USER'S INFORMATION MANUAL

OUTDOOR SPLIT-SYSTEM AIR CONDITIONING OR HEAT PUMP

MODELS: CCGD & CHJD SERIES 2 TO 5 TONS

ISO 9001 Certified Quality Management System

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CONTACT INFORMATION FOR USA		CONTACT INFORMATION FOR CANADA
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HOW YOUR SYSTEM WORKS

COOLING CYCLE

If your hand is wet and you blow on it, it feels cool because some of the moisture is evaporating and becoming a vapor. This process requires heat. The heat is being taken from your hand, so your hand feels cool.

That's what happens with an air conditioner. During the cooling cycle, your system will remove heat and humidity from your home and will transfer this heat to the outdoor air.

HEATING CYCLE (HEAT PUMPS)

During the heating cycle, your system will remove heat and humidity from the outdoor air and will transfer this heat to your home. This is possible because even 0°F outdoor air contains a great deal of heat. Remember that your heat pump doesn't generate much heat, it merely transfers it from one place to another.

System Operation

Your thermostat puts full control of the comfort level in your home at your fingertips. DO NOT switch your thermostat rapidly ON and OFF or between HEAT to COOL. This could damage your equipment. Always allow at least 5 minutes between changes.

SETTING THE THERMOSTAT

Although thermostats may vary widely in appearance, they are all designed to perform the same basic function: to control the operation of your air conditioning or heat pump system. Regardless of size or shape, each thermostat will feature a temperature indicator; a dial, arm, or push button for selection of the desired temperature; a fan switch to choose the indoor fan operation; and a comfort switch for you to select the system mode of operation.

Only approved thermostats have been tested and are fully compatible with this equipment. *Please be aware that many different thermostats operate on batteries or "power stealing" principals. These types of thermostats can not be supported as trouble free when used with this product.*

A complete operating instruction is provided by the manufacturer for each thermostat. Familiarize yourself with its proper operation to obtain the maximum comfort with minimum energy consumption.

If your system has been designed to allow both cooling and heating operation, you may have either a manual change-over type, or a programmable electronic type thermostat.

Manual change-over simply means that the comfort switch must be manually positioned every time you wish to switch from the cooling to heating or heating to cooling modes of operation.

The computerized electronic thermostat is actually a sophisticated electronic version of a manual change-over type. This thermostat includes features which allow "set-back" temperature variations for periods of sleep, or while you are away during the day, and means energy savings for you. The thermostat also features a digital clock.

⚠CAUTION

The main power to the system must be kept "ON" at all times to prevent damage to the outdoor unit compressor. If necessary, the thermostat control switch should be used to turn the system "OFF". Should the main power be disconnected or interrupted for 8 hours or longer, DO NOT attempt to start the system for 8 hours after the power has been restored to the outdoor unit. If heat is needed during this 8 hour period, use emergency heat.

Fan Operation Selection

A multi-position fan switch allows you to choose the type of fan operation of the indoor fan.

AUTO - With the thermostat fan switch set to "AUTO", the fan will run intermittently as required for either heating or cooling. This position will provide the lowest operating cost.

ON - If the fan switch is set to "ON", the indoor fan will not shut off. However, the system will still operate as required by room temperatures. This provides continuous air filtering and more even temperature distribution throughout the house, which is especially useful in houses with basements.

Usually during spring and fall, when neither heating nor cooling is required, you may want to run only the fan to ventilate, circulate, and filter the air in your home or building. Set the comfort control switch to "OFF" and the fan switch to "ON". Be sure to return the switches to their original positions for normal operation.

Heating Cycle

With the thermostat in the heating position, and the outdoor temperature in the range of 20 to 30° or below, the outdoor unit will generally run 100%of the time.

All systems can be equipped with balance point control to provide even more efficient operation. This control will prevent the electric heater from being energized when the outdoor air is above some predetermined temperature setting (0 to 45°F). At higher temperatures, your system will provide all the heat your home will ever need. At lower temperatures, the auxiliary heat will be energized to keep your home comfortable.

When the outdoor air is cool and moist, frost may form on the surface of your outdoor coil. When this frost builds to a certain point, your system will switch to a defrost cycle. Although you may feel cooler air coming from your registers, DO NOT adjust your thermostat. The frost will melt quickly, and your system will return to normal operation automatically.

Cooling Cycle

Switch your thermostat to cool.Select a comfortable thermostat temperature setting, typically between 75 and 80°. Comfort sensations vary with individuals. The lower the indoor temperature desired, the greater will be the number of hours your unit must operate.

Set your thermostat 2 or 3°F below normal several hours before entertaining large groups during hot weather. People give off considerable heat and moisture.

On an extremely hot day, the indoor temperature may rise 3 to 6°F above the thermostat setting. Properly selected equipment does not have the capacity to maintain a constant indoor temperature during the peak load. Over-sizing your system to handle this peak load is not practical because the oversized system would operate much less efficiently at all other conditions.

TO MAXIMIZE OPERATING EFFICIENCY

HEATING CONSERVATION

For the most efficient operation, keep storm windows and doors closed all year long. They not only help insulate against heat and cold, but they also keep out dirt, pollen and noise.

Closing drapes at night, keeping fireplace dampers closed when not in use, and running exhaust fans only when necessary will help you to retain the air you have already paid to heat.

Keep lamps, televisions, or other heat producing sources away from the thermostat. The thermostat will sense this extra heat and will not be able to maintain the inside temperature to the desired comfort level.

COOLING CONSERVATION

To comfortably cool your home, your heat pump must remove both heat and humidity. Don't turn your system off even though you will be away all day. On a hot day, your system may have to operate between 8 to 12 hours to reduce the temperature in your home to a normal comfort level.

Keep windows closed after sundown. While the outdoor temperature at night may be lower than indoors, the air is generally loaded with moisture which is soaked up by furniture, carpets, and fabrics. This moisture must be removed when you restart your system.

The hotter the outside temperature, the greater the load on your system. Therefore do not be alarmed when your system continues to run after the sun has set on a hot day. Heat is stored in your outside walls during the day and will continue to flow into your home for several hours after sunset.

Use your kitchen exhaust fan when cooking. One surface burner on "HIGH" requires one ton of cooling. Turn on your bathroom exhaust fan while showering to remove humidity. However, exhaust fans should not be run excessively. It would decrease efficiency by removing conditioned air.

You can also help your system in the summer by closing drapes or blinds and by lowering awnings on windows that get direct sunlight.

CARE OF SYSTEM

IMPORTANT: The Owner/user should not attempt to disassemble the equipment nor perform the periodic maintenance unless they are experienced and qualified to do so.

A periodic inspection, cleaning, lubrication and adjustment of your heat pump is available from your dealer. Be sure to ask him about this service.

For those who prefer to do-it-yourself, follow the instructions below to care for your system.

COIL CARE

Keep the outdoor unit free of loose snow, foliage, grass clippings, leaves, paper, and any other material which could restrict the proper air flow in and out of the unit. The coil may be vacuumed to remove any debris from between the fins. However, don't knock ice off the outdoor unit's coil surface following an ice or severe snowstorm. The blows could mash the coil fins shut (blocking air passage), or break the refrigerant tubing allowing the refrigerant to escape.

If the coil becomes excessively dirty, turn the main disconnect switch to "OFF" and wash the coil with your garden hose. Avoid getting water into the fan motor and control box. Flush dirt from base pan after cleaning the coil.

CARE OF FAN MOTORS

Some fan motors are provided with lubrication ports. Inspect your indoor and outdoor units to determine whether or not lubrication ports are provided.

The fan motor is shipped with an oil supply which will last for several years under normal operating conditions. After this time, each motor bearing should be oiled with 10-15 drops (approximately 1/4 teaspoon) of SAE 20 non-detergent electric motor oil or automobile oil. DO NOT use definite purpose oils such as sewing machine, cleaning, rust preventative, cutting, household, etc.

SCHEDULE FOR RELUBRICATION		
Running Hours Per Day	Environment	
	Normal	Dirty
0-8	Every 5 Yrs.	Every 4 Yrs.
9-16	Every 4 Yrs.	Every 3 Yrs.
17-24	Every 3 Yrs.	Every 2 Yrs.
Do not over oil		

If your system is an Add-on type, (installed in conjunction with a standard furnace) inspect your furnace blower motor and care for it in the same way.

FILTER CARE

Inspect the air filter(s) at least once a month. If they are dirty, wash reusable filters with a mild detergent per manufacturer's recommendations. Replace disposable filters with new filters.

Install the clean filters with "air flow" arrow in the same direction as the air flow in your duct. Filters should be clean to assure maximum efficiency and adequate air circulation. Drapes, furniture or other obstructions blocking your supply and return air grilles will also decrease efficiency.

OUTDOOR UNIT FINISH

If you wish to maintain the finish of the outdoor unit, it can be polished with car wax. It is recommended the unit be cleaned with soap and water prior to waxing.

TROUBLESHOOTING GUIDE			
PROBLEM	**CHECK**	**ACTION TO TAKE**	**FAULT CODE**
No Heat or Cooling	1. Thermostat for proper settings.	Set thermostat to proper setting.	–
	2. Circuit breakers and fuses.	Reset circuit breakers - Replace blown fuses.	–
	3. Check outdoor unit for dirty coil (Cooling).	Clean coil, see "COIL CARE" section.	–
	4. Outdoor unit for snow accumulation. (Heating).	Remove loose snow only.	–
	5. Indoor unit for dirty filter (Heating).	Clean or replace, see "FILTER CARE" section.	–
	6. Emergency heat light status on thermostat.	Check 1 - 5, call qualified service person.	–
	Light on = Malfunction	Check 1 - 5, call qualified service person.	–
	Light flashing = Malfunction	Check 1 - 5, call qualified service person with fault code.	–
Wet on Floor or in Furnace	Condensate drain and "P" trap	Remove blockage, usually mold or fungus.	–

CLEARANCES

The minimum clearances shown below must be maintained should any patio or yard improvements be done around the outdoor unit.

Top 60"	Sides 12"
Rear 12"	Front***** 24"

***** Service access panel

POWER INTERRUPTION

When ice, snow, wind storms, etc. disrupt electrical power supply to your house, proceed as follows:

Heating Season

1. Switch thermostat to emergency heat.

NOTE: There will be no heat available until power is re-established.

2. Leave on emergency heat for at least 8 hours after electrical power is re-established if the power was off more than 8 hours.
3. Switch thermostat back to heating or auto.

Cooling Season

1. Switch thermostat to OFF position.
2. Do not switch to cooling or auto until electrical power has been re-established for 8 hours if the power was off more than 8 hours.

SERVICE CALLS

There are a few instances where you can avoid unnecessary service calls. (See Troubleshooting Guide above). Some models provide fault codes. The flashing light on the system thermostat is capable of providing you with time and money saving information. The fault code numbers listed can be handled by taking the corrective action indicated. Call qualified service person if displaying fault code numbers **not** listed.

PARTS INFORMATION

Replacement parts are available from local contractor/dealers or the nearest distribution center.

CHARACTERISTICS OF HEAT PUMPS

A CONSTANT HEAT

Heat pumps have a noticeable cooler supply air temperature than furnaces. The common practice of over-sizing furnaces contributes to an "off-and-on again" operation with short blasts of hot supply air. The heat pump system is sized more closely to the heating needs of your home. Heat is supplied at a lower temperature over a longer period of time to provide a more constant heat, and it may give you the impression that your system "never stops running".

WATER RUN-OFF

During the heating cycle, in mild weather you may notice water running off the outdoor coil. Moisture from the air is condensed on the outside surface of the coil where it gathers and runs off. No need for alarm, your unit has not sprung a leak!

OUTDOOR COIL DEFROSTING

At certain outdoor conditions (low temperature, high humidity), frost may build up on the coil of the outdoor unit. In order to maintain heating efficiency, the system will automatically defrost itself. Steam rising from the outdoor unit is normal and is an indication of proper operation. The vapor cloud will only last for a few minutes. When the defrost cycle is completed, the system will automatically switch back to heating. Auxiliary heat is automatically energized to maintain comfort during defrost.

Limited Warranty

Manufactured Housing Quick Connect Condensing Units

UPG warrants this product to be free from defects in factory workmanship and material under normal use and service and will replace parts that prove to have such defects according to the terms outlined below.

Model	Compressor	Parts Coverage	Labor and Trip Coverage*
CCGD, CHJD	5 years	1 years	1 years

*Thermostat labor coverage for 30 days only, no trip allowance.

The warranty period for any replacement compressor or part provided here under shall not extend beyond the warranty period stated above. The compressor warranty is on a parts only basis the third through fifth year no labor, freight or other service charges are allowed.

The warranty period will begin on the purchase date of the residence when the product is installed as original equipment, or the installation date when installed in a residence previously purchased by the consumer. Return the Warranty Registration Card to UPG promptly after product installation or purchase for your benefit and protection. The warranty period will begin upon product shipment from UPG in the absence of a recorded Warranty Registration Card.

This warranty applies to the original consumer/purchaser and any subsequent purchaser. The warranty does not apply if the heat pump is removed from the original residence, or if the residence has been moved from the original location where the heat pump was placed in service.

This warranty applies only to products installed: (1) in the United States of America or Canada; (2) in accordance with UPG recommendations and specifications outlined in the Installation Manual provided with the product; (3) in accordance with all national, state/provincial, and local codes; and (4) in the original residence.

Exclusions

1. Shipping/freight, or material charges.
2. Damages resulting from transportation, mishandling, improper application, installation or servicing.
3. Damages resulting from accident, abuse, fire, flood, or other acts of nature.
4. Use of the product in a corrosive atmosphere.
5. Alteration, tampering, defacing or removing the product serial number will serve to void the warranty.
6. Damages resulting from inadequacy or interruption of electrical service, improper energy supply, blown fuses, improper wiring external to the unit or other like damages.
7. Damages resulting from the use of components not approved by UPG.
8. This warranty does not cover consequential damages, incidental damages or incidental expenses including damages to property.
9. Damages caused by failure to perform normal or routine maintenance as set out in the operation and service instructions.
10. Cleaning, replacement of filters, or any other routine maintenance as set out in the User's Information, Maintenance and Service Manual.
11. Replacement or cleaning of nozzles or orifices.
12. Fuses either internal or external to the product.
13. Excessive fuel or electricity consumption.

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TO OBTAIN WARRANTY SERVICE

Consult the Authorized Service Center list packed with the furnace installed in the manufactured home or contact your installing or servicing dealer.

Or, look in the Yellow Pages of the telephone book under Mobile Homes-or Manufactured Housing-Repair and Service for the name and telephone number of the nearest authorized manufactured housing service center. If local authorized service cannot be obtained, or you are unable to contact your installing dealer, contact the authorized distributor in your area. If there is no distributor in your area, and you cannot obtain proper service under the terms of the warranty, please write: Unitary Products Group (UPG) Customer Relations Department, PO Box 19014, Wichita, KS 67204-9014.

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