



TTB1620T

## TROUBLESHOOTING GUIDE



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## Warning light flashes explained.

● Green Flashing Warning light.

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 Possible bad connection between batteries, controller, charger or fuses caused by loose connections, damaged wiring, water ingress Not accepting charge due to faulty battery/cell Charger not functioning	Operating time severely reduced or machine will not operate	Check when machine last charged Switch OFF the machine : Remove Fuses Check connections to batteries, charger and fuses for loose wires or screws Check each battery Voltage individually to detect defect unit 10.5V min Check battery voltage and charge current ensuring charger red fault light is extinguished.	Charge batteries immediately Tighten loose connections and replace damaged components Replace batteries as required Replace charger	
2 Flashes with pause ● ●	Traction motor disconnected	The motor has a bad connection Motor disconnected TCO activated (Thermal cut Out) Motor failed open circuit	Motor will not operate	Check all connections and leads between the motor and controller	Tighten loose connections and replace damaged components - check exhaust clean if necessary.	
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		Contact Service Agent
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. Check each battery Voltage individually to detect defect unit 10.5V min	Charge batteries immediately	
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		

## LCD Display' and fault codes

LCD Display	Fault	Possible Cause	Effect on Product	Investigate the Following	Action Required	if Fault Persists.
Blank	* No power	* Key switched off * Tank raised * Emergency stop pressed	* Machine will not operate.	*Key switched off * Tank raised * Emergency stop pressed	* Switch key on * Lower top tank * Release emergency stop	Contact Service Agent.
'OVER CURRENT'	* Brush over current.	* Brush pressure to great. * Brush current exceeds 32A * Wrong type of brush for surface	* Vac. Brush, water & Detergent motors / pump will not operate. * Brush LED's all flash in unison until the trigger is released.	* Release brush pressure. * Changed type of brush. * Restart machine.		
'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)	
'TANK FULL'	* Tank full requires emptying.	* Waste Tank Float switch activated whilst cleaning or off aisle mode selected. * Faulty Float switch.	* Vac. Brush, water & Detergent motors / pump will not operate.	* Tank full LED illuminated. * Top waste tank full.	* Empty top waste tank * Replace switch	
'CHARGING'	* Machine on charge.					
MACHINE INHIBITED - NO OPERATION.						



The TTB 1620T has a self contained trip meter, to view the meter turn the key to the 'On' position.

Press the mode button to cycle between the different modes.

T = Total time.

V = This meter counts when ever any function is being used, including the off aisle function.  
Vacuum total time.

B = Brush total time.

W= Water Pump total time.



## Trouble-Shooting

PROBLEM	CAUSE	SOLUTION
Machine will not operate	Missing or blown fuses Key in the 'OFF' position Low battery charge Machine is connected and charging	Fit or replace fuse (page 30) Turn key to 'ON' position (page 22) Charge batteries (page 29) Take off charge (page 29)
Vacuum will not operate	Waste water tank full	Empty waste water tank (page 23)
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	Empty waste-water tank (page 23) Remove and clean (page 26) Push tight connections (page 19) Remove and clean (page 26) Remove and clean (Page 26) Clean and refit (page 26) Renew (contact service dept) Renew (contact service dept) Renew (contact service dept) Recharge batteries (page 29)
No brush / scrub function	No brushes fitted Brush deck raised	Check and fit (page 19) Lower brush deck (page 22)
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 20) Remove and clean (26) Adjust as desired (Page 22) Lower brush deck (page 22)
Machine just 'stops' while operating	To much load on the brush system	Reset the machine using the key and decrease the brush load to best suit the floor type (page 23)