

# Boeing outlines fix for 787 batteries

The U.S. Federal Aviation Administration (FAA) has approved Boeing's proposal to fix battery issues on the 787 Dreamliner. The aircraft uses two 32-volt lithium-ion batteries primarily for ground operations

## Main battery in forward Electronics Equipment Bay:

Used during refuelling, powering navigation lights and applying brake power while towing

**Auxiliary Power Unit battery in aft EE Bay:** Used to start APU which provides ground power and serves as backup power in flight

**Battery:** Consists of eight lithium-ion rechargeable cells connected in series

**Problem:** Overcharging can cause short circuit within cell

Short circuit causes cell to overheat



Electrolyte vaporises, raising pressure



Electrolyte vents from cell



Overheating spreads from cell to cell

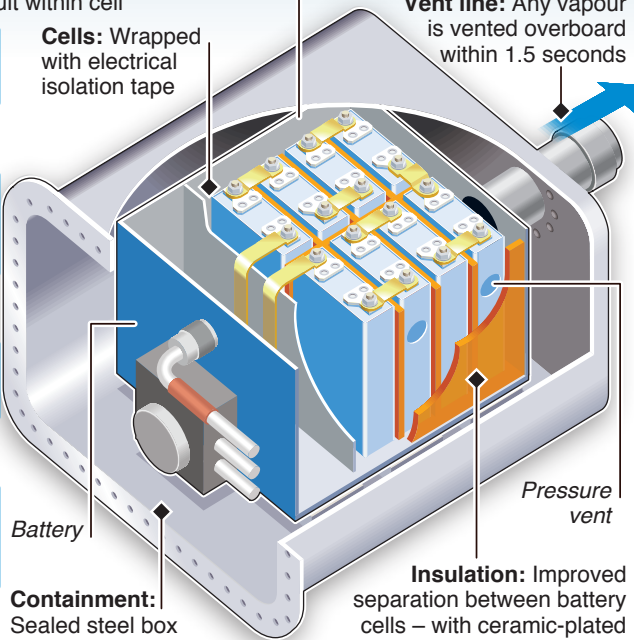


Battery failure

**Cells:** Wrapped with electrical isolation tape

**Solutions:** Reduce maximum voltage of charger to decrease workload on battery

**Vent line:** Any vapour is vented overboard within 1.5 seconds



**Containment:** Sealed steel box eliminates possibility of fire **Added weight: 68kg**

**Insulation:** Improved separation between battery cells – with ceramic-plated spacers between cells – to cut risk of heat propagation

Source: Boeing

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