# Vehicular Wildlife deterrent that pairs mobility with nature.

Thank you for purchasing Waldpass and making travel on forested roads that much safer both for people and the local Wildlife.

The Waldpass is an electronic Vehicle-mounted device which emits infrared light invisible to people. Animals see this light and perceive it as a threat, so their behaviour and movements change over time accordingly. This phenomenon can significantly reduce the movement of animals towards traffic where infrared light sources of particular variable frequencies is collectively used. Waldpass uses this effect as a vehicle mounted animal deterrent to discourage various wild animals from crossing frequented roads while there is traffic nearby.

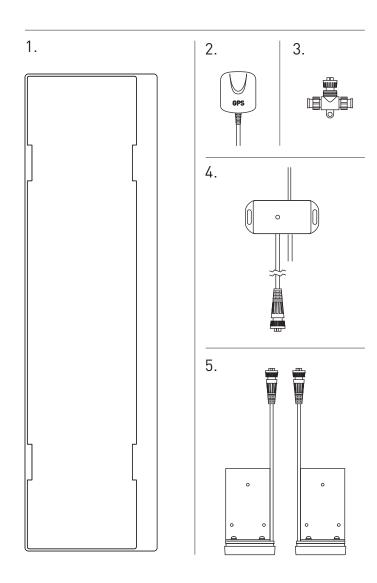
The Waldpass is a primarily disruptive but harmless stimulus because it disrupts the normal behaviour of an animal. This infrared stimulus is mostly visible to Wildlife but not to people.

As more drivers use it on a particular route the beams of the Waldpass directed towards road adjacent terrain have an increased effect on the local Wildlife. The deterring effect is cumulative for a particular route and not individual for a particular vehicle.

Important warning, Waldpass will NOT have an effect on an imminent collision with Wildlife that is already present on the road or has started crossing! Waldpass beams are directed sideways, perpendicular to direction of travel and the effect is achieved over time for that particular area, reducing the likelihood of Wildlife crossing while traffic is active.

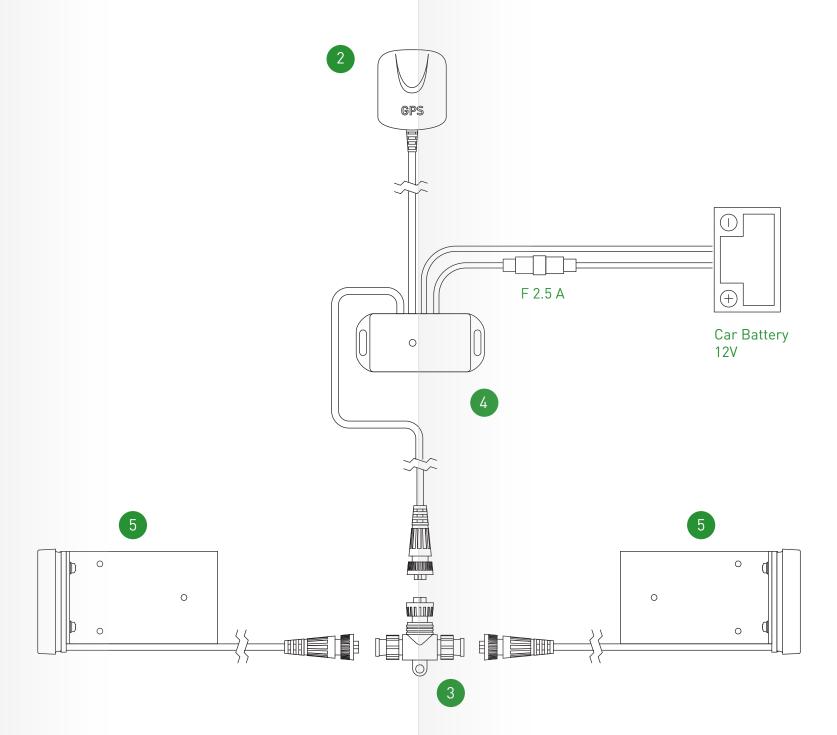
Let's protect local Wildlife by preventing accidents and increasing suburban and country road safety! We pair mobility with nature!

# Component overview



- 1. Licence plate holder
- 2. GPS antenna
- 3. Two-way splitter
- 4. Controller
- 5. Emitters (2 pieces)

# Installation diagram



Make sure that the power is switched off by removing the ground or positive cable from the car battery before proceeding with the installation.

The GPS antenna (2) should be mounted with an unobstructed view of the sky or under a plastic, glass or other non-metal vehicle part. The antenna is connected to the controller (4) permanently.

Connect the red wire to the positive switched power supply +12 V and the black wire to the vehicle chassis/ground or to the negative power supply. The Red wire has an inbuilt fuse of 2.5 A rating.

In case switched positive +12 V power supply is not available you can use the regular constant on +12V power or direct splice to the car battery positive terminal. When directly connected to the car battery Waldpass uses less than 8 mA of current in idle.

Mount the included license plate holder (1) to the appropriate space on the front (or rear) of the car.

Connect the emitter cable connectors (5) to the T signal splitter (3) and then connect the splitter to the controller connecting cable (4).

Switch the power on. The system state LED (green) on the controller will start flashing.

# • Slow flashing RED

Two flashes every five seconds.

Waldpass is in a standby - power conservation while vehicle is idle.

# • Rapid flashing RED

One flash every second.

Lost GPS signal. Usually on start-up or after prolonged loss of the GPS signal (9 minutes or more).

# • Rapid flashing GREEN

One flash every second.
The vehicle is traveling slowly (below 30 km/h).
Waldpass is NOT emitting IR beams.

# • Constant GREEN

The vehicle is traveling rapidly (over 30 km/h). Waldpass is emitting IR beams.

# • Constant RED

GPS or other system error.

General fault, toggle power connection to the unit.

If problem persists contact place of purchase.

## Interaction with Waldpass and powering on

Waldpass does not have a user interface besides the Status LED. The system operates as soon as it detects a power source. Emitting is controlled by the algorithm according speed of movement and is determined by the GPS receiver.

There is no need to interact with the installed Waldpass system once it has been established that the Status LED flashes properly while the vehicle is stationary (Intermediate flashing for GPS lock while standing).

# Verification of the installation

Proper operation can be verified by using a night mode camera or a smartphone camera if no proper night mode camera is available.

Waldpass will emit a 2 seconds long sequence of flashes by the emitters when it is first powered on. This burst can be seen by the camera and can be used to evaluate if the installation has been done properly and if the system is operational.

The status LED also performs this series of flashes that can be seen freely and visually during power on.

# **Specifications**

(Subject to change without notice)

#### Dimmensions (H x W x D) and weight

Emitter	107 mm x 63 mm x 15 mm 122 g
Controller	35 mm x 76 mm x 20 mm 77 g
GPS Receiver	50 mm x 42 mm x 13 mm 55 g
Licence plate holder	142 mm x 526 mm x 24 mm 311 g

#### Ambient requirements

Operating ambient temperature: -30° C to 65° C

Storage temperature:

-40° C to 85° C

Relative humidity: 0% to 100%

## **Current and power**

Stand by:

At 12 V supply, draws 8 mA current; 96 mW

Non-emitting:

At 12 V supply, draws45 mA current; 540 mW

Emitting:

At 12 V supply, draws1200 mA current;14,4 W

# Product information



Waldpass emitters are delivered in pairs, and are to be directed sideways, perpendicular to direction of travel.

They are built to the highest standards, are waterproof to IP68, and can be exposed to severe climate conditions. Inside the emitters, three high power LED diodes emit light at 850 nm wavelength which is invisible to humans.



For ease of installation Waldpass includes a front EU size license plate holder that has space reserved for two Waldpass emitters.



Waldpass emitters are connected over a T splitter to a single connecting cable of the Waldpass controller.



The Waldpass controller has a unique signal waveform incorporating a special pulse frequency stored in its memory. The signal is empirically proven to be the best at deterring Wildlife and has been pre-stored in the memory of the controller.



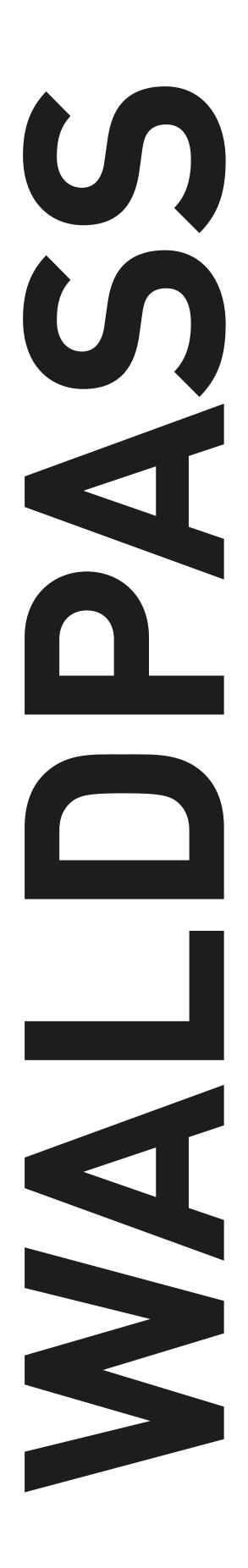
Waldpass emitters produce significant heat while operating so they are in constant need of cooling. A moving vehicle produces sufficient air circulation and cooling but when the vehicle is stationary the temperature safety feature temporarily disables the emitters, preventing overheating.

This safety feature is governed by a GPS receiver that is connected to the controller which determines speed of travel. A special algorithm is used so the Emitters only operate while the vehicle is traveling at speeds greater than 30 km/h.



Waldpass beams are emitted sideways trough special IR transparent windows on the sides of the license plate holder. Best effect is achieved when the front license plate position is used.

For even greater effect, two separate systems can be used, one at the front and one at the back of the vehicle. In such a case install each system separately using this user/installation manual



# Safety & Liability information

Read all instructions and safety information before use.

WARNING: FAILURE TO FOLLOW ALL THESE SAFETY INSTRUCTIONS BELOW COULD RESULT IN FIRE, COLLISION, ELECTRIC SHOCK, OR OTHER INJURY OR DAMAGE.

The Waldpass is designed to be used in a vehicle. The driver is responsible for the safe operation of the vehicle where the Waldpass unit is installed. This unit should be used in compliance to the applicable laws of the area. It is your sole responsibility to practice safe driving by placing, securing and using your Waldpass in a way that will not cause accidents, injury or property damage. Do not mount the Waldpass in a way that may interfere with the operation of the vehicle, the deployment of air bags or other safety equipment.

Waldpass does not warrant that you will be free of interactions with the wild and domestic animals on the road as the performance of the unit is achieved cumulatively and not particularly.

Waldpass does not condone speeding or any other failure to comply with your local traffic laws. It is your responsibility to drive within the posted speed limit at all times and to drive carefully. Increase of vehicle speed directly increases the likelihood of having a collision with the Wildlife or other objects that may step on the road.

In the event you receive a fine or any other penalty for contravention of any traffic laws, or are involved in an accident, Waldpass is not responsible for any damages of any type.

Waldpass is made of metal and plastic and has sensitive electronic boards inside. Waldpass can be damaged if dropped, burned, punctured, or crushed, or if it comes in contact with acid or solvent. Don't use a damaged Waldpass, as it may cause injury.

Don't open the Waldpass housing and don't attempt to repair it by yourself. Disassembling the Waldpass may cause injury to you or damage to the Waldpass. If Waldpass is damaged, malfunctions, or comes in contact with acid or solvent, contact the service centre. Do not use Waldpass in any area with a potentially explosive atmosphere, such as at a fuelling area, or in areas where the air contains chemicals or particles (such as grain, dust, or metal powders). Obey all signs and instructions.

#### Limitation of liability

YOU EXPRESSLY UNDERSTAND AND AGREE THAT WALDPASS D.O.O., ITS SUBSIDIARIES AND AFFILIATES, AND ITS LICENSORS ARE NOT LIABLE TO YOU UNDER ANY THEORY OF LIABILITY FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL CONSEQUENTIAL OR EXEMPLARY DAMAGES THAT MAY BE INCURRED BY YOU THROUGH YOUR USE, MISUSE OR MOUNTING OF THE UNIT, WHETHER OR NOT WALDPASS D.O.O. OR ITS REPRESENTATIVES HAVE BEEN ADVISED OF OR SHOULD HAVE BEEN AWARE OF THE POSSIBILITY OF ANY SUCH LOSSES ARISING

Warning, Waldpass will NOT have an effect on an imminent collision with Wildlife that is already present on the road or has started its crossing! Beams of Waldpass are pointed sideways and effect is achieved over time for that particular area by reducing the likelihood of Wildlife starting their crossing while traffic is nearby at that location.

## Handling information

Clean the Waldpass lens if it comes in contact with anything that may obstruct the beams —such as dirt, ink or tar.

Waldpass is designed to work in ambient temperatures between -30° C and 65° C and stored in temperatures between -40° C to 85° C. Waldpass can be damaged if stored or operated outside of these temperature ranges.

# Waldpass limited warranty

Waldpass d.o.o. warrants this product to be in good working order. Should the product fail to be in good working order at any time during the warranty period, Waldpass d.o.o. will, at its option, repair or replace this product at no additional charge.

Parts and products that have been replaced as a result of a warranty claim become the property of Waldpass.

This warranty remains in force for two years from the date of purchase from Waldpass d.o.o. or an authorized Waldpass product dealer.

Waldpass d.o.o. reserves the right to require written verification of the date of the original purchase of any product.

Waldpass d.o.o. has no obligation to modify or upgrade any product once sold. Any reproduction of software products is strictly forbidden.

# This limited warranty does not include service to repair damage to the product resulting from:

- Abuse
- AbuseModifications
- Modificati
   Accident
- Mechanical damage

# Waldpass d.o.o. warranty shall not apply for the following:

- Normal wear and tear of the product and/or its parts
   Accidents, which occur during shipping and handling, and of the product and or the p
- Accidents, which occur during shipping and handling, and damage resulting from such accidents
- Malfunction or damage due to product misuse, or negligence by the customer, or any use of the product other than that described in this manual
- Damage caused by incorrect installation
- Product is rebuilt, repaired or adapted by a non-certified individual, as well as installed, modified, and operated in a manner that violates the technical specifications and/or safety regulations
- Product serial numbers have been changed, tampered with or removed.
- Your receipt or proof-of-purchase is from a non-authorized dealer or internet auction site, including E-bay, or other non-authorized
- You are not the original purchaser of the Product from an authorized dealer or did not receive it as a gift from the original purchaser of the Product from an authorized dealer
- Any damage, failure or loss caused by accident, misuse, and any other failure not directly related to a defect of the product

In no event will Waldpass d.o.o. be liable to you for any damages, including any lost profits, lost savings, or other incidental or consequential damages arising out of the use or inability to use such product. If this product is not in good working order as warranted above, your sole remedy shall be repair or replacement as provided above.

In the unlikely event that your Waldpass product should require warranty or repair service, contact us to receive a Return Merchandise Authorization (RMA) number before returning your product.

If the product is delivered by mail, you agree to ensure the product or assume the risk of loss or damage in transit. In addition, the shipping container or equivalent, will be sent prepaid and for door-to-door delivery.

# Product model and Regulatory information



Waldpass Model: WP100 Part number: WP100A EAN-13 0726667001708

#### FCC compliance statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

#### FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

#### Canadian regulatory statement

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : [1] l'appareil ne doit pas produire de brouillage, et [2] l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Warning! Changes or modifications to this product could void the CE and FCC compliance and negate your authority to operate the product.

### Recycling information



When finally disposing of the product follow your local laws and regulations regarding recycling. Equipment marked with the crossed-out wheeled bin symbol indicates that the equipment should not be disposed of in unsorted household waste.



Local authorities in many regions have established collection schemes under which residents can dispose of waste electrical and electronic equipment at a recycling centre or other collection point.

## Trademark and Copyright Notice

Waldpass is a registered trademark of Waldpass d.o.o. All other trademarks are the property of their respective owners.

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