Mi-Heat 954-024

Mi-Heat Premium Underfloor Heating System for RVs and Caravans

User Manual - Model: 954-024

Introduction

The Mi-Heat Premium heating film is designed to provide comfortable electric underfloor heating in various mobile applications, including caravans, motorhomes, RVs, boats, and similar vehicles. This system allows you to extend your camping season and enjoy the warmth of a heated floor even in colder weather.
This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Mi-Heat Premium Underfloor Heating System. Please read it thoroughly before beginning installation or use.



Figure 1: Mi-Heat Premium Heating Film and its intended use in an RV setting.

Important Safety Information

Failure to follow these safety instructions could result in electric shock, fire, or serious injury. Keep this manual for future reference.

- The heating film is intended for floor temperature regulation in vehicles only. For increasing ambient air temperature, an additional heat source (e.g., a standing heater like Truma or Webasto) is required.
- The heating film must always be thermally monitored using a thermostat and an external floor sensor.
- Do not use the heating film in wet areas, such as bathrooms.
- Do not install the heating film in areas where furniture or objects with a diameter greater than 6 cm will completely cover it, as this can lead to heat accumulation.
- When using multiple heating film strips, they must be connected in parallel to the thermostats. Observe the maximum switching capacity of the thermostat.
- Additional connection clamps may be required depending on the number of heating films (not included in delivery).
- The heating film must be covered by a floor covering to feel the generated heat.

- Do not use your palm to measure the temperature, as it reaches approximately the same temperature as the film's surface. Use the included thermostats with the external floor sensor or an infrared thermometer.
- Depending on the ambient temperature, a warm-up time of up to 60 minutes should be expected.
- Using a heating film adapted to the floor covering can improve the efficiency of the heating film.
- Installation should only be performed by qualified personnel or with thorough understanding of electrical systems.

Product Components

Your Mi-Heat Premium Underfloor Heating System typically includes the following components:

- Mi-Heat Premium Heating Film (0.5x4m)
- Digital Thermostat with LCD display and external floor sensor
- Pre-wired connection cables (2.5m)
- User Manual (this document)

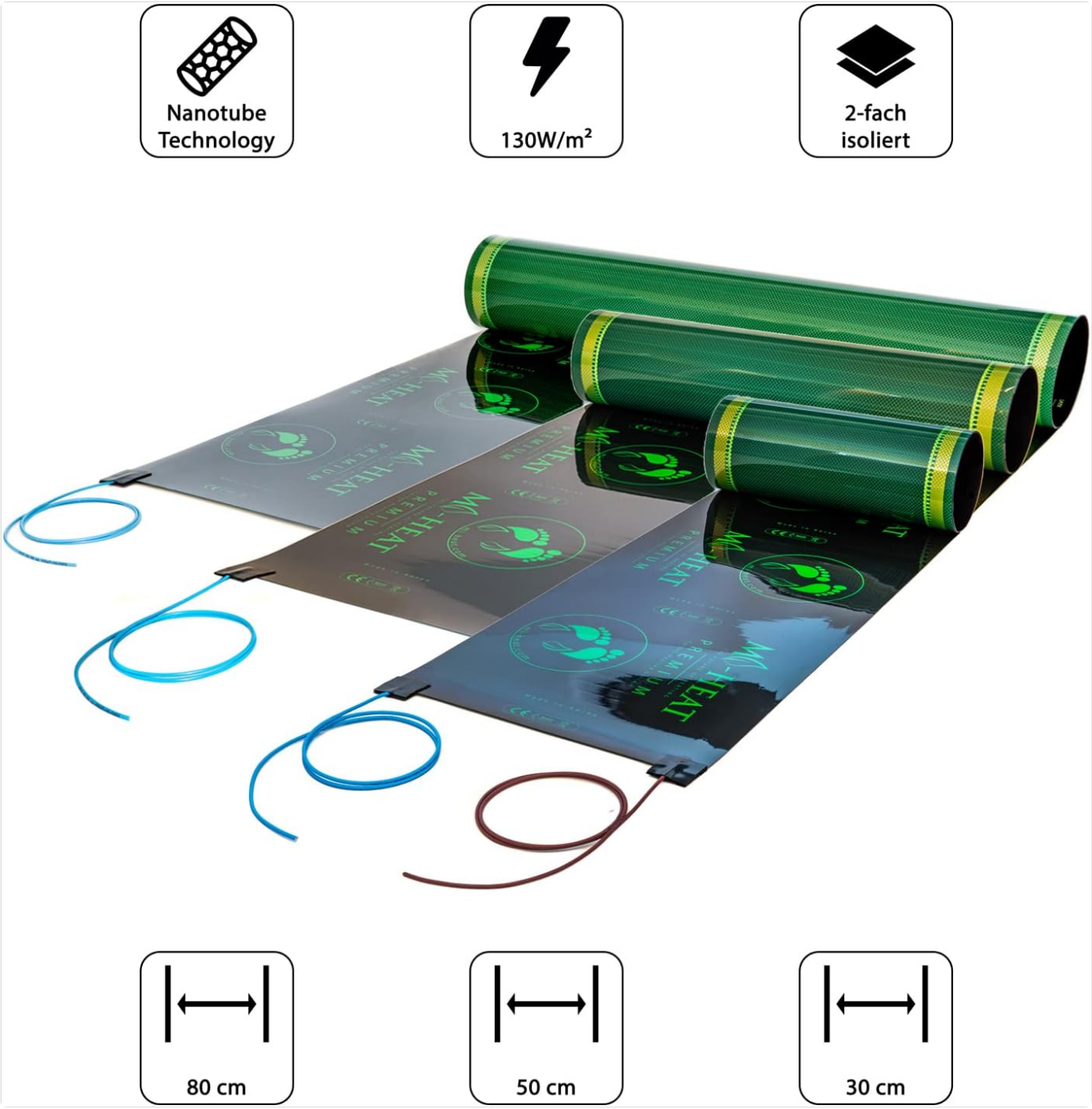


Figure 2: Various widths of Mi-Heat Premium Heating Film, highlighting key features.



Figure 3: Digital Thermostat included in the set.

Setup and Installation

The Mi-Heat Premium heating film is designed for easy installation under the floor covering of your vehicle. Ensure all safety precautions are understood and followed before proceeding.

1. Planning the Layout

Determine the areas where you want to install the heating film. Avoid placing the film directly under fixed furniture or heavy objects that would completely cover it, as this can cause overheating. The film can be cut to length at designated cutting marks, but never cut across the carbon heating elements.

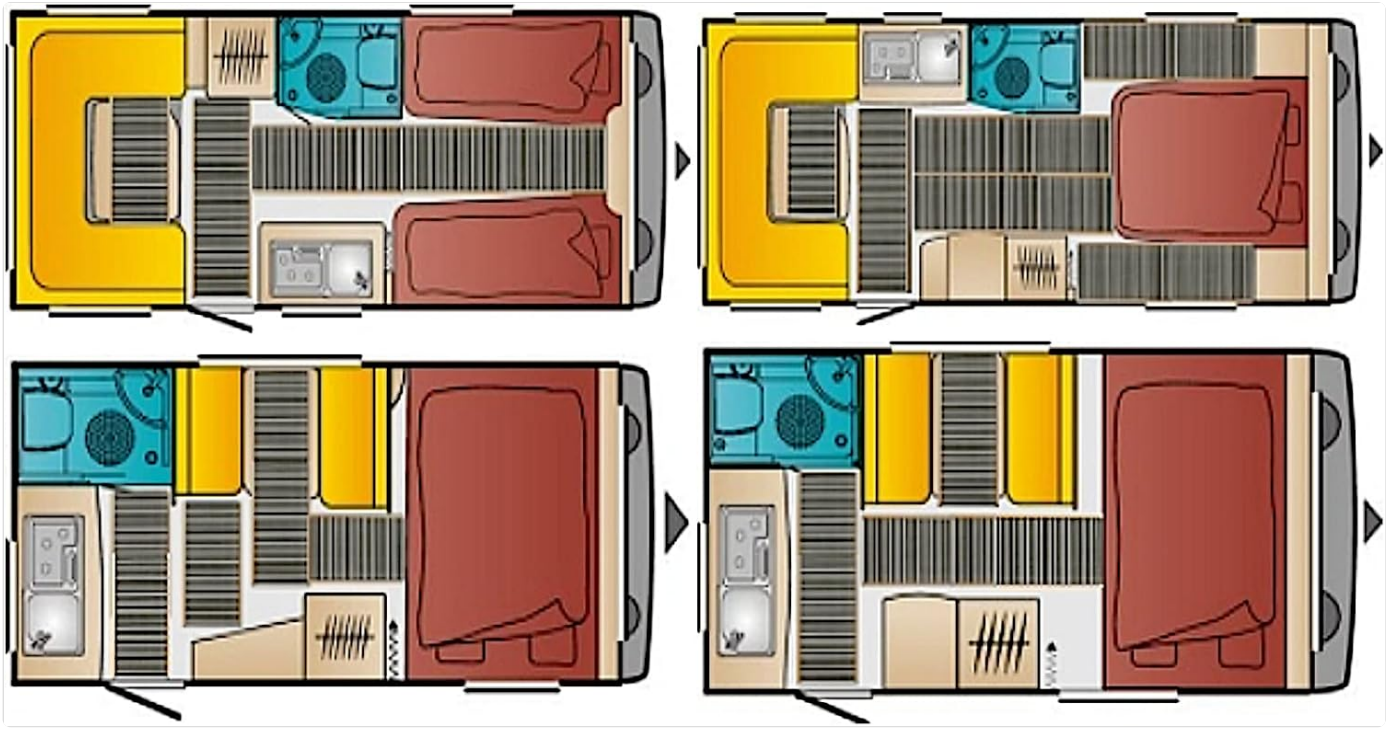


Figure 4: Example floor plans for layout planning.

2. Preparing the Subfloor

Ensure the subfloor is clean, dry, and level. An insulating layer beneath the heating film is recommended to maximize efficiency and direct heat upwards.

3. Laying the Heating Film

Unroll the heating film in the planned areas. The film is thin (0.388 mm) and flexible. If using multiple strips, ensure they are laid parallel to each other. The film consists of multiple layers for durability and performance:

Heating Film Layer Structure

Layer No.	Description
1	PET-Folie (PET Film)
2	PET-Folie (PET Film)
3	CNT-Heizelement (CNT Heating Element)
4	PET-Folie (PET Film)
5	PET-Folie (PET Film)

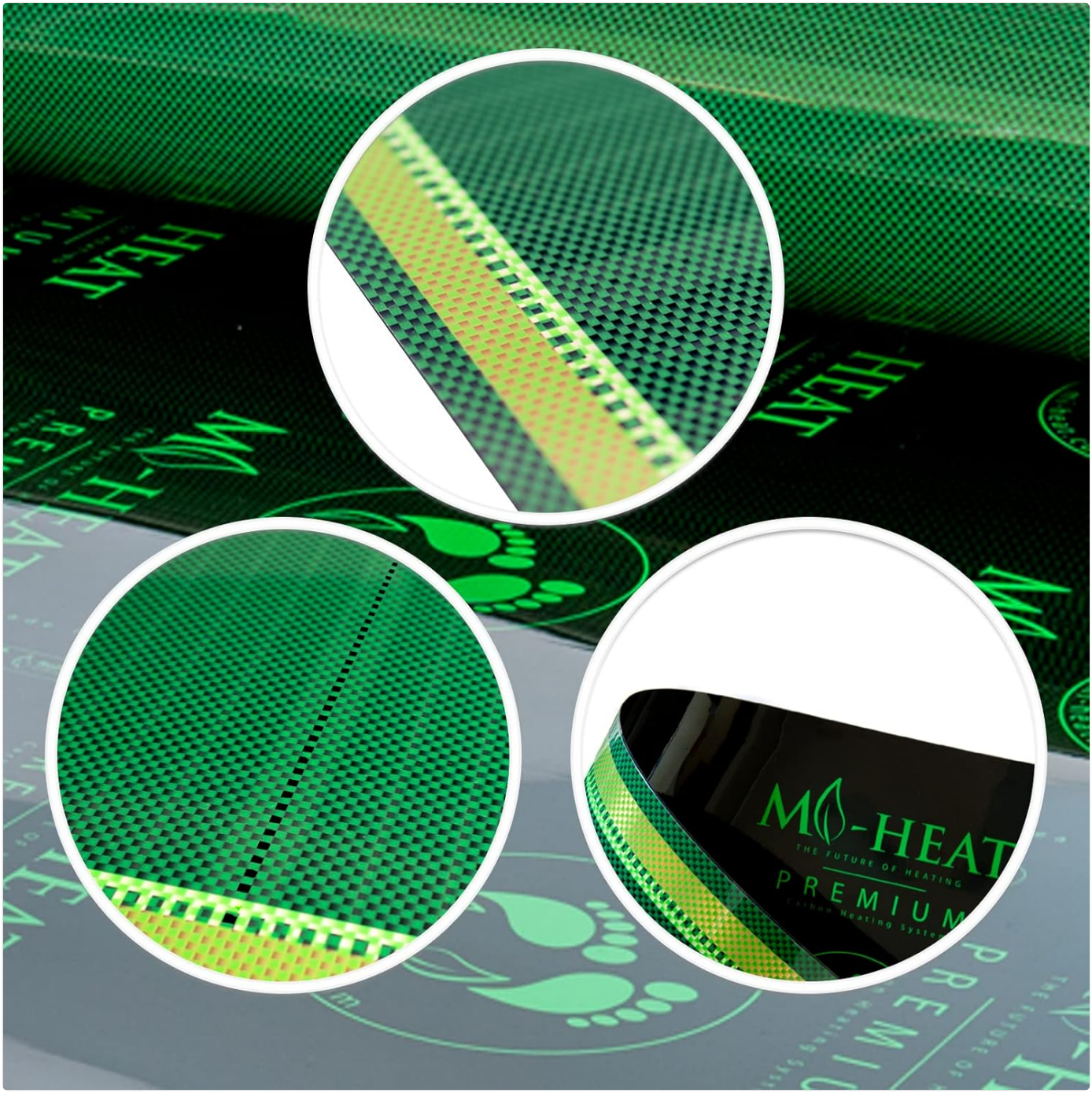


Figure 5: Cross-section diagram of the heating film layers.

4. Electrical Connection

The heating film comes pre-wired with 2.5m connection cables. Connect these cables to the digital thermostat. Ensure all electrical connections are secure and insulated. If connecting multiple strips, they must be wired in parallel to the thermostat, respecting the thermostat's maximum switching capacity.

5. Thermostat Installation

Install the digital thermostat in a suitable location, typically on a wall, using surface mounting. Connect the external floor sensor to the thermostat and place it under the heating film, ensuring it is centrally located within the heated area for accurate temperature readings.

6. Installing Floor Covering

Once the heating film and thermostat are installed and tested, lay your chosen floor covering over the heating film. The floor covering must be suitable for use with underfloor heating.

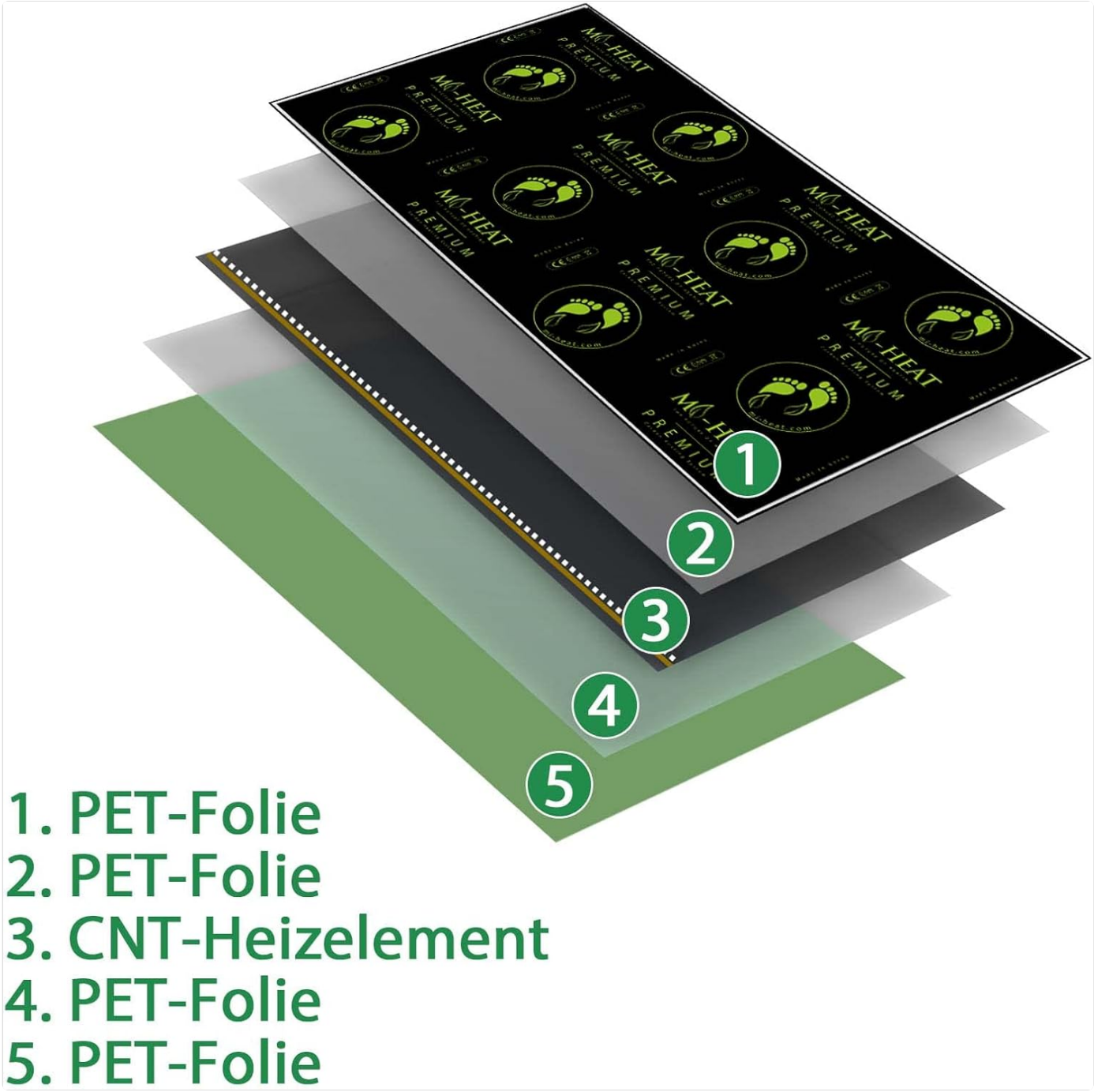


Figure 6: Example of heating film installation and temperature measurement.

Operating Instructions

The digital thermostat allows precise control over your underfloor heating system.

1. Powering On/Off

Use the ON/OFF switch on the thermostat to power the system on or off.

2. Setting Temperature

The thermostat features an LCD screen and a rotary dial for temperature adjustment. You can set the desired floor temperature between 5°C and 40°C. The thermostat will automatically regulate the heating film to maintain the set temperature using readings from the external floor sensor.

3. Frost Protection Function

The thermostat includes a frost protection function, ensuring the temperature does not drop below a certain point (typically

5°C) to prevent damage in cold conditions.

4. Warm-up Time

Allow up to 60 minutes for the system to reach the desired temperature, depending on the ambient conditions and floor covering.

Maintenance

The Mi-Heat Premium heating film is designed to be maintenance-free due to its patented CNT (carbon nanotube) technology. No need to replace gas bottles or perform regular checks common with other heating systems.

- **Cleaning:** Keep the thermostat and surrounding area clean and free of dust.
- **Inspections:** Periodically check visible wiring for any signs of damage or wear. If any damage is observed, disconnect power immediately and contact a qualified technician.
- **Floor Covering:** Ensure the floor covering remains intact and does not shift, which could affect the heating film underneath.

Troubleshooting

If you encounter issues with your heating system, refer to the following common problems and solutions:

Troubleshooting Guide

Problem	Possible Cause & Solution
System not heating	◦ **No power:** Check if the thermostat is switched ON and if there is power to the outlet. ◦ **Thermostat setting:** Ensure the desired temperature is set higher than the current floor temperature. ◦ **Sensor issue:** Verify the external floor sensor is properly connected and placed. A faulty sensor can prevent heating. ◦ **Wiring:** Check all electrical connections for looseness or damage. Consult a professional if unsure.
Floor not warm enough	◦ **Warm-up time:** Allow sufficient time (up to 60 minutes) for the system to reach the set temperature. ◦ **Insulation:** Insufficient insulation beneath the heating film can lead to heat loss. ◦ **Obstructions:** Ensure no heavy furniture or objects are completely covering the heated area, trapping heat. ◦ **Ambient temperature:** In very cold ambient conditions, the system may struggle to reach high temperatures without supplementary heating.
Thermostat display error	◦ **Sensor fault:** An error code often indicates a problem with the external floor sensor. Check its connection or consider replacing it. ◦ **Power cycle:** Try turning the thermostat off and on again.

If the problem persists after attempting these solutions, please contact customer support.

Specifications

Technical specifications for the Mi-Heat Premium Underfloor Heating System (Model 954-024):

Feature	Detail
Brand	Mi-Heat
Model Number	954-024
Heating Film Dimensions (L x W)	4m x 0.5m (2 sq.m.)
Power Output	130 Watts (approx. 130 W/m²)
Voltage	230 Volts (AC)
Material	Plastic (PET Film, CNT Heating Element)
Special Feature	Electric, Infrared Heating, Nanotube Technology
Thermostat Temperature Range	5°C to 40°C (adjustable)
Max. Switching Capacity (Thermostat)	16 A / 3680 W
Thermostat Installation Type	Surface mounting
Thermostat Sensors	Internal (room) and External (floor)
Product Dimensions (L x W x H)	80 x 30 x 80 cm (packaging/overall kit dimensions)

Warranty and Support

For warranty information and technical support, please refer to the manufacturer's website or contact the seller directly. Keep your purchase receipt as proof of purchase.
Manufacturer: infrarot-fussboden.de

Video Resources

No official product videos from the seller are available for this product at this time.

© 2024 Mi-Heat. All rights reserved.
This manual is for informational purposes only. Specifications are subject to change without notice.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question