

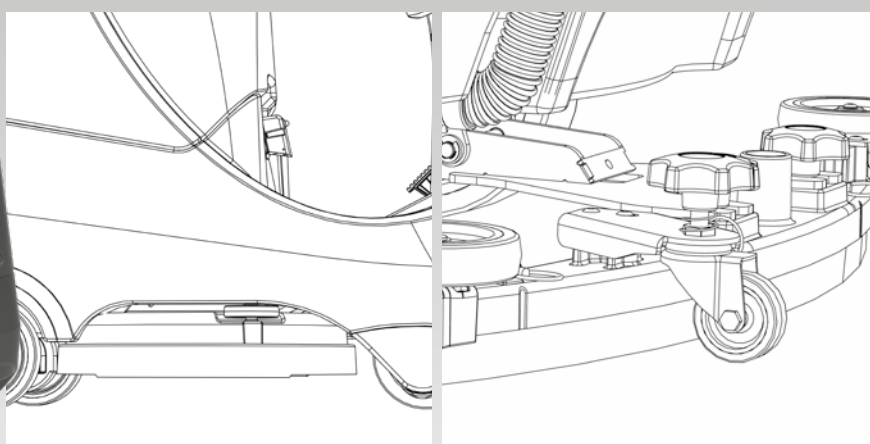
TGB2120/2128

RIDE-ON SCRUBBER DRYER



TGB 2128

TGB 2120



Owner Instructions

Warning! Read instructions before using the machine



Machine Overview	Pages 2-3
Control Panel Overview	Page 4
Machine Set up Guide	Page 5
Hose U Bend Clip	Page 6
Fitting the Floor tool	Page 6
Breakaway Floor tool Feature	Page 6
Raise / Lower Brush Deck	Page 7
Fitting the brush	Page 7
Floor tool Transit Bracket	Page 7
Filling the Clean Water Tank	Page 8
Fill Level Indicator	Page 8
Setting the Cleaning Controls	Page 9
Waste Water Tank Full	Page 9
Brush Pressure	Page 10
Emergency Stop Button and Horn	Page 10
Maximum Speed Control	Page 10
Anti-tip System	Page 10
Machine in Use	Page 11
Off-aisle Cleaning Kit	Page 11
Machine Cleaning	Pages 12-13
Free-Wheel Function	Page 13
Changing Floor tool Blades	Page 14
Machine Charging	Page 15
Battery Care	Page 16
Charging Lights Sequence	Pages 16-17
Trouble Shooting	Pages 18-19
Specifications	Page 18
Rating Label / Personal Protective Equipment / Recycling	Page 20
Safety Precautions	Page 21
Recommended Spare Parts	Page 22
Schematic Diagram	Page 22
Battery Wiring	Page 23
Warranty	Page 24
EU Declaration Document	Page 25
Company Address	Page 28

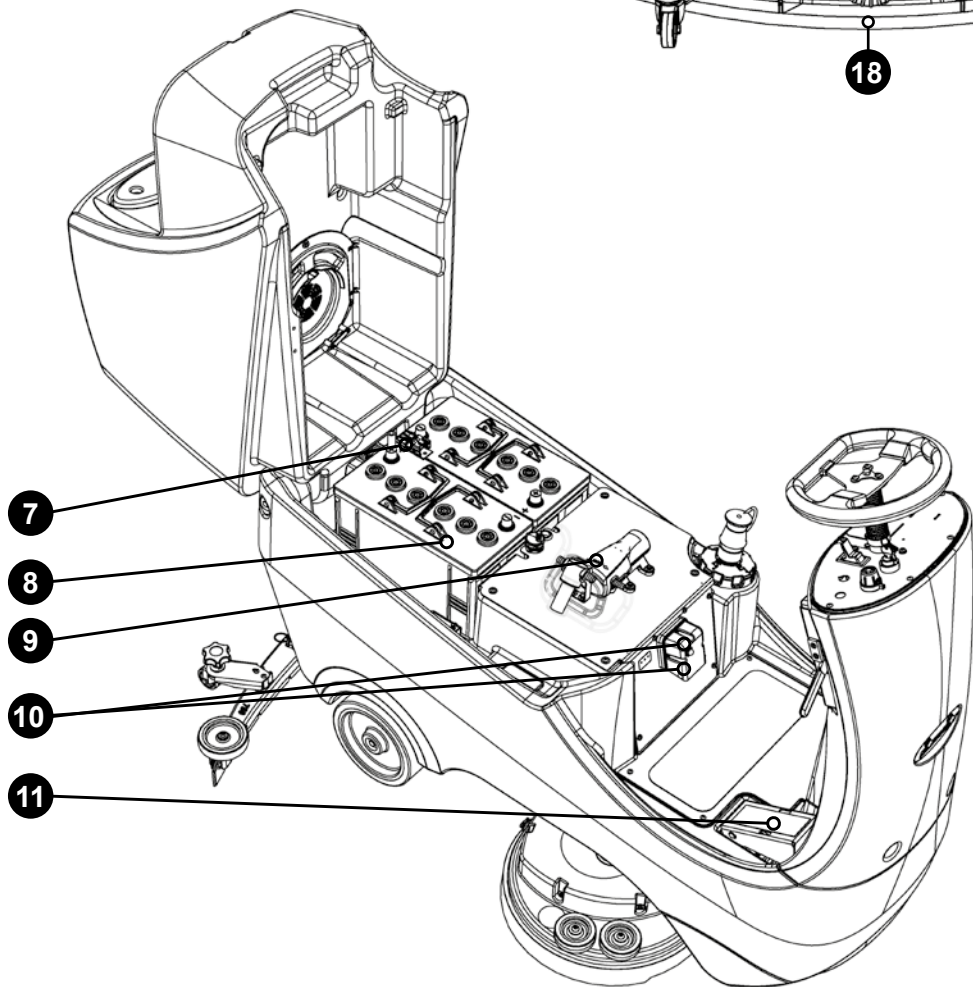
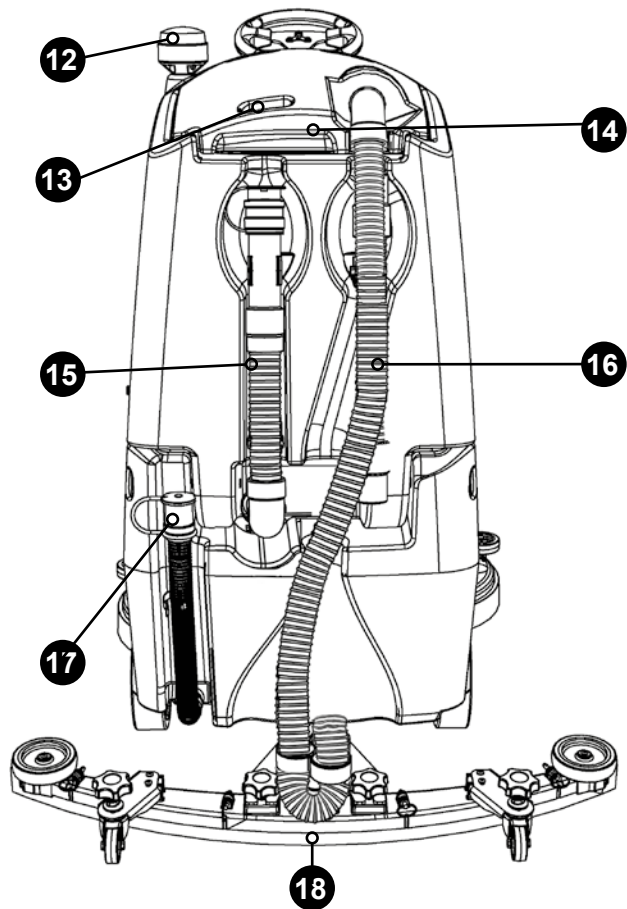
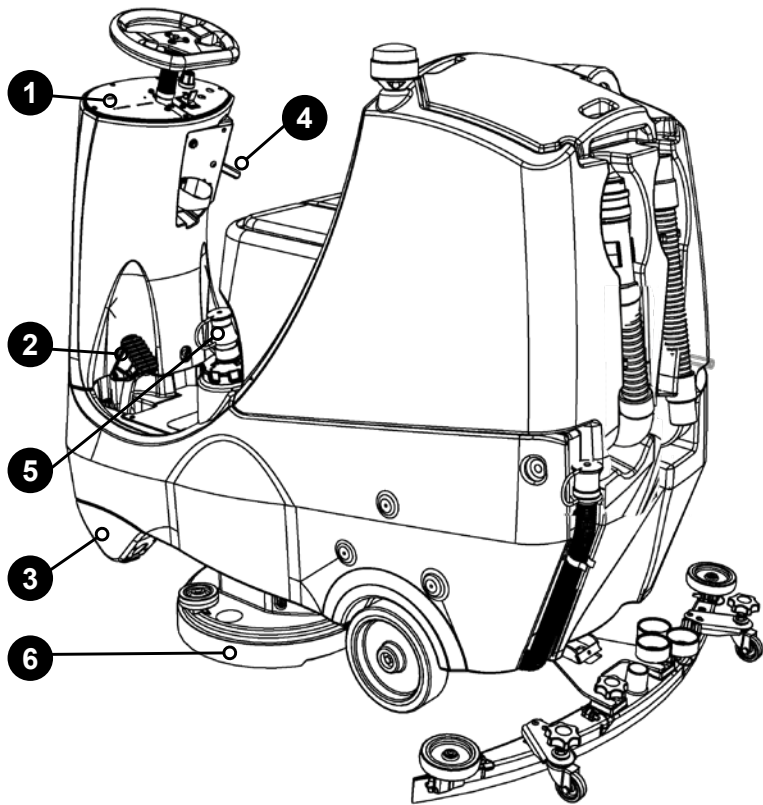
PLEASE READ BEFORE COMMENCING OPERATION

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

- Owner Manual
- Battery Charging Lead
- Isolator Key
- 40 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	40 Amp battery fuse
8	Gel 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

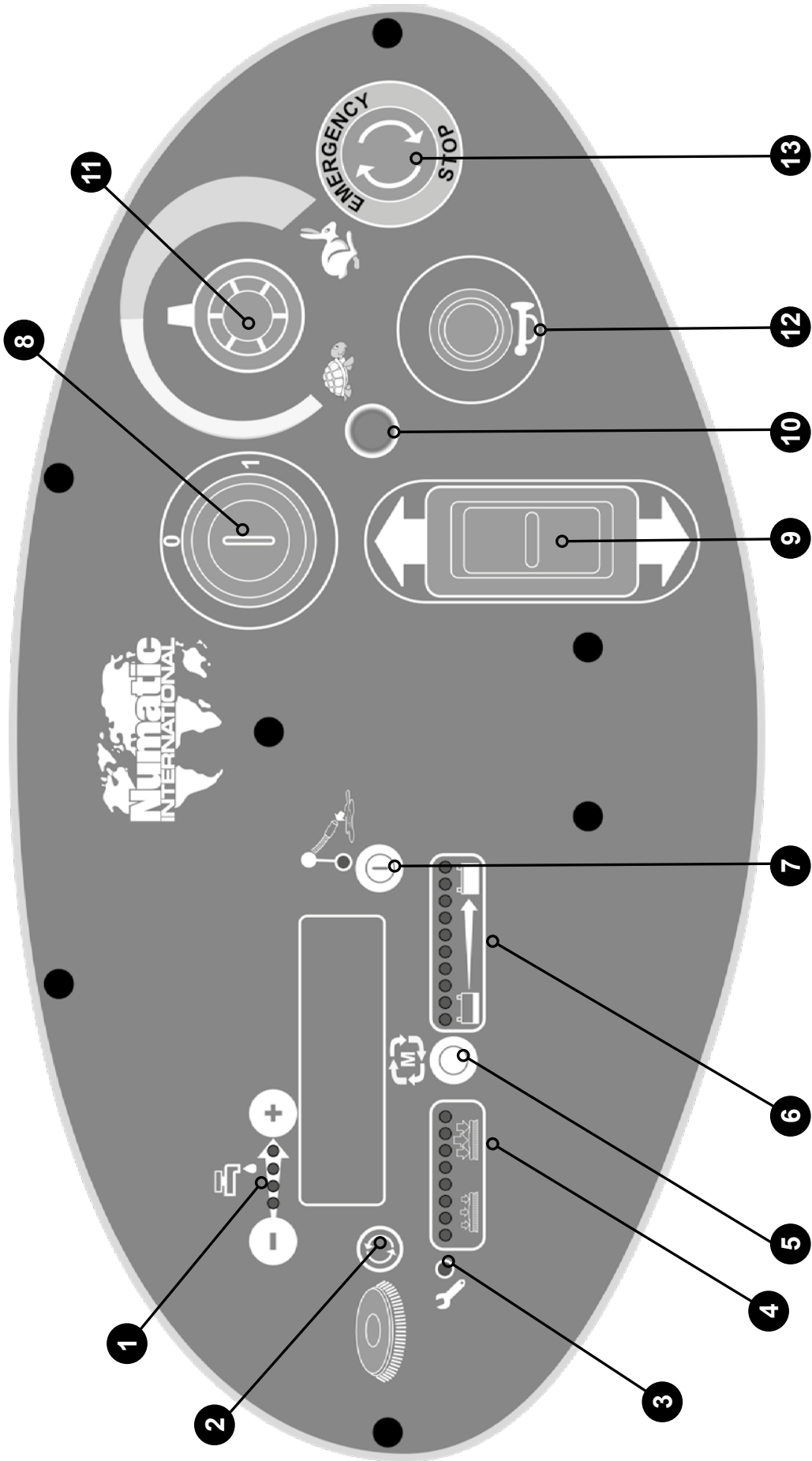
Machine Overview



RIDE ON SCRUBBER DRYER

TGB 2120/2128

Control Panel Overview



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

1	Water Flow Rate Indicator and Selection Button	8	On / Off Switch
2	Brush Engage and Disengage Button	9	Forward / Reverse Switch
3	Service Indicator	10	LED Status Indicator
4	Brush Pressure / Load Indicator	11	Maximum Speed Control
5	Run Time Selection Button	12	Horn Button
6	Battery Charge Level Indicator	13	Emergency Stop Button
7	Off Aisle Vacuum Button		



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



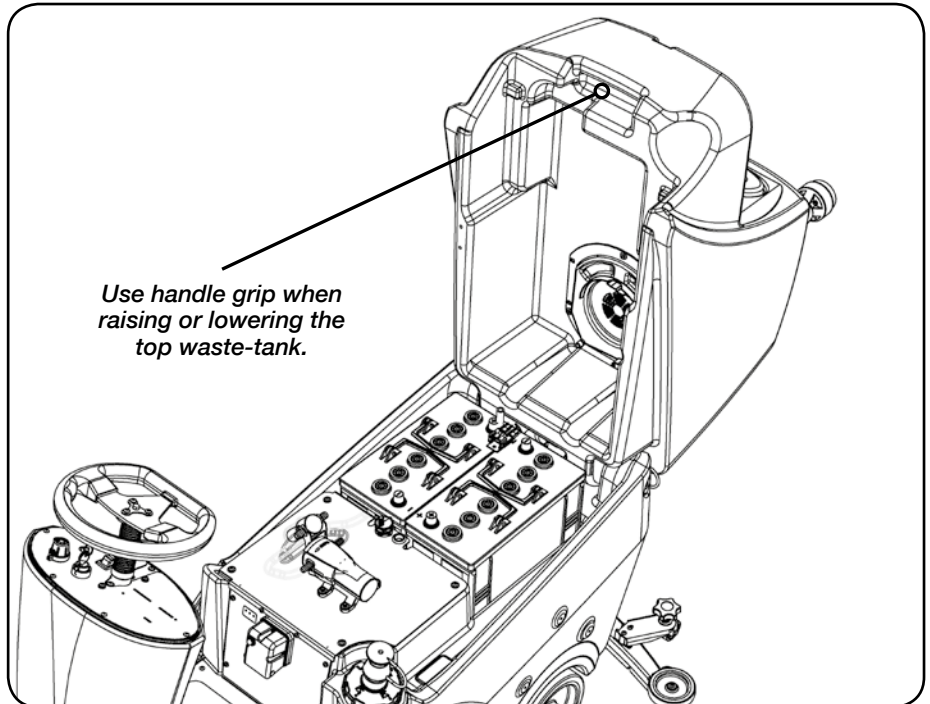
CONTENTS

- 1 x Owner Manual
- 2 x Battery Charging Lead
- 2 x Keys
- 1 x 40 Amp Fuse (1 spare)
- 1 x Maxi Fuse-puller

Lift top tank assembly to reveal battery compartment.

Always lift using handle grips as shown.

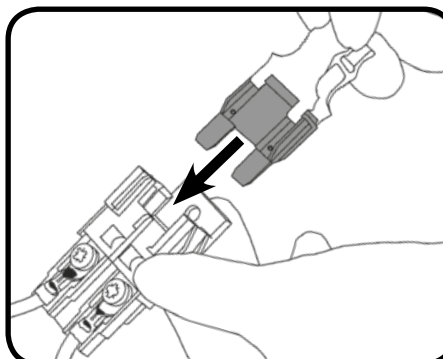
Remove transit block from pallet.



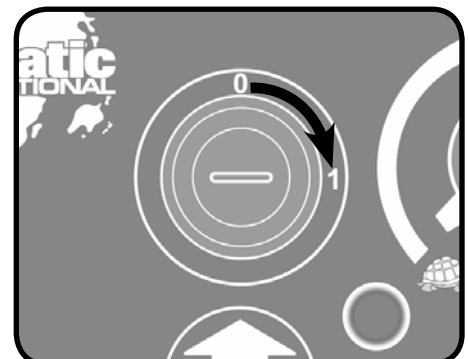
Ensure that no metal objects come into contact with battery terminals while the batteries are exposed.

ALWAYS WEAR GLOVES.

When inserting the first fuse you may notice a spark, this is normal.



Fit the battery fuse.

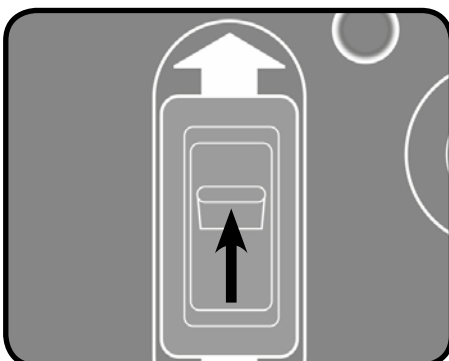


Switch on the machine.

Less Battery Models - Numatic International Ltd recommends using MK Batteries for 2120 and 2128 in the TGB machines mentioned in this manual. For full battery specifications see page 22.

NOTE: DO NOT depress accelerator pedal while software initialises.

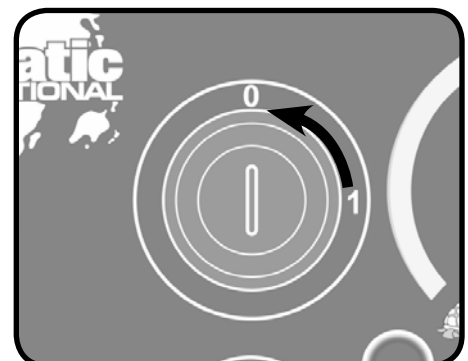
The seat is fitted with a pressure sensor that disables the machine until an operator is seated.



Set lever to forward.



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

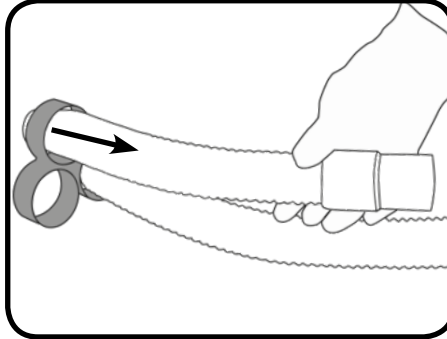
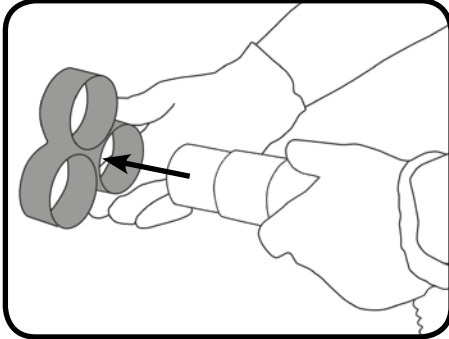


Once in a safe location switch off machine.

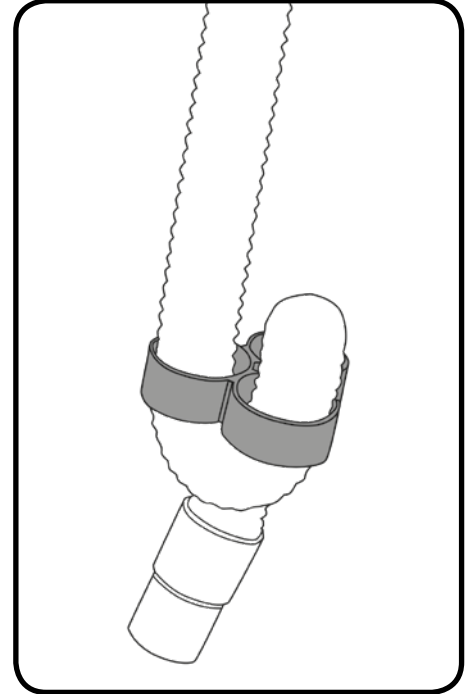
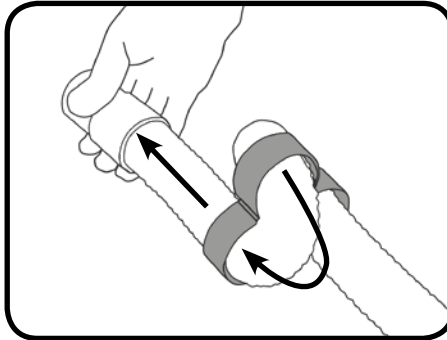
Machine Set-up Guide

Hose U-bend Clip

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.



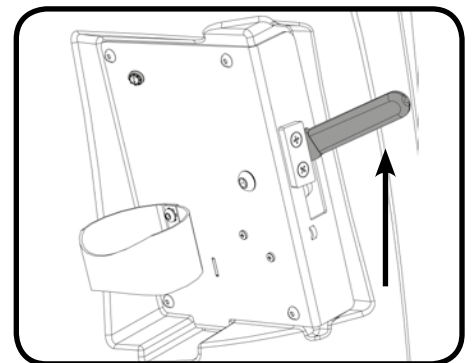
Fitting the Floor Tool

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

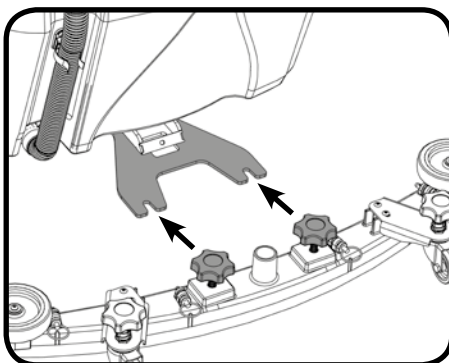
Break-away Floor Tool

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.

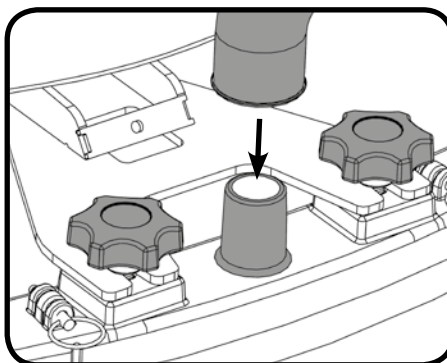
Make sure you do not over tighten the retaining knobs.



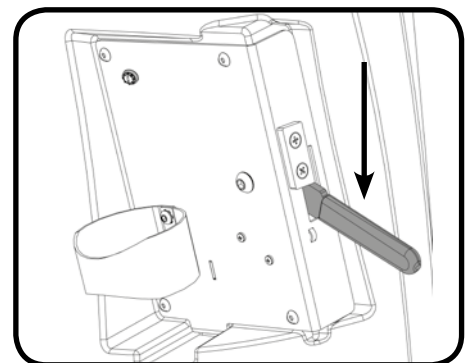
Lower the floor tool.



Slide floor tool onto bracket.



Tighten retaining knobs to finger tight and attach hose.



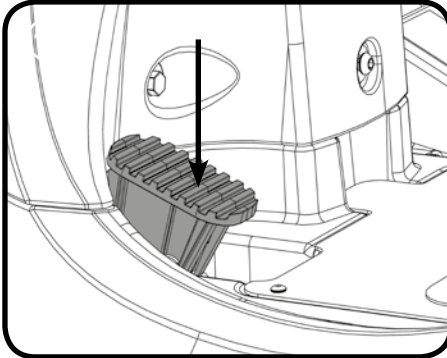
Raise the floor tool.



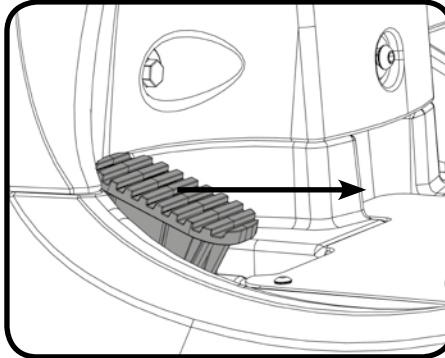
Always ensure that the machine is switched off before making any adjustments.



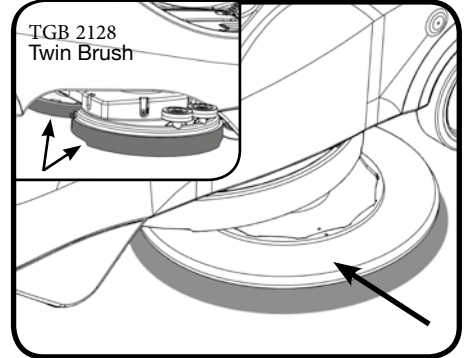
Raise Brush Deck / Fitting the Brush / Lower Brush Deck



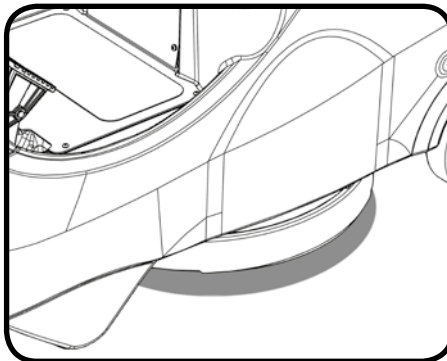
Raise brush deck.



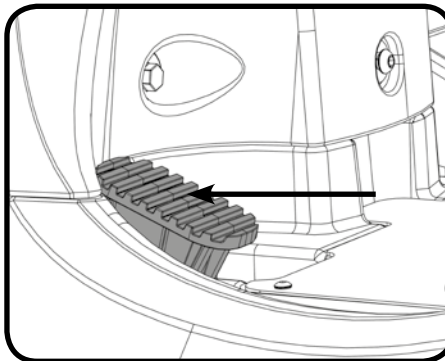
Brush deck raised position.



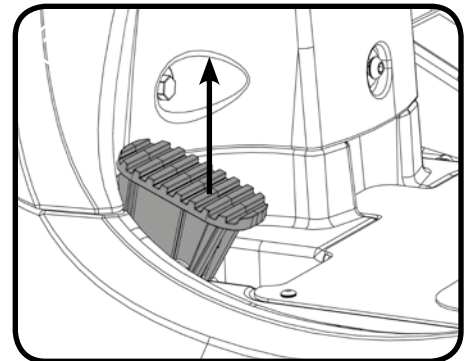
Slide brush under machine.



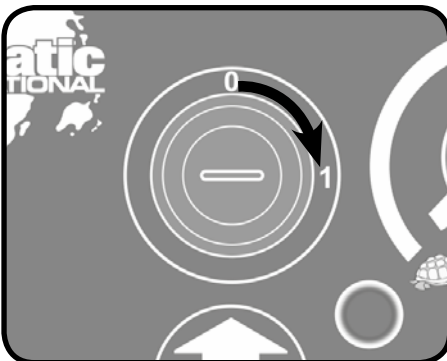
Brush in place.



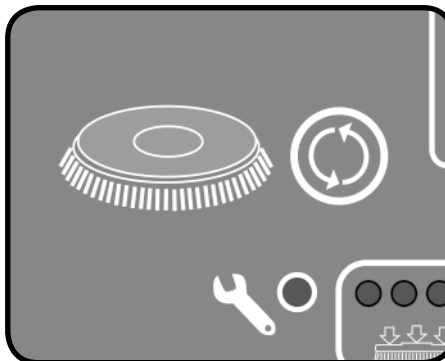
Lower brush deck.



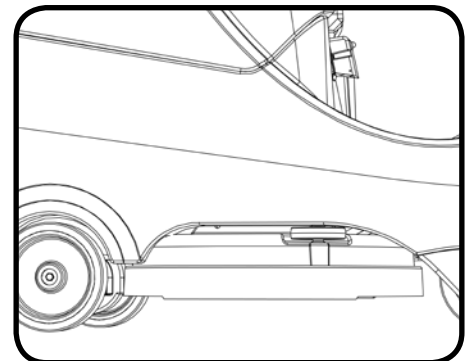
Brush deck lowered.



Switch machine on.



Press brush engage button.



Machine has picked up the brush.

Please follow the same process to fit both brushes to the TGB 2128 as is for the single brush fitting on the TGB 2120.

To disengage the brush, press the brush engage button with the brush deck in the raised position.

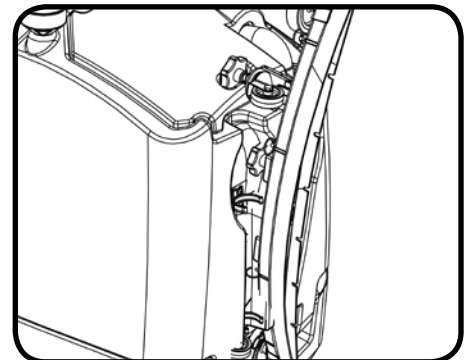
NOTE: Do not lift the brush deck until the brush has stopped revolving or the brush will release.

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

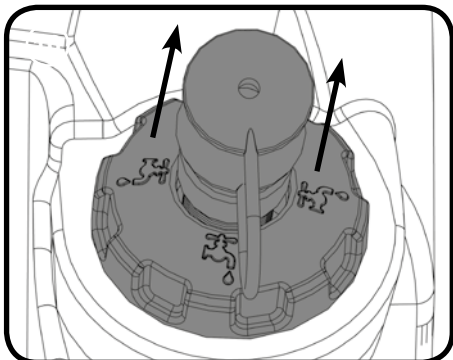


Always ensure that the machine is switched off before making any adjustments.

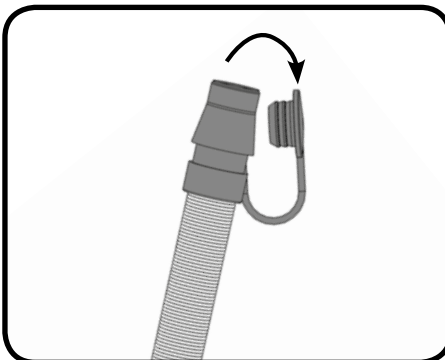


Filling the Clean Water Tank

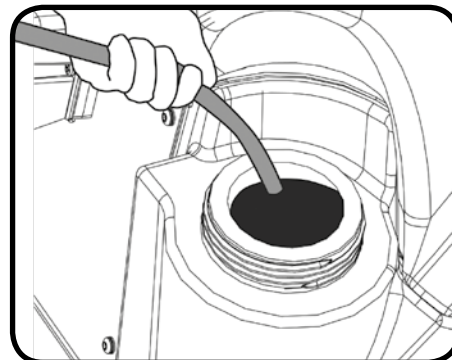
The TGB 2120/2128 is equipped with a large capacity 80 litre clean water tank, allowing for large areas to be covered in a single fill.



To fill clean water tank extend fill hose.



Remove rubber seal and fill.



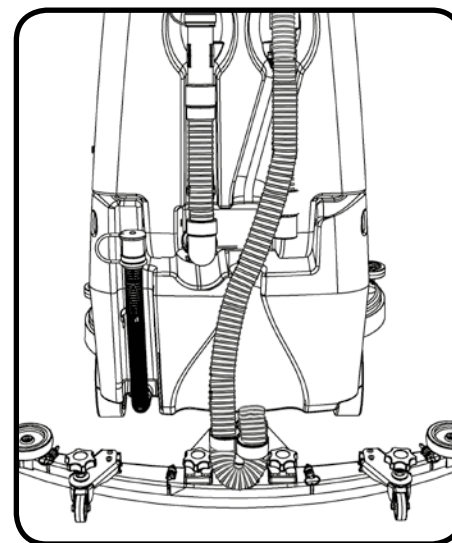
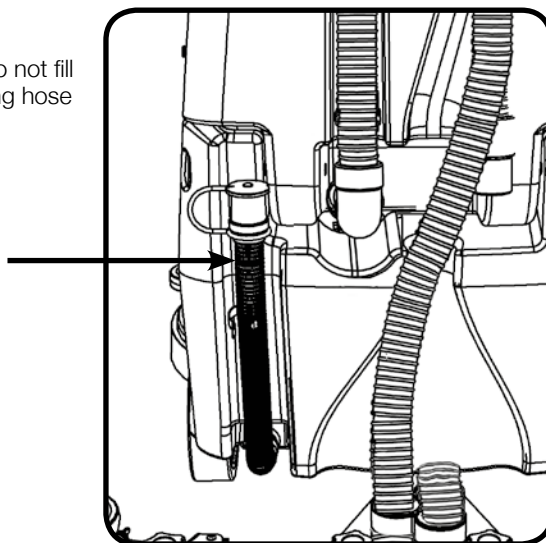
Alternatively remove filler cap completely.

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.





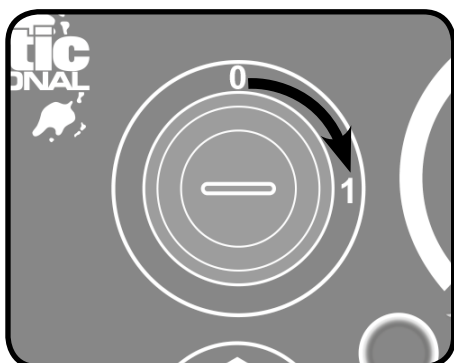
IMPORTANT

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

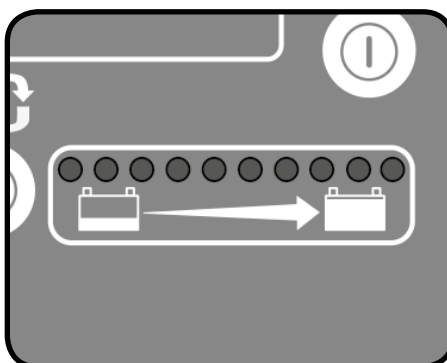


Drive the machine to the cleaning site (read set-up guide again if necessary - page 5).
Before cleaning operation, place out appropriate warning signs and sweep or dust-mop the floor.
When ready for cleaning lower the floor tool (page 6) and the brush deck (page 7).

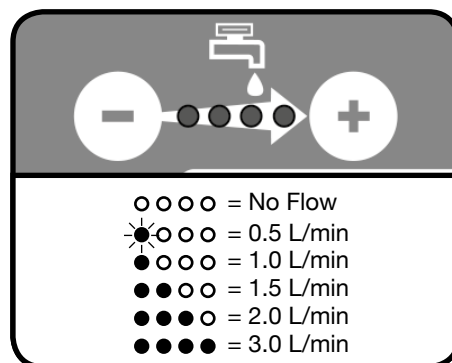
Setting the Cleaning Controls



Switch machine on.



Battery charge-level indicator illuminates.



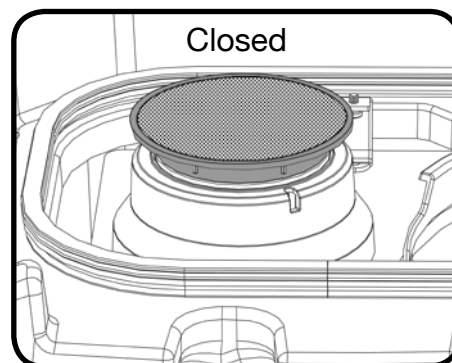
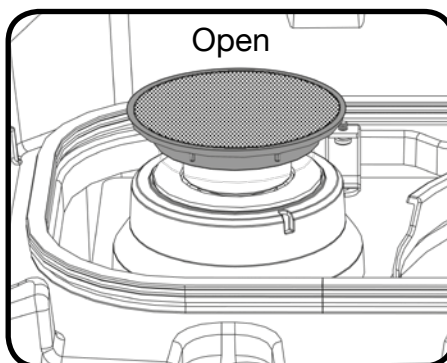
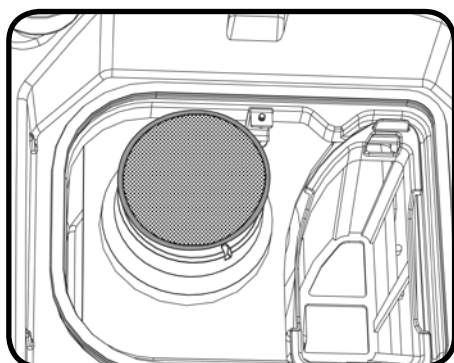
Set the water flow rate as required.

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.

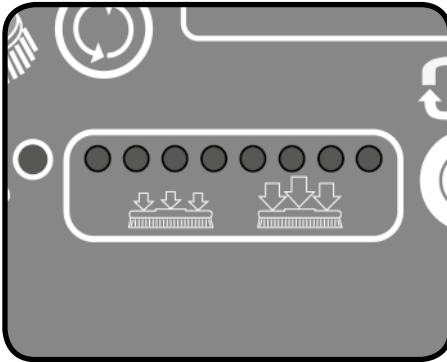


Always ensure that the floor is pre-swept and relevant safety signs are displayed.



Machine Operation

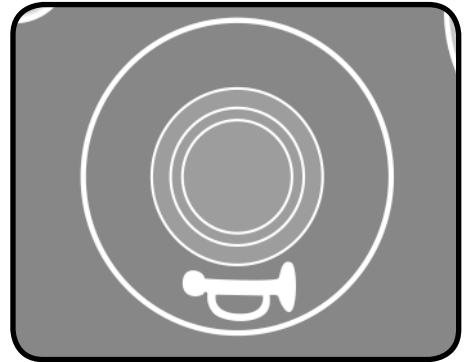
Brush Pressure / Emergency Stop Button / Horn



Brush pressure load warning lights.
(Illuminates from left to right)



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



Horn button.

NOTE: The run-time of the machine may decrease if the load on the brushes is increased.

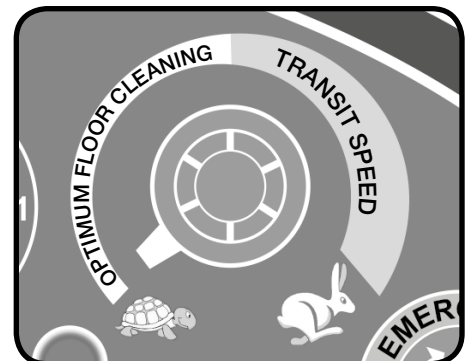
The TGB 2120/2128 is equipped with an electronic braking system.

To reset, turn emergency stop button clockwise, to restart the machine turn the key off then on again.

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.



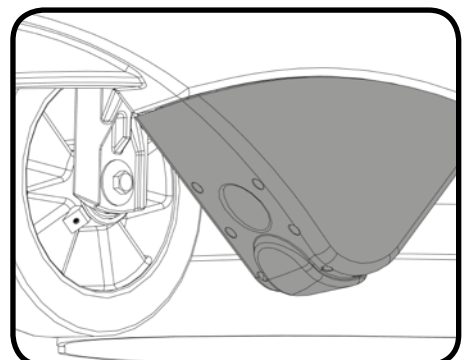
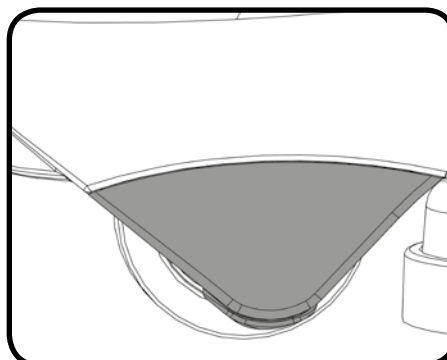
Anti-tip System

The TGB 2120/2128 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.





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



Machine in Use

To operate, select forward and depress the accelerator pedal.

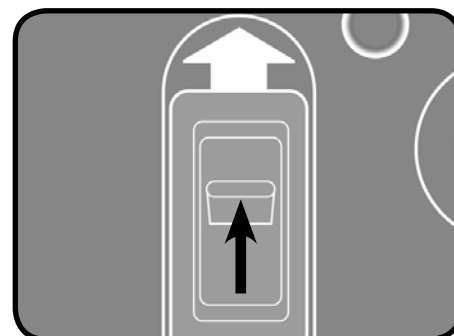
Vacuum pick-up and water flow will turn on if selected, and providing the brush and floor tool are in the lowered position, the machine will move forward.

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.

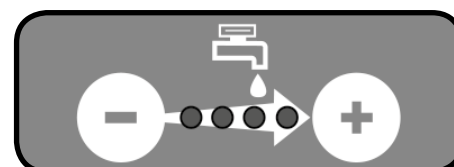
After stopping, the vac motor will run for a further 10 seconds to collect any water left in the vacuum hose.

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.

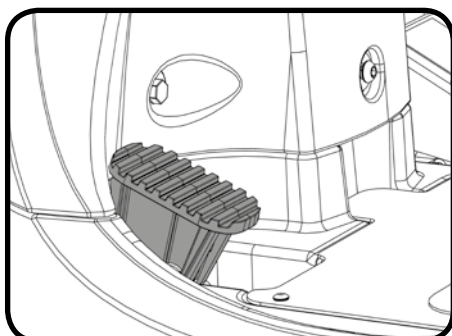
If your machine leaves streaks on the cleaned floor, either clean the floor tool blade or adjust blade height for optimum performance.



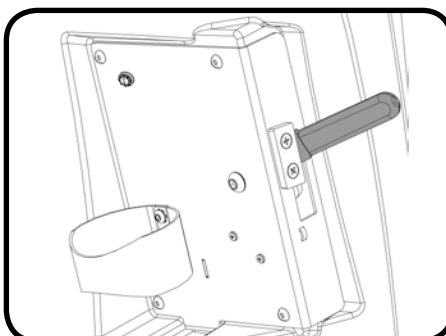
Set lever to forward.



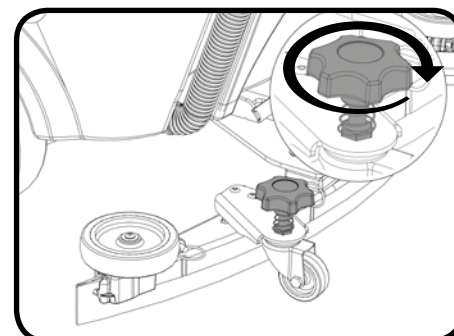
Water flow rate selection.



Brush deck in lowered position.



Floor tool lever in lowered position.

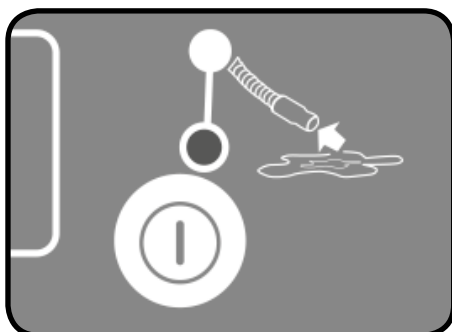


Adjusting the blade height.

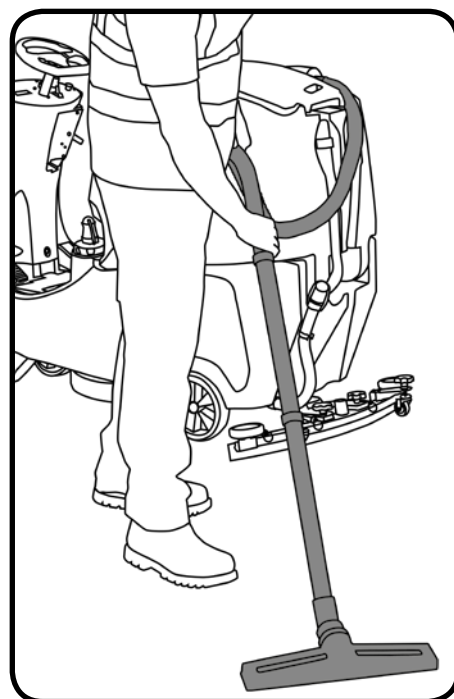
Off-aisle Cleaning Kit (Optional Extra Accessory) 606182

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 off-aisle vacuum button on the control panel. Pressing the off-aisle button again will switch the vacuum off.

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



Off-aisle vacuum button.



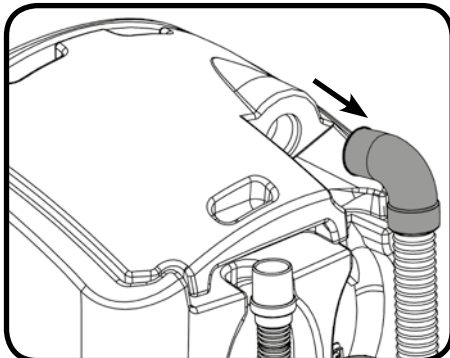
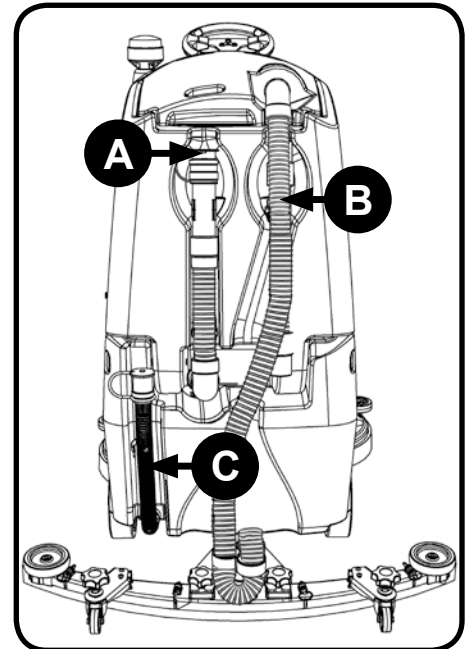
Machine Cleaning



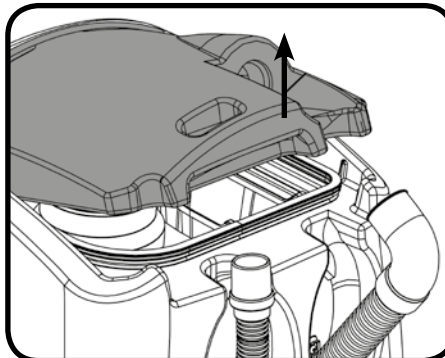
Always ensure that the machine is switched off prior to any maintenance.



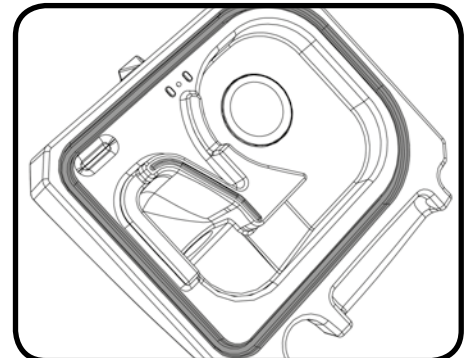
- A** After use, empty waste water tank using emptying hose and flush-out with clean water.
- B** Remove floor tool vacuum hose ensuring you remove the U-bend clip and flush out with clean water.
- C** Empty clean water tank, using emptying hose and again flush out with clean water.



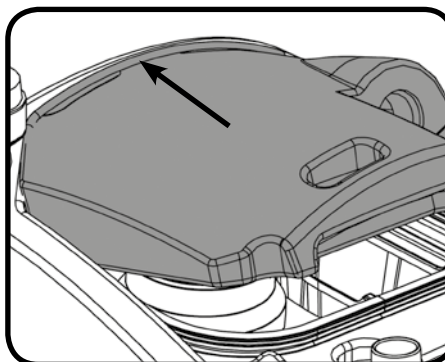
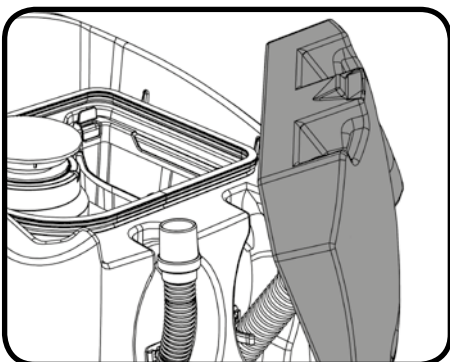
Remove hose.



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

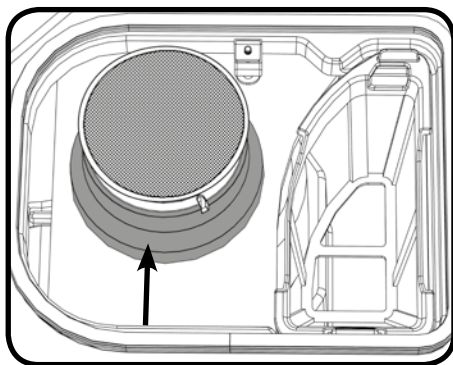


Always ensure that the machine is switched off prior to any maintenance.

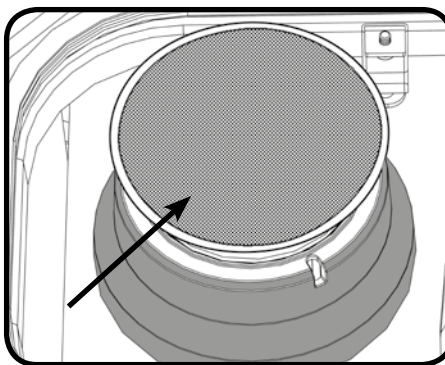


Located in your waste water top tank is a vacuum shut off system, this prevents suction when the waste water tank is full. It also prevents foam created by high-foaming detergents from entering the motor. Sometimes the float vents get clogged and blocked, clean to ensure correct operation. Regularly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

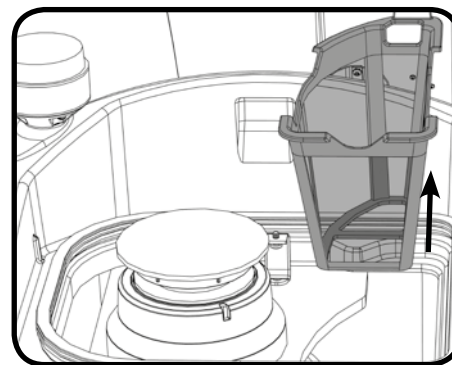
IMPORTANT: If the debris basket is allowed to become clogged, vacuum performance can deteriorate.



Float vent.



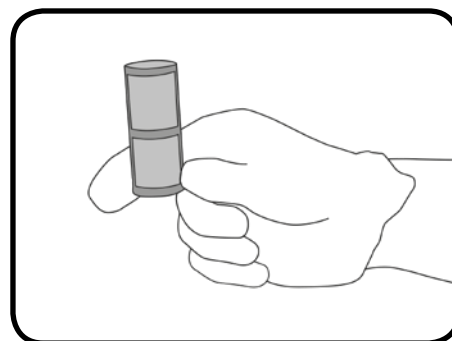
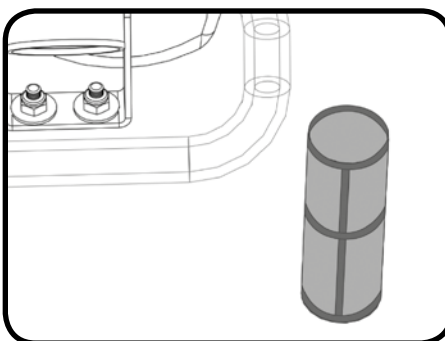
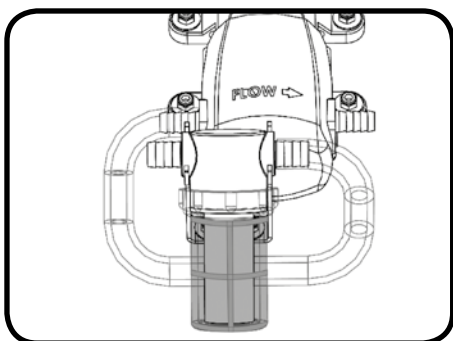
Air filter.



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



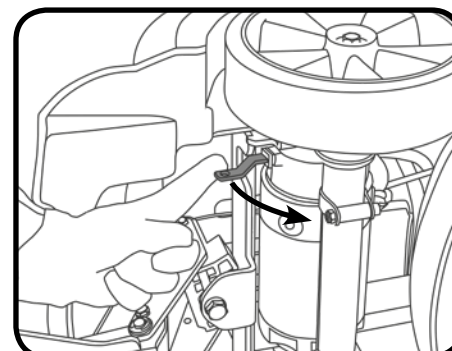
**ALWAYS ENSURE THAT THE MACHINE IS ON LEVEL GROUND
BEFORE DISENGAGING BRAKE ARM.
NEVER DISENGAGE THE BRAKE WHEN THE MACHINE IS ON A SLOPE / GRADIENT.**



The TGB 2120/2128 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

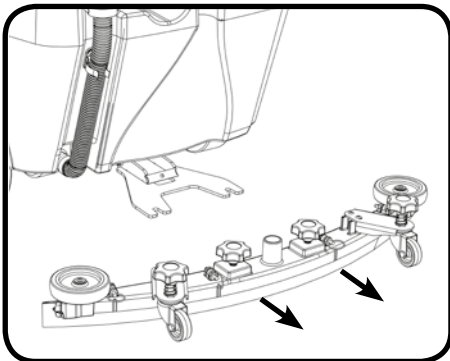


Always ensure that the machine is switched off prior to any maintenance.

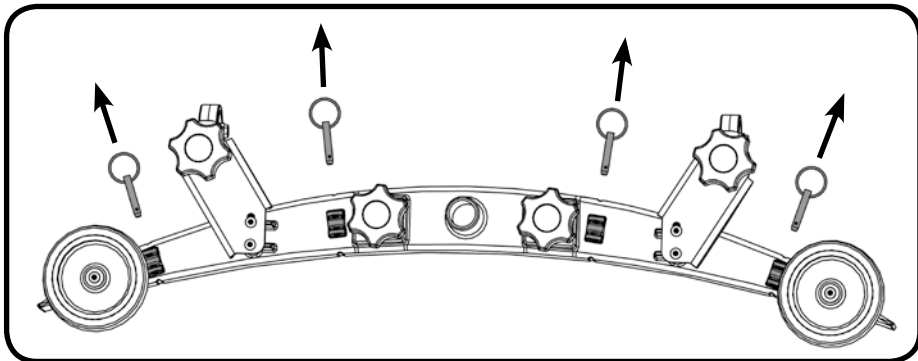


Lower the floor tool then unscrew the retaining knobs and slide it off the holding bracket.

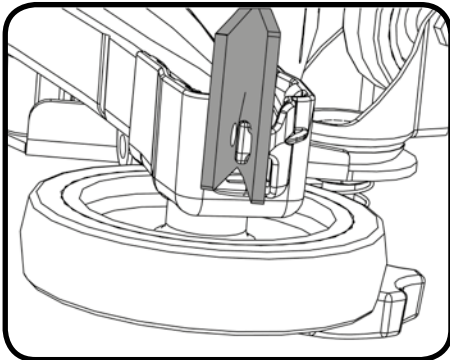
Rinse the floor tool assembly with clean water and refit.



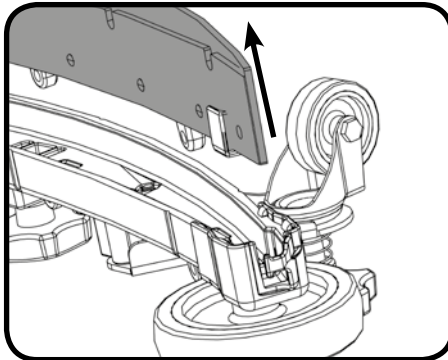
Remove floor tool.



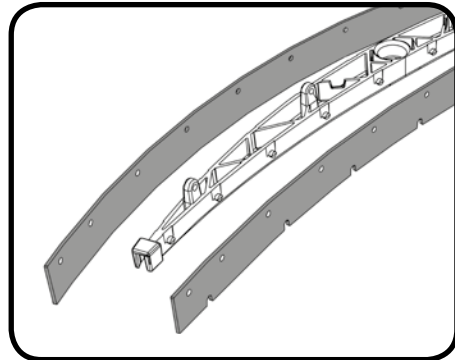
Remove four retaining pins.



Turn the floor tool over.



Separate the blade from the carrier.



Peel away blades.

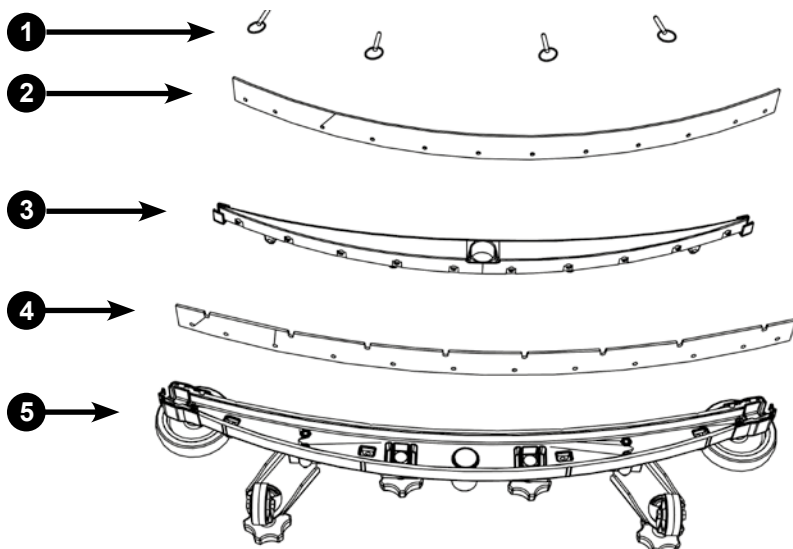
Periodically the floor tool blades should be examined and checked for wear and damage.

Replacement is a reversal of the removal process.

Floor Tool Overview

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

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

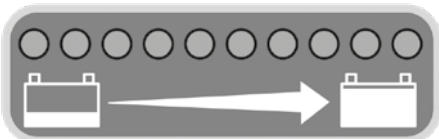




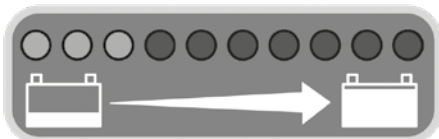
Always ensure that the machine is switched off prior to charging.



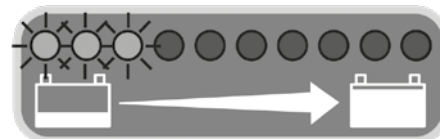
As the machine is used and the batteries are discharged, the meter lights will go out from right to left.



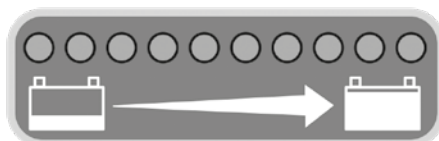
Battery charge level is full.



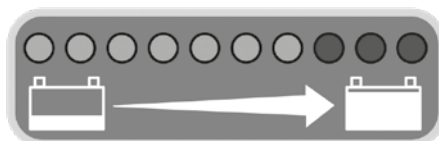
Charge machine when 3 red lights are illuminated.



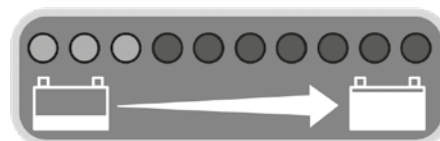
When 3 red lights flash all cleaning functions will disable, charge immediately.



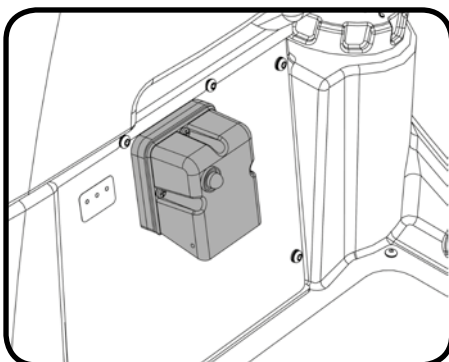
50-100%



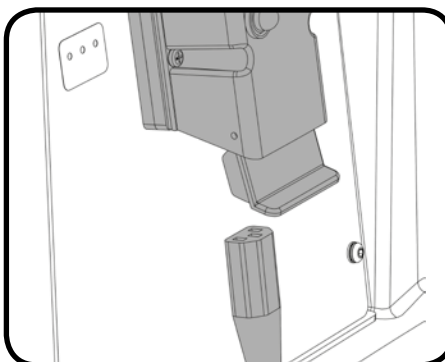
20-50%



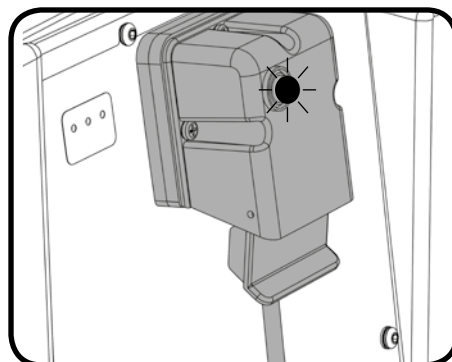
0-20%



Machine charging point, above footplate.



Insert country specific charging lead.



Red charging indicator illuminates when charging.

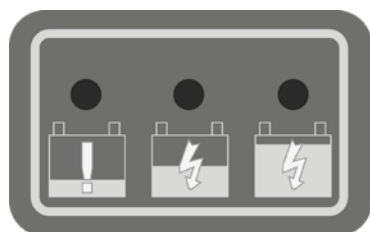
The large capacity gel batteries are sealed for life and are totally maintenance free.

The on-board charger automatically monitors the charging process and will switch off when the batteries are fully charged.

NOTE: The charging lead supplied with your machine may differ than the lead shown.

Once the charging lead has been connected the display panel will show 'INHIBITED'.

The battery charge indicator display lights will flash in unison and the machine will not operate.



Charging indicator (see page 16).

To ensure a full charge, the machine should be left until the charging indicator shows green.

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

NOTE: Charger viewing panel only available on certain models.

Battery Care

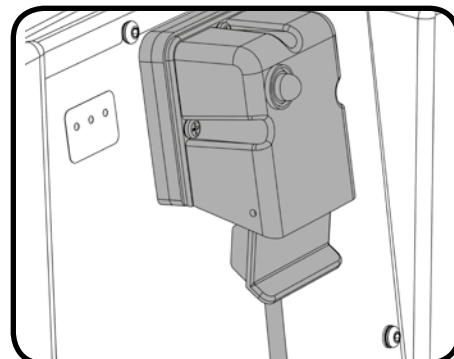
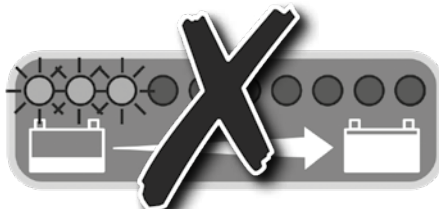


To ensure your machine remains at its maximum efficiency and prolong your battery life, please follow the simple steps below:



UNDER NORMAL DAILY USAGE:

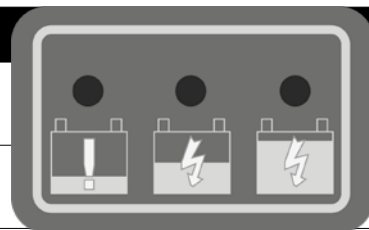
Re-charge the machine FULLY after each use regardless of machine operation time. Do not leave the machine in a discharged state.



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
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 10 hrs during phase 1 or 2 > 4 flashes between pause



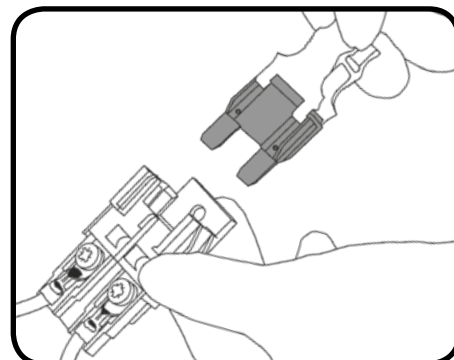
NOTE: Only available on certain models.

Under abnormal use;

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

If the machine will be standing unused for a period of 30 days or more, then batteries must be fully charged and battery fuses removed using the maxi fuse-puller provided, prior to this period.

Batteries should be recharged every three months.
Charge fully the day before you start using the machine again.



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		
			Not accepting charge due to faulty battery / cell		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		
2 Flashes with pause ●●		Traction motor disconnected	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					
			TCO activated (Thermal Cut Out)					
			Motor failed to open circuit					
3 Flashes with pause ●●●		Traction motor wiring trip	The motor has a short circuit to a battery	Motor will not operate	Check all connections and leads between the motor and controller			
4 Flashes with pause ●●●●		Battery Lockout	The battery charge level has fallen below the battery lockout level and the controller is inhibiting machine functions	Machine functions not working	Check battery voltage and charge current ensuring charger red fault light is extinguished	Charge batteries immediately		
					Check each battery voltage individually to detect defect unit 10.5V min			
6 Flashes with pause ●●●●●●		Charger connected	The controller is being inhibited from driving, this may be because the battery charger is connected	Machine functions not working	Remove charger to operate machine			
8 Flashes with pause ●●●●●●●●		Controller trip	A controller trip is indicated	Machine functions not working	Check all connections and leads	Tighten loose connections and replace damaged components		
9 Flashes with pause ●●●●●●●●●●		Brake deactivated or failed	Poor brake connections Brake failure or deactivation	Traction drive disabled	Check brake wiring and brake lever	Replace brake or wiring as necessary. Reactivate brake by engaging brake lever		
10 Flashes with pause ●●●●●●●●●●●●		High battery voltage	Poor connections between battery controller and traction motor	Machine functions not working	Check each battery Voltage individually to ensure voltage < 14 volts			
					Check connections on controller batteries and traction motor			
					Check combined battery pack voltage is < 28 volts			

Specifications

Model - TGB 2120 / 2128							
(Empty) Net Weight 120 A/Hr	Brush Weight	Brush Width	Brush Pressure	Pad Width	Pad Pressure	Brush Motor	Vac motor
TGB 2120 - 200 kg	TGB 2120 - 23 kg	550 mm	11.4 G/cm ²	508 mm	9.3 G/cm ²	24 V 600 W	24 V
TGB 2128 - 220 kg	TGB 2128 - 32 kg	370mm x 2	19.9 G/cm ²	360mm x 2	16.6 G/cm ²		400 W
Transaxle	Run Time 2 x 120 A/Hr	Run Time 2 x 100 A/Hr	Total Battery Weight 120 A/Hrs	Total Battery Weight 100 A/Hrs	Charge Times 2 x 120 A/Hrs	Charge Times 2 x 100 A/Hrs	
24 V 400 W	3 Hrs	2 Hrs	74 kg (163 lbs)	62 kg (136 lbs)	10A = 12 Hrs 20A = 7 Hrs 35A = 4.5 Hrs	10A = 8 Hrs 20A = 5-6 Hrs 35A = 3-4 Hrs	
Brush Speed	AirFlow	Transit Speed	Capacity	Water Flow Rates	Cleaning Area		Sound Pressure
150 rpm	24.2 L/sec	0-6 Km/hr	80L / 80L	0.5 / 1.0 / 1.5 2.0 / 3.0 L/min	TGB 2120 - 1700m ² @ 3.5 K/Hr TGB 2128 - 2200m ² @ 3.5 K/Hr		≤ 70dB (A)
Hand Arm Vibration		Whole Body Vibration		Height	Length	Width	Max Gradient
Travelling (Quarry Tiles) 1.84 m/s ² (Uncertainty 0.92 m/s ²) ISO 5439-1		Travelling (Quarry Tiles) 1.11 m/s ² (Uncertainty 0.56 m/s ²) ISO 2431-1		1160 mm	1460 mm	TGB 2120 - 805 mm TGB 2128 - 948mm	11%

Trouble Shooting

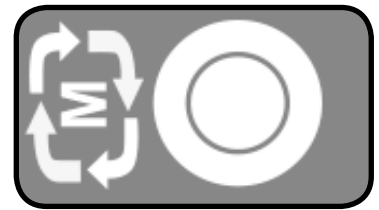
PROBLEM	CAUSE	SOLUTION
Machine will not operate	Missing or blown fuses Key in the 'OFF' (0) position Low battery charge Machine stop button in 'OFF' mode Machine is connected and charging	Fit or replace fuse (page 5) Turn key to 'ON' (1) position (page 5) Charge batteries (page 15) Reset stop button (page 10) Take off charge (page 15)
Vacuum will not operate	Floor tool in raised position Waste water tank full	Lower floor tool (page 6) Empty waste water tank (page 12)
Poor water pick-up	Waste water tank full Clogged / blocked vacuum hose Loose hose connections Debris basket filter clogged / blocked Separator air filter clogged / blocked Poor separator seal Damaged separator seal Damaged / split vacuum hose Damaged floor-tool blades Low battery charge	Empty waste water tank (page 12) Remove and clean (page 12) Push tight connections (page 6) Remove and clean (page 13) Remove and clean (Page 12) Clean and refit (page 12) Renew (contact service dept) Renew (contact service dept) Renew (contact service dept) Recharge batteries (page 15)
No brush / scrub function	No brushes fitted Brush deck raised	Check and fit (page 7) Lower brush deck (page 7)
Little or no water flow	Clean water tank empty Clean water tank filter blocked / clogged Incorrect water flow setting Brush deck raised	Fill clean water tank (page 8) Remove and clean (13) Adjust as desired (Page 9) Lower brush deck (page 7)
Machine just 'stops' while operating	Too much load on the brush system	Reset the machine using the key and decrease the brush load to best suit the floor type (page 10)

Failure to rectify the problem or in the event of a breakdown contact your Numatic dealer or Numatic Technical helpline +44 (0)1460 269268

Trouble Shooting

LCD Display	Fault	Possible Cause	Effect on Product	Investigate the Following	Action Required	If Fault Persists
Blank	No power	Key switched off	Machine will not operate	Key switched off	Switch key on	
'OVER CURRENT'	Brush over current	Emergency stop pressed Brush pressure too great Brush current exceeds 32A Wrong type of brush for surface	Vac. brush, water and detergent motors / pump will not operate Brush LED's all flash in unison until the pedal is released	Emergency stop pressed Release brush pressure Change type of brush Restart machine	Release emergency stop	
'UNDER VOLTS'	Battery voltage dropped below 21 Volts Left most battery LED flashes	Batteries require recharging Faulty cell on battery	Machine will not operate	Battery leads and connections	Charge batteries Replace battery (if cell damaged)	
'VAC OVER CURRENT'	Vacuum motor fault	Debris entering vacuum motor Water ingress	Machine disabled	Restart machine Replace vacuum motor		
'LO-FLO SQUEEGEE-STOP'	Squeegee down, reverse selected	Trying to reverse with squeegee down	Machine will not move	Raise Squeegee, restart machine.		
'INHIBITED'						

MACHINE INHIBITED - NO OPERATION

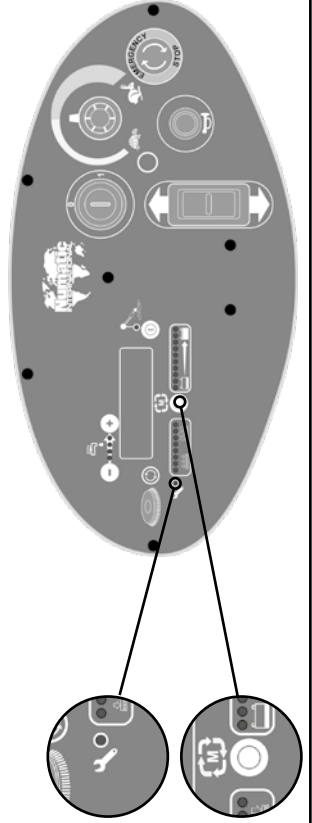


To view TGB 2120/2128 run time information turn the key to the (1) position.

Press the run-time information button to cycle between the different modes.

T = Traction run-time
V = Vacuum total run-time
B = Brush total run-time
W = Water Pump total run-time

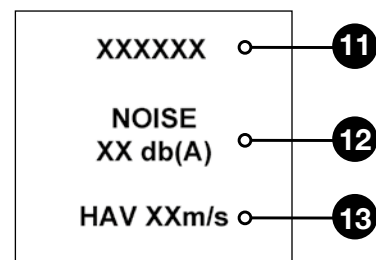
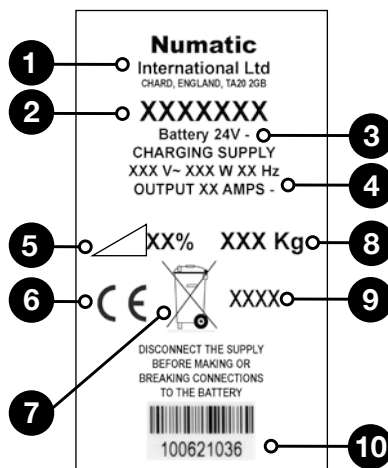
Red service LED on dashboard lights up after 500 hours of brush use and indicates potential service requirement (Contact your service engineer), to de-activate the warning light hold the 'mode' button down for 7 seconds.



About the Machine

Rating Label

1	Company Name & Address
2	Machine Description
3	Power rating
4	Voltage Frequency
5	Max Gradient
6	CE Mark
7	Weight (ready to use)
8	WEEE Logo
9	Ingress Protection Rating
10	Machine yr/wk Serial number
11	Machine Description
12	Noise Rating
13	Hand Arm Vibration



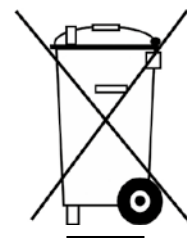
WEEE (Waste, Electrical and Electronic Equipment)

Scrubber dryer Accessories and packaging should be sorted for environmentally-friendly recycling. Only for EU countries.

Do not dispose of scrubber-dryer into household waste.

According to the European Directive 2002/96/EC on waste electrical electronic equipment and its incorporation into national law.

Scrubber-dryers that are no longer suitable for use must be separated, collected and sent for recovery in an environmentally-friendly manner.



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

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

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

Safety Critical Component:

Charging Leads: Ho5VV-F x 1.0 mm² x 3 Core
Transaxle: 205190
Battery Charger: (230V), (115V)

CAUTION



**No HOT drinks
when operating
this machine.**



**ORIGINAL INSTRUCTIONS
READ MANUAL BEFORE USE**

Information for Scrubber Dryer



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.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

If this product does not have a factory installed Numatic battery charger and batteries then it is the responsibility of the owner and user of the product to ensure that the charging system and battery combination are compatible, fit for purpose and safe to use.

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 non-slip 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.

Remove the key from the ignition when cleaning and carrying out routine maintenance.

In order to prevent unauthorized use of the machine, the power source shall be switched off or locked, for example by removing the key of the main switch or the ignition key.

When replacing major components the ignition key and battery fuses MUST be removed.

If this product does not have a factory installed Numatic battery charger and batteries then it is the responsibility of the owner and user of the product to ensure that the charging system and battery combination are compatible, fit for purpose and safe to use.

Machines left unattended shall be secured against unintentional movement.

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

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



CAUTION

This machine is not suitable for picking-up hazardous dust.

Do not use on surfaces having a gradient exceeding that marked on the appliance.

The machine is not to be stored outdoors in wet conditions.

This machine is for indoor use only.

Read the instruction manual before using the appliance.

This product meets the requirements of IEC 60335-2-72.

NOTE: This machine is also suitable for commercial use, for example in hotels, schools, hospitals, factories, shops and offices for other than normal housekeeping purposes.



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, if the machine is in charge mode or remove the key if in normal use.
- Allow any inexperienced repairs. Contact your nearest service centre.
- Strain charger lead or try to unplug by pulling on charger lead.
- Leave the brush deck in the lowered position when not in use.
- Expect the machine to provide trouble-free, reliable operation unless maintained correctly.
- Run the machine over any power cables during operation.

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 machine must be disconnected from the supply when removing the battery.
7. To remove the batteries:- Disconnect machine from the mains supply (if charging), raise waste water tank and ensure batteries are isolated by removing fuses. Disconnect hoses from separator and tanks, undo battery terminals and remove batteries.
8. Only use genuine Numatic replacement batteries.
9. Do not allow the batteries to become fully discharged, it may not be possible to recharge them.
10. Do not allow one battery to be discharged separately to the other.
11. Do not mix batteries from different machines.
12. The batteries fitted to this product are Valve Regulated Lead Acid (VRLA) gel electrolyte type.
The fitting of any other type of battery may cause a safety hazard.
13. The batteries must be removed from the machine before it is scrapped.
14. Dispose of the batteries safely in accordance with local government regulations.

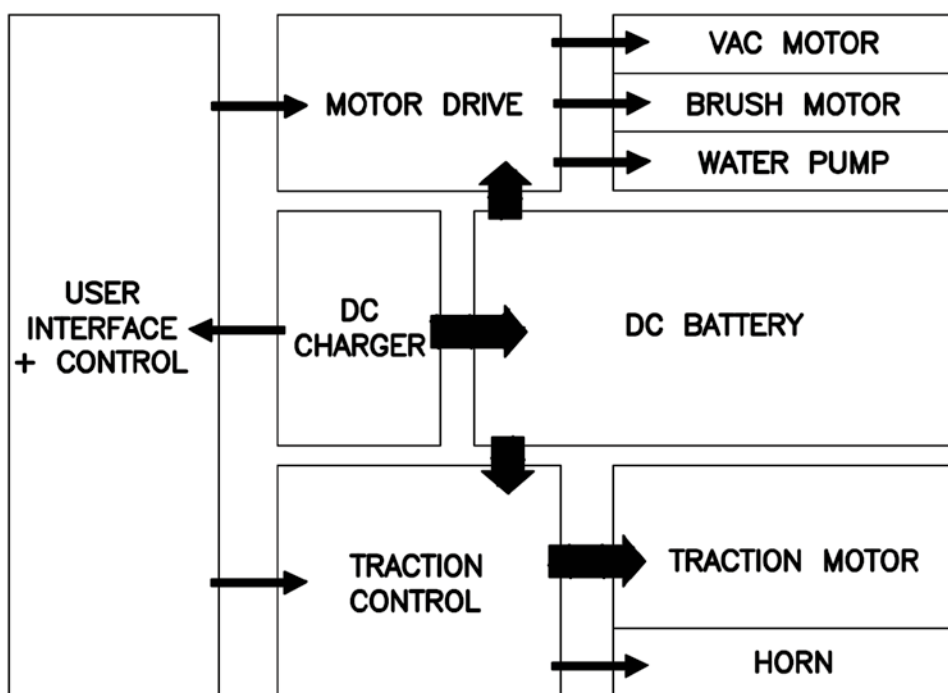
Battery Care

1. Always recharge the batteries after use. This can be done at any time – it is not necessary to wait until they are fully discharged; they do not develop a “memory”.
2. Leaving the charger to operate for a minimum of 4 hours after the green light has come on, at least weekly, will pro-long battery life.
3. Do not store the machine with the batteries discharged.

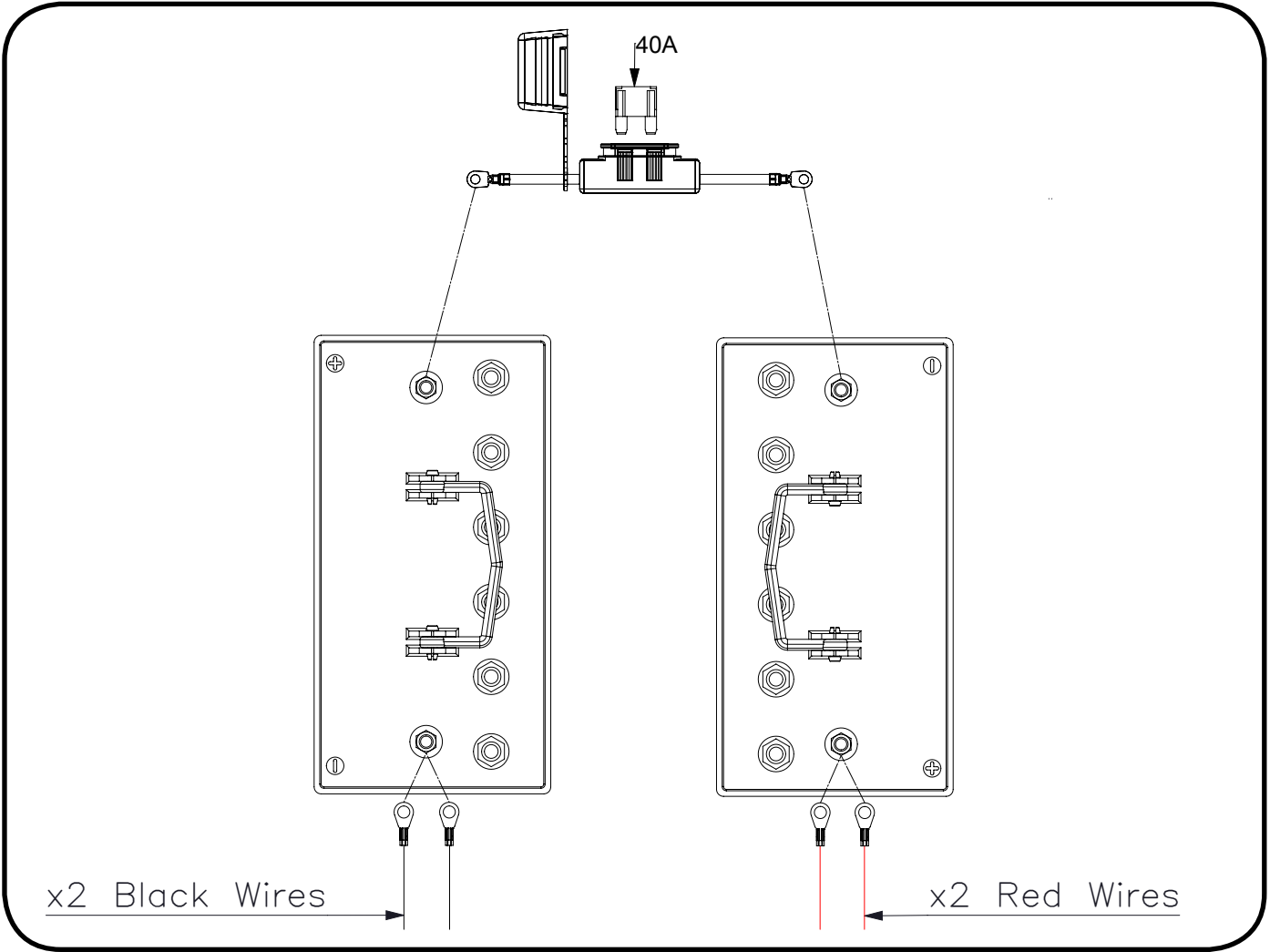
Spare Parts

Part No.	SQUEEGEE	Part No.	BRUSHES
904691	Complete 650mm Squeegee Assembly Red Trim TGB 2120	606028	550mm Polyscrub Brush
900518	Squeegee Blade Set - Serilor Pu Green Fr & Rr TGB 2120	606550	550mm Nyloscrub Brush
208497	Squeegee Castor	900526	500mm Nuloc2 Drive Board
206953	Detent Pin	903994	370mm Nyloscrub Brush (2 required)
208796	Squeegee Buffer Wheel	903449	370mm Polyscrub Brush (2 required)
604013	Squeegee Lift Inner Cable Kit	900524	360mm Nuloc2 Drive Board (2 required)
208156	M6 Pinch Bolt	PUMP AND FILTER	
903853	Complete 750mm Squeegee Assembly Red Trim TGB 2128	230278	Water Pump
904699	Squeegee Blade Set - Serilor Pu Green Fr & Rr TGB 2128	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	TGB Foam Pad	208890	68Mm Extended Strainer Clear Bowl
304503	Separator Seal Strip 1045Mm Long	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 TGB 2120
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 TGB 2120
206842	Filler Stretch Hose	204068	Deck Buffer Wheel CRO8072
		903437	Splash Skirt TGB 2128

Schematic Diagram



Battery Wiring Diagram



For optimum performance Numatic International Ltd recommend the use of the following batteries in the Twintec machines.

Machine	Numatic Recommended Battery	Numatic Number
TGB 2120 Less Battery	MK Battery - 98A/h Stud Terminal Gel Type - Suppliers Ref: E31 SLD G ST	205112
TGB 2128 Less Battery	MK Battery - 98A/h Stud Terminal Gel Type - Suppliers Ref: E31SLD G ST	205112

Make	Voltage	Capacity	Weight	Size
MK Battery	12 V	98 A/h	31.8 Kg	327.5mm x 169mm x 218mm

Numatic International Warranty

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

Homecare and Cleancare Vacuum cleaners.....	2 Years
Rotary Floor Machines.....	2 Years
Twintec Auto Scrubber Dryer.....	1 Year
Vario Ride-On Scrubber Dryer.....	1 Year / 1500 hours
Mopping, Compacts, Combi and Servocare Products.....	1 Year
Individual Accessories and Spare Parts.....	6 Months

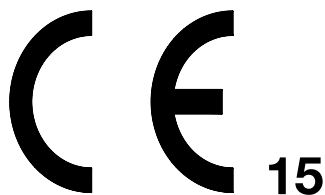
Note: This warranty expressly excludes consumable parts such as carbon brushes, floor brushes, mops, batteries etc, that are considered replaceable from time to time during the normal working life of the machine.

- A. The warranty period commences from the date the goods are purchased.
- B. All warranty claims must be processed through the Dealer from whom the equipment was purchased. 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 Numatic International Limited 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. Numatic International will supply the Dealer with any warranty parts required, subject to the claim being validated, after return of the faulty items in accordance with Numatic International Limited's General Conditions of Sale.
- 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 Numatic International Limited.
- H. Numatic International Limited reserve the right to charge for any unnecessary 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 Numatic International Limited or its Dealers unless such variation is in writing and authorised by the Company



Numatic International Limited. Chard, Somerset, TA20 2GB
Telephone: 01460 68600 Fax: 01460 68458

© Numatic International Limited



EU DECLARATION OF CONFORMITY

We hereby declare under our sole responsibility that the following equipment fulfils all the relevant provisions of the following EU Directives:

Machinery Directive 2006/42/EC
EMC Directive 2004/108/EC
RoHS Directive 2011/65/EU

Machine Description: Scrubber Dryer
Machine Type: TTV, TRO, TGB series

Manufactured by: Numatic International Limited

Relevant standards upon which conformity is declared include:

IEC 60335-1 2001 + A1 2004 + A2 2006
+ National Deviations
IEC 60335-2.72 Ed 2.0
EN 55014-1:2006
EN55014-2:1997+A1
EN61000-3-2:2006
EN61000-3-3:1995+A1+A2
BS EN 62233:2008

A technical construction file for this equipment is retained at the manufacturer's address under the authorisation of the following signatory:

Name: Allyn Boyes

Position: Technical Manager

Signed:

Date: 15/06/2015



Numatic International Limited
Chard, Somerset.
TA20 2GB
www.numatic.co.uk

GB

Notes

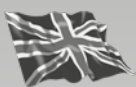
Notes

**This Machine Has Been Packed
With The Following**

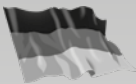
Brush / Pad	<input type="checkbox"/>
Floor Tool	<input type="checkbox"/>
NuTab	<input type="checkbox"/>
Charging Lead	<input type="checkbox"/>
Fuse Pack	<input type="checkbox"/>

Signed

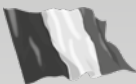
Distributed by:



Numatic International Limited.
Chard, Somerset TA20 2GB ENGLAND
Tel.: 01460 68600 www.numatic.co.uk



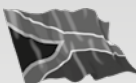
Numatic International GmbH, Fränkische Straße 15–19
D-30455 Hannover, DEUTSCHLAND
Tel.: 05 11 98 42 16 0 www.numatic.de



Numatic International SAS, 13 / 17 rue du Valengelier
77500 CHELLES, FRANCE
Tel: 01 64 72 61 61 www.numatic.fr



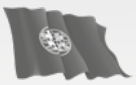
BeNeLux Distribution, Numatic International BV
Postbus 101, 2400 AC Alphen aan den Rijn, NEDERLAND
Tel: 0172 467 999 www.numatic.nl



Numatic International (Pty.) Ltd.
16th & Pharmaceutical Roads, Midrand, Gauteng, SOUTH AFRICA 1685
Tel: 0861 686 284 www.numatic.co.za



Numatic International Schweiz AG.
Sihlbruggstrasse 142, 6340 Baar, SCHWEIZ
Tel: 0041 (0) 41 76 80 76 - 0 www.numatic.ch



Numatic International ULDA, Centro de Negócios da Maia,
Rua Albino José Domingues, 581, 4470 – 034 Maia PORTUGAL
Tel: +351 220 047 700 www.numatic.pt

This Product has been comprehensively inspected and checked during every stage of its manufacture.
including an in-depth electrical safety and functionality test.

Specification subject to change without prior notice
www.numatic.co.uk © Numatic International Limited

244488 02/18 (A15)