



AIRREX[®]

AIR CONDITIONER WITH ELECTRIC HEAT

USER'S MANUAL

MODEL : AHSC-140P 220/3



- ▶ Thank you for purchasing the unit. Before operation, please read this user's manual carefully.
- ▶ Keep this manual on hand for reference.
- ▶ This unit is specified for use on the rated voltage power supply.
- ▶ It is essential that you read 'SAFETY INSTRUCTIONS' carefully before use and follow them at all times.
- ▶ The warranty form is on the last page. Please complete it now and keep it in a safe place.
- ▶ We have a policy of continual improving on our products. The contents (features and specifications) in this manual are therefore subject to change without notice.

TABLE OF CONTENTS

■ SAFETY INSTRUCTIONS	3 ~ 4
■ GENERAL ADVICE BEFORE USE	4
■ EXTERIOR DESCRIPTION	5
■ SPECIFICATIONS	6
■ CONTROL PANEL FUNCTIONS	7
■ MODE CHANGING METHOD	8
■ HOW TO SET THE 'OFF' TIMER	9
■ TEMPERATURE CONTROL OPERATION	10
■ SELECTION	11
■ 'ERROR' and WARNING INDICATORS	12 ~ 13
■ FIRE ALARM & ERROR SIGNAL CONNECTION	14
■ ECONOMY MODE	15
■ TROUBLE SHOOTING	16
■ MAINTENANCE	17
■ OUTDOOR FAN GREASE INJECTION GUIDE	18
■ ACCESSORIES	19
■ WARRANTY	20

The following instructions are to ensure user's safety and to prevent any physical injury or material damage. Please read carefully and follow all instructions. There are two sections to these instructions: WARNING and CAUTION.

SAFETY INSTRUCTIONS

WARNING

- Use a circuit breaker that fits the capacity. (It may cause fire and electric shock)
- Before cleaning, disconnect the unit. (Otherwise risk of electric shock)
- Do not use a damaged power cable. (Short, fire or shock hazard)
- Do not use an extension lead unless of the approved type. (Risk of fire and / or electric shock)
- Do not place anything on top of the machine. (This could cause electric shock, malfunction or injury)
- Do not kink or sharply bend the power cable nor put any weight on it. (The insulation may be damaged causing fire or electric shock)
- Turn off control panel after turn off circuit breaker first. (Risk of electric shock and / or malfunction)
- Do not use this unit on unstable or inclined surfaces. Always use on solid flat floor. (Risk of falling causing injury, fire or malfunction)


The following symbols are for your guidance:

= You must NOT. = You MUST.

Keep this manual in a visible location near the unit for easy reference.

INSTALLATION

WARNINGS REGARDING PROPER LOCATION FOR INSTALLATION

-  **WARNING** Do not use the unit in explosive environments or in areas where flammable gas leakage may occur.
- Do not use the unit in areas where it will be exposed to rain or water.
- Do not use the unit in a corrosive atmosphere.
- Do not install the unit on uneven or sloping surface. The unit may roll or topple over even if the casters are set to the locked position.

MOVING THE UNIT


Unlock the casters and push the unit to a flat surface and set the caster brakes to the locked position.

PLUGGING IN THE UNIT

Check the prongs and surface of the power cord plug for dust/dirt. If dust and/or dirt are present, wipe off with a clean, dry cloth.

Check the power cord, plug and prongs for damage or overload.

If any damage or overload is found, contact a qualified repair technician or a qualified electrician to perform replacement or repair of the power cord, plug or prongs.

-  **WARNING** If the power cord or plug is damaged, repair should only be performed by qualified electrical personnel.

-  **WARNING** Do not connect/disconnect the power cord or attempt to operate buttons with wet hands. This could result in electrical shock.

SAFETY INSTRUCTIONS

CAUTION

- Do not place this unit on uneven, unstable or inclined surface.
(This could cause malfunction)
- When storing this unit, keep it in a dry, cool place.
(To prevent corrosion and malfunction)
- If not being used for some time or if lightening is present, always disconnect power.
(To prevent risk of electric shock, short circuit or fire)
- Do not spray water onto this unit nor use solvents such as benzene, thinner or alcohol for cleaning.
(There is a risk of electric shock and / or short circuit)
- Designed for indoor use.

GENERAL ADVICE BEFORE USE

- * Ensure the safety of the location in which the unit is to be used.
- * Ensure the floor or ground is smooth and round.
- * Ensure at least 20 inch space all around the unit.
- * When in position, LOCK the casters to prevent rolling.
- * Never use the unit at more than 2° incline.
- * You have to connect standard power cable.
If the power cable is damaged, it must be replaced by the manufacturer, its service agent or qualified person in order to avoid a hazard.

FOR MAXIMUM EFFICIENCY

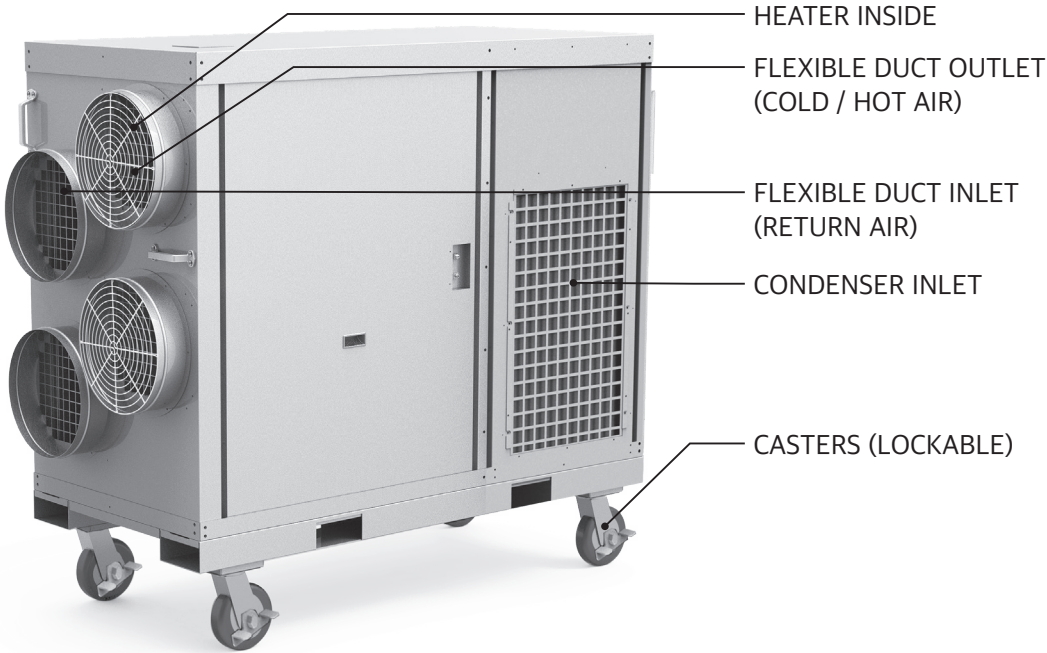
- * In airtight areas use vertical exhaust into ceiling.
- * If possible, send exhaust out through a window or door to outside.
- * Ensure correct electricity supply.



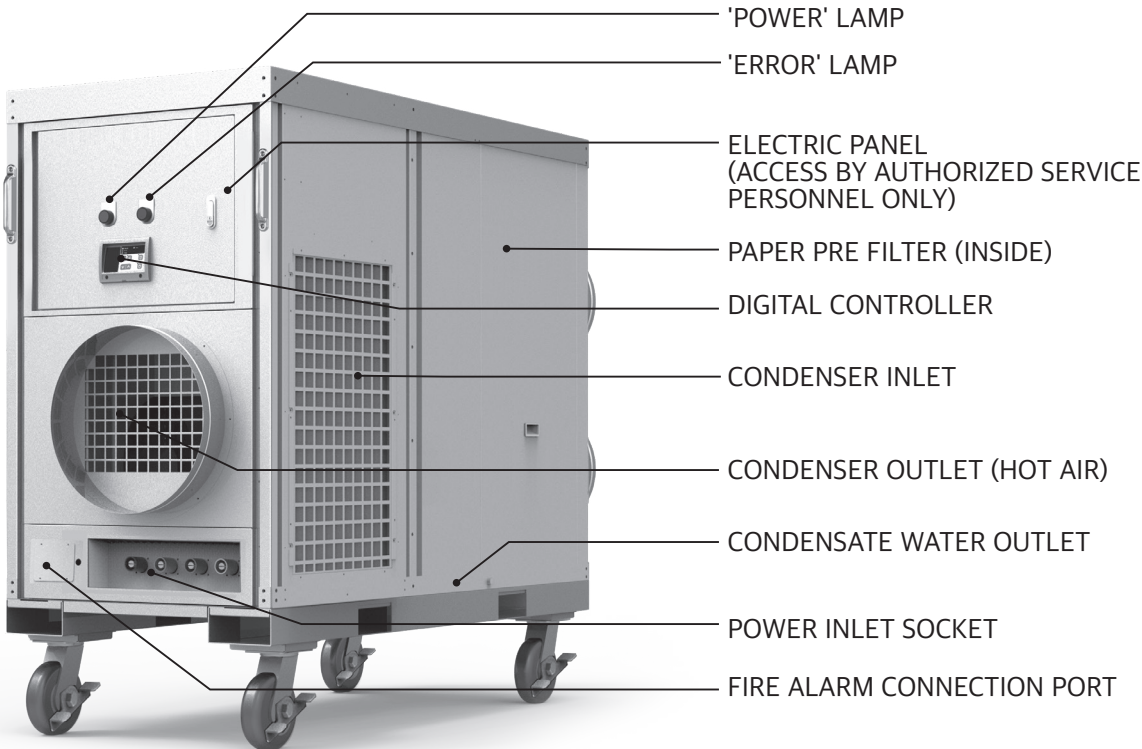
Waste electrical and electronic products must be disposed separately from normal household waste. When you dispose of such products, please recycle where facilities exist. Follow the guidance of your local authority and/or ask the shop where you purchased the product.

EXTERIOR DESCRIPTION

FRONT VIEW



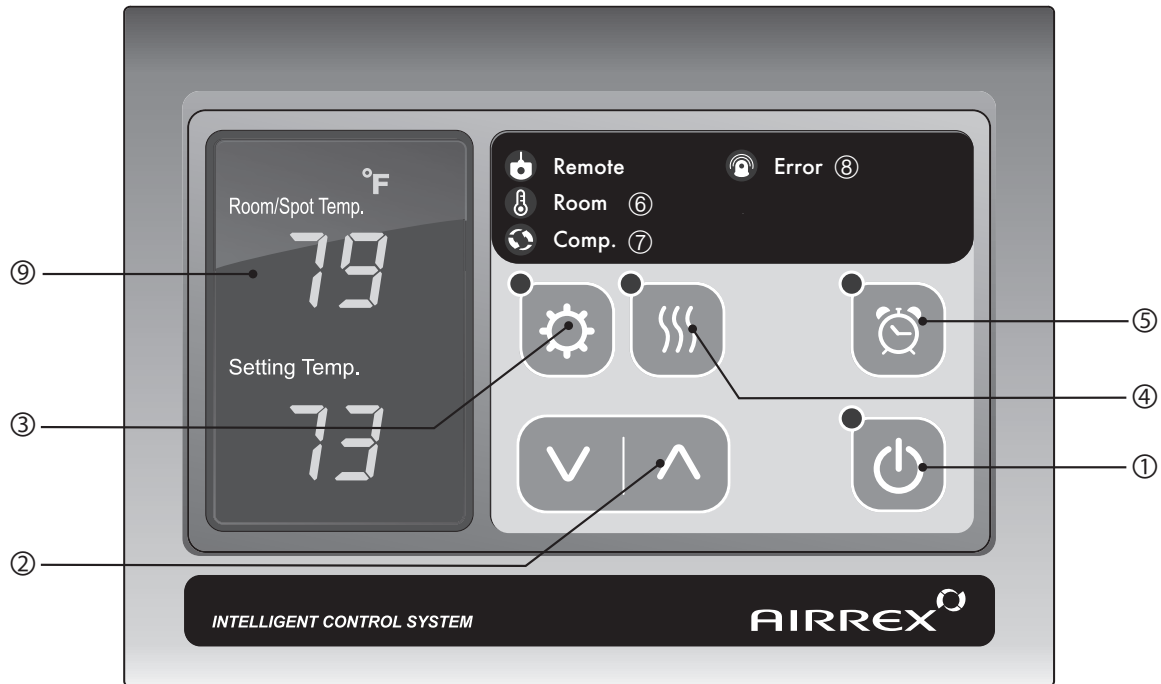
BACK & SIDE VIEW



SPECIFICATIONS

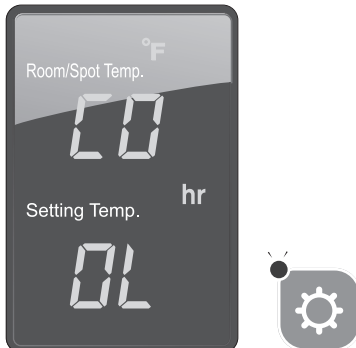
MODEL			AHSC-140P 220/3
Capacity	Cooling	Btu/h (W)	145,000 (42,500)
	Heating		100,000 (29,300)
Power supply		-	220 V~, 60 Hz, 3 Ph
Power Consumption	Cooling	kW	19.8
	Heating		32
Current Consumption	Cooling	A	61
	Heating		84.5
Dehumidification	Max.	gal/day	127
	Nominal		88
Refrigerant		lb	R-410A / 11
Dimensions (W x D x H)		inch	34 x 73 x 69
Weight		lb	1,334
Operating Conditions	Cooling		65 ~ 113 °F (18 ~ 45°C)
	Heating		1 ~ 81 °F (-17 ~ 27°C)
	Dehumidification		59 ~ 113 °F (15 ~ 45°C)
Power Cord		CAM LOCK	

CONTROL PANEL FUNCTIONS



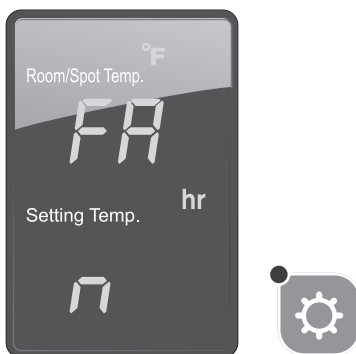
- ① Power : Use to power on / off.
- ② ∨ ^ Button : Raises or lowers the setting temperature or sleep (off) time.
- ③ Mode : Use to select Cooling / Fan / Dehumidifier mode.
- ④ Heat : Use to select heating mode.
- ⑤ Off Timer : You can set the time to stop the unit. You can set 0~24 hours.
Time intervals are 30 mins. up to 10 hours and then 1 hour between 10 and 24 hours.
- ⑥ Room : If the LED is on, the displayed temperature is for room temp.
- ⑦ Comp. : When the compressor is operating, the LED is on.
- ⑧ Error : Error signal.
- ⑨ Display : Display Room temperature, and also the setting temp and sleep time if they had been set.

MODE CHANGING METHOD



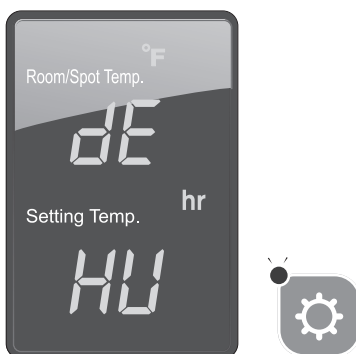
※ COOLING MODE

If you press 'Mode' button, 'COOL' is displayed, then LED is on.



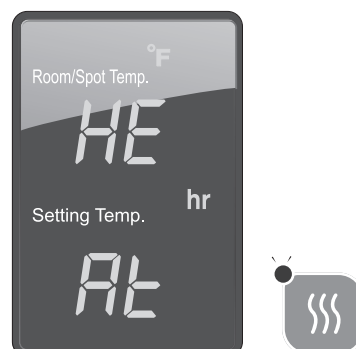
※ FAN MODE

When the cooling is operating. If you press the 'Mode' button, 'FAN' is displayed, then LED is off.



※ DEHUMIDIFICATION MODE

When the fan is operating, If you press the 'Mode' button, 'DEHU' is displayed, then LED is on.

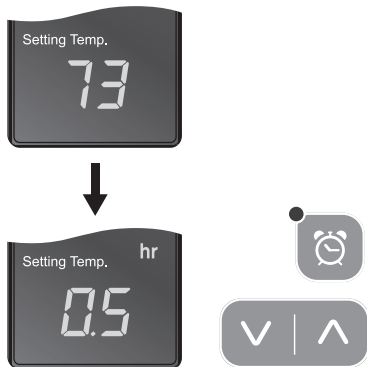


※ HEAT MODE

If you press 'HEAT' button, 'HEAT' is displayed, then LED is on.

HOW TO SET THE 'OFF' TIMER

This function enables you to set the length of time you want the unit to operate.



1. When unit is operating, press the 'Off Timer' button and set the length of time you want by pressing \wedge or \vee . Each time you press the button you will increase the 'time to off' period by 30mins. up to 10 hours, and 1 hour up to 24 hours. The display will show 0.5 for 30min and 1 for an hour. One and a half hours will show 1.5.



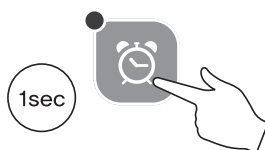
OFF TIMER LAMP IS ON

2. When you have finished setting the time period, the 'Off Timer' lamp will be on which indicates the unit is in sleep (Off Timer) mode.



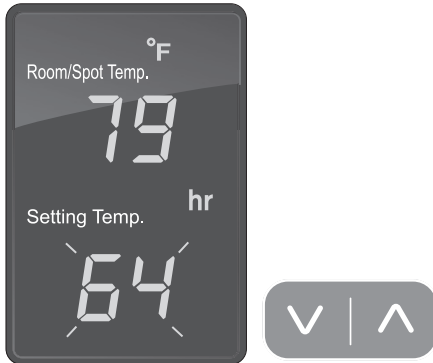
AFTER 1hr

3. If you press the 'Off Timer' button during its operation, the remaining time will be shown.



4. To CANCEL timing, press and hold 'Off Timer' button for 1 second. It will then switch the timer off automatically.

TEMPERATURE CONTROL OPERATION



- When you turn ON, the setting temperature is displayed.
- You can change setting temperature.
- The display showing the set temperature will blink 3 times.

Display Room Temperature range & Setting range.

COOLING MODE

Mode	Display range	Setting range
Room	32°F ~ 99°F	64°F ~ 86°F

Cooling operates when Room temperature is higher than set temperature.

Cooling stops when Room temperature is lower than set temperature.

HEATING MODE

Mode	Display range	Setting range
Room	32°F ~ 99°F	68°F ~ 99°F

Heating operates when Room temperature is lower than set temperature.

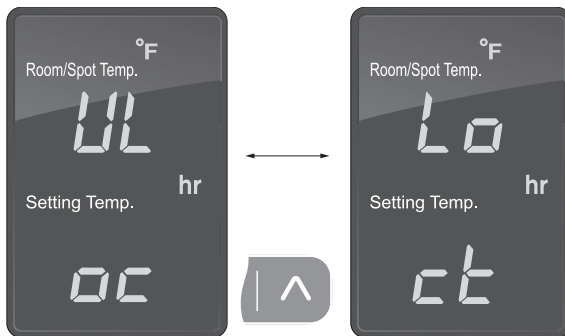
Heating stops when Room temperature is higher than set temperature.

SELECTION

LOCK or UNLOCK

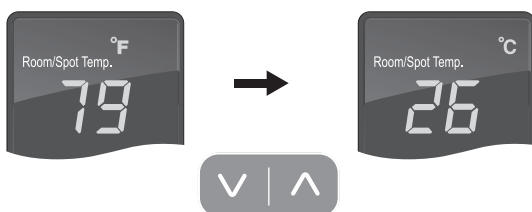


- If you press 'v' for 5 seconds when the unit is turned off you can control 'LOCK, UNLOCK' mode.
- When You set 'LOCK' there will be a dot '.' below the number in the screen.









- You can set 'UNLOCK' or 'LOCK' after pressing '^' button.

°F or °C










- If you want to change temperature unit °F ↔ °C, when unit is stopped, push 'v' and '^' button simultaneously for 3 seconds.

'ERROR' and WARNING INDICATORS

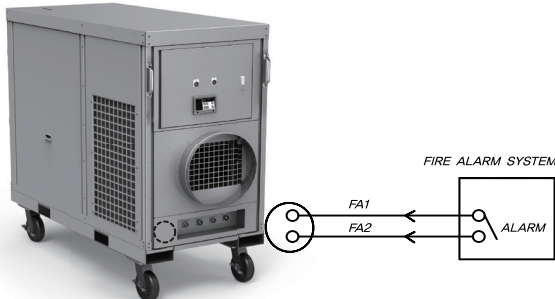
Error Code	Problem	Cause	Corrective Action
	High pressure	Blocked COND filter. Blocked / kinked exhaust duct. Ambient temperature is too high.	Clean the COND filter. Ensure exhaust duct is not blocked / kinked. Do not use the air conditioner if ambient temperature is higher than 113°F.
	Low pressure	Verify Electrical. Refrigerant may be low or empty.	Verify Power (Voltage / Amps). Check refrigerant level and refrigerant leakage. Clean Filter and Coil. Check Evaporator Filter. Check Evaporator Coil.
	AF sensor	If the AF sensor is short circuited or cut 'E3 & A1' displayed and the 'Error' LED will be on.	Exchange AF sensor.
	TH sensor	If the TH sensor is short circuited or cut 'E3 & rt' displayed and the 'Error' LED will be on.	Exchange TH sensor.
	Compressor	EOCR is operated. Low supply voltage. Magnet switch is inoperative.	Check voltage is in 220 Va.c. (±10%) Check capacitor. Check compressor. Check Magnet switch. Check wiring.
	Cond Fan Motor	EOCR is operated. Low supply voltage. Magnet switch is inoperative.	Check voltage is in 220 Va.c. (±10%) Check capacitor. Check Cond Fan Motor. Check Magnet switch. Check wiring.

'ERROR' and WARNING INDICATORS

Error Code	Problem	Cause	Corrective Action
	Eva Fan Motor	EOCR is operated. Low supply voltage. Magnet switch is inoperative.	Check voltage is in 220 Va.c. (±10%) Check capacitor. Check Eva Fan Motor. Check Magnet switch. Check wiring.
	Heater	Heater over current.	Check wiring. Check Magnet switch. Check heater.
	Water full	Condensate pump is full.	Check the condensate pump or water hose is bent.
	Fire alarm signal	Fire alarm signal is received from Fire alarm system.	Reset unit by pushing and holding the "OFF TIMER" button for 5 seconds.
	Anti-Freezing alarm	Evaporator is below 25°F (-4°C) due to being used in a low ambient temperature area.	Do not use the unit in an ambient temperature less than 65°F (18°C). (Only cooling mode) Check refrigerant level.
	Reverse phase	The 3 phase circuit is not correctly connected.	Check wiring.
	Over Heat	Heater temperature is high.	Check Eva Fan or ambient temperature too high.

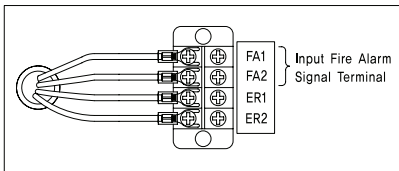
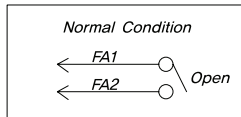
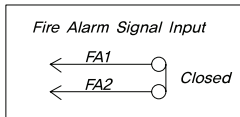
FIRE ALARM & ERROR SIGNAL CONNECTION

FIRE ALARM



Input Terminal FA1 and FA2

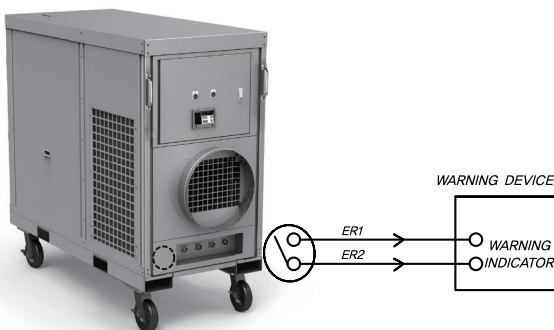
When the signal from the fire alarm system is detected, the unit turns off and does not operate until the unit has been RESET.



Connecting the fire alarm wire from fire alarm system

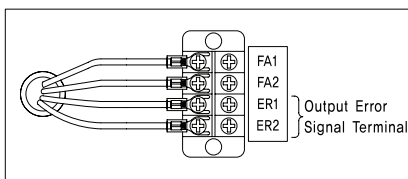
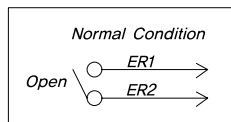
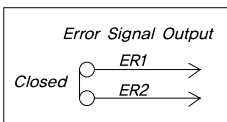
1. Open the power box cover.
2. Use recommended fire alarm wire size from 16 AWG to 26 AWG for a solid wire, or 16 AWG to 22 AWG for a stranded wire with ring terminal for #5 stud size.
3. Connect fire alarm to terminal FA1 and FA2.

ERROR SIGNAL CONNECTION



Output Terminal ER1 and ER2








The unit will output an Error signal (normal open dry contact) when an "Error" has occurred, to show what the failure is on the unit.



Connecting Error Signal with warning device

1. Open the power box cover.
2. Use recommended error signal wire size from 16 AWG to 26 AWG for a solid wire, or 16 AWG to 22 AWG for a stranded wire with ring terminal for #5 stud size.
3. Connect the end of the error signal wire to ER1 and ER2, and the other end to the compatible with various warning devices such as alarm speaker, light indicators, and etc.

ECONOMY MODE

Model	Evap. Fan		Cond. Fan		Economy mode (Push the button for 3 sec.)	Etc.
	Economy	Normal	Economy	Normal		
HSC-12L	Stop after 30 sec.	Run	-	-		Fan integral type
HSC-14P/18P/24P	Stop after 30 sec.	Run	-	-		Fan integral type
HWC-19	Stop after 30 sec.	Run	Stop	Run	 (High)	
HSC-36P/60P/70P	Stop after 1 min.	Run	Stop after 1 min.	Run		
AHSC-14P/18P	Stop after 30 sec.	Run	-	-		Fan integral type
AHSC-42/60	Stop after 30 sec.	Run	Stop	Run		
AHSC-140P	Stop after 1 min.	Run	Stop after 1 min.	Run		

TROUBLE SHOOTING

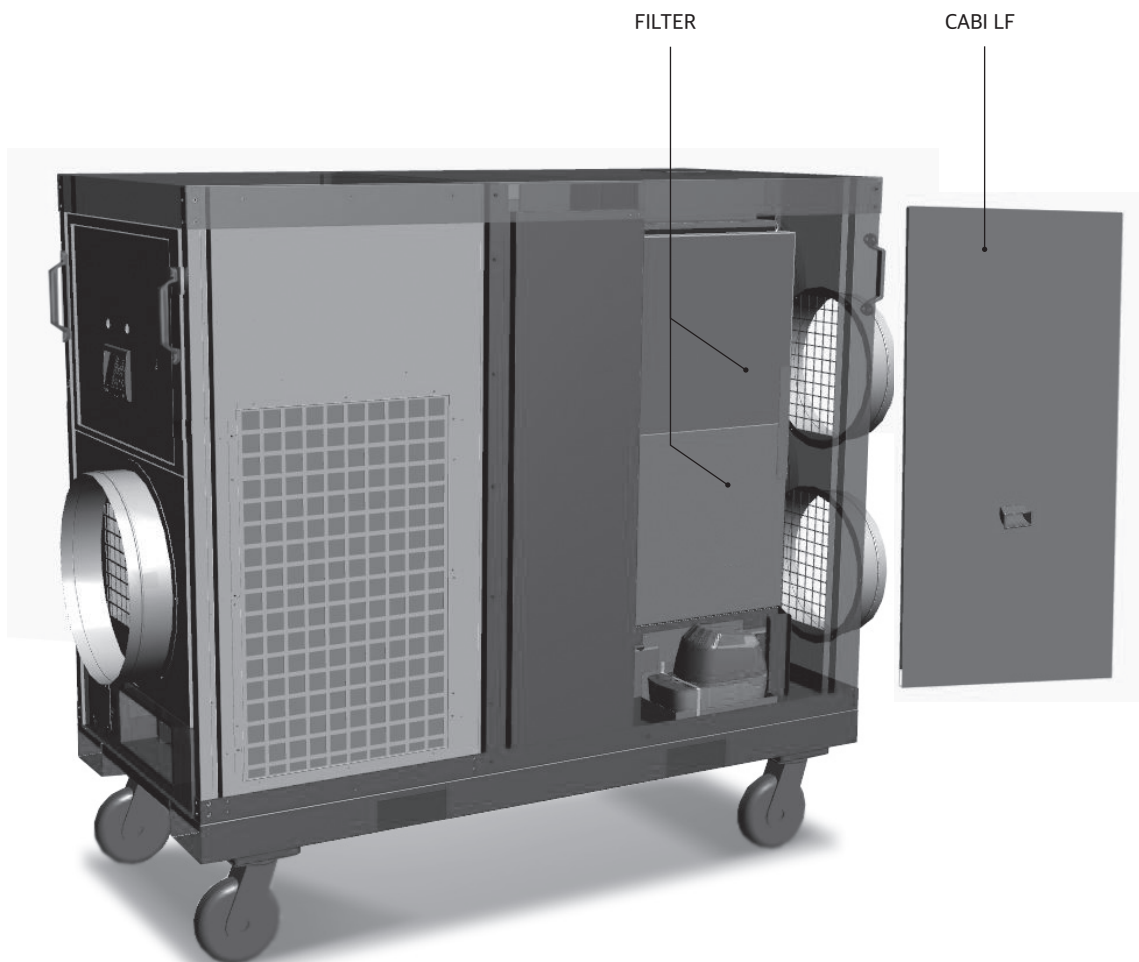
TROUBLE	CHECK	REMEDY
NOT WORKING	Power cable correctly connected	Connect cable correctly
	Power button "OFF"	Press POWER button to "ON"
	Fuse (supply) blown	Exchange fuse in board
	Breaker on switch board tripped	Check load capacity and reset
	Ambient temp. too high	Check operating temp. range
POOR COOLING	Filter blocked with dust	Clean Filter
	Dust in heat exchanger	Clean heat exchanger
	Obstacle against inlet side	Remove and allow 20" (50 cm) clearance

MAINTENANCE

After cleaning, completely dry the inside of the unit by operating it on 'Fan' mode.

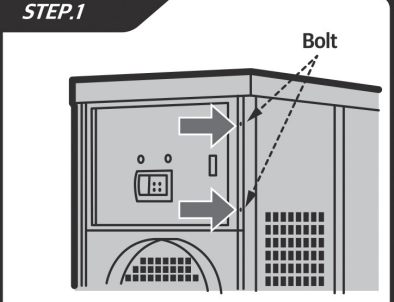
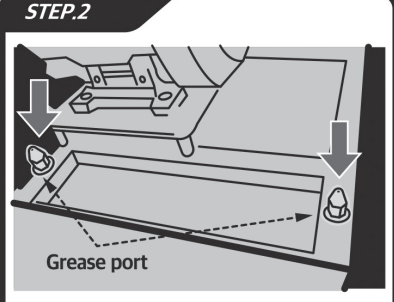
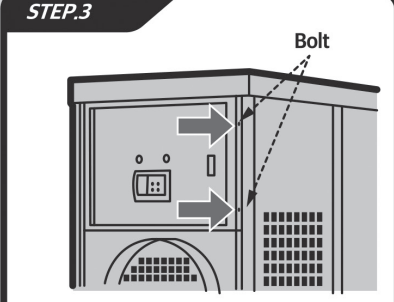
※ FILTER CHANGE

1. Detach CABI LF.
2. Change the filter.
3. Reassemble in reverse order of disassembly.

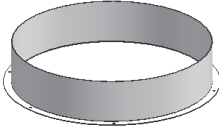
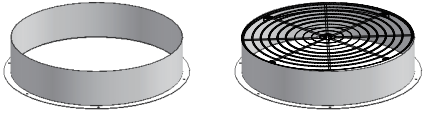




OUTDOOR FAN GREASE INJECTION GUIDE

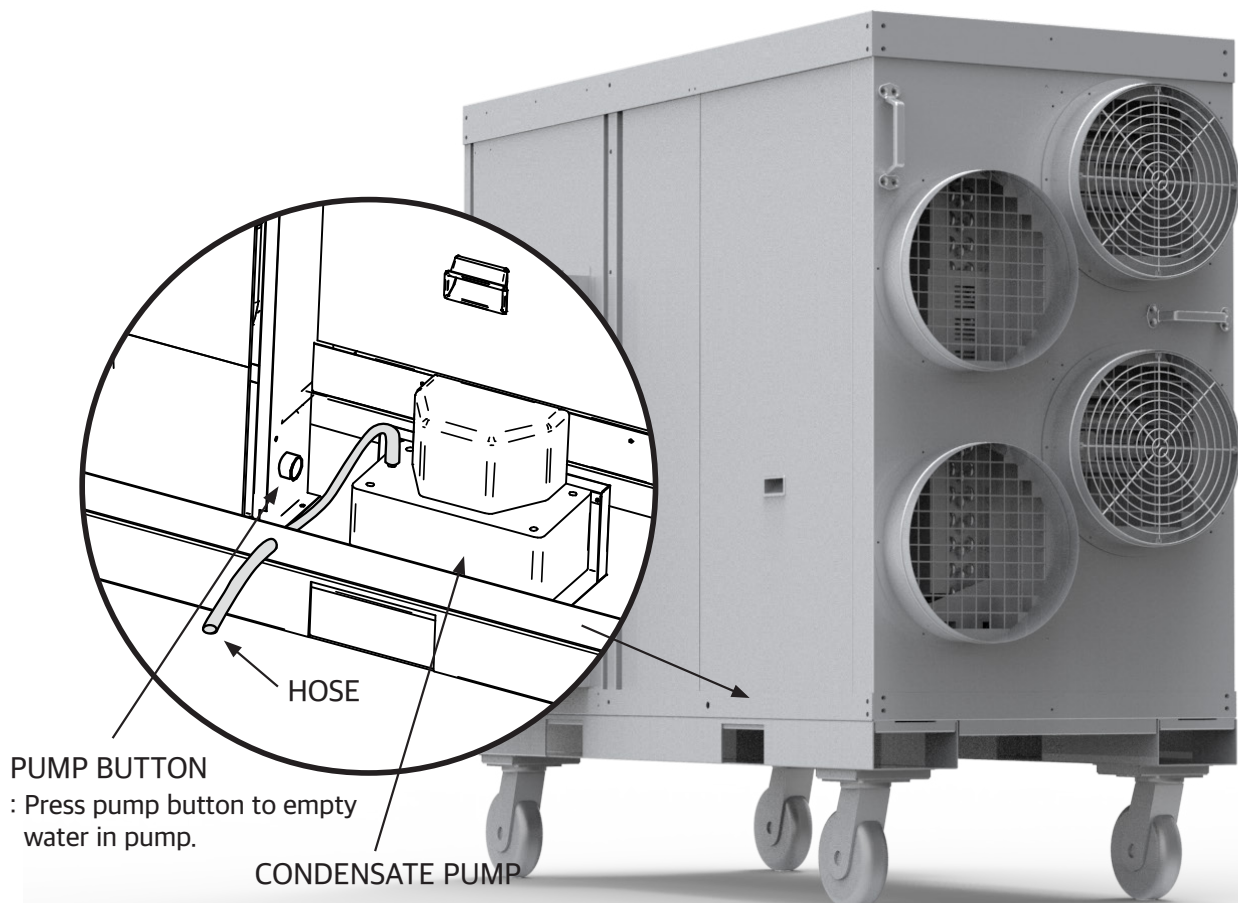
- Refill the grease every 1,000 hours like the method below.

Outdoor Fan grease injection guide		Injection cycle 1,000hr
<p>STEP.1</p>  <p>Remove two Bolts.</p>	<p>STEP.2</p>  <p>Inject grease into the port.</p>	<p>STEP.3</p>  <p>Reassemble two Bolts.</p>

ACCESSORIES

ITEM		MODEL	DRAWING
		AHSC-140P 220/3	
HOT AIR EXHAUST	EXHAUST CHAMBER Ø 500 (1 pc)	<input checked="" type="checkbox"/>	
COLD AIR EXHAUST	EXHAUST CHAMBER Ø 400 (4 pcs)	<input checked="" type="checkbox"/>	
FRONT HANDLE (2 pcs)		<input checked="" type="checkbox"/>	
REAR HANDLE (2 pcs)		<input checked="" type="checkbox"/>	

※ AHSC-140P 220/3 is available both for indoor and outdoor use.



PUMP BUTTON
: Press pump button to empty water in pump.

CONDENSATE PUMP

WARRANTY

(Applicable to first retail purchaser only)

AIRREX unit gives the more reliable performance, comfort and durability the more they are used. They are built under a strict quality assurance regime which includes inspection both during and after production and exhaustive reliability testing.

In the unlikely event you have any problems, please contact your dealer or distributor. If the problem is as a result of a production fault or failure, repairs will be undertaken free of charge during the period of warranty subject to the following warranty conditions:

1. If the problem has been caused by customer error or misuse, abuse or damage, then all repairs will be charged for.
2. This warranty applies to your country.
3. Proof and date of purchase must be supplied.
4. Please complete the details below and keep this warranty in a safe place.
5. All transportation charges back to the dealer are at customer's cost. Keep all original packaging to facilitate return. Return to customer will be at dealer's cost (if genuine warranty claim).

DESCRIPTION	AIRREX AIR CONDITIONER WITH ELECTRIC HEAT		
MODEL	AHSC-140P 220/3		
DATE OF PURCHASE		PRODUCT SERIAL NO.	

WARRANTY PERIOD	() Months	
DISTRIBUTOR	Name of Company	
	Telephone No.	

CUSTOMER DETAILS	Name :	
	Address :	
	Telephone :	

Distributed by :
Airrex USA
2031 Exchange Parkway, Waco, TX 76712

TEL : 888-535-8841
E-mail : sales@airrexusa.com
Website : www.airrexusa.com