LG AIRCONDITIONER ENGINEERING PRODUCT DATA BOOK

PTAC Type

(60Hz/R410A)

6RWU0-02A

LG
Life's Good

Introduction

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Test condition of International Standards

CLASSIFICATION			KSC 9306	ISO 5151	ARI 210/240	AHAM	AS 1861.1	SSA 385
Cooling Capacity	Indoor	DB°C(°F)	27.0	27.0	26.7(80)	26.7(80)	27.0	29.0
		WB°C(°F)	19.5	19.0	19.4(67)	19.4(67)	19.0	19.0
	Outdoor	DB°C(°F)	35.0	35.0	35.0(95)	35.0(95)	35.0	46.0
		WB°C(°F)	24.0	24.0	23.9(75)	23.9(75)	24.0	24.0
Heating Capacity	Indoor	DB°C(°F)	20.0	20.0	21.1(70)	21.1(70)	21.0	21.0
		WB°C(°F)	15.0	15.0	15.6(60)	15.6(60)	15.0	15.5
	Outdoor	DB°C(°F)	7.0	7.0	8.3(47)	8.3(47)	7.0	7.0
		WB°C(°F)	6.0	6.0	6.1(43)	6.1(43)	6.0	6.0
Maximum Cooling Operating	Indoor	DB°C(°F)	32.0	32.0	26.7(80)	32.2(90)	32.0	29.0
		WB°C(°F)	23.0	23.0	19.4(67)	22.8(73)	23.0	19.0
	Outdoor	DB°C(°F)	43.0	43.0	46.1(115)	43.3(110)	43.0	54.0
		WB°C(°F)	26.0	26.0	23.9(75)	25.6(78)	26.0	24.0
Maximum Heating Operating	Indoor	DB°C(°F)	27.0	27.0	26.7(80)	26.7(80)	-	-
		WB°C(°F)	19.0	19.0	19.4(67)	22.8(73)	-	-
	Outdoor	DB°C(°F)	21.0	24.0	23.9(75)	23.9(75)	-	-
		WB°C(°F)	15.0	18.0	18.3(65)	18.3(65)	-	-
Enclosure Sweat / Condensate Disposal	Indoor	DB°C(°F)	27.0	27.0	26.7(80)	26.7(80)	27.0	27.0
		WB°C(°F)	24.0	24.0	23.9(75)	23.9(75)	24.0	24.0
	Outdoor	DB°C(°F)	27.0	27.0	26.7(80)	26.7(80)	27.0	27.0
		WB°C(°F)	24.0	24.0	23.9(75)	23.9(75)	24.0	24.0
Freeze-up/ Low Temperature	Indoor	DB°C(°F)	21.0	21.0	19.4(67)	21.1(70)	21.0	21.0
		WB°C(°F)	15.0	15.0	13.9(57)	15.6(60)	16.0	16.0
	Outdoor	DB°C(°F)	21.0	21.0	19.4(67)	21.1(70)	21.0	21.0
		WB°C(°F)	15.0	15.0	13.9(57)	15.6(60)	16.0	16.0

KS : Korea Standard
ISO : International Standard Organization
ARI : Airconditioning and Refrigeration Institute
AHAM : Association of Home Appliance Manufacturers
AS : Australia Standard
SSA : Saudi Arabian Standard

In the table above, temperatures are expressed in Fahrenheit(°F) within parentheses only for ARI and AHAM standards.

Introduction

Preface

Packaged Terminal Air-Conditioners(PTAC) of LG is the best choice a customer can avail when it comes to a quiet environment. Ultra quiet operation is the hallmark of these Air-Conditioners of LG. These range of units are suitable for Hotels and Healthcare applications. These units have extremely low noise levels and outstanding sound prevention ratings. Moreover, these units have higher Energy ratings which results in excellent energy savings.

These units are also provided with unique features to provide better usability and easy installation for the user.

The capacity of these PTAC models ranges from 7,000 Btu/h to 15,000 Btu/h.

Some of the important features of this units are as follows:-

Long term money saving: By providing features such as Gold Fin etc... to maintain the same performance throughout the life of the Air-Conditioner.

Comfort : With features such as Wall Thermostat temperature control, Auto Restart, etc…, which gives ultimate comfort to our customer.

These units are equipped with many standard and optional features for our customers and for details please refer to the detailed specification followed after this description.

LG Electronics Inc.

Air Conditioning Company

Publication History

Pub. No.	Frequency	Category	Product name	Refrigerant	Notes	Published in
6RWU0 - 01A	60Hz	RAC	PTAC	R410A	New Edition of PDB	Apr.2010
6RWU0 - 01B	60Hz	RAC	PTAC	R410A	Spec sheet update	June.2010
6RWU0 – 01C	60Hz	RAC	PTAC	R410A	Spec sheet update	August. 2010
6RWU0 – 01D	60Hz	RAC	PTAC	R410A	Add Operation range	Dec. 2010
6RWU0 – 02A	60Hz	RAC	PTAC	R410A	2011 New line-up update	Apr. 2011

Step by step air conditioner selection process (reference)

(1) **Calculate or obtain the maximum heat load for the area to be air conditioned.**

(2)

Specifications

Model features and functions

Air-flow and temperature distribution

(3)

Selection of the control system

Remote Wall Thermostat Control

Front Desk Control

⚠CAUTION

1. Air conditioners should not be installed in areas where corrosive gases such as acid gas or alkaline gas is present.

Note :
Here in this PDB, the temperature units are generally expressed in Fahrenheit (°F) but for specific regions please conform to local standards whenever necessary.

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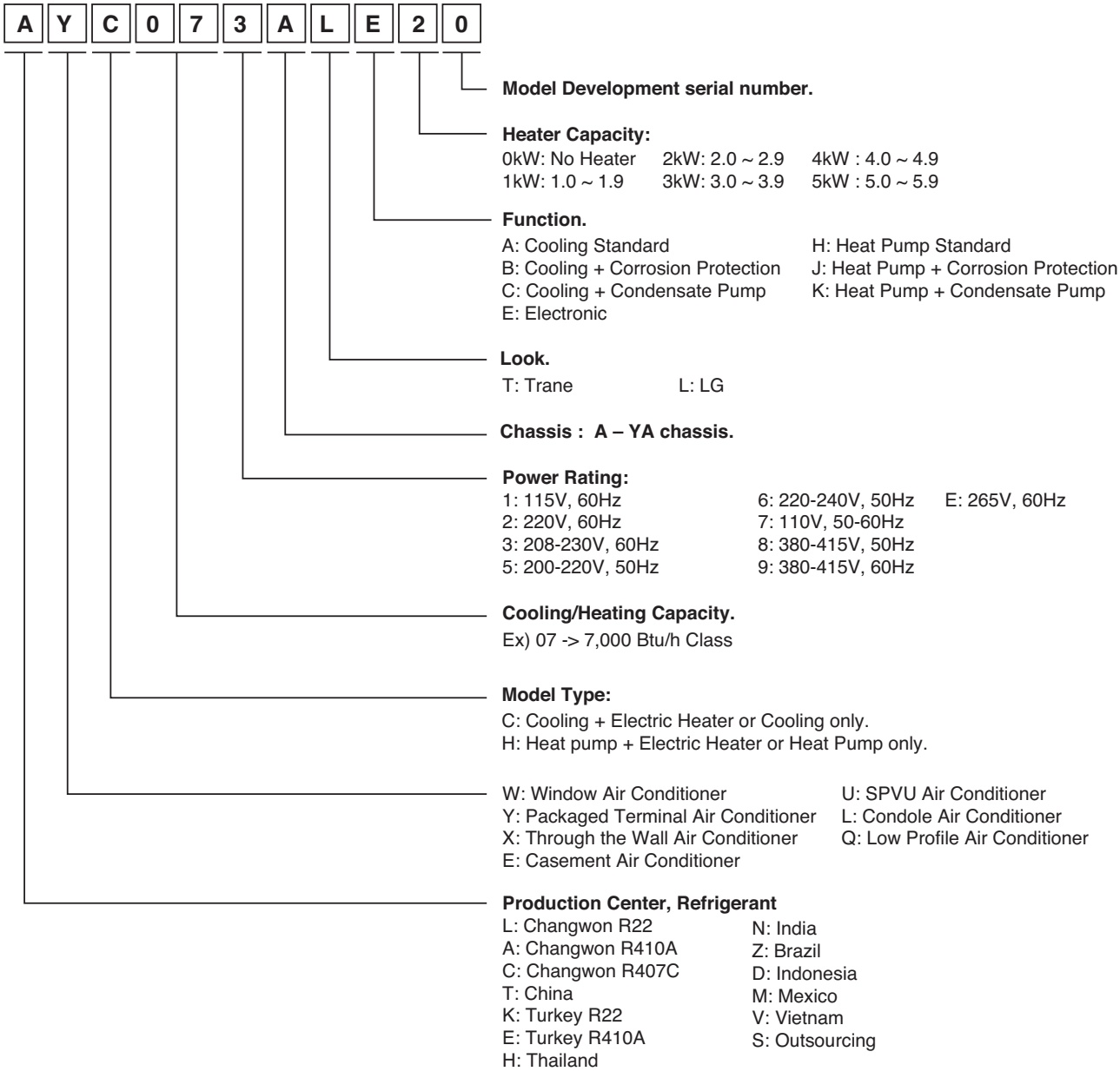
1. Model line up

Chassis	Model names			
	Capacity, kW(kBtu/h)			
	2.05(7)	2.64(9)	3.52(12)	4.4(15)
YA	AYC073ALE20(LP073CD2A) AYH073ALE20(LP073HD2A) AYC07EALE20(LP076CD2A) AYH07EALE20(LP076HD2A) AYC073ALE30(LP073CD3A) AYH073ALE30(LP073HD3A) AYC07EALE30(LP076CD3A) AYH07EALE30(LP076HD3A)	AYC093ALE30(LP093CD3A) AYH093ALE30(LP093HD3A) AYC09EALE30(LP096CD3A) AYH09EALE30(LP096HD3A)	AYC123ALE30(LP123CD3A) AYH123ALE30(LP123HD3A) AYC12EALE30(LP126CD3A) AYH12EALE30(LP126HD3A)	AYC153ALE30(LP153CD3A) AYH153ALE30(LP153HD3A) AYC15EALE30(LP156CD3A) AYH15EALE30(LP156HD3A) AYC153ALE50(LP153CD5A) AYH153ALE50(LP153HD5A) AYC15EALE50(LP156CD5A) AYH15EALE50(LP156HD5A)

2. Nomenclature

Global standard

[New version]



3. Appearance

Chassis	Unit	Models	
YA		AYC073ALE20(LP073CD2A) AYH073ALE20(LP073HD2A) AYC073ALE30(LP073CD3A) AYH073ALE30(LP073HD3A) AYC07EALE20(LP076CD2A) AYH07EALE20(LP076HD2A) AYC07EALE30(LP076CD3A) AYH07EALE30(LP076HD3A) AYC093ALE30(LP093CD3A) AYH093ALE30(LP093HD3A) AYC09EALE30(LP096CD3A) AYH09EALE30(LP096HD3A)	AYC123ALE30(LP123CD3A) AYH123ALE30(LP123HD3A) AYC12EALE30(LP126CD3A) AYH12EALE30(LP126HD3A) AYC153ALE30(LP153CD3A) AYH153ALE30(LP153HD3A) AYC153ALE50(LP153CD5A) AYH153ALE50(LP153HD5A) AYC15EALE30(LP156CD3A) AYH15EALE30(LP156HD3A) AYC15EALE50(LP156CD5A) AYH15EALE50(LP156HD5A)

4. List of functions

Category	Function	PTAC Type Cooling only Models	PTAC Type Heat Pump Models
Air flow	Air discharge type	Top discharge	Top discharge
	Airflow direction control (up & down)	Yes	Yes
	Airflow direction control (left & right)	-	-
	Auto swing	-	-
	Airflow steps (fan/cool/heat)	2/2/2	2/2/2
	Airflow Direction	2 way	2 way
Air purifying	Deodorizing filter	-	-
	Plasma air filter	-	-
	Air filter (washable / anti-fungus)	O	O
Installation	Electric heater (operation)	O	O
Reliability	Hot start	-	-
Convenience	Auto restart operation	O	O
	Micom control	O	O
	Air ventilation	O	O
	Forced operation	-	-
	Sleep mode	-	-
	Timer	O	O
Individual control	Wired remote controller	O	O
	Wireless remote controller	O	O
	Wireless LCD remote control	O	O
Others	Energy save mode	O	O
	Thermostat	-	-
	Thermistor	O	O

O : applied
- : not applied

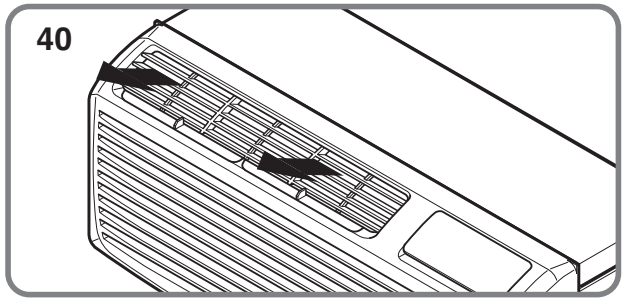
* the front view of the air conditioner may vary depending upon the type of front grille look.

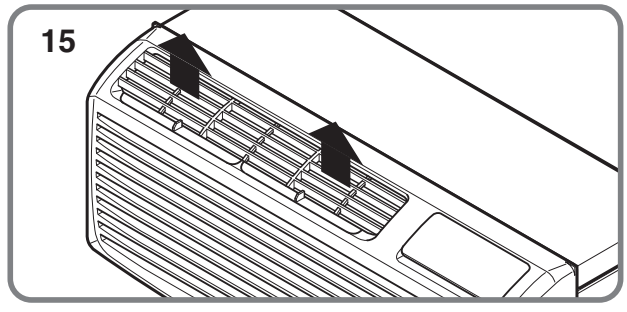
5. Features

The following features can be found in PTAC (Packaged Terminal Air-Conditioners) :-

- **2 -Way Air Flow Direction**
- **Washable Filters**
- **Low Noise at High Air Volume**
- **High Efficiency Compressor**
- **Energy Saver Mode**
- **Timer**
- **Electric Heater**
- **Deice Control**
- **Air Ventilation**
- **Energy saving Anti-corrosion treated Fins**
- **Infinite Impulse Response(IIR)**
- **Compressor Restart Delay**
- **Fan only Setting**
- **Indoor Fan Speed Setting**
- **Two Fan Motors**
- **LED Diagnostics and Self Diagnostics**
- **2 Position Discharge Grille**
- **Indoor Room Freeze Protection**
- **Door Switch/Occupancy Sensor**
- **Compressor Overload Protection**
- **Outdoor Air Temperature Switchover**
- **Temperature Limits**
- **Condensate Drain Valve**
- **Quick Heater Recovery**
- **Reverse Cycle Defrosting (PTHP's only)**
- **High Temperature Heat Pump operation Protection**
- **Remote Thermostat Control**
- **Zone Sensor**

2 -Way Air Flow Direction

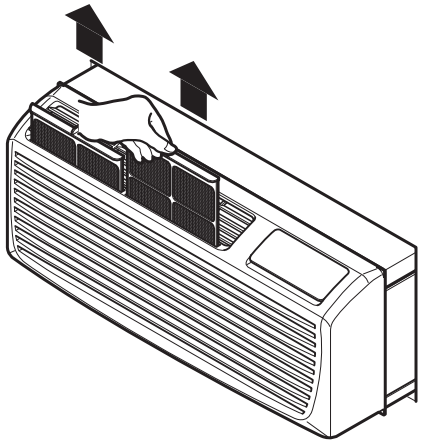


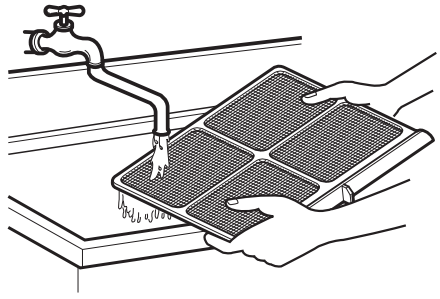


Air Flow can be adjusted by changing the direction of the air conditioner's louvers to attain the desired level of comfort and convenience. This can also increase the cooling efficiency of the air conditioner.

In order to attain maximum cooling efficiency, adjust the louvers so that they face upwards.

Washable Filters





The Unit uses two filters on the indoor side which can be slid easily. These filters can be taken out without removing the Front Grille and then cleaned by washing or brushing.

The filters should be checked and cleaned every two(2) weeks or as necessary to maintain the optimal performance of the air conditioner. depending upon the region and purpose of application.

Low Noise at High Air Volume

New Blowers and Fans which are bigger and stronger than earlier ones operate at low rpm's and have higher efficiency.

High Efficiency Compressor

LG Rotary compressors have low noise, Low Vibration and higher efficiency and reliability.

Energy save mode

This feature employs a programmable logic which enables the unit to minimize power consumption. When the switch is activated in the "on" position, the Indoor fan turns off as soon as the compressor stops running. And in the "off" mode, the indoor fan runs continuously even if the compressor stops running.

Timer

By this feature we can set the operating time of the air conditioner from one(1) hour up to a time of 12 hours. In the "Off" mode, the Air Conditioner stops operating after the set time, while in the "On" mode, the Air Conditioner timer can be set so that the unit starts operating at the desired time.

Electric Heater

Electric heaters are used in cold regions when instant heating is required in the room.

In such cases, electric heaters are preferred over heat pump models which sometime require long time to achieve the desired heating effect.

Electric Heater are of two types – Coil Heater and PTC Heater

Fig : Coil Heater

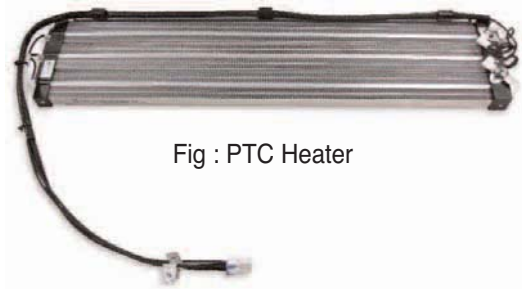


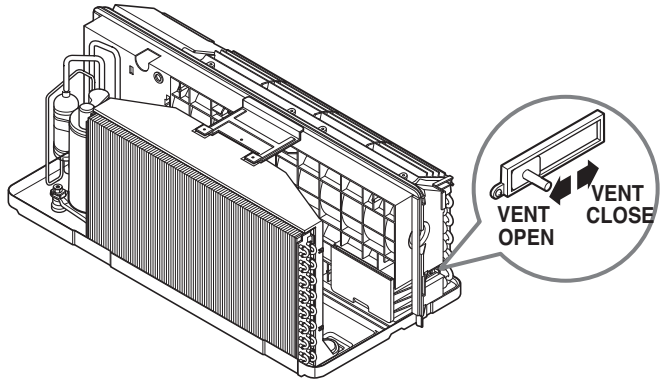
Fig : PTC Heater

Deice Control

When the unit starts operating in the heating mode, then, to protect the outdoor unit pipe from freezing, “deice” control is used. By exercising this control, the cycle is reversed into the cooling mode; to deice or defrost the condenser tubes in the outdoor unit.

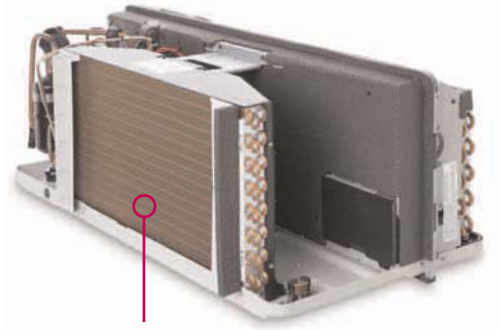
Air Ventilation

Air ventilation is carried out by means of a ventilation lever from time to time to induct fresh air into the room. For the air conditioner to maintain the best cooling conditions, the lever must be in the closed position. And when the ventilation lever is set in the open position, the damper opens and the room air is exhausted while at the same time fresh air from outside enters the room.

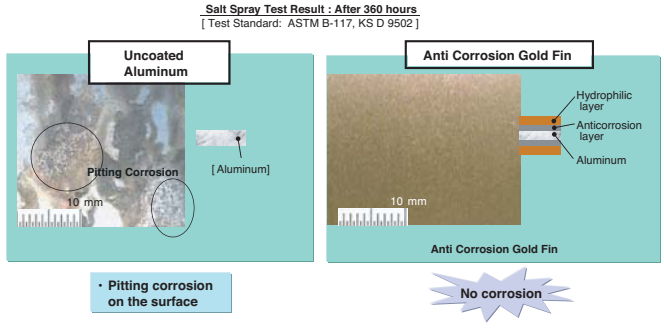


Energy saving Gold Fin

Heat exchangers are coated with anti-corrosive and Hydrophilic layers. It prevents the corrosion of heat exchanger. Fins remain new for a long time and the efficiency of the heat exchanger remains constant thereby saving power and maintenance cost.



Gold Fin Anti-Corrosive Treatment:



Infinite Impulse response (IIR)

The IIR function senses the temperature several times per second and make micro adjustments accordingly.

Compressor Restart Delay

This feature extends the overall life of the compressor by preventing the short cycling of the air-conditioner. When the compressor restarts, LG PTAC is designed to give it a minimum of three minutes to have a time of equalizing the refrigerant pressures for optimizing the cycle.

Fan only setting

When the Fan only setting is made, only the fan on the indoor side operates while the compressor stops operating and the unit ceases to run in the Cooling or the Heating mode.

Indoor Fan speed setting

The Indoor fan can run at HIGH or LOW speed for either COOLING or HEATING operation.

Two Fan motors

The air conditioning unit has two fan motors for providing a quiet operation and maximum efficiency.

LED Diagnostics and Self Diagnostics

LED Diagnostics feature indicates the problem by its easy to read diagnostics, when the unit does not operate properly. For example, one blink every 2 seconds indicate compressor failure.

While Self Diagnostics feature is used in micom models and it indicates the problem by a displaying a set of error codes.

2 position discharge grille

The discharge grille can provide air flow upwards at an angle of 40˚ off vertical or 15˚ off vertical. The angle is changed by removing the front grille and 4 screws that fasten the discharge grille to the front grille and rotating the louvers to an alternate position.

Indoor room freeze protection

When the unit senses the room temperature to be less than 40˚ F, the unit activates the fan motor and either the electric resistance heater or the hydronic heater, to prevent the pipes or fixtures from freezing. This also overrides the front desk control of the unit mounted controls or the wall mounted controls.

Door Switch/Occupancy Sensor

The unit is capable of accommodating a field installed door switch and occupancy sensor to operate the energy management feature by checking whether any people are present inside the room or not. If there are no people inside the room, the energy management feature is in play.

Compressor Overload protection

This feature prevents damage of the compressor by sensing the indoor coil temperature during the heating mode. If the indoor coil temperature is over 130˚ F, the outdoor fan is switched off and it operates again only when the temperature drops below 120 ˚ F.

Outdoor Air Temperature switchover

This feature changes the operating mode of the unit from the heat pump mode to total resistance heat.

Temperature limits

The unit is programmed to provide both heating and cooling temperature limits by dip switches on the control panel. The limits are from 50˚ F to 90˚ F. These temperature limits help to prevent overheating and overcooling thereby reducing the energy costs.

Condensate Drain Valve

The unit has a condensate drain valve to prevent water from collecting and freezing in the basepan.

Quick Heater Recovery

The unit is designed to operate the electric heater so as to warm the room to the desired temperature set point as soon as the Heat Pump cycle operates. This feature has an advantage of reducing the time to reach the desired temperature for better comfort.

Reverse Cycle Defrosting – (PTHP's only)

This feature enables the unit to activate the reverse cycle defrost so as to prevent the formation of ice on the outdoor unit, which is exposed to cold environment. Formation of ice reduces the airflow through the coil and hence the efficiency of the air conditioning unit. The LG PTHP employs an active reverse cycle defrost function to melt the ice off the outdoor coil for ensuring room comfort conditions and savings from extended operation.

High Temperature Heat Pump Operation Protection

When the unit operates at high outdoor temperature conditions during the cooling cycle, this feature switches off the compressor to prevent damage.

Remote Thermostat Control

The PTAC air conditioning unit is designed and built to be operated from any four(4) or five(5) wire remote mounted thermostat if desired. The unit has a built-in low voltage power source which can accommodate any of the thermostat choices – manual, auto changeover or programmable. A remote thermostat can also be added to any unit.

Zone Sensor

The PTAC air conditioning unit can be controlled by means of a Zone Sensor which carries out the same functions as that of a Wall Thermostat. In other words, it is a remote wall thermostat.

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1. YA Chassis

Models :

AYC073ALE20(LP073CD2A)	AYC093ALE30(LP093CD3A)	AYC123ALE30(LP123CD3A)	AYC153ALE30(LP153CD3A)
AYH073ALE20(LP073HD2A)	AYH093ALE30(LP093HD3A)	AYH123ALE30(LP123HD3A)	AYH153ALE30(LP153HD3A)
AYC07EALE20(LP076CD2A)	AYC09EALE30(LP096CD3A)	AYC12EALE30(LP126CD3A)	AYC15EALE30(LP156CD3A)
AYH07EALE20(LP076HD2A)	AYH09EALE30(LP096HD3A)	AYH12EALE30(LP126HD3A)	AYH15EALE30(LP156HD3A)
AYC073ALE30(LP073CD3A)			AYC153ALE50(LP153CD5A)
AYH073ALE30(LP073HD3A)			AYH153ALE50(LP153HD5A)
AYC07EALE30(LP076CD3A)			AYC15EALE50(LP156CD5A)
AYH07EALE30(LP076HD3A)			AYH15EALE50(LP156HD5A)

1.1 Features

- 2 -Way Air Flow Direction
- Washable Filters
- Low Noise at High Air Volume
- High Efficiency Compressor
- Energy Saver Mode
- Timer
- Electric Heater
- Deice Control
- Air Ventilation
- Energy saving Anti-corrosion treated Fins
- Infinite Impulse Response(IIR)
- Compressor Restart Delay
- Fan only Setting
- Indoor Fan Speed Setting
- Two Fan Motors
- LED Diagnostics and Self Diagnostics
- 2 Position Discharge Grille
- Indoor Room Freeze Protection
- Door Switch/Occupancy Sensor
- Compressor Overload Protection
- Outdoor Air Temperature Switchover
- Temperature Limits
- Condensate Drain Valve
- Quick Heater Recovery
- Reverse Cycle Defrosting (PTHP's only)
- High Temperature Heat Pump operation Protection
- Remote Thermostat Control
- Zone Sensor

1.2 List of functions

Category	Function	PTAC Cooling only Models	PTAC Heat Pump Models
Air flow	Air discharge type	Top discharge	Top discharge
	Airflow direction control (up & down)	Yes	Yes
	Airflow direction control (left & right)	-	-
	Auto swing	-	-
	Airflow steps (fan/cool/heat)	2/2/2	2/2/2
	Airflow Direction	2 way	2 way
Air purifying	Deodorizing filter	-	-
	Plasma air filter	-	-
	Air filter (washable / anti-fungus)	O	O
Installation	Electric heater (operation)	O	O
Reliability	Hot start	-	-
Convenience	Auto restart operation	O	O
	Micom control	O	O
	Air ventilation	O	O
	Forced operation	-	-
	Sleep mode	-	-
	Timer	O	O
Individual control	Wired remote controller	O	O
	Wireless remote controller	O	O
	Wireless LCD remote control	O	O
Others	Energy saver switch	O	O
	Thermostat	-	-
	Thermistor	O	O

Note :
O : applied
- : not applied

1.3 Specifications

Model			AYC073ALE20(LP073CD2A)		AYC07EALE20(LP076CD2A)	
Cooling Capacity		kW	2.17	2.23	2.11	
		Btu/h.	7,200	7,400	7,200	
Heating Capacity (for Heat Pump models)		kW	-	-	-	
		Btu/h.	-	-	-	
Electric Heater capacity		kW	2.4	2.5	2.0	
		Btu/h.	8,200	8,600	6,800	
Power Input	Cooling/ Heating	W	620	635	650	
Running Current	Cooling/ Heating	A	3.0	2.9	2.7	
Starting Current	Cooling/ Heating	A	-	-	-	
Electric Heater Current		A	11.5	10.9	7.6	
EER		W/W	3.4	3.4	3.2	
		Btu/h.W	11.6	11.6	11.0	
COP		W/W	-	-	-	
Power Supply		Ø / V / Hz	1 / 208 / 60	1 / 230 / 60	1 / 265 / 60	
Power Factor		%	97	97	92	
MCA		A	14.6		9.7	
MOP		A	15.0		15.0	
Air Flow Rate	Indoor,Max	m^3/min(CFM)	8.5(300)		7.2(255)	
	Outdoor,Max	m^3/min(CFM)	17(600)		17(600)	
Dehumidification		pts/h	1.6		1.5	
Sound Level	Indoor, H/M/L	dB(A)±3	45/-/43		45/-/43	
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	61		61	
Refrigerant & Charge		g(oz)	R410A, 660(23.3)		R410A, 650(22.9)	
Compressor	Type		Rotary(Non Tropical)		Rotary	
	Model		GA066KAB		GA066QAB	
	Motor Type		PSC		PSC	
	Oil Type		POE(RB68A)orPVE(FVC68D)		POE(RB68A)orPVE(FVC68D)	
	Oil Charge	cc	230		230	
	O.L.P Name		B120-160-241E		B105-165-241E	
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan	Axial Fan
	Motor Type(In/Out)		6 Poles	4 Poles	6 Poles	4 Poles
	Motor Output(In/Out)	W	9.1/60		24.9/60	
Heat Exchanger	Evaporator	Rows * Column * FPI	2R *12C *18FPI		2R *12C *21FPI	
	Condensor	Rows * Column * FPI	3R *17C *20FPI		2R *17C *20FPI	
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1	
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505	
		inch	42*16*19-7/8		42*16*19-7/8	
Net Weight		kg(lbs)	42.2(93.0)		42.2(93.0)	
Tool Code			YA		YA	
Features	Temperature Control		Thermistor		Thermistor	
	Energy Saver Mode		O		O	
	Prefilter(washable/anti-fungus)		O		O	
	Plasma Filter		-		-	
	Steps, Fan/Cool/Heat		2/2/2		2/2/2	
	Airflow Direction Control(up&down)		Manual		Manual	
	Airflow Direction Control(left&right)		-		-	
	Remote Controller Type		Wall Thermostat		Wall Thermostat	
	Setting Temperature	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)	
	Range	Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)	
	Auto Operation (Micom Control)		-		-	
	Panel Touch Type		Micom		Micom	
	Timer		12h, on/off		12h, on/off	
	Air Discharge		Rear		Rear	
	Air-Ventilation		O		O	
	Deice Control(Defrost)		-		-	
	Hot Start		-		-	
	Look		L - Look		L - Look	
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out	
	Special Function		Electric Heater		Electric Heater	

Note : -

○ : applied
- : not applied

Model			AYC073ALE30(LP073CD3A)		AYC07EALE30(LP076CD3A)
Cooling Capacity		kW	2.17	2.23	2.11
		Btu/h.	7,200	7,400	7,200
Heating Capacity (for Heat Pump models)		kW	-	-	-
		Btu/h.	-	-	-
Electric Heater capacity		kW	3.1	3.5	3.7
		Btu/h.	10,500	11,900	11,900
Power Input	Cooling/ Heating	W	620	635	650
Running Current	Cooling/ Heating	A	3.0	2.9	2.7
Starting Current	Cooling/ Heating	A	-	-	-
Electric Heater Current		A	14.9	15.2	7.6
EER		W/W	3.39	3.39	1.9
		Btu/h.W	11.6	11.6	11.0
COP		W/W	-	-	-
Power Supply		Ø / V / Hz	1 / 208 / 60	1 / 230 / 60	1 / 265 / 60
Power Factor		%	99.4	95.2	90.8
MCA		A	19.2		17.7
MOP		A	20.0		20.0
Air Flow Rate	Indoor,Max	m^3/min(CFM)	8.5(300)		7.2(255)
	Outdoor,Max	m^3/min(CFM)	17(600)		17(600)
Dehumidification		pts/h	2.0		2.0
Sound Level	Indoor, H/M/L	dB(A)±3	45/-/43		45/-/43
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	61		61
Refrigerant & Charge		g(oz)	R410A, 660(23.3)		R410A, 650(22.9)
Compressor	Type		Rotary(Non Tropical)		Rotary
	Model		GA066KAB		GA066QAB
	Motor Type		PSC		PSC
	Oil Type		POE(RB68A)orPVE(FVC68D)		POE(RB68A)orPVE(FVC68D)
	Oil Charge	cc	230		230
	O.L.P Name		B120-160-241E		B105-165-241E
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan | Axial Fan
	Motor Type(In/Out)		6 Poles / 4 Poles		6 Poles / 4 Poles
	Motor Output(In/Out)	W	9.1/60		24.9/60
Heat Exchanger	Evaporator	Rows * Column * FPI	2R *12C *18FPI		2R *12C *21FPI
	Condensor	Rows * Column * FPI	3R *17C *20FPI		2R *17C *20FPI
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505
		inch	42*16*19-7/8		42*16*19-7/8
Net Weight		kg(lbs)	42.2(93)		42.2(93)
Tool Code			YA		YA
Features	Temperature Control		Thermistor		Thermistor
	Energy Saver Mode		O		O
	Prefilter(washable/anti-fungus)		O		O
	Plasma Filter		-		-
	Steps, Fan/Cool/Heat		2/2/2		2/2/2
	Airflow Direction Control(up&down)		Manual		Manual
	Airflow Direction Control(left&right)		-		-
	Remote Controller Type		Wall Thermostat		Wall Thermostat
	Setting Temperature	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
	Range	Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
	Auto Operation (Micom Control)		-		-
	Panel Touch Type		Micom		Micom
	Timer		12h, On/Off		12h, On/Off
	Air Discharge		Rear		Rear
	Air-Ventilation		O		O
	Deice Control(Defrost)		-		-
	Hot Start		-		-
	Look		L - Look		L - Look
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out
	Special Function		Electric Heater		Electric Heater

Note : -

○ : applied
- : not applied

Model			AYH073ALE20(LP073HD2A)		AYH07EALE20(LP076HD2A)	
Cooling Capacity		kW	2.11	2.17	2.14	
		Btu/h.	7200	7400	7300	
Heating Capacity (for Heat Pump models)		kW	1.82	1.88	1.79	
		Btu/h.	6200	6400	6100	
Electric Heater capacity		kW	2.4	2.5	2	
		Btu/h.	8200	8600	6800	
Power Input	Cooling/ Heating	W	621/567	638/586	655/575	
Running Current	Cooling/ Heating	A	3.0/2.7	2.9/2.6	2.7/2.5	
Starting Current	Cooling/ Heating	A	-	-	-	
Electric Heater Current		A	10.9	11.5	7.6	
EER		W/W	3.4	3.4	3.3	
		Btu/h.W	11.6	11.6	11.2	
COP		W/W	3.2	3.2	3.1	
Power Supply		Ø / V / Hz	1 / 208 / 60	1 / 230 / 60	1 / 265 / 60	
Power Factor		%	99.5/99.5	95.7/98.0	91.6/88.7	
MCA		A	14.6		9.7	
MOP		A	15		15	
Air Flow Rate	Indoor,Max	m^3/min(CFM)	8.5(300)		7.8(275)	
	Outdoor,Max	m^3/min(CFM)	17(600)		20(706)	
Dehumidification		pts/h	1.6		1.5	
Sound Level	Indoor, H/M/L	dB(A)±3	45/-/43		45/-/43	
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	61		61	
Refrigerant & Charge		g(oz)	R410A, 660(23.3)		R410A, 665(23.4)	
Compressor	Type		Rotary(Non Tropical)		Rotary(Non Tropical)	
	Model		GA066KAB		GA066QAB	
	Motor Type		PSC		PSC	
	Oil Type		POE or PVE		POE or PVE	
	Oil Charge	cc	230		230	
	O.L.P Name		B120-160-241E		B105-165-241E	
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan	Axial Fan
	Motor Type(In/Out)		6 Poles	4 Poles	6 Poles	4 Poles
	Motor Output(In/Out)	W	9.1/60		2009.7.25	
Heat Exchanger	Evaporator	Rows * Column * FPI	2R *12C *18FPI		2R *12C *21FPI	
	Condensor	Rows * Column * FPI	3R *17C *20FPI		3R *17C *20FPI	
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1	
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505	
		inch	42*16*19-7/8		42*16*19-7/8	
Net Weight		kg(lbs)	43.5(95.7)		44.4(97.9)	
Tool Code			YA		YA	
Features	Temperature Control		Thermistor		Thermistor	
	Energy Saver Mode		O		O	
	Prefilter(washable/anti-fungus)		O		O	
	Plasma Filter		-		-	
	Steps, Fan/Cool/Heat		2002.2.2		2002.2.2	
	Airflow Direction Control(up&down)		Manual		Manual	
	Airflow Direction Control(left&right)		-		-	
	Remote Controller Type		Wall Thermostat		Wall Thermostat	
	Setting Temperature Range	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)	
		Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)	
	Auto Operation (Micom Control)		-		-	
	Panel Touch Type		Micom		Micom	
	Timer		12h, on/off		12h, on/off	
	Air Discharge		Rear		Rear	
	Air-Ventilation		O		O	
	Deice Control(Defrost)		O		O	
	Hot Start		-		-	
	Look		L - Look		L - Look	
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out	
	Special Function		Electric Heater		Electric Heater	

Note : -

○ : applied
- : not applied

Model			AYH073ALE30 (LP073HD3A)		AYH07EALE30(LP076HD3A)
Cooling Capacity		kW	2.11	2.17	2.14
		Btu/h.	7,200	7,400	7,300
Heating Capacity (for Heat Pump models)		kW	1.82	1.88	1.79
		Btu/h.	6,200	6,400	6,100
Electric Heater capacity		kW	3.1	3.5	3.7
		Btu/h.	10,500	11,900	11,900
Power Input	Cooling/ Heating	W	620/565	635/585	655/575
Running Current	Cooling/ Heating	A	3.0/2.7	2.9/2.6	2.7/2.5
Starting Current	Cooling/ Heating	A	-	-	-
Electric Heater Current		A	10.9	11.5	7.6
EER		W/W	3.40	3.40	3.3
		Btu/h.W	11.6	11.6	11.2
COP		W/W	3.2	3.2	3.1
Power Supply		Ø / V / Hz	1 / 208 / 60	1 / 230 / 60	1 / 265 / 60
Power Factor		%	99.4	95.2	91.5
MCA		A	19.2		17.6
MOP		A	20.0		20.0
Air Flow Rate	Indoor,Max	m^3/min(CFM)	8.5(300)		7.8(275)
	Outdoor,Max	m^3/min(CFM)	17(600)		20(706)
Dehumidification		pts/h	2.0		2.0
Sound Level	Indoor, H/M/L	dB(A)±3	45/-/43		45/-/43
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	61		61
Refrigerant & Charge		g(oz)	R410A, 660(23.3)		R410A, 665(23.4)
Compressor	Type		Rotary(Non Tropical)		Rotary(Non Tropical)
	Model		GA066KAB		GA066QAB
	Motor Type		PSC		PSC
	Oil Type		POE or PVE		POE or PVE
	Oil Charge	cc	230		230
	O.L.P Name		B120-160-241E		B105-165-241E
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan	Axial Fan
	Motor Type(In/Out)		6 Poles / 4 Poles		6 Poles / 4 Poles
	Motor Output(In/Out)	W	9.1/60		9.7/25
Heat Exchanger	Evaporator	Rows * Column * FPI	2R *12C *18FPI		2R *12C *21FPI
	Condensor	Rows * Column * FPI	3R *17C *20FPI		3R *17C *20FPI
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505
		inch	42*16*19-7/8		42*16*19-7/8
Net Weight		kg(lbs)	43.4(95.7)		44.4(97.9)
Tool Code			YA		YA
Features	Temperature Control		Thermistor		Thermistor
	Energy Saver Mode		O		O
	Prefilter(washable/anti-fungus)		O		O
	Plasma Filter		-		-
	Steps, Fan/Cool/Heat		2/2/2		2/2/2
	Airflow Direction Control(up&down)		Manual		Manual
	Airflow Direction Control(left&right)		-		-
	Remote Controller Type		Wall Thermostat		Wall Thermostat
	Setting Temperature Range	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
		Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
	Auto Operation (Micom Control)		-		-
	Panel Touch Type		Micom		Micom
	Timer		12h, On/Off		12h, On/Off
	Air Discharge		Rear		Rear
	Air-Ventilation		O		O
	Deice Control(Defrost)		O		O
	Hot Start		-		-
	Look		L - Look		L - Look
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out
	Special Function		Electric Heater		Electric Heater

Note : -

○ : applied
- : not applied

Model			AYC093ALE30(LP093CD3A)		AYC09EALE30(LP096CD3A)	
Cooling Capacity		kW	2.58	2.64	2.64	
		Btu/h.	8800	9000	9000	
Heating Capacity (for Heat Pump models)		kW	-	-	-	
		Btu/h.	-	-	-	
Electric Heater capacity		kW	3.1	3.5	3.5	
		Btu/h.	10500	11900	11900	
Power Input	Cooling/ Heating	W	800/-	820/-	860/-	
Running Current	Cooling/ Heating	A	4.2/-	3.8/-	3.4/-	
Starting Current	Cooling/ Heating	A	-	-	-	
Electric Heater Current		A	14.9	15.2	14	
EER		W/W	3.2	3.2	3.1	
		Btu/h.W	11	11	10.5	
COP		W/W	-	-	-	
Power Supply		Ø / V / Hz	1 / 208 / 60	1 / 230 / 60	1 / 265 / 60	
Power Factor		%	100	101	95	
MCA		A	19.2		17.7	
MOP		A	20		20	
Air Flow Rate	Indoor,Max	m^3/min(CFM)	7.2(255)		8.2(290)	
	Outdoor,Max	m^3/min(CFM)	17(600)		17(600)	
Dehumidification		pts/h	2.3		2.0	
Sound Level	Indoor, H/M/L	dB(A)±3	46/-/44		46/-/44	
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	61		61	
Refrigerant & Charge		g(oz)	R410A,650(22.9)		R410A, 675(23.8)	
Compressor	Type		Rotary(Non Tropical)		Rotary(Non Tropical)	
	Model		GKS086KAB		GKS086QAB	
	Motor Type		PSC		PSC	
	Oil Type		POE(RB68A)orPVE(FVC68D)		POE(RB68A)orPVE(FVC68D)	
	Oil Charge	cc	330		330	
	O.L.P Name		MRA 12130 - 12026		MRA12060-12026	
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan	Axial Fan
	Motor Type(In/Out)		6 Poles	4 Poles	6 Poles	4 Poles
	Motor Output(In/Out)	W	9.1/60		11/52	
Heat Exchanger	Evaporator	Rows * Column * FPI	3R *12C *20FPI		2R *10C *19FPI	
	Condensor	Rows * Column * FPI	2R *17C *20FPI		2R *17C *20FPI	
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1	
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505	
		inch	42*16*19-7/8		42*16*19-7/8	
Net Weight		kg(lbs)	46.1(101.6)		47.1(103.8)	
Tool Code			YA		YA	
Features	Temperature Control		Thermistor		Thermistor	
	Energy Saver Mode		O		O	
	Prefilter(washable/anti-fungus)		O		O	
	Plasma Filter		-		-	
	Steps, Fan/Cool/Heat		2/2/2		2/2/2	
	Airflow Direction Control(up&down)		Manual		Manual	
	Airflow Direction Control(left&right)		-		-	
	Remote Controller Type		Wall Thermostat		Wall Thermostat	
	Setting Temperature Range	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)	
		Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)	
	Auto Operation (Micom Control)		-		-	
	Panel Touch Type		Micom		Micom	
	Timer		12h, on/off		12h, on/off	
	Air Discharge		Rear		Rear	
	Air-Ventilation		O		O	
	Deice Control(Defrost)		-		-	
	Hot Start		-		-	
	Look		L - Look		L - Look	
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out	
	Special Function		Electric Heater		Electric Heater	

Note : -

○ : applied
- : not applied

Model			AYH093ALE30(LP093HD3A)		AYH09EALE30(LP096HD3A)	
Cooling Capacity		kW	2.58	2.64	2.67	
		Btu/h.	8800	9000	9200	
Heating Capacity (for Heat Pump models)		kW	2.32	2.37	2.4	
		Btu/h.	7900	8100	8200	
Electric Heater capacity		kW	3.1	3.5	3.5	
		Btu/h.	10500	11900	11900	
Power Input	Cooling/ Heating	W	800/723	820/741	865/750	
Running Current	Cooling/ Heating	A	4.2/4.0	3.8/3.6	3.4/3.0	
Starting Current	Cooling/ Heating	A	-	-	-	
Electric Heater Current		A	14.9	15.2	14	
EER		W/W	3.2	3.2	3.2	
		Btu/h.W	11	11	10.8	
COP		W/W	3.2	3.2	3.2	
Power Supply		Ø / V / Hz	1 / 208 / 60	1 / 230 / 60	1 / 265 / 60	
Power Factor		%	99	99.5	95.2(93.2)	
MCA		A	19.2		17.7	
MOP		A	20		20	
Air Flow Rate	Indoor,Max	m^3/min(CFM)	7.2(255)		8.8(310)	
	Outdoor,Max	m^3/min(CFM)	17(600)		17(600)	
Dehumidification		pts/h	2.3		2.2	
Sound Level	Indoor, H/M/L	dB(A)±3	46/-/44		46/-/44	
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	61		61	
Refrigerant & Charge		g(oz)	R410A, 735(25.9)		R410A, 800(28.2)	
Compressor	Type		Rotary(Non Tropical)		Rotary(Non Tropical)	
	Model		GKS086KAB		GKS086QAB	
	Motor Type		PSC		PSC	
	Oil Type		POE(RB68A)orPVE(FVC68D)		POE(RB68A) or PVE(FVC68D)	
	Oil Charge	cc	330		330	
	O.L.P Name		MRA 12130 - 12026		MRA12060-12026	
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan	Axial Fan
	Motor Type(In/Out)		6 Poles	4 Poles	6 Poles	4 Poles
	Motor Output(In/Out)	W	9.1/60		11/52	
Heat Exchanger	Evaporator	Rows * Column * FPI	3R *12C *20FPI		2R *10C * 19FPI	
	Condensor	Rows * Column * FPI	3R *17C *20FPI		3R *17C * 20FPI	
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1	
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505	
		inch	42*16*19-7/8		42*16*19-7/8	
Net Weight		kg(lbs)	47.7(105.2)		48.7(107.4)	
Tool Code			YA		YA	
Features	Temperature Control		Thermistor		Thermistor	
	Energy Saver Mode		O		O	
	Prefilter(washable/anti-fungus)		O		O	
	Plasma Filter		-		-	
	Steps, Fan/Cool/Heat		2/2/2		2/2/2	
	Airflow Direction Control(up&down)		Manual		Manual	
	Airflow Direction Control(left&right)		-		-	
	Remote Controller Type		Wall Thermostat		Wall Thermostat	
	Setting Temperature	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)	
	Range	Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)	
	Auto Operation (Micom Control)		-		-	
	Panel Touch Type		Micom		Micom	
	Timer		12h, on/off		12h, on/off	
	Air Discharge		Rear		Rear	
	Air-Ventilation		O		O	
	Deice Control(Defrost)		O		O	
	Hot Start		-		-	
	Look		L - Look		L - Look	
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out	
	Special Function		Electric Heater		Electric Heater	

Note : -

○ : applied
- : not applied

Model			AYC123ALE30(LP123CD3A)		AYC12EALE30(LP126CD3A)
Cooling Capacity		kW	3.4	3.46	3.45
		Btu/h.	11600	11800	11800
Heating Capacity (for Heat Pump models)		kW	-	-	-
		Btu/h.	-	-	-
Electric Heater capacity		kW	3.1	3.5	3.5
		Btu/h.	10500	11900	11900
Power Input	Cooling/ Heating	W	1094	1113	1156
Running Current	Cooling/ Heating	A	5.4	4.9	4.5
Starting Current	Cooling/ Heating	A	-	-	-
Electric Heater Current		A	14.9	15.2	14
EER		W/W	3.1	3.1	3.0
		Btu/h.W	10.6	10.6	10.2
COP		W/W	-	-	-
Power Supply		Ø / V / Hz	1 / 208 / 60	1 / 230 / 60	1 / 265 / 60
Power Factor		%	98	99	98
MCA		A	19.3		17.7
MOP		A	20		20
Air Flow Rate	Indoor,Max	m^3/min(CFM)	7.2(255)		11.3(399)
	Outdoor,Max	m^3/min(CFM)	17(600)		20(706)
Dehumidification		pts/h	2.8		2.6
Sound Level	Indoor, H/M/L	dB(A)±3	50/-/48		50/-/48
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	63		63
Refrigerant & Charge		g(oz)	R410A, 650(22.9)		R410A, 715(25.2)
Compressor	Type		Rotary(Non Tropical)		Rotary(Non Tropical)
	Model		GKS113KAB		GKS113QAB
	Motor Type		PSC		PSC
	Oil Type		POE(RB68A)orPVE(FVC68D)		POE(RB68A)orPVE(FVC68D)
	Oil Charge	cc	330		330
	O.L.P Name		MRA98996-12026		MRA12017-12026
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan	Axial Fan
	Motor Type(In/Out)		4 Poles		4 Poles
	Motor Output(In/Out)	W	24.9/60		24.9/60
Heat Exchanger	Evaporator	Rows * Column * FPI	3R *12C *20FPI		2R *10C *19FPI
	Condensor	Rows * Column * FPI	2R *17C *20FPI		2R *17C *20FPI
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505
		inch	42*16*19-7/8		42*16*19-7/8
Net Weight		kg(lbs)	46.1(101.6)		47.1(103.8)
Tool Code			YA		YA
Features	Temperature Control		Thermistor		Thermistor
	Energy Saver Mode		O		O
	Prefilter(washable/anti-fungus)		O		O
	Plasma Filter		-		-
	Steps, Fan/Cool/Heat		2/2/2		2/2/2
	Airflow Direction Control(up&down)		Manual		Manual
	Airflow Direction Control(left&right)		-		-
	Remote Controller Type		Wall Thermostat		Wall Thermostat
	Setting Temperature	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
	Range	Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
	Auto Operation (Micom Control)		-		-
	Panel Touch Type		Micom		Micom
	Timer		12h, on/off		12h, on/off
	Air Discharge		Rear		Rear
	Air-Ventilation		O		O
	Deice Control(Defrost)		-		-
	Hot Start		-		-
	Look		L - Look		L - Look
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out
	Special Function		Electric Heater		Electric Heater

Note : -

○ : applied
- : not applied

Model			AYH123ALE30(LP123HD3A)		AYH12EALE30(LP126HD3A)
Cooling Capacity		kW	3.4	3.46	3.46
		Btu/h.	11600	11800	11800
Heating Capacity (for Heat Pump models)		kW	3.11	3.17	3.14
		Btu/h.	10600	10800	10700
Electric Heater capacity		kW	3.1	3.5	3.5
		Btu/h.	10500	11900	11900
Power Input	Cooling/ Heating	W	1,095/970	1,115/990	1,135/980
Running Current	Cooling/ Heating	A	5.4/4.8	4.9/4.4	4.5/3.9
Starting Current	Cooling/ Heating	A	-	-	-
Electric Heater Current		A	14.9	15.2	14
EER		W/W	3.1	3.1	3.0
		Btu/h.W	10.6	10.6	10.4
COP		W/W	3.2	3.2	3.2
Power Supply		Ø / V / Hz	1 / 208/ 60	1 / 230/ 60	1 / 265 / 60
Power Factor		%	97	96.8	95.2(94.8)
MCA		A	19.3		17.7
MOP		A	20		20
Air Flow Rate	Indoor,Max	m^3/min(CFM)	11(388)		11(388)
	Outdoor,Max	m^3/min(CFM)	20(706)		20(706)
Dehumidification		pts/h	2.9		2.4
Sound Level	Indoor, H/M/L	dB(A)±3	50/-/48		50/-/48
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	63		63
Refrigerant & Charge		g(oz)	R410A, 860(30.3)		R410A, 865(30.5)
Compressor	Type		Rotary(Non Tropical)		Rotary(Non Tropical)
	Model		GKS113KAB		GKS113QAB
	Motor Type		PSC		PSC
	Oil Type		POE(RB68A) or PVE(FVC68D)		POE(RB68A) or PVE(FVC68D)
	Oil Charge	cc	330		330
	O.L.P Name		MRA98996-12026		MRA12027-12026
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan	Axial Fan
	Motor Type(In/Out)		4 Poles		4 Poles
	Motor Output(In/Out)	W	24.9/60		21.6/52
Heat Exchanger	Evaporator	Rows * Column * FPI	3R * 12C * 20FPI		3R *12C * 20FPI
	Condensor	Rows * Column * FPI	3R * 17C * 20FPI		3R *17C * 20FPI
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505
		inch	42*16*19-7/8		42*16*19-7/8
Net Weight		kg(lbs)	47.7(105.2)		48.7(107.4)
Tool Code			YA		YA
Features	Temperature Control		Thermistor		Thermistor
	Energy Saver Mode		O		O
	Prefilter(washable/anti-fungus)		O		O
	Plasma Filter		-		-
	Steps, Fan/Cool/Heat		2/2/2		2/2/2
	Airflow Direction Control(up&down)		Manual		Manual
	Airflow Direction Control(left&right)		-		-
	Remote Controller Type		Wall Thermostat		Wall Thermostat
	Setting Temperature	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
	Range	Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
	Auto Operation (Micom Control)		-		-
	Panel Touch Type		Micom		Micom
	Timer		12h, on/off		12h, on/off
	Air Discharge		Rear		Rear
	Air-Ventilation		O		O
	Deice Control(Defrost)		O		O
	Hot Start		-		-
	Look		L - Look		L - Look
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out
	Special Function		Electric Heater		Electric Heater

Note : -

○ : applied
- : not applied

Model			AYC153ALE30(LP153CD3A)		AYC15EALE30(LP156CD3A)
Cooling Capacity		kW	4.13	4.19	4.1
		Btu/h.	14100	14300	14000
Heating Capacity (for Heat Pump models)		kW	-	-	-
		Btu/h.	-	-	-
Electric Heater capacity		kW	3.1	3.5	3.5
		Btu/h.	10500	11900	11900
Power Input	Cooling/ Heating	W	1532	1554	1555
Running Current	Cooling/ Heating	A	7.6	6.9	5.9
Starting Current	Cooling/ Heating	A	-	-	-
Electric Heater Current		A	14.9	15.2	14
EER		W/W	2.7	2.7	2.6
		Btu/h.W	9.2	9.2	9
COP		W/W	-	-	-
Power Supply		Ø / V / Hz	1 / 208 / 60	1 / 230 / 60	1 / 265 / 60
Power Factor		%	95	95	98
MCA		A	19.3		17.7
MOP		A	20		20
Air Flow Rate	Indoor,Max	m^3/min(CFM)	11(388)		11.3(399)
	Outdoor,Max	m^3/min(CFM)	20(706)		20(706)
Dehumidification		pts/h	3.9		3.8
Sound Level	Indoor, H/M/L	dB(A)±3	50/-/48		50/-/48
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	63		63
Refrigerant & Charge		g(oz)	R410A, 745(26.2)		R410A, 720(25.4)
Compressor	Type		Rotary(Non Tropical)		Rotary(Non Tropical)
	Model		GKS141KAC		GKS141QAB
	Motor Type		PSC		PSC
	Oil Type		POE(RB68A) or PVE(FVC68D)		POE(RB68A) or PVE(FVC68D)
	Oil Charge	cc	350		330
	O.L.P Name		MRA12136-12026		MRA98996-12026
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan	Axial Fan
	Motor Type(In/Out)		4 Poles		4 Poles
	Motor Output(In/Out)	W	24.9/60		24.9/60
Heat Exchanger	Evaporator	Rows * Column * FPI	2R *10C *19FPI		2R *10C *18FPI
	Condensor	Rows * Column * FPI	2R *17C *20FPI		2R *17C *18FPI
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505
		inch	42*16*19-7/8		42*16*19-7/8
Net Weight		kg(lbs)	48(105.8)		49.1(108.2)
Tool Code			YA		YA
Features	Temperature Control		Thermistor		Thermistor
	Energy Saver Mode		O		O
	Prefilter(washable/anti-fungus)		O		O
	Plasma Filter		-		-
	Steps, Fan/Cool/Heat		2/2/2		2/2/2
	Airflow Direction Control(up&down)		Manual		Manual
	Airflow Direction Control(left&right)		-		-
	Remote Controller Type		Wall Thermostat		Wall Thermostat
	Setting Temperature Range	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
		Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
	Auto Operation (Micom Control)		-		-
	Panel Touch Type		Micom		Micom
	Timer		12h, on/off		12h, on/off
	Air Discharge		Rear		Rear
	Air-Ventilation		O		O
	Deice Control(Defrost)		-		-
	Hot Start		-		-
	Look		L - Look		L - Look
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out
	Special Function		Electric Heater		Electric Heater

Note : -

○ : applied
- : not applied

Model			AYC153ALE50(LP153CD5A)		AYC15EALE50(LP156CD5A)
Cooling Capacity		kW	4.13	4.19	4.10
		Btu/h.	14,100	14,300	14,000
Heating Capacity (for Heat Pump models)		kW	-	-	-
		Btu/h.	-	-	-
Electric Heater capacity		kW	4.6	5.0	5.0
		Btu/h.	15,695	17,060	17,060
Power Input	Cooling/ Heating	W	1,530	1,550	1,555
Running Current	Cooling/ Heating	A	7.6	6.9	5.9
Starting Current	Cooling/ Heating	A	-	-	-
Electric Heater Current		A	20.5	21.1	14.0
EER		W/W	2.70	2.70	2.63
		Btu/h.W	9.2	9.2	9.0
COP		W/W	-	-	-
Power Supply		Ø / V / Hz	1 / 208 / 60	1 / 230 / 60	1 / 265 / 60
Power Factor		%	96.8	97.7	99.5
MCA		A	26.3		26.3
MOP		A	30.0		30.0
Air Flow Rate	Indoor,Max	m^3/min(CFM)	11(388)		11.3(399)
	Outdoor,Max	m^3/min(CFM)	20(706)		20(706)
Dehumidification		pts/h	4.4		4.4
Sound Level	Indoor, H/M/L	dB(A)±3	50/-/48		50/-/48
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	63		63
Refrigerant & Charge		g(oz)	R410A, 745(26.2)		R410A, 720(25.4)
Compressor	Type		Rotary(Non Tropical)		Rotary(Non Tropical)
	Model		GKS141KAC		GKS141QAB
	Motor Type		PSC		PSC
	Oil Type		POE(RB68A) or PVE(FVC68D)		POE(RB68A) or PVE(FVC68D)
	Oil Charge	cc	350		330
	O.L.P Name		MRA12136-12026		MRA98996-12026
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan	Axial Fan
	Motor Type(In/Out)		4 Poles		4 Poles
	Motor Output(In/Out)	W	24.9/60		24.9/60
Heat Exchanger	Evaporator	Rows * Column * FPI	2R *10C *19FPI		2R *10C *18FPI
	Condensor	Rows * Column * FPI	2R *17C *20FPI		2R *17C *18FPI
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505
		inch	42*16*19-7/8		42*16*19-7/8
Net Weight		kg(lbs)	48(105.8)		49.1(108.2)
Tool Code			YA		YA
Features	Temperature Control		Thermistor		Thermistor
	Energy Saver Mode		O		O
	Prefilter(washable/anti-fungus)		O		O
	Plasma Filter		-		-
	Steps, Fan/Cool/Heat		2/2/2		2/2/2
	Airflow Direction Control(up&down)		Manual		Manual
	Airflow Direction Control(left&right)		-		-
	Remote Controller Type		Wall Thermostat		Wall Thermostat
	Setting Temperature Range	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
		Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
	Auto Operation (Micom Control)		-		-
	Panel Touch Type		Micom		Micom
	Timer		12h, On/Off		12h, On/Off
	Air Discharge		Rear		Rear
	Air-Ventilation		O		O
	Deice Control(Defrost)		-		-
	Hot Start		-		-
	Look		L - Look		L - Look
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out
	Special Function		Electric Heater		Electric Heater

Note : -

○ : applied
- : not applied

Model			AYH153ALE30(LP153HD3A)		AYH15EALE30(LP156HD3A)
Cooling Capacity		kW	4.25	4.31	4.31
		Btu/h.	14,500	14,700	14,700
Heating Capacity (for Heat Pump models)		kW	3.49	3.55	3.55
		Btu/h.	11,900	12,100	12,100
Electric Heater capacity		kW	3.1	3.5	3.5
		Btu/h.	10,500	11,900	11,900
Power Input	Cooling/ Heating	W	1540/1340	1560/1360	1,560/1,360
Running Current	Cooling/ Heating	A	7.6/6.6	6.9/6.0	6.0/5.4
Starting Current	Cooling/ Heating	A	-	-	-
Electric Heater Current		A	14.9	15.2	14
EER		W/W	2.8	2.8	2.8
		Btu/h.W	9.4	9.4	9.4
COP		W/W	2.6	2.6	2.6
Power Supply		Ø / V / Hz	1 / 208 / 60	1 / 230 / 60	1 / 265 / 60
Power Factor		%	98.8	98.7	97.7
MCA		A	19.3		17.7
MOP		A	20.0		20.0
Air Flow Rate	Indoor,Max	m^3/min(CFM)	11(388)		11(388)
	Outdoor,Max	m^3/min(CFM)	20(706)		20(706)
Dehumidification		pts/h	4.1		4.1
Sound Level	Indoor, H/M/L	dB(A)±3	50/-/48		50/-/48
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	63		63
Refrigerant & Charge		g(oz)	R410A, 960(33.9)		R410A, 1,000(35.3)
Compressor	Type		Rotary(Non Tropical)		Rotary
	Model		GJS151KAB		GJS151QAA
	Motor Type		PSC		PSC
	Oil Type		POE(RB68A) or PVE(FVC68D		POE(RB68A) or PVE(FVC68D)
	Oil Charge	cc	440		440
	O.L.P Name		INTERNAL		MRA12081-12026
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan / Axial Fan
	Motor Type(In/Out)		4 Poles		4 Poles
	Motor Output(In/Out)	W	24.9/60		21.6/52
Heat Exchanger	Evaporator	Rows * Column * FPI	2R *10C *19FPI		2R *10C *19FPI
	Condensor	Rows * Column * FPI	3R *17C *20FPI		3R *17C *20FPI
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505
		inch	42*16*19-7/8		42*16*19-7/8
Net Weight		kg(lbs)	51.6(113.8)		52.6(116)
Tool Code			YA		YA
Features	Temperature Control		Thermistor		Thermistor
	Energy Saver Mode		O		O
	Prefilter(washable/anti-fungus)		O		O
	Plasma Filter		-		-
	Steps, Fan/Cool/Heat		2/2/2		2/2/2
	Airflow Direction Control(up&down)		Manual		Manual
	Airflow Direction Control(left&right)		-		-
	Remote Controller Type		Wall Thermostat		Wall Thermostat
	Setting Temperature Range	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
		Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
	Auto Operation (Micom Control)		-		-
	Panel Touch Type		Micom		Micom
	Timer		12h, on/off		12h, on/off
	Air Discharge		Rear		Rear
	Air-Ventilation		O		O
	Deice Control(Defrost)		O		O
	Hot Start		-		-
	Look		L - Look		L - Look
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out
	Special Function		Electric Heater		Electric Heater

Note : -

○ : applied
- : not applied

Model			AYH153ALE50(LP153HD5A)		AYH15EALE50(LP156HD5A)
Cooling Capacity		kW	4.25	4.31	4.31
		Btu/h.	14,500	14,700	14,700
Heating Capacity (for Heat Pump models)		kW	3.49	3.55	3.55
		Btu/h.	11,900	12,100	12,100
Electric Heater capacity		kW	4.6	5.0	5.0
		Btu/h.	15,695	17,060	17,060
Power Input	Cooling/ Heating	W	1540/1340	1560/1360	1,560/1,360
Running Current	Cooling/ Heating	A	7.6/6.6	6.9/6.0	6.0/5.4
Starting Current	Cooling/ Heating	A	-	-	-
Electric Heater Current		A	14.9	15.2	7.2
EER		W/W	2.75	2.75	2.75
		Btu/h.W	9.4	9.4	9.4
COP		W/W	2.6	2.6	2.6
Power Supply		Ø / V / Hz	1 / 208 / 60	1 / 230 / 60	1 / 265 / 60
Power Factor		%	97.4	98.3	92.0
MCA		A	26.3		26.3
MOP		A	30.0		30.0
Air Flow Rate	Indoor,Max	m^3/min(CFM)	11(388)		11(388)
	Outdoor,Max	m^3/min(CFM)	20(706)		20(706)
Dehumidification		pts/h	4.6		4.6
Sound Level	Indoor, H/M/L	dB(A)±3	50/-/48		50/-/48
(SoundPressure,1m)	Outdoor, Max	dB(A)±3	65		63
Refrigerant & Charge		g(oz)	R410A, 960(33.9)		R410A, 1,000(35.3)
Compressor	Type		Rotary(Non Tropical)		Rotary
	Model		GJS151KAB		GJS151QAA
	Motor Type		PSC		PSC
	Oil Type		POE(RB68A) or PVE(FVC68D		POE(RB68A) or PVE(FVC68D)
	Oil Charge	cc	440		440
	O.L.P Name		INTERNAL		MRA12081-12026
Fan	Type(In/Out)		Cross Flow Fan	Axial Fan	Cross Flow Fan | Axial Fan
	Motor Type(In/Out)		4 Poles		4 Poles
	Motor Output(In/Out)	W	24.9/60		21.6/52
Heat Exchanger	Evaporator	Rows * Column * FPI	2R *10C *19FPI		2R *10C *19FPI
	Condensor	Rows * Column * FPI	3R *17C *20FPI		3R *17C *20FPI
Power Supply Cable (Power Cord)		No. x mm^2	3 * 2.1		3 * 2.1
Dimension (W x H x D)		mm	1,066*406*505		1,066*406*505
		inch	42*16*19-7/8		42*16*19-7/8
Net Weight		kg(lbs)	51.6(113.8)		52.6(116)
Tool Code			YA		YA
Features	Temperature Control		Thermistor		Thermistor
	Energy Saver Mode		O		O
	Prefilter(washable/anti-fungus)		O		O
	Plasma Filter		-		-
	Steps, Fan/Cool/Heat		2/2/2		2/2/2
	Airflow Direction Control(up&down)		Manual		Manual
	Airflow Direction Control(left&right)		-		-
	Remote Controller Type		Wall Thermostat		Wall Thermostat
	Setting Temperature Range	Cooling	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
		Heating	54°F ~ 86°F(12.2°C ~ 30°C)		54°F ~ 86°F(12.2°C ~ 30°C)
	Auto Operation (Micom Control)		-		-
	Panel Touch Type		Micom		Micom
	Timer		12h, On/Off		12h, On/Off
	Air Discharge		Rear		Rear
	Air-Ventilation		O		O
	Deice Control(Defrost)		O		O
	Hot Start		-		-
	Look		L - Look		L - Look
	Cabinet Type(Chassis Type)		Slide In-Out		Slide In-Out
	Special Function		Electric Heater		Electric Heater

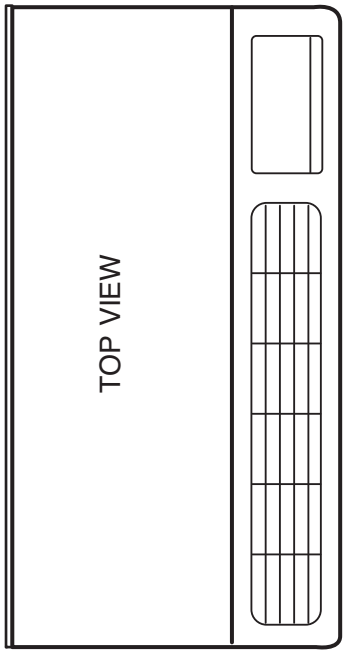
Note : -

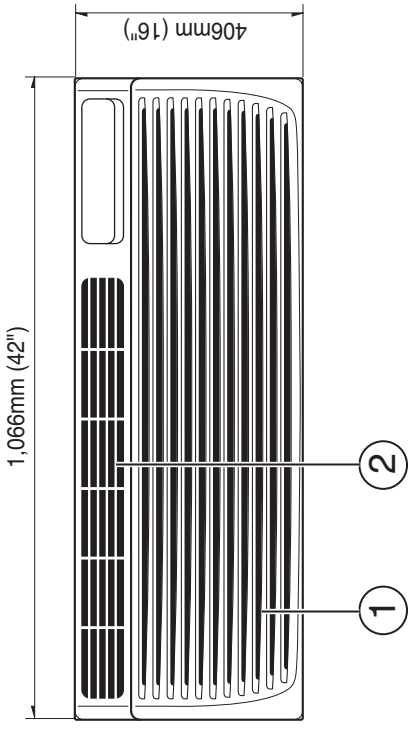
○ : applied
- : not applied

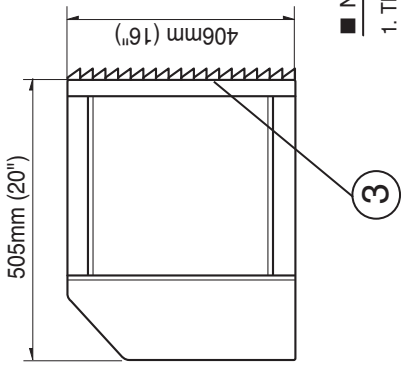
1.4 Dimensions

PTAC

Item No.	Part name	Remark
1	Inlet Grille	
2	Vertical Air Deflector	
3	Architectural Grille	
4		
5		







■ Note

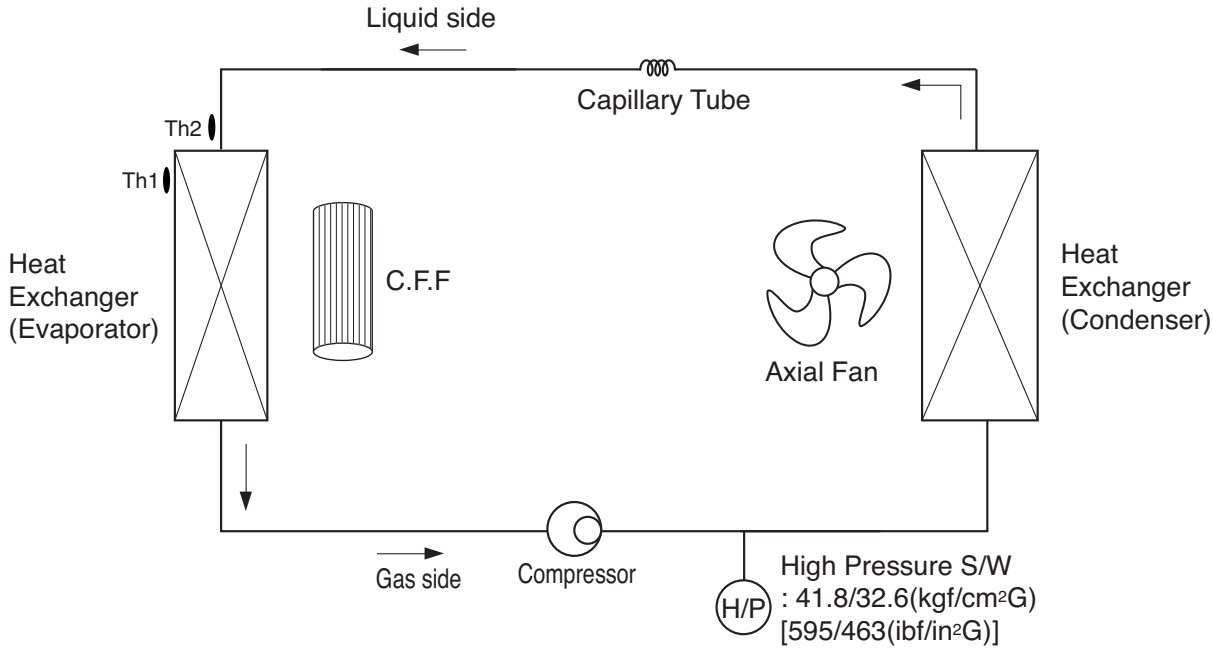
1. The unit should not be installed in a closed area.
2. In an area or space having no proper circulation, an air guide should be installed on the outdoor side.

CHASSIS CODE : YA

LG Electronics
76, Seongsang-dong, Changwon City, Gyeongnam,
641-713, Korea
TEL : 82 – 55 – 269 - 3506
www.lge.com/airconditioner

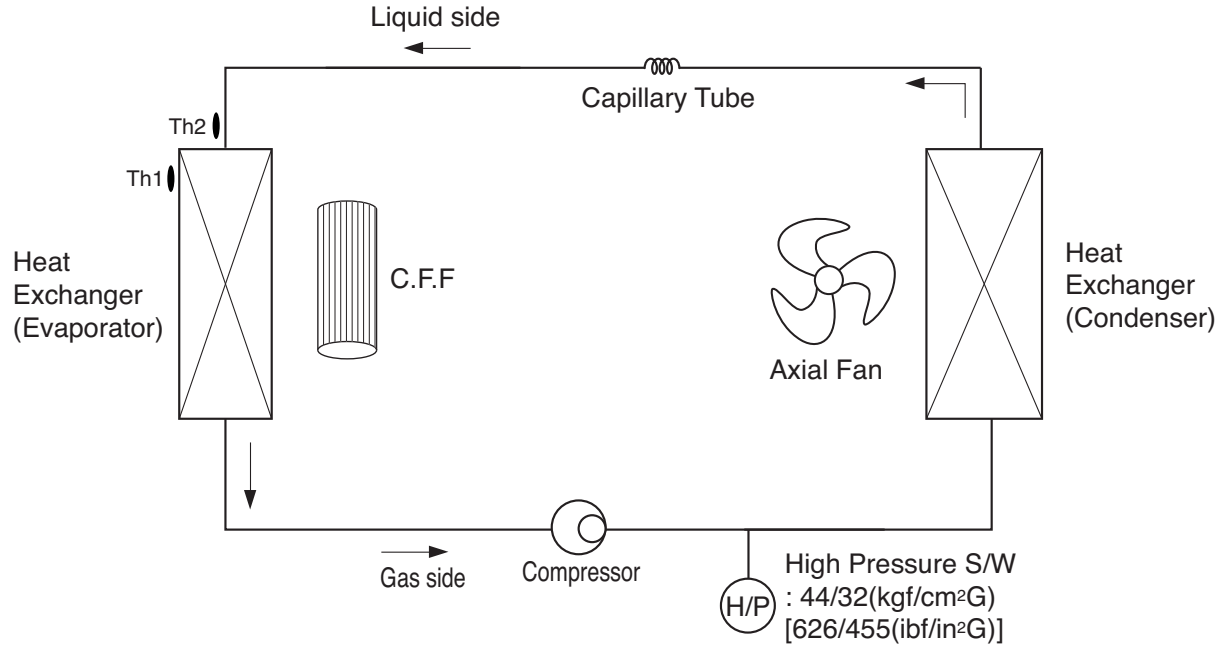
1.5 Piping diagrams

**Models : AYC073ALE20(LP073CD2A), AYC07EALE20(LP076CD2A), AYC093ALE30(LP093CD3A)
AYC09EALE30(LP096CD3A), AYC123ALE30(LP123CD3A), AYC12EALE30(LP126CD3A)
AYC073ALE30(LP073CD3A), AYH073ALE30(LP073HD3A), AYC07EALE30(LP076CD3A)
AYH07EALE30(LP076HD3A)**



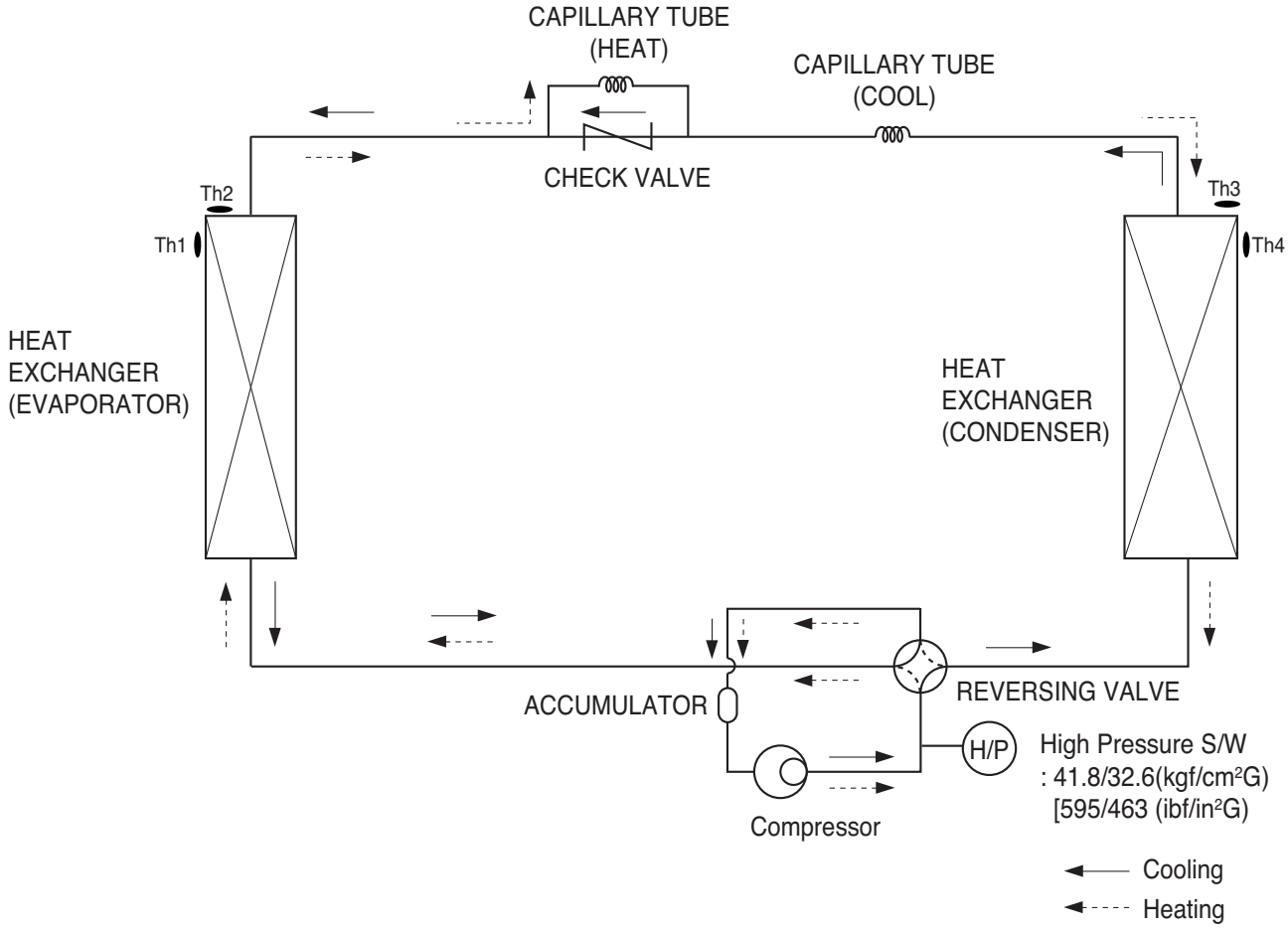
LOC.	Description	PCB Connector
Th1	Thermistor for indoor Air temperature	CN-IDAT
Th2	Thermistor for evaporator temperature	CN-IDPT

Models : AYC153ALE30(LP153CD3A), AYC15EALE30(LP156CD3A), AYC153ALE50(LP153CD5A), AYH153ALE50(LP153HD5A), AYC15EALE50(LP156CD5A), AYH15EALE50(LP156HD5A)



LOC.	Description	PCB Connector
Th1	Thermistor for indoor Air temperature	CN-IDAT
Th2	Thermistor for evaporator temperature	CN-IDPT

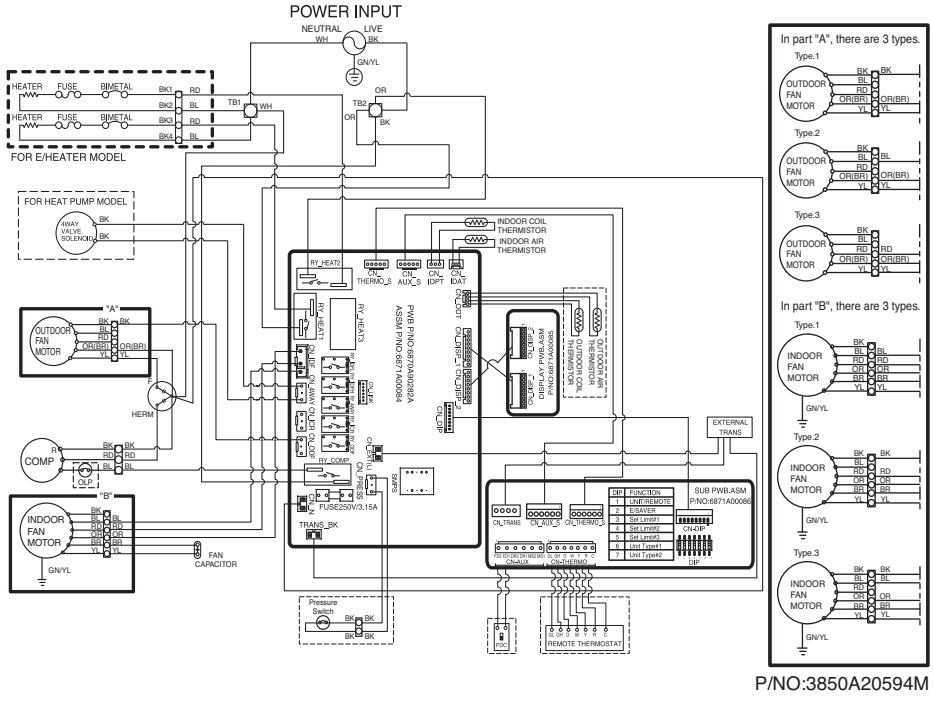
**Models : AYH073ALE20(LP073HD2A), AYH07EALE20(LP076HD2A), AYH093ALE30(LP093HD3A)
AYH09EALE30(LP096HD3A), AYH123ALE30(LP123HD3A), AYH12EALE30(LP126HD3A)
AYH153ALE30(LP153HD3A), AYH15EALE30(LP156HD3A), AYC073ALE30(LP073CD3A)
AYH073ALE30(LP073HD3A), AYC07EALE30(LP076CD3A), AYH07EALE30(LP076HD3A)
AYC153ALE50(LP153CD5A), AYH153ALE50(LP153HD5A), AYC15EALE50(LP156CD5A)
AYH15EALE50(LP156HD5A),**



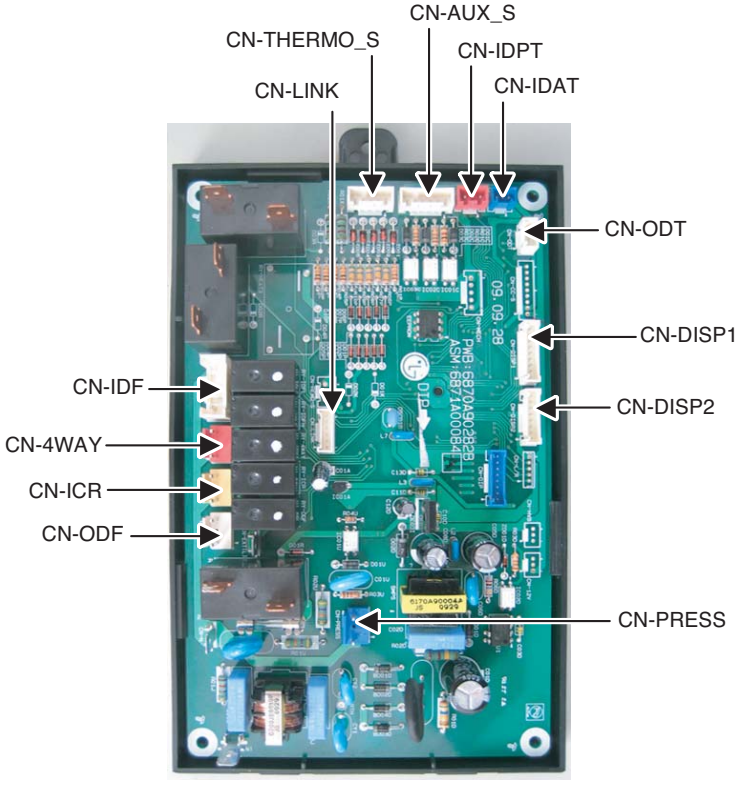
LOC.	Description	PCB Connector
Th1	Thermistor for indoor air temperature	CN-IDAT
Th2	Thermistor for evaporator temperature	CN-IDPT
Th3	Thermistor for outdoor air temperature	CN-ODT
Th4	Thermistor for condenser temperature	

1.6 Wiring diagrams

Models : AYC073ALE20(LP073CD2A), AYH073ALE20(LP073HD2A), AYC07EALE20(LP076CD2A), AYH07EALE20(LP076HD2A)
AYC093ALE30(LP093CD3A), AYH093ALE30(LP093HD3A), AYC09EALE30(LP096CD3A), AYH09EALE30(LP096HD3A)
AYC123ALE30(LP123CD3A), AYH123ALE30(LP123HD3A), AYC12EALE30(LP126CD3A), AYH12EALE30(LP126HD3A)
AYC153ALE30(LP153CD3A), AYH153ALE30(LP153HD3A), AYC15EALE30(LP156CD3A), AYH15EALE30(LP156HD3A)
AYC073ALE30(LP073CD3A), AYH073ALE30(LP073HD3A), AYC07EALE30(LP076CD3A), AYH07EALE30(LP076HD3A)
AYC153ALE50(LP153CD5A), AYH153ALE50(LP153HD5A), AYC15EALE50(LP156CD5A), AYH15EALE50(LP156HD5A)



P/NO:3850A20594M



1.7 Capacity tables

Cooling Capacity

AYC073ALE20(LP073CD2A), AYC073ALE30(LP073CD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.23	1.85	0.40	3.24	1.84	0.42	1.98	1.75	0.53
60.8	71.6	2.38	1.94	0.51	3.39	1.87	0.52	2.13	1.79	0.60
64.4	77.0	2.53	1.96	0.55	3.55	1.90	0.55	2.28	1.82	0.63
66.2	80.6	2.61	1.98	0.55	2.50	1.92	0.55	2.36	1.85	0.63
71.6	86.0	2.83	2.03	0.55	3.79	1.97	0.56	2.58	1.90	0.65
75.2	89.6	2.99	2.07	0.65	3.84	2.02	0.57	2.73	1.96	0.66

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	1.91	1.68	0.56	1.82	1.62	0.42	1.76	1.55	0.53
60.8	71.6	2.06	1.72	0.62	1.97	1.67	0.52	1.91	1.60	0.54
64.4	77.0	2.21	1.76	0.65	2.12	1.71	0.55	2.06	1.65	0.55
66.2	80.6	2.28	1.78	0.65	2.19	1.73	0.55	2.14	1.67	0.55
71.6	86.0	2.51	1.84	0.68	2.42	1.79	0.56	2.36	1.73	0.56
75.2	89.6	2.66	1.89	0.69	2.56	1.85	0.57	2.51	1.79	0.57

AYC093ALE30(LP093CD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.60	1.87	0.58	3.24	1.86	0.60	2.35	1.77	0.71
60.8	71.6	2.75	1.96	0.69	3.39	1.89	0.70	2.50	1.81	0.78
64.4	77.0	2.90	1.98	0.73	3.55	1.92	0.73	2.65	1.84	0.81
66.2	80.6	2.98	2.00	0.73	2.87	1.94	0.73	2.73	1.87	0.81
71.6	86.0	3.20	2.05	0.73	3.79	1.99	0.74	2.95	1.92	0.83
75.2	89.6	3.36	2.09	0.83	3.84	2.04	0.75	3.10	1.98	0.84

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.28	1.70	0.74	2.19	1.64	0.60	2.13	1.57	0.71
60.8	71.6	2.43	1.74	0.80	2.34	1.69	0.70	2.28	1.62	0.72
64.4	77.0	2.58	1.78	0.83	2.49	1.73	0.73	2.43	1.67	0.73
66.2	80.6	2.65	1.80	0.83	2.56	1.75	0.73	2.51	1.69	0.73
71.6	86.0	2.88	1.86	0.86	2.79	1.81	0.74	2.73	1.75	0.74
75.2	89.6	3.03	1.91	0.87	2.93	1.87	0.75	2.88	1.81	0.75

Symbol

DB : Dry Bulb Temperature [°F]
WB : Wet Bulb Temperature [°F]
TC : Total Capacity [kW]
SHC : Sensible Heating Capacity [kW]
PI : Power Input [kW]
(Comp.+ indoor fan motor + outdoor fan motor)

Notes

1. All capacities are net, evaporator fan motor heat is deducted.
2. Indicates nominal maximum capacity.
3. Direct interpolation is permissible. Do not extrapolate

AYC123ALE30(LP123CD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	3.43	2.65	0.87	3.24	2.64	0.89	3.18	2.55	1.00
60.8	71.6	3.58	2.74	0.98	3.39	2.67	0.99	3.33	2.59	1.07
64.4	77.0	3.73	2.76	1.02	3.55	2.70	1.02	3.48	2.62	1.10
66.2	80.6	3.81	2.78	1.02	3.70	2.72	1.02	3.56	2.65	1.10
71.6	86.0	4.03	2.83	1.02	3.79	2.77	1.03	3.78	2.70	1.12
75.2	89.6	4.19	2.87	1.12	3.84	2.82	1.04	3.93	2.76	1.13

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	3.11	2.48	1.03	3.02	2.42	0.89	2.96	2.35	1.00
60.8	71.6	3.26	2.52	1.09	3.17	2.47	0.99	3.11	2.40	1.01
64.4	77.0	3.41	2.56	1.12	3.32	2.51	1.02	3.26	2.45	1.02
66.2	80.6	3.48	2.58	1.12	3.39	2.53	1.02	3.34	2.47	1.02
71.6	86.0	3.71	2.64	1.15	3.62	2.59	1.03	3.56	2.53	1.03
75.2	89.6	3.86	2.69	1.16	3.76	2.65	1.04	3.71	2.59	1.04

AYC153ALE30(LP153CD3A), AYC153ALE50(LP153CD5A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	4.34	3.12	1.28	3.24	3.11	1.30	4.09	3.02	1.41
60.8	71.6	4.49	3.21	1.39	3.39	3.14	1.40	4.24	3.06	1.48
64.4	77.0	4.64	3.23	1.43	3.55	3.17	1.43	4.39	3.09	1.51
66.2	80.6	4.72	3.25	1.43	4.61	3.19	1.43	4.47	3.12	1.51
71.6	86.0	4.94	3.30	1.43	3.79	3.24	1.44	4.69	3.17	1.53
75.2	89.6	5.10	3.34	1.53	3.84	3.29	1.45	4.84	3.23	1.54

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	4.02	2.95	1.44	3.93	2.89	1.30	3.87	2.82	1.41
60.8	71.6	4.17	2.99	1.50	4.08	2.94	1.40	4.02	2.87	1.42
64.4	77.0	4.32	3.03	1.53	4.23	2.98	1.43	4.17	2.92	1.43
66.2	80.6	4.39	3.05	1.53	4.30	3.00	1.43	4.25	2.94	1.43
71.6	86.0	4.62	3.11	1.56	4.53	3.06	1.44	4.47	3.00	1.44
75.2	89.6	4.77	3.16	1.57	4.67	3.12	1.45	4.62	3.06	1.45

Symbol

DB : Dry Bulb Temperature [°F]
WB : Wet Bulb Temperature [°F]
TC : Total Capacity [kW]
SHC : Sensible Heating Capacity [kW]
PI : Power Input [kW]
(Comp.+ indoor fan motor + outdoor fan motor)

Notes

1. All capacities are net, evaporator fan motor heat is deducted.
2. Indicates nominal maximum capacity.
3. Direct interpolation is permissible. Do not extrapolate

AYH073ALE20(LP073HD2A), AYH073ALE30(LP073HD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.23	1.83	0.41	3.24	1.82	0.43	1.98	1.73	0.54
60.8	71.6	2.38	1.92	0.52	3.39	1.85	0.53	2.13	1.77	0.61
64.4	77.0	2.53	1.94	0.56	3.55	1.88	0.56	2.28	1.80	0.64
66.2	80.6	2.61	1.96	0.56	2.50	1.90	0.56	2.36	1.83	0.64
71.6	86.0	2.83	2.01	0.56	3.79	1.95	0.57	2.58	1.88	0.66
75.2	89.6	2.99	2.05	0.66	3.84	2.00	0.58	2.73	1.94	0.67

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	1.91	1.66	0.57	1.82	1.60	0.43	1.76	1.53	0.54
60.8	71.6	2.06	1.70	0.63	1.97	1.65	0.53	1.91	1.58	0.55
64.4	77.0	2.21	1.74	0.66	2.12	1.69	0.56	2.06	1.63	0.56
66.2	80.6	2.28	1.76	0.66	2.19	1.71	0.56	2.14	1.65	0.56
71.6	86.0	2.51	1.82	0.69	2.42	1.77	0.57	2.36	1.71	0.57
75.2	89.6	2.66	1.87	0.70	2.56	1.83	0.58	2.51	1.77	0.58

AYH093ALE30(LP093HD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.64	1.90	0.61	3.24	1.89	0.61	2.39	1.80	0.69
60.8	71.6	2.79	1.99	0.64	3.39	1.92	0.64	2.54	1.84	0.72
64.4	77.0	2.94	2.01	0.69	3.55	1.95	0.69	2.69	1.87	0.77
66.2	80.6	3.02	2.03	0.69	2.91	1.97	0.69	2.77	1.90	0.79
71.6	86.0	3.24	2.08	0.69	3.79	2.02	0.69	2.99	1.95	0.79
75.2	89.6	3.40	2.12	0.71	3.84	2.07	0.71	3.14	2.01	0.81

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.32	1.73	0.72	2.23	1.67	0.75	2.17	1.60	0.76
60.8	71.6	2.47	1.77	0.78	2.38	1.72	0.76	2.32	1.65	0.77
64.4	77.0	2.62	1.81	0.81	2.53	1.76	0.80	2.47	1.70	0.80
66.2	80.6	2.69	1.83	0.81	2.60	1.78	0.80	2.55	1.72	0.80
71.6	86.0	2.92	1.89	0.84	2.83	1.84	0.82	2.77	1.78	0.82
75.2	89.6	3.07	1.94	0.85	2.97	1.90	0.85	2.92	1.84	0.84

Symbol

DB : Dry Bulb Temperature [°F]
WB : Wet Bulb Temperature [°F]
TC : Total Capacity [kW]
SHC : Sensible Heating Capacity [kW]
PI : Power Input [kW]
(Comp.+ indoor fan motor + outdoor fan motor)

Notes

1. All capacities are net, evaporator fan motor heat is deducted.
2. Indicates nominal maximum capacity.
3. Direct interpolation is permissible. Do not extrapolate

AYH123ALE30(LP123HD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	3.45	2.76	0.92	3.24	2.71	0.94	3.20	2.6	1.05
60.8	71.6	3.60	2.79	1.03	3.39	2.73	1.04	3.35	2.64	1.12
64.4	77.0	3.65	2.81	1.07	3.55	2.75	1.07	3.40	2.67	1.15
66.2	80.6	3.73	2.83	1.07	3.62	2.77	1.07	3.48	2.70	1.15
71.6	86.0	3.95	2.88	1.07	3.79	2.82	1.08	3.70	2.75	1.17
75.2	89.6	4.11	2.92	1.08	3.84	2.87	1.10	3.85	2.81	1.18

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.70	2.22	1.08	3.04	2.46	1.14	2.96	2.41	1.15
60.8	71.6	2.85	2.26	1.14	3.09	2.51	1.18	3.01	2.46	1.16
64.4	77.0	3.33	2.61	1.17	3.24	2.53	1.19	3.14	2.50	1.17
66.2	80.6	3.40	2.63	1.17	3.31	2.58	1.19	3.26	2.52	1.17
71.6	86.0	3.63	2.69	1.20	3.54	2.65	1.20	3.48	2.58	1.18
75.2	89.6	3.83	2.75	1.21	3.68	2.7	1.21	3.63	2.64	1.19

AYH153ALE30(LP153HD3A), AYH153ALE50(LP153HD5A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	4.39	3.15	1.55	3.24	3.14	1.57	4.14	3.05	1.68
60.8	71.6	4.54	3.24	1.66	3.39	3.17	1.67	4.29	3.09	1.75
64.4	77.0	4.69	3.26	1.70	3.55	3.20	1.70	4.44	3.12	1.78
66.2	80.6	4.77	3.28	1.70	4.66	3.22	1.70	4.52	3.15	1.78
71.6	86.0	4.99	3.33	1.70	3.79	3.27	1.71	4.74	3.20	1.80
75.2	89.6	5.15	3.37	1.80	3.84	3.32	1.72	4.89	3.26	1.81

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	4.07	2.98	1.71	3.98	2.92	1.57	3.92	2.85	1.68
60.8	71.6	4.22	3.02	1.77	4.13	2.97	1.67	4.07	2.90	1.69
64.4	77.0	4.37	3.06	1.80	4.28	3.01	1.70	4.22	2.95	1.70
66.2	80.6	4.44	3.08	1.80	4.35	3.03	1.70	4.30	2.97	1.70
71.6	86.0	4.67	3.14	1.83	4.58	3.09	1.71	4.52	3.03	1.71
75.2	89.6	4.82	3.19	1.84	4.72	3.15	1.72	4.67	3.09	1.72

Symbol

DB : Dry Bulb Temperature [°F]
WB : Wet Bulb Temperature [°F]
TC : Total Capacity [kW]
SHC : Sensible Heating Capacity [kW]
PI : Power Input [kW]
(Comp.+ indoor fan motor + outdoor fan motor)

Notes

1. All capacities are net, evaporator fan motor heat is deducted.
2. Indicates nominal maximum capacity.
3. Direct interpolation is permissible. Do not extrapolate

AYC07EALE20(LP076CD2A), AYC07EALE30(LP076CD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.12	1.78	0.40	3.24	1.77	0.42	1.87	1.68	0.53
60.8	71.6	2.27	1.87	0.51	3.39	1.80	0.52	2.02	1.72	0.60
64.4	77.0	2.42	1.89	0.55	3.55	1.83	0.55	2.17	1.75	0.63
66.2	80.6	2.50	1.91	0.55	2.39	1.85	0.55	2.25	1.78	0.63
71.6	86.0	2.72	1.96	0.55	3.79	1.90	0.56	2.47	1.83	0.65
75.2	89.6	2.88	2.00	0.65	3.84	1.95	0.57	2.62	1.89	0.66

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	1.80	1.61	0.56	1.71	1.55	0.42	1.65	1.48	0.53
60.8	71.6	1.95	1.65	0.62	1.86	1.60	0.52	1.80	1.53	0.54
64.4	77.0	2.10	1.69	0.65	2.01	1.64	0.55	1.95	1.58	0.55
66.2	80.6	2.17	1.71	0.65	2.08	1.66	0.55	2.03	1.60	0.55
71.6	86.0	2.40	1.77	0.68	2.31	1.72	0.56	2.25	1.66	0.56
75.2	89.6	2.55	1.82	0.69	2.45	1.78	0.57	2.40	1.72	0.57

AYC09EALE30(LP096CD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.70	2.12	0.62	3.24	2.11	0.64	2.45	2.02	0.75
60.8	71.6	2.85	2.21	0.73	3.39	2.14	0.74	2.60	2.06	0.82
64.4	77.0	3.00	2.23	0.77	3.55	2.17	0.77	2.75	2.09	0.85
66.2	80.6	3.08	2.25	0.77	2.97	2.19	0.77	2.83	2.12	0.85
71.6	86.0	3.30	2.30	0.77	3.79	2.24	0.78	3.05	2.17	0.87
75.2	89.6	3.46	2.34	0.87	3.84	2.29	0.79	3.20	2.23	0.88

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.38	1.95	0.78	2.29	1.89	0.64	2.23	1.82	0.75
60.8	71.6	2.53	1.99	0.84	2.44	1.94	0.74	2.38	1.87	0.76
64.4	77.0	2.68	2.03	0.87	2.59	1.98	0.77	2.53	1.92	0.77
66.2	80.6	2.75	2.05	0.87	2.66	2.00	0.77	2.61	1.94	0.77
71.6	86.0	2.98	2.11	0.90	2.89	2.06	0.78	2.83	2.00	0.78
75.2	89.6	3.13	2.16	0.91	3.03	2.12	0.79	2.98	2.06	0.79

Symbol

DB : Dry Bulb Temperature [°F]
WB : Wet Bulb Temperature [°F]
TC : Total Capacity [kW]
SHC : Sensible Heating Capacity [kW]
PI : Power Input [kW]
(Comp.+ indoor fan motor + outdoor fan motor)

Notes

1. All capacities are net, evaporator fan motor heat is deducted.
2. Indicates nominal maximum capacity.
3. Direct interpolation is permissible. Do not extrapolate

AYC12EALE30(LP126CD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	3.47	2.74	0.91	3.24	2.73	0.93	3.22	2.64	1.04
60.8	71.6	3.62	2.83	1.02	3.39	2.76	1.03	3.37	2.68	1.11
64.4	77.0	3.77	2.85	1.06	3.55	2.79	1.06	3.52	2.71	1.14
66.2	80.6	3.85	2.87	1.06	3.74	2.81	1.06	3.60	2.74	1.14
71.6	86.0	4.07	2.92	1.06	3.79	2.86	1.07	3.82	2.79	1.16
75.2	89.6	4.23	2.96	1.16	3.84	2.91	1.08	3.97	2.85	1.17

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	3.15	2.57	1.07	3.06	2.51	0.93	3.00	2.44	1.04
60.8	71.6	3.30	2.61	1.13	3.21	2.56	1.03	3.15	2.49	1.05
64.4	77.0	3.45	2.65	1.16	3.36	2.60	1.06	3.30	2.54	1.06
66.2	80.6	3.52	2.67	1.16	3.43	2.62	1.06	3.38	2.56	1.06
71.6	86.0	3.75	2.73	1.19	3.66	2.68	1.07	3.60	2.62	1.07
75.2	89.6	3.90	2.78	1.20	3.80	2.74	1.08	3.75	2.68	1.08

AYC15EALE30(LP156CD3A), AYC15EALE50(LP156CD5A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	4.10	2.97	1.31	3.24	2.96	1.33	3.85	2.87	1.44
60.8	71.6	4.25	3.06	1.42	3.39	2.99	1.43	4.00	2.91	1.51
64.4	77.0	4.40	3.08	1.46	3.55	3.02	1.46	4.15	2.94	1.54
66.2	80.6	4.48	3.10	1.46	4.37	3.04	1.46	4.23	2.97	1.54
71.6	86.0	4.70	3.15	1.46	3.79	3.09	1.47	4.45	3.02	1.56
75.2	89.6	4.86	3.19	1.56	3.84	3.14	1.48	4.60	3.08	1.57

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	3.78	2.80	1.47	3.69	2.74	1.33	3.63	2.67	1.44
60.8	71.6	3.93	2.84	1.53	3.84	2.79	1.43	3.78	2.72	1.45
64.4	77.0	4.08	2.88	1.56	3.99	2.83	1.46	3.93	2.77	1.46
66.2	80.6	4.15	2.90	1.56	4.06	2.85	1.46	4.01	2.79	1.46
71.6	86.0	4.38	2.96	1.59	4.29	2.91	1.47	4.23	2.85	1.47
75.2	89.6	4.53	3.01	1.60	4.43	2.97	1.48	4.38	2.91	1.48

Symbol

DB : Dry Bulb Temperature [°F]
WB : Wet Bulb Temperature [°F]
TC : Total Capacity [kW]
SHC : Sensible Heating Capacity [kW]
PI : Power Input [kW]
(Comp.+ indoor fan motor + outdoor fan motor)

Notes

1. All capacities are net, evaporator fan motor heat is deducted.
2. Indicates nominal maximum capacity.
3. Direct interpolation is permissible. Do not extrapolate

AYH07EALE20(LP076HD2A), AYH07EALE30(LP076HD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.14	1.75	0.40	3.24	1.74	0.42	1.89	1.65	0.53
60.8	71.6	2.29	1.84	0.51	3.39	1.77	0.52	2.04	1.69	0.60
64.4	77.0	2.44	1.86	0.55	3.55	1.80	0.55	2.19	1.72	0.63
66.2	80.6	2.52	1.88	0.55	2.41	1.82	0.55	2.27	1.75	0.63
71.6	86.0	2.74	1.93	0.55	3.79	1.87	0.56	2.49	1.80	0.65
75.2	89.6	2.90	1.97	0.65	3.84	1.92	0.57	2.64	1.86	0.66

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	1.82	1.58	0.56	1.73	1.52	0.42	1.67	1.45	0.53
60.8	71.6	1.97	1.62	0.62	1.88	1.57	0.52	1.82	1.50	0.54
64.4	77.0	2.12	1.66	0.65	2.03	1.61	0.55	1.97	1.55	0.55
66.2	80.6	2.19	1.68	0.65	2.10	1.63	0.55	2.05	1.57	0.55
71.6	86.0	2.42	1.74	0.68	2.33	1.69	0.56	2.27	1.63	0.56
75.2	89.6	2.57	1.79	0.69	2.47	1.75	0.57	2.42	1.69	0.57

AYH09EALE30(LP096HD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.66	2.09	0.60	3.24	2.08	0.62	2.41	1.99	0.73
60.8	71.6	2.81	2.18	0.71	3.39	2.11	0.72	2.56	2.03	0.80
64.4	77.0	2.96	2.20	0.75	3.55	2.14	0.75	2.71	2.06	0.83
66.2	80.6	3.04	2.22	0.75	2.93	2.16	0.75	2.79	2.09	0.83
71.6	86.0	3.26	2.27	0.75	3.79	2.21	0.76	3.01	2.14	0.85
75.2	89.6	3.42	2.31	0.85	3.84	2.26	0.77	3.16	2.20	0.86

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	2.34	1.92	0.76	2.25	1.86	0.62	2.19	1.79	0.73
60.8	71.6	2.49	1.96	0.82	2.40	1.91	0.72	2.34	1.84	0.74
64.4	77.0	2.64	2.00	0.85	2.55	1.95	0.75	2.49	1.89	0.75
66.2	80.6	2.71	2.02	0.85	2.62	1.97	0.75	2.57	1.91	0.75
71.6	86.0	2.94	2.08	0.88	2.85	2.03	0.76	2.79	1.97	0.76
75.2	89.6	3.09	2.13	0.89	2.99	2.09	0.77	2.94	2.03	0.77

Symbol

DB : Dry Bulb Temperature [°F]
WB : Wet Bulb Temperature [°F]
TC : Total Capacity [kW]
SHC : Sensible Heating Capacity [kW]
PI : Power Input [kW]
(Comp.+ indoor fan motor + outdoor fan motor)

Notes

1. All capacities are net, evaporator fan motor heat is deducted.
2. Indicates nominal maximum capacity.
3. Direct interpolation is permissible. Do not extrapolate

AYH12EALE30(LP126HD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	3.51	2.63	0.87	3.24	2.62	0.89	3.26	2.53	0.10
60.8	71.6	3.66	2.72	0.98	3.39	2.65	0.99	3.41	2.57	1.07
64.4	77.0	3.81	2.74	1.02	3.55	2.68	1.02	3.56	2.60	1.10
66.2	80.6	3.89	2.76	1.02	3.78	2.70	1.02	3.64	2.63	1.10
71.6	86.0	4.11	2.81	1.02	3.79	2.75	1.03	3.86	2.68	1.12
75.2	89.6	4.27	2.85	1.12	3.84	2.80	1.04	4.01	2.74	1.13

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	3.19	2.46	1.03	3.10	2.40	0.89	3.04	2.33	0.10
60.8	71.6	3.34	2.50	1.09	3.25	2.45	0.99	3.19	2.38	1.01
64.4	77.0	3.49	2.54	1.12	3.40	2.49	1.02	3.34	2.43	1.02
66.2	80.6	3.56	2.56	1.12	3.47	2.51	1.02	3.42	2.45	1.02
71.6	86.0	3.79	2.62	1.15	3.70	2.57	1.03	3.64	2.51	1.03
75.2	89.6	3.94	2.67	1.16	3.84	2.63	1.039	3.79	2.57	1.04

AYH15EALE30(LP156HD3A)

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		68			77			89.6		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	4.42	3.14	1.321	3.24	3.13	1.34	4.17	3.04	1.45
60.8	71.6	4.57	3.23	1.431	3.39	3.16	1.44	4.32	3.08	1.52
64.4	77.0	4.72	3.25	1.471	3.55	3.19	1.47	4.47	3.11	1.55
66.2	80.6	4.80	3.27	1.471	4.69	3.21	1.47	4.55	3.14	1.55
71.6	86.0	5.02	3.32	1.471	3.79	3.26	1.48	4.77	3.19	1.57
75.2	89.6	5.18	3.36	1.571	3.84	3.31	1.49	4.92	3.25	1.58

Indoor Air Temperature		Outdoor Air Temperature : DB°F								
		95			104			109.4		
WB°F	DB°F	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
57.2	68.0	4.10	2.97	1.48	4.01	2.91	1.34	3.95	2.84	1.45
60.8	71.6	4.25	3.01	1.54	4.16	2.96	1.44	4.10	2.89	1.46
64.4	77.0	4.40	3.05	1.57	4.31	3.00	1.47	4.25	2.94	1.47
66.2	80.6	4.47	3.07	1.57	4.38	3.02	1.47	4.33	2.96	1.47
71.6	86.0	4.70	3.13	1.60	4.61	3.08	1.48	4.55	3.02	1.48
75.2	89.6	4.85	3.18	1.61	4.75	3.14	1.49	4.70	3.08	1.49

Symbol

DB : Dry Bulb Temperature [°F]
WB : Wet Bulb Temperature [°F]
TC : Total Capacity [kW]
SHC : Sensible Heating Capacity [kW]
PI : Power Input [kW]
(Comp.+ indoor fan motor + outdoor fan motor)

Notes

1. All capacities are net, evaporator fan motor heat is deducted.
2. Indicates nominal maximum capacity.
3. Direct interpolation is permissible. Do not extrapolate

Heating Capacity

AYH073ALE20(LP073HD2A), AYH073ALE30(LP073HD3A)

Indoor Air Temperature	Outdoor Air Temperature : WB°F											
	14		23		32		42.8		50		59	
DB°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60.8	1.22	0.45	1.44	0.47	1.63	0.52	1.95	0.56	2.14	0.59	2.42	0.63
64.4	1.23	0.46	1.45	0.49	1.63	0.53	1.93	0.58	2.09	0.60	2.42	0.64
68.0	1.23	0.48	1.45	0.51	1.62	0.55	1.90	0.59	2.07	0.61	2.43	0.65
69.8	1.23	0.48	1.45	0.52	1.62	0.56	1.88	0.60	2.07	0.62	2.40	0.65
71.6	1.22	0.49	1.45	0.52	1.61	0.57	1.86	0.60	2.08	0.62	2.37	0.66
75.2	1.20	0.51	1.41	0.54	1.58	0.58	1.83	0.61	2.09	0.63	2.33	0.66

AYH093ALE30(LP093HD3A)

Indoor Air Temperature	Outdoor Air Temperature : WB°F											
	14		23		32		42.8		50		59	
DB°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60.8	1.76	0.63	1.98	0.65	2.17	0.70	2.49	0.74	2.68	0.77	2.96	0.81
64.4	1.77	0.64	1.99	0.67	2.17	0.71	2.47	0.76	2.63	0.78	2.96	0.82
68.0	1.77	0.66	1.99	0.69	2.16	0.73	2.44	0.77	2.61	0.79	2.97	0.83
69.8	1.77	0.66	1.99	0.70	2.16	0.74	2.42	0.78	2.61	0.80	2.94	0.83
71.6	1.76	0.67	1.99	0.70	2.15	0.75	2.40	0.78	2.62	0.80	2.91	0.84
75.2	1.74	0.69	1.95	0.72	2.12	0.76	2.37	0.79	2.63	0.81	2.87	0.84

AYH123ALE30(LP123HD3A)

Indoor Air Temperature	Outdoor Air Temperature : WB°F											
	14		23		32		42.8		50		59	
DB°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60.8	2.48	0.82	2.70	0.84	2.89	0.89	3.21	0.93	3.40	0.96	3.68	1.00
64.4	2.49	0.83	2.71	0.86	2.89	0.90	3.19	0.95	3.35	0.97	3.68	1.01
68.0	2.49	0.85	2.71	0.88	2.88	0.92	3.16	0.96	3.33	0.98	3.69	1.02
69.8	2.49	0.85	2.71	0.89	2.88	0.93	3.14	0.97	3.33	0.99	3.66	1.02
71.6	2.48	0.86	2.71	0.89	2.87	0.94	3.12	0.97	3.34	0.99	3.63	1.03
75.2	2.46	0.88	2.67	0.91	2.84	0.95	3.09	0.98	3.35	1.00	3.59	1.03

AYH153ALE30(LP153HD3A), AYH153ALE50(LP153HD5A)

Indoor Air Temperature	Outdoor Air Temperature : WB°F											
	14		23		32		42.8		50		59	
DB°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60.8	2.88	1.21	3.10	1.23	3.29	1.28	3.61	1.32	3.80	1.35	4.08	1.39
64.4	2.89	1.22	3.11	1.25	3.29	1.29	3.59	1.34	3.75	1.36	4.08	1.40
68.0	2.89	1.24	3.11	1.27	3.28	1.31	3.56	1.35	3.73	1.37	4.09	1.41
69.8	2.89	1.24	3.11	1.28	3.28	1.32	3.54	1.36	3.73	1.38	4.06	1.41
71.6	2.88	1.25	3.11	1.28	3.27	1.33	3.52	1.36	3.74	1.38	4.03	1.42
75.2	2.86	1.27	3.07	1.30	3.24	1.34	3.49	1.37	3.75	1.39	3.99	1.42

Symbol

DB : Dry Bulb Temperature [°F]
WB : Wet Bulb Temperature [°F]
TC : Total Capacity [kW]
PI : Power Input [kW]
(Comp.+ indoor fan motor + outdoor fan motor)

Notes

1. All capacities are net, evaporator fan motor heat is deducted.
2. Indicates nominal maximum capacity.

AYH07EALE20(LP076HD2A), AYH07EALE30(LP076HD3A)

Indoor Air Temperature	Outdoor Air Temperature : WB°F											
	14		23		32		42.8		50		59	
DB°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60.8	1.10	0.44	1.32	0.46	1.51	0.51	1.83	0.55	2.02	0.58	2.30	0.62
64.4	1.11	0.45	1.33	0.48	1.51	0.52	1.81	0.57	1.97	0.59	2.30	0.63
68.0	1.11	0.47	1.33	0.50	1.50	0.54	1.78	0.58	1.95	0.60	2.31	0.64
69.8	1.11	0.47	1.33	0.51	1.50	0.55	7.78	0.59	1.95	0.61	2.28	0.64
71.6	1.10	0.48	1.33	0.51	1.49	0.56	1.74	0.59	1.96	0.61	2.25	0.65
75.2	1.08	0.50	1.29	0.53	1.46	0.57	1.71	0.60	1.97	0.62	2.21	0.65

AYH09EALE30(LP096HD3A)

Indoor Air Temperature	Outdoor Air Temperature : WB°F											
	14		23		32		42.8		50		59	
DB°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60.8	1.74	0.62	1.96	0.64	2.15	0.69	2.47	0.73	2.66	0.76	2.94	0.80
64.4	1.75	0.63	1.97	0.66	2.15	0.70	2.45	0.75	2.61	0.77	2.94	0.81
68.0	1.75	0.65	1.97	0.68	2.14	0.72	2.42	0.76	2.59	0.78	2.95	0.82
69.8	1.75	0.65	1.97	0.69	2.14	0.73	7.78	0.77	2.59	0.79	2.92	0.82
71.6	1.74	0.66	1.97	0.69	2.13	0.74	2.38	0.77	2.60	0.79	2.89	0.83
75.2	1.72	0.68	1.93	0.71	2.10	0.75	2.35	0.78	2.61	0.80	2.85	0.83

AYH12EALE30(LP126HD3A)

Indoor Air Temperature	Outdoor Air Temperature : WB°F											
	14		23		32		42.8		50		59	
DB°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60.8	2.47	0.83	2.69	0.85	2.88	0.90	3.20	0.94	3.39	0.97	3.67	1.01
64.4	2.48	0.84	2.70	0.87	2.88	0.91	3.18	0.96	3.34	0.98	3.67	1.02
68.0	2.48	0.86	2.70	0.89	2.87	0.93	3.15	0.97	3.32	0.99	3.68	1.03
69.8	2.48	0.86	2.70	0.90	2.87	0.94	7.78	0.98	3.32	1.00	3.65	1.03
71.6	2.47	0.87	2.70	0.90	2.86	0.95	3.11	0.98	3.33	1.00	3.62	1.04
75.2	2.45	0.89	2.66	0.92	2.83	0.96	3.08	0.99	3.34	1.01	3.58	1.04

AYH15EALE30(LP156HD3A), AYH15EALE50(LP156HD5A)

Indoor Air Temperature	Outdoor Air Temperature : WB°F											
	14		23		32		42.8		50		59	
DB°F	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
60.8	2.89	1.20	3.11	1.22	3.30	1.27	3.62	1.31	3.81	1.34	4.09	1.38
64.4	2.90	1.21	3.12	1.24	3.30	1.28	3.60	1.33	3.76	1.35	4.09	1.39
68.0	2.90	1.23	3.12	1.26	3.29	1.30	3.57	1.34	3.74	1.36	4.10	1.40
69.8	2.90	1.23	3.12	1.27	3.29	1.31	7.78	1.35	3.74	1.37	4.07	1.40
71.6	2.89	1.24	3.12	1.27	3.28	1.32	3.53	1.35	3.75	1.37	4.04	1.41
75.2	2.87	1.26	3.08	1.29	3.25	1.33	3.50	1.36	3.76	1.38	4.00	1.41

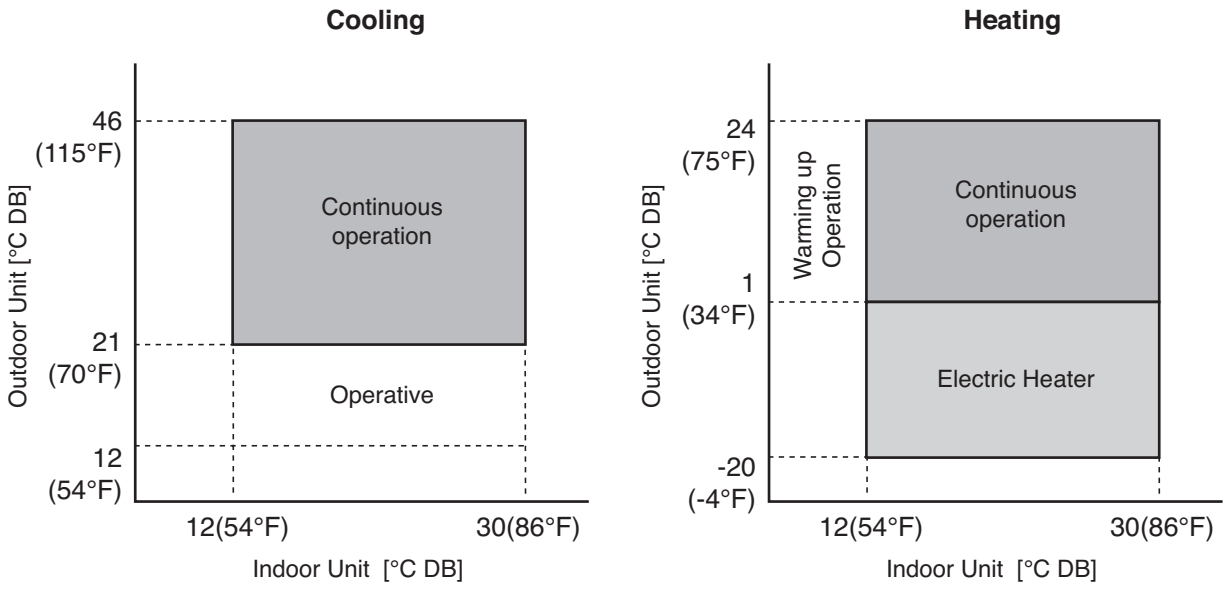
Symbol

DB : Dry Bulb Temperature [°F]
WB : Wet Bulb Temperature [°F]
TC : Total Capacity [kW]
PI : Power Input [kW]
(Comp.+ indoor fan motor + outdoor fan motor)

Notes

1. All capacities are net, evaporator fan motor heat is deducted.
2. Indicates nominal maximum capacity.

1.8 Operation range



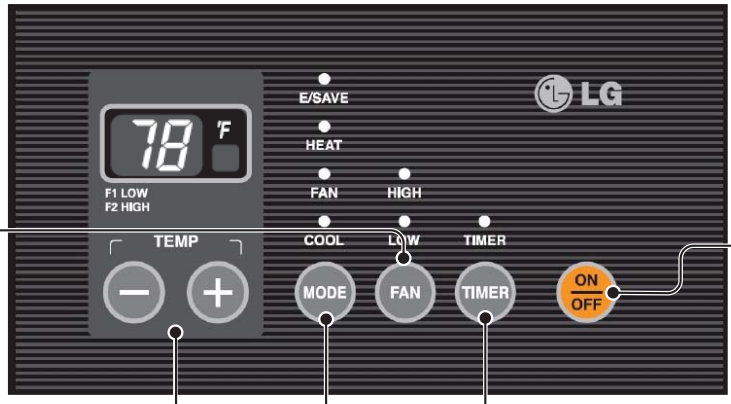
2 Control Device

2.1 Electronic Controls (Micom models)

The Electronic controls and the panel display is as shown below.

FAN SPEED

• Every time you push this button, it cycles through the settings as follows:
{High(F2) ' Low(F1) ' High(F2) ' Low(F1)}



* For Cooling only models(for some specific regions), the "HEAT" option is not there in the panel display(escutcheon).

POWER

• To turn the air conditioner ON, push this button. To turn the air conditioner OFF, push the button again.
• This button takes priority over any other button.

MODE

- Push this button to cycle through the modes from COOL ' FAN ' HEAT' COOL.
- COOL
  • Fan runs continually for normal cooling operation.
- ENERGY SAVER
  • The fan stops when the compressor stops cooling. Approximately every 3 minutes the fan will turn on and the unit will check the room air temperature to determine if cooling is needed.
- FAN
  • Fan operation without heating or cooling.
- HEAT
  • Fan runs continually for normal heating operation.

TEMPERATURE SETTING

• Use this button to automatically control the temperature of the room.
The temperature can be set within a range of 54 F to 86 F by increments of 2 F.
• The setting appears in the display.

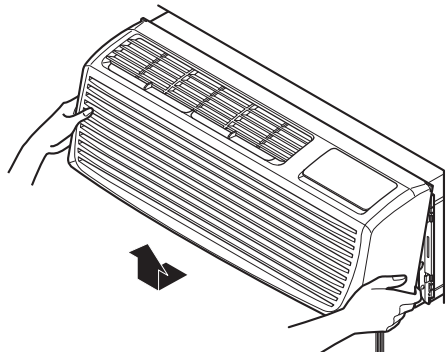
TIMER

- SHUT-OFF TIME
  • You will usually use shut-off time while you sleep.
  • If unit is running, use Timer to set number of hours until shut-off.
  • For your sleeping comfort, once Time is set, the Temperature setting will raise 2 F after 30 minutes, and once again after another 30 minutes.
  • Push Timer to cycle through the settings from 1 Hour ' 2 Hours ' ... ' 12 Hours maximum.

Additional Controls (Micom models)

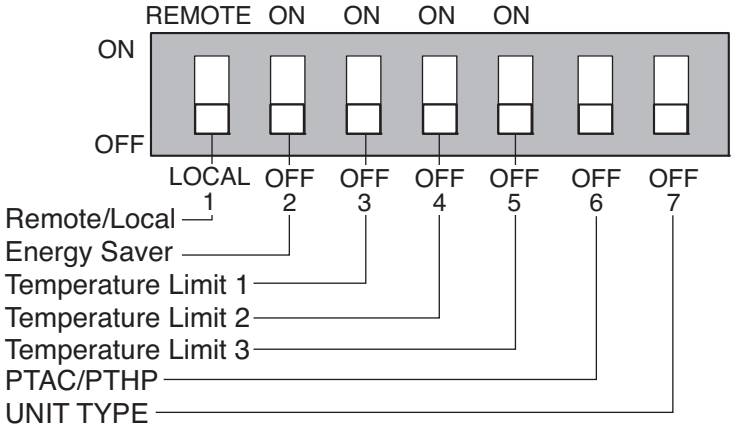
Additional controls can be seen after removing the front grille and the option cover of the control box.

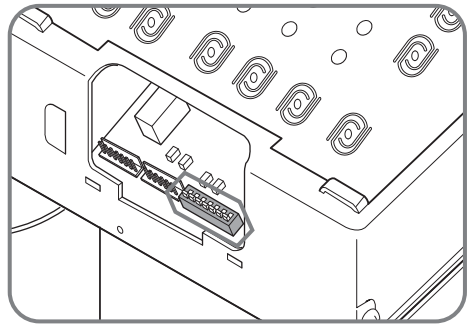
To remove the front grille, pull out the bottom at both the sides and then lift up the grille as shown in the figure on the right.



And to install the front grille back to it's original position, place the tabs over the top of the unit and push the bottom of the front grille until the clips snap into place.

Now the additional controls are located behind the option cover of the control box. The standard settings are in the "OFF" position as shown in the figure below. The authorized personnel has to check the switches and ensure that the switches are in the desired position.





Here in the figure above the three Temperature limit switches (Temperature Limit 1, Temperature Limit 2 and Temperature Limit 3) can provide various temperature ranges of operation by means of different combinations of dip switches as shown in the Table below. These temperature limits prevent overcooling and over heating, by limiting the lowest temperature for cooling and by limiting the highest temperature for heating respectively, thereby reducing energy costs.

Temperature Limit #1	Temperature Limit #2	Temperature Limit #3	Cooling Operation		Heating Operation	
			Lowest Temp.	Highest Temp.	Lowest Temp.	Highest Temp.
OFF	OFF	OFF	54 F (12.2 C)	86 F (30.0 C)	54 F (12.2 C)	86 F (30.0 C)
ON	OFF	OFF	56 F (13.3 C)	86 F (30.0 C)	54 F (12.2 C)	84 F (28.9 C)
OFF	ON	OFF	58 F (14.4 C)	86 F (30.0 C)	54 F (12.2 C)	82 F (27.8 C)
ON	ON	OFF	60 F (15.5 C)	86 F (30.0 C)	54 F (12.2 C)	80 F (26.7 C)
OFF	OFF	ON	62 F (16.6 C)	86 F (30.0 C)	54 F (12.2 C)	78 F (25.5 C)
ON	OFF	ON	64 F (17.7 C)	86 F (30.0 C)	54 F (12.2 C)	76 F (24.4 C)
OFF	ON	ON	66 F (18.9 C)	86 F (30.0 C)	54 F (12.2 C)	74 F (23.3 C)
ON	ON	ON	68 F (20.0 C)	86 F (30.0 C)	54 F (12.2 C)	72 F (22.2 C)

#6	#7	Unit Type
OFF	OFF	Cooling+Electric Heater+Heat Pump
OFF	ON	Cooling+Electric Heater
ON	OFF	Heat Pump Only
ON	ON	Cooling Only

Note:

This Temperature limit option is not available with the Remote Wall Thermostat.

Remote / Local Control

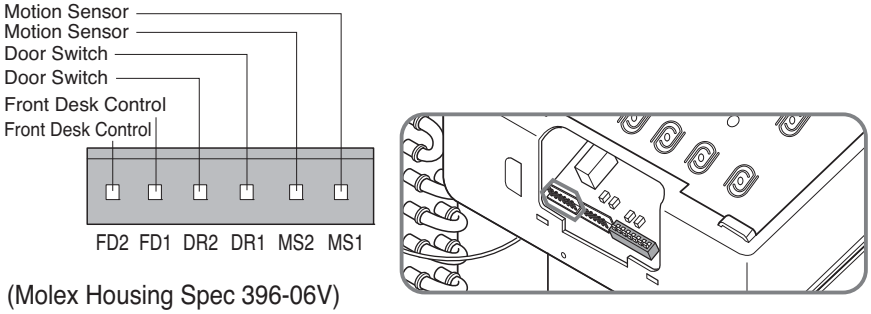
When the Remote/Local dip switch #1 is "ON", it allows the unit to operate by means of Remote Wall Thermostat Control. When this option is in function, the unit cannot be controlled by means of the knobs.

Energy Saver

When the Energy Saver dip switch #2 is in the "On" position, the indoor fan operates when the compressor is running and the fan stops operating when the compressor stops running. But when the switch is in the "Off" position, the indoor fan runs continuously irrespective of the fact that the compressor is running or not.

Front Desk Control

When the paired wire is connected to the two connectors FD2 and FD1(refer to the figure below), the unit can be turned ON and OFF with a switch located at the Front Desk Control Panel. When the Front Desk switch is "On", the unit operates by means of the setting at the Front Desk .And when the Front Desk switch is "Off", the air conditioning unit operates by the settings made at the Unit itself. In the "Off" position the Front Desk control cannot be exercised.



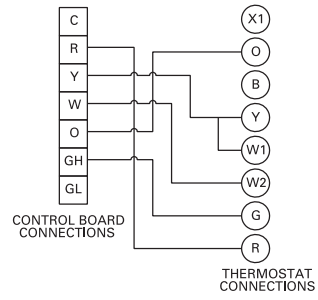
(Molex Housing Spec 396-06V)

(recommended wire lengths)

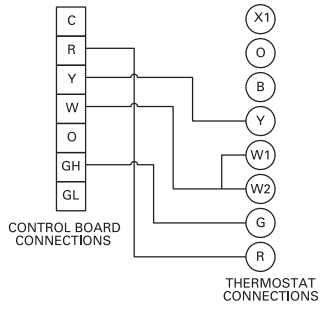
Wire # AWG	Maximum Length
#22	600ft(180m)
#20	900ft(270m)
#18	1500ft(450m)
#16	2000ft(610m)

Note: The following figures show wiring schematics for heat pump and straight cool units with electric heat, respectively.

Wiring Schematic for Remote Heat Pump



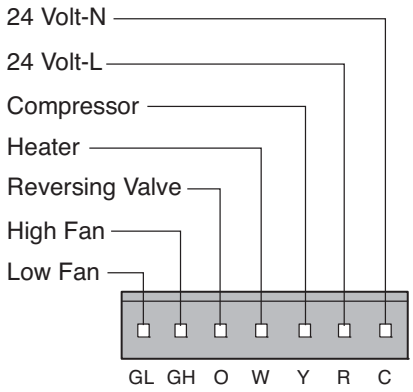
Wiring Schematic for Straight Cool Unit.



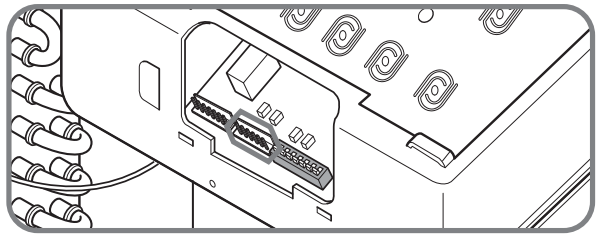
Remote Wall Thermostat

When the wires are connected, the unit will be controlled by a remote wall thermostat.

The thermostat connections supply the 24 Volt AC. When you install the digital/electronic thermostat, you must set it to 24 Volt AC. See the installation instruction in this manual for the Remote Wall Thermostat.



(Molex Housing Spec 396-07V)



Self Diagnosis

If the unit has a malfunction, a green OPERATION LED located on the Display PCB of the unit, indicates the errors. The error codes are displayed on the Table below :-

ON	Normal
OFF	No power / failure of board
Fault Codes	
CH 01	Indoor Air Thermistor error
CH 02	Indoor Coil Thermistor error
CH 03	Outdoor Air Thermistor error(PIHP only)
CH 04	Outdoor Coil Thermistor error(PIHP only)
CH 05	Mode Error
CH 06	Setpoint Error
CH 07	Bad Thermistor Wiring
CH 09	Pressure Switch Error

Part 3 Design and Installation

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2 Installation of unit 59

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2.2 Points for explanation about operations 62

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2.4 Installation of Unit 63

2.5 Wall sleeve installation 65

1. General Installation Procedure

Installation Procedure	Remarks
Determination of work scope	Check and confirm required load calculation, model selection etc…
Selection of suitable location for unit	The base or the foundation of the Air-Conditioner should be firm and vibration proof and air-flow should not be restricted on either side of the unit - front and the back.
Installation of Wall sleeve	Check out the Wall opening to make sure the Wall sleeve fits properly.
Installation of indoor unit	Check the size of the selected model and make sure the fitting is made correctly.
Drain pipe work	Make sure the drain pipe is big enough and adjust it to a downward gradient.
Insulation works	The Air-Conditioner supporting parts should secure firmly to the wood, masonry and metal.
Fit Outer Grille	The Air Conditioner should be protected from physical contact with animals or any external object.
Transfer charge to customer	Educate the customer or the operator on how to operate the Air-Conditioner and the utility of the manuals.

2. Installation of unit

2.1 Safety precautions

To prevent injury to the user or other people and property damage, the following instructions must be followed.

■ Incorrect operation due to ignoring instructions will cause harm or damage. The seriousness is classified by the following indications.

■ Because of the weight of the product, it is recommended that you have a helper to assist in the installation.

⚠WARNING	This symbol indicates the possibility of death or serious injury.
⚠CAUTION	This symbol indicates the possibility of injury or damage to properties only.

■ Meanings of symbols used in this manual are as shown below.

⃠	**Be sure not to do.**
❗	**Be sure to follow the instruction.**

⚠WARNING

Do not use a damaged power cord, plug or loose socket.
- Otherwise there is risk of fire or electric shock.

Always plug onto a grounded outlet.
- Otherwise there is risk of fire or electric shock.

Do not extend or modify the power cord length.
- Otherwise there is risk of fire or electric shock due to heat generation.

Do not install, remove or reinstall the unit by yourself.
- Otherwise there is risk of fire, electric shock, explosion or injury.

Be cautious when unpacking and installing the product.
- Sharp edges could cause injury. Especially be careful of the case edges and the fins on the condenser and evaporator.

Do not store or use flammable gas or combustibles near the Air-Conditioner.
- Otherwise there is risk of fire, explosion or failure of product.

Be sure the installation area does not deteriorate with time.
- If the base collapses then the Air- Conditioner might fall causing property damage, product failure and personal injury.

Do not place heavy object on the power cord and take care that the cord is not pressed.
- Otherwise there is a danger of fire or electric shock.

Do not share the outlet with other appliances.
- Otherwise there is a risk of fire or electric shock due to heat generation.

While unplugging, hold the head of the plug and do not touch it with wet hands.
- Otherwise there is a risk of fire or electric shock.

Do not place the power cord near a heater.
- Otherwise there is a risk of fire or electric shock.

Do not allow water to run into electric parts.
- Otherwise there is a risk of electric shock or failure of the unit.

Use a soft cloth to clean. Do not use wax, thinner or a strong detergent.
- Otherwise the appearance of the Air-Conditioner may deteriorate, change color or develop flaws on the surface.

Unplug the unit if any strange sound, odor or smoke comes out of it.
- Otherwise there is a risk of fire or electric shock.

Do not open the inlet grille of the product during operation.

• Otherwise it may cause electric shock and failure.

If water enters the product, turn off the power switch, remove the power plug from the socket and contact the service center immediately.

• Otherwise it may cause electric shock and failure of the product.

Ensure proper ventilation in the room when using this appliance together with a stove.

• Otherwise there may be a shortage of oxygen.

Before cleaning the unit turn off the power to the unit.

• The fan blows at a high speed and may cause injury. Also the appliance may cause electric shock.

Turn off the main power switch when the unit is not used for a long time.

• We can prevent accidental startup and thereby prevent injury.

Do not operate or stop the unit by inserting or pulling out the power plug.

• Otherwise it may cause electric shock or fire due to heat generation.

Do not use a damaged power cord and do not use an unspecified power cord.

• Otherwise it may cause electric shock or fire.

Do not operate the unit with wet hands or in a damp environment.

• Otherwise it may cause electric shock or fire.

Always hold the plug by the head while plugging or unplugging it onto the socket.

• Otherwise it may cause electric shock or it may damage the power cord.

When there is a gas leakage, open the windows for ventilation before operating the unit.

• There is a risk of fire or explosion.

Take care not to touch the metal parts of the Air-Conditioner while removing the filter.

• Presence of sharp metal parts may cause injury.

During installation and un installation always contact the dealer of an Authorized service center.

• Otherwise there is a risk of fire, electric shock, explosion or injury.

Be sure only to use those parts which are listed in the service parts list. Never attempt to modify the equipment.

• Use of parts not listed in the service list can cause an electrical shock, excessive heat generation or fire.

Safely dispose off the packing materials.

• Things like screws, nails, batteries, etc….can cause injury to a person. Take care to throw away the plastic packaging bags so that children may not play with them.

Do not touch, operate or repair the product with wet hands.

• Otherwise there is a risk of electric shock or fire.

Do not allow water to run into electric parts. Install the unit away from water sources.

• Otherwise there is a risk of fire, electric shock or failure of the product.

If any strange sound, smell or smoke comes out of the product, immediately disconnect the power supply and contact the nearest service center.

• Otherwise there is a risk of fire, electric shock or failure of the product.

Do not use the socket if it is loose or damaged.

• Otherwise it may cause shock or electric fire.

Keep fire arms away from the unit.

• Otherwise it may cause fire.

Do not use the power cord close to heating tools.

• Otherwise it may cause an electric shock or fire.

Do not disassemble or modify the products randomly.

• Otherwise it may cause an electric shock or failure of the product.

⚠ CAUTION

Install the product in such a way that the noise or hot wind from the outdoor unit may not cause any disturbance to neighbors.

• Otherwise there may be disputes with neighbors.

During installation the unit should be horizontally leveled.

• Otherwise it may cause vibration or water leakage.

Do not allow direct exposure of pet animals and house plants to air flow from the unit.

• Otherwise it may cause injury to them.

Do not block the flow of air into the inlet and the outlet.

• Otherwise it may lead to failure of the product.

Use a soft cloth to clean. Do not use wax, thinner or a strong detergent.

• Otherwise the appearance of the air conditioner may deteriorate, change color and develop flaws on the surface.

Do not step on the unit and do not place anything above it.

• Otherwise the unit may fall and cause personal injury.

Always place the filter securely and clean it every two weeks.

• Operation without filters may cause the unit to fail.

Do not drink water drained by the air-conditioner.

• The drained water contains contaminants and can make you sick.

Be cautious so as not to touch the sharp edges during installation.

• Otherwise it may cause injury.

Avoid excessive cooling and ventilate the room at times.

• Otherwise it may cause personal injury.

Do not try to lift the unit alone.

• Avoid personal injury.

Do not install the product where it is exposed to sea wind (salt spray) directly.

• Otherwise it may corrode the product. Corrosion, particularly on the condenser and evaporator fins, could cause product malfunction or inefficient operation.

Install the drain hose so as to ensure that the water is drained properly.

• Otherwise there might be water leakage.

Replace all the batteries in the remote control with new ones of the same type.
Do not mix old and new batteries or different type of batteries.

• Otherwise there is a risk of fire or explosion.

If the liquid from the batteries gets onto your skin or clothes, wash it well with clean water. Do not use the remote controller if the batteries have leaked.

• Otherwise the chemicals in the batteries may cause burns or other health hazards.

Do not use the product for purposes such as preserving foods, works of art, etc…It is a consumer air conditioner not a precision refrigeration system.

• Otherwise there is risk of damage or loss to property.

Do not recharge or disassemble the batteries. Do not dispose off batteries in fire.

• Otherwise the batteries may burn or explode.

Do not clean the air conditioner using water.

• Water may enter the unit and degrade the insulation. Hence, it may cause an electric shock.

Ventilate well when used near a stove.

• Otherwise there may be a lack of Oxygen in the room.

Do not put pets or house plants where it is exposed to direct air-flow.

• It is injurious to the health of the pet and the plant.

2.2 Points for explanation about operations

The items listed under the WARNING and CAUTION list in the operation manual are the items pertaining to possibilities for bodily injury and material damage in addition to the general usage of the product. Accordingly, it is necessary that you make a full explanation about the described contents and also ask your customers to read the owners manual.

NOTE **to the installer**

Be sure to instruct customers how to properly operate the unit (especially cleaning filters, operating different functions and adjusting the temperature) by having them carry out operations themselves while looking at the manual.

- Be sure to read this manual before installing the indoor unit.
- Entrust the duty of installation to the place of purchase or an authorized serviceman. Improper installation could lead to damage of the product, bodily injury , electric shock or fire.
- Use parts only provided along with the unit or parts satisfying required specifications.
  Unspecified parts could cause the unit to fall out of place, or could lead to leaks and in the worst cases, electric shock or fire.

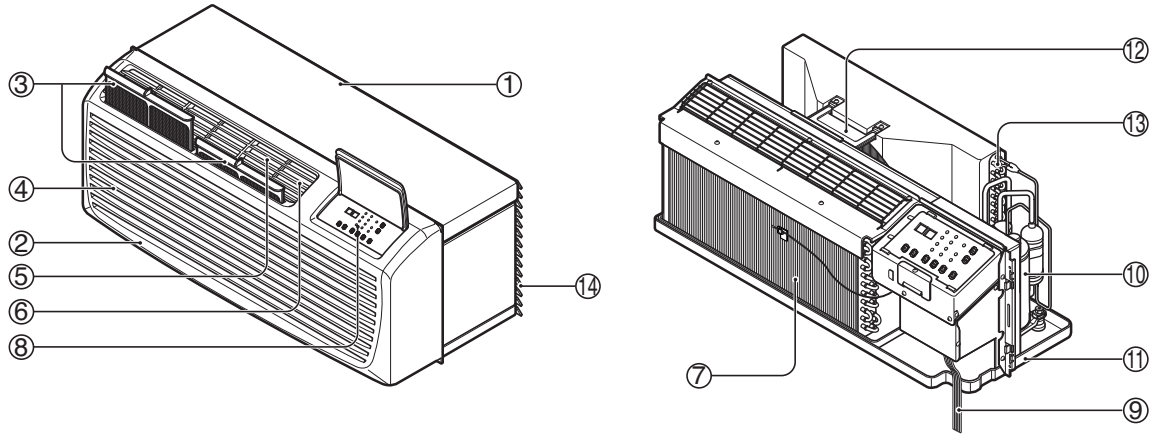
2.3 Selecting installation site for the unit

Select an installation site where the following conditions are fulfilled and that meet your customers approval.

1) Location should be strong enough to bear the weight of the unit.
2) Location should be accessible to inspection and service in future.
3) Location should allow suitable gradient for the drainage of water.
4) Location free from electrical noise.
5) Location allowing optimum air distribution without restricting air flow.
6) Location having no risk of flammable gas leakage.
7) Location free from any machinery emitting electromagnetic waves which may disturb the control system thus causing the unit to malfunction.
8) Location should be free from flammable gases, carbon fiber or ignitable dust suspensions in the air or in areas where volatile flames like gasoline and thinner are handled. Operating the unit in such conditions may lead to fire.
9) Finally conform to local rules and regulations for air conditioner installation.

2.4 Installation of unit

The PTAC and its components are as shown below.



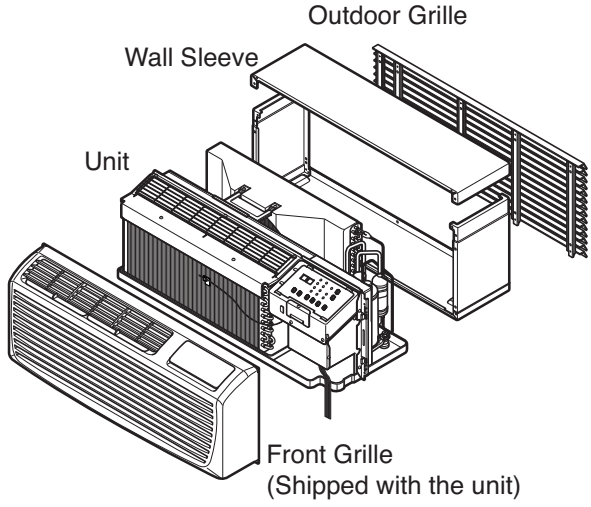
1. WALL SLEEVE
2. FRONT GRILLE
3. AIR FILTER
4. AIR INTAKE
5. AIR DISCHARGE
6. VERTICAL AIR DEFLECTOR (HORIZONTAL LOUVER)
7. EVAPORATOR
8. CONTROL PANEL
9. POWER CORD
10. COMPRESSOR
11. BASE PAN
12. BRACE
13. CONDENSER
14. OUTDOOR GRILLE (ARCHITECTURAL GRILLE)

Use the correct wall sleeve and outdoor grille

This unit is designed to be installed in the insulated wall sleeve. When you place the unit into the existing sleeve, the wall sleeve used to mount the new unit must be in good structural condition and have the outdoor grille that securely attaches to the sleeve or the flange of the sleeve to secure the new air conditioner.

With the LG sleeve, you can maintain the best performance of the new air conditioner.
If you keep the existing sleeve, you run the risk of poor performance or product failure. This is not covered under the LG warranty.

Remove the vertical deflectors in the existing grille to reduce condenser air recirculation that can cause the unit to poor cooling or heating and component failure.



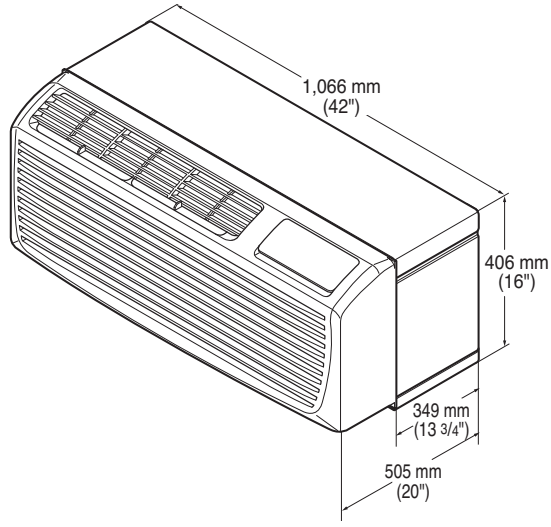
CAUTION

- There are sharp edges that can cause serious cuts.
- When lifting the air conditioner.
  Use 2 people to lift.(the unit is heavy)

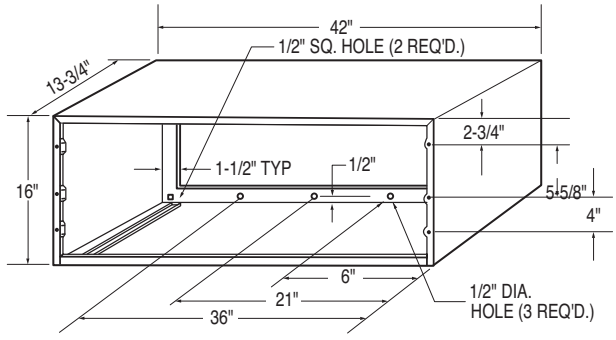
For existing sleeve, you should measure the wall sleeve dimensions.
Install the new air conditioner according to these installation instructions to achieve the best performence. The wall sleeve used to mount the new air conditioner must be in good structural condition and have a rear grille that securely attaches to the sleeve or the flange of the sleeve to secure the new air conditioner.

- To avoid vibration and noise, make sure the unit is installed securely and firmly.

When installing the sleeve, make certain there is nothing within 20" of the back that would interfere with heat radiation and exhaust air flow.

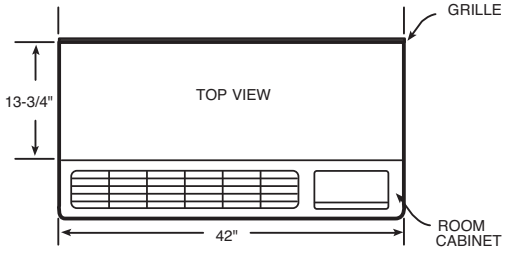


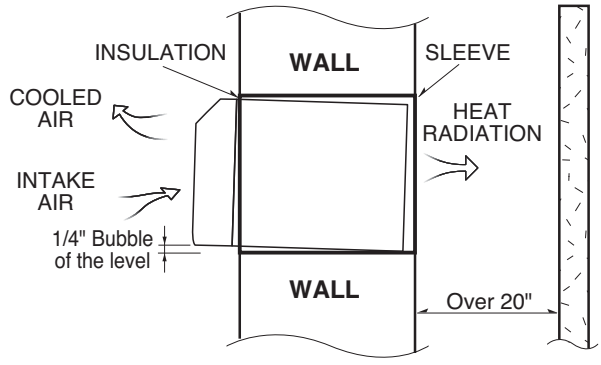
Dimension of sleeve assembly (optional)



Wall opening 16-1/4"x42-1/4"

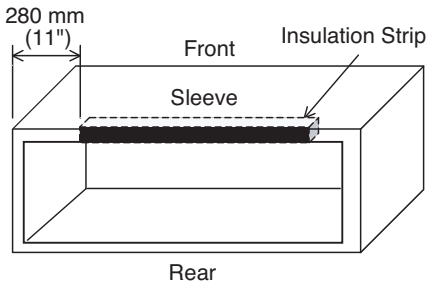
Recommended **Insulation strip must be attached to prevent the re-circulation of exhaust air to inward side from either side of condenser space. The insulation strip is provided with the box.**
Refer to the diagram below.





1) Take out the insulation strip from the upper packing.

2) Attach the insulation strip onto the rear upper side of the wall sleeve.
3) To improve the unit's energy efficiency, it is recommended to change the outer grille with a plastic grille.(This is optional for old models but New models readily comes with the plastic rear grille)
4) Insulation strip prevents the exhaust air from re-entering from either side of condenser space which may decrease the cooling efficiency of condenser.



2.5 WALL SLEEVE INSTALLATION

Wall Case Installation Data

General

Generally, units are installed 3" to 5" above the floor (flush to finished floor installation is possible) as near to the center of the room as possible; underneath a window or a glass panel is typical. Normal installation of the wall case allows installation flexibility; from flush with the finished interior wall to a minimum of 1/4" of the wall case extending beyond the finished exterior of the building.

Special consideration must be given to installations where the wall case does not extend a minimum of 1/4" beyond the finished exterior wall.

Regardless of the installation, there are several things to consider when selecting a location for installing the unit. For instance, drapery location could interfere with air discharge, and placement of furniture may have an impact on the performance of the unit. The following information is intended to minimize installation problems and assure you of a trouble-free installation.

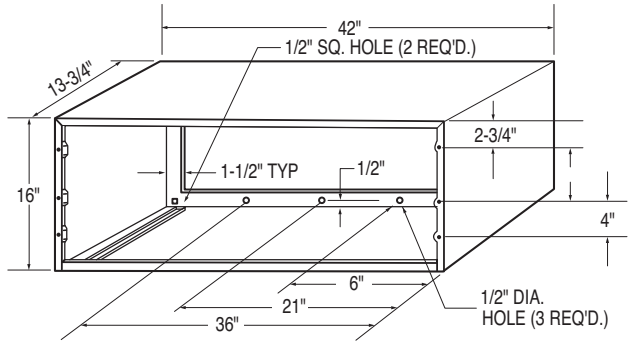
Refer to last page for required wall opening dimensions. Minimum recommended interior and exterior case projection for standard wall thicknesses are shown in the drawings in this manual. The case may be installed flush with the finished indoor wall.

Mounting an outdoor grille or louver section to the building face may cause a space between the outdoor coil and the louver section. Air splitters, aligned with the ends of the outdoor coil, must be installed between the outdoor coil inlet and outlet air streams. Gaps between the outdoor coil and the louver section may allow condenser air recirculation and affect the operation of the unit.

The wall case should be level from side to side and from level to 1/4 bubble tilt to the outdoors. The condensate disposal system in the unit is designed to dissipate the condensate water generated during cooling operation in accordance with ARI standards and actually uses this water for maximum unit efficiency. A level unit will also insure proper performance of the Internal Condensate Removal (ICR) system optional on heat pump units.

For new construction, early planning with the architect is necessary. Unit location, electrical connection locations, and wall openings of proper dimension are essential to avoid the necessity of rework, fillers, framing, moving electrical outlets, and other expensive modifications.

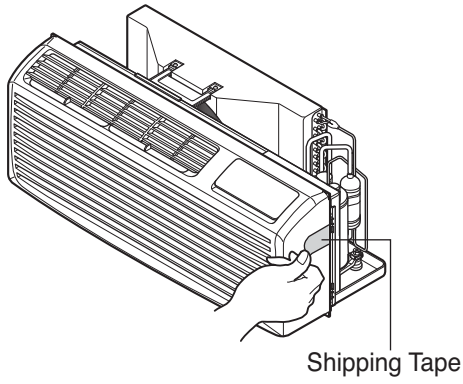
For existing construction it is important that carpentry, masonry and electrical work be performed by competent, qualified personnel. **Since installations in existing construction may involve removal of building material from the structure, location of the wall case must be precisely done.**



Wall opening 16-1/4" x42-1/4"

Preparation of the front grille

Carefully remove shipping tape from the front grille.



Brick, Frame, Stucco and Shingle Construction

For new construction, the opening for the wall case should be framed and inserted into the opening during construction. Lintels should be used when the building material is heavy and is not self supporting (such as brick). The wall case will fit an opening of six courses of standard brick or five courses of jumbo brick. Wall framing in this type construction is normally on 16" centers and the wall case will fit a framed opening spanning three 16" O.C. 2" x 4" stud spaces.

For existing construction the indoor and outdoor wall will need to be cut out, allowing for clearances of 1/8" on all sides of the wall case. Work should begin on the inside wall. Cut the correct dimensions and mark (using drill holes) the outside wall from each corner of the inside cutout. Studding that interferes with the opening must be removed and a suitable frame constructed to secure the wall case and provide adequate support for case and chassis.

Preparation of the Wall Case for All Types of Construction

As shipped, the LG wall sleeve is ready for installation.
Do not remove the stiffener from inside the wall case or the weather closure panel from the outside face of the wall case until the outdoor grille and chassis are ready to be installed.

Installation of Wall Case in Wall Opening

1. Position the wall case into the wall. The room side edge of the wall case should be at least flush with the finished wall for line cord installations and permanent connection installations when no sub-base is used, and should project into the room at least 2-3/8" when a sub-base is used. If the minimum exterior dimensions are not met, refer to page 63. The outside edge of the wall case should extend at least 1/4" beyond the outside wall.
   This is necessary for proper caulking, to prevent sealing thedrain holes in the rear flange of the wall case, and to facilitate the installation of an accessory drain, if used.

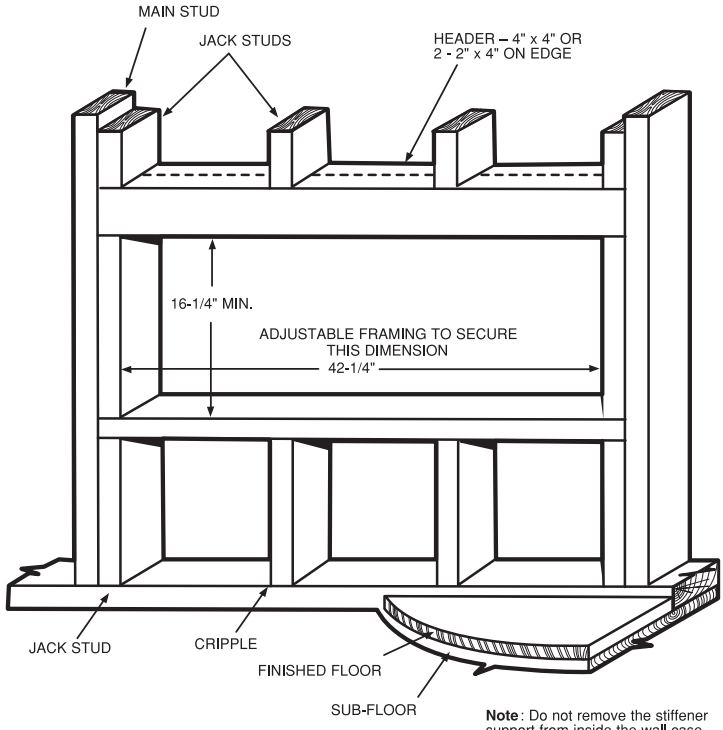
The wall case should be level from side to side and from level to 1/4 bubble tilt to the outdoors. The condensate disposal system in the unit is designed to dissipate the condensate water generated during cooling operation in accordance with ARI standards and actually uses this water for maximum unit efficiency. A level unit will also insure proper performance of the Internal Condensate Removal (ICR) system optional on heat pump units.

2. The wall case should be secured to the wall at both sides.
   Use a minimum of two screws or other fastening device on each side. See Figure 2 page 63. Mark the wall case on each side 2" from the bottom and 2" from the top at a point where basic wall structure is located. Drill wall case and use fasteners appropriate for wall construction. All holes for fasteners in the side of the wall case must be at least 2" up from the bottom of the wall case.
   Never fasten screws or put other holes in the bottom of the wall case.
   If the wall opening is greater than the case dimensions, spacers must be used on the sides between the wall case and the wall support structure to prevent distorting the wall case.
3. Caulk or gasket the entire opening on the outside between the wall case and exterior wall surface (4 sides) to provide total water and air seal.
4. Caulk or gasket room-side opening between wall case and interior wall surface (4 sides). Opening beneath or around the wall case can allow outdoor air to leak into the room resulting in increased operating costs and improper room temperature control.

Care should be taken in location of electrical supply entry in relationship to wall sleeve to assure access to receptacle or junction box once unit is installed.

FRAMING FOR WALL CASE

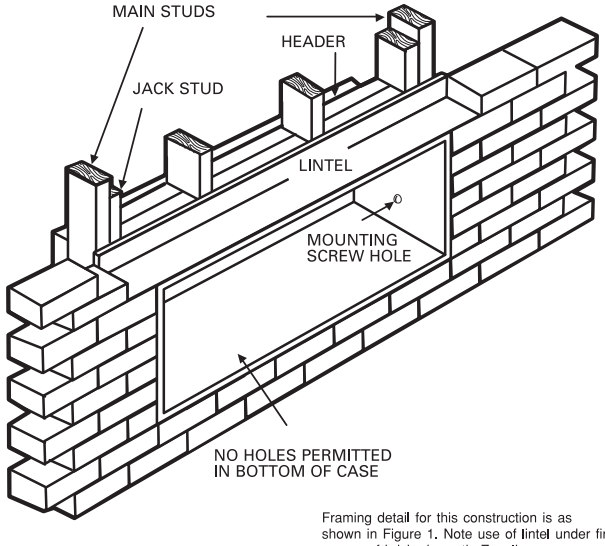
BRICK VENEER AND FRAME CONSTRUCTION



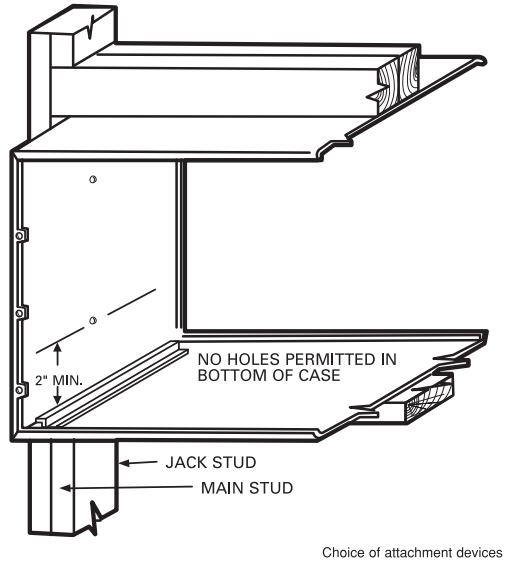
Note: Do not remove the stiffener support from inside the wall case until the chassis is to be installled.

Figure 1

FASTENING WALL CASE

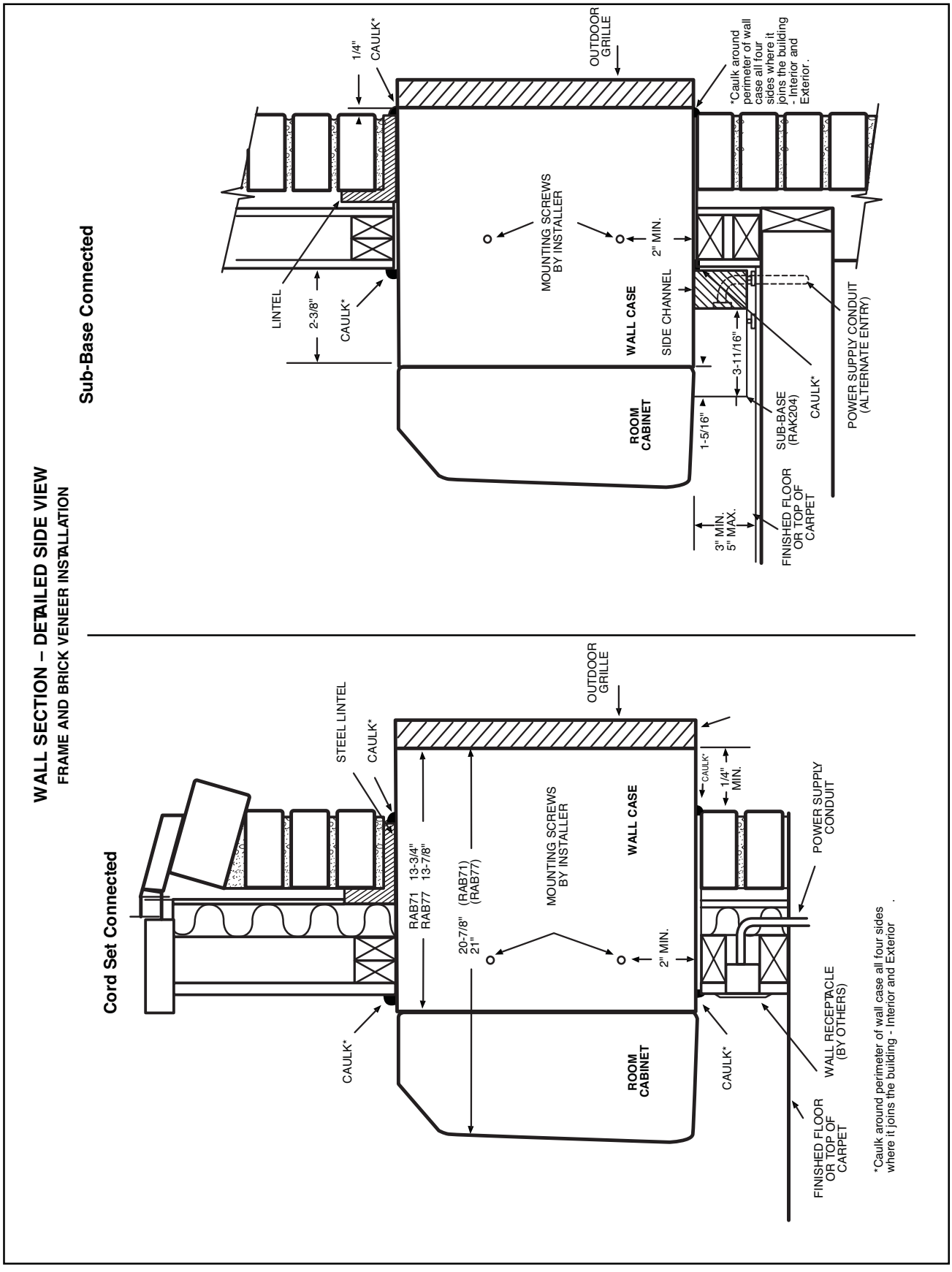


Framing detail for this construction is as shown in Figure 1. Note use of lintel under first course of brick above theZoneline case. Do not use the case as alintel. Mounting screw holes shown are tobe made by the installer



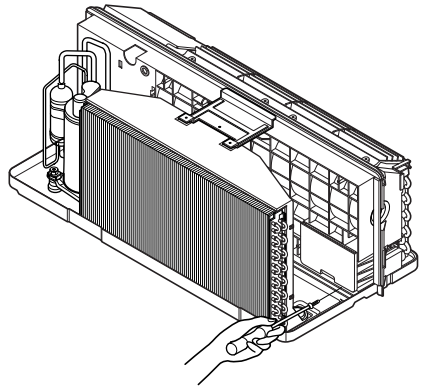
Choice of attachment devices through both ends of case or thetop. Mounting screw holes and attachment devices by installer.

Figure 2

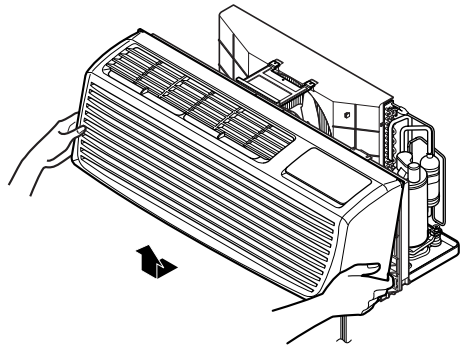

WALL SECTION – DETAILED SIDE VIEW
FRAME AND BRICK VENEER INSTALLATION
Sub-Base Connected
OUTDOOR GRILLE
1/4"
CAULK*
*Caulk around perimeter of wall case all four sides where it joins the building - Interior and Exterior.
LINTEL
2-3/8"
CAULK*
MOUNTING SCREWS BY INSTALLER
2" MIN.
WALL CASE
SIDE CHANNEL
ROOM CABINET
1-5/16"
3-11/16"
SUB-BASE (RAK204)
CAULK*
POWER SUPPLY CONDUIT (ALTERNATE ENTRY)
3" MIN.
5" MAX.
FINISHED FLOOR OR TOP OF CARPET
Cord Set Connected
OUTDOOR GRILLE
STEEL LINTEL
CAULK*
RAB71 13-3/4"
RAB77 13-7/8"
20-7/8" (RAB71)
21" (RAB77)
MOUNTING SCREWS BY INSTALLER
WALL CASE
CAULK*
1/4" MIN.
POWER SUPPLY CONDUIT
2" MIN.
CAULK*
ROOM CABINET
CAULK*
WALL RECEPTACLE (BY OTHERS)
FINISHED FLOOR OR TOP OF CARPET
*Caulk around perimeter of wall case all four sides where it joins the building - Interior and Exterior .

Unit installation

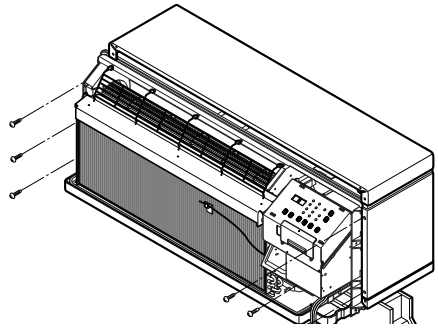
1. Remove the shipping screw from the ventilation door. (refer to figure on the right)



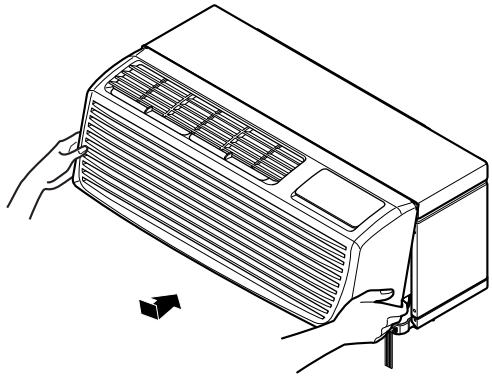
2. Remove the front gille by pulling it out at the bottom to release it, then lift it up along the unit top front. (refer to figure on the right)



3. Slide the unit into the wall sleeve and secure with 6 screws through the unit flange holes. (refer to figure on the right)



4. Reinstall the front grille by hooking the top over the unit top, then pushing it in at the bottom. (refer to figure on the right)

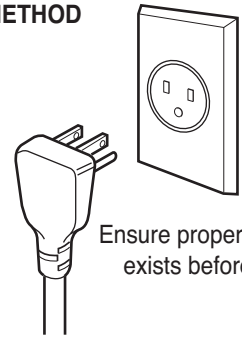


ELECTRICAL SAFETY

IMPORTANT
(PLEASE READ CAREFULLY)

FOR THE USER'S PERSONAL SAFETY, THIS APPLIANCE MUST BE PROPERLY GROUNDED

PREFERRED METHOD



Ensure proper ground exists before use

The power cord of this appliance is equipped with a three-prong (grounding) plug. Use this with a standard three-slot (grounding) wall power outlet to minimize the hazard of electric shock. The customer should have the wall receptacle and circuit checked by a qualified electrician to make sure the receptacle is properly grounded.

DO NOT CUT OR REMOVE THE THIRD (GROUND) PRONG FROM THE POWER PLUG.

FUSE – Use a time – delay fuse or circuit breaker. Refer to the nameplate for proper power supply requirements.

⚠ CAUTION

1. Do not use an extension cord with this unit.
2. When the unit is in the OFF position, the power supply to the electrical controls is still energized.
3. Disconnect the power to the unit before servicing the unit.
4. Remove the power cord from the wall receptacle.
5. Remove or turn off the protective device (fuses or circuit breaker).

Wirings including installation of the receptacle must comply with the NEC and local codes, local regulations.

FUSE- Use a time-delay fuse or circuit breaker. Refer to the nameplate for proper power supply requirements.

Use Wall Receptacle	Power Supply
 Standard 208/230V, 3-wire grounding receptacle rated 15A	Use 15 AMP. time delay fuse or 15 AMP. Circuit breaker.
 Standard 208/230V, 3-wire grounding receptacle rated 20A	Use 20 AMP. time delay fuse or 20 AMP. Circuit breaker. (2500W Heater →15Amp Circuit Breaker)
 Standard 208/230V, 3-wire grounding receptacle rated 30A	Use 30 AMP. time delay fuse or 30 AMP. Circuit breaker.
 Standard 265V grounding receptacle rated 20A	Use 20AMP,time delay fuse or 20AMP Circuit breaker (2000W Heater →15Amp Circuit Breaker)
 Standard 265V grounding receptacle rated 25A	Use 25AMP,time delay fuse or 25AMP Circuit breaker
 Standard 265V grounding receptacle rated 30A	Use 30AMP, time delay fuse or 30AMP Circuit breaker

Installation(for 60Hz)

- Electric installation requirement for personal safety:
- This equipment must be properly connected to ground.
- Under no circumstances cut or break the grounder conductor.
- We recommend not to use an extension wire or any adaptor with this product.
- Follow the national or local electric codes.
- If the power supply does not fulfill the specifications previously mentioned, call an authorized electrician.
- The aluminum wired in the houses may bring about some problems, call an authorized electrician.
- This unit requires a separated power supply that works only for this application.

Part 4 Accessories

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2.10 Vent Filter 98

1. Controller accessories

1.1 Hard Wire Kit

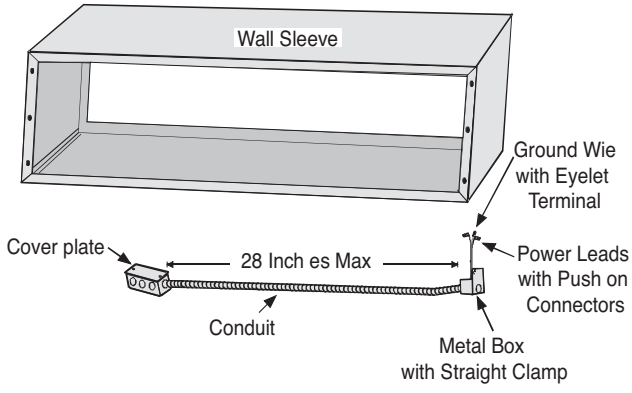
The Hard Wire kit consists of a Junction box which provides a protective enclosure for the electrical connections. This junction box is furnished with approximately 2 - 1/2 feet of 1/2 inch flexible steel conduit and a metal box that secures to the PTAC at the control panel. The Hard Wire kit connects the PTAC directly to the building power supply wires and the junction box is intended to be mounted on the wall or the floor near the PTAC.

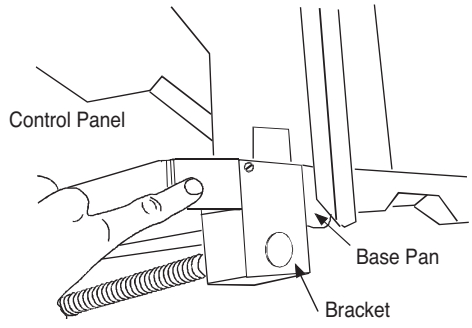
Hardwire Kit
AYHW101

Installation Procedure:

The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

1) At first, remove the cover plate from the junction box. Then, mount the junction box on the wall or floor within 28 inches (711mm) from the lower right corner of the wall sleeve so that the metal box is suitably clamped on the side of the sleeve as shown on the right below.
2) If a power switch is to be used, make sure the electrical connections are done and then mount the switch onto the junction box. During this operation, refer to the Power Switch Installation instructions.
3) Remove the control panel assembly by removing the two screws holding the control panel in place and then gently lift the panel. Disconnect the power cord leads from all electrical connections including the ground wire.
4) Remove the power cord clamp and the power cord from the unit.





5) Now for 208/230 volt units, remove and discard the white lead from the wire assembly. For 265 volt units, remove and discard the red lead from the wire assembly.

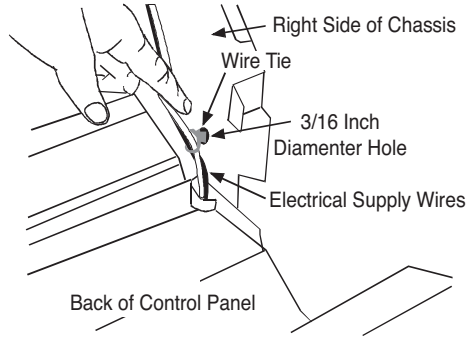
* For 208/230 volt units and 265 volt units refer to notes given on the next page.

6) Remove the retaining ring, which holds the threaded conduit and the metal box together, from the straight conduit clamp. Insert the three wires into the metal box through one of the two openings in the box. Replace the hole cover grommet into the unused hole to prevent objects from entering the box.

7) After inserting the wires, replace the retaining ring back on the conduit clamp inside the metal box and tighten the ring securely so that it holds the conduit firmly.

8) The three wires extending from the metal box to the incoming power opening are inserted in such a way that approximately 20inches (508mm) of the wires protrude through the opening.

9) Attach the metal box to the chassis once again. Then, finally insert the wire tie into the _ inch diameter hole located just above the incoming power opening. Tie all wires together securely with the wire tie as shown in the figure below.



208 / 230 Volt Units

a) After removing the white lead from the wire assembly, connect the black lead to the line-2 terminal on the control board.

b) Connect the red lead to the common (C) terminal of the capacitor and then connect the ground wire to the partition panel where the ground wire of the power cord was located earlier. For grounding, use the supplied ground screw (green color).

c) Then connect the red lead wire of the wire assembly at the junction box to the red lead of the field power source and similarly, connect the black lead of the wire assembly at the junction box to the black lead of the field power source. After that connect the ground wire too from the field power source to the ground wire of the wire assembly at the junction box.

d) Install the junction box cover plate and reinstall the control panel assembly.

265 Volt Units

a) After removing the red lead from the wire assembly, connect the black lead to the center terminal of the fuse holder.

b) Connect the white lead to the common (C) terminal of the capacitor and then connect the ground wire to the partition panel where the ground wire of the power cord was located earlier. For grounding, use the supplied ground screw (green color).

c) Then connect the white lead wire of the wire assembly at the junction box to the white lead of the field power source and similarly, connect the black lead of the wire assembly at the junction box to the black lead of the field power source. After that connect the ground wire too from the field power source to the ground wire of the wire assembly at the junction box.

d) Install the junction box cover plate and reinstall the control panel assembly.

1.2 Fuse Holder Kit

The optional fuse holder kit can be directly installed in the chassis or in the optional subbase. Fuse holder kits are available in 208/230 volt ratings.

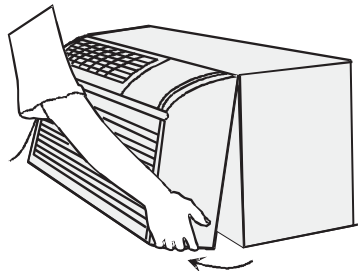
Time delay fuses of 15, 20, 25 or 30 Amperes should be used in accordance with maximum over current protection as displayed on the unit nameplate.

Fuse Holder Kit
AYFH1401

Installation Procedure(without subbase):

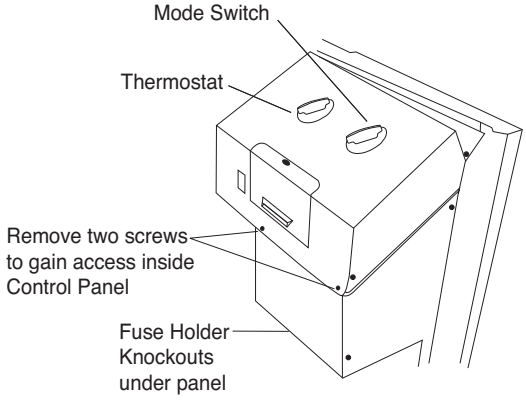
The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

1) Remove the Front Grille from the unit by pulling it at the bottom on both sides and then lifting upwards as shown in the figure on the right.



2) To gain access inside the control panel, after removing the knobs and escutcheon, remove the screws holding the panel in position. Tilt the panel forward, being careful not to pinch any wires, as shown in the figure on the right.

3) As can be seen from the front, remove both knockouts off the control panel and insert the two fuse holders from the front. The fuse holders should be so connected that the quick connect tabs are facing towards the center of the unit. Attach the fuse holders using screws and nuts provided.



4) Remove both the power cord leads – one from the capacitor and the other from the electronic board. And then install one power cord lead to the center terminal of one fuse holder and the other power cord lead onto the center terminal of the second fuse holder as shown in the figure on the right.

5) Connect the BK-10 wire from the side terminal of one fuse holder to the Line terminal on the electronic board.

6) Connect the RD-10 wire from the side terminal of the other fuse holder to the Common (C) terminal on the capacitor.

7) Place the control panel back to it's original position, taking care not to pinch any wires. Align the panel and screw it firmly to position with the original screws. Place the escutcheon and slide the control knobs back to it's earlier position.

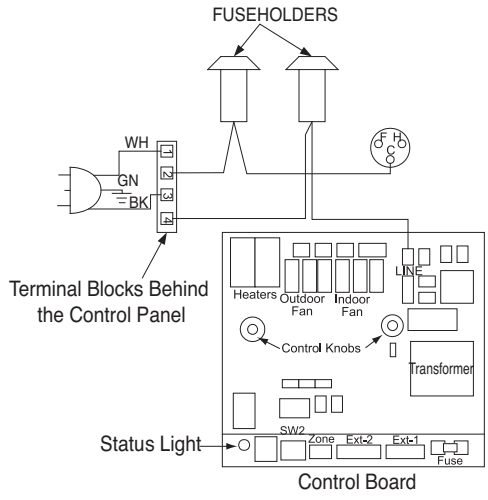


Fig: Fuse Holder connections.

Installation Procedure(using a subbase):

The Installation and servicing of the equipment should be per-

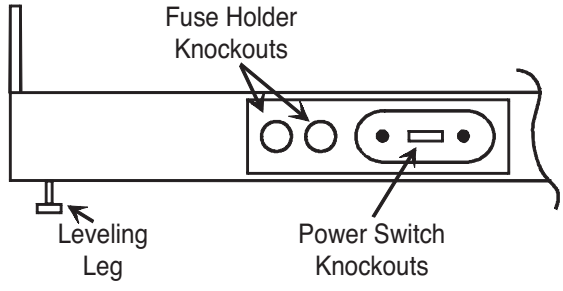
Fig: Front of subbase.

Fig: Back of subbase.

formed by qualified and experienced personnel only.

1) Remove both knockouts from the fuse holder location on the subbase as shown on the right.

2) Install the fuse holders using the screws provided. The side connector tab on the fuse holders should be towards the left.



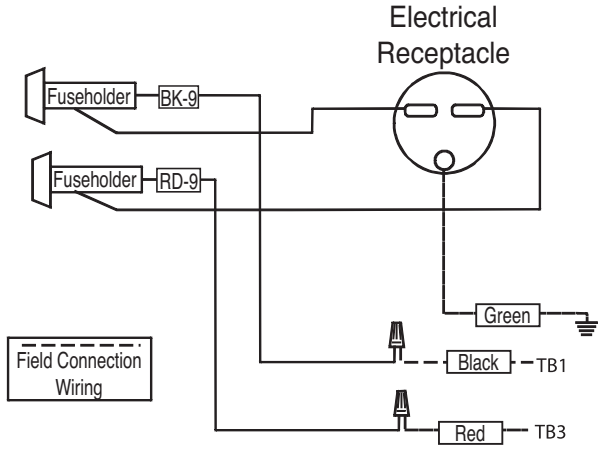
3) Connect the stripped BK-9 wire to the center of the quick-connect tab of the fuse holders. Wire nut the other end of this wire to the black field connect wire (TB1).

4) Connect the other stripped BK-9 wire to the quick-connect tab on the side of the same fuse holder. Wire nut the other end to the black subbase wire to the receptacle.

5) Connect the stripped RD-9 wire to the center quick-connect tab of the second fuse holder. Wire nut the other end to the red field connection wire (TB3) as shown on the figure on top right.

6) Connect the other striped RD-9 wire to the quick connect tab on the side of the second fuse holder. Wire nut the other end to the red subbase wire which leads to the receptacle.

7) Finally, Insert delay fuses into the fuse holders. Size all fuses by the Maximum over current Protection as displayed on the nameplate of the unit. Please refer to the serial plate of the unit too.



1.3 Circuit Breaker kit

The Circuit breaker kit provides POWER ON/OFF and over-current protection function to the unit. The circuit breaker kit contains the following:-

- **Circuit breaker**
- **Replacement access cover for the high voltage section of the subbase.**
- **Mounting bracket**
- **Mounting Clips and**
- **Required Hardware.**

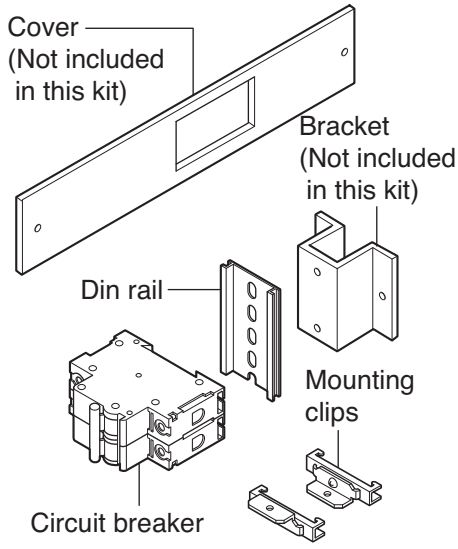
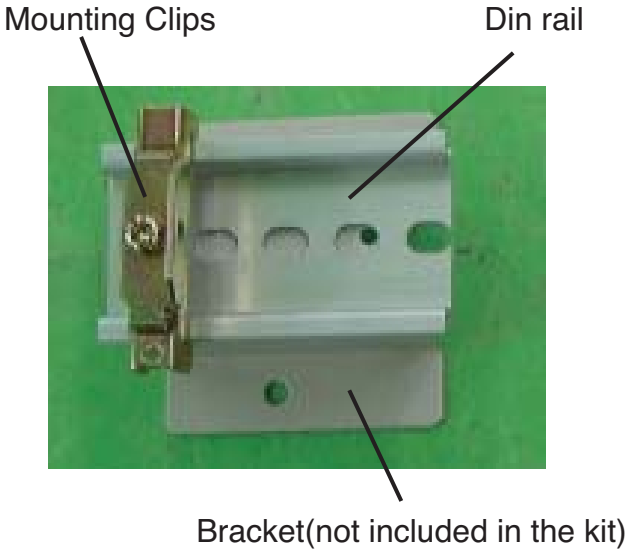


Fig: Circuit Breaker kit.



Circuit Breaker kits should always be selected according to the unit amperage.

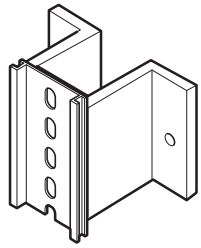
Fig: Circuit Breaker

Installation Procedure:

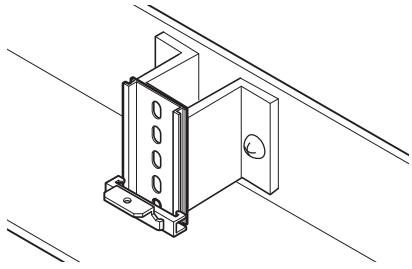
The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

1) At first remove the access cover from the subbase.

2) Position and fasten the din rail on top of the mounting bracket as indicated in the figure on the right. Secure one of the two small mounting clips to the din rail. Do not fully tighten the mounting screw during this time.

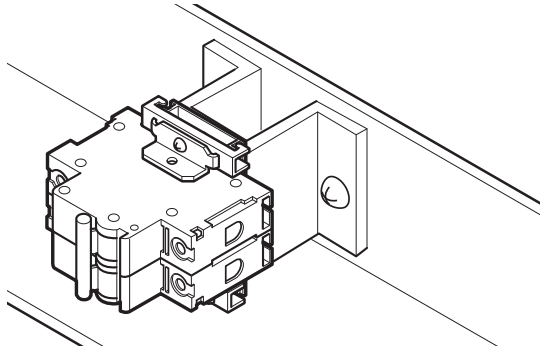


3) Position the assembly into the subbase as shown in the figure on the right. Using the two screws provided, secure the assembly to the subbase back wall in the subbase high voltage section.



4) Position the circuit breaker on the din rail so that the locking tabs on the mounting clip holds the circuit breaker on the mounting bracket.

5) Install the second mounting clip onto the din rail, locking the circuit breaker on the mounting bracket as shown in the figure on the right.
Then, after making sure that the circuit breaker is in the right position tighten both the mounting screws.
(Install the cover in place and adjust the position of the breaker to make sure that the mounting holes between the subbase and the cover match)



1.4 Power Switch

For both 208/230 and 265Volt power Switch Assemblies

This optional kit can be installed in a full length subbase or in the junction box of the Hard Wire Junction Box kit. This switch has the Power On/Off function.

With each switch, a replacement junction box cover plate has also been provided.

Note:

Unit terminals are not designed to accept conductors other than copper. Use of other conductors may result in damage of equipment.
All wiring must comply with applicable local and national codes.

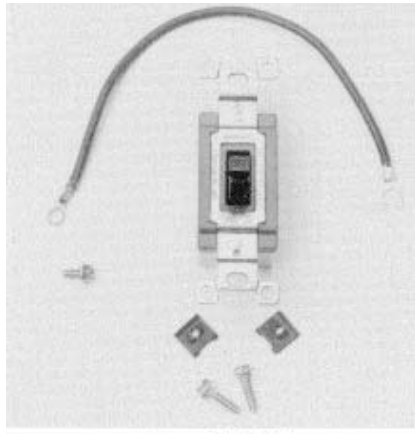


Fig: Power Switch

Installation Procedure:

The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

For 208/230 Volt Installation

1) At First, remove and discard the white lead of the Hard wire assembly.
2) Connect the Black lead of the Hard wire assembly to one terminal of the disconnect switch as shown in the figure on the right.
3) Connect the red lead of the Hard wire assembly to the terminal just opposite to the one, to which the black lead has been connected.
4) Remove the knockout from the desired power entry point of the junction box and route the field supply power wires into the junction box.
5) Connect the red and black leads of the field power supply to the two unused terminals on the power switch.
6) Connect the ground wire of the field power supply to the bare ground wire assembly.
7) Mount the switch on the tabs in the junction box and install the switch cover plate provided with the power switch.

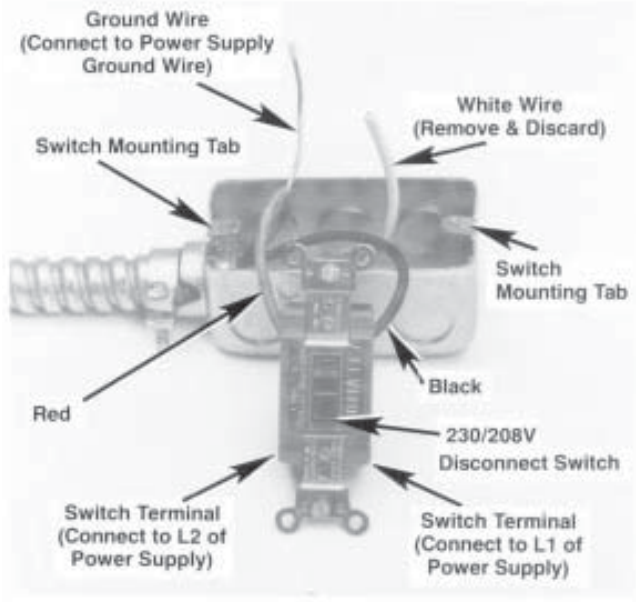


Fig: 208/230V Power Switch

For 265 Volt Installation

1) At First, remove and discard the red lead of the Hard wire assembly.

2) Connect the Black lead of the Hard wire assembly to one terminal of the disconnect switch as shown in the figure on the right.

3) Remove the knockout from the desired power entry point of the junction box and route the field supply power wires into the junction box.

4) Connect the black lead of the power supply to the remaining disconnect switch terminals.

5) Connect the ground wire of the field power supply to the bare ground wire assembly.

6) Connect the white lead of the wire assembly to the Neutral lead of the power supply.

7) Mount the switch on the tabs in the junction box and install the switch cover plate provided with the power switch as shown in the figure on the right.

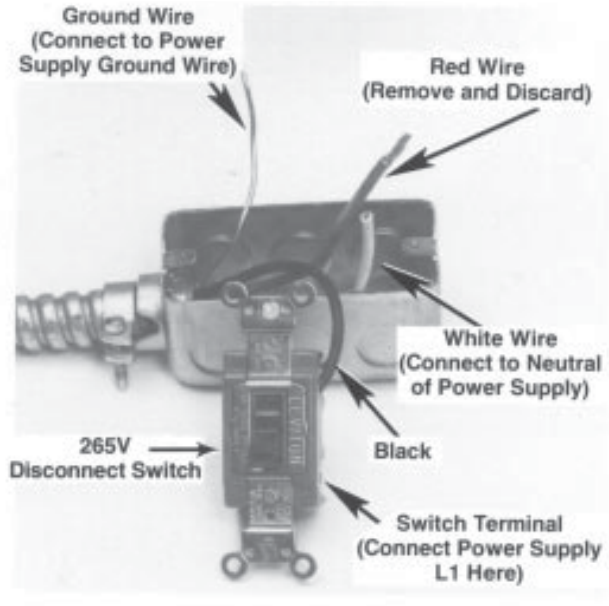
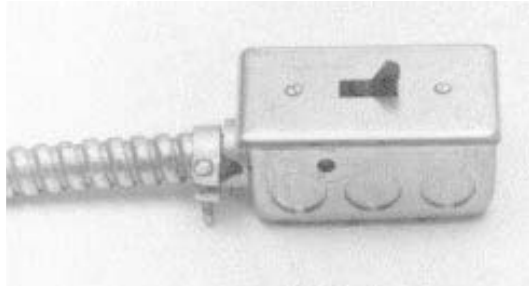
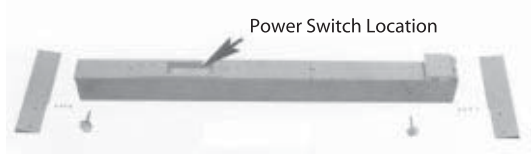


Fig: 265V Power Switch

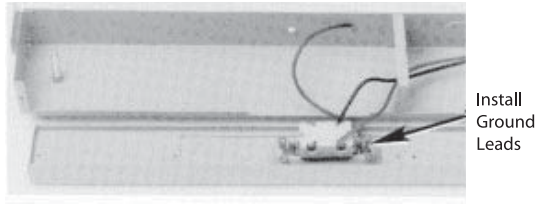


Power Switch installation for subbase

For 208/230 Volt

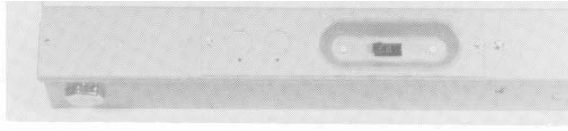


1) Remove the left and the right subbase cover panels by removing the screws. Please retain the screws.
2) Remove the rectangular knockout located near the center of the recessed area on the left cover panel.
3) Install the switch using the two bolts and the two nuts provided so that the "On" position of the switch is on the right. Install the ground lead between the switch mounting tab and the mounting plate.
4) Route the RED wire, from the receptacle, through the barrier in the subbase using the hole provided. (refer to figure on the right)



5) Insert the RED wire from the receptacle into the upper right hole in the rear of the switch and tighten the screw. Insert the RED power wire(field wiring) into the upper left hole in the switch and tighten the screw.
6) Route the black wire, from the receptacle, through the barrier in the subbase using the hole provided.
7) Insert the black wire, from the receptacle, into the lower right hole in the rear of the switch and tighten the screw.
8) Attach the ground field wire by connecting the green wire on the disconnect switch to the ground terminal on the back wall of the subbase high voltage section.
9) And finally replace the cover panels (with the switch installed) to the subbase using the screws removed in step 1.

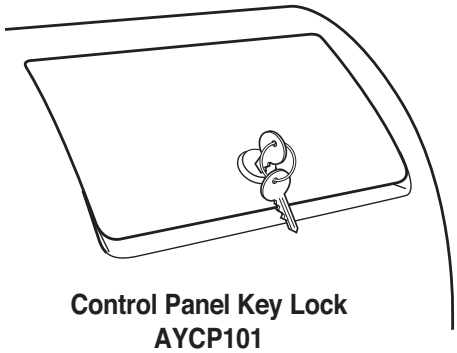
For 265 Volt



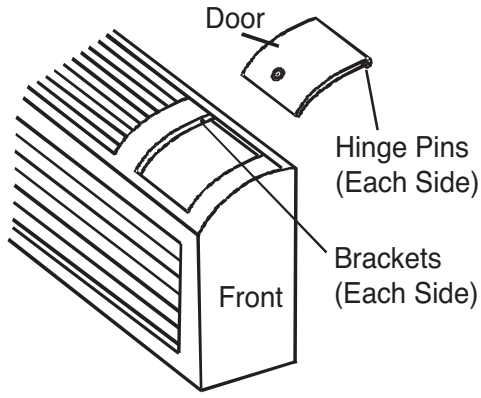
1) Remove the left and the right subbase cover panels by removing the screws. Please retain the screws.
2) Insert the black wire from the receptacle into the lower right hole in the rear of the switch and tighten the screw. Insert the Black power wire(field wiring) into the lower left hole in the switch and tighten the screw.
3) Connect the white wire, from the receptacle, to the white power wire(field wiring) by means of the wire nut
4) Attach the ground field wire by connecting the green wire on the disconnect switch to the ground terminal screw on the back wall of the subbase high voltage section.
5) And finally replace the cover panels (with the switch installed) to the subbase using the screws removed in step 1.

2 Mechanical Accessories

2.1 Control Panel Key Lock



Control Panel Key Lock
AYCP101

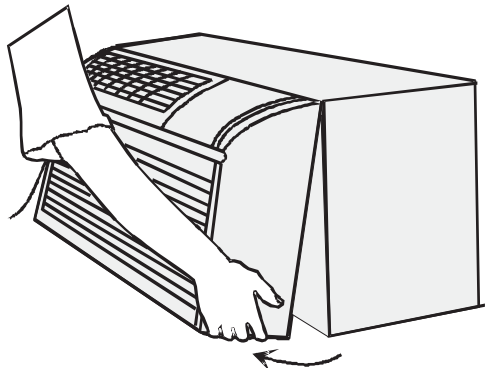


The Control Panel Key Lock Kit prevents tampering of the controls which is used to set temperatures and other Heating and Cooling functions.

Installation Procedure:

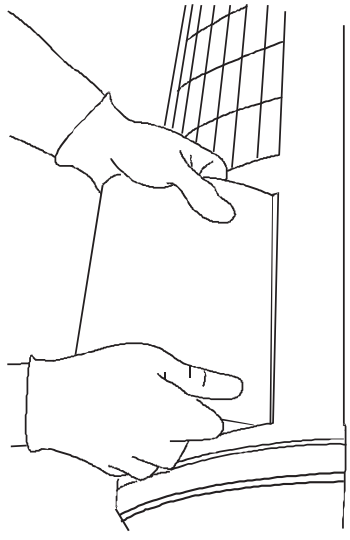
The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

1) Remove the Front Grille from the unit by pulling at the bottom on both sides and then lifting upwards as shown in the figure on the right.



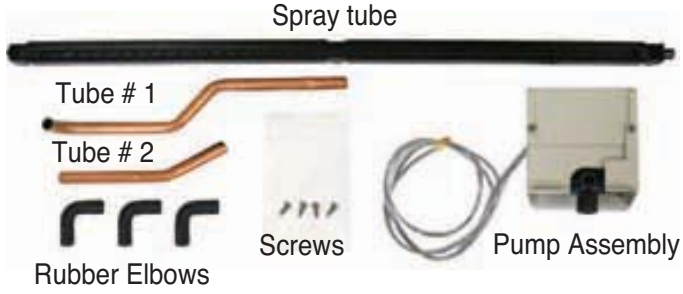
2) Remove the existing cover assembly by lifting the cover halfway, using both hands and then slightly pull the cover hinge pins so that these pins slide out of the mating holes.

3) After removing the existing cover assembly, install the cover assembly with the key lock by applying slight pressure with both hands so that the cover hinge pins align properly onto the bracket.



2.2 Condensate disposal pump kit.

The internal condensate pump serves as a means for disposing the condensate generated during the Heat pump operation by transferring the condensate into the indoor coil. The warm coil along with the warm air from the room helps in evaporating
the condensate while adding humidity to the room.
But the addition of this kit decreases the effective heating capacity of the unit and this kit is not intended for use in seacoast or corrosive environments.



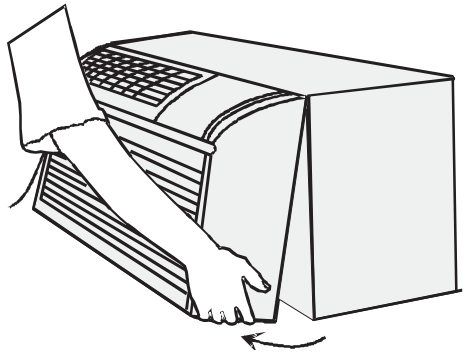
Condensate Disposal Kit
AYCD2101

Note:
Under extreme high humidity conditions, the internal condensate pump may not be able to dispose off all the condensate produced, and then the condensate may drip from the outside of the wall sleeve. If this condensation is unacceptable, then a drainage system (including factory approved drain kit for the wall sleeve) should be installed.

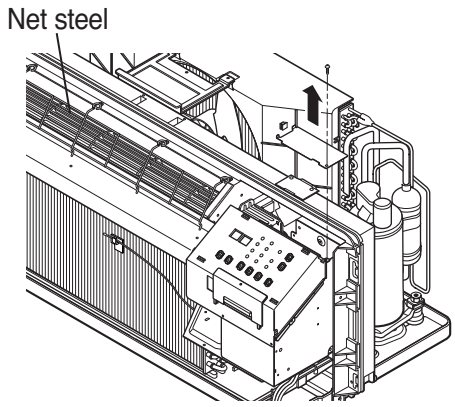
Installation Procedure:

The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

1) Unplug the PTAC unit from the power supply and then remove the unit from the wall sleeve. Place the chassis where the front and the back of the chassis can be easily accessed.
2) Remove the Front Grille from the unit by pulling it at the bottom on both sides and then lifting upwards as shown in the figure on the right.



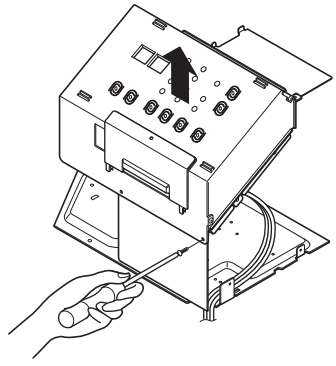
3) Remove the Top cover assembly and the net steel shown in the figure on the right.



4) Remove the wire junction box cover by removing the four screws and lifting it up as shown in the figure on the right.

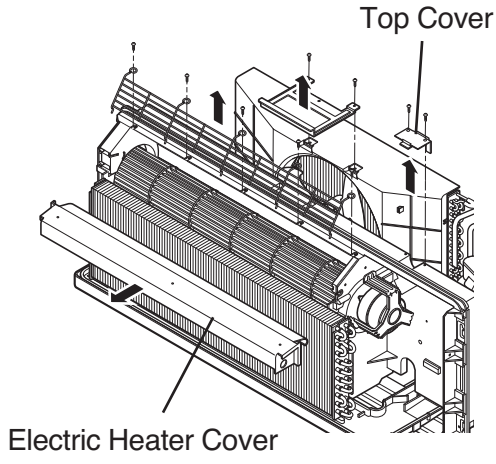
5) Remove and set aside the air discharge screen and then remove the two screws holding the control board cover as shown in the figure below.

6) Unplug the electric heater connector located inside the wire junction box and remove the screw that attaches the electric heater wire to the side of the indoor fan housing as well as remove the four screws which fasten the top cover assembly.

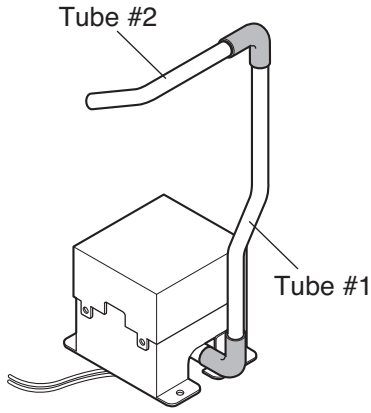


7) Position the water spraying plastic tube into the electric heater cover. Then, after installing the Electric Heater cover, install one of the three rubber elbows at the inlet of the spraying tube and through the grommet.

8) Place the Top cover assembly back into the unit.



9) Install Tube #1 and Tube # 2 of the pump assembly using Rubber elbows as show in the figure on the right.



10) Position the pump assembly onto the base pan into the slots provided adjacent to the compressor, by means of the three screws as shown below.

Fig:Position of the condensate pump adjacent to compressor

11) Insert Tube # 2 of the pump assembly through the plastic grommet of the sheet metal partition between the indoor and the outdoor side of the PTAC. And then connect the end of the Tube # 2 to the plastic elbow coming out of the inlet of the spraying tube as shown on the right.

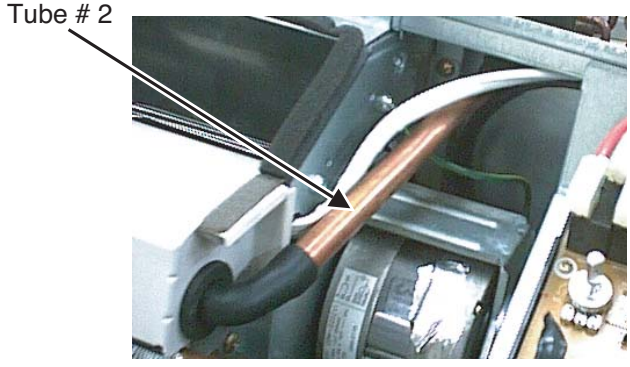
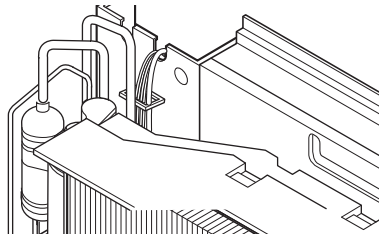


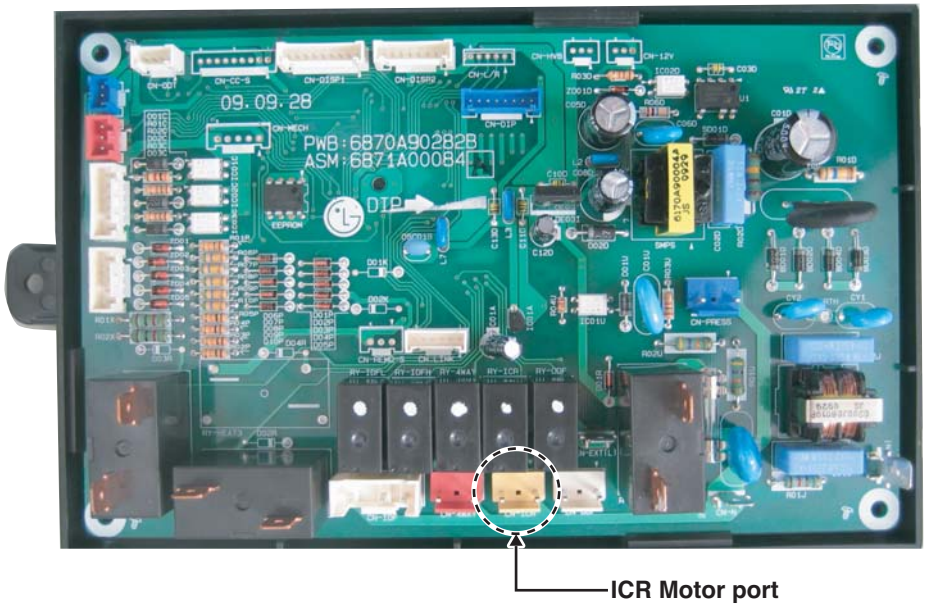
Fig:Connection between Tube # 2 and the spray tube

12) Connect the condensate pump to the ICR relay of the terminal of the board as shown in the figure below. Please make sure that the pump wire is fastened on the back side of the control barrier as shown in the figure on the right.



Note:

The Tube ends should be inserted into rubber elbows by at least 1/2 inch.



2.3 Architecture Grille Aluminum – Single Pack.

Outdoor Grilles are attached to the Wall Sleeve and exposed to the exterior Wall. These Grilles comes in industry standard size of 42" x 16". These Grilles are of two types :

(a) Stamped Aluminum Grille

Stamped Aluminum Grille
AYRGALA01

and (b) Architecture Grille.

Aluminum
AYAGALA01A

Soft Dove
AYAGALC01A

Dark Bronze
AYAGALB01A

Installation Procedure:

The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

(a) Stamped Aluminum Grille.

1) Prepare the wall sleeve for installation of the Grille by removing the cardboard stiffener and rear enclosure panel from the sleeve. These items may be removed from the inside of the room.

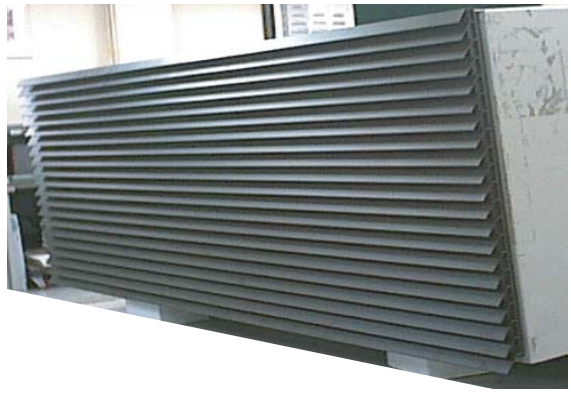
Note: *-*

The Sleeve stiffener must be taken out before the rear sleeve enclosure panel can be removed from the sleeve.

2) Prepare the stamped Aluminum Grille for installation on the sleeve by inserting the six plastic grommets into the square holes located near the outer edges of all the four sides of the Grille. Now with the Grille positioned so that the flanges of all the four sides are in the up position (at 90 degrees), insert the grommets in the opposite direction so that their square end protrudes through the grille through the flanges. The Grille is installed in such a way that it could be removed through the rear sleeve opening.
3) Install the stamped Aluminum Grille by aligning the guide pins located in the lower right and left hand corners of the Grille with the corresponding holes in the rear of the wall sleeve.
4) Secure the Grille by threading each of the screws into the plastic grommets.
5) Remove the wire handle from the center of the grille prior to installing the chassis into the sleeve.

(b) Architecture Grille.

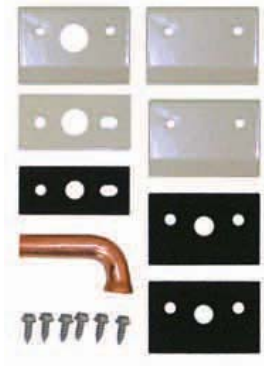
1) Remove the cardboard stiffener and rear enclosure panel from the sleeve. These items may be removed from the inside of the room.
2) The Grille is installed in such a way that it could be removed through the rear end of the sleeve.
3) Install the Grille by aligning the four screws supplied to their corresponding holes in the architecture grille.



4) Secure the Grille to the sleeve by tightening the four screws to their corresponding holes in the Grille.
5) Remove the wire handle from the center of the grille prior to installing the chassis into the sleeve.

2.4 Condensate Drain Kit.

During the Heat Pump operation, condensate water inside the unit drains out into the sleeve from the chassis. Such an instance may also happen at times of high humidity during the cooling operation. And when normal drainage from the wall sleeve is not possible or undesirable then, this condensate drain kit can be used.
There are two types of condensate drain kit :-
(a) Outdoor drain kit and
(b) Indoor drain kit.



Condensa te Drain Kit
AYDR101

Installation Procedure:

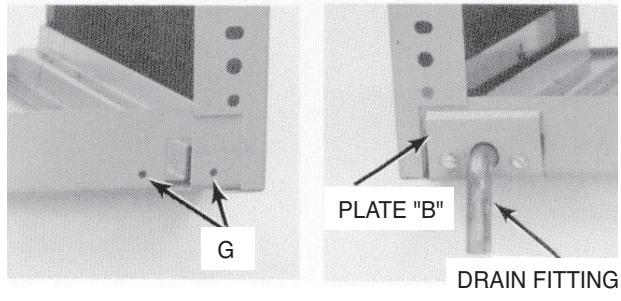
The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

(a) Outdoor drain kit

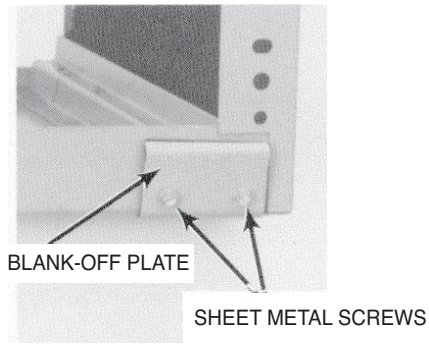
Before installing the outdoor Grille, it must be determined if the optional outdoor wall sleeve drain kit is to be installed. The drain kit will allow the condensate from the outdoor and indoor coils to be routed to a suitable area and the kit can be installed so that the condensate can be drained from the right or left hand side of the wall sleeve.

1) At first remove the rear enclosure panel and the sleeve stiffener. These items may be removed from the inside of the building.

2) The drain fitting can be installed either on the right or on the left hand side of the sleeve. (Illustration is only for the right hand installation) Insert the drain fitting in the opening of gasket A and hole of plate B. Secure this assembly to the rear of the sleeve with two sheet metal screws into holes G in the sleeve as shown in the figure on the right.



3) Locate the other gasket A on the back of the bank off plate and secure the assembly to the left rear of the wall sleeve with sheet metal screws provided.(refer to figure on the right)



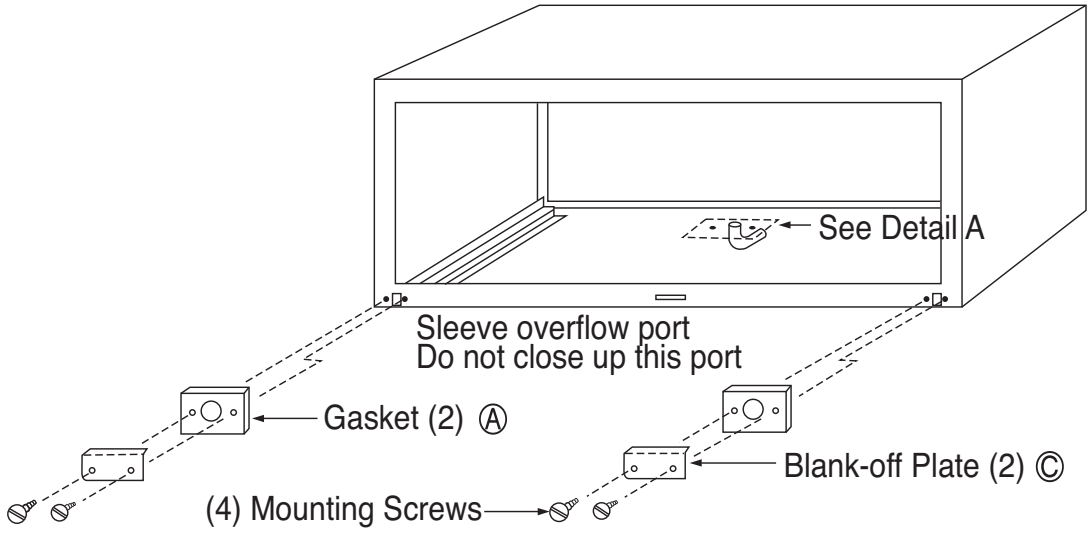
Now if the unit is to be installed right away install the condenser grille to the wall sleeve with the hardware provided. See the condenser grille installation instructions.

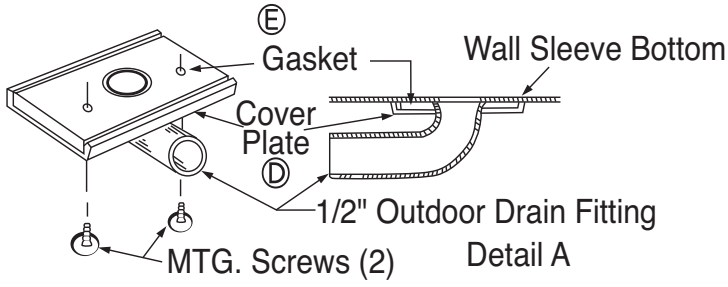
If the unit is not installed right away then replace the rear enclosure panel in the wall sleeve.This will help protect the inside of the building from weather damage.

And if a subbase is used, be sure to remove the right hand subbase cover before installation of the chassis into the sleeve. Then finally, slide the chassis into the wall sleeve until it comes in contact with the flanges.

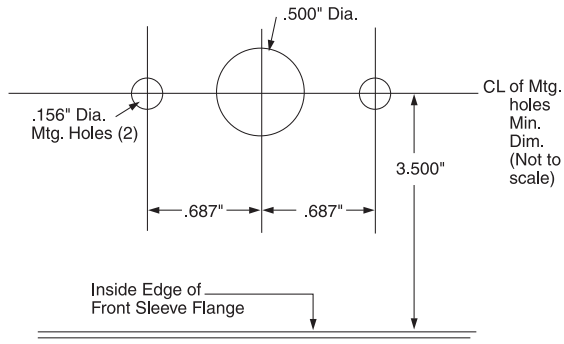
(b) Indoor drain kit.

The internal drain kit is installed when the condensate is to be drained into the drain system inside the building. This drain kit is installed on the bottom of the wall sleeve. The components of this kit is shown in the figure below :-





1) The components D, E and the drain fitting of the kit are mounted on the bottom of the wall sleeve prior to the installation of the sleeve. When a subbase in not used, a suitable area on the bottom of the sleeve is selected which is inside the room. And when a subbase is installed, the drain should be installed at a minimum of 3 – 1/2 inch from the front flange of the wall sleeve. A minimum clearance should be provided for the subbase as shown in the figure on the right.



2) Cut out the template in the lower right hand corner of the sleeve to locate the field drilled holes. See detail A on the last page on how the components have to be installed after the holes are drilled in the bottom of the wall sleeve. If the drain fitting is not connected to an indoor drainage system immediately after the wall sleeve is installed, then it must be plugged with a cork to prevent indoor water spilling in case of rain.

An indoor tube or hose must be installed on the drain fitting and inter connected to the drain system inside the building. Install the two blank off plates C and gaskets A on the outdoor portion(flange) of the wall sleeve as shown in the figure on the last page. These components may be installed after the wall sleeve is secured in the wall opening just prior to the installation of the condenser grille and chassis.

2.5 Leveling legs

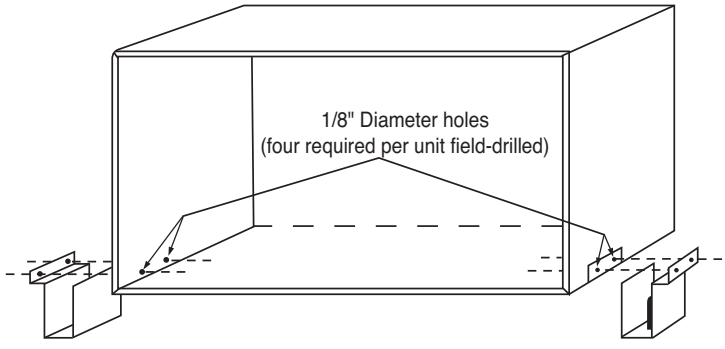
Leveling legs are designed to provide extra front support and leveling of the wall sleeve. Two leg assemblies are needed by each unit and each leg assembly requires two screws for attaching them to the wall .
These leveling legs must be installed before the installation of the chassis but after the wall sleeve is in position. Holes must be drilled on each side of the wall sleeve below the duct package holes, as shown on the figure on the right, for attaching it to the wall sleeve.

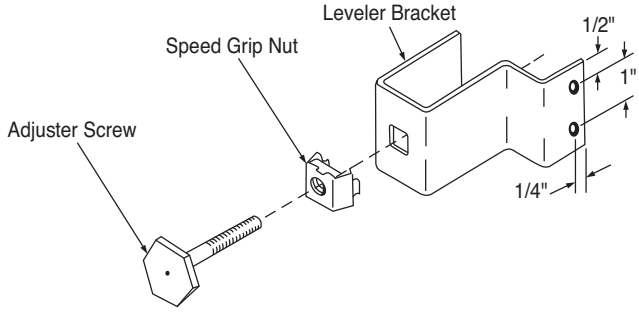
Leveling Legs
AYLL101

Installation Procedure:

The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

1) At first, drill two 1/8 – inch holes in each side of the wall sleeve as shown in the figure on the right(using the leveling leg assembly as a template). The holes should be drilled near the front of the sleeve for the leveling legs to provide better support to the wall sleeve and the weight of the unit.
2) Adjust the leveling legs to the required height and then install them on either side of the wall sleeve by means of screws. Caulk or seal the screws to prevent any water leaks from these screw points.
3) Adjust the level of the sleeve horizontally from side to side. Provide a slight slope (one quarter bubble in the sight glass) towards outside (other side of the room). Check the level again after the unit has been installed and adjust the legs further if necessary.

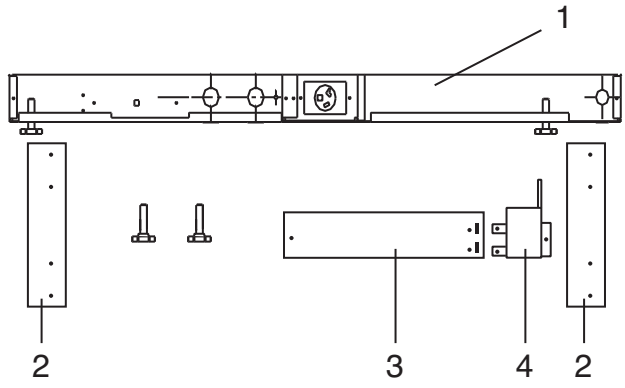




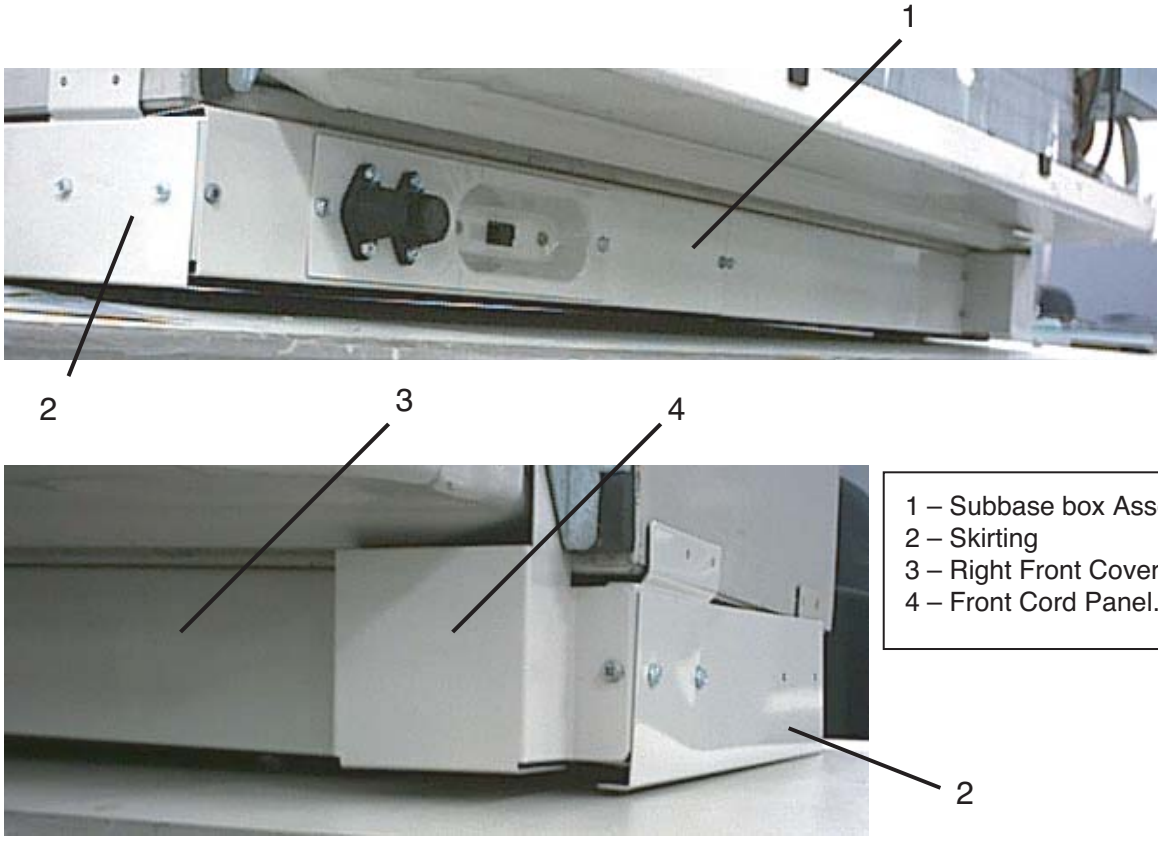
2.6 Subbase

The Subbase provides an enclosure for an electrical receptacle, power switch and a circuit breaker. Electrical connections to the power supply from the unit are made inside the subbase. In addition, the subbase provides structural support to the Wall Sleeve and to the weight of the PTAC unit .

The Subbase kit consists of two leveling legs for sleeve support and an accurate unit for leveling during installation. Also, the subbase is pre-wired and is grounded by means of a grounding screw.



Part No.: AYSB1101(230/208V 20A)
AYSB2101(230/208V 20A)



1 – Subbase box Assembly.
2 – Skirting
3 – Right Front Cover.
4 – Front Cord Panel.

Note: -

When using a subbase, the wall sleeve must be installed at a minimum height of 3 – 1/4 inches (83mm) above a finished floor and at a minimum distance of 2 – 3/4 inches(70mm) from a finished wall.

Installation Procedure:

The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

1) Remove parts B and C (refer to the figure on the right) from the subbase and join together using two metal screws. The resulting assembly now becomes the right front cover (part F) as shown in the figure below.

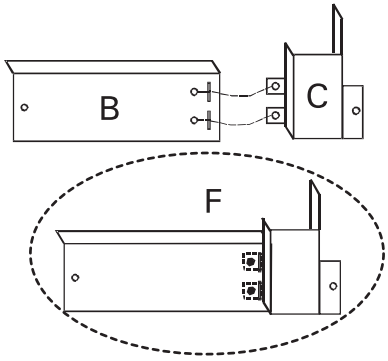


Fig: Right Front Cover assembly

2) Position the subbase under the front of the wall sleeve.

3) Align the back edge of the flange on cover A to the front of the wall sleeve flange(refer to the figure on the right).

4) Drill four 1/8 inch holes in wall sleeve to line-up with holes in subbase (location D) and then mount the sub-base onto the wall sleeve with four sheet metal screws provided with the kit (refer to the figure on top right).

5) Remove the left front cover from the subbase (refer to part A on the figure on top right).

	Part/Location Identification
A	Left Front Cover
B	Right Front Cover
C	Front Cord Panel
D	Wall Sleeve Hole Location
E	Skirting Hole Location
F	Right Cover Assembly

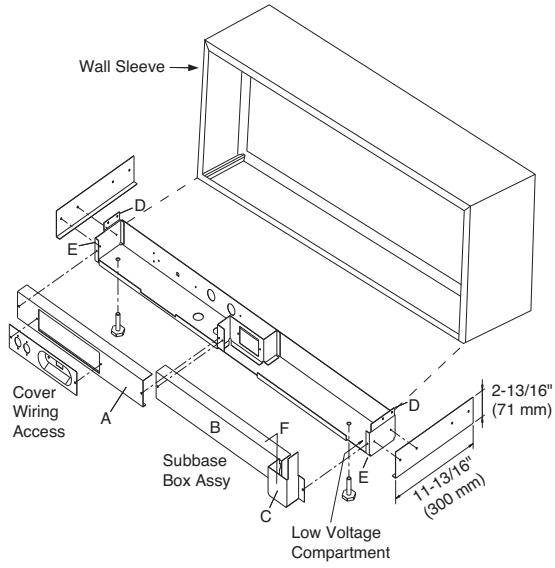


Fig: Subbase and it's components

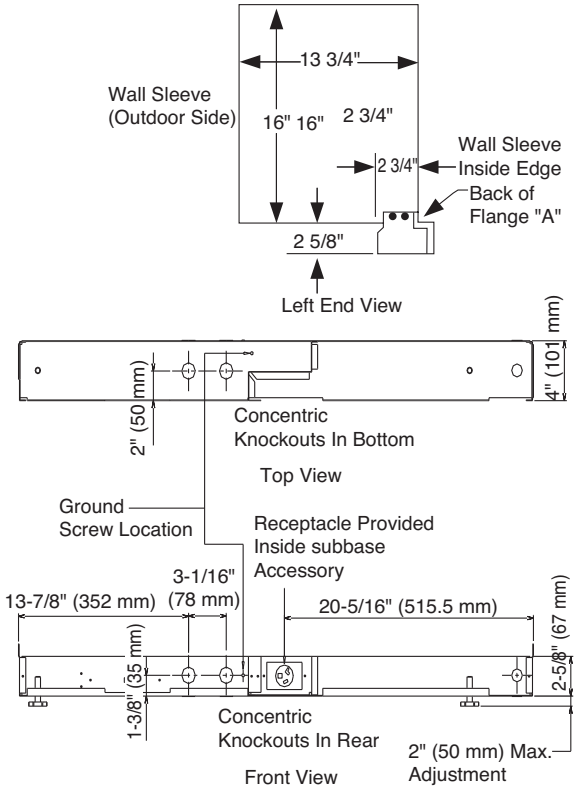


Fig: Dimensions of subbase

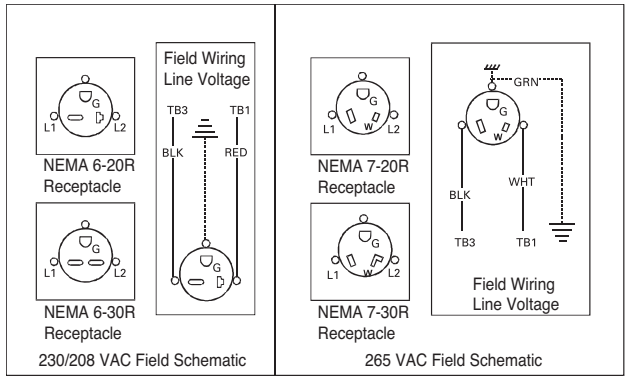
6) Position skirting on each side of the wall sleeve to prevent the entry of foreign materials. Trim skirting to desired length and attach the skirting with four metal screws provided with the kit (refer location E of the Fig: Subbase and it's components on the previous page).

7) Wire the subbase for appropriate voltage (refer to the figure on the right).

Note:

The proper subbase must be ordered to obtain the correct electrical receptacle.

Refer to the table at the end of this page.



8) After the wiring is done, mount the two covers A and F to the subbase with the provided screws (refer to the Fig: Subbase and it's components on the previous page).

9) When installing optional accessories to the subbase, refer to each instruction for that accessory

NEMA Plug Configurations

Voltage	Unit Plug	Subbase Receptacle
230/208	NEMA6-15AMP	NEMA6-20AMP
265	NEMA7-20AMP	NEMA7-20AMP
230/208	NEMA6-20AMP	NEMA6-20AMP
265	NEMA7-20AMP	NEMA7-20AMP
230/208	NEMA6-30AMP	NEMA6-30AMP
265	NEMA7-30AMP	NEMA7-30AMP
265	NEMA7-30AMP	NEMA7-30AMP

2.7 Wiring Harness kit

The PTAC Wire Harness kit provides connection from the 6-pin terminal strip on the PTAC control board to the following broad features :

- Energy Management*
- Front Desk Control
- Remote Fan (relay must be manufacturer approved and have a AC low voltage coil)
- Remote Thermostat (confirm with manufacturer before using)
- If other than a dry switch is used in connecting these features, consult the manufacturer before proceeding.

The PTAC Wire Harness kit contains the following (refer to figure in right):-

1) 6-pin connector having the following options –

- FD1 and FD2 – Front Desk Control.
- MS1,MS2,DR1 and DR2 – Energy Management System (connections available for occupancy sensor and door switch).

2) 6 wire nuts.

3) 6 wires.

Fig: Wiring Harness connected to PCE

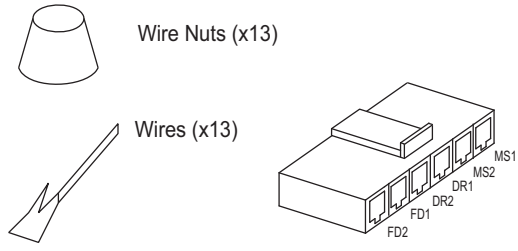


Fig: Wiring Harness components

Installation Procedure:

The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

1) Disconnect power and remove the front panel per unit installation instruction.

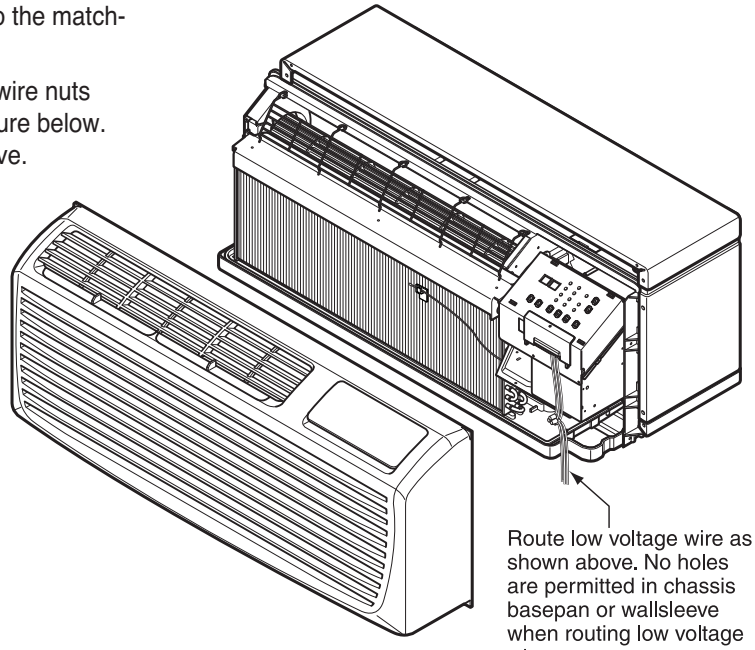
2) Using Table 1 as guide, choose the feature desired and insert the proper jumper wire into the appropriate slot on the housing.

Table1

Feature	Pins Used
Motion Sensor	MS1, MS2
Door Switch	DR1, DR2
Front Desk Control	FD1, FD2

3) Install the appropriate male-connector header onto the matching on-board female connector.

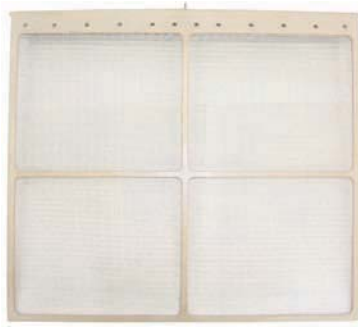
4) Connect the kit wiring to the field wiring using the wire nuts (included). Route the kit wiring as shown in the figure below. Do not run the wires through basepan or wall sleeve.



Route low voltage wire as shown above. No holes are permitted in chassis basepan or wallsleeve when routing low voltage wire.

2.8 Replacement Filter (10 Pack)

The unit is provided with two easy-to-use replaceable mesh filters which can be cleaned periodically form time to time.



Replacement Filter 10-Pack
AYFT110

2.9 Wall Sleeve

These Wall Sleeve comes in industry standard size of 42" x 16"

These Wall Sleeves are fitted firmly onto the wall. The Air Conditioner unit is slid onto it and held firmly to position by this Wall Sleeve which acts as its support. Installation of a wall sleeve allows flexibility to the PTAC unit.

42" Wall Sleeve
AYSVB01A

Installation Procedure:

The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

1) For installing the Wall Sleeve, a wall opening 42 x 16 – 1/4 x 13 – 3/4 inch required.

For Details please refer to the Design and Installation part for installation of the Wall Sleeve.

2.10 Vent Filter

The Vent filter is used to filter the air flowing inside the room when Air Ventilation is performed by means of the ventilation lever.

Installation Procedure:

The Installation and servicing of the equipment should be performed by qualified and experienced personnel only.

Before cleaning the vent filter, disconnect power to the unit by unplugging the power cord at the wall outlet or subbase, or disconnect power at the fuse box or circuit breaker. If unit is operated with vent door closed, the vent filter does not need to be cleaned.

1. Remove the cabinet front as described in Front Removal.
2. Remove the six screws securing the chassis to the wall sleeve with a Phillips-Head screwdriver.
3. Slide the chassis out of the wall sleeve far enough so that the vent filter is accessible as shown in Figure A.
4. Remove the vent filter by unscrewing the two screws at the top of the filter and gently pulling the filter away from the partition panel. Refer to Figure B.
5. Clean and replace the filter by reattaching the hook to the bottom of the vent door and replacing the two screws, slide the chassis back into the wall sleeve, secure it in place with six screws and reinstall the front cabinet.

Figure A – Vent (Left side of unit)

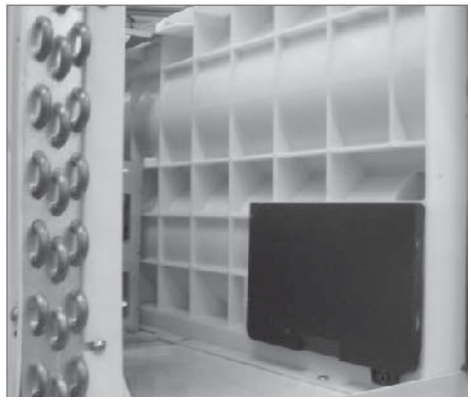
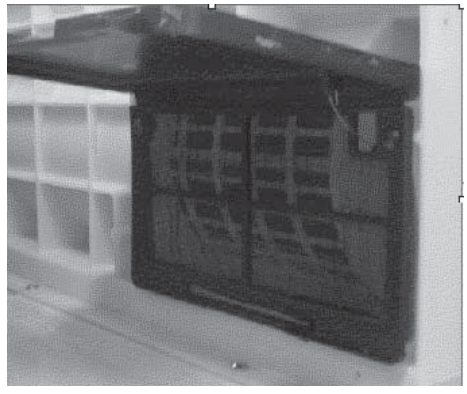


Figure B – Vent Filter Removal



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