Onewheel + Stage 1 replacement battery system

Notes:

- Onewheel + battery box will need to be removed prior to installation.
- Power switch will no longer function, anti-spark switch is your on/charge-mode key
- You will need access to underneath the front footpad area (wiring harness') and need to remove the battery box from the onewheel. The main motor/wheel can remain with the rails.

Tools required:

- 3/32 hex key
- 1/8 hex key
- Philipps screwdriver (for wire retainers and main cable cover at the motor hub)
- Drill & 1/8" Drill bit for pass-through wire (antispark switch)
- RTV sealant such as permatex to weatherproof the wire exit hole after installing

Step 1: Removal of fender or skid plate accessories

Remove fender if installed. Remove any skid plates if installed.

Step 2: Removing the front footpad and gaining access to the front controller

Remove the front footpad (2 screws on the top, 2 screws on the bottom). Unscrew the remaining bottom screws to pull the front bumper off the board. Remove the footpad sensor cable by unscrewing the connector joint left to loosen, and then may pull the connector out. Place footpad aside. Remove the lower control box cover.

Step 3: Removing rear parts and accessories

Remove rear footpad by removing 2 screws on top and 2 on the bottom. On the bottom side of the rear bumper, remove the 4 screws (1 located underneath warranty void sticker) to loosen the battery box.

Step 4: Freeing the battery box cable

Remove the 4 philipps screws located on the right underside of the board. This will free the main cable connecting the battery box to the main controller. Remove the (2) wire clips and the wire cover at the hub. Once main cable is unplugged by pulling the white tab back, you may now pull the cable out of the rail to prepare for removing the battery box from the board. The cable is snug so it will take some force to remove.

Step 5: Removal of the battery box

Using your thumbs against the tire, you can now pull the battery box out of the board assembly.

Step 6: Battery box disassembly

Unscrew the 15 screws located on the underside of the battery box to gain access to the battery

Step 7: Remove BMS & Battery

Carefully unplug and remove battery. Carefully disconnect all BMS connections and remove BMS and store in safe place.

Step 8: Drill holes for the switch wiring

Before drilling, take note of where the wires will run atop battery (in the left upper corner of the box)by placing extended battery in box and marking where the wires should exit. Note: Hole should be at least 5MM below top of the battery box.

Step 9: Routing the wiring for the anti-spark switch

Once hole is drilled for the switch wires to pass through, you may now install new battery and connect as follows:

Be cautious in this step and ensure that no connectors touch during this process.

The black wires will go inline between the battery and the power lead connecting to the controller. The red lead will go inline between the positive of the battery and the main controller. Black to black, red to red.

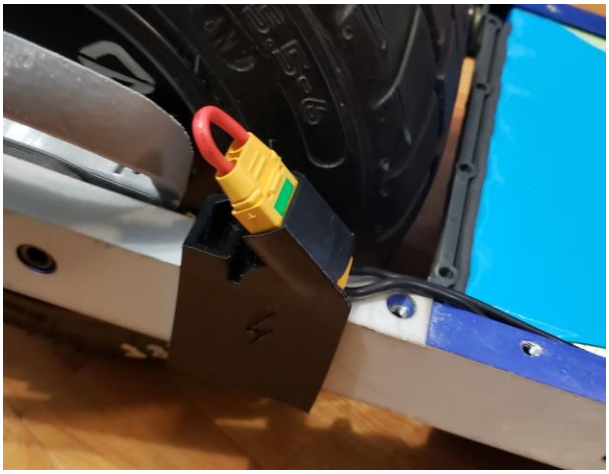
Step 10: seal switch wires exiting/entering battery box

Use RTV sealant or hot glue liberally around the exterior of the battery box and interior where the wires exit the box.

Step 11: Reinstalling battery box

Reinstall the cover for the battery ensuring all wires are tucked nice and neat and the cover is evenly torqued down.

Carefully slide the battery box back in to position and before screwing into place, secure the antispark switch being mindful of keeping the wire slack tight (to not get into wheel well) by screwing it over the rail. You may now screw the battery box back in to place and reinstall the rear bumper and foot pad in place.



Step 12: Reconnecting main harness and installing voltmeter

Before reconnecting main harness, you may now install the voltmeter wiring and tap in to either of the thick-gauged power wires at the main harness. This will supply power to your voltmeter and turn on when your key is plugged in. Ensure to route the wire leading to voltmeter (right side) along side the other wires exiting the control box cover (use zip tie supplied to keep slack inside control box cover). Remove double-sided tape and adhere voltmeter to right rail.

Step 13: Reconnecting harness and cable guides/covers

Ensure to route voltmeter wire behind the main cable guide before reinstalling the guides. Tuck in harness and reconnect to control board.

Step 14: Reassemble board and verify function

You can now verify function of system by plugging in the anti-spark switch (key) into the connector. This is your new on/off switch and will be used to charge. **Ensure key is plugged in all the way or you will smoke the resistor built into the key!** *When not charging, you can unplug the charge cable and remove the key.*

Reassemble the board, charge to full (battery ships at storage voltage) and enjoy your increased range! Do not ride below 40V as this will potentially damage the battery and BMS!