

TECH NOTES



SKC Sample Pump Lithium-Ion Battery Packing and Shipping Requirements

The SKC sample pumps Leland Legacy[®], AirChek[®] XR5000, AirChek TOUCH, Pocket Pump TOUCH, QuickTake 30, and QuickTake 15 are powered by lithium-ion (Li-Ion) batteries. SKC Li-Ion batteries contain < 8 grams of lithium and have a rating < 100 watt-hours. *For more details about the characteristics and maintenance of SKC Li-Ion batteries, see SKC Publication 1918.*

Li-Ion batteries are subject to Department of Transportation (DOT) and International Air Transport Association (IATA) regulations for packing, labeling, and shipping. This technical note addresses the number of SKC Li-Ion batteries that can be shipped by air or ground as well as requirements for labeling packages. Packaging and shipping requirements also depend on whether the Li-Ion batteries are shipped without equipment or with and/or in pumps. *For the latest IATA regulations, including those for inspecting batteries before packing them, damaged or defective batteries, inner and outer packaging, and safety documentation, go to www.iata.org/whatwedo/cargo/dgr/Documents/lithium-battery-guidance-document-2017-en.pdf. Also see the individual carrier's requirements and restrictions.*

AIR SHIPMENT




Li-Ion batteries only. Bulk (or "stand-alone") Li-Ion batteries are forbidden as cargo on passenger aircraft and can be shipped by cargo aircraft only. When shipped by air, they are subject to Dangerous Goods Regulations (DGR), which requires Dangerous Goods training, certification, and safety documentation. If you do not have Dangerous Goods training and certification, **you may not ship stand-alone batteries by air.** The maximum battery weight per package is 10 kg per UN 3480 Packing Instruction (PI) 965, Section IB. See *Table 1 for the maximum number of SKC stand-alone batteries that can be shipped per package and the required package labeling.*

Li-Ion batteries shipped with and/or in equipment. The maximum battery weight per package is 5 kg per UN 3481 PI 966 and 967, Section II. See *Table 2 for the maximum number of SKC batteries that can be shipped with and/or in equipment per package and the required package labeling.*

Notes:

- Stand-alone Li-Ion batteries are limited to a maximum 30% state of charge (SoC). SKC does not ship charged Li-Ion batteries.
- No more than two spare (unattached) batteries can be shipped per pump.
- Stand-alone Li-Ion batteries are classified as Class 9 Miscellaneous Dangerous Goods.
- A Safety Document is required for Li-Ion battery shipments. See *the requirements of the specific carrier company for the appropriate document.*
For an example go to:
www.ups.com/media/news/en/gb/lithium_batteries_safety_doc.pdf.

Table 1. Stand-alone SKC Li-Ion Batteries (Air Shipment)

SKC Replacement Li-Ion Battery Cat. No.	Battery Weight (kg)	Max. No. Batteries (< 10 kg/package)*	Required Labels on Package
P75692 Leland Legacy	0.6	16	 <p>Add UN number, e.g., "Section IB UN 3480"</p>  
P85004 AirChek XR5000 High Power Li-Ion	0.34	29	
P85002 AirChek XR5000 Standard Li-Ion	0.22	45	
P75718 AirChek TOUCH	0.195	51	
P76303 Pocket Pump TOUCH	0.102	98	
P75689 QuickTake 30	0.4	25	
P75691 QuickTake 15	0.105	95	

* Limit of one package per consignment.

Labels



Li-Ion Caution








Cargo Aircraft Only



*Class 9
Dangerous Goods Label*

Table 2. SKC Li-Ion Batteries with and/or in SKC Equipment (Air Shipment)


Leland Legacy				
SKC Cat. No	SKC Equipment	Battery Weight (kg)	Max. No. Batteries (< 5 kg/package)*	Required Labels on Package
100-3002	Pump, CE	0.6	8	 <p>Add UN number and Packing Instruction (PI) number and section, e.g., "UN 3481, PI 966, Section II"</p>
100-3901	DPS System, PM10	See above.	6 (2 DPS Systems)	
100-3903	DPS System, PM2.5			
AirChek XR5000				
210-5001	Pump, High Power, 4-cell, UL	0.34	14	 <p>Add UN number and Packing Instruction (PI) number and section, e.g., "UN 3481, PI 966, Section II"</p>
210-5002	Pump, Standard, 2-cell, UL	0.22	22	
AirChek TOUCH				
220-5000TC	Pump	0.195	25	 <p>Add UN number and Packing Instruction (PI) number and section, e.g., "UN 3481, PI 966, Section II"</p>
Pocket Pump TOUCH				
220-1000TC	Pump	0.102	49	 <p>Add UN number and Packing Instruction (PI) number and section, e.g., "UN 3481, PI 966, Section II"</p>
QuickTake 30 Pump				
228-9530	Pump with Charger	0.4	12	 <p>Add UN number and Packing Instruction (PI) number and section, e.g., "UN 3481, PI 966, Section II"</p>

* Include batteries attached to pumps in total battery count.

GROUND SHIPMENT

For ground shipment of SKC Li-Ion batteries in any configuration, see Table 3 as well as the requirements of the specific delivery company.

Table 3. Maximum Weight of Packages for Ground Shipment

Maximum Weight per Package/Box	Required Labels on Package/Box
<p>66 lb per box per 49 CFR 173.85</p> <p><i>Note: SKC policy is a maximum weight of 55 pounds per box.</i></p>	 <p>The image shows a rectangular label with a red border and diagonal red lines. At the top, it says 'CAUTION!' in bold. Below that are three icons: a wine glass, a battery, and a flame. Under the icons, it says 'Lithium Ion Battery'. Below that, it says 'DO NOT LOAD OR TRANSPORT PACKAGES IF DAMAGED'. At the bottom, it says 'For more information, call _____'.</p>

Notes:

- A Safety Document is required for Li-Ion battery shipments. See the requirements of the specific delivery company for the appropriate document. To see an example, go to www.ups.com/media/news/en/gb/lithium_batteries_safety_doc.pdf.