
Shipment of Li-ion cells and batteries with protection against external short –circuit

Battery Association of Japan

August 31, 2010

- 1. Applicable rules/regulations**
 - 2. Packing specifications for products**
 - 3. Transport of used batteries**
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[For cells and batteries]

- ◆ Each cell and battery is of the type proven to meet the requirements of each test in the *UN Manual of Tests and Criteria, Part III, subsection 38.3*.

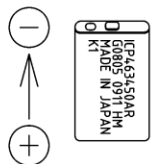
[For packing]

- ◆ Cells and batteries shall be packed in inner packaging that completely enclose the cell or battery.
- ◆ Cells and batteries shall be protected so as to **prevent short circuits**.
NOTE: This includes protection against contact with conductive materials within the same packaging that could lead to a short circuits.
- ◆ The inner packaging shall be packed in strong outer packagings.

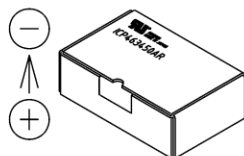
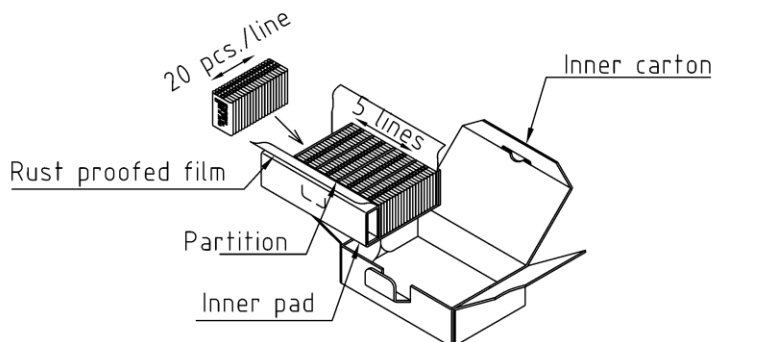
UN Recommendation on the Transport of Dangerous Goods: Model Regulations 16th revised Edition – Special provision 188 (snippet)

Example of packing specifications (Prismatic cell)

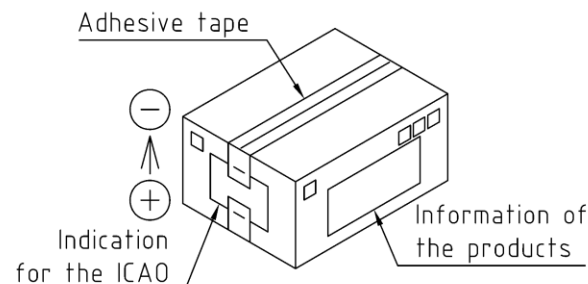
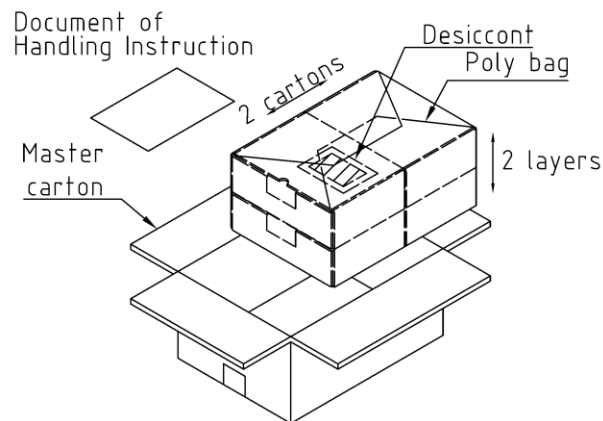
① CELL (ICP463450AR)



② INNER CARTON PACKING



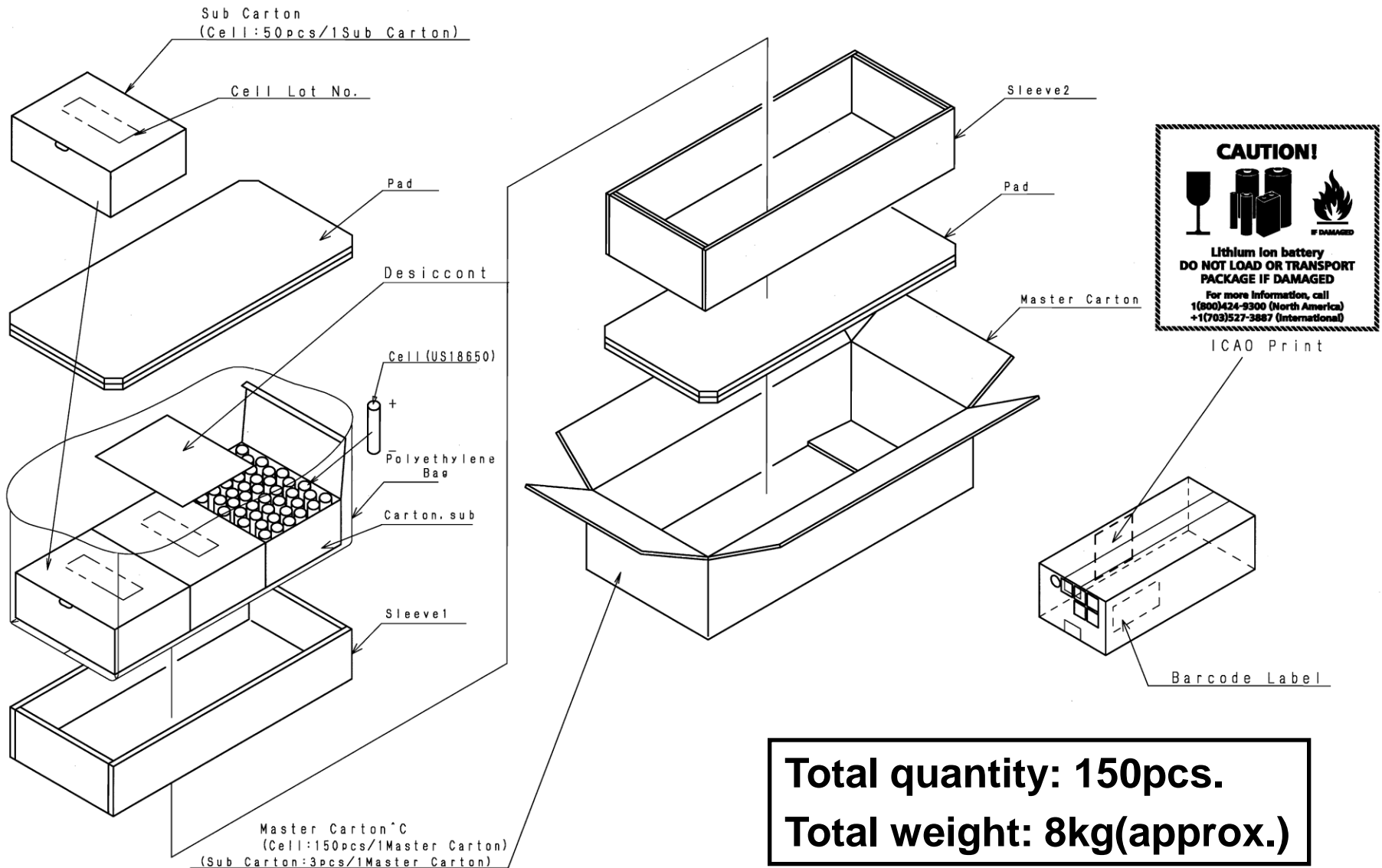
③ MASTER CARTON PACKING



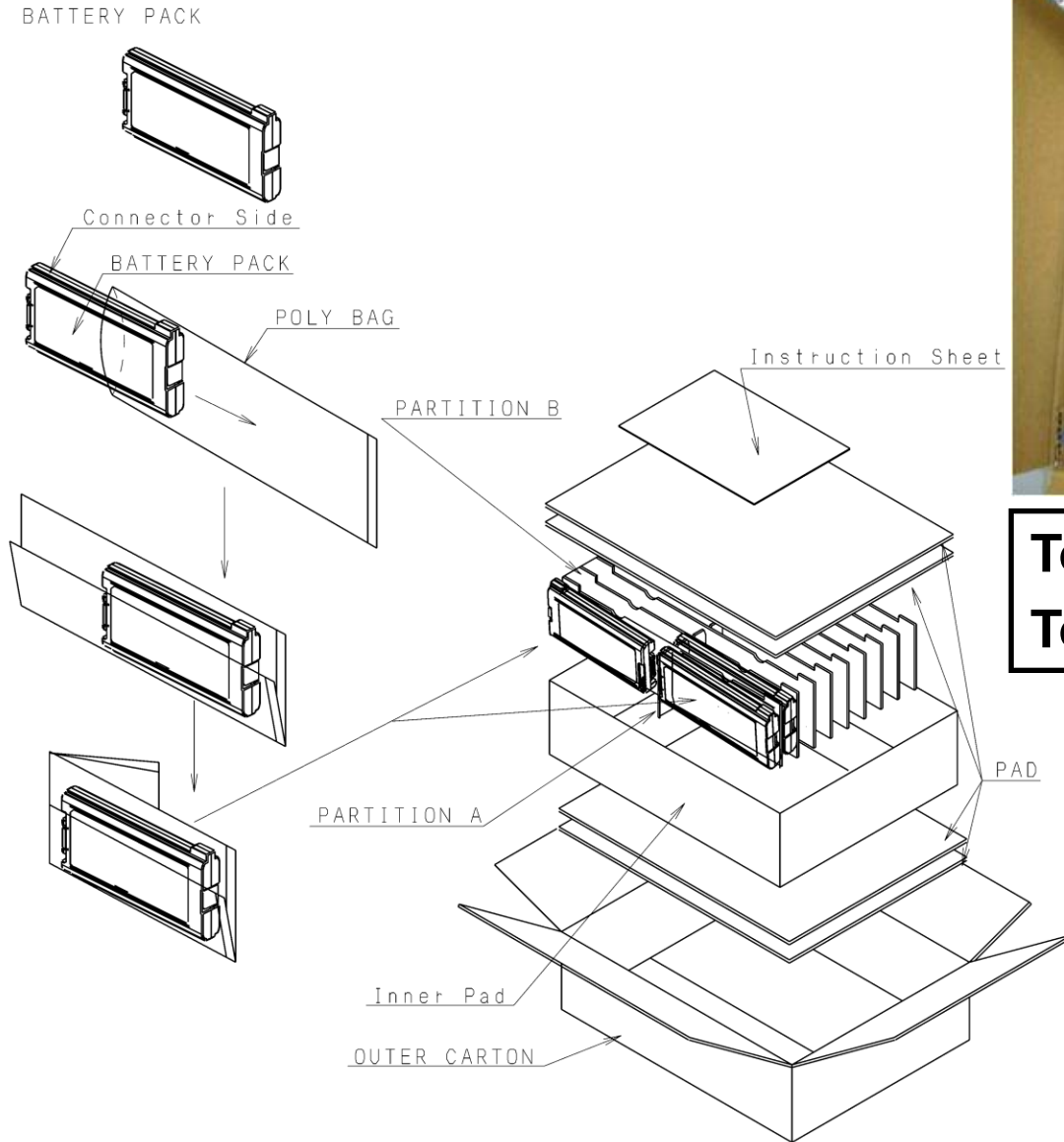
Total quantity: 400pcs.
Total weight: 8kg(approx.)



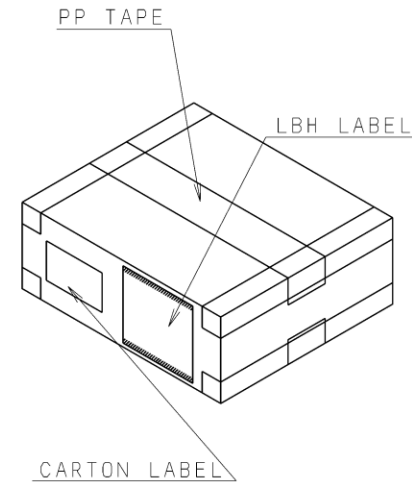
Example of packing specifications (Cylindrical cell) BAJ



Example of packing specifications (Battery pack)



Total quantity: 20pcs.
Total weight: 9kg(approx.)



Direction for safe transport of used batteries

→ **Ensure prevention external short circuit !**



- ◆ Ensure protection terminals of used batteries with suitable insulation.
- ◆ Do not disassemble the used batteries.
- ◆ Use strong outer packaging.
- ◆ Fix contents in place do not move around inside the outer packaging during transportation.
- ◆ Limit the total weight of items in one package.