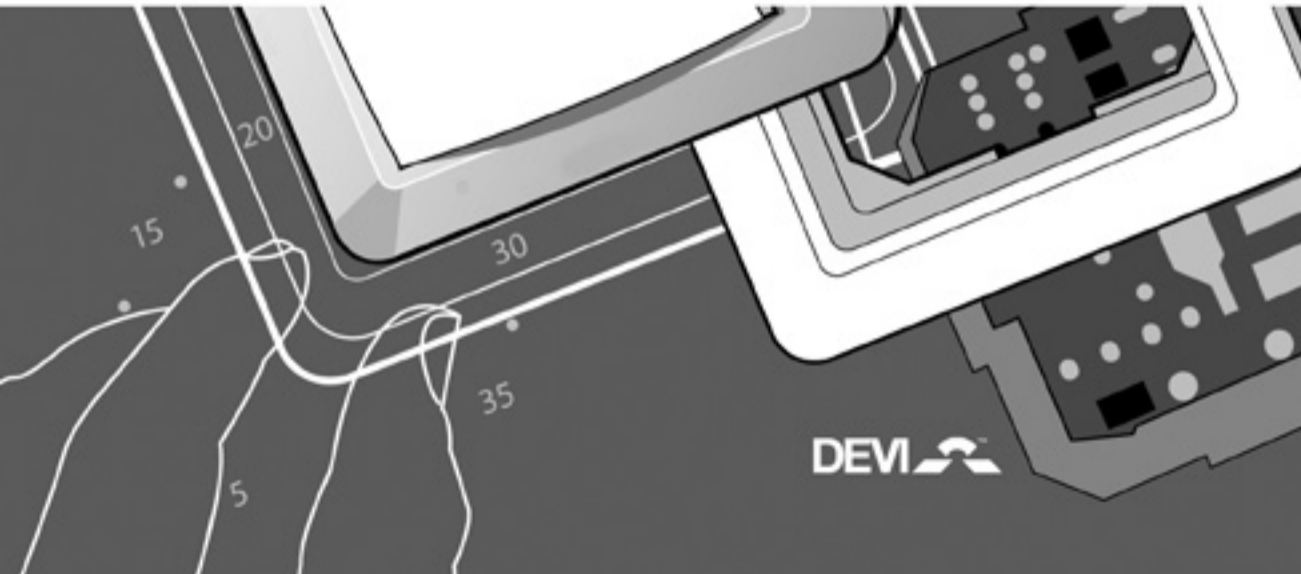


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## **AUS Installation Instructions Devireg™ 530, 531, and 532**



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 The installation must only be carried out by a licensed electrician.

## 1. Applications and Functions

The **Devireg™ 530** Series is a line of electronic thermostats used for control of floor heating.


The **Devireg™ 530** Is used for the sensing of floor temperatures in a floor warming system


The **Devireg™ 531** This thermostat is supplied with a built-in air sensor for control of the desired air temperature only.

The **Devireg™ 532** Is used for air and floor sensing. This thermostat has a built-in air sensor and an external floor temperature limit sensor. The room sensor is used for control of the room air temperature. The floor limiter is used to maintain a maximum floor temperature for wooden floors and other heat sensitive floors.

## 2. Maximum floor temperature setting

Maximum floor limiter is preset at the factory to 35°C for cable temperature safety.

 All product approvals must be observed when changing the maximum preset limiter. You can reset the floor limiter on the Devireg™ 532 by taking off the front cover and with a screwdriver adjust the sunken temperature dial in the top left hand corner.

 For wooden floor constructions DEVI™ recommend the temperature is limited to a maximum of 30°C. Maximum limiter setting for different floor constructions:

Tiles on timber	30°C
Carpet/vinyl on timber	35°C
Wooden floors (parquet, plank, etc.)	27°C
Tiles on concrete or screed	35°C

### 3. Neon light indications (LED)

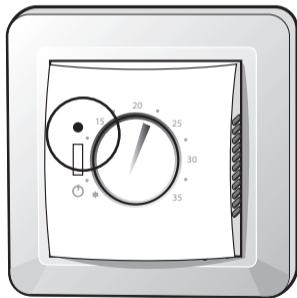
The Devireg™ 530 series has a LED indicator above the 2 pole safety switch (see illustration).

The LED has four indications:

- No light means the system is off.
- Red light means system is heating.
- Green light means power is on but no heating is required.
- Flashing green light means there is a problem with the floor sensor (only applicable for 530 and 532). Please refer to section about "Trouble shooting" for further information.

❄ Is used for setting the thermostat to frost protection mode, i.e. keeping the room/floor temperature (depending on type of thermostat) at 5°C.

LED indicator

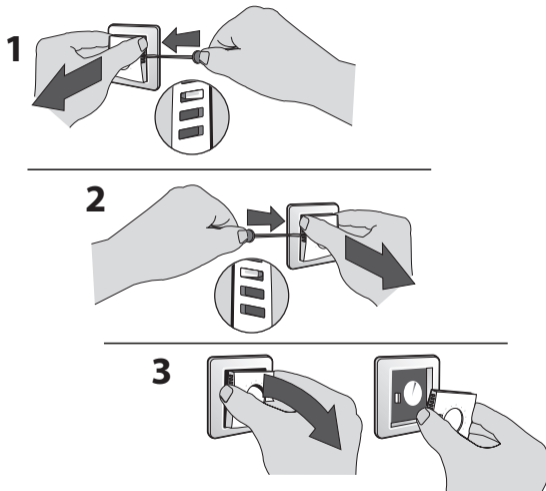


## 4. Installation instructions

When installing a thermostat from Devireg™ 530 Series, you must first remove the front cover.

To remove the front cover, gently press the release tabs in the vents, at both sides and then pull off the front.

You do not need to remove the temperature dial.




## 5. Install sensor for Devireg™ 530 and 532

The floor sensor is inserted into a 10mm or 13mm conduit which is sealed at the end to prevent penetration of concrete, screed, etc into the conduit.

The Minimum bending radius for the conduit is 50 mm.

The sensor conduit must be placed in between two cable runs.

 To avoid cracks in the concrete floor you must ensure that the floor is completely hardened before the heat is switched on. Refer to the operating instructions.

Where a floor sensor is used, it is recommended to install it inside a conduit, sealed at the end in the floor, enabling easy replacement of the floor sensor if required. If installed without a conduit, the floor sensor must be installed so that it is inaccessible and not in contact with any conductive building parts.

If the supplied floor sensor is too short, longer ones can be purchased from your local DEVI supplier or it can be extended up to 50m using double insulated cable .

The floor sensor is a LIVE cable; therefore any extension made to the sensor wiring should be treated as for normal mains voltage cabling.



## 6. Placement of Devireg™ 530, 531, and 532



Installation height, typically between 1-1.5m especially when Devireg™ 531/532 is used.



In damp rooms it should be installed on an even surface in accordance with AS/NZ 3000.



At least 500mm away from windows/doors that will be left open occasionally.



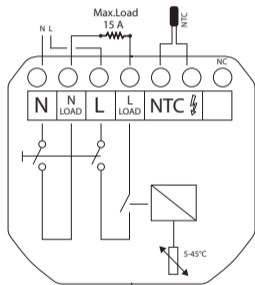
If being used as an air sensing thermostat then it should not be on a cavity wall where it can be affected by draughts.



Not on the inner side of a wall facing the outside.

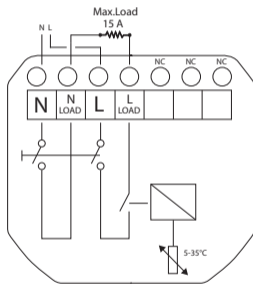
## 7. Connection diagrams for Devireg™ 530, 531, and 532

Devireg™ 530



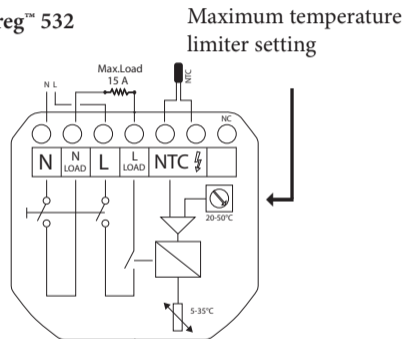
NC = no connection (do not use)

Devireg™ 531



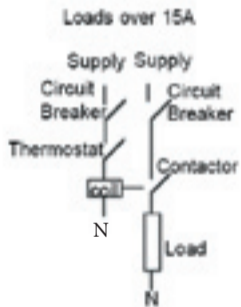
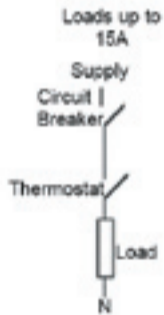
NC = no connection (do not use)

Devireg™ 532

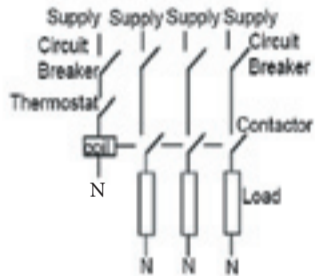


NC = no connection (do not use)

Loads over 15 Amps must be controlled via a contactor as shown below.



Loads with more than one element over 15A



## 8. Trouble shooting

### No light on thermostat

If there is no light on the thermostat after turning it on then check that the residual current device (RCD) and breakers are on before contacting an authorized electrician.

### Fault: No heat

#### 1) General

First of all, make sure that all cables, connected to the thermostat, are connected to the correct thermostat terminals and that all connections are tight and making contact.

#### 2) Mains voltage (terminal 1 and 3)

Ensure that supply voltage 240v is at terminals 1 and 3. if not then check that the RCD and contactor are on.

#### 3) Thermostat output (terminal 2 and 4)

Measure the voltage at terminal 2 and 4, when the temperature dial is turned up and the neon has turned red. The reading should be the same as previously measured at terminal 1 and 3.

If the reading is OK, continue to the next step; if not replace the thermostat.

4) Heating cable (terminal 2 and 4)

Disconnect the heating cable from terminal 2 and 4 on the thermostat.

Measure the resistance of the heating cable with an ohm meter, it is now possible to calculate the installed wattage, using the following formula:

$$P = \frac{U^2}{R} = \frac{240^2}{R} = W$$

An insulation tester must also be used to ensure there is no leakage between the conductor and earth.

5) External sensor input: NTC (only for Devireg™ 530 and™532)

Disconnect the external NTC sensor 5 and 6 on the thermostat.

Connect an ohm meter to the NTC sensor wire, and measure the ohm value (please refer to table on page 17 for correct ohm value).

The resistance measured should be within the specified range according to the technical specifications. If not, replace the NTC sensor.

### **Fault: Constant heat**

#### Relay constantly on

Measure the voltage at terminal 2 and 4, with the temperature turned right down (that is no green light or flashing green light). There should be no voltage at terminal 2 and 4. If a voltage is measured, replace the thermostat.

#### Floor sensor open circuit

If the floor sensor (NTC) is disconnected or open circuited the thermostat will be constantly off (due to the sensor interrupt, the LED will flash green).

Disconnect the external NTC sensor from terminals 5 and 6 on the thermostat.

Connect an ohm meter to the NTC sensor wire, measuring the ohm value.

The measured value should be within specified range according to the technical specifications.

If not, replace the NTC sensor.

## 9. Technical specifications for Devireg™ 530, 531, and 532

Operation voltage	240 VAC +10/ -20, 50 Hz
Power consumption	Max. 0.25W
Relays: <ul style="list-style-type: none"><li>• Resistive load</li><li>• Inductive load</li></ul>	240V ~ 15A cos $\varphi$ = 0.3 Max. 4A
Sensing unit	NTC 15 kOhm at 25°C
Sensing values: <ul style="list-style-type: none"><li>• 0°C</li><li>• 20°C</li><li>• 50°C</li></ul>	42 kOhm 18 kOhm 6 kOhm
Hysteresis	+/- 0.2°C
Ambient temperature	-10° to +30°C
Frost protection	5°C



<b>Temperature range:</b> <b>NOT OPERATING TEMPERATURES</b> <ul style="list-style-type: none"> <li>• 530</li> <li>• 531</li> <li>• 532</li> </ul>	5-35°C 5-35°C 5-35°C, floor limiter. 20-50° C air temperature.
<b>Sensor failure monitoring</b>	The thermostat has a built-in monitoring circuit, which will switch off the heating if the sensor is disconnected or short-circuited.
<b>LED indicator:</b> <ul style="list-style-type: none"> <li>• No light</li> <li>• Red light</li> <li>• Green light</li> <li>• Green light flashing</li> </ul>	The system is off. The temperature set point is not reached. The temperature set point is reached. Floor sensor fault.
<b>IP class</b>	31
<b>Dimensions</b>	85 mm x 85 mm

## Australian Warranty Certificate

The following Warranty is provided by DEVI Comfort Heat Pty Limited ABN 75 061 300 427, hereinafter referred to as DEVI. It is offered in addition to any relevant statutory Federal or State Warranty. DEVI is a partner of the DEVI Group of Companies, who are a Danish based specialist heating product manufacturer. DEVI A/S Denmark is a member of the European Group of Supplier's, and is at all times subject to EEC general product liability rules. DEVI warrants deviflex™ heating cables for a period of TEN (10) YEARS from the date of purchase and all other DEVI products for a period of TWO (2) YEARS, from the date of purchase. DEVI warrants its products against defects in manufacture, material, or workmanship. Proof of purchase must be provided. Installations must be carried out in accordance with the instructions supplied, and by accredited installers. An authorized DEVI representative must be given the opportunity to inspect and report on any defects. The obligation of DEVI, under this warranty, is to repair or replace any product, which, within the above stated time periods, is found to our satisfaction to be defective, free of charge to the customer. However, the labour cost for removing and/or refitting any product will be at the customer's expense. In the case of any removable products

such as Thermostats, these are to be returned to the place of purchase, or to DEVI Sydney, where DEVI reserves the right to repair or replace the unit at no charge or unreasonable delay to the customer. In case of parts not of our own manufacture you are entitled only to such benefits as we may receive under any guarantee given to us by the manufacturers in respect thereof. We shall not be liable for consequential or special damages under any circumstances whatsoever. This Warranty does not cover faults caused by incorrect installation, damage by others, misuse, misapplication, incorrect voltage, lightning, or incorrect design by others, or where payment is in default. Rectification work, performed as a consequence of matters not covered by the Warranty, will be at the expense of the customer. DEVI will respond honestly, efficiently and promptly to all queries and reasonable requests from our customers.

## Warranty as supplied by DEVI™ Denmark

You have purchased a DEVI heating system which we are sure will serve to improve the comfort and economy of your home.

DEVI provides a complete heating solution with deviflex™ heating cables or devimat™ heating mats, Devireg™ thermostats and devifast™ fixing strips. Should you, against all expectations, experience a problem with your DEVI heating system, you will find that DEVI, whose products are manufactured in Denmark and sold throughout the European Union, is subject to the standard regulations pertaining to product liability as specified in EU directive 85/374/CEE as well as all applicable legislation in the individual countries on the following conditions:

DEVI offers a 10-year Warranty on all deviflex™ heating cables and devimat™ heating mats, and a 2-year Warranty against material defects and production defects in connection with any

Other DEVI products. The guarantee shall be valid only if the WARRANTY CERTIFICATE is completed correctly and in accordance with the instructions, and provided the fault is inspected by or submitted to DEVI or an authorised DEVI dealer.

Please note that the WARRANTY CERTIFICATE must be completed in English or local language.

DEVI shall undertake any repair free of charge or supply the customer with a new unit. Repairs shall be carried out at no

further cost to the customer. In the case of faulty Devireg™ thermostats, DEVI reserves the right to repair the unit free of charge and without any unreasonable delays for the customer. The DEVI Warranty shall not cover installations that have been carried out by non-authorised electricians, faults which arise as a result of misuse by other suppliers, damage caused by third parties, incorrect installations or consequential damage. All work will be invoiced in full if DEVI is required to inspect or repair faults that have arisen as a result of any of the above.

The DEVI Warranty shall not extend to equipment which has not been paid in full.

DEVI will, at all times, provide a rapid, effective and honest response to all queries and reasonable demands from our customers. The above Warranty covers product liability only, while purchases are subject to national legislation..

## DEVI™ Warranty Certificate

**The DEVI™ Guarantee is granted to:**

Name:

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Address:

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Postal code:

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Phone:

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**Please observe!**

In order to obtain the DEVI™ Guarantee, the following must be carefully filled in. See other conditions on previous page.

Electrical Installation by:

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Installation date:

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Type of thermostat:

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Production code:

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Suppliers Stamp:



DEVI A/S

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