

HIGH EFFICIENCY SERIES

OPERATION MANUAL



COOLING ONLY MODELS

SHE9A4ZIGX

SHE12A4ZIGX

SHE18A4ZIGX

SHE24A4ZIGX

HEAT PUMP MODELS

SHE9H4ZIGX

SHE12H4ZIGX

SHE18H4ZIGX

SHE24H4ZIGX

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HIGH EFFICIENCY SERIES - SINGLE ZONE MODELS

Cool Only	SEER RATING
SHE9A4ZIGX	23 SEER
SHE12A4ZIGX	22 SEER
SHE18A4ZIGX	18 SEER
SHE24A4ZIGX	18 SEER
Heat Pump	SEER RATING
SHE9H4ZIGX	23 SEER
SHE12H4ZIGX	22 SEER
SHE18H4ZIGX	18 SEER
SHE24H4ZIGX	18 SEER

HIGH EFFICIENCY SERIES – DUAL, QUAD ZONE & FIVE PORT MODELS

Heat Pump	SEER RATING
SHE9H4ZIGX	16 SEER
SHE12H4ZIGX	16 SEER
SHE18H4ZIGX	16 SEER

USER INSTRUCTIONS

In this manual, you will find information on safe operation of your new Multi Zone Mini Split. For your safety and the safety of others, please read and understand this entire manual before proceeding.

INSTALLATION

These units are not designed to be installed in the following locations:

- Areas where there is a possibility of combustible gases or fumes.
- Excessively damp or moist areas.
- Direct exposure to sea wind (salt spray).

OPERATION

- Always turn the unit off with the remote control. Never use a circuit breaker or fuse as a means of turning the unit on or off, except in the case of an emergency.
- Do not operate this unit if you are wet or have wet hands, electric shock can occur.
- Do not spray insecticides, paints, or other flammable sprays or liquids into or around the unit.
- Do not put foreign objects into the unit.
- Do not hang or place items on the unit.
- Do not use harsh chemicals such as paint thinner, benzene, or polish to clean the unit.
- During cooling operation, shades, blinds, and curtains should be used to shade the room from direct sunlight.

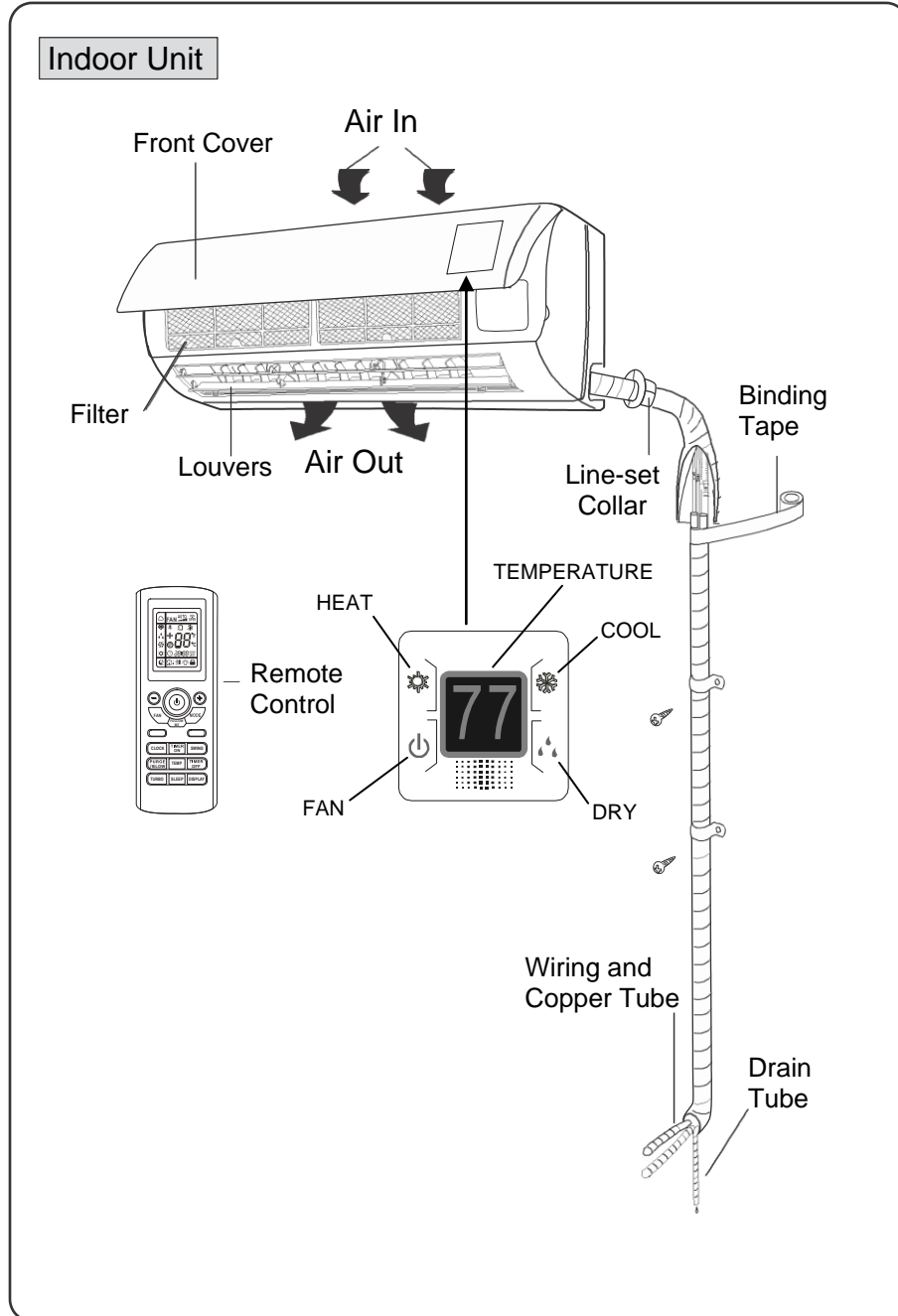
To the installer:

- **Explain operation and routine care to customer.**
- **This manual should be given to the customer for future reference.**



Do not dispose this product as unsorted municipal waste. Collection of such waste for special treatment is necessary.

PARTS IDENTIFICATION



MULTI-ZONE FEATURES

- Variable speed inverter type compressors for increased efficiency and quiet operation.
- Automatic swing of vertical louvers for improved air flow (up/down).
- Manual adjustment of horizontal louvers to set air flow direction (left/right).
- Wireless remote control unit.
- Comfortable temperature range of 61 °F to 86 °F in Cool/Dry/Heat/Fan modes.
- TURBO fan mode in Heat and Cool modes for maximum air flow.
- Timer mode for automatic starting and/or stopping for a preset period.
- SLEEP mode for quiet energy saving operation during sleep periods.
- Individual temperature selection for each zone.
- Low ambient control.
- Auto reset.
- Purge – Reduces mold/mildew
- Selectable ambient sensor location (indoor unit or remote control)

The Multi-Zone has many sizing options with various types of indoor units:

18K BTU - Dual Zone Configurations

1 INDOOR UNIT	2 INDOOR UNITS
9K	9K + 9K
12K	9K + 12K

30K BTU - Quad Zone Configurations

2 INDOOR UNITS	3 INDOOR UNITS	4 INDOOR UNITS
9K + 9K 9K + 12K 9K + 18K 12K + 12K 12K + 18K 18K + 18K	9K + 9K + 9K 9K + 9K + 12K 9K + 9K + 18K 9K + 12K + 12K 12K + 12K + 12K	9K + 9K + 9K + 9K
The system matches below are not recommended if all indoor units may require simultaneous continuous duty at full efficiency.		
	9K + 12K + 18K 12K + 12K + 18K	9K + 9K + 9K + 12K 9K + 9K + 12K + 12K

42K BTU - Quad Zone Configurations

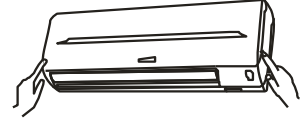
2 INDOOR UNITS	3 INDOOR UNITS	4 INDOOR UNITS	5 INDOOR UNITS
9K + 9K 9K + 12K 9K + 18K 12K + 12K 12K + 18K 18K + 18K	9K + 9K + 9K 9K + 9K + 12K 9K + 9K + 18K 9K + 12K + 12K 9K + 12K + 18K 9K + 18K + 18K 12K + 12K + 12K 12K + 12K + 18K	9K + 9K + 9K + 9K 9K + 9K + 9K + 12K 9K + 9K + 9K + 18K 9K + 9K + 12K + 12K 9K + 9K + 12K + 18K 9K + 12K + 12K + 12K	9K + 9K + 9K + 9K + 9K 9K + 9K + 9K + 9K + 12K
The system matches below are not recommended if all indoor units may require simultaneous continuous duty at full efficiency.			
	12K + 18K + 18K 18K + 18K + 18K	9K + 9K + 18K + 18K 12K + 12K + 12K + 12K 12K + 12K + 12K + 18K	9K + 9K + 9K + 9K + 18K 9K + 9K + 9K + 12K + 12K 9K + 9K + 12K + 12K + 12K

MULTI-ZONE OPERATION

The Multi-Zone mini-split will operate each zone in either cooling or heating mode but not both. The unit will not operate as one zone cool and another heat. If this occurs, an **E7** error will be displayed. To clear this error, make sure all indoor units are in the same mode either heat or cool. Each zone will control the room temperature at set-point and allow all normal fan, swing, turbo, timer, and sleep functions.

Emergency Operation (Auto/Stop Switch)

In the event that the remote controls are misplaced, you can operate your inside unit by carefully raising the cover and pressing the emergency operation switch located under the lower right hand corner of the cover.

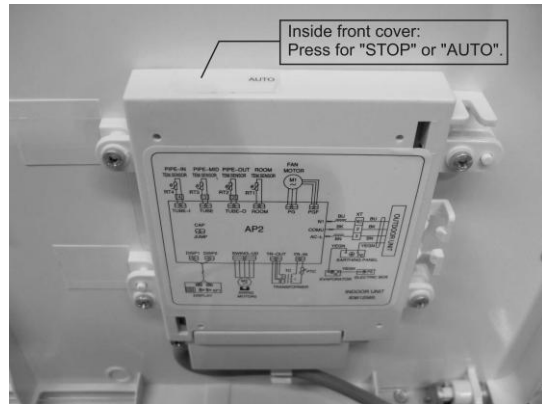


To open the front cover, place fingers in the bottom of the slots on the side of the indoor unit and gently pull outward. To close the cover, press down on each end and center of the cover to latch.

DO NOT OVER EXTEND THE FRONT COVER.

If the unit is off, pressing the Emergency push button will start the unit in the default AUTO mode. Press the button again and it will stop the unit.

Temperature is automatically set to 68 °F to 77°F and will switch between COOL, HEAT or FAN mode to maintain the temperature. If the temperature goes below 68 °F the unit switches to HEAT mode. If the temperature goes above 77 °F unit switches to COOL mode. If temperature is in between 68 °F to 77°F the unit runs in the FAN mode.

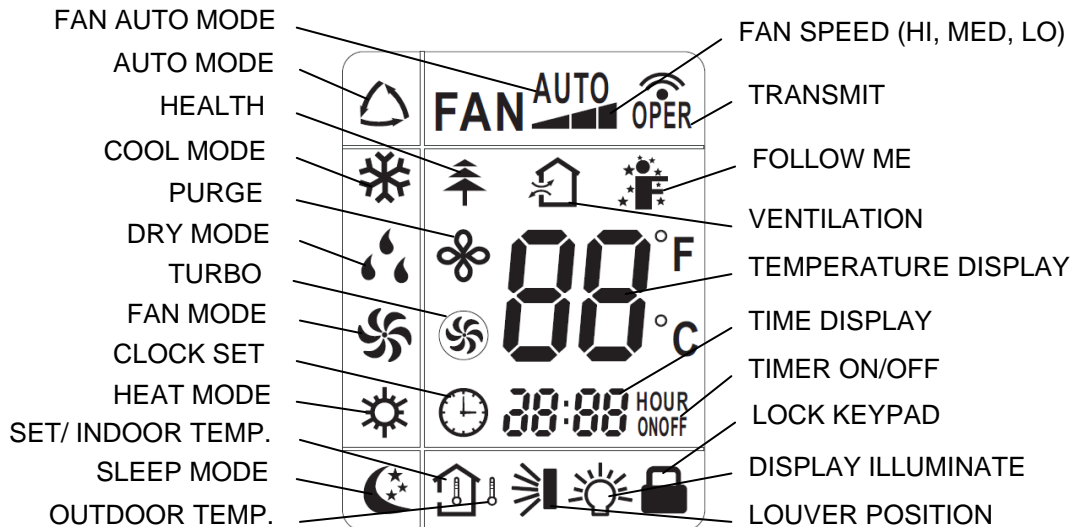


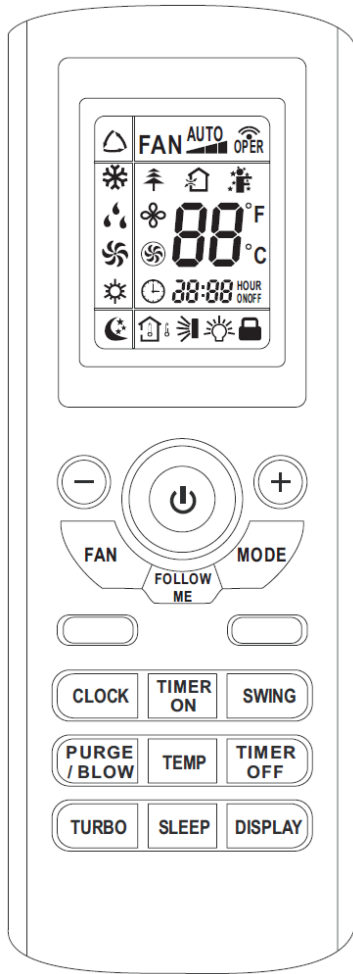
Notes:

1. Indoor fan does not turn off in the cooling mode when temperature set point has been satisfied. It will continue to run to keep the room temperature consistent.
2. Indoor fan will turn off in heating mode when temperature set point has been satisfied.
3. Unit may require several minutes to confirm the condition of temperature set point and system functions.

OPERATION OF WIRELESS REMOTE CONTROL

REMOTE CONTROL DISPLAY





KEY PAD FUNCTIONS

- ON/OFF – Turns unit on or off.
- +/- - Raise, Lower set point.
- FAN – Set fan speed, hi, med, lo, auto.
- SWING – Set louver swing.
- CLOCK – Set clock.
- TIMER ON – Set timer on time.
- PURGE – Extended on time for fan.
- TEMP – Set point temperature / room temperature will be displayed.
- TIMER OFF – Set timer off time.
- TURBO – Maximum fan speed.
- SLEEP – Toggle on/off SLEEP mode.
- DISPLAY – Turns display on wall unit on or off.
- LOCK KEY PAD – No changes can be made.
- ° F or ° C – Select ° F or ° C (see page 9)
- FOLLOW ME – Select room temperature sensor location (remote control or indoor unit).

Not All Features Are Activated

REMOTE CONTROL FUNCTIONS

Note: Be sure there are no obstructions between the remote control and the receiver. Remote control units are interchangeable, and are not assigned to a particular indoor unit. Indoor controller will beep each time it receives a command from the remote control. Keep the remote control away from moisture and excessive heat. TIP: Each remote will control any or all the indoor units.

ON/OFF -Turns the unit on or off. There is a 3 minute compressor delay when the unit is turned on.

MODE – Pressing the MODE button will select between AUTO, COOL, DRY, FAN, or HEAT (for Heat Pump units only).

- AUTO mode - Set point temperature will not be shown on the remote control display and cannot be changed. Temperature is automatically set to 68 °F to 77 °F and will switch between COOL, HEAT or FAN mode to maintain the temperature. If the temperature goes below 68 °F the unit will switch to HEAT mode. If the temperature goes above 77 °F unit switches to COOL mode. If temperature is in between the temperatures it runs in the FAN mode.

On rare occasions while running in the AUTO mode with other zones activated there may be an “E7” error code. “E7” error code occurs when 2 or more units are set to run in different modes, such as HEAT and COOL. In the AUTO mode the unit automatically switches between HEAT, COOL or FAN. If other zones are set to HEAT or COOL while the AUTO is running in an opposite mode an “E7” will occur. To rectify this condition you must set all the indoor units to the same mode, either HEAT or COOL, or leave the unit

alone and when the temperature returns to the point where the unit switches back to the correct mode (as the other indoor units) and all zones are in the HEAT or COOL mode, it will clear itself and begin to run again.

COOL mode – Unit cools room to set point temperature. Set point temperature can be set from 61 °F to 86 °F. Outdoor unit will operate in outside temperatures of +4 to +118 °F in the cooling mode. Indoor fan does not turn off in the cooling mode when temperature set point has been satisfied. It will continue to run to keep the room temperature consistent.

- HEAT mode (for Heat Pump units only) - Unit heats room to set point temperature. Set point temperature can be set from 61 °F to 86 °F. Outdoor unit will operate in outside temperatures of -5 °F to +75 °F in the heating mode. Indoor fan will turn off in heating mode when temperature set point has been satisfied.
- DRY mode – Set point temperature can be set from 61°F to 86°F. Unit cools at 90% capacity while the FAN runs in LOW speed only (FAN speed cannot be changed).
- FAN mode – Selects fan only operation. Set point temperature can be set from 61 °F to 86 °F. Fan speed can be set to AUTO, HIGH, MEDIUM or LOW.



SLEEP – In the COOL mode adjust the set-point temperature to a comfortable setting, and then press the SLEEP button. After 1 hour, the set-point will increase by 1.8 °F (1 °C). After 2 hours have passed temperature is increased by 3.6 °F (2 °C). Temperature will never increase more than 3.6 °F (2 °C) from set-point or beyond 86 °F (30 °C). The temperature will stay at this setting until the unit is turned off or the SLEEP function is disabled.

In the HEAT mode adjust the set-point temperature to a comfortable setting, and then press the SLEEP button. After 1 hour the set-point will decrease by 1.8 °F (1 °C). After 2 hours have passed temperature is decreased by 3.6 °F (2 °C). Temperature will never decrease more than 3.6 °F (2 °C) from set point or below 61 °F (16 °C). The temperature will stay at this setting until the unit is turned off or the SLEEP function is disabled.




The SLEEP mode does not work in the FAN or AUTO modes and is deactivated when the unit is turned off or power is lost. On power up, the SLEEP mode must be turned on again if needed. Press the SLEEP mode button to toggle SLEEP mode off and return to normal operation.






FAN – Press this button to change fan speeds, AUTO, HIGH, MEDIUM or LOW, while in the HEAT, COOL, FAN modes. When in the AUTO setting, the fan will run faster the further away from the set point it gets. On the other hand the closer it gets to the set point the slower it will run.



CLOCK – Press the CLOCK button, the clock ICON will start to blink. It will only blink for 5 seconds. While blinking press and hold down the + or - keys to adjust the 24H time of day clock to the correct time. You must immediately press the CLOCK button to set the time. If the CLOCK button is not pressed within 5 seconds, the clock time will revert back to the original setting and clock will have to be set again.

TEMP – Press this button, the icons will be cycled between ,  and  in the remote display.

 displays set temperature always.  displays room temperature for a few seconds then display set temperature.  displays set temperature.





PURGE / BLOW – When in the COOL or DRY mode and the PURGE function is enabled, the fan will continue to operate for 10 minutes after the unit is turned off. This function dries the evaporation coil to prevent mold and mildew. The PURGE function will remain enabled in DRY and COOL unless power is interrupted or is disabled by the button. PURGE will not work in AUTO, FAN or HEAT modes.



TURBO – The TURBO function will only run while in the HEAT or COOL mode. TURBO increases indoor fan speed (more than high fan speed).

+ / - Raises or Lowers the set point temperature. Holding the button down for more than 2 seconds will cause the set point to auto increment or decrement. This does not function in the AUTO mode since the temperature set point cannot be changed.


 **DISPLAY** – Turns the display on or off on the indoor unit. None of the lights will be illuminated when off is selected.


 **SWING** – Pressing the SWING button slowly, (more than 2 seconds) will start and stop the louver moving up and down. If the button is pressed to turn on swing and then pressed again to turn it off, the louvers will remain in that fixed position until it is turned on again.



Pressing the button quickly, (less than 2 seconds) will step through 5 different stationary positions and then on to 3 different swing positions, similar to the ICONS.





Right to left louvers can be manually adjusted. **CAUTION:** Before adjusting the horizontal louvers turn the unit off. Make the adjustments. Turn the unit back on. This will prevent possible personal injury and or damage to the unit.

 **FOLLOW ME** - Press this button, the room temperature sensor is by the remote control. Press this button again and the room temperature sensor will be in the indoor unit.

 **LOCK KEYPAD** - Pressing the + and - buttons simultaneously will lock or unlock the keypad. If the remote control is locked, the LOCK icon will be displayed. If a button is pressed while the keypad is locked, the LOCK icon will blink three times, nothing will happen. If the keypad is unlocked, the LOCK icon will not be displayed.

 **ICON** - Press the left blank button will illuminate  icon in the remote display but will have no affect with the units.

 **ICON** – Press the right blank button will illuminate  icon in the remote display but will have no affect with the units.

°F or °C - Turn unit off, press MODE and (-) buttons simultaneously to switch °C or °F.

REPLACING BATTERIES

The battery cover is fixed on the remote with a screw. Please unscrew it for the very first time. (For easy use, the screw is unnecessarily to be installed back after the batteries is placed.)

Slightly press down on the arrow on the battery cover and slide in the direction of the arrowhead.

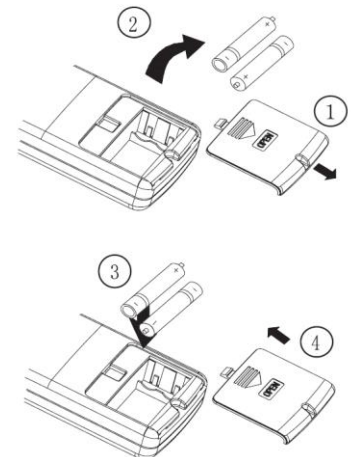
Remove old batteries. Insert two new AAA 1.5V batteries, paying attention to the polarity. Re-install the back cover of wireless remote control.

NOTE:

Do not use the old, different, or rechargeable batteries.

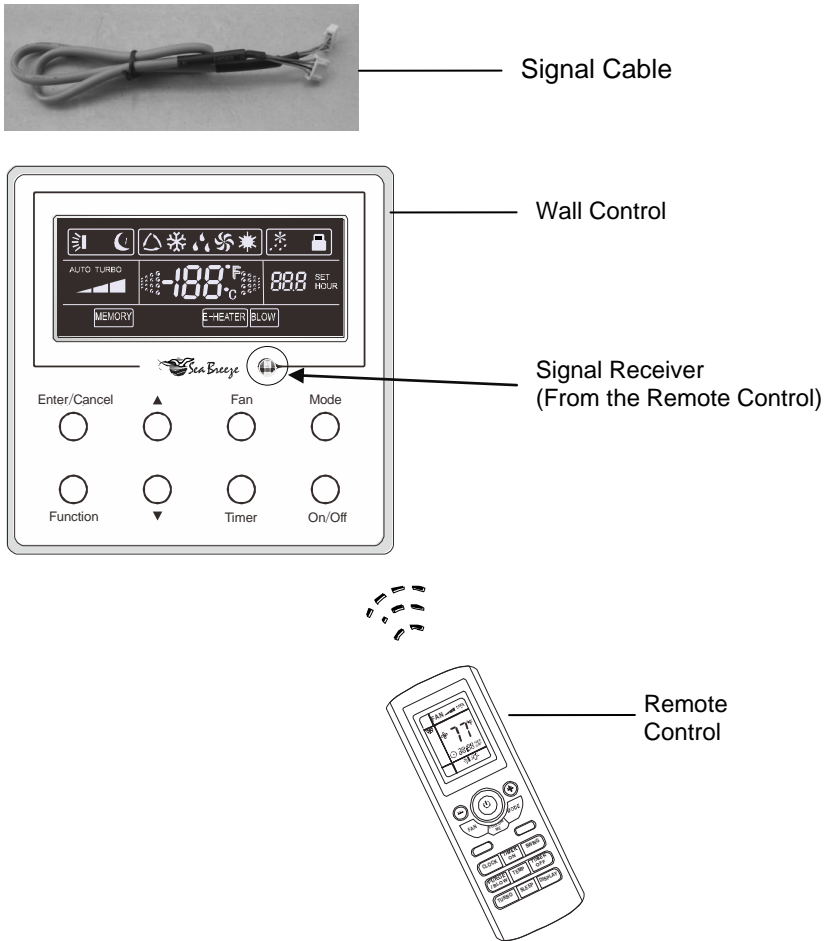
If the wireless remote control will not be used for a long period of time, remove the batteries.

If the wireless remote control does not operate properly, remove the batteries for 30 seconds and re-install (resets the remote).



OPTIONAL CONTROL - WALL CONTROL

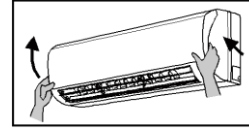
- The Cassette unit operates with a wired wall control MSWCH. Using the Signal cable connect to the printed circuit board connector CN9 in the unit and wall control.
- Wall Control can be controlled with the remote or at the panel.
- Please refer to the manual 950-0210 for detail operation and 950-0220 for detail installation of the wall control.



ROUTINE CARE AND MAINTENANCE

CAUTION

- Turn main power off before cleaning air conditioner.
- Never spray water into the indoor or outdoor unit for cleaning.
- Volatile liquids (e.g. solvent, gasoline, etc.) will damage the air conditioner. Wipe the unit with a dry soft cloth, or a cloth slightly moistened with water.



Carefully unsnap the sides and raise the cover up in the direction of arrows. Raise the cover until it is fully extended and it will lock and hold in the up position. Now the unit can be cleaned and serviced. Do not over extend the cover. Damage to the cover hinges will result.

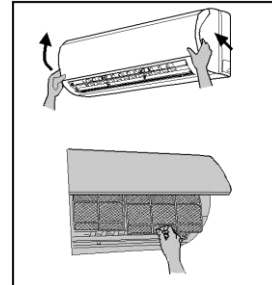
Wipe the unit with a dry or slightly dampened cloth. Do not remove the front cover from the unit.



Cleaning the Air Filters (Recommended once every three months)

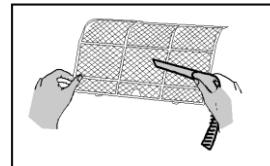
Note: If the unit is installed in an abnormally dusty area it is advised the filters be cleaned more often.

Remove the air filters. Raise the cover until locked in the up position. Pick up on the front of the filter and slide forward to remove.

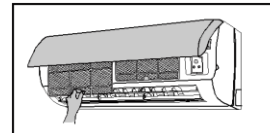


To clean the dust adhering to the filters, you can either use a vacuum cleaner, or wash them with warm water and dry it in the shade.

NOTE: Do not use water above 113 °F to wash filter, it can deform the filter.



Reinstall the filters and close the cover. Turn power on, unit is ready for use.



NEVER OPERATE THE UNIT WITHOUT FILTERS!

Outdoor unit should be cleaned and routine maintenance performed annually by a trained Technician.

Problem	Troubleshooting
The unit does not run.	<ul style="list-style-type: none"> • Is the power off? • Is the circuit protection device tripped? • Is voltage too high or low? (Tested by a professional) • Is the Timer on? • A 3 minute delay occurs before each compressor start.
Cooling and or Heating efficiency is not good.	<ul style="list-style-type: none"> • Is temperature setting correct? • Are the inlet or outlet vents obstructed? • Is the filter clean? • Are windows and doors closed? • Is fan set to low speed? • Is there a heat source in the room?
Wireless remote control is not working. (See Note 2)	<ul style="list-style-type: none"> • Reset unit. Disconnect main power for 30 seconds then reapply. • Is it within receiving range? Is it obstructed? • Replace the batteries. • Is remote control damaged?
Water leaking into room.	<ul style="list-style-type: none"> • The air humidity is excessively high. Check to see if all windows and doors are closed. • Call service Tech if not corrected by the above action.
Water leakage in outdoor unit.	<ul style="list-style-type: none"> • When the unit is running in Auto Defrosting mode, ice will thaw and drip into pan. • When the unit is running in HEAT mode, the water adhered to the condenser coil drains into pan.
Noise from indoor unit emitted.	<ul style="list-style-type: none"> • When defrosting is started or stopped, it will make a sound. This is due to the refrigerant flow reversing directions. • Normal refrigerant flowing in unit.
<p>If E7 error code occurs, indoor units are in conflict. All units must be the same mode.</p>	

Notes:

- 1) If an error other than E7 is being displayed on the temperature display, it will be necessary to call a service Tech for repair.
- 2) An audible beep will be heard, when a button is pressed, if the remote control is communicating with the receiver.

INDOOR UNIT ERROR CODES

Malfunction Name of single zone	Malfunction Name of Multi zone	Display	Running LED	Cooling LED	Heating LED
/	Short/open circuit of the coil temp. sensor for the condenser (42K Unit Only)	oE	3 Flashes	3 Flashes	3 Flashes
Short/Open Circuit of the Liquid Valve Temp. Sensor		b5		19 Flashes	
Short/Open Circuit of the Suction Valve Temp. Sensor		b7		22 Flashes	
Jumper Failure		C5	15 Flashes		
Trial Operation		dd	Flashing	Flashing	Flashing
Incorrect Connection of Communication Wire or Expansion Valve Failure		dn			
High Pressure Protection		E1	1 Flash		
Anti-Freezing Protection		E2	2 Flashes		
/	Low Pressure Protection (42K Unit Only)	E3	3 Flashes		
Exhaust Protection (Temperature Overheat)		E4	4 Flashes		
Over Current Protection		E5	5 Flashes		
Communication Malfunction		E6	6 Flashes		
/	Mode Conflict	E7	7 Flashes		
Overload Protection		E8	8 Flashes		
Anti-Cold Blow Protection	/	E9	9 Flashes		
/	Condensate Water Full of Indoor Unit			Flashing	Flashing
EEPROM malfunction (Except For 42K Unit)		EE			15 Flashes
Indoor Ambient Sensor Failure		F1		1 Flash	
Indoor Tube Sensor Failure		F2		2 Flashes	
Outdoor Ambient Sensor Failure		F3		3 Flashes	
Outdoor Tube Sensor Failure		F4		4 Flashes	
Outdoor Exhaust Sensor Failure		F5		5 Flashes	
Oil Return in Cooling Mode (Wait 5 to 10 minutes to clear code – do not turn unit off)		F7		7 Flashes	
Refrigerant Recovery Mode		Fo	Flashing	Flashing	
Defrost or Oil Return Heat Mode (Wait 5 to 10 minutes to clear code – do not turn unit off)		H1			1 Flash
Electrostatic Dedust Protection	/	H2			2 Flashes
Compressor Overload Protection		H3			3 Flashes
System Overload	/	H4			4 Flashes
IPM Protection		H5			5 Flashes
Indoor Fan Motor Failure (Except For 42K Unit)		H6	14 Flashes		
Compressor Desynchronizing		H7			7 Flashes
PFC Over-current Malfunction		HC			6 Flashes
Demagnetizing Protection for Compressor	/	HE			14 Flashes
Outdoor Fan motor Failure	/	L3			
High Supply Voltage Protection		L9	20 Flashes		

Malfunction Name of single zone	Malfunction Name of Multi zone	Display	Running LED	Cooling LED	Heating LED
Startup Failure		Lc			11 Flashes
Compressor Phase Failure / Reverse Protection		Ld			
/	Compressor Stalling (42K Unit Only)	LE	3 Flashes	3 Flashes	3 Flashes
/	Over-Speed (42K Unit Only)	LF	3 Flashes	3 Flashes	3 Flashes
Indoor and Outdoor Unit Do Not Match Each Other	/	LP			
Phase Over-current Protection		P5			15 Flashes
/	Communication Error between the Drive Board and the Main Board (42K Unit Only)	P6	16 Flashes		
Module Temperature Sensor Failure		P7			18 Flashes
Module Overheat Protection		P8	19 Flashes		
/	AC Contactor Protection (42K Unit Only)	P9	3 Flashes	3 Flashes	3 Flashes
/	Transducer Connection Protection (42K Unit Only)	Pd	3 Flashes	3 Flashes	3 Flashes
/	Temperature Drift Protection (42K Unit Only)	PE	3 Flashes	3 Flashes	3 Flashes
/	Drive Board Ambient Sensor Failure (42K Unit Only)	PF	3 Flashes	3 Flashes	3 Flashes
High Voltage Protection of DC Bus bar		PH		11 Flashes	
Low Voltage Protection of DC Bus bar		PL			21 Flashes
/	AC Input Voltage Anomaly (42K Unit Only)	PP	3 Flashes	3 Flashes	3 Flashes
Capacitor Charging Circuit Error		PU			17 Flashes
Compress Phase Circuit Detection Error (Except for 42K Unit)		U1			12 Flashes
DC Bus bar Voltage Drop Error (Except for 42K Unit)		U3			20 Flashes
Reversing Valve Error	/	U7			
Indoor fan Motor Zero-cross Detecting Error (Except For 42K Unit)		U8	17 Flashes		
Outdoor Unit Zero-cross Detecting Error	/	U9			

WARRANTY

INTERNATIONAL REFRIGERATION PRODUCTS warrants the accompanying split air conditioner or heat pump system to be free of defects in material and workmanship for the applications specified in the operation manual and installation manual for a period of one (1) year on parts and five (5) years on compressor, valid from the date of original retail purchase in the United States or Canada. **Labor is not covered under warranty.**

If the unit exhibits a defect in normal use and is determined to be within the warranty period, **INTERNATIONAL REFRIGERATION PRODUCTS** will, at its option, either repair or replace the unit free of charge within a reasonable time after the unit is returned.

This warranty DOES NOT cover:

- Damage, accidental or otherwise, to the unit while in possession of the consumer that is not a result of a defect in material or workmanship.
- Damage caused by consumer misuse, tampering, or failure to follow all care and maintenance instructions in the manuals.
- Damage to the finish of the case or other parts caused by water.
- Damage caused by repairs or alterations to the unit by anyone other than a qualified technician.
- Filter.
- Freight and Insurance cost for the warranty service.

Warranty Activation Card must be completed and sent in to activate the warranty for the accompanying unit.

TECHNICAL SUPPORT

If you need technical support please call 215-750-9876 M-F 8:00am to 4:30pm ET. When calling, please have your unit model numbers and serial numbers available.

Electronic warranty activation and product information www.irproducts.biz .

**International Refrigeration Products Inc., 1035 Wheeler Way
Langhorne, PA 19047**