

# Radiator Care and Installation Guide

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Your Paladin cast iron radiator is carefully built by hand by our expert craftsmen, and pressure tested to ensure it is watertight. We want perfection for your radiator, and we exercise caution in how your radiator is handled and installed, to eliminate any faults.

To ensure that your radiator remains in good condition, please read this information sheet carefully.

## Lifting Instructions on Delivery

*Cast iron radiators are very heavy, so please ensure you have sufficient help to unload your order when it is delivered to you via pallet courier, roadside.*

While your radiator is on a pallet, the full length of the radiator is supported. Once the pallet is removed, the radiator needs to be carried upright at all times. A cause of leakage is a strain on the gasket seals caused by carrying the radiator flat without supporting the middle sections or dragging the radiator. The longer the radiator, the higher the stress imposed on the watertight seals. Always follow the correct HSE lifting guidelines.

## Helpful Hint

*Two short pieces of wood 20mm x 50mm x 250mm make good handles when inserted between the last two sections, at either end.*

## Valve Installation

Our thermostatic valves have a frost protection feature and are non-bidirectional. The most common cause of leaks is over tightening of the valve tails into the bottom bushes of the radiator. Over tightening will crack the bush. When screwing the valve tail into the bush, turn it finger tight then using a spanner turn it until there is only moderate resistance. Using a 4" (100mm) spanner, it is difficult to over tighten. It is easy to over tighten and crack the bush with an 8" spanner. A thread sealant must be applied to the valve tail threads to get a watertight seal. Sealant from any plumbers' merchants is recommended. PTFE tape is an acceptable alternative.

## Caution

*Do not over tighten the valve tails into the bottom of the bushes. We recommend using a 4" (100mm) spanner.*

It should not usually be necessary to unscrew the bushes, but if for any reason you do, retighten them gently, enough only to create a good seal. We do not recommend the use of an 18" Stilson. The torque from an 8" adjustable spanner is more than enough to create a good seal. The male thread on each bush on the bleed valve side of the radiator is the left-hand thread, i.e., turn anticlockwise to unscrew. This is the thread that screws into the radiator casting. The female threads on the bushes on the bleed valve side of the radiator are the normal right-hand threads. This is the thread that the inlet or outlet valve or bleed valve screws into. The threads on the opposite side of the bleed valve are all normal right-hand thread.

## Caution

*We do not recommend the use of an 18" Stilson. The torque from an 8" adjustable spanner is more than enough to create a good seal.*





### Wall Stay Installation

Wall stays should be clamped between two adjacent rear columns of the radiator. The picture opposite shows an example. The long threaded rod should be cut to length so that the radiator is close to the wall.

### System Cleaning and Flushing after Installation

Cast iron radiators are for use on central heating systems only, and they are not suitable for installation on secondary HWS circuits. Upon completion of the installation, the entire system must be thoroughly cleaned and flushed to remove debris and flux residues etc. When a chemical cleanser is used, it must be thoroughly flushed from the system. Following this procedure, the system must be closed with a suitable eminence water treatment to prevent corrosion.

Paladin recommends the use of Fernox water treatments, which are compatible with our cast iron radiator gaskets. It is also very important not to overdose your system and apply the right amount of chemical required.

### Caution

*Be aware that not all chemical treatments are fully tested to be compatible.*

Flushing and dosing must be under BS 5449, 1990, BS EN 12828:2003 and BS 7593. Paladin actively discourages the use of a water softener on the heating system as this treatment can cause problems with the gasket seal.

### Caution

*It is important to note that failure to observe these requirements will render the guarantee on the products void. Corrosion inhibitor must be used by the manufacturer's instructions and recommendations and should take into account the particular metals within the system.*

### Hand Polished Radiator Maintenance

The hand polishing process reveals and polishes the original cast iron surface. It is a particularly beautiful finish however as the bare metal is exposed to the air, this finish requires some attention to eliminate rust spots occurring. You will note the hand polished finish is to the sides, top and front of your radiator, the back area of the radiator is not polished as this area is difficult to treat as it is against the wall once installed.

Every 6 – 8 weeks take a soft polishing cloth lightly sprayed with WD40 and dust your polished radiator to all polished areas; this will ensure your polished radiator remains rust free.

For further information, contact us on  
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