



RAM Hand-to-Hand Couriers

Lithium Ion Transport Guide



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I. SECTION I –DEFINITIONS, INTERPRETATION & INTRODUCTION

1 INTERPRETATION

1.1 General

1.1.1 The headings of the clauses in this Document are for the purpose of convenience and reference only and shall not be used in the interpretation of nor modify nor amplify the terms of this Document nor any clause hereof.

1.1.2 The provisions of the *Interpretation Schedule* relating to interpretation shall apply and the expressions defined in such *Interpretation Schedule* shall bear the meanings assigned to them therein.

1.2 Definitions

Words in the second column have the meanings stated opposite them in the third column, as follows-

1.2.1	“Cell”	a single electrochemical unit
1.2.2	“Battery”	a number of cells electrically connected to each other and packed together in a common housing
1.2.3	“IATA”	International Air Transport Association which supports airline activity and helps formulate industry policy and standards
1.2.4	“ICAO”	the International Civil Aviation Organization specialized agency of the United Nations which codifies the principles and techniques of international air navigation and fosters the planning and development of international air transport to ensure safe and orderly growth
1.2.5	“Lithium Metal Batteries”	generally primary (non-rechargeable) batteries that have lithium metal or lithium compounds as an anode. Lithium metal batteries are generally used to power devices such as watches, calculators, camera and temperature data loggers;
1.2.6	“Lithium-Ion Batteries”	(Sometimes abbreviated as Li-ion batters) is a type of secondary (rechargeable) battery commonly used in consumer electronics. Also included within lithium-ion batteries are lithium polymer batteries. Lithium-ion batteries are generally found in mobile telephones and laptops;
1.2.7	“Overpack”	an enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage.
1.2.8	“Package”	the complete product of the packing operation consisting of the packaging and contents prepared for transport.
1.2.9	“SoC”	refers to the percentage of the electrical stored capacity in a rechargeable cell or battery (e.g. lithium ion cells or batteries) that is available for use. A fully charged lithium ion battery has a 100% state of charge (SOC). Research has demonstrated that for lithium ion batteries, reduced SOC may provide an additional level of safety during transport and reduce the likelihood of a thermal event. Effective 1 April 2016, all lithium ion batteries shipped by air without equipment must not exceed 30% SOC.
1.2.10	“Watt Hours”	for batteries manufactured as of January 2009, Watt Hours is indicated on the outside of the battery. Laptops, mobile phones and other small consumer electronics normally have batteries with less than 100 Watt Hours, excepting for some extra duration batteries. Use the formula Ampere Hours x Voltage in cases where the Watt Hour rating is not indicated on the battery.

2 DEFECTIVE AND/OR DAMAGED LITHIUM BATTERIES

2.1 It is important for the **Shipper** to note that **Lithium Batteries** that are either known and/or suspected of being **defective and/or damaged** are a high safety risk to personnel and property and therefore such **defective**



and/or damaged batteries will not be permitted on an aircraft.

- 2.2 When it is known and/or suspected that a **defective and/or damaged Lithium Battery** is enclosed within a device, the **Lithium Battery** must be **removed** before **RAM** shall accept the **shipment** on the **Shipper's** behalf.

3 **SHIPPER WARRANTY AND LIMITATION OF LIABILITY.**

- 3.1 The safe transportation of the products stated in containing **Lithium Ion Batteries and Products** mentioned in the IATA Regulations by air and the full compliance therewith are the **legal responsibility of the Shipper.**

- 3.2 The Shipper indemnifies and holds **RAM** and/or any **TPA** and/or their Personnel harmless –

- 3.2.1 from any **Loss** arising from the Shipper's failure to observe the terms of this Clause **Error! Reference source not found.** and the applicable **IATA Regulations on shipping of Lithium Ion Batteries;**

- 3.2.2 from any criminal/civil or other proceedings that may ensue as a result of **RAM** and/or any **TPA** having any illegal Shipments and/or unlawfully held Shipments under its control, including all legal costs incurred by **RAM** and/or any **TPA.**

4 **SHIPPER'S DECLARATION**

- 4.1 Safety concerns have been raised by the aviation industry with regard to the **shipment of Lithium Batteries via Air Cargo.**

- 4.2 As a result of same, the IATA regulations governing the **shipping of Lithium Batteries** have been made more stringent and as a result of same, airlines have to enforce the regulations more rigorously

- 4.3 In accordance with 55th IATA Edition Regulations –

"Packaging Instruction ("PI") 965 and Packaging Instruction ("PI") 968 – The documentations provisions for Lithium Ion and Lithium Metal batteries in Section 1B of Packaging Instruction 965 and Packaging Instruction 968 have been revised to mandate the use of a Shipper's Declaration".

- 4.1 With effect from **1 April 2014** it will be compulsory to provide a **Shipper's Declaration** with regard to **Section 1B** of **Packaging Instruction 965** and **Packaging Instruction 968**, as per the below requirements, failing which **Shipments will not be accepted.**

- 4.2 The requirements are as follows –

- 4.2.1 **Lithium Ion or polymer cells and batteries (UN3480) and Lithium Metal or Lithium Alloy cells and batteries (UN3090) shipped** under provisions of **Section 1B** must be described on the **Shipper's Declaration for Dangerous Goods** as set out in Section 8 of the 55th IATA Edition Regulations;

- 4.2.2 the **Air Waybill** must contain the applicable information required by subsection 8.2.1 and 8.2.2 of the 55th IATA Edition Regulations;

- 4.2.3 each package must be labelled with a **Lithium Battery Handling Label** in addition to the **Class 9 Hazard Label;**

- 4.2.4 each package must be marked in accordance with the requirements of subsection 7.1.5.1(a) and (b) and in addition the gross weight, when required by 7.1.5.1 (c) must be marked on the package;

- 4.2.5 packaging must be in compliance with the requirements of **Section 1B** of the applicable Packaging Instructions i.e. PI965 or PI968; and

- 4.2.6 each **consignment** must be accompanied by a document indicating specific information regarding the Lithium batteries – See **[Lithium Batteries Transport Document.pdf](#)**.

- 4.3 These requirements shall apply to **Lithium Batteries** that are –

- 4.3.1 packaged individually;

- 4.3.2 packaged with other equipment i.e. laptop; and

- 4.3.3 contained within equipment i.e. iPhone.

- 4.4 With exception of the above changes the **Lithium Battery** requirements contained in the **Lithium Batteries Information Guidance Document ([Lithium Battery Guidance Document 2014.pdf](#))** are to be adhered to as per the requirements in the 55th IATA Edition Regulations.



5 RESTRICTION ON TRANSPORTATION OF LITHIUM ION BATTERIES ON PASSENGER AIRCRAFT

- 5.1 On 22 February 2016 the ICAO Council adopted the recommendation of the ICAO Air Navigation Commission (“ANC”) that lithium ion batteries, UN 3480, Packing Instruction 965 only, be forbidden, on an interim basis, as cargo on passenger aircraft.
- 5.2 The prohibition does not apply to lithium ion batteries packed with equipment or lithium ion batteries contained in equipment, UN 3481, Packing Instruction 966 and Packing Instruction 967 respectively.
- 5.3 The prohibition becomes effective 1 April 2016, as applies to the requirements that lithium ion batteries, UN 3480, PI 965, to be shipped at a state of charge of no more than 30% of their rated capacity, and other changes advised through the addendum to the 57th edition of the IATA Dangerous Goods Regulations (DGR) issued in January of this 2016.
- 5.4 Changes to the Provisions for Lithium Batteries Effective in accordance with the 57th IATA Edition Regulations effective from 1 April 2016 are as follows -
- 5.4.1 **UN 3480, PI 965, Section IA and IB.** Lithium ion cells and batteries must be offered for transport at a **SoC not exceeding 30%** of their rated design capacity. Cells and/or batteries at a SoC of greater than 30% may only be shipped with the approval of the State of Origin and the State of the Operator under the written conditions established by those authorities.
- 5.4.2 **UN 3480, PI 965, Section IA and IB are forbidden for carriage on passenger aircraft.** All packages must bear the **Cargo Aircraft Only** label in addition to the other marks and labels required by the Regulations.
- 5.4.3 **UN 3480, PI 965, Section II.** Lithium ion cells and batteries must be offered for transport at a **SoC** not exceeding 30% of their rated design capacity.
- 5.4.4 All packages prepared in accordance with **Section II of PI 965** are forbidden for carriage on passenger aircraft. All packages must bear the **Cargo Aircraft Only** label in addition to the other marks and labels required by the Regulations.
- 5.4.5 **A shipper is not permitted to offer for transport more than one (1) package prepared according to Section II in any single consignment.**
- 5.4.6 **Not more than one (1) package** prepared in accordance with **Section II of PI 965** may be placed into an overpack. When the package is placed in an overpack, the lithium battery handling label and **Cargo Aircraft Only** label required by this packing instruction must either be clearly visible or the label must be affixed on the outside of the overpack and the overpack must be marked with the word **Overpack**.
- 5.4.7 **UN 3090, PI 968, Section II.** A shipper is not permitted to present for transport more than one (1) package prepared according to Section II in any single consignment.
- 5.4.8 **Not more than one (1) package** prepared in accordance with **Section II of PI 968** may be placed into an overpack. When the package is placed in an overpack, the lithium battery handling label and **Cargo Aircraft Only** label required by this packing instruction must either be clearly visible or the label must be affixed on the outside of the overpack and the overpack must be marked with the word **Overpack**.
- 5.4.9 Packages prepared according to Section II of PI 965 and PI 968 must be offered to the operator separately from other cargo and must not be loaded into a unit load device (ULD) before being offered to the operator.
- 5.5 With exception of the above changes the **Lithium Battery** requirements contained in the **Lithium Batteries Information Guidance Document** ([Lithium Battery Guidance Document 2016.pdf](#)) are to be adhered to as per the requirements in the 57th IATA Edition Regulations.



II. SECTION II – DOCUMENTATION AND LABELS

6 REQUIRED DOCUMENTATION

6.1 Documentation

Many shipments must be accompanied by documentation (which may be affixed to a RAM parcel in a document pouch) that must state the following:




- 6.1.1 The package must be handled with care because a fire hazard exists if it is damaged
- 6.1.2 Special procedures are to be followed if the package is damaged, to include inspection and repacking if necessary
- 6.1.3 A telephone number for additional information

6.2 Transport Document

- 6.2.1 Lithium battery shipments pertaining to Section IB of PI965 / PI968, and all Section II shipments requiring a lithium battery handling label must be accompanied by a Transport Document, in the form of the [Transport Document](#).

7 REQUIRED LABELS AND MARKING

Requirements for the use of the labels and markings described herein vary depending upon the type of battery being shipped (lithium ion or lithium metal) and how the batteries are packed (without equipment, with equipment or contained in equipment).




Battery / Cell	Description of Label	Label
Distinctive handling label (Lithium Ion Batteries)	This label must be at least 110 mm × 120 mm and be on the outside of a package containing lithium ion batteries. For smaller packages that can only bear smaller labels, the label dimensions may be 105 mm wide × 74 mm high.	
Distinctive handling label (Lithium Metal Batteries)	This label must be at least 110 mm × 120 mm and be on the outside of a package containing lithium metal batteries. For smaller packages that can only bear smaller labels, the label dimensions may be 105 mm wide × 74 mm high.	
Cargo Aircraft Only label	Shipments of either lithium ion or lithium metal batteries packed without equipment by air, the package must display the Cargo Aircraft Only label.	



III. SECTION III – LITHIUM ION / LITHIUM METAL BATTERIES & CELLS




8 LITHIUM ION BATTERIES OR CELLS

Rechargeable (secondary) lithium ion or lithium polymer cells or batteries found in portable consumer electronics such as laptops, mobile phones, MP3 players, camcorders, cordless power tools, etc

8.1	Batteries / cells only (Click here)	
8.2	Batteries / cells packed with equipment (separately in the same package) (Click here)	
8.3	Batteries / cells contained in equipment (Click here)	

9 LITHIUM METAL BATTERIES OR CELLS

Non-rechargeable (primary) lithium metal or lithium alloy cells or batteries. Longer life than standard alkaline batteries / cells, and commonly used in cameras, smoke detectors, etc.

9.1	Batteries / cells only (Click here)	
9.2	Batteries / cells packed with equipment (separately in the same package) (Click here)	
9.3	Batteries / cells contained in equipment (Click here)	



IV. SECTION IV – CONTENT

10 WATT HOURS – CAPACITY (WATT HOUR RATING) OF BATTERY

Shipped without equipment, cells and /or batteries of these three types must not be combined in the same package.

Watt Hour* rating	Instruction
Cells and Batteries ≤ 2.7 Wh	(Click here)
Cells > 2.7 Wh ≤ 20 Wh	(Click here)
Batteries > 2.7 Wh ≤ 100 Wh	(Click here)
Cells > 20 Wh Batteries > 100 Wh	(Click here)

11 LITHIUM CONTENT OF BATTERY / CELL

If shipped without equipment, cells and /or batteries of these three types must not be combined in the same package

Lithium Content	Instruction
Cells and Batteries ≤ 0.3 g	(Click here)
Cells > 0.3 g / ≤ 1 g	(Click here)
Batteries > 0.3 g / ≤ 2 g	(Click here)
Cells > 1 g Batteries > 2 g	(Click here)

12 LITHIUM ION BATTERIES

Total Number of Cells contained in Package?
≤ 8 Cells (Click here)
> 8 Cells (Click here)

13 LITHIUM ION BATTERIES

Total Number of Batteries contained in Package?
≤ 2 Batteries (Click here)
> 2 Batteries (Click here)

14 LITHIUM METAL BATTERIES

Total Number of Cells contained in Package?
≤ 8 Cells (Click here)
> 8 Cells (Click here)

15 LITHIUM METAL BATTERIES

Total Number of Batteries contained in Package?
≤ 2 Batteries (Click here)
> 2 Batteries (Click here)



16 WATT HOUR RATING – CAPACITY (WATT HOUR RATING) OF BATTERY

Watt Hour Rating
Cells ≤ 20 Wh or Batteries ≤ 100 Wh (Click here)
Cells > 20 Wh or Batteries > 100 Wh (Click here)

17 LITHIUM CONTENT OF BATTERY / CELL

Lithium Content
Cells ≤ 1 g or Batteries ≤ 2 g (Click here)
Cells > 1 g or Batteries > 2 g (Click here)

18 WATT HOUR RATING –CAPACITY (WATT HOUR* RATING) OF BATTERY

Watt Hour Rating
Cells ≤ 20 Wh or Batteries ≤ 100 Wh (Click here)
Cells > 20 Wh or Batteries > 100 Wh (Click here)

19 LITHIUM ION BATTERIES

Total Number of Cells or Batteries contained in Package?
≤ 4 Cells or ≤ 2 Batteries (Click here)
> 4 Cells or > 2 Batteries (Click here)

20 LITHIUM CONTENT OF BATTERY / CELL CONTAIN

Lithium Content
Cells ≤ 1 g or Batteries ≤ 2 g (Click here)
Cells > 1 g or Batteries > 2 g (Click here)

21 LITHIUM METAL BATTERIES

Total Number of Cells or Batteries contained in Package?
≤ 4 Cells or ≤ 2 Batteries (Click here)
> 4 Cells or > 2 Batteries (Click here)



V. SECTION V –SHIPPING INSTRUCTIONS

22 INTRODUCTION

The following tables set out the permissible method of shipping under the relevant UN Code pursuant to the selection made by the Shipper in terms of this guide

22.1 UN3480, Lithium Ion Batteries / Cells – PI965 Section II

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging.</p> <p>UN specification is not required</p> <p>Maximum 2.5 kg net quantity per package</p>	1.2 m drop test	<p><i>The following statement is required on the waybill:</i></p> <p>“Lithium Ion Batteries in compliance with Section II of PI965”</p> <p><i>Each consignment must be accompanied with a document with an indication that:</i></p> <ul style="list-style-type: none"> 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. 		<p><u>Time Definite International</u></p> <p>account must be approved</p> <p><u>Air Capacity Sales</u></p> <p>Select “LB” and mention “Section II” in the commodity tab</p>

Limited service in TDI Express to, from, within the Asia Pacific region due to air carriers restrictions. For additional information please contact your local RAM representative.



22.2 UN3480, Lithium Ion Batteries / Cells – PI965 Section IA

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p><i>Max. net quantity per package:</i></p> <p>5 kg on Passenger and Cargo Aircraft (PAX)</p> <p>35 kg for Cargo Aircraft Only (CAO)</p>	<p>Packing Group II performance standards (UN specification packaging)</p>	<p>Shipper’s Declaration</p> <p>Waybill</p>	<p>Where applicable:</p>	<p><u>Time Definite International</u></p> <p><u>Air Capacity Sales</u></p> <p>requires booking as ACP/D + PAX or CAO</p>

Lithium ion batteries / cells packed according to PI965 Section IA are not accepted in RAM TDI Express when shipped via road to, from, or transiting an ADR member state.





22.3 UN3480, Lithium Ion Batteries / Cells – PI965 Section II

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>UN specification is not required</p> <p>Maximum 8 cells per package</p>	1.2 m drop test	<p><i>The following statement is required on the waybill:</i></p> <p>“Lithium Ion Batteries in compliance with Section II of PI965”</p> <p><i>Each consignment must be accompanied with a document with an indication that:</i></p> <ul style="list-style-type: none"> 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. 		<p><u>Time Definite International</u></p> <p>account must be approved</p>  <p><u>Air Capacity Sales</u></p> <p>Select “LB” and mention “Section II” in the commodity tab</p>

Limited service in TDI Express to, from, within the Asia Pacific region due to air carrier restrictions. For additional information please contact your local RAM representative.

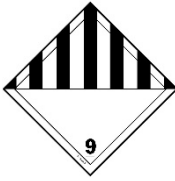

22.4 UN3480, Lithium Ion Batteries / Cells – PI965 Section II

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>UN specification is not required</p> <p>Maximum 2 batteries per package</p>	1.2 m drop test	<p><i>The following statement is required on the waybill:</i></p> <p>“Lithium Ion Batteries in compliance with Section II of PI965”</p> <p><i>Each consignment must be accompanied with a document with an indication that:</i></p> <ul style="list-style-type: none"> 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. 		<p><u>Time Definite International</u></p> <p>account must be approved</p>  <p><u>Air Capacity Sales</u></p> <p>Select “LB” and mention “Section II” in the commodity tab</p>


Limited service in TDI Express to, from, within the Asia Pacific region due to air carrier restrictions. For additional information please contact your local RAM representative.



22.5 UN3480, Lithium Ion Batteries / Cells – PI965 Section Ib

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>UN specification is not required</p> <p>Maximum 10 kg net weight per package for either “Passenger and Cargo Aircraft” or “Cargo Aircraft Only” shipments</p>	1.2 m drop test	<p>Shipper’s Declaration</p> <p><i>The following statement is required on the waybill:</i></p> <p>“Dangerous Goods as per attached DGD” or</p> <p>“Dangerous Goods as per attached Shipper's Declaration”</p> <p><i>Each consignment must be accompanied with a document with an indication that:</i></p> <ul style="list-style-type: none"> 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. 	 	<p><u>Time Definite International</u></p> <p>account must be approved</p> <p><u>Air Capacity Sales</u></p> <p>Select “D” or for US only “DG” and add a description in the commodity tab</p>




22.6 UN3481, Lithium Ion Batteries / Cells – PI966 Section II

Packaging	Package Tests	Documentation	Labeling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>The equipment must be secured against any movement within the outer packaging and must be equipped with an effective means of preventing accidental activation.</p> <p><i>Maximum number of batteries /cells per package:</i></p> <p><u>Those necessary to power the equipment plus 2 spares</u> <i>Maximum</i></p>	1.2 m drop test	<p><i>The following statement is required on the waybill:</i></p> <p>“Lithium Ion Batteries in compliance with Section II of PI966”</p> <p><i>Each consignment must be accompanied with a document with an indication that:</i></p> <ul style="list-style-type: none"> 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. 		<p><u>Time Definite International</u></p> <p>account must be approved</p> <p><u>Air Capacity Sales</u></p> <p>Select “LB” and mention “Section II” in the commodity tab</p>



net quantity of lithium batteries or cells per package = 5 kg per package for either "Passenger and Cargo Aircraft" or "Cargo Aircraft Only shipments"				
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22.7 UN3481, Lithium Ion Batteries / Cells – PI966 Section I

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>The equipment must be secured against any movement within the outer packaging and must be equipped with an effective means of preventing accidental activation.</p> <p><i>Maximum number of batteries:</i> <u>Those necessary to power the equipment plus 2 spares</u> Max. net quantity per package (exclusive of equipment): 5 kg on Passenger and Cargo Aircraft (PAX) 35 kg for Cargo Aircraft Only shipments (CAO)</p>	<p>Packing Group II performance standards (UN specification packaging) <i>for those packages containing batteries</i></p>	<p>Shipper's Declaration Waybill</p>	 <p>Where applicable:</p> 	<p><u>Time Definite International</u></p>  <p><u>Air Capacity Sales</u> requires booking as ACP/D + PAX or CAO</p>

22.8 UN3481, Lithium Ion Batteries / Cells – PI967 Section II

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>The equipment must be packed in strong rigid outer packaging 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.</p> <p>Max. 5 kg net qty of Lithium-Ion cells/ batteries per package (excl. of equipment).</p>				

“Lithium ion batteries in compliance with Section II of PI967 less than 2 batteries or 4 cells” must be added on the waybill for all shipments to, from, within the Asia Pacific region.

Important:


For shipments meeting above conditions, there is the requirement that the consignment is limited to a maximum of 2 packages (each containing maximum 4 cells or 2 batteries contained in equipment).





If the shipment exceeds 2 packages, the application of the lithium battery handling label (and the subsequent requirements) apply.

This limitation of 2 packages per consignment enters only in force as off 1st of January 2017, since the regulations foresee a 12 month transitional period, however, shippers are recommender to implement it as soon as possible.

22.9 UN3481, Lithium Ion Batteries / Cells – PI967 Section II

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>UN specification packaging is not required. Devices with batteries must be placed in an outer packaging of suitable construction and strength so as to provide adequate protection, unless the battery is afforded equivalent protection by the equipment in which it is contained.</p> <p>Max. 5 kg net qty of Lithium-Ion cells/ batteries per package (excl. of equipment). for either “Passenger and Cargo Aircraft” or “Cargo Aircraft Only “ shipments</p>	<p>Strong rigid outer packaging equivalent to its capacity and intended use</p>	<p><i>The following statement is required on the waybill:</i></p> <p>“Lithium Ion Batteries in compliance with Section II of PI967”</p> <p><i>Each consignment must be accompanied with a document with an indication that:</i></p> <ul style="list-style-type: none"> 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. 		<p><u>Time Definite International</u></p> <p>account must be approved</p> <p><u>Air Capacity Sales</u></p> <p>Select “LB” and mention “Section II” in the commodity tab</p>

22.10 UN3481, Lithium Ion Batteries / Cells – PI967 Section I

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>UN specification packaging is not required. Devices with batteries must be placed in outer packaging of suitable construction and strength so as to provide adequate protection, unless the battery is afforded</p>	<p>Strong rigid outer packaging equivalent to its capacity and intended use</p>	<p>Shipper’s Declaration Waybill</p>	 <p>Where applicable:</p>	<p><u>Time Definite International</u></p>  <p><u>Air Capacity Sales</u></p> <p>requires booking as ACP/D + PAX or CAO</p>



<p>equivalent protection by the equipment in which it is contained.</p> <p><i>Max. net quantity per package (exclusive of equipment):</i></p> <p>5 kg on Passenger and Cargo Aircraft (PAX)</p> <p>35 kg for Cargo Aircraft Only (CAO)</p>				
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Lithium ion batteries / cells packed according to PI967 Section I are not accepted in TDI Express when shipped via road to, from, or transiting an ADR member state.

22.11 UN3090, Lithium METAL Batteries / Cells – PI968 Section II

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging.</p> <p>UN specification is not required</p> <p>Maximum net quantity per package: 2.5 kg</p> <p><u>Cargo Aircraft Only!</u></p>	<p>1.2 m drop test</p>	<p><i>The following words are required on the waybill:</i></p> <p>“Lithium Metal Batteries in compliance with Section II of PI968”</p> <p>“Cargo Aircraft Only” or “CAO”</p> <p><i>Each consignment must be accompanied with a document with an indication that:</i></p> <ul style="list-style-type: none"> the package contains lithium metal 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. 	 	<p><u>Time Definite International</u></p> <p>Forbidden</p> <p><u>Air Capacity Sales</u></p> <p>Select “LB” and mention “Section II” in the commodity tab</p>

Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only.


Important:

If part of a consolidation, packages and/or overpacks containing batteries assigned to this section must be offered to RAM separately from the goods in the consolidation that are not subject to the ICAO / IATA DGR. Furthermore, these batteries will not be accepted if tendered in a customer pre-built ULD.

22.12 UN3090, Lithium METAL Batteries / Cells – PI968 Section IA

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>Max. net quantity per package: 35 kg</p> <p><u>Cargo Aircraft Only</u></p>	<p>Packing Group II performance standards (UN specification packaging)</p>	<p>Shipper’s Declaration</p> <p>Waybill</p>		<p><u>Time Definite International</u></p> <p><u>Air Capacity Sales</u></p> <p>requires booking as</p>






				ACP/D + CAO
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Lithium ion batteries / cells packed according to PI968 Section IA are not accepted in RAM TDI Express when shipped via road to, from, or transiting an ADR member state

Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only

22.13 UN3090, Lithium METAL Batteries / Cells – PI968 Section II


Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging.</p> <p>UN specification is not required</p> <p>Maximum 8 cells per package</p> <p><u>Cargo Aircraft Only</u></p>	1.2 m drop test	<p><i>The following words are required on the waybill:</i></p> <p>“Lithium Metal Batteries in compliance with Section II of PI968”</p> <p>“Cargo Aircraft Only” or “CAO”</p> <p><i>Each consignment must be accompanied with a document with an indication that:</i></p> <ul style="list-style-type: none"> the package contains lithium metal 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. 	 	<p><u>Time Definite International</u></p> <p>Forbidden</p> <p><u>Air Capacity Sales</u></p> <p>Select “LB” and mention “Section II” in the commodity tab</p> 

Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only



Important:

If part of a consolidation, packages and/or overpacks containing batteries assigned to this section must be offered to RAM separately from the goods in the consolidation that are not subject to the ICAO / IATA DGR. Furthermore, these batteries will not be accepted if tendered in a customer pre-built ULD.

22.14 UN3090, Lithium METAL Batteries / Cells – PI968 Section II

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging.</p>	1.2 m drop test	<p><i>The following words are required on the waybill:</i></p> <p>“Lithium Metal Batteries in compliance with Section II of PI968”</p> <p>“Cargo Aircraft Only” or “CAO”</p> <p><i>Each consignment must be accompanied with a document with an indication that:</i></p>		<p><u>Time Definite International</u></p> <p>Forbidden</p> <p><u>Air Capacity Sales</u></p> <p>Select “LB” and mention “Section II” in</p>







<p>UN specification is not required</p> <p>Maximum 2 batteries per package</p> <p><u>Cargo Aircraft Only</u></p>		<ul style="list-style-type: none"> the package contains lithium metal 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. 		<p>the commodity tab</p> 
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Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only

Important:

If part of a consolidation, packages and/or overpacks containing batteries assigned to this section must be offered to RAM separately from the goods in the consolidation that are not subject to the ICAO / IATA DGR. Furthermore, these batteries will not be accepted if tendered in a customer pre-built ULD.

22.15 UN3090, Lithium METAL Batteries / Cells – PI968 Section IB


Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>UN Specification not required</p> <p>Max. net quantity per package: 2.5 kg</p> <p><u>Cargo Aircraft Only!</u></p>	<p>1.2 m drop test</p>	<p>Shipper's Declaration Waybill</p> <p><i>In addition to the Shipper's Declaration, each consignment must be accompanied with a document with an indication that:</i></p> <ul style="list-style-type: none"> the package contains lithium metal 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. 	  	<p><u>Time Definite International</u></p> <p>Account must be approved</p>  <p><u>Air Capacity Sales</u></p> <p>Select "D" or for US only "DG" and add a description in the commodity tab</p>

Forbidden in TDI Express to, from, within the Asia Pacific region due to air carrier restriction




Shipping ACS consignments to, from or within the Asia Pacific region is possible for RCG approved shipments on approved routings only.



22.16 UN3091, Lithium METAL Batteries / Cells – PI969 Section II

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>Equipment must be secured against movement within the outer packaging, and against accidental activation</p> <p><i>Maximum number of batteries per package:</i> <u>Those necessary to power the equipment plus 2 spares</u></p> <p><i>Max. net quantity of Lithium metal cells or - batteries per package (exclusive of equipment): 5 kg</i></p>	1.2m drop test	<p><i>The following statement is required on the waybill:</i></p> <p>“Lithium Metal Batteries in compliance with Section II of PI969”</p> <p><i>Each consignment must be accompanied with a document with an indication that:</i></p> <ul style="list-style-type: none"> the package contains lithium metal 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. 		<p><u>Time Definite International</u></p> <p>account must be approved</p> <p><u>Air Capacity Sales</u></p> <p>Select “LB” and mention “Section II” in the commodity tab</p>

22.17 UN3091, Lithium metal Batteries / Cells – PI969 Section I

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>Equipment must be secured against movement within the outer packaging, and also against accidental activation</p> <p><i>If prepared for transport on Passenger Aircraft :</i></p> <ul style="list-style-type: none"> - Each battery /cell must be packed in either a rigid metal intermediate or a metal outer packaging - Each battery /cell must be surrounded by cushioning material that is non-combustible / non-conductive <p><i>Max. net quantity per package (exclusive of equipment):</i></p>	<p>Packing Group II performance standards</p> <p><i>UN specification packaging required for those packages containing batteries</i></p>	<p>Shipper’s Declaration</p> <p>Waybill</p>	 <p>Where applicable:</p> 	<p><u>Time Definite International</u></p>  <p><u>Air Capacity Sales</u></p> <p>requires booking as ACP/D + PAX or CAO</p>



5 kg on Passenger and Cargo Aircraft (PAX) 35 kg for Cargo Aircraft Only shipments (CAO)				
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Lithium ion batteries / cells packed according to PI969 Section I are not accepted in TDI Express when shipped via road to, from, or transiting an ADR member state

22.18 UN3091, Lithium METAL Batteries / Cells – PI970 Section II

Packaging	Package Tests	Documentation	Labelling	RAM Service
The equipment must be packed in strong rigid outer packaging 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. Max. 5 kg net qty of Lithium-Ion cells/ batteries per package (excl. of equipment).				Exempt from any marking and labeling requirements

“Lithium metal batteries in compliance with Section II of PI970 less than 2 batteries or 4 cells” must be added on the waybill for all shipments to, from, within the Asia Pacific region


Important:

For shipments meeting above conditions, there is the requirement that the consignment is limited to a maximum of 2 packages (each containing maximum 4 cells or 2 batteries contained in equipment).

If the shipment exceeds 2 packages, the application of the lithium battery handling label (and the subsequent requirements) apply.

This limitation of 2 packages per consignment enters only in force as off 1st of January 2017, since the regulations foresee a 12 month transitional period, however, shippers are recommender to implement it as soon as possible.




22.19 UN3091, Lithium metal Batteries / Cells – PI970 Section II

Packaging	Package Tests	Documentation	Labelling	RAM Service
Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging UN specification packaging is not required. Equipment with batteries must be placed in an outer packaging of suitable construction and strength so as to	Strong outer packaging equivalent to its capacity and intended use	<i>The following statement is required on the waybill:</i> “Lithium Metal Batteries in compliance with Section II of PI970” <i>Each consignment must be accompanied with a document with an indication that:</i> <ul style="list-style-type: none"> the package contains lithium metal 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 		Time Definite International account must be approved Air Capacity Sales Select “LB” and mention “Section II” in the commodity tab



<p>provide adequate protection, unless the battery is afforded equivalent protection by the equipment in which it is contained.</p> <p><i>Max. net quantity of Lithium metal batteries/ cells per package = 5 kg (excl. of equipment) for either "Passenger and Cargo Aircraft" or "Cargo Aircraft Only" shipments</i></p>		<ul style="list-style-type: none"> a telephone number for additional information. 		
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22.20 UN3091, Lithium METAL Batteries / Cells – PI970 Section I

Packaging	Package Tests	Documentation	Labelling	RAM Service
<p>Each battery /cell must be protected against a short circuit and placed in an inner packaging that completely encloses the battery /cell, then placed in a strong rigid outer packaging</p> <p>UN specification packaging is not required. Equipment with batteries must be placed in outer packaging of suitable construction and strength so as to provide adequate protection, unless the battery is afforded equivalent protection by the equipment in which it is contained.</p> <p>The quantity of lithium metal contained in any piece of equipment must not exceed 500 g per battery and 12 g per cell.</p> <p><i>Max. net quantity per package (exclusive of equipment):</i></p> <p>5 kg on Passenger and Cargo Aircraft</p> <p>35 kg for Cargo Aircraft Only shipments</p>	<p>Strong outer packaging equivalent to its capacity and intended use</p>	<p>Shipper's Declaration</p> <p>Waybill</p>	 <p>Where applicable:</p> 	<p><u>Time Definite International</u></p>  <p><u>Air Capacity Sales</u></p> <p>requires booking as ACP/D + PAX or CAO</p>

Lithium ion batteries / cells packed according to PI970 Section I are not accepted in TDI Express when shipped via road to, from, or transiting an ADR member state