



in.therm

intelligent remote water heating systems



Designed to be totally
maintenance free!

Aeware
by gecko 





in.therm™

Intelligent remote water heating system designed to be totally maintenance free.

Separated from pack, in.therm™ is an intelligent 4kw remote heater that integrates electronics in its power box. It includes a built-in temperature probe and a new water flow detection feature that eliminates the need of a pressure switch. In.therm™ controls multiple power levels on a single element extending its lifetime by heating at high power only when needed. With no moving parts and no adjustments, in.therm™ is hassle free and defines new levels of reliability.

In.therm™ was designed to be easily and quickly installed. Threads and in.link™ cables make it easy to connect to pack system & spa pipes.

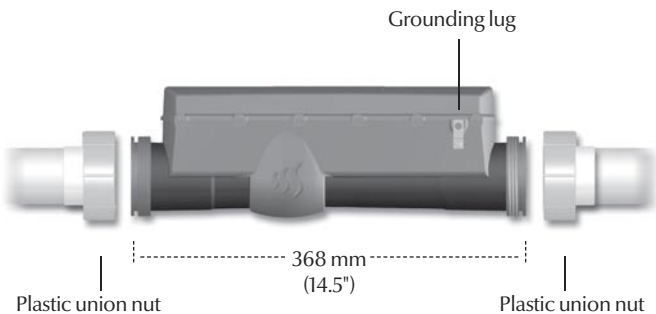


Totally sealed enclosure
(box & heat channel)

Nominal dimensions: 14,5" x 5" X 4"



Heater installation



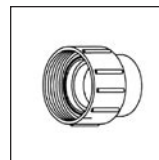
For an optimal connection to spa plumbing, please note that we recommend the following 2" compression fittings & nuts.



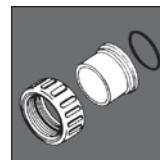
Waterway
#400-5570
www.waterwayplastics.com



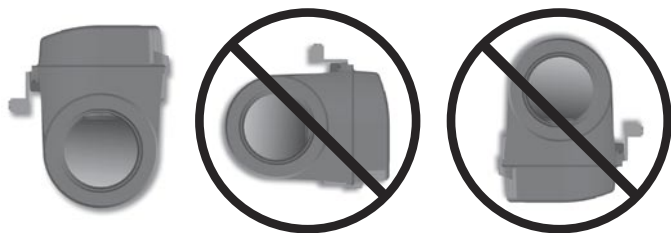
Aquatemp
86-02335
www.aquatemp.com



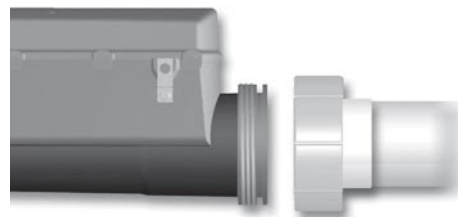
Aqua-Flo
52202000
www.aqua-flo.com



Magic Plastics
#0602-20
www.magicplastics.com



Install heater in the upright position as illustrated above.

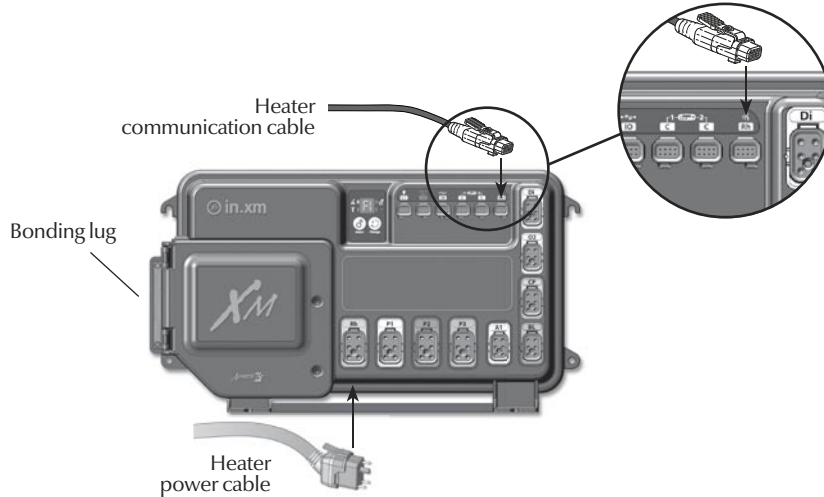


Slide the two 50 mm (2") plastic union nuts over the heater threaded ends and tighten the nuts.

Note: a minimum flow rate of 18 gpm is required.



Connecting in.therm™ to in.xm™



Connect the heater power cable to the in.link™ output connector indicated Rh on the spa pack.

Connect the heater communication cable to the low voltage connector indicated Rh on the spa pack.

Connect the bonding conductor to the bonding lug on the face of the in.therm™.

Important! CE and UL/CSA parts are not interchangeable!



In.xm™ electrical specifications:

Input rating: 120/240 VAC (2-phase required, with or without neutral) 48 A maximum, 60Hz.

Input operation specification: 240 VAC (-10% / +5%)

Output ratings:

Output	Voltage	Current	Device
Out 1	240 V	20FLA	Pump 1
Out 2	240 V	15 FLA	Pump 2
Out 3	120/240V	15 FLA	Pump 3 or large Blower
Out 4	120/240V	6 FLA	Aux 1
Out 5	120/240V	6 FLA	Blower
Out 6	120/240V	6 FLA	Circulation Pump (CP)
Out 7	120/240V	6 FLA	Ozone Generator
Out 8	120/240V	6 FLA	Audio/Video device

Important:

- 48 A absolute maximum, distributed on all outputs
- 25 A maximum total for all 120 VAC loads
- 20 A maximum total for OUT2 and OUT3 combined
- 11 A maximum total for OUT4 to OUT8 combined
- Maximum loads are determined by fusing restrictions and ambient temperature. In all output configurations, the total current output must never exceed input ratings.

L1	Light, 1 A / 10 VAC (-5%/+10%) @ 240 VAC / 60Hz
CO	Communications port *
C1	Top side controller *
C2	Top side controller **
IO	General purpose I/O port **

* C1 and CO: 125 mA max on 5 Volts.

** C2 and IO: 125 mA max on 5 Volts.

Important:

- All low voltage accessories use +5Vdc and/or on +12 Vdc.
- All low voltage accessories combined: 300 mA max, on +12 Vdc.



General specifications:

Environmental:

Operating temperature: 0°C (-32°F) to 50°C (122°F)

Storage temperature: -25°C (-13°F) to 85°C (185°F)

Humidity: up to 80% RH, non condensing

Mechanical:

Weight: 3.4 kg (7.6 lbs)

Dimensions (W x H x D):

Chassis: 185mm x 52mm x 275mm (7-1/4" x 2" x 10-3/4")

Standards:

UL 1563 Fifth Ed.

CSA No. 22.2 - 218.1-M89



In.therm™ supply ratings:

Voltage: 2-phase, 240VAC

Current: 17 A maximum (4 kW heater)

Frequency: 60 Hz

In.therm™ output ratings:

Heater element: 17A resistive (240 VAC only)

In.therm™ flow rates:

Minimum of 18 GPM is required