

1983
OWNER'S
MANUAL

HOLIDAY
RAMBLER[®]

HOLIDAY RAMBLER AMBASSADOR[™]
HOLIDAY RAMBLER PRESIDENTIAL[™]
HOLIDAY RAMBLER IMPERIAL[™]
MINI-MOTORHOME AND MOTORHOME
HOLIDAY RAMBLER VAN DE VILLE[®]

THIS MANUAL HAS BEEN PROVIDED BY HOLIDAY RAMBLER CORPORATION SOLELY FOR THE PURPOSE OF PROVIDING INSTRUCTIONS ABOUT OPERATION AND MAINTENANCE OF THIS VEHICLE AND ITS COMPONENTS. NOTHING IN THIS MANUAL CREATES ANY WARRANTY, EITHER EXPRESS OR IMPLIED. THE ONLY WARRANTY OFFERED BY HOLIDAY RAMBLER CORPORATION IS AS SET FORTH IN THE LIMITED WARRANTY APPLICABLE TO THIS VEHICLE.

THE LIMITED WARRANTY AND THE LIMITED WARRANTIES ISSUED BY COMPONENT MANUFACTURERS REQUIRE PERIODIC SERVICE AND MAINTENANCE, AND THE OWNER'S FAILURE TO PROVIDE THIS SERVICE AND/OR MAINTENANCE WILL RESULT IN THE LOSS OF WARRANTY COVERAGE FOR THAT ITEM. THE OWNER SHOULD REVIEW HOLIDAY RAMBLER CORPORATION'S LIMITED WARRANTY AND THE LIMITED WARRANTIES OF ALL OTHER MANUFACTURERS OFFERING THEM THAT ARE APPLICABLE TO THIS VEHICLE.

INSTRUCTIONS ARE INCLUDED IN THE MANUAL FOR OPERATING SOME COMPONENTS WHICH ARE OPTIONAL ON SOME VEHICLES, AND THE OWNER MAY NOT HAVE ALL COMPONENTS LISTED IN THIS MANUAL.

IN ADDITION, THE OWNER SHOULD REFER TO INDIVIDUAL MANUFACTURER'S OPERATING INSTRUCTIONS CONTAINED IN THE OWNER'S KIT AS INDICATED.

HOLIDAY RAMBLER CORPORATION
Wakarusa, Indiana 46573

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TO THE OWNER

Welcome to the Holiday Rambler family.

Your new family camping vehicle has been built with quality materials and components. Holiday Rambler Corporation pays its dealers to perform a pre-delivery inspection on each Holiday Rambler Corporation manufactured vehicle sold. This is your assurance that all systems are functioning properly at the time you take delivery. If your family camping vehicle is operated according to recommended procedures, it should provide you with many miles of service. After the initial breaking-in period and the usual minor adjustments to components and systems, the recommended maintenance schedule as listed elsewhere in this manual and/or in component manufacturers' brochures in your Owner's Kit should be followed for dependable performance.

We've done our best to make this Owner's Manual as timely as possible, using information available to us at publication. Components are continually improved, and we continually upgrade our vehicles accordingly. If equipment in your motorized vehicle differs significantly from what's described here, disregard that section and follow the instructions provided by the component manufacturer.

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Keep this Owner's Manual in your motorized vehicle for handy reference. Get to know your new vehicle and how it operates. You should read carefully these instructions and the booklets supplied by manufacturers of separately warranted products for important operating, safety and maintenance information.

If questions come up that are not adequately answered by this manual or the manufacturer's instructions, consult your dealer. If he can not satisfactorily answer your questions, he will refer you to our staff for help.

Your family camping vehicle complies with applicable requirements of Federal Motor Vehicle Safety Standards, state regulations and NFPA 501C-1977, the nationally recognized "Standard for Recreational Vehicles — Plumbing, Heating and Electrical Systems." The Recreation Vehicle Industry Association seal is displayed near your entrance door. RVIA inspectors periodically visit our production lines and help us comply strictly with installation and safety standards.

We thank you for selecting a Holiday Rambler Corporation product, and we hope you will enjoy it for many years to come.

Happy traveling.
HOLIDAY RAMBLER CORPORATION

TAKING DELIVERY

Your family camping vehicle has been inspected by factory personnel throughout the manufacturing process. Our final factory check by quality control inspectors before shipment to the dealer is not the last one. Your dealer performs additional pre-delivery inspections and systems checks; and helps you understand the Limited Warranty and complete any necessary forms.

Dealer responsibilities Include:

1. Orienting the customer to the family camping vehicle, its systems and components, and their operation.
2. Insuring that the customer receives a complete Owner's Packet with warranty cards and registrations for the camping vehicle and for separately warranted products, including operating and maintenance instructions.
3. Reviewing limited warranty provisions with the customer, stressing the importance of mailing warranty cards and registrations to manufacturers within the prescribed time limits. Assisting the customer in completing these forms if he wishes. Requesting that the customer read all warranty information as soon as possible and ask the dealer to explain any provisions not clearly understood.
4. Instructing the customer how to get local service and out-of-town service on the camping vehicle and its separately warranted components, either in or out of warranty.

Customer responsibilities:

As a new family camping vehicle owner, you have the responsibility for regular and proper maintenance. This will help you avoid conditions arising from neglect that are not covered by your Holiday Rambler Corporation Limited Warranty. Maintenance services should be performed in accordance with this Owner's Manual, the chassis Owner's Manual, and any other applicable manuals.

AS THE OWNER, IT IS YOUR RESPONSIBILITY AND OBLIGATION TO RETURN THE CAMPING VEHICLE TO AN AUTHORIZED DEALER FOR REPAIRS AND SERVICE (SEE LIMITED WARRANTY).

Since the Authorized Dealer from whom you purchased your new family camping vehicle is responsible for its proper servicing before delivery, and has an interest in your continued satisfaction, we recommend that INSPECTION, WARRANTY AND MAINTENANCE SERVICES be performed by him.

We suggest that you take your new family camping vehicle on a weekend "shakedown" before leaving on an extended trip.

CUSTOMER RELATIONS

Only by keeping your confidence in and satisfaction with our product and service can we insure our continued success as a manufacturer of family camping vehicles.

We've found that maintaining a cordial and effective relationship with our dealers is just as important as improving the technical excellence of our products. Your authorized dealer is pleased to help you with service and instructions about your camping vehicle.

Most problems arise from misunderstandings about warranty or service and usually can be solved by the dealer.

If the problem remains after you have consulted your dealer, you're invited to contact our Consumer Affairs Department. We'll work with the dealer and see that every attempt to resolve the matter is made.

Write or call:

Consumer Affairs Department
Holiday Rambler Corporation
65528 State Road 19
Wakarusa, Indiana 46573
219/862-7278 or 219/862-7211

Please have all pertinent information (serial numbers, model numbers, etc.) when writing us. You'll find space to list them all in one place at the back of this book.

SUGGESTIONS FOR OBTAINING SERVICE FOR YOUR RV

Give Thought To The Appointment Time . . . Know when to take your RV in for service. Monday and Friday are busy days at most dealers. Therefore, it makes sense to make a mid-week appointment whenever possible.

Prepare For The Appointment . . . If you're having warranty work done, be sure to have your warranty card with you . . . All work to be performed may not be covered by the warranty, discuss additional charges with the service manager. Keep a maintenance log of your vehicle's service history. This can often provide a clue to the current problem.

Prepare A List . . . Make a written list of your RV's problems or the specific work you want done. If you've had an accident or work done that is not on your maintenance log, let the service manager know. Don't keep secrets.

Be Reasonable With Your Requests . . . Don't leave a list of twenty items to be serviced and expect to have your RV back by five o'clock. If you list a number of items and you must have your RV by the end of the day, discuss the situation with the service manager, and list your items in order of priority. Expect to make a second appointment for work not completed or for parts that may need to be ordered.

You Can't Look Over The Technician's Shoulder . . . Don't be offended when you're told you can't watch the work being done. Insurance requirements forbid the admission of customer's to a service repair area.

Inspect The Work Promptly . . . Check out the service or repair job when you pick up your RV and notify the service Manager of any dissatisfaction. If circumstances prevent returning for immediate corrective work, make an appointment for as early a date as possible or practical.

SAFETY PRECAUTIONS

PROPER LOADING

Gross Vehicle Weight Rating (GVWR)

Your motorhome's GVWR is printed on the Federal Manufacturer's Certification Label, sidewall next to driver's seat, or on the driver's side door post. This number represents the unit's maximum safe weight, including the vehicle itself and all additional cargo. IT IS IMPORTANT THAT THIS WEIGHT NOT BE EXCEEDED WHEN LOADING YOUR MOTORIZED UNIT BECAUSE EXCESSIVE OVERLOADING CAN BE A SAFETY HAZARD.

Gross Axle Weight Rating (GAWR)

Your motorized vehicle GAWR is found on the same Federal tag. This number represents the maximum safe loading for each axle, and must be considered in distributing weight as evenly as possible. It is extremely important not to exceed this weight for each axle. Overloading either in front of or behind axles can result in adverse driving characteristics.

Cargo Capacity

Cargo capacity is the additional weight, over and above the vehicle's own dry weight, which can be carried safely without exceeding the Gross Vehicle Weight Rating. It includes passengers, personal belongings, water and LP gas. To find your vehicle's cargo capacity, subtract the dry weight (found on the Certificate of Origin) from the Gross Vehicle Weight (found on the Federal tag on the dash or door post). From this figure, subtract the weight of the fluids (water and LP gas) to find the net cargo capacity. This is the amount of passenger's weights and personal items that can be carried safely.

CAUTION: It's also important to load personal cargo so that Gross Axle Weight Ratings are never exceeded. For safety's sake, you should weigh your family camping vehicle's frequently as loaded for travel. We can not emphasize too strongly that the Gross Vehicle Weight Rating must not be exceeded. Overloading is a safety hazard.

LP GAS

We recommend that you have the LP gas system checked by your authorized dealer at least once a year, and after every extended trip. Although the manufacturer and dealer test carefully for leakage, travel vibrations could loosen fittings and cause leaks. They're found easily by applying soapy water at the connection. Tightening the fitting usually stops the leak. If not, see your authorized dealer for repairs immediately.

Because LP gas is heavier than air, leaking gas tends to collect in low areas. The identifying odor is onion or garlick. NEVER LIGHT A MATCH OR ALLOW AN OPEN FLAME WHERE GAS IS LEAKING.

SHUT OFF THE MAIN LP GAS VALVE AT THE TANKS WHEN THE CAMPING VEHICLE IS NOT IN USE. ALSO, SHUT THE VALVE WHEN REFUELING TO AVOID POTENTIAL DANGER FROM PILOT LIGHTS IGNITING GASOLINE FUMES.

ELECTRICAL

Circuit breakers and fuses are installed to protect electrical circuits from overloading. Do not change circuitry or add fixed appliances yourself. See your authorized dealer.

Always use the vehicle's built-in power supply cord to connect with a 110v source. Note the three pin plug, which provides proper grounding for your protection from electrical shock. Do not use any adapter, "cheater" or extension cord that breaks the continuity of the ground circuit to the third pin. NEVER remove the third pin to connect with a two-prong, ungrounded receptacle.

NEVER operate the camping vehicle with a "hot skin." If you feel a shock — even a small one — disconnect from 110v power and locate the fault. Usually it's a break in the grounding circuit, and the grounding circuit must be continuous from the frame to the distribution panel to the power cord to the outside receptacle to earth ground.

EMERGENCY STOPPING

Always carry road flares or reflective warning signs to display if necessary. Pull off the roadway as far as possible for emergency stopping or tire changing. Turn on your vehicle hazard warning flashers when parked alongside traffic lanes.

SAFETY CHECKLIST:

1. Avoid overloading (see section on GVWR).
2. Distribute load carefully; improper loading can adversely affect roadability.
3. Make sure tires are in good condition and properly inflated. Underinflated tires get very hot and are more susceptible to blowouts. Take pressure readings only when tires are cold.
4. Check and tighten wheel lugs regularly.
5. Test brakes in a safe area — not on a busy highway.
6. Clean and repack wheel bearings at recommended intervals (see Chassis Owner's Manual).
7. Keep a fire extinguisher handy. Check occasionally for correct pressure.
8. Use seat belts.
9. Observe all warning labels including those for LP gas, electricity, and refueling.
10. Guard against contaminating water; sanitize system periodically (see instructions under Water System).
11. Check battery charge level.

TIRES

The chassis manufacturer equipped your vehicle with tires rated for highway speeds at the GVWR. Inflate "cold" to recommended pressure found on tire sidewall. Check often when traveling. Don't overload.

Tires are covered by the *tire manufacturer's* warranty. If you have a defective tire, go directly to the nearest tire dealer for replacement according to the applicable warranty. Never discard a defective tire. Return it to the tire dealer for inspection.

VEHICLE PREPARATION

PRE-TRAVEL CHECKLIST:

1. Adjust mirrors.
2. Remove wheel blocks.
3. Check "cold" tire pressure, including spare.
4. Check lug nuts; tighten as required.
5. Fill water tank.
6. Fill LP gas tank, and turn off valve.
7. Check transmission fluid level.
8. Check power steering fluid level.
9. Check motorhome battery charge level.
10. Check radiator coolant level.
11. Check oil level in engine and generator.
12. Check windshield wipers.
13. Check running lights.
14. Check emergency brakes.
15. Unhook 110V power cord and stow.
16. Unhook water hose and stow.
17. Be certain entrance step is in up position.
18. Lock refrigerator door(s).
19. Close all windows and vents.
20. Crank down TV antenna.
21. Secure loose articles.
22. Turn off lights and appliances.
23. Lock doors.

EXTERIOR LIGHTS

All exterior lights should be checked before each trip. Don't overlook the brake and turn signal lights — try them. If no exterior lights function, inspect the fuse panel. If one bulb is out, check that bulb and its ground connection.

TRAVELING

GENERAL GUIDELINES

Operating your motorized vehicle may be an unfamiliar experience. Use extra caution until you feel comfortable behind the wheel.

When you come to a hill, accelerate a bit more than usual. Don't be afraid to downshift, even with an automatic transmission. Never lug the engine. If it takes a lower gear to climb the hill, then go down the other side in the same gear.

You should have little difficulty on gradual turns. For sharp turns, reduce speed and take into consideration obstacles close to the curb or roadway.

Stopping is extremely important. Your motorized vehicle weighs much more than the automobile or pickup truck you are probably used to driving. Anticipate traffic signals, stop signs and side traffic. Decelerate slowly, whenever possible, to conserve fuel and prevent undue wear on brakes, tires, etc.

Other precautions:

1. Never exceed posted speed limits; reduce speed when required by weather, traffic or road conditions.
2. Use extreme caution going downhill. Excessive speed may cause you to lose control.
3. Take extreme care when passing another vehicle on grades.
4. Never attempt to pass on a curve, or anywhere your view of the road ahead is similarly restricted.
5. Always check brakes and lights before starting out.

6. Know and observe the laws where you are traveling; they may vary from state to state.

NOTE: Refer to Chassis Owner's Manual for brake system operating and maintenance instructions. (For Hydraulic brake system operating and maintenance instructions please refer to Owner's Kit.)

BACKING IN

If your destination doesn't have drive-through sites, pick a good, level spot and back in carefully. We suggest:

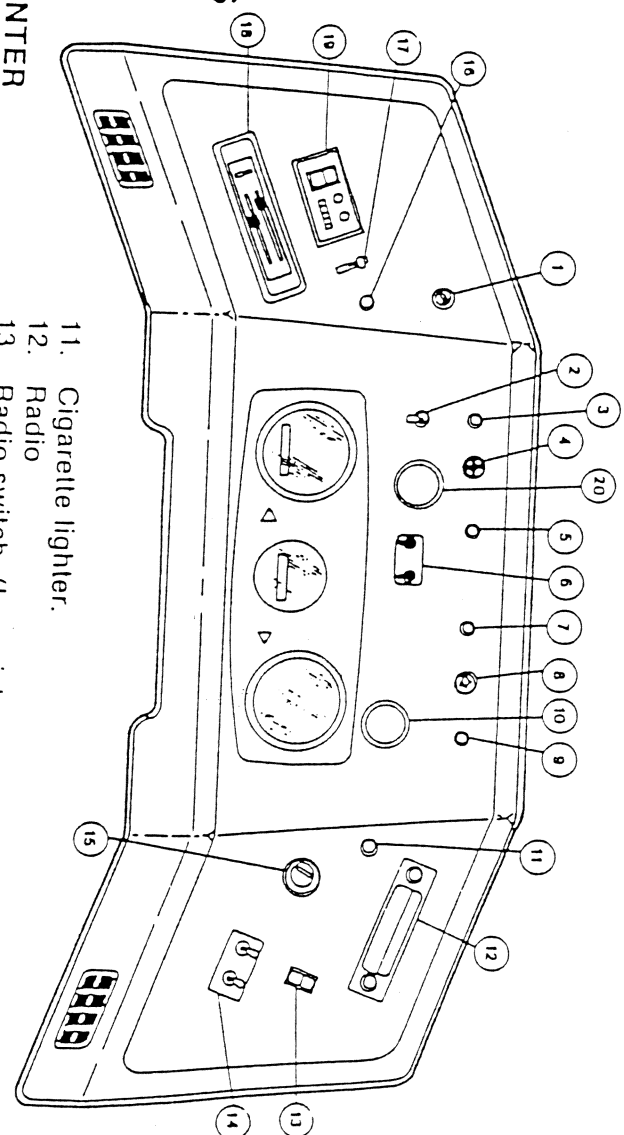
1. Stop near the site; get out and look it over. Check for low hanging tree limbs, posts, large rocks, etc.
2. Try to place the site to the left, so you can see what the vehicle is doing. With the site on the right, you'll be backing into your blind side — more difficult, even using the side mirrors as a guide.
3. Everything clear? Maneuver the vehicle into position for backing.
4. Back up slowly, using the side mirrors as a guide. Better still, have another person outside to help guide you safely.

PARKING

1. Level all four wheels.
2. Block wheels securely.
3. Connect 110v power.
4. Open valve at LP gas tanks.
5. Connect fresh water supply.
6. Connect waste drain hose.
7. Start refrigerator.
8. Start water heater.
9. Start furnace, if needed.
10. Light oven and range pilots.
11. Sanitize water system, if necessary.

VEHICLE SYSTEMS

INSTRUMENTS AND CONTROLS



CLASS A MOTORHOME COMMAND CENTER

1. Headlight switch.
2. Auxiliary heater. (Optional on some models)
3. Auxiliary start.
4. Fan.
5. Leveling jacks. (Optional on some models)
6. Suburban® Dual Fuel Switch.*
7. Std. Imperial & Presidential
8. Antenna light. (Optional on some models)
9. Fan.
10. Air Horn
11. L.P. gas gauge.

12. Cigarette lighter.
13. Radio
14. Radio switch. (Imperial's only)
15. Spot light (Optional on some models)
16. Ignition.
17. Windshield washer.
18. Windshield wiper.
19. Heater.
20. Generator controls. (Optional on some models)
21. Vacuum Gauge (Imperial Only)

NOTE: Remove padded cover for access to instrument panel.

*Not available on California units

SPEED CONTROL

The speed control is located on the turn signal lever.

To activate — Slide switch from OFF to ON.

To engage — Hold desired speed, push SET SPEED button and release slowly. Remove foot from accelerator pedal; control should maintain speed automatically.

To disengage — Depress brake pedal; or slide switch to OFF.

To resume — When system is still ON after brakes are applied, return to former speed by sliding switch to RESUME and releasing. *Note:* Prevent rapid acceleration by

using gas pedal to 10 mph under former set speed, then operate RESUME switch.

CAUTION: Do not set Speed Control on slippery roads, or in heavy traffic.

NOTE: The Speed Control is vacuum operated. Low engine vacuum caused by heavy loads, severe upgrades or strong headwinds may cause vehicle speed to drop off. Should this happen, simply use the accelerator pedal to compensate until the condition corrects itself. Also, bumpy roads may cause the system to disengage. In normal driving, you can expect the Speed Control to maintain the set speed plus or minus 2 mph.

CAB AIR CONDITIONING

Your vehicle's air conditioning system was installed at the factory on most models, and is warranted by the manufacturer as described in the Chassis Owner's Manual. Refer to it for operating instructions.

Some suggestions:

1. When parking your motorized vehicle for long periods on very hot days, open the driver's window about a half inch and open a roof vent to prevent heat buildup.
2. When the interior is overheated, run unit for a few minutes with the windows open. This lets super hot air escape, and allows a quicker cooldown.
3. For quickest cooling, set A/C controls on RECIRCULATE or MAXIMUM.
4. Low engine speed, direct sunlight and high humidity slow down the cooling rate.
5. Operate A/C for a few minutes each week during the winter to lubricate the compressor shaft seal.

POWER LEVELING JACKS

(Standard Imperial Only)

The power leveling system helps turn bad sites into good. Even where there's uneven ground or sloping terrain, you should stay comfortably. The front units have more leveling capacity than the rear. When parking on a slope, face the vehicle downhill if possible. Block wheels before proceeding

To extend:

1. Turn ignition switch to ACCESSORY position.
2. Level the lowest corner first, then the next lowest corner. Leveling the vehicle might require two or three jacks, but not all four. When level, extend the remaining jack just enough to contact the ground firmly and provide stability. On soft ground, put a wooden 2" x 6" pad under each jack for footing.
3. Turn off ignition switch.

NOTE: The first movement of the control handle activates the pump; further movement opens the control valve to a jack. *Do not* hold the controls in this "pump only" position for long. It will cause heat build up, and draw too much current. Never extend all four jacks to their maximum position at the same time. This might raise the wheels from the ground, and allow the vehicle to move dangerously to the front ~~or~~ rear.

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To retract:

1. Slowly move one or more control levers toward retract. Hold there until the vehicle's entire weight is on the wheels again, then move the levers fully into the retract position.
2. Leave the controls in retract position while traveling.

CAUTION: Do not use the leveling system for changing tires, or working under the vehicle without blocking the frame. Keep everyone away from the mechanism, especially when it is operating.

ELECTRIC SEAT

(Optional)

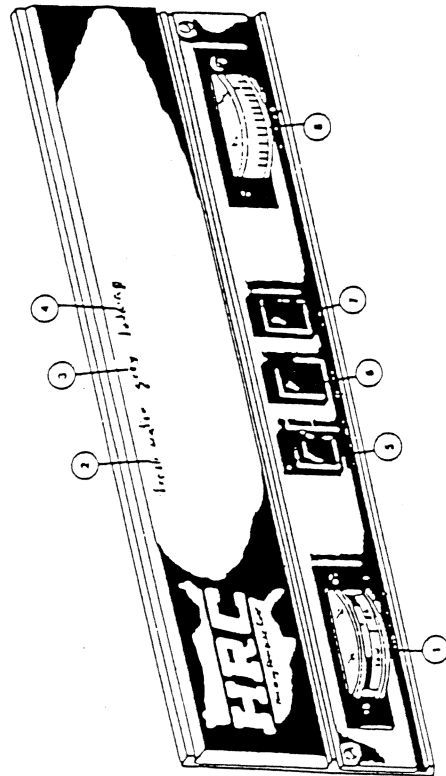
The switch for the electric seat is located on the right hand side of the drivers seat.

To raise the complete seat, move the middle switch up; to lower, press the switch down. To move the seat back and forth, move the switch to the left to put the complete seat back, and right to bring the seat forward.

The front switch is to move the seat up or down and the rear switch is to move the back up or down.

MOTORIZED SYSTEMS

The monitoring panel in your vehicle may not look exactly like this, but its functions are essentially the same.



SYSTEMS MONITOR

1. Battery charge condition.
2. Fresh water level

3. Holding tank #1 (Gray).
4. Holding tank #2 (Waste).
5. Test switch - provides reading for #1.
6. Pump Switch.
7. Test Switch - Provides readings for 2 - 4.
8. AMP Meter

Pump —

Switch activates water pump. PUMP light comes on when water pump is running.

Battery —

Momentary-on switch simultaneously gives battery condition.

Test —

Momentary-on switch gives a simultaneous read-out on all levels. The holding and grey tanks will read full only when at level. The water tank will read low, medium, and full at $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ levels.

ELECTRICAL SYSTEM

Your vehicle is equipped with 110v AC and 12v DC electrical systems.

110v outside power —

Pull out the 25 foot, 30 amp grounded power cord and plug into the power source. Switch the main breaker to ON, and the 110v system will energize all 110v appliances and receptacles. The power converter automatically supplies 12v DC power where needed.

12v battery power —

When a 110v power source is not available, the camping vehicle battery provides 12v current to the same points as the converter. The changeover is completed automatically.

110v auxiliary power —

If your vehicle is equipped with a generator, plug the power cord into the receptacle next to the opening and start the generator. This provides electricity the same as an outside power source.

Always use the vehicle's built-in supply cord to connect with a 110V source. Note the three pin plug which provides proper grounding for your protection from electrical shock. Do not use any adapter, "cheater" or extension cord that breaks the continuity of the ground circuit to the third pin. Never remove the third pin to connect with a two-prong, ungrounded receptacle.

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AC/DC POWER PANELS

Trouble shooting:

1. Check the circuit breakers in the 110v AC distribution panel to make sure they are all on.
2. Check the fuses in the 12v DC fuse panel to make sure they are all good.

If you've checked out the power panels and everything seems normal, then see your authorized dealer for assistance.

ELECTRIC SEAT

The fuse for the electric seat is located in the battery compartment on all Class A Motorhomes.

CHASSIS AND CAMPING VEHICLE BATTERIES

The battery supplied by Holiday Rambler Corporation for the Class A motorhome is located on the roadside just behind the front wheel. The mini-home auxiliary battery is located on the roadside also behind driver's door.

The auxiliary battery provides 12 volt current to the system when needed. It also operates the power step, electronic ignition water heater, refrigerator (in-transit) and leveling jacks. Inline thermal breakers protecting these circuits are found near the battery.

The battery is recharged in transit by the vehicle's electrical system. When you're plugged into a 110v source, the power converter should automatically begin to recharge the battery, bringing it back to full charge.

When the vehicle is not in transit, the chassis battery is isolated from the family camping vehicle battery by an automatic disconnect switch. This prevents the chassis battery from being drained by interior 12v equipment, and avoids a "can't start" situation.

The AUXILIARY START SWITCH on the instrument panel "borrows" power from the battery to start the engine when the chassis battery can't. Ask your dealer to check the chassis battery and vehicle charging system if you use auxiliary start often.

CAUTION: Do not store anything near battery that might touch the terminals. This could cause an electrical short circuit, drain battery power or even start a fire.

NOTE: If you won't be using your motorized unit for a long time, remove the battery and store it in a warm place. Mark positive and negative cables for identification. Do not store battery on a concrete floor. Charge periodically.

GROUND FAULT CIRCUIT INTERRUPTER

When properly installed, the GFCI in the AC panel board provides overload and short circuit protection, *plus* protection from ground faults between a "hot" wire and ground.

IMPORTANT: The GFCI will NOT reduce shock hazard if short is between a "hot" and a neutral wire, or two "hot" load wires.

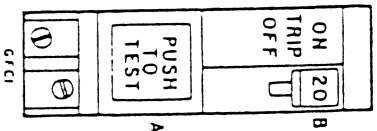
WARNING: The GFCI protects *only* the circuit to which it's connected. It does *not* protect any other circuit.

Test Instructions:

1. With handle B in ON position, press PUSH TO TEST Button A.
2. Handle B should move to trip position, proving that GFCI has opened the circuit.
3. To restore power, move handle B to OFF, then to ON.

IMPORTANT: If handle B does not move to trip position when test button is pushed, the GFCI protection is not complete. Notify your dealer immediately.

Test the GFCI monthly and record results on the chart supplied in your Owner's Kit.



GENERATOR

(Optional)

Starting-Stopping Procedure

Move the START-STOP switch into the START position and hold there until the engine is running, then release. Normally, the engine will start within 5 seconds; however, if it fails to start after cranking 10 seconds, release the switch and wait a few seconds before cranking again. This will allow the automatic choke to reset in the full choke position. Whenever possible, allow a brief cooling period by running the set at LOAD or NO-LOAD for a few minutes just before shutting down. To stop, move the switch into the STOP position and hold until the set comes to a complete halt.

If the set shuts down automatically, press the safety reset button on the controller (located inside generator compartment) before attempting to restart.

IMPORTANT: Read generator operating instructions before using.

LP GAS SYSTEM

General —

Like the other systems in your family camping vehicle, components for the LP gas system are approved for use in camping vehicles by a nationally recognized testing laboratory. When properly handled, LP gas is a clean-burning, dependable fuel for your heat-producing appliances.

The LP gas tanks mounted on your family camping vehicle contain liquid under high pressure. As fuel is used, the liquid vaporizes into gas and passes through the tank valve to a regulator which automatically reduces the pressure. This low-pressure gas then is distributed to the appliances.

The most common cause of appliance lighting problems is an improperly adjusted gas regulator. **Never attempt to reset the regulator yourself. Even a little excessive pressure can damage appliance regulators.** Have your dealer or an authorized serviceman make adjustments required for high altitudes or temperature extremes.

Filling LP Gas Tank —

When the LP gas tank is empty, refill it as soon as possible. Woodall's Campground Directory, Trailer Life's RV Campground and Trailer Park Guide and other

publications list LP refueling stations. Many travel parks also sell LP gas.

Caution the supplier not to overfill your tank. A relief valve built into most tanks is normally opened during refilling. It indicates FULL by showing liquid replacing gas. The relief valve should be tightly closed by hand at all other times.

When the LP tank is filled to the proper level, there is space available for expansion of the liquid into gas. If a tank is overfilled, it may vent pressure from the relief valve. When this happens, you can detect a strong garlic odor near the tank or actually hear the vent "hiss." Keep open flames and spark producing materials away from the area. It's best to move the camping vehicle to a safe place and bleed off excess pressure by opening the relief valve. Be sure to turn off all appliances while venting LP gas.

Turn off the main valve on the LP gas tanks while traveling, or when the camping vehicle is between trips. Hand-tighten only. Over-tightening may permanently damage the valve seal.

LP Gas Consumption —

Each gallon of LP gas produces about 91,000 BTU's of heat. Total consumption depends on the usage rate for each appliance, and its operating time. The oven and the heating system use the most gas. With sub-freezing temperatures and high winds, furnace consumption can be very high. Check tank level often in cold weather.

Gas Distribution Lines —

The primary manifold is a black steel pipe running the length of your motorized vehicle. All secondary lines leading to gas appliances are copper tubing with flare fittings. If any of these lines rupture, do not attempt to splice it. *Always run a new line. We recommend any gas distribution line work be performed by a dealer or authorized service person.*

When removing or servicing any gas appliance, close the main valve at the LP tanks. This will prevent dangerous gas leakage which could result in an explosion causing serious injury.

Although the LP gas system was checked for leaks before delivery, gas fittings may loosen from vibration during travel. The system should be inspected by a qualified technician at least once a year, or immediately if a leak is suspected.

Precautions and Recommendations:

- VISUALLY INSPECT LP FILL VALVE FOR CONTAMINANTS BEFORE REFUELING.
- NEVER USE AN OPEN FLAME WHILE CHECKING FOR GAS LEAKS.
- SHUT OFF PILOT LIGHTS WHILE REFUELING LP GAS TANKS.
- VISUALLY INSPECT GAS LINE HANGERS PERIODICALLY.
- HAVE YOUR LP GAS SYSTEM CHECKED YEARLY BY YOUR DEALER AND BEFORE AND AFTER LONG TRIPS.
- A QUALIFIED TECHNICIAN SHOULD MAKE ALL REPAIRS TO THE GAS SYSTEM AND APPLIANCES.

LP GAS DUAL FUEL SYSTEM OPERATING INSTRUCTIONS

Gasoline Starting (Optional)

Gasoline starting requires no special attention. With fuel select switch in the "gasoline" position, start the engine in the normal manner.

Propane Starting

Make sure the manual liquid service valve at the propane tank is open. Place the fuel select switch in the "Propane" position. Place primer control switch in the "Automatic Prime" position. Start the engine in the normal manner. If the engine becomes flooded, switch the primer control to off and crank the engine. Manual priming can be accomplished by momentarily holding the prime switch in the "MANUAL" position before starting the engine.

Warning: *Prolonged priming in the manual position will cause flooding and could result in an engine fire.*

Switching from Gasoline to Propane

Make sure the manual liquid fuel on the tank is open. Start the engine on gasoline with the fuel select switch in the gasoline position. Flip the switch to off, stopping the flow of gasoline to the carburetor. When the engine begins to falter, but before it dies completely, quickly flip the fuel selector switch to the propane position. The engine will begin operating on propane. If the engine dies, restart.

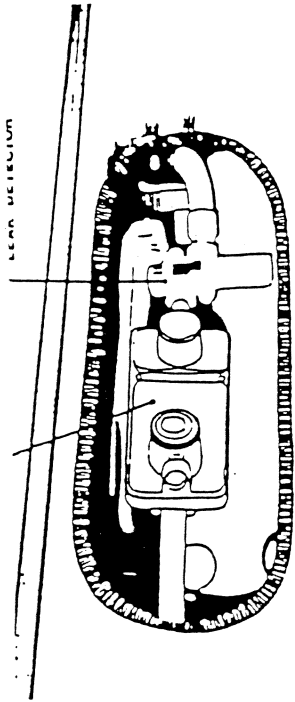
Switching from Propane to Gasoline

Start the engine on propane with the fuel selector switch in propane position. Then flip the fuel switch to gasoline without any hesitation in the off position.

Operational Tips

Switching from gasoline to propane will occur more rapidly and smoothly at mid-range engine RPM than at idle RPM. This is also true of switching from propane back to gasoline.

Be sure to read thoroughly the dual fuel system operators manual to insure complete understanding of the system.



LP GAS LEAK DETECTOR

Reread instructions on label near leak detector. Then check fluid level through glass sight port. If below mark, push plunger rapidly several times to return fluid to sight glass.

1. Close main LP gas valve.
2. Ventilate interior by opening windows and doors.
3. Shut off all LP gas appliances and pilot lights.
4. Light one burner to exhaust pressure in system. This will take a minute or two. Close valve when flame goes out. If flame continues to burn, close main valve more tightly.
5. While depressing red button on Leak Detector, open main valve on LP gas tanks. You'll see a stream of bubbles, which should disappear in about two seconds. Continue to hold down red button for another five or ten seconds. If bubbles are visible during the 5 to 10 second test period, your LP gas system has a leak.
6. Test all joints with soapy water, lighten if necessary.
7. Retest. If leak detector still bubbles, see your dealer.

WATER SYSTEM

It's hard to imagine how much water you use every day in the home. Newcomers to self-contained family camping vehicles soon discover the water doesn't last very long unless consumption is reduced drastically. You can use much less water for showering, for instance, if you wet down; turn off water while soaping; then turn on water to rinse. This way, a good shower takes a gallon or less. There's plenty of water to meet your needs, once you adjust your habits.

CITY WATER HOOKUP

Simply connect hose to source, open the valve and you've pressurized faucets, toilet and water heater. Open faucets to purge trapped air from water system before lighting water heater.

CAUTION: Some water supplies develop excessive pressure, particularly in mountain regions. Water pressure regulators are available to protect your motorhome system against high pressure. See your dealer.

WATER TANK FILL

Connection to the water storage tank is a 1 1/4" flexible plastic tube. Simply remove cap, pull vent plug, insert garden hose and fill. Supply to service points is then provided by the pump.

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WATER PUMP

The water pump is totally automatic and self-priming, operating on demand when water is used. To start up, follow these steps:

1. Check water level in tank; refill if necessary.
2. Open all valves and faucets (except drain valves).
3. Switch on power to pump and wait for water lines and hot water tank to fill.
4. Close each faucet when it delivers a steady stream of water (cold water faucets first).
5. Check pump to see if it stops when all faucets are off.
6. Pump is now ready for automatic demand operation. It will start when a faucet is opened, stop when a faucet is closed. (Sometimes there's a brief delay, especially when an "air cushion" accumulator is used.)
7. Do not allow pump to run when water supply tank is empty. Continued operation with dry tank will blow circuit fuse and/or damage pump.

NOTE: If pump blows fuse, check polarity of electrical leads: red, orange, or yellow to positive (+), black to negative (-).

DISINFECTING THE SYSTEM

Follow this procedure if the system is new, has not been used for some time, or may have been exposed to contamination:

1. Prepare a chlorine solution using one gallon of water and ¼ cup of household bleach (sodium hypochlorite solution). Pour chlorine solution into empty tank, one gallon for each 15 gallons of tank capacity. This mixture gives a 50 ppm residual chlorine concentration in the water system. For a 100 ppm concentration (see item #3), add ½ cup of household bleach to each gallon of water. Use one gallon of mixture for each 15 gallons of water tank capacity.
2. Fill tank with drinking water. Open each faucet in turn and run water until you smell a distinct chlorine odor. Don't forget the hot water taps, or the tub/shower faucets.
3. Allow the system to stand at least four hours when disinfecting with 50 ppm residual chlorine. To speed up the process, use the 100 ppm concentration and let stand one hour or more.
4. Drain system and flush with drinking water. Repeat if necessary to clear strong chlorine taste or odor from system.

COLD WEATHER USE

Your motorhome was not designed for extended use in sub-freezing weather. However, you may get along satisfactorily if temperatures do not drop too low. Interior water lines, fixtures, water storage tank, holding tanks and

pump are normally protected from moderate freezing temperatures as long as the furnace operates. Exposed drain lines may freeze quickly, though. If in doubt, relocate or winterize.

WINTERIZING A WATER SYSTEM

Winterizing calls for draining the entire system completely. Built-in check valves make it impossible to empty the pump and tank by blowing the lines. Instead, do this:

1. Open drain valves for water tank, hot and cold water lines and hot-water heater. (Optional ice maker has additional drain valves under sink and behind ice maker.)
2. Remove output hose at pump. Turn on pump to expel remaining water, a cupful or so. A towel or rag should soak up that amount nicely. Now you can blow out the lines, if you like, by applying compressed air at the pump outlet hose.
3. System is winterized. Re-attach output hose before refilling system.

Alternate method: Use potable antifreeze solutions now available. Simply follow directions on the label.

WARNING: USE ONLY ANTIFREEZE MADE SPECIFICALLY FOR POTABLE WATER SYSTEM. AUTOMOTIVE ANTIFREEZE, IF INGESTED, CAN CAUSE BLINDNESS, DEAFNESS OR DEATH.

WASTE SYSTEMS

The waste systems of your motorhome are designed for safe storage and proper discharge of waste materials. There are two separate systems, one for waste water ("gray" water) and one for sewage wastes. Each has its own control valve, but both empty through the same drain outlet.

SEWAGE WASTE SYSTEM

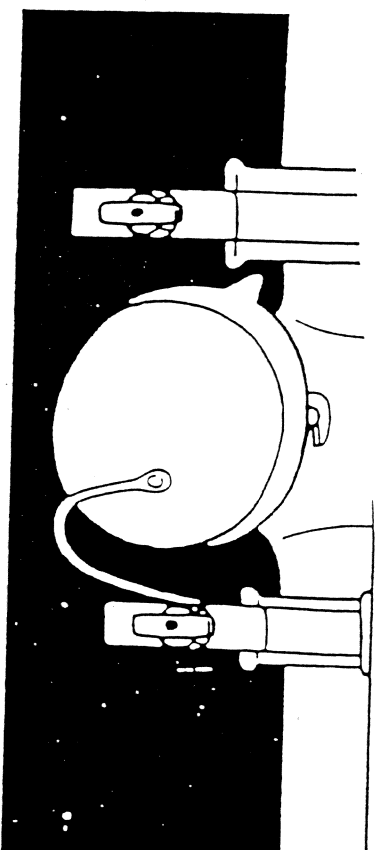
This tank is located directly beneath the toilet. Before using, put the recommended amount of odor control chemical in the toilet bowl and flush. Flush until there's about a gallon of water in the tank, and the toilet waste tank is ready for use.

To empty tank, take the drain hose from rear bumper and connect to drain fitting (see drawing) and sewer line. Pull the gate-valve handle with one continuous motion. When the tank is empty, follow up with a fresh water rinse and close valve. Prime with odor control chemical.

WASTE WATER SYSTEM

This gate valve handle is beside the other. To operate, follow the same instructions. The drain outlet is engineered for quick-release attachment of the drain hose adapter fitting or the end cap. Always secure end cap in transit to prevent leakage (required in some states).

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PROPER WASTE DISPOSAL

Most states and parks have strict regulations about discharging wastes except into authorized disposal systems. Dumping raw sewage from toilet holding tanks except at authorized stations is universally prohibited. Illegal dumping of raw sewage along roadsides by a minority of recreational vehicle users has resulted in tough laws, and has unfairly labeled all family camping vehicle travelers as unwelcomed visitors in some areas.

Most state parks, national parks and private parks have either a central dump facility or campsite hookup for sewage. You'll find lists of dump stations from coast to coast in Woodall's Campground Directory, Trailer Life's RV Campground and Services Directory, Rand McNally Campground and Trailer Park Guide, GOOD SAMPAK Directory (Good Sam Club) and other publications. Some major oil companies offer dump facilities at selected stations. Plan ahead, and you'll find little inconvenience in the proper, legal disposal of holding tank wastes.

TOILET OPERATING INSTRUCTIONS

The toilet in your motorhome is a fresh-water flush type, using water injection to produce a scouring "swirl-effect" in the bowl. To add water to the bowl, step on the small pedal. To flush, step on the large pedal until water swirls. If toilet is lever type, see manufacturer's operating instructions in Owner's Kit.

TOILET MAINTENANCE

To clean toilet, use any good quality, non-abrasive cleaner. Avoid highly concentrated or highly acid household cleaners which might damage the rubber seals.

If the sealing blade operates less freely after extended use, apply a light film of silicone spray. (Except knob-type)

Trouble Shooting: Water Running — The blade is not closing completely, so the water control valve is partly open. Probably the sealing groove is clogged. Use coat hanger hook or similar device to clear sealing groove. Be careful not to damage the rubber seal. (For knob-type, check ball valve.)

Pedal Sticking — Apply a light silicone spray to the blade.

NOTE: It's a good idea to put a few sheets of tissue at the bottom of the bowl each time before using.

WHEN CONNECTED TO SEWER HOOKUP

1. *Keep both holding tank gate valves closed at all times except when dumping.* Before emptying, be sure there's enough liquid in the tank to provide a smooth flow through

the gate valve and drain hose. Sufficient liquid in the tank causes a swirling action that should take with it accumulated solid wastes.

2. *Avoid accumulation of solid wastes in either tank.* Don't leave gate valves open or partly open when connected to a sewer. Motorhome flush toilets use very little water. If the valve is left open, solid wastes accumulate in the tank. Eventually, this will result in an unpleasant cleaning job, or costly repairs.

WHAT NOT TO PUT IN HOLDING TANKS

1. Do not flush facial tissues. They're treated chemically to give them wet strength, so they won't dissolve like toilet paper. Special "Holding Tank Tissue" is available at most camping supply stores. Also, white toilet paper dissolves faster than colored.
2. Do not use strong detergents or full-strength bleaches. To deodorize and disinfect, use an odor control chemical made especially for holding tanks.
3. Do not put automotive antifreeze, ammonia, alcohol or acetone in holding tanks. Some chemicals dissolve plastic.
4. Do not put large table scraps or other solids in the tanks. They might get stuck in the gate valve.

NOTE: In subfreezing weather, use a recommended amount of holding tank antifreeze. Tanks are fully exposed to outside temperatures and will freeze sooner than protected water lines.

APPLIANCES

DOMETIC® REFRIGERATOR Leveling —

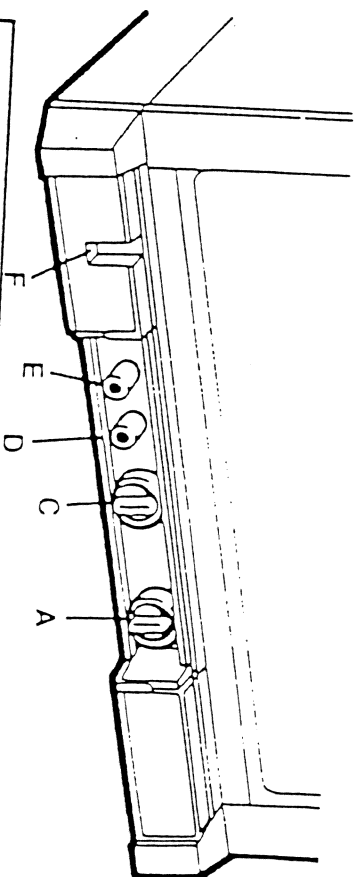
In the boiler, ammonia vapor is distilled from an ammonia-water mixture and carried to the finned condenser, where it liquifies. The liquid flows to the evaporator, where it creates cold by evaporating. If the evaporator coil is not level, the liquid readily accumulates, forming pockets which can impair the gas circulation or even block it. In that case, of course, the cooling will stop.

When the family camping vehicle is stationary, it must be leveled to live in comfortably. If the refrigerator is properly leveled, i.e., the freezer shelf parallel to the floor, the refrigerator then will also perform well. To check this, a bubble level is supplied with every Dometic® refrigerator. The level should be placed on the freezer shelf. Bubble position is most conveniently checked with a small mirror. When the vehicle is in low, the continuous rolling and pitching movement will not affect the refrigerator as long as the movement passes either side of level. When the trailer is temporarily parked, however, make sure the refrigerator is level.

Electric Operation —

1. Check electrical attachment.
2. Turn knob A to OFF, then push and turn to 110v operation (or 12v operation, if so equipped).
3. Turn electric thermostat knob C to setting 4. Drawing shows combined gas/electric thermostat; some models use two knobs.

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CAUTION: On units with 12v setting, use only while traveling. It draws high amperage, and quickly depletes battery power while parked.

Gas Operation —

1. Turn knob A to GAS position.
2. Turn gas thermostat knob C to setting 4.
3. Pull out knob D (safely shutoff switch), hold 15 seconds and push lighter button E. Repeat if necessary. Check for lighted burner in reflector F.
4. After burner lights, hold knob D another 15 seconds. Release, and check mirror again to make sure burner stays on.

CAUTION: Do not operate refrigerator on LP gas while vehicle is in transit.

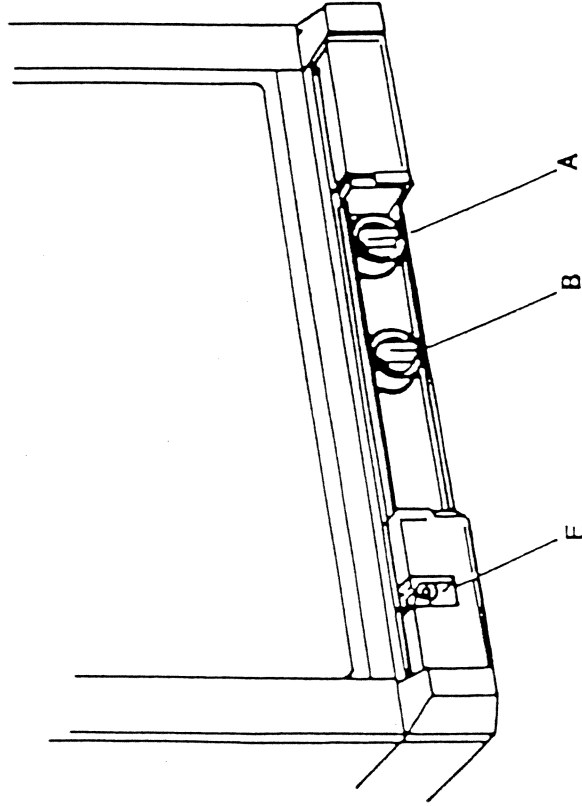
NOTE: After a long shutdown, gas lines are most likely filled with air. Repeat lighting procedure until air is exhausted from lines and gas has reached the burner. If you smell LP gas, be certain all LP gas is exhausted before repeating lighting procedure.

DOMETIC® RM1303

Operation

Before starting the refrigerator check the gas valves in the piping. Do not forget the valve on the back of the refrigerator.

1. To start the refrigerator turn knob **ON**. Lamp E shall now be green.
2. Turn the thermostat B to a suitable setting, try 4.
3. The fridge is shut off by turning knob A to position **Off**.



Information On The Operation Of The Refrigerator

This refrigerator is equipped with an automatic energy selector system. The control system selects the most suitable available energy source. The selection will be made with highest priority to 120V. Second priority to 12V from the alternator, lowest priority has gas operation. No manual operation is necessary for change of energy. If the fridge does not succeed in lighting the gas, the lamp E will change from continuous green into red flashing light. Further information is given below under the headline Red Flashing Light. If the battery voltage drops, the control system will start continuous gas operation. The thermostat will not be in operation. When the voltage increases, normal operation will start up again.

There Is No By-pass Flame On These Refrigerators.

In order to avoid a gasflame on gasoline stations, the refrigerator is programmed to delay gas start up for about 30 minutes after 12V operation. Please observe that this delay occurs even after only 1 minute of 12V operation from your engine in order to cover events when you have to wait in line for a gasoline pump. If you want a quick gas start up after 12V operation, you can switch **off** the refrigerator for a few seconds and then switch back to on.

Red Flashing Light

If the lamp E begins to flash with red light, the refrigerator control system has tried to lite the gas flame but it did not succeed in doing so. We recommend the following operations:

1. Turn knob A to position **off** and back to **on** again. The lamp shall now be green and the control system does a new start attempt. If the refrigerator has not been in operation for a while, or you have just refilled gas, this operation may have to be repeated several times. Each start attempt will last for up to three minutes. If the starting is not successful, the lamp will turn red again.
2. If operation 1 is not successful, control your gas supply.
3. If you have gas - make sure that all valves in the gas pipe are opened.
4. If none of these operations are successful, you have to contact the service department.

N.B. The first start is always a problem. To empty the gas pipe from the gas vessel up to the refrigerator may take several minutes - I.E., 3—4 operations as to point 1 above. Electric operation and selection of electric operation is not blocked during red flashing light. Gas operation can only start after **ON - OFF - OPERATION**.

The red flashing light indicates faulty operation. If you will operate the refrigerator on any electrical source, connect and supply the available voltage and make an **ON—OFF—ON** operation. Please remain in the **OFF** position as long as the red light flashes.

Fresh Food Storage —

The coldest positions are underneath the freezer and at the very bottom. The least cold positions are the upper door shelves. Consider this when placing foods in the fresh food compartment.

Frozen Food Storage —

Ice trays should make direct contact with the freezer. Store frozen fruits and ice cream on the bottom shelf, which is the coldest area. Frozen vegetables keep anywhere in the freezer. The compartment is not designed as a quick freezer. Meats and fish may be stored here after precooling in the refrigerator. They should keep about three times as long as they would in the fresh food section.

Defrosting —

Some models are equipped for automatic defrost, which operates daily to clear frost without affecting frozen food storage. Otherwise, defrost manually.

Shutting Down —

Remove all foods from the refrigerator prior to shutdown. For temporary shut down, set the thermostat to zero and turn off the gas. For prolonged shutdown, clean refrigerator and leave door ajar. Store ice trays outside cabinet.

Cleaning —

Use a little baking soda in lukewarm water to wipe out the cabinet. Use only warm water on freezer, ice trays, and shelves to avoid removing the protective finish. Never use strong chemicals or abrasives on any refrigerator parts.

Gas burner inspection and maintenance —

Your refrigerator gas burner is subject to dirt, corrosion and rusting, any of which can impair the operation of the unit. Also, LP gas has a natural "drawing effect" on spiders, which will build webs in the gas burner. We recommend that you have the burner inspected and maintained either by your Holiday Rambler dealer or a Dometic Service Center.

REFRIGERATOR-RM215 (Wide Body Van)

Electric Operation —

Whenever possible, the cabinet should be pre-cooled, together with its contents, by starting up and running the refrigerator on gas for several hours, or overnight, before switching over to 12V and starting on a journey.

The 12V heating element is rated at 110 watts and has a current consumption of 9.5 Amps. The refrigerator should not therefore be left operating on 12V when the engine is not running and charging the battery.

12V operation is not thermostatically controlled but over-cooling is unlikely to occur due to the relatively short periods of a few hours at a time that this mode of operation will normally be used.

NOTE: Do not attempt to operate the refrigerator by both gas and electricity at the same time. Always ensure that one method of operation is turned off before using the alternative.

Gas Operation-

1. Turn on gas at supply bottle and set gas knob to position on.
2. Turn thermostat knob to position "O".
3. Depress and keep depressed, flame failure device button. At the same time, push in fully ignition knob, and still pushing it in, turn it clockwise and back several times in succession to actuate the piezo igniter. A click will be heard each time it operates. After burner has lit, release ignition knob, but keep button pressed in for 10 to 15 seconds for the thermocouple to heat up, then release button. Check that burner is alight by observing the needle on the indicator (it should be in the green zone) or by looking at flame through viewer inside refrigerator.
- 4.

RANGE

(Motorhome and Mini-Motorhome)
Operating Instructions —

This range is equipped with a top burner and an oven standby pilot.

CAUTION: Before operating the range, always light both the top pilot and oven standby pilot. Both pilots receive gas through the oven thermostat control. If only one pilot is lit, gas will escape from the pilot which is not lit.

To light top pilot and oven standby pilot:

1. Press in oven thermostat knob and turn to OFF position.
2. Wait 5-10 seconds for air to clear from gas line.
3. Place a burning match over top pilot and oven standby pilot until pilots ignite.

NOTE: Pilots will remain on until oven thermostat knob is pressed and turned to the "pilot off position".

To light top burners:

CAUTION: Be sure pilots are burning. If not, follow lighting instructions for lighting pilots.

1. Press in burner knob and turn knob counterclockwise until burner ignites.
2. Continue to turn until desired flame is established.

To light oven burner:

CAUTION: Be sure oven standby pilot is burning. If not, follow lighting instructions for lighting pilots.

1. Turn thermostat knob to desired temperature. There should be approximately a 30-second delay before oven burner ignites.
2. The oven standby pilot increases to a larger flame and begins heating the heat sensing bulb of the oven safety valve.
3. When the heat sensing bulb is heated, the oven safety valve opens and lets gas into the main burner.
4. The pilot ignites the oven burner.
5. Burner heats oven to temperature setting of thermostat.
6. Thermostat stops calling for heat.
7. Pilot flame subsides.
8. Burner remains on until heat sensing bulb on oven safety valve cools.
9. Oven safety valve closes and burner goes off.
10. Oven is ready for another cycle.

Please see also manufacturer's operating instructions contained in Owner's Packet.

Care and Cleaning —

1. For ease of cleaning, the oven has a Vestar™ finish. The oven should be cleaned regularly using hot water, mild detergent and a soft cloth. Do not use commercial oven cleaners, cleaners with abrasive compounds or abrasive pads. If the finish is accidentally removed, it will not impair operation of the oven.
2. To clean the area under the top burners, release the latch in front of main top; and main top can either be raised or completely removed.

3. If top burner heads are cleaned with any cleaning compound, care should be taken to see that all ports are opened up with a toothpick to insure proper operation. It is especially important that the lighter ports on the side of the burner head are kept clear.

CAUTION: Neither the range burners nor the oven are to be used for heating—the combustion of fuel can produce carbon monoxide which has dangerous effects on people and can cause death.

Range Hood —

Release damper lock before using; see decal on hood.

Magic Chef® Microwave —

On units equipped with the Magic Chef® Microwave Oven, refer to manufacturer's operating instructions.

RANGE

(Wide Body Van)

Operating Instructions—

1. When igniting the burners, have lighted match ready when the burners are turned on.
2. Never light matches in the vicinity if the odor of gas are noted.

3. A window or other air vent must be opened slightly while using the range counter unit. Gas burner flames consume oxygen which has to be replaced to assure proper combustion.
4. Do not tamper with the burner orifices or change their size.

Care and Maintenance—

The finish on this range can be preserved by cleaning with a solution of water and mild dish washing soap. After cleaning and at frequent intervals furniture polish or a light coat of oil must be applied.

FURNACE (Motorhome and Mini-Motorhome)

Lighting Instructions

1. Remove decorative back panel on outside of motorhome.
2. Turn the manual valve to the OFF position and wait 5 minutes with blower running. (Set thermostat above actual temperature to operate blower.)
3. After 5 minutes, set the thermostat to the OFF position.
4. Open manual valve. (Correct operating characteristics depend on this valve being *fully* open. Never attempt to operate with valve partially closed.)
5. Set thermostat on desired temperature.
6. Allow 30 seconds for main burner to light.
7. If burner does not light, set thermostat on OFF and repeat steps 1 through 5.
8. After 3 attempts with no ignition, go to shutdown and determine cause. NOTE: Do not continue to cycle furnace through thermostat in an attempt to get ignition.

DANGER: NEVER ATTEMPT TO MODIFY THIS FURNACE - FIRE, EXPLOSION, ASPHYXIATION OR CARBON MONOXIDE POISONING MAY RESULT. IF MALFUNCTION OCCURS, CALL YOUR SERVICEMAN.

To Shut Down —

1. Remove decorative back panel on outside of motorhome.
2. Turn manual valve to the OFF position.
3. Set thermostat OFF.

Burner Adjustment —

To adjust primary air to the main burner, the small sheet metal cover found just below and to the right of the electrode must be removed. Behind the cover is a slotted screwhead. With a screwdriver, turn screwhead counterclockwise for less primary air and clockwise for more primary air. A symptom of too much primary air will be a howling or screeching noise when the burner is on (reduce air to correct). A symptom of too little air will be sooting on the exterior vent and a distinct yellow and floating flame (increase air to correct). A hard blue flame is the sign of correct adjustment.

NOTE: If a sooting condition cannot be corrected by the air adjustment on the burner, discontinue use of furnace until problem can be corrected by a qualified service agency. Improper burner adjustment can lead to incomplete combustion which produces carbon monoxide and could be hazardous to the health of the occupants.

Maintenance and Cleaning —

Your furnace should be inspected before use at least annually by a professional service man.

A careful inspection of all gaskets should be made. If any gaskets show signs of leakage or deterioration, they should be replaced.

It is imperative that the control compartment, burner and circulating air passageways of the furnace be kept clean. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc.

Periodic examination of the venting system should be maintained. It is important that the flow of combustion air entering from the rear of the furnace not be obstructed.

Periodic visual checks of the burner in operation should be made. If the primary air should need adjustment, follow the procedure outlined under "Burner Adjustment."

Cleaning of the chamber and main burner will be required if the furnace has been allowed to operate with a high yellow flame. The yellow flame is due to incomplete combustion (lack of air) and will deposit a soot formation inside the chamber and on the main burner.

The furnace is equipped with an oiled, sealed motor and requires no oiling.

See the manufacturer's operating instructions contained in your Owner's Kit.

CAUTION: Always adjust burners properly. Improper burner adjustment can result in incomplete combustion which produces carbon monoxide and could be hazardous to the occupant's health.

FURNACE—NT16L (Wide Body Van)

Lighting Instructions—

1. Remove cabinet front.
2. Turn the manual valve to the 'off' position.
3. Set thermostat above room temperature. A 10 second delay will occur before the blower starts running.
4. Allow blower to run for five (5) minutes for combustion chamber purge cycle.
5. After 5 minutes, set the thermostat to the "off" position.
6. Open manual valve. (correct operating characteristics depend on this valve being positioned fully open. Never attempt to operate with valve partially closed).

7. Set thermostat on desired temperature.
8. Allow 30 seconds for main burner to light.
9. If burner does not light, set thermostat on "off" and repeat steps 1 through 8.
10. After 3 attempts with no ignition, go to shutdown and determine cause. **NOTE:** Do not continue to cycle furnace through thermostat in an attempt to get ignition.
11. Whenever burner flame is established, replace cabinet front.

To Shut Down—

1. Turn manual valve to the "off" position.
2. Set thermostat on "off".

Maintenance and Cleaning—

Your furnace should be inspected and cleaned before use at least annually by a professional service agency.

A careful inspection of all gaskets should be made and if any gaskets show signs of leakage or deterioration, they should be replaced.

It is imperative that the control compartment, burner and circulating air passageways of the furnace be kept clean. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc.

Periodic examination of the venting system should be made. It is important that the flow of combustion and ventilation air, and exhaust air, not be obstructed.

Circulating air openings in the louvers of the front grille area must not be blocked to permit adequate ventilation. Also, combustion air entering from the rear of the furnace must not be obstructed.

Periodic visual checks of the burner in operation should be made. The air to the burner is not adjustable. Whenever the burner flame becomes lazy, yellow and produces soot the furnace should be shut down.

The yellow flame is due to incomplete combustion (lack of air) and will deposit a soot formation inside the chamber and on the main burner. Do not operate the furnace with a high yellow flame. Immediately contact a qualified service agency and have the furnace chamber and burner cleaned. An inspection of the chamber and all gaskets should also be made. The furnace is equipped with an oiled, sealed motor and requires no oiling.

AUXILIARY HEATER

The switch for the auxiliary heater is located on the dash of some models. When the engine has reached the proper temperature and the auxiliary heater switch is turned on, the fan for the heater runs and forces warm air into the unit.

WATER HEATER

CAUTION: Before lighting water heater, be sure fresh water system is filled. Purge air from water heater by opening all faucets until water flows steadily from each.

ELECTRONIC IGNITION

(Optional)

To ignite the burner, it is necessary to open the manual gas cock and turn switch to ON position. The switch is located inside the vehicle on the wall, usually above the kitchen counter-top. If no flame is established within a 10 to 15 second period, the system automatically shuts down and goes into lockout. To reactivate the system, reset by simply turning the switch to OFF, then back to ON.

IMPORTANT: Read Water Heater Operating instructions before using. Reset automatic safety lock-out by turning switch to OFF, then ON.

MANUAL IGNITION

1. Remove exterior vent cover.
2. Turn main gas valve to OFF. Wait five (5) minutes.
3. Turn main gas valve to PILOT. Push and hold reset button while lighting pilot. Allow to burn for 30 seconds before releasing reset button.
4. Turn main gas valve to ON and set water temperature dial.

NOTE: Automatic safety switch shuts off gas if water temperature exceeds safe limits. Reset as follows:

1. Move switch to OFF position.
2. Remove junction box cover at back of unit.
3. Push red button on limit switch.
4. Replace cover and cover insulation.

Adjusting the pilot —

1. Loosen nut and bolt at bottom of air shutter.
2. Slide air shutter to right or left until pilot shows a blue or orange-blue flame.
3. Secure nut and bolt which hold air shutter in place.

Draining the heater —

1. Open faucets inside the vehicle.
2. Open drain valve on water heater.
3. Hold open handle on relief valve.
4. Blow water lines with compressed air.
5. Leave drain valve open when not in use.

ICE MAKER (Optional)

1. When unit is new, or out-of-service for some time, throw away the first two or three batches of ice cubes.
2. If ice cubes stick together, separate by hand or with a blunt tool. Never use an ice pick, knife or any sharp object which could puncture or damage the plastic interior.
3. Empty every week or ten days to insure a fresh cube supply.

4. Do not use solvents, abrasives or oily cleaners that might give ice an unpleasant taste. Clean condenser every three months. To remove grille, lift up and out.
5. Do not use electric heat to defrost; it would damage the inner liner.
6. To shut down, turn off switch behind grille. Prop open door to allow air circulation and prevent mildew.

TV ANTENNA

The Winegard® TV antenna is designed for all-channel color and black-and-white reception. If reception is poor, make sure the power supply switch is on and connectors are tight. Should reception remain poor, check with your authorized dealer.

Operating Instructions —

1. To raise antenna to operating position, turn crank toward UP until you feel resistance. Switch power supply to ON.
2. To rotate antenna, pull down on rotating knob with both hands until it disengages ceiling plate. Turn antenna for best picture and sound. Do not rotate antenna except in full UP position.
3. To lower antenna, crank until pointer on knob aligns with pointer on ceiling plate. Never lower antenna to any position except travel.

ROOF AIR CONDITIONER

(Optional)

The Coleman® roof-mounted air conditioner filters, circulates, cools and dehumidifies the air inside your family camping vehicle. It operates only on 110v AC current from an outside source or onboard auxiliary generator. The small amount of water from dehumidification collects at the shroud plenum and is dispelled outside the vehicle.

Air Circulation —

Set selector control to CIRCULATE. Fan switch anywhere from between LOW and HIGH. The unit circulates and filters inside air without cooling or dehumidifying.

Cooling Operation —

Set selector control to COOL. Fan switch anywhere from LOW to HIGH. Turn temperature control clockwise until compressor goes on. Adjust to your personal comfort level after initial cool-down.

Routine Service —

Change or clean the filter every two weeks while the unit is in daily operation. Wash in hot, soapy water; rinse clean. The sealed compressor unit does not require lubrication. The blower motor may require oiling on some models.

EXTERIOR AND INTERIOR CARE

OUTSIDE FINISH

The exterior of your family camping vehicle is pre-finished aluminum, used for durability and beauty. Wash it frequently with a mild soap in lukewarm water. If you travel roads that have been salted to remove ice, wash your vehicle as soon as possible. A good automotive cleaner-wax should be used occasionally to remove tree sap, road tar, insects and industrial fallout that may damage the surface. Do not use naphtha or turpentine!

NOTE: Aerosol cans of enamel available from your dealer are for steel chassis parts. Do not use on aluminum exterior.

CARPETING

Vacuuming and periodic shampooing should keep your carpeting clean and fresh looking. Remove spots and stains as you would at home. Use dry powder or wet shampoo (don't soak).

UPHOLSTERY

Do not launder upholstery fabrics. Wipe up stains promptly, before they set. Use a water based cleaner, foam upholstery cleaner or mild solvent, depending on the stain. Never soak the fabric. Use as little water as possible. Blot rather than rub. Towel dry.

DRAPERIES

Draperies should be treated like other fine fabrics. They should always be handled carefully and should be professionally dry cleaned. Laundering and improper dry cleaning may result in fabric shrinkage or deterioration.

NOTE: Material types used in your unit may differ from those at time of printing. For your protection you should consult a professional for proper method of cleaning.

COUNTERTOPS

Made of laminated plastic, the countertops are quite easy to clean and keep clean. Waxing is unnecessary. Glass rings, food spills, water spots and smudges usually wipe off with mild soap on a damp cloth or sponge. Stubborn stains can be removed with a spray cleaner.

For lasting beauty, avoid harsh abrasives, scouring powders, peroxide or bleaches. These can dull the surface and make it more likely to stain next time.

The laminate surface resists alcohol, fruit acids,

cosmetics and most household chemicals. It's better to avoid contact with dyes, strong laundry bleaches and blueing. Indelible inks used on food packages may stain, so take care when unpacking groceries on a damp countertop.

Sharp knives can damage the finish, so confine slicing to a good chopping board.

The countertop resists heat and even boiling water. But pots and pans straight from the oven or broiler should go on hot pads. Keep irons on the ironing board, and lighted cigarettes in an ashtray.

DOORS AND DRAWER FRONTS

The woodgrain-look cabinet doors and drawer fronts are also plastic laminate and may be wiped clean with a damp cloth.

INTERIOR WALLS

Cleaning with dust control and a soft cloth should help protect against scuffs and marks.

TUB and LAVATORY

Do not use steel wool, harsh abrasives or liquid cleaners with solvents. These plastic surfaces are best cleaned with soap and water, or dishwashing detergent and water.

WINDOWS

The all-season windows in your motorhome normally open and close easily. If they become clogged with dirt, clean the tracks with a small, stiff brush and spray with a silicone lubricant.

ENTRANCE DOOR ADJUSTMENT

(Square Corner)

The entrance door has a built-in camber adjustment on the latch side. A rod anchored at the inside top of the door has a threaded end at the bottom. The adjusting hex nut is reached at the bottom edge on the latch side.

If the door does not close tightly at the top and bottom corners, tighten the hex nut. Most doors need no adjustment. Do not adjust except when necessary.

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NOTE: If door can not be adjusted by the door rod, take unit to authorized dealer for service. Continued use may damage the door, and such damage is not covered by the warranty.

Carefree® Awnings (Optional)

To Extend Awnings—

1. Loosen all black locking knobs. Remove arm locking pins in arm channels and store in slot on bottom bracket.
2. Lift arms out of travel notches (which are in top brackets).
3. Unroll awning fully and place braces under top plugs of extended lower arms. Tighten black locking knobs on upper brace section.
4. Slide both arms up together to raise front of awning high enough to clear opened door. Tighten black locking knobs on upper arm sections.

NOTE: When retracting awnings reverse steps 1 thru 4 above.

Awning use in rain—

Lower the rear arm and raise the front arm to place awning on a tilt, be sure to tilt awning enough to drain off water before it accumulates.

NOTE: If the awning cannot be tilted enough to prevent a water pocket from forming, roll the awning up.

Cleaning—

Keep awning clean to prevent formation of mildew. A quality cleaner will keep your fabric clean and flexible.

Household bleach may be used on stains. Do not use caustic cleaners, mildew removers, or metal cleaners on fabric as they can destroy awning colors.

EVERY TRIP	1. Check tire air pressure. 2. Tighten wheel lugs. 3. Check running lights.
EVERY WEEK	1. Check chassis battery water level only; add distilled water if necessary.
EVERY MONTH	1. Clean exhaust fan filter and blades. 2. Check gas lines for leaks with soap solution.
EVERY 50 HOURS	1. Clean air conditioner filter.

EVERY 5,000 MILES
OR EVERY 6 MONTHS

1. Lubricate exterior door locks with silicone.
2. Rotate tires according to the chassis manual.
3. Clean window and door seals with a mild soap; spray with silicone lubricant.
4. Inspect and reseal seam around bathtub top.
5. Check gas appliances for proper operation; check gas lines for leaks with soap solution.
6. Coat roof seams with good quality sealant.

Normal use of the family camping vehicle may cause certain fittings and fasteners to loosen due to road vibrations and excessive use. Periodic inspection and maintenance should be performed on these items.

If your family camping vehicle is placed in extended storage, check it periodically. Batteries must be charged periodically even if they are not used.

Refer to Chassis Owner's Manual concerning lubrication and maintenance of the chassis system.

HOLIDAY RAMBLERS®

HOLIDAY RAMBLER RECREATIONAL VEHICLE CLUB, INC.
P.O. Box 587
Wakarusa, IN 46573

Dear Owner:

Membership in the Holiday Rambler Recreational Vehicle Club is limited to the owners of Holiday Rambler Corporation produced family camping units. The owners of Holiday Rambler®, Holiday Ramblette®, Monitor®, Monitor-Lite®, Alumna-Lite®, Free Spirit®, and Wide World™ RV units are invited to join our club.

The Holiday Rambler Recreational Vehicle Club is one of the fastest growing camping vehicle clubs in this country, and in the world. Our active members represent all 50 states, Canada and Mexico. We have more than 300 local chapters throughout the country — one in your area, most likely — planning local campouts and get-togethers and helping to make family camping even more enjoyable.

In addition to the local chapter activities, the HRRVC provides state and region rallies along with a program of national activities. Each year we provide our members with a program of vacation rallies, caravans within the USA and to Mexico and Canada, and of course our big International Rally.

The idea behind the Holiday Rambler Recreational Vehicle Club, a non-profit organization, is to provide year-

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around opportunities for members to enjoy good fellowship and pleasant use of their camping vehicles. Club members are called Holiday Ramblers™, and by their very nature they help give recreation vehicle camping a good name. Goals of the club are "to foster friendship among camping vehicle owners; to set an example of courtesy on the highway and of model conduct at meeting sites and in public campgrounds; to encourage the growth of family camping vehicle facilities in the United States; to disseminate advisory and education information to its members and the public; and to encourage county, state and federal agencies to provide more and improve existing family camping vehicle parking areas at reasonable fees."

An informative newspaper, The Holiday Ramblings®, is published by the club office. News of national, regional and state activities, along with many articles by local chapter members, helps keep all members up to date on special events and travel tips.

Join up today! The Holiday Ramblers™, await the pleasure of your company. Send in your membership application and \$12.50, and we will forward your identification numbers, decals and membership roster book to you.

We await the opportunity of sharing our many activities with you, and the chance to enjoy your fellowship.

Respectfully,

Executive Director, HRRVC

IMPORTANT SERIAL NUMBERS

CONSUMER AFFAIRS DEPARTMENT
HOLIDAY RAMBLER CORPORATION
65528 St. Road 19
Wakarusa, Indiana 46573
219/862-7278 or 219/862-7211

Record here right now for future reference:

Motorhome Serial Number _____

Chassis Serial Number _____

Door Key _____

Trunk Key _____

Range Model & Serial Number _____

Refrigerator Model & Serial Number _____

Furnace Model & Serial Number _____

Water Heater Model & Serial Number _____

Convector Model & Serial Number _____

Generator Model & Serial Number _____

Model & Serial Numbers of Optional Equipment _____

When writing to the factory Consumer Affairs Department, or a component manufacturer, be sure to include your camping vehicle serial number and other pertinent numbers listed above.

