Use and Care & Installation Guide

Zoneline® Air Conditioner



Safety Instructions 2



Operating Instructions, Tips

Air Louvers 3, 10
Control Settings 3
Fan Cycle Switch 5
- Freeze Sentinel 5
- Other Features 4, 5
- Room Cabinet 3
- Ventilation Control 4



Care and Cleaning

Air Filter 5
Base Pan 6
Control Panel 6
Outdoor Coil 6
Room Cabinet and Case 6



Problem Solver 12

More questions ?...call
GE Answer Center® 800.626.2000



Installation

Electrical Requirements 7
Extension Cords 7
Grounding 7
Installation Instructions 7-11



Consumer Services 15

Appliance Registration 2
Important Phone Numbers 15
Model and Serial Number Location 2
Warranty ..... Back Cover

Model: ***Zoneline® Heat/Cool Model 2100-10 Series***

GE Appliances



HELP US HELP YOU

Before using your air conditioner, read this guide carefully.

It is intended to help you operate and maintain your new air conditioner properly.

Keep it handy for answers to your questions.

If you don't understand something or need more help, call:

GE Answer Center®
800.626.2000
24 hours a day, 7 days a week.

If you received a damaged air conditioner…

Immediately contact the dealer (or builder) that sold you the air conditioner.

Save time and money. Before you request service…

Check the Problem Solver section of this guide. It lists causes of minor operating problems that you can correct yourself.

Write down the model and serial numbers.

You'll see them on a label behind the room cabinet.

These numbers are also on the Consumer Product Ownership Registration Card that came with your air conditioner. Before sending in this card, please write these numbers here:

Model Number

Serial Number

Use these numbers in any correspondence or service calls concerning your air conditioner.



IMPORTANT SAFETY INSTRUCTIONS

Read all instructions before using this appliance.



WARNING—When using this appliance, always exercise basic safety precautions, including the following:

- **Use this air conditioner only for its intended purpose** as described in this Use and Care Guide.
- **This air conditioner must be properly installed in accordance with the Installation Instructions before it is used.**
- **Never use an extension cord with this air conditioner.**
- **Unplug or disconnect the unit at the fuse box or circuit breaker before making any repairs. NOTE:** We strongly recommend that any servicing be performed by a qualified individual.
- **For your safety…**Do not store or use combustible materials, gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

SAVE THESE INSTRUCTIONS

IF YOU NEED SERVICE

To obtain service, see the Consumer Services page in the back of this guide.

We're proud of our service and want you to be pleased. If for some reason you are not happy with the service you receive, here are steps to follow for further help.

FIRST, contact the people who serviced your appliance. Explain why you are not pleased. In most cases this will solve the problem.

NEXT, if you are still not pleased, write all the details—including your phone number—to:

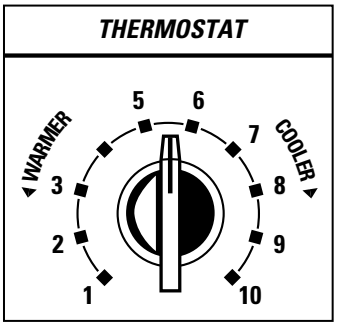
Manager, Consumer Relations
GE Appliances
Appliance Park
Louisville, KY 40225

OPERATING THE CONTROLS

Thermostat Control

The thermostat knob is used to control the room temperature. The unit automatically cycles on and off to maintain room temperature.

A comfortable temperature will be maintained in most rooms when the control is set at about “5” or “6.”

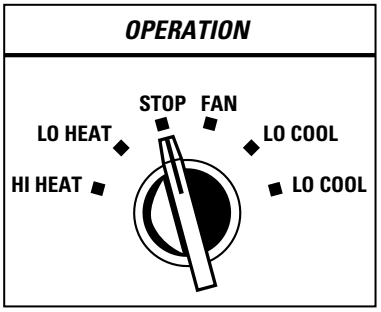


Operation Switch

HI HEAT provides heating with high fan speed operation.

LO HEAT provides heating with low fan speed operation.

STOP setting stops heating or cooling. **However, power remains connected to the unit** and the Freeze Sentinel still functions.



FAN provides fan operation without cooling or heating.

HI COOL provides cooling with high fan speed operation.

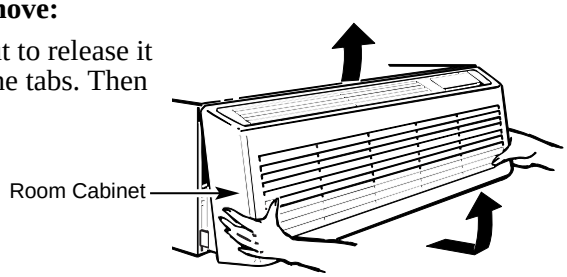
LO COOL provices cooling with low fan speed operation.

TO REMOVE THE ROOM CABINET

Additional controls are located behind the room cabinet.

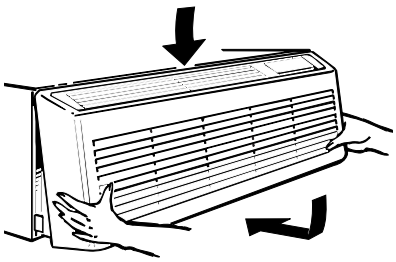
To remove:

Pull out to release it from the tabs. Then lift up.

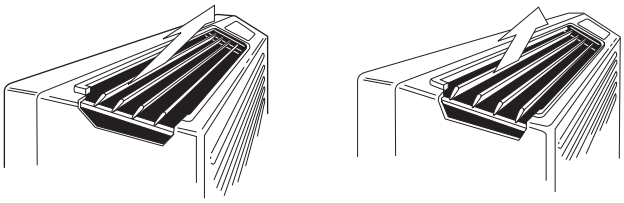


To replace:

Place the tabs over the top rail. Push inward until it snaps into place.

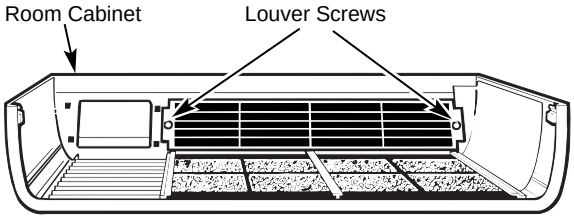


Air Louvers



The direction of the heated or cooled air may be adjusted by removing and turning the louvers around.

To change the louver direction, remove the room cabinet and 2 louver screws that hold the louvers in place. Turn the louver section 180˚ (end for end), replace the screws and replace the room cabinet. The textured face of the louver section must be toward the room side.



NOTE: For high-mounted Zonelines where greater room cabinet louver adjustments are required, order the RAF45 Room Cabinet.

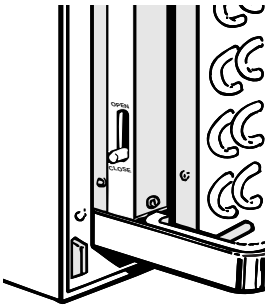
OTHER FEATURES

Ventilation Control

The ventilation control lever is located at the lower left side of the unit, behind the room cabinet.

This knob is set at CLOSE at the factory. When in this position, the vent door is closed and only indoor air is circulated by the air conditioner.

Switching the knob to OPEN opens the vent door to allow outdoor air to enter the room. However, leaving the vent door OPEN reduces heating or cooling effectiveness and increases operating costs.



Remote Control

The unit may be controlled either by the controls on the unit or connecting to a low voltage remote thermostat.

See Installation Instructions.

Central Desk Control (CDC)

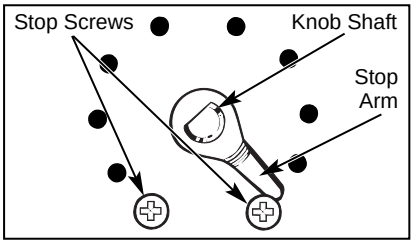
The unit may be connected to a Central Desk Control system by connecting the wires from the central control system to the CDC leads located in a compartment behind the room cabinet. These leads may also be used as an interface for other systems used to control the unit such as motion detectors, key-activated systems, etc. The Freeze Sentinel remains in an active mode to help protect against low temperature damage even though the unit may be OFF at the central control location.

See Installation Instructions.

Temperature Limiter

The normal range of the thermostat control is approximately 60°F. to 85°F.

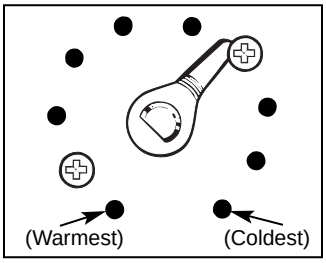
The control range may be narrowed by the use of the temperature limiting screws located behind the control panel.



To set the limiting screws:

1. Remove the room cabinet.
2. Pull both THERMOSTAT knob and the OPERATION knob off the shafts and remove the control panel.
3. Remove and relocate either or both stop screws on the exposed control box cover.

To limit the maximum heating temperature, move the stop screw at the left of the knob shaft clockwise. To limit the minimum cooling temperature, move the stop screw on the right counterclockwise. Make sure the stop arm is between the stop screws as shown.



Because actual room temperature can be affected by location and installation as well as outdoor weather conditions, you may want to experiment to determine the stop screw locations that best meet your temperature requirements.

After adjusting the limiting screws, reinstall the control panel, knobs and room cabinet.

Fan Cycle Switch

The Fan Cycle Switch is located under the control panel behind the room cabinet. This switch is set at CONT at the factory to provide continuous fan operation in cool or heat modes. Leaving the switch in the CONT setting allows continuous circulation of room air and will result in a more balanced temperature throughout the room. If you want the fan to cycle on and off with the compressor or resistance heater, set the switch at CYCLE.

Freeze Sentinel

The Freeze Sentinel sensor helps prevent plumbing damage due to sub freezing temperatures—even if you have turned the operation switch to STOP. The sensor automatically turns on the heater and fan if the room temperature falls to about 40°F.

You do not have to do anything to activate the Freeze Sentinel. It will work as long as power to the unit has not been interrupted.

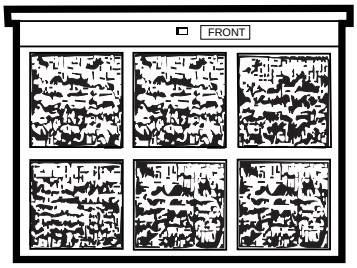
CARE AND CLEANING

Turn the Zoneline off before cleaning.

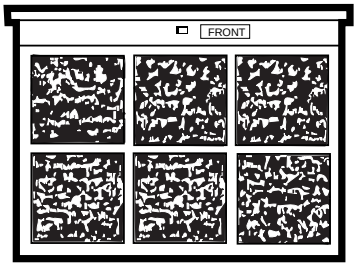
Air Filters

The Zoneline air filters should be cleaned at least every 30 days. Clogged filters reduce cooling, heating and air flow.

Keeping these filters clean will:
- Decrease cost of operation.
- Save energy.
- Prevent clogged heat exchanger coils.
- Reduce costly compressor problems.

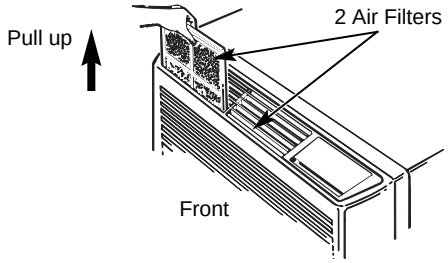


30 days – needs cleaning



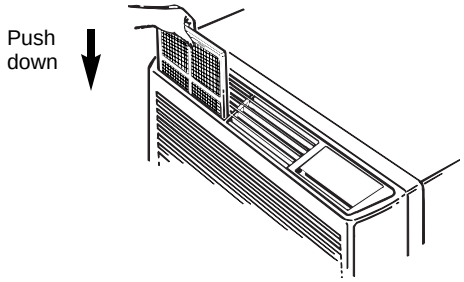
60 days – cooling, heating and airflow are greatly reduced.

To remove the air filters:



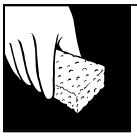
To clean the air filters:
- Vacuum off the heavy soil.
- Run water through the filters.
- Dry thoroughly before replacing them.

To replace the air filters:



NOTE: Do not operate the Zoneline without the filters in place. If a filter becomes torn or damaged it should be replaced immediately. Operating the unit without the filters in place or with damaged filters will allow dirt and dust to reach the indoor coil and reduce the efficiency of the unit.

Replacement filters are available from your GE dealer, GE Service and Parts Center or authorized Customer Care® servicers.



CARE AND CLEANING
(continued)

Room Cabinet & Case

Wash the room cabinet and case finish with mild soap or detergent and lukewarm water.

Control Panel

The control panel is shipped with a protective plastic film. This film can be left on or removed. To clean, use a damp cloth and mild detergent.

Outdoor Coil

The coil on the outdoor side of the unit should be checked periodically and cleaned if clogged with dirt or soot from the atmosphere. If extremely dirty, it may need to be professionally steam cleaned, a service available through many GE service outlets.

Base Pan

In some installations dirt or other foreign matter may be blown into the unit from the outside and settle in the base pan (the bottom of the unit).

Check the base pan periodically and clean it out, if necessary.

INSTALLATION INSTRUCTIONS

BEFORE YOU BEGIN

Read these instructions completely and carefully.

IMPORTANT—Observe all governing codes and ordinances.

INSTALLER—Be sure to leave these instructions with the Consumer.

CONSUMER—Keep these instructions for future reference.

ELECTRICAL REQUIREMENTS

FOR PERSONAL SAFETY:

- **Follow National Electrical Code (NEC) and local codes, ordinances and regulations. All wiring—including installation of receptacle, must be in accordance with these codes.**
- **This unit must be properly grounded.**
- **Do not use an extension cord with this unit.**
- **NEC requires permanent connection for installations over 250 volts.**
- Protective devices (fuses or circuit breakers) acceptable for Zoneline installations are specified on the nameplate of each unit.
- Aluminum building wiring may pose special problems—consult a qualified electrician.
- Disconnect power to the air conditioner before servicing by:
  1. Removing the power cord from the wall receptacle, if it has one.
  2. Removing the branch circuit fuses or turning the circuit breakers off at the panel.

TOOLS NEEDED

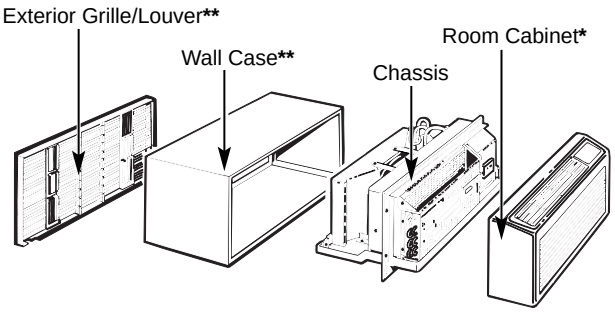
Phillips screwdriver

Flat Blade screwdriver

CAUTION

Before starting the installation, the power to the direct connect wiring should be OFF.

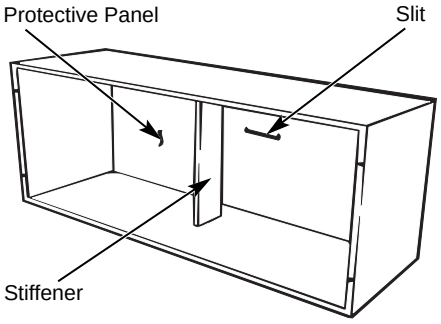
THE GE ZONELINE®



*** Shipped with the chassis**
****Check essential elements list on chassis**

WALL CASE & GRILLE

1. The RAB 70 or 77 Wall Case must be properly installed per instructions packed with the case.
2. Remove the corrugated stiffener and the outdoor protective panel. Use the slit in the outdoor panel as a handhold and push out.

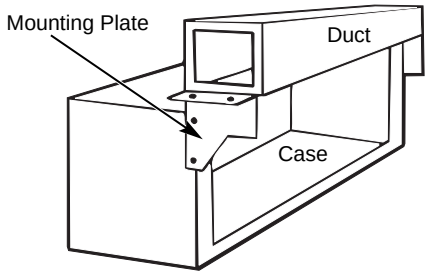


3. Install the Exterior Grille from the room side per instruction packed with the grille.

INSTALLATION INSTRUCTIONS
(continued)

NEW DUCTED INSTALLATION

If this unit is to be installed in a new ducted application using a duct adaptor kit, the kit must be installed before the chassis is placed in the wall case. The Installation Instructions are packed with the kit.

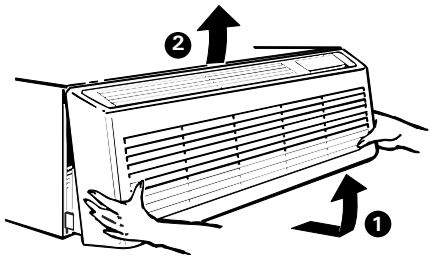


EXISTING DUCTED INSTALLATION

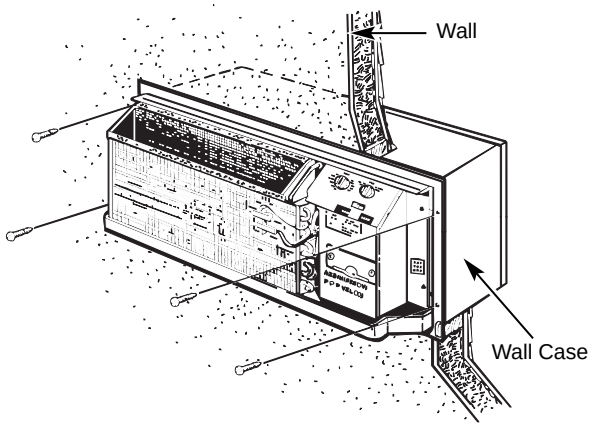
Replacement of an existing ducted unit may require different components. Request this information from your sales representative.

INSTALLATION

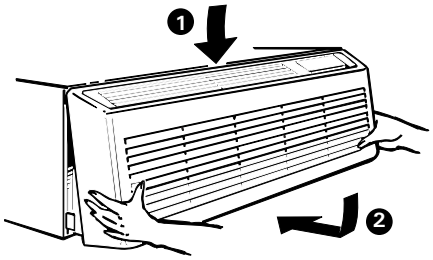
1. Remove the room cabinet by pulling out at the bottom to release it, then lift it up to clear the rail along the chassis top.



2. Slide the chassis into the wall case and secure with four screws through the chassis flange holes.



3. Reinstall the room cabinet by hooking the top over the rail along the chassis top, then pushing it in at the bottom.



PERMANENT CONNECTION

FOR 208/230 VOLT UNITS

208/230 volt model is equipped for connection with a power cord according to unit capacity at the time of shipment.

Should local code or special requirements specify permanent connection of this unit, use adapter kit RAK-400.

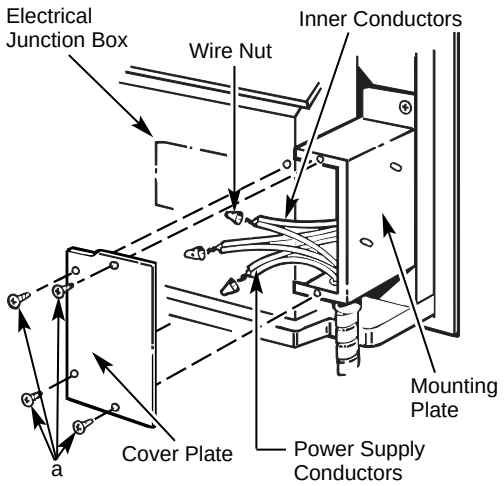
FOR 265 VOLT UNITS

All 265V units are direct connected and come with the cover plate and mounting plate (junction box). The conduit is field-supplied by the installer.

PREPARATION

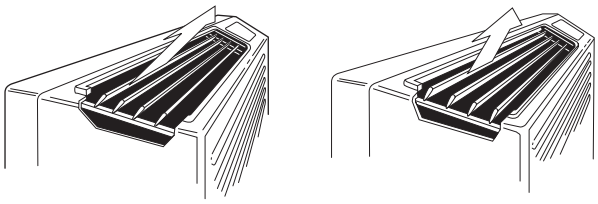
1. The electrical rating marked on the previously installed Zoneline must be the same as the supply branch circuit.
2. The unit provides for connection of 1/2" trade size electrical conduit and provision for connection to a wiring system in accordance with the National Electric Code ANSI/NFPA No. 70-1993.

INSTALLATION



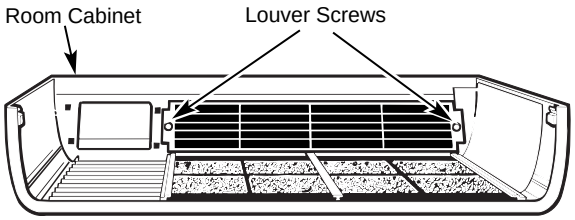
1. Remove the Room Cabinet from chassis by lifting up and out to clear mounting brackets.
2. Remove four "a" screws and the cover plate from the mounting plate.
3. Attach the field supplied conduit to the mounting plate.
4. Connect Power Supply Conductors to the Inner Conductors with wire nuts.
5. Dress the wiring inside the compartment and attach the cover plate.
6. Reinstall the Room Cabinet.

AIR LOUVERS



The direction of the heated or cooled air may be adjusted by removing and turning the louvers around.

To change the louver direction, remove the room cabinet and 2 louver screws that hold the louvers in place. Turn the louver section 180° (end for end), replace the screws and replace the room cabinet. The textured face of the louver section must be toward the room side.

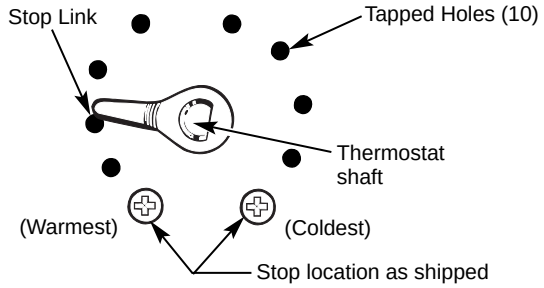


NOTE: For high-mounted Zonelines where greater room cabinet louver adjustments are required, order the RAF45 Room Cabinet.

TEMPERATURE LIMITING

The normal range of the thermostat control is approximately 60°F. to 85°F. The control range may be narrowed by the use of the temperature limiting screws located behind the control panel. Repositioning the screw on the left will limit the maximum temperature about 3°F. for each hole in a clockwise rotation; the screw on the right will limit the minimum temperature when moved counterclockwise. Limiting the maximum and minimum settings prevents users from turning the controls to extreme positions. Restrictions to full rotation of the thermostat knob may require explanation to the room occupant that unit will provide comfortable conditions at settings allowed.

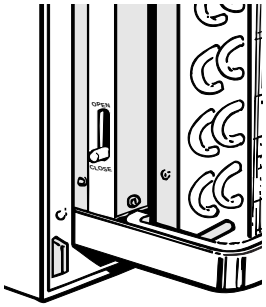
To access the limiting screws, remove the room cabinet, remove the Thermostat knob and the Operation knob by pulling each knob off its shaft and removing the control panel. Set the limiters to the desired setting, replace the control panel and the control knobs. If the original settings do not allow sufficient room temperature control the limiter screws may have to be repositioned.



If the temperature limiters are used it is recommended that the limiters be set no higher than the second hole from the original bottom position. This provides an operating range between approximately 66°F. and 79°F. In order to maximize the benefit of the temperature limiting it may be necessary to adjust the limiter screws seasonally to allow unoccupied rooms to be maintained at moderate temperatures (i.e., heating season temperatures limited between 60°F. and 75°F.; cooling season temperatures limited between 85°F. and 65°F.).

VENTILATION CONTROL

The VENTILATION control lever is located at the lower left side of the unit, behind the room cabinet.



This lever controls the vent door and is set in the CLOSE position at the factory so outdoor air will not enter the room through the unit and only indoor air is circulated by the air conditioner.

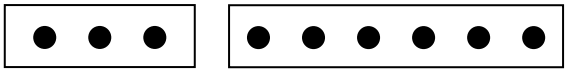
Moving the lever to OPEN opens the vent door and draws outdoor air through the air conditioner and into the room. Leaving the vent door OPEN during extreme temperature conditions reduces heating or cooling effectiveness and increases operating costs.

REMOTE CONTROL – 2100-10 SERIES

The unit may be controlled either by the unit-mounted controls or by installing three and six wire connectors located in the compartment above the rating plate. Detailed instructions are included in the compartment.

1 STAGE HEAT–
1 STAGE COOL
MANUAL THERMOSTAT

CLASS 2 REMOTE **CDC**



LOW VOLTAGE
TERMINALS ON ZONELINE

FREEZE SENTINEL

The unit is equipped with a sensor that automatically turns on the resistance heater and fan if the room temperature, as sensed at the unit, drops to approximately 40°F. and will shut the heater off when the temperature reaches about 52°F. The Freeze Sentinel system helps prevent damage due to sub-freezing temperatures and will operate regardless of the mode setting of the unit. Freeze Sentinel is active as long as power to the unit has not been interrupted.

CENTRAL DESK CONTROL

The unit may be connected to a switch at the front desk. When the switch is OPEN the unit is operable. When the switch is CLOSED, the unit is made inoperative. Connect the wires from the central control system to the "CDC" interface leads in the compartment above the rating plate. Detailed hook-up instructions are in the compartment. Follow the recommended wire sizing in the table below. Two wires must be used from each CDC switch to each individual unit. Good wiring practices (e.g. twisted pairs, SEPARATION FROM POWER CIRCUITS) must be followed to minimize induced voltages which may harm the control system. Do **not** use a common buss in the CDC wiring. A 24 volt transformer is contained within the unit and no external voltage should be applied to the unit through the CDC leads. These leads may also be used as an interface for other systems used to control the unit, such as motion detectors, key-activated systems, etc. The Freeze Sentinel remains in an active mode to help protect against low temperature damage even though the unit may be "OFF" at the central control location.

Recommended Wire Size for Central Desk Control Installation

Wire Size # AWG	Maximum Allowable Length
#22	600 ft.
#20	900 ft.
#18	1500 ft.
#16	2000 ft.

FAN CYCLE SWITCH

The fan cycle switch is located under the control panel behind the room cabinet. This switch is set at CONT at the factory to provide continuous fan operation in cool or heat modes. Leaving the switch in the CONT setting allows continuous circulation of room air and will result in a more uniform temperature throughout the room. Setting the switch at CYCLE will cause the fan to cycle on and off with the compressor or resistance heater.

QUESTIONS?
USE THIS PROBLEM SOLVER

PROBLEM	POSSIBLE CAUSE
AIR CONDITIONER DOES NOT OPERATE	• Power cord not plugged in, fuse blown, or circuit breaker tripped. • Unit is waiting for compressor overload protector to reset.
AIR CONDITIONER "DOES NOT COOL OR HEAT AS IT SHOULD"	• Curtains, blinds or furniture blocking the front of the air conditioner will restrict air flow. • Thermostat Control may not be set high enough. Turn the control to a lower or higher number. (**NOTE:** In some installations, the Thermostat Control cannot be turned all the way to "1" or "10". This is normal. Do not attempt to force the control beyond its stopping points.) • Dirty air filter blocking air flow. Filter should be cleaned at least every 30 days. See instructions in cleaning section. • Room may have been very hot or very cold when the air conditioner was first turned on. Allow time for it to cool down or warm up. • Ventilation control may be set at OPEN position, allowing outside air to enter the room.
"BURNING" ODOR AT START OF HEATING OPERATION	• Dust on the surface of the heating element can cause a "burning" odor at the beginning of the heating operation. This odor should quickly fade.
OPERATING SOUNDS	• Relay clicks may be heard when the compressor or fan cycles on and off. This is normal. • Fan runs continuously when the unit is operating unless the Fan Cycle Switch under the control panel is set at CYCLE. Then the fan cycles on and off with the heater.
AIR IS NOT ALWAYS COOL DURING COOLING OPERATION	• The fan switch may be set at Fan Cont (continuous). This causes the fan to blow room temperature air even when the compressor cycles off. The continuous air movement provides better overall temperature control.
AIR IS NOT ALWAYS HOT DURING HEATING OPERATION	• The fan switch may be set at Fan Cont (continuous). This causes the fan to blow room temperature air even when the heat source cycles off. The continuous air movement provides better overall temperature control.

If you need more help...call, toll free:
GE Answer Center®
800.626.2000
consumer information service

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We'll Be There

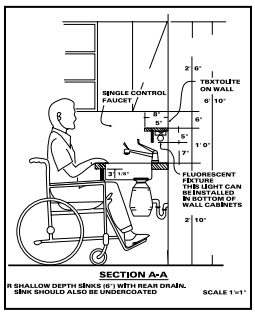
With the purchase of your new GE appliance, receive the assurance that if you ever need information or assistance from GE, we'll be there. All you have to do is call—toll-free!

GE Answer Center®
800.626.2000

Whatever your question about any GE major appliance, GE Answer Center® information service is available to help. Your call—and your question—will be answered promptly and courteously. And you can call any time. GE Answer Center® service is open 24 hours a day, 7 days a week.

In-Home Repair Service
800-GE-CARES (800-432-2737)

A GE consumer service professional will provide expert repair service, scheduled at a time that's convenient for you. Many GE Consumer Service company-operated locations offer you service today or tomorrow, or at your convenience (7:00 a.m. to 7:00 p.m. weekdays, 9:00 a.m. to 2:00 p.m. Saturdays). Our factory-trained technicians know your appliance inside and out—so most repairs can be handled in just one visit.



For Customers With Special Needs...
800.626.2000

Upon request, GE will provide Braille controls for a variety of GE appliances, and a brochure to assist in planning a barrier-free kitchen for persons with limited mobility. To obtain these items, free of charge, call 800.626.2000.

Consumers with impaired hearing or speech who have access to a TDD or a conventional teletypewriter may call 800-TDD-GEAC (800-833-4322) to request information or service.

Service Contracts
800-626-2224

You can have the secure feeling that GE Consumer Service will still be there after your warranty expires. Purchase a GE contract while your warranty is still in effect and you'll receive a substantial discount. With a multiple-year contract, you're assured of future service at today's prices.

Parts and Accessories
800-626-2002

Individuals qualified to service their own appliances can have needed parts or accessories sent directly to their home. The GE parts system provides access to over 47,000 parts...and all GE Genuine Renewal Parts are fully warranted. VISA, MasterCard and Discover cards are accepted.

User maintenance instructions contained in this booklet cover procedures intended to be performed by any user. Other servicing generally should be referred to qualified service personnel. Caution must be exercised, since improper servicing may cause unsafe operation.

ZONELINE WARRANTY

Staple sales slip or cancelled check here. Proof of original purchase date is needed to obtain service under warranty.
For service in the U.S., call 800-GE-CARES.
For service in Canada, call 1-800-361-3400.

What Is Covered

FULL ONE-YEAR WARRANTY

For one year from date of original purchase, we will provide, free of charge, parts and service labor on site to repair or replace *any part of the Zoneline* that fails because of a manufacturing defect.

FULL FIVE-YEAR WARRANTY

For five years from the date of original purchase, we will provide, free of charge, parts and on-site service labor to repair or replace *any part of the sealed refrigerating system* (the compressor, condenser, evaporator and all connecting tubing) that fails because of a manufacturing defect.

LIMITED 2ND THROUGH 5TH YEAR PARTS WARRANTY

For the second through the fifth year from date of original purchase, General Electric will provide, free of charge, parts that fail as a result of a manufacturing defect. Parts covered are fan motors, switches, thermostat, heater, heater protectors, compressor overload, solenoids, circuit boards, auxiliary controls, thermistors, Freeze Sentinel, frost controls, ICR pump, capacitors, varistors, and indoor blower bearing. This is a limited parts-only warranty, and does not include labor or transportation to and from the service shop.

What Is Not Covered

- Service trips to your site to teach you how to use the product.
- Improper installation.

  If you have an installation problem, or if the air conditioner is of improper cooling capacity for the intended use, contact your dealer or installer. You are responsible for providing adequate electrical connecting facilities.
- Replacement of fuses or resetting of circuit breakers.
- In commercial locations, labor necessary to move the unit to a location where it is accessible for service by an individual technician.
- Failure of the product resulting from modifications to the product or due to unreasonable use including failure to provide reasonable and necessary maintenance.
- Failure due to corrosion on models not corrosion-protected.
- Damage to product caused by improper power supply voltage, accident, fire, floods or acts of God.
- Incidental or consequential damage to personal property caused by possible defects with this air conditioner.

Warrantor: General Electric Company. Louisville, KY 40225

This warranty is extended to the original purchaser and any succeeding owner for products purchased for use within the USA and Canada. In Alaska, the warranty excludes the cost of shipping or service calls to your site.

Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To know what your legal rights are in your state, consult your local or state consumer affairs office or your state's Attorney General.

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