

**BULLDOG MINI**  
**COMPACT FLOOR SCRUBBER/SWEEPER**

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# 1. PURPOSE AND CONTENT OF THE MANUAL

## 1.1 Symbols

To ensure the safety of persons and property, this manual contains special symbols which draw attention to particularly dangerous situations, warnings and important information:

**DANGER!**

Hazard with a risk of injury or even death.

Accident prevention regulations for the operator.

**PAY THE UTMOST ATTENTION TO ANY TEXT INDICATED BY THIS SYMBOL.**

**ELECTRICAL HAZARD!**

Hazard with a risk of injury or even death.

Accident prevention regulations for the operator.

**PAY THE UTMOST ATTENTION TO ANY TEXT INDICATED BY THIS SYMBOL.**

**CAUTION!**

Possibility to cause damage to the appliance and/or its components.  
Be careful.

**WARNING!**

Warning or remark on key functions or useful information on the operation in progress.

## 1.2 Purpose of the manual

This user manual is an integral part of the appliance. It must remain integral and be available to the user for the entire working life of the appliance.

The manual contains information on safety, technical aspects, operation, maintenance and spare parts. Its purpose is to provide the customer with the necessary information to use and control the appliance correctly, independently and safely.

**CAUTION**

**Read this manual carefully and observe the instructions provided before using, testing and operating the appliance.**

### 1.3 Conservation

The manual must be kept with care and near the appliance, protected from liquids and other substances that could compromise its readability and it **must be readily accessible at any moment**.

The manual and the Declaration of conformity are integral parts of the appliance, and therefore, they must accompany it during its whole working life.

### 1.4 Updating the manual

The information, descriptions, and illustrations contained in this manual reflect the state of the art at the moment of machine sale.

The Manufacturer, committed to the constant improvement of their products and/or for market reasons, reserves the right to make technical or commercial modifications to the appliances at any given moment without prior notice.

Any additions must be retained together with the manual and are to be considered integral parts of the manual.

### 1.5 Confidentiality

The technical information (text, drawings and illustrations) provided in this manual is property of **BULLDOG SCRUBBERS** and must be considered confidential.

It is strictly forbidden to disclose, reproduce or translate this document, even partially this document, unless authorized in writing by **BULLDOG SCRUBBERS**.

### 1.6 Recipients

This manual is intended for personnel assigned to use the appliance for cleaning floors.

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**DANGER!**

**The appliance must not be used by children or by persons of reduced physical, mental or sensory capacity, or lacking in experience and knowledge in the use of the appliance, unless they are supervised and instructed on the safe use of the appliance by persons responsible for their safety.**

**Children should be supervised to ensure that they do not play with the appliance.**

---

## 2. GENERAL INFORMATION 2.1

### Distributor identification data

#### BULLDOG MINI



1578A BEVERLY CT  
AURORA, IL 60502

223 ROLLING HILL ROAD  
MOORESVILLE, NC 28117



Phone: (800) 793-3790



Fax: 630 236 2405



Website: [www.thesweeper.com](http://www.thesweeper.com)

### 2.2 Liability limitations

The manufacturer declines all liability for damage to persons or property caused by:

- Improper use of the appliance.
- Total or partial failure to comply with the given instructions.
- Appliance use not complying with the regulations in force.
- Use not complying with national laws on safety and accident prevention.
- Tampering with even one single part of the appliance.
- Incorrect installation and/or connection to the foreseen power sources.
- Use of non-original spare parts.

## 2.3 Identification plate

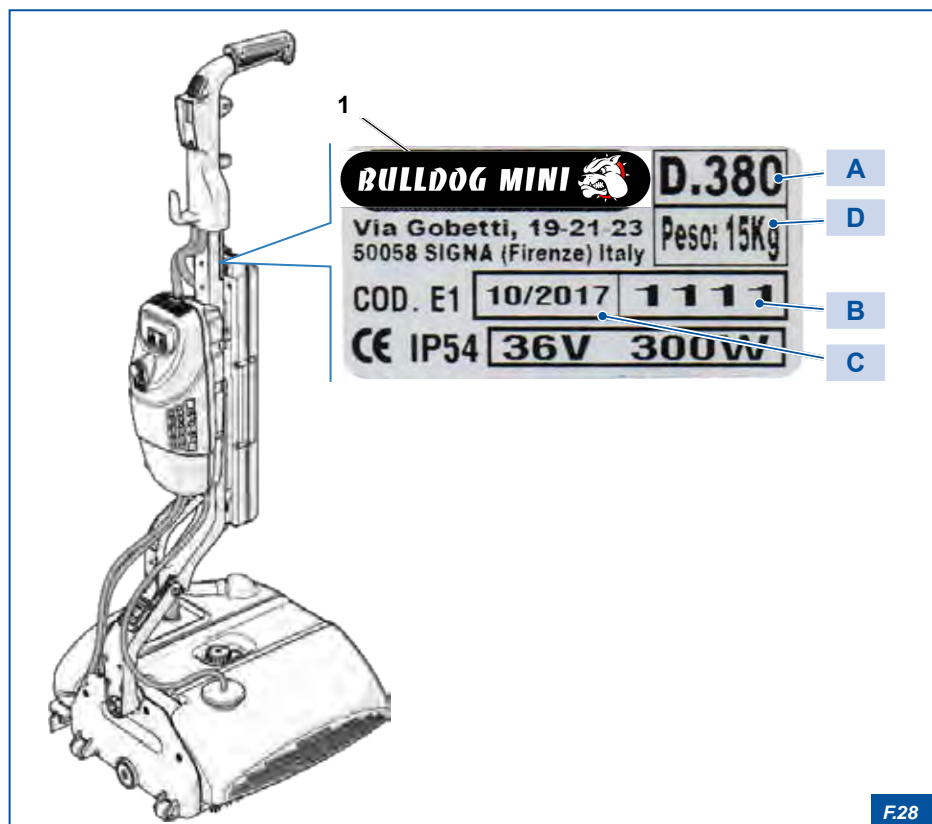
A plate **1** bearing the essential identification data for any assistance or spare parts request is applied to the appliance. The plate contains the following data:

- A) Model
- B) Serial number
- C) Year of manufacture
- D) Weight



### CAUTION

Do not remove the identification plate for any reason.  
Please contact the Manufacturer in the event the identification plate gets damaged.



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## **2.4 Reference standards and conformity:**

The machine described in this manual complies with the following standards:

- **EN 55014-1:06 + A1:09 + A2:11**
- **EN 55014-2:15**
- **EN 60335-1:12 + A11:14**
- **EN 60335-2-67:09**
- **EN 61000-3-2:14**
- **EN 61000-3-3:13**
- **EN 62233:08**

**It complies with the following provisions and Directives 2014/30/EC (EMC), 2006/42/EC**

### 2.4.1 Declaration of conformity


The EC Declaration of Conformity, provided together with the appliance, is the document with which the Manufacturer certifies, under his own responsibility, that he has complied with the European Directives, Standards and Technical Specifications (specified in the Declaration) necessary for the machine to be compliant with the essential requirements for sale and use in the European Union.

The Declaration of conformity must be considered an integral part of the appliance and must always accompany the appliance until it is scrapped.



**WARNING**

**If the declaration of conformity is not delivered together with the appliance or gets lost, please request a copy from the Manufacturer.**



Floor Scrubbers – Carpet Cleaners – Escalator Cleaners

Duplex International®  
Via P. Gobetti 19  
50058 Signa (FI) Italia

EG-KONFORMITÄTSERKLÄRUNG **CE**  
 EC-DECLARATION OF CONFORMITY  
 CE-DÉCLARATION DE CONFORMITÉ  
 CE-DICHIARAZIONE DI CONFORMITÀ

Wir/We/Nous/Noi

Duplex International S.r.l.  
Via P. Gobetti 19  
50058 Signa (FI)  
ITALY

Erklären in alleiniger Verantwortung, dass das Produkt  
Declare under our sole responsibility that the product  
Déclarons sous notre seule responsabilité que le produit  
Dichiariamo sotto la nostra esclusiva responsabilità che il prodotto

Floor Cleaning Machine, DUPLEX TURBO

Auf das sich diese Erklärung bezieht, mit den folgenden Normen übereinstimmt.  
To which this declaration relates is in conformity with the following standards.  
A laquelle se réfère cette déclaration est conforme aux normes  
Al quale si riferisce la presente dichiarazione è conforme alle norme

EN 6514-1:2004 + A1:08 + A2:11, EN 6514-2:14, EN 80336-1:12 + A11:14, EN 80336-2:07-08,  
EN 81000-3-2:14, EN 81000-3-2:13, EN 62233:08

gemäß den Bestimmungen folgender Richtlinien  
Following the provisions of Directives  
conformément aux dispositions des Directives  
conformemente alle disposizioni e Direttive

2014/53/EU (EM), 2006/42/CE (DM)

(Ort und Datum der Ausstellung)  
(Place and Date of Issue)  
(Lieu et date)  
(Luogo e data)

Signa (FI) Italia 28/05/2017

(Name, Unterschrift und Funktion des Befugten)  
(Name, signature and function of authorized person)  
(Nom, signature et fonction du signataire autorisé)  
(Nome, firma e funzione del firmatario)

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## 2.5 Warranty

BULLDOG SCRUBBERS guarantees this product against any manufacturing or material defects for a period of two years since the date of purchase.

During this period BULLDOG SCRUBBERS will grant a free repair or substitution of any defective product at its discretion.

The substituted products or the repaired parts will only be guaranteed for the remaining time of warranty or for the following six months, depending on which period lasts more.

According to limits and terms provided for by the current laws, this limited warranty is not valid in the following cases:

- Improper or particularly demanding use of the machine;
- Lack of or incorrect daily maintenance;
- The use of non-original spare parts;
- Damage due to natural events such as earthquakes, floods, fires or accidents;
- Tampering with or modification of the machine;
- Damages caused by the use of unsuitable or inappropriate and/or corrosive chemical products such as highly acidic products: static dissipative detergents, hydrochloric acid, trichloroethylene, methyl ethyl ketone, acetone, pure ammonia, bleach and/or pure sodium hypochlorite or similar products;
- Damage caused by normal wear of scrapers and brushes or by exposure to unsuitable weather conditions;
- The maintenance booklet has been tampered with.

Furthermore, the terms and conditions of this warranty do not reduce nor edit what is provided for by the current laws about product sales to the customer.

In case the product is deemed defective, please contact FACTORY CLEANING EQUIPMENT INC. at (800)793-3790.

### 3. GENERAL SAFETY INSTRUCTIONS

This chapter gives the necessary information on how to use the appliance fully complying with the safety regulations in force.



#### CAUTION

The manufacturer declines all responsibility for any damage to property and/or persons caused by the failure to comply with the instructions provided in the following Chapter.



#### WARNING

**Being familiar with the main safety standards and regulations is an essential requirement for using the appliance accordingly.**  
The operator should observe the safety regulations in force in the country in which the appliance is being used.



#### DANGER!

**Follow all safety instructions indicated in this chapter for a safe use of the appliance.**

#### 3.1 Residual risks

Residual risks are the risks that remain despite all safety measures were taken, as well as potential non-evident risks.

To avoid hazards to persons or damage to the appliance caused by residual risks, follow the instructions provided in this manual.

Wait for the complete stop of all moving devices and/or the complete cooling of components subject to heating before carrying out any intervention on the appliance.

Follow the indications and warnings indicated on the signs applied to the appliance and/or to its components.

## 3.2 General requirements



### CAUTION

**Read this manual carefully and observe the instructions provided before using, testing and operating the appliance.**

To avoid hazards to persons or damage to the appliance, follow the instructions and the code of conduct indicated below:

- The appliance was designed and constructed exclusively to clean floors. Any other use is considered improper.
- The appliance can be exclusively used by authorised and trained personnel.
- The appliance must not be used by children or by persons of reduced physical, mental or sensory capacity, or lacking in experience and knowledge in the use of the appliance, unless they are supervised and instructed on the safe use of the appliance by persons responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- Unplug the power cord plug from the power socket or battery before performing any maintenance intervention.
- Do not use the appliance if you notice any irregularities in its operation.
- In the event of a fault, have the appliance repaired exclusively by qualified technicians.
- Use only original spare parts.
- Do not pour water or liquids directly onto the appliance.
- Do not use acid-based detergents that could damage the appliance.
- Do not mix together detergents of different types to avoid the emission of harmful gases.
- Do not use the appliance to collect hazardous dusts.
- Be careful not to hit shelves or scaffolds when using the appliance to avoid objects falling down.
- Do not use the appliance to clean uneven surfaces or surfaces with many holes.
- Do not use the appliance in potentially explosive environments or areas exposed to hazardous substances or under unsuitable microclimatic conditions.
- Do not use the appliance under inclement weather conditions.
- Do not clean surfaces contaminated by flammable liquids.
- Switch off the appliance immediately after its use.
- Ensure the appliance does not sit on the brushes when it is in its rest position, but that it is supported and raised by the tripod.  
If this not the case, the appliance weight could warp the brushes.
- Store the appliance in a closed and dry place after use.

- Do not modify or tamper with the appliance.
- Do not remove the guards.
- Use only brushes supplied with the appliance or those specified in the instruction manual.
- Use personal protective equipment (PPE) suitable for the work to perform.
- Use a powder extinguisher in case of fire. Do not use water.

### 3.3 Electrical hazards



#### **ELECTRICAL HAZARD!**

**Do not perform any type of intervention on live equipment (maintenance, cleaning, etc.).**

**Disconnect the power supply (battery) before carrying out work on the machine.**

#### 3.3.1 Lithium ion battery

- Use battery chargers that comply with the technical specifications of the battery.
- Use the battery charger exclusively to charge the battery.
- Unplug the appliance before removing the battery.
- The battery and the battery charger must be disposed of correctly, following the national regulations in force. The Customer is legally responsible for dangers generated during battery disposal.
- Do not immerse the battery in water or sea water.
- Do not burn or heat lithium batteries as they could explode or blow up violently.
- Do not try to start up the appliance when the battery is flat.
- Do not use battery chargers different from that supplied by the Manufacturer.
- Do not expose the battery to direct sunlight.
- Keep the battery away from heat sources: radiators, heaters, stoves, mantelpieces, etc.
- Do not try to open the special battery fireproof plastic enclosure.
- Do not break, open or pierce the battery package.
- Do not weld or pierce the battery using a needle or other sharp objects.
- Do not weld cables on the ends of the batteries.
- Do not short circuit the battery positive and negative terminals.
- Do not invert the positive and negative terminals during use.
- Do not connect the battery electrodes to an electrical output.
- Do not touch the electrodes with parts of your body or metal objects.
- Stock and store the battery in a cool and dry place.

- Do not transport or store the battery together with metal objects, as for example: hair pins, necklaces, etc.
- Do not hit, tread on or throw the battery.
- Do not disposed of the battery improperly.

### 3.4 Safety signs

The appliance is equipped with plates and pictograms drawing the attention in a fast and easy way to objects and situations that can cause certain hazards, and in particular:

- Prevent dangerous behaviours;
- Warn the exposed persons of a risk or hazard;
- Prescribe safe behaviours;

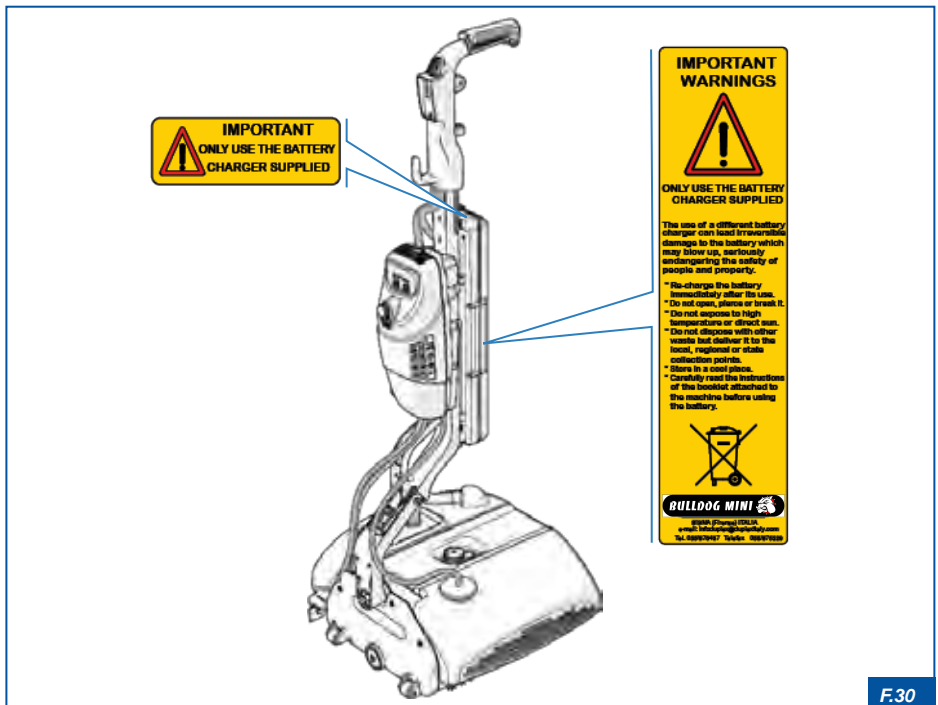


#### DANGER!

It is strictly prohibited to remove the safety signs or alter their characteristics.

Check that the safety signs are always perfectly legible;

Replace damaged signs with other of the same type and make sure to apply them in their original positions.



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### 3.5 Noise level

The appliance was designed and constructed in such a way to minimise the noise emitted during its normal operation.

The sound pressure level weighted and generated by the appliance's various components is <70 dB (A). It was measured at the operator's ear during the normal work cycle and following the criteria set forth by the regulations in force.

The sound pressure level may vary considerably according to the work environment.

**WARNING**

**Use appropriate personal protective equipment if you suffer a constant discomfort due to the noise produced by the appliance.**

---

### 3.6 Vibration level

The appliance was designed and constructed in such a way to minimise the level of vibrations generated during its normal operation.

The weighted whole body vibration level generated by the various components of the machine is 0.95 m/s<sup>2</sup>.

## 4. TECHNICAL CHARACTERISTICS

### 4.1 General description

The **BULLDOG MINI** machine has been designed and manufactured to clean floors. During its design and construction, all necessary measures were taken to produce a high quality, reliable product that is fully compliant with the regulations in force and with particular regard to accident prevention.

This compact machine is perfect for small and medium size rooms and is able to reach even the tightest spaces.

This is achieved by means of its two-way handle that allows you to change the cleaning direction by simply reversing the handle.

Constructed using aluminium casings, it ensures that each of its components is sealed and leak-tight, preventing any infiltration of water and dust. The appliance is fitted with a safety handle to switch it on and off promptly.

#### 4.1.1 Proper and improper use



##### **DANGER!**

**It is strictly prohibited to use the appliance under different conditions than those described in this manual. Any other different use of the appliance is not authorised and is dangerous (improper use).**

The choice of materials used to make the appliance was made according to the specific use, to which the appliance will be put. Improper use can result in injury to persons and / or damage

to property and affect the operation of the appliance.

The observance of the use, repair and maintenance instructions described in this manual, is an essential requirement to use the appliance correctly.

The use of the machine for activities not envisaged during its design phase and not listed in this manual shall release the Manufacturer from all direct or indirect liability.

Any arbitrary alteration made to the appliance shall relieve the Manufacturer of any liability for damage or personal injuries, even serious, caused to operators, third parties and/or property.

The correct use of the appliance, the careful observance of the instructions indicated in this manual and the strict application of all requirements to avoid hazardous situations, accidents or injuries, will contribute to making the appliance work better and longer, minimising faults and failures.

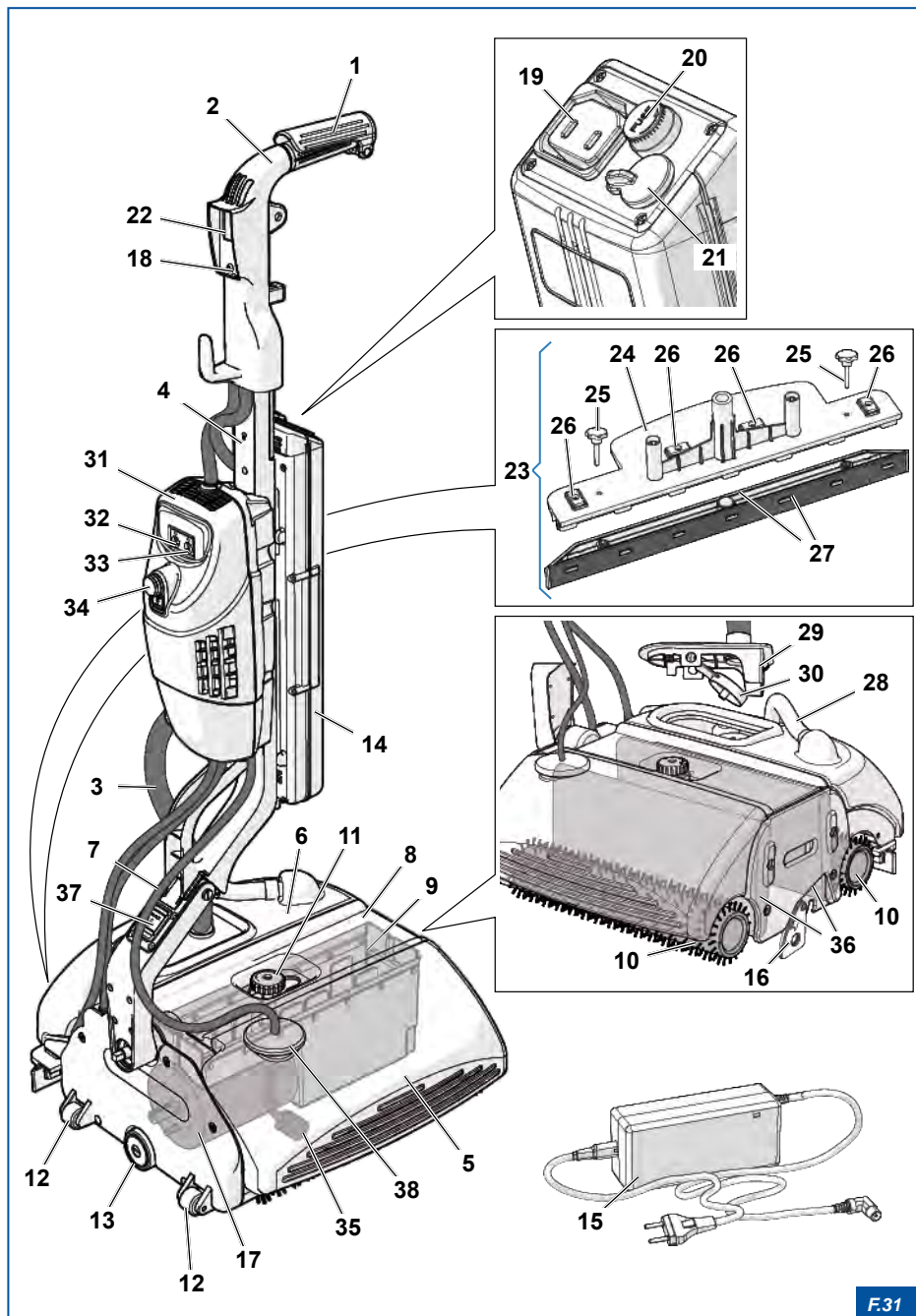


##### **CAUTION**

**The Manufacturer declines any responsibility for any damage to property and/or persons deriving from failure to observe the warnings indicated in this manual.**

## 4.2 Description of the components

<b>1</b>	Safety handle (Start & Stop)	<b>20</b>	Safety fuse 16 Amp. mm. 5x20
<b>2</b>	Handle	<b>21</b>	Battery charger socket
<b>3</b>	Suction hose	<b>22</b>	ON/OFF button
<b>4</b>	Handle with suction unit	<b>23</b>	Squeegee assembly
<b>5</b>	Detergent solution tank	<b>24</b>	Squeegee holder
<b>6</b>	Suction recovery tank	<b>25</b>	Squeegee fastening knob
<b>7</b>	Detergent solution hose	<b>26</b>	Squeegee fastening magnets
<b>8</b>	Cover	<b>27</b>	Squeegee
<b>9</b>	Recovery tank	<b>28</b>	Suction recovery hose
<b>10</b>	Brushes	<b>29</b>	Recovery tank cap
<b>11</b>	Tank knob	<b>30</b>	Float
<b>12</b>	Transport rubber wheels	<b>31</b>	Suction unit
<b>13</b>	Anti-scratch and non-marking rubber wheel	<b>32</b>	WATER ON/OFF button
<b>14</b>	Lithium ion battery	<b>33</b>	QUIET ON/OFF button
<b>15</b>	Battery charger	<b>34</b>	VACUUM ON/OFF button
<b>16</b>	Support tripod	<b>35</b>	Water filter
<b>17</b>	Motor	<b>36</b>	Conveyors
<b>18</b>	Motor Protector	<b>37</b>	Handle release lever
<b>19</b>	Battery power socket	<b>38</b>	Tank cap



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**4.2.1 T**

		<b>BULLDOG MINI</b>
Dimensions: Length - Width - Height	mm	490 x 410 x 1120
Brush diameter	mm	85
Brush length	mm	320
Tank capacity	l	3.5
Recovery tank capacity	l	6
Number of brushes	no.	2
Brushes pressure on flooring	g/cm <sup>2</sup>	200
Brush speed on floor	m/s	3.75
Washed track/width	mm	320
Theoretical working surface	m <sup>2</sup>	1500
Degree of protection	class	IP7
Weighted acceleration value	m/s <sup>2</sup>	1.0
Noise level and vibration	dBA	< 70
Voltage	Volt	36
Motor power	Watt	300
Brush rpm	rev./'1	650
Electrical isolation	Class	I°
Dry weight	kg	15

		<b>LITHIUM ION BATTERY WITH PROTECTION CARD (PCB)</b>
Supplied voltage	Volt	36
Supplied current	Amp.	7.23
Dimensions Length - Width - Thickness	mm	430 x 85 x 50
Max. autonomy, with new battery	h	1
Recharge time	h	3.5
Weight	kg	2.3
		<b>SUPPLIED BATTERY CHARGER</b>
Universal power supply	Volt	100/240
Universal frequency	Hz	50/60

### 4.3 Brushes

The original BULLDOG MINI brushes are tested and balanced individually with special electronic instruments and guarantee the absence of vibrations that could generate mechanical stress for the appliance and the floors.

The brushes can have different colours according to their use characteristics:

Brush colour	Use
<b>GREY (supplied)</b>	All-purpose for light dirt of all types of flooring, smooth or embossed.
<b>BLACK (optional)</b>	Cleaning of very dirty flooring and short pile carpets.

### 4.4 Squeegee

The original BULLDOG MINI squeegees have different colors according to their use:

Squeegee colour	Use
<b>WHITE</b>	For smooth floors.
<b>BROWN</b>	For floors with irregular surfaces.

## 4.5 Lithium ion battery

---

**DANGER!**

Read this manual carefully and observe the instructions provided before using, testing and operating the battery and the battery charger. The Manufacturer declines any responsibility for any damage to property and/or persons deriving from failure to observe the warnings indicated in this section or the incorrect use of the battery.

---

**CAUTION**

Use battery chargers that comply with the technical specifications of the battery.

---

**ELECTRICAL HAZARD!**

Do not touch the electrodes with parts of your body or metal objects.

---

**CAUTION**

Do not pour liquids onto the battery and do not immerse the battery in any liquid.

---

- Do not use or leave the battery exposed to high temperatures as it might overheat, catch fire or jeopardise its operation and duration.
  - Do not use the battery in environments characterised by the presence of static electricity or electromagnetic fields. This could damage safety devices and cause dangers.
  - If the battery leaks avoid touching it with your skin and eyes.
  - Do not charge the battery if the temperature is below 0°C/32°F.
- 

**DANGER!**

In the event your eyes or skin come into contact with the liquids leaked from the battery, rinse with plenty of clean water and seek medical advice immediately.  
**Danger of eye injuries.**

---

- If the battery present some faults (odd smells, production of heat, warps, etc.) or is not working properly, remove it immediately from the appliance or from the battery charger, dispose of it and replace it with a new one.

- If the battery terminals are dirty, the appliance correct operation might be jeopardised. Clean the dirty terminals before use by means of a dry cloth.
- The battery and the battery charger must be disposed of correctly, following the national regulations in force. The Customer is legally responsible for any hazards generated when the batteries are disposed of (See section "[7.7 Disposal](#)").

#### **4.5.1 Storing for a long period of time**

If the battery is stored for a long period of time (over three months), keep it in a fresh and dry place and charge and discharge it every six months.

The storage voltage of the battery must be 3,2~3,35V.



## 4.6 Type of detergents

The appliance can be used with detergents intended for this type of appliance. When using detergents, follow the detergent manufacturer's instructions regarding dilution.

Do not use unsuitable detergents or aggressive and strong acid-based chemicals like:

- Caustic soda
- Acids
- Diluents
- Solvents



### **DANGER!**

**Read the labels on the detergent bottle carefully. Detergents can have harmful impacts on the environment and the human body in case of inhalation, ingestion or contact with skin and mucous membrane. If necessary, use personal protective equipment (PPE) while using detergents.**

---



### **CAUTION**

**Static dissipative detergents can damage the brushes and plastic parts of the appliance. The manufacturer declines any liability for damage caused to the appliance, flooring of any kind, including carpets and rugs, deriving from the use of non conforming detergents or products.**

---

## 5. ASSEMBLING THE APPLIANCE

For packing and transport purposes, the appliance is delivered disassembled. Check the contents of the package, making sure that all the components of the appliance are all present and in good condition.

**WARNING**

Contact the Customer Service Centre if some components are missing or damaged.

**CAUTION**

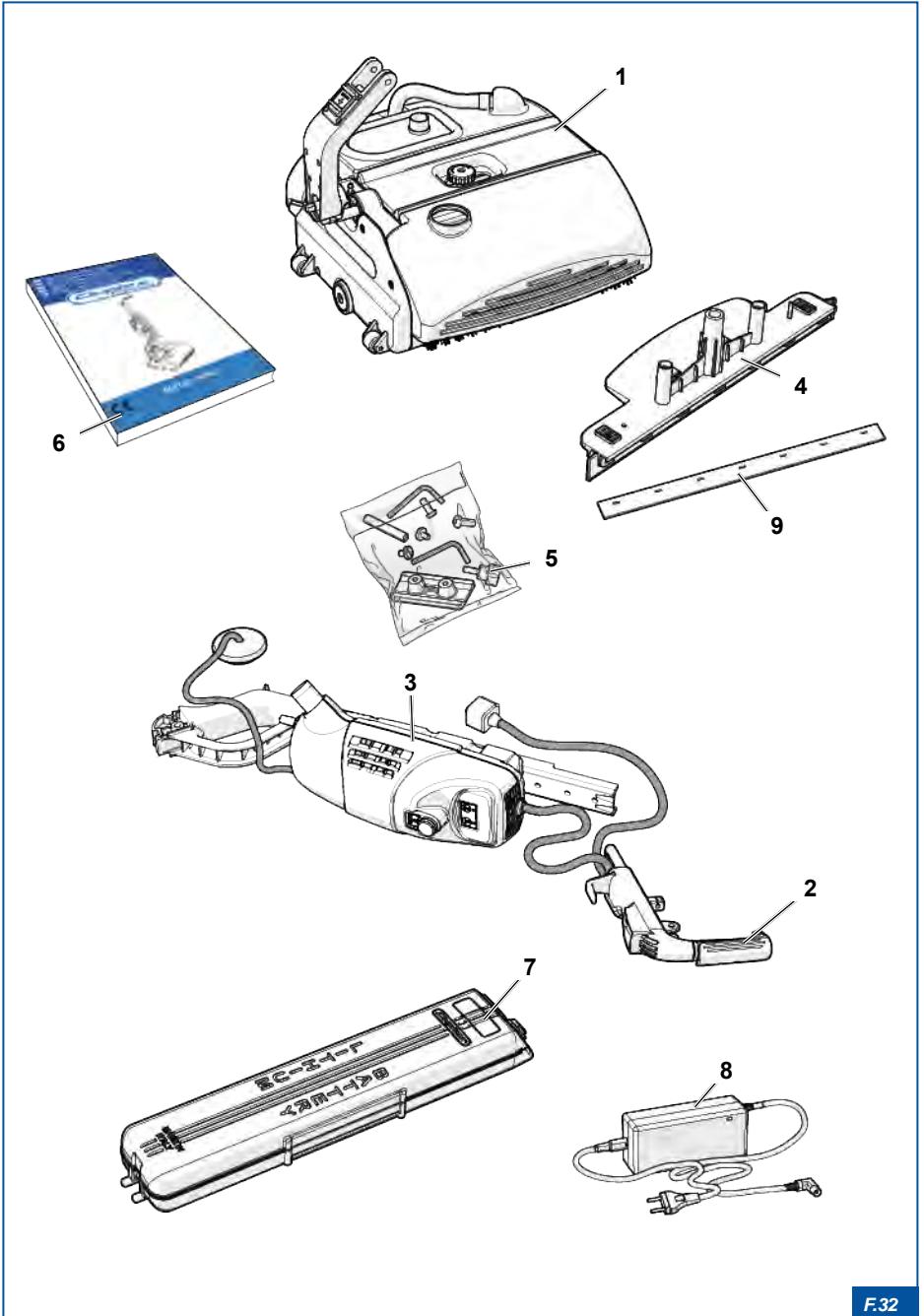
Follow the instructions contained in this chapter carefully in order to assemble the appliance correctly.

---

## 5.1 Packing contents

Make sure that the components of the appliance contained in the package are the same as those indicated in the table below:

<b>PACKING CONTENTS</b>	
<b>1</b>	Machine with standard grey brushes
<b>2</b>	Handle
<b>3</b>	Handle with suction unit
<b>4</b>	Squeegee assembly
<b>5</b>	<ul style="list-style-type: none"><li>• 1 fixing plate</li><li>• 2 screws (fixing plate)</li><li>• 2 Allen keys</li><li>• 1 16A fuse</li><li>• 1 pin (for fastening the battery)</li></ul>
<b>6</b>	Instruction Manual and test sheet
<b>7</b>	Lithium ion battery
<b>8</b>	Battery charger
<b>9</b>	Spare squeegee



## 5.2 Assembling the machine



### WARNING

Use the supplied hex wrench to assemble the handle as follows:

To assemble the handle, proceed as follows:

- 1) Insert the handgrip **1** into the handle **2** and fasten it using the plate **3** and the screws **4**.
- 2) Insert the handle **2** into the support **5**
- 3) Insert the pin **6** into the support **5**
- 4) fasten the handle **2** using the screws **7** by tightening them firmly.
- 5) Place the cap **8** into its seat on the tank **9**.
- 6) Connect the suction hose **10** to the suction recovery tank **11**.
- 7) Insert the suction recovery hose **12** into the hole **13** in the suction recovery tank **11**.

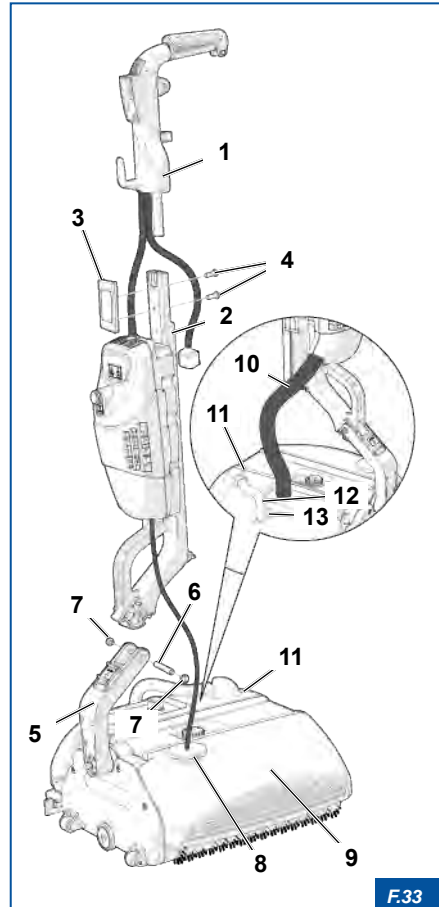
### 5.2.1 Disassembling the handle



### DANGER!

Make sure that the appliance has been disconnected from the battery before disassembling the handle.

To disassemble the handle, follow the assembly instructions in the reverse order.



F.33

### 5.3 Installing the battery

The battery **14** has to be charged before using the appliance for the first time (see section "6.2 Charging the battery").

To fit the battery, proceed as follows:

- 1) Install the battery **14** on the handle **2**.
- 2) Screw the knob **15** to fasten the battery **14**.
- 3) Insert the plug **16** into the socket **17** on the battery **14**.



#### WARNING

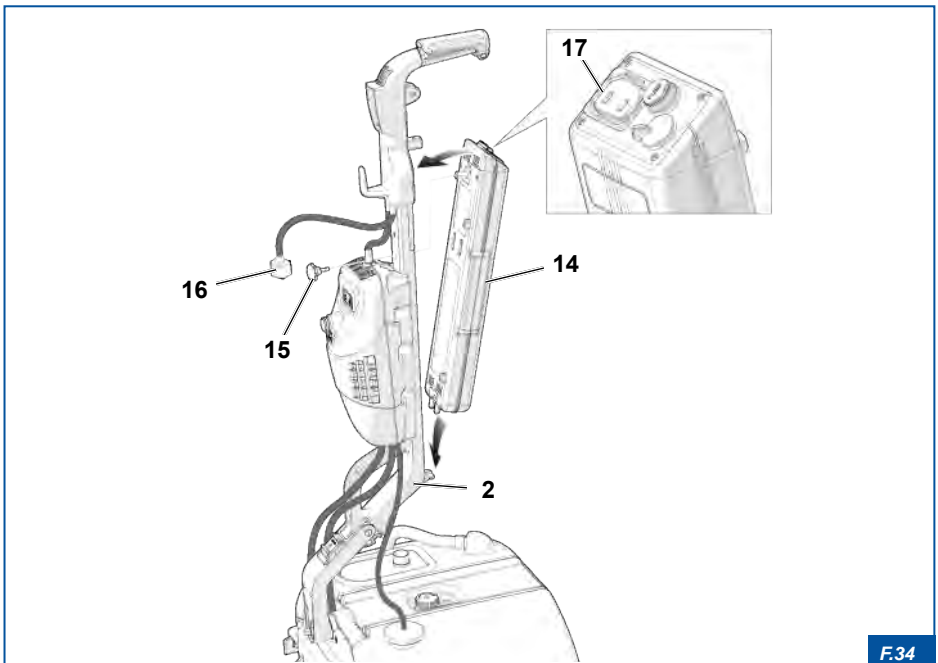
If the battery (14) is charged you can start the appliance.



#### ELECTRICAL HAZARD!

Disconnect the appliance from the battery power supply before removing the battery.

To remove the battery, follow the assembly instructions in the reverse order.



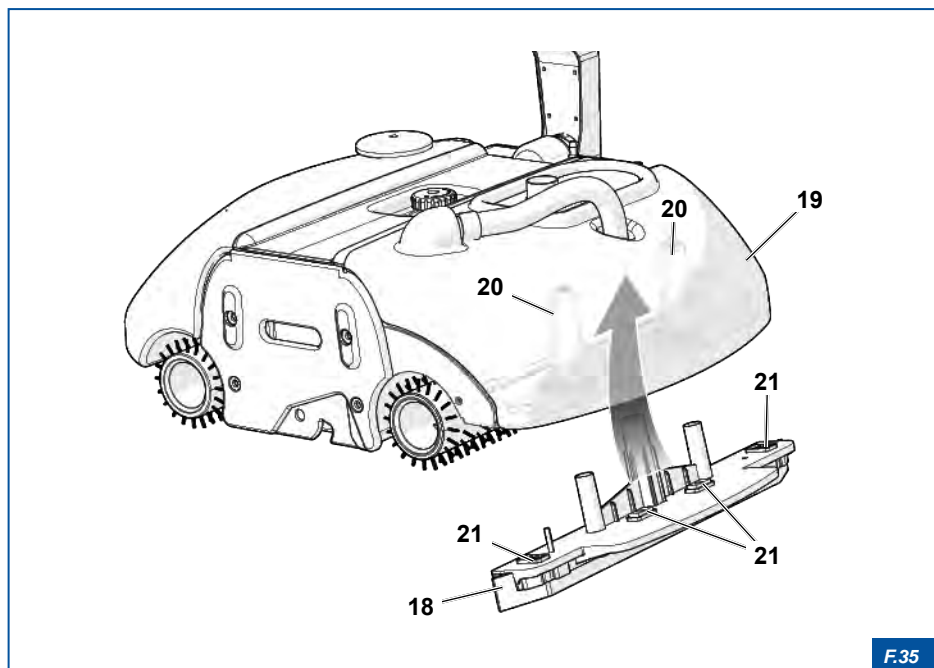
F.34

## 5.4 Installing the squeegee

The squeegee has to be installed before the appliance is used for the first time.

- 1) Insert the squeegee **18** under the suction recovery tank **19**.
- 2) Connect the squeegee **18** to the springs **20** by pressing them slightly upwards to attach the magnets **21** to the appliance.

To remove the squeegee **16**, follow the assembly instructions in reverse.



F.35

---

## 6. OPERATION AND USE

---

**DANGER!**

Before starting the appliance the operator must have read and understood the instruction manual.

---

**CAUTION**

Before starting to clean floors, choose the most suitable brushes and detergents (see chapter "4. TECHNICAL CHARACTERISTICS").

---

### 6.1 How to use

---

**ELECTRICAL HAZARD!**

Always make sure that the appliance is disconnected from the battery when preparing the machine for use.

---

#### 6.1.1 Filling the tank

The removable tank 1 makes the filling up and emptying operations at the end of the job easier.

---

**CAUTION**

Use the detergents indicated in section "4.6 Type of detergents" to avoid damaging the surfaces and the appliance.

---



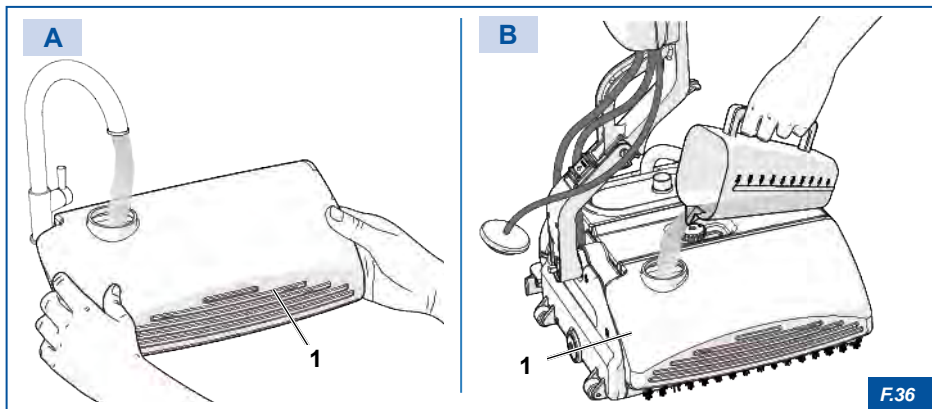
The tank 1 can be filled in the following ways:

**A) With the tank removed from the appliance:**

- 1) Remove the tank 1 and refill under a water tap.
- 2) Add a non-foaming detergent.
- 3) Stir the solution and re-insert the tank 1 into its housing.

**B) With the tank fitted to the appliance:**

- 1) Mix the detergent with water in a recipient.
- 2) Pour the liquid obtained into the tank 1.



### 6.1.2 Recovery tank

The dirty liquid recovery is achieved by means of the rotation of the brushes 2, which attack the dirt, trapping it and centrifuging it toward the two conveyors 3. The dirt accumulated on the active surfaces of the conveyors 3 is collected by the scrapers 4 and deposited into the recovery tank 5.



**WARNING**

We recommend that you lubricate the rubber conveyors (3) regularly using an ordinary silicone spray available in retail outlets.

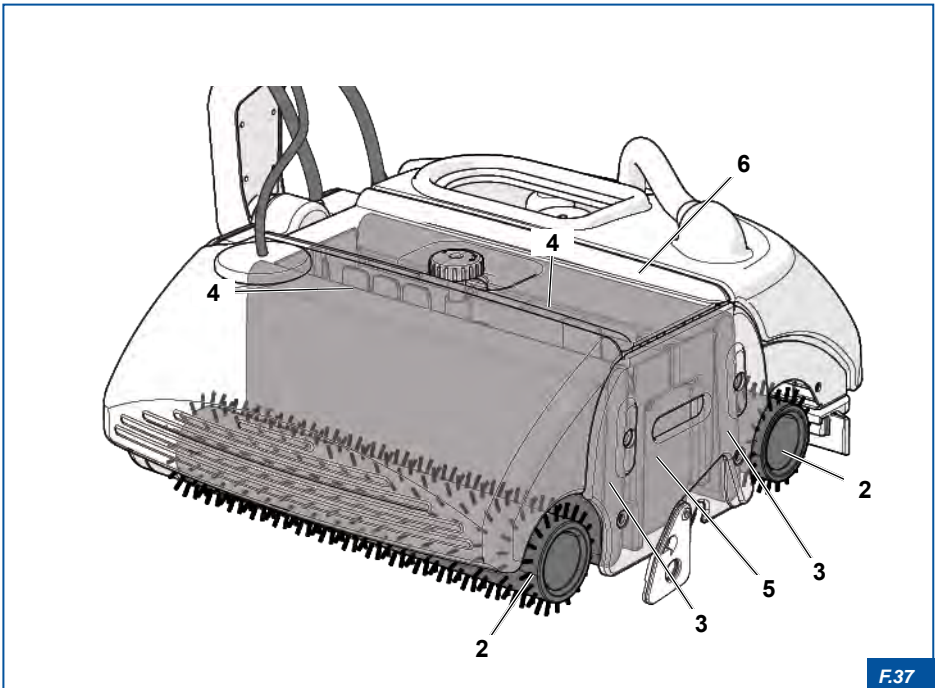
Once full, the recovery tank **5** must be emptied by removing it from its seat.

- 1) Remove cover **6**.
- 2) Lift and remove the recovery tank **5** and empty it.



**CAUTION**

The disposal of the dirty water must be carried out in compliance with the regulations in force.



F.37

## 6.2 Charging the battery



### DANGER!

**Do not use battery chargers (7) other than the one supplied by the Manufacturer. Doing this, might seriously damage the battery (8) or cause it to explode violently.**

The lithium ion battery **8** requires a special battery charger **7** supplied with the appliance. The charge lasts about four hours.

When charging is complete, you do not need to remove the battery **8** from the battery charger **7**, as it can be left either inserted into the battery **8** or into the power socket without time limits or problems.

The battery **8** can be charged both removed from the appliance or fitted to it.

In order to charge the battery, proceed as follows:

- 1) Insert the plug **9** of the battery charger **7** into the charger socket **10**.

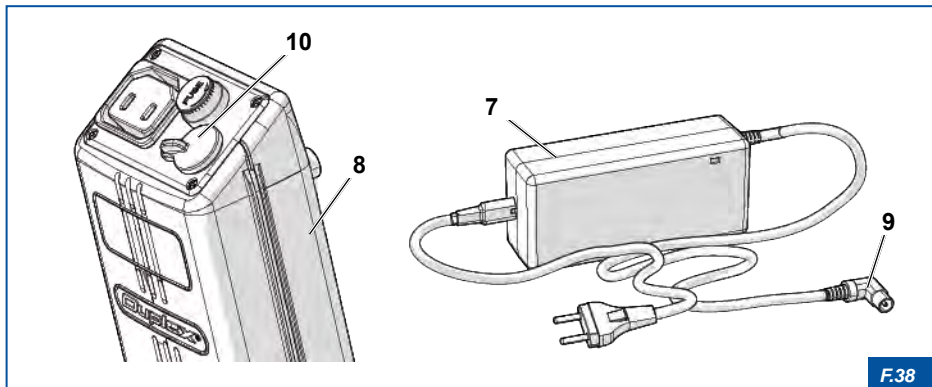
When the battery **8** is flat, the LED on the battery charger **7** is red.

When the battery **8** is fully charged, the LED on the battery charger **7** becomes green.



### CAUTION

**The battery has an PCB electronic system that readily interrupt appliance operation when its power level is low. Stop the appliance if the PCB does not trigger and you notice a reduction in the brushes' performance.**



F.38



**DANGER!**

Do not try to open, pierce or burn the battery container.  
Do not weld the cables at the ends of the batteries.  
Do not short circuit positive and negative terminals.



**DANGER!**

Do not store, use or recharge the Lithium-ion battery in environments with temperatures above 40°C. This could compromise its durability.  
Do not leave the battery exposed to sun rays as this can damage it irreparably.



**CAUTION**

Using and storing the battery in cold places decreases its duration. In this case, the battery power can be restored by recharging it.

If the appliance is not used for long periods of time and is left parked, the battery might self-discharge. Therefore, it needs to be recharged every 40 days.

### 6.2.1 Battery charge level

The LED 11, according to its colour, indicates the battery charge level:

LED COLOUR	CHARGE LEVEL
GREEN	From 60% to 100%
YELLOW	From 20% to 60%
RED	≤20%



F.39

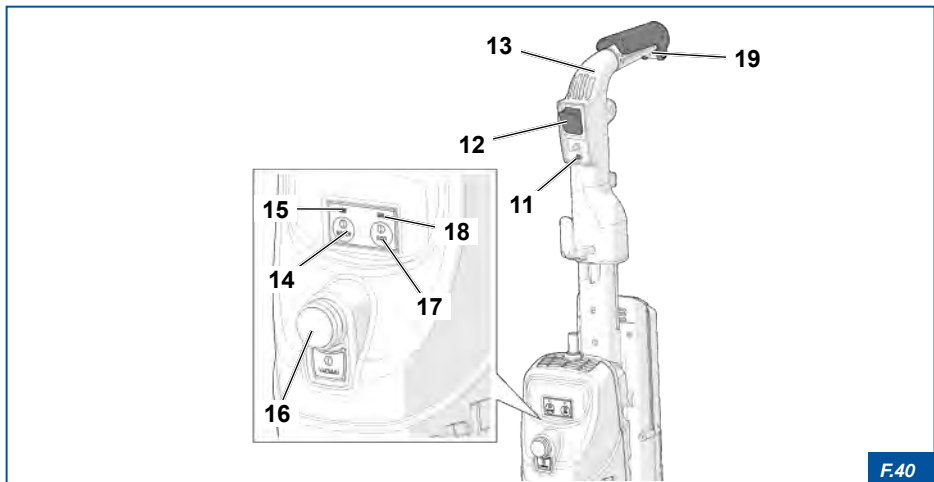
### 6.3 Switching on the machine

- 1) Press the ON/OFF switch **12** on the handle **13**.  
The switching on of the appliance is indicated by the lighting up of the LED **11** for 60 seconds. Depending on the colour, the LED indicates the battery's charge level.
- 2) Press the ON/OFF WATER **14** button to start to dispense water.  
The blue LED **15** lights up to indicate that the machine is switched on:
  - To dispense a small amount of water (ordinary cleaning) press the ON/OFF WATER button **14**: the flashing blue LED **15** indicates the set work mode.
  - To dispense a large amount of water (pre-washing) press the ON/OFF WATER button **14** twice: the fixed blue LED **15** indicates the set work mode.
- 3) Press the ON/OFF VACUUM button **16** to enable the vacuum.
- 4) If necessary, enable quiet mode by pressing the ON/OFF QUIET button **17**. The green LED **18** turns on to indicate that quiet mode is active.
- 5) Take hold of the handle and press the yellow safety lever **19** to start the appliance.
- 6) Release the yellow safety lever **19** to stop the appliance's motion.



#### CAUTION

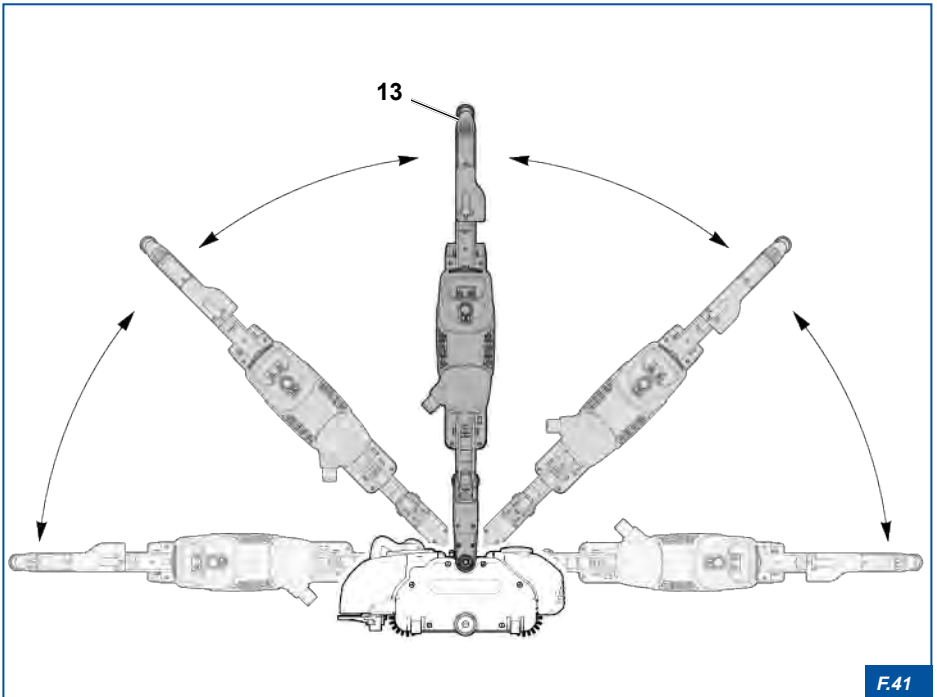
**In the event of interruptions or short work breaks, stop the power flow by turning off the ON/OFF switch (12) to avoid discharging the battery.**



F.40

## 6.4 Bi-directional cleaning system

This system allows the work position to be reversed thanks to the two-way handle **13**. Reversing the handle **13** from right to left and vice versa allows you to work in both directions and easily reach the opposite ends of every room, without having to change the position of the appliance.



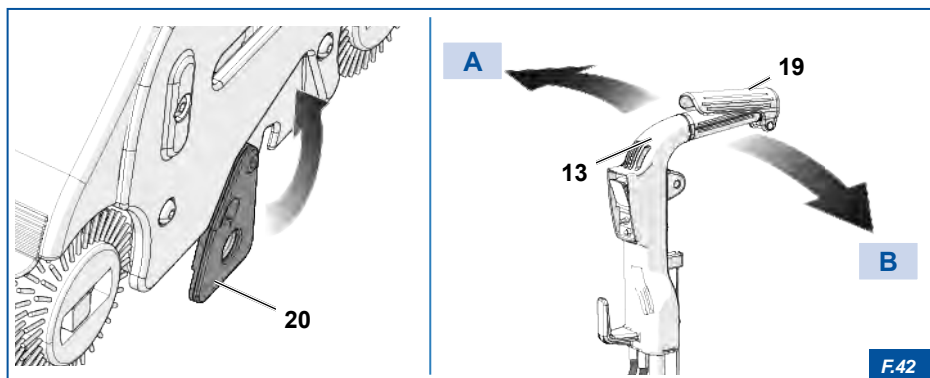
## 6.5 Starting up the appliance

- 1) Remove the support foot **20** before starting the appliance.
- 2) Grab the two-way handle **13** and lower it in one of the two possible directions (**A** or **B**).
- 3) Start the appliance by pressing the yellow safety lever **19**.



### CAUTION

Make sure that you have removed the support tripod (**20**) before use to avoid damaging the appliance.



## 6.6 Motor Protector

The “Motor Protector” **21**, is a safety device which stops the appliance in case conditions occur that overload the motor (e.g. foreign bodies caught in the brushes which can prevent their rotation, locking of the brushes for failed start-up due to great friction with the floor, mechanical fault, electric motor fault, poor supply of power, overheating, etc.).

As a sudden stop occurs, the button **21** comes out of its seat and the appliance stops working (figure **A**).

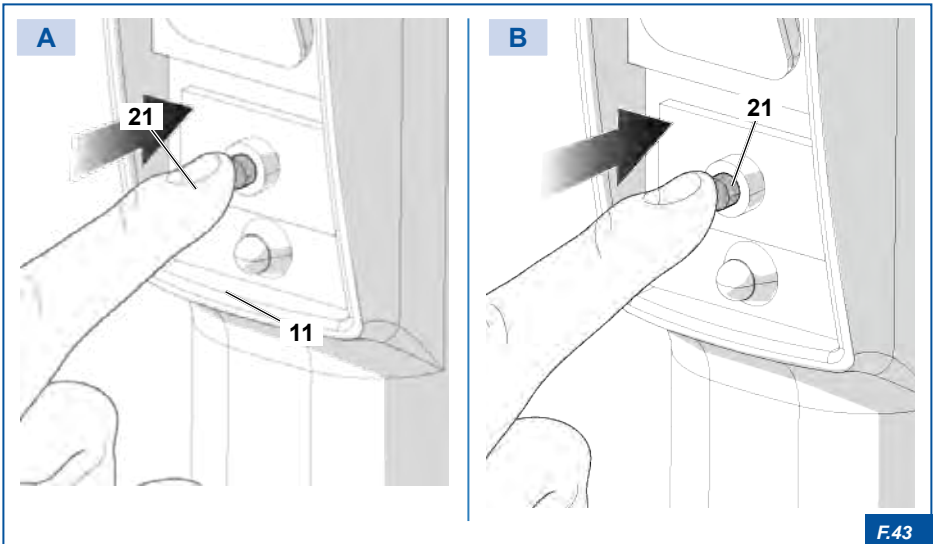
To reset the appliance, proceed as follows:

- 1) Disconnect the appliance from the mains or battery.
- 2) Remove possible foreign bodies stuck in the brushes.
- 3) Connect the appliance to the mains or battery.
- 4) To restart the appliance, press the button **21** two minutes after the occurrence of the stop (figure **B**).



### WARNING

The sudden stop of the appliance is indicated by the red LED (**11**) that flashes intermittently until the reset is carried out.





## **6.7 Instructions on how to clean surfaces**

Check that the handle is in the rest position (perfectly vertical).  
Switch on the appliance.



### **DANGER!**

Carry out the procedures with utmost care to prevent any risk of falling, slipping or collisions. Use personal protective equipment (PPE) if deemed necessary.

---



### **CAUTION**

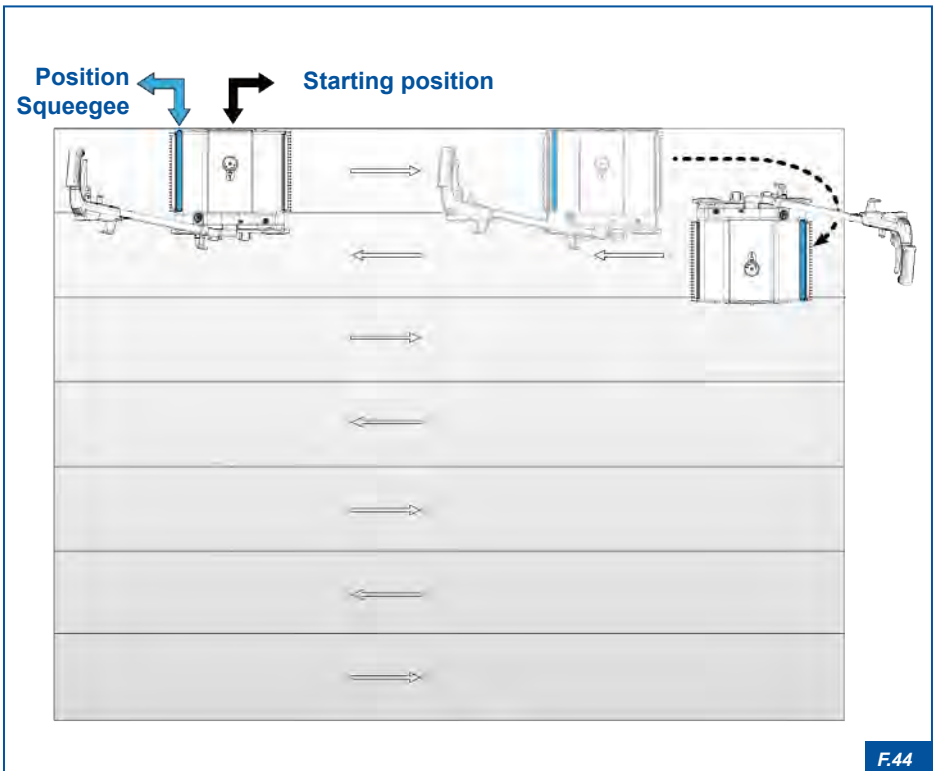
Do not products that are: “Static dissipative detergents” as can damage the brushes and plastic parts of the appliance.

---

### 6.7.1 Work stages

**Procedure:**

- 1) From the starting position, move forward towards the corner as indicated in the figure.
- 2) Once you have reached the corner, turn the machine around and move onto the second strip to wash, slightly overlapping the area that you have cleaned before.
- 3) Repeat this operation until you have finished cleaning the floor.
- 4) Clean the outer edge on the opposite side of the cleaning area, reversing the appliance.



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### 6.7.2 Cleaning flooring

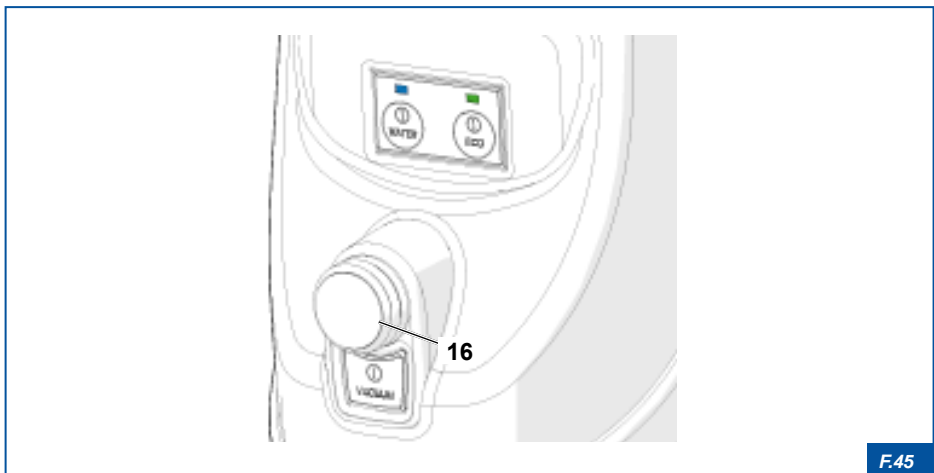
Install the supplied grey brushes.

- Use a non-foaming and non-acid all-purpose cleaner (PH max. 9).
- Start the appliance ("6.3 Switching on the machine") and start cleaning the floor.

### 6.7.3 Cleaning of heavily dirty, hard or dingy flooring

To clean very dirty or caked flooring, proceed as follows:

- 1) Use an all-purpose concentrated non-foaming and non-acid detergent (pH max. 9).
- 2) Fit the supplied grey brushes for medium dirt or the black brushes (option) for heavy dirt.
- 3) Stop the suction motor (ON/OFF VACUUM button **16**);

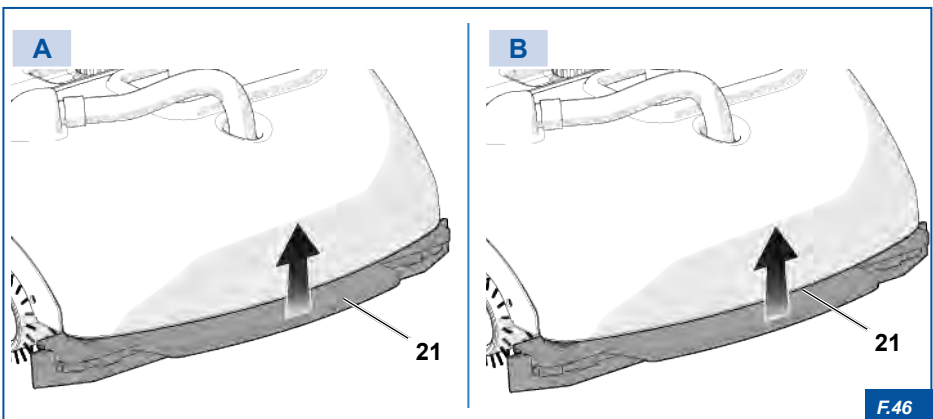


F.45

- 4) Raise **A** the squeegee holder **21** and carry out the pre-washing operations.
- 5) When pre-washing has been completed, lower **B** the squeegee holder **21**, switch on the suction motor (ON/OFF VACUUM button **16**) and carry out the normal floor cleaning operations.

**CAUTION**

After cleaning heavily dirty flooring, clean the appliance and brushes very accurately.



## 6.7.4



### **CAUTION**

**Be very careful and carry out a few tests before starting to clean. Avoid wetting the floor too much, especially if you need to clean non-painted parquet floors.**

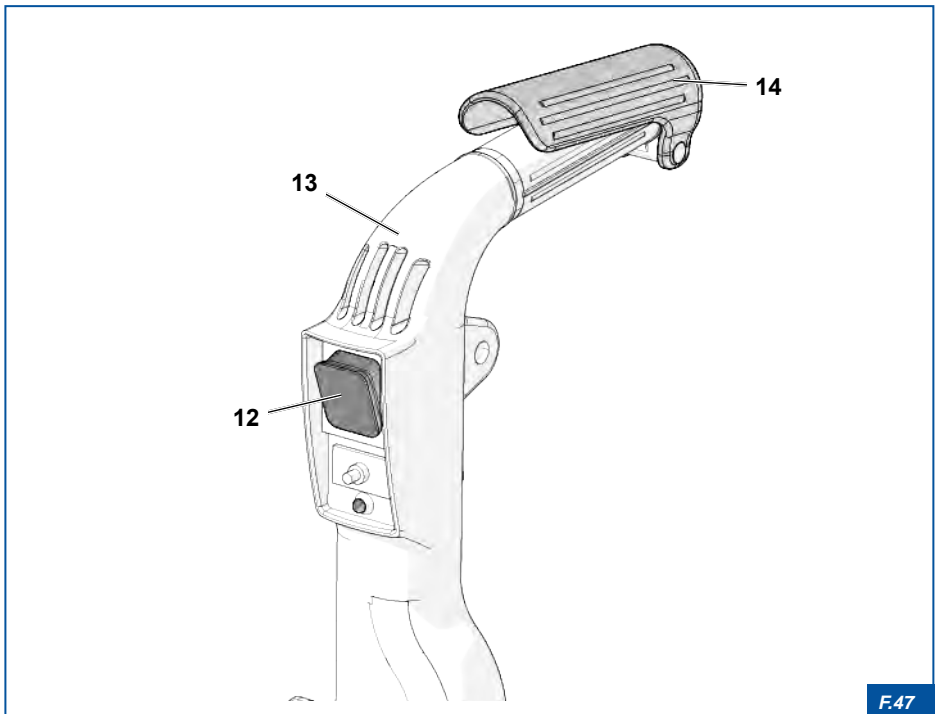
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- Fit the grey brushes provided.
- Use a non-foaming detergent appropriate for parquet flooring.
- Avoid wetting the floor too much, especially in the case of non-painted parquet flooring, which absorbs more moisture.
- Be careful when cleaning this type of floor. Carry out a few tests before washing the entire surface.

## 6.8 Stopping the appliance

To stop the appliance, proceed as follows:

- 1) Release the yellow safety lever **14**;
- 2) Move the handle to the vertical position (rest position);
- 3) Press the switch **12** located on the handle **13**;



## 6.9 Transport

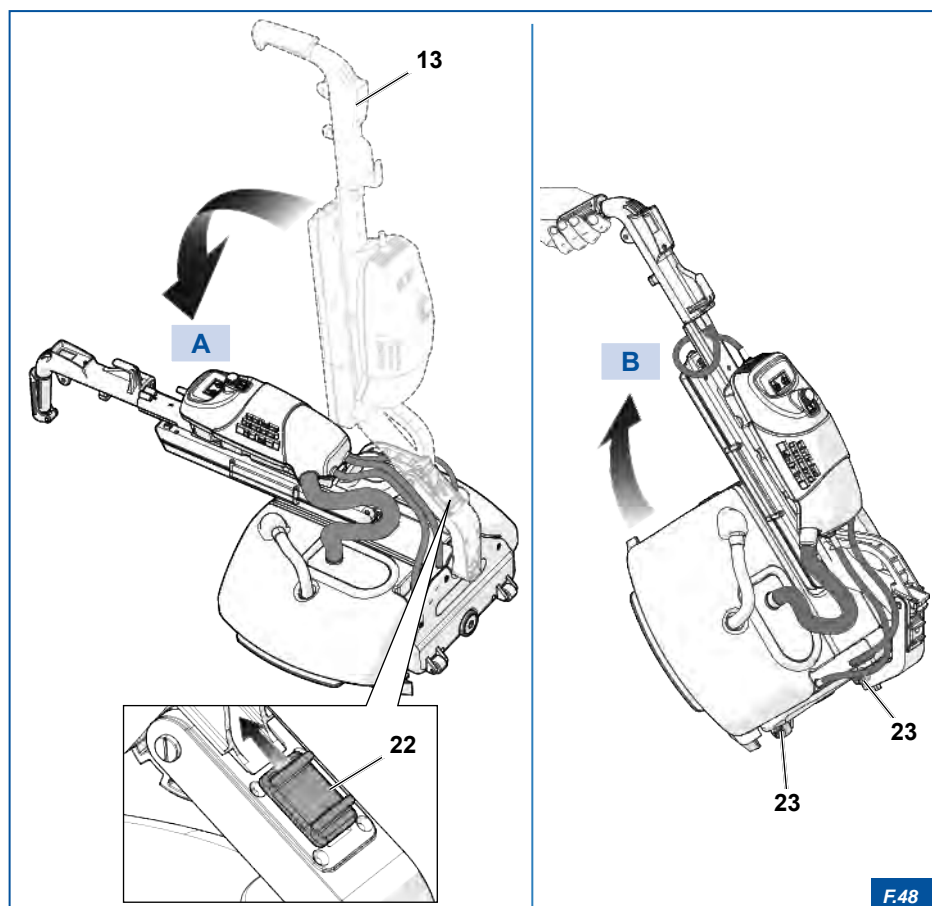
To transport the appliance:

- 1) move the lever **22** upwards
- 2) lower **A** the handle **13**
- 3) lift **A** the appliance and slide it along on the two small rubber wheels **23**



### DANGER!

If you have to lift the appliance and you deem it necessary, equip yourself with personal protective equipment (PPE).



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## 7. MAINTENANCE

We recommend carrying out routine maintenance interventions to keep the appliance in good working order.



### ELECTRICAL HAZARD!

It is absolutely necessary to unplug and disconnect the appliance from the mains or battery before carrying out maintenance, replacement or cleaning operations.

### 7.1 Cleaning



#### CAUTION

- Do not use steam jets to clean the appliance.
- Do not use pressurised water jets.
- Do not use corrosive substances.
- Do not use rough materials, abrasives or sharp metal scrapers.

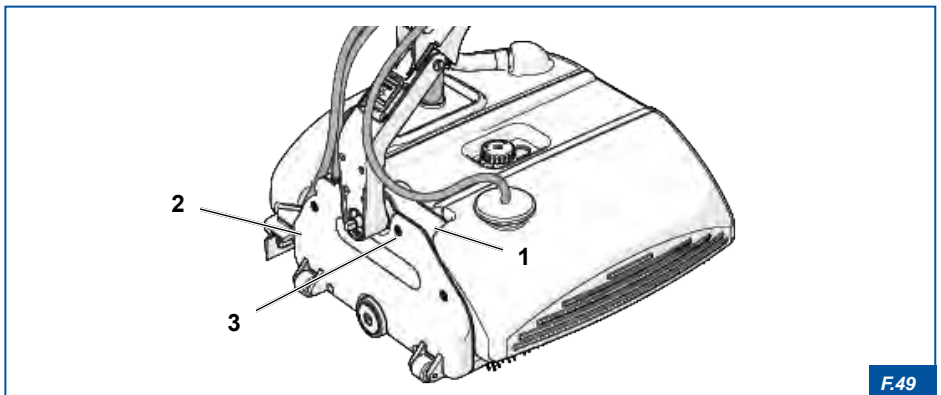


#### WARNING

Cleaning operations require just a few minutes and are essential to keep the appliance in good working order at all times.

All mechanical and electrical parts of the appliance are sealed and enclosed in a light alloy casing **1** and do not require maintenance.

The cover **2** fitted with a gasket is fastened with six screws **3**.

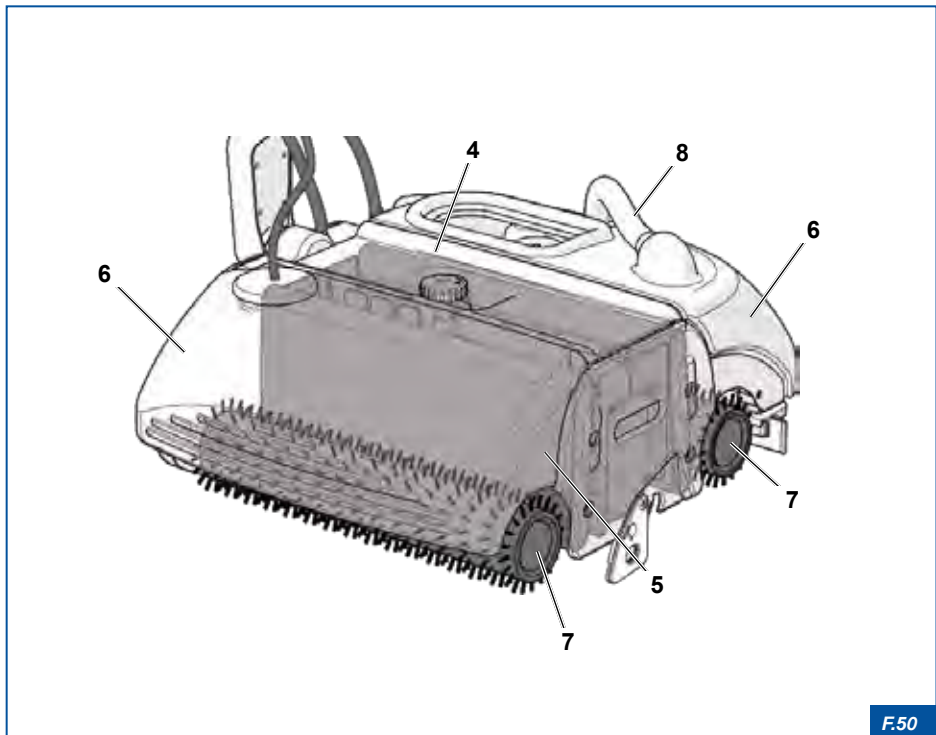


F.49



To clean the appliance, proceed as follows:

- 1) Remove the battery.
- 2) Remove the cover **4**.
- 3) Remove the recovery tank **5**.
- 4) Remove the two tanks **6** that cover the brushes **7** and wash under running water, preferably using a flat brush. Clean thoroughly all corners and dry.
- 5) Remove the suction recovery hose **8** and wash it under running water.
- 6) Remove the brushes **7** and clean them (see section "[7.2.2 Cleaning the brushes](#)").
- 7) Carefully clean the rest of the appliance including the motor using a damp sponge and plenty of water. Dry.
- 8) Once they have dried, refit all the components removed previously.

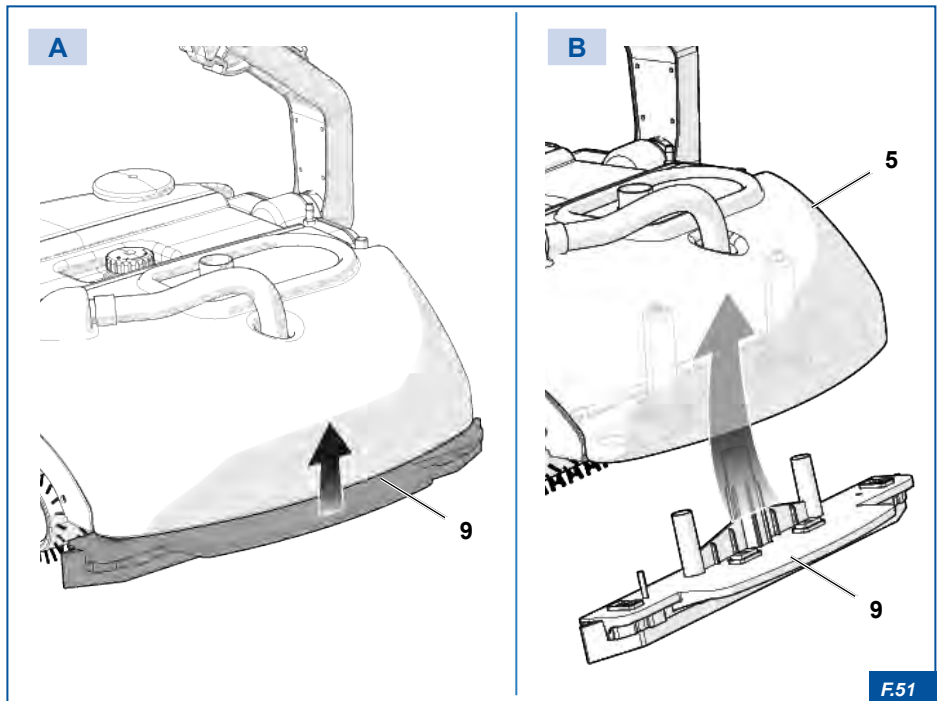


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### 7.1.1 Cleaning the squeegee

To clean the squeegee **9**:

- 1) remove the squeegee **9** by pulling it downwards **A**.
- 2) wash the squeegee **9** under running water.
- 3) replace **B** the squeegee **9** by inserting it under the suction recovery tank **5**.



## 7.2 Brush maintenance

Brushes require little routine maintenance. The high rotation speed during cleaning manages to centrifugate dirt and keep them clean and efficient at all times.

At the end of each use, check the status of the brushes **7** and clean or replace them, if necessary.



### **ELECTRICAL HAZARD!**

**It is absolutely necessary to unplug and disconnect the appliance from the mains or battery before carrying out maintenance, replacement or cleaning operations.**

---



### **CAUTION**

**When the appliance is not being operating, use the support tripod 1 to prevent the brushes from warping while sitting on floor.**

---



### **DANGER!**

**Do not use the appliance with worn or warped brushes. They can cause the machine to judder or vibrate excessively. Replace the brushes to avoid damaging the appliance.**

---

### 7.2.1 Replacing the brushes

The appliance is fitted with a patented "trigger fitting" which enables the brushes to be removed and replaced in a few seconds.

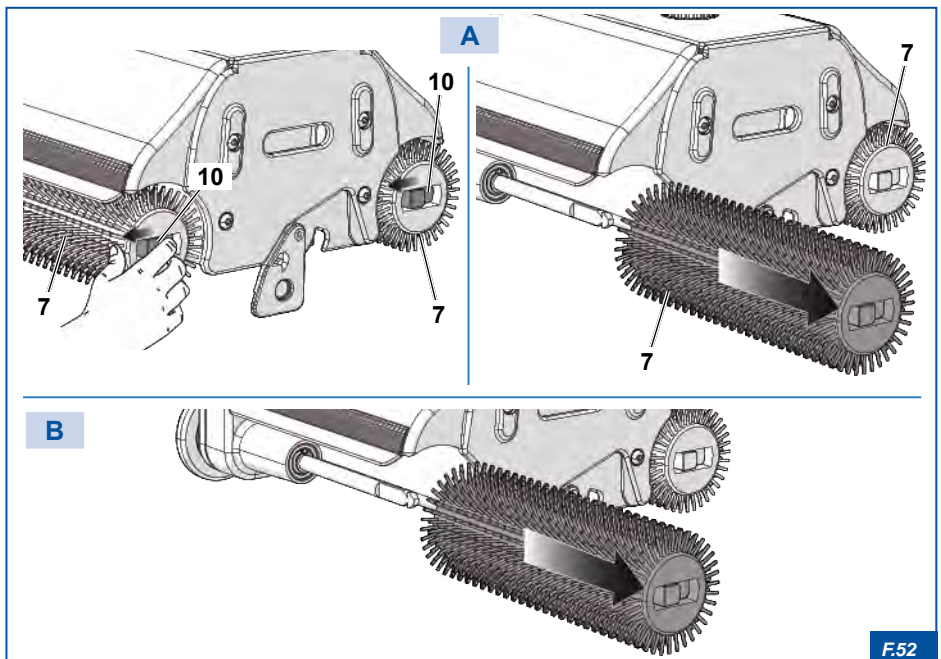
In case of wearing, warping or simply for replacement of the brushes with brushes more suitable for the type of cleaning required, proceed as follows:

- 1) Remove the brushes **7** pressing the release device **10** (figure A).
- 2) Fit the new or optional brushes (figure B).

### 7.2.2 Cleaning the brushes

Check the condition of the brushes **7** and if necessary, proceed as follows:

- 1) Remove the brushes **7** pressing the release device **10** (figure A).
- 2) Immerse them in a container of cold or lukewarm water and let them soak for a few hours.
- 3) Stir and rinse well.
- 4) Refit the brushes reversing their original position. This is necessary as the bristles tend to bend when the brushes always rotate in the same direction.



## 7.3 Replacing the scrapers

Keep the two recovery tank scrapers (11) clean at all times. Replace them approximately every 150 work hours or when they are visibly worn. To replace the scrapers 11, proceed as follows:

- 1) Remove the cover 4.
- 2) Remove the recovery tank 5.
- 3) Unscrew the screws 12 and remove the worn scrapers 11.
- 4) Replace the scrapers 4 and tighten the screws.

## 7.4 Conveyors

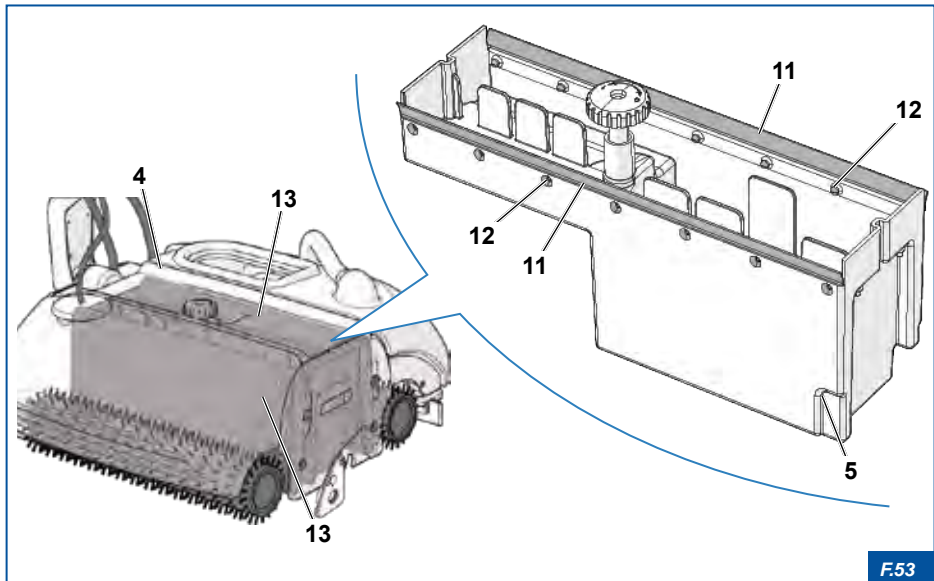
The conveyors 13 have an unlimited lifespan.



### CAUTION

**Do not use the appliance to collect sharp object that could cut through the rubber.**

In order to always keep the belts 13 in good working order, we recommend cleaning them periodically and lubricating them with a silicone spray.

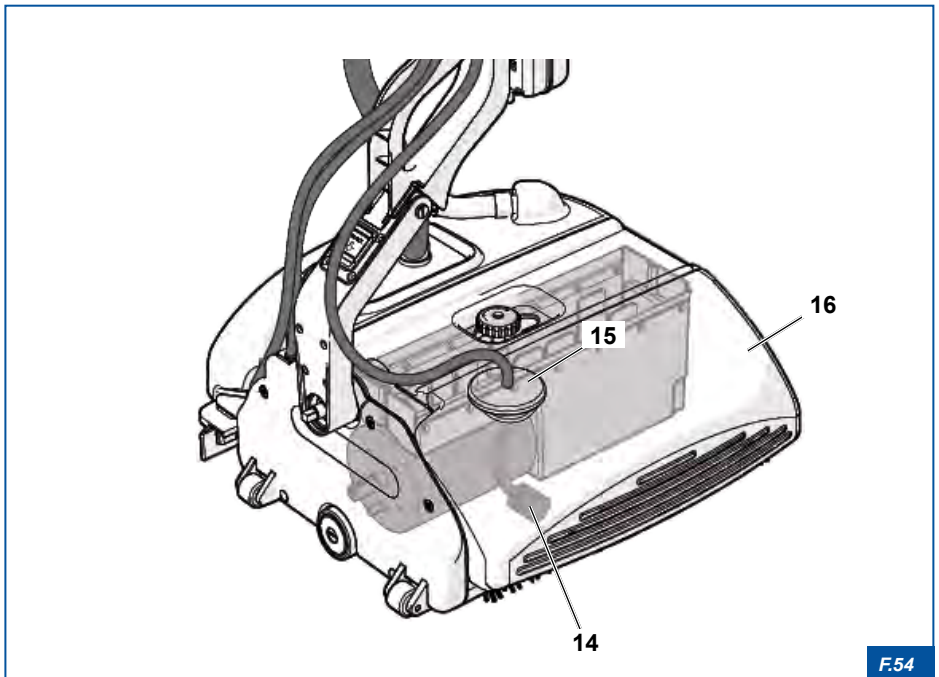


F.53

## 7.5 Water filter maintenance

The water filter **14** should be checked periodically.  
Replace the filter if it is dirty.

- 1) Remove the cap **15**
- 2) remove the filter from the tank **16**
- 3) replace the water filter **14** and reposition it in the tank **16**.



F.54

## 7.6 Routine maintenance table

OPERATION	COMPONENT	FREQUENCY
<b>Cleaning</b>	Tank	After each use.
	Scrapers	After each use.
	Recovery tank	After each use.
	Appliance cleaning	After each use.
	Brushes	After each use.
	Squeegee	After each use.
	Suction recovery hose	After each use.
<b>Checks</b>	Water filter	After each use.
	Mechanical and drive elements	24 months / around 500 work hours.
<b>Replacement</b>	Scrapers	Around 150 work hours.
	Standard grey brushes	Around 250 work hours.

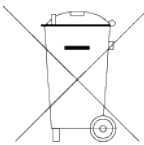
## 7.7 Disposal

### CAUTION



If the user disposes of the BULLDOG MINI incorrectly, he could be fined under current legislation. Professional users, who decide to dispose of the BULLDOG MINI at the end of its useful life and purchase a new equivalent machine with the same features can arrange for the old BULLDOG MINI machine to be collected at the same time as the new one is delivered.

Pursuant to art. 13 of Legislative Decree of 25<sup>th</sup> July 2005, no. 151 "Fulfilment of the Directives 2002/95/EC, 2002/96/EC and 2003/108/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment and disposal of their waste".



The crossed-out bin symbol on the equipment indicates that the product must be collected separately from other waste at the end of its lifespan.

The user must deliver the appliance, at the end of its lifespan, to an appropriate collection point for the recycling of electric and electronic equipment or deliver it back to the retailer when purchasing a new equivalent appliance on a one-to-one basis.

The correct separate disposal of the BULLDOG MINI for recycling, waste processing and environmentally sustainable disposal will help prevent possible adverse effects on the environment and human health and allows the materials used to make the product to be recycled.

### 7.1.1 Cleaning the squeegee

#### Electrical components:

Materials that can be disposed of together with household waste according to the current legislation in the country of use.

#### Mechanical components:

The appliance is made of aluminium, steel and plastic.

Steel and aluminium will not damage the environment if recycled by qualified and authorised companies.

The plastic materials may cause environmental damage, therefore they should be handed over to specialised companies authorised for disposal.

The disposal of the packaging must be carried out in accordance with the regulations in force.



### 7.7.2 Disposing of the lithium battery

The appliance is equipped with a lithium ion battery contained in a special fireproof, hermetically sealed plastic enclosure. It is easy to remove from the appliance by simply manually unscrewing a knob.

The battery, at the end of its lifespan, must be disposed of separately from other waste.

---

#### **DANGER!**



**Do not burn lithium batteries as they could explode or blow up violently. Carefully collect the batteries for disposal. Avoid them being short-circuited or their enclosure being compacted or destroyed.**

**Check and follow all local, regional and national laws on the disposal of these materials. The user is legally responsible for hazards generated during the disposal of batteries and preservation of material resources which enable the recovery of valuable materials.**

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## 8. TROUBLESHOOTING

The maintenance work authorized by **BULLDOG SCRUBBERS** is indicated in section "7. MAINTENANCE".

The content of this chapter is not exhaustive. Instead, it aims to provide information on the most common problems in order to help specialized technicians to find the fault in question.



### CAUTION

The indications under the term "SOLUTION" in the tables below **DO NOT AUTHORISE** interventions that could jeopardise safety.

PROBLEM	PROBABLE CAUSE	SOLUTION
<b>Wet stripes on the sides</b>	Irregular paths are covered.	Follow the instructions in chapter "7.MAINTENANCE".
	Recovery tank scrapers dirty or worn.	Clean or replace the scrapers.
<b>The floor remains wet</b>	The squeegees are dirty or worn.	Clean or replace the squeegees.
	The suction recovery hose is clogged.	Clean or replace the suction hose.
	The cap of the suction tank is positioned incorrectly.	Check and position the suction tank cap correctly.
<b>The dirt is not picked up</b>	Recovery tank with dirty or worn scrapers.	Clean or replace.
	Worn brushes.	Replace.
	Cleaning liquid not coming out.	Check the water filter.

<b>Does not start up</b>	Sometimes the appliance does not start given the strong friction of the brushes.	Lift slightly by tilting the handle.
	Scrapers left resting on and stuck to the conveyors by the dry residual dirt deposited from the previous cleaning operation.	Lift the recovery tank and clean the scrapers (see section "7.3 Replacing the scrapers").
	"Motor Protector" tripped	Reset the appliance and reactivate it by pressing the <b>MP</b> button on the handle. Reactivation occurs approx. after 2 minutes.
	Faulty motor.	Contact the Manufacturer.
	"Start&stop" button switch tripped.	Replace.
<b>Does not start up</b>	Battery fuse tripped.	Remove the fuse cap on the battery and replace with an identical one of 16 Amp. Do not use fuses exceeding 16 Amp to avoid serious risks. If the fuse trips again, search for the fault on the appliance.
	Power cord plug not correctly inserted into the battery.	Restore.
	Flat battery.	Re-charge or replace with a fully charged spare battery.
<b>Vibrations during the work stages</b>	Warped brushes.	Replace.