

ROUND45

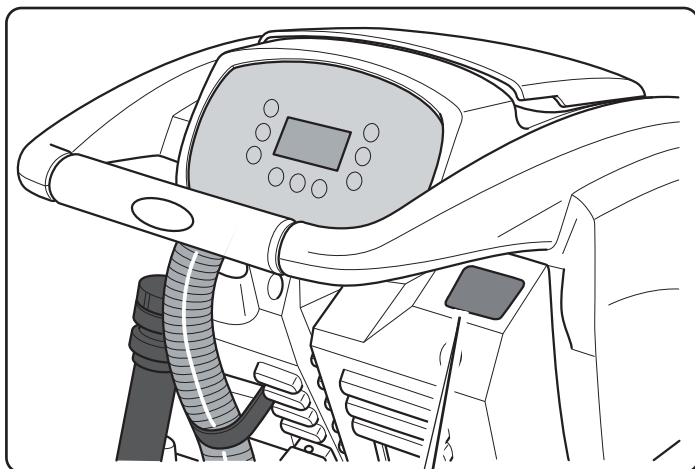
TOUCH



EN Use and Maintenance



49.0260.00
ed. 02/2022



1 — []

2 — []

3 — []

4 — []

5 — []

6 — []

7 — []

8 — []

Scrubber Dryer

Battery mode: V - W

Charging mode: ... - ... V ~ ... / ... Hz ...W

Nr **IP:** **GVW:** Kg

MADE IN ITALY **Year:** **MAX 2%**

CE

Mod: **Art.:**

	1	2	3	4	5	6	7	8
IT	Produttore	Caratteristiche elettriche	N° Matricola	Grado di protezione	Peso in ordine di marcia	Anno di costruzione	Codice articolo	Modello
EN	Manufacturer	Electrical characteristics	Serial N°	Degree of protection	Weight in running order	Year of manufacture	Item code	Model
FR	Producteur	Caractéristiques électriques	N° Matricule	Degré de protection	Poids en ordre de marche	Année de construction	Référence de l'article	Modèle
DE	Hersteller	Elektrische Eigenschaften	Seriennummer	Schutzgrad	Gewicht bei Betrieb	Baujahr	Artikelnummer	Modell
ES	Fabricante	Características eléctricas	N° Matricola	Grado de protección	Peso en orden de marcha	Año de fabricación	Código del artículo	Modelo
PT	Produtor	Características eléctricas	Número de série	Grau de protecção	Peso em ordem de marcha	Ano de construção	Código do artigo	Modelo
NL	Producent	Elektrische eigenschappen	Seriennummer	Beschermingsgraad	Gewicht in rijklare toestand	Bouwjaar	Artikelcode	Model
NO	Produsent	Elektriske egenskaper	Matrikkeln.	Grad av beskyttelse	Vekt i kjørklar stand	Byggeår	Artikkelnummer	Modell
DK	Fabrikant	Elspecifikationer	Matrikelnummer	Tæthedsgrad	Vægt i køreklar stand	Byggeår	Artikeldkode	Model
SV	Tillverkare	Elektriska egenskaper	Serienummer	Grad av skydd	Vikt i körlart stick	Byggnadsår	Artikelnnummer	Modell



English ENGLISH - 1
(Translation of original instructions)

*Dear Customer,
Thank you for choosing one of our cleaning products.*



The floor scrubber dryer that you have purchased has been designed to satisfy the user in terms of ease of use and reliability over time.

We are aware that in order for a good product to stay that way, over time, it requires continuous updates aimed at meeting the expectations of those who use it on a daily basis. For this reason, we hope that you will not only be a satisfied customer but also a partner who does not hesitate to give us your opinions and ideas originating from your personal day-to-day experience.

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Technical data

	45M55	45D55	45D60
Type of use	Operator on ground		
Characteristics			
Power supply	Battery	Battery	Battery
Power supply voltage	See technical data plate		
Installed load	1060 W	1240 W	1190 W
Forward movement	Manual	Tractioned	Tractioned
Washing width *	530 mm	530 mm	600 mm
Drying width	750 mm	750 mm	750 mm
Theoretical hourly working capacity	2120 m²/h	2650 m²/h	3050 m²/h
Brushes / Pad			
Diameter / Number	530mm/21"	530mm/21"	310mm/12"x2
Motor power / number	500 Wx1	500 Wx1	450 Wx1
Motor speed	165 rpm	165 rpm.	200 rpm
Specific pressure	16,5 ÷ 19,7 gr/cm²	16,5 ÷ 19,7 gr/cm²	18,8 ÷ 22,0 gr/cm²
Carter weight	25,5 ÷ 30,5 Kg	25,5 ÷ 30,5 Kg	27 ÷ 32 Kg
Aspiration			
Motor power	550 W	550 W	550 W
Negative pressure	1791 mmH₂O	1791 mmH₂O	1791 mmH₂O
Air flow rate	30 l / sec	30 l / sec	30 l / sec
Noise level	Min. 57 dB (A)  / Max. 63 dB (A) 		
Traction			
Engine power	---	180 W	180 W
Tank			
Recirculation	No	No	No
Solution capacity	45 l	45 l	45 l
Recovery capacity	47 l	47 l	47 l
Dimensions (lxwxh) without wip- er	1210 x 560 x 1040 mm	1210 x 560 x 1020 mm	1125 x 670 x 1040 mm
Vibrations ISO 5349 m/sec²	< 2,5	< 2,5	< 2,5
Weight			
Empty weight	90,5 Kg	109 Kg	116 Kg
Weight with batteries	143,5 Kg	189 Kg	196 Kg
Weight in running order GVW	188,5 Kg	234 Kg	241 Kg

* The washing width is intended with the machine operating and the brush pressed down.

	45M55	45D55	45D60
Accessories			
0.7 ø PPL brush	40.0003.00 POLY 0,7	40.0003.00 POLY 0,7	2x40.0001.00 POLY 0,7
Brush spray guard	24.0265.00 + 40.4003.00	24.0265.00 + 40.4003.00	24.0266.00 + 40.4007.00
Front rubber wiper element	39.0110.00	39.0110.00	39.0110.00
Rear rubber wiper element	39.0111.00	39.0111.00	39.0111.00
Water loading tube	30.0024.00	30.0024.00	30.0024.00
Optional accessories			
0.9 ø PPL strong brush	40.0103.00 POLY 0,9	40.0103.00 POLY 0,9	40.0101.00 POLY 0,9
1.2 ø PPL brush	40.0303.00	40.0303.00	40.0301.00
1.2 ø tynex brush	40.0203.00	40.0203.00	40.0201.00
Set polyurethane rubbers	95.0055.00	95.0055.00	95.0055.00
Drive mechanism	40.1003.00	40.1003.00	2x40.1001.00

1.1 INTRODUCTION



DANGER:

Before using the machine, carefully read the attached **“SAFETY WARNINGS FOR THE FLOOR SCRUBBER DRYER”** manual.

2.1 GETTING TO KNOW THE MACHINE (Fig. 1)

- 1) Guide handle.
- 2) Control console.
- 3) Squeegee activation lever.
- 4) Water supply tap.
- 5) Solution tank.
- 6) Tank cover.
- 7) Clean water filling opening.
- 8) Wheels.
- 9) Removable splash guard.
- 10) Brush.
- 11) Squeegee.
- 12) Recovery water drain hose.
- 13) Squeegee water aspiration hose.
- 14) Recovery water tank.
- 15) Clean water drain/level tube.
- 16) Water filter.
- 17) Clean water filter.
- 18) Brush up/down pedal.
- 19) Brush rotation activation button.
- 20) Touch sensor for the start-up and rotation of the brush/es.

3.1 UNPACKING (Figg. 1-2)

Once the packaging has been removed as shown in the instructions on the packaging itself, check that the machine and all the components supplied are intact.

If any evident damage is found, contact the area agent and the carrier within 3 days of receipt.

- Remove the bag (21) containing the accessories.
- Cut the strap (22).
- Remove the wooden blocks (23 and 24).
- Lift the brush flange (9) by pressing down on the pedal (19) (see relative paragraph).
- Lift the wiper support (25) by lifting the

handle (3 Fig. 1) (see relative paragraph).

- Position a chute and unload the machine from the bench.

3.1.a - Standard machine equipment (Fig. 3)

The accessories supplied are as follows:

- 10) Brush/brushes.
- 11) Wiper.
- 26) Water filling hose.
- 27) Machine use and maintenance manual.
- 28) Battery charger instruction manual (if present).
- 29) Battery charger power cable (if present).
- 30) 5A fuse.
- 31) Filter for clean water tank opening.

4.1 ASSEMBLING THE COMPONENTS

4.1.a - Wiper assembly (Fig. 4)

- Loosen the two handwheels (32) located on the wiper (11).
- Assemble the wiper (11) on the support (25), tightening the two handwheels (32).
- Connect the tube (13) to the wiper connector (33).



N.B.:

Perform the previous operations with the wiper support lowered.

4.1.b - Brush assembly (Fig. 5)



HAZARD:

Operation to be performed by two people!

- Raise the splash guard (9) and remove the polystyrene protection (34).
- Assemble the brush as described in the paragraph “replacing the brush”.

4.1.c - Installing and connecting the batteries (Fig. 6)



WARNING:

CHECK THAT THE RECOVERY TANK AND THE CLEAN WATER TANK ARE EMPTY.

- Disconnect the plug (35).
- Press the button (36) and lift the tank (14) until completely overturned.
- Position the batteries (37) as shown in the figure and connect them as shown on the chart in Fig. 6 using the cables supplied.
- Tighten the terminals (38) using an insulated wrench.
- Lower the tank (14) until a coupling "click" is heard.
- Connect the plug (35) to the relevant socket (39).



N.B.:

The battery must be connected by specialised personnel.

5.1 CHARGING THE BATTERY



DANGER:

Charge the batteries in rooms which are well-ventilated and comply with applicable regulations in the country of use. For safety-related information, follow what is described in chapter 1 of this manual.



WARNING:

For information and warnings about the battery and on board battery charger (if present) follow what is described in the battery charger manual enclosed with this document.



WARNING:

When the machine leaves the factory, it is calibrated to operate with gel batteries.

If other types of batteries are installed, see the paragraph "Parameter setting". The use of gel batteries with calibration for acid or other batteries is prohibited.



NOTE:

10 hours are needed for complete battery charging. Avoid partial recharges.

5.1.a - Charging the battery using the on board battery charger (if present) (Fig. 7)

- Move the machine close to a mains electricity socket.



WARNING:

It is important to first connect the cable (41) to the socket (42) and then connect the cable (41) to the power socket.

- Take the cable (41) from its seat and connect it to the socket (42) on the machine, then connect the other end to the mains power socket.
- Check that the green LED (43) flashes 2 times and then goes from the color "Green" to continuously lit "Red".



WARNING:

Make sure that the mains electrical voltage is compatible with the battery charger's operating voltage (230 Vac for the European market; 115 Vac for the American market; 50/60 Hz).

- Leave the batteries to charge until the "Green" LED (43) lights up, then remove the power cable (41) and put it away.
- Reconnect the battery plug (35) to the system socket (39).

5.1.b - Charging the battery using an external battery charger (Fig. 8)



WARNING:

It is important to first connect the plug (35) to the socket (44) of the battery charger and then connect the battery charger to the mains socket, otherwise the batteries will not charge.

- Move the machine close to the battery charging station.
- Remove the battery plug (35) from the system socket (39).
- Connect the battery plug (35) to the external battery charger socket (44).

6.1 CONTROL PANEL (Fig. 9)






WARNING:

Before using the machine you must select the washing cycle as shown in the relevant paragraph.

20) Touch sensor for the start-up and rotation of the brush/es • (for model with traction)

Check the display so that the minimum traction speed is set.




Acting on the touch sensor (20) with button (45) “” button (52) “” and button (51) “” inserted, it starts the traction and rotation of the brush/es and the water supply.

The machine will automatically start moving forward.

To move in reverse, lift the wiper.

20) Sensor for the start of the rotation of the brush/es


• (for model with traction)

Acting on the touch sensor (20) with button (45) “” button (52) “” and button (51) “” inserted it starts the rotation of the brush and the water supply.

45) Main switch “”


By pressing the button, voltage is inserted in the circuits allowing the operation of commands and of the appropriate buttons; the display (46) will turn on. Press the button again to disconnect the voltage from the circuits.

46) Display


It lights up after the voltage is supplied to the circuits using the button (45) “”.

The display indicates the machine status, battery charge, working hours (for model with traction) and alarm messages.

47) Speed control buttons (for model with traction only)

Button (47a) “”.

Pressed, increases the traction speed.

Button (47b) “”.

Pressed, decreases the traction speed. The display (46) indicates the set speed.

48) Reverse button “” (for model with traction only)

Check the display so that the minimum traction speed is set.

Pressed and held, while action on the touch sensor (20), the machine will move in reverse to the operator. The display will show the following symbol “R”. To move in reverse, lift the wiper.

50) Button with double function - Aspirator start and Quiet operation**Starting the aspirator**

Pressing the switch (50) “” it starts the aspiration to silent. Pressing the switch (50) “”, you switch from silent to standard mode, the display shows the symbol “”.

**WARNING:**

The suction motor will start only by touching the touch sensor. To turn off the suction press the button (50). The turbine will continue to operate for a few seconds so as to aspirate the liquid present on the floor, after which it will automatically turn off. The display will disappear the symbol “”.

Quiet operation

It lights up the icon “” silent mode, for starting the engine, you have to touch the touch sensor (20).

51) Water solenoid valve button “”

Button operation is enabled by pressing the button (45) “” and button (52) “”.

By pressing the button (51) “”, on the display will be shown the symbol “”, and the opening of the water valve is being prepared. The operation thereof is controlled by the touch sensor (20).

By repeatedly pressing the button (51) “”

the amount of water is increased; once the maximum amount is reached, the display will show the symbol “”; pressing the button (51) again will deactivate the function.

52) Brush rotation enable button “”

Button operation is enabled by pressing the button (45) “”.

Pressing the button (52) “”, will enable the rotation of the brush/es; the display will show the symbol “”. The operation of the brush/es is controlled by the touch sensor (20).

To stop brush rotation, press the button (52) “”.

49) Chemical agent dosing button (optional)

By pressing the button (49) “” the display will show the symbol “” activating the operation of the chemical agent dosing pump.

By repeatedly pressing the button (49) “” the amount of dosed chemical agent is increased; once the maximum amount is reached, the display will show the symbol “”; pressing the button (49) again will disable the function.

53) ECO “” button

Pressing the “” the parameters of water, chemical and suction mode assume the following values.

- Water the second mark..
- Chemical 0,2%.
- Aspiratin silent mode.

Pressing the button “” again, these parameters return to their initial settings.

6.2 WORKING CYCLE EXAMPLE (Fig. 9)

Setting a washing cycle with brushes and drying.

- Press the button (51) to allow the water supply.
- Press the button (52) to allow brush rotation.
- Press the button (50) and the vacuum will start.




NOTE:

In particular settings you can activate the silencer function by acting as indicated above.



WARNING:

When turned on, be careful not to touch the touch sensor (20); the machine triggers an alarm and the “” symbol flashes on the display.

If you release the touch sensor (20) within two seconds, the alarm is automatically switched off, after other two seconds you must restart the machine.

- Select the desired speed by pressing the buttons (47a) or (47b) (only for the model equipped with traction).



NOTE:

It is possible to change the speed even during the working cycle, with the machine in motion by acting the appropriate buttons.

- Touch the touch button (20), the machine starts the set program and starts the working cycle.



NOTE:

It is possible to change the working cycle depending on the work requirements.

By varying the working cycle, you must stop the machine, set a new cycle and start the cycle, by touching the touch button(20).

7.0 SAFETY PASSWORD

The machine can be equipped with a safety passwords; for enabling it or disabling it, please contact technical support. If the password was enabled, in order to enter the numbers follow the instructions on the display.

The password will remain active for 75 minutes after having it switched off or after the last use; if you want to re-enable the introduction of the password proceed as follows:

Turn off the machine, unplug the battery connector (35 Fig. 7) for a few seconds and then reconnect it.




When the machine is turned on again it will require a password.

7.1 PARAMETER SETTING (Fig. 9)


The operator can access the menu to set the following parameters:

Language;
Battery type;
Brightness / Contrast;
Chemical agent dispenser.


Proceed as follows to access the menu:

- Press and hold down (48) “” and (52) “”, then press the power button (45) “” to start the machine until you see the following display:



- Release the pressed keys.
- Enter the passwords by pressing the keys (47a) (47b) until the display shows the number “10”.
- Press the button (51) “” to confirm the password and enter the parameter setting menu; the following screen appears:




- To browse the parameter setting menu, press the button (52) “” and the following screens will appear in succession:



7.1.a - Language setting

- Enter the parameter setting menu until the following screen appears:



- Select the language (47a) and (47b), then press the buttons (51)  to confirm your selection.

7.1.b - Battery type setting

- Enter the parameter setting menu until the following screen appears:



- Select the battery type by using the buttons (47a) and (47b), then press the but-

ton (51)  to confirm your selection;

GEL = Gel battery

AGM = AGM battery

WET = ACID battery

7.1.c - Brightness and contrast setting

- Enter the parameter setting menu until the following screen appears:




- Set the display brightness by selecting a value from "0 to 10" with the buttons (47a) and (47b), then press the button (52) "



" to go to the contrast settings.



- Set the display contrast by selecting a value from "5 to 50" with the buttons (47a) and (47b), then press the button (51)  to confirm your selection.


7.1.d - Enable the chemical agent (optional)

- Enter the parameter setting menu until the following screen appears:




- Enable or disable the pump by using the buttons (47a) and (47b) and selecting

Disable to disable it or "Enabled" to enable it and then press the button (51) "

" to confirm your choice.

8.1 DISPLAY (Fig. 9-10)

The following pictograms appear on the display:

"A"  = Battery

Indicates the battery charge status;

"A1"  = battery charged;

"A2"  = battery discharged.




= traction speed (if present)



The movement speed can be changed from "0" to the maximum speed in 5 steps, using

buttons "" and "" to increase or decrease the speed.

"R" = reverse (if present)





This appears on the display when selecting the button "" and a reverse operation is performed; when the button is released the pictogram disappears.

"" = Aspirator operating

This appears on the display when selecting the button "" indicating that the aspirator is operating; when repressing the button "" to stop operation, the pictogram will flash for a few seconds and disappears when the aspirator stops.


"" = Silent operation



Vacuum in operation.

This appears on the display when selecting the button "" indicating that the aspirator is operating at a reduced speed; by pressing again the button "" and holding it for a few seconds, the symbol "" will disappear and then you will see the symbol "" activating the normal operation.



"" = Water dispensing presetting

This appears on the display when select-

ing the button "" indicating that the water dispensing solenoid valve is enabled; by

repeatedly pressing the button (51) "" the amount of water is increased; once the maximum amount is reached, the display will show the symbol ""; repressing the button (51) will disable the function.

"" = Brush rotation presetting


This appears on the display when selecting the button "" indicating that brush rotation is enabled; when repressing the button "" brush rotation motor operation is disabled and the pictogram disappears.




"" = Maximum fluid level in the tank

This displays when the fluid in the recovery tank has reached the maximum level.





"" = Chemical agent dispenser (optional)

This appears on the screen when you press the button (49) "" indicating the dispensed amount of chemical agent.



"" = ECO mode

It displays, when the ECO function is active, with the button (88) "" (88) ".

9.1 FILLING THE TANK (Fig. 11)



WARNING:

Only add clean mains water to the tank at a temperature no greater than 50°C.

- Before filling the tank, check the level of the chemical agent (if any), as indicated in the relevant section.
- Remove the hose (26) supplied, connect one end (26a) to a tap and insert the other end (26b) in the tank (5).
- Check that the tap (53) is open.

- Turn on the tap and fill the tank (5).
- Turn on the tap and fill the tank (5) to the **MAXIMUM LEVEL (NOT EXCEED)** indicated by the label placed on the transparent tube (15).
- Pour the detergent fluid in the tank.

**NOTE:**

Use non-foamy detergents only. For the quantities, follow the instructions provided by the detergent manufacturer according to the type of dirt.

**DANGER:**

If the detergent comes in contact with the eyes and/or skin or if swallowed, refer to the use and safety information booklet provided by the manufacturer of the detergent.

9.2 FILLING THE CHEMICAL AGENT TANK (optional) (Fig. 6-12)

**WARNING:**

MAKE SURE THAT THE RECOVERY TANK IS EMPTY.

- Press the button (36 Fig. 6) and lift the tank (14 Fig. 6) until complete overturning.
- Release the lock (74 Fig. 12) and remove the cap (75 Fig. 12) of the tank (76 Fig. 12).
- Place the suction tube (77 Fig. 12) and close the tank with the cap.
- Lower the tank (14 Fig. 6) until you hear a coupling "Click".

**DANGER:**

In case the chemical agent gets in contact with eyes and skin or in case of ingestion please refer to the Safety data sheet and the instructions of use of the chemical agent manufacturer.

10.1 OPERATION (Fig. 1-9)

10.1.a - Checks before use

- Check that the exhaust tube (12) of the recovery tank is properly coupled and properly sealed.
- Check that the connector (54) on the squeegee (11) is not blocked and that the hose is connected correctly.
- Check that the clean water exhaust tube (15) is correctly coupled to the supports and that the tap (53) is open.
- Press the button (45) and check the battery charge state on the display.
- Check if in the chemical agent tank (optional) is enough product for the daily needs.

10.1.b -Preparing the machine and choosing the cycle (Fig. 9-13)

- Press the button (45 Fig.9), the display (46 Fig.9) lights up, indicating the battery charge status.
- Release the lever (3 Fig. 13) and lower it; the floor squeegee (11 Fig. 13) is lowered.
- Press the pedal (19 Fig. 13), disengage it from its lodging and lift it: the brush/brushes (10 Fig. 1) will be lowered.

**NOTE:**

The brush has two working positions:

Normal position "A"

It is automatically placed when you release the pedal (19 Fig. 13) from the lifted position.

Position for persistent dirt "B"

From the "A" working position, lift the pedal (19 Fig. 13) and engage it in the "B1" holder: an additional pressure of 5 kg will be exercised on the brush.

Working cycle:

- The machine can perform 4 working cycles:

Drying only cycle:

- To perform only the drying cycle, press the button (50 Fig. 9), the aspirator will start.

Use the appropriate controls to activate the drive mechanism, if available for the model in use.

Brushing only cycle:

- To perform only the brushing cycle, press the button (52 Fig. 9) to enable brush rotation.
Touch the touch sensor to start the rotation of the brush/es (for models with integrated traction it also starts traction).

Washing, brushing cycle:

- Press the button (52 Fig. 9) to enable brush rotation, press the button (51 Fig. 9) to enable water dispensing.
Touch the touch sensor to start the rotation of the brush/es and the water supply (for models with integrated traction it also starts traction).

Washing, brushing, drying cycle:

- Press the button (50 Fig. 9) to start the aspirator, button (52 Fig. 9) to enable brush rotation and press the button (51 Fig. 9) to enable water dispensing.
Touch the touch sensor to start the rotation of the brush/es and the water supply (for models with integrated traction it also starts traction).

10.1.c - Using the machine (Fig. 1)

- After starting the machine and choosing the type of cycle, start cleaning, by pushing the machine using the handle (1 Fig. 1) or by touching the touch sensor (20 Fig. 1), to start the drive (for models with).



NOTE:

Pay attention to particularly delicate floors: do not use the machine while it's stopped and the brush rotation on.
For particularly dirty spots, adjust the traction speed to "0" so the brush will rotate in the same position, without straining the traction motor.



NOTE:

The proper cleaning and drying of the floor is done by pushing the machine forwards: if you go backwards the machine will not perform drying: in this phase, always lift the wiper to avoid damaging the blades.

- Adjust the traction speed (if present) as shown above.
- If necessary, adjust the amount of washing water through the button (51 Fig. 9).
- If necessary, adjust the amount of chemical agent (optional) with the help of the button (49 Fig. 9).
- Check the battery charge status on the display.



NOTE:

After 3 minutes of inactivity the machine shuts off automatically.

10.1.d - Adjusting the movement direction (only for version 45D55) (Fig. 14)

If during the cleaning operation (rotating brushes) we notice that the machine is not moving in a straight line, but tends to go left or right, you can adjust the direction of the wheels (78).

- Start the machine and begin the rotation of the brushes.

If the car tends to go to the right, gently turn the wheel button (78) to "S" until the direction is right;

If the car tends to go to the left, gently rotate the wheel button (78) to "D" until the direction is right.

10.1.e - Adjusting traction help (only for models without traction) (Fig. 14)

The function of the hand wheel (79) is to increase / decrease the ground pressure of the brush in order to facilitate thrusting forward the machine.

- Turning the hand wheel (79) clockwise will decrease traction adjustment and conversely it will increase it.

10.1.f - End of use and switching off (Fig. 9-13)

- At the end of the cleaning operations, before turning off the machine, turn off the water supply, the chemical agent supply (if any) and the brush rotation by operating the buttons (51 Fig. 9), (49 Fig. 9) and (52 Fig. 9).
- Lift up the brush by pressing the pedal (19 Fig. 15) as far as it will go, fitting it in the designated slot.
- Continue with the aspirator inserted to aspirate all the liquid on the floor, then turn off the aspirator by pressing the button (50 Fig. 9).
- Lift the squeegee (11 Fig. 15) by lifting the lever (3 Fig. 15).



WARNING:

Always lift the wiper and the end piece after finishing the cleaning operations because this avoids the deformation of the rubber blades and of the brush hairs.

- Press the button (45 Fig. 9) to turn off the machine.



WARNING:

If the machine will not be used for a few days, it is recommended to disconnect the plug (35 Fig. 7-8) from the relative socket.

10.1.g - Maximum recovery tank water level alarm (Fig. 18)

If during the use of the machine the vacuum stops and the display shows the symbol “



” this means that the level of the liquid in the recovery tank has reached its maximum level.

Go to the water drainage station and drain the recovery tank as shown in the relative paragraph.

- In order to disable the alarm, stop and restart the machine.



NOTE:

For the proper operation of the level sensors it is required to properly clean the inside of the tank (14 Fig. 18).

10.1.h - Alarms list (Fig. 9)

If the machine malfunctions, the display (46) will indicate the alarm type, according to the following list.

In order to restore the machine's proper functionality, consult the list below and perform the recommended procedures.

If the recommended actions should not resolve the problem, contact Technical Assistance.

Alarm	Meaning	Solution
AL_1: Function Brush Amp.	Brush amperometric protection	Check the brush operating mode. High brush motor working current detected.
AL_2: Function Aspirator Amp.	Aspirator amperometric protection	Check aspirator motor absorption. High aspirator motor working current detected.
AL_3: Function Power failure	Power stage damaged	Damaged aspirator or brush power stage: replace card.
AL_4: Function Overcurrent	Overcurrent on brush or aspirator outputs	Short circuit detected on brush or aspirator motor output: check connections and motor state.
AL_5: Function Overtemperature	Thermal protection on brush/aspirator stage	Brush and aspirator power stage overheating: check absorption.
AL_15: Traction Overtemperature	Thermal protection on traction stage	Traction power stage overheating: check absorption.
AL_16: Traction Power failure	Traction power stage damaged	Damaged traction power stage: replace card.
AL_17: Traction Overcurrent	Overcurrent on traction output	Short circuit detected on traction motor output: check connections and motor state.
AL_18: Traction Traction Amp.	Traction amperometric protection	Check the traction operating mode. High traction motor working current detected.
AL_20: General EEprom failure	Inner memory card error	Replace card.
AL_22: General Main relay	Main relay damaged	The main relay on the card appears damaged: replace the card.
AL_23: General Overvoltage	Overvoltage	Overvoltage on function card detected. Check the battery connections.

Alarm	Meaning	Solution
AL_24: Traction Batt Connection	Battery not connected to the function card	Check the traction operating mode. High traction motor working current detected.
AL_25: General Key connection	No control panel-function communication	Check connections between the keypad card and functions.

11.1 DRAINING THE RECOVERY WATER (Fig. 16)

At the end of the washing cycle or when the recovery water tank (14) is full, it is necessary to empty the tank by proceeding as follows:



NOTE:

To dispose of the recovery water, comply with the standards in force in the country in which the machine is used.

- Position the machine near to a drain outlet.
- Disconnect the hose (12) from the support.
- Remove the cap (56) from the hose (12) and drain all the water contained in the tank.



NOTE:

The amount of water that comes out can be modulated by pressing on the end of the tube (12).

- Put the cap (56) back on the hose (12) and reposition it on the relative support.

12.1 MAINTENANCE AND CLEANING



WARNING:

All maintenance operations must be performed with the machine off and tanks empty.

12.1.a - Removable splash guard (Fig. 5)

- Remove the two pins (87).
- Lift the splash guard (9) to release it from the pins, then stretch it slightly and remove it from the front.

OPERATIONS TO PERFORM DAILY

12.1.b - Emptying and cleaning the clean water tank (Fig. 17)



WARNING:

At the end of the washing operations, it is compulsory to drain and clean the clean water tank (5) to prevent deposits or scaling.

After draining the recovery water tank, drain the clean water tank as follows:

- Position the machine over a drain outlet.
- Disconnect the tube (15) from the hooks, close the tap (53), lower the tube to the ground on the drain outlet, open the tap (53) and let the water drain completely.

- Wash the inside of the tank, leaving the drain hose open and adding clean water through the top opening.
- When cleaning is complete, lift the tube (15), leaving the tap (53) open; couple the tube in its recesses.
- To completely drain the water from the tank (5) disconnect the tube (57) from the quick connector (58) then turn the connector downwards, letting the water drain completely; or remove the filter cover (59).

12.1.c - Cleaning the recovery water tank (Fig. 18)



WARNING:

At the end of the washing operations, it is compulsory to clean the recovery water tank to prevent deposits or scaling and the proliferation of bacteria, odours or mould.

- Drain the recovery water as shown in the relative paragraph, positioning the machine over a drain outlet.
- Remove the cover (6).
- Leaving the hose (12) lowered and the cap off, pour water into the tank (14) through a hose, cleaning it until clean water comes out of the drain hose.
- Clean the level probes (55) using a damp cloth, taking care not to deform them.
- Replace all the components in reverse order.

12.1.d - Cleaning the squeegee (Fig. 4)

In order to clean the squeegee correctly (11), it is necessary to remove it as follows:

- Disconnect the hose (13) from the squeegee (11).
- Loosen the knobs (32) and remove the squeegee (11).
- Wash the squeegee and in particular the rubber blades (60) and the inside of the aspiration connector (33).



NOTE:

If, during washing, it is clear that the rubber blades (60) are damaged or worn, it is necessary to replace them or turn them over.

- Replace all the components in reverse order.

OPERATIONS TO PERFORM WHEN NECESSARY

12.1.e - Cleaning the clean water filter (Fig. 19)



NOTE:

Before cleaning the filter, make sure the clean water tank is empty.

- Unscrew and remove the cover (59).
- Remove the filter (17) and wash it in running water.
- Refit the filter (17) in its seat, then tighten the cover (59).

12.1.f - Replacing the brush (Fig. 20)

It is necessary to replace the brush when it is worn more than 2 cm or it must be replaced depending on the type of floor to be washed; to replace it proceed as follows:

- Lift up the brush using the pedal as shown in the relative paragraph.
- Insert a hand under the brush holder unit (9); to release the brush, turn it abruptly in the direction of rotation.
- Replace the brush, coupling it manually to the brush holder flange (9).
- Lower the brush-holder flange (9) using the pedal, as shown in the relative paragraph.
- Press the button (45 Fig. 9) to enable the controls.
- Press the button (52 Fig. 9) to enable brush rotation.
- Act on the touch sensor (20) positioned on the handle to start the rotation of the brush.

12.1.g - Replacing the squeegee rubber blades (Fig. 21)

When it becomes clear that drying the floor is difficult or traces of water remain on the floor, it is necessary to check the wear on the squeegee rubber blades (60):

- Remove the squeegee unit (11) as indicated in the "Cleaning the squeegee" paragraph.
- Press the locking device (67) and open the handle (68).
- Remove the two rubber mounting strips (69) and remove the outer rubber (70).
- Loosen the two turnbuckles (71) and remove the locking bar (72) and the inside rubber (73).



NOTE:

When the rubber blades (70) or (73) are worn on one side, on one occasion they may be turned over.

- Replace or turn over the rubber blades (70) or (73) without inverting them.
- Replace all the components in reverse order.



NOTE:

It is possible to have two types of rubber blade.

Para rubber blades for all types of floor and polyurethane rubber blades for mechanical workshop floors which are dirty with oil.

12.1.h - Cleaning the recovery water tank (Fig. 22)

Remove the upper cover to access inside the recovery water tank.

- Loosen the knob (80) and remove the filter (81).
- Wash the filter (81) with running water and replace it in the machine, tightening the knob (80).
- If the filter (81) is particularly dirty you can open it by levering with a screwdriver on the coupling claw (82).

12.1.i - Cleaning the suction filter (Fig. 22)

- Lift the filter with its cover (83).
- Loosen the screw (84) and remove the filter (85).
- Wash the filter (85) in running water and reassemble it in reverse order.

12.1.l - Replacing the fuses (Fig. 6-23)



WARNING:

Replace the blown fuse with one with the same amperage.

- Remove the plug (35) from the socket (39).
- Remove the cover (61) unscrewing the screws (62) to access the fuse.

Fuse (86) - 5A

Electronic card protection.

- Put the cover (61) back on.

Fuse (63) - 75A

Battery fuse.

- In order to replace the fuse on the positive pole of the battery, do the following:



WARNING:

Check for the recovery tank to be empty.

- Disconnect the plug (35).
- Press the button (36 Fig. 6) and lift the tank (14) until completely overturned, then replace the fuse (63 Fig. 6).

12.1.m - Wiper adjustment (Fig. 24)

- It is possible to adjust the height of the wiper and adjust the incidence of the blades on the floor.

Height adjustment

The wiper can be height adjusted using the plates/shims placed on the wiper wheels (40).

- Loosen the knob (55).
- Lift the support (55a) and place the plate (55b) over or under the plate (55a) according to whether you want to lift or lower the wiper.
- Tighten the knob (55).



NOTE:

This operation must be performed on both wheels (40) equally.

Incidence adjustment

- Lower the wiper, using the lever.
- Start the aspirator and proceed for a few metres, then turn off the aspirator and stop the machine.
- Check the incidence of the rubber (60) blades.

Fig. A = too low

Fig. B = too high

Fig. C = correct position

- Use the grey knob (64) for adjustment, turning it anticlockwise to increase the incidence and in the other direction to decrease it.

12.1.n - Battery charger and digital instrument configuration (Fig. 25)



WARNING:

The machine leaves production with a standard configuration for operation with "Sonnenschein" gel batteries.



WARNING:

Disconnect the battery plug from the socket.

- Remove the cover (61) by unscrewing the screws (62).

Standard configuration with Sonnenschein gel batteries

- Remove the cap (66) located under the batter charger (16).
- Position the switches (DP1 and DP2) as shown in figure "A".

It is possible to modify the configuration as follows:

Configuration for gel batteries which are not Sonnenschein version

- Remove the cap (66) located under the battery charger (16).
- Position the switches (DP1 and DP2) as shown in figure "B".

Configuration for acid batteries

- Remove the cap (66) located under the battery charger (16).
- Position the switches (DP1 and DP2) as shown in figure "C".

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
By pressing the button (45) “		

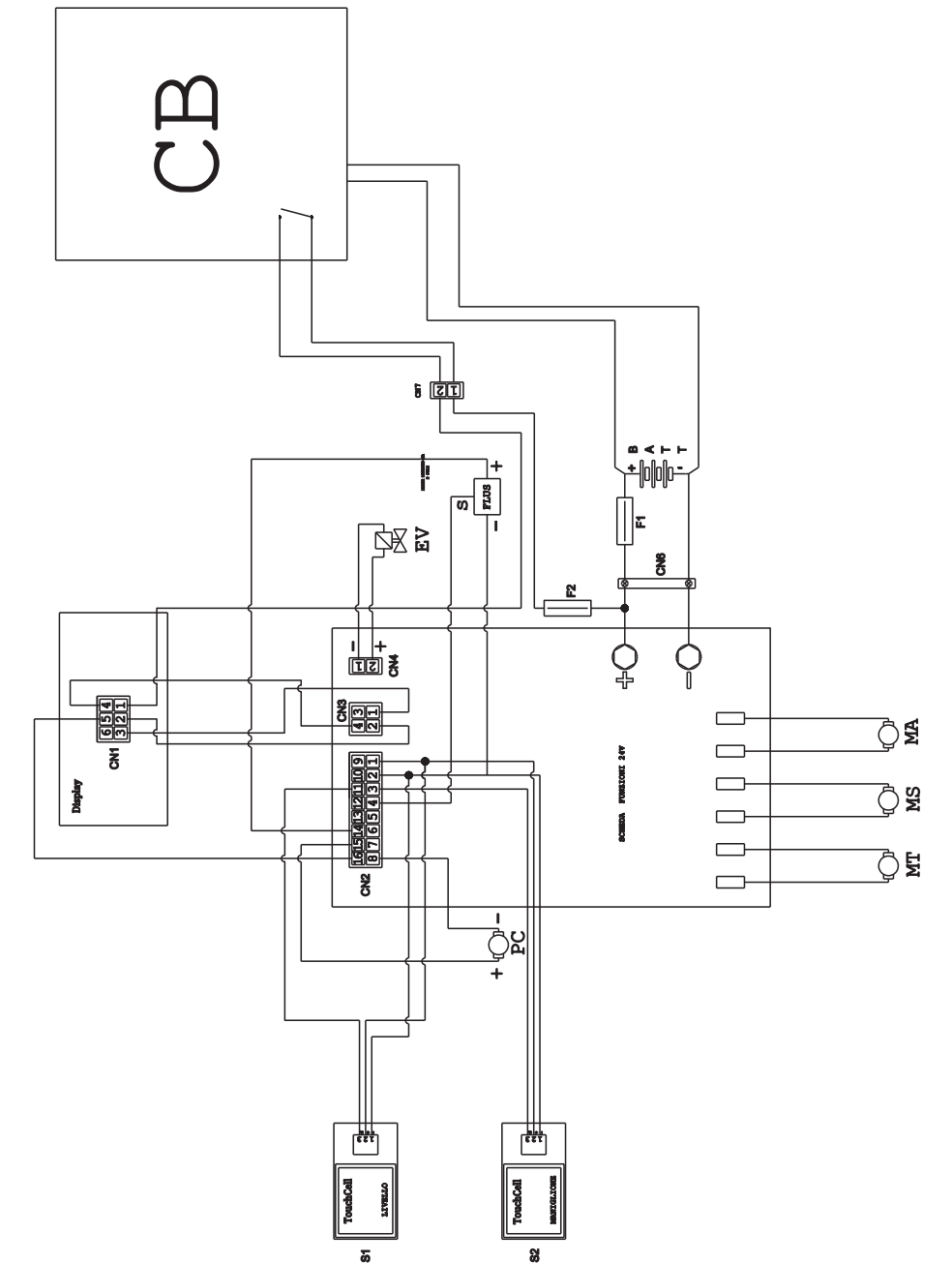
PROBLEM	CAUSE	SOLUTION
No water comes out.	Tank empty. Defective card. Solenoid valve enabling switch not pressed. Tap turned off. Filter blocked. Solenoid valve does not work.	Fill the tank. Replace. Press the switch. Open the tap Clean the filter. Call the technical support service.
Insufficient floor cleaning.	Unsuitable brushes or detergent. Brush worn.	Use brushes or detergents which are suitable for the type of floor or dirt to be cleaned. Replace the brush.
The brush does not rotate. Aspirator does not work. No water comes out.	Defective sensor.	Replace.

13.1 WARRANTY

During the warranty period all defective parts will be repaired or replaced, free of charge. All parts affected by tampering or misuse will be excluded from the warranty. In order to enable the warranty procedure please contact your dealer or a relevant service center by presenting the valid purchase documents.

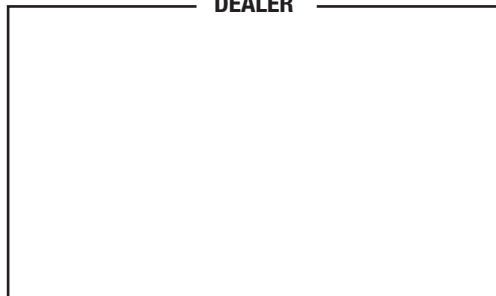
WIRING DIAGRAM

ROUND TOUCH 45 M55 - 45 D55 - 45 D60



BATT	Battery
CB	Battery charger
CN 1	Display connector
CN 2	Card connector
CN 3	Display card connector
CN4	Chemical pump connector
CN6	Battery connector
CN7	2-pole flying connector battery charger
EV	Solenoid
F1	Fuse
F2	Fuse 5A
FLUS	Flowmeter
MA	Vacuum engine
MS	Brush engine
MT	Traction engine
PC	Chemical pump
S1	Recovery level touch sensor
S2	Touch sensor handle
Display	Display
SCHEDA FUNZIONI 24V ... 24V FUNCTION	
BOARD	

DEALER



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Ghibli & Wirbel S.p.A.

Via Circonvallazione, 5 - 27020 Dorno PV - Italia
P. +39 0382 848811 - F. +39 0382 84668 - M. info@ghibliwirbel.com

www.ghibliwirbel.com

100% MADE IN ITALY

