

TRIP CODE	TRIP TYPE (FLASHING LEDs)	TRIP TYPE (TEXT)	DESCRIPTION OF FAULT	POSSIBLE CAUSES / REMEDIES
0300	N/A	Throttle Trip	Parallel Speed Limit Pot Wiper has been detected as open circuit	<ul style="list-style-type: none"> <li>- Check wiper connection of Parallel Speed Limit Pot for loose connection</li> <li>- Check pin 9 of i90 for loose connection (Belly Button / Parallel Speed Limit Pot input)</li> <li>- Replace Parallel Speed Limit Pot in case it has become faulty</li> <li>- Check Programming of "Speed Limit Pot Enabled" is set correctly, set to NO if Pin 9 is being used as Belly Button input.</li> </ul>
0815	7*	Throttle Trip	Throttle Low Reference (Pin 8) is outside its normal range.	<ul style="list-style-type: none"> <li>- Check throttle connections, especially to pins 8 and 2.</li> <li>- Replace throttle potentiometer in case it has become faulty.</li> <li>- Check Programming of throttle type matches the throttle behaviour.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
0A00	6	Sleep Mode	Occurs when controller enters Sleep Mode	<ul style="list-style-type: none"> <li>- Turn controller off and then on to awake the system.</li> <li>- To disable Sleep Mode, program the parameter Sleep Timer to 0 minutes.</li> </ul>
0A01	6	Keyswitch Cycled in Drive	Occurs when controller detects a rapid keyswitch cycle (off and on), especially in drive.	<ul style="list-style-type: none"> <li>- Check for loose connections around the keyswitch.</li> <li>- Check for loose connections to pin 5.</li> <li>- Check for loose connections to pin 7 (if being used to supply keyswitch).</li> <li>- Switch off controller, and wait for any drive to stop (soft-stop) before switching on the controller again.</li> </ul>
0E07	7	Throttle Trip	Occurs when the controller detects that the Series Speed Limit Potentiometer Wiper is shorted to one of the throttle references, either high or low.	<ul style="list-style-type: none"> <li>- Check Series Speed Limit Pot Wiper (Pin 1) connections are not shorted to pins 8 or 2.</li> <li>- Replace Series Speed Limit potentiometer in case it has become faulty.</li> <li>- Check Programming of ISO TEST is set correctly - it should only be enabled if a series 10kohm resistor is fitted between throttle potentiometer wiper and controller.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
0E08	7	Throttle Trip	Occurs when the controller detects an error with the Throttle Wiper.	<ul style="list-style-type: none"> <li>- Check throttle wiper connections, especially for any open circuits to pin 1.</li> <li>- Replace throttle potentiometer in case it has become faulty..</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
1310	3	Motor Overcurrent	Occurs when the controller detects that the motor is drawing excessive current.	<ul style="list-style-type: none"> <li>- Check motor brushes are not worn or damaged.</li> <li>- Replace motor brushes, in case they have worn or become faulty.</li> <li>- Check motor connections for possible damage or short circuits (both at the motor and controller connections).</li> <li>- Check motor for possible damage.</li> <li>- Replace motor, in case it has developed a fault.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
1320	N/A	Motor Current exceeded threshold for threshold time	Occurs when the controller detects that the motor current has exceeded the programmed timed current foldback threshold for a duration exceeding the programmable timed current foldback time.	<ul style="list-style-type: none"> <li>- No indication is given to the user for this condition, but the event is logged in the system log. The condition is cleared automatically after the programmed motor cooling time has elapsed.</li> </ul>
1330	5	Max or stalled Motor Current observed for Stall Time	Occurs when the controller detects that the motor current has exceeded the programmed current foldback threshold value, or the controller has been in current limit, for a duration exceeding the programmable timed current foldback time.	<ul style="list-style-type: none"> <li>- No indication is given to the user for this condition, but the event is logged in the system log. The condition is cleared automatically after the programmed motor cooling time has elapsed.</li> </ul>
1500	9	Short-Circuit in Solenoid Brake	Occurs when the controller detects a short circuit in the solenoid brake.	<ul style="list-style-type: none"> <li>- Check the solenoid brake connections for possible short circuits.</li> <li>- Check the solenoid brake for possible damage.</li> <li>- Replace solenoid brake, in case it has developed a fault.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
1502	9	Open-Circuit in Solenoid Brake	Occurs when the controller detects an open circuit in the solenoid brake at start-up or in standby.	<ul style="list-style-type: none"> <li>- Check the solenoid brake connections for possible loose or broken connections.</li> <li>- Check the solenoid brake for possible damage.</li> <li>- Replace solenoid brake, in case it has developed a fault.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
1600	10	High Battery Voltage	Occurs when the controller detects that the battery voltage has exceeded approximately 35V.	<ul style="list-style-type: none"> <li>- Check the condition of the batteries.</li> <li>- Check the wiring to the batteries for any possible damage or loose connection.</li> <li>- Replace batteries and/or wiring / connections if they have become defective.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
1601	10	Very High Battery Voltage	Occurs when the controller detects that the battery voltage has exceeded approximately 45V.	<ul style="list-style-type: none"> <li>- Check the condition of the batteries.</li> <li>- Check the wiring to the batteries for any possible damage or loose connection.</li> <li>- Replace batteries and/or wiring / connections if they have become defective.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
1D04	7	Both Direction Switches Active	Occurs when the controller detects that both of the Direction Switches have been operated at the same time.	<ul style="list-style-type: none"> <li>- Check programming to ensure Direction Switches is correctly programmed. Disable if inputs are not being used as direction switch inputs.</li> <li>- Check user operation of direction switches and ensure they are not operating both switches at the same time.</li> <li>- Check operation of direction switches are working independently.</li> <li>- Check wiring of direction switches.</li> <li>- Check direction switches for any damage (mechanical or electrical) and replace if necessary.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>

1E08	Step-Up*	Inhibit 1 Active	Occurs when the controller detects that the Inhibit 1 input is active, Inhibit 1 Speed has been set to '0' and Inhibit 1 Operation has been set to 'Latched'.	<ul style="list-style-type: none"> <li>- Check Inhibit 1 programming is correct.</li> <li>- Check wiring to pin 4, 4W programming connector, for incorrect wiring or signal.</li> <li>- Check the state of the inhibit 1 switch.</li> <li>- Check wiring to the inhibit 1 switch.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
1E09	6*	Inhibit 2 Active	Occurs when the controller detects that the Inhibit 2 input is active, Inhibit 2 Speed has been set to '0' and Inhibit 2 Operation has been set to 'Latched'.	<ul style="list-style-type: none"> <li>- Check Inhibit 2 programming is correct.</li> <li>- Check wiring to pin 6, 14W programming connector, for incorrect wiring or signal.</li> <li>- Check the state of the inhibit 2 switch.</li> <li>- Check wiring to the inhibit 2 switch.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
1E0A	Step-Up*	Inhibit 3 Active	Occurs when the controller detects that the Inhibit 3 input is active, Inhibit 3 Speed has been set to '0' and Inhibit 3 Operation has been set to 'Latched'.	<ul style="list-style-type: none"> <li>- Check Inhibit 3 programming is correct.</li> <li>- Check wiring to pin 14, 14W programming connector, for incorrect wiring or signal.</li> <li>- Check the state of the inhibit 3 switch.</li> <li>- Check wiring to the inhibit 3 switch.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
2C00	1	Low Battery Voltage	Occurs when the controller detects that the battery voltage has fallen below approximately 13.5V.	<ul style="list-style-type: none"> <li>- Check the condition of the batteries.</li> <li>- Check the wiring to the batteries for any possible damage or loose connection.</li> <li>- Replace batteries and/or wiring / connections if they have become defective.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
2C01	1	Very Low Battery Voltage	Occurs when the controller detects a sudden drop in battery voltage.	<ul style="list-style-type: none"> <li>- Check the condition of the batteries.</li> <li>- Check the wiring to the batteries for any possible damage or loose connection.</li> <li>- Replace batteries and/or wiring / connections if they have become defective.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
2F01	7*	Throttle / Direction Switch Displaced at Start-up	Occurs when the controller detects that the Throttle Potentiometer or one of the Direction Switches has been displaced at start-up and the parameter Throttle Operated At Power-Up / Direction Switches Operated At Power-Up has been set to 'Trip'.	<ul style="list-style-type: none"> <li>- Check operator is not deflecting throttle at start-up.</li> <li>- Check operator is not operating direction switches at start-up.</li> <li>- Check throttle potentiometer for possible damage - ensure it is in neutral and can return to neutral when released.</li> <li>- Check programming of throttle deadband is correctly set.</li> <li>- Check programming of throttle gain is correctly set.</li> <li>- Check direction switches have not developed a fault.</li> <li>- Replace throttle potentiometer, if faulty.</li> <li>- Replace direction switches, if faulty.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
3B01	2	Motor Open-Circuit	Occurs when the controller detects that the motor has become disconnected at start-up or in standby.	<ul style="list-style-type: none"> <li>- Check motor brushes are not worn or damaged.</li> <li>- Replace motor brushes, in case they have worn or become faulty.</li> <li>- Check motor connections for possible damage or short circuits (both at the motor and controller connections).</li> <li>- Check motor for possible damage.</li> <li>- Replace motor, in case it has developed a fault.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
3D02	3	Motor Shorted to Battery Positive	Occurs when the controller detects that the motor wiring has been shorted to Battery Positive.	<ul style="list-style-type: none"> <li>- Check motor brushes are not worn or damaged.</li> <li>- Replace motor brushes, in case they have worn or become faulty.</li> <li>- Check motor connections for possible damage or short circuits (both at the motor and controller connections).</li> <li>- Check motor for possible damage.</li> <li>- Replace motor, in case it has developed a fault.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
3D03	3	Motor Shorted to Battery Negative	Occurs when the controller detects that the motor wiring has been shorted to Battery Negative.	<ul style="list-style-type: none"> <li>- Check motor brushes are not worn or damaged.</li> <li>- Replace motor brushes, in case they have worn or become faulty.</li> <li>- Check motor connections for possible damage or short circuits (both at the motor and controller connections).</li> <li>- Check motor for possible damage.</li> <li>- Replace motor, in case it has developed a fault.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
4401	N/A	Record of Possible Controller Fault	'4401' is not actually a trip code but rather a historical record of the number of times the unit has tripped with a suspected controller error. The number of 4401 entries in the System Log, should match the total number of faults in the Control Log.	<ul style="list-style-type: none"> <li>- Check overall wiring for any loose connections or faults.</li> <li>- Check batteries for any problems.</li> <li>- Check motors for any problems.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
5300	8	Programmable Setting Change	Occurs whenever the value of a parameter is altered using a programmer.	<ul style="list-style-type: none"> <li>- Turn controller off and then on to reset the controller.</li> </ul>
7000	4	Freewheel Input Active at Start-up	Occurs when the controller detects that the Freewheel Input is 'active' at start-up, and the program setting "Freewheel Enable" has been programmed to On.	<ul style="list-style-type: none"> <li>- Check state of Freewheel input, pin 14 of 14W tiller connector.</li> <li>- If this input is not intended to be a freewheel input switch, then change programming setting for "Freewheel Enable" to Off.and the program setting "Freewheel Enable" has been programmed to On.</li> <li>- Check operation of Freewheel Switch - replace if faulty.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>

7001	4	Freewheel Input Active in Drive	Occurs when the controller detects that the Freewheel Input is 'active' during drive, and the program setting "Freewheel Enable" has been programmed to On.	<ul style="list-style-type: none"> <li>- Check state of Freewheel input, pin 14 of 14W tiller connector.</li> <li>- If this input is not intended to be a freewheel input switch, then change programming setting for "Freewheel Enable" to Off.and the program setting "Freewheel Enable" has been programmed to On.</li> <li>- Check operation of Freewheel Switch - replace if faulty.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
7901	7	Belly Button Active at Start-up	Occurs when the controller detects that the Belly Button Switch has been operated at start-up.	<ul style="list-style-type: none"> <li>- Check state of Belly Button input, pin 9 of 14W tiller connector.</li> <li>- Check program settings for Belly Button are correctly programmed.</li> <li>- Check operation of Belly Button Switch - replace if faulty.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>
All Other Codes	8	Possible Controller Error	Occurs when the controller suspects an internal problem.	<ul style="list-style-type: none"> <li>- Check overall wiring for any loose connections or faults.</li> <li>- Check batteries for any problems.</li> <li>- Check motors for any problems.</li> <li>- If problem still persists after all these checks, then replace controller, as it may have become defective.</li> </ul>