



The Commonwealth of Massachusetts
Executive Office of Public Safety and Security
Department of Fire Services



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PETER J. OSTROSKY
STATE FIRE MARSHAL

TO: Heads of Fire Departments

FROM: Peter J. Ostroskey
State Fire Marshal

DATE: April 4, 2016

RE: **Lithium-ion Battery/Hoverboard Safety**

Recently, the Commonwealth has experienced two fires involving hoverboard self balancing scooters. Similar fires have been reported across the nation. With the scrutiny of these fire investigations, the safety of rechargeable lithium-ion batteries has come into question. Lithium-ion batteries are used in a variety of electronic devices and are a common form of rechargeable battery. When used and stored properly, rechargeable lithium-ion batteries are no less safe than traditional alkaline batteries.

Here are some tips for rechargeable lithium-ion battery safety you might wish to share with the public:

- Always use approved chargers or charging systems intended for use with your device or battery pack. Non-approved chargers or systems may not work properly with lithium-ion battery packs and can damage the battery or device, or cause a fire.
- Follow manufacturer’s instructions for charging. Don’t overcharge devices or leave them unattended for long periods of time. Overcharging can lead to a fire.
- Don’t charge or use lithium-ion batteries in extreme temperatures. Cold temperatures can cause a battery not to hold a charge while high temperatures (or prolonged exposure to sunlight) can cause a malfunction and lead to a fire.
- Replace and properly discard damaged batteries. Using damaged batteries may lead to thermal runaway which can cause a fire.
- Don’t place charging devices or devices in use on soft and/or combustible surfaces. The heat produced by the charging or use of the battery can get trapped around the battery and if left untouched, can damage the battery or device, or cause a fire.

Specifically, the Consumer Product Safety Commission (CPSC) has published requirements for manufacturers of hoverboards and their lithium-ion batteries. These requirements must be met for all new hoverboards being shipped into the United States. Unfortunately, many hoverboards were purchased prior to the creation of these provisions and may not meet minimum safety standards for battery design. While UL does provide standards and testing for components of hoverboards, there are currently no UL approved hoverboards as a complete unit. UL recently published UL 2272 for hoverboards, but approval has not yet been granted to any hoverboard manufacturers. A UL sticker or marking on a hoverboard does not indicate compliance with minimum safety standards and is misleading, potentially even indicating counterfeit devices. For more information, please visit www.cpsc.gov.

Should you have a fire involving a hoverboard self balancing scooter or other device that contains a rechargeable lithium-ion battery be sure to report it to the USCPSC (www.cpsc.gov) and to Jake Nunnemacher, who is the DFS liaison to USCPSC.

Further assistance is always available from the Division of Fire Safety on this and similar issues. If you have further questions, please contact the Code Compliance Help Desk at (978)567-3375.