OWNER'S MANUAL

English **307 IO**

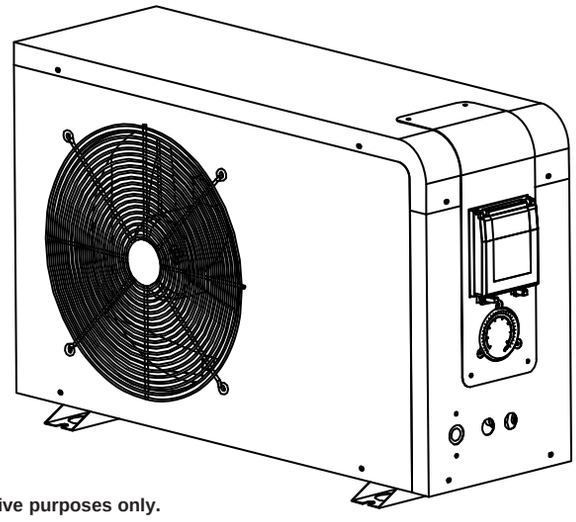
IMPORTANT SAFETY RULES

Read, Understand, and Follow all Instructions Carefully before Installing and using this Product.

Heat Pump

Model HP3220

220-240 V~, 50 Hz



For illustrative purposes only.

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Due to a policy of continuous product improvement, Intex reserves the right to change specifications and appearance, which may result in updates to the instruction manual without notice.

307-*IO-R0-1810

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Read, Understand and Follow All Instructions Carefully Before Installing and Using this Product.

READ AND FOLLOW ALL INSTRUCTIONS

⚠ WARNING

- This appliance shall be installed in accordance with national wiring regulations.
- To reduce the risk of injury, do not permit children to use this product. Always supervise children and those with disabilities.
- For domestic swimming pool use only.
- The heat pump must be installed outdoors only.
- Do not bury electrical cord. Locate cord where it will not be damaged by lawn mowers, hedge trimmers, and other equipment.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- To reduce the risk of electric shock and fire, do not use extension cords, timers, plug adaptors or converter plugs to connect unit to electric supply; provide a properly located outlet.
- Provide a dedicated grounded electrical socket with a rating of 16 Amp or more. Make sure the plug fit tightly and securely into the electrical socket. If not sure contact a qualified electrician.
- Assembly and disassembly by adults only.
- Do not attempt to plug in or unplug this product while standing in water or when your hands are wet.
- Position this product away from pool to prevent a child from climbing on product to access the pool.
- Children must stay away from this product and electrical cord(s).
- Always unplug this product from the electrical outlet before removing, cleaning, servicing or making any adjustment to the product.
- Do not switch on if there is no water flowing into the product.
- Do not switch on if there is a possibility that the water in the product is frozen.
- Have a qualified electrician install a grounded electrical outlet, acceptable for outdoor use and protected from snow and rain, immediately adjacent to the location where the heater will be used.
- Route the supply cord and locate the heater so as to be protected from damage by animals.
- Keep this product more than 2m away from the pool.
- Keep the plug of this product more than 3.5m away from the pool.
- Children shall not play with the appliance. Cleaning and user maintenance must be performed by adults only who understand the risk of electric shock.

⚠ WARNING

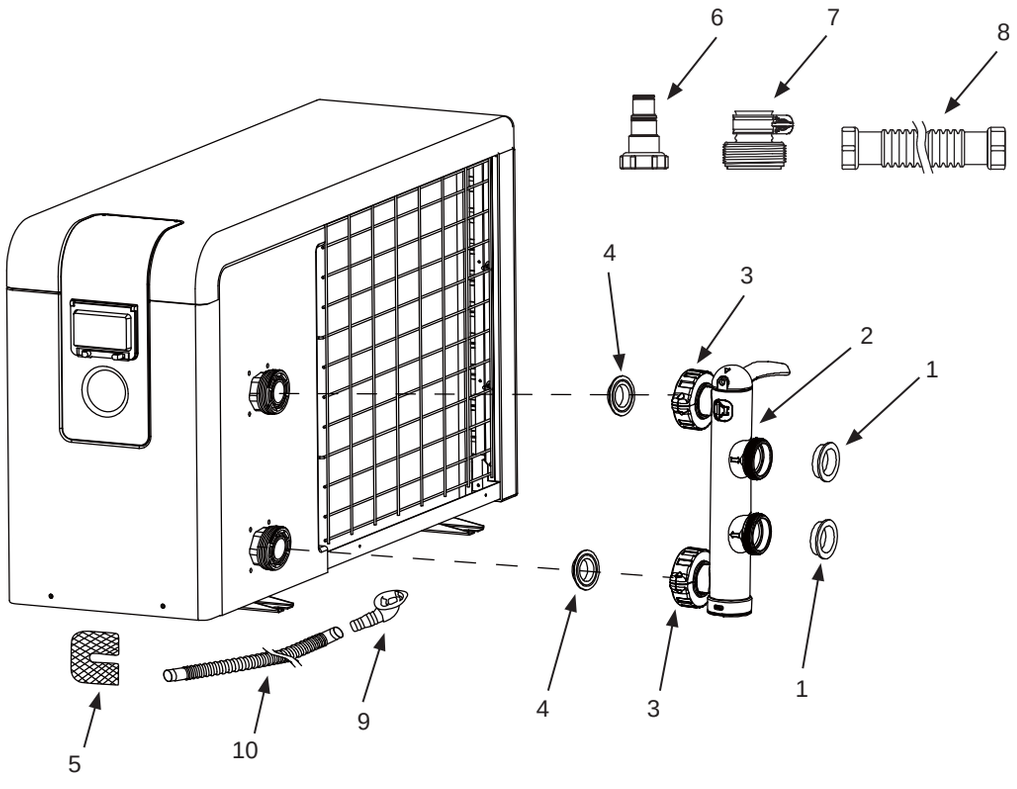
- Check if the voltage and electrical rating indicated on the heat pump corresponds to the local mains voltage before you connect the unit.
- Do not use the heat pump in combination with other heating system such as electric or gas heaters.
- If the heat pump is damaged during transportation, it must be replaced, please contact your service center or similarly qualified persons in order to avoid a hazard.
- Always make sure the water connections of the heat pump are properly locked before you start using the machine.
- Never insert objects directly into the fan, as this will damage the heat pump and void the warranty.
- Make sure the evaporator fins are not damaged.
- This appliance is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the heat pump by a person responsible for their safety.
- The heat pump doesn’t work at air temperatures below 8°C.
- Disconnect the power cable from the electrical socket when the product will not be used for an extended period of time.
- Allowing water to freeze inside the unit will damage the heat pump and void the warranty. Drain the water inside the heat pump during winter time or when the ambient temperature drops below 0°C.
- Installation and maintenance must be performed by qualified technician.
- Initial system commissioning and decommissioning must only be performed by specialized technician.
- This product is intended to be used only for the purposes described in the manual!

FAILURE TO FOLLOW THESE WARNINGS MAY RESULT IN PROPERTY DAMAGE, ELECTRIC SHOCK, ENTANGLEMENT OR OTHER SERIOUS INJURY OR DEATH.

These product warnings, instructions and safety rules provided with the product represent some common risks of water recreation devices and do not cover all instances of risk and danger. Please use common sense and good judgment when enjoying any water activity.

PARTS REFERENCE

Before installing your product, please take a few minutes to check the contents and become familiar with all the parts.



NOTE: Drawings for illustration purpose only. Actual product may vary. Not to scale.

REF. NO.	DESCRIPTION	QTY.	SPARE PART NO.
1	L-SHAPE O-RING	2	11228
2	BYPASS KIT	1	12689
3	NUT	2	12690
4	GASKET SEAL	2	12691
5	ANTI-VIBRATION PAD	4	12559
6	ADAPTER A	1	10849
7	ADAPTER B	1	10722
8	HOSE WITH THREADED FITTINGS	1	11009
9	DRAIN HOSE CONNECTOR	1	12554
10	DRAIN HOSE	2	12563
11	ANCHOR BOLT (NOT SHOWN)	4	12407

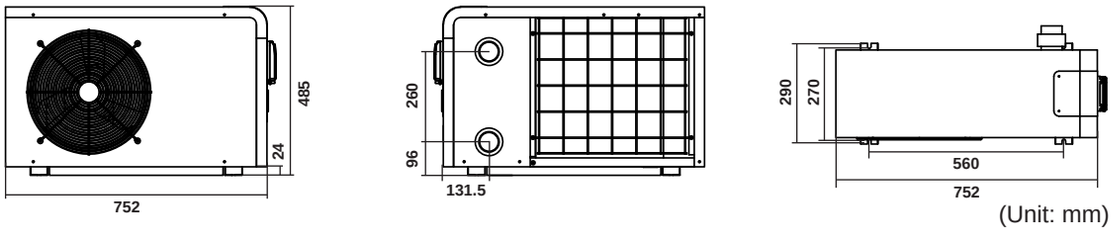
When ordering parts, be sure to quote the model number and part numbers.

PRODUCT SPECIFICATIONS

*Measured Condition at 27°C Ambient Air, 27°C Water	
Heat Output	4.1 kW (13,911 Btu) / hr
Power Consumption	0.78 kW (2,646 Btu) / hr
Coefficient of Performance (COP)	5.2
***Measured Condition at 15°C Ambient Air, 26°C Water**	
Heat Output	3.1 kW (10,518 Btu) / hr
Power Consumption	0.75 kW (2,544 Btu) / hr
Coefficient of Performance (COP)	4.1
General Data	
Voltage / Frequency / Phase	220 - 240 V / 50 Hz (with in line RCD) / 1 PH
Rated current	3.5 A
Advised fuse	16 A
Recommended pool water capacity	5 - 11 m^3
Required system water flow rate	1.8 - 10 m^3/hr
Maximum water pressure (excluding bypass kit / hoses)	0.4 MPa
Water pressure drop	15 kPa
Operating water temperature range	15°C - 35°C
Operating air temperature range	8°C - 40°C
Class of protection	I
Type of protection	IPX4
Heat exchanger	Titanium inside a PVC reservoir
Compressor / refrigerant type	Rotary / R410A
Refrigerant gas quantity	0.5 kg
Inlet / outlet fitting size	38 mm hose with collar nut
Noise level at 1 m	48 dB(A)
Fan input power	68 W
Fan speed	830 - 870 RPM
Global warming potential (GWP)	2088
CO_2 Equivalent	0.95 T
Weight Net / Gross	33 / 40 kg
Dimension	780 x 340 x 485 mm

* Pool covered with a solar pool cover

This heat pump only has heating fuction.
Contains fluorinated greenhouse gases. Fluorinated greenhouse gases are contained in hermetically sealed equipment.



(Unit: mm)

- Pump and pool must be installed and filled with water prior to installation. Two adults required.
- Tools required: one adjustable wrench, one Philip screwdriver.
- The unit will work properly as long as the following three elements are present:
  1. Fresh air 2. Electricity 3. Swimming pool water

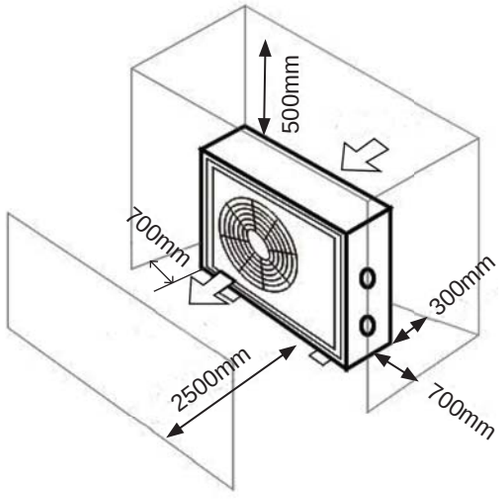
SET UP INSTRUCTIONS

IMPORTANT

Always keep the unit upright. If the unit has been tilted or put on its side, wait 24 hours before starting the heat pump.

Location and Space Requirement

- The heat pump must be installed outdoors and more than 2m away from the pool. It can not be installed indoors.
- Minimum clearance required for the heat pump installation as follow:



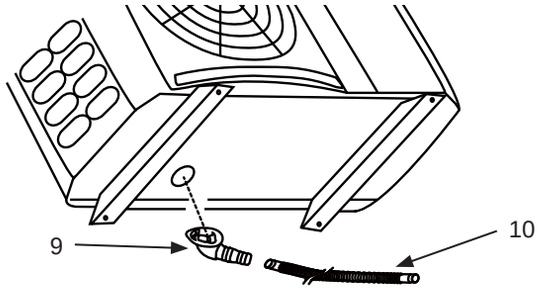
- Never install the unit in a closed room with a limited air volume in which the air expelled from the unit will be reused, or close to garden plants that could block the air inlet. Such locations impair the continuous supply of fresh air, resulting in reduced efficiency, performance and possibly preventing sufficient heat output.
- During normal operations, the heat pump evaporator fins produce condensation water. The amount of condensation produced varies according to ambient conditions. The higher the air humidity, the higher the amount of condensation produced (several liters per day). The lower heat pump panel acts as a condensation collection tray. Keep the drain hole clean.
- The heat pump must be positioned to avoid damages caused by water or condensation leaks. Install suitable drainage outlets or collection containers.
- The heat pump must be fixed and installed on a flat, solid, vibration free and level support (cement slab or prefabricated platform). Do not install the heat pump on unstable ground.
- To reduce noise wave echoes, do not install the heat pump in the immediate vicinity of vertical walls and use the included anti-vibration pads during installation.
- Make sure the pump is not subject to rain water flows from nearby building roofs. Protruding roofs without gutters could pour significant amounts of water and/or debris on the heat pump which could damage it. If necessary, install gutters or discharge outlets to protect the heat pump.
- Make sure the heat pump is not within the range of any sprinkler or irrigation systems. If necessary, install suitable protections.

SET UP INSTRUCTIONS (continued)

Condensation Draining Hose Installation

NOTE: The air drawn into the heat pump is strongly cooled by the operation of the heat pump for heating the pool water, which may cause condensation on the evaporator fins. The amount of condensation may be as much as several liters per hour at high relative humidity. This is sometimes mistakenly regarded as a water leak.

1. Slightly tilt the unit to reveal the bottom panel.
2. Attach the drain hose connector **(9)** to the bottom panel.
3. Attach the wider end of the drain hose **(10)** to the hose connector and place the other end into a suitable discharge area.



Water Connection and Bypass Kit Installation

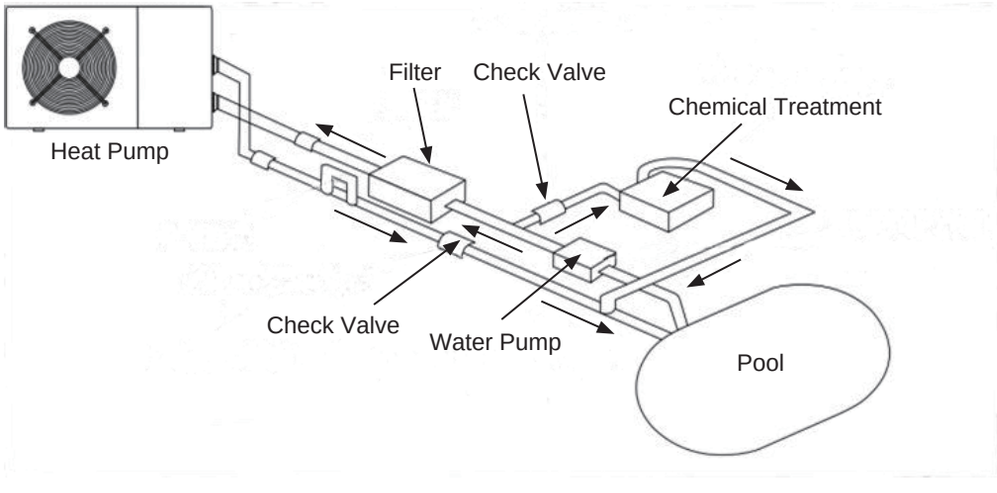
The following retail components (not included) are recommended for the hydraulic connections:

- Cut-off valves upstream and downstream from the heat pump to facilitate maintenance and/or heat pump bypass from the pool water circulation system.
- A non-return or check valve, installed between the pool and the heat pump outlet fitting, to prevent water reflux.

All chemical feeder or water treatment devices must be installed downstream from the heat pump and non-return (check) valve. It is important to install a check valve to prevent chemical saturated water reflux which could damage the heat pump and void the warranty.

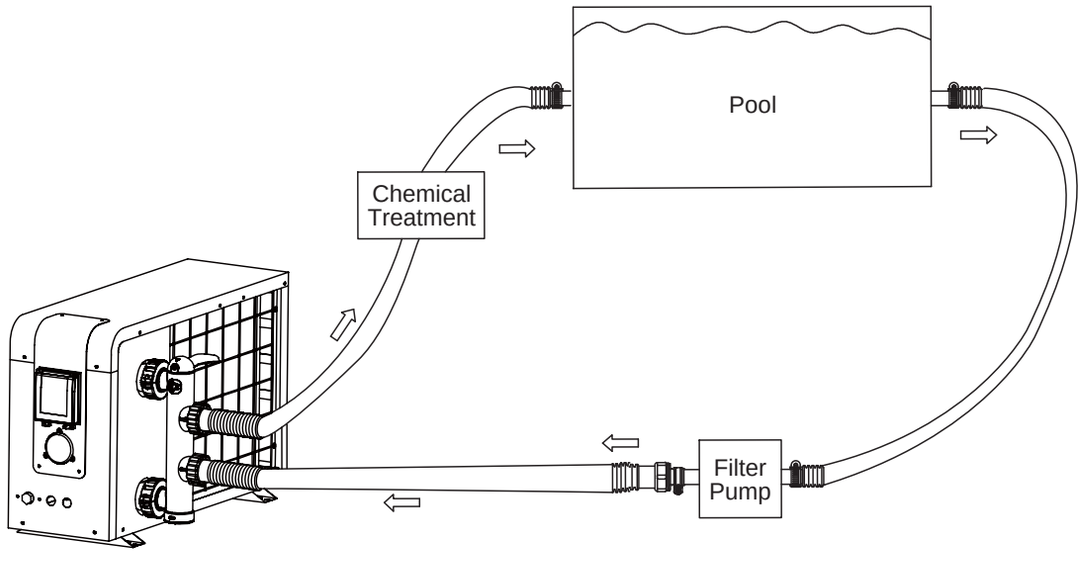
The water circulation system must be arranged observing the following general layout:

Pool → Pump → Filter → Heat Pump → Non-return/Check Valve → Chemical Treatment → Pool



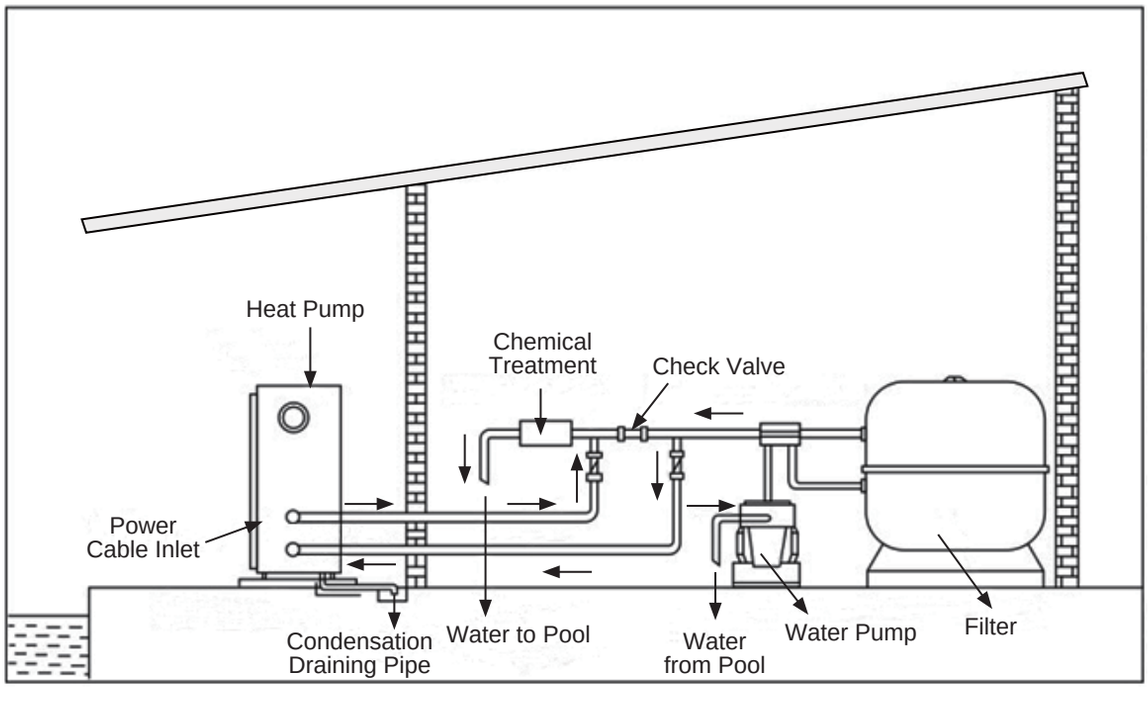
SET UP INSTRUCTIONS (continued)

Typical above ground pool arrangement



NOTE: Operation without a bypass or with improper bypass adjustment may result in sub-optimal heat pump operation and possibly damage to the heat pump, which renders the warranty null and void.

Typical in-ground pool arrangement



SET UP INSTRUCTIONS (continued)

Electrical Connection

⚠ WARNING

Although the heat pump is electrically isolated from the rest of the swimming pool system, this only prevents the flow of electrical current to or from the water in the pool. Grounding the heat pump is required for protection against short-circuits inside the unit. Always provide a good grounding connection outlet. If not sure, contact a qualified electrician for assistance.

Before connecting the unit, verify that the supply voltage matches the operating voltage of the heat pump.
The heat pump must be connected to a dedicated circuit breaker rated 16 A or more. Make sure no other appliances are connected to this circuit breaker.
The heat pump is supplied with a power cable and a standard RCD to be plugged directly into a grounded electrical outlet. The grounded electrical outlet must have a protection grade not lower than IPX4.
Test the RCD before use:

1. Plug the RCD into a grounded electrical outlet.
2. Press the "RESET" button. The indicator on the RCD should be "ON".
3. Press the "TEST" button. The indicator on the RCD should be "OFF".
4. Press the "RESET" button again to start using the heat pump.

Do not use the product if the test failed. Contact a qualified electrician to inspect the electrical outlet socket.

Initial Operation

Make sure the pool is filled with water to the correct level, the skimmer and suction fittings are below the water level.
To heat the pool water, the filter pump must be running to cause the water to circulate through the heat pump. The heat pump will not start up if the water is not circulating, therefore the heat pump must operate together with the filter pump.
After all the water connections have been attached and checked, carry out the following procedure:

1. Switch on the filter pump. Check for leaks and verify that water is flowing from and to the swimming pool.
2. Plug the heat pump and test the RCD (see "**Electrical Connection**" section), the display panel will show all the icons and numbers for 5 seconds and then shows the ambient room temperature.
3. Press the On/Off button on the control unit panel to activate it, the display shows the water inlet and outlet temperatures. The unit will start up after the time delay expires (see "**Time Delay**" section).
4. After a few minutes, check whether the air blowing out of the heat pump fan is cooler.
5. When the filter pump is turned off, the heat pump should also turn off automatically, if not, then adjust the flow switch (performed by specialist technician only).
6. Allow the heat pump and the filter pump to run 24 hours a day until the desired water temperature is reached. The heat pump will stop running at this point. After this, it will restart automatically (as long as the filter pump is running) whenever the swimming pool water temperature drops 2 degrees below the set temperature.

SET UP INSTRUCTIONS (continued)

7. To set the water temperature and program the heat pump, see "**Display Control Panel Operation**" section for details.

Depending on the initial temperature of the pool water and the ambient air temperature, it may take several days to heat the pool water to the desired temperature. A good solar pool cover can reduce the heating time.

Time Delay

The heat pump has a built-in 1 to 2-minute start-up delay to protect the control circuit components and avoid excessive restart cycles. The unit will restart automatically after this time delay expires. Even a brief power interruption will trigger this time delay and prevent the unit from restarting immediately. Additional power interruptions during this delay period do not affect the 1 to 2-minute duration of the delay.

Water Flow Switch

The heat pump is equipped with a flow switch to protect it from running without adequate water flow rate. It will turn on when the pump runs and shut it off when the pump shuts off. If the pool water level is higher than 1m above or below the heat pump's automatic flow switch adjustment knob, your specialist technician may need to adjust the initial startup water flow rate.

Refrigerant Gas Pressure Verification

The following table shows the refrigerant pressure versus heat pump working condition. If there is big difference between them, the machine is probably malfunctioning. Contact a qualified technician to check the unit.

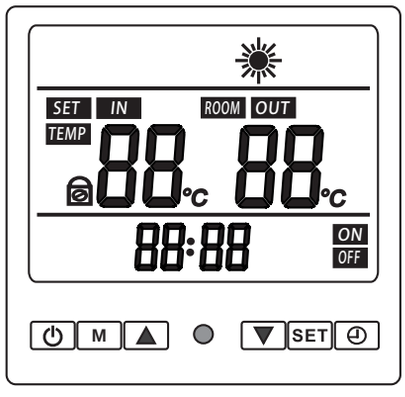
Heat Pump Condition	Power Off				Running				
Ambient temp (°C)	-5-5	5-15	15-25	25-35	/	/	/	/	/
Water temp (°C)	/	/	/	/	10-15	15-20	20-25	25-30	30-35
Pressure gauge reading (MPa)	0.68-0.93	0.93-1.25	1.25-1.64	1.64-2.1	1.3-1.8	1.5-1.9	1.6-2.3	1.9-2.8	2.1-3.5

Refrigerant pressure and temperature table

DISPLAY CONTROL PANEL OPERATION

CONTROL UNIT PANEL

Once plugged in and the RCD is reset, the LED display will show all the icons and numbers for 5 seconds and then shows the ambient room temperature. The control unit panel and heat pump are deactivated at this stage.



NOTE: Other icons may appear on the LED display; however this heat pump only has heating function.

On/Off Button: Press ⏻ to activate the control unit panel buttons and to start the heat pump. The LED display shows the water inlet and outlet temperatures and the heating mode ☀ icon.
Press ⏻ again to stop the heat pump function and to deactivate the control unit panel buttons. The LED display shows the ambient room temperature.

Temperature / Clock / Timer Adjustment Buttons: Once the unit is activated, press ▲ or ▼ any time to set the desired water temperature.
Temperature range: 15 to 40°C.

Clock Time Setting Button:

1) Press SET for 5 seconds to set the Clock Time, the hour (HH) digits will flash. Press ▲ or ▼ to adjust the hour from 00 to 23.
2) Press SET again and the minute (MM) digits will flash. Press ▲ or ▼ to adjust the minute from 00 to 59.
3) Press SET again to confirm the Clock Time.

Timer ON / Timer OFF Setting Button:

1) Press 🕘 for 5 seconds to enter Timer ON setting, the ON icon and the start hour (HH) digits will flash. Press ▲ or ▼ to adjust the start HOUR from 00 to 23.
2) Press 🕘 again and the start minute (MM) digits will flash. Press ▲ or ▼ to adjust the start MINUTE from 00 to 59.
3) Press 🕘 again to enter Timer OFF setting, the OFF icon and the stop hour (HH) digits will flash. Press ▲ or ▼ to adjust the stop HOUR from 00 to 23.
4) Press 🕘 again and the stop minute (MM) digits will flash. Press ▲ or ▼ to adjust the stop MINUTE from 00 to 59.
5) Press 🕘 again to save the setting and exit. The LED display shows the clock TIME and the Timer ON/OFF icon, indicating a start / stop times have been set.

To cancel an existing Timer setting indicated by the ON/OFF icon, press 🕘 for 5 seconds and then press SET. The ON/OFF icon will go away.
To review the start and stop times of an existing programmed Timer (indicated by the ON/OFF icon), press 🕘 for 5 seconds and cycle through the Timer operation by pressing the 🕘 4 more times without making any adjustment.

DISPLAY CONTROL PANEL OPERATION (continued)

Lock / Unlock:
To lock the control unit panel buttons to prevent unauthorized changes, press ▲ and ▼ at the same time for 5 seconds. The LED display will show a lock icon. The ⏻ button is also locked. To unlock, press ▲ and ▼ at the same time for 5 seconds and the lock icon will disappear.

M **Mode Setting Button:**
For qualified technician use only.

Remarks:
TEMP ROOM = ambient room temperature
TEMP IN / OUT = water inlet / outlet temperatures
Standby status means the unit is electrically connected but not running.

MAINTENANCE

1. Check the water supply circulation system regularly for water leakage and air entering into the system, as the performance and reliability of the unit will be reduced.
2. Clean the pool water and filtration media regularly to maximize the performance and to prevent damage to the heat pump.
3. Regularly check all the panels and screws are securely attached.

Disposal and Decommissioning

Collecting recyclable material, both those used for packaging (cardboard, nylon, etc.) and those replaced during routine and major maintenance is recommended. Suitable collection of waste material for recycling, processing and environmentally compatible disposal contributes in avoiding possible negative effects on the environment, health and promotes the reuse and/or recycling of device materials. Incorrect product disposal by the user may be punishable by current national laws.

When the unit reaches the end of its working life and must be removed and/or replaced, follow the instructions below:

1. Refrigerant gas must be collected by specialized technicians and sent to collection centers.
2. Compressor lubricant oil must be collected by specialized technicians and sent to collection centers.
3. The housing and other parts, if unusable, should be dismantled and divided according to their material type (for example, copper, aluminum, plastic, etc.) and must be sent to collection centers.

Winterizing

Failure to winterize could cause damage to the heat pump and void the warranty.

1. Turn off the heat pump and unplug the power cable from the main electrical outlet. Or turn off the electrical power at the main circuit breaker panel.
2. Shut off the water supply (bypass kit) to the heat pump.
3. Disconnect the IN and OUT water connections and drain out all the water from the heat pump. Use air to blow out any standing water inside the unit.
4. Reconnect the IN and OUT connections loosely to prevent debris entering the water connections.
5. Drain out all the water at the bottom of the heat pump panel.
6. Protect the heat pump from dirt accumulation. Do not wrap the heat pump with plastic or other material that can hold heat and/or humidity inside the device. Use the included protective cover.

Spring Startup

If the heat pump has been winterized, perform the following steps when starting the system in the spring:

1. Remove the protective cover and inspect the unit for any debris or structural problems.
2. Tighten the IN and OUT water connections securely.
3. Check the pool water chemical is balanced, see "**Pool Water Chemistry**" section.
4. Restore water flow to the heat pump, open the valves at the bypass kit and make sure filter pump is ON.
5. Restore electrical power to the heat pump and test the RCD.

POOL WATER CHEMISTRY

Special care must be taken to keep your pool water chemical balanced within the following limits:

Preferred Water Chemistry Reading			
	Minimum	**Ideal**	**Maximum**
Free Chlorine	0	0.5 - 3.0 ppm	5.0 ppm
Combined Chlorine	0	0 ppm	0.2 ppm
pH	7.2	7.4 - 7.6	7.8
Total Alkalinity	40 ppm	80 ppm	120 ppm
Calcium Hardness	50 ppm	100 - 250 ppm	350 ppm
Stabilizer (Cyanuric Acid)	10 ppm	20 - 40 ppm	50 ppm

If the concentration of one or more of the above readings becomes too high, irrevocable damage to your heat pump may occur. Failure to keep the pool water chemical between the limits will void the warranty. Consult with your local swimming pool dealer for water treatment recommendation.

HEAT PUMP CARING

This Flow Chart will teach you the steps to follow to protect your heater.

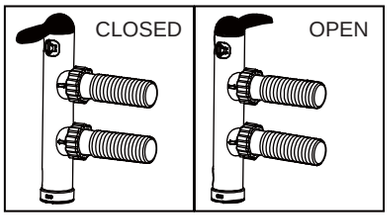
INSTALLATION
- Verify that the installation was done according to owner's manual instructions.

FIRST TIME OR SPRING STARTUP
- Hook up pool water piping but do not hook up the Heater yet.

VERIFY & BALANCE POOL CHEMICAL

POOL CHEMICAL OK?
NO

YES



HOOK UP WATER PIPING TO HEATER

SET REQUIRED WATER TEMPERATURE ON TOUCH PAD

IMPORTANT FOR THE HEALTH OF YOUR FAMILY AND FOR YOUR POOL HEATER
- Verify Chlorine or Bromine level every 2-3 days.
- Verify pH level once a week.
- Verify Alkalinity level every 3-4 weeks (More often if you own an Automatic Chlorine or Bromine Feeder.)
- Verify Calcium Hardness once a month.

(Above tests can easily be done by yourself with a do it yourself kit.)

INSTALLATION
When heating is not required for less than a week you MUST leave the Bypass valves open (see drawing above) to let the water circulate in the unit. If the heat exchanger is deprived of water circulation for more than 72 hours, high chlorine could cause excessive corrosion.

HEATING WILL NOT BE REQUIRED FOR MORE THAN A WEEK?
NO

YES

Shut Bypass valves and disconnect waterlines to drain the HEATER.

HEATING NEEDED?
YES

NO

IS IT POOL CLOSING TIME?
NO

YES

CLOSE POOL
PROTECT HEATER BY COVERING IT

TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
THE HEAT PUMP DOES NOT TURN ON AND LED DISPLAY IS BLANK.	• Not plugged in, the instructions in "Initial Operation" section were not followed. • RCD is not "RESET". • RCD and/or house circuit breaker tripped.	• Follow the instructions in "Initial Operation" section. • Reset the RCD, see "Electrical Connection" section. • Contact a qualified electrician to identify and correct the fault in the electrical line and socket.
THE HEAT PUMP DOES NOT TURN ON AND LED DISPLAY SHOWS "OFF".	• On/Off button not responding.	• Press the On/Off button firmly few times. • Contact qualified technician to replace the Controller Unit Panel.
THE HEAT PUMP DOES NOT START AND LED DISPLAY SHOWS ACTUAL WATER TEMPERATURE.	• The 1 to 2 minutes "Time Delay" required for the unit to start have not elapsed. See "Time Delay" section. • Water temperature is greater than or equal to set temperature.	• Wait until the 1-2 minutes have elapsed. See "Time Delay" section. • The unit will start when the water temperature is lower than the set temperature.
THE HEAT PUMP IS RUNNING BUT THE WATER IS NOT HEATING.	• Make sure air is blowing out from the fan front grid side of the heat pump. • The heat pump was just installed. • Pool water has significantly cooled down since the last heat pump use. • Ambient temperature too low. • Temperature set too low. • Evaporator fins dirty. • Water flow rate has decreased. • Refrigerant gas pressure lower. • Compressor failure.	• Make sure adequate air circulation; see "Location and Space Requirement" section. • 24 – 48 hours may be required to reach the set temperature. Put a solar pool cover over the pool. • 24 – 36 hours may be required to reach the set temperature. Put a solar pool cover over the pool. • Wait until ambient temperature rises to start the heat pump. • Increase the temperature setting and put a solar pool cover over the pool. • Clean the evaporator fins. • Check circulation line, bypass kit for leakage and clean the filter media. • See "Refrigerant Gas Pressure Verification" section. Contact qualified technician to refill refrigerant. • Contact qualified technician to check compressor connection. Replace compressor and/or PCB.
WATER LEAKS FROM THE HEAT PUMP.	• Probable accumulation of condensation. • Possible water leak from the water exchanger or from hydraulic unit connection devices.	• Stop the heat pump for 1 hour, if the leak stops, this is normal condensation. • Make sure all hoses, pipes, bypass kit are securely connected and tightened.

IMPORTANT

- **Installation, service and maintenance must be performed by qualified technician.**
- **If you continue to experience difficulty, please contact our Consumer Service Department for assistance. See separate "Authorized Service Centers" sheet.**

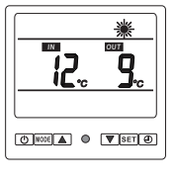
SERVICE BY QUALIFIED TECHNICIANS

Parameter Setting

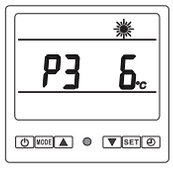
The following sections shall be operated only by qualified technicians for after-service or maintenance.

Setting Operation Parameter

- Under standby status, press [M] for 10 seconds to enter Operation Parameter setting interface;
- Press [M] again to start the setting (see below for details);
- Under parameter setting, press [▲] or [▼] to set data;
- If no input on the control unit panel for 10 seconds, the LCD will display water inlet and outlet temperatures (under running status) or ambient room temperature (under standby status);
- Under running status, you can press [M] for 10 seconds to check the current parameter, but cannot change the parameter data.



Water inlet / outlet temperatures



Ambient temperature

Remarks: Standby status means the unit is electrically connected but not running.

Setting Step

1. Standby status:

Press [M] 5 seconds,

Press [M] again "1", "27". Press [SET] to enter heating temperature setting, press [▲] or [▼] to alter heating temperature. Press [SET] again to confirm.

Press [M] again "8", "1". Press [SET] to enter Mode setting, press [▲] or [▼] to alter. Press [SET] again to confirm.

Press [M] again "9", "0". Press [SET] to enter water pump setting, press [▲] or [▼] to alter. Press [SET] again to confirm.

Press [M] again "A", "40". Press [SET] to enter return water temperature setting, press [▲] or [▼] to alter. Press [SET] again to confirm.

Press [M] again "B", "5". Press [SET] to enter Overheat protection (heating mode) setting, press [▲] or [▼] to alter. Press [SET] again to confirm.

Press [M] again "C", "35". Press [SET] to enter Electronic expansion valve setting, press [▲] or [▼] to alter. Press [SET] again to confirm.

Press [M] again "E", "40". Press [SET] to enter Max. temperature setting, press [▲] or [▼] to alter. Press [SET] again to confirm.

Press [M] again "G", "8". Press [SET] to enter Ambient temperature protection setting, press [▲] or [▼] to alter. Press [SET] again to confirm.

SERVICE BY QUALIFIED TECHNICIANS (continued)

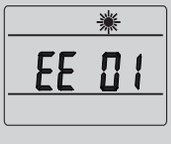
2. For Clock and Timer setting see "CONTROL UNIT PANEL" section.

Operation data setting table:

Parameter	Meaning	Range	Default	Remarks
06	Electronic expansion valve mode	0 (Manual) / 1 (Auto)	1	Adjustable by technicians
07	Automatic restarting after power off	0-1	1	Adjustable by technicians
08	Mode (cooling only/heat pump/auxiliary electrical heating/hot water)	0-3	3 (hot water)	Adjustable by technicians
09	Water pump keep running or stop after compressor stop for 30 seconds	0 (keep running) / 1 (stop)	0	Adjustable by technicians
A	Auto mode (return water pump)	8-60°C	40°C	Adjustable by technicians
C	Manual adjustment of Electronic expansion valve	10-50	35	Adjustable by technicians
E	Max. temperature setting	30-70°C	40°C	Adjustable by technicians
F	Delta "T" setting	1-20°C	2°C	Adjustable by technicians
G	Ambient temperature protection (Min.)	-15°C-15°C	8°C	Adjustable by technicians

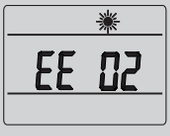
SERVICE BY QUALIFIED TECHNICIANS (continued)

LED Display Error Code

ERROR CODE SHOWN ON LED DISPLAY	CAUSE	SOLUTION
	• Frost on evaporator fins: ambient air temperature is lower than the minimum operating air temperature range 8 °C. • Ambient air temperature sensor broken.	• Check ambient air temperature variation, specially from day time to mid-night. Wait until ambient air temperature rises to start the heat pump. • Switch off unit for few minutes and switch on again, check if: a) fan is not running, replace damaged fan motor. b) fan is running, then make sure adequate air circulation, see "Location and Space Requirement" section. • Check T2 temperature sensor connection. • T2 temperature sensor broken, replace T2 sensor. • Terminal block for T2 connection on PCB broken, replace PCB.
	• Water in temperature sensor broken.	• Check T5 temperature sensor connection. • T5 temperature sensor broken, replace T5 sensor. • Terminal block for T5 connection on PCB broken, replace PCB.
	• Water out temperature sensor broken.	• Check T4 temperature sensor connection. • T4 temperature sensor broken, replace T4 sensor. • Terminal block for T4 connection on PCB broken, replace PCB.
	• Evaporator fins temperature sensor broken.	• Check T3 temperature sensor connection, replace T3 sensor. • T3 temperature sensor broken. • Terminal block for T3 connection on PCB broken, replace PCB.
	• Gas return temperature sensor failure.	• Check T1 temperature sensor connection, replace T1 sensor. • T1 temperature sensor broken. • Terminal block for T1 connection on PCB broken, replace PCB.
	• Coil temperature sensor failure.	• Check T6 temperature sensor connection, replace T6 sensor. • T6 temperature sensor broken. • Terminal block for T6 connection on PCB broken, replace PCB.
	• High pressure protection	• Check bypass valves setting • Check system water flow is according to "Product Specification" section. • Check high pressure sensor connection. • High pressure sensor broken, replace it. • Terminal block for high pressure sensor connection on PCB broken, replace PCB.

SERVICE BY QUALIFIED TECHNICIANS (continued)

LED Display Error Code

ERROR CODE SHOWN ON LED DISPLAY	CAUSE	SOLUTION
	• Low pressure protection	• Check for refrigerant gas leakage, see "Refrigerant Gas Pressure Verification" section. Refill as needed. • Ambient air temperature is lower than the minimum operating air temperature range, wait until ambient air temperature rises. • Switch off unit for few minutes and switch on again, check if: a) fan is not running, replace damaged fan motor. b) fan is running, then make sure adequate air circulation, see "Location and Space Requirement" section. • Check low pressure sensor connection. • Low pressure sensor broken, replace it. • Terminal block for low pressure connection on PCB broken, replace PCB.
	• No water flow or low water flow	• Verify if water inlet and outlet hoses/pipes are connected correctly. • Ensure pool inlet and outlet cover grid is clean and free from obstructions. • Check if filtration pump is working. • Clean or replace the cartridge or sand media if necessary. • Check bypass valves setting. • Keep the pool water properly sanitized. • Water flow sensor broken, replace it. • Check flow sensor connection.
	• Water flow volume not enough, water pressure difference is too low.	• Verify if water inlet and outlet hoses/pipes are connected correctly. • Ensure pool inlet and outlet cover grid is clean and free from obstructions. • Check if filtration pump is working. • Clean or replace the cartridge or sand media if necessary. • Check bypass valves setting. • Keep the pool water properly sanitized.
	• Communication failure	• Check electrical connection between control unit panel and main PCB. Replace control unit panel. • Check control wire connection. • PCB terminal connection block broken, replace PCB.

SERVICE BY QUALIFIED TECHNICIANS (continued)

Regulation (EU) Nº 517/2014 of 16/04/14 on fluorinated greenhouse gases and repealing Regulation (EC) Nº 842/2006

Leak checks
Operators of equipment that contains fluorinated greenhouses gases in quantities of 5 tons of CO_2, equivalent or more and not contained in foams shall ensure that the equipment is checked for leaks.

Leak checks frequency – for equipment that contains fluorinated greenhouse gases in quantities of 5 tons of CO_2 equivalent or more, but of less than 50 tons of CO_2 equivalent: at least every 12 months.

Equivalent CO_2
Load in kg and Tons amounting CO_2

Load and Tons amounting CO_2	**Frequency of test**
From 2 at 30 kg load = from 5 at 50 Tons	Each year

Concerning Gas R 410a, 2.39kg amounting at 5 tons of CO_2, commitment to check each year.

Training and certification
The operator of the relevant application shall ensure that the relevant personnel have obtained the necessary certification, which implies appropriate knowledge of the applicable regulations and standards as well as the necessary competence in emission prevention, recovery of fluorinated greenhouse gases and safe handling of the relevant type and size of equipment covered by the certificate.

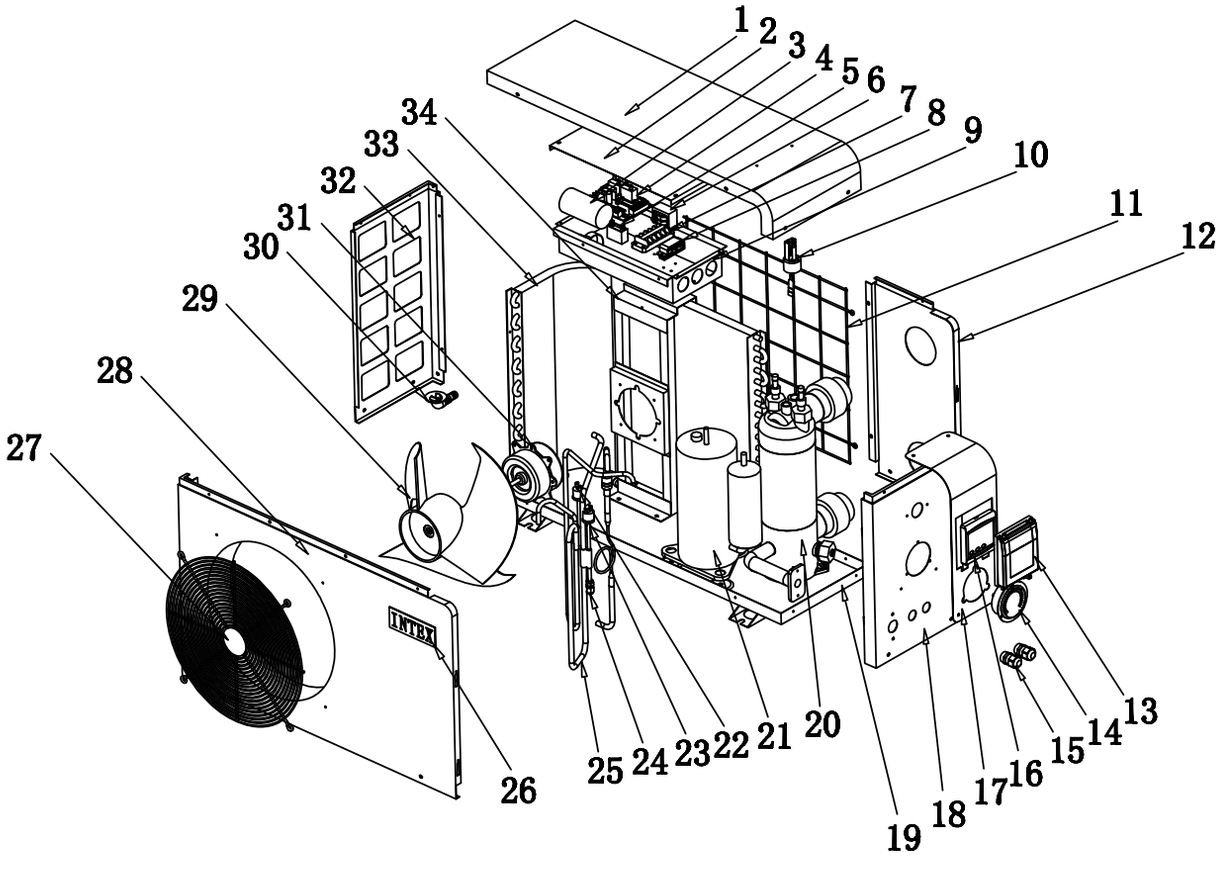
Record keeping
Operators of equipment which is required to be checked for leaks shall establish and maintain records for each piece of such equipment specifying the following information:

a) The quantity and type of fluorinated greenhouse gases installed;
b) The quantities of fluorinated greenhouse gases added during installation, maintenance or servicing or due to leakage;
c) Whether the quantities of installed fluorinated greenhouse gases have been recycled or reclaimed, including the name and address of the recycling or reclamation facility and, where applicable, the certificate number;
d) The quantity of fluorinated greenhouse gases recovered;
e) The identity of the undertaking which installed, serviced, maintained and where applicable repaired or decommissioned the equipment, including, where applicable, the number of its certificate;
f) The dates and results of the checks carried out;
g) If the equipment was decommissioned, the measures taken to recover and dispose of the fluorinated greenhouse gases.

The operators shall keep the records for at least five years, and the undertakings carrying out the activities for operators shall keep copies of the records for at least five years.

SERVICE BY QUALIFIED TECHNICIANS (continued)

Parts Diagram (for qualified technician use only).



SERVICE BY QUALIFIED TECHNICIANS (continued)

REF. NO.	DESCRIPTION	REF. NO.	DESCRIPTION
1	TOP COVER	18	RIGHT SIDE PANEL
2	ELECTRIC BOX COVER	19	BASE TRAY
3	COMPRESSOR CAPACITANCE	20	TITANIUM HEAT EXCHANGER
4	MAIN BOARD	21	COMPRESSOR
5	FAN CAPACITANCE	22	HIGH PRESSURE PROTECTION SWITCH
6	TRANSFORMER	23	LOW PRESSURE PROTECTION SWITCH
7	FIVE POSITION TERMINAL BLOCK	24	SUCTION VALVE
8	CLIP	25	PIPE (EXCHANGER TO CAPILLARY)
9	ELECTRIC BOX	26	LOGO
10	WATER FLOW SWITCH	27	FRONT GRID
11	BACK GRID	28	FRONT PANEL
12	BACK PANEL	29	FAN BLADE
13	WATER PROOF CONTROLLER BOX	30	DRAIN HOSE CONNECTOR
14	PRESSURE GAUGE	31	FAN MOTOR
15	ELECTRIC CABLE CONNECT	32	LEFT SIDE GRID
16	CONTROLLER	33	EVAPORATOR
17	ISOLATED PANEL	34	FAN MOTOR STAND

LIMITED WARRANTY

Your Heat Pump has been manufactured using the highest quality materials and workmanship. All Intex products have been inspected and found free of defects prior to leaving the factory. This limited warranty applies only to the Heat Pump and accessories listed below.

This limited warranty is in addition to, and not a substitute for, your legal rights and remedies. To the extent that this warranty is inconsistent with any of your legal rights, they take priority. For example, consumer laws across the European Union provide statutory warranty rights in addition to the coverage you receive from this limited warranty: for information on EU-wide consumer laws, please visit the European Consumer Center website at http://ec.europa.eu/consumers/ecc/contact_en/htm.

The provisions of this limited warranty apply only to the original purchaser and is not transferable. This limited warranty is valid for the period noted below from the date of the initial retail purchase. Keep your original sales receipt with this document, as proof of purchase will be required and must accompany warranty claims or the limited warranty will be invalid.

Heat Pump Warranty – 2 Years
Hoses & Fittings Warranty – 180 days

If you find a manufacturing defect in the Heat Pump during the warranty periods noted above, please contact the appropriate Intex Service Center listed in the separate "Authorized Service Centers" sheet. If the item is returned as directed by the Intex Service Center, the Service Center will inspect the item and determine the validity of the claim. If the item is covered by the provisions of the warranty, the item will be repaired or replaced, with the same or comparable item (at Intex's choice) at no charge to you.

Other than this warranty, and other legal rights in your country, no further warranties are implied. To the extent possibly in your country, in no event shall Intex be liable to you or any third party for direct or consequential damages arising out of the use of your Heat Pump, or Intex or its agents' and employees' actions (including the manufacture of the product). If your country does not allow the exclusion or limitation of incidental or consequential damages, this limitation or exclusion does not apply to you.

You should note that this limited warranty does not apply in the following circumstances:

- If the Heat Pump is subject to negligence, abnormal use or application, accident, improper operation, improper voltage or current contrary to operating instructions, improper maintenance or storage;
- If the Heat Pump is subject to damage by circumstances beyond Intex's control, including but not limited to, ordinary wear and tear and damage caused by exposure to fire, flood, freezing, rain, or other external environmental forces;
- To parts and components not sold by Intex; and/or
- To unauthorized alterations, repairs or disassembly to the Heat Pump by anyone other than Intex Service Center personnel.

The costs associated with the loss of pool water, chemicals or water damage are not covered by this warranty. Injury or damage to any property or person is not covered by this warranty.

Read the owner's manual carefully and follow all instructions regarding proper operation and maintenance of your Heat Pump. Always inspect your product prior to use. This limited warranty will be void if use instructions are not followed.