



## EN: M8700 Marten Repelling Module

### Waterproof ultrasonic module - Battery power for universal use

For carports, engine compartments, attics, campers, vehicle "hibernating" and much more

#### Repelling with ultrasonic sound

- Martens find these sounds unpleasant and try to avoid them.
- The sounds pulsate (activate and deactivate), inhibiting any habituation effect

#### Real sinusoidal ultrasonic sound

- Inaudible, as only 23kHz
- Higher effective noise pressure, over 105dB

#### Advantage - waterproof:

Up until now it was only possible to secure the access area to the engine compartment used by martens to a certain degree, as the marten repelling modules had to be installed in the engine compartment in a manner that protected them from dirt and water splashing. A protected installation location was also required when the module was used in carports. Achievement of the IP 65 degree of protection means that the M8700 is now water and dirt resistant.

- Acoustic range up to **6m/60m<sup>2</sup>**, emission angle **approx. 180°**
- Extremely **low power consumption**, thanks to the pulse technology employed
- Function indication through flashing LED
- Made in Germany

#### Detailed description and installation instructions:

The module generates a very loud, pulsating and aggressive ultrasonic sound of approx. 23 kHz which is inaudible for most people, but causes considerable stress to wild animals and is therefore avoided if possible. The module is powered by 2 x AA 1.5V batteries (not included in delivery) which, depending on their quality, can last up to 12 months.

#### Prior to use:

Martens frequently defend their territory through biting, particularly where odour markings are left behind by other martens. It is therefore imperative that the engine be washed prior to use of the module, or the special K&K 000300 odour marker remover be used and, where necessary, the parking space cleaned with a mop and detergent.

#### Assembly instructions:

Please open the module with a screwdriver (unscrew the base plate). Insert the batteries into the integrated battery holders. The LED under the loudspeaker flashes at approx. 6 second intervals when all the batteries have been inserted. The module is ready for operation when the LED flashes. You can screw the base plate into position again and mount the module in the intended location (using cable binders or screws). Ultrasonic sounds spread out like light (i.e. in a straight line), and shadows occur where obstacles are present (no ultrasonic sound is heard behind obstacles). Ensure therefore that the desired ultrasonic emission area is kept as free as possible when mounting the module. **When installing in the engine compartment:** The M8700 should be mounted in the engine compartment so that the sonic emission dome radiates over the access openings used by the martens and areas at risk from gnawing. Please ensure that space is available in front of the housing dome to allow the ultrasonic sound to expand over as broad an area as possible. However, it should not be mounted directly adjacent to the exhaust manifold or engine, due to the excessive heat in these locations. **Please note:** The module is extremely resistant to dirt, but a layer of dirt on the domed loudspeaker membrane will impair the sound emission (the output is reduced by the dirt). The module should therefore be fitted in a location where a thick layer of dirt cannot build up!

The function can be checked with the integrated LED. The batteries are probably flat if the LED no longer flashes. When mounting the module under a caravan to protect it against mice, ensure that the grass is kept short (as the ultrasonic sound will not spread as effectively otherwise).

#### Technical data:

Ultrasonic frequency: approx. 23 KHz (+/- 10%), sinusoidal, pulsating  
Emission angle: approx. 180 degrees  
Noise pressure: approx. 105 dB (+/- 15%)  
Current input: approx. 0.33 mA on average  
Function indicator: pulsating LED 5mm  
Waterproof: IP65 protection class  
Dimensions: approx. 120x55x27mm  
Batteries: 2 x AA 1.5V batteries (not 1.2V accumulator batteries!)  
Effective range: approx. 6m (approx. 60m<sup>2</sup>)

#### Correct use:

Acoustic repelling of wild animals that react to high ultrasonic frequencies.

#### Disposal:

Used batteries should be disposed of at a collecting point for old batteries (do not throw into household waste or fire). The majority of companies that sell batteries also take back used batteries for disposal. Should disposal of the module prove necessary at any stage, please bring it to a disposal site for electronic waste where other electronic appliances such as televisions and audio systems are also accepted for disposal (please contact your city or municipal office for information)

Please note that ultrasonic noises only represent an extreme nuisance for the animals, but do not harm them physically. Our modules are extremely effective deterrents against martens, but we cannot guarantee that martens will be repelled in 100 % of cases!