



**CRL8055/50T**  
**CRL8072/50T**  
**CRL8055/100T**  
**CRL8072/100T**

**RIDE-ON  
SCRUBBER  
DRYER**



## Original Instructions

CAUTION, Read instructions before using the machine  
Keep for future reference



**Nu-Assist**



numatic.com

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## PLEASE READ BEFORE COMMENCING OPERATION

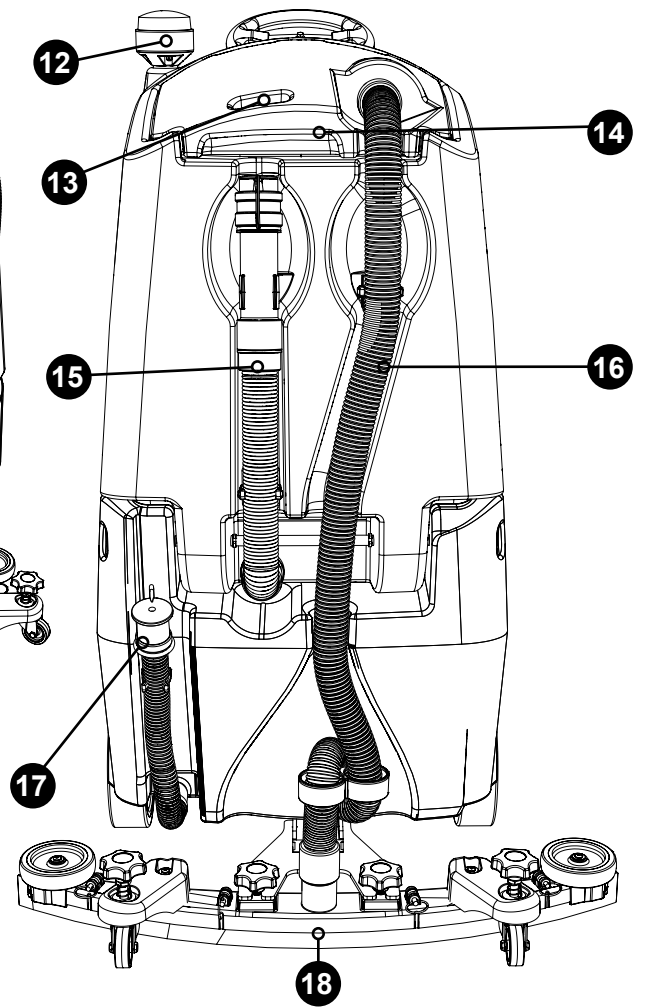
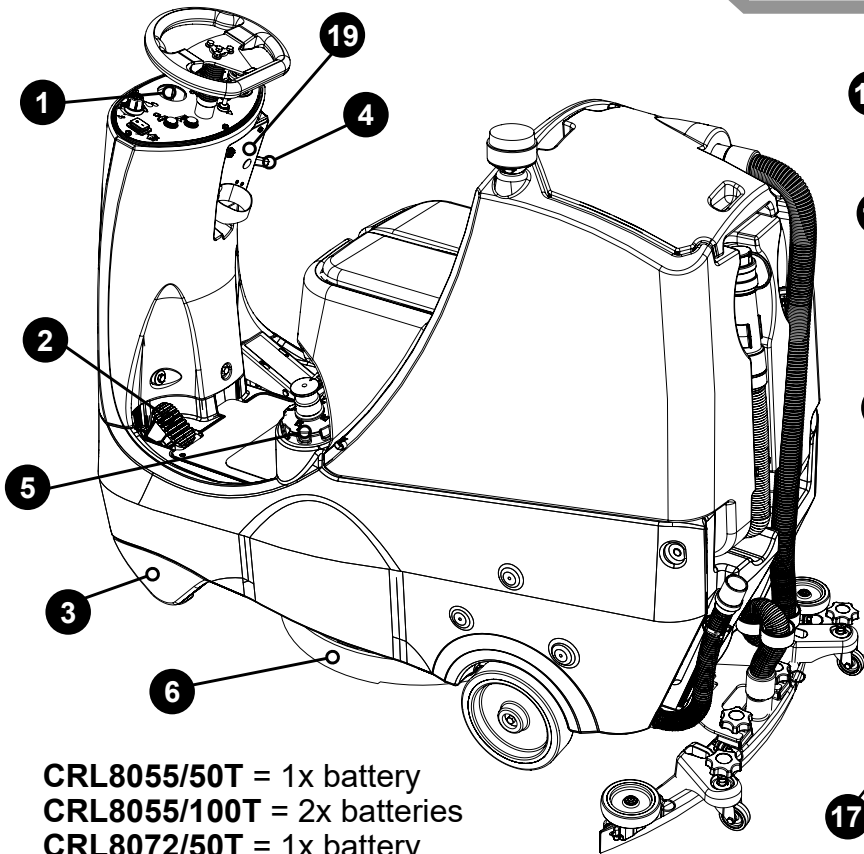
After the removal of all the packaging, carefully open and check the contents

- Owner Manual
- 2 x Ignition Keys
- Battery Charging Lead
- 1 x 30 Amp Fuse (Brush)
- 1 x 20 Amp Fuse (Vac)
  - 1 x 10 Amp Fuse
  - 1 x 4 Amp Fuse
  - 1 x 2.5 Amp Fuse
- Maxi Fuse-puller

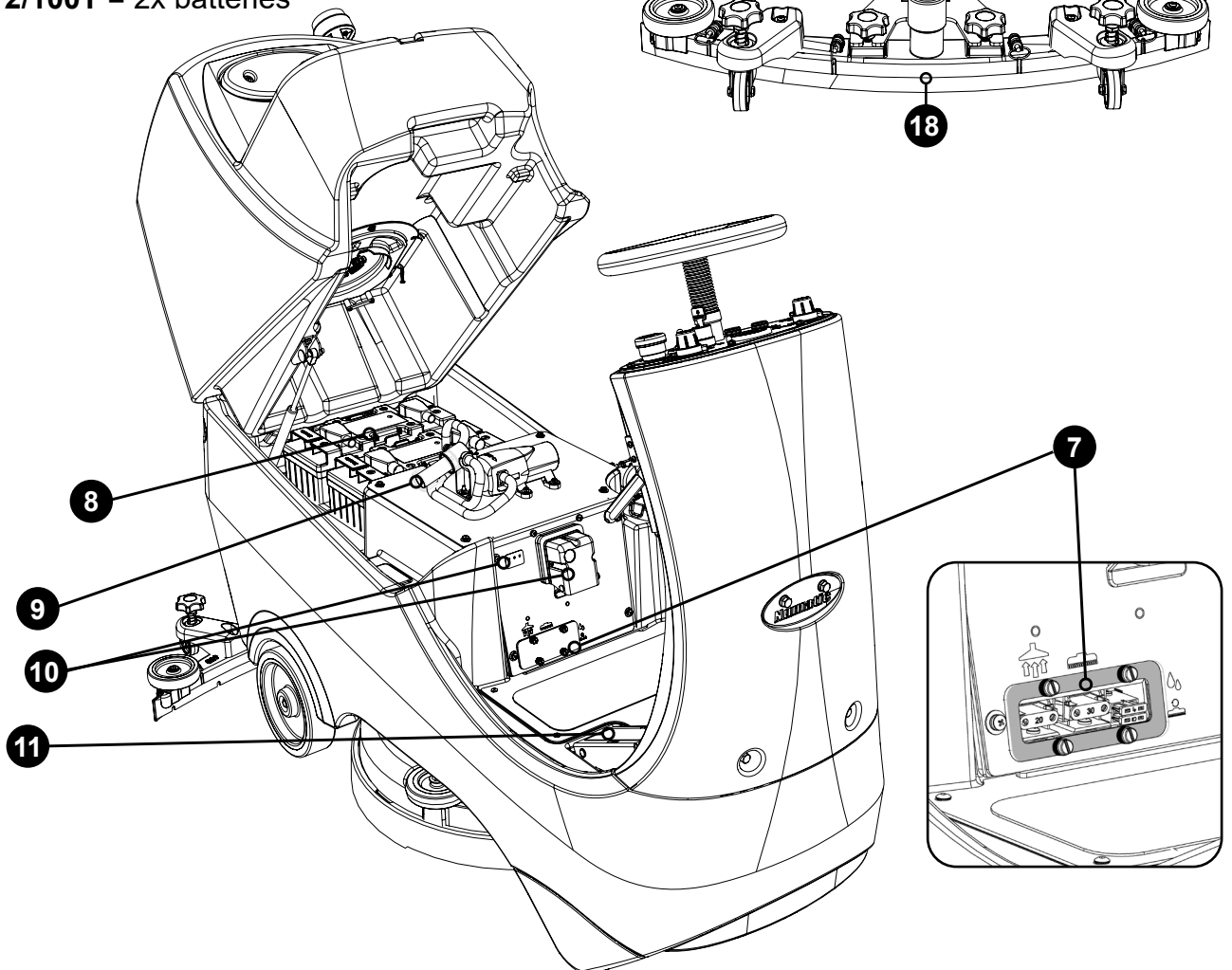
1	Operator control panel
2	Brush deck foot pedal
3	Anti-tip buffers
4	Floor-tool raise / lower lever
5	Clean water tank fill point
6	Brush deck
7	Fuse Panel (20A Vac / 30A Brush Motor / 4A Water pump / 10A Brush engage).
8	Li-ion batteries
9	Clean water tank filter
10	On-board charger and charge indicator
11	Accelerator pedal
12	Pedestrian warning light
13	Floor-tool transit bracket
14	Air separator assembly
15	Waste water emptying hose
16	Vacuum hose
17	Clean water tank emptying hose
18	Floor-tool
19	Safety Fuse (2.5A)

In the event of a breakdown contact your Numatic dealer or the Numatic Technical help line +44 (0)1460 269268

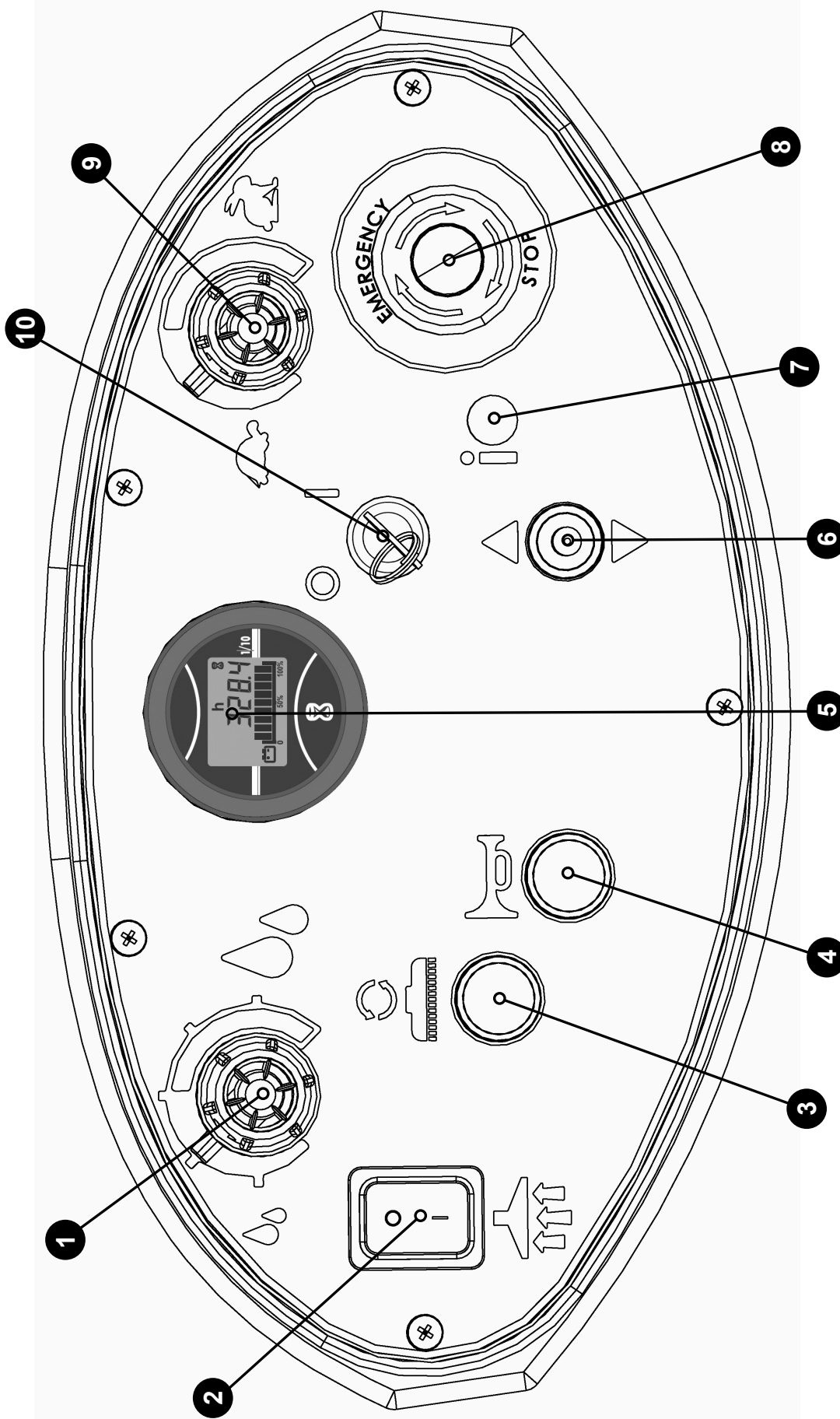
# Machine Overview



**CRL8055/50T = 1x battery**  
**CRL8055/100T = 2x batteries**  
**CRL8072/50T = 1x battery**  
**CRL8072/100T = 2x batteries**



# Control Panel Overview



1	Water Flow Rate	6	Forward / Reverse Switch
2	Vacuum On/Off Switch	7	Traction LED
3	Brush Engage Button	8	Emergency Stop Button
4	Horn Button	9	Maximum Speed Control
5	Hours and Battery Meter Display	10	Key Ignition Switch

In the event of a breakdown contact your Numatic dealer or the Numatic Technical help line +44 (0)1460 269268

# Machine Set-up Guide



**PLEASE READ BEFORE COMMENCING ANY OPERATION AFTER THE REMOVAL OF ALL THE PACKAGING, CAREFULLY OPEN AND CHECK THE CONTENTS.**



## CONTENTS

- Owner Manual
- Battery Charging Lead
  - 2 x Keys
  - 30 Amp Fuse
  - 20 Amp Fuse
  - 1 x 10 Amp Fuse
  - 1 x 4 Amp Fuse
  - 2.5 Amp Fuse
- Maxi Fuse Puller

Lift top tank assembly to reveal battery compartment, ensuring you use the handle grip provided.

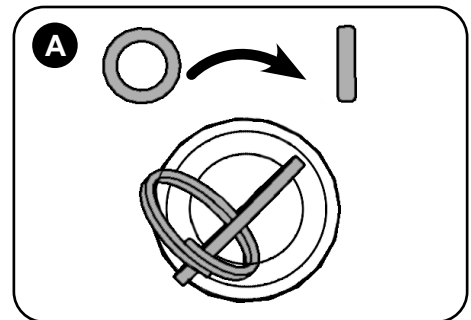
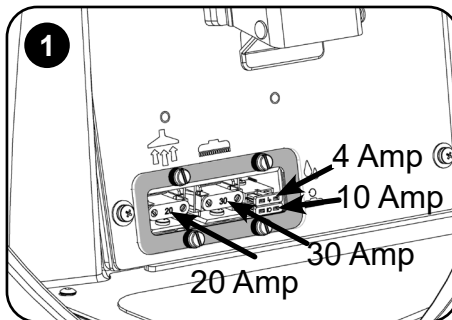
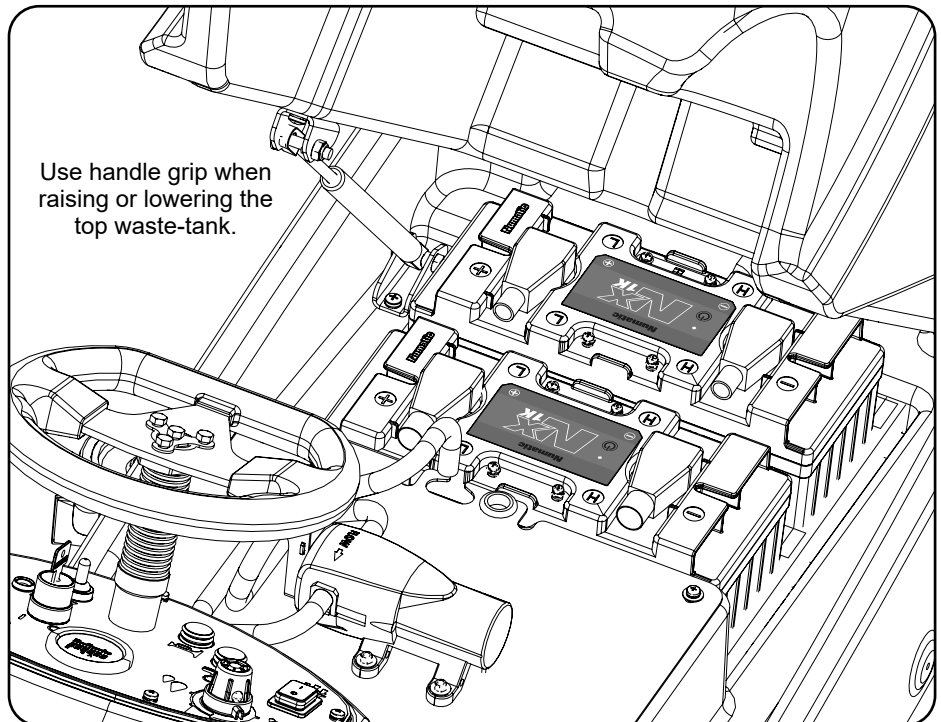
Fit vacuum and brush fuses (contained in start-up pack) into the fuse holders as illustrated. (Fig. 1)

Charge the machine to activate the batteries. After the batteries were activated, LEDs should illuminate on the top of all the batteries.

Insert Key into ignition located on the control panel (See (Fig. A))

Numatic International Ltd recommends **ONLY** using 911948 NX1K LFP battery type Lithium Batteries provided with this machine.

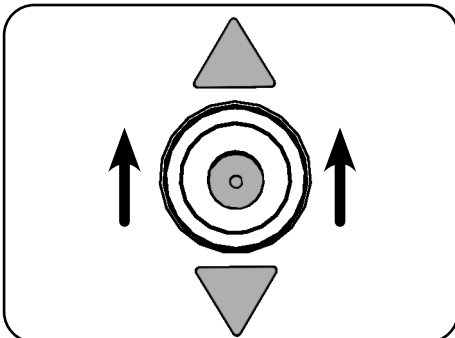
- 20 Amp Fuse = Vac Motor
- 30 Amp Fuse = Brush Motor
- 10 Amp Fuse = Brush Engage
- 4 Amp Fuse = Water Pump



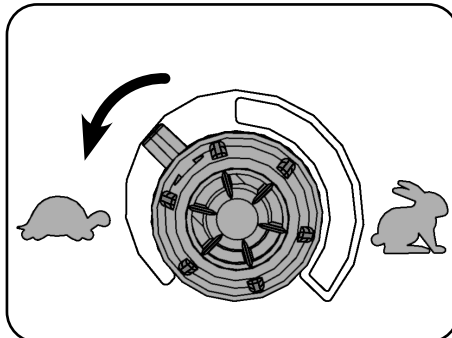
Insert the Ignition key and switch the machine on. (Fig. A)



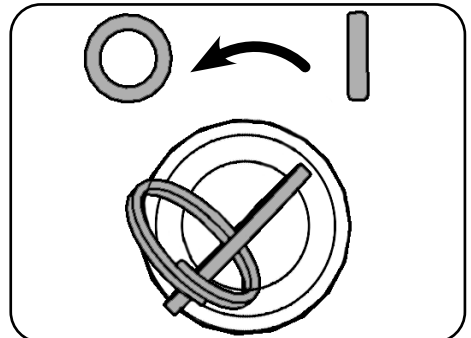
**ENSURE THAT NO METAL OBJECTS COME INTO CONTACT WITH BATTERY TERMINALS WHILE THE BATTERIES ARE EXPOSED.**



Turn the key to switch on the machine, set lever to forward.



Set to slowest speed, depress accelerator and drive off the pallet using ramp provided.



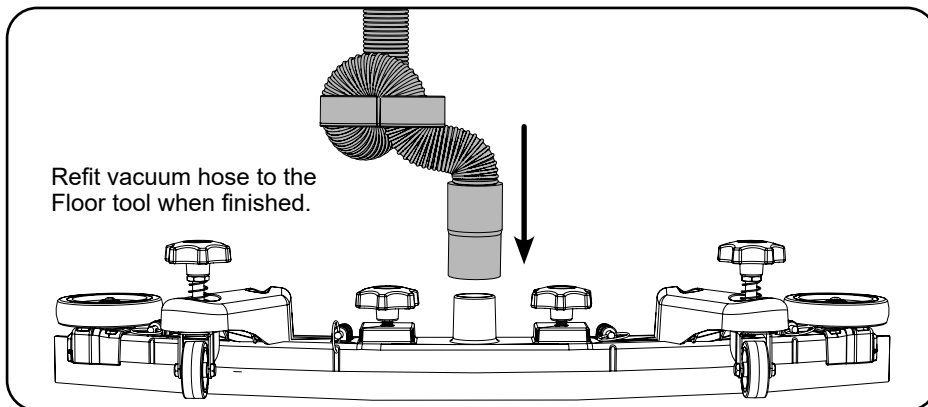
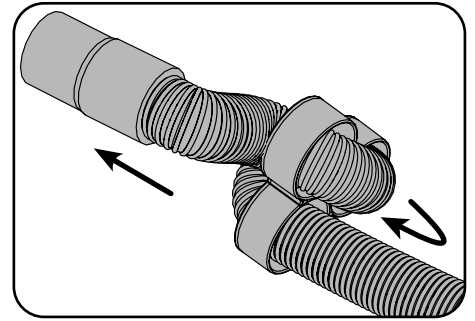
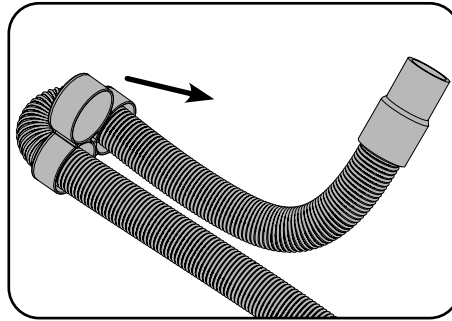
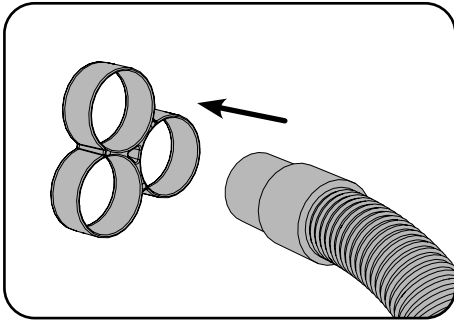
Once in a safe location switch off machine.

**Note: DO NOT depress accelerator pedal while software initialises. The machine will not operate in reverse with the floor tool lowered. The seat is fitted with a pressure sensor that disables the machine until an operator is seated.**

# Machine Set-up Guide

## Fitting the Hose Guide

The U-bend in the hose prevents water spillage when the vacuum is switched off. Refit vacuum hose to the floor tool when finished.



**Note: DO NOT** push the vacuum hose onto the floor tool with the floor tool in the raised position.

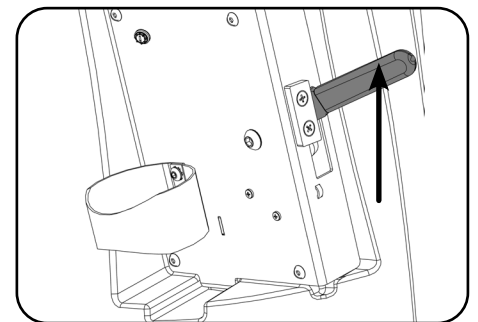
## Fitting the Floor Tool

**Note: Raise floor tool before driving to the cleaning area.**  
The machine will not operate in reverse with the floor tool lowered.

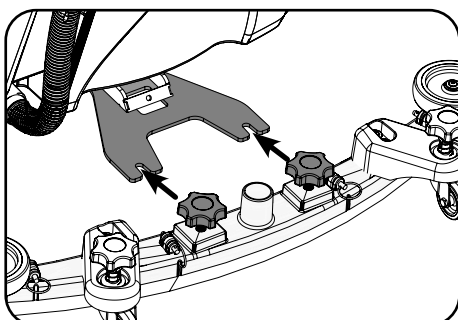
## Break-away Floor Tool

The floor tool design incorporates a safety knock-off feature, this allows it to safely disengage from its mounting should it become caught on an obstruction during forward movement.

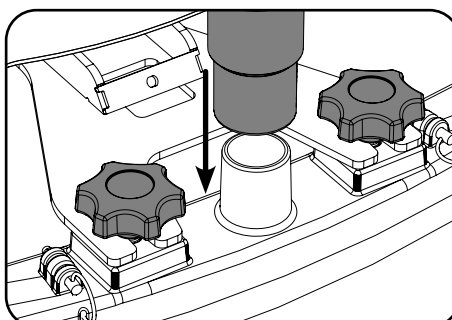
Make sure you do not over tighten the retaining knobs.



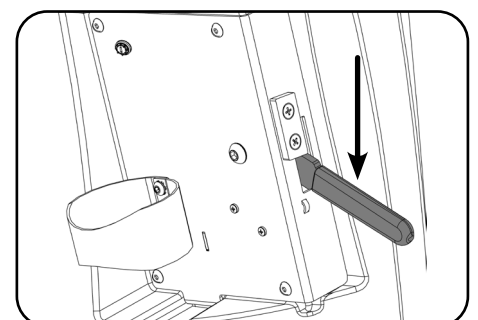
Lower the floor tool.



Slide floor tool onto bracket.



Tighten retaining knobs to finger tight and attach hose.



Raise the floor tool.

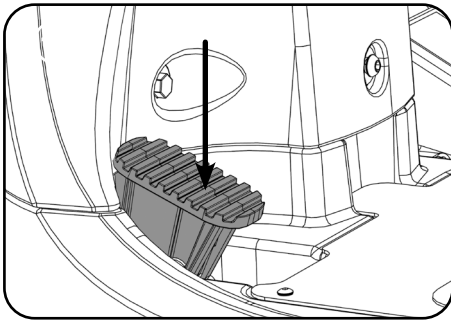
# Machine Set-up Guide



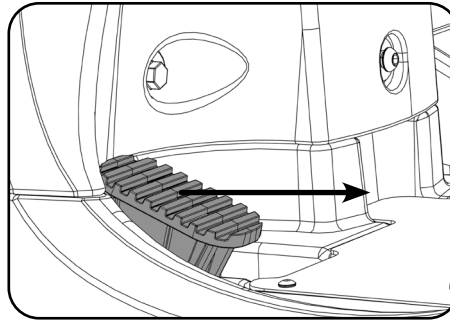
Always ensure that the machine is switched off before making any adjustments.



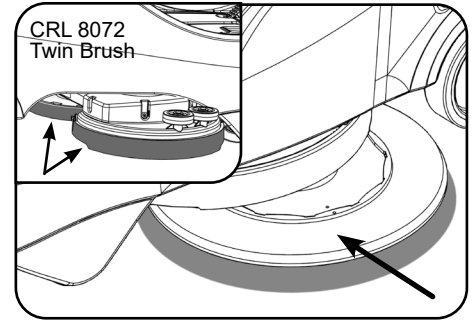
## Raise Brush Deck/ Fitting the Brush/ Lower Brush Deck



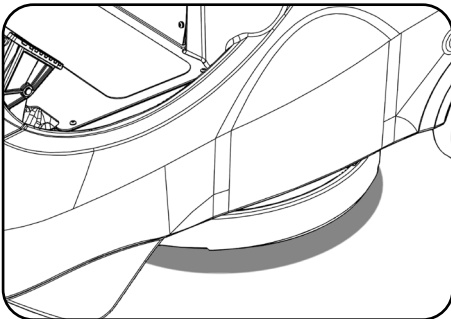
Raise brush deck.



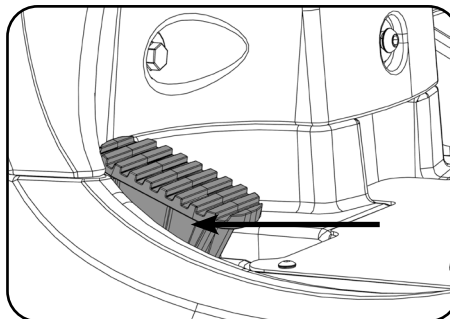
Brush deck raised position.



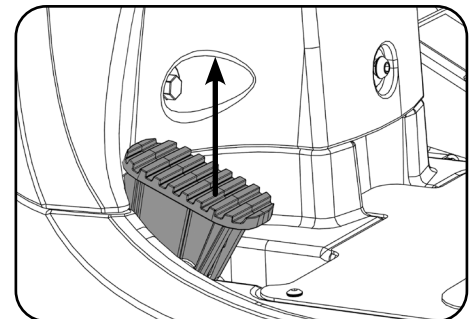
Slide brush under machine.



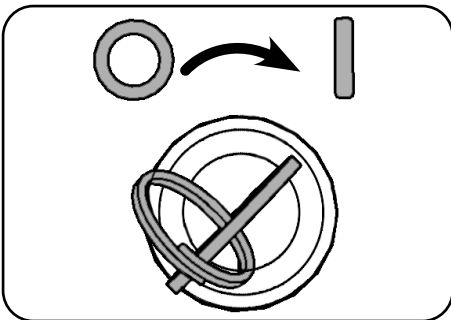
Brush in place.



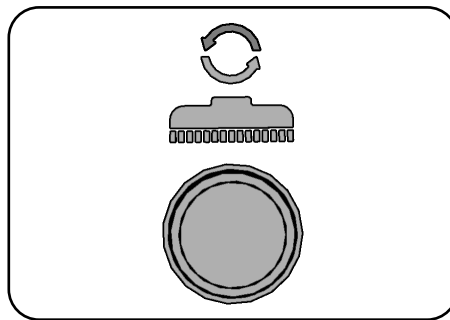
Lower brush deck.



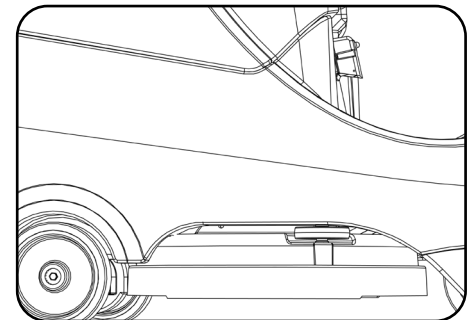
Brush deck lowered.



Switch machine on.



Press and hold brush engage button.



Machine has picked up the brush.

When fitting the brushes make sure it is done on a flat surface.

Please follow the same process to fit both brushes to the CRL8072T as is for the single brush fitting on the CRL8055T.

To disengage the brush, remove manually.

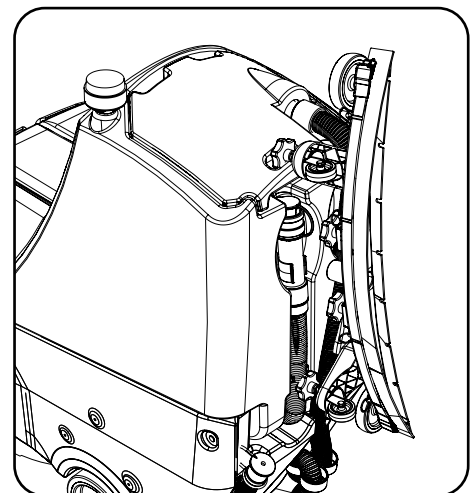
**Note: Do not lift the brush deck until the brush has stopped revolving or the brush will release.**

Make sure you raise the brush deck before driving to the cleaning site.

Safety Gloves are recommended for the changing of used brushes.

## Floor Tool Transit Bracket

When in transit, the floor tool can be placed on the bracket at the rear of the machine. Simply slot the retaining knob into the bracket.



# Machine Set-up Guide

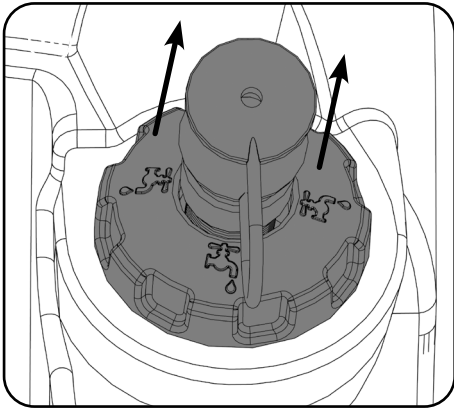


Always ensure that the machine is switched off before making any adjustments.

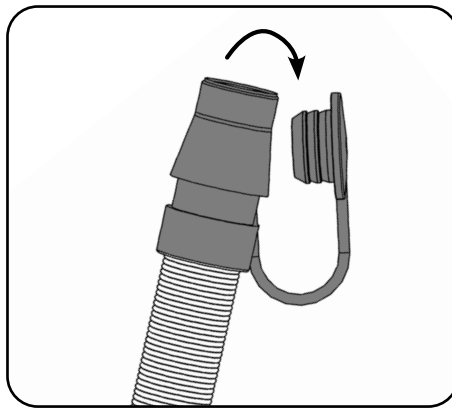


## Filling the Clean Water Tank

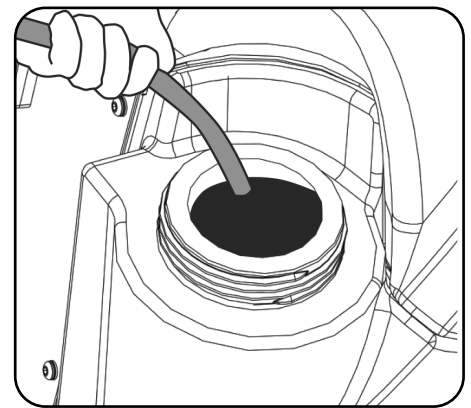
The CRL 8055/8072 is equipped with a large capacity 80 litre clean water tank, allowing for large areas to be covered in a single fill.



To fill clean water tank, extend fill hose.



Remove rubber seal and fill.



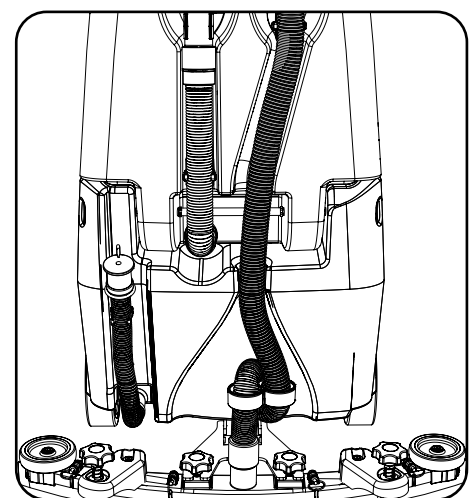
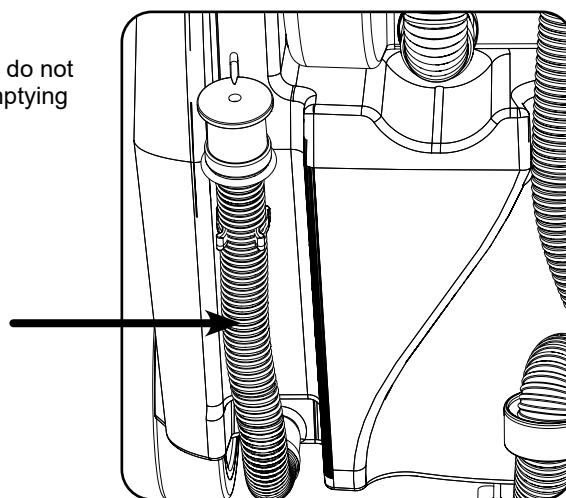
Alternatively remove filler cap completely.

**Note:** Great care must be taken to ensure that contaminants (leaves, hair, dirt, etc.) are not allowed to enter the clean water tank during the filling process. If using a bucket or similar, ensure it is always clean and free from debris.

## Fill Level Indicator

When filling the clean water tank, do not fill above the clean water tank emptying hose retaining clip.

This can be found at the rear of the machine.



If you need to access the batteries, make sure that the waste water tank is empty before lifting.





# Machine Operation



**IMPORTANT**  
Do not operate machine unless the operator manual has been read and fully understood.

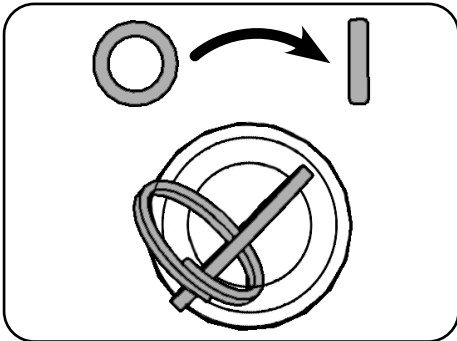


Drive the machine to the cleaning site.

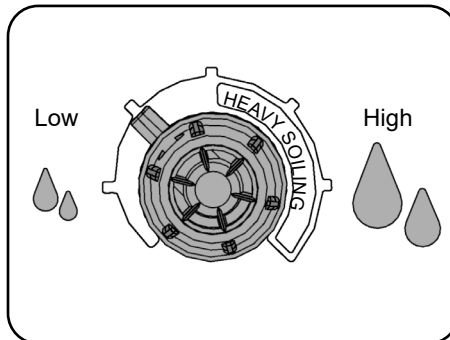
Before cleaning operation, place out appropriate warning signs and sweep or dust-mop the floor.

When ready for cleaning lower the floor tool (page 6) and the brush deck (page 7).

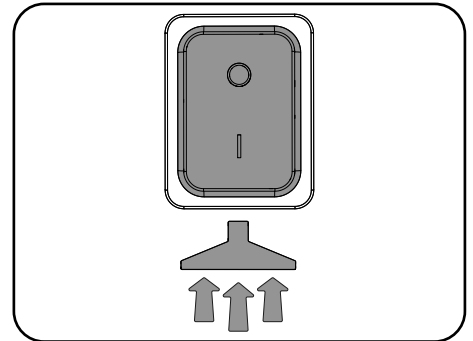
## Setting the Cleaning Controls



Switch machine on. Battery charge-level indicator illuminates.



Set the water flow rate as required.



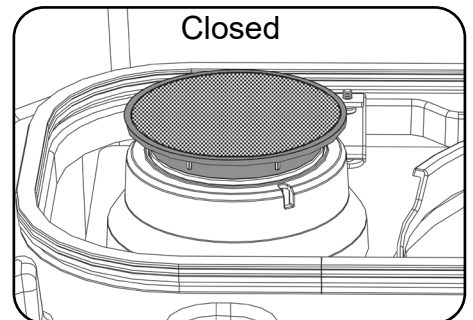
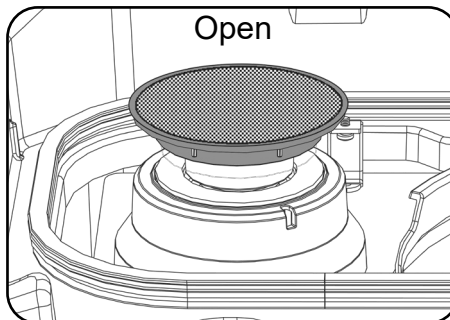
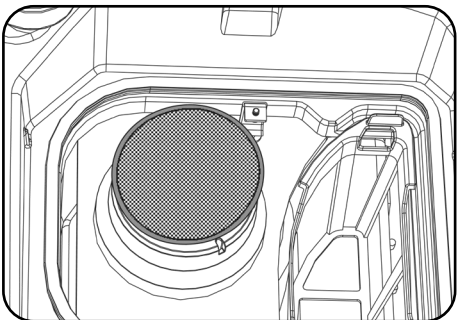
Switch the vacuum motor on.

## Waste Water Tank Full

The vac shut off system stops the airflow when the top waste water tank is full.

The vac motor will continue to run, there is an audible difference in the sound when the shut off system operates.

For more details on checking and cleaning the shut off system see page 13.

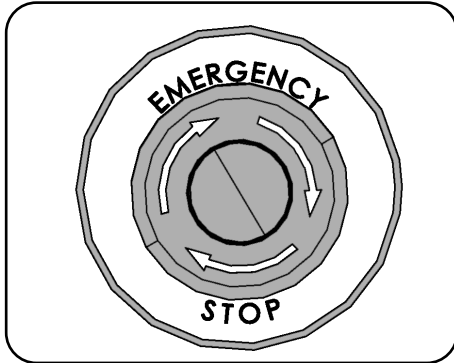


**Always ensure that the floor is pre-swept and relevant safety signs are displayed.**

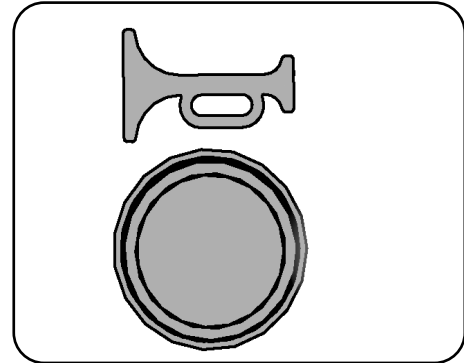


# Machine Operation

## Emergency Stop Button/ Horn



In an emergency, strike the emergency stop to disable the machine.



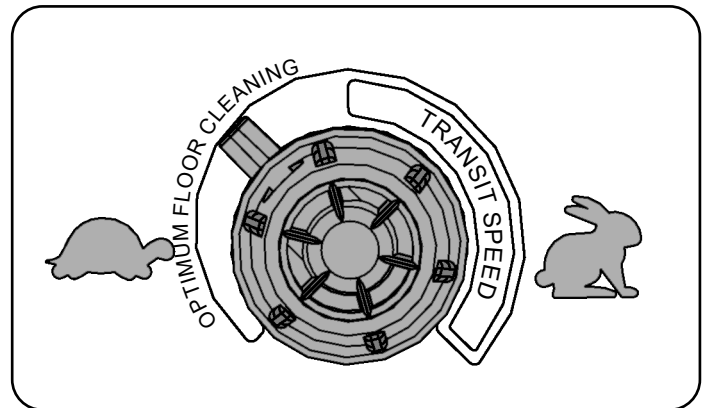
Horn button - for sounding a warning signal

**Note: After the Emergency Stop button has been pressed the Traction LED will flash 7 times, pause and repeat until the Emergency Stop button has been reset and the machine switched off / on.**

## Maximum Speed Control

Set desired traction speed as required, depending on floor type and level of soiling.

Once the Max speed has been set using the control knob on the control panel, fine adjustments can be made using the variable control speed pedal located on the right side of the footplate.



Care must be taken to reduce speed when cornering or manoeuvring.



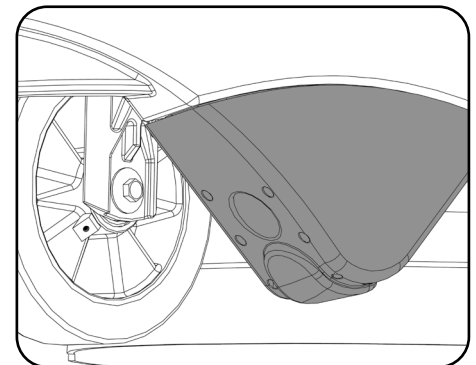
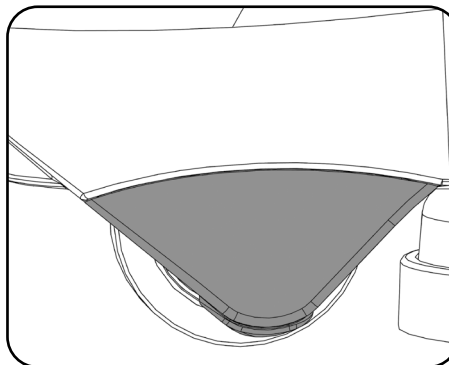
## Anti-tip System

The CRL 8055/8072 is equipped with an Anti-tip system.

The machine automatically slows down preventing the machine from tipping over if cornering at speed.

The buffers at the front are designed to prevent the machine tipping in the event of the operator turning sharply.

The buffers are designed to be replaceable when worn.



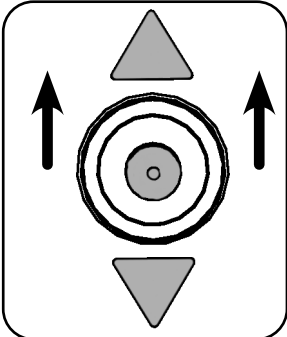
# Machine Operation



Do not operate the machine on inclines that exceed 11%.



## Machine in Use



Set lever to forward.

**To operate, select forward and depress the accelerator pedal.**

**Note: The machine will not operate in reverse with the floor tool lowered.**

Vacuum pick-up and water flow will turn on if selected and providing the brush and floor tool are in the lowered position, the machine will move forward.

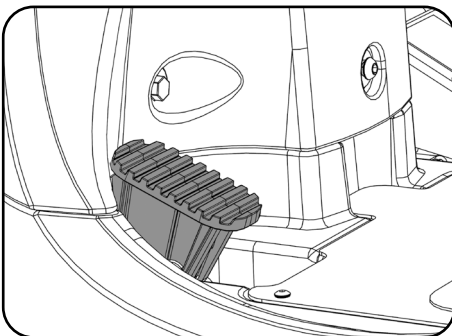
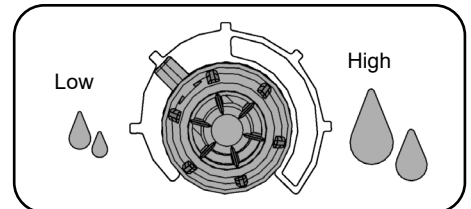
Clean water is dispersed evenly via 'THRU- FEED' scrubbing brushes. The waste water is then retrieved by the suction floor tool. Overlap each scrubbing path by 10cm to ensure an even clean.

After stopping, let the vacuum motor run for 10 seconds to collect any water left in the vacuum hose, then switch the vacuum motor off.

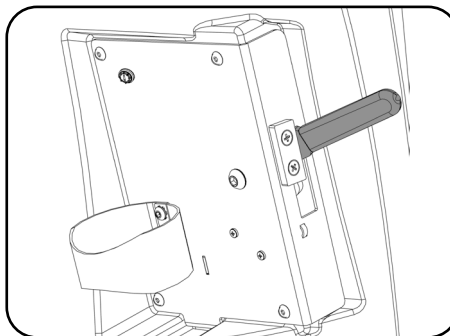
On heavily soiled floors use a 'double scrub' technique.

First pre-scrub the floor with the floor tool in the raised position, allow the chemicals time to work, then scrub the area a second time with the floor tool lowered.

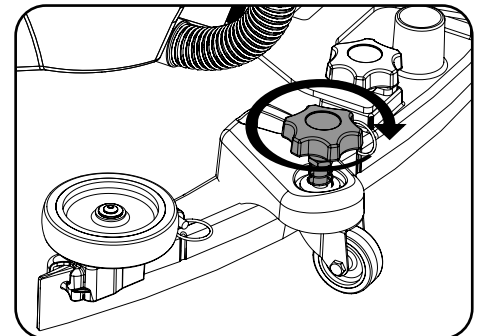
If your machine leaves streaks on the cleaned floor, either clean the floor tool blade or adjust blade height for optimum performance.



Brush deck in lowered position.



Floor tool lever in lowered position.

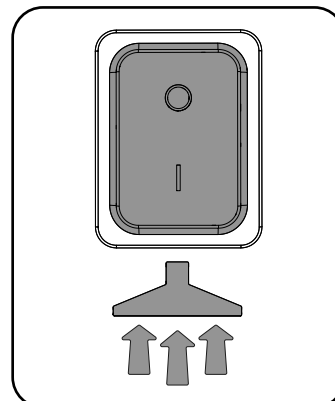


Adjusting the blade height.

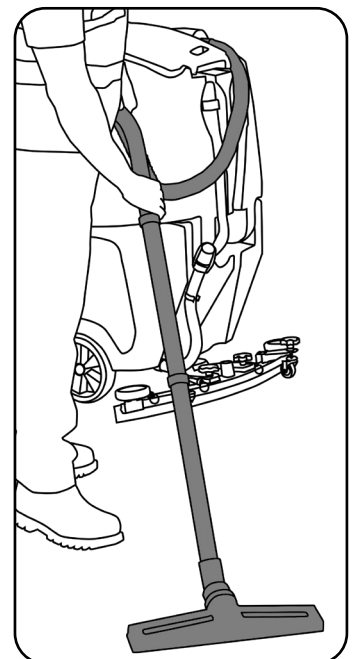
## Off-aisle Cleaning Kit (Optional Extra Accessory) 606182

The optional off-aisle cleaning kit gives added flexibility to the operator. The kit can be used to clean hard to reach / inaccessible areas. Remove the vacuum hose from the floor tool and attach to the off-aisle kit. To operate the vacuum, press the vacuum switch on.

**Note: Return the hose to the floor tool once finished using the off-aisle facility.**



Vacuum switch.



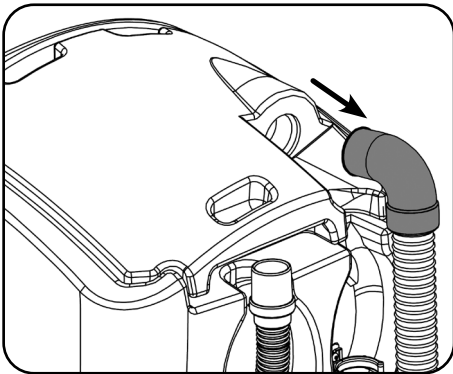
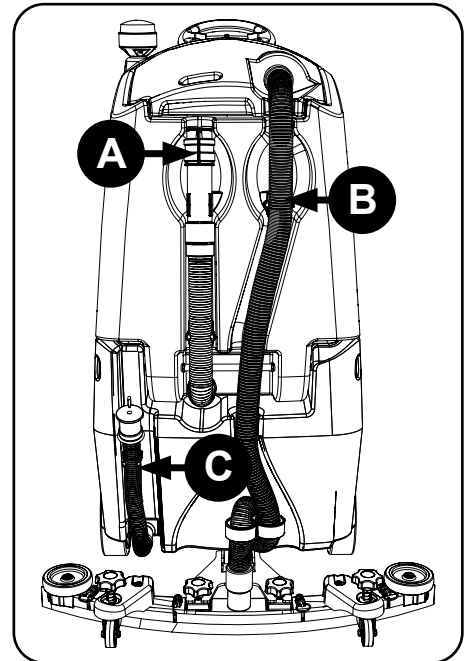
# Machine Cleaning



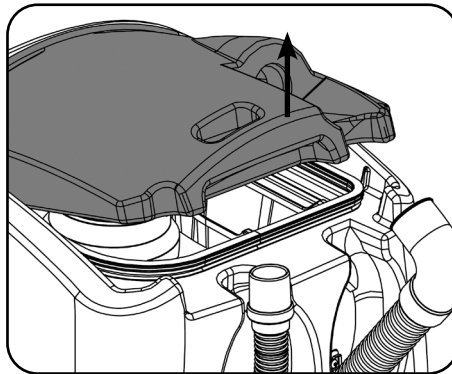
Always ensure that the machine is switched off prior to any maintenance.



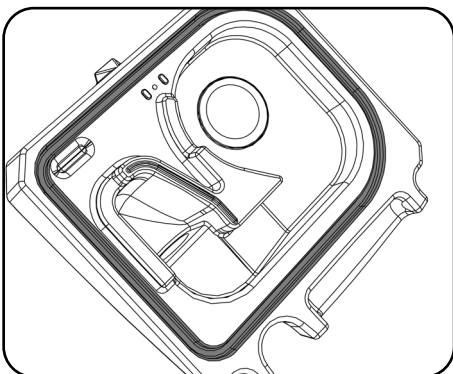
- A** After use, empty waste water tank using emptying hose and flush-out with clean water.
- B** Remove floor tool vacuum hose ensuring you remove the U-bend clip and flush out with clean water.
- C** Empty clean water tank, using emptying hose and again flush out with clean water.



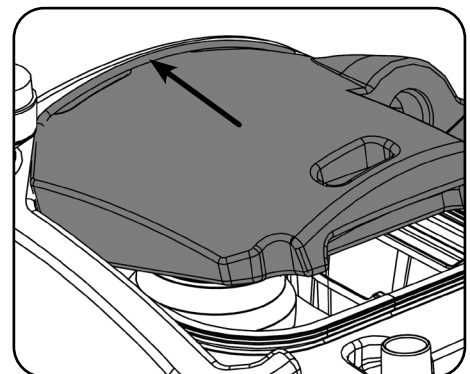
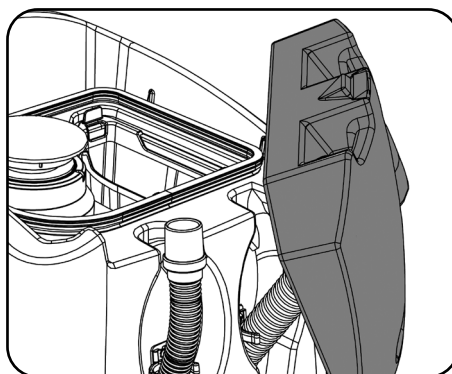
Remove hose.



Remove separator and clean.



Clean and examine rubber seal during each clean.



**Note:** The separator can be hung from either side of the top tank while you maintain the machine using the clip on the front of the lid.

When refitting the separator make sure you engage the front of the separator **BEFORE** pushing the separator down.

Refit the vacuum hose.

# Machine Cleaning

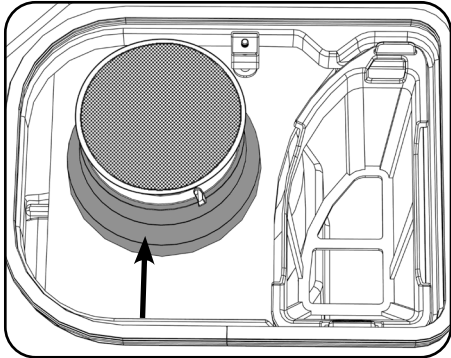


Always ensure that the machine is switched off prior to any maintenance.

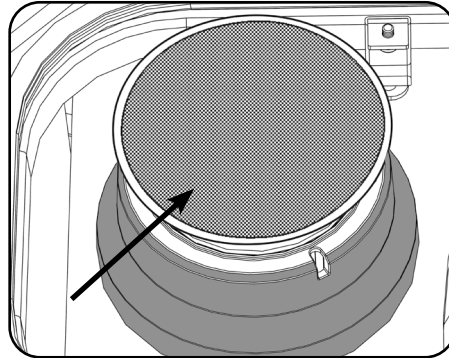


Located in your waste water top tank is a vacuum shut off system, this prevents suction when the waste water tank is full. It also prevents foam created by high-foaming detergents from entering the motor. Sometimes the float vents get clogged and blocked, clean to ensure correct operation. Regularly check and clean the air filter in the top of the assembly. Remove debris basket filter and rinse using clean water, and refit.

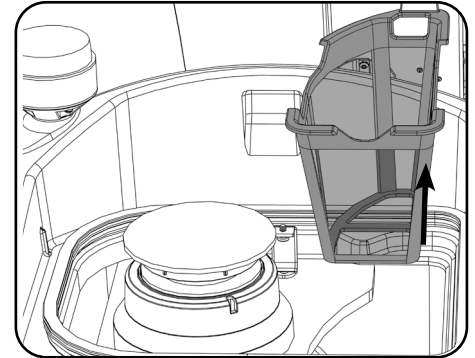
**IMPORTANT:** If the debris basket is allowed to become clogged, vacuum performance can deteriorate.



Float vent.



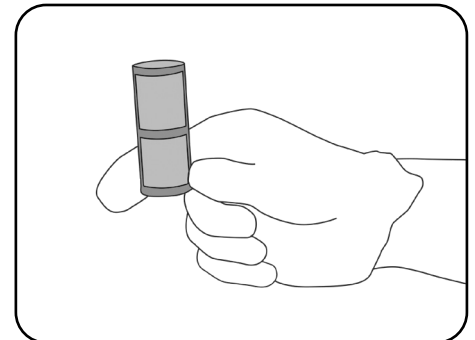
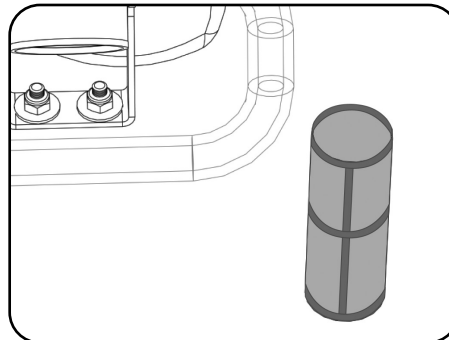
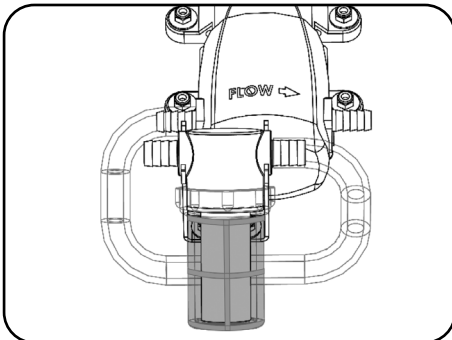
Air filter.



Debris basket removal.

The clean water tank filter is located to the front of the battery compartment and should be checked at regular intervals. Lift the filter off of the cradle, unscrew the bottom and remove, taking care not to spill any liquid on to the batteries. Rinse using clean water and refit, refitting is reversal of removal.

**Note:** Any Spills should be wiped up before tank is lowered.



# Free Wheel Function



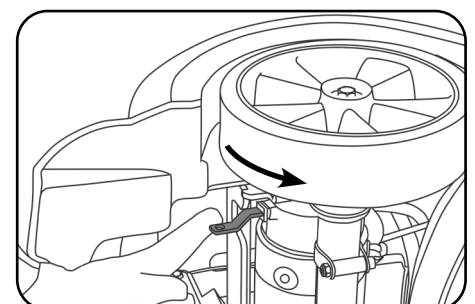
**ALWAYS ENSURE THAT THE MACHINE IS ON LEVEL GROUND BEFORE DISENGAGING BRAKE ARM. NEVER DISENGAGE THE BRAKE WHEN THE MACHINE IS ON A SLOPE / GRADIENT.**



The CRL 8055/8072 is equipped with a free wheel function that will enable the operator to move the machine.

The free wheel lever can be found on the right hand side of the rear axle. To disengage the brake, pull the lever into the down position. Re-engage the brake by moving the lever into the up position.

**Note:** When the brake is disengaged the machine has no braking facility. Care must be taken when moving the machine in free wheel mode.



Machine shown on it's side.

# Changing the Floor Tool Blades

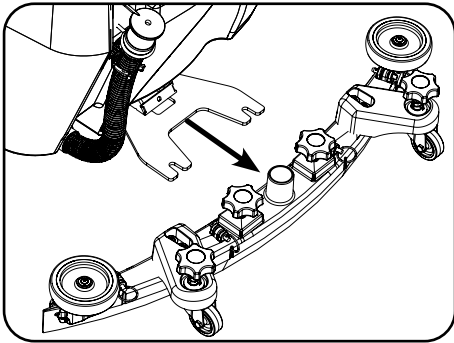


Always ensure that the machine is switched off prior to maintenance.

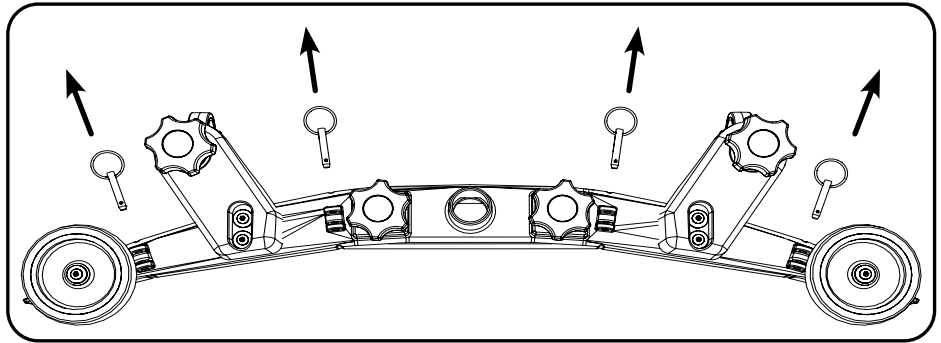


Lower the floor tool then unscrew the retaining knobs and slide it off the holding bracket.

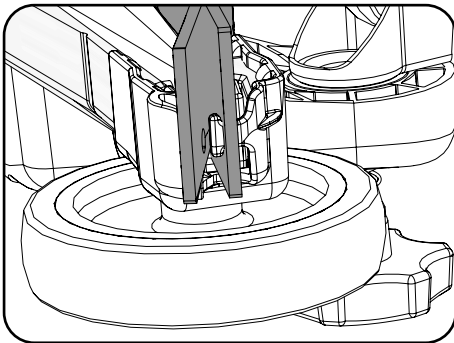
Rinse the floor tool assembly with clean water and refit.



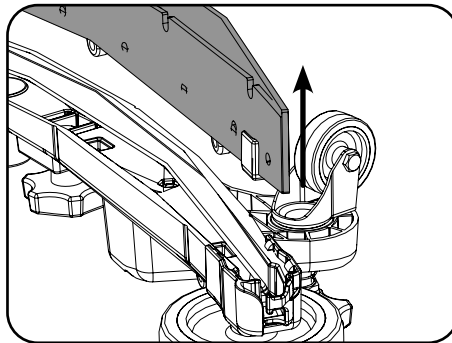
Remove floor tool.



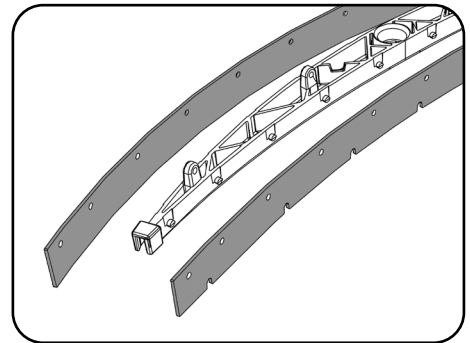
Remove four retaining pins.



Turn the floor tool over.



Separate the blade from the carrier.



Peel away blades.

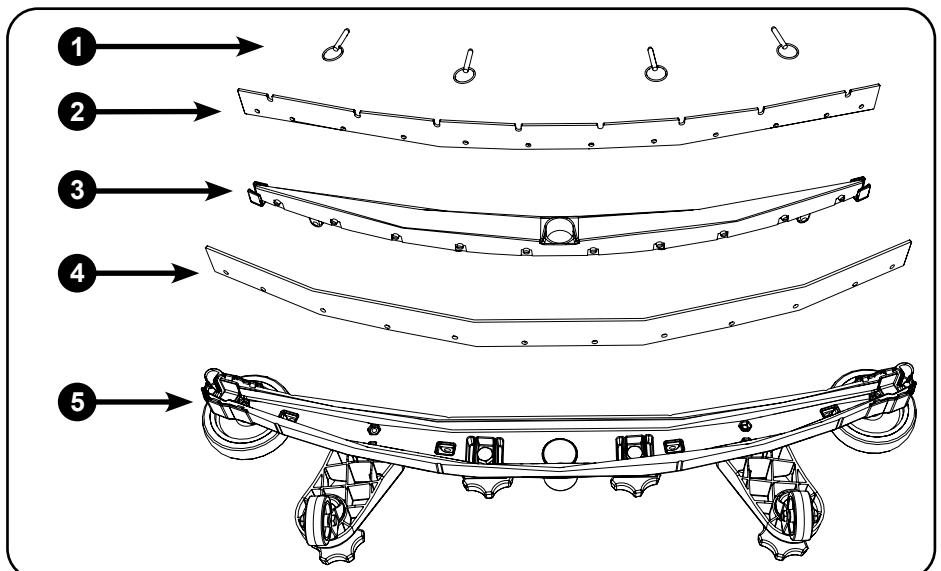
Periodically the floor tool blades should be examined and checked for wear and damage.

Replacement is a reversal of the removal process.

## Floor Tool Overview

1. Retaining pins x 4
2. Front blade (slotted)
3. Blade carrier
4. Rear blade
5. Floor tool main body

**Note: The blades are designed to be reversible, thus extending their useful working life.**



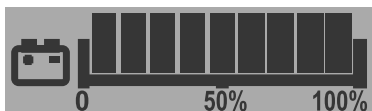
# Machine Charging



**Always ensure that the machine is switched off prior to charging.**

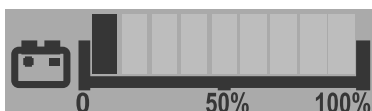


The battery meter displays the charge level of the batteries; when fully charged, all meter lights are illuminated.

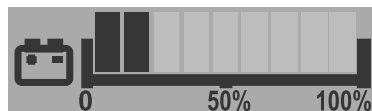


1

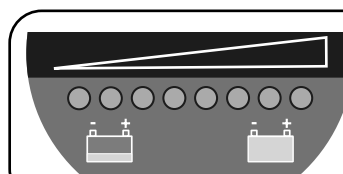
When the machine is getting close to empty the last light starts to flash, the operator should then take the machine to a suitable charging point. When the battery icon starts flashing, the vacuum and brush motors will be disabled and the user should charge the machine.



3



2



## Alternative Display

When the last red light starts flashing, the vacuum and brush motors will be disabled and the user should charge the machine.

The LFP batteries are sealed for life and are totally maintenance free.

The on-board charger automatically monitors the charging process and will switch to float charge mode when the batteries are fully charged. Float charge mode allows to maintain LFP batteries at the right level of health. The machine should be left on float charge overnight or over the weekend at least once per month or more frequently if needed.

Insert the charging lead required for your country into the charging point.

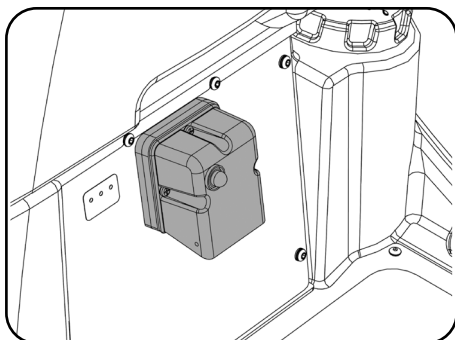
The machine charging point is located to the rear of the machine under the control panel.

Connect to a suitable power supply.

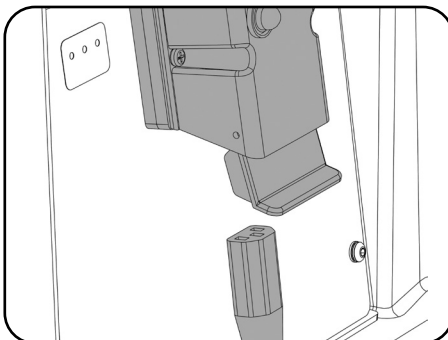
Once mains power is connected the red charging indicator will illuminate.

To ensure a full charge, from an empty state, the machine should be left for a period of 8 hrs.

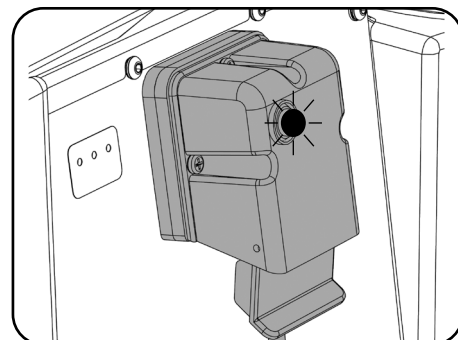
Once fully charged, disconnect the charging lead from both the power supply and the machine.



Machine charging point, above footplate.



Insert country specific charging lead.



Red charging indicator illuminates when charging.

# Battery Care



**To ensure your machine remains at its maximum efficiency and prolong your battery life, please follow the simple steps below:**



## Under normal daily usage:

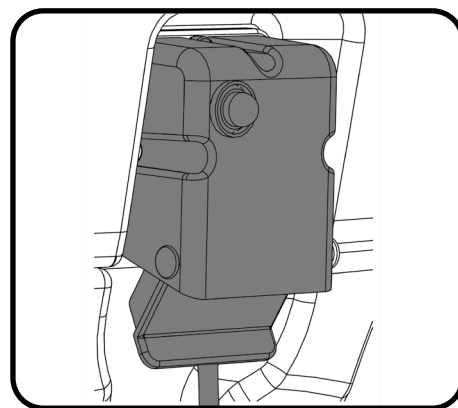
Re-charge the machine FULLY after each use regardless of machine operation time.

It is recommended to leave the machine connected to power grid overnight, at least once a month. If the user does not disconnect the cable after full charge it is not an issue.

Do not leave the machine in a discharged state.

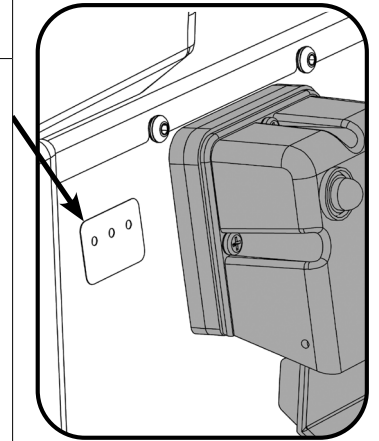
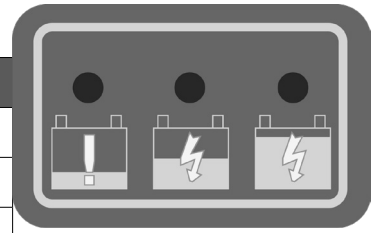


Periodically inspect the battery connections for tightness and corrosion.



# Charging Light Sequence

Signal (LED)	Meaning																	
Red LED on	First Phase (Constant Current Mode).																	
Orange LED on	Second Phase (Constant Voltage Mode).																	
Green LED on	Third Phase (Constant Voltage Mode) Charge Complete. However, after full re-charge, leaving the charger connected moves to float-charge mode to help to maintain a healthy balance between batteries.																	
Red LED flashing followed by Pause	Cooling Fan Locked > 1 flash between pause. Over Voltage Protection / Output Short Circuit / Battery Reverse Polarity > 2 flashes between pause. Over Temperature Protection > 3 flashes between pause. Charge Time has exceeded 16 hrs during phase 1 or 2 > 4 flashes between pause.																	
	<table border="1"> <thead> <tr> <th>Condition</th> <th>RED LED</th> <th>YELLOW LED</th> <th>GREEN LED</th> </tr> </thead> <tbody> <tr> <td>Pre-charge Timeout</td> <td rowspan="4">Flashing 4 Times</td> <td></td> <td>○</td> </tr> <tr> <td>CC Timeout</td> <td>○</td> <td></td> </tr> <tr> <td>CV Timeout</td> <td>○</td> <td>○</td> </tr> <tr> <td>Battery Disconnection</td> <td></td> <td></td> </tr> </tbody> </table>	Condition	RED LED	YELLOW LED	GREEN LED	Pre-charge Timeout	Flashing 4 Times		○	CC Timeout	○		CV Timeout	○	○	Battery Disconnection		
	Condition	RED LED	YELLOW LED	GREEN LED														
	Pre-charge Timeout	Flashing 4 Times		○														
	CC Timeout		○															
CV Timeout	○		○															
Battery Disconnection																		
<b>Note:</b> ○ means illuminates continuously																		



**Note: Re-charge the machine fully after its last use. Do not leave the machine in a discharged state.**

## Under abnormal use;

i.e. leaving the machine without charging for a period of time, we advise that you follow these steps:

Float charge mode allows to maintenance LFP batteries at the right level of health.

The machine should be left on float charge overnight or over the weekend at least once per month.



Charge fully the day before you start using the machine again.

## Specifications

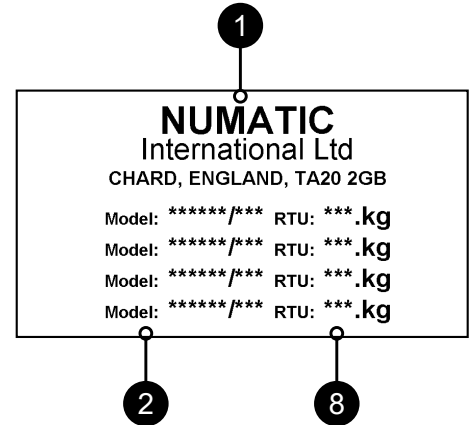
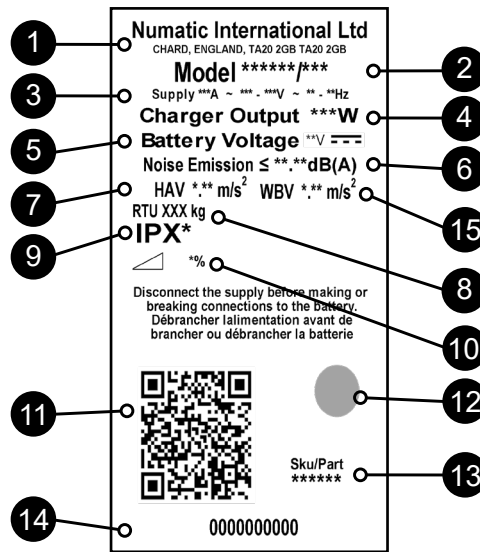
Model - CRL 8055 / 8072							
(Empty) Net Weight	Brush Weight	Brush Width	Brush Pressure	Pad Width	Pad Pressure	Cleaning Area	
CRL8055/50 - 139.75 kg	17 kg	550 mm	8.4 G/cm <sup>2</sup>	508 mm	6.8 G/cm <sup>2</sup>	2750m <sup>2</sup> @ 5.0 Km/Hr	
CRL8055/100 - 150.55 kg							
CRL8072/50 - 159.75 kg	32 kg	370mm x 2	19.9 G/cm <sup>2</sup>	360mm x 2	16.6 G/cm <sup>2</sup>	3600m <sup>2</sup> @ 5.0 Km/Hr	
CRL8072/100 - 170.55 kg							
Transaxle	Run Time	Total Battery Weight		Charge Times	Height	Length	Width
24 V / 400 W	50Ah - 1 Hr 20 Mins	10.8 kg		2.5 Hrs	1160 mm	CRL 8055 - 1460 mm CRL 8072 - 1450 mm	CRL 8055 - 805 mm CRL 8072 - 948 mm
	100Ah - 2 Hr 40 Mins	21.6 kg		5 Hrs			
Brush Speed	Airflow	Transit Speed	Capacity	Brush Motor	Vac Motor	Water Flow Rate	Sound Pressure
150 r/min	24.2 L/sec	0-6 km/h	80L / 80L	24 V 600 W	24 V 400 W	0 - 3.5 L/min	≤ 70dB (A)
RTU / Gross Weight + 75Kg Operator		Hand Arm Vibration			Whole Body Vibration		Max Gradient
CRL8055/50 = 293.75 Kg		ah≤0.8m/s <sup>2</sup>			aw≤0.45m/s <sup>2</sup>		11%
CRL8055/100 = 305.55 Kg							
CRL8072/50 = 314.75 Kg							
CRL8072/100 = 325.55 Kg							



Green Status Indicator	Fault	Possible Cause	Effect on Product	Investigate the Following	Action Required	If Fault Persists
1 Flash with pause ●	Batteries voltage low	Batteries not been charged	Operating time severely reduced or machine will not operate	Check when machine last charged	Charge batteries immediately	
		Possible bad connection between batteries, controller, charger or fuses caused by loose connections, damaged wiring, water ingress		Switch OFF the machine : Remove Fuses Check connections to batteries, charger and fuses for loose wires or screws	Tighten loose connections and replace damaged components	
2 Flashes with pause ● ●	Traction motor disconnected	Not accepting charge due to faulty battery / cell	The motor will not operate	Check each battery Voltage individually to detect defect unit 10.5V min	Replace batteries as required	
		Charger not functioning		Check battery voltage and charge current ensuring charger red fault light is extinguished	Replace charger	
3 Flashes with pause ● ● ●	Traction motor wiring trip	The motor has a bad connection	The motor will not operate	Check all connections and leads between motor and controller	Tighten loose connections and replace damaged components	
		Motor disconnected		Check all connections and leads between the motor and controller		
4 Flashes with pause ● ● ● ●	Battery Lockout	TCO activated (Thermal Cut Out)	Machine functions not working	Check battery voltage and charge current ensuring charger red fault light is extinguished	Charge batteries immediately	
		Motor failed to open circuit		Check each battery voltage individually to detect defect unit 10.5V min		
6 Flashes with pause ● ● ● ● ● ●	Charger connected	The motor has a short circuit to a battery	Machine functions not working	Remove charger to operate machine		
		The battery charge level has fallen below the battery lockout level and the controller is inhibiting machine functions		Check all connections and leads	Tighten loose connections and replace damaged components	
8 Flashes with pause ● ● ● ● ● ● ● ●	Controller trip	The controller is being inhibited from driving, this may be because the battery charger is connected	Machine functions not working	Check all connections and leads	Replace brake or wiring as necessary. Reactivate brake by engaging brake lever	
		A controller trip is indicated		Check brake wiring and brake lever		
9 Flashes with pause ● ● ● ● ● ● ● ● ● ●	Brake deactivated or failed	Poor brake connections Brake failure or deactivation	Traction drive disabled	Check each battery Voltage individually to ensure voltage < 14 volts		
		Poor connections between battery controller and traction motor		Check connections on controller batteries and traction motor		
10 Flashes with pause ● ● ● ● ● ● ● ● ● ● ● ●	High battery voltage	Poor connections between battery controller and traction motor	Machine functions not working	Check combined battery pack voltage is < 28 volts		

# About the Machine

Rating Label	
1	Company Name & Address
2	Machine Description
3	Supply Current / Voltage / Alternating Current / Frequency
4	Charger Output
5	Battery Voltage
6	Noise Rating
7	Hand Arm Vibration
8	Weight (ready to use)
9	Ingress Protection Rating
10	Max Gradient
11	QR Code
12	Approvals Mark
13	SKU / Part
14	Machine yr/wk Serial number
15	Whole Body Vibration



PPE (Personal protective equipment) that may be required for certain operations.

Ear Protection	Safety Footwear	Head Protection	Safety Gloves	
				Caution Wet Floor Sign
Dust / Allergens Protection	Eye Protection	Protective Clothing	Hi-Vis Jacket	

**Note: A risk assessment should be conducted to determine which PPE should be worn.**

Safety Critical Component:

Charging Leads: H05VV-F 3 Core x 1.0 mm<sup>2</sup>

Battery Charger: 100V-240V (50-60Hz)

DC Output: 25.6VDC, 20A

Ref page 20 for component part numbers

# Information for Scrubber Dryer



READ MANUAL BEFORE USE

COMPONENT	INTERVAL	INSPECT FOR
Mains Lead	DAILY	Scuffing, cracks, splits, conductors showing
Brushes	DAILY	Bristle damage, wear, drive collar wear
Squeegee Blade	BEFORE EACH USE	Wear, cracks, splits
Filters	BEFORE EACH USE	Clogging and debris retention
Tanks	AFTER EACH USE	Rinse dirty water tank after use

Operators shall be adequately instructed as to the correct use of the machine.



WARNING

As with all electrical equipment care and attention must be exercised at all times during its use, in addition to ensuring that routine and preventative maintenance is carried out periodically in order to ensure its safe operation.

Failure to carry out maintenance as necessary, including the replacement of parts to the correct standard could render this equipment unsafe and the manufacturer can accept no responsibility or liability in this respect.

When ordering spare parts always quote the Model Number / Serial Number specified on the Rating Plate.

Do not use on cleaning surfaces having a gradient exceeding that marked on the machine. While on ramps or inclines, avoid sudden stops. Avoid sharp turns. Use low speed down ramps. Clean only while descending (driving down) the ramp.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge. Children should be supervised to ensure that they do not play with the appliance.

When detergents or other liquids are used, read the manufacturer's instructions.

Only use brushes provided with the appliance or those specified in the instruction manual.

The use of other brushes may impair safety.

A full range of brushes and accessories are available for this product.

Only use brushes or pads which are suitable for the correct operation of the machine for the specific task being performed.

It is essential that this equipment is correctly assembled and operated in accordance with current safety regulations.

When using the equipment always ensure that all necessary precautions are taken to guarantee the safety of the operator and any other persons who may be affected.

Wear nonslip footwear when scrubbing. Use a respiratory mask in dusty environments.

The machine, while charging, must be positioned so that the mains plug is easily accessible.

When cleaning, servicing or maintaining the machine, replacing parts or converting to another function the power source shall be switched off.

Mains operated machines shall be disconnected by removing the power plug, and battery operated machines shall be disconnected by using top ON/OFF button on the battery.

In order to prevent unauthorised use of the machine the power key must be removed after use.

Machines left unattended shall be secured against unintentional movement.

When detergents or other liquids are used, read the manufacturer's instructions.



CAUTION

This machine shall be stored indoors only  
This machine is for indoor use only.

**NOTES: This machine is intended for commercial use, for example in hotels, schools, hospitals, factories, shops, offices and rental businesses.**



DO

- Ensure only competent persons unpack/assemble the machine.
- Keep your machine clean.
- Keep your brushes in good condition.
- Replace any worn or damaged parts immediately.
- Regularly examine the power cord for damage, such as cracking or ageing. If damage is found, replace the cord before further use.
- Only replace the power cord with the correct Numatic approved replacement parts.
- Ensure that the work area is clear of obstructions and / or people.
- Ensure that the working area is well illuminated.
- Pre-sweep the area to be cleaned.



DON'T

- Use steam cleaners or pressure washers to clean the machine or use in the rain.
- Attempt machine maintenance or cleaning unless the power plug has been removed from the supply outlet.
- Allow any inexperienced repairs. Call the experts.
- Strain cable or try to unplug by pulling on cable.
- Leave the brush pad on the machine when not in use.
- Allow the machine to be used by inexperienced or unauthorised operators or without appropriate training.
- Use the machine without the solution tanks properly positioned on the machine, as shown in the instructions.
- Expect the machine to provide trouble-free, reliable operation unless maintained correctly.
- Run the machine over power cable during operation.
- Lift or pull the machine by any of the operating triggers, use the main handle.
- Remove the handle from the machine except for service and repair.

# Information for Scrubber Dryer

READ MANUAL BEFORE USE



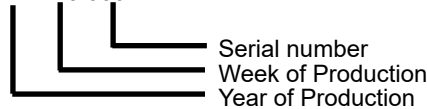
## Precautions when working with batteries

1. Always wear protective clothing e.g. face visor, gloves and overalls when working with batteries.
2. Whenever possible always use a properly designated and well-ventilated area for charging.  
Do not smoke or bring naked flames into the charging area.
3. Remove any metallic items from hands, wrists and neck i.e. rings, chains etc. before working on a battery.
4. Never rest tools or metallic objects on top of the battery.
5. When charging is complete disconnect from the mains supply.
6. The batteries must be removed from the machine before it is scrapped.
7. The machine must be disconnected from the supply when removing the battery.
8. To remove the batteries:- Disconnect machine from the mains supply (if charging) and ensure batteries are switched off using the button that is placed on the battery top. Disconnect hoses from separator and tanks.  
Remove separator and tanks. Unscrew battery strap fixings and remove.  
Undo battery terminals and remove. Remove batteries.
9. The batteries are to be disposed of safely, as according to local government guidelines.
10. Only use genuine Numatic replacement batteries.
11. Do not allow the batteries to become fully discharged; it may not be possible to re-charge them.  
Batteries should not be discharged below 22.5 volts with 10 amps flowing.
12. Do not allow one battery to be discharged separately to the other.
13. Do not mix batteries from different machines.
14. The batteries fitted to this product are Lithium-ion (Li-ion), Lithium Iron phosphate (LFP) type.  
The fitting of any other type of battery may cause a safety hazard.
15. Switch off the battery using top ON/OFF button before cleaning or maintenance.

## Battery Care

1. Battery Storage:
  - a. Batteries must be stored in a dry, level and clean location not exceeding a temperature range of 15°C ~ 25°C.
  - b. Batteries must be fully charged every 6 months when on-the-shelf or if the battery voltage reduces to 25V.
  - c. Batteries must be put into use within 12 months of the date of manufacture, failure to do so will lead to reduced capacity in the field. (battery date code) -

ZP19006F YYW W0 0001



- d. If a battery does not want to switch ON and the green LED on the top is not illuminating, irreversible damage has occurred. Under this condition, a battery should not enter into service and should be disposed of according to local authority guidelines.
2. During Use:
    - a. Batteries must be recharged after every use regardless of machine run time.
    - b. If the machine is to be left dormant for any length of time complete the following:
      - i. Fully charge the batteries.
      - ii. Do not leave batteries dormant for more than 6 months.

### Daily

Keep the machine clean.  
Ensure brushes/ pads/ squeegee/ filters are in good condition.  
Check for any worn or damaged parts and replace immediately.  
Drain and rinse dirty water tank after every use.  
Store machine with brush deck secured in the elevated position.

### Weekly – as daily and –

Check brush or pad and skirt and rinse.  
Check floor tool blades for wear and wipe clean.  
Clean separator assembly including filter and check condition of seal.  
Flush out system with clean water and clean filters.

### Batteries

Always re-charge the batteries after use.  
Charge for a minimum of 4 hours. Leave the battery on charge overnight, at least once per month.  
After it has been fully charged, this will prolong battery life.

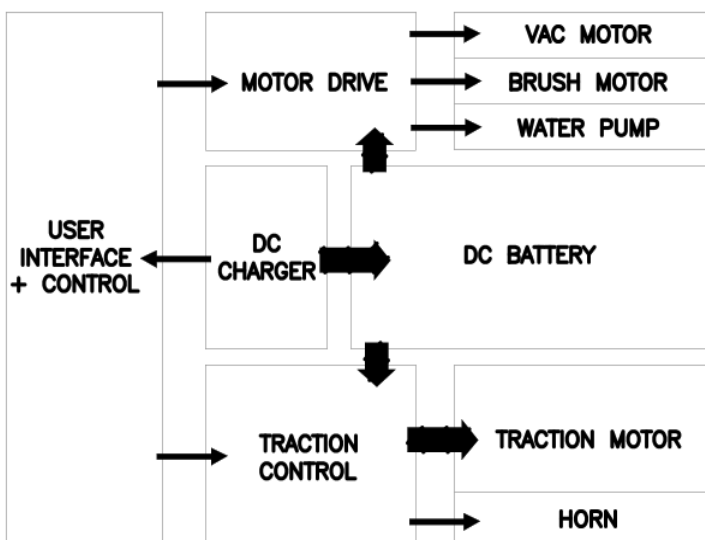
Twin Tec  
Maintenance

# Spare Parts

Part No.	SQUEEGEE	Part No.	BRUSHES
904691	Complete 650mm Squeegee Assembly Red Trim CRL 8055	606028	550mm Polyscrub Brush CRL 8055
900518	Squeegee Blade Set - Serilor Pu Green Fr & Rr CRL 8055	606550	550mm Nyloscrub Brush CRL 8055
208497	Squeegee Castor	900526	500mm Nuloc2 Drive Board CRL 8055
206953	Detent Pin	903994	370mm Nyloscrub Brush (2 required) CRL 8072
208796	Squeegee Buffer Wheel	903449	370mm Polyscrub Brush (2 required) CRL 8072
604013	Squeegee Lift Inner Cable Kit	900524	360mm Nuloc2 Drive Board (2 required) CRL 8072
208156	M6 Pinch Bolt	Part No.	PUMP AND FILTER
903853	Complete 750mm Squeegee Assembly Red Trim CRL 8072	230278	Water Pump
904699	Squeegee Blade Set - Serilor Pu Green Fr & Rr CRL 8072	208888	Extended Filter Complete Assembly
Part No.	TOP TANK	208827	Strainer Black Top
903542	Grit Filter Basket	208889	Extended Strainer 50 Mesh Screen
208861	Air-Filter	208830	Strainer Gasket
208980	CRL Foam Pad	208890	68mm Extended Strainer Clear Bowl
304503	Separator Seal Strip 1045mm Long	Part No.	BOTTOM TANK AND STEERING COLUMN
208862	Seat Pad	237685	Bottom Tank Scuff Moulding Left Hand
208864	Back Pad	237684	Bottom Tank Scuff Moulding Right Hand
208867	Beacon Light	303942	Deck Buffer Wheel CRL 8055
208907	Gas Strut (100Nm)	208985	Lift Handle Nylon Guider
Part No.	HOSES	392438	Bottle Plate
208188	Squeegee Suction Hose	208897	Steering Drive Belt
237718	3 Ring Hose Guide	204120	Front Wheel
208938	Bottom Tank Dump Hose	901209	Rear Wheels
902468	Top Tank Dump Hose c/w Adjustable Cuff	237609	Splash Skirt CRL 8055
903696	Filler Stretch Hose	204068	Deck Buffer Wheel CRL 8072
For optimum performance Numatic International Ltd recommend the use of the following batteries in the Twintec machines.		903437	Splash Skirt CRL 8072
911948	NX1K LFP battery type (Li-ion) (Numatic Recommended Battery)		

Make	Voltage	Capacity/Energy	Weight	Size
NX1K Battery	25.6 V	50Ah / 1280 Wh	10.7 kg	315mm (L) x 132mm (W) x 185mm (H)

## Schematic Diagram



# Numatic Lithium-ion Rechargeable Battery

25.6V | 50Ah | 1280Wh | LFP26148129

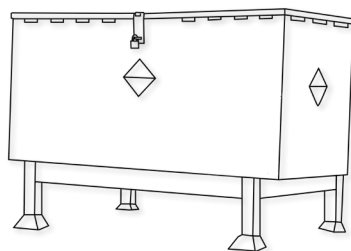


It is important that you observe the following information and warnings!

Emergency Contact Information		
Address:	Shenzhen ACE Battery Co.,Ltd Room 201, BAK Technology Building, No. 9 Keyan Road, Maling Community, Yuehai Street, Nanshan District, Shenzhen, Guangdong Province 518054, P.R. China	NUMATIC INTERNATIONAL LTD Millfield Road, Chard, Somerset, TA20 2GB, UK
Tel:	0086-755-83283710	0044-146-068600
www.numatic.co.uk   www.numatic.de   www.numatic.ch   www.numatic.fr www.numatic.nl   www.numatic.co.za   www.numatic.pt   www.numatic.es		

## 1. DEFECTIVE BATTERIES

1. If a customer wishes to return a battery to a supplier after removing from product, then collection of the battery must be arranged by the supplier; however, **Faulty batteries must not be returned through the postal system or by courier.**
2. If on return to a supplier, OR at a customer base, a suspected defective battery shows any signs of impact damage, distortion, blistering, loose parts or leakage then on no account should it be offered for condition checking. It must be considered defective and the procedures described from item 6 below should be followed.
3. If, on return to a supplier, OR at a customer base, a suspected defective battery, that shows No signs of impact damage, distortion, blistering, loose parts or leakage, may be offered for condition checking with an appropriate battery condition checking device operated by a competent person.
4. If checking shows the battery to be defective then the procedures described from item 6 below should be followed.
5. **On no account must any further attempt to recharge be made. A defective battery should not be stored inside buildings on any account.**
6. The defective battery must be switched off, and all electrical terminals sufficiently insulated to remove risk of short circuit. The defective battery can then be stored in a locked battery waste container which should be plastic or plastic lined and placed away from buildings and combustible materials and clearly signed as a defective battery container with appropriate warnings. Defective batteries should be sent for waste disposal / recycling according to your country waste regulations.



An example of a waste battery storage bin well away from buildings.

## 2. HANDLING AND STORAGE

### DANGER!

Improper handling can lead to an explosion or ignite a fire!  
Store batteries out of reach of children.

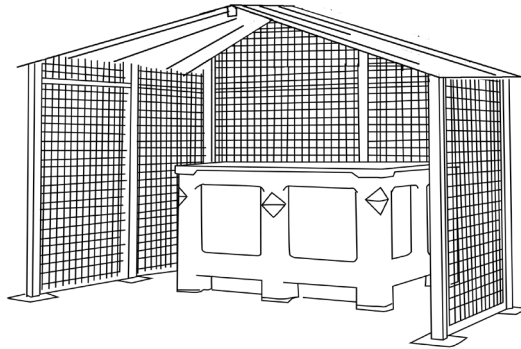
- Only trained staff can fix the battery in the machine.
- Storage temperature range: -10°C~40°C.
- Temperatures must not exceed 40°C.
- Relative humidity range: 20% to 80%.
- Optimum preservation of functionality: 15°C~25°C.

### WARNING:

- Do not open the battery, disassemble it or allow it to fall from a substantial height.
- Protect the battery against short-circuiting – danger of explosion!
- Protect the battery against rain, do not immerse in liquids – danger of short-circuiting.
- Protect the battery against direct sunlight, heat and fire.
- Do not incinerate the battery – danger of explosion!
- Do not use defective or deformed batteries.
- Use only original Numatic specific appliances to charge and discharge batteries.

### STORAGE:

- Good batteries should be stored in a protected area away from sources of direct heat and sunlight and should be kept dry.
- The temperature should not exceed 40°C but preferably not be above 25°C to maintain good battery performance.
- Storage area should be of low humidity, non dusty and a non corrosive atmosphere.



- An example of a well protected area with a cage to protect against accidental impact damage and with the batteries stored in a protective container to protect from heat, impact and accidental spillage of liquids.
- Care when handling / moving with forklift trucks or pallet trucks is needed at all times to avoid any physical damage to the batteries.
- If a good battery at any time is mishandled or subjected to any conditions that may damage it, as described in the battery Instruction manual supplied, it must then be considered as defective and procedures followed from Item 1 of this document overleaf.

## 3. HAZARDS IDENTIFICATION

- Electrolyte may escape from damaged batteries. Avoid contact.
- Contact can cause skin irritation, burns and chemical burns.
- If liquid comes into contact with eyes, seek medical attention.
- Avoid inhaling any vapours formed or released from the battery – Contains caustic alkaline electrolytes.
- Warning - Risk of fire - This battery contains No user serviceable parts.

## 4. FIRST AID MEASURES

### In the event of contact with released electrolyte or electrolyte vapours:

- Eye contact – flush eyes for at least 15 minutes with plenty of clean water without rubbing and seek medical attention.
- Skin contact – wash affected areas of skin with plenty of water and soap; if irritation persists, seek medical attention.
- Inhalation – provide fresh air or administer oxygen immediately and seek medical attention.
- Ingestion – if electrolyte has been ingested, seek medical attention immediately.

### Information for physicians:

- Contains caustic alkaline electrolytes in cells with Lithium Iron Phosphate – NO LITHIUM METAL OR LITHIUM ALLOYS.

## 5. FIRE FIGHTING MEASURES

- In case of fire – Keep clear of vapours and gases generated, take wind direction into consideration. If possible without danger, remove batteries from the vicinity of the fire. In principle, cooling or extinguishing with water is possible, but should only be done by trained personnel with sufficiently large quantities of water.
- If the hazard situation is unclear, extinguish only with ABC powder extinguishers (Class D extinguishers for fires involving metals are especially suitable).
- Fire fighters should only approach the fire wearing protective clothing and self-contained breathing apparatus.
- Once the fire has been extinguished, as a rule, the area should be monitored (fire watch) and cleaned up by trained and appropriately equipped personnel; fire residue should be contained and disposed of properly.

## 6. EXPOSURE CONTROLS, PERSONAL PROTECTION

### Respiratory Protection:

- In case of battery venting, providing as much ventilation as possible. Avoid confined areas with venting batteries.
- Respiratory Protection is not necessary under conditions of normal use.

### Ventilation:

- Not necessary under conditions of normal use.

### Protective Gloves:

- Not necessary under conditions of normal use.

### Other Protective Clothing or Equipment:

- Not necessary under conditions of normal use.
- Personal Protection is recommended for venting batteries: Respiratory Protection, Protective Gloves, Protective Clothing and safety glass with side shields.

## 7. ACCIDENTAL RELEASE

Disposal – Wear protective clothing and equipment, wipe up with absorbent textile and dispose of as hazardous waste at collection points for hazardous waste according to national regulations.

## 8. DO

- Use NUMATIC batteries only with NUMATIC appliances and charge them only using NUMATIC chargers.
- Charge battery before use.
- Store the battery out of the reach of children.
- Protect from rain – do not immerse in fluids.
- Protect from direct sunlight, heat, and open flames.
- Keep a battery that is not in use away from metal objects, (e.g. nails, coins, jewellery).
- Follow the disposal advice of the manufacturer and any internal waste management guidance.
- Use and store the battery with-in temperature range (as shown in Temperature Range Table).
- Always switch off the battery using the button by holding it for 6 seconds, before disconnection and handling.
- To activate / turn ON the battery please hold the top button for 6 seconds **or alternatively** charge the battery using original Numatic specific chargers.



**Warning:** The battery must only be charged by the Numatic Charger supplied with the product and under NO circumstances should an alternative non Numatic charger be used as there is a risk of severe damage and fire could result.

Note\* "If batteries are subjected to temperatures beyond normal operating limits automatic shutdown will occur. Under these conditions allow the batteries to acclimatise at room temperature (18°C – 22°C) for several hours to allow the battery to wake up".

Temperature Range Table	
CHARGING	5°C~35°C
DISCHARGING	-10°C~35°C
STORAGE OPTIMUM	15°C~25°C
STORAGE LIMIT	-10°C~40°C

## 9. DO NOT

- Throw battery into fire – risk of explosion!
- Charge or use a defective, damaged or deformed battery.
- Open, damage or drop the battery.
- Expose the battery to microwaves or high pressure.
- Bridge (short circuit) the battery terminals with metallic objects since this may damage the battery.
- Use metal containers for transporting batteries.
- Expose the batteries to high temperatures including direct sunlight.
- Crush, break open or physically abuse the batteries or the equipment that contains them.



## 10. DISTRIBUTOR TAKE-BACK / DISPOSAL



- On the basis of the Battery Directive, the manufacturers take responsibility for financing collection, treatment and recycling of batteries used in devices. To this end, batteries must be handed over for disposal to the collection systems established for this under national law. Disposal of batteries together with household waste is prohibited; batteries must be collected separately according to type.
- Return the battery free of charge to your NUMATIC servicing dealer for disposal or hand it over to an appropriate public collection point.

## 11. CHARGING BATTERIES

- The charger is intended for use only in the machine where it has been installed. The charger is intended for use with the detachable power cord supplied, the power unit is capable of operating at different voltages without user adjustment. If the charger is damaged or does not charge anymore, please return to service centre.

### CAUTION!

- Check the mains cord regularly for any sign of damage.
- Do not use damaged devices.
- If the mains cord of the charger is damaged, it must be replaced by an original NUMATIC mains cord available from the manufacturer or service agent.

## 12. WARRANTY

### Lithium-Ion Battery Warranty

#### Warranty: Commercial Use

- Batteries are warranted (3 Year) providing all battery care rules are followed
  - To claim warranty the following details must be supplied
    - Serial number of the machine
    - Battery date code
    - Date purchased
    - Proof of Purchase
    - Maintenance history and charging regime
- Failure to use the correct Numatic charger will void your warranty.

# Trouble Shooting

PROBLEM	CAUSE	SOLUTION
Machine will not operate	Low battery charge Machine is connected and charging Waste tank full switch stuck or clogged Key is off or missing Handle safety fuse blown	Charge batteries (page 15/16) Take off charge (page 15) Inspect & clean switch inside tank (page 13) Insert key & turn to operating position Replace fuse (or contact service engineer)
Vacuum will not operate	Missing or blown fuse Waste tank full switch stuck or clogged Vacuum switch not engaged Waste water tank full	Fit or replace fuse (page 5) Inspect & clean switch inside tank (page 13) Press switch Empty waste water tank (page 9)
Poor water pick-up	Waste water tank full Clogged / blocked vacuum hose Loose hose connections Debris basket filter clogged / blocked Separator filter clogged / blocked Poor separator seal Damaged separator seal Damaged / split vacuum hose Damaged floor tool blades Low battery charge Floor tool incorrectly adjusted	Empty waste water tank (page 9) Remove and clean (page 12) Push tight connections (page 6) Remove and clean (page 13) Remove and clean (Page 13) Clean and refit (page 12) Renew (contact service dept) Renew (contact service dept) Renew (contact service dept) Re-charge batteries (page 15/16) Adjust floor tool
No brush / scrub function	No brushes fitted Brush deck raised Missing or blown fuses	Check and fit (page 7) Lower brush deck (page 7) Fit or replace fuse (page 5)
Little or no water flow	Clean water tank empty Clean water tank filter blocked / clogged Water flow not on Brush deck raised	Fill clean water tank (page 8) Remove and clean (13) Switch on water flow (Page 11) Lower brush deck (page 7)
Machine just 'stops' during operating	Brush motor fuse blown due to high load	Replace fuse & reduce load (page 5)

**Warning** Do not fit a replacement fuse link having a higher rating than the value stated on the fuse label.

# Numatic

# Warranty

**Numatic International Limited warrant to the original purchaser that its products are free of defects in both material and workmanship for the period shown below:-**

<b>Homecare and Procure Vacuum cleaners.....</b>	<b>2 Years</b>
<b>Rotary Floor Machines.....</b>	<b>1 Year</b>
<b>Twintec Auto Scrubber Dryer.....</b>	<b>1 Year</b>
<b>Vario Ride-On Scrubber Dryer.....</b>	<b>1 Year / 1500 hours</b>
<b>Mopping, Compacts, Versaclean and Versacare Products.....</b>	<b>1 Year</b>
<b>Individual Accessories and Spare Parts.....</b>	<b>6 Months</b>

Note: This warranty expressly excludes consumable parts such as carbon brushes, floor brushes, mops, batteries etc, that are considered replaceable from time to time during the normal working life of the machine.

Our goods come with guarantees that cannot be excluded under the New Zealand Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

The benefits under (Our Warranty) are in addition to other rights and remedies under a law in relation to the (goods/services)

A. The warranty period commences from the date the goods are purchased. We advise all purchasers to retain their invoice as proof of purchase.

B. All warranty claims must be processed through either the Dealer from whom the equipment was originally purchased or another authorised Proquip NZ Ltd dealer. The Dealer will co-operate with the purchaser throughout the warranty claims procedure and will arrange any necessary repairs using genuine Numatic parts.

C. If the original Dealer is no longer able to fulfil his obligations please contact Proquip NZ Ltd with full details of the claim and proof of purchase so that this may be processed without delay.

D. Any warranty claim can only relate to the specific part that is proven to be at fault and for which a replacement will be supplied but cannot be extended to constitute a claim against the complete machine.

E. Proquip NZ Ltd will supply the Dealer with any warranty parts required, subject to the claim being validated.

F. Claims will not be accepted if they are the result of fair wear and tear, misuse or abuse of any kind.

G. No replacement will be given unless the appropriate evidence of the validity of the claim has been provided to the satisfaction of Proquip NZ Ltd.

H. Proquip NZ Ltd reserve the right to charge for any work carried out as a result of an invalid claim.

I. No variation to this warranty may be made or implied by any member of Proquip NZ Ltd or its Dealers unless such variation is in writing and authorised by the Company.

New Zealand Importer.

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# Numatic

numatic.com

This Machine Has Been Packed  
With The Following

Brush / Pad

Floor Tool

Charging Lead

Battery

Fuse Pack

Signed

Distributed by:

# Proquip

NEW ZEALAND

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