor starts automatically.



- Adjust the brush contact pressure with the star knob.



**Information:**

Start cleaning at a low contact pressure. Gradually increase the contact pressure until the desired cleaning result is obtained.

A correctly set contact pressure reduces the energy requirement and brush wear. If the machine stops, the brush motors stop. If the brush motors overload, the fuse trips. In this case, the fuse must be changed (F2, 70 A).

**Caution!**

The brush contact pressure must not be set too high for polishing.

Stopping and switching off the unit

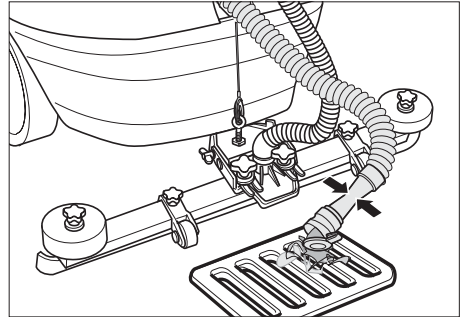
- Raise and lock the brush head
To do this, depress the brush head pedal and lock by simultaneously tilting it backwards.
The motor switches off automatically.
- Move the unit another 1–2 m to extract any remaining water.
- Raise the suction bar.
To do this, depress the suction bar pedal and lock by gently pushing it to the left.
The suction motor coasts for a further 10 seconds to extract remaining water out of the suction bar and vacuum channels.
- Set the key switch on the control panel to “O” and remove the key.

Draining the dirty water

**Caution!**

Observe local regulations for the treatment of waste water.

- Take the drainage hose out of the holder and place in a suitable receptacle. Drain off the dirty water by opening the metering equipment. Then rinse out the dirty-water tank with fresh water.

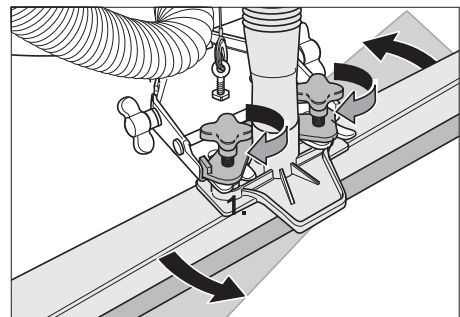


Adjusting the suction bar

Rotating the suction bar

To improve the suction result on ceramic coverings, the suction bar can be rotated by up to 5°:

- Loosen the star knobs.
- Rotate the suction bar.

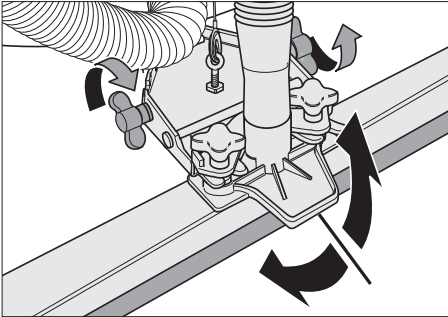


- Tighten the star knobs.

Tilting the suction bar

If the suction result is unsatisfactory, the straight suction bar can be tilted.

- Loosen the wing nuts.
- Tilt the suction bar.



- Tighten the wing nuts.

Care and maintenance



Risk of injury!

Before working on the appliance, always set the key switch to “O”, remove the key and disconnect the mains plug from the battery charger.

- Drain off and dispose of dirty water and any residual cleaning liquid.

Maintenance schedule

After work



Caution!

Do not spray the unit with water or use any aggressive detergents.

- Drain off the dirty water.
- Rinse out the dirty-water tank with fresh water.
- Clean the outside of the unit with a damp cloth soaked in a mild detergent solution.

- Check the fluff strainer on the intake neck of the suction motor and, if required, clean.
- Remove the squeegee blades, check for wear and, if required, replace.
- Check the brushes for wear and, if required, replace.

Monthly

- Check the battery terminals for oxidation and, if required, lubricate with terminal grease. Ensure that the connection cables are secure.
- Check that the parking brake functions.
- Check the condition of the container cover seals and, if required, replace.
- If non-maintenance-free batteries are used, check the acid concentration of the cells.
- Clean the brush tunnel.

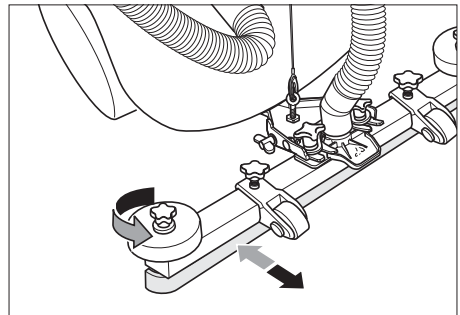
Annually

- Have customer service conduct the stipulated inspection.

Maintenance procedures

Replacing the squeegee blades

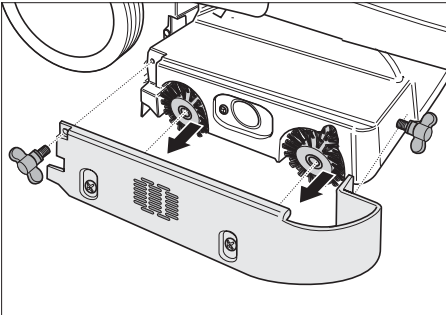
- Loosen the star knobs.



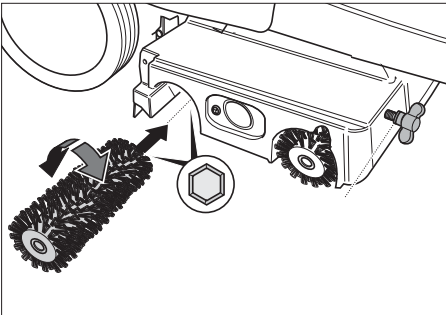
- Remove the squeegee blades.
- Attach the new squeegee blades.
- Tighten the star knobs.

Replacing the roller brushes

- Loosen the wing nuts.
- Remove the bearing cover.



- Remove both roller brushes, insert new ones (note hexagon fixtures for the roller brushes).



- Attach bearing cover.
- Tighten the wing nuts.

Replacing disc brushes

- Raise the disc brushes.
- Rotate disc brushes by approx. 45° in an anti-clockwise direction.
- Pull down and remove disc brushes.
- Insert the new disc brushes in reverse sequence.

Maintenance agreement

To ensure that the unit operates reliably, maintenance agreements can be concluded with the appropriate Kärcher sales office.

Frost protection

If there is a risk of frost

- Drain the fresh-water and dirty-water tanks.
- Put the unit in a room which is protected from frost.

Transportation



Risk of injury!

The unit may be loaded and unloaded on max. 10 % inclines only.

- If transporting the unit by vehicle, secure the unit with tension belts/ropes to prevent it from sliding.
- Raise the cleaning head to prevent damage to the brushes.

BD Trike

- Remove the disc brushes from the brush head.

Troubleshooting



Risk of injury!

Before working on the appliance, always set the key switch to “O”, remove the key and disconnect the mains plug from the battery charger.

- Drain off and dispose of dirty water and any residual cleaning liquid.

If faults cannot be rectified with the aid of this table, contact customer service.

Changing the fuses

The drive control/electronics module is attached under the front panel. If a fuse has to be changed, this front panel must be removed.

- Loosen the screws on the housing.
- Change the fuse.
- Re-attach the front panel.



Information:

The fuse configuration is indicated on the inside of the front panel.

Fault	Remedial action
Unit cannot be started.	Check fuses F1 and F4 and, if required, change. Check batteries; if required, replace.
Unit does not move.	Check fuse F5; if required, replace.
Inadequate water flow rate.	Check fresh-water level; if required, top up tank. Check hoses for blockages; remove any blockages.
Display: “Gas pedal”	Set key switch to “O” and then back to “I” without depressing the gas pedal.
Inadequate suction power.	Check fuse F3; if required, replace. Clean container cover seals and check for leaks; if required, replace. Clean the fluff strainer on the intake neck of the suction motor. Clean squeegee blades on the suction bar; if required, replace. Check suction hose for blockages; remove any blockages. Check suction hose for leaks; if required, replace.

Fault	Remedial action
Inadequate suction power.	Check whether metering equipment on the dirty-water drainage hose is closed. Check the setting of the suction bar.
Unsatisfactory cleaning result.	Adjust contact pressure. Check brushes for wear; if required, replace.
Brushes do not rotate.	Reduce contact pressure. Check whether the brushes are blocked by foreign objects; if required, remove foreign objects. Check fuse F2; if required, replace.

Accessories

Designation	Part no.	Description	Quantity	
			Quantity	required for unit
Brush roller, red (standard)	5.762-130	for maintenance cleaning of very dirty floors	1	2
Brush roller, white (soft)	5.762-131	for polishing and for maintenance cleaning of sensitive floors	1	2
Brush roller orange (high/low)	5.762-132	for scrubbing of structured floors (safety tiles, etc.)	1	2
Brush roller, green (hard)	5.762-133	for basic cleaning of very dirty floors and for removal of coatings (e.g. wax, acrylates)	1	2
Brush roller, black (very hard)	5.762-189		1	2
Pad roller shaft	4.762-188	for housing roller pads	1	2
Roller pad (white)	6.369-389		20	80
Roller pad (red)	6.369-456	for cleaning of slightly dirty floors	20	80

Designation	Part no.	Description	Quantity	Quantity required for unit
Roller pad (green)	6.369-455	for cleaning of normal to very dirty floors	20	80
Roller pad (yellow)	6.369-454	for polishing of floors	20	80
Disc brushes, nature	6.958-233	for polishing of floors	1	1
Disc brush, red	6.958-234	for cleaning of slightly or sensitive floors	1	1
Disc brush, black grit	6.958-235	for cleaning of very dirty floors	1	1
Driving plate	6.906-333	for housing pads	1	1
Disc pad (red)	6.369-003	for cleaning of slightly dirty floors	5	1
Disc pad (green)	6.369-002	for cleaning of very dirty floors	5	1
Disc pad (black)	6.369-001	for cleaning of very dirty floors	5	1
Rubber squeegee, grey	6.273-179	Standard	pair	1 pair
Rubber squeegee, oil-resistant	6.273-180	oil-resistant	pair	1 pair
Suction bar, straight	4.777-034	Standard	1	1
Suction bar, curved	4.777-035	Standard	1	1
Battery container	5.039-042	for lead-acid batteries	1	1

Technical Specifications

	Unit	BR	BD
Power			
Nominal voltage	V	24	24
Battery capacity	Ah(5h)	160	160
Power consumption	W	2200	2300
Driving motor output	W	600	600
Suction motor output	W	500	500
Brush motor output	W	1100	2 x 600
Suction			
Suction power, air flow rate	l/s	22	22
Suction power, vacuum	mbar	115	115
Cleaning brush			
Operating width	mm	640	695
Diameter, brush roller	mm	105	360
Brush speed	1/min	1400	180
Dimensions and weight			
Max. driving speed	km/h	6	6
Max. gradient	%	10	10
Theoretical surface performance	m ² /h	2880	3150
Volume, fresh/dirt-water tanks	l	80/80	80/80
Weight (with/without batteries)	kg	300/170	295/165
Noise emission			
Average sound pressure level in compliance with EN 60704	dB(A)	70	70
Vibrations of unit in compliance with ISO 5349 and ISO 2631-1			
Upper elements of steering wheel	m/s ²	0.39	0.39
Whole seat	m/s ²	0.105	0.105

Warranty

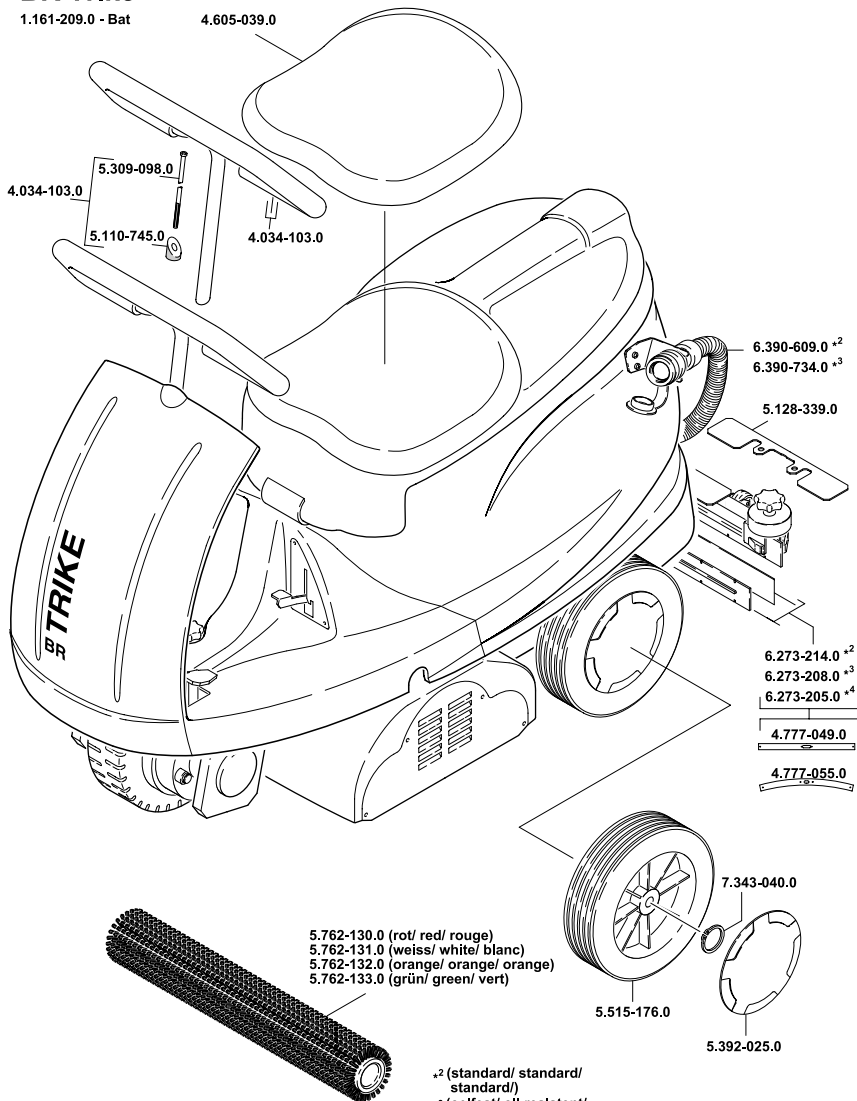
The warranty terms issued by our authorised marketing company are valid in every country. We remedy any fault in the cleaner free of charge within the warranty period providing the cause of the fault proves to be a material or manufacturing error.

If making a claim under the guarantee, please consult your dealer or local authorised customer service centre and provide your receipt of purchase.



BR Trike

1.161-209.0 - Bat

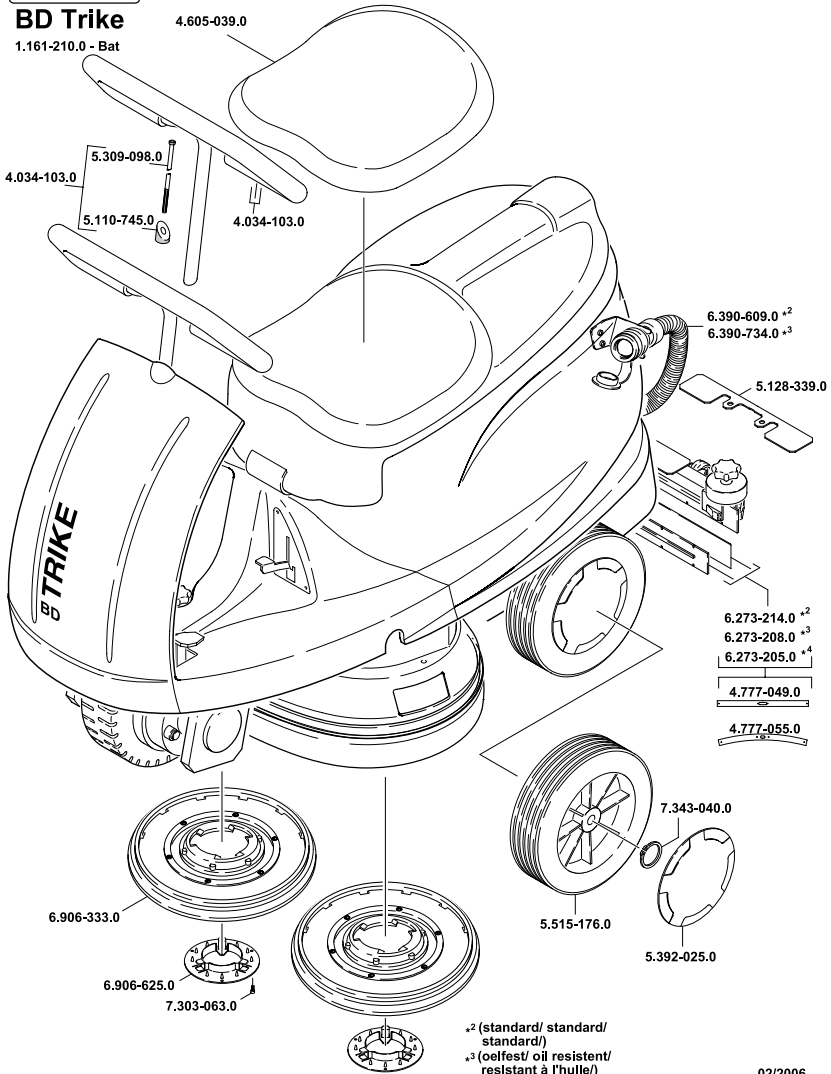


- *2 (standard/ standard/ standard)
- *3 (oelfest/ oil resistant/ résistant à l'huile/)
- *4 (antistreifen/ anti-strip/ antibande/)



BD Trike

1.161-210.0 - Bat



- *² (standard/ standard/
standard/)
- *³ (oelfest/ oil resistant/
résistant à l'huile/)
- *⁴ (antistreifen/ anti-strip/
antibande/)