

UltraSmartCharger

Quick Start/Reference Guide

Quick Start:

- Step 1: Insert SD card for logging (optional)
- Step 2: Connect Power via USB Port
- Step 3: Select the mode
- Step 4: Select the charging rate
- Step 5: Insert one or two NiMH/NiCd/NiZn AA-size batteries
- Step 6: Push button for ¼ second, 1 second or 3 seconds to start

Mode switch positions:

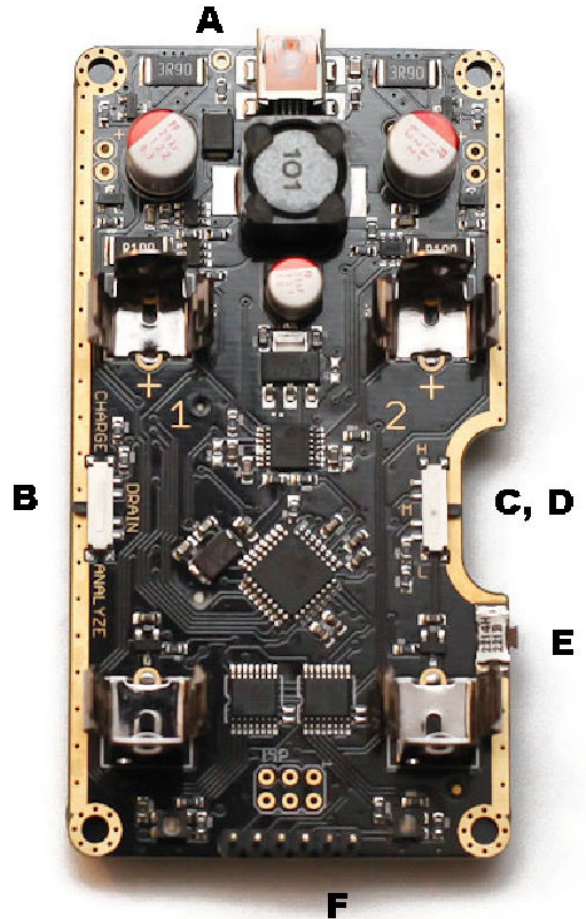
Charge	Charge only
Drain	Discharge only, or cycles as per button press
Analyze	Runs charge/discharge cycles as per button press

Pressing the button:

- In Charge mode:
 - ¼ sec.: Normal Charge
 - 1 sec.: Attempt to revive a dead battery, then normal charge
- In Drain mode:
 - ¼ sec.: Discharge Only
 - 1 sec.: Discharge, then Charge
 - 3 sec.: Discharge, Charge, Discharge, Charge
- In Analyze mode:
 - ¼ sec: Charge, Discharge, Charge
 - 1 sec.: Charge, then Discharge, Charge, twice
 - 3 sec.: Charge, then Discharge, Charge, three times

Image below is Board Ver. 7

Primary Operational Locations:



A – Mini USB port (Power only - no data access)

B – Mode Switch

C – Charging Rate Switch (High, Medium, Low)

D – SD Card Slot (Underneath, Optional)

E – Sub-mode Select Button

F – FTDI header (Data out and programming, Ground pin on right in above view)

Quick Start Guide Version 1.1

Hardware by: Paul Allen - Firmware by: Mark Griffiths

Original Author: J G Schubert - Updated by: Mark Griffiths

<http://www.ultrasmartcharger.com>