

The Pactrol "Weather Watcher" automatically adjusts the amount of heat stored in an off-peak heating installation in response to changes in the weather. It can be used in conjunctions with a suitable load-switching contactor to control storage heaters, fan-assisted storage radiators, electricaire or floorwarming in new and existing installations with off-peak white meter supplies



Advantages

Convenience...

The single knob control turns off-peak heating into "central" heating. You no longer need to adjust all your radiators, the Weather Watcher does that for you!

Comfort....

Because the Weather Watcher automatically adjusts the amount of heat stored in response to changes in the weather and so maintains your chosen comfort-conditions, It can even give you a touch of warmth when you wake up to that summer cold snap.

Economy...

By providing just the right amount of heat at the most economical time, to give maximum comfort at minimum cost. In most cases, this means a reduction in consumption and tests have shown that this can be as high as 30%.

Simplicity...

Just one model, to suit new or existing installations with storage radiators, electricaire, or floorwarming using off-peak and white meter tariffs, including Economy 7. Compact, easily fitted by a qualified electrician within a few hours, and no need to re-decorate afterwards. Maintenance free electronics at a price you can afford

Description

The "Weather Watcher" consists of a heating controller and an outdoor sensor. The controller

switches the heating on via a suitable contactor, for-part of the off-peak hours, ranging from 100% (maximum stored heat) down to 0%.

The percentage depends upon the control setting and the outside temperature, as shown in fig.1.

How the Weather Watcher works.

(a) Existing System

Start 12 → off peak period 4 am → end 8 am



Disadvantage:- Heater is charged from the start of the "off-peak" period and is fully charged during the night and cycles until the end of the period. This is wasteful incurring high room temperatures in the middle of the night and heat losses from the storage heater.

(b) Pactrol Weather Watcher



The example is when 50% charge is returned. Advantage:- Charge is delayed until the latter part of the period reducing losses and the heater reaches its required temperature at the start of the occupancy period

Comfort Control knob setting

You can choose your comfort level by using the control knob provided.

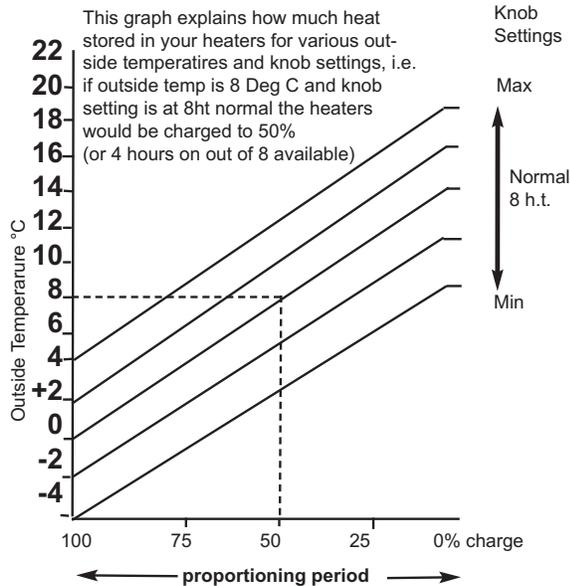
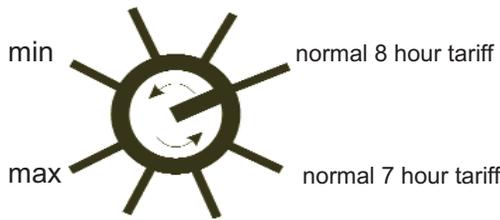


fig 1.

PROGRAMMES

There are two alternative methods of operation, selected by internal switches. Programme 1 is standard Economy 7 white-meter and off-peak tariffs of up to 8 hours which do not provide a mid-day boost. The controller operates in this case by delaying the switch-on time for the heating according to the amount heat required. Once the heating is switched on, it will normally remain on until the end of the off-peak period. Programme 2 is designed for off-peak tariffs exceeding 8 hours and for those which include a day-time boost. In this programme the heating is switched on for part of every hour throughout the off-peak period. The percentage of the hour for which the heating is on depends upon the amount of heat required.

White
Rodgers

EMERSON
Climate Technologies

There is also a built-in test programme which is operational when neither of the main programmes is selected. In this case, the heating is switched on every 28 seconds; the percentage of each 28 second interval for which the heating is on is the same percentage as would be given in each of the operational programmes

For installations where there are regular times during which the building is unoccupied (e.g. schools, offices, etc.) the amount of heat stored can be automatically reduced by the addition of a time switch or manual switch.

Installation

The control is assembled on a printed circuit panel which slots into the attractive moulded housing and is retained by a snap-on cover plate on which the connection details are printed. The edge of the p.c. panel locates in the socket-base to connect with the wiring terminals. The electronic circuits are protected by a fuse and surge-arrestor.

The outdoor sensor is enclosed in a small moulded housing. The construction of both sensor and controller is double insulated, Class II and the outdoor housing is weather-proof if a suitable cable gland is fitted.

Technical Data

Electrical Supply

Voltage	240±10%
Frequency	50Hz AC only
Consumption	approx 4 VA
Internal Fuse	1A
Supply Fuse	5A
Loading Switching	by external contactor
Coil Voltage	240V AC
Maximum coil current	0.25A
Ambient Temperature	0...35°C
Maximum humidity	95% RH
Construction	BS 3955 Class 2
Weight	
Controller	245 gm
Sensor	48 gm
Cable size	
Conductor (Maximum)	1 sq mm
Insulation	2.5 sq mm
Product Number	250V AC
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New models are continuously under development.

For further information visit our Website www.pactrol.com or contact the sales team at sales@pactrol.com Pactrol Controls reserve the right to change the specification of this product range without notice.

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