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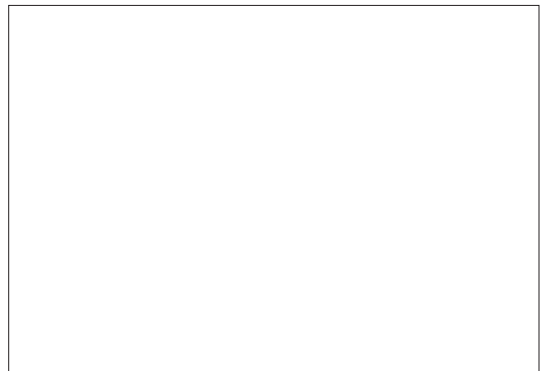
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## Part L Under Control

A guide to Part L and what it means for you and your customers by Drayton Heating Controls



People



Products



Performance

HEATING



## Contents

Part L – what does it really mean?	01
Part L – reinforcing the energy efficiency message	02
The Dawn of a New Era	03
Condensing the Facts	04
Modern day heating systems for modern living	05-06



**Llinos Jonathan**

## Part L – what does it really mean?

In a nutshell, we believe Part L changes represent a very real opportunity for the installer.

Convincing homeowners to upgrade their heating controls at the same time as installing their new High-efficiency (HE) boiler can provide a win/win situation for both the customer and the installer.

Here at Drayton we are fully abreast of the technical aspects within the legislation, but we feel so strongly that some of the commercial benefits to installers, and comfort and economic benefits to consumers, have been overlooked.

Within this supplement we are hoping that we can give you an at-a-glance guide to the legislation itself, the key sales opportunities for customers, and an up-to-date view of how consumers are living their lives.

We are not pretending we have all the answers, but we do spend a lot of time talking to you – our customers, and also researching your customer's lives to make sure our products fulfil both your needs.

We hope you will find the information useful, interesting, and ultimately of commercial value.

If you would like to talk to us more please call our customer service team on the numbers given on the back page.

**Llinos Jonathan**  
**Head of Marketing**  
**Drayton Heating Controls**



**Chris Jones**

## Part L – reinforcing the energy efficiency message

If you are a regular reader of this magazine – or in fact any other trade publication – you are no doubt already well aware of the significance of this month's revision to Part L of the Building Regulations. In a bid to help meet its targets to reduce CO2 emissions, the Government has decided to give market forces a helping hand by insisting that, in almost every instance, a condensing boiler should now be fitted in a domestic property.

It makes sense for current regulations to reflect the best that today's technology has to offer, but when the Government first announced its plans some 18 months ago there are many within the industry who questioned the wisdom of proposing such a radical transformation of the boiler market. But all the major manufacturers have now embraced condensing technology and while the goal of 95% market penetration may take some time yet to be realised, it is most unlikely that we would be this far down the line without government intervention.

The issue of energy efficiency has been high on the agenda of the heating industry for some time, and the installation of heating controls is already established within the existing Building Regulations. All new homes, and existing dwellings undergoing major central heating upgrades must include appropriate controls as part of the installation. This means the fitting of programmers and thermostats has been mandatory since Part L was last revised in April 2002. The regulations also state that temperatures in living and sleeping areas should be controlled independently.

In order to drive acceptance of condensing technology in UK homes, householders need to feel confident that the boilers are delivering the promised fuel savings – and that means ensuring that controls are considered as a key factor within the installation of any new system. The aim has to be to maximise the time the boiler spends in its condensing mode and without adequate control, potential energy savings are likely to be significantly reduced.

Despite all the benefits of what the latest heating equipment and controls have to offer, winning over the consumer remains something of a challenge. We all like to think that we would be prepared to do our bit to save the planet, but for most of us additional incentives – such as the prospect of reduced heating bills – are needed

before we can be persuaded to make the initial outlay. In theory, the existence of regulations should mean that there is less of a need to be able to demonstrate such savings, but in reality it remains just as important to convince potential customers that their investment will pay dividends in the long-term.

Installers are at the front line when it comes to delivering the Government's targets. It is all the more important, therefore, that anyone who is responsible for specifying or fitting boilers or controls should be sufficiently knowledgeable of current regulations to advise homeowners as to what is required. In many instances, the installer will represent the single source of advice and information available to them. However, even the most conscientious professional must find it a challenge to keep up to speed with changes in technology and installation requirements.

Any information source that can provide a clearer understanding of what installers need to know about Part L has to be welcomed. In producing this Part L insert Drayton Controls has demonstrated its commitment to helping to ensure that the industry is better prepared for the changes that lie ahead. We hope you find it useful.

**Chris Jones**  
**Editor**  
**PHAM News**

## The Dawn of a New Era

**The UK has now officially entered a new era of high-efficiency (HE). This will undoubtedly impact on each and every installer across the country, bringing with it both challenges and opportunities. Some installers may welcome this and feel fully prepared for the switch to HE, having listened to all the publicity, support and advice offered by both the industry and the Government in the lead up to April 1st. However, there may be some elements of Part L that you have not considered yet, focusing all of your attention on condensing boilers rather than looking at the bigger picture.**

And whilst it is essential that installers understand the professional implications of legislation, it is equally important that manufacturers work alongside installers to point out the benefits that all parties can enjoy if we truly understand what the opportunity is for us all from Part L.

In terms of heating controls, where possible always upgrade at least to the minimum set of controls. Where it is not possible to convert to full pumping, the following system will provide many energy efficiency benefits:

- Cylinder thermostat
- Room thermostat (or programmable room thermostat)
- Standard programmer (or programmable room thermostat)
- One two-port motorised valve fitted on the gravity flow to the hot water cylinder
- TRVs on all radiators except in rooms with a thermostat
- Boiler interlock

## UNRAVELLING THE LEGISLATION

Increasing evidence of global warming has prompted the Government, as set out in its Energy White Paper, to try to reduce the level of harmful emissions, which contribute to climate change. As a result, the Government is now committed to reducing carbon dioxide (CO<sub>2</sub>) emissions by 20% by 2010.

### So how does this affect the UK heating industry?

The Government has estimated that almost half of all CO<sub>2</sub> emissions come from buildings, with the majority of these coming from energy consumed in homes. Carbon dioxide is released into the atmosphere every time gas, coal, oil or wood are burned to provide domestic central heating and hot water, damaging the environment and influencing climate change. With the UK's housing stock continuing to increase at a rate of more than 160,000 dwellings per year, the Government has realised that it is necessary to impose stricter regulations on the UK heating industry in order to meet its ambitious targets. This has resulted in amendments being made to Building Regulations in order to improve the energy efficiency of homes, the most recent of which are the amendments to Part L (Conservation of Fuel and Power.)

## THE ARRIVAL OF SEDBUK

In 2002, Part L of the Building Regulations introduced SEDBUK (Seasonal Efficiency of Domestic Boilers in the UK) ratings to the UK heating industry. In simple terms, the SEDBUK rating is an official way of measuring the efficiency of domestic heating systems. Legislation set a minimum SEDBUK rating for domestic boilers of Band D, allowing the installation of both high-efficiency (condensing) and standard-efficiency boilers (non-condensing.)

However, as of April 1st 2005, the majority of boilers installed must now be SEDBUK A or B with very few exceptions, effectively outlawing standard-efficiency boilers in the UK and making it the first exclusively high-efficiency only market.

### So, what does Part L really mean for installers?

In the past, changes to Building Regulations have made it largely the responsibility of manufacturers to ensure that products supplied into the market meet the energy efficiency requirements of the Building Regulations.

However, under the new legislation, the onus is actually now on you the installer. You have an important role to play in educating your customers about the requirements of Part L and helping to promote energy efficiency within the home, explaining how both condensing boilers and heating controls will improve the overall efficiency of domestic heating systems.

## STAY IN CONTROL OF PART L

Somewhat overshadowed by the condensing boiler debate, the role of heating controls and Part L appear to have so far been overlooked.

It is important that installers are aware that if either a boiler or heating system is replaced, adequate heating controls need to be installed or existing ones upgraded.

### Using minimum set and best practice controls

- Systems with regular boilers must have separately controlled circuits to hot water cylinder and radiators, and both circuits must have pumped circulation
- Room thermostats, programmable room thermostats, cylinder thermostats, programmers and time switches must be wired so that they are interlocked with the boiler and pump, i.e. they prevent the boiler from firing when there is no demand for heat.
- A bypass circuit must be installed if the boiler manufacturer specifies that a minimum flow rate has to be maintained while the boiler is firing. The installed bypass circuit must then include an automatic bypass valve (not a fixed position valve.)

# Condensing the Facts

- Frost protection must be provided where necessary to protect the appliance, system and dwelling.
- Radiators in rooms with a controlling room thermostat should be fixed with lock-shield valves on both inlet and outlet connections.
- Wireless controls should be designed with a satisfactory level of immunity to interference, as nearby frequency bands will become increasingly heavily used. Compliance with EU essential requirements is not sufficient to ensure that the transmitter-receiver pair will work correctly in the presence of other signals. Products bearing the Radiomark symbol have been certified to meet this requirement concerning quality and fitness for purpose.

## IMPORTANT INFORMATION TO ENSURE YOU COMPLY WITH PART L

*The exceptions procedure*

Although the majority of condensing boilers installed from now on are required to be SEDBUK A or B, i.e. high-efficiency, the Government has accepted that there will be a few cases where this will not be possible. As a result, the Government has worked closely with industry bodies such as the HHIC (Heating and Hot water Information Council) and SBGI (Society of British Gas Industries), to develop a procedure to enable installers to assess situations where it is too difficult or too expensive to install an HE boiler. This will enable installers to decide whether they can legally fit a standard efficiency boiler. The full procedure document is now available on [www.odpm.gov.uk](http://www.odpm.gov.uk).

## CITY AND GUILDS CERTIFICATE. GET YOURS NOW!

The Government has introduced an accreditation scheme called the City and Guilds Certificate in Energy Efficiency for Domestic Heating, to ensure that all installers are clued up on Part L and high-efficiency.

## YOUR QUESTIONS ON HIGH-EFFICIENCY ANSWERED



**What is the difference between a SEDBUK A and B rated boiler?**  
Band A boilers operate with between 90-91% efficiency and Band B between 86-89%. Both comply with the new regulations.

**Are high-efficiency boilers more difficult to install?**  
No, the only real difference is a plastic overflow pipe to remove the condensate.

**Will heating controls make any difference to the overall efficiency of the heating system?**  
Heating controls will help to reduce running costs for homeowners by improving the overall efficiency of the heating system.

**Are high-efficiency boilers more expensive?**  
High-efficiency boilers are more expensive than their standard-efficiency counterparts. However, the Energy Savings Trust estimates that a new high-efficiency boiler and improved heating controls can save homeowners up to a third on running costs, which will make the initial higher payment well worthwhile in the long run.

**In terms of energy efficiency, if Thermostatic Radiator Valves are installed there is no need for a Room Thermostat**  
Thermostatic Radiator Valves (TRVs) will only switch the flow to a single radiator on or off. They do not stop the boiler from firing or using energy. For a heating system to be as efficient as possible, both should be installed.

However, never put a TRV on a radiator close to the room thermostat, as the TRV's operation will interfere with the thermostat.

**Are high-efficiency less reliable?**  
High-efficiency boilers have been available for more than 20 years and manufacturers have invested time and money in improving reliability levels, which historically was a problem with the early models. Therefore, the HE boilers available today are just as reliable as standard-efficiency models.



**The plume is a nuisance**  
Flue gases leaving an HE boiler can be visible as a mist or plume of water vapour around the flue terminal, especially under cold conditions. This is not a problem, however, if the boiler and flue terminal location ensure that the plume will not be too close to neighbouring properties or windows, doors and paths.

The City and Guilds Certificate is suitable for both experienced and new installers, and consists of a daylong workshop covering a range of topics, including the new building regulations, climate change and high-efficiency boilers. The certificate is aimed at providing installers with a practical framework to promote energy efficiency and practical knowledge of high-efficiency products. A simple 90-minute multiple-choice test will follow the workshop and the certificate will be issued once this is successfully completed.

Once you have achieved accreditation, you will be deemed competent to self-certify your own work carried out under the new regulations rather than forking out the bill for a local Building Control inspection for every installation.

The City and Guilds Certificate in Energy Efficiency for Domestic Heating will cost you £65. A Learn Direct freephone number has been set up for installers to help them find their nearest training centre. Call 08080 100 222.

## Modern day heating systems for modern living

Everywhere you look in the press these days you will read something about work/life balance, about the increase in home offices, about the UK working the longest hours in Europe. All of these things are true, but they all draw down to one conclusion – our lives are changing.

But one thing remains constant, our desire for comfort in our homes.

By understanding the different patterns that our lives lead, installers can easily spot opportunities to offer the right advice and the right heating solution.

We have portrayed below some typical customers that you might face on a daily basis, and alongside we have suggested the most appropriate products to meet their lifestyles. Now please do not think that we are suggesting we know your customers better than you do, but let's face it, it is highly unlikely that your customers will even THINK about their heating controls, let alone have an idea of what might suit them best.

### Single, rich and happy



Single, rich and happy - probably keen to have all the mod con's and creature comforts associated with a modern home. Works hard, plays hard - not at home much. Wants a warm living room and kitchen, but no need for extra heat in the bedroom.

The home would feature state of the art technology and stylish designs. The perfect products for this environment would be all chrome TRV4s in the bathroom and the standard TRV4s throughout the rest of the house.



The home would also feature the Digistat RF3i room thermostat which uses radio signals rather than wires to maintain the optimum temperature.

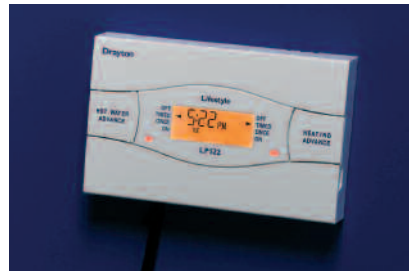


### Dual income, no kids



Dual income, no kids. Love socialising – home is the place to have friends round to. Both out at work 8-6 most weekdays, but spend lots of time at home at weekends. Kitchen's often the heart of the home

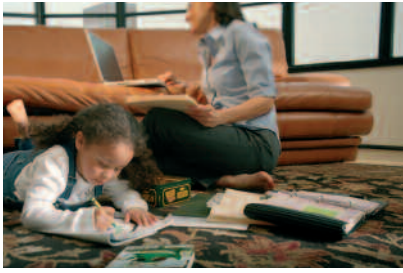
The LP522 is ideal, enabling them to programme different temperatures for weekdays and weekends.



The home would also feature the Digistat 3, enabling them to select 4 time/temperature events in the day. This particular product enables the user to choose a warmer temperature for the home in the evening than the morning, and the option to reduce temperatures during the day when they are at work and overnight. The house would also feature TRV4s throughout.



## Work-at-home Mums with kids



Need a second income to cope with mortgage and bills so Mum works part time from home. Often have several young children who come home from school looking for a warm home. Mum and Dad need to juggle heating bills to make sure they get the warmth and the bank balance right.

Work-at-home mums with kids are on a budget, which is why they need the most cost effective controllers. The LP241 24-hour programmer is ideal for this lifestyle enabling the heating and hot water to operate at different times.



The home would also be fitted with the RTS5 thermostat, featuring cost saving delayed intelligent start and the RT212 range of TRV's all of which are easy to install and cost effective.

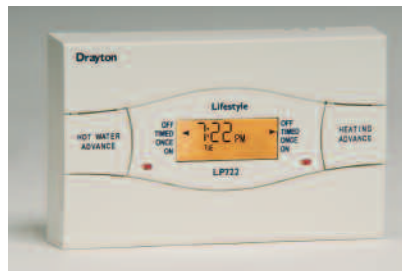


## Kids living away from home



Kids at University – maybe still living in a relatively large family home, but not so much need to keep temperature at the same levels as when kids are at home. Spend a lot of time on holiday, possibly have a second home in Europe.

The LP722 is ideal, featuring a holiday mode that enables temporary shut down of the heating for a chosen period of time.



The home would also feature RT414 TRV's and the Digistat 2 enabling different temperatures at different times of the day.



## Retired home owners



May have downgraded in home size, but still enjoy their home. Grandchildren visit regularly, but otherwise spend a fair amount of time alone at home and like to keep it warm but on a tight budget.

The home would feature simple and easy-to-use programmers and TRV's. The SM2 manual programmer is ideal for this lifestyle pattern enabling users to operate independent settings for room temperature and hot water.



The home would also feature RT414 TRV's and the RTS1 thermostat to provide accurate temperature control through electronic sensors.

