HANDYHEAT®
DANSK VARMEKABEL A/S

HH 922-AF Thermostat for Floor Heating Instruction Manual

Before Installation

⚠ WARNING

Turn off HH 922-AF, all electronic source and electrical devices
which will be connected before installation and maintenance.

⚠ CAUTION

The installer must be a trained service personnel.

Installation Location

The thermostat should be mounted on an inner wall ~1.5m above the floor in a position where it is readily affected by changes of the general room temperature with freely circulating air.
Prevent direct exposure to sunlight, drip or splash.
Do not place the unit at a location where air circulation is low, or where there are great temperature changes (e.g. near door).
Do not place the thermostat near heat generating sources
(e.g. radiators, hot air vents, TV or lights).

Sensor Installation

- Use the corrugated pipe(>16mm), place the sensor cable inside the pipe. Bending radius of pipe must be not less than 5cm.
- Plug one end of corrugated pipe via waterproof cork to prevent the water or cement grout penetration, place the corrugated pipe with sensor between the nearest coils of heating cable. It is better to place the end of corrugated pipe with the sensor inside and close to the upper floor layer.
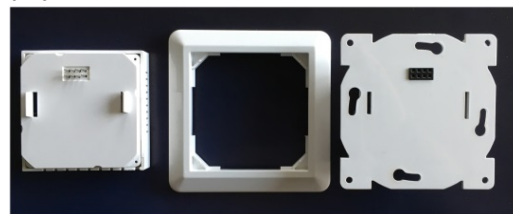- Place the second end of corrugated pipe near with the connection box for thermostat.

Wiring the Terminal

There are 6 wiring terminals at the back of the thermostat which are labeled below.
The recommended wire range is AWG 12~14.

Symbols		Description
1	230Vac	Live Load
2	230Vac	Neutral Load
3	230Vac	Neutral input
4	230Vac	Live input
5		Sensor Cable
6		Sensor Cable

Installation and wiring Guide

First, remove the front and frame from the back of the unit.

Front   Wall frame   Back housing

Fix the thermostat a hight of approximately of 1,6 m from the floor.

Connect wiring from heating unit, floor sensor and 230 VAC supply.

Commissioning

The thermostat starts up as manual operated with Floor sensor. You just need to set day, time and desired temperature.

Change basic set-up (default)

In **Power off** mode you may press simultaneously (M & -) in 3 seconds to change default setting.
Press **M** to choose 1 to 9 and +/- to modify.
1. Temperature calibrating:
   Setting: -9 til +9 °C
2. Deadband: Heating set-point hysteresis
   Chose value: 1 - 5 ℃ (Preset 1 ℃)
3. Sensor selection
   IN Room sensor function
   AL Room sensor with floor temp. limit.
   OU Floor sensor funktion
4. Frostmode. default **+5 ℃**. Set up to +10 °C
   Or omit function by "--".
5. Max. Floor temperature default **+45 ℃**.
   Setting between 25 to +70 °C

6. Key lock function.
   0= All buttons except Power ON/OFF.
   1= All buttons
7. Manual or Week Program Mode
   Two-day Weekend: 12345 and 67
   One-day Weekend: 123456 and 7
   Cancel weekly program: "- -"
8. Not used
9. Not used

Basic Key and Operation

When the unit is powered on, full screen are on and the unit goes to Normal Display Mode.

Press the icon ⏻ button (above Figure) to turn on or off the thermostat.
The following icons meaning:

Icon	Meaning
✋	Manual mode
🕐	Week program
✋🕐	Temporarily bypass the current program
🌡	Key lock
♨	Heating activated. Flashing by high temperature.
Floor	Shows present temperature in the floor.
Room	Room shown the present room temperature

Week Program Mode (either indication of 6 period setting stands for Weekly Programming Mode). Thermostat runs according to the preset time and set-point during this mode.
Week Programming consists of 2 working modes (5+2 day programming mode) which are "12345" (Mon.-Fri.) and "67" (Sat.- Sun.). 6 period start time and corre pondding set-point can be set during each working mode.

🕐 *Period 1, Morning Wake up* .

🕐 *Period 2, Morning Out*

🕐 *Period 3, Noon Home* .

🕐 *Period 4, Noon Out*

🕐 *Period 5, Night Home* .

🕐 *Period 6, Night Slee*p

🕐✋ Symbol for Temporary Manual Mode.
Combination of manual indication and either indication of 6 period setting show Temporary Manual Mode.
During Weekly Programming Mode, by pressing "+" or "-" key to switch to Temporary Manual Mode. Thermostat runs according to the temporary set-point during this mode and will return to Weekly Programming Mode when next period start time comes (set-point in the Temporary Manual Mode will not be stored).

Changing program

Switch ON the thermostat. Press "M" for 3 seconds. Weekday 1 is flashing and change by pressing + or -. Press M to enter and change temperature. Continue until all steps have been adjusted.

Setting time

Press " – " in 3 seconds and adjust minutes, hours and weekday. Fish by pressing M

Floor temperature

Read out floor temperature by pressing " + " in 3 seconds. Only valid for **AL** and **OU** setting.

Specification

Temperature Measurement:	0 - 50°C
Temperature Controllable Range:	5 - 50°C
Resolution:	0.5 °C
Operation Voltage:	230VAC
Output Rating:	16A max
Sense Type:	NTC 10K
Operating Temperature:	0 - 50°C
Storage Temperature:	-10 - 55°C
Classification of control:	Class II
Electronic control:	Type 2.B
Protection:	IP 21
Sensor cable:	3m
Terminal: 1 - 4mm² flexible conductor wire	