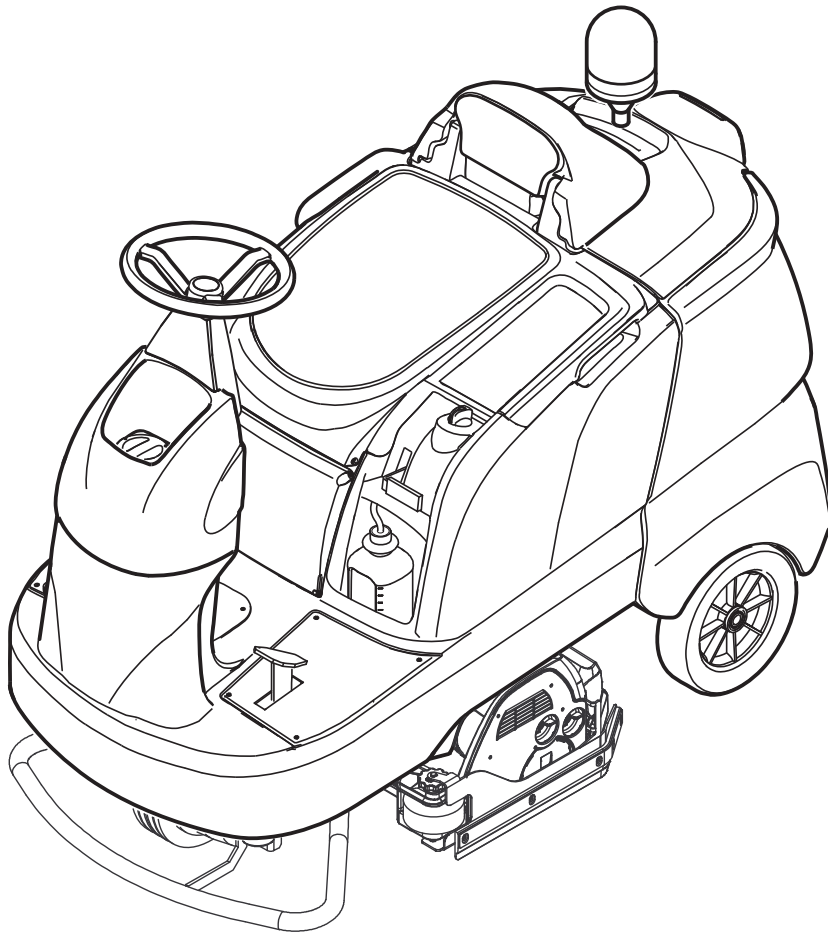


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Deutsch	5
English	13
Français	21
Italiano	30
Nederlands	39
Español	47
Português	56
Dansk	65
Norsk	73
Svenska	81
Suomi	89
Ελληνικά	97
Türkçe	108
Русский	116
Magyar	126
Čeština	134
Slovenščina	142
Polski	150
Românește	158
Slovenčina	166
Hrvatski	174
Srpski	182
Български	190
Eesti	199
Latviešu	207
Lietuviškai	215
Українська	223
العربية	239



Register and win!
www.kaercher.com/register-and-win



EAC



59623830 05/19



Please read and comply with these original instructions prior to the initial operation of your appliance and store them for later use or subsequent owners.

Contents

Safety instructions	EN	1
Function	EN	1
Proper use	EN	1
Environmental protection	EN	1
Control elements	EN	1
Before Startup	EN	2
Operation	EN	3
Transport	EN	5
Storage	EN	5
Care and maintenance	EN	5
Troubleshooting	EN	6
Technical specifications	EN	8
Accessories and Spare Parts	EN	8
Warranty	EN	8
EU Declaration of Conformity	EN	8

Safety instructions

Before using the appliance for the first time, read and observe these operating instructions and the accompanying brochure: Safety information for brush cleaning units 5.956-251.0.

The machine has been approved for use on surfaces with gradients of up to 10%.

Safety Devices

Safety devices serve to protect the user and must not be rendered in operational or their functions bypassed.

Emergency-stop button

To put all functions out of operation immediately: Press emergency-stop button.

- The machine comes to a sudden halt when you press the emergency-stop button.
- The emergency-stop has a direct effect on all machine functions.
- The display continues.

Safety Switch

Switches off the drive motor after a short delay, if the operator leaves the operator seat during operation or while moving.

Hazard levels

⚠ DANGER

Pointer to immediate danger, which leads to severe injuries or death.

⚠ WARNING

Pointer to a possibly dangerous situation, which can lead to severe injuries or death.

⚠ CAUTION

Pointer to a possibly dangerous situation, which can lead to minor injuries.

ATTENTION

Pointer to a possibly dangerous situation, which can lead to property damage.

Function

The scrubber vacuum is used for wet cleaning or polishing of level floors. You can adjust the machine to suit the cleaning task by modifying the settings for water quantity, contact pressure of the brushes, detergent quantity and driving speed.

Proper use

This appliance is suited for the commercial use, e.g. in hotels, schools, hospitals, factories, shops, offices, and rental companies.

Use this appliance only as directed in these operating instructions.

- The appliance may only be used for the cleaning of hard surfaces that are not sensitive to moisture and polishing operations.
- This appliance is intended for inside use.
- The application temperature ranges from +5°C to +40°C.
- The appliance is not suited for the cleaning of frozen grounds (e.g. in cold stores).
- The appliance is suitable for a max. water depth of 1 cm. Do not drive into an area where there is a risk of this max. water height being exceeded.
- The appliance may only be equipped with original accessories and spare parts.
- The appliance is not intended for the cleaning of public traffic routes.
- The machine should not be used on surfaces that are sensitive to pressure. Please consider the allowed load per surface unit of the floor. Details of load per surface unit can be found in the technical data.
- The appliance is not suited for the use in potentially explosive environments.
- The machine should not be used to suck in inflammable gases, undiluted acids or solvents.

This includes petrol, thinning agents or hot oil that can form an explosive mixture when it comes in contact with sucked air. Do not use acetone, undiluted acids and solvents as they are aggressive towards the materials from which the appliance is made.

Environmental protection



The packaging materials are recyclable. Please do not throw packaging in the domestic waste but pass it on for recycling.



Old units contain valuable recyclable materials. Batteries, oil and similar substances may not be released into the environment. Therefore please dispose of old units through suitable collection systems.

Notes about the ingredients (REACH)

You will find current information about the ingredients at:

www.kaercher.com/REACH

Control elements

Figure 1, see cover page

- 1 Wiping flap *
- 2 Cleaning head *
- 3 Detergent bottle (only Dose model)
- 4 Suction hose for detergent (only Dose model)
- 5 Lever to raise and lower the vacuum bar

- 6 Water quantity regulator
- 7 Operating field
- 8 waste water tank
- 9 Cover waste water tank
- 10 Vacuum bar *
- 11 Wing nuts for tilting the vacuum bar
- 12 Wing nuts for fastening the vacuum bar
- 13 Suction hose
- 14 Float
- 15 Power cord for charger (only Pack model)
- 16 Safety support
- 17 Battery plug (not with Pack model)
- 18 Battery
- 19 Seat (with seat contact button)
- 20 Steering wheel
- 21 Fresh water tank cover
- 22 Lever for brush contact pressure (only with the Adv model)
- 23 Fresh water filter
- 24 Pedal for raising/ lowering the cleaning head
- 25 Flat fold filter
- 26 Waste container (only with R cleaning head) *
- 27 Dosing equipment for dirt water
- 28 Dirt water discharge hose
- 29 Warning lamp for reverse movement *
- 30 Filling system *
- 31 Right step platform
- 32 Drive pedal
- 33 Adjustment wheel for wiping flap *
- 34 Pedal for brush exchange (only with D cleaning head) *

* not included in the delivery

Colour coding

- The operating elements for the cleaning process are yellow.
- The controls for the maintenance and service are light gray.

Operator console

Figure 2, see cover page

- 1 Drive direction switch
- 2 Program switch
- 3 Horn
- 4 Key switch
- 5 Emergency-stop button
- 6 Switch for detergent dosing (only with Dose model)
- 7 Switch for warning lamp for reverse movement *
- 8 Info button (only Adv. model)
- 9 Display
- 10 Indicator lamp - service
- 11 Indicator lamp - automatic immobilizing brake active
- 12 Indicator lamp - battery monitoring
- 13 Indicator lamp - fault
- 14 Indicator lamp - waste water tank full
- 15 Indicator lamp - brush overload

Before Startup

Batteries

	Observe the directions on the battery, in the instructions for use and in the vehicle operating instructions
	Wear eye protection
	Keep children away from acid and batteries
	Danger of explosion
	Fire, sparks, naked flames and smoking must be strictly avoided
	Danger of chemical burns
	First aid
	Warning note
	Disposal
	Do not throw the battery into the regular waste

⚠ DANGER

Risk of explosion!

Do not place tools or similar items on the battery. Risk of short-circuit and explosion. Risk of injury. Ensure that wounds never come into contact with lead. Always clean your hands after having worked with batteries.

Insert batteries and connect

The "Pack" model contains built-in batteries.

➔ Swivel the seat to the front.

Figure 3, see cover page

➔ Insert batteries.

Note:

The two recommended battery types are housed differently in different arrangements in the device.

Layout A (Fig. 3A)	180 Ah
Layout B (Fig. 3B)	240 Ah

ATTENTION

Risk of damage. Ensure correct polarity.

- ➔ Lubricate the battery pole with pole grease.
- ➔ Connect pole using the enclosed connecting cable.
- ➔ Connect the connection cable to the free battery poles (+) and (-).
- ➔ Insert battery plug.
- ➔ Raise the safety support und and swivel seat to the bottom.

ATTENTION

Risk of damage due to full discharge!
Charge the batteries before commissioning the appliance.

Charge the batteries

Note:

The device is equipped with a safety mechanism to prevent total discharge, i.e. when the permissible minimum capacity is reached, then the machine can only be driven and existing lamps can be switched on. In such a case, the battery monitoring symbol on the control console glows red.

➔ Drive the appliance directly to the charging station; avoid any steep gradients in the process.

Note:

When using other batteries (e.g. batteries from other manufacturers), the total discharge protection level for the respective battery must be reset by the Kärcher after-sales service.

⚠ DANGER

Risk of electric shock. Observe power supply net and fuse protection – see "Charger". Use the charger in dry rooms with sufficient ventilation only!

Note:

Average charging time is approx. 10 -12 hours.

The recommended chargers (suitable for the batteries used) are regulated electronically and will automatically terminate the charging process.

⚠ DANGER

Danger of explosion. Wet batteries may only be charged with the seat tilted up.

"Pack" model

➔ Tilt the seat upward.

➔ Take the power cord out of its holder and insert the plug into the socket. The display will show the charging status of the batteries.

Note:

All cleaning and driving functions are blocked during the charging process. The functions are disabled until a charging period of at least 90 minutes has elapsed and the mains plug has been unplugged again.

➔ After the charging process, pull the power plug and insert into the holder on the appliance.

Model without integrated charger

➔ Tilt the seat upward.

➔ Remove battery plug and join it to the charging cable.

➔ Connect the charger to the mains and turn it on.

➔ Switch off the charger and remove the plug from the socket after you have finished charging.

➔ Pull the battery cable from the charger cable and connect it to the machine.

Low maintenance batteries (wet batteries)

➔ Add distilled water one hour before the charging process comes to an end; follow the correct acid level. There are corresponding indicators on the battery. At the end of the charging process, all cells must gas.

⚠ WARNING

Danger of causticization!

- Adding water to the battery in its discharged state can cause the acid to leak.
- Use safety glasses while handling battery acid and follow the safety instructions to avoid personal injury or damage to clothes.
- Should the acid spray on to the skin or clothes, rinse immediately with lots of water.

ATTENTION

Risk of damage!

- Use only distilled or desalinated water (EN 50272-T3) for filling the battery.
- Do not add any substances (so-called performance improving agents), else warranty claims will not be entertained.

Recommended batteries, chargers

	Order No.
Battery pack, 180 Ah, maintenance-free (4 batteries)	6.654-124.0
Battery pack, 240 Ah, maintenance-free (4 batteries)	6.654-119.0
Charger for maintenance-free batteries	6.654-125.0

Maximum battery dimensions

Layout	A	B
Length	244 mm	312 mm
Width	190 mm	182 mm
Height	275 mm	365mm

Removing the batteries

- ➔ Turn main key to "0" and remove it.
- ➔ Swivel the seat to the front.
- ➔ Pull out the battery plug.
- ➔ Clamp off the minus pole of the battery.
- ➔ Clamp off the remaining cables from the battery.
- ➔ Remove the batteries.
- ➔ Dispose of the used batteries according to the local provisions.

Unloading

Note:

Press the emergency-stop button to immediately deactivate all functions and turn the key switch to the "0" position.

➔ Four floor boards of the pallet are fastened with screws. Unscrew these boards.

Figure 4, see cover page

➔ Place the boards on the edge of the pallet. Place the boards in such a way that they lie in front of the four wheels of the machine. Fasten the boards with screws.

➔ Slide the four support beams included in the packaging under the ramp.

➔ Remove the wooden bars in front of the wheels.

Figure 5, see cover page

➔ Pull the brake lever and push the appliance down the ramp with the level pulled.

or

- ➔ Release emergency-stop button by turning.
- ➔ Set main switch to "1".
- ➔ Press the drive direction switch and slowly move the machine down from the ramp.
- ➔ Set main switch back to "0".

Install cleaning head

The procedure for changing the cleaning head is described in the chapter "Maintenance Tasks".

Note:

On some models, the cleaning head is already installed.

Installing the Brushes

The installation of the brushes is described in the chapter "Maintenance Tasks".

Installing the Vacuum Bar

Figure 6, see cover page

- ➔ Insert the vacuum bar into the vacuum bar suspension in such a manner that the profiled sheet is positioned above the suspension.
- ➔ Tighten the wing nuts.
- ➔ Insert the suction hose.

Operation

⚠ DANGER

Risk of injury. Do not use the device without an overhead guard to protect against falling objects in areas in which there is a possibility of operators being stuck by falling objects.

Note:

Press emergency-stop switch to immediately switch off all functions of the machine.

Check parking brake

⚠ DANGER

Risk of accident. Prior to every operation, the parking brake must be checked for proper function on a level ground.

- ➔ Take the seating position.
- ➔ Release emergency-stop button by turning.
- ➔ Set the key switch to "1".
- ➔ Select travel direction.
- ➔ Gently depress drive pedal.
- ➔ The brake must get released and you must be able to hear it (the control lamp for immobilizing brake on the console switches off). The machine must roll slightly on a plane surface. When the pedal is released, the brake falls in an audible manner. Switch off the machine and call the aftersales service if the above-mentioned events do not occur.

Driving

⚠ DANGER

Risk of accident. If the device does no longer show any braking effect, proceed as follows:

- ➔ If the device does not come to a halt on a ramp with a gradient of 2% when you release the drive pedal, then the emergency-stop button may be pressed for safety reasons only if the mechanical functioning of the immobilizing brake has been checked properly before commissioning the device.

- ➔ Switch off the machine only after it comes to a complete halt (on an even surface) and call up the aftersales service!
- ➔ Further, follow all warning instructions for braking.

⚠ DANGER

Danger of tipping if gradient is too high.

- ➔ *The gradient in the direction of travel should not exceed 10%.*

Danger of tipping when driving round bends at high speed.

Danger of slipping on wet floors.

- ➔ *Drive slowly when cornering.*

Danger of tipping on unstable ground.

- ➔ *Only use the machine on sound surfaces.*

Danger of tipping with excessive sideways tilt.

- ➔ *The gradient perpendicular to the direction of travel should not exceed 10%.*

Driving

- ➔ Release emergency-stop button by turning.
- ➔ Sit on the seat and set main switch to "1".
- ➔ Set the drive direction using the drive direction button at the operator console.
- ➔ Determine the driving speed by pressing the drive pedal.
- ➔ Stop the machine: Release the drive pedal.

Note:

The direction of travel can also be changed while driving. This way even very dull spots can be polished by driving back and forth several times.

Display

When switching on the display, the following messages will appear in sequence:

- „< SELFTEST >“: The control conducts a self-test.
- „Water E-----F“ (model Adv): Water level in the fresh water tank (lasts for 6 seconds).
- „OpHrs xxxxxhxxm+“ (Classic model): Operating hours (lasts for 6 seconds)
- "Battery: E-----F": Charging status of battery.

Overload

In case of overloading, the drive motor automatically switches off after a certain period. A fault message is displayed on the console. The concerned unit gets switched off if the controls get overheated.

- ➔ Allow machine to cool down at least for 15 minutes.
- ➔ Turn the main switch to "0" and turn it back to "1".

Filling in detergents

Detergent

ATTENTION

Risk of damage. Only use the recommended detergents. With other detergents, the operator bears the increased risk regarding the operational safety and danger of accident.

Only use detergents that are free from solvents, hydrochloric acid and hydrofluoric acid.

⚠ CAUTION

Follow the safety instructions for using detergents.

Note:

Do not use highly foaming detergents.

Recommended detergents:

Application	Detergent
Routine cleaning of all water resistant floors	RM 746 RM 780
Routine cleaning of glossy surfaces (e.g. granite)	RM 755 es
Routine cleaning and basic cleaning of industrial floors	RM 69 ASF
Routine cleaning and basic cleaning of fine stoneware tiles	RM 753
Routine cleaning of tiles in sanitary areas	RM 751
Cleaning and disinfection in sanitary areas	RM 732
Removal of coating from all alkali-resistant floors (e.g. PVC)	RM 752
Removal of coating from linoleum floors	RM 754

Fresh water

- ➔ Open the cover of the fresh water reservoir.
- ➔ Fill fresh water (max. 60 °C) until 15 mm below the upper edge of the tank.
- ➔ Pour in detergent.

Note:

If detergent is added to the detergent tank first before the water, this can result in a formation of a lot of foam.

- ➔ Close the cover of the fresh water reservoir.

Note:

Fill up the fresh water tank completely prior to the initial start-up to bleed the water pipe system.

Filling system (optional)

- ➔ Connect the water hose to the connection neck on the filling system.
- ➔ Open the water supply. Once the maximum fill level is reached, the built-in float valve will stop the water inflow.
- ➔ Shut off water supply.
- ➔ Remove the water hose.

Metering system (only Dose model)

Detergent is added to the fresh water on the way to the cleaning head with the help of a dosaging device.

- ➔ Place the detergent bottle into the device.
- ➔ Close the bottle lid.
- ➔ Insert the suction hose of the dosaging equipment into the bottle.

Note:

The dosing unit can be used to add 3% detergent at maximum. With higher dosage the detergent must be put into the fresh water tank.

ATTENTION

Risk of clogging due to dried detergent when the detergent is added to the fresh water tank of the Dose version. The flow meter of the dosing equipment can agglutinate on account of drying detergent and hamper the functioning of the dosing equipment. Subsequently rinse the fresh water tank and the appliance with clear water. For rinsing, select cleaning programme with application of water at the programme selector switch. Set the water quantity to the highest value, set the detergent dosage to 0%

Note:

The appliance is equipped with a fresh water indicator in the display. If the fresh water tank is empty, the function of adding detergent gets deactivated. The cleaning head continues to work without liquid supply.

Cleaning Programs

Figure 7, see cover page

1 Driving

Driving to the Place of Use.

2 Scrubbing suction

Wet clean the floor and vacuum up dirt water.

3 Wet scrubbing

Wet clean the floor and allow the detergent to react.

4 Vacuuming

Suck in the dirt fleet.

5 Polishing

Polishing the floor without the application of liquid.

6 Scrub the floor without applying water (vacuum polishing)

Polish the floor without applying any fluid and suck in the polishing dust.

Note:

Depending on the program, the suction bar and the cleaning head must also be lowered with the appropriate control elements to perform the selected program.

Info button (only Adv. model)

Use the Info button to select the menu items and do the settings.

- Turning the button to the right/left scrolls through the menus forward/backward.
- The selected setting gets accepted by pressing the button.

Settings (only Adv. model)

You can make the settings for the different cleaning programs in the operator menu. Different parameters can be set based on the cleaning program. The settings are done using the Info button.

Operator menu

- ➔ Release emergency-stop button by turning.
- ➔ Sit on the seat and set main switch to "1".
The display shows the battery charging status and the fresh water level.
- ➔ Select cleaning program.
- ➔ Call the operator menu by turning the info button.

- ➔ Select the desired parameter by turning the Info button.
- ➔ Press Info button - the set value blinks.
- ➔ Reset the parameter by turning the info button.
- ➔ Accept modified setting by pressing the Info button or wait till the set value is accepted automatically.

Note:

If the selected parameter does not change within 10 seconds, then the display goes back to displaying the battery charging status and the fresh water level. The same cleaning parameter can have individual settings for each cleaning program. All settings are saved, even if the device is de-energized.

Adjustable parameters

Adjustable parameters	min:step :max	Remark
Cleanspeed (max. cleaning speed)	1:1:6	1=1km/h, 6=6km/h
FACT (brush speed)	–	Power Whisper Fine
Vacuum (suction performance)	–	Low High
Only with Dose model		
Chemical/Agent (detergent metering)	0.5%:0.5 %:3%	–

Info menu

- ➔ Turn the info button until "Information-menu" is displayed.
- ➔ Retrieve the info menu by pressing the info button.

The following information can be displayed by turning the info button:

Display	Significance
Ophrs xxxxxhxxm+	Operating hour counter When the counter is running, "+" will be displayed
Water E-----F	Water level in fresh water tank "C" blinks while the metering pump is operating (only Dose model)
Speed: xkm/h	Current speed
Alfred/Kärcher	Manufacturer
B90R Dxx	Appliance description
Prog.Vers. x.x	Softwareversion
Exit Inform.menu	Exit the info menu by pressing the info button.

Setting the water quantity

- ➔ Set the water quantity at the regulation knob according to the dirt level and the type of flooring.

Raise/lower the cleaning head

Lower

- ➔ Press down the rear surface of the pedal to raise/lower the cleaning head, release and let the pedal move upwards. The brush drive will start as soon as the cleaning head is lowered.

Raise

- ➔ Press down the front surface of the pedal to raise/lower the cleaning head and lock it.

Raise/lower the vacuum bar

Lower

- ➔ Pull the lever up to raise/lower the vacuum bar, press toward the outside and lower.

The suction process will start as soon as the level is moved down.

Raise

- ➔ Pull the lever to raise and lower the vacuum bar up and lock.

Setting the Vacuum Bar

Oblique position

To improve the vacuuming result on tiled floors the vacuum bar can be turned to an oblique position of up to 5°.

Figure 8, see cover page

- ➔ Release the wing nuts.
- ➔ Turn the vacuum bar.
- ➔ Tighten the wing nuts.

Inclination

If the vacuum result is unsatisfactory the inclination of the straight vacuum bar can be modified.

Figure 8, see cover page

- ➔ Release the wing nuts.
- ➔ Tilt the vacuum bar.
- ➔ Tighten the wing nuts.

Adjust brush contact pressure (only with the Adv model)

Figure 10, see cover page

- ➔ Unlock the lever for the brush contact pressure to the left and relock to the right.
- Level down: Reduce contact pressure.
- Level up: Increase contact pressure.

Adjust wiper flaps (only with the Adv model)

- ➔ Adjust the wiper flaps by turning the adjustment wheel so that they touch the floor.
- ➔ Turn the adjustment wheel an additional turn toward the bottom.

Emptying the waste Water tank

Note:

Overflow waste water tank. If the dirt water tank is full, the suction turbine switches off and the indicator lamp "waste water tank full" begins to blink. All cleaning programs with suction are blocked for one minute. Empty the waste water tank.

⚠ CAUTION

Please observe the local provisions regarding the wastewater treatment.

- Take the dirt water discharge hose from the support and lower above a suited collection device.

Figure 11, see cover page

- Let off water by opening the dosage device at the discharge hose.
- The rinse the dirt water reservoir with clear water.

Emptying the Fresh Water Tank

- Unscrew the filter cup of the fresh water filter and let the fresh water tank drain completely.
- Replace the filter cup.

Empty waste container (only with R cleaning head)

- Check the waste container. If needed, remove and empty waste container after work.

Shutting down

- Turn main key to "0" and remove it.
- Secure the machine with wheel chocks to prevent it from rolling away.

Transport

⚠ DANGER

Risk of injury! When loading or unloading the machine, it may only be operated on gradients of max. 10%. Drive slowly.

⚠ CAUTION

Risk of injury and damage! Observe the weight of the appliance when you transport it.

- When transporting in vehicles, secure the appliance according to the guidelines from slipping and tipping over.

With mounted D cleaning head

- Remove brushes from the brush head.

Storage

⚠ CAUTION

Risk of injury and damage! Note the weight of the appliance in case of storage.

- This appliance must only be stored in interior rooms.
- Select the storage site for the appliance taking into consideration the permissible total weight of the appliance in order not to impact its stability.

Care and maintenance

⚠ Danger

Risk of injury. Before carrying out any tasks on the machine, set the main key to "0" and remove it. Press emergency-stop button. Place the appliance on a stable, even surface and disconnect the battery.

⚠ WARNING

Suction turbine will continue to run for a while after switch-off. Carry out maintenance tasks only after the suction turbine has come to a halt.

- Drain and dispose of the dirt water and the residual fresh water.

Maintenance schedule

After the work

ATTENTION

Risk of damage. Do not sluice the appliance with water and do not use aggressive detergents.

- Drain off dirt water.
- Check the flat folded filter, clean if required
- Only with R cleaning head Remove bulk waste container and empty it.
- Clean the outside of the appliance with a damp cloth which has been soaked in mild detergent.
- Clean the vacuum lips and the wiping lips, check for wear and replace if required.
- Check the brushes for wear, replace if required.
- Charge the battery:
If the charging state of the battery is under 50%, charge the battery fully and without interruption.
If the charging state of the battery is over 50%, only recharge the battery if the entire operation duration will be required when next used.

Weekly

- When used regularly, charge the battery fully and without interruption at least once a week.

Monthly

- Check battery pole for oxidation; brush it if required and lubricate it using pole grease. Ensure that the connection cable sits firmly.
- Clean the seals between waste water tank and cover and check for tightness, replace if required.
- Check the acid density of the cells if the batteries are not maintenance-free batteries.
- Clean the brush tunnel (only R cleaning head)

Figure 12, see cover page

- Remove the water distribution strip from the cleaning head and clean water canal (only R cleaning head).
- For long periods of disuse, only turn the device off when the battery is fully charged. Fully recharge the battery at least every month.

Yearly

- Replace pump hose of the metering pump (only Dose model).
- Have the prescribed inspection carried out by the customer service.

Maintenance Works

Maintenance contract

For a reliable operation of the appliance maintenance contracts can be concluded with the competent sales/service consultant.

Replacing the vacuum lips

- Remove the vacuum bar.
 - Unscrew the star grips.
- #### Figure 13, see cover page
- Remove the plastic parts.
 - Remove the vacuum lips.
 - Insert new vacuum lips.
 - Insert the plastic parts.
 - Screw in and tighten the star grips.

Install D cleaning head

- Push the pedal for raising/ lowering the cleaning head down.
- Slide the cleaning head under the appliance so that the hose points toward the rear.
Only slide the cleaning head halfway under the appliance.

Figure 14, see cover page

- Remove the lid of the cleaning head.

Figure 15, see cover page

- Connect the power cord of the cleaning head to the appliance (same colours must meet).
- Replace the lid and lock it.
- Slide the cleaning head halfway under the appliance.

Figure 16, see cover page

- Connect the hose couplers on the cleaning head to the hose on the appliance.

Figure 17, see cover page

- Insert the tab into the middle of the cleaning head, between the fork of the lever.
- Position the lever on the pedal for raising/lowering so that the borings in the lever and the cleaning head align.
- Insert the stop pin through the bushings and swivel the locking plate downward.

Figure 18, see cover page

- Insert the cylinder pin into the boring of the drawbar.
- Slide the drawbar with the pin the guide channel on the cleaning head all the way to the bottom and lock.
- Repeat process on the drawbar on the opposite side.

Install R cleaning head

- Push the pedal for raising/ lowering the cleaning head down.
- Slide the cleaning head under the appliance so that the hose points toward the rear.
Only slide the cleaning head halfway under the appliance.

Figure 19, see cover page

- Pull out the cover.

Figure 20, see cover page

- Connect the power cord of the cleaning head to the appliance (same colours must meet).

- Push in the cover.

- Slide the cleaning head halfway under the appliance.

Figure 16, see cover page

- Connect the hose couplers on the cleaning head to the hose on the appliance.

Figure 21, see cover page

- Insert the tab into the middle of the cleaning head, between the fork of the lever.
- Position the lever on the pedal for raising/lowering so that the borings in the lever and the cleaning head align.
- Insert the stop pin through the bushings and swivel the locking plate downward.

Figure 22, see cover page

- ➔ Insert the cylinder pin into the boring of the drawbar.
- ➔ Slide the drawbar in the guide channel on the cleaning head all the way to the bottom.
- ➔ Insert the locking plate into the guide channel and lock it in.
- ➔ Repeat process on the drawbar on the opposite side.

Remove D cleaning head**Figure 23, see cover page**

- ➔ Press in the locking plate and swivel the drawbar upward.

The subsequent removal will take place in the opposite order of the installation.

Remove R cleaning head

The removal will take place in the opposite order of the installation.

Replacing the brush rollers**Figure 24, see cover page**

- ➔ Lift the cleaning head.
- ➔ Loosen the lock of the wiper flap.
- ➔ Swivel the wiping flap out of the way.

Figure 25, see cover page

- ➔ Loosen the lock of the wiper flap.
- ➔ Push the bearing lid down and remove.
- ➔ Pull out the brush roller.
- ➔ Insert a new brush roller.
- ➔ Reattach the bearing lid and the wiper flap in reverse sequence.
- ➔ Repeat process on the opposite side.

Replacing the Disk Brushes

- ➔ Lift the cleaning head.
- ➔ Press the pedal for changing the brushes downward beyond its resistance.
- ➔ Pull the disc brush out of the side below the cleaning head.

- ➔ Hold the new disc brush under the cleaning head, push upward and lock.

Replace pump hose (only Dose model)

- ➔ Unscrew the right stepping platform and remove along with the drive pedal.

Figure 26, see cover page

- 1 Covering lid
- 2 Cover
- 3 Hose holder
- 4 Pump hose
- 5 Rotor

- ➔ Remove covering lid.
- ➔ Remove cover.
- ➔ Remove the hose holder with the pump hose (turn manually to remove the rotor manually).
- ➔ Replace pump hose.
- ➔ Dosing pump and appliance are brought into operational state by performing the same steps in the reverse direction.

Frost protection

In case of danger of frost:

- ➔ Empty the fresh and dirt water reservoirs.
- ➔ Store the appliance in a frost-protected room.

Troubleshooting**⚠ Danger**

Risk of injury! Before carrying out any tasks on the machine, set the main key to "0" and remove it. Press emergency-stop button. Place the appliance on a stable, even surface and disconnect the battery.

- ➔ Drain and dispose of the dirt water and the residual fresh water.

In case of faults that cannot be remedied using the table below please contact the customer service.

Replace fuses**Note:**

Defective pole fuses should only be replaced by the service center. If these fuses are defective, then customer service center has to check the usage conditions and the entire control system.

Fault indication

If errors appear on the display, then proceed as follows:

- ➔ Set the key switch to "0" (switch off the machine).
- ➔ Wait till the text on the display has disappeared.
- ➔ Set the main switch again to "1" (switch on the machine). Carry out the troubleshooting measures in the given sequence only if the fault occurs again. At such times, always bring the main switch to the "0" position and ensure that the emergency-stop button is depressed.
- ➔ If the fault cannot be repaired, call customer service and mention the error message.

Note:

Fault messages that are not listed in the following table indicate faults that cannot be rectified by the operator. Please contact the aftersales service.

Faults with display

Display	Cause	Remedy
E: Did you press the emergency stop button !?!	Press emergency-stop button.	Release emergency-stop button by turning. Set the main switch to "0". Wait until display goes off. Set the main switch back to "1".
E: Pow.module hot Let cool down!	Control is overheated	Turn the key switch to "0". Wait at least 5 minutes to let the control cool off. Turn the appliance back on.
E: Overload BRUSH	Overload on brush motor	Set key switch to "0". Wait for 3 seconds. Turn the appliance back on. Reduce the brush contact pressure.
E: Hardw. failure Onboardcharger	Interference in the integrated charger (only Pack model)	Disconnect the power cord plug of the charger. Wait for 10 seconds. Plug in the power cord plug. If the error message appears again: Call customer service.
E: Failure char- ging battery	Battery defective	Check battery.
E: Overload TRAC- TION MOTOR	Drive motor has got overheated due to a steep climb or locked brake.	Allow machine to cool down at least 15 minutes. Set key switch to "0". Wait for 3 seconds. Turn the appliance back on. Avoid frequent uphill driving.
Seat switch! Please sit down!	Seat contact switch has not been activated.	Release the drive pedal. Have a seat.
Release gaspedal	The gas pedal is depressed when the main switch is on.	Release drive pedal and reactivate.
Followup suction Shutdown shortly	The key switch was turned to "0" while the suction turbine was running.	The suction turbine trails with a delay of 10 seconds. Wait until the appliance shuts itself off after 10 seconds.
Dirttank full Clean- ing stops	waste water tank is full.	Empty the waste water tank.
Emergency brake operation! Drive at ground level	Parking brake is defective.	Danger! Do not drive over upward/downward slopes. Park the machine on an even surface. Secure the machine with wheel chock(s) to prevent it from rolling away. Inform Customer Service.

Faults without display on the console

Fault	Remedy
Appliance cannot be started	Insert battery plug.
	Set main switch to "1"
	Safety switch not activated, sit down on the seat.
	The machine operates only if the operator is seated on the seat.
	Release emergency-stop button.
	Set the key switch to "0". Wait approx. 10 minutes before turning the key switch to "1" again. If possible, use the unit only on level surfaces. Check immobilizing brake and foot brake if required.
	Take your foot off the accelerator before switching on the main switch. If the fault recurs, call customer service.
Insufficient water quantity	Check battery; charge it, if needed
	Check fresh water level, refill tank if necessary.
	Check hoses for blockages; clean if required.
	R cleaning head: Remove the water distributor strip and clean it.
Insufficient vacuum performance	Clean the fresh water filter.
	Clean the seals between waste water tank and cover and check for tightness, replace if required.
	Clean the flat fold filter in the waste water tank
	Clean the vacuum lips on the vacuum bar, turn or replace if required
	Check suction hose for blockages; clean if required.
	Check the suction hose for tightness; replace if required.
	Check if the cover on the dirt water discharge hose is closed
Insufficient cleaning result	Check the setting of the vacuum bar.
	Attach additional weight (accessory) to the vacuum bar.
	Adjust the contact pressure (not with Eco model)
	Adjust the wiper flaps (not with Eco model)
Brushes do not turn	Check the brushes for wear, replace if required.
	Reduce the contact pressure (not with Eco model)
	Check if foreign matters block the brushes; remove foreign matter if required.
Drain hose for dirty water is blocked	Motor overload, allow to cool down. Set the key switch to "0". Wait approx. 10 minutes before turning the key switch to "1" again.
	Open dosing equipment at the drain hose. Pull out the suction hose from suction beam and close it by hand. Set the program selection switch to suction or vacuuming. The blockage will be sucked out from the drain hose into the dirt water tank.
Detergent metering Dose (only Dose) does not function properly	Inform Customer Service.

Technical specifications

B 90 R Classic, B 90 R Adv, B90 R Adv Dose		R 55		D 55	R 65		D 65	R 75	D 75
Power									
Nominal voltage	V	24							
Battery capacity	Ah (5h)	180 (240 Option)							
Average power consumption	W	2200							
Drive motor output (rated output)	W	600							
Suction engine output	W	750	550	750	550	750	550		
Brush engine output	W	2 x 600							
Vacuuming									
Cleaning power, air quantity	l/s	20.5							
Cleaning power, negative pressure	kPa	120							
Cleaning brushes									
Working width	mm	550			650		750		
Brush diameter	mm	105	315	105	365	105	410		
Brush speed	1/min	1200	140	1200	140	1200	140		
Dimensions and weights									
Drive speed (max.)	km/h	6							
Slope max.	%	10							
Theoretical surface cleaning performance	m²/h	3300			3900		4500		
Fresh/waste water tank volume	l	90							
Volume of waste container	l	5	–	6	–	7	–		
Length	mm	1450							
Width (without vacuum bar)	mm	720			770		810		
Height	mm	1180							
Permissible overall weight	kg	460							
Transport weight	kg	309 (180 Ah), 373 (240 Ah, Option)							
Surface load (with driver and full fresh water tank)									
Front wheel	N/cm²	64							
Rear wheel	N/cm²	52							
Values determined as per EN 60335-2-72									
Total oscillation value	m/s²	<2.5							
Uncertainty K	m/s²	0.2							
Sound pressure level L _{pA}	dB(A)	69							
Uncertainty K _{pA}	dB(A)	3							
Sound power level L _{WA} + Uncertainty K _{WA}	dB(A)	87							

Accessories and Spare Parts

- Only use accessories and spare parts which have been approved by the manufacturer. The exclusive use of original accessories and original spare parts ensures that the appliance can be operated safely and trouble free.
- At the end of the operating instructions you will find a selected list of spare parts that are often required.
- For additional information about spare parts, please go to the Service section at www.kaercher.com.

Warranty

The warranty terms published by the relevant sales company are applicable in each country. We will repair potential failures of your appliance within the warranty period free of charge, provided that such failure is caused by faulty material or defects in manufacturing. In the event of a warranty claim please contact your dealer or the nearest authorized Customer Service centre. Please submit the proof of purchase.

EU Declaration of Conformity

We hereby declare that the machine described below complies with the relevant basic safety and health requirements of the EU Directives, both in its basic design and construction as well as in the version put into circulation by us. This declaration shall cease to be valid if the machine is modified without our prior approval.

Product: Floor cleaner ride-on model
Type: 1.161-xxx

Relevant EU Directives

2006/42/EC (+2009/127/EC)
 2014/30/EU

Applied harmonized standards

EN 55014–1: 2006+A1: 2009+A2: 2011
 EN 55014–2: 2015
 EN 60335–1
 EN 60335–2–29: 2004+A2: 2010
 EN 60335–2–72
 EN 61000–3–2: 2014
 EN 61000–3–3: 2013
 EN 62233: 2008
Applied national standards

The signatories act on behalf of and with the authority of the company management.


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Winnenden, 2019-05-01



Lire ce manuel d'utilisation original avant la première utilisation de votre appareil, le respecter et le conserver pour une utilisation ultérieure ou pour le futur propriétaire.

Table des matières

Consignes de sécurité	FR	1
Fonction	FR	1
Utilisation conforme	FR	1
Protection de l'environnement .	FR	1
Éléments de commande	FR	1
Avant la mise en service	FR	2
Fonctionnement	FR	3
Transport	FR	5
Entreposage	FR	5
Entretien et maintenance	FR	5
Assistance en cas de panne . .	FR	6
Caractéristiques techniques . .	FR	9
Accessoires et pièces de rechange	FR	9
Garantie	FR	9
Déclaration UE de conformité .	FR	9

Consignes de sécurité

Lire la présente notice d'instructions ainsi que la brochure ci-jointe Consignes de sécurité pour les nettoyeurs à brosses n° 5.956-251.0 avant d'utiliser l'appareil et respecter les instructions. Cette balayeuse doit être utilisée uniquement sur des surfaces qui présentent une pente maximale de 10%.

Dispositifs de sécurité

Les dispositifs de sécurité ont pour but de protéger l'utilisateur et ils ne doivent donc jamais être désactivés ni évités.

Touche d'arrêt d'urgence

Pour une mise hors service immédiate de toutes les fonctions : Appuyer sur la touche d'arrêt d'urgence.

- En cas de pression sur la touche d'arrêt d'urgence, l'appareil freine brusquement.
- La touche d'arrêt d'urgence désactive immédiatement toutes les fonctions de l'appareil.
- L'écran reste actif.

Coupe-circuit

Met le moteur de traction hors service après une brève temporisation quand l'exploitant quitte le siège pendant le fonctionnement de travail ou en circulation.

Niveaux de danger

▲ DANGER

Signale la présence d'un danger imminent entraînant de graves blessures corporelles et pouvant avoir une issue mortelle.

▲ AVERTISSEMENT

Signale la présence d'une situation éventuellement dangereuse pouvant entraîner de graves blessures corporelles et même avoir une issue mortelle.

▲ PRÉCAUTION

Remarque relative à une situation potentiellement dangereuse pouvant entraîner des blessures légères.

ATTENTION

Remarque relative à une situation éventuellement dangereuse pouvant entraîner des dommages matériels.

Fonction

L'aspirateur à abrasion sert au nettoyage humide ou au polissage de sols plans. Il est facile d'adapter l'appareil à la tâche de nettoyage à accomplir en réglant la quantité d'eau, la pression des brosses, la quantité de détergent ainsi que la vitesse de transport.

Utilisation conforme

Cet appareil convient à un usage professionnel et industriel, par exemple dans le cadre d'hôtels, d'écoles, d'hôpitaux, d'usines, de magasins, de bureaux et d'agences de location.

L'utilisation de l'appareil doit être faite en conformité avec les consignes figurant dans les instructions de service.

- L'appareil doit uniquement être utilisé pour nettoyer des surfaces planes non sensibles à l'humidité ni au polissage.
- Cet appareil est destiné à une utilisation dans les locaux intérieurs.
- La plage de température pour l'utilisation est de +5°C à +40°C.
- L'appareil n'est pas approprié pour nettoyer des sols gelés (par exemple dans des entrepôts frigorifiques)
- L'appareil convient à une hauteur d'eau maximum de 1 cm. Ne pas rouler dans une zone dans laquelle la hauteur d'eau maximum risque d'être dépassée.
- L'appareil doit uniquement être équipé d'accessoires et de pièces de rechange d'origine.
- L'appareil n'est pas destiné au nettoyage de voies publiques.
- L'appareil ne peut être utilisé sur des sols qui sont sensibles à la pression. Tenir compte de la sollicitation concentrée admissible du sol. La charge concentrée par l'appareil est indiquée dans les données techniques.
- L'appareil n'est pas approprié pour l'application dans des environnements à risque d'explosion.
- Ne pas aspirer avec l'appareil des gaz combustibles, acides ou solvants non dilués. Ces-ci sont essence, dilutif de couleurs ou fuel, qui peuvent former des mélanges explosifs en touillant avec l'air d'aspiration. Ne pas utiliser d'acétone, d'acides ou de solvants non dilués, du fait de leur effet corrosif sur les matériaux constituant l'appareil.

Protection de l'environnement



Les matériaux constitutifs de l'emballage sont recyclables. Ne pas jeter les emballages dans les ordures ménagères, mais les rendre à un système de recyclage.



Les appareils usés contiennent des matériaux précieux recyclables lesquels doivent être rendus à un système de recyclage. Des batteries, de l'huile et d'autres substances semblables ne doivent pas être tout simplement jetées. Pour cette raison, utiliser des systèmes adéquats de collecte pour éliminer les appareils usés.

Instructions relatives aux ingrédients (REACH)

Les informations actuelles relatives aux ingrédients se trouvent sous :

www.kaercher.com/REACH

Éléments de commande

Figure 1, cf. page de couverture

- 1 Lèvre d'enlèvement *
- 2 Tête de nettoyage *
- 3 Bouteille de détergent (uniquement variante boîte)
- 4 Flexible d'aspiration de détergent (uniquement variante boîte)
- 5 Levier pour relever/abaisser la barre d'aspiration
- 6 Bouton de régulation pour la quantité d'eau
- 7 Pupitre de commande
- 8 Réservoir d'eau sale
- 9 Couvercle du réservoir d'eau sale
- 10 Barre d'aspiration *
- 11 Ecras-papillon pour incliner la barre d'aspiration
- 12 Ecras-papillon pour fixer la barre d'aspiration
- 13 Flexible d'aspiration
- 14 Flotteur
- 15 Câble d'alimentation chargeur (uniquement variante d'achat groupé)
- 16 Support de protection
- 17 Connecteur de batterie (pas sur variante d'achat groupé)
- 18 Batterie
- 19 Siège (avec coupe-circuit)
- 20 Volant
- 21 Couvercle réservoir d'eau fraîche
- 22 Levier pression d'appui brosse (uniquement sur version Adv)
- 23 Filtre d'eau propre
- 24 Pédale pour relever/abaisser les têtes de nettoyage
- 25 Filtre plat de plis
- 26 Bac à déchets (uniquement avec tête de nettoyage R) *
- 27 Dispositif de dosage pour l'eau sale
- 28 Flexible de vidange pour eau sale
- 29 Voyant d'avertissement lors du déplacement en marche arrière *
- 30 Système de remplissage *
- 31 Marchepied droit
- 32 Pédale de marche
- 33 Roue de réglage lèvre d'enlèvement *
- 34 Pédale changement de brosse (uniquement avec tête de nettoyage D) *

* pas comprise dans l'étendue de livraison