

PACKING INSTRUCTION 966 (continued)

TABLE 966-II

	Passenger aircraft	Cargo Aircraft Only
Net quantity of lithium ion cells or batteries per package	5 kg	5 kg

OUTER PACKAGINGS			
Type	Drums	Jerricans	Boxes

PACKING INSTRUCTION 967

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△ OPERATOR VARIATIONS: 5X-07, AC-06, AM-09, AR-11, AU-11, CX-08, D0-03, EY-04, KA-08, LD-07, OS-01, QK-06, QY-03, RV-06, US-01, VO-01

Introduction

This instruction applies to lithium ion or lithium polymer cells and batteries contained in equipment (UN 3481) on passenger and Cargo Aircraft Only.

The general requirements apply to all lithium ion cells and batteries contained in equipment prepared for transport according to this packing instruction:

- Section I applies where the equipment contains lithium ion cells with a Watt-hour rating in excess of 20 Wh or lithium ion batteries with a Watt-hour rating in excess of 100 Wh, which must be assigned to Class 9 and are subject to all of the applicable requirements of these Regulations; and
- Section II applies where the equipment contains lithium ion cells with a Watt-hour rating not exceeding 20 Wh or lithium ion batteries with a Watt-hour rating not exceeding 100 Wh.

△ General Requirements

The following requirements apply to all lithium ion or lithium polymer cells and batteries:

- (a) cells and batteries must be manufactured under a quality management program as described in 3.9.2.6(e);
- (b) cells and batteries identified by the manufacturer as being defective for safety reasons, or that have been damaged, that have the potential of producing a dangerous evolution of heat, fire or short circuit are forbidden for transport (e.g. those being returned to the manufacturer for safety reasons);
- (c) cells and batteries must be protected so as to prevent short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to a short circuit;
- (d) equipment must be equipped with an effective means of preventing accidental activation;
- (e) equipment containing batteries must be packed in strong outer packagings that conform to 5.0.2.4, 5.0.2.6.1 and 5.0.2.12.1;
- (f) the equipment containing the cells or batteries must be secured against movement within the outer packaging and be packed so as to prevent accidental operation during air transport;

Section I

These requirements apply to lithium ion cells with a Watt-hour rating in excess of 20 Wh and lithium ion batteries with a Watt-hour rating in excess of 100 Wh that have been determined to meet the criteria for assignment to Class 9.

△ Each cell or battery must:

1. meet the provisions of 3.9.2.6; and
2. meet the General Requirements, above;

Additional Requirements—Section I

- the equipment must be packed in strong outer packagings constructed of suitable material of adequate strength and design in relation to the packaging's capacity and its intended use unless the battery is afforded equivalent protection by the equipment in which it is contained;
- batteries manufactured after 31 December 2011 must be marked with the Watt-hour rating on the outside case.

PACKING INSTRUCTION 967 (continued)

TABLE 967-I

UN number	Net quantity per package Passenger aircraft	Net quantity per package Cargo Aircraft Only
UN 3481 Lithium ion batteries contained in equipment	5 kg	35 kg

OUTER PACKAGINGS—Strong outer packagings, such as:

Type	Drums						Jerricans			Boxes							
Desc.	Steel	Alu-minium	Ply-wood	Fibre	Plastic	Other metal	Steel	Alu-minium	Plastic	Steel	Alu-minium	Wood	Ply-wood	Reconstituted wood	Fibre-board	Plastic	Other metal

Section II

Lithium ion cells and batteries meeting the requirements in this section are not subject to other additional requirements of these Regulations except for:

- (a) dangerous goods in passenger and crew baggage (Subsection 2.3). Only those lithium ion batteries as specifically permitted may be carried in carry-on and checked baggage;
- (b) dangerous goods in air mail (Subsection 2.4);
- (c) reporting of dangerous goods accidents, incidents and other occurrences (9.6.1 and 9.6.2).

△ Cells and batteries offered for transport must meet the provisions of 3.9.2.6(a) and (e), the General Requirements of this packing instruction and:

1. for cells, the Watt-hour rating is not more than 20 Wh; and
2. for batteries, Watt-hour rating is not more than 100 Wh. The Watt-hour rating must be marked on the outside of the battery case except those manufactured before 1 January 2009.

Devices such as radio frequency identification (RFID) tags, watches and temperature loggers, which are not capable of generating a dangerous evolution of heat, may be transported when intentionally active. When active, these devices must meet defined standards for electromagnetic radiation to ensure that the operation of the device does not interfere with aircraft systems.

Additional Requirements—Section II

The equipment must be packed in strong outer packagings constructed of suitable material of adequate strength and design in relation to the packaging's capacity and its intended use unless the cell or battery is afforded equivalent protection by the equipment in which it is contained.

Each package containing more than four cells or more than two batteries installed in equipment must be labelled with a lithium battery handling label (Figure 7.4.H), except for button cell batteries installed in equipment (including circuit boards);

Each consignment with packages bearing the lithium battery handling label must be accompanied with a document with an indication that:

- the package contains lithium ion cells or batteries;
- the package must be handled with care and that a flammability hazard exists if the package is damaged;
- special procedures must be followed in the event the package is damaged, to include inspection and repacking if necessary; and
- a telephone number for additional information.

A Shipper's Declaration for Dangerous Goods is not required.

Where a consignment includes packages bearing the lithium battery handling label, the words "Lithium ion batteries in compliance with Section II of PI 967" must be included on the air waybill, when an air waybill is used. The information should be shown in the "Nature and Quantity of Goods" box of the air waybill.

Any person preparing or offering cells or batteries for transport must receive adequate instruction on these requirements commensurate with their responsibilities.

Overpacks—Section II

Individual packages each complying with the requirements of Section II may be placed in an overpack. The overpack may also contain packages of dangerous goods or goods not subject to these Regulations provided that there are no packages enclosing different substances which might react dangerously with each other. An overpack must be marked with the word

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“Overpack” and labelled with the lithium battery label (Figure 7.4.H), unless the label(s) on the package(s) inside the overpack are visible, or a label is not required.

TABLE 967-II

	Passenger aircraft	Cargo Aircraft Only
Net quantity of lithium ion cells or batteries per package	5 kg	5 kg

OUTER PACKAGINGS

Type	Drums	Jerricans	Boxes

5

PACKING INSTRUCTION 968

967 STATE VARIATIONS: USG-02/03

to \triangle OPERATOR VARIATIONS: 4C-08, 4M-08, 5X-02/04/07, AC-06/08, AM-09, AR-11, AU-11, BA-02, C8-04, CV-04, CX-07,
968 CZ-08, D0-03, DL-06, EI-04, EY-04, FX-07, GF-14, HX-06, JJ-08, KA-07, L7-08, LA-16, LD-08, LP-08, LU-08, LX-06,
M3-08, M7-08, PZ-08, QK-06/08, QR-04, QY-03, RV-06/08, SK-01, SQ-07, TZ-06, UC-08, US-01, UX-07, WY-07, XL-08

Introduction

This instruction applies to lithium metal or lithium alloy cells and batteries (UN 3090) on passenger and Cargo Aircraft Only.

The general requirements apply to all lithium metal batteries prepared for transport according to this packing instruction:

- Section IA applies to lithium metal cells with a lithium metal content in excess of 1 g and lithium metal batteries with a lithium metal content in excess of 2 g, or to quantities of lithium metal cells or batteries in excess of those permitted in Section IB of this packing instruction which must be assigned to Class 9 and are subject to all of the applicable requirements of these Regulations;
- Section IB applies to lithium metal cells with a lithium metal content not exceeding 1 g and lithium metal batteries with a lithium metal content not exceeding 2 g packed in quantities that exceed the allowance permitted in Section II, Table 968-II; and
- Section II applies to lithium metal cells with a lithium metal content not exceeding 1 g and lithium metal batteries with a lithium metal content not exceeding 2 g packed in quantities not exceeding the allowance permitted in Section II, Table 968-II.

\triangle General Requirements

The following requirements apply to all lithium metal or lithium alloy cells and batteries:

- (a) cells and batteries identified by the manufacturer as being defective for safety reasons, or that have been damaged, that have the potential of producing a dangerous evolution of heat, fire or short circuit are forbidden for transport (e.g. those being returned to the manufacturer for safety reasons);
- (b) waste batteries and batteries being shipped for recycling or disposal are prohibited from air transport unless approved by the appropriate national authority of the State of origin and the State of the operator;
- (c) cells and batteries must be protected so as to prevent short circuits. This includes protection against contact with conductive materials within the same packaging that could lead to a short circuit.

Section IA

These requirements apply to apply to lithium metal cells with a lithium metal content in excess of 1 g and lithium metal batteries with a lithium metal content in excess of 2 g that have been determined to meet the criteria for assignment to Class 9.

The General Packing Requirements of 5.0.2 must be met.

\triangle Each cell or battery must:

1. meet the provisions of 3.9.2.6; and
2. meet the General Requirements, above;