

Shipping Lithium Batteries by Air Cargo

Cargo reference guide for shippers and freight forwarders

This guide summarizes how Air North accepts lithium ion and lithium metal batteries as air cargo. It's meant for shippers, freight forwarders, and businesses tendering battery shipments for transport, and covers batteries shipped on their own as well as batteries packed with or contained in equipment.

This page is about cargo shipments only. If you're a passenger travelling with a phone, laptop, camera, or other battery-powered device, please see our baggage and battery guidance instead of this page.

Lithium batteries are classified as dangerous goods. As the shipper, you're responsible for classifying, packing, marking, labelling, and documenting your shipment correctly under the current IATA Dangerous Goods Regulations (DGR) and Transport Canada's Transportation of Dangerous Goods (TDG) Regulations. The charts below summarize key requirements, but they don't replace the DGR, and requirements are updated every year. If you're not sure which category your shipment falls into, please contact Air North Cargo before you ship.

Key terms used in this guide

Term	What it means
PAX	A flight that also carries passengers. Battery shipments marked “PAX – Forbidden” cannot travel on these flights, even in the cargo hold.
CAO	Cargo Aircraft Only. The shipment may only travel on an aircraft that carries no passengers.
Wh (watt-hour)	A measure of a battery's energy capacity, used to classify lithium-ion batteries.
g (grams of lithium content)	A measure used to classify lithium metal batteries.
UN specification packaging	Packaging that has been tested and certified to a UN performance standard.
Shipper's Declaration	The Shipper's Declaration for Dangerous Goods, a signed document certifying the shipment meets all applicable requirements.
AWB	Air Waybill, the contract of carriage and shipping document for the cargo.
PI (Packing Instruction)	The specific IATA DGR packing instruction that applies to the shipment (for example, PI 965).

1 – Lithium batteries shipped by themselves

This section covers standalone lithium ion (UN 3480) and lithium metal (UN 3090) cells and batteries shipped on their own, not packed with or installed in a device.

UN 3480 – Lithium-Ion Batteries

General characteristics	Lower power cells / batteries		Higher power cells / batteries
	Small quantities	Higher quantities	
Cell watt-hour rating	20 Wh or less	20 Wh or less	More than 20 Wh
Battery watt-hour rating	100 Wh or less	100 Wh or less	More than 100 Wh
Max. quantity per package	Passenger flights: Forbidden Cargo Aircraft Only: 2.5 kg net or 8 cells or 2 batteries, whichever is less Limit of one package	Passenger flights: Forbidden Cargo Aircraft Only: 10 kg net	Passenger flights: Forbidden Cargo Aircraft Only: 35 kg net
UN specification packaging	Not required	Not required	Required
Shipper's Declaration	Not required	Required	Required
Package marking	Not required	UN 3480 Lithium-Ion Batteries Full name of shipper and consignee	UN 3480 Lithium-Ion Batteries Full name of shipper and consignee
Hazard label	Not required	 Required – Class 9, Lithium Battery	 Required – Class 9, Lithium Battery
Lithium battery handling label	 Required	 Required	Not required

General characteristics	Lower power cells / batteries		Higher power cells / batteries
Other handling labels	 Cargo Aircraft Only label	 Cargo Aircraft Only label	 Cargo Aircraft Only label
Other requirements	Lithium battery handling label must show a contact phone number Mark “Lithium-Ion batteries packed in compliance with Section II of PI 965” in the Nature and Quantity of Goods box on the AWB Mark “Cargo Aircraft Only” in the Handling Information box on the AWB	Lithium battery handling label must show a contact phone number Batteries charged at 30% or less of rated capacity Net weight shown on the Shipper's Declaration Shipper's Declaration must show “965 IB” in the PI column Mark “Dangerous Goods as per Attached Shipper's Declaration” and “Cargo Aircraft Only” in the Handling Information box on the AWB	Batteries charged at 30% or less of rated capacity Net weight shown on the Shipper's Declaration Mark “Dangerous Goods as per Attached Shipper's Declaration” and “Cargo Aircraft Only” in the Handling Information box on the AWB
Packing Instruction (PI) reference	PI 965, Section II	PI 965, Section IB	PI 965, Section IA

Consult the current IATA Dangerous Goods Regulations (DGR) for complete requirements.

UN 3090 – Lithium Metal Batteries

General characteristics	Lower power cells / batteries		Higher power cells / batteries
	Small quantities	Higher quantities	
Cell lithium content	1 g or less	1 g or less	More than 1 g
Battery lithium content	2 g or less	2 g or less	More than 2 g
Max. quantity per package	Passenger flights: Forbidden Cargo Aircraft Only: 2.5 kg net or 8 cells or 2 batteries, whichever is less Limit of one package	Passenger flights: Forbidden Cargo Aircraft Only: 2.5 kg net	Passenger flights: Forbidden Cargo Aircraft Only: 35 kg net
UN specification packaging	Not required	Not required	Required
Shipper's Declaration	Not required	Required	Required
Package marking	Not required	UN 3090 Lithium Metal Batteries Full name of shipper and consignee	UN 3090 Lithium Metal Batteries Full name of shipper and consignee

General characteristics	Lower power cells / batteries		Higher power cells / batteries
Hazard label	Not required	 Required – Class 9, Lithium Battery	 Required – Class 9, Lithium Battery
Lithium battery handling label	 Required	 Required	Not required
Other handling labels	 Cargo Aircraft Only label	 Cargo Aircraft Only label	 Cargo Aircraft Only label
Other requirements	Lithium battery handling label must show a contact phone number Mark “Lithium Metal batteries packed in compliance with Section II of PI 968” in the Nature and Quantity of Goods box on the AWB Mark “Cargo Aircraft Only” in the Handling Information box on the AWB	Lithium battery handling label must show a contact phone number Shipper's Declaration must show “968 IB” in the PI column Mark “Dangerous Goods as per Attached Shipper's Declaration” and “Cargo Aircraft Only” in the Handling Information box on the AWB	Net weight shown on the Shipper's Declaration Inner packaging must completely enclose the cell or battery Mark “Dangerous Goods as per Attached Shipper's Declaration” and “Cargo Aircraft Only” in the Handling Information box on the AWB
Packing Instruction (PI) reference	PI 968, Section II	PI 968, Section IB	PI 968, Section IA

Consult the current IATA Dangerous Goods Regulations (DGR) for complete requirements.

2 – Lithium batteries packed with or contained in equipment

This section covers lithium ion (UN 3481) and lithium metal (UN 3091) cells and batteries packed alongside the equipment they power, or already installed inside that equipment (for example, a spare battery packed in the same box as a drone, or a battery installed in a laptop).

UN 3481 – Lithium-Ion Batteries

General characteristics	Lower power cells / batteries	Higher power cells / batteries
Cell watt-hour rating	20 Wh or less	More than 20 Wh
Battery watt-hour rating	100 Wh or less	More than 100 Wh
Max. quantity per package	Passenger flights: 5 kg net Cargo Aircraft Only: 5 kg net	Passenger flights: 5 kg net Cargo Aircraft Only: 35 kg net
UN specification packaging	Not required	Required – for the battery packed with equipment
Shipper's Declaration	Not required	Required
Package marking	Not required	UN 3481 Lithium-Ion Batteries Packed With/In Equipment Full name of shipper and consignee
Hazard label	Not required	 Required – Class 9, Lithium Battery
Lithium battery handling label	 Required	Not required
Other handling labels	Not required	 Cargo Aircraft Only label, if the package is over 5 kg

General characteristics	Lower power cells / batteries	Higher power cells / batteries
Other requirements	Lithium battery handling label must show a contact phone number Mark “Lithium-Ion batteries packed in compliance with Section II of PI 966/967” in the Nature and Quantity of Goods box on the AWB	Cells and batteries must be offered for transport at a state of charge (SoC) not exceeding 30% of rated design capacity Net weight shown on the Shipper's Declaration Mark “Dangerous Goods as per Attached Shipper's Declaration” and, if applicable, “Cargo Aircraft Only” in the Handling Information box on the AWB
Packing Instruction (PI) reference – packed with equipment	PI 966, Section II	PI 966, Section I
Packing Instruction (PI) reference – contained in equipment	PI 967, Section II	PI 967, Section I

Consult the current IATA Dangerous Goods Regulations (DGR) for complete requirements.

UN 3091 – Lithium Metal Batteries

General characteristics	Lower power cells / batteries	Higher power cells / batteries
Cell lithium content	1 g or less	More than 1 g
Battery lithium content	2 g or less	More than 2 g
Max. quantity per package	Passenger flights: 5 kg net Cargo Aircraft Only: 5 kg net	Passenger flights: 5 kg net Cargo Aircraft Only: 35 kg net
UN specification packaging	Not required	Required – for the battery packed with equipment
Shipper's Declaration	Not required	Required
Package marking	Not required	UN 3091 Lithium Metal Batteries Packed With/In Equipment Full name of shipper and consignee
Hazard label	Not required	 Required – Class 9, Lithium Battery

General characteristics	Lower power cells / batteries	Higher power cells / batteries
Lithium battery handling label	 Required	Not required
Other handling labels	Not required	 Cargo Aircraft Only label, if the package is over 5 kg
Other requirements	Lithium battery handling label must show a contact phone number Mark “Lithium Metal batteries packed in compliance with Section II of PI 969/970” in the Nature and Quantity of Goods box on the AWB	Cells and batteries must be offered for transport at a state of charge (SoC) not exceeding 30% of rated design capacity Net weight shown on the Shipper's Declaration Mark “Dangerous Goods as per Attached Shipper's Declaration” and, if applicable, “Cargo Aircraft Only” in the Handling Information box on the AWB
Packing Instruction (PI) reference – packed with equipment	PI 969, Section II	PI 969, Section I
Packing Instruction (PI) reference – contained in equipment	PI 970, Section II	PI 970, Section I

Consult the current IATA Dangerous Goods Regulations (DGR) for complete requirements.

Need help with your shipment?

Our Cargo team is happy to help you figure out which category your shipment falls into and what documentation you'll need. Please reach out before your battery shipment arrives at the airport so we can help things move smoothly.

Air North Cargo

See flyairnorth.com/cargo for details and contact information.

This guide summarizes the IATA Dangerous Goods Regulations (DGR) as of August 2026 and does not replace the DGR or Transport Canada's Transportation of Dangerous Goods Regulations. Requirements are updated annually and can change without notice – shippers remain responsible for meeting current requirements. Damaged, defective, or recalled batteries cannot be shipped by air.