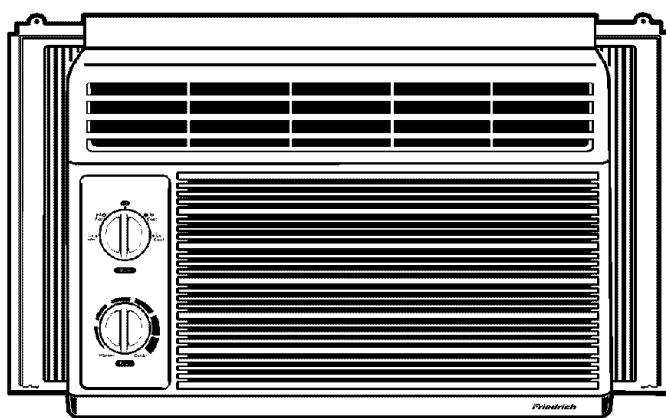


Friedrich

Room Air Conditioner Installation and Operation Manual



ZStar[®]

115 Volts



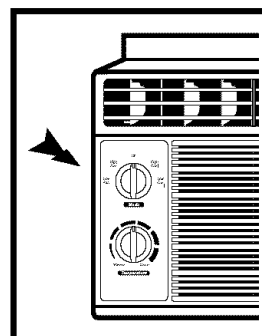
ZQ05



ZQ07

Registering Your Room Air Conditioner

Model information can be found on the name plate located on the side of the unit near the control panel. Please complete and mail the owner registration card furnished with this product or register on-line at www.friedrich.com (USA only). For your future convenience, record the model information here.



MODEL NUMBER

SERIAL NUMBER

PURCHASE DATE

Congratulations!

**Thank you for choosing Friedrich.
Your Friedrich ZStar® is designed for
maximum comfort and quietness.**

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Introduction

Before Operating Your Unit

Make sure the wiring is adequate for your unit.

If you have fuses, they should be of the time delay type. Before you install or relocate this unit, be sure that the amperage rating of the circuit breaker or time delay fuse does not exceed the amp rating listed in figure 1.

DO NOT use an extension cord.

The cord provided will carry the proper amount of electrical power to the unit; an extension cord will not.

Make sure that the receptacle is compatible with the wall plug provided.

This insures proper grounding. If you have a two-prong receptacle you will need to have the circuit replaced by a certified electrician with a grounded circuit that meets all national and local codes and ordinances. You must use the three-prong plug furnished with the air conditioner.


MODEL	CIRCUIT RATING OR TIME DELAY FUSE		PLUG FACE	
	AMP	VOLT	NEMA NO.	
ZQ05 ZQ07	15	125	5-15P	

Figure 1

For the Best Cooling Performance and Energy Efficiency

Keep the filter clean

Make sure that your air conditioner is always in top performing condition by cleaning the filter regularly. Instructions for removing and cleaning the filter can be found on page 6.

Provide good airflow

Make sure that the airflow to and from the unit is clear. Your air conditioner puts the air out at the top of the unit, and takes in air at the bottom. Airflow is critical to good operation. It is just as important on the outside of the building that the airflow around the unit exterior is not blocked.

Unit Placement

If your air conditioner can be placed in a window or a wall that is shaded by a tree or another building, the unit will operate even more efficiently. Using drapes or blinds on the sunny side of the dwelling will also add to your unit's efficiency.



Insulation

Good insulation will be a big help in maintaining desirable comfort levels. Doors should have weather stripping. Be sure to caulk around doors and windows.



Safety Precautions

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

■ Incorrect operation will cause harm or damage. Follow all operating instructions. The seriousness of potential harm or damage due to incorrect operation is classified below:

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

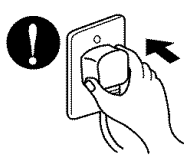
■ Meanings of symbols used in this manual are as shown below:

	Never Do This
	Always Do This

 **WARNING**

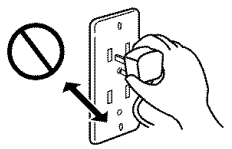
Plug in the power plug properly.

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



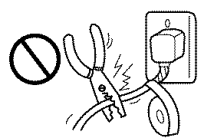
Do not operate or stop the unit by inserting or pulling out the power plug.

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



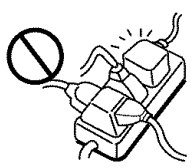
Do not damage or use an unspecified power cord.

- It will cause electric shock or fire.
- If the power cord is damaged, it must be replaced by the manufacturer or a Friedrich-certified service agent.



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

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



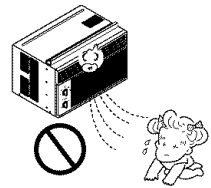
Do not operate with wet hands or in damp environment.

- It will cause electric shock.



Do not direct air flow at room occupants only.

- This could lead to health problems.



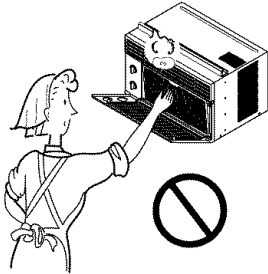
Safety Precautions



CAUTION

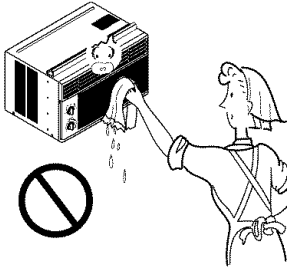
When the air filter is to be removed, do not touch the metal parts of the unit.

- They are sharp and may cause an injury.



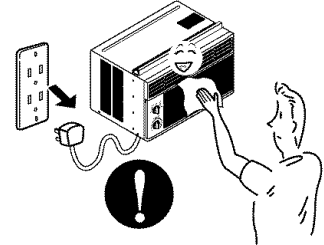
Do not clean the air conditioner with water.

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



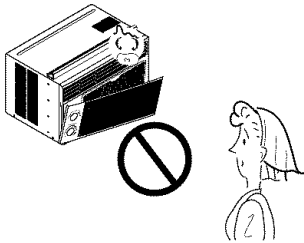
When the unit is to be cleaned, switch the unit off, and unplug it.

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



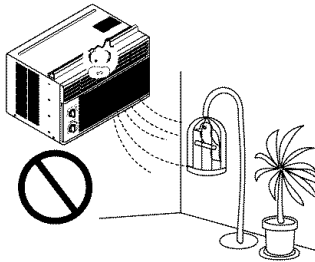
Do not operate the unit without the air filter or when the front intake grille has been removed.

- It could cause dust to accumulate on the heat exchanger.



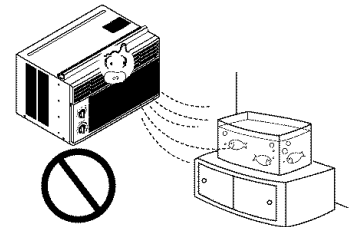
Do not put a pet or house plant where it will be exposed to direct air flow.

- This could injure the pets or plants.



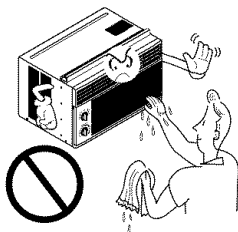
Do not use for special purposes.

- Do not use this air conditioner to preserve precision devices, food, pets, plants, and art objects. It may cause deterioration of quality, etc.



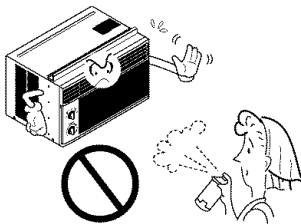
Do not operate switches with wet hands.

- It may cause an electric shock.



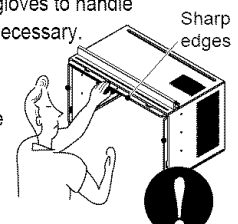
Do not apply an insecticide or flammable spray.

- It may cause a fire or deformation of the cabinet.



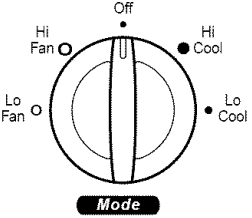
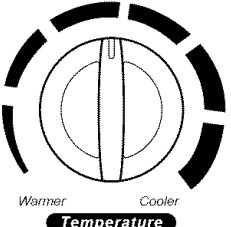
SHARP EDGES!
The edges of the case can be SHARP!

- Use caution when handling the case. Grip it firmly and do not allow it to slip while holding it.
- Use heavy gloves to handle the case if necessary.
- DO NOT allow the case to slide against your skin!



How to operate your Friedrich ZStar®

Function Controls

	<p>FUNCTION CONTROL</p> <p>This dial allows you to select 2 cooling and 2 fan speeds. Turn to Off to turn everything off. Turn to Hi Cool for quick cooling. Turn to Lo Cool to maintain a desired temperature. The Hi Fan setting provides maximum circulation of filtered room air without cooling. The Lo Fan setting is a slow fan speed without cooling.</p>
	<p>TEMPERATURE CONTROL</p> <p>This dial is the thermostat. Turn it clockwise for cooler and counterclockwise for warmer temperature.</p>

• FOR NORMAL COOLING

1. Turn the Mode switch to the **Hi Cool** or the **Lo Cool** setting.
2. Set the Temperature control to the desired temperature point (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.

• FOR MAXIMUM COOLING

1. Turn the Mode switch to the **Hi Cool** setting.
2. Set the temperature control to the coolest temperature point (all the way to the right).

• FOR QUIETER OPERATION

1. Turn the Mode switch to the **Lo Cool** setting.
2. Set the Temperature control as needed.

CAUTION

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

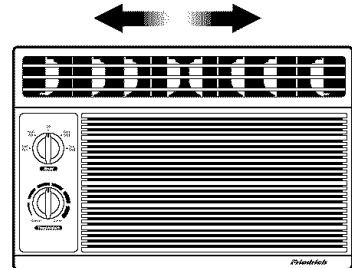
How to operate your Friedrich ZStar®

Additional controls and important information.

Air Direction

• ADJUSTING THE AIR DIRECTION USING THE HORIZONTAL AIR-DEFLECTOR CONTROL

Using the Control Tabs, the air flow can be directed to the left, right, straight ahead, or any combination of these directions.



Care and Maintenance

TURN THE AIR CONDITIONER OFF AND REMOVE THE PLUG FROM THE POWER OUTLET.

• To Remove the Filter

1. Remove the front cover by gripping the top outside edges and pulling toward you (see Fig.1). You will notice that the grille will only open to about 56°. Do not force the grille open too far.
2. Find the two clips that hold the filter in place. Gently lift the filter out.

Do not force open or open too far (about 56°)

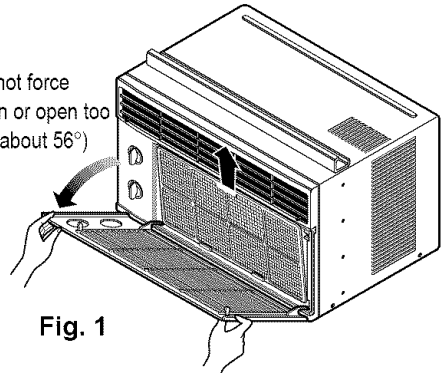


Fig. 1

• To Clean the Filter

1. Clean with warm water. Be sure to shake all water off before replacing the filter.
2. Carefully position the filter, bottom first, and snap back into place. The filter should be cleaned every two weeks for best results.

• Cleaning The Air Conditioner

The Front Grille and Inlet Grille may be wiped with a cloth dampened in a mild detergent and lukewarm water solution. (Fig. 2)

The cabinet may be washed with mild soap or detergent and lukewarm water.

To ensure continued peak efficiency, the condenser coils (outside of unit) should be checked periodically and cleaned if clogged with soot or dirt from the atmosphere. Consult a certified Friedrich service agent for more information.

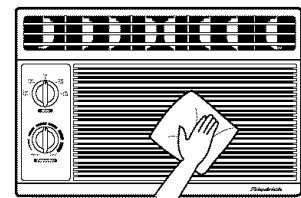


Fig. 2

• Removing the Front Grille

1. Remove the temperature and mode control knobs by gently pulling them off. (Fig. 3)
2. Remove the screw securing the Front Grille. (Fig. 3) The screw is located behind the bottom temperature knob.
3. Push the grille up from the bottom and pull the top of the grille away from the case as the top tabs lift out of their slots. (Fig. 4)
4. Carefully position the grille, bottom first, and snap back into place.
5. Reposition the screw that secures the Front Grille and replace the knobs.

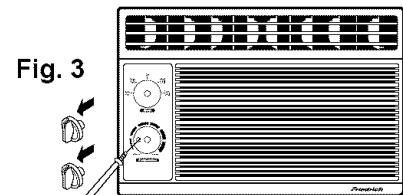


Fig. 3

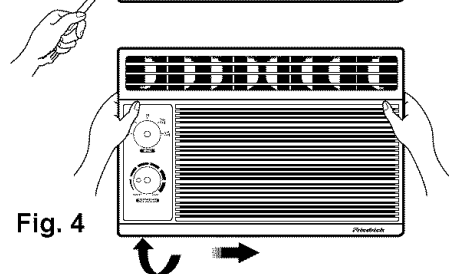
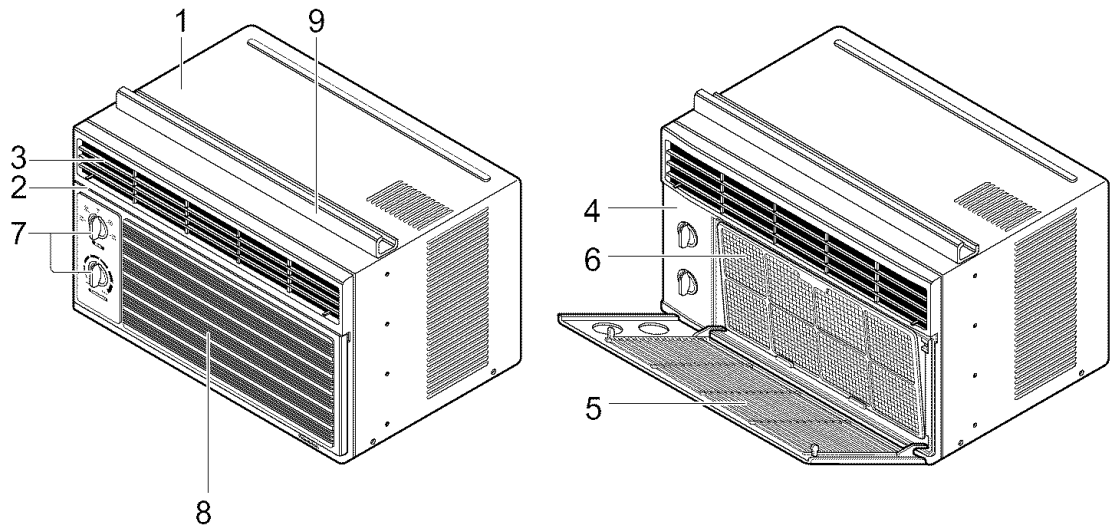


Fig. 4

Installation Instructions

Learning the key components will help you properly install the unit.

Features



- 1. CABINET
- 2. HORIZONTAL AIR DEFLECTOR
- 3. COOL AIR DISCHARGE
- 4. FRONT GRILLE
- 5. INLET GRILLE

- 6. AIR FILTER
- 7. KNOBS
- 8. AIR INTAKE
- 9. UPPER GUIDE

Installation Instructions

Window Requirements

NOTE: All supporting parts should be secured to firm wood, masonry, or metal.

1. This unit is designed for installation in standard double hung windows with actual opening widths of 22" to 36". The upper and lower sash must open sufficiently to allow a clear vertical opening of 13" from the bottom of the sash to the window stool.
2. If storm window presents interference, fasten a 2" wide wood strip to the inner window sill across the full width of the sill. The wood strip should be thick enough to raise the height of the window sill so that the unit can be installed without interference by the storm window frame. See Fig. 5-2. The top of the wood strip should be approximately $\frac{3}{4}$ " higher than the storm window frame (STORM WINDOW FRAME) or wood strip (OUTDOORS) to help condensation to drain properly to the outside.
3. Install a second wood strip (approximately 6" long by $1\frac{1}{2}$ " wide and same thickness as first strip) in the center of the outer sill flush against the back off the inner sill. This will raise the L bracket as shown Fig. 5-2.
4. If the distance between STORM WINDOW FRAME and WOOD STRIP MOUNTED ON TOP OF INNER SILL is more than 1", two of wood strips are not necessary.

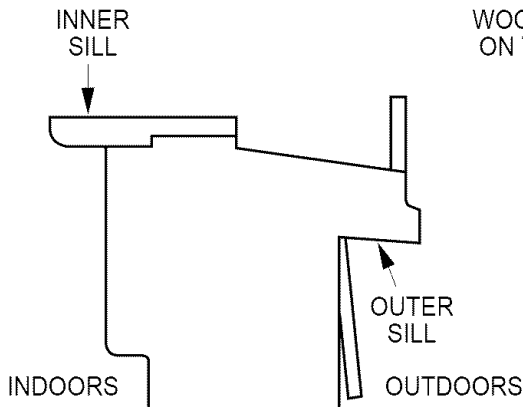


Fig. 5-1

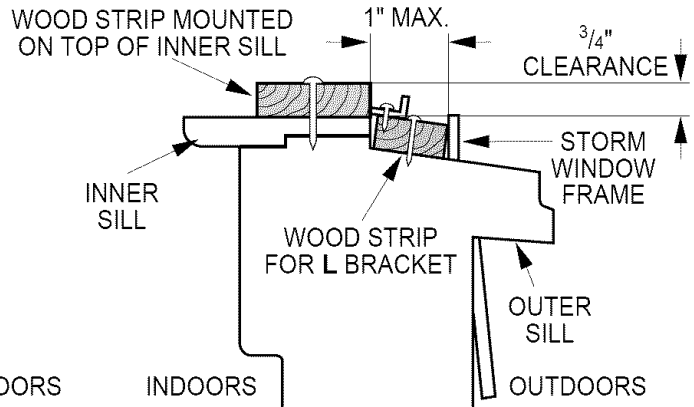
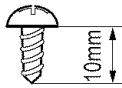
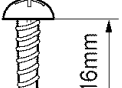
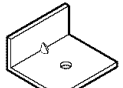
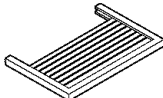



Fig. 5-2

Installation

HARDWARE			
TYPE A: 11EA (SHORT SCREW)	TYPE B: 5EA (WOOD SCREW)	TYPE C: 3EA (L BRACKET)	
			
TYPE D: 1EA (SEAL STRIP)	TYPE E: 1EA (SASH SEAL)	TYPE F: 2EA (GUIDE PANEL)	TYPE G: 1EA (SUPPORT BRACKET)
(Adhesive backed)	(Not adhesive backed)		

Installation Instructions

A. BEFORE INSTALLATION

1. Insert the Guide Panels into the guides of the air conditioner. Fasten the Curtains to the unit with screws (TYPE A), as shown Fig. 6.
2. Cut the adhesive-backed seal strip (TYPE D) to the window width.

Remove the backing from the seal strip and attach the seal strip to the underside of the bottom window. (Fig. 7)

B. BEGIN INSTALLATION

1. LOCATING UNIT IN WINDOW

Open the window and mark center line on the center of the inner sill, as shown in Fig. 8.

2. ATTACH L BRACKET

- a. Install the L brackets behind the inner window sill, with short side of bracket as shown. Use the 2 screws (TYPE A) provided.
- b. The bracket helps to hold unit securely in place. Be sure to place bracket edge flush against back of inner sill. See Fig. 9.

⚠ CAUTION

During the following step, hold unit firmly until window sash is lowered to top channel behind side panel frames. Personal injury or property damage may result if unit falls from window.

3. INSTALL THE AIR CONDITIONER IN THE WINDOW

- a. Carefully lift the air conditioner and slide it into the open window. Make sure the bottom guide of the air conditioner drops into the notches of the L bracket. See Fig. 9.

IMPORTANT :

When the air conditioner drops into the L bracket, the air conditioner will be centered in window opening as shown in Fig. 10.

- b. While steadying the air conditioner, carefully bring the window sash down behind the upper guide of the air conditioner, as shown in Fig. 11.

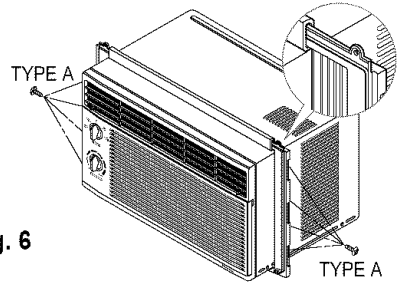


Fig. 6

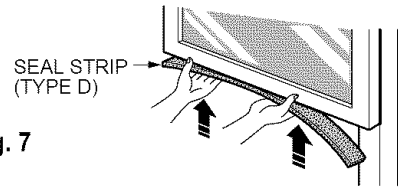


Fig. 7

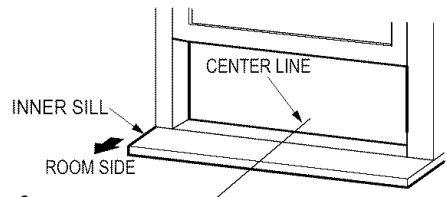


Fig. 8

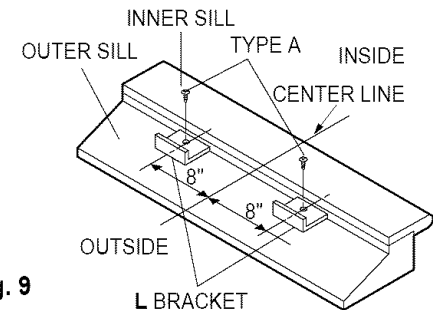


Fig. 9

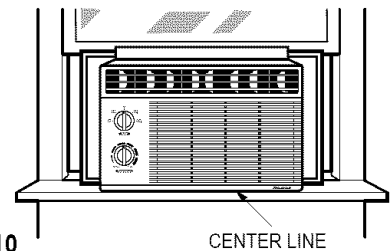


Fig. 10

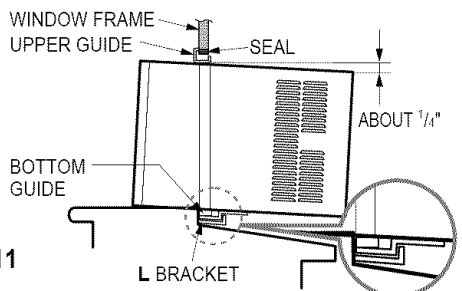


Fig. 11

Installation Instructions

4. SECURE THE GUIDE PANELS

Extend the Guide Panels (TYPE F) to fill the window opening using 4 screws (TYPE B) to secure them, as shown in Fig. 12.

5. INSTALL THE SASH SEAL AND SASH LOCK

a. Cut the Sash Seal (TYPE E) to the window width. Stuff the Sash Seal between the glass and the window to prevent air and insects from getting into the room, as shown in Fig. 12.

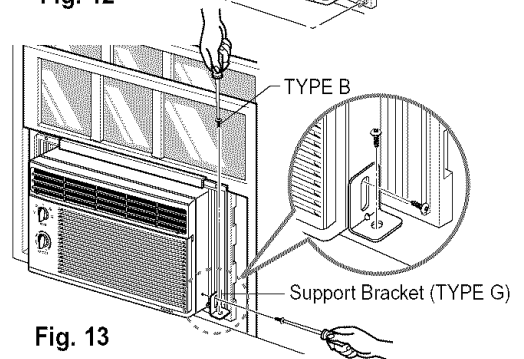
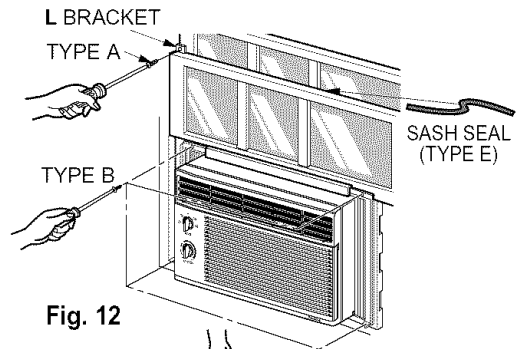
b. Fasten the L bracket using a screw (TYPE A), as shown in Fig. 12.

6. a. Remove the screws that secure the cabinet and base pan in the right side.
b. Fasten the support bracket (TYPE G) using a removed screw. Attach the support bracket (TYPE G) in the inner window sill with a screw (TYPE B), as shown Fig. 13.

7. Window installation of room air conditioner is now completed. See ELECTRICAL DATA for attaching power cord to electrical outlet.

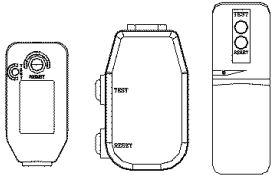
REMOVAL FROM WINDOW


Turn the air conditioner off, disconnect the power cord, remove the L bracket, the screws and Support Bracket installed through the top and bottom of the Guide Panels, and save for reinstallation later. Close the Guide Panels. Keeping a firm grip on the air conditioner, raise the sash, and carefully tilt the air conditioner backward, draining any condensate. Lift the air conditioner from the window and remove the sash seal from between the windows.



Electrical Safety

Electrical Data

<p>115V~</p> 	<p>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.</p>
--	--

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

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

NOTE!

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

ELECTRICAL SAFETY

IMPORTANT GROUNDING INSTRUCTIONS

Air conditioner has a three-prong grounding plug on its power supply cord, which must be plugged into properly grounded three-prong wall receptacle for your protection against possible shock hazard.

Troubleshooting Tips

Troubleshooting Tips save time and money! Review the chart below first and you may not need to call for service.

Normal Operation

- You may hear a pinging noise caused by water being picked up and thrown against the condenser on rainy days or when the humidity is high. This design feature helps remove moisture and improve efficiency.
- You may hear the thermostat click when the compressor cycles on and off.
- Water will collect in the base pan during high humidity or on rainy days. The water may overflow and drip from the outdoor side of the unit.
- The fan may run even when the compressor does not.
- Your air conditioner is designed to cool in warm weather when the outside temperature is above 60°F(16°C) and below 115°F(46°C).

Abnormal Operation

Problem	Possible Causes	What To Do
Air conditioner does not start	■ <i>The air conditioner is unplugged.</i>	• Make sure the air conditioner plug is pushed completely into the outlet.
	■ <i>The fuse is blown/circuit breaker is tripped.</i>	• Check the house fuse/circuit breaker box and replace the fuse or reset the breaker.
	■ <i>Power failure.</i>	• If power failure occurs, turn the Mode Control to Off. When power is restored, wait 3 minutes to restart the air conditioner to prevent tripping of the compressor overload.
	■ <i>The current interrupter device is tripped.</i>	• Press the RESET button located on the power cord plug. If the RESET button will not stay engaged, discontinue use of the air conditioner and contact a qualified service technician.
Air conditioner does not cool as it should	■ <i>Airflow is restricted.</i>	• Make sure there are no curtains, blinds, or furniture blocking the front of the air conditioner.
	■ <i>The THERMOSTAT may not be set high enough.</i>	• Turn the knob to a higher setting. The highest setting provides maximum cooling.
	■ <i>The air filter is dirty.</i>	• Clean the filter at least every 2 weeks. See the operating instructions section.
	■ <i>The room may have been hot.</i>	• When the air conditioner is first turned on you need to allow time for the room to cool down.
	■ <i>Cold air is escaping.</i>	• Check for open furnace floor registers and cold air returns.
Air conditioner freezing up	■ <i>Cooling coils have iced up.</i>	• See Air Conditioner Freezing Up below.
	■ <i>Ice blocks the air flow and stops the air conditioner from cooling the room.</i>	• Set the mode control on high fan until the ice thaws out.



FRIEDRICH AIR CONDITIONING CO.
Post Office Box 1540 • San Antonio, Texas 78295-1540
(210) 357-4400 • FAX (210) 357-4490

ROOM AIR CONDITIONERS LIMITED WARRANTY

FIRST YEAR

ANY PART: If any part supplied by FRIEDRICH fails because of a defect in workmanship or material within twelve months from date of original purchase, FRIEDRICH will repair the product at no charge, provided room air conditioner is reasonably accessible for service. Any additional labor cost for removing inaccessible units and/or charges for mileage related to travel by a Service Agency that exceeds 25 miles one way will be the responsibility of the owner. This remedy is expressly agreed to be the exclusive remedy within twelve months from the date of the original purchase.

SECOND THROUGH FIFTH YEAR

SEALED REFRIGERANT SYSTEM: If the sealed refrigeration system (defined for this purpose as the compressor, condenser coil, evaporator coil, reversing valve, check valve, capillary, filter drier, and all interconnecting tubing) supplied by FRIEDRICH in your Room Air Conditioner fails because of a defect in workmanship or material within sixty months from date of purchase, FRIEDRICH will pay a labor allowance and parts necessary to repair the Sealed Refrigeration System; **PROVIDED FRIEDRICH** will not pay the cost of diagnosis of the problem, removal, freight charges and transportation of the air conditioner to and from the Service Agency, and the reinstallation charges associated with repair of the Sealed Refrigeration System. All such cost will be the sole responsibility of the owner. This remedy is expressly agreed to be the exclusive remedy within sixty months from the date of the original purchase.

APPLICABILITY AND LIMITATIONS: This warranty is applicable only to units retained within the Fifty States of the U.S.A., District of Columbia, and Canada. This warranty is not applicable to:

1. Air filters or fuses.
2. Products on which the model and serial numbers have been removed.
3. Products which have defects or damage which results from improper installation, wiring, electrical current characteristics, or maintenance; or caused by accident, misuse or abuse, fire, flood, alterations and/or misapplication of the product and/or units installed in a corrosive atmosphere, default or delay in performance caused by war, government restrictions or restraints, strikes, material shortages beyond the control of FRIEDRICH, or acts of God.

OBTAINING WARRANTY PERFORMANCE: Service will be provided by the **FRIEDRICH Authorized Dealer or Service Organization** in your area. They are listed in the Yellow Pages. If assistance is required in obtaining warranty performance, write to: Room Air Conditioner Service Manager, Friedrich Air Conditioning Co., P.O. Box 1540, San Antonio, TX 78295-1540.

LIMITATIONS: THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES. Anything in the warranty notwithstanding, ANY IMPLIED WARRANTIES OF FITNESS FOR PARTICULAR PURPOSE AND/OR MERCHANTABILITY SHALL BE LIMITED TO THE DURATION OF THIS EXPRESS WARRANTY. MANUFACTURER EXPRESSLY DISCLAIMS AND EXCLUDES ANY LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGE FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY.

NOTE: Some states do not allow limitations on how long an implied warranty lasts, or do not allow the limitation or exclusion of consequential or incidental damages, so the foregoing exclusions and limitations may not apply to you.

OTHER: This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

PROOF OF PURCHASE: Owner must provide proof of purchase in order to receive any warranty related services.

All service calls for explaining the operation of this product will be the sole responsibility of the consumer.

All warranty service must be provided by an **Authorized FRIEDRICH Service Agency**, unless authorized by FRIEDRICH prior to repairs being made.

In case of questions regarding the provisions of this warranty, the English version will govern.

Revised 08/01