Additional helpful installation information. For maximum efficiency and to maintain an ambient temperature the pond should be covered and insulated to help achieve and maintain the pond temperature in cases of insufficient insulation more KW per gal/litre may be required depending on the level of desired water temperature. it is suggested to use a maximum pump delivery of 6000Liters an hour to maximize efficiency, unlike a conventional water heater pond heaters gradually heat the water on each pass so running too fast is less efficient, it may take several hours to reach the required set temperature when first used the time required will depend on the ability of the water to retain the heat which is usually down to sufficient insulation to stop heat loss, when heating the water these heaters are not like a normal domestic heater were you will normally detect that the water is worm to the touch coming from the heater the heating process is a gradual heating of the water which is achieved on every pass through the heater, if the pond is insufficiently insulated it may not be possible to achieve the desired set temperature or maintain a stable water temperature, in some cases a differential may occur between set temperature and actual pond water temperature due to heat dissipation this can be overcome by increasing the set temperature to offset the difference.

These heaters are designed to be pump fed.

The Heater should ideally be installed at the end of the water return to the pond after Ultraviolet steriliser's and after Pressure Filters if used to reduce excessive water back pressure in the heater, the maximum working pressure is 0.3mpa and should not be exceeded as this may lead to water ingress into the electrics of the unit voiding the warranty in the case of failure due to water damage.

PLEASE NOTE: Cut the hose tail connection to the correct size for the pump being used, choose the largest pipe size recommended for your pump, failure to do so may lead to excess water pressure in the heater above 0.3MPa allowing to water to ingress into the electrics.

Power connection should be undertaken by a qualified person, the use of a thirteen-amp plug should be avoided this unit should be connected via a suitably rated isolation switch, the circuit must be protected by an RCD device (If in doubt always consult a qualified person).

How to check the heater if the pond water does not reach temperature.

A dry test of the heater is possible by a competent person, without the water pump being on remove the screw on connector at the flow return side of the heater indicated by the direction arrow on the side of the unit casing, with the power to the heater on and the thermostat control turned up to a high position the LED light should light up and the heater will now start to emit heat which can be detected from the open end ( do not touch any of the internal parts these may be hot and can cause a severe burn ) if no heat is felt re check the power connections or seek advice, if heat is confirmed turn of the power to the heater and re assemble the connector allow 5-10 minutes for the heater to cool before re starting the pump.

Remember if flow is too fast this may greatly affect the ability of the heater to maintain the required end temperature especially in very cold spells also improved pond insulation may be required, in some instances it may be required to install a higher wattage of heat especially if insulation in not sufficient. Multiple heaters can be used if needed.

The red LED indicator will light up when the control thermostat is set above the ambient temperature of the pond water and will stay on until the pre-set temperature has been achieved it will then go off the LED will then go on and off indicating when heat is being generated.