

# CLASS C MOTORHOME

OWNER'S MANUAL

04-05

## WELCOME TO "RV'ING" WITH COACHMEN

Welcome to Coachmen's growing family of satisfied RV owners. Hours of relaxation, adventure and enjoyment await you in your new Coachmen RV. Thousands of Coachmen RV owners have been enjoying their purchase for many years.

This Owner's Manual has been prepared to help you and your family enjoy your new Coachmen RV by providing basic instructions for the operation and maintenance of the appliances, accessories and RV systems. Please read it carefully and follow the instructions. Also read and follow the instructions contained in the appliance and accessory manufacturers' instruction booklets provided with your RV.

If you have any questions regarding operation, maintenance, or service, please contact Coachmen RV or your Coachmen dealer so we can assist you. Your complete satisfaction is of the utmost importance to your dealer and to Coachmen.

Operation and maintenance instructions regarding appliances in this manual were obtained from the manufacturer's booklets and are used with the permission of those various manufacturers. Coachmen Recreational Vehicle Company, LLC reserves the right to present edited portions of these materials.

Coachmen offers a wide variety of recreational vehicle models and choices of standard and optional equipment; therefore, certain descriptions in this manual may not apply to your RV. Ask your authorized dealer, or see the current brochure for information on the availability of standard or optional equipment.

Thank you for choosing our product. The entire Coachmen family wishes you many safe and enjoyable journeys in your new Coachmen RV.

Sincerely,

The Coachmen Team

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## NOTES

LP gas regulators must always be installed with the diaphragm vent facing downward. Regulators that are not in compartments have been equipped with a protective cover. Be sure regulator vent faces downward and the cover is kept in place to minimize vent blockage which could result in excessive gas pressure causing fire or explosion.

## INTRODUCTION

**Congratulations** on the purchase of your new Coachmen® Recreational Vehicle. We sincerely thank you for choosing our product. For your convenience, you'll find many useful tips for planning trips as well as basic operation and maintenance information for your Coachmen's vehicle systems and appliances in this Owner's information package as well as component manufacturer's manuals supplied with your unit.

**Note:** *Because of individual tastes and the different floorplans offered, your vehicle may not have all of the components illustrated or described in this manual. Ask your dealer for details concerning the specifics of your vehicle.*

## TAKING DELIVERY OF YOUR RV

Your Coachmen® RV has been inspected by factory personnel throughout the manufacturing process. Our final factory check by quality control inspectors is not the last one. Your dealer performs additional pre-delivery inspections and systems checks, and helps you understand the Warranty and complete any necessary forms.

### Dealer Responsibilities Include:

1. Orienting the customer to the recreational vehicle, its systems and components, and their operation.
2. Insuring the customer receives a complete Owner's Package with warranty cards and registrations for the recreational vehicle and for separately warranted products, including operating and maintenance instructions.
3. Reviewing Limited Warranty provisions with the customer, assisting the customer in completing these forms if he wishes, and requesting that the customer read all warranty information as soon as possible explaining any provisions not clearly understood.
4. Instructing the customer how to receive local service and out-of-town service on the recreational vehicle and its separately warranted components, either in or out of warranty.

### Customer Responsibilities

As a new recreational 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 Coachmen Recreational Vehicle 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 recreational vehicle to an authorized dealer for repairs and service. Since the Authorized Dealer from whom you purchased your new recreational 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 your selling dealer.



## OBTAINING SERVICE

### 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 vehicles' service history. This can often provide a clue to the current problem.

### Prepare a List

Prepare a written list of issues or specific work you require to be done. Advise the Service Manager if work has been performed that is not listed on your Maintenance Log. It is important to keep the log accurate and up to date.

### Be Reasonable with Your Requests

Appointments are made according to the type of repair scheduled, and the amount of time needed to complete the repair. If you add items after the appointment has been set, 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.

### No offense

Insurance requirements forbid the admission of customers to a service repair area.

### Inspect the Work Properly

Inspect the completed repairs when you pick up your vehicle and notify the Service Manager of any dissatisfaction.

## IMPORTANT DOCUMENTS

### Vehicle Registration

Always carry your vehicle registration, insurance policy card(s) and Owner Warranty registration. If you lend your vehicle, it is best to give the borrower a notarized letter authorizing him to be in possession of the vehicle.

### Licenses

Vehicle licensing laws vary from state-to-state. Check with your state license bureau or the nearest licensing branch office for the requirements of your state. Be sure to renew your driver's license if it has expired or will expire during your trip.

### Insurance

Consult your insurance agent about personal liability, property damage, collision and theft of contents insurance for your new recreational vehicle. Always carry your insurance policy and/or card with you when you travel.

## LOADING/WEIGHING

A correctly loaded vehicle is necessary for safe operation. Distribute your cargo evenly from side-to-side and from front-to-back. Heavier items should be stored as centrally as possible, on or near the floor. They should be secured so they cannot slide during a sudden stop, possibly causing damage. (Loose cargo can alter the balance you had when you started.) Lighter items can be stored in overhead cabinets or other areas.

## NOTES

Multiple horizontal lines for taking notes.









### NOTES

**CAUTION !!!**  
Use one seat belt per occupant.

**CAUTION !!!**  
All occupants should be furnished with and use seat belts while the vehicle is in motion. Do not occupy the beds while traveling as safety protection is not provided.

**CAUTION !!!**  
For maximum protection in your unit children should not be transported unrestrained. Infants should be placed in infant carriers. Small children should be restrained in child safety seats. These seats should be placed in the vehicle in accordance with the instructions with the seat or infant carrier.

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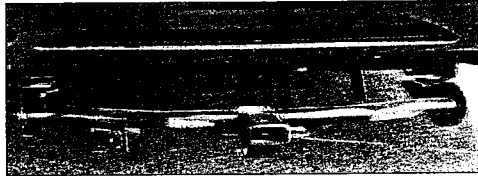
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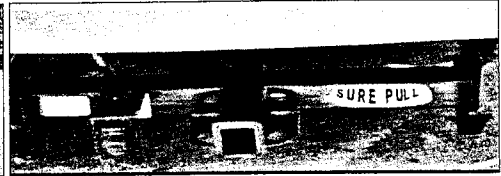
### TOWING

If your RV is equipped with an optional hitch towing package, do not exceed the Gross Combined Weight Rating (GCWR) as stated in the chassis manufacturer's owner's manual, or the rated capacity of the installed hitch (whichever is less).

An example of hitches Coachmen uses are shown below.



HIDDEN HITCH (curved)



SURE PULL HITCH (straight)

### RECOVERY TOWING ON THE ROAD

If your minihome needs to be towed the following guidelines should be used:

1. The vehicle **MUST** be towed only from the front. See **Chassis Operators Manual**.
2. Be prepared to give the tow truck operator at least the following information when you call:

*Length and height of motorhome.*

*Chassis Manufacturer gross vehicle weight rating.*

*Axle weight ratings.*

(This information is found on the vehicle certification label located to the left of the drivers seat.)

3. It is recommended that you ask for an **UNDERLIFT** (wheel lift or frame lift) type towing assembly for safe towing.

#### To prepare your RV for towing:

1. Secure any loose or protruding body parts of the disabled vehicle.
2. Secure any heavy loose items in the interior.
3. Turn off all LP gas appliances and LP gas tank valve.
4. Do not allow anyone to ride in the towed vehicle.

### DRIVING YOUR RECREATIONAL VEHICLE

Get to know how your vehicle handles. Power steering and power brakes help make driving your minihome as effortless as possible. Keep in mind it is longer, higher, wider and heavier than the family automobile, and the driving compartment is located forward of the front wheels.

Before leaving on a trip, practice making right and left turns, braking, backing and accelerating. Your vehicle is designed to travel at maximum legal highway speeds, under ideal conditions. Under less than ideal conditions, your vehicle should be operated at reduced speed and it should never exceed the posted legal speed limits.

### SEAT BELTS

Seat belts are an important safety feature of your vehicle. For your protection, fasten all seat belts while your minihome is in motion. Adjust the belt low on the abdomen and as snugly as comfort will allow, for greatest safety. Never use a belt for more than one person at a time.

**CAUTION:** All occupants should be furnished with and use seat belts while the vehicle is in motion. Do not occupy the beds while traveling as safety protection is not provided.







### CROSS WINDS

When traveling against strong cross winds, it is best to reduce speed. Remember to steer slightly into the wind when you feel your RV drifting with the cross wind. The key is not to oversteer in this situation.

### TURNING

Pull several feet farther ahead before turning. This will compensate for the extra width and length of your minihome and will help you avoid hitting curbs or parked vehicles.

### BACKING

Remember that your minihome is higher, wider and longer than other vehicles you may own, so it is extremely important that you back the unit slowly. Because visibility is somewhat restricted, backing the unit may require stationing someone beside the unit to guide the driver.

### COOLING SYSTEM

1. Equipment such as flashing lights and sirens, spare tires, or any other accessories should not be installed in the grille area forward of the radiator or air cleaner air inlet. Doing so restricts proper air flow through the radiator and engine compartments.
2. For proper engine cooling, do not alter, change the locations of, or remove the original equipment fan and shroud.
3. Maintain a 50/50 antifreeze to water ratio when adding or modifying the heater system or auxiliary heater system. A 60/40 antifreeze to water ratio may be necessary during winter months in very cold climates. For the remainder of the year, however, a 50/50 ratio should be maintained.
4. Radiator and heater hoses which are added or replaced should be EPDM/NOMEX composition.

If your min-ihome's engine overheats, pull well off the road. Shift to Park (P) and run the engine with your foot resting lightly on the accelerator pedal. If the engine does not cool within 2 to 3 minutes, turn it off and locate the problem.

Engine temperature problems may be avoided if you climb long grades and descend moderately steep grades in second gear; climb steep grades in first gear and if your unit has auto air conditioning, turn it off.

### PARKING ON A GRADE

Parking vehicles on an upgrade or downgrade is not recommended. If it is necessary in an emergency, always apply the foot brake, then set the parking brake before moving the shift lever to Park (P). When preparing to move the vehicle, move shift lever out of Park before releasing the parking brake.

If this sequence is not followed, you may not be able to move the shift lever out of Park. If this torque lock does occur, you may need to have another vehicle assist you in relieving the pressure on the shift lever. On severe grades it may be necessary to have a passenger place wheel chocks behind the tires of your minihome.

Use the foot brake or parking brake and Park (P) position to hold the vehicle on an upgrade. Using a driving gear to hold the unit may cause the engine or transmission to overheat. DO NOT idle the engine for more than one minute with the transmission in gear.

### NOTES

#### **⚠ WARNING !!!**

*DO NOT exceed the maximum speed listed in the chassis manufacturer's manual for first and second gear — excessive engine speed will overheat the transmission, which may cause early transmission failure.*

#### **⚠ WARNING !!!**

*DO NOT race the engine or spin the wheels; prolonged efforts to free a stuck vehicle may result in overheating and transmission and axle failure.*

#### **⚠ WARNING !!!**

*DO NOT use any auto speed control when conditions are not suitable for maintaining a constant speed, such as in heavy or varying traffic, in strong winds, or on slippery, winding or unpaved roads. Never shift to Neutral (N) when using the speed control; it will cause the engine to over-speed. Use only properly installed, FCC-approved radio transmitting equipment (such as CB radios). Use of other transmitting equipment may cause the cruise control to malfunction.*

NOTES:

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**NOTES**

**CAUTION!!!**

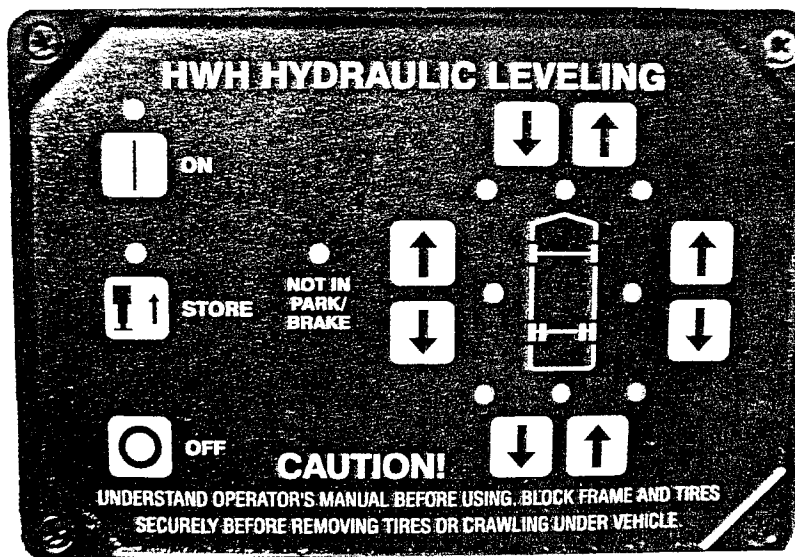
DO NOT OPERATE HYDRAULIC LEVELING SYSTEM BEFORE READING THE OPERATING MANUAL.

**HYDRAULIC LEVELING** (Optional on some units)

**CAUTION!**

- READ THE ENTIRE OPERATOR'S MANUAL BEFORE OPERATING.
- BLOCK FRAME AND TIRES SECURELY BEFORE CRAWLING UNDER VEHICLE. DO NOT USE LEVELING JACKS OR AIR SUSPENSION TO SUPPORT VEHICLE WHILE UNDER VEHICLE OR CHANGING TIRES. VEHICLE MAY DROP AND/OR MOVE FORWARD OR BACKWARD WITHOUT WARNING CAUSING INJURY OR DEATH.
- KEEP ALL PEOPLE CLEAR OF VEHICLE WHILE LEVELING THE VEHICLE.
- THE JACKS MAY ABRUPTLY SWING UP WHEN THE FOOT CLEARS THE GROUND OR WHEN JACK REACHES FULL EXTENSION.
- NEVER PLACE HANDS OR OTHER PARTS OF THE BODY NEAR HYDRAULIC LEAKS. OIL MAY PENETRATE SKIN CAUSING INJURY OR DEATH.
- WEAR SAFETY GLASSES IF INSPECTING THE SYSTEM TO PROTECT EYES FROM DIRT, METAL CHIPS, OIL LEAKS, ETC. FOLLOW ALL OTHER APPLICABLE SAFETY PRACTICES.
- DO NOT OVER EXTEND THE REAR JACKS. IF THE WEIGHT OF THE VEHICLE IS REMOVED FROM ONE OR BOTH REAR WHEELS, THE VEHICLE MAY ROLL FORWARD OR BACKWARD, OFF THE JACKS.

**IMPORTANT:** IF VEHICLE IS EQUIPPED WITH A ROOM EXTENSION, (SLIDE OUT ROOM), READ ROOM EXTENSION SECTION BEFORE OPERATING LEVELING SYSTEM.



IN MOST FLOOR PLANS, THE HWH HYDRAULIC LEVELING TOUCH PAD IS LOCATED ON THE WALL BY THE ENTRY DOOR.





## NOTES

### ⚠ CAUTION!!!

DO NOT MOVE THE VEHICLE WHILE THE JACKS ARE STILL IN CONTACT WITH THE GROUND OR IN THE EXTENDED POSITION. MOVING THE VEHICLE WITH THE LEVELING JACKS EXTENDED CAN CAUSE SEVERE DAMAGE TO THE JACKS AND/OR THE VEHICLE AND CREATE A DRIVING HAZARD. DO NOT RELY SOLELY UPON WARNING LIGHTS. IT IS THE OPERATOR'S RESPONSIBILITY TO CHECK THAT ALL JACKS ARE FULLY RETRACTED INTO THE STORE/TRAVEL POSITION AND THE VEHICLE IS AT THE PROPER RIDE HEIGHT FOR TRAVELING. CONTACT MANUFACTURER TECHNICAL SERVICE BEFORE MOVING A VEHICLE THAT IS NOT AT PROPER TRAVEL HEIGHT.

## TRAVEL PREPARATIONS

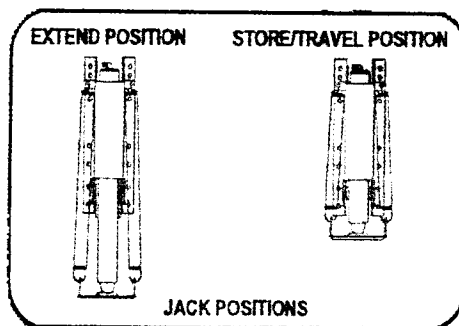
Before traveling, the red jack warning lights must be off and the 'TRAVEL MODE' light must be on/ If lights are not correct for travel, retract jack as described in the JACK RETRACTION section. If the jacks are retracted but a red 'WARNING' light is lit or the green 'TRAVEL MODE' light is not lit, the system needs to be serviced.

**Any room extension or generator slide should be fully retracted before traveling.**

## TRAVEL PROCEDURES

**IMPORTANT:** Any time the 'HYD' button has been pushed, push the 'STORE' button before traveling.

If the jacks cannot be retracted according to the JACK RETRACTION section, retract the jacks according to the 'MANUAL JACK RETRACTION' section. The system should then be checked. Start the vehicle engine before retracting the jacks. Push the 'STORE' button to retract the jacks, the 'STORE' light will come on.



**IMPORTANT:** Pushing the 'OFF' button or moving the ignition key will stop the 'STORE' procedure. The jacks will stop retracting. Thermal expansion can cause a jack to extend slightly.

**NOTE:** If the jacks are stored with the ignition in the Accessory position, the 'STORE' button should be pushed **after** starting the engine. It is important when traveling that the 'STORE' light is on and the system left in the 'STORE' mode. This allows a jack that extends due to thermal expansion to automatically retract.

**CAUTION: A WARNING LIGHT OR BUZZER COMING ON BRIEFLY WHILE TRAVELING DOES NOT INDICATE A DRIVING HAZARD. IF THE 'STORE' LIGHT IS ON AND THE WARNING LIGHT AND BUZZER COME ON, STAYING ON MORE THAN 30 SECONDS, THE JACKS SHOULD BE CHECKED.**

## BUMPER WITH STABILIZING JACK

These stabilizers are designed for stabilizing only. DO NOT attempt to use them for jacking purposes or to support the full weight of the coach.

## OPERATING INSTRUCTIONS

1. Using a level (not supplied) check for a low side on the coach. DO NOT attempt to use them for jacking purposes or to support the full weight of the coach.
2. Crank down the stabilizer unit on the other side of the coach to the ground until firm.
3. Before moving your coach, crank up both stabilizing units to the closed position, then crank another/turn to snug up.

## MAINTENANCE

Occasionally apply small amounts of WD-40 or similar lubricant at bolt locations and drive screw.





NOTES

**NOTE:** It is necessary to have a fully charged 12 volt battery installed to electrically operate the room. The room will not operate properly without the battery even if the 110V shore line is plugged in.

**Note:** Before extending or retracting the room, check for exterior or interior obstructions which may hinder room travel. Check for items which may have fallen into the area between the interior flange and the outside wall. To **extend** the room:

- Remove travel locks if so equipped
- Push the in/out switch located inside the unit to the **OUT** position and hold the switch until the room is fully extended.
- Release the switch when the room is fully extended.

To **retract** the room:

- Push and hold the in/out switch to the **IN** position until the room is fully retracted.
- Release the switch when the room is fully retracted.

**IMPORTANT:** HOLDING THE SWITCH IN THE IN OR OUT POSITION **AFTER** THE ROOM HAS REACHED THE FULL EXTENT OF TRAVEL COULD RESULT IN DAMAGE TO THE STRUCTURE OR MECHANISM.

It is necessary to have a fully charged 12 volt battery installed to electrically operate the room. The room will not operate properly without the battery even if the 110V shore line is plugged in.

To **EXTEND** the room:

- Remove travel locks if so equipped
- Push the in/out switch located inside the unit to the **OUT** position and hold the switch until the room is fully extended.
- Release the switch when the room is fully extended.

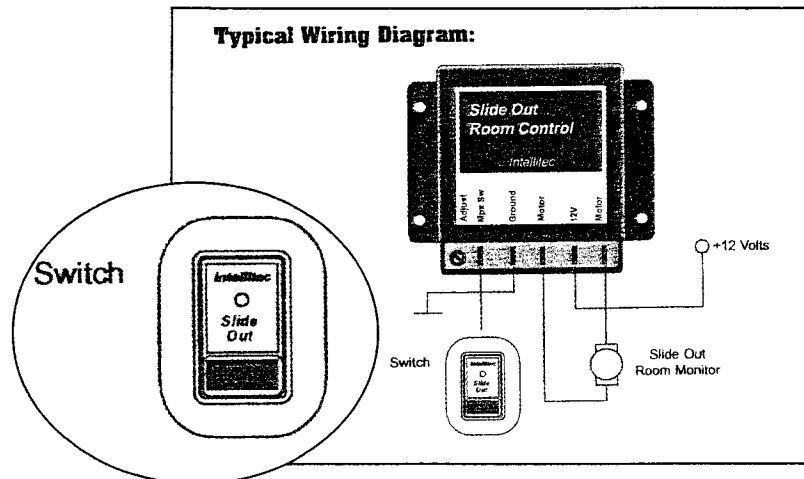
To **RETRACT** the room:

- Push and hold the in/out switch to the **IN** position until the room is fully retracted.
- Release the switch when the room is fully retracted.

**Important:** Holding the switch in the in or out position **after** the room has reached the full extent of travel could result in damage to the structure or mechanism.

It is necessary to have a fully charged 12 volt battery installed to electrically operate the room. The room will not operate properly without the battery even if the 110V shoreline is plugged in.

Typical Wiring Diagram:





## LIFTCO SLIDE OUT SYSTEM

## NOTES

### EXTENDING:

- Level unit, locate and set vehicle emergency brake.
- Lower and adjust stabilizing jacks.
- Clear interior and exterior of obstructions.
- If slide out room is equipped with a "travel lock", disengage now.
- Depress and release activator button (slide room switch).

**Note: Cycle time will be approximately 30-45 seconds.**

### RETRACTING:

- Clear interior and exterior of obstructions.
- Depress and release activator button.
- Engage travel lock, if so equipped.
- Fully retract stabilizing jacks and release emergency brake.

### MANUAL OPERATION:

In the event of a malfunction, the slide out room is equipped with a manual over-ride. To operate, follow the instructions listed below:

- Clear interior and exterior of obstructions.
- Locate manual over ride switch and turn switch to "OFF".
- Locate and remove manual over-ride plug located on the outside wall of the slide room.
- Insert the supplied hand crank. Turn clockwise to close or counterclockwise to open.

**Note: Slide out room movement can be stopped by depressing and releasing the activator button. Depress and release button again to reverse direction of travel.**

**Note: No one should be in the slide room when activated.**

## AIR QUALITY/LIVING AREA

### CONDENSATION

Condensation is "the process by which a gas or vapor is changed to a liquid". This process occurs when there is too much moisture in the air and not enough air movement.

Condensation can be a problem in modern, tightly-constructed, well insulated RVs. Certain amounts of condensation should be expected, especially on cool surfaces such as windows, roof vents, and metal door frames. However, excessive condensation can cause water damage and infiltrate the RVs' insulation causing it to become damp, thus reducing its' insulation properties.

Condensation can appear as fog, frost or ice on the inside of windows indicating moisture is trying to escape to mix with drier air. It may also occur inside the walls and ceilings where it is hidden from view. Evidence of trapped water vapor or hidden condensation could be water stains on the ceiling, warped moldings or trims, water running down the walls, dripping from fixtures or softened wall or ceiling materials. Other indicators of excessive moisture could be damp carpet, paint failure, mold or mildew and damage to furniture.

If any of these situations listed above should occur, be sure to check all the normal functions of your RV, such as plumbing, seals, windows and roof, before assuming it is condensation. Just like your home, inspections and maintenance should be performed on a regular basis.



## NOTES

### WARNING !!!

**DO NOT COVER EMERGENCY WINDOW(S).** THESE EXIT WINDOWS MUST REMAIN ACCESSIBLE AT ALL TIMES.

### CAUTION !!!

DAMAGE OR DETERIORATION DUE TO LONG TERM OCCUPANCY MAY CONSTITUTE AN "UNINTENDED USE" OF YOUR RV AND WILL NOT BE COVERED UNDER YOUR WARRANTY.

Keep in mind that your RV is a confined space and unlike a permanent dwelling, has limited venting capacity. Activities such as cooking, dish washing, cleaning, laundry and bathing add moisture to the air, so when performing these functions remember to keep your RV well ventilated to allow moisture to escape. By being aware of the causes, you may also be able to decrease the risks.

Your recreational vehicle was designed primarily for recreational use and short term occupancy, not a permanent dwelling. If you use your RV as a permanent dwelling or for prolonged periods of time, it is more susceptible to this condition. The number of inhabitants and pets residing in your RV are also a factor, as breathing and perspiration are impossible to avoid but do add to the moisture content in your unit.

If you intend to use your RV for an extended period, be prepared to take steps to prevent condensation, mold or mildew. Prevention can be a scheduled event, on **your** time frame; an unexpected repair is not only inconvenient, but can be more costly.

## CONTROLLING CONDENSATION

- **QUICK ACTION** - If leaks or spills occur indoors, clean it up quickly. In most cases mold and mildew do not grow if the area is dried within 24-48 hours.
- **REPAIR** - Regularly clean and repair any items installed on the roof. Check for debris or blockages in the vents. (If roof vents are properly maintained and sealed, yet you still have water dripping from the vents, it could be condensation.) Be sure all seals are tight, and check for loose screws or moldings.
- **LOWER THE HUMIDITY INSIDE YOUR RV** - Keep indoor humidity below 60 percent relative humidity, (ideally between 30-50 percent). Relative humidity can be measured with a humidity meter, which is available at most hardware stores. The meter is an inexpensive way to avoid the far more costly repairs of water damage.

**Note:** Even if it is raining or snowing, opening a vent for more air circulation will decrease moisture. Ventilated air from outside is drier than interior air.

## REDUCING HUMIDITY LEVEL

- When bathing, open the bathroom vent to allow steam and moisture to escape
- Avoid hanging wet clothing inside to dry .
- If using a clothes dryer, be sure it is properly vented according to manufacturer's instructions.
- Remove and dry wet shoes and rain gear.
- Avoid allowing them to air dry inside causing rain or snow to soak into the carpet or rug.
- When cooking, avoid boiling. Many items can be cooked in the microwave with minimal water. As an alternative, use the microwave when possible.

**Note:**

If you follow these guidelines and continue to have an excessive amount of moisture, you may want to consider using a dehumidifier.

## REMINDER:

Left unchecked, these repairs could become very costly and this type of preventable damage is not warrantable.

## SAFETY DEVICES

### Carbon Monoxide Detector

A Carbon Monoxide Detector will detect carbon monoxide well below the 15% Carboxyhemoglobin blood levels and will alarm long before any health hazard occurs. Never disable or bypass this safety device.

### LP Leak Detector

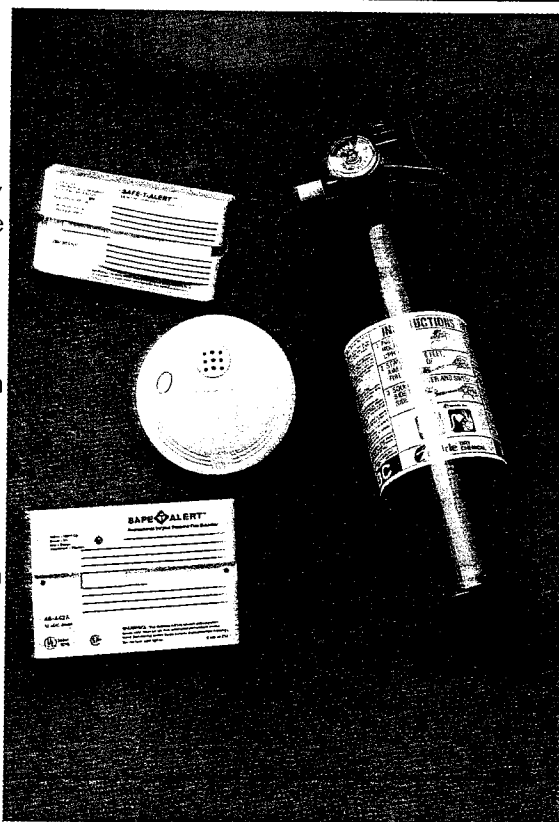
It is recommended that your LP Leak Detector be in the ON position when your RV is in use. The system should be turned off or the fuse pulled when the vehicle is in storage or will be unused for several days.

### Smoke Detector

Test your Smoke Detector after your RV has been in storage, before each trip, and at least once a week during the time you are using your RV.

### Fire Extinguisher

Familiarize yourself and your family with the operation of the fire extinguisher. Keep it in your unit at all times when your RV is in use.



## NOTES

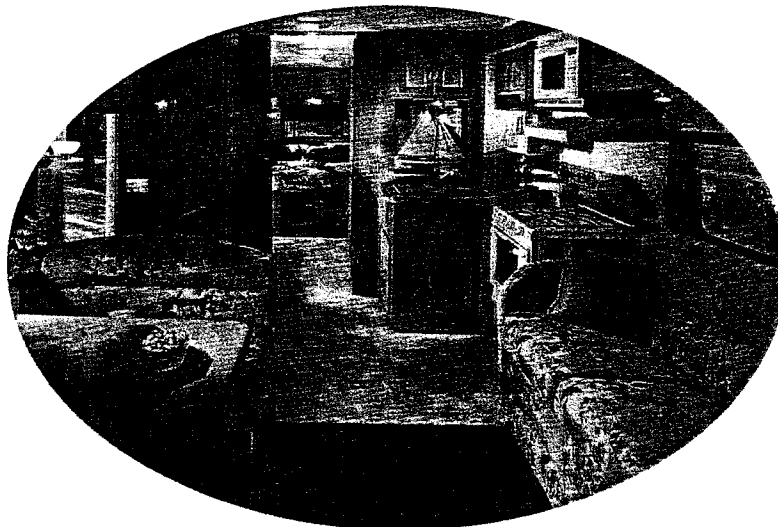
### **⚠ WARNING !!!**

**DO NOT** USE THE OVEN OR RANGE FOR HEATING PURPOSES OR TO ELIMINATE THE EFFECTS OF CONDENSATION. IN ADDITION TO HAZARDOUS TOXIC FUMES, OPEN FLAMES WILL ADD MOISTURE TO THE INTERIOR AIR, THUS INCREASING THE CONDENSATION CONTENT.

## LIVING AREA

### Dinette/Bed and Sofa/Bed

There are many variations of dinette/beds and sofa/beds. For information regarding the specific operation of the one(s) in your RV, please check with your selling dealer.



### Air Quality

State-of-the-art construction and energy conservation methods have been used in manufacturing your recreational vehicle. These improvements have substantially



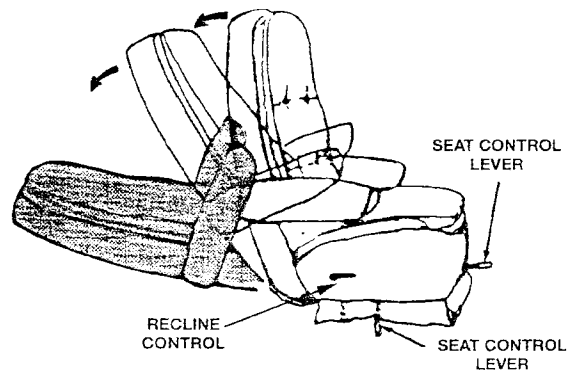
**NOTES**

reduced air infiltration and air exchange, making them almost airtight. Therefore, regular airing of your unit is recommended, especially during periods of high temperature, high humidity, and after prolonged storage.

**SEATING and SLEEPING**

**Driver and Passenger Chairs**

Some driver and passenger chairs slide, swivel and recline; others may slide and swivel or slide only. Have your dealer demonstrate the operation of the chairs in your unit. The captain's chair illustrated slides forward and backward, swivels and reclines in many positions.



**BASIC UTILITY SYSTEMS**

You have four basic utility systems in your mini-motorhome. They are:

**Electrical -- Fresh Water -- Drainage/Sewer -- and LP Gas**

The following information will familiarize you with their function, operation and give you some simple maintenance tips. If a problem should develop with any of the systems, contact your dealer immediately.

**NOTE: ONLY QUALIFIED PERSONNEL SHOULD PERFORM SERVICE OR REPAIR ON SYSTEMS OR COMPONENTS WHICH AFFECT SAFETY, INCLUDING THE LP SYSTEM AND APPLIANCES, ELECTRICAL SYSTEM AND APPLIANCES, RUNNING GEAR AND SUSPENSIONS, AND EXHAUST SYSTEMS. FAILURE TO COMPLY WITH ACCEPTABLE WORKING PROCEDURE MAY CAUSE FIRE, EXPLOSION, OR OTHER LIFE THREATENING SITUATIONS. REPLACEMENT PARTS SHOULD BE AT LEAST EQUAL TO THE ORIGINAL COMPONENT(S).**

**MONITOR PANEL**

Your Class C mini-motorhome is equipped with a monitor panel which allows you to check the condition of your RV battery and the volume of fresh, waste and gray water in your unit's holding tanks. It also will monitor LP gas and has switches for the water pump and water heater. Your dealer will be happy to explain it's operation.







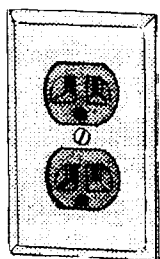
NOTES

POWER CENTER DISTURBUTION CHART

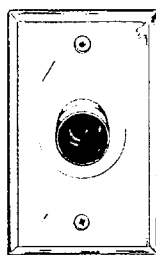
<u>POWER CENTER and/or 12 VOLT BATTERY</u>	<u>120 VOLT ELECTRICITY</u>
All interior lights	Power center
Porch light	All receptacles
Trunk lights	Refrigerator
Radio	Air conditioner(s)
Water pump	Microwave
Monitor panel	Washer/dryer
Range vent	Television
Power roof vent	VCR
Slide-Out Room	Stereo
Television (front & rear)	Water Heater
Television antenna	
Water heater (electronic ignition)	
Furnace (electronic ignition)	
Grab handle (lighted)	
LP leak detector	
Refrigerator	

12 VOLT and 120 VOLT SYSTEMS

Your recreational vehicle contains two (2) separate electrical systems: one 12-volt direct current (DC) and one 120-volt alternating current (AC), similar to the one in your home. These systems provide you with power while you are camped or are traveling. The 120-volt system requires an external source of 120-volt electricity, usually a campsite or household receptacle or an auxiliary generator. The 12-volt electrical system is supplied by batteries, the power converter or the 12-volt source from the tow vehicle.



120 VOLT



12 VOLT

To reduce the 12 volt load on your RV batteries, the 120 volt system should be used when a 120 volt hook-up is available. Although most components in your unit (water pump, range hood light and fan, interior lights, etc) operate only from a 12 volt source, the power converter changes 120 volt AC to 12 volt DC power.

120 Volt System

The 120 volt system supplies power through the power center to the refrigerator, exterior receptacles, interior receptacles (used to operate regular household appliances), and optional roof air conditioner. The converter provides 12 volt power for all of the unit's 12 volt components. When the external 120 volt power cord is used, the power is connected directly into the electrical service panel of the power center and is distributed through circuit breakers.





## NOTES

### ⚠ CAUTION!!!

DO NOT REPLACE A FUSE WITH ONE OF A HIGHER AMPERE RATING.

**NOTE:** When using the generator for the first time, apply the electrical load gradually. Operate the generator at full load capacity for 30 minutes, then at full load for an additional 30 minutes before applying a full electrical load. After starting the generator, leave it running for a few minutes to prevent flooding.

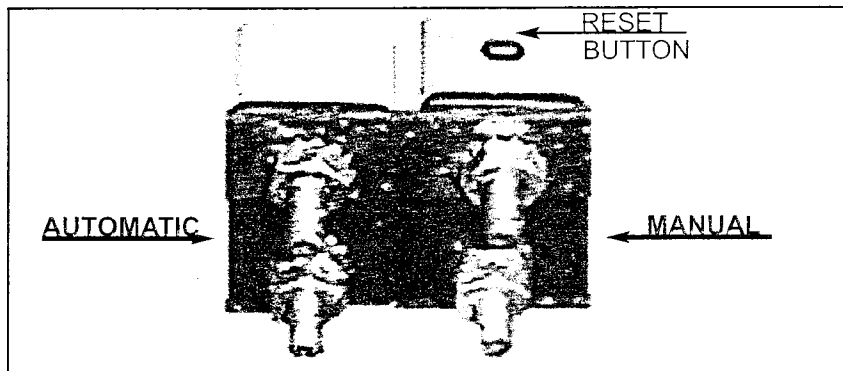
**NOTE:** The generator is warranted by its' manufacturer.

### Care of Generator

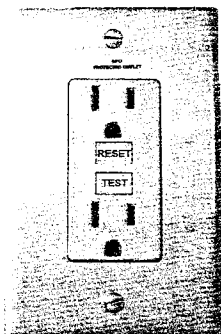
For complete operation and care procedures for your generator, please refer to the generator's manufacturer's manual.

### CIRCUIT BREAKERS

The 120 volt system is protected by circuit breakers, located inside the power center. If a circuit breaker opens, unplug the appliance(s) on that circuit, allow a short period for the breaker to cool, then reset the breaker. If the breaker continues to open, it may be caused by an appliance you have added, or a fault in the electrical system. If you determine it may be a fault in the electrical system, contact your Coachmen dealer.



AUTOMATIC AND MANUAL RESET CIRCUIT BREAKER



### GFI (Ground Fault Interrupter) RECEPTACLE

The bath, kitchen and exterior receptacles are protected by a ground fault interrupter. The GFI is built into the bath or kitchen receptacle and connected to the outside receptacle. If a ground fault occurs in that circuit, the GFI protects against severe electrical shock. The GFI senses the fault and trips, breaking the bath, kitchen or exterior receptacle circuits. If this should happen, unplug all appliances on that circuit and reset the GFI receptacle. The GFI system should be tested at least once a month. To test the GFI system, plug a test light into the outlet and push the 'TEST' button on the receptacle. The test light should go out. To restore power, push the

'RESET' button. If the button does NOT pop out or if the test light indicates a live circuit, DO NOT use the outlets. Contact a Service Repair Center or your Coachmen dealer.

### In-Line Fuses

In-Line fuses, or, over-current protective devices are installed in your RV. The in-line fuses will be located within 18 inches of the battery (power supply) for easy access and working room.

⚠ CAUTION!!! DO NOT REPLACE A FUSE WITH ONE OF A HIGHER AMP RATING.



**NOTES**

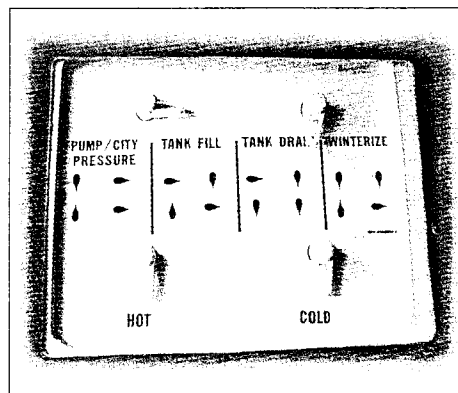
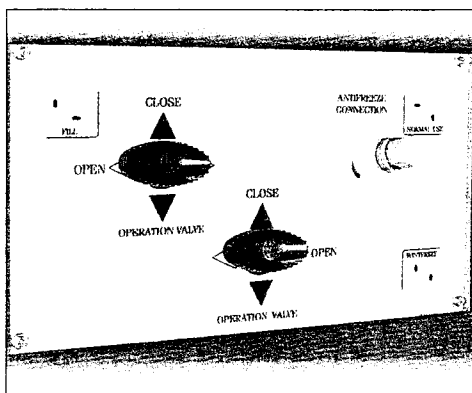
If the pump runs sporadically the tank may be empty or there might be a leak in the system. If the city water is connected the pump is not required. Be sure to turn the pump off when not in use. For additional information consult the water pump manufacturer's manual.

**WATER TANK**

Due to a variance in weight distribution, the water tank may be located beneath a sofa, dinette bed, kitchen cabinet or under the floor of the unit.

The water tank should be sanitized before you use it for the first time, after a period of non-use, or if you suspect the tank is contaminated. To sanitize your water tank, first empty the tank and then use the following procedures:

1. Mix 2-1/2 cups of liquid household bleach with 10 gallons of water into a potable water container.  
Place control valves in the tank fill position. Install the short length of hose in the winterization filling and place free end of the hose in your potable water container. Running the water pump will drain water from the external container into the fresh water tank.
2. Turn the vehicle's water pump ON, open the hot water faucet, wait until the water begins to flow, and then turn the faucet off. Do the same with the cold water faucet. Wait three hours.
3. Open faucets and line drains. Drain the entire system. Some solution will remain in the water heater.
4. Connect a hose to the city water fill. Begin filling the tank, open the hot water faucet. Be sure the water pump is on. Let the water run until the system is completely flushed. Do the same with the cold water faucet. The hot water faucet will need to run longer to completely drain the water heater.
5. If a chlorine taste lingers, flush the system with a vinegar and water solution (one quart of vinegar to five gallons of water). Wait two to three hours and then flush with fresh water.



**EXAMPLES OF WATER CONTROL PANELS**

**LEAKS**

Traveling over bumpy or rough roads can cause pipe fittings to loosen. Check the pipe fittings in your unit regularly for signs of leakage.

**SHOWER**

A shower hose anti-siphon device is installed on your faucet to prevent the possibility of backflow.







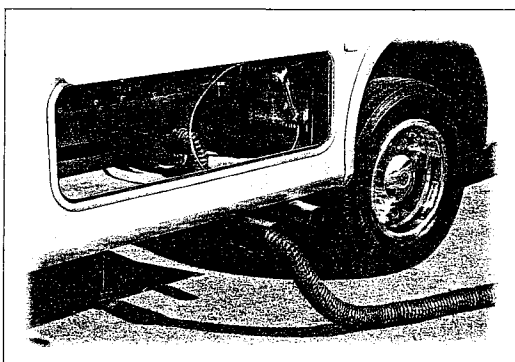
**NOTES**

**NOTE:** When cleaning your toilet, do not use highly concentrated or highly acidic household cleaners (no scouring powder). To ensure proper operation and maintenance, refer to your toilet manufacturer's operating manual.

**HOLDING TANKS**

Most unit drainage/sewer systems have two holding tanks--gray water and waste or (black) water. The gray water holding tank collects water from the kitchen sink, lavatory and tub/shower. The waste (black) water holding tank is used to collect waste from the toilet. In some units, one tank collects both gray water and sewage waste.

To prevent unnecessary accumulation of solids in the waste holding tank, do not put facial tissues or similar products into the toilet. It is highly recommended that you use only bio-degradable toilet tissue available from your RV dealer. Holding tanks should be emptied frequently into a specified dumping station. Most campgrounds have dumping stations, often at each campsite, and many service stations and highway rest areas have waste dumping stations also. Before emptying the holding tanks, be sure your vehicle is level--emptying the holding tanks depends on gravity.



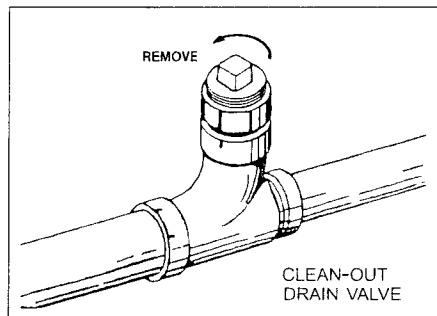
**TERMINATION SYSTEM**

To empty the holding tank, remove the sewage drain hose from its storage area. Remove the cap from the termination outlet and connect the sewage drain hose.

Some models have a swivel sewage drain hose holder under the unit. Simply swivel the holder around, take off the cap and hook up to a dump facility. Swivel the termination down, reach down in holder, pull up end of hose, remove termination cap and hook up sewer hose. Now you are ready to pull the gate valves and dump your tank.

**NOTE:** Do not use harsh drain cleaner chemicals or solvents in the drains. Drain cleanouts are installed on certain units at intervals to facilitate drain line cleaning or unclogging. Use a wrench to remove and replace drain cleanout plug.

While you are camped you may leave the gray water dump valve open only if the hose is connected and your campsite has a sewage hookup. Do not open the waste water dump valve until you want to empty the holding tank. If the waste water dump valve is left open, the rinse and flush water will run off and solids will be left to collect and harden in the bottom of the tank.



To drain a holding tank, pull out the dump valve slide handle. On some units it is necessary to unfasten a locking device before the slide valve handle can be pulled out. After the tank is drained, close the valve (if applicable, lock in place).

After emptying the waste holding tank, flush or pour about two gallons of water through the toilet and drain again. This flushes the tank and helps clean the drain hose. Repeat as necessary.





To empty the gray water holding tank, follow the same procedure used to empty the waste holding tank. A flushing may not be necessary. When the tank is empty push the dump valve handle in until it seats (if applicable, lock in place). Remove the hose, wash it and return it to its storage holder. Replace the termination cap securely.

If your model is equipped with an outside shower this may be used to rinse out the inside of your sewer hose before leaving the dump facility.

It is recommended that you always drain the sewage waste holding tank first, and then the gray water tank. This assists in flushing and cleaning the termination valve and drain hose.

### LP GAS SYSTEM

The liquified petroleum (LP) gas system in your unit furnishes fuel for hot water, heat, cooking and refrigeration. LP gas provides a portable, efficient and inexpensive source of energy. It is stored in an LP gas tank which is mounted to the chassis of your unit and is serviced through an access door.

Under pressure in the tank, the LP gas turns to vapor; it is the latter that burns. Each tank has an automatic 80 percent stop-fill valve that allows space in the tank for vapor expansion. The high pressure of the vapor in the tank is reduced in two stages through a regulator. The tank pressure will vary with temperature and altitude, but may be reduced to about 12 psi in the first stage; then to about 6-1/4 ounces in the second stage (the 6-1/4 ounces per square inch also is expressed as 11 inches of water column.

#### **▲ WARNING!!!**

*LP gas is usually propane or a blend of propane and butane. When you fill your tanks, be sure to use propane ONLY. **Do not** use butane or butane mixtures.*

#### **▲ WARNING!!!**

*The LP gas system is designed and built to meet rigid standards, and it is tested before it leaves the factory. Your dealer also tests the system before it is delivered to you.*

***Except for simple maintenance and occasional tightening of a connection, always take your vehicle to an authorized dealer for LP gas problems. Always have an authorized LP gas supplier fill your LP gas tanks.***

#### **▲ WARNING!!!**

*LP gas burns readily and with intense heat. With proper care and maintenance, it is safe and efficient. There are, however, certain characteristics about LP gas you should know. **LP gas settles into any closed area, it displaces air and could cause suffocation if not detected. It also could create a fire or explosion hazard.** In its natural state, LP gas is odorless. **An additive gives it a distinctive mustard odor so that leaks can be readily detected. Under certain circumstances you may not be able to detect LP gas by smell.** For that reason, your vehicle is equipped with an LP leak detector which will provide an **audible warning** if a propane leak is detected. **Never disable or bypass this critical safety device.***

#### **▲ WARNING!!!**

*LP gas containers should not be placed or stored inside the living area of a vehicle. LP gas containers are equipped with safety devices that relieve excess pressure by discharging gas to the atmosphere.*

### NOTES

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**NOTES**

**CAUTION!!!**

Be sure the regulator vent faces down and the cover is kept in place. This will minimize vent blockage which could result in excessive gas pressure and cause a fire or explosion.

**NOTE:** Before using any LP gas appliance, read the respective manufacturer's operating manual.

The following label has been placed in the vehicle near the range area:

**WARNING!!!**

If you smell or think you smell gas:

1. Extinguish any open flames, pilot lights, and all smoking materials.
2. Do not touch electrical switches.
3. Shut off the gas supply at the tank. CLOSE valve(s) or gas supply connection.
4. Open doors and other non-electrical ventilating openings.
5. Leave the area until the odor clears, and
6. Immediately call your gas supplier, and have the gas system checked and leakage source corrected before using again.

**NOTE:** Before using any LP gas appliance, read the respective manufacturer's operating instructions manual.

**CLIMATE DIFFERENCES**

An appliance will not function if the LP gas does not vaporize. Propane continues to vaporize down to 44 degrees Fahrenheit below zero. Liquid gas does not vaporize as rapidly in cold weather, so you may place too great a demand on your tank's capacity in certain conditions. This can cause a refrigeration effect resulting in frosting of the tank and regulator. Check with your dealer or LP gas supplier about the appliance demands that can be met by your tank at various temperatures. Always have your LP gas supplier add anhydrous methanol before filling the tank in cold weather.

Propane has become the main type of LP gas used in RVs. It is recommended that you use only propane gas. The names of LP suppliers can be found in the Yellow Pages of your telephone directory under "Gas-Liquefied, Petroleum Bottled and Bulk." Many campgrounds now have LP fill facilities, as do some service stations.

To operate any LP gas appliance, the LP gas SERVICE valve must be open. When first used, or after a refill, there may be some air in the gas lines that will escape when you first open a range burner or similar LP gas valve. The air may extinguish your match or igniter the first time or two before you get ignition.

Remember too, that when you close the tank's SERVICE valve some of the gas will remain in the lines. To completely bleed the lines of gas, close the tank's SERVICE valve and light a range burner to use up the excess. When the flame burns out, turn the range burner off.

**REGULATOR PRESSURE**

Check the LP gas regulator at the beginning of each season or whenever a problem is indicated. Correct line pressure is 11 inches of water column. Your dealer or LP gas supplier can perform this check.

LP gas regulators must always be installed with the diaphragm vent facing down. Regulators that are not in compartments have been equipped with a protective cover.

Be sure the regulator vent faces down and the cover is kept in place. This will minimize vent blockage which could result in excessive gas pressure and cause a fire or explosion.





**NOTES**

**⚠ WARNING!!!**

**DO NOT MODIFY YOUR LP GAS SYSTEM. DO NOT REMOVE COMPONENTS OR REPLACE WITH COMPONENTS THAT ARE NOT OF EQUAL VALUE.** Failure to follow this warning will void any vehicle warranty. Failure to follow this warning can result in explosion or fire which may cause injury or death.

**⚠ WARNING!!!**

**IT IS NOT SAFE TO USE COOKING APPLIANCES FOR COMFORT HEATING.** Cooking appliances need fresh air for safe operation. Before operating an appliance:

- 1) Open an overhead vent or turn on the exhaust fan.
- 2) Open a window

**⚠ CAUTION!!!**

*Be sure that appropriate knobs are turned off when burners are not in use to avoid the risk of unburned LP gas accumulating in the vehicle. The oven control knob must be in the PILOT'S ON position for the pilots(s) to be lit. Once lighted, the Pilot(s) will continue to burn.*

**LP GAS LINE CHECK**

Regular maintenance of the LP gas system is extremely important to insure the system's safety. All checks and/or repairs should be performed by an authorized service agency who is trained in dealing with RV LP gas systems. DO NOT ATTEMPT repairs yourself. The system should be checked at least once every 30 days of use or 5,000 miles of travel. If you are using your vehicle in rough terrain situations or traveling over rough roads these inspections should be done more frequently.

If you check connections for leaks yourself, DO NOT USE OPEN FLAME OR MATCHES TO CHECK LP GAS LINE CONNECTIONS. Use only an approved leak detector solution. DO NOT USE products that contain ammonia or chlorine (most common household soaps). If you detect a leak, shut off the gas and contact either your dealer or the nearest authorized LP gas dealer to have repairs made.

**⚠ WARNING!!!**

**DO NOT MODIFY YOUR LP GAS SYSTEM. DO NOT REMOVE COMPONENTS OR REPLACE WITH COMPONENTS THAT ARE NOT OF EQUAL VALUE.** Failure to follow this warning will void any vehicle warranty. Failure to follow this warning can result in explosion or fire which may cause injury or death.

**APPLIANCES and ACCESSORIES**

**RANGE, RANGE HOOD, OVEN**

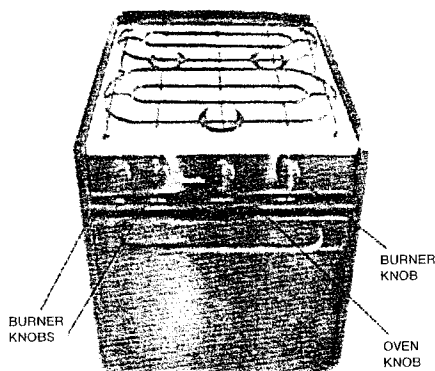
Your motorhome has a three burner range and it may have an oven beneath the range. It has a power range hood with fan and light. The range burners and oven are LP gas appliances. Read the range manufacturer's manual carefully for complete details on the operation and care of the range, range hood and oven.

**⚠ WARNING!!!**

**IT IS NOT SAFE TO USE COOKING APPLIANCES FOR COMFORT HEATING.** Cooking appliances need fresh air for safe operation. Before operation:

1. Open overhead vent or turn on exhaust fan.
2. Open window.

This warning is to remind you to provide an adequate supply of fresh air for combustion. Unlike homes, the amount of oxygen supply is limited due to the size of the recreational vehicle. Proper ventilation when using the cooking appliance(s) will avoid dangers of asphyxiation. It is especially important that cooking appliances not be used for comfort heating as the danger of asphyxiation is greater when the appliance is used for long periods of time.



**LIGHTING THE PILOTS**

There are pilot burners on all LP gas ovens. All pilot lights are turned on and off by the oven control knob.

**⚠ CAUTION!!!**

*Be sure that appropriate knobs are turned off when burners are not in use to avoid the risk of unburned LP gas accumulating in the vehicle. The oven control knob must be in the PILOT'S ON position for the pilots(s) to be lit. Once lighted, the Pilot(s) will continue to burn.*



Turn the burner's control knob to full ON. Air in the line may cause a blowing noise and may extinguish the match. When the line is free of air, the burner will light readily. Adjust the burner flame with the control knob.

### CARE OF RANGE AND OVEN

Allow the range top to cool, then clean it with hot, soapy water. Use a damp cloth to clean chrome surfaces. Grease splatters, which may bake onto the surfaces, should be wiped off before they have time to harden. Use chrome polish to remove stubborn stains. Clean the oven with commercial cleaner after each trip, or as necessary. DO NOT apply cleaner to aluminum gas tubing, thermostat sensing bulb or electrical components.

### CARE OF RANGE HOOD

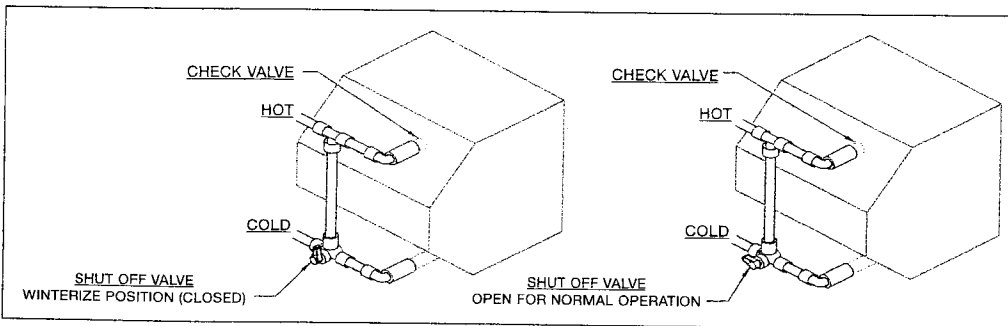
For metal surfaces, use the same procedure as for the range top. For the power hood, clean the plastic light cover by removing and washing it. If the light burns out, replace with a bulb of the same size. To clean the power hood filter, push slot located in center front of screen and pull down. If not greasy, simply tap the filter to shake out the dirt. If the filter is greasy, run hot, soapy water over it until grease dissolves. Allow the filter to drain and dry, then replace by positioning the flanges and push into place.

### MICROWAVE OVEN

The microwave oven is a 120-volt appliance used to cook, defrost or simmer foods in less time than other cooking methods. Several types of microwave ovens are installed by the manufacturer. Be certain to read carefully the oven manufacturer's owner's manual for specific instructions for the model which may be installed in your unit.

### WATER HEATER

Your water heater is an LP gas appliance capable of heating gallons of water to a preset temperature. When the system is connected to city water, fill the water heater by opening a hot water faucet. When filling the fresh water tank, turn the water pump ON and open a hot water faucet. In either case, when water flows steadily, turn the faucet OFF.

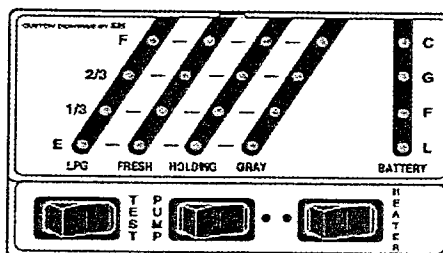


### Water Heater Bypass

There is a water heater by-pass system installed in the water lines at the back of the water heater. This by-pass system allows you to use the water system without the water heater, as well as winterize the water system without having to fill the water heater with anti-freeze. For normal operation, close the center valve and open the outside valves. To by-pass the water heater, open the center valve and close the outside valves.

### Electronic Ignition

Place the remote water heater switch in the ON position. This switch is located in the lower right corner of the display panel. If the red fault light comes on, place the switch in OFF position and wait 5 minutes. The red fault light will only come on in the event of water heater malfunction or if the flame fails to light. After the required delay,



### NOTES

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**NOTES**

**▲ CAUTION!!!**

*Hydrogen gas can be produced in a hot water system served by a heater that has not been used for a long period of time (generally two weeks or more).*

**HYDROGEN GAS IS EXTREMELY FLAMMABLE.**

*To reduce the risk of injury under these conditions, it is recommended that the hot water faucet be opened for several minutes at the kitchen sink before using any electrical appliance. If hydrogen is present, there should be an unusual sound such as air escaping through the pipe as the water begins to flow. There should be no smoking or open flame near the faucet at the time it is open. Contact your dealer or the Coachmen Service Dept., or the address on the manufacturer's warranty if you are not certain of what action you should take.*

**▲ CAUTION!!!**

*DO NOT use portable fuel-burning heating appliances, including kerosene heaters, wood and charcoal grills or stoves, in your motorhome. Such appliances produce excessive moisture, consume oxygen and may emit dangerous products of combustion.*

again place switch in ON position. If the water heater turns on a green light will show on the display panel. It may take more than one start attempt when the water heater is being used for the first time or after the LP gas bottle has been refilled. To turn the water heater completely off place the switch in OFF position.

**Burner Adjustment**

Refer to Water Heater manufacturer's Operation Manual.

**Draining**

The water heater has a drain plug or drain cock in the water heater which must be opened or removed to drain the water heater tank. To facilitate drainage, open all hot water faucets. When water ceases to drain, replace plug. Because of the location of the drain plug, about two quarts of water will remain in the bottom of the tank. This can be flushed as described in CARE OF WATER HEATER.

**▲ CAUTION!!!**

*Hydrogen gas can be produced in a hot water system served by a heater that has not been used for a long period of time (generally two weeks or more). HYDROGEN GAS IS EXTREMELY FLAMMABLE. To reduce the risk of injury under these conditions, it is recommended that the hot water faucet be opened for several minutes at the kitchen sink before using any electrical appliance. If hydrogen is present, there should be an unusual sound such as air escaping through the pipe as the water begins to flow. There should be no smoking or open flame near the faucet at the time it is open. Contact your dealer or the Coachmen Service Department at the address on the manufacturer's warranty if you are not certain of what action you should take.*

**Care of Water Heater**

Be certain the exterior compartment is clean and does not contain combustible materials. Never obstruct the relief valve or exhaust vent. Periodically drain and flush the water heater tank. To flush the tank, connect a hose to the city water fill. Remove the drain plug from the water heater tank. Run water for several minutes to flush tank. Turn water off and reinstall drain plug.

**FURNACE**

The furnace is an automatic ignition type, controlled by a wall thermostat. Heat is delivered through a duct system.

**Note:** *Although the furnace's fuel source is LP gas, the power operates on 12-volt electricity. The furnace requires a minimum of 9 volts to operate.*

**▲ CAUTION!!!**

*DO NOT use portable fuel-burning heating appliances, including kerosene heaters, wood and charcoal grills or stoves, in your motorhome. Such appliances produce excessive moisture, consume oxygen and may emit dangerous products of combustion.*

**Ignition**

Before lighting a furnace, be sure the LP gas bottle Service valve is OPEN and the thermostat ON/OFF switch is ON.

**Automatic Models**

Set thermostat to desired temperature and turn ON/OFF switch to ON. An automatic relay in your furnace provides a time delay. Therefore, when you turn up the thermostat there will be a pause prior to startup of the blower. At blower startup, your furnace air will enter your living quarters at room temperature.

Your furnace will start warming quickly and continue getting warmer for the next several minutes. If your motorhome is cold throughout, it may take several hours to



to heat all interior walls, ceilings, floors and fixtures to a comfortable temperature. Once reached, your furnace will automatically maintain steady warmth.

On initial lighting, the burner may not ignite due to air in the gas lines. If this occurs, set the thermostat back to the lowest setting and wait 30 seconds; then reset thermostat to the desired temperature.

**⚠ CAUTION!!!**

*If the furnace does not light after several attempts, while allowing each time for any delay pause, turn the thermostat OFF and contact your authorized Coachmen dealer or service center. DO NOT attempt to repair or adjust the furnace yourself. For complete shutdown, turn the thermostat to OFF.*

*When changing your unit's electrical source, as from 12-volt to shoreline or generator, turn the thermostat off. This will preserve the life of your furnace's electronic system. Carefully read the furnace manufacturers manual for other important Do's and Dont's of service and operation.*

**Preventive Maintenance**

Preventative maintenance should be performed annually by an authorized dealer and should include cleaning of heat exchanger, furnace ducts and blower wheels to remove dust, lint and other foreign materials. the furnace's LP gas system should also be checked. Check manufacturer's manual for further information.

**REFRIGERATOR**

Your refrigerator operates on either LP gas or 120-volt electricity. The Refrigerator is equipped with a control system, which can automatically select the most suitable energy source which is available, either 120-volt AC, or LP gas operation. The refrigerator can be run either in a factory preset temperature setting AUTO mode, or in MANUAL mode. The refrigerator controls will work down to 9.6-volt DC.

**NOTE:** *Under certain cool weather conditions the food in the lower portion of the fresh food compartment may freeze if operated for extended period of time in the MANUAL mode.*

**⚠ WARNING!!!**

***Most LP gas appliances used in recreational vehicles are vented to the outside of the vehicle. When parked close to a gasoline pump, it is possible that the gasoline fumes could enter this type of appliance and ignite from the burner flame, CAUSING A FIRE OR AN EXPLOSION.***

**FOR YOUR SAFETY, it is recommended that all LP gas appliances which are vented to the outside should be shut off when refueling.**

Ask your Coachmen dealer to demonstrate the operation of the refrigerator in your motorhome. The instructions given here are for your convenience; in case of a difference, use the instructions furnished with your refrigerator.

The refrigerator operates on the gravity flow of chemicals, so it must be level. If you must stop on an uneven site for more than 30 minutes, turn the refrigerator OFF. Use a level in the freezer compartment to check levelness. **Using your refrigerator when it is not level could result in permanent damage to the cooling unit.**

Before starting on a trip, use the shoreline connection to cool the refrigerator the night before departing. Keep items to be stored in the RV refrigerator in your home refrigerator or freezer until you are ready to leave. This will reduce the cooling load on your refrigerator and help keep perishable foods fresh longer. Always store food in sealable containers or suitable wrapping. When traveling, switch to LP gas (or 12-volt DC, if so equipped) operation. Use door lock during travel.

**NOTES**

**⚠ CAUTION!!!**

*If the furnace does not light after several attempts, while allowing each time for any delay pause, turn the thermostat OFF and contact your authorized Coachmen dealer or service center. DO NOT attempt to repair or adjust the furnace yourself. For complete shutdown, turn the thermostat to OFF.*

*When changing your unit's electrical source, as from 12-volt to shoreline or generator, turn the thermostat off. This will preserve the life of your furnace's electronic system. Carefully read the furnace manufacturers manual for other important Do's and Dont's of service and operation.*

**⚠ WARNING!!!**

***Most LP gas appliances used in recreational vehicles are vented to the outside of the vehicle. When parked close to a gasoline pump, it is possible that the gasoline fumes could enter this type of appliance and ignite from the burner flame, CAUSING A FIRE OR AN EXPLOSION.***

**FOR YOUR SAFETY, it is recommended that all LP gas appliances which are vented to the outside should be shut off when refueling.**

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**NOTES**

Some states and municipalities do not allow operation of LP gas systems which the vehicle is in motion. If you have a question in this regard, check with local law enforcement authorities.

**Start Up Instructions**

- A. A continuous 12-volt DC supply must be available for the electronic control to function.
- B. Press the main power ON/OFF button (1) to the DOWN position.
- C. In AUTO mode operation, the temperature is automatically controlled by a factory preset temperature setting, on the energy source selected by the control system.
- D. In MANUAL mode operation, the refrigerator will run continuously on the energy source selected by the control system.

**NOTE:** Under certain cool weather conditions the food in the lower portion of the fresh food compartment may freeze if operated for extended period of time on this mode.

**Auto Mode**

1) Press the AUTO/MANUAL mode selector button (2) to the DOWN position. The AUTO mode indicator lamp (A) will illuminate. If 120-volts AC is available, the control system will select AC operation. If 120-volts AC is not available, the control system will automatically switch to GAS operation. Within 45 seconds the burner should be ignited and operating normally.

2) If the CHECK indicator lamp (B) illuminates, the control has failed to ignite the burner on GAS. To reset when the CHECK indicator lamp (B) is illuminated, press the main power ON/OFF button (1) to the OFF then ON position.

3) On the initial refrigerator start-up on gas (120-volts AC is not available), it may take longer than 45 seconds to allow air to be purged from the gas line. If the refrigerator has not been used for a long time or the LP tanks have just been refilled, air may be trapped in the supply lines. To purge the air from the lines may require resetting the main power ON/OFF button (1) three or four times. If repeated attempts fail to start the LP gas operation, check to make sure that the LP gas supply tanks are not empty and all manual shutoff valves in the lines are open. If the problem is still not corrected, contact a service center for assistance.

**NOTE:** Do not continue to reset GAS operation if the CHECK indicator lamp continues to be illuminated after several tries.

4) In AUTO mode operation, the temperature is automatically controlled by the factory preset temperature setting.

**MANUAL MODE**

1) Move the AUTO/MANUAL mode selector button (2) to the UP position. The AUTO mode indicator lamp (A) will go off.

The difference from AUTO mode is that in MANUAL mode operation, the refrigerator will run continuously on the energy source selected by the control system.

**NOTE:** Under certain cool weather conditions the food in the lower portion of the fresh food compartment may freeze if operated for extended period of time on this mode.

**To Turn Refrigerator Off**

The refrigerator may be shut off while in any mode of operation by pressing the main power ON/OFF button to the UP (OFF) position. This shuts off all DC power to the control system.





## DESCRIPTION OF OPERATING MODES

### Auto Mode

When operating in the AUTO mode, the AUTO mode indicator lamp (A) will illuminate. The control system will automatically select between AC and GAS operation with AC close the light switch or remove the lamp bulb. having priority over GAS. If the control system is operating with AC energy and it then becomes unavailable, the system will automatically switch to GAS. As soon as AC becomes available again the control will switch back to AC operation.

Gas operation (120-volts AC is not available). The control system will activate the ignition system and will attempt to light the burner for a period of approximately 45 seconds. If unsuccessful, the CHECK indicator lamp (B) will illuminate.

To restart an ignition attempt with the CHECK lamp illuminated or to clear (turn off) the CHECK lamp, press the main power ON/OFF button to the OFF and then ON position. The control system will attempt a new 45 second ignition sequence.

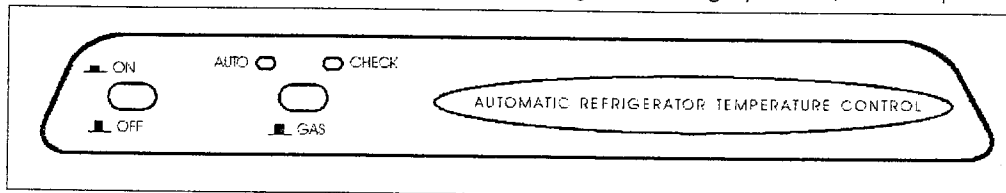
If 120-volts AC becomes available while the CHECK indicator lamp is on, the CHECK lamp will not turn off until the main power ON/OFF button is pressed to the OFF then ON position.

### Manual Mode

When operating in the MANUAL mode, the AUTO mode indicator lamp (A) will be off, and the refrigerator will run continuously on the energy source selected by the control system.

The control system will automatically select between AC and GAS operation with AC having priority over GAS. If the control system is operating with AC energy and it then becomes unavailable, the system will automatically switch to GAS. As soon as AC becomes available again the control will switch back to AC operation.

**NOTE:** To avoid running out of battery the climate control should be turned OFF. The interior light should be turned off during defrosting and storage periods, use a tape to



REFRIGERATOR CONTROL PANEL

### Care of Refrigerator

Remove food and ice after each trip. Clean the interior of the refrigerator with a lukewarm, mild baking soda solution. The evaporator, ice trays and shelves must, however, be cleaned with warm water only. Wipe dry with a soft, dry cloth. Never use strong chemicals or abrasives to clean the refrigerator; they can do harm to the plastic and aluminum surfaces. If the refrigerator is not in use for a period of time, turn all power OFF, empty and clean the interior and leave the door slightly ajar.

To defrost refrigerator freezer, remove food and ice. Turn the thermostat OFF. To speed up the defrosting process, fill the ice trays with hot water. When all frost is melted, empty the drip tray and dry the interior of the refrigerator with a clean cloth. Replace the drip tray and ice trays, replace all food stuffs and set the thermostat at MAX for a few hours. Later, reset the thermostat knob to its normal position.

### ROOF AIR CONDITIONERS

If you did not order the optional roof air conditioner at the time of purchase, your motorhome is wired so that one can be installed later. The roof air conditioner will operate only on 120-volt electricity.

## NOTES

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**NOTES**

More than one type of roof air conditioner is installed at the factory. Consult your Coachmen dealer and your roof air conditioner manufacturer's manual for specific instructions for the one installed in your motorhome.

Before starting any model of roof air conditioner, close all doors and windows. The controls for the air conditioner are on a panel on the portion of the appliance that is attached to the ceiling inside your unit. You can select cooling, fan only, or—with the optional heat package—heating. For information on electrical load refer to A/C Selector Switch section of this manual.

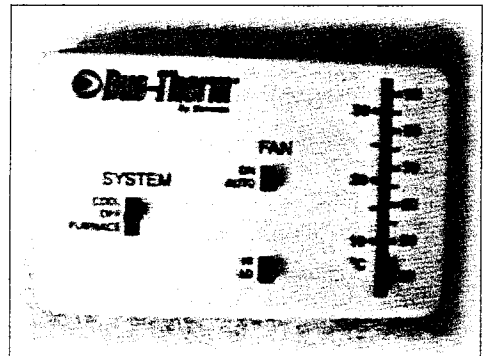
**AIR CIRCULATING ONLY/COOLING**

Turn or slide the Selector switch to COOLING, then rotate the thermostat to the position that is most comfortable to you and adjust the directional louvers to the desired direction of air flow. The compressor will cycle on and off, automatically maintaining the temperature you've set.

The optional heat unit on some models is not a substitute for a primary heating system. It is designed to warm the air during moderately cool days or nights. If your air conditioner is equipped with the optional heat package, turn the selector switch to HEAT and rotate the thermostat to the position most comfortable and adjust the directional louvers to the desired direction of air flow. The heater will cycle on and off automatically to maintain the temperature.

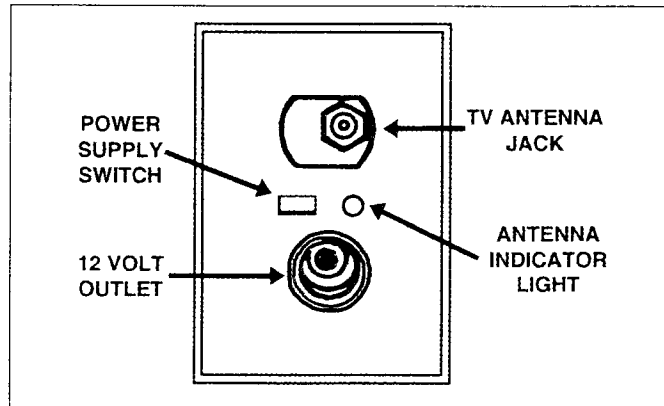
**DUCTED ROOF AIR CONDITIONING**

The ducted roof air conditioning system is optional on some models. It utilizes ducts in the ceiling to distribute the air flow throughout your recreational vehicle. The air flow can be regulated by opening and or closing the outlets of your choice. The thermostat for the ducted A/C system also controls the furnace. It is necessary to move the switch to the desired function, ie. heat or cool.



**TV ANTENNA/CABLE SYSTEM**

This system allows you the flexibility to use the amplified TV antenna hook up, or cable, if your location has cable hook ups. To use the TV antenna, simply turn on the power supply switch at the wall plate. To use the cable, turn the power switch off at the wall plate.



TV WALL PLATE





**NOTES**

**ELECTRIC STEP**

The step is operated by a switch located just inside the entrance door. To extend the step, push the switch until the step is fully extended. The step will now stay in the extended position until the switch is depressed to retract the step. There is a warning light on the dash that will illuminate when the ignition key is turned on and the step is still in the extended position.

**MAINTENANCE AND LUBRICATION**

Clean all mud, salt, and road grime from the step before lubricating. Lubricate all moving parts (bearings, pivot points, slides, clevis pin, and drive linkage ball) every 30 days with a good quality moisture and heat resistant penetrating grease.

**WINTERIZATION and STORAGE**

**STORAGE**

You should follow these procedures if you will not be using your unit for an extended period.

**LP Gas**

Close the LP gas container's Service valve. Extinguish all pilots and close all appliance LP gas valves (oven/range, water heater, refrigerator, furnace). Light a range burner to consume any gas remaining in the lines. When the flame burns out, turn the range burner off.

**Water Heater**

Drain the water heater. To drain, see Water Heater Draining in the appliance section of this manual.

**Water Tank**

To drain see Water Tank Draining in the Fresh Water System of this manual.

**Water Pump**

When the water tank and water lines have been drained, remove the outlet hose from the pump. Turn the pump on, allowing it to pump out any remaining water, usually about a cupful. Use a towel or cloth to catch this water. Reattach the outlet hose.

**Electrical System**

Turn off all circuit breakers at the Power Center. Disconnect all loads from battery. Recharge battery and check water.

**General**

Close and secure all doors and windows. Open a roof vent or window slightly to allow circulation, but not so far that rain or snow can enter.

**FUEL SYSTEM**

During extended periods of vehicle storage (60 days or more) fuel may deteriorate due to oxidation. This can damage rubber and other polymers in a unit's fuel system. It may also plug small orifices. To prevent such an occurrence, it is advised that a commercially available stabilizer ("STA-BIL" or equivalent) should be added to a vehicle's fuel tank whenever actual or expected storage periods exceed 60 days. The instructions for use accompanying the product should be followed. The vehicle should than be operated at idle speed to circulate the additive throughout the fuel system.





## NOTES

### ⚠ CAUTION!!!

Do not bring or store LP gas containers, gasoline or other flammable liquids inside your RV.

container into the system. This will not put any antifreeze into the fresh water tank. Turn faucets on until antifreeze appears.

On units with a gravity water fill, (195 Sport) pour RV antifreeze into tank (2-3 gallons). Place valves behind water heater in bypass position. Turn on pump until antifreeze appears out of faucets.

### Fire Safety

Prevention is the best form of fire safety. Observe the same precautions in your RV as you do in your home.

Use care with any open flame inside of your unit. Follow the instructions previously listed for the care and maintenance, and operation of the various appliances in your motorhome.

Make certain everyone in your party is familiar with the emergency features of the unit, the location of exits and the location and operation of fire extinguishers. It is recommended that a fire drill be conducted on a regular basis to ensure this knowledge. A chemical fire extinguisher has been furnished with your unit. Check it regularly to be sure it is ready for emergency use. Immediately replace a fire extinguisher that is discharged or partially discharged. Fire extinguishers are located directly inside the front entrance door on either a cabinet or on the sidewall.

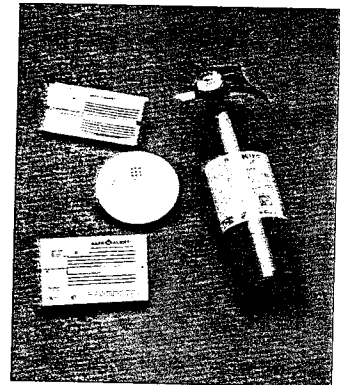
### Safety Devices

#### Smoke Detector/LP Detector/Carbon Monoxide Detector/Fire Extinguisher

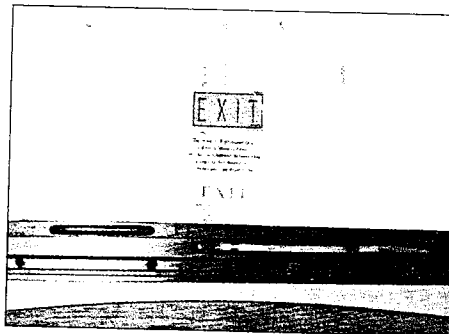
Your motorhome is equipped with several safety devices. Test each device after the vehicle has been in storage, before each trip, and at least once a week during the time you actually use your motorhome. Be sure you always have the appropriate size fresh replacement batteries on hand.

### ⚠ CAUTION!!!

Do not bring or store LP gas containers, gasoline or other flammable liquids inside your RV.



### EMERGENCY EXITS



Emergency exits, commonly known as egress windows, are marked with a label which has one-inch red letters. Handles that must be operated to open emergency exits also will be colored red. Be sure your dealer explains the location and operation of emergency exits to you. It is also very important to familiarize all guests with the operation of all of the safety equipment installed in your RV.

### RV MAINTENANCE

RV owners are noted for the pride they take in the appearance of their units. Proper maintenance will do more than keep your motorhome looking nice. It can help ensure trouble-free operation and maximum efficiency of the appliance and accessories. Failure to maintain the vehicle or its components may also constitute a breach of your





NOTES

cloth dampened with the solution. Continue wiping, turning the cloth so that you are always using a clean portion, until the stain is removed. Be careful not to wet the fabric too much. Always wipe from the outer edge of the stain toward the center.

**S**

Use only mild, pure, water-free dry-cleaning solvents, such as Energine or Carbona. Dampen a clean cloth with the solvent and follow the same procedure described under W.

**WS**

Either of the above methods may be used.

**X**

Clean fabric only by vacuuming or light brushing to remove soil. Do not use liquid cleaning agents of any kind.

**TYPES OF STAINS**

**Water-Based**—ketchup, soft drinks, milk, etc. Remove using method W.

**Oil-Based**—salad dressing, butter, greasy food, etc. Use method S or, for flat-woven fabrics, not velvet, apply Texize K2R Spot Remover according to directions.

**Combination**—ice cream, gravy, etc. are both watery and oily. Remove these types of stains using the S method and follow with the W method.

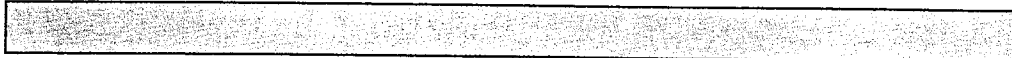
**Mud**—lift away what you can easily remove without forcing the mud into the fabric. Allow the remaining mud to dry completely, then vacuum. If the stain remains, clean with method W.

When overall cleaning is necessary, professional cleaners are recommended. However, if you wish to do it yourself, follow these suggestions:

1. Vacuum the area thoroughly.
2. Test fabric for discoloration on an inconspicuous place using a foam cleaner such as Fibre Fresh Concentrate or Glamorene.
3. If no discoloration appears, use cleaner on entire item. *Note:* Many velvet fabrics cannot be cleaned with water-based cleaning agents.
4. After cleaning, you may wish to apply Scotchguard fabric protector to such areas as furniture arms, backs and cushions.

**Note:** *The above information is provided only as a service and should not be interpreted as a warranty. The list of cleaning agents does not constitute an endorsement of products; other similar products may be equally effective.*

**Floor Coverings** should be cleaned as necessary. Vacuum carpeting. Avoid using heavy moisture; it could enter and damage your floor.



**NOTES**

**GENERAL DRIVING CHECKS**

For your safety, make certain that the following items have been checked and rechecked before you take your RV on the road. Make certain that all items inside of your RV are secured (e.g., lawn chairs, pots and pans, TV, etc.). As you travel, these items, if not secured, may become damaged or may damage the interior of your RV.

**Lights**—The following lights should be tested: brake lights, warning lights, flashers, clearance lights, taillights and headlights.

**Rearview Mirrors**—Adjust the rearview mirrors so that the driver can see the right and left sides of the unit.

**OTHER DRIVING CHECKS**

Whether you are departing from your home, rest area or campsite, you should check the following parts of your unit before you take off.

**Tires**—Before each trip, check your tires for uneven wear, road damage, foreign objects or excessive peeling or bulging. Each morning, inspect the condition and pressure. Heat generated by surface friction will increase the tire's air pressure approximately six to nine psi; therefore, do not bleed air out of a hot tire. Inflate the tire to the recommended pressure (indicated either on the tire or in the manufacturer's instruction booklet).

*Note: Proper tire inflation is extremely important.*

A tire should be replaced when:

1. It is worn to 1/16-inch depth in two or more adjacent grooves.
2. It is worn to the level of the tread indicators that are molded into the bottom of the tread grooves, or
3. The indicators appear in two or more adjacent grooves at three locations around the tire.

On new tire purchases, be certain that the new tire is the same size as the old tire and that the new tire has the same ply rating and load range as the old one. DO NOT mix radial-ply tires with bias or bias-belted tires.

**Tire Change**—Change a tire on as level and firm a surface as possible. If you are on the roadside, activate the vehicle's warning flashers. Apply parking brake and move transmission selector to Park (P). Set up flares and/or warning lights. See the chassis manufacturer's owner's manual for specific jacking and tire removal and replacement instructions which pertain to your unit. Stop at the nearest service facility and have the torque checked.

**⚠ CAUTION!!!**

*Never place the jack under a bumper or edge of the sidewall. On units equipped with a tag axle, never place the jack under the tag axle. Use the jack only for changing tires. Never get underneath the vehicle when using the jack; always securely stow the spare tire in the proper area and return all jacking equipment to its proper storage area.*

**Wheel Lugs**—Wheel lugs must be tightened every 50 miles for the first 200 miles whenever a wheel has been reinstalled. Thereafter, check lugs after storage.

**Power Cord**—The 120-volt shoreline power cord must be unplugged from the external source and placed into its compartment. The cord hatch must be secured before you travel.

**Water Fill Hose(s)**—All hoses must be disconnected and all hose caps must be secured before you travel.

**Sewage Termination Valves**—These valves must be closed and locked before you travel. The sewer hose must be removed from the termination valve outlet and stored in the appropriate compartment. Termination caps must be securely fastened to the termination valve outlet(s).

**⚠ CAUTION!!!**  
*Never place the jack under a bumper or edge of the sidewall. On units equipped with a tag axle, never place the jack under the tag axle. Use the jack only for changing tires. Never get underneath the vehicle when using the jack; always securely stow the spare tire in the proper area and return all jacking equipment to its proper storage area.*

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**NOTES**

**Door Step**—The door step must be returned to its travel position before the unit is safe for traveling. To do this, lift the front edge of the step and push it under the unit.

**Windows and Vents**—All windows and vents should be closed completely or adjusted as desired before you travel.

**TV Antenna**—The TV antenna must be cranked down to its traveling position.

**Automotive System**—The automotive system of your vehicle should be serviced and maintained as outlined in the chassis owner's manual.

**Interior Doors and Drawers**—Close and secure all interior doors and drawers in your unit. Store or secure all loose items.

**Exterior Access Doors**—Exterior access doors for storage and equipment should be closed and locked.

**TRAVEL PREPARATION LIST**

**CLOTHING**

- Underwear
- Socks
- Shoes, sandals, boots
- Shirts
- Blouses
- Trousers
- Slacks
- Dresses
- Shorts
- Sweaters
- Jackets
- Coats
- Rainwear
- Swim wear

- Paper towels
- Foil or plastic wrap
- Throw rug

**SAFETY**

- First-aid kit
- Flares
- Reflectors
- Tow rope and/or chain

**ADDITIONAL TOOLS**

- Hatchet
- Shovel
- Saw
- 12-volt tire pump

**SLEEPING GEAR**

- Sheets
- Pillow cases
- Mattress pads
- Blankets
- Pillows
- Sleeping bags

**PERSONAL COMFORT**

- Towels
- Washcloths
- Toilet paper
- Soap
- Toothbrush
- Toothpaste
- Personal toiletries
- Scissors
- Sewing kit

**MEAL PREPARATION**

- Bottle opener
- Can opener

- Matches
- Pots, pans, skillets
- Plates/Glasses and cups
- Silverware
- Hot pads
- Knives, spatula, etc.
- Baking pans
- Coffee maker
- Toaster
- Plastic containers

**ENTERTAINMENT**

- Books/magazines
- Binoculars/telescope
- Camera, film
- CD/tape player/tapes
- Toys/games/movies
- Television
- Radio

**MISC. EQUIPMENT**

- Bucket
- Fuses
- Fresh water hose
- Y-type water hose fitting
- Flashlight and batteries
- 20-ft. 3-prong power cord
- 3-prong adapter with grounding wire
- Wheel chocks, leveling ramp, blocks or jack stands
- Coat hangers
- Folding lawn chairs
- String/twine
- Stakes

**TOOL CHEST**

- Screwdrivers
- Pliers
- Hammers
- Tire pressure gauge
- Small level
- Electrical tape
- Wrenches
- Allen wrench
- Duct tape

**CAMPING COMFORT**

- Dishwashing soap
- Dishcloths
- Dishtowels
- Garbage/trash bags
- Mop
- Broom
- Vacuum cleaner
- Dust pan



## QUICK REFERENCE TROUBLESHOOTING GUIDE

*NOTE: Use the appliance manufacturers' owner's manuals for all appliance trouble shooting.*

### ELECTRICAL POWER

No electrical power to unit.	Shoreline connection.	Be sure you have power to the shoreline.
	Circuit breaker may be off or tripped.	Reset breaker(s).
	Bad power cord adapter.	Replace adapter.

### POWER CONVERTER

Converter makes a clicking noise.	Circuit overload.	Reduce load on circuit.
	Reversed polarity at battery.	Correct polarity at battery.
	Short in recharge line.	Locate and fix short.

### ELECTRICALLY CHARGED (HOT) CHASSIS

Chassis is electrically charged.	Short in 110/120 volt circuit.	Disconnect unit from electrical supply. Have unit inspected and repaired if necessary, by a qualified service facility.
		<i>NOTE: Determine if shoreline has proper polarity.</i>
	Check shore line power for reverse polarity.	Disconnect unit from shoreline.
	Bad power cord adapter.	Replace adapter.

### LIGHTS

Lights flickering.	Loose fuse holders.	Tighten or replace fuse holder.
	Blown fuse.	Replace fuse with one of the same ampere rating.
Lights dim or half bright.	Broken connection or wire.	Replace connection and/or wire.
	Bad ground.	Make sure ground connection is secure.
	Bad battery.	Check battery condition.
	Possible converter malfunction.	Have converter checked by an authorized service center.
	Possible low voltage from shoreline.	Be sure voltage to shoreline is not too low.



## QUICK REFERENCE TROUBLESHOOTING GUIDE (CON'T'D, PG. 2)

*NOTE: Use the appliance manufacturers' owner's manuals for all appliance trouble shooting.*

### OUTSIDE RECEPTACLE

No power to outside receptacle.	GFI receptacle may be off or tripped.	Reset GFI.
	Bad power source.	Be sure you have power to the shoreline.
	Circuit breaker may be off or tripped.	Reset breaker.

### GENERATOR

Generator cranks but will not start.	Generator may be out of gas.	Check the fuel.
	Generator may be low on oil.	Check the oil.
Generator starts but no power.	Fuse on the generator may have blown.	Replace fuse with one of the same ampere rating.
	Breaker switches may be off or tripped.	Reset breaker switches at generator.
	Circuit breakers may be off or tripped.	Reset circuit breakers at power center.

### RV BATTERY

RV battery boiling.	Water low in battery.	Refill water to correct level in battery.
	Bad battery.	Replace battery.
	Defective converter.	Have converter checked by an authorized service center.

### RUNNING LIGHTS

No running lights.	Blown fuse.	Replace fuse with one of the same ampererating.
	Bad bulbs.	Replace bulbs.





## QUICK REFERENCE TROUBLESHOOTING GUIDE (CON'T'D, PG. 3)

*NOTE: Use the appliance manufacturers' owner's manuals for all appliance trouble shooting.*

### LP GAS

- |                                  |                              |   |
|----------------------------------|------------------------------|---|
| Smell gas in and/or around unit. | Possible gas leak in system. |   |
|                                  |                              | 1. Extinguish any open flames, pilot lights and all smoking materials.          |
|                                  |                              | 2. Do not touch electrical switches.  |
|                                  |                              | 3. Shut off the gas supply at the tank valve(s) or gas supply connection.       |
|                                  |                              | 4. Open doors and other ventilating openings.                                   |
|                                  |                              | 5. Leave the area until odor clears.  |
|                                  |                              | 6. Have the gas system checked and leakage source corrected before using again. |

### WATER PUMP

- |   |   |  |
|---|---|--|
| Pump fails to start when the switch is on.                        | Fuse located in the converter may have blown.                   | Replace fuse with one of the same ampere rating.   |
|   | Water system hooked up to city water.                           | Remove hose from city water or turn water pump switch off.   |
| Pump continues to operate whether the faucets are open or closed. | Water tank may be empty or there might be a leak in the system. | Fill water tank and/or fix any leaks in the system.  |
| Pump goes ON and OFF with faucets shut OFF.                       | There may be a leak in plumbing system fittings or lines.       | Fix any leaks in plumbing system, by checking all fittings for tightness and replacing any broken parts. |

### WASTE TANK

- |                            |                   |   |
|----------------------------|-------------------|---|
| Waste tank will not drain. | Build-up in tank. | Check for build-up in tank at stool. Make sure stool holds water. |
|----------------------------|-------------------|---|

### TERMINATION VALVE

- |                          |                                    |                                     |
|--------------------------|------------------------------------|-------------------------------------|
| Termination valve leaks. | Debris blocking valve or build-up. | Clear debris from and around valve. |
|                          | Bad gasket.                        | Replace gasket.                     |

### MICROWAVE OVEN


- |                                  |                          |   |
|----------------------------------|--------------------------|---|
| Microwave oven will not operate. | No power to oven.        | Check power supply and circuit breaker. |
|                                  | Door open, or timer OFF. | Close door and turn timer ON.           |



**QUICK REFERENCE TROUBLESHOOTING GUIDE (CON'T'D, PG. 4)**

*NOTE: Use the appliance manufacturers' owner's manuals for all appliance trouble shooting.*

**FURNACE**

Furnace does not light.	May be out of LP gas.	Check the LP gas supply.
	Low battery or bad battery.	Refill water to correct level in battery; recharge and/or replace battery.
Furnace fan does not run.	Blown fuse.	Replace fuse with one of the same ampere rating.
The furnace does not light after several attempts.....		<ol style="list-style-type: none"><li>1. Turn the thermostat and the furnace gas control valve OFF.</li><li>2. Contact your Coachmen dealer or authorized service center. DO NOT attempt to repair or adjust the furnace yourself.</li></ol>

**REFRIGERATOR**

Refrigerator will not cool.	Unit not level.	Be sure unit is level.
	Upper and/or lower refrigerator vents clogged.	Clear vents of all debris.
	If on gas, empty tank.	Fill LP gas tank.

**TV ANTENNA**

TV antenna has poor reception.	Power jack not turned on.	Turn power jack switch on.
	Bad connections at TV or wall plate.	Make sure the connections are good at both TV and wall plate.
	Cut or nicked cable.	Replace bad cable where needed at TV and antenna.
	Antenna not pointed in direction of "sending" station.	Point antenna in direction of "sending" station.









## MAINTENANCE SCHEDULE

\* Maintenance schedules listed are minimum requirements; heavy use, unusual temperatures or humidity, or other environmental conditions may require more frequent maintenance.

ITEM	Every Trip	Every 30 days or 1,000 miles	Every 60 days	Every 90 days or 2,500 miles	Every 6 months or 5,000, miles	Annually or 10,000 miles	REFERENCE
Airing	•						Air Quality, Condensation, Maintenance, this manual
Appliances	•					•	Appliances, this manual; Appliance Manufacturer's instructions
Awning Supports						•	Maintenance, this manual
Automotive System	•						Chassis Manufacturer's manual
Batteries	•	•					Maintenance, this manual
Brakes & Suspension					•	•	Maintenance, this manual; Brake & Suspension Manufacturer's manual
Body					•		Maintenance, this manual
Bumpers						•	Maintenance, this manual
Counter, Table Tops	•						Maintenance, this manual
Doors				•			Maintenance, this manual
Electrical System	•						Maintenance, this manual
Fabrics						•	Care of Fabrics, this manual
Floor Coverings	•						Maintenance, this manual
Frame						•	Maintenance, this manual
Hinges						•	Maintenance, this manual
Locks & Latches						•	Maintenance, this manual; Lock/Latch Manufacturer's manual
LP Gas	•	•					LP Gas; this manual; Appliance Manufacturer's instructions
Lug Nuts	•						Maintenance, Chassis manual
Roof, Body, Underbelly				•			Maintenance, this manual
Seams (Seal)						•	Maintenance, this manual
Shades, Valances	•						Maintenance, this manual
Steps	•					•	Maintenance, this manual; Step Manufacturer's instructions
Tires	•					•	Pre-Travel Check, Maintenance, this manual; Tire Manufacturer's manual
TV Antenna		•					TV Antenna Manufacturer's instructions
Vents						•	Maintenance, this manual; Vent Manufacturer's instructions
Vinyl Ceiling & Wall Panels	•						Maintenance, this manual
Water Heater	•					•	Maintenance, this manual; Water Heater Manufacturer's manual
Windows	•						Maintenance, this manual; Window Manufacturer's instructions
Wood Cabinetry	•	•					Maintenance, this manual



## Reporting Safety Defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying COACHMEN RECREATIONAL VEHICLE COMPANY, LLC at 1-800-453-6064.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or COACHMEN RECREATIONAL VEHICLE COMPANY, LLC

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.





COACHMEN RECREATIONAL VEHICLE COMPANY COMPLEX  
Middlebury, Indiana

Coachmen Industries, Inc. was founded in Middlebury, Indiana, in 1964 by Claude, Keith and Tom Corson. The three brothers recognized business opportunities in the new and growing recreational vehicle (RV) industry and combined their business experience in finance, marketing and manufacturing to form their new company.

Their confidence in the RV industry was well founded. From first-year production which included 12 travel trailers, one pick-up truck camper and 80 truck caps, the Company has become a diversified, full-line manufacturer of recreational vehicles under many well-known brand names with over 450,000 units manufactured to date. The Company's RV product line includes travel trailers, fifth wheel trailers, Class C mini-motorhomes and Class A motorhomes. The Coachmen RV complex consists of 135 acres with over 812,000 square feet of assembly facilities under roof.



COACHMEN RECREATIONAL VEHICLE COMPANY, LLC  
P.O. BOX 1000  
MIDDLEBURY, INDIANA 46540

The Coachmen recreational vehicles described in this manual incorporate components produced by divisions of Coachmen Industries, Inc., and various suppliers. During the product year, Coachmen may decide to produce units with different components and/or specifications other than initially scheduled. All such changes are approved for use by Coachmen in order to maintain the quality standards associated with the Coachmen name. All illustrations and specifications contained within this Owner's manual are based upon the latest product information at the time of publication. Coachmen Recreational Vehicle Company, LLC reserves the right to make changes in operations, materials, equipment and specifications at any time without notice. Coachmen assumes no responsibility for any error in type or print reproduction of specifications in this Owner's manual. Check with your Coachmen dealer for additional information regarding your specific recreational vehicle.