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FC 7 Cordless **FC 7 Cordless Premium**



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1 Foreword

Good service work requires extensive and practical training and clear documentation. That's why we offer all service technicians regular basic training and advanced training for the entire product range.

We also create service handbooks for the important units that can initially be used as instructions and later as reference material.

Furthermore, we provide regular service information on the development of the products.

If you have amendments, corrections or queries regarding this document, please send them with the following subject line:

international-service@de.kaercher.com

Subject: Case 125985

The corresponding product specialist will be take care of your concerns.

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2 Safety instructions

Service and maintenance work may only be performed by suitably qualified and specially trained personnel.

Observe the safety instructions in the chapters!

⚠ DANGER

Risk of injury due to the device starting up!

Switch off the device before performing any work on the device. Make sure that the ON/OFF switch is not accidentally pressed while working on the device.

⚠ CAUTION

Risk of damage due to electrostatic discharge (ESD)!

Take suitable measures to discharge the electrostatic charge before all work on the device electronics.

2.1 Hazard levels

⚠ DANGER

- Indication of an imminent threat of danger that will lead to severe injuries or even death.

⚠ WARNING

- Indication of a potentially dangerous situation that may lead to severe injuries or even death.

⚠ CAUTION

- Indication of a potentially dangerous situation that may lead to minor injuries.

ATTENTION

- Indication of a potentially dangerous situation that may lead to damage to property.

2.2 Symbols on the device



- Warning not to hold the device under water is located:
 - on the bottom of the floor head.

- Symbols for unit cleaning mode after finishing work are located:
 - engraved in the bowl of the cleaning station,
 - as a label on the back of the fresh water tank.
- Symbols for unlocking the waste water tank/parking station are located:
 - as a label on the unlocking button for the waste water tank/parking station.

For the application and description of the symbols, see the chapter "Unit cleaning and rinsing process" in the operating manual.

3 Shown in this service handbook

3.1 Structure of function groups

010	Safety instructions	050	Service and inspection
020	Overview	060	Fault diagnosis
030	Function	070	Special features/other
040	Service activities		

3.2 Textual display

● Preparatory tasks

① Numerical legend

1. Guideline

ATTENTION

Safety instructions

Note on dangers, source of errors.

4 Technical features

4.1 Scope

This service handbook applies for the following devices:

1.055-730.0 FC 7 Cordless

1.055-731.0 FC 7 Cordless

1.055-732.0 FC 7 Cordless

1.055-760.0 FC 7 Cordless Premium

1.055-761.0 FC 7 Cordless Premium

1.055-762.0 FC 7 Cordless Premium

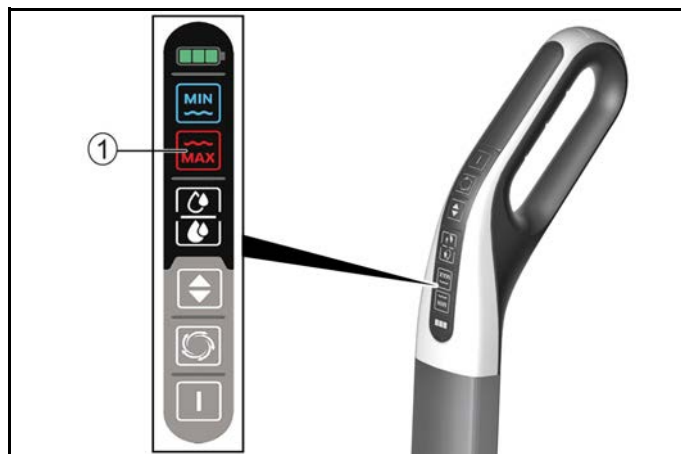
4.2 Safety devices

Safety devices protect the user and may not taken out of operation or functionally circumvented.

Adhere to the safety instructions in the chapters!

4.3 Waste water container

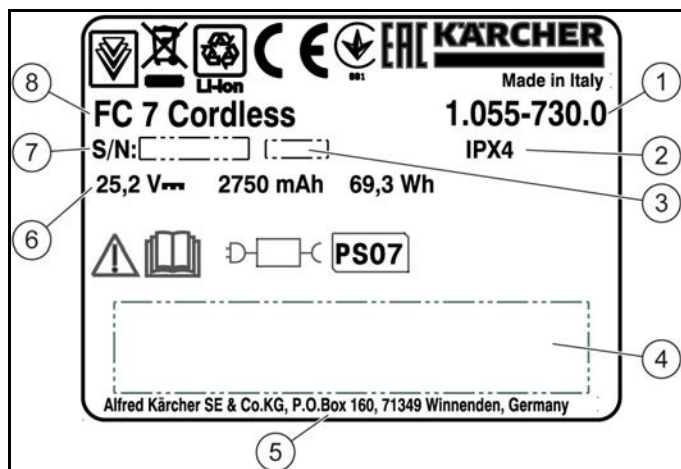
The maximum filling level of the waste water container is detected by two sensors.



(1) "MAX" indicator

- The "MAX" indicator (red) lights up and an acoustic signal sounds when the waste water tank is full.
- After 60 seconds, an acoustic signal sounds again and the device switches off.
- The "MAX" indicator (red) flashes for 10 seconds once the device is switched off.
- The "MAX" indicator (red) flashes for 10 seconds when attempting to switch the device on again with a full waste water tank. Cleaning work cannot be continued.
- The device cannot be switched on again until the waste water tank has been emptied.

4.4 Type plate

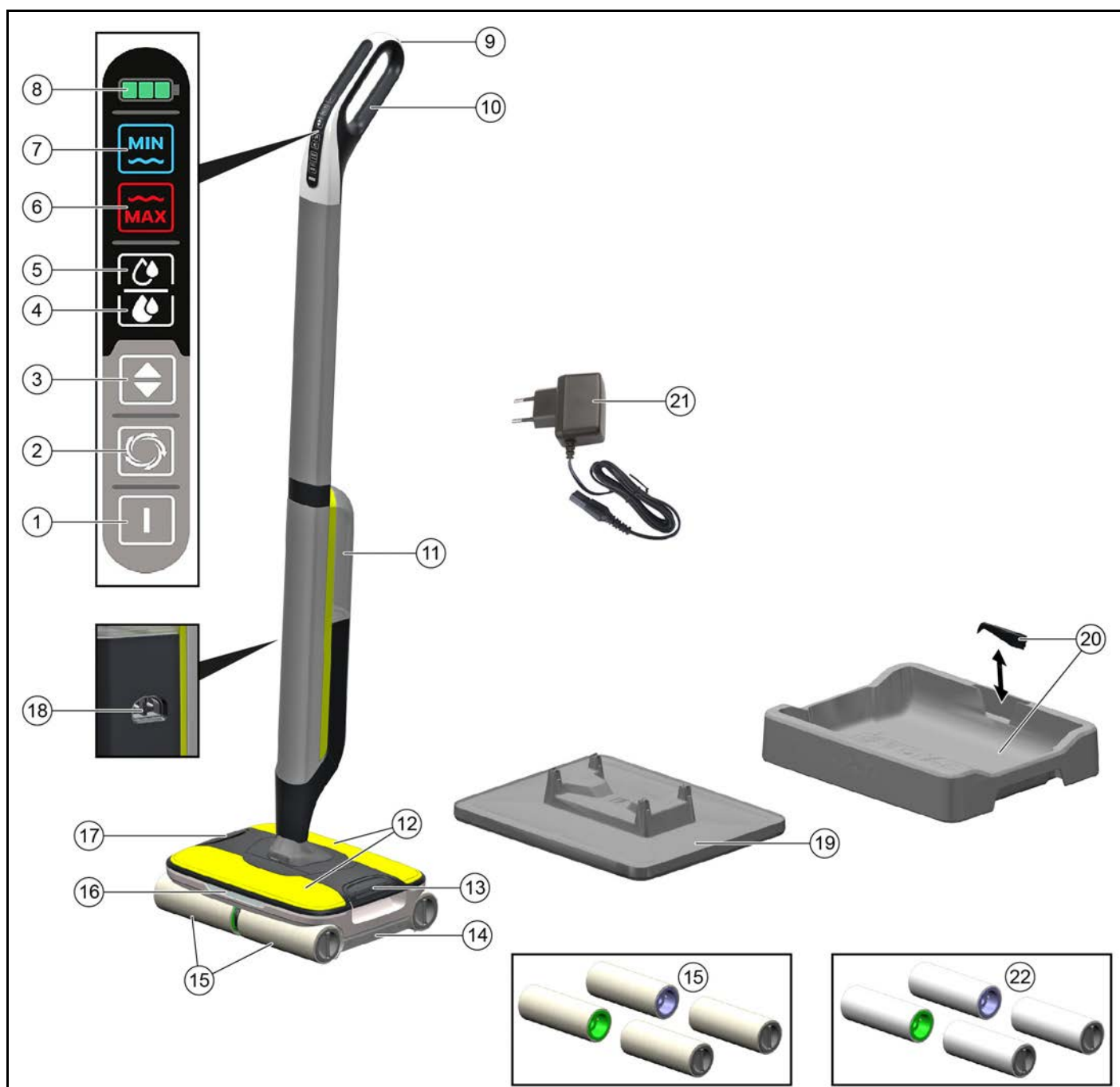


The type plate is located at the rear behind the fresh water tank.

- ① Part number
- ② Protection class
- ③ Date of manufacture
- ④ Barcode containing serial number and part number
- ⑤ Manufacturer's address
- ⑥ Voltage supply
- ⑦ Serial number
- ⑧ Device designation

5 Overview of the unit

5.1 View of the device



- ① ON/OFF switch
- ② BOOST function button
Increased roller rotation speed and additional water quantity for stubborn soiling
- ③ Button for adjusting cleaning level 1 or 2
- ④ "Cleaning level 1" indicator
- ⑤ "Cleaning level 2" indicator
- ⑥ "MAX" indicator (red)
The waste water tank is full
- ⑦ "MIN" indicator (blue)
The fresh water tank is empty
- ⑧ "Battery" indicator (green)
Indicates the charging state of the battery
- ⑨ Wall anti-slip handle
- ⑩ Handle
- ⑪ Fresh water tank
- ⑫ Removable hair filters
- ⑬ Unlocking button for the waste water tank and parking station
- ⑭ Waste water tank

- ⑮ Cleaning rollers (4x)
 - ⑯ LED lights *
 - ⑰ Unlocking button for hair filters
 - ⑱ Charging socket
 - ⑲ Parking station
 - ⑳ Cleaning station with cleaning brush
 - ㉑ Charger with charging cable
 - ㉒ Cleaning rollers (4x) for stone floors *
- * FC 7 Premium

6 Setup service group

6.1 010 Safety instructions

⚠ CAUTION

Risk of damage due to electrostatic discharge (ESD)

Take suitable measure to discharge the electrostatic charge before all work on the unit electronics.

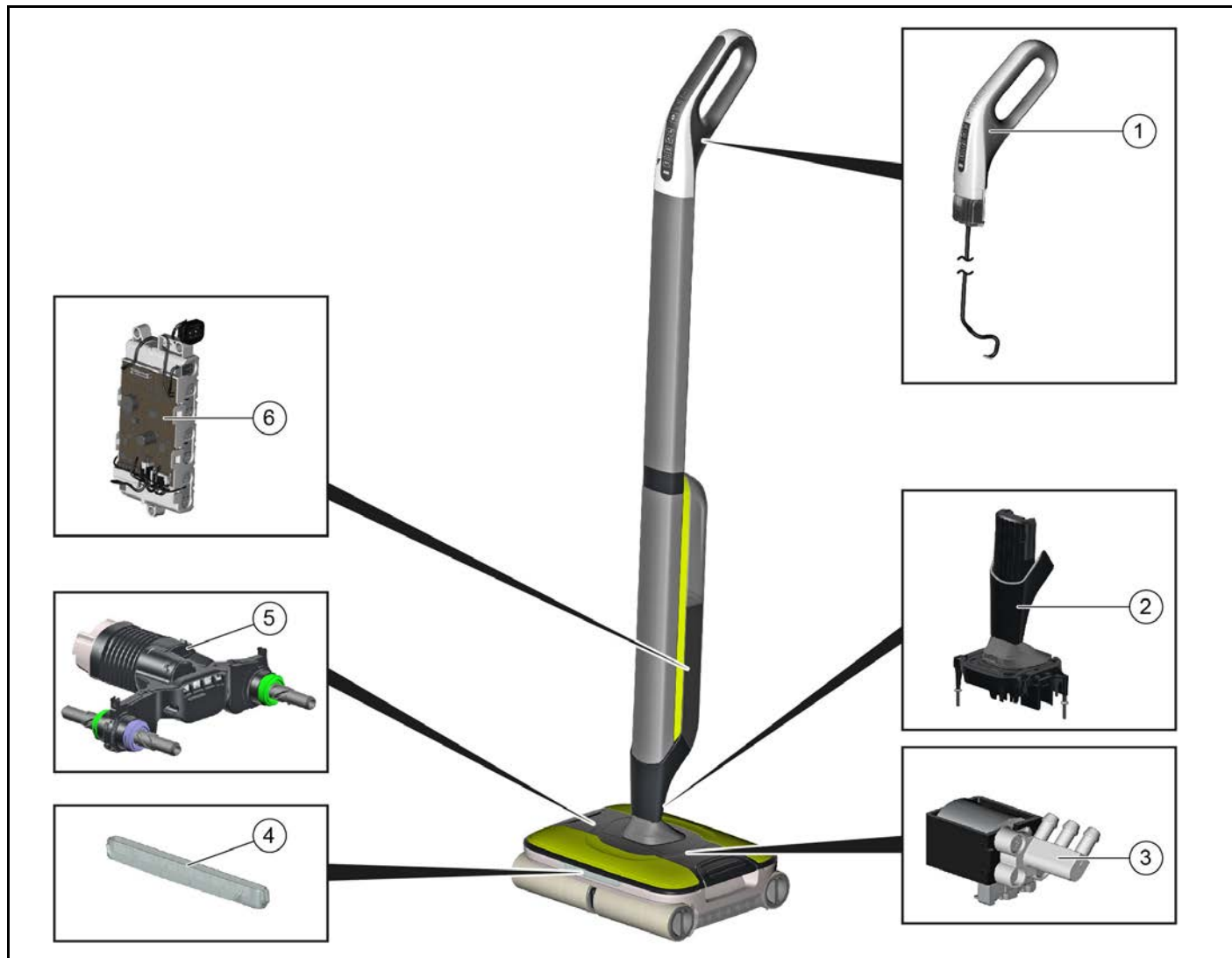
⚠ WARNING

Danger of injury from electrical voltage

Before cleaning, service and replacing parts, you must switch off the device. Pull the plug of the charging cable out of the charging socket of the device.

Observe the further general safety instructions.

6.2 020 Overview



① 6.4.1 Removing/installing the handle

② 6.4.2 Removing/installing the joint

③ 6.4.3 Removing/installing the solenoid valve

④ 6.4.4 Removing/installing LED lights

⑤ 6.4.5 Removing/installing transmission

⑥ 6.4.6 Removing/installing the electronics

6.3 030 Function

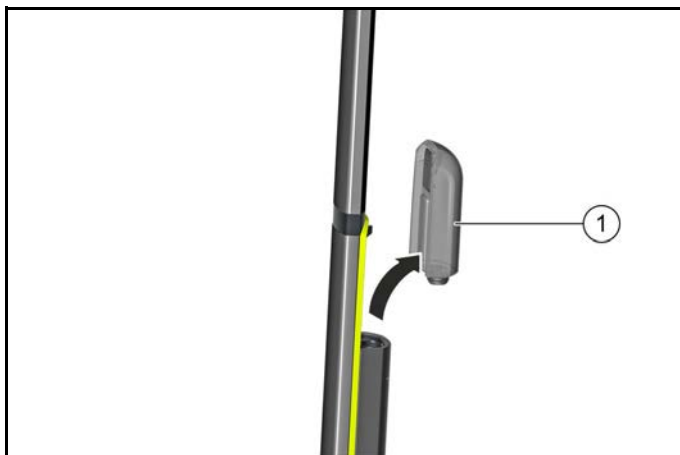
No special functional features.

6.4 040 Service activities

Note

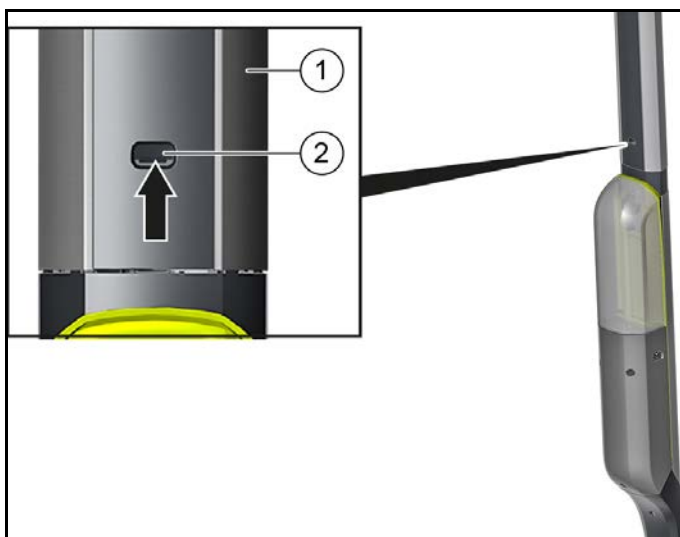
Unless otherwise described, installation is performed in reverse order.

6.4.1 Removing/installing the handle



① Fresh water tank

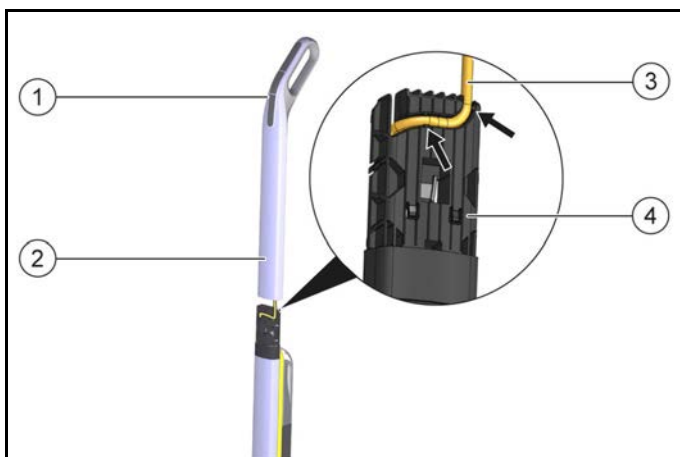
1. Grasp the fresh water tank by the recessed grip and remove it from the device.



① Handle bar

② Unlocking button

2. Press the unlocking button with a screwdriver and pull out the handle bar approx. 10 cm.



① Handle

② Handle bar

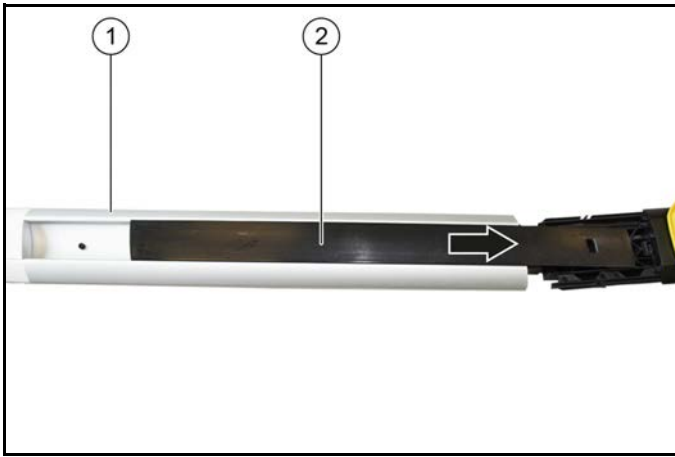
③ Cable

④ Intermediate piece

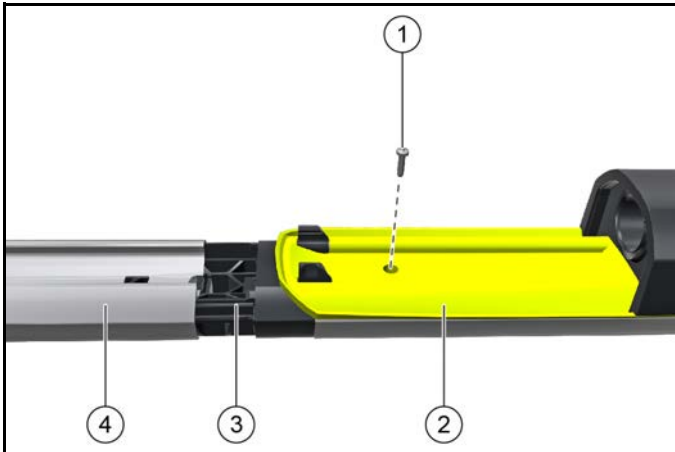
3. When installing, make sure that the cable is properly clipped into the intermediate piece.

Installation information

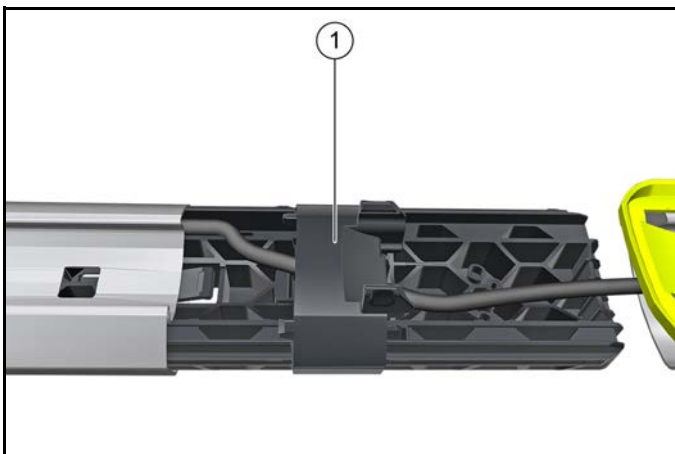
Carefully push the handle bar onto the intermediate piece to avoid damaging the cable.



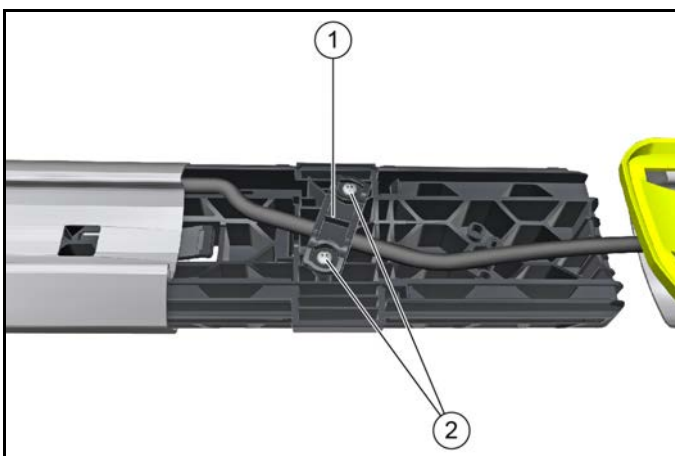
- ① Handle bar
 - ② Cover strip
4. Pull the cover strip out of the handle bar



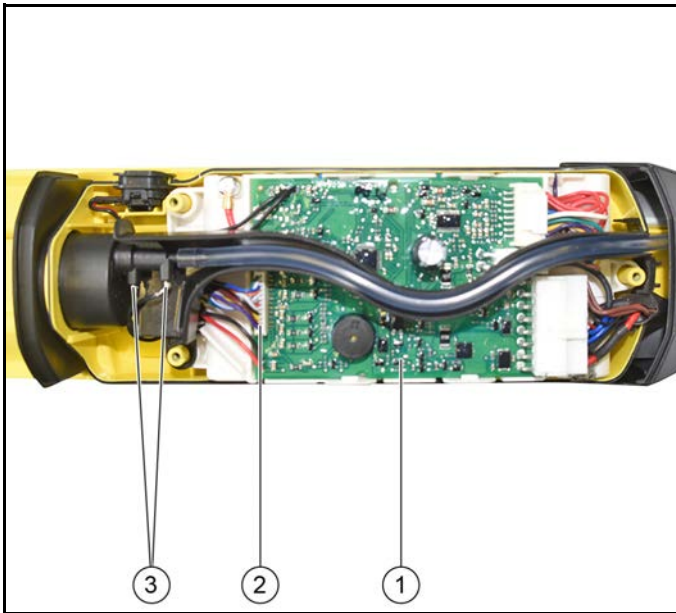
- ① Screw
 - ② Holder
 - ③ Intermediate piece
 - ④ Handle bar
5. Unscrew screw.
6. Lift the holder and pull it off the intermediate piece.



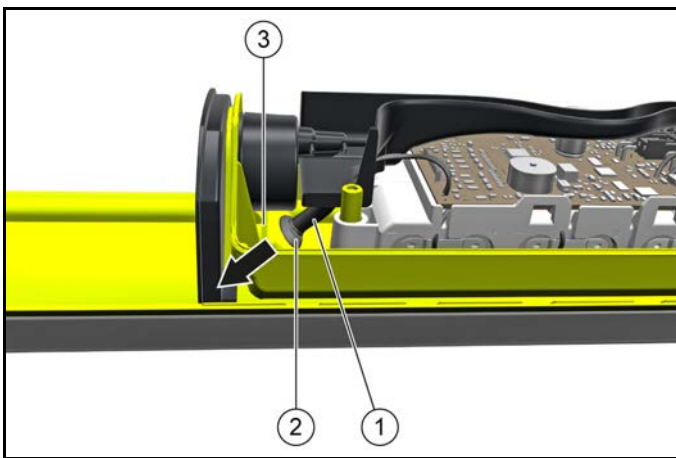
- ① Strain relief cover
7. Remove the strain relief cover.



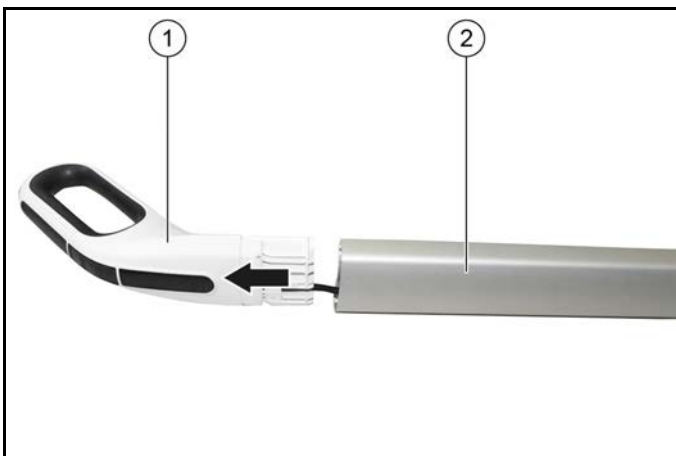
- ① Strain relief
 - ② Screws
8. Unscrew the screws.
9. Remove the strain relief.



- ① Electronics
 - ② Electrical socket plug connection for handle
 - ③ Electrical socket plug connection for retainer
10. Disconnect electrical socket plug connections.



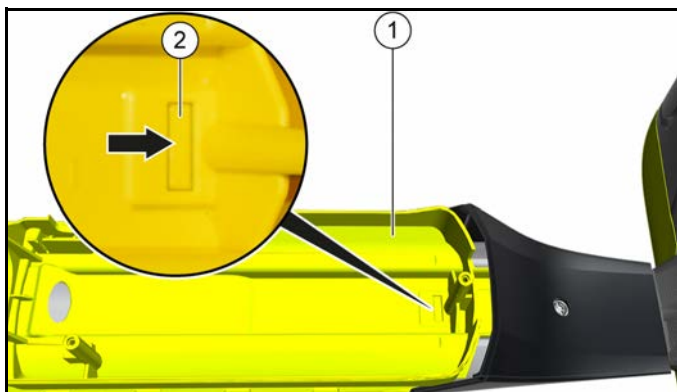
- ① Electric cable
 - ② Rubber grommet
 - ③ Holder
11. Press the rubber grommet together and pull it out of the holder with the electric cable.



- ① Handle
 - ② Handle bar
12. Carefully pull the handle with the electric cable connected out of the handle bar.

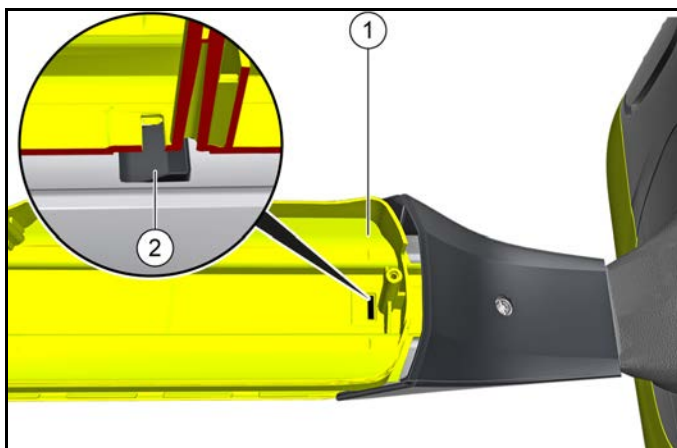
6.4.2 Removing/installing the joint

- 6.4.1 Removing/installing the handle
- 6.4.6 Removing/installing the electronics
- 6.4.5 Removing/installing transmission
- 6.4.4 Removing/installing LED lights

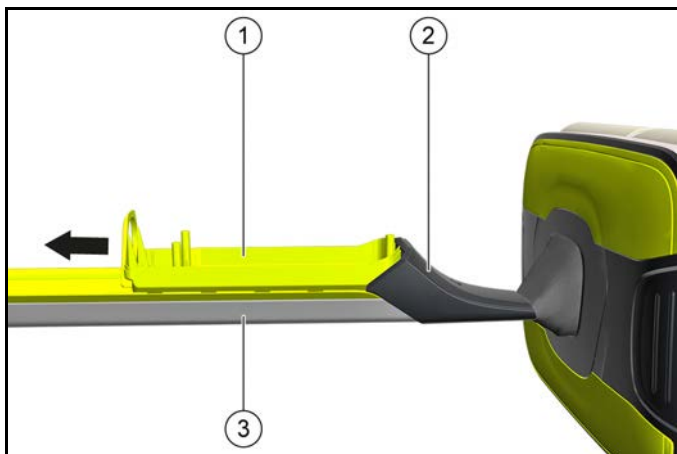


- ① Holder
- ② Predetermined breaking point

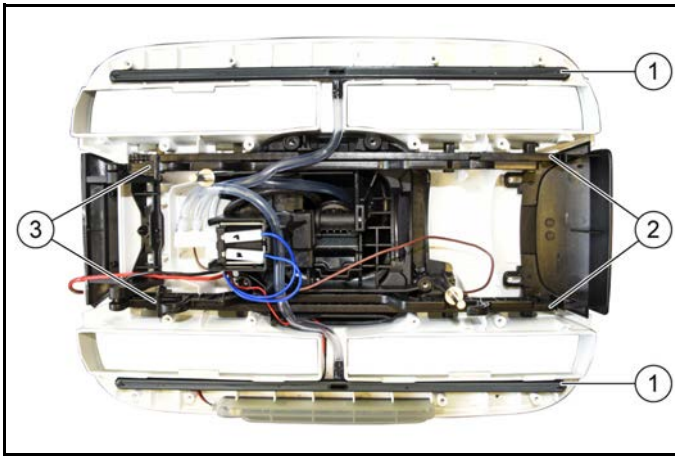
1. Puncture the predetermined breaking point on the holder with a screwdriver.



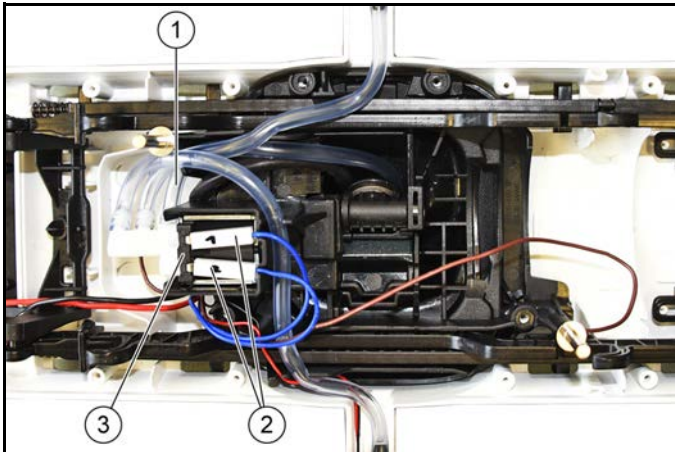
- ① Holder
 - ② Unlocking button
2. Press the unlocking button.



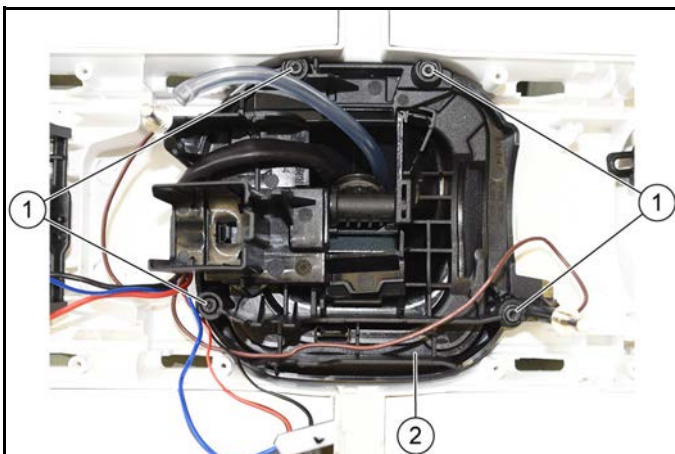
- ① Holder
 - ② Joint
 - ③ Aluminium profile
3. Pull the holder together with the aluminium profile from the joint.



- ① Water outlet seal
- ② Hair filter push latch
- ③ Waste water tank push latch
- 4. Remove water outlet seals.
- 5. Remove waste water push latch.
- 6. Remove hair filter push latch.
- Make sure the springs are seated properly during installation.

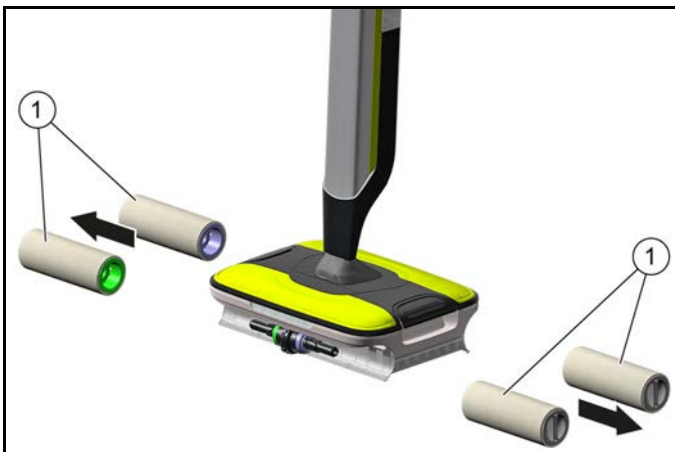


- ① Fresh water tank hose
- ② Electrical socket plug connections
- ③ Solenoid valve
- 7. Disconnect the fresh water tank hose.
- 8. Disconnect electrical socket plug connections.

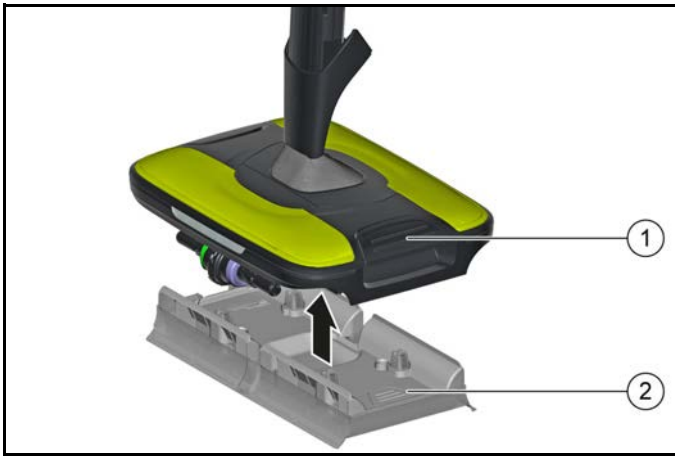


- ① Screws
- ② Joint
- 9. Unscrew the screws.
- 10. Remove the joint from the floor head cover.

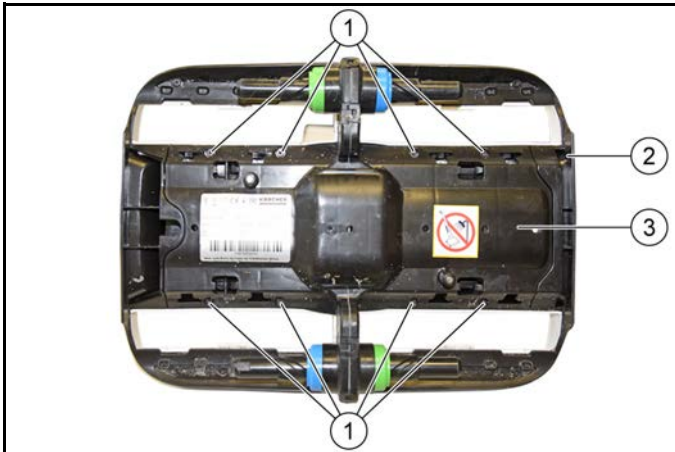
6.4.3 Removing/installing the solenoid valve



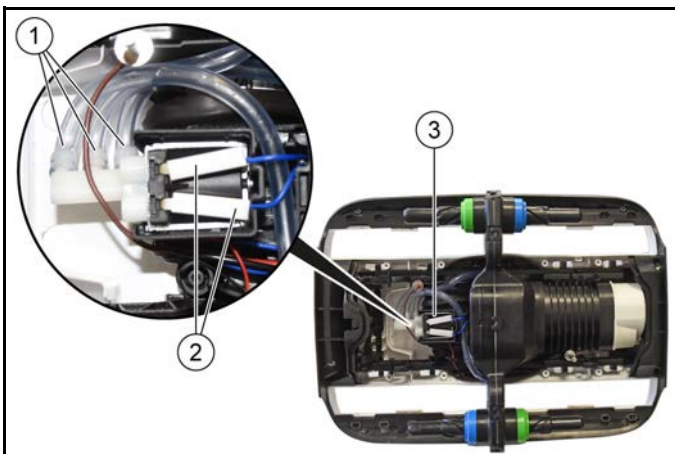
- ① Cleaning rollers
- 1. Unscrew cleaning rollers via the recessed grip.



- ① Unlocking button
 - ② Waste water tank
2. Press the unlocking button. The waste water tank releases from the device.

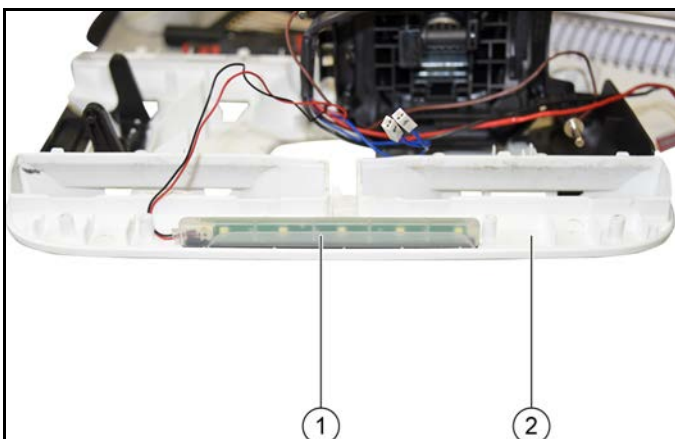


- ① Screws
 - ② Floor head frame
 - ③ Transmission cover
3. Unscrew the screws.
4. Remove transmission cover.



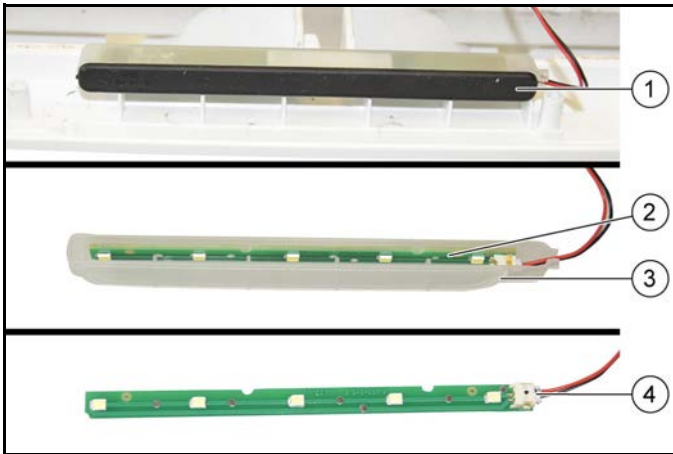
- ① Hoses
 - ② Electrical socket plug connection
 - ③ Solenoid valve
5. Pull the hoses off the solenoid valve.
6. Disconnect electrical socket plug connections.
7. Remove the solenoid valve.

6.4.4 Removing/installing LED lights



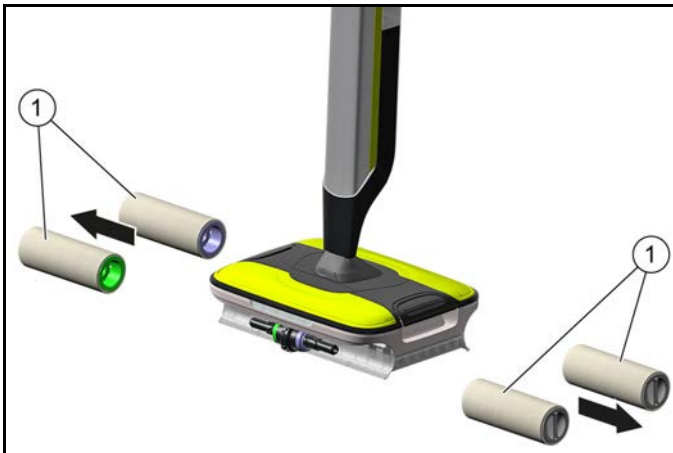
- ① LED lights
 - ② Floor head cover
1. Remove the LED lights from the floor head cover.

● 6.4.5 Removing/installing transmission



- ① Cover
 - ② Lighting strip
 - ③ Casing
 - ④ Electrical socket plug connection
2. Remove the cover.
 3. Remove the lighting strip from the casing.
 4. Disconnect electrical socket plug connection.

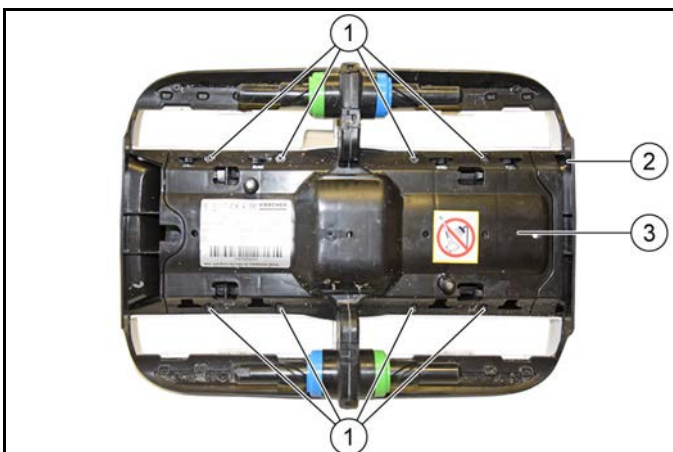
6.4.5 Removing/installing transmission



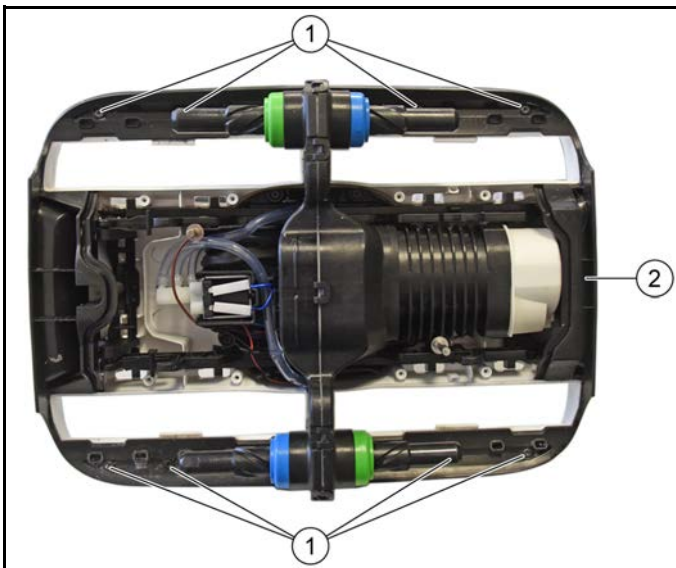
- ① Cleaning rollers
1. Unscrew cleaning rollers via the recessed grip.



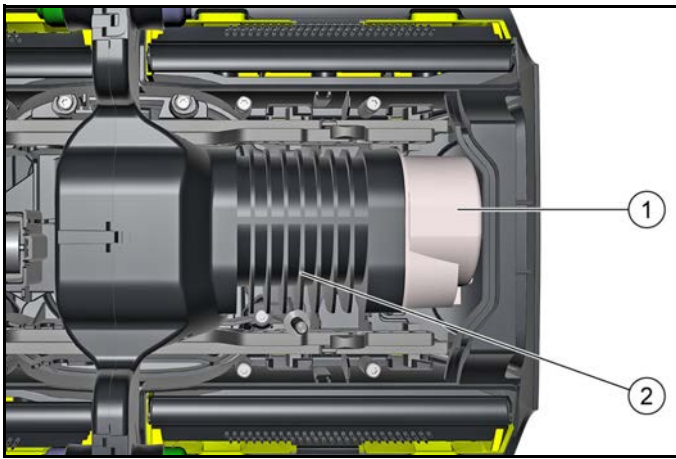
- ① Unlocking button
 - ② Waste water tank
2. Press the unlocking button and lift the device. The waste water tank releases from the device.



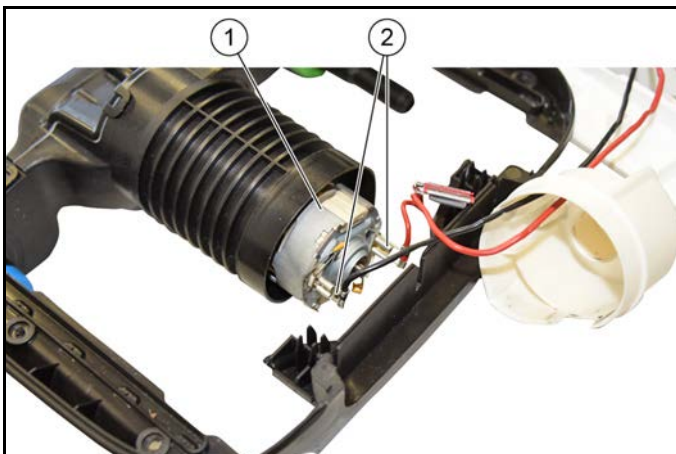
- ① Screws
 - ② Floor head frame
 - ③ Transmission cover
3. Unscrew the screws.
 4. Remove transmission cover.



- ① Screws
 - ② Floor head frame
5. Unscrew the screws.
6. Remove the floor head frame.



- ① Cover cap
 - ② Transmission
7. Remove the cover cap from the transmission.



- ① Electric motor
- ② Electrical socket plug connection

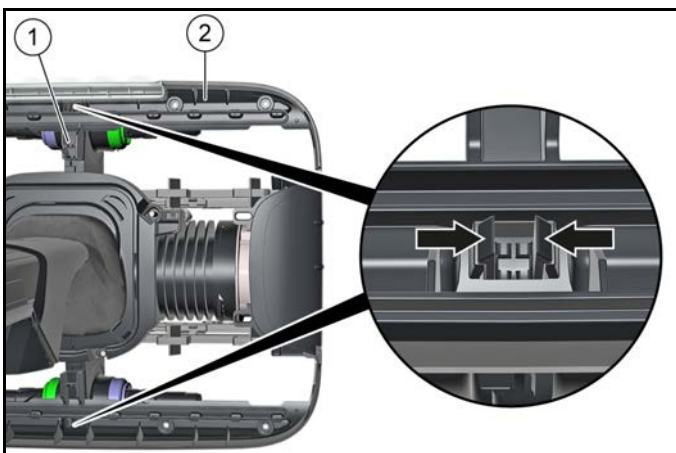
ATTENTION

If the connections are reversed, the rotation direction of the electric motor is changed.

This can detach the cleaning rollers from the device during operation.

Mark the layout of the electrical socket plug connections.

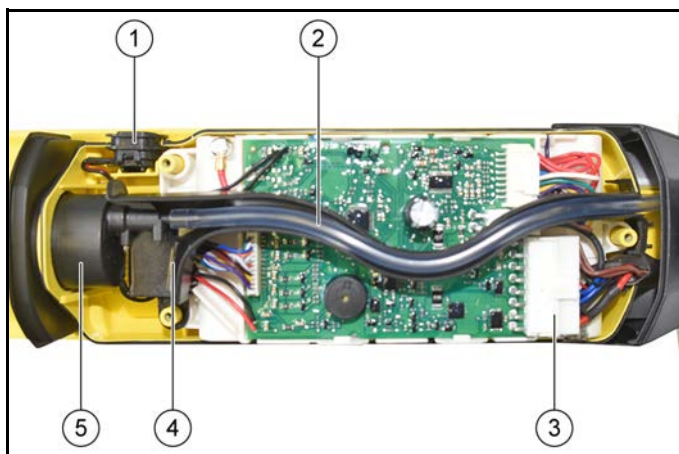
8. Disconnect electrical socket plug connections.



- ① Transmission
 - ② Floor head frame
9. Press the latches on both sides and remove the transmission from the floor head frame.

6.4.6 Removing/installing the electronics

● 6.4.1 Removing/installing the handle



- ① Charging socket
 - ② Hose
 - ③ Electrical socket plug connection
 - ④ Hose duct
 - ⑤ Retainer
1. Pull the hose off the retainer.
 2. Remove retainer.
 3. Remove hose duct.
 4. Remove the charging socket.
 5. Disconnect socket plug connection.
 6. Remove electronics.

6.5 050 Service and inspection

Service group does not contain any maintenance and inspection points.

6.6 060 Fault diagnosis

This service group does not have fault diagnosis.

6.7 070 Special features / other

This service group does not have any special features.

7 Technical documentation

Designation	Device no.	Circuit diagram	Spare parts list	Operating manual
FC 7 Cordless	1.055-730.0	0.090-035.0	-	5.968-739.0
FC 7 Cordless	1.055-731.0	0.090-035.0	-	5.968-739.0
FC 7 Cordless	1.055-732.0	0.090-035.0	-	5.968-739.0
FC 7 Cordless Premium	1.055-760.0	0.090-035.0	-	5.968-739.0
FC 7 Cordless Premium	1.055-761.0	0.090-035.0	-	5.968-739.0
FC 7 Cordless Premium	1.055-762.0	0.090-035.0	-	5.968-739.0

8 Technical data

Electrical connection

Voltage	V	100 - 240
Phase	~	1
Frequency	Hz	50 - 60
Degree of protection		IPX4
Device protection class		III
Charger protection class		II
Nominal power of device	W	80
Nominal voltage of battery	V	25.2
Battery type		Li-Ion
Operating time when battery is fully charged	min	45
Charging time for an empty battery	h	4
Output voltage of charger	V	30
Output current of charger	A	0,6

Device performance data

Roller rotations per minute at cleaning level 1	rpm	450
Roller rotations per minute at cleaning level 2	rpm	490
Roller rotations per minute with Boost function	rpm	530

Filling quantity

Fresh water tank capacity	ml	400
Waste water tank capacity	ml	200

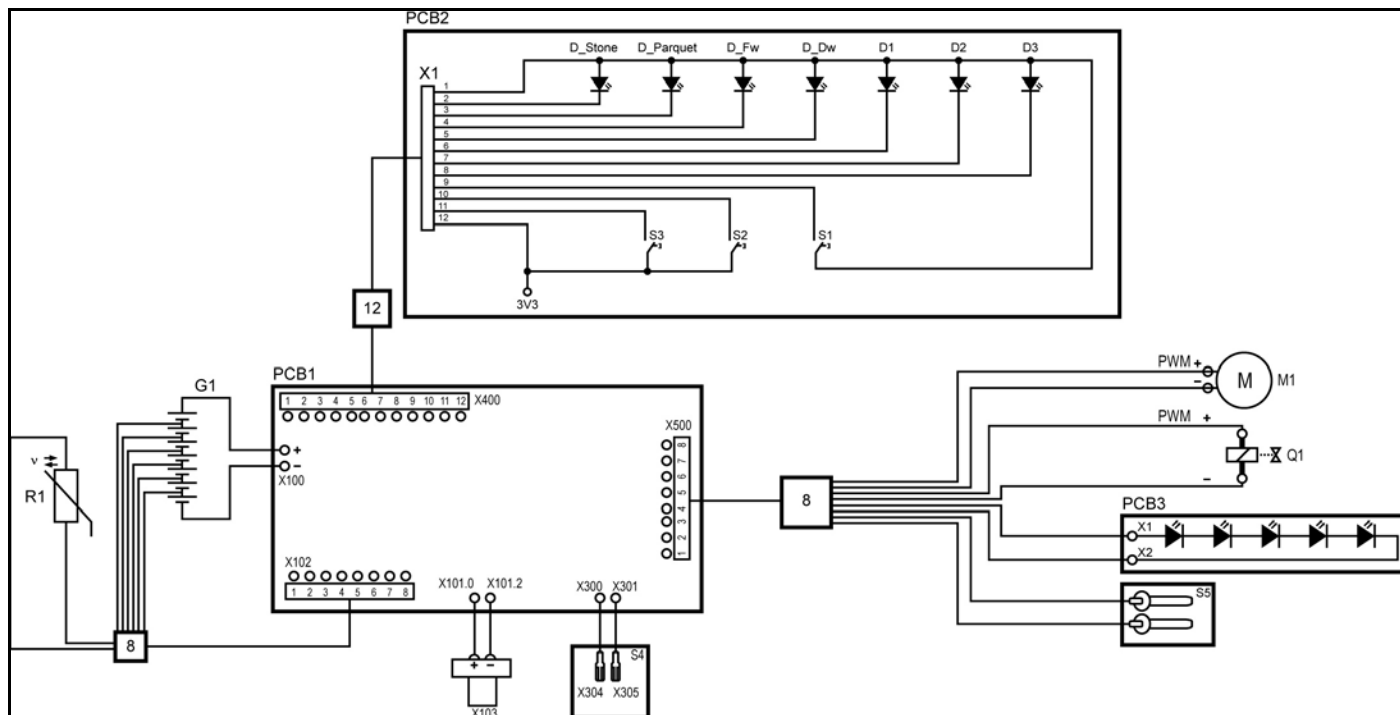
Dimensions and weights

Weight (without accessories and cleaning fluids)	kg	4,3
Length	mm	310
Width	mm	230
Height	mm	1210

Subject to technical modifications.

9 Circuit diagram

Always call up the current circuit diagram in DISIS when working on the device. The circuit diagram in the service manual is not updated.



D1	LED battery 1
D2	LED battery 2
D3	LED battery 3
D_DW	4 x LED waste water
D_FW	4 x LED fresh water
D_Parquet	5 x LED cleaning level 1
D_Stone	5 x LED cleaning level 2
G1	Battery pack
M1	Electric motor
PCB1	Control system FC7
PCB2	User interface
PCB3	LED lights
Q1	Solenoid valve
S1	ON/OFF switch
S2	Button for adjusting the cleaning level
S3	Boost function button
S4	Fresh water tank sensor
S5	Waste water tank sensor
X103	Charging socket

PIN assignment G1	
1	Batt 1+
2	Batt 2+
3	Batt 3+
4	Batt 4+
5	Batt 5+
6	Batt 6+
7	NTC
8	NTC

PIN assignment X400	
1	Batt +
2	LED cleaning level 1
3	LED cleaning level 2
4	LED fresh water
5	LED waste water
6	Batt 1
7	Batt 2
8	Batt 3
9	ON/OFF switch
10	Button for adjusting the cleaning level
11	Boost function button
12	3V3

PIN assignment X500	
1	Motor +
2	Motor -
3	Valve A
4	Valve B
5	Batt +
6	LED lights
7	Waste water sensor A
8	Waste water sensor B