



Changes Regarding Power Banks

Guidance Document for Operators - implementing the changes announced on 27 March 2026.

Introduction

On 27 March 2026, the International Civil Aviation Organization (ICAO) introduced an addendum to the Technical Instructions, effective on the same day, regarding power banks. This guidance document has been developed to assist operators in assessing, managing and implementing the changes imposed by the addendum.

A parallel guidance document, [Passengers travelling with lithium batteries](#) which is more relevant for passengers and crew when carrying these devices for their personal use, is available on the IATA website and has also been updated.

The addendum also has an impact for operators whose crew use power banks to recharge or power devices in the performance of their duties. This is under the heading of "Dangerous Goods of the Operator".

The changes also:

- separate out power banks from spare batteries
- limit passengers (and crew) to two power banks for personal use
- prohibit passengers recharging the power bank in flight

A draft version of the addendum to the Technical Instructions is at Appendix C. The authoritative version will be published and made available by ICAO.

This guidance document should be used in conjunction with the 67th edition of the IATA Dangerous Goods Regulations (DGR) and will not be effective beyond 31 December 2026. The 68th edition of the IATA DGR will come into force on 1 January 2027 and will contain the changes introduced by the addendum to the Technical Instructions.

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Safety Concerns

Power banks are presenting an increasing concern with the threat of thermal runaway and fire risk in aircraft. There are low barriers to manufacturing and a general lack of confidence in global regulatory oversight of non-conforming manufacturers. Anecdotal reporting from engagement with non-conforming manufacturers is that they are meeting a demand in the market for cheap products and the lack of conformance with UN 38.3 test standards is for the new owners (whether they are a wholesaler, retailer or final consumer) to consider when travelling with, or putting those batteries into transport. It is not a consumer product safety standard.

Wireless power banks, which recharge another device through an electro-magnetic induction process are an emerging concern. As a recent innovation, they are susceptible to being counterfeited or mass produced without proper quality management/assurance programs or evidence of testing to and compliance with UN 38.3 tests. There is no physical connection between the power bank and the device (usually a mobile phone) and several passengers have reported these power banks entering thermal runaway and self-destruction.

Spare batteries are generally designed to physically fit into a piece of equipment; whilst power banks are more often a universal power supply connected via a wire for powering/recharging another device. There is more comfort with spare batteries; which are designed to fit into a piece of equipment; making them less financially attractive for counterfeiting and low quality production processes.

The Technical Instructions and DGRs previously treated power banks in the same manner as spare batteries. The addendum effectively separates and differentiates between power banks and spare batteries when being carried by passengers and crew.

A separate provision has been made for power banks which are to be used by the crew in flight.

Dangerous Goods of the Operator – Provision to use power banks in flight.

The addendum makes provision for power banks that are provided, or otherwise approved, by operators which are carried on board the aircraft for use in flight, in the performance of their duties. Examples of devices that may be powered by these power banks (and spare batteries) include electronic flight bags, personal entertainment devices, credit card readers.

It is important to note that batteries contained in the device, and any spare batteries and power banks must not exceed 100 Wh.

The operator is also required to set out in the appropriate manuals (such as flight operations and flight attendant manuals) the conditions on the carriage and usage of these electronic devices, spare batteries and power banks as will enable flight crew, cabin crew and other employees to carry out the functions for which they are responsible.

For those operators that do not provide, or authorise the use of, power banks by their crew for operational activities, it is expected that no change is required beyond stipulating that the provisions regarding power banks for passengers and crew are for personal use and not for the performance of operational duties.

Operators that used their safety management processes to select, source and provide power banks to their crews, or provide guidance on employee-provided power banks, should review and confirm that the current processes in their manuals continue to be suitable.

Operators who subsequently identify that crew use power banks to perform their operational duties will need to work through their safety risk management processes with a greater focus on:

- ensuring that power banks are sourced from suppliers who can demonstrate compliance with the UN 38.3;
- whether to provide a list of approved models,
- processes and guidance on inspection for damage and deterioration prior to use;
- storage of spare batteries and power banks when not in use,
- re-assessment of emergency response procedures to a thermal runaway event, and
- developing interim crew communication ahead of an operations manual amendment.

Dangerous Goods Carried by Passengers and Crew for Personal Use – Carriage and Use of Power Banks in Flight

The addendum to the Technical Instructions imposes the following requirements on power banks carried for personal use. They

- must be carried as carry-on baggage (existing requirement);
- must not be recharged while onboard the aircraft (**new requirement**);
- should not be used to recharge a portable electronic device while onboard the aircraft (**new recommendation**);
- no more than two power banks may be carried per person (**new requirement**); and
- must be individually protected so as to prevent short circuits when not in use (existing requirement).

The addendum provides for passengers to carry power banks of 100-160 Wh with the approval of the operator; however, given the concerns with regulatory oversight of power bank manufacturers and the limitation to 100Wh of power banks for crew in the performance of their operational duties, this provision will not be carried into the 68th edition of the DGRs.

It has been communicated in guidance material this year, in order to manage passenger expectations.

Navigating the Impact of an International Change

Implementing change in haste often leads to unintended consequences. The first priority is to understand the **scope, intent, and immediacy** of the requirement. While the addendum has been published, there is still a complexity of interaction with State sovereignty. Operators must therefore interpret not only *what* the new requirement demands, but also *whether* it is legally enforceable in their jurisdiction and the jurisdictions of the States that they operate as destinations.

The enforceability of the change depends on the State's process for adopting that change. For some States, it is immediate; some require a short administrative period, and some will require public notification and legislative amendment. Aviation organisations need to anchor their decisions in the legal framework that governs them. This often means engaging early with the national aviation authority to clarify timelines, expectations, and any interim measures the State may endorse.

While one step is to conduct a rapid internal legal review to determine whether the operator is bound directly by the change, a better approach is to engage proactively and constructively with their regulatory authority, with a planned program for assessing, implementing and delivering the change.

Safety Risk Assessment and Management of Change

Operators will need to assess whether the new requirements indicate **heightened safety risks** that warrant voluntary early action. Even if not yet legally mandated, the organisation may choose to introduce interim operational controls—such as enhanced passenger communications, additional screening questions, or temporary restrictions on specific items. These measures should be proportionate, risk-based, and clearly

documented. The goal is to demonstrate due diligence: the organisation is aware of the emerging risk and is taking reasonable steps without overstepping its legal authority or creating operational confusion.

Communication Strategy: Internal and External

Clear, consistent and controlled communication across all departments—operations, ground handling, cabin crew, security, and customer service, is essential. Internally, staff need to understand what is changing, what is not yet changing, and why. Externally, passengers must receive accurate information that lets them prepare for their trip without the stress at check-in or security screening. Over-communication can be as damaging as under-communication, especially if it leads to inconsistent application at airports or among partner airlines. A controlled, phased communication plan helps maintain trust and operational stability.

Coordination With Industry Partners and Authorities

Operators do not operate in isolation. Codeshare partners and outsourced or contracted service providers also need to be aligned. Early engagement with the national aviation authority is important, not only in demonstrating a balanced approach to due diligence, but also to seek their guidance on expected timelines for adoption, feedback on proposed interim measures, and the outreach and education measures that they will be undertaking with the aviation ecosystem. This includes airport operators, screening agencies and independent passenger handling service providers, as well as and planned engagement with neighbouring regulators on delivering a structured pathway for implementation. The encouragement should be to avoid a fragmented or contradictory approach across the region/continent.

Documentation, Compliance Planning, and Change Management

Operators will need to prepare the compliance infrastructure. This includes updating operational manuals, training materials, dangerous goods procedures, and safety management documentation.

Even if it is impractical to begin immediate implementation, early planning reduces the risk of non-compliance once the State's requirements take effect. A structured change-management process ensures that when the legislative change occurs, the organisation can transition smoothly without operational disruption.

Operator Approval

Passengers wishing to carry large numbers of spare batteries, power banks, PEDs or devices which have larger batteries, need the approval of the operator (see [Appendix B](#)).

Information on lithium batteries, and other dangerous goods, is usually provided on the operator's website as well as during the check-in process. Passenger-facing staff are trained to deal with most enquiries and empowered to make decisions, with escalation processes and referral to specialists when required.

As a safety measure, an operator may require additional separation between the multiple spare batteries or that they are carried at a low state of charge (<25% indicated charge when inserted into the device).

To avoid delays and complications at check-in etc, it is recommended that sufficient information is provided by electronic means to raise passenger awareness and seek approval by providing the necessary information, well in advance.

The operator is not required to give an approval if the information is not adequate.

How to Carry Lithium Batteries when Travelling on a Passenger Aircraft

In October 2025, IATA released a leaflet and a series of videos for passengers on travelling with lithium batteries. This material is available to operators with and without branding to use as they wish.

[IATA - Safe Travel with Lithium Batteries](#)

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/>

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 at: dangood@iata.org.

Appendix A – Definitions, Descriptions and Examples

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 are listed under passenger provisions in the DGR. The general groupings are batteries within a device, spare batteries, batteries removed from a device (which are then treated in the same way as spare batteries, but may be referred to a removed battery) and power banks. Power banks (see below) are no longer referred to as “spare batteries”.



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) are 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 device, with removable or non-removable lithium battery(ies) 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 is 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 universal external power source, capable of providing power to multiple devices such as mobile phones and. Generally, power banks are made up of multiple cells.



Spare Batteries are usually either single cell batteries (AAA, CR123, etc.) or multi-celled batteries but designed to be inserted into or directly affixed to a specific device.



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



Mobility Aid – are devices used by passengers whose mobility is restricted by either a disability, their health or age, or a temporary mobility problem (e.g. broken leg).

Note: See “Additional Information” for links to documents which provide guidance on the provisions and procedures regarding mobility aids.



Smart luggage refers to bags or suitcases that incorporate built-in electronic features designed to improve convenience, security, or tracking for travellers. Depending on the model, smart luggage may include power banks with USB charging ports, weight sensors to prevent overpacking, electronic locking systems, GPS tracking devices with or without GSM capability or Bluetooth, RFID and Wi-Fi technology or even motorized/self-propelled functions, powered by lithium batteries.



Bag tags are devices that are replacing the paper baggage label and for the quick drop-off points at the airports; and **GPS tracking devices** that are attached to baggage and/or other belongings for tracking purposes with or without GSM capability, Bluetooth, RFID, or Wi-Fi technologies.



e-cigarette (vape or pipe) is a lithium battery powered device that uses heat to vaporize a liquid to simulate the act of smoking.



Appendix B – Table for lithium batteries and power banks carried by passengers

This table is also applicable for power banks carried by crew for their own personal usage.

Please check the table to determine if / how the devices containing batteries, as well as spare batteries and power banks can be carried, and whether the approval of the operator is required.

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)	Yes ²	No	No ²
		Power bank	Yes ³	No	No ³
> 100 Wh but ≤ 160 Wh		Installed in PED or PMED	Yes	Yes	Yes
		Spare battery(ies)	Yes ⁴	No	Yes
		Power bank	Forbidden		
	> 2 g but ≤ 8 g	Installed in PMED only	Yes	Yes	Yes
		Spare batteries for PMED only	Yes ⁴	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 transported 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 more than 20 spare batteries.
3. Limited to a maximum of 2 power banks.
4. Limited to a maximum of 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.

Note: Where power banks are carried by crew for the performance of their operational duties, then the policy and usage must be documented in the relevant company operations manuals.

Appendix C – Addendum to the Technical Instructions

Note: The authoritative version will be the final version published and made available by ICAO



Doc 9284-AN/905
2025–2026 Edition
ADDENDUM NO. 1
27/3/26

INTERNATIONAL CIVIL AVIATION ORGANIZATION

TECHNICAL INSTRUCTIONS FOR THE SAFE TRANSPORT OF DANGEROUS GOODS BY AIR

2025–2026 EDITION

ADDENDUM NO. 1

The attached addendum should be incorporated into the 2025–2026 Edition of the Technical Instructions (Doc 9284) and is applicable from 27 March 2026.

(4 pages)

**TECHNICAL INSTRUCTIONS FOR THE SAFE TRANSPORT OF
DANGEROUS GOODS BY AIR**

The following amendment is approved and published by decision of the Council of ICAO and should be incorporated into the 2025–2026 Edition of the Technical Instructions (Doc 9284) with an applicability date of 27 March 2026:

In Part 1, Chapter 2, page 1-2-1:

- paragraph 2.2.1, *amend* sub-paragraph b) as follows:
 - b) aerosols, alcoholic beverages, perfumes, colognes, liquefied gas lighters and portable electronic devices containing lithium metal or lithium ion cells or batteries provided they meet the provisions of 2.2.2 carried aboard an aircraft by the operator for use or sale on the aircraft during the flight or series of flights, but excluding non-refillable gas lighters and those lighters liable to leak when exposed to reduced pressure;
- paragraph 2.2.1, *amend* sub-paragraph e) as follows:
 - e) electronic devices, such as electronic flight bags, personal entertainment devices, and credit card readers, containing lithium metal or lithium ion cells or batteries and spare lithium batteries for such devices or power banks carried aboard an aircraft by the operator for use on the aircraft during the flight or series of flights, provided they meet the provisions of 2.2.2. Conditions for the carriage and use of these electronic devices and spare batteries (including power banks) must be provided in the operations manual and/or other appropriate manuals as will enable flight crew, cabin crew and other employees to carry out the functions for which they are responsible.
- *add* new paragraph 2.2.2 as follows:

2.2.2 The following conditions must be met for lithium cells or batteries (including power banks) and the devices they power referred to in 2.2.1 b) and e):

 - a) spare lithium batteries and power banks must be individually protected so as to prevent short circuits when not in use;
 - b) measures must be taken to prevent unintentional activation of the portable electronic devices; and
 - c) the batteries must:
 - 1) be of a type which meets the requirements of each test in the UN *Manual of Tests and Criteria*, Part III, subsection 38.3; and
 - 2) for lithium metal batteries, not exceed a lithium content of 2 g and for lithium ion batteries, not exceed a Watt-hour rating of 100 Wh.
- *renumber* subsequent paragraphs accordingly.

In Part 8, Chapter 1, page 8-1-3, Table 8-1, *amend* item 1) as follows:

Dangerous Goods	Location		Approval of the operator(s) is required	Restrictions
	Checked baggage	Carry-on baggage		
Batteries				
1) Lithium batteries (including power banks) and portable electronic devices	Yes (except h), i) and j))	Yes	(see c) and d))	<p>a) each battery must be of a type which meets the requirements of each test in the UN <i>Manual of Tests and Criteria</i>, Part III, subsection 38.3;</p> <p>b) each battery must not exceed the following:</p> <ul style="list-style-type: none"> — for lithium metal batteries, a lithium content of 2 g; or — for lithium ion batteries, a Watt-hour rating of 100 Wh; <p>c) each battery may exceed 100 Wh but not exceed 160 Wh Watt-hour rating for lithium ion with the approval of the operator;</p> <p>d) each battery may exceed 2 g but not exceed 8 g lithium content for lithium metal for portable medical electronic devices with the approval of the operator;</p> <p>e) no more than two spare batteries meeting the requirements of c) or d) may be carried per person.</p> <p>f) for portable electronic devices containing batteries:</p> <ul style="list-style-type: none"> — measures must be taken to prevent unintentional activation and to protect the devices from damage; — the devices should be carried as carry-on baggage; however, if carried as checked baggage, the devices must be completely switched off (not in sleep or hibernation mode) if the batteries exceed: <ul style="list-style-type: none"> — for lithium metal batteries, a lithium content of 0.3 g per device; or — for lithium ion batteries, a Watt-hour rating of 2.7 Wh per device; <p>g) batteries and heating elements must be isolated in portable electronic devices capable of generating extreme heat, which could cause a fire if activated, by removal of the heating element, battery or other components;</p> <p>h) spare batteries, including power banks:</p> <ul style="list-style-type: none"> — must be carried as carry-on baggage; and — must be individually protected so as to prevent short circuits (by placement in 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); <p>i) power banks:</p> <ul style="list-style-type: none"> — must be carried as carry-on baggage; — must not be recharged while onboard the aircraft; — should not be used to recharge a portable electronic device while onboard the aircraft; — no more than two power banks may be carried per person; and — must be individually protected so as to prevent short circuits when not in use (by placement in original retail packaging or by otherwise insulating terminals, e.g. by taping over exposed terminals or placing each power bank in a separate plastic bag or protective pouch);

<i>Dangerous Goods</i>	<i>Location</i>		<i>Approval of the operator(s) is required</i>	<i>Restrictions</i>
	<i>Checked baggage</i>	<i>Carry-on baggage</i>		
				<p>j) baggage equipped with a lithium battery(ies) exceeding:</p> <ul style="list-style-type: none"> — for lithium metal batteries, a lithium content of 0.3 g; or — for lithium ion batteries, a Watt-hour rating of 2.7 Wh <p>must be carried as carry-on baggage unless the battery(ies) is removed from the baggage, in which case the battery(ies) must be carried in accordance with gh);</p> <p><i>Note.— The restrictions in a) and the applicable limits in b), c), d) or e) apply to all batteries under this item, i.e. those contained in portable electronic devices, spare batteries, power banks and baggage equipped with lithium batteries.</i></p>

— END —