Battery Cycler recognized commands:

**(0-32) - Basic commands that can be run while the system is not busy and don’t change any system variables**

0 – Stop

1 – Pause

2 – Clear charging energy

3- Clear load energy

4 –

**(33-64) - Update system variables, can only be done when system is not busy:**

**Chamber temp, BSF, max battery voltage, min batt voltage, max batt temp, min batt SOC?, other safety conditions.**

33 –

How our profiles are defined:

A simple profile is defined as a series of steps that contain 4 variables;

**-8bit mode:** the mode defines how the system is operated and how the limit is interpreted.

**-16bit output value:** the value determines what the output of the system is to be in the particular mode for this particular step.

**-16bit limit value:** will typically be a time limit but could be re-allocated depending on the modes needs. the maximum time in units of seconds that the step is to run for before moving on. Max time limit for a step is 18hours

**- 16bit limit value:** a second value that when reached completes the step, similar to time, could possibly be combined. The relevance of the limit value and time value are dependent on the particular mode of operation.

Note: A limit should be able to be set to its max value or 0 to be ignored…

Modes: (0-256)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Mode (0-256) | Output value | Limit value 1 | Limit value 2 | Notes |
| 0 | Channel off | Time limit |  | Resting periods |
| 1 | Constant Current charging(mA) | High cell voltage | Time limit | 1st step charging. |
| 2 | Constant Current load (mA) | Low cell voltage | Time limit | Dirving profiles, CC capacity, |
| 3 | Constant Current load | Low cell voltage | Low SOC | Decreasing SOC (without hitting fault voltage) |
| 4 | Constant Voltage charging | Low current limit | Time limit | 2nd step charging. |
| 5 | Constant Voltage load | Low cell voltage | Time limit |  |
| 6 | Constant Power charging | High cell voltage | Time limit |  |
| 7 | Constant Power load | Low cell voltage | Time limit | CW capacity |
| 8 | Constant power load | Low cell voltage | Low SOC | Decreasing SOC without hitting voltage fault. |