

FURTHER INFORMATION

THE GEO360 RANGE

There are two Grant Efficiency Optimiser models available. The GEO360/28 has 28mm compression fittings and is suitable for systems up to 36kW (123,000 Btu/h). If required, a reducing set (28mm reducing to 22mm) should be used for systems under 21kW (70,000 Btu/h). The GEO360/35 has 35mm compression fittings and is suitable for systems from 36Kw to 70kW (123,000 - 240,000 Btu/h).

COMPATIBILITY

As the GEO360 is a stand-alone unit that is compatible with most types of gas and oil-fired boilers and can be coupled with any standard system programmers.

HOW MUCH WILL I SAVE?

Weather compensating controls are not a new concept. Most are generally found in commercial applications, such as office buildings, factories, etc.

The GEO360 has been developed to make this technology affordable for the domestic market. Savings depend on many factors, however when fitted on a standard system, a fuel reduction in the region of 10-15% per annum should be achievable, and in many cases this will be higher, so payback would typically be within three years!

AFTER SALES SERVICE

For peace of mind the GEO360 is covered by a 1 year guarantee. In the unlikely event of a problem occurring, your installer should telephone our Customer Service Department on: **0870 7775553**



WEBSITE DOWNLOADS

For further information about the Grant product range or to download our brochures please key:

www.grantuk.com

Our popular website is regularly updated with the latest news and product range developments.

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EFFICIENT HEATING SOLUTIONS

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GRANT EFFICIENCY OPTIMISER

**GET MORE COMFORT AND
ECONOMY FROM YOUR
HEATING SYSTEM**



GEO360 FEATURES:

EASY TO INSTALL

SIMPLE WIRING

**SUITABLE FOR USE WITH
GAS AND OIL-FIRED
BOILERS**

**INTELLIGENT SYSTEM
SHUT DOWN**

**QUICK SET-UP AND
PROGRAMMING ROUTINE**

**INTERNAL AND EXTERNAL
SENSORS**

**AVAILABLE WITH 28mm OR 35mm
COMPRESION CONNECTIONS**

**TYPICAL PAYBACK WITHIN
THREE YEARS**



EFFICIENT HEATING SOLUTIONS

GEO360 FEATURES

IMPROVING EFFICIENCIES

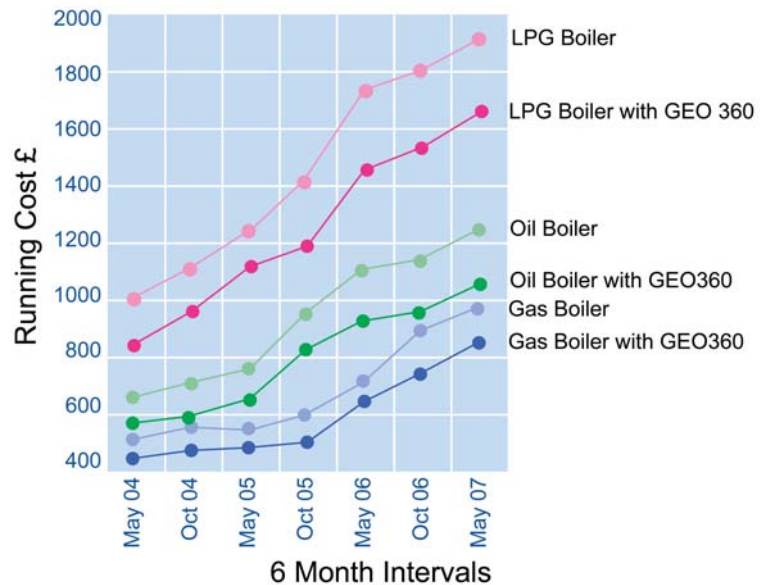
Fuel prices are increasing year on year and this is having a major effect on domestic heating costs. Although the price of fuel cannot be changed, steps can be taken to reduce the amount used. Recent amendments to the Building Regulations have increased the use of far more efficient Condensing appliances in both gas and oil, but unless the control of these boilers is also considered at the time of installation, the full benefit of their high efficiency may not be gained.

HOW MOST HEATING SYSTEMS WORK

When air temperatures in the house fall below the setting on the room thermostat, a signal is sent for the boiler to fire and warm the house. Unfortunately a disadvantage of this simple arrangement is that the thermostat only tells the boiler to turn on or off when the house is too cold or too hot, respectively. Some systems are even installed without a room thermostat (boiler interlock), relying solely on individual thermostatic radiator valves. In either case no consideration is given to maintaining the correct flow and return temperatures that enable a boiler to operate in condensing mode; or to any external temperature fluctuations.

Looking at it another way, how many miles per gallon would a car get if the only method of controlling speed was to accelerate until it is going too fast and then apply the brakes? That is exactly how most heating systems work

AVERAGE FUEL INCREASE FOR THE UK



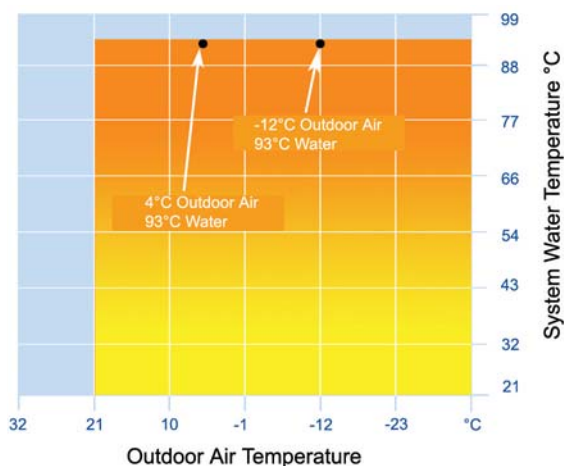
Figures up to October 2005 have been reproduced with kind permission from Salket. Figures from May 2006 are estimated upon increasing fuel prices. All are based on non-condensing boilers in an average 3-bedroom household.

HOW HEATING SYSTEMS SHOULD WORK

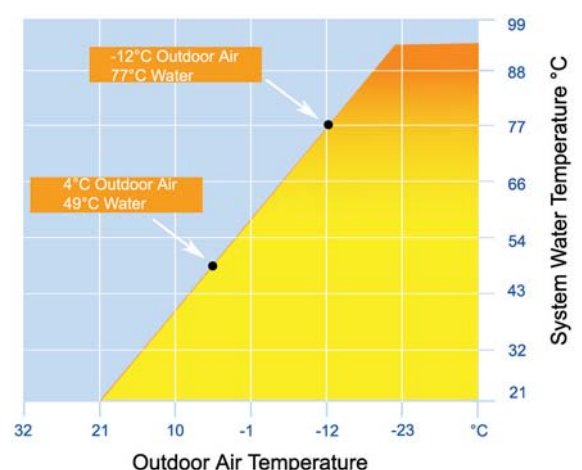
Boiler flow and Return temperatures should be monitored and controlled, and the system must be able to react promptly to internal and external air temperature changes.

Using the car analogy, an accelerator pedal is adjusted carefully to maintain a comfortable driving speed and good fuel economy. Why not the same with a domestic heating system? By installing a Grant Efficiency Optimiser (GEO360) the water temperature in the heating system is constantly measured to maintain comfort and improve efficiency.

THERMOSTAT ONLY



WITH A GEO360



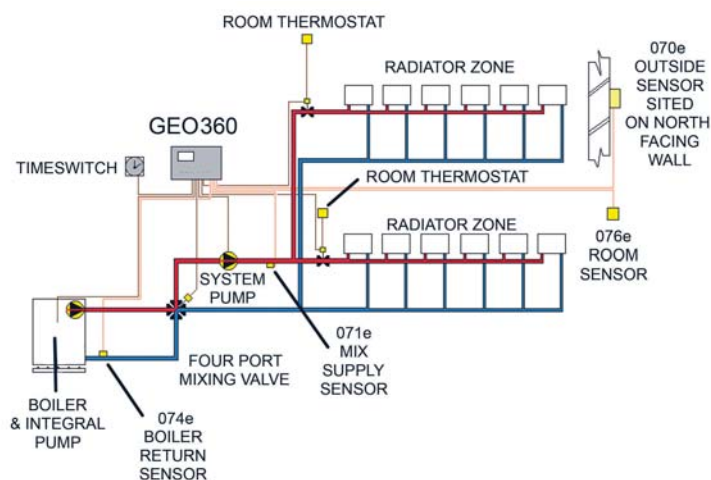
GEO360 FEATURES

HOW THE GEO360 WORKS

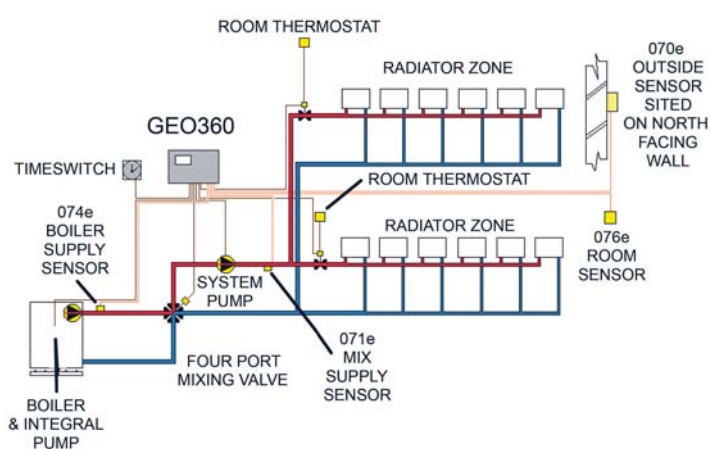
The GEO360 is an intelligent weather compensating control unit comprising of a controller, two pipe thermostats together with an internal and external air sensor, coupled to a 4-Port mixing valve. With the information retrieved through the outdoor air sensor (fitted on a north facing wall) the unit can adjust to match a heat output closer to the needs of the

home. In fact, the system will adapt before it even feels too cold or too hot. In periods of warm weather the GEO360 will automatically shut the system down until it is needed again. Flow and return temperatures can be pre-set on the control module enabling condensing boilers to operate in condensing mode more often, thereby saving fuel and making the system more environmentally friendly.

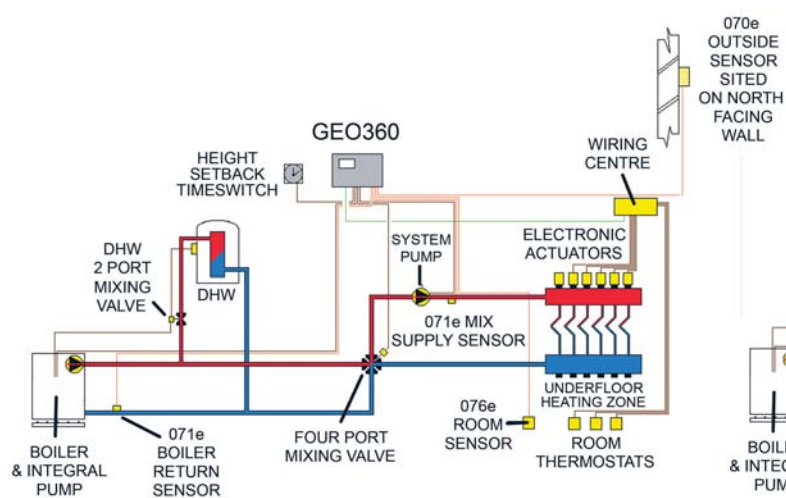
Schematic Pipework layout for a GEO360 controlling an oil-fired system with radiators.



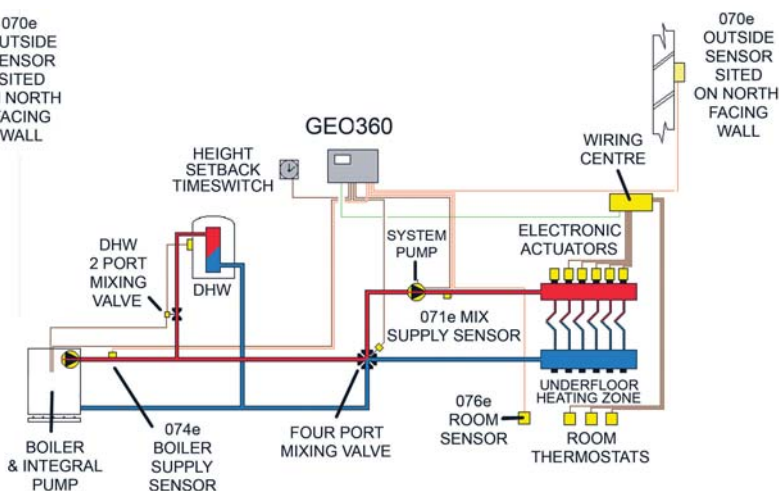
Schematic Pipework layout for a GEO360 controlling a gas-fired system with radiators.



Schematic Pipework layout for a GEO360 controlling an oil-fired system with under floor heating.



Schematic Pipework layout for a GEO360 controlling a gas-fired system with under floor heating.



NOTE: These are only concept drawings, not engineered drawings. They are not intended to describe the complete system, nor any particular system. It is up to the system designer to determine the necessary components and configuration of the particular system being designed, to ensure compliance with building and safety code requirements.