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LG

LG

Packaged Terminal Air Conditioner

OWNER'S MANUAL

Terminal de aire acondicionado embalado

MANUAL DEL PROPIETARIO

MODELS, MODELOS: LP090CEM
LP120CEM
LP090HEM
LP120HEM

ENGLISH

ESPAÑOL

IMPORTANT

- Please read this owner's manual carefully and thoroughly before installing and operating your room air conditioner.
- Please retain this owner's manual for future reference after reading it thoroughly.

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FOR YOUR RECORDS

Write the model and serial numbers here:

Model # _____

Serial # _____

You can find them on a label on the side of each unit.

Dealer's Name _____

Date Purchased _____

- Staple your receipt to this page in the event you need it to prove date of purchase or for warranty issues.



READ THIS MANUAL

Inside you will find many helpful hints on how to use and maintain your air conditioner properly. Just a little preventive care on your part can save you a great deal of time and money over the life of your air conditioner.

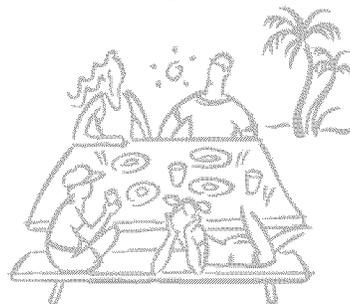
You'll find many answers to common problems in the chart of troubleshooting tips. If you review our chart of

Troubleshooting Tips first, you may not need to call for service at all.



PRECAUTION

- Contact the authorized service technician for repair or maintenance of this unit.
- Contact the installer for installation of this unit.
- The air conditioner is not intended for use by young children or invalids without supervision.
- Young children should be supervised to ensure that they do not play with the air conditioner.
- When the power cord is to be replaced, replacement work shall be performed by authorized personnel only using only genuine replacement parts.
- Installation work must be performed in accordance with the National Electric Code by qualified and authorized personnel only.



To prevent injury and property damage, follow these instructions. Incorrect operation due to ignoring instructions will cause harm or damage, the seriousness of which is indicated by the following symbols.

WARNING

This symbol shows the possibility of death or serious injury.

CAUTION

This symbol indicates the possibility of injury or damage to property.



Never Do This



Always Do This

■ The following items are classified by these symbols.

WARNING

 Plug in the power plug properly.

- Otherwise, it will cause electric shock or fire due to heat generation or electric shock.

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

- It will cause electric shock or fire due to heat generation.

 Do not damage or use an unspecified power cord.

- It will cause electric shock or fire.
- If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard. (Y attachment)

 Do not modify power cord length or share the outlet with other appliances.

- It will cause electric shock or fire due to heat generation.

 Do not operate with wet hands or in damp environment.

- It will cause electric shock.

 Always plug into a grounded outlet.

- No grounding may cause electric shock (See Installation Manual).

 Do not allow water to run into electric parts.

- It will cause failure of machine or electric shock.

 Always install air leakage breaker and a dedicated switching board.

- No installation may cause fire and electric shock accident.

 Unplug the unit if strange sounds, odors, or smoke comes from it.

- It may cause fire and electric shock accident.

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

- It may cause fire and electric shock.

 Do not open the entrance during operation.

- It may cause electric shock.

 Keep firearms away.

- It may cause fire.

 Do not use the power cord close to the heating tools.

- It may cause fire and electric shock.

 Do not use the power cord near flammable gas or combustibles such as gasoline, benzene, thinner, etc.

- It may cause an explosion or fire.

⚠ WARNING ⚠

1 Ventilate before operating air conditioner when gas goes out.

- It may cause explosion, fire, and burn.

⊘ Do not disassemble or modify products randomly.

- It may cause failure and electric shock.

⚠ CAUTION ⚠

⊘ Never touch the metal parts of the unit when removing the filter.

- They are sharp and may cause injury.

⊘ Do not clean the air conditioner with water.

- Water may enter the unit and degrade the insulation. It may cause an electric shock.

1 Ventilate well when used together with a stove, etc.

- An oxygen shortage may occur.

1 When cleaning the unit, first make sure the power and breaker are turned off.

- Since the fan rotates at high speed during operation, it may cause injury.

⊘ Do not put a pet or house plant where it will be exposed to direct air flow.

- This could injure the pet or plant.

⊘ Do not use appliance for special purpose such as animals or vegetables, precision machine, or conservation of art articles.

- It may cause damage of animals or vegetables or loss of property.

1 Stop operation in storm or hurricanes.

- Operation with windows opened may cause wetting of indoor and soaking of household furniture.

1 Hold the plug by the head when taking it out.

- It may cause electric shock and damage.

1 Turn off the main power switch when not using it for a long time.

- It may cause failure of product or fire.

⊘ Do not place obstacles around the absorption inlet or output.

- It may cause failure of appliance or accident.

1 Ensure that an installation console of the outdoor appliance is not damaged due to the use for a long time.

- If leaving appliance damaged, there is concern of damage due to the falling of product.

1 Always insert the filters securely. Clean it every two weeks.

- Operation without filters will cause failure.

⊘ Do not use strong detergent such as wax or thinner but use a soft cloth.

- Appearance may be deteriorated due to change of product color or scratching of its surface.

⊘ Do not place heavy object on the power cord and take care so that the cord should not be pressed.

- There is danger of fire or electric shock.

⊘ Do not drink water drained from air conditioner.

- It contains containments and will make you sick.

1 If water enters the product, turn off the the power switch of the main body of appliance. Contact service center after taking the power-plug out from the socket.

⊘ Do not direct airflow at room occupants only.

- This could damage your health.

Preparing for operation



- 1 Contact an installation specialist for installation.
- 2 Plug in the power plug properly.
- 3 Do not share the same outlet with other appliances
- 4 Do not use an extension cord.
- 5 Do not start/stop operation by plugging/unplugging the power cord.
- 6 If cord/plug is damaged, replace only with an authorized part.

Usage



- 1 Being exposed to direct airflow for an extended period of time could be hazardous to your health. Do not expose occupants, pets, or plants to direct airflow for extended periods of time.
- 2 Due to the possibility of oxygen deficiency, ventilate the room when used together with stoves or other heating devices.
- 3 Do not use this air conditioner for non-specified special purposes (e.g. preserving precision devices, food, pets, plants, and art objects). Usage in such a manner could harm such property.

Cleaning and maintenance



- 1 Do not touch the metal parts of the unit when removing the filter. Injuries can occur when handling sharp metal edges.
- 2 Do not use water to clean inside the air conditioner. Exposure to water can destroy the insulation, leading to possible electric shock.
- 3 When cleaning the unit, first make sure that the power and breaker are turned off. The fan rotates at a very high speed during operation. There is a possibility of injury if the unit's power is accidentally triggered on while cleaning inner parts of the unit.

Service



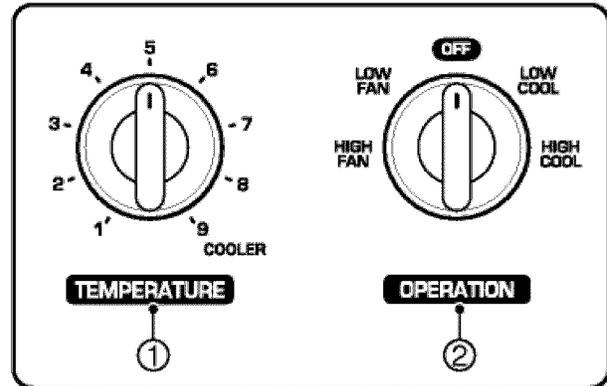
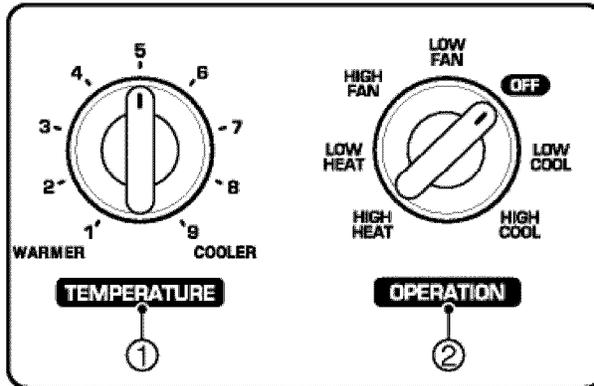
For repair and maintenance, contact your authorized service dealer.

NOTICE

- LP090CEM : Cooling with electric heat.
- LP120CEM : Cooling with electric heat.
- LP090HEM : Heat pump with electric heat.
- LP120HEM : Heat pump with electric heat.

The control panel will look like one of the following pictures.

Control Operations



1 TEMPERATURE CONTROL

Set the Thermostat control to the desired temperature mark 5 (the mid-point is a good starting position). If the room temperature is not satisfactory after a reasonable time, adjust the control to a cooler or warmer setting, as appropriate.

2 OPERATION MODE SELECTOR

- OFF : Turns air conditioner off.
- LOW FAN : Low speed fan operation without cooling.
- HIGH FAN : High speed fan operation without cooling.
- LOW COOL : Cooling with the low speed fan operation.
- HIGH COOL : Cooling with the high speed fan operation.
- LOW HEAT : Heating with the low speed fan operation.
- HIGH HEAT : Heating with the high speed fan operation.

! CAUTION

When the air conditioner has been performed its cooling or heating operation and is turned off or set to the fan position, wait at least 3 minutes before resetting to the cooling operation again.

NOTICE

A slight heat odor may come from the unit when first switching to HEAT after the cooling season is over. This odor, caused by fine dust particles on the heater, will disappear quickly. This is harmless.

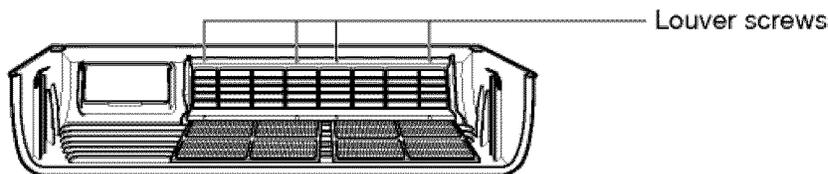
Adjusting the Air Flow Direction

Adjusting the Air Flow Direction

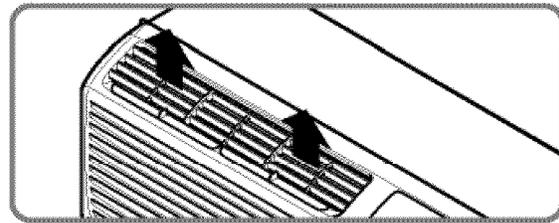
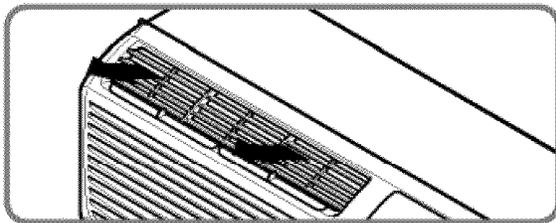


Airflow can be adjusted by changing the direction of the air conditioner's louvers. This can also increase the cooling efficiency of the air conditioner.

To adjust the air direction, remove the front grille. Remove the 4 louver screws that hold the louvers in place. Flip the louver section 180°, replace the screws and the front grille.



Remove the room cabinet and flip the louvers to change the air direction.



- **Recommended orientation of louvers**

Adjust louvers to face upwards when cooling to maximize cooling efficiency.

Ventilation Control

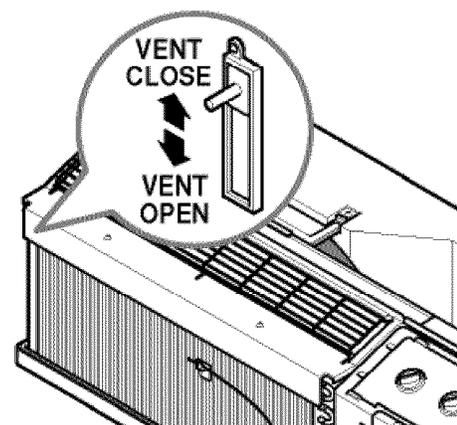


The ventilation lever is located at the lower left side of the unit.

The ventilation lever must be in the CLOSE position in order to maintain the best cooling conditions.

When fresh air is necessary in the room, set the ventilation lever to the OPEN position.

The damper is opened and outdoor air is drawn into the room. This will reduce the cooling or heating efficiency.

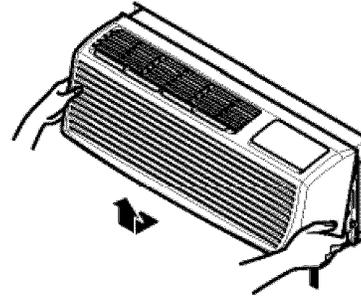


Removing the Front Grille

Additional controls are available after removing the front grille and option cover of control box.

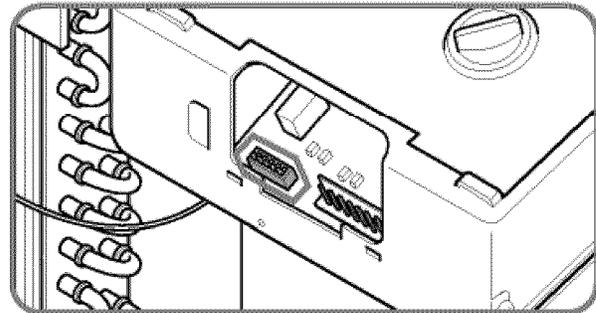
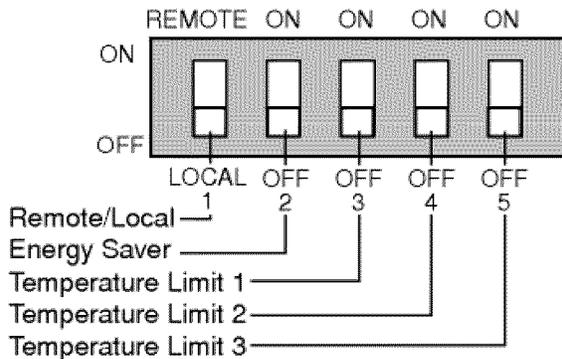
To remove the front grille, pull out the bottom of front grille and then lift up.

To replace the front grille, place the tabs over the top of the unit and push the bottom of front grille until the clips snap into place.



Additional Controls

The additional controls are located behind the option cover of control box. The standard settings will be in the OFF position. The authorized service man has to check switches and ensure the switches are in the desired position.



Temperature Limiting

Temperature Limiting can save money by limiting the lowest temperature for cooling and the highest temperature for heating. The temperature limiting is controlled by dip switch #1 - #3.

This temperature limiting is not available with the Remote Wall Thermostat.

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)

Remote/Local Control

When remote/local switch #1 is on, it allow the unit to operate by the control of Remote Wall Thermostat. The unit control by knobs are not available.

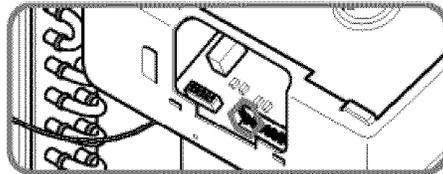
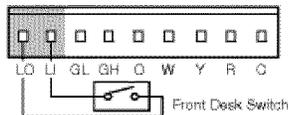
Energy Saver

The energy saver switch #2 is on. This switch is set at continuous fan to provide continuous fan operation in cool or heat modes. When the switch is off the continuous fan allows continuous circulation of room air and make the more balanced temperature of the room. When the switch is on the fan is on or off with the compressor or with the heater.

Front Desk Control

When the pair wire is connected to the connector LO and LI, the unit can be turned ON or OFF with a switch located at the Front Desk Control panel. When the front desk switch is ON, the fan operate according to the condition of setting without working compressor and heater. When the front desk switch is OFF, the unit can operate according to the setting of controls.

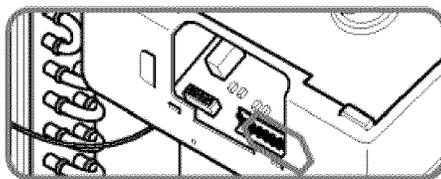
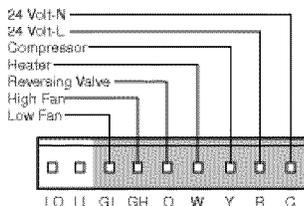
Wire # AWG	Maximum Length
#22	600ft(180m)
#20	900ft(270m)
#18	1500ft(450m)
#16	2000ft(610m)



Remote Wall Thermostat

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

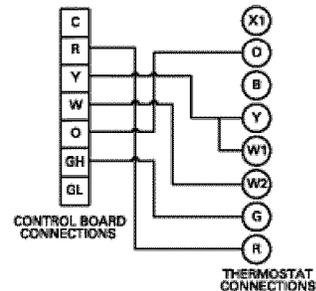
The thermostat connections supply the 24 Volt AC. When you install the digital / electronic thermostat, you must set it to the 24 Volt AC. See the installation Instruction in this manual for the Remote Wall Thermostat.



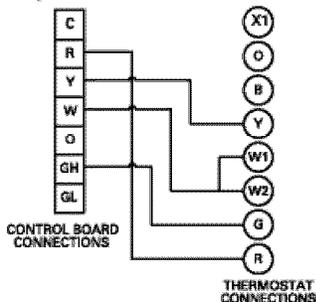
NOTICE

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.



Turn the power off and unplug the power plug before cleaning the air conditioner.

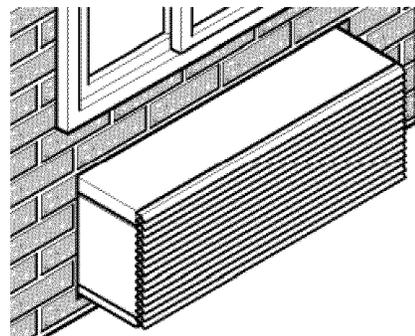
Grille and Wall sleeve

Turn the air conditioner off and remove the plug from the wall outlet before cleaning.

To clean, use water and a mild detergent. Do not use bleach or abrasives.

Outdoor Coils

The coils on the outdoor side of the air conditioner should be checked regularly. If they are clogged with dirt or soot they may be professionally steam cleaned, a service available through a dealer.

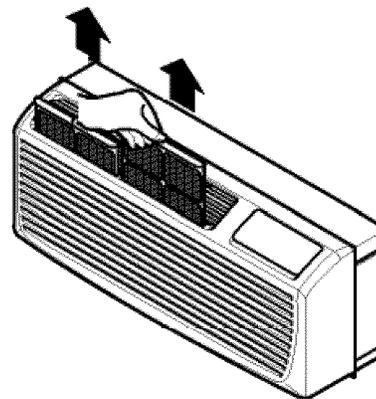


Air Filter

The air filter behind the front grille should be checked and cleaned at least once every 2 weeks (or as necessary) to maintain optimal performance of the air conditioner.

How to remove the air filter

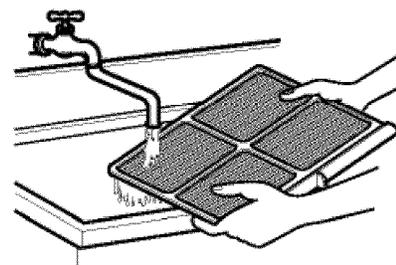
- 1 Pull the tab slightly to release the filter.
- 2 Clean the filter with warm, soapy water. The water should be below 40°C (104°F).
- 3 Rinse off and gently shake off excess water from the filter. Let it dry before replacing it.



! CAUTION

Do not operate the unit without the filters in place. Replace the filter immediately when it is torn or damaged.

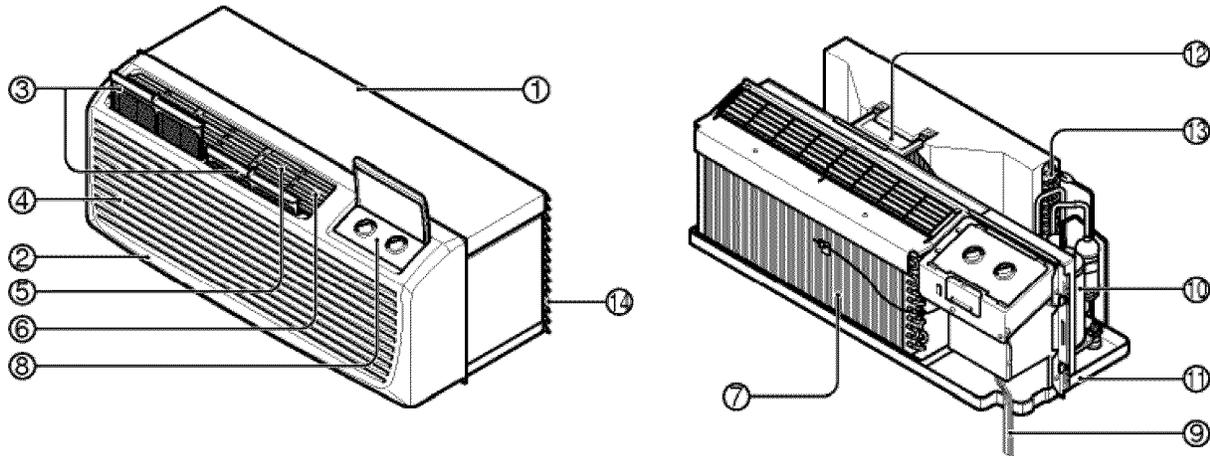
When the unit operate without the filters in place or with damaged filters, it reduce the cooling or heating, airflow and efficiency of the unit as the indoor heat exchanger allow dust and dirt.



Product Features

CAUTION

This appliance should be installed in accordance with national wiring regulations. This guide acts as a guide to help to explain product features.



- 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)

Before Installing the unit

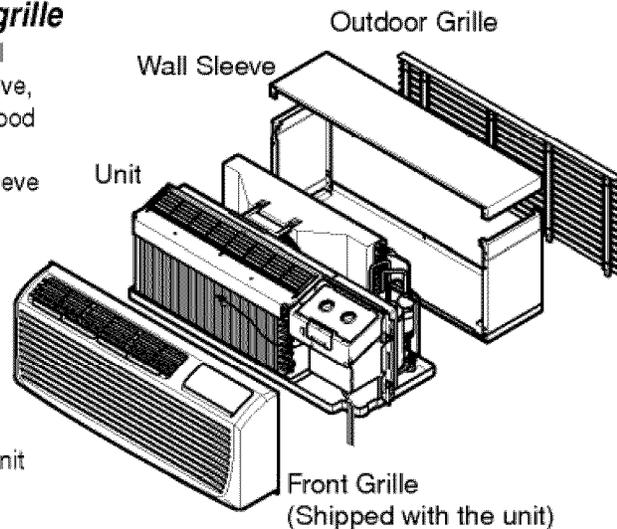
Use the correct wall sleeve and outdoor grille

This unit is designed to be installed in the insulated wall sleeve. When you replace the unit into the existing sleeve, all wall sleeve used to mount the new unit must be in good structural condition and have the outdoor grille that securely attaches to the sleeves 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.



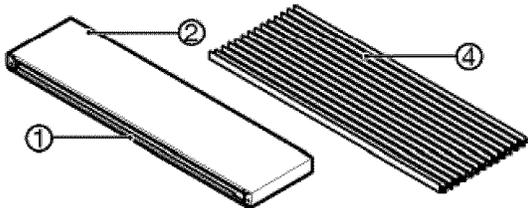
Suggested Tool Requirements

SCREWDRIVER(+, -), RULER, KNIFE, HAMMER, PENCIL, LEVEL

Prepare the wall sleeve and outdoor grille

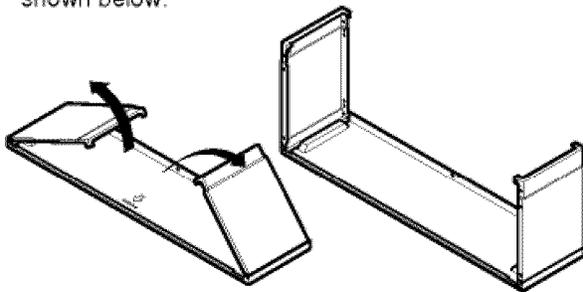
SLEEVE HARDWARE

NUMBER	NAME OF PARTS	Q'TY
①	SLEEVE LOWER	1
②	SLEEVE UPPER	1
③	SCREW	4
④	OUTDOOR GRILLE	1

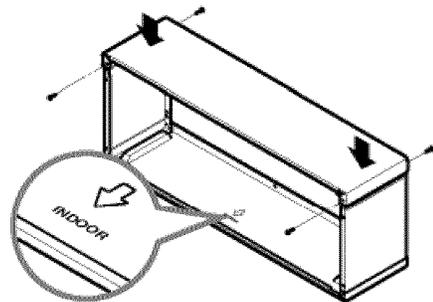


ASSEMBLE THE WALL SLEEVE

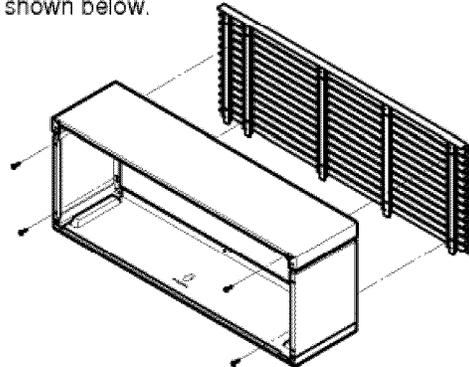
- Raise the sleeve side panels to upright position as shown below.



- Place sleeve upper on top of side panels.
- Fasten the four screws as shown below.

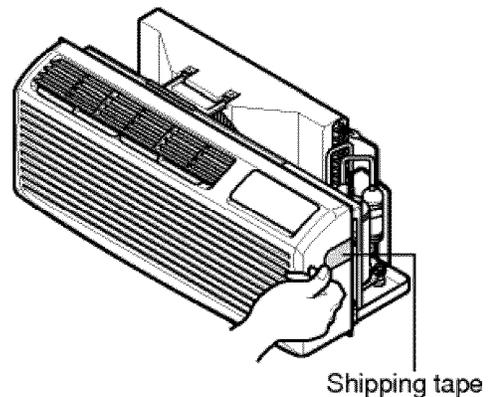


- Assemble the outdoor grille and fasten the 4 screws as shown below.

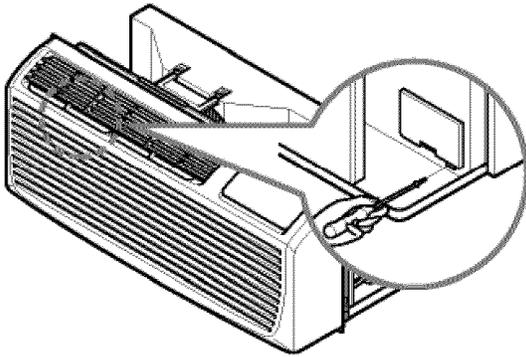


Prepare the front grille

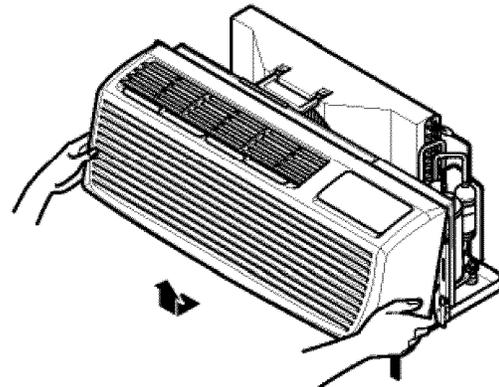
- 1 Carefully remove shipping tape, if there is any, from the front grille.



- 2 Remove the shipping screw from the ventilation door.

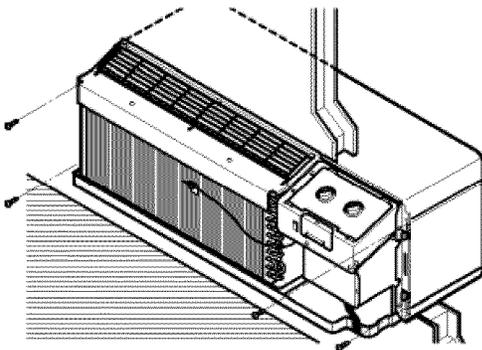


- 3 Remove the front grille by pulling it out at the bottom to release it, then lift it up along the unit top front.



Install the unit into the wall sleeve

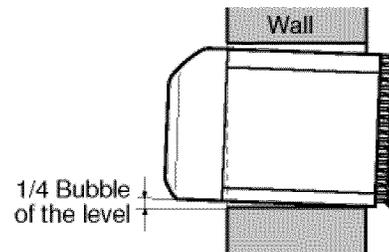
Slide the unit into the wall sleeve and secure with four screws through the unit flange holes.



NOTICE

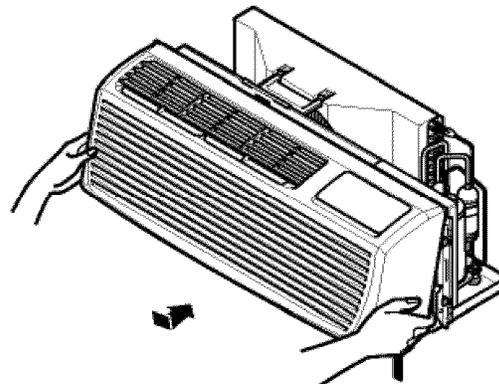
When you completed the installation, the new air conditioner unit should have a rearward slope, as shown below.

The wall sleeve must be fastened in the wall securely before installing the new air conditioner.



Replace the front grille

Reinstall the front grille by hooking the top over the unit top, then pushing it in at the bottom.



Electrical Data



115V~	230V~	Power cord may include a current interrupter device. A test and reset button is provided on the plug case. The device should be tested on a periodic basis by first pressing the TEST button and then the RESET button. If the TEST button does not trip or if the RESET button will not stay engaged, discontinue use of the air conditioner and contact a qualified service technician.

NOTICE

The shape may be different according to its model.

Use Wall Receptacle	Power Supply
<p>Standard 125V, 3-wire grounding receptacle rated 15A, 125V AC</p>	<p>Use 15 AMP, time delay fuse or 15 AMP, circuit breaker.</p>
<p>Standard 250V, 3-wire grounding receptacle rated 15A, 250V AC</p>	
<p>Standard 250V, 3-wire grounding receptacle rated 20A, 250V AC</p>	

NOTICE

DO NOT USE AN EXTENSION CORD on 230, 208, and 230/208 Volt units.

All wiring should be made in accordance with local electrical codes and regulations.

Aluminum house wiring may pose special problems. Consult a qualified electrician.

WARNING

Never push the test button during operation. Otherwise this plug can damaged.

This device contains chemical, including lead, known to the State of California to cause cancer, and birth defects or other reproductive harm.

Wash hands after handling.

Do not remove, modify or immerse this plug.

If this device trips, the cause it to be corrected before further use.

CAUTION

The conductors inside this cord are surrounded by shields, which monitor leakage current.

These shields are not grounded. <Made in Tower> Periodically examine the cord for any damage. Do not use this product in the event the shields become exposed.

Avoid shock hazard, this unit can not be user serviced opening the tamper resistant. Sealed portion of the unit voids all warranties and performance claims. This unit not intended for use as an on-off switch.

Electrical Safety



IMPORTANT (PLEASE READ CAREFULLY)

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

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.

A. SITUATIONS WHEN THE APPLIANCE WILL BE DISCONNECTED OCCASIONALLY:

Because of potential safety hazards, we strongly discourage the use of an adapter plug. However, if you wish to use an adapter, a TEMPORARY CONNECTION may be made. Use UL-listed adapter, available from most local hardware stores.

The large slot in the adapter must be aligned with the large slot in the receptacle to assure a proper polarity connection.

⚠ CAUTION

: Attaching the adapter ground terminal to the wall receptacle cover screw does not ground the appliance unless the cover screw is metal, and not insulated, and the wall receptacle is grounded through the house wiring. The customer should have the circuit checked by a qualified electrician to make sure the receptacle is properly grounded.

Disconnect the power cord from the adapter, using one hand on each. Otherwise, the adapter ground terminal might break. DO NOT USE the appliance with a broken adapter plug.

B. SITUATIONS WHEN THE APPLIANCE WILL BE DISCONNECTED OFTEN.

Do not use an adapter plug in these situations. Unplugging the power cord frequently can lead to an eventual breakage of the ground terminal. The wall power outlet should be replaced by a three-slot (grounding) outlet instead.

USE OF EXTENSION CORDS

Because of potential safety hazards, we strongly discourage the use of an extension cord. However, if you wish to use an extension cord, use a CSA certified/UL-listed 3-wire (grounding) extension cord, rated at 15A, 125V.

Before calling for service, please review the following list of common problems and solutions.

The air conditioner is operating normally when:

- You hear a pinging noise. This is caused by water being picked up by the condenser on rainy days or in highly humid conditions. This feature is designed to help remove moisture in the air and improve cooling efficiency.
- You hear the thermostat click. This is caused by the compressor cycle starting and stopping.
- You see water dripping from the rear of the unit. Water may be collected in the base pan in highly humid conditions or on rainy days. This water overflows and drips from the rear of the unit.
- You hear the fan running while the compressor is silent. This is a normal operational feature.

The air conditioner may be operating abnormally when:

Problem	Possible Causes	What To Do
The air conditioner does not operate at all	■ The air conditioner is unplugged or not plugged in completely	• Make sure the plug is completely plugged into the outlet
	■ The fuse is blown/circuit breaker is triggered	• Check the fuse/circuit breaker box and replace the fuse or reset the breaker
	■ Power failure.	• In the event of a power failure, set the power control to OFF. When the power is restored, wait 3 minutes to restart the air conditioner to prevent the compressor from overloading
Air conditioner does not cool	■ Air flow is restricted	• Make sure there are no curtains, blinds, furniture or other obstacles in front of the air conditioner
	■ The TEMPERATURE CONTROL may not be set cool enough	• Turn the knob to a higher setting. The highest setting provides maximum cooling
	■ The air filter is dirty.	• Clean the filter at least every 2 weeks. Refer to the "Care and Maintenance" section of the manual.
	■ The air conditioner was just turned on.	• After the air conditioner is turned on, you need to give the air conditioner some time to cool the room.
	■ Cold air is escaping.	• Check for open furnace floor registers and cold air returns. • CLOSE the air conditioner vent
Ice appears on the air conditioner.	■ Cooling coils are iced up	• See Ice appears on the air conditioner below
	■ The cooling coils are iced over.	• Ice may block the air flow and obstruct the air conditioner from properly cooling the room. Set the fan at HIGH while setting the TEMPERATURE CONTROL at 1 or 2 until the ice melts.