

**Applies to:**

**Mercury GT scooter (Product codes: GT)**

**Diagnostics:**

200A version used on the Mercury GT scooter. When the keyswitch is turned on and a fault is detected, the leftmost bar on the battery gauge will flash. To indicate the fault, the bar will flash a number of times, then pause and flash another number of times. (e.g. for a low battery voltage the bar will flash once, pause, then flash 4 times).



FLASH CODE	DESCRIPTION	EXPLANATION	POSSIBLE CAUSE
1 pause 1	HARDWARE FAILSAFE 4	Current limit fault	<ol style="list-style-type: none"> <li>Short in motor or motor wiring</li> <li>Controller failure</li> </ol>
1 pause 2	HARDWARE FAILSAFE 1	EEPROM fault	<ol style="list-style-type: none"> <li>EEPROM failure or fault</li> </ol>
1 pause 3	HW FAILSAFE	Motor Voltage Fault	<ol style="list-style-type: none"> <li>Motor voltage does not correspond with throttle request.</li> <li>M-output shorted to ground</li> <li>Internal motor shorted ground</li> <li>Controller failure</li> </ol>
1 pause 4	HARDWARE FAILSAFE 2	Output section fault	<ol style="list-style-type: none"> <li>Short in motor or in motor wiring</li> <li>Controller failure</li> </ol>
2 pause 1	THROTTLE FAULT 1	5kΩ-0 or wiper fault	<ol style="list-style-type: none"> <li>Throttle input wire open</li> <li>Throttle input wire short to ground or B+</li> <li>Throttle pot defective</li> <li>Wrong throttle type selected</li> </ol>
2 pause 2	SRO	SRO fault	Not applicable
2 pause 3	HPD	HPD (High pedal disable) fault	<ol style="list-style-type: none"> <li>Throttle pot (wigwag) deflected when keyswitch turned on</li> <li>Improper sequence of keyswitch, power enable and throttle inputs.</li> <li>Misadjusted throttle pot</li> </ol>
3 pause 1	BB WIRING CHECK	Emergency Reverse wiring fault	Not applicable
3 pause 2	PROC / WIRING FAULT	HPD fault present for > 5s	<ol style="list-style-type: none"> <li>Misadjusted throttle</li> <li>Broken throttle pot</li> <li>Broken throttle mechanism</li> </ol>
3 pause 3	HARDWARE FAILSAFE 3	Main contactor fault	<ol style="list-style-type: none"> <li>Main contactor welded</li> <li>Main contact driver fault</li> <li>Main contactor coil fault</li> </ol>
3 pause 4	EM BRAKE DRVR FAULT	EM brake driver fault	<ol style="list-style-type: none"> <li>EM brake coil shorted or open</li> <li>EM brake wiring open</li> </ol>
4 pause 1	LOWER BATTERY VOLTAGE	Low battery voltage	<ol style="list-style-type: none"> <li>Battery voltage &lt; 16V</li> <li>Corroded or loose battery terminal</li> <li>Loose controller terminal</li> </ol>
4 pause 2	OVERVOLTAGE	Overvoltage	<ol style="list-style-type: none"> <li>Battery voltage &gt; 36V</li> <li>Vehicle operating with charger attached</li> </ol>
4 pause 3	PRECHARGE FAULT	Precharge fault	<ol style="list-style-type: none"> <li>Internal controller fault</li> <li>Low battery voltage</li> </ol>
4 pause 4	THERMAL CUTBACK	Over / Under – temperature cutback	<ol style="list-style-type: none"> <li>Temperature &gt; 95°C or &lt; -25°C</li> <li>Excessive load on vehicle</li> </ol>