Safely using your Magnet Switch and how to dispose of it

Altimeter Cloud

Magnet Switch V1 manual · v1.0

https://www.altimetercloud.com/support/magnet-switch-v1/safety-disposal/

Please read these safety instructions carefully before using your Magnet Switch. Retain this information for future reference.

CHILDREN AND YOUNG PEOPLE

Keep the Magnet Switch and any magnets out of reach of babies, toddlers, and young children. The board is small and is a choking hazard, and swallowed magnets can cause serious internal injuries. It is not a toy and should never be given to a young child to hold or play with. If you think a child may have swallowed the device or a magnet, seek medical help or contact your local emergency services straight away, even if the child appears unharmed.

Intended use

The Magnet Switch is a power switch designed for use in unmanned model rockets and high-power rockets. It is not designed or certified for use in manned aircraft, safety-critical systems, or any application where failure could result in injury or loss of life. Do not rely on this device as a sole safety system.

This product is not designed to be used by children under the age of 16 without adult supervision. Use of this product involves wiring batteries and electronics and handling model rocket components.

This product is not designed to be used to fire rockets, or deployments. It is soley intended as a power switch to subsequent electronic devices. You should never connect any deployment action, charge or motor directly to the output of this device.

Treat the output as live

The Magnet Switch can power electronics that fire ignition and ejection charges, so treat its output as live whenever a battery is connected, and follow the safety code of your rocketry association.

- Connect the battery and confirm the switch is off before connecting any charges or igniters.
- The switch remembers its state. If it was on when the battery was removed, the output comes back on as soon as a battery is connected, with no warning tones.
- Listen for the tones every time you switch it. One long tone means off, five quick tones means on. If you're not sure what state it's in, check the output with a meter before going any further.
- Any strong enough magnet can switch it. A magnet held near the sensor for around 2 seconds will change its state, and that includes one in a tool, a phone case or a magnetic catch. The same goes for something pressing on the power button in a range box. Keep magnets away from prepared rockets and check the state before flying.
- Only switch on with the rocket on the pad, pointing in a safe direction, and in line with your range's procedures.
- Mount the board securely and secure the wiring so that it can't pull on the pads. Test the whole system on the ground before you fly it.

Magnets

Strong magnets can interfere with pacemakers and other medical implants, so keep them well away from anyone who has one. Neodymium magnets can also snap together hard enough to pinch skin or shatter, so handle them with care.

Batteries and wiring

The Magnet Switch does not contain a battery, but it connects straight to one, so please observe the following:

- Do not exceed the 16.8 V input limit, which is a fully charged 4S LiPo.
- The switch has no fuse or current limit. A short circuit on the output can destroy the switch and damage your battery, so check your wiring before connecting a battery.
- Use wire that's suitable for the current your electronics draw, including any igniter firing current.
- The corner pads are live. Keep them clear of carbon fibre, metal and anything else conductive.
- Follow the instructions for your battery, and stop using any battery that is swollen, damaged, or emitting heat or odour.
- Disconnect the battery for storage. The switch draws very little while it's off, but it will still slowly drain a battery left connected.

Operating environment

- Do not expose the Magnet Switch to water, rain, or excessive moisture.
- Do not use it in environments with corrosive gases or liquids.
- Keep it out of the bulk of the ejection gases. Fit it in an electronics bay rather than the motor ejection space.

Local regulations

The user is responsible for complying with all applicable local, national, and international laws and regulations regarding model rocketry, high-power rocketry, and the use of pyrotechnic devices. Regulations vary significantly by country and region. Rocketry Ltd makes no representation that the use of this product is lawful in any particular jurisdiction and accepts no liability for any breach of local regulations by the user.

Modifications

The Magnet Switch is an open product and you're welcome to reprogram it, the programming page shows you how. Anything your own code does is your responsibility though, and faults caused by your own code or by changes to the hardware are not covered by the warranty. Modifications may also invalidate the product's regulatory compliance and may create safety hazards.

Third-party accessories

Rocketry Ltd is not responsible for any damage, malfunction, or safety hazard caused by the batteries, wiring, magnets, or other equipment connected to or used with the Magnet Switch.

Disposal and recycling

This product is electrical and electronic equipment and must not be disposed of with general household waste.

The crossed-out wheelie bin symbol on the product indicates that it falls within the scope of the Waste Electrical and Electronic Equipment (WEEE) Directive. At the end of its useful life, please dispose of this product at an appropriate collection point for the recycling of electrical and electronic equipment, or return it to the retailer when purchasing equivalent new equipment.

To find your nearest recycling point:

- **United Kingdom:** Visit recycleyourelectricals.org.uk for a recycling locator with nearly 30,000 drop-off locations across the UK.
- **European Union:** Contact your local municipality or visit your local household waste recycling centre. Most EU member states provide free collection points for small electrical equipment.

Correct disposal helps protect the environment and human health from potential hazards arising from uncontrolled waste disposal, and supports the recovery and recycling of materials.

WEEE Producer Registration: WEE/MM6411AA

Questions or concerns

If you are unsure whether the Magnet Switch is suitable for your intended application, or if you have any questions about using it safely, please contact us at info@modelrockets.co.uk before flying. If you have any doubt about your wiring or the suitability of the switch for your rocket, do not fly until your concerns have been resolved.