

OEM STANDARD BATTERY

SP 104050 2000 mAh 3.7V 4W BATTERY, 99411 500309

MEASUREMENT FROM PHOTO IN SPACE MOUSE PRO TEARDOWN PDF

50mm X 40mm X 10mm THK?, THIS IS THE SIZE OF THE BATTERY CRADDLE SO

IF REPLACING INTERNALLY IT MUST BE REAL CLOSE TO THESE VALUES, ALSO NEED LEADS TO BE ABOUT 60 - 65 mm LONG

ALTERNATE - B09GKF5QNP

ROUGHLY 1.988 X 1.338 X 0.393, MODEL (BY COMPARISON FROM SPEC SHEET)

50.5 X 34 X 10 mm

MAY BE ABLE TO GET ONE FROM HERE:

[3.7V 2000mAh 704060 Polymer Li Lipo Battery Thermistor 3 Wire JST 3Pin Connector | eBay](#)

ALTERNATIVE FOR EXTENDED LIFE, MAY HAVE TO BE PLACED OUTSIDE THE UNIT DUE TO SIZE LIMITATIONS OF THE BATTERY CAVITY

INFO FROM NAVIGATOR BATTERY REPLACEMENT

[SpaceMouse Wireless Battery Replacement - 3Dconnexion Forum](#)

I take no responsibility if you break your Space Mouse or yourself. Im simply trying to pass on how I was able to extend the life of my \$200 device that was clearly intended to be disposable...

The link in the post is dead, it has been archived on the Wayback machine though. However disassembling this thing is very easy.

1. Carefully Remove the rubber from the bottom.
2. Under the rubber will be another black layer, its basically a sticker. Firmly run your finger around until you locate 4 holes.
3. Use an xacto knife to cleanly cut out the 4 holes...or just rip the sticker off if you want.
4. Remove the 4 screws, and the device will separate in 2 pieces. Careful because the USB connector is on a separate PCB, you dont want to bend the 6 pins that connect to it from the main board. (They arent that easy to bend, but still.)
5. Remove the original lipo battery, it is held down by some double sided foam tape. The only wiring is a 3 pin connector which is easy to get to and easy to remove.

Now, if you want to replace it, it is just a standard 3.7V (4.2V) single (1s) lipo cell. You can replace it with any off the shelf single lipo that also has 3 wires, just make sure the wiring matches. Easiest way to do this is check the wires with a multimeter you should have Positive and Negative, and the 3rd wire is a temp sensor.

Now that is not what I did...Keep following if youd like an easily replaceable battery that will last significantly longer.

Full disclosure. I just finished this a few hours before posting this. But ts not my first rodeo wiring lithium batteries.

6. CAREFULLY remove the tape covering the wires on the lipo pack. There is a small PCB in there that you need. My pack had wax paper under the tape which made it very easy to get off.

7. Once all the tape is off and the PCB is exposed, CAREFULLY pull the PCB away from the battery. The nickel metal strips you see are the bare terminals of the battery, do not let them short to anything. If you short the bare terminals its very likely to catch fire or worse.

8. Now you should have maybe a 1/4" of space to work with, so take some flush cutters and CAREFULLY snip the nickel strips at the PCB side.

9. Place some electrical or Kapton tape over the bare terminals so they dont short, and dispose of the original cell properly.

10. Solder some lead wire to the pads on the PCB where the original battery connected. They are clearly labeled pos and neg.

11. Find a spot on the mouse where your comfortable drilling a small hole to run the wires through, I chose to use my mill with a small endmill and drill bit to make a nice pocket on the back.

12. Insulate the PCB with some tape or heatshrink, reconnect the 3 pin connector, run your wires through the hole, and put it back together.

13. Get a cheap 18650 battery holder and atleast 1 18650 battery. Solder your leads to the appropriate terminals of the battery holder, and pop your battery in.

Thats pretty much it, you can choose to beautify it however you like. As for me, atleast for now, I left about 2" of wire and put some heatshrink around the battery holder.

I am having some other issues with my mouse unfortunately, which are currently preventing me from really giving this thing a good test.

This thing hasnt worked properly without the USB cable connected in over 2 years. I was hoping the battery would fix it, but it did not

However, atleast it will turn on without being plugged in now, so the battery is atleast working.

[Amazon.com: HXJNLDC DC 3.7V 4200mah 606090 Rechargeable Lithium Polymer Replacement Battery for DIY 3.7-5V Electronic Product, Mobile Energy Storage Power Supply. : Electronics](https://www.amazon.com/dp/B06090)

ASIN	Capacity (mAh)	size: Length×width×thickness		Maximum current (A)	Number of cables	With thermistor	ASIN	Capacity (mAh)	size: Length×width×thickness		Maximum current (A)	Number of cables	With thermistor
		millimeter (mm)	inch						millimeter (mm)	inch			
B0CKRBTWBZ	220	25.5×20×5	1×0.787×0.197	0.2A	2	×	B08SHYBIYG	700	48.5×22×6	1.91×0.866×0.236	1A	2	×
B0CKRC9S7T	300	25.5×20×6	1×0.787×0.236	0.3A	2	×	B0CHYL5RVH	800	48.5×30×5	1.91×1.181×0.197	0.8A	2	×
B0CHYTS544	550	28.5×24×7.2	1.122×0.945×0.283	0.5A	3	√	B09YQ1Y3CY	1000	48.5×30×6	1.91×1.181×0.236	1A	2	×
B09YQ2QPVL	220	30.5×20×4	1.22×0.787×0.157	0.2A	2	×	B091XYZ2V3	1600	48.5×30×10	1.91×1.181×0.393	1.6A	2	×
B08TBY5BFL	310	30.5×20×5	1.22×0.787×0.196	0.3A	2	×	B091YMFVLY	1100	48.5×34×5.3	1.91×1.338×0.208	1.1A	3	√
B09YQ2S8Y7	350	30.5×20×6	1.22×0.787×0.236	0.3A	2	×	B0CKRCNMRJ	1100	50.5×20×10	1.988×0.787×0.394	1.1A	2	×
B0CKRB7XN4	430	30.5×20×7	1.22×0.787×0.276	0.4A	2	×	B0CKRCXNP9	550	50.5×34×3	1.988×1.338×0.118	0.55A	2	×
B0CHYPBW54	550	30.5×20×9	1.22×0.787×0.354	0.55A	2	×	B0957HQ1Z6	900	50.5×34×4.2	1.988×1.338×0.165	0.9	3	√
B0CP233Y25	230	30.5×30×3	1.2×1.181×0.118	0.2A	2	×	B098XJGTTT	1150	50.5×34×5.2	1.988×1.338×0.204	1.1A	3	√
B0CP24RVYK	500	30.5×30×5	1.2×1.181×0.197	0.5A	2	×	B08S39W8JR	1250	50.5×34×6	1.988×1.338×0.236	1.3A	2	×
B0B4WM6YNL	580	30.5×30×6	1.201×1.181×0.236	0.6A	3	√	B08M68LC3V	1600	50.5×34×8	2×1.338×0.315	1.6A	2	×
B0CP26BLS2	1000	30.5×30×10	1.2×1.181×0.394	1A	2	×	B0BR3ZNVK7	1600	50.5×34×8	2×1.338×0.315	1.6A	3	√
B0CHYRPGRW	320	33.5×17×6.2	1.319×0.591×0.244	0.3A	2	×	B091YKTT9S	2100	50.5×34×10	1.988×1.338×0.393	2A	2	×
B0CKRC99K6	200	35.5×20×3	1.397×0.787×0.118	0.2A	2	×	B09GKF5NQP	2100	50.5×34×10	1.988×1.338×0.393	2A	3	√
B0CKRBR2C8	430	35.5×20×6	1.397×0.787×0.236	0.4A	2	×	B0BR41CDLP	1600	50.5×40×6	2×1.574×0.236	1.6A	3	√
B0CKRBF56H	550	35.5×20×8	1.397×0.787×0.315	0.55A	2	×	B091Y6DX5N	2100	50.5×40×8	1.988×1.574×0.315	2A	2	×
B0CW9SG4QK	500	35.5×25×5	1.397×0.984×0.196	0.5A	2	×	B0BG7ZTJSR	3000	51×40×12	2×1.575×0.472	3A	2	×
B092198RJD	600	35.5×25×6	1.397×0.984×0.236	0.6A	3	√	B0BPPFV7XG	2500	58.5×38×8.5	2.303×1.496×0.334	2A	3	√
B0BR3XMDS5	800	35.5×25×8	1.397×0.984×0.315	1A	3	√	B09YQ393N2	3000	58.5×40×9.7	2.3×1.574×0.382	3A	2	×
B09YQ11W19	530	35.5×30×5	1.397×1.181×0.196	0.5A	2	×	B0957HFDJW	1500	59.5×37×5	2.342×1.456×0.196	1.5A	3	√
B0B4WF7BYV	370	35.5×35×3.5	1.398×1.378×0.138	0.4A	3	√	B08MPLHH32	1300	59.5×37×5	2.342×1.456×0.196	1.3A	2	×
B08YQX76B1	1200	38.5×40×6.2	1.515×1.575×0.244	1.2A	2	×	B091YF4VH8	2500	59.5×37×9	2.342×1.456×0.354	2.5A	2	×
B0CP24PYGY	500	40.5×20×6	1.596×0.787×0.236	0.5A	2	×	B09W5MXCRQ	1100	60.5×20×8	2.38×0.79×0.315	1.1A	2	×
B0CP26Y5QC	750	40.5×20×9	1.596×0.787×0.354	0.75A	2	×	B0BXWVFG31	3000	60×37×9	2.362×1.456×0.354	3A	3	√
B08SJ1WCDT	550	40.5×25×5	1.596×0.984×0.196	0.6A	2	×	B095BRVD96	2100	60.5×40×6.5	2.381×1.574×0.256	2A	2	×
B0BR3ZQZ6Q	650	40.5×25×6	1.596×0.984×0.236	1A	3	√	B091Y3TW9F	3000	65.5×36×10	2.578×1.417×0.393	3A	2	×
B08TBYRSNQ	850	40.5×25×8	1.596×0.984×0.315	1A	2	×	B0BG82T39Y	5000	66×55×9.5	2.598×2.165×0.374	5A	2	×
B09T3B1D1V	1150	40.5×25×10	1.594×0.984×0.393	1.1A	2	×	B091YMW722	2600	73.5×55×5	2.893×2.165×0.196	2.5A	2	×
B0CHYS7XFV	500	40.5×30×4	1.596×1.181×0.157	0.5A	2	×	B095BP/V1D	4200	90.5×60×6	3.563×2.362×0.236	4A	2	×
B0BPKV564B	620	40.5×30×5	1.596×1.181×0.196	1A	2	×	B0BG85CMFL	5000	91×55×7.5	3.583×2.165×0.295	5A	2	×
B09YQ2C1KR	800	40.5×30×6	1.596×1.181×0.236	1A	2	×	B095BTSMYH	10500	110.5×60×10	4.35×2.362×0.393	5A	2	×
B0C3HHVQ9R	800	40.5×30×6	1.596×1.181×0.236	1A	3	√	B091YCROXL	8200	121.5×65×7.5	4.771×0.559×0.295	5A	2	×
B092H3ZLXQ	1100	40.5×30×8	1.596×1.181×0.315	1.1A	2	×							
B093G9K1D6	1100	40.5×30×8	1.596×1.181×0.315	1.1A	3	√							
B09YQ2WJ75	1300	40.5×30×10	1.596×1.181×0.393	1.3A	2	×							
B0C4DKH7FJ	1600	40.5×37×7.4	1.594×1.457×0.291	1.6A	3	√							
B0BG7YQTNV	1500	44×34×10	1.732×1.339×0.394	1.5A	2	×							
B0CW9R7N89	500	48.5×22×5	1.91×0.866×0.196	0.55A	2	×							

Please carefully compare the polarity of the connector before use, the red wire is the positive "+" and the black wire is the negative "-". The yellow (white) lead is a 'thermistor'. Do not reverse-charge or reverse-connect reverse.

3-wire batteries retain red and black wires, which can replace 2-wire batteries.