



# IS YOURS SAFE TO CARRY?

## If in doubt, **ASK!**



Almost every passenger carries a portable electronic device (PED) with them whenever they travel. Some passengers require a portable medical electronic device (PMED). PED's and PMED's use batteries and the most common type are lithium batteries. There are specific limits covering the types and number of lithium batteries you may carry onboard an aircraft, and these limits are set based on the watt-hour (Wh) rating for lithium ion (rechargeable) batteries or the lithium content for lithium metal (non-rechargeable) batteries.

Passengers also carry spare batteries. The terminals on all spare batteries must be protected to prevent a short circuit. You can do this by taping the terminals, putting batteries individually into plastic bags or using the original battery packaging.

### Which lithium batteries can I carry and how many can I take?

BATTERY TYPE Wh rating or lithium metal content	BATTERIES POSITION	CARRY-ON BAGGAGE	CHECKED BAGGAGE	NUMBER OF DEVICES/ SPARE BATTERIES
<b>Rechargeable: up to 100 Wh</b> <b>Non-rechargeable: up to 2 grams</b> ♦ PED or PMED ♦ mobile phones ♦ laptops/tablets/phablets/iPads ♦ drones ♦ cameras	Contained within the device	✓	Yes, but recommended in your carry-on baggage	<b>Limits may apply. Check with your airline.</b>
	Spare batteries and power banks	✓	✗	
<b>Rechargeable: 101–160 Wh</b> ♦ PED or PMED ♦ commercial cameras and video equipment ♦ drones	Contained within the device	✓	Yes, but recommended in your carry-on baggage	<b>Operator approval required—contact your airline.</b> Limit of two spare batteries: ♦ in original packaging ♦ or with terminals taped
	Spare batteries and power banks	✓	✗	
<b>Non-rechargeable: 2 to 8 grams</b> ♦ PMED only	Contained within the device	✓	Yes, but recommended in your carry-on baggage	<b>Operator approval required—contact your airline.</b> Limit of two spare batteries: ♦ in original packaging ♦ or with terminals taped
	Spare batteries	✓	✗	
<b>Rechargeable: up to 2.7 Wh</b> <b>Non-rechargeable: up to 0.3 grams</b>	Smart luggage Smart Bag Bag tag	✓	✓	Limit one per bag.

Watt hour (Wh) = Amp hour (Ah) x Voltage (v)

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## Portable electronic devices (PED)

PED include items such as cameras, mobile phones, laptop computers, tablets, phablets and many other devices that contain batteries. When carried by passengers for personal use, these should be carried in carry-on baggage.

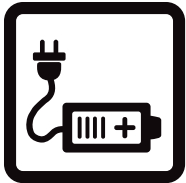
However, if a PED is carried in checked baggage:

- ◆ you must take measures to prevent unintentional activation and damage;
- ◆ your device must be completely switched off (not in sleep or hibernation mode).



## DRONES—RPAS (Remotely Piloted Aircraft Systems)

The same conditions applying to PED's apply to drones. Additional protection from damage may be required for batteries and spare batteries used for drones as these are sometimes pillow-type batteries with thinner casings that make them lighter but at the same time they can be more easily damaged.



## Spare lithium batteries—including 'power banks'

Spare batteries must be individually protected to prevent short circuits by placement in the original retail packaging or by otherwise insulating terminals: e.g. by taping over exposed terminals or placing each battery in a separate plastic bag or protective pouch.

Spare batteries must be carried in carry-on baggage only.

'Power banks' and similar articles containing lithium cells or batteries, the primary purpose of which is to provide power to another device, are 'spare batteries' and are restricted to carry-on baggage only.

Batteries and cells must be of a type that meets the requirements of the UN Manual of Tests and Criteria, Part III, subsection 38.3.



## Portable electronic smoking devices containing batteries—'e-cigarettes, e-cigs, e-cigars, e-pipes, personal vaporisers, electronic nicotine delivery systems, etc.'

These devices containing batteries, when carried by passengers for personal use, must be in carry-on baggage only. Recharging of these devices and/or their batteries on board an aircraft is not permitted and the passenger must take measures to prevent accidental activation. Spares batteries for these devices are treated the same as all spare lithium batteries.



## Baggage with integrated lithium batteries—'smart luggage'

**Baggage with integrated lithium metal batteries with a lithium metal content exceeding 0.3 grams and/or lithium ion batteries with a watt-hour (Wh) rating exceeding 2.7 Wh are forbidden as checked baggage.**

These devices could include integrated lithium batteries, power banks, motors, GPS, GSM, Bluetooth, RFID or Wi-Fi technology. The presence of the lithium batteries, such as non-removable power banks, can be a breach of various regulatory requirements.

Examples of 'smart' luggage include features such as:

- ◆ Lithium ion battery and motor allowing it to be used as a personal transportation device.
- ◆ Lithium ion battery power bank that allows charging of other electronic devices.
- ◆ GPS tracking devices with or without GSM capability.
- ◆ Bluetooth, RFID and Wi-Fi capability.

All PED's carried on an aircraft are subject to specific requirements to ensure that they do not pose a hazard to aircraft systems due to electromagnetic interference.

Baggage equipped with a lithium battery are subject to the following:

- ◆ If checked in, the lithium battery must be removed from the baggage and the lithium battery must be carried in the cabin; or
- ◆ The baggage must be carried in the cabin.
- ◆ If the baggage includes a lithium battery, or power bank, designed to charge other devices and the battery cannot be removed, the baggage is forbidden in checked baggage and must be carried in the cabin.