# FRICD





- EN MANUAL
- SE MANUAL
- NO BRUKSANVISNING
- FI KÄYTTÖOHJE
- FR MANUEL
- DE BETRIEBSANLEITUNG
- NL HANDMATIG
- IT MANUALE
- ES MANUAL DE INSTRUCCIONES
- PL INSTRUKCJA
- **RU** РУКОВОДСТВО ДЛЯ

# Puravent

### Get In Touch

### **Our Address**

Call: <u>0845 6880112</u> **Email:** <u>info@adremit.co.uk</u>



# **General instructions**

Read these instructions carefully before installation and use. Keep this manual for future reference. The product may only be used as set out in the assembly and operating instructions. The warranty is only valid if the product is used in the manner intended and in accordance with the instructions.



**Important** The underfloor heating system is an electrical power installation and must therefore be installed in accordance with the current regulations and under the supervision of a qualified electrician.





### Get In Touch

### **Our Address**

Call: <u>0845 6880112</u>
Call: <u>info@adremit.co.uk</u>



This is TAP16R 4
In the box
Installing IAP16R 6
Getting started 8
How TAP16R works
Symbols on the display
How to set TAP16R 17
Energy saving programs 21
Troubleshooting
Technical specifications



### Get In Touch

℃ Call: <u>0845 6880112</u>
 ☑ Email: <u>info@adremit.co.uk</u>

### **Our Address**

uravent, Adremit Limited, Unit 5a, Commercial Yard, ettle, North Yorkshire, BD24 9RH 3



TAP16R is a microprocessor-controlled thermostat with LCD display. The display is backlit and stays lit for 30 seconds after the last push of a button. The front is fitted with an LED and three control buttons.

There are a number of temperature reduction programs to choose from for energy-smart heating. It is also possible to adjust the programming to suit your own heating needs. The adaptive function means that the thermostat collects data from the time it is started up and uses this to calculate when to turn on.

Temperature control is done with an algorithm using fuzzy logic. This technique reduces temperature fluctuations and thereby provides a more even temperature and lower energy consumption.

4



### **Get In Touch**

Call: <u>0845 6880112</u> **Email:** <u>info@adremit.co.uk</u>

**Our Address** 



# In the box



- 1. Front for Schneider Exxact (RAL 9003)
- 2. Frame
- 3. Thermostat
- 4. Heightening frame
- 5. Connection clip Manual Quick guide



### **Get In Touch**

**& Call:** <u>0845 6880112</u>

Email: info@adremit.co.uk

**Our Address** 



# **Installing TAP16R**

Important TAP16R must *not* be located somewhere it is exposed to the following:

direct sunlight and draughts.

 extreme fluctuations in temperature or high air humidity (IP21).

All tubes leading into the appliance box must be sealed so that the air temperature sensor cannot be affected by draughts.

# Installation

Mount TAP16R in a standard 65 mm junction box or in the included heigh-tening frame.

1. Make sure the box is level with the wall. 2. Take off the front and frame by pressing in the latch on the right-hand side with a chisel or similar tool, as shown in the illustration.

3. Connect the power, connection voltage 230 V/AC The protective conductor is connected with a coupling clamp in the box. See the wiring diagram at the right.

6



### Get In Touch

### Our Address

Call: <u>0845 6880112</u>



4. Insert the thermostat into the appliance box and screw tight with the existing screws.

5. Fit the frame and front.

6. If the thermostat is mounted in a multi-compartment frame, the internal corners of this frame must be removed.

External sensors (NTC 10 k $\Omega$ ) are available as accessories.





### **Get In Touch**

**Call:** <u>0845 6880112</u>

Email: info@adremit.co.uk

### **Our Address**

uravent, Adremit Limited, Unit 5a, Commercial Yard, settle, North Yorkshire, BD24 9RH 7



# **Getting started**

There is a quick guide so that you can easily get started with TAP16R. You will find it in the box. The guide describes the most important functions and settings.

8



### Get In Touch

Call: <u>0845 6880112</u>
Call: <u>info@adremit.co.uk</u>

**Our Address** 



This section describes all you need to know about how Tap16R works. To learn how to enter settings to suit your own requirements, read the section How to set TAP16R.



## **Display**

Turn on the LCD display's backlight by pressing any button. The display stays lit for 30 secs after the last push of a button.

**Our Address** 

When TAP16R is started for the first time the display shows the factory settings as in the illustration.





### **Get In Touch**

### **Call:** <u>0845 6880112</u>

Email: info@adremit.co.uk



There is an explanation of the symbols on the display in the section *Symbols*.

# Using the buttons

The buttons are used to raise and lower the temperature as well as navigating the menus.

You access the menus by pressing the select button •. Use the arrows to navigate to a menu option and then confirm with • to select it. The menu system is a scrolling system, in other words you come to all submenus regardless of the direction you start from.

If you want to exit a menu, navigate until the display shows END. Then press the select button •. You can also wait for 30 secs and the menu will end automatically. How to navigate the menus is described in the section *How to set TAP16R*.

# **Turning TAP16R off and on**

To enter standby mode, keep the select button • depressed for 4 seconds. Return to normal mode by depressing • for another 4 seconds.

10



### Get In Touch

**Call:** <u>0845 6880112</u>

Email: info@adremit.co.uk

### **Our Address**



The heating is not controlled in standby mode. The clock runs as normal and programmed times and temperatures remain in the memory.

# Locking the keypad

The keypad can be deactivated to prevent anyone touching the buttons by mistake. This is shown with the lock symbol **--0** in the display.

Press  $\bullet$  and navigate to LOCK. Confirm with  $\bullet$  to lock.

Unlock by holding down both arrows until the key symbol has disappeared.

### Temperature

Display of the actual temperature (actual value) Lock the keypad first. Press •. The light turns on and the current temperature in the room (R) is shown with small numbers above the desired temperature. If an external sensor is used, its current temperature (F) is shown instead.

The temperature is shown for 30 secs after the last push of a button.



### **Get In Touch**

**& Call:** <u>0845 6880112</u>

Email: info@adremit.co.uk

**Our Address** 



# Time and date

Time can be shown in 12- or 24-hour format. The correct day of the week is worked out automatically. The calendar resets itself in leap years and adapts to DST. Read how to set the correct time and date in the section *How to set TAP16R/Time and date*.

# **Adaptive function**

TAP16R has a function which works out when the heating should start to give the correct temperature at the correct time. It is activated on delivery, but can be turned off:

Press ● and navigate to SET. Select with ●. Navigate to AF, select with ●. Navigate between ON/OFF, then confirm with ●.

# Ventilation mode

If the room temperature falls by more than 3 °C in a single minute, e.g. when airing the room, the ventilation mode is activated. TAP16R will then stop heating for 15 minutes before returning to normal mode. This function is always active.

12



### Get In Touch

Call: <u>0845 6880112</u>
Email: <u>info@adremit.co.uk</u>

**Our Address** 



# **Delay between turning off and on** There is a built-in delay in order to

There is a built-in delay in order to avoid unnecessary wear and tear on internal components and to extend the life of the thermostat. If you raise the desired temperature so that the thermostat comes on, and then lower it shortly afterwards, it takes 30 sec before it goes off again.

# **Operation time**

The thermostat can display the operation time as a percentage for the last 24 hours and 7/30/365 days.

Press ● and navigate to UTIL. Press ● to select. The display now shows the operation time as a percentage for the last 24 hours. You can then navigate between the operation time as a percentage for the last 7/30/365 days.

# LED

The LED allows you to see the current status of TAP16R.

Green light – the thermostat is on and the heat is turned off.

Red light – the thermostat is on and the heat is turned on.



### Get In Touch

Call: <u>0845 6880112</u>
Email: <u>info@adremit.co.uk</u>

**Our Address** 



Flashing green and red lights – error indication. The heat is turned off. The thermostat shows the error message until it is turned off. Find out more under *Error codes*.

No light – the thermostat is switched off or is not getting any power.

# **Control functions**

TAP16R can regulate the temperature in three different ways. This enables the comfort temperature and any flooring temperature requirements to be combined. How you select the function you want is described in the section *How to set TAP16R/Control functions*.

*External sensor* – If the external sensor is connected when the thermostat is switched on for the first time, this function is selected automatically. The preset to value is 22 °C.

*Room thermostat* – TAP16R has a built-in sensor to measure the room temperature and control the heat. The control function cannot be selected if the external sensor is connected.

14



### Get In Touch

### **Call:** <u>0845 6880112</u>

Email: info@adremit.co.uk

**Our Address** 



Room sensor and external sensor (combined) – Not normally used. The built-in sensor controls the room temperature and the external sensor works as a temperature limiter. The limitation is adjustable between 5 °C and 45 °C.



### Get In Touch

**Call:** <u>0845 6880112</u>

Email: info@adremit.co.uk

### **Our Address**





- 1. Day of the week
- 2. Time and date
- 3. Selected menu/Current temp (*actual value*) °C
- 4. Set temp (set point) °C
- 5. Selected control
- 6. Shows that a program is running
- 7. Lock symbol
- 8. Program
- 9. Event functions for personal settings

**Our Address** 



### **Get In Touch**

### **Call:** <u>0845 6880112</u>

Email: info@adremit.co.uk



# How to set TAP16R

This section describes how to set up TAP16R. By adjusting these settings, you can customize the heating system to your own needs.

If you want to find out more on how to navigate the menus or use the keypad, read the section *How TAP16R works*.

### Reset

You use the Reset function to make TAP16R revert to default factory settings. All your personal settings will be deleted.

Press and navigate to SET. Select with •. Navigate to RST and select with •. Navigate between YES/NO, then confirm with •. YES deletes the settings, NO returns to the menu.



### **Get In Touch**

Call: <u>0845 6880112</u>
Call: <u>info@adremit.co.uk</u>

### **Our Address**



Light and contrast Set the light intensity of the LED Press ● and navigate to SET. Select with ●. Navigate to LED and select with ●.

Navigate between LED L (weak light) and LED H (strong light). Confirm with •.

# Set display contrast

Press • and navigate to CONT. Press • to select. The display shows a number between 1 and 8 depending on the current setting. Navigate to regulate the contrast. Confirm with • when you have achieved the correct level.

# Time and date

Set time and date

Press ● and navigate to SET. Select with●. Navigate to CLK and select with ●.

First set the hours by navigating to the correct time and confirm with ●. Set the minutes in the same way and confirm with ●.

Set the day, month and year in the same way. Confirm with •. The correct day of the week is set automatically.

18



### Get In Touch

Call: <u>0845 6880112</u>
Email: <u>info@adremit.co.uk</u>

**Our Address** 



Set time format

Press ● and navigate to SET. Select with
●. Navigate to DISP and select with ●.

Navigate between 12- and 24-hour format. Confirm with ●.

# Turn off DST

The calendar switches to DST automatically. This function can be turned off.

Press ● and navigate to SET. Select with
●. Navigate to S and select with ●.

Navigate between ON/OFF, then confirm with •.

## Temperature

*Change desired temperature (set point)* Each press of the up or down arrow increases or decreases the temperature by 0.5 °C.



### **Get In Touch**

Call: <u>0845 6880112</u>
Email: <u>info@adremit.co.uk</u>

### **Our Address**



# **Control functions**

These are described in more detail in the section *How TAP16R works/Control functions*.

### Select control function

Press ● and navigate to SET. Select with
●. Navigate to RNF and select with ●.

The icon for the current function (R, F or R&F) flashes. Navigate between the different options and confirm with •.

**Important** R cannot be selected if the external sensor is connected.

Adjustment of the temperature limitation for the room sensor and external sensor (combined) (R&F)

Press ● and navigate to SET. Select with
●. Navigate to OH and select with ●.

The set temperature now flashes on the display. Navigate to the desired temperature and confirm with ●.

20



### **Get In Touch**

**Call:** <u>0845 6880112</u>

Email: info@adremit.co.uk

**Our Address** 



# A smart way to save energy is to adapt the heating to your actual daily requirements and, for example, lower the temperature when the house is empty. There are four program options for temperature reduction in TAP16R: two preset programs for home and office environments, one program which is based entirely on personal settings, and one frost protection program.

You don't need to think about the heating time when you are programming because TAP16R has an adaptive function which takes this into account automatically. Read more about this in the section *How TAP16R works/Adaptive function*.

### Start a program

Press ● and navigate to PROG. Select with ●.

The icons **h**, **h**, **h**, **k**, **k** are displayed. The current program icon flashes. If none of the icons are flashing, no program has been selected. Navigate between the icons.



### **Get In Touch**

### Call: <u>0845 6880112</u>

Email: info@adremit.co.uk

### **Our Address**



Select with ● and the program starts. When a program is running the icon is displayed together with ↓.

## Stop a program

Press ● and navigate to PROG. Select with ●.

The current program icon flashes. Navigate until none of the icons are flashing and confirm with **•**.

**Important** This does not delete the settings, just starts/stops the program.

# **Different program options**

The two preset programs are suitable for most home and office environments.

Program for home environment The temperature is automatically reduced by 5 °C during the following periods: Mon – Fri 08:30 – 15:00 Mon – Sun 23:00 – 05:00

Program for office environment The temperature is automatically reduced by 5 °C at all times except for: Mon – Fri 6:00 – 18:00

# *Personal settings* **A** Tailor the heating by programming the thermostat yourself.

22



### **Get In Touch**

**Call:** <u>0845 6880112</u>

Email: info@adremit.co.uk

**Our Address** 



You can set four events for every day: wakeup  $\Rightarrow$  out  $\hat{\mathbf{G}}$  and night). When programming you specify the desired time and temperature for every event.

Preset means that the program runs every day, but you can also programme each day individually.

Press 

and navigate to SET. Select with ●. Navigate to 4E, select with ●. Now vou will see <sup>MD TU WE TH FR SA SU</sup>. Press ●.

Wakeup 🖛 is shown together with the current time and temperature.

The time flashes. Navigate until you reach the time you want the wakeup event to occur. Set hours first and confirm with •, then repeat for minutes and confirm with  $\bullet$ .

Navigate to the desired temperature for *wakeup*. Confirm with ●.

Out **ਰ**<sup>→</sup> is shown. Repeat the steps above to set time and temperature.

Home  $\mathbf{\hat{d}}$  + is shown. Repeat the steps above to set time and temperature.

### **Get In Touch**

**Call:** <u>0845 6880112</u>

Email: info@adremit.co.uk

### **Our Address**

Puravent, Adremit Limited, Unit 5a, Commercial Yard,

*Night* ) is shown. Repeat the steps above to set time and temperature.

If one of the days of the week requires different settings, do as follows:

Press • and navigate to SET. Select with •. Navigate to 4E, select with •. Now you will see MDTUWETH FR SA SU. Navigate to the day with the different requirements. Confirm with •.

Programme the day's four events as per the instructions for *personal settings*. If there are additional days with different requirements, repeat the steps set out above.

**Important** During the time that the program is active it is still possible to change the desired temperature (set point). When the next programmed event starts, the thermostat reverts to the programmed temperature.

# Frost protection program 🟶

This program is ideal for when you want to protect against frost damage in premises which are standing empty or unused for long periods, such as holiday homes and warehouses, or when you will be away from your main home for longer than usual. You set a desired value (set point) and the thermostat

24



### Get In Touch

### Call: 0845 6880112

Email: info@adremit.co.uk

**Our Address** 



regulates the temperature in line with this. The normal settings remain in the memory and the thermostat reverts to them when the frost protection program is deactivated.

Temperature can be set to a level between 5 °C and 15 °C, the factory setting is 10 °C.

Press ● and navigate to SET. Select with
●. Navigate to FP, select with ●.

The set temperature will flash; navigate to the desired temperature and con-firm with ●.





### **Get In Touch**

Call: <u>0845 6880112</u>
Email: <u>info@adremit.co.uk</u>

**Our Address** 

# Troubleshooting

**Important** The heating system is a highvoltage system and any faults must therefore be corrected by an authorised electrician.

# **Error codes**

When a fault occurs, TAP16R turns the heating off. The LED flashes red and green alternately. The LCD display shows a flashing error code as follows:

Error 1: Short circuit room sensor. Error 2: Interruption room sensor. Error 3: Short circuit external sensor. Error 4: Interruption external sensor.

# **Test values for external sensor**

When checking measurement of external sensor, the following values apply.

Temperature	Resistance
10 °C	18.0 kΩ
15 °C	14.7 kΩ
20 °C	12.1 kΩ
25 °C	10.0 kΩ
30 °C	8.3 kΩ

26



### **Get In Touch**

🔇 Call: <u>0845 6880112</u>

Email: info@adremit.co.uk

**Our Address** 

# **Technical specifications**

Voltage	230 VAC-50 Hz
Temp. range	5-37°C
Temp. limiter	5-45 °C
Breaking capacity	3680 W/16 A/230 VAC
Main switch	Single-pole
Connection cable	max 2,5 mm <sup>2</sup>
Load	$\cos \phi = 1$
Hysteresis	±0,3 °C
Protection class	IP21
Back up time	36 h
Max. length sensor cable	50 m, 2x1,5mm <sup>2</sup>

Adapted for Schneider Exxact.

Approval: CE S

Complies with the RoHS and the WEEE Directive.



### Get In Touch

Call: <u>0845 6880112</u> **Email:** <u>info@adremit.co.uk</u>

### **Our Address**



Tel +46 31 336 86 00

mailbox@frico.se www.frico.se

For latest updated information and information about your local contact: www.frico.se



### **Get In Touch**

Call: <u>0845 6880112</u> **Email:** <u>info@adremit.co.uk</u>

C F

### **Our Address**