

What is a room thermostat?

... an explanation for householders

A room thermostat simply switches the heating system on and off as necessary. It 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.

Turning a 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 room thermostat to a lower setting will result in the room being controlled at a lower temperature, and saves energy.

The heating system will not work if a time switch or programmer has switched it off.

The way to set and use your room thermostat is to find the lowest temperature setting that you are comfortable with, and then leave it alone to do its job. The best way to do this is to set the room thermostat to a low temperature - say 18°C - and then turn it up by one degree each day until you are comfortable with the temperature. You won't have to adjust the thermostat further. Any adjustment above this setting will waste energy and cost you more money.

If your heating system is a boiler with radiators, there will usually be only one 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.

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.

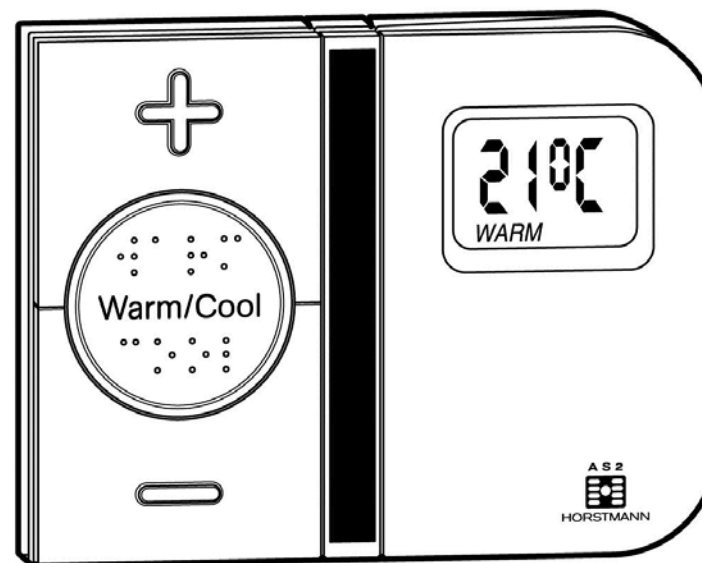


**THERMOPLUS AS2
USER INSTRUCTIONS**



HORSTMANN

The Horstmann ThermoPlus AS2 - Programmable Room Thermostat



INTRODUCTION

The Horstmann ThermoPlus AS2 - Programmable Room Thermostat offers a number of pre-installed heating profiles which are easily set-up by the installer or user to provide maximum comfort combined with energy efficient control of the heating. User operations are kept to a minimum by using the +/- and Warm/Cool buttons on the front of the unit.

The ThermoPlus contains a selection of five pre-set and one adjustable profile options, one of these options should have been set by the Installer to meet your heating requirements. Care should be taken to ensure the correct profile is selected that most suits your lifestyle. Details on how to change the selected profile are located on page 5 of this guide.

OPERATING GUIDE

The ThermoPlus AS2 has been designed to be a simple to use thermostat, requiring minimal user intervention. The normal day-to day operation is taken care of by the pre-set heating profiles, any temporary adjustments are simply made by using the '+' and '-' buttons. The indicator lights react to any temporary user adjustments made, the LED indicators work in the following way;

'Warm' is shown by two red lights** (6) and 'Cool' is shown by a single blue light** (5). The centre button (3) marked 'Warm / Cool' allows you to toggle between the warm and cool settings.

When one or more red lights are on, you can increase the temperature by pressing the '+' button (1). For example, press once to go up by 1°C or press twice to go up by 2°C.

When the two or three red lights are on, the temperature can also be lowered by using the '-' button (2). For example, press once to go down to the warm setting temperature and press again to go down to 1°C below warm setting temperature.

The Blue light indicates the unit is working to the lower set temperature. Please note that the '+' or '-' buttons will have no effect on the lower temperature setting

Under the flap (7) is a Blue button (4). During the summer, or when you want your central heating off for long periods, for example if you go on holiday, press the Blue button and close the flap. When you want to go back to normal operation, open the flap and press the Blue button again, remembering to close the flap once finished.

Both the Warm and Cool temperature settings can be fully adjusted, this operation is detailed opposite

**INDICATING LIGHTS AND BACK-LIT DISPLAY

The ThermoPlus AS2 is battery powered and is intended for applications where no mains supply is readily available to operate the unit. To conserve battery life, the indicator lights and the display backlighting will go out after 8 seconds. The LCD target temperature display will remain on, but not back-lit, at all times. The LED indicators will illuminate whenever the +/- or 'Warm/Cool' buttons are pressed. the Back-lit display will operate whenever any of the buttons located under the flap are pressed.

BATTERY REPLACEMENT

The ThermoPlus AS2 uses 3 x AA(LR6) batteries. The batteries supplied with the unit should last for approximately two years. When the batteries are nearing the end of their life a 'LOW BAT' message will flash on the display.

To change the batteries it is necessary to remove the AS2 from the wall, to achieve this first press the RELEASE BUTTONS located under the unit and pull the AS2 away from the mounting plate by gently pulling up.

Remove the old batteries and replace them with three new AA size alkaline batteries, ensure they are fitted correctly as shown by the marking positioned between the battery terminals.

Once batteries have been fitted, replace the AS2 to the mounting plate, ensuring that the two guide lugs are fitted into the corresponding slots in the top of the mounting plate. Now push the AS2 until the release button clicks into place.

WARNING : It is essential to make sure that the 3 x AA batteries are replaced before they are completely flat. Once the low battery symbol appears in the display replace the batteries immediately.

INDEX

INTRODUCTION	PAGE 1
OPERATING GUIDE	PAGE 2
INDICATING LIGHTS AND BACK-LIT DISPLAY	PAGE 2
OVERVIEW	PAGE 3
WARM / COOL TEMPERATURE ADJUSTMENT	PAGE 3
PROGRAMMING MODE	PAGE 4
TIME AND DATE CHECK	PAGE 4
SETTING PROFILES	PAGE 5
HEATING PROFILES 1 - 5	PAGE 6 & 7
PROFILE 6 - USER ADJUSTABLE	PAGE 8
TEMPERATURE ADJUSTMENT	PAGE 9
GENERAL INFORMATION	PAGE 10
RESET PROCEDURE	PAGE 10
SERVICE AND REPLACEMENT	PAGE 10
BATTERY REPLACEMENT	PAGE 11
WHAT IS A THERMOSTAT?	PAGE 12

GENERAL INFORMATION

RESETTING THE THERMOPLUS AS2

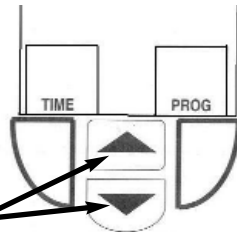
Electronic equipment can in some circumstances be affected by electrical interference. If the display becomes frozen or scrambled; or if you wish to revert back to the default settings please use the following procedure.

RESET PROCEDURE

PLEASE NOTE; Using this procedure will restore the ThermoPlus to the original factory programme settings, the time setting will also default to **1st January 2006**.

RESETTING THE THERMOPLUS AS2

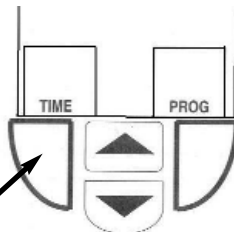
- On the ThermoPlus AS2 press the 'UP' and 'DOWN' arrow buttons together:
- Then release the buttons and the thermostat will return to preset factory settings.



TO RESET PRESS

STANDBY / FROST PROTECTION

The Blue button situated under the flap will initiate the frost protection mode when pressed, the word 'STANDBY' will appear on the display, the thermostat has been pre-programmed with a frost protection temperature level of 7°C, this can be adjusted by using the up and down arrow buttons.

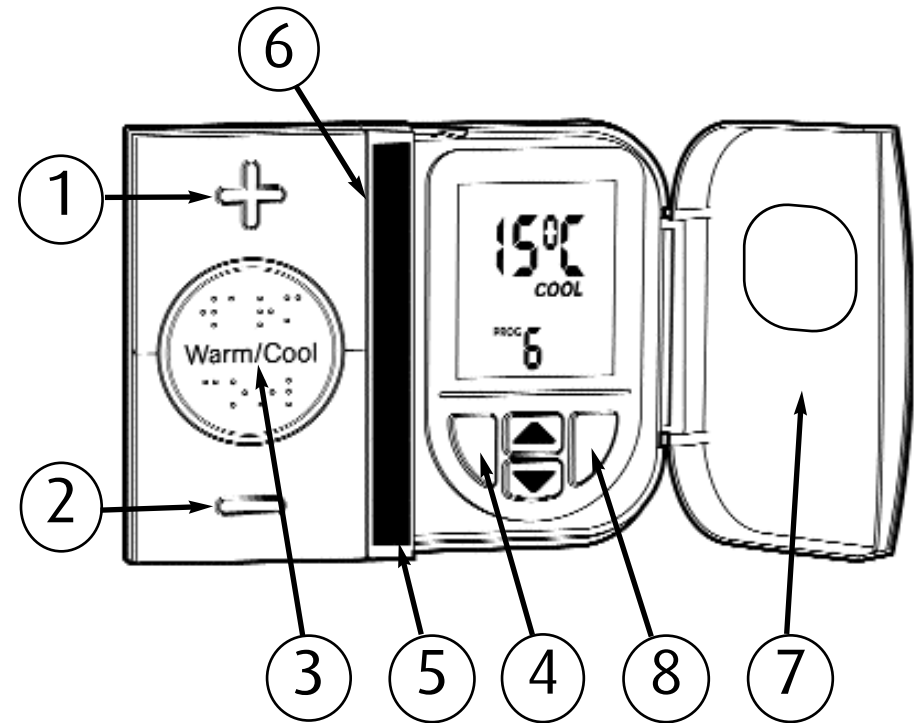


PRESS FOR STANDBY / FROST PROTECTION

SERVICE AND REPAIR

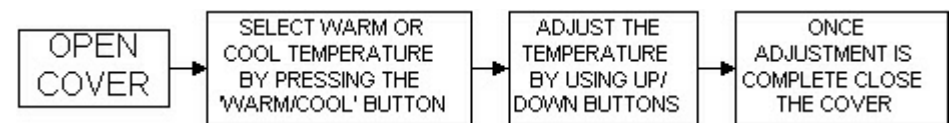
The ThermoPlus AS2 is NOT user serviceable. Please do not dismantle the unit. In the event of a fault developing please refer to the RESETTING THE THERMOSTAT section of this user guide above. If this fails to resolve the problem please contact a local heating engineer or a qualified electrician.

THERMOPLUS AS2 - OVERVIEW



WARM AND COOL TEMPERATURE ADJUSTMENTS

The ThermoPlus has two preset temperature levels, these are known as 'Warm', higher level temperature (21°C) and 'Cool', lower or set back temperature (15°C). The preset temperatures have been selected to give a comfortable, safe, yet efficient temperature level in the home. In certain installations it may be necessary to adjust either the 'Warm' and / or 'Cool' temperatures to meet the specific needs of the user. This can be achieved by following the simple steps below; (Additional information is also contained within the 'Warm and Cool Temperature Adjustment' section of this guide)

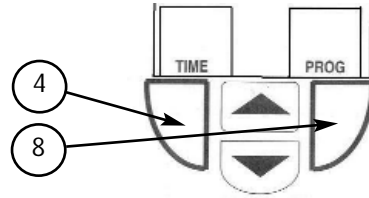


THERMOPLUS PROGRAMMING MODE

The ThermoPlus AS2 has been designed for minimal user intervention, however should any changes be required please press buttons 4 and 8 simultaneously to enter the programming mode, this will allow you to;

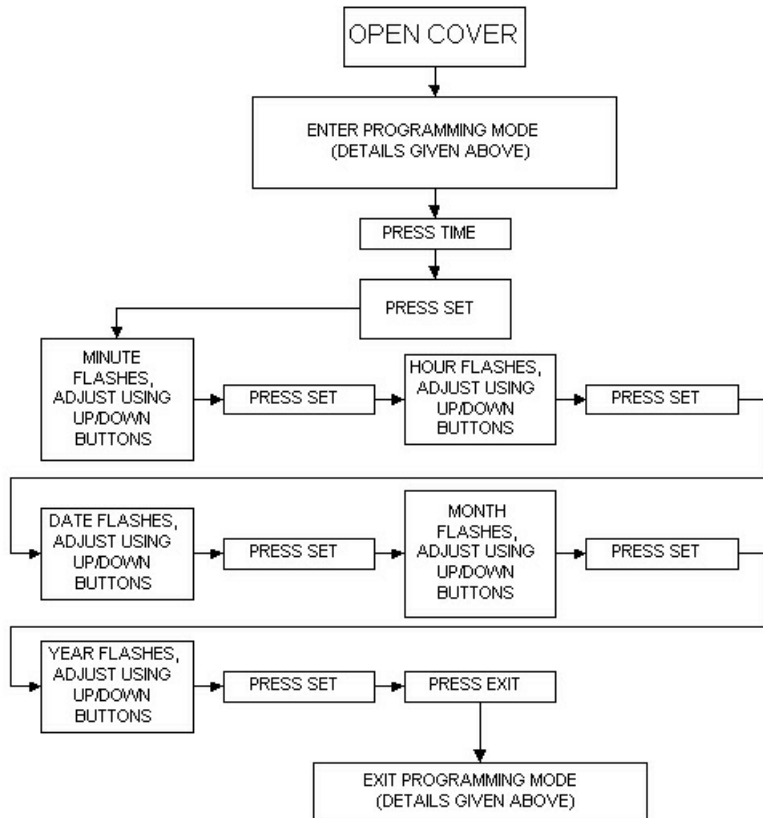
- Check the current time/date/year
- Check the current profile
- Set a new pre-set profile or
- Set a user defined profile

PLEASE NOTE; Upon completion of the instructions above, please ensure that you exit the programming mode by pressing button 4 and 8 simultaneously.



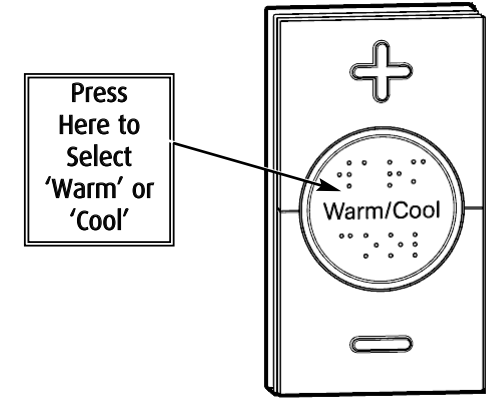
TIME AND DATE CHECK

The ThermoPlus thermostat has been pre-set with the current time and date during manufacture. No alteration should be required to the time and date, however if any modification is required please refer to the flowchart below.



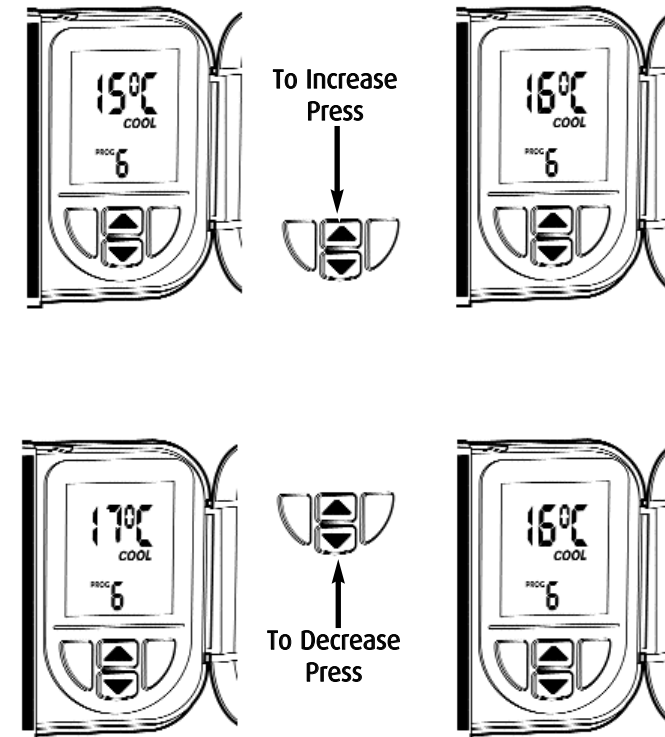
WARM AND COOL TEMPERATURE ADJUSTMENT

The Warm and Cool target temperature settings on the ThermoPlus AS2 are fully adjustable. To change a target temperature it is first necessary to press the the centre button to bring up the 'Warm' or 'Cool' setting (Indicated by the red or blue LED indicators). By using the up/down keys under the flap the 'Warm/Cool' temperature can be increased or decreased to the desired temperature setting
PLEASE NOTE - it is not possible to set the warm setting to below that of the cool setting or vice versa.



Once a new temperature has been set in either the Warm or Cool setting the AS2 will continue to use this setting until the next manual adjustment.

PLEASE NOTE - The AS2 will display any temporary change the user has made by pressing the + or - buttons. This does not indicate a permanent change in either the Warm or Cool settings. The temperature will return to the pre-set levels at the next switching period. During an override the 'Warm' or 'Cool' setting will not be displayed on the LCD.



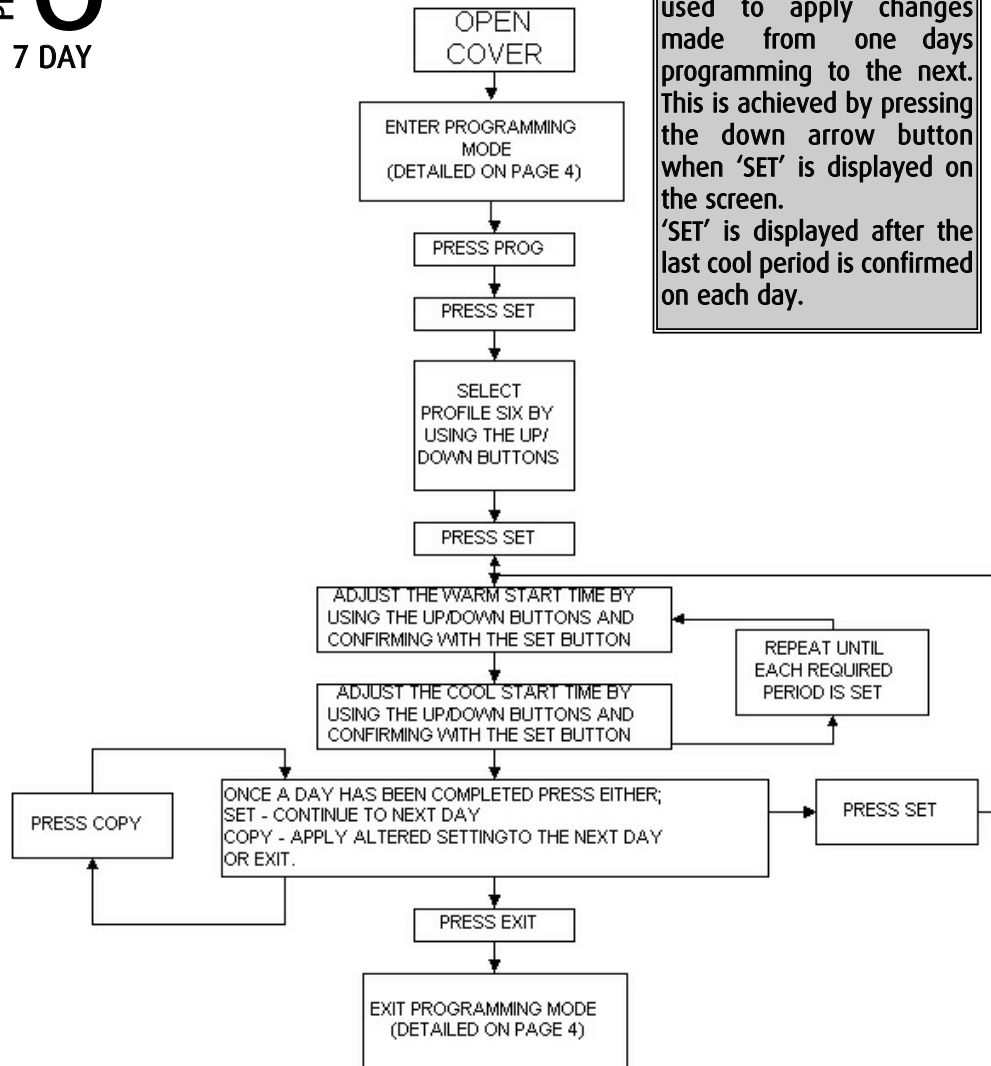
PROFILE SIX USER DEFINABLE - 7 DAY PROGRAMMING

Profile six will allow you to set up a profile to your exact requirements. By using the flow chart below you can adjust the Warm/Cool timing periods on each day of the week.

PROFILE
6
7 DAY

COPY FEATURE

The copy feature can be used to apply changes made from one days programming to the next. This is achieved by pressing the down arrow button when 'SET' is displayed on the screen. 'SET' is displayed after the last cool period is confirmed on each day.

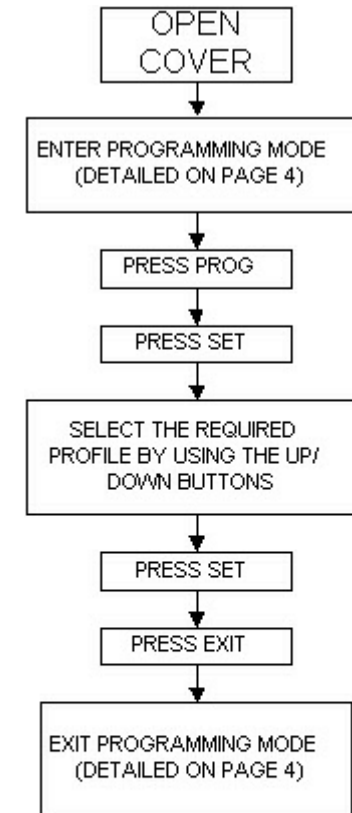


SETTING HEATING PROFILES

The ThermoPlus contains a selection of five pre-set and one user definable profile options, one of these may have been set by the Installer. Care should be taken to ensure a profile is selected that suits the lifestyle of the user concerned. The flow chart below is designed to easily guide you through the process of setting the required profile.

Profiles one to five are detailed on pages 6 and 7.

If none of the pre-set profiles meets your requirements it is possible to set a user defined profile, full details are given on page 8.



Profiles one to five have fixed programmes, they can be reviewed by pressing the set button once the selection process detailed above has been completed. To set a custom profile please refer to the instructions on page 8.

HEATING PROFILES

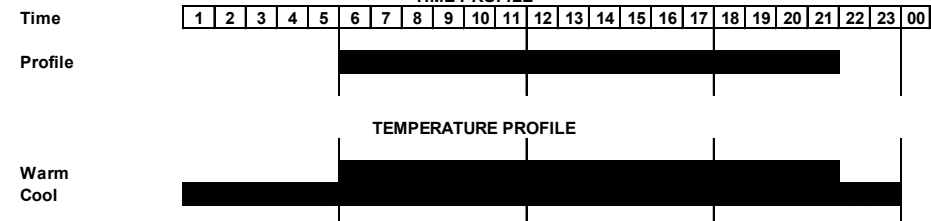
The ThermoPlus has six heating profiles, five are fixed and one is adjustable. Profile 'ONE' has been set as the default and is detailed below. During installation a heating profile should have been set to best match your requirements, illustrations of the pre-set profiles are shown below.

PROFILE 1

24 HR

PROFILES ONE TO THREE 24 HOUR - SAME PROFILE EACH DAY

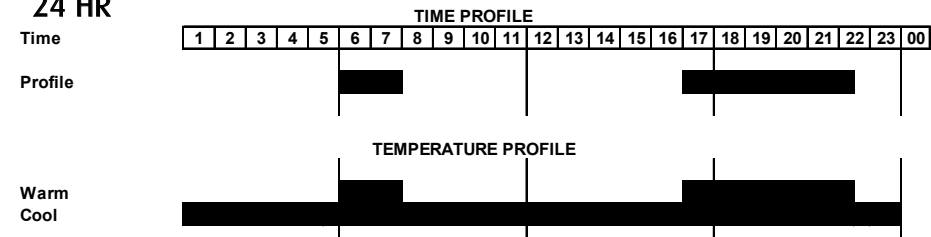
PROFILE ONE - DEFAULT	START	STATUS
EVERY DAY	06:00	WARM
	22:00	COOL



PROFILE 2

24 HR

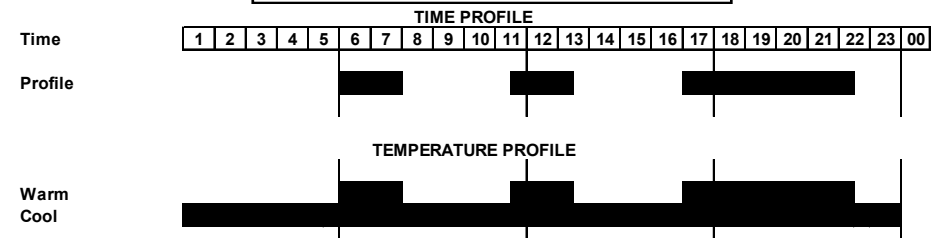
PROFILE TWO	START	STATUS
EVERY DAY	06:00	WARM
	08:00	COOL
	17:00	WARM
	22:30	COOL



PROFILE 3

24 HR

PROFILE THREE	START	STATUS
EVERY DAY	06:00	WARM
	08:00	COOL
	11:30	WARM
	13:30	COOL
	17:00	WARM
	22:30	COOL

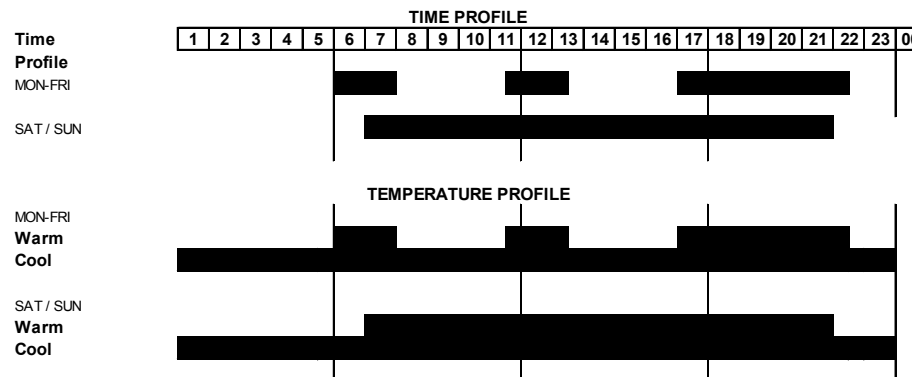


PROFILES FOUR AND FIVE

5 DAY / 2 DAY - DIFFERENT WEEKDAY / WEEKEND PROFILE

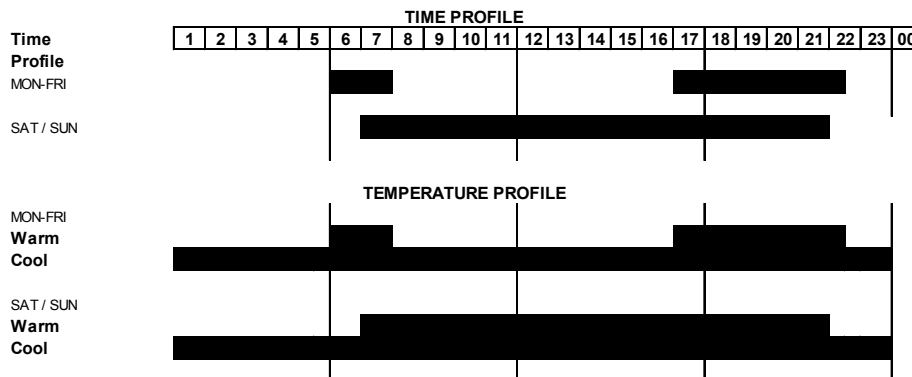
PROFILE 4 5/2 DAY

PROFILE FOUR	START	STATUS	SAT/SUN	START	STATUS
MON - FRI	06:00	WARM		07:00	WARM
	08:00	COOL		22:00	COOL
	11:30	WARM			
	13:30	COOL			
	17:00	WARM			
	22:30	COOL			



PROFILE 5 5/2 DAY

PROFILE FIVE	START	STATUS	SAT/SUN	START	STATUS
MON - FRI	06:00	WARM		07:00	WARM
	08:00	COOL		22:00	COOL
	17:00	WARM			
	22:30	COOL			



Profiles one to five have fixed periods, no alteration to the Warm/Cool times can be made, if it is necessary to make any alterations then profile six must be used. Profile six will allow you to set up a profile to your exact requirements. Please refer to the flowchart on page 8.