

Passengers Travelling with Lithium Batteries Guidance Document

Revised for the 2025 Regulations

Introduction

- △ This document is based on the provisions set out in the 2025-2026 Edition of the ICAO *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Technical Instructions) and the 66th Edition (2025) of the IATA Dangerous Goods Regulations (DGR).

There are different limitations and requirements when the lithium batteries are transported by air as cargo or carried by passengers. However limitations primarily depend on:

a) The type of the lithium battery:

- the Watt-hour (Wh) rating for lithium ion (rechargeable) batteries, or
- the lithium metal content in grams (g) for lithium metal (non-rechargeable) batteries.

Note:

Watt-hour rating, expressed in Wh, shows the power of the lithium cell or battery, which is calculated by multiplying the rated capacity in ampere-hours by the nominal voltage.

All lithium-ion batteries are required to have the Watt-hour rating marked on the outside of the battery case.

If passenger handling staff are unable to verify the Watt-hour rating by checking either the battery, or the user documentation, the operator may reject the acceptance of the lithium battery, or the lithium battery powered device.

b) How the battery is to be transported:

- the battery itself (removed and/or spare (additional))
- installed in a device (removable and non-removable)

The purpose of this document is to provide guidance to comply with the provisions applicable to the air transport of spare or removable & non-removable lithium batteries in devices when carried by passengers as set out in the DGR.

- The information in this document is intended for guidance purposes only. It should not be relied upon as a source of regulatory compliance.

Please note that there has been significant restructuring of the material in this document. When compared to the 2024 edition of this document, certain text changes can be identified by:

□	Addition of an item
△	Change to an item
⊗	Deletion of an item

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Definitions

Lithium Battery refers to a family of batteries with different chemistries, comprising many types of cathodes and electrolytes.

Lithium metal battery and lithium ion battery are the two types that listed under passenger provisions in the DGR. When only the battery itself is to be carried regardless removed or spare (additional) by passengers, it is referred as **spare battery**.



Lithium metal batteries are generally primary (non-rechargeable) batteries that have lithium metal or lithium compounds as an anode. Lithium metal batteries are generally used to power devices.



Lithium-ion batteries (also abbreviated as Li-ion batteries), is a secondary (rechargeable) battery where the lithium is only present in an ionic form in the electrolyte. Lithium-ion batteries are generally used to power devices.



Portable electronic device (PED) is an easily carried, removable or non-removable lithium battery powered equipment that have the capability to store, record, and/or transmit text, images/video, or audio data. Most of the consumer commodities can be listed as PED such as mobiles, laptops, cameras, radios, audio devices, watches.



Portable medical electronic device (PMED) is an easily carried, removable or non-removable lithium battery powered equipment that used in healthcare for monitoring, operating or managing medical conditions such as cardiac, blood pressure, respiratory monitors, wearable smart devices, oxygen concentrators.



Power bank is an easily carried battery to charge consumer devices such as mobile phones and tablets. When carried by passengers, power banks are considered as **spare batteries**.



Small vehicle is a removable or non-removable lithium battery powered equipment that used for personal transportation, including rideable suitcases.



Smart luggage are devices that could include integrated lithium batteries, power banks to charge other electronic devices, GPS tracking devices with or without GSM capability, Bluetooth, RFID or Wi-Fi technology powered by lithium batteries.



e-cigarette (vape or pipe) is lithium battery powered device that simulates smoking.



How to Carry Lithium Batteries when Travelling on a Passenger Aircraft

Passengers may need to contact the airlines (operator) (well) in advance to get approval as per the Regulations and/or if /how certain lithium batteries or lithium battery powered devices can be carried.

In order to get operator approval, determine if/how to carry lithium batteries and/or lithium battery powered devices or provide information at the check-in, boarding or to the cabin crew (if required), the passenger must know:

- a)** the Wh rating for lithium ion or how much the lithium content (in grams) contained for lithium metal batteries,
- b)** number of batteries,
- c)** if the battery is removable or non-removable.

The operator has the right to reject the acceptance in case the information is not adequate.

In addition to the information below, please also check the table for the Watt-hour or lithium metal content limitations.

Portable electronic devices (PED) and Portable medical electronic devices (PMED) containing lithium batteries

PEDs and PMEDs containing lithium batteries for personal use, should be carried in carry-on baggage. However, they may be subject to specific operator restrictions on the size and weight of baggage permitted in the cabin.

If devices are to be carried in checked baggage:

- a)** measures to protect the device from damage and to prevent unintentional activation;
- b)** the device must be completely switched off (not in sleep or hibernation mode) *.

Spare lithium batteries

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 and carried in carry-on baggage only.

Articles containing lithium cells or batteries, the primary purpose of which is to provide power to another device, e.g. power banks, are considered as spare batteries and are restricted to carry-on baggage only.

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

Electronic cigarettes containing batteries – “e-cigarettes”

Electronic cigarettes including e-cigars, e-pipes and other personal vaporizers containing batteries for personal use must be in carry-on baggage only.

- a)** Measures to protect the device from damage and to prevent unintentional activation.
- b)** Recharging of these devices and/or batteries on board the aircraft is not permitted.

Baggage with installed lithium batteries – “smart luggage”

Smart luggage with integrated lithium batteries, are also considered as PED as per the Regulations.

Small vehicle

Although the small vehicles, including rideable luggage, might sound like or serve as [mobility aids](#) for personal transportation, they are still considered as PED as per the Regulations.

Please note that most of the small vehicles have more than 160 Wh.

Please check the table to determine if / how the spare batteries and devices can be carried.

Wh rating	lithium metal content	Configuration	Carry-on baggage	Checked baggage	Operator approval
≤ 100 Wh	≤ 2 g	Installed in PED or PMED	Yes ¹	Yes*	No ¹
		Spare battery(ies) including power source (i.e. power bank)	Yes ²	No	No ²
> 100 Wh but ≤ 160 Wh		Installed in PED or PMED	Yes	Yes	Yes
		Spare battery(ies)	Yes ³	No	Yes
	> 2 g but ≤ 8 g	Installed in PMED only	Yes	Yes	Yes
		Spare batteries for PMED only	Yes ³	No	Yes
		e-cigarette	Yes	No	No
≤ 2.7 Wh	≤ 0.3 g	Installed in smart luggage	Yes	Yes	No
> 2.7 Wh	> 0.3 g	Removable battery integrated in smart luggage	Yes	Yes**	No
		Non-removable battery installed in smart luggage	Forbidden		
>160Wh		Must be prepared and carried as cargo in accordance with the IATA Dangerous Goods Regulations			

1. Each person is limited to a maximum of 15 PED. The operator may approve the carriage of more than 15 PED.
2. Each person is limited to a maximum of 20 spare batteries of any type. The operator may approve the carriage of than 20 batteries.
3. Limited to maximum 2 spare batteries.

* When devices are carried in checked baggage, must be completely switched off (not in sleep or hibernation mode), unless

- lithium content does not exceed 0.3 g for lithium metal batteries per device, and
- Wh rating does not exceed 2.7 Wh for lithium-ion batteries per device.

** If the baggage is to be checked in, the lithium battery must be removed and the removed battery must be carried in the cabin.

Additional Information

- Further information for passengers, including battery powered wheelchairs and mobility aids is available on:
<https://www.iata.org/en/programs/cargo/dgr/dgr-guidance-passengers/>
- Further information for lithium batteries is available on:
<http://www.iata.org/lithiumbatteries>
- Further information for Dangerous Goods is available on:
<https://www.iata.org/en/programs/cargo/dgr/>

Please contact the airline or your national civil aviation authority if you have further concerns about travelling with lithium batteries and battery-powered wheelchairs or mobility aids.

You can also contact the IATA Dangerous Goods Support team if you have questions or concerns which may not have been addressed in this document: dangood@iata.org.