

TRIO Scrubber System Diagnostic Codes

Code	PGDT Technical Description	Probable Cause	Service Action
0003	EEPROM program checksum error 2	Memory corrupt	Replace Controller if not cleared by disconnecting batteries for 1 min
0100	Running Checksum 1		
0204	EEPROM program checksum error 1		
0705	2.5V reference error	All 070x codes -Wiring short circuit between Tiller Hi and Lo Ref	Check for wiring short circuits on the 20 way connector on the Trio, the 16 way connector on the LCD (if used) and the wiring to the front panel switches & controls and those switches & controls themselves.
0706	High switch reference error		
0810	Tiller Fault 1	<i>Pct</i> All 081x codes – Throttle wiring short or open circuits 0816 and 0817 can be caused by incorrect programming of the ISO test parameter	Check for wiring short circuits or broken wires on the 20 way connector on the Trio, the 5 way connector on the LCD (if used) and the wiring to the front panel speed / throttle control and the speed / throttle control itself.
0811	Tiller maximum wiper difference error		
0812	Tiller maximum pull-down difference error		
0813	Tiller maximum pull-safe difference error		
0814	Tiller reference error		
0815	Tiller lo reference error		
0816	Tiller hi reference ISO error		
0817	Tiller lo reference ISO error		
0818	Tiller error both have readings		
0A01	Power down error	Possible Controller fault	Replace Controller if not cleared by disconnecting batteries for 1 min
0B0B	EEPROM Q Overflow	Possible Controller fault	Replace Controller if not cleared by disconnecting batteries for 1 min
1310	Excessive current trip	Possible Controller fault	Replace Controller if not cleared by disconnecting batteries for 1 min
1500	Brake fault 1	All 150x codes - Check brake & wiring for open or short circuit	Check the Traction motor connection on the Trio and check the wiring from this connector down to the Traction motor and checking connections all the way. Otherwise possible fault in electro brake on traction motor or possible Controller fault.
1501	Brake fault 2		
1507	Brake overcurrent error		
1600	High battery voltage	Voltage exceeds maximum	Can be caused by poor or corroded connections to the batteries or a battery charger being connected.
1704	Relay monitor failure	Possible Controller fault	Replace Controller if not cleared by disconnecting batteries for 1 min
1705	Relay fault 1		
1706	Relay fault 2		
1800	Watchdog error		
1802	Watchdog voltage ref error		
1B20	Both clamps measuring current		
1B21	Traction phase overflow error		
1D02	Front end spec change	Tiller settings updated in programming	Cycle the power via the keyswitch
1E03	Inhibit activated	Inhibit inputs - Exact usage dependent on	Remove or correct what is causing the inhibit. Otherwise check for wiring short circuits or

1E04	Inhibit activated2	programming	broken wires on the 20 way connector on the Trio and the wiring elsewhere on the machine. Otherwise incorrect programming or operation of machine.
2102	Progress counter error	Possible Controller fault	Replace Controller if not cleared by disconnecting batteries for 1 min
2103	Progress counter error 2		
2C00	Low battery error	Low voltage warning	Recharge batteries immediately
2C01	Low battery error 2		
2C02	Soft battery lockout occurred	Dependent on programming	Recharge batteries immediately
2D01	No output drive	Possible Controller fault	Replace Controller if not cleared by disconnecting batteries for 1 min
2F01	Tiller displace error	Throttle in drive position during switch on	Incorrect operation of machine. Otherwise check the mechanical condition of the throttle mechanism. Otherwise check for wiring short circuits on the 20 way connector on the Trio, the 16 way connector on the LCD (if used) and the wiring to the front panel switches & controls and those switches & controls themselves.
3100	Bridge fault 1	All 310x codes - Probable short circuit of output device or wiring - can sometimes cause permanent Controller fault.	Check the Traction, Brush and Vac motor connections on the Trio and check the wiring from these connectors down to the Traction, Brush and Vac motors checking connections all the way and also checking for short circuits. Check for wiring short circuits or broken wires on the 14 way connector on the Trio and the wiring elsewhere on the machine. Otherwise replace Controller.
3101	Traction bridge fault		
3102	Brush/Vac bridge fault		
3103	Soft waiting for bridge to charge		
3104	Traction bridge fault 2		
3105	Bridge fault 2		
3201	Mine field mismatch	Possible Controller fault	Replace Controller if not cleared by disconnecting batteries for 1 min
3210	No internal timers		
3211	Internal timer out of range		
3212	A to D readings not finished before next read		
3213	Unknown mux channel		
3214	ADC module not ready error		
3601	Test trip latch 1	Possible Controller fault	Replace Controller if not cleared by disconnecting batteries for 1 min
3602	Test trip latch 2		
3603	Test trip latch 3		
3608	Test trip latch 8		
3609	Test trip latch 9		
360A	Test trip latch 10		
360B	Test trip latch 11		
360C	Test trip latch 12		
360D	Test trip latch 13		
360E	Test trip latch 14		
7000	Startup with push activated	All 70xx codes – Check wiring of brake and freewheel switch	Check for wiring short circuits on the 20 way connector on the Trio, the 16 way connector on the LCD (if used) and the wiring to the freewheel switch and the switch itself.. Check the Traction motor connection on the Trio and check the wiring from this connector down to the electromagnetic brake on the Traction motor and check connections all the way. Can be caused by excessive pushing or rolling down a slope or incorrect operation of the machine.
7001	Push activated in drive mode		

7500	LCD Module communications timeout	Wiring fault on 6-way serial link between Trio and LCD	Check the wiring and connectors on the 6 way connections on the Trio and LCD
7501	LCD Module settings corrupt	LCD memory corrupt	Disconnect batteries and wait for 1 min before re-applying power
7600	Soft brush motor disconnected error	Open circuit on brush motors or brush motor wiring	Check the Brush motor connection on the Trio and check the wiring from this connector down to the Brush motor and checking connections all the way. Otherwise possible Brush motor fault.
7601	Soft brush current foldback	Brush current overload ("thermal" trip)	Incorrect programming, incorrectly specified Brush motor, Brush motor developing a fault, excessive resistance on brushes or brushes pushing down too hard on floor.
7602	Soft brush current foldback 2	Brush current overload ("magnetic" trip)	Incorrectly specified Brush motor, Brush motor developing a fault
7603	Soft brush current foldback 3	Possible short circuit on brush motors or wiring	Check the Brush motor connection on the Trio and check the wiring from this connector down to the Brush motor and checking connections all the way. Otherwise possible Brush motor fault.
7604	Brush inhibit active	Dependent on programming	Incorrect software program - check program, otherwise possible controller fault.
7700	Soft vacuum motor disconnected error	Open circuit on vac motors or vac motor wiring	Check the Vac motor connection on the Trio and check the wiring from this connector down to the Vac motor and checking connections all the way. Otherwise possible Vac motor fault.
7701	Soft vacuum current foldback	Vacuum current overload ("thermal" trip)	Incorrect programming, incorrectly specified Vac motor, Vac motor developing a fault, debris in Vac motor or airways blocked by debris
7702	Soft vacuum current foldback 2	Vacuum current overload ("magnetic" trip)	Incorrectly specified Vac motor, Vac motor developing a fault
7703	Soft vacuum current foldback 3	Possible short circuit on vacuum motors or wiring	Check the Vac motor connection on the Trio and check the wiring from this connector down to the Vac motor and checking connections all the way. Otherwise possible Vac motor fault.
7800	Motor fault 1	Open circuit on traction motor or traction motor wiring	Check the Traction motor connection on the Trio and check the wiring from this connector down to the Traction motor and checking connections all the way. Otherwise possible Traction motor fault.
7801	Traction over current error	Possible short circuit on Traction motor or wiring	Check the Traction motor connection on the Trio and check the wiring from this connector down to the Traction motor and checking connections all the way. Otherwise possible Traction motor fault.
7802	Traction motor in foldback state	Traction motor current has exceeded current limit for the foldback time	Excessive driving up an incline, or machine driven up against an obstacle or step.
7900	Emergency stop error	E-stop input active or wiring fault	Check for wiring short circuits on the 20 way connector on the Trio, the 16 way connector on the LCD (if used) and the wiring to the emergency stop switch and the emergency stop switch itself. Otherwise incorrect operation of machine.
7901	Belly button switch activated	E-stop input active or wiring fault (programmed as belly button)	Check for wiring short circuits on the 20 way connector on the Trio, the 16 way connector on the LCD (if used) and the wiring to the belly button stop switch and the belly button switch itself. Otherwise incorrect operation of machine.