

**Installation Manual**

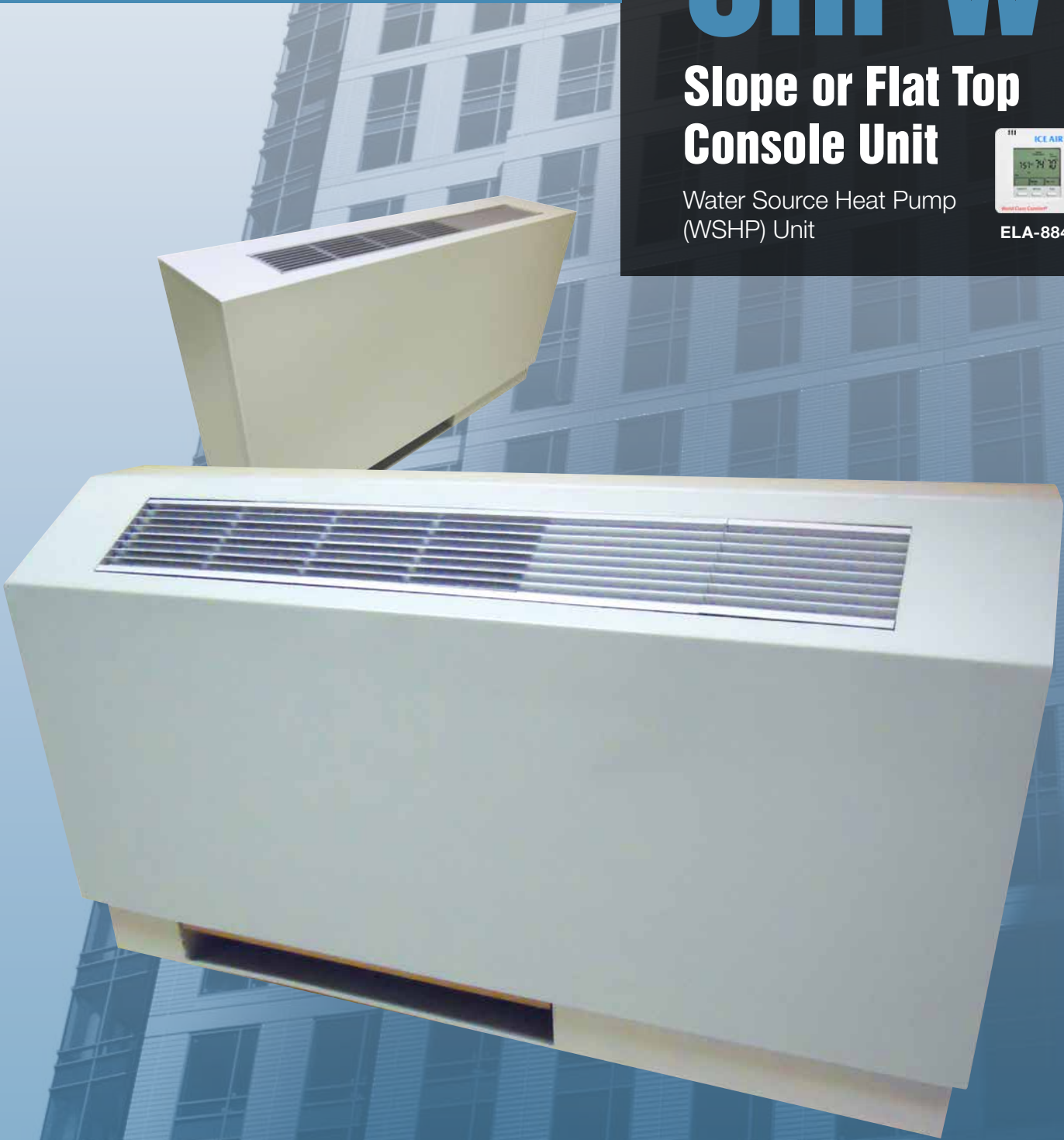
**CHPW**

**Slope or Flat Top  
Console Unit**

Water Source Heat Pump  
(WSHP) Unit



ELA-8842





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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.

### 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.

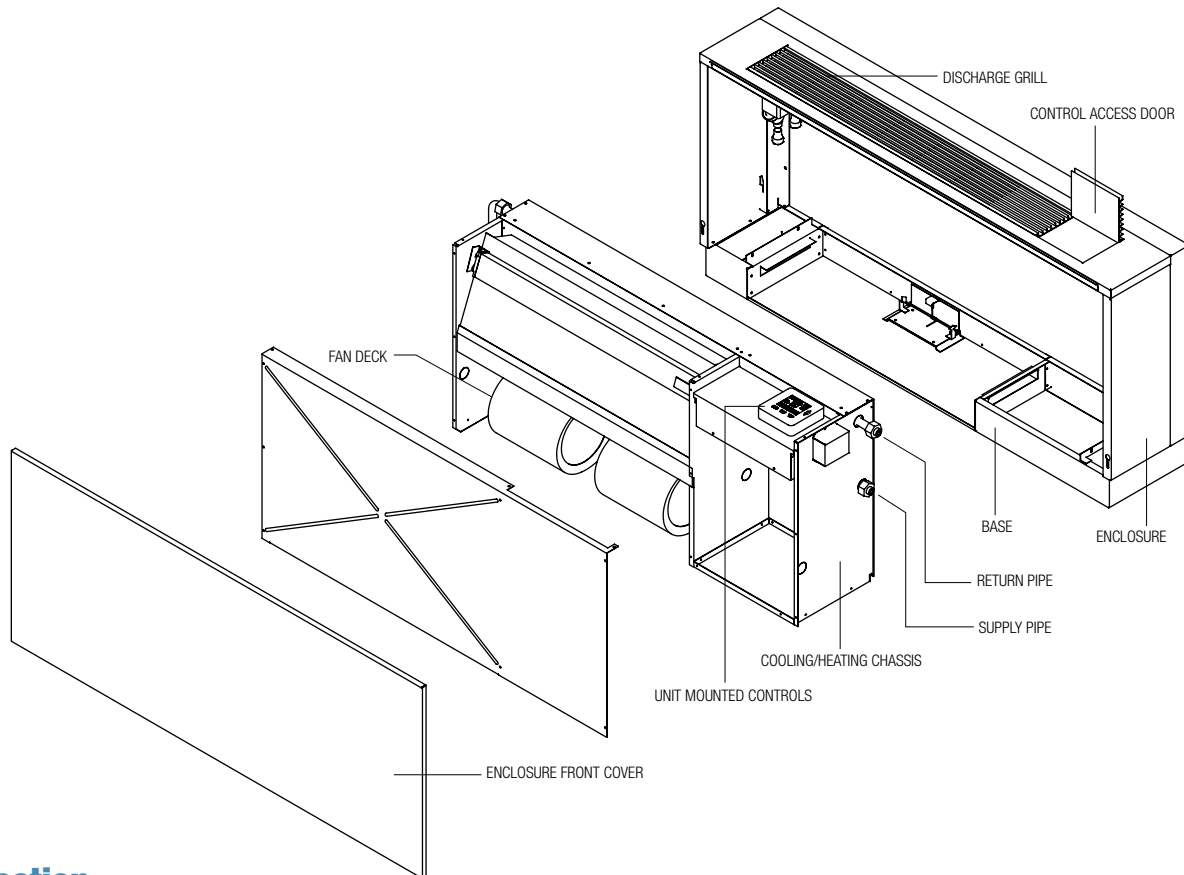
To ensure that the unit operates safely and efficiently, it must be installed according to these installation instructions and all local codes and ordinances, utilizing the best standards and practices at the time of installation or, in their absence, with the latest edition of the National Electric 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.

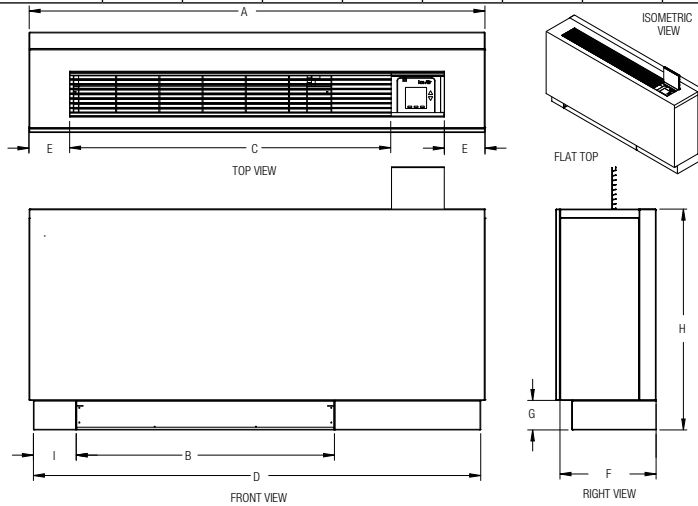
## Before You Begin

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.

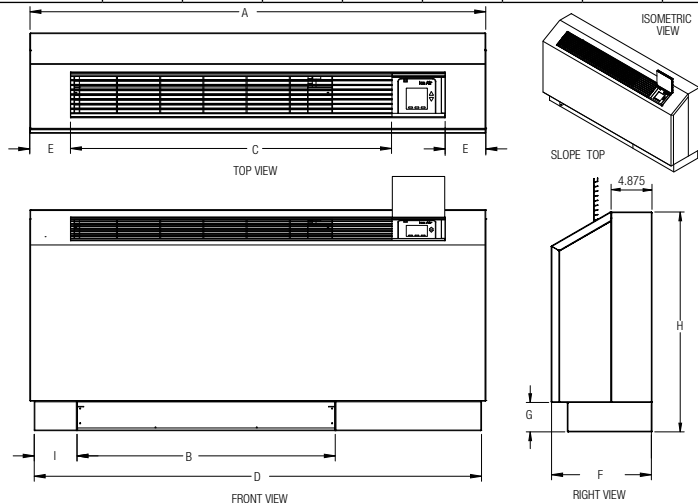
### FLAT TOP

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



## Installation

### 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.

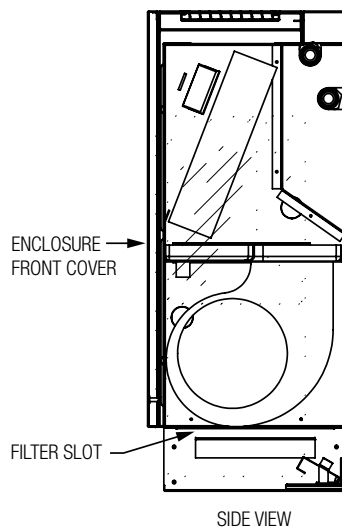
### Filter Installation

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.



### Evaporator Coil

Check the coil for cleanliness and uniformity of fins. If the coil is dirty from construction process, vacuum clean with a soft brush attachment. If the coil requires additional cleaning, the unit must be removed and cleaned using compressed air and/or washed. These operations MUST be carried out prior to startup.



## 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.

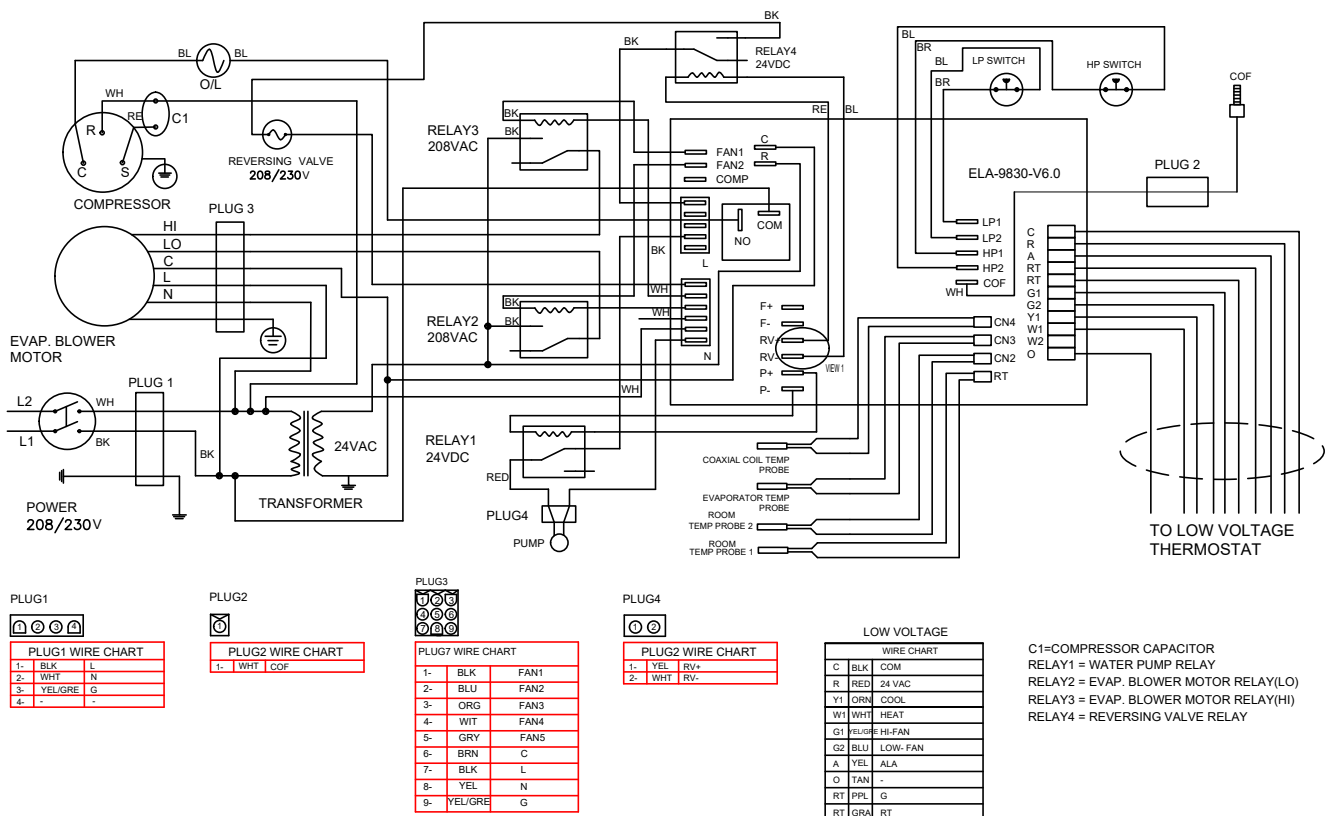
### Volt Operation

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.



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



## System Start

### 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.

## Maintenance

Your Ice Air unit is designed to provide many years of efficient, trouble-free comfort conditioning service. To ensure equipment longevity and efficiency, please make sure that the following simple maintenance procedures are followed. This manual assumes that your unit has been installed by a qualified installation professional, and is operating properly prior to maintenance service.

Have your unit periodically inspected by a properly trained service professional or building maintenance staff person. The unit should be checked for the safe and proper functioning of all of its systems at least once a year. The following recommended maintenance procedures should be carried out only by trained personnel with strict adherence to the Safety Guidelines outlined at the beginning of this manual. These procedures **MUST** be followed to ensure your safety and the safety of the person maintaining the equipment!

### Indoor Air Filter

It is recommended that you clean the indoor air filter after every 350 to 400 hours of unit operation – more frequently if the unit is running in an environment of high dust, pet dander or other pollutants in the indoor atmosphere.

### Filter Replacement

Two filters are available for the ICE AIR units.

Reusable Filters can be removed at any point during the ICE AIR unit's longevity. The Reusable Filter can be washed using a moderate hose and returned into the unit. The filter should be cleaned twice every year, before the start of every heating or cooling season. If damage occurs, the Reusable Filter should be replaced. Please contact your local sales representative for replacements.

Dispensable Filters should be replaced twice every year, before the start of every heating or cooling season. Please contact your local sales representative for replacements.

REUSABLE FILTER



DISPENSIBLE FILTER



### Condensate Drain Pan and Drain Hoses

Check the unit condensate drain pan and drain hoses annually to ensure proper condensate drainage. If any foreign matter build-up in the drain pan is found, clean the drain pan and drain hoses – frequency of cleaning depends on the level of dirt and pollutants that may be present in the indoor environment.

### Evaporator Coil

Check and clean (if necessary) the unit evaporator coil annually.

### Evaporator Motor and Blower Assembly

Check and clean for dust and dirt build up as necessary.

### Compressor

Annual check should be performed to detect potential problems.

### Condenser (Water Heat Exchanger)

Water coil maintenance is not required. If the unit installation is located in a system with water problem history, it is best to establish a periodic maintenance program. It is the building's responsibility to maintain a water system that should provide your unit with treated and filtered water to keep water flowing freely through your equipment.

With these simple maintenance procedures carried out on a proper maintenance schedule, your unit should provide many years of trouble-free service. The procedures are covered in greater detail on the following pages and should be implemented by trained personnel. But there are certain items that you, the apartment owner or tenant, can do to ensure proper unit function:

- Keep the area around your unit clear of objects that may block air flow into the unit – furniture, carpets and rugs, etc. may restrict air movement.
- Keep the top of your cabinet free of objects that may block air flow out of the unit – plants, paperwork and books, etc. should not be placed on or above the discharge grille area.
- Keep drapes, blinds and other window treatments clear of the air discharge area – any blockage of discharge air will have a negative impact on the unit and on its ability to properly condition the room.

### General Unit Inspection

Visually inspect unit at least once a month. Pay special attention to hose assemblies and connections. Repair any leaks and replace deteriorated hose immediately to avoid potential costly damage to your property due to component failure.



## 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

## Controls



## LCD Programmable Operation

### Feature List

- Operates on 2-stage Heat and 2-stage Cool
- 7 programs (Mo, Tu, We, Th, Fr, Sa, Su) or 5-2 programs (Mo-Fr, Sa-Su)
- 4 Separate Time and Temperature Settings for each mode
- Heat and Cool set points for each program
- EPROM stores Heat and Cool program settings
- Temporary Program Override
- Permanent Program Override
- Compressor Short Cycle Protection
- LCD Backlighting
- Low Temperature Protection
- Lockout Safety feature

### Operating Specifications

- Temperature Measurement: 0°C ~ 40°C/32°F ~ 99°F
- Accuracy: ±0.5°C/1°F
- Voltage: 18-30VAC
- Temperature Controllable Range: 5°C~35°C/55°F ~ 95°F
- Resolution: 0.5°C/1°F
- Operating Temperature: 0 – 50°C/32 – 122°F
- Storage Temperature: 5 – 50°C/41 – 122°F

## User Interface

Button	Press	Hold
□	UP/Override mode	UP/Permanent Override mode
□	DOWN/Override mode	DOWN/Permanent Override mode
ON/OFF	ON/OFF	-----
MODE	Set operation mode	Internal Setting
FAN	Set fan speed/Confirm	-----

The temperature reading that is on constant display is the ambient room temperature.

The Cool limit setting is 55°F to 95°F.

The Heat limit setting is 51°F to 91°F.

## Operation

### Normal Mode:

1. Press ON/OFF to turn on thermostat.
2. Press MODE to change the system mode.
3. There are three operation modes:  
Cool mode, Heat mode, Auto mode.

### Cool Mode

1. To activate Cool mode, press the MODE button until COOL displays.
2. Press UP/DOWN arrow buttons to your desired temperature.
3. Compressor will cycle when temperature reaches the set point. After compressor stops, allow at least 3 minutes before restarting (this applies only if you have manually turned the unit off or reset the thermostat – during normal running conditions, the unit will automatically allow for the required restart delay).

### Heat Mode

1. To activate Heat mode, press the MODE button until HEAT displays.
2. Press UP/DOWN arrow buttons to your desired temperature.
3. The unit will cycle until the set temperature is achieved and then will continuously cycle to maintain the set temperature.

### Auto Mode

1. To activate Auto mode, press the MODE button until AUTO displays.
2. Press UP/DOWN arrow buttons to set desired Heat temperature.
3. Wait 5 seconds for COOL to appear.
4. Press UP/DOWN arrow buttons to set desired Cool temperature.
5. The unit will automatically cycle between Heat and Cool modes if unit exceeds desired set points. The temperature reading that is on constant display is the ambient room temperature.

(CONTINUED NEXT PAGE)



### Set Day and Time

Enter internal setting mode by pressing and holding MODE button for 5 seconds.

#### Time Setting

Set Clock/Day is flashing

1. Press MODE button to select Edit Clock/Day.
2. Use UP/DOWN buttons to adjust hours (12 hr).
3. Press MODE to select minutes.
4. Use UP/DOWN buttons to adjust minutes.
5. Press MODE to select days.
6. Use UP/DOWN buttons to adjust days. Press FAN when complete.

#### Programming Your Thermostat

Enter internal setting mode by pressing and holding MODE button for 5 seconds.

Press ON/OFF to select Schedule (Schedule is flashing)

1. Press MODE button to select EDIT SET SCHEDULE.
2. Use UP/DOWN to select DAY.
3. Press MODE to edit.
4. Use UP/DOWN to select Time (adjustable in 10 minute increments).
5. Press MODE to edit Heat setting.
6. Use UP/DOWN to select temperature.
7. Press MODE to edit Cool setting.
8. Use UP/DOWN to select temperature.
9. Press MODE to set next time frame.
10. Follow the screen, and repeat steps 2 through 9 to adjust 7-day schedule programming.
11. Press FAN when complete.
12. If no button is pressed for 15 seconds, it will return to normal mode automatically.

Below is the default program.

The default selection is 5-2 day program.

Days	Event	Time	Heat	Cool
MON-FRI	WAKE	6:00 AM	70° F (21° C)	78° F (26° C)
	LEAVE	8:00 AM	62° F (17° C)	85° F (29.5° C)
	RETURN	6:00 PM	70° F (21° C)	78° F (26° C)
	SLEEP	10:00 PM	62° F (17° C)	82° F (28° C)
SAT-SUN	WAKE	6:00 AM	70° F (21° C)	78° F (26° C)
	LEAVE	8:00 AM	62° F (17° C)	85° F (29.5° C)
	RETURN	6:00 PM	70° F (21° C)	78° F (26° C)
	SLEEP	10:00 PM	62° F (17° C)	82° F (28° C)

### Changing Program Schedule and Temperature Limits

Enter internal setting mode by pressing and holding MODE button for 5 seconds.

Press ON/OFF twice to select Settings (Settings is flashing)

1. Press MODE button to select Edit "Settings."
2. Use UP/DOWN to select 7 Day or 5-2 Day.
3. Press MODE to edit Heat temperature limit.
4. Use UP/DOWN to set temperature. Default internal setting: Heat limit 90°F
5. Press MODE to edit Cool temperature limit.
6. Use UP/DOWN to set temperature. Default internal setting: Cool limit 60°F
7. Press FAN when complete. The Cool limit setting should be at least 4°F higher than the Heat limit setting.
8. If no button is pressed for 15 seconds, it will return to normal mode automatically.

#### Temporary Program Override

1. When thermostat is ON, the program set point can be temporarily overrode by pressing UP or DOWN. OVERRIDE icon will turn on. Press UP or DOWN to select the set point.
2. In Heat mode, Heat set point can be adjusted.
3. In Cool mode, Cool set point can be adjusted.
4. In Auto mode, Heat set point will be set first and press UP or DOWN to set the Heat set point. Press FAN to confirm the Heat set point. Cool set point will be set second and press UP or DOWN to set the Cool set point. Press FAN to confirm the Cool set point.
5. Temporary Override will be canceled if user changes the operation mode or the unit enters the next program time session.

#### Permanent Override

1. Hold UP and DOWN button for 2 seconds to enter Permanent Override mode. Permanent Override icon will turn on.
2. In Heat mode, Heat set point can be adjusted.
3. In Cool mode, Cool set point can be adjusted.
4. In Auto mode, Heat set point will be set first and press UP or DOWN to set the Heat set point. Press FAN to confirm the Heat set point. Cool set point will be set second and press UP or DOWN to set the Cool set point.
5. Permanent Override will be canceled if user changes the operation mode or turns off the unit.
6. Hold FAN button 5 seconds to cancel the Permanent Override mode.

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## Sequence of Operation for Water Source Heat Pump

### Cooling Cycle

- Set the thermostat for Cooling.
- If applicable, the motorized valve opens as long as the thermostat calls for Cooling.
- This sends a 24-volt signal to the terminal to the compressor contactor and the compressor starts.
- At the same time a 24-volt signal flows through the fan relay and the blower starts in HIGH speed, if the unit is in Auto Fan Mode. If the unit is in manual mode, set by the user, then the fan continuously blows in the user set speed.
- If in Auto Fan Mode, once the thermostat is within 2 degrees of set point, the fan drops to LOW speed.
- Once the thermostat is satisfied, it sends a 24-volt signal to the compressor contactor and compressor turns OFF.
- If in Auto Fan Mode, this ends the 24-volt signal to the indoor blower relay and the blower stops.
- If LOW or HIGH fan speed is manually selected the fan will continue to blow.

### Heating Cycle

- Set the thermostat for Heating
- If applicable the motorized valve opens as long as the thermostat calls for Heating.
- This sends a 24-volt signal to the terminal to the compressor contactor and the compressor starts.
- At the same time a 24-volt signal flows through the fan relay and the blower starts in HIGH speed, if the unit is in Auto Fan Mode. If the unit is in manual mode, set by the user, then the fan continuously blows in the user set speed.
- If in Auto Fan Mode, once the thermostat is within 2 degrees of set point, the fan drops to LOW speed.
- Once the thermostat is satisfied, it sends a 24-volt signal to the compressor contactor and compressor turns OFF.
- If in Auto Fan Mode, this ends the 24-volt signal to the indoor blower relay and the blower stops.
- If LOW or HIGH fan speed is manually selected the fan will continue to blow.

**PLEASE NOTE:** Other thermostats are available including:

Habitat Wireless  
Thermostat



Nest "Learning Thermostat"



Digital Touchscreen  
Thermostat



System compatible with other 3<sup>rd</sup> party thermostats not shown here.

For more information go to: [www.ice-air.com/thermostats](http://www.ice-air.com/thermostats)



## 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)		



## Project Nomenclature

Model Selection **8 CHPW 13 P N F 1 S I X U U G X E X X X P X X X X X**  
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24  
 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 and Replacement Console
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 - Permanent Split Capacitor
		E	ECM - Electrically Commutated Motor
		B	BLDC
		C	Chassis Only
		X	TBD/No Motor Details
5	DISCONNECT	F	Fused Disconnect
		N	Non-Fused Disconnect
		P	Line Cord With Plug
		X	Default: Terminal Block [For Console WHSP, Terminal Block with Cover]
6	CASING CONFIG. or ENCLOSURE (CHPW) CONFIG.	F	Flat Top (CHPW)
		E	Flat Top With Removable Chassis (CHPW)
		S	Sloped Top (CHPW)
		R	Sloped Top With Removable Chassis (CHPW)
7	CASING DETAILS or ENCLOSURE COLOR	1	Enclosure Color: Antique White (CHPW)
		2	Enclosure Color: Arctic White (CHPW)
		3	Enclosure Color: Custom Color (CHPW)
8	INSULATION	S	Insulation: 12.7 mm (1/2") Fiberglass
		C	Insulation: Closed Cell Foam
		N	Insulation Not Applicable
9	P-TRAP	I	Internal P-Trap
		X	No P-Trap
10	RISERS	X	Riser Options Not Applicable
11	PIPING ORIENTATION	L	Piping Orientation: LH Return
		R	Piping Orientation: RH Return
		U	Piping Orientation: Universal (Allows For Field Conn. On Either Side)
		X	Piping Orientation Not Applicable

Item #	Matrix Name	Code String Value	Description
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	Wall mounted T-Stat (shipped loose) - no wire whip
		U	Unit mtd controls
13	DRAIN PAN	G	Power Coated Galvanized for Casing and Chassis
		S	Stainless Steel for Casing and Chassis
		X	No Drain Pan
14	COMPRESSOR BLANKET	B	Sound Attenuation Blankets Provided
15	CONTROLS	X	No Compressor Blanket
		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 thermostat (ELA-13161)
16	VALVE OPTIONS	I	Non-programmable LED touchpad thermostat (ELA-10328)
		X	Field Mounted By Others
		A	2-Position Motorized Valve N.O.
		B	2-Position Motorized Valve N.C.
		C	Custom Valve Option
		D	3-Way Motorized Valve N.O.
17	FLOW CONTROL	E	3-Way Motorized Valve N.C.
		X	No Valve Option
		A	Autoflow Valve (HAYS 2510/2517)
		B	Autoflow Valve/Shutoff combo (HAYS 2519)
		H	Autoflow Valve (HAYS 2515)
		C	YR Flow Valve
		M	Manual Balancing Valve
		Y	Y-Strainer
		F	YR Flow Valve + Strainer
		D	Autoflow Valve + Strainer
E	Autoflow Valve/Shutoff combo + Strainer		
G	Manual Balancing Valve + Strainer		
X	No Flow Valves		



## Project Nomenclature

**Model Selection**    **8** **CHPW** **13** **P** **N** **F** **1** **S** **I** **X** **U** **U** **G** **X** **E** **X** **X** **X** **P** **X** **X** **X** **X** **X**

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                                  └──────────┘  
                                  Primary Part

Item #	Matrix Name	Code String Value	Description
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	Paper Filter
		X	No Filter
20	AIR VENTS	M	Manual Air Vent
		T	Bleed Tee
		X	No Air Vents
21	VALVE PACKAGE ASSEMBLED OR SHIPPED LOOSE	A	Assembled
		S	Shipped Loose
		X	None
22	SECONDARY DRAIN PANS	G	Power Coated Galvanized Steel Secondary Drain Pan
		S	Stainless Steel Secondary Drain Pan
		P	Plastic Secondary Drain Pan
		X	No Secondary Drain Pan
23	SECONDARY OVERFLOW SWITCH	E	Electronic Secondary Overflow Switch
		X	No Secondary Overflow Switch
24	SECONDARY P-TRAP	E	External Secondary P-Trap
		X	No Secondary P-Trap



## Limited Warranty

Twelve (12) Month Warranty of Ice Air units – Ice Air, LLC, herein referred to as “Ice Air,” warrants to the original owner that the entire unit is free from defects in material and workmanship for a period of twelve (12) months from the date of delivery. Any part of 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 limited to: (a) Repairing the defective part or (b) furnishing a replacement part provided the defective part is returned to the factory, 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.

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.

### OPTIONAL Extended Refrigeration Circuit Warranty

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 the factory. 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. 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. Telephone **914-668-4700**.

The Twelve Month and the OPTIONAL Extended Refrigeration Circuit Warranty (which must be purchased separately) constitute the buyer’s sole remedy. They are given in lieu of all other warranties. There is no implied warranty of merchant-ability or fitness for a particular purpose. In no event and under no circumstance shall Ice Air be 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.

### 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, 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 18 months from TCO. 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.

### Important

The following are the responsibility of the user. They are not manufacturing defects, and are therefore not included in 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 unsatisfactorily 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, tampering.
- 7) Filter cleaning or replacement.
- 8) Misapplication.

### 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 unit 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 includes no field labor, Check, Test, and Start (or the like) in the price of its equipment.

### 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.



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