

## Warranty:

Our company "Franz Rinke, Herstellung und Vertrieb" provides an extended warranty of 24 months for our Marderschock system to the final customer, starting from the date of purchase.

For registering a complaint, the final customer has to provide a copy of the installation receipt which clearly states the serial number of the installed device. Belated insertion of the s/n is not possible.

In case the device is not broken, the final customer will have to cover the cost himself. If in doubt, give us a call to eliminate possible problems with us.

As part of this warranty we will reimburse the costs, up to 50 EUR, for un- and re-mounting of a broken (but new) device. Additional costs will not be covered by this warranty. Opening, disassembling or inappropriate handling of the device will void this warranty. Technical data is subject to change without prior notice.

## Extended warranty:

In case martens damage your automobile despite correct installation of our *Marderschock* device within the first year of use, our company will reimburse your costs of repair up to an amount of 50 EUR. In order to complete your request of reimbursement, we ask you to provide us with the following documents:

- the devices
- the purchase receipt including the s/n (serial number)
- the installation receipt including the engine wash
- a photo or sketch of the installation
- receipt stating the costs of repair

The marten is an animal amenable to natural law. Therefore we cannot provide you with a never-know-to-fail warranty for the protection of your automobile.



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TÜV  
geprüft



## MARDERSCHOCK S 2700/10

We have been manufacturing devices to protect your car against martens for over 25 years. In addition to this electro shock device we also offer an ultrasonic version and a combined version of this device. For attics, car ports, barns and storage halls we offer a 220V based, ultrasonic device. We have been enhancing and developing our devices continuously since the beginning and have become the main manufacturer for all major car producers.

### Technical specifications:

You can upgrade this device using our sound transducer (S 2100/10) add-on.

operating voltage: 12V

current consumption (normal operation, power input 100%): Ø 15 mA

current consumption (power saving mode): Ø 6 mA

current consumption (stand-by mode): Ø 3 mA

sound frequency: sweep 16 to 50 kHz

sound output: 112 - 115 dB - depending on battery quality

voltage output: bis 1000 V, with increased perceived intensity

LED green: indicates operation mode

LED yellow: indicates shock production

LED white: creates the flash light to repel the marten

max. ambient temperature: -40 to +80° C (-40 to 176° F)

This device is small, compact, spray water resistant and easy to mount.

### Mode of operation:

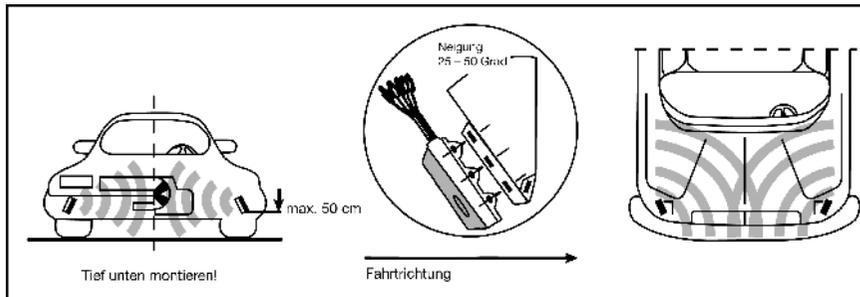
This device works like a pasture fence and creates electric shocks up to 1000 V when engine is switched off. If a marten touches the live wire, it receives an electric shock that repels it without hurting or threatening its life. The device poses no danger to humans touching the wire, **except for people equipped with a cardiac pacemaker. Exercise caution after installation!**

In addition to the electric shocks, our device emits ultrasonic waves with a frequency range of 16 to 50 kHz (sweep), which are inaudible for human ears but very unpleasant for martens. Observations have revealed that martens avoid rooms or places that are exposed to a sound pressure of more than 100 dB in their ultrasonic hearing range. The flash light fires about three times per minute and provides an additional repelling factor against martens. Upon deactivation of the engine, a short whistle sounds to indicate that the device begins its operation.

### Installation of your Marderschock S 2700/10:

Mount the device at a maximum distance of 50cm from the ground using the included mounting kit. The sound pressure should already affect the marten on the ground. The sound cone has to point downwards and must be adjusted contrary to the direction of driving. The sound cone is comparable to the light emitted by a flashlight. The sound sources of base device and transducer add-on must not cross each other. The cable outlet has to face upwards.

### Installation instruction schematics:



The conductive wire should be installed in a way that the marten has to touch it when attempting to access the engine compartment. It is also possible to wrap other parts of your car with the wire if you sufficiently isolate them. The unisolated wire must not touch grounded parts or bare metal. You should also avoid letting the unisolated wire touch rubber hoses or plastic parts because these sometimes discharge electricity. You can shorten the wire arbitrarily if you apply a tin coating to its end. Likewise it is also possible to extend or to branch it. Always provide sufficient isolation against grounded parts. The red cable's fuse has a short circuit time of about 20 seconds and thus provides protection against short-term grounding while the device is operational. Place the warning sticker inside the engine compartment!

You are required to conduct a functionality test after the installation:

A short whistle will sound directly after activation.

Watch the green LED. Three flashes indicate that your battery is fully charged and the device will work in full power mode. Two flashes indicate a medium battery level and power saving mode of the device where operation is interrupted for short intervals. A single flash indicates a critically low battery level and stand-by mode where the device can only operate with longer interruptions in order to conserve the remaining battery level.

Each of the three modes constantly checks and indicates the battery level. You can recognize the mode by the corresponding LED pattern.

**You are required to check the blank wire with a continuity tester to ensure that there is short circuit.**

The electric shock can be felt clearly by human beings. Exercising caution is advised! Attention: The device has to be switched off if maintenance is conducted inside the engine department. You can remove the fuse at the red wire to interrupt electricity.

### Attention!

**Warranty regulations require you to thoroughly clean the engine compartment in order to remove the marten's scent marks if a marten has already caused damage to your car.**

### Electrical connection of your S 2700/10 to all vehicles:

Connect the red wire to the positive pole (+) and the black cable to the negative pole (-) of your battery. The device's micro controller will detect the operating voltage and choose the appropriate operation mode. Switching on your ignition automatically deactivates the device. Connect the grey cable to the blank wire. The brown, white and purple cables serve as connectors for our sound transducer add-on (S 2100/10).

**Installation material of your Marderschock S 2500/30:**

1 blank wire (5 m)

1 heat shrink hose (1 m, isolation for the blank wire)

10 plastic fixtures

1 red cable (2m) with attached 200 mA fuse

1 black cable (2m)

6 cable ties (28 cm)

10 cable ties (14 cm)

2 perforated metal plates

2 cylinder head screws M 4 x 12

2 tapping screws 3,9 x 9,5

2 screw nuts M 4

2 toothed washers M 4

1 warning sticker