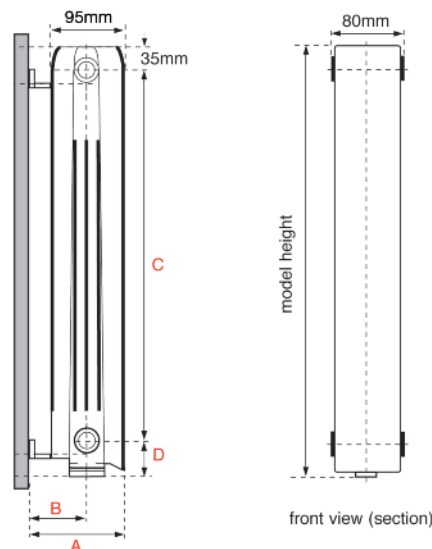


# faral alliance 95 Technical Specifications



Model Height mm		430	580	680	780	880
Model Reference		FA95-430	FA95-580	FA95-680	FA95-780	FA95-880
Section Length mm		80	80	80	80	80
Total Length of Radiator mm	Total number of sections x 80mm + 20mm					
Section Depth mm		95	95	95	95	95
Wall to front of Radiator rmm	Ref A	115	115	115	115	115
Wall to pipe centre mm	Ref B	67.5	67.5	67.5	67.5	67.5
Tapping Centres mm	Ref C	350	500	600	700	800
Pipe Centres mm	Ref D	45	45	45	45	45
Connection Dia	1/2" Standard or 3/4" Optional					
Water Content (Litres per section)		.44	.35	.41	.45	.6
Dry Weight (Kg per section)		1.2	1.56	1.74	2.02	2.11
Maximum working pressure		10 bar	10 bar	10 bar	10 bar	10 bar
Standard Colour		RAL9010	RAL9010	RAL9010	RAL9010	RAL9010

## Tables for calculation of thermal output

### Alliance 95 880

ΔT	0	1	2	3	4	5	6	7	8	9
20	52.5	56.1	59.8	63.5	67.3	71.2	75.1	79.1	83.1	87.2
30	91.3	95.5	99.7	104	108	113	117	122	126	131
40	135	140	145	149	154	159	164	169	174	179
50	184	189	194	199	204	209	214	219	225	230
60	235	241	246	252	257	263	268	274	279	285
70	291	296	302	308	314	319	325	331	337	343

### Alliance 95 680

ΔT	0	1	2	3	4	5	6	7	8	9
20	42.6	45.5	48.5	51.5	54.6	57.7	60.8	64	67.3	70.6
30	73.9	77.3	80.7	84.1	87.6	91.1	94.7	98.3	102	106
40	109	113	117	121	124	128	132	136	140	144
50	148	152	156	160	164	168	173	177	181	185
60	190	194	198	203	207	211	216	220	225	229
70	234	238	243	248	252	257	262	266	271	276

### Alliance 95 430

ΔT	0	1	2	3	4	5	6	7	8	9
20	28.0	29.8	31.7	33.6	35.5	37.5	39.5	41.4	43.5	45.5
30	47.6	49.6	51.7	53.9	56.0	58.2	60.4	62.6	64.8	67.0
40	69.3	71.5	73.6	76.1	78.4	80.8	83.1	85.5	87.9	90.3
50	92.7	95.1	97.6	100	103	105	107	110	113	115
60	118	120	123	125	128	131	133	136	139	141
70	144	147	149	152	155	157	160	163	166	169

### Alliance 95 780

ΔT	0	1	2	3	4	5	6	7	8	9
20	47.6	50.8	54.2	57.5	61.0	64.5	68.0	71.6	75.2	78.9
30	82.6	88.4	90.2	94.1	98.0	102	106	110	114	118
40	122	127	131	135	139	144	148	152	157	161
50	166	170	175	180	184	189	193	198	203	208
60	213	217	222	227	232	237	242	247	252	257
70	262	267	273	278	283	288	293	299	304	309

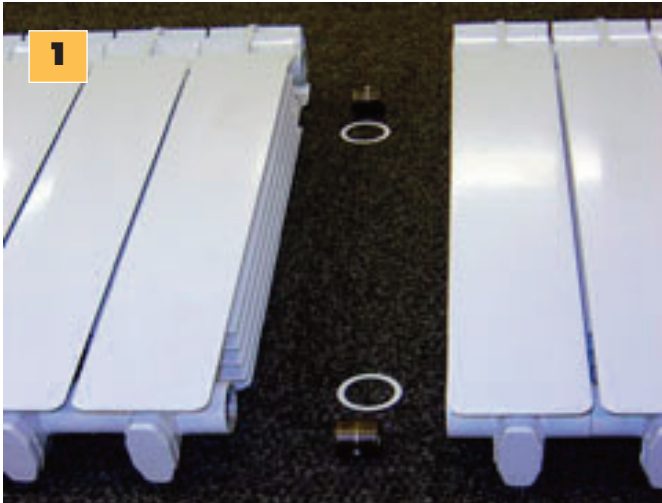
### Alliance 95 580

ΔT	0	1	2	3	4	5	6	7	8	9
20	37.5	40.1	42.7	45.4	48.1	50.8	53.6	56.4	59.2	62.1
30	65.1	68.0	71.0	74.0	77.1	80.2	83.3	86.5	89.6	92.9
40	96.1	99.4	103	106	109	113	116	120	123	127
50	130	134	137	141	144	148	152	155	159	163
60	167	170	174	178	182	186	189	193	197	201
70	205	209	213	217	221	225	229	234	238	242

### Radiator Lengths

FARAL radiators are supplied in a maximum length of 15 pre joined sections (1200mm) for ease of transport, each 15 section radiator can quickly have other radiators joined to it on site with two nipples and a joining key, a joining key will pass through an 8 section radiator so for example a 31 section radiator could be supplied as a 15 section with two 8 section radiators.

# Assembly Guide for Faral Aluminium Radiators



Use a perfectly flat area for assembly and ensure that all machined faces and internal threads are clean.

Each section has right-handed connections at one end and left-handed ones at the other. Nipples have one end left handed and one right handed. Study the orientation of connections carefully before assembly.

There are 2 joints to be made for each pair of sections. Each of these requires 1 connection nipple and 1 gasket. A nipple key and tommy bar are required to rotate and tighten the connections.



Screw a pair of nipples into one end of the radiator.

Only screw in by one turn, do NOT screw in fully.

Place a gasket approximately at the mid-point of each nipple.

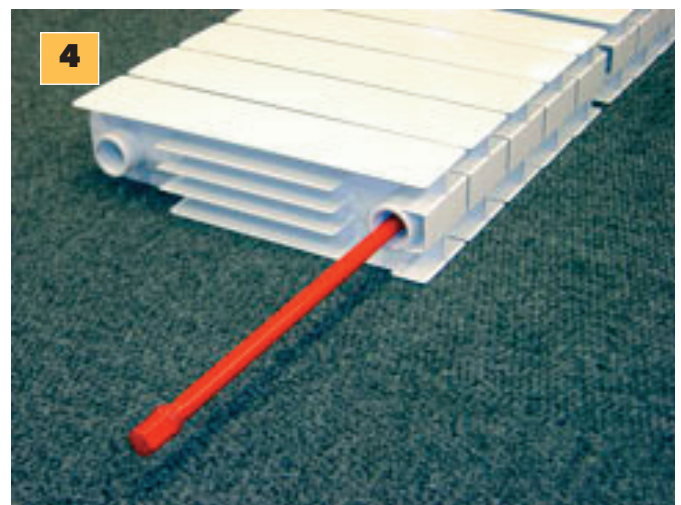
Do not use any jointing paste or tape (PTFE or similar) to the gasket, nipple threads or radiator.



Carefully slide the second section next to these nipples, taking care that the thread connections are correct.

Place the nipple key over the top of the radiator so the head is in line with the nipples to be turned.

Mark the key so that when it is inserted the head will engage inside the nipple. Slide the key in from the open end of the waterway until it engages into the nipple that needs tightening. Check the end of the key has fully engaged in the internal lugs inside the nipple.



Rotate the nipple using the nipple key, so that it pulls the 2 sections together. At this stage only rotate the nipple by one turn. Repeat with the other nipple. Repeat the above, alternating so that both sections are pulled gradually together and ensuring they are kept parallel.

Finally, tighten the joints so the gaskets are firmly compressed. A tightening torque of 100 lbf-ft must be applied. **DO NOT TEST WITH AIR.**

Only the Longo is provided with a diverter which must be fitted, you push this between the 1st & 2nd section on the flow into the bottom of the radiator.

# **Installation Guide for Faral Aluminium Radiators**

## **Read this guide before starting installation**

### **Handling Advice**

Please refer to the handling guidelines provided with this product. This contains important information about the safe handling of these radiators to minimise risk and damage.

### **Assembly Advice**

Radiators over 15 sections may be supplied in sectional form for ease of handling. If this is the case then please refer to the site assembly instructions supplied separately.

### **Water Treatment**

On completion of any heating installation it is good practice to make sure the entire system is thoroughly cleaned and flushed to remove debris/flux residues etc. After a chemical cleaner is used, it must be thoroughly flushed from the system. Following this, the system should be dosed with a good quality water treatment to prevent corrosion, such as Fernox or Sentinal. Corrosion inhibitor must be used in accordance with the radiator manufacturer's instructions and recommendations and should take into account the particular metals within the system. Please contact AEL for any advice you may need.

### **Cleaning & Aftercare**

The external surface of the radiator should be cleaned with mild detergent. No solvents or abrasives should be used.

### **Painting**

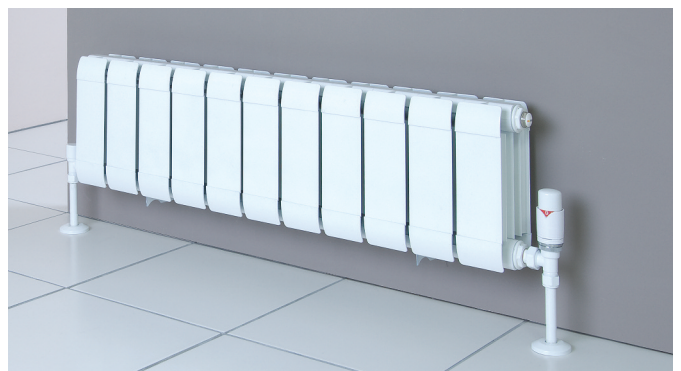
If they were supplied in primer finish they can be covered with a variety of paint types including water-based, oil-based, cellulose, 2-pack acrylic and stove enamel. These radiators may have been supplied factory painted in your choice of colour. If so, no further painting or surface treatment is necessary or recommended. Always consult the paint manufacturer's instructions.

### **Operating Pressure**

These radiators are designed to operate at a system maximum pressure of 6 bar. Do not pressure test with air as the gaskets are designed for water systems.

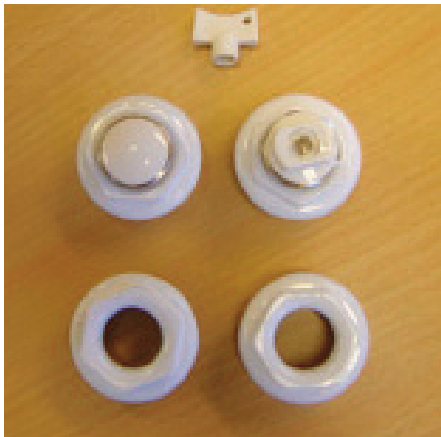
### **Warranty & further information**

These radiators have been designed, manufactured and tested to ensure long-lasting use. They are guaranteed to be free from material and manufacturing defects for 5 years from date of purchase. Should you require any further information, help or advice about any aspect of installing and maintaining these radiators, please contact our office.





# Installation Guide for Faral Aluminium Radiators



## Bushes & Washers

Each radiator is supplied with a bush & washers for each of the 4 connections.

- A** Two 1/2" or 3/4" BSP threaded bushes & washers for connecting radiator valves
- B** One bush and washer for the air vent
- C** One blank bush & washer

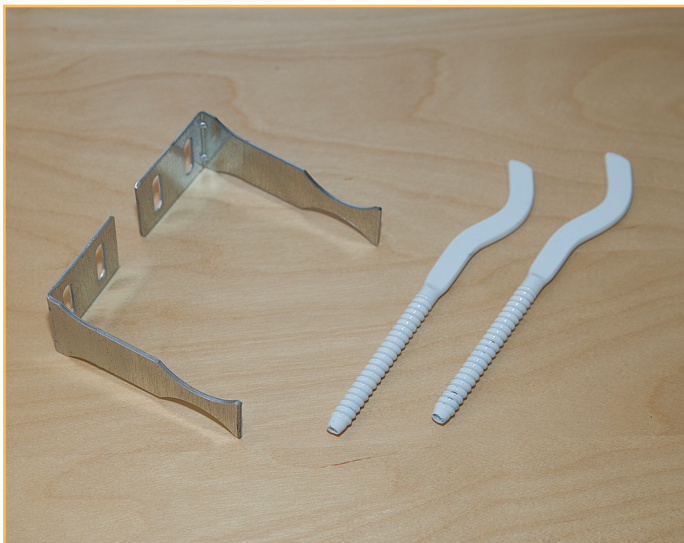
The bushes and brackets are supplied in a blister pack and must be fitted to the radiators before installing.

**NB: 2 of the 4 bushes have left-handed threads and must only be fitted to the appropriate ports.**

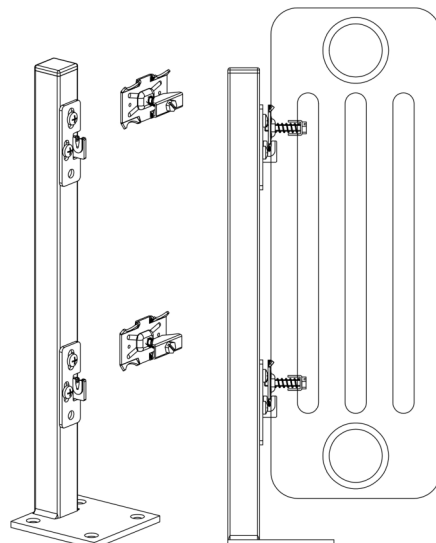
Use only the sealing rings supplied for sealing the bushes, air vents and plugs.

No thread sealant paste or tape may be used on the thread or bush which mates into the radiator. When fitting radiator valves to the left-hand threaded bushes; hold the bushes firmly with a spanner. This will ensure that the bushes are not allowed to rotate and become loosened., thereby preventing the risk of leaking.

It is recommended that the threaded tail pieces of radiator valves or other pipe fittings that are screwed into the bushes are sealed with PTFE thread sealing tape. Sealing compound can also be used but great care must be taken to ensure that the sealing compound makes no contact with any of the sealing rings.



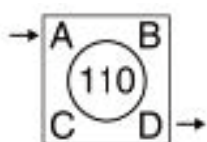
Wall brackets, supporting top and bottom (standard option).



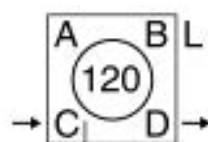
Floor mounted with retaining stays (optional extra).

## Connection Details

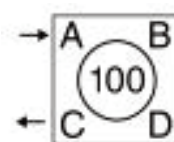
The radiator can be installed with the following connection (inlet & outlet) configurations, referred to by the codes indicated below.



Top-Bottom-  
Opposite-Ends  
**TBOE**



Bottom-Bottom  
Opposite-Ends  
**BBOE**



Top-Bottom-  
Same-Ends  
**TBSE**

**Note:** The radiators are not reversible from top to bottom. Only the Longo is provided with a diverter which must be fitted, you push this between the 1st & 2nd section on the flow into the bottom of the radiator.