Ofnl
Open Fibre Networks

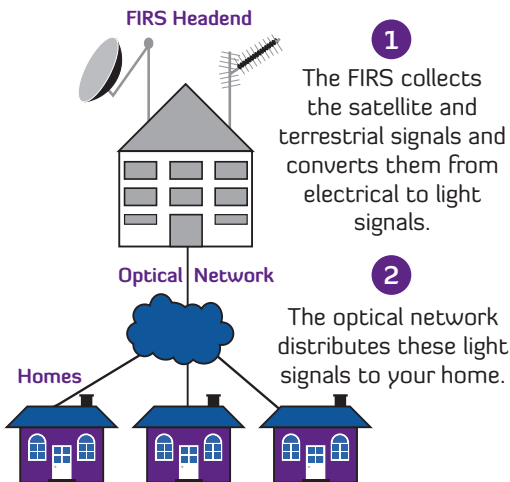# Fibre Integrated Reception System (FIRS)

What is FIRS?

FIRS delivers entertainment services, including satellite and terrestrial TV and Digital Audio Broadcast Radio (DAB) to many homes, across the Fibre-to-the-Home network.

FIRS uses satellite dishes and aerials, mounted in a central on-development location. This negates the need for TV aerials or satellite dishes mounted onto new homes!

Freeview , Freesat and Sky are all available, so customers can swap from terrestrial to satellite TV whenever they wish.

OFNL installs FIRS onto developments, utilising their Fibre-to-the-Home network

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FIRS Headend

1 The FIRS collects the satellite and terrestrial signals and converts them from electrical to light signals.

Optical Network

2 The optical network distributes these light signals to your home.

Homes

3 The Gateway Terminal Unit (GTU) installed in your home converts these signals back to electrical; now you are ready to watch TV!

Benefits of FIRS

- ✓ No need for the installation of traditional terrestrial aerials for Freeview or DAB digital radio
- ✓ No unsightly aerials/dishes on the home
- ✓ No need for the installation of a satellite dish when using Freesat or subscribing to Sky services
- ✓ Lower cost than professional installation of conventional aerials
- ✓ Can carry all broadcast TV services to the home, including HD and 3D TV
- ✓ Easy to use and compatible with all standard digital televisions and Set Top Boxes
- ✓ Easy Sky or Freesat installation

GTU and how FIRS works

The Gateway Terminal Unit (GTU) which is situated within the home, will be connected via the installed cabling to media plates (aerial sockets) to enable the customer to connect satellite (Sky or Freesat) or terrestrial (Freeview) set top boxes, or directly into a digital ready TV or DAB radio.

The IRS is installed using the same fibre network that the Telecom services utilise. The developer will define where the customer can locate TVs and Radios within the home. However, it is possible to install additional aerial outlets in a similar manner as a traditional aerial installation.

A typical GTU

Quad GTU
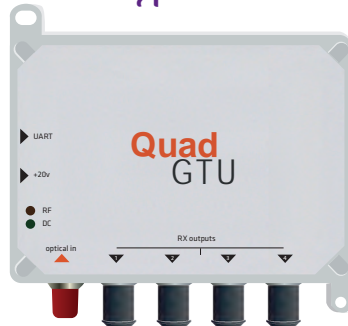
GTU model and colour may vary

The GTU will typically be discretely located in a cupboard or under the stairs (defined by the developer) as there is no requirement to access it every day.

Frequently asked questions

What is FIRS?
FIRS is a facility that distributes satellite, terrestrial TV and radio signals from centralised aerials and dishes to all of the houses across the development. It is distributed through Fibre Optic cables which have already been installed; giving you excellent signal quality and reliable service.

What type of equipment can connect to the FIRS?
Freeview
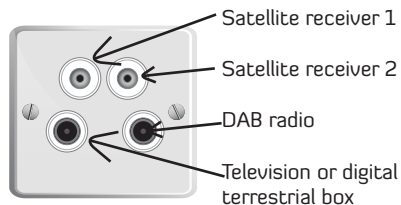Connect to the TV or Digibox aerial socket
Freesat
Connect to satellite receiver dish inputs 1 and 2
Sky (+, HD, 3D)
Connect to satellite receiver dish inputs 1 and 2
DAB Radio
Connect to DAB radio aerial Socket

Satellite receiver 1
Satellite receiver 2
DAB radio
Television or digital terrestrial box

What should I do if I have a fault?
In the first instance, you should check the GTU is powered on and there is not a fault with your equipment, e.g. your TV, Freesat or Sky Set top box.

If you have multiple TV points in your property and only one of these points is not working then there could be a fault with your internal wiring.

Before reporting faults to OFNL please check your internal wiring or use a local TV repair company for assistance. Once you have eliminated this possibility, and you are sure the fault is not with your equipment or internal wiring, please contact **OFNL Customer Services on 02921 678 550**.

Driscoll 2
Ellen Street
Cardiff, CF10 4BP

Ofnl
Open Fibre Networks
Wholesale
Voice, Ultrafast broadband and TV networks

www.ofnl.co.uk
02921 678 550
enquiries@ofnl.co.uk

Choice of Service Providers on the OFNL Network for Residential Customers.

Introduction
OFNL are passionate about providing quality, value and choice to residents who live in homes connected to its high-speed Fibre-to-the-Home network.

OFNL provides an 'Open Access' network designed to make it easy for service providers to connect and offer choice to residents, however before they can offer service there is a requirement for them to connect to the OFNL fibre network, either locally at the housing development or at OFNLs national hand-off location.

Choice of Service Providers:
OFNL is in discussions with a number of UK telecom brands and actively encourages service providers to connect to the fibre network. OFNL are excited by this interest and the benefits it will bring to residents and details will be published when new service providers become available.

OFNL enables service providers to meet government targets of offering all residents on the Open Fibre Network Super-Fast broadband. Superfast is defined as greater than 24Mbps. OFNL delivers ultrafast speeds of up to 1Gbps.

There are currently 15 service providers who can deliver residential services.

Service Providers on the OFNL Network:
Listed below are the details of the residential service providers available across the OFNL network.

Available residential service providers

1+1 ONT User Guide

Who are OFNL?

OFNL operates an 'Open Access' fibre optic network to new build residential and commercial developments across the UK.

OFNL uses Fibre to the Home (FTTH) to provide voice, ultra-fast broadband and television services.

For more information or to find out which service providers operate on the OFNL network, visit www.ofnl.co.uk or call 02921 678 550.

Your fibre equipment

OFNL uses a device you may not have seen before; an Optical Network Terminal (ONT) – this is where the fibre enters your home and terminates.

The ONT can connect to your router to provide you with broadband, and your telephone for voice services.

ONT

The lights on your ONT

Your ONT has several indicator lights which identify its status. These lights can be useful to help you troubleshoot any problems with your connection.

Check your ONT is plugged in correctly and the lights are on. If you are having problems, call your internet service provider.
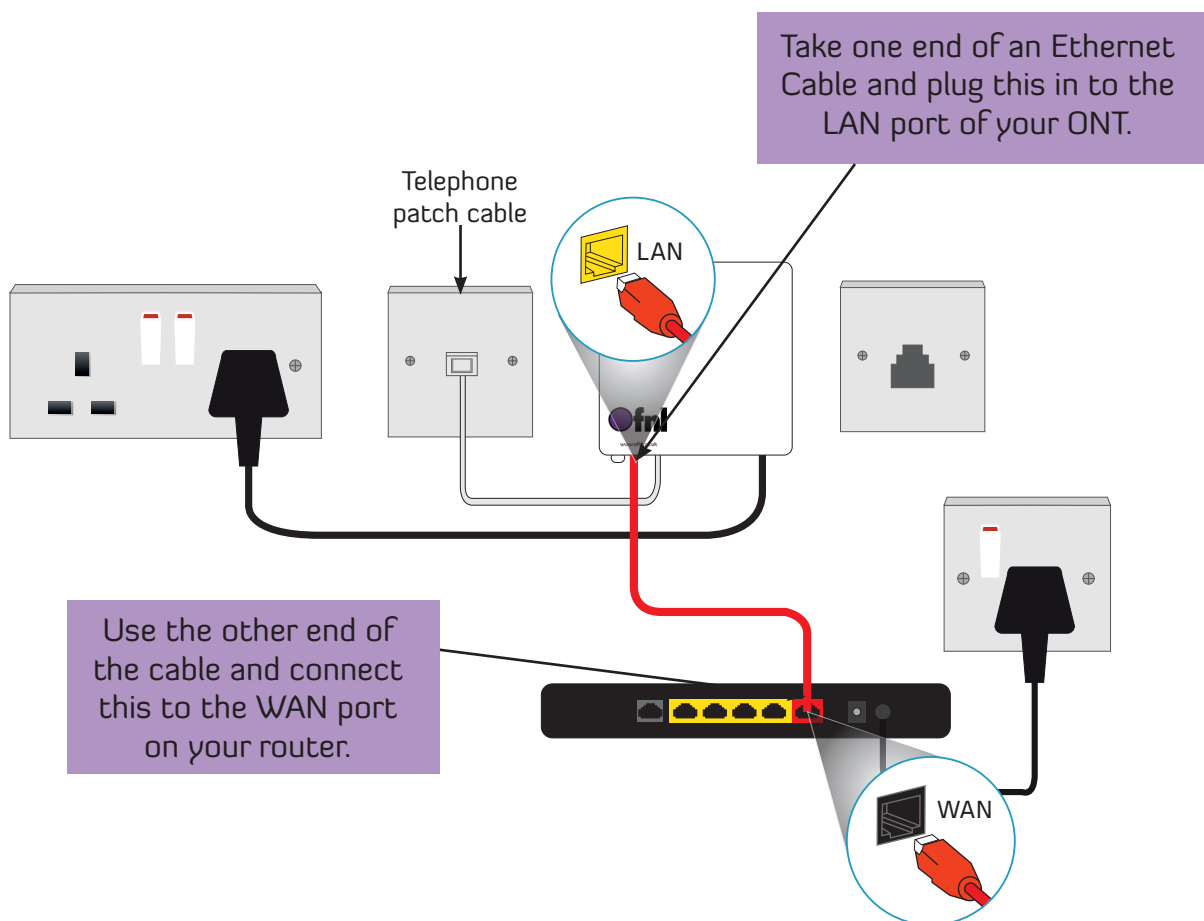
Type	Colour	State	Description
LAN	Green	On	The LAN port is enabled and connected.
		Off	The LAN port is not connected. Check your cable between your router and the ONT.
WAN	N/A	Off	Your ONT is not receiving a signal from the fibre network. Please contact your service provider.
	Green	Blinking	Your ONT is receiving a signal from the fibre network but there is a network problem. Please contact your service provider.
		Solid	Your ONT is working as expected and is receiving a signal from the fibre network.
Phone	N/A	Off	Your phone line is disabled.
	Green	Blinking	Your phone line is enabled but there is a problem. Please contact your service provider.
		Solid	Your phone line is connected and working.
Device	Green	Blinking	Your ONT is powering on.

The ports on your ONT

On/Off switch   LAN port   Phone   Reset   Power
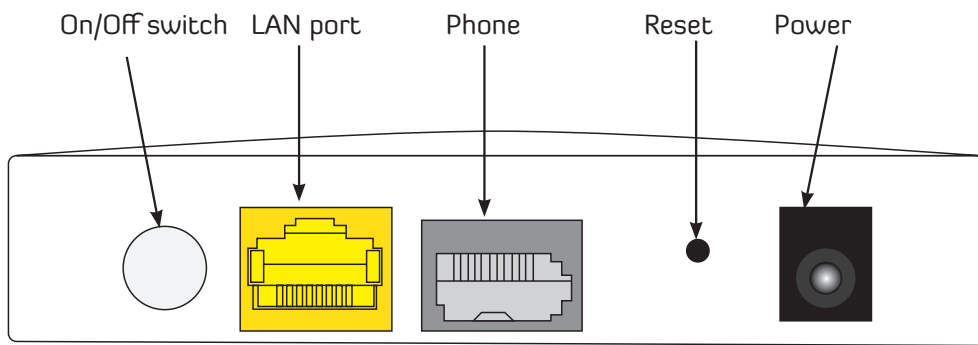
Connecting your ONT to your router*

Connect directly to your ONT

Take one end of an Ethernet Cable and plug this in to the LAN port of your ONT.

Telephone patch cable

LAN

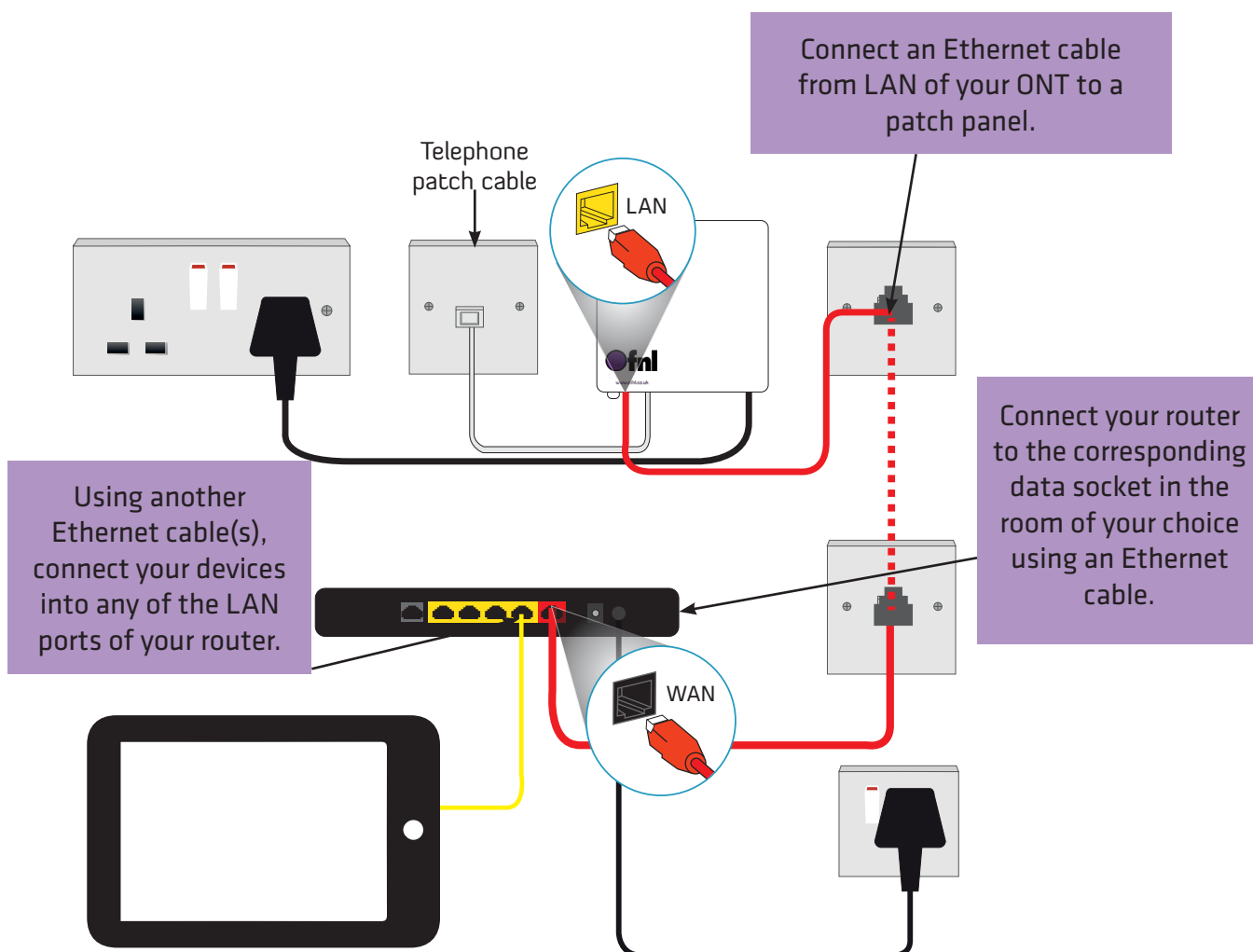Use the other end of the cable and connect this to the WAN port on your router.

WAN

To connect your router to your internet enabled devices using a wired connection;

- Using another Ethernet cable, plug one end into any of the LAN ports on your router.
- Take the other end of the cable and plug this directly into your device.

*The router colour and model may vary depending on the service provider you choose

Connect your ONT to your router using internal wiring

If your property has internal wiring, you may be able to connect devices to the internet using this, or use it to relocate your router into a room of your choice.

Connect an Ethernet cable from LAN of your ONT to a patch panel.

Telephone patch cable

LAN

Connect your router to the corresponding data socket in the room of your choice using an Ethernet cable.

Using another Ethernet cable(s), connect your devices into any of the LAN ports of your router.

WAN

Connect your ONT to your phone using internal wiring

Connect a patch cable between the phone port on your ONT and the master socket.

Telephone patch cable

Phone

Connect your phone into a telephone port in your property.
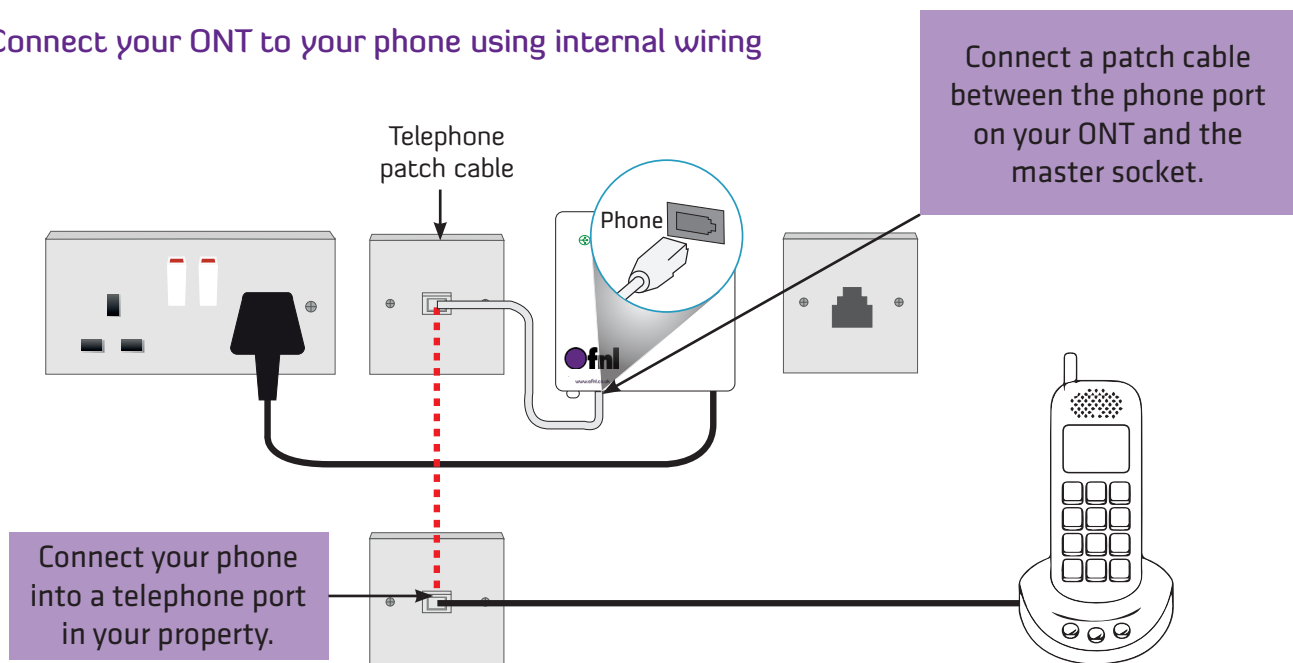
How to Get Sky Q with OFNL

The Next Generation Box

The Sky Q experience

✔ Pause, rewind or restart live TV

✔ Use Series Link to record a whole series

✔ Watch your favourite shows around the home

✔ Over 500 hours of recording space to save your favourite shows

Getting Sky Q

If you live on a site where a communal satellite dish has been fitted, a Gateway Terminal Unit (GTU) will have been installed in your home. This enables you to get Sky or terrestrial Freeview services via a set top box.

What you need to do if you want to get Sky Q

If you have a Quad GTU
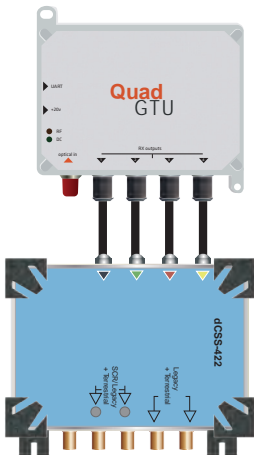
If you have a Quad GTU, the engineer will need to connect a DCSS switch to it, to allow you to receive Sky Q services.

If you have a dSCR GTU

You will not need a DCSS switch to receive Sky Q services – the engineer will connect your GTU to your Sky Q set top box.

When you sign up for services with Sky, please remind Sky that you are on a communal site.

Sky Q Multi room setup

Sky Q provides the ability to watch TV in different rooms via multiple set top boxes. Only the main box needs to be connected to either the dCSS switch or the dSCR GTU.

Watching Freeview

Connect a standard Digital TV to your GTU and watch free to air content.
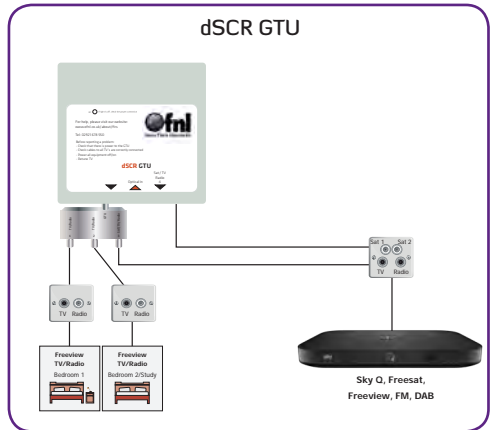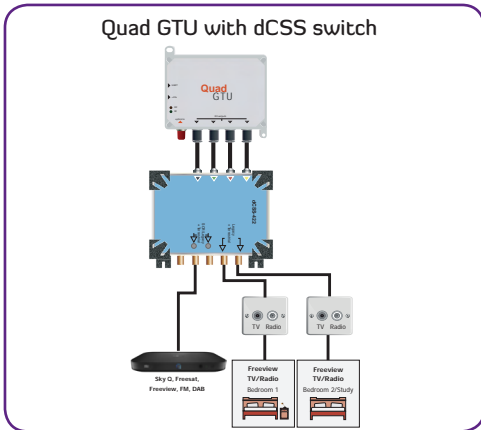
To watch Digital TV on more than two TV's, you may require a distribution amplifier. OFNL don't supply these. Contact your local aerial/TV supplier to purchase one.

Plug the 'Distribution Amplifier' into the spare port of the 'dCSS switch' or dSCR. Use additional cables and plug these into the faceplate in each room.
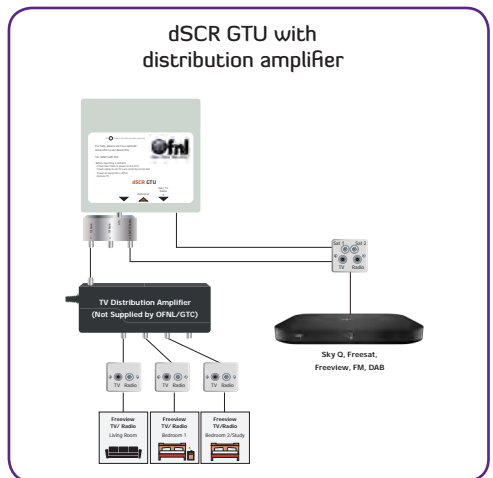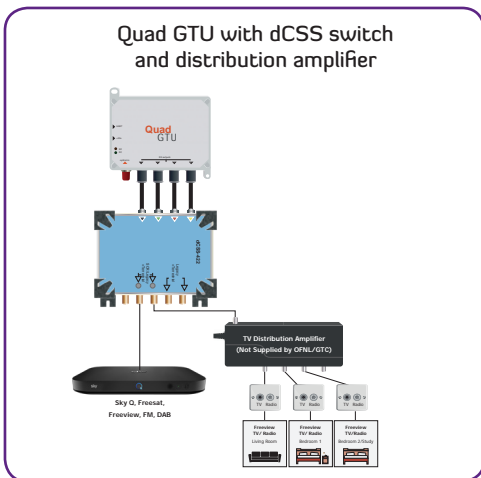
+**USER GUIDE**

LOGIC CODE COMBI ESP1
26 33 38

THE QUEEN'S AWARDS
FOR ENTERPRISE
INNOVATION
2013

When replacing any part on this appliance, use only spare parts that you can be assured conform to the safety and performance specification that we require. Do not use reconditioned or copy parts that have not been clearly authorised by Ideal.

For the very latest copy of literature for specification and maintenance practices visit our website www.idealboilers.com where you can download the relevant information in PDF format.

For alternative languages in our User Guides please visit our website **www.idealboilers.com**.

CONTENTS

1. INTRODUCTION

The **Logic Code Combi ESP1** is a combination boiler providing both central heating and instantaneous domestic hot water. Featuring full sequence automatic ignition and fan assisted combustion.

Due to the high efficiency of the boiler, condensate is produced from the flue gases and this is drained to a suitable disposal point through a plastic waste pipe at the base of the boiler. A condensate 'plume' will also be visible at the flue terminal.

SAFETY
Current Gas Safety (Installation & Use) Regulations or rules in force.

In your own interest, and that of safety, it is the law that this boiler must be installed by a Gas Safe Registered Engineer, in accordance with the above regulations.

In IE, the installation must be carried out by a Registered Gas Installer (RGII) and installed in accordance with the current edition of I.S. 813 "Domestic Gas Installations", the current Building Regulations and reference should be made to the current ETCI rules for electrical installation.

It is essential that the instructions in this booklet are strictly followed, for safe and economical operation of the boiler.

ELECTRICITY SUPPLY
This appliance must be earthed.
Supply: 230 V ~ 50 Hz. The fusing should be 3A.

IMPORTANT NOTES

- This appliance must not be operated without the casing correctly fitted and forming an adequate seal.

- If the boiler is installed in a compartment then the compartment MUST NOT be used for storage purposes.

- If it is known or suspected that a fault exists on the boiler then it MUST NOT BE USED until the fault has been corrected by a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII).

- Under NO circumstances should any of the sealed components on this appliance be used incorrectly or tampered with.

- This appliance can be used by children 8 years and above. Also persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, provided they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

All Gas Safe Register installers carry a Gas Safe Register ID card, and have a registration number. Both should be recorded in the Benchmark Commissioning Checklist. You can check your installer by calling Gas Safe Register direct on 0800 4085500.

Ideal Boilers is a member of the Benchmark scheme and fully supports the aims of the programme. Benchmark has been introduced to improve the standards of installation and commissioning of central heating systems in the UK and to encourage the regular servicing of all central heating systems to ensure safety and efficiency.

THE BENCHMARK SERVICE INTERVAL RECORD MUST BE COMPLETED AFTER EACH SERVICE

benchmark
COLLECTIVE MARK
THE MARK OF QUALITY FOR THE INSTALLATION, COMMISSIONING AND SERVICING OF DOMESTIC HEATING AND HOT WATER SYSTEMS

2. BOILER OPERATION

Legend
A. Domestic Hot Water Temperature Knob
B. Central Heating Temperature Knob
C. Mode Knob
D. Boiler Status Display
E. Burner 'on' Indicator
F. Central Heating Economy Setting
G. Pressure Gauge
H. Function Button
I. RESTART Button
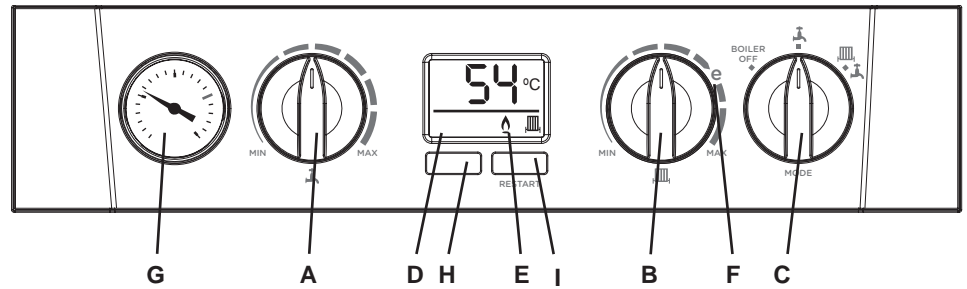
TO START THE BOILER

If a programmer is fitted refer to separate instructions for the programmer before continuing.

Start the boiler as follows:

1. Check that the electricity supply to boiler is off.
2. Set the mode knob (C) to '**BOILER OFF**'.
3. Set the Domestic Hot Water temperature knob (A) and Central Heating temperature knob (B) to '**MAX**'.
4. Ensure that all hot water taps are turned off.
5. Switch on electricity to the boiler and check that all external controls, e.g. programmer and room thermostat, are on.
6. Set the mode knob (C) to ' ⚘ ' (winter).

The boiler will commence ignition sequence, supplying heat to the central heating, if required.

Note. *In normal operation the boiler status display (D) will show codes:*

00	Standby - no demand for heat.
⚏	Central Heating being supplied
⚘	Domestic hot water being supplied
FP	Boiler frost protection - boiler will fire if temperature is below 5ºC.

During normal operation the burner on indicator ' ⚘ ' will remain illuminated when the burner is lit.

Note: If the boiler fails to light after five attempts the fault code *L2* will be displayed (refer to Fault Code page).

OPERATION MODES

Winter Conditions - (Central Heating and Domestic Hot Water required)

Set the mode knob (C) to ' ⚘ ' (winter).

The boiler will fire and supply heat to the radiators but will give priority to domestic hot water on demand.

Summer Conditions - (Domestic Hot Water only required)

Set the mode knob (C) to ' ⚘ ' (summer).

Set the central heating demand on the external controls to OFF.

Boiler Off

Set the mode knob (C) to '**BOILER OFF**'.   The boiler mains power supply must be left on to enable frost protection (see Frost Protection).

CONTROL OF WATER TEMPERATURE

Domestic Hot Water

The domestic hot water temperature is limited by the boiler controls to a maximum temperature of 65ºC, adjustable via the domestic hot water temperature knob (A).

Approximate temperatures for domestic hot water:

Knob Setting	Hot Water Temperature (approx.)
Minimum	40ºC
Maximum	65ºC

Due to system variations and seasonal temperature fluctuations domestic hot water flow rates/temperature rise will vary, requiring adjustment at the tap : the lower the flow rate the higher the temperature, and vice versa.

Central Heating

The boiler controls the central heating radiator temperature to a maximum of 80ºC, adjustable via the central heating temperature knob (B).

Approximate temperatures for central heating:

Knob Setting	Central Heating Radiator Temperature (approx.)
Minimum	30ºC
Maximum	80ºC

For economy setting '**e**' refer to Efficient Heating System Operation.

EFFICIENT HEATING SYSTEM OPERATION

The boiler is a high efficiency, condensing appliance which will automatically adjust its output to match the demand for heat. Therefore gas consumption is reduced as the heat demand is reduced.

The boiler condenses water from the flue gases when operating most efficiently. To operate your boiler efficiently (using less gas) turn the central heating temperature knob (B) to the ' **e** ' position or lower. In winter periods it may be necessary to turn the knob towards the '**MAX**' position to meet heating requirements. This will depend on the house and radiators used.

Reducing the room thermostat setting by 1⁰C can reduce gas consumption by up to 10%.

WEATHER COMPENSATION

When the Weather Compensation option is fitted to the system then the central heating temperature knob (B) becomes a method of controlling room temperature. Turn the knob clockwise to increase room temperature and anti-clockwise to decrease room temperature. Once the desired setting has been achieved, leave the knob in this position and the system will automatically achieve the desired room temperature for all outside weather conditions.

BOILER FROST PROTECTION

The boiler is fitted with frost protection that operates in all modes, provided the power supply to the boiler is always turned on. If the water in the boiler falls below 5⁰C, the frost protection will activate and run the boiler to avoid freezing. The process does not guarantee that all other parts of the system will be protected.

If a system frost thermostat has been installed, the boiler must be set in winter mode, ' ☃ ', for the system frost protection to run.

If no system frost protection is provided and frost is likely during a short absence from home it is recommended to leave the system heating controls or built in programmer (if fitted) switched on and run at a reduced temperature setting. For longer periods, the entire system should be drained.

BOILER RESTART

To restart the boiler, when directed in the listed fault codes (see section 8) press the restart button (I). The boiler will repeat its ignition sequence. If the boiler still fails to start consult a Gas Safe Registered Engineer or an IE Registered Gas Installer (RGII).

MAINS POWER OFF

To remove all power to the boiler the mains power switch must be turned off.

3. SYSTEM WATER PRESSURE

The system pressure gauge (G - see page 3) indicates the central heating system pressure. If the pressure is seen to fall below the original installation pressure of 1-2 bar over a period of time and continue to fall then a water leak may be indicated. In this event re-pressurise the system as shown below. If unable to do so or if the pressure continues to drop a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII) should be consulted.

THE BOILER WILL NOT OPERATE IF THE PRESSURE HAS REDUCED TO LESS THAN 0.3 BAR UNDER THIS CONDITION.

To Top up the system :-

1. Ensure both **A** & **B** handles (blue) are in closed position (as shown below)
2. Remove the plug and cap and retain.
3. Connect the filling loop to the Domestic Hot Water (DHW) inlet and
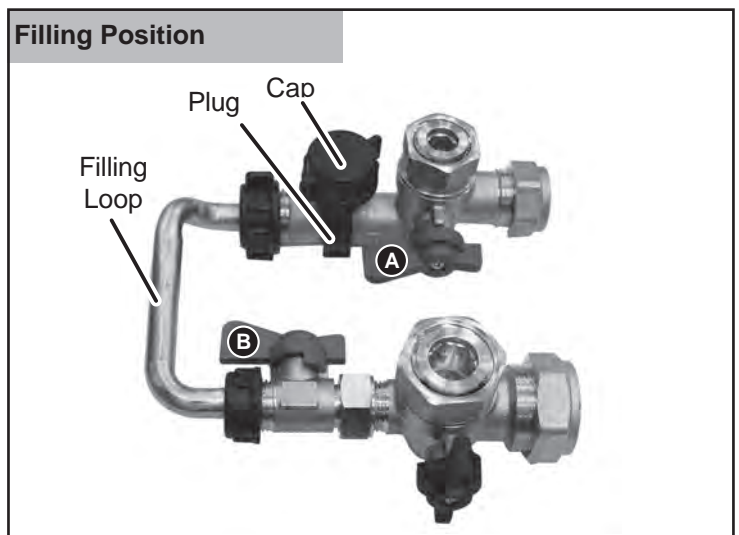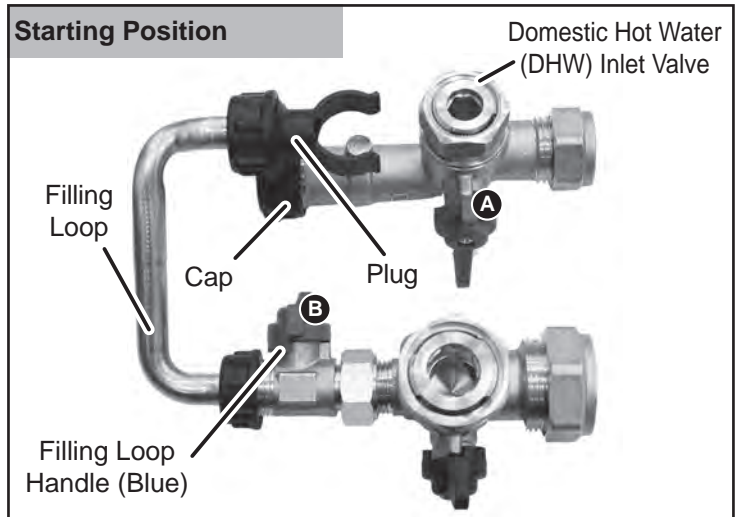
   tighten. Also ensure that the other end of filling loop is hand tight.
4. Turn the Domestic Hot Water (DHW) Inlet **A** blue handle to the horizontal position.
5. Ensuring no leaks are seen, gradually turn the filling loop handle (blue) **B** to the horizontal position.
6. Wait for the pressure gauge to reach 1 to 1.5 bar.
7. Once pressure is reached turn valves **A** & **B** back to the closed position.
8. Disconnect the filling loop, replace cap and plug. Note there can be some water spillage at this point.

User's

4. CONDENSATE DRAIN

This appliance is fitted with a siphonic condensate trap system that reduces the risk of the appliance condensate from freezing. However should the condensate pipe to this appliance freeze, please follow these instructions:

a. If you do not feel competent to carry out the defrosting instructions below please call your local Gas Safe Registered installer for assistance.

b. If you do feel competent to carry out the following instructions please do so with care when handling hot utensils. Do not attempt to thaw pipework above ground level.

If this appliance develops a blockage in its condensate pipe, its condensate will build up to a point where it will make a gurgling noise prior to locking out an "*L2*" fault code. If the appliance is restarted it will make a gurgling noise prior to it locking out on a failed ignition "*L2*" code.

To unblock a frozen condensate pipe;

1. Follow the routing of the plastic pipe from its exit point on the appliance, through its route to its termination point.

   Locate the frozen blockage. It is likely that the pipe is frozen at the most exposed point external to the building or where there is some obstruction to flow. This could be at the open end of the pipe, at a bend or elbow, or where there is a dip in the pipe in which condensate can collect. The location of the blockage should be identified as closely as possible before taking further action.

2. Apply a hot water bottle, microwaveable heat pack or a warm damp cloth to the frozen blockage area. Several applications may have to be made before it fully defrosts. Warm water can also be poured onto the pipe from a watering can or similar. DO NOT use boiling water.

3. Caution when using warm water as this may freeze and cause other localised hazards.

4. Once the blockage is removed and the condensate can flow freely, restart the appliance. (Refer to "To Light the boiler")

5. If the appliance fails to ignite, call your Gas Safe Registered engineer.

Preventative solutions

During cold weather, set the central heating temperature knob (B) to maximum, (Must return to original setting once cold spell is over).

Place the heating on continuous and turn the room thermostat down to 15ºC overnight or when unoccupied. (Return to normal after cold spell).

5. GENERAL INFORMATION

BOILER PUMP

The boiler pump will operate briefly as a self-check once every 24 hours, regardless of system demand.

MINIMUM CLEARANCES

Clearance of 165mm above, 100mm below, 2.5mm at the sides and 450mm at the front of the boiler casing must be allowed for servicing.

Bottom Clearance

Bottom clearance after installation can be reduced to 5mm. This must be obtained with an easily removable panel to provide the 100mm clearance required for servicing.

ESCAPE OF GAS

Should a gas leak or fault be suspected contact the National Gas Emergency Service without delay. **Telephone 0800 111 999**.

Ensure that;
- **All naked flames are extinguished**
- **Do not operate electrical switches**
- **Open all windows and doors**

CLEANING

For normal cleaning simply dust with a dry cloth. To remove stubborn marks and stains, wipe with a damp cloth and finish off with a dry cloth. ***DO NOT use abrasive cleaning materials.***
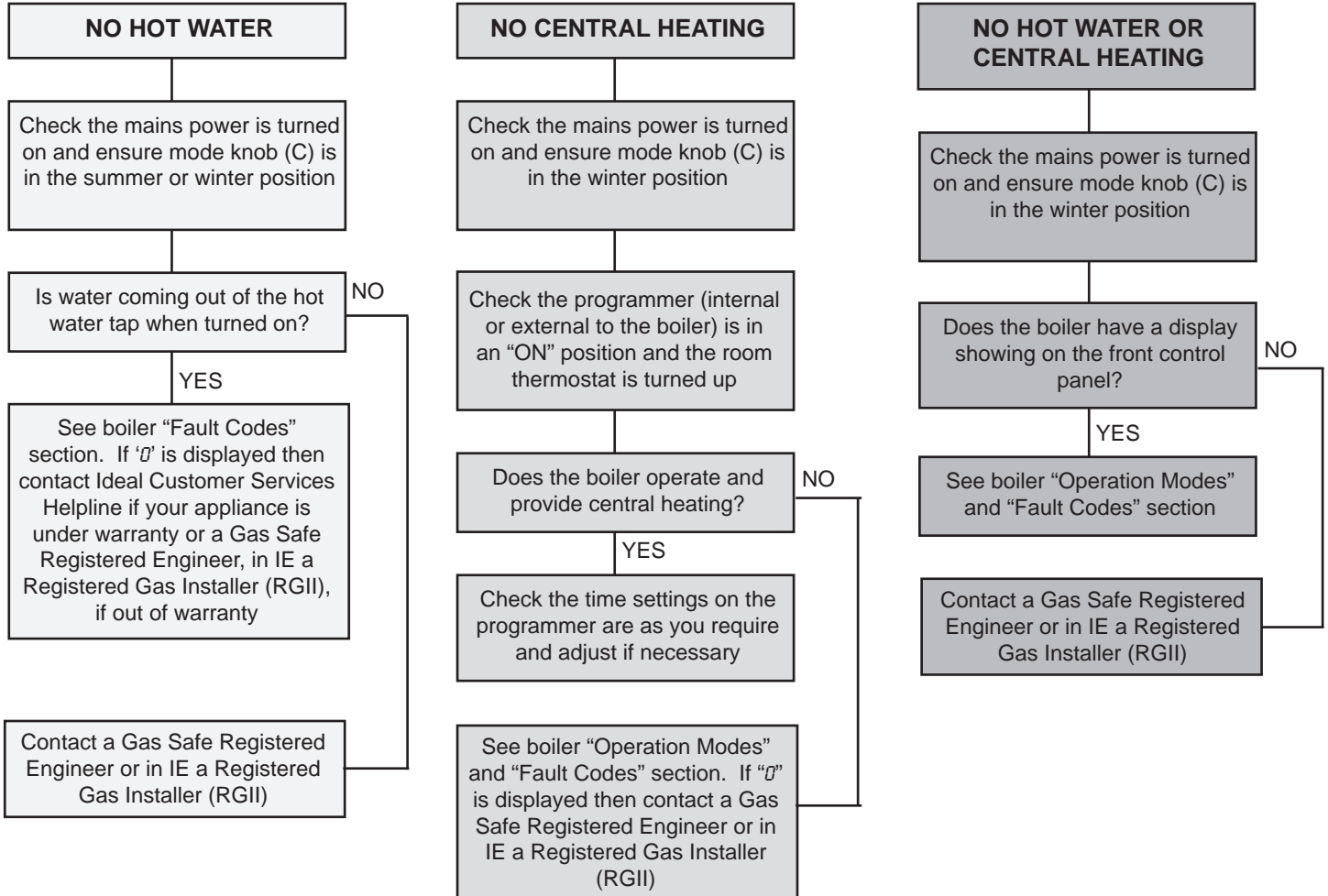
MAINTENANCE

The appliance should be serviced at least once a year by a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII).

6.   POINTS FOR THE BOILER USER

Note. *In line with our current warranty policy we would ask that you check through the following guide to identify any problems external to the boiler prior to requesting a service engineer's visit. Should the problem be found to be other than with the appliance we reserve the right to levy a charge for the visit, or for any pre-arranged visit where access is not gained by the engineer.*
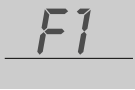
TROUBLESHOOTING

NO HOT WATER

Check the mains power is turned on and ensure mode knob (C) is in the summer or winter position

Is water coming out of the hot water tap when turned on? — NO

YES

See boiler "Fault Codes" section. If '*0*' is displayed then contact Ideal Customer Services Helpline if your appliance is under warranty or a Gas Safe Registered Engineer, in IE a Registered Gas Installer (RGII), if out of warranty

Contact a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII)

NO CENTRAL HEATING

Check the mains power is turned on and ensure mode knob (C) is in the winter position

Check the programmer (internal or external to the boiler) is in an "ON" position and the room thermostat is turned up

Does the boiler operate and provide central heating? — NO

YES

Check the time settings on the programmer are as you require and adjust if necessary

See boiler "Operation Modes" and "Fault Codes" section. If "*0*" is displayed then contact a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII)

NO HOT WATER OR CENTRAL HEATING

Check the mains power is turned on and ensure mode knob (C) is in the winter position

Does the boiler have a display showing on the front control panel? — NO

YES

See boiler "Operation Modes" and "Fault Codes" section

Contact a Gas Safe Registered Engineer or in IE a Registered Gas Installer (RGII)

7. NORMAL OPERATION DISPLAY CODES

| DISPLAY CODE ON BOILER	DESCRIPTION
00	The boiler is in standby operation awaiting either a central heating call or hot water demand.
54 °C	The boiler has a call for central heating but the appliance has reached the desired temperature set on the boiler.
54 °C	The boiler has a call for hot water but the appliance has reached the desired temperature set on the boiler.
54 °C	The boiler is operating in central heating mode.
54 °C	The boiler is operating in domestic hot water mode.
FP	The boiler is operating in frost protection.
--	The boiler mode knob (C) is in the off position, rotate fully clockwise for hot water and central heating operation.

8. FAULT CODES

| DISPLAY CODE ON BOILER	DESCRIPTION	ACTION
F1	Low Water Pressure	Check system water pressure is between 1 & 1.5bar on the system pressure gauge. To re-pressurise the system see Section 3. If the boiler still fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
F2	Flame Loss	1. Check other gas appliances in the house are working to confirm a supply is present in the property. 2. If other appliances do not work or there are no other appliances, check the gas supply is on at the meter and/or pre payment meter has credit. If the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
F3	Fan Fault	Restart the appliance - if the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
F4 L4	Flow Thermistor	Restart the appliance - if the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
F5 L5	Return Thermistor	Restart the appliance - if the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
F6	Outside Sensor Failure	Restart the appliance - if the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
F7	Low Mains Voltage	Contact a qualified electrician or your electricity provider.
F9 L9	Unconfigured PCB	Unconfigured PCB. Please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
L1	Flow Temperature Overheat or No Water Flow	Check system water pressure is between 1 & 1.5bar on the system pressure gauge. To re-pressurise the system see Section 3. If the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
L2	Ignition Lockout	1. Check condensate pipe for blockages (refer to Section 4). 2. Check other gas appliances in the house are working to confirm a supply is present in the property. 3. If other appliances do not work or there are no other appliances, check the gas supply is on at the meter and/or pre payment meter has credit. If the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
L6	False Flame Lockout	Restart the appliance - if the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
LC	5 Boiler Resets in 15 minutes	1. Turn electrical supply to boiler off and on. 2. If the boiler fails to operate please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
FA	Negative Differential Flow/Return Thermistor	If the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
FU	Flow/Return Differential > 50°C	If the boiler fails to operate then please contact Ideal (if under warranty) or alternatively a Gas Safe Registered Engineer if outside of the warranty period. In IE contact a Registered Gas Installer (RGII).
dU	Diverter Valve in mid-position for service	Rotate all knobs fully clockwise, turn boiler power off and on then press restart
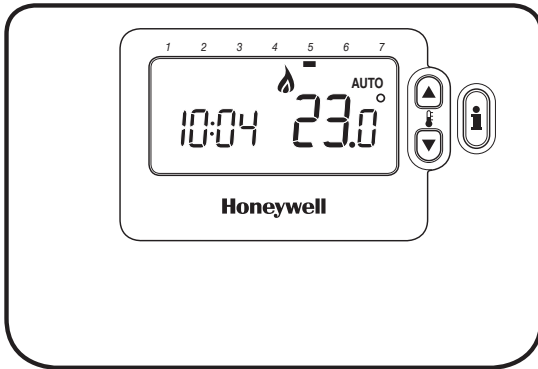
USER GUIDE

Description

The Honeywell CM701 is a programmable room thermostat designed to control your heating system efficiently, providing comfortable temperatures when you are at home and energy savings when you are away. The following instructions explain how to program and use the thermostat to provide the most home comfort at the least cost.

Features

- Ergonomic user interface featuring an 'OK-button'.
- Large LCD (Liquid Crystal Display) Screen with backlight.
- 4 independent temperature levels (from 5°C to 35°C).
- Automatic Summer/Winter Time Change.
- Optimum Start to achieve the right temperature at the right time.
- Built-in Memory holds the user program indefinitely.

Controls Layout
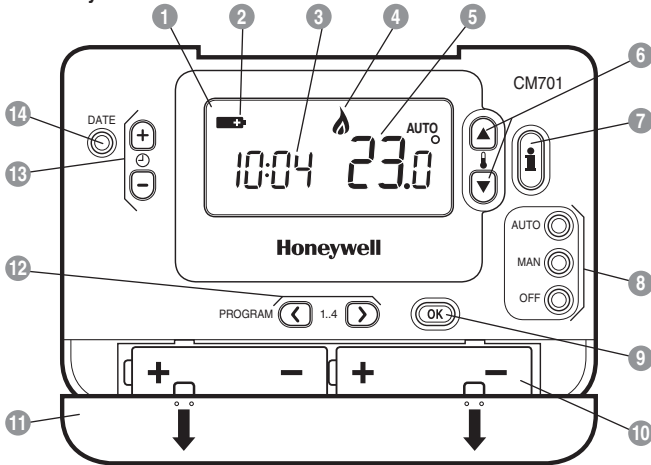
1 LCD Screen	**6** Temperature Change Buttons	**11** Battery Cover
2 Battery Low Indicator	**7** Temperature Enquiry Button	**12** Program Buttons
3 Time Display	**8** Operating Mode Buttons	**13** Time Change Buttons
4 Burner On Indicator	**9** Green OK Button	**14** Set Date Button
5 Temperature Display	**10** Battery Compartment	

2

This section shows you how to setup and run the thermostat in 3 simple steps:

STEP 1: Installing the Batteries

Note: Please follow the instructions in this section only if the thermostat screen is blank (no symbols or digits are displayed). If the room temperature is already displayed move on to Step 2: Setting the Date and Time.

To install the Batteries:

a. Lift up the front cover of the thermostat to reveal the battery cover and product controls.

b. Remove the battery cover by pressing down and sliding out.

c. Insert the 2 x AA LR6 Alkaline Batteries supplied with the thermostat, ensuring the correct orientation (see '**Controls Layout**' on page 2).

d. After a short pause the thermostat will display information on the screen and is now ready for use.

e. Replace the battery cover by sliding it firmly back into the front of the thermostat.

STEP 2: Setting the Date and Time

To set the Date and Time:

a. Press the **DATE** button to begin setting the date. When you set the date for the first time after the batteries are inserted, the display will show:

Press the ⏰ ⊕ or ⊖ buttons to set the current day of the month (e.g. *d 01* = 1st day of the month) then press the green (OK) button to confirm.

b. Press the ⏰ ⊕ or ⊖ buttons to set the current month of the year (e.g. *m 01* = January) then press the green (OK) button to confirm.

c. Press the ⏰ ⊕ or ⊖ buttons to set the current year (e.g. *yr 06* = 2006) then press the green (OK) button to confirm.

The date is now stored.

d. Use the ⏰ ⊕ or ⊖ buttons to set the correct time then press the green (OK) button to confirm. Each press of the buttons will change the time by one minute and holding them down will change the time slowly at first and get progressively quicker.

Note: If this mode is entered accidentally then press the AUTO, MAN or OFF buttons to exit.

STEP 3: Running the Built-in Heating Program

The thermostat is now ready for operation. Press the **AUTO** button and the built-in heating program will start running. *Note: The built-in heating program has been designed to provide normal comfort requirements, but if you want to customise the settings please see the next section '**Programming the CM701**'.*

The Built-in Heating Program

The built-in heating program has 4 temperature level changes that can be set between 3.00am and 2.50am the following day - allowing you to maintain the evening temperature after midnight. Each temperature level can be set between 5°C and 35°C, and adjusted in 0.5°C increments. The factory default program for heating is as follows.

Period	1	2	3	4
Time	6:30	8:00	18:00	22:30
Temperature	21°C	18°C	21°C	16°C

Reviewing the Heating Program

To review or edit the heating program use the **PROGRAM** ⟨ or ⟩ buttons to navigate between the 4 individual programming periods.

Modifying the Heating Program

To change the heating program:

a. Press either of the **PROGRAM** ⟨ or ⟩ buttons to enter the programming mode. The time / temperature settings for period ① will be flashing as shown. The active period is highlighted by a flashing square around the numbers at the bottom of the screen.

b. To adjust the period start time use the ⊙ ⊕ or ⊖ buttons, the display will stop flashing and the 'OK?' indicator will be displayed. Holding the button down will change the time quickly.

Note: If you are pressing the ⊙ ⊕ or ⊖ buttons and the display flashes the next period, it means the next period will be pushed forward.

c. Once the required time is reached press the green ⓞⓚ button to confirm.

Note: If the original time setting did not require adjustment press the green ⓞⓚ button to move to step 'd'.

d. The temperature setting for period ① will now be flashing. To adjust this press the 🌡▲ or ▼ buttons and confirm the setting again by pressing the green ⓞⓚ button.

e. The next time and temperature period will now be active. Adjust this by repeating steps **b** - **d** above until all 4 periods are set or press the **AUTO** button to run the program as set, at any time.

Disabling / Enabling Time Periods

The thermostat has 4 periods that can be programmed, but you may not need all of these switch points for your heating requirements. Therefore, any period from 2 to 4 can be removed from (or returned to) the heating program profile.

To disable or enable time periods:

a. To disable unwanted periods go to the desired period (② to ④) using the **PROGRAM** ⟨ or ⟩ buttons to navigate, ensure the correct period is highlighted with the flashing square symbol. Press and hold the 🛈 button for at least 2 seconds and the display will indicate the period has been removed from the program.

b. To enable periods again follow the same procedure as above, navigating to the already disabled period. To enable this period again press and hold the 🛈 button for at least 2 seconds.

Choosing the Operating Mode

The thermostat can operate in three different modes: Automatic, Manual or Off. To set the operating mode press either of the **AUTO**, **MAN** or **OFF** buttons. The screen indicates which mode is currently active by displaying **AUTO**, **MAN** or **OFF**.

• **AUTO (automatic)** mode sets the thermostat to follow the built-in temperature program (default or personalised). Operating the thermostat in this mode is the best way to maintain a high level of temperature comfort whilst maximising your energy savings.

• **MAN (manual)** mode sets the thermostat to act as a simple thermostat with a fixed setpoint throughout the day. The setpoint can be adjusted from 5°C to 35°C by using the 🌡🔺 or 🔻 buttons. The thermostat will continue to maintain this temperature until another operating mode or temperature is selected.

• **OFF** mode sets the thermostat to control to a minimum temperature setting of 5°C (default) that acts as a frost protection measure for your home.

During Normal Operation

• **Temperature Enquiry**

In **AUTO**, **MAN** and **OFF** operating modes the thermostat will display the current room temperature. To review the programmed **'target'** temperature (the temperature which the thermostat is trying to maintain) press the 🔘 button. This 'target' temperature value will be displayed flashing for 5 seconds before returning to the current room temperature value.

• **Temperature Override**

During normal operation (**AUTO** mode) the programmed temperature can be adjusted manually by pressing the 🌡🔺 or 🔻 buttons or the 🔘 button. The 'target' temperature will be displayed and flash for 5 seconds - during this time the 🌡🔺 or 🔻 buttons can be used to modify the set value. ***Note:** This temperature override is cancelled at the next programmed temperature change.*

Adjusting the Time

To adjust only the time during normal operation use the ⏲ ➕ or ➖ buttons to adjust the time and press the green ⒪ⓚ button again to confirm any changes.

Using the Special Features

• **Display Backlight**

The CM701 has a backlit display that will illuminate when a button is pressed for easier viewing of the display in low light conditions.

• **SERVICE indicator**

Note: This option only works if activated by your installer.

The 'SERVICE' indicator is displayed at set intervals as a reminder that your heating system requires a routine check. Please call your installer to arrange a maintenance visit.

The 'SERVICE' indicator will remain on the display of the CM701 until it is either reset or disabled by your installer. The CM701 and heating system will continue to operate as normal.

• **Automatic Summer/Winter Time Change**

The CM701 has a built-in Automatic Summer/Winter Time Change feature that will automatically adjust the clock forward or backward by one hour for 'Daylight Saving Time'. This is carried out on the last Sunday of March and October each year.

• **Optimum Start**

Optimum Start is a program which ensures that the optimum temperature conditions are achieved at the required times. This is an Energy Efficiency feature that adjusts the start time of your heating system depending upon how cold it is. For example, on cold days your heating system will be started earlier to ensure that your home is warm when you get up (at the target temperature) and on warmer days the heating system will be started later to save energy. So, if the Optimum Start Feature is used, then the time / temperature settings which are entered into the thermostat should be set to when you want to be warm by and not when you want the heating system to start.

Symptom	Remedy
Blank Display (Power Loss).	Check batteries are installed by removing the battery cover. Check batteries have been installed in the correct orientation. Replace the batteries.
Display shows flashing ▬➕ symbol.	The batteries in the thermostat are low on power - Replace the batteries.
Display shows ▬◗ symbol.	A fault has occurred in your heating system. Remove and re-insert the batteries. If the ▬◗ symbol does not clear after a few minutes contact your installer.
Display shows the word '**SERVICE**'	Your installer has set a scheduled maintenance alert period on your CM701 as a recommendation that your heating system should receive a routine inspection. Call your installer to arrange a maintenance visit. ***Note:*** *The CM701 and heating system will continue to operate as normal.*

FAQ's

How do I change the batteries on the thermostat when they run out?

The thermostat constantly monitors the battery power level, which typically lasts for about 2 years before needing replaced. When the power is running low a flashing ▬➕ symbol will be displayed on the screen. To change the batteries follow the steps in the above section ('**STEP 1: Installing the Batteries**' on page 3), replacing the used batteries with new ones in Step c. Note: While changing the batteries your program settings will be stored but you may need to adjust the time settings to be correct.

How do I set one temperature for the whole day?

To operate as a simple thermostat with one temperature throughout the day, select the manual operating mode by pressing the **MAN** button. Adjust the temperature by pressing the 🔆 ▲ or ▼ buttons - this can be set anywhere from 5°C to 35°C in 0.5°C steps. The thermostat will continue to maintain this temperature until another operating mode is selected or the temperature is adjusted.

Description

The Honeywell CM707 is a programmable room thermostat designed to control your heating system efficiently, providing comfortable temperatures when you are at home and energy savings when you are away. The following instructions explain how to program and use the thermostat to provide the most home comfort at the least cost.

Features

- Ergonomic user interface featuring an 'OK-button'.
- Large LCD (Liquid Crystal Display) Screen with backlight.
- 7-day heating program to match your lifestyle, whilst maximising energy savings.
- 4 independent temperature levels per day (from 5°C to 35°C).
- Holiday button saves energy by letting you reduce the temperature for 1 to 99 days.
- Automatic Summer/Winter Time Change.
- Optimum Start to achieve the right temperature at the right time.
- Built-in Memory holds the user program indefinitely.

Controls Layout
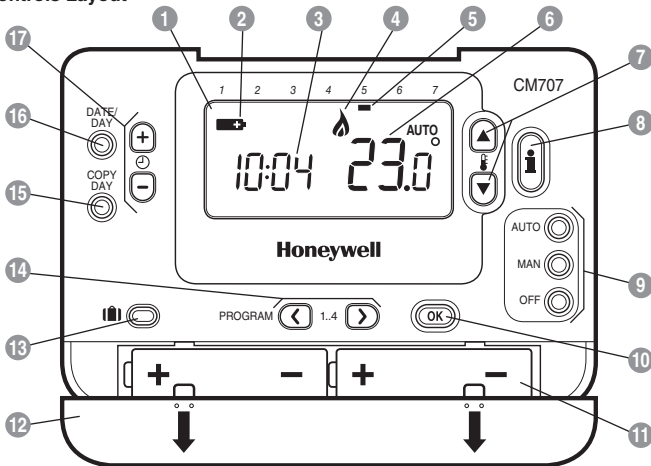
1. LCD Screen
2. Battery Low Indicator
3. Time Display
4. Burner On Indicator
5. Day Indicator
6. Temperature Display
7. Temperature Change Buttons
8. Temperature Enquiry Button
9. Operating Mode Buttons
10. Green OK Button
11. Battery Compartment
12. Battery Cover
13. Holiday Function Button
14. Program Buttons
15. Copy Day Button
16. Set Date/Day Button
17. Time Change Buttons

This section shows you how to setup and run the thermostat in 3 simple steps:

STEP 1: Installing the Batteries

Note: *Please follow the instructions in this section only if the thermostat screen is blank (no symbols or digits are displayed). If the room temperature is already displayed move on to **Step 2: Setting the Date and Time**.*

To install the Batteries:

a. Lift up the front cover of the thermostat to reveal the battery cover and product controls.

b. Remove the battery cover by pressing down and sliding out.

c. Insert the 2 x AA LR6 Alkaline Batteries supplied with the thermostat, ensuring the correct orientation (see '**Controls Layout**' on page 8).

d. After a short pause the thermostat will display information on the screen and is now ready for use.

e. Replace the battery cover by sliding it firmly back into the front of the thermostat.

STEP 2: Setting the Date and Time

To set the Date and Time:

a. Press the **DATE/DAY** button to begin setting the date. When you set the date for the first time after the batteries are inserted, the display will show:

Press the ⏲ ⊕ or ⊖ buttons to set the current day of the month (e.g. *d 01* = 1st day of the month) then press the green (OK) button to confirm.

b. Press the ⏲ ⊕ or ⊖ buttons to set the current month of the year (e.g. *m 01* = January) then press the green (OK) button to confirm.

c. Press the ⏲ ⊕ or ⊖ buttons to set the current year (e.g. *yr 06* = 2006) then press the green (OK) button to confirm.

The date is now stored and the Day Indicator will be displayed under the current day of the week (e.g. 1 = Monday, 2 = Tuesday, etc.)

d. Use the ⏲ ⊕ or ⊖ buttons to set the correct time then press the green (OK) button to confirm. Each press of the buttons will change the time by one minute and holding them down will change the time slowly at first and get progressively quicker.

Note: *If this mode is entered accidentally then press the **AUTO**, **MAN** or **OFF** buttons to exit.*

STEP 3: Running the Built-in Heating Program

The thermostat is now ready for operation. Press the **AUTO** button and the built-in heating program will start running. ***Note:*** *The built-in heating program has been designed to provide normal comfort requirements, but if you want to customise the settings please see the next section '**Programming the CM707**'.*

The Built-in Heating Program

The built-in heating program has 4 temperature level changes per day that can be set between 3.00am and 2.50am the following day - allowing you to maintain the evening temperature after midnight. Each temperature level can be set between 5°C and 35°C, and adjusted in 0.5°C increments. The factory default program for heating is as follows.

Monday to Friday
(Day 1 to 5)

Period	1	2	3	4
Time	6:30	8:00	18:00	22:30
Temperature	21°C	18°C	21°C	16°C

Saturday & Sunday
(Day 6 & 7)

| Period	1	2	3	4
Time	8:00	10:00	18:00	23:00
Temperature	21°C	21°C	21°C	16°C

Reviewing the Heating Program

To review or edit the heating program use the **PROGRAM** ◀ or ▶ buttons to navigate between the 4 individual programming periods for that day. Use the **DATE/DAY** button to step through each day of the week, so the complete 7 day heating program can be reviewed or edited.

Modifying the Heating Program

To change the heating program:

a. Press either of the **PROGRAM** ◀ or ▶ buttons to enter the programming mode. The time / temperature settings for period ①1 on Monday (Day 1) will be flashing as shown. The active period is highlighted by a flashing square around the numbers at the bottom of the screen and the selected day is shown with the day indicator.
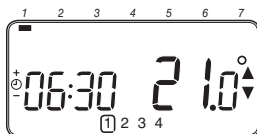
b. To adjust the period start time use the ⏰ ⊕ or ⊖ buttons, the 'OK?' indicator will be displayed to confirm the change. Holding the button down will change the time quickly.

Note: If you are pressing the ⏰ ⊕ or ⊖ buttons and the display flashes the next period, it means the next period will be pushed forward.

c. Once the required time is reached press the green **OK** button to confirm.

*Note: If the original time setting did not require adjustment press the green **OK** button to move to step 'd'.*

d. The temperature setting for period ①1 on Monday (Day 1) will now be flashing. To adjust this press the 🌡▲ or ▼ buttons and confirm the setting again by pressing the green **OK** button.

e. The next time and temperature period will now be active. Adjust this by repeating steps b - d above until all 4 periods are set for Monday or press the **AUTO** button to run the program as set, at any time.

You now have a choice of how to set the program for the next day:

f. i) Press the **COPY DAY** button to copy Monday's program into Tuesday. The display will go blank apart from the 'non flashing' day indicator, which indicates the day copied and the 'flashing' target day to copy the program to. To accept this day press the green (OK) button. To select a different target day press the **DATE/DAY** button until the 'flashing' day indicator is under the required day, then accept it by pressing the green (OK) button. *Note: Once the target day is confirmed it becomes the day that is copied if the **COPY DAY** button is pressed again.*

OR

ii) Press the **DATE/DAY** button to move the day indicator to Tuesday (Day 2). The program for that day can then be adjusted by following steps **b to e**. Programs for the remaining days can be set in the same way, using the **DATE/DAY** button to move to the next day.

To exit the programming mode select the desired operating mode by pressing the **AUTO**, **MAN** or **OFF** buttons. *Note: To run the adjusted program select the **AUTO** mode.*

Disabling / Enabling Time Periods

The thermostat has 4 periods each day that can be programmed, but you may not need all of these switch points for your heating requirements. Therefore, any period from 2 to 4 can be removed from (or returned to) the heating program profile.

To disable or enable time periods:
a. To disable unwanted periods go to the desired period (2 to 4) using the **PROGRAM** ‹ or › buttons to navigate, ensure the correct period is highlighted with the flashing square symbol. Press and hold the 🛈 button for at least 2 seconds and the display will indicate the period has been removed from the program.

b. To enable periods again follow the same procedure as above, navigating to the already disabled period. To enable this period again press and hold the 🛈 button for at least 2 seconds.

Choosing the Operating Mode

The thermostat can operate in three different modes: Automatic, Manual or Off. To set the operating mode press either of the **AUTO**, **MAN** or **OFF** buttons. The screen indicates which mode is currently active by displaying **AUTO**, **MAN** or **OFF**.

• **AUTO (automatic)** mode sets the thermostat to follow the built-in temperature program (default or personalised). Operating the thermostat in this mode is the best way to maintain a high level of temperature comfort whilst maximising your energy savings.

• **MAN (manual)** mode sets the thermostat to act as a simple thermostat with a fixed setpoint throughout the day. The setpoint can be adjusted from 5°C to 35°C by using the 🌡 ▲ or ▼ buttons. The thermostat will continue to maintain this temperature until another operating mode or temperature is selected.

• **OFF** mode sets the thermostat to control to a minimum temperature setting of 5°C (default) that acts as a frost protection measure for your home.

During Normal Operation

• **Temperature Enquiry**

In **AUTO**, **MAN** and **OFF** operating modes the thermostat will display the current room temperature. To review the programmed **'target'** temperature (the temperature which the thermostat is trying to maintain) press the 🎚 button. This 'target' temperature value will be displayed flashing for 5 seconds before returning to the current room temperature value.

• **Temperature Override**

During normal operation (**AUTO** mode) the programmed temperature can be adjusted manually by pressing the 🌡▲ or ▼ buttons or the 🎚 button. The 'target' temperature will be displayed and flash for 5 seconds - during this time the 🌡▲ or ▼ buttons can be used to modify the set value. ***Note:*** *This temperature override is cancelled at the next programmed temperature change.*

Adjusting the Time

To adjust only the time during normal operation use the 🕐 ➕ or ➖ buttons to adjust the time and press the green ⓄⓀ button again to confirm any changes.

Using the Special Functions

• **HOLIDAY Function**

The holiday function allows you to set a constant temperature (default = 10ºC) for a specified number of days (from 1 - 99 days). This lets you save energy and related costs when you are away from home, but resumes normal operation on the day of your return.

To set the Holiday function:

a. Ensure the thermostat is running in **AUTO** or **MAN** operating modes.

b. Press the holiday 💼 button to display the holiday days counter and temperature setting, along with the holiday indicator 💼.

c. Press the 🕐 ➕ or ➖ time buttons to set the holiday time (1 - 99 days) and press the green ⓄⓀ button to confirm.

d. Press the 🌡▲ or ▼ buttons to set the holiday temperature (5°C - 35°C) and press the green ⓄⓀ button to confirm.

The thermostat will now control to the new temperature for the set number of days that your home is vacant. At midnight the holiday counter will be reduced by one until the selected number of days have passed. The thermostat will then return to normal operation as set by the **MAN** or **AUTO** mode. To cancel the HOLIDAY function or to exit the function at any time press the 💼 button a second time.

Using the Special Features

• **Display Backlight**

The CM707 has a backlit display that will illuminate when a button is pressed for easier viewing of the display in low light conditions.

• **SERVICE indicator (optional)**

Note: This option only works if activated by your installer.

The 'SERVICE' indicator is displayed at set intervals as a reminder that your heating system requires a routine check. Please call your installer to arrange a maintenance visit.

The 'SERVICE' indicator will remain on the display of the CM707 until it is either reset or disabled by your installer. The CM707 and heating system will continue to operate as normal.
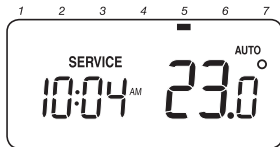
• **Automatic Summer/Winter Time Change**

The CM707 has a built-in Automatic Summer/Winter Time Change feature that will automatically adjust the clock forward or backward by one hour for 'Daylight Saving Time'. This is carried out on the last Sunday of March and October each year.

• **Optimum Start**

Optimum Start is a program which ensures that the optimum temperature conditions are achieved at the required times. This is an Energy Efficiency feature that adjusts the start time of your heating system depending upon how cold it is. For example, on cold days your heating system will be started earlier to ensure that your home is warm when you get up (at the target temperature) and on warmer days the heating system will be started later to save energy. So, if the Optimum Start Feature is used, then the time / temperature settings which are entered into the thermostat should be set to when you want to be warm by and not when you want the heating system to start.

Symptom	Remedy
Blank Display (Power Loss).	Check batteries are installed by removing the battery cover. Check batteries have been installed in the correct orientation. Replace the batteries.
Display shows flashing ▬▬◘ symbol.	The batteries in the thermostat are low on power - Replace the batteries.
Display shows ▬▬◗ symbol.	A fault has occurred in your heating system. Remove and re-insert the batteries. If the ▬▬◗ symbol does not clear after a few minutes contact your installer.
Display shows the word '**SERVICE**'	Your installer has set a scheduled maintenance alert period on your CM707 as a recommendation that your heating system should receive a routine inspection. Call your installer to arrange a maintenance visit. ***Note:*** *The CM707 and heating system will continue to operate as normal.*

How do I change the batteries on the thermostat when they run out?

The thermostat constantly monitors the battery power level, which typically lasts for about 2 years before needing replaced. When the power is running low a flashing ▬▬◘ symbol will be displayed on the screen. To change the batteries follow the steps in the above section ('**STEP 1: Installing the Batteries**' on page 3), replacing the used batteries with new ones in Step c. Note: While changing the batteries your program settings will be stored but you may need to adjust the time settings to be correct.

How do I set one temperature for the whole day?

To operate as a simple thermostat with one temperature throughout the day, select the manual operating mode by pressing the **MAN** button. Adjust the temperature by pressing the ☀ ▲ or ▼ buttons - this can be set anywhere from 5°C to 35°C in 0.5°C steps. The thermostat will continue to maintain this temperature until another operating mode is selected or the temperature is adjusted.

...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.

CE

Honeywell

42010941-007 R1

DETA MANUAL

MAINS POWERED SMOKE ALARMS & HEAT ALARMS

COVERS:
- Fitting Instructions
- Location Guide
- User Information
- Basic Fire Safety Tips
- User Maintenance Instructions

MODELS:

IONISATION SMOKE ALARM
1151

THERMALLY ENHANCED
OPTICAL SMOKE ALARM
1153

HEAT ALARM
1155

220-240VAC (∿)
MAINS POWERED ALARMS
CLASS II APPARATUS ☐

Deta Electrical
Company Limited,
Kingsway House,
Laporte Way,
Luton
Bedfordshire,
LU4 8RJ,
United Kingdom

GN2346/R2

**IMPORTANT: PLEASE READ
AND RETAIN THIS OWNERS MANUAL**
When installing this alarm for use by others,
please leave this manual or a copy with the
end user.

CHECKS BEFORE USE
- Check battery has been fitted correctly.
- Check alarm is not beeping.
- Test alarm before switching on the electricity supply.
- Check the green light is on
- Check the red light flashes every 45 seconds or so.
- When testing linked alarms check that they all interconnect within 10 seconds

GUIDANCE ON INSTALLATION

This alarm must not be exposed to dripping or splashing.
Connect the alarm as late as possible in an installation, particularly in new build, to avoid contamination. Remove the dust cover before applying power.

NOTE: For detailed guidance on the siting of this alarm refer to section C of this handbook.

IMPORTANT: The circuit used to power the alarm must be a 24 hour voltage circuit that cannot be turned off by a switch. BS5839 Part 6 states that: -
For mains powered alarms, each with an integral standby supply (Grade D), the mains electricity supply should take the form of either:

a) an independent circuit at the dwelling's main circuit board, in which case no other electrical equipment should be connected to this circuit (other than a dedicated monitoring device installed to indicate failure of the mains electricity supply to the alarms); or

b) a separately electrically protected, regularly used local lighting circuit.

If it is necessary to use an RCD for protection, it should operate independently of any RCD protection for circuits supplying sockets or portable equipment. All interconnected alarms should be installed on a single final circuit.

NOTE: The maximum interconnect wiring length is 250 metres. The maximum number of alarms interconnected together is 12. DETA smoke alarms should not be connected to any model produced by another manufacturer.

The location of the alarms must comply with the applicable building codes and the advice in section C: WHERE TO LOCATE below.

INSTALLATION

(See fig 1 and 2)

1. Connect the brown (live) in the house wiring to connector L and the house blue wire (Neutral) to connector N.
   NO CONNECTION SHOULD BE MADE TO THE MAINS ELECTRICITY SUPPLY EARTH TERMINAL. TERMINATE HOUSE WIRING EARTH IN SPARE CONNECTOR MARKED E. See Fig 1

2. For multiple alarm installations use a "three core and earth" style cable between all the alarms to be interconnected and connect the third core of that cable to connector marked I. DO NOT use the earth wire for the interconnect line. This must be treated as live, i.e. insulated and sleeved.

3. Open the battery door on the back of the alarm, connect the battery, close the battery drawer and secure with the screw provided. Test the alarm using the test button.

4. Locate the molded arrow on the side of the base and smoke alarm see fig 2. Position the smoke alarm just below the base with both arrows in the same orientation and locate the alarm onto the base by gently applying pressure until the alarm 'clicks' into place.

5. Switch on the mains electricity supply.

6. Check that the green light is on and that the red light is flashing every 45 seconds or so.
   The lights are located behind the grille on the front of the alarm.

7. Press and hold the test button until the alarm sounds.
   NOTE: On the 1151 & 1153 alarms, pressing this button places the alarm in silent mode.

SYSTEMS OF MORE THAN ONE ALARM
Test each alarm in the system checking that all other alarms in the system are triggered within 10 seconds.

WARNING
Do not attempt to test the alarm with flame heat or smoke, them results may be misleading and may damage the alarm.

The dust cover must be removed as late as possible before commissioning. This will reduce the chances of the alarm being contaminated by building dust etc.

Remove the alarm from the system before testing the wiring with high voltage insulation testing equipment otherwise this will damage the alarm and will invalidate the warranty.

WHERE TO LOCATE

1. As a minimum smoke alarms should be located between sleeping areas and potential sources of fire such as living rooms and kitchens. In single storey homes with one sleeping area a smoke alarm should be installed in the hallway as close as possible to the living accommodation.
   To ensure audibility in the bedrooms it may be necessary to install more than one smoke alarm, particularly if the hallway is more than 15m long. In single storey homes with two separate sleeping areas, a minimum of two smoke

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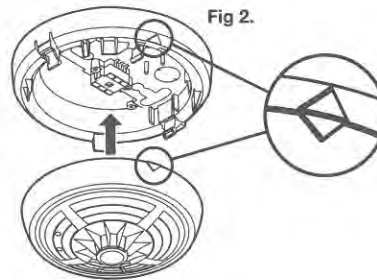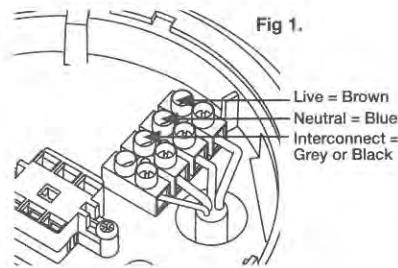
alarms is required, one outside each sleeping area. In multilevel or split level homes as a minimum a smoke alarm should be installed on the ground floor between the staircase and any rooms in which a fire might start and on each storey in circulation areas which form part of the escape route (normally hallways and landings).

NOTE: Heat alarms should not be used in escape routes instead of smoke alarms.They should only be used in the applications listed below in addition to smoke alarms and should always be interconnected to smoke alarms.

2. Additional alarms should be installed in bedrooms in anticipation of fires originating there, caused by faulty wiring, lights, appliances, smokers or other hazards.

3. For best protection, smoke alarms should be installed in every room in your home, apart from those listed in the 'LOCATIONS TO AVOID' section. Heat alarms should be used in kitchens, boiler rooms, laundry rooms, garages and such like where smoke alarms would be unsuitable. All alarms must be interconnected.

4. Install smoke alarms in circulation areas at a distance no greater than 7.5m from the farthest wall, no greater than 7.5m from a door to any room in which a fire might start and no greater than 7.5m from the next smoke alarm.

5. When heat alarms are installed in a room, they should be at a distance no greater than 5.3m from the farthest wall no greater that 5.3m from a door to any room in which a fire might start and no greater than 5.3m from the next heat or smoke alarm.

6. As it is impossible to predict the source of a fire the best location for an alarm is the centre of the room or hallway. **If it is necessary to locate the smoke alarm on a wall** always locate the detection element of the alarm 150mm to 300mm (6 to 12 inches) below the ceiling and the bottom of the alarm above the level of doors and other openings.
   NOTE: Heat alarms should not be wall mounted.

7. In rooms with simple sloped, peaked or gabled ceilings install smoke alarms 900mm (3 feet) from the highest point of the ceiling. 'Dead air' at the peak of the ceiling may prevent smoke from reaching the alarm in time to provide an early warning.

8. Closed doors and other obstructions will interfere with the path of smoke and heat to an alarm and may prevent occupants from hearing an alarm on the other side of a closed door. Install sufficient alarms to compensate for closed doors and other obstacles.

9. Your local fire brigade or insurance company may be able to give you further advice. Call them and ask. Further help and information may also be found in BS5839 Part 6 and the Fire Safety guidance given by the Department of Transport,Local Government and the Regions (DTLR).

IMPORTANT: These smoke and heat alarms are intended primarily for use in single-family occupancy private dwellings. For use in other applications the manufacturers advice should be sought.

LOCATIONS TO AVOID

DO NOT locate alarms: -

1. In turbulent air from fans, heaters, doors, windows, etc.

2. In high humidity areas such as bathrooms and shower rooms or where the temperature exceeds 39°C (100°F) or falls below 5°C (40°F)

Single storey, one sleeping area	Single storey, two sleeping areas	Two storey dwelling
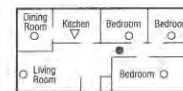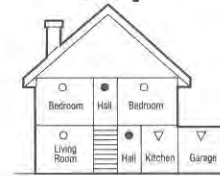
- Smoke alarms for limited protection
- Additional smoke alarms for better coverage
- Heat alarms

3. At the peak of an 'A' frame ceiling – dead air at the top may prevent smoke and heat from reaching the alarm to provide an early warning.

4. Less than 300mm (12 inches) from a wall when mounted on the ceiling.

5. In insect infested areas. Tiny insects may affect performance.

6. (Smoke alarms) in poorly ventilated kitchen or garage. Combustion particles from cooking or car exhaust could trigger a nuisance alarm

7. **In very dusty or dirty areas – dirt and excessive dust can impair the performance of the alarm**.

8. Within 300mm (12 inches) of a light fitting or room corners.

9. In locations that would make routine testing or maintenance hazardous. (e.g. over a stairwell).

10. On poorly insulated walls or ceilings.

11. Near objects such as ceiling decorations that might impede the path of smoke or heat to the alarm.

12. Within 1500mm (5 feet) of a fluorescent light fitting and keep wiring at least 1000mm (39 inches) from these fittings. Do not install alarms on circuits containing fluorescent light fittings or dimmer switches.

Further help and information may be found in BS5839 Part 6

USER INFORMATION

Features

• Operating Lights – A continuous green light indicates the alarm is receiving mains power. The red light doubles as an alarm source indicator and flashes approximately every 45 seconds to confirm circuitry integrity.

• Alarm Source Indicator – Red light will flash every second in the unit originating the alarm. Red lights on other alarms flash every 45 seconds.

• Alarm pause/silence (Smoke Alarms only)- silence your smoke alarm by momentarily pressing the test button. Ideal when non-emergency smoke (e.g. cooking fumes) cause nuisance alarms. Red light flashes every ten seconds to remind you that the alarm has been silenced. After 10 minutes the alarm will automatically reset and the LED will continue to flash once every 45 seconds.

Be Prepared

Smoke and heat alarms properly installed and maintained are an essential part of a good home fire safety programme. Review fire hazards and eliminate dangerous conditions wherever possible. When fire strikes a prepared and practiced escape plan could prove vital. Your local fire brigade may be willing to advise you. Call them and ask. Consider and discuss the following safety hints:

• Ensure everyone is familiarized with the alarm signal.

• Always test doors with your hands before flinging them open. If they feel warm, fire may be walled up behind them – leave closed and find another escape route.

• Don't waste time collecting possessions. Rouse all occupants and leave the building; your life is more valuable.

• **GET OUT, STAY OUT, GET THE FIRE BRIGADE OUT**

• Keep everyone in a set meeting place after your escape.

• If trapped inside, stay close to the floor, cover your mouth with cloth and conserve breath while you crawl to safety.

• Keep all windows and doors closed except for escape purposes.

• Prepare and practice an escape plan before a fire starts.

Draw a floor plan. Have fire drills often. Practise your escape.

USER MAINTENANCE

Vacuum every six months to keep unit working efficiently by firstly turning off the mains electricity supply and vacuuming through the vents using a soft brush attachment. Keep the nozzle from touching the unit. SWITCH POWER BACK ON WHEN YOU HAVE FINISHED.

Test the alarm once a week by: -

• Checking that the green light is on and that the red light is flashing every 45 seconds or so. The lights are located behind the grille on the front of the alarm.

• Press and hold the test button until the alarm sounds. NOTE: Pressing this button on alarms in the series also places the alarm in pause mode.

CHANGING THE BATTERY

Change the battery with a new one when the alarm beeps every 45 seconds.

1. Turn off the power, usually at the consumer unit (fuse box). Green LED should be off.

2. Using a small flat blade screwdriver gently flex the locking clips on the side of the base away from the alarm.

3. Using your other hand, disconnect the alarm by gently pulling away from the base.

4. When alarm is removed, remove screw and open battery door on the rear of the alarm. Replace battery with Duracell MN1604, MX1604, Eveready PP3S, 6LF22, Gold Peak 1606A or 1604S. Close battery door and refit the screw.

5. Press the test button on the alarm to ensure correct operation be re-installing. Locate the molded arrow on the side of the base and smoke alarm see fig 2. Position the smoke alarm just below the base with both arrows in the same orientation and locate the alarm onto the base by gently applying pressure until the alarm 'clicks' into place.

6. Restore mains power and ensure green LED lights and press the test button to confirm operation.

TROUBLESHOOTING

Problems are indicated by four events: -

1. Alarm does not sound upon pressing the test button

2. Green light does not illuminate when mains power is on.

3. Red operating light remains steadily on, or off (i.e. does not flash every 45 seconds when alarm is in standby).

4. Alarm emits a beep every 45 seconds when back up power supply should be fully charged.

Try the following: -

1. Inspect the fuse in the power circuit to the alarm

2. Gently vacuum as detailed in 'User Maintenance'.

3. Replace the battery.

4. Call a qualified electrician to inspect the house wiring and connections to the alarm.

If these procedures do not eliminate the problem. DO NOT ATTEMPT REPAIRS. In the first instance contact the manufacturer for further advice. If the alarm is still within warranty period and terms, return the unit with proof of purchase to the distributor, indicating the nature of the problem. Units beyond warranty cannot be economically repaired. For address see the bottom of this page.

False Alarms

Abnormal air conditions may cause the highly sensitive alarm to give a 'false' alarm. DO NOT DISCONNECT THE ALARM. If no fire is apparent, ventilate the room and/or operate the alarm pause (If fitted).

WARNING: IF THERE IS ANY QUESTION AS TO THE CAUSE OF AN ALARM, ALWAYS ASSUME THAT IT IS DUE TO AN ACTUAL FIRE AND FOLLOW YOU FIRE EMERGENCY PLANS. Do not assume the alarm is a nuisance alarm and activate alarm pause (if fitted).
Dust can have an adverse effect. Vacuum as recommended above.
Do not paint the unit.
Other factors such as nicotine contamination may also adversely affect the alarm.

Radioactive Contents

Ionisation type smoke alarms (1151) utilise a tiny amount of radioactive material, 0.9 microcuries (30 kilobequerels) of Americium 241, to detect smoke. This material is in the form of a sealed source and represents no hazard whatsoever to anyone installing or using the smoke alarm. Any stray particles would be unable to "penetrate the dead layer of skin and thus do not constitute an external hazard". (Radiation Protection Guidance for Scientists and Physicians). All Deta ionisation smoke alarms have been rigorously tested by the National Radiological Protection Board to ensure absolute safety.

Disposal

This product, the batteries and other accessories must not be disposed of as unsorted municipal waste and must be collected separately at the end of the products life. Contact your local authority for information about collection points in your area.

Limited warranty

DETA products are warranted by the Distributor to be free from defects in materials and workmanship under normal use and service for a period of five years from the date of purchase. DETA do not make any guarantees for this product.
No agent, representative, dealer or employee from DETA has the authority to increase or alter the obligations or limitations of the warranty.
DETA's obligation of this warranty shall be limited to the repair or replacement of any part of the smoke or heat alarm which is found to be defective in materials or workmanship under normal use and service during the five year period commencing from date of purchase. DETA shall not be obligated to repair or replace smoke or heat alarms which are found to be in need of repair because of damage, unreasonable use, modifications or alterations occurring after the date of purchase. This warranty does not affect a customer's statutory rights in any way.

How to obtain warranty service

If service is required, return the product to your retailer. The DETA makes no guarantee, express or implied, written or oral, including that of merchantability or fitness for any particular purpose with respect to battery. YOUR ALARM IS NOT A SUBSTITUTE FOR PROPERTY, DISABILITY OR OTHER INSURANCE OF ANY KIND. APPROPRIATE COVERAGE IS YOUR RESPONSIBILITY. CONSULT YOUR AGENT. In the event of a problem with your alarm or you have any questions concerning its use; care and service please consult this manual.

If you require any further help or clarification please write to:

Deta Electrical Company Limited, Kingsway House, Laporte Way, Luton Bedfordshire, LU4 8RJ, United Kingdom

DETA technical hot line: 01582 544548

Placed on the market by Sprue Safety Products Ltd, Unit 6 Carter Court, Davy Way, Waterwells Business Park, Gloucester GL2 2DE

Please note that specifications may be subject to change

PLEASE KEEP THIS MANUAL IN A SAFE PLACE

MODEL 1151	MODEL 1153	MODEL 1155
CE 14	CE 14	CE
0086	0359	
0086-CPR-597993	0359-CPR-00253	
EN14604: 2005	EN14604:2005	
DoP13/05	DoP14/11	
BS EN 14604: 2005		
Licence No: KM597992	EN14604:2005	BS 5446-2: 2003
	Intertek Testing no. 14LHK0078	Intertek Testing no. 14LHK0079
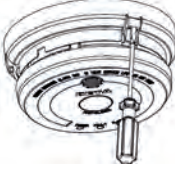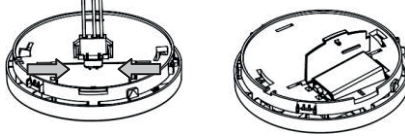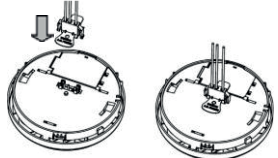
User Information

Alarm Operation

LED indicators

Green LED: When connected to the mains supply, the alarm goes through a 40 second initialization routine. After initialization, the GREEN LED remain permanently on indicating normal operation.
If GREEN LED flashes every 33 seconds, it indicates the alarm is being powered by the back-up battery.

Red LED Flashing: When the alarm senses CO gas, it goes into alarm mode and the RED LED flashes 4 times at 5 second intervals.

Yellow LED Flashing: Flashing once every 33 seconds approx. accompanied with two chirps indicates low battery warning.
If flashing approximately once every 38 seconds with chirping sound, indicates a fault condition.

Alarm Mode
In alarm mode, the CO alarm will sound four beeps in quick succession, followed by a 5 second pause. This pattern is then repeated.

Test/Silence Button
- Use the Test/Silence button to test the alarm weekly. Please refer to "**Testing the Alarm**".
- The Test/Silence button will silence the alarm only if it is in low battery condition. The yellow LED will flash during this condition. The alarm will be silenced for up to 9 hours. To change the battery, please refer to "**Replacing the Battery**".

End of life indication
- The device will give visual and audible warning when it reaches end of life (10 years). The device chirps 3 times every 33 second approx. with yellow LED flashing once. The end of life signal cannot be silenced and the device must be replaced as soon as possible.

What to do if the CO alarm sounds

If the CO gas is detected, the alarm will emit a series of four beeps followed by a short pause.
1. Alert small children in the home and quickly follow the family escape plan.
2. Keep calm and open all doors and windows to increase the rate of ventilation.
3. Turn off any fuel burning appliances where possible and stop using them.
4. Evacuate the property leaving doors and windows open.
5. Leave immediately and don't waste time getting dressed or picking up valuables.
6. Once outside, go to your selected meeting place and make sure everyone is there.
7. Get medical help for anyone suffering the effects of CO poisoning.
8. Call the appropriate appliance servicing and/or maintenance agency or, where necessary, the relevant fuel supplier on their emergency number.

Note: When an alarm sounds, it may be difficult to determine what triggered the alarm, particularly if CO alarms are interlinked with smoke/heat alarms. Therefore, evacuate the property first, then determine the cause and take appropriate action.
Note: The CO alarm will return to normal operating mode once the CO gas condition is cleared.

Warning: This device alarms only on the detection of carbon Monoxide gas. If ignored, the presence of Carbon Monoxide can be fatal.

DANGER: If the alarm sounds, and it is not being tested, it means the unit is sensing Carbon Monoxide gas, **THE SOUND OF THE ALARM REQUIRES YOUR IMMEDIATE ATTENTION AND ACTION.**

Plan of Escape
- It is recommended that a plan of escape is developed and practiced. A floor plan indicating doors and windows should be made and, if possible, that two routes of escape are established.

User Maintenance

Replacing the Battery

Warning: Only use the specified batteries (see Product Specification). Use of different batteries may have detrimental effect on the alarm. It is recommended that the battery is replaced when its voltage is low.

1. Turn off the electrical supply to the alarms at the consumer unit/fuse box. The green power LED light will go off.
2. To remove the alarm from the base, using a small flat blade screwdriver gently flex the locking clips on the side of the base away from the alarm. The alarm will then come away from the base. See Diagram 8.

Diagram 8

3. To remove the electrical connector, squeeze the locking arms on the sides while pulling it away from the bottom of the alarm. See Diagram 9.
4. After alarm has been removed, you can open the battery cover and replace with new battery. See Diagram 9.

Diagram 9

5. After the battery is replaced, close the battery cover and test the alarm by pressing the TEST button.
6. Reconnect the electrical connector, ensuring the orientation is correct and the locking arms snap back into place. See Diagram 10.
7. Fit the alarm body on to the base, ensuring it clips securely into place.

Diagram 10

8. Turn on the electrical supply and the green LED light will come on after the 40 second initialization routine, during which the green light flashes every 3 seconds. Test alarm by pressing the test button. The alarm will sound 4 short beeps – 5 seconds pause, and then repeat until the button is released.

It will then go to normal status and the Green LED will always be ON. If there is no sound output when the test button is pushed, the alarm may be defective. See the section: "Trouble Shooting".

Caution: Test the alarm for correct operation using the test facility whenever the battery is replaced.

Warning: Electricity is dangerous. When replacing the battery, you must make sure the electrical AC power is turned off.

Battery

- It is recommended that the battery is replaced annually.
- This alarm uses a 9 Volt battery. A new battery should last for at least one year under normal operating conditions.
- This alarm has a low battery monitor which will cause the alarm to "chirp" twice and at the same time the Yellow LED flashes approx. every 33 seconds for a minimum of 7 days when the battery gets low. Replace the battery when this condition occurs. Please refer to "**Replacing the Battery**".

Important: Do not attempt to remove the cover to clean inside. This will affect the warranty.

Testing the Alarm	Important Safety Information
Test the alarm to ensure proper operation. 1. Test alarm by pressing and holding the test button until it sounds. The alarm will sound 4 short beeps – 5 seconds pause, and then repeat until the button is released. 2. If multiple alarms are installed within the dwelling, test each alarm. Each alarm should trigger other alarms connected within 10 seconds. The alarm must only be tested by pressing the Test/Silence button. Do <u>not</u> ignite combustible materials and start a fire. If no alarm sounds, the unit has a defective battery or other failure. Refer to "Trouble Shooting" section for a solution. **Caution:** Due to the loudness (85 decibels) of the alarm, always stand an arms-length always from the unit when testing. Erratic or low sound coming from your alarm may indicate a defective alarm. **NOTE: WEEKLY TESTING IS REQUIRED**	• The alarm may not alert every household member every time. The alarm horn is loud in order to alert individuals to a potential danger. However, there may be some circumstances where a household member may not hear the alarm (e.g. excessive outdoor or indoor noise, sound sleepers, drug or alcohol usage, the hard of hearing). If you suspect that this alarm may not alert a household member, install and maintain specialty alarms. • The alarms have limitations. This alarm is not fool proof and is not warranted to protect lives from exposure to Carbon Monoxide. The alarms are not a substitute for insurance. Occupants should insure their lives and property. In addition, it is possible for the alarm to fail at any time. For this reason, you must test the alarm weekly and replace the unit after 10 years. • Test alarm weekly to ensure proper operation by pressing the test button. Do not use any other test method. • Do not paint the alarms. • Check the alarms on reoccupation of the premises after a vacation.

Maintenance	Carbon Monoxide (CO) Overview
Cleaning The alarm should be cleaned on a monthly basis as a minimum. To do this: • Turn off the electrical supply to the alarm. • Use a vacuum cleaner with the soft brush to vacuum all sides and covers of alarm to remove dust, dirt, and debris. Be sure all the vents are free of debris. • Use a damp cloth to clean the alarms cover. • Turn the electrical supply to the alarm on. **Battery** The battery should be replaced annually. See 'Replacing the Battery'	Carbon monoxide (CO) is an extremely poisonous, colorless, odourless and tasteless gas released by the incomplete combustion of fossil fuels such as natural gas, bottle gas, petrol, diesel, oil, paraffin, wood, coal coke and biofuels. When inhaled, it causes chemical asphyxiation, when CO mixes with the blood and reduces the oxygen carried around the body, particularly to the brain. The following symptoms are typical to CO poisoning and should be discussed with all members of the household. **Mild Exposure -** Slight headache, nausea, fatigue (flu like symptoms). **Medium Exposure -** Severe throbbing headache, drowsiness and vomiting. **Extreme Exposure -** Unconsciousness, cardiorespiratory failure, death.

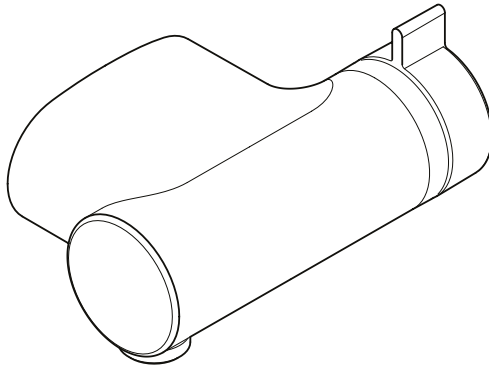| Important Safety Information	
• This alarm must not be connected to any other manufacturer's alarms. • The alarm must not be exposed to dripping or splashing water. • The alarms are designed to give audible warning of a dangerous levels of Carbon Monoxide. The alarms do not detect any other gas. • Commonly occurring materials, vapours or gases, e.g. in cleaning fluids, polishes, paints, cooking operations may cause nuisance alarms. Major interferents are acetylene, ethyl alcohol, hydrogen cyanide, hydrogen sulfide, mercaptan, nitrogen dioxide and sulfur dioxide.	Although feeling unwell, victims of CO poisoning can become so disorientated that they can no longer decide what to do next, including being unable to exit the building or call for assistance. Very young children often show symptoms earlier than adults. **Note:** The CO alarm may not prevent the chronic effects of carbon monoxide exposure, and it will not fully safeguard individuals with specific medical conditions. If in doubt, consult a medical practitioner.

Troubleshooting

Problem	Remedy	Problem	Remedy
The green LED does not light up	1. Check electrical power supply is switched on 2. Check electrical connector is properly connected to alarm 3. If the problem still exists, replace the alarm	The alarm chirp occurs every 38 seconds approx. at the same time as yellow LED flashes once and goes into fault mode	1. Clean alarm. Refer to "Maintenance" 2. If the problem still exists, replace the alarm
Alarm does not sound when tested. Note: push test button for at least five seconds while testing!	1. Ensure that the battery and electrical connector is properly connected 2. Clean alarm 3. If the problem still exists, replace the alarm	The alarm sounds intermittently or when residents are cooking, taking showers, etc. (false alarming)	1. Press test button to pause alarm 2. Open window or fan alarm 3. Clean alarm
The alarm chirps twice every 33 second approx. at the same time as the yellow LED flashes once	The battery needs replacing, refer to "Replacing the Battery"	The alarm sounds different from it is used to. It starts and stops.	4. Clean alarm 5. If the problem still exists, replace the alarm

Warning: Do not disconnect battery to quiet an unwanted alarm. This will remove your protection. Fan the air or open a window to remove smoke/dust.

Product Specification

Voltage	220 – 240V @ 50Hz with 9V battery backup	CO Alarm Button – dual function	• Push to Test • Temporarily silence low battery warning
Battery Specification	9V battery DC. Brands: Gold Peak: GP1604S, GP1604A, Raymax: 6LR61 or Duracell: MN1604	Sound Pattern	ISO8201 (BI 0.1s -pause 0.1s -BI 0.1s-pause 0.1s-BI 0.1s-pause 0.1s-BI 0.1s-pause 0.1s with RED LED flash, then repeat)
Battery Life	Over one year		
Alarm Volume	> 85dB(A) at 1 meter	Inter-linkable	up to 12 detectors
Alarm Sensitivity (alarm conditions)	30PPM - Alarms after 120 minutes 50PPM - Between 60 to 90 minutes 100PPM - Between 10 to 40 minutes 300PPM - Less than 3 minutes	Operating Conditions	- 10 to +40℃, 30 to 93%RH
		Storage Conditions	-20 to +50℃, 10 to 95% RH
		Compliance	BS EN 50291-1:2010+A1:2012
Product Disposal	This alarm come under the Waste Electrical & Electronic Equipment Regulations and must be disposed of in accordance to these Regulations.		

S24   NPD 0592   07/19 V1.1

Mira Agile S Eco, Mira Agile S, Mira Agile ERD+
Mira Agile Sense ERD+, Mira Agile Store EV+, Mira Agile EV+

**For SPARES,
ADVICE or REPAIRS
please call us free
on 0800 001 4040
(UK only)**

Installation and User Guide

These instructions must be left with the user

Showering perfection

mira

S H O W E R S

Important Safety Information

WARNING! This shower can deliver scalding temperatures. For continued safe operation, follow all instructions, warnings and cautions contained in this guide and on or inside the shower. Periodic maintenance may be required to keep the product in good working order.

The function of a thermostatic mixing valve is to deliver water consistently at a safe temperature. In keeping with every other mechanism, it cannot be considered as functionally infallible and as such, cannot totally replace a supervisor's vigilance where that is necessary. Provided it is installed, commissioned, operated and maintained within manufacturers recommendations, the risk of failure, if not eliminated, is reduced to the minimum achievable.

PLEASE OBSERVE THE FOLLOWING TO REDUCE THE RISK OF INJURY:

INSTALLING THE SHOWER

1. Installation of the shower must be carried out in accordance with these instructions by qualified, competent personnel. Read all instructions before installing the shower.
2. **DO NOT** install the shower where it may be exposed to freezing conditions. Ensure that any pipework that could become frozen is properly insulated.
3. **DO NOT** perform any unspecified modifications to the shower or its accessories. When servicing only use genuine Kohler Mira replacement parts.
4. If the shower is dismantled during installation or servicing then, upon completion, an inspection must be made to ensure all connections are tight and that there are no leaks.

USING THE SHOWER

5. The shower must be operated and maintained in accordance with the requirements of this guide. Make sure you fully understand how to operate the shower before use, read all instructions and retain this guide for future reference.

6. **DO NOT** switch the shower on if there is a possibility that the water in the shower unit or fittings is frozen.

7. The shower can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children must not be allowed to play with the shower.

8. Anyone who may have difficulty understanding or operating the controls of any shower should be attended whilst showering. Particular consideration should be given to the young, the elderly, the infirm or anyone inexperienced in the correct operation of the controls.

9. **DO NOT** allow children to clean or perform any user maintenance to the shower unit without supervision.

10. Always check the water temperature is safe before entering the shower.

11. **DO NOT** adjust the temperature control rapidly while using the shower.

12. Use caution when altering the water temperature while in use, always check the temperature before continuing to shower.

13. **DO NOT** switch the shower off and back on while standing in the water flow.

14. **DO NOT** fit any form of outlet flow control. Only Mira recommended outlet fittings should be used.

15. The showerhead must be descaled regularly. Any blockage of the showerhead or hose may affect showering performance.

16. The water supplies to this product must be isolated if the product is not to be used for a long period of time. If the product or pipework is at risk of freezing during this period they should also be drained of water.

17. When this product has reached the end of its serviceable life, it should be disposed of in a safe manner, in accordance with current local authority recycling, or waste disposal policy.
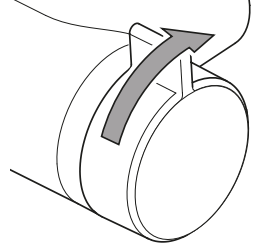
Operation

Please read *"Important Safety Information"* of this guide before using the shower for the first time.

1 **Single Control** mixers use a single sequential control for on / off and temperature control.

The control operates clockwise in the following sequence:
- Off
- Cold
- Hot (Maximum Preset Temperature)

2

Always check the water temperature before entering shower. The maximum preset temperature (full hot) position can be adjusted, see section *'Commissioning'.*

3

Allow a few seconds for any temperature adjustment to take effect.
Allow temperature to stabilise before making a new adjustment.

4

Turn the lever **anti-clockwise** to stop the Shower.

5

Residual water may drain for a few minutes.

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User Maintenance

WARNING! PLEASE OBSERVE THE FOLLOWING TO REDUCE THE RISK OF INJURY OR PRODUCT DAMAGE:

- **DO NOT** allow children to clean or perform any user maintenance to the shower unit without supervision.

- If the shower is not to be used for a long period, the water supply to the shower unit should be isolated. If the shower unit or pipework is at risk of freezing during this period, a qualified, competent person should drain them of water.
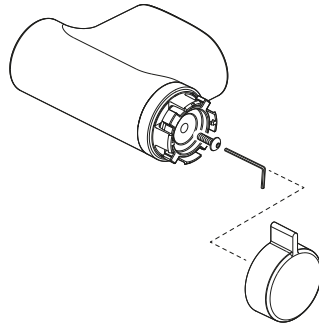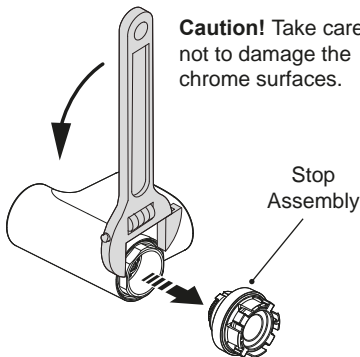
Filter Cleaning

1
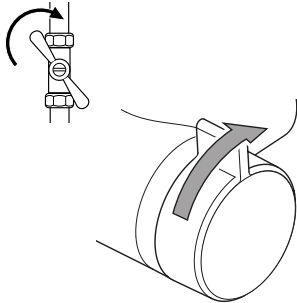
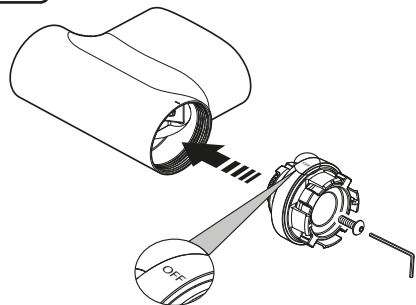Isolate the water supplies and turn the shower on to relieve the water pressure. Turn the shower off.

2

Pull the control lever from the body then remove the retaining screw with a 2.5 mm hex key.

3

Caution! Take care not to damage the chrome surfaces.
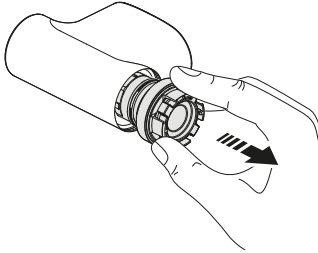
Stop Assembly

Pull the stop assembly from the body, then unscrew and remove the large brass nut from the body.
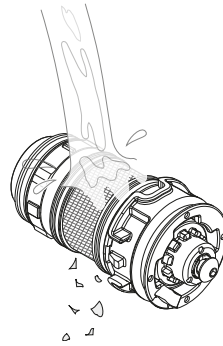
4

Ensuring correct orientation, "OFF" at the top, refit the stop assembly and the retaining screw to the body.
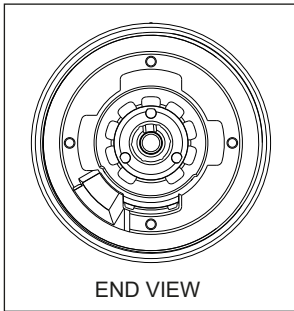
5

Grip the stop assembly and withdraw the cartridge from the body.
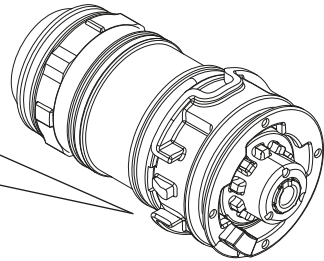
6

Rinse the cartridge in clean warm water, removing any dirt or debris.

7

END VIEW

Reassemble the valve in reverse order. Restore the water supplies and check for leaks.
Note: Make sure that the cartridge locates correctly.

Cleaning

Many household cleaners contain abrasives and chemical substances, and should not be used for cleaning plated or plastic fittings. These finishes should be cleaned with a mild washing up detergent or soap solution, and then wiped dry using a soft cloth.

Important! The showerhead must be descaled regularly. Keeping the shower spray clean and free from limescale will ensure that your shower continues to give the best performance.

In-service Tests

The principal means for determining the continuing satisfactory performance of the shower unit is the in-service test, refer to the *TMV2 Requirements Manual*.

Frequency of In-service Tests - Commercial (non-domestic installations)

Check for correct blend setting every 6 months.

Fault Diagnosis

Only use genuine Kohler Mira replacement parts.

If you require a Mira trained service engineer or agent, please see *"Customer Service"* on the back cover of this guide.

Symptom	Cause	Recommended Action
Only hot or cold water from the shower.	Water inlets are reversed (hot supply to cold supply).	Installation error, supply pipework requires rework.
The shower temperature is either too hot or too cold.	No hot or cold water reaching the shower unit.	Check there is an adequate supply of hot water. See *'Specifications'*.
		Check the filters for any blockage refer to section 'User Maintenance'.
		Installation conditions outside operating parameters, refer to sections: *'Specification'* and *'Commissioning'*.
		If the temperature is too cold and you have a combination type boiler it may not be producing sufficiently hot water at desired flow rate (refer to *'Specification'*). Make sure flow regulator is fitted. For more information, See **'Information on Flow Regulators'** or contact **Customer Service**.
Fluctuating or reduced flow rate.	Hose, shower head or filter blocked.	Remove and clean. Check hose and replace if necessary. Check the filters for any blockage. See *'User Maintenance'*.
	The inlet pressures are insufficient or unbalanced.	See *'Specifications'*.
	Air lock or partial blockage in the pipework.	Flush inlet pipes.
	Flow regulator fitted incorrectly.	See Fittings Installation and User Guide.
	Low flow causing combination boiler to cycle.	Incorrect flow reg fitted, blocked showerhead, hose or filters.
Water leaking from the shower head.	Normal for a short period after shut off.	See *'Specifications'*.
	The inlet pressures exceed the requirements for the shower unit.	See *'Specifications'*.
	Damage to the shower unit cartridge.	Renew the cartridge.
Movement of valve on the wall.	Pressure spike in water system.	Tighten the retaining screw.