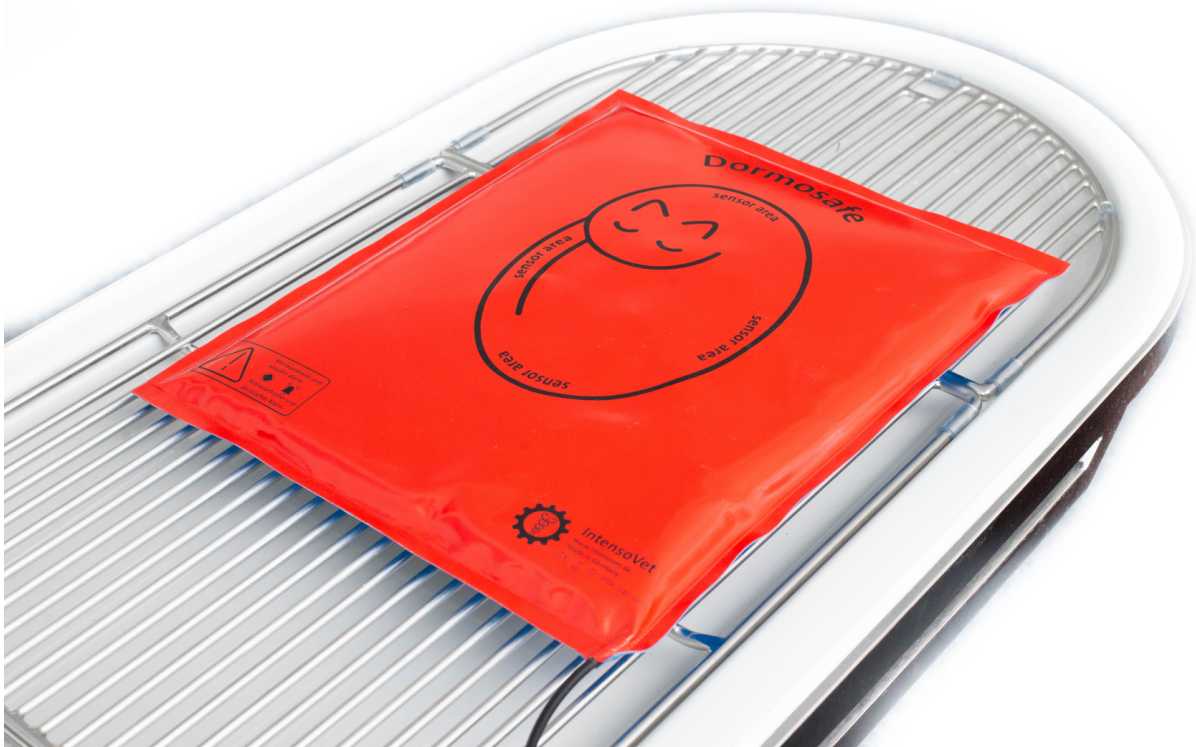




IntensoVet
VETERINARY INTENSIVE CARE TECHNOLOGY

Instruction Manual

Dormosafe patient warming system



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Dear customer,

Thank you for choosing our Dormosafe warming system. Our team is working closely together with vets and specialists to provide high-quality products exclusively designed for use in veterinary medicine. With this manual we want to provide you a quick and clear introduction into the handling of the Dormosafe warming system. Please read this manual carefully before starting to use the Dormosafe warming system, and keep it for other users.

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1 General

1.1 Product description

The system consists of the warming pad with control electronics and three integrated temperature sensors as well as a power supply unit. The electronics is located at the lower edge of the warming pad and has an indicator light and a beeper. The warming pad is connected to the power supply unit with a plug connector cable.

The warming pad can be used as an underlay pad or as a cover.

The red side of the warming pad warms the patient. Make sure that the patient sits on the red (upper) side whereas the blue side sits on the ground.

There are three variants of the warming pad:

- Warming pad **Dormosafe Soft**, flexible with padding.
- Warming pad **Dormosafe Soft L**, large, flexible with padding; double contact surface and power.
- Warming plate **Dormosafe Worktop**, with aluminum heat-conducting plate instead of padding. Very good heat distribution and transfer, very low temperature fluctuations.

Note that for the large warming pad, a different power supply is provided than for the other two heating pads.

1.2 Operating principle

The temperature of the warming pad is measured with an integrated temperature sensor. This temperature is used as the actual value for the controller (the control device). The controller compares the actual with the desired temperature and heats the warming pad accordingly. The Dormosafe warming pads are powered by low voltage. Low voltage does not impose any risks for humans and animals.

1.3 Intended use

The Dormosafe warming system is intended for veterinary practices or clinics to warm up or hold the temperature of animals during veterinary medical care.

2 Safety notes

To ensure safe operation of the Dormosafe warming system, it is very important to read the following manual and safety notes completely and strictly follow the instructions.

- Put the patient onto the warming pad so that their thorax is in the middle of the warming pad.
- Make sure that there is no insulating material (e.g. towels, absorption pads, blankets, etc.) between warming pad and patient.
- Do not put cold objects on the warming pad, e.g. no metal emesis basins, trays, instruments, etc.
- If there is no patient on the warming pad, make sure that the pad is not cooled down by any object (see previous bullet point) or by liquids (evaporative cooling).
- Do not use the Dormosafe warming system in combination with warming systems of other manufacturers.
- The user independently sets the desired temperature to warm the patient.
- Do not use the Dormosafe warming system in an explosive environment such as nearby flammable liquids, gas, or powder.
- Make sure that children do not have access to the Dormosafe warming system.
- Please note possible maintenance instructions.
- Inspect the system periodically. If you see any damage or defects on the control device, the warming pad or the cables, the system must not be put in operation. In this case, disconnect the control device immediately from the power grid and let the system check by the manufacturer before any further use.
- Defects are to be repaired only by the manufacturer.
- Do not use the cable to pull out the plug or to carry the device. Make sure that the cables do not come into contact with heat, oil, or sharp edges.
- Do not connect the control device to a device other than the designated Dormosafe warming pads.
- Do not connect the warming pad to a device other than the designated Dormosafe control device.
- Treat the warming pad carefully. Make sure that it does not get into contact with sharp objects.
- The control device's power supply cable must be stored and used out of reach of animals.
- Active drying of the Dormosafe warming system (e.g. hair dryer, micro wave, oven, tumble dryer) is not permitted. See also chapter 4 Cleaning, disinfection and storage.

3 Commissioning and operation

3.1 Important usage notes

- We recommend to connect the warming system with the power grid a few minutes before use to pre-warm it for the patient. If you use multiple warming pads, you can stack them during the warm-up phase. This reduces the warm-up period and increases the heat reservoir.
- Put the patient onto the warming pad so that their thorax is directly on the sensor mark in the middle of the warming pad. To maximize the heat conduction, the larger part of the patient's body, especially the thorax, must sit on the warming pad.
- Make sure that there is no insulating material (e.g. towels, absorption pads, blankets, etc.) between warming pad and patient. These would distort the temperature measurement and adversely affect the heat transfer.
- Do not put cold objects on the warming pad, e.g. no metal emesis basins, trays, instruments, etc. This would distort the temperature measurement and can lead to overheating of the patient.
- If there is no patient on the warming pad, make sure that the pad is not cooled down by any object (see previous bullet point) or by liquids (evaporative cooling). This could lead to an overheating of the warming pad.
- Do not use the Dormosafe warming system in combination with warming systems of other manufacturers.
- For longer operations, it is good practice to check the temperature sporadically. Just put the back of your hand onto the warming pad to test if the temperature is not too cold or too hot.
- The warming effect and heat-up period depend on the ambient temperature and the size and type of the warming pad.

3.2 Commissioning

1. Put the warming pad onto a hard, temperature-resistant underground.
2. Connect the warming pad with the power supply unit and connect that to the power grid. A short beeping sound is audible. Make sure that no one can fall over the cable.
3. While the warming pad is operating, the indicator light is blinking periodically.

4 Cleaning, disinfection and storage

Before cleaning a Dormosafe warming pad, make sure that the power cables are disconnected. The warming pad should have cooled down completely.

4.1 Cleaning

Please treat the warming pad with care. The following cleaning recommendations are exclusively meant for the Dormosafe warming pads, not for the cables or the control device.

Make sure that there are no liquids on the warming pad's cable bushing over a longer period. The cable bushing is safe against entering liquids but not on constant exposure. The warming pad's outer sheath consists of PVC. Make sure to use only cleaner that does not attack PVC. The cleansing resistance of PVC depends on a number of factors:

- Physical state of the cleaner (solid, liquid, or gaseous)
- Temperature
- Concentration of the cleaner
- Period of contact between cleaner and warming pad
- Chemical composition of the cleaner

In any case, you should read the recommendations and the safety data sheets of the cleaner's manufacturer. In general it is better to use not-ionic cleaner. The following cleaners, chemicals, and procedures must not be used as they might damage the sheath: Cleaning procedures and equipment not to use:

- pressure washer
- stiff brushes
- hard scrubbing
- sponges that scratch the material's surface

Cleaners not to use:

- scouring powder, pastes, or liquids that scratch the material's surface
- cleaners from in-house production

Organic chemicals not to use:

- Spirit (can etch the print)

- Solvents such as acetone, dimethylformamide (DMF), furans (e.g. 2,5- dimethylfuran (DMF) mixtures), aldehydes, ketones (e.g. methyl ethyl ketone (MEK), cyclohexanone), ethers, esters, test petrol/ wash petrol / turpentine substitutes , Hydrocarbons, gasoline, diesel, kerosene, turpentine, oil, toluene, benzene, trichlorethylene, perchlorethylene, cationic surfactants.

Inorganic chemicals not to use:

- Strongly acidic or alkaline products such as ammonia, nitric acid, sulfuric acid, acetic acid, hydrochloric acid, sodium hydroxide solution, caustic soda, soda, ...
- Strong oxidants such as bleaches (based on sodium hypochlorite, hydrogen peroxide, chlorine dioxide, sodium dithionite, etc.)

In some cases, the combined use of different cleaner can yield negative results even if each cleaner alone is harmless.

4.2 Storage

The warming pad should not be bent or folded during storage. Furthermore, no heavy objects should be placed on it. The Worktop warming pad should be stored flat, not standing.

After cleaning, store the warming pads in a well-ventilated place so that they can completely dry.

5 Error diagnosis and troubleshooting

Warming pad is not getting warm or indicator light does not blink: During normal operation, the indicator light is blinking slowly.

- Check the cables and connectors of warming pad and power supply unit.
- If an error in the power connection can be excluded, please contact the manufacturer.

Warming pad is beeping and indicator light is blinking: A high beeping sound and a fast blinking means a dangerous overheating of the warming pad. An overheating only occurs in case of an error and can lead to burn injuries on the patient. Also external overheating like boiling water can trigger the alarm.

- Disconnect the power cable, and contact the manufacturer.
- Check the patient for burning injuries.

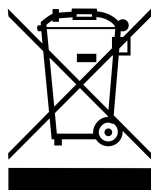
If one of the following scenarios occurs, or in case of other failures: Do not use the warming system any further! Switch off the device and disconnect it from the power grid. Contact Intensovet for support.

- Water accidentally went in the device.
- The warming pad has any apparent damage or cut.
- Unusual sounds ring out during operation.

6 Specifications

Power supply input voltage range:	90 V – 264 V AC
Warming pad input voltage:	24 V DC / 3.2 A or 24 V DC / 6.4 A
Power consumption:	75 W / 150 W
Idle power consumption:	< 5 W
Operating temperature range:	-10 °C to +45 °C
Storage temperature range:	-10 °C to +70 °C
Operating/Storage humidity range:	30 % to 80 % (not condensing)
Cable length of power supply unit:	3 m
Weight:	1 kg
Dimensions in cm (L x W x H):	45 x 35 x 2 / 60 x 45 x 2
Cable length of warming pad:	ca. 90 cm

7 Disposal note



Devices marked with this symbol must not be disposed of with household waste. As a manufacturer, we ensure the environmentally sound treatment and utilization of old equipment within the scope of product responsibility. For further information on collection and disposal, please contact your local authority or your specialist dealer. Already during the development of new products, we pay attention to the high recyclability of the materials. Through the return system, high recycling rates of the materials are achieved in order to relieve landfills and the environment. Together we make an important contribution to environmental protection. Note: This device does not contain batteries or rechargeable batteries.

8 Warranty

These conditions of guarantee regulate additional guarantees from us towards the end customer. They supplement the statutory warranty claims of the customer. The statutory warranty claims against the other contractual partners are not affected. These warranty conditions apply only to devices which are purchased as new devices by the end customer in the Federal Republic of Germany. A guarantee contract does not come into effect, as far as the final customer purchases a used device or a new device on its part from another end customer.

8.1 Scope of warranty

The warranty is provided if a manufacturing and/or material defect occurs within the warranty period on our equipment. However, the warranty does not cover equipment for which defects, damage or defects occur due to chemical or electrochemical effects, incorrect installation as well as improper operation or improper use. It is also excluded from the services due to deficient or omitted maintenance, weather effects or other natural phenomena. The warranty is void if repairs, modifications or alterations have been carried out by persons not authorized by us. The guarantee covers the careful examination of the device, whereby it is first determined whether a guarantee claim exists. In a warranty case, the manufacturer alone decides in which way the fault is remedied. We are free to choose if we repair the device or commission a partner to repair it. The manufacturer assumes all material and repair costs for the duration and scope of the warranty. If the customer has received warranty from another contracting partner due to statutory warranty claims, no liability is assumed by us. In addition to the above-mentioned guarantees, the end customer cannot assert any claim for indirect damage or consequential damage caused by the device, in particular damages arising out of the device. Legal claims of the customer against us or against third parties remain unaffected.

8.2 Warranty period

For appliances used in private households, the warranty period is 24 months; otherwise (e.g. when the equipment is used in clinics or practices), the warranty period is 12 months. The warranty period begins for each device with the transfer of the device to the customer who is using the device for the first time. Guarantee claims do not lead to an extension of the warranty period. This applies to all warranty services provided, in particular for any built-in spare parts or for the replacement delivery of a new device.

8.3 Claim of warranty

Warranty claims must be reported to us before expiry of the warranty period, within two weeks after the defect has been detected. Information about the fault, the device and the time of the determination must be made. The invoice or any other dated proof of purchase must be attached as proof of guarantee. If the above information or documents are missing, there is no warranty claim.

Warranty for devices purchased in Germany but not used in Germany: The manufacturer is not obliged to provide guarantees outside the Federal Republic of Germany. In the case of faults in a device used abroad, this must be sent to the customer service in Germany at the risk and expense of the customer. The return is also at the risk and expense of the customer. Any legal claims of the customer against us or against third parties also remain unaffected in this case.

Devices purchased outside Germany: This warranty does not apply to devices purchased outside Germany. The respective legal regulations and, if applicable, the delivery conditions of the local company or importer apply.



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