



# **AIRREX HEAT PUMP**

**USER'S MANUAL** 

### MODEL: AHSC-42/60/140



AHSC-42/60

AHSC-140

- Thank you for purchasing the HEAT PUMP/ AIR CONDITIONER+HEATER.
  Before operation please read this user's manual carefully.
- Keep this manual on hand for reference.
- This HEAT PUMP/AIR CONDITIONER+HEATER is specified for use on the rated voltage power supply. For use outside the local electricity supply should be checked by a qualified electrician.
- It is ESSENTIAL that you read 'NOTES ON SAFETY' carefully before use and follow them at all times.
- The Warranty form is on Page 20. 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.

### 🔊 HEPHZIBAH CO., LTD.



## TABLE OF CONTENTS

■ SAFETY INSTRUCTIONS ······	3
GENERAL ADVICE BEFORE USE	4
■ EXTERIOR DESCRIPTION ······	5~6
■ SPECIFICATIONS ······	7
■ CONTROL PANEL FUNCTIONS ······	8
■ MODE CHANGING METHOD	9
■ HOW TO SET THE 'OFF'TIMER ······	10
■ TEMPERATURE CONTROL OPERATION ······	11
■ SELECTION OF LOCK OR UNLOCK & °F OR °C ······	12
'ERROR'and WARNING INDICATORS	13
■ TROUBLE SHOOTING ·····	14
■ MAINTENANCE ······	15
ACCESSORIES ·····	16~17
■ WARRANTY ······	20



### SAFETY INSTRUCTIONS

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.

The following symbols are for your guidance:

=	• You must NOT. 🗹 = You MUST.
W	ARNING
$\checkmark$	Use a circuit breaker for the capacity. (It may cause fire and electric shock)
$\boxtimes$	Do not use a damaged power cable. (Short, fire or shock hazard)
$\checkmark$	Before cleaning, disconnect the unit. (Otherwise risk of electric shock)
$\times$	Do not place anything on top of the machine. (This could cause electric shock, malfunction or injury)
$\boxtimes$	Do not use an extension cable. (Risk of fire and / or electric shock)
$\boxtimes$	Do not 'kink' or sharply bend the power cable nor put any weight on it. (The insulation may be damaged causing fire and/ or electric shock)
$\boxtimes$	Always turn off control panel first and turn off with circuit breaker. (Risk of electric shock and / or malfunction)
$\boxtimes$	Do not use this HEAT PUMP/AIR CONDITIONER+HEATER on unstable or inclined surfaces. Always use on solid flat floor. (Risk of falling causing injury, fire or malfunction)

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



### SAFETY INSTRUCTIONS

### CAUTION

X	Do not place HEAT PUMP/AIR CONDITIONER+HEATER on uneven, unstable or inclined surface. (This could cause malfunction)
$\checkmark$	When storing the HEAT PUMP or AIR CONDITIONER+HEATER, keep it in a dry, cool place. (To prevent corrosion and malfunction)
$\checkmark$	If not being used for some time or if lightening is present, always disconnect from power. (To prevent risk of electric shock, short circuit or fire)
$\times$	Do not spray water onto the HEAT PUMP or AIR CONDITIONER+HEATER nor use solvents such as benzene, thinner or alcohol for cleaning. (There is a risk of electric shock and / or short circuit)
$\checkmark$	Designed for indoor usage.

### **GENERAL ADVICE BEFORE USE**

#### FOR MAXIMUM EFFICIENCY

- · Exhaust ducting should be no longer than maximum efficiency.
- · Ensure correct electricity supply.
- \* You have to connect supply cord at least standard. If the supply cable is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified person in order to avoid a hazard.
- $\cdot$  Ensure the safety of the location in which HEAT PUMP/AIR CONDITIONER+HEATER is to be used.
- $\cdot$  Ensure the floor or ground is smooth and sound.
- $\cdot$  Ensure you allow at least 20" (50cm) air space all around the HEAT PUMP.
- $\cdot$  When in position LOCK the casters to prevent rolling.



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**

### ※ AHSC-42/60



- ① Condenser Outlet
- ② Air Outlet
- ③ Handle
- ④ Air Inlet
- (5) Casters
- 6 Condensate Water Outlet

### BACK&SIDE VIEW



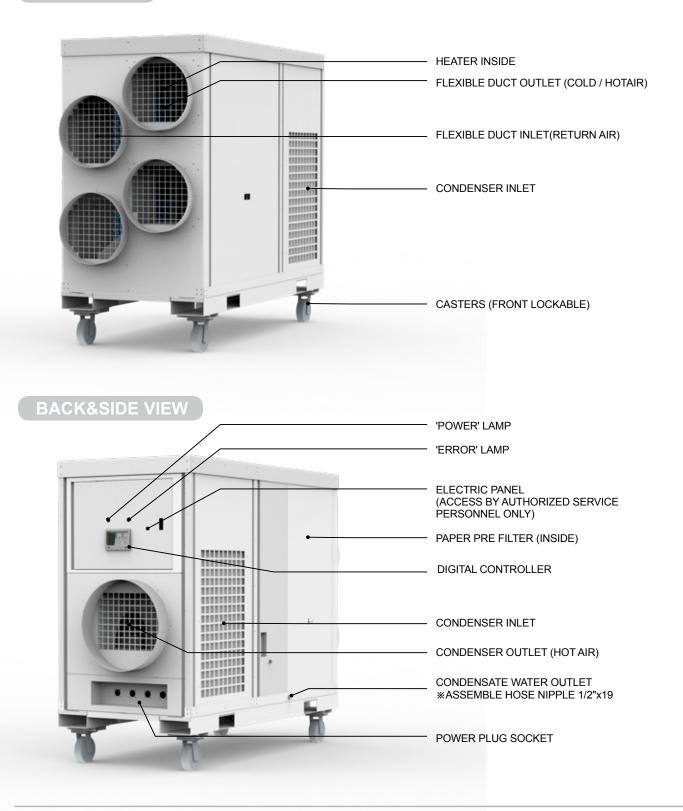
- ① Digital Controller
- ② Condenser Inlet
- ③ Electric Panel
- ④ Power Connect (Cabinet inside)



### **EXTERIOR DESCRIPTION**

**※ AHSC-140** 







# SPECIFICATIONS

Ν	IODEL		AHSC-42	AHSC-60	AHSC-140
Capacity	Cooling	Btu/h	42,000(12.3)	60,000(17.6)	145,000(42.5)
Capacity	Heating	(kW)	47,000(13.8)	60,000(17.6)	102,375(30)
Power su	ipply	-	220Vac 60Hz 1Ph	460Vac 6	50Hz 3Ph
Dimensions	(WxDxH)	inch	29.1x57	7.1x47.7	33.9x72.8x66.2
Weig	nt	lb	450	550	1,323
Power	Cooling	kW	4.5	6.9	24
Consumption	Heating	ĸvv	4.5	6.2	32
Current	Cooling		21	10.6	30
Consumption	Heating	A	21	9.7	40.5
Moisture	МАХ	aal/day.	59	76.7	127
Removal	АНАМ	gal/day	40.6	52.6	87.5
Refrigerant (	R-410A)	lb	6.	62	11
	Coolin	g		60%RH B 40%RH	77°F DB 60%RH ~113°F DB 40%RH
Operating Range	Heatin	g		3 70%RH DB 50%RH	80.6°F DB 50%RH
	Dehumid	ifier	59°F DB	3 60%RH~113°F DB	40%RH
Po	wer cord			STANDARD	



### **CONTROL PANEL FUNCTIONS**



#### 1) Power

Use to power on / off.

#### $2 \vee \wedge Button$

Raises or lowers temperature and/ or sleep (off) time.

#### ③ Mode

Use to select cooling mode or Dehumidifier mode or FAN mode

#### ④ Heat

Use to select heating mode.

#### (5) Off Timer

To set the length of time, once turned on, that you wish the cooler to run for. You can set 0~24 hours. Time intervals are 30mins. up to 10 hours and then 1 hour between 10 and 24 hours.

#### $\bigcirc$ 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

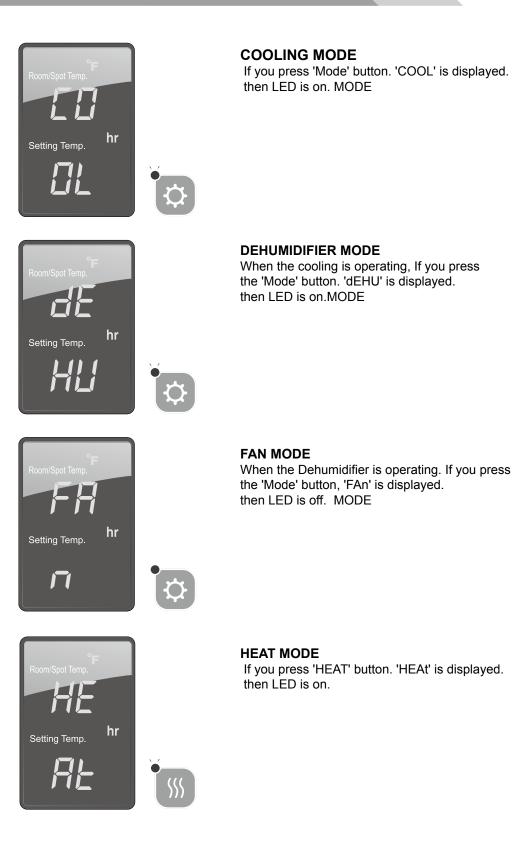
- Error signal
- E1 : High Pressure
- E2 : Low Pressure,
- E3 : Sensor problem
- rP : Reverse Phase

#### (9) Display

Display Room temperature, and also the setting temp and sleep time if they had been set. (Display of 'LO' : under the 32°F, Display of 'HI' : over the 99°F)



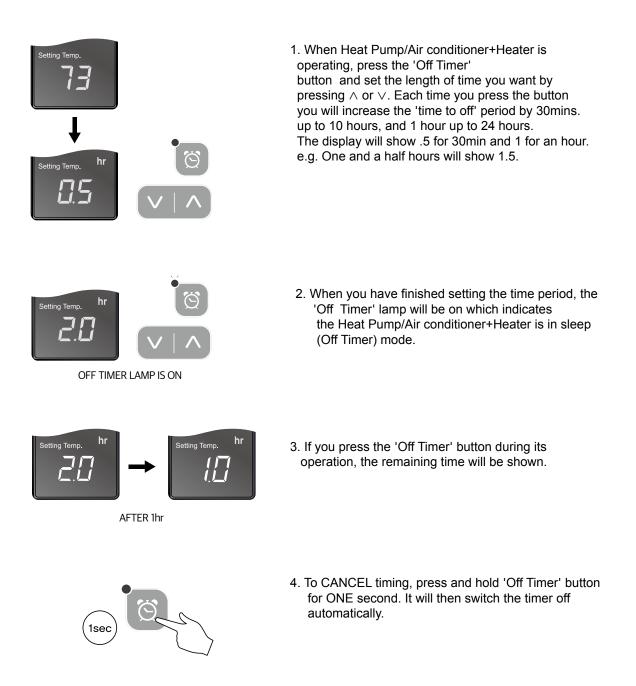
# MODE CHANGING METHOD



AIRREX

### HOW TO SET THE 'OFF' TIMER.

This function enables you to set the length of time you want the HEAT PUMP to operate. You can set the time period from 30min. to 24 hours in 30min. and 1 hour increments.



AIRREX

### **TEMPERATURE CONTROL OPERATION**



#### COOL OR HEAT MODE

- When 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 or Dehumidifier operates when Room temperature is more than set temperature.

Cooling or Dehumidifier stop when Room temperature is less than set temperature.

### COOLING & DEHUMIDIFIER MODE

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

Heating operates when Room temperature is less than set temperature.

Heating stops when Room temperature is More than set temperature.

#### HEATING MODE

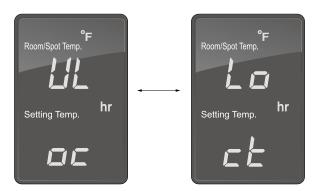
Mode	Display range	Setting range
Room Temp	32~99°F	68 ~99°F



### SELECTION OF LOCK OR UNLOCK



1. When turn OFF If press '∨' for 5 seconds, you can control 'LOCK, UNLOCK' mode.

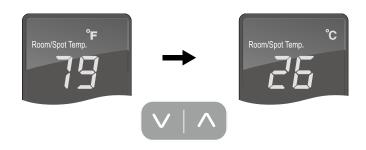


2. You can set 'UNLOCK' or 'LOCK' after pressing ' $\wedge$ ' button.



3. When You set 'LOCK' there will be '.' below the number in the screen.

### SELECTION OF °F OR °C



 If you want to change temperature unit °F ↔ °C, when Heat Pump is stopped, push ∨ and ∧ button simultaneously for three seconds.

### 'ERROR'and WARNING INDICATORS

The machine's safety devices will automatically signal any problems via the display window on the control panel. The information below shows how to read these signals.

#### 1. HIGH PRESSURE



'E1' is displayed and the 'Error' LED will be on when the pressure of the compressor is too high and the high pressure switch is open.

#### 2. LOW PRESSURE



'E2' is displayed and the 'Error' LED will be on when the pressure of the compressor is too low.

#### 3. ROOM, AF, TEMPERATURE SENSOR PROBLEM

Error



If the thermistor is short circuited or cut, 'E3' is displayed and the 'Error'LED will be on.

#### 4. COMPRESSOR PROBLEM



※ Only AHSC-140

When the over current from compressor is detected, 'E4' is displayed and the 'Error' LED will be On.

#### 5. COND FAN MOTOR PROBLEM



When the over current from cond fan motor is detected. 'E5' is displayed and the 'Error' LED will be On.

#### 6. EVA FAN MOTOR PROBLEM



※ Only AHSC-140

When the over current from eva fan motor is detected, 'E6' is displayed, the 'Error' LED will be On.

#### 7. HEATER PROBLEM



% Only AHSC-140

When the over current from heater is detected, 'E7' is displayed and the 'Error' LED will be on.

#### 8. REVERSE PHASE



When the three phase circuit is not correctly connected, 'rP' is displayed and 'Error' LED will be on.

9. OVER HEAT



※ Only AHSC-140

If eva fan is stop 'OH' is displayed and 'Error' LED will be on.

#### 10. ANTI FREEZING



When the temperature of the evaporator is below  $28^{\circ}F$ , 'AF' is displayed.



# TROUBLE SHOOTING

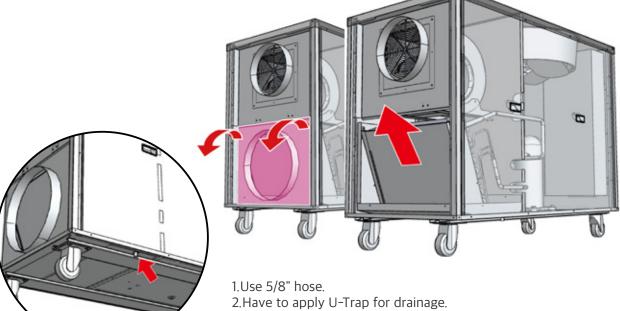
TROUBLE	СНЕСК	REMEDY
	Power cable correctly connected	Connect cable correctly
	Power button "OFF"	Press POWER button to "ON"
NOT	Blown fuse in electric panel	Replace fuse
WORKING	Fuse (supply) blown	Exchange fuse in board
	Breaker on switch board tripped	Check load capacity and reset
	Ambient temp. too high (Cooling & Dehumidifier: over 113°F Heating: over 81°F)	Use only below Cooling & Dehumidifier 113°F Heating 81°F
	Filter blocked with dust	Clean Filter
POOR	Dust in heat exchanger	Clean heat exchanger
COOLING	Obstacle against inlet side	Remove and allow 20"(50cm). clearance
	Ambient temp. too high (Cooling & Dehumidifier: over 113°F Heating: over 81°F)	Use only below Cooling & Dehumidifier 113°F Heating 81°F

### MAINTENANCE

After cleaning, completely dry the inside of the unit by operating it on 'Fan only' mode for 3 to 4 hours.

#### **※ CLEANING FILTER**

- 1.After removing bolt, Detach CABI FRONT LOWER
- 2.Pull the filter up to detach.
- 3.Clean the filter.
- 4. Reassemble in reverse order of disassembly.



#### AHSC-140

After cleaning, completely dry the inside of the unit by operating it on 'Fan only' mode for 3 to 4 hours.



AIRREX



### ACCESSORIES

### **X AHSC-42/60**

		MODEL	
	ITEM	AHSC-42 AHSC-60	DRAWING
COLD AIR	ALUMINIUM FILTER for Evaporator		
HOT AIR EXHAUST	EXAUST CHUMBER Ø400	Y	
COLD AIR EXHAUST	EXAUST CHUMBER Ø300		



AHSC-42/60



# ACCESSORIES

### **※ AHSC-140**

	ITEM	MODEL AHSC-140	DRAWING
HOT AIR EXHAUST	EXAUST CHAMBER Ø500		
Cold Air Exhaust	EXAUST CHAMBER Ø400	$\sum$	
Conden- Sate Water Drain	CONDENSATE WATER OUTLET CONNECT PIPE	Ŋ	
	HANDLE		



AHSC-140



# MEMO



# MEMO

	WARR	ANTY	
(	Applicable to first r	etail purcha	ser only)
AIRREX HEAT PUMP the more they are used which includes inspection reliability testing.	. They are built unde	r a strict qual	
In the unlikely event you distributor. If the problem be undertaken free of c following warranty conc	n is as a result of a p harge during the peri	production fai	ult or failure, repairs will
1. If the problem has be damage, then all repa			nisuse, abuse or
2. This warranty applies	s to your country.		
3. Proof and date of pu	rchase must be supp	lied.	
4. Please complete the	details below and ke		anty in a safe place.
5. All transport charges	back to the dealer ar acilitate return. Retur	ep this warra	
5. All transport charges original packaging to f	back to the dealer ar acilitate return. Retur aim).	ep this warra	er's cost. Keep all r will be at dealer's cos
5. All transport charges original packaging to f (if genuine warranty cl	back to the dealer ar acilitate return. Retur aim). AIRF	eep this warra re at custome n to custome	er's cost. Keep all er will be at dealer's cos
5. All transport charges original packaging to f (if genuine warranty cl DESCRIPTION	back to the dealer ar acilitate return. Retur aim). AIRF	eep this warra re at custome n to custome REX HEAT PU	er's cost. Keep all er will be at dealer's cos
5. All transport charges original packaging to f (if genuine warranty cl DESCRIPTION MODEL	back to the dealer ar acilitate return. Retur aim). AIRF	eep this warra re at custome n to custome REX HEAT PU / AHSC-60 / PRODUCT	MP AHSC-140
5. All transport charges original packaging to f (if genuine warranty cl DESCRIPTION MODEL DATE OF PURCHASE WARRANTY PERIOD	back to the dealer ar acilitate return. Retur aim). AIRF	eep this warra re at custome n to custome REX HEAT PU / AHSC-60 / PRODUCT SERIAL NO.	MP AHSC-140
5. All transport charges original packaging to f (if genuine warranty cl DESCRIPTION MODEL DATE OF PURCHASE	back to the dealer ar acilitate return. Retur aim). AIRF AHSC-42	eep this warra re at custome n to custome REX HEAT PU / AHSC-60 / PRODUCT SERIAL NO.	MP AHSC-140
5. All transport charges original packaging to f (if genuine warranty cl DESCRIPTION MODEL DATE OF PURCHASE WARRANTY PERIOD	back to the dealer ar acilitate return. Retur aim). AIRF AHSC-42 ( Name of Company	eep this warra re at custome n to custome REX HEAT PU / AHSC-60 / PRODUCT SERIAL NO.	MP AHSC-140
5. All transport charges original packaging to f (if genuine warranty cl DESCRIPTION MODEL DATE OF PURCHASE WARRANTY PERIOD	back to the dealer ar acilitate return. Retur aim). AIRF AHSC-42 ( Name of Company Telephone No.	eep this warra re at custome n to custome REX HEAT PU / AHSC-60 / PRODUCT SERIAL NO.	MP AHSC-140

### Manufactured by :

HEPHZIBAH CO.,LTD. (Juan-dong) 86, Gilpa-ro 71beon-gil, Nam-gu, Incheon, Korea TEL : +82-32-509-5834 FAX : +82-32-502-5519 E-mail : airrex@hdtek.com Website : www.airrex.biz

### **Distributed by :**

Airrex USA 1191 Jewell Dr Ste 101 Waco, TX 76712

TEL : 888-535-8841 FAX : 469-574-7924 E-mail : sales@airrexusa.com Website : www.airrexusa.com

Designs and specifications of products are subject to change without prior notice for the improvement of products.