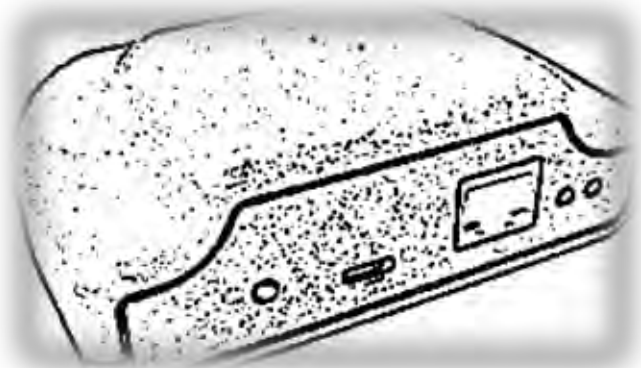


INSTALLATION & OPERATING INSTRUCTIONS

DSR Smart Gateway



THESE INSTRUCTIONS SHOULD BE READ CAREFULLY AND RETAINED
FOR FUTURE REFERENCE.



the electric heating company

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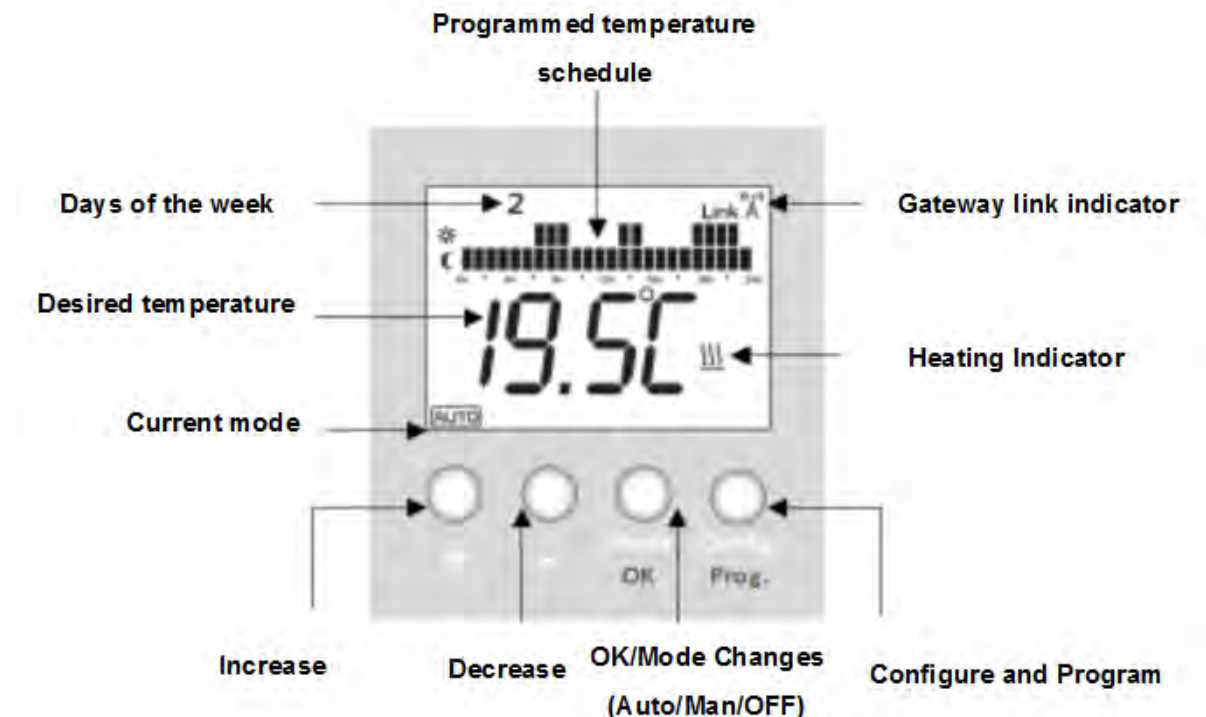
Pack Contents

- 1. DSR Gateway**
- 2. USB Power Adapter**
- 3. Micro USB Lead**
- 4. Ethernet Cable**
- 5. Installation Guide**

Operation Instructions DSR Wifi

DSR Temperature Setting, Programming and Wifi Setup

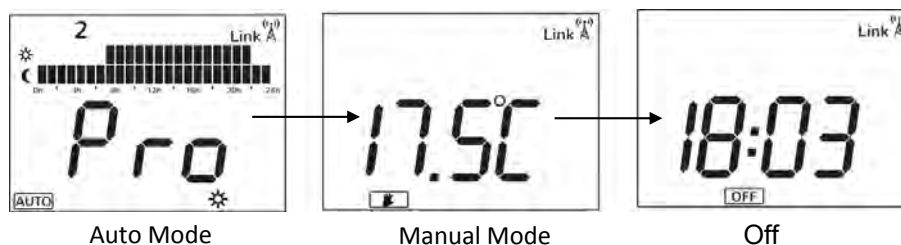
1.0 Manual Instructions



Modes

The radiator can work in 3 different modes by pressing the "Mode" button

- **Auto Mode**
The set temperature varies automatically following the Programmed Schedule, based on the 3 custom temperatures selected. Each LCD Block indicates what temperature is active at that time.
- **Manual Mode**
The "Set Temperature" only changes if the user modifies it by pressing the + and - buttons.
- **OFF.**
The radiator will not heat, but can receive remote instructions if linked to a gateway that is connected to the internet.



Note:

When in "Auto Mode" manually adjusting the temperature will Activate the heater for 1.5 hours, after this time period has lapsed the heater will automatically revert back to the original program settings.



Operation Instructions DSR Wifi

2.0 Setting Temperatures



At Home



Sleeping



At Work / Away

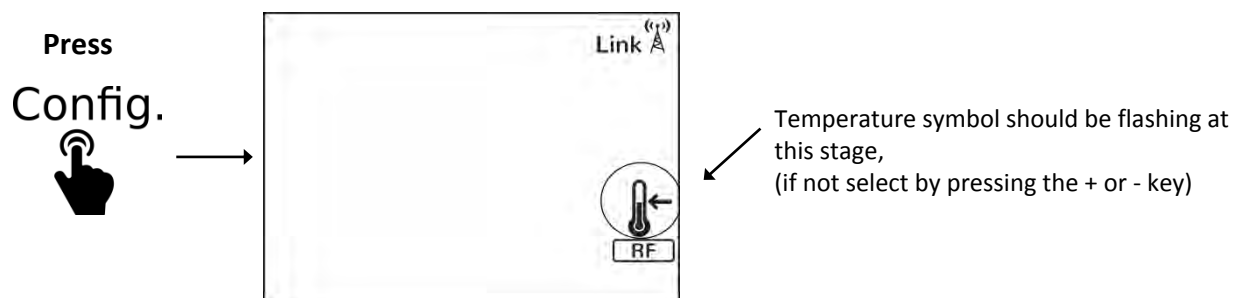
The DSR controller has 3 temperature ranges,

-**Comfort** (☀) Normally when at home.

-**Economy** (🌙) Normally used at night or for brief absence periods

-**Frost Protection** (❄) Normally used when away from home.

To Set Temperatures



Now Press **OK** Select your temperature, change by pressing the **+** **-** buttons then press **OK** to confirm .



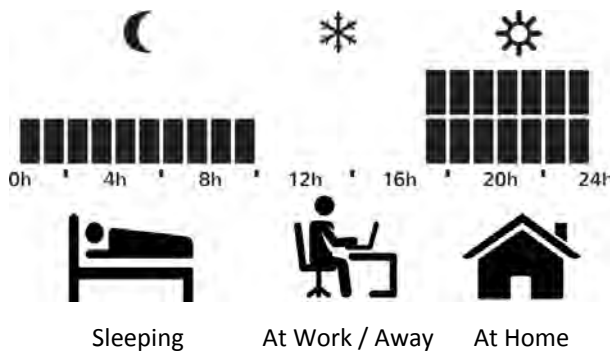
Once you have chosen your temperature ranges press **Config.** to exit.



Operation Instructions DSR Wifi

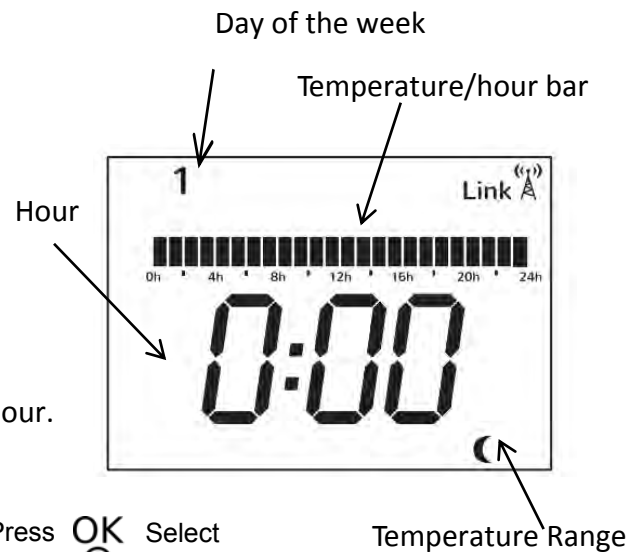
3.0 Setting Program Time and Day

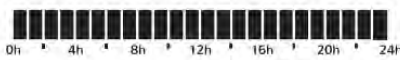
Symbol Indication



To start programming.

1. Press  and hold for 3 seconds.
2. Press  To select your temperature range followed by  to set your times by hour.
3. To change the temperature range during programming, Press  Select temperature then program again using the  button.



4. Once you have programmed a 24 hour period  the controller will automatically move onto the the next day. Now program all 7 days in this way.

Once all 7 days are programmed the controller will then ask you to select the Day of the week (1 being Monday). Select by pressing the + and - buttons, Save by pressing the **OK** button. The next stage is to set the real time. Use the + and - buttons to select the **Hour's** and **Min's**, save by pressing **OK**.



Tip: Quick Real Time Setting.

To change the real time clock without having to go through previous settings.

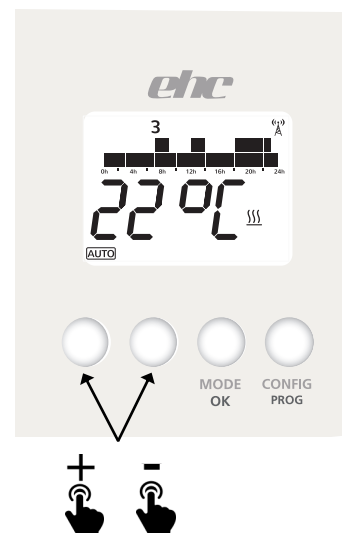
Press and hold  for 3 seconds to show this screen  release and press Config once again to enter Quick Real time settings.

Operation Instructions DSR Wifi

4.0 Keypad Locking

LOCK

Press and Hold the **+** and **-** buttons for 3 seconds to Lock the key pad. All the buttons will be disabled if pressed. (LocH will be displayed) To unlock press and hold the **+** and **-** Buttons for 3 seconds.

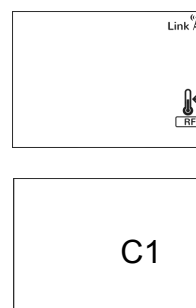


Note: Advanced settings should only ever be changed by a competent person or engineer.

5.0 Advanced Engineer Settings

To enter advance settings,

1. Press the Config button Once to show this screen
2. Now press and hold the Config button for 5 seconds, C1 will now Appear
3. Change Configuration Number by pressing the **+** or **-** buttons, then press **OK**
4. Change the Configuration by pressing the **+** or **-** button, Then **OK** to save.



Configuration Settings

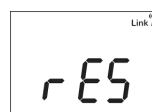
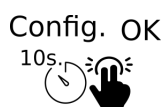
C1: Temperature unit adjustment °F/ °C
C2: Heating control type adjustment
PID15min or PID30min (Factory Set Do Not Change)
C3: Temperature compensation adjustment
C4: Firmware version
C5: Open window detection activation (stops the heating for 30 if a fall of 2,4°C is detected over a period of 4 minutes)

Factory Defaults

Mode: OFF
T^a comfort: 19°C
T^a eco: 17°C
T^a frost: 5°C
T^a mode manual: 19°C
Temperature compensation Offset: 0°C No
RF link
Temperature units °C
Open window detection: OFF
Control mode: PID15 -Relay
Program: All hours Eco

Reset Heater to Factory Settings

Press and Hold **Config & OK together** for 10 Seconds, **rES** will show on display, Confirm by pressing **OK**



Operation Instructions DSR Wifi

6.0 Account Registration

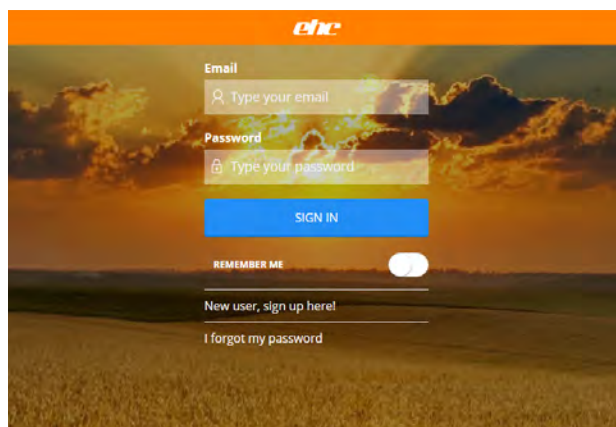
To create an account and activate your gateway go to: www.electric-heatingcompany.co.uk/download/dsr

Click on, "**New user,sign up here** " Follow the Online instructions to create your account.



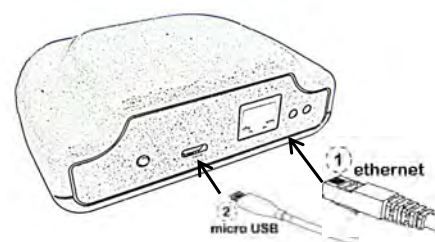
Note:

Once registered, you will be sent a Confirmation email. Click on the link to confirm the email to activate your account then sign in. (If you don't receive an email, check your Spam folder) You can also setup an account using the free App's that are downloadable from The Apple App Store & Google Play.



7.0 Setting Up DSR Gateway

1. Attach the Gateway to your internet router using the Ethernet cable provided.
2. Connect the power supply to the gateway using the micro USB cable.
3. When energised the Gateways LED's will begin to flash, Orange ON alternating Green every 5seconds means you are connected.



Note: If this doesn't happen check LED sequence list below.

Gateway LEDs Status

Green off, Orange flashing one second: discovery status (device pairing).

Orange on, Green flashing 0.2 seconds: the router has not assigned an IP address to the gateway.

Orange on, Green flashing briefly every 5 seconds: the router has assigned an IP address to the gateway correctly, but there is no communication with the server.

Orange on, alternating with green flashing briefly every 5 seconds: the Gateway has connected to the router correctly and has internet connection.



Note: It is preferable to register your account and gateway before installing it. If it is registered after installation it may take a few minutes to become accessible via the web, if you do not want to wait, disconnect and reconnect the power supply to the gateway to reset.

Operation Instructions DSR Wifi

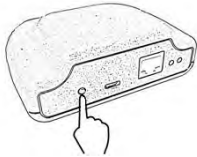
8.0 Pairing

Once the DSR Gateway is connected to the Internet and fully registered, you can now pair it with your Heaters.

There are 2 ways to put the DSR Gateway into pairing mode.

Option 1.

You can simply press button on the gateway as shown below, the gateway will now begin searching for external devices.



Option 2.



On your Computer, Smart Phone, or Tablet, select the **+ install** icon at the bottom of the screen, then select the device you want to install. This will put the DSR Gateway into pairing mode. An Orange LED will start to flash on the Gateway, you have 1 minute to add a device at this stage. For each additional new device that is added the available time increases as you go through the pairing process.

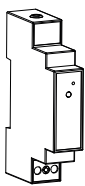


Pairing a Heater with the Gateway

When the Gateway is in pairing mode. Simply press and hold the OK button on the heater for 3 seconds until the Link symbol appears:  your heater is now connected and ready to program through the App.



9.0 Optional Power Meter.



Note:

Installation of this device must be carried out by a competent electrician in accordance with I.E.E. Regulations for Electrical Equipment. BS:7671

Power Meter

The Power Meter is a device that monitors and helps to protect the main power supply to the property. From a Computer, Smart phone or Tablet you are able to access and view your total home or heating systems electrical consumption at any given time.

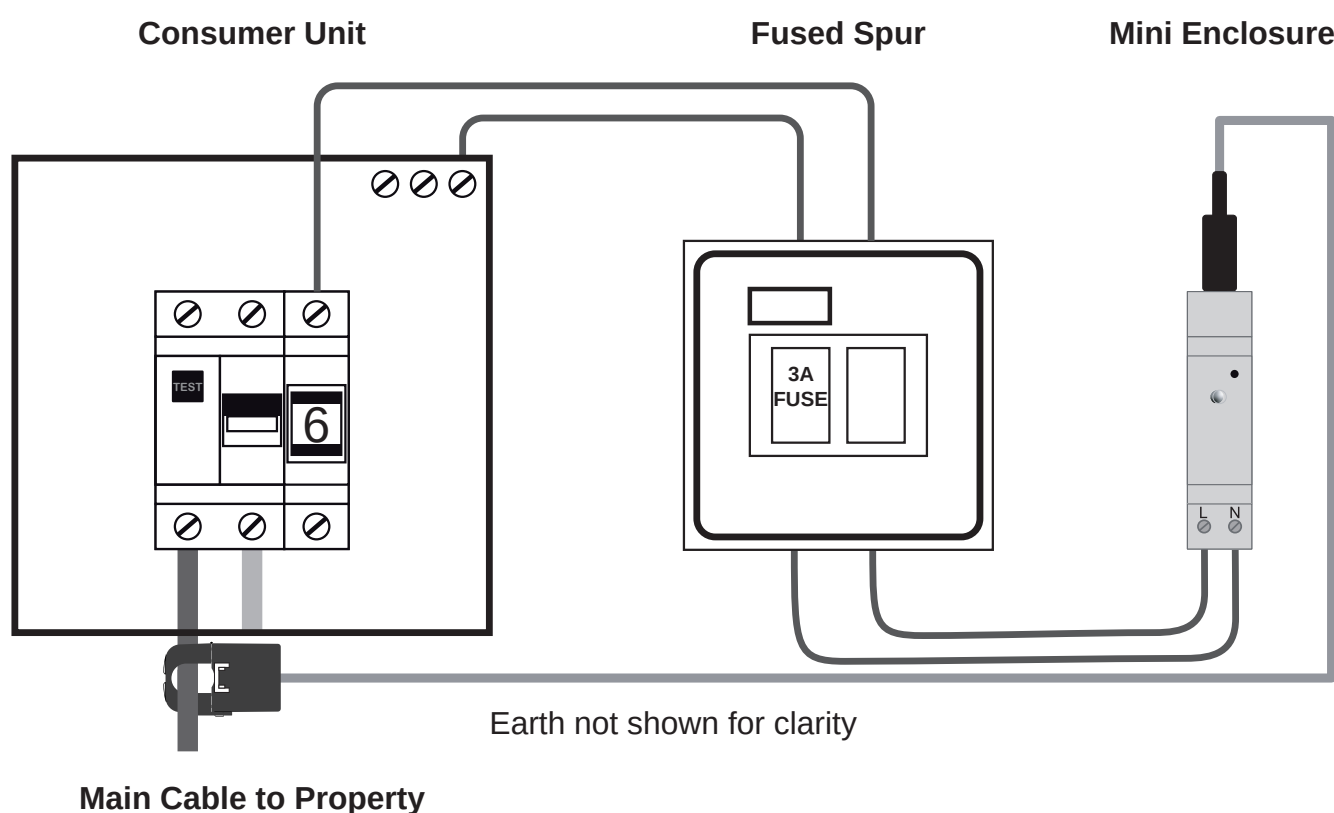
Operation Instructions DSR Wifi

Installation of Power Meter

The power meter should be connected to a spare 6 amp Mcb or Rcbo within the properties Consumer Unit. This supply should then be taken and connected to a fused switched spur with a minimum contact of 3mm and fuse rated to 3amps. From the fused spur take a supply cable to the Power Meter that should be mounted within a mini enclosure. Live and Neutral connections are clearly marked at the bottom of the device.

(Take care not to damage the Terminals when connecting the power cable to the Meter)

Typical Layout:



Pairing the Power Meter

You can simply pair the power meter in the same way as you would a heater by putting the gateway into Pairing Mode. Once the Gateway has been activated and is in the Pairing Mode, press the small button on the front of the power meter for 3 seconds  until it can be seen in the App.

The power meter will now begin recording the total amount of electricity used in the property, you can also set the maximum usable power available to protect the incoming supply preventing overloading of the system.

Radiator Controller

- LCD STN with backlight
- 4 buttons
- RF 868Mhz
- 1PCB for control, 1PCB for Power
- 3 temperatures
 - Comfort
 - Economy
 - Frost
- Measured temperature resolution: 0.1°C
- Setting temperature resolution: 0.5°C
- Measured temperature range: 0-45°C
- Setting temperature range: 5-35°C
- Schedule programming resolution 1h
- PCB operating temperature <80°C
- External NTC probe
- Electric self consumption metering <3%error
- Transformer less power stage
- Max power: (16A)

Gateway

- External Power Supply Voltage, 5V
500mA
- Consumption 300mA
- Connector Type RJ45 Ethernet
connector
- LED indicator conditions
- 868Mhz RF, integrated PCB antenna
- Micro USB Adaptor included
- Ethernet 0,5m cable included

Power Meter

- DIN Rail Mount mini enclosure required.
- External current sensor, 3.5 mm jack connector for easy
installation.
- Supply 200-260V, 50Hz –no batteries-
- Consumption 0.65 – 0.9W
- RF 868Mhz integrated antenna
- Calculates active power & energy
- Direct measurement of voltage
- 100A/80A current sensor
- Error <3%

Operating safety (cont.)

Care

To maintain the external appearance of the device, it will only need wiped over occasionally with a dry duster. Do not use abrasive cleaning powders or sprays as this may damage the product.

After Sales Service

Should you require after sales assistance, please contact the EHC Help Desk on 01698 820533.

Conditions of Guarantee

We are pleased to offer a 2 year guarantee is applicable for the Gateway & Power adapter.

The period of guarantee commences with the day of delivery. If within the guarantee period the product deemed to be defective due to faulty components, EHC will repair or replace the device free of charge.

The guarantee shall not apply to damages caused by natural wear and tear, intentional misuse, non-observance of the operational instructions, connection to incorrect supply voltage.

The purchaser shall not be entitled to any rights and/or remedies under this guarantee if the Gateway has been repaired, or attempted to be repaired.

Any claims for compensation of damages beyond the scope of this guarantee are excluded.

The guarantee shall not be transferable.

All guarantee claims must be accompanied by a relevant proof of purchase documentation.



the electric heating company

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