

# Drayton

## *Digistat +2RF*

## Programmable Room Thermostat Wireless

---

### 24 Hour

---

### Model: RF700/22090

---

### Power Supply:

Battery - Thermostat

Mains - Digistat SCR



### Invensys Controls Europe

Customer Service Tel: 0845 130 5522

Customer Service Fax: 0845 130 0622

Technical Helpline Tel: 0845 130 7722

Website: [www.draytoncontrols.co.uk](http://www.draytoncontrols.co.uk)

Email: [customer.care@invensyscontrols.com](mailto:customer.care@invensyscontrols.com)

User Guide 06490097001 IssA



Certification Mark

## What is a programmable room thermostat?

...an explanation for householders

*A programmable room thermostat is both a programmer and a room thermostat. A programmer allows you to set 'On' and 'Off' time periods to suit your own lifestyle. A room thermostat works by sensing the air temperature, switching on the heating when the air temperature falls below the thermostat setting, and switching it off once this set temperature has been reached.*

*So, a programmable room thermostat lets you choose what times you want the heating to be on, and what temperature it should reach while it is on. It will allow you to select different temperatures in your home at different times of the day (and days of the week) to meet your particular needs.*

*Turning a programmable room thermostat to a higher setting will not make the room heat up any faster. How quickly the room heats up depends on the design of the heating system, for example, the size of boiler and radiators.*

*Neither does the setting affect how quickly the room cools down. Turning a programmable room thermostat to a lower setting will result in the room being controlled at a lower temperature, and saves energy.*

*The way to set and use your programmable room thermostat is to find the lowest temperature settings that you are comfortable with at the different times you have chosen, and then leave it alone to do its job. The best way to do this is to set low temperatures first, say 18°C, and then turn them up by one degree each day until you are comfortable with the temperatures. You won't have to adjust the thermostat further. Any adjustments above these settings will waste energy and cost you more money.*

*If your heating system is a boiler with radiators, there will usually be only one programmable room thermostat to control the whole house. But you can have different temperatures in individual rooms by installing thermostatic radiator valves (TRVs) on individual radiators. If you don't have TRVs, you should choose a temperature that is reasonable for the whole house. If you do have TRVs, you can choose a slightly higher setting to make sure that even the coldest room is comfortable, then prevent any overheating in other rooms by adjusting the TRVs.*

*The time on the programmer must be correct. Some types have to be adjusted in spring and autumn at the changes between Greenwich Mean Time and British Summer Time.*

*You may be able to temporarily adjust the heating programme, for example, 'Override', 'Advance' or 'Boost'. These are explained in the manufacturer's instructions.*

*Programmable room thermostats need a free flow of air to sense the temperature, so they must not be covered by curtains or blocked by furniture. Nearby electric fires, televisions, wall or table lamps may prevent the thermostat from working properly.*



# User Instructions

## Your Digistat +2RF

The Digistat +2RF thermostat is a programmable thermostat 24-Hour product (the same program for every day of the week) which allows you to set up to 6 time and temperature events per day.

### Clock Setting

Your Digistat +2RF is fitted with a real-time clock, which is pre-set at the factory. You will not have to alter the time settings.

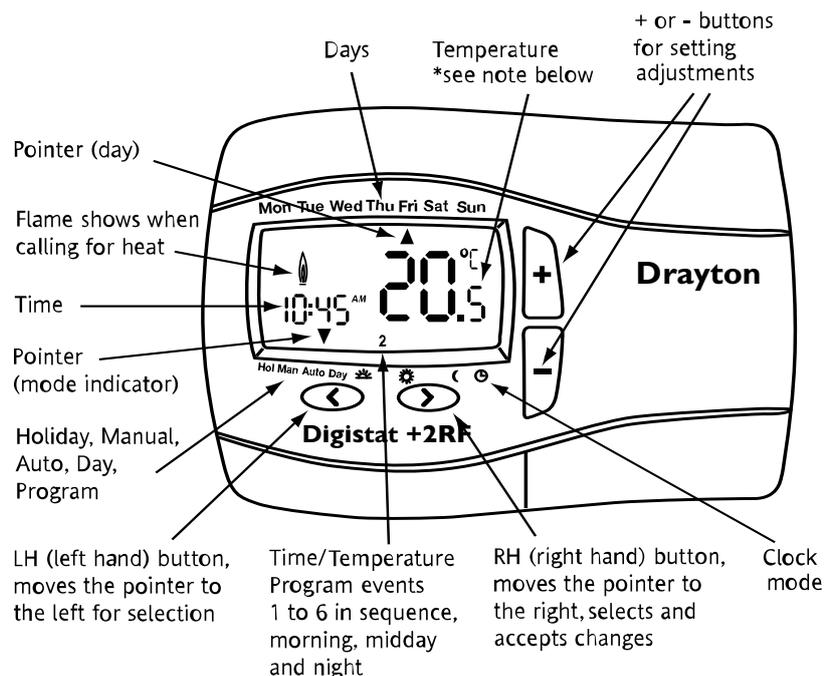
A special feature of this real-time clock is to automatically update the time during the summer/winter time change removing the need to manually alter the clock.

### General Operation

With the unit in Auto mode (the small arrow to bottom of screen will point to Auto) the temperature can be changed for a short time by using the + or - buttons. Changing the temperature in this way will keep the Digistat +2RF set to your new temperature until the next pre-programmed event (at which time it will revert to programmed temperature). The temperature you are setting will flash on the screen. Once temperature is set, the unit will revert to showing the current temperature. The  indicator will show on the screen if the heating is turned on.

A flashing flame  indicates the product is in intelligent delayed start mode (see special note).

## Controls and Display Layout

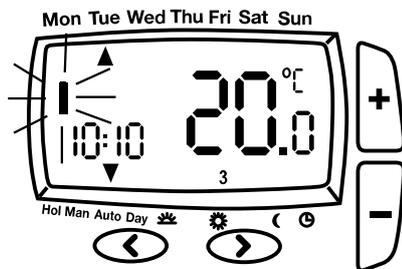


\* Temperature displayed is actual room temperature unless adjusting the + or - button when it displays the set temperature. Once adjustment is complete and after 5 seconds this will return to actual room temperature.

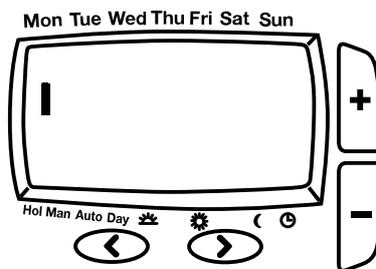
## How do I know when to change the batteries.

When the batteries start to run low a battery icon will flash in the display, to indicate “low battery” during this time the *Digistat +2RF* will function normally (see fig 1).

Please replace batteries with 2 x 1.5V IEC LR6 (AA) Alkaline batteries. When the battery icon alone is shown in the display, the batteries are completely exhausted and the *Digistat +2RF* will cease to function (see fig 2). Re-activate by replacing the batteries.



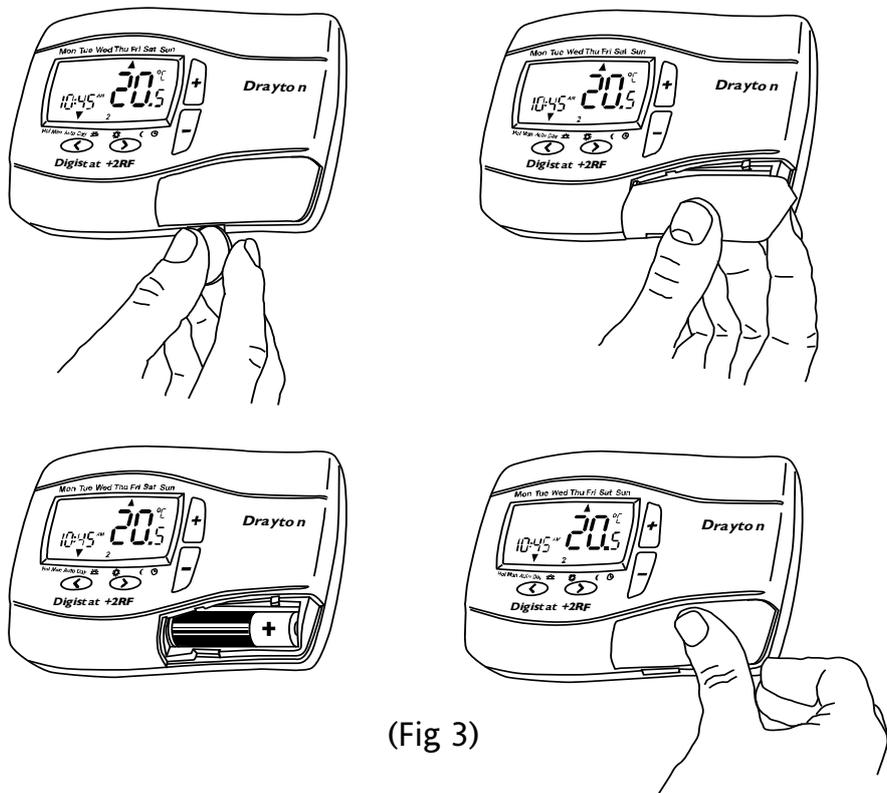
(Fig 1)



(Fig 2)

## How to replace the batteries see fig 3.

Remove the battery cover using a coin. Replace the spent batteries with 2 x 1.5V IEC LR6 (AA) Alkaline batteries ensuring correct orientation. Replace the battery cover pressing fully home.



(Fig 3)

# Basic Settings

The Digistat +2RF thermostat is a programmable thermostat 24-Hour (the same program for every day of the week) and allows you to set 6 time and temperature events per day.

## Digistat +2RF

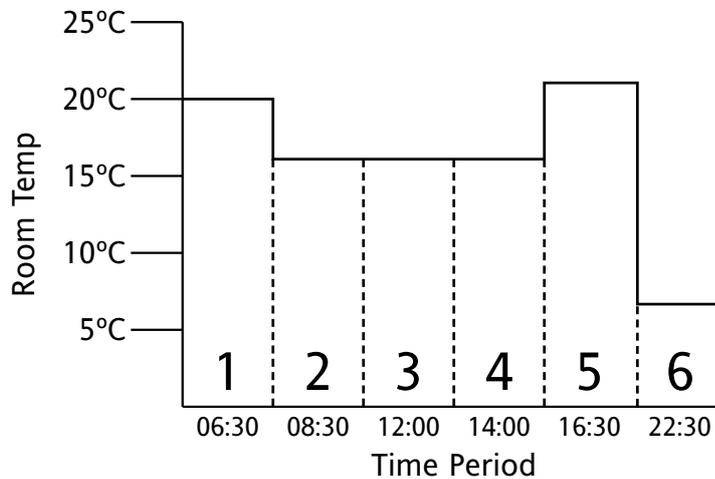
### Pre-set Program

Your Digistat +2RF comes with the following default settings pre-programmed for your convenience:

#### Pre-set Program 1. (9 til 5)

Event	1	2	3	4	5	6
Time	6:30	8:30	12:00	14:00	16:30	22:30
Temperature	20.0	16.0	16.0	16.0	21.0	7.0

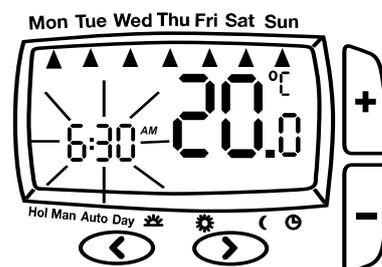
*\*The above settings can be understood using the chart below*



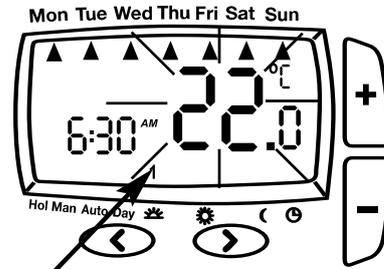
As you can see, at 06:30, the heating will come on to raise the temperature to 20°C. At 08:30, the temperature set point is dropped from 20°C down to 16°C, it stays at 16°C throughout the day, until 16:30 when the temperature increases to 21°C. The temperature then drops down to a night-setback temperature of 7°C until 06:30 when the cycle repeats for the next day.

## To adjust these times and temperatures

1. With the product operating as normal in the Auto mode press  twice until the display is flashing as shown. The time will be flashing, use the + or - buttons to adjust the 1st time as required

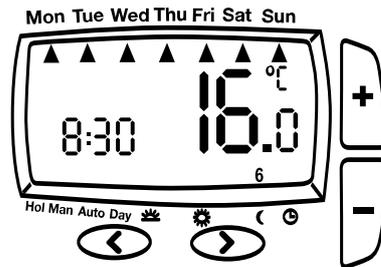


- Once the time has been set press  to confirm and use the + or – button to adjust required temperature (temperature shown flashing)

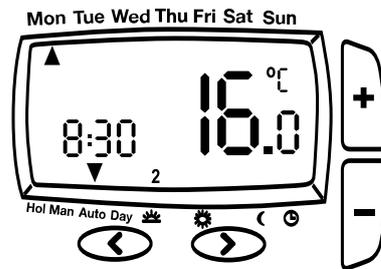


(\* small 1 in lower half of screen shows which time period is being set e.g. 1=1st period, 2 = 2nd period etc)

- Once the temperature has been set press  to confirm and move to the next time and temperature periods to be adjusted confirming changes by pressing  button. (max 6 periods).



- To exit press  or  until you return to auto mode with the bottom arrow pointing to auto (as shown).

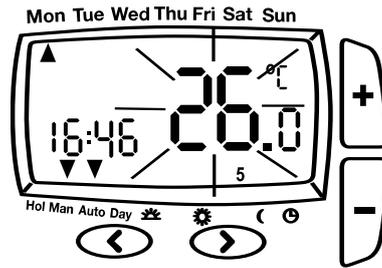


## Congratulations!

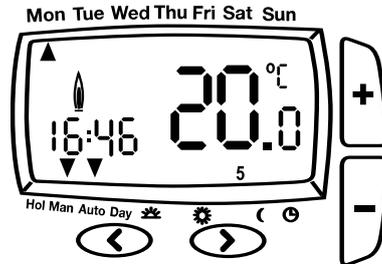
The unit is now set correctly to follow your required timings.

## To change temperature for a short period (Override):

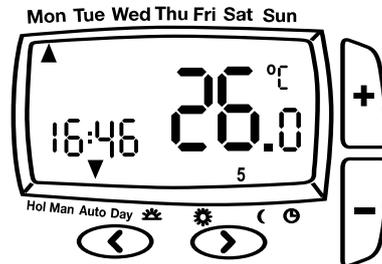
1. Press + or - buttons to adjust set temperature. Set temperature shown flashing



2. After 5 seconds will start controlling at selected set point but displays actual room temperature. 2 chevrons indicates override mode.



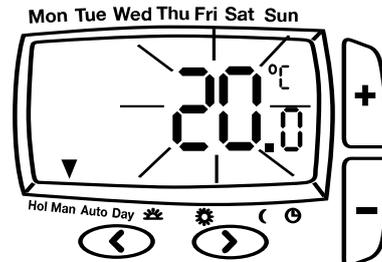
3. To exit override press  once or wait until next change in the pre-set program.



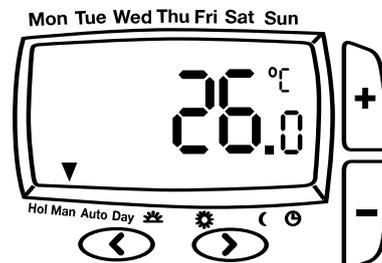
---

## To set a constant room temperature (Manual mode):

1. Press  once, the display shows temperature flashing (example 20 °C)



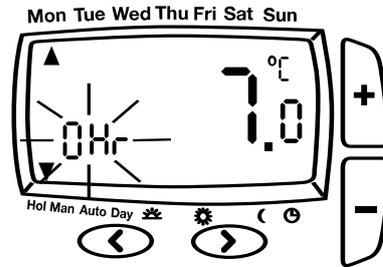
2. Press + or - buttons to adjust the temperature as required. The temperature will stop flashing after 5 seconds and start controlling at this temperature



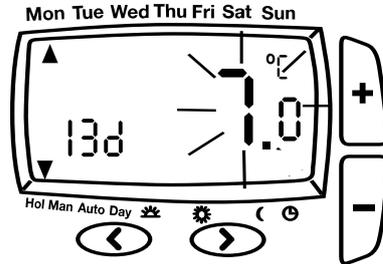
3. To exit manual mode press  once, to return to auto.

## To set holiday mode:

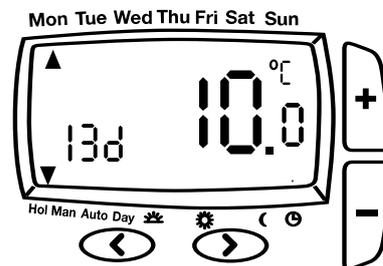
1. Press  twice, the display shows time flashing  
Time periods between 1 to 23(Hr)hours and 1 to 199(d)days can be set.



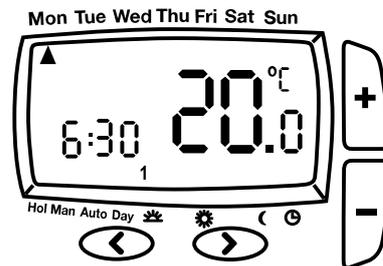
2. Press + or - buttons to adjust the count down time as required. Press  once to confirm, the display will show temperature flashing.



3. Press + or - buttons to adjust temperature and press  to start holiday count down time. Alternatively after 10 seconds the temperature will stop flashing and holiday count down time will start. Display shows count down time and ambient room temperature.



4. To exit the holiday mode press the  or  once, to return to auto.



---

## To switch OFF the thermostat:

Press the + and – simultaneously for 5 seconds until the OFF is displayed.

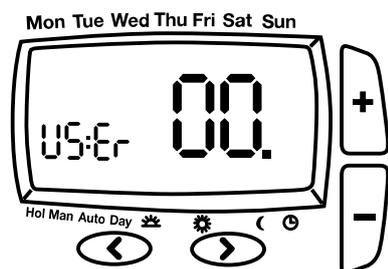
The thermostat and heating system will now be OFF unless the temperature in the controlled space falls below 7°C, the frost protection set point. Please note this does not affect the operation of the domestic hot water where provided.

To switch ON the thermostat, press any key to return to auto mode.

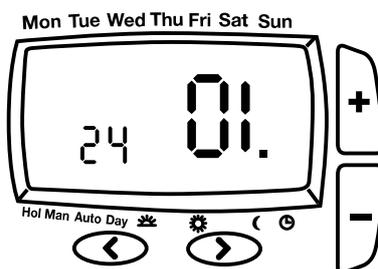
# User Options

If you wish to change any User Options (shown in table 1) they can be accessed from Auto or Man by pressing < and > simultaneously for 3 seconds. Once you have accessed the User Options Menu (Fig 4) press > to scroll through selectable options. The settings for each option can be changed by pressing + or - as required. Press > to accept the change and move to the next option. To exit press < and > simultaneously for 3 seconds. Alternatively, not pressing any buttons for 2 mins will cause the *Digistat +2RF* to return to Auto. (Fig 5) shows option 01 24 (24 hour clock).

Only selected options that have been accepted by pressing > will be changed.



(Fig 4)



(Fig 5)

User options	What is it	Min	Max	Default
01	Change 12h or 24h clock	12	24	24
02	Change to another pre-set programme	1	3	1
03	Change the number of programme events per day	2, 4 or 6		6
04	Switch on/off automatic summer/winter time change	On	Off	On
05	Adjust date and time	Factory Set		
06	Change temperature offset °C	-5	5	0
07	Restore pre-set programme	On	Off	Off
08	To disable Off function	On	Off	On
09	Access protection lock	On	Off	Off

(Table 1)

## (Option 01)

### How to change from 24hr to 12hr clock.

Enter user options, select option 01 and use + and - keys to select desired option, 12 = 12hr and 24 = 24hr. Press > to accept change.

## (Option 02)

### How to change to another predefined program 1, 2 or 3.

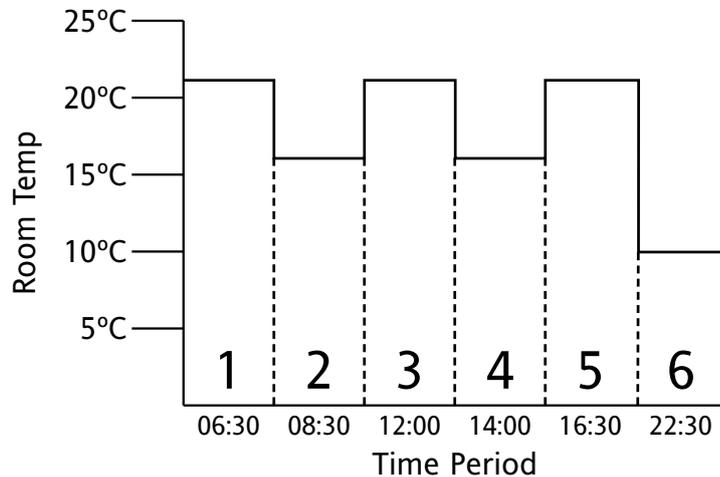
Enter user options, select option 02 and use + and - keys to select desired program 1, 2 or 3. 1 = program 1, 2 = program 2 and 3 = program 3. Press > to accept desired change.

**Preset programs 2 and 3 are shown below:**

**Pre-set Program 2. (Home for Lunch)**

<b>Event</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<i>Time</i>	<i>6:30</i>	<i>8:30</i>	<i>12:00</i>	<i>14:00</i>	<i>16:30</i>	<i>22:30</i>
Temperature	21.0	16.0	21.0	16.0	21.0	10.0

*\*The above settings can be understood using the chart below*



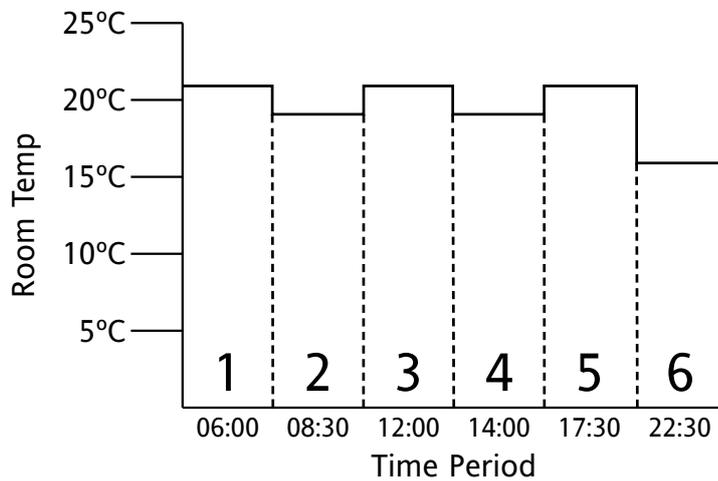
As you can see, at 06:30, the heating will come on to raise the temperature to 21°C.

At 08:30, the temperature set point is dropped to 16°C, it stays at 16°C until 12:00 when the heating comes on to raise the temperature to 21°C. The temperature stays at 21°C until 14:00 when it drops to 16°C. At 16:30 the heating comes on to raise the temperature to 21°C where it stays until 22:30 when the temperature drops down to a setback temperature of 10°C until 06:30 when the cycle repeats the next day.

**Pre-set Program 3. (Home Worker)**

<b>Event</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<i>Time</i>	<i>6:00</i>	<i>8:30</i>	<i>12:00</i>	<i>14:00</i>	<i>17:30</i>	<i>22:30</i>
Temperature	21.0	19.0	21.0	19.0	21.0	16.0

*\*The above settings can be understood using the chart below*



As you can see, at 06:00, the heating will come on to raise the temperature to 21°C.

At 08:30, the temperature set point is dropped to 19°C, it stays at 19°C until 12:00 when the heating comes on to raise the temperature to 21°C. The temperature stays at 21°C until 14:00 when it drops to 19°C. At 17:30 the heating comes on to raise the temperature to 21°C where it stays until 22:30 when the temperature drops down to a setback temperature of 16°C until 06:00 when the cycle repeats the next day.

### **(Option 03)**

#### **How to change the number of program events per day.**

Enter user options, select option 03 and use + and – keys to select desired option. 2 = 2 time / temp events per day, 4 = 4 time / temp events per day and 6 = 6 time / temp events per day. Press > to accept desired change.

### **(Option 04)**

#### **How to switch on/off the automatic summer /winter time change.**

Twice a year the actual time is automatically changed to keep it in line with the summer / winter time change. Default setting is On. If you wish to disable / enable this feature enter user options, select option 04 and press – or + key to display Off or On as desired. Press > to accept desired change.

### **Date and time setting.**

Digistat +2RF comes with a pre-set clock, which also automatically adjusts for summer/winter time changes. It is activated automatically on 1st installation. There should be no need to change these settings, however, should you wish to, it can be done in Option 05.

### **(Option 05)**

#### **How to adjust date and time.**

Enter user options, select option 05 (fig 6)

To change the year press > once (fig 7)

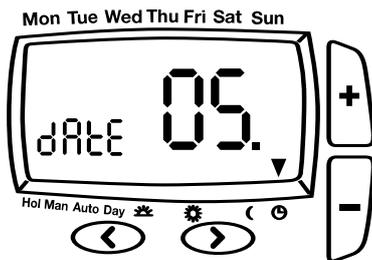
To change the month press > again (fig 8)

To change the day press > again (fig 9)

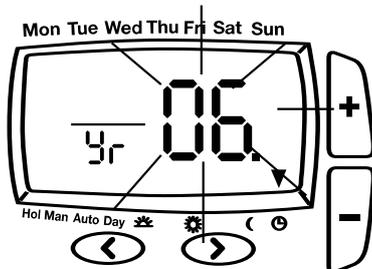
To change the time press > again (fig 10)

Once you have selected your required display, to adjust press + or - and > to accept change.

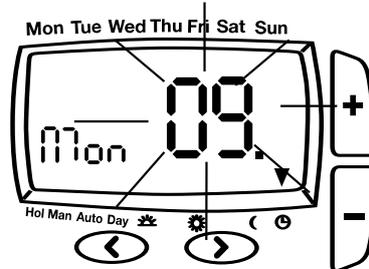
To select option 06 press > until option 06 display is shown (fig 11)



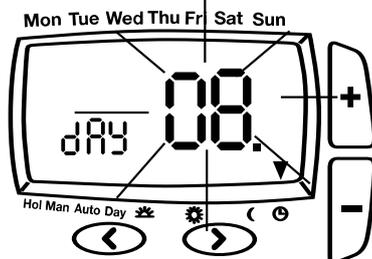
(Fig 6)



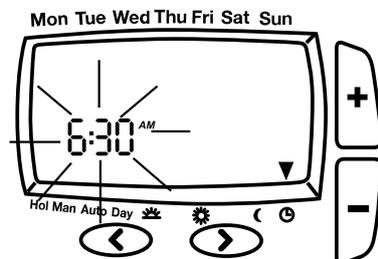
(Fig 7)



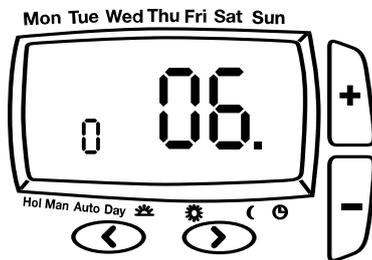
(Fig 8)



(Fig 9)



(Fig 10)



(Fig 11)

### (Option 06)

#### How to change temperature offset.

The temperature displayed on the thermostat may not match that of other temperature measuring devices in the controlled space, because of its location. The displayed temperature may be offset to bring it in line with other devices. To adjust the temperature, enter the user options, select option 06. The temperature may be offset by +/- 5 degrees by pressing the + and – keys. Press > to accept the desired change.

### (Option 07)

#### How to restore the built in time temperature programs.

Enter user options, select option 07 and use + and – keys to select desired option. Off = current programs retained. On = restore factory program settings. Press > to select the desired change. The Option 07 display automatically reverts back to OFF. **Please note enabling this function will lose any user changes to the preset programs.**

### (Option 08)

#### How to disable the OFF function.

To disable the OFF function, enter user options, select option 08 and use + or – keys to select Off. Press > to accept change. It is now not possible to switch the Digistat+2RF OFF using the + and- keys as previously described. To enable the OFF function return to option 08 and select ON. Press > to accept change.

### (Option 09)

#### How to lock the key pad - Access Protection Lock.

The access protection lock allows you to lock the *Digistat +2RF* so that it cannot have any adjustments.

The default is OFF mode allowing you to adjust the *Digistat +2RF*.

To Lock the *Digistat +2RF* settings enter the User Options Menu Option 09 and select On and press > to accept.

Once the User Options Menu is exited all buttons will be locked.

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

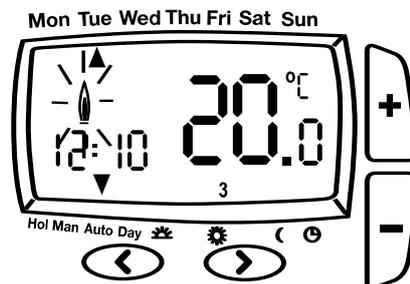
Once the User Menu is exited all buttons will be free to adjust.

### Special Note:

**The following only applies when the Intelligent delayed start feature is enabled by the installer.**

When the delay period is operating indicated by the flame symbol flashing (Fig12), pressing any button returns the Digistat +2RF to auto mode allowing normal button operation until the next time/temperature event, when it will resume the delay start mode or follows the Holiday, Manual, Override or Off modes as selected.

Changes to the installer options and pre-set programmes must be made with the flame symbol not flashing.



(Fig 12)

### What is Intelligent delayed start?

#### 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 the fuel is not wasted bringing the room up to temperature earlier than necessary.