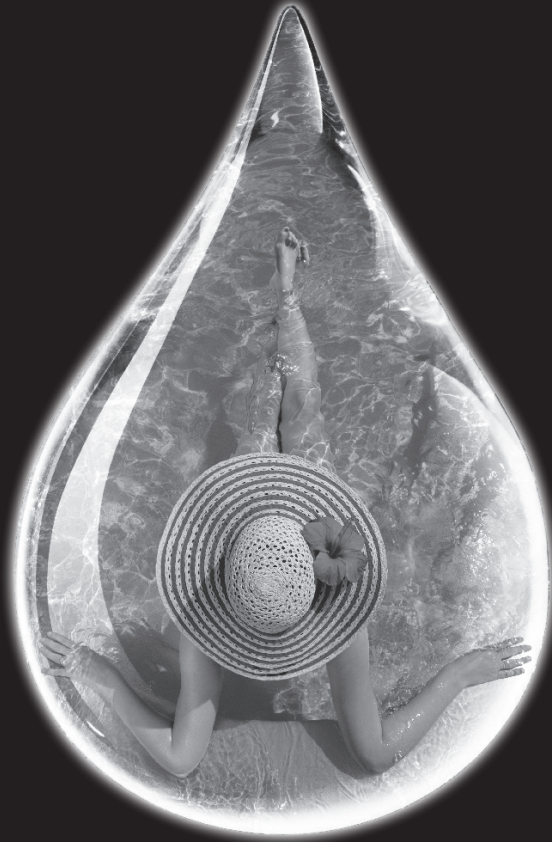


# G2 Heat Exchanger

Installation & Operating Manual



**ELECR**

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**ENGINEERING**

## Important Notes!

Congratulations on purchasing your new Elecro G2 Heat Exchanger. Elecro heat exchangers are manufactured in the UK, to exacting standards and use the highest quality materials, to ensure exceptional performance and reliability please take a moment to read these instructions. Your new heat exchanger must be installed and operated as specified.

**This heat exchanger must be installed correctly by qualified personnel only, and in accordance with any national / regional requirements / regulations.**

The appliance is not to be used by children. The appliance is not to be used by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.

## Product Overview

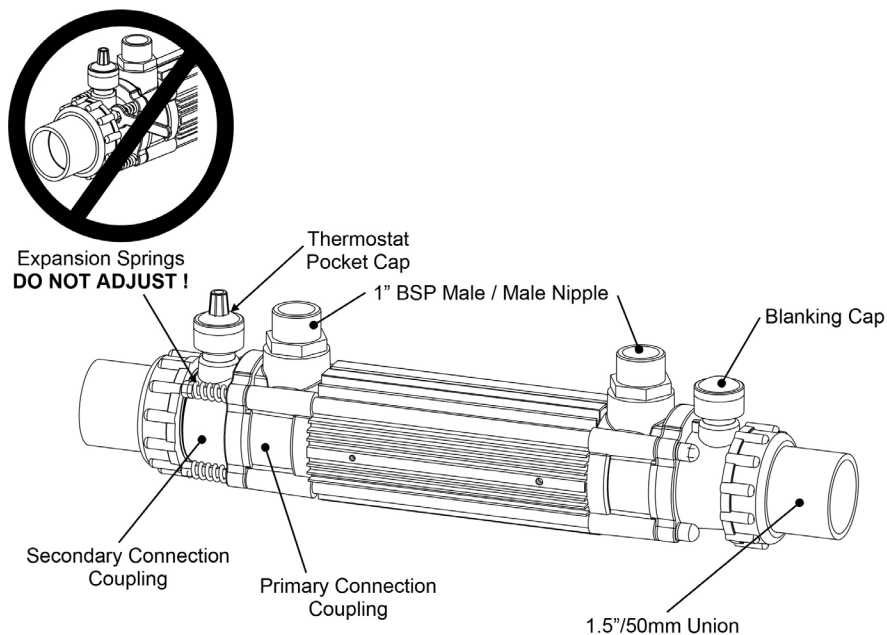


Fig 1.

## Transfer values

Standard Power Output	Primary Flow (m <sup>3</sup> /h)	Primary-Head Loss (kpa)	Secondary Flow (m <sup>3</sup> /h)	Secondary Head Loss (kpa)	ΔT 15°C (kW)	ΔT 20°C (kW)	ΔT 30°C (kW)	ΔT 40°C (kW)	ΔT 50°C (kW)	ΔT 60°C (kW)	ΔT 70°C (kW)
30-kW	1.1	6.1	10	5.0	9	11	16	20	26	30	33
30-kW	1.3	6.8	10	5.0	10	13	18	23	31	34	39
30-kW	1.3	6.8	14	7.0	11	15	20	26	34	41	46
49-kW	1.6	7.7	16	9.2	13	18	25	34	41	50	56
49-kW	1.8	8.3	16	9.2	14	20	28	38	45	55	62
49-kW	2.2	9.6	17	9.8	16	22	33	44	52	64	73
85-kW	2.4	11.3	17	10.6	22	28	40	53	64	75	81
85-kW	2.7	12.9	17	10.6	26	32	46	60	73	82	89
85-kW	3.2	14.7	17	10.6	28	34	49	64	77	90	102
122-kW	3.8	18.3	19	12.6	33	43	68	75	93	108	120
122-kW	4.2	20.0	19	12.6	36	48	70	89	108	126	143
122-kW	4.6	21.1	19	12.6	38	52	73	95	116	137	156

ΔT = Temperature difference between Primary and Secondary

To calculate BTU multiply kW x 3412

kW x 3412 = BTU Output

**Note:** Maximum primary operating temperature is 95°C

	L1	L2	L3
30-kW	540	426	247
49-kW	710	596	417
85-kW	840	726	547
122-kW	1000	886	707

## Dimensions (mm)

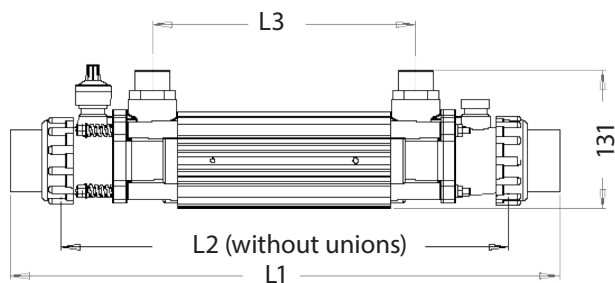


Fig 2.

Your G2 Heat Exchanger can be installed either horizontally or vertically. (Please see figures 3 / 4 ) A wall bracket is supplied for the Horizontal installation only, see figure 5.

## Vertical Installation

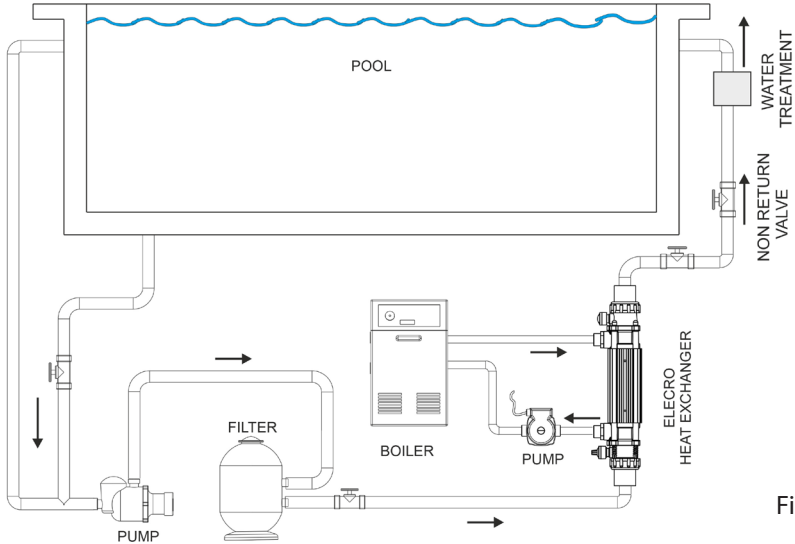


Fig 3.

## Horizontal installation

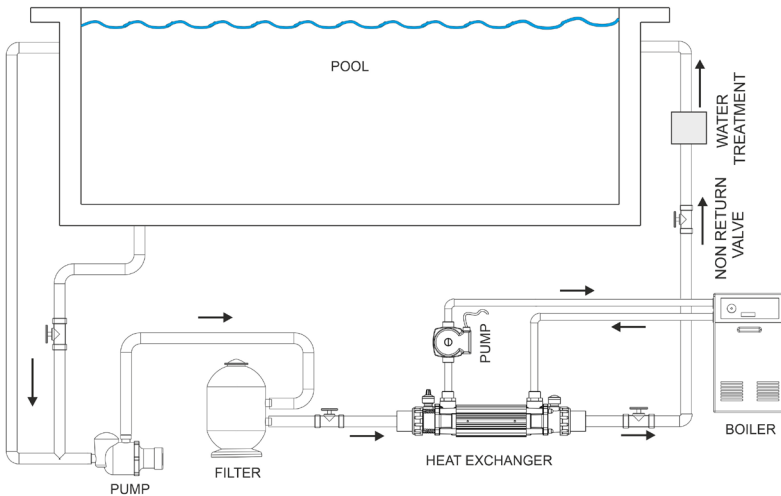
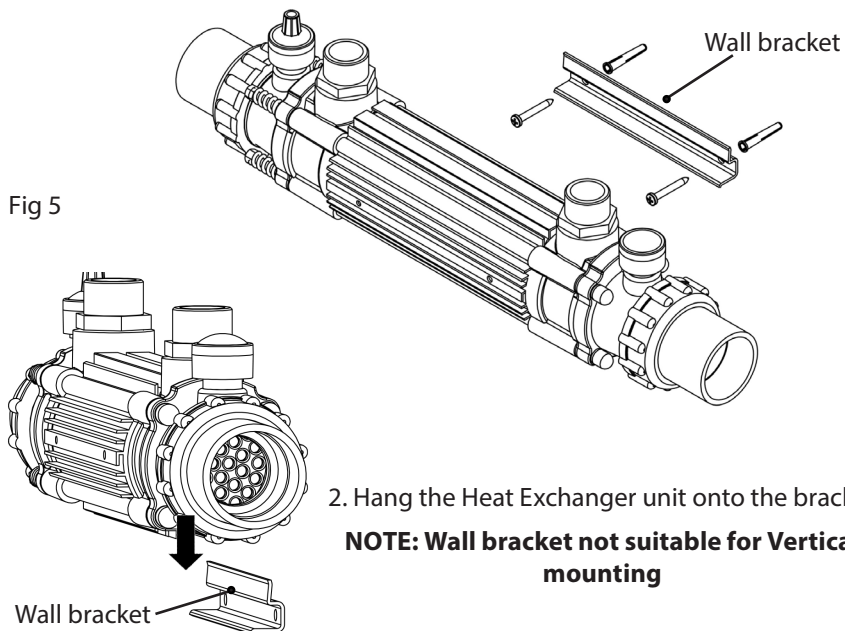


Fig 4.

## Horizontal wall mounting:

1. Fix the supplied wall bracket as shown securing with two screws (fixings not supplied)



Your G2 Heat Exchanger should be connected to the two independent water circuits as follows:

### **1. Connection to Water Filtration Circuit (Secondary)**

The heat exchanger should be plumbed inline, after the filtration pump and filter and before any water treatment equipment. It must be fed with clean water. Weed / debris should not be allowed to enter the heat exchanger. Universal 1.5" / 50mm ABS unions for connection to rigid PVC or ABS pipe are included (stepped internal diameter to accommodate both sizes). The heat exchanger should be installed as close as possible to the boiler/heat source to minimise heat loss.

To assist with correct air purging and to ensure that the heat exchanger remains full of water during operation, it should be installed at the lowest point in the filtration circuit.

**If the heat exchanger is installed in a vertical plain, it is essential that the pool/pond water (secondary circuit) enters low and exits high.**

### **2. Connection to Heating or Cooling Circuit (Primary)**

The heat exchanger should be connected directly to the primary circuit i.e. boiler/chiller via the provided 1" BSP male brass connectors.

**NOTE: The circulation pump of the primary circuit should be controlled by a thermostat, which should be connected via the filtration pump to allow heating only when the filtration pump is running.**

Air bleed valves should be installed at the high points of the primary circuit. To ensure correct temperature detection, it is essential that the thermostat / thermistor is positioned at the pool / pond water inlet of the heat exchanger. The thermostat pocket and blanking cap use a common port, and can thus be swapped as required.

Use two wrenches to fasten fittings.  
Wrench No. 1 should remain steady.

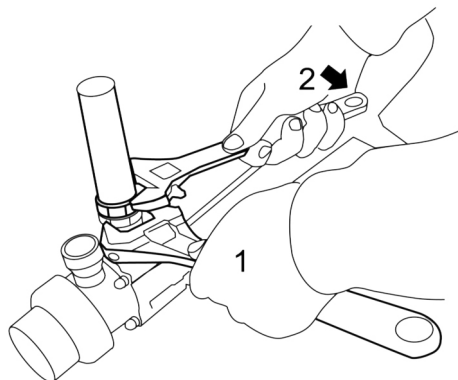


Fig 6.

Care should be taken not to over tighten any connections, as this could result in damage to the heat exchanger.

**Only use the supplied brass connectors as other uncertified connectors may leak or cause damage to the unit.**

### Circulation direction:

The primary and secondary circuits should be installed so water flows are counter current i.e. The water from the primary circuit should flow in the opposite direction to the water in the secondary circuit.

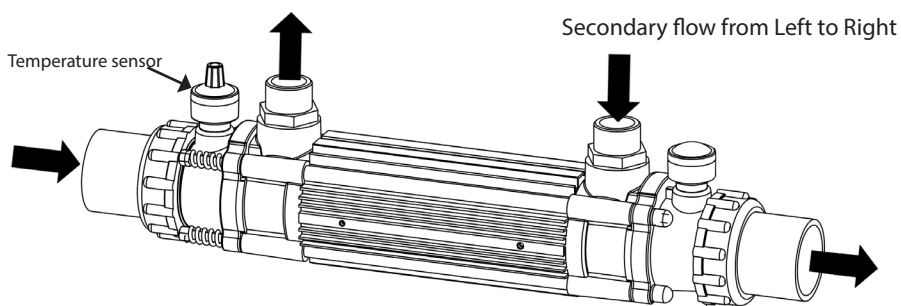
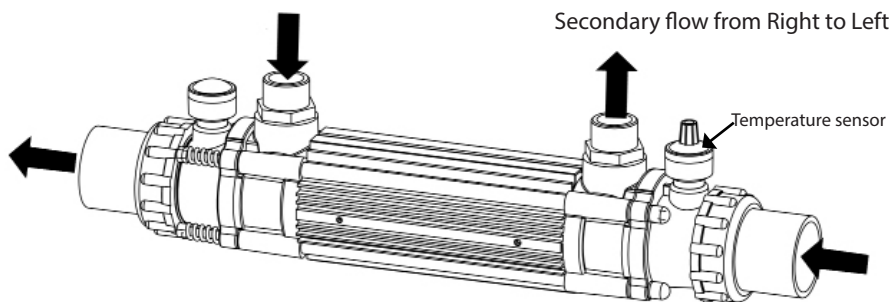


Fig 7.



**CAUTION**

If the heat exchanger is not used during winter months it must be drained to prevent frost damage.

**NOTE:** For Winterising / maintenance - it is recommended that the heat exchanger is installed with isolation valves on both water input and output sides of the primary and secondary circuits. This will allow the water to be shut off on both sides and aid removal from the system, when required.

## Water quality

To prevent damage to your heat exchanger, the water quality must be kept within the following limits:

Chlorine Content: Max 3mg/l (ppm)

Chloride Content: Max 150mg/l

PH: 6.8-8.0

Calcium Hardness: 200-1000mg/l (ppm)

## Guarantee

Your Elecro G2 heat exchanger is guaranteed for 3 years\* from the date of purchase against faulty workmanship and materials.

*\*regional variations apply*

ELECRO ENGINEERING LTD will replace or repair, at it's discretion, any faulty units or components returned to the company for inspection. Proof of purchase may be required.

ELECRO ENGINEERING LTD will not be liable in cases of incorrect installation, inappropriate use or neglect.

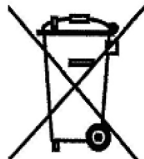
## RoHS compliance statement

Elecro Engineering Limited certify that our Swimming Pool Heat Exchanger range complies in accordance with RoHS Directive 2011/65/EU on the restriction of hazardous substances.



This product complies with EU directive 2012/19/EU

**Do Not dispose of this product as unsorted municipal waste.**



This symbol on the product or on its packaging indicates that this product should not be treated as household waste. Instead it should be handed over to the applicable collection point for the recycling of electrical and electronic equipment.

By ensuring this product is disposed of correctly you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more information please contact your local Civic office, your household waste disposal service or the retailer where you purchased the product.







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