Drayton
Digistat⁺3

Programmable Room Thermostat

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7 Day (5-2 Day)

Models:
22083 / 22087

Power Supply:
Battery / Mains

$C \epsilon$

energy *saving*™
recommended

Invensys Controls Europe
Technical Helpline: +44 (0) 845 130 7722
www.draytoncontrols.co.uk
Installation / User Guide 06490044001 (0905)
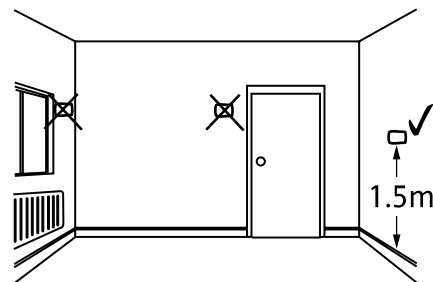
Installation Guide

Warning

If you do not have the knowledge to install the *Digistat+3* safely, arrange for a competent electrician to install it for you. Wiring should conform to the current IEE wiring regulations. Isolate mains supply before removing an existing room thermostat and fitting *Digistat+3*.

Digistat+3 programmable room thermostats are double insulated therefore Neutral and Earth connections are not required. Unused existing cables should be safely insulated.
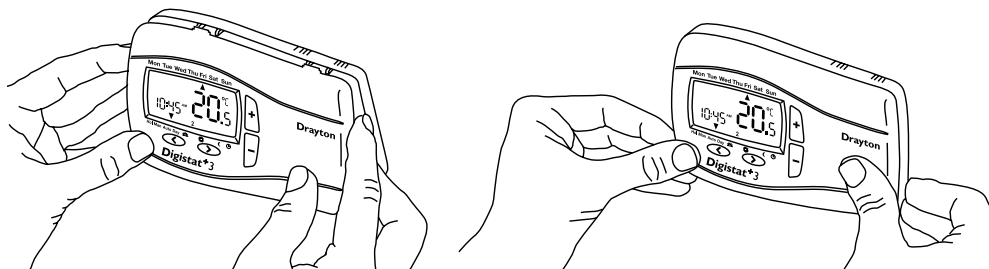
Location

Care should be taken to mount the *Digistat+3* on a wall, in a postion which is not subject to direct sunlight or draughts. Preferably it should be mounted on an inside wall about 1.5M (5ft) above the floor in a position where it can respond to room temperature but

1.5m

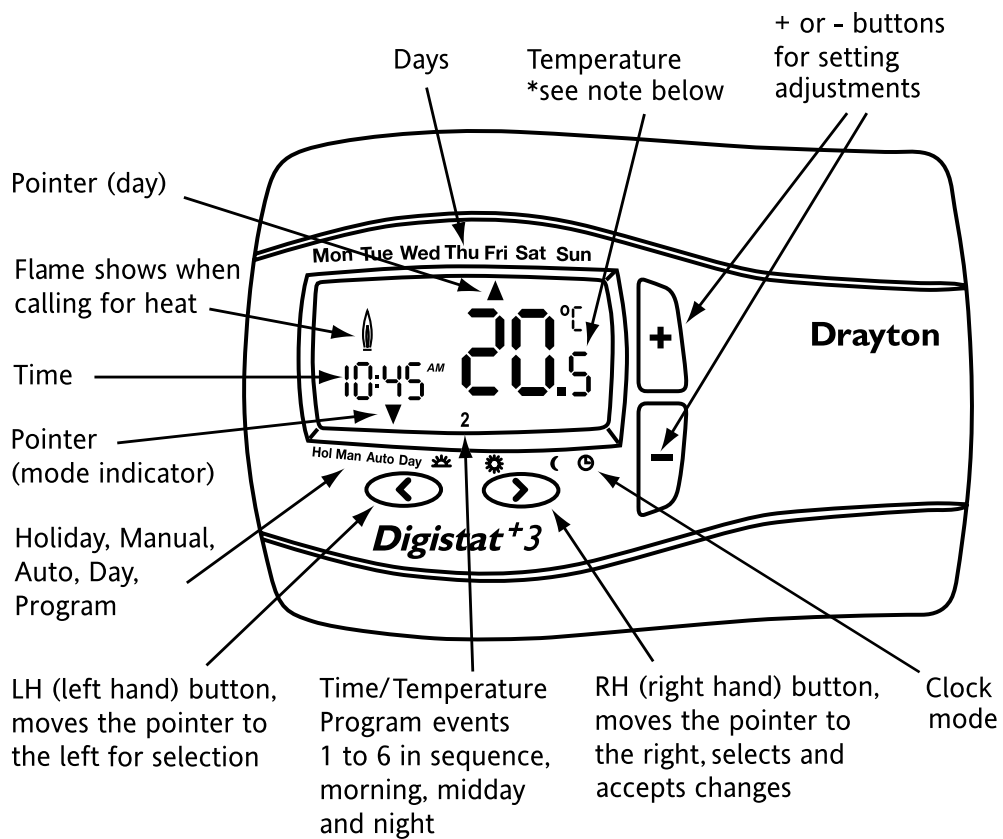away from the direct influence of radiators or other appliances giving off heat.
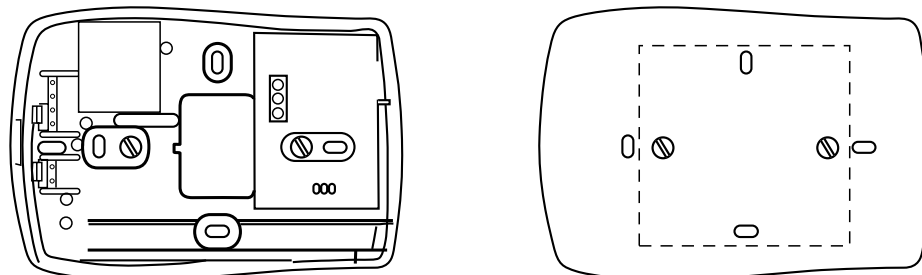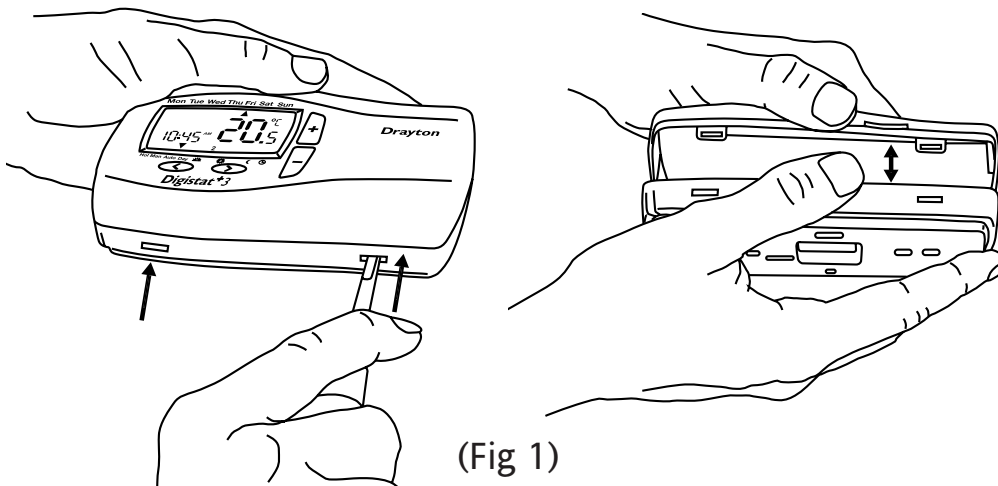
Installation

1. Remove the front cover using a flat screwdriver and separate from back plate (Fig 1).
2. Fix the back plate directly onto the wall using suitable wall plugs and screws or mount over existing wall box (Fig 2).
3. Complete the wiring according to the connection suggestions shown in Fig 3. For Basic boiler, Combi boiler and Basic boiler with zone valve applications Digistat+3 with battery or mains supply are suitable. For Electric Heat application use Digistat+3 with mains supply only.
4. Replace the front cover by locating in position and pushing fully onto the back cover (Fig 4).
5. Remove the battery cover using a coin (Fig 5). Battery model only.
6. Install the 2 AA batteries provided (Fig 6). Battery model only.
7. Replace battery cover (fig 7). Battery model only.
8. The *Digistat+3* is now installed and will automatically start to control the room temperature according to the pre-set program 1 as shown in the User Guide.
   The display shows the correct time and date which is automatically set together with the actual room temperature.
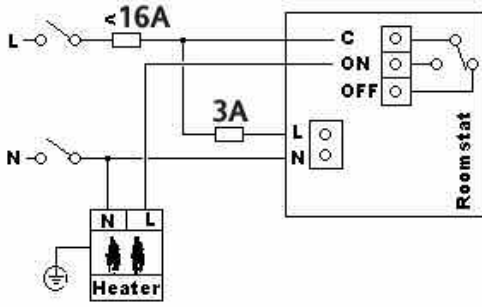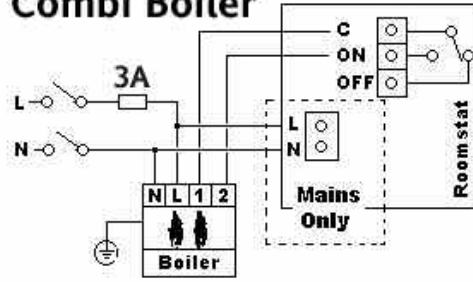

(Fig 4)

Days

Temperature
*see note below

+ or – buttons
for setting
adjustments

Pointer (day)

Flame shows when
calling for heat

Time

Pointer
(mode indicator)

Holiday, Manual,
Auto, Day,
Program

Mon Tue Wed Thu Fri Sat Sun

20.5 °C

10:45 AM

2

Hol Man Auto Day

Drayton

Digistat⁺3

LH (left hand) button,
moves the pointer to
the left for selection

Time/Temperature
Program events
1 to 6 in sequence,
morning, midday
and night

RH (right hand) button,
moves the pointer to
the right, selects and
accepts changes

Clock
mode

* Temperature displayed is actual room temperature unless adjusting the + or –
button when it displays the set temperature. Once adjustment is complete
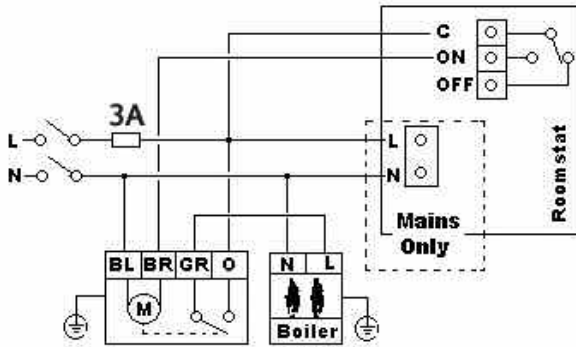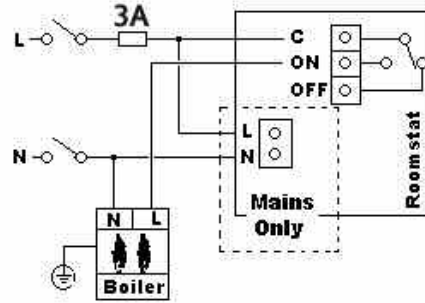and after 5 seconds this will return to actual room temperature.

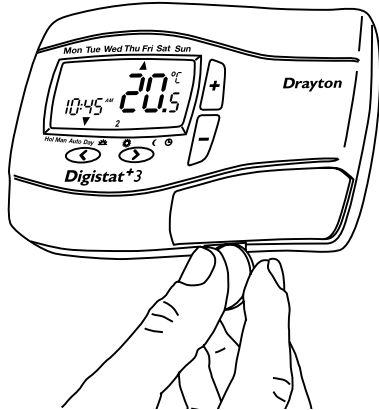

(Fig 1)

(Fig 2)

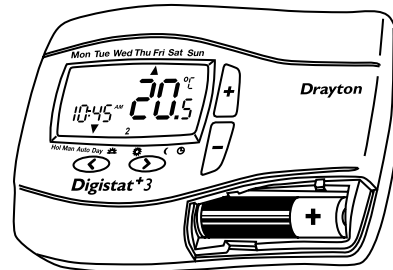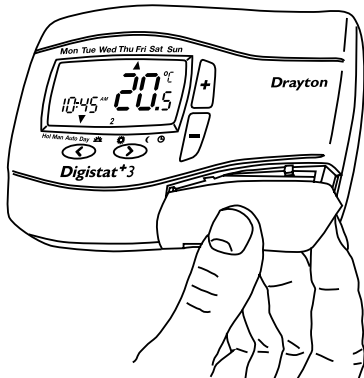## Electric Heat

Combi Boiler

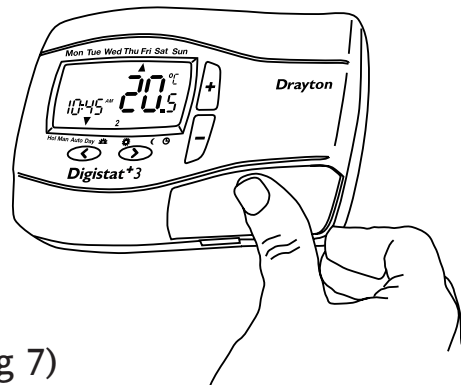

Basic Boiler with zone valve
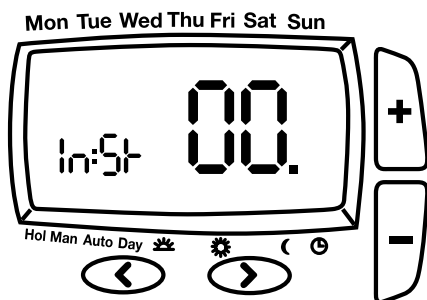

Basic Boiler

(Fig 3)

(Fig 5)

(Fig 6)

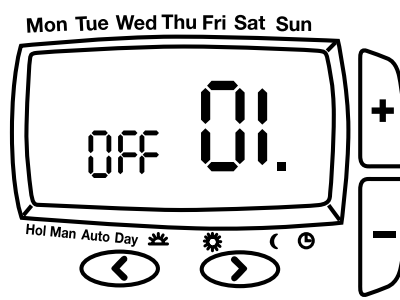(Fig 7)

Installer Options.

If you wish to change any of the Installer Options as shown below, enter the Installer Option Menu from Auto mode by pressing < and + simultaneously for 5 seconds.

Pressing < and + again for 5 seconds will exit the Menu and return to Auto mode.

Once the Installer Options screen has been selected (Fig 8), the < and > buttons allow you to scroll through the Menu (shown below). The + and - allow you to change values. Once a value has been changed pressing > before exiting the Menu will save the new setting. (Fig 9 shows Option 1 OFF).

(Fig 8)   (Fig 9)

Installer Options	What is it	Select between		Default
1	Access protection lock	On	Off	Off
2	Freeze protection	On	Off	On
3	Low limit set point ºC	7	High limit	7
4	High limit set point ºC	Low limit	32	32
5	Delayed start (Energy saving feature)	On	Off	Off
6	Valve protection	On	Off	Off
7	Valve protection time (Mins)	1	5	3
8	Sensor fault function	On	Off	Off
9	Application type	1	0	0

Access protection lock.

The access protection lock allows the installer to lock the *Digistat+3* so that the user cannot make any adjustments. The default is OFF mode allowing the users to adjust the *Digistat+3* (see User Guide).

To Lock the *Digistat+3* settings enter the Installer Options Menu (Refer to Installer Option 1) and select On and press > to accept. Once the Installer Options Menu is exited all buttons will be locked.

To switch off the Protection Lock enter the Installer Menu and change to OFF. Press > to accept.

Once the Installer Menu is exited all buttons will be free to adjust.

Freeze protection.
Freeze protection will switch on the heating if the room temperature falls to 5ºC and will then control the temperature at 7ºC even if the *Digistat+3* is in OFF mode.
The freeze protection default is ON.
To switch off the Freeze protection mode enter the Installer Options Menu (Refer to Installer Options 2) and change to OFF. Press > to accept.

Low and High Limit set points.
The user temperature set points defaults are High 32ºC and Low 7ºC, to change these limits enter the Installer Options Menu (Refer to Installer Options 3 & 4).

Intelligent Delayed Start (Energy saving feature).
The Intelligent Delayed Start is an energy saving feature which automatically reduces the warm up time for the heating system. As the weather becomes milder, Intelligent Start will delay the heating start times so that fuel is not wasted bringing the room up to temperature earlier than necessary.
Note: Intelligent Delayed Start only applies in Auto mode.
Intelligent Delayed Start default is in OFF mode.
To switch on Intelligent Delayed Start enter the Installer Options Menu (Refer to Installer Options 5).
Note the Intelligent Delayed start option is not suitable for Hydronic underfloor application.
Ensure Installer option 5 is set to Off before final commissioning for Hydronic underfloor application.

Valve protection.
In some hydronic heating systems there may be a requirement to protect the valve by operating it once a day, for a given period without bringing on the heating system.
If valve protection is selected the valve will be operated for a period as shown in Valve protection time (mins).
Valve protection time every day at 10.00am.
Valve protection default is OFF.
To enable the valve protection mode enter the Installer Options Menu (Refer to Installer Option 6)

Valve protection time (mins).
Valve protection time can be set between 1 and 5 minutes (default 3 minutes)
To change this once a day on time enter the Installer Options Menu (Refer to Installer Option 7).

Sensor fault function.
When the display shows an error code (E1) or (E2) this indicates a sensor fault and the heating system will
remain Off.
(E1) = internal sensor and (E2) = external sensor.
If (E1) is shown the *Digistat+3* should be replaced.
If (E2) is shown, first check the external sensor terminal block connections before replacing the *Digistat+3*.
Sensor fault function allows you to temporally set the *Digistat+3* to cycle the heating system 30% On and 70% Off until you have replaced the product.
This can be done by entering the installer Option Menu (Option 8) and selecting On. Press > to accept.
To reset to default Off, entering the installer Option Menu (Option 8) and selecting Off. Press > to accept.

Application type.

Model 22083
(Battery) can be used for radiator or Hydronic underfloor applications.
In installer Option select:
0 =   Radiator.
1 =   Hydronic underfloor.
Default 0 = Radiator.

Model 22087
(Mains) can also be used for electric heat applications.
0 =   Radiator and electric heat.
1 =   Hydronic underfloor.
To change application enter the installer Option Menu and refer to (Option 9).

Drayton – *Digistat+3* 7 day 5:2 day Programmable Room Thermostat
Allowing different programs for weekdays and weekends and also every day of the week can be programmed differently.

Technical Data

Model	22083	22087
Power supply	2 X AA 1.5V alkaline batteries	230V AC 50Hz
Battery life	3 years typical	–
Switch rating Heating (switch N.O.)	16(2)A 230 Vac	
Switch type Min. recommended current	SPDT (voltage free contacts) 10mA @24Vac (inductive)	
Ambient temperature	Operating 0°C to 50°C Storage – 20°C to 85°C	
Ambient humidity (non condensing).	Operating 25% to 85% Storage 15% to 95%	
Temperature range	0°C to 32°C	
Accuracy (between 7°C & 32°C)	0.5°C	
Timing resolution	1 minute	
Temperature resolution	0.1°C	
Rated impulse voltage	2.5KV	
Ball pressure test	75°C	
Pollution situation	Degree 2	
Protection level	IP30	
Wiring:	Designed for fixed wiring only, to comply with IEE wiring regulations	

Dimensions