



THE MARTENDEFENCE DEVICE

SIMPLE. SAFE. MARTEN-FREE.



WE OFFER PROTECTION
AND INFORMATION.

WWW.MARTENDEFENCE.COM

FOREWORD.



Our claim: offer the best
Our principle: question and listen
What does our client need?
What support can we offer?
How can we further develop ourselves and our products?

We can't reinvent the wheel.
But our aim is to have a well rounded experience for everyone.
That's why we like to look at things from the customer's point of view.
Always with an open mind for new paths.

N. Schuster

Nicole Schuster
Executive Director

Gerd Schuster

Gerd Schuster
Executive Director

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We accompany you on your way from searching for information to finding the right product.

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APPLICATION AREAS.

We offer the right product for every problem.

<p>INTERNAL COMBUSTION ENGINE</p>	<p>E-VEHICLE & PLUG-IN HYBRID</p>
<p>CAMPER & CARAVAN</p>	<p>HOUSE, GARDEN & YARD</p>



DEVICE FEATURES. OUR ADVANTAGES.

To showcase the unique features of our devices, following we are providing an overview of their distinguishing characteristics.

Device-specific features at a glance



Waterproof 2.0 (higher than IP 65)
Higher than IP 65 standard waterproof encapsulated electronics and a completely sealed speaker enable deep installation even in splash water areas and the entry area of martens.



Water-resistant
Water-resistant electronics. The open speakers require a splash-proof installation.



High voltage (pasture fence method)
„Those who don't want to listen must feel!“ Older martens (with different hearing behavior) or highly aggressive animals (territorial fights) can sometimes only be deterred by electric shocks.



Multi-contact high-voltage brushes
Multi-contact brushes stroak through the insulating fur and besides paws and muzzle - the effective area is extended by the skin factor and thus many times over.



Pulsating ultrasonic sine tones
Our marten repelling devices imitate the animals' warning calls very realistically and extremely loudly (inaudible to humans, no habituation effect).



All-around ultrasonic emission
The dome speaker emits sound waves in a 360-degree pattern, eliminating acoustic shadows and providing all-round protection from martens.



E1 mark
The E1 mark confirms that our device has been tested and approved by the Federal Motor Transport Authority (KBA).



Acid-proof and self-extinguishing plastic
Our devices are resistant to acids and the plastic used meets the safety standards of the automotive industry.



Optimal Adaptation
Flexible adaptation to the engine compartment through adjustable stainless steel brushes/plates. Additionally expandable.



Self-sufficient battery operation
Suitable even for extremely long periods of inactivity. Highly recommended for electric motors/plug-in hybrids. Secure battery usage with the low-battery indicator.



Bonnet safety switch
Results in an immediate discharge of high voltage to the contact plates/brushes when opening the bonnet.



Multi-pin plug
The separation of control unit and wiring harness by means of a multi-pin plug allows the control unit to be replaced without time-consuming complete disassembly.



Automatic circuit
The innovative automatic circuit initiates the devices operation immediately upon engine shutdown.



Energy-saving sleep mode
Thanks to sensors that activate the high voltage only on contact within a fraction of a second, the AA batteries are hardly used up. Battery life is significantly extended, limited only by their own durability.



Soft-Start
K&K devices start up slowly using an intelligent soft-start circuit and operate at a very low level of power consumption. Even the latest, highly sensitive on-board computers do not identify our devices as power consumers.



Battery monitor
In addition to low power consumption, the high-voltage units have an integrated battery monitor that triggers when the car battery voltage is too low and switches off the unit to protect against a complete discharge of the battery.

OVERVIEW.

WHO HAS THE CHOICE... FINDS THE RIGHT ONE

The following applies to the decision:

- Which device features fit my problem the best?
- How high is the possibility of a marten damage?
- Should it be ultrasound, high voltage or a combination device?
- What other features are important to me?

		Ultrasound devices					
Features	Devices	M2500 Page 12	M2700 Page 12	M8000 Page 13	M8500 Page 11	M8700 Page 13	M7500 Page 11
Ultrasound		●	●	●	●	●	●
All-around ultrasonic radiation			●				
Waterproof 2.0			●			●	●
Water-resistant		●		●	●		
Battery device				●	●	●	
Ultrasound outside							●
200 m range					●		

Legend



















Device has Feature



Feature not relevant



Feature optional available

		High-voltage devices 			Combi devices  				
Devices		M4000 Page 7	M9300 Page 9	M9900 Page 8	M3500N Page 10	M4700 Page 7	M4700B Page 6	M9700 Page 9	M5700N Page 10
Features									
High-voltage		●	●	●	●	●	●	●	●
High-voltage brushes			●	●			●	●	
Ultrasound					●	●	●	●	●
All-around ultrasonic radiation						●	●	●	
Waterproof 2.0			●	●		●	●	●	●
Water-resistant		●			●				
Battery device			●	●				●	
Sleep mode				●					
Bonnet safety switch				●			●	●	
Battery monitor		●			●	●	●		●
Optimat adjustment Flexible installation		●	●	●		●	●	●	
Multi-pin plug		●	●	●		●	●	●	●
automatic switch-on		●	●	●		●	●	●	●

THE HIGH-VOLTAGE DEVICES.

Older martens (different hearing behaviour) or **highly aggressive animals** can sometimes only be deterred by **electric shocks**, which is why the use of high voltage is recommended.

Combination devices, with ultrasound and high voltage, offer even more extensive protection.

The following high-voltage devices are connected to the car battery.



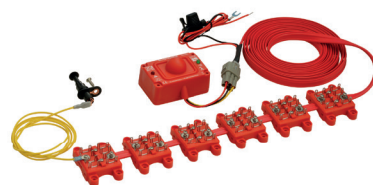
M4700B



Combination device with fur-penetrating high voltage and 360° ultrasound.

- **Waterproof 2.0** - Can be placed low down in the splash water/entry area of the marten
- **Closed dome loudspeaker** - thus **360° all-round sound coverage** is possible, sound shadows are avoided
- **6 multi-contact (+/-) high voltage brushes** (bipolar), for voltage emission via skin contact also through the animal's fur (conventional plates are only effective on the muzzle and paws) - flexibly adjustable
- High sound pressure (105 dB)
- Very low power consumption (< 7 mA)
- Leakage current/ground fault monitoring for battery protection
- Built-in battery monitor
- Multi-pin plug for easy replacement
- Function display using a flashing LED, (additional deterrent for nocturnal animals)
- **Automatic switch-on/switch-off:** Saves installation time, no connection to terminal 15 required

! * Suitable if the caravan has a 12 V power supply that is independent of the charging current



Expandable with M4700B-KIT



incl. safety bonnet switch
with immediate discharge
(no active intervention by the vehicle owner needed)



M4700



Combination unit with single-pole high voltage and 360° ultrasound.

- **Waterproof 2.0** - Can be placed low down in the splash water/entry area of the marten
- **Closed dome loudspeaker** - thus **360° all-round sound coverage** is possible, sound shadows are avoided
- 6 single-pole high-voltage plates, flexibly adjustable
- High sound pressure (105 dB)
- Very low power consumption (< 7 mA)
- Leakage current/ground fault monitoring for battery protection
- Built-in battery monitor
- Multi-pin plug for easy replacement
- Function display using a flashing LED, (additional deterrent for nocturnal animals)
- **Automatic switch-on/switch-off:** Saves installation time, no connection to terminal 15 required
- Can be supplemented with the earthing mat art. 1003, if required



Expandable with M4700-KIT



Safety bonnet switch (optionally available)
with immediate discharge
(no active intervention by the vehicle owner needed)



M4000



Single-pole high-voltage unit to start with.

- Waterresistant electronic
- 6 single-pole high-voltage plates, flexibly adjustable
- Very low power consumption (< 5 mA)
- Leakage current/ground fault monitoring for battery protection
- Built-in battery monitor
- Multi-pin plug for easy replacement
- Function display using a flashing LED, (additional deterrent for nocturnal animals)
- **Automatic switch-on/switch-off:** Saves installation time, no connection to terminal 15 required
- Can be supplemented with the earthing mat art. 1003, if required



Expandable with M4000-KIT



Safety bonnet switch (optionally available)
with immediate discharge
(no active intervention by the vehicle owner needed)

THE SELF-SUFFICIENT HIGH VOLTAGE DEVICES.

With devices that have their own battery supply, **e-vehicles** and **plug-in hybrids** are also well protected from biting attacks during charging and **caravans** when connected to shore power.



M9900



Several years of battery life thanks to resource-saving sleep mode.

- **Waterproof 2.0** - Can be placed low down in the splash water/entry area of the marten
- Battery operation thanks to **integrated sleep mode with extremely low energy consumption** (battery life corresponds to storage time) (see p.18)
- **4 multi-contact (+/-) high voltage brushes with activation sensors** (bipolar) to release voltage only on contact with marten, even through the animal's fur (conventional plates are only effective on muzzle and paws) - flexibly adjustable
- No permanent power consumption (snooze mode)
- Multi-pin plug for easy replacement
- Automatic on/off (vibration)
- Commercially available AA batteries (not included in delivery)
- **Convenient reminder app** (see p. 19)



Expandable with M9900-KIT



incl. safety bonnet switch
with immediate discharge
(no active intervention by the vehicle owner needed)

M9700



Combination unit with high voltage and 360° ultrasound.

- **Waterproof 2.0** - Can be placed low down in the splash water/entry area of the marten
- **Battery operation with low battery indicator**
- **6 multi-contact (+/-) high-voltage brushes** (bipolar) for voltage emission via skin contact also through the animal's fur (conventional plates are only effective on the muzzle and paws) - flexibly adjustable
- Very low power consumption (0,2 mA)
- Multi-pin plug for easy replacement
- Automatic on/off (vibration)
- Leakage current/ground fault monitoring for battery protection
- Commercially available AA batteries (not included in delivery)
- Strategic mounting made possible by separation control unit (top) /ultrasonic emitter free-radiating (bottom) with 360° beam angle and waterproof dome loud speaker
- **Convenient reminder app** (see p. 19)



Expandable with M9700-KIT



incl. safety bonnet switch
with immediate discharge
(no active intervention by the vehicle owner needed)

M9300



Pure high-voltage device.

- **Waterproof 2.0** - Can be placed low down in the splash water/entry area of the marten
- **Battery operation with low battery indicator**
- **6 multi-contact (+/-) high-voltage brushes** (bipolar) for voltage emission via skin contact also through the animal's fur (conventional plates are only effective on the muzzle and paws) - flexibly adjustable
- Very low power consumption (0,16 mA)
- Multi-pin plug for easy replacement
- Automatic on/off (vibration)
- Leakage current/ground fault monitoring for battery protection
- Commercially available AA batteries (not included in delivery)
- **Convenient reminder app** (see p. 19)



Expandable with M9300-KIT



Safety bonnet switch (optionally available)
with immediate discharge
(no active intervention by the vehicle owner needed)

APP



When is a **BATTERY CHANGE** necessary?
The K&K App will remind you in time.





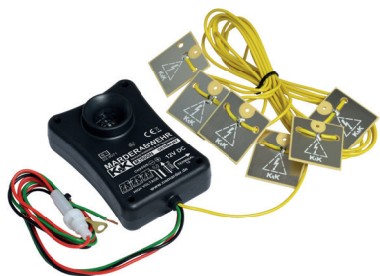
THE HIGH-VOLTAGE DEVICES.

M3500N



Entry-level unit with ultrasound and single-pole high-voltage plate.

- Water-resistant electronic
- **6 single-pole high-voltage plates**
- Pulsating ultrasound
- High sound pressure (100 dB)
- Very low power consumption (< 5 mA)
- Built-in battery monitor
- Function display using a flashing LED, (additional deterrent for nocturnal animals)
- Can be supplemented with the earthing mat art. 1003 if required



Safety bonnet switch (optionally available)
with immediate discharge
(no active intervention by the vehicle owner needed)

M5700N



6x ultrasound and 6x high voltage for wide engine compartments (e.g. SUVs).

- **Waterproof 2.0** - Can be placed low down in the splash water/entry area of the marten
- **6 high voltage contacts**
- **6 transducer with pulsating ultrasound**
- High sound pressure (100 dB)
- Very low power consumption (< 10mA)
- Built-in battery monitor
- Can be supplemented with the earthing mat art. 1003 if required
- **Automatic switch-on/switch-off:** Saves installation time, no connection to terminal 15 required



Safety bonnet switch (optionally available)
with immediate discharge
(no active intervention by the vehicle owner needed)



THE SPECIAL ULTRASOUND DEVICES.

M7500

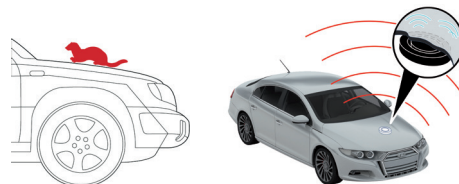


Ultrasound device to prevent animal tracks on the bonnet.

- **Waterproof 2.0**
- Pulsating ultrasound
- High sound pressure (110 dB)
- Very low power consumption (2 mA)
- Transducer is glued under the sheet metal and uses this as a resonance body
- **Inward protection:** Marten bites in the engine compartment
- **Outward protection:** Animal tracks (martens & cats) on the car body, bitten antennas



Good Bye animal tracks!



M8500

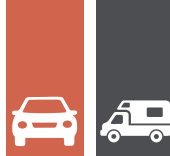
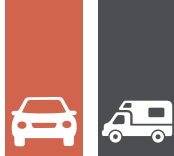


Battery-operated ultrasonic device with 200m range for area and site coverage.

- **Universal use due to battery operation**
- Waterresistant electronic
- **Acoustic range up to 200 m**
- Function display using a flashing LED, (additional deterrent for nocturnal animals)
- Aggressive sine tones (not audible to humans)
- Pulsating without habituation effect
- High sound pressure (100 dB)
- For carports, attics, campers, for deer repellent and much more.
- Operation with 4 C batteries (baby) (not included in delivery)
- **Convenient reminder app (see p. 19)**



Also idially suited
for securing
parking lots!



THE ULTRASOUND DEVICES.

M2700



Waterproof top seller with 360° ultrasound.

- **Waterproof 2.0** - Can be placed low down in the splash water/entry area of the marten
- **Closed dome loudspeaker** - thus **360° all-round sound coverage** is possible, sound shadows are avoided
- Aggressive sine tones (not audible to humans)
- Pulsating without habituation effect
- High sound pressure (110 dB)
- Very low power consumption (< 2 mA)

M2500



Entry-level ultrasound unit with 180° radius of action.

- Water-resistant electronics
- Speaker opening also to the sides
- 180° radiation angle
- Aggressive sine tones (not audible to humans)
- Pulsating without habituation effect
- High sound pressure (105 dB)
- Very low power consumption (< 2 mA)



THE SELF-SUFFICIENT ULTRASOUND DEVICES

M8700



Waterproof battery device with 180° ultrasound.

- **Waterproof 2.0** - Can be placed low down in the splash water/entry area of the marten
- **Closed dome loudspeaker**
- Acoustic range up to 6 m/60 sqm
- Radiation angle approx. 180°
- Function display by means of flashing LED (additional deterrent for nocturnal animals)
- Aggressive sine tones (not audible to humans)
- Pulsating without habituation effect
- High sound pressure (105 dB)
- Commercially available AA batteries (not included in the scope of delivery)
- **Convenient reminder app (see p. 19)**

M8000



Battery device with 180° ultrasound.

- Water-resistant electronics
- Acoustic range up to 6 m/60 sqm
- Radiation angle approx. 180°
- Function display by means of flashing LED (additional deterrent for nocturnal animals)
- Aggressive sine tones (not audible to humans)
- Pulsating without habituation effect
- High sound pressure (100 dB)
- Commercially available AA batteries (not included in the scope of delivery)
- **Convenient reminder app (see p. 19)**

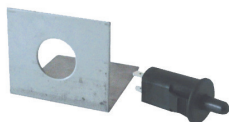


Easy to „take along“, e. g. for rental cars, fleet vehicles and when travelling

THE ACCESSORIES

ART. 1000 BONNET SWITCH

For switching off (optional) the marten repellent device (incl. angle).



ART. 1001 BONNET SAFETY SWITCH WITH INSTANT DISCHARGE FUNCTION

Standard bonnet switches „turn off“ the device, but the charging capacitor keeps the plates energised for a few minutes. This switch has the effect of instantly discharging the voltage when the bonnet is opened, resulting in increased safety for the vehicle owner/mechanic.

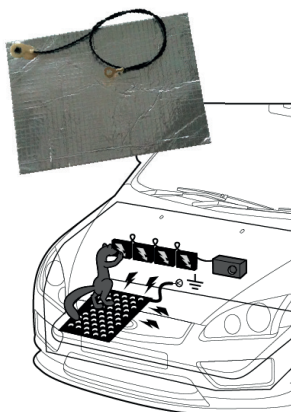


ART. 1002 MOUNTING KIT

The mounting kit includes perforated strips and a set of screws and facilitates the installation of our marten repellents.

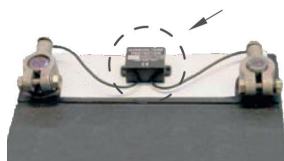


Application example
outside the engine compartment.



ART. 1003 EARTHING MAT

Self-adhesive ground mat to supplement single-pole high-voltage marten repellent devices. By using this mat, plastic parts can serve as a conductive grounding surface over a large area. Particularly suitable on the floor plate, an ideal standing surface for martens.



ART. M168 VOLTAGE SURGE KILLER

This product constantly suppresses all voltage peaks in the vehicle electrical system and thus prevents damage to the on-board electronics (ABS, airbag, electrical accessories, marten repellent devices, HiFi...), protection also against increased bulb wear due to voltage peaks. Protection during jump starting.



ART. 14M TESTING DEVICE

For the detection/visualisation of the ultrasonic tones and the high voltage at the contact plates.

THE PRETREATMENT.

ART. 000300 SCENT REMOVER

Martens mark their territory. The scent mark remover eliminates these scent marks and is essential as a preparation before effectively implementing marten deterrent measures. By skipping this step, the marten may be stimulated to defend its territory.



- Not an engine cleaner, but specially developed to remove scent marks.
- 500 ml

MECHANICAL & SCENT MARTEN REPELLENT.



ART. 000995-P SLOTTED CORRUGATED

Slotted corrugated tubing made of special bite-proof plastic, ideal for added cable protection. Used for covering cables in the engine compartment, 2m.



ART. 140211 MARTEN STICKS

Marten repellent through odour substances. Simple and quick to use. Use marten sticks safely. Always read the label and product information before use.
Convenient reminder app (see p. 19)



ART. 000500 MARTEN REPELLENT SPRAY 500 ML

The heat-resistant active ingredient is simply sprayed into the engine compartment. It can also be used in lofts. Each bottle contains 500 ml of marten-repellent spray. Use repellent safely. Always read the label and product information before use.
Convenient reminder app (see p. 19)

TO CUDDLE AND ADVERTISE.

ART. 6501 CUDDLY MARTEN

High quality fur, length approx. 35 cm.



ART. 6503 MINI-MARTEN

Key ring, length approx. 15 cm



MARTEN DEFENCE INFOTHEQUE.

WHY DO MARTENS BITE?

It is not, as is often assumed, the warmth of a parked vehicle, that attracts the nocturnal animal. The engine compartment offers a good opportunity to hide and the marten explores its environment by biting. In addition, the animal leaves scent marks during its visits. If rivals are smelling these territorial markings, they are particularly aggressive in the engine compartment. Cars that are parked in different places at night are therefore more often the „victims“ of territorial fights.

HOW CAN YOU REPEL MARTENS?

Martens can be repelled by biological scents, ultrasound and/or high voltage.



WHY DO I HAVE TO PRE-TREAT?

Martens mark their territory by leaving scent marks. If an animal smells the tracks of a rival, it will become particularly aggressive. You are therefore at extreme risk, if you park in another marten's territory with scent marks left in the engine. It is therefore essential to remove the marks by washing the engine or using the special K&K scent mark remover before using a repellent method. Ideally, the parking area should also be cleaned with a scrubbing brush and detergent.

You will find our scent mark remover on page 15

WHY ULTRASOUND?

Martens find these sounds, which are inaudible to humans, unpleasant and avoid them.

You will find the ultrasound devices from page 15 onwards



„Those who don't want to listen, must feel!“

Older martens (different hearing behavior) or very aggressive animals can sometimes only be driven away by electric shocks, which is why the additional use of high voltage is recommended here. Combination devices equipped with both offer even more comprehensive protection.

The high-voltage and combination devices can be found from page 8



WHY HIGH-VOLTAGE?



- Hideout
- Exploration
- Territorial fights

WHAT MAKES US DIFFERENT.

PULSATING SINUSOIDAL ULTRASOUND TONES

Martens give short, loud warning cries. These cries are sinusoidal and are imitated by our marten scares very true to life. The aggressive sounds of the K&K devices are emitted pulsating - therefore without habituation effect - with very high volume (sound pressure).

- Enables deep installation points
- Ultrasound can radiate freely
- Sound carpet is created
- Robust
- Withstands engine washing

- True to nature
- For humans not audible
- Without habituation effect

WATERPROOF 2.0

These devices are not only more robust, but also withstand engine washing. The decisive advantage lies in the effective defense. Installation is also possible in deep places, which are consequently more affected by wetness. The ultrasound can radiate freely without interfering obstacles. A sound carpet is created. The marten is „caught“ before it enters the engine compartment, and the defense radius is extended many times over.

Ultrasound spreads like light, that means it is hardly perceptible behind barriers. A high installation point impairs the effectiveness.



OUR DEVICE ADVANTAGE:
Deep installation at the entry points

Waterproof 2.0 allows the device to be mounted far below.
A sound carpet is created.

WATERPROOFING AT K&K BEYOND IP65

We understand „waterproof 2.0“ not only as encapsulated electronics, as all our devices have that. In our devices marked as such, all other components such as compact connectors and/or fuse holders are also waterproof. Additionally, the enclosures and speaker membranes are tightly sealed. The ultrasonic tones are emitted not through openings but rather through the closed dome itself.



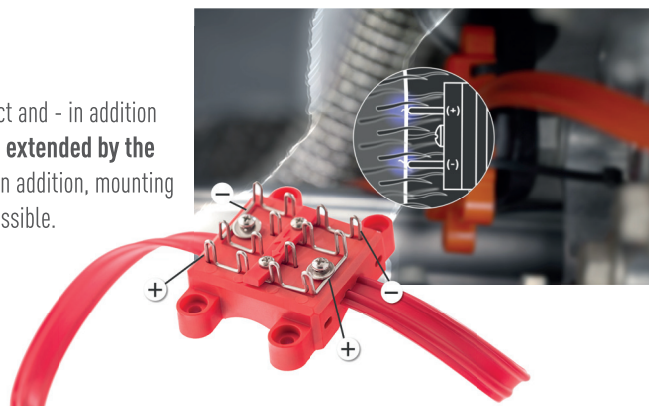
- Encapsulated electronics
- Waterproof components
- Enclosed speakers
- Waterproof more than IP65

WHAT MAKES US DIFFERENT.

K&K MULTICONTACT HIGH-VOLTAGE BRUSHES

brush through the fur, establish skin contact and - in addition to paw and muzzle – **the effective area is extended by the skin factor and thus many times over.** In addition, mounting independent of the environment is made possible.

- Bipolar
- Fur penetrating
- Extended effective area



The brushes are used with the **M4700B, M9300, M9700 and M9900.**

See multi-contact brushes in action here.



DORMANT K&K MULTICONTACT - HIGH VOLTAGE BRUSHES - WITH ACTIVATION SENSORS



According to our motto: "Protection, only when protection is needed!", the new K&K technology enables efficient protection, but also **extremely low energy consumption.** The integrated sleep mode of the activation sensors only uses the AA batteries when the sensors get in contact with the marten. The rest of the time, the devices „slummers“. The battery life is now virtually unlimited and only corresponds to the "natural" storage time of the battery.

The sleep mode is used in the high-voltage unit M9900.

- Sleep mode
- Resource-saving



For animated information about this technology, simply scan the QR code.



MARTEN DEFENCE VIDEO LIBRARY

SEE INSTEAD OF READ.



BOUNCER QUALITIES CAPTURED

Thanks to the waterproofness of the devices, an installation deep down is possible. This means that the marten can be repelled before it enters the vehicle. See for yourself!



CINEMATIC PERFORMANCE

Correct installation is crucial for effectiveness.

The installation video explains clearly and step-by-step which special features you have to pay attention to.

In addition, individual videos illustrate the advantages of the K&K products.

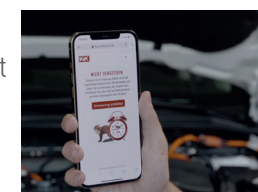


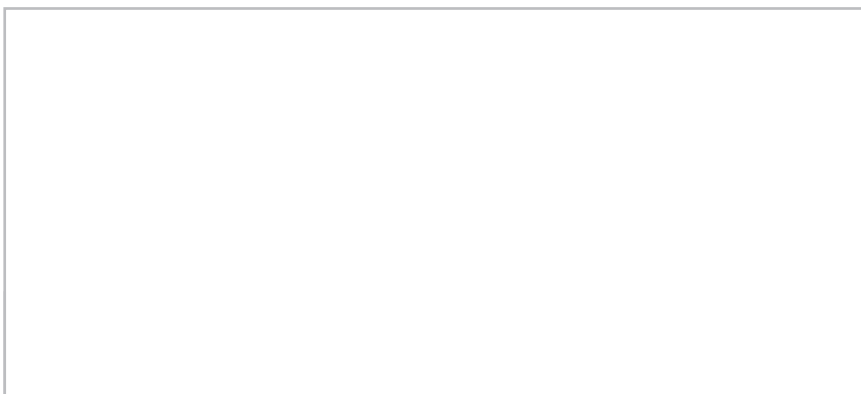
kuk-reminder.com

PRACTICAL REMINDER APP

When is it necessary to change the batteries in the self-sufficient devices or when it is time to refresh a fragrance?

The K&K App reminds you in time.





MARTEN-FREE ZONE – WE OFFER HELP.



SIMPLE. SAFE.
MARTEN-FREE.

