

LiFT Pack Internal Charger Replacement Guide

This guide describes the steps to replace the Flux LiFT Pack™ internal charger for models S3, S5 and S7.

Required Tools/Parts	Quantity	Notes
Philips Screwdriver or Impact Driver	1	Impact driver is recommended. Necessary drivers include #3 Phillips and Torx heads.
Flat Head Screwdriver	1	
Loctite Threadlocker (Blue)	0.5mL	
Hex Key - 5/32"	1	
Hand Riveter	1	
Pop Rivets - 3/16"	6	
Spray Lubricant	1	
Forklift or Lifting Device	1	
Rubber Mallet	1	

1. Prior to removing the outer case, first remove the power cable storage box shown in Figure 1. The power cable storage box can be removed by unscrewing the (4) countersunk Philips head screws.

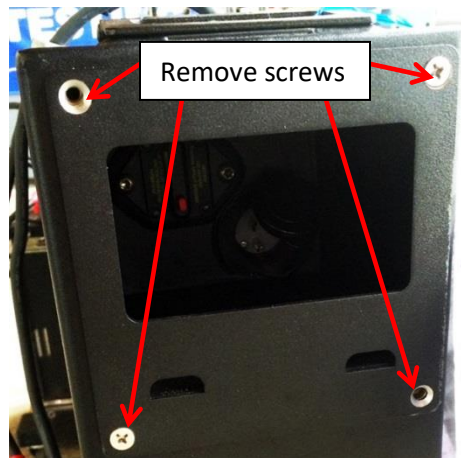


Figure 1: Cable storage box. Remove the (4) screws to pull the box out of the battery enclosure.

2. Pull the cable storage box out of the case. To completely disconnect it, remove the connections to the breaker and the power inlet shown in Figure 2. Wrap tape around the ends of the breaker cables to prevent unintentional powering of the pack. The LiFT Pack S7 has a data port which must also be disconnected.

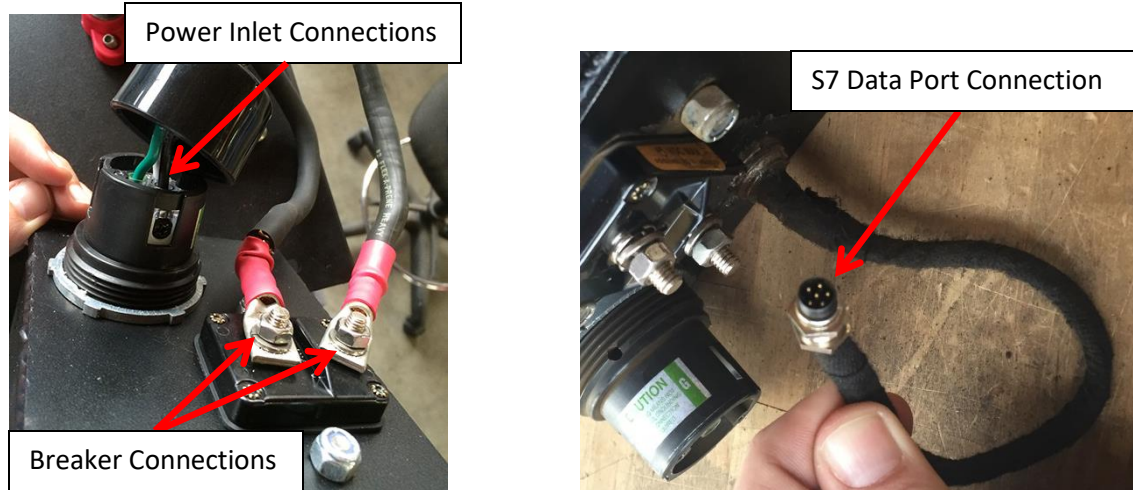


Figure 2: The back of the cable storage box showing the connections to the breaker, power inlet, and data port.

3. To remove the outer case, remove the four (4) screws at the base of the pack. Loosen the strain release on the battery leads and use lubricant to slide the rubber plugs all the way up the leads to the Anderson connector.
4. Use a fork lift or other lifting device to lift the outer case a few inches off the ground. The inner support structure may not slide out easily, and you may need to use a rubber mallet at the base of the pack to allow the outer case to disengage.
5. Once the outer case is removable, lift the case roughly 1 foot from the ground. Reach into the case through the cable storage box opening, and disconnect the battery State of Charge (SOC) gauge. It is located inside the battery case, under the SOC gauge and above the internal charger. Press the tab in the middle of the connector to unplug it. A picture of the connector and SOC are shown in Figure 3.

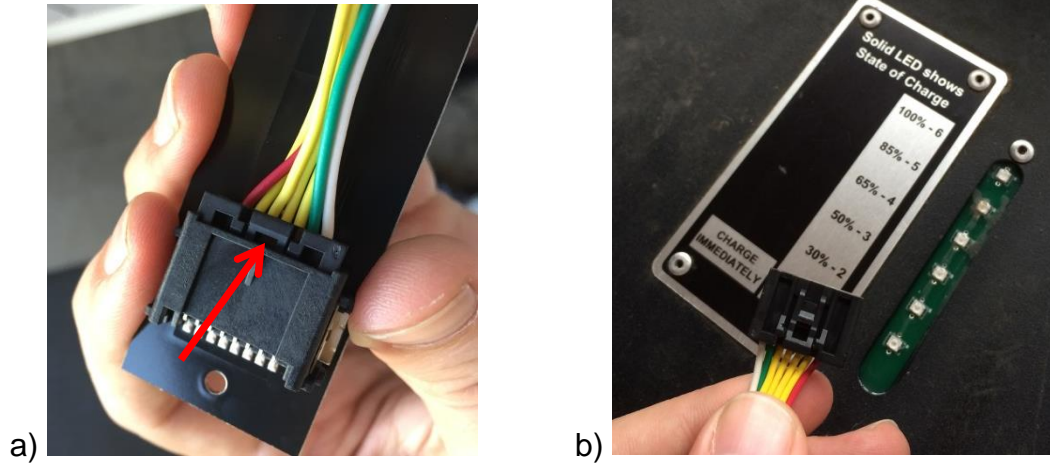


Figure 3: (a) The red arrow shows the center tab which must be pressed to unplug the SOC. (b) The external view of the SOC gauge and the unplugged connector.

6. The outer case may now be lifted as far as the leads will allow. If you cannot access the charger at this point, you will need to remove the Anderson connector and completely remove the outer case.
7. To remove the charger, disconnect it from the battery. Refer to the two connections shown in Figure 4. Use a hex key to remove the wires and make note of which wire is the top and which is the bottom. The positive charger wire (top input in Figure 4) connects to one of the latching contactor posts. The bottom wire feeds directly to the battery cell's most negative terminal. If the wires are switched, the 30A fuse in the charger will blow and must be replaced.



Figure 4: Charger connections. The bottom wire connects to the contactor and the top wire connects to the power inlet.

8. To remove the charger, drill out each rivet shown in Figure 5.



Figure 5: The charger mount and rivets.

9. Remove the charger from the LiFT Pack.
10. Install the new charger using the following steps:
 - a. Rivet the new charger in the same location.
 - b. Reconnect the 2 wires from Figure 4.
 - c. Partially lower the outer case onto the battery and reconnect the SOC gauge.
 - d. Lower the outer case all the way down, and reconnect the circuit breaker, power inlet, and data port (S7 only).
 - e. Apply blue Loctite to the 4 base screws and 4 cable storage box screws before reinstalling the cable storage box.

If you have any questions regarding the replacement process for the LiFT Pack charger, please contact Flux Power Technical Support.

Phone: 877-505-3589 (press "1" for Support) or Email: Support@FLUXpwr.com

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