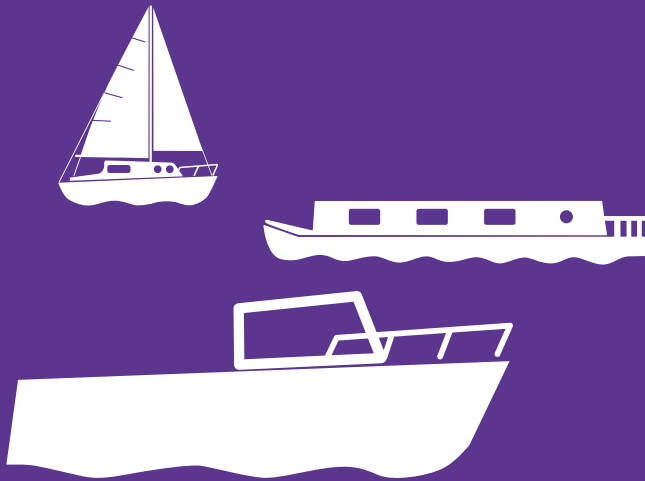


Lithium-ion Battery Safety on Boats



Installed Lithium-ion Batteries

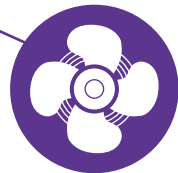
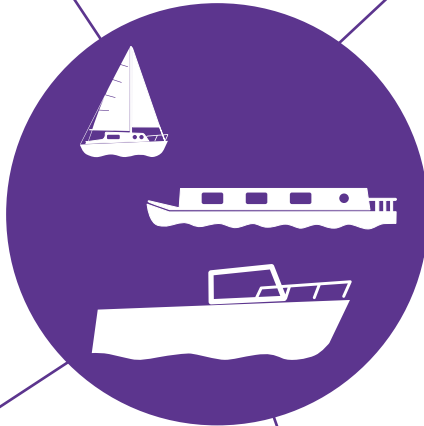
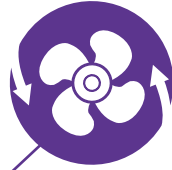


Typical uses of installed lithium-ion batteries

Boat domestic
appliance batteries



Bow thruster and other
auxiliary equipment batteries



Electric propulsion
battery system



Engine starter
battery



Battery energy storage system
storing energy from solar panels,
wind generators, fuel cells or
shore supplies

If you're thinking of switching your domestic, starter or power batteries to lithium-ion, here's some tips

The following advice is based upon guidance provided by industry experts.

Don't get it wrong - Make the right choices first time!



Use a professional

The installation of lithium-ion batteries and battery systems should be carried out by competent persons, and to suitable industry standards.

Install marine equipment only

Only lithium-ion batteries and electrical system components specifically intended for marine installation should be used. They are designed for installation in the challenging marine environment.



Understand and follow the instructions

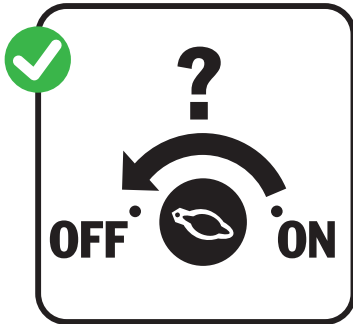
Lithium-ion batteries should be installed and used in accordance with the manufacturer's instructions to ensure the batteries are kept within the manufacturer's specified safe operating limits.

Don't mix and match

Different battery chemistries should not be connected in parallel or in series. This is because the load characteristics and capabilities of these batteries are drastically different which can lead to safety issues.

Tell your insurer

If you install lithium-ion batteries and/or battery systems on your vessel, you must tell your insurer, or risk being left uninsured in the event of an incident.



Disconnect when batteries finish charging

Only use manufacturers' charging devices. Unless the equipment instructions and/or competent installer state that it is safe to do so, do not leave equipment on charge when you are asleep or away from vessel.



Remove damaged batteries immediately

Routinely check the condition of your boat's batteries. Damaged lithium-ion batteries can overheat, shoot out flames and explode.

If you spot any signs of damage on a lithium-ion battery, remove it from the boat and have it responsibly recycled by a specialist contractor as soon as possible.

Install/Test Smoke Alarms

Fit suitable, certified and working smoke alarms. Ensure they can be heard throughout the boat. Test them monthly.

Create a Safe-Escape Plan

Everyone aboard must know and understand how to act in case of an emergency.

Keep all escape routes clear at all times, lithium-ion battery fires can spread rapidly and traditional fire extinguishers may not work.

If a device or battery starts making loud popping, hissing or screaming sounds, or emits toxic vapour/smoke, or catches fire, raise the alarm, warn others, get out, stay out and call 999/ch16 for help immediately.

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