



SAFETY INSTRUCTIONS

Strungbound Maroons

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1 Operating instructions for safe functioning

Warning

All explosive materials are dangerous and must be handled carefully and used following approved safety procedures either by or under the direction of competent, trained, and experienced person and in accordance with all applicable laws and regulations. If, after carefully reading these instructions, you have any questions or doubts as to how to use the product, do not use it before consulting your supervisor or Event Horizon Pyrotechnics Ltd.

2 Product Description and Effect

General Description:	PYROTECHNIC ARTICLE
Generic Type:	Maroon
Category:	T2 (Use by Persons of Specialist Knowledge Only)
Product Variants:	Strungbound 115, Strungbound 225 and Strungbound 450.
Visual Description:	A cylindrical device wrapped in black cotton string. The device is fitted with an electrical igniter and has a 2-core electrical lead protruding from the device.
Effect:	Loud Report and a Fireball (some non-hazardous debris is also produced).
Net Explosive Content (NEC):	Strungbound 115 (115g), Strungbound 225 (225g) and Strungbound 450 (450g).
Noise Level dB(A)_{I_{max}} at 40m:	Strungbound 115 (119.7), Strungbound 225 (122.2) and Strungbound 450 (129.7).
Fireball Size:	Strungbound 115 (0.5 m), Strungbound 225 (0.8 m) and Strungbound 450 (1 m).
Non-Hazardous Debris Distance:	Strungbound 115 (39 m), Strungbound 225 (50 m) and Strungbound 450 (63 m).
Effect Duration:	Instantaneous
Type of Ignition:	Electric
Minimum All Fire Current:	0.75 amp (2 amp recommended)

3 Safety & Handling

- Keep explosive materials away from children, unauthorised persons and livestock.
- The responsible person (operator) must have experience of using this product for its intended purpose.
- Do not use in blasting, mining, tunnelling, construction, or excavating operations of any kind.
- Do not use until all relevant risk assessments have been completed.
- Do Not use underwater. Must be always kept dry.
- May be used in temperatures from 0° to 50°C.
- Never use Strungbound Maroons or any other explosives during a thunderstorm.
- Never cut into or disassemble a Strungbound Maroon for any reason.
- Do not pull-on lead wires which protrude from the device.
- Do not allow devices contact stray electrical charges e.g. thunderstorm, static electricity, mobiles
- Do not subject strungbound Maroons to friction or impact, avoid dropping or crushing these devices.
- No smoking when handling. remove all sources of ignition e.g. matches, lighters.
- Minimum Safety Distance: to be determined by the responsible person / operator (Person with Specialist Knowledge) given the information on the labelling, the type of Strungbound, specific conditions of use, environmental conditions and safety measures.
- The recommended Minimum Safety Distances when used without personal protective equipment e.g. audience, or other risk migration methods as defined by a Person of Specialist Knowledge are:
Strungbound 115 – **51 m** Strungbound 225 – **65 m** Strungbound 450 – **123 m**
- The gasses produced may be harmful in high concentrations, always use in a well-ventilated location.

4 Instructions for Use

- Remove a device from its packaging.
- Place in the desired location ensuring that the device is not resting on any debris that may cause a fragmentation hazard when the device is functioned e.g. small stones, gravel, metal fragments.
- Remove all flammable debris from around the device's effect radius to ensure unintentional fires.
- Ensure that the firing cable or remote box is isolated from the power supply and the wires are shunted.
- Extend the lead wires from the Strungbound Maroon and connect to the firing cable or remote box.
- Ensure all personnel are at a safe distance when connecting to the power supply, checking continuity of the circuit or firing the device.
- After use, disconnect the power supply.
- No person should enter the safety area until the operator has declared the area safe.
- A fire-watch of sufficient time should be observed to tackle any fires that may arise.

5 Storage & Handling

- You may need a storage license or registration to store these products
- Always store Strungbound Maroons in their original packaging.
- Store in an environment with temperatures between 0°C and +50°C and a relative humidity not exceeding 80%. Store away from direct sunlight.
- Only store Strungbound Maroons with compatible materials.
- Be sure storage areas are securely locked and protected from weather, fire and theft.
- Keep the inside of the magazine clean, dry, cool and well ventilated.
- Always rotate stocks of explosive material so the oldest material in the magazine is used first.
- Do not remove Strungbound maroons from their inner package until ready to use.
- Return unused devices to the original inner package for storage.

6 Electric Circuit Preparation

- Never handle or use Strungbound Maroons if stray electrical currents are present e.g. if an electrical thunderstorm is close by or if there is static electricity present.
- Make sure that all bare ends of wire (leg wires) are clean before connecting.
- Do not remove leg wire shunt / protection until ready to make connection.
- Keep the firing circuit completely insulated from ground or other conductors.
- For checking the circuit values use only instruments approved for use with explosives.
- Never make the final connection to power source until all personnel are clear of the use area.

7 Regulation

Competent Authority Document: 22EM/00000 issued by TNO
UKCA Registration No.: 2806 – T2 - 004352
CE Registration No.: 0589 – T2 - 0158

8 Packaging, Shipping and Transportation

UN number	UN0431
Proper Shipping Name:	ARTICLES PYROTECHNIC, for technical purposes
Hazard Class	1.4
Compatibility Group	G
Packing Instruction	135
UN Packaging Mark	UN 4G/Y15/S/**/GB/6438



- Always follow local and National laws and regulations concerning transportation.
- Only transport Strungbound Maroons in their original transport packaging. Do not repack into alternative packaging
- Transport only the required amount of Strungbound Maroons to the use area.
- Do not leave a vehicle containing Strungbound Maroons unattended.

9 Misfires

- Wait at least 10 minutes before returning to the use area. Follow local regulations and approved procedures.
- Misfires should be handled by a trained, competent, and experienced person familiar with the use and design of the Strungbound Maroons.
- Disconnect the power source and shunt the wires from a misfired Strungbound by twisting them together to protect against RF sources of electrical energy.
- Isolate the misfired product and package into original packaging, clearly marking the package. Place in a suitable storage location to await disposal.
- Keep misfired products separated from other pyrotechnics and explosives.

10 Disposal

- Handle defective or damaged Strungbound Maroons with extra care. Defective or damaged Strungbound Maroons present a greater hazard than one's that are unused condition.
- Disposal of expired, defective, or damaged Strungbound Maroons should be carried out following your own risk assessments and internal company procedures and in accordance with local and national regulations. For advice, please contact Event Horizon.
- Expired, defective or damaged Strungbound Maroons determined to be waste may also be returned to Event Horizon in the original packaging. Event Horizon must be consulted before returning any defective Strungbound Maroons.
- Never allow Strungbound Maroons to enter wastewater, watersheds, ground water, lakes, rivers, or ocean.

11 Contact

For further information and advice please contact Event Horizon Pyrotechnics at the following address:

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