Radiator User Manual

Read before unpacking the Radiator

Contents

1. MUST READ SECTIONS

This section is designed to help you keep your radiator within the manufacturer's warranty, the manufacturer's warranty has been outlined in a separate document.

It is important that this section is read and understood prior to unpacking the radiator.

1.1 Documentation

The following documentation is considered part of the product.

Documents

Radiator User Manual (This document)

- Installation Instructions
- Manufacturer's Warranty
- Declaration of Performance (available from your retailer)

In addition, you will need to retain your proof of purchase in order to make a warranty claim at a later date. This could be in the form of the Dispatch note attached to the radiator, a retailer receipt, or a confirmation email of your order.

1.2 Heating System Compatibility

Some Radiators can be Central Heating, Dual Fuel (Central Heating and Electric), or Electric Only.

- ✓ You MUST only use the heating types specified in the Installation Guides for the model of radiator.
- ✗ You MUST NOT unpack the radiator without first checking that your intended use complies with the Installation Guides.

Central Heating and Dual Fuel

- ✗ The radiator MUST NOT be operated beyond the Maximum Operating Pressure[1].
- ✗ You MUST NOT unpack the radiator without first checking that the Maximum Operating Pressure (on the Declaration of Performance) will be compatible with your central heating system.[1]
- ✗ You MUST NOT install the radiator without first taking appropriate measures concerning the maintenance of the heating system and water quality in general.[2]

In addition, if operating as a Dual Fuel product,

- ✓ You MUST use an appropriate Heating Element with your radiator[3]
- ✓ The heating element MUST be connected to the electricity supply registered competent electrician. Any faults developed due to incorrect installation will not be covered under the product warranty.

Electric Only

- ✗ You MUST NOT operate the radiator 'dry'. This means that appropriate heating solution should be used within the radiator.
- ✓ You MUST use the correct amount of heating solution as outlined in the installation section.
- ✓ You MUST use an appropriate Heating Element with your radiator[3]
- ✓ The heating element MUST be connected to the electricity supply registered competent electrician. Any faults developed due to incorrect installation will not be covered under the product warranty.

All Heating Systems

This product is intended to be installed by a Plumbing and Heating Engineer within a well-maintained heating system.

Should your intended use fall outside the Heating System Compatibility, then please contact your retailer for further assistance.

Notes

[1]If the pressure applied to the radiator is expected to be higher than the maximum operating pressure, please contact your retailer for next steps.

[2]It would be expected that appropriate measures are taken concerning the maintenance of the heating system and water quality in general, such as managing hard water and PH levels to prevent limescale, corrosion and magnetite, and that the heating system used can be considered balanced.

[3]Often heating elements are recommended at the time of purchase, however, if you are unsure of the Heating Element to use, please contact your retailer for further guidance.

1.3 Material Compatibility

It is important to note that due to the nature of central heating systems, almost all materials on the central heating system will corrode in some way. Whether the corrosion of a specific material impacts the heating system as a whole is down to the material nature.

1.3.1 Understanding Corrosion

Noble Scale/Galvanic Series

The noble scale or Galvanic Series gives an indication of which materials will corrode another material, this will may change for your specific area (water content), water temperature in use and materials on a heating system.

Every Heating system will likely have

- Copper Pipes
- Brass Valves
- Stainless Steel or Aluminium Heating System Parts

The common radiator materials are

- Mild Steel
- Aluminium Alloys
- Cast Iron
- Stainless Steel Grade 302

It currently isn't known or possible to advise where the materials sit in the Galvanic Series across the UK, this is due to changing water content across the geographical landscape, a variety of materials already in place on heating systems and changing temperatures of systems in place.

Different types of internal corrosion for heating systems – Galvanic Corrosion

For our operating condition, this is where different metals of significantly different noble scale are on the same central heating system (per above) and within close proximity.

Generally speaking, you would assume that copper pipes and brass valves are cathodic to mild steel, aluminium and Cast Iron radiators. A material being cathodic means that it causes galvanic corrosion in other materials but is also protected from galvanic corrosion.

Radiators are separated from one another by, generally speaking, copper pipes and brass valves, the distance of which will vary dependent on the length of copper pipe on the radiator circuit. While galvanic corrosion may still occur between radiator materials, this would be expected to be less than the galvanic corrosion that is taking place between the copper, brass and radiator material.

Different types of internal corrosion for heating systems – Chemical Corrosion

Water, as a general rule, causes corrosion to metals. However, the water content for your specific area may change the rate at which different materials corrode on the heating system.

The UK regulations for water content is PH 6.5 and 9.5, as a general rule for radiators of varying materials, this should be maintained between 6.5 and 8.5 for your central heating circuit, however, it is vital that you check your boiler manufacturers recommendation for PH levels and find a value that is suitable for both. No two metals behave the same for varying PH levels, so the key here is balance, finding an appropriate value to maintain your boiler connecting parts, copper pipes, brass valves and radiators.

Managing PH levels and chemicals that exist in mains water is easier on a closed system (Pressurised system) than it is on an open system (otherwise known as a feed and expansion tank system or gravity fed system, usually with tanks in the loft space for the central heating system). An open system will add water as the water levels within the central heating system decrease, this will then change the balance of the water, a pressurised system is only topped up manually by letting more water in.

There are numerous chemicals and reactions that take place within a central heating system over time, so it is vital that the water content is managed on any system.

Different types of internal corrosion for heating systems – Chemical corrosion and Pitting

It is a common misconception that Stainless Steel does not corrode and requires that the water quality is of a reasonable level, for example, the level of chloride being too high may cause the crevice corrosion and pitting with Stainless Steel.

There are various ways that pitting can occur in different materials, but it is important to note that the severest form of Galvanic Corrosion occurs after pitting, where the metal reacts with the pitted area in close proximity.

What are the consequences of internal Corrosion

For most metals, the consequence of corrosion is a denatured structure over time, leading to a breakage in the part, rupture and eventual need for replacement.

However, any Iron containing metals (Mild Steel, Cast Iron and Stainless Steel) if corroding will lead to the formation of magnetite, often called sludge, which can travel around the system causing damage beyond just the radiator and have a wider impact on the system as a whole.

1.3.2 Managing Corrosion

General

All materials (i.e. Metal) will corrode if left unchecked, this can be caused by the levels of different chemicals in the water, differing PH levels of the water and by different materials on the same heating system.

Not all corrosion can be seen or will impact the heating system in a significant way, for Iron based materials (Mild Steel, Cast Iron and Stainless Steel), a general sign of internal corrosion is the radiators not heating up at the bottom.

Water Testing Kits

There are water testing kits available on the market to help identify what corrective action is needed for managing different materials, PH levels and chemicals in the water on different heating systems.

The retailer you purchased this radiator from will be able to help you identify a water testing kit for use, which will help identify if any of the following considerations need to be taken.

Material Consistency

Ideally all the radiators on the same heating system will be of the same materials, this will help reduce the corrosion potential that different materials have on one another, but as there will be

differences in materials and radiators are separated by copper and brass from one another, this may not be necessary.

General Material Compatibility with Water Quality

It is worth noting that different materials have different considerations with regards to water quality, such as the PH levels.

As a rule of thumb for radiators, the PH levels should be between 6.5 and 8.5, however, it is vital you consult your boiler manufacturer to identify a PH level that works for all materials on the system.

Inhibitors

There will always be a mix of materials on a heating system, so generally speaking some form of Corrosion Inhibitor is required on most heating systems, but you need to ensure that the corrosion inhibitor used is suitable for the materials installed on the heating system and water quality for your area.

If you are unable to add corrosion inhibitor, for example in such rare cases where the central heating circuit is not separated from the water circuit or the radiator has been added to the hot water circuit by design, which is not advised, then other appropriate measures should be taken to manage the corrosion of the radiators and system in general.

WARNING: Installing the radiator on the hot water circuit may void the warranty.

1.4 Intended Use

Intended for use with Compatible Heating Systems (per the previous section) in Buildings and operated to a pressure no more than the Maximum Operating Pressure specified for the product in the Declaration of Performance.

- ✓ You may use the radiator to dry non-abrasive materials.
- ✓ Check the material label to ensure it can be dried on a radiator[1]
- ✗ You MUST NOT use the radiator to dry materials which may impact the aesthetics of the radiator
- ✗ You MUST NOT use the radiator to dry Abrasive Materials
- ✗ You MUST NOT use the radiator to dry materials where the dye may run and discolour the radiator
- ✗ You MUST NOT use the radiator to dry any other materials or objects that can damage the radiator

Notes

[1]Not all materials are appropriate for drying on a radiator, you should always check material labels before drying to avoid damaging them and for safety issues.

1.5 Modifications

For your safety and for correct performance of the radiator, no modifications are supported.

- ✗ You MUST NOT modify the radiator in any way other than installing the radiator with the heating systems listed on the Installation Guides and connecting to valves and pipes as required to achieve the intended use of the product.
- ✗ You MUST NOT apply additional surface coating to the Radiator[1,2,3]

- ✓ You may use touch up paint to cover minor scuffs, marks and chips, but you MUST contact your retailer for the correct paint to use.

It is important that these aspects are considered for Warranty and Safety if you were to make the choice to apply additional surface coating to the radiator.

Notes

This is a general compliance, safety and warranty concern that applies to all products manufactured under British Standards EN-442

[1]It would naturally void the “appearance” aspect of the warranty

[2]The radiators undergo ‘Fire Resistance’ Testing, which for this product is related to the volume of paint applied to the surface, applying additional or different paint will therefore make this testing null and void.

[3]The surface coatings we use are compliant with REACH, which in simple terms means that we check there are no dangerous substances released, applying different paint will therefore make this testing null and void.

1.6 Installation Location

Appropriate steps should be taken to ensure a suitable location is used for the radiator.

- ✓ The Radiator MUST be installed in a well-ventilated room to reduce external corrosion[1]
- ✗ The Radiator MUST NOT be installed in a room with poor ventilation, as this will impact the ‘Appearance’ attribute of the Warranty document.

Central Heating and Dual Fuel

- ✓ Central Heating Pipe Endings will need to be available in the location and compatible with the radiator connection type and size.
- ✓ It is recommended that valves are used on both the return and supply of water to and from the radiator.

Electric Only and Dual Fuel

You should refer to the Heating Element documentation for any requirements needed concerning the location, such as electricity supply, isolation, control, safety etc.

All Radiators

By design, radiators as a product emit heat. The amount of heat and the temperature that the radiator will reach will relate directly to the heating system in place.

The heat emitted can react with different objects around it in different ways, the heat could damage the object, or it could present a safety issue.

- ✓ You Must make sure that the radiator is installed a suitable distance away from other objects.[2]
- ✓ You Must ensure that the radiator will have enough room to expand and contract.[3]
- ✓ You Must ensure that you have the correct tools and equipment to install the radiator in the desired location[4].

- ✓ You may need to attain additional parts for installation into your desired location, such as different screws or bolts, dependent on your wall type.
- ✗ You MUST NOT install the radiator in a location where it can present a safety risk
- ✗ You MUST NOT install the radiator in a location where it can damage other objects around it, or be damaged by them.

Notes

[1] The level of Humidity should be appropriate for the materials in place.

[2] You should take Special Care when installing the radiator and choosing the location and should consider any damage the heat may cause to objects around it and you should also pay special attention to any Safety issues that may arise due to its location.

[3] You should also consider that the radiator will expand when heated and contract when cooling, so there should be enough space around it to allow this process to occur, the same applies to pipes running to and from the radiator.

[4]You need to take special care that the tools used for installation are appropriate for the required location.

For example, you may require a drill to make holes in order to attach the radiator to the wall, but the drill part used will vary dependent on the structure type. For instance, a tiled wall may require a special drill part to be used so as not to damage the tile when drilling, commonly referred to as an “Arrow Head” drill bit.

1.7 Fixing Kit Supplied

The radiator has been supplied with a standard fixing kit, this is appropriate for most locations that the radiator is intended to be installed in.

However, due to the various different construction types and building types that are present, it may be the case that different parts are required in order to attach the radiator to the wall, such as different wall plugs, bolts and screws.

You will be able to find the appropriate fixings required in your local DIY store.

1.8 Inspection

In order to maintain the Warranty, this step must be completed prior to installation of the radiator.

All of our radiators undergo a visual inspection prior to packing, while we take every care in handling your radiator, there may be incidents where the radiator has been received with minor impact damage which may impact the aesthetics of the product.

Care must be taken whilst transporting, installing or handling the radiator in general to avoid damage to the product.

You should check for

- Scuffs or chips with the paint.
- Burrs with the metal
- Marks on the radiator, note, some marks may not be permanent and could be there as a result of packaging, you can attempt to remove the mark with a damp SOFT sponge.

- Dents or breaks in the product
- Any other issues that cause dissatisfaction with the aesthetics that are not part of the intended design.

If you find any issues with the product prior to installation, please contact your retailer who will be able to assist further.

Once the product has been installed, these issues will no longer be covered by warranty.

1.9 Installation

A separate guide has been prepared for the installation of the specific model of radiator purchased. Please refer to this to ensure correct installation and mounting of the radiator.

Central Heating

- ✓ The use of valves is recommended in the connection of the radiators to ensure a balanced heating system.
- ✓ The use of an appropriate corrosion inhibitor is recommended

Dual Fuel

- ✓ You MUST use a T-Piece Valve to install and operate a Dual Fuel radiator
- ✓ You MUST use an appropriate Heating Element with your radiator[2]
- ✓ The heating element MUST be connected to the electricity supply registered competent electrician. Any faults developed due to incorrect installation will not be covered under the product warranty.[1]

Electric Only

To run the Radiator as Electric only you will need the following that is not supplied with the radiator as Standard, but may have been purchased at the same time. If you are unsure, please check with your Retailer.

- ✓ You MUST use an appropriate Heating Solution[1]
- ✓ You MUST use an additional Blanking Plug[1]
- ✓ You MUST use an appropriate Heating Element with your radiator[1,2]
- ✓ The heating element MUST be connected to the electricity supply registered competent electrician. Any faults developed due to incorrect installation will not be covered under the product warranty.[1]

The Amount of heating solution to add will depend on the solution that is used, but there should be appropriate space for the solution to expand whilst providing enough solution to prevent the radiator from running dry.

[1]Please Note: As part of installation you may also need to refer to the instructions and safety information for the other parts, such as valves, elements, heating fluids and solutions etc.

[2]Often heating elements are recommended at the time of purchase, however, if you are unsure of the Heating Element to use, please contact your retailer for further guidance.

[3]A T-Piece Valve has 2 inputs allowing connection to both the central heating system and the electric heating element.

1.10 Operation

- ❌ The radiator MUST NOT be operated beyond the Maximum Operating Pressure[1].
- ❌ If you suspect a fault, you MUST NOT operate the radiator and you MUST immediately isolate the radiator or shut off the heating system.

Such faults could include

Central heating/Dual Fuel

- Operating at a pressure beyond the maximum operating pressure may result in
  - Leaking
  - Radiator Deforming
  - Excessive and continuous operation may result in rupture
- Leaking

Electric Only

- Operating with too much heating solution
  - Leaking
  - Radiator Deforming
  - Excessive and continuous operation may result in rupture
- Leaking

Heating Elements

If you suspect there is a fault with the heating element, you should consult your user manual for that product for any steps necessary.

IMPORTANT OPERATION NOTE: You should consult your Electric Element User Guide before operating any system with an Electric Element installed, this document does not cover any considerations around operating electric elements or appropriate ways to use and operate the heating systems in place.

Notes

[1]If the pressure applied to the radiator is expected to be higher than the maximum operating pressure, please contact your retailer for next steps.

1.11 Balance

The heating system may need to be balanced in order to ensure that the radiator heats up efficiently.

This is a process of setting valves to appropriate positions dependent on the location of all radiators within the premises, along with adjusting pump speeds where they are in place.

It is possible for one radiator in the building to ‘steal heat’ from another radiator dependent on how the valves are set and how the heating system as a whole is configured.

1.12 Maintenance

System and Fluid

- ❌ You MUST NOT allow fluids in the radiator or any part of the system to reach freezing temperatures[1].
- ❌ You MUST NOT operate the radiator without taking appropriate measures concerning the maintenance of the heating system and water quality in general[2].

External Cleaning

The radiators can be cleaned with domestic cleaning products, for most instances a duster is all that is needed to clean a radiator. However, some instances may require a soft sponge with water or other cleaning products.

In any case

- ✅ You MUST clean the radiator regularly to prevent build-up of moisture and other naturally occurring elements.
- ❌ You MUST NOT use abrasive materials
- ❌ You MUST NOT scrub the radiator with force
- ❌ You MUST NOT use materials that will cause discoloration, including the cloth/sponge used to clean it
- ❌ You MUST NOT use substances with solvents
- ❌ You MUST NOT use substances that contain bleach or acidic cleaning properties

Internal Cleaning

Dependent on the Heating System, Water Quality and PH levels of the water, it may be required that the heating system is cleaned internally.

This is an expected part of the product maintenance that may arise.

- ✅ You MUST use suitable cleaning products and methods[3]
- ❌ You MUST NOT not clean the radiator with a high-pressure wash[4]

Notes

[1] This will cause the fluids to expand and can result in the radiator rupturing or becoming damaged beyond repair.

[2]It would be expected that appropriate measures are taken concerning the maintenance of the heating system and water quality in general, such as managing hard water and PH levels to prevent limescale, corrosion and magnetite, and that the heating system used can be considered balanced.

[3]Suitable cleaning products can be used, and it is down to the user to identify a suitable cleaning product. However, we (the manufacturer) are not responsible for any issues or damage that this cleaning product causes to the radiator.

[4]Please note that a High Pressure Clean of the internal parts of the radiator may equate to operating the radiator above the Maximum Operating Pressure, therefore a high-pressure wash is NOT allowed.

1.13 Safety

The heat of the radiator will be determined by the heating system in place, in any case, the product is expected to be hot when the heating system in place is on.

Handling the Radiator

For your own safety,

- ✗ You MUST NOT handle or touch the radiator when the heating system is on
- ✗ You MUST NOT add or remove items for drying while the heating system is on
- ✓ You MUST wait for the radiator to cool down before handling or touching
- ✓ You MUST wait for the radiator to cool down before adding or removing items for drying
- ✓ You MUST take special care when handling all wall installation objects, especially when reaching down the back[1]

Fault Scenarios

If a fault is observed with the radiator per the “Operation” section,

- ✗ The radiator MUST NOT be handled while the heating system is on.
- ✓ It is recommended that the heating system is turned off and has cooled down, and then appropriate steps are taken to isolate the radiator.

Injury or Property Damage

If it is suspected that the radiator has caused injury or property damage,

- ✓ The radiator MUST be isolated immediately and should be appropriately covered/sectioned off to avoid further incident.

Other Components

You should refer to the safety instructions of other components that are used with the radiator, such as the Heating Elements, Heating Solutions, Valves etc. for any safety advice concerning those products.

Notes

[1]While every care has been taken to ensure that the product is free from burrs, it is recommended that the product is inspected by the user prior to installation per the inspection section of this document. It is also recommended that you check the object is free from burrs (e.g. sharp metal corners) when handling the object at any time after installation, as burrs can be created by the Engineer who has installed it, such as poorly tightened or angled screws or overtightening of fixtures, as well as various types of wall being damaged in the installation process, such as tiles.

1.14 Disposal

Please consider the environment when disposing of the radiator.

- ✓ You MUST consult your local authority for an appropriate method of disposing of the radiator
- ✗ You MUST NOT dispose of the radiator in a way that is not supported by your local authority

You should refer to the disposal instructions of other components that are used with the radiator, such as the Heating Elements, Heating Solutions, Valves etc. for any disposal advice concerning those products.

1.15 Heat, Noise, Aesthetics and Construction Issues

Please refer to the Trouble Shooting section of this document.

2. ADDITIONAL INFORMATION

This section contains additional information that may be helpful to you, but is not required for the ongoing usage of the radiator.

2.1 Consumer Rights Act 2015

Know your rights

You can find out more information about your consumer rights and whether they apply to you in the consumers section of the below link

https://www.gov.uk/government/publications/consumer-rights-act-2015/consumer-rights-act-2015

2.2 Returns Process

The returns process is handled at a Retailer Level, if you wish to return a product please contact your retailer.

You may require proof of purchase.

3. TOUBLESHOOTING

3.1 Central Heating/Dual Fuel Heat Issues

3.1.1 The radiator heats up at the bottom parts, but not at the top.

This issue can be common, both at installation of a new radiator to the system and at any point over the lifetime of the radiator.

This issue is also sometimes accompanied by “noise” which appears that it is coming from the radiator.

The most common cause for this issue is trapped air in the upper parts of the radiator, preventing the hot water from reaching those parts.

The most common solution for this issue is to “bleed” the radiator, which is the process of releasing the trapped air using a radiator key at the upper parts.

IMPORTANT NOTE: If this issue occurs regularly then it would indicate a more serious issue that should not be ignored or continuously resolved by bleeding the radiators. It would indicate an issue that needs to be addressed with the Heating System.

3.1.2 The radiator heats up at the top parts, but not at the bottom parts.

This issue is most likely to occur over the lifetime of the radiator as opposed to immediately after installation, however, that highly depends on the Heating System as a whole in relation to water quality, PH levels and material (metal) compatibility attached to the heating system.

The most common cause for this issue is a magnetite (sludge) build up in the bottom parts of the radiator, preventing the hot water from reaching all parts of the radiator.

There are lots of different ways this can be resolved, either using a cleaning solution or flushing the system, sometimes the radiator may need to be removed and flushed to clear the blockage.

However, long term management will need to be undertaken to prevent this from occurring, there are several solutions on the market ranging from use of inhibitors to magnetite filters dependent on the severity of the issue.

IMPORTANT NOTE: If this issue occurs regularly then it would indicate a more serious issue that should not be ignored as it can eventually result in rupture of radiators or pipes or the system in place to fail. A high-pressure wash of the internal parts of the radiator may result in operating the radiator beyond its maximum operating pressure, which is not a supported activity.

3.1.3 The pipe is warm, but the radiator does not heat up.

In this instance, it is unlikely that the cause is anything to do with the internal elements of the radiator, but more likely the valves attached to the radiator.

This could be a fault with the valve itself, thermostatic valves often let you control the input of heat using a number dial. It may appear that this is set to a high number level, but a part in the valve could have come lose meaning that internally it is always in the closed position or the valve itself may have been over tightened.

There may be a valve warranty in place for the valve, which is not covered as part of this Radiator or its associated Warranty.

3.1.4 Radiator does not heat up, does not get as hot as other radiators, or it takes a long time to heat up.

The most likely cause of this issue is what is termed as having an ‘unbalanced heating system’.

In this instance, Balancing the heating system is a term used to describe how the valves are set on the radiators and the pump speed. If the radiator has been installed without valves, then this could be one cause.

If valves are present, then another cause can be that the valves are not open or closed enough on various different radiators within the home.

In order to balance a heating system, all radiators in the property will require valves.

3.1.5 I have added a new radiator to the system, now other radiators do not perform as well or heat up properly.

Any change to a heating system can cause it to become unbalanced, please see the issue above for further information.

3.1.6 I have a Dual Fuel System, the radiator heats up when the Central Heating is on, but not when I turn on the element.

This is likely an issue with the Electric Heating Element in place.

It could be that the element is faulty, or the element size is not appropriate for the radiator installed. It may also be the case that the valve positions are incorrectly set.

Please consult the user guide for that part.

3.1.7 I have a Dual Fuel System, the radiator works when the Heating Element is on, but not when the Central heating is on.

This would suggest an issue with the central heating system, it could be any number of issues mentioned in this section above or it could be an issue with the central heating system itself.

3.2 Electric Only Heat Issues

The likely causes for any heat issues are

- Incorrect amount of Heating Fluid added to the radiator
- Heating Element is not of the appropriate size for the radiator size
- The Heating Element is not turned on or is faulty.
- By Design

For the first 3 issues, we recommend that you consult the user and installation guide for that part and the radiator when operating in electric only mode.

However, it is important to note that by design and the way temperature flows, not all parts of the radiator will achieve the maximum temperature.

There are different types of heating elements

Ambient control – this is where the element senses the room temperature, heats the room to the temperature required and then shuts off. Dependent on the starting temperature of the room, the radiator may not need to get that hot in order to achieve the task of achieving ambient room temperature. It may also be the case that the radiator and element is not powerful enough to heat the room to the required temperature based on the room heat loss requirements, where it will behave per the below.

Radiator Control – this is where the element senses the internal temperature of the radiator and shuts off when a certain temperature has been reached. The part of the radiator that contains the element will always be hotter than the other parts of the radiator, so you may find that the object as a whole does not heat up to the maximum temperature or that some parts of the radiator take

longer to heat up than others, as it will take some time for the temperature to conduct around the material.

3.3 Noise Issues

The radiator itself does not have any moving parts, so there is nothing within the radiator product itself that could make a noise.

However, there are issues with the installation of the radiator or the heating system as a whole that can cause the appearance of the radiator making noise. These can range from minor issues easily resolved, to more severe issues meaning there is a more serious underlying issue with the heating system that needs to be addressed.

Noises are also common with newly installed radiators if there has been an issue with the installation process conducted by the Plumbing and Heating Engineer.

3.3.1 Types of Noises

There are a range of sounds that can be caused by the heating system in your building as a whole, from light tapping or gurgling sounds, to loud hammering sounds.

3.3.2 What can cause noises

The causes of these are numerous, it could be the pipes not having enough room to expand, to limescale build up, immersion elements being faulty or even the boiler itself being faulty.

Installation Position

The radiator is comprised of metal, and as part of its standard and expected functionality when that metal is heated up it will expand and when it cools down it will contract, the same applies to all pipes and valves feeding the radiators in the home.

Dependent on the way the radiators have been installed against the brackets, valves and pipes, the radiator may expand towards the bracket or other objects around it, and as it re-adjusts against that object, make a sound. The sound could also be coming from the valves or the pipes around the radiator.

Over the course of its lifetime, which is quite some time for a radiator, this issue may arise due to the natural shifting of buildings over time.

For new installations, this issue may resolve itself over time as the radiator finds its natural position.

Air in the radiator

When there is a lot of air trapped in the radiator, it will prevent the radiator from heating up. However, smaller trapped air bubbles can result in a functioning heating system that makes noises. It would usually be noticed when the radiator is heating up and can be resolved by bleeding the radiator.

Over time, this issue may result in a heating issue with the radiator as the amount of trapped air builds up and if this issue keeps reoccurring, then there could be a more serious issue with the heating system as a whole that needs to be addressed.

Radiators Heating up too quickly

One common cause for noise is a result of radiators heating up too quickly which has the subsequent impact of causing the metal in the radiator to rapidly expand. This can be caused by the boiler

temperature being too high or by the valve configuration resulting in the radiator rapidly heating up. Lowering the boiler temperature or re-configuring the valves can resolve this issue and should not result in a reduced overall performance.

Other Issues

There are a range of sounds that can be caused by the heating system in your building as a whole, from light tapping or gurgling sounds, to loud hammering sounds.

The causes of these are numerous, it could be the pipes under the floorboards not having enough room to expand, to limescale build up, immersion elements being faulty or even the boiler itself being faulty.

In any case, when your heating system, pipes or radiators are making a sound, as it could be an indication of a more serious issue with the heating system as a whole as opposed to an individual part.

3.3.3 What to do about noises

Noises with heating systems should not be ignored, as they can indicate an issue with the heating system as a whole or various parts of the heating system as a whole.

3.4 Aesthetic Issues

3.4.1 The radiator has scuffs or marks on it

The marks could simply be from packaging, or from contact to another object.

Try cleaning the mark with a soft damp sponge, do not rub the surface of the radiator too hard or it may cause paint to come off.

If this issue was found after installation, then the issue is not covered by Warranty.

Touch up paint can be requested from your retailer, please contact them for further information.

3.4.2 The radiator has changed colour since installation.

Our radiators and substances applied are tested for Corrosion and Usage, so it is unlikely that this issue occurs naturally.

The most common cause of a radiator changing colour is objects or materials being dried on it where

- The material is abrasive, thinning the paint in certain sections
- The dye from the material has run onto the radiator

Consult the Warranty document for your product for what is covered and what is not covered for issues like this.

Other causes of the appearance of a radiator changing colour after installation can simply be another change in the room around it that makes it seem a different colour, but is actually due to “light” such as

- A change in wall colour/tiles around it
- Brighter/Dimmer light bulbs

It may also be that the radiator just needs a bit of a clean, please see the ‘Maintenance’ section earlier in this document.

3.4.3 The radiator appears to have rust on it

Per the installation location section of this document, radiators should only be installed in well ventilated areas and per the maintenance section should be cleaned regularly.

However, the object in question is metal, and metal reacts with oxygen and moisture naturally creating rust. So, over an extended period of time, it is expected that rust will occur.

We define this amount of time within the ‘Appearance’ aspect of the Warranty document.

Provided the radiator has been installed in a well-ventilated area then consult the warranty document for further information.

3.5 Structural Issues

3.5.1 The radiator is dented

If this issue is found after installation, then it is not covered by Warranty.

Physical damage can impact the structural integrity of the radiator, you should isolate the radiator on the heating system and seek a replacement.

3.5.2 The radiator has deformed

Central Heating

If the radiator deforms, then this is likely caused by operating the radiator beyond the maximum operating pressure.

Physical damage can impact the structural integrity of the radiator, you should isolate the radiator on the heating system and seek a replacement.

Electric Only

Adding too much heating fluid is the likely cause of the radiator deforming.

Physical damage can impact the structural integrity of the radiator, you should immediately turn off the heating element and seek a replacement.

3.5.3 The radiator has leaked

Central heating

If the radiator leaks, then this is likely caused by operating the radiator beyond the maximum operating pressure, it could also be an issue with the way the radiator was installed or could be an issue that is covered under warranty.

The cause of the leak may be with the pipe or the valves, which are considered separate to the radiator.

You will need to identify the source of the leak, if it is a connection point, often adding more jointing compound or PTFE tape to the connections is enough to resolve the issue.

Electric Only

If the radiator leaks, the likely cause is adding too much heating fluid is the likely cause of the radiator leaking as the fluid expands causing damage to the seals, it could also be an issue with the way the radiator was installed or could be an issue that is covered under warranty.

Physical damage can impact the structural integrity of the radiator, you should immediately shut off the electric element.

You will need to identify the source of the leak, if it is a connection point, often adding more jointing compound or PTFE tape to the connections is enough to resolve the issue.

If the leak is coming from the Element Connection, consult the element retailer for further information.

For any other part of the radiator, consult your radiator retailer for further information.

3.5.4 The radiator has ruptured

Central heating

If the radiator ruptures, then this is likely caused by operating the radiator beyond the maximum operating pressure or by some other activity conducted on the radiator, or by internal corrosion of the radiator.

You should isolate the radiator on the heating system and seek a replacement.

Electric Only

Adding too much heating fluid is the likely cause of the radiator rupturing as the fluid expands causing damage to the radiator, it could also be caused by some other activity conducted on the radiator.

Physical damage can impact the structural integrity of the radiator, you should immediately turn off the heating element and seek a replacement.

3.5.5 The radiator is coming detached from the wall

Please refer to the ‘fixing kit supplied’ section of this document.

It is likely that this is an installation issue and that appropriate fixings have not been used by the Installation engineer when the radiator was attached to the wall for its required location.

You will need to isolate the radiator and make attempts to support the radiator preventing further damage to the heating system.

Physical damage can impact the structural integrity of the radiator, you may need to seek a replacement radiator.

3.6 Any Other Issues

If you experience any other issues with this product that are not covered by this user manual, then contact the retailer for further assistance.

Note: Many retailers have a blog or advice centre where they cover off issues in more detail, you may be able to start there to get a quicker response to your issue.