

How to check whether spare batteries are allowed to be carried on board

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Today, the demand for smartphones is extremely large, we almost have to use smartphones anytime, anywhere, from entertainment purposes to work. While smartphone battery technology still seems to be limited, it is understandable that the backup battery becomes an extremely hot technology accessory, even an isolated piece of many people. There's no need to talk about the convenience of extra batteries, especially for long trips, however, if you're planning to carry a power supply or backup battery on the plane, you should probably check pre-check their specifications by simply, not everything is allowed to be carried on board. There have been a number of fire and explosion incidents that originated from the battery, so this requirement is perfectly reasonable.

If you are curious to see if the backup battery is allowed to appear on flights, the answer is yes, but not enough. There are also the following rules.

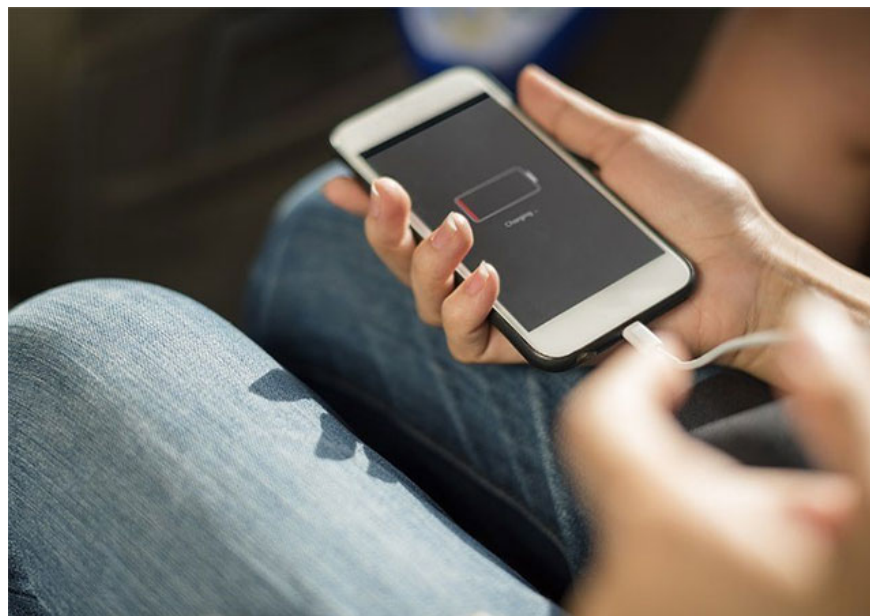
Location



The rule here is simple: If you have a spare battery, laptop battery, phone battery or anything else that uses a rechargeable lithium-ion battery, they will have to be carried with you. It may sound strange, but actually keeping these potentially explosive devices in places where they can be monitored continuously will be much safer. For example, a phone that catches fire in the cabin is sounding scary, but we'll handle it pretty quickly. But what if you imagine a fire appearing in the cargo area? It will not be easy to detect and prevent in time and the

safety of all people on the flight will certainly not be guaranteed.

Capacity



For backup batteries, whether or not the battery is carried on board is one of the prerequisites for buying. However, this is not a very accurate question. By, regulate the capacity of backup battery when traveling by plane is limited to Wh, not mAh. Here is the recipe to convert between units. First of all, it should be recalled that the battery must not be in a checked baggage but must be portable, whether it is a small battery and you must not use a spare battery to charge other devices on the aircraft. As mentioned, the battery backup regulations are limited to Wh, still pre-printed on the battery. Currently not many manufacturers show this number, so we can calculate by formula $Wh = Ah \times V$ (if it is mAh divided by 1000).

Specifically, the steps are as follows:

1. Find the number of mAh battery (can range from 1 to 30,000)
2. Find the battery voltage (usually 3.6V / 3.7V)
3. Divide the mAh number for 1000, convert it into Amp hours (Ah)
4. Multiply the number Ah by the voltage to get the Wh unit

General formula:

For example, a **20000mAh** battery with **3.6V** voltage Wh will be: **$(20,000 : 1000) \times 3.6 = 72Wh$**

Normally the spare batteries usually have different voltages and voltages, an average 3.6V power supply will have about 28,000mAh before it exceeds the 100 Wh limit. As long as you see "3.6V" or "3.7V" and some lower 28,000mAh, it's more likely your battery is allowed to be carried on board.



However, if you have a bigger battery, you can still carry it on the plane. In many special cases and with permission from the airline, the batteries with a Wh rating of 100.1 - 160Wh (160Wh approximately 44,000mAh at 3.6 volts) are still acceptable to carry on board, Contact your service provider directly for assistance.

For batteries larger than 160Wh, there are almost no exceptions, as it is classified as a dangerous category. Fortunately, it is difficult to find a spare battery that has such a large capacity.

What every real danger comes from spare batteries.



These tiny batteries could absolutely be 'suicide bombers' causing bad disasters for the airline industry. Just quickly searching for a keyword like "exploding the battery on an airplane" will envision a certain part, although in fact, most fires are quickly extinguished.

The only battery-related disaster confirmed to date is that the UPS plane crashed at Dubai International Airport in 2010, the cause of a fire caused by a lithium battery. out. The accident is one reason why airlines don't want

their passengers to carry lithium batteries on board. In the case of UPS, the carrier does not prohibit batteries, but will pack them carefully in containers made of special fiberglass.

There was even a (unfounded) hypothesis that exploded batteries were the cause of the disappearance of the fateful aircraft MH370 in 2014. As mentioned, the battery explosion incidents not much on the plane, and if so, it is usually handled fairly quickly, but you should also comply with the service provider's recommendations. All they want is just to ensure your safety and the crew.

summary

Finally, all the information you need to know about backup batteries to avoid any risks while flying is:

1. Carry your battery on the cabin, not in the luggage storage.
2. Do not bring batteries with a capacity of over 100Wh (usually about 27-28,000 mAh) or if you carry them, you must notify the airline and the relevant departments.

Wish you have safe and comfortable flights!

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