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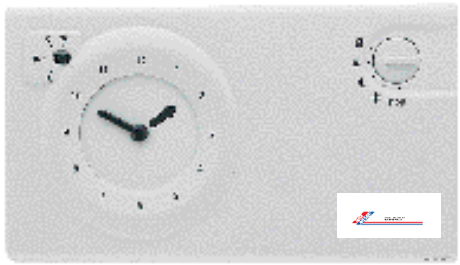
SIM 351 R
Programmable pilot wire controller for use with BN Thermic EPE panel heaters



What is the SIM 351 R?

The SIM 351 R is a single zone controller for use with panel heaters equipped with an adjustable ambient thermostat and a pilot wire. The comfort temperature required is set at the convector heater and not at the controller. Thus different areas can have different temperature settings.

What is a pilot wire?

Panel heaters equipped with a pilot wire are unique in that in addition to having two wires for voltage supply (live and neutral), they have a third wire. This third wire is called the 'pilot wire' and is capable of receiving signals from the controller, which alter the temperature settings.

What signals can the SIM 351 R send?

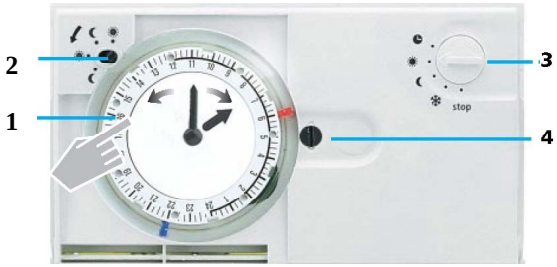
The SIM 351 R can send 4 different signals.

A. If there is no voltage on the pilot wire  the panel heater will operate at the thermostat set point known as ‘comfort’ temperature.

B. If a 230V signal is received  the panel will operate at a reduced ‘set back’ temperature. This temperature is a nominal 4°C below the thermostat set point.

C. If the signal received is only the negative section of the sine curve  the heater will operate in ‘frost protection’ mode (approximately 7°C).

D. If the signal received is only the positive section of the sine curve  the heater will be switched off.

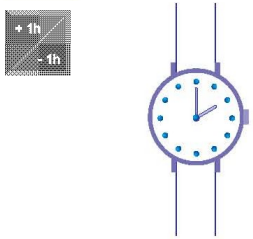


1. 24 hour or 7 day programmer with reversible dial
2. Switch to move from ‘comfort’ to ‘set back’ and vice versa
3. 5 position switch ( for timed control)
4. Central fixing screw

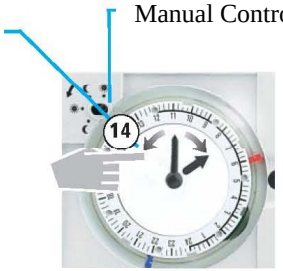
Setting the time

Example: Set the time at 14:00 hours (2 p.m.)

14:00 (2p.m.)



Manual Control Point



With the cover closed set the time manually moving the 'big hand' on the clock face. **Open the cover**, check the number that lines up with the manual control point. In this instance that number should be '14' indicating 2pm and not '2' which would indicate 2 a.m.

Programming for comfort or set back/24 Hour

Start the set back Programme (blue peg)

Start the comfort Programme (red peg)

Example: Set the timer for comfort temperature between 6:00 and 8:15 every morning

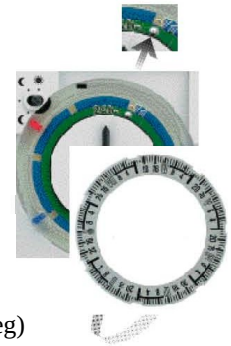
Start comfort period ¤ and end set back period (red peg)

Start set back period and end comfort period ¤ (blue peg)

Changing from a daily programme to a weekly programme (and vice versa)

Daily programme

The SIM 351 R can operate with either a daily programme (with the comfort and set back temperatures being activated at the same time every day) or with a weekly programme (allowing each day to be programmed separately).



Lift the outer dial

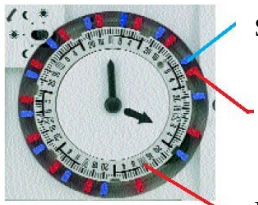
Turn the ‘big hand’ on the clock face until the notch on the green ring lines up with the notch on the blue ring

Push the metal pin outwards from the position marked 24h to the position marked 7d

Replace the dial pushing firmly until you hear a definite ‘click’

Weekly Programme

Programming for comfort or set back / 7 Day



Start set back programme (blue peg)

Start comfort programme (red peg)

Example VI=Saturday

This example shows a weekly programme with comfort temperatures activated at the following times.

Monday to Friday: 4 a.m. to 8 a.m. and 4 p.m. to 10 p.m.
Saturday: 8 a.m. to 12 p.m.
Sunday: 8 a.m. to 10 p.m.

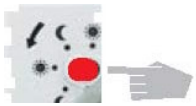
Start comfort period ☼ and end set back period ☾ (red peg)

Start set back period ☾ and end comfort period ☼ (blue peg)

Switch between comfort and set back using switch no. 2

Switch to comfort setting

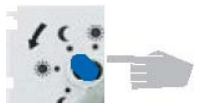
2



Manually set switch no 2 to position ☼

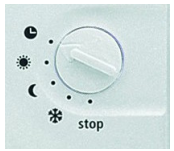
Switch to set back setting

2

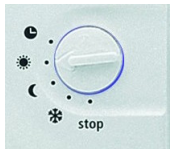


Manually set switch no.2 to position ☾

Using switch no. 3

Timed control – the system will operate as programmed 

 or 

Permanent comfort setting 

Permanent set back setting 

Permanent frost protection setting 

Permanent ‘off’ setting 

Instructions for professional electricians only

This device must be installed by a suitably qualified electrician and in accordance with current regulations.

Instructions for professional electricians only

Ensure that the electrical supply is isolated before carrying out any work

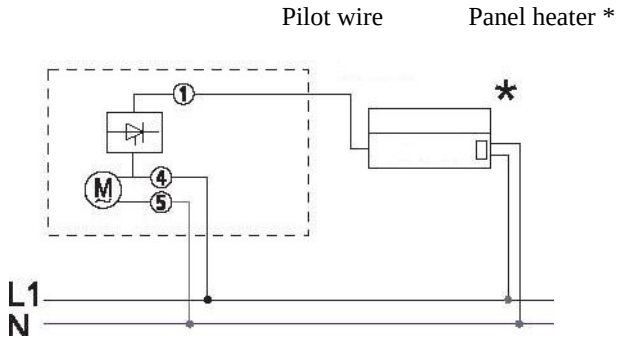
1. Flip down the cover
2. Release the unit from its base plate by turning the central fixing screw (D) with a screwdriver.
3. Pull the unit away from its base plate.
4. Feed the supply wires though the base plate
5. Fix the base plate to the wall

WARNING: do not install on a conductive surface such as a metal plate

6. Make electrical connections as shown on the following diagram
7. Ensure that the cables are contained within the base plate
8. Place the control unit onto the base plate
9. Secure with the central fixing screw (D).

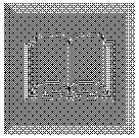
Instructions for professional electricians only

*When connecting to panel heater(s) follow the heater manufacturer's instructions

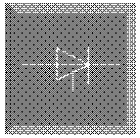


The SIM 351 R has reserve power that will allow the device to operate for approximately 150 hours without a voltage supply.
Reserve power will be fully charged after 3 days of normal operation.
There will be a delay of a few minutes between the system being energised and the clock starting to work.

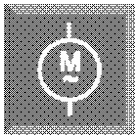
Technical data



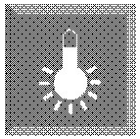
SIM 351 R



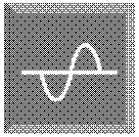
80mA/250V (a maximum of 30 panel heaters)



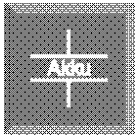
230V +/- 10%



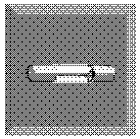
0°C to 40°C



50Hz



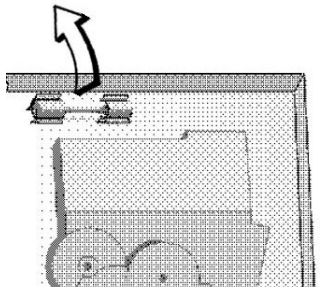
Approximately 150 hours reserve power



M 80 mA/250V

Instructions for professional electricians only

The SIM 351 R is fitted with a fuse. To change the fuse, follow this procedure.



Ensure that the electrical supply is isolated before carrying out any work.

1. Flip down the cover
2. Release the unit from its base plate by turning the central fixing screw (D) with a screwdriver.
3. Pull the unit away from its base plate.
4. Replace the fuse. An M 80 mA/250V fuse must be used.
5. Place the control unit onto the base plate
6. Secure with the central fixing screw (D).