

ATLANTIC  ICE

K2 Operation Manual



Performance and installation

Performance

- Long life-span The heat exchanger is made of PVC & Titanium tube, which can withstand the elements and prolong exposure to pool water
- Easy control and operation - The K2 is very easy to operate: simply switch it on and set the desired pool water temperature. The system includes a micro-computer controller, allowing all operation parameters to be set. Status is displayed on the controller with LED display.

Location of chiller installation

The Unit will need the following for successful operation

- Level Ground
- Electricity
- Fresh Air Supply
- Filtration

Attention: Do not place the unit in an enclosed area with a limited air volume where the unit's discharged air will be re-circulated or near shrubs that could block the air inlet, these locations deny the unit a continuous fresh air supply, which reduces its efficiency and may prevent adequate cooling yield.



- 1 Water pump switch
- 2 Chiller switch
- 3 Cover
- 4 Wooden bench
- 5 Bath
- 6 Drain valve

Note: When the cold water bathtub is started, the water pump switch must be turned on first, and then the chiller switch. When shutting down, the chiller switch must be turned off first, and then the water pump switch

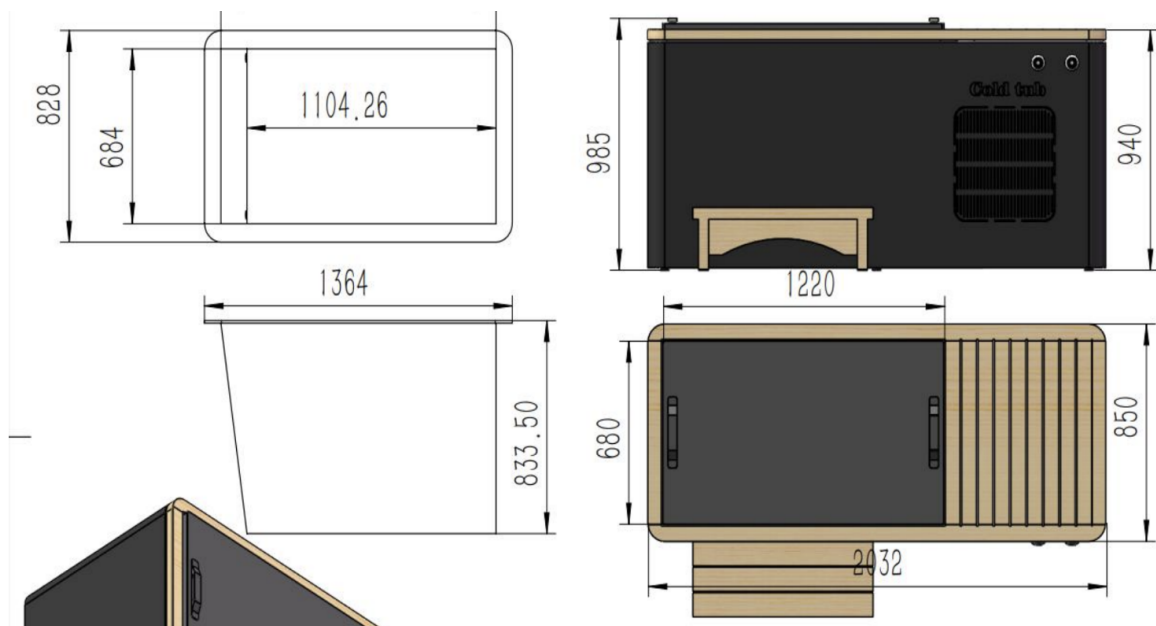
First time start-up

In order for the unit to cool the pool (or spa), the filter pump must be running so that the water can circulate through the chiller. Without this circulation, the chiller will not start. When all connections have been made and checked, the following steps should be followed:

- 1) Turn on the filter pump. Check for leaks

- 2) Turn on the electrical power supply to the unit, then press the ON/OFF key on the electronic control panel. The unit should start when the time delay period has elapsed.
- 3) When the unit has been running for a couple of minutes, check if the air leaving the unit is hotter than the ambient temp.
- 4) Check the performance of the flow switch as follows: with the unit running turn the filter pump off. The unit should also switch off automatically.
- 5) The unit and the filter pump should run 24 hours a day until the desired pool water temperature has been reached. Once the set temperature is reached, the unit will switch itself off. As long as the filter pump is running, the unit will restart automatically when the temperature of the pool water raises more than 2.0 C below/above the set temperature.

K2 Dimensions



Specification

Model: K2

Hot/cold: Cold Only Chiller

Minimum Temperature °C 4 - Cooling only model

Cooling capacity kW 2

Running current: cooling A 10.5

Refrigerant Type - R410a

Water Flow Rate M3/h 0.7

Power Supply: 230v

Operation

Below is the control unit



Once you switch the unit on the red indicator light will come on.

A green indicator light will come on when the compressor has started.

When switched off the screen display “OFF”, all indicators will be off.

When switched on the screen display will show the inlet water temperature.

When there is failure display error code

On/off button: 

The temperature is the main function one you will need.

Power on

Temperature will be displayed

Arrow up or down to select temp.

Press set again to select temp

Other functions

- Press “Set” for 5 seconds to select your function, use“▲””▼"to reach your desired function. (parameter = Function in the table below) Press set again to change the function. Press Up and down keys to select your range. Most items have been default set and will not need to be changed. The on off button will bring you to the home page.

Close the chiller unit section and move to the front of the tub where you can press the Pump Switch. After a few seconds the pump will engage.



Now turn press the chiller button and the machine will begin to chill the water. Chilling times can vary. Allow it to sit for some time (3-5 hours) to check temperature is dropping.



Maintenance

- Check the water inlet and drainage often. The water and air inflow into the system should be sufficient so that its performance and reliability does not get compromised.
- You should clean the pool filter regularly to avoid damage to the unit caused by clogging of the filter. The area around the unit should be spacious and well ventilated.
- Clean the sides of the chiller regularly to maintain good heat exchange and to save energy.
- Check the power supply and cable connections regularly. Should the unit begin to function abnormally or should you notice a smell from an electrical component, arrange for timely repair or replacement.
- You should also purge the water if the unit is out of operating for an extended period of time.
- You should check all parts of the unit thoroughly and completely fill the system with water before turning it on again afterwards.

5.2 Failure code table overview

Control Display	Protection/Failure	Check	Solution
P1	Inlet water temp.sensor failure	1.Check the connection of inlet water sensor 2.Check if the sensor is broken	1.Reconnect the sensor 2.Replace the sensor
P2	Ambient temp.sensor failure	1.Check the connection of outlet water sensor. 2.Check if the sensor is broken	1.Reconnect the sensor 2.Replace the sensor
P3	Ambient temp.too low	1.Check if the sensor is broken 2.Check if the ambient temp.is less than10°C。	1.Replace the sensor 2.Stop use the heat pump
P4	Outlet water temp sensor failure	1.Check the connection of inlet water sensor 2.Check if the sensor is broken	1.Reconnect the sensor 2.Replace the sensor
P5	High pressure protection	1.Check if high pressure switch is broken. 2.Check if there is a blockage in water circuit or water flow is not enough. 3.Check if there is a blockage in refrigerant circuit	1.Replace high pressure switch. 2.Remove cause of blockage or increase water flow. 3.Send heat pump to dealer for detailed check.
P6	Outlet water overcool protection	1.Check if there is any jam in the water circuit. 2.Check if the water flow volume is enough. 3.Check if the water pump is working.	1.Remove the jam. 2.Increase the water flow volume. 3.Repair or replace the water pump.
E5	High pressure switch failure	1.Check the connection of pressure switch 2.Check if the switch is broken	1.reconnect the switch. 2.replace the switch.

Troubleshooting guide

Incorrect installation may result in an electrical charge that could lead to death or serious injury of users, installers or others by electrical shock and it may also cause damage to chiller. DO NOT attempt to modify the internal configuration of the chiller

Keep your hands and hair clear of the fan blades to avoid injury.
if you are not familiar with your pool filtration system and chiller;

Do not attempt to carry out any adjustment or service without consulting your dealer, pool professional or air conditioning contractor.

Read the entire installation manual before attempting to use, service or make adjustments to the unit

Note:Switch off the power before carrying out any maintenance or repairs

IMPORTANT REMARK:if a malfunction cannot be resolved immediately, in order to analyse the problem we will need to know the message(error code) that is showing on the display controller as well as the values for the settings.

We also need to know the status of the chiller:

The ambient temperature,water inlet/outlet temperature,if it is cold air coming out from the chiller,if the grill(Evaporator) is cold or if there is ice on the chiller.

Please keep this information at hand when calling customer service(describe the issue) . On the following pages you will find an overview of the different types of failure problems that can occur together with instructions on how to solve them.

Problem:	The chiller doesn't work	
Observation:	The screen does not light up and the fan/compressor doesn't make a sound	
	Possible cause	Solution
	No electrical power supply	Check power supply(wiring,fuses,)
Problem:	The chiller works normally but there is no or insufficient cooling	
Observation:	The screen displays the temperature but no error codes	
	Possible cause	Solution
	1.In sufficient capacity of the chiller in proportion to the size of the pool	1.Install a larger sized model or an extra chiller.cover the pool.
	2.The compressor works but the fan doesn't	2.Check the electrical wiring of the fan.Replace the condenser or the fan motor if necessary.
	3.The fan works but the compressor doesn't	3.Check the electrical wiring of the compressor. Replace the condenser or the compressor if necessary.
	4.The chiller has not been placed on an optimal location	4.Make for sufficient air circulation(see manual for details)
	5.Faulty temperature setting	5.Set the correct temperature
	6.By-pass not adjusted	6.Have the by-pass readjusted by the installer
	7.Not enough refrigerant	7. Have the chiller checked by a refrigeration technician

Problem	The chiler doesn't stop	
Observation:	The screen displays the temperature but no error codes	
	Possible cause	Solution
	1.Wrong setting of parameters	1.check the set parameters and adjust them if neccessary(settings just above the capacity of the chiller)
	2.Pressure switch out of order	2.check operation of the pressure switch by turning off the filter pump and restarting it.If the chiller doesn't react to this.the pressure switch must be adjusted or replaced.
	3.Electrical failure	3.Contact your installer

Problem:	Water leak	
Observation:	There's an amount of water under the heat pump	
	Possible cause	Solution
	1.Condensation due to atmospheric humidity	1.No action required
	2.Water leak	2.Try to localize the leak and check for the presence of chlorine in the water.If that is the case,the chiller must be temporarily replaced during repair.

Problem:	Abnormal amount of ice formed on the evaporator	
Observation:	The evaporator is for the most part covered in ice	
	Possible cause	Solution
	1.Insufficient air inflow	1.check the location of the heat pump and remove any dirt that could be present on the evaporator
	2.High water temperature	2.If the pool water is already quite hot(warmer than 29?),the probability of ice formation increases.lowering the set temperature is a possible option
	3.Not enough refrigerant	3.Have the heat pump checked by a refrigeration technician.

