

Installation Manual

CHPW

**Slope or Flat Top
Console Unit**

Water Source Heat Pump
(WSHP) Unit



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Thank you for purchasing and installing the ICE-AIR WSHP (Water Source Heat Pump). Ice Air is a leading supplier of WSHPs, offering superior quality, reliability and efficiency for our customers.

This is a general guide only, and should be treated as such. The information contained in this manual, including but not limited to installation instructions, unit dimensions, and physical/performance data, may vary by project and unit configuration. Ice Air will not be held liable for any information contained in this manual. For questions about installation and unit performance, please contact your local Ice Air representative. Installation and start-up should always be performed by a trained professional.

ATTENTION INSTALLING PROFESSIONAL

Read this manual and familiarize yourself with the specific terms and safety warnings that must be adhered to before attempting to install or service this unit. Precautions listed are intended as supplemental to existing practices. As a professional, you have an obligation to know the product better than the customer. This includes all safety precautions and related items. It is your responsibility to install the product safely and know it well enough to be able to instruct a customer in its safe use as required.

RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION.

▲ WARNING: Ice Air will not be responsible for any injury or property damage arising from improper service or service procedures. If you install or perform service on this unit, you assume responsibility for any personal injury or property damage which may result. Many jurisdictions require a license to install or service heating and air conditioning equipment.

▲ WARNING, HIGH VOLTAGE: Disconnect all power before servicing or installing unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death.

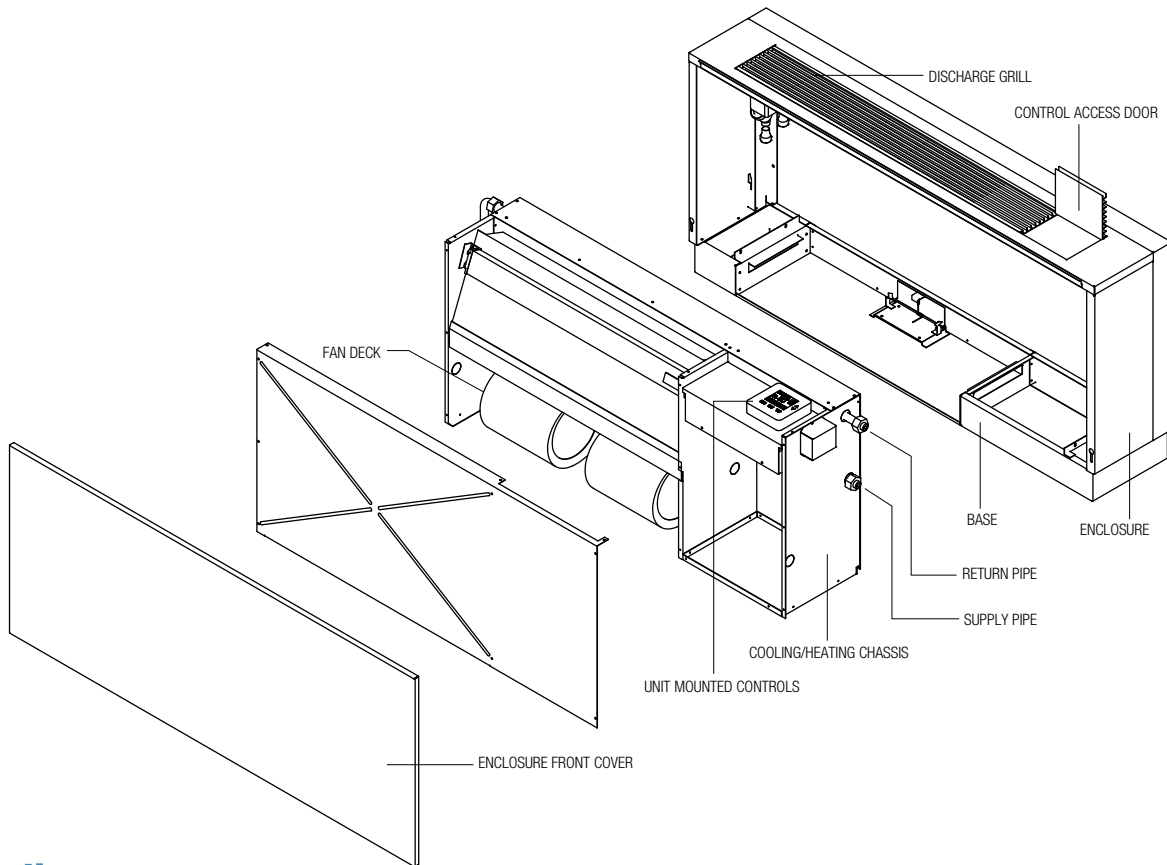
To ensure that the unit operates safely and efficiently, it must be installed according to these installation instructions and all local codes and ordinances, utilizing the best standards and practices at the time of installation or, in their absence, with the latest edition of the National Electric Code. The proper installation of this unit is described in the following sections. Following the steps in the order presented should ensure proper installation.

Overview

Ice Air Water Source Heat Pumps are quality units, which should only be installed by a trained professional. Please ensure all sections are read thoroughly before installing the unit.

Application Note

It is important for heating/cooling systems to be properly sized for each application in order to achieve desired temperature and humidity levels. It is highly recommended that a professional engineer match the WSHP units you are about to install with the building structure and climate.



Inspection

1. Check the shipment against the Bill of Lading. Ensure all components are intact upon delivery and free from damage. Note any damage on the delivering carrier's Bill of Lading*.
2. The Ice Air unit(s) arrive prefabricated with an enclosure. Ensure both the unit and the enclosure are properly attached.
3. Make sure the floor is level in both directions so the unit's airflow will be aligned. Confirm adequate drainage is available to ensure adequate and continuous water flow during unit operation.
4. Remove the access panel is BEFORE installing.
5. Verify amperage to the unit(s) is correct and the unit can reach the power supply.

* Purchaser's responsibility includes filing all claims with the delivering carrier in a timely fashion.



Physical Data

Model	5CHPW09	5CHPW13	8CHPW09	8CHPW13	8CHPW16	8CHPW19	7CHPW09	7CHPW13	7CHPW16	7CHPW19
Compressor Type (1 EA)	Rotary									
Refrigerant	R410A									
Refrigerant Factory Charge (oz)	26.5	28.2	26.5	28.2	30	32.5	26.5	28.2	30	32.5
Fan Motor (HP)	1/20	1/12	1/12	1/12	1/8	1/6	1/12	1/12	1/8	1/6
Blower Wheel Size (Diameter x Width) (IN)	1 @ 5.25" x 6.25"				2 @ 5.25" x 6.25"		1 @ 5.25" x 6.25"		2 @ 5.25" x 6.25"	
Air Coil Dimension (IN)	19.5x10.0	19.5x10.0	19.5x10.0	19.5x10.0	27.5x10.0	27.5x10.0	19.5x10.0	19.5x10.0	27.5x10.0	27.5x10.0
Standard Filter - 1" (IN)	22.75x10.0	22.75x10.0	22.75x10.0	22.75x10.0	30.75x10.0	30.75x10.0	22.75x10.0	22.75x10.0	30.75x10.0	30.75x10.0
Weight (lb)	175	180	180	180	190	210	180	180	190	210

Regardless of the system being utilized, optimum performance can only be achieved through adjustment to the recommended water flow at each individual unit. Refer to unit requirements in the following table below:

Typical Water Side Data

Model	5CHPW09	5CHPW13	8CHPW09	8CHPW13	8CHPW16	8CHPW19	7CHPW09	7CHPW13	7CHPW16	7CHPW19
Flow Rate (GPM)	2.25	3.25	2.25	3.25	4	4.75	2.25	3.25	4	4.75
Water Connection (IN)	1/2" NPT									
Condensate Hose Connection Size (IN)	5/8"									

Unit Operating Limits

Mode	Cooling °F	Heating °F
Ambient Air min-max DB	50-100	50-85
Return Air Min DB/WB	65/60	50
Return Air Max DB/WB	95/75	80
Entering Water Min*-Max	60-110	60-90

* Additional insulation may be required



Performance Data

Model	5CHPW09	5CHPW13	8CHPW09	8CHPW13	8CHPW16	8CHPW19	7CHPW09	7CHPW13	7CHPW16	7CHPW19
Cooling Capacity*	9,500	12,500	9,500	12,500	15,500	17,500	9,500	12,500	15,500	17,500
Cooling EER	13.9	13.8	13.9	13.8	13.9	13.3	13.9	13.8	13.9	13.3
Heating Capacity**	12,000	16,000	12,000	16,000	20,000	23,000	12,000	16,000	20,000	23,000
Heating COP	4.8	4.8	4.8	4.8	4.7	4.3	4.8	4.8	4.7	4.3
Typical CFM	400	450	400	450	500	550	400	450	500	550

Cooling Capacity BTUH Rated at @ 80.6°F, 66.2°F WB EAT 86°F EWT @ 3 GPM/TON

Heating Capacity BTUH Rated at @ 68°F DB, 62°F WB EAT @ 3 GPM/TON

The performance data shown above is based on standard equipment under the provided design conditions. Performance may vary depending on equipment configuration and project site conditions.

Electrical Data

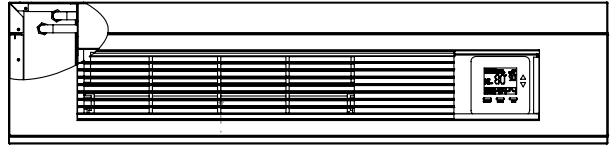
Model	5CHPW09	5CHPW13	8CHPW09	8CHPW13	8CHPW16	8CHPW19	7CHPW09	7CHPW13	7CHPW16	7CHPW19
Voltage/Phase/Frequency	115/60-1		208-230/60-1				265-277/60-1			
Total Unit FLA	7.3	15.5	5.2	5.8	8.5	10.2	4.1	4.7	6.7	8.2
MCA	8.7	19.0	6.2	6.9	10.1	12.3	5.1	5.9	8.4	10.3
MOCP	15	30	15	15	15	20	15	15	15	15

Before You Begin

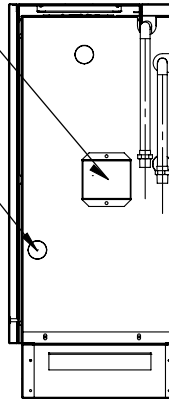
1. Locate the unit where it can evenly distribute air throughout the room without obstructions. Units should be installed no closer than 12" apart when two units are side by side. A vertical clearance of 60" should be maintained between units.
2. Ensure the wall is structurally sound to support the weight of the unit.
3. Adequate and continuous water flow must be maintained for proper and safe unit operation. Ensure adequate drainage is also available.
4. Follow all applicable codes for installation.
5. Dedicated electrical circuitry and power supply is required to properly energize the Ice Air unit. Verify the amperage of the dedicated electrical service to the unit is correct and the unit can reach the power supply.
6. Position the unit so the air filter can be removed easily and required maintenance can be performed without interference.
7. A minimum obstructed distance of 36" should be kept around the unit.

IMPORTANT: To avoid permanent damage to the unit, DO NOT operate during construction in an open space or as a supplemental heating and cooling source during construction.

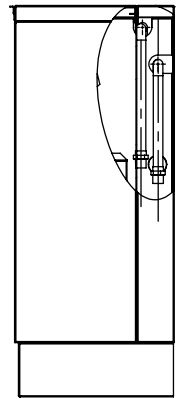
TOP VIEW



JUNCTION BOX
HOLE FOR DRAIN HOSE

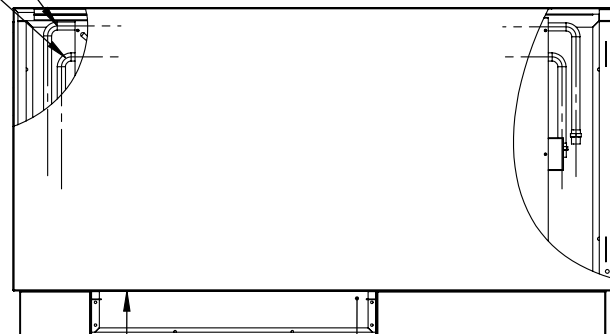


RIGHT SIDE VIEW



OUTLET PIPE
INLET PIPE

FRONT VIEW



FILTER LOCATED INSIDE AND AT TOP OF AIR INTAKE AREA

AIR INLET AREA

Installation

Storage

- Ensure all equipment is stored in a clean and dry area.
- Ensure all equipment is properly covered and protected while at job site. Keep coverings on units until installation is complete. Precautions must be taken in areas where construction is still underway to prevent any damage to the equipment.

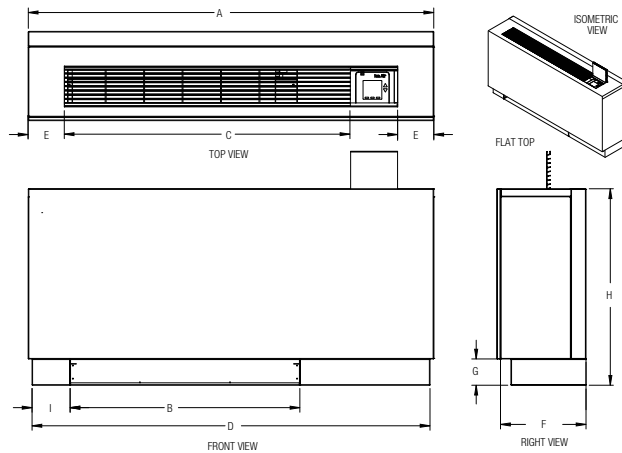
Chassis Pre-Installation

- Ensure refrigerant circuit is free of all damages and kinks.
- Check that all electrical connections are clean and secure.

Dimensional Drawing

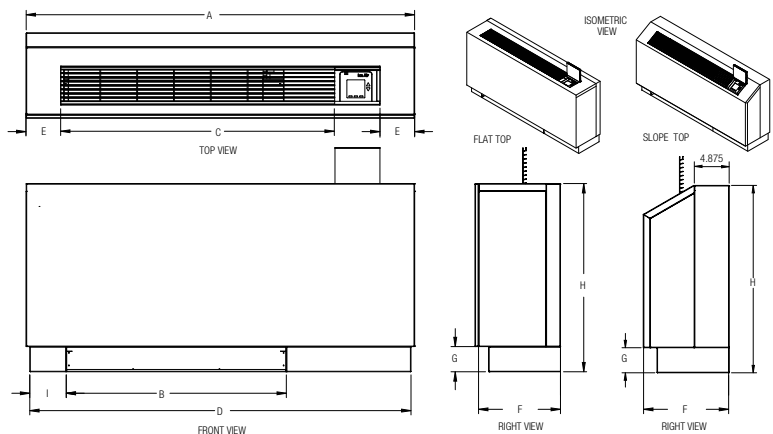
FLAT TOP

Model No.	Dimensions (inches)								
	A	B	C	D	E	F	G	H	I
5CHPW09	46	22	29.5	45	5	11	3.5	25.25	5.125
5CHPW13	46	22	29.5	45	5	11	3.5	25.25	5.125
8CHPW09	46	22	29.5	45	5	11	3.5	25.25	5.125
8CHPW13	54	30	37.5	53	5	11	3.5	25.25	5.125
8CHPW16	54	30	37.5	53	5	11	3.5	25.25	5.125
8CHPW19	54	30	37.5	53	5	11	3.5	25.25	5.125



SLOPE TOP

Model No.	Dimensions (inches)								
	A	B	C	D	E	F	G	H	I
5CHPW09-ZS	46	22	29.5	45	5	11	3.5	24.5	5.125
5CHPW13-ZS	46	22	29.5	45	5	11	3.5	24.5	5.125
8CHPW09-ZS	46	22	29.5	45	5	11	3.5	24.5	5.125
8CHPW13-ZS	54	30	37.5	53	5	11	3.5	24.5	5.125
8CHPW16-ZS	54	30	37.5	53	5	11	3.5	24.5	5.125
8CHPW19-ZS	54	31	38	53	5	11	3.5	24.5	5.125



Piping Installation

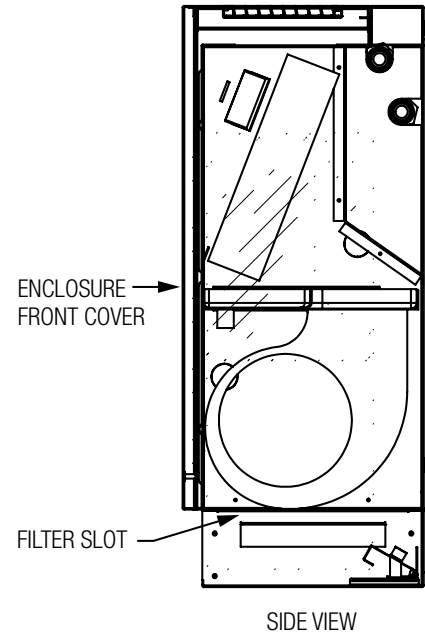
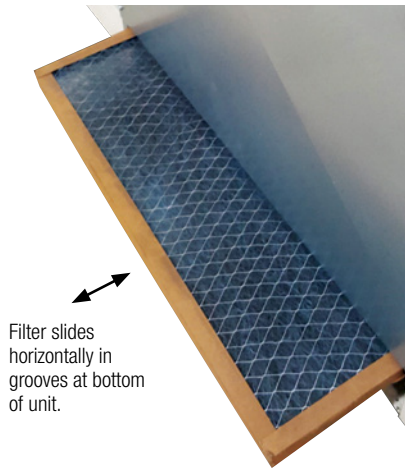
Ice Air's Console Water Source Heat Pump comes with standard Supply and Return Water pipes on both left and right side of the unit. Either can be connected for immediate use, however, the remaining pipes must be closed off using the enclosed plug. Connect the pipes using a Braided Steel Hose as shown below. The condensate tube will be on the right-hand side and arrive with a hose clamp to attach to the building's condensate pipes.



Units are typically shipped with plugs on piping connections, and field installer removes the plugs on the field piping side. Water piping terminates in the same location regardless of the connection and valve options.

Filter Installation

Each unit is delivered with a filter for the filter rack, which can be found at the bottom of the unit as shown below. In order to install the filter, slide the piece horizontally into the slot. Ensure the filter is effectively pushed to the end.



Optional Valve Accessories



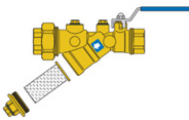
Motorized Valve

The optional factory supplied motorized valve comes with a 2-way or 3-way valve body and a 2-position electric actuator. The actuator can be normally open or normally closed. When powered, the actuator moves to the desired position. When power is removed, the actuator returns to the normal position.



Autoflow Valve

The optional automatic balancing valve provides accurate flow control. Valves are factory set to a rated flow. Flow will automatically be controlled within a given tolerance of the set flow rate.



Strainer

The optional y-strainer collects and removes debris, extending coil lifetime and preventing damage to controls and heat transfer components. Optional blowdown valve allows for clean-out without removing mesh screen.



Isolation Valve

The optional isolation valve is a manual shutoff valve. Water flow is controlled by rotating the valve handle.



Stainless Steel Hoses

The optional stainless-steel hoses comes with swivel connections for union of chassis and risers. Two hoses are provided per unit for connection of supply and return lines.



Purge Valve

Purge valves facilitate the removal of excess or unwanted liquids/gases within a piping system, storage tank, or other container.

System Startup Prep

System Cleaning and Flushing

Cleaning and flushing the unit is the most important step to ensure proper start-up and continued efficient operation of the system. Follow the instructions below to properly clean and flush the system:

1. Verify that electrical power to the unit is OFF.
2. Verify that supply and return riser service valves are closed at each unit.
3. Fill the system with water, leaving the air vents open. Bleed all air from the system, but do not allow the system to over flow. Check the system for leaks and make any required repairs.
4. Adjust the water and air level in the expansion tank.
5. With strainers in place, start the pumps. Systematically check each vent to ensure that all of the air is bled from the system.
6. Verify that make-up water is available and adjusted to properly replace any space remaining when all air is purged. Check the system for leaks and make any additional repairs if needed.
7. Set the boiler to raise the loop temperature to approximately 85°F (29.4°C). Open the drain at the lowest point in the system. Verify that make-up water replacement rate equals rate of bleed. Continue to bleed the system until the water appears clean or for at least three hours, whichever is longer.
8. Completely drain the system.

Commercial Water Loop Application

Commercial systems typically include a number of units connected to a common piping system. Any system or unit piping maintenance work can introduce air into the piping system. Therefore, air elimination equipment is a major portion of the mechanical room plumbing. In piping systems expected to utilize water temperatures below 60°, 1/2" closed-cell insulation is required on all piping surfaces to eliminate condensation. Metal-to-plastic threaded joints should never be used due to their tendency to leak over time.

Balancing valves, flow control valves, motorized solenoid valves and variable speed pumping systems may also be used.

The piping system should be flushed to remove dirt, pipe shavings, chips, and other foreign material prior to operation (refer to "System Cleaning and Flushing" section). The flow rate is usually set between 2.25 and 3.5 GPM per ton of cooling for most applications of water loop heat pumps. To ensure proper maintenance and servicing, P/T ports are imperative for temperature and flow verification, as well as performance checks.

Water loop heat pump (cooling tower/boiler) systems typically utilize a common loop, maintained between 60 - 90°F. The use of a closed circuit evaporative cooling tower with a secondary heat exchanger between the tower and the water loop is recommended. If an open type cooling tower is used continuously, chemical treatment and filtering will be necessary.

General Wiring

Line Voltage

Wiring, including the electrical ground, must comply with the National Electrical Code as well as all applicable local codes. Consult the wiring diagram below for field connections on the right of the electrical diagram located on the back of the unit electrical compartment front panel. All electrical connections must be made by the installing (or electrical) contractor. All final electrical connections must be made with a length of flexible conduit to minimize vibration and sound transmission to the building.

General Line Voltage Wiring

Be sure the available power is the same voltage and phase shown on the unit serial number plate. Line and low voltage wiring must be done in accordance with local codes or the National Electric Code, whichever is applicable.

⚠ WARNING: Electrical shock can cause personal injury or death while installing or servicing the system. Always turn OFF the main power to system. There may be more than one disconnect switch.

Power Connection

Units equipped with disconnect: Connect incoming line voltage to the disconnect switch and connect ground wire to the ground lug provided inside the electrical compartment.

Units without disconnect: Line voltage connection is made by connecting the incoming line voltage wires to the terminal block.

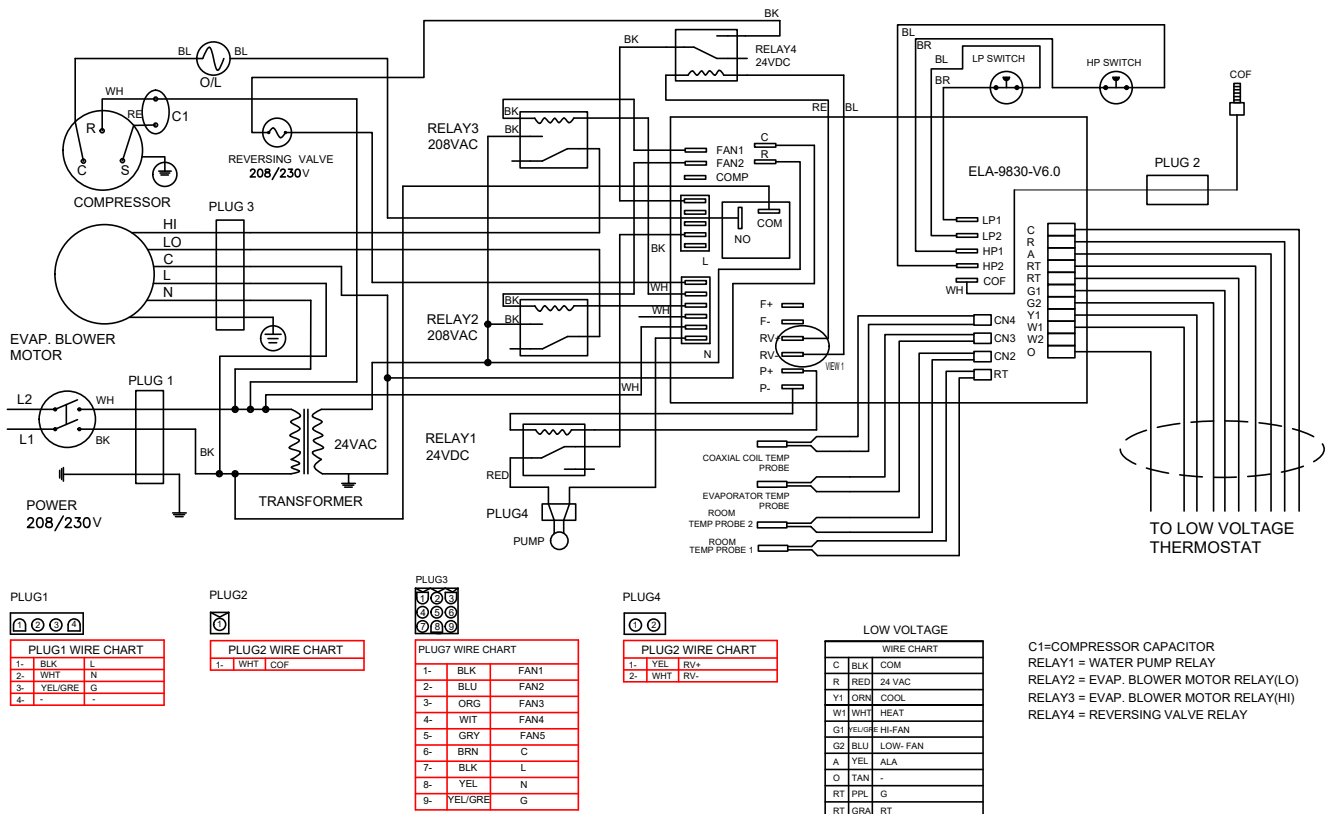
Volt Operation

All commercial units are factory-wired for specific voltages. These include:

- 115 VAC
- 208-230 VAC
- 265-277 VAC

For 230 volt single-phase operation, the primary voltage to the transformer must be changed.

NOTE: Failure to change the primary voltage lead when using 230 VAC line voltage may result in electrical component damage and intermittent system failure.





System Start

Start-Up Preparation

Prior to start up, ensure that all unit and system components are in good condition, water quality standards have been met, and ambient air and water temperatures are within the operating range. The manufacturer will not be held liable for any damage incurred due to improper system checkout or improper startup procedure. Startup should only be performed by a certified licensed technician.

Inspect each unit individually, ensuring the following conditions have been met.

Pre-Startup Checklist

1. Power is supplied to unit.
2. Motorized valve is installed.
3. Clean filter is installed.
4. Thermostat is installed.
5. Supply and return valve are open.

Start-Up Procedure

1. Adjust all valves to their fully open position.
2. Turn on power to the unit.
3. Turn the thermostat fan speed to "High." Fan should start.
Check airflow. Balance airflow at registers.
4. Set thermostat mode to "Cool." Wait several minutes.
Check for cold air delivery at registers.
5. Set thermostat mode to "Heat." Wait several minutes.
Check for hot air delivery at registers.
6. If unit fails to operate properly, refer to troubleshooting section for possible solutions.

Startup Checklist

1. Compressor comes on.
2. Motorized valve opens and closes.
3. Fan speed works properly in cooling mode.
4. Fan speed works properly in heating mode.
5. Thermostat operates properly.
6. Condensate overflow switch is functional.
7. Fan rotates properly.
8. No water leaks.

NOTE: Cooling, heating or fan mode operation is determined by thermostat setting. For operational control please see Ice Air's thermostat manual. Please review 3rd party thermostat manuals when controls are provided by others.



System Check List

Installer: Complete unit and system checkout and follow unit start-up procedures provided with the unit. Use this form to record information, temperatures and pressures during start-up. Keep this form for future reference.

Location Information

Owner: _____

Address: _____

Model Number: _____

Serial Number: _____

Unit Location in Building: _____

Date: _____

Sales Order No: _____

In order to minimize troubleshooting and costly system failures, complete the following checks and data entries before the system is put into full operation.

Temperatures: (Circle) F or C

Antifreeze: _____ Type: _____ %

Pressures: (Circle) PSIG or kPa

Allow unit to run 15 minutes in each mode before taking data.

Do not connect service manifold gauges during start up unless instructed by Ice Air service tech.

	Cooling Mode	Heating Mode
Return-Air Temperature DB (°F)		
Supply-Air Temperature DB (°F)		
Temperature Differential		
Entering Fluid Temperature (°F)		
Leaving Fluid Temperature (°F)		
Temperature Differential		
Water Pressure IN		
Water Pressure OUT (PSI)		
Pressure Differential (PSI)		
Flow Rate (GPM)		
Supply Voltage at Contactor (V)		
Transformer Low Side Volts (V)		
Compressor Amps (A)		
Motor Amps (A)		

Troubleshooting

IMPORTANT: It is not the intent of this maintenance manual to resolve any problems with the operation of your Ice Air unit. Please contact a trained servicer or building maintenance staff immediately if your unit fails to perform properly.

1. Contact a trained service technician to conduct full unit diagnostics and repair to equipment.
2. Record any unit that does not operate noting the unit serial number on your report.

If unit is not operating, conduct the following checks:

1. Check the electrical connections.
2. Check the voltage and current against the electrical specifications on the unit nameplate.
3. Look for wiring errors. Check for loose screw connections in both line and low voltage terminals.
4. Check the water supply piping for proper water connection.
5. Check for dirty filters.
6. Check indoor fan for proper operation.
7. Check that unit did not cycle off due to improper thermostat settings.
8. Check for fault codes on the control board – consult the Board Troubleshooting Table.

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Board Troubleshooting Table

Display (Fault Code)	LED			Troubleshoot Guide
	Yellow	Green	Red	
Normal Mode	OFF	ON	OFF	Normal Operation
High Pressure	OFF	OFF	FLASH	Low/no water flow, dirty coax coil, cap tube blockage, entering water temp is too high
Low Pressure	FLASH	OFF	OFF	Low charge, dirty filter, dirty evap coil
Evaporator too cold	FLASH	ON	FLASH	Dirty filter, dirty evap coil, fan motor failure, low gas
Coaxial winter protection	FLASH	ON	OFF	Water too cold during off mode
Temperature probe failure	OFF	FLASH	OFF	Loose/disconnected probe wire, bad probe
High/low voltage	OFF	OFF	ON	Site voltage unstable, bad transformer
Condensate over flow	OFF	ON	ON	Clogged condensate drainage
Coaxial water too cold	ON	OFF	OFF	Water too cold during on mode, low gas

Preventive Maintenance

Water Coil

Standard coil cleaning should be performed in areas where the water mineral content is 125 PPM or greater. High mineral content can cause sediment deposits and lead to scaling. The risk of scaling is increased with lower flow rates. Therefore, it is best to maintain a minimum flow rate of 2 GPM/ton.

Air Coil

Air Coil must be periodically cleaned to prevent airflow restrictions and debris buildup. Precautions must be taken to ensure coil fins are not damaged.

Filters

Units should not be operated without a filter. The filter should be periodically checked to ensure cleanliness and prevent airflow restrictions.

Condensate Drain

The condensate drain and drain pan should be checked at least once every six months to prevent blockages and backflow. Chemical treatment may be necessary if there is slime buildup in the drain pan. Slime buildup, and dust/sediment deposits, can prevent proper condensate disposal.

Compressor

Compressor should be checked at least once a year to ensure amperage draw is no higher than 10% above rating shown on nameplate.

Fan Motors

Fan Motors should be checked at least once a year to ensure amperage draw is no higher than 10% above rating shown on nameplate.

NOTE: This is not an exhaustive list. Additional preventive maintenance steps may be required on a case-by-case basis. Preventive maintenance should only be performed by a certified licensed technician. Consult a professional before creating a maintenance plan.



Product Nomenclature

Model Selection **8 CHPW 09 P X F 1 S X X U U G X E X X X W X A**
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
 Primary Part

Item #	Matrix Name	Code String Value	Description
1	POWER	8	208V/1PH/60HZ
		7	277V/1PH/60HZ
		5	115V/1PH/60HZ
2	UNIT TYPE	CHPW	Console WSHp
3	CAPACITY (BTUH)	09	9,000 (~3/4-Ton)
		13	13,000 (~1-Ton)
		16	16,000 (~1-1/4-Tons)
		19	19,000 (~1-1/2-Tons)
4	MOTOR	P	PSC Motor
		E	EC Motor
5	DISCONNECT	F	Fused Disconnect
		N	Non-Fused Disconnect
		P	Line Cord With Plug (18")
		X	Terminal Block with Cover
6	UNIT CONFIG.	F	Flat Top
		E	Flat Top with Removable Chassis
		S	Sloped Top
		R	Sloped Top with Removable Chassis
		T	Flat Top with Front Intake
		U	Flat Top with Removable Chassis and Front Intake
		V	Sloped Top with Front Intake
		W	Sloped Top with Removable Chassis and Front Intake
C	Custom Enclosure		
7	ENCLOSURE COLOR	1	Antique White
		2	Arctic White
		3	Custom
8	INSULATION	S	Standard Insulation (12.7 mm (1/2") Fiberglass)
		F	1/2" Foil Faced Insulation
9	P-TRAP	I	Internal P-Trap
		X	No P-Trap
10	RISERS	X	Riser Options Not Applicable
11	PIPE ORIENTATION	L	Left Hand
		R	Right Hand
		U	Universal (allows for field connection on either side)
12	WIRE WHIPS	A	Wall mounted with 6.5-foot wire whip
		B	Wall mounted with 10-foot wire whip
		C	Wall mounted with 12-foot wire whip
		D	Wall mounted with 30-foot wire whip
		E	Wall mounted with 50-foot wire whip
		F	Standard 18" wire whip
13	DRAIN PAN	U	Unit mtd controls
		G	Powder Coated Galvanized Drain Pan
		S	Stainless Steel Drain Pan
X	No Drain Pan		

Item #	Matrix Name	Code String Value	Description
14	COMPRESSOR BLANKET	B	Sound Attenuation Blankets
		X	No Compressor Blanket
15	CONTROLS	C	Non-Programmable LCD Touchpad Thermostat (ELA-12690)
		D	Non-Programmable LCD Thermostat (ELA-8842 via dip switch)
		E	7-Day Programmable LCD Thermostat (ELA-8842)
		F	7-Day Programmable Touchscreen Thermostat (ELA-13086)
		G	Nest Thermostat (ELA-10665)
		H	Habitat Wireless Wi-Fi Thermostat with Water Leak Detector (ELA-13161)
		I	Non-Programmable LED Touchpad Thermostat (ELA-10328)
		X	Field Mounted By Others
16	MOTORIZED VALVES	A	2-Way Motorized Valve NO
		B	2-Way Motorized Valve NC
		C	Custom Valve Option
		D	3-Way Motorized Valve NO
		E	3-Way Motorized Valve NC
		X	No Valve Option
17	FLOW VALVES	A	Autoflow Valve (HAYS 2510/2517)
		B	Autoflow Valve/Shutoff combo (HAYS 2519)
		H	Autoflow Valve (HAYS 2515) [high GPM only]
		C	Autoflow Valve w/PT Ports (YR Flow Valve)
		M	Manual Balancing Valve
		Y	Y-Strainer
		F	Autoflow Valve w/PT Ports (YR Flow Valve) + Strainer
		D	Autoflow Valve + Strainer
		E	Autoflow Valve/Shutoff combo + Strainer
		G	Manual Balancing Valve + Strainer
		X	No Flow Valves
18	CONDENSATE PUMP	I	Internal Condensate Pump
		E	External Condensate Pump
		X	No Condensate Pump
19	FILTERS	A	MERV 8 Filter
		B	MERV 12 Filter
		C	MERV 13 Filter
		W	Washable Filter
		P	Fiberglass Filter
X	No Filter		
20	AIR VENTS	M	Manual Air Vent
		T	Bleed Tee
		X	No Air Vent
21	VALVE SHIPPING OPTIONS	A	Assembled
		S	Shipped Loose
		X	No Valves

Due to Ice Air's ongoing product development programs, the information in this document is subject to change without notice.



Notes or Technical Comments



Notes or Technical Comments



Notes or Technical Comments



Limited Warranty

Twelve (12) Month Warranty of entire Packaged Terminal Equipment

Ice-Air, LLC ("Ice Air" or the "Company") warrants, solely to the person or entity that directly purchased the packaged terminal system from the Company (the "Original Owner"), that the entire packaged terminal system is free from defects in material and workmanship for a period of twelve (12) months from the date of delivery (the "Twelve Month Warranty"). Any part or portion thereof which becomes defective under normal use during the period of this warranty will be repaired or replaced, provided Ice Air's examination shall prove to its satisfaction that the part was or became defective under normal use. Ice Air's obligations under this warranty are subject to the satisfaction of the conditions set forth in the last paragraph of this Section and are limited to: (a) repairing the defective part or (b) furnishing a replacement part provided the defective part is returned to Ice Air, without shipping damage, transporting charges prepaid. No reimbursement will be made for expenses incurred in making field adjustments or replacements unless specifically authorized in writing by the Company.

Except as otherwise provided in the last sentence of this paragraph, the Company is not obligated under this warranty for field labor such as service for inspection, removing, packing and/or reinstalling water source unit, nor for the return transportation charges. In addition, the Company is not obligated under this warranty to make reimbursement of the labor or service charges of any other party. Notwithstanding the foregoing, labor provided by or at the direction of the Company during the twelve (12) month period from the date of delivery referred to in the initial paragraph above, in connection with the Twelve Month Warranty of parts provided in the initial paragraph above, is included in such warranty, solely in the case in which a packaged terminal system is sold by the Company to an Original Owner for use in a new facility to be constructed and located in the greater New York City metropolitan area. For the avoidance of doubt, except in the case described in the preceding sentence, the Company has no obligation under this warranty to provide for field labor or to make reimbursement of the labor or services charges of any other party, provided, however, that the Company, in its sole and absolute discretion, may elect to do so, so long as (i) such election is set forth in a writing signed by the Company and (ii) the facility at which the applicable packaged terminal system is or will be installed is located in the greater New York City metropolitan area (the "Metropolitan Area").

The obligations of the Company set forth in the preceding paragraphs of this Section are in all cases subject to the satisfaction of the following conditions: (x) the Company shall have received proof, satisfactory to the Company, of the purchase by the Original Owner from the Company of the packaged terminal system that is the subject of the Original Owner's claim, (y) all amounts due and payable to the Company on or prior to the date of such claim in respect of such packaged terminal system shall have been paid in full and (z) nothing shall exist or occur that relieves the Company, in accordance with the terms of this agreement, from the performance of its warranty obligations hereunder.

OPTIONAL Extended Refrigeration Circuit Warranty

2nd – 5th year compressor parts only; labor not included

The Optional Extended Refrigeration Circuit Warranty MUST be purchased from Ice Air within thirty (30) days from date of delivery to be valid. The hermetically sealed refrigeration circuit (consisting of the motor, compressor assembly, evaporator coil, coaxial / condenser coil, and interconnecting tubing) is warranted to the Original Owner for four additional years from date of the expiration of the twelve-month Warranty. Components under this warranty will be supplied at Ice Air's expense provided the failed component is returned to Ice Air. This optional warranty does not include any other parts of the equipment such as fans, fan motors, controls, cabinet parts, electrical relays, capacitors, protective devices, or wiring. Ice Air is not obligated under this warranty for field labor such as service for inspection, removing, packing, and/or reinstalling the refrigeration circuit, nor for return transportation charges. In addition, the Company is not obligated under this warranty to make reimbursement of the labor or service charges of any other party. Ice Air reserves the right to make a handling and inspection charge in the case of parts or equipment improperly returned as defective and/or as being in warranty.

To obtain assistance under the parts warranty or to purchase the optional extended warranty, simply contact Ice Air Customer Service at 80 Hartford Avenue, Mount Vernon, New York 10553 Phone 914-668-4700.

Additional warranty options include:

2nd – 5th year full unit parts only warranty

2nd – 5th year compressor parts and labor warranty, so long as such labor is performed in the NY Metropolitan Area

2nd – 5th year complete parts and labor warranty (Full unit coverage), so long as such labor is performed in the NY Metropolitan Area.

All Warranties (which must be purchased separately) constitute the Original Owner's sole remedy. They are given in lieu of all other warranties. Ice Air is not liable for incidental or consequential damages, whether the theory is breach of this or any warranty, negligence, or strict tort. No person (including any agent, salesman, dealer, or distributor) has authority to expand Ice Air's obligation beyond the terms of these express warranties, or to state that the performance of the product is other than that published by Ice Air. In addition, neither the Original Owner nor any such person has the right to sell, transfer or assign, or attempt to sell, transfer or assign, any rights of the Original Owner in or to the warranties provided for herein, no such sale, transfer or assignment shall be binding upon Ice Air and any such sale, transfer or assignment is null and void and of no force or effect.

General Conditions

The above warranties are void if Ice Air's equipment has been damaged, misused, subjected to abnormal use or service or its serial number has been altered, defaced, or removed, or payment for the equipment is in default. Ice Air is not responsible for service to correct conditions due to misapplication, faulty or improper installation, inadequate wiring, incorrect voltage conditions or unauthorized opening of the refrigeration circuit, nor for consequential damages. In case Ice Air's equipment is installed in conjunction with cabinets, grills, louvers, controls, or other parts manufactured by others, these warranties shall apply only to Ice Air's manufactured portion of the equipment. The conditions of the standard warranty plan are effective for 12 months from the date of equipment delivery. Ice Air reserves the right to make a handling and inspection charge in the case of parts or equipment improperly returned as defective and/or as being warranty.

Important Disclaimers Ice Air Has No Responsibility For:

(A) Certain Damages

The following are the responsibility of the user. None of the following constitutes a manufacturing defect, and each is expressly excluded from the warranty plan:

- 1) Failure of unit to operate satisfactorily due to improper amount of air on evaporator coil or air supply to air cooled condensers.
- 2) Damage to unit or unsatisfactory operation due to improper cleaning of evaporator coil or use of unit in corrosive atmosphere locations such as chemical plants, refineries, or salt spray areas.
- 3) Damage to unit from unsatisfactory operation due to blown fuses, inadequate or interrupted electrical service, use of improper electrical protective devices or operation of unit on power supply other than covered by nameplate rating of unit.
- 4) Damage due to failure to properly maintain unit.
- 5) Damage due to transportation or handling prior to and during installation.
- 6) Damage due to accident or from alteration, improper installation or tampering.
- 7) Failure to clean or replace filter timely.
- 8) Misapplication of equipment.
- 9) Damage due to deviation from original design and intended use of equipment.
- 10) Damage due to use of additional accessories either unapproved or approved but modified or manipulated.

(B) Installation

Ice Air is not responsible for the design, execution, and performance of the installation method or any of the accessory items used during installation such as seals, caulking, weatherproofing, supporting structures, attachment means, louvers and frames supplied by others.

(C) Check, Test and Start

Check, Test and Start of the air conditioners by an experienced person is the responsibility of the installing contractor. This consists of physically confronting each conditioner operating in both heating and cooling modes and correcting any minor deficiencies noted. After the equipment leaves the factory, it may become damaged or maladjusted during transportation or on the job. Sometimes wires are disconnected accidentally, or fan motors move on their bases due to rough handling, causing fans to strike; a component(s) may be inoperable. The correction of such conditions is part of the Check, Test and Start. Note that unless otherwise specifically agreed to in writing, Ice Air has no obligation to perform, nor does the price of its equipment include field labor in connection with the performance of, these Check, Test, and Start procedures (or the like).



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